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## A

## CYCLOPEDIA 0F COMMERCE

AND
J. ${ }^{\text {SISITH HOMANS }}$

CORRERTONDLNO BEORETARY OF TIL DILAMEEB OF GOMMERCE OF THE BTATE OF NEW TORE, aND EDITOR OF "TIE HANEERB' MAOAZINE AND BTATIBTICAL REGIBTER;"

AND BY

## J. SMITH HOMANS, JR., B.S.,

AUTHOR OF "AN HIBTORICAI. AND BTATIBTICAI. BKETCLI OF TIIE FOREION OOXMEEGE OF THE U. B."

*)itb Suaps and IEngrabings.

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## PREFACE.

The want of a comprehensive commercial work has long been felt in the United States-a work exhibiting the condition and resources of the United States and the separate States, as well as of foreign nations. The only attempt hitherto made in this country to supply the want of such a work was the reprint, twenty-five years ago, of M'Culloch's Dictionary of Commerce and Commerciai Navigation. This work, probably as complete in reference to the commercial statistics of foreign countries as could be made at the time of its compilation, is very deficient in statistics relating to this continent, particularly of the United States. The later editions of Mr. M'Culloch's work contain much matter of an obsolete or local character, in which the American reader feels but little interest; while many subjects of great importance to commercial men in this country are, in the English work, either omitted entirely or mentioned only incidentally.
The extensive and importent changes that have taken place within the $\mathrm{pa}^{-r t}$ ten years in commercial affairs-the establishment of new States, new Territories, new commercial places-the unexampled increase of the commerce of the United States, of the development and the record of the great industrial resources of the United States-all seem to require a new and distinct work, with a view to place before commercial readers a more ample account of the progress of commerce throughout the world. The present volume has been prepared with a view to supply this want; and while we have aimed at presenting a fair exhibit of the finances, the internal and foreign commerce, the staplo products of each State, we have at the same time gathered together the latest statistics in reference to the products and the comr ercial relations of forcign nations; especially of those with whom the United States have the most intimate intercourse.

Wo have endeavored to present, in a con ensed manner and from reliable sources, historical and statistical details in reference to the great staples of the country; of those important products whose export to foreign countries has contributed largely to the prosperity of the States; and the increase of which is calculated to give us in future ycars a control of the vast markets of the world, and
thus add greatly to the material wealth of the Union. Among these we mention the subjects of Wheat, Corn, Cotton, Rice, Hemp, Provisions, Iron, Copper, Gold and Silver, etc.

This is the first attempt in the Unted States to collect the histo:ical and statistical facts in reference to these important subjects into one single work. In collecting these materials, and condensing them within a moderate compass, we have been aided by the valuable official Reports issued by the Treasury Department and by the Patent Office of the United States, for a series of years; and by the recent and highly valuable Reports of the Department of State upon The Commercial Relations of the United Slates.-Mueh of the varied and important information contained in those official documents is brought together in the present work under its apprepriate heads; so that the reader, instead of the labor of consulting some fifty or sixty volumes, may find every subject discussed under its alphabet?
 A leading featore of the Cyclopedia of Commerce, at least to the Americaniread er, is tho reproduction, in brief, $c_{2}$-views urged by Chancellor Kent, Juàge Story, Professor Parsons, and other authors, upon the subjects of the Laws of Shipping, Insurance, Mariame Law, Seamen, etc. The extracts from these writings are only such, however, as will lead the careful reader to refer for further information on
 In regard to the commercial relations of foreign countrics-their finanoes, popt ulation, internal and foreign trade, staple productions, etc. , the reader will find condensed, from the most reliable authorities, much valuable information of a late date. The commerce and resources of the principal maritime countries are illustrated up to the years 1856-37; and the relative importance of each in reference to the others, especially to the United States, is fully illustrated The foreign trade of the United States with each country for the last thirty-six ycars is also shown, compiled with great care from the Treasury Reports of the United States from 1821 to 1857. These tabular details, valuable as showing the commercial progress of the United States, have not been offlially communicated in a compact form to Congress, but are reproduced from "an Historical and Statistical Account of the Foreign Commerce of the United States," by the junior editor of this work.
The editors take pleasure in acknowledging the valuable aid derived from Mr Poole's Index to Periodical Literature, a necessary nppendage to the cditorial table, and a key to the fugitive writings of the most able authors, English and American, of the present century; also from Mr. Alexander's eleborate and reliable Dictionary of Weights and Measures; from Professor Bache's official Reports on the Ooast Survey of the United States'; from Mr. Browne's able work on the Trees of America ; and from Mr. Maury's Physical Geography of the Sea, ete, wishs

A Cyciopedia of Commerce must necessarily be, in a great meastre, a compilation, and any attempt to prepare a work of this character without taking advantage, to the fullest extent, of the labors of predecessors, would result in a failure. And though all of the articles have been rewritten or remodeled, to adapt them to this country, and with new information to bring them up to the present time, many of the important ones are entirely original, as far as compilation goes, and are carefully collated with the latest commercial statistics. Full use has been made of those standard works on commercial affairs which could give information pertaining to the anbjeate discussud. Under this view nothing more is claimed for this Work than that it is a well-digested compilation The plan of the work is based in many respects upon M'Culloch's Dictionary of Commerce, and from this work and the eighthedition of the Encyclopedia Britannica (now being published) have been principally compiled the articles relating to the commercial law and commercial trade of foreign countries. The statistics of the commerce of this country have been prepared from official sources, through a series of years; and in all instances no pains have been spared to obtain the latest and most reliable tabular details on all srbjects, as they are the foundation and principal value of a work of this kind. In all cases where possible, charts of the harbors and sea-poits, by the latest suryeys, have been obtained; and in this we are much indebted to the United States Coast Survey Reports for accurate details of the harbors of our own country. We add here a list of those works consulted, from which we have obtained much of the valuable information contained in the present work.

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## ABBREVIATIONS USED.

E. B. for Encyclopedia Britannica. J. R. M. for John R. M'Culloch. Com. Rel. for Commerclal Relations.

## CYCLOPEDIA

05

# C O M M E. R C <br> AND 

## COMMERCIAL NAVIGATION

A AM, Aum, or Ahm, a measure for liquids, used A. at Amsterdam, Antwerp, Hamburg, Frankfort, etc. At Amsterdam it is nearly equal to 41 English wine gallons, at Antwerp to $36 \frac{1}{2}$ gallons, at Hamburg to $38 \frac{1}{2}$ gallona, and at Frankfort to 39 gallons.

Aback (a sea term), the situation of the saila when the surfaces are flatted agaiast the masts by the force of the wind. The sails are said to be taken aback when they are brought into this situation either ly a sudden change of the wind or by an alteration in the sk!p's course. They are hid aback, to effect an inmediate retreat, without turning to the right or left; or in the sea phrase, to give the ship stern-vay, in order to avoid somo danger discovered before her in a narrow channel, or when she has advanced beyond her statioa in the line of battle, or otherwise. The sails are placed in this position by slackening their lee braces, and hauling in the weather ones; so that the whole effort of the wind is exerted on the fore part of their sarface, which readily pushes tho ship astern, unless she is restrained hy some counteracting force.

Abacus is the name of an ancient instrument for facilitating operations in aritimetic. The exbibitlon of numbers by counters appears happily fitted for unfolding the principles of calculation. In the achools of ancient Greece, the hoys acquired the elements of knowiodge by working on a smooth board with a nar-row rin-the $a b a x ;$ so named, evidently, from the combination of $A, B, \Gamma$, the first letters of their alphabet, resembling, oxcept perhaps in size, the tahlet likewise called $A, B, C$, on which the cinildren with us used to begin to learn the art of reading. The pupils, in those distant ages, were instructed to compute by forming progressive rows of counters, which, according to the wealth or fancy of the individual, consisted of small pebbles, of round bits of hone or ivory, or even of silver coins. From $\psi \eta \phi$ os, the Greek word for o pebble, comes the verb $\psi \eta \phi \iota \zeta \varepsilon \iota \nu$, to compute. But tho same board served also for teachiag the rudimenta of writing and tho principles of geometry. The abax being strewed with green sand, the pulvis eruditus of classic authors, it was casy, with a radius or small rod, to trace letters, draw lines, construct triangles, or describe circles. Besides the original word $\Lambda \beta a \xi$, the Greeks had the diminutlve $A$ Baktov; and it seems very probable that this smalier board was commonly used for calculations, while the larger one was reserved anoong thou for the purpose of tracing geometrical diagrams.
To facilitate the working by counters, the construction of the abacus was afterward improved. Instead of the perpendicular lines or hars, the board had its surface
divided by aets of parallel grooves, by atretched wires, or even hy successive rowa of holes. It was easy to move amall counters in the groovea, to slide perforated beads along tho wires, or to stick large nobs or roundheaded nails in the different boles. To diminish the number of marks required, every column wa. surmounted by $p$ ahorter one, wherein each counter had the same valu's as fivo of the ordinary kind, being half the index of the Denary Scale.
The civil arts of Rome were communicated to other nations by the tide of victory, and malutained throngh the vigor and firmness of her imperial sway. But the simpler and more useful improvements survived the wreck of empire, among the various people again restored by fortuno to their barbarous independence. In all transactions wherein money was concerned, it was found convenient to follow the procedure of the abacus, in represeating numbers by countera placed In parallel rows. During the Middle Ages, It became tho usnal practice over Europe for merchants, auditors of accounts, or judges appoint to decide in matters of revenue, to appear on a covered bank or bench, so called from an old Saxon or Franconian word signifying a seat. . Hence those terms were afterward appropriated to offices for receiving pledges, chombera for the accommodation of money-dealers, or courts for the trying of questions respecting priverty or the claims of the crown. Hence also the word bankrupt, which occur in all the dialecta of Europe. The term scaccarium from which was derived the Fronch, and thence the English name for the Exchequer, anciently signified morely a chess-board, being formed from scaccum, denoting one of the movable pieces in that intricat game. The reason of this application of the term is sufficiently obvious. The table for accounts wa, to facilitate the calculations, alwaya covered with a cleth, resembling the surface of the scaccarium or abacus, and distinguished by perpendicular or chequered lines. The learned Skene was therefore mistaken in supposing that tho Exchequer derived its name from the play of chess, because its suitors appear to fight a keen and dubious batile.*

The Court of Exchequer, which takes cognizance of all questions of reverue, was introduced into England by the Norman Conquest. Richard Fitznigel, in a treatise or dislogue on the subject, written about the middle of the twelfth century, says that the scaccarium

[^0]was a quadrangular tabla about ten feet long and five feet broad, with a ledge or border about four inches high, to preveut any thing from roiling over, and was surrounded on all sides by seats for the judges, the tellers, and other officers. It was covered every year, after the term of Easter, with fresh black cloth, divided by perpendicular white lines, or distinctures, at intervals of about a foot or a paim, and again parted hy similar transverse lines. In reckoning, they proceeded, he says, according to the ru'zs of arithmetic, using small coins for counters. The lowest bar exhibited pence, tha one above it ahillinge, the next pounds; and the higher bars denoted successiveiy tens, tecenties, hundreds, thousands, and tos thousands of pouads; though, in those eariy time: of penury and severe economy, it very seldom happensd that so large a sum as the last ever came to be reckoned. The first bar, therefore, advanced by dizews, the second and third by scores, and the rest of the stock of bure by the multipies of ten. The teller sat about tha middle of the table; on his right hand eleren penaies were heaped on the first bar, and a pila of nineteen sh! lifings on the second; while a quantity of pounds was coilected opposite to him, on tho third bar. For the aske of expedition, he might empioy a different mark to represent haif the value of any bar, a silver penny for ten shillings, and a gold penny for ten pounds.

In early times, a chequered board, the emblem of cajculation, was hung out, to indicato an office for changing moncy. It was afterward adopted as the sign of an inn or hostelry, where victuals were sold, or strangers lodged and entertained. We may perceive traces of that ancient practice exiating even at present. It is customary in London, and in some provincial towns, to have a chequer, diced with red and white, painted againat the sides of the door of a chop-house.

The Chinese have from the remotest ages used, in all their calculations, an instrument cailed the Suranpan, or Compaing Table, sinsiiar in its shape and construction to the abacus of the Romans, but more completo and uniform. It consists of a small oblong board surrounded by a high ledge, and parted Iengthwise near the top by another tedge. It is then divided verticaliy by ten smooth and siender rods of bamioo, on which are strung two small bails of ivory or bone in the upper compartment, and five such balls in the lower and larger compartment; each of the latter on the several bars denoting unit, and each of the forn ; for the sake of abbreviation, expressing five.

The syatem of measures, weights, and coins, which prevails throughont tha Chinese empire, being entirely founded on the decimal subdivision, the swan-pan was admirabiy suited for representing it. The caiculator could begin at any particular bar, and reckon with the same facility either upward or downward. This advantage of treating fractions exactly like integers was, in practice, of the utmost consequence. Accordingly, those srithmetical machines, but of very different sizes, are constantly used in ail the shops and booths of Canton and other cities, and are said to be handied by the native traders with such rapidity and address as quite astonisis tha European factors.

Abaft, a sea term signifying the hinder part of a ship, or all those parts both within and without which lie toward the stern, in opposition to afore. Abaft is also used as a preposition, and signifies further aft, or nearer the stern; as, the barricade stands abaft the main-mast, i.e. behind it, or nearer the stern.

Abandonment, in commeree and navigation, is used to express the abandoning or surrendering of the ship or goods insured to the insurer.

It is held, by the law of Eagland, that the insured has the right to abandon, and to compel the insurers to pay the whole value of the thing insured, in every case - Ife calls it Arimetica: In the Myrroutr of the Worlde,
printed by Caxton in 1451, it is strangely named Ars Metrike, printed by Caxton in 1451, it is straogely named Ars Metrike, a proof of the total ignorance of Greek at that period in Eogland.
${ }^{13}$ where, hy the happening of any of the misfortunes or periis insured against, the voysige is lost, or not worth purauing, and the projected adventure is frustrated; or where tha thing insured is so damaged ant spolied as to be of little or no vaiue to the owner; or where tha salvage is very high; or where what is aaved is of less value than the freight; or where further expense is necessary, and the insurer will not undertaka to pay that expense," etc.-Maraitall, book i. cap. 13 , 81.

Abandonment very frequently takes piace in cases of capture : the loss is then total, and no question can arise in respect to it. In cases, however, in which a ship and cargo are recaptured within such a time that tha object of the royage is not lost, the insured is not entitled to abandon. The mare atreading of a ship is not deemed of itself such a loss as will justify an abandonment. If by some fortunata accident, by the excrtions of the crew, or by any borrowed assistance, the ship be got off and rendered capable of continuing her voyage, it is not a total loss, and the insurers are only ifable for the expenses occasioned ly the strancing. It is only where the stranding is followed by shipi-reck, or in any other way renders the ship incapable of prosecuting her voyage, that the insured can abandon.

It has been decisied that damage sustaincd in a voyage to the extent of forty-eight per cent. of the value of the ship did not entitle the insured to ebandon. If a cargo be damaged in the course of a voyage, and it appears that what has been saved is less tian the amount of freight, it is held to öe a total loss.-PAHK on Insurance, cap. 9.

When by the occurrence of any of the periis insured against the insured hss acquired a right to abendion, he is at liberty either to aliandon or not, as he thinks proper. He is in tue case bound to sbandon; but if ha make an election, and resolve to absndon, he must abide by his resoiution, and has no longer the power to ciaim for a partial loss. In some foreign countries apecific periods are fived by law within which the insured, after being informed of the loss, must elect either to abandon or not. In England, however, no particular period is fixed for this purpose; but the rule is, that if the insured determine to abandon, he must intimate such determination to the insurers within a reasonable period after he has got inteliggence of the lossany unnecessary delay in making this intimation being interpreted to mean that he has decided not to abanden.

No particular form or solemnity is required in giving notice of an abandonment. It may be given either to the underwriter himself, or the agent who subseribed for him.
"The effect of an abandonment is to rest all the rights of the insured in the insurers. The latter become the legal owners of the ship, and as such are liable for all her future outgoings, and entitled to her future earnings. An abandonment, when once made, is irrevocabie.
"A total loss within the mesning of the policy may arise either by the total destruction of the thing insured, or, if it specifically remaing, by such damage to it as renders it of littie or no value. A loss is said to be total if the voyaga be entireiy lost or defcated, or not worth pursuing, and the projected adventure frustrated. It is a constructive total loss if the thing insured, though existing in fact, is lost for any beneficial purpose to the owner. In such eases the insured may abandon ali his interest in the sulject insured and ail his hopes of recovery to the insurer, and call upon him to pay as for a total loss. The object of the provision is to enable the insured to be promptiy reinstated in his capital, and be thereby enabied to engage in some now mercantile adventure. Long interruption to a veyage, and uncertain hopes of recovery, would often be ruinous to the businces of the merchant; and therefore, if the olyject of the voyage be lost, or not worth pursuing ly reason of the peril insured againat, or if the cargo be so damaged as to be of little or no value, or where
the salvarye is very high and further expense be necessary, and the inaarer will not engaga to bear it, or if what la saved be of iesa value than the freight, or where the damage exceeds one half the value of the goods inaured, or where the property is captured, or arrested, or even detained by an indefinite embargo; in these and other cases of a like nature the insured may disentangle himeelf and abandon the aubject to the underwriter, and call upon him to pay a total losa. In anch cases the insurer atands in the place of the insured, and takes the sulject to himself, with all the chances of recovery and indemnity. A valid abandonment has a retronpective effect, and doea of iteeif, and without any deed of cession, and prior to the actual payment of the loss, transfer the right of property to the insurer to the extent of the inaurance; and if after an abandonment, duly made and accepted, the ship shonld be recovered, and proceed and make a prosperous voyage, the insurer, as owner, would reap the profta.
"These considerations have introduced the right of abandanment into the insurance law of every country, and yet the text writers have generally condemned the privilege aa inconsistent with just notlona concerning the nature of the contract of insurance, which is a contract of indemnity. But it has now become an ingredient so interwoven wlth the whole system of ingurance, that It can not le abolished; though the late English cases, saya Mr. Benecke, ahow a stronger inclination in the courts to restrict than to enlarge the right. The laws of Ilamburg distingulsh themaelves from all others, by restricting the right of abandonment to the only case of a missing ship.
"As soon as the insured is informed of the loss, he ought (after being aliowed a reasonable time to inspect the cargo, and for no other parpose) to determine promptly whether he will or will not abandon, and he can not lie by and speculate on eventa. If he electa to abandon, he must do it in a reasonable time, and glve notice promptly to the insurer of hia determination; otherwise he will be deemed to have waived his right to abandon, and will be entitled to recover only for a partial loss, unless the loss be, in fact, absolntely total. If the thing insured existc in specie, and the insured wishes to go for a total loss, an abandonment ia indispensable. The same principle which requirea the insured, who abandona, to do it in a reasonable time, also requires the insurer, who rejects an abandonment, to nct promptly. The olject of the abandonment is to turn that into a total loss $r$.ich otherwise would not be one; and it is unnecessary, and would be idle, to abnandon in the case of an ontire destruction of the subject. It is only necessary when the loss is constructively total within the policy, and not an actual total loss. The right of abandonment does not depend upon the certainty, but upon the high prolability, of a total loss, cither of the property, or royage, or both. The Insured is to act, not upon certainties, but upon probabilities; and if the facts present a case of extreme hazard, and of probable expense, exceeding half the value of the ahip, the insured may abandon, though it should happen that she was afterward recovered at a less expense. Though the aulject may physically exist, yet there may be a technical total loss to tho owner if the things be taken from his free use and possession. Such are the common cases of total lasses by embargoes, by captures, and ly restraints, and detainments of princes.
"The right to abandon exists when the ship, for all the oseful purposes of the voyage, is gone from the control of the owner; as in the cases of submersion, or shipwreck, or capture, and it is uncertain, or the time unreasonably distant, when it will be restored in a state to resume the voyage; or when the risk and expense of restoring the vessel are disproportioned to the expectel henefit and oljects of the voyage. All these general doctrines concerning abandonment have been entirely incorporated into our American law, and they
exist to all essential purposes in the French jurisprudence.
"Upona valid abandonment, either of tha vease! or of the cargo lnaured, the master becomes the agent of the inaurer, and the insured la not bound ly his aubsequent acta unlesa he adopta them. The owner or inaured, equally with the master, becomea the agent of the insurer on abandonment, and he can not purchase in the property on his own account without the consent of hia princlpals; and if he does, it revokes the abandonment, and turns the total into a partlal loss. It ia the duty of the maater, reaulting from his aituation, to act with good falth, and care, and diligence, for the protection and recovery of the property, for the benefit of whom it may eventually concern. The master of an inaured ship injured by the perila of the sea, and not : ompetent to complete the voyage, may seli her in a case of necesaity, as when the ship la in a place in which she can not be repaired; or the expense of repairing her will be extravagant, and oxceed her value; or when 1: has no money in hia posseasion, and is not able t' ralse any. In cases of capture, he is bound, if a r. atral, to remain and assert his clalm until condemuation, or the recovery be hopeless. His wages, and those of the crew, are a charge on the owner, and ultimately, in case of recovery, to be horne as a general average by all partics in interest; and if the abandonment be accepted, the underwriter becomes owner for the voyage, and in that character liable for the scamen's wages, and entitled to the freight subsequently earned. If the master purchases in the vessel, or ransoms her, the iasurer will be entitled to the benefit of the purchase or composition; and, on the other hand, if the 'nsured affirma the purchase of the master, it will be, at the option of the insurer, a waiver of the abandonment. The insurer can accept of the repurchase of the master, as his conatructive agent, and affirm the act, or he may leave it to fall upon the master.
"The aasired has the right of abandoning the freight when there has been a constructive total loss of the ship ; and he has sustained a total logs of the frelght, if he ahandons the shlp to the underwriters on the ship, when the case justifiea It , for after such abandonment, he has no longer the means of earning the freight, or of receiving it if earned, for the freigitt goes to the underwriters on the ahip. But it has been a very controverted question, whether an abandonment of the ahip transferred the freight in whole or in part. It was finally settled in the jurisprudence of New York and of Massachusetts, and adopted as the true rule in the Cir. cuit Court of the United States for Massachusetta, that on an accepted abandonment of the ship, the freight carned previous to the disaster was to be retained by the owner or his representative, the inaurer on the freight, and apportioned pro rata itineris; and that the freight subsequently earned went to the insurer on the ship."-See Kexr's Comin., Lect. XLVIII. vol. til.

Abassi, or Abassis, a silver coin cnrrent in Persia, equivalent in velue to a French livre, or at present tenpence sterling. It took ita name from Schah Abbas II., king of Persin, under whom it was struck.

Abatement, or Rebate, is the name sometines given to a discount allowed for prompt payment; it is also sometimes used to express the deduction that is occasionally made at the custom-house from the dutica chargeable upon such goode aa are damaged, and for loss in warchoisses.

Abattoir, the term applied by the French to designate slaughter-houses for cattie. These useful estal. lishments were introduced into Paris and other large cities ly Napoleon. Formerly the multitude of animals alaughtered in Paris became a nuisance of great magnitude to the Inhatitants, from the exhibition of the barbaritice practiced on the poor animals by the butchers, the piteous crics of shecp and cattle pent up,
without food or water, in the confined atalls in which they were crowded, and from the offensive exhalations of putrid blood and offal that proceeded from slaugh-er-houses, often pianted in the most populous part of the city. The same nuisance, till lately, diagraced the British metropolis, and many other English towna. It appears hardly conceivable that London should, till 1852, have tolerated the nuisance of Smithfeld market. When this mart was established five centuries ago, it was far beyond the preelncts of the elty. There, in the midat of a dense population, no fewer than 248,537 head of cattle, and 1,455,249 ahoep were cold in 1852, to be afterward alaughtered in the crowded lanes and illventilated courts of the metropolis; whilo the French, and the peopie of the United States, do not tolerate auch sources of diagust and disease in the interior of their great towns.
The abattoirs of Paris, created by Napoleon's decree of 1810 , amounted to five in 1818 , when they were all completed, and put ander excellent regulation. There are three on the north, and two on the south side of Paris; and all are in the outskirts of the town, about two nillea from ite centre.: The largest to the north is in the Rue Rochechouart, between the Barrieres Poissonnieres und des Martyres; the largest on the south side is just tebind the Place Breteuil ; the rest are near the banks of the Seine. The cattle-markets are all at the distance of some miles from Paris; and the cattle are driven fiom them to the abattoirs, round by th external Boulevards, so as to avoid the streets as much as possible.
Each butcher goes to his own abattoir; to whlch are attached proper places for preserving the meat, provided with an iron reck for the fat, pana for melting the tallow, and atalis for the cattle before they are slaughtered. The stalls are furnished with proper racks and tronghs for hay and water, that the animais may suffer as littie as possible before they are slaughtered. The abattoirs and the whole estallishment ere kept very clean by an abundant supply of water, that carries off the blood and all impurities into sewers. Conaldering the nature of the place, every thing is commendably clean.
An inspector is appoluted to each abattolr, whose business $i t$ is to prevent the sale of unwholesome meat, and to enfurce order and cleaniliness. For these accommodations a butchor pays according to the number of animals he slaughters. The sum now paid for each ox is six francs, four for a cow, two for a calf, and one for a sheep or lamb. The money thus raleed from all the Parisian abattoirs in 1842 amounted to about $£ 48,000$ sterling. It ia greatly to be wished that some regulations like those of the French abattoirs were introduced Into the principal English towns, especially London, Liverpool, Mancuester, Glasgow, etc., as has lately been done at Edinburgh.

In 1851, the corporation of F. $\mathrm{N}^{\prime}$ burgh constructed a greatly improved abatt ${ }^{2 \text { : }}$ cluat elty, from designs prepared by Mr. David Cousin, the elty architect. It occuples an area of four acres and a quurter, surrounded by a screen-wail, with entrance gates ou each side fin the Egyptian style of architecture; behind the screenwall is a large oper area, trom which access is given to all the different buildiags connoeted with the establishment. The alaughterling boot hs consist of a double row of bulidings, extending in a straight line to about $3 i 6$ feet in leugth, with a centre readway 25 feet wide. There are three separatu blocks of buididing on each sido of the roadway, the extreme blocks being each 100 feet in length, and the central one 140 fect, with cross-roads 18 feat wide between these, giving access to the other portlons of the grounds. The diferent ranges of building contain 42 booths in all; esch booth is 18 feet wide, 24 feet in leagth, and 20 feet in height, having a cattle ahed attached, 18 feet by 22 feet, and a amall incloced yard behind, with a aeparate pack entrance, by which all the cattle are driven into the sheds, where
they are kept previoualy to being slaughtered. By a series of large ventilatore along the roof, and by other contrivances, these buildings are thoroughly ventilated. The large doors of the booth, instead of being hlaged in the usual manner, are hung by halance weights, so as to sllde up and down slmilarly to an ordinary sash-window, so that they never interfere with the operations within, or with the thoroughfare of the road.
Improved mechanical contrivances have been introduced, some of them of a novel application, which have secured great facilitles in the dressing and preparation of the meat. Each booth ia amply provided with water. In addition to the slaughtering booths, there is large accommodation for triperies, pig-slaughtering houses, tall $n$ w-weighing houses, and all the other necessaries of such an establisinment.
The whole of the booths have been lald with thick, weli-dressed pavement, resting on a stratum of concrete twelve inches thick, and the walls to the height of seven feet are formed of solid ashler, so as to prevent the poasibillty of rats burrowing in them. With thls vilw also, the whole surface of the roadways has been lald with concreto and causewayed with well-drebsed whinstone pavement. The dralnage, also, consists entirely of giazed earthen-ware tiles, so that the whole area of the buildings is rendered impervious to these destructive vermin. There are two distinet sete of drains, one for surface water, which is conveyed directly Into Lochrin burn; tho other for soli from tho booths, which is conveyed into large tanks formed for its receptlon, and sold for agricultural purposes.
Before the erection of theso buildings, private slaugh-ter-houses were scattered all over the clty, often in the moat populous districts, where, through want of dralnage and imperfect ventilation, they contaminated the whole neighborhood. Since the opening of the public abattoir, all private slaughter-houses are prohibited.
Aboard, the Inside of a slip. Hence any person who entere a ship is said to go aboard: but when au onemy enters in the time of battle, he is sald to board; s plirase which always implies hostillty. -To fall aboard of, is to strike or eacounter another shlp when one or both are in motion, or to be driven upon a ship by the force of the wind or current. - Aboard-main-lack, the order to draw the main-tack, i. e. the lower corner of the mainsall, down to the Cuess-Tree.
Abrasion is sometimes used to denote the wear and tear of colns. The deticleney In the weight of the old worn coins, on thelr being called in to be recoined, falla upon the pubilic. Mr. M'Culloch reckons, that if the curreucy of the United Kingdom consisted wholiy of gold, It would amount to at least slxty mlliions of sovereigns, and that the loss austained by abrasion, including what resuits from shipwreck, fire, and other aceldents, l . uld amount to a hundredth part of the sum in circulation, or $\mathbf{E 6 0 0 , 0 0 0}$ annually.-M'Cullocn's Treatises and ELanays on Economical Policy, p. 33.

Acaola, Egyptian Thorn, or Binding Beantree, In Botany, a specles of mimosa, aecording to Linneous, though other hotanists make it a distinet genus. Several apecies of acacin produce gum arabic, enpecially A. Ehrenbergii, A. tortilis, A. arabica, A. rera, A. Seyal, A. Verek. An lnferior sort is produced by $A$, Adansonii, A. albida, and A. Karro. These are natives of Egypt, Arabia, or Africa. The lispissated gum of the bark of A. catechu forms the astringent substance named catechu; whlch, however, is also produced in India from several other trees. The bark of several species of acnela produces a tannin; of which a large quantity is now imported from Van Diemen's Land for the purposes of the tanner, and is chiefly the produce of $A$. decurrons and $A$. mollissima.
A. julibrissin, a native of Persia, haa, on account of its elegant follage and flowers, been long acelimated in England; A. sophora is a fragrant species, that has
more lately been introduced, and la nearly accllmated in the south of our lsland. ${ }^{-1}$ It flowars early in apring, and bears many clusters of rich yellow flowers. 'The flowera of a speciea of the acacia are used by the Chlnese in making that yellow which we see bears washIng la their silks and stuffe, and appears with so much elegance in their painting on paper. The method is this: They gather the flowers before they are fully open; theao they put in a clean earthen vessel over a gentlo heat, and stir them continually about as they do the tea-leaves, till they become drylsh and of a yellow color; then to half a pound of flowers they add three apoonfula of fair water, and after that a little more, till there is juat enough to hold the flowera incorporated together; they boil thia for some time, and the juice of the flowers mixing with the water, it becomes thick and yellow; they then take it from the fire, and strain it through a pliece of coarse ailk. To the liquor they add half an ounce of common alum, and an ource of calcined oyster-shells reduced to a fine powder. All is then well mixed together; and thia is the fine lastlag yellow they have so long used.
The dyers of large pleces nse the flowers and seeds of the acacia for dyeing three different sorts of yellow. They roast the flowers, as before obaerved, and then mix the seeda with them, which must be gathered for this purpose when fully ripo; by different admixtures of these thoy give the different shades of coler, only for the deepeat of all they add a amall quantity of Brazil wood.
Mr. Geoffroy attributes the origin of bezoar to the seeds of thia plant; which beling browsed by certain animals, and vellicating the stomsch by their great great aourneas and astringency, cause a condensation of the juices, till at length they become coated over with a stony matter which we call Bezoar.

Acapulco, a sea-port on the western cosat of Mexico, in lat. $10^{\circ} 60^{\prime} 20^{\prime \prime}$ N., long. $99^{\circ} 46^{\prime}$ W. Pop. 4000 ( $($ ). "It is," aaya Captain Hall, " the very bcau ideal of a harbor. It is easy of acceas, very capacious, the water not too deep, the holding ground good, quite free from hidden dangers,* and aa secure as the basin $\ln$ the centre of Portsmouth dock-yard." - South A merica, 11.172. Previously to the emanclpation of Spanish America, a galleon, or large ship, richly laden, was annually sent from Acapulco to Manilla, in the Philippine Islands, and at her return a fair was held, whlel was much resorted to by strangera. But this sort of intercourse la no longer carricd on, the trade to Menilla and all other places beling now conducted by private individuals. The exporte consist of bullion, cochincal, cocoa, Indigo, atc. The Imports princlpally consiat of cotton goods, hardware, artcles of jewelry, raw and wrought silka, apices, and aromatics. Acapuleo, for forelgnera, is extremely unhealthy; and though it be one of the principal ports on the west coast of Mexico, its commerce is but inconsiderable. The navigation from Acapnico to Guayaquil and Callao is exceedingly tedious and difficult, so that there is but Ifttle intercourse between Mexico and Poru, Panama having of late ycars become the leading port for forclgn imports near this latItude.
Account, or Accompt, in a gencral aenso a computation or reekoning of any thing by numbers. Collectively, it is used to express the books which merchants, traders, bankers, otc., use for recording their transactions in business.
Accountant, or Accomptant, In the mest gen. cral sense, is a person skilled in accounta. In a more roatricted sense, it ls applled to a person or ofticer appointed to keep the accounta of a pablio company or office.

Accountant-Cengral, an officer in the English

[^1]Court of Chancery; appointed by act of Parliament to recelve all moneys lodged in court, instead of the masters, and convey the same to the Bank of England for accurity. There ia also an accountant-general in the' Irish Chancery; and one in Scotland, who has charge of the accounte of the Coirt of Session.

Acoounts, Chamber of, in the French polity, a sovereign court of great antiquity, which took cognizance of and registered the accounts of the king's revenue; nearly the aame with the Engliah Court of Exchequer.
Acids are a class of compounds which are distingulahed from all othera by the following properties: They are generally possessed of a very sharp and sour taste ; redder the infusions of blue vegetable colors; are often highly corrosive, and enter into combination with the alkaliea; eartha, and metallic oxides ; forming compeunds in which the characters of the constituents are entirely destroyed, and new ones produced differing in every respect from those previously existing. The quallty or strength of an acid is generally ascertained either by ita specific gravity, which la found by means of the hydrometer, If the acid be liquid, or hy the quantity of pure and dry aubcarbonate of potasa or soda, or of carbonate of lime (marble), which a given weight of the acid requires for lts exact neutralization. This latter process is termed Acidimetry; or the ascertaining the quantity of real acid existing in any of the liquid or crystallized aclds.
The principal acida at present known are, the Acetic, Benzoic, Boracic, Bromic, Carbonic, Citric, Chloric, Oyanic, Fluoric, Ferroprussic, Gallic, Hydrobromic, Hydriodle, Iodic, Lactic, Malic, Margaric, Meconic, Mnriatic or Hydrochloric, Nitrous, Nitric, Oleic, Oxallic, Phosphoric, Prussic or Hydrocyanic, Purpuric, Saccholactic, Suberie, Sulphurous, Sulphuric, Tartaric, Uric, and many others which It would be superfluoun to detail. It is the most important only of these, however, that will be here treated of, and mere particularly those employed in the arts and manufactares.

Acetic or pyroligneous Acid.-This acid, In its purs and concentrated form, is obtalned from the fluid matter which passes over in distillation, when wood is expoasd to heat in close iron cylinders. This fluld is a mixturo of acetle acid, tar, and a very volatile ether; from these the acid may be separated, after a second distillation, by saturating with chalk, and evaporating to dryness; an acetate of lime la thua procured, which, by mixture with salphate of soda (Glauber's salt), fa decomposed, the resulting componnda being an insoluble sulphate of lime, and a very soluble acetate of soda; these are casily separated from each other by solution In water and filtration; the acetate of ada being obtalned in the cryatalline form by evaporation. From this, or the acetate of lime, some manufacturers employing the former, others the latter, the acetic acid is obtained by distillation with sulphuric acid (oll of vitriol); as thus procured, it is a colorlens, volatile fuld, having a very pangent and refreshing odor, and a atrong acid taste. Its strength should be ascertnined by the quantity of marble required for its neutralization, as its specffic gravity does not give a correct Indlcation. It is employed in the preparation of the acetate of lead (sugar of lead), in many of the pharmaceutical compounds, and also as an antiseptic.

Vinegar is an lmpure and very dilite acetic acid, obtained by exposilig either weak wines or infusions of melt to the air and a slow formentation; It contains, begides the pure acid, a large quantity of coloring matter, some mucllage, and a little spirlt; from these it is readily separated by distillation. The impurities witi which this distilled vinegar is sometimes adulterated, or with which it is accidentally contaminated, are oil of vitriol, added to increase the acidity, and oxides of tin or copper, ariaing from the vinegar having been distlled through tin or copper worms. These may be casily detected; the ofl of vitriol by the addition of a

Ilttle solution of mariate of barytas to the distilled vinegar, which, ahould the acid be present, will cause a dense white preciplite; and the oxides of tin or copper by the addition of water impregnated with sulphureted hydrogen. Vinegar is employed in many culinary and domeatic operations, and also vory largely in the manufacture of the carbonate of lead (white-lead).

Benzoic Acid existe naturally formed in the gum ben. zoln, and may be procured either by submitting the benzoin in fine powder to repeated aublimations, or by digesting it with lime and water, straining off the clear solution, and adding muriatic acid, which entars into combination with the lime, and the benzolc acid, being nearly insoluble in water, falls as a white powder; this way be further purified by a sublimation. Benzoic acid ls of a beautiful pearly white color when pure, has a very pecullar aromatic odor, and an acrid, acid, and bitter taste; it is used in making pastillee and perfumed incense. This acid also occurs in the balsams of Tolu and Peru, and in the urine of the horse and cow.

Boracic Acid is fonnd in an uncombined atate in many of the hot springs of Tuscany, as also at Sesso, in the Florentine territory, from whence it has recelved the name of Sessolin. In Thibet, Persia, and South America, It occurs in comblastion with soda, and is imported from the former place into this country in a cryatalline form, under the name of Tlacal. These cryatale are coated with a rancid, fatty subatance, and require to be purified by repeated solutions and crystalIlzations; after which it is sold under the appellation of borax (biborate of soda); from a hot solution of this salt the boracle acid ts resdily ohtained, by the addltion of eulphuric acid in slight excess; sulphate of sode is formed, and the boracic acid cryatalizes as the solution cools. When pure, these crystals are white, and have an unctuous gresay feel; they are solublo in alcohol, communicating a green linge to its flame; when fused it forms a transparent glass, and has been found by Mr. Faraday to unite with the oxide of lead, producing a very uniform glass, free from all defects, and well adapted for the purpose of telescopes and other astronomical instrumente. Borax is much employed in the arts, particularly in metallurgic operations as a flux; also in enameling and in pharmacy. (See BoRax.)

Carbonio Acid.-This acid occura very abundantly in nature, combined with lime, magnesia, barytes, aerial acld, fixed air, mephitio acid: from any of these It is easily soparated by the addition of nearly any of the other acids. In it uncombined form it is a transparent, gaseous fluid, having a denality of $1: 58$, atmospheric air being unity; it in ahsorbed to a considerable extent by water, and when the water is rendered silghtly alkalline by the addition of carbonate of soda, and a large quantlty of gas forced into it by pressure, it forms tho well-known refreshing beverage soda water. This gas is also formed in very large quantities during combuation, respiration, and fermentation. Carbonic acid ges is deatructive of animal lifo and combustion, and from its great weight accomulates in the bottoms of deep wella, celis, cavos, cte., which have been closed for a long period, and numerous fatal accidents arise frequently to persons entering auch places incautiously. The precaution should alwaya be taken of introducing a lighted candle prior to the descent or entrance of any one; for, should the candie be extinguished, it would he dangerous to enter until properly ventilated. Tho combinations of carbonic acid with the alkalles, earthe, and metallic oxides are termed carbonatea.

Citrio Acid exists in a free atate in the juice of the lemon, lime, and other fruits, combined, however, with nucilage, and sometines a little sugar, which ronders It, if required to be preserved for a long period, vary Ilable to ferment ; on this account the erystallized citric acid is to be preferred. It is propared by saturating the lemon juice witis clialk; the citric acid c. "abines
with the lime, forming an Insoluble compound, while. the carbonic acid la liberated; the Insolublo cltrate, after being well washed, is to be acted upon by dilute sulphurio acid, which forms aulphate of lime, and the citric acid enters into solution in tho water; hy filtration and evsporation the citric acid is obtained in colorless transparent crystals. The chlef usea to which it is applied are as a preventive of sea acurvy, and in making refreshing acldulous or effervescing drinks; for which latter purposes it is peculiarly fltted from it very pleasant flavor.

Fluoric Acid is found in the well-known minersl fluor spar in combination with lime; from which it is procured ln tho llquid form by distillation with dilute sulphuric acid in a leaden or silver retort : the receiver should be of the same material as the retort, and kept cool by fee or anow.
This acld is gaseous in its pure form, highly corroaive, and Intensely acid; It is rapidly absorbed by water, communicating its properties to that flaid. Its chief use is for etching on glass, which it corrodes with great rapidity. For this purposo a thin coating of wax Is to be melted on the surface of the glass, and the sketch drawn by a fine hard-pointed instrument through the wax; the llquid acid is then poured on It, and after a short time, on the removal of tho acid and coating, an etching will be found in the eubstance of the glass. A very excellent application of this property, possessed by fivorio acid, is in the roughing the shades for table lamps. All the metals, except silver, lead, and platina, aro acted upon by this acld.

Gallic Acid.-Tho sourco from which this acid is generally obtained ls the nut-gall, n hard protuberance produced on the oak by the puncture of Insects. The most simple method of procuring the scid la its puro form is to submit the galls in fine powder to subliman tion in a retort, taking care that the heat be applied slowly and with caution; the other precesses require a very long period for their completion. When pure, gallic acid has a white and silky appearance, and a highly astringent and slightly acid tasto. The mutgalls, which owo their propertics to the gallic acid they contain, are employed very oxtensively in the arta for dycing and stalning sliks, cloths, and woods of a black color; this is owing to ita forming with the oxido of iren an intense black precipitato. Writing-ink is made on tho asme principle; a very excellent receipt of the Iste Dr. Black'e is, to take 8 ounces of the best Aleppo galls in fins powder, 1 onnce aulphate of iron (green vitriol), 1 ounce of logwood fincly rasped, 1 ounce of gum arsbic, 1 pint of the best vinegar, 1 pint of soft water, and 8 or 10 cloves; in this case the black precipitate is kept suspended by the gum.

Hydriodio Acid is a compound of iodine and hydrogen. In its aeparate form it is of very littic importanco in the arts.

Malic Acid exista in tho juices of many fruits, particularly the spple, as also in the berries of the servico and mountain ash.

Meconic A cid is found in oplimm, in combination with morphia, forming the meconate of morphia, on which tho action of oplum principally deponds.
Muriatic Acid, or Spirita of Salts.-Thia acid (the hydrochlorio of tho French chemiata) is manufactured from the chloride of sodium (IIry aca salt), by the action of auljhuric acid (oll of vitriol). The most oconomical proportions are 20 pounds of fneed salt, and 20 pounds of oll of vitriol proviouely mixed with an equal weight of water; these are placed in an iron or earthen pot, to which an earthen hicsd and receiver are adapted, and submitted to distilation; the muriatla acid passes over in the vaporous form, and may be easily condensed. The liquid acid thus obtained should have a specific gravity of 117, water being equal to 100 ; it lins a strong seld taste, and a slight yellow color; this is nw. ing to a amall quantity of oxlice of lron. By redistilIation in a glass retort at a Juw temperature, it may lue
obtained perfectiy pure and colorless. It sometlmes contsius a little suiphuric acid; this is detected by a solution of muriate of barytes. Muriatic acid, in its uncombined state, la an invislble elastic gas, having a very strong affinity for water; that fluid absorbing, at a temperature of $40^{\circ}$ Fahrenheit, 480 times Its volume, and the resulting liquid acid has a density of 121. So great is this attraction for water, that when the gas is liberated into the alr, it combines with the moisture always present in that medium, forming dense white vapors. Its comblations with the alkalies, etc., are termed muriates; those of the greateat importance are the muriates of tin, ammonia, barytes, and sea salt. The test for the preseace of muriatic acid in any liquid ia the uitrate of silver (lunar caustic), which causes a curdy white precipitate.
${ }^{\prime}$ Nitric Acid, or Aquafortis.-This, which is oae of the most useful acids with which the chemist is aequainted, is prepared by acting upon saltpetre (nitric or vitrate of potass) with oil of vitriol : the proportlons beat auited for this purpose are three parts, by weight, of altre, and two of oll of vitriol; or 100 nitre, and 60 oil of vitriol previously diluted with 20 of water: elther of these proportions will produce a very exceilent acld. When submitted to distillation, whlch should be conducted in earthan or glass vessels, the nitric acid passes over in tho form of vapor, and a bisalphate of potass (sal mixum) remains ln tha retort.

Nitric acid of commerce has usually a dark orangered color, giving off coplous fumes, and having a specillo gravity of 150 , water being 100. It is atrongly acid and highly corrosive. It may be obtained perfectly colorless by a second distillation, rejecting the first portion that passes over. It is much employed ln tha arts for etching on coppar platee for engraving; also, for the separation of aliver from gold in the precess of quartation. In pharmacy and snrgery it is oxtensively used, and is employed for destroylng contagious effluvis. Comblned with muriatic acid, it forms aqus regia (nitro-murlatic acid), used as a solvent for gold, platias, etc. This acld is frequeatly contaminated with the muriatie and sulphuric aclds; these may be detected by the foilowing methods: A. portion of the suspected acid should be dilucod with thres or four thines its volume of distilled water, and divided into two giasmes ; to one of which nitrate of silver (lunar caustic) in solution is to be added, and to the other nitrate of barytes: if mariatic acid be present, a whito curdy precipitate will be thrown down by the former; and if sulphuric, white granular precipitate by the latter.

Oxalic Acid occurs in combination with potass as binoxalate of potasa in the differcnt varieties of sorrel, from whence the binoxslate of potass has been terined salt of sorrel. This acld ls uaualiy prepared by the action of nitrie acid upon sugar, evaporating tho solution, after the action has ceased, to the comsistence of a slrup, and redissolving and recrystallizing the crystals which are thus procured.

It is sold In smali white acicular crystals, of a strongly scid taste and highly polsonous, and sometimes in ita external appearance bears a strong aimillarity to Epsom salta (sulphate of magnesia), which it has been unfortunately frequently miataken for. It is instantly distinguished from Epsom salts by placing a mmait crystal upon the tongue; when its atrong acid taste, compared with the nauseous fitter of the sulphate of msgnesla, will be quite a sufficient criterion. In cases of polsoning, however, by this acid, lime or chalk, inixed with water to form a cream, should be inmediately adminiatered, the combinatious of oxalio acid with these aubstances beiog perfectly inert. It is omployed in removing ink-etains, Iron-moulds, ete., from Iinen and leather $;$ the beat proportions for these purposes are 1 ounce of the acld to a pint of water. The most dellcate teat of the presence of oxalic acid la a salt
of lime or llme-water, with either of which it forms a white precipltate, Insoluble in water, but soluble in acids. Its combinations are termed oxalates.

Phosphoric Acid is of very little importance in a commercial point of view, except as forming with lime the earth of bonas (phoaphate of lime). It is prepared by heating bones to whiteness in a furnace; from this phoaphorio acid is obtained by the action of sulphuric acid, still combined, however, with a small quantity of lime. The action of vitrio acld upon phosphorus, the latter being added gradually and in small pleces, yields this acid in a atate of purity : its comblnations are termed phosphates. ${ }^{*}$

Prussic Acid, or Hydrocyanic Acid.-This acid, which is the most virulent and poisonous acid known, is contalinod in peach blossoms, bay leaves, and many other vegetable productiona, whioh owe their peculigr odor to the presence of prussic acid. For tho purposes of medicine and chemiatry, this acid ls prepared either by distilling one part of the cyannret of mercury, one part of muriatic acid of apecific gravity $1 \cdot 15$, and six parts of water, six parts of prussic acid being coliected; or, by dissolving a certain waight of cyanuret of mercury, and passing a current of sulphureted hydrogen through the solution, until the whole of the mercury ahall be precipitated; if an excess of sulphureted hydrogen should be present, a little carbonate of lead (white lead) will remove it; on filtering, $=$ colorleses prussic acid will be obtained. By the firat process, which is the one followed at Apothecaries' Hall, the acid has a density of 995 , water being equail to 1000 ; by the latter, It may be procured of any required strength, depending on the quantity of cyanuret of mercury dissoived. The best test for the preaence of this acid is, first to add a small quantity of the protosulphate of fron (solution of green vitriol), then a little solution of potassa, and, lastly, diluted suiphuric acid; if prussic acid be present, Prussian blne will be formed. Its combinations are calied prussiates or hydrocyanates; when in its concentrated form, it is so rapid in ita effects that large animals have been killed in the short space of 80 sec onds, or from a minute to a minute and a half.
Sulphurous Acid is formed whenever sulphur is burnell in atmospheric alr; it is a suffocating and pungent gas, strongly acid, bleaches vegetable colors with great rapidity, and arrests the process of vinous fermentation, For these purposes it is therefore very much cmployed, eapecially in bleaching woolen goods and straws. Fermentation may be immodiately arrested by burning a small quantity of suiphur in casks, and then racking off the wine while atilil fermenting into them; thla frequently gives the wine a very unpleasant taste of suiphur, which is avoided by the use of sulphate of potass, made by impreguating a solutlon of potass with sulphurous acid gas.

Sulphuric Acid, or Oil of Vitriol, called oll of vitriol from its havlug been formeriy manufactured from green vitriol (sulphate of Iron). In some parts of tho Continent this process is stili followed. The method generaily sdopted in this country is to introduce nine parts of sulphur, intimstely mixed with one part of nitro, in a state of active combustion, into large leaden chambers, the bottems of which are covered with a stratun of water. Sulpisurous and nltrous acld gases are generated, which, entering Into combination, form a white crystaline solid, which falls to the bottom of the chamber; the instant that the water comes in contaet with it, this solld ls decomposed with a hissing noise and effervescence, sulphuric acid combines with the water, and nitrous gas is liberated, wilich, coubining with oxygen from the air of the chamber, is convarted into nitrous acid gas, again combines with sulphurous acid gas, and agala falis to the bottom of the chamber: this process continuce as long as the combustion of the sulphur is kept up, or as long as atmospherle air remains in the chamber; the nitrous acld merely serving as a means for the transferenco of oxygen from the at-
mosphere to the sulphurons acid to convert it into sulphuric acid. The water is removed from the chamber when of a certain etrengtl, and replaced by fresh. These acid waters are then evaporated in leaden boilers, and finally concentrated in glass or platina vesselo. As thus manufactured, sulphuric acid is a dense oily fluid, colorless, intensely acid, and highly corrosive, and has a specifle gravity of 1846, water being equal to 1000 . This acid is the most important with which we are acquainted; it is employed In the manufacture of the nitric, muriatic, acetlc, phosphoric, citric, tartaric, and many other acids; also in the preparation of chlorine, for the manufacture of the bleaching powder (oxymuriate of lime, or chloride of lime), for the preparation of enlphate of mercury, in the manufacture of calomel and corrosive sublimate, and in Innumerable other chemical manufactures. In the practice of physic it is also very much employed. It naually contains a little oxide of lead, which is readily detected by diluting the acid with sbout four times ita volume of water, and allowing the sulphate of lead to subside. Its combinations are denominated sulphates. The fuming sulphuric acid, as manufsctured at Nordhausen, contalus only one half the quantity of water in its composition.

Tartaric Acid,-This acid is procured from the cream of tartar (bitartrate of potass), olitained by purifylug the crust which separates during the fermentation of wines by solution and crystallization. When this purfied bitartrate is dissolved, and lime or carbonate of linie added, an insoluble tartrate of lime falle, which, after washing, should be acted upon by sulphurio acid; sulphate of lime is thus formed, and the tartaric acid enters into solution, and may be obtained by evaporation and crystallization. It is employed very much in the arts, in calico-printing, as also in making effervescing draughts and powdera in pharmacy.

- Uric Acid is an animal acid of very little importance, except in a scientific point of view : it exists in tho excrement of serpents to the amount of 95 per cent., and forms the basis of many of the urinary calcull and gravel.

Acorn, in sea langrage, a little ornamental piece of wood fashioned like a cone, and fixed on the uppermost point of the spindle, above the vane, on the mast-head. It is used to keep the vane from being blown off from the spindle in a whirlwind, or when the ship leans much to one side under sail.

Acorns (Ger. Licheln, Eekern; Fr. Glands; It. Ghiande; Sp. Bellotas; Rus. Schedudii ; Lat. Glandes), the seed or fruit of the oak. Acerns formed a part of the food of man in early ages, and frequent allusion is made In the classics to this circumstance (Virail, Gearg. lib. i. lin. 8; OVid, Met. lib. i. lin. 106, etc.). In some countries they are atill used, in periods of ecarcity, as a substitute for bread. With us they are now rarely used except for fattening hogs and poultry. They are said to make, when toasted, with the addition of a little fresh huttor, one of tho best aubatitutea for coffiee. Their taste is astringent and bitter.

Acre, a measure of superficies, and the principal denomination of landineasuro in uso throughout the whole of Great Britain and the United States. The word (formed from the Saxon acher, or the German aker, a field) did not originaliy signify a determinate quantity of land, but any open ground, especiaily a wide campaign; and in this antique seneo it seems to be prescrved in the names of places; as, Castle-aere, West-acre, etc. The standard nere is formed by raising a square of which the basis is the chain of 66 feet, or 22 yarts, or 1-80th of a mille; and ten of these squares form the acre, whicis thus contains 4840 square yards. This in divided into roods, of which there are four in the acre; and Into poles or perches, of which there are 40 in each rood, or 160 in the acre. The rood will thue meaaure 1210 square yards, and the pole $30 t$ square yards, according to the foliowing table,
which contains also other denominations useful to be compared with the acre:


The following table containa tho princlpal forelgn land-meanures, with their equivalents in acres:

|  | Aer |  |  |
| :---: | :---: | :---: | :---: |
| France, | Are.................... 0 | 0 | 8.9588 |
|  | 11eetaro................. 8 | 1 | 85.88 |
|  | Arpent, great ............ 1 | 1 | 1.98 |
| $\cdots$ | Arpent small............ 0 | 8 | \$.18 |
| Amsterdam, | Morgen .................. 9 |  | 1.68 |
| Berlin, | Morgen, large ........... 1 | 1 | 24:32 |
| ${ }_{4}{ }^{\text {a }}$ | Mergen, small .......... 0 | 2 | 20.95 |
| Dantele, | Morgen . . . . . . . . . . . . . 1 | 1 | $19 \cdot 99$ |
| Hamburs, | Margen ................. 8 | 1 | $21 \cdot 64$ |
|  | Scheffel of corn | 0 |  |
| Nuremberg, | Morgen, corn tand Mergen, meadow $\qquad$ 1 | 8 | 26.00 4.00 |
| Hanover, | Mergen .. | 2 | $22 \cdot 47$ |
| Irussia, | Mergen ................., 0 | 2 | 20.92 |
| Rhineland, | Morgen .................. 2 | 0 | 16.60 |
| Zurich, | Acre, common | 3 | $8 \cdot 11$ |
|  | Acre, wood | 8 | 22.85 |
| ${ }^{*}$ | Acre, mea | 2 | 38.88 |
| Saxony, | Acre ................... 1 | 1 | 17 \% 8 |
| Spain, | Fanegada, for corn land. | 0 | 81.81 |
|  | Arranzada, for vineyarda | 3 | 82.58 |
| Ruasith, | Dessetina ............... 8 | 8 | 81.95 |
| 8weden, | Tuneland ............... 1 | 0 | 8504 |
| Switzeriand, | Faux ................... 1 | 8 | 10.46 |
| Tuscany, | Quadrato . . . . . . . . . . . . . ${ }^{\text {a }}$ | 8 | 14.07 |
| Vienna, | Joch. | 1 | 27.78 |
| Napleas | Meggia |  | 12.16 |
| Rome, | l'ezan ................... 0 | 2 | $24 \cdot 40$ |
| Portugal, | Gelra | 1 | $80 \cdot 41$ |

In the Cinited Btates of America the imperial acre is used. The Roman jugerums was somewhat larger than half an imperial acre, centalning 2 roods, 10 perchies, 189 aquare feet. Two jugera formed a heredium, so called from ita betug the quaniny of land originally assigned to each Roman citizen $;$ a hindred heredia formed a centuria, and four centurie a maltus. The Greek plethron consinted of 4 arura, and was equal to 87 perchea, 163 square feet.
Aotion, in Commerce, is a term used abroad for a certaln part or share of a pubiic company's capital stock. Thue, If a compeny has 400,000 livres capital stock, this may be divided into 400 actions, each consisting of 1000 livrea.

Aotuary, a person skilled in tho doctrine of life annuities and insurances, and who is competent to give opinious upon all cases involving aunuitice, reversions, etc. An aetuary sometimes combines with the professional dutles of a scientific adviaer those of a secretary, in all matters involving calculation, upon which it may be supposed that the members of the board are not generally conversant.

Adarcon, or Taric, $\delta \rho a \chi \mu \bar{\eta}$, the most ancient gold coin of which any specimens havo been preserved to the present day. It was tho earllest coined money known among the Jews; the improsaion on the coln is a crowned archer, in a garb such as is seen in the sculptures of l'ersepolis. The specimena weighed by Ir. Bernard were tifienn grains heavier than tho English guinea; their intrinsic value nay therefore bo reckoned at twenty-five shillinge oterliug.-ECKHEt, Doctrina Nummorum Viterum; liansard, De Mensuris et Ponderibus.

Adarme, in Ccmmerce, a amall weight in Spain, which is aleo used at Buenot Ayres, and in all Spanish America. It is tho 16 th part of an ounee, which at Paris ls called the demi-gros. But the Spanlsh ounco

ADE


#### Abstract

ADA 9 is seven per cent. lighter than that of Parie. Stephens renders it In English by a drachm.

Adatais, Adatis, or Adatys, in Commerce, a muslin or cotton cloth, very fine and clear, of which the piece is ten Freach elis long, and three quarters


 broad. It comes from the East Indies, and the finest is made in Bengal.Adelaide, a city of South Ausiralia, capital of the British colony of that name, about 7 miles S.S.E. from its port, an inlet on the east side of St. Vincent's Gulf, let. $84^{\circ} 57^{\prime}$ S., leng. $188^{\circ} 38^{\prime}$ E." Though founded so recently as 1834 , and not well situated, this is a well. built, prosperous town. Some of the heuses, and 1 . at part of the princlpal buildings, are of briek and stone. Popalation in 1846, 7143 ; and in 1858 probably about as great.

The river Torrens, on which Adciaide is bullt, loses itself in a marsh before reaching the sea, so that the city is about 7 miles distant from its port, an inlet of St. Vincent's Gulf. This inland situation is a serious drawback en the trade of the city; and it would seem that a mistake was committed in net building it on, or much nearer to, the coast. This, we are aware, has been denied, though, as we think, upon very unsatisfactory grounds. There appears, indeed, to be but little doubt that in no very lengthened period mest part of the commerce of the town will be transferred to the port, and that it viili be preferred as a residence by ali commercial people. In the rainy seasen the Torrens is much fleoded, theugh it seldom overflows its banks, which are ateep and lofty; but in the dry season it hss no curceat, ite bed being then formed inte a series of pools or tanks.

Port Adelaide, 7 miles N.N. W. from the city, in a low and marshy situation, consista of a number of dwelling houses and warehousea, some of which are of stone, with wharves, partiy belonging to government, aud partly to the South Auetralisn Company. Population in 1848 ahout 1800 . The inlet of the sea, forming the harbor, oppesite the entrialce to which a lightvessel is meored, stretches from the Gulf, from which it la separated by a narrow neck of land, for sbout 8 miles southward, surrounding Torrens Island. At its month is a sandy bar, with 8 feet water at ebb and 16 feet at flood tidn; this depth being censiderably increased during south and southwest winds. Ships of 409 or 500 tons may, consequent's, pass the bar in asfety; and once over, there is depth eneugh for the lsrgest ships to the head of the harbor.-Dutron, South Australia, p. 112. Large vessels are, however, obliged to lio in mid-channel ; but projects were recently on foot for improving the harbor, either by carrying out plers into the deep weter, or by establishing a new port about 2 miles nearer to the herher's meuth, where the water inshore is deeper, and the situation affords grestor facilitics for the accommodation of shipplng. Port Adelaide has a custom-heuse; but vessela are exempted from ail port charges in this and in the other perts of tho colony. A railway, planned to unite the clty witis the port, will most likely bo completed at an early date.

The trade of Adelaide ls already extensive, and will continue to incrense with the increase of the pepulation and trade of the celeny, of which it ls the grand emporium. The mines of conper, lead, cte., discevered In its vicinity are of the richest description, and the ores furnishod by them form at present the principal article of export. In 1852, the imports of cepper into England from Seuth Austraila, prinelpslly frem the Burra-13urra mine, ameunted to 8582 tons, worth abeve $£ 600,000$ ! The discovery of the gold fields, by attrsetIng many of the laborers from the cepper mines, gave a serious eheck to the progress of the latter, tho 1 gh it is probable that it will be but temporary. Wool is also en important article; and the Imports of it into Engisnd, which in 1852 amounted to $3,022,318$ pounds, have increased wlth the aanse extraordinary rapldity

84 those from the other parts of Australia. Among the items of import from this colony in 1852 were 1858 pounds quicksilver, and 2267 cwt. bark. We subjoin the foliowing statements with respect to the trade, shlpping, etc., of Port Adelaide in the following years :

| Yease. | Total imports. |  | Total Exports. |
| :---: | :---: | :---: | :---: |
| 1844 | 4118,915 611 |  | 485,272 146 |
| 1845 | 184,819 18 | 6 | 148,460 4 7 |
| 1846 | 829,090 12 | 8 | 818,887166 |
| 1847 | 410,825 |  | 850,348 19, 8 |
| 1848 | + 884,888 19 | 0 | 604,468 10 |
| 1849 | 699,543 10 | 6 | 09,107 06 |
| Yeara. | Exports the Prodiceof South Australia. $\quad$Imports ro-as. <br> ported |  | Importe eoneumed th the Colony. |
| 1844 | £82,268 188 | 212,921 1310 | 4104,998131 |
| 1545 | 181,80060 | 10,058 187 | . 168,160 1910 |
| 1846 | 287,069 180 | 26,778 60 | - 808,82179 |
| 1847 | , 275,115 120 | $75,188 \quad 08$ | 835,602 9 |
| 1848 1549 | $\begin{array}{r}465,878100 \\ -874155 \\ \hline\end{array}$ | - | 1) |

It weuld be to no purpose to give any later detalls in regard to the trade of this colony. The discevery of the gold fields in Victoria and New Seath Wesles have had nearly the aame influence here as in Van Diemen's Land (sea Gold). They occasioned an excesslve emigratlon, and gave a suddeu and severe shock to all sorts of indastry. And though, no doubt, the colony will in the end recover from the contingency, and will mest probably be impreved by the circumstances in which it originated, some considerable time will have previously to eiapse.

Aden, a sea-port town of Southern Arabia, in the pessession of the East Indis Company, on the Indian Ocean, 118 miles east from the Straits of Babelmandel, lat. $12^{\circ} 46^{\prime} 15^{\prime \prime}$ N., iong. $45^{\circ} 10^{\prime} 20^{\prime \prime} \mathrm{E}$. It atands on the east side of a promontory, projecting south into the ecean, calied the Peninaula of Aden. This peninsula, which terminates in a lofty meuntain, bearing a striking resemblance to the rock of Gibraltar, is conuected with the msin iend by a low isthmus about 400 yarda in breadth. On the north and west the town la overhung by stecp and craggy rocks, on which are the remains of old fortifications. The east or outward harber of Aden, formerly (and apparently at a recent poriod) large and commodiens, is now partly filled up with sand. But the harbor on the west side of the town, between the promontory on which it stands and snother paraliel thereto, is a magnificent basin, capable of accommodating the largest. fleets. It has a contracted entrance, which might easily be fortified, so as to make it inaccessible to a hostile squadron. From this harbor the approach to the town is over a low ridge of the monntain, the road being in parts cut through the rock.
The site of thls town, the best adapted for trade on the whole cosst of Arabia, and the key of the Red Sea, hss always msde it a point of primary importance in the direct trade between Europe and the East. It became at a very early period a celebrated emporium (the A rabiac emporium of Ptolemy). After the Remaus obtained possession of Egypt, and Hippalus (A.B. 50) had discovered the direct route te India, they ciestroyed Aden, lest it shouid fall into hostlie hands, and interfere with their monepely of this lucrative traffic.--Vincent's Conmerce, etc., of the Incian Ocean, It. 327, 528. It is not known when or by whom It was rehuilt; but from the 11th to thio 16 th century it was tho great, er rather the excluaive entrepót of Eastern commerce. The discevery of the passage by the Cape of Good Hepe was the first great blow to ita impertance. Simuitancously with the appesrance of the Portuguese in Indis, the Turks, under Solyman tise Magnificent, took pessesslon of various Arabic ports, Aden among the number. They erectel the fertlicetions, the ruins of which excite the admiration ef every traveler, and which repelled the attacks of the fameus Portuguese general, Albuquerque. From this date, however, Aden
rupldy declined; nor did the expalsion of the Turke, which took place about the middle of last century, retard Its downfall. Ita ruin was more complete than could have been anticipated; for ite convenient harbors and plontiful supply of water make 1 it , apart from other considerations, a most deeirable port.

When first occupied by the British, it had not more than 100 houses, with a parcel of wretched huts, and from 3000 to 4000 inhabitants. It had, indeed, the ruina of several cisterne and reservoiss cut in the solid rock, and of aqueducts for conveying water from the mount ains of the interior, which fully testified its former greatness. But within the last half dozen years a vast change has taken place, and the anclent proap -ity of Adea bids fair to be again restored. Hoteis fo: the accommodation of the passengers by the steamers have been erected; and the population of the vicinity, attracted by the security afforded by tho English fiag, have flocked to the place, which has now (1853) from 25,000 to 30,000 inhabitanta! Some defensive works have already been constructed, and others projected, which, if completed, will make it (which it should be) the Gibraltar of the Red Sea. While its commanding position, excellent port, and abundant anpply of water, make Aden an important station in the route from Indis to Eurepe by the Bed Sea, it is no less favorably situated for becoming an entropót for the contiguou: countries of Arabia and Africa., It owed ito former consequence mainly to tit natural advantages, and these it still retains. And It can hardly fail again to become an important emporium, and to be of the greatest utility to the surrounding continents. The climate, though hot, ls not unhealthy. The abundant supply of water, for which Aden is remarkable among Arabio towns, is drawn from the ravines and gulliee of the surf vunding mountains, and from the land apriags, which are abundant on the se -shore.-(See Gicograph ical Dictionary, art. Ades, ar.- other authorities there quoted.)
Adjuntment, in Commercial Navigation, the settlement of a loss incurred by the insured. In the case of a total loss, if the policy be an open one, the insurer is obliged to pay the goods according to their prime cost; that ia, the invoice price, and all duties and expenses incurred till they are pat on board, includiag the premium of insurance. Whether they might have arrived at a good or a bad market, is held by the law of England to be immaterial. The insurer is supposed to have lusured a constant and not a variable sum; and In the event of a lose oceurring, the insured is merely to be put into the same situation in which he stood before the transaction began. If the policy be a valued one, the practice is to adopt the valuation fixed in it in case of a total lose, unlese the insurers can show that the insured had a colorable interest only, or that the goorls were greatly over-valuod. In the case of all partial losses, the value of the goods must be proved.
"The nature of the contract between the insured and insurer is," says Mr. Justice Park, "that the goods shall come safe to the port of delivery; or, if they do not, that the insurer will indomaify tho owner to the amount of the value of the goods stated in the policy. Wherever, then, the property lnsured is lessenod in value by damage received at sea, justice ls doue by putting the merchant in tho same condition (relation being had to the prime cost or value in the policy) ir which he would liave been had the goods arrived f.ee frem damage; that is, by paying him, such proportlon of the prime cost or value in the policy as corresponds with the proportion of the diminution in value occasioned by the damage. The question then ie, how is the proportioll of the damage to be ascertained? It certainly can not be by any measure taken from the prime cost; but it may bo done in this way 1 Where any thing, as a hogshead of sugar, happena to be spoiled, if you cas fix whether it be a third, a fourth, or a fifth worse, then the damege is ascertained to a mathematical certain-
ty. How is thia to be found out? Not by any prica at the port of shipment, but it must be at the port of delivery, when the voyage is completed and the whole damage known. Whether the price at the latter be high or low, it is the same thing; for in either case it equally shows whether the damaged goods are a third, a fourth, or a fifth worse than if they had come sound; consequently, whether the injury sustained be a third, fourth, or fifth of the value of the thing. And as the insurer pays the whole prime cost if the thing be wholly lost, so if it be only a third, fourth, or fifth worse, he pays a third, fourth, or fifth, not of the value for which it is sold, but of the value stated in the policy. And when no valuation is stated in the policy, the invoice of the cost, with the addition of all charge, and the premium of insurance, shall be tho foundation upon which tha loss dhall be compated."
Admeasurement. Sea Toxnage,
Adminintrator, in English Latp, he to whom the ordinary conmits the adminitration of tho goods of a person deceased, in default of an executor. The origin of administrntors ie derived from the civil law. Their establishment in England is owing to a statute made in the 31st year of Edward III. Till then no office of this kind was known besides that of executor; in default of whom, the ordinary had the disposal of goods of persons intestate, atc.
Admiral, a great officer or magistrate, who has the government of a navy, and the hesring of all maritlme canses. There can be little doubt of the Asiatio origin of the name given to this officer, which does not appear to have been known in the languagee of Europe before the time of the holy wara. Amir, in Ara' ic, ia a chief or commender of foross; it is the same word as the ameer of the peninsula of India (as ameer al omrah, the chief of lords or princes), and the emir of the Turks or Saracens, who had, and still have, their emir or amcer'l dureen, commander of tho sea, amir'l asker dureea, commander of the naval armament. The incorporation of the article with the noun appears, we believo, for the first time in the Annals of Eatychiue, patriarch of Alexandria, in the tenth century, whe calls the Calif Omar Amirol munumim, sea, Imperotor fulelium. Spelmen says, "In regno Saracenorum quatuor pretores atatuit, qui admiralli vocabantur." The $d$ is evidently superfluous, and is omitted by the French, who say Amiral. The Spanish write Alnirante ; the Portaguese the same. Milton would seem to have been aware of the origin of the word, when he speakg of "the mast of some great Ammiral." It is obvic"s, then, that the supposed derivations of a $\lambda \mu v \rho o s$ from the Greek, aumer from the French, and aen mereal from the Saxon, are fanciful and unanthorized etymologiea.
Admiral is also an appellation given to tho most conaiderable ahip of a fleet of merchantmen, or of the veesele employed in the cod fishery of Newfoundland. This last has the privilege of choosing what place he pleases on the ahore to dry his fish; pives pioper orders, and appoints the fishing-places to those wbo come after him; and as long as the fishing season continues, he carries a flag on his main-mast.
Admiralty, Eigh Court of. Thia is a court of lew, in which the authority of the lord high admiral is exercised in his judicial capacity. Very little has been luft on record of the ancient prerogative of the admirals of England. For some time after the first institution of the offleo, they juiged all matters relating to merchanta and marinors, which happened on the main aea, in a summary way, according to the laws of Oleron (so called because pronuigated by Richard I. at that place). These laws, which were little more than a tranecript of the Ihodian laws, became the universally receivod cuatoms of the western part of the world. "All tise sea-faring nationa,' saya Sir Leoline Jenkins, "soon after their premulgation, received and entertained theso lawa from the English, by way of deference to the sovereignty of our kings in the British
ocean, and to the judgment of our sountrymen in sea affaira."
The vicc-admiralty courts. - the British colonies are of two descriptions. The one has power to inquire into the casuses of detention of enemies or nentral vessels, to try and condemn, the same for the benefit of the captors, as well as to take cogniasnce of all matters relating to the office of the lord high admiral. The other has power only to institute inquiries into misdemeanora committed in merchant vessels, and to determIne petty suits, etc., and to guard the privileges of the admiral. The former are usually known by the name of Prize Courts, the latter by that of Instance Courts.

The following are the colonies and forelgn possesIons of Great Britain in whieh Prize Courts have been eatabliehed in the course of the last war: Gibraitar, Malta, Newfoundland, Halifex, Bermuds, Bahama Islands, Barbadoes, Antigua, Tortola, Jamaica, Cape of Good Ilope, Ceylon, Bombay, Madras, and Calcutta. The following British colonies had Instance Courts only: Dominica, Grenada, St. Vincent, St. Christopher, Trinidad, St. Cervix, Martinique, Berhice, Demerara, and Essequibo; in addition to which is a court estab lished at Sierra Leone for the trial and condemnation of captured slavers only; and siace that time, Gibral tar, Maita, St. Helena, Berbice, Domerara, and Essequibo, Sierra Leone (this court has jurisdiction only over ships concerned in the slave-trade), Newfound land, Hallfax, Nova Scotia, Prince Edward's Island, Lower Canada, Barbadoes, Tobago, and St. Lucia, Antigua, Montserrat, and Barbadoes, Tortola, Jamaica, Bahamas, Falkland Islands, Cepe of Good Hope, Gambia, Goid Coast, Ceylon, Bombay, Calcutta, Madras, New South Wales, Van Diemen's Land, Western Australis, South Australia, New Zealand, Vancouver's Island, Hong Kong, Lahuan.-E. B.
"The ordinary admiralty and maritime jurisdiction, exclusive of prize cases, embraces all civil and criminal cases of a maritime nature; and though there does not aeem to be any difficulty or doubt as to the proper jurisdiction of the prize courts, there is a great deal of unsettied discussion respecting the civil and criminal jurisdiction of the district court as an inatance court, and possessing, under the coostitution and judiciary act of 1789 , admiralty sad maritime jurisdiction.
"The act of Cengress gives to the district courts, exclusive of the State courts, and concurrently with the circuit courts, cognizance of all crimes and offenses cognizable under the authority of the United States, and committed within their districts, or upon the high seas, where oniy, a moderate corporal punishment, or fine, or imprisonnent, ia to be inflicted. This is the ground of the criminal jurisdiction of the district courts; and it is given to them as district courts : and as it it:cludee the minor crimes and offenses committed on th.s high seas, and cegnizable in the courts of admiralty under the English law, the district courts may be conaldered as exercising the criminal jurisdiction of a court of ad miralty in those nases. The Constitution of the United States declares that the judicial power of the Union shall extend to all cases of admiralty and maritime jurisdiction; and it has boen supposed that the federal courts night, without any statute, and under the genoral deiegsation of admiralty powers, have exercised criminal jurisdiction over maritime crimes and offenses. But the courts of the United States have been reluctant to assume the exarcise of any criminal jurisdiction which was not speeially conferred by an act of Con-gress."-Kent's Comm. Lect. XVII.

Adulteration, the act of debasing, by mixing with any pure and genuine commodity a spurious article, or an inferior ono of tho same kind, for pecuniary profit but it may also occur accidentaliy, as, for instance, by the action of aoids and oils on vessels of copper or lead In cullnary and other operations. But fow articles of cominerce, comparatively, are exempt from fraudulent deterioration; and althongh tho adulteration of excis-
able commodities and of food are offenses punishable by iaw, the risk too frequently is outweighed by the temptation of gain. In Paris, malpractices connected with. the adulteration of food are investigated by the Consell de Salubrite, and punished ; but Eaglish laveinme directed chlefly to the protection of auch the revenue. Adulterations of foo been made punishable by the l In Great Britain numerous acte the pravention of adulteratione ished by a fine, determined by fore a magistrate. In Turkey, ears nailed to his door.! By 5 § $1,3,8$, manufacturers of tobac to a penalty of $£ 200$ for having in subatance or líquid to be need, or cappion eforin as a subatitute for tobacco or snuff, or to minitionite or give them weight. .The preparer, vender, or disposer of such articles, ie liable to the aame. For actual adulteration the penalty is $\mathbf{5 3 0 0}$, and for having auch adultersted gooda in poasession, $\mathbf{£ 2 0 0}$. After a similtar manner, beer is protected by still heavier penalties; which laws extend to chemists, druggists, and beer retailers. See 56th Geo. III. c. 58, 1st Will. IV. c. 51, 64, 4th and 5th Will.IV. c. 85. Tea, coffee, cocoa, pepper, etc., are protected by law; but the adulterations of these, as of most other articles of food, are almost ondiess. The mixture of chiccory with coffee, is, however, authorized under certaln conditions. A treasury minute of 27 th July, 1852, prohibiting the sale of "chiccory or other vegetable aubstances mixed with coffee," was rescinded by in subsequent minate of 25th February, 1853, which permits dealers in coffee " to keep and sell chiccory prepared and mixed with coffee, provided the packages in which such mixture is delivered to purchasers have printed distinctly thereon, according to directions which will be given by the Board of Inland Revenuo, the whole of the following words, 'Mixture of Coffee and Chiccory."

The following results were obtained by a recent so ries of analyses of some articles of common domestic coneumption, purchased from different dealers, chiefly In London. In the several kinds of tes were found (partiy, perhaps, accidentally present) exhausted tealeaves, leaves of the beech, elm, horse-cheatnut, plane, bastard-plane, fancy-oak, willow, poplar, hawthorn, and sloe; catechu, rose-pink, black-lead, sosp-stone, sulphate of Iron, logwood, indigo, starch, rice husks, excrement of silkworms, Prussian blue, sulphate of lime, verdegris, etc. Of 18 eamples of chiccory procured from manufactories, 5 were adulterated with rossted wheat-flour; and of 16 samples of chiccory, purchased from different grocers, several were colored with Venctian red, or reddle. Of 68 samples of cocos and chocolate, 89 contained colored earthy substances; in some amples of cocoa, atigar and starch constituted more than half the article. Of 24 samples of bread, all contained more or less alum; and it may be observed that the quartern loaf, as delivered at houses by 18 different bakers, showed deflelency in weight, the max imum beigg between 8 and 4 ounces. Out of 30 sam ples of oatmeal, 16 were adulterated with bariey-meal; In one instance, apparently, much more than one half. Of 86 samples of arrow-root, 18 were mixed with potatcflour, or petato-starch, sago-powder, or taploca-starch, etc.; snd 5 were almcst entirely potato-starch. Of 26 esmples of milk, 11 were mixod with water, in proportiona varying from 10 to 00 per cent. Of 28 samples purchased as isinglass, 10 consisted entirely of gelatine. It is well known that quack medicinea frequently contaln ingredients they are guaranteed not to contain; henee the evils resulting from their indiscriminate nse. Nor are woolen, linen, and silk goode exempt from inferior admixture; various subatances are employed to give body to silk fabrics; as in China a gluey preparathon from the F'ucus Tenas is usod to give thom weight and gloss. The above facte will give aome idea of the
oxtent to which adulteration is practiced in the most enmmon articles of consumption. We may add that all legislative enaetments on the auhject will prove ineffectual nnless the pablic exercise their own diserimination, and dealere who are discovered to hav, im. posed spurious commodities are made to foel that honesty is the beat policy.
Adulteration of Wines.-The varions substances used In the mannfacture to flaver and to color wines (such as almonds, raisins, orris root, burned sugar, brandy, logwood, whortleberries, elderberries, etc.) must be distinguiahed trom others which aro directly deieterions, euch as alum, used to impart astringency, and litharge and ceruse, to dnleify "pricked" or sour wines. The foilowing is an excellent test for any of the preparations of lead: mix an aqueous solution of tartaric acid with liquid sulphureted hydrogen; when added to the snspected wine, should any copper or iron be present, they are kept in solution by the tartaric acid, while the lead is thrown down by the sulphureted hydrogen as a dark precipitate. Red wine should be decolorized before using the tees, which is conveniently done by mixing the wine with an equal weight of milk, and filtering it. When the tarirate of lead is found in the bottom of the cask, it may easily be detected by calcining a portion of the insolubie matter, and redueing it by the blowpipe on chaicoai. A portion of the sediment may be digested with vinegar, which would give, by evaporation, acetate of lead; and it may be tried by aulphureted hydrogen. Alum may be precipitated from white wine by carbonate of soda gradualiy added until no more falls down; filter; on the filter w : 1 i be found alunine. The sulphate of potassa remains in the eolution; but the quantity present may be found by precipitating the sulphuric acid by muriate of baryts. Iron is sometimes accidentally present in wines; but it is not dangerous, and may be detected by nutgalis. Copper sometimes occurs from the use of copper stop-cocks: it is dat .ed by the addition of ammonia ; and, if much, by a plate of polisbed iron teft some time in the wino. Arsenic bas occasionaliy occurred from the suiphuring of the cask. After decolorstion by animal charcosi, pass a atream of sulphnreted hydrogen through the wine, and a yellow precipitate wiil fail, which may be reduced to the metallic state by charcoal and soda. The same tests are applicabie to all fermented liquors. -E. B. See Henderson'g Ancient and Modern Wines.

Adulterntion of Coin.-This has been accounted among all nations, iuth in ancient and modern times, a very grave offense, and punisbable by death in several ways. It was formeriy considered as treason in Great Britain, and rigorously punished with death; bat in the amelioration of the criminal code by Lord John Russeli's act (Will. IV. c. 34, Viet. 1), the punlisbment has been commuted to transportation for sny period not less than seven years, or by imprisonment for not more than four years, at the discretion of the jodge. The specific gravity of pure gold $=10 \cdot 30$; standard geld $=18.88$; pure siiver $=10.31$; standard ailver $=10 \cdot 34$. The proiortion of ailoy in the gold and silver coin of Britain is one-twelfth copper, which gives durability. A genuine coin, uniess it be cracked, is quite sonorous; yet even thlis quality is net an invariable test for counterfeit money. Much false coin is in circuiation, especially in the metropolis, a atatement confirmed by its very frequent reception as change. Beaidea the frauds by clipplng, fling, easing, electroplating, etc., the debasement of coin has been effected by boring the edge of a piece, and plugging the cavity with inferior metal: in hia manner has piatinum been inserted in gold. Another method has been practiced by sawing a gold piece latersliy, and skilifuily flling the centre with platinum; a freud which cutting aione could detect.
To ascertain the adulteration of silver and gold coin by excess of copper, the foliowing processes wili suffice : dissolve a given woight of the silver in nitric acid,
and precipitate by a solution of common salt; dry; and weigh tbe precipitate, which is the chloride of sit ver, and contains 76.5 per cent. of the metal ; or it may be reduced on ctarcoal before the biowpipe, when a Lutton of pure silver will be obtained, by weighing which, the proportions of silver ard of copper will be known. Sliver coin is very frrquently imitated by some white alloy, gencraliy of tiu, antimony; and lead; it may be knewn by its piiancy and dull appearance, or it may be tested for ailver, as described above. German silver, a beantiful imitation of siiver by nickel and copper, may be detected by ite deficient specific gravity, and its emitting, when briskly rubbed, a faint, coppery odor; or by disaolving it in nitric acid, and adding a soiution of common salt, when it wili give no precipitate. The amount of alicy in gold may readily be ascertained, for ordinary parposes, by the atreak on touchstone, and comparing that with the atreak of the gold needlea made for the purpose; or more nicely by this process : filo off a given weight of the goid, and dissolve in aqua regin, then precipitate the gold by immersing in the solution a plate of siiver or copper; or more quickiy, by weak galvanic action; or the geld may be thrown down by addition of an alkaline aolution, or by adding the muriate of tin, which throwa down the purple powder of Cassius, from which the quantity of goid may be easity ascertained, by oxidating with the blowpipe a given weight of the powder, and so obtaining a button of pure geld.

The purity of copper is ascertained by dissolving a given weight in any of the mineral acids, and obtaining copper of cementation by immersing a piate of iron or zine in the solution; or by decomposing the salt of copper by chareoal, aikeli, and heat, in the usual way. (Ses Chemstry.) It may be noticed as a curions fact that, in England, the copper coinage of Wiiiiam IV. was found to centain gold, from which discovery these coins apeedily became scarce.-E. B.

Ad Valorem, a term ciniefly used in speaking of the duties or custems paid per cent. on goods. The duties on some articles are paid by the number, weight, measnre, tale, etc., and others paid ad valorem, that is, according to their value.

Advance implies money paid before goods are delivered, or upon consignment. It is usual with merchants to advance from a half to two-thirda of the value of goods consigned to them, on being required, on their recelving invoice, bili of lading, orders to insure them from sea risk, etc.
Adventurers, Merchant, a celebrated and enterprising company of merchants, was originally formed for the diacovery of territories, extension of commerce, and promotion of trade, by Joln, duke of Brabant, in 1296. This ancient company was afterward tranolsted into Engiand in the reign of Edward IIL., and Queen Eiizabeth formed it into an Engli 4 corporation in 1564. -Asnerbon.
Advertisement, in its general sense, is any information as to any fact or circumitance that has occurred, or is expected to oceur; but, in a commereial sense, it is understood to relate only to intimations with respect to the sale of articles, the formation and dissoiution of partnerships, bankrupteies, meetings of ereditors, etc. Advertisements in newspapers in England, as now rubilisied, were not generai until the beginning of the 18th eentury. A penalty of $\mathbf{5} 50$ was inflicted on persons advertising a reward with "Ne questions to be asked" for the return of things stoien, and on the printer, 25 Geo. II. 1754.-Statutea. The advertisement duty was formeriy charged according to the number of lines; it was afterward fixed in England at 8s. $6 d$, and in Ireland at $2 s .6 d$, each advertisement. The duty was further reduced, in England to 1s. 6d., and in Ireland to 1 s . each, by statute 8 and 4 Wiii. IV. 1883. The duty was aitogether aboliahed in the United Kingdom, hy 16 and 17 Vict. e. 63, Alg. 4, 1853.-Hards,
Advioe ls usualiy given by one merchant or bank-
er to another by letter, Informing him of the bills or drafts drawn on him, with all particulars of dste, or sight, the sum, to whom made payable, etc. Where bilis appear for acceptance or payment, they are frequently refused to be houored for want of advice. It is also necessary to give advice, as it prevents forgeries: if a merchant accept or pay a bill for the houor of any other person, he is hound to advise him thereof, and this should always be done ander an act of honor by a notary public.

Affreightment. "A charter-party is a contract of affreightment in writing, by which the owner of a ship lets the whole, or a part of ber, to a merchant, for the conveyance of goods on a particular voyage, in consideration of the payment of freight. All contracts under seal were aaciently called charters, and they used to be divided lato two parts, and each party interested took one, and this was the meaning of the charta partita. It was a deed or writing divlded, consisting of two parts, like an indenture at common law. Lord Mansield observed, that the charter-party was an old informal instrument, and, by the iatroduction of different clauses at difforent times, it was inaccurate and sometimes contradictory. But this defect has been supplied by giving it, as mercantile contiacts uaually receive, a libersl construction, in furtharance of the real inteation and the usage of trade.
"This mercantile lease of a ship describes the parties, the ahip and the voyage, and contains, on the part of the owner, a stipulation as to sea-worthiness, and as to the promptitude with which the vessel shall receive the cargo and perform the voyage; and the exception of such perils of the sea for which the master and shipowners do not mean to be responsible. On the part of the freighter, it contains a stipulation to load and unload within a given tlme, with an allowance of so many lay, or runniug days, for loading and unlosding the cargo, and the rate and times of payment of the freight, and rate of demurrage boyond the allotted daya.
"When the goods of several merchante, unconnected with each other, are laden on board, without any particular contract of affreightment with any individual for the entire ship, the vessel is called a general shlp, because open to all nierchants; but where one or more merchents contract for the ship exclusively, it is said to be a chartered ship. The slap may le let In whole or in part, and either for such a quantity of goods by weight, or for so mach space in the ship, which is letting the ship by the ton. She may also be hired for 2 gross sum so freight for the voyage, or for a partlcular sum by the moath, or any other determiaate period, or for a certain sum for every ton, cask, or bale of goods put on board; and when the ship io let by the month, the time does not begin to run until the ship breaks ground, unless it be otherwise agreed. The merchant who hires 2 ship, may either lade it with his own goods, or wholly underlet it upon his owa terans; and if no certain freight be atipulated, the owner will bo entitled to recover, upon a quantum meruit, as much freight as is usual under the like circumstances, at the time and place of shipment. It is the duty of the ownor of the ship, not only to see that she ls duly equipped, and in a suitable condition to perform the voyage, but ho is bound to keep her in that condition throughout the voyage, unleas he be prevented by perils of the sca. If, In consequence of a failure in the due equipment of the veasel, the charterer does not use her, he is not bound to psy any freight; but if he actualiy employs her, he must pay the freight, though he has his remedy on the charter-party for danages sustained, by reason of the deficiency of the vessel i- her equipment. The freighter is bound, on his part, not to detain the ship beyond the stlpulated or uaual time, to load, or deliver the cargo, or to saii. The extra days beyoad the lay days (being the days allowed to load and uaload the cargo) are called days of demurrage; and that term is likewise appliod to payment for such delay, and it
may become due either by the shlp's detention, for thy purpose of lcading or unloading the cargo, either be": fors, or during, or after the voyage, or waiting for convoy. If the claim for demarrage rest on expreas contract it is strictly enforced, as where the runniag dayn for delivering the cargo under the bill of lading had espired, sven though the consignee was prevented from clearing the vessel of the goode by the default of others.
"The old and the new French codes of commerce require the charter-party to be in writlag, though Valin holds that the contract, if by perol, would be equally valid and blading. In the English law, the hiring of ships without writing is undonbtedy valid; but it would be a very loose and dangerous practice, at least in respect to foreign voyages. In the river and coasting trade, there ia less formality and less necessity for it; and the contract 18, no doubt, frequently without the evldence of deed or writing. If either party be not ready by the time appointed for loading the ship, the other parts, if he be the charterer, may seek another
ip, or, if he be the owner, another cargo. This right wo iges from the necessity of precieion and punctuality In all maritime transactlons. - By a very short delay, the proper season may be lost, or the object of the voyage defeated. And if the ship be loaded only in part, and she be hired exclualvely for the voyage, and to take in a cargo at certain specified rates, the freighter is eatitled to the fill enjoynient of the ship; for he la answerable to the owner for freight, not only for the cargo actually put on board, but what the vessel could have taken had a full cargo been furnished. The master has no right to complete the lading with the goods of other persons without the consent of the charlerer; and if he grants that permission, the master must accuunt to him for the freight. He has no right to complain if the clarterer refuses to grant the permiseion, or to complete the lading, provided he has cargo enough to secure his freight. This was the regulation of the French ordiLance, and it has been adopted into the new code. By the contract, the owner is bound to see that the ship be sea-worthy, which means that she must be tlght, atanch, and atrong, well furnished, manned, victuaied, and in all respects equipped in the usual manner for the merchant service in such a trade.
"The shlp muat be fit and competent for the sort of cargo and for the particular service for which she is engaged. If there ahould be a latent defoct in a vessel, unknown to the owner, and undiscoverable apon examination, yet the better opinion is that the owner must answer for the damage occasioned by the defect. It is an implied warranty in the contract, that the ship be sufficient for the voyage, and the owner, like a common carrier, is an Iasurer against every thlag hut the excepted perils. To this head of sca-worthinese may be referred the owner's obligation to see that the ship is furnished with all the requisite papers according to the laws of the country to which she belongs, and according to treaties and the laws of nations. Such documents are necessary to aecure the vessel from disturbance at home, on the high seas, and in foreion porta. If the chartor-party contains any stipulatio. on the part of tive owner to kcep the ship in good order doring the voyago, the entire expeuse of the repairs requisite in the course of the voyage are then to be boroe by the owner, and are not, in that case, the subject of general average or contribution. But the owner does not insure the cargo sgainst the perils of the sea. He ia answeraile for his own fault ot negligence, or those of his agents, and for defects in the ship or her equipments; and gencrally, as a common carrier he is answerable for all losses other than what arise from the excepted cases of the act of God and public enemies. The respoasibility of the owner, begins, where that of the wharfinger ends, and whea the goods are delivered to some accredited person on board the ship. The cargo must be taken on board with care and akill, and bo properly stowed, and the contract by the lill of lading

Imports that the gooda are to be safely stowed inder a deck $;$ and if they are atowed on deck without the consent of the shipper, or withont the sanction of custom, they are at the risk of the ship-owner or master, and he and the owners of the ressel would not be protected from liablity for their lose by the sxception in the bili of iading of the dangers of the seas. If the ship has been advertised by the agent of the owner for freight as a general ship, and the notice had stated that she was to sall with convoy, this would amount to an engagement to that effect; and If she salls withont corivoy and be lost, the owner becomes answerable to the shipper in damages for the breach of that representativen."Kexr's Comtm., Leet. XLVII.

Africa. The knowiedge of thia great continent which ancient writers have tranomitted to posterity is of very limited extent, owing principally to ito physical construction. The great desert, which in a broad beit atretches quite across the continent, forbade every attempt to pass it until the introduction of the crmel by the Arabs. The want of any inown great niver, except the Nile, that might conduct into the interior, contributed to confine the Greek and Roman colonists to the habitable belt along the northern coast. The Phcenicians are known to have formed establishments on the northern coast of Africa at a very eariy period of history, probably not less than 8000 yeurs ago; and the conquest of Eqypt by Cambyses dates as far back as the year n.c. 525 . We may consider, thercfore, the coasts of Egypt, of the Red Sea, and of the Mediterranean, to have been settled and well known to the ancient Asiatics, who were constantly passing the narrow isthmus which divided their country from Africa, and led them immediately from purched deserts into a fertile vailey, watered by a magnificent river. Bnt whether they were much or little acquainted with the western coast, which bounds the Atlantic, and the eastern coast washed by the Indian Ocean, is a question that has exercised the research and ingenuity of the ablest scholars and geographere, and has not yet been satisfactorily answered.

From the shores of the Mediterranean to about the latitnde of $20^{\circ}$ north, the population of Africa consists largely of tribes not originally native to the soll, bint of Arabs and Tarks, planted by conquest, with a considerable number of Jews, the children of dispersien ; and the recently introduced French. The Berbers of the Atlas region, the Tuarieks and Tibbus of the Sahara, and the Copts of Egypt, may be viewed as the descendants of the primitive stock, while those to whom the general name of Moors is applied are perhaps of mixed descent, native and foreign. From the latitude stated, to the Cape colony, tribes commonly classed together under the title of the Ethiopic or negro family are foand, though many depart very widely from the pecullar physiognomy of the negro, which is mast apparent in the natives of the Guinea const. In the Cape colony, and on its borders, the Hottentots form a distinct variety in the population of Africa, most closely resembling the Mengolian races oi Asia.

The British colony of Sierra Leone extends from Rokelie River in the north, to Kater River in the sonth, and about twenty miles iniand. The population, consisting chiefly of liberated siaves, amounted in 1847 to 41,735. Freetown, the capitai, has 10,580 inhabitants, and is, after St. Louls, the most considerable European town on the western coast of Africa.

The Maiaghetts or Grain Coast extends from Sierra Leone to Cepe Palmas. Malaghetta is a species of pepper yieided by a paranitical plant of this region. It is sometimes styled the Windy or Windward Coast, from the frequency of short but furious tornadoes, thronghout the year. The Republic of Liberla, a settlement of the American Colonization Society, founded in 1822, for the purpose of removing free peopie of color from the Unitrd States, occupies a considerable extent of the coast, and has for its capital Monrovia, a
town named after the president, Mr. Monro. The popnlation amounts to from 10,000 to 18,000 native inbabitants, and 8200 liberated fiegroes from America.
The I vory Coast extends from Cape Paimua to Capo Three Points, and obtained Its name from the quantity of the article auppilied by ita numerous elephants. The Gold Coast atriu'hea from Cane Three Pointa to the River Volta, and has been long frequented for gold dust and other products. The Dutch have several trading ports, of which Elmina, a town of 19,000 inhabitants, is the princlpal and oldest of the European stations, founded by the Portuguese in 1411. The Britiah posecsy Cape Coast Castic, a opacious fortress, and James's Fort, near Aecra. The Danish settlements of Christiansburg and Friedensburg were ceded to the Engliah in 1849. The Sisve Cosst extenda from the River Volta to the Calabar River, and is, as its name implies, the chief scene of the most disgraceful traffis that blots the histery of mankind. Eko, or Lagos, one of the chief towns of the cosst, was destroyed in 1852. The kingdoms of Ashanti, Dahomey, Yoruba; and others, occupy the interior country of the Guinea coast. The coast from the Old Calabar River to the Portuguese posseasions is inhablteci by various tribes.' Duke's Town, on the former river, is a large town of 30,000 to 40,000 inhabitants, with considershie trade in pnim-oil, ivory, and timber. On the Gabnn River, close to the equator, sre a French settlement and American missionary stations. At the equator, Southern or Lower Guines begins, where the only European settlements ars those of the Portuguese. Loango is reckoned from the equator to the Zsire or Congo river. It chief town is Boaily, called Loange by the Europeans. Congo extends south of the Zaire, comprising a very fertile region, with veins of copper and iron. Banza Congo, or St. Salvador, is the capital. Angola comprises the two districts of Angola proper and Benguela. In these regions the Portuguese settlements extend farther inland than in the two preceding districts, namely, about 200 miles. The population of the settiements is sbont 400,000 , comprising only 1880 Europeans. The capitai, St. Paole de Loando, contair. 1600 Europeans and 4000 native inhabitants, and has a fine harbor. St. Felipe de Benguela is situated in a pieturesque but very marshy and most unhealthy spot.
The coast from Benguela to the Cape colony may, in a general arrangement jike this, be included either within West Africs or South Africs. The whole coast is Ilttle visited or known, being of a most barren and desolatc description, and possessing few harbors. From Walfich Bay, Mr. Gaiton recently penetrated nearly 400 miles into the interior toward Lake Ngami, and explored the conntry inhabited by the Ovaherero, or Damaras, and other tribes.
Under Sonth Africa the Cape colony only is generally conprised. It takes its name from the Cape of Good Hope, and extends from thence to the Orange River in the north, and to the Tugeis River in the east. A iarge proportic. 7 of the territory inciuded within these Ilmits, esjecelaily in the north, is cither unoccopied, or, excepting missionary stations, entirely in the hands of the aborigines.
Natal, or Victoria, a district on the east coast, and separated from the Cape colony by Kaffraria, is a recently formed Britioh settlement, containing an area of abont 18,000 square miles. It is highly favored in those respects in which the Cape is most deficient, having abundance of wood and water, with coal and various metallie ores, a fine alluvial soll, end a climato adapted to the cultivation of the products for which the home demand is large and constant-cotton, silk, and indigo. Pietermaritzburg, the capital of the settlement, lies 50 miles from the coast. Port Natal, now D'Urban, seated on s fine iake-like bay, is the only harber.
To Africa belong a considerabie number of islands. The Madeiras, belonging to Portugal, lie off the north-
west cosst of Africa, at a distance of about 860 milea. Madeira, the chiof island, is abont 100 miles in circuit, and has long been famed for ftes picturesque beauty, rich fruite, and fine climate, which rendars it a favorIte resort of invalids. Wine is the staple produce. Funchal, the chief town, with nearly 80,000 inhableants, is a regular atation for the: West India mail stesm-packeta from Southampton, and the Brazilian aailing-packets from Falmonth. The Canaries, belenging to 8 pain, the anpposed Fortunate Ialands of the ancients, are situated about 800 milee month of Madesra. They are 18 in number, all of volcanic origin, Teneriffe being tho largeat. The latter is romarkable for tos peak, which rises as a vast pyramidal mases to the height of 12,172 feet. . The Cape Verd Ialands, aubject to Portngal, are a numerous group about 80 milles from Cape Verd. They obtained th' name from the profusion of sea-weed found by the diacoverery in the neighboring ocean, giving it the appearance of a green meadow. They are also of voleanic origin. Fernando Po, a very mountainous island, is in the Bight of Biafra. Formerly a British settlement, it was abandoned owing to ita unhealthiness, and is now only inhabited by a fow negroes and mulattoea. St. Thomas, immediately under the equator, is a Portuguese settlement ; as also Prince's Ialand, $2^{\circ}$ nerth of the line. Annobom, in $20 . \mathrm{S}$. lat., belongs to the Spaniards. Ascension, a small, arid, volcanic isiet, was made a Britiah pert on the arrival of Napoleon Bonaparte at St. Helena, and since retained as a station, at which ships may teuch for atores. Green Hill, the sunmit of the island, rises to the height of 2840 feet. St. Helena is a huge dark mass of rock, rising abruptly from the ocean to the height of 2692 feet. James' Town is the only town and port, containing 5300 inhabitants. Medagascar, the largest ieland of Africa, and one of the larger tin the worid, is separated from the Mozambique coast oy a channel of that name, about 250 miles wide. . $\therefore$ he area excoeds that of France, comprising 225,00C square milea, and the population is eatimated at $4,000,000$. It has an atmosphere so pestilential, in perticular lecalities, that to breathe it for a short duration is generally, and very quickly, fatal. But other parts are not insalubrioss. The lemurs, an interestiog tribe of animais, are peculiar to Madagascar and the Comoro Archipelago. The inhabitants are diverse races of Negro, Arab, and Malay origin. The Ovaha, a people of the cantral provinces, are now dominant. The prinelpal own, Tananarivu, hes 8000 inhabitants. The Comoro iales, four in number, are in the north part of the Mozambiquo Channel, and inhabited by Arab tribes. Bourbon, 400 milea east of Madagascar, ia a colony of France, producing for export eoffee, sugar, cocos, spices, and timber. Mauritius, ceded to the Britiah by the French in 1814, is 90 miles northeast of Bourbon. The augarcane fa chiefly cultivated. Port Loulg, the capital, besutifuliy oituated, has 26,000 inhabitants. Within the jurisiliction of the Governor of the Mauritins are the isiands of Rodriguez, the Seychelles, and the AmIrante islands. Socotra, a large island, east of Cape Jerdaffun, with an Arab population, has been known from carly times; it is now a Britioh possession. This ialand was long celebrated as producing the finest aloetic drug: a few yeara ago this was denied; but now It is found atill to produce a fino kind of aloe, though much of what passed as Socotrine aloca really came from India.-E. $\mathbf{B}$.

Afrioan Company, a society of merchants trading to Africa. An association in Exeter, which was formed in 1588, gave rise to this company. A charter was granted to a joint stock company in 1618: a third company was created in 1681 ; a fourth corporatior in 1662 ; and ancther formed by lettere patent in 1672, and remodeled in 1605 . The rights vested in the present cempany, 23 Geo. II. 1749.-See Slayze Tande.

Aspate (popularly Cormbisan), Germ. Achat; Du. Achaat; Fr. Agata; It. Agata; Rus; Agat ; Lat. Achates. A genus of temi-pollucid gema, so called from the Greek oxarfs, because originally found on the banks of the river of that name in Italy. It is never wholly opaque like Jasper, nor transparent as quarte-cryatal; it takes a very high polish, and its opaque parts naually present the appearance of dots, eyes, veins, sones, or bands. Its colore are yellowish, reddiah, bluish, millr-white, honey-orange, or ochreyellow, fieah-blood, or brick-red, reddish brown, violet blue, and brownish green. It is found in irregular rounded nodulea, from the size of a pin's head to more than a foot in diameter. The lepidaries distinguish agates according to the color of their ground, the finer eemi-tranaparent kinda heing termed Oriental. The moat beautiful agates fornd in Great Britain are commonly known by the name of Scotch pebbles, and are met with in different parta of Scotland, principally on the mountain of Cairngorm; whence they are sometimea termed Cairngorma. The German agatea are the largest. Some very fine ones have been brought from Siberia and Ceylon. They are feund in great plenty at the eastern extremity of the aettiement of the Cape of Good Hope, and are atill met with in Italy. 7 But the principal mines of agate are situated in the little principality of Rajpepla, in the province of Gujrat, 14 miles distant from the city of Brocch, whero they are cut into beads, crosses, anuff-boxes, etc. They are exported in considerable quantitiea to other parts of India, and to this country; and hence, perhaps, tho jewelers' term "broach."

## Agent. See Facton.

Agto, a term used in Commerce to denote the difference between the real and the nominal value of money. In some atates the coinage is so debased, that the real is greatily rednced below the nominal value. Sometimes this is owing to abrasion, and the wear of circulation. Where this reduction amounts, e.g., to 5 per cent., if 100 severeigns wero offered as payment of a debt in England, while euch sovereigna were current at their nominal value, they would be received as just payment; but if they were offered as payment of the same amount of debt in a foreign atate, they would be recelved only at their intrinsic value of $\mathbf{£ 9 5}$, the additional $\mathbf{5 5}$ constituting the agio. The same principle ia applied to the paper currency of a country, when reduced below the bullion value which it professes to represent. According to the respective demand for gold or paper money for the purposes of comme.ce, it becomes necessary, in order to procure the one or other, as the case may require, to pay a premiam for it, which is called the agio.-E. B.

Agrarian Laaw, Agraria Lex. This was an equal division among the Roman people of all the lands which they acquired by conquest, limiting the acres which each person should enjoy, first proposed by Sp. Cassius, to gain the faver of the citizens, 486 n.c. It was enacted nnder the tribnne Tiberiua Grac chus, 182 b.c. ; but this law at last proved fatal to the freedom of Rome under Julius Cessar.-Lrvy; Vos8108.

Ahead, a sea term, aignifying farther onward than the ahip or at any diatance before her, lying immediately on that point of the compass to which her stem is directed. It is used in opposition to astern, which expresses the situation of any object bahind the ship.

Ahull, in Naval Language the situation of a ship when all her sails are furled on account of the violence of the atorm, and " $\lrcorner \mathrm{cn}$, having lashed her helm on the lee-alde, she liea nearly with her side to the wind and sea, her head boing somewhat inelined to the dircetion of the wind.

Alabama, one of the Sonthern United States, is bounded north hy Tennessee, east by Georgia, south by Floride and the Gulf of Mexico, and west by Missigsippi. It is between $80^{\circ} 10^{\prime}$ and $85^{\circ} \mathrm{N}$. lat., and $85^{\circ}$
and $88^{\circ} 80^{\prime}$ W. long, and between $8^{\circ}$ and $11^{\circ} 80^{\circ}$ W. Jong. from Wachington. It containe 50,722 square miles, or $82,462,080$ acres. Population in 1800 was only 2000 ; in $1810,10,000 ; \ln 1820,127,901 ;$ in 1880, 808,997; in 1840, 690,756 ; and in 1850, 771,671. Whiter, 426,607 ; free colored, 2272 ; alaves 842,892 . It contained in 1850 ffty-two counties. The capital is Montgomery, situated on the left bank of the Alabama River, 838 milea above Mohile by the cuarse of the river. Moblle, the metropolis, is the most popnious and commercial place in the State. The other principal placee are Huntsvilie, Florence, Wetumpla, Tusceloosa, Cahaba, Eufala, etc.

Surface, $\$$ oil, efc.-The surface of this State exhiblte much variety: bordering the Gulf shore, and for some distance interior it is low and level, soil sandy, and the prevalling timber is pine. The central portion exhibita an undulating surface, with a deep, rich, and productive soll, especially along the margins of atreams. Approaching the north, it rises into a hilly region, and in the nertheast corner of the State it becomes mountainous. This is caused by the southeru termination of the Alleghany Ridge, which here, in crossing the State, melts away into a hilly diatrict, and is finally lost in the rolling prairiea and gently undulating plaing. The Tennessee Valley, from where it enters the State, near the northeast corner, until it leaves it at the northwest corner, presents rich and fertile bottom lands, and the landa bordering thereen are the richest agricultural portion of the State. The climate, varying from the south to the north part of the State, ia favorable for the production of its great staples, cotton, rice, sugar, aweet potatoes, and Indian corn, and in the middie and northern part wheat and other cereais. Alshama has great mineral resources; the entire middie region is underiaid with bituminous coal, and deposita of iron ore, and in different localitics throughout the State are lead ore, manganese, limestone, marble, etc. $;$ in the northeast gold mines have been wrought with some success.

There were in this State, in 1850, 4,435,614 acres of land improved, and $7,702,067$ of unlmproved iand in farms. Cash value of farms, $864,823,224$, and the value of implementa and machinery was $\$ 5,125,663$. Live Stock: horses, 128,001; asses and males, 59,895; millch cows, 227,791 ; working oxen, 66,961 ; other cattle, 433,263 ; sheep, 871,880 ; awine, $1,904,640$; value of live steck, $\$ 21,690,112$.

Agricultural Producto, etc.-Wheat, 294,044 bushels produced; rye, 17,261; Indian cora, 28,764,048; oats, 2,965,696; bariey, 8,958 ; buck wheat, 848 ; ; peas and beans, 892,701 ; potatoes, 248,001 ; sweet potatoes, $5,475,204$; rice, $2,312,252$ pounds. Value of products of the orchard, 15,408 ; produce of market gardens, 884,821 ; pounds of lutter made, $4,008,811$; of cheese, 81,412; sugar, hogsheads of, 8242; maple-sugar, 643 pounds; molasses, 83,428 gellona; beeawax and honey, 897,021 pounda; wool, 657,118 pounda produced; cotton, 564,429 bales ; flax, 8921 pounds ; silk cocoons. 167 ; hops, 276 pounds; tobacco, 164,990; hay, 82,685 tons; clever seed, 138 busheis; other grass seeds, 547 ; flax seed, 69 bushels; and there were made 220 gals. of wine. Value of home-macoe manufactures, $\mathbf{8 1 , 5 3 4 , 1 2 0 ;}$ of slaughtered anlnals, $84,828,485$.-Census, 1850.

Rivers, etc.-Mobile, the principal river, is formed by the junction of the Alabama and Tombigbee rivers, and enters Mebile Bay by two mouths. The Alabsma is navigabie for vessels requiring aix feet of water 60 miles above ita junction, and has four or flve feet of water 150 miles to the mouth of the Cahawha, and to the junction of the Coose and Tallapooes, of which it is formed; it has in ita shaliowest places three feet of water. The Tombigbee, the other constituent of Mobiln River, is navigable for schooners 120 miles to St . Stephens, and for steamboats to Columbus, Mississippi. The Black Warrior, a large branch of it, is navigable for ateamboats to Tuscalooss. The Chattahoochee for a
considerable diatance eparatea this State from Georgls on the east. The Ter neesee curves southwardly from the northeast to the nurthwest corner of the State, and is navigable for steamboata to Florence, at the foot of the Muscle Shoals.

Mobile Bay sete up 80 miles from the Gulf of Mexico, with an average breadth of 12 miles. See Moniln.

Interwal Improvements, eto-Muscle Shoals Canal is denigned to overceme an obstruction in the Tennessee River, and extends from Florence 852 milee, and cost $\$ 571,835$, and when completed to Brown's Ferry, at the head of the shoal, is eatimated to cost $\$ 1,361,057$. Huntsvilie Cansl extenus 16 miles from Triana, on Tennessee River, to Huntsville. There were in this State, January, 1854, tix railroads, four of which were wholby or in part in operation; aggregate miles finished, 221 ; cosk, $88,546,000$; and 65 milea chartered or in course of constraction. There are three banka in the State, with an aggregate capital of $\$ 2,100,000$. The State Penitentiary is at Wetumpka. There is also a State insane hospital, and a school for the deaf and dumb at Robinson'o Springa.

The rail way syatem is yet in its infancy in this Stato. There are 286 ruilea in operation, and 608 milea in construction. Congreas has this year ( 1850 ) granted land for Alabama railroads, and this grant will doubtiess be aufficient to build the roads now in progress. Alabama is one of the States that peculiarly need railroads. Its producte are not censumed in the State, but have to be transported to the sea-board, and the absence of large rivers makes railroade Indispensable to the prosperity of the State.

Manufactures.-There were in this State in 1850, 18 cotton factories, with a capital invested of $\$ 681,900$, employing 849 malea and 897 females, producing 8,281 ,000 yards of sheeting, etc., and 790,000 pounde of yarn, valued at $\$ 398,585$; 8 woolen factories, with a capital of $\$ 3600$, employing 11 males and 3 females, manufacturing cloth valued at $8470 ; 1$ eatabiishment making pig iron, with a capital of $\$ 25,000$, empioying 40 porsons, producing 522 tons of pig iren, valued at 828,896 ; 10 establishments with a capital of $\$ 216,625$, employing 212 persons, and making 1915 tons of castinge, etc., valued at $\$ 271,126 ; 1$ eatabliahment with a capital of $\$ 2500$, employing 14 persons, manufacturing 100 tons of wrought iron, valued at $87500 ; 217$ flouring and grist mills, 294 saw mills, 149 tanaerics, 50 printing-offices, issuing 60 newspapers, etc.

This State was originr ily included in the territorial Jimita of Georgia, except the part which beionged to Florida. In 1802 Georgla ceded all her territory west of Chattahoochee River to the Missiseippi River, to the United States, and in 1817 it was constituted the Mississippi Territory, and Alsbama continued a part of this territory until it was admitted into the Union, and became an independent State in 1820.
Alabanter (Germ. Alabaster; It. Alabastro; Fr. Albátre; Russ. Alabastr ; Lat. Alabastrites). A kind of atone resembling marble, but softer. Under this name are confounded two minerals, the gypseous and calcarcous alabaster* ; they are wholly distinct from each other when pure, but in tome of the varieties are occasionally mixed together. The former, when of a white, or yellowieh, or greevish color, semi-transparont, and capable of receiving a polish, is employed by statuariea. It is very easily worked, but is not susceptible of a pelish equal to marble. Calcarcous alabaster is heavier than the former; it is not so hard as marible, but is notwithstanding eusceptitle of a good polish, and is more used in statuary. The statuaries distioguish alabaster into two sorts, the common and Oriental. Spain and Italy yield the best alsbaster. That produced at Montan!a, in the Papal States, is in the highest esteem for its beautiful whitenesa, Inferior sorts are found in Erance and Germany. Alabaster is wrought into tables, vases, atatnea, chlmneypleces, etc.

- Dloohol (abdent apisit), (Fr. Eoprit de Vin; Germ. Weingcivt; It. Spirito ardem . Spirito di Vino, Aequarzente), the name given to the, sre spirib oltainable by diutillation, and subsequent reotification, from all liquors $t$ at have undergone the vinous fermentetion, and from none but such as are susceptlble of lt. It is light, transparent, colorlese; of a sharp, ponetrating, agreeable amell; and a warn, stimulatlag taste. It is quite the same, whether obtained from brandy, wlae, whlaky, or any other fluld which bas been fermented. The apecific gravity of alcohol when perfectly purc is from $\cdot 792$ to 800 , that of water belng $1 \cdot 000$; but the strongest apirit afforded by mare distillation la about 820 ; alcohol of the ahopa ls about 835 or 840 . Alcohol can not be froaen by any known degree of cold. It boils at $174^{\circ}$. It is the only diseolvent of many resinous aubstances, and la extensively used In medicine and the arts.-Dro. A. T. Thomson, Une, etc.

Alder, ine Betula alnus of botanists, a forest tree abundant in England and most parts of Europe. It thrives best $\ln$ marshy grounds and on the banks of rivers. It. rarely attains to a very great size; lits wood is extremely durable In water or in wet ground; and hence it is much nsed for piloe, planking, pumpe, pipes, slulces, and generally for all purposea where it is kept constantly wet. It soon rots when exposed to the weather or to damp; and, when dry, it is much subject to worms. The color of the wood is redulish yellow, of different shades, and nearly uniform. Texture very uniform, with large septso of the same color as the wood. It la soft, and works easily.-T'redgold'e Principles of Carpentry.
Ale and Beer, well known and extensively used fermented liquors, the principle of which is extracted from soveral sorts of grain, but most commonly from barley, after It has undergone the process termed maltIng.

1. Historical Nutice of Als and Beer.-The manufacture of ale or beer is of very high antiquity. Herodotus tells us that, owlng to the want of wine, the Egyptians drank a liquor fermented from barley (lib. ii. cap. 77). The use of it was also very anciently lutroduced into Greecs and Italy, though it does not appear to have ever been very extensively used in these countries. Mead, or metheglin, was probably the eamliest intoxicating liquor known in the north of Europe. Ale or beer was, howover, In common use In Germany in tho time of Taeflua (Morib. Germ. cap. 23). "All the nations," says Pliay, "who inhabit the west of Europe have a liquor with which they intoxicate themselves, made of corn and water (fiuge nadida). The manner of making the liquor la somewhat different in Gaul, Spain, and other comntries, and it is called by many various names; but its nature and properties are overy whore the samo. The peoplo of Spain, In particulat, brow this liquor so well that it will keep good for a long timo. So exquisite is the ingenuity of mankind in gratifying their vicious appetites, that thoy have thus iuvented a method to make water itself intoxicate."-Hist. Nat. lib. xiv. cap. 22. The Saxons and Danes were passionately fond of beer; and tho cirinking of it was supposed to form one of the prineipal enjoyments of the heroes admitted to the hall of Odin.-Mallet's Northern Antiquities, cap. 6, etc. The manufacture of alo was early introduced into England. It is mentioned in the laws of Ina, king of Wessex ; and is particularly specilied among the liquors provided for a royal banquet in the reign of Edward the Confessor. It was customary in the roigns of the Norman princes to regulate the price of ale; and it was enacted by a statute passod in 1272, that a brower should be allowed to sell two gallons of alo for a penny ln citles, and three or four gallons for the same price in the country.

Tho use of hops in the manufacture of ale and beer seems to have been a German invention. They were
used in the broweries of the Netherianda in the beginning of th. 14 th century; but they do not seem to have been introduced into England till 200 years afterward, or till the beginnlag of the 16 th century. In 1580 , Hoary VIII. enjolad brewers not to put hops lato their ale. It woud, however, appear that but little attontion was paid to this order; for in 1652 hop plantations had begun to be formed.-Becknann's \#liat. Invent. vol. Iv. p. 836-341, Engl. edition. The addition of hopa renders ale more palatable, by giving it an agreeable bitter tate, while, at the same time, it fits It for being kept mueh longer without injury. Genorally speaking, the English brawers employ a much largor quantity of hops than the Scotch.

| Yoams, | - MALT IN ORAAT BRITAIN. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dashele eharged with duly. | Duty paid. | netee af Duly per buahol. |  |  |
|  |  |  | Eagland. | Scotland. | Ireland. |
|  |  | 1,817,776 | $1{ }_{14}^{4}$ | ${ }_{0}^{4} 8$ | 4. ${ }_{1}$ |
| 1801 | 10,742,741 | 1,817,776 | 145 | 088 | 16. |
| 1802 | 84,760,441 | 2,988, 682 | 25 | 183 | iöi |
| 1803 | 84,710,084 | 8,977,809 | 464 | $\cdots$ | 191 |
| 1804 | 24,753,023 | 6,220,035 | - | 098 | 904 |
| 1805 | $25,508,188$ | 5,805,800 | .... | . $\cdot$. | 298 |
| 1806 | [10,710,947 | 6,514,403 | .... | .... | 268 |
| 1807 | 27,791,084 | 5,986,668 | .... |  | .... |
| 1808 | 25,073,119 | 5,875,049 |  | .... | . . . |
| 1809 | 25,85, 2,350 | 5,409,8t4 | , | .... | . |
| 1810 | 26,880,188 | $5,741,902$ <br> 1.58 behls. | .... | . . . | .... |
| 1811 | 29,670, 327 | 6,882,857 |  |  |  |
| 1812 | 21,208, 623 | 4,408,704 | ... | .... | *** |
| 1813 |  | 5,4C1,054 |  | . . . |  |
| 1914 | 20,748,649 | 6,411,817 | **** | . . . | 89 ? |
| 1915 | 80,209,098 | 6,707,446 | * | 8 | 888 |
| 1816 | 24,200, 488 | 4,741,812 | 25 | 18 | 40 |
| 1817 | 28,884, \%p | 2,96,188 | .... | .... | 241 |
| 1818 | 26,204,03v | 8,290,220 |  |  | .... |
| 1819 | $25,815,254$ | 4,075,490 | 8 㣙 | 37 | 1 |
| 1820 | 26,800,121 | $\begin{gathered} 4,843,121 \\ 1-88 \text { hshls.* } \end{gathered}$ | .... | .... | 361 |
| 1821 | 29,390,411 | 4,297,581 |  |  |  |
| 1828 | 29,848,030 | 4,082,888 | 87 | 97 | 87 |
| 1828 | 28,164,497 | 8,809,50t | - $\cdot$. | 37 | ... |
| 1824 | 81, 611,743 | 4,172,453 | .... |  | .... |
| 1825 | 30,206,450 | 4,681,824 | . $\cdot$. | . | ...* |
| 1828 | 82,468,779 | 4,177,278 | .... | .... | ... |
| 1827 | 29,616,501 | 3,800,089 | *** | . * | *** |
| 1828 | 80,854,206 | 4,731,5S5 | .... | .... | .... |
| 1829 | 29,152, 777 | 8,743,616 | .... | . . . | .... |
| 1830 | 82,964,454 | $\begin{aligned} & 4,201,907 \\ & 1,89 \text { bahls. } \end{aligned}$ | *** | . $\cdot$ | *** |
| 1831 | 89,252,269 | 5,036,600 |  |  | *** |
| 1832 | 87,890,635 | 4,799,058 | .... | ... | .... |
| 1839 | 40,072,895 | 6,140,750 |  |  | . . . |
| 1884 | 41,145,691 | 6,275,403 | ... | ". | \% |
| 1895 | 42,892,063 | 5,499,883 | ...* |  | .... |
| 1836 | 44,887,780 | 6,899,879 | $\cdots$ | .... | . $\cdot$. |
| 1837 | 40,550,748 | 6,210,864 | 咗 | :... | ... |
| 1888 | 40,506,566 | 6,151,888 | * |  | *.. |
| 1839 | 39,028,829 | 4,139,804 | .... | 27 | . $\cdot$ |
| 1840 | 42,406,362 | 5,592,477 | ... | . | *... |
| 1841 | 36,164,235 | 1,80 bshls. | 27 | 87 | 97 |
| 1842 | 85,871,894 | 4,848,681 | and 5 | and 5 | and 5 |
| 1848 | 85,698,890 | 4,327,050 | per cent. | percent. | per cent. |
| 1844 | 87,187,186 | 5,027,071 | . | .... | ... |
| 1845 | 36,6.5,991) | 5,588,038 | , | .... |  |
| 1846 | 42,097.065 | 5,691,278 |  | . | $\ldots$ |
| 1847 | 35, 307,815 | 4,775,601 |  | .... | .... |
| 1843 | 37,545,912 | 5,076,238 |  |  | . . . |
| 1849 | 38,935,460 | 5.206,779 | \% | . . . | .... |
| 1850 | 40,744,750 | $\begin{aligned} & 5,511,440 \\ & 72 \text { bshls. } \end{aligned}$ | .... | * $\cdot$. | . $\cdot$. |
| 1851 | 40,337,412 | 5,030, 869 |  |  |  |
| 1854 | 41,071,636 | 5.928,985 | . . $\cdot$ | , | .... | - Decennial average anaual conaumption per hend.

2. Distinction between Ale and Beer, or Porter.-This distinetion has been well elucidated by Dr. Thomas Thomson, In his article on Brewing, in the Encyclopadia Britannica: "Both ale and beer are In Great Britain obtained by fermentation from the malt of barley; but they differ from each other in several particulars. Alo is light-colored, brisk, and sweetish, or at least free from bitter; while beer is dark-colored, bitter, and much lars brisk. Vhat is called porter in Englsind is a apecic. of beer; and tho term 'porter' at present algnifies what was formerly called atrong beer. The original difference between ale and beer was owing to the malt from which they were prepared. Ale muit
was dried at a very low heat, and conseqnently was of a pale color; while beer, or porter malt, was dried at a higher temperature, and had of consequence acquired a brown color. This inclpient charring had developed a peculiar and agreeahle bitter taste, whleh was commnnicated to the beer along with the dark color. This bitter taste rendered beer more sgreeable to the palate, and less injurious to the constitution than ale. It was consequently manufactured in greater quantities, and soon became the common drink of the lower ranks in England. When malt became highpriced, in consequence of the hesvy taxes laid upon it, and the great increase in the price of barley which took place during the war of the French Revolution, the brewers discovered that a greater quantity of wort of a given strength could be prepared from pale malt than from brown malt. The consequence was that pale malt was substituted for brown malt in the brewing of porter and beer. We do not mean that the whole malt employed was pale, but a cousiderable proporlion of it. The wort, of course, was much paler than before; and it wanted that agreeable bitter fiavor which characterized porter, and made it so much relished by most palates. The porter brewere endeavored to remedy these defects by geveral artiticial additions. At the same time, varions substitutes were tried to supply the place of the agreeable bitter communicated to porter by the use of brown malt. Quassla, cocculus lndiess, and we believe even oplum, were cmployed in succession; but none of them was found to, answer the purpose sufficiently. Whether the use of these substances be still persevered in we do not know; but we rather believe that they are net, at least by the London porter brewers."

Ale and Wine are said to have been invented by Bacehus; the former where the soil, owing to its quality, would not grow grapes.-''Cooke's Pantheon. Ale was known as a beverage at least 404 n.c. Herodotus aseribes the first discovery of the art or brewing barleywine to lsis, the wife of Osiris. Tbe Romans and Germans very early learned the process of preparing a liquor from corn by means of fermentation, from the Egyptinns.-'TMitcs. Ale-houses are made mention of in the laws of lad, king of Wessex. Booths were set up in England a.d. i28, when laws were passed for their regulation. Ale-houses were licensed 1621; and excise duty on ale and beer was imposed on a system nearly similar to the present, 13 Charles II. 1660.llayin.

Alearndria, so called from its illnstrions founder, Alexander the Great, the prineipal sea-port of Egypt, on the coast of the Mediterranean, about 14 miles W.S.W. of the Canopie mouth of the Nile; the light? bouse being in lat. $31^{\circ} 11^{\prime} 31^{\prime \prime}$ N., long. $25^{\circ} 51^{\prime} 28^{\prime \prime}$ E. The situation of this fumous city was ndmirably chosen. Litil the discovery of the route to Indin by the Cape of Good Llope, Egyit formed the centre of the comnerce between the Liastern and Western Worlds; and Alexandria was placed In the most favorable position In legypt for an emporlun, being the only port on its northern coast, where there is at once deep water and security for shipplig throughout the yenr. The ports of hosetta and Demictia, the former on the west, nud the latter on the eastern arm of the Nile, are hoth difficult of entrunce, each having a bar, upen which there is aiways a dangerous surf. Ships bound for Alexantria avold this serious inconvenience; nod hy means of an artitieial mavigation, stretehing from the eity to the western branch of the Nile, lt has almost the amme faciaties for internal navigution that are enjoyed by the cities referred to.

It may be proper, however, to mention that this nrtificial commumicntion with the Nile las not always been open. It existed in antipuity, but fell into decay during the barbarlsm of more modern times. After leigg shut up for some centuries, it has bean reopened! by Mchemet Ali, who dug the Mahmoudie ennul from

Alexandris to Atfeb, on the Nile, abont 27 miles above Rosetta. Thia important work is $\cdot .4$ miles in length, 90 feet in breadth, and from 15 to 18 feet deep. It was opened in 1819; but owing partly to the nature of the grouna, partly to some defects in its construction, and partly to the mud deposited by the water of the Nile, it is difficult to keep in repair; and can only be narjgated by boata that draw little water, and are not suitable for the navigation of the Nile. But, with all ita defects, the construction of this canal has been of the greatest advantage, not to Alcxandria only, but to Egypt and oven Europe.

Ports, etc.-The ancient city was situated a little more Inland than the modern one, opposite to the small island of Pharoa, on which was erected the light-house, so celebrated in antiquity.-CAsar, De Bello Civili, lib, tii. cap. 112. This island was, partly by artificial means, and partly by natnral causes, graduslly joined to the land by a mound, and on this the more modern town is principally built. The isthmes and island have now the form of a T , its head being northesst and southwest. A square castle, or tower, built on a small islet or rock, at the extremity of a male projeeting from the northeast angle of the city, is still called the Pharos, and may perhaps occupy the site of the ancient llght-house: a light wasiexhtited on it down to 1842, when it ceased. On each side of the celty there is a port. That on the westem, or African side, called the Old Port, the Fiunostos of the ancienta, is by far the largest and best. It stretelres from the town westward to Marabout, about 6 miles, and is about $1 \frac{1}{2}$ miles in wilth. It ls bounded on the north, partly by the westeri. iongue or angle of the island on which the city is partially built, at the extremity of which is the new light-bouse, and partly by rocks and sand banks, It has three entrances. The first, or that nearest the city, having 17 feet water, is nearly $1 \frac{3}{4}$ miles southwest from the light-house; but it is too narrow and diftienlt to be attempted by any ono not thoroughly acquainted with the port. I'he eastern side of the second or middle entrance is marked by buoys which lic about $2 \frac{1}{2}$ miles southwest-from the light-house; it is about a quarter of a mile wide, and has, where shallowest, 27 feet water. The third or western entrance has its western boundary within nbout three-cighths of a mile from the east end of Marahout island: it is about half a mile wlde, and has from 25 to 27 feet water in its shallowest places. This last is the best entrance. Ships, wben in, may anchor elose to the town in from 22 to 40 feet water, and there is good anchorage ln deep water all nlong the shore. Foreigners were formerly exeluded from this port; but this prohbition no longer exists, and it is now prinelpally resorted to by the shipping frequenting the port.

What is called the New (though it be really the oldest) or Asiatic harbor is on the eastern side of the town. A roek called the Diamond lies a little to the east of the l'haros tower; and ships entering the port ought to liave this rock about a cable's lengtit on the right. If they get much farther to the left, they will come in contact with a shoal which stretches westward from the l'harillon, or litthe tower, on the enst side of the port. The water immediately within the port southwest from the l'haros is from '10 to 40 feet deep; but the space for anchorage is very limited, and is exposed to the northerly gales; and the ground being fonl and rocky, hempen cables are very npt to chafe, and several aceldents have happened in conseqnence to ships unprovided with iron cables. Orilinary tides rise 2 feet; but during the overflow of the Nile the rise is 1 feet. Variation $13^{\circ}$ west.

Trude of Alexandria.-The imports principally consist of cotton stuffs, timber, woolen and silk stutlis, iron and hardware, including copper and tin plates, jewelry, machinery, ammunition, paper and ntntionery, cutlery, etc., etc. The experts cohsist prineipally of raw cotton, rice, whent nud burley, beans, linseed, seman, and other drugs and gums bronght from the interior;

Indigo, opium, ostrich feathers, dates, soda, linen cloth, coffeo from Arabia, etc. The exports of wheat, barley, and pulse for a whils doelinad in consequence of the superior encouragement given to tha growth of cotton; but they have again increased, and in 1849 we brought from Alaxandria 129,954 qrs. wheat, 247,594 qra. beans, and 13,151 qrs. Indian corn. The culture of flax has declined: formerly from 50,000 to 60,000 quarters of linseed have baen exported from Alaxandria in 9 single season, but the exports are now much less. Sugar has been long cultivated in Egypt, but not to any great extent, though the soil and climate of Upper Egypt are said to be especially favorable to its growth. Indigo and madder are among tho articles ot culturs introduced by the late Pacha.

Cotton has been grown in Egypt from a very remote period; previously, however, to tho ascendency of Mehemot Ali it was but little cultivated, and that little was of inferior quality, short-stapled, and closely resembling "Surats," under which namo the amall quantitics exported from tho country were usually sold. But in 1820 a Frenchman of the name of Jumel accidentally observed a very valuablo variety of longstapled cotton, raised from seeds hrought from Dongola and Senaar, growing in the garden of Mahè Boy, at Cairo. Jumel having reprosented ita suporiority to tho Pacha, its cultivation was undertaken on a large acale on account of the latter; and has succeeded so well, that Mahe or Makko cotton has been for a leugthened period by far the prineipal articlo of export from Egypt. At a lator period seeds of the Sea-1sland cotton were introduced, and for a whilo it also answered remarkably well; its produce, which in Egypt was called Senuar, and in England "Egyptian Sea-Island," ranking next in the estimation of the manufacturers to genuine "Sea-island." Unfortunately, howover, this variety was found to degenerate, and its culture, which was never very extensive, as woll as that of tho old short-stapled varicty, has, we believe, been wholly abandoned.
Cunstantinople and the islands of the Archipelago are the great markets for the wheat and other grain exported from Egypt. Tho supplies are, however, oxtremely uncertain. Every thing in Egypt depends on tho Nile; and when it does not rise to the usual height, the crops aro very much below an averago. Beans are extensively cultivated, and havo sometimes been brought to Englani, but rarely, if over, with advantago to the importors. They aro huferior to English beans, and are peculiarly suljoct to the worm. No oats aro raised in ligypt, tho horses being entirely fed npon barley. Silk is grown to sume exteut. Tho date-palm thrives in every part of Eagyt, and tho fruit is largely exported. It is singular that, notwithatanding the luxuriance of many of its vegetabie proluctions, Egypt shouid bu entiroly destitute of timber.

Afomey.-Accounts are kept at Aloxandria, as at Cairo, in current pirstres, each piastre boing equal to 40 paras, or medini, and each medino to 30 aspers. The medino is also divided into 8 borhi, or 6 forli. A purse contains 25,000 medini. At the closu of 1812 the exehango with Eugland was $93 \cdot 08$ current pinstres per fl ; but in general caleulations 100 piastres are suiposed to equal $\mathbf{£ 1}$. Payme.ts, in transuctions of any lmportance, aro generally mado in Spanish tollurs.

Duties,-With the exception of the arbitrary principles on whith the Pacha tixes tha prieses of eommodities, thero is nothing oljectionable in his poliey as to commerce. The duties on inports are only 3 per cent. We helievo, however, that a small inerease of the customs' duty would compensate tho l'acha for the aholltion of other oppressivo charges, and there can be little doult that his subjects would bo materially benefited by the chango.
Lutters written last summer (1855) at Aloxandrin,

Egypt, state that Said Paoha, the vlceroy, hiven the necessary ordera for the construction of a Mway acrosa the desert between Cairo and Suez, a disk a of 84 milea. The rails are to be brought out from E . gland, and the Pasha's own engineers, who are Frenchmen, are to carry out tho works. In about three years from this time it may be hoped that a railroad will run quito across the country, and the transit of passengers, which now occupies more than two days of uncomfortablo traveling, will be reduced to ten or twelvo hours of easy conveyance. For tho extension of trade and communication with India, it will he very desirable if the Pasha should consent to carry coal to Suez at a moderate charge, as tho high price of coal at Suez is at present tho principal obstacle to other steamers regularly coming up the Red Sea besides those of the leninsular and Oriantal Steam Navigation Company. Accorling to letters from Egypt dated December, 1855, tha railway betweon Alexandria and Cairo has beer nearly completed, and, according to tho last advices, is about to be opened for passengers and goods. The importance of this communication, in superseding both tho canal and the Nile passage, and shortening the transit between the two cities to about eight hours, will be readily appreciated by every person who has traveled across Egypt. The construction of the portion of tha railway from Cairo to near Suez, which is to completa tho communication botween the Mediterranean and the Red Sea, is in activo progress. The directors are endeavoring to induce his highness, the viceroy, to construct at the termini of these railways at Cairo and the Red Sea commodious hotels, adapted to the convenience of travelers from the East. The spirit of improvement in the East is further shown by $t^{1} 10$ recent establishment of a
tric telegraph across Egypt. This has been determined upon by his highness the viceroy, and will form an important improvement in the overland communication with India, China, etc. Tho directors sometime since submitted, at the request of the viceroy, a proposal to establish a monthly postal communication with Australia as soon as tho release of tho vessels now engaged in the war service should enable them to do so. No dofinite arrangement has, howover, been yet made to that effect.
Ancient Trade of Alexandria.-Alexandria was for a long serles of years-first under tho Greek successors of Alexander, and subsequently under tho Romansthe principal entreput of tho ancient worla. Most part of the traffic between Asif und Europe, that had at a more early period centred at Tyre, was gradually diverted to this new emporium. An intercourso between the ports on the eastern coast of Egypt and those on the opposite coast of Arabia had subsisted from a very carly period. That between Egypt and India was moro recent. It was at tirst carried on by ships, which having sailed down the Red Sea from Myos IIormos and Berenice, consted along tho Arablan shores till they reached Cape Rasselgate, whence a short course brought them to India, near the mouth of the River Indus. This was tho erurse followed during the dynasty of tho P'olemies; liut about eighty years after Lipypt had been annoxel to the Roman ompire, Mippulus, the commander of on Epyptians ship trading to India, having olserved the regular shifting of the tradewinds, ventured to snil with the western monsoon from tho Struits of Bahelmanded, right across the Arabian Ocean; and was fortunate enough, after a prospe ous voyage, to arrive at Nusitis, in that part of ulia now known by the namo of the Malabner const. Ilaving taken on board a cargo of Indian produce Jrippalus retarned in safety with tho eastern monsoon to Figyt. This discovery was deomed of so much importunce, that the namo of tho ilscovorer wns given to the wind which had carred him acrosa the ocenn to India: and how trifing soever this voyago may now appear, thoso who consider that llippalus had no com-
pass by which to direct his conree, and that owing to pass by incumstance, and tho otherwise imperfect state thig, art of navigation, the ancients seldom ventured sut of sight of land, even in seas with which they were well acquainted, will be forward to admit that his enterpriae and daring were nowise inferior to his success; and that he was well entitled to the gratitude of his contemporaries, and the respect of posterity.

From the epoch of this discovery, fleets traded periodically from Egypt to Mrusiris, conveying the products of Europe to India, and conversely. The Indian gooda having been landed st Myos Hormos and Berenice were thence conveyed by caravans to Coptos (the modern Kenné), on the Nile, where they were put on board lighters and sent to Alexandria, whence they were distributed all over the Western World. The goods sent to India were conveyed to Myos Hormos and Berenice by the same route. Myos Hormos was situated on the ghore of the Arabian Gulf, about a degree to the north of the modern port of Cosseir. The distance from it to Coptos, in a straight line, is about 70 English miles. Berenice was situated a good way farther sonth, being nearly under the tropic. It was built by Ptoiemy Philadelphns. Its distance from Coptos is stated by Pliny at 258 Roman miles; the different resting-piaces on the road were determined by the welis, and the journey occupied about 12 days. Ptolemy seems to have preferred this station to Myos Hormos, though the land-earriage to Coptos was $s o$ much farther, from Its greater proximity to the Straits of Babelmandeb, and its lessening the voyage up the Red Sea. Pliny says that the cost of the Indian commodities brought to Kome through Alexandria was increased a hundredfold (centuplicato veneant) iby the expense of earriage, etc. We suspect, however, that this is a rhetoricai cxaggeration, meaning merely that their price was very materially enhameed. If the increaso was any thing like that mentioned, it must have been owing to the imposition of oppressive tolls and duties, for it could not possibly have been occasioned by the mere expenses of conveyance. In the 16th century, the cost of Indian commodities, brought to Western Europo by way of Alexandria and Aleppo, was about three times the cost of those brought by the Cape of Good Hope.-See post, East India Company, Mistory of. But Egypt was then oceupied by the Mamelukes and Turks, who threw every sort of ohatacle in the way of commerce, and loaded it with the most oppressive exactions.Plin. Ifist. Nat. lib. vi. cap. 23 ; Amerlion, Commerce des Egyptiens, p. 161-176, etc. ; Roneutson's Ancient India, note 20, etc.

Besides this important triffic, which supplied Rome and the Western World with the silks, spices, precious stones, and other products of Arabia and India, a great trade in corn was carried on from Alexantria to Rome. Egypt, for a leugthened period, constituted the granary from which Rome, and afterward Constantinople, drew the principai part of their supplies; and its possession was, on that account, reckoned of the utmost consequence. Augustus employed merchantmen of a iarger size than any that had previously tratied in the Mediterranean to convey the corn of Egypt to Ostia. They were escorted by ships of war. The fleet re-
ceived the names of sacra and felix embole, and enjoyed several peculiar privileges. The ships belonging to it were the only ones authorized to hoist the small sail called supparum, when they drew near the coasts of Italy. Some of the fast-satiing vessels attached to the fleet were sent on before, to give notice of its approach; and a deputation of senators went down to Ostia to receive the chips, which anchored amidst the acclamations of an immenae number of spectators." The captains were obliged to make oath that the corn on board their ships was that which had been delivered to them in Fgypt, and that the cargoes were entire as shipped. -Huer, Commerce et Navigation des Anciens, cap. xlvili. ; Senecas Epist. Ixxvil., etc.

Intercourse with India through Alexandria.--Theso few details willi, perhaps, serve to give a faint idea of the importance of Aiexandria in the commerce of antíquity. It is impossible, indeed, for any one to glance at a map of the world, or of the ancient hemisphere, and not to perceive that Egypt is the natural entrepôt of the commerce between Europe and all the vast countries stretching east from Arabia to China. The discovery of the route to India by the Cape of Good Hope, in 1498, must, no doubt, have, under any circumstances, diverted a considerable portion of the trade with the western States of Europe, and in the heavier and bulkier class of articies, into a new channel. It is, however, abundantly certain that, had the seme facilities for conducting the trade with the East existed in Egypt in the 16th and 17 th eenturies that existed in it in antiquity, she would have continued to the the centre of the trade for all the lighter and more valuable products, and the route of the greater number of the Individuals passing between Europe and Asia. But the lawless and arbitrary dominion of the Mameiukes, who loaded all individuais passing through the country with oppresaive exactions, st the same time that they trested all forcigners, and especially Christians, with insoience and contempt, pnt an entire stop to the intercourse so long carried on by this shertest, inost direct, and most convenient route. Happily, however, a new era has begun, and Egypt has once more hecome the grand thoroughfare of the Eastern and Western Worlda. After good order and a regular government had been introduced into Egypt by Mehemet Ali, it was scen that it might he again made the channel of communication with India; ancl the importance of facilitating the intercoaree with that continent forcibly attfaeted the attention of the British government and the East India Company. We belleve, however, that the pullic are principally indebted to the exertions of Mr. Waghorn for the early end successful opening of what has been called the "over-land route" to India. At ali events, the cstabitshment of a steam commnnication between Europe and Southern Asio, by way of Aiexandrie and Suez, is one of the most striking and ime portant events in recent times. It has shortened the journcy to Indi.. from Engisnd more than a half, and rendered it comparatively safe and oxpeditious. Steamers aseent the Nile as far as Cairo; and the passengers and mails are tience conveyud across the desert to Suez, and conversely, with comifort and expedition! We subjoin the foilowing detalis :

Ovkbiand Malls,-Octwanm.

| Dinpstehed from London. |  | Arrive at Alexandria about | Leave Suez about | Arrive in Bombay about |
| :---: | :---: | :---: | :---: | :---: |
| Via Seuthampton. | Via Marseltien. |  |  |  |
| 4th and | 8 8th of every month. | 18ih oi every month. | 21at er \&2d of every menth. | 9th of every month. |
|  |  |  |  | Arrive at Calcutta njeut |
| 20th ef every month by contract steamers. | 24th of every month. | 4th or 5 th of every menth. | 6th er 7th of every month. | tst and tith of every month. |

The ateamers that take the Southampton matle call at (ifbratar, and arrive at Matts shoit the 14th and ooth. The malla from Marmetlem leave that port by one of her Majeaty's ateamers aboit the 11th and 27 th of ench month, and arrive at Malta the I6'li and Bist. At Malta the matle are tranalityped, and conveyed by ateamers to Alexandria.

ALE.

| Dispatched from Bombay ...., \& about | Arrive at Sues abont | Leave Alexandria about | Arrive in London abont |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Via Marsellles. | Via Southampton. |
| 1at of each month. | 18th of each month. | 21at of each month. ${ }^{\text {* }}$ | 1st of each month. |  |
| Dtspatched from Caloutta | 8th of each menth. | 10th of each month. |  |  |
| 7th of each month. Dlapatched from Bombay about 20th of each month |  |  | 21st of each moth. | 26th of each month. |

The eontract ateumor with the nutward mall waits at Alexandria for the homeward mait, and arrives at Malta abont the 10th and 24th of every month, where the Marseilitea portion is transforred to one of her Majesty's ateamers, whtch carries it to Marselllea, whence It is sent by land to Paris, and via Dover to Londoa, the remaining portion is landed at Bouthampton, and is thence sent by raliway to London. Average time to or from Bombay, via Marseliles, 81 days; and to or from Caicutta, via Marseilles, about 42 or 48 days: and via southampton, from 47 to 58 days. By ehtp round the Cape, 4 months. The newspaper proprietore run expressea from Marnelles on the arrival of each mall, and thus are enabled to pablish the news some iwo daye before the letters arrive in Londen.

Routes fon Pabbinomre,-Fingt, via southampton.

| Time of Starting. | Fare to Alazaedria. | Alasandria to Sues. | sloes to Bombay. | From sues to Caylon, Madrae, or Caleotta. |
| :---: | :---: | :---: | :---: | :---: |
|  | 1as Cabin. 4. a. d. | las Cabin. | Jot Cabin. | Ifi Cabin. |
| 8ieamcre leave Sonthampton the 4th and 20th of every month, and cail at Gibraitar and Maita, arriving at Alexandria aliout the 18 th , 4 h , or Sth of every month. | 3000 |  |  | 601. to 70l. |

Szconu Route, via Mabrallezs-By ateamer to Boulogne; railway to Paria and Chsiona-sar-Eaode; tbence to Lyons, Arignon, and to Marseilles, Tyme occupled, three days. French governmed ateamers leave Marseilea the 9th, 19th, and 29th of every month, calling at Leghorn, Civile Vecehta, Naples, Malta, and Messina. French goverument ateamers also leavo Marselitica on the 6th and $28 d$ of every month for Alexendria and Beyroot direct, calliog at Malta on the way.
The Peninaular and Oriental Steam Navigation Company have publiahed the foliowing siatements :

|  | Firul Clase. | seciod Clasa. | Sorvante. |
| :---: | :---: | :---: | :---: |
|  | $\begin{array}{lll} \hline \boldsymbol{E} & 8 & d . \\ 20 & 0 & 0 \\ B 0 & 0 & 0 \\ \hline \end{array}$ | $$ | $\begin{array}{lll}S_{2} & 8 . \\ 10 & d . \\ 15 & 0 \\ 150\end{array}$ |


| , | Aden. | Ceylon. | Madran. | Calcutta. | Penang. | singnpors. | Batavla. | Honk <br> Kong. | Adalalde. | Port Pbllip. 8ydnay |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gentlemen occupying a berth in a cablin, with 2 or 9 others, on the lower deek. Ladies, $1 f$ booked oarly, a berth in a cabtn, with two or thiree otliors, on the upper deck.. | 20\% | $£ 05$ | $£ 100$ | ¢106 | 2105 | $\propto 110$ | $£ 120$ | $£ 130$ | $£ 160$ | $\mathcal{L 1 6 0}$ |
| Married couples, occupying a reserved eabin on $\}$ tho moin deck | 200 | 240 | 250 | 970 | 270 | 200 | 810 | 895 | 300 | 380 |
| Chidren with the parent, 8 years and under 10.... | 65 | $48$ | 60 | 53 | 63 | 85 | 60 | 65 | 75 | 80 |
| A child under 8 yoars (no berth provided)........... | Free. | Free. | Free. | Free. | Free. | Free. | Free. | Free. | Free. | Free. |
| Servants, European . . . . . . . . . . . . . . . . . . . . . . . . . . . | 89 | 43 | 46 | 50 | 50 | 52 | 55 | 60 | 75 | 80 |
| " native . . . . . . . . . . . . . . . . . . . . . . . . . . . | 18 | 20 | 28 | 80 | 30 | 31 | 33 | 36 |  |  |

> For large familica an sllowanco will be mado In the foregolng retee to Cey'on, Medras, and Calcutta.

The expenses of transit through Egypt are charged at the Company's offices, at the time of secaring the passage, for the Egyptian government. We subjein an extract from the A child of two ycers pad under five.......... 0 . $\mathbf{A}$ nativo man eervant on a dromedary or donkoy and Coylon, cte.
Canal between the Nile and the Red Sea.-We are assured that, were it not for the hostilitios in which the Pacha has been almost always engaged, he would havo attempted to reopen the famous canal that formerly conuected the Red Sea and the Nile. According to Herodotus, this canal was commenced by Nechos, king of Egypt, and finished by Darius (lib, ill. § 158, iv. 39). Under the Ptelemies, hy wham, according to some authorlites, it whs coupleted, this canal became an important channel of communication. It joined the east, or Pelusiac branch of the Nilo at Bubastis, tho ruins of whieh still remain; it thence proceeded east to the bitter or natron lakes of Temrah and CheikAneded, whenee it followell a nearly sonth direction to its junction with the Rel Sea at Arslnoe, elther at or near where Suez now stends. It is salid hy Strino (lib. xvli. p. 805) to have been 1000 statlia ( 122 miles) in length; hut if we measure It on the best modern maps, It could hurdly have exceeded from 85 to 95 miles. Herolotus ssys that it was wlde enough to admit two triremes sailligg abreast. This great work
having fallen into decay after the downfall of the Ptolomaic dynasty, was renovated either hy Trajan or Adrtan; and it was finally renewed by Ainrou, the genoral of the calif Omar, the conqueror of Egypt, anno 639. Tho French euglineers tracell the remains of this great work for a considerable distance, and lt would be of singular advantage to Egypt and the commerce of the world were it reopened.

Marshal Marmont states that the ground has been carefully axamined by M. Lepère, an able engineer, aud that it presents no sort of difficulty that may not eaeily be overcomo. This, indeed, might have been Inferred from the fact of its former construction; for the anclents, beling unaccuuainted with the use of locks, had to encounter diffeculties In the construction and working of eanals which aro now obviated with the utmost facllity. According to M. Lepere, the cost of constructing a navigable eanal from the Nilo to the Red Sea would not exceed $17,000,000$ franes, or less than $£ \mathbf{E} 00,000$ (Maiemont, Iv, 101). The completion of this work need not, therefore, be despaired of. The

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opening of the Mahmoudith Canal from Alexandria to Atfeh shows what the present gevernment ia able to aehieve; and an enterprise lika that now under considerstion, thaugh more difficult, wonld be of atill greater Importance to Fgypt, as well as to Europe and Asis.

Algebra is a general method of resolving mathematical problems by means of equations, er it is a method of performing the calculations of all sorts of quantities by means of gencral aigns or characters. The modern writers on the subject are Lambert, D'Alambert, Lagrange, Ozanam, Saunderson, Clairaut, Cousin, Templehof, Kastner, Bezout, Gauss, etc. Where algebra was first used, and by whom, ia not preclsely known. Diophantus first wrote upon it probably about A.D. 170; he ls said to be the inventor. Brought inte Spain by the Saracens, about 900 ; and Into Italy by Leonardo, of Pisa, in 1202. The first writer whe used algebraical signs was Stifelius, of Nuremberg, in 1544. The introduction of symbols for quantities was by Francis Victa, in 1500, when algebra came inte general use.-Morent. The binemial theorem of Newton, the basis of the doctrine of tluxiens, and the new analysis, 166s.-lliayn.

Alicante, a sca-pert town of Spain, in the new province of Alicante, lst. $38^{\circ} 20^{\prime} 41^{\prime \prime}$ N., long. $0^{\circ} 30^{\prime}$ W. Population of the elty about 20,000 , and of the province 363,000 . Tha port is an open and apacious bay, between Cape da la IIuerta ou the northeast, and Isla Plana on the south, distant from each other southwest and northeast ahout ten miles. Ships may enter on any course between these points, stecring direct for the castle, which stands on an eminence about 400 feet high. Those of considerable burden moor north and aeuth, distant from to 1 mile from shore, in from 4 to 8 fathoms water; they are expesed to all winds, from E.N.E. to S. by W.; bat the holdingr ground is good, and there is no instance during the last twenty years of a ship having been driven from her moorings. Small crait lia alongside the mole, which is already 320 yards in length, und is continuluy to be projected atill farther into the sea. The mole has a fixed light, 95 feet high, visible 15 miles. The trada of Alicante, though still considerable, has declined much within the last few years; a consequence partly of the emancipation of America from the Spanish yoke, but more of the oppressive duties laid on the importation of mist articles of foreign produce into Spain (see Camz), and the extensive sauggling carrled on from Gibraltar, Algiers, etc.

Iaisins form the principal article of export; and their prodnce, which amomes to nearly $200,000 \mathrm{cwt}$., has increased rapidly of tate years. Thay are principally taken off by lingland, the shipments thither, in 1812 , having leen 146,496 ewt. But with this aingle exception all the other artheles of export have deellued. The prineipal are silk, wool, barilla, alnonds, wine, sult, oll, lead, mats, sattron, brandy, anise, ete. The exportation of burilla, which formerly amonnted to from 60,000 to 100,000 ewt., has deelined, partly from lts having been largely adulterated, but princlpally from Its lo-ing to a great extent superseded by soude fuctice (artiticial soda), to little more than $20,000 \mathrm{cwt}$. The importa consist princlpally of sugar, coffee, cocoa, and other colonial products; cotton, and linen stuffs, and other manufuctured gools, from liugland and France; salted fish, tobacco, iron and hariware, deals and tar, ete.; lut it is lmpossible to form any estimnte of the tmports from offieial or other ruturns, as by far the largest portion are supplied dandesthely. Indeed, the whole population of this part of Spain are elothed In prohlbited articles, whilh are sold as openly in the towns as If they were of Spanish munufacture! - Consul's Ileport for 1811. An Associucion Mritanicu has rccently lieen formed in thls port for smelting and refining the rich argentiferous lead ores of Almagrera and other parts of the prevince of Alurela. The manufucture of woolens is carried on pretty extensively
at Aleoy, 23 miles north from Alicante; but they are coarse, and of inferler quality.

Aliens. "An alien, according to the laws of the United States, is a person born out of the jurisdiction and alleglance of the United States. This varies from the rule adopted by the ancient English law, as in the case of the children of public ministers abroad (provided their wives be English women), fer they owe not oven a local allegiance to any foreign power. So, also, it is said that in every case the children born abroad ol' English parents were capable, at commen law, of inheriting as natives, if the father went and continued abread in the character of an Englishman, with the approbation of the sovereign.
"The Act of Congress of the 14th Aprıl, 1802, establishing a uniform rule of naturalization, atlects the issue of two classes of persons. Jy the th section it was declared that 'the children of persons duly naturalized under any of the laws of the United States, or who, previous to the passing of any law on that subject oy the Government of the Linited States, may have become eltizens of any ona of the States under the laws thereof, being under the age of twenty-one years at the time of their parents being so naturalized, or admitted to the rights of citizenship, shall, if dwelling in the United States, be considered as citizens of the United States.' This provision appeurs only to apply to the children of persons naturalized, or specially admitted to citizenship; and there is color for the construction, that it. may have been intended to be prospective, and to apply as well to the case of persons thereafter to be naturalized as to those whe had previously been naturalized. It applies to all the children ef 'persons duly naturalized'-under the restrictions of residence and minority-at the time of the naturalization of the parent. The act applites to the chililren of persons duly naturalized, but does not explicitly state whether it was intended to apply only to the ease whero both parents were duly naturalized, or whether it would be sufficient for ene of them onty to be naturalized, in order to cenfer, as of coursc, the rights of citizens apon the resident chilliren being under age. l'erhups it would be sufficient for the father only to be naturalized; for in the supplementary act of the 26 th of March, 1804, it was declared, that if any alien who should have complied whth the predimbury steps made requisite by the act of $100^{2}$ dies before he is actually naturalized, his $u$ jiduw and children shall be considered as citizens. This provision shows that the naturalization of the father was to have the etlicient force of conferring the right on his children; and it is worthy of notice that this last act speaks of children at large, without any allusion to residence or minority ; and yet, as the two acts are Intimately comucted, and make but one system, the last act is to lee construed with reference to the prior one, according to the doctrine of tho case of Eix parte Orerington. lly a subscquent part of the sume 4 th section, it is declared that 'the children of persons who now are, or have been eltizens of the United States, shall, theugh horn out of the limits and jurisdletion of the United States, be consflered as citizens of tho linited States; provided that the right of eitizenship shall not descend to persons whose fathers have never resided within the l'nited States.' This clanse is certainly not prospective in its operation, whatever may be the just constructicn of the one preceding lt. It applied only to the children of persons who then were or had been cithans; and, consequently, the benefle of this provision narrows raphlly by tha lipse of thme, and the period will soon arrive when there will be no statutory regulation for the beneft of children born abroad, of Amerlem parents, and they will beoblged to resort for ald to the slormunt and doubtful prineiples of tho English common law. The provise annexul to this last provision serems to remeve the denbt arising from the generalliy of the precding sentence, and which was whether the aet

Intended by the words 'children of persons' both tho futher and mother, in imitation of the statute of 25 Edw. Il $\mathrm{t}_{0}$, or the father only, according to the more liberal decharation of the atatute of 4 Geo. 11.; the provision also differs from the preceding in being without any restrletion as to the age or resldence of the child, and it appears to have been intended for the chiddren of natural bora citizens, or of citizens who were original actors in our Revolution, and therefore it was more comprehensive and more liberal in their favor; but the whol atatute provision is remarkably loose and vague in tus terms, and it is lamentably defeetive in beling coufined to the case of children or parents who were citizens in 1802, or had been so previously. The former act of 29th January, 1795, was not so; for it declared generally, that 'the children of citizens of the United States, born out of the limits and juristiction of the United States, shall be considered as citizens of the United States.' And when we consider the universal propensity to travel, the liberal intercourse between uatlons, the extent of commercial enterprise, and the genius and spirit of our municipal iustitutions, it is quite aurprising that the rights of the children of American citizens born abroad should, by the existing act of 1802 , be left so precarious, and so far inferior in tho security whieh has been given, under like circumstances, by the English atatutes."Kent's Comm., Lect. XXV.

In England, aliens were grievonsly coereed up to A.D. 1377. When they were to be tried criminally, the juries were to be balf foreigners, if tbey so desired, 1-130. They were restrained from exercising any trade or humdieraft by retail, 1483. The oelebrated Alien [Bill passed, January, 1793. Act to register Aliens, 1795. Bill to abolish their naturallzation by the holding of stock in the banks of Scotland, Junc, 1820. New Registration act, 7 Geo. IV., 1826. This last aet was repenled and enother statute passed, 6 Will. IV., 1836. The celebrated Baron Geramb, a conspieuous and fashionable foreigner, known at court, was ordered out of Finghand, April 6, 181\%.-IIayon.

Influence of the Residence of Aliens.--Thero can be no doubt that, gonerally speakligg, the resort of foreigners to a country, and their residence in it, are highly conducive to its interests. Those who emigrate in order to practlee thelr calling in an old settled country are pretty uniformly distinguished for netivity, cuterprise, and good conduct. Tho native inhabitants have so many advantages on their side, that it would be absurl to suppose that foreigners should ever come into any thing like successful competition with them, unless they were nequalnted with sone branch of trade or manufucture of which the others were ignorant, or possessed superior \&kIII, Industry, or economy. But whether aliens practice new acts, or intruduce more perfeet proeesses into the odd, or displuy superior economy, ete., their intlux can not fail to be of the greatest advantage, They practionlly instruct those among whom they reside in what it most concerns them to know-that is, in thoso departments of art and selence in which they are lnferior to others; and emable them to avail themselves of whatever foreign sugacity, skill, or practiee las producel that is most perfect. It is not easy, indeed, to overrate the henefits conferral on most countries by the resort of allens. l'reviansy to the invention of printing, there was hardly any other way of becoming aeguainted with foreign inventlons and dlseoverles; nul even now it ls lur easler to learn any new nrt, method, or process, from the example and listructlon of those familliar with its details, than from the best possible deseriptions. The experienee, incloed, of every age and country shows that the progress of nations in the career of arts and civilization depends more on the frecdom of commerce, and on the llherallty with which they have treated forclgners, thun almost any thing clse.

Allsalies. The distlnguishing eharacters of these bodies are, a strong acrld and powerfully caustle taste ; a corrosive actioa upon all aximal matter, destroying its texture with conaiderable rapidity; exposed to the atmosphere, when in their caustic atate, they absorb carbonic acid with great rapidity, and becomo carbonated (or mild). Their action upoa vegetable colors also affords us means by which the presence of an uncombined or carbonated alkali may be detected; the yellow color of turmeric is changed to a red brown tint when immersed into solutions containing them; the blue oulor of the litmus, after being reddened by an acld, is agnin restored; the infusions of the red cablage, the violet, and meny other purple vegetable colors, are converted to green. Litmus paper reddened by carbonic acid is, however, the most delicato test of the presence of an alkali. With the verious acids they also combine, forming the very important and extenaive class of compounds generally called salts-a aalt being any compound tormed by tho union of an acid with an alkali or metallie oxide.

Alkulimetry.-The methed by which the value of tho alkalies, or carbonated alkalies, is determined, being of considerablo importance in a commorcial point of view, wo shall here treat it somewhat in detail. 'It is an established fact that 49 parts, hy weight, of oil of vitriol of the specitic gravity of 1.8485 are exactly equivalent to the nentralization of 70 perte, by weight, of pure carbonate of potash, or 48 of purc potass, or 54 of carbonnto of socla, or 32 of sode, and that 70 parts of oil of vitriol will thereforo be neeessary to neutrallze 100 parts of carbonate of potass. Hence, by employing a glass tubo of about two ounces' cupacity, and accurately divided into 100 épual parts, taking 70 grains of oil of vitriol, and diluting it with water, to make the 100 measures complete, every measure of this dilute ncid must be equal to a grain of pure carbonate of potass. The percentage of real carlionate of potass existing in any sample of pearlash may be at once ascertuined by taking 100 grains of the sample, dissolving it in hot water, straining, and adding by degrees 100 measures of the test acid above mentioned; the point of neutralization (when it coases to affect litnua paper or reddened litmus) being acourately aseertainel, the resldual neid will give the percentage of impuritics ; for instunce, say that 75 measures of the dilute acid have been employed to render 100 greins of a sample of pearlash perfectly neutral, then we have ascertained that it contains 25 per cent. Impurities. The same proeess, of conrse, must bo followed in examining samples of harilln or kelp, except that the alkali contained in them heing carbonate of soda, 90.75 of oil of vitriol innst he employed instend of 70 . The process recommended by Mr. Faralay, nud in which he uses only one test acid, is as follows: Into a tube about three quarters of en luch in diameter, and nine and a half loug, and as evilndrical as possible throughout Its whele length, 1000 gralns of water are to be weighed, and the spuce oceupied marked on the tube by a the file; this space is then diviled from above downward into 100 equal parts. At $23 \cdot 14$, or 76.56 parts from the bottom, an extra line should he made, and sodn marked opposite to lt ; at $48 \cdot 96$ potass should be marked in the same way; at $5+63$ carbonate of soda; und at 65 carbonate of potass. A diluted nedd ls now to be prepared, which shall have a specilic gravity $1 \cdot 127$, mad thls is made by mixing intimately together 19 parts, hy weight, of oll of vitrlol and 81 of water. The method to be followed in the employment of this achd is as follows: Tho dilute neld is to be measured in the tube up to the line opposite to which the alkali sought for is marked ; If barilla, which contalns carhonate of soda, $54 \cdot 63$ measures are to be taken. The 100 measures are then made $\mathrm{n} p$ by the addltion of water, and is then roady for use, following tho method before statel.

The alkallea aro four In number; namely, ammonla

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(or volatile alkali), potasa (or vegetable alkali), soda (or mineral alkali), and lithia ; which last is of so littie importance that we shali not treat of it here. The combination of these alkaliea with the various acida, whenever they form compounda of any importance, will be noticed.
Anmomia, or Spirits of Hartshorm, or Volatile Alkali, in its uncombined form, is an elastic gaseous body, having a very pungent and auffocating odor, deatroya animai life, converta the yeliow of turmeric paper to a brown, which, from the voiatility of the alkaii, is again restored by a gentle heat to ita original color. This gas is rapidly absorbed by water, which takea into solution about 780 times its voiume, forming the iiquid ammonia, or what is commenly calied hartshorn. Ammonia is libersted whenever any of the componnds of this alkail are acted upon by potass, soda, lime, and many other aikaline earths. Lime, from ita being the most ecenomical, is generally employed; the best proportions for its preparation are equal weights of sal ammoniac (muriate of aminonia) and fresh alaked lime. When these are introduced into a retort, and heat applied, anmonia is liberated in the gaseons form, and is conducted by a Wetter's safety-tube inte a vessel of water, by which the gas is instantly absorbed. Muriate of ifme remains in the retort; sometimes water is added to the mixture, and then distilied. As thua obtained, it has a speclfic gravity of ' 930 or 940 , water being equal to $1 \cdot 000$. The most concentrated solution of ammonia has the specific gravity of $\mathbf{8 7 5}$.

Carbonate of Ammonia, or Volatile Salt, or Subcarbonate of A mmonia.-Tinis salt, which is very much employed in various processes of the arts, was formeriy obtained by the action of chaik (carbonate of lime) upon muriste of ammonia; a double decomposition takes piace. Carbonic acid and ammonia are sublimed in vapor, and muriate of lime remains in the vessei. A much less expensive process is, however now foliowed, namely, from the waste gas liquors obtained in the purification of coal gas; these are evaporated, and the biack, impure suiphuric acid added. By this means a sulphate of ammenia is formed, and the carbonate procured from it by the action of powdered chalk, as in the former process. Its nses are principaily in forming other compounds of ammonia, as smeiling salts; and it is likewise empioyed rather extensively by pastry-cooks for making light pastry, which is caused by the reiatiie carbonate of ammonia escaping and raising up the pastry by the heat of the oven. It is entirely dissipated during the baking, so that no ill effect can arise from its use. Both this compound and the preceding act as vlolent stimulants on the animal syatem.

Muriate of Ammonia, or Sal Ammoniac, was formeriy brought to Europe from Egypt, where it was procured by submitting the soot of cameis' dung (there employed for fuci) to sublimation in closed vesseis; it is, however, it present manufactured in very iarge quantities in Engiand in a variety of ways. The most economical processes are either submitting sulphate of ammonia mixed intimately with muriate of soda (sea salt) to sublimation, or hy substituting the inittern of sea-water, which consists chiefly of muriate of magneain, for the sea sait. In the first process a suipliate of soda is formed, and tise muriate of ammonia, which, being volatile, rises in the vaporous form, and is condenseni in the cooi parts of the apparatus; in the iatter process a suipinate of magneria (Eprom salts) results. It is generaliy from this snit (murinte of ammonis) that the liquid ainmonia is manufactured ; it is also empioyed in tinning and seldering, to preses ve the metals from oxidation. It is $\Delta$ semi-transparent, tough salt, having an acrid and cooi taste, and is usually met with in the form of hemispherienl masses. Sal ammoniac is made at Calcutta, and is thence exported to Great 13ritain, the United States, and the Arabian and Persian Guifs. In 1824-25 the exports amounted to 114 tons.

Sulphate of Ammonia.-The preparation of the sulphate has been aiready given under the head of ammonia; it is employed in the manufacture both of the carbonate and muriate.
Acetata of Ammonia.-The spirit of Mindererus is obtained by acting upon the carbonate of ummenia by acetic acid; the carbonic acid escapes with effervescence, and an acetate of ammonia is formed; it is employed in medicine as a febrifinge. All these salts of ammonia have the following properties: they are volatile at a low red heat; the fixed alkalies decompose them, combining with their acid, and the ammonia is liberated. When combined with a fixed acici, such as the boracic or phospheric, they are decomposed, the ammonia alone being volatilized, and the acid remaining pure. This process was described for obtaining pure phosphoric acid.
Potass, or Vegetable Alkali.-The original source of this alkali is in the vegetable kingiom, whence is derived its name of regetable alkali. When wood is burned, and the ashes lixivjated with water, boiled, strained, and evaporated to dryness, an intensely alkaline mass is obtained, which is known by the name of potash, from this process being conducted in iron pots. It is then removed to a reverberatory furnace, and submitted to heat, and a current of air. This burns out extractive matter and other impurities, and the salt assumes a peariy white coior, and is hence calied peuriashes. Care should bo tsken during this process that the potashes do not enterinto fusion, as this would destroy the fuli effect of the operation.

Pearlashes.-Pearlashes generally contain about from 60 to 83 or 84 per cent. of pure carbonate of potass. Its nses in manufactures are numerous and im portant. It is employed in making flint-glass, of which it constitutes about one sixth of the materials empleyed ; in soap-making, especially for the softer kinds of soap; for this purpose, however, it is first rendered caustic by means of lime. In the rectification of spirits large quantities are employed to combine with the water prevlously in union with the spirit.

Subcarbonate of Potass, or Salt of Tortor, is used in preparing the subcarbonate of potass of the Pharmacopceia (zarbenate of potasa of the chemical nomenclature), and likewise in rendering hard spring waters seft, and in cleansing substances from grease: it is sometimes calied salt of wormwood. When made ly the deflagration of two parts of tartar of argol and one of nitre, it is called black flux, and is nsed extensively in metallurgic operations. From the subcarbonate of potash the pure and uncombined potass is obtained, by adding an equal weight of fresh burned lime, previousiy slaked, and boiiing them with balf their weight of water. By this process the lime combines with the carbonic acid, and the potass remains in solution in its canstic state; by bolifing the clear soiution rapidly in iron vessels, and submitting it to fusion, we obtain the fused petass. If it be required perfectly pure for chemical jurposes, it is necersary to evaporate in silver vesseis, and dissoive in strong alcohol. This takes up the pure potass, und leaves any portion of the suibearhonate that may not have been acted upen by the lime; then the alcohol is to be distilled off, and the potass fused at a red heat, and poured out in its iiquid state on a eold slal. As thus procured, it is a white, brittle mass, highly deliquescent, absorbing moisture and carbonic acid rapidly from the atmosphere. When evaporated in iron vessels it has a dirty color, and lets fall a quantity of oxide of Iron when dissoived in wster, from its having acted upon the fron hollers. Petass acts with grent rapidity upen nnimai substances, destroylng their texture, and is on this account employed as a caustic, and was formerly cailed lagnis infernalis.

Carbonate (or, in the chemical nomenclature, Biearboncte) of Potoss, is prepared hy passing carbonic acici gas through a solution of the subcarbonate; and evap-

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orating at a temperature below $212^{\circ}$, and cryatallizing. It is used in making efforvescing draughts. It ioses one proportion of its carbonio acid when heated, and is converted into the subcarbonate.
Sulphate of Potass, or Sal Polychrest, or Vitriolated Turtar, is obtained by submitting the salt which remains after the manufacture of nitric acid from nitre and sulphuric acid to a red heat, or by neutralizing the excess of acid contained in that salt by subcarbonste of potass.

Bisulphate of Potass, or Sal Enixum.-This is the salt mentioned above, as the residua from the process for obtalaing nitric acid. It is employed in very large quantities in the manufacture of alum; also in tinning iron, for pickling, as it is termed; it is sometimes also used as a filix.

Nitrate of Potash, Nitre, or Saltpetre.-This salt, which is of so much importance in every branch of the arts, is found native in many parts of the world, especially in the East Indies. It is ohtained from soils composed of decomposing granite, the feldspar of which givos rise, as is supposed, to the potass. The nitric acid is not so easily accounted for, except it is by a union of the nitrogen and oxygen gases in the atmosphere taking piace in those hot climstes; for, from authenticated accounts, no decaving animal or vegetable mattor exists in the nitre districts of India. By lixiviation with water the nitre is dissolved from the soil, which is again thrown out into the air, to be washed the following year; so that it is formed continually. These lixiviations are then evaporated; and when of a certain strength, a no:antity of common salt separates, which is removed as it fulls ; and the nitre is then crystallized and imported to England, always containing a certain quantity of impurities, which aro deducted in the purchase of large quantities of the article, being termed its refraction. It is generally used for the inanufacture of gunpowder and pure nitric acid, refined or recryatallized. Nitre may be also made artificially, in beds of decaying vegetable or animal substances, mixed with old mortar, or other refuse calcareous carth; these a. e watered occasionally, tou much moisture being hurtful; after a certain period, depending on the rapidity with which the process has gone on, tho whole is submitted to lixiviation together with voodashes, which contain subcarbonate of potass, and which decounposes any nitrate of lime formed, of which theie is generally a considerable quantity. After the lixiviation is complete, which takes some time, the solution is esparatod and boiled down; the salt separates as in the other process, and the nitre is then erystallized. It was from this source that the whole of the nitre, nearly, eaployed by the French during the long-protracted wr $r$ with the continental powers was abtained. Nitre has a cold, penetrating, and nauseons taste; enters into igncous fusion at a gentie heat, and is then mouided into round cakes, calied sal prunelia. It is employed in the manufacturo of nitric acid; of gunpowder, which is composed of 75 parts by weight of nitre, 16 of charcoal, and 9 of suipinur (the nitre for this purpose should be of great purity); and in the manufucture of oit of vitriol: as a fiux it is one of the most powerful we possess; it is also used for the preservation of animal food, and in making frigorific mixtures 1 ounce of nitre dissolved in 5 ounces of water lowers its tempersture 15 degrees of l'alarenheit's thermometer.-See S.n.tpetre.

Oxalate and Binoralate of Potass.-The binoxniate of potass, or sait of lemon, or sorrel, by both which last names it is very commoniy known, is procured from tite juice of the common sorrel (Rumex Acetosa), or the wood sorrel (Oxulis A cetosella), by crystallization, after the fecuient matter has heen scparated by standing a fow days. Its chief uses aro, in removing ink spots or iron moulds; and aiso as a refreshing beverage when mixed with sugar und water. The neutrai oxainte is obtained from this salt by combining the excess of acid which it contains with a solution of sub-
carbonate of potass. Is very much used in chemistry, as the best test of the presence of lime.

Tartrate and Bitartrate of Potass.-Bitartrate of potass, or cream of tartar, is, when in its crude and Impure state, called argol, and is deposited in the interior of wine-caske during fermentation, and from this source the whole of the cream of tartar is obtained. It is generally of a very dark brown color, but may be purified and rendered perfectly white by solution and crystallization. It is employed very extensively in dyeing, hat-making, and in the preparation of tartaric acid, and many of the compounds of tartaric acid, as tartar emetic, soluble tartar (tartrate of potass): when heated to redness, it is converted into carbonatc of poiass and charcoal ; mixed with half its weight of nitre and thrown into a red-hot crucible, it forms the black flux, and with its own weight of nitre the white flux, both of which are very much employed in metallurgic operations. The tartrate is made by the addition of subcarbonate of potass to a solution of the bitartrate until perfectly neutral : it is used in medicine as a mild purgative.

Ferro-cyanate, or Prussiate of Potass.-This salt is obtained by the action of subearbonate of potass, at a low red hest, upon refuse animal matter, such as hoofs, horns, skin, etc., in the proportion of two of atrbcarbonate to four or five of the snimal matter. But the process recommended by M. Gautier is preferable; he finds that when animal matter is heated with nitre, it yields a much larger quantity of the ferro-Prussiate than when either potass or subcarbonate of potass are emiployed; the proportions he finds most cconomical are, 1 part by weight of nitre, 3 parts of dry blood, and iron ecales or filings equal to a fiftieth of the blood employed. The congulum of blood is mixed intimately with the nitre and iron filings, and dried by exposure to the air; they are then submitted to a very low red heat, in deep iron cylinders, as long as vapors continue to be liberated; when cold, the contents are dissolved in 12 or 15 times their weight and strained. On evaporation till of the specific grnvity $1 \cdot 284$, and allowing it to cool, a large quantity of bicarbonate of potass crystallizes; and by further evaporation till of the specifle gravity 1.306 , the ferro-Prussiate of potass crystallizes on cooling. This is to be recrystallized. It is a bcautiful yellow salt, very tough, having a tenacity similar to spermaceti, and is decomposed at a red heat. It is cmployed very extensively in dyeing blues, and in calico printing; also in the manufacture of Prussian blue, Which is a compound of the ferro-Prussic acid and exido of iron, prepared by adding 1 part of the ferroPrussiate of potass dissolved in water, to 1 part of copperas, and 4 parts of alum in solution.

Chromote of Potass.-This salt is ohtained from the nativo chromate of iron by the action of nitre at a full red heat in equal proportions. By solution, filtration, and evaporation, a beautiful lemon-yellow colored salt results. It is very much employed in dycing, calico printing, and calico making, from its producing bright yellow precipitates with solutions of lead.

Bichromate of Potass is prepared from the abovementioned sait, hy the addition of nitric acid to tho yellow solution obtained from the heated mass by the uetion of water; on evapornting this, a dark red colored sait crystalizes, which is the bichromate. This is also vory largely employed by the catico printers, and when mixed in sohition with nitric acid, possesses the property of destroying vegetnble colors; on this account it is of great importance, as it at the same time removes a vegetable color, and forms a base for a yollow dyc.
Chlorate or IIyperoxymuriate of Potass.-The preparation of this salt is attended with some littie difliculty; and requires a grent deal of nicety. It is obtained by passing a current of chlorine ges through a solution of caustic potass; then boiling and evoporeting; the first salt that eeparates is the chlorate of potass; and by
further evaporation, muriato of potass is obtained. It Is used in making matches for instantaneous light boxes, which are prepared by first dippling the wood in melted sulphur, and then into a thin paste, formed of 3 parts chlorate of potass, 2 parta starch, and a little vermilion; with aulphur it furma a very explosive compound, generally employed for filling the percussioncaps of fowling-pieces.

Soda, or Mineral Alkali.-The auurces of this alkali in nature are various. It is obtained in combiation with carhonie acid, when plants which gruw by the sca-side are burned. The ashes thus obtained are called barilla and kelp; and also in some countriea it is found as an effloresecnce upon the surface of tho earth, and is called nitrum or natron; this occurs particularly in Egypt and South America. Trona is also another native carbonate of soda, and is exported from Tripoli. In combination with muriatic acid it is also found in immense abundance, forming the rock salt, and sea salt or muriate of soda. It is obtained from the carbonate exactly in the same way as potasa is obtained from its carbonste, namely, by boiling it with fresh-burned line previously slaked. decanting the clear solution, and evaporsting and fusing. It is a white brittle aubstance, and by exposure to the air heconucs converted into a dry carbonate. Ita uses in the arts and manufactures are of considerable importance. In soap-making it is employed in very large quantities, and for this purpose is generally procured from barilla or keln. by mixing them with lime, and by the infusiun of water procuring a caustic sodu ley; this is mixed with oil and fatty matters in varions proportions, and builed; the saponitication of the fatty matter takes place, and the soap forned rises to the surface; the ley is then drawn from beneath, and fresh leys added, until the soap is completely free from oin; $i t$ is then allowed to dry. Soda is also employed in the usnufacture of plate, crown, and bottle glass, though for thls purpose it is generally in tho form of carlionate or sulphate.

Subcarbonate of Soda. (In the cher ical nomenclature it is called carborate.)-This is get erally prepared from barilla, which contains about fiom 16 to 24 per cent. Barilla is procured liy incine:ating the salsola soda, and other sea-side plants; it is mada in large quantities on the coast of Spain. Kelp is another inpure carbonate of soila, but daes nat contain more than 4 or 5 per eent.; it is the ashes obtained from sea-weeds by incineration, and is made on the northern shores of Scotland. From these, the erysta lized carbonste (or suhcarbonate, as it is more frequently called) is made by the addition of a small quantity of water, boiling, straining, evaporating, and skimming off the common salt as it forms on the surface; on cooling. the subearbonate of soda crystallizes. Another methud is hy heating the sulphate of aoda with carbonate of lime and charcoal, and then dissulving out the eoluble carbonate; also, by the action of carionate of potass (pearlash) upon solutions of sea salt.-Sce Bainled and Kelis.

Bicarbonate of Soda is procured by driving a current of carbonic acid gas through solutiona of the carbonnte, and then evajorating at a temperature below $212^{\circ}$ Fahrenheit; it is ehietly employed in making soda-water powders. This is the carbonate of soda of the Pharmacopoia. By the application of a red heat it loses carbonic acid, and is converted into the sulscarbenate.

Sulphate of Soda, or Glauber Salts.-This salt, which has received the name of Glauber, from its discoverer, is the residue of a great many chemical processes; for instance, when muriate of soda is acted upon by oil of vitriol, muriatic acid and sulphate of soda result; in making chlorine gas for the manufacture of the chioride of lime, or hleaching powder, sulphate of sodu and sulphate of manganese result-the materials employed being sen salt, sulphurie acid (oil of vitriol), and bluck
oxide of manganese ; also, in the preparation of acetie acid from the acetate of soda, and in the preparation of muriate of ammonia from ses salt and sulphate of ammonia. Sulphate of soda is a colorless, transparent salt, efflorescea readily when exposed to the air, and becomes converted into a dry powder; it has a coll, bitter taste. It ia used for the preparation of carbonate of soda, snd as a medicine. It la found native in some countries, particularly in Persia and South Americafrequently as an efflorescence upon new walls.

Nitrate of Sodu.-Thls sslt is found native in some parts of the East Indies, and is called, from its square form, cubie nitre; it is, however, very little used.

Muriate of Solla, or Sea Salt.-This compound is found in immense quantities in the eartl, and ia called from this cireumstance rock salt, or, sal gem. The mines of Cheshire and Droitwich, In England, and those in I'oland, Ilungary, and Spain, and many others, afford immense quantities of this compound. It is also obtained by the evaporation of sea-water, both spontancously in pita formed for the purpose, and in large iron boilers; the unerystallizable fluid ia called the bittern; basket salt is made by placing the salt, after evaporation, in conical laykets, and paasing through it a saturated solution of salt, which dissolves and carries off tho muriate of magnesia or lime. I'ure salt should not become moist by exposure to the air; it decrepitates when heated: it is employed for the preparation of muristic acid, carbonatt of soda, muriate of ammonia, and many other operations; also in glazing stone-ware, pottery, etc.; and from its great antiseptie properties, is used largely for the preservation of aninal food; as a flux also in metallurgy.

Borate of Soda, or Borax.-This salt is found in Thibet and l'ersia, deposited from aaline lakes; it is called tincal, and ia imported into this country, where it is purified by solution-the fatty matter with which the tincal is always coated being removed, and the solution evaporated and erystallized: ita principsl uses are aa a flux, from its acting very powerfully upon earthy substances.

Alkanet, or Anchusa (Ger. Orkant ; Du. Ossetomy ; Fr. Urcanette; It. Ancusa; Sp. Arcaneta), a speciea of bugloss (Anchusa tinctoria, linn.). It has been cultivated in England; but is found of the finest quality in Siberia, Spain, and more particularly in the south of France, in the vicinity of Nontpellier. The roots of the plant are the only parta that are made use of. When in perfection, they are about the thickness of the finger, having a thick bark of a deep purplish red color. This, when separated from the whitish woody pith, imparts a fino deep red to alcohol, oils, wax, and all unctuous substances. To water it gives only a dull brownish hac. It is principally employed to tint wax, pomatum, and unguents, oils employed in the dressing of mahogany, rose-wood, etc. The alkanet brought frou Constantinople yielda more heautiful hut less permanent dye thon that of France.Lewis'a Mfat. Med.; Maninem, Dietionnaire des 'roductions.

Alligation, the name of a method of solving all questions tha's relate to the mixture of one ingredient with anothe Though writers on aritlemetic generally make allibesion a branch of that science, yet as it is plainly nothing more than an application of the comnion properties of numbers, in order to solve a few questions that ocenr in particular branches of business, we choose rather to keep it distinct from the science of arithmetic. Alligation is generally divided into mediual and alternate.

Alligation Medial, from the rstes and quantities of the simples given, discovers the rate o. the mixture.
Rule. As the total quantity of the simples,
To their price or value;
So uny quantity of the mixture,
To the rate.
Example. A grocer mixes 30 pounds of currunta, at

4d. per pound, with 10 pounds of other currants, at $G d$. per pound; Wh.t is the value of 1 pound of the mixture? Ans. $4 \frac{1}{\frac{1}{2} d . ~}$


Alligation Alternate, being the converse of alligation medial, from the rates of the simples, and rate of the mixture given, finds the quantities of the simples.

Rules. I. Place the rato of the mixture on the left side of a brace, as the root; and on the right side of the brace aut the rates of the several almples, under one another, as the branches. II. Link or alligate the brauches, so as one greater and another less than the root may be linked or yoked together. III. Set the dillerence between the root and the several branches right against their respective yoke-fellows. These alternate differences are tho quantities required. Note 1. If uny branch happon to have two or more yoke-fellows, the difference between the root and these yoke-fellows must be placed right against the said branch, one after another, and added into one sum. 2. In som 3 questions the branches may be alligated more ways than one; and a question wlll always admit of so many answers as there are different ways of linking the branches.

Alligation alternate admits of three varietios; viz., 1. The question may be unlimited, with respect both to the quantity of the simples and that of tho mixture. 2. The question may be limited to a certain quantity of one or more of the simples. 3. The question may be limited to a certain quantity of the mixture.

Variety $I$. When the question is unlimited, with rospect both to the quantity of the eimples and that of the mixture, this is called Alligation Simple.

Example. A grocer would mix sugars at $5 d ., 7 d$., and 10 d . per pound, so as to sell the mixture or compound at $8 d$. per pound: What quantity of each must he take ?

$$
\left.8\left\{\begin{array}{c}
5 \\
5 \\
10
\end{array}\right){ }_{3}^{2} \right\rvert\, \begin{array}{c|c}
l_{b} \\
2 & 2 \\
4
\end{array}
$$

Here the rate of the mixture 8 is placed on the left side of the brace as tho root ; and on the right side of the same brace are set the rates of tho several simples, viz., $5,7,10$, under one another, as the branches; according to Rule I. The branch 10 being greater than the root, is alligated or linked with 7 and 5 , both these boing lesa than the root, as directed in Rule II. The difference between the root 8 and the branch 5, viz., 8 , is set right against this branch's yoke-fellow 10; the differeneo between 8 and 7 is likewise set right against the yoke-fellow 10; and tho difference between \& and 10, viz., 2 , is set right ugainst the two yoke-fellows 7 and 5, as prescribed by luule III. As the branch 10 has two differences on the right, viz., 3 and 1 , they are added; and the answer to the question is, that 2 pounds at $5 d ., 2$ pounds at $\bar{i} d$., and 4 pounds at $10 d$., will make tho mixture required. The truth and reason of the rules will appear by considering that whatever is lost upon any ono branch is gaiued upon ita yoke-fellow. Thus, in the above example, by selling 4 pounds of $10 d$. sugar at $8 d$. per pound, there is $8 d$. lost : but the like sum is gained upon its two yoke-fellows, for by selling 2 pounds of $5 d$. sugar at $8 d$. per pound, there is Gel. galned; and by selling 2 pounds of $7 d$, sugar at $8 d$. thure is $2 d$. gained; and $6 d$. and $2 d$. make $8 d$. Hence it follows that the rate of the mixturo must always be mean or iniddle with respect to the rates of the simples; that is, It muat be less than the greatest, and greater than tho least; otherwise a solution would be impossible. And the price of the total quantity mixed, computed at tho rate of the mixture, will always be equal
to the sum of the prices of the several quantities csast up at the respective ratea of the simples.
Variety II. When the question is limited to a certaln quantity of one or more of tie simples, this is called Alligation Partial.
If the quantity of one of the simples only be limited, alligate the branches, and take their differences, as if there had been no such limitation; and then work by the following proportion :
As the difference right against the rate of the simple whose quantity is given,
To the other differences reepectively;
So the quantity given,
To the several quantities sought.
Example. A distiller would, with 40 gallons of brandy at 12s. per gallon, mix rum at 7s. per gallon, and gin at 4s. per gallon: How much of the rum and gin must be take to sell the mixture at 8 s . per gallon?

$$
\left.8\left\{\begin{array}{c}
12 \\
7 \\
4
\end{array}\right) \quad \begin{array}{l}
1,4 \\
4
\end{array} \left\lvert\, \begin{array}{l|l}
5 & \begin{array}{l}
\text { Gallons. } \\
4
\end{array} \\
40 \text { of brandy } \\
42 & 82 \text { of rum, gin. }
\end{array}\right.\right\} A n s
$$

The operation gives for answer, 5 gallons of 1 :andy, 4 of rum, and 4 of giu. But the question limita the quantity of brandy to 40 gallons; therefore say,

If $5: 4: \mathbf{: ~} 40: 32$.
Tho quantity of gin, by the operstion, being also 4, the proportion needs not be repeated.

Variety III. When the question is limited to a certain quantity of the mixture, this is ce!led Alligation Total.
After linking the branches, and taking the differences, work by the proportion following:

As the sum of the ditterences,
To each particular difference;
So the given total of the mixture,
To the respective quantities required.
Example. A vintner has wine at 3 s. per gallon, and would mix it with water, a as to make a composition of 144 gallons, worth 2 s . $6 d$. per gallon: How hueh wine, and how much water, must he take?

> Gallons.
$\left.30\left\{\begin{array}{c}36 \\ 0\end{array}\right) \begin{array}{c}30 \\ \frac{6}{36}\end{array} \left\lvert\, \begin{array}{c}120 \text { of wine, } \\ \frac{24}{120 \times 80=4320} \text { of water. }\end{array}\right.\right\}$ Ans..
$24 \times 0=0$
Proof 144) $4320(30$
As 36: $30:$ : $144: 120$
As 36: 6::144: 24.
There being here only two simples, and the total of the mixture linuited, the question admita but of one answer.-E. B.
Allocation denotes the admitting or allowing of an article of an account, especially in the exchequer. Hence Allocatione Facienda is a writ directed to the L.ord Treasurer, or Burons of the Exchequer, commanding them to allow an accountant such sums as he has lawfully expended in the exceution ot his office.E. 1 .

Allowances, Tares, etc. In selling goods, or in paying duties upon them, certain deductions are made from their weights, depending on the nature of the packages in which they are inclosed, and which are regulated in most instances by the eustom of merchants, and tho rules lald down by public offices. These allowances, as they are termed, are distinguished by the epithets Draft, Tare, Tret, and Cloff.
Draft is a deduction from the original or gross welght of goods, and is substracted before the tare is taken off. Tare is an allowance for the weigit of the bag, box, cask, or other package, in which goods are welghed. Real or open tare is the actual weight of the package. Customary tare is, as ita name implies, an establlahed allowance for the weight of the package. Computed tare is an estimated allowance agreed upon

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at the time. Average tare is when a few packages |natlons, interspersed with a great number of astroonly among aeveral are weighed, their mean or average taken, and the reat tared accordingly. Superatare is an additional allowance, or tare, where the commodity or package exceeds a certain weight. When tare is allowed, the remainder ia called the net waight ; but if tret be sllowed, it is called the suttle weight. Treet is a deduction of 4 pounda from every 104 pounds of suttle weight. This aliowance, which is said to be for dust or sand, or for the waste or wear of tha commodity, was formerly made on most foreign articlea sold by the pousd avoirdupois ; but it is now nearly discontinued by merchanta, or else aliowed in the price. It is whelly abolished at the Eaat India warehouses in London; and neither tret nor draft is allowed at the custom-house. Cloff, or Clough, is another allowance that is nearly obsolete. It is atated in arithmatical books to be a deduction of 2 pounda from avery 8 cwt . of the second suttle; that is, the remainder after tret is aubtracted; but merchanta at present know cloff only as a smali deduction, like draft, from the original weight, and this only from two or threa articiea.-See Kehiy's Cambist, art. London.

Alloy, or Allay, properly signifies a proportion of a baser matal mixed with a fincr one. The alloy of gold is estimated by carata, that of silver by pennyweights. In dificrent nations different proportiona of alloy are used; whence their moneys are said to be of different degrees of fineness or baseness, and are valued accordingly in foreign exchanges. The chief reasons alleged for the alloying of coin are, 1 , the mixture of the metals, which, when smelted from the minn, are not perfectly pure; 2 , the eaving of the expense it must otherwise cost if they were to be refined; 8 , the necessity of rendering them harder, by mixing some parts of other metals with them, to prevent the diminution of welght by wearing in passing from hand to hand; 4, the melting of foreign gold or coin which is alloyed; 5 , tha chargea of coinage, which must be made good by the protit arising from the money coined; 6 , and lastly, the duty belonging to the sovareign, on account of the power he has to cause money to be coined in his dominions.-E. B.

Almadie, a kind of canoe or small vessel, about four fathoms long, commonly maile of bark, and used by the negroes of Africa. At Calicut the same name is applied to a kind of long boats, 80 fect in length and six or seven in breadth. They are exceedingly swift, and are otherwise called cathuri.-E. 13 .

Almanac, a beok or table, containing a calendar of days and months, the sising and setting of the sun, the age of the moon, the eclipses of both luminaries, etc. Authors are divided with regaril to the etymology of the word; seme deriving it from the Arable particle $a l$, and manach, to count ; some from almanach, Newyear's gifta, because the Arabian astrologers used at the beginning of the year to make presents of their epitemerides; and others from tha Teutonic almaen ache, observations on all the montis. Dr. Johnsen derivea it from the Arabic particie al, and the Greek $\mu \eta \nu$, a month. But the most simple etymology anpears from the common spelling; the word being composed of two Arabic ones, Al Manack, which signify the Diary. All classes of the Arabs are commonly much given to the study of astronomy and astrology; to both of which they are inclined by their belief in fate, and by their pistoral life, which affords time and opiortunity to cultivate them. They neither sow, renp, plant, nor undertake any expedition or business, without previously consuiting the stars, or, in other words, their almanacs, or some of the makers of them. From these peopic, by their viclnity to Europe, this art, no less useful in one sense than trifling and ridiculous in another, has passed over to us; nnd those astronomical compositiona have atill every where not only retained their old Arabic name, but were, like theirs, for a long while, and still are smong many European logical rulea for planting, sowing, bleeding, purging, etc., down to the cutting of tha hair and paring of the nails. Regiomentanua appears to have been the first in Eurepe, however, who reduced almanacs Into their present form and method, gave tha characters of each year and month, foretold tha eclipses and other phases, calculated the motions of the planets, etc. Ilia first almanac was published in 1474. The easential part of an almanac is the calendar of montha and dayn, with the risings and settings of tha sun, age of the moon, etc. To these are added llats of posts, offices, dignities, public inatitutions, with many other articles, pelitical as well as local, and differing in different countries.

Almanac, Nautical. This, whleh in some respects is a national almanac, is published under the sanction of tha Board of Longitude, and ia designed chictly to facilitate the use of Mayer'e Lunar Tables, by superseding the necessity of maring calculationa to determine the longitnde at aea. it commenced with the year 1767, and haa ever since been continued annually, but two or three years in advance. Tha late Dr. Maskelyno was the originater of this very valuabie publication. It is now published under the immediate superintendence of the secretary to the board. Similar to this almanac is the French publication entitled Comnoissance des Tems, directed by the Bureau de Longitude, and which commenced so carly as the year 1698. At Ilerlin, the celelrated Bode for about 50 years conducted the excellent astronomlcal almanac, Astronomisches Jahrbuch, which is still continued.-E. B.

The American Ephemeris and Nautical Almanac is n valusble work for navigetors. The act establishing this work was passed by Congress in 1849, and the preparation of the first volume was commenced in the fell of the same ycar. The work was put under the superintendence of Commander C. H. Davis, of the navy, with Professor Benjamin Peirce as consulting astronomer. Owing to the smalluess of the first appropriations, and the great amount of preliminary iabor, the firat volume, for 1855 , was not published until 1852 ; since which time a volume has been issucd each year. The volume for 1859 is now in a forward state of preparation, and will be ready about January, 1857. The primary olject of the work is to promote the intcrests of commerce; and for this reason great pains have been taken with those problems upon which the science of navigation tlepends. Especially is this the case with the Lunar Epinemeris; and ali the tests which iave been applied show that this labor has been rewarded with great success. Professor Peirce's Tablia are used in preparing this ephemeris. The ephemeris of the sun is prepared from Ilansen's Tables. The nautical part of the work, besides the foregoing, contains the ephemerides of those planets most commonly used with the moon in determining a ship's place at sea; also the appurent places of about one hundred fixed stars. All this part of the work is referred to the incridian of Greenwich; and to prevent confusion in its use, the arrangement of the British Almanac is adopted. The astronomical part is referred to the meridian of Washington, and such changes in the ordinary forms of the ephemeridies have been adopted as would render them most practical in the daily routine of the observatory. The ephemerides of the plancts are being hased upon now theories, ns fast as can be tone consistently with the demands which tine regular issues of the almanac make upon the annual appropriations made by Congress for its support.

The Egyptians computed time by instruments. Log calendars were anciently in use. Almon-aght is of Saxon origin. In the Irftisit Museum and universities are curious specimens of early almanacs. Michnel Nostrodamus, the celelirated astrologer, wrote an almanac in the style of Meriin, 1566.-Defresnoy. Tha most noted eariy almanacs were :
John Somer's Calendar, Oxford. ..... 1880
One in Lambeth palace, written in. ..... 1460
Ftrst printed one, publlished at Budn. ..... 1472
First printed in Engtand, by Richard Pynson. ..... 1593
Tybanlt's Prognosticattons.
153
153
Lity's Ephenerls. ..... 164
Joor Rebin's Almauac. ..... 165
Lady's Diary.. ..... 170
Moone's Almallac ..... 1713
geason on the Seasoos.
1705
1705
Genticman'e Dlary. ..... 1741
Nantical Almanac (materiatty Improved in 18\%-f) 176\%
Poor Richard's Almanac (Frankitn's, Phitadel-phta). .1733
British Imperial Calendar ..... 1809
Brittah Atmanac and Companion ..... 1828
American Atmanac, Uleston...... ..... 1820
Nantical Atmanac, United States. ..... 1865

Of Moore's, at one poriod, upward of 500,000 coples were annually sold. The Statloners' company claimed the exclusive right of publishing, until 1790, in virtue of letiers patent from James I., granting the privilege to this company, and the two universities. Tha atamp duty on almanaca was abolished in England, $\mathbf{1 8 8 4}$.

Almonds (Ger. Mandeln; Du. Amandelen; Fr. Amandes; It. Mandorli; Sp. Almendra; Port. Amendo; Russ. Mindul; Lat. Amygdalee amarce, dulces), a kind of medicinal fruit, contained in a hard ahell, that is inclosed in a tough sort of cotton skin. The tree (Amygdalus communis) which produces this fruit nearly resembles the peach both in leaves and blussoms; it grows spontaneously only in warm countries, as Spain, and particularly Barbary. It flowers early in the spring, and produces trult in August. Almonds are of two sorts, aweet and bitter. They are not distingulshable from each other but by the taste of the kernel or fruit. "The Valontia almond is sweet, large, and flatpointed at one extremity, and compressed in the middle. The Italian almonds are not so sweet, smaller, and less depressed in the middle. The Jordan almonds come from Malaga, and are the best sweet almonds brought to England. They are longer, flatter, less pointed at one end and less round at the other, and have a paler cuticle than those we have describel. The sweet almonds are inported in mats, casks, and boxes; the bitter, which come chiefly from Mogadore, arrive in boxes."-Thomson's Dispensatory.

Aloes (Du. Aloe ; Fr. Aloés; Ger. and Lat. Aloe ; Russ. Subir; Sp. Aloe; Arab. Mfucibar), a bitter, guminy, resinous, inspissated julce, obtained from the leaves of the plunt of the same name. There are four surts of aloes met with in commerce; viz., Socotrine, Hepatic, Caballine, and Cape.

1. Socotrine-so calied from the island of Socotra, in the Iudian Ocean, not very distant from Cape Guardafui, where the plant (Aloe spicata), of which this specles is the produce, grows abundsntly. It is in pieces of a reddish-brown color, glossy as if varnished, and in somo degree pellucid. When reduced to powder, it is of a bright golilen color. Its taste is extremely bittor, and it has a peculiar aromatic odor, not unlike that of the i asset apple decaying. It softens in the hand, and is ar'luesive, yet is sufficiently pulverulent. It is imported by way of Sinyrua and Alexandria, in chests and casks, but is very scarce in England.
2. Hepatic.-The real heputic aloes, so ealled from its liver color, is believed to be the produce of the Aloe perfoliate, which grows in Yemen, in Arabia, from which it is exported to Bombay, whence it finds its way to Europe. It is duller in the color, bitterer, and has a less pleasant aroma than the Socotrine aloes, for which, however, it is sometimes substituted. Barbadoes aloes, which is often passed oll for the hepatic, is the produce of the A loe vulgaris. It is brought home In calabashes, or large geurd shells, containing from 60 to 70 pounds. It is duskier in its hue than the Bombay, or real hepatio aloes, and the taste is more mauscous, and intensely bitter. The color of the powder is a dull ollve yellow.
3. Caballine, or Horve Aloes, seems to be merely the coarseat species or refuse of the Barbadoes aloes. It is used only in veterinary medicine; and is easily distinguished by its rank, fetid smell.
4. Cape Aloes is the produce of the Aloe spicata, which is found in great abundance in the interior of the Cape colony, and in Melinda. The latter furnishes the greater part of the extract eold in Europe under the name of Socotrine aloes. The odor of the Cape aloes is stronger and more disagreeable than that of the Socotrine; they have also a yellower hue on the outside, are less glossy, softer, and more pliable ; the color of the powder is more like that of gamboge than that of the true Socotrine aloes.-Ainslis'a Mfateria Indica; Tromson's Dispensatory and Materia Medica.

Aloen-wood (Ger. Aloeholz; Du. Aloehout, Paradyshout ; Fr. Bois d'Aloes ; It. Legno di Aloe ; Sp. Aloè chino; Lat. Lignum Aloes; Sans, Aguru; Malsy, Agila; Slam. Kisnu), the produce of a large forest tree, to be found in most of the countries between China and India, from the 24th degree of north latitudo to the equator. It seems to be the result of a diseased action confined to a small part of a few trees, of which the rest of the wood ia wholly valueless. It appears to be more or less frequenc according to soll and cllmate, and from the same causes to differ materlally in quality. It is producell both in the greatest quantity and perfection In the countries and islands on the east coast of the Gulf of Slam. This article is In high repute for fumlgations, and as incense, in all Hindoo, Mohsinmedan, and Catholic countries. It formerly brought a very high price, being at one time reckoned nearly as valuable as gold. It is now comparatively cheap, though the finest specimens are atill very dear. The accounts of thls article in most books, even of good authority, are singularly contradletory and insccurate. Thls is more surprising, as La Loubère has distinctly stated that it consisted only of "certains endroits corrumpus dans des arbrea d'une certaine espèce. Toute arbre de cetta espèce n'en a pis; et ceux qui en ont, ne les ont pas tous en méme endroit."-Royaume de Sium, t. i. p. 45, 12mo ed. The difficulty of finding the trees which happen to be diseased; and of getting at the diseased portion, has given rise to the fables that have been current as to fts origin. The late Dr. Roxburgh introduced the tree which yields thls production into the Botanical Garden at Calcutta, from the hills to the esatward of Sylhet, and described it under the name of Aquillaria Agalocha.

Alpaca, a species of the South American family of quadrupeds called Ilama, the soft hairy wool of which is now largely employed in the falsrication of cloths of different sorts. There would appear to be three species of this family, the Guanaco, or wild Llams; the Alpaca, which was domesticated as a beast of burden by the ancient Peruvians, and hence considered as the camel of the New World; and the Vicuirir, a small species, chlefly valued for the softness of its fine wool. Some considar the Paco a fourth species; but the descriptions of travelers aro too Indefinite to enable us to decide this point. The fleece of the alpaca is fine, long, and shaggy; and the animal exceeds much in size the other two.

Alum (Ger. Alaun ; Du. Aluin ; Fr. Alun; It. Allume; Sp. Allumbre; Russ. Kwasszz̄? Lat. Alumen; Arab. Sheb), a salt of great importance in the arts, consisting of a ternary compound of aluninum, or pure argillaceeus earth, potass, and sulphuric acid. Alum is sometimes found native; bit by far the greater part of that which is met with in commerce is artilicislly prepared. The best aIum is the IRoman, or that which is manufactured near Civita Vecehia, in the Papal territory. It is in irregular, octahedral, crystaltine masses, about the size of a walnut, and is opaque, being covered on the surface with a farinaceous efflorescence. The Levant, or Roch alum, is in frugmenta, about the size of the former, but in which the crystal-
line form is more obscure; It In externally of a dirty -se-color, and Internaliy exhlblts the same tinge, but 'zarer. It la unually shlpped for Europe from Smyrna; but It wat anciently made at lloceha, or Edensa, in Syria; and hence Its name, Hoch alum. Engligh alum In in large, Irregular, neml-transparent, coloriens masses, having a glassy fracture; not efflorescent, and conslderably harder than the others. It is very inferior to either the Roman or Roch Alum, The princlpal use of alum in in the art of dyelng, as a mordant for fixing and givlng permaneney to colors which otherwise would not adhere at ali, or but for a very short time; but it is also used for a great variety of other purposes. Beckmann has shown (IIistory of Incentions, vol. I. article Alem) that the ancienta wers unaequainted with alum, and that the subatance which they deslgnated as auch was merely vitriolic earth. It was first diacovered by the Orientals, who established alun works in Syria in the thirteenth or fourteenth century. The oldeat Ilum works In Europe were erected about the middle of the fifteenth century. Toward the conclusion of the relgn of Queen Elizabeth, Sir Thomas Chaloner established the first alum work in England, In the vleinity of Whitby, In Yorkahire, where the prinelpal works of the sort in that country are still carried ous the shipments of alum from Whitby in 1841 amount to 3237 tons. There is alao a large alum work at Hurlett, near Palsley, the produce of which may be eatimated at abont 1240 tons a year. A lum la largely manufactured in China, and is thence exported to all the western Asiatle countrics. In 1837, 35,642 piculs ( 2120 tens) were exported from Canton.

Amalgamation, the operation of making an amalgall, or mixing mercury with any metal. For tho comlination of one metal with another, it is generally suftleient that one of them be in a state of finidity. Mercury being always floid, ia therefore capable of amalgamation with other metals without heat, iron excepted; nevertheless, heat considerably facilitates the operation. To amalgamate without heat requires nothing more than subbing the two metals together in a mortar; but the metal to be united with the mereury should be previously divided Into very thin plates or grains. When heat ss used (which is always most effectual, and with some metals indispensalily necessary), the mercury should be heated till it begin to smoke, and the graina of metal made red hot before they are thrown into it. If it be gold or silver, it ia sufficlent to stir the fluid with an iron rod for a little whlle, and then to throw it lnte a vessel filled with water. This amalgam is used for gilding or silvering on copper, which is afterward exposed, to a degree of heat sufficient to evaporate the mercury. Amalgamation with lead or tin is effected by pouring an equal weight of mercury into either of these metals in a state of fusion, and stirring with an iron rod. Copper amalgamates with great diffieulty, and lron not at all.-F. I.

Amazon, Maranon, Orellana, or Bolimoes, the ehief river of South America, and the largest in the world, whether regarded as to its volume, or the extent of its basin. It is formed by the union of the Maranon and Ucayale; the former vising in Lake Lauricocha (Peru), in lat. $10^{\circ} 30^{\prime} \mathrm{S}$., long. $76^{\circ} 10^{\prime} \mathrm{W}$.; and the head stream of the latter, the Apurimac, ariginating about lat. $16^{\circ} \mathrm{S}$., long. $72^{\circ} \mathrm{W}$. Both rivers have a general eourse at firat uorthward; the Maranon, for the first 500 miles of its course, flews N.N.W., and at about lat. $6^{\circ} \mathrm{S}$. bends eastward, and at lat. $4^{\circ} 40^{\prime}$ takes an almost due east course, and after receiving the II ualInga from tho aouth (where it ls about 500 yards broad), it pursues a course of 46t leagues, and joins the Ueayale at lat. $4^{\circ} 3 \bar{o}^{\prime} \mathrm{S}$., long. $74^{\circ} \mathrm{W}$. Ilere the stream has depth sufficient to tioat the largest class of ships. Thenceforth the Amazon flows generally east to the Atlantle, which It enters nearly under the equator, and between long. $48^{\circ}$ and $60^{\circ} \mathrm{W}$., Its estuary widening until it is 180 miles across. Taking the Apurimac as its
source, Ita direct length is estimated at 1769 miles; and Including Ita windinge, nearly 4000 mlles; for great part of which (via., from the ocean to Pongo de Manseriche, long. $76^{\circ} 50^{\circ} \mathrm{W}$.) it ia navigable and uninterrupted by any rapld or cataract. At least twenty ncble rivers, uavigable to near their sources, pour thelr waters into It, besldea numeroua other less important streams. Chlef tribntaries, the Napo, Putumayo, Yapura, and Illo Negro, from the north; the Yavarl, Jutay, Jurua, Coary, Purua, Madelra, Tapajos, and XInga, from the south. By the Caslqulaire, a branch of the Rio Negro, the Amazon has a direet and remarkable connectlon with the Orinoco. The Amazon and its tributariea afford an immense inland navigation, estimated at 50,000 miles ; and the extent of 3 ts basin has been computed at about two millions of square mlles, or ahout two fifthe of the whole continent of Soutli America. The depth of the river is great; In mid-current no bottom is found with 20 fathoms. The veloclty of the current ls pretty uniform, ot the rato of $3 \frac{1}{2}$ milles ar. hour. Tldes ascend this river for 400 miles from the Atlantle-as far as Obidos, where tho Amazon is atill more than a mile in width-and near the full moon the rlse of the tide oceasions a formidable rush of water into the channel, sometimes bringing In several waves from 10 to 15 feet In helght. Thls phenomenon, called the bore, ls witnessed on a smaller scale in the Ganges, and in some Eurepean rlvers. The upper part of the rlver, as far as the month of the Yavari, which forms the boundary lino between Brazll end P'eru, is called Maranon; thence to the mouth of the Rlo Negro it is called Solimoes or Solimas; and from the Negro to its mouth, Amazon. The tropleel ralns swell the river annually to $\mathbf{4 0}$ and $\mathbf{6 0}$ feet above Its ordinary level. The Maranon attains its greatest helght in January, the Solimoes in Feliruary, the Amazen In the middie of March. In tho lower part of its course, the Amazon abounds with Islands, and in Its estuary aro Marajo and Caviana, of considerablo extent. Santiago (Ecuader), S. Ilorja, S. Joaquim, Tabatinga, Olivenza, Matura, Serpa, Santarem, Montalegre, Para, Arayates, and Gurupa, are towns on its banks; but, with trifing exceptions, the whole country which it traverses is atlll In a state of nature. In 1848, a steambont made a passuge from Para, up the river as far as the Negro. The estuary of the Amazon was discovered by Pincon in 1500 ; in 1539, Francis d'Orellana sailed down it from the Napo, and it obtalned its name of Amezon from his having reported that he had seen armed won, 1 its shores.-Manpens' Gazetteer.

Its capaeities for trade ayd commerce are inconceivably great. Its industrial future is the most dazzling; and to the touch of steam, settlement, and cultivntion, this rolling stream and lts magnificent water-shed would start up into $n$ display of Industrial results that wonld indicate the Valley of the Amazon as one of the most enehanting regions on the face of the earth. From ita meuntains you may dig sllver, iron, conl, copper, quacksllver, zine, and tin; from the ennds of its tributaries you may wash gold, diamonds, mud precious stones; from its forests you may gather drugs of virthes the most rare, spices of nroma the most exquisite, gunss and resins of tho most varied and useful properties, dyes of hues the most brilliant, with enlinet and building woods of the finest polish and nost enduring texture. Its ellmate is an everlasting summer, and Its harvest perennial. I translate from a book of travels in these countries, by Count Castelnan (received since my return to the United States), an account of the capaeitles of some of the southern portions of this vast water-shed:
"The productions of the country are exceedingly various. The sugar-cane, of whleh the crop is gathered at the end of eight months from the time of planting, forms the chicf source of wealth of the province of Cereado.
"Coffee is cultivated aiso with success in this province, and In that of Chiquitos yields its frnit two years after having been planted, and requires acarcely any attention. Cocoa, recentiy introduced into these two provinces, given lts fruit at the end of three or four years at most. The tamarind, which thrives in the game locailities, produces lts harveat in tivo yearn. Cotton gives annual erops; there are two varietiesthe one white, the other vellow. Tobacco grown, so to speak, without cultivation, in the province of Valle Grande, where it forms the princlpal article of commerce. Indigo, of which there are three cultivated kinds and one wild, is equally ahundant. Maize yields at the end of three months all the year round; it is also cultivated in the province of Cercado. The cassave proluces in elight montha after planting ; there are two kinds of it-one eweet, and the other litter; the first can replace the potato, and even bread; the second is only good for atarch. Jincee is an enormous ?mount of kinds or varieties of bananas, which produce in the year from seed; they are specialiy cultiva $d$ in the province of Cercado. 'I'wokinds of rice-one white, the other colored-are cultivated in the two provincea of Cercado and Chiquitos. They produce every five or six months; they say it is found wild in the region of Chiquitos.
"The grape, whlch growa well every where, and ospecialiy in the province of Cordlllersa, where it was cuitivated in the Missions up to the time of the Independence, is nevertheless made no article of profit. It will some day, perhaps, form one of the principal sources of wealth of this country. Wheat, barley, and the potato might be cultivated with advantage in the provinces of Chiquitos and Cordllleras ; but till now resuita have been obtained ouly in that of Valle Grande. The cultivation of cocos has commenced in the province of Cereado, and it is also found in a wild atate, as well as the Peruvian bark, on the mountains of Samaripata. As we have already said, fruits abound in this region. They cultivate there principaily oranges, lemons, citrous, figs, papaws, pomegranates, melons, water-melons, chirimoyas (which the Brazilians cali fiuto de conde), pine-apples, ete. The last of these fruits grow wild, and in great abundance, in the wooda of Chiquitos. We met it, particularly the evening of our arrival, at Santa Ana. Ita taste is excelient; but it leaves in the mouth such a burning sensation that I bitterly repented haviug tasted it. They cultivate in sufficient abundance, in the province, jalap, Peruvian bark, sarsaparilia, vanilia, rocou, copahu, ipecacuanha, caoutchouc, copal, etc. Woods for dyeing, cabinet-making, and building, abound; and the people of the country collect carefuily a multitude of gums, roots, and harks, to which they attribute medicinal virtues the most varied. In many points in tho departmenta, and cspecially in the provinces of Valle Grande and Cordilleras, iron is found, and traces of quicksilver. Gold is found in the province of Cercado, near the village of San Xavier. The Jesuita wrought mines of silver in tise mountains of Colehis. Don Sebastian Rancas, while Governor of Chiquitos, announced to the government that diamonds, of very fine water, had been found in the streams in the environs of Santo Corazon."

The citizens of the United States are, of ail foreign people, most interested in the free navigation of the Amazon. We, as in comparison with other foreigners, would reap the lion's ahare of the advantages to be derived from it. We would fear no competition. Our geegraphical position, the winds of heaven, and the currouts of the ocean, are our potential anxiliaries. Thanks to Maury's investigations of the winds and currents, we know that a chip flung into the sca at the mouth of the Amazon wiil tloat close by Cape IIatteras. We know that ships sailing from the month of the Amazon, for whatever port of the workd, are forced to our very doors by the aoutheast and northeast trade-
winde ; that New York is the half-way house between Paráa and Europe.
The present limitted commerce of the Amazon may be judged of by a statement of the exports and imports of l'ara, the port of entry, and situated most advantageously at the moath of an eatuary of the Amazon.

|  | No. of Vemals. | Tonpage. | Mea. | Yalue of Importa. | Vilue of Expurts. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| American.... | 30 | 4,574 | 226 | \$4.425,484 | \$475,210 |
| Engtiuth . . . . | 14 | 4,732 | 139 | 475,040 | 335,000 |
| French ...... | 10 | 586 | 09 | 124,830 | 188, 000 |
| Portuguese .. | 10 | 3,766 | 312 | 291,4b7 | 215,142 |
| Itamburg. . . | 2 | 610 | 18 | 27.5010 | 131,000 |
| llelgian...... | 8 | 320 | 20 | 5,250 | 16,250 |
| 118bish...... | 2 | 480 | 22 | 4,750 | 84,000 |
| Swediah ..... | 2 | 420 | 22 | .... | 28,500 |
|  | 81 | 14,238 | 848 | 181,022,271 | \$1,424.8111 |

The city of Santa Maria de Belem de Graó Pará, founded by Francigeo Caldeira do Castelio Branco, in the year 1616, ia situated on a low ellow of land at the junction of tise liver Guamá with the River Pará, and at a distance of about eighty milies from the sea. A ship generally requiros three tides, which run with a velocity of about four miles to the hour, to reach tise sea from the city. The harbor is a very tine ors; it is made by tho long isiand of Onças in front, and at two miles distant, with some smaller ones farther down the river. There is an abundance of water, and ships of any size may lie within one hundred and fifty yards of the shore. There is a good landing-place for boata and lighters at the custom-house wharf; and at halftlde at the atone wharf, some five hundred yards above.

Owing to tho miserable policy of the Brazilian government, the free commerce of the Amazon wiil he retarded until Brazil is forced to do justice to heraclf amil others.

The Bolivian government are pursuing a more liheral policy, and have issued the foliowing decree, dated La Paz, 27th January 1853:
"Whereas, 1at, the eastern and western parts of the republic, inclosing vast territories of extreordinary fertility, interoected by navigable rivers flowing to the Amazon and to the La Plata, offers the most natural channels for the cominerce, population, and civilization of these districts;
"Whereas, 2d, the navigation of these rivers la the most efficacious and certain means of devoloping the riches of this territory, by placing it in communication with tho exterior, and applying to its waters the fruitful principle of free navigation, as useful to the intercsts of the repuhlio as to those of the world;
"Whereas, 3d, by the law of nature and of nations, confirmed by the conventions of modern Europe, and applied in the New World to the navigntien of the Mississippi, Bolivia, as owner of the Pllcomayo, of the tributaries and the greater part of the Madeira, of the left shore of the Itenes from its junction with the $\mathrm{Sa}-$ ravé to ita emptying inte the Momore, of tho western benk of the Paraguay to the Marco del I——, as far as $26^{\circ} 54^{\circ}$ of south latitnde, and of the greater part and the left shore of the Bermejo, has the right to navignte these rivers from the point in her territory in which they may be suseeptible of it to the sen, withont any power being able to arrogate to itself the exclusive sovereignty over the Amazon and La Plata;
"Whereas, 4th, this navigation can not be effected without the necessary ports are afforded for trade;
"Therefore, be it decreed:
"Ant. 1. The Iholivian government declares free to the commerce and mercantile navigation of nil the nations of the globe the waters of the navigable rivers which, flowing through the territory of this nation, empty into the Amazon and Paraguay.
"Art. 2. The following are declared free ports, open to the traffle and navigation of all vessels of commerce, whatever may be their flag, destination, or tonnage:
"In the River Mamoré-Exaltacion, Trinidad, and Loreto.
"In the Beni-Renenavaque, Muchanis, and Magdalena.
"In the Piray-Cuatro, Ojos.
"In the Chaparé-Coni and Chimeré, tributarjes of the Mamore, the ;oints of Asunta, Coni, and Chimoró.
"In the rivers Mupiri and Corolco, tributaries of the Beni, tho points of Guanay and Coroice.
"In the Pilcomayo-the pert of Magrinc on the east cuast of the Paraguay, La Bahia Negra, and the peint of Borbon.
"In the Bermejo-the point situated in $21^{\circ} 30^{\prime}$ souch latitude, at whith embarked, in 1846, the national engineers Ondarza and Mujia.
"Ant. 3. The vessels of war of friendly nations will nlso be permitted te visit these ports.
"Aht. 4. The govermment of Dolivia, availing itself of the unquestlonable rights which the nation has to navigate these rivers as far as the Atlantie, invites nll the nations of the carth to navigute them, and promises-
"1st. To donate in the Bollvian territory, for the purpeses which the law allows, tracts of land, from one league to twelve leagues square, to the individuals or companies who, sailing from the Atlantic, shall arrive nt any one of the points declared to be ports of entry, and may wlsh to fond near them agriculturel or jndustrial establishments.
" 2 d . To guarantee the reward of ten thonsand dollars $(810,000)$ to the first steamer which, threught the La I'lata or Amazon, may arrive at either of the abovementioned points.
"31. To deeree free the river exportation of the products of the earth, and of the national industry.
"Ith. In due time thero will be established and regmated at the nhove-mentioned points, where at may be necessary, custom-houses for the loacling and unlonding of merchandise, the government seehig that the chargen for tho uso of these custom-houses may be as mederute as possible.
" 5 th. This decree will be snlmitted for the examination and approval of Congress on their next meeting.
" 6 th. The Minjster of State, in the office of foreign relations, is charged with its fultillment, by circulating it and communicating it to all whom it may conerrn.
"Given in the l'alace of the Supreme (iovernment,
in the place of Ayacuelio, 27th of Jannary, 1853,
44 th of independence, and 4 th of liberty.
"Manuel lahono Betzit.
"Rafael Busthilo,
"Minister of Foreign Relations.
"A ertiffed cepy: Amari Aivabifz,
"El Official Mayor."
-See II ranion's V'alley of the Amazon.
Amber (Ger, Bernstein; Du. Barnsteen; Da. Bernateen, Rar.; Fr. Ambre jaume; It. Ambra yialla; Sp. Ambar; Luss. Jantar; l'el. Bursztyn; Lat. Succinum, Electrum), a brittle, light, hard substunce, usually nearly transparent, sometimes nearly colorless, bit commonly yellow, or even deep lrown. It has considerable lustre. Epectfic gravity 1066 . It is found in notules or rounded masses, varying from the size of coarse sand to that of a man's linud. It is tasteless, without stucll, except when pounded or liented, when it emite a frugrant odor. It is highly electric. Most nuthors assert that amber ts bituminons; but IIr. Thonson staten, that "it is umboubtedly of a vegetable ortgini ; and though it differs Crom resins in some of its properties, vet it agrees with them in so many others, that it may withot haproprirty be referred to them." -C'iemistry, vol. kv, p. 147, fithed. I'ieces of amber oernsionaliy inclone parts of toads ant insects in thelr sulistanes, which are beantlfully prenervid. It is pribsciputly fonnd on the sthores of l'omeranla and loolish l'russin; but it is somethnes dug out of the earth in

Ducal Prussia. It is also to be met with on the banks of the River Giaretta, in Sicily. Sometimes it is found on the east coast of Britain, and in gravel pits round London. The lergest mass of ambar ever found was got near the surface of the greund in Lithuania. It weighs 18 peunds, and is preserved in the royal cabinet at Berlin. Most of the amber imported into this country comes from the Baltic, but a small quantity comes from Sicily. Amber was in very high estimation among the anclents, but is now comparatively negleeted.

Ambergris, or Ambergreame (Gcr. Amber; Du. Amber; Fr. Ambergris; It. Ambragrigia; Sp. Ambargris ; Lat, Awbra, Ambra grisea), a selid, opaque, generally ash-colered, futty, intlammable substance, variegated like marble, remarksbly light, rugged and meven in its surface, and has a fragrant odor when heated; it does net effervesces with acids, melts freely over the tire into a kind of yellow resin, and is hardly soluble in spirit of wine. It is found on the seacoast, or tlenting on the sea, near the ceasts of India, Africa, and Jlrazil, usually in small pieces, but sometimes in masses of 50 or 100 pounds weight. "Various opinions have been entertained respecting its origin. Some affirmed that it was the concrete juice of a tree, ethera thought it a bitumen; but it is now considered as pretty well established that it is a concretion formed in the stomnch or intestines of the I'hyseter macrocephalus, or spermaceti whale."-Tnomsos's Chenistry. Ambergris ought to be chosen in large pieces, of an agreeable odor, entirely gray on the outside, and gray with little black spots within. Ihe purchaser should be very tautions, as this article is easily connterfeited with gums and other drugs.

America. Our elject in this article is to take a comprehensive survey of the American continent in its physical, moral, nud geoeral rolations. In attempthg this, we do not intend to go much into detail upon those suljects which will be more fully and appropriately discussed in the distinet articles assigned in this work to the several States included in the Western World; but we shall dwell at somo length upon those features, peculiarities, and classes of facts which either belong to it as a wholo, or can be most advant:ageously considered or deseribed when all its parts are viewed in connection with one another. Such are the elimate und pinysical structure of the country, the geographleal distribution of its cultivated plants, its inillgenous pep)ulation, its animal tribes, its commercial and political capabilitice, and its menns of progressiveimprovement. The now continent may be styled emphatically "a land of promiso." The present there sinks into nothing in itself, and derives nil its importance from the germs it contuns of a mighty future. The change must not ouly be great, but rapid, beyond all which the past history of mankind would lead us to expeet. Even after we have fumiliarized our minds with the princlples upou which lis progress depreuts, we find to diffeutt to reconcile ourselves to the consequences that inevitally result from them. Hut time will do its work; and the great randrons of those now in existence may live to see the New Wordd contain a greater mass of clvilized men than the Old. It is this greatuess in prospeet which lenis an interc to tho Western Continent shmilar to that which the liastern derives from Its historical rucolleetions. The same circumstance reyaires that wo should dwell at some length on the physical structure of America, and on those indigenons tribes which, in the course of three centuries, will only live in poetry and tandition. The futuro history of the New World untast be read by ns in the conflguration of its surface, the distribution of its mometains nad rivers, the productions of lits soil, its natame nud politionl capabilities, and in the charncter rather than the numleers of its clvilized iniabitants.

Tho continental part of Amertea extends from the bith legree of south to tha 7 Ist of north latitude, its oxtreme length, from the Straits of Magellan to thoae
of Behring, being 10,500 English miles. The islands of Tierra del Fuego roach one degree beyond ita southern extremity into the Antarctic Ocean; and Greenland, which is connected by geographers with Americs, has been traced to the 78th degree of north latitude, and probably is prolonged much farther Into the polar circle. The late discoveries of Captains Parry, Ross, and Franklin have given us much more exact ideas than we formerly possessed of the northern regions of Ancrica. The coast of the main land has been traced almest completely from Behring's Straits to Fux's Channel on Iludson's Bay, and is found to run in a direction east and west, in an uneven line near the parullei ef $70^{\circ}$. The bounds of continental Ameriea may therefore be considercd as nearly determined on every side. The additional lights furnished by Captaln Parry's and other recent voyages render it extremely probable that a great archipelago of islands occupies all the space between the northern coast of the continent and the 80th parallel; and there is even some reason for beileving that the country known by the name of Greenland is traversed from east to west by arms of the sea, like the regions on the west aide of Baflin's Bay.

Tho new continent, when compared with the old, enjoys three important advantages. First, It is free from such vast deserts as cover a large part of the surfare of Asia and Africa, and which not only withdraw a great proportion of the soil from the use of man, but are obstacles to communication between the settled districts, and generate that excessive heat which is often hijurious to health, and always destructive to industry. Secondly, no part of its seil is so far from the ocean as the central regions of Asia and Africa. Thirdly, the interior of America is ponetrated by majestic rivers, the Mississippi, Amazon, and Plata, greatly surpassing those of tho old continent In magnitude, and atill more in the facilities they present for enabling the remotest inland diatricts to communicate with the sen.

Acrording to the geographical system atopted in the Old Worid, America ought to be considered as two distinct continents, connected ly the isthmus of Darien. Its two great divisions have ovidently more of a defined and separate character tian Africa and Asia, or than Asin and Europe; but though this arrangement may bo very properly adopted for the purpose of deacription, It is too late now to think of assigning separate names to regions which have so long been known ly a common appellation. In the physical arrange. ont of the parts of South and North Amorica there is a remnarkable resemblance. Both are very brond in the north, and grailually contrnct as they proceed southward, till they endi, the one in a narrow isthmus, and the other in a narrow promontory. Dach has a lofty chain of mountains near its western coast, ahounding in volcanoes, with a lower ridge on the opposlte side, destitute of any trace of intemal fire; and each has one great central plain doclinlug to the south and the north, and vatered by two gigantic streams, the Mlssissipli corresponding to the llata, and the St. Lawrence to the Amazon. "I their climate, vegetahle productions, and animal tribes, tho two $\mathrm{r}_{\mathrm{s}}$ ons are very disaimilar.

The extent of the Amerlcan contlnent and the fslands connected with It is as follows:


The American Conthent, therefore, with its dependent lslands, is fully feur times as iarge as Europe, ahout one third Iarger than Afrlen, and almost one half less thun Asin, if we inchule witi the latter Australin and Poiynesla. It constitates alonat three-fonths of the dry
land on the surface of the gicbe. Of the continental part of North America, a considdorable portion is condemned to perpetual sterility by the rigor of the climate, as wo shall explain more fully by-and-by. At present it is sutficient to state, that if we draw a line from the head of Cook's Inlet, in latitude $61^{\circ}$, on the west side, to the Straits of Bellisle on the east, so as to pass through Fort Churchill, on Hudson's Bay, we shall cut off a space rather exceeding one million and a half of square miles, which may be considered as incapable of cultivation. At the south extremity of America, a small tract, extending 200 miles north of the Straits of Magellan, though far within the limits of the temperate zone, is nearly in the same condition. These and the aummits of tho Andes are the only parts of the American continent which are rendered jacapathe ff cultivation by the severity of the climate.

Tho vast chain of the Andea is distinguished by aeveral pecaliar features from all other mountains in tho world. It has its principal direction nearly north and south, while all the great ridges of the old continent run from east to west; it is unparalleled in its prodigjous length, In the richness of its mineral treasures, and in the number and magnitude of its volcanoes. The Andes, if we connect with them the Mexican Cordillera and the Rocky Mountains, extend from the Straits of Magellan in a line which may be considered as unbroken, to Point lirownlow on the shores of the Aretic Ocean, in the latitude of $70^{\circ}$, over a space equal to 10,000 miies in iength, or two-fifths of the circumference of the globe. Their height, which attains its maxianum within the tropics, deellnes toward both poles, but in such a manner that, with a few exceptions, its higher summits ascend to the lino of perpetual snow from one extrenity to the other. It may thus le sald to earry the temperature of the pole over the whole length of the American continent. The chain of the Andes is common to the two parts of America, and is in fact the link which connects them nud makes them one continent. As wo propose, however, to describe North and South Amcrica separately, we shall reservo the details for another part of this articlo.

Souih America is a peninsula of a triangulnr form. Its greatest length frem north to south is 4550 miles; its grentest brendth 3200; and it covers on area, as already montiened, of $6,500,000$ aquare English miles, about tirec-fourths of which lio between the tropies, and the other fourth in the temperate zone. From the configuration of its surface, the peninsula may be divided into five distinet physical regions: 1. The low country skirting the shores of tho l'acific Ocean, from 50 to 150 miles in brcalth, and 4000 In length. Tho two extremities of tills territory are fertile, the mididle a sandy desert. 2. The basin of the Orlnoco, a country consisting of extonsive plalas or steppes, ealied Llanos, either destitute of wood or merely dotted with trees, but covered with a very high herbage during a part of the year. During the Iry scasun the heat is intense here, and the parched soil opens into long fissures, In whleh lizards and serpents iic In a atato of torjor. 3. The basin of the Amazen, a vast plain, embracing a surface of more than two millions of squaro miles, posacssing a rich soli and a humid eliminte. It is covered almost every where with tienso forests, which tiarbor innumerable tribus of wild andmals, and are tininly ininalited by narnges, who tivo In huntling mul fisiilug. 4. 'the great soutinern plain, watered by the l'lnta and the numerons streams deacending from the eastern summits of the Cordilieras. Open ateppes, which are here called P'mmpas, oceupy the greater jroportlon of this reglon, which is diry. and in some parts burren, lut ln general is covered with a atrong growth of weed and tall grass, which feeds prodigions herda of horses nudi cattle, and nffords shelter to a fow wild animals. 5. The country of Irazil, eastwarl of the l'arana and Araguay, presentling
altornate ridgea and valleys, thickly covered with wood on the side next the Atlantic, and opening into steppes or pastures in the interior.

Nine-tenths of North America lying under the temperate zone, the climate follows a different law from what is observed in the southern peninsula, and presents mors striking contrasts with that of the best known parts of tho Old World. The long narrow region now denominated Central America, whieh connecta the two great divisions of the continent, atretehing from Panama to Tehuantepec, has in general a very humid at mosphere; but, for a tropienl country, it must he only moderately hot, as every part of it is within a small distance of the sea. At Vera Paz the rains fall during nine months of the ycar. Mexico is hot, moist, and onhealthy on the low coasts ; but two-thirds of its area, comprising all the populous districts, consist of tableland, from 5000 to 9000 feet in helght. In eonsequence of this singular configuration of its surface, Mexico, though chiefly within the torrid zone, enjoys a temperate and equable climate. The mean heat at the capital, which is 7400 feet ahove the sea, is $62 \frac{1}{2}^{\circ}$, and the difference between tho warmest and coldest months, which exceeds $30^{\circ}$ at iondon, is here only about $12^{\circ}$; lot the atmosphere is deficient in moisture, and the conutry suffers from drought. Beyond the parallel of $24^{\circ}$ the western shores are hot and arid.

In the extensive region lying letween the parallels of $30^{\circ}$ and $50^{\circ}$, whieh comprehends three-fourthe of the useful soil of North Ameriea, we have three well-marked varieties of elimate, that of the cast coast, the west const, and the basin of the Mississippi. On the east coast, from Georgia to Lower Canada, the mean temperature of the year is lower than in Lurope by $9^{\circ}$ at the latitude of $40^{\circ}$, nut by $12 \frac{1}{3}^{\circ}$ at the latitude of $50^{\circ}$, according to IIumboldt's caleulation. In the next place, the range of the thermometer is much greater than in Europe, the summer being mueh hotter and the winter much colder. At Quebec the temperature of the warmest month exceeds that of the eoldest by no less than $60 \frac{1}{2}{ }^{\circ}$ of Fahrenheit; while at laris, which is nearly under the same latitude, the difference is only $31^{\circ}$. In the third place, the elimate undergoes a moro rapid change in America as we proceed from sonth to north, a degree of latitude in the middle of the temperate zone producing a decrease of annual temperature of $1.13^{\circ}$ in Europe, and of $1.57^{\circ}$ in America. The comparison is greatly to the disadvantage of Amoricn when made in this form; but when the cast eoasts of the two continents are eompared, the case is altered: the Old World is found to linve no superiority over the New, for I'ekin lins still colder winters and warmer summers than Philadelpha, wheli is under the same latlude. It is the west coast of the new con** pnt which ought to exhibit the ellmite of Europe; ...d from the few facts known, we have reason to believe that it is quite as mild and equable. At the month of Columhia River, in latitude $462^{\circ}$, Captains Lewis and Clarke found the rains to be coplots nnd frequent; bat they hat very little frost, und saw no lee even in the depthof winter. From observations made in 1822-4, it appears that the mean heat of the warmest month was about $62^{\circ}$, of the coldest about $36^{\circ}$, aud of the whole year $51^{\circ}$. Now the place is moder the same latitud? with Quehec, where the snow lies flve months, and the mean temperature chring the three winter monthas 1 s $18^{\circ}$ below the freeaing polnt. This single circuastance marks mophatically the contrast in the ellmate of the enst and west coasts of North America. Hut the mouth of Columhin River is also under the same parallel with Nantes at the mouth of the Loire, where snow and lee are no strangers in the cod season of the year. We have, therefore, good grounis to conclude that the west coast of Anterica, In the midile latitudes, has nearly as mild and equable n elimate as the west const of Enrope. The ellmate of the great central valley, or basin of the Mississipfi, has a considerable affinity
to that of the east coast. It was long a matter of dispute in what the difference between the two consists; but this seems at last to have been clearly settled, by the metearological registers kept at the nilitary posts of the United States. From a comparison of four of these registers, from posts near the centre of this great valley, with others kept on the Atlantic coast in the same latitudes, it appears that in the hottest month the temperature is from $5^{\circ}$ to $6^{\circ}$ higher, and in the coldeat month as much lower, in the hasin of the Mississipji, than on the coasta of New England. The proportion of fair weather to eloudy ia as 5 to 1 in favor of the east coast. The elimate of the interior, therefore, exhibita in atill greater excess those extremes of temperature which distinguish the castern coast of this continent from the western, and from the shores of Europe. The fourth region of extra-tropleal America includes the parts beyond Mount St. Elias on tho west eoast, and, in the interior, the plains extending from the 50th parallel to the Polar Seas. The intensity of the cold in this tract of country is searcely equaled by any thing that is known under the same parallela in Northern Asia. The northernmost spot in America where grain is raised is at Lord Selkirk's eolony, on Rel River, in latitude $50^{\circ}$. Wheat, and also maize, which requires a high summer heat, are cultivated herc. Barley would certainly grow as far north as Fort Chippewayan, in latitude $588^{\circ}$, where the heat of the four summer months was found by Captain Franklin to be $4^{\circ}$ higher than at Edinburgh. There is even reason to belicue that both this species of grain and potatoes might thrive as far north as Slave Lake, since the spruce fir attains the height of 50 feet tliree degrees farther north, at Fort Franklin, in latitude $65^{\circ}$. These, however, were low and sheltered spota; but in this dreary waste generally it will not be found practicable, we suspeet, to carry the nrts of civilized lifo beyond the 60th paraliel; and the desirable country, capable of supporting a dense population, and meriting the name of temprrate, can scarcely lie sald to extend beyond the 50th parallel. At $65^{\circ}$ the snow cavere the ground in winter to the depth of only two feet, but small lakes continue frozen for elght months. The sea is open only for a few wecks, fogs darken the surface, and the thernemeter in February descended, in one instance, to minus $58^{\circ}$, or $90^{\circ}$ Lulow the freezing point. At Melville lsland, under the 75th parallel, such is the frightful rigor of the climate, that the temperature of the year falls $1^{\circ}$ or $2^{\circ}$ below the zero of Fahrenheit's scale. It is a peculiarity in the climate of America, that beyond the parallel of $50^{\circ}$ or $52^{\circ}$, it seems to become suddenly severe at both extremities. At the one, summer disappears from the circle of the seasons; at the other, winter is armed with double terrors.

In no single cirenmstance la the superiority of America over the Old World so conspleuous as in the numLer and mapnitude of ite navigable rivers. The Amazon alone discharges a grenter quantity of water than the eight princjpal rivers of $A$ sia, the liophrates, Indus, Gangea, Oby, Lena, Amour, and the Yellow River and Kang-tse of Chinu. The Misslssipji, with its branches, affords a greater amonnt of inhand navigation than all the strenme, great and small, which irrigate Europe; and the l'lata, in this respeet, may probably clain a superiority over the collective water of Africa. But tho American rivers not only surpass those of tho Old World in length nad volume of tiuld, hut they are so placed as to penetrate overy where to the heart of the couthent. By the Amazon, a person llving at the eastern foot of the Andes, 2000 milles of direet distance from the Atlantic, may convey himself or his property to the shores of that sea in forty-fivo days, almost without effort, by conflding his bark to the giding current. If he wishes to return, he has but to spread his sails to the enstern breeze, which biows perennially against the stream. The naviga-
tion is not interrupted by a singla cataract or rapid, from the Atlantic to Jsen, in west longitude $78^{\circ}$, where tha surface of the stream ls only 1240 fect above the level of its estuary at Para. This remotest and least acceasiblo part of North America is the great interior plain extending from the Rocky Mountains to the Alleghanies and the lakes, between the parallels of $40^{\circ}$ and $50^{\circ}$; but the Mississippl, Missouri, and St. Lawrence, with their branches, are so wonderfully ramified over this region, that when it is tilled with civilized inhabitants, two centuries hence, those who dwell in ita inmost recesses, at the falls of the Missouri, for instance, $\mathbf{1 7 0 0}$ miles from the Atlantic, will have a more easy communication with the ocean than the population of the interior of Spain and IIungary. It is only necessary to cast the eyo over a map of South Americn, to see that all the most sequestered parts of the interior are visited by branches of the Plata and the Amazon. These streams, having thelr courses in general remarkably level, and seldom interrupted by cataracta, may be considered, without a figure, as a vast system of natural canals, terminating in two main trunks, which communicato with the ocean at the equator and the 35th degrea of south latitude. Since tho inventlon of steam navigation, rivers are, in the truest $6 e n s e$ of the term, Nnture's highways, especially for infant communities, where 'he people are too peor, and live too widely dispersed, to bear the expense of constructing roads. Thero is littlo risk in predicting that in two or three centuries the Mississippl, the Amazon, and the Plata will bo the ecenes of an active inland commerce, far surpassing in magnitude any thing at present known on the surface of the globe. The Mississippi is navigable for boats from the sen to the fulis of its principal branch, the Missouri, 1700 miles from the Mexican Gulf in a direct line, or 3900 by the stream; and the whole amount of boat navigation offorded by the system of rivers, of which the Mississippi is the mnin trunk, has been estimated as equal to 40,000 miles in length, spread over a surface of $1,350,000$ square miles. Perhaps this is rather beyond the truth; but let us eall the navigation 35,000 miles, and the following table will exhiblt the lengths, size of the basins, and probable extent of the novigablo waters of the grenter rivers of America:

|  | Length. | A rea of Batin. | Navignble Waters. |
| :---: | :---: | :---: | :---: |
|  | Milea. | 8q. Miles. | Mil |
| Mississippl to source of Missourl | $4{ }^{4} \mathrm{ta} 10$ | t,250,010 | 35,460 |
| 8t. Lawrence through tho lakes | 2260 | 000,000 | 4,000 |
| irinoco . . . . . . . . . . . . . . . . . | 1860 | 410,000 | 8,000 |
| Amazon, not tnetuding Araguay | 4000 | 2,100,000 | 50,000 |
| IPtata, Including Uruguay....... | 24100 | 1,200,060 | 20,000 |

The Amazon contalus many islands, is broad, and in the upper part so deep, that on one occasion Condamine found no bottons with a line 103 toisea long. At its month, two tlays before and after tho full moon, the phenomenon calied a Bore occurs in a very formidable shape. It ls a wave of water rushing from the sen, with its front as stecpe as a wall and as high as a house. No smatl vessel can encounter it without certain deatruction.

The eatuaries of all theso great Amerienn rivers open to the enstward; and thus I'rovidence seems to lave plainly indicated that the most intimate commercini relations of the inhnhitants of America should be with the western shores of the Old Worid. It should at the same time bo observed that the position of the great rivers of America ia but one example of $n$ physical arrangement which is common to the whole globe; fur it is remarkablo that, in tho Odd World as well as in the Now, no river of the first class flows to the westward. Some, as the Nile, the Lema, and the Oly, fluw to the north; others, as the Indus and the rivera of Ava, to the south; but the largegt, as the Woiga, Ganges, Great Iliver and Yellow River of China, the Euphrates, and the Amour, lave their
courses to the east or southeast. This arrangement is not accidental, but depends most probably on the incliastion of tho primary rocks, whlch, in all cases where their direction approaches to the south and north, seem to have their steepest sides to the west and the longest declivities to the east. We have examples in the Scandinavian Alps, the mountains of Britain, the Ghauta of India, tho Andea, and the Rocky Mountains.

North America, liko the Southern peninsula, naturally divides itself into five physical regions: 1. The table-land of Mexico, with a strip of low country on its eastern and western shores; 2. The plateau lying between the Rocky Mountaiaa and the Pacific Ocean, a country with $n$ mild and humid atmosphere as far north as the 55th parallel, but inhospitable and barren beyond this boundary; 3. The great central valley of the Mississippl, rich and well wooded on the east side, bara but not unfertile in the middle, dry, sandy, and almost a desert on the weat; 4. The enstern declivities of the Alleghany Mountains, a region of natural forcsts, aod of mixed but rather poor soil ; 5 . The great northern plain beyond the 50th parsilel, four-fifths of which is a bleak and bare wasts, overspread with innumerable lakes, and resemblinf, Siberia both in the physical character of its aurfaes and the rigor of its climate.

Wo should exter d this article to en unreasonable length were we to describe in detail the discoveries and settlements made by the several nations of Enrope in America. We shall therefore confine ourselves to a very hrief claronological notice of the more important events.
1495. The first place in which the Spaniards established thelr power was the Irge island of Hayti or Itispanlola, which was inhabater! by a numerous race of Indians. of a mild and gentle character, a third part of whom ore said to havo perished within two or three years after the Spaniards conquered them. - 1497. John Cabot, in the servite of Henry VII. of England, discovered Newfoundland, and coasted Blong the shores of North America to Florida.-1500. Cabral, a Portugueso, visited the coast of Brazil, and discovered the mouth of the Amazon. It was probably colenized before 1515 , as the first eargo of wood was sent from it to Portugal in that year.-1508. Vincent Pinzon is aaid to lere entered the liio de le Plata. It was in the same year that the Spaniards, finding the aboriginea too weak for the labor of the mines in Haytl, first imported negroes from Guinea, and thus lsid the foundation of a traffic which continuea to this day to disgrace the elvilization of Europe, - 1511. Diego Columbus conquered the island of Cuba with 800 soldiers, of whom he did not lose one.-1513. Halboa crossed the isthmus of Darien with 290 men , and aliscovered tho South Sen.-1519. Mernande Cortes sailed from Cuba with 11 ships and 550 men , and landed on the coast of Mexico, which had been allscovered in tho previous year. The conquest of the emplre was finished in 1521 by 050 Spaniards, assisted by a vast number of the Indians of Tiascala,-1531. l'eru invaded by Pizarro, and conquered in little more than one year, with a force of 1000 men.- $\mathbf{1 5 3 4}$. James Cartier, n Frenchman, discovers the Gulf of St. Lawrence.-1535. Mendozn, a Spaniard, with 2000 followers, founda Iluenos Ayres, and conquers all the country, as far as Potosi, at which silver mines were discovered nine years nfter: -1537. Cortes discovera Califoruia.-1511. Chiii conquered; Suntlago founded; Orellana sails down the Amazen to tho Atlantic from the sources of the Rio Napo. -1578 . Now Atbion, on the nurthwest coast of Anerica, dlscoverad by Sir Franels Drake.-156.6. The Spaniards found St. Thomas'a Island, in Guiana. 1587. Davis's Straits and Cumborland Ialands discovored by Johin Davis.-1604. Do Monta, a Frenchman, founded the first settlement in Nova Scotia, then called Acadie.-1607. After many Ineffectual attempta dur-
ing mor than twenty years, the first permanent settlement of the English in North America was made this year, on the banks of James's River, in Virginia,-1608. Quebec founded by the French, who had had a small neglected colony in Canada since 1542.-1611. Newfoumlland colonized by the English ; n Dutch colony established at Hadson's River. New York was founded in 1614.-1618. Baffin penetrates to the 78th degree of Intitude, in the bay which bears his name. -1620 . The lirst English colony establisbed in New England, at Plymouth. It was in this year that the first negroes were imported into Virginia. They wero brought by $n$ Dutch vessel.-1635. A French colony established in Guiana.-1655. Jamaica conquared by the English.1664. The Dutch colonies on IIndson's River capitulate to the English.-1666. The luccancers begin their depredations on the Spanish colonies.- $\mathbf{1 6 8 2}$. William Penn establishes a colony in Pennsylvania. La Salle takes possession of Louisiana in the name of the French king.-1698. A colony of 1200 Scots planted at Darlen, and rained in the following year, in consequence of the miserable jealousy of the English.-1733. Gcorgia colonized by the Engish.-1760. Canada, and all the other French settlementa in North Amerlea, conquered by the English.

The following table, given by Ilumboldt, exhibits the average prodace of all the gold and silver mines in the New World about 1803:

|  | Pure Gold. | Pure Sulver. | Solue of both. |
| :---: | :---: | :---: | :---: |
| Mtexico | Marke. 7, (kN) | Marks, <br> 2,305, 220 | $\begin{aligned} & \text { Dollare. } \\ & 23,(14), 0000 \end{aligned}$ |
| Peru | 3,400 | 6t1,1410 | 6,240,000 |
| Chill | 12,212 | 29,700 | 2,060,000 |
| La Plats. . . . . . . . . . . . | 2,201 | 481,830 | 4, 8560,000 |
| Cotombla (New Granada) | 90,606 |  | 2,9901000 |
| Brazil . . . . . . . . . . . . . | 29,200 |  | 4,360,000 |
| In English money. . . . . . . . . \& $^{\text {S }}, 700,000$ |  |  |  |
|  |  |  |  |

The Spanish mark, in which the quantity is expressed in the first two columns, is valued at 145.82 dollars in gold, and at $9 \cdot 4$ dollars in silver. This branch of indestry has been injured more deeply than any other during the late wars. The great exertions required to maintain the mines free of water, the amount of capital necessary to keep them woriling, and the facility with which volent hands could be lald upon their produee, all rendered these establishments extremely liable to sufifer from domeatic convulsions. Mr. Warl computes that In tho 15 years between 1810 and 1825, the annual produce of the Mexican mines did not exceet $10,000,000$ of dollars, or about teco-fifths of thelr average annual produce during the 15 years preceding, In Brazil, the washinges have prcbably experienced no interruption. Humboldt computes the whole produce of the American mines from 1492 to 1803 to be $5,706,000,000$ dollars, or $£ 1,255,000,000$, of which only $4 \frac{1}{2}$ per cent. was retained in America, and 5,445,000,000 dollars ( $£ 1,197,900,000$ ), or $95 \frac{1}{2}$ per cent, was remitted to Europe.

The project of jolning the Atlantic and l'selfic Oceans by a canal carried across the narrow part of the American coutinent, has often exeited the nttention of statesmen and commereial men. This cannl, If executed upon a scule sufficient to almit vessels of 300 or 400 tona, would have n powerfol influence upon the fate of Amerlca. For all the purposes of conmerelal intercourse it would bring the enst nud west sides of the contlnent withln one-third part of their present dlstance from one another, and would be of even more advantage to the New World than the discovery of the passage to India by the Cape has lieen to the Old. It has also been proposed to accomplish the same obsject by a boat canal, or by a rallroad, and four different routea have been recommended. A digest of the surveys and explorations comnected with these, and an estimate of their comparative merita, has been published in the Journal of the Geographical Socivty (vol.
xx. 1851), by Captnin Fitzroy, R.N. From this our materials are derived.

1. The Isthmus of Tehuantepee, at $94 \frac{1_{2}}{}{ }^{\circ}$ west longltude. The distance from sea to sea in a straight line is 140 English miles, the surface has few great inequalities, and the lowest summit level is about 700 feet above the sea. The climate is said to be rather better than nt the parts of the isthmus farther eastward, and there is $n$ settled population, though not very numerous, from whom labor might be obtained. On the ather hand, there is no port at either end of the line, tbe rivers are small, and barred at their mouths by sand-banks, and the length of the route, as well as the clevation of its summit level, would render the execution of a railroad or a canal too expensive to permit the hope of even a moderate remuncration for the ontlay. The project, however, has found warm support in the United Stntes, as it would render available by far the shortest maritime ronte to California. A survey has been made, and a cesslon of the necessary quantity of land has, wa believe, been obtained.
2. The Nicaragua route, at $11^{\circ}$ of north Intitude. Tho first portion of this is the River San Juan, which flows from the Lake of Nicaragun, and, after a course of 80 miles, falls into the Cariblvean Sea. It is of considerable depth, but is obstructed by rapids, and the port at its mouth, now called Greytown, is only capable of receiving small vessels. The lake is 90 or 100 miles long, 30 or 40 broad, and 125 feet above mean tide level at Greytown. Its depth varies from 2 fathoms to 40 , but much of it has never heen sounded, and recent surveys show shallows at both ends. From this lake to the Paelfic six different routes hare been traced, and some of them surveyed. One through the lake Managua (which is 28 feet higher than Nicarngua Lake), west ward to the Bay of lonseca, would require 90 or 100 miles of canal, and the whole length of inland navigation from Greytown wonld exceed 300 miles; another route from the same lake to Realejo is 40 miles shorter; and a third to Tamarinda a good deal shorter still, but both the latter want good ports at their termlni on the Pacific. A fourth route goes direct from the southwest side of Nicaragun Lake to San Juan del $\mathrm{S}_{\mathrm{ur}}$; it is only 10 to 12 miles in length, but reqaires a tunnel (for ships) 1 or 2 miles long, and the port at its month is very amall. A fifth rums from tho same lake a little farther east to the Iny of Snllnas, a distance of 15 miles, half of which ls by the River Sapoa, and now navlgable for boats; and the sunmit level is only 130 fect above the lake, and twice as mueh above the Pacific. It is believed there would be a suffictent supply of water from the streant, mud the canal would further have the advantage of n food port. Captaln Fitzroy seems to think this one of tho most promising lines, but it has not yet heen carcfully surveyed. Of the sixth proposed route, rmuling from the east end of the lake to the Gulf of Nicoyn, neither the precise length nor the nature of the intervening country is known. Of the whole distriet Captnin Fitzroy says, that though insufficiently explered, "enough is known to ilscourage any attempt to construct elther canal or rallway, unless the Sapon track (the fifth) should prove to he as eliglble as Dr. Oersted belleves. Even then there will be the disadvantages of so inferior a harbor as that of Greytown, and the difficulties of the river, which must he cleansed from its numerous obstructions, though renewed mununlly by floods." IIe considers the climute pestilentind, perticularly in the low grounds on both sides of the river, which holds its course anidst forests, swanips, and mud banks. Mr. Squier, however, in lis work on Nicaragua, thluks the cllmate comparatively good. In reference to $n$ canal there is n pliysical evll not to be overlooked, namely, the volcanle eruptlons which shake the soll, and might tlisturb the levels; and there is n moral one still more aerlous, arlsing from the fre-
quent insurrections and politlcal revolutions, which makes property insecure, sad may render engagements with the government niere waste paper. The latter evil applies to the whole isthmus, but more especially to this district, touching as it does the territories of three States (Nicaragua, Cesta Rica, and Mosquito) which are often at war with one another.
3. The Panama tine, at $79^{\circ}$ and $80^{\circ}$ of west longitude. The extreme narrowness of tha lathmus here called attention to it as an eligible polnt for establishing a communication between the two seas, before any other locality was thought of. Numerous explorations have been made; four routes have been pretty carefully surveyed-those of Loyd, Morel, Garella, and Hughes; and along the last of these a railway has been in operstion since liebruary, 1855. It commences on the Atlantic at Linon or Navy Bay, from which the direct distance to Panama, according to Captain Fitzroy, is (:13 geographical) $38 \frac{1}{2}$ English miles. It passes by Gorbona, and is carried 42 miles over elevations of nearly 300 feet, through a tunnel, and over large viaducts and bridges, terminating a little westward of Panama. The port of Chagres is unfit for large ships. Limon Bay, whlch is targe, and has a good depth of water, is exposed to strong north winds. A breakwater, to protect it from these, has been proposed, but is impractleable on account of the vast sum it would cosc. But Cuptain Fitzroy thinks that a large wet dock $c_{:}$basin might be excavated between Manzanilla Island and the main land, at the terminus of the railroad, and might serve as the first step toward an artiticlal harbor, to which Limon Bay would be accessory as a useful roadstend. "On the opposite coast, near Panama, is spacious snd tolerably sheltered unchorage, with access to works carricd out into the sea, may be found in the bay, but not very near the city." A ship canal here, whether at the elevation of the railroad ( 300 feet), or at the lower level proposed by Garella, of 150 feet, would require works on a gigantic seale; for his plan includes a tumel for ships, 125 feet in interior height, 97 feet wide, and nearly three miles long, with about 33 locks. Without some better security than can now be obtained, it is not probable that any private company will risk the capital necessary for the exceutlon of such works. Morel, in his survey, professes to have found a valley or tract of low ground between the Trinidad, $a$ branch of the Chagres, and the Caymito, which falls into the Pacific 10 miles west of Panama, of which low ground the summit level is ouly 40 fect ubove the sea. This, unluckily, is contradicted by other authorities; but if such a low summit hevel exist, a channel navigable by the largest ships might possibly be made from sea to sea without a lock. The portion of the ruilroad now in progress ia the gouthern half, extending from l'anama to Gorgona, and was expected to be finished in 1853. On the north side, the liver Chagres ls made use of as far as navigable.
4. The Atrato and Cupica line commences on the Atlantic side in the Gulf of Darien, at $77^{\circ}$ of west longitude. It has not been surveyed, but the nature and form of the ground are well known, and lts suitableness for a canal was polnted out by IIumboldt 40 years ago. 'Ithe route extenis from the inner part of the Gulf of Darlen up the River Atrato, thenca westward aloug lts hranch, the Naipi, and through a low tract of ground to the River Cupica, which fulls lnto the l'acille. The whole length of the pro, ,osed tine is esthmated at 14 miles. For twe-thirds of this distance, or 76 ...lles, the rivers aro sald to be navigulble by ships, for 19 miles mora by loaded boats, and it ls sup) posed that a canal might be ent through the remainIng 19 miles without any extruordinary difficulty. The proprietor of an estate on the Nuipi told Mr. Watts, the Irritish vico-consul at Carthagenn, that he was In the habit of crossing to the llay of Cuplea, and the rise between the bay and the river was gradual,-5. 13 .

A company with a large capital wss formed in England, within a few years, for the purpose of constructing a ship canal oves the Isthmus; but accordlag to the recent Report by Lieutenant Strain, of the U.S. Navy (1855), the work is almost impracticable. He represents the summit level between the oceans to bo one thousand 'rstead of one hundred and fifty feet. An Enghish expedition started from the Pacific side in December, 1853 , and returned after a few days' lnvestigation of the route before suggested, and found it unfavorsble for any canal near the proposed route. A few years will perhaps develop a more exteaded series of observations in this quarter.

Amethyst (Germ. Amethyst; Fr. Amethyste; It. A matista; Sp. Ainetisto; Last. Amethystus), a precious stone, of which there are two species differing widely In quallty and value. The Oriental amethyst is a gem of the most perfect violet color, and of extraerdinary brillisncy and beauty. It is said to be as hart as the sapphire or ruby, with which it also corresponds in ita form ant apecific gravity (see Sapphne), differing in color merely. It has been met with in India, Persia, Sium, and other comntries; but it is exceedingly scarce. That found in India is ssid by Pliny to be the best. -Principatum amethysti Indicee tenent, Nat. Hist. lib. xxxvii. cap. 9. Mr. Mawe says he had rarely seen an Oriental amethyst offered for sale, unless small and inferior in color. Mr. Hope, the author of Anastasius, had in his cabinet the tinest gem of this sort in Europe. This exquisite specimen exceeds an inch In its greatest diameter; in daylight it exhilits the most beautiful violet color, while by candlelight it is a decided blue. The Occidental amethyst is merely colored crystal or quartz. "When perfect, its color resembles that of the violet, or purple grape; but it not unirequently happens that the tiuge is confined to one part of the stone only, whlle the other is left almost colorless. When it possesses a richness, clearness, and uniformity of hue, it is considered a gem of exquisite beauty; and as it oceurs of considerable size, it is suited to all ornamental purposes. In specific gravity and harduess it beurs no comparison with the Oriental amethyst; it is also inferior in beauty and lustre; though I have often seen the common amethyst ofiered for sale as Oriental. Brazil, Siberia, and Ceylon produce very fine amethysts: they are found in rolled pieces in the alluvial soil, and tinely crystallized in fissures of rock. From the first of these localitles, they have lately tieen imported in such quantities as considerably to diminish their value; but as they are the only colored stones, except garnets, that are worn with mourning, they still retaln, when perfect, a distinguished rank among the precious genis. The present price of inferlor light-colored stoncs, in the rough state, is abont 20s. per pound, while those of good quality sell at $10 s$. or $12 s$, per onnce. Amethysts calculated for brooches or seals may be purcuased at from loss. to twe or three guineas each, for which, ten years ago, treble that sum would lave been given."-Mawli on Diamonds, 2d. ed.

Amianthus, Asbestos, or Mountain Flax, a mineral of which there are several varleties, all more or less flbrous, flexile, and elastic. It is Inconsumable by a high degree of heat; and lin antlquity the art was discovered of Urawing the filbres inte threads, and then weaving them luto cloth. Pliny suys that he had seen napkins made of this substance, which, when solled, were thrown into the tire, and that they wero better cleaned by this means than they could have been by washlng! IIence it obtained from the Greeks tho name of Autavros (undettled). Its princlpal use, as stated hy Pliny, was to wrap the bodies of the dead prevlously to their belng exposed on the funeral plle, that the ashes of the corpse might not be mixed with those of the woul. And lin corroboration of this statement wo may mention, that la 1702, a skull, some calelned bones, and a qumntly of ashes, were fuund at Rome, in a cloth of amlantlus nine Roman palme in
length hy seven in width. Its employment In this way was, however, confined to a few of the very richest famllies, incombustlule cloth belag very scarce, and bringing an enormously high price. Rurum inventu, difficile textu propter brevitntem. Cùm inventum est, aquat pretia excellentium margaritarum.-l'Lis., Ilist, Nat. lib. xix. cap. 1. The disuse of the practlo of cremation, or of burnlng the dead, caused the manufacture of amianthine cloth to be neglected. Several moderns have, howevor, succeeded in making it; but if it be not lost, the art is now rarely practiced,-For further partlenlars, see Rees's Cyclopedia.

Ammoniac, Bal. See Alkilies.
Ammoniacum (1r. Gomme Ammoniaque; It. Gomma dmmoniaco; Sp. Goma Ammoniaco; Lat. Ammoniacum; Arab. Feshook), п concrete resinons juice obtained from a plant resembling fennel, found in the north of Africa, Araluia, Persia, the East Indies, ete. Pliny asys that it derlved ite name from its being produced In the vicinity of the temple of Jupiter Ammon, in Africa.-Hist. Nat. lib, xii. cap. 23. It has a faint but not ungrateful smell; and a bitter, nauscous, aweet taste. The fragments are yellow on the outside and white within, brittle, and break with $u$ vitreous fractnro; their sper ${ }^{9}{ }^{\circ} \mathrm{g}$ gravity is $1 \cdot 207$. The best ammoniacum is bi ant from Persia by Bombay and Calcutta, packed in cases and chests. It is in large masses, composed of amall round fragments or tears; or in separate itry tears, which is generally considered a sign of its goodness. The tears should be white internally and externally, and free from seeds or other foreign substances. Reject that which is soft, dark-colored, and foul. It is used principally in the materia medien, and the quantity imported is but small.-liees's Cyciopedia; 'Tuonson's Dispensatory.

Ammunition, a general name for all warlike provisions, but more particularly powder, ball, ete.-E. 13.

Amoy, $n$ commercial city and sea-port of China, province of Fo-kien, on an island of the same name in a bay of the China Sea, opposite Formosa, ant 320 miles E.N.E. of Canton, Lat. $24^{\circ} 10^{\circ}$ N. ; long. $118^{\circ} 13^{\prime}$ E. Population, 250,000 . The city is separated from the suburba or outer town by a line of rocky hills, comsmanded by a citadel on a height, and fortified with numerous works constracted daring the late war. The town is not handsome nor clean, but hus many roomy public buildings, well-sapplied shops, and good private houses. Harbor excellent ; ships can lle close to the quays, or in a deep and sheltered creek. There is a considerable trade, especially with Formosa; manufactures of porcelain, grass cloths, umbrellas, paper, cte., which, with sugar-eandy and Congon ten, compose its principal exports. I mporta comprise rice, sugar, camphor, and European produce. Amoy, then the great military depot of the province, was taken on the 26th August, 184t, by the English, who held the fortlfied jsiand of Kolungao, commanding the entrance to the harbor, untll the final payment of tho eum of six million dollars exacted from the Chinese govermment by the treaty of Nankin.

Amplitude, in Astronomy, an arch of the horizon Intercepted between the east or west point and the centre of the san or a planet at its rising or setting; and which therefore is said to be either north and south, or ortire and occasire.

Bagnetical Amplitude, the different rising or setting of the sin from the east or west pointa of the compass. It is found by observi..g the sun, at his rising and setting, by an amplitude compass.-li.If.

Amstardam, the principal city of Holland, situated on .. Y, an arm of the Zuyder Zee, in lat. $52^{\circ}$ $22^{\prime} 17^{\prime \prime}$ N., long. $4^{\circ} 53^{\prime} 15^{\prime \prime}$ E. From 1680 to 1750 , Amsterdam was, perhups, the first commerclal city of Europe; and though her trade hus experienced a great falling off since the last-mentloned epoch, it is still very considerable. In 1785 the population is said to have amounted to 235,000 ; $\ln 1815$ it had deellined to

180,179; but its increase in the interval has been such, that it amomsted in 1840 to 210,077 . The harbor is spacious and the water deep; and It has recently been much improved by the construction of docks, two of which aro already completed, and a third in a very advanced state. Owing, however, to a bank (the Prampus) where the $Y$ joins the Zuyder Zee, large vessels going or coming by that sen are obllged to load and unload a part of their cargoes in the roads. The navigation of the Zuyder Zeo is also, by reason of its numerous shallows, very intricate and diffieult; and as there were no hopes of remelying this defect, it became necessary to resort to other means for improving the access to tha port. Of the various plans suggested for this purpose, the preference was given to the scheme for cufting a conal capable of admitting the largest class of merchantmen, from the north side of the port of Amsterdam to Newdlep, opposite to the Texel, and a little to the east of the Helter. This canal has fully answered the views of the projectors, and has provod of sigual scrive to Ansterilam, ly enahling large ships to avoid the Pampus, as well as the difficult navigation of the Zuyder Zee, where they were frequently detained for three weeks, and to get to and from Newdiep wlthout any sort of risk in less than twenty-four hours. The canal was begun in 1819, and completed in 1825. It has fivo sluices large enough to admit ships of the line; the dues and charges on account of towing, otc., being at the same timo very moderate. At Newdiep the water is deeper than in any other port on the coast of Ilolland, and ships are there in the most favoralle position for getting expeditiously to sea.-See Canals. The importa principally consist of sugar, coffee, spices, tobacco, cotton, tea, indigo, cochineal, wine and brandy, wool, grain of all surts, timber, piteh and tar, hemp and fiax, iron, hides, linen, cotton and woulen stutfs, hardware, rock salt, tin plates, coal, dried lish, ctc. The exports consist partly of the produce of Ilolland, partly and principally of the produce of her possessions in the East and West Indies, antl other tropical commtries, and partly of commolities brought to Amsterdam, as to a convenient entiepôt from different parts of Enrope. Of the first class are eheese and butter (very important articles), madder, clover, rape, liemp, and linseeds, rape and linseed oils, I uteh linen, ete. Geneva Is princijally exported from Schiedam and Rotterdan; onk bark and cattle principally from the latter. Of the secont elass are spices, cotlie, and sugar, prinelpally from Jeva, bat partly also from Surinam, Brazil, and Cuba; indigo, cochlneal, cotton, ten, tobacco, and all sorts of Eastern and colonial prodnctr. And of the third class, all kinds of graln, linens from Germany; timber, and all sorts of Baltic produce; Spaulsh, German, and Finglish wools; French, Rhenish, and IIungarian whes, brandy, etc. The trade of Amsterdam may, Indeed, to sald to comprise every article that enters into the commerce of Europe. Iler merchants were formerly the most extensive dealers in hills of exchange, and though Lonton bo now, in this respect, far superior to Anisterdam, the latter still enjoys a respectable share of thla business.

The llank of the Netherlands was established at Amsterdam in 1814. It is not, like the old llank of Amsterdam, which ceused in 1796, merely a bank of deposits, but a bank of deposit and circulation formet on the model of the Bank of England. Its capital, whict ariginally amounted to $5,000,000$ thorins, was doubled In 1819. It las the exclusive priciloge of issuing notes. Its original charter, which was limited to twenty-five years, was prolonged in 1838 for twen$t y$-five years more. Ahont 300 or 350 large ships belong to Amsterdam; they are employed In the East and West Indin trades, nall fin trading to the baltle, tho Mediterrmean, etc. There is eomparatively little consting trade at Ansterdam, the communlention with most other ports in the vielnlty belng principally kept up by canals, and that with Friesland ly regnlar
packets. The total imports into Holland in 1851 were estimated at $303,093,224$ florins, and the exports at $242,744,806$. The United Kingdom, the German Customs Union, Jelgium, Java, France, and Russia, are the countries with whieh ghe carries on the most extensive trade.

Dutch Commercial Policy.-The poliey of Holland, civil, religious, and commercial, has long been of tho most liberal and enlightened description (see post) ; and she was the first country to follow the example set in repeallng the Navigation Laws in 1840. The Dutch law on this subject was paased in 1850. Previously to that period diseriminating duties were imposed on most articles imported on foreign bottoms, and also on those inported by forelgners into Java and her other colonies. But these preferences no longer exist. The following is an extract from the law relative to theso matters: Differential duties are abollshed on the vesaels of those Statea whlch " $a$. I lace tles Dutch flag on the same footing with their natlonal flag trading to and from their own ports (eoasting trade and fisheries excepted); $b$. Which place the Duteliflag on the same footing with their national flag trading to and from their colonles, if they possess any ; and, c. Whieh do not levy other differential duties to the disadvantage of the produce of the Netherland colonies, or to the prejudice of produce imported from other parts of the world, from Netherland ports, than those which are levied in favor of the produce of their own colonies, when Imported direct."

The fisherles and the coasting trade of Holland and of her colonies is reserved to Dutch ships. BL. it is no longer necessary that the latter should be of Dutch build. Foreign built shlps have, however, to pay, on being registered, an ad valorem duty of 4 per cent. over and above the fee charged on the registration of Dutchbuilt ships. Soveral important reductions were at the same time made in the tariff of import duties. The nuvigation dues or tolls that were formerly charged on vessels or goods passlug through Holland by the Rhine and the Yssel, and transit duties of all kinds, have also beer repealed. And thouglt it may be said, and truly, that these wise and liberal measures will be mueh more advantageous to the Duteh than to any other people, still they are of the greatest importance to all commercial nations, ant especiully to those who have an extensive intercourse with them. We are glad to liave to state that this Ilberal poliey has in Holland, as in England, had its appropriate reward. Commerce has been largely extended. The mercantile marine is in a hlighly prospereus state, and is dally receiving large milditions. Many Dutch ships have latterly been chartered ly English neerchants.

The importations into the United States from IIolland, in the yeer 1852-3, were, freo of duty, \$il5,227; dutiable, $\$ 1,509,043$; total, $\$ 1,625,170$; in American vessels, $\$ 162,641$; foreign, $\$ 1,162,529$. Total value of imports for the same year from the Dutch East Indies, $\$ 38 \cdot 1,583$; Duteh West Indies, $\$ 109,185$.

The exports of domestic produce for the same year wero, in American vessels, 8872,780 ; in foreign vessels, $\$ 1,110,913 ;$ total, $\$ 1,983,723$. To the Dutel Eatat Indies, $\$ 202,822$; to the Dutch West Indles, $\$ 251,258$.
Comparative Table of Exiogts of Domestic lioonuek to
llolidind, fon the figcal Yeare eninno June 30, 1 Sb3,
185 H . 185.

| Yenrs. | Exporta. |  |  | Imports. |
| :---: | :---: | :---: | :---: | :---: |
|  | Ametican Vomelo. | Foraign Vemaela | Total. |  |
| 1853 | 402.04 t | 1,162.620 | 1,625,170 | 1,083,723 |
| 1554 | 1,400,105 | $8(10,615$ | 2, 24040,710 | 1,685,971 |

In 1852 Great Iritaln imported from II olland 221,550 quarters of wheat, oats, and other grain, but she frequently supplles more considerable quantities. She nlso sends large quantities of butter and cheese ( 226,671 ent. of the former, and 266,857 ditto of the latter in 1850), with, in 1851, 56, i6i head of enttle and 160,365
sheep; her other exports are bark for tanniag, flax and hemp, clover-seed, madder, geneva, nutmegs, etc. England also takes considerable quantitiea of Dutch sugar and coffee. The greater portion, however, of the trada between the United Kingdom and Holland is carried on with Rotterdan, which is much more conveniently situnted for such intereourse than Amsterdam. But the latter continues to engross by far the larger share of the commeree with the flourishing colony of Java and the other Dutch possessiens in the East; and is, consequently, tho principal continental mart for Eastern produce.
The warehousing system has been long established ::: Amsterdam; and all goods, whether for home consumption or transit, may be deposited in bondod warelouses. Speaking gencraily, goods can only be kept in bonded warehouses for two years; but grain of all kinds may be kept for an unlimited period. The warehouse rent chargentlo per month on a quarter of wheat is, on an upper loft, 1d. and 2-5ths; on an under loft $1 \frac{1}{2} d$. On a ton (Engl.) of augar in casks the charge is $8 d$. ; in bags, $6 d$.
The dock and its adjacent warehouses, belonging to the Entrepót General, or establishment for warehousing goods imported by sea, or intended to be re-experted by sea or by the Rhine, are largo and commodious. The doek has water to float the largest ships, and the dues rnd other charges are excecdingly moderate. Merchents may employ their own men or those of the dock in loaling or unloading; and may either place their property in separate vaults or floors of which they keep the key, or intrust it to the care of the dock officers.
Dutch Trading Company,-A large proportion of the forelgn trade of Molland was for a considerable period engrossed by the largo trading company enlled the Nederlandsche Handelmaatschappy, created in 1824. Its eapital, which consisted originully of 37 million florins, was reduced in 1824 to 24 million florins; but as the company borrowed 10 million florins in 1835, and 13 millions more in 1837, its capital consists of 47 million florins. At first it extended its operntion to America and the West Indies, as well as to the East Indies. But it has latterly very much contracted the seale of its operations; and having lent 40 millions of its capital to government, it is now merely the ngent employed by the latter to bring home and sell that part of tho produce of Java which, under the new colonial system, belongs to the State, and to carry on the trade with Japan, which, however, is of little or no value. The company has no ships of its own, bnt charters those of private individuals. Its charges on importation nre limited to certain fixed rates. The business of insurnnco is extensivnly practiced at Amsterdam; the premiums are moderate, and the security mexcoptionable. The high duty formerly imposed in other countries on policies of insurance contributed to the inerease of this business in Holland.
Credit, Discount, etc.- Holland Is, and has nlways been, a country of short eredits. A discount is usually given for prompt payment, nt the rate of 1 per cent. for six weeks, and 2 per cent. for two months; but the terms of credit on most articles and the discount allowed for ready money, have heen tixed by usage, and are regarled as essential condltions in every bargnin. In consequence of the preference given in Holland to rendy money transaetions, It is not a country in whieh adventurers without capital have muel chance of speedily making a fortune. " Rien, en effet, de plus faeile que de s'établir à Ansterdam; mals rien de plus difficile de s'y sontenir sans des grandes resources. Dans cette ville, oú l'argent abonde, où on lo prête contre des sûrétes à si hon marché, il est pourtant impossible de s'en procurer à credit; et sans argent It n'y a plus de possibillté d'y travailler, que te trouver quelgu'un qui veulle de se charger d'un papier nonveau qui ne seroit pas appryý d'un erélit que l'opluion, la protection, ou des cllets réels ferolent valoir à la bourse. Les Hollandois suivent lá-dessus des maximes très austères,
méme à l'égard des maisona d'une certain considéra-tion."-Encyclopedie Methodique, Commerce, t. ii. p. 650. But this austerity is not a disadvantage, but the reverae. It preventa commeres from degene: ating, as it has too often done in other places, into gambling adventures, and places it on a comparatively solid foundation. And it should be mentioned to the honor of the Dutch, and as a proof of the excellence of this system, that not withstanding the distress and loss of trade oceasioned by the invasion and occupation of their country by the French, the bankruptcies in 1795 and subsequent years were not, compuratively, so numerous as in England in ordinary scasons! The regulations in the Code Napoléon as to bankruptey are enforced in Holland.

It has long bcen the practice in IIolland to make, on selling articles, considerable deductions from their weight, particularly from 'hoae of largo bulk, as compared with their value. These tares and drafts, as they are termed, are now fixed by ancient usage.

Nagnitude of the Commerce of Iholhund in the Seventeenth Century.-Causes of its I'rosperity and Decline.We belleve we need make no apology for embracing this opportunity to lay before our readers the following details with respect to the commerce and commercial policy of Holland. It forms one of the most insstructive topics of investigation; and it is to be regretted that so little attention should have been paid to it in this country. Previously to the commencement of the long-continued and glorious struggle made by the Dutch to emancipate themselves from the blind and urutal despotism of Old Spain, they had a considerable marine, and had uttuined to distinction by their fisheries and commerce; and the war, instead of being injurious to the trade of the republic, contributed powerfully to its extension. After the capture of Antwerp by the Spaniards, in $\mathbf{1 5 8 5}$, the extensive commerce of which it had been the centre was removed to the ports of IIolland, and principally to Amsterdam, which then attained to the distinction she long enjoyed, of the first commercial city of Europe.

In 1602 the Dutch East India Company was formed; and, notwithstanding the pernicious influence of that association, the Indian trado increased rapidly in magnitude and importance. Ships fitted either for commercial or warlike purposes, and having a considerable number of soldiers on board, were sent out within a few years of the establishment of the company. Amboyna and the Moluccas were first wrested from the Portuguese, and with them the Duteh obtained the monopoly of the spice trade. Factories and fortlications were in no long time established, from liussorah, near the mouth of the Tigris, in the Perslan Gulf, along the coasts and islands of lidia as far as Japan. Alliances were formed with several of the Indian princes; and in many parts, particularly on tho coasts of Ceylon, and in various districts of Malabar und Coromandel, they were themselves the sovereigus. Batavia, in the largo and fertile island of Jave, the greater part of which had been conquered by the Duteh, formed the centro of their Indinn commerce; and though unhealthy, its port was excellent, and it was admirably situated for commanding the trade of the Eastern Archipelago. In 1051 they planted a colony at the Cape of Good llope, which had been strangely neglected by the l'ortuguese.

Every branch of commeree was vigorously prose. cuted by the Juteh. Their trade witis the llaltic was, however, by far the most extensive nud lucrative of which they were in possession. Guicciardini mentions that the trade with P'oland, Demiark, Prussia, ete., even lefore their revolt, was so very great, that theets of 300 ships arrived twice a year at Amsterdam from Dautzle and Livonla only; but it increased prodigiously during the latter part of the sixteenth and the beglaning of the aeventeenth centurics. The great population of Holland, and the limited extent and un-
fruitful nature of the soll, render the inhabitants dependent on foreigners for the greater part of their supplies of corn. The countries round the Baltic have always furnished them with the priacipal jart of those supplies; and it is from them that they have licen in the hablit of bringing timber, Iron, hemp and tax, piteh and tar, tallow, ashes, and other bulky artictes required in the bnilding of their houses and ships, and In various inanufactures. Nothing, however, redounds so much to the credit of the Dutch as the policy they have invariably followed with respect to the trade in corn. They have at all timea had a large capital embarked in t'is business. The variations which are perpetually occurring in the harvests early led them to engage very extensively in a sort of speculative corn trade. When the cropa happened to be unusually productive, and prices low, they bought aad stored up large quantities of grain, in the expectation of profiting by the advance that was sure tu take place on the occurrence of an unfavorable year. Repeated efforts were matle, in periods when prices were rising, to prevail on the government to prohibit exportation; but they steadily refused to interfere. In consequence of this enlightened policy, IIolland has long been the most important Europeari entrepot for corn; and her markets have on all occasiona been furnished with tho most abundant supplies. Thoas searcities which are so very disastrous in countries without commerce, or where tho trade in corn is suljected to fetters and restraints, have not only heen totally unknown in IIolland, but became a copious souree of wealth to her merchants, who then obtained a ready and advantsgeous vent for the supplies accumulated in their warehouses. "Ansterdam," says Sir Walter Raleigh, "is never vithout 700,000 quarters of corn, none of it of the growth of llolland; and a dearth of only one year in any other part of Europe enriches 11 olland for seven years. In the courso of $n$ year and a half, during a scarcity in England, there were carried away from the ports of Southampton, Bristol, and Exeter alone nearly $£ 200,000$; and if London and the rest of England be included, there must have been $£ 2,000,000$ more."Observations touching Trade and Commerce with the IIollander. Miscel. Works, vol. ii. The very well informed author of the Richesse de la Holdumele, published in 1778, observes, in allusion to these circumstances, "Que la disette de grains regne dans les quatre partles du monde; vous trouverez du froment, the seigle, et d'autres grains à Amsterdam; ils n'y manquent jamais."

The lank of Amsterdain was founded in 1609, The principal object of this establishment was to obviate the inconvenience and uncertainty arising from the circulation of the coins imported into Amsterdam from all parts of the world. The merchants who carried coin or ballion to the bank obtained credit for an equal value in its hooks: this was called bank-money; and all cousiderable payments were effected ly writing it off from the account of one individual to that of another. The establishment continued to flourish till the invasion of the French in 1795 . Between the years 1651 and 1672 , when the territories of the republic wero invaded by the lirench, the commerce of IIolland scems to have reached its greatest height. De Witt estimates its increase from the treaty with Spain, concluded at Munster in 1043 , to 1669 , at fully a half. He adds, that during the war with IIolland, Spain Jost the greater part of her nayal power; that since the peace, the Dutch had obtained most of the trade to that country, which hat been previously earried on ly the Hanseatic merchants and the Engllali; that almost all the conating trade of Spain was carried on by Dutch shipping; that Spain had even been fored to hiro Dutch ships to sail to her American possessions; and that so great was the exportation of goods from llolland to Spain, that all the merehandise brought from the Spanish West Indies was not suflicient to make returis for them.

At this period, indeed, the Dutch engrossed, not by means of any artificial monopoly, but by the greater number of their ships, and their superior skill and economy in all that regarded navigation, almost the whole carrying trade of Europe. The value of the goorls exported from France in Dutch bottoms, toward the middle of the fourteenth century, exceeded $40,000,000$ livres; and the commerce of Ei.gland with the Low Countries was, for a very loag period, almost entirely carried on in them.

The business of marine insurance was largely and successfuliy prosecuted at Ansterdsm; and the ordinances published in 1551, 1563 , and 1570 , contsin the most judicious reguistions for the settlement of auch disputes as might ariso in conducting this difficult but highly usefui business. It is singular, however, notwithstanding the sagacity of the Duteh, and their desire to strengtien industrious inabits, that they should have prohibited insurance upon lives. It was reserved for England to show the advantages that might be derived from this beautiful application of the science of probabilities.

In 1690, Sir William Petty estimated the shipping of Eurepe at about $2,000,000$ tons, which he supposed to be distributed as followa: viz., England, 500,000; France, 100,000 ; Hamburg, Denmark, Sweden, and Dantzic, 250,000; Spain, Portugal, and Italy, 250,000; that of the Seven Linited Provinces amounting, according to him, to 900,000 tons, or to nearly one half of the whole tonnage of Europe! No great dependance can, of course, be placed upen these estimates; but the probability is, that, hal they been more accurate, the preponderance in favor of Holland would have been greater than it appears to be; for the official returns to tite circulars addressed in 1701 by the commissieners of customs to the officers at the different ports show that the whole mereantile navy of England amounted at that period to only 261,222 tons, carrying 27,196 men.-Macinenson's Annals of Commerce, anno 1701. It may, therefore, be fairly concluded that during the seventeenth century the forcign cemmerce and navigation of Holland was greater than that of all Europe Lesides; and yet the country which was the seat of this vast commerce had no native produce to export, nor even a plece of timber fit for ship-building. Alt had been the fruit of industry, economy, and a fortunate combination of circurstances. Holland owed this vast commerce to a varicty of causes : partly to her peculiar situation, the industry and economy of her inhabitants, the comparstively iiberal snd eniightened system of civil as well as of commercisl pelicy adopted by the republic; and partly also to tio wars and disturbsuces that prevailed in most Eurepean countries in the sixteenth and seventeenth centuries, and prevented them from emulating the successful carcer of the Dutch.

The ascendency of Heliand as a commercial state began to decine from about tie commencement of last century. After the war terminated by the tresty of Aix-la-Chapelie, the attention of tho government of Holland was forcibly attracted to the state of the shipping and foreign conmerce of the republic. The tliscovery of means by which their decline might be arrested, and the trade of the republic, if possible, restored to its ancient flourishing condition, became a prominent object in the speculations of every one who felt interested in the public welfare. In ordier to procure the most correct information on the subject, the stadthoider, William IV., add:essed the following queries to all the most extensive and inteliigent merchants, desiring them to favor him with their answers: " 1 . What is the actual state of trade? And if the same should be found to bo diminished and fallen to decsy, then, 2. To inquire by what methods the same may be supported and advanced, or, if possible, restored to its former luctre, repute, and dignity." In discussing these questions, the merchants were obliged to enter
into an examination, as weil of the causes which had raised the commerce of Hollisnd to the higin piteh of prosperity to which it had once attained, as of thoso which had occasioned its subsequent decine. It is stated that, though not of the same opinion upon all points, they, speaking generally, concurred as to those that were most important. When their answers had been obtained and compared with each other, the stadtholder had a dissertation prepared from them, and other authentic sources, on the commerce of the republic, to which proposals were subjoined for Its amendment. Some of the principles advanced in this dissertation npply to the case of Ilollend only; but most of then are of universal application, and are not more comprehensive than sound. We duubt, indeed, whether the benelits resulting from religious toleration, political liberty, the security of property, and the freetom of industry, have ever been more clearly set forth than in this dissertation. It begins by an enumeration of the causes which contributed to advance the commerce of the republic to its former unexampled prosperity : these the authors divide into thrce elasses, embracing under the first those that were natural and physical; under the second, those they denominated meral ; and under the third, those which they considered adventitious and external.

The central situation of the country, its command of some of the principal iniets to the Continent, and the necessity under which the inhabitants have been placed, in consequence of the barrenness of the soil and its liability to bo overfiowed, to exert all their industry and enterprise, are circuinstances that seem to be in a great degree peculiar in Ilolland. But though there can be no doubt that their Influence has been very considerable, no one will pretend to say that it is to be compared for a moment with the intluence of those free institutions which, fortunately, are not the exclusive attributes of any particular comntry, but have flourished in Phcenicia, Grcece, England, and America, us well as in Holland.

Many dissertations have been written to account for the decine of the commerce of Holland. But, if we mistake not, its leading causes may be classed under two prominent heads; viz., first, the natural growth of commerce and navigation in other countries; and, second, the weight of taxation at home. During the period when the republie rose to great eminence as a commercial State, England, France, and Spain, distracted by civil und religious dissensions, or engrossed wholly by schemes of foreign conquest, were unable to apply their energies to the cultivation of commerce, or to withstand the competition of so industrious a p-uple as the Dutch. They, therefore, were under the necessity of allowing the greater part of their foreign, and even of their consting trade, to be carried on in Dutch bottoms, and under the superiatendence of Dutch factors. But after the accession of Louis XIV. and the ascendency of Cromwell had put an end to internal commetions in France and Englanct, the energies of these two great nations began to be directed to pursuits of which the Dutch had hitherto enjoyed almost a monopoly. It was not te be supposed that when tranquility and a reguiar system of government had been established in France nad England, their active and enterprising inhabitants would submit to see one of their most valuable branches of industry in the hands of the foreigners. The Dutch ceased to be tho carriers of Europe, withont any fault of their own. Their performance of that function necessarily terminated as soon as other nations lecame possessed of a mercantile marine, and were able to do for themselves what had previously been done for them by their neighbors.

Whatever, therefore, might have been the condition of Holland in other respects, the natural advence of rival nations must inevitably have stripped her of a large pertion of the commerce sho once possessed. But
the pregress of decline seems to have been conslderably accelerated, or rather, perhsps, the efforts to arrest it were rendered ineffectual, by the extremely heavy taxatlon to which she was subjected, occasioned ly the mavoldahle expenses incurred in the revolutionary strugglo with Spain, and the subsequent wars with France and Enghad. The necessities of the State led to the finposition of taxes on corn, on flour when it was ground at the mill, and on bread when it came from the oven; on butter, and fish, and fruit; on $\ln$ come and legacies; the snle of housea; and, in short, nlmost every articlo of either necessity or convenlence. Sir Willian iemple nentions that in his time-and taxes were greatly increased afterward-one tlsh sauce was in common use, which directly prid no fewer than thirty different duties of excise; nnd it was a common saying at Amsterdant, that every dish of tish bronght to table was paid for once to tho fiblermen, and six times to the State.

The pernicious Intluence of this heavy taxation has been ahly set forth by the author of the Richesse de la Hollande, nul other well-informed wrlters; nnd it has also been very forcibly pointed out in the Dissertation already referred to, drawn up from the communications of the Duteh merchants. "Oppressive taxes," it is there stated, "must be placed at the head of all the causes that have co-operated to the prejudice and discouragement of trade; and it may le justly sald, that it can only be nttributed to them that the trade of this country lias been diverted out of its channel, and transferred to our neighbors, and must dnily be still more and more alienated and shut out from us, unless the progress thoreof be stopped by some quick and effectual remedy; nor is It ditlicult to see, from these contemplations on the state of our trade, that the same will be effected hy no other meand than a diminution of all duties. In former times this was reckoned the ouly trading state in Europe; and foreigners wera content to pay the taxes, as well on the goods they brought hither as on those they came here to buy, without examining whether they could evude or save them, by fetching the goods from the places whero they were produced, and carrying others to the places where they were consumed: in short, they paid us our taxes with pleasure, without any further inquiry. Nut, since the last century, the system of trade is altered ull over Europe: foreign nations, seeing the wonderful effect of our trade, aud to what an eminence we had risen only by means thercof, they did likewise apply themselves to It ; and, to save our duties, sent their superfluous products beside our country, to the places where they are most consumed ; and in return for the same, furnished themselves from the first hands with what they wanted." But, notwithstanding thls authoritative exposition of the pernicious effects resulting from the excess of taxation, the necessary expenses of the State were ofogreat ns to render it impossible to make any sufficient reductions. And, with the exceptlon of the transit trade carried on through the Khine and the Meuse, which is in a great measure independent of foreign competition. and the American trade, most of the other branches of the foreign trale of llolland, though still very considerable, continue in a comparatively depressed state.

In consequence prineipally of the oppressiveness of taxation, hat partly, too, of the excessive accumulation of capital that hal taken placo while the Duteh engrossed the carrying trade of Europe, proits ln Holland wero reduced toward the middle of the soventeenth century, and havo ever since coutinued extremely low. This clrcumstance would of itself have sapped the foundations of her commercial greatness. Iler capitalists, who could hardly expeet to clear more than two or three per cent. of net profit by any zort of nndertaking earried on at home, were tempted to vest their eapital in other countrles, and to speeulato in loans to foreign goveruments. There are the best rea-
sons for thinklng that the Duteh were, untll very lately, the largest creditors of any natlon In Europe. It Is impossible, indeed, to form any accurate estlinate of what the sums owing them by foreigners previously to the lece French war, or at present, may amount to; but thera can be no doubt that at tho former period the nmount was immense, and that lt is still very considerable. M. Demeunler (Lictionnaire de l'Economis Politique, tom. ill. p. 720) statea the amount of capital lent by the Dutch to foreign governments, exclusive of the large sums lent to France during the Amerlean war, at seventy-ihree milllons sterling. According to the author of the Richesse de ln Hollands (il. p. 292), the sums lent to France and England only, previousiy to 1778 , amounted to $1,500,000$ livres tournols, or slxty millons sterling. And besides these, vast sums were lent to private Individuals in foreign countrles, both regularly as loans at interest and in the shape of gooda advanced at long eredits. So great was the liffeulty of finding an advantageous investment for money in Hollnnd, that SIr WIlliam Temple mentione that the payment of any part of the national debt was looked upon by the credltors as an evil of the first mngnitude. "They receive it," says lie, " with tears, not knowing how to dispose of it at Interest with anch safety and ease."

Among the subordinate causes which contributed to the deeline of Dutel commerce, or whleh have, at ali events, prevented lis growth, we may reckon the circunistance of the commerco with India having been suljected to the trammels of monopoly. De Witt expresses hls firm conviction that the abolition of the East India Company would have added very greatly to the trade with the Fast ; and no doubt can noveremain in the mind of any one that such would have heen the case. The interferesce of the adnulnistration In regulating the mode in which some of the most important branches of industry should be carried on, seems also to have been exceadingly injurious. Every procceding with respect to the herring fishery, for example, was regulated by the orders of government, earried into effect under the inspection of officers appointed for that purpose. Some of these regulations were exceedingly vexatious. The perlod when the fishery might begin was fixed at fivo minutes past twelve o'clock of the night of the 2fth of June! and the master and pilot of every vessel leaving Holland for the fishery wero olliged to mako oath that they would respect the regulation. The species of asit to be made use of in curing different sorts of herrings was also fixed by law; and there were endless regulatlons with respeet to the size of the harrels, the number and thickness of the staves of which they were to be made; the gutting and packing of the herrings ; the branding of the barrels, etc., etc.-Histoire des Pêches, etc., dans les Mers du Nord, tom. i. chap. 24. These regulationa were intended to secure to the Ilollanders that superiority which they liad early attained in the fishery, a, 1 to prevent the reputation of their herrings from helng Injured by the bad falth of indivlduals. J3ut their real effect was precisely the reverse of this. By tylng up the fishers to a system of routlne, they prevented them from making any improvements; while the faeility of connterfelting the public marks opened n much wider door to fraud than wnuld have heen opencd had government wlsely declined interfering in the matter.

In desplte, however, of the East Indla monopoly, and the regulations now deseribed, the commercial polley of liolland has been more liheral than that of nny other nation. And in consequence, a country not mure extensive than Wales, and naturally not more. fertile, conqucred, Indeed, in a great measure from the sea, has aceumulated a population of upward of two millions; has maintalned wars of unexampled duratlon with the most powerful monarchles; and, besides laying out inmense sums in works of utility and orna-
ment at home, has been enabled to lend hundreds of millions to forelgnera.

During the oceupation of Holland by the French, firat as a dependent State, and subsequently as an integral part of the French empire, her foreign trade was almost entirely destroyed. Her colonies ware snecessively conquered by Engiant; and, in addition to the loss of her trade, she was burdened with fresh taxes. But such was the vaat accumulated wealth of the Dutch, their prudence, and energy, that the influence of these adverse circumstances was far less injurions than couid have been imagined; and, notwithatanding ali the lossea ahe had sustaired, and the long interruptlon of her commercial pursuits, Holland contlnued, at her emancipation from the yoke of the French in 181.4, to be the richest country in Europe! Java, the Moluccas, and most of her other colonies were then restored, and she is now in the enjoyment of a large foreign trade. Her connection with Belghum was an unfortumate one for both countrics. The anion was not agreeabie to either party, and was injarious to Holiand. Belgium was an agricultaral and manufacturing country; and was inclined, in imitation of the French, to lay restrictions on the importation of most aorts of raw and manufactured produce. A policy of this sort was clirectly opposed to the interests and the ancient practice of the Dutch. Bat thongh their deputies prevented the restrictive system from being carried to the extent proposed by the Belgians, they were onable to prevent it from being carried to an extent that materially affected the trade of IIolland. Whatever, therufore, may be the consequences as to Belgium, there can be little doubt that the separation of the two divisions of the kingdom of the Netherlands will redound to the advantage of Moiland. It must ever be for the interest of England, America, and all trading nations, to maintain the independence of a State by whose means their productions find a ready nccess to the great continer ${ }^{+} \mathrm{nl}$ markets. It is to be hoped that the Dutch, profiting by past experience, will adopt such n liberal and conciliatory system toward the natives of $J_{n}$ va as may enable them to a vail themselves to the full of tho various resources of that noble ialand. And if they do this, and freely open their ports, with as few restrictions as possible, to the ships and commodities of all countries, IIolland may still be the centre of a very extensive commerce, and may continue to preserve a resjectable place among inereantile nations. Even at this moment, after ali the vicissitudes they have nndergone, the Datch are, beyond all question, the most opulent and industrious of European natlons. And their present no less than their former state ahows that a free system of government, security, and the absence of restrictlons on industay, can overcome simost every obstacie; "can convert the standing pool and lake into fat meadows, cover the barron rock with verdure, and make the desert smlle with flowers."

Amulets, or Charms. All nations have been fond of amuiets. The Eigyptlans had a great variety; so had the Jews, Chaldeans, and Persians. Among the Greeks, they were much used in exciting or conquering the pession of love. They were also in estimation among the Romans.-Piny. Orio. Among the Ciristians of early ages, amulets were made of the wood of the true cross, ahout $1.1 n, 328$. They have been sanctioned by rellgion and astrology, and even in modern times by medieni and other sciences; witness the anodyne neciniace, ete. The pope and Catholic clergy make and seli amulets and charms even to this day.-Abie. Haydn.

Anam, or An-nam, an empire of Southeastern Asia; between lat. $10^{\circ}$ and $23^{\circ} \mathrm{N}$., and long. $102^{\circ}$ nnd $109^{\circ}$ E.; comprising Cochin-China, Tonquin, and n part of Camboja. Surface generaily fertile, and climate heaithy. The coasts are bell, and include some of the best harbors in the world. Products, rice, sugar,
cinnamon, pepper, and other spices ; indlgo, dye-wonds, an inferior tea, ivory, and the procioua metais. These articiea form the principal exporta. Imperts are manufactured silks, porcelain, fine teas, and drugs from China, opium from India, cottons from Canton and Singapore, wooiens and fire-arms frem Europe. The navy is large; and the people have a maritime taste, excelling most Asiatics in ship-building.-marpen'g Gazetteer.

Anchor, in Navigation, from the Greek äycupa, which Vosaiua thinks is from $0 \gamma \kappa \eta$, a crook or hook, an instrument of iron or other heavy material used for holding ships in any situation in whlch they may be required to lie, and preventing them from drifting by the winda or tldes, by the currents of rivers, or any other cause. This ia done by the anchor, after it is let down from the ahip by means of the cable, fixlng itself into the ground, and there holding the vessel fast. The anchor is thus obviously an implement of the first importance in navigation, and one on which too innch attention can not be bestowed in its manufactore and proper construction, seeing that on it depends entirely the safety of the vessel in storms. The invention of so neceasary an instrument remounts, as may be supposed, to the remotest antiquity. The most ancient anchors conaisted merely of large stones, baskets full of stonea, sacka filled with sand, or logs of wood loaded with lead. Of this !ind were the anchors of the ancient Grecks, which, according to Apollonius Rhodius and Stepheu of Byzantium, were formed of stone ; and Athenaus states that they wore sometimea made of wood. These sorts of anchors retained the vessel meroly by their inertia, and by the friction along the bottom. Iron was afterward introduced for the constraction of anchors, nad also the grand improvement of forming them with teeth or linkes to fasten themselves inte the bottom; whence the words ofóvtȩ and dentes are frequently taken for anchors in the Greek and Latin pocts. The invention of the teeth is ascribed by Pliny to the Tuscans; but Pausanias gives the merit to Midas, king of Phrygia. Originally there was only one fluke or tooth, whence anchors were called ধtモé́sto $\mu 0 \iota$; but shortly afterward the second was added, according to Pliny, by Eupalamus, or, according to Strabo, by Anacharsis, the Scythian philesopher. The anchors with two teeth were
 uments appear to have been much the saine with those used in our days, except that the atock is wanting in them all. Every ship had several anchors, the largest of which, corresponding to our bower or sheet anchor, was never used but in extreme danger, and was hence peculiarly termed lepí or sacra; whence the proverb sacram anchoram solvere, as flying to the last refuge.

IVeight.-Anchors are now universally made of wrouglit iron, excepting in Spain and some parts of the South Sea, where they are made of copper. One essential quality in every anchor is a sufficient weight and angle of arm and fluke to t. i itself in the bottom; and this has br $n$ determined by practice for different anchors, and fut vessels of dillerent sizes. Large vessels have several anchors of different sizes, which are stowed in different parts of the vessel. These are distinguished by different names; viz., the best bocer to the starboard; and the smoll bower to the port cathead, with the flukes on the bill-board; the sheet-anehor on the ufter part of the fore-channels, on the starboard side; and the spare-anchor on the port slde. The above anchors are of the same size and weight. The two latter are only let go in eases of danger, when the vessel is riding in a heavy gale. In men-of-war they are nlways kept ready for letting go. The stream-anchor is of a much smaller size than the above, used only for riding in rivers or moderate streams. It is not generaliy above one-fourth or one-fifth of the weight of the others. Lastiy, the kedge-anchor is still smaller, being only about onc-half of the strenm-anchor, and is
only used when kedging in a river. Ships of the large class carry four Jarge and three amall anchore, and the smallest class, as brigs, cutters, and achooners, three or four.

The weight of anchors for different vessela is allowed by the tonnage. A pretty near rule for the priricipal anchor of ondinary-sired veaseis is to allow for the cwte. In the anchor one-twentieth of the tonnage. Thus a vessel of 400 tons would require he, principal anchor to be 20 cwt ., or according to the following tables:

| atercuant Vebbels. |  |  | Vebbels or War. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tonnage. | $\begin{aligned} & \text { Ciable } \\ & \text { Chaln. } \end{aligned}$ | Wetght of Aluctior. | Guns. | Tonnage. | Cuble Chatn. | We'ght of Anchor. |
| Tons. | 1 n . | C'ut. |  | Tona | tn. | Cwt. |
| 20 | $7^{8}$ | 1 | 20 | 500 | 13 | 25 |
| 35 | 11 | 13 | 24 | 700 | 1. | 29 |
| 50 | \% | 23 | 28 | 750 | 11 | 33 |
| 65 | $1 \frac{3}{6}$ | 31 | 32 | 920 | 18 | 38 |
| 70 |  | $4 \frac{1}{2}$ | 36 | 970 | 15 | 41 |
| 80 | $\frac{7}{8}$ | 5 | 38 | 1000 | 13 | 44 |
| 100 | 45 | 53 | 40 | 1100 | 13 | 47 |
| 130 | 1 | 7 | 44 | 1300 | 13 | 50 |
| 160 | 1 | 8 | 50 | 1500 | $1 \frac{1}{8}$ | 61 |
| 190 | $1 \frac{1}{1}$ | 912 | 64 | 1600 | 2 | 65 |
| 220 | 1.1 | $10 \frac{1}{2}$ | 74 | 1900 | 2 | 72 |
| 250 | ${ }^{1}{ }^{\frac{3}{6}}$ | 12 | 80 | 2500 | $2 \frac{1}{4}$ | 85 |
| 280 | 14 | 14 | 00 | 2000 | 21 | 92 |
| 320 |  | $15 \frac{1}{2}$ | 100 | 2700 | 21 | 94 |
| 380 | 13 | 172 | 120 | 3000 | $2 \frac{4}{4}$ | 09 to 100 |
| 430 | $11^{\frac{7}{6}}$ | 20 |  |  |  |  |
| 480 | 1. | 21 |  |  |  |  |
| 520 | $1 \frac{1}{2}$ | 25 |  |  |  |  |
| 720 | 114 | 33 |  |  |  |  |

Form and Dimensions.-Next to the weight, the form of the ancher, and the propertions of the different parts, are of great importance. The most general form, and that which fas indeed been almost universally adopted ali over the world, consists of the two hooked arms for penctrating and fixing themselves into the soil; the long bar or shank for attaching the cable; and the stock, which is attached to the extremity of the shank, and serves to direct one of the points downward into the soil. The weigitt of the anchor, then, causes the point to penetrate more or Jess according to the softness or harduess of the bottom; and the action of the vessel on the cable, instead of loosening the anchor, tends rather, by the hooked shape of the arms, to fix these deeper and firmer into the soil; so that the vessel is held quite fast, unless either the cabjo itaelf gives way, or any part of the anchor, or the anchor is tiragged along owing to the loosencss of the soil. The catile drawa upwari by the extremity, and turns the whole round the point of the fluke. The one end of the shank is made square, to receive and hold the stock steadily In lis place without turning. To keep the stock also from shifting along the shank, there are raised on it from the solid iron, or welded on it, two square tenonlike projections, called nuts. The length of the square of the shank is about one-sixth of the whoje length of the shaft, and the thickness about one-twentieth. From the end of this square the shank increases in thickness, tapering toward the extremity, where the arma are attached: in all this part it is either made wholly round, or with a fiat on opposite sides, or polygonal. The end next the stock is called the small round. The other extremity, where the arms and the shank unite, is called the crown, and the point of the angle between the arms and the shank the throat. . Here the thickness of the shank is from $1 \frac{1}{2}$ inch in amall anchers, to 3 inches in large ones, greater than at the small round. A distance equal to that between the thront of one arm and its bill is marked on tha shank from the place where it joins the arms, and is called the trend. Near
the extremity of the square part of the shank is the hole for receiving the shackle for the cable, which ia about balf the thickness of the amall round, and the diameter nearly equal to the length of the square. The shackle is lapped with cordage to prevent the cable from chafing. When hempen cables are used in the British service, one length of bower chain cable, called a ganger, ia bent to the spare anchor, and the hempen cable united with Admiral Elliott'a nhackle.

The arms make an angle of about $66^{\circ}$ with the shank. They are made either round or polygonal like the shank, about half thalr length. The remainder of the arm consiats of three parte, the blade, the palm, and the bill. The biade is merely the continuation of the arm in a square form. The palm or fluke is a broad, flat, triangular plate, fixed oll the inside of the blade, the use of which is, by exposing a broad surface, to take a flrmer hold of the ground. The bill is tha extremity of the arm, where it ia tapered nearly to a point, for the purpose of penctrating more readily into the soil. In some cases the arm is made quite straight from the crown to the bill; in othere, and particularly In small anchors, the interior half is made with the arch of a circle. The whole length of the arm is nearly half the length of the rourd part of the shank. It tapers alightly from the throat to the blade, where it is about the same thickneas with the small round of the shank. The paim is about one-third of this in thickness, and the breadth of its base is nearly equal to its length.
The stock of the anchor is made of oak, conslsting of two beams embracing the square, and firmly united by iron bolts and hoops. The length of the stock is rather greater than that of the shank, the thickness in the middle about one-twelfth of its iength, and tapering to about the half of this at the extremities, the taper being all on the under surface next the arms, and the other quite straight. The taper ls not quite regular. It commences at about half the. breadth of the atock from the shank, and continues in one straight line to the extremity. The beams of the stock are fiooped close together at the extremities, but gradualJy open toward the centre, that, in casa of the wood shrinking, the hoops may be driven farther in. Of lato years the stock haa frequently been made of wrought iron, the same as the anchor; and this plan is now very generally followed in anchors up to aixty cwt. It has this advantage, that the stock can be at any time taken out and Iaid I sallel with the anchor, which is very convenient for stowage. The iron stock consists nucrely of a long round bar, mbout half the djameter of the anchor at the equare. Iratead of embracing the anchor, like the wood, it goes through a hole in the square, which is awelled out to receive $3 t$. it has a shoulder in the middle, which rests against the squarc, and a key through a hole in the stock on the other side keepa it fast. When the stock is to be taken ont of its place, the key is driven out : the stock then slides throngh the hole in the shank, and by meana of a bend at its extremity, it is laid parallel with the shank.

The operation of the anchor is casily understood. Being let down by means of the cable, the weight of the arms throws them downward, and keeps the whole In a vertical position until it reachea the ground, where it lights upon the crown; and then falling over, the position of the stock at right angles to the arms, and its length and height, together with the weight of the calle, are sure to throw it with one of the arms pointad into the ground, if it does not take this aituation of itself. This effect is aided by the anchor descending quickly-and hence it muat be allowed to descend freely ; for which purpose, in throwing or casting the anchor, the cable is arranged, ona end being attached to the anchor and the cable bitted on deek, and the inner end removed below. Every thing being prepared, tho lashing of the anchor is cast off, and the men stand
ready to let goi and when this worl is given by the person in command，the fasteninga are all cast off，aud the anchor，falling into the sea，descends with rapidity． When the anchor，again，is to be removed from ite sit－ uation and drawn up into the vessel，the operation is tarmed weighing；which requires often a very heavy purchase，particularly at starting．This is oltained by means of the windlass or capstan，round which the cable is wound，and a number of hands appiied to work it．With cables which are too large to be wuund round a windlass，a smaller rope or chain is used， termed a messengar，which，leing attached to tha ca－ ble at different points，and woind round the capetan， serves to bring the cable forward．But aince the lit－ troduction of chain cablee this contrivance is not so much required．

When the anchor is brought above water，a tackle frem tine cat－head，called the cat，is hooked on to the shackle of the anchor，and hoisted up；tho cat－head stopper is then passed，viz．，one end of it is fastencd round tho cat－head，and the other is brought through the shackle of the anchor，then over the stopper－cleat， and is belayad round a timber head；the cat la then unhooked，and another tackle，called the fish，is hook－ el on just witinin the flukes，and the arms are hove up so as to lic upon the gunnel，or bill－board；the stock is then madn vertical by liauling upon another tackle， called the ateck－tacklo，in which position the anchor is secured by the stock－lashing for sea．In the event of bad weather，and before commencing a long voyage， the cat－head atopper and shank painter is cloubled．

Mooring Anchprs are those which are fixed in cer－ tain situations in aarbors or roadstcads，and to which any of the vessels frequenting the place may be se－ cured．As these are no way limited as to welght lik portablo anchors，they often consiat merely of a large block of stone，with an laner ring fixed in tho middile of the upper side；or several such stones may be fast－ ened together so as to act as one mass．Mooring an－ chors are also often made by choosing one of the larg－ est anchors used for first－rate ahips，weighing 80 cwt．， and by iending one of the arms close down upon the ohank，to prevent it catching hawsers when transport－ ing ships，nets of fishermen，fouling，etc．These an－ chors are lowerad down into the water with a very atrong iron morring chala fastened to the ring，to which the ships are fastened：they are usually made from such as are damaged in one of the flukes or arms．A new kiad of nooring anchor，of cast iron，was described by Mr．IIemman，of Chatham，to the Society for the Encouragement of Arts，etc．，in 1809，for which he ob－ tained a silver medal from the society．

Floating Ancher．－This is the name given to a sort of anchor which has often been proposed，but never re－ duced to practice，for preventing a vessel from drifting，

In cases where the great depth of the sea precludes the use of the cable and oruinary anchor．＇The plan sug－ gested by Dr．Franklin seems the most rational．This anchor consisted of two cross－bars，secured together in the middle，and haviag sail－cloth fastened to them in the shape of a parallelogram．To the centre of these bars the cable was attached，and，being thrown over－ board，it was thought the resistance of ao large a sur－ face would at least check the rapldity of the ship＇s motion．

The fnllowing is Mr．Aylen＇s plan for anchoring in deep water out of soundings，to prevent vessels from drifing in a calm when in a tlde－way，or if disabled： Holat out linmediately one of tise boom boats，let go the kedgo anchor，and veer out 40 or 50 fathoms over the bow，and stop it to the ring in the bow and stern of tho loat，and then veer out from the ship from 70 to 80 fathoms．

Much attention has been pald of late to the improve－ ment of the manufacture of anchors，and several speci－ mens were sent by the makers to the Royal Exhibition in 1851．A committee，consiating of five ship－owners of Lor don，Liverpool，and Glasgow，with five nominated by tne Lords of tho Admiralty，was appointed to test the relative merits of these．After trying，on the parade ground of Sheerness dock－yard，on the beach at Garrl－ son point，at Blackatakes in the River Medway，and at the Nore，thoae that were sulmitted fur competition， viz．，Admiralty，Aylen＇s（a modified Admiralty），Honl－ ball（or Porter＇s），Isaacs＇（United States），Lenox＇s， Mitcheson＇s，Kodgers＇，and Trotman＇s（an impruved Porter＇s），they reported in 1853 that，taking into con－ sideration the reaults of all the trials to which the an－ chors had been subjected，they thought lt best to re－ ce：d their opinions in the following talulated forms：

Tahle biowino the relative orden in which the beveral Anchors atand with reoand to each or the l＇morerties mbential to a oood Anchor；tue Names arranozd al－ mhabetically．

| ANCHORS． |  |  |  |  | $\begin{aligned} & \text { 曾 } \\ & \text { 至 } \\ & \text { 荮 } \end{aligned}$ |  |  |  |  | 㫛 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Admir | 4 | 5 | 1 | 2 | 8 | 4 | 1 | 2 | 2 | ${ }_{2}^{2}$ |
| Ayten ．．．．．．． | 7 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 2 | 5 |
| 11onibatt（ort Porter＇s） | 2 | 2 | 3 | 4 | 2 | 1 | 4 | 8 | 5 | 8 |
| Isaacs．．．．．．．．． | 1 | 0 | 4 | 5 | 1 | 1 | 4 | 4 | 5 | 1 |
| Lenox ．．．．．．．． | 0 | 3 | 2 | 1 | 2 | 3 | 2 | 1 | 9 | 2 |
| Miteheson ．．． | $\xrightarrow{\text { fued }}$ | 1 | 3 | 1 | 3 | 2 | 3 | 2 | 4 | 4 |
|  | Irial． |  |  |  |  |  |  |  |  |  |
| Rodgers．．．．．． | 5 | 2 | 1 | 1 | ， | 4 | 2 | 1 | 1 | 2 |
| Trotman ． | 3 | 1 | 3 | 3 | 4 | 1 | 4 | 3 | 5 | 5 |

Table biowino tif eatimated nimerical Vaices of the aifkral Anchors in reoard to the Propratikg consimered zbazminl to a 0000 Ancitor，－TThis Tabte onty professes to show approximate values，and has no pretensions to mathe－ matical accuracy or precision．］

| anchors． |  |  |  |  | $\begin{aligned} & \text { 曾 } \\ & \text { 空 } \\ & \frac{y}{8} \end{aligned}$ |  |  | Facility of tyansport In boata． |  | 袻 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Proportionate values of the Qualltiea． | 15 | S0 | 10 | 15 | 5 | 10 | 5 | 5 | 10 | 5 | 160 |
| Admiralty ．．．．．．．．．．．．．．．．．．． | $2 \cdot 07$ | 6.42 | $1 \cdot 82$ | 2.01 | 89 | 65 | 95 | \％ 6 | 1.98 | 73 | $18 \cdot 17$ |
| Aylen $\ldots$ ．．．．．．．．．．．．．．．．．． | 1.89 | $9 \cdot 10$ | 1.82 | 2.01 | 45 | －65 | \％ | －65） | 198 | 44 | $10 \cdot 94$ |
| Honibalt（Porter＇s）．．．．．．．．．． | 2.88 | $10 \cdot 69$ | $\cdot 9 t$ | $1 \cdot 53$ | ＇67 | 1.85 | －20 | 62 | ． 65 | 60 | 19.94 |
| Isaacs ．．．．．．．．． | $2 \cdot 63$ | 5. | －45 | 59 | －89 | 185 | 29 | ． 26 | ． 65 | ． 81 | 13.32 |
| Lenox．．．． | 102 | 0.56 | $1: 36$ | $8 \cdot 30$ | $\cdot 67$ | $1 \cdot 11$ | 71 | －87 | $1 \cdot 88$ | $\cdot 73$ | $20 \cdot 61$ |
| Mitcheson |  | $14 \cdot 10$ | ． 91 | $2 \cdot 36$ | $\cdot 45$ | 1.39 | 67 | 65 | －8 | －52 | 2183 |
| Rodgers | 194 | 10.69 | $1 \cdot 82$ | $2 \cdot 30$ | 67 | ． 64 | ． 05 | －87 | $2 \cdot 19$ | 73 | 22：80 |
| Trotman．．．．．．．．．．．．． | 2．22 | 14.41 | 01 | 1.77 | 31 | 185 | －29 | 52 | 55 | 44 | $23 \cdot 30$ |
| Totals．．． | 15.179 | 881.60 | $10 \cdot(1)$ | 1449 | 5.40 | 9430 | 5 （h） | 499 | 10.00 | 5－（x） | $153 \cdot 97$ |

The following is a recapitulation of tho order in｜gether with their relative percentage of inferiority or which the anchors wore ranked by the committee，to－$/$ superiority to the Admiralty anchor，the value of
which, as given in the foregoing table (18.17), was taken as the standard or unit:


Supposing both the flukes, and about two feet of tho shank and crown of the anchor ia gone (invariably the place where all anchors break), the weight of the broken par would be about half the weight of the original, say

> Bower anchor for the Heatings uhase 74 owt, half. ..... 87 8tream anchor and stock for the above ship Kedge and atock for do. do.............

In making anchors in the Royal dock-yarda of Great Britain, t'le different parts are ferged by the ateamhamnars. In the first place, large slabs or pieces are mado about five teet long, and three of them put together, soundly wolded, and drawn out of sufficiont length for the shank; the prms and palms are forged nearly in the same way; the palma are welded on to the arms, and then the arms welded on to the shank, and the shacklo is riveted on to the shank, the anchor then beling completo.

The shank for an anchor is mado larger at tho lower end, where the arms are to be welded to it, and is of a square figure. A sort of robate or scarf is here formed on cacin sido of the square, in orde that the arms may apply mure properly for weiding. This scarf is made in the original shape of tho fagot, and finiehed by cutting away some of this metal with chisels while it is hot, and naing seta or punches, properiy formed, to make a square angle to the shoulder of the scarf. The upper end of the shonk is likowise square ; and the length between theso square parts is workod either to an octagon or round, tapering regularly from the lower to the upper end. The holo to receive the ring of the anchor is pierced through tise square part at tho upper end, first by a small sunch, and then larger ones are used till it is sufficiently enlarged. Tho punch is mado of steel; and when it is ohserved to change color by the beat, it is atruck on the opposite end to drive it out, and is inatantly dippod in water to cool it, and another driven in. The I ojecting pieces or nuts, which are to keep tho stock or wooden beam of the anchor, and its place on the shank, are next welded on. To do this the shank is heated, and at the same time a thick bar is heated in anothor forge: the end of this is iaid across the shank, and the men hammer it down to weld it to the shank; then the piece is cut off by the chisel, and atother pieco welded on tho opposite side.

Whilo this process of forging the shank is going on, the amiths of another forge, piacod as near as convenient to tho former, are errployed in making tho arms, which are made tron fagots in the san.e menner as the shank, but of less size and shorter, they ore made taper, one end of each beling smaller than the other; the larger ends are madas square, und eut down with ucarfs, to correspond with those at the lower end of the shank. Tho middlo parts of the arma aro rounded, and the cuter extremities are cut away as much as the thickness of the fiukes or paims, that tho palms may be fiush with the upper slifes when they are welded on. The fiukes are generally made at the iron-forges in tho country, by the ferge-hammer; but in some yards they are made by fagoting small bars, leaving a long oue for a handlo. The next busiaess is to unite the arms to the end of the shank; and in doing this particular care in nocessary, as the goodness of the anchor is entirely dependent upon its being effectualiy performed. In mo large a weld, the outside is very
liable to be wolded, and make a good appearance, while the middle part is not united. To guard agninst this, both murfaces of the scarfs should be rather convex, that they may be certain to touch in the middle first. When the other arm is welded, the anchor is complete, except the ring, which is made from several small bars welded together and drawn out into a round rod, then bent $t$ s circle, put through the hole in the shank, and its ends velded together. If the shank or other part is crookod, it is set right by heating it in the crooked part, antl atiking it over the anvil, or by the Hercules. After all this the wholo is heated, but not to a white heat, and tho anchor hammered in every part, to finish and make its aurface even. This is done by lighter haminers, worked by both hande, bat not awung over tho head. This operation renders the surface of the motal hard and smooth; and if very effectually performed, the anchor will not rust materialiy by the action of the sea-water.

The iron from which anchors are mado ought to be of the best quality : that kind of it which is called red short will not bear sufficient hammering to weld the bars; and coid short, from its brittleness, is not to be depended upon whon tho anchor is in use. A good anchor should be formed of the toughest fron that can ks procured. The most extensive establishment for fabricating anchors, etc., in England, is that at Woolwich dock-yard, where the British Admiralty anchors are made. There the blowing apparatus, the working of the lift and tilt hammers, etc., is all done by a steamengine of fron fourteon to sixteen horse power. E. B.

To steer the akip to her Anehor, is to steer the ship's head toward the placo where the anchor lies when they are heaving in the cable, or lying in a strong tide-way, that the cable may thercby enter the hawse with leas resistance, and tho ship advanee toward the anchor with greator facility. Ships often prevent coliision by attention to the belin.

Anchorage, or Anohoring Cround. Good anchoring ground should neither be too hard nor too soft; for, in the, first casc, the anchor is apt not to tako a sufficient hold, and in the other to drag. The beat bottom is a rtiff clay, and next to it a firm sand. In a rocky bottom tho flukes of the anchor are sometimes torn away, and bempen cablea are liable to chafe and be cut through. It is also essential to a good ancherege that the water be nelther too deep nor too shallow. When too derp, the pell of the cable, bsing neariy perpendicular, ia apt to jerk the anchor out of the girund; and when too shallow, the ship is exposel to the danger, when riding in a etorm, of striking the bottom. Whare a ship is in water that is land-locked, and out of the tide, the nature of the ground is of comparatively 'ittle importance.
Anchovy (Fr. Anchois; It. Acciughe; Lat. Encrasicolus), a amsll fieh (Clupea encrasicolus, Linn.), common in the Mediterranean, resembling the aprat. Those brought from Gorgona, in the Tuscan Sea, are estermed the heat. They should be chosen smali, freah pickied, whito outsido and red within. Their lacke should be round. The se dine, a flah which is flatter and larger than the anchovy, is frequontly substituterl for it. Ahout $\mathbf{1 2 0 , 0 0 0}$ pounds are ancualiy entered in Great Britain for home consumption.
Andermon, Adam, was born in Bcotland in 1092. IIe was a clork for forty years in the South Sea IIouse in london, whero he pulblished a iarge work, entitled Ilistorical and Chronologieul Deduetion of the Origin of Commerce, containing a Ilistory of the Great Commercial Interests of the Britiah Eimpire, etc., which is volnminous and heavy; but he eeema to havo anticipated, in some of his spreculations, the opinions of inter times. it was firat puillishod in 1702, in two vols. follo. A. third edition appeared in $1707-9$, in four vols. Ato, the last volume being an appendix and continuation ty the editor, Mr. Walton. Anderson died in 1705.

Andes. The Andes form a mighty mountain chain running nearly parallel to the western coast of South America. The central ridge extends in an undivided chain from the Rlo Atrato, at the Iethmus of Darlen, in lat. $8^{\circ} \mathrm{N}$., to the Cordilleras of Vileanoto and Cuzeo, in lat. $15^{\circ} 50 \gamma$ S., where It separates into western and asatern rldges that iaclose the extensive and elevated valley of Desaguedero, and exhilit some atupendous peake that almost rival the altitude of the Himalayas of the East. After running parallel to each other to lat. $10^{\circ} .80^{\prime}$ S., they again coalasce, and conatitnte one central chain to the Straits of Magelian, in lat. $58^{\circ}$. The Andes of South America, then, have a range of about 4200 miles. 'ine most western of the two longitudinal ridges runs parallel to the Paeific, and is called the Cordillera of the Coast; the eastern chain id genarally termad the Cordillera of the Interior, and its northern prolongation Cordillera Rea. The vailey of Desaguedero extends from lat. $15^{\circ} 5^{\prime}$ to lat. $19^{\circ}$ 80'. \&. , whth a varying breadth of 85 to 60 miles, presensing an area of 16,000 square geugraphical milee. It contalas the celebrated Lake of Titicaca, the oradle of Peruvlan civillzation. It was on the shores of this lake that Manco Capac, the flrat Inca, was miraculously discovared by the Quichn, the ancostors of the Peruvians.
"The central Andes are rioh beyond conception in all the metals, lead only excepted. One of the most curious ores in the bowels of those mountains is the pacos, a compound of clay, oxide of iron, and the muriate of silver with native silver. The mines of Mex100 and Peru, so long the ohjects of envy and admiratlon, far from being yet exhausted, promise, under a liberal and improved syatem, to become more produciive than ever. But nature has hlonded with those hidden tressures the active elements of deatruction. The whole chain of the Andes is aubject to the most terrible earthquakee. From Cotepaxi to the South Sea no fewer than forty volcanoes are constantly buraing; some of them, especially the lower ones, cjecting lave, and others discharging the muriate of ammonia, scorifled basalt, aut porphyry, enormous quantities of water, and ospecially moya, or ciay mixed with sulphur and carhonaccous matter. Eternal snow invests their sides, and forms a barrier to the animal and vegetabla kingdoms. Near that confine the torpor of vegetation is marked by dreary wastes."-Ldinb. Review, vol. xv. p. 233.

Anemometer and Anemomoope, machinos for measuring the force and Indicating the course of the wind.

Angelloa, a large umbellifereus plant, with hellow jointed atalks, of which there are soverul varisties. It grows wild, and is cultivated in moist places near London, and in most Eurot aan countites from Lapland to Spain. Its roots are thick, fleshy, and resinous; havo a fragrant agrueable amell, and a bitteriah pungent taste, mixed with a pleasant sweetness glowing on the lipa and palate for a long time after they have been chewed. To preserve them, they must be thoroughly dried, and kept in a well-aired place. The other parts of the plant liave the same taste and flavor as the roots, but in an inferior degree. The leaves and seeds do not retain their virtues when kept. Tho London confectioners mako a sweetment of the tendor atems. The faculty used to direct that none but the roots of Spsuish angeliea should be kept by the drugglsts. In Norway the roots are sometimes used as broad, and in Iecland tho atalks aro enten with butter. Tho plant is used n.ostly in confectionery and tbe materls medicd. -Lawis's Mat. Med.; Ress's Cyclopedii., etc.

Angels, in Commerce. in agge, wss an ancient gold coln, woighing four pennywelghte, sud was valued at $6 s, 8 d$. In the reign of Henry V1., and at 10 s . 11) the reign of Elizabeth, 1662. The angelot was en ancient gold coin, value half an angel, struck at Paria when that capital was in the handa of the English, in the reign of IIeary VI., 1481,-Woow.

- Anise Beed (Fr. Anis; It. Anise; Lat. Anisum); a small seed of an oblong ahape. It is cultivated In Gemar 1 y , but the best comes from Alicant, in Spain, It is also a product of China, whence it is exported. It should be chosen freah, large, plump, new? y dried, of a good smell, and a sweetialh aromatic taste.

Anker, a liquid measure at Amsterdam. It contains about $10+$ gallens English wiue messure.
Ennale (Annales, from annus, a year), a term commonly applied to a concise and plain kind of narrative of historical facts digested in the order of time, each event being arranged nuder the particular year it. which it happence. Although this style of composition does not necererrily exclude the casual observations of the writor, episodes or formal digressions are incompatible with the brevity characteristic of annals; while history, on the other hand, comprises not ouly the narrative and exposition of facts, but also the w titer's observations on actions, motives, canses. and conaequances in general; thus affording amp'd scope for illustration and cmbelliahmont. Annale may be said to constitute the cesence of history, binca they are the eloments or materials of which it is m aposed.
? Annealing, by the workmen caited nealine; is a process used in glass-making, and in tho manufacture of certain metala. In glass-making it consista in placing the bottlea, cte., while hot, in a kind of qven or furnace, where thay are suffered to cool gradually. They would otherwlse be too brittle for use. The difference between unanaealed ard annealed glass, with respect to brittleness, is yery remarkable. When an unananealed glase vessel is broken, it often flies into a small powder, with a violence aeemingly very unproportioned to the etroke it has received. In general it is in greater danger of breaking from a very slight stroke than from one of some conaidershle force. Ono of these vossels will often reast the effects of a pistolbullet dropped lato it from the height of two or three feat; yet a grain of sand falling lnte it will make it burnt into small fragmente. This takes place sometimes immediately on dropping the sand suto it ; but often the vessel will stand for several minutes after. eeemingly seeure; and then, without any new injury, It will fly to pieces. If the vessel be ver; thin lit does not broak in this manner, but seens to possess all tho pruportiea of anncaled glass.

The ammo phenomena are atill more strikingly soen in glass drops in' tears. They aro globular at one end, and tapor to a sinall tail at tho other. They aro the drops which full from the melted mais of glass on the rods on which the bottles are mado. Thoy drop int? the tubs of water which are used in the work; tito greater part of them burst Immorilately in the water. When those that rucain entire are examined, theydiasovor all the proferties of unannealed glass in the highest degree. They will bear a smart atruke on the thick end without breaking; but if tho small tall be broken, they shiver into singll powder with a loud explosion. They appear to burst with moro violence, and the powder is smaller in an exhausted receiver than in the open air. When they are annealed they lose these properties.

Glass is one of those holics which incrense ln hulk when passing from a fluidi into co solid stato. When it is allowed to crystallize regularly, the partleles are so arranged that it has a illurous texture. It is elastic, and susceptiblo of leng-continued vibrations; but when a mass of melted glass is suddenly exposed to the celd, the surface erystallizes, and forme a sel'd shell round tho intorior fluid parts. I' is prevents them from oxpanding when thoy become solid. They therefore have not the opportualty of a regular erystallization, but ere compressed togethar wJth little mutual cohesion. On the contrary, they press outward to occupy' more space, but are prevented by the oxternal ernst. In consequence of the effort of expanaion in the lnternal parta, the greater numbor of glass drops burst
in cooling; and those which remain entire are not regularly erystallized. A amart stroke upon them coinmunicates a vibration to the whole inase, whlch is nearly synchronous in every part; and therefore the effort of expensica has little more effect than if the body were at rest; but the small tall and the surface only are regulariy crystallized. If the tail be broken, this communicates a vibration along the crystallized surface withuut reaching the internai parta. By this they are allowed some expansion; aud overcoming the coheaion of the thin outer ahell, they burst it, and are dispersed in powder.

In an unannealed glass veasel the same thing takes place. Sometimes the vibration may continue for a considerable time before the internal parts overcome the reaistance. If the vessel be very thin, the regular crystallization extends through the whole thickness; or at ler st the quantity of compressed matter in the middle is so inconsiderable as to be incapable of bursting the external plate.

By the process of annealing the glass is kept for some time in a state approaching to fluidity; the heat increases the bulk of the crystallized part, and renders it so soft, thet the internal parte have the opportunity of expanding and forming a regular crystallization.

Iron.--In the manufactures in which the malleable metals are employed, annealing is used to soften a metal after it has been rendered hard by the hammer ; and also to soften cast iron, which is rendered very hard and brittle by rapid cooling.

In the manufacture of steel goods, which are first formed by the hammer, and require to be flied or otherwise treated, and in which softness and flexibility are easential to the change, annealing is absolutely necessary. This is particularly the case in making files and scissors, that the metal may be leift sufficiently soft for cutting the teeth, and for flling off those parts whick can net be ground. Annealing is not less necessary in the drawing of wire, whether iron, copper, brass, silver, or gold. The operation of drawing soon st ves the wire a degree of hardness and olasticity which, if not removed from time to time by allnealing, would prevent the extension of the wire, and render it extremely brittle. The same operation is also necessary in rolling or flattening those metals ohich are in a cold state, such as brass, silver, gold, etc. The brazier who form:, vessels of copper and brass by the nammer, can work upon it only for a little time 'refore he is obliged to anneal it.

The methods often employed for anncaling iron and ateel are very injudicious, and materially injure the latter when it is used for making cutting instruments. After they have been formed by the hammer, they are sometimes piled up in an open tire, slowly raised to red heat, and then allowed as gradually to cool. By this method the surface of the steel will be found considerably acaled, from the action of the exygen of the atmosphere. When it is remenbered that steel consists of iron joined to carbon, It will be evident that the steel immediately uoiler the scaly oxide will be deprived of its carbon, which has been carried off by the attraction of the oxygen; and, in consequence, will lose the property of ecquiring that degree of hardness necessary to a cutting instrument.

Nothing, therefore, can be moro obvlous than that uteel particulariy should be annealed in close vessels, to prevent that effect. For this purpose the goods should be placed in a trough or recess made of firestone or fire-briek, and stratified with ashes or clean sand, and finally covered with a thick stratum of the same; "ut if the size of the vessel be small, it may have a cover of its own materials. This oven or trough must now be heated by the flame of a furnace passing under and round it, till the whole is of a red hest. It muat then be suffered to cool, without letting in the air. The gools on treated will be much softer than by the other method. The surface, lustesd of becoming
scaled, will have acquired a neetallio whitenesa, from the presence of a small quantity of carbonaceoua matter contained in the ashes in which they were lmbedded. They will become so flexible also, as to allow them to bend considerably without breaking, which is very far from being the case before the operation. The fracture, before annealing, will be smooth and short; but afterward it will be rough, exhibiting bright parts, of a crystalline appearance.' Wire, especially that of iron and steel, should be treated in a similar way when It is annealed. The wire used for somo purposes requires to be soft, and is sold in that atate. If the wire, after finishing, when it is bright and clean, were to be annealed in contact with oxygen, it would not only lose all its lustre and smoothness, but much of its tenacity. The procese above mentioned will therefore be particularly necessary in annealing finished wire, as well as in aoftening it from time to time during the drawing.

Copper and brass suffer much less than iron and steel from annealing in the open air, and do not require to be heated above a low red heat. If, however, the lustre is to be preserved, a close vessel would be desirable. The latter metals, after annealing, although much discolored by the oxygen of the atmosphere, may be cleansed by lmmersion in a hot liquor composed of water and a small quantity of sulphuric or nitric acid. Very amall brass or coppey wire is freque, +1 l annealed by exposing it to the flame of hay or stra. . In casting minute pieces of pig-iron, which is geacrally done in damp sand, the metal possceses the property of steel to such a degree as to assume, by the rapid cooling, a degree of hardness equal to hardened steel; at the saine time that the articles are so brittle as to break by falling on the ground. When, however, these goods are treated in the way above directed, they acquire a dcgree of aoftness which renders them penetrable by the file, and at the same time capable of bending. In this state they are much less tenacious than steel, but still so much so es to have been sold in the form of cutlery for steel.

The change which metals undergo by annealing is net yet thor uughly understood. Most of the malleable metais are ruaceptible of two distinct forms, one called the crystalline form, which they assume by slow cooling; and the other the fibrous, which is acquired loy hammerim; or rolling. When this, however, is carried beyonila certain point, the metal becomes so hard that it is nut capalle of being bent far without breaking. All the malleable metals in the ingot or in their cast state are brittle, and exhibit a cryatallina fracture. By hammering or rolling they become more tenacious, and break with difficulty, exhibiting what is called a fibrous fracture. At the same time they become stiffer and more clastic. They lose the latier properties by annealing, but become more malleable. If the anneal. ing, however, be leng continued, the malleability diminishes, and they again have a cryatalline fracture. Zinc oy wire-drawing becomea very flexible, and possesses a degree of tenacity not inferier to that of copper; but if it be kept in boiling water for a length of time, it will resume its original brituleness, and show a clystalline appearance when broken. This proves that the particies of metals can change their arrangement without losing their solid form; which is still more strongly confirmed by the fact that brass wire loses its tenacity by exposure to the funes of acids, and even by the presence of a damp atmosyhere. This is not caused by the moisture, lut by the action of air upon the molstened surface. The manufacturers of cemmon pins are obliged to keep their wire In a dry atmoaphere, or immersed in water. If the wire be first moistened, and then oxposed to the eir, it will assume the brittle atate much sooner. In this condition it breaks with a crystalline fracture, similar to that exhibited by'sn ingot. When a ateci-plate, such as a watrimpilig, has been once tempered, the operation
of cimply rubbing it bright will render it soft and elastic. The aame change is bronght about by slightly hammering it. It, however, resumes its elastio state by being carefully heated till it becomes of a blue color. If the heat be continued to redness, particularly in a close vessel, it becomes perfectly annealed.-E. B.

Annotto, or Arnotto (Fr. Rocou; Ger. Orlean ; It. Oriana), a species of red dye formed of the pulp enveloping the seeds of the Bixa Orellana, a plant common in South America, and the East and Weat Indiea; but dye ia made, at least to any extent, only in the first. It. is prepared by macerating the pods in bolling water, extracting the soeds, and leaving the pulp to subside; ${ }^{\dagger}$. fluid being subsequently drawa off, the residuum, h.... which oil is sometimes mixed up, is placed in al ulow vessels and gradually dried in the shade. I's of two sorte, viz. flag or cake, and roll annotto. The first, which is by far the most important article in a commercial point of view, is furniahed almost wholly by Cayenne. It is imported in square cakes, weighing 2 or 3 pounds each, wrapped in banana leaves. When well made, it shoald be of a bright yellow color, soft to the torich, and of a good consistence. It imparts a deep but aot durable orsage color to silk and cotton, and is used for that purpo : by the dyers. Roll annotto is principaily brought from Brazil. The rolls are small, not exceeding 2 or 3 ouncea in weight; It is hard, dry, and compact, brownis'1 on the outside, and of a beautiful red color within. The latter is the best of all ingredieats for the coloring of cheese and butter, and is now exclasivaly used for that purpose in all tite British and in aome of the Continental deiries. In Gloucestershire it is the practice to allow an ounce of anuotto to a cwt. of cheese; in Cheshire, 8 dwte. are reckoned sufficient for a cheese of 60 pounds. When genuine, it neither gffeots the taste nor the smell of chesse or butter. The Spanish Americana mix annotto with thelr chocolate, to thich it givea a beautiful tint.-Gray'a Supplement to the Pharmacopaias; Loudon'a Encyo. of Agriculture, and private information.

Annuities. An annuity is a periodical income arising from pensions, lands, houses, or money lent. When the possession of an annuity is not to be entered upon until the expiration of a certain period, it is called a reversionary, or deferred annuity; when the time of possession is not deferred, the annuity is somotimes called immediate, but in general it is simply termed an annuity.

Annuities or Pensions ware first grarted In 1512, when $£ 20$ were given to a ledy of the court for services
 man, 1536. The sum of $£ 136 \mathrm{~s} .8 \mathrm{~d}$. was deemed competent to support a gentlemen in the study of the law, 1554. An act was passed empowering the government to borrow one million aterling upen an anauity of fourteen per cent., 4 and 6 Wiliiam and Mary, 1691-8. This mode of borrowing acun afterward becaine gencral anong civilized gevernmente. An annuity of $£ 1$ per anaum, accumuleting at ten per cent., compound intercst, aniounts in one hundred yeare to $£ 187,796$.IIayde.

The doctrine of compound intereat and annuitiescertain is too simple ever to have occupied much of the attention of mathematicians: inquiries into the valnes of interests dependent upen tho contirinance or the fuilure of human life, being more interesting and diffcult, have oceupled them more, but yet not so innch as tieir importaince would seem to demand; the discoveries both in pure Mathematice and Phybics, eapecially those of Newton, which diatinguished the close of the seventeenth century, having provided them with ample employment of a more istereating kind, over aince the subjects of this artiole were aubmitted to calculation.

Wien annulties are lependent upon the exiatenco of a life or tives they are called Life Aanvitics. The
values of such annuities are calculated by means of tables of mortality, which show, out of a considerable number of individuals horn, how many on an average have lived to complete each year of their age, and consequently th.d expectation of life for each particular age: this, combined with a certain rate of per cent., will reduce the calculations, if made apon a sufficiently large scale, to mathematica: certainty (see articles Tables of Mortality, Interest, and Life Insurancs):

In the year 1808 the British government commenced granting life sonuities at prices calculated according to the Northampton Tables of Mortaility, and continued so to grant them for 20 years, at a great lose to the nation, especially on younger lives, as was shown at the time by a distinguished writer (Joshua Milne, Esq). None were granted then, however, on lives under 85 years of age. After the yesr 1818 annuities were granted to all persons of ages above 21 years.

In March, 1819, Mr. Finlaison was appointed government actuary, with proper assistants and access to the registers of the nominees in tontines, and others on whose lives annuities had been granted by governmant for mere than a hundred years before; in which regigters the exact ages at which the annuitants were nominated, and at which they dicd, were stated. Upon these data Mr. Finiaison made a table of mortality niore valuable than any thing of the same kind which had yet been published, according to which the British government grant annuities at the present time.

By Mr. Finlaison's table it was found that the livea of annuitante wero generally better (longer) than the general average of the populstion, as insured lives generally helong to the better classes. This subject will be more fully treated in Tables of Mortality, Interest, and Life Insurance.

Calculations are made, and annuities granted by the British government and by Life Insurance Companles, both in Europe and this country, upon all combinations of lives, such as joint lives, survivorships of two or more livcs, etc., etc., afforling a perfectly eafe and reliable investment, and in the case of a Mutual Life Office, one of very great advantage to the annuitant.

The doctrine of annuities, with its kindred science of Life Insurance, is ec abstruse that few writers are found wllling to devote their time and attention to it unless actuated by professional motives or an unusual taste for the subject; fortunately, however, ite trestment is marked by uniform and ominent talent and ability, oo that nearly all the works upon this subject contain something new and valuable. The standerd authors are, David Jones, Jenkins Jones, Milne, Morgan, Lubbock, Samuel Brown, G. Davies Babbage, and Dr. Price.

The lives on which annuities depend will generally be somowhat better (by which we here mean, will attain to groater longevity) than the gentral average of the population, though probsbly not nearly so much better as many believe them to be. The prevailing error in the popular eatimate on this subject appears to have arisen in great measure from comparing the murtality smong annuitants and assured lives, with that represented to take place by tabies of mortality erroneously considered to correspond with the general average of the people; while, from being constructed on erroneous principles, and from insufficient data, or else being derived fron, observations mado where the mortality was and la nuci ereator than In Britain, the mortality, according to these tables, was considerably greater than that whith aetually prevails among the buik of the people here. Proos of this will be found under the article Jaw of Mortality.

The tables on the following page show the cost of an annuity of $\$ 100$, and the amount of snnuity which a deposit of 1000 will purchase according to the iife table of the Mutual Life Insurance Company of New York. The rates cinarged by that company are found in the columns marked five per ceut.


| Aga | Four and a half per Cinth | Five per Cent． | OLx per Conh |
| :---: | :---: | :---: | :---: |
| 10 | ${ }_{66} \mathrm{Ctan}^{\text {ct }}$－ | $60 \mathrm{Cta}$ | $189 \frac{c_{10}}{70}$ |
| 11 ． | 6680 | 6080 成 | x 6980 |
| 18 | 5660 | 6110 ： | 7080 |
| 13 | 6090 | 6140 | 7060 |
| 14 | 57.30 | 6170 | 1080 |
| 16 | $6_{6} 60$ | 6200 | 7120 |
| 16 | 6800 － | 6240 ． | 7160 |
| 17 | 5880 | 0980 | 1180 |
| 18 | 5870 | 6810 | 7280 |
| 19 | 6810 | 6360 | 7250 |
| $20^{\circ}$ | 6950 | \％6800 | 7890 年1 |
| 91 | 5900 | 6480 | 7880 |
| 88 | 6040 | 6470 | 7870 |
| 23 | 6080 | 6520 | 1410 |
| 94 | 6150 | 6560 | 7460 |
| 95 | 6180 | 6010 | 7500 |
| 86 | 62 30 － 2 | 6060 | 7550 |
| 97 | 6280 | 6710 | 7600 $-\quad 7600$ |
| 28 89 | 6340 | 6770 | $\cdots 7660$ |
| 99 | 6890 | 6820 | $\rightarrow 7710$ |
| 30 | 0450 | c． 6880 a | ＋ 7760 |
| 31 | 6510 | 6940 | 7820 |
| 82 | 0580 | 7000 | 7880 |
| 83 | 6450 | 7070 | 7950 |
| 94 | 8780 | 7150 | 8090 |
| 85 | 6790 | 7220 | 8090 |
| 36 | 6370 | 7309 | 8160 |
| 87 | 9960 | 7380 | 8240 |
| 88 | 1340 | 1460 | 8380 |
| 89 | 7180 | 7550 | 8410 |
| 40 | 7280 | 7650 | 8510 |
| 41 | 7380 | 7760 | 8610 |
| 42 | 7440 | 7860 | 8710 |
| 43 44 | 7560 | 7970 | 8820 |
| 44 | 7680 7910 | 8980 | 8940 |
| 45 | 7910 | 8220 | 9070 |
| 46 47 | 7040 80 | 8860 | 0210 |
| 47 48 | 9090 | 8600 | 98.50 |
| 48 | 8250 8410 | 8609 | － $9500 \times$ |
| 49 60 | 8410 | 8820 | 0670 |
| 81 | 8770 | 9180 | 10080 |
| 82 | 8970 | 9880 | 10220 |
| 68 | 9180 | 0590 | 10480 |
| 64 | 9409 | $98 \cdot 10$ | 16000 |
| 55 | 9640 | 10960 | 10900 |
| 56 | 19000 | 10810 | 11150 |
| 57 | 10170 | 10590 | 11430 |
| 69 | 10470 | 10880 | 11780 |
| 59 | 10780 | 11200 | 12050 |
| 60 | 11190 | 11640 | 12300 |
| 61 | 11400 | 11910 | 12760 |
| 62 | 11880 | 12800 | 13150 |
| 63 | 12800 | 12720 | 13580 |
| 44 | 12750 | 18170 | 14040 |
| 65 | 18280 | 19660 | 14560 |
| 66 | 13750 14310 | 14180 | 15060 |
| 67 | 14310 | 14750 | 15690 |
| 68 | 14910 10560 | 16350 16060 | 162 90 |
| 70 | 16240 | 10710 | 17610 |
| 71 | 17040 | 17400 | 18390 |
| 72 | 17870 | 18320 | 19240 |
| 73 | 187 76 | 10280 | 20160 |
| 74 | 19750 | 20210 | 21150 |
| 75 | 20810 | 21280 | 22280 |

Sva requirm to mugchase，at this megpective Aoss man－
TIONED，AN ANNUITY Or ON\＆HUNDGED DOLLAME．

| 4 ge ． | Four and a belt par Cant． | ${ }^{\dagger}$ Five per Cone． | 81x per Cent． |
| :---: | :---: | :---: | :---: |
| $10^{+1}$ | $1780 \text { Cts }$ | $1659^{\mathrm{C} 4}$ | $1406 \mathrm{cs} .$ |
| 11 | 177673 | 104568 | 142969 |
| 18 | 176685 | 168788 ： 1 | －142878 |
| 13 | 175679 | 162898 | 141778 |
| 14 | 174655 | 162088 | 141156 |
| 16 | ） 175611 | 161102 | 140524 |
| 16 | 172646 | 160267 | 189877 |
| 17 | 171460 | 159353 | 189216 |
| 18 | 170381 | 158419 | 1985 |
| 19 | 109220 | 157403 | 187840 |
| 20 | 1680 64 | 156488 | 187126 |
| 21 | 166888 | 1564 85 | 186988 |
| 92 | 165670 | 154462 | 161544 |
| 23 | 104445 | 153416 | 194870 |
| 24 | 163184 | 362841 | $12407^{\circ}$ ． |
| 25 | 1818 \％ | 151241 | 128269 |
| 86 | 160576 | 150118 | 182482 |
| 27 | 159220 | 145956 | 181558 |
| 28 | 157843 | 147769 | 196669 |
| 89 | 156427 | 148660 | 129768 |
| 80 | 164978 | 145801 | 128809 |
| 81. | 163493 | 144018 | 127858 |
| 32 | 151971 | 142609 | 126835 |
| 88 | 180412 | 141346 | 125801 |
| 3 | 148813 | 199984 | 124784 |
| 35 | 147178 | 1585 | 128488 |
| 90 | 145489 | 187058 | 1224 vd |
| 87 | 143760 | 185588 | 121316 |
| 88 | 141985 | 180976 | 120997 |
| 89 | 140161 | 102369 | 118660 |
| 40 | 188886 | 130712 | 117529 |
| 41 | 136359 | 129005 | 116170 |
| 42 | 134878 | 127845 | 114774 |
| 43 | 132841 | 125480 | 118390 |
| 44 | 130245 | 120508 | 111812 |
| 45 | 128002 | 121028 | 110250 |
| 46 | 125877 | 119639 | 108830 |
| 47 | 128644 | 117590 | 166888 |
| 43 | 121280 | 115490 | ． 105226 |
| 49 | 118909 | 118342 | 108450 |
| 50 | 1164 | 111147 | 101697 |
| S1 | 114080 | 108006 | 99760 |
| 82 | 111524 | 100618 | 97888 |
| 63 | 10 sn 71 | 194282 | 95969 |
| 64 | 100374 | 101899 | 93852 |
| 55 | 108780 | 89467 | 91782 |
| D0 | 101041 | 96087 | 80602 |
| 57 | 98311 | 94462 | 87492 |
| 58 | 98542 | 01808 | 85278 |
| 69 | 92799 | 89291 | 88015 |
| 60 | 89767 | 86658 | 80716 |
| 61 | 8705 | 83987 | 78389 |
| 62 | 84185 | 81303 | 76021 |
| 63 | 8180 | 78604 | 78638 |
| 64 | 78438 | 75901 | 71989 |
| 05 | 78565 | 73109 | 68888 |
| 00 | 197 | 70801 | $60 \pm 19$ |
| 67 | 69867 | 07814 | 64007 |
| 68 | 670 A7 | 65141 | 61608 |
| 69 | 64847 | $0 \times 481$ | 80182 |
| 70 | 61464 | 09881 | 567 S6 |
| 71 | 680 88 | 57185 | 84878 |
| 78 | 88959 | 64570 | 81984 |
| 73 | 03879 | 520.05 | 49628 |
| 74 | 10634 | 49475 | 47291 |
| 75 | 45047 | 46910 | 449 08 |

＂Select lives．－That the lives on which annulliea depend can not be so very select or so much better than the common average，as has generaily been supposed， might reasonably be exprected on thene grounds：1．As to annuitants．The lives are not aii chosen on aecount of their presumed goodness；for many perseds who have no occasion to provide for others whe may sur－ vire them，purchase annuities on their own lives，only that they may themelves enjoy thie wiole benefit of the purchase－money，both principal nod interest，dur－ lug their lives．And the greatest recommendation of these lives secins to be，that they are generally pru－ dent persons，of temperate and regular habits．Many other persona，eapecialiy femsles，apendithrifte，and faithful servants，enjoy annuities bequeathed to them hy their decensed reialivea，matera，or mistressea，as the most eligible provision for their future comfort and secarity from want；and there seems littie ground to suppoen them to be letter liven than the common aver－ age of the samo age and sex．
＂ 2 ．In such cases as tontines，where most of the lives
are selected for their preaumed goodness，the best crite－ rion probably is，hereditary longevity lu the family of the nominee；bat partiality for their own friends or kindred often has considerable influence in biasing the judgment of these who aelect them．That they will generally be parsaus of good constitutions and regular habits when selected，is all that ia likely to be obtained under these circumstances；and that is also the case with the average of the population in comfort－ able circumstances．Whatever the constitutious and habits of annuitants may be，tho annuities held by them during their own lives，by protectling them from many of the wanta，cares，and nnxietiea which the bulk of the people are exposed to，no doubt contribute to their longevity．But where powerful motives to raise money by the eale of an annuity on a person＇s own life exist，it is extremely difticult to prevent him from parting with it，whatever preeautions may have been taken with that view ；and with it he alse losea that belp to longevity．
＂3．Inaured llves are also generally supposed to bn
much better than the average of the population, as it is incumbent apon the insurance offices to be cautlous in selecting them. But bad lives, by the failure of which nersons interested in them. would sustain loes, are -1ost likely to be offered, and are continually offered, for insurance: and there is reason to believe that all the caution in selection which the offices in general can exercise, is neccssary to keep the lives insured up to the average goodnces of the bulk of the population; supposing always that people in general of the industrious classes are in prosperous, or at least in comfortsble circumatances. When that is not the case, as for some yeara previous to 1830 there ie reason to apprehend it was not in this country, there wiil be a correspooding increas in the general mortality, which will not sensilbly affect the general mase of persons on whose lives annuities and reversions or assurances depend."E. B.

Antarotio. The south pole is so called because It is opposite to the north or arctic pole. A contlnent of 1700 miles of coast from east to west, and 64 to 66 degrees south, was discovered in the Antarctic Ocean by French and American Exploring Expeditions, under D'Urvilid and Wilkes, respectively on the same day, January 19, 1840; a coincidence the more singular, ss the discoverers wero at a distance from each other of 720 milcs. It was coasted by Captain Wiikes for 1700 miles. Mr. Briscow, of the British Navy, fell in with land, which he coasted for 300 miles, in lat. $67^{\circ}$, long. $50^{\circ}$, in the year 1830.

Antimony (Ger. and Du. Spiesglus ; Fr. Antimoine; It. Antimonio; Russ. Antimonia; Lat. Antimoniumb), s metal which, when pure, is of grayish white color, and has a good deal of brilliaucy, showing a radiated fracture when broken ; it is converted by exposure to heat and air into a white oxide, which oublimes in vapors. It is found in Saxony and the IIartz; also in Cornwall, Spain, France, Mexico, Siberia, the Eastern Islands, and Martaban, in Pegu. We are at present wholly supplied with this metal from Singapore, which receives it from Bornco: it is imported in the shape of ore, and commonly as ballast. It is about as hard as gold; its specific gravity is about $6 \cdot 7$; it is easily $n$ duced to a very fine powder; its tenacity is such that a rod of one-tenth of an iach in dismeter is capable of supporting tua pounds weight. Antimony is used in medicine, snd in the composition of metal types for printing. The oros of antimony are soft, and vary in color from light lead to dark lead gray; their specific gravity varics from 4.4 to 6.8 ; they posseas a metallic lustre, are brittle, and occur in the crystaliized massive forms.-Timonson's Chemistry and private intormation. Antimony was very carly knowo, and applied by the ancients to varions purposes. It was used as paint to blacken both men's and women's eyes, as appeans from 2 Kings ix. 30, and Jeremiah iv. 30, and in Eastern countries it is thus used to this day. When nixed with iead, it makes types for printing; and in physic its uses aro so various that, according to its preparation, alone, or in company with one or two associates, it is sufficient to answer all a pliysician dealres in an apothecary's ahop.-Boyle.

Antipodes, in Geography, a name given to thoso inhabitants of the glole tinst live diametrically opposite to each other. The word is Greek, and compounded of avri, opposite, and rov́s, a foot, because their feet are opposite to each other. $P$ ato is regarded as the first who thought it possible that antipodes existed, and is looked upon as the Inventor of tho werd. As this philosopher appreheaded the varth to be spherical, he hisd only one step to mako to conciude the existenco of the antipodes. The ancients in gencral treated this opin. ion with the higheat contempt, never being able to conceive how men and trecs could aubsist suspended in the air with their feet upward, for so they apprehended they must be iu the otiner hemisphere. They never reflected that these torms upvard and downward are
merely relative, and signify only nearer to, or farther. from, the centre of the earth, the common centre to which all heavy bodies gravitate.-E. B.

Antwerp (Flem. Antwerpen; Fr. Anvers), a famous fortified city of Helgium, and the centre of its foreign trade (capital and province of the same name) on the Scheldt, 60 miles from the sea, and distant by railroad $27 \ddagger$ miles from Bruasels, 32 from Ghent, $150 \frac{1}{2}$ from Cologne, $258 t$ from Peris, and 74 from Oetend. Lat. of cathedral, $51^{\circ} 18^{\prime} 2^{\prime \prime}$ N.;-long. $4^{\circ} 24^{\prime} 2^{\prime \prime}$ E. Population 90,000 . Its port wae greatly improved by Napoleon, who erected two large batins; and ships anchor in the river opposite the city in from 82 to 40 feet water at ebb-tide. Chief manufactures, silk and cotton hosiery, thread, tape, and linen cloths, calico-printing, embroidery, bleaching, and sugar refining. Ship-building is extensively carried on, and the diamond-cutters of this city are celebrated. The principal imports are coffee, grain, and seeds, raw sugsr and woven fabrics; exports flax, woven goods, refined sugar, metals, glasa, etc. In the 16th century Antwerp was the richest and most commercial city in Europe, and contained 200,000 inhabita ${ }^{\text {ts. }}$ In 1648, at the treaty of Westphalis, it was stipulated by Spain and Holland that the navigation of the Scheldt should be shut ap-a stipulation which was observed till the occupation of Belglum by the French, when it was abolished. It was taken by the Spaniards in 1576 and in 1585, and by the French in 1792 and 1794. It was the capital of the department Deyx Nethes, under the dominion of the French, to whom it again surrendered December 24, 1832 . It is the birth-place of the paintors Teaiers, Jordaens, and Vandycic, the geographer Ortelius, and the cngrever Edelinck. In 1803, the improvement of the issrbor was bcgun, and extensive new docks and warchouses have since been constructed. Ships of the largest burden come up to the town, and goods deatined for the interior sre forwarded with the greatest facility by means of cansls and railways. Almost all the foreign trade of Belgium is at present centred in Antwerp, which has again become a place of much commercial importance. There is regular steam communication between Antwerp and London, and Hull and Rotterdam.

Goods may be warehoused in Antwerp en entrepót, at the rates of charge specified in a fixed tariff. The exports chicfly consist of fiax, cotton and linen manufactured goods, refined sugar, glass, zinc, oak-bark, grain and seeds, lacc, etc. The imports consist principally of coffice, sugar, and other colonial products, cotton atuffs and other manufactured goods, corn, raw cotton, leather, timber, tobacco, wool, rico, dye-stufis, salt, wines, fruits, ete. A large proportion of the imjorts not bcing intended for home consumption, but for transit to other countries, their amount is always much greater than the amount of the exports. Of the total value of the articles imported into Antwerp in 1839 , amounting to $07,960,200$ francs ( $£ 3,918,408$ ), those aupplied by England were worth very near $30,000,000$ francs ; ditto by Russia, $14,366,900$ francs ; ditto ly the United States, $8,217,800$ francs ; ditto by France, 7,630,200 francs, etc. The principal srticles were coffoe, worth $14,745,500$ francs; grain and seeds, $13,936,800$ francs ; sugar, $11,480,800$ france ; woven fabrics, $11,339,100$ francs ; raw cotton, $5,225,200$ francs; metals, $4,87^{2}, 300$ francs, etc. The total valum of the articles exported during the same year was $56,630,000$ francs ( $£ 1,425,440$ ), whereof those sent to England were worth $14,849,100$ francs; ditto to Ilolland, $5,777,500$ franca ; the IIanse Towns, 4,320,200 francs.

Money, Weights, and Measüres.-The French system of moncys, woights, and measures has been adopted in Belgium. Formerly accounts were kept in
 in use, and still sometimen referred to, $=108 \frac{1}{3}$ pounds nvoirdupois. In 1837 the Commercial Bank, a jointatock association, was founded in Antwerp. It has a
capital of $25,000,000$ francs ( $\mathbf{~} 1,000,000$ ), divided into 25,000 shares of 1000 francs asch, and transacts all sorts of banking business.- Here also are two conslderabia insurance companies. The rallway from Antwerp to Brussels, $28+$ milea in length, has been aignally snccessful, and has been of great advantage to both cities, but especislly to Antwerp.

Cutem-house Regulations,-Captains of ships arriving at Antwerp, or any of the Belgisn perts, must make, within twenty-four hours, a declaration in writIng of the goods of which their cargo consiste, specifying the marks and numbers of the bales, parcels, etc., their valne, according to the current price at the time when the deciaration is made, the name of the ship or vessel, as well as that of the captain, and of the country to which she belongs, otc.

Nine-tenths of the commeree of Belginm carried on by sea centres in Antwerp. The grest articles of export are com, eapecially wheat ; flax ; cattle, sheep, and pigs ; cast and wrought iran; muskata, fowling-plecea, and small arms; linen and woolen fabrics; clover and other seeds; coal, butter, books, ato. Ine total value of the exports of articles of the growth and manufacture of Belgium amounted, in 1850, to 263,647,000 francs. Of these the exports to France (principally by land) amounted to $74,480,000$ francs ; these to Great Britain to $41,943,000$; the other great importers of Belginm preduce being the German Customs Unien, the Netherlands, and the United States. The great articlea of import are raw cottou, sugar, coffee, and other colocial products $;$ indigo nnd all sorts of dyewoods, spices, wins, rice, ashas, fish, oils, etc. We subjoin
 1845, 1846, 1847, 1848, ANb 1849.

| Porse. $*$ ' ' | 2845. |  | 1846. |  | 1847. |  | 1848. |  | 1849. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Venoilis. | Tomes. | Vemels. | Tona. | $V$ enala. | Toses. | Vamolu. | Toon. | Vemols. | Tons. |
| Antwerp | 1,919 | 280.599 | 2,908 | 327,680 | 1,928 | 328,675 | 1,104 | 204,288 | 1,654 | 274,428 |
| Ostend | 024 | 62,710 | -7687 | 65,486 | - 608 | 58,404 | 407 | 48,871 | 44 | 48,918 |
| Ghent (Zelcsete) | 224 | 30,450 | 166 | 21,715 | 198 | 27,009 | 110 | 18,714 | 295 | 28,814 |
| Nieuport.... | 111 | 3,581 | 80 | 2,897 | c5 | 2,241 | 89 | 3,691 | 91 | 4,207 |
| Total... | 2.878 | 877,646 | 8,141 | 407,778 | 2,794 | 411.419 | 1,740 | 272,664 | 2,424 | 356,367 |

Anville, Jean Baptiste Bourguignon d', a Freach geographer of the highest eminence, and perhaps unsurpassed in any age. This celebrated man was born at Paris on the 11th of July, 1697 . His passion for geographical research displayed itself from his earliest years. At the age of twalve, while reading tha Lstin authors at college, he amused himaelf with drawing maps of the countries which they described. Whils he was thus busily employing himself one day in the class, his master observed and was about to punish him; bat upon casting his eye upon the performsnce, ha immedistely judged him to be rather deserving of encouragement. D'Anville from this time devated himself entirely to geography, particularly that of the ancient world; and at the age of twenty-two he began to delinests maps which attrected the attention of the most eminent geographers.--E. B.

Apeak, in Seamen's language, signifies perpendicular; thus the anchor is said to be apeak when the stem of the ship is brought directly over it by drawing in the cable.
Apotheoary. In the United States, a dispenser of medicines. In England, frequently preacriptions as well as medicines are furnished.
Apron, in Naval Architecture, is a plece of curved timber fixed behind the lower part of the atem, immediately above the foremost end of the kecl. Apron is also a name given to a platform or flooring of plank raised at the entrenco of a dock, against which the dock gates are shut. Apron, in Gunnery, a piece of lead which eaps or covers the vent or teach-hole of a gun.

Appellation, the name by which any thing is known or distinguished when spoken of. Nothing can be more foretgn to the original meaning of many words sid proper aames than their present or vulgar appellations, frequently owing to the history of those things being forgotten, or an ignorance of the language in Which they were expressed. Who, fur example, would dream that the legal proclamation called "O yes," was a proclamation commanding the talkers to become hearers, being the French word Oyez, listen, retained in our courts ever since tha law pleadings were held in French? Or would any person suppose that the luead-land on the French coast near Jalais, called by seamen Blackness, has been so entitled from Its F'rench name of Blane Nez, or the White Head-land?

King Henry the Eighth having taken th, e town of Boulogne in France, the gates of whlch he brought to liardes, in Kent, where tioy are atill romaining, the flatterers of that reign highly maguified this metion, which, Porto Bello like, bocame a popular sulject for
signs; and the port or harbor of Boulogne, called Boulogne Mouth, was accordingly set up at a noted inn in Hlolborn. The name of the inn long outliving the sign and fame of the conquest, an ignorant painter, employed by a no less ignorant isndlord to paint a new one, represented it by a bull and a larga gaping human mouth; siswering to the vulgar pronunciation of bull and mouth. The same piece of histery gave being to the bull and gate, originally meent for Boulogne Gate, and represented by an embattled gate or entrance into a fortified town.

The barber's pole has been the subject of many conjectures; some conceiving it to have originated from the word poll or head, with several other conceits as far-fetched and as unmeaning; bat the true intention of that party-colored staff was to show that the master of the shop practiced surgery, and could breathe a vein as well as mow a beard. The white band which encompasses the staff was meant to represent the fillet thus elegantly twined about it.

Nor were the chequers, at this time a common sign of a public house, less expressive-being the representation of a kind of draught- board calfed tables, and showing that there that game might be played. From their color, which was red, and the similarity to a lattice, it was corruptly called the red lettuce, which word is frequently used by ancient writers to signify an ale-house.
The Spectator has explained the sigu of the Bell-sacage Inn plausibly enough, in supposing it to have been originally the figure of a beautiful femaie found in the woods, called In French la belle sauvage. But another reason has since been assigned for that appellation, namely, that the inn was once the property of Lady Arabelia Savage, and familiarly called Bcll Sarage's Inn, probably represented, as at present, by a bell and a savage or witd man, which was a rebus for her name, rebuses being much in fashion in the sixteenth century.

The thres gilt ball so commanly hung out as signs at pawnbrokers' shops, by the vulgar humorously enough said to indicate that it is two to one that the things pledged are never redeemed, were in reallty the arms of a set of merchants from Lombardy, who were the first that publicly lent money on pledges. They dweit together in a streat, from thom named Lombard Street, in London, and also gave thelr name to another at Parls. The appelistion of Lombard was formeriy all over Europe considered as synonymous with that of usurer.

At the Intitution of yeomen of the guards, they uaed to walt at tabio on alt great solemnltics, end were ranged near the buffets. Thia procurad them the neme
of buffetiers, not very unike in sound to the jocular appellation of beefeaters, now given them; though probably it was rather the veluntary misnomer of some wit than an accidental corruption arising from ignorance of the French language. ino
The opprobrious title of bum bayliff, so constantly hestowed on the sherif's oficers, is, sccording to Judge Blackstone, only the corruption of bound bayliffe, every sheriff's officer being obliged to enter Into bonds, and to give security for his good behavior, previous to his appointment.
A cordwainer seems to have no relation to the occupation it is meant to express, which is that of a shoemeker. But cordonier, originally spelled cordaunier, is the French word for that trade; the best leather used for shoes comiog originally fr$m$ Cordova, in Spala.E. B.

Apples, the frult of the Pyrus Malus, or apple-tree. It is very extensively cultivated in most temperate climates. An immense variety and quantlty of excellent apples are raised in England, partly for the table, and partly for manufacturing into cider. Those employed for the latter purpose are comparatively harsh and sustere. The principal cider conntics are Hereford, Monmouth, Gloucester, Worcester, Somerset, and Devon. Mr. Marshall estimated the produce of the first fonr at 30,000 hogsheads a year, of which Worcester is supposed to supply 10,000 ; but it is now probsilly much greater. Half a hogahead of cider may be expected, in ordinarily favorable seasons, from each tree in an orchard in full bearing. The number of trees on an acre varies from 10 to 40 , so that the quantity of cider must vary in the same proportien, that is, from 5 to 20 hogsheads. The produce ia, however, very fluctuating, and a good crop seldom occurs abovo once in three years.-Lovdon's Encylopedia of Agriculture, etc. Besides the immense consumption of native apples, the English impert, for the table, large supplies of French and other fereign apples. Owing, however, to the duty, previously to 1842 , having heen an ad nalorem one of 5 per cent., we are unable to specify the quantities imported. They must, however, have lren very considerable, as their declared value ameunted, in 1841, to $£ 41,1974 \mathrm{~s}$. 10 d . In 1842 the duty was fixetl at $6 d$. per bushel on raw, and $2 s$. per bushel on dried apples. At an aversge of 1850 and 180̄1, the entries for consumptlon amounted to $44!, 950$ bushels. The duties in England were reduced in the course of the year 1853 to 3d. per bushel on rew, and 1s. per bushel on dried apples. The apples produced in the viclnity of New York are univereally adioltted to be the finest of any ; but unless selected and packed with care, tiley are very apt to spoil before reaching England. The exports of apples from the United States during the year ending the 30th of June, 1852, amounted to 18,411 berrels, valued at 43,635 dollars. Of these 1808 barrels were shipped for the United Kingden. In the year 1851-5, the quantity exported was 83,959 barrels, at a value of $\$ 107,600$.

Appraiser (from ad, to, and pretium, value), one who rutes or sets a value upou goods, etc., used princlpally in the custem-house to designato men who appraise goods entered for duty.

Apprentice, a person of cither sex bonnd by indenture to serve sonio partieular individual or company of indtviduals for a specified time, in order to be lustructed in some art, science, mystery, or trade.

Apprentioeship, the servitude of an apprentice, or the duration of his indenture.

Seven years seem tuncieutly to havo been, all over Europo, the usiai term establisilied for the duration of apprenticeshipe in the greater part of incorporated trades. All such incorporations were anciently called univeraities, which indeed ls the proper Latin name for any incorporation whatever. The unlversty of smiths, the university of tailors, etc., are expressions whlch we ceinmonly meot with in the old charters of ancient
towns. When those particular incorporations which are now peculiarly called universities were first established, the term of years whlch it was neressary to atudy in order to obtain the degree of master of arts, appears evidently to have been cepled from the term of apprenticeship in common trades, of which the incorporations were much more anclent. As to have wrought seven years under a master properly qualified was necessary in order to entitle any person to become a master, and to have himself apprentices in a common trade; so to have atudied seven years under a master properly qualified was necessary to entitle him to become a master, teacher, or doctor (words anciently aynonymous), in the libersl arts, and to have scholars or apprenticea (words likewise orlginally synonymous) to atady under him.

Apprentlceships were altogether unknown to the ancients. The reciprocal duties of master and apprentice make a considerable article in every modern code. The Romen law is perfectly silent with ragard to them. Ther is no Greek or Latin word which expresses the idea we now annex to the word apprentice-a servant bound to werk at a partlcular trade for the benefit of a master during a term of yeare, upon condition that the master shall teach him that trade.-E. B.
Aqua Fortin. See Acrd (Nitric).
Aqua Marina. See Beryl.
Aqua Vitse (Ger. Aquavit; Fr. Eau de vie; It. Aequa vite; Sp. Agua de vida; Russ. Wodka; Lat. Aqua vitce), a name familiarly applied to all native distilled spirits; equivalent to the eau de vie, or brandy, of the French, the whisky of the Scotch and Irish, the geneva of the Dutch, ete. In thls way it is used in the excise lawa relating to the distilleriea.
Aqueduct, a conduit or channel for the conveyance of water. It is derived from aqua, water, and ductus, a conduit. It is applied more particularly to those etructures of masonry which have been erected for the conveyance of water acress valleys, to which, however, we would rather give the name of aqueduct bridges, extending tho term aqueduct to the whole conduit or channel by which the water is cenveyed from one place to another. The conveyance ot water for the supply of lerge citles has in all ages formed a very important object of public economy; and aqueducts of various kinds have been in use for this purpese frem the earliest tines, the remiains of which have been examined by travelers in different parts of the East. Pocecke describes a work of thls kind erected by Solomon, for conveying water frem the pools and fountains near Bethlehem to Jerusalem. "The aqueduct," he says, "is built on n foundation of stone; the water runs ln round earthen pipes ahout ten inchea diameter, which are cased with two stones, hewn ont so as to fit them, and they are covered over with rough stones well cementel together; and the whole is so sunk into the ground on the slde of the hills, that in many places nothing is to be seen of it." But it was in the luxurious capital of Reme that the system of aqueducts was brought to the greatest perfection, and carried to an extcut which has never been equaled even in modern times, and has justly exclted admiration both from the number and magnificence of the works themselves, and the prodigieus quantities of water which ly these means were conthually poured into the city. These nqueducts extended, some of them 30,40 , and even 60 miles from the city, in one contlinued covered channel of stone, carrled by arcades over the wldest and deepest valleys, and by tunnels running in many parts for miles through mountains and through the solld rock. "If we consider attentlvely," says l'liny, "the quantltles of water brought into tho elty for the use of the public, for baths, for fishponds, for private heuses, for artificlal lakes, for gardens in the neighborheod of the clty, and for villas; if we luek also at the works wheh have been constructed for forming a regular channel for the waters-arch-
ea raised up, mountains pierced with tannels, and valleys filled up to a level ; it must be acknowledged that there is nothing in the whole world more wonderful.".

Within the last cantary, the invention and improvement of the manufacture of cast iron has completely changed the mode of conducting water into citiea, by the introductlon of cast-iron pipes lnstead of the atone conduits of former times. These pipes can now be formed of almost any dimensions, and unlted together into a continued aerias, so clonaly as to prevent the escape of the water, aven under a violent pressure arising from the altitude of the fountain-head. They ensble ua, therefore, to take advantage of and give effect to that grand principle in hydrostatica, that the fluid element tends continually to a level, even though it be confined in the smallest or most complicated aystem of pipea; so that howaver low it be rarried in any valley, or to whatever distance, atill it will rise on the oppoaite side to the orignal altitude of the fountaln-head-a principle which is most imnortant, indeed, in such works, seeing that by it we are not restricted, as the Romans were, almost to a perfect level in the line of the conduit. We have seen that, for the purpose of attainioug thls level, or very gentle ceclivity, all along the conduit, they were under the recesalty of ruising it by arcades continued in une ulwoken serice, frequently 30 or 40 miles in extent; anc', in addition to this, often prolonging the length of the srack ly a circuitous route, turning and winking for miles out of its course, for the very purpose of increasing its length.

But the usa of pipes enables us to dispense with these long arcades, all raised nearly to the same level with the fountain-head; because the conduit may be varied in its lovel to any extent, and still vill rise at last to its original altitude. The pipea, therefore, aro merely laid all along the surface of the ground, with a cover of two or three feet of soil to place them beyond the reach of frost. To prevent, however, the frequent or sbrupt alternations of rise and fall, any erdilen lnequalitiea in the ground are equalized by cuttinga and embarkments, but not to any thing like the extent that would be required to raise the whola to a lovel. This, therefere, forma a capital inprovement in the method of conducting water, and the greateat, Incleed, which has ever been inade In this important braneh of practical mechanics. That it was not introdaced by the Romana, ia not to be ascribed, as many have done, to their iguorance of the hydrosta*ie principle that the fiuld would rise to a level in the opposito branclese of the same train of pipee. Professor Leslie has shown that they wera well aequainted with tbis principle, and has moreover obtained from Italy a portion of a leaden pipe, supposed to ilave been used in the buths of Caracalla, which sets this matter at rest. But from the low state of tbe arta at that period, they were unable to give effect to tha principle. They had not the means of falricating pipes of such a magnitude as would have been recuired for the enomous quantlity of water consumed in Rome, and at the same time of strengat suffielent to withstand the pressure from the fountainhearl. Lead was the anly material that conid be used by them for the purpose; and besldes the enormons thickness that so weak a materia! would ha: $:$ e required, and the lmpracticability of their forving them, and uniting them together endwise, they were toe well acquainted with the fendency of lead to render the water unwholesome by its poisonons impregration. The nae of cast iron was guite suknown. There remoined, therefore, no resousian but in the argueduets, which, though attended to doubt with vast expense, and requiring great enterprise, as well as both akili and patience, were yet attainable by these menus, and formes when completed a simple and very perfect mode of c fecting the object. Hence arose all thote works abo. 1 deseribed which have since excited such astonishment. Now, howeser, when the manufacture of enst iron has been brought to auch perfectios, and methods contrived
for uniting perfectly together all the 1 dpea into one connected train, this lmproved syatem has beea univeranlly dopted.

Croton Aqueduct.-The Creten Aqueduct, by which the city of New York is supplled with water, may be regarded as the most magnificent work of the kind executed in modern times. It was commenced in 1837, and completed in 1842, at an experies of $8,575,000$ dollars, the distribution pipes coating $1,800,000$ dollars additional. Its length from the Croton Lake to the receiving reaervoir is $38 \frac{1}{\$}$ miles. The Croton Lake, which is formed by the Croton Creek, a amall atream of wholeaome water falling inte the Hudson, covera 400 acres, and contalua a body of water of about $500,000,000 \mathrm{gal}$ lona. To the valley of the Harlem River, a distance of 88 miles, the aqueduct la built of atone, brick, and coment, arched over and under, 6 feet 8 inchea wide at the bottom, 7 feet 8 inches at the top, and 8 feat 5 inches high; and capable of discharging $60,000,000$ gallons per day. It is carried over the Harlem valley in iron piper, laid upon a magrificent bridge 1460 feet lcag , ce.atructed of arches 114 feet above jigh-water mak at Yorkville. Theae pipes pass into .be receiving reserv vir, which ia 1826 feet long and 886 feet wide, covering an area of 37 acrea, and capable of containing 150,(000,000 gallons. Hence, to the distributing reservoir, a distance of 51 milea, the water is conveyed by a double line of iron pipea 3 fcet in diancter. Thls second reserveir is 420 feet aquare and $4 \$$ feet chove the strects, with a capacity of $20,000,000$ gallonz-whence the water is conveyed through the city by about 170 milea of pipe, principally from 6 to 12 inches in dianater.

In those parts of British India where the fall of rain Is seanty and uncertain, recourae la had to artifieial irrigation, and the waters of wany of the rivers of the country have been rendered available for this purpose by meana of public worka constructed by the government. Of thes the most important is the Ganges Canal, which traversea the northwestern provinces of Bengal, and distributes over their vast area nearly the wholr volume of the watere of the Gauges. The canal begins at the point where the river isenes from the mountaita and enters the plains of Eengal. Alout 20 miles from ita source, the line of the canal crosees the valley of the Solsai River, and the works for efliecting the transit are depigned on a seale worthy of the undertaklig. The valiey is between two and three nilex in width. An earthen embankment is carricd ncross, raised on an average between 16 and 17 feet above the surrounding country, and having a width of 350 feet $5 t$ ita base, and 290 feet in the upper part. This embankment forms the led of the canal, which is protected by banks 12 feet in depth and 30 feet wide at the top. To preserve these banks from the eflecte of the action of the water, linea $f^{f}$ masoury formed into stepa sxtend on cuch side throughout their entire length. 'The Sulani River is crossed by an aqueduct 920 feet :ung, laving side walle 8 feet thiek ond 12 deep, the dep,h of the water beside 10 fcet. Thr water of the esnal passes through two separate chanuris. That of tae Rlver Solmal flowa under fifteen arches, having a span of $h 0$ feet ench, conatructed in the moat ubstantial manner, and spriaging from piens resting on block s of masor. ry annk into the lied of the river.

The great water-works that supply the sity of Marscillea with the $\mathfrak{l}$ ater of the Durance, by a ean. 1 about 60 milea in lensth, are among the boldest undertakiugs of the kind in medern times. This canal, begun in 1830, and not yet completed (1855), has airearly cuat athove $\mathbf{t}^{2} 2,000,000$ stering. It is conveyed through tibre chains of limestone mountains by foricyfivg tunnels, ft : wing an aggregate length of $8 \frac{1}{2}$ miles, and across numerous val: ys by aqueducts; the lar gest of whieh, the Aqueduet of Jinquefinvor, over the ravine ot the River Are, about 5 milea from Aix, sur. passes du slae and altitude the anclent lent din Gard.

The immanse volume of water, which passes at the rate of 138,000 gallons per minute, is carried across as In the old Roman aqueducts by a channel of masonwork. The beight of this aqueduct is 262 feet, and its length 1287. The number of cubio yards of masonry contained in it is 57,000 ; the total cest has been \&151,394.

Edinburgh Water-works.--The works onde: iken by the Ediniurgh Water Company in 1819 were p bably the most complete and periect of the time. Thy were designed by Mr. Jardine, the then engineer of the company, and carried out under his auperintendence in a style quite worthy of the city, and offering, both in the gevoral design and in' all the details, a model of propriety and akill in this species of hydraulic architecture. The Crawlej springs were conducted by an aqueduct into a covered cistern at a point about 7 milies distant from Edinburgh, and a eupply from the stream called the Glencorse Burn, conveyed by an open-work tomnel from abont a mile and a half weatward. This tunnel is in some places upward of 30 feet dcep, and the valiey through which it passes, consisting entirely of gravel, acts as a filter through which the water descends and percilates, all solid matter being intercepted in its passage to the tunnel from whence it is dolivered into the cistern, and conveyed to Edinburgh by a chain of pipes varying from 20 to 15 in chee of interior diameter, without being exposed to the light of day. From the numcrous undulations of the surface, the fall of the pipe is not uniform. Abrupt Inequalities, however, were removed by eutting and embanking. Toward the northern termination of the line the pipe is carried through a tunnel of 2160 feet in length, and abont 70 or 80 feet under the surface of Heriot's Green. In crossing the Grass Market it forks off by one branch to $A$ reservoir in the Castle Hill, and by another alvout 120 feet under the reservoir, through a tunnel 740 feet in length, cut through the rock of which the ridge leading to the Castle is composed. Branches were laid through all the principal streets.

The pipes are in lengths of $9 \frac{1}{2}$ feet each, and were tested before being laid by a pressure equal to a verticsl column of 800 feet of water. The joints are what are termed spigot and faucet. Cocks for the dlscharge of air accumulating in the pipes are placed at the summits of all the considerable elevations; and in the hollows are placed sluice cocks for the purpose of running off sand or othor aolid inatter which may colleet in the pipe. It is capable of delivering 953.56 culic feet of water per minute into the reservoir at tho Castle Hill.

The formation of the Compensation Reservoir was undoubtedly the greatest work of hydraulic engineering of its day. It was designed and completed by Mr. Jardine, and, with the then limited experience rí contractors and workmen in the construction of sim:tar works, its successful completion loes great hono: to the genius and perseverance of the engineer. It has jeen twice enla'ged, and now forms an artificial lake extending over an area of 46 imperisl acres.-E. B.

Arangoes, a species of beads made of rough enrneiian. They are of various forms-as, barrel, bell, round, etc.-and all drilied. Tino barrel-shaped kind, cut from tie best stones, aro from two to three inches long, and should bo chosen as clear as possitle, whether red or white, having a good notish, and free from faws. The beil-shajed ure from one to two inches long, being ln all respects inferior. Considerable quantitles were formorly imported from Bombay, for re-expot tation to Afriea; but since tibe abolition of the slave-trade, the imports and exports of Arangoes are comparatively trifling.-M1.aunn'g Orient. Com.

Arbitration, a term derived fro. the nomenclature of the Rouan law, and applied to an arrangement for taking and abiding by the judgment of $n$ selected person in some diaputed matter, listead of carrying it
to the established courta of justice. Arrangements for avoiding the delay and expense of litigation, and referring a dispute to friends or neutral persona, are a natural practice, of which traces may be found in any state of society ; but it is to the Juatinian jurisprudence that we owe it as a system which has found its way into the practice of Europeen notions in general, and has even evaded the dislike of the English common lawyers to the civll iaw. 'The elghth section of the fourth book of the Pandects is devoted to this subject, and may be consulted througi the commentary of Heineccius, or a more minute critical inquiry by Gerard Noodt, in his commentary on this section (Opera, il. 185 j. Almost all the advantages, as well as the defects of the system in modern practice, aeem to have been anticipated by the Roman juriste. Thus it ia shown that voluntarily selected judges can only prop. erly decide questions which the parties themselves could aettle by giving and taking, and that they ought not to be authorized to desl with criminal inquiries or public questions ; while, by excluding matters of personal status, such as marriage or legitimacy, the Roman jurists anticipated the principie, that even private questions which may affect the public morals or poliey can not be thus extrajudicially disposed of. They dwell on the principal advantage of the aystem in exeluding appeal from the arbiter's decision on any such ground as erroneous law, or false views of the influence of well-investigated facts. But, on the other hand, they discuss, with their usual scientific subtlety, the many defects, such as excess of authoritr, neglect of form, and partiality in receiving pleadings er evidence, and the like, by which arbitrationa become vitiated; and thus these jnrists at once suggest what is ever the defect of a system of arbitration, that the more it performs its function of doing justice, the more it becomes what the established tribunals of the country ought to be, and fosters two systems of judicature where one shouid be aufficient. Some of the civilinns make a distinction between tho arbitrator, the name teehnically upplicable to a person coluntarily chosen by parties to decide disputes, and the arbiter, an offieer to whom the pretor remitted questions of fact as to a jury. In this sense arbiters uppear to have been employed as a suhstitute for jury trial in some of the old provineial laws of France; and hence, perhaps, it comes that, by a very remarkable provision in the French code of commerce, all questions between partners touching the partnership mast be referred to arbitration. In the code of civil procedure, the title des arbitrages is treated so fully and minutely, as very foreibly to convey the impression of a separato system of voluntery jurisdiction being created for performing what ought to be uccomplished by the ordinary tribunals in a well-regulated judicial system.
Arbitration, in the Lavo of England (according to Blackstone), is "whero tho partics, injuring and injured, submit all matters in clispute, concerning any personal chattels or personel wrong, to tho judgment of two or moro arbitrators, who are to decide thic contiversy; and if they do not agree, it is usual to ndd, that another person be called in as umpire (imperator), tc, whose sole judgment it is then reforred; or frequentiy there is ouly one arbitrator originally appointed." The decislon must be in writing (unless otherwise expressly provided in the sulmission), and is called an aveard; and thereby tho question is as fully determined, and the right trausferred or settled, ss it could have heen by the agreement of the parties or the juigment of a court of law or equity.
There were, however, many inconveniences attending this mocie of proceeding; and in the year 1698, the Legislature accordingly interfered, and passed the act 9th and 10th Will. III., cap. 15, which enacted that, "for promoting trade, and rendering the awards of arbitrators thes more effectual in all cases, for the final determination of controversies referred to them by
merchante and traders or othera, concerning mattera of acconnt or trade, or other matters;" all merchants and others desiring to ead any controversy, wult, or quarrel (for which there is no other rtanedy but by personal action or suit in equity) by arbitration, may agree that their submission of their auit to the award or umpirage of any person shall be made a rule of any of the courte of record, and niay insert auch agreement in their submission; which agreement being proved by the affidavit of one of the witnesses thereto, the court shall make a rule that auch arbitration or umpirage pursuant to such submission shall he conclusive; and after such rule made, the parties disoleying the award shall be liable to be punished, as for a contempt of court; pniess auch sward shall be set axide, as procured by corruption or undue means in tha arbitrators or umplre, to be proved on osth to the court, before the last day of the next term after the award ia made.

An application for an attachment for not performing an award may be resisted at any tima for defecta appearing on the face of the award itself; for such an award, after that time, might be pleaded in bar to any action brought upon it, although it can not be aet aside for auch defects after the end of the next term. Sulmianions of disputes to arbitration may be by consent of the parties, or with the interposition of a court of justice; by rule of court, or order of a judge, when a cause is pending, either by bond, agrement in writing, or by parole. A verbal agreensent, however, to abido by an award can not be made a rule of court. Nor can matters purely criminal be submitted to the decision of an arbitrator. And by the 12th and 13th Vict. c. 45, § 12-15, the provisions of the former atatutes as to arbltrations are extended to "controversies and disputes, for which the remedy is by appeal to a Court of General or Quarter Sessions of the Peace." Lastly, although the right of real property can not pass by a mere award, yet if a party be awarded to convey land, and refuse, he will be liable to an action, or to an attachment for not performing the award. The agreement of reference must be expreased with great care and accuracy; provisiona shonld be ineerted giving power to either party to make the submission a rule of court, to enabie the court to refer the matter back to the same or to another arbitrator; and in case of the death of either party before award, for its making and delivery to his represeatatives; and also as to the coata, which are usually directed to be in the diseretion of the arbltrntor as to those of the reference, and as to those of the cause to alide the event of the award; and a certain day should be appointed on or before which the arbitrator is to minke hia award, with a power to eael arbitrator to enlarge the time.

When arbitrators have the power of electing an untpire, they may choose him, and call in his assiatance as soon as they begin to take the subject into considcration; and this is the more convenient practice, as it secures a decision upon a single investigatir of the controversy. As to the award: it must be i.. pursuance of the submission, and embrace all the nuatters submitted, and not extend beyond lt in the suljectmatter, in persons, in time, or in particular circumstances; it must be certain; it inust make a final end and determination of all mntters contained in the submission; it must be mutuai, that is, it muat not bo entirely of things to be performed by one party, without such things being in satisfaction of the matters in lifference; and, finsily, it innst not be unreasonable, iilegal, or impossible to be effectuated. Formerly, is sabmission to arbitration, heing a mere authority, might be revoked at any time before execution by an instrument of as high a nature as that by which the submission was creatod. Ilut now, by thu English Law Amendment Act (3d and th Will. IV., cap. 42), the aubmission to arbitration by Rule of Court, or Judge's order, or order of Nisi Prius, or if there be an ogreement to make the submission a Rule of Court, can not be
revoked by any party thereto, without leave of the court or a judge. The deatl, lowever, of either party before award is a revucation of the authority, unleas otherwise provided ju the submission; and ao also is the marriage of a female lefore award; the marriage operating as a civil death to all ber rights as a feme sole. Under this statute the attendance of witneasea, or production of locuments before the arbitrator, may be compelied by a rule of court, or order of a judge, on payment of expenses and losa of time; and the arbltrators are empowered to administer oaths to the witnesses, where it is so agreed or ordered ly the rule or order of reference. Any witneasea falling to attend are deemed to be guilty of contempt of court, or giving false evidence guilty of perjury. The court or judge may also, in the casea within the statute, enlarge the time for an arbitrator to make hia award.--E. B.

Archangel, the principal conmercial city of the north of Russia, in lat. $65^{\circ} 82^{\prime} 8^{\prime \prime}$ N., long. $40^{\circ} 33^{\prime}$ E., on the rigat bank of the Dwina, about 35 English miles above where it falls into the White Sea. Pop. 24,500. The harbor is at the laland of Sollenbole, about a mile from the town. The bar at the mouth of the Dwina has from 13 to $14 \frac{1}{2}$ feet water; so that shjps drawing more than this depth must be partially leaded outside the bar from lighters. The Dwina being a navigable river, traveraing a great extent of country, and connected ly canala with the Wolga on the one hand, and the Neva on the other, Archangel ls a considerable entrepot. It was diacovered in 1554 , hy the famous Iichard Chaneellor, the companion of Sir Hugh Willoughby in his voyage of discovery ; and from that period down to the foundation of l'etershurg was the only port in the Russian empire accessihle to foreignera. Though it has lost its ancient importance, it atill enjoya a pretty extensive commerce. The principal articles of export are grain, tallow, flax, hemp, timber, linseed, iron, potash, mats, tar, etc. Deals from Arehangel, and Onega in the vicinity of Archangel, are considered superior to those from the Baltic. Hemp not so good as at Riga, but proportionally cheaper. Tellow is also inferior. Iron same as at I'etersburg, some--imes cheaper and sometimes dearer. The quality of the wheat exported fruin Archangel is alout equal to that from Petersburg. The importa, whieh are not very extensive, cousist principaily of sugar, coffee, spices, sait, woolens, hardware, ete. The trade of Archangel has latteriy been deelining. It is much inthuenced by the demand from the more southerly parts of Europe, and especlaily from England, for corn. When a brisk demand is anticipated, oats are brought in large quantities from the interior, sometimes even from a distance of 1500 miles, in covered barks capable of bolding several hundred quarters. But as there are few extensive establishmenta here, the supplies are scanty, except when a large demand is expected for some time previously to the season for bringing them down.-Ondy's Europeon Commerce, and private information.

Moniz:, Weights, and Measures, same as at Petehsnung: which see.

Archipelago, called by the Turks $A V$ degniz, the White Sea, to distlnguish it from Cara degniz, the lllack Sea, is generaliy applled to that part of the Mediterranean extending from Furopean Turkey and Greece on the west, to Asia Minor on the east, and stretching southward to the island of Candia.

The name Arehipelago was unknown to the ancients, and is generally supposed to be a corruption of Nizaiov rédayos, by which name, the derivation of whieh is uncertain, ft was knowa to the Greeks. The ancienta divjded icinto, (1.) Mare Thracium, the northern part, extending aouthward to the northern coast of Eubria ; (2.) Mar Myrtoum, the southweatern part, washing the shores of Attica and Argolis; (3.) Mara Icarium, tha southeastern part, extending along the coasts of Caria and Ionia.

The navigation of this sea is rendered difficult by the many islands and rocks with which it ahounds, and by the frequent occurrence of sudden squalls, especially about tho equinozes; but it has a great number of safe and commodious gulfe and bays. Besides the Cyclades ant Sporades, which are the two principal groups of smaller islande, it con ${ }^{+ \text {sins }}$ Euboea, Samos, Chios, Lesbos, Lemnos, Imbros, Samothrace, etc. All these islands are mountainous, snd many of them are of volcanic formation ; whilo others are almost entirely composed of pure white marblo, for which Pares, one of tho Cyelades, in particular, is so celebrated. The larger islands have some very fertite and wellwatered valleys and plains. The principal productions are wheat, wine, oll, mastic, figs, raising, honey, wax, cotton, and silk. The inhabitanta are much engnged in tishing, and the coral and sponge fishery are actively prosecuted among the Sporades. Manufactures are at a very low ebh, alroost the only branch carried on being that of cotton-weaving. The ellmate is mild and salubrious; the heats of summer being tempered by the sea-breezes, while the wintere are less severo tian on the neighboring main-land. The men are hardy, well-huilt, and handsome; and the women are noted for their beauty. The islands of the Archipelago are considered to belong partly to Europe and partly to Asia. At prosent the Cyclades form a portion of the Greek kingdom, while most of tho other islande are aubject to Turkey.

The name Archipelago, which was primarily given to the Agean Sca, is now applled to various othor seas which contain numerous islands, as the Eastern Arehipelago, Caribbean Archipelago, etc.

Archive, or Archivea, a chamber or apartment wharein the, records, charters, and other papers and evidences, of a atate, house, or comusulty are preserved, to be consulted occasionally. Thus we say the archives of a collige, of a monastery, etc.

Arctio Cirole is a lesser circle of the ephere, parallel to the equator, and $23^{\circ} 30^{\prime}$ distant from the north pole; from whence its name. This, and its opposite, the antarctic, are called the two polar circles, and niay be conceived to be described by the motion of the poles of the ecliptio round the poles of the equator, or of the world.

Arctio Ocean, that portion of tho North Sea which extends from the arctic circle (lat. $66^{\circ} 80^{\prime}$ N.) to the north pole. It receives the waters of the northern slopes of the great continenta, and is the recipient of the drainage of an area of $3,751,2 ; 0$ equare miles. It enters deeply, in the form of gulfs, bays, etc., into the northern parts of the continents of both hemispheres. The principal of these indentations are the White Sea, in Europe; Sea of Kara, Gulfs of Obe and Yonisse, in Siberia; and Baffin's Bay, in North America. It is united to the Pacific by Behring's Strait, and to the Atlantic by Davis'Strait, and a wide sea extending from Greenland on the west to Norway and Lapland on the east. This portion of the Arctic Ocean is occupied centrally by Greenland, and on the east is the extensive group of Spitzbergen, the small island of San Mayon, and Iceland. West of Greenland, and divided from it by Davis' Strait and Baffin's Bay, are a considerable number of islands of great size, which hnve been but imperfectly expiored. The region north of lat. $70^{\circ}$ is the most dreasy on the face of the globe.

The shores are covered with eternsl snows, and the surface of the sea, when its icy covering is rent asunder, presents a series of huge floating masses in perpetual motion, and whose tremendous collisions are nttended with the most appalling sounds. Dense fogs, violent storms, and endiess nights, add to the horrors of the acene. In the region of Spitzbergen the sun is not scen for several months in the year, and the thermometer rarely risos above $45^{\circ}$ Falsrenheit; whilo there is but one month in the year (July) in which snow does not fall. The only, or at least the greatest de-
gree of light the 1 habitants enjoy during their long winters, or from the latter end of September to the beginning of May, is that which proceeds from the borrowed lustre of the moon, the stars, the aurora, or the saow blink. This ocean freezes even in summer, and during the eight winter montha a continuous body of lee extends over its entire surface, filling the area of the circle of between 8000 and 4000 miles in diameter. The icebergs, of which vast numbers are continually in motion wherever an opening appears, vary from a fow yards to miles in circumference, and rise to hundreds of feet in height. The ice in these regions is very transparent, compact, and remarkalie for tho variety and beauty of its tints. The water is extremely pure, shells being distinctly visible at a depth of 80 fathoms. The preasure of the water at a depth of $1+$ miles has been found to be 2809 lbs , on a equare inch of surface.

The history of adventure in the Arctlc Seas presents a striking disproportion hetween effort and achievement. All that human daring can do has been done to open up the mysteries of these dreary regions. *The first attempt to explore the Polar Seas was made in 1553, by Willoughby and Chancellor, who were sent out with instructions to ascertsin if there was a northeast passage, or if they could reach China by nassing to the north of Europo and Asia. Willoughby reached Nova Zombla, but he and all his crew were frozen to death. Chancellor entered tho White Sea, and thus opened a communication with Russia. Cnptain Cook resched Icy Cape from the Pacific in 1778. In 1607 Captain IIudson was sent out to attempt to discover tho northwest passage, and reached the lat. of $81^{\circ}$, hut was under the necessity of putting back on account of the ice. In 1773 this experiment was again tried by an expedition under the command of Captsin Phipps, who advanced sbout as far as Captain Hudson had previously done; and a similar attempt was made in 1818, which proved equally unfortunate, under Captain Buchau. In 1818 Captain Ross attempted a northwest passage, and passed through Lancaster Sound. In 1810 Captain Parry reached long. $110^{\circ}$ W., and in 1821-23 examined the coast to the north of Hudson's Bay; in 1824 he reached Prince Regent Indet. In 1826 Captain Franklin was sent overland to explore tho nerth cosst of America, to the west of Mackenzie's River; and at the same time Cuptain Beechey waa dispatched to meet him in Behring's Strait. The two expeditions approachod each other to within a distance of 146 miles, bui returned without meeting. In 1827 Captain Parry was acnt out to penetrate as far as possible in tho direction of the Pole in bosts and sledges, over the ice, and he reached about $82^{\circ} 40^{\prime}$, the highest latitule yet attained. In 1829-83 Captain Ross sailed up Prince Iiegent Inlet, ascertained that there is no communication between the Arctio Ocean and the Atlantic south of Barrow's Strait. The expedition sent out in search of the long-desired route from the Atlantic to the Pacific, through the Polar Seas, commanded by Sir John Frauklin, saited in 1845, with two ships, the Erebus and Terror, and has not since been heard of. Several expeditions have been dispatehed in scareh of the missing navigator and his compnnions, but hitherto without success. Ono of these expeditions, commanded by Captain Kellet, attained, on Auguso 15, 1849, the lat. of $71^{\circ} 12^{\prime}$ N., long. $170^{\circ} 10^{\prime} \mathrm{W}$. ; and on the 16 th discovered an almost innecessible island of granito, rising 1400 feet abovo the sea, beyond which a range of high land was scen; but constant snowstorms compelled him to quit the neighborhood without doing more, to prevent his being hemned in by the pack-ice.

The long absence of tho oxpedition under the command of Captain Franklin, and the unsuccessful efforts made fiom Britain to aseertain the fate of the missing navigators, induced Jady Franklin to appeal to Amerlea for aid in seeking for her husband and his compan-
lons. Iler appeal was resporided to by Henry Grianell. Ile purchased vessels, which, with the countenance and ald of the Ünited Statea Government, were sent to assist in the search. Thia munlficent act of Mr. Grinneli is without a precedent. It was an undertaking by a private citizen of one country to seel out and restore to their homes, if possible, the officers and crews of the absent ships of another. The American searching vessels were placed under the command of Lieutenant De Haven, of the United Statea navy. The Reseue, the formost vessel of the American expedition, entered Wellington Channel in company with the Asistance, the foremost vessel of all the British expeditions, on the 24th of August, 1850; and when, at the close of the season, It became apparent that no further progress could be made, the American vessels, without the aid of steam, were at the farthest point that was made by any vessel of the three llijitish expeditions then engaged in the search, all of which had been assisted by ateam on thelr outward voyage, when in and while crossing Ihaffin's liay. The expeditions of Ross, Austin, and Penny made harbors. The Americans were afioat the whole of a long arctie winter, at the mercy of the winds, the currenta, and the ice. On the 18 th of September, De Ilaven was nortin of Cape Bowditch, the most northern point seen by Parry in 1819, and farther north within Lancaster Sound than had been attained by any vessel of all the exploring and searching expeditions. Ilia discoveries began at Cape Bowden, on the $\mathbf{1 7}$ th of September; by the end of the month he was at $75^{\circ} 25^{\prime} \mathrm{N}$. Here be anw hitherto unknown land to the east, and the west, and far to the north. To this new-liscovered 1 aid he gevo the name of Grinnell Lavd; and to a lioght of land seen, Mount Franklin; and named tho bodies of water Maury Channel, ete. The following season this country was exploted by passing over the ice much farther weat, by Captain Penny and others of the British navy. The name of Ginnveis. Land has been ungenerously onitted from the charts of this region published by the Britiah Admiralty, and the name of Albert Land supplies its place.-Hanrer's Gazetteer. Captain Sir Hobert M'Clure, in the autumn of 1850 , by traveling over jee, connected the geography of the waters of the Pacifie and the Atlantic for the first time. When in 1853 this newa arrived in England, he was hailed, very justly, as the discoverer of the Northwest Passage. But ne veasel has ever passed through the frozen etraits traversed by M'Clure. The passage discovered by him has been crossed on the ice many times, but never by ship or boat of any sort.

May 31, 1853, Dr. Kane started on his second voyage, and being longer than the time proposed, the Aretic, under Lieutenent IIartstein, was sent in search of him. Dr. Kane was found at the Danish aettlements on his return home, having lost his vessels and suffered great hardship, but without meeting any success in his efforts or making further discoveries. Lieutenant llartatein arrived, with Dr. Kane, October 11, 1855. It is now almost certain that the remains found by Dr. Rae were those of Sir John Franklin and party, and the Royal Geographical Society propose giving him the reward of $£ 10,000$ which was offered.

Argo, in Antiquity, the ship celebrated in ancient poetry as that in which the Argonauts mado their expedition to Colchis in quest of the golden fleece. Jason having happlly accomplisied his enterprise, consecrated the shlp Argo to l'oscidon (Neptune), or, as others sny, to Athena (Ninerva), on the isthmus of Corinth, where, they add, it did not remain long before it was translated into lieaven, and made a con-stellation.-E. II.

Argol, Argal, or Fartar (Gern. Weinstein; Du. Wynsteen ; Fr. Tertre; It. Sp. and Port. Tartaro; Russ. Winnui kamen; Lat. Thrtarus), n hard crust formed on the sides of the vessels in which wine has been kept; it is red or white according to the color
of the wine, and ia otherwise impure. On being purfled, it is termed cream or crystals of tarter. It censiats principally of bitartrate of potash. White argol is preferable to red, as containing less drossy or earthy matter. The marks of good argol of either kind are, its being thick, brittle, hard, brillient, and Hittle earthy. That brought from Bologna is reckoned the beat, and fetches the highest price. Argol is of considerable use among dyers, as serving to dispose the stuffs to take their colors the better. Pure argol, cr cream of tartar, is extenaively used in medicine. It has an acid and rather anpleasant teste. It is very brittle, and easily reduced to powder: specific gravity, 1.95. The English duty on argol, of $6 d$. per cwt., was repealed in 1845 . In 1852 the importa and exports of argol into Great Britein amounted reapectively to 17,839 and 8540 cwt. The price of argol in Iondon, in September, 1858, varied; Boiogna, from 88s. to 62s. per cwt. ; Leghorn, 46s. to 56s. pel cwt.; Naples, Sicily, cte., $88 s$, to $89 s$.

Aristolochia (Fr. Serpentaire; Germ. Schlangenvursel; It. Serpentaria; Lat. Aristolochia serpentaria), the dried root of Virginia snake-root, or birthwort: It is small, light, and bushy, consisting of a number of fibres matted together, sprung from one common head, of a brownish color on the outside, and palo or yellow within. It hat an aromatie ameil, something like that of valerian, but more agreeable; and a warm, bitterish, pungent taste, very much resembling camphor.- Bineyclopadia Metrop.
Arithmetic. Where first invented is not known, at least with certainty. It was brought from Egypt into Greece by Thales, about 600 b.c. The oldest treatise upon arithmetic is by Euclid (7th, Bth, and 9 th books of his Elements), about 800 в.c. The sexagesimal arithmetle of I'tolemy was used A.D. 130. Diophantus of Alexandria was the author of thirteen books of arithmetical questions (of which six are extant) in 156. Notation by nine digits and zero, known at least as early es the sixth century in Hindostan; introduced from thence into Arabia about 900 : into Spain, 1050 ; into England, 1258. The date in Caxton's Mimor of the World, Arabic characters, is 1480 . Arithmetic of decimals invented in 1482. First work printed in England on arithmetic (de Arte Supputandi) was by Tonstall, bishop of Durhem, 1522. The theory of decimal fractions was perfected by Lord Napjer, in his Rabdologia, in 1617.-lliayns.
Arls, Noah's, a floating vessel built ly tho patriarch Noah, for the preservation of his family, and the several species of animals, during the Deluge. The ark has afforded several points of curlons inciuiry relating to its form, capacity, materials, etc. The wood of which it was built is called in the Hebrew gopher voood, and in the Septuagint, square timbers. Some translate the original cedar, others pine, others bor, etc. Pelletier prefers cedar, on account of its incerruptilility and the great abun nee of it in Asla. Fuller and Bochart contend that .. was buit of what the Greeks cell кvirapiooós, or the cypress-trec; for, taking away the termination, kupar and gopher differ very little in sound. In what place Noah built and finished his ark is no less a matter of dispute; but the most general opinion is, that it was built in Chaldea, in the territories of Babylon. Its dimenslons, as giren by Moses, aro 300 cuhits in Iength, 50 in breadth, and 30 in height. Dr. Arbutinot computes its burden at 81,062 tons. It contained, besides eigbt persons of Noah's family, one pair of every species of unclean animals, and seven pairs of every species of clean animals, with provisions for them ail during the whole year. The insuperable difficulties connected with the belief that all the existing species of animals were provided for in the ark, are obviated by adopting the suggestion of Bishop Stillingficet, approved by Matthew Poole, Pye Smith, Le Clerc, Rossenmoller, and others, that the Delugo did not
extend beyond that regl iof the earth then inhabited, and that only the unimuls of that rogion were preserved in the Ark. - Nee Delcue, and Kitro's Biblical Cyclopedia.

Arkanase, one of the Weatern United States, is bounded north by Mlasouri, east by the Missisaippl River, separating it from Tennessee and Mississippi, south by Loulsiasa, and west by the Indlan Territory. It is between $33^{\circ}$ and $35^{\circ} 30^{\prime} \mathrm{N}$. lat., and between $89^{\circ} 30^{\prime}$ and $94^{\circ} 30^{\prime} \mathrm{W}$. long., and between $12^{\circ} 30^{\prime}$ and $17^{\circ} 30^{\prime} \mathrm{W}$. loag., from Washington, It ls 240 miles long and 228 wide, containling 54,500 square miles, or $34,800,000$ seres. The population in 1330, 30,388; in 1840, 97,574; in 1850, 209,639 . It ls divided into 51 counties. The capltal is Little Rock, situated on the right bank of Arksnsaa river, 300 miles from its ontrance into the IIlssisslppi. Tho other principal towns are Helena, Columbia, Van Buren, Fort Smlth, Washiagton, Batesvilie, Feyetteville, El Dorado, etc.

The eastern part of tho State, for tho distance of 100 miles from the Mississippl, la low, and much of it is subject to be overflowed at cortain seasons; but thls has been in a great measure obvlated by en extensive embankment or levee along the Mississippi, Arkansas, and White Rlvers. The central part of tho State is uneven and broken, and in tho west it is hilly and mountainoys. There are some extensilvo pralries, and some heavily timbercd lands. On the margin of tho rivers the soll ls exceedingly fertio. The Ozark Mountains, rising sometimes to the height of from 1000 to 2000 feet, cross its northwest part. A range of hllls, called the Biack Mountains, runs between tho Arkansas and Whito Rivers, extending west from near White River to the weat border of the State. A little southwest of the centre of tho State are boiling springs, the temperature of which at times rises nearly to the bolling polnt, though subject to much variation. Near these springe aro ridges of hilis, which rise into elevated peaks known as the Poteau and Washita Mountains, whose highest clovations aro west of the State in the Indian Territory. Wild animala, as the deor, elk, bear and wolf; and wild fowls, as tho wiid goose, turkey, and quall, aro found in abundanco. Its mineral productions aro extensive, consisting of iron oro, lead, zlnc, and copper, gypaum, coal, and salt. The country is well adapted to the raising of cattle.

There were in thls Stato, $\ln 1850,781,531$ acres of land improved, and $1,816,684$ of unimproved land in farms; cash value of farms, $\$ 15,265,245$; value of implementa nnd machinery, $81,601,296$.

Live Stock.-Horses, 60,197; asses and mules, 11,559; milch cows, 93,151 ; working oxen, 84,239 ; other cattle, 165,320 ; вheep, 91,256 ; swlne, 836,727 ; value of live atock, $\$ 6,647,969$.

Agricultural Products, etc.-Wheat, 199,639 bushels produced; rye, 8,047 ; Indian corn, $8,893,939$; oats, 656,183 ; barley, 177 ; buckwheat, 170 ; peas and leans, 285,738 ; potatocs, 193,832 ; sweet potatoes, $\mathbf{7 8 8 , 1 4 9}$; rice, 63,179 pounds ; value of products of the orchard, 840,141 ; produce of market gardens, 817,150 ; pounds of butter madc, $1,854,239$; of cheese, 30,088 ; maple augar, 9,330 pounds; molasses, 18 gallons; beeswnx and houcy; 192,338 pounds; wool, 182,595 pounds produced ; cotton, 65,344; flax, 12,291; licmp, 15 tons; ailk cocoons, 38 pounds ; hops, 157 ; tobacco, 218,936; hay (tons of), 3976 ; clover aeed, 90 bushels; other grass aceds, 436; fiax seed, 321 ; and there were made 35 gallons of wine; value of home-made manufactures, $\$ 638,217$; of alaughtered animals, $81,162,913$.

In the eastern part, particularly on the bordera of tho rivers, the climate is generally molat and unhenlthy; but in the middlo and western parts it is salubrious. Its rivers afford great facilities for contmerco. The Mississippi flows slong ita eastern border for tho distance of nearly 400 miles. The Arkansas River, which gives namo to the State, flows through it
in a sontheastwardly direction; la a broad and deep stream, and is navigable for ateamboats $\mathbf{3 0 0}$ milea to Little Rock, and in the spring floods 850 mllea farther to Port Glheon, beyond the weatern border of the State. White Kiver rises in Ozark Mountalns, flowa through a fortlle and healthy country, shoundlng with aprings and atresma of pure water, and affords many mill seate. It flows into the Arkansas River, and ls uncommonly clrcuitous in its course. The St. Frencis Rlver rises in Miseourl, and flows south nearly parallel to the Misslssippi, whlch it at last enters. It in boatable for 300 milles. The Washita waters its southern, and the Red River, a majestic stream, its southwestorn part.

The internal improvements are in embryo, but when carried out will forms an excellent system. The rivers are numerous, and would give good facilitles for commerce, but for the rafts of sunken wood which obstruct nesrly all. Congress has made appropriations for tho clearance of some, including the Red River, but to anch a limited extent as not to remove the obatructions entirely. The railroad system needs but dovelopment to glve prosperity to the State. Congress has grented lands to all the principal roads in progress; one of which, from Memphis to Little Rock, will be important ss a part of the trunk lino to California.

Manyfactures.-There were in the State in 1850, 3 cotton factorics, with a capital lavested of $\$ 16,500$, employing 13 males and 18 females, producing sheetIngs and 81,250 pounds of yarn, valued at 816,637 ; 28 flouring and grist mills, 57 ssw mills, 51 tannerlea, 0 newspapers, including periodicals, published. Capital invested in manufactures, 8324,005 .

Arkwright, Bir Richard, fumons for his inventlons in cotton-spinning, was born at Prcaton, in Lancashire, in 1732, of parents in hamblo circumatances. Ho was the youngest of thirteen children, reccived but a very indlficrent education, and was bred to the trade of a barber. But tho res angusta domi could not repress the native vigor of his mind, or extinguish the deaire he felt to emergo from his low aiteation. In the year 1760 he had eatablished himself in Bolton-lc-Moor, whero ho exchanged the trado of a barber for that of an itnerant hair-merchant; and having dlacovered \& valuable chemical process for dyeing lisir, he was $\ln$ consequence enabled to amass a little property. It is unfortunate that very little is known of the ateps by which he was led to those inventions that raised him to distinction, and havo immortalized his name. His residence in a district where a considerablo mnnufacture of linen goods, and of linen and cotton mixed, was carricd on, must havo given him aniple opportunltics of becoming acquainted with the varioua processes that were in use in the cotton manutacture, and of the attempt 3 that had been made and were then making to improve them. IIs attention was thus naturally drawn to this peculiar department; and, while he saw reason to conclude that it was likely to prove the most advantageous in which he could engage, he had aagacity and good fortuno to invent and improve thoso extraordinary machines by which, unlike most inventors, he amassed vast wealth, at the same time that he added prodigiously to the demand for labor, and to the riches and comfort of the civllized world.

The spinning-jenny, invented in 1767 by Hargraves, a carpenter at Blackburn, in Lancashire, gavo the means of apinning twenty or thirty threads at once with no more labor than had previoualy been required to spin a single thread. The thrcad spun by the jenny could not, however, be used, except as weft, being destitute of the firmness or hardncss required in the longitudinal threads or warp. But Mr. Arkwright aupplied this deficiency by the inventlon of the spinning-frame -that wonderful plece of machinery, which spins a vast number of threads of any degree of tineness and hardness, leaving to man merely to feed the machine with cotton, and to join the throads when they happen
to break．It is not difficuit to understand the princl－ ple on which this machine is constructed，and the mode of its opseration．It consists of two pairs of rollers， turned by means of machinery．The lawer roller of each pair is furrowed or fluted longitudinally，and the upuer one is covered with leather．to make them take a hold of the cotton．If there were only one pair of roliers，it is ciear that a carding of cotton，passed be－ tween them，would be drawn forward by the revolution of tho rullers；but it would merely undergo a certain degree of compression from their action．No sooner， however，has the carding，or roring as it is technicaliy termed，begun to pass through the firnt puir of rollers， than it is received by the second pair，which are made to revoive with（as tho cass may be）threc，fulur，or five times the volocity of the first pair．By this admirabie contrivance，the roving is drawn out into a thread of the desired degren of tenuity，a twist leing givon to it by the adaptation of the spindio and Hy of the common flax whed to the machinery．

Suck is the principle on which iur．Arkwright con－ structed his fanous spinning－frame．It is obvious that it is radieaily ditierent from the previous methods of spiming either by the common hand wheel or distaff， or by the jenny，which is ruly a moditication of the commen wheel．Spinniz．rollers was an antirely original idea；and it is c．．．．use to determine whleh is most werthy of admirntien－the genius which led to so great a discovery，or the consummate skill and address by which it was so speedily perfected and reduced to practice．Mr．Arkwright statel that he accidentally derived the tirst hint of his great invention from seeing a red－hut iron bar elongated by being made to pass be－ tween rollers；and though there is ne mechanical ansl－ ogy between that operation and his process of spin－ ning，it is not ditheult to imagine that by reflecting ujon it，and piacing the subject in ditferent points of view，it might lead him to his invention．The preciso era of the discovery ts not known；but it is mot prob－ able that the felicitous iden of spitning by rollers had oceurred to his mied as early as the preriod when llar－ graves was engaged in the invention ce the jenny，or alnost immediately after．Not beiag a practical me－ chanic，Arkwright employed a person of the name of John Kay，a watch－maker ut Warrington，to whom we shail afterward hava to refer，to assist him in the prep－ aration of the parts of his machine．Ilaving made some progress toward the completion of his inventions， he applied in 1767 to Mr．Atherton，of Liverpool，fo： pecnniary assistance to enable him to carry then int ） effect ；but this gentienisu declined embarking his prop－ erty in what appanred so hazfrious a speculation， though ho is said to have sent him some werkmen to assist in the construction of his machine；the firnt medel of which was set up in the parler of the houso belo：＂цing to the free grammar school at Preston，

Ilisimventions being at length brought lnto a pretty advanced stato，Arkwright，accompanied by Kay，and a Mr．Smalley，of Preston，remeved to Nottingham in 1768，lit order to avoid tho attacks of the same lawless rabble that had triven Iargraves out of Laneashire． Here his operations were at first greatly fattered by a want of capital．But Mr．Stratt，of Derby，a gentle－ man of great mechandeal skill，and largely engaged in the stocking manufucture，having seen Ark wright＇s in－ rentions，and satistied himself of their extraordinary vaiuc，immediately entered，conjeintiy with his part－ ner Mr．Need，into partnership with him．The com＂ mand of the necessary funds being thus obtained，Mr． Arkwright erected his first mill，which was driven by horses，at Nottingham，and took out a jatent for apin－ ning by roilers，lis litu）．lint as the mode of working the machinery by horse－power was found too expens－ ive，he bullt a second factory，on a mucl：larger seale， at Cromford，in Derlyshire，in 17̈̈l，the machinery of whish was turned ly a water－wheei，after the manner of the famous silk－mill erected by SIr Thomns Lembe．

Having made soveral additional discoverics and im－ provements in the processes of carding，roving，and spinning，ho took out a fresh patent for the wholo in 1755；and thus completed a series of machinery so various and complicated，yet so admirably combined， and well adapted to produce the intended effect，in its most perfoct form，as to excite the astonishment and aduirstion of every one capable of appreciating the in－ genuity displayed and the difficulties overcome．－E．B．

Armada，a Spanish term，signifying a fleet of war．The armada which attempted to luvade En－ giand in the time of Queen Elizabeth is fansus In histery．

Armed Neutrallty．The confederacy，$s 0$ called， of the Northern powers，against England，was com－ menced by the Empress of Russin in 1780；but its objects were defeated in 1781．The pretension was renewed，and a treaty ratified in order to cause their tlags to be respected by the beiligerent pewers，De－ cember 16，1800．The principio that neutral flags protect neutral bottoms being contrary to the mari－ time systent of England，the British cabinet remen－ stratud，and Neison at．d Parker destroyed the fleet of Denmark before Copenhagen，April 2， 1 H01．That newer，in consequence，wns ohliged to sccede from tho alliance，and acknowiedge the clain of England to the empire of the sca；and tho Armed Nentrality was soon after dismolved．－IIaydn．

Arms．Dee Finf－Anms．
Arrack，or Rack（Fr．Arac；Germ．Arrack， Rack；Du．Arak，Rak；It．Araco；Sp．Arak；Port． A raco＇；liuss，Amk），a spirituons liquer mannfactured at different piaces in the East．

Arrsek is a term appiled in most parts of Indla， and the Indian islands，to designate every sort of spiritueus ilquers；a cireumstanec which neconnts for the discrepancy in the statements as to the mat rials used in making it，and the mode of lts manufacture． The arrack of Gioa and Bintavia is in highe estimation； that of Columbe or Ceylon has been sald to be inferlur to the former；lut this is doultful．Gon and Columbo arrack is invariably made from the vegetable julec， toddy，which flows by inclxion from the cocen－nut tree （Koco nucifera）．After the juice is fermented，it is distiliet and reetificd．It usualiy ylelds about an －ighth part of puse spirlt．Datnvin or Java arrack is obtained by distillation from molasses and rice，with only a small admixture of todily．When well pre－ pared，arrack is clear and traneparent；genernily， homever，it is slightly strawncolored．Its flavor is peculiar；but it differs considerably，no doubt in con－ sequence of the various articlen of which it is prepared， and the unequal eare taken In its mennfacture．In Englard，arrack is schiom used excent to give flaver to punch；formerly the imports were quite inconsld－ erable；but they have recentiy been a geod deal greater，though，as they are mixed up in the official returns with rum from indin，it is impossible to state their exact amount．The duty on rack from a Ilritish possession is 3s． 2 d ．a gallon，and on that from a foreign comitry，15s．jer gnllon．In the East its con＊ sumption is inmense．It la lsaued to the soldiers in India as part of the cetablifitied rations；and it is suppiled，insteati of rum，to the a amen of the royal navy enipieyed In the Indian sean．It ls one of the princlpal protuctn of Ceylon．Its prime cest in that island varies from $8 d$ ．to 10 d ．gallou；und largo iquantitlen are exported to Indis and disewhere．It is seld in Ceyion liy the legger of 150 ，and In Jnva by the legger of 160 galions．In 1841 the exports from the latter amounted to 4672 leggers，or $717,520 \mathrm{gal}$－ sonn，valued at 286,813 florins．liatavis arrack sold in bor 1 In l．ondon，in Septemier，1853，at from is，6d． to 2s．per gallon．

Puriah－arrack la a phrase used to deslgnate a apirlt diatilled in the penlusula of India，which is said to be often renlered unwhelesone liy as admlxture of ganga

## ART

(Cannabis satio), and a apecies of Datura, in tha view of increasing its intoxicating power. But it is not clenr whether the term pariah-arrack bo meant to imply that it is an inferior spipit, or an adultorated compound. This liquor is sometimea distilled from cocoanut toddy, and somatinses from a mizture of jagery, water, and the barks of various trees.-Wea Mileburs's Orient. Com. ; and Mr. Marshall's taluabla Eisey on the Cocoa-nut Tree, p. 13.

Arrow-root, the pith or starch of the root Maranta arundinacea.' It has recelvr a ite conmon name from its being aupposed to be min antidote to tho pissoned arrows of tha Indians. The powder is prepared from roots of a year old. It is reckoned a very wholesome, untritious food: it $\boldsymbol{i}_{3}$ oiten aduitersted, when in the shops, with tho starch or flour of potatoos.. It is a nativo of South America; but has been long introduced into the West Indies, where it forms a pretty important articlo of cultivation. An excellent kind of arrow-root, if it may be so called, is now prepared in Intia from the root of the Curcuma angustifolia. The plant is abundant on tho Malabar const, where the powder is urade in sueh quantitica ns to be a considerable object of trade. Somo of it has been brought to England. The Maranda arundinacea has beon carriod from the West Indiea to Coylon, where it thrives oxtremely well, and where arrow-root of the finest quality has been manufactured from it.-ArnsL.1k's Mitt. Indi:q.

Arrowamith, Aaron, an ominent geographor and hydrographer, born at London in 1750 . Ho published, in $181 \%$, a new Gencral Atias, Ato, and produced a great number of maps and charts. His map of the world on Meicator's projoction is unch esteemed. He dici in 1823 .

Arsenal (irom the Romaunt arthenol, a citadel), originally denotod oxclusively a maguzine of navai stores and warlike npparatis, giving probability to the etymology which deriv a the word from the Latin arr navalis, a naval citadel. Now, howover, the term is applied to a repository of warliku stores, whether for land or sea service. The paval arbenaia aro, however, still the more numeroas, and will be fund doscribed at length under the articie Dock-yands.

Thu great arsenal of Britain (if we excapt the Tower) is that of Woolwich, where all warlike stores and apparatus are not only preserved, but manufactured in the immense buildings devoted to the purpose. At Woulwheh, Deptfuri, Chnthan, Sheocness, Iortsmouth, and I'lynouth, are the grent naval aracnals. In France, thors aro military arsenals at Paris, Straburg, Motz, Lilic, ete, ; and flve groat maritime arsennis, the chicef of which and thosu of Brest, Touion, and lochefort; noxt to them L'Orient and Cherbourg. Thero aro also inforior arsenais nt Dunkirk, Ilivre, Saint Servan, Nantos, Bordeaux, and Bayoune. Thu other principai naval arsenals in Europo aro, titose of Kinssin, at St. Petersburg, Cronstadt, :. at surnastopel ; of Iloliand, at Auvers, Vlusising, Iteivoetgluys, and the Texel ; of Prussia, at Dantzig; of llamlurg ; of Lominark, at Coponhagen; of Turkey, at Constantinople; of ltaly, at Genoa, Villafrance, livorno, Spezzia, Civita Vecchia, Naples, Ancona, Venico, and 'Lriesto; of Spain, at Cadiz, Carthagena, and llarceicnn, and tho British one at Gibraltar ; of l'ortugal, at Lisbon; of Britain, at Miaitn and Cor-fu.-Li. If. Tho principal navel arsonale of the Unitod States are at New lork, lloston, and Norfolk. The military arsemals of the Enited Stateanare ut Keunobee, Maino; Watortuwn, Massachusutts; Watervhict, Now York; New York city; Alleghany and Franliford, Jonnaylvanla; Piksdville, Indians; Washington, District of Colambia; Fors Monrue, Virginiu; Augusta, Georgla; St. Louis, Mobilo; Daton Ronge, Loulsiana; Monnt Vernon, Alabama 1 Detroit, Michigan; Fayetteville, Nortis Caroliua; Charlestun, South Caroilina; Little Rock, Arkausas; San Antonio, Texas ; Deniein,

California; of Brazil, at Rlo Janeiro and Bahia; c. La Plats, at Buenos Ayres and Monto Video; of Chili, at Valparaisu; and of Mexico, at Vera Cruz.

Armenio (Germ, Arsenik; Fr. Arsenio; It. and Sp. Arsenico; Russ. Mäachjah; Lat. Arsenicum). This metal has a bluish white color not unlike that of stecl, and a good deal of brillianey. It has no sensiblo amoll while cold, but when heated it omits a strong odor of garlic, which is very characteristio. It ia the softest of all the metalio bodies, and so brittla that it may be easily reduced to a very fine powder by trituration in a mortar. Its specific gravity is 5.76.Tuonson's Chemistry. Metallic arsenio is not used in the arts, and is not, therefore, extracted from the ore, except for the purposes of exporiment or curiosity. T!ıe arsenic of commerce is tho white oxido, or arsenious acid of chemists. It is a white, brittle, compact substance, of a glassy appearance; is inodorous; has an acrid tasto, leaving on the tongue a swectish impression; and is highly corrosive. In its metallic state arsenic exerts no action on the animal systom; but when oxidizel, it ls a most virulent poison. The arsenio of the shops is sometimea adulterated with white sand, chalk, or gypauin: the frand may be detected by heating a smail portion of the suspected powder, when the arsenic is dissipated, leaving the impuritios, if there ho any, behind. 'Though the most violent of all the mineral poisons, the whife oxide of arsenic, or the arsenic of the slops, is yet, when judiciously ndministered, a modirine of grent efficacy. It is also used for various purposes in the arts. It is principally imported froin Saxony and Bohomia.'Thomson's Chemistry; A. 'I'. Tmomson's fhispensatory.

Arsura, in term used in anciont times for the meiting of goid or silver, either to reting them or to exsmino their value. Tho mathod of doing this is explainad in tha Black Book of the Exclequer, ascribed to Gervaiae, in tho chapter De Officio $M / i k i t i s$ Argentarii, heing in those days of great use, on account of the various piaces and different manners in which the king's monoy was paid. Arsura is alao used for the loss or diminution of the metal in the trial. In this sense a pound was said tot ardera denarics, to loso so many pennyweights. Arsura is likewiso used for the dust and sweepings of silversmiths, and others who work in silver nielted duwn.

Artcsian Wells, the nmme applied to artificial springs, protuced by boring a small hoid through strata destituto of water, into lower beds in which wator is percolating in considerable quantity. On msking such perforation, the water often rises forcibly to the surfoce, and is conveyed to a convenient receptacie by a pipo introlncod thy the perforation into the struta aflording the water. The ilrat place in Europu where such artiticial fountaina wore extensively formed was in the lirench province of Artois, anciontly Artesium. But there is reason to beliove that the art wne long hefore practiced hy the Chinese, who are vecy expert in the formation of such weils. They are extensively used in tice Mllanese, In aeveral parts of Germany, and hava niso been for soveral vears omployerl in the south of England, on the coast of Lincolnshire, and more lately in the vicinity of Lomdon.

An artegian welt was sunk nt Sheerness in 1781, to the depth of 330 feet.-Philowenical Tranaactione, 178.1. it was carried tirough a thick bed of Invion chay, and water, which rose nearly to the surface, was found on reaching the subjacent sand-beds. 'Two of better conatruction ware carried to the aame ciepth through similar materials at Portsmoutì locka in 1828 nud 1820. The soii of the diatrict on the const of Lincuin, lietween Lowth and the sea, rests on a thick hed of clay, which precludes the puasilility of springs ; hut by penatratiug through thia, water was found in abundance In the chalk on whleh the clay reposed; und arteslan wells there now afford a plentifut anpply of this necosary element, titat risen with such force
through the pipes as to have oltalned the local name of bluiu-cells. The theory of artesian wells is founded on the fact that water derived from $\%$ higher level may percolato through certain strata, or pass in seams between them, and be prevented from reaching the aurface by the superposition of other beds or strata impervious to water. In such circumstances a perforation through the latter allowe the water, by hydrostatic pressure, to reach tha surface; and it will overflow, or even gush out, with a force proportional to the difference of level of the different parts of the water-bearing atrata, especiully if the free course of the subterranean sheet of water be iniurrupted by what are termed fauls in the atrata, or the occurrence of veina of stony bodies intersecting them. Thus, in the diagram of a supposed section of a country, let P P
movement to the har of iron, aufficient to vary the position of the chlsel at each stroke of the instrument; and when the chamber is full of the debris of the rock, it is drawn up and dlscharged. This mode of working has greatly diminished the labor and expense of such operations; and is applleable to many proceeses in mining, blasting in quarries, and the like.

An ingenioub Serman engineer, M. Sellow, has by a similar instrument of greater size, succeeded in ventilating the minee at Saarbruck, oy' perforations 18 inches in diameter, and aeveral hundred feet in depth.
The importance of artesian wells can searcely be overesitmated. They are capable of rendering districta now scantily supplied with or destitute of potable water, convenlent domiciles for man; and under an enlightened government might render habitabla no emall portlons of the arid wastes ef Africa and Arabia. In the latter, recent observations show that there are abundant subterranean sources of water, and possilly a serles of artesian wella might diminish the perils of the passuge of the Great Sahara.-E. B. The United States Government has recently authorized a serics of experi-
represent a thick bed of plastic clay, ABC strata affording water, alternatirg with strata; EF, impervious to water, and let $V$ represent a vein of trap rock traversing these strata, and producing a shift or fault; by sinking the pipes $a b c$ into the strata A BC respectively, we shall obtain the water derived from the more elevated portions of these strata at such artesian fountaina.

The same principles are applicable to the sinking of common wells. It has sometimes happened that a weil haa been lost in attempts to in-rease its flow by a deeper excavation. Thus, if the bottom of the well was a bed of clay resting on sand, a perforation made through that clay has occasionally lost all the water; because the stratum of clay had jrevented the water from escapiug to a lower level, and conducted it toward the surface. The direction of the strata, as well as their nature, are essentlal elements for the auceessful formation of either common or artesian wells; which last are of great consequence in champaign countries, where nataral springs are less common.

Artesian wolla have been also sunk for the purpose of oltalning uarm water. It is well ascertained that in the suterior of our sarth there is a source of heat, which may be reached by deep artesian perforations, so as to bring warm water to the surface. Thus Von Bruckmann, of Wortemburg, heated a paper manufactory at IIellboun by water from a deep artesian well; and by the same means prevented the freezing of the watur in winter round the wheels of mills. In the arteslan well at Jochelle, at the depth of $\mathbf{8 7 0}$ feet, the water has a temperature $12^{\circ}$ algher than that of the atmesphere. N. Arago was the chief promoter of the arteslan well in the plain of Grenelle at laria, which, at the depth of upward of 1900 fect, affor's water at $92^{\circ}$ Fahrenhelt. In the deepest artesiar: well yet made, that at Kissengen, the temperaturo of the water ls also very considerable.

The instrunient now used in minkisg artosian perforations to great depths is not the old machine emplayed in boring fer coal, ete., a serien of iren roals serewed tegether, and forced down by repeated hlows with a mailet. That was a costly and tedious operathon: a Chinese instrustent has lately been intruduced with great aflect. It consists of a heavy bar of cast inon, six feet long and four inches in dlameter, armed at its lower end with a eutting elisel, sirrounded by a cylindrieal chamber, which, by means of simple valves, receives and retains the abraded portions of the rock. The Instrument in suapended by a rope passing over a wheel. As it is wrought up and down, the torsion of the rope givea a circular
ments for the construction of a number of artesian wells on the plolns of Western Texas, on or near the milltary and emigrant roads leading toward New Mexico and Callfernia, for the relief of emigrant parties. An expedition for this purpose left Texas In January, 1855, under the command of Captsin Pope, United States army, and had not cempleted their operations in December, 1856.-See Hraicat de Thuny, Considerations sur la cause du Jasilissement des Kaux des I'uitsfurts, Psris, 1829; Von Bnuckmann, C'eber Artesische Brunnen, Heilh. 1833 ; M. Anago, Notices Scientifiquec, A nnuaire du Bur. des Iong. pour Annes plus.

Artificer, a person whe works in iren, brass, wood, etc.-such as smitlis, brasiers, carpenters, ete. The Roman artificers had their peculiar temples, where they assembled and chose their own potron to defend their causes; and they were exempted from all personal services. Taruntenus Paternus reckons 32 species of artificers, and Constantine 35, who enjoyed this privilege. The artificers were incorporated into divers colleges or compankes, each of which had thedr titelar gode, to whem they oflered their worship. Several of these, when they quitted thelr prefession, liung up their toels, ns votive offerings to their gods. Artificern were held a degreo below merchants and argentarii, or money-changers, and their employment more sordid. Seme deny that in the earllest ages of the Roman State arthficers were ranked in the number of eitizens ; others, who assert their citizenship, allow that they were held in contempt, as belig wint for war, and so peor that they could searcely pay any taxes; for whleh reason they were not entered among the eithens in the econser's books; the tesign of the census belng only to see what number of pursons were yearly fit to bear arms and to pay taxes toward tho support of the state. It may be added, that much of the artificers' husiness at liome was dene ly slaves and forelgners.

Artifioial Forizon, a contrivance of great utility for enablltug an observer to aletermhe the altitude of a heavenly holy, or of a terrestrial object, ahove the herize , f any place, when the senaible horizon is ill defincc.. The surface of a thid not ensily disturbed lyy the air, auch as quicksilver, or nome viseld, opague thuld, is usually employed for this purpose, as they will alljnst themselves to a plane parallel to the rational horizon. To prevent the Infiuence of winds in the open air, the surface is usually covered by a pinte of ground-glass with parallel surfacea. In fled ebservatlons thla is not necessary ; and the mercury is contained in an ohlong trongh; for locomotlve observations, a cup of three inches in diameter is the containing
vessel. But as carrying about mercury is inconvenient, some have employed polished metallic or glass mirrors, adjusted by acrews st the corners, and a spiritlevel, to horizuntality; though this is less accurate than the fluid surface. The surface of the quicksilver, or mirror so adjusted, ls a plane touching the surface of the earth where the ebservation is made, and parsilel to the rationsl horizon; therefoce, a ray of light passing from the object to the surfsee of the instrument, forms an angle with that surfoce equal to the angular elevntion of that objeci above the true horizon of the place, when it is corrected for parallax and refraction. -E. B.

As, in Antiquity, a weight, consisting of 12 ounces, heing the ssma with libra, or the Roman pound. The word is derived from the Greel " $/ \mathrm{S}$, which, in the Deric dialect, is used fo. éls, sue. $\quad \rightarrow$ an entire thing; or, aecording to others, froir becauss made of brass. It was alse the name of a timinen coin, whleh was of different weight and material in different ages of the cominonwealth. Under Numa Pomplius, accerding to Eusebius, the Roman money was either of wood, leather, or shells. In the time of Tullus Hostilius it was of brass, and called as libra, libilla, or pondo, becauso setuaily weighing a pound, or 12 ounces. The first Punio war, 420 years later, hsving exhausted tho treasury, the as was reduced to twe ounces. In the second Punic war it was again reduced to half its weight, viz., to ono ounce. And, lastly, by the Papirian law it was still further reduced to tho dininutive weight of half an ounce; and it is generally thought that it continued the same during the commonwealth, and even to the reign of Vespssian. The as, therefore, was of four different weights in the commonwealth. Its original stamp was that of a sheep, ox, or sow; but from the time of the emperors it hat on one side a Janus witis two faces, and on the reverse the rostrum or prow of a ship. As also denoted any integer or whole; whence the English word ace. Thus as signiffel the whole inheritance; whence heres exs case, the heir to the wholo eatnte.

Asaforitas (Ger. Teufelsdrech; Du. Duivelslreck; Fr. Assa-ftide; Sp.Asa-fetidu; Lat. Asa-fatida; Per. Ungoozeh), a gum resin, consisting of the inspissated julce of a large umbelliferons plant, the Ferula asafietida. It is produced in the sonthern provinces of Persia, and in the territory of Sinde, or country lying at the mouth of the Indus. It is exported from the Persian Gulf to Bombay and Caleutta, wher 3 it is sent to Europe. It has a nauseous, somewhat bitter, biting taste, and an excessively strong, fetid, alliaceous smell : the newer It is, it possesses its smell and other pecullar properties in the greater perfection. It is imported, packed In irregular masses, in mats, easks, and enses; the last being, in general, the best. It should ta chosen clean, fresh, strong-scented, of a pale reddish color, varlegated with a number of tine, white tears: when broken, it should somewhat resemble marble in appearanee; anc, after belug exposed to the air, should turn of a violet red celor. That which is suft, blaek, und foul, shoull be rejected. 'lho packoges should to carefully ex:mined, and ought to bo tight, to prevent. the smell from injuring any other artlele. Neither the lmports nor the quantities cleared for consumbtion are considerable, though the fitter are probnbiy greater than might have been expectel, amounting to about 0000 itss. a ycar. The duty in liggland is 1s. a ewt. In Engranil it is used ouly in the materia medica. In France it is used hoth lin thint way, and, to some extent, also as a condlment. It is werth, in houl, in the London market, from 25 , to $\mathbf{s}^{5}$ per cwt.-Munutun's Orient. Com.; I'apl. I'apers; nul private information.

Ash, Common, the Fraxinus excelsior of botanists, a forest tree of which there are msny varieties. It is abundant In Fingland, and is of the greatest utility. The ash is of very rapid growth ; and, unilke mest
other trees, its value is rather increased than diminished by this circumstance. Like the chestnut, the wood of young trees is most esteemed. It grows on a great variety of solls, but is best where the growth has been most vigorous. It is inferior to the oak in stiffiness, and ls more easily split; but in toughness and elasticity it is far superior to the osk, or to any other species of timber. Hence its universal employment in all thoso parts of machinery which have to sustain sudden shocks, such as the circumference, teeth, snd spokes of wheels, slip-biucks, ete., and in the mauufacture of sgricultursl implements; In the latter, indeed, it is almost exclusively made une of. The want of prolonged durability is its greatest defeet; and it is too tlexitle to be einployed in luilding. The wood of old trees is of a dark brown color, sometimes Lesutifully figured ; the wood of young trees is brownish white, with a shads of green. The texture is alternately compact and porous: where the growth has been vigorous, the compnet part of the several layers bears a great proportion to the spengy, and the timber is comparatively tough, clastic, and durable. It has neither taste nor smell, and, when young, is difficult to work. The mountain ash (Pyrus aucuparia) is guite a different tree from the common ash, and its timber is far less valuable.-Tnevgolib's Principles of Carpentry ; Timber Trees and Fruits, in Library of Entertaining Knovledye, etc.

Ashes (Fr. Vedosse; Ger. Waidasche; Du. IVeedas; Da. Veedashe; It. Feccin bruciata; Sp. Alumbre de hez; Russ. IVeldasch; Lat. Cineres infectorii), the residuum, or earthy part, of any substnmee after it has been burned. In commeree, the term is applied to the ashes of vegetable substances; from which are extracted the alkaline salts called potash, pearlash, barilia, kelp, ete.; which see.

Asia. Thls divislon of the globe is distinguished by its vnst extent; by the striking character of its interior geography; above all, by the stupendous revolutions of which it has been the scene; and, lastly, by the high antiquity of its eivilization, of whieh wo can still faintly tracs the preeious remsins. Stretehing from tho southern hemisphere into the northern regions of perpetual winter, it comprises within its bounds the opposite extremes of heut and cold; all the varieties, consequently, of the animal and jegetalle tribes; and that still more interesting variety which the irresistible law of elimate impresses on the human species. The surface of $\Lambda$ sia, tewering to its helght far above the regions of perpetual snow, presents, when superticially examined, a confused mass of lofty mountains, diverging into nu endless variety of inferior ridges, apparently withont plan or systen, 13ut a more attentive survey discloses, nmidst the bold irregularities of nature, the same order and mity of design in the structure of this great continent as in all the other works of creation.

Asia was the earliest abode of the luman race; and, when all the other parts of the word were either uninhabited or sunk in barbarlsm, It was the sent of great empires, and of tlomrishing and splendid cities, of commerce, of literature, and of all the arts of civilIzed life. But lts early prospority was blighted loy the ruthless devastations of war ; its populous elties were utterly destroyed, so that the spot on which many of them stood is now only marked by masses of ruins; their arts and liteature have porished; and in soch fragments of their writhg as still survive, the meaning is huried under the almost hupenetrable vell of an auchent and unkwown character. In touching on the varlous toples which are eonnpretended ander the resignntion of Asin, it must be remembered that In the following artlele we are to conlline nur attention to such general vlews of its geography, hlstory; lusthtutions, poliey, and manners, as " ..s not supersede a more particular description of its various states under their reapective deniguations.

- Asia containe a larger area than any of the other divisiona of the globe, viz., inclading ita islands, $12,960,000$ square geographical milea; the area of America being $10,600,000$, that of Africa $8,550,000$, and that of Europe 2,660,000.
The isiands of Asia are: In the Arctio Ocean, Nova Zembla, consisting of two large ialands, and New 81beria, consisting of three islands of coneiderabie extent discovered in the course of this century. Along the east const : the volcanic group of the Kuriles; the Japanese Islands, of which Nipon is the principal; the Lu-ku group to the eouth of Japan; the large islands of Formoss and Hainan, on the coast of China. Saglialia, oppoaite the coatt of Mantchuria, was long believed to be an island, but is a peninsula extending over 8 degrees of latitude, and connected with the continent by a low, narrow, and sandy isthmus, a little to the aouth of the mouth of the River Amar. In the sontheast and south : the Philippines, among which Luzon and Magindanao are the largeat, and half a dozen othere have areas surpassing or approaching those of Cyprus and Candia; the great islands of Borneo, Sumatra, Java, and Celehes ; the Moluccas or Spice Islands, among which Gilolo, Ceram, Baro, and Amboyna, between Celches and New Guinca; Nias, Batu, the two Pora, etc., on the west coast; and Battam, Linga, Banka, and Billiton, on the east coast of Sumatra ; and, finaily, the Sunda and Banda islands, a vaat latitudinal Archipelago, extending from the east point of Java toward Australia and New Guinea, and composed of myriads of isiands, among which the principal are in a direction from west to cast; Madura, Bali, Lambok, Sumbara, Sandelbosh or Tshindana, Flores, Timor ( 250 milee long), Timor Laut, and Aru, which form a bridge, as it were, between Asia and Australia. In the Indian Ocean: the Nicobar and Andema Archipelagos, between the no-thweat point of Sumatra and the mouths of tho Irawaddy; the large island of Cerlon; and, on both sides of the 70th meridian east, stretching due north from south lat, $8^{\circ}$ nearly as far as the latitude of Goa, the Archipelagos of the Tshagos, Maldives, and Lakkadives, all three composed of myriads of mostly very email islands of coral formation. In the Persian Gulf: Ormuzd, Kishm, and Bahrein. In the Red Sea: Perim, Arish (erroneously called Harnish), Farsan, and Dhalak. In the Mediterrancan: Cyprus, Rimoles, Cbios, etc.
The aur' of this vast continent is exceedingly varier' In some places it towers in stupendous mountains, sorming fonr grea. chains, with subordinate bramehes, of different names. It often exhibite vast plateaux or elevated table-lands, of prodigious extent ; in other points:- etretches in plains little elevated above the level of the ocean ; while in certain points it presenta enormons hollowa or depressions that are lower than the surface of the Black Sea. Humboidt computea the auperficies of ail Asia at $1,346,000$ geograplical equare lengues. Of this a large proportion ia mountainuus, or raised in elevated plaine. The same eminent authority estimates these as follows:
The meuntalnous parts of Arabta, Belnchlatan, or
the plateau of Kclat, Kandatiar, with the moumtniln ridges of india..

240,010 The mountalnous parte of China.
The ptateaty of (rolt or Sha-mo.
The piateau of Thibet and Ladak, between the ilimalaya and Kuon-lun Meuntatoa. The pleteat of persia. .

The Thurua of Asta Mituor, Ararst, and the 2itindoo $\}$
Of whleh that of Ararat alone ta. The Cancasan, from laku to Anapa
The Gural and Altui groupa. ................................
64,400
42,000
41,000
27,000
81,800
3.500 plains divided by mountains of small elevation, forming the comparatively low land of Siberia, Intersected liy several liarge rivers, and occupied often by extensIve wamps. This region la eatimated at about 400,009 square lengues. The cuntral part of Asia.
still imperfectly known to Europe, was till lately concelved to be one vast table-land, of irregular form, buttressed on every side by lofty mountains; but it now appears, on the contrary, to be traversed by long mountain chains.

Asia presente to the eye such a compactness of conformation, and its outlines are at the same time 80 diversified by deep indentures of the sea, forming gulfs and peninanlas of every shape and dimensien, that neither Africa can be called more compact, nor North America more diversified. Every prominent feature of thle vast continent ia on a gigantic acale; and the aggregate of its mountains and rivers, lits low plains and its elevated plateaux. surpasses those of the other divisions, not only in magnitude, but also by its contrasting variety,* Its inere steppe rivers approach the aize of the Don and Dnieper; and the second of its salt lakes, the Aral, is still larger, by 6400 equare geographical milea, than Lake Superior, the largest sheet of water in America; while the combined superficies of all the American lakea would not suffice to cover the area of the Casplan. Ite Indian Archipelago forms a world by Itself; with which the West Indian Islanda can be compared neither for extent ner importance; its mountains rise higher into the regions of eternal snow than the far-famed Chimborazo; it has its deserts of buming sand and of frozen swamps, alike deatructive is the haman race. Nowhere is there anch an exuberance of animal and vegetable life, not only apread over the whole continent, but aliso displaying itself within the narrowest limite, es the traveler rapidly deacende from the creas of the Himalaya into the plain of Bengal. The eame variety, the same contrasts, appear in its history. Asia, the cradle of mankind, the mother of religion, the nurse of civilIzation, where arta and letters ware cultivated in the remotest times, containa within her inaccessible mountain forests numerous deacendants of her primitive inhabitante, who still continue that brutish life which their forefathers led when thu first vine was planted, the first hiereglyphic character carved in the rock.

Of the domestic animals, the elephont clelms the proeminence, being unequaied by any other animal for the purposes of dranght. This animal is confinet to the southern countrics of India, where the climate ia hot, leing seldom aeen in the monntainous tracts toward the north. The camel ia meed for domestic purposes over a far wider extent of country than the elephant. This animai is of two species, the one with two humps, and the common camel with only one bamp. The latter ia the camel of Arabia, Syria, Persia, India, and Northern Africa. A lighter variety of this specles is the dremedary, used only for riding, and differs from the camel of burden as the racer does from the dranght-horse. The two-humped camel is the Bactrian species, and is so rare, even in Western Asia and India, that Captain Lynch states, that in a caravan of 6000 camela there were not above eight or ten of this liactrisil apceies. In Mongolia, howover, they are very numerous. The dromedary is chicfiy used for traveling, and its vaiuable quality is swiftness, hy which, jolned to its eopacity of cnduring

- Accorllng to Berghaum, there are 10 riveri in America, and 12 in Atla, the bainin of each of which containe upward of 10,500 German, or 108,000 geograjulcal square mileas. The untted area of the former, the first of which to the Aniazon, and the last the Rio Negro, is 824,500 German, or $\mathrm{B}, 182,000$ geographical minaro mitea; of which the hasin of the Amazon occoples not tes" than $\mathbf{2 , 0 1 8} 8,400$. That of the latter, the Otit atanding at the head with 024,800 geographical muare milem, and the Tarhm belug tha leat, ia 808,738 German, or $5,820,000$ geographical square mites; giving a differsnce of 628,000 geographical aquary milles in favor of Asla. The total length of the 10 American rivers, winilnga included, ts 70,040 geographical miles ; that of the Aslatic, 08,448 geemaphical mittea: itfierence in favor of the tatter, 91,808 geographical milces Yet the kyatem of the Maranon in the formor atanda unequal. ad toy any in the world.
hardship, it is quallied to travel at an incredible rate for many suecesalve daye. In all the low countrles, especially in the dry and aandy tracts, such as Arabia, Syria, etc., the common camol is employed. The twolumped camel is a native of tho bigh eountriea in the neighborhood of the Oxua and the Jaxartes, where it is still chiefly used. So large a portion of Asia ia occupied by vast plains and wastes of sand, that lts interior intercourse must be maintalned by land journeys. But without the aid of the camel, it would be impossible to traverse extensive deaerts destituta both of food and wator; and in those arid countries such an animal, which has been truly called the ship of the desert, is the most valuable glift whici Providence could bestow.

Animals.-The other domesic animsla of Southern and? Western Asla are horses, mules, asses, buffalocs, black enttle, sheep, goats, etc. Arabla may be considered the native country of the loorse, In which he arrives at perfection, and combines all the most estimable qualities of symmetry, form, fineness of skin, fire, docility of temper, fleetness, and hardiness. It ia chiefly from the Arabian breed that the horses in other parts of the world have been improved. In Persla the horsed aro neither so graceful nor so swift as those of Arabia, belng high, with long legs, spare carcasses, and largo heada; but they are highly prized by the inhabitnats for their extraordinary capacity of enduring fatigue. To the east of lersia, at llerat, the breed of horses is fino; also on the banks of tho Indus and ita tributaries; and in the higher regions of Balk and Bokhara thoy aro excellent and numerous, and are exported in great numbers to 1 lindostan. The mule and the ass, all over India, are miserable animals. The mules are of better quality in the Punjaub, on the upper course of tho findus, and they inprove still more farther west. In the countries west of the Indus, they aro superior to thoso in Mindostan, and in I'ersia there is a still finer breed. But the mule of the East is inferior to that of Europe. The ass partakes of a similar improvenent in his progress westivard, and is a far finer anibal in Western Asin than in Europe. In Syria, Pulestine, and generally in Asia Minor, he is distinguished by ngility, Ilre, and patienco of fatigno, and ranks in the lirst class of domestic animuls. Buftiloes a:e found in the hot plains of Asia, as well ns in the mountainous tracts; and the oxen which are used in the prow have ull $n$ homp on their backs. The wealth of the pastoral tribes, who rove about in the western plains of Khorassan, and in the billy tracts of Af fhanistan, consists chlefly in sl:eep, which have tails a foot broad, and composed entirely of fat, but in other respects resemble the English sheep, being better and handsomer than those of Indin. Goats are common all over $A$ sia, especinily in the mountains, whare there aro some breeds with curiously-twlated horns; and they are by no means searee in the plains.

In the northern parts of Asla, and In tho high mountain thests, $a$ diflerent elass of animals is to the found. These cold regions are not distinguished by the same profusion of animal life as the tropienl countries. The beasts of the forest decrease in numbers, size, and tlerceness; and the wolf, the bear, the ghitton, and the wild bour, are the only ferocious animals which thrive in these northern elhmates. In advancIng on tho desolate plahins of Siberin to about the G0th degree of north latitude, we find the cold still takting ettiect on the animal as on the vegetable crention, and the living ereatures, as well ns the plants and trees, stunted in their full proportions. Beyond this limit a dillerent order of animuls appeara, protected against the severity of the climate by a thlek covering of fur, wh isought after ns a rleh article of dress in more opucur comitries. These antmals are accordingly lumited for thelr skins, which constituto the great ataple artielo of trade in Nurthern Asia. In the Arecic regions the benr seems to form the only exception to the dimink hed grandenr of the animal creation. This
animsl, nourished in the regiona of Northern Aala, acquires a larger size, and far greater power and fierceness, than in eouthern climates. The domestic anlmals of the northern and mountainous countries of Asia are of a less imposing appearance, and not nearly of the same strength as those in the lower valleya of the south and west. In the high and cold plains of Central Asia the camel is no longer uaed ss a besat of burden, nor la the northern parta of the continent. Thibet and Central Asia, till beyond the Altal Mountalns, are inhabited by Mongollish and Turkish tribes, whose wealth consists in their cattle, which not only furnish them with food, clothing, and shelter, but are also used as beasts of burden, and In the labors of agriculture. The yak of Tartary, or the bushy-tniled bull of Thibet, seems to supply the place of the canel in these mountainous countries. This animal is about the size of a small bull, of great atrength, and is reckoned a valuable property among the itinerant hordes of Tartars, to whom it affords tho means of easy conveyance, of clothing, and shelter for their tents, from the prodiglous quantity of long, flowing, glossy hair on its tail, and, finally, of subsistence from its milk and flesl. In thonse monntaius is also found the musk-deer, which dell $b_{b}$ 'ts in the most intense cold, and of which the musk, a secretion by the male, aflords a revenua to the governuient, as well as a valuabla article of trasle. Ilere, also, on the highest mountains, amidst ice and snow, is the Cashmere goat, the wool of which affords the materials of the finest shawls. Wild horses are seen In tho high plains of Thibet; and the breed of sheep, a peculiar species of whlch is indigenous to the climate, is of great value. They are nourished on the short and dry herbage of these exposed plains, and eerve for anbaistence to the Inhabitants, as well as for beasts of burden. The wild nud extensive plains of Tartary are inhabited by pastoral tribes, who depend in like manner on their herds. On the southern side of the Altai "ountains we find the same tribes of wanderers, most of them the scattered remnants of the Trurtar nations who had formerly so deep a share in tha great rovolutlons of Asia. All these trihes subsist chiofly ly pasturage. Near the Ural Mountains sume live chiefly by hunting or ensnaring the elk and other wild aninals for their furs. Among those who are shepherds, sheep and horned cattlo are found; while the lunting tribes have scarecly any domestic animala. In all these countries tha wolf and the bear are known to abound. In the rigorous climate farther to the north, whera the cattle are stunted in eizo, and can scarcely subsist, their place is supplied by tho reindeer, a species peculiar to a rigorous climato, and most vnlunble for all domestlc purposes, whether for draught or for subsistence. During part of the year the inhabitants of those desolato countries aubsist upon its flesh or milk; Its skin furnishes them with the chief part of their dress, and its horns with such domestic utensils as thoy require. The dog ls also trained to draw the aledge.

Birds.-The festhered race in Asia includes almost every known species. In the southern parts are found all the tropical birils, distinguishect by beautiful plamage, aud some of them uttering sounds that have a resemblanee to the human voice. Were are also found some of the largest nud rarest birds-the ostrich, the cassowary, nud, in the IImalayn Mountalns, the gypaite, one of whieh, shot by a British officer, is stated by llishop lleber to have measured from the extremity of one wing to another the enormous length of It fect. Tho other birds aro eagles, kites, vultures, naggles in the higher countrics, hawka, crows, wild geese and ducks, Hamlugos, herohs, bustards, florikens, rock plgcons, lapwings, storks, plovers, balpes, quails, partridges, different species of fringillide, and almost all the other amall birds to be found in slmilar climates. In Northorn Asia the feathered creation ia nearly the rame as in Furope.

Early Commerce.-Asia, notwithstanding the wars by which it has been desolated, was from an early period the seat of eommerce and of wealth. The eastern conntries of Hindostan and China preceded Europe in eivilization and indastry, and, independent of that diversity of natural productions whieh is the foundation of crade, they had cuitivated many arta and manufactures which were unknown in the Western World. Asla, accordingly, abounded in many preelous commodities which cov?d not be produced by the ruder industry of Europe. Thus China had its silk and porcelain; Hindestan its musiins, cotton, precious atones, and aromatics of all sorts; coatus, bdellium, spikenard, ivory, tortoise-shell, pepper, ete. These were in general demand throughout Europe, where they could not be produced ; and they were procured in exchange chiefly for bullion, which then, as in later times, was the great article of export to India; also for woolen cloths, wine, brass, lead and tin, glass, coral, femule slaves, etc., all which commodities met with a reedy sale in the marketa of Ilindestan. The staple commodity of China was ailk; an ${ }^{t}$ the mode of producing this esteemed luxury being unknown in Europe, it was brour'it in large quantities, either by the caravans or uy the annual fleeta, to Alexandria, at that time the great commercial mart of the East, and was thence sent to aupply the demand at Rome, where it sold at one time for its weight in gold; but, owing to the ligh profit, caravans began to travel so regulariy to China, that the supply inereased with the demand, and the price was reduced. Between the sixth and the aeventh centuries, Eastern Asia was robbed of this precious monopoly by the art of two Persian monks, who contrived, in a hollow cune, to transport the eggs of the silk-worm from China to Europe, where they were hatched by means of heat, and the race quickly propagated ; and one great liak of commerce between China and Europe was in this manner broken. The trade of Asla was intarrupted by the Irruption of the bar'harians, who invaded and finaliy subverted the Roman empire; but tho mument the stom was past commerce reaumed its quiet course. Constantinople, the eastern capital of the empire, was atill the centre of luxury and trade; as were also such parts of the Roman territory as had not been swept by barbarian invasion; and with those places the caravans still traded, shaping their conrse as they best could to avoid the distractions of the interior. Farther to the east, the califs who reigned at Bagdad encouraged science, commerce, and the arts; and the extensive country throngh which the Oxus and the Jaxartes flowed was the seat of a flourishing commerce, and of many opulent citics. Beaidea Bokhara, stil) a great city, Balk, Samsreand, Cosh, and others in the valley of the Oxus and the Jaxartea, numerons splendid eitics are enumerated which are scarcely known to Europeans. To the east of the great range of mountains, which takes a direction from the main Illmalaya ridge, the country of Cashgar contained Cashgar, its capital, and Khoten, whlch were both larce, popnlous, and weaithy. Those countries served as the connecting link between India and Enrope, and the resting-piace of the caravane, which there colleeted in great foree, and prepared for their journey to China across the great ensiern desert, or for a more southeriy course, through the country of Thibet. The armies of Zinghis Khan in the thirteenth, and of 'lamerlane in the beginning of the fifteenth century, laid waste this highIr eultivated and Jourishing region. But these confinerore were not the enemies of commerce, and the surplus produce of Indis still reushed Europe, though thy a route retidered more diffienlt and dangerons from the decolation of the intervening countries. But the offect produced on the trade of Axia in the liast hy the encroachments of barbarism, and ly the disorders in
the interior, was more than counterhalanced by the growing civilization of Europe, Abott the beghuing
of the fourteenth century, the darkness which had so long covered the Western World began to dispel, and the Italian citice of Veniee, Genoa, and others, had already made advances in letters, aeience, a nd commerce. The costly articles of Asia, her rich stufis and precious aromatics, were now required to anawer the growing demands of luxury and wealth; and the produce of India, imported into Alexandria through the Red Sea, was thence brought into Italy by the nobies of Venice and Genoa, who were all engaged in trade, and waa diffused in amaller quantities all over Europe. The Italian States were enriched by this lucrative traffic, which oniy ceased with the discovery of the maritime route to India by the Cape of Good Hope. From this period the trade between Asia and Europe took a different direction. The commontities of India and China were transported to Earope Eireetly by sea; and neither Alexandria nor the other ports on the Red Sea or of Italy were any longer the depositories of the Eastern trade. The Portuguese, always distinguished by their ardor for maritime discovery, were the first adventurers in the Aslatic seas. In the course of the sixteenth century the Eaglish and Dutch appeared as their competitors; and with the growing wealth of those conntries the trade to the East rapidly inereased. The commeree of Asia may therefore be distinguished into the following branches: 1st. The inland trade of China, Ilindostan, Burmah, ete, with Turkey, the castern countries of Europe, and with the intervening countries of Persia, Balk, Bokharo, and the regions of the Oxus; also, by a different ronte, the trade with Russia and the north of Asia. 2d. The maritime trade, including the coasting trade and the trade to the Eastern Archipelago, and the great trade to Europe and America, in which, from the progress of wealth and luxury, there is a great consumption of Asiatie produce.

Caravans.-The iniand trade is carried on by curavans, or bodies of merchants, who travel together for the sake of security through those parts of the cor.ntry which are disturbed by predatory tribea. It is only from the southern countries of Asia, such as Ilindostan, Chinm, the Burmese countrien, Thibet, snd the western countrica of Persia, Affhanistan, Hokhara, and the regions of the Oxus and the Jaxartes, that Europe can derive any supply of valuable cemmodities; and all this trade, from whatever quarter it comes, must flow in its progress to Europe through the countries that lie between the Persian Gulf and the Caspian Sea; as the caravans could not, without inconvenience and danger from wandering tribes, pass to the north of this sea or the Sea of Aral; and accordingly, though an annual caravan is sent from Asirneau to Khyvah and the countries on the Oxus, the chief trade with Kuasia is lyy sen to the pert of Mangalshuck, and thence to Khyvah and Ilokhara. The Russians have also begun to trade with Persia from the Cancasian province of Georgis, of whieh Tifis, the capital, han, from a wretched coliection of wooden hnts, been rapidiy improved, under the proteeting infuence of a European government, into a respeetaite and wealthy town, the future emporium, as may be antiepated, of this growing trade. The caravans from Constanthople and Syria proeeel through Asia Minor and the northern or southern provinces of Persia, according as their uiterior route is tirough Afghanistan and the P'unjanb into Ilindostan, or to 'Thibet and China, or the more northern distriets of Balk, llokhara, and the eountry of the Oxus and the Jaxarteg. Bokhara, though reduced to desointion by Zinghis Khan, is still one of the largest towns of the East, ite population being eatimated by Burnes at 160,000 . It is niso a great commercial mart; and the caravans which come trom the W'est, passing along the southern shore of the Cuspian Sea, throngh the l'ersian provinee of Astraliad, a noest luxuriant and fertile country, arrive successively at Balfroesh, Ashruff, Astrahad, Mushed, Serrukis, Merve, formerly the enjital of the Seljook soverefgns, but now
surrounded by deserte, and at Bokhara. From this great centre of commerce they proceed northeastward about 400 or 500 miles to Khojend and Kokaun, the former a large city, said to contain 30,000 houses ; and crossing the Bolor range of the Himalaya Mountsins, they arrive in tho Mohammedan States of Kashgar and Yarkund, 600 miles east of Kekaun, passing some towns on the way, of which Ueh is the most important, heing a trading and populoua tewn. Those two latter Statea lie within the precincts of the Chinese authority, where the most exact order ia enforced; and they are fertiia, rich, and well cultivated. Tho town of Cashgar is said to contain 20,000 houses, and to be thronged with strangers from all parts of Asia. Yarkuad is also wealthy and populous. So strict a polico is malnteined by the Chinese authority, that, according to the information given to Fraser, a single traveler may traveree the whele torritory as anfely as a large caravan. From Kashgar there ia a censtant intercourse through Chinese Tartary, along the edge of the great central desert, with China, though we know little of the intervoning conntries beyond what we learn from the accounts of the carly missionaries. Besides this eastern trade, and the trade westward along the southern shore of the Caspian, two caravsns, consisting of 4000 or 5000 camels each, proceed to Astracan by Khyvah, reund the nerthern shore of the Caspian Sea. The importa from Russia into Bokhara are, iron, steel, copper, brass, quicksilver, vermilion, coral, hardware, plated goods, gold and silver embroidery, copper wire; furs, the broadcloths and cotton manufactured goods of Britaln, Germany, and France; refined sugar, cochineal, paper, and a variety of rich goods, which, from thia great commercial dépôt, are diffued far snd wide over Central Asia. Russis receives in exchange black lamb skins, certain manufactures of cotton and siilk imported from Persia, antique gems and coina, lapis lazuli, rubiea, and turquoises, which are received from the seuthern country of Buducksha, where there are famoua mincs of these precious stones. From Cashgar, Yarkund, and the side of Chins, Bokhara receives large quantities of tes, the great modern staple of the China trsde, porcelain and China ware, and the various manufacturea of China; and in return sends turquoises, coral, aheep, lamb, and fox skins, and furs, etc. From Persia shawla are imported, and woolea goeds from Kerman ; silk stuffs from the cities of Yezd and Ispahan; gold and silver embroidery, copper ware, losf, candy, aud raw sugar; Hamadan leather; and turquoises, of which there are mines in Persia; and, in return, black sheep and lambl skins are sent, which are in great requost, to be manufactured into black capa; camblet made of camel'a hair, cosrse colored silk handkerchiefs, lapia lazull, indigo from India, cochineal, tebacco, chintzea from Masulipatam, and cotton manufactures. Slaves form a siapie article in the commerce of Bokhara, and also of Khyvah. These are made prisoners by the disorderly tribes of Asia, the Koords, Turkomsus, etc., in the course of the wars in which they are constantly engaged; and they nre carried to the great slave markets of Bokhara and Khyvah, where they are expesod for sale tiko cattle. The balance of trate is always in favor of liokhara. Money is consequently in great plenty, and can not be importad with a prefit into tisis trading city. The Russian caravans, ss they jouraey round the nort hern share of the Caaplan Sea, aro frequently attacked by the Kirgecsh and Cosaack tribes, and prisoners are carried off and aold into slavery. Frager wea assureci tisat the numbor of Bersian slaves in Khyvah and its dependencies excoeded the maio population of these countries, and amounteci to 150,000 ; and that, according to inquiries set on foot by the Empresa Catierine, there were in Ilokliara no losa than 60,000 Rissian slaves.

The commorec of the wsol with the southern countries of Asia-namely, Kanbul of Afghauistan, Cashmere, and India-pusses through l'ersia by n dilleremt
and more sontherly route, namely, by Cashan, Yezd, which is the aeat of rich silk manufactures, a great entrepôt of commerce, and a convenient resting-place for all the caravans, both from the East and other quarters; through Furrsh and Herat, on the frontiers of Persia, famed for its rich manufactures of silk stuffs, a great channel of communlcation between the East and the West, and also an entrepot of all the richeat productions from Kabul, Cashmere, and India on the one aide, and from Bokhara, Peraia, Arabia, Turkey, and even Europe, on the etther. From Herat the route continues through Furrah and across the River Helmund and the ranges of the Faropamisan Mountaina, to Candahar, a journey of about 800 miles; thenco to Kabul, Peshai -r , and the countries on the Indus, and across extensive sandy deserts to the rich valley of the Ganges, whence by this river there ia an easy acceas to Bengal and to Central Indis. There are various other routea by which the commerce of Asia, concentrated within the comparatively narrow beundaries of the Caspian Sea snd the Pereian Gulf, diverges in its progress eastward to the north, as well aa to the south. From Bokhars there is a meuntainous reute into Little Thibet, and thence through Thibet into China; beeides other more sequestered and difficult roads, through glens and mountains, whicre the only mode of transport is on the backa of asses and mulen.
Persia.-Porsia, from its central situation between the Fust and the West, is not only a great entrupit of trade, but, though on the whole rather a pour country it still contributes some valuablo productions to the commorce of the East. It has long been famed for its abundant produce of raw silk, of cotton, and of woolthat of the provioce of Kerman especially being so valuable for shawls that it rivala in aome respecta that of Cashmere ; of fruits, turquoises, tobscco, grain, etc. Almost ali the principal tuwns of Persia, such ss Kashan, Ispahan, Yezd, Tsbreez, Kerman, Herat, etc., excel in the manufacture of silks, cottons, woolens, fine carpetz, etc.; Kerman alao in the manufacture of aliawls; and others in that of cutlery, arme, etc. These are its chief exports to other countrics, in exchange for their manufactures or produce. To India Persia aends raw silk, carpeta, Kerinan shawls, dried fruits, tebecco, horscs-in which there is considerable traffic, awords, etc., and specic to mske up the deficient balance. The imports from India are cotton goods, as chintzea, sent from Masulipatam by sea to Bushire, whence they reach tine interior of Persia, and ano thence carried eastward into Kabul and the countrica on the Iodua; the samo srticle from Moultan, Lucknow, Deihi, etc. ; some muslins, indige, spices, sugar, and sugav-candy, in large quantitica; gold and silver stuffe and brecades from Benares; precious stones, Csalmuere shawls, iron, lead, copper, etc. Many of :iese articles, namely, Cashmere ahswls, spices, indigo, musilins, etc., aro carricd through Asia Minor by s long land cerriage to their final destination in Europesin Turkey, and are found, with the lamb skins of the no less distant Bukbara, in the bazara of Bagdad and Constantinople. To those countries Persis exports also every article of her own rude and manufactured produce ; coarse fabrics, beth of silk and cotton, for the consumption of Asia Minor; and many heavy articles, such us grain, rice, tobscco, salt, coffee, cotton, etc.; besides fine siiks, brocades, and printe, which are exchanged in Turkey for European goods breught through tho countries of the Levant, namely, broad and narrow cloths, cassimeres, cotton goods, chintzes, muslins, vells, silks, satins, Frencil brocades and embroilered goeds, imitation shawls, cutlery of ali sorte, giass, etc., und a considerablo quantity of gold and silver bullion. Persia inports cutteo and pearls from Arabia, in exciange for wheat, dried fruita, and cloaks. The mountainous country of Afylimistan, on the southern deelivity of the llimalsyn ridge, and the country en the heal streams of tho Indus, axpert to Intlia
horsea and ponies bred in Tartary, fur, shawls, Moul tan chintz, madder, asafoctida, tobaceo, and dried and other fruits, sucl. as almonds and jpistachio nuts. The imports from India are, xarse cotton cloths, worn by the common jeople of this countiy, and atso in Tartary; wuslins and other fine manufactures, silken cloth and brocede, Indigo in great quantities, ivory, chalk, bamboos, wax, tin, santal-wood, almost all the sugar which is used in the country, and spices from the Malabar coast, through Kurrachee and other parts of Sinde, and t'ence to Kabal and Condahar. 'The Ipl':an cloths, shawla, chintzes, and also the indigo, are exported to Bokhara, from which are Imported the soadcloths, cutlery, and hardware of Earopo, received from the lussians, and tinally consumed in Kabul and the conotries of the Indus, loaded with ice expenpay if a and jeurney acrass nenrly lalf thi

China,-In the esst, $\uparrow$ haga mas $t$.
ireen tho seat of wealtu and of at
Tha Chinese have been always nritou les. thion triuas habits, and the country hass arm rial abounded in the most valuable produ: ent man factures. These were sent westward in the caraval. to Asia Minor and into Europe, or they wera trans ported lyy sea to ludia, and carried thence by thie Eniropean decta to the Red Sea. The same commerce is still coutinued, and China exports its produce of woolens, silk, and patin; tea in small boxes of thin lead; china; poreelain, raw silk, cechineal, erystal, gold dust, golden Infots, and silver with the Chinese stamp. These are sent through Chinese Tartary into the countries on 1 : Oxus, and also to Cashumere, Kabul, and the comntries situafed on the sonthern dedlvity of the Llimalaya Mountains. Liegular carayaus of horses and ponies-no other animal being tit to travel through those mountainous districts-set ont from Cashmere, and from Jeshawzer, the cmpitul of the Afhhan country of Kabul, aid a consiterable commereial resort, to make their way through Chinese 'lartary with goods imported from India and P'ersia. Chisa carries on alco an interior trade to a considerable extent with Russin, by the frontier town of Maimatchin, in which Furopean goods and furs are received in excliange for tea, sitk, aud other artictes of Cininese produce and manufacture.

Foreign Commeree. - Ir addition to her internal tracke, Asia malntains an extensive intercourso by son uith Furope, Ameriva, Egypt and the Mediterrraneas. A great trade is also carried on from llindostan and China to the Asiatic Archipelago, and the trade of the Asiatic islaucts with each other is of great importance. It uppears that thuse islands were at a very carly periud the seat of conmere; and the learned researches of Eu; opeans have lire Jit to light, in some of them, the monuments of ancient civilization. Siumstra was the reat of the Malay empire, Java of a ilindoo State; and the Celebes were inhabited by the llugis, a race of $3 x$ pert navigators and merchants. The productions of these islands, and of the Moluceas and Hornco, namely, splees, aromatics, and gold, entered into the commerce of tho ancient workl, and were imported into fome throngh Eygyt. In later times, nhont the sinth century, the Asiatic Archipelago was visited hy the Arahs and the Chinese, while the adventurous Malays frequented the consts of Asia, and eren of Africa, aind particularly the Afrionn inland of Madagascar. When these inlands were visited by Furopeank, ahout the fifteenth century, Malacea, Acheen, and Hantam were the great marts of the Liastern Archipelago, whero the rich produce of Sumatra, Borneo, and the Molucens, conveyed in the suall trading craft of the country, was exchanged for that of India and China. The Portuguese fixed on Goa, on the Malabar ruast, as thie capital of their Winstern settlements; and they ufterward selected Nalacea us a central station for proterio forg and extending their intereourse with the nejghbor. ing nations. The Duteh choso llantam, und afterward

Batavia, situated midway between Ilindoatan and China, as the centre of their commercial settlements. The situation was most adventageous, and the port was soon frequented by viasela from China and Japan, Tunkin, Malecea, Cochin China, and the island of Celebes. But the great and flourishing trade of Java was crushed under the colonial monopely of the Dutch, and under what Sir Stamford Raffles terms "the shortsighted syranny of a mercant'le administration." The conquest of Java lyy the British in 1812 put 'n ent to ihis thraldom, and the great trede of the Asiatic Archipelago began to centre in Batavla, which was fast rising into a great commercial emporium ; all the articles which were the exclusive produce of the Eastern islands being collected at its principal ports for re-exortation to India, China, and Furope. Zince Jave as restored $t$, the Dutch. the free poit, ut Singapore, tablished $u_{0}$ the Britisi, Is the centre of a great tr de, and is frequented by the Chinese in their junks, and by all the other navigators of those seas with the produce of their respective islands. The Chinese lake tek with them the nests of a certain species of bird,
ith are esteemed a great lnxury at their tables, and sel., it is said, for their weight in silver; biche-de-mer or sripang, a dried sea-slug, also used in Chinese dishes; Malayan camphor, tho exclusivo produce of Sumatra and llorneo; the tin of Banea, the spices of the Moluceas, opium, indigo imported from Ilindostan; gold and silver, the first collected in Sumatra, Borneo, and some of the other islands. The maritime country trade of the Asiatie islands is carried on chiefly by the Chinese in their junks and brigs, by the Arabs in square-rigged vessels, and by the llugis, the inhabitanta of Celelies, who are all bold and expert narigators.

Products. - The annual feent of Chinese junks arrives with the favorable monsoon among these islauls, from Canton, Anoy, and other provinces, with cargoes of feas, raw silh, silk, plece goods, and innumerable minor articles, for the use of the Chinese, who are setiled in great numbers here, and are distinguished by their shrewd, intelligent, and industrious habits. The Chinese extend their royages to Sunatra, the Straits of Malaces, and eastward as far as tho Muluccas and Fimor collecting edible bird-nests, biche-demer, and ether artieles of which Java is the great entrepót. Java is also a great dépôt of European goods; and the people being rather industrious cultivaters of their fertile ishand than mariners or traders, it expurts rice, a variety of vetches, salt, oil, tobacco, timber, lrasewire, and ita own cloths, and a considerable quantley of European, Indian, and ¿hinese goods, i-: exchange for gold dust, diamonds, camphor, benjamin, and other cirugs; edible bird-nests, biehe-de-mer, raitans, heeswax, tortoise-shell, and dyeing woode from Norneo and Sumatra. The rice and other productlons of Java are exchanged for splees and pungent olls of the Moluecas, and for the tin of Jlanca. The natives of Celebee are famed for the manufneture of a particular species ef tino cloths, of a very strong texture, which are in greet requent, and, along with spices, wax, and sandal-wood, are exchanged for the produce of Sumatra, Hormeo, and Java, whence they are exported to China. The llugis have a lurge share of tho carrying trade of the Asiatic Arebipelago; and they bring the proatace of the Moluccas, and of Horneo and Sumatra, to dava whe the other islands, and recelve in exchange tolaceu, rice, and salt, from Java, besldes ophun, iroin, eteel, luropean chintzes, and broadeloths and Inlian piece gookls, with which they return castwird durling the suitliwest monsoon.*
Tho eastern comntrics of Asin, viz., India and Chira, as we have alreudy stated, have from time inmenorial been famod for certain manufacturea, such as silks, cambrics, muslina, etc., as well as for other products

- Hartless' Listory of Jata; Mabsbrm's Sumatra.
peculiar to the climate; viz ., epices, precious aromatics, medicinal herbs, etc. These were always in great demand in Europe, while the produce of Europe was not wanted in Asia. From the rude state of industry , 'nong the Western nations, they had r thing to uffer on "xchange for the fluer manatisctures of Ini.a, and
- I less conid the soil of i'urope yield at a cquivalent the more genial produce of Eastern clinca. Hence gre at article of export i those times from Europe -. Asia was always bultion, the ins:rument of exchange $t$ lover the world. Bullion could ouly be procurcd by on exporin lon of Earopenn produce or manafactares such low prices as to insure a sale; and the lo ton wuch transactions mast have been made up to the merchant by the high price of Asintic goods. The ancient monopoly of silk serl. ed to - sta n favorable balance of trade with Lurope, ballioa being the only article with which it could be purchaseil. Notwithstanding the introduction o? the silk manufacture into Europe about the cisth or seventh century, the conmercial pre-eminence of Asia still continucif, and bulion was the chief article of export to the East. Throughoat the interior of Asia this superiority remains to the present day; and a continual stream of bulition fiows from the Bosphorus eastwar 1, through Asia Minor and l'ersia, Into Hindostan, and is finolly dispersed in the grest ocesn of the Chinese currency, Bullion is niso the principal article sent from Arabia to Irdia in exchange for Indian goods.

But a great revolution has taken place in the trade between Asia and Earope, and eapecially with Great Britain. Europe is now in a condition to offer an equivaient in manufactures for the produce of Asia; goods of various kinds are sent in exchange for those of India; and from Great Britain remittsnces in bullion have nearly ceased. So prodigionsly has the price of goods been lowered ly the use of machinery, that the cotton wool of India is now imported into Britain, and, after being manafuctured, is re-exported to the place of its growth, and soild at a lower price than the same goods from the loom of the India workman, though it is londed with the expense of a doubie voyage across half the glote. The goods of the European manufacturers are poured into Asin through all its sea-ports, and reaching the interior on the backs of mules snd asses, often after a journey of severnl thousand miles over deserts and mountains covered with perpetual snow, they are sold cheaper than the same articles by the native workmen. The woolen manufactures of Yorkshire, the cotton goods of Manchester and Glasgow, French cloths, and German linens, are dispersed all over India, and even partially In China; they are found in the bazars of Bokharn, Samarcand, and Cashgar, and are carried castward by the caravans inte the wilds of Tartary. The natural productions of Asia, namely, spices, rich aromatics, dyes, and other rare luxuries of tropical ellmates, will always be in demand in Europe; and the monopoly of tea by the Chinese gives them the command of the European markets. Tea has now almost become one of the necessaries of lifc, andi it travels for a market across half the globe. It ls the great commercial Ink between Europe and China, from which, like ..ro precious protuce of silk in ancient times, it can only be procured. But the improved ladustry of Europe supplice, as is niready observed, an equivalent in weolen and cotton goods for this highly-prized luxary. Since the expitration of the Last India Company's charter, in 1834, the trade has been thrown open to all classes of British suljecta, and their merchants can now freely trate to all jlaces accessihle to Europeans to the east of the Straits of Malacca. Durlag the short time that has elnpsed aince then, the increase of the exports and imports has fuliy realizet the expectatlons heid out by those who opposed the company's mowopoly.-EL. II. Acs Ilsidostin.

Asphaltum, Bitumen Judaicum, or Jews-
pitch, ia a light, solid bitumsn, of a dusky color on the outside, and a deup shin!ug black within; of very littie taste, and having scarcely any smell unless heated, when it emita a strong pitchy odor. It is found in a soft or liquld state on the surface of the Dead Sca, and ly age growa dry and hari. The anme kind of bitumen la inet with likewise in the earth in other piaces of the world-in Chlna, America, and in some pisces of Europe; as the Carpathian Hills, Franen, No chatel, etc.-E. B.

Aspinwall (formeriy Colon), a town, province of Panama, dépôt Ismo, New Granada, Central America. Situated on Navy Bay, lat. $9^{\circ} 21^{\prime}$ N., lon. $79^{\circ} 59^{\prime}$ W., 50 miles ly railraad from Panama. It is built on Manzanilla Island, which is connected with the shore by the Pananin rnilroni. Population, 3000. The buildings, 200 in number, are mostly of wood, and all recently erected. The railroad company have handsome and extensive dépôts, warchouses, machine-shops, etc., and anpie wharis and picrs, 1 , grite which atenmers and vessels lay, and the barbu; nas safe anchorage. The strects are grailed, and many of then lined with shops and hotels, afording every consenience for travelers. The vieinity of the $\mathrm{pl}^{\text {man }}$ is rathcr low and swampy, making it somewiw .o. thy for strangers. The forcign conauls, who .. me . "r sided at Chagres, distant niae miles, nri, and The American and British Mnil Ste-
toucli here. There is a hospital br, + house, built at the expenae of the ous sany. A newspaper is publighed tri-wee': is in on ment act, it is necessary to date all whe. $\cdots$ or-iness made here Colon, otherwise they s.a re ne zyai louce in the local courts.

Asbay, Essay, or Eay, in ... .ort he proof or trial of the goodnces, parity, vi. , its, of metals and metalline sobstances. In an ies it statutes this is culled touch, aud those who had the care of it ieepers of the touch.-E. $\mathbf{B}$.
Assaying, taken in its general acceptation, is a chemical process by which any ore, or other metallic compounil, is analyzed, and its constituent parts determined. But the term more particularly denotes the peculiar art by which gold and filver ore examined, and their qualities aseertained, in relation to their state of purity. By the former the whole contents of the substance under exsmination are separated and collected; by the latter it Is only uccessary in practice to find, by the destruction or separation of the alioys, the amount of pure metal contained in the gpecimen operated on, so that a value may bo given, by computation, to the whole mass. To this apecific liranch we purpose to confine ourselves in the fellowing obscrvations.
The art of assaying the precious matala must be esteemed of considcrable importance in many poirts of view, but more especinliy to commerclal natlons tradIng extensively in these commodities. For although the ultimate destination of these metals be their conversion iuto coin, plate, or other articles of use and ornament, still there are vast treasures of bullion consigned to the stores of different countries merely as commodities, as convenient representatives of vaiue. or in security for nominal wealh, the marketable value of whilch is determined solely by the skili and accuracy of the assayer. Every one having experience of such matters knows that, unlike other things of a mercantile uature, bullion can not be valued by its bulk, weight, or any simple external characteristie, but by ascertalning in some way the amount of fine metal contalned in n given quantity. Aud implicit condidence being placed in the honesty, accuraey, and fldelity of the assayer, who, by examinling a small portion enly, gives a certificate of its quallty upon which the whole is estimated, meschants are ennbled to buy and sell bullion without risk of loss, and with the most perfect assuranco of the value being maintalned. Iy uneans
of the art of assaying, as applicable te small aa to large thinge, we also possess a certain safeguard against frand in the manufacture of plata and other articles of personal or domestle use, which must be regarded as of some importance in a country rich and affluent like Great Britain, where gold and silver have become so common ameng the middle classes as acarcely to be esteamen luxuries. We could oaly wish that the lawa which prevail in refereace to plate were more geaerally extended in their application to the manufacture of jewelry, and other personal ornamenta; for $1 n$ these things the public have no gaaraatee against fraud and knavery beyond the character or assurance of the dealer.
If the art of assaying be deemed valnable and important as regards bullion and plate, securing a certain and rellable. test of value, as well as a sufficient check apon fraudulent designs, we can not sureiy question ita aven graater importance in reference to the metalic curreney of a country, tha standard accuracy of which affects materialiy the lntereats of all, and so far teads iv prumote the welfare of mankind. What. aver this standard be, it ls obvious the value of all property la exchange must be regulated and determthed by it, whether in land, houses, comnodities, or the wages of labor; and if wa had $n o$ reliance on the integrity of our coin as a measure of value, we could enjoy no security in our property. In all countries, therefore, claiming a character for honesty, the 'ategrity of the standard should be a fundamental priaciple. Any the slightest deriution from it will lastantly be discovered, feilowed by a losa of credit, and viclent finctuations in the exchange, which of all things are most injurious to trading communities. For the exchange between one country and another is net determined by coin merely as a circulating medium, but, in reality, by the exact amount of fine metal contained in the eoin; sand, therefore, it is necessary to know that the proportion is maintained called the standard, which, in our gold currency, consists of eleren-t welfths of pure metal and one-t welth of alloy. This fact can only be ascertained by the process of assay. But when rations acquire a character for benesty and integrity, the enurency will freely circulate all over the world without auspicion, at ita repotel value, and the currency of one be catily coaverted finto the currency of another. But we should fail to secure this great advantage, this implicit confidence, without the assayer's skill and check, by whieh the dice proportions of metal are guaranteed, and any depreclation detected.
We need now ne longer apprehend any of those capricions and dishonorable changes in the currency, not unknown to our bistory before the reign of Dilizabeth, which enriched the monarch at the expense of his mbjects, created sulden and violent changes in the value of property, and ofteli spreaf dismay and poverty ameng all classes, without any clear knowledge of the cause. That patriotic and sagacious queen, of whem Eagland is justly prouil, among other great and durahe nierits, is honerally distinguished by the restoration of our carreacy to purity, and by fixing our present standari of value, from which, happily, no deviation can the notified in succeeding ages. In this respect science and knowledge, if not always the liandmaids of integrity, are the best guarantees against fraud and evil designs; and we can scarcely believe it possilule, in these times, to sutfer from a dishonorable depreclation of the currency, white any vague apprehension of error is instuntly dissipated by the numerous checks, public and private, on the purity of onr coin.
Trial of the Pyx--Among these we may bricfiy lnstance the ancient ceremony called the Tiral of the Pyx, which, in the most public manner, secures an impartial examination of the coinage, and a verdiet, as public, of lta legal or atandard purity. In no other country have we been able to discover an instilution onalogous to this, which, after all intermediate tests
have been tried in tha process of manufacture, affords an ultimate and jodicleus appeal for the public satiofaction. And it may be added, to the credit of the officere of the Mint, that, whatever may happen in future times, amildst the sudden and hasty revolutions in public affairs, during the past, we are unable to adduce any instance of this ordeal being passed without hener and integrity; and instead of the allowance or romedy by law for errors, unavoidable in manufacture, being taken advantage of, as a protection to carelessness, we may proneunce that the coinage has always been proved to be as uigh to tha legal standard as is possible, the deviation being on the average acarcely worth notification.

The Trial of the Pyx, in England, takes place once in about avery three years, but no specitied period is fixed hy law. It ia so denominated from the pyx, or clest, in which the spectmen coins are deposited in the Mint for future exanination; these coins being supposed a fair representation of the whele noney coined within a certain period. Out of each bag of coin, whether gold or silver, two pieces are taken; one for tha trial by assay within the Mint, the other for the general pyx; and these are carefully sealed up in paper by three officers, and deposited in the chest. It should be remarked, that previously to the issne of coln to the public, a minor pyx takea place within the Mint, intended for the examination of the coined money by appointed officers, as regards both weight and fineness, and ne coin is pernitted to be delivered lefore it has passed this necessary ordeul.

It having been notified to the govemment that a trial of the pyx is called for, the Lord Chancellor is?nes his warrant to aummon a jury of goldsmiths, who, on the appointed day, proceed to the e cehequer office, Whiteliall, and there, in presence of several privy-counaelers and tha officers of the Mint, receive the solemn charge of the Lord Chancellor, whe directs them in their importane functions, and requesta them to delliver to him a verdict of their finding. A piece of gold and silver, cut from the triut-plated deposited in the Exchequer, supposed to be of the exact legal standard, are delivered to the foreman of the jury, who is required to declare to what degree the coin under examination deviates from them. This leing dene, the jury proceed to Goldsmith's Hall, London, where assaying apparatus, and all other necessary appliances, are in daily use for the trial of geld and sliver plate ; and sealed packets of the sprecimen ecins being delivered to them by the effirers of the Mint, they are first tried by welght, and then a ccrtain number are taken from the whole and melted lito a bar, from which the assay trials are subscquently thkea.

The verdict of the jury, founded on the results of these proceedings, proving favorabic, the Master of the Mint and suborlinate officers are releasci from ali further respousibility, while the conntry recelves, by the publicity of the verdict, an attestation of the standard purity of the coinage.

In tinies of comparative ignorance, the art of assaying was rsteemed a mystery, andi, like some othier crufts, the practice of it was retained in few hands. There were supposed secrets in the conduct of the procegses, which nene but the initiated were pr rmitted to know ; but now it is admitted that those secrets are nothing but the knowledge açuired by long experience, amounting in reality to certain allowances or adjustments in the results of tha operallons. The uncertain tests and appilances enployed in ancient tines, which afforded only a wide approximation to truth, and exposed the public to extortlon and frand, have in more acientific timea been supherseded by chemical processes as accurete as they are delicate and beautifnl. The exquisite and varied laws of nature, in connection with metals and their transformations, are made instrumental to the use and knewledige of mankind; and science, so called, enables man to nicely balance and
estimate the vast treasures found in the bowels of the earth, and constitute them measures of value more unchanging than any other product of nature. As science has progressed, so hss the art of assaying improvetl while In modern tines new fields have leen opened up for its use and application. Along with increased aceuracy, it has become more varied and extensive ln lts practice. The smount of the precious metals have not only increased immeasurably, thereby magnifying the importance of the art, but in recent times changes in the mode of refining or aeparating these metals have created a new branch of buslness little practiced in former ages. The application of sulphuric acid to separste gold from silver, and silver from gold, by whlch the operation is effected with great economy, and nearly all the contents recovered at comparatively llttle cost, has led to an extensive busineas in parting assays, which did not formerly exiat. In this manner the holder of Lnllion, of a mixed character, has a higher value put upen his metal by reason of the gold or giliver contained in it; and in the market he is able to realize the whole value by assay, less the deductlon made to cover the charge of refining. The parting assay is different from the slmple assay int this, that it declares upon the certlicate of a gold assay the amount of silver combined with it, and of a silver asssy the number of gralns of fine gold contalned in each pound.

The bullion to be valued having been melted into ingets or bars, om" 11 pieces are cut from esch and folded separately in slips of paper with a corresponding mark or number of the bar, so as to preserve the identilication of the assay reports with the bars. On these slips of paper the assayer writes his report, which declares the quality of the gold and silver, and this is the certificate upon which the bullion is bought and sold in the market. The Bank of England, however, and the Mint, in order to guard against any aurreptitioua change or fraud, require the assays upon which they receive bullion to be cut off in preseace of appointed oflicers. The assayer reports gold by carats, and silver by pennyweights. In the one case the Troy pound is divided Into 24 parta or carats, snd Britlah standard being $11-12$ ths fine gold and 1-12th alloy, the carat will thus represent 10 dwts. Troy, the standard being therefore 22 carata fine and 2 earats alloy. In the other the Troy peund is divided into 240 dwts., and the standard of sllver being 222 dwts. fine and 18 dwta. of alloy, the pennywelght will represent the 1-240th of the pound.

Carats are subdivided Into four carat grains, $=60$ Troy grains oach, and these aro again further subdivided into eighths of a carat grain, $=7 \frac{1}{\frac{1}{2}}$ gralns Trey. The lewest trade report of gold is one-eighth of a carat graln, and of silver half a pennyweight. In reporting gold, the practice in general use is to take 2 carats as the representative of fine gold for bullion better than standsrd, and 24 carats for bullion worss than stand. ard. Thus a bar reported better 137 , or one carat, three carat grains, sud three-quarters of a grain, is within one-quarter of a carat grain of purity; or 15 gralns Troy. But if a bar were found to contain only one-half of fine gold, the repert wonld not be one earat worse, but viorse 12 earsta, or $12-24$ ths. We may observe, however, that this complex mode of enumeration, $s 0$ great a inystery to the uninitlated, will probably in a few years be entirely superseded by the decimal system of notation in general use on the continent. Already it is partlally adopted by assayers in England, who are now required to append the deelmal report to the ordine $y$ one on the certlficate. Instead of carats and penny welghts, the numeral 1000 will represent tine gold and silver, and any deviation in purity from this will he expressed by a decimal instesd of a vulgar fraction.

It has been alresdy remarked that the lowest denomination of the trade roport is $\frac{1}{8}$ th of a carat grain, or $7 \frac{1}{2}$ grains Troy, as respects gold, and half a peunyweight,
or 12 grsins, as respects silver; but practlcally an assayer ean arrive at a much nearer approximation to the truth. As in the Royal Mint in making the combinstion for standard coln, he can report to a single grain, or 1-5760th, in epch ease; but in buying and selling bullion some prcisction to the purchaser is deemed necessary an an indemnity against errurs and, irregular mixture of the alloy, and hence arises the above latitude in the assay report. It is probable, however, that the general use of decimsl notation will eventually canse a more accurate report, and deprive the bullion dealer of a share of that ad"antage which obviously is greater than is necessary.

An ordinary sssay report of gold and silver expresses the variation from the standsrd, and not the fine metal contalned In lt; and it is, therefore, marked as either better or worse than standard. The standard of gold being 22 carats find and 2 alloy, or 11-12ths fine, an ingot of gold found to contain only 21 carata pure gold wonld be reported worse 1 rarst ; if it contained 231 carats, it would then be reported better 1 carat, 8 grains, and half a grain. The standard of silver being 11 oz .2 dwts . fine, and 18 dwts . alloy, an inget of silver found to contaln only 11 oz . of fine would be reperted worse 2 dwts., but if it contained $11 \mathrm{oz} .4 \frac{1}{2}$, the report would then be better $2 \frac{1}{2}$ dwts.

In buying or selling, the betterness or worseness of the bar is added or deducted from the gross weight; and the value is computed on this, the standsed weight, at the market price of the day.
When the assay required is a parting assay, or an assay of golc: eontainlag ailver, a report is glven of the weight of fine silver in the pound; and when the silver exceeds 15 dwts. per pound, all above that is usually added to the value of the gold, that heing an allowance made by general agreement for the cost of separation or refining. So likewise with an assay of silver holding good. The report declares the number of graina of fine gold in the pound, and all above 3 or 4 grains ls added to the computed value of the silver.
In theso delicate operatlons we need acarcely impress upon the reader how important an instrument an aecurate balance must be in securing a certain and uniform result. The specimen taken by an assayer is no more than 12 or 15 grains of tho mass, and if 12 grains, eaeh graln would represent an ounce, or 1-430th. In the Koyal Mint, the tine b llances in use are sensible to the $1-1000$ th of a grain.
The priuciplo of assaying gold and silver la very simple theoretleally, but in practice great experience is necessary to insure accuracy ; and there is no branch of business which demants more personal and undlvided attention. The reanlt is liable to the influence of so many contingencies, that ne assayer who regarda his reputation will delegate the principal processes to one not equally skilled with hlmself. Besides the result ascertainable by weight, there are allowances and compensstions to be made whlch are known only to an experienced assayer, and if these were disregarded, as might be the case wlth the mere novice, the report would be wide from the truth.-E. B.
Assessor, a person appointed to assess property, and partieularly to determine the valne of property for taxation.

Assets, in Commerce, a termed used to designato the stock in trade, and the entire property of all sorts, belonging to a merchant or to a trading asseclation. It is also applied to goods or property plsceti, for the discharge of aome particular trust or obligation, in tho hands of executors, assignees, etc.

Assiento, a Spanish word slgnifying a contract. In commercial history, it means the contract or agreement by which the Spanish gevernment ceded first to a company of French, and afterward (by the treaty of Utrecht) to a company of English merchanis, the right to import, under ecrtsin condltlous, a specified number of slaves into the Spanlsh colonics. For Gull
particulars with respect to this contract, sue Mr. Bandinel's valuable work on the Slave-trade.

Asaignat, the name given to a pecuiliar apeciea of paper money issued during the first French Revolution. The Influence of the aystem, operating along with the other attempts to regulate trade, form a prominent feature in the calamitous nistory of the epoch. The share borne in it by :he assignats ls at the same time a memorable instance, for the use of the economist and financier, of the hopelessness of projects for creating or preserving national wealth by an isaue of paper money, not the representative of avallable wealth and real business transactions. The first issue of asaignats was mado in the secarity of the forfeited ecelesiastleal property, and was adopted as a preferable alternative to throwing the forfelted lands on the market, which It was no doubt judlciously belleved that so large an amount of property would glut. The holder of the assignats might use them as money, or claim the land which they represented. As more forfeltarea oceurred, the issue of assignats was increased. Dut it soon ceased to be measured by property, and was enlarged according to the exigencles of the revolutionary government. The paper money fell to lialf, then to a sisth part of the value of the same denomination ln silver, and alnking rapidiy through succesaive grades of alecrease, silver held at last the value of 150 times its denomlnation in peper. In August of 1778, 8776 inillions of francs were thus put in circuiation: and virtually the assignats became worthless. The establishment of the maximum, and the other tyrannical Interferences with trade by which revolutionary govermments endeavor to support ercdit, have their proper place, slong with the account of the condition of the country during the depreciation of the assignats, under the head of Fisance,-E. B.

Assignee, a person appolnted by competent anthority to do, act, or transact some business, or exercise some particuiar privilege or power, for or on account of some specified individual or individuals. Assignees may be created by deed, or by law: hy deed, where the lessec of a farm essigns the same to another; by law, where the law makes an assignee, without any appointment of the person entitled, as an exccutor is asaignce in law to the testator, and an adminiatrator to an intestate. The term is most commonly applied to the official assignees appoiuted to manege buakrupt estates.-See Banknurt.

Assignment, Assignation, Asaignee, are of frequent techaicai use in law. To assign is to make over, and the term ia generaliy used to express a transference by writing, in contradistinction to a transference by actual delivery. In England the usual exprossion Is assignment, in Scotland it is assignation. The person making over is called assignerer, assigner, or cedent; the recipient, assignee. This last term is of important application in the law of Lankruptcy In Englend and Ireiand, as expressing persons of two classes, the official assignees and the trade assignees, to whom the realization and distribution of the bankrupt estate is committed.-D. B. See Banknurtcy.

Assize. See Bheall.
Association (from the Latin associare, to join in fellow ship), the act of associating or constituting a society or partnership, in order to carry on some acheme or business with more advaftage. The reader is referred to the Encyelopedia Britannica, articles Socsetifs and Aomation, in reference to the influence of association upon workmen and employers, and as a political engine.

Agsumption, the capital of the province of Paraguay, in South America. It is situated on an obtuse angle formed ly the eastern bank of the River I'araguay, 18 miles above the junction of the first mouth of the Picomayo, and 48 above that of the second. It was originally a small fort, but, from the convenience of its situation, in a few yeara it became a eity, and in

1547 was erected loto a bishopric. Tha adjacent territory is rich and fertile in a high degree, and abounda in a great variety of fruits. The air la temperate and. the climate salubrious; the trees are perpetually green, and the rich pastures in the neighborhood feed numerons flocks of cattle. The city la inhabited by Spaniards, Indians, and Mestizoes, who trade in hides, tobacco, and sugar. The Paraguay affords a channel of communication with Buenos Ayres; but the passage lo long, owing to the rapid flow of the waters of that river: this, however, ia considerably obviated by the favorable winds which blow from the south for a great part of the year. Populatlon, 12,000. I.ong. $67^{\circ} 37^{\prime}$ W. ; lat. $25^{\circ} 16^{\prime}$ S.-E. $B$.

Asturance. See Insurance.
Astern, a sea phrmae, used to signify any thing at some distance behind the ship; being the opposite of Anfas, which signifies the space before her.

Astringents, a class of medicines used for binding or contracting the several parts, external or internal, of the human system, for restralaing profuse discharges, coagulating the fluide, condensing and sirengthening the solids. The prinelpal astringents are tho mineral acids, alum, lime-water, chalk, aeveral preparations of copper, zinc, iron, etc., catechu, kino, oak-bark, galis, and all vegetuble substances containing tannin.-E. B.

Astronomy. The earliest accounts we have of this science are those of Bahylon, about 2234 b.c.Blain. The stody of astronomy was much advanced in Chaldea under Nabonassur: it was known to the Chinese about 1100 n.c.; some say many centuries before. Lunar eclipses were observed at Babyion with exceeding accuracy, 720 b.c. Spherical form of the carth, and the true cause of lnnar eclipses, ianght by Thales, 640 n.c. Further discoveries iny Pythagoras, who tanght the doctrine of celestial motions, and believed in the plarality of habitable worlds, 600 n.c. Hipparchus began his observations at Ihodes, $167 \mathrm{~s} . \mathrm{c} . ;$ began his new cycle of the moon in 143 ; and made great advences in the science, 140 n.c. The precession of the equinoxes confirmed, and the places and distances of the planets discovered, by Ptolemy, A.d. 180. After the lapse of neerly seven centuries, during which time astronomy was necflected, it was reaunsed by the Arabs about 800 ; and was afterward brought into Furope by the Moors of Barbary and Spain, but not sooner than 1201, when they also lntroduced geography:
The Alphonsine tablea were compneed A. B

Clocks first ased in ast ronomy aliaut . . . . . . . . . . . . . . . . . . . . . . . 1500 True doctrise of the motiona of the planetary bodies revived by Copernicus .

1580
The selenco greatly ad\%anced by Tycho itrahe about. 1589 True lawe of the pianet :v motlona, by Kepler......... 1619 Telencopes and other ! t. truments used in astronomy
 1627
The trausit of Yenus over the Aun's diak firat ober red
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Cssslai draws his mertalan Hine, after Dante......................... 16
The aberation of the light of the fix ed stara discovered
by Ilorrebow
1659
Dlacovertes of Plcart. ........................................................ 1669
Map of the moon construeted by llevellua ............... 1650
Motion of the sun round lts own axia proved by lialiey 1676
Discoverten of Huygens. . . . . . . . . . . . . . . . . . . . . . . . . . . . 1686
Newton's Principda pulilehed, and the syatem ns now
taught íncontrovertibly eatabllwhed
168\%
Catalogue of the atars riade by Fiamstead................ 1688
Satellitea of fiatum, etc., discovered ly Carsini........ Jithi
Aberration of the atars clearly explained by Dr. Dradiey 1737
Celeatial Inequalitiea found by La Grange............. 1780
tranua and кatellites discavered hy lerschel, March is 1781
Mécanique Celeate, pabished by La lisce .............. 1790
Cerea discovered by Mazzl, January 1 ................. 1501

Juno, by llarding, Bepteniber 1 . . . . . . . . . . . . . . . . . . . . . . . 1804
Vesta, by Olbers . . . . . . . . . . . . . . . . . . . . . . . . .
1807

United stalen stronomical expedition to the south
Hemiaphere, under Lieutenaut Gillian, left haltimoro
July 18 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1849
The distance of the flxed atars is supposed to be 400,000 times greater from ithan we are from the sun, that is to say, 38 millions of militoss of miles; so that a

Basin of the North Atlantic Ocean. by Lieut. Maury U.S.N.



cannon-ball would take near nine millions of years to reach one of them, supposing there were nothing to hinder it from pursuing its course thither. As light takes about oight minutes snd a quarter to reach us from the san, it would be about slx yerers in coming from one of those stars; but the esleulstions of later astronomers prove some stars to le so distant, that their light must take centuries before it can reach us; and that every particle of Jight which enters our eyes laft the star it comes from threa or four hundred years ego.-Haydn,

Atlantio Ocean (Atlanticus Oceanus), one of the five great bydrographical divisions of the glohe, oceuples an imineuse valley, and extends from the Arctic circle on the north to the Antartic circle on the south, wra:hed wost by the coast of America to Cape Horn, and thence by a line continued on the same merldian to the Antarctic circle, and east by the shores of Europe and Africa to the Cape of Good IIope, and thence prolonged on the meridian of Cape Agullas thll it meets tho Antartic cirele. Its extrome breadth is about 5000 milles, and lits srea is computed at $25,000,000$ square miles. It is naturally divided into three portlons: 1st, the north ; 2d, the south ; and, 3d, the intertropienl Atlantic. The North Sed, or German Ocenn, the Caribbean Sea, and the Irish Sea, form pertions of the Atlantic; but the Baltic and the Mediterranean, whlch communicate with the North Sen by narrow shannels, are properly considered separate seas. The principal gulfs of the Atlantic are, in Enrope, the Bay of Biscay, or Golfe de Gascogne; in Africa, the Gulf of Guinea; In America, the Gulf of Mesico and the Gulf of St. Lawrence. The chief islands are, in Europo, the Britlsh Isles and Iceland; in Africa, the Azores, Madeira, ant Canary islands, and tho Archlpelago of the Gulf of Guinea; in America, the Antilles, Newfoundland, and the Islands of the Gulf of St. Lawrence. The Atlantic, with its branchas, Irains nenrly the whole of Europe west of the basin of the Volga; all North Amerlea east of the Rocky Momntains and the Sicrra Madro of Mexico; and the whole of South Amorica east of the Andes. Its chief affluents nre, in liurope, the Rhine, Loire, and Tages; In Africa, the Sanegal, Niger, anil Congo; and in North America, the St. Lawrened and Mississippi ; in South Amerlea, the Orindeo, Amazon, and La l'lata. Tho wed of the Atlantic is very unequal ln elevation, in some places rising In immenso sand banks to within a fow fathoms of the surface, and in others slinking to great depths. In 1853, Lieutenant Berryman, of the United States navy, ran a line of deep sea soundings from the neighborhood of Newfoundland to Ireland, to test the practicability of finding a base for n submarine telegraph between America and Europe. Average depth, 12,(000 feet. But farther south, Leutenant Jerryinan made a sounding (lat. $52^{\circ} 55^{\prime} \mathrm{N}_{\mathrm{s}}, 47^{\circ} 58^{\prime} \mathrm{W}$. long.) 89,600 feet in depth, equal to a littlo ovar $7 \frac{1}{4}$ miles. The most extensive banks nuo those of Newfoundland, the Dogger Bank in the German Ocaan, and the $A$ gulhas Bank off the south polnt of Africn. Tho minimmm depth on the Sank of Newfoundland is 60 feet. The German Ocean varies In depth from 60 to 000 feet.
"From the tep of Chimbinazo to the hottom of the Atlantle, at the deepest plaee yet reached by the plummet in the North Atlantle, the distance, in a vertheal line, is nine miles. In lts entire length, the bash of this sea is a long trongh, separating the Ohl World from the New, and extenting probably trom pole to pole. Could the waters of the Atlmale bo drawn off, so as to expose to view this great sen-gash, which separates continenta, and extends from tho Aretle to the Antartie, It would present a scene the most rugged, grand, and impesing. The very ribs of tho solid earth, wlth the foundatluns of the sea, woild be brought to light, and we should have presented to us at one vlew, In the empty cradle of the ocean, 'a thousaml fearnil wree'ss,' with that dreadful array of dead men's skulls, great anchors, heaps of jearl, and Inestimulle stones,
which, in the poet's eye, lie scattered in the bottom of the sea, msking it hideous with sights of ugly death. There is at the bottom of this sea, hetween Cape Race in Newfoundlend and Cspe Clesr in Ireland, a remarkable steppe, which is now known as the telegraphlc plateau. A company is now engsged with the project of a submarine telegraph across the Atlantic. It is proposed to carry the wires along this plateau from the eastern shores of Newfoundland to the western shores of Ireland. The great-circle distance between these two shore-lines is one thousand six hundred miles, and the oca along the ronte is probably nowhere more than two thousand feet deep."Mauny's Geography af the Sea.

Ons attempt has been made to lay a cable from Port au Basque, Nowfountland, to Cape North, the extremest point of Cape Breton Island, but owing to contlnued storm the cables had to be parted, and it was given up. Preparations are now being made for another trinl.

The trade-winds blow regularly in the intertropical portion of the Atlantle; beyond these limits the winds are variable. The priacip=1 curret.s of the AtJantle are, the equatorial current, which flows from the coast of Africa to the Caribbean Sen, with a velocity of from 30 to 70 miles a day, and the Gulf Stream, which, leaving the Gulf of Mexiro, flows through the Stralt of Florida, with a vel :. y of 80 miles a day, and a temperature of $86^{\circ}$ Fahrenheit, and extends with a gradually decreasing volocity and diminished temperature to the Azores. Immense numbers of fish are found In the Athantic, and herring and cod fishing are important branches of industry in the northern portion. A great part of the surface of the Atlaitic, between lat. $16^{\circ}$ and $45^{\circ} \mathrm{N}$., and long. $35^{\circ}$ and $75^{\circ} \mathrm{W}$., is covered with 8 . species of weed (Fucus Natans) of $n$ beautiful g, reen color, from which circumstance it is called the St ryazo Sea-the sea of duck-weed, or the grassy sea. In the higher latitudes of the North ani South Atlantic, navigation is impeded by immense icebergs, which are floated from the polar regions, and although these are generally melted before reaching the frequented parts of the ocenn, they have occasionally been met with as far south as lat. $40^{\circ} 45^{\prime}$ in the Norel Atlantle, and in the viclalty of tho Cape of Good IIope in tho South Atlantic Orean. Fr, extenslve information on the navigation and currents of the Atlantle, see Mavny's Wind and Current Charts of the Atlantic Ocean.

Ilate I., îrom Mauny's Geograpiny of the Sea, "presente a msp of the depths of che occan according to recent soundings. "It relates exclusively to the bottom of that purt of the Atmatic Ocem whleh lies north of $10^{\circ}$ south. It is stippled with four shades; the darkest (that which is nearest the shore-llne) shows where the water i: less than 6000 feet deep; the next, where it is less thin 12,000 feet; the third, where it is less than 18,000; and the fourth. and lightest, where it is not over 24,000 feet deep. The thanl: space soith of Nova Scotia and the Grand Bunks includes n tistrict within which very deep water has been reported, but from casts of the derp-sea lead which unop tisenssion do not appenr satisfatory. The decpest part of the North Atlantic is mrobably somewhere hetween the Bermudas and the Grand lanks, hut huw deep it may he yet remains for the cannon-ball aud tho sounding-line to determine."--Maviy.

The Athntle, nceorilng to Inmbolet, presents all the lutications of a valley, ns if a tlow of edtlying waters had been directed from toward the northenst, then toward the northwest, and back agnin to the northeast. The parallelism of the coast north of $10^{\circ}$ south latitute, the projecting and receding angles, the convexlty of Brazil opposito to the Gulf of Guinea, that of Afrien under the anme parallel with the Gulf of the Antilles, all favor this upparently speculative view. In this Athantic valley; as ls almost every where the case In the conilgmration of largo continental masses, coasts deeply Indented and rieh in islands are sltuated
oppeaite to those possessing a different character．The depth of this ocean is oxtremely various；and is enor－ mous，both to the north and，south of the equator． Thus，Captain Sir Edward Belcher，K．N．，in lat． $0^{\circ} 4^{\prime}$ N．long．， $10^{\circ} 6^{\prime}$ W．，sounded to the depth of 3665 fathoms $=18,390$ feet ；Captain Barnett，R．N．，In lat． $41^{\circ} 2^{\prime} \mathrm{N}$. long． $44^{\circ} 3^{\prime} \mathrm{W}$ ．，souuded to the depth of 3700 fathoms，or 22,200 feet；Captain Sir Janes Ross，R．N．， in 1840 ，to 2677 fathoms，or 16,062 feet；and afterward， in lat． $33^{\circ} 3^{\prime}$ S．，long． $9^{\circ} 1^{\prime}$ E．，to 4600 fathoms，or 27，600 feet ；and Captain H．M．Deuham，H．M．S．Her－ ald，has obtained soundlings at the vast depth of 7706 fathons $=46,236$ fect，or ubout 83 English miles．This， which is the deepest sounding ever yet taken，ocenrred on 30 th Octover， $185^{5} 2$ ，in lat． $36^{\circ} 49^{\prime}$ S．，long． $33^{\circ} G^{\prime} \mathrm{W}$ ， Two American captalns have also obtained souncilags at the depth of 3100 and 3500 fathoms．
Ine intertropical part of tho Aclantic is under the influenco of the trade－winds，which frequently extend to the 32 l degree of north or south latitute．The winds blow almost invariably in the sume direction， from east to west，occasionally varying a fow points to the nerth or south，on the north and south sides of the equator．A region of caline，varying from 3 th 10 de－ grees of latitude，necording to the season of the year， separates the two trade－winds．It is，however，daily agitated by a squall，which begins about two o＇eloek in the afternoon，and continues about an hour．This region dues not always oceupy the same part，but its central line may be placed about the 5th degree of norih latitude．In some tracts the influence of the trade－winds extends to the slores，bit in general it does not come within 200 miles of the coasts．
The current of this ocean first known to mariners， is called the equinoetial，and is within the tropics，es－ pecially flowing from the coast of Senegal to the Ca－ iiblean Sea．Its direction is constandy from east to west，with a mean rapldity ui 9 or 10 miles in 24 hoars． This current is ntributed to the impulso which is given to the surface of the sea by the trade－winds．＂＇n the chamel，＂says $1 l$ umboldt，＂which the Atlantic has dug Letween Guiana and Guinea on the nieridian of 20 or 23 degrees，and from the 8 th or 9 th to the 2 d or 3t degrees of north latitule，whero the trade－winds aro often interrupted ly winls blowing from the south or south－southwest，the equinoetial current is more incon－ stant in its direetion．The equinoctial current is felt， though feebly，even beyond the tropic of Cancer，in the 206 h and 28 th degrees of latitude．In the vast hasin of tho Atlantic，at 600 or 700 leagues from the coasts of Africa，vessels from Europe hound to the Wert Indies fint their sailing accelerated before they reach the torrid zone．＂In the Carilhean Sea，the motion of this current is much accelerated by the action of an－ other current．The Mozambique current，fiewing from north to so ith，botween Madagascar and tho eastern coest of Africa，bends to the north of tho Lagullas bank， round tho subthern point of Africa，and advanees with much vidence ulong its westorn coast beyond the equa－ tor to the island of St．Thomas．It gives a non thwest－ erly direction to $n$ portien of the waters of the South Athantic，causing them to strike Cape St．Augustin， and to follow the shores of Cuiana heyond the moath of the Orinoen，the llerea del Drago，and the coust of laria．The coast of Anerica presenting a barrier to the efuinuetial eurrent，i：s waters are driven with ve－ ＇ocity thr ：urh the strit formed by Cape Caterhe und
 sumw in ．ho be vis．ge of the ceast，foree their way back．it o open sea north of the Struita of liahamb， whers it torms a warm raphil current，bwen as the

 rees．

is 17 ；and in the parallel of Charleston，oppoaite Cape Ilenlopen，from forty to fifty leagues．＂The waters of the Mexican Gulf forcibly drawn to north－ east preserve thelr warm temperature to such a point， that in 40 and 41 degrees of latitude I found them at $22 \cdot 5^{\circ}$ cent．（ $=72 \cdot 4^{\circ}$ Fabrenheit），when out of the eurrent the lieat of the occan at its surface was scarc Iy $1 \overline{7} \cdot 5^{\circ}\left(=63 \cdot 5^{\circ}\right.$ Fahrenheit $)$ ．In the parallel of New York and Oporto，the temperature of the Gulf Stream is consequently equal to that of the seas of the tropics in the 18th degree of latitude；as，for instance， In the parallel or Porto Rico and the Islands of Cape Verd．＂－Humboldt．In lat． $41^{\circ}{ }^{\circ} 25^{\prime}$ and long． $67^{\circ}$ ， where it is nearly 80 leagues broad，it turns suddenly to the cast，and almost tonches the southern edge of the Great Newfoundland Bank，from whence it con－ tinues its course east and east－southeast to the Azores． On the meridian of Corvo and Flores，the most west－ erly islands of the Azores group，the breadth of the current is 180 leagues．From the Azores it turns to－ ward the Struits of Gibrultar，the islaud of Madei－ ra，and the Canary group．There are several other minor currents in the vast ocean，as the hranch sent of by the Gulf Stream before reaching tho Western Azores，which at certain seasons of the year flows toward Ireland and Norway．The experimenta of Sir James Ross and Captain Denham show that，after the depth of 200 or 300 fathoms，the temperature of the Atlantic waters is stationary at $40^{\circ}$ Folirenhelt，whatever be the temperature at the surface．This uniformity of ten－ perature in the waters of great occans renders them the means of mitigating the extremes of tropical and polar regions．－E．B．See Gulf Streash．See also Rexnblu＇s Investigation of the Carrents of the Atlantic Ocean；Ilrmnonint＇s Cosmos，personal narratice；and Mavn＇s Physical Geography of the Sea．

Atlas，in Literature，a collection of maps，charts， or other tables ；so celled from the fabulons king of that name，who is sometimes represented as supporting tho world on his shoulders．The term was first used in this seuso ly the celelrated geographer Mereator，in the 16th century．
 measure），an instruacut contrived by Professor Lealie for measuring the quantity of moisture exhaled from any humid surface in a given time．It consists of a very thin ball of porous carthen－ware，from one to three inches in diameter，having a small neck firmly cement－ ell to a long and rather wide tule of glass，to whieh is adapted a brass cap，with a narrow collar of leather to fit close．Being filled with distilled or pure water，the waste and descent of this column serves to indicato the quantity of evaporation from the external surface of the ball．Tha tube is marked downward，through its whole lyngth，by the point of a diamond，wlth divisions across it，amonating to from 200 to 500，each of which corresponds to a ring of lishd，that，spread over the whole exhaling surface，would form a film only one thousaudth part oi an fuch in thickness．Thla gradua－ tion is performed ly previonsly sealing one of the ends of the tube with wax，and intreducing suecessive por－ tions of quieksilver，to mark every 20,50 ，or 100 of those divlslons；being enleulated of equal bulk to dlisks of water，that have the surface of the bull（ex－ clanive of the neek）for their hatse，anll so many thou－ sand parts of an inch for their altitule．

Atmosphere，is the name applied to the Invisilile elastic methun which surrounds the globe of the earth to an unknown height．The fuid of which it is com－ posed is usually known hy the name of air．

Attachment，in English Lau，is a process from a court of recori，awarded by the justlees at their disere－ tim，on a bare suggestion，or on thelr own knowlelge； and ls properly grantable in eases of contempt．It differs from arrest，in that he who arresta a man carries him to a $;$ erson of higher power to be forthwith disposed of； but he that attaches keeprs the party attuched，and pre－
sents him in court at the day assigned, as appears by the words of the writ. Anather difterence ls, that arrest ls only upon the body oi' a man, whereas an attachment is often upon his goods. It is distinguished from distress in not extending to lands, as the latter does; nor does a distress touch the body, as an attachment does. Every court of record has power to fine and imprison for contempt of its authority.-E. B.

Attar, or Otto of Roses, a well-known perfumo of great strength, is an essential oll prepared in several parts of Asia and in Egypt from the Rosa moschata and Rosa Damascena. It is sald that 100,000 roses yield but 180 grains of attar. This oil is at first of a palish green color, whlch by keeping becomes daiker, and presents varlous tints of green, yellow, and red.

Attorney-at-law is one who is put in tho place, stead, or turn of another (attornatus), to manage or conduct his law proceedings or affalrs. The term is used in Lingland to denote the class of legal practitioners whose functions are preparatory to these of the barrister or advocate.
Auotion, a i.ell-known mode of selling property; in open competition, to the highest offerer, by means of an agent or auctioneer. When the property is of considerable value, a person is sometimes appolnted to superintend the sale, who is denominated indge of the roup, and sets as an arbiter in settling any disputes that may arise. The terms of the sale may be regulated at the will of the exposer, provided they are distinctly annoonced to the public betorohand. The party offering the highest price is declared the purchaser. When furmal articles of sale are employed, they commonly regulato how much each offer shall exceed the previous one; whether the exposer shall be allowed to make an offer, or to withdraw the aubject, if tho lighest offer does not amount to a given sum; and sometimes it is deelared that an installment of the price stali be paynble instantly, or thet se.
shall be found within a stipulated period; failing which the immediately preceding offerer is preferred. Secret contrivances, elther to raise or deprecinte the price, are unlawfol. The seller must not attempt to practice any lmposition on the public; nelther are tho bidders permitted to adopt any unfair menus to prevent the natural operation of free competition. Where any such thing is detectod, not only is the sale vitiated, bit reparation is due to the injured party. For exunple, the secret employment by the seller ef a friend to raise the price by msking a fletitious offer is fraudulent, and entitles the highest offerer, on detecting it, to repudiato the transactlou, or (in case he has been outblideu by such fietitious party) to demand the prop. erty at the price which he fairly oftered. On the of erer hatd, the obligation on the part of the public to act fairly is equally stringent. Accordingly, if two or more indlvidunls comblne to withhold their liddings that one of their number may purchase cherply in order to divide amoug them the expected prolit, or if a bilder were te give money to ethers to induce them to refrain from bidding, the exposer is entitled to have the sale declared void, on the gromul that inch a secret cembination or paction obviously deprivel him of the rdvantage which he expreted from that competition which a prablic sale is intendod to secure.--1. 13 .
(If Sules at Auction.-_" An auctioneer has not only pessession of the groods which he is employed to sell, but he hisanu Juterest coupled with that possession. Ho has n speclal property in the goods, and a lien upon them for the charges of the sale, and his commission, and the anction duty. IIo may sue the buyer for the pur-chase-money, and if he glves credlt to the venter, and makes tlolivery without payment, It ls at his own risk. If the auctluneer has notliee that the property he Is alout to sell does aut belong to his prineljal, ant he sells botwithstanding the notlee, he will be held responsible to the owner for tho amount of the sale. So, If the anctioneer does not diselose the nane of his prin-
cipal at the tlme of the sale, the purchaser is entitled to look to him personally for the completion of the contract, and for damsges on its non-performance.
"In the sale of real preperty at auction, care should be taken that the descriptien of it be accurate, or the purchaser will not be held to a perfonnance of the contract. But if tho description be substantially true, and be defective or inaccurate in a slight degree only, the purchaser will be required to perform the contract, If the sale be fair and the title good. Some caro and diligence must be exacted of the purchaser. If every nico and critical objection be admissible, and sufficiont to defeat the salo, it would greatly impair the efficacy and value of public judicial sales; and, therefore, if tho purchsser gets substantially the thing for which he bargaincd, he may generally be held to abide by the purchase, with the allowance of some deduction from the price, by way of emmpensation for any small detlciency in value by reason of the variation.
"A lidding at an auction may be retracted before the hammer is down. Every bldding is nothing more than an offer on one side, which is not blnding on either side until it is assented to, and that assent is signified, on the part of the seller, by knocking down the hammer.
"If the owner employs puffers to bld for him at an auction, it has been held to be a fraud upon the real bidders. He must not enhanco the price by a person privately employed hy him for that purpose. It would be contrary to good falth, as persons resort to all suction under a confidence that the articles set up for sale will be disposed of to the highest real bidder. A secret puffer employed by the owner is not fair biddiug, and is a fraud upon the public, nor can the owner privately bid upon his own goods; or secret dealing on the part of the seller is deemed fraudulent. If ho bo unwilling that his goods shall bo sold at an under price, he may oriler them to be set $\mathrm{u}_{1}, 1$, his own price and not lower, or he may previously declare, as a condition of the sale, that he reserves a bid for himself." -Kevt's Comm., vol. li. Lect. XXXIX.

Auctioneer, a person who conducts sales by auction. It is his duty to state the conditions of sale, to declaro the respective biddings, and to terminate the sale by knocking down the thing sold to the highest bldder. An auctioneer is held to bo lawfully authurized by the purehaser to sign a contract for him, whether lt be for lands or goeds; and his writing down the name of the highest bidder in his book is sufficient to bind any other person fer whom the highest bidder purehased, even though such person be present, provided he do not olject before entry. An auctioneer who declines to disclose the name of his principal at the time of sale makes himself responsible. But if he diselose tho name of his prinelpal, he ceases to be respensiblo, either for the sounduess of er titlo to the thing sold, unless he have expressly warranted It on his own responslbillty. If an auctioneer pay ever the produce of a sale to his employer, after receiving notice that the goods were aot the property of sueh employor, the real owner of the goods may recover the amount from the auctioneor, It has long been a common practico at certain auctions (called for that reason mock auctious) to employ puffers, or mock biddere, to raise the value of the artlelea seld by their apparent competltion, and inany questions have grown out of it. It was long ago decided that if tho owner of an estate put up to salo by auction employ puffers to bid for him, It is a fraud on the real bidder, and the highest bldder ean not be cempelled to complete his contract.-6 T. Rep. p. 642. But It would soety is, if the mere employment of puffers under any es $\cdot{ }^{n} \cdot \mathrm{t}$.stances were now held to be illegal. "The Inelinnwon of the courts at the present timo is, that a salo by anction should be conducted In the most open and public mamer posslble; that there shonltl be no reserve on the part of the seller, and no colluslon on the part of the buyers.

Puffing is illegal, according to a late casn, even thoug'h there be only one puffer ; and It was then decided that the recogulzed practice at auctions, of employing such persons to bld upon the sale of herses, could not be sustained."-Woolnych on Commercial Lau, p. 262. A party biddiug at an anction may retract his offer at any' time before the hammer is down. Another clearly eatablished principle is, that verbal declarations by un auctioneer are not te he auffered te control the printed conditions of sale; and these, when pasted up under the box of the auctionee., are held to be aufficiently notified to purchasers. Auctioneers, like all other agents, should carcfully observe their instructions. Should these who employ them sustain any damage through their carelessness or inattention, they will be responsible. They must also answer for the consequences, If they sell tho property intrusted to their care for less than the price set upon it by the owners, or in a way contrary to order.

Auditor, in English Law, ia an officer who, by examining yearly the accounts of the under officers, makes up a general book, which shows the difference between their receipts aad charges, and their several allowances.--E. B.

Auncel Weight, an ax.cient balanee, prohibited hy several statutes, on account of the deceits practiced by it. It consisted of seales s anging on hooks, fastened at each end of a beam, which wero lifted up by the hand. In many parts of E igland auncel weight signlfies meat sold by the hand, n thont acales.--E. B.

Aureus, the standard gold cein of Rome, first struck A. $\mathrm{H} . \mathrm{c} .546$; current valuo $=25$ den. rii, or 100 sestertil, equivalent to $17 \mathrm{~s} .8 \frac{1}{2}$ d. Forty aure were made fre:a a peund of gold; but their value was gradually diminished, till, under Nero, 45 wero mad riom a pound, aud under Constantine, T2.- !ussey, on Ancient TVeights and dfoney.-E. B.
Australevia, in mo :r.0 ceograpky, tho fifth great division of the earth's surface. The learned and intelligent President de Brosses was the tirst writer who suggested that all the lands and islands in the Austral world should be divided into three portions, corresponding with the three great oceans, the Iudian or Ethiopic, the Atlantic, and the Paeitic; those in the Indian Ocean and to tle sonth of Asia to be named Austrolasia; those in the twe Pacifics, from the multitude of islands, Polynesia (a name first used, we believe, by De Barros); and these in the Athantic to the south of Cape Ilorn and the Cape of Good Hope, Mfagellanica. The last, bowever, hecame unnecessary, as soon as it was asceltained that the Terra Australis incognita had no existence.

The two divisions of Australasia and Polynesia will be found to comprehend, with sufficient convenience, all thase islanis that can rot with propriety he referred to any of the four continents of the globe. Nor is there any difficulty in drawing a line of separation between these two divisions; though it is not quite so easy to mark the diatinet boundary between the Australasian and the Asiatic islands, where they melt into each other, about the equator, at the northwest extremity of l'ajua or New Guinea. In a geographieal view, the small islants of Waygiou, Salwatty, Matanta, Mysol, and Tlmorlaut, ought strietly to helong to Austraiasia; but peopled as they are by Asiatics of the Malay trilie, and under tho influence of the Duteh settlements, it may jerhaps be more proper, in a moral and pelitieal point of view, to consider them as belonging to the Asiatie Islands; more particularly as we shall then have all the Australasian population, with very few exceptlons, marked with more or less of the African or Negro character. Ilut, in fact, all geographical divisions are and must br, to a certain degree, arbitrary.

1f, then, we take the equater as the northern boundary from the $132^{\circ}$ to the $176^{\circ}$ of east longitude; conanne a line on the latter ineridiati to the 5bth parallel (bending $n$ li' lle to take in New Zealand) fir the east-
ern; anether line along the same pasallel to the 65th degree of cast longitude for the south m ; and a slanting line to the point on the equator fom which we set out, 80 as to Include Kerguelen's Land, and pass on the eastern sides of Timorlaut, Ceratn, Mysol, and Sn]watty, for the western boundary; these lines will circumseribe the whole of the Australasian islands. We have included the uninhabited islanda of Kerguelen and St. Paul and Amsterdam, because they can not properly be considered as African islands, though arranged, we believe, under that ivision by Pinkerton; they are of less impertance to geography than to geology.

Australasia, then, may bo subdivided into the following greves and islands: 1. Australia, or New Holland; 2. Van Diemen's land, or Tasmania; 3. New Guinea, and th.: Louisiade Archipelogo; 4. New Ilritian, New Ircland, at I nelghboring islands; 5. Solomon's Islands; 6. Ne.r Hebrides; 7. New Caledonia; 8. New Zealand, and isses to the southward; 9. Kerguelen's Islands, $v^{r}$ Islands of Desolation; 10. St. Paul and Amsterdan: 11. Numerous reefs and islets of coral seattered over the Australasion Sea.

Tho first attempt to explore New Ilolland, which, from its size, may be considered as the fifth continent of the carth, is unquestionally due to the Dutch; for althongh sone part of the northern coast may havo been seen by the early navigators of Spain and Portugal, there is no dircet testimony in favor of such a discovery. There are two charts in the British Museum which belonged to the Ifarleian Collection; one Irrach, without date, which was probably the original ; and the uther English, apparently a copy: the tatter is dedicated to the King' of England, and beare date $15-12$. In both of these charts is marked down an extensive tract of country to the southward of 'lee Moluceas, under the name of Great Jata, agreeing more nearly with the position and extent of New llolland than any other land. The form given to the northwest part of the coast in these charts approaches nearest to the truth; a part, indeed, which may have been seen by those early navigntors whe visited the Molucens long lefore the date of the Einglish chart. It is a siligular coincidence in geographical nomenclature, that, on the east coast of the l'reach chart, something like a Rotany Bay should be designated under the name of Custe des IIc:baiges. The Abié Prévost, in tho Ifistoire Ginérale des Foyages, and the President de Brosses, in his IIistoire des Natigations aux Terves Australes, are not very lappy in advancing a claim in favor of Paulovier do Gonin ville, a Freneh captain, to the discovery of this Terra Australis in 1504. It was the ceast of Madagascar upon which Gomeville was driven, as is evident by tiseir own accounts.- R. B.

Australia, or New Holland, the largest island on the globe, is situated in the sunthern hemisphere; and, as deseribed in the preceding article, forms the main land around whteh are clustered those groups of islands which, in modern geography, constitute the fifh great division of the earilh's surfare Wilson 'I'romentery, its most southern angle, is in in.. nis ${ }^{\circ} 11^{\prime}$ S., and Cape York, its northermmost licalientel, in lat. $10^{\circ} 43^{\prime} \mathrm{S}$. Its greatest buydth from north to somtis is thus 1708 geographical miles, or 1965 statute milos. Cape Ilyron, tho eastern limit, is in long. $183^{\circ}$ :17 $1^{-1}$... and Cape Inseription, in $112^{\circ}$ ob $^{\prime}$ E., forms its westernmost point; making the extreme length of the island from east to west ahout 2603 llritish mi'cs, by an average breadth of 1200 miles-a tract of land weil entitled to be called a continent, by which name it is frequently designated by geographers. Its superficies approxinates to $2,080,810$ square miles. That of the continent of liarepe being $3,08 i, 841$ gquare nailes, we can form some lilea of its extent by comparison.

The nemenclaturo und gengraphical subulivisions of this island-continent have mulergono many nlferations from tian to time, as the territury has leconse colo-
nized, Before any settlement had been effected by ( continued more or less (within half a degree) the same the British government upon its shores, the entire island was dealgnated New Holland, not only by the Dutch-from whom it received its name-but on our own charts and mapa. The east coast, first discovered and explored by Captaln Cook $\ln$ 1770, was named hy him New South Walos. The middlo portion of the north coast hore the name of Arnhim Land, after the ship of its discoverer, Zeachen, in 1618. The west and southwest coasts wero named in like manner by their discoverers tho Dutch navigators, in the seventeenth century, De Witt's Land, Endraght's Land, Edel's Land, Leeuwin's Land, and Nuyt's Land. That of Van Diemen's Land was given by Tasman to what he supposed was the southern peninsula of Now llolland, but which was afterward discovered by Bass to he an island. The colonists have been anxious to name it ufter its discoverer, but the govermment still retain the first title.

Since this great territory has become the undisputed possession of Britain, other names, with the excoption just mentloned, have, according to tho law of nations, been substituted for the old Dutch titles. Now South Wules is only applied now to about one-half tho east coast territory. The name of the entiro island also is changed from New IIolland to the more appropriate designation of Anstralia, by which it is now universally recognized and described. The subdivisions Sonth, North, and Western Australia would be equally proper if their boundaries woro defined according to the ordinary rules of geographical dissection. But while the first section, South Australia, is only the middle portion of the south coast, trending inland to the central region; and the secont, North Australia, embraces all to the north of New South Wales; the third section, Western Australia, nearly bisects the island, leaving a small tract of land between it and Sonth Australia with no name at all. A better division would be to draw o line right across from east to west in lat. $26^{\circ}$ S.; thas hisecting the island near its intertropical purallel; for although this lino would be $3 \frac{1}{2}$ degrees south of the tropic of Capricorn, still the intluenco of $t^{1} \mathrm{v}$ tropleal rains and winds ascend even higher than this parallel. At all events, thls would bo sufficient for us to designate the horthern section Tropical Ausralia, and the southern Temperate Australia. Besides these two great meteorological divisions, they could conveniently be subdivided into four political sections by drawing another line from south to north in the moritian of $133^{\circ} \mathbf{3 0} 0^{\prime}$. Each of these sections might thon the designated, according to its directlon from the centre, Southwestern and Northwestern Mustralia, Northeasterr. nud Southeastern Australia. And these, again, might tre subdivided into provinces, as the last-named section includer the three colonies of New South Wales, Vetorla, and South Australia. This arrangement would tend to simplify an important section of geography which at present is very much confused.
lf, for the better elucldation of our sulject, wo suppose these lines and boundarles to exist on the map, the northern or tropical division has little to do with the history of Ilritish colonizntion in Australia. It is within the temperate zone that our colonies havo been planted and successfully murtured. Anl thls tract, again, separated by the meridias line suggested, ecalines to a still smaller compass the suljeet of our deseription. The group of colonies whichabsorb the attention of the statesman and merchant in thut fareff land are comprised within the last-mamed seetion, Sunheastern Ausirulia. On tho west it is hounded by a line drawn from the south const, in long. $182^{c}$ E., meeting anotier line drawn at a right angle from the east coast, in lat. $26^{\circ} \mathrm{S}$.; the southern and eastern boundaries being formed by the coast line; which, by fullewhir then sinuosithes of the gulfs and burs, comprehends a sin-loard of nearly 2000 miles. Again, if a line be trued on the map, conmeneing ubout 150 miles inland from the head of Cinlf St. Vincent, and distance from the coast until it reachea the northern boundary-line, the intermediate space will give a fair average of the extent of country at present colonized, which may be estlasated in round numbers at 1500 miles Jong by 150 miles broad, or 225,000 square miles ; or nesrly thres times the superficles of England.

From a letter written by Mr. Edward IIammond Ilargraves to the colonial secretary, dated the 3 d April, 1851, we learn that on the 12th of Fehruary previous he had discovered the existence of gold among the alluvium of the surface rucks over a large area of crown lands within the settled districts of the colony; which subsequently turned out to be from 20 to 30 miles beyoud the town of Bathurst, an inland town 125 miles from Sydney. He was led to prosecnte a search for the precious metal in that locality, from the similarity of that mountainous section of New South Wales to the auriferous regions of California, where he had successfully worked as a gold-digger. Governor Fitzroy was doubtful of the discovery, from the circumstance of a similar statement having been mado to lim two years before, by a Mr. Smith, of Berrima, who allowed the matter to drop on the governor's refusing to pay him a large fixed sum for the discovery. At the same time, Sir Roderick Impey Murchison, president of the Royal Geographical Society, and other eminent geologists in the colony and in England, had predicted the discovery of gold in the Austrulian mountain ranges, from their presenting similar characters, both geographically and geologically, to the gold-bearing mountalis in Russia. Partiy from these representations, and partly from the general claims of the colony to have its mineral verith scientifically investlgated, the governinen 'sti jost recently appointed Mr. Samuel Stutchbur; the 'gical surveyor; and that gentleman at this peliua h is prosecuting his stcreotyped researches not very zealously in the mountain ranges at a short distance from Mr. Margraves. It is worthy of notice that gold had been found in its nativo state from time to time some twenty years prevlous, hy a Scotch shepherd, who was known to have sold a large quantity to the jewelers in Sydney; having kept the secret so long from a fear, as he stated, that, if any one dogged lim to the spot, they might nurder him. Notwithstanding these and other evidences which need not be specitied, no one had prosecuted tho search systematically before Mr. Hargraves, who demonstrated the fact pnllicly and without delay. To him, therefore, is due all the honor of the discovery.

After haviag intimatod to tho government that he wns satisfied to leave to their liberal consideration any reward or renumeration they chuse to offer hin for his discovery, ho pested off to liatliarst, and mmonnced to the astounded inhalitants that they were living within a day's journey of the richest gold mines in the world. Followed by a number of the enterprising inhabitants, he led tho way to Summer-hill Creek, and there, in a romantie vale, surrounded by hills, where this streamlet wound its course round a pieturesque point of lund, they dug the auriferons earth from the adjucent bank, washed it In the strean, and found that the soil was mixed with graius of gold. Jhese gold pioncers, who thronged to the first "diggings," reininded of the resemblance between their country and tho rich gold mines mentioned in Scripture, called uis spot the Valley of Ophir.

This was in May, 1851, and it hecamo the signel for the eolonists in other parts of the territory to be up and doing. "Ascertuining the nature and deseription of the rocks oceurring in the vicinity of the gold deposits, they immeaiately set to work in their own localities to search for the hidden treasure, instead of tlocking with the multitude to the liathurst monntains, concluiling whely that these comprised only a small section of the great mountain chain where it existed. like the industrlous tenants of ain Australian ant-hill
suddealy roused, the whole cammunity of bushmen becatna aliva emong the rock sad valleys of the colony. Stock-whips and shepherd's crooks were thrown aside for pickaxes and shovels, with which these adventurons men might be seen exp'oring the gold regions, and with what saccess is now well known to tha werld." Tha Turon Kiver, Mnckerwa Creak, Louisa Creek, Meroo Creek, Frederiek's Valley, Abererombie River, and Araluen Vala, had their hidden treasures exhumed by the industrious diggers; and in three months after the workings at Bathurst had been set in operation, the newly-erected ryovince of Vletorin, within seven weeks from the time of her separation from New South Wales, diaclosed her treasures at Ballarat; and before the ciose of the year, the Mount Alexander gold region gavo forth that astonnding yield of the precieus metal, to which no record of aucient or modern times can furnish a parallel. The reault of the latter discovery not ouly arrested the departure of the Vintoria colonists who were flocking to the liathurst, Mountains, birt aftervard turaed the tide of adventurers from the parint coleny to t'se greater attractiona of the Mount Alexuader gohif fields, which threatened at one time to decinsate the populalations of Sydney and the surrounding townships.

The gold was not merely found in the scales or grains which at first came from the stream-washings at Ophir, but it was now dug up in large masses, varying fron: severai ounces to many pounds in weight, which were familiarly called "nuggets" by the diggers, sfter the Californian name giveu to these pepitas or nodules; cnd In one instance, at Louisa Creek, 106 lb . weight of pure gold was found by an aboriginal shepherd imbelded in the quartz matrix, which formed one soiis lilock of about 3 cwt. Neither was it found in the beginning at any great depth in the ground, but in many localities lay seattered among the surface soil, and hung to the roots of trees and shrubs. So easily and plentifully did it come to tha hands of the gold-seekers, that it bore the aspect (and such was the belief of many of the less-informed cirgers) of having only then sprung into existence from the earth, or having recently licen scattered over the land by some mayterious agency, instead of carrying along with it the geological faci that its veins are coeval with the primary rocks. It was aiso discovered that the convicts had built a bridge acrosa a small stream on, the Bathurst roa', to Carcoar, above the gold forma. 'on, and that they had unconselously paved the rond with broken frag, nents of the gold quartz velos. Even in the streets of Bathurst and Melbourne, small particles of the precious metal were picked up by ehildren In its natural bed; and several farmers and gardeners foum that they lad been plowing, digging, sowing, and planting their grain and trees in the auriferous soil. A knowledge of these facts industriously circulated by the colonial press throughout a community possessed of all the modern faeilitiea of information, and keenly alive to the speculations of meneymaking, could not but fairly upset the minds of the people. Consequently, a gold mania seized every class of colonists, to the temporary suspension of all industrial pursuits.

Then followed a heterogeneons scramble for the coveted ore throughout the length and breadth of the land, which spread like wildfire to the neighboring colonies of South Australia, Van Diemen's Land, and New Zealand, threatening to depopulate them of their male adult inhabitants. Masons and 1,rieklayers lcft unfinished buildinge in the towns; shopmen left their counters, clerks their tesks, suilors their ships; and artisans of every deseription threw up their empleyments, leaving their masters, and their wives and families, to take care of themselves. All other interests were absorbed in the search for gold; scarcely any other shi)ject was talked of or thought, of; and the hass of the people ran off to the " sliggings," as this new occupa. tion was termed. Nor did the mania confine itself to the laboring classes, for "these were soon followed by
reaponsible tradesmen, farmers, captains of vessels, and not a few of the superior classes; some unable to withatand the mania and the force of the stream, or because they were really disposed to venture time and money on the chance; and others because they were, as employers of labor, lefi in the lurch and had no alternative. Cottages became cieserted, houses to let, business was at a stand-still, and even schools were closed. In soune of the suburbs not a nan was left, and the women were known, for self-protectioy, to forget neighhors' jars, and to group together to keep housa." The ships in the harbor, also, were in a great messure deserted; and instances were known where not only farmers and respectable agriculturists found that the only thing they could do, sceing that the people employed by them had deserted, was to leave their farms and jein their men In the golden scramble; "hut even masters of vessels, ficresecing the impossibility of malntaining any control over thelr men otherwise, agreed to make up parties umong them, abundon their vessels, and proceed with their crews to the gold fields." Th. towns and their environs being thus drained of their laboring pepuletions, the prices of provisions rapidly rese. The common necessuries of life reached famine prices, which fell hesvily upca those depending upon salaries. Thls, ecuipled with the high wagea demanded by domestic servants, forced the upper classes of aociety to dispense with thelr services, and the ladies had to perform the household drudgery. Clerks and others under government, and in public and prlvate offices, finding it impossible to make both cnds neet, threw up their appointments and rushed to the diggings, and even the constabulary force were leaving the towns unprotected. Duriag this state of affairs the government was obliged to raise the alarins of thelr ofticers, in order to maintain a sufficient stafl for the public service, and to preserve the public peace, which was becoming sadly dis turbed. The lanks and mercantile firms were obliged a!so to follow their example.

Meanwhile, the governments of New South Wales and Victoria-the two gold colonies-looked with apprehension upon the probable result of this gold-revolution among a pastoral population widely acattered over the couniry, a portion of which had but recently been reclaimed frons the ranks of the felon. Therefore, how to regulate the prosecution of this new pursuit on crown lands became a mntter of greve cousideration. The erime and anarehy which had provailed In Callfornla upon a similar discovery brought the worst fears to their recollestion. Precautionary measures were promptly taken, and all the available military forcewhich was but alender-was called into requisition, assisted hy the mounted pelice to maintain order and authority at the localities whare the diggers were working; for at sone places comnunities had assembled, and erected tenta with the rapidity of a military encampment, In larger numbers than were to be fonnd congregated within the ordinary townships scattered over the comutry. A proclamation was issued asserting the right of the queen's government to all gold or precions metals found on crown lands; and that every person diggiog therein in search of it, or any individuals trading or otherwise protitably enuloyed at the diggings, must take out a monthly license and pay the sum of 30s. This measure was at once acceptable to the people, and gold commissioners were appointed to see that it was carried into effeet. Notwithstanding the excitement which prevailed at the first blush of the discovery, and during the sulseguent discoverles in other localities, which drew from time to time one half of the adult male population to the gold fields, to then hor of the people of New South Wales he It said, that no greater antount of erime existed in that colony during the foliowing eighteen months than the usual average. "Jivery where," stated in the dispatches of his excelleney the governor general, "the gold-iliggers were loyal, orderly, and oliedient to the laws," and they
cheerfully paid the fee of one shilling per diem for license to dig. The same flattering testimony can not be borne to Victoria, where a Calfornian atate of anarchy ut one time threatened the subversion of aill law and order; the conslderation of which will be reserved for our remarks on that colony. At the close of 1851, six months' experience had proved the most satisfactory results as to the extent and richness of the gold depesita. In New South Wales, upward of $20,000 \mathrm{Ii}$ censes wero issued; and the export sheet from the port of Sydney showed that 142,975 ouncea, valued at upwarl of half a million sterling, had left the colony.

By this time also, hundreds, nay, thoueands, had ascertained that they were morally and physically unfit for the hard labor and privations to be encountered in the search for gold. The consequevees were, that not only did many clerks, shopmen, and artisans come back to their former occupations in the towns, but much distress was felt by those who had abandoned Iucrative employments, which were shut against them on their return ; in many jastancea impaired in heaith from exposure to the rigorous climate of the gold regions, which, it will be understood, wers first worked in the winter season in Australia. The beneficial effects which, accrued from this reaction in favor of the industrial pursults, was the supply of inbor to bo had, although at exorbitant wages, for securing the woolcrop of tho season. Not only was this evil result anticipated, among others, at the beginning of the gold discovery, but at many sheep and cattle stations in tho far interior, the herds and flocks were abnndoned by their keepers, and at that period nothing short of ntter ruin to the pastorsl Interests of the colony hovered over the sheep-farmers and graziers. In ono instance, an enterprising squatter drove 26,000 sheep into one flock, which he shepherded with four trusty shenherds on horseback. Here, as in other matters, the gentiemen aettlers and capitalists in the colony proved themselves equal to the oceasion; and much consideration is due to them for assisting to maintain the peace and prosperity of the community, by their untiring energy and support given to the government, under such an un-looked-for event. And where at first the squinters antietpated a ruinous reduction in the value of their strock, the demand for sheep and cattle to supply tine diggeis with food raised the prices 50 per cent., whilo the lant-holders found new purchasers of land among the judicious and fortunate gold-diggers. So at the close of tho year 1851, the prospects of Now South Wales, on ail sides, were most cheering, where the reverse was expected. The ponulation hat hereased to 197,168 persons. The value of the importe was $\mathfrak{£ 1}, 563,031$, and tho exports $£ 1,796,912$. Thus the average of tio former, for every man, woman, and chid in the colony, would bo at tho rate of $£ 8$ per head, and of the latter about $£ 9$. The ordinary revenue $=£ 277,728$; and tie crown revenue $£ 208,969$; the coin in the colony $£ 560,766$; and the paper currency $£ 418,541$. The wool exported $=\mathbf{1 0}, \mathbf{2 6 9 , 3 1 7} \mathrm{lb}$., valued at $£ 828,342$; the tallow $86,460 \mathrm{ewt}$., value $£ 114,168$; and the gold $144,120 \mathrm{oz}, 17 \mathrm{dwt}$., value $£ 468,33 \mathrm{G}$. Saipping inwards 553 vessels, of 153,002 tons, having 7055 men on board; and the shipping outwards 563 vessels of 139,020 tons, having 7988 men .
From the circumstance of gohl mines having heen hitierto only worked by inarisarous or despotic nations, who, from ignorance or poilicy, shromled their operations in mystery, our information regarifing the extent and character of goid-bearing rocks throughout the world was ot' $n$ very meagre teseription. Tho "great fact," therefore, of gold regions being discovered, and worked within territories claimed by the Anglo-Stixon race in California and Australia, is not only an event of considerabie interest in the history of the world, but has proved of the utmost ieneflt to scienee in determining tiis important question in auriferous geology. Not only was the gold found in the ordinary quartz
matrix; but the reporta of the geological surveyors of New South Walea have ahown that :is found in granite at Araluen Creek; sehistose or slaty rocks at the Turon; and in Frederick's Valley s'jecimens were found of a ferruginous rock, beautifully lotted with globulea of gold. It wonld e.em, therefore, that gold is the most universally distribated of metals among the unstratificd rocks, although found in greatest abundance in the quast + veias which intersect these rocks. However, the suat bulk of the gold found in Australia has not been extracted from its matrices, but dug out of the gold alluvium formed by tho disintegration of these rocks. Hence the gold mines in this region have received the familiar name of "diggings," from the prac-tical-minded Americans and Australians. What are termed the "gold diggings," thien, are apots where the miners have to dig pits from 10 to 15 feet deep before they arrive at the substratum of auriferous soil in which tire particles of gold are found loosely imbedded. This subsoil is generolly a atiff blue ciay mised with sand and gravel, and the pure metal appears in scales aboat the size and shapo of bran or shellings; and in rounded grains and lumps varying from the size of a pin's head to the form and dimensions of flints as they oceur in chalk, a specimen of which, when gilded, gives exactIy the appearance * sented by these gold nodules, or, as tisey are now universally called, "nuggeta." This alluvium is collected and mixed freely with water in a tub, which is termed "pudelting." After having undergone two or three waslings, tho residuo is thrown into a cradle or wooden trough, with "cleets" or ribs fastened across the hottom, and a sieve at the head, which prevents large atones or lumps of gold from passing through. The cradle is then rocked and tilted to and fro, whife water is poured over the auriferous sand or gravel. When sufficiently washed, the residue at the bottom of the cradle is examined carefully, tho large pieces, if any, picked out, and the scales of gold scparated from nny foreign substance by further washing in a tin dish, untll it is perfectiy elean; after which a magnet is passed through it to extract small partieles of iron-sand, which are frequently mingled with it. Upon reachling the "washing-stuff," as the "diggers" term the gold aliuvium, they sometimes see the nuggets dotting the earth, and collected Into heaps or "poekets," which they extrnet easily with the point of a knife. This pleasing operation to the fortumate digger is called "wuggeting." Agaln, a similar process is followed at some localities whers the grains of gold lis on the surface of the ground, teclinically termed "forsicking."E. B. See Ajelaite.

Average, a term nged in maritime commerce to signify damages or expenses resulting from the uccidents of navigation. Average is etther general or particular. General average arises when sacrifices have been advizedly made, or expenditures incurred, with a view to the preservation of the ship, eargo, and freight from tho effects of soms extraordinary peril; and it implies a aubsequent contribution from all the parties concerned, in order to make good the loss which one or more of them may thes have sustained. l'articular arerago signifies the dnmage or partial loss happening to the ship, goods, or freight, in consequence of some fortuitous or unnvolilable accident ; and it is borne by the individual owners of the articles damaged, or by their insurers.

It may be here remarked, that the term Avernge was originally used to signify what is now distinguished as General Average. The expression "Particular Average" is not strictly accurate, as it dous not, in its current acceptation, iosply the iden of an equalizing contribution, as originaily signiffed by the word Average. It has, neverticless, been generally adopted, nud is now fully recognized as the distinctive expression for damage or partial loss falling on some one of the individuals interested in a see adventure. Average is said by Cowell to be derived from the Latin
word areagiam, from the verb averare, to carry. II supposes it to have been introduced into commeree to ahow the proportion to be paid by every man according to his goods carried. Loccenitus, on the other hand, derives it from the Erench harre, or the German baben, a port; it being a contribution pald fer having goods brought sofeig to port.-De Jure Maritimo, lib. il. cop. vii. sect. 1 .
l'et'y trerage consisted of certain amall e when for pilotages, Hight-dues, etc., which were apporti
for thiral to the ship and two-thirds to the cargo; but this is now superseded by the apreement that the freight payuble for the cargo shall include all such expenses; and the term has, consequently, become obsolete.
Although nothing can be more simple than the fundnmental principle of general average-which is, that a loss incurred by one party for the advantage of several shall be mado good in equitable proportions by all who are benefited by it-yet the applicatio. of this principle to the varied and complicated cases whieh arise in the course of maritime commerce has oceasioned many diversities of usage in different countries, and even in the same country at different periods. Without enterkg on so wide a field as the discussion of these diversities would open up, we shall endeavor to present a brief summary of the leading principles which have been estubllished in Great Britain, by usage or by legal deelsions, in connection with the subject.

All general averago losses may be divided into two principal classes: 1. Sacrifices of part of the eargo and freight, or of part of the shlp, for the genersl benetit ; 2. Extraordinary expenditures, Incurred with the same object. Under the first of these classes we shall begin by noticing the nets which involvo sacrifices of part of the eurgo and freight. When a part of the eargo is thrown overboard (or jettisoned, as it is termed) to save the ship from foundering in a storm, or to fleat ber when strandel, or to facilitate her escape from mancmy, the loss of the goods and of the freight intached to them must be mado good by average contribution. In like manner, if goods be danaged in the ship by opening the hatches in order to effeet $n$ jettlson, or by being brought upon deek for thint purpose, the damage forms a general average charge. But if goodsjettisened have been originally stowed on deek, no contribution can be denanded for them, unless they are so carried according to tho common usage and course of trade on the voynge for which they were shipped.
If, instead of being thrown overboard, the goods ure put into bouts or lighters, and lost or dainaged before reaching the shore, such loss is regarded as a virtual jettison, and gives a claim to average contribution. The same rule applies to damage occasioned by the goods belag put ashore on muddy ground, as may sometimes ha; pen, when there is no other place where they can be landed. But when the goods hava been conveyed to a place of ordinary safety, they are no longer at the risk of the general interest; and should they be damaged by fire or other accidents, the loss must be borne ty the indiridual proprietors or ${ }^{3}$ 'y their iasurers. The loss of com, sult, guano, or similar goods, arising from their belig pumped up or bailed out with the water in the vessel, can not be recovered by averago contrihution. If, in consequenen of thers being no other means of raising money at a foreign port, a part of the cargo be sold for the purpose of repairing losses or defroying expenses which are themselves of the nature of general a verage, the loss arising from the sais gives a claim to contribution. Ilat if the funds are required fnr the purpose of repairing particular average losses on the ohip, or of defraying the ordinary expenses of the navigation, the loss muat be borne by the shipowner.
The damage done to the cargo by means of water thrown down the hatehes to extinguish na accidental fire or by acuttling the ship for that purpese, is excluded, by usagr, from general average. This point
seems to have never yet been settled by any legal decision; and the usuge referred to is considered by several writers of high authorlity to be at variance with sound privelplo. It is somethmea defended on the ground that the damaga in question is secondary and incileutal, and not primary and intentional. But this reason seems somewhat fanciful for the purposes of equity, and is, besides, inconaistent with the unalogy of certain other cases, where an opposite principle is practically recognized; as, for inatance, in the case of goods incidentally damaged in effeeting a jettisen of other goods. The amount of compensation to be made for goods accrificed by general average acta ia determined by the net market price they would have produced on arrival at the port of destination had :not been sacrificed; but huder deduction of the frel ${ }_{\text {bat }}$ : attaching to them (which is made good to the shipowners), and of the charges for duties and landing expenses which ara saved.

We now proceed to notlce the general average acts which involve sacrifices of part of the ship or her materials. The same principles which regulate the case of goods thrown overbos rd apply also to the jettison of the ship's chains, anchors, hnwsers, spars, boats, or other stores. But if water-caaks aro stowed on deek, or if chains and hawsers are carried en deck when the vessel is not near the land, so as to render it necessary that they sheuld be so carried, the losa arising from the jettison of theso articles falls on the ship-owner; and if boats are jettisoned in consequence of their having been broken alrift from their fastenings on deek by the force of the sea, they are exelnded from genersi average, and are charged to partlcular average on the ship. The damage done to tho ahlp by cutting holes to effect a jettison of the cargo, or to pour down water to extinguish a fire, or by scutiling her for that jurpose, is allowed as a general average charge. The damage arising from eutting or knoeking away a portion of the ship's bulwarks in order to prevent the cleek from being flooded in a storm, ia compensated in the same manner. When salls or ma. d are eut away in order to righten a ship which has been thrown on her licameends, or to prevent her from driving on $n$ lee shore, the loss is made good by average contribution; but if the object in cutting away a sail or spar be merdy to sare a mast, the loss is not made good in gcueral average.

It irequently happens chat masta or yards are sprung and carried away by the force of the wind, and ore left entungled in the rigging, or hanging over the ship's side in what is termed "a state of wreek;" in these circumstances it becomes necessary to eut them away, with the sails and rigging attached, and to throw the whole overboard, otherwise they would impede the usvigation, aud endanger the ship and cargo. On this ground it is held by some authorities that the loss cansed by the aet of cutting them away should he made good by average contribution. But this act is the direct consequence of the previous accident, which places these artleles in a situation where it is impossibe to save them without inperiling the ship, eargo, and lives. It would not be reasonable to imperil these for such a purpose; whence it follows that the displaced articles are already virtually irrecoverably lost by meane of the orlginal accident, before the loss is actually consimmated by cutting "m away. And as the general interest ought not to bo endangered for the purpose of attempting to save these articles, so neither should it be implicated in the lose resulting from the only remaining alternative of clearing them away. This loss is accordingly excluded, by the usage of this country, trom average contribution. On the same principle, no contribution can le demanded for any articles which are sacrificed as having themselves become, through previous accident, the immediate cause of danger to the whole interest.
The loss of sulls or spars, lin consequence of carrying
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a press of canvas to avoid a lee-shors, or to escape from an enemy, is not the aubject of general average in thls country; neither is the damage auffered by the ship from straining, under any auch extraordinary peass of sail. When anchors and cables are slipped from in order to work a vessel off a lee-shore, or to avoid collision with another ship, the loss is mado good by average contribution; but if the cable is slipped in order that the vessel may join convoy, or because the anchor has become hooked to some oljjoct at the bottom and can not be raised, tho loss is borne hy the ship-owner. When sails, ropes, or other materials are cut up and used at sen for the purpose of stopping leaks or to rig jurymasts, or when the common benefit requires that they should be applied to some purpose for which they woro not originally intended, the loss is made good in geberal average. The aame rule applies to the casa of hawsers, cables, anchors, saila, or boata, lost or damaged in attempting to force off a stranded vesael frem the shere. The damago austained in defending a ship against a pirate or an enemy is not the subject of general average; it is treated as particular averago on the ship.

It has been much debated by writers on maritime law, whethor tho voluntary stranding of a ahip, in order to prevent her from foundering, should be treated as a general or as a particular avergge loss. In tho United States it has been settled, by judicisl decision, that tho loss in question constitutos a general average claim; but the oppesite doctrine is acted upon in the usage of Great lifitain, and the polnt has never been raised before the courta of law. It appears to ua that tho argument greatly prepondorates againat the rule adopted $\ln$ tho United States, and in fuver of the usage catabliahed in Great Britain. The only reason for regarding thia loss as the subject of general average is, that it originates in the intentlonal act of running tho ship aground, for tho preservation, as far as possible, of the whole interest concerned. But it can seldom be known beforehand how the different interests at stako will be specially affected by the act in question; whether, for instance, the damage to the cargo may not be more serious than tho damage to the ghip, or vice versa. Thus no particular part of the Interest can be said to be intentionally sacrificed for the benefit of the whole; the intention, indeed, is not to sacrifice any one part, but to place the whole intereat in a situation of less peril than it would otherwiso have bcen in. What particular damages may thoreafter enaue to either ahip or cargo will depend, in each case, on a variety of circumstances entirely accidental in their character, and thereforo in no proper sense the aubject of provious intention. Tho same rule, thercfore, which excludes from general average accidental damages in all other cases eught to excludio them in this cass also. Moreover, when tha alternatives are, cither that the veasel be left to founder, or that she bo run ashoro with a chance of preservation, there can really be no room for choice, or, at all events, tho clements of will and intention are entirely subordinate in the part they must play under the pressure of the existing circumstancea; and in this view the stranding is as truly incvitablo as if it had been caused by the force of tho winds and waves alono.

But, oven wers these reasons less weighty than we hold them to be, a scrious practical objection might be urged against the doctrine that voluntary stranding should ho a general averaga loss, on tho ground that it would in most cases be impossible to diatinguish between tho damages received by the ship and cargo prior to tho stranding, and those sustained after or in consequenca of it. It is needleas to remark, that bofore a ship can be in such imminent danger of foundering as to render it necessary to run her ashore, she must he preaumed to have sustained a very considerablo amount of damage; and the probability is, that the cargo also will have suffered to a corresponding extent. Up to this polint these damages are confessedly
particular average; and were it held that the damages aficr the atranding were the sulject of general average, It would, of course, he necessary to distinguish the separate damages that belongei to each. But in every case these different damages would exist in varying proportions, yet alwsys so incorporated together that justice could never have a moro perploxing task than that of discrimiasting between them. No general rule could tee applied that would meet the widely different circumstances of each particular case; and the anbitrary mothod of adjustinent that would alone be possible would doubtless glvo rise to endloss disatisfaction and dispute. On the ground of expedlency; thorefore, as well as on that of principle, the usago now established in Great Britain ought to he malntained, notwithstanding the high authorities by whom the opposite has been countenanced.

Tho amount of general average losses on the ship is compenated by ailowing to tho owners the cost of repalrs, or of new materials in place of thoso aacriticed, sulject to the deduction of one-third for the difference of value between old and new; but no deduction is made from the cost of new anchors, and only one-aixth is deducted from the coat of new chain cables. If the ship be on her first voyago (which is held to include tho homeward as well aa the outward passage), the repalrs and new materials are allowed io full.

Extraordinary Expenditures.- Whon a shlp is obliged to put into a port of refuge, in consequence of damage received in the course of tho voyage, tho usage in Great Britain is to allow as general average all the charges ceunected with the entranse of the vessel into the part, and with the landing and warehousing of the cargo, when this is necessary to admit of the ship being repaired. Thua the expenaes of pilotage or other assistance into the port, the harbor dues and shmilar charges, the costs of the protest taken by the master and crew, and of the survey held to ascertain whether the cargo requires to be discharged, together with the chargea for landing tho cargo and conveying it to a warehouse or other placo of affety, aro all made good as general average. Tho costs of repairing the ship aro chargod to general average only in so far as tho rcpaira may refor to damages which aro thenselvea the proper subject of general contribution. If the damagea are of the nature of particular average, as is more usually: the case, they are charged accordingly ; or if they proceed from "wear and tear," they are stated againat the ship-owner.

Tho warehouso rent for tho cargo at a port of refuge, and any expenses connected with lits preservation, form special charges against that particular interest, and are berno by the proprietors of the goods, or by their insurars. When goods ars insured "free from particular average, unlesa the shlp be stranded," it ia necessary, if the ship has not been stranded, to diatinguish the charges for warehouse rent and fire insurance from these incurred in connection with the preservation of tho goods from the effecta of damago; the underwriters being lable for the former, but not for the latter. The expenses of reshipping the cargo, and the pilotage or other charges outward, aro borno by the freight. If the entire cargo can not be taken on board again, from the want, at the port of refuge, of the usual facilitics for atowing it, the loss or expenses resulting from the exclusion of part of it are not treated, in Great Britain, as the subject of general contribution. The wages and provisions of the master and crew during the period of detention at a port of refugo are not admitted as a charge against general average; it being held that the ship-owner is bound to keep a competent crew on board the ship from the commencement to the end of the voyage at his own expense.

The charges for agency at a port of refugo are brought against the general average, even though they may have been originally made in the form of separata charges against the ship and cargo reapect-


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ively. Commissions on money advanced, maris me interest on bottomry and respondentia, and the lcis on exchanges, etc., are apportioned relatively to the grose sums expended on behalf of the several interests concerned.

The expenses incurred in getting a atranded ship off the ground, the hire of extra hands to pump a ship which has sprung a leak, and tha suma a warded for aslvage or for other servicea rendered to the ship and cargo under any extraordinary emergencies, are compensated by average contribation. But this rule applies only to the extraneous assistance that may hava been obtained; the crew being bound to do their utmost in the scrvice of the alip on all occasions, without extra remuaration for what thay might consider extraordinary exertions on their part. The costa of reelaiming the ehip and cargo after having been captured, are allowed as gencral average charges; and although ransom to an enemy is proi ibited in Great Britain by legal enactment, it seems that this does not apply to the case of monay or goods given up by way of composition to pirates for the liberation of the shlp and cargo, and that this would also form a sulject of average contrihution.

When the ahip and cargo arrive at tho port of degtination, it ls unnecessary, in ordinary casea, to distinguish, in the adjustment of the general average, between the losses which have ariaen from sacrifices, and those whlch have resulted from expenditures for tho common bencfit. But if the ship and cargo ahould be loat before reaching their destination, no contribution ia duc for the goods or ship's materiale which may have been sacrificed at a former stage of the voyage, the owners of these being in no wores poaltion than any of thelr coadventurers. On the other hand, it is avident that when money has been experted for the common benefit, the subsequent loss of the ahip and cargo ahould not affect the right of the party who has mado the advance to reco cor it in full from all the partlea for whoad advantage it was orlginally made. Hence, while sacrifices are mide good only in the event of the ship and cargo being ultimately saved, expenditures muat be reimbarsed whether the ahip and cargo be eventually saved or lost; and the contribution for theas expendlturee must be regulated by the values of the ship, cargo, and freight, as they atood at the time when the advances were made.

If, however, the money required for avarage expenditures has beell reised by meane of bottomry, and the ship be iost before completing the voyage, there can be no clalm for reimbursement; the risk being assumed by the bottomry lender in consideration of the premium he receives on the sum advanced. It is by no means clear that the arerage expendituree which havo been advanced whthout any contract of bottomry form a specific insurable intercst, accordling to the law of Great Brilain, although in practica they are very frequently insured. When this has heen done, and when the amount has been recovared on the subsequent lose of the ship, no claim can be equitably made against the Individuals who would otherwise have heen liable. Bat if the expraditures are not insured, elther by a bottomry contract, or by a special pollcy, and if the ship and eargo be totally lost in the subsequent course of the voyage, the partles for whoae bencfit the expentItures ware incurred must reinhurse thom on the principles already explained. These partics, however, have recourse on their original insurers, not only for the total loss of the interesta insured, but also for the previons expenditures, although the insurers may thus be calied ou to pay a barger sum than the amount of the insurance.

The contribution for genernl averaga losses ls regulated by the values of the respective lintereats for the benefit of which they were incurred. The practical roie adopted, in all urdinary cases, is to estimate the ship, cargo, and frolght, and thair net valuea to their
owners, in the state in which they arrive at the port of destination, but including in thess values the sums made good for sacrifices, and to assess the contribution accordingly. The necesalty for including the amount of compensation made for aderifices in the valuations on which the contribution la charged, arisea from tha principle that all the parties interested in the adventure should bear the ultimate loas in exact proportion to their reapective interests, which would not be the case if the owners of the articlea sacriticed were to recover thair full value without being thamselves asseased for the loss thareon in the same manner as their coadventurers.
The contributory value of the ship is accordingly her actual valua to her owner in the state in which she arrivee, whether damaged or otherwiae, including the sum made good in the general average for any sacrifices which may have been made of part of the shlp or her materials.
The value of the cargo for contribution ls its net market value on arrival, after deducting the charges incurred for freight, duty, and landing expenses, but without deducting the costa of insurance or commisslon. If gooda be damaged, they contribute only according to their deteriorated value; and if apecial charges have been incurred on the cargo at a port of refuge (as for warehouse rent, etc.), the amount of these charges is deducted. The sum charged to general average for gooda aacriticed is of course added to the valuation. All goods carrled in the ship for the purpose of iraffic muat be included in the valuation of the cargo; bat the wearing apparel, or personal eftects, of the passengers and crew are exempted from contribution.

The value of the freight for contribution is the sum received by tho ship-owner on the completion of the voyage for the carriage of the cargo, after deducting from that sum the wages then due, the port chargea at tine place of destination, and the speclal charges agalnst the freight which may have been incurred at a port of refuge, consisting of the costs of reshipping the cargo, and of outward pilotage, etc. The provislons for the voyage are not deducted, as these are held to have formed part of the original value of the ahip. If the frelght has been paid in advance, it forme part of the value of the goods, and, consequently, does not contribute as a separate intereat. It has been decided that wherr a vessel has been originally chartered for a double voyage, the whole freight to be earned under tho charter-party must.contribute at ita net value, after deducting the wages and other charges which must be incurred in earning it. The effeet of this rule is to render tha freight attaching to the return voyage, as well as that attaching to the voyage outvard, linble to contribute for average lossea arising in the conrse of the outward passage; a result the equity of which is not always very apparent.

An aljustment of general avarage made at any for cign port where the voyage may terminate, ff proved to le in conformity with the law and uaga of the country to which such forelgn port belongs, is binding on all the parties interested as coadventurers, although they may be suljects of Great Britaln, and although the adjustment may be made on princlpies different from those sanctioned by the lawa or uagea of Britain. The reason for this rule is, that the parties engaging in the adventure are held to abacnt to the known naritime usage according to which the general average ls acljusted on the arrival of the ahip and gooda at the port of destination.
The sulject of general average is only incidentally connected with that of marine insurance, being itself a distinet branch of inaritime law. Hut the suhject of particular average arises direetly out of the coutract of Insurance, and will thercfore he heat considered in connection with It.-F. B. Seg Insumance, Mamine. For further Infurmation with respect to the sulject

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of nyerage, the readar is referred to the famous werk of M. Valin, Cammentaire sur COrdonnance de 1681, tome ii. p. 147-198, ed. 1760 ; to Emehioon, Traté des Assurances, tome i. p. 598-674; Pa\&к an Insurance, chap. vil.; Mansilall on Insurance, book l. chap. xil. sect. 7; Steven's Essay on Average; Benecke on the Principles of Indemaity in Marine Insurance; Lord Testendes's excellent work on the Law of Shipping, part iil. chap. viil. etc.; Annould on Marine Insurance; Bally on General Averaje; Kent's Commentaries, Lect. XLVII.

Avoirdupois, the nama of a weight, derived from the French, avoir du poise-to have weight. Its pound contains 16 eunces, in distinction to the pound Troy, which has only 12. This weight is used for groceries and all ether commodities, except the precious metals, gems, and medicines. Tha pound avolrdupois centains 7000 grains Troy, and is equal to $8532 \cdot 5$ Paris grains.-E. B. See Weigifts and Mrasures.

Azimuth, in Astronomy, an arc of the horizon intercepted between the meridian of tha placa and the vertical circla passing through the centra of the object. Azimuth, Magnetical, an arc of the horizon iutercepted between the vertical clrcla passigg through the centre of any heavenly body and the magnetical meridian. Azimuth Compass, an instrumant fer finding elther tha magnetical azimuth or amplitude of a heavenly ebject. Azimuth Circlea, called alse azimuths or vertical circles, are great circles of tha sphare intersectIng each other in the zeaith and nadir, and cutting the herizon at right angles. On these are reckoned the height of the stars and that of the sun when not in the meridian.-E. B.

Azoga Ships (from the Spanish azoque, mercury), vessels which carried quicksilver to the Spanish West Indies, in erder to extract the silver from the mines of Mexlco and Peru. They carried no goods except for the king.-E. B.

## B.

Bacon and Eams. The former is made from the sides und belly of the pig, and the latter from its hind legs. The process of curing may be affected indifferently by tha employment of salt or sugar, or both; but the first is by far the most commenly used. After lieing impregonted with salt or augar, and allowed to remain a certaln time in the selutien, tha bacen and hams are taken out, lried, and smoked. In the States of Ohio, Indiana, Kentucky, Virginia, Maryland, ete., large quantities of bacon are put up yaarly for domestic use and for expert. The counties of England most celebrated for lecon and hama are York, ILants, Berks, and Wilts. Ireland produces great quantities of leth; but they are coarse, not so well cured as the English, and much lower priced. Of the Scotch counties, Dumfries, Wigtown, nud Klikeudbright nre celebrated for the excollence of their hecen and hams, of which they export large quantities, principally to the Liverpeol and I onden marketa.-See Ponk Trade.

Baggage, in Commercial Navigation, the wearing apparel and other articles destinsd for tha sele use or accommedation of the crews and passengers of ships.
Bahamas, or Lucayas, a chain ef lslands stretehing in a nerthwesterly direction from the north const of'St. Domingo to that of East Florida, and lying between lat. $21^{\circ}$ and $27^{\circ} 80^{\circ} \mathrm{N}$., and long. $70^{\circ} 30^{\prime}$ and $79^{\circ} 5^{\prime} \mathrm{W}$. The group is composed of about twenty inhabited islands, nud un immense number of ialets and rocks. The principul islands in this greup are Now l'rovidence, containing tha capital, Nassau; II arbor Ishand; Abace; Eleuthera; IIenengna, or Inagua; Maymguana; St. Salvador; Andros Island; Great Hahama; Ragged lsland; Rum Cay; Exuma; Long Islund; Crooked Island; Long Cay; Watling's Island; the Calces, the Turks, and the Berry Islands.

Most of these islands are situnted on these remarkabie flats called the (Freat and Little Buhama Ilanks, and some ent of soundings in the ocean. Tha Great Brhama Bank is about 300 milies in longth from northwest to sontheast, and 100 in breadth; and the Little Bahama is niout 130 miles long. The islands liave, in generul, a very flat appenrance, and many of them consist of mere bleak nud burren rocke. The soll in those that ate under cultivation is ifin, nnd genarally light and sanly, but interspersed w'th occasional patches of rich mould. The sabibtratum, so far ns has leen ascertalued, consists of caleareons rocks, composed of cornl, shells, madrepores, and marine deposita lurdened inlo solid inasses. The surfuce atratum is a combination of dehris of tha rock, exuvie, and decayed vegetable matter. Though deatituto of ruming streama, they possess numerous springs ; and loy digging welis down to the level of the sea, fresh water is olitalned. The productions of the sell comprelend ult the varleties of
a tropical climate. Provisions-such as malze, yains, sweet potatoes, ete.; and fruits, as oranges, lemons, pine-apples, cocoa-nuts, etc.-ara produced in abundanca. There are also several species of valuable trees; ns mahogany, fustic, lignum vitæ, cedars, pines, etc. Oxen, shcep, horses, peultry, and a great variety of liva atock are reared; and wild hogs and agoutis are found in the woods. There are many varieties of birds, and the sheres and creeks abound in turtle and excellei.t fish of various kinds. In the most southerly islandsare aalt ponds of great value.-E. B.

Bahia, or St. Salvador, a large city (formerly a capital) of Brazil, contlguens to Cape St. Antenio, which forms the right or eastern side of the entrance of the nohle bay of Todes os Santos, or All-Saints, 170 miles seutlıwest of Serglpe del Rey, and abeut 880 miles nerth-nertheast of Rio Janeiro. Population 100,000, one-third of whom are whites, ene-third mulattoes, and the rest blacks. Accerding to the observations of M. Reussin, the light-heuse on tha Cape is in lat. $13^{\circ} 0^{\prime} 30^{\prime \prime}$ S., long. $38^{\circ} 80^{\prime} \mathrm{W}$. The opposite sida of tha ent rance to the bay is fermed hy the island of Taporica, diatant from Cape St. Antenio ahout $2 \frac{1}{2}$ lengues. But a bank nleng the shore of the islund narrows the passage for large ships to abeut two-thirds this distance. Anether bank runs south-southwest frem CapeSt. Antonio abeut 11 lengues. Within, the bay expands inte a capacleus binsin, having several Islands and harbors, the depth of water varying from 8 and 10 to 40 fathoms, afford. Ing ample nccommedation and secure anchoraga for the largest fleets.

Thera is nuether entrance to the bny, partly exhibfted in the annexed plan, on the west side of the island of Taporica; but it la narrow, intricute, and at its mouth has net mere than 6 feet water. ${ }^{\circ}$ Several rivers have their emhouchure in the bay, which generally occasiens a current to set frem the nerth end of the island by Cape St. Antonio; when the rivers are fieed. ed, this current is somathos very streng. The lighthomea at the extrentty of tha cape has no grent elovation, and can not bo seen at a distance of mero than 3 or 3f lengues. The usual place of anchorage is abreast of the clty, nerth and eeuth of Fort de Mar.

The eity stands partly on a height, and partly along the shore of the hay. The lower town lis dirty and londly lad out; lint in the upper tewn and suburlia are several good streets, a rich eathedral, palaces of the archbishop and governor, town-hall, court of appenl, theatre, hospitals, and many religlous heuses. In the lower town are an oxchange, arsenal, and imperial deck-yard ; and about 3 miles nertheastward are yarde for the construction of mercantilo shipplng. Llouses of the elty mostly of stone, and often lefty; the elty is defonded by several forta, none of great strength.

Bahia, founded In 1549, by Thomas da Sonza, first factured goods, proviaions, fiour, salt, salt-fish, sosp, captain general of Brazil, is one of tho most important commercial cities in America.

In 1858, the trade of Bahia waa very extenalve: abont 60,000 tons eugar, 18,500 baga ( 182 pounde) cotton; 20,000 bags ( 160 pounda) coffee; with hides, tobacco, rice, dye and fancy woods, bullion, etc. The imports consiat principally of cottons and other manu-

## wines, etc.

Plan.-The suhjoined wood-cnt conveys a clearer and better idea of this celebrated bay than could be acquired from any description. It is copied, without any reduction, from a revised edition of a Portuguese chart published by Mr. Laurie, and exhibits the banka, sonndings, anchorage, etc.


References to the Ptan-A, Cape, Jight-house, and fort of St. Antonlo; B, Fort do Mar; C, Fort St. Phtilp; D, Tapsgippe: E, Isle do Mer; F, Inla don Frados; G, rart leaumont. The trures in the plan are tho soundings in fatiome.

Bailifis, or Bheriffe, sre sald to be of Saxen origin. London hat its shire-rere pricr to the Conquest, and this officer wan generally appointed for counties in England in 1070. Sheriffa were appointed in Dublin, under the name of bailiffs, $\ln 1308$; and the name was changed to alicriff, 1548. There are atill some placea where tie ehlef magiatrate is called baillif, as the high baillff of Weetminater. Tha term Bum-bailiff in a corruption of bound-bailiff, every haillff heing obliged to enter into bonds of sceurity for his good behavior.Blackstone.
Balachong, an article consisting of pounded or bruised fish. It consista principally of amall fiah, with prawns and shrimps. Though fetid and offensIre to strangera, this aubatance, vaed as a condiment to rice, ia largely consumed in all tha countries to the east of llengal, Including the sonthern provinces of China, and the islands of the Esstern Archijelugo.

It distributlon gives rise to an extensive internal traffic.

Falance, a machine for ascertaining the weight of substances. There aro several kJinds of balanees, as the corimon linlance or seales, the steclyard, the Danish or Swedish balance, the Chinese bulance, the hydrostatic balance, etc. The aame name ia nlao given to certain kimis of npparatus for measuring or comparing the intensities of very amall forces, us the inalance of torsion, the electric halance, etc.-F. 13. Balance, in accounta, is the term used to express the difference between the doith: and croilitor sides of an account.
Balance of Trade, in Commerce, is the term commanly used to express the difference lietween the value of the exporth from and imports into a country. The balanea la said to the farorable when the value of the exports exceeds that of the imports, and unfaverable when the valuc of the imports exceeds that of the could be without rtuguese se banks,
the weight ralances, as I, the Dance, the hyalso given or comparthe balance Bahance, difference account. term comen the vala country. te value of d unfavorthat of the
exports. According to the cuatom-house returns, the official value of the exports from Great Britain, exclusive of foreign and commercial merchandise, during the year ending 5th of January, 1842, amounted to $£ 102,180,517$; and the official value of the imports daring the year had increased to $£ 64,877,962$; leaving a favorable balance of $£ 37,802,555$. The attainment of a favorable balance was formerly regarded as an object of the greatest importance. The precious metals, in consequence of thelr being uaed as money, were long censidered as the only real wealth that could be possessed either by individuals or natlons. And as countrics wlthout mines could not obtain supplies of these metals except in exchange for exported prodncts, it was concluded that if the value of the comanodities exported exceeded that of those imported, the balance would have to be pald by the importation of an equivalent amount of the precious metals; and conversely. A very large proportion of the restraints imposed on the freedom of commerce during the lat two centuries grew out of this notion. The importance of having a favoruhle balance being universally admltted, every effort was made to attain it; and nothing seemed so effectual for this purpose as the devising of schemes to facilitate ex portation, and to hinder the importation of almost all producta, except gold and silver, that were not intended for future exportation. But the gradual though slow growth of somnder opinions with respect to the nature and functions of money, showed the futility of a system of policy having such objects in view. It is now conceded on all hunds that gold and sllver are nothing but commodities, and that it is in no respect neccssary to interfere, either to encourage their importatlon or to prevent their exportation. The truth is, however, that the theory of the balance of trade is not erroneous merely from the false notions which its advecates entertained with respect to money, bu*....ocecds on radically mistaken views as to the nature of commerce. The mode in which the balance is usually estimated is, indeed, completely fallacions. Supposing, however, that it could be correctly ascertnined, it would be found, in opposition to the common opinion, that the imports into every commercial country genernlly exceed the exports; and that when a balance is formed, it is only in certaln cases, and those of rare occurrence, that it is canceled by a bullion payment.

The proper business of the wholesale merchant consists in carrying the various producte of the different countries of the world from the plaees where their valne is least to these where It is greatest; or, which ls the arme thing, in distrituting them according to the effective demand. It is clear, however, that there could be no motive to export any apecies of produce, unless that which it was intended to import in its atead were of greator value. When an English merchant commissions a quantity of Polish wheat, he calculates on its selling for so much more than its price in Poland, as will be sufficient to pay the expense of freight, insurance, etc., and to ylekd, besilies, the common and ordinary rate of profit on the capltal employed. If the wient did not sell for this inuch, its importation would olviously be a loss to the importer. It is plain, then, that no merchant ever did or ever will export, but in the view of limporting something more valuable in return. And so far from an excess of exporta over fimports leing any criterion of an advantugeous commeree, it is ilirectly the roverse; and the truth is, notwithstanding all that hae been salil and written to the contrary, that unless the vulue of the lmports execedel that of the exports, foreign trade could not be carried on. Were this not the case-that ia, were the value of the exports always greater than the value of the imports-merchants would lose on overy transactien with forelgners, and the trade with them would be speedily abandoned.

In ligglaml, the rates ot which all articles of export
and import are officially valond were fixed so far back as 1696. But the very great alteration that has aince taken place, not only in the value of money, but also in the cost of most part of the commodities produced in this and other countries, has rendered this official valuation, thongh valuable as a means of determining their quantity, of no use whatever as a criterion of the true value of the exporte and importe. In order to remedy this defect, an account of the seal or declared value of the exports is annually propared, from the declarations of the merchants, and laid vefore Parliament: there is, however, no auch account of the imports; and, owing to the difficulties which high duties throw in the way, it is, perhaps, impossible to frame one with any thing like accuracy. It has also leen alleged, and apparently with some probability, that merchante have not unfrequently been in the habit of exaggerating the value of articles entitled to drawbacks on exportation; but the recent extension und improvement of the warehousing system, and the diminution of the number of drawbacks, must materially lessen whatever fraud or inacciracy may have arisen from this source. Most articles were formerly charged with an ad valorem duty of 10 s . per cent. on exportation, so that, if any hing, their value was probably rather under than overrated; but now that this duty has been repealed (5 and 6 Vict. cap. 47, § 40), the presumption is that their declared value comes very near tha truth; at least, sufficieatly so for all practical purposes. Now the declared value of the exports of Great Britain in 1841 was $£ 51,634,623$, being only about half their official value, and nearly $£ 18,000,000$ under the official value of the imports. What the excess of the latter might be, had we the means of comparing their real value with that of the exports, it is impossible to say ; but there can be bo manner of doubt that, generally speaking, it would be very considerablo. The value of an exported commodity is estimated at the moment of its being sent abroar ${ }^{2}$, and before it is lacreased by the expense incurred in transporting it to the place of its destination; whereas the value of the commodity imported in its atead is estimated afier it has arrived at ite destination, and, consequently, after it has been enhanced by the cost of freight, insurance, importer's profits, etc.
In the United States, the value of the imports, as ascertained by the custom-house returns, always excceds the value of the exports. And although practheal politicima have been in the halit of considering the excess of the former as a certaln proof of a disadvantageons commerce, "it is nevertheless truc," says Mr. Pitkin, "that the real gain of the Unlted States has been nearly in proportion as their imports have excerded their exports."-Conmerce of the United States, 21 ed. p. 280. The great excess of American imports has in part been occasioned by the Aincricana generally exporting their own surplus produce, and, consequently, receiving from forelgners not only an equivalent for their exports, but also for the cost of conveying them to the forelign market. "In 1811," anys the anthor just quoted, "flour sold in America for nine dollars and " half per barrel, and in Spaln for ffleen dollars. The value of the cargo of $n$ vessel carrying 5000 linrrels of tlour would, thereforo, be eatimated at the period of its exportation at 47,500 dellars; but as thit flour would sell, when carried to Spain, for 75,000 dolhars, the American merchant would be entitled to druw on his agent in Spain for 27,500 dollurs more thun tho thour cost in Amerien, or than the sum for which he could have drawn hail the tlour heen exported in a vessel helonging to a Spmish merchant. Hut the transaction would not end here. The 75,000 dollars would the vested in aome apecies of Spanish or other European goods fit for the American market ; and the froigit, insurance, etc., on account of the return cargo, woull probably lincrease Ita value to 100,000 dolfars, so that, in uill, the Ameriean merchant might

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have imported goods worth $\mathbf{5 2 , 5 0 0}$ dollars more than the flour originelly sent to Spain." It is es impossible to deny that such a transaction as this is advantageous, as it is to deny that its advantage consists entirely in the excess of the value of the goods imported over the value of those exported. And it is equally clear that America might heve had the real bslance of paymenta in her favor, though such transections as the above had been multiplied tc any conceivable extent.

The argument about the balance of payment is one of those that contradict and confute themselves. Hail the apparent excess of exports over imports, as indicated by the British custom-honse books for the last hundred years, been always peld in bullion, as the supporters of the old theory contend is the case, there should at this moment le abont $450,000,000$ or $500,000,000$ of bullion in the country, instead of $50,000,000$ or $60,000,000$, which it is supposed to amount tol Nor is thls all. If the theory of the balance be good for any thing-if it be not a mere idle delusion-it follows, as every conntry in the world, with the single exception of the United States, has its favoralle balance, that they must be pald by an annual importation of bullion from the mines corresponding to their aggregate amount. Bat it is certain that the entire produce of the mines, though it were increased In a tenfold proportion, would be insufficient for thla parpose! This reductio ad absurdum is decisive of the degree of credit that should be attached to conclusions reapecting the flourishing state of the commerce of any country drawn from the excess of the exports over the imports! Not only, therefore, is the common theory with reapect to the balance of trade erroneous, but the very reverse of that theory is true. In the first place, the value of the commodities imported by every country which carries on an advantageous commerce (and no other will be prosecated for any considerable period) invariably exceeds the value of thone which she exports. Unless such were the case, there would plainly be no fund whence the merchanta and others engaged in foreign trade conld derive either a profit on their capital, or a return for their outlay and trouble; and in the accond place, whether the balance of delt be for or against a country, that balence will neither be paid nor received in bullion, unless it be at the time the commodity by the exportation or importation of which the account may be most profitably aettled. Whatever the partisans of the doctrine as to the balance may say abont money being a preferable product, or marchandise par excellence, it is certain it will never appear in the list of exports and imports, while there is any thing eise with which to carry on trade, or cancel debtn, that will yield a larger profit, or occasion aless expense to the dehtore.

It is difficult to estimate the mischicf which the absurd notions relative to the belance of trade have occasioned in slmost every commercial country ; in Great Britain they have been particularly injurious. It is principally to the prevalence of prejudices to which they have given rise that the restrictions on the trade hetween Engiand and France are to be ascribed. The great, or rather the only argument insisted upon by those who prevailed on the Legisinture, in the reign of William and Mary, to declare the trade with France a nuisance, was founded on the statement that the value of the importe from that kingdom consilerailly exceeded the value of the commodities Great Britain exported to it. The balance was regarded an a tribute paill by England to France; and it was sagaclously aaked, What had we done, that we should he ohliged to pay so much money to our natural enemy? It never occurred to those who so loudly abused the French trade, that no merchant would limport any commodity from France, unless it brought a iigher price in the country than the commodity exportell to pay it; and thai the profit of the merchant, or the nationnl gain, wonld lie in exact proportion to this excess of price. The very
resson assigned by these persons for prohibiting the trade affords the beat atteinable proof of its having been a lucrative one; nor can there be any doubt that an nnrestricted freedom of interconree between the tho countries would still be of the greatest service to both.-J. R. M.
The production of gold in the United States since the acquisition of Callfornia has been such as to stinulate trade throughout the country. The importationa from Europe have been very large, more than commensurate with the export trade. Hence gold has been required to the extent of more than 170 millions during the five years 1851-1855 to dischorge this accumulated debt or balance of trade. This is demonotrated by the following officlel table:

Statignent exhibiting thig amount of Conn and Bullion IMPORTED INTO AND EXPOBTED FROM TUR UNITED STATEB AKNUALLY PBOM 1821 TO 1855 INCLUBIVE; AND ALGO THE AMOUNT OF Imiortation ovir Exroontation, and op ExPORTATION OVER IMPOATATION, DUKINO THI BAME YEABB,

| Veers coding Eep. 80 | COIN AND BULLION. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Imperted. | Exported. | Execes of Im. portation over Exportatlon. | Exeetas of Ex- portation over enportation importation. |
| 1821 | 48,064,800 | \$10,478,060 |  | 42,418,160 |
| 1882 | 3,869,848 | 10,810,180 |  | 7,440,334 |
| 1828 | 6,007,998 | 6,672,987 |  | 1,276,091 |
| 1824 | 8,370,850 | 7,014,652 | \$1,865,280 |  |
| 1825 | 6,150,765 | 8,982,034 |  | 8,781,260 |
| 1826 | 6,880,966 | 4,704,688 | 2,176,438 |  |
| 1827 | $8,161,160$ | $8,014,880$ | 186,250 |  |
| 1828 | T,459,741 | 8,248,476 |  | 708,785 |
| 1829 | 7,408, 812 | 4,924,020 | 2,479,592 |  |
| 1839 | 8,105,964 | 2,178,778 | 6,977,191 |  |
| 1881 | 7,305,945 | 9,014,981 |  | 1,708,988 |
| 1832 | 8,907,504 | $0,656,240$ | 251,164 |  |
| 1838 | 7,070,368 | 2,011,701 | 4,458,605 |  |
| 1884 | 17,011,082 | 2,076,758 | 15,834,854 |  |
| 1885 | 18,181,447 | 6,477,775 | 6,658,672 |  |
| 1836 | 18,400,881 | 4,324,336 | , 0,070,645 |  |
| 1837 | 10,516,414 | 5,970,249 | 4,540,160 |  |
| 1838 | 17,74T, 110 | 8,508,046 | 14,230,070 |  |
| 1889 | 5,505,176 | 8,776,748 |  | 3,181,507 |
| 1840 | 8,882,818 | 8,417,014 | 406,790 |  |
| 1841 | 4,988,683 | 10,034,832 |  | 5,045,099 |
| 1842 | 4,087,010 | 4,813,539 |  | T20,6\%8 |
| $1848{ }^{\circ}$ | 22,890,550 | 1,590,791 | ¢0,869,768 |  |
| 1844 | 10,880,429 | 8,454,214 | 876,216 |  |
| 1845 | 4,070,242 | 8,606,495 |  | 4,596,258 |
| 1846 | 3,777,732 | 3,905,268 |  | 125,630 |
| 1847 | 24,121,280 | 1,907,024 | 22,214,205 |  |
| 1848 | 6,860,224 | 15,841,616 |  | 0,48t,302 |
| 1849 | 0,651,240 | 5,404,048 | 1,246,592 |  |
| 1850 | 4,028,702 | 7,522,904 |  | 2,394,292 |
| 1851 | 5,453,692 | 29,472,762 |  | $24,019,160$ |
| $18 i 92$ | 8,505,044 | 42,674,185 |  | 87,160,011 |
| 1853 | 4,201,082 | 27,486,875 |  | 28,285,403 |
| 1804 | 6,755,687 | 41,197,300 |  | 34,438, 113 |
| 1865 | 8,650,812 | 56,247,048 |  | 62,656,581 |
|  | 259,048, 514 | 5390,602,713 | \$112,501,545 | 5213,866,744 |

- Nine montha $\quad t 2$ monthe ending Juno 80 .

Bale, a pack, or certain quantity of goods or merchandise; as a bale of silk, cloth, etc. Bales are always marked and numbered, that the merchants to whom they belong may kuow then, and the marks and numbers correspond to those in the hills of lading, etc. Selling under the bale, or under the cords, is a term usell in France and other countrics for selling goods wholesale, without sample or pattern, and unopened.
Balks, large pieces of tlmber.
Ballast (Du. Ballast; Fr. Lest; Ger. Ballast; It. Savorra; Sp. Jastre; Sw. Ballast), a quantity of iron, stonea, sand, gravel, or any other heavy inaterini Inid in a ship's hold, in order to sink her deeper in the water, and to render her capabie of carrying sull without being overset. All ships clearing outward, having no goois on board other than the personnl longgnge of the passengera, are sald to he in ballinst. The quantity of liallast required to fit ships of equal lurden for a voyage is often materially different; the proportion being always less or more, according to the sharpness or thatneas of the ship's bottom, called by scamen the thoor. The proper tollasting of a ship deserves pecullar attention, for, although it be kuown that ships in $s$ having oubt that ween the aervice to ates since to atimuportationa than comgold has 0 milliona ge this acis demon-
a Bullion ted State p albo tie AND OF Ex ME Years,

Ballant ; It. ity of iron. terial laid per in the sail witisward, havhl baggage The quanburden for proportion shsrpness eamen the vea peenlat ships in
general will not carry safficient ssil till they are lsden so that the surface of the water nearly glances on tho extreme breadth midships, more than this geveral knowledge is required. If the ship have great weight of heavy ballast, as lead, iron, etc.; in the bottom, the centre of gravity will be too low in the hold; this no donbt will enable her to carry a press of ssil, but it will, at the same time, make her sail heavily, and roll eo violently as to run the risk of being diamsated. The object in ballasting a ahip is, tharefore, so to dispose of the ballset or cargo, that she may be duly poised, and malntain a proper equilibrium on the water, so as neither to be too atiff nor two crank, qualities equslly pernicious.: If too atiff, ahe may carry much sail, but her velocity wili not be proportionally increased; while her masts are endangered by audden jerks and excessive laboring. If too crank, she will be unfit to carry asil without the risk of oversetting.

Stiffinass in bailasting is occasioncd by disposing a too grest quantity of heavy ballast, as lead, iron, etc., in the iottom, which throws the centre of gravity very near the tieel; and this being the contre about which the vibrations are made, the lower it is placed, the more violent is the rolling. Cranknese, on the other hand, is occasioned by having too little ballast, or by disposing the ship's lading so ss to raise the centre of gra 'ty too high: this slso endsngers the maste when it blows hard; for when they cease to be perpendicular, they atrsin on the shrouda in the nature of a lever, which increases as the sine of their obliquity ; and it is superfloous to add, that a ship that loses her masts is in great danger of being lost. Hence the srt of bsllasting conaists in placing the centre of gravity to correspond with the trim and shape of the vessel, so as to be neither too high nor too low; neither too fur forward, nor too far aft ; snd to lado the ship so deep, that the surface of the water may nearly rise to the extreme breadth midships: she will then carry a good quantity of sail, incline but little, and ply well to windward.-Ses Falconer's Marine Dictionary.

The mischievons consequonces of not attending to the circumstances now mentioned are often oxperienced by shipa losding barilis, brimatone, and such heavy articles, on the coast of Sicily and Spain. Tho habit thore is to cut large quantities of brushwood and fagots, and to spread them in the hold, to hinder the cargo from sinking the centre of grsvity too low, and causing the ahip to lsbor violently; but it very frequently happens that the pressure of the cargo on this aort of dunnage is so great as to squeezo it into a much smalier space than could at first have been supposed; so that ships sfter getting to see are sometimes obliged to return to port to unlosd a part of their cargo, to prevent their foundering. In such cases, firm dunnafe, such as oak staves, shouid, if poosible, be slways employed.-See Jackson's Commerce of Mediterranean, p. 125-128. Ships thst have cargoes of light goods on board require a quantity of ballast; increasing, of course, sceording to the greator lightness of the goods.
Balloon. Gnilien of A vignon wrote on aerostation in 1765. Dr. Biack gave the hint as to hydrogen in 1767. A hslloon was constructed in Franco iny MM. Montgoifier, in 1783, when Kozirr and tho Marquis d'Arlandes ascended nt luris. Puitre Desrozier and M. llomain perished in an attempted voyage from Boulogne to England, tho balloon having takon fire, June 14, 1785. At the battle of Fleurus, the Frenci maile use of a balloon to reconnoitre the enemy's army, and convey the observatiens lyy telograph, Junc 17, 1704. Garnerin ascended in a balloon to the haight of 4000 feet, anl deacended hy a parachute, September 21, 1802. Gay-Lussac ascended at Paris to the hoight of 23,000 feet, Neptemher 0,1804 . Marlame Blanchard ascended from Tivoll at nigit, and the balloon, being surrounded by fire-works, exploded, and she was precipitated to the ground and killed, July 6, 1810.Hayon.

Balam (Ger, Balsum; Du. Balsem; Fr. Baume ; It. and Sp. Balsamo; Lat. Balsamum). Balsam's are vegetable juices, either liquid, or which spontaneonsly become concrete, conaisting of a substance of a reainons nature, combined with benzoic acid, or which are capable of affording benzole acid by being hested alone, or with water. The liquid balssms are copaiva, opobslaam, balssm of Peru, storax, snd Tolu; the concrete are benzein, dragon's blood, snd red or concrete storax.-Une. 1. Copaiva (Fr. Baume do Copahu; Ger. Kopaiva Balsam ; Sp. Copayva), obtsined from a tree (Copaifera) growing in South America and the West India islsnda. The largest qusntity is furnished by the province of Para, in Brszil. It is imported in amall casks, containing from 1 to $1 \frac{1}{2} \mathrm{cwt}$. Genvine, good copaiva, or copsiba balsam, has a peculiar but agreesble odor, and s bitterish, hot, nsnseous tante. It is clear and transparent; its consiatence is that of oil; bot when expoaed to the sction of the air it becomes solid, dry, and brittle, like resin.-Thomson's Dispensatory.
2. Opobalsam (Fr. Balsamier do la Mecqus; It. Opobalsamo; Lat. Balsamum verum album, Xgyptiacum; Egypt. Balessan), the most precions of sll tha balsams, commonly called Bslm of Gilesd. It is the produce of a tree (Amyris Gileadensis), indigenous to Arsbia and Abyasinia, snd transplanted at an early period to Judes. It in olitained hy cutting the bark with an sxe st the time that the juice is in the strongest circulation. The true balssm is of a pale yellowish color, clesr snd transparent, sbout the consistence of Venice turpentine, of a atrong, penetrating, agreeable, aromatic amell, and a alightly bitterish purgent taste. By sge it becomes yellower, browner, and thicker, losing by degrees, like volatile oils, some of its finer and more oubtile parts. It is rarely, if ever, brought genuine into this country; dried Canada balssm being generally substituted for it. It was in high repute among the ancients, but is now principally used as a cosmetic by the Turkish ladies.-Drs. Une and Tiomson. The Csnada balsam, now referred to, is merely fine turpentine. It is the produce of the Pinus Balsamen, and is imported in caska, esch containing about 1 ewt. It has s strong, but not a disagreeable odor, and a bitterish taste ; is transparent, whitish, and has the consistence of copaiva balaam.--See Turpentine. "Szsfra sad Beder sre the only plsces in the Hedjaz where the baissm of Mecha, or Balessan, can be procured in a pure state. The tree from which it is collected growa in the neighboring mountains, but priscipally upon Djebel Sobh, and is called, by the Arubs, Beshem. I was informed that it is from 10 to 15 feet high, with a amooth trunk, and tbin bark. In the middle of aummer, small incisions are made in the bark; and the fuice, which immedistely isaues, is taken off with the thumb nail and put into a vessel. The gum appears to be of two kinds, ono of a white, and the other of a yellowish white color: the first is the most esteemed. I saw here somo of the latter sort in a small sheep-skin, which the Bedouias use in bringing it to market: it had a strong turpentine amell, and its testo was hitter. The people of Szafra usually adulterato it with sesamum oil and tar. When they try its purity, they dip their finger into it and tien set it on firo; if it burn withont lurting or leaving a mark on the finger, they judgo it to be of good quality but if it burn the finger as soon as it is sot on fire, they consider it to be adulterated. I remember to hnve rend, in Bruce's Travels, sn account of the mode of trying it, by letting a drop fall into a cup filled with water; the good halsam falling coagulated to the bottom, and the bad dissolving and swimming on the surface. I tried this experiment, which was unknown to the people here, and found tho drop swlm upon tho water; I tried also their test by fire upon the finger of a Bedouin, who had to regret his temerity; I therefore regarded the balsam sold here as adulterated; it was of less density than
honey. I wished to purchsse some; but neither my own baggage nor any of the ahops of Szafre could furnish any thing like a bottle to hoid it; the whole skin was too dear. The Bedouins, who briog it here, usually demand 2 or 8 dollars per pound for it when quite pure; and the Szafra Arabs resell it to the hadjeys of the great caravan at between 8 and 12 doliars per pound in an adulterated state. It is bought up principally by Persians."-Borckhardi's Travels in Arabiu, voi. ii. p. 123.
8. Balsam of Peru (Fr, Baume de Peru; Ger. Peruvianischer Baloam; Sp. Balsamo de Quinquina; Iat. Bolsamum Perutianum), the produce of a tree (Myrory$\ln$ Peruiferum) growing In the warmeat parts of South America. The balsam procured by incisions made in the tree is called white liquid balsam; that which is found in the shops is obtained by bolling the twigs in water: it is imported in jars, each containing from 20 to 40 pounds weight. It has a fragrant aromatic odor much resemblling that of benzoin, with a warm hitterIsh taste. It is viacid, of a deep reddish-brown color, and of the conslatence of honey.
4. Storax (Fr. Storax; Ger. Stryarbroom; It. Sto race; Sp. Azumbar; Lat. Styrax; Arab. Usteruh), the produce of a tree (Styrax officinale) growing in the sonth of Europe and the Levant. Only two kinds are found in the shope: storax in tears, which is pure, and storax in the iump, or red storax, which is mixed with sawdust and other impuritles. Both kinds are brought from the Levant in chests and boxcs. Storax has a fragrant odor, and a pieasant, antb-acidulous, slightly pungent, and aromatic taste; it is of a reddish-brown color, and brittia.-Thomaon's Lispensatory.
5. Tolu, Bulsam of (Fr. Baume de Tolu; Ger. Toluttuischer Balsam; Sp. Balsamo de Tolu). The tree which yields this balsam is the same as that which yields the balsam of Peru, it being merely the white balaam of Peru hardened by exposure to the air.
6. Benzoin, or Benjamin (Fr. henzoin; Ger. Benzoe ; Sp. Bengui; It. Belzuino; Lat. Benzoinum ; Arab. Jiban; Hind. Luban; Jav. Menian; Malay, Caminyan), is an article of much greater commercial importaneo than any of those balsams previously mentioned. It is obtained from s tree (Styrax Benzoin) cultivated in Sumatra and Bornee, hut particuiarly the former. The piants produce in the seventh year. The balsam is olitained by making inclsions in the bark, when it exudes, and is scrapel ofi. During the tirst three years the balsam is of a clear white color, after which it becomes brown. Having borne 10 or 12 yeara, the tree is cut down, a very inferior artlele beling obtained by scraping the wood. The balsams procured in theso different stages are distinguished in commerce, and dlffer widely' in value. Benzoin has a very agreeablo, fragrant odor, but hardly any taste. It ia imported in large massea, packed in ehests and casks. It should lo chosen full of clear, light-colored, and white spots, lasving the appearance of white marble when broken; it is rarely, however, to be met with in so pure a state, but the nearer the approach to it the better. The worst sort is lackish, and fuli of impurities.-Min nenv's Orient. Com., and private lnformation. The price of Benzoin in lond varied, in the Londen market, in Fehruary, 1843, from $£ 3$ to no less than $£ 46$ per ewt.! Mr. Crawfurd has given the following interesting and nuthentic details with respect to this articie: " Denzoin, or frankincense, cailed in commercial language Benjamin, is a moro general article of commerce than camphor, thoughits production be confined to the same ialands. Benzoin is divided in commerce, like camphor, into three aorts (head, belly, foot), accorling to quallty, the conparative value of which may be expressed by the figures 105, 45, 18. Benzoin is valued in proportion to its whiteness, semi-transparency, and freedom from adventitious matters. According to lta purity, the first sort may be bought at the emporia to which It is brought, at from 50 to 100
doliars per picul (188s poands), the second from 25 to 45 dellars, and the worst from 8 to 20 dellars. According to Linschoten, benzoin, in his time, cost, in the market of Sunda Calapa or Jacatra, from 19.05 to $25 \cdot 40$ Spanioh dollars the picul. By Niebubr's account, the wol : b benzoin of the Indian islanda is more eateemed by the Arabs than their own best olibanum, or frankincense. In the London market, the beat benzoin ls fourteen times more valualle than olibanum, and even the worst two and one third times more valuable. Benzoin usually sella in England at 10s. per pound. The quantity generaliy imported thers in the time of the monopoly was 812 cwt . The principal nse of this commodity is as incense, and it is equally in request in the religious ceremonles of Cathollcs, Mohantmedans, HIndoos, snd Chinese. It is also used as a luxury by the great in fumigating their apartments, and the Japanese chiefs are fond of smoking it with tobacco. Its general use omong nations in such various states of civilization, and the steady demand for it in sill ages, declare that it is one of those commedities the tasta for which is inherent in our nature, and not the result of a particular caprice with any individual people, as in the case of Malay camphor with the Chi-nese."-Indian Archipelago, vol. iil. p. 418. An inferior description of benzoin, the produce of a different tree from the Slyrax benzoin, is produced in Siam. It is comparatively cheap and abundsat.

7 Dragon's blood (Fr. Sang-Dragon; Lat. Sanguis Druconis ; Arsb. Damulähhwain; Hind. Heraduky), the produce of a large specics of rattan (Calamue Draco) growing on the north and northeast coast of Sumatra, and in some parts of Borneo. It is largely exported to China, snd also to India and Europe. It is eithor in oval drops, wrapped up in flag-leaves, or in large and generally wince impure masses composed of smaller tears. It is csternally and internally of a deep dusky red color, and when powdered it should become of a bright crimson : if it be black, it is worth little. When broken and beld up agalnst a strong light, it is somewhat transparent, and it has little or no smell or taste ; what it has of the latter la resinous and astringent. Dragon's blood in drops is much preferable to that in cakes, the latter being more friabie, and less compact, resinous, and pure than the former. Being a very costly artlcle, it is very apt to be adulterated. Most of its alloys dissolve like gums in water, or crackle in the fire without proving Infiammable, whereas the gennlno dragon's blood readily melts and catches fiame, and is searcely acted on by watery llquors. It sells in the market of Singspore at from 15 to $\mathbf{3 5}$ dollars per pleul, according to quality; but the Chinese have the art of purifying and retlning lt , when It sells at from 80 to 100 dollars per picul.-Milburn's Orient. Com.; Cnawfund's East. Archip.; and private informstion. The price of dragon's blood, in the London market, varied, in November, 1853 , from $£ 5$ to $£ 15$ per cwt.
Baltio Bea. The denomination of the Baltic, applied to the iniand aea which forms the subject of this articie, is first found in the work entitled Chorographia Scandinaricr, by Adam of Bremen, whe was canon of that city at the close of the eleventh century. The otymology of the name has given rise to many conjectures. The Swedes derive it from the Scandinuvian word baell, s girdle, because of lis pecuiliar form ; the Prussians from the Sclavonian or Lettonian word balt, white, from its heing frozen part of the yoar, or from Baltus, one of their klngs; while by others it is derived from Bellea, the name of an islund mentioned by Pythcas, a merchant of Marselles, who, in the second or third century before the Christian era, ls supposed to have sailed as far north as thls sea. In the comntries which bound it, ita ancient name was Variatzkoĭ More, or the Sea of Variaghl; by the modern Russians It is called Boltiskod More; and by the Swedes, Dancs, and Germans, the East Sea,

Extent of the Balic.-The Baltic is inclosed by Swe- . . Ace, cost, In m 10.05 to 'a account, re esteem, or frankbenzoin ia , and even valuable. per pound. he time of use of thle in request e, Moham , ueed as a ipartments, ing It with a such variamand for it ommoditles re, and not tindividusl ith the Chi-

An infea different a Siam. It
at. Sanguis raduky), the amus Drace) of Sumatra, ely experted It is elthor in large and 1 of smaller deep duaky become ef a little. When $t$, it is somenell or taste ; 1 astringent. ble to that in ess compact, eing a very ated. Mlest or crackle in reas the gentches flame, re. It sells 5 dellars per ese have the cells at from rient. Com. ; nfermation. on market, 5 per ewt. Baltic, splyject of this horographin as canen ef tury. The any conjecandimuian form; the a word balt, ar, or from rs it is deentiened ly the second s supposel the counVariatzkoic n Russians les, Danes, ed by Swe
den, Susala, Prueaia, Mecklenburg, and Denmark; and it communicates with the North Sea by the Ska-ger-Rack, Cattegat, Sound, and Great and Little Belts. From Swinemunde in the soath, to Tornea in the north, its length is 770 geographical miles; and Ite width from Karlscrona to Memel ia not leas than 180 milea. Its whole area, Including the Gulf of Bothnia, is about 125,000 geographical equare milee. It runa first in an easterly direction as far aa Memel, a distance of 800 miles, and then northward as far as lat. $59^{\circ} 21^{\prime}$ N., a distance of 850 miles, at which point it separates into two great gulfs. One of these, the Gulf of Finland, runs nearly due east ; the other, the Gulf of Bothnia, almost north. The Gulf of Bothoia is 400 miles in length, with an average breadth of 120 milea, but where narrowest it does not exceed 40 miles. . The Archipelago of Aland llee at its entrance. The Gulf of Finland is 200 miles in length, with a mean breadth of $\mathbf{6 0}$ or $\mathbf{7 0}$ miles. Numerous rocky lalands and reefs, many of them level with the water, render the navigathen of this sea extremely dangeroua.

Depth of ths Bultic,-The greatest depth of the Baltic rarely excoeds 100 fathems. On the western side it la not more than 15 fathoma; and, in general, only from 8 to 10 fathoms. On the sonth it nowhere exceeds 50 fathome. The Gulf of FIniand auddenly shallaws from 50 or 60 fathoms to 5 , or even less. The average depth of the Gulf of Bothnin is net greater than that of the rest of the sea. It has long been a gencrally recelved opinion that the waters of the Baltic are gradually diminishing. Cetsius, a learned Swede, who flonriahed toward the middle of last century, advances this hypothesis; and, from observatiens made on the coasts of the Baltic, he eatimated the diminution at 45 inches in a humired years. This hypothesis was supported by Linneus, who founded ons it a theory of the earth. M. Otto, in his physical observations on this sen, has auggested another theory to account for its apparent decrease. He supposes that, instend of really aubsiding, it may be only shifting lta position, and galning in one quarter what it lases in another; and this he aacribes to the large and rapil rivers, which carry along with them an immense quantity of earth anil sand, by which the beds at their mouths are raised, and their banks extend toward the sea. The viewa of Celsius have been confirmed by the observations of Von Buch, who also discovered at severnl places on the weatern ahores of Scandinavia, and at considerable elevationa, deposits of sand and mud centaining numerous marine shells of species atill existing in the neighboring ocean. Mr. Lyell at first entertained doubts of theae phenomena; but on snlisequent inspection he was led to concur in the opinien of Ven l3uch. Mr. Lyell faund the marks which were cut la the rocks at water-line aome years provious to his visit to be actually several inches above the level of the Baltic. From these ebservations, that eminent geolegist cencludes that, in several parts of Sweden, n gradual elevation of the land lsitnking place.-Lyenis's Principles of Geology. The great quantity of sand and mud carried dewn ly the rivers has considerably raised the bottom of this sea, and affected its navigation, so that the moutha of rivers formerly navigable are now inuceessible.

In the lialtic, the thles are scarcely, if at all, perceptible. There are sensible tides in the Sknger-lack; but these begin to diminish in the Cattegat, and are very tritling in the Sound and lielts. There are, however, irregular variations in the level of the waters of the Baltic which bear nome resemblance to tldes. These clevatlons generally occur in autuinn, when the weather threasens rain; and thoy last sometimes a few days, sometimes several weeks. The maximuin rise is threo feet and a half, and the lew shores nre occesionally innudatod. They also render brackish the fresh-wnter lakes which communicate with the sea. In the Gulf of Bothala, the aubaidence of the waters is usually
succeeded by north winds; whereaa, near Stockholm, thase winds uaually follow their rise. M. Kraft, fermerly profesaor of experimental philosophy in the Imperial Academy of Sciences at St. Petersburg, in hia treatias on the inundations of the Neva at the autumnal equinox, observes that, three or four days before or after the full or new moon, a violent northweat wind drives the waters of the Northern Ocean, during the influx of the tide, into the Baltic, and is accompanied or Immedlately succeeded by a south wind in that aea and the Gulf of Finland. By Schultens, a learned Swede, who paid particular attention to the physical geography of the Baltic, the irregular elevations of this sea are attributed to the state of the atmosphere. F.a had observed thet when the waters were about to rise the barometer fell, and that when they were about to fall it rose. Hence he inferred that the unequal preasure of the atmesphere on different portions of the water deranged the level of the waters. The difference between the greateat and the leapt rise of the baronieter in the nerthern parts of Europe is two and a hulf inches, which answers to three and a half feet of water, or the difference of the elevation of the waters at their extremes.

Suparior and inferior Currents.-In the Sonnd there are superior and inferior currenta. These were first observed by aame Engliahmen, who, being in a boat in the middle of the channel, found that they drifted teward the Cattegat; but buving let down a loaded bucket to the depth of four or five fathoms, the soat became atationary; and when the bucket waa sunk deeper, the boat drifted against the auperficial current. The general currenta of the Baltic are strong, and evidently occasioned by the vast number ef rivers and streams that pour their waters into it, many of which, especially toward the north, rise thrice in the course of the year. At the northern extremity of the Ialand of Bornholm, a vielent agltation of the waters, or kind of whirlpool, called by the Swedes malt-quern, or the grinding-mill, is occasiened by the current rushing over a circular cluster of sunken rocks. The waves of the Baltio are shert and breken, in comsequence of sudden changea of wind, irregular deptha, and strong currents.
Saltness.-The waters of this aen are not nearly so anlt as those of the ocean; and when the wind hlows strong from the north they become so fresh as to be fit for drinking or cooking meat. The degree of their saltness varies in different parts, and even in the same parts, according to the seaaon or wind. According to Bergman, in lis Physical Geography, the waters near the sGuth coast of Nerway, at the entrance of the Ska-ger-lack, contain from one-tenth to onc-seventh part of their weight of sult; in the Cattegat, one-twelfth; In the Baltic, one-sixteenth; and in the Gulf of Bethnia from one-fortieth to one-fiftieth. The southwest and west winds nugment the saltness, by introducing the waters of the ocean. In the aummer it requires 300 tons of the water of the Gulf of Bethnia to produce one ton of salt, but in the winter only $\mathbf{5 0}$ tons. This differe: ce is eai sed by congelation, and by the diminlshed flow of fresh water.

Temperature.--There is great difference in the temperature in different parts of the Baltic. The general temperature of the Gulf of Hethnia in July is from $48^{\circ}$ to $56^{\circ}$, but it is semetimes heated to $70^{\circ}$; the medium of the thermoneter throughout the year at Uleoborg is $29^{\circ}$, and at Stockholm $424-5^{\circ}$. Near the land in the Gulf of Bethnia, the temperature of the atmosphere in the month of July was observed to be $68^{\circ}$, while the temperature of the surface of the water was $65^{\circ}$; and in October the temperatures of beth were respectively $39^{\circ}$ and 46 . In the Sound, the temperature of the atmosphere in the menth of August was $70^{\circ}$; on the surface of the water, $68^{\circ}$; and at three fathoms, $66^{\circ}$. On the 10th of Ootoher, 1818, Dr. Thomson found the temperature of the Sound to be $54^{\circ}$. The Skager-

Rack and Gulf of Norway are open to navigation all the winter, whereas aeveral portione of the Haltie are covered with ice $\ln$ a very moderata degree of cold; and generally th: bays and channels are encumbered wlth Ice at the latter end of Decenber. The waters toward tha heade of the Gulfs of Bothnia and Finland are first frozen; and the lee being conveyed by the currents to the south, the masees of it are united by the Increasing cold lnto vast fielde, which beceme stationary on the west toward Stockholm, and 14 the eaet toward the islands of Dagce and Fisel. In the seuthern parts of the sea the ice begins to break up $\ln$ April, but the Gulfa of Bothnis and Finland often contlnue closed till May. The riger of the climate in the Baltle ls supposed to be considerably diminished by the clearing of the foresta and the progress of cultivation; at least the froste during the fourteenth and fifteenth centuries appear, in their intensity and long continuance, to hava exceeded those of the severest seasons in more recent tlmes.

The wlads are extremely variable in the Baltle, but they blow most commonly frem the east in the spring, and from the west in sutumin. Calms are seldem experienced except in the middle of summer.

Fisheries.-There la hlstorical evidence that the herring fishery was a branch of national lndustry ln the Sound as aarly as the year 1168; and In 1389, accordIng to Philip de Mezieres, such vast shoals of herrings erowded into the Sound, that 40,000 boats, with from six to ten men each, were employed ln ihe fishery, besides 900 large vessels, in which the herringa were salted. This important branch of lndustry, however, no longer exists. "In the year 1238, the inhabitants of Gothia (Sweden) and Frise were prevented, by their fear of the Tartars, from scnding, as uaual, their ships to the herring fishing on the coast of England; and as there was no exportation, 40 or 50 of these fieh were sold for a shilling.-Mattieew Pairs, p. 396. It is whimsical enough that the orders of Mogul Khan, who reigned on the borders of Chins, should have lowered the prica of herrings in the Euglish market."-Ginbon, vol. xi. p. 422. Salmon ascend the rivers from April to June, accerding as they are frea frum ice. On the south, they abound nest lin the Oder, Vistula, Duna, and Narrowa; on the north, in the Motala, Dnlecariia, Ules, Kemi, Tornea, and Keymen. Salmon-trout is taken in some baya of the Baltic. In the midde of the River Kemi is a small island where an anaual ealmon fuir is held.

Whales very rarely enter the Baltic. The common porpoise is the only one of the lesser species of cetaceous animals that lives habitually in this sea; and at Middlefahrt, in Funen, is a company which enjoys the exclusive privilege of taking it. There are two varieties of the common geal, which are hunted for their oil, in March and April, ly the peasants of the Jsle of Gottland, and of the islands ln the Gulfs of Bothnia and Finland.

The trade of the Baltic is of great extent and importance. In 1852, 17,568 ships paseed up and down the Sound, of which 3902 were Britislı vessels. The internal trade is also very considerable. The exports consist of tho vurious productions of the countrics on its cossts, nud luclude corn, timber, pitch and tar, hemp, flax, tallow, hides, linseed, bristies, wool, etc. Its imports are colonial products, manufactured goods, dry stutfe, wines, salt, coal, etc. The most important ports are St. Petersburg, lign, Königsberg, Danzig, Swineminde, Labeck Copenhagen, Kariscrona, and Stockholm. By ueans of numerous large rivers and canals a considerabie trade is carried on with the in-terior.-E. B. See Thomson's Travels in Sueden; Tableau de le Mer Ballique, par Catteav; Tableau des Etuts Danois, par Catteau.

Of all seas, the Baltic is one of the most dangerons to shipping and harnssing to crews. Sudden and frequent changes of the wind, shallow waters off shore,

Innumerable shoals and lasulated rocks, wlth currents divided by these obstacles, branching off in different directions to be divided by the same cause, till, meetIng from opposite quarters, the waters are embroiled in the hurly-burly of a sturdy conflict ; these are almost constant causes of anxiaty to the mariner, for the navigation is most beset with such impediments precisely ln these parts which are eminently the highways of commeree. Hence the proportion of maritime cosualtles is much greater in the case of vessels sailing to the Baltic ports than in the instance of merchantmen passing between Great Britain and America.

Three of the rivers flow Into the North Sea; the Oder flowa into the Baltic, and the trade of all the four, particularly that of the Iveser, is incressing. Of the Jahde the world has heard but little till lately, when it was made known thst Prussia had anquired a port on It. By an agreement between Oldenburg and Pruesla, concluded in July, 1858, and ratifled in December, Prussia purch $\quad 1$ of Oldenburg for 500,000 thalers (about $\mathbf{5 8 0 , 0 0 0 )}$ the sovereignty of 500 morgens (about 8000 acres) of land and marehes, in order that Prussia mlght have a sea-port on the Nerth Sea, to give protectlon to her trade. Jahde, or rather Fahrhuh, will probably hereafter become a place of some importanee. It la seated on a large and tolerably safa bay between the Ems and the Weser, and may probably, In the hands of Prussia, lnerease in Importance. At present lt possesses little except coastling trade. The Weser, a short river, with all Its tributaries, so far as navigable, flows through the territaries of six different Powers, and, as tineir territeries are mixed and mingled tha sovereignty through which it flows changee no less than thirty-four times. Formerly every aovereign had his tolla, and at every change of sovereignty there was a toll-house. At present the tolls are reduced to one aum, and the toll-houses, which were 22 , are reduced to 9 . The toll at present, from Bremen to Carishafen, is nearly a third of the freight.-Die Deutschen Ströme, u. s. w. Vierte altheilung die Weser, Ems, Jahde, und Oder: Lelpzig.Pol'E's .Journal of Trade.

Baltimore, a city, port of entry, metropolis of the State, and capital of Baltimore county, Naryland. The third city ln extent and population in the United States ; situated on the north side of Ps tapsco River, 10 milea from its entrance into Chesupeake Bay, and 200 miles from the ocean by ship channel. In $89^{\circ} 17^{\prime} 23^{\prime \prime} \mathrm{N}$. lat., and $76^{\circ} 87^{\prime} 80^{\prime \prime} \mathrm{W}$. long.

It is hy rallroad route 88 miles from Washington, 98 from Philadelphia, 186 from New York, 590 from Pittsburg, and 590 northeast from Charleston. Population in $1790,18,503 ; 1800,26,514 ; 1810,35,583 ; 1820$, 62,738 ; $1830,80,625$; $1840,102,813$; 1850, 169,055; 1854, with environ 200,000 . The branch of the Patapeco River, aroun. which the city is built, is about a mile and three-quarters long, and varies from ouceighth to three-quarters of a mile in width, having its greatest breadth opposite to the tract called Canton. It affords an easy access to the city, and a capacious, safe, and well-protected harbor of a depth and extent sufficient to fleat ships of the largest class, and to afford nmple accommodatlon for at least two thousand vessels. Its harbor consists of an inner bnsin, at the wharves of which vessels drawing ten or twelve feet of water miny lie, and an outer iny lying between Fells Point and Canton on the north and east, and Whetstone Point on the south, with from sixteen to twenty feet of water. Ships of heavy burden do not ge up higher tian the Point. From the facilitiee offered by the depth of the water, the Point is also the seat of the principal ship-yards, from which hava been launched some of the finest and flectest vessels of tha Americnn marine, which are especlally noted for beanty of propertion and excelience of construction. The
name of Baltimore clipper is synonymous all over the world with all that is beantiful in naval architecture， pointed ship．
The commerce of Baltimore is extenaive and rapld－ ly increasing．The recelpta for the year ending 1853 were 406,000 tons of Cumberland，and 183,000 tons of snthracite coal， 85,003 balea of cotton， $8,411,985$ bush－ cis of wheat， $3,906,404$ bishels of corn， 780,000 bush－ eis of ests， 160,000 bushels of rye， 18,000 bushels of peas， 4000 bushels of beans，and $88,000,000$ feet of lum． ber．There were $1,181,608$ barrela of wheat flour in－ spected， 5394 of rys flour，and 88,478 of corn meal． imports，of coffee， 208,702 hags ；molaseses， 3820 hogs－ heads， 632 tierces，and 72 barrels from the West In－ dies，and 192 hogsheads， 115 tierces，and 18，187 lar－ reis coastwise；of sugar，New Orleans and West in－ dies，12，582 hogsheads，and 14，850 barrels；tobacco in－ spected， 40,667 hogshead －wool，foreign and domes－ tic， 000,000 pounds；mac ．erel inspected，12，507 bar－ reis；herringa， 29,000 barrels；shad， 6671 barrels．
 （tonnage 88，798）American vesaels cleared from this port，and 227 （tonnage 55，772）foreign．Tonnage reg－ istered， $92,772 \cdot 46$ ；enrolled and licensed，65，706．14； totai， $158,478 \cdot 60$ ．Number of eeseela built 71，and their aggregate tonnage 18，391－62．There were，in 1853， 12 ，anks with an aggregate capital of $47,292,815$ ， a savings bank，and 8 inaurance oftices； 20 printing－ offices，issuing 5 daily， 4 tri－weekly， 8 weekly news－ papers， 1 semi－monthly，and 3 monthly publlcations． Manufictures．－A great amount of water－power is concentrated in the vicinity，which has been extens－ ively lmproved for msnufacturing purpones．Jonea＇ Falis，a small stream which passea through the city， has a suecession of falls which afford conslderable wa－ ter－power．The Patapsce，though not a large river， has a fall of about 800 feet in the course of 80 miles， afforling many valnable mili sites．There are within 20 miles of the city sixty flouring mills，besjdea numer－ ous cotton manufactories and other manufactories of cloth，powder，paper，iron，copper，glass，steam－en－ gines，chemleais，tobaceo，etc．
Ship－building．－The number of vessels built at Bal－ timore，and other ports of Maryland，in the flscal year 1854－5，wero as foliows：

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| Oxford．．． | ． | － | 19 | － | ． | 19 | 1，419 |
| Vlemua．．． | ． | $\cdots$ | 35 | ． | ． | 35 | 1，753 |
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| Anaapolis | ． | ． | 1 | ． | ． | 1 | 87 |
| Totsl．． | 13 | 3 | 101 | 1 | 4 | 122 | \＄20，652 |

Luet of new Vhasels aroiatarib，enbolled，etc，at tit Poat of Baltimore durino tis Yeama 1854，＇SE， 66.

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| Barka． | 4 | 1，485．67 | 6 | 2，201＊5 | 12 | 5，603．36 |
| Brigs ．．．．．．． | 8 | 712－22 | 6 | 1，491．64 | 12 | 2，881．19 |
| schooners．． | 82 | 8，766•10 | 45 | 4，168．11 | 29 | 9，848＇32 |
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| Total | 60 | 16，501•04 | 12 | 18，383．28 | 02 | 17，517\％ 5 |

Valez of Foreion Impozts and Expore at the Dibthict of Baltimoze yor the laft Beventen Yeabs．

| Yoarm | Importa． | Esporta． | Yain． | Importa． | Exporta． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1840 | \＄$\$, 100,274$ | \＄5，808，018 | 1849 | \＄$\$ 5,291,566$ | \＄3，660，181 |
| 1841 | 6，109，101 | 4，997，638 | 1850 | 6，417，118 | 8，530，970 |
| 1842 | 4，052，260 | 4，448，046 | 1851 | T，248，063 | 6，466，165 |
| 1843 | 8，607，739 | 4，740，042 | $18{ }^{-2}$ | 5，978，091 | 7，549，763 |
| 1844 | 4．261，883 | 4，622，066 | 1858 | 6，381，071 | 0，0880，014 |
| 1845 | 8，358，670 | 6，256，276 | 1854 | 7，750，887 | 11，808，010 |
| 1840 | 4，283，760 | 8，710，659 | 1855 | 7，772，591 | 11．001，637 |
| 1847 | 4，146，743 | 9，828，479 | 1856 | 9，772，591 | 18，362，262 |
| 1848 | 5，245，594 | 7，209，002 |  |  |  |

Ingegtions or Magylani and Ohio Towhoog yon the last Sixtren Years．

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| :---: | :---: | :---: | :---: | :---: |
|  | Moryliod． | Obla． | Totel， |  |
|  | Hhds， | 11 lda ， | Hhda． | Hhda． |
| 1841 | 20，980 | 7.098 | 87，672 | 10，900 |
| 1842 | 33，750 | 11，279 | 45，09\％ | 0，600 |
| 1848 | 29，817 | 13，465 | 49，182 | 12，354 |
| 1844 | 32，163 | 15，320 | 67，608 | 12，60\％ |
| 1845 | 83，844 | 26，716 | 66，660 | 15，842 |
| 1846 | 41，027 | 28，802 | 69，859 | 82，416 |
| 1847 | 83，729 | 15，671 | 49，400 | 28，467 |
| 1348 | 23，253 | 9，845 | 38，098 | 32，751 |
| 1849 | 30,965 | 13，818 | 44，688 | 19，688 |
| 1850 | 27，085 | 18，965 | 41，040 | 10，617 |
| 1861 | 25，018 | 16.791 | 41，804 | 17，699 |
| 1852 | 20，670 | 17．720 | 47，290 | 11，700 |
| 1853 | 29，248 | 17，947 | 47，115 | 9，779 |
| 18.4 | 20，448 | 10，962 | 36，410 | 8，715 |
| 1855 | 28，470 | 10，097 | 88，567 | 4，273 |
| 1860 | 44，779 | 6．610 | 61，289 | 4，004 |

Exports of Flocr prom Baltimoae for the last Fife Yeara．

| Wh | 188 | 185 | 1884. | 1855. | 1888 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bs | Bart | 8 | Ba |  |
| Gr |  |  |  |  |  |
| Fr |  |  |  |  | 10，707 |
| Brazil | 285，042 | 13，086 | 104，755 | 108，758 | 180 |
| Rlver Pla | 17，108 | 81，140 | 12，028 | 12，035 | 04，150 |
| British N． | 89，445 | 27，080 | 25，086 | 62，062 | 88.662 |
| Venezinel | 10.880 | 0，025 | 8，760 | 4，077 | T， |
| We | 150，975 | 154，842 | 85，723 | 103，562 | 106，5 |
|  | 0， 511 | 18，762 | 000 | 4，005 | 2，03 |
| Othor port | 27，961 | 42，700 | 44，680 | 30，25 | 28，614 |
| Total | 731，044］ | 3682， | 510，4 | 480,1 | 021，2 |

Espoats of Mabyland and Ohio Tonacco from Baltimode foa the last Bixtfen Yearg．

| Ysars． | Inremen． | Rottordsm． | Amaterdam， | Anlwarp． | Emden． | France． | Trisate． | Englapd． | Totsi Eaport． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hhds． | Hhds． | Uhds | Hhde． | Hibde． | Hhds． | Hhdn． | Hhids．${ }^{\text {c }}$ | Hhdi， |
| 18.1 | 16，373 | 7.918 | 5，169 | 905 | ．．． | 2.814 | 1183 | 120 | 00，482 |
| 1342 | 17，719 | 10，874 | 8，109 | 078 | $\cdots$ | 4，682 | 1401 | ＊＊ | 43，763 |
| 1843 | 16，949 | 6，474 | 7，311 | 324 | 886 | 8，306 | 2614 | ＊． | 42，324 |
| 1844 | 17，137 | 11，872 | 7，005 | 100 | 502 | 7,212 | 002 | ．．． | 44.910 |
| 1845 | 28，732 | 18，171 | 10，944 | 667 | 100 | 7，183 | 1873 | － | 65，910 |
| 1846 | 24，974 | 8.104 | 7，914 | 1856 |  | 8，105 | 445 | ．． | 51，886 |
| 1847 | 22，25！ | 8，503 | 10，409 | 1059 | ：35 | 8，947 | 150 | $\ddot{0}$ | b3，344 |
| 1848 | 12，705 | 7，935 | 3，030 | 181 | 10 | 4，911 | ．．． | 260 | 20，032 |
| 1819 | 18，581 | 19，876 | 8，796 | 200 | 810 | 0，562 | $\cdots$ | C00 | 52，943 |
| 1850 | 15，936 | 7，816 | 5，083 | ．．． | －． | 3，177 | 600 | 10 Cb | 44，403 |
| 1851 | 12，600 | 0，061 | 4，154 | ． | － | 2，326 | 1851 | 1890 | 38，840 |
| 1852 | 22，707 | 1：，258 | 5，064 | ．．． | 829 | 7，679 | 840 | 2815 | 51，773 |
| 1858 | 18，947 | 10，305 | 9，080 | ．${ }^{\text {P }}$ | ．．． | 6，380 | 1619 | 2773 | 50,188 |
| 184 | 16.876 | 7，208 | 6，435 | 471 | ．．． | 10，180 | －•• | 1115 | 41，940 |
| 1855 | －8，909 | 9，722 | 5，754 |  | ．．． | 7，520 | 640 | 2010 | 35，221 |
| 1850 | 21，408 | 14，628 | 10，141 | 180 | ．．． | 4，919 | 802 | 4258 | 56，698 |

Included in thn above tolal are the following：In 1845， 650 hhde．ahlpped to $\mathbf{S t}$ ．Petersburg； $\mathbf{1 8 4 6}$ ， $\mathbf{7 3 9}$ hinde，do．； 1849


 and othor ports．

Accocnt of the Inspectiong of What Flotr, Indian Coan Mral, Rya Meal, and Tobacco at Balymobz, deaing racit of tie kjolit Ykare entine vithl 1858.

| Year. | Flour. |  | Indiun Core Mani. |  | Hye Meal. |  | Tobeceo. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1845. | $\begin{aligned} & \text { b6ly. } \\ & \text { 574, T45 } \end{aligned}$ | $\begin{aligned} & \text { Whin. } \\ & 631 \end{aligned}$ | $\begin{gathered} \text { Lbls } \\ 29,949 \end{gathered}$ | $\begin{gathered} \text { half-bble } \\ 1450 \end{gathered}$ | bdla $6518$ | $\begin{gathered} \text { half-bbls. } \\ 24 \end{gathered}$ | hhels. |
| 1846................. | 850,118 | 1076 | 40,949 | 1744 | 5402 |  |  |
| 1847................. | 909,458 | 034 | 106,842 | 1298 | 6068 | 49 | 60,571 |
| 1848................. | 788,441 | 833 | 60,225 | 182\% | 7590 | 106 | 89,0003 |
| 1849. | 744.519 | 428 | 51,778 | 2051 | 8007 | 9 | 45,60t |
| 1850................. | 800, 539 | 278 | 42,409 | 8369 | 6419 | 28 | 41,888 |
| 1854. . | 912,498 | 689 | 28,917 | 2450 | 7654 | 63 | 42,742 |
| 1452, ....... | 1,207,165 | 477 | 52,608 | 745 | 6449 | 21 |  |

Bamboo (Fr. Bambon, Bambouches; Ger. Indianischer Rohr; It. Rambu; Hind. Rans; Malay, Builuh ; Juv. I'reag), a species of cane, the Bambos arundinacea of botanists. It grows every where wlthin the troples, and is of the greatest utility: strictly speaking, it is a gigantic grass with a ligneoua stem. It often. rises to the height of 40 or 50 feet, and sometlmes to even double those heights. Like most plants long and cxtensively cultivated, it diverges into many varieties. Some of these are dwarfish, while others, instead of being hoilow canes, are solid. The bunhoo is of rapid growth, and in four or five years is fit for many usea, but does not bear fruit or grain till it is 25 years old, after which it periehes. The grain makes tolerable bread. The young but gigantic shoots, as they spring from the earth, make a tender and good eseulent vegetable. The mature bambo is emjloyed in an lmmense variety of ways-in the construction of housea, bridges, boats, agricultural lmplements, ete. Some varleties grow to auch a size as to be, in tl. g largest part, near two feet in circumference, and single knees of these are used as pails or buckets. The Chinese are believed to fabricate their cheap and useful paper of macerated bamboo. The canes used in Europe as waiking-stleks ara not bamboos, but rattans-a totally distinet class of plants. Bamboos are never used for that purpose.-Private information.

Banana (Musa sopientum), in herbaceous plant, a natire of the West Indies. Its fruit is produced in large ciusters weighing many pounds, and forms a consideruble articie of food among the better elasses.

Bandanas, silk handkerchiefs, generally red spotted with white. They were formerly manufactured only in the East Indies; but they are now manufactured of a very good quality ot Glasgow and other places.

Banglsok, or Bankok, the erpital city of Siam, and one of the most commercisl cities in Asia, on the Menam, about 20 miles above its mouth. Lat. $13^{\circ}$ $58^{\prime}$ N., long. $100^{\circ} 34^{\prime} \mathrm{E}$. Population from 50,000 to 60,000 (?), half of whom are Chinese. It stretches along both banks of tile river, and consists of three portioas; viz., the palace or citadel, on an island inclosed by walls, and comprising the residences of the soverelgn and court, with many temples and gardens; the city proper; and the floating town, composed of movable bamboo rafts, each bearing rows of 8 or 10 honsea. It has numerous Buddhic temples; and in the palace is a spacious audience-hall. The more solid buildings are of brlek; but the majority of the dwellings are of wood, mounted on posts. Most of the intercourse is carried on by water, and the Menam is navigable to the city for vessels of 250 tons. Bangkok lus manufactures of tin and lron wares, and leatler. Exports comprise sugar (from 10,000 to 12,000 tons yearly), hack pepper ( 4000 to 5000 lons), tin, cardamoms, fine woods, ivory, cotton, rice, hides, horns, skins, and feathers. Inports, tea, quicksilver, raw and manufactured silks, porcelain, and numerous manufactured articie: from China; eamphor, and edibie birds' nests, from the Asiatic Archipelago; and European and Tndian plece goods, opium, and glass wares, from the British and Duteis settiements in the East. The country around is flat, Lut contains rich mlnes of iron, and extensive forests of teak. The most favoratie time for reaching Bangkok, in ships of consider-
able draught, is about the beginning of Nevember, when the rains are just over, and the season is cool and healthful. There is then on the ber of the river, at low water, a depth of $8 \frac{1}{2}$ fathoms. In the spring and summer months it is sometines as low as two fathoms, or a little more, and the eapital is then reached with sume difficulty.

Bank-Banking. Banks, cre cstablishments intended to serve for the safe custody and lsane of money; for facilltating its payment by one indlvidual to another; and sometlmea for the aecommodation of the public with loans. These subjecta will be considered under the heads: I General Principles of Banking; II. Account of Bank of England; III. Engitsh Private and Provinclal Banks; IV. Seotch Banks; V. Irish Banks; VI. Forelgn Banks; VII. Banking In the United States; VIII. Savings Banks.
"The first established was in Italy, A.1. 808, by the Lombard Jows, of whom some settied in Lombard Street, London, where many bankers still reside. The name is derived from baneo, a bench, which was erected in the market-place for the exchange of money. The mint in the Tower of London was anclently the depository for merchauts' eash, until Charles I. laid his hands upon the money, and destroyed tha credit of the mint in 1640. The traders were thus driven to some other place of seeurity for their gold, which, when kept at home, their apprentices frequently ab; sconded with to the army. In 1645, therefore, they consented to lodge it with the goldemiths in Lombard Street, who wero provlded with strong chests for their own valuable wares; and this became the origin of banking in England."-Haydx.

| Bank of Venice formed |  |
| :---: | :---: |
| liank of (ienova. | 1345 |
| lank $\cap$ R Marcelons. | 14 |
| tinnk Genoa | 1.1 |
| IInnk of Amsterdam | 1607 |
| llank of liamburg | 1618 |
| lank of lotterdam | 1035 |
| Hank of Stockhofn |  |
| Bank ol England | 94 |
| Bank of Scotiand | 1695 |
| Ilank of Copenhagen | 1780 |
| lank of leriín | 765 |
| Calse d'Escompte, Fram | \% |
| lla.ak of Ircland | 183 |
| Massachusetts Bank, llo |  |
| lank of 8 t. Petershurg. |  |
| In the East Indics. |  |
| Branch Banks in Great |  |

J. General. Pinctiples of Banking.-Banks are commonly divided into the two great classes of banks of deposit and banks of issue. This, however, appears at first sight to be rather an imperfect ciassification, inasmuch as almost all banks of deposit are at the same time banks of jssue, and aimost all banks of issue also banks of deposit. But there is in reality no anliguity; for by banks of deposit are meant banks for the eustody mind employment of the money deposited with them or intrusted to their care by their customers, or by the public; while by banks of issue are meant banks which, besides employing or issuing the money intrustod to them by others, issue money of their own, or notes payable on demand. The Bank of England is principaliy a bunk of issue; but it, as well as the other banks in the diflerent parts of the empire that issue notes, is aiso a great bank of deposit. The privats banking companies of London, and the
varions provincial banka that do not wisue notes of tieir own, are strictly banks of deposit. Banking busineas may be conducted indifferently by individuals, by privato companies, or by joint-atock companies or associationa.

Utility and Functions of Banks of Deposit.-Barks of this class execute all that is properly understood by banking lusiness; and their eatablishment has contributed in no ordinsry degree to give security and fucility to commercial transactions. They afford, when properly conducted, sufe and convenient places of deposit for the money that would otherwise have to be kept, at a considerable riak, ia private houscs. Thay giso prevent, in a great measure, the necessity of carrying money from plase to place to make paymenta, and enable tham to be made in the most convenient ani lear expensive manner. A merchant or tradesman in London, for example, who employs a banker, keeps but very little monay in his own hands, making all his considerable paymenta by drafts or checke on his banker; and he aiso sends the various checks, bills, or drafts payable to himself in London, to his bankera befora they become due. By thia meana he saves the trouble and inconvenience of counting aums of money, and avoids the lossea he would otherwise be iiable to, and would no doubt occasionally incur, from receiving coins or notes not genuine. Perhaps, however, the great advantage derived by the merchant or tradeaman from the employment of a banker, consista in its relieving him from all trouble with reapect to the presentation for payment of due-bills and drafts. The moment theae aro trimaferred to the banker, they are at his risk. And if he either neglect to present them when due, or to have them properly noted in the event of their not being paid, he is reaponsible for the consequences. "This circumstance alone must cause an immense saving of expense to a mercantile house in the course of a year. Let us ouppose that a merchant has rnly two biils due cach diy. These bills may le payabie in distant parta of the town, so that it nay take a clerk half a day to present them; and in large mercantile catablishmenta it would take up the wiole time of ona or two clerka to prasent the duebilis and the drufts. Tho aaiary of these cierks is, therefore, saved by keeping an account at a banker's: besides the aaving of expense, it is also reanonable to suppose that losses upon bills would sometimes occur from mistakes or oversights ; from miscalculation as to the time the bill would become due; from errors in marking it up; from forgetfulness to present it; or from presenting it at the wrong place. In these cases the indorsers and drawees are exonerated; and if the acceptor do not pay the bill, the amount is loat. In a banking-house such mistakes occur sometimes, though more rarely; but when they do occur, the loss falls upon the banker, and not upon his customer."-Gitmant's Practical Observations on Ranking.

It is ols other grounds particularly desirable for a merchant or truleaman to have an account with a lnuking-housc. He can refer to his bankers as vouciers for his respectability; and in the event of his wishing to acquire any information with respect to the circumstances or credit of any one with whom he is not acquainted, his bankers render him all the assiatince in their power. In this respect they have great facilities, it being the common practice among bankers in London, and unost other trading towns, to communicate information to each other as to tho credit and solvency of their customers.
In Greut Britain, to provide for the public security, tise atatute $7 \& 8$ Gco. 4 , c. $29, \S 49$, "for the punishment of embezzlement committed by agents intruated with property," enacts, "That if any money, or accurity for tine payment of money, shall be intrusted to any banker, merchant, broker, attorney; or other agent, with any direction in writing to appiy such money, or any part therenf, or the proceeds, or any part of the
proceeds of anch security, for any purpose specified in anch direction, and he shall, in violation of good faith, and contrary to the purpose so opecified, In any wise convert to his own use or benefit such money, security, or proceeds, or any part thereof reapectively, every such offander shall be guilty of a miademeanor, and, being convicted thereof, shall be liabie, at the discretion of the court, to be tranaported beyond acas, for any term not exceeding fourteen years, lor leas than seven years, or to suffer such punishment ly fine or imprisonment, or by both, as the court shail award; and if any chattel or valuable security, or any power of attorney for the sale or transfar of any share or intarest in any public stock or fund, whether of this kingdom, or of Great Eritain, or of Ireland, or of any foreign State, or in any fund of any body corporate, company or society, shalt be intrusted to any banker, merchant, broker, attorney, or other agent, for safo custody, or for any anecial purpose, acithout ony authority to sell, negotiate, tranafer, or piedge, and he shall, in violation of good faith, and contrary to the object or purpose for which auch chattel or securitv or power of attormey, shall Lave been intrusted to $\mathbf{b}$., sell, negotiate, transfer, pledge, or in any manner convert to his own use or benefit auch chattel or security, or the proceeds of the same, or any part thereof, or the share or interest in atock or fund to which such power of attornoy shall relato, or any part thereof, every suci offcnder ahall be guiity of a misdemennor, and, being convicted thereof, shall be liable, at the discretion or the court, to any of the puniahments which the court may award, as hereinbefore laat meationed."
This act is not to affect trustees and mortgageen, nor bankera recciving money due upon securities, nor securitice upon which they have a Uit.., claim, or demand, entitling them by law to aeli, transfer, or otherwise dispose of them, uniesa such sale, tranafer, or other disposal siall extend to a greater number or part of auch securitics or effecta than shali be requisite for satiafying auch lien, claim, etc.- $\$ 50$.
Nothing in this set is to prevent, impeach, or lessen any remedy at law or in equity, which any party aggrieved by any auch offonse might or would have had had it not been paased. No banker, merchant, etc., shali be convicted as an offender agaiast this act, in respect of any act done by him, if he shall at any time previously to his being indicted for such offense have diaclosed auch act on oath, in consequence of ay compulsory process of any court of law or equity, in any action bond fide Instituted by any party aggrieved, or if he shall have diaciosed the aame in any examination or deposition before any commisaioner of bankrupt.- $\$ 52$. Under the provisions of tilis act the memicra of the firm of Strahan, Paul, and Bates, bankers, London, were found guilty, and on the 27 th of October, 1855, were sentenced to transportation for fourteen years.

The Bank of England, and the private banking conpanjes of London, as well as some of the Engitah provincial banks, charge no commission on the payments made and received on account of thoae who deal with them. And until the recent introduction of jointstock banks, none of the London bankers, except in peculiar cases, allowed interest on deposits; nor is it yet allowed by the great majority of the metropolitan private bankers. It is also either atipulated or distinctly understood that a person cmpioying a banker should, beaidea furnishing him with auficient funds to pay his drufts, kcep un average balance in the bauker's hands, varying, of course, according to the amount of lusiness cione on inis account ; that is, according to the number of his checks or drafta to be paid, and the number of drafts and billa to be received for him. Tine bankers then calculate, as well as they can, the prolable amount of cash that it will be necessary for them to kecp in their coffers to meet the ordinury demands of their customers, and employ tho baiance in dis.
counting mercantlle bills，in the purchase of securi－ ties，or in some other sort of protitable adventure；so that their profits consiat of the suln they realize from such part of the moneys lodged in their hands as they can venture to employ in an advantageous way，after deducting the varioua expenses attendant on the man－ agement of their establiahments．A bank of deposit would never be established if it had to depend on ite own eapital ；it makes no profit，in its capacity of bank， till it begins to employ the capital of others．

The directors of the Bank of England do not allow any individual to overdraw his account．They answer drafts to the fail extent of the funds depesited in their hands；lut they will not pay a draft if it exceed their amount．Private bankers are not generally so serupu－ lous；mest of them allow respectable individusls in whom they have confidence to overdraw their aecounts， those who do so paying interest at the rate of 5 per cent．on whatever sums they overdraw．Tho posses－ sion of this power of overdrawing is often a grest con－ venience to merchan $\hat{s}$ s，while it is rarely productivo of loss to the banker．The money which is overdrawn is usuaily replaced within a short period；sometimes，in－ deed，in a day or two．The directors of the Bank of England declino granting this facility，from a disin－ clination on their part to come into competition in a matter of this aort with private bankers，who transact this kind of business better，probably，than it could be done by a great establishment like the Bank．

Banks afford great facilities to the public in the ne－ gotiation of lillis of exchange，or in the making of pay－ menta at distant plsees．Many of the banking com－ panies establighed in different districts have a direct intercours3 with each other，and they have all corre－ spondents in London．Hence an individual residing in any part of the country，who may wish to make a payment in any other part，however diatant，may effect his elject by applying to the baak nearest to him． Thus，suppose A．of Penzsnce has a jayment to make to 13．of Inverness：to transmit the monoy by letter would be hazardous；and if there were fractional parts of a pound in the sum，it would hardly be practicalle： how then will A，mansgo？He will pay the sum to a banker in Penzance，and his creditor in Inverness will receive it from a banker thore．The transaction is ex－ tremely simple：the Penzanco banker orders his corre－ spondent in London to puy to the correspondent of the Inverness banker the sum in question on account of B．，and the Inverneas banker，being advised in course of post of what has been dene，pays 13．A small com－ mission eharged by the l＇enzanco banker，and the post－ ages，constitute the whole expense．There is no risk whatever，and the whole affair is transacted in the most commodious and cheapest manner．

By far the largest proportlon beth of the inland bills in circulation in the couniry，and also of＊＊soreign bills drawn upon Great Britaln，are mave payable in Lonion，the grand focus to which all the pecuniary transactions of the empire are ultimately brougint to be sdjusted．And in order still further to economize the use of money，the principal bankers of the metropolla are in the halit of acnding a clerk each lay to the clearing－house in Iombard Street，who carries with him the various bills in the possession of his house that are drawn upon other bankers；and having exehanged them for the bills in the jossession of those others that are drawn upon his constituents，the balance on the one side or the other is paid In cash or Bank of En－ gland notes．By this contrivance the bankers of Ion－ don are able to settle tranaractions to the oxtent of sev． eral milions a clay，by ties employment of not more，at an average，than from $£ 200,000$ to $£ 300,000$ of cash or bank notes．$\rightarrow$ Sed Clmanimg－utodse．

In consequenee of these and other facilitles afforded ly the intorvention of lankeis for the dettlement of pecuniary transactions，the monoy required to conduet the busincss of an extenslve country is reduced to a
trifie only，compared to what it would otherwise be．It ． is not，indeed，pessible to form any very aceurate esti．＂ mate of the total ssving that is thus effected；but，sup－ posing that 50 or 60 millions of gold and silver and bank－notes are at presont required，notwithstanding all the devices that have been resorted to for econo－ mizing money，for the circulation of Great Britain，it may，one should think，be fairiy concluded that 200 millions would，at the very least，be required to trans－ act an equal extent of business but for those dovices． If this statement be nearly accurate，and there are good grounds for thinking that it is rather under than overrated，it strikingly exhilits the vast innportance of banking in a public point of view．By its means 50 or 60 millions are rendered capable of performing the same functions，and in an infinitely more commo－ dions manner，that would otherwise have required four times that sum；and supposing that 20 or $30 \mathrm{mill}-$ ions are employed by the bankers as a capital in their establishments，no less than 120 or 130 millions will be altogether disengaged，or cease to be employed as an instrament of circulation，and made available for employment in agricultore，manufactures，and com－ merce．The security afiorded by a bank of deposit is a matter as to whiels there must always bo more or less of doubt．When，indeed，s banking company confinea i．self to its proper business，and does not em－ bark in speculations of unusual hazard，or from which its funds can not bo easily withdrawn，in the event of any audden run or demand，it can hardiy ever faii of being in a eituation to meet its engagoments；whilo the largo private fortunes that most commonly beiong to the partners afford those who doal with it on addi－ tional guarantee．Much，howover，depends on tho eharaeter of the parties，and on a varioty of eireum－ stanees with respect to which the public can nover be correctly informed；so that though there can be no doubt that th，security afforded by many private banks of deposit is of the most unquestionabis descrip－ tion，this may not he the case with others．
All joint－stock lonnke，or banks liaving moro than six partners，whether for deposit and issue，or for deposit merely，are ordered，by tho act 3 and 4 Will．4，cap． 83 ，to send quarteriy returns of the number and names of their partners to the stamp－office．llut this aet does not apply to private banks，or banks not having moro than six partners，though we see no good reason why similar returns should not，ont several why they should，be required from them us well us from others． At present few havo any ecrtain knowledgo of tho partners in privato banks．Individuals often appear in the names of firms who have been dead for many years；and it has not unfrejuently been found in eases of bankruptey that parties of iarge fortune，who wero supposed to havo belonged to the coneern，hail with－ drawn long proviously．All uncertainty and obseurity of this kind might，however，be easily put an ent to by making periodical deelarations of the names ri the partners；and provkied this were clone，and the names mado sufficiently publie，we duubt whether any other step should be taken for interfering in any way with banks of deposit．Thera is in this respect a wicie dif－ ference between them end lunks of issus．It is the duty of the government to take care that the value of the currency shall be ns invarlabie as possiblo；but it has never been jretended that it is uny part whatevor of its duty to inguire into the aecurity given by the borrowers to the lemilers of money，any more than into the security given by the borrowers to the lenders of any thing else．Government vory properiy obliges a goldsmith to have his goods stamped，this leing a security to the publle that they shall not he imposed on in buylng articles of the quality of whleh they are generally ignorant；but it does not require that the persons to whom the goldsmith sells or lends his gools should give lim a guarantee for their payment．This is a matter as to which individuals aro fully eompetent

$$
\begin{aligned}
& \text { ercet } \\
& \text { lent }
\end{aligned}
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ise be. It urate esti. ; luat, supsilver and hstanding for eeonoBritain, it that 200 I to trange devices. there are inder than nportance its means erforming e commorequired or 30 millal in their lions will ployed as lilable for and comdeposit is a more or company es not emont which 3 event of ver fatl of ts; while $t$ an addids on the f circumI never be can be no $y$ prlvate le deserip-
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to judge for themselvea; and there neithar la nor can be any reason why a lender or depositor of bullion or notes should be more protected than a lender or depositer of timber, cosl, or sugar. Goid being the standard or mausure of value, government is bound to take effectual precautions that the eurrency shall truly correspond in the whole and in all its parts with that standard-that every pound note shall be worth a sovereign, and that the amount and value of the aggregate notes in circulation shall vary exactly as a gold currency would do wers it substituted in their stead. But this is all that government is called upon to do. If A. trust a sum of money in the hands of B., it is their affair, and concerns no one else. Provided the money afiont correspond with the standard, it is of no importsnce, in a public point of view, into whose hands it may eome. The bankruptey of a deposit bank, like that of a private gentlemen who has borrowed largely, may be productive of much loss or inconvenience to Its creditors. But if the puper in circulation be equivalent to gold, such bankrupteies can not aftect either the quantity or, value of monay, and are therefore injurious only to the parties coneerned.

Substitution of Notes for Coins-Banks of IssueMeans' by which the Value of Notes may be kept on a Luvel with the Inlue of the Precious Metals,-Notwithstanding the precious metals are in many respects admirably fitted to serve as u medium of exchange (see art. Money), they have two very serions drawbaeks-their cost, and the difficulty and expense of carrying them frem place to place. If the eurreney of Great Britsin consisted only, of gold, it would amount to at least sixiy miliions of sovereigns; and the expense attending such a currency, allowing only, $\ddagger$ per cent, for wear and tear and loss of coins, could not be reckoned at less than $£ 3,250,000$ a year. The weight of 1000 sovereig. is axceeds 21 pounds Troy; so that, were there nothing but eoins in cirenlation, the conveyance of large sume from place to place to diseliarge accounts would bo a very laborions process, and even smail sums could not be conveyed without considerable difficulty. Hence it is that most commercial and civilized nations have fabricated a portion of their money of less eostly and henvy materials, and resorted to various devices for economizing the use of coin. Of the sulbstitutes for the latter hitherto suggested, puper is in all respects the most eligible. When governments aro sufficiently powerful and intelligent to enforce the olservanco of eontracts, individuals possessed of written promises fre'r others that they will pry ecrtain sums at specified periods begin to assign them to those to whom they are indebted; and when thase by whom such obligations aro subscritied are persons of whose solveney no doubt can be entertained, they are readity aceepted in payment of the debts due by one individual to another. But when the circulation of obligutions or bills in this vay has continued for a whild, individuals legin to perceive that they may derive a profit by lesuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. IIence tho origin of bank-notes, or paper mones: An indivilual in whose wealth mud discretion the public have contidenco being applled to for a loan, say of $£ 5000$, grants tise applicant his hill or noto payalile on demand for that sum, on his recelving adequate security for its repayment with interest. Now, as this note passes, in consefuence of the condidence placed In the lssuer, currently from hand to hand as cash, it is quite as nseful to the borrower ns if he had oltalned an equivalent anount of gold; and supposing that the rate of finterest is 4 per cent., it will yieli, so long as it continues to circulate, a revenue of $£ 200$ a year to the issuer. A sense of the adyantages that might, in this way, be derived from the circulation of bills or notes, led to the formation of hanks for their regular issue. Those who issue such notes coln, as it were, their credit. They
derive the same revenue from the loan of their written promises to pay certain sums that they would derive from the loan of the sums themselves; and while they thus inerease their own income, they at the same time contribute to inerease the wealth of society. Besides being ineomparably cheaper, bank-notes are also incomparably mora commodions than a metallic eurrency. A bank-note for $£ 1000$ or $£ 100,000$ may le carried about with as much freility as a single sovereign. It is of importance, too, to olserve, that its loss or destruction, whether by fire, shipwreek, or otherwise, would be of no greater importance, in a publie point of view, than the loss or destruction of as much paper. No doubt it might be a serious calanilty to the holder ; but to whatever extent it injured him, it would proportionally benefit the issuer, whereas the loss of coin is an injury to the hoider without being of serviee to any one else; it is, in fact, so mnch abstracted from the wealth of the community.
To olviate the endless inconveniences that would arise from the cirenlation of coins of every welght and degree of purity, were there no restrictions on their issue, all goveruments have forbidden the circulation of coins except they be of a certain specified or stendurd weight and fineness. And the recurrence of similar ineonveniences from the issue of notes for varying sums, and payable under varying conditions, hes led, in all countries in whieh paper money is maile use of, to the enacting of regulations forlidding the issue of notes below a certain amount, and layling down rules for their payment. In England at this moment no note payable to bearer on demand can be issued for less then five pounds, and they must all be paid the moment they are presented. In Scotland and Ireland the minimum value of bank-notes is fixed at one pound, the regulations as to payment being the same as in England. In order to preserve monopoly of the London eireulation to the Bonk of England, no notes payable to bearer on demand are allowed to be issued by individuals or associations, other than the Bank of England, within sixty-five miles of St. Paul's. But beyond these limits every ono who complies with the above regulations es to the minimum amount of notes, and who promises to pay them on demand, may, on paying the stamp-duty, and making returns of the issues to the stamp-office, circulate any amount of notes he cansucceed in getting the public to take off.

But thongh the condition that they shall be paid on demand, and the belief that this condition will bo complied with, be necessary to sustain the value of notes issued by private parties or assochations, it is not neeessary to sustain the value of paper money, properly so ealled, or of notes which have been made legnl tender. The only thing required to sustain the velue of the latter deseription of eurreney is, that it should be lssued inlimited quantities. Every country has a certain number of exehanges to make; end whether these are effected by the employment of a given number of coins of a particular denomination, or ly the employment of the sume number of notes of the same denominatien, is, in this respect, of no Importunce whatever. Notes whleh have been made legal tender, and are net payable on demand, do not circulato beeause of any eonfidenee placed In the capacity of the issuers to retire then; neltion do they cireulate hepause they are of the same reai valne as the commodities for which they are exelanged; but they cireulate beennso, laning been selected to perform the functions of money, they are, as such, readily recelyed by all individuals in payment of their delts. Notes of thils description may be regarded as a sort of tickets or eomintera to be used in computing the value of property, and in transferring it from one individual to mother. And as the $y$ are nowiso atlected by Auctuations of eredit, their value, it is ohvious, must depend outirely on the quantity of them in circulation ns compared with the payments to le made tirough their instrumentality, or the business they have to per-
form. By reducing the supply of notes below the supply of coins that would circulate in their plsce were they withdrawn, their value may be raised above the value of gold; while, by increasing them to a greater extent, it is proportionally lowered. Hence, suppesing it were possible to obtain any security, other than immedinte convertibillty into the precious metals, that notes declared to be legal tender would not be issued in excess, but that their number afloat would be so adjusted as to preserve their value as compared with gold nearly uniform, the obligation to pay them on demand might be dispensed with. But it is needless to say that no such security can be oltained. Wherever the power to issue paper, not immediately convertible, has been conceded to any set of persons, it has been abused; or, which is the same thing, such paper has uniformly been overissued, and its value dopreciated from excess. And it is now admitted on all hands to be quite indispensable, for the prevention of injurious fluctuations in the valne of money, that all notes be mado payable, at tho pleasure of the holder, in an unvarying quantity of gold or silver.

But though such be the law in this and most other countries, it is, we are sorry to say, operative only on the richest, most cantious, and respectable bankers, and is found to afford no real security against tho roguery and misconduct of others. This security is, however, the more indispensable, seeing that the issuo of notes is, of all businesses, that which seems to hold out the greatest prospect of success to the sehemes of those who attempt to get rich by preying on the public. The circumstances that excite the public confidence in the first instance, and that afterward keep it up, are often of the most treacherous description. The cost of engraving and issuing notes ls alse but an inconsiderable item, compared with the sums for which they are issued, and provided they be got into any thing like extensive circulation, they beeone at once consldorably productive. They are aeldom issmed except on tho deposit of bills or other securities yielding a considerable rate of interest ; so that if an indlvidual, or set of individuals, with little or no eapltal, contrive, hy fair appearances, promises, and shmilar devlees, to insinuate himself or themselves lnto the public contidence, and can maintain $£ 20,000, \mathcal{L} 50,000$, or $£ 100,000$ in circulation, he or they secure a good income in the mean timo; nad when the bubblo bursts, and the limpostare is detected, they are no worse off than when they set up thelr bank. On the contrary, the preaumption is that they are $n$ great deal better ofl; and that they have taken eare to previle, at the cost of the eredulous and decelved publle, $n$ reservo stock for their future maintenance. Hence, seeing the facilitles for committing frumbl are so very great, the propriety, or rather necesslty, of providing against them.

It must not be imagined that this is mere hypothetieal reasoning. On the cont rary, as every hody knows, innumerntle lastances have occurred of the population of extensive distrlets having suffered soverely from the insolvency of bankers in whom they placed the utanost confldence. In 1793, 1814-16, and 1825-26, a very large propertion of the Iritish banks stopped payments, anl proluced by their fall an extent of lankruptey and ruin that hat seldom been equaled elsewhore. Jut when such gigantic disasters had aiready happened, and were on the eve of agah happening ln $1 \times 1 / 7-38$, it becane the boumen duty of govermment to himier, by every means in its power, their recurrence. It is no exaggerstion to affirm that Engiand has suatained a thonsand thmes more injury from the circulation of worthless puper, or paper lasued by persona without the means of retiring it, than from the lasue of spuriolt coin.

It has lieen supposed that the oljections to the lasne of notes liecanse of the rlsk of non-pryment inlylit lee ofvinted, were they issned only by assoclations or joint-ntock companies. Int there is no real foundi-
tion for any such supposition. There can not, in fact, be a greater error than to suppose that because a bank has a considerable number of partners it will necessarily be etther rich or well managed. It may be neither the one nor the other. A single individual may possess more wealth then a number of individuals assochted together; and the chances are that, if he engrge in banking or any other business, it will be better managed than by a company. Uniler the present system (and it can not be prevented under any system), the partners in joint-stock banks, as in others, may be men of straw, or persons without property, and unable to fultill their engagements. It is of the easence of a secure and well-established paper currency that the notes of which it consists should be of the exact value of the gold or silver they profess to represent, and that, censequently, they should be paid the moment they are presented. But it is not enough to order that this condition shall be uniformly complied with. Such order is obeyed only by the opulent, prudent, and conscientious bankes, and forms little or no check on the proccedings of these of a contrary character. It is the latter class, however, that it is especially necessary to look after; and it is needless to say that any system that permits notes to be issued without let or hinderanco by speculative, ignorant, or naprincipled adventurers, must be essentlally viclous.

It has sometimes heen contended, in rindication of the plan of allowing any individual, or set of hndividuals, how bankrupt soever in fortune and character, to issue notes without cheek or limitution of any kind other than the prombse to pay them on demand, that they are essentially prirate paper; that their acceptance in payment is optlonal ; mil that, as they may be rejeetet ly every one who either suspects or dislikes them, there is no room or ground for interferiag with thelr issue! llut every body knows that, whatever notes may be in law, they are in most parts of the country practically and in fuct legal tender. The bulk of the people are totally without power to refuse them. Tho currency of many extensive allstricts consists in great part of country notes, and such small farmers or tradesmen us should decline taking them would be exposed to the grentest inconveniences. Every one makes use of or is a dealer in money. It is not employed ly men of husiness only, but ly persons living on fixed inconses; by women, laborers, minors; in short, by every elass of individuala, very many of whom aro necessarily, from their situation in life, quite unable to form any estimate of the solidity of the different linaks whose paper is in circulation. Such purties are uniformly severe sufferers by the failuro of banks. The paper that comes into thelr hands is a jurt of the currency er money of the country; and it is quite as much the thity of govemment to take measures that this puper shall he truly and substantially what it professes to be, as that it should take measures to prevent the jssue of spurious coins or the use of false or deficient welghts aul mensures.
The fact is, that the paper currency of a country can not be on a perfectly aound footing until the issue of notes, whether hy joint-stock hanks or privato individuals, he suppressed. It hins heen proposed, to olviate any recurrenee of the wide-sprend ruln that has so frequently resulted from the bankruptey of banks of issue, to compel them to glve securlty for the payment of their notes; and the adoption of anch a regulation would, no douht, have been n vast hmprovement on the late system. Jut though the exaeting of securlty would have haterlally mithgnted, it would not have eradieated the vices of a system whileh allowed banks to be estabilshed at the pleasure of intdivhlunls. A paper currency la not in $n$ sotund or wholesome atate, unless, 1at, means be taken to hisure that each partlenlar note or purcel of such currency be pa'; inmediately on demnind ; and unless, 2d, the whole currency vary in amounl and ralue exactly as a
not, in fact, ause a bank ill necessa$y$ be neither al msy posals associae engage in better mansent system ystem), the nay be men d unable to nce of a selat the notes value of the $d$ that, connt they are at this conSuch order d conseienon the proIt is the latecessary to any system tor hinderoled adven-

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 of individMaracter, to $y$ kind other at they are ance in payrejected iy them, there their issue? s may be int practirally people are e curreney eat part of adesmen us osed to the es use of or by men of dincomes: every class aecessarily, o form any toks whose uniformiy The paper curreney er 1 much the? this puper Pesses to be, tho issue of ant weights'n country if the issue private inropused, tu 1 ruin thut kripitey of ecurity for ion of such a vast inght the exiftigated, it tem which sure of intsound or n to insure h eurrency ess, 2d, the ractly as a
metallic currency would do weere the paper currency with drawn and coins substituted in its stead. The last condition is quite as indispensable to the existence of a well-eatabliahed currency as the formor ; and it is one that ean not be fully realized othrwiae than by confining the issue of paper to a aingle source.
It is exceedingly dificult to prevent the iasue of forged notes. Various schemes have been auggested for this purpose; and though it be hardly poasible to suppose that an inimitable note will ever be produced, it is contended that by judicionaly combining different sorts of engraving, forgery may be rendered so difficult as to be but rarely attempted. But however this may be, during the period from 1797 to 1819, when the Bank of England issued $£ 1$ notes, their forgary waa carriad on to a great axtent. And the desire to check this practice, and to lcssen the frequency of captial punishments, appeara to have been among tho most prominent circumstancas which led to the return to specis payments in 1821, and the suppression of $£ 1$ motes.
Bank of England Notes legal tender.-According to the law as it stood previously to 1834, all dascriptions of notes were legally payable at the pleasure of the hoider in coin of the atandard waight and purity. But ths policy of such a regulation was very queationable; and we regard the enactment of the stat. 3 \& 4 Will. 4, c. 98 , which makes Bank of England notes legal tender, every where except at the Bank and its brunchos, for all sums above $\mathbf{E 5}$, as a great improvement. The unjust liebilities imposed upon the Bank of lingland by tha old system placed her in a situation of great difficulty, and hazard. Thay obliged her to provide a aupply of coin and bullion, not for her own exigoncies only, but for those of all the country banks; and, what is harder still, they exposed her to be deeply injured by any misconduct on the part of tho latter, as well as by the distress in which thay might accidentally be involvad. In consaquenca, her free action was at all times in some degree impeded; and har power to render ns. Istance to the banking and mereantilo interests in perioda of discredit materially diminished. The country banks kept but a small aupply of coin in their cotiers. Thoy wero all, howaver, holders, to a grester or lass extent, of government securities; and whenever any circumstance ocourred to oceasion a demand upon them for coin, they immediately sold or pledged tha whola or a portion of their stock, carried the notes to the Bank to be exrhanged, and then carried the specie to the country. Hence, when any suspicions were entertained of the credit of the country banks, or when a panic originated among the holders of their notea, as was the case in 1798 and 1825 , the whole of them retrested upon the Bank of Cnglinnd, and 700 or 800 conduits were opened, to drnw off the apecic of that estalilishment, which was thus, it is evident, exposed to the risk of stoppage without having done any thing wrong. It was not the drain for gold from nbroad, but the drain for gold from the country, that neurly exhansted the Bank's coffors in 1825, and forced her to lasuo ntout a million of $£ 1$ and $£ 2$ notes. The enrrency could not be in a soutd, healthy state, while the liank of England, and, throngh her, public credit, were piaced in so perilous n situution. But the making of Jank of England notes legnal tender at ali places except tite Bunk, has tended materinily to protect her from the injurious consequences of paniea or runs numong the holdera of country bank paper; and while it does this, it hat not, it appears to un, any wise impaired the securities against overiasue or depreclation.

It ins, no doubt, been contended that the mensure now referred to might iend to the deprecintion of provinciai paper; inasmuch as the expense of sending notes from a tistanee to London, to be exchanget for goid, would pravent any ona from demanding llank of Lingland notes from country lanke in good credit,
till the value of the notes issued hy them was 60 much tepreciated below the value of gold that the difference would more than pay the expense of sending them to London, and bringing gold back. Thers can not, howaver, be the lesst difference, as respects valne, in the provinces, between Bank of England psper, now that it is logal tender, and gold. London leing the place where the exchanges are adjusted, the vnlue of money in every part of the empira must depend on its value in it; and this, it is plain, is not in any degree affected by the measura under considerstion. Formerly the provincial currency, gold as well as paper, might be, and indeed frequently was, depreciated. This was brought about either by an overissue on the part of the country banks, generally in the first instance the effect, but always in the end the esuse, of a rise of prices; or by the issues of the Bsnk of England being, in consequence of an adverse exchsnge, narrowed sooner or more rapidly than those of the country banks. In either case, the provincial currency being redundant as compsred with thist of the metropolis, there was a demand on its issuera for bills on London; hut it is matarial to ohserva that, unless their credit was suspected, there was not, in such cases, sny demand upon them for gold. It is, indeed, olvvious that a redundancy of the currency is a defect that can not he obviated by getting gold from the country banks, unless (as hoarding is out of the question) it bo intended to send it abroad; and that may alwsys be done better and cheaper by getting from them Bank of England notes, or bills on London. A local redundancy of the currency msy take place now as it has done formerly ; and its occurrence can not be prevented, even though paper wero wholly bsnished from circulation, so long as the whole enrreney is not supplied from one souree, and as London is the focus where the exchanges with foreign countries are ailjusted. But the statements now msde show that it is a radical mistake to suppose that it can take place more readily, or to a greater extent, under the present system than formerly. In this respect no change was made in 1834. And while the ancient security against overisaua was maintained unimpsired, the arrangements then made increased the stability of tha Bunk of England, and consequently inproved tha pecuniary system of the country.

If any doubt could possibly remain as to the opera. tion of this system, it would he removed by roferring to Scotland. Gold has been practically bsnished from that country for a long series of years; and yet no one pretends to say that prices aro higher in Scotland than in Fingland, or thnt her currency is deprecinted. The Scoteh eurrency is kept at its proper level, not by the check of gold psymenta, lint liy the ctemand for bills on London; and it is as effectually limited in thia wsy as it would be wore the banks universally in the habit of exchnnging notes for gold. On what grounds, then, is it to he apprehended that the obilgation to give Ilank of England notes or bills on Iondon will he less effectunl in restraining overissue in Yorkshire or Durham than in Scotland? A banker who issues notes must keep beaide him such a stock of cash and hullion as may be suffeient to unswer the demands of the priblic for their payment. If the value of the easin mul bullion in his coffers were equai to the value of his notes in circulation, ho would not, it is plain, mako any profit; but if he be in gond are:m, a third, $n$ fourth, or even ufflh part of this sum will probnhly be suffclent; and his profit consists of the excess of the interent derivod from hia notes in eircnintion over the intorest of the sum ho is ohllged to keep dormant in his strong-hox, nul the expenses of mannging his establisituent. The Ilank of Enginnd, as will he afterward seen, kegps an nverage stock of coin and bullion equal to a third of her ilabilitiea.

No particuiar form of worts is necessary in a banknoto. The easontial requisites are, that it should be for a definite sum (in E.gland and Wales not less than

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$\mathbf{~} \mathbf{5}$, and in Scotland and Ireland not less than $\mathbf{£ 1}$ ), that it ahould be payaile to bearer on demand, and that it should be properly stamped. Promissory netes, though isaued by bankers, if not payable to bearer on demand, do not come under the denomination of bank-notes; they are not, like the latter, taken as cash in all ordinary transactions; nor are they, like them, easignable by mere delivery.

The circulation of notes for less than $£ 5$ was restralned by law (stat. 15 Geo. 3, c. 51) from 1766 to 1797. In 1808 , it waa enacted by atat. 48 Geo, 3, c. 88, that all bank-notes, promissory notea, or other negotiable instrumenta for less than 20 s., should be absolutely vold: a penalty of from $20 s$, to $\mathbf{£ 5}$, at the discretion of the justices, being imposed on their issuers. It was chacted by the 7 Geo. 4, c. 6, that the issue of all bank-notos or promissory notes for less than $£ 5$ by the Bank of England, or by any licensed English bankcrs, and atampel on the Jth of February, 1826, or previously (after which period auch notes were not stamped), should terminste on the 5th of April, 1829.

By the 9 Geo. 4, c. 23, English bankers not in the city of London, or within three miles thereof, are authorized to issue promissory notes, and to draw and Issue bills of exchange, on unstamped paper, for any sum of $\mathcal{L} \overline{5}$ or upward, oxpressed to be payable to the bearer on demand, or to order, at any period not exceeding 7 days aftar sight (bills may aloo be drown at any period not exceeding 21 days after date), upon obtaining licenses, coating $\mathbf{£ 3 0}$, to that effect; provided auch bills of exchange be drawn upoo bankers in London, Westminster, or Southwark; or provided such bills be drawn by any banker or bankers at the place where he or they ahall be licensed to issue unstamped notes and bills, upon himself or themselves, or his or their copartner or copartners, payable at any other place where such bankor or bankers shall be licensed to issue such notes and bills. Bankers having auch licensos are to give aecurity, by bond, that they will keep a true account of all pronisaory notes and bills ao issued, and acconnt for the duties on them at the rate of $3 s, 6 d$. for every $\mathbf{£ 1 0 0}$, and also for the fractional parts of $£ 100$ of the avorage value of such notes and billa iz circulation. Persons post-dating unstamped notes or bilis shall, for every euch offense, forfcit $£ 100$.

Legal Effect of the Paymient of Bank-notes.-Notes of tha Bank of England were not, previously to the act $3 \& 4$ Will. 4, c. 98 , like bills of oxchange, mero securities, or documents of debt, but were treated as money or cash in the ordinary course or tranauctions of business; the reccipts given upon their payment being alwaya given as for money. Now, however, they are legal tender, cvery where except at the Bank, for all suma above $£ 5$. All notes paynble to bearer are assignable by delivery, The hojder of a banknote is primá facie entitled to its prompt payment, and can not be sffected by tho provious fraud of any former holder in obtaining it, unlers evilence be glven to show that he was privy to such frund. Such privity may, however, be inferred from the circamstances of the casc. To use the world of Lond Tenterden, "If a jerson take e bill, note, or any other kind of sacurity, under circumstancea which ought to excite suspicion in the mind of any reasonable man acqualnted with the ordinary affairs of life, and which ought to put him on his guard to make the necessary inquiries, and he do not, then he Juses the right of maintaining porsesslon of the instrument aguinst the lawful owner,"-Guiklhall, 25th Octobar, 1820.

Country bank-notea are usually received as eash. But though triken as such, if they be presented in due time and not paid, they do not amount to a payment, and the delliverer of the notos is still llable to tho holder. It is not easy to deteringe what in a due or reasonable time, inammuch an it must depand in a great measure on the circumstances of each particular case.

On the whole, the safest rule seems to be to present all notes or drafts payable on demand, if received in the place where they are payable, on the day on which they ara recelved, or as soon after as possible. When they have to be tranamitted by post for payment, no unnecessary delay should be allowed to intervene.Ciritry's Commercial Law, vol. iil. p. 590; and the art. Check in this work.

Distinction between Bank-notes and Bills of Exchange, -It is common with those who object to any restrictions beiog laid on the isaue of bank-notes to repreaent them aa subatantially identical with ordinary bills of exchange, and to contend that If it would be imprident or impracticable to interfere wlth the issue of the latter, tho issue of the former should also be left to the discretion of the parties. The cases, however, are net parallel. It ls true that bllls of exchange perform in some respects the functions of money; and, being transferred from one individual to enother, make payments much in the esme way as If thoy were bank notes. But though there are, no doult, certain points in which bills of exchange and bank-notea closely reasmble each other, there are others, and those too of the greatest importance, in which there is a distinct and material difference between them, Bank-notes are lsaned only by parties llcensed for the purpose, or by bankers; they are unlformly payable on demand, or when presented; they are not indorsed by the holder on his paying them away; tho party receiving has no cluim on the party from whom he received them In the ovent of the fullure of the lasuers; and every one is thus encouraged, reckoning on the facility of passing them to others, to accept bank-notes, "even though he should doubt the ultimste solvency of the isaners." -Thonston on P'aper Credif, p. 172. Bllla, on the contrary, may be drawn by all Iodividuals; they are mostly all made payable at some distant period; and those Into whose hands they come; if they be not in want of money, prefer retaining them in their possession, in order that they may get the intereat accruing upon thom. But the principal distinction between notes and bills is, that the latter are not assignable by mere delivery, bat that every individual, in pasaing a bill to unother, has to indorse it, and by doing so makes hilmself responsible for its payment. "A bill cireulates," says Mr. Thornton, "In consequence chiefly of tho conflence placed by ench recelver of it in the last indorser, hls own correspondent in trade; whereas the circulation of a bank-noto ls owing rather to the circumstance of the name of the lssuer being so well known as to give it a universal credit."-P. 40. Nothlng, then, can be more inaccurste than to represent blles and notes in the same point of vlew. If A. pay to $\mathbf{B} . \boldsymbol{£ 1 0 0}$ in astiafuction of a debt, there is an end of the transaction; but if A. pay to B. a bill of exchange for $£ 100$, the transaction Is not completed; and, in the cvent of the blll not being pald by the person on whom it is drawn, B, will have recourse upon A. for its value. It is clear, therefore, that a great deal more conslderstion is alwaya required, and may be falrly presumed to be given, before any one aecepta a bill of exchange In payment, than before ho accepts a bank-note. The note is payablo on tho lustant, without deduction-the bill not until some future peried; the note may be passed to anot her without inenrring any risk or responsbility, whereas every fresh issucr of the bill mukes himself reaponalble for its value. Notea form the currency of all classes, not only of those who are, but also of those who are not engaged in businesa, very many of whom are, as already seen, without the power to refuse them, and without the means of forming any correct conclusion as to the solvency of the lasuers. Bills. on the other hand, pass only, with vory few exceptlons, among persons engaged in businces, who, being fully aware of the risk they run in taking them, reject such as thay apprehend might involve them in loss. There is plainly, therefore, a wide and obvious distinc-
e to present received in ay on which ble. When payment, no Intervene.-
90 ; and the
f Exchange. any restric. to represent vary bilis of d be impruissue of the be left to the ever, are not e perform in and, being r, make paywere bank ertain points 18 closely rethose too of is a dlatinct Bank-notes purpose, or on demand, by the holder iving has no 1 them in the every one is $y$ of passing oven though the issuers." Bilis, on the le; they are period; and ley be not in their possesrest accruing ion between ussignable by in passing a ing so makes A bill cireurence chiofly of it in the de; whereas rather to the reing so well -P. 40. Noto represent If A. jay is an end of of exchange ; and, in the son on whom for ita value. pre consideraly presunied of exchange k-note. The duction-the hote may be k or responsa bili makes form the curare, but also , very many power to rehing any corners. Bilis, few excep, who, veing them, reject hem in less. tous distinc-
tion between the two species of currency; and it wonld be ridlculous to argue that because government is bound to interfere to regulate the lasue of the one, it should also regulate the iasue of the other.
II. Account of the Bank of England,-Thig great establishment, which has long been the principul bank of deposit and circulation, not in that conntry only, but in Europe, was founded in 1694. Its principai projector was Mr. William Paterson, an enterprising and intelligent Scotch gentleman, who was afterward engaged in the ill-fated colony at Darien. Government being at the time much distressed for want of money, partiy from the defects and abuses in the system of taxation, and partly from the difficulty of borrowing, because of the eupposed instability of the revo lutionary establishment, the bank grew out of a loan of $£ 1,200,000$ for the public service. The subscribers, besides receiving eight per cent. on the sum advanced as interest, and $£ 4000$ a year as the expense of management, in all $£ 100,000$ a year, were incorporated into a society denominated tho Governor and Company of the Bank of England. The charter is dated the 27th of July, 160 . It declarea, among other things, that they shall "be capable in law to purchaec, enjoy, and retain to thom and their anccessors, any manors, lands, rents, tenements, and posseasions whatsoever ; and to purchase and aequire all sorts of goods and chattels whatsodver, wherein they are not restrained by act of Parliament; and also to grant, demise, and dispose of the same.
"That the managemont and government of the corporation be committed to the governor, deputy govemot, and twent y-four lirectors, who ahali be elected between the 25th day of March and 25th day of April, each year, from among the members of the company duly qualified. That no dividend shall at any time be made by the said governor and company, save only out of the interest, profit, or produco arising by or out of the said enpital stock or fund, or ly such dealing as is allowed by act of Parliament. They must be natu-rai-born subjects of Engiand, or naturalized subjects; they ghall have in thelr own name and for thelr own use, severnlly, viz.: the governor at least $£ 4000$, the deputy governor $\mathbf{£ 3 0 0 0}$, and each director $\boldsymbol{£ 2 0 0 0}$ of the capital stock of the aaid corporation. That thirteen or more of the said governors and directors (of whieh the governer or deputy governor must be alwnys one) shall conatitute a court of directors, for the management of the alfairs of the company, and for the appointment of ail agents and servnnts which mny be necessary, paylng them such salaries as they may consider reasonstie. Every elector must have in his own name and for his own use, £500 or more cupitul stock, and can only glve one vote. He must, if required by any member present, take the oath of stock; or the declaration of stock, in case he the one of the peopie called Quakers. Four generai courts to ive held in every year; in the months of September, December, Aprii, and July. A general court may be aummoned at any time, upon the requisition of nine proprictors, duly quaified as electors. The majority of electors in general courts have the power to make and conatitute byfaws and ordinances for the government of the corporation, provided tint such by-laws and ordinumees be not rejugnant to the laws of the kingtom, and be confirmed and approved, according to the statutes in auch case made and provided." The corporation is prohibited from engaging in any sort of commercial undertaking other than deuling in bilis of exchange, und in goid and silyer. It is authorized to advance money upon tie security of goods or merchandige pledged to it ; ond to seli by putblic auction such goods as are not redeemed within a specified time.

It was also enacted in tie same year in which the Bank was established, by statute 6 William and Mary, e. 20, that the Bank "siasii not deai in any goods, wares, or merchandise (except bullion), or purchase
any lands or revenues belonging to the crown, or advance or lend to their majesties, thelr heirs or successors, any sum or sums of money by way of loan or anticipation, or any part or parts, branch or branches, fund or funds of the revenue, now granted or beionging, or hereafter to be granted to their majesties, their heirs and successors, other than such fund or funds, part or parts, branch or branches of the said revenue only, on which a credit of loan is or ehall be granted by Parliament." And ln 1697 it was enacted that the "common capital and prineloal stock, and also the real fund of the governor a - company, or any profit or produce to be made thereof, or arising thereby, shall be exempted from any rates, taxes, assessmenta, or impositlons whatsoever, during the continuance of the Bank; and that all the profit, benefit, and advantage, from time to time arising out of the management of the said corporation, shull be applied to the usea of all the members of the said corporation of the Governor and Company of the Bank of England, ratably and in proportion to each member'a part, share, and intercst in the common capital and principal stock of the asid govarnor and company hereby established." It was further enacted, in 1697, that the forgery of the company's seal, or of any sealed bill or bank-note, should be faiony without benefit of dergy, and that the making of any alteration'or erasure in any bill or note should also be felony.

In 1696, during the great recoinage, the Bank was involved in considerable difficulties, and was even compelied to suspend payment of her notes, whlei wore at a heavy discount. Owing, however, to the judicious conduct of the directors, and the assiatance of govemment, the Bank got over the crisis. But it was at the same time judged expedient, in order to place her in a situation the better to withstand any adverse circumstances that might afterward oceur, to increase her capital from $£ 1,200,000$ to $£ 2,201,171$. In 1708, th: directors undertook to pay off und cancel one million and a half of Exchequer liils they had circuiated two years before, at $4 \frac{1}{2}$ per cent., with the interest on them, amounting in all to $£ 1,775,028$; Which increased the permanent debt due by the public to the Bank, inciuding $£ 400,000$ then advanced in consideration of the renewal of the charter, to $£ 3,375,028$, for which they were allowed 6 per cent. The Bank capital was then also doubled or increased to $£ 4,402,343$. But the year 1708 is chiefly memorable, in the history of the Bank, for the act that was then passed, which declared that, during the continuance of the corporation of the Bank of England, "it should not be lawful for any body politic, erected or to be erected, other than the sald Governor and Company of the Bank of Engiand, or for any persons whatsoever, united or to be united in covenants or partnership, exceeding the number of six persons, in that part of Great Britaln calied England, to horrow, owe, or take up any sum or aums of money on their bills or notes payable on demand, or in any less time than six months from the borrowing thercof." This proviso, which has had so powerfui an operation on banking in lingland, is enid to have been elictted by the Mine-adventure Company having commenced banking businesa, and begun to issue notes.

It has been pretty generally imagined, from the privnte banking companies in the metropolls not issuling notes, that they were legaliy inenpacitated from doing 80. 13ut the clause in the net of 1708 , which has been tise only restriction on the lssue of notes, npplicd generally to ali Engiand, and had no pecullar reference to London. The fact that banks with six or fower partners have not issued notes in tho metropolis, us weli as in the provinces, is, therefore, ascribable either to their being aware that their notes wonid obtaln no considerable cireulation concurrently with those of a great aasociation like the Bank of England, or from their believing that their issue would not be profitable.

An Account of the buocgesive Renewale of thin Cbarter, of tim Condifions undea whicif timge Renzwals were yanf, and of tur Vablationg in thr Ahount and Intelibit of the Prbinnent Debt dee by Goverinent to tile Bank, Exolueiva or tine Dead Weiort.

| Wete ol Renew el. | Conditions under which Renowale were made, and Permanent Debs contracted. | Permananl Debl. |
| :---: | :---: | :---: |
| 1694. | Charter granted under the act $\sigma$ \& 6 will. 8, c. 20, redeemable upon the explration of 12 months' notice after the 1at of August, 1706, upon payment by the pablie to the Bank of the demands therain apecified. <br> Under this act the Bank advanced to the publio $£ 1,200,000$, in consideration of thetr receiving an annnity of $£ 100,000$ a year, viz. 8 per cent. intereat, and $£ 4000$ for management | $\begin{array}{cccc}\boldsymbol{L} & 8 & d \\ 1,200,000 & 0 & 0\end{array}$ |
| 1637. 1708. | Charter continued by the $8 \& 9$ Will. 8, a. 20, till 18 montha' notice after 1at of August, 1710, on payment, etc. <br> Under this act the Hank took up and added to their rek $£ 1,001,171$ Exchequer hills and tailices. <br> Charter continued by 7 Anne, c. 7, till 12 montha' notice after 1st of Auguet, 1782, on payment, etc. <br> Under thia act tho Bank advanced $\$ 400,000$ to government withont intereat; and deilvered up to be canceled $51,775,02717 \%$, $10 d$. Exchequer hills, in conslderation of their recaiving an annulty of $\mathcal{\Sigma 1 0 0 , 5 0 1} 13 \mathrm{e}$., being at the rate of 0 per cent. | 2,178,027 1710 |
| 1713. | Charter continued by 12 Anne, atat. 1, c. 11, ull 12 months' noticn after 1st August, 1742, on payment, etc. <br> In 1716, by tho 3 Geo. 1, c. 8, Mank advanced to governmont, at 5 per cent............ <br> And by tho samo act, the intereat on the Exchequer bills canceled in 1708 was reduced from 6 to 5 per cent. <br> In 1721, by 8 Geo. 1, c. 21, the South Sea Company were anthoriked to sell $\mathbf{~} \mathbf{2 0 0 0 , 0 0 0}$ government annuttice, and corporations purchastng the same at 20 years' purchaso were authorised to add the amount to thotr capital atock. Tho Bank purchaved tho whole of these annuittes at 20 years' purchase. .......................................................... <br> 5 per cent. intereat was payeble on thta aum to mid-eummer, 1727, and thoreafter, 4 per cent. <br> At different times between 1727 and 173s, both inclurive, the Bank recelvod from the pubilc, on aecount of permanent debt, $£ 3,276,027$ 17s. $10 d$. , and advanced to it on account of $\mathrm{ditto}, ~ £ 3,000,000:$ differenco. . | $2,000,000$ 0 |
| 1742 | Debt due by tho puhlio in 1733 . <br> Charter continued by 15 Geo. 2, c. 13, till 12 months notice after ist of Auguat, $170 \%$, on payment, etc. <br> Under this act tho Bank advanced $£ 1,600,000$ without intereat, which being added to the orlginal advanco of $£ 1,200,000$, and tbe $£ 400,000$ advanced in 1710 , bearing interest at 6 per cent., reduced the interest on the whole to 8 per cent. <br> In $1^{7} 45$, undor authority of 19 Geo. 2, c. 0, the Bank delivered up to bo canceled <br>  of 3 per cent. .. <br> In 1749, tho 23 Geo. 2, c. 0 , redu d the intereat on the 4 per cent, annuittes held by the Bank to $3+$ per cent. for 7 yeara from the 25 th of December, 1750 , and thereafter to 8 per cent. | $0,100,000$ 0 |
| 1764. | Charter continued by 4 Geo. B, c. 25, till 12 months' notice after 1 st of August, 1786, on pnymont, etc. <br> Under thia act the Rank pald into the Exchequer $£ 110,000$ free of all charge. |  |
| 1781. | Charter continued by 21 Geo, 3, c. 60, tlll 12 months' notico after 1at of August, 1812, on payment, etc. Under this act tha Bank advanced $\mathbf{5 3}, 000,000$ for the publio service, for 3 years, at 3 per cent. |  |
| 1800. | Charter continued by 40 Geo. 3, c. 23, till 12 months' notice after 1at of August, 1833, on payment, etc. <br> Cinder this act thn Bank advanced to governtaent $\boldsymbol{£ 3 , 0 0 0 , 0 0 0}$ for 0 years without intereat; hut in pursuance of the recommendation of tha committen of 1807, the advance wru continued without intereat 1 ll 0 m mentha after the eignature of a definitive treaty of peace. <br> In 1516, the Bank, under authority of the act $\delta 6$ Geo. $3, \mathrm{c}, \mathbf{9 6}$, advanced nt 8 per cent., to be repaid on or before list of Augurt, 1838. | $8.000,00000$ |
| 1838. | Charter continued by 3 \& 4 Will. 4 , c. 98 , till 12 monthe' notice after 1at of August, 3 SE5, with a proviso that it may be dissolved on 12 montha' notico after lat of Angust, 1845, on payment, etc. <br> Thts act direets that In future the Bank shall deduct $£ 120,000$ a year from thetr charge on account of the management of the pubitc doht, and that a fourth part of tho debt dne by the pubitic to the Bank, or $\mathcal{£ 3}, 071,700$, be paid off . . <br> Permanent advance by the Bank to tho public, hearing titercat at 3 per cent, inde |  |
| 1844. | pendent of tho rdvances on account of dead wetght, etc................... <br> Charter continued by 7 \& 8 Vict. c. 82, tifi 12 monthe after thn 1st of Auguat, 1856, on payment, etc. <br> This oct, an abstract of which ta givon in a aubsequent part of this article, exempta the notes of the bank from alf charge on account of atamp-duty, and direets that in future the Bank thali deduct $£ 80,000$ a year from the charge on account of tho managemont of tho public debt. It also peparates the banking from the lssulug depsrtment of the estabtishmant, and effects other important changes. | 11,016,100 0 |

The charter of the Bank of England, when first granted, waa to continue for cleven years certain, or till a year's notice after tho 1st of August, 1705. The charter was further prolonged in 1697. In 1708, tho Bank having advanced $£ 400,000$ for the public service, withnut interest, the exclusive privileges of the corporation were prolonged til] 1733; and, in consequence of various arrangements made at different times, tho exclusive privileges of the Bapk have been continued by succeasivo renewals, till a year's notice after the 1at of August, 1855. For further details as to this subject, see the Appendix No. 1 of the Report of 1832 on the Renevoal of the Bank Charter, and the Acta of Parliament referred to in it; see alao Postlemthwart's IIisfory of the Repenue, p. 301-310; and Fatrman on the Funds, 7th ed. p. 85-88, etc.

The capital of the Bank on which dividends aro paid has nover exactly coincided with, though till of late it seldom diffored very matorially from, the permanent ativan s by the Dank to the pubiic. Wo have already seen tnat it amounted, in 1708 , to $£ 4,402,343$. Between that year and 1727 it was increased to near $£ 9,000,000$. In $1 \mathbf{1 4 6}$ it amounted to $£ 10,780,000$. From this period it underwent no change till 1782, when it was increaeed 8 per cent., or to $£ 11,642,400$. It continued stationary at this sum down to 1816 , whon it was raised to $£ 14,553,000$ by an addition of 25 per cont. from the profits of the Bank, under the provialuna of the act 56 Geo. 3, c. 90. The act for the renewal of the charter in 1833, the $3 \& 4$ Will. 4 , c. 98 , directed that the sum of $£ 3,671,700$ of the debt due to the Bank should te ropaid by the public, giving the directors power, if they
thought fit, to deduct it from the bank capital. But at the $^{\text {a }}$ ment when the order in conncil appeared, this was not done, the sum being reinvested in a government annuity, terminable in 1860 . The Bank of England has been frequentiy affected by panics among the hoiders of ita notes. In 1745, the alarm occazioned by the advance of the Highlandere, under the Pretender, as far as Derby, led to a run upon the Bank; and in order to gain time to concert measurea for averting the run, the directors adopted the device of paying in shillings and sixpences! But they derived a more etfectual relief from the retreat of the Highianders, and from a resolntion agreed to at a meeting of the principal merchants and traders of the city, and very numerously signed, deciaring the willingness of the subscribers to receiva bank-notes in payment of any sum that might be due to them, and piedging themselves to use their utmoat endeavors to make all their payments in the same medium. During the tremendous riots in June, 1780, the Bank incurred considerable danger. Had the mob attacked the establishment st the commencoment of the riota, the consequences might have proved fatal. Luckily, however, they delayed their attack till time had been afforded for providing a force sufficient to insure its safoty. Since that period a considerabla military force is nightiy placed in the interior of the Bank, as a protection in any emergency that may occur. In the iatter part of 1792 and beginning of 1793 , there was, in consequence of a previous overissue on their part, a general run on most of the private banks, and about a third part of these establishments were forced to stop payments. This ded to a considerablo demand for coin from the Bank.

The year 1797 is, however, the most important epoch in the recent history of the Bank. Owing partly to events connected with the war in which Engiand was engaged - to loans to the Emperor of Germany; to bills drawn on the treasury at home by the British sgents abroad; and partly and chiefly, perhaps, to the advances most unwillingly made by the Bank to govemment, which provented the directors from having a sufficient control over their issues-the exchanges became unfavorabie in $\mathbf{1 7 9 5}$, and in that and the following year large sums in specie were drawn from the Bank. In tho latter end of 1706 and beginning of 1797 , considerable apprehenaiona were entertainell of invasion, and rumors were propagated of deseents having been actually made on tho coast. In consequence of the fears that were thus excited, runs were made on the provincial banks in different parts of the country; and some of them having failed, the panic becamo general, and extended itself to London. Demands for cash pourcd in upon the Bank from all quarters, and on Saturdny, the 25th of February, 1797, she had only $£ 1,272,000$ of cash and bullion in her coffers, with every prospect of a vioient run taking place on the following Monday. In this emergency an order in council was issued on Sunday the 26th, prohiblting the directors from paying their notes in casin until the sense of l'arijament had been taken on the subject; snd after l'arliament met, and the measure had been much discussed, it was agreed to continue the restriction tili six months after the signature of a definitive treaty of peace.

As soon as the order in council prohibiting payments in eash appeared, a meeting of the principal bankers, merchants, traders, ete., of the metropolis was held at tho Mansion IIouse, when a resolution was agreed to, and very numerously signed, pledging, as had been done in 1745, those present to accept, and to use every menns in their power to cause bank-notes to be accepted as cash in all transactions. This resolution tended to allay the apprehensions that the restriction had excited. Parliament being sitting at the time, a committee was inmediately appointed to examins into the affairs of the l3ank; and their report put to rest whatever doubts might liave been entertained with respect to tho boivency of tho establishment, by showing that,
tho Bank was possessed of property to the amount of $£ 15,513,690$, after all claims upon her had been deducted.
Much difference of epinion has existed with respect to the policy of the restriction in 1797; but, considering tha peeuliar clrcumstances nnder which it took piace, its expediency seems abundantly obvious. The run did not originate in any overissue of bank paper, but grew entlrely out of political causes. So long as the alarms of invasion continued, it was clear that no bank paper immediately convertible into gold would remain in clrculation. And as the Bank, though possessed of ampie funds, was without the means of instantly retiring her notes, she might, but for the interference of government, have been obliged to stop pay-ment-an event which, had it occurred, must hava produced consequences in the last degree fatal to the public interests. It had been generally supposed, proviously to the passing of the Reatriction Act, that banknotes would not circulate unless they were immediatiIy convertible into cash; but the event showed, conformabiy to principles that have since been fully explained, that this was not really the case. Though the notes of the Bank of Engiand wera not, at the passing of the Restriction Act, publicly declared to be legal tender, they were rendered so in practice by being recetved as cash in all transactions on account of government, and of the vast majority of indivlduals. For the first three years of the restriction, their issues were so moderate that they not only kept on a par with gold, but actually bore a emali premium. In the latter part of 1800 , however, their qusntity was 80 much increased that they fell to a dlscount of 8 per cent. as compared with goid, but they soon after rose nearly to par; and it was not until 1808 that the decline of their value excited any considerable attention. Early in 1810 thay wers at a discount of about $13 \frac{1}{2}$ per cent.; and this extraordinary fall having attracted the attention of the Legislature, the House of Commons appointed a committee to inquire into the circumstances by which it had been occasioned. The committee examined several witnesses; and in their report, which was drawn up with considerablo ability, they justiy ascribed the fall to the overissue of bank paper, and recommended that the Bank should be obliged to resume cash payments withln two years. This recommendation was not, however, acted upon; and the valus of bank paper continued to decline, as compared with gold, till 1814.

At the period when the reatriction on cash payments took place in 1797, it is supposed that there were about 280 country banks in existence; but so rapidiy were these eatablishments multiplied, that they amounted to above 900 in 1813. The price of corn, influenced partly by the depreciation of the currency, and the facility with which discounts were obtained, but far more by deficient harvests and the unprecedented difticuities which the war threw ln the way of importation, had risen to ar extraordinary height during the five years ending with 1813. But the harvest of that year being unusually productive, and the intercourse with the Continent being then aiso renewed, prices, lnfluenced by both circumstances, sustained a very heavy fall in the latter part of 1813 and the beginning of 1814 ; and this fail having ruined a considerabie number of farmers, and produced a general want of confidence, such a deatruction of provincial paper took place as has rarely been paralleled. In 1814, 1815, and 1816, no fewer than 240 country banks stopped payment; and eightynine commissions of bankruptcy were issued against these establishments, being at the rate of one commission against overy ten and a half of the total number of banks existing in 1813. The great reduction that had been thus suddeniy and violently brought about in the quantity of country bank paper, by extending the field for the circulation of Bank of Eagland paper,
raised its value in 1817 nearly to a par with gold. The return to cash pnymenta being thu: facilitated, it was fixed, in 1819, by the act 59 Geo. 8, c. 78, commonly called Sir Robert Peel's Act, that they should take place in 1823. But to prevent any future overisaue, and at the same time to render the measure as littie burdensome as possible, it was enacted, In purauance of a plan suggeated by the late Mr. Ricardo, that the Bank should be obliged, during the interval from the passing of the act till the raturn to specie payments, to pay her notes, if required, in bars of atandard bullion of not less than sixty ounces weight. This pian was not, however, acted upon during the period allowed by law; for, a large amount of gold having been accumulated at the Bank, the directore preferred reconmeacing apecie payments on the 1st of May, 1821. See Tabie for an account of the price of bullion, the depreciation of paper, etc., from 1800 to 1821. .
A great diversity of opinion has been entertained with respect to the policy of the return to the old standard in 1819. By one party it has been represented as a wise and politic measure; they contend that Sir Robert Peel's Act not only put an end to those fluctuations in the value of money, which had previously been productive of great mischtef, and gave effect to the soiemn engagements into which the publlo had entered with the national creditor, but that it did this without adding any thing material to the national burdens. But another, and also a very numerous party, take a total different view of this measure: they contend that the public was not reelly bound to re.urn to cash payments at the old standard at the termination of the war; that the return has very greatly enhanced the value of the currency; and that this enhancement, by adding proportionally to the fixed burdens laid on the industrious classes, has been most injurious to their interests. It will, however, be found in this, as in i...ust cases of the sort, that the statemente of both parties are exaggerated, and that if, on the one hand, the measure has not been so advantageous as its eulogista represent, neitier, on the other, has it been nearly so injurious as its enemies would havo us believe.

In discussing this question, it is material to observe that the value of paper, which had been in 1815 and 1816 about $16 \frac{1}{2}$ per cent. below that of gold, rose in 1817 and 1818, from the eauses alroady mentioned, without any interfareace whatever on the part of govornment, to within littie more than $2 \frac{1}{2}$ per cent. of the value of gold ; and that in 1819 the depreciation ouly amounted to $4 \frac{1}{2}$ per cent.-Sce Table. It is, thereforo, fuilie to ascribe to the act of 1819, as is often done, the whole rise that has taken place in tho value of the currency since the peace, seeing that the currency had been for three years previously to its enactneent from 12\} to 141 per cent. above ite value In 1815, and from $!1$ to 23 per cent. above its value in 1814 ! The main olject which the promoters of the act of 1819 had in view was to sustain the value of the currency at the point to which it had recovered itself without iegislative interference. This, however, could not be done without recurring to specie payments; and the difference of $4 \frac{1}{\text { per cent. that obtained in 1810, be- }}$ .veen tho value of gold and paper, was not deemed sufficientiy considerable to warrant a departuro from the old standard, and from the acts ongaging to restore it.

But it is alleged that those who suppose that the act of 1819 added only 41 per cent. to the vaiue of the currency mistake aitogether the eviect of the measure. It is admitted, indeed, that paper was then only $4 \frac{1}{2}$ per cent. less vainable than gold; but by reverting to specis paymante, 71 unoxpected purchase of thirty millions of gold was sunde; and it is affirmed that this nove ol and largo demand, concurring eimultaneourly with the contraction of paper in several of the Continental states, and with a falling off in the supply of bullion from the mines, had the effect of adding very greatly
to the value of gold itself, and consequently to that of the carreacy. It is very difficult, or rather, perhaps, imposesible, to determine the precise degree of credit that ahould be attached to this statement; but, while we inclins to think that it is well founded to a certain extent, we ses uo grounds for believing that it is so to any thing like the extant that has been stated. The gold imported into Great Britain, to enalis the Bank to resume specis payments, was not taken from any particular country or district, but was drawn from the market of the world; and considering the vast extent of the aupply whence it was derived, it is againat all reason to suppose that its vaiue could be materially influenced by the purchases. We donbt, too, whether the contraction of the paper currency of some of the Coutinental states, and the substitution of specie In its stead, was not more than belanced by the cessation of the demand for specie for the military chesta of the different armies, by the stoppage of the practice of hoarding, and the greater security consequent to the return of peace. And with respect to the falling off in the supplies from the mincs, it is not a circumstance, supposing it to have had a considerable infuence, that Parliament could take into account. It conld neither deternine the oxtent to which bullion had been raised, nor at what point the rise would atop, nor how soon it might again begin to decline. The diminution in the supply of bullion had then continued for too short a period, and ite influenco on the value of gold was moch too uncertain, to make it a ground for interfering in any degree with the standard. And notwithstanding tho falling off in the productiveness of the American mines still continues, the diminntion thence arising has been since more than compensatod by the extrasrdinary increase that has taken place of late years in the produce of the Russian mines and washings.
The decline in the price of most articles that has taken place since the peace has been often referred to as a conclusive proof of the great enhancement in the value of bullion. But the inference is by no means so certain as has been represented. The prices of commodities arc as much affiected by changes in the cost of their production as by changes in the quantity of money afloat. Now, there is not one of the great articles of commerce the cost of which has not been considerably reduced, or which has not been supplied from new and more productive sources within the last few years. The growth of corn, for example, has been vastly extended in France, Prussia, and gencrally throughoat tive Continent, by the splitting of large estates, and the complete subversion of the feudal system; and the reduction of its price in England has been wholiy owing to the astonishing improvements made in agriculture, and to the i - rease of imports from Ireland. The fall in the prico of wool is satisfactorily accounted for by the introduction and rapid multiplication of Merino sheep in Germany, wherc they seem to succeed even better than in Spain; and by the large and rapidly growing imports from Australia, where littlo more than 80 years ago there was not a singlo sheep! And a very large portion, if not the whole, of the fall in the price of colonial products, is admitted, on all hands, to be owing to the destruction of the monopoly system, and the vast extension of cultivation in Cube, Brazil, Java, Louisiana, etc. Although, therefore, we do not deny that the falling off in the supply of bullion from the inines must, at first, have had some influence over prices, we hold it to be the greatest imaginablo crror to aseribe to it the entire fell that took place after the peace. Were its effict rated at from 5 to 10 per cent., we belicve it would be very considerably overstated. See Palcious Metals.
On the whole, therefore, we are disposed to approve of the conduct of those who framed the act of 1819. That it added sonewhat to the burdens of the industrious classes, and has been in so far hostile to the public interests, it secms imposilibe to doubt; but it has
$y$ to that of er, perhaps, ee of credit ; but, while to a certain at it is so to tated. The le the Bank $n$ from any wa from tha vast extent agalnst all materially too, whether some of the specie in its cossatlon of hests of the practice of juent to the falling off in rcumstance, fluence, that ould neither been raised, how soon it ution in the too short a Id was much terfering in pithstanding 10 American ence arising $y$ the extralate years in binga. les that has a referred to ment In the no means 80 ices of contin the cost quantlty of The great arot been conapplied from the last few as been vastlly throughrge ebcates, pystem; and been wholly ade in agriom Ireland. $y$ accounted plication of n to succeed ge and raj. a little more reep! And a fall in the ll hands, to oly system, uba, Brazil, , we do not pullion from luence over nablo error ce after the 0 per cent., ferstated. -
not been so in any thing like the degree whieh its enemilas represent. The period, too, when it was passed is now so distant, that the existing engagements among individuals have almost all been formed with reference to the altered value of the currency; 80 that whatever Injury it may have occasioned In the first Instance must be nearly gone by. To modify or change the atandard at this late poriod, would not be to repair injustice, but to commit it afresh. At the end of the war, the circumstances were considerably different. The standard had been really abandoned for the previous 18 years; and perhaps we may now say that It would have been better, all things considered, had the mint price of bullion been ralsed in 1815 to the market price. But having surmounted all the difficulies attendant upon the restoration of the old standard, and malntalned it since 1821, It would be In the last degree impolitic to subject lt to new alterations. Should the country become, at any future period, unsbie to make good Its engegements, it will better consuit ita honor and its interest by fairly compounding with lts creditore, than by endeavoring to slip from lta engagements by resorting to the underhand and dishonest expedient of enfeebling the standard.

The price of grain, which had been very much depressed In 1821 and 1822 , ralled in 1823 ; and this circumstance contributed, slong with others peculiar to that period, to promote an extraordinary rage for apeculation. The issucs of the country banks being in consequence far too much extended, the currency became redundant in the autumn of 1824 ; and the exchanges having been depressed, a drain for gold began to operate upon the Bank of England. But the directors of the Bank having entered, in the early part of that year, into an engagement with government to pay off auch holders of 4 per cent. atock as might dissent from its conversion into a $8 \frac{1}{2}$ per cent. stock, they were obllged to advance a considerable sum on this account after the depression of the exchange. This tended to counteract the effect of the drain on the Bank for gold; and, in consequence, the London currency was not very materially diminished till September, 1825. When, however, the continued demand of the public on the Bank for gold had rendered money ecarce in the metropolis, the pressure speedily extended to the country. Such of the provincial banks-and they were a numerous class-as had been originally eatablished without suffieient capital; or had conducted their business upon orroneous principles, began to give way the moment they experienced an increased diffeulty of obtaining pecuniary accommodations in London. The alarm, once excited, soon became general ; and confidence and credit were, for a while, almost wholly suspended. In the short space of six weeks, above 70 banking establishments were destroyed, notwithstanding the very large advances made to them by the Bank of England; and the run upon the Bank for cash to supply the exigencies of the country banks was so henvy, that sie was well nigh drained of all the coin in her coffers, and obliged, as already remarked, to lssue about a million of $£ 1$ and $£ 2$ notes.

To guard agalnst a recurrence of tho wlde-sprend mischief nnd ruin produced by this and the prevlous bankruptcies of the country banks, it was resolved, in 1826, with consent of the Hank of England, to make a change in the law of 1708 limiting the number of partners in banking cetablisiments to six only. And it was accordingly enacted that thenceforth any number of partners might form themselves into associations to carry on the business of banking, including the lisue of notes, any where not within sixty-five miles of London. The directors of the Bank of England came, at the same time, to the resolution of establishing branches in some of the principal towns; and these have since been established in Glouceater, Manchester, Birmingham, Leeds, Liveri.v, Bristol, Exeter, Newcaatle-upon-Tyne, Hull, Norwich, etc.

Bealdes attempting to lessen the frequency of bankruptey among the country banks by repealing thé law limitiag the number of partners, it was further resolved, in 1826, to prohibit the isiue of $£ 1$ notes. The policy and effects of this measure gave riae to much diepute. It seems clear that it went far to shut op one of the moat convenient channels by which the inferior clasa of country bankers contrived to get their notes Into circulatlon, and must, in so far, have done good. But there were many other channela still open to them; and to lmagine that this measure was to place the provincial currency on that solld basis on which It should be placed was quile visionary. There were no notes under $£ 6$ in circulation in 1792; and yet fully one third part of the country banks then in existence became bankrupt! The truth la, as already stated, thet it la not posaible to guard against lose and fraud from the proceedinge of the country bankers, otherwise than by compelling them to give security for their is. suea; and as secu $y$ may as easily be given for $£ 1$ notes as for those of $\mathbf{5 b}$, the suppression of the former does rot appear to be essentlal. No doubt can, however, be entertained that the representations of the extreme injury occasioned by the withdrawal of $£ 1$ notes were greatly exaggerated; though $\mathrm{f}_{\text {. }} \mathrm{lg}$, at the saine time, obvious that the means of the bankers to make advances, as well as the profit derived fromimaking them, must both have been diminished by the suppression of the amall notes; and it would be foolish to deny that thia circumstance must have occasioned some loss and inconvenience to many individuals. These remarks are meant to apply only to the case of the country banke. The extraordinary extent to which the forgery of the $\boldsymbol{x} 1$ notes of the Bank of England was carried affords a aufficient vindication of the policy of their auppreasion. But the comparativeiy limited circulation of the country banka, and perhaps we may add the greater attention pald to the manner in which their notes were engraved, hindered their forgery from becoming Injuriously prevalent.

Charter of 1844.-The defecta jaherent in the old system were again fully developed in 1836 and 1837. It is needless now to enter upon any Investigation of the circumstances which led to the overtrading of these years; but it was carried to a great extent in England and in the United States. In nothing, however, was this more strikingly evinced than In the rapid increase of joint-stock banks; their number, which in 1834-85 had amounted in England and Wales to 55, having risen in 1835-36 to no fewer than 100! Many of theee were banks of issuc, and in consequence of the large additions that were thus suddenly made to the number of notes aflost, and atill more to the number of bllis, check, and other aubstitntes for money, the currency became redundant and the exchange depressed; and the deflcient harvests of 1838 and 1839 , conspiring with thia rcdundancy, occasioned a further fall in the exchange, and a severe drain upon the Bank of Eugland for gold. But whillo the latter was narrowing her issues by supplying the exporters of bullion with gold in exchange for notes, the country banks went on increasing thelr issucs! What the former did by contracting on the one hand, the latter more than undid by letting out on the other. The vacium created by the withdrawal of Bank of England paper was immediately filled up, nud made to overflow, by the lasue of a more than equal amount of provincial paper; 80 that had it not been for the rise in the rate of interest, and the other repressive messures ndopted by the Bank, the probability ia that she might have gone on paying away bullion for notes till she was drained of lier last sixpence, without in any degree aflecting the exchange; and as it was, the bullion in her coffers in August, 1839, was reduced to $£ 2,420,000$, so that the market narrowly escaped a tremendous crisis.

This perilous experience having again forcibly attracted the publio attention to the state of the banking
system, Sir Robert Peei was encouraged to atiempt its $\mid$ notes issued to it by the former, under the 2d clause of improvemeat. The clause in the act $8 \& 4$ Wili. $4, \mathrm{c}$. 98 , for the renewal of the charter in 1833, which gave to Pariiament power to revise or cancel it in 1845, afforded a logitimate opportunity for the introduction of the new system. . But, however desirable, the total suppression of the issue of notes by joint-stock and private banking companiee would have been a measure too much opposed to popular prejudices, and to the real or supposed interesto of a large and powerful class, to have had any chance of being carriod; and there also would have been great, thoagh inferior, difficulties in the way of the plan for taking security. It was, indeed, indispensable, in attempting to obviste the defects inherent in the banking system, to proceed cautiousiy, to reapect, in as far as possible, existing interesta, and to avoid taking any step that might excite the fears or suapicions of the public; the grand diffcuity being to reconcile the introdaction of such a course with the adoptlon of any plan that would obviato in any considerable degree the defecte cemplained of. Happily, this difficult problem has been dexteroualy and satisfactorily soived by Sir Robert Pcel; tho measures he introduced and carried through Parliament in 1844 and 1845, for the improvement of the banking system, having been so skilifuliy contrived as to provoke little opposition, at the came time that they effected very extensive and, as we think, most beneficial changes.

The measures in question consist of the act 7 \& 8 Vict. c. 82, which refers to the Puk of Engiand and the English country banks; and the acte $8 \& 9$ Vict. c. 37, 88, referring to the Banks of Scotland and Ireland. The principal object of these statutes has been to obviate the chances of overissue and of sudden fluctuations in the quantity and value of money, by limiting the power to issue notes payable on demand, and by making the emount of such notes in circulation vary mere nearly than previously with the amount of buliion in the possession of the issuers. Sir Robert Peel adopted, in deaiing with the Bank of England, the proposai made by Mr. Loyd, in 1837, for effecting a complete separation between the issuing and banking departments of that estallishment. And while the directors are left at liberty to manage the latter at discretion, their management of the former, or issue department, is anbjected to what seems to be a weli-devised system of restraint. The Bank is allowed to issue $£ 14,060,000$ of notes npon securities (of which the debt of $£ 11,015,100$ lent by her to government is a part); and whatever paper the issue department may at any time issue over and above this maximum amount of securities, it must have an equai amount of coin and builion in its coffers. A clasue is inserted in the act aliowing the Bank to increase her issue upon securitien in the event of her notes being used instead of those of any or ail of the existing banks of issue. Hence it is impracticable for the issue cicpartment to increase its issues without, at the same time, proportionally increasiug lts atock of coin and builion; or to diminish the latter without proportionaily diminishing the amount of paper supplied to the public and the bauking department. And, therefore, if the latter issued the whoie notes assigned to it , the total smount issued by tho issue department and the amount in circulation wouid be identical; and it might under such circumstances bo truiy said that, in so far es the currency consists of Bank of England notes payable on demand, it varicd $\ln$ amount and vaino as it wonid do were it wholly metallic, and, consequently, by being so closeiy identiffed with the standa. 1 , realized the beau ideal of a paper currency.

But, though tho currency approsches to, it has not arrived at this degree of perfection. The public does not deal alone with the issuo, but also, and to a far greater extent, with the baking department. And this latter department retained aucil a portion of the
notes issued to it by the former, under the 2 d clause of
the 7 \& 8 Vict. c. 82 , an was supposed at the time to be sufficient to carry on its busiacss, their amount having since variod with the varying demands for bullion, the sales and purchasen of securities, etc. But it ia sufficient, in illastration of what is now stated, to observe that during the week ending the 4th of November, 1848, notes to the amount of $£ 26,796,660$ had been iesued to the public and the banking departmeat, of which the latter had $88,242,575$ ia its coffers, naking the sum in tho hands of the publlc $£ 18,684,085$. And as it is sometimes suppneed that the banking department might issue this sum of $\mathbf{£ 8 , 2 : 1 2 , 5 7 5}$, or the spare noten at any time in its coffers, in the discount of bills, or any other way, it is concluded that there is still room for some, though but little, derangement of the carrency from mistaken proceedings on the part of the Bank; and this, no doult, may be sometimes true, at least to nome extent. But it is idle to auppose that the banking ciepartment could carry on husiness wlthout a large reserve of notes or of coin. This department may have, owing to a veriety of circumstances, to meet a drain for deposits; and as it is very unsafe to trust to the sale of serurities in periods of discredit, a very considerable supply of notes or of bullion, or of both, can never be advantagcoualy or asfely dispensed with.

This showe the little weight to be attached to the statements of those who contend that the late messure has Isid no real restraint on the issned of the Bank, because, say they, she has a large reserve of unissuod notes which she might legitimately throw on the market. But in truth and reality she can do nothing of the cort. A reserve is indispensable, not oniy to her safety, but to her ability to cany on banking business; and it is at present (November, 1848) sufficientiy narrow. More vigilance and caution are now required on the part of the bank directors than formerly ; for otherwise the banking department of the Benk may be reduced to the greatest difficulties, witheut its belng possible for it to obtain any assistance from tho issue department, how able soever the latter mirht be to reader it. This was atrikingly eviaced in the autuma of 1847 ; and nothing but the exercise of a proper degree of forcsight and caution can prevent its recurrence. No gold can now be obtained from the issue department except in exchange for notes; nor can the latter be obtained from it except in exchango for gold. Hence it is no longer, as formerly, in the power of the Bank to create paper money at pleasure to suppiy the place of cash in eny emergency in which she may be involved; and instead of less she requires to act with more circumspection under the new system than under the oid.

But though the check on the overissue of bank-notes be thus neariy effectual, it appears ratior singuiar that no check should be established on the issue of bank post-bilis, which amounted to $£ 1,048,508$ on the 4 th November, 1848 , and which are and may be substituted for notes. No doubt, however, were tho Bank (which is hardly to be imagined) to abuse tho privilege of issuing post-bilis, by making advances in them wisich ohe could not have made in notes, mensures would be taken to prevent the abuse; and perhaps, on the whole, it was as well to pestpone devising means for the prevention of what seems so unlikely to occur. Weekly returne are now published of the issues of the Bank, and of the securities, bulion, etc., in her possession. The sum to be deducted by the Bank from the charge on account of the management of the nstional debt is in future to be $£ 180,000$ instead of $£ 120,000$ a year, as fixed by the act $3 \& 4$ Wiil. 4, c. 98. The charter is to be continued till twolve months' notice sfter the ist of August, 1855. The provisions made in this act for restraining the country circulation were, perhaps, still more important. The maximum future issue of the joint-stock and other banks in England and Walce was limited to the average amount of the cireulation
of each during the twelve months preceding the 27th of April, 1844. It was farther enacted that no new bank shall be eatablished for the issue of notes, and that the names of the partners in joint-stock and other banks shall be periodically published. The regulations in the statutes relating to lanking in Scotland end Ireland are nearly similar. The maximum amount of notes to be issued by the banks of both countries is, in time to come, net to exceed the average amount which each hank had in circulation during the twelve montha ending the 1st of May, 1846. Certain returns, including among othera the amount of gold and sifver coln held by the banks, the names of the partnora, etc., are to be poriodically published. The small-note currency of Scotland has not been affected by the measure.

It is impossible to doubt that these regulationa interpose a formidable obstacle to overissue; and that, consequently they discourage overtrading, and tend to reduce boti. the number and the violence of those commercial revnlaions and changes in the value of money, that have always been, and must necessarily continue to be, productive of the greateat mischief. No one ever pretended to say that these or any other measures which could be adopted with respect to the currency would wholly prevent unsafa speculation and overtrading. These may originate in an endless variety of circumstances; but in times past the tendency to speculation and gambling, when once set on foet, was in most cascs powerfully stimulated by ine facility which banks then posseased of issuing additional quantitles of paper; and of that facility they are now all hut deprived. It is, perhaps, true that the fair and legitimate influence of the acte now referred to may be in some degree countervailed by the circulation, to a greater extent than formerly, of bills and other sorts of paper not payable on demand, but at ahort datea; and it is not nprobable that sooner or later the question may a se whether any regulations should be adopted in reg.rd to the issue of such paper. In so far, however, as respects the issue of paper money, or notes payable on demand, the regulations in the act of 1844 appear to have left littlo to be desired. Ne doubt, also, numbers of the private and other banks thet now lasue netes will from time to time wind up their affairs ; and as no new banks of isaue can be eatablished in their stead, the vacuum caused by the withdrawal of their notes will be supplied by those of the Bank of England; so that a gradual progress will be made toward the desirable consummation of having only one bank of isauc.

It is sometimes contended, by those opposed to the policy of limiting the issues, that they never can be in excess so long as they are payable on demand. Such, however, is not the case: netes payablo, and really paid, on ucmand, can not, it is true, fall below the value of specie in the country in which they are issued; but the check of payment in specie does not, in fact, begin to operato till their overisaue has depreciated the value of the whole currency, gold as well as paper, in such ceuntry, below its level in the surrounding countries, and till, consequently, the exchange becomes nnfavorable, and it is of advantage to export gold. Then, of course, the overiasne is atopped, but such stoppage is almost always accompanied by a great deal of public distress and inconvenience; while it by no means necessarily follows that any considerable portion of the lose thence srising will fall on those banks by whose misconduct or overiasue the fall in the exchange and the demand for bullion may have heen occasioned.

The measures adopted in 1844, theugh they deeply affected many powerful privato interests, were, as siready etated, passed with littie difficulty, and were very generally approved of. In this reapect, however, the public opinfon has, to aome extent, changed; and the act of 1844 has been charged with having aggravated the pressure experionced by the mercantile world in 1847. But we are satiafied that there is $n$ r. Mal room or ground for any auch imputation. The cisus
of 1847 was a consequence partly of the railway mania of the previous year, and partly of the failure of the potato crope of 1845 and 1846. The failure in the latter year deprived fally two-thirds of the people of Ireland, and a considerable portion, elso, of those of Great Britain, of 'heir accustomed supplies of food. In conseqnence of this deticiency, and of government having come forward to provido the means for its rellef, there was on unprecedented importation of all sorts of corn ; and the demand for bullion for expertation to meet this importation, occurring simultaneously with e vast railway expenditure, pecuniary accommodations were obtained with the greatest difficulty, and the rate of interest rose to an extrtordinary height. Insterd. however, of being increased by the act of 1844, .. 6 is abundantly certaln that the operation of the latter contributed to alleviate the aeverity of the crisis. The restraints it impesed on the lasues of the country banks had hindered them from embarking to any great oxtent in rallwey adventures, so that they were better ahle to assist their customers ; and it also prevented the Bank of England from attempting to meet the exigencles of the case, otherwise than by raiaing the rate of interest and restricting her issues. And besides being the natural and proper, these were, in fact, the only means by which the ralue of bullion could be raised, its demand for foreign remittance checked, and the exchange turned in favor of England. $\Lambda$ great many mercantile houses that had bean trading upon very Inaufficient capitala, or which had previ usly been virtually insolvent, werc, of course, swept off during the crisia ; and the alarm that was thereby ocasioned, though for the mest part witheut any good foundation, gave rise to a species of panic. During the prevalence of the latter, government consented (25th October, 1847) to a temporary suspension of the act of 1844; but there is now, we believe, little doubt that this was an unwise proceeding. When it took place the violenco of the crisis had ahated. The drain for gold for exportation had not only ceased, but had begun to react ; and the probsbility is, that in a very few days all alarm would have passed off, without the dangerous precedent which was set by the interference of ministers. Hence, in our view of the matter, the experience afforded by the crisis of 1847 tella strongly in favor of the act of 1844 . But for its influence, it is most prot ' 'e that the Bank would have attempted to meet the demand for bullion without raising the rate of Interest, at least to the extent to which ahe did raise It; and if so, she shouid have been exposed to the jmminent risk of a suspension of cash payments. If, therefere, the act of 1844 should be aubjected to any modifications, it is to be hoped that they may be auch as may tend to carry out and strengthen the principles on which it is founded.
Previoualy to the late changea, the Bank directors endeavored, as a general rule, to have as much coin and bullion in their coffers as might together amount, when the exchange was at par, to a third part of the Bank's liabilities, including c'eposits as well as issues; so that, in the event of the notes afleat, and the public and private deposits in the coftiera of the Bank, amounting to $£ 27,000,000$ or $£ 30,000,000$, they did not consider the establishment in a perfectly satisfactory state, unless she was, generally speaking, pesseased of about $£ 9,000,000$ or $£ 10,000,000$ of coin and bullion. The issues of the Bank were then wholly governed, at least in ordinary cases, by what Mr. Horsiey Palmer ev presively calied "the action of the public;" that is, they were increased during a favorsble exchange, or when bullion was sent to the Bank to be exchanged for notes; and diminished during an unfavorable exchenge, or when notes were sent to the bank to be paid. But the vice of the old system was that this rule was net strictly enforced, and that the directors were every now and then compelled to relax it. But under the present aystem such relaxation is practicablo only to a very
limited oxtent, and can be but littlo abasea, which for- |are rogulated completely diapro es sncis suatemental murly was not alwaye the case. It is frequently sald that tha value of money, and consequeatly that the price of all aorts of property, depende on the fiat of the Baak, by which it is capriciously elevated at one time and depressed at another. But the account previously givan of the mocis in which tha lssues of the Bank and independently of this, every we who knows that the Bank must pay her notes in cosn whea presented, and that coin may be at all times obtained from the Mint withont any charge, in exchanga for bullion, muat kaow that the very nupposition of their being true involves a contradiotion.



| Week ending. | TSELE DEPARTMENT. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $t$ stent | Covermment Dobs. | Othar Sovurlition. | Buillon, |  |
|  |  |  |  | Gold. | 日llver. |
|  | 2\% | 11.015 | 9 ${ }^{2}$ |  |  |
| 1844, December T........ | 2\%,817,505 | 11,015,100 | 9,984,000 | 12,823, 304 | $1,509,611$ |
| 1845, January 4........ | 28,087,005 | 11,015,100 | 2,084,000 | 12,493,444 | 1,503,011 ... |
| February 1........ | 23,232,485 | 11,015,100 | 2,984,000 | 12,648,400 | 1,684,080 |
| March 1........ | 28,952,106 | 11,016, 100 | 2,984,900 | 12,944,918 | 2,008,187 |
| April 6........ | 29,952, 145 | 11,015,100 | 2,984,900 | 18,200, 848 | $1 . .2,001,003$ |
| May 3........ | 29,107,005 | 11,015,100 | 2,984,000 | 13,088,142 | 9,078,963 |
| Junc t..... | 20,732,000 | 11,015,100 | 2,084,900 | 18,606,716 | 2,126,894 |
| July $0 . . . . . .$. | 20,801,900 | 11,015,100 | 2,981,900 | 13,751,232 | 2,140,003 |
| August $2 .$. | 20,100,760 | 11,015,100 | 2,984,000 | 13,206,001 | 1,089,709 |
| September 6. | 28,053,800 | 11,015,100 | 2,984,900 | 12,082,591 | $1.970,700$ |
| October 4........ | 28,355, 070 | 11,015,100 | 2,984,900 | 12,614,730 | 1,840,940 |
| November 1........ | 27,267,116 | 11,015,100 | 2,084,000 | 11,061,631 | 1,605,434 |
| December 6........ | 20,640,480 | 11,015,100 | 2,984,000 | 10,982,081 | 1,547,849 |
| 1816, Juruary 8........ | 24,675,925 | 11,015,100 | 2,084,000 | 11,093,869 | 1,688,050 |
| Fubrtary 7........ | 20,008,020 | 11,015, 100 | 2,984,000 | 11,140,210 | 1,008,410 |
| March 7....... | 27,070,270 | 11,015,100 | 2,984,900 | 11,417,640 | 1,062,230 |
| April 4. | 27,181,980 | 11,015,100 | 9,984,900 | 11,460,445 | 1,791,535 |
| May 2. | 27,072,295 | 11,015,100 | 2,984,900 | 11,279,180 | 1,703,165 |
| June 0.. | 28,325,000 | 11,015, 100 | 2,984,000 | 12,102,7to | 2,132,290 |
| July 4.. | 20,322,200 | 11,015,100 | 2,984,901 | 12,905,074 | 2,417,126 |
| Augrist 1.. | 20,202,320 | 11,015,100 | 2,984,000 | 12,854,618 | 2,437,702 |
| Siptember 5. | 29,760,870 | 11,015,100 | 2,984,900 | 12,067,097 | 9,792,873 |
| October 3.. | 99,350,705 | 11,016,100 | 2,984,900 | 12,632,794 | 2,797,001 |
| November 7. | 28,234, 8*5 | 11,015,100 | 2,984,000 | 11,724,111 | 2,611,774 |
| December 5 . | 29,200, 105 | 11,015,100 | 2,984,900 | 11,702,647 | 2,506,453 |


| BANKING DEPAUTMENT. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Weok endlag. | Capital. | Aeal. | Depoults. |  | $\begin{aligned} & \text { sovee Deyg' } \\ & \text { and } \\ & \text { other allis. } \end{aligned}$ | seeurition. |  | Notes. | Cola. |
|  |  |  | Publio. | Private. |  | Publlo, | Other. |  |  |
|  |  |  | 5 ${ }^{2}$ | 5 | $\pm$ | 4 |  | ${ }^{6}$ | 交 |
| 1844, Dec. 7 | $14,053,000$ | $3,110,069$ | 6,705, 078 | 8,422, 800 | 906,4, 6 | 18,540,619 | 10,193,718 | 8,288, 105 | 827,468 |
| 1845, Jan. 4 | 14,553,000 | 3,127,278 | 7,960,643 | 8,037,320 | 1,015,100 | 13,6i9,720 | 11,420,903 | 8,418,125 | 714,568 |
| Feb. 1 | 14,553,000 | 8,298, 044 | 2,502, 124 | 8,713,000 | 1,055,065 | 13,64t,002 | 8,652,751 | 7,042,235 | 046,145 |
| Mar. 1 | 14,553,000 | 2,575,174 | 5,476,984 | 10,628,799 | 988,828 | 18,474,879 | 11,707.430 | 8,962, 545 | 777,959 |
| April 5 | 14,553,000 | 9,536,219 | 8,924,100 | 10,445,950 | 1,003,189 | 13,474,879 | 18,123,678 | 9,252,250 | 722,057 |
| May 3 | 14,553,000 | 3,189.817 | 2,712,041 | 10,055,040 | 1,139,208 | 13,616,900 | 9,857,088 | 7,887,925 | 041,150 |
| June 7 | 14,553, 000 | 3,180,091 | 6,746,482 | 10,504,624 | 1,018,497 | 18,384, 898 | 11,470,905 | 9,882,505 | 770,486 |
| Juiy 5 | 14,553,000 | 3,164,493 | 7,890,309 | 10,041,440 | 1,045,502 | 13,884,206 | 12,944,496 | 9,279,785 | 520,197 |
| Aug. 2 | 14,653,000 | 3,334,240 | 8,215,003 | 10,900,214 | 1,072,280 | 13,321,844 | 11,463, 608 | 7,849,785 | 608,851 |
| Sept. 6 | 14,553,000 | 3,003,180 | 6,474,7u5 | 8,507,213 | 1,021,683 | 13,468,643 | 11,967,081 | 8,256, 005 | 473,508 |
| Oct. 4 | 14,553,000 | 8,629,978 | 8,703,407 | 8,167,961 | 1,038,100 | 13,248,643 | 16,183,965 | 7,006,016 | 609,873 |
| Nov. 1 | 14,503,000 | 3,224,403 | 4,447,053 | 9,099,737 | 1,106,405 | 13,203,183 | 13,429,818 | 6,210,775 | 017,027 |
| Jec. 6 | 14, 553,000 | 3,209,394 | $8,110,401$ | 9,022,019 | 1,004,471 | 13,201,863 | 16,224,712 | 5,945,840 | 526,870 |
| 1840, Jan. 3 | 14,553,000 | 8,254,660 | 9,369,030 | $8,200,465$ | , 959,007 | 13,201,072 | 16,262,008 | 6,418,610 | 606,547 |
| Feb. 7 | 14,553,000 | 3,402,787 | 5,054,438 | 18,912,445 | 903,088 | 13,187,047 | 22,009,061 | 6,203, 625 | 687,025 |
| Mar. 7 | 14,653,000 | 5,757,708 | 6,502,355 | 17,928,778 | 808,176 | 13,136,440 | 22,118,987 | 7,576,625 | 707,065 |
| Apris 4 | 14,543,000 | 3,798,508 | 7,074,026 | 18,769,047 | 965,446 | 13,186,440 | 22,008,681 | 7,316,415 | 643,541 |
| May 9 | 14, 523,000 | 3,3904,540 | 2,578,451 | 16,780,880 | 965,730 | 18,308,065 | 17,901,149 | 0,408,470 | 601,419 |
| June 6 | 14,553,000 | 3,979,044 | 5,753,512 | 15,027,013 | 852,008 | 12,088,006 | 18,321,641 | . $8,448,180$ | 086,691 |
| July 4 | 14,603,000 | 8,4:24,178 | 7,794,200 | 14,402,460 | 887,304 | 12,987,142 | 13,145,819 | 9,803,090 | 625,051 |
| Aug. 1 | 14,553,000 | 3,507,679 | 0,793,610 | 13,440,888 | 048,423 | 12,061,735 | 14, 068,257 | 8,790,875 | 510,233 |
| Sept. 5 | 14,554,000 | 3,804,479 | 7,818,919 | 8,557, 109 | 035,830 | 12,961,736 | 12,523, 650 | 9,281, 0 | 512,957 |
| Oet. 3 | 14,653,000 | 3,586,085 | 0,770, 145 | 8,107,143 | 980,793 | 12,901,360 | 15,086,775 | $8,809,150$ | 450,881 |
| Nov. 7 | 14,653,000 | 3,408,35:2 | 5,428, 783 | 8,281,024 | 1,019,010 | 12,808,119 | 12,152,000 | $7,264,620$ | 524,021 |
| Dec. $\delta$ | 14,5im, 000 | 3,4i2.203 | 8,612,488 | 8,303,623 | 895,483 | 12,807,417 | 13,853,212 | 8,402,300 | 763,768 |

Connection with Government ond the Public.-The to entor into competition with private bankers in the Bank of England conducts the whole banking businees of the Brilish government. "It aets not only," saya Dr. Strith "as an ordinary bank, but as a great eugine of state. It recelves and pays the greater part of the annuitles which are due to the creditors of the public; it circulates Exehequer bills ; and il advancos to government the annual amount of the land ond malt taxes, which are frequently not paid till some years thereafter."

Adrances by the Bank in Discornts, etc.-The greater part of the paper of the Bank has generally been issued in the way of alvances or loans to government, upon sccurity of certain branches of the reveaue, and In the purchase of Exchequer bille and bullion; but her issues through the medium of discounts to individuals have, notwithstanding, been at all times considerable, while during war, and in periods of distress, they have been occasionally very great. Generally speaking, however, the directors do not thiak it advisablo
transacting of ordinary banking business, or in the discounting of mercaatile paper. Mr. Horsley Painuer is decidedly of opinion that all banklog businesa, apart from the lssue of notes, is better transacted by private bankers than by public bodies.-Min. of Evidence, Report of 1832, p. 37. He also thinks that were the Bank. to come fairly into competition at all times with the private bankers and other indlviduals in discounting, it would be very apt to lead, every now and then, to an excess of the currency, and a fall of the exchange, producing fluctuations that could not fail to be injurijus. At preeent, thesefore, and generally since the peace, the rate of interest charged by the Bauk for loans has been somewhet above the market rate. The consequence is, that, in ordiary periods, very few applications are made to her for discounts. But, at the same time, every one who has any reasonable security to offer, knows where they may slways be had; while the rate of interest charged by the Bank
necessarily forms a maximum rato which no other establishment can exceed. When, however, any cireumstances occur to occasion a pressure in the money market, or a difficulty of obtalning accommodationa in the usual channels, the market rate of interest immediately rises to the rate fixed by the Bank; and on auch occasions the private hankers, and the publie generally, resort to the Bank for aid. She then becomes, as it were, a bank of support; and has, as such, on many trying nccasions, particularly in 1798, 1815 and 1816, 1825-20, and 1838, rendered essential service to public credit, and to the commercial interests of the country. The usual limited amount of the Bank's disconnts does not, therefors, proceed, as has been absurdly enough stated, from any indiaposition on the part of the directors to render every assistance in their power to the commercial classes, but is, in fact, the effect of such disposition. They conaider, and wa believe juatly, that, except under peculiar circumstances, the business of discounting and banking fas best conducted by private partics ; and that by abstaining from coming into competition with them they are better able to act as a bank of support in ecasons of distress and difficulty. This is not to neglect the interests of the mercantile ciassea, but to promote them in the best ' ad most efflcient manner, oven though it should be at the expense of the Bank.

At the same time, however, it mast be admitted that the interference of the Bank in asaisting the commercial interest is a matter that requires the greatest conp:deration, and that it can only be safely undertsken under very peculiar circumstances. It shouid always be borne in mind that however a drain for gold may originate, the fact of its existence ia of itself a conclusive proof that gold is more valuable abroad than at home, and consequentiy that the currency is redundant, and ought to be diminished. Under such circumstances, it is the imperative duty of the directors, in order to provide for the safety of the Bank, to prevent the vscuum caused by the exchange of bullion for notes from being again filled up by the issue of fresh notes. This may be done in various ways; but the best and surest way is by raising the rate of discount so as to lessen the number of applicants for loans.-See Post. It is at such periods, however, that the applications for assistance aro the most urgent; and it is exceedingly difficult to yicld to them, and at the same time to enforce that systematical and continuous reduction of the issucs that is now indispensable to reduce the currency to its proper Jevel, and to restore the exchange to par. Unquestionably the Bank allowed the stock of bullion in her coffers to be reduced in 1839 a great deal too low. And though, perhaps, as things turned out, less hardship was, in the end, inflicted on individuale than if the directors had adhered more to the stern path of duty, atill it is extremeiy hazsrdous to trust in mattere of such vast importance to the chapter of accidents; and we incline to think that in this, as in most other cases, the safest plan, or the systemstic reduction of the issues whenever the exchange becomes unfavorabic, is that also which, speaking gencrally, is most advaniageous to all ciasses. And this, as already seen, is now ail but imperativo on the Bank.

In 1839, and we believe, also, on a previous oceasion, the Bank negotiated credits abroad, and endeavored to restore tho exchange to par by selling bills on the Continent. The policy of this device gave rise to a good deal of discuseion at tise time; but in the particular cases at appears to us to have been most judicious; and we incine, also, to think that under the old system the same course might and should have been fellowed on various occasions. This device is now less necessary ; but we may still easily conceive occasiona when it might be advantageous. What merchants want during an adverse exchange is good forcign bills, it being only in default of auch that they export builion; and the Bank, by supplying them
W. . a such bills, and getting, of course, her nates in exchange, is able to diminish her isaues quite at effectually as if her notee were sent in for bulliun. Another advantage of this plan is, that no one knows when it is in operation, and, consequentiy, that'it goes far to obviate that internal discredit and alarm that are apt to be produced when the stock of bullion in the Bank is reduced annaualiy low. In fact, had the Bank not acted, in part at least, on this plan in 1839, the probability is that she must have suspended payments. No doubt the Bank would be sxposed, if she adopted this plan, to the contingency of losing by her foreign accuritics in the event of the breaking out of hostlifties, or of the occurrence of any event by which their valuo might be reduced. These events may, however, be in genaral foreseen and provided againat; and if the Bank's investments were jadiciously made, nut in one only, lut in several qusrters, the risk they would involve does not appear to be at all equivalent to the advantage. Perhaps, as the law now stands, there may be legal objections to the Bank's holding foreign securities; but if it be expedient that she should do so, the law might be easily altered. The amount of the discounts of private paper at the Bank and her hranches varies, as already seen, greatiy in different periods; and depends, indeed, wholly on contingent and acci dental circumstances. Thus, on the 13t of January, 1839, the bilis discounted in London amounted to only £ 596,000 , whereas on the 3 d of December of the stme year they amounted to $£ 3,026,000$. Then annuai average loss by bad delbts on the diecounts of the Bank of England in London, from 1791 to 1831, both lisinsive, was £31,698.-Appendix to Rep. on Bank Charter; No. 60.

Advances to Government.-These are madc on account of the produce of taxes not yet received, and on the security of the Exchequer bills, etc. They varied, from 1792 down to 1810 , from about $£ 10,000,000$ to sbout $£ 16,000,000$. During the remainder of the war, and down to 1826, they were a good deal larger; but in 1819 provislon was made for reducing the amount of theas advances ; and they do not at present, e:zcluding the permanent advance on account of the dead weight, exceed a fourth part of their amount in 1820. They are represented by the Exchequer bills and deficiency bilis in the hands of the Bank.

Balances of Public Money.-In point of fact, however, a very large part of these advances has been nominal only, or has been virtually canceled by the balances of public money in the hands of the Bank. Thus, from 1806 to 1810 , both inclusive, the average advances to government amounted to $£ 14,492,970$. But the average halance of public moncy in possession of the Bank during the same period amounted to about $£ 11,000,000$; so that the real sdvance was equal only to the difference between these two sums, or to about $£ 8,500,000$. This statement completely negatives, as Mr. Tooke has justly stated, the supposition so commonly entertained and reasoned upon as a point beyond doubt, that the Bank was rendered, by the restriction, a mere engine in the hand of government for facilitating its financial operations.-First Letter to Lord Grencille, p. 64. The Bank being enabled to employ the greater part of the balances of public money in her hands as capital, they have formed one of the main sources of the profit she has derived from her transactions with the public. This subject was brought very prominently forward in the Second Report of the Committee of the House of Commone on Public Expenditure in 1807. And it was agreed in the same ycar that $t^{\circ}$ a Bank should, in consideration of the advan iges derived from the pnbilic balances, continue the loan of $£ 3,000,000$ made to government in 1800 for 6 years without interest, on the same terms, till 6 months after the signature of a definitive treaty of peace. In 1816 this sum was finally incorporated with the debt dae by government to the Bank, at an interest of 3 per cent.

## BAN

Management of Publio Debs.-P Previously to 1788, the Bank received an allowance on this account; that is, for tronble In payiag the dividends, auperintending the transfor of stock, eto., of $\mathcal{L 5 6 2}$ 10s. a million. In 1786 this allewance was reducod to $£ 450 \mathrm{a}$ million, the Bank being, at the eame clme, entitled to a considerable allowance for her trouble in receiving a ntributions on leans, lotterics, etc. This, however, though long regarded as a very improvident arrangement on the part of the public, was acquiesced in tlll 1808, when tho allowance on account of management was reduced to $£ 310$ per million on $£ 300,000,000$ of the public debt, and to $£ 300$ per million on all that it exceeded that sum, exclusive of eeme separate sllowances for annuitles, etc. The impression, however, was still entertained that the allowances for management should be further reduced. In consequence, the act 8 \& 4 Will. $4, \mathrm{c} .98$, directed that $\boldsymbol{£ 1 2 0 , 0 0 0}$ a year should be deducted from their amount; and the late act, the 7 \& 8 Vict. c. 32, directs that this deduction shall be increased to $£ 180,000$. During the year euding the 5 th of January, 1846, the Bank received $\mathbf{£ 9 3 , 1 1 1} \mathbf{1 9 s}$. 10d. For the management of the public debt and annuities. It should be observed that the responsibility and expenae Incurred by tho Bank in managing the public delot are very great. The temptation to the commiasion of frond in tranaferring atock from one Indivilual to another, and in the psyment of the divilends, is well knowa; and notwithstanding the skillfully doviset system of chocks adopted by the Bank for its prevention, she has frequently sustained very great lossea by forgery and otherwise.

In 1803 the Bank lost, through a fraud committed by one of her principal cashiers, Mr. Astlett, no less than 534,000 ; and tho forgeries of Fauntleroy the banker cost her a still isrger aum. At an average of the ten years .nding with 1831 , the Bank loat, through forgeries on the public funds, $£ 40,204$ a year.-Report on Pank Charter, Append., p. 165. Tho total sums p.id by the publio to the Bank on account of the loans raised, Exchequer bills funded, transfer of $8 \mathbf{i}$ per cent. stock, etc., from 1793 to 1820, both included, amounted to $\mathcal{L 4 2 6 , 7 9 5} 1 \mathrm{~s}$. 11 d. - Parliamentary Paper, No. 81, Sess. 1822.
Dead Weight.-Beaidea the transsctlons alluded to, the Dank entered, on the 20th of March, 1823, into an engagement with govornment with respect to the public pensions and annuities, or, as they have been more commonly termed, the read weeight. At the end of the war, the naval and milit. ry pensions, supersmuated alluwances, etc., amounted to abovo $£ 5,000,000$ a year. They would, of course, have been gradually lessened and ullimately ertinguished by the death of the parties. But it was resolved in 1822 to attempt to spread the burden equally over the whole period of forty-five years, during which it was calculated the annuitiea would continue to decreaso. To offect this purpose, it was supposed that, upou government offering to psy $£ 2,800,000$ a year for forty-five years, capltalists would be found who would undertake to pay the entire annuitles, according to a graduated scale previously determined upon, making the first year a payment of f4,900,000, and gradualiy decreasing the payments until the forty-fifth and laat year, when they were to arreunt to enly $£ 300,000$. This supposition was net, however, realized. No capitalists were found willing to enter into such distent engagoments. But in 1823 the llank agreed, on condition of receiving an annuity of $£ 585,470$ for forty-four years, cemmencing on the Sth of April, 1823, to pay, on account of the pensiene, etc., at diffirent sf ified poriods botween the years 1823 and 1828, both laclusive, the sum of $\mathcal{L 1 3 , 0 8 9 , 4 1 9 . ~}$ -4 Geo. 4, c. 22.
Rate of Diccount.-The Bank discounted private bills at 5 per cent. during neariy the whole period from her establishment till 1824, when the rate was reduced to 4 per cent.

An Account of tie Minimey Rate of Dibcount chatord hy tue Bank of Enoland, in Lonion, vion 1094 to 185\%
 par eent. per eent.
y per cent. per cenh. por cent.
par cent. 1/4 prer ceot. per cant. per cent. por cont.
per eant. 1/3 per cent. /, per cent. 3
$31 / 2$ per cent
perat
 1/2 por cent. juar cont. per celt. yer cent. pher cent.
per cspt.
par cent. , pyer cent. l/ por cent. , per cent. 2e per coent.
por cent. y par cent. $81 / 2$ per cent. 4 juarceot 4/2 pior cen
por ceat
$81 / 2$ par cent S per een
and
per eon $\frac{8}{9}$ par cen 4. per cen
4. por cen
per ceo $\mathrm{g}_{\mathrm{k}} \mathrm{k}$ per cent. per cent.
When the currency happens, from any cause, to become redunilant, its contraction, always $n$ matter of some difficulty, is to be ettected only (If she hold no foreign securitiee) by tho smlo of bullion or publio securies by the Bank, or by a diminution of the uaual diacounts, or botb. But were tho Bank to throw any considerable amount of publie securitics upen the market, the circumstance would be apt to excite alarm; and, even though it did not, it would be difflcult to diepess of them without a heavy loss. Hence, when a reduction is determined upon, it is moat commonly effected, in part at lenst, by a contraction of discounts; and lt is phain that such contraction can not be made except by rejecting altogether some of the bilis sent in for discount, or, which is in effect the same thing, by shortening their dates, or by raiaing the rate of interest, so that fewer may be sent in. Of these methods, the last scems to be in every respect the most expedient. When bills are rejec'al for no other renson than that the currency may be centracted, the grentest injury is done to individuals, who, entertaining ne doubt of getting their usual accommodation from the Bank, may have entered into transactions which they sre thus doprived of tho means of completing. When the reduction is made by raiaing the rate of Intereat, it principally affects those who are best able to bear it; at the same time that its operstion, instead of being, like the rejection of bills, arbitrary and eapricions, is uniform and impsertial. It does, thurefere, scem that the Bank should seldom or
never throw ont good bills that she may cünธizist her isaues; but that, when she has resolved upon such a measure, she should, provided the contraction can not be made by the sale of bullion and publlo securities, raise the rate of discount so as to lessen the demands upon her for loans.
The dividends on bank stock, from the eatablishment of the company to the presant time, have been as followe 1

| Years. | Dividend. |
| :---: | :---: |
| 1694  <br> , 1 1697 | $8 \text { per cent. }$ |
| $: \quad 1708\}$ | Varled from 9 to |
|  | ${ }_{6}^{5}$ per cent |
| Michaelmas....... 1730 | 64 |
| Lady-day . . . . . . . 1781 | 6 6 |
| Michaelmat...... 178 t | 54 " |
| Lady-day . . . . . . . 1732 | 6.4 |
| Mfehaelmas . . . . . 1782 | , 61 |
| Lady-day . . . . . . . 1747 | 5 4t 6 |
| Michaeimas...... 1764 | 5 |
| 4 6 ...... 1707 | 61.4 |
| 4 ...... 178i | 6 6 |
| Lady-day . . . . . . . 1788 | 7 4 |
| " . . . . . . 180\% | 10 4 |
| 4 ....... 1823 | 8 4 |
| 4 . . . . . . 1889 | 76 |

Previously to 1759, the Bank of England issued no notes for less than $£ 20$. She began to issue $£ 10$ notes in $1759 ; £ 5$ notes in 1793; and $£ 1$ and $£ 2$ notes in March, 1797. The issue of the latter may be aaid to have ceased in 1821, though they were again issuad on the emergency in 1825.

Interest on Deposits. -The Bank of England does not allow, cither in London or at lier branches, any interest on deposite; but it would be excecdingly desirable if sle could srifely make some alteration in this respect. The want of the power readily to inveat amall aums prodactively, and at the asme time with perfect aecurity, tende to weaken the motives to save and accumulate. Nothing has contributed more to diffuse a apirit of economy, and n desire to save, among all clesses of the population of Scotland, than the readiness with which deposita of small anms are received by banks of undousted solidity in that part of the country, and the allowance of intereat upon them. - Sea Scorcit Banks. Thia advantage is now, however, in aome degree accured in Eagland, not only by the inatitution of savings banks, but by the joint-stock banks that have been opened in moat parts of the country. Tho receiving of deposits is, indeed, an essential part of tho proper businese of a bank. "A banker is a dcaler in capital, an intermediate party between the borrower and the lender. He borrows of one party and lends to another; and the difference between the tarms at which he borrowa and those at which ho londs is the eource of his profit. By this meana he drawa into active operation thoes emall aums of monoy which were previousiy unproductive in the hands of private individuals, and at the same time furnishes accommodation to another class, who have occasion for additional capital to carry on their commercial traneactiona."-See Gile datr's Practical Observations on Banking, p. 52.

In further corroboration of what has now been stated, it may be mentioned that it is estimated by the best anthoritles that the doposits in the Scotch benke may omount at present (1846) to about $£ 80,000,000$, of which mere than a helf consists of sums of from $£ 10$ to $£ 200$ ! This is a most aatisfactory proof of the veat importance of the system. Perhaps it ia not going too far to affirm that but for the recoiving of deposits by the banke, and the ailowing of interest upon them, not a third part of the sums under £200, and not a half of those above it, would cver have been accumulated. - Sea Scotch Banks. Wo are not, however, able to say whether the Bank of England could offer interest on deposita Without having ao iargo a aum forced upon her aa might In periods of distrust scriously ondanger her atability.

And it were better that the aystem ahould continue aa at preaent, than that any riol of this sort should be incurred. Since 1826, the private deposito in the handa of tha Bank have been greatly augmented. Their incraase ia mainly ascribable to the preceding panic, and the loss that was theu occasioned by the failure of private banka.

Method of conducting Business at the Bank.-All accounts kept at the Bank with individuals are termed drawing accounts; those with whom they are opened being entitied to draw cheeka upon them, and to send the bills and drafts in their favor to be presented by the Bank, exactly as if thay dealt with privata bankers. There is no fixed aum with which an individual must open a drawing account; nor is there any fixed sum which the Bank requires him to keep at hia credit to indemnify her for her trouble in anawering his drafta, etc. Mr. Horsley Palmer gave in his avidence, in 1832, the following atatement $e 8$ to the facilities granted by the Bank in drawing accounts since 1825 : 1. The Bank receives dividenda by power of attornay for all persons having drawing accounts at the Bank. 2. Dividend warranta are received at the drawing office for ditto. 3. Exchequer billa and other securitiea are received for ditto; tha bills exchanged, the laterest raceived, and the amount carried to their reapective accounts. 4. Checka may be drawn for $£ 5$ and upward, instead of $£ 10$, as heretofore. 5. Carh-boxes taken in, contents unknown, for auch partiea as keap accounts at the Bank. 6. Bank-notea are paid at the counter, instead of drawing ticketa for them on the pay clerks, as haretofore. 7. Checks on city bankers paid in by threa o'clock may be drawn for between four and five; and those paid in before four will be received and passed to account the same evaning. 8. Checks paid in after four are sent out at nine o'clock the foliowing morning, reccived and passed to account, and may be drawn for as soon as received. 9. Dividend warrants taken in at the drawing office until five in the afternoon, inetead of three as heretofore. 10. Credita paid in to acceunt are received without the bank-book, and are afterward entered therein without the party claiming them. 11. Bills of exchange accepted payable at the Bank are payable with or without advice; heretofore with advice only. 12. Notes of country bankers payable in London are sent ont the same day for payment. 18. Checks are given out in books, and not in aheets "s heretofore.

A person having a drawing account may have a discounl account; but no person can have the latter without, at the eame time, having the former. When a diacount account la opened, the signatures of the partiea are entered in a hook kopt for the purpose, and powors of attorncy are granted, empowering the parsons named in tham to act for their principals. No bill of exchange drawn in the country is discounted by the Bank in London under $£ 20$, nor London note under $£ 100$, nor for a longer date, under existing regulationa, than three months. The number of holidays formeriy kept at the Bank has recentiy been reduced about a haif, in the view, as stated by the directore, of preventing the interruption of business. There aro no holldays in the months of March, June, September, and December, exeepting Chriatmea; Eastor Monday and Tuesday are no longer kept.

We subjoin an account of the days for transferring atock, and when the dividends aro due at the Bank of England, the South Sea Houre, and the East India Houee:

Trangfer Days at the Dank. Dividende due.
Bank Stock,-Tuesday, Wednesday, Thursday, and Friday …...................................... April 6.
3 per cent. Red.-Tuemday, Wednesday, Thursday, and Friday................................... day, and Friday ............................... Jan. 3 per cent. Cone-Tuseday, Wednenday, Thuraday, and Friday .......................................

## BAN

Dividende duo.
Loag. Anvuity to Jan., 1 Se0.-Tuesday, Wedaen- Aprll $\delta$. day, Thureday, and Friday..................... Oct. 10. New bit per cent. Ananlty. Tuemay, Wednceday, Thurnday, And Friday...................... New 5 per ceot. Annulty.-Tnenday, Wednemay, Jan. 5. Tharrday, and Friday............................... Annuitles for terms of years, some payable on ... $\left\{\begin{array}{l}\text { April } \\ \text { Oct }\end{array}\right.$
Ditto, others oa . $\qquad$
Life Annuity, if transferred between January 6 and April 4 , or between Juty 5 and October 0 .. and April 4, or between July 5 and October.. July 6 Life Annuity, if transferred between April 5 and April 5. July 4, or between October 10 aad January 4 .. ) Oct. 10.

## At the South Sed ITotuse.

Sonth Sea Stock.-Monday, Wednesday, and Fri- Jun. B. day ............................................... July b, $_{\text {, }}$ 3 per cent. Old Annulty, - Monday, Wedneaday, (April 5 .

3 per cent, New Annaity.-....................... and Baturday ................................................


## At the East India House.

India Stock-Tuesday, Thursday, and SaLurday Jan. 5 . Interest on India boade, dae $\left\{\begin{array}{l}\text { Jan. } \mathbf{8} . \\ \text { July } 6 .\end{array}\right.$ July ${ }^{\text {J. }}$. Sept. 30.

Branch Banke of the Bank of England.-The Bank of England, as already observed, has within these few years established branch banks at several of the most considerabie towns throughout the country. The mode and terms of conducting basiness at these establishments have been described as follows: "The branch bank at Swansea (and the aamo is true of those eatablished in other places) ia to be a secure place of deposit for persons baving occasion to make use of a bsik for that parpose; such persons are sald to have drawing accounts: to facilitate to tha mercantlie and trading classes the obtalaing discounts of good and unexceptlonabie billa, founded upon real transactions, two approved namee beling required upon every blll or note diecounted; these are cailed discount accounts. The appilications of partlea who desire to open discount accounth at the branch are forwarded to the parent establishment for approval, and an answer is generally received $\ln$ about ten daya. When approved, good billa may be discounted at the branch withont reference to London. Bllla payable at Swangea, London, or any other place where a branch is cetablithed, are discounted under this regulation. The dividends on any of the public fuads, which aro payable at tho Bank of England, may he received at the branch, by parsons who have opened 'drawing accounte,' after aign!ng powers of attorncy for that purpose, whic' tho branch will procure from London. No charge is made in thls caso, except the expense of the power of attorney and the postages incurred in transmitting it. Purchases and sales of every descriptlon of government securities nre effected by the branch at a charge corresponding to that made by the local bankers where the branch is situated. A commission, including brokerage in London, and all expenses of postage, ls charged on paying at the Bank of England bills accepted by persona having drawing aecounts at Swansea, such bills to be advised by the branch; also for grantling letters of credit on London, or on the other branches. The branch grants bills on London, payable at acven days' date, without ncceptance, for sums of $£ 10$ and upward. Persons having drawing accounts at Swansea may order money to be paid at the Bank in London to thoir eredit at Swansea, and rice versi, at a charge of $6 d$. In lieu of pestage. The branch may be called upon to change any notes issued and dated at Swansea; but they do not change the notes of the Bank in London, nor receive them in payment, unleis as a matier of courtesy where the parties are known. Dank post-bills, which are accepted and due, are recoived at the branch from parties having drawing accounts, and taken to account without any clarge for poatage; but unaccepted bank post-bills, which must be sent to London, are sulject
to tha charge of postage, and taken to account when due. No interest lo allowed on deposits. No advance Is made by the branch upon any description of landed or other property, nor is any acconnt allowed to be overdrawn. The notes are the aame as those issued by the pareat establishmeat, except being dated Swansea, and made payable there and in London. No note lsaned exceeds the sum of $£ 500$, and nona are for a leas amount than $£ 5$."

Bank-notes to be legal Tender, except at the Bank and Branch Banks.--From and after the 1st of August, 1834, unless and until Parliament shall otherwise dlrect, a tender of a note or notes of the Governor and Company of the Bank of England, expreseed to be payable to bearer on demand, ahall be a legal tender to the amonnt expressed in auch note or notes, and shall be taken to be valid as a tender to ouch amount for all aums above $\mathbf{5 5}$ ou all occasions on which any tender of moncy may be legaily made, so long as tha Bank of England ehall continue to pay on demend their said notes in legal coin : provided always, that no such note or notes shall be deemed a legal tender of payment by the Governer and Company of the Bank of England, or any branch baak of the eaid governor and company; but the sald governor and company are not to becomo liable or be required to pay and satisfy, at any branch bauk of the said gevernor and company, any note or notes of the sald governor and company not mado specialiy payablo at such branch bank; but the said governor and company shail be liable to pay and satiafy at the Bank of Eagland in London all notes of the said governor and company, or of any branch thereof. $-\$ 6$.
An Acoount of tug ayiehaor Margrt Price of Bullion in RAOII YEAR, FROM 1800 TO 1821 (TAKEN FROM OFFICLAL Documante; ; of tirn average Value irib Cent. of tif CUERENOT, EATIMATED HY TIIS MARKET PRICE OF GOLI FOR THE BAMR FGHIOD; AND OV THIE AVEPAUE DEPGELATION fer Cent.

| Years. | A serage Price of Gold per os. | Ararege per Cent. of the vilus of the Corrency. | Average Depreoietion per Cent. |
| :---: | :---: | :---: | :---: |
|  | $\begin{array}{lll}8 & 8 . & d_{1} \\ 3 & 17 & 10 t\end{array}$ |  | ${ }^{2} A_{1} d_{1}$ |
| 1800. | 317101 | 10000 | Nit, |
| 1801 | 450 | 01124 | $\begin{array}{llll}8 & 7 & 8\end{array}$ |
| 1802 | 440 | 02142 | $7 \quad 510$ |
| 1803 | - 400 | 97610 | 2189 |
| 1804 | 400 | 97610 | ${ }_{2} 132$ |
| 1805 | 400 | 97010 | 2132 |
| 1806 | 400 | 07010 | 2102 |
| 1807 | 400 | 07010 | 2132 |
| 1808 | 40 | 97610 | 8182 |
| 1809 | 400 | 07310 | 8132 |
| 1810 | 4100 | 86100 | 1890 |
| 1811 | 446 | 1232 | 71610 |
| 1812 | 4156 | $75 \quad 58$ | 20140 |
| 1818 | 610 | $77 \quad 8$ | 22180 |
| 1814 | 540 | 74176 | $25 \quad 26$ |
| 1815 | 413 B | 8360 | 16143 |
| 1816 | 4136 | 8350 | 10148 |
| 1817 | 400 | 97610 | 9138 |
| 1818 | 400 | 07610 | 8138 |
| 1810 | 416 | 05110 | 400 |
| 1820 | 81911 | 0788 | 2120 |
| 1821 | 817101 | 10000 | Nit. |

An Account of tir Pbofitg of tilg Bank of Enilanis in tife Year endino tue 2litil of Febmuary, 1832; statina

 AND TIR BOURGEs From wilioh tik
AOCaUED,-No, 15, Append. to Report.
Interest on commercial bilia
t130,096
Interest on Exchequer bllia.
Annulty for 45 years the desid................ connt).
Interest on capitail reccived from pove........................ Alowance recelved for management of tise oulile publie debt.
Intereut on loans on mortgares.
Interest on stock in the pubile finde.
Interent on privale loans
1rofit on bullion, comminslon, rent, receipts on discounted blits unpald, management of the business of the Banks of lrelsnd, of Scetiand, and Keyal Bank of Scotlend, and mundry ftems.

## BAN:

An Account of all Dibthifetions mant ny the Bank of Enoland anong the Phorifetors of Bank Btock, wintiler
 Dividend, and Incriabg or Capital, hetween the 25til of Fehavany, 1707, and Blat of harcin, 1882, in apdition to the ordinary annual Divideni of t leb Cent. on the Carital Stock or that Cobioration, exibting in 1797 , in-
 becii Dibtridutions were maine, and tif Aoglegate Amount of tile Wiole.

| Denomination and Parioda of Distribnlion. | Amoont. |
| :---: | :---: |
|  | £1,144,240 |
| May, 1801: dS per cent, ditto, in Nayy 5 per cents, ditto | 582,120 |
| November, 1802; 2210 e per cent. ditto, ditto, ditt | 201,060 |
| October, 1804: 25 per cent. ditto, cash, ditto . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 682,120 |
| October, 1805: 25 per cent. ditto, ditto, ditto. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 682,180 |
| October, 1806 : f5 per cent. ditto, ditto, ditto . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 682,120 |
| From $A$ pril, 1807, to October, 1822, both 1nclusivs $\left\{\begin{array}{c}\text { Increase of dividends at the rats of } £ 3 \text { per cent. per annum, on } £ 11,642,400, \\ \text { is, } 16 \text { years. }\end{array}\right.$ | 6,5S8,352 |
|  | 6,50, 814,008 |
|  | 2,910,000 |
|  | 1,801,800 |
|  | 2,095,082 |
| Aggregste amount of the wliole. . . . . . . . . . . . . . . . | E17,318,070 |
| Annual dividend payablo on Bank atock in 1797, on a capital of $\mathcal{£ 1 1 , 0 4 2 , 4 0 0}$ at the rate of $\boldsymbol{£ 7}$ per cent. per annum | $\boldsymbol{1 8 1 4 , 0 0 8}$ |
| Annual dividend payable sloce June, 1816, on a capital of $\mathbf{£ 1 4 , 6 5 3 , 0 0 0 , ~ t o ~ O c t o b e r , ~ 1 8 2 2 , ~ I n c l u s i v e , ~ a t ~ t h e ~}$ rale of $£ 10$ per cent. per annum . | 121,450,300 |
| Annual dividend payable from April, 1823, to the B1st of March, 1832, both Inclurivo, on a capltal of $£ 14,653,000$ at the rate of $£ 8$ per cent. per annum | $\ldots 1,164,240$ |





No proviously published table of tha circnlation of tho Bank of England extends further back thun 1773; we are indolted to the Court of Directors for being able to supply this striklng defect, and to exhibit for tho first time the circulution of the Bank, from within four years of its establishment down to the present dny.

Statement exiliutino tif Town and Countay Ginctiation, Debobite, Seoubities, Bullion, Etc, of the Bank of Enotiand, on tur unneamentioned days of tife foliowino Years.

| Datee | Noten in Ciroulalion. |  | Deposits, | Tolal Liablition. | Securition, | Bullion. | Total Ametu. | Balance of Asseta ovar Llabilitien. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In liondoa. | $\begin{aligned} & \text { In Ithe } \\ & \text { Country. } \end{aligned}$ |  |  |  |  |  |  |
|  | $\mathcal{L}$ | 1 | L | 1 |  | C | ${ }^{2}$ | ${ }^{2}$ |
| 1932, July 3. | 14,800,000 | 2,734,000 | 8,678,000 | 25,601,000 | 21,230,000 | 6,010,000 | 27,840,000 | 2,185,000 |
| 1833, January 1 | 14,208,000 | 2,778,000 | 12,726,000 | 89,801,000 | 21,047,000 | 10,020,000 | 81,973,000 | 2,172,000 |
| July 2. | 15,783,000 | 8,150,000 | 12,888,000 | 81,7t8,000 | 24,683,000 | ${ }^{1} 1,391,003$ | 34,074,000 | 2,208,000 |
| 1834, January 7. | 14,199,000 | 3,220,000 | 19,889,000 | 17,811,000 | 80,804,000 | 10,142,000 | 89,836,000 | 2,528,000 |
| 1805 July 1. | 15,518,000 | 8,171,000 | 15,878,000 | 34,002,000 | 27,471,000 | 8,855,000 | 36,356,000 | 2,204,000 |
| 1835, January 6. | 13,850,000 | 3,155,040 | 17,894,000 | B4,890,000 | 80,933,000 | 2,838,000 | 37,771,000 | 2,872,000 |
| ${ }^{\text {July }} 7$. | 14,081,000 | 3,322,000 | 17,702,000 | $86,112,000$ | 81,446,000 | 6,530,000 | 87,081,000 | 2,860,000 |
| 1830, January 5. | 13,818,000 | 3,806,000 | $20,420,000$ | 87, 14, 000 | 32,067,000 | 7,087,006 | 30,754,090 | 2,011,000 |
| July 6 | 13,715,000 | 0,595,000 | 18,316,000 | 83, 320,000 | 20,397,000 | 0,714,000 | 60,111,000 | 2,7N6,000 |
| 1537, January ${ }^{\text {d }}$ | 13,024,000 | $4.074,000$ | 10,078,000 | 82,775,000 | 32,447,000 | 4,221,000 | 36,608,000 | 2,803, 000 |
| July 4 | 13,149,000 | 3,795,000 | 10,257,000 | 27,141,000 | 24,689,000 | 5,577,000 | $30,180,000$ | 8,025,000 |
| 1888, January ${ }^{2}$ | 13,309,000 | 8,723,000 | 11,230,000 | 28,322,000 | 20,027,000 | 9,900, 000 | 80,836,000 | 2,614,000 |
| 1840 July 3.... | 14,609,000 | 4,008,000 | 0,109,000 | 27,080,000 | 20,610,000 | 10,080,000 | 80,670,000 | $\begin{aligned} & 2,604,000 \\ & 2,609,004 \end{aligned}$ |
| 1830, January 1 | $13,461,000$ $10,444,000$ | $4,008,000$ $4,109,000$ | 11,027,000 | $29,888,000$ $25,100,000$ | 22,877,000 $24,061,000$ | $0,048,000$ $\mathbf{3 , 5 7 6 , 0 0 6}$ | $31,425,000$ $87,737,000$ | $\begin{aligned} & 2,609,004 \\ & 9.677 .004 \end{aligned}$ |
| 1840, Jantary 7 | $10,448,000$ $11,621,000$ | $4.109,009$ $8,940,000$ | 14,518,000 | $25,100,000$ $80,065,000$ | $24,061,000$ $48,411,000$ | $3,076,000$ $4,508,000$ | 27,737,000 $32,010,000$ | $2,637,000$ $2,864,000$ |
| July 7 | 12,641,000 | 8,971,000 | 7,298,000 | 28,906,000 | 21,315,000 | $4,818,000$ | 20,781,000 | 8,829,000 |
| 1841, January | 11,050,000 | 3,071,000 | 8,479,000 | 84,100,000 | 22,850,000 | 4,068,000 | 20,918,000 | 2,813,000 |
| July B. | 12,357,000 | 4,187,000 | 14,728,000 | 81,952,000 | 28,847,000 | 6,010,000 | 84,200,000 | 4,014,000 |
| 1842, January 4 | 11,815,000 | 4,384,000 | 0,008,000 | 25,187,000 | 22,612,000 | 6,002,000 | 28,114,000 | 2,927,000 |
| duly 2. | 13,231,000 | 4,003,000 | $8,670,000$ | 20,994,000 | 21,002,000 | 8, 6883,000 | 20,505,000 | 2,701,000 |
| 1843, January 7 .. | 13,304,000 | 6,214,000 | 16,584,000 | 85,052,000 | 20,706,000 | 10,082,000 | 37,038,000 | 9,580,000 |


 ENGLAND AND IRALAND, AND BY PRIVATE AND JOINT-ETOOK BANKS TN LANGLAND, 18 CO

| Daten. | Eagland. |  |  |  | 8eotland. | Ireland. |  | Total Iamed in the Ualted Kingdam. | Ballion in the Baok of ${ }^{\circ}$ Eogland. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bank of Englagd. | Private Banks. | Joinintock: Banka. | Unretumed. | Private and Joint-atook Banka. | Bank of Ireland. | Private and Jolnt-otock Banks. |  |  |
|  | ${ }_{19}{ }^{2}$ | ${ }^{\boldsymbol{S}}$ | ${ }^{2}$ | $\sim$ | 2 | $\stackrel{5}{3}$ | $\pm$ | \% | 2 |
| 1938, Septembor | 19,014,000 | 6,168,037 | 1,115,621 | 2,807,086 | 2,644,406 | 2,078,900 | 1,112,155 | 86,065,244 | 10,844,250 |
| 1S94, January . | 19,23-4,500 | 6,021,023 | 1,260,686 | 2,105,989 | 8,004,088 | 4,017,600 | 1,520,578 | 87,855,968 | 9,002,500 |
| July | 19,438,400 | 6,568,122 | 1,537,611 | 2,054,614 | 8,108,239 | 8,038,500 | 1,184,764 | 87,829,850 | $8,403,600$ |
| 1835, Januar | 18,547,500 | 6,670,088 | 1,822,491 | 1,807,677 | 8,056,828 | 8,868,560 | 1,702,056 | 87,026,900 | 6,659,600 |
| July ..... | 18,86-4,750 | 6,535,365 | 8,130,008 | 1,821,730 | 8,06S,063 | 8,401,176 | 1,276,659 | 87,178,630 | 6,268,600 |
| 1836, January . | 17,953,500 | 6,842,803 | 8,472,267 | 1,898,916 | 8,091,510 | 8,484,820 | 2,035,709 | 87,779,824 | $7,632,000$ |
| July | 18,632,750 | 6,716,830 | 8,871,042 | 1,491,240 | 8,290,063 | 8,230,600 | 1,940,976 | 88,684,404 | $8,224,250$ |
| 1837, Januar | 18,735,000 | 6,831,721 | 8,661,659 | 540,988 | 8,149,821 | 8,487,150 | 2,143,861 | 88,540,185 | 8,000,600 |
| July | 19,174,500 | 6,229,418 | 8,355,911 | 846,242 | 2,977,509 | 8,091,300 | 1,444,702 | 88,019,079 | 5,857,000 |
| 1839, Jauua | 18,943,000 | 6,650,282 | 8,703,187 | 271,408 | 8,000,288 | 8,812,600 | 2,246,424 | 88,201,279 | $8,912,600$ |
| July .. | 20,849,400 | 6,702,065 | 4,299,888 | 250,719 | 8,121,882 | 8,222,850 | 1,876,763 | 89,743,007 | $9,680,800$ |
| 1809, Janue | 18,654,800 | 7, 1339,120 | 4,506,369 | 232,692 | 8,244,603 | 8,561,625 | 8,090,246 | 40,779,265 | $8,818,800$ |
| 1840, July ... | 18,407,800 | $0,847,002$ | 4,943,419 | 64,891 | 8,165,761 | 8,108,175 | 2,074,4z8 | 88,016,470 | 8,118,800 |
| 1840, January | 17,815,000 | 6,026,074 | 8,941,807 | 62,876 | 8,078,685 | 8,205,650 | 2,715,645 | 87,003,137 | 4,804,500 |
| 1810, July . . | 17,081,000 | 6,356,524 | 3,097,041 | 67, 021 | 8,228,506 | 2,979,050 | 1,870,651 | 35, 057,082 | 4,499,750 |
| 18.41, Ja | 16,852,250 | $6,801,092$ | 8,587,819 | 164,717 | 8,174,605 | 8,218,200 | 2,360,204 | 85,660,297 | $8,905,250$ |
| July | 17,970,000 | 5,997,682 | 8,418,810 |  | 8,181,504 | 8,055,025 | 1,905,672 | 86,444,783 | 6,011,000 |
| 1842, Janua | 16,293,000 | 8,478,189 | 8,042,197 |  | 8,070,075 | 8,805,875 | 2,515,677 | 83,005,018 | 5,629,090 |
| July | 18,008,000 | 6,166,581 | 8,050,105 |  | 2,715,080 | 2,842,775 | 1,650,387 | 85, 508,218 | 8,883,000 |
| 1S43, January | 18,283,000 | 4,942,826 | 8,839,009 | *** | 2,770,838 | B,112,950 | 2,009,041 | 34, 049,163 | 11,054, 000 |

 TUE LIABHLITIES OF TIF BANE OF ENGLAND AT (OR AS NEAE TITEETO AB TIL AOOOUKTB OAN BE MADE UP) THE UNDEE-NEN. tioneb Dates in each of the following Yeara

| Datos. | Clreulatlon. | Deposits. | Cucariliom. | Ballion, | Hast or Surplas of Assets over foiabilities. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| 1703, Febraary $98 . . .$. | $11,888,910$ | $5,346,450$ | $16,000,260$ | $4,010,680$ | $2,780,6 \pi 0$ |
| August $81 \ldots \ldots$. | 10,805,060 | 6,442,810 | 14,800,0.50 | 5,322,010 | 2,823,830 |
| 1594, February $88 . . .$. | 10,744,020 | 7,891,810 | 14,524,050 | 0,087,110 | 2,875,840 |
| Auguit $80 .$. | 10,286,780 | 5,985,710 | 12,446,460 | 8,770,110 | 2,004, 050 |
| 1705, February 28 | 14,017,610 | ©,073,020 | 10,811,340 | 6,127,720 | 2,948,630 |
| Anguat 81. | 10,802,200 | 8,154,080 | 16,980,920 | 6,136,350 | 8,109,090 |
| 1708, February 29. | 10,720,520 | 5,702,800 | 17,199,840 | 2,039,630 | 8,247,690 |
| August 31 | 0,248,700 | 6,656,320 | 17,025,470 | 2,122,050 | 8,245,310 |
| 1797, February $28 . . . .$. | 9,674,780 | 4,891,630 | 16,837,750 | 1,088,170 | 8,857,810 |
| 1799, Auguat 81....... | 11,114,120 | 7,766,950 | 18,261,170 | 4,080,020 | 8,471,820 |
| 1799, kebruary 28. | 13,095,830 | 6,148,900 | 16,790,500 | $5,828,940$ | 8,383,710 |
| Angust 81. | 12,180,610 | 8,300,720 | 17,849,040 | 0,546,100 | 8,414,410 |
| 1799, February 23. | 12,069,800 | 8,181,520 | 17,030,080 | T, $\mathbf{D} 03,900$ | 8,511,310 |
| August 31. | 13,389,490 | 7,042,240 | 10,930,440 | 7,000,780 | 2,590,490 |
| 1990, February 88 | 16,844,470 | 7,002,680 | 21,024,050 | 0,144,250 | 8,661,150 |
| August 81... | 15,047,180 | $8,385,000$ | 22,138,420 | 6,150,450 | 8,000,030 |
| 1801, F'ebruary 28. | 16,218,280 | 10,745,840 | 20,424,730 | 4,040,120 | 4,105,739 |
| August 81. | 14,668,110 | $8,189,830$ | 22,200,070 | 4,335,230 | 8, 554.890 |
| 1802, February 99. | 16,180,880 | 0,858,210 | 21,060,580 | 4,152,050 | 4,067,080 |
| Augut 81. | 17,097,680 | 9,739,140 | 27, 18,300 | 8,801,780 | 4,168,870 |
| 1809, February 28 | 15,310,930 | 8,050,240 | 29,014,000 | 3,776,760 | 4,321,480 |
| Aligust 81. | 16,083,380 | 9,817,240 | 26,018,840 | 8,592,500 | 4,710,770 |
| 1804, February 24. | 17,077,830 | 8,676,830 | 26,008,970 | 3,372,140 | 4,010,450 |
| August 81. | 17,153,890 | 8,716,630 | 25.526,080 | $5,870,100$ | 4,836,450 |
| 1806, February 28 | 17,871,170 | 12,083,620 | 28.601,390 | 5,883,800 | 4,590,400 |
| 180, August $81 .$. | 16,388,400 | 14,048,080 | 27,772,560 | $7,624,500$ | 4,060,870 |
| 1800, February $29 .$. | 17,730,120 | 0,980,790 | 26,601,070 | 6,087,100 | 4,807,850 |
| August 81... | 21,027,474 | 0,036,330 | 20,473,100 | 0,215,020 | 6,024, 020 |
| 1807, February $28 .$. | 18,950,680 | 11,820,320 | 27,409,400 | 6,142,840 | 4,771,800 |
| August 81. | 19,678,860 | 11,750,200 | 29,936,000 | 6,484,950 | 4,050,740 |
| 1808, February 29. | 18.188,800 | 11,961,900 | 27,984,080 | 7,805,470 | 5,088,730 |
| ${ }^{\text {a }}$ August 81. | 17,111,200 | 18,012,510 | 29,244,080 | 0,016,040 | 6,186,290 |
| 1809, February 28. | 18,542,860 | 9,982,050 | 299,118,200 | 4.488,700 | 5,081,090 |
| 1910, Augrist 31. | 10,574,190 | 12,257,180 | 33,485,270 | 8,052,480 | 6,250,300 |
| 1910, February 29. | 21,010,000 | 12,457,810 | 88,373,690 | 8,501,410 | 0,403,1080 |
| ${ }^{\text {dug }}$ August 81. | 24,703,000 | 13,817,520 | 40,973,760 | 8,191,850 | 5,764,110 |
| 1811, Fobruary 28. | 23,060,220 | 11,445,050 | 87,122,300 | $8,350,1840$ | 6,067,420 |
| 1512 Angunt 81... | 20,288, 860 | 11,075,040 | 87,083,280 | 8,243,800 | 6,944,070 |
| 1512, February 29.. | $23,408,820$ | 11,605,200 | $88,026,290$ | 8,988,190 | 0,005,000 |
| 1818 August 81... | 23,026,850 | 11,848,910 | 88,176,120 | 8,090,270 | 6,890,600 |
| 1818, Felruary 27 | 23,210,030 | 11,268,180 | 87,030,050 | 2,884,500 | 0,336,840 |
| Angust 81... | 24, 828,120 | 11,150,780 | 49,100,080 | 2,712,270 | 6,8330,600 |
| 1814, F'obruary $23 .$. | 24,801,050 | 12,456,460 | 41,989,010 | 2,204,480 | 0,487,800 |
| 1816. Angust 31... | 28,168,200 | 14,840,940 | 49,945,960 | 2,097,680 | 7,225,410 |
| 1816, Februsry $89 .$. | 27,261,050 | 11,702,250 | 44, 588,500 | 2,086,910 | 7,631,510 |
| 1818, Auktret 81... | 27,248,070 | 12,096,000 | 44,854,180 | 8,409,040 | 8,818,860 |
| 1818, Felbruary 24. | 27,018,620 | 12,888,890 | 45,401,810 | 4,640,880 | 8,099,689 |
| ${ }^{1817}$ August 81... | 26,768,720 | 11,856,880 | [7,279,540 | 7,502,780 | 6,227,220 |
| 1817, February 28. | 27,897,900 | 10,825,610 | 84,278,680 | 0,080,970 | $5,780,000$ |
| 1818. Auguat 80...... | 29,643,780 | 9,194,590 | 82,605,630 | 11,068,260 | 5,045,520 |
| 1818, Februnry $28 . . . .$. | 27,770,970 | 7,997,650 | $80,906,830$ $82,370,760$ | $10,058,460$ $0,309,160$ | $6,192,270$ $4,004,040$ |
| 1810, Fugurusty $87 \ldots \ldots .$. | $26,202,150$ $25,126,700$ | $\mathbf{7 , 9 2 7 , 7 8 0}$ $\mathbf{8 , 4 1 3 , 8 7 0}$ | $82,370,760$ $81,456,000$ | $0,363,160$ $4,184.090$ | $4,004,040$ $4,090,550$ |
| 1880 August 81....... | 25,252,090 | 6,804,160 | 81,740,050 | 8,595,300 | 8,779,060 |
| 1820, Februnry 90....... | 28,484, 110 | 4,098,K50 | 20,187,400 | 4,911,050 | $8,520,980$ |
| August 81....... | 24,209,840 | 4,420,010 | 29,846,120 | 8,211,080 | $8,836,960$ |
| 1821, Februsry 28....... | $23,844,021$ | 6,022,800 | 20,796,270 | 11,809, 090 | 8,159,304 |
| August 81....... | 20,206,800 | 6, 818,400 | 18,475,540 | 11,288,500 | 8,606,250 |


| Dates. | Clreolation. | Daporits, | Securition. | Bullion. | Reat or Barplia of Aseote over Limbilities. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $0,674,040$ |
| 1892, February $28 . . . . .$. | $18,005,350$ | $4,680,9.40$ | $15,073,080$ | $11,057,150$ | $0,874,040$ <br> 8 た.) 1240 |
| August 81, ${ }^{\text {c, }}$, | 17,464,700 | 6,399,440 | 17,200,810 | 10,007,060 | 8,524,240 |
| 1523, February 28....... | 18,592,240 | 7,181,100 | 18,810,780 | 10,384,230 | 8,130,620 |
| Auguat 80....... | -19,281,240 | 7,827,300 | 1T,407,870 | г. $12,058,240$ | 8,007,020 |
| 1824, February $28 . . .$. | 10,730,990 | 10,007,850 | 18,872,000 | $13,810,000$ | 2,847,220 |
| Angust 81....... | 20,132,120 | 0,079,810 | 20,004,590 | 11,787,490 | 2,880,080 |
| 1825, February $28 . . .$. | 20,758,700 | 10,168,780 | 24,051,330 | 8,770,100 | 2,807,890 |
| Auguat 91 | 10,308,840 | 6,411,560 | 25,100,030 | 3,634,320 | 2,930,950 |
| 1390, February 28, ...... | 25,467,910 | 6,985,040 | 32, 018,580 | 2,459,510 | 2,974,240 |
| Aligust 81...... | 21,503,600 | 7,100,800 | 25,083,680 | 6,754,230 | 8,074,440 |
| 1827, February 28....... | 21,890,010 | 8,801,000 | 23,629,580 | 10,150,020 | 2,906,280 |
| Auguat 81 | 22,747,600 | 8,052,090 | 23,199,320 | 10,468,770 | 2,803,400 |
| ;828, February $29 . . . . .$. | 21,080,710 | $9,108,140$ | 28.581,270 | 10,347,200 | 2,749,710 |
| Alighat 80....... | 21,357,510 | 10,201,280 | 28,905,590 | 10,498,880 | 2,846,620 |
| 18?0, February 28 | 10,870,850 | 9,553,060 | 25,384,750 | 6,835,020 | 2,704,960 |
| Algust 81 | 19,547,380 | 9,035,070 | 24,601,810 | 6,705,630 | 2,874,890 |
| 1830, February 27 | 20,050,780 | 10,708,150 | 24,204,890 | 0,171,000 | 2,561,510 |
| August 30 | 21,404,700 | 11,620,840 | 24,605,090 | 11,150,4S0 | 2,080,630 |
| 1531, February 28....... | 10,600, 140 | 11,218,630 | 25,208,080 | 8,217,050 | 2,612,360 |
| Allgust 31. | 18,538,080 | 9,009,810 | 28,005,030 | 6,430,700 | 2,730,860 |
| 1832, February $29 . . . . .$. | 18,051,710 | 8,097,170 | 24,388,490 | 6,203,160 | 2,637,760 |
| Auguat 28. | 18,320,000 | 10,278,000 | 23,420,000 | 7,514,000 | 2,380,000 |
| 1883, February $20 . . .$. | 10,372,000 | 12,456,000 | $23,850,009$ | 10,205,000 | 2,228,000 |
| August 27. | 19,025,000 | 11,927,000 | 23,245,000 | 10,871,000 | 2,264,006 |
| 1384, February 25 | 10,050,000 | 18,087,090 | $25,212,000$ | 0,225,000 | 2,300,000 |
| August 20....... | 19,195,000 | 13,300,000 | 27,732,000 | 7,308,000 | 2,540,000 |
| 1825, Fubruary 24....... | 18,510,000 | 10,071,000 | 24,805,000 | 6,289,000 | 2,408,000 |
| August 25. | 18,088,000 | 13,725,000 | 28,173,000 | 6,255,000 | 2,618,000 |
| 1836, February 23 | 18,181,000 | 14,044,000 | 27,368,000 | 7,787,000 | 2,58v, 000 |
| 1897 August 39 | 18,018,490 | 12,040,000 | 27,697,000 | 5,250,000 | 2,889,000 |
| 1837, February 28 | 18,105,000 | 10,007,000 | 27,207,000 | 4,077,000 | 8,202,000 |
| August $29 . \ldots$ | 18,857,000 | 10,040,000 | 25,357,090 | 6,548,000 | 2,078,000 |
| 1838, February $27 .$. | 18,975,400 | 10,825,000 | 21,058,000 | 10,471,000 | 2,029,000 |
| Auguat $28 . .$. | 19.488 .000 | 8,922,000 | 21,611,000 | 9,540,000 | 2,741,000 |
| 1839, February 26. | 18,008,000 | T,730,000 | 21,741,000 | 6,779,000 | 2,677,000 |
| Angust $27 .$. | 17,982,000 | 6,488,000 | 25,141,000 | 2,420,000 | 3,031,000 |
| 1840, February 25. | 10,504,000 | 0,656,000 | 21,611,000 | 4,311,000 | 2,802,040 |
| Angust 25. | 17,170,000 | 6,264,060 | 22,075,000 | 4,290,000 | 2,5 60,000 |
| 1841, February 23. | 16,398,090 | 0,407,000 | 21,344,000 | 4,335,000 | 2,873,000 |
| 1019 August 31...... | 17,370,000 | 6,975,000 | 22,402,000 | 4,822,000 | 3,971,000 |
| 1542, February $22 . \ldots \ldots$ | $10,920,000$ $20,982,000$ | $8,280,000$ | $22,124,000$ | $6,119,000$ | $8,084,000$ |
| 1845, Februsry $25 . . . . .$. | $20,332,000$ $20,218,000$ | $8,090,000$ $11,520,000$ | $22,151,000$ $29,504,000$ | $9,720,000$ $11,016,000$ | $2,860,000$ $2,872,000$ |

An Account of the Sotes in circulation of tife Bank of Engiani, and of the other bankg of Iague in Enoland anis Waleg, Scotland, anid lneland, bipeifyino also the bulidon in the bank of Enghand.

| Four Weeks ending | England. |  |  | Heotland. | Iruland. |  | Total. | Bulltion in the Bank of England. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bank of England. | Privato Bnoks. | Joint-tock Banke. | chartered, Private, and Joint-miock Bnokn. | Buak of ireland. | Privale and Joint-flock Bankn. |  |  |
|  | $\pm$ | $\pm$ | $\pm$ | 8 | 5 | $\pm$ | $\pm$ | 5 |
| 24 July, 1841 | 17,076,000 | 5,907,682 | 3,418,810 | 3,181,594 | 3,055,025 | 1,105,072 | 35,444,783 | 5,011,000 |
| 8 January, 1842 | 10,203,000 | 5,478, 189 | 3,042,107 | 3,070,075 | 3,205,875 | 2,615,677 | 38,605 018 | 5,029,000 |
| 2 \pril, " | 16,674,004) | 5,280,050 | 3,047,056 | 2,070,290 | 3,074, 125 | 2,254, 550 | 38,014,677 | 7,006,000 |
| 23.3 uly | 10,908,000 | 5, 106, 581 | 2,939,145 | 2,715,680 | 2,8112,775 | 1,480,987 | 25, 5104,218 | 8,883,000 |
| 15 (Vetober, " | 19,609,000 | 5,488,061 | 8,044,539 | 2,743,765 | 3,041,150 | 2,002,784 | 35, $8.43,020$ | 0,801,000 |
| 7 danuary, 1843 | 18,283,000 | $4,142,825$ | 2,939,409 | 2,770,838 | 3,112,050 | 2,009,041 | 34, 049,108 | 11,154,000 |
| 1 April, ${ }^{\text {a }}$ | 19,539,000 | 4,716,510 | 2,862,086 | 2,457, 2104 | 3,095,400 | 2,010,740 | 34,681,230 | 11,420,000 |
| 22 July, | 10,800,000 | 4,400,098 | 2,840,912 | 2,660,820 | 8,08!, 100 | 1,081,06\% | 84,545,794 | 11,872,000 |
|  | 10,024,000 | 4,721,104 | 6,130,002 | 2,702,853 | 8,2932,575 | 2,068,8,845 | 34,028,884 | 12,080,000 |
| 6 Jathat', 1844 | 18,064,000 | 4,8.2,675 | 11, 234,019 | 2,901,740 | 3,483,460 | 2,361,180 | 35,754,25! | 14,638,000 |
| 27.4 prit, | 21,839,004 | 5, 2015,200 | 3,753,867 | 2,714,027 | 3,625, 1225 | 2,157,440 | 39,565, 104 | $15,884,000$ |
| 20 Jtily, | 21,448,000 | 4,0224, 170 | 3,840,820 | 2,003,322 | 3,440,700 | 1,074,284 | 37.780,811 | 15,485,000 |
| 12 Oelober, " | 21,020,000 | 4,157-4,142 | 3,331,616 | 2,087,646 | 3,5:17,850 | 2,450,261 | 88,070,454 | $14,832,0 \mathrm{ch}$ |
| 4 January, 1545 | 20,301,000 | 4,424, 4 , 4 | 3,050, \$(1) | 3, 15, , 450 | 8,017,800 | 5,425, 551 | 97,930,317 | 14,867,000 |
| 20 April, | 22,078,000 | 4,680,648 | 3,200, 2.45 | 8,001,240 | 4,030,400 | 3,916,231 | 40,118,714 | 15,024,000 |
| 19.3 lity, | 22,076,000 | 4,478,479 | 8,158,775 | 3,383,906 | 3,800,475 | 2,633,657 | 39, 541,492 | 10,274,000 |
| 11 October, " | 21,890,400 | 4,65:1,712 | 8,811.527 | 3,428, 074 | 8,107,025 | 2,926,265 | 40,022,603 | 14,989,000 |
| 3 lanumry, 1846 | 21,028,000 | 4,505,823 | 8,162,742 | 3.3336,409 | 4,081,200 | 3,053,160 | 34,437,340 | 18,313,000 |
| 25 April, | 21,279,000 | $4.730,780$ | 3.301,18! | 3,016,817 | 4,350,025 | 3,181,208 | 39,949,610 | 13,682,000 |
| 18 dily, | 21,284,000 | 4,410,685 | 3,088,61! | 3,390,000 | 8,1046,875 | 2,040,616 | 88,859,755 | 15, 508,000 |
| 10 October, | 91,194,000 | 4,640,748 | 3,202,658 | 0,065, 175 | 4,184,575 | 8.060,080 | 40,040,046 | 15,981, 000 |
| ${ }_{20}{ }^{2}$ danumry, 1847 | 20,683,000 | 4,525.805 | 3,138,321 | 8,787,151 | $4,212,2,5$ | 3,303.189 | 30, 5090,741 | 15,083,000 |
| 27 Dareh, "4 | 20,087,006 | 4,54t.513 | 8,247,631 | 3,360,348 | 8,547, 8109 | 2,816,030 | 87, $24.4,108$ | 11,32, 000 |
| 1 Jnhary ${ }^{\text {d }}$, 1848 | 17,9221,090 | 3,588,107 | 2,410,271 | 3,341,317 | 3,488, 700 | 2,107,416 | 82,400, 8106 | 19,404,250 |
| 27 January, 1843 | 17,262, 0001 | 3,6051,707 | 2, 621.819 | 3,082, 572 | 2,717,585 | 1,067,214 | 33,278,247 | 15,015, 000 |
| 241 Jablary, 1850 | 20,244,000 | 8,625, 2901 | 2, 2880,457 | 8,112,809 | 2,190, 8010 | 1,070,024 | 34,302,431 | 16,85\%, (06) |
| 25 danuary, 1551 | 20, 505,600 | $3,873,292$ | 2, 228.1224 | 3,262,485 | 2,1441, 160 | 2,165,601 | 35, 142, 10, 2 | 14, 207,000 |
| 9f January, isf6 | 21,485,000 | 0,49, 4 , 4 ti | 2, $4.12,851$ | 11,288,502 | 2,484, 100 | 2,166,806 | 30,086,725 | 17,68:1,000 |
| 22 Janmary, 18\%3 | 24,848,004 | 8,771,524 | 2,1889,578 | 3,612,710 | 2,594,110 | 2,7us, \%rit | 10,611, 467 | 10,712,060 |
| 24 treember, " | 22,112,1900 | 3,848,753 | 8,050,085 | 4,112,787 | 8, 0360,1010 | 11,367, 227 | 39,667,852 | 15,424, 06010 |




## BAN

11I. English Pnivate and Provinclal Banks. -Bealdes charging the nsual rate of interest on bllls discounted, the provinclal bankers are mostly in the habit of charging 5s. or 6s. per cent. as commission. They aiso charge a commission on ail payments, and derive a profit from ehurges for the transmisslon of money, etc. They usuully allow from 2 to 3 per cent. on money deposited; lut the numerous failures that havo taken place among them have, by generating a feeling of insecurity in the minds of the depositors, conlined this branch of their business withln comparatively narrow limits. When their customers overdraw their accounts, they are charged with interest at the rate of 5 per cent. Country baaks, established by individuals possessed of adequate funds, and managed with due discretion, are productive of the grentest service. They form commodions reservoirs, where the flonting and unemployed enpital of the surrounding districts is collected, and fror which it is agnin distributed, by way of leun, to thosa who will employ it to the best advantage. It is, therefore, of the utmost importance, iu a public point of view, that these establlshments should be based upon solid foundntions. But In England, unfortuantely, this, till recently, has beeu but little attended to; and the destruction of country bunks has, npon threo different occasions-in 1792, in 1814, 1815, and 1816, and in 1825 and 1826produced an extent of bankruptey and misery that has never, perhaps, been equaled, except by the breaking up of the Mississippi scheme in France. Government is tound to interfere to hinder such disnstrous results, and we have alrealy glven some necount of the mensures adopted in this view.

The following is an account of the number of commisslons of bankruptey lssued against country hankers in England from 1809 to 1830 , both hnclusive:

| Vears. | Comatisatos. | Years. | Commixalons. |
| :---: | :---: | :---: | :---: |
| 1510 | 4 | $1 \times 20$ | 4 |
| 1510 | 20 | 1821 | 10 |
| 1811 | 4 | 1522 | 9 |
| 1812 | 11 | 1823 | 9 |
| 1813 | 8 | $18 \% 4$ | 10 |
| 1814 | 27 | 15:6 | 37 |
| 1815 | 25 | 1826 | 43 |
| 1816 | 87 | 1827 | 8 |
| 1817 | 3 | 18.8 | 8 |
| 1818 | 3 | 1829 | 3 |
| 1819 | 13 | 1830 | 14 |

Exelusive of the alove, many lanks stopped payments, to tho grent injury of their creditors and the publie, that afterward resumed them; at the same thme thint the affairs of somo bankrupt concerns were arranged without a commisalon. During the whole of this period not a single Scotch bank gave way.

Besides the stamp dutles payuble on notes, each individual or compuny issuing them must take out a license, renewable annually, which costs $£ 30$. This lleense speclies the numes and plnees of abode of the body corporate, person or persons in the firm to whom it ls grantell, the nume of sueh firm, the place where the buslness is earried on, etc. ; and a separate license is to be taken out for every town or place where any notes shall be issued by or on necount of nay banker, ctc. Unless the license granted to persons in partnership set forth the names and places of nhode of inl persons concerned in the partnership, whether their names nppenr on tho notes issued by them or not, such license shall te ntiselutely void.-55 Geo. 3, c. 184, 8. 24. For the regulations an to the lasue of unstrmped notes, see ante, $p$. 60 . The issue of notes $f$ : less than $£ 5$ wns prohibited in England, ns prev.ously shown, from 1777 to 1797 ; but they continued to le lsaued from the latter period down to the 5 th of $A$ pril, 1829, when their further issue censed, in consequence of an act passed in 1826. This net dhl net extend to Scotland or Ireland, and was Intended to give grenter stabiliity to the syatem of country bunking lo England, by shutting up one of the prinelpal channels through which
the inferior class of bankers had heen in the hablt of getting their notes into circulation. The joint-stock banks estublished in different parts of England and Wales, undor the provisions of the act 7 Geo. 4, c. 46, authorizing their estublishment, consist of bodies of partners, varying from seven, the miaimum, to any greater number. Each partner holds one or moro shares of the company's stock, and is individunlly liable for the entire debts and engagements of the company; so that a person helding a $£ 50$ or $£ 100$ shnre in a joint-stock bank may, in the event of its becoming bankrupt, he called upon to mako payment of as many thousands of pounds! They are unlformly almost managed by boards of directors appointed by, and generally responsible to, the body of shareliolders. The conditions of copartnery vary materially in different assochations; but the alove are distlinguishing features common to them all. The shares in many jolnt-stock banks are very smull, few being above $£ 100$, the greater number not exceeding $£ 50$, whlle many ure only $£ 25$, and some not more than $£ 10$, and even $£ 5$ ! Generally, too, it is understood, or rather it is distinctly set forth in the prospectus, that not more than five, ten, or twenty per cent, of these shares is to bo called for; so that an indivldual who has ten or twenty shillings to sparo may lecome a shareholder in a bank. And owing to a praetice, or rather a Hagrant nbuse, introduced luto the mangement of various lanks, by which they make large nflvances or discounts on the credit of the stock held by the shareholders, not a few individunls in doubtful or even desperute circumstances take shnrcs in them, in the view of obtaining loans, and bolstering up their credit! The great danger arising from such banks is ubvious; and were one of them to stop payment, it is phin, even though the claims on it should tie ultimately made good, that they could tie so only nt the cost, and perhaps ruin, of sueh of its proprietors as had abstained from the abusive practices resorted to by others. It mny well excite nstonishment, that any one who can renlly afford to make a boni fide purehnse of shares in a lonk should be foolhardy enough to cmbark in sueh concerns.

No doult a joint-stock bank, if it possess adequate capitnl, and be discreetly managed, may afford ample security to its sharcholders nad the public. But there is no foundation for the notion that liecause a bank has 50 or 100 partners, it will therefore be hetter managed than if it had only 5 or 10 . On the contrury, the falr presumption ls that it will not he so well managed. A few wealthy individuals engaged in lanking or any other sort of business, must, if they would protect themselves from ruin, pay unremitting nttention to their concerns, and act in a disereet and cautious manner. But the partners and managers of a great jointstock compuny aet under no such direct nud pressing responsilility. "I think," sahl the highest nuthority on such subjects, "thant joint-stock banks are deficient in every thing requisite for the conduct of lunking business, except extended responsibility; the banking business requires peeullarly persons attentive to all its details, constuntly, dally, und hourly watelfful of every trunaction, much mero than mercantile or tradiug businesses. It also requires Immediate, prompt decisions, upon circumstunces when they arise-in many cases a decision that does not ndmit of delny for consultation; it also requires a diseretion to bo exereised with reference to the special cireumstances of each case. Joint-stock bunks being, of courso, obllged to net through agents, and not by a prineipal, and therefore under the restraint of general rules, cun not he guided lyy so nife a reference to degrees of difference in the character or responsibillty of parties ; ner cun they undertnke to regulate the asslstince to be granted to cencerns under tempornry emburrassment by so necurnte a reference to the cireumstanees, favorable or unfavorable, of each case. "-Ervilence of S. J. Lord, Esq., lefore the Committec of 1832 on the Renewal of the Bank Charter.
he hahlt of joint-atock ngland and Geo. 4, c . t of bodies umm, to any no or more idually liaof the com100 share ln ts becoming of as muny mly almost y, and geulders. The In different ing features joint-stock 0 , the greatay are only
d even $£ 5!$ er it is dis$t$ more than ires is to lie on or twenty er in a liank. rant abuse, 13 banks, ly unts on the r, not a fow circumistanining Joans, danger aris* one of them ho claims on rey could he such of its ive practices ite astonish1 to make a ould be fuol-
ess adequate afford nmple But there o a bank has er managed ary, the fair ranaged. A king or ony uld protect attention to utious mangreat jointnd pressing st nuthority are delicient of busking the banking ve to ull its ful of every radiug busit decisions, many cases reconsultacach case. red to net d therefore the guided nee in the in they united to conto aceurate unfiavoraEsq., lefore $n k$ Charter.

In faet, more than nine-tenths of the partners in joint-stock banks are wholly ignorant of banking busjness, and hnve nothing better to trust to than the supposed honesty and Intelligence of the directors; and, even if they were acquainted with the busineas, the result would be nearly the same, as it would not be possible for any one, by a mere cursory inspection of the books of any bank (if such were permitted), to form nny accurate estimate of its condition, or of the mode in which it transacted business. And hence the directors in these eatablishments are practically all but absolute. If they be worthy of the confidence placed in them, all goes on smoothly; and thls also is the case when they are most unworthy, till they have involved the concern in inextricable difficultles! The history of the Norwlch Bank, of the Northern and Central Bank, the Marylebone Bank, the Manchester Bank, and a host of others, sufficiently atteats the truth of What has now been stated. The responsibility of the directors to the shareholdors has not been found, in any of these instances (and it is, Indeed, ludicrous to suppose that It ever should be otherwise), to have been any check whatever over their frauds and improvidence. The whole paidnop capital of tho Manchester Bank, amounting to about $£ 750,000$, had been wasted in the most improvident speculations, and additional dolits incurred, before the great body of the sharoholders hud the least suspicion that tho compuny was otherwise than prosperous!
We may ohserve, by-the-way, that the misctief oceasioned by an establishment of this sort, when perverted from its proper objects, and mismanaged, is not to he estimated by the ruin it entails on its partners, and probsbly, also, on its customers. It hecomes, in fact, a public nulsance, and entails privations on many who might he supposed to bo beyond the aphere of ita influence. Within the ten yerrs ending with 1842 , we believe it may he moderntely estimated that about $£ 1,500,000$ of hanking capital was wholly dissipated in Manchester noul its inmmediats vieinity. And as nine-tenths of this enormous loss was occasloned by advances mado to manufacturers who had littlo or no eapital of their own, it is not easy to imggine what a ruinons stimulus it must have given to reckless competition, and how very injurious it must have been to parties trading on their own cajital. Indeed, no inconsiderable portion of the distress in Manchester, in 1842 and 1843, may be traced to this source.
Remedial Mfeasures that should be adopted.-The set of $1844,7 \& 8$ Viet. c. 32 , has successfully ohviated some of the defects formerly existling in the joint-stock and private banking system, especially by limiting the extent of their lssues; but in other respeets tho system is still open to scrious ohjections. We rotuin the remarks made upon it in a former edition of M'Culloeh's Dict. of'Commerce, hefore tho net of 1844 wss passed:
"We do not, however, think that it would bo at atl necerssary, in provtding for a secure eystem of joint-stock hanking, to mako any regulatlons with respeet to many of the points notiecd by the committee as to which the law is silent. At present every partner in a jolnt-stock bank is liabic to the public for the whole debts of the firm; nud this may loe truly said to he the anving princijple of the system, and without which it would the an unmixed oril. No Individual should, howover, by merely withdmwing from $n$ Jotnt-atoek coneern, get rid of fins ifatilities in comnection with it. To prevent fraud, sad to Insure due cautlon, these ought to contlaue for a period of three years at least after ho has pubilicly withdrawn hits name. The pulilic, too, nre clenrly entitled to know the partners lin Johnt-stock assoclations; that ta, to be luformed who the indithluals are with whom they are deating, and who are responsilie to them. But, unluckily, no effective mesas uro taken for supplying this necensary Information, or, consequentty, of propetly discriminating between one estabtishmont sud another. The aot of 1833 directed that an account of the places whoe they carry on business, and of the names and realdences of thin partnors, should be quarterly tranamitted to the Stampofflec. But doubts have been entertained as to the correetncess of these niturns, and comparativoly little use has been, or, indeed, can be mude of them. The accounta of the namea and
realdancea of the proprietors are not pablushed, bnt are secluded from the public uye in the reponitortea of Somerset House I It is true that these lista may be seen, by those who choose to apply at the office, for a small fee, and that certlifed coples may be procured nt no great expense. But fow know that auch retorna oxist; and fewor atill have the oppurtunity, or thlak of uvalling themselves of them as sources of taformation. To render them of any real utllity, they ahould be brought under the publto eye, by befng hung up la the offices of the banks to which they refer, and periodically published in tha newapapers of the placea where they carry on bualaess. By this meana the publle would know exactly to whom they had to look, snd would act accordingly. They would not be deceived, as they are Hable to be at present, by supposligg that, because a bank has a number of partaers, some of them must bo opulent and trustworthy. They would know the precise atate of the fict; and if it were seea, from the quarterly returna, that opulent and jatalligent Jadivlduals were withdrawing from a bank, every oue would be put on his guard, and would naturally conctuda that the partles hed very nufficlont reasona for quitting the concern. Thus far pubticity may be made effectual, and would be of the greatest Importance. Nelther is it possible to allege es siaglo plausiblo objection to this proposal. It interfcres to no degree, nor in ony way, with the proceedings of the parties: all that It does is to declare who and what they are; and to this degrea of publlelty no honeat man will ohject." And we are gisd to have to atote that thls is now effected by the act $7 \& 8$ Vict. $c .82,821$. -See ante, p. 84.
"But we have great douhts whetier it be poskible to carry pubhicity farther than thls. The committee state that 'the law docs not provide for any publicatlon of the Hibilities sad assets of these banks, nor does it enforce tha publlcation of any balance-sheet to the proprietors at large;' and it has been proposed to compel the periodical publication of a statement of this sort; hut it ls very questionable whether say anch publlcation would not be a great deal worse than neeless. It is not proposed that commlssloners ehould be appointed to inspect tho accounts of the different banks, and to see that the returns are accurate: thla would be too inquisitorial, too cumbrous, and too costly a plan to be thought of for a moment. There would be nothing for $1 t$, In fact, but to trust entirely to the honor of the parties ! Hence, in all cases in which a djaclosure would be really uacful, the publleation of an account of assets and Ilabilities would afford the means of decelviog the puibltc, and of répresebtling a bankrupt cobcorn as beling in a prosperous condition. Supposing, however, that the parties were, In all instances, perfectly honest, still the publication of a balance-sheet would be good for nothlng. Every ono knows how sangulne people are in retation to their own affalrs, and that debts and obllgations that other partics would hardly reckon worth any thing are estmated by them as if they were so much bullien. But, Independently of this, the futility of the thing is obvious. A bank with a capital of $£ 100,000$ discounts billa and other ohligatlons to the extent, perhaps, of $£ 300,000$ or $£ 400,000$; the fuct that It has alscounted them shows that it belleves these bills and obligationa to be good; and they will, consequontiy, be reckoned among its assels. But should a revulsion take place, or any circumstanee occur to shake eredit, these bills may not be worth $£ 100,000$; und those who have dealt with tho bank, on the hypothesis of its having capital and assets mors than enough to meet all its obligations, may find, to their cost, that it is not possessed of a 日linglo shilling, hut is, on the contrary, some $\mathbf{\Sigma 2 0 0 , 0 0 0}$ or $\mathbf{£} \mathbf{3 0 0 , 0 6 0}$ worse than nothing!
"The committee seem to think that some regulation should be enacted, providiag that a certain portion of its capltal should be pald up before a bank begins buniness. Ilut the better way would be to prohlbit all advertising of nominal capItal. This, in fuct, ts a mere device by which to entrap and delude the pubtic. A bank is abnounced with a capltal of $£ 1,000,000, ~ £ 2,000,000$, or $£ 3,000,000$; and a great number of peoplo, perhaps the majority, Immediatety conetude that thero can be no risk in deatiug with sn establishment possessed of so great an smount of property. But what ls the fuct? The capitat ndvertised ts nominal merely ; not more, perinaps, than a tenth or in fifh part of it has been recelved Inte the coffers of the bink, and wo have nothing better than the statement of the bank proprietors, or thicir agents, that they will pay up the remainder, if necessary; of which necesslty they of courso aro to be the only judges I Practically this is nelther more nor less than a fraud unon the pubilic; It ls a contrivaneo for making $£ 10,000$ pass in the puilio extlmation for $£ 100,000$, and for procuring tho asme degree of cred! to Ita holders. This, bowover, is not all. Whero is the security that, If a greater amount of capttal were reslly required, It would be forthcoming ? The notion that the bulk of the ahareholders in muny, we aro pretty aure we might safoly sey mosh of the joint-atook banka now th existence, could pay np the full

## BAN

mount of their ahares, is too judicrous to deserve notice. We might as well call upos is man worth cs to extinguiah a debt of 2500 .

There can be no doubt, therefore-unless it be meant to aftirm that deception and fatlacious atatements are Indiapensable to the auccess of joint-stock banking sehemes-that atl advertistog of nominal capitals shouid bo pat anend to ; and that no association ahould be allowed to represent ita capital as exceeding the aum actually paid up by the proprietors, Hut though this would obviste one source of fraud and deception, there would still be abondant meuns of practiofig oa the credulity of the pubtle at the disposal of parties facined to use them. Admit that a bank has a capital of $\mathbf{8 5 0 0 , 0 0 0}$ actually recelved into ita coffers, what is to hinder the direetors from lending out the whole of this sum, or even more, to themseives or to partners in the bank i or, supposing them not to do this, who can tell whether the entire capital, or some considerable part of it, be not wholly ingulfed in ruinous apecaiationa? It is indeed alieged, and truly too, that thile couid not happen with any 'respectable' bank; that 'gantlemen of character" would not lend themseives to anch transactional Uniacktly, however, thers are no decisive marks or teats by which the public enn, a priori, say what is or what is not a 'reapectable' bank, or who is or fe not a 'gentleman of character;' and it is not a ilttlo hazardous in such mattera to induige in apeculativo remarks. Ilenco it is that the Marylebona Bank, the Liank of Manchester, and indeed all banks, are :.eid to ba respectable, that is, soivent, till the event prove the centrary ; and thast all gentiemen conneeted with banks are held to be 'mon of eharacter, parsgoas, in fact, of honor, honesty, and intetligenee, till their fraud or ignorance has lavolved hundreda or thousanda in benkruptey and ruin.
"We do not ' 'ato these cireumstances ita order to raise sny pryjudice against joint-atock luntrs or other associations, for they apply equally to banks with ons or a small number of partners; but wo state them to show the folly of plaging any reliance on atatements as to the eapital of any bank, or tho charseter of its managers. Such statements may be cither true or false; but, as the puhlie can not tell which, they are plainiy good for nothing. The oniy real security is to be found, If it exist at ail, in the names of the partuers responsible for the detits and obligations of tho bank. The number of auch part. ners is a very inferior consideration. There ean not, in truth, be a greater error than to suppose that becanse a bank hss a great number of partners, ita sectirity anay be sufely depended upon. A single findividual worth $£ 100,000$ is an ineomparably better security than fifty individuals worth $£ 2000$ cach; and a fundred Individuals worth $£ 1000$ would hardily be any seeurity at alf, at least for a aum of $\mathbf{£ 1 0 , 0 0 0}$ or $\mathbf{£ 2 0 , 0 0 0}$. A private benk with aix may be a safir place of depoait than a joint-stoek banh with eix hunired partners. Every thing depends upon the revilable vealth of those responsible for the debts of the concern; and hence the propriety and justice, whether tho firm consint of one or of many partaers, of publiciy deciaring and apeeifying their names,
"We are decidedly heatile to a proporition we have heard mooted, and which seems to be countenanced by the committes on joint-atock banks, for obliging all banks to eatalitisil a gisrantee fund; that is, for obilging then to aceumulate a portion of their profits as a reserve ntock. Where in the security that anch reserve would be alwayd dedicted from profita $?$ The truth is, that bankright spd frandulent conecrns, and none else, would gain by buch n regulation; inasmuch as it would enaHe them, by oppearing to be prosjuerank, the better to deceive the publie, and to blind them to the reni nate of their affairs, It is worse than absurd to induce the puhife to depend on guarantees that can not be enforced, nul which, consequently, mitst the good for nothing. The knowledge of whom tho partners in banks really consift, and timir unlimited reaponsibility, ary the only securitics that, , leasking genersily, are wortin a pinch of amuf. If theso can not jurotect the pullic from fraud or loss, nothing else will: and the question will eome to lie, mot whether the nysten should be reformed, but whether it should be alsated an an incurable nuisance. On this ground, aiso, wo mhould be disjosed to dimsent from any attempt to prevent, ty legislative enactment, the makiog of loans upon the eredit of lank stock. We do not queation the advantage of anch a reguiation, provided it were honestly earried inta effect. Ifut it in areless to may that, whenever the partica were disposed to defiat such in rigulation, it woad ine quito inoperative.
"Some of the joint-atock banka have nu extmorilnary number of firsucies; and the multipilication of these subordinate extabliamments all over the country ia not one of tho ieast striking fentures of tho system. Nelther is it very dificult to discover why banks of imntie, at least, are so very anxious nbout the formation of theme outworks. They aro hound, it neems, iy the prosent inw, to juy their noten only at the parent entab-

Liohment; so that by ismuing them at a brench baak, perhaps is hundred miles diatant from tho hend bank, the chanees are ted to one that they wifi continue for a macli 'onger period in circulation, aud that they will consequently be able to carry on business with a less amonnt of capital than if they were, as they ought to be, obliged to pay their notes at the branchea as well as at the principal offiee, It ia obvious, indeed, that the convertiblity of the paper, even of first-class banke, into either cash or Bank of Eagiand notes, is int prosent exceediugly im. perfect; and that very great facilities are afforded for getting the worst class of notes into circalation, and for keeping thens afloat even after their quailty may be suspected. This defect In the law should undouhtedly be amended, by obliging alt banku that dasue notes to pay them indiffervitly at any of their officen. But we incling to think that Pariament might go farther than this; atd that it should enset that no braneb bank be eatablithed, whather for the issue of notes or otherwine, beyond a certain distanco (say fifty mities) from the head oftice.
"Several of the points recapitulated by the committee, as to which tho Jaw is Blient, respect the righte and interesta of the partaers in joint-atoek banks, in reiation to each other, and not as between them and the pubilc. But it is always a very difficult matter to interfere to dietate the footing on which partica in any undertaking should siand among themscives. Mueh should, ju sueh esses, be left to the judgment of the partles; and pabile reguistiona, If enforeed at atl, should only go to pravent ohviona and acknowledged ahuse ; the parties may, in moat easea, be safcly left to take care of themselves. The protection of the public intereat is the paramount consideration; and we do not well know what can be done to effect this, in the case at least of euch banks as do not lasue notes, other than the making known who their pastuers ore.
"The joint-stock banka formed in the city of London offer a fair rato of interest for deposits; and ff they go on tuccessfully fin doing this, they will confer no slight advantage on the community, and will beeome, ss it were, an many savings' banks for the middio classes, sad for the rich as well as the poor, But the responaibilities thia ayatem will bring along with it are neither few nor small. A bank with a numerous body of rartners of andoubted wealth and integrity, that should give 2 per cont. interest on alt deposith of $£ 10$ snd upward, how aliort soever the period for which the depoait night remain in tho bank, would, there is Jittle doult, speedily havo amplo funds at its disposal. In quiet and prosperous times tho aystem would work exceedingly well ; snd the bank and the publie would he vastly well pieased with each other. But when the eycle of prosperity has gone by, and the eyele of adversity has begun; when the waters ane out, and the winds begin to hlow-it is doubtful whether cither the bank or itu depositors may feed quite at easo. The former will probabily raise the rate of interest ; but it is douhtful whether that will have the wished-for effect. Shoutd the cxchange set against us, nid the laank of Eagland be foreed to narrow her issues, and alionjd bankruptey and a feeling of inseourity begin to prevali, as they have donc hiltherto on all aimilar occaslona, $\boldsymbol{n}$ run for depoalta may, and most probably will, be made upon the lank; and In uncin a ease bur situation, however well who may liave been managed, will be most eritical. She will be compelied to dispose of or piedge sucurtiea in a market whero they may bo all but unsalabie; and it will be imposalbie for her suddenly to puit up in discounting, without exporing lerself to the imminent danger of extra joas, by bringing on the stoppage of thoan who have heen aecustomed to trust to her for loans.
"It will he said, perhaps, that this is all imaginary, and that notining of the sort ever occurs in Scotiand it Hit it would realiy be about an mueh to the jurpore to may that nothing of the sort ever occurs in Japsn. London fa tho pivot on which the forsign excliangen turn, and when they breome dejressed many of the London depositors will do what tho Scotch dejonitors nover so much ss dreamed of, that is, they will demund theie drjoaita, convert then in' $^{\prime}$, gold, and either send this gold olmoad, or get a profit fre those who will, From this aource of sanoyance and lobs whe Scoteh bnnke aro perfectly fres; and thle, hy exbausting the rescurces of the Londan Jminka, und anbjectiug the weaker ones to dificuitles, occaisions diseredit, and, in tho end, rima or panics. Nothing, therefore. can be nore gerfortly futile than to contend that because this syaten has proved profitable for the Seoteh bank $\mathrm{H}_{1}$ it will also be profitatia for the London banks. We do not presumo to affirm that anch will not, and we hope that it may, be the ease. Itht it would the rather lifiogical to affirm, becanse whest anteceeds remarkabiy well in the valo of Glomeenter, that it will succeed equaliy wril on the Weish mountains.
"The joint-atock fianks niny, if they do not aiready, elldeavor to obviate nome of the difficultles now atated, by deciining to pay interent on deposits unjess thoy lio for a certain time. or by stipulating for a eertain notice before thoy are paid. But either the one condition or the other is subversive of what ta chances are ger period in e to carry on hey were, as branches as eed, that the cs, Into elther eedlugly imd for getting reeping them Thla defect - obllging all $t$ any of their nt milght go branch bank therwise, bebead office. unittee, as to terests of the f other, and Iways a very ag on which themselyes. nt of the parlould only go partles may, selves. The nt conslderato effect this, notes, other 1 uuccessfuliy $e$ on the comwings' banks as the poor. ng with lt aro body of partild give 2 per how aliort soIn the bsnk, funds at Its ystem would blie would be tho cyele of y has begun: 0 blow-It is tors may feel 18 rato of Inhe wighed-for the Ilank of Id bankriptas they have leposlts may, ; and in such a been man. ed to dispese lay be ail but denly to pull he imminent of those who ary, and that lint it would at nothlng of vot on which wa depreased Seateh deposwill demand eer send thla From thls are perfectly the London lea, occastons ng , therefore, beeruse thls n, it will also t presume to , be the case. wheat ancthat lt will certain tlme, re pald. But ve of what ia
meant by granting intercet on depoaits, and goes far to maka tho announcementa to that effect little better than a hoax upon the publlc. All, or nsariy all, the sxiating banks are bankw of deposit in thia sense of the word; that ly, thay give Intereat on depoalts of a certain amount, provided they be net called for thif after tho lapse of an agreed-en period, and that the depositors givo thein no further trouble. But it is doubtful whether money deposited at 2 per cent. under auch conditions, and stlli more under an eagagement to give notice of demand, be as well lald out as if it wers deposited with the Bank of Lingland, or any other bank of undoubted solldity, at no Interpst, but payable on demand. Noat men of business would, undoubtelly, prefer the latter. Nobody, Indeed, not wlshing to get into difficulties, would be disposed to deal with any bank that required notice of demand ; and it is queationable whethgr any sueh stiputation should be sanctioned by hww.
"Tho cemmittee on joint-stock banks onslted all raference to what la by far the most promiuent evil In our banking ayu-teil-wo mean the power conceded to all privnto and jointstock banks and companios, whether with or withont property or character, to iasue paper money or notes payablo on demand, without let or hinderance of any sort. Thls abuse should eertainly be put down ;" and wo hava already seen that this power can now be but little sbused.
"Rexponsibility olght not, in any case, to be limited.-We protest againat tho proposal for allowing tho partners in banks not lssulng notea to limit thoir reaponasbility. Such a measure would be good for nothing, except to serve as a premilum on avery suecles of fraud. What check would there be, under such a system, to hinder the partuers of a bank going on for a series of years dividlng largo profits, whon perhops they werc reaily Incurring a loss, untll every farthing of its capltel and deposits $v$ as absorbed 9 To talk of anhjecting auch persons to pmishmunt as frandulent bankrupts, onevidence derived from thelr books, is absurd : fur, aupposing that It was tho intention of the parties to defraud, they might easlly keep their books so that they could afford no informstion that was not false or mis. leadlag. Tho onnexed list of jolnt-ateck bsnkling companles whows that there is no disincliaation on the part of Individuals to engage in such concems, oven with the present unlimited respunalblity. And the way in whleh some of them are condueted proves aufficlently, If such proof were wented, that the serions Ilabllitlea incurred by tho partners are not moro than enough for the protection of tho publle. To lessen them would be an net of gratuitoun folly. If wo are to interfere, let them be Incressed, net diminlalied. Init In the care of banke not issiling notes, enough is done, If messures bo taken to prevent deeeption, by letting the public know tho partners in them, and making aure that they shall have no means of evading the responslbility attaching to their angagements. Tha first ohject may be secured by compeling all hanking assoclutions whatever to publish snnusily s list of the names and addresses of their partnors, with the amount of their palif-up capital ; and to accompllah the latter object, we have merily to abstain from


An Accolint of the Numben of Privata and Joint Stock
 TO LSłり, LGTIT INCLERIVE.

| Your. | Number of Private Banka. | Number of Joiot-stock Ianka, |
| :---: | :---: | :---: |
| 18:0 to 1821 | 521 | - - |
| 18.1 to 1822 | 526 | - |
| 18.2 to 1833 | 547 | - |
| $18: 8$ to 18.4 | 047 | - |
| 18.24 to 18.5 | 134 | - |
| 1825 to 1820 | 584 | - |
| 1826 to 18.27 | 405 | 6 |
| $18: 7$ ta 18.8 | 456 | 7 |
| 1828 tı 1829 | 400 | 11 |
| 1529 to 1830 | 479 | 15 |
| 18311 to 1831 | 418 | 19 |
| 1831 to 1882 | 424 | 25 |
| $18: 72$ to 1583 | 410 | 35 |
| 18.4 to 1834 | 416 | 47 |
| 1834 tu 1835 | 411 | 05 |
| 1835 to 1834 | 407 | 109 |
| I836 to 1837 | 851 | 107 |
| 1837 to 1833 | 841 | 104 |
| 1884 to 1838 | 882 | 108 |
| 1849 to 1840 | 832 | 113 |
| 1840 to 18.12 1841 to 18.48 | 321 | 115 |
| 1841 tu 18.48 | 811 | 118 |

Drawing on London,-The net $3 \& 4$ Will. 4, c. 83, repeals the regulation la the 7 Gco. 4, c. 46. prohihiting bunks with more than six partners from drowing on L.ondon on demand, or otherwise, for sums of less than $£ 50 .-\S 2$. For statistics of Euglish joint-stock banks, see conclusion of article on Banking.
IV. Scotct Banks.-The act of 1708, preventing more than six individuals from entering into a partnership for carrying on the business of banking, ald not extend to Scotland. In consequence of this exemption, several banking companies, with numerous bodies of partners, havo always existed in that country.
Bank of Scotlend.-This institution was projected by Mr. John Holland, merchant, of London, and was established by act of tho Scotch Parliament (Will. 3, Parl. 1, §5) in 1695, hy the name of the Governor and Company of the Bank of Seotlund. Its original capital was $1,200,000$ pounds Scotch, or $£ 100,000$ sterling, distributed in shaves of 1000 pounds Scoteh, or $£ 83$ Gs. 8d. stering, each. Tho act exampted tho eapital of the bunk from all public burdens, and gave it the exclusive privilege of banking in Scotland for twenty-one years. The oljeets for which the Bank was instltuted, and its made of management, were intended to be, and have leen in most respects, similar to those of the Bank of England. The responsibility of the shareholders is limited to the amount of their shares. The capitul of the Bank was increased to $£ 200,000 \ln 1744$, and was enlarged by subsequent acts of Parliament, the last of which (44 Geo. 3, c. 23) was passed in 1804 , to $£ 1,500,000$, its present amount. Of this sum, $£ 1,000,000$ has been puid up. The last-mentioned net directed that all sums relating to the affairs of tho Bank should henceforth he rated in sterling money; that the former mode of dividing bank stock by shares should te discontinued; and that for the future it should be transferred in any sums or parcels. On the miion of the two kingdoms in 1707, the Bunk of Scetland undertook the recoinage, and effected the exchange of the currency in Scotlund: it was also the organ of government in the issue of the new silver coinago in 1817. Tho Bank of Seotland is tho only Scotch bank constituted by act of Purliament. It legan to establish brunches in 1696, und issued notes for $£ 1$ so early as 1704. The bank also began, at a very early period, to receivo deposits on interest, and to grant credit on cush accounts, a minute of the directors with respect to the mode of keeping the latter being dated so far baek as 1720. It is, thercfore, entitled to the credit of having introluced aml set on foot the distinctive prineiples of the Seoteh banking system, which, whatever may he its defects, is probubly superior to every other system hitherto eatahlished. Gencrally speaking, the Bank of Seotlund has always been conducted on sound and liberal principles; nor can there he a doult that it has been productive, both directly and as an example to other bunking eatablishments, of mueh pulilic utility and advuntage. It may he worlh mentioning, that the act of Will. 3, establishing the Bank of Seotland, declared that all foreigners who hecame partners in the inank should, by doing so, become, to all intents and purjoses, naturalized Scotchmen. After being for a long time forgotten, this clause was taken advantage of in 1818, when several aliens aequired property in the bank in order to secure the henelit of naturalization. Hut after being suspended, the privilege was Inally canceled in 1822. We subjoin an official abstract of the constitution aud oljects of the llank of Scotlund, printed fur tie use of tie proprictors; the terms and mode of transacting business ure, of course, sometimes altered, according to eirenmstances:
I. The liank of scotiand is a pmble national ostabllament, crected und regulated by the Legialaturo alone; and exprossly na a publle bank in thia kingdom: for the beneft of the nation, and for tho sdivancement of agrlculture, commerce, and manufactures, and for other objects of public policy.-
 c. 25 ; 34 Geo. 3, e. 19 ; 44 Geo. 3, c. 23. II. The statutory espital is at present $£ 1,600,000$ aterling. It is raleed by voiuntary aubscrlptlon, and has been aubserlbed for. $£ 1,000,000$ has been called for, and paid In .-4 Geo. B, cap. 23. IIJ. Subseribers, If nat under obliggntion to tho Bank, may, at jlenaure, transfer their right. If under ebllgation to the Bank, the obligation must be previouly Hquadated; or tho procesda of the saio, at a price to the autlafuction of the direct-
ors, mant be applifed toward auch Hquidation. Transfera are made by a ahort asedgment and acceptance thereof, both in a reglater appointed for that purpose. The expense, besides tho government atamp, is 11s. Will. 1'arl. 1, \&5. IV. Bank of scotland atock may be acquired, in any portione by any person, communlty, or other lawful party whalsoever; without selection, exeluvion, or limitation of numbers. Will. Perl. 1, $85 ; 44$ Geo. 8, c. 23. V. Bank of Scotland atock may be conveyed by will, and, If apecially mentioned, without expense of confirmation. It can not be arrestad: the holder'a right may bs adjudged. Dividends may be arrasted.-. Will I'arl. 1,85. VI. The Bank of Seotlaud la a pablle corporation by act of Parilament. The Bank's transacilone aro dhetinet from thoee of the stockholders, and theirs from those of the Bank.- Will. Parl. 1, \& 5 . VII. The eatabllehment in expremsly dobarred from any other butiness than that of band ing.- Will. I'arl. 1,85. VIII. The management is veated, b, atatute, In a governor, depety governor, twelve ordiusry, and twelve oxtraordisary directors. They are chosen anmually, on the laat Tuesdey of March, hy the stvekholders having $£ 250$ of atoek or upward. Thoac above $£ 250$ have a voto for every $£ 250$, to $\mathbf{\Sigma 5 0 0 0}$, or twenty votes. No person can have more than twenty votes. The governor must hold at least $£ 2000$ of atock; the deputy governor $£ 1500$; and each direetor $\mathbf{2 T 5 0}$. They swear to be equal to all persons, and can not hold any inferlor offico in the Bank. - Fill. Parl. 1,85 ; 14 Geo. 3, e. $32 ; 44$ Geo. 3, c. 23. 1X. The executivo part is conducted by a tressurer, seeretary, and other pubilio officers, all aworn. Those having the official chargo of cash find dno securily.- Will. Iarl. I, \& 5 . X. The board of 43 rectors eits for the general administration of the Bank, at the Bank's publio head office ta Jidinburgh. Tho local bubinera of that district fe also conducted at that office. For the local Insiness fu the other parta of the kingdom, the Bank has Its regular pablic offece in the principal towns, At each of these offices there ju the bank agent or cashjer, who gives due secarity, nud conducts the Bunk's business for that district in the maner after mentioned. There is alvo tho Bank's accountant for that offec, who in appoisted by the directors. Hill. Parl. I, 85 . XI. The Bank takea in money, at all ith peblic offlees, on deposit recelpls or promlssory notes, or on eurrent deposit account. At tho head office, dmfts on Leurdub, or on any of tho agencles, are given; at each agency, drafta on Iondon, or on the head offlec, are given. All these documentr aro on the Bank"s check (and sealed vith the Bank's seat). They bear, in worde, to bo "For the bunk of Scotland;" or, "For the Governor and Company ef ic Dank of scotlasd." These documenta aro algued, If at Edinburgh, by the treasurer, and countersigued by tho prinelpal accountant: If at an ageaey, they must be slgaed by the Bank's agent as aycut, and countersigned by the bandi's aecountant for that agency; otherwise they finfer no obligation on tho Bank.-Resolution of Court, 28th Feb. 16es. XIJ. Mills on Lundon, Edjnhurgh, or any town where the Bank has Its offcial corrcapondente, are discounted and purehaned at all the Bank'a publio offices. The Bank'a ageuts judgo, in ordinary cakes, of the bills presented; ;o that partles meet with no delay. Tho Bank doea not sell, at uny of Its ottices, the bills which it has discounted and purehased. Its agenta eass not Indorse its bills, unless officially to the treasurer.-Rcoolution of Court, 23 d Feb. 1 i 89 . XIII. Guvermment stock and oth. er publle funds, tranaferablo in London, may be purchased or seld, and divideads thereon may he receired through the Bank. XIV. The Bank givea eredlt on cash accounts at any of tre offices, on bond, with security. Tho security may bo peraonal co-obligantr, conjunetly and severally; or lank of scotland etbek; or botil; or unch other becerity as may bo specially agreed on. Applications for casha accounta aro givon in to the office where the eash acconnt is wanted, and must specify the eredit destred and the security proposed; and the individual partners, whero copartnericy are proposed. Cash accounta are granted by the directore only, and are not reeatled unless hy thelr apecial anthority. It is understood that these erenlits are not ured as dead Jonns, to produce intereat only. In the falr coure of busineas, the advantage of the Bask is conautted by an actlvo cireliation of its noter, and by frequent repayments to it in e way leastaffeeting that elrculation.-Resolution of Court, 6th Nov., 1729, and 93d Feb, 1789. XV. Tho Rank's dividend of profits has been for sone considerablo perided aix per cent. per annum, ou Its paldup capltal of $£ 1,000,000$ sterling. The dividends are jald regularly twiee a year, without expene. They may be drawn either at the Bank's head office, or at any of its other offices, as moat agreeable to tho stock bolder.
Most of the other Scotch bunks are conductel on the same priuciples and In the same way as the Bank of Sct sand, ao that the details as to its management will
nearly apply to them all. The Royal Bank of Seotland was established in 1727. Ita original capltal of $£ 151,000$ has been lncreased to $£ 2,000,000$. The Jritivh Linen Company was lucorporated $\ln 1746$, for the purpose, sa ita name implies, of undertaking the manufacture of linen. But the viewa in whleh it originated were af aedily abandoned; and It became a banking company only. Its capital nmounts to $£ 500,000$. None of the other bunking companles established in Scotlund are chartered assoclatlons, whth limited responsilility; tho partners being jointly nud individually llable, to the whole extent of their furtunes, for the debts of the firme. Some of them, such as the Nutlonal Bank, the Commercial Banklng Company, the Dundee Commercial Bank, the Perth Banking Compruy, ete., lave very numerous bodies of purtners. Their affialrs are uniformly conducted by a Board of Directors, annually chosen by the shareholders. The Banh of Seoiland began, as already stuted, to tssue $£ 1$ nutes so early as 1704 ; and their issue has slnce leen continued without interruption. "In Scothinl," to use the atatement glven in the Report of the Commlttee of the House of Commons of 1826 on the l'romlssory Notes of Scotland and Ireland, "tho lssue of promissory notes payable to the hearer on demund, for is sum of nut less than 20s., has been at all times permitted by law; nor has any act lieen passed limiting the period for which such jssue shall continue legal in that conntry. In England, the issue of promissory notes for a less sum than $£ 5$ was prolihited by law from the year 1777 to the epoch of the Bank Restriction in 1797. It lins been permitted since 1797; and the permission will cense, as the law at present stands, in A pril, 1829."

There have been comparatively few hankrupteies smong the Scotel. hanks. In 1793 and 1825, when so many of the English provincial banks were swept off, there was not a single establishment In Scothand that gavo way. This superior stability scems to be ascribable partly to the formation of so many banks with numerous hodies of partners, which tends to prevent any company with only a few partners, unless they are knuwn to possess considerable fortunes, from getting paper into circuintion; partly to the less risk attending the business of banking in Scotlund; and partly to the facility afforded lyy tho law of Scotland of attaching a debtor's property, whether It consist of land or movables, and making it available to the payment of his lehts.

In the Report already quotel, the last-mentioned topic is tourhed upon as follows: "The general provixions of the law of Scotland bearing apon this subject are culculnted to promote the solility of banking establishments, ly nffording to the ereditor great fucilities of ascertaining the pecuniary circumscances of indivilual partacrs, und by making the private fortunes of thore partica available for the diseharge of the ohligations of the lank with which they are connected. There is no limitation upon the number of partuers of which a banking comprany In Scotland may consist; and, exeepting in the case of the luank of Scotland and the two chartered lanks, which have very consideraWe capitals, the partners of all banking companies are bound jointly and severally, so that eneh partner is liable, to the whole cxtent of his fortune, for the whole debts of the compmang. A creditor in Scotland is empowered to attach the real nnt heritalle, as well as the personal estate of his debtor, for payment of persomal dehts, among which may te classed debts due hy lills and promissory notes; and recourse may be had, for the purpose of procuring payment, to each description of property at tho same time. Exccution is not contined to the real property of a debtor merely during his life, but proceeds with equal effect upon that property after his decease. The law relating to the establishment of records gives ready means of procuring information with respect to the real and heritable est ne of which any person In Scotland may be possessed.
of Scotland of $£ 151,000$ british Linen purpose, as sufacture of inated were nkling com,000. None 1 in Seotland ponsilility; ly liuble, to debts of the al Bank, the ee Conimer; ete., hnve $r$ affulrs are ors, anuualof Scotland s so eurly as med without e statement lie House of of Scotland ea paynble to ss tham 20s., r hns nuy uet h such ìssue Enyland, the han $£ 5$ was lie epoch of an permitted , as the law
jankruptcies 325, when so re swept off, ecthand thut to be ascrib. banks with to prevent less they are rom getting risk attenilund partly to d of attachtt of hand or payment of t-mentioned general proon this sultof bauking or great filmestances of of the olliconneeted. partuers of ay consist ; cothand and considernupunies are partner is r the whole land is emwell as the of personal lue ly liths te lind, for description is not condurling his it property bestublishpeuring inable est he possessed.

No purchase of an estate in that coantry la secure ontil the seizin (that is, the Instrument certifying that actusl delivery haa been given) ls put on record, nor la any mortgage effectual until the deed is in like manner recorded. In the cuse of conflieting peeunlary claims upon real property, the preference is not regulatell by the date of tho transaetlon, but by the date of its record. These records are accessible to all persons; and thus the public can with ease ascertain tho effective neuns which a banking company possessos of discharging its ohligutions; and the partuera in that company are enabled to determine, with tolerable aceuracy, the degree of risk and responsibility to which the private property of each is exposed."
Deporits.-As was previously olserved, all tho Scotch banks reeeive deposits of so low a value as $£ 10$, and sometimes lower, and allow interest upon them. "The interest," says the committee, "allowed ly the bank upon deposits varies, from time to time, aceorling to the current rate of interest which money generally bears. It the year 1826 tho interest allowed upon doposita was 4 per cent." (At this moment [1846] the interest ullowed on deposits is 3 per cent.) "It has been ealculated that the aggregate amount of the sums deposited with the Scoteh banks amounts to aloout $£ 20,000,000$ or $£ 21,000,000$." (It is believed to be now [18.16] little, if any thing, under $£ 28,000,000$ or $£ 30,000,000$.) "The preelse acenracy of such an estimute can not, of course, be relied on. The witncss by whom it was made thought that the amount of doposits could not he less than $£ 16,000,000$, nor exceed $£ 25,000,000$, and toek an intermediate sum as the probathe umount. Another witness, conneeted for many years with different banks In Scotland, and who has had experience of their concerns at Stirling, Edinburgh, Perth, Abe-deen, and Glusgow, stated that mors thun one half of the deposits in the banks with which he had been connected were in sums from $£ 10$ to $£ 200$. Being asked what elass of the community it is that makes the small deposits, he said the laboring class; from which it appears that the mode of conducting this branch of the banking business in Seotland lus long given to that country many of the benefits derivable from tho establishment of savings banks.
The system of eush credits has been very wcil deseribed in the Report of the Lords' Committee of 1826 on Scoteh and Irish Banking. "There Is also," suy their iordships, "one purt of their system, which is stuted by all the witacssea (and, in the opinion of the committee, very justly stated) to have had tho best effecta upon the people of Scotland, and pirticularly upon the midlling and poorer classes of society, in produeing and eneouraging hatits of frugality nud industry. The praetice referred to is that of cush credits. Any person who applies to a bunk for a eash credit is called upon to produce two or more competent sureties, who are jointly bound; nud, after a full inquiry into the eharucter of the applicant, the nature of his bushess, and the sufficlency of his securities, he is nllowed to open a eredit, und to draw apon the bank fur the whole of its amount, or for such part ns his daily transactions may require. To the credit of the account he pays in such sums ns he maty not have oecasimn to usc, and interest is churged or credited upon the duily balaneo, as the case may be. From the faeility which these cusi credits give to all the small transactime of the country, nnul from the opportumities which they afford to persous who hegin business with little or no capital but their charneter, to employ prolitally the minutest products of their inlustry, it ean not be doubted that the most important advantages are derived to the whole community. The advantage to the banks who give these cush credits arises from the call which they eentinually produce for the issue of their paper, and from the opportunity which they afforl for the profituble employment of part of their deprasits. Tho banks are indeed so senslule that, in
order to make this part of t . sir husiness advantageous nnd secure, it is necessary that their cush credita should, as they express it, be frequently operated upen, that they refuse to continue them unless thla luplied condition lie fulllled. Tho total auount of their cash eredits is stuted $7 y$ ono witness to be $£ 5,000,000$, of which the average amount advanced by the banks may the one-third."
Recapitulation of Scotch Bankis, Stptember 1, 1855.Tho following return shows the eireulation of the Scoteh lanks, and the nverage amount of coln held during the four weeks ending the 1st September:

| Name and Tilte as eel forth in License. |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 2 | ) | 2 |
| Bank of S | 300,485 | 375,184 | 170,812 |
| Royal liauk of scotland | 183,1000 | 185,5132 | 63, $\mathrm{S}^{2} 6$ |
| Ilritish Luen Company | 438, 62.4 | 465, 631 | 208,735 |
| Commercial bank of Seotland | 374,880 | 470, 407 | 100,613 |
| National Ihank of Scotland... | 297,024 | 335,288 | 80,164 |
| Union llank of Scotland and Banking Company in Aber- |  |  |  |
| deen................... | 415,600 | 514,781 | 179,078 |
| Edinburgh and Glasgow linnk | 161,657 | 165,773 | 82,948 |
| Aberdeen Town and Connty Hanking Company ........ | 70,133 | 100,842 | 46,243 |
| North of Scotland Ranking |  |  |  |
| Company ............... | 154,319 | 108,604 | 66,55t |
| Dundeu Banking Company .. | 33,451 | 38,122 | 11,837 |
| bastern Brank of Scotland.... | 813,650 | 38,084 | 18, 471 |
| Western Bank of Scotland... | 307,938 | 515,162 | 286,454 |
| Clyderdalo Itanking Company | 114.008 | 155,923 | 88,016 |
| Ctty of Glargow Bank.... | 72,921 | 218,463 | 162, 868 |
| Caledontan Banking Company | 63,434 | 720113 | 20, 509 |
| J'erth Banking Company.. | 38.050 | 48,601 | 18,174 |
| Central Bank of Scotland... | 42,083 | 89,493 | 24,772 |

V. Inisit Banks.-"In no country, perlups," says Sir Henry Purnell, "has the issuing of puper money been carried to suel un Injurious exeess as in Ireland. A nutional bank was established in 1783, with similar privileges to those of the Bank of England, in respeet to the restriction of more than six partuers in a bank; and the injury that Ireland has sustuined from the repeated fuilure of bunks may be mulnly attributed to this defective regulation. Ilad the trude of banking heen left as free in Irclund as it is in Scotlund, the want of paper money that would have arisen with the progress of trade would, in all probability, have been supplied iy joint-stock compmies, supported with large eapitals, and geverned by wise and ellectunl rules.
"In 1797, when the Bunk of England suspended its payments, the same privilege was cxtended to Irelaud; and ufter this period the issues of the Bunk of Ircland were rapidly incrased. In 1797, the amount of the notes of the Bank of Ireland in circulation was £621,917; in 1810, £2,266,471; and in 1814, £2,986,999. Theso increased lssues led to corresponding inereasel issues by the private lunks, of which the number was 50 in the year 1804. The censequenee of this increase of paper was a great depreciation of it; the price of hullion nud guinens rese to 10 per cent. athore the mint price, and the exchange with London hecame ns high as 18 per cent., the par licing 8 . This unfavoralis exchange was afterward correeted, not by any reluction in the issucs of the Bank of Irelan ${ }^{\text {; }}$, hut by the depreciation of the British currency in the year 1810, when the exchange between London ar 1 Inublin settled agnin at nbout par. The loss that lyo lund has sustained by the failure of bunks may be dow scribed in a few worls. It appears hy the Report of the Committec on Irish Exchunges in 1804, that there were nt that time in Ireland 50 registered banks. Since that year a grent many more have been estublishel ; but the vehole hare failed, one after the other, involving the country from time to time in immense distress, with the following exceptions: first, a few that withdrew from business; secondly, four banks in Duhlin ; thirdly, three at Belfast; and, lastly, one at Mallow. These eigh banks, with the Ne: $\begin{aligned} \text { Provin- }\end{aligned}$
cial Bank, ar the Bank of Ireland, are the only banks now ax st og in Ireiand.
"In 1821, in consequence of 11 banks having failed nearly at the same tinie in the preceding year in the south of Ireland, government aucceeded in making an arrangement with the Bank of Ireland by which jointstock companies were allowed to be catablished at a distance of 50 miles (Irish) from Dublin, and the Bank was permitted to increase its capital $£ 500,000$. The net of 1 \& 2 Geo. 4, c. 72, was founded on this agreement. But ininisfers having omitted to repeal in this act various restrictions on the trade of banking that had been imposed by 83 Geo. 2, c. 14, no new company was formed. In 182.4 a party of merchants of Belfast, wiohing to establish a joint-stock company, petitioned Parliament for tho repeal of this act of Geo. 2, aud an act was accordingly passed in that session repealing somo of the most objectiunabic restrictions of it (the 6 Geo. 4, c. 73). In conse fuence of this act the Northern Bunk of Belfast was converted into a jointeatock company, with a capital of $£ 500,000$, and commenced busincss on the Jst of Jannary, 1825. But the remaining restrictions of 33 Geo. 2 , and certain provisions contained in the new acts of 1 \& 2 Gco. 3, ani 5 (ico. 4, oistructed tho progress of this company, ant they found it necesanry to appj' og govermment to remove them; and a bill was accordingly intrednced which would have repealed all the obnoxious clauses of the 33 Geo. 2, had it not been so altered in the committea as to leavo several of them in force. In 1825 the Irovincial llank of Ireland commenced businesa, with a capital of $£ 2,000,000$; and the linnk of Jreland has of late established branches in all tho principal towns in Jrelnad.
"The losses that have been sustained in Ireland by abusing the power of isauing paper have been so great, that much more is necessary to be done, by way of protecting the pubiic from future loss, than the measure propased in the year 1820 by Parliament for abellahing small notes, and tho measure already adopted of nllowing joint-stock companies to be established in the interior of the country. As the main source of the evil consists in the interference of the law in creating a national bank with exclusive privileges, tise first step that ought to be taken for introducing n good system into Ireland is the getting rid of such a bank, and opening the trado of banking in Dublin. The next measure should be the requiring of each bank to give security for the amount of paper that is issued; for after the experienca of the ignorance with which the Irish banks have conducted their business, and the derangement of the natnral course of the trade by the long existence of the Bank of Ireland, it would be unwise to calculate upon a sound system of banking speedily supplanting that which has been establisiod. Under tho circumatances in which Ireland is placed, nothing would so much contribute to her rapid improvement in wealth as the introducing of the Scotch plan of cash credits, and of paying interest on deposits. By cash credita the capital which now exists would be rendered more efficient, and the paying of interest on anali deposite would lead to babits of economy, and to the more rapid accumulation of new cap-ital."-Observations on Paper Moneg, etc., by Sir Il enny Pannelle, p. 171-177.

The capital of the Bonk of Ireland, at ite eatablishment in $\mathbf{1 7 8 3}$, amounted to $£ 600,000$, hut it has been increased at various periods, and thas, sinco 1821, amounted to $£ 3,000,000$. Tite Bank of Ireland draws on London at 10 days' date. She neither grants cash credits, nor aliows any interest on deposits. She discounts at the rate of 5 per cent. In 1828 the currency of Ireland was assimilated to that of Great Britain. Previously to that period the currency of the forner was 8 f per cent. less vaiuable than that of the latter.

Proxincial Bank of Ireland.-Thia important estab-
lishment was, as aiready stated, fonnded in 1825. Its subscribed capital consiste of $£ 2,000,000$, dlvided into 20,000 shares of $£ 100$ each, of which 25 per cent., or $\pm 500,000$, has been pait up. Its head office is in London; and at present it has aubordinate offices In Cork, Limerick, Clonmel, Londonderry, Sligo, Wexford, Waterford, Belfust, Galway, Armagh, Athlone, Coleraine, Kilkenny, Ballina, Tralee, Youghall, Fnniskillen, Monaghan, Banbridge, and Ballymena. The last five have been opened since 1831. The entire management of the establishment is vested in the conrt of dlrectors in London. The business of the branch banks is conducted, nnder the control of the head offlee, hy the munugers, with the adrice and assistance of two or more gentlemen of respectability in the district, each holding 10 shares in the bank. The business consiats of discounting bilis; granting cash credits after the manner of the Scotch banks; receiving deposite, on which interest, varying according to circumstunces, is aliowed; in drawing and giving letters of ereuit on other places of Ireland, Great Britain, etc.; and of other details incident to banking. It has had meveral pretty severe runs to suatain. In the course of a single week, in October, 1828, about $£ 1,000,000$ in goid was sent from England to Ireland on account of the Provincial Bank! This prompt and ampie supply effectually maintained the credit of the eatablishment, and did much to restore confidence.

The notes of the Provincial Bank have always been payable at the places where they are lasued. The Bank of Ireland began to establish branches in 1825; but the notes jasued by her branches were not, at first, payable except at the head office in Dublin. This distinction, which tended to thruw the principal presaure of runs in the country on the Irovincial Bank and other private companies, was ubolished ly the act 9 Geo. 4. Several joint-stock banks liave heen established in Ireland since 1825, especialiy in 1836. But the greatest of these, the Agricultural and Commercial Bank, which had nearly 4000 partners and 28 branches, was in no iong time obliged to suspemi payinents. Some of the others have also been almanioneli.
There are comparatively few private banks in Ireland.
"Not many ycars ago there were upward of six hundred loan societies in Ireland, besides private pawnbrokers, who abounded in every town throughout the kingdom. Two hundred were enrolled under 6 \& 7 Will. 4, one hundred and sixty-eight were under the direction of the Irish Reprodnctive lonn $\mathrm{F}_{1}$ - 80ciety founded in 1822 . These varions losa assuciations were productive of very little good to the people, tho rates of interest charged to their customers being nearly such as are charged at ordinary pawnbrokers' establishments."-Lawson on Banking.

The provisions in the act $8 \& 9$ Vict. c. 37 , with regard to banking in Ireland, do not differ materially from those in the preceding act relating to Scotland. The prohibition that formerly existed against jointstock banks carrying on business in lniblin or any where within 50 miles thereof is repenied; the charter of the Bank of Ireland is prolonged till January, 1855, when it may to dissolved on notice; nutes of the Bank of England are declared not to be legal tender in Ireland; and notes for less than 20s, are not negotinbie.
Average amount of Bank-notes in elrectation of the geveral. Cinabteagd hankb of Imelland, anll of Coin helin indino tik yoer Wefks eninno Seirt. 2T, 1Nbe.

| Nome and Titte. | Circulalion authorized. | Averagn Circulation. | Avernge coin held. |
| :---: | :---: | :---: | :---: |
|  | ¢ | \& | $\pm$ |
| Tank of Ireland | 3,734,428 | 3,132,475 | 769,199 |
| Provinctal lank......... | 027,667 | P6! , 555 | 284,134 |
| Helfast lmak. | 281,011 | 402,660 | 240,177 |
| Northern Bsnk . . . . . . . . | 248,440 | 240.632 | 112,032 |
| Utater Bank. . . . . . . . . . | 311,079 | 403,847 | 1:56,365 |
| National 1tank . . . . . . . | 761,757 | 1,100,954 | 624,467 |
| Carrick-on-Sutr Nattonal Jank. | 24,084 | 80,075 | 7,620 |
| Ctonmel Nallonat lank. | 66,428 | 67,813 | 13,175 |

1825. Its ivided Into or cent., or is in Lones in Cork, Wexford, Inne, Cole, Enniakill-
The laat re managecourt of ilanch Lanks $d$ otilies, ly e of two or strict, each ens consista $s$ after the eposita, un unatancea, of erelitit on c. ; and of had soveral se of a sin000 in gold junt of the supply ef blishment,





1 Head Office, Dublin; Branches, Armagh, Batitiaaloe, Belfast, Carlow, Clonmel, Cork, Drogheda, Dublin, Dundalk, Galway, Kilkenny, Limeriek, Londoaderry, Longford, Mountaillick, New Ross, Newry, Bligo, Tralee, Tullamore, Waterford, Westport, Wexford, and Yol'h'al.
${ }^{2}$ Ileai Ofice, Belfart: Itranches, Armagh, Ballymena, Ballymones, Coleralne, 'rokatown, Derry, Dungannon, Larne, letterkenny, Magherafelt, Monaghan, Newtownlimavady, Newtownards, Portadowz, Btrabane, Tandragee, Dublla, Newry, and Castleblaney.
${ }^{3}$ Iread Office, Dublin 1 Branch, Drogheda.
4 Ilead Office, Lonilon : Branchce, Dubltn, Dundalk, Wicktow, Multogar, Kells, Parsoastown, Carrlek-od-Shannon, Car-
rickmacross, Athy, and Kinsale. ville, Clonnnel, Clonak!lty, Cork, Dungarvan, Ennls, Ennlscorthy, Fermoy, Gaiway, Kanturk, Kllkenny, Klllarney, Kllruah, Mildileton, Limertek, Longford, Longhrea, Mallow, Mitchelatown, Meate, Nenegh, New Rows, Kallikeale, Roscoamon, RouMlddleton, Limerick, Longford, Longhrea, Mallow, Mitchelatown, Moate, Nenegh, New Rons, Kal
erea, Akibbereen, Taliow, Thurles, Tipperary, Tratee, Tuan, Waterford, Weatjort, and Wexford.
erea, Akibbereen, Tallow, Thuries, Tpperary, Tralee, Tuam, Waterford, Weatjor, and Wexford. gan, Llsburn, sugherafelt, and Newtownilliavady.
1 llead Offico, loondon; Branches, Dubiln, Armagh, Athlone, Ballina, Ballymena, Ballyghannon, Banbridge, Bandon, Belfast, Carlow, Cavan, Clommel, Coleralne, Cork, Cootehill, Downpatriek, Drogheda, Dundalk, Dungannon, Duugarvan, Ennis, Enntscorthy, Enniskillen, Fernoy, Galway, Kllkenny, Kllruah, limerick, Londonderry, Mallow, Monaghen, Newry, Onjagh, Parmonstown, Sligo, Strabane, Skibbereen, Tralee, Watcrford, Wexford, and Youghal.

- Dubllo.
- Ilead Offleo, Clonmel; Branches, Athy, Carlow, Carrick-on-Suir, Nenagh, Roscrea, Thurles, Thomastown, and Tipperary.

10 Ilead Oftice, Belfast; Branches, Armagh, Antrim, Mallymoney, Ballymena, Benbridge, Cvotehill, Cookstown, Downpatriek, Enalaklilen, Londonderry, Lurgan, Moaaghan, Portadown, and Omagh.
VI. Foukign Banks.-To attempt giving any detailed necount of tho princlpal foreign banks would very far exceed our limits; we shall, therefore, only notice a few of the more celelirated.
l'he Bank of Venice seems to have been the firat banking establishment in Europe. It was founded so early as 1171, and subsisted till the aubversion of the republic in 1797. It was assentially a deposit bank, anit ita bills bore at all timea a premium or agio over the current money of the city.

The Bank of Amsterdum was established in 16009. It was a deposit bank, and paymients wera made ly writing off aums from the account of one individual to those of another. According to the princlples on which the bank was established, it should have had at all times in its coffers bullion equal to the full amount of the claims upon It. But the directors privately lent about $10,500,000$ florins to the Statos of Ilolland and Friesland. Thia circumstance transpired when tho French invadod Holland, and caused the ruin of the bank,
'The Bank of the Netherlands was established in 1814. It is formed on the model of the Bank of England, and has the exclusive privilego of issuing notes. The original capital of $5,000,000$ florins was doubled in 1819 . The king holds one-tenth of the slares. The affairs of the bank are managed by n president, secretary, and five directors, who aro chosen every six months, but may be indefinitely re-elected. This bank discounts bills of exchange with threo responsible signatures; it takes continuations on stock, and sometinies lends on bulition at such a rate of interest and to such an extent as may be agreed upon. It occasionally, also, makes loats on merchandise, but never at less than 5 per cent. Its notes vary from 1000 florins to 25 florins; that is, from $£ 83\}$ to $£ 2$ 1-12. The dividends have varied from 3 to 7 per cent. The shares are each 1000 florins. The responsibllity of the shareholders is limited to the amount of their stock. Its original charter, which was limited to 25 years, was prolonged, in 1838, for 25 years more

The Bank of Hamburg is a deposit bank, and its af-
fairs aro managed according to a syatem that insures the fulleat publicity. It recelves no deposits in coin, but only in bullion of a certain degree of fineness. It charges itself with the bullion at the rate of 442 shillinga the mark, and issucs it at the rato of 444 shillings, being a charge of four-ninthe, or nearly one-half per cent., for its retention. It advances money on jewcla to three-fourths of their value. Tho city la answerable for all pledges deposited with the bank; they may be sold by auction, if they remain 1 year snd 6 weeks without any interest being paid. If the value be not clalmed within threo years, it is forfeited to the poor. The Bank of IIamburg is universally admitted to be one of the best managed In Europe.

France. -The Bank of France was founded in 1803. The exclusive privilege of issulng notes payablo to bearer was granted to it for forty years, and was continued, by a law passed in 1840 (contlrmed in 1852), till 1867. This law was preceded by a very able Report, drawn up by M. Dufaure, in which, among other questions, the policy of having only ono bank of issue in Parls is examined, and decided in the affirmative. Tho capital of the 13nnk consisted at first of $45,000,000 \mathrm{fr}$; but it was subsequently increased to $90,000,000 \mathrm{fr}$., divided into 90,000 shares or actions of 1000 fr . each. Of these shares, 67,900 passed Into the hands of the public; 22,000, having been purchased up liy the bank out of tho surplus profits, wero subsequenily canceled; hence the capital of tha bank consisted, previously to the Revolution of 1848 , of $67,900,000 \mathrm{fr}$. $(£ 2,716,000)$, exclusive of a reserve find of $10,000,000 \mathrm{fr}$., sinco increased to $12,280,750 \mathrm{fr}$. But notwithstanding the laudable skill and cantion with which her affinirs were conducted, tho bank could not avoid suspending payment under a decree of the Provisional Government of the 16th March, 1848, to which and to the city of Paris she had to make large adrances. To set somo limit to the abuses that might havo taken place under the suspension, the maximum circulation of the IBank was fixed, by tho decree now referred to, at $350,000,000 \mathrm{fr}$. ; while, in the view of supplying a currency suited to the smaller class of paymeuts, sho was permitted to re-
duce the denomination of notes in circulation from 500 to 100 fr . At the same thme, or soon after, the departmental banks, or banks which had beeu established in some of the principal provincint towns, were consolidated with, and made branches of the Bank of France. We subjein a copy of the decree of the 2ith of April, 1848, by which this amalgnuntion was ellected.
Art. 1. The banks of Frunee, of Houev, Lyens, Havre, Lille, Teulonse, Orleans, and Marseilles are onited.
Art. 2. The departmental benks above enumerated will contlme in eqeration es branches of the liank of France, conformably to the regulstions stlpulated in the decree of the Isth of May, 1508, and the ordonance of the 25 ch ef March, 1841.

The prevent number of the adminatrators of the departmentul banks is malntained, as also the beards of disceunt, organized for the servlee of severd of thent.
The number of shares, the possession of which is at present required as a guarantes from the directors, censors, administritors, nad members of the coune.fy of discount of those departmestal banks, is provisiounlty maintalned.
Art. 3. The shares of these banks ure nnnutled, and the holders shall meefve In exchange shares of the Bauk of France at a nomian value of 1000 fr . for a neminal value of 1000 fr .

Art. 4. In order to excente the above artiele the Hank of Frsnee is empowered to lssue 17,200 new sbares, whleh will Inerense ita capital to $\$ 5,100$ shinres of 1000 fr .

Art.5. Hy the cesmlen of those new sharea to the sharehelders of the bank of llonen, hyons, Ilavre, Lllle, Toulouse, Orteanf, and Marselles, the liank of Franee shall become preprietor of the capital of these banke, and be mude chargealle with their eagagements. The reserve funds, existling in ench of those banks, shall be adden to the reserve fund of the lank of France. The multiog of the landed and chattel property, resultlog from the present artiels, shall be rulypeted to the fixed registry daty lmposed on deeds of patituc $r$ :hip.

Art. 6. The Bank of France is authorized to add to the maximum of elrenlation, fixed by the deeree of the 15ith of Mareh inst, the maximum of the clrculation fixed for ench of the departmeutal baiks by the decree of the 55 th of the same month.

Frona the date of the promulgation of the present decree the notes lssued by the banks lacorqorated with the Jtank of Frameo alall be recelived throughont the repulilic as a legat tender by all the branches of the puhtic treasury and private ludividuala. The hotders of sald notes shall have to present them to the lank of Vrance, or te fts lmaches, within the followhig alx montha, lin order to exchange them fir notes of that bank. Beyond that periad those notes rhall ceaso to be curment an a legul teoder, but the Bunk of France and its branches shall not be exonerated from the ebligation of exrhanglug them.

Art. 7. The Inspeetera of the fiunne tepartoment, of an order of the miniater, may verlfy the altuatlan of the branch banks
Art. \& In future the branch banke of the Bank of lirance shall bear the following deneminatien: "Dabk of France, brameh lank of -_."

| Hauks. | shares. | Prtaca. |
| :---: | :---: | :---: |
| lank of liomen.......... | 3, (6M) |  |
| " Lyon¢ . . . . . . . . | 2,060 | 2,06R1, $\mathrm{CHO}^{\text {c }}$ |
| * liavre.......... | 4,100 | 4,00H, 1 HH) |
| " 1.fle ........... | 2,000 | 2,00H,0MI |
| * Toulture . . . . . . | 1,200 | 1,400,000 |
| $\cdots$ Irromiss. | 1,1100 | 1,000,6100 |
| " Marmelles. | 4,011) | 4,006), (1) 0 |
| Bank of liraito . . . . . . . | $\begin{aligned} & 17,200 \\ & 68,4110 \end{aligned}$ | $\begin{aligned} & 17,2(t 0,1510 \\ & 67,900,000 \end{aligned}$ |
|  | (N5, 116) | कi, (tmb, 144 m |

The banks of Bordeanx and Nantes wero at first dlsposed st rennonsly to resist the project for their incorporation with the llank of Frnnee. In the pmil, however, they gave way ; and, in consequence, 1150 shares, ant in additional capllal of 6,150, ,hot fr., were added to the shares and capital of the llank of France, making at present (i853), the former 91,250 , and the latter $91,2611,000 \mathrm{fr}$. The maximum circulation of the bank was at the same time hereased from $350, \theta \mu, 000$ to $452,0 \mu 0,040 \mathrm{fr}$.

On the whole, we are inclined to think that this conversion of the departmenta] tanks into hranches of the liank of France is a considerable inprovensut. It glves an equrlity of value to the puper currency,
which it could not otherwise have had, and makea it equally serviceable in all parts of the country. It is surprisil. fr, indeed, how soon the Bank of France recovered from the severe shocks to which she was exposed in 1848, and to what a degree she has regained the public contidence. But despite the able msnagement of the bank, her intimato connection with the govern. ant makes her stability in a great degree dependent on that of the latter.

A decree the 31 Mareh, 1852, has prolonged tho charter of the bank till 1867, and has authorized her to make advances on railway stock and on the bonds of the city of I'aris. The issue of notes for 50 fr. and 25 fr. would, we incline to think, be a great improvement. There has been, wihhin the last three or four years, a great accumulition of bullion in the cofters of the bank. lecently, however, it has heen diminished notwithstanding a rise in the rate of interest.-SEnetin, Traité de Banque, p. 196-224, 2d ed., ete. No bills are discounted that have more than three months to run. The bank is obliged to open a compte courant for every ono who requires it, and performs services for those who have such acconits similar to those renderell hy the private hasks of Londen to their customers. She is not allowed to charge any commission upon eurrent accounts, so that her only remuneration arises ont of the use of the money placed in her hands by the individuals whose paynienta she makes. This branch of the business is sainl not to be protitable. The bank advances money on pledges of ditlerent kinds, such as foreign coin or luallion, government or other securities, etc. It also undertakes the care of valuable articles, as plate, jewels, tille-dceds, etc. The charge is $\frac{1}{5}$ per cent. of the value of cach deposit for every period of six months or under.

The adminiatration of the bank is vested in a coun-eil-general of 20 members, viz., a governor and deputygoverner, nominated ly the emperor; and 15 directors and three censors, chosen by the general body of the chareholders. The bank has a large surplus capial, anil a1 present enjoys a high degree of eredit.
"The circulation of the Bank of France has hucreased since 1818; lirst, in consequence of smalier notes being put into circulation (for notes of 100 fr. aro now eurrent); and, secondly, hecanse of the establishment of branch banke fsellitating intercommunication with all the principal eities of the empire. The cireulation in 1853 and 1851 exceeded 500 millions. But in those years the nmount of specie in the hank cellars exceded the amonnt of the whole cirenintion, so that the subsiltution of paper for gold was not of so thuch service, or so economical to tho conntry, as it might have been under other circumstances. Not less than the value of 10,000 franes is received as a deposit, and discount for forty-five days is delucted from the amonnt of the sum advancel ; nor, if the deposit be redemed the noxt day, is any part of the discount, refunded. The paper of the lank of France checty circnlates in l'aris and tho neighborhood; at a distance from l'aris its notes pass at a discount of one and a half pur cent., as they are not recrivet in payment of taxts or clus-tom-honse duties in keapurts."-E. 13.

New Financial Institution in $\mathrm{P}_{\text {tris. - "The Societé Gino }}$ érule rde Cristit I /nbilier, estubllshed by a decree of 18 lh Novemher, 1852 , is a species of a bank, the partners in which have not given theld numes. Its prinelpul operations conaist itu purehashig or acquirlug shares in public companies, provided they he en smiftion anonymes; secondly, in circulating its own securities for a sum equivalent to the shares or stock purchased; thircly, In exchatiging all actlons antl obligntions so acquired; fonsthiy, in lenillug on multle securlties on the deposit of aetions and ohilgalions, ete. The eaphtal of the soclety is Ilved at $60,000,000$ fr., and it is represented hy 120,000 slares of 600 fr . each. The soelety can circulate lts own 'ohligations' for a sum six tintes as large as lta eapital."-D. II.
d makes it itry. It is France rche was exas regainod le managen with the degree delonged the rizell her to te bonds of 0 fr . and 25 provement. pur years, a ters of the inished not--Seneull, months to courant for serviees for lose rendercustomers. n upon entn arises out $s$ by the inhis branelı The bauk ds, such as $r$ seenrities, ble articies, rge is $\frac{1}{6}$ jer y period of

I in n coun. and deputy15 directors boily of the lus eapital, it. as increased notes heing e now curishment of on with all culation in at in those ars exceedto that the much servhight have s. then the it, and disthe amount - reteemed refumded. reulates in from l'aris per cent., cex or elisSociéte dinsree of $18 t i$ artners in neipui ope shares itt cifitis anofities for a arciased ; fations so urities on The capiand it is The sosum six

Llaillitife and Rrgoubces of tite Bank of France for Septrmuea and Octohen, 1850 ,

| Liabilities. | Ock., 1858. | 8ept., 1858. |
| :---: | :---: | :---: |
|  | Franca. | Franca. |
| Capltal of the Ban | 91,2012,000 | 01,25il, 100 |
| Reserve of tha Ban | 12,080,750 | 12,980,750 |
| Do. in tanded propor | 4,009, 010 | 4,000, 600 |
| Hank-notea lo circulation | 551,975, 100 | 543,502,200 |
| Do, of the braoch banka ...... | 69,120,700 | 77,024,400 |
| Bsaik-notes to order. . . . . . . . . . | 4,273,284 | 4,423,524 |
| Recelpts payable at sigh | 3,521,353 | 6,039,838 |
| Tremsury account curre | 101,412,547 | 118,815,302 |
| Sundry acconnts current | 119,685,763 | 100,008,295 |
| Do. with the branch be | 98, 379.047 | 25, 475,440 |
| Dividends payabla | 916,481 | 1,141,905 |
| Discounts and sundry interests | 11,247,898 | 7,480, 220 |
| de-dlscount the last six monlthe | 1,029,003 | 1,629,1193 |
| 1'rotested blits. | 23,350 | 15,862 |
| sundries | 6,763,523 | $5,074,128$ |
| Total. . . | 1,062,170,644 | 998,468,913 |
| Cashin lund . | 77,062,910 | 113,120,401 |
| Cash lin tho braneh lmaks | 39,407,036 | 122,076,090 |
| Commerclal blis overduo | 005,681 | 2,111,104 |
| Hills discounted, not yet | 271, 1155,426 | 221,305,498 |
| !o. In tho branch batuks. | 239,698,902 | 217,824, $3: 20$ |
| Advanced on deposit of ballion | 3,720,990 | 1,740,400 |
| Jo. by tha brunch banks...... | 3,745,975 | 2,323,475 |
| Alvanced on public secaritles . | 76,027,936 | 78,420,330 |
| Do, by tho brancti banks. . . . . | 11,914,050 | 11,870,109 |
| Advanced on rallroall soctirltiea | 38,000,000 | 38,973,100 |
| Do. by the braneh banks . . . . . | 17,211,100 | 17,180,900 |
| Advanced to the Seate on agrecment of Jano 30, 1848 ....... | $55,000,000$ | \$5,000,000 |
| Discount of Treasury bonds. | 40,000,000 | 40,000,000 |
| (rovermment atoek reaerved | 12,180,750 | 12,080,750 |
| i) e, diturosable ........... | 52,100,045 | $52,290,715$ |
| Ilotel and furniture of Bunk... | 4,000,000 | 4,000,010 |
| Lamided propuerty of branch lanks. | 5,250,495 | 4,098,307 |
| Jixpenses of management ..... | 1,188,683 | 823,584 |
| Primintin on gold and silver... | 2,128,594 | 1,490,813 |
| siudrt: 9. | 84,55,1 | 75,344 |
| Total. | 1,002, 170,044 | 003,458,113 |

Banks have also heen established In Berlin, Copenhasen, Vienna, and l'etershurg. Thoso who wish for detailod information with respect to these establishments may consult the 4 th vol. of the Cours d'Economie Politique of M. Stonct, which contains n good account of the paper money of the diffirent Continental states down to 1823 . We also refer to other portions of this article; lout in the mean time we lay before our realers the following detalls with reapeet to the Commercial Bank of Rassia, ostablished in 1818:

This hank recelves deposits in gold and silver, forcign as well as Russian coin, and in hars and ingots. It has n department for transferring the sums depositel with it, on the plan of the llamhuig Bank. It discounts biils, and lends money on deposits of merchamlise of Russian proluee or orlgin. Its capital consists of $8,571,429$ silver ruhles. It is administered by a governor and fuar dirctors, appointed by government; and four direcurs, elected by the commercial body of Petersburg. The property in the bank is proterted ncainst all taxation, sequestration, or attachment ; midit is enacted that suljects of countries with which Russia may ho at war shall be entitled at all times to reecive back thoir cleposits without any reserration. It is also declared that at no time sianli the bunk be cailed ujon for any part of its capital to assist tho government. Ail ieposits must lie made for 6 months at foust, and be repuyable at or hefore that period, and not be less than bito paper rubles: sums so deposited to piy $\frac{1}{8}$ pur cent. The deposisn, if th bars, ingats, or foreigo specio, nre estimated in Ihassian silver coin, und so registered in the attretation; and if not demanded back within 15 days et' the expiration of 6 monthe, or the necesnary preminm prid for the proloughtion, the owner loses the right of claiming his originai drposit, and must take its estimated value in liussian silver coin. No hills are discomented that have less tian 8 days or more than 6 months to run. The rale of discount is 6 per cent. No interest is allowed on monoy deposited in the finnk, unleas notice be given that It will he nilowed to lis for a year, and 3 months' notico le given of the intention to draw it out, when
six per cent. interest is allowed. The bank has branches at Archangel, Moscow, Odessa, Riga, \&c.

By means of its capital and deposits, which in 1839 amounted together to $161,881,839$ sllver rubles, the bank effected in that year the following operations:

| 1. Repayments on deposits in tranafer | Rubles. Cop. 24,966,101 45 |
| :---: | :---: |
| 2. Trausfers from one eity to another | 10,986,313 96 |
| 3. Drafts purchase | 3,832,661 |
| 4. Jepayment of depo | 31,925,770 |
| 5. Hiscount af bills of exchang | 17,217,541 |
| 6. Advances on doposits | 1,848,004 |
| 7. Advances on the notes of 0 | 650,001 |
| 8. Discount of notes of the Lombar | 1,028,571 43 |
| 0. Advaneed on fixed prover'y by wr Kleff $\qquad$ | 174,070 |

The net profit during the same year amounted to 656,501 silver rubies, and the reserve capital of the bauk was tisen also $1,279,970$ silver rubles.-See Supplement to the Journal de St. Petersbourg for 1839, p. 87.

Banks of Germany,-The Bank Royal of Prussia was founded at Berlin in 1765, upon the model of that of Hamburg. So it existed until 1846, when it was reorganized under a new charter, by which more extension was given to its operations. In accordance with this new constitution, which has been in force since the 1st of January, 1847, the issue of notes has been carried to fifteen millions of thalers (the thaler equal to $2 \mathrm{~s}, 10 \$ \mathrm{~d}$. sterling. In 1850 this issuo was raised to twentyone millions of thalers. The capital of the bank is always to le in proportion with the notes in cireulation, two-sixths in silver, three-sixths in bills discounted, and the rest in loans on securities. The bank-notes are from twenty-tive to flfty thalers each. The share of the government in the bank amounts, at most, to 500,000 thalers. The sharcholders are entitled to an nnnual interest of $3 \frac{1}{2}$ per cent. upon tho capital, and, after deduction of the sum set apart for the reserve or rest, which is not to exceed 30 per cent. of the capital, one moiety of the surplus profits is apportioned to them In addition, and the other goes to the treasury. 'The bank has branches in a great number of eities, as BresInu, Königslerg, Dantzic, Stettln, Magdeburg, Munster, Cologne, Memel, 1'osen, Stolpe, Elberfell, 'Treves, Aix-ln-Chajelle, Dusseldorf, Coblentz, Minden, Erfurt, Frankfort-sur-Oc , Stralsund, Kosth, Liegnitz, and Oppuln, and thus forms a vast networ's of financial operations through all the kingdom.

The private bank of the noblesse of Pomerania was founded at Stettin, in 1824, by an association of noble proprictors, with a capital of $1,000,000$ thalers. After the crisis of 1830 , this capital was carried to $1,534,500$ thalers. The operations of this bank embrace discount, loans upon lodgments of merchandise, loans upon publie and private securitles, current accounts, and deposits with interest. Formerly, it issued promissory notes to bearer ; but this privilege was withdrawn from it in 1835. There is a circulation of about ninety milliuns of thalers of $m$ 'gage notes in Prussia (these are, in faet, for oue hundred and five millions). They havo heen issued, at dilferent periods, hy nssocintions of proprietary nobles in various parts of tho kingiom, and carry interest at $8 \frac{1}{2}$ per cent.

The National lank of Vienna was founded in 1815, to re-establiah ordor in the finances of Ausiria, and more particularly for the rejurchase or the conversion of the juy ar money in cifreatation, the value of which was become almost nominal. Tho ditferent ereations of shares linve raised its capital to ubout $89,000,000$ tiorins. This capital is divided into 50,621 slares of 1500 florins each. The netunl operations of the bank are discount; tho issue of bank-noter, $n$ privilege widc: it enjoys exclusively throughout the Aastrian empire; lonns upon dejosits, and negotiations of loans. The lonnk pays an annual interest of 6 per cont. upon the primitive cajital, nad $n$ dividend, after deduction of the roserve fund. Ite privilege, or charter, extends to the year 1806. It has branches at J'rague, Brimm,

## BAN

Troppau, Ogen, Temeswar, Kashan, Lemberg, Trleste, lnnspruck, Goritz, Linz, and Hermstadt.
The Bank of Extraordinary Credit of Vienna was constituted in $\mathbf{1 8 4 6}$ by imperial decree, and has for its object to devote a part of the sums destined for the redemption of the national debt to the purchase of certain sbares in railwny and other enterprises, in order to sustain useful undertakings, and communicate a greater impulse to theu.
The Loan and Exchavge Bank of Bavaria was founded at Munich, in 1835, ly shnres, mider the surveillance and control of the government. It is privileged for ninety-nine years. The original capital was $10,000,000$ florins, with liberty of increase to $20,000,000$. In 1846 there was a new emission of shares of 500 flerins. The net prolits are dividell as fellows: Three per cent. ns divided to the shareholders, and, of the surplus, three-fourths as extrn livilend, and the remainIng fourth carried to the reserve, until it shall reach to one-tenth of the capital. Three-bifths of the capitul are employed in loans on mortgage. The other operations are discounts, loans on securities and ingots; the issuc of bank-notes, whose amount is imited to four-tenths of the capital, and three-fourths of it to be covered by a value of double the sum in mortgage credits, or in silver. The bank has a branch at Augsburg.
'Ihe Roynl Bank of Bavaria, first established at Ansbaeh, and now at Nurenberg, is one of tho oldest establishments of the kiad. lts operations are discounts, deposits, loans upon personal and other securities. The government is cutitled to half the prolits. It has branches nt Ansbneh and Bamberg.
The Royal Bank of the Court of Wurtemlerg, founded in 1802 at Stutgardt, limits its operations to discounts and loans.

The Bank of Leipsic was fomded in 1839, under the auspices of the government, with a capital of $1,500,000$ thalers, livited into shares of 250 thalers, receiving 3 per cent. interest. Its operations are deposits, loaus, and liscounts. It has the right of lssuing notes of 20 and 100 thalers cach, of which the two-thirds should be graranteed by values to the amount in speeie or ingots.
There exists, besides, nt Dresilen, a loan bank, which makes advances to land proprietors and farmers for the payment of taxes, tithes, etc. Lelpsic has also an institution of this kind under the name of " Union of Credit for the hereditary lands of the Saxon nobility."

It was in agitation, in 1846, to found at Dessan a great central establishment, to nnswer the purpose of a vast banking system for the nerth of Germany. It was proposed to endow it with an accumulation of capitals to tho extent of from $50,000,000$ to $100,000,000$ thalers. But this glgantic project has resolved itself into a private enterprise, established in the begimning of 1847 , under the title of the Provisional Bank of An-halt-Dessan, with a capital of $2,500,000$ thalers, divided in shares of 200 thalers. This establishment issues notes of $1,5,10,20,50,100,500$, und 1000 thalera each. One-fourth the value of the bank-notes in circulation should be covered by an equivalent sum in specic.

The Bunk of Ilamburg was founded in 1619. The minimum deposit of a member desiring to open an account is $\mathbf{1 0 0}$ marks banco in bar silver, or in a bill, fer the same sum, of one of the menbers of the bank, which is then trausferred from the account of the latter to that of the former. Transfers can not take place for a less sum than 100 marke, except some days before Christmas, or in the middle of July. Hitherto, for each. mark of fine silver of Cologne, the denositor was accredited with 27 A marks baneo; while, in withdrawling his money for a slmilar sum, he was debited with 27 marks banco, so that the simple usage of the operation brought a cost of 9.20 per cent. A new regulation, which is to come into force on the 15th of August, 1857, imports that the mark of fine silver of Cologne shail be credited 27 a marks banco, and debited at a slmilar rate after deduction of 1 per mille. Independently of this sort of business, the bank leuds ujon Spmish and Americun dollars, and sometimes also on cepper. These are its only operations.
The association of the new loan, established equally at llamburg, in 1839, possesses a capital of 100,000 marks baneo, and does business prohibited to the bank, principally loans on securities, public funds, cte.
There have been muiaerous financial enterprises, Intely started on the Continent of Europe, absorbing a henvy amount of capital hitherto available for other purnoses. Tho following list of new Ennks in Germany represents a capital of nearly $115,000,000$ dollars, which forms but a small part of the nmount lately finvested by German enpitalists within the borders of their own country. The shares of all the hanks named herenfter command $n$ high preminm, although but few of them have been sufllelent time in operation to pny dividends.

List of Banke fertaulisimid in Germany binct 1863.

| Yaar. | Name. | Piace. | Capital. |
| :---: | :---: | :---: | :---: |
| 1503 | Landea Bank, | Tessaut, | 4, (100),000 Thajers. |
| 153 | Braunseliwetger Bank, | Brunswick, | 2,500, (010) Thaters. |
| 158 | Hank fuer 1lamdel und Industrie, | :rmsiadt, | $25,010,006)$ tinliders, |
| 15 | Weimarsche Bank, | Frrank furt-on-the.Maln, | 6, $1 \mathrm{HOL}, 000$ Thalers. $20,000,000$ Gullders. |
| 185 | Wlener Cr. lank, | Viema, | 00,000,010 Eiulders. |
| 1519 | Geraer bank, | ciera, | 3,000,009 Thaters. |
| 14it] | Thueringiselie Bank, | Rondershausen, | $8,1400,000$ Thaters. |
| 1*10 | Bark fuer Sued Deutschand, | 1 hrimstadi, | 20,000,000 dinllders. |
| 150 | Codurer bank, | ('ologne, | 1,400, 1000 Thalars. |
| 1sid | Bremer luank, | Bremen, lionharg, | 2,510,000 ' ${ }^{1 / h}$. Cioks. <br> $1,(m) 0, M(1)$ ( 1 nllders. |
| 14:013 | Mittel bentsehes Cr. Institut, | Atelningen, | $8,1000,0196$ Thaters. |
| 1500 | Creelit Anstalt, | 1 lessan, | $8,1000,1000$ Thaters. |
| 1 c | Credit Insitut, |  |  |
| 140 | 1 lmconto tiesellselsf, | Berlin, | 6, M(M), (M01) Thaters. |
| 1451 | Cohurg Gothalaplie Cr. Gepelineliaft, | Colurg, | 10, (\%)0, (1)4) Thaters. |
| 1051 | Or. und Verisicherunga Geselisehaf, | Lubec, |  |
| [15] | Prival llank, | Mingteburg, | 1,000, (Man Thaters. |
| 16014 | Nordde utselie Bsuk, Verelas tank, | lamburg, liamburg, | $20,0 \mathrm{Kl}$, , (\%M Mates Bieo. 21), (NKO, (WMO Maive lleo. |

"The mania for establishing Credt Mobillers in $\mid$ fixed at $15,000,000$ thaters (er $£ 2,250,000$ ), of which Germany shows no signa of subsidling. To those of V'lema, Frunkfort, Darmstalt, leipsic, Dessau aud others, of which the shares are at preminms ranging from 10 to 90 per cent., thero nre now two allilitions which have lieen introduced nt llerlin. The ilrst consiate of severnl neconil-rate mercinats and hankers. The other, which ls deeignated the Soelety of Commereinl Credit, counta among its adminlstrators sonte of the first mercantile namee in Berlin. The capital is the directers take $7,500,000$ thalers at par, white tha remainder nre to bo sold at a premium, which is to he carried to the eredit of the compnny: Upon n. suliseription leing opened for a portion of the amsunt, at 10 per cent. preminm, applications were sent in to tha extent of $1+0,000,000$ thalers. The eagerness to oltain slures is attributable to the intet of the company having at its hend commercial men who have nlways been known to be successful. The managers reserve to them-
$t$ Dessan a urpose of a rmany. It tion of cap$100,000,000$ olved itself e beginning sank of Anlers, divided ment issues halers each. circulation specie. 1619. The open an acin a bill, for bank, which atter to that ce for a less fore Christto, for cael. itor was acithdrawing ed with 273 te operation regulation, ugust, 1857, gne shall be similar rate ently of this panish and on copper. hed equally of 1100,000 to the bank, s, ete. enterprises, absorling a le for ollier is Germany llars, which ly invested f their own ed hereafter ew of them dividends.

## of which

 while the in ls to lie on a submoont, ut $t \ln$ to tha s to olitain bany havvays heen e 10 them.selves 5 per cont. out of the profits, and the directors |two hundred thalers each, and are already in great are to have 5 per cent. betore any distribution what- demand at 17 per cent. premium."-London Times, Auever is made to the shareholders. The shares are of $\mid$ gust, 1850.

Movemente of the Imiemial Bank of Augtaia, for the Yeans 1852-1855.
Transactions of the Bank in Florims.

| Daring the Year. | Advanced ta the Government. | Jrafta. | Discaunts. | Advancen on Securitien. | Indnreamenta. | Amsunt of Billa redeemed. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Florima. | Flarms. | Flaring | ${ }_{\text {Flarina }}$ |  | Florima. |
| 1852 |  | $89,25: 531$ | 100,354,449 | 91,171,300 | 191,406,338 | 112,200 |
| 1803 |  | 84,985,637 | 231, 9135,243 | 107,750, 000 | 200,048,098 | 80,600 |
| 1854 | 241,000,635 | 140,917,815 | 325,028, 183 | 177,105,000 | 224,359,800 | 80,035 |
| 10.56 | - | 154,085, 5i5 | 414,188,043 | 232,000,450 | 24+4,48, 407 | 22,4i5 |
| At the close of | Claian on tha | specia. | Circulation, | Notes nnd Milla of | Amon | ged |
| thu Vear. | Governhast. | epecia. | Circalation. | Eachange on hand. | Secnritiea. | Deponits. |
|  | Floring. | Flarine. | Florins. | Florins. | Ftorina. | Flarins. |
| 18.2 | 150,160, 279 | 43,247,306 | 194, 1148,250 | 96,921,1185 | $81,400,850$ | 93,245,428 |
| 1853 | 121,710,740 |  | 188,30:1,217 | $53,447,837$ | 41,806,364 | 85, 704,098 |
| 1851 | 294, $3.20,495$ | 45,207,083 | 183,4,1,006 | 73,212,203 | 89,709,660 | 83, 166,040 |
| 1855 | 253,175,172 | 49,410,525 | 377,850,275 | 86,704,715 | 154,049,500 | 82,880,229 |

Results.

|  | Tolal Amaunt of Specia Transactiona. | Tatal |  | SurplosalRacelpta. | Dividand. | Amount of tha Reserve Fund. | Pendion Fund. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Recerpla, | Expendilurea. |  |  |  |  |
| 1853 | $\begin{aligned} & \text { Flarine } \\ & 2,096,00,1,2555 \end{aligned}$ | $\begin{aligned} & \text { Flarins } \\ & 1,284,025,327 \end{aligned}$ | Finrins. $1,883,512,482$ | Flarina. <br> $101,112,845$ | 70 | $\begin{aligned} & \text { Florina. } \\ & 10,361,533 \end{aligned}$ | Florins. $00 \hat{i}, \mathrm{bat}$ |
| 185.1 | 2,324, 142,752 | 1,27:3,106,204 | 1,852,944, 233 | 120,156,431 | 83 | 10,361,783 | 980,649 |
| 18i4 | 3,004,141,937 | 2,080, 517,101 | 1.939, 554,707 | 149,772,454 | 85 | 10,361,589 | 961,807 |
| 1855 | 8,397,388,028 | 1,802, 101,449 | 1,384,999,033 | 177,102,416 | 73 | 10,201,588 | 992,489 |

VII. Banking in tine United States.-The Danking interest of the United States has attained an importance in the varied concerns of this widely-axtended country, and is so interwoven with all our eommercial, manufacturing and agrieultural pursuits, that it must be conceded that it is a great motive power in our contition of national prosperity, and secondary in its inlluence only to that of the government itself. And yet there are few suljeets of a praetical nature on which the people of the United States hava so widely differed in opluion as upon the poliey of banks and the substitution of a paper currency, based even upon coin, for one purcly metallic. On one side, the zealous friends of banks have sometises overrated the utility of paper credit, and ateributed to it a ereative power which even grold and silver do not possess; on the other side, their opponents, withont distinguishing between the uses and abuses of banks, discerned, in these useful sud almost indispensable auxiliaries to commerec, manufactures and agriculture, nothing but mischlef, anil regarded them as impeding the wealth of the nation, and even as injurious to its morals us well as dangerous to its liberties. Both parties, perceiving the glaring errors of their adversaries, have been strengthened in their own opinions, and as each party has ajternately come lato power, it has established or subvertel, encouraged or rejected, the present bankingt policy of the comutry. $A$ compmison of the amounts of bink eapital in several inportunt years, from 1837 to 18int, will exhlhit the thetations which have taken placo during the last twenty years:

| Years | Capitul. | Manka. | Citeculation. |
| :---: | :---: | :---: | :---: |
| 14.37 | \$240, 772,0101 | 788 |  |
| $1 \times 10$ | 158, 14.609 | 811 | lint,gis, itic |
| 1488 | 22S,801,144 | 691 | 64, 368 , 4118 |
| 1541 | 104, 904,1019 | 711 | 1015,5024,427 |
| 14id | 217,317,21t | $8: 4$ | 181, 1463,526 |
| 141 | 1111,376,0171 | 12118 | 9014,4890,207 |
| 1550 | 347,4211,2411 | 1371 | 1ii,15i,412 |

These banks lai, in the corresponding years, speche in their vaults, $18,33,3: 12,12,45,59$ and tin millions of dollars, and the nmount of specie in circulation stomblily lacreased from 35 to 101 militons, in addition thereto, aecording to the most rellatble esthuates, viz, :

| Years. | Beposita. | 1.0 his amd Diseromit. |
| :---: | :---: | :---: |
| $1 \times 37$ | * $127,3187,1 \mathrm{~s}$ ) | $45.50,110,762$ |
| 18110 | 76, 1541,207 | 402, $8: 16,323$ |
| 1813 | 60,168, 62.2 | 954, $64.4,183$ |
| 1814 | 011,413,17711 | 1192, 144.4104 |
| $18 \% 1$ |  | 34,4,204,078 |
| 195 | 188, 185,74 | 607,937,42\% |
| 1sinl | 237,014,981 | 634, 183,2811 |

It mast be borne in mind that tha two last erises in bank affairs occurred in the years 1837 and 1842-43, and their cirealation, as it appears above, was reduced from $\$ 149,200,000$ to $\$ 58,563,608$, and their specie from $837,915,340$ to $\$ 33,515,806$. The consequence was a ruinous fall in prices of property, and many business men found it impossible to comply with their engagements, under the sudden contraction of bank loans from 525 to 25.1 millions of dollars.

The history of all our bank pressures and pranies has been the sante in 1825,1837 , and 1843 , and the causes given in two simple words-universal expansion; and nothing bat gold and silver possesses the conservative power to regulnte the state of our eurrency or cheek the rulnous intiation to which our banks are prone, but for this check on their issues. All other kinds of property have but a tictitlous value, which in periods of continued prosperity is enhanced beyond the limits of reason or common diseretion. At such times the banks themselves have aided the popular delusion by stretching their ntmost spread of canvas to court the fuvoring breezo; but when eaught aback, are the most alarmed at the perils which they are sura to encounter. Instead of becoming auxiliary to others, they but increased the panic and aggravated the troubles, which foresight might have prevented. Experience has shown that the contraction whiels sueceeds an uninterrupted prosperity is more disastrous than if the community hat never enjoyed any hank extenslon. If the effect of these fluctuations was continel to the speculators whe originuted them, thera would be little to excito public anxiety or sympathy; but the misfortune is, that they reach the industrial elasses of socioty, and alf who are dependent on their duily labor for support. When the banks fail to redeen their chreulation, the latorer, the artisan ami small dealer, who earn thetr ten or twenty dollurs per week, aro despoiled of their lard earnings, and it is not surprising that among these classes of sochety there should exist a jealousy of bunks, when they are always in danger of recelvlng and hohling bankrupt notes; since, In the interior, most of them ure unaciualnted whith the character of the curreney which is protlered to thom lin puyment.

But the laborer and the operntive not only suffer by the suspension of banks; they are in a greater or less degree atfected by bank inflatious. When money is abundant in what are termed prosperous thmes, their daily wages have never yet kept prace with the high prices of prodnce or manufactures. Nor do our senmen always particlpute la the advanced rate of frelghts; bitt when the price of every thing ubout us is cmhanced,
we are acenstomed to adhere to the ame valuation of the wages of labor. If the standard of their value is rightly estimated in part by the cost of subsistence, the rate ought, in justice, to be advanced when prices are high, as well as to reduce the rate when the market is depressed ; but the latter course is frequently adopted, while the formor is aubmitted to with evident reluctance.

But are the banks alone to blame for these fluctuations of expansions and contractions? To a certain extent they are, but not whelly so; they are but auxiliaries. In periods of prosperity they have on hand money to loan, and diepense it freely while it is in their power, as it is their duty to do, in order to secure good dividends for their atockhelders; but it was the excess of confidence out of the banks which first induced speculation, and the expansion of individual credit to its utnost tension. While money is redundant and capital unemployed, temptations are offered to the adventurous, and speculation becomes rife in atocks, lands, railroads, mines, and the countless "fancies" which pomise such flattering results in such a brief period of time. Nor is this speculative spirit confined to our commercial cities; It pervates the whole country, and a fictitious value is attached to every thing animate and inanimate, movable or fixed, which possesses any value at all. The property thus enhanced in valuation, without any reasonable cause, is either seld to some irresponsible purchaser, or perhaps mortgaged as sccurlty for some other speculation ; pay day comes round, the suber second theught discloses the infatuation, and the dreamer awakes to the appalling perception of his true cenclltion. The property is sacrificed; in other worls, it is soll forita specie value, and the speculater is ruined, involving in his fall the credulous individuals whe have trusted in his aupposed forecast or his plausible representations. All classes of the community feel the shock, and the general outery is against the bunks as the origia of the evil; but lis it an evll?

It must be neknowledged by all that an uninterrupted course of prosperity caused by a redundancy of currency, and the censequent supply of bank facilities, would, in the end, be prejudicial to the true and permanent welfare of the country. We have had experience enough during our intervals of success to note the consequences of a prosperous career, and the benefita have never been equally shared by the community. Bold and reckless speculators, monopelists in every branch of trade, wealihy capitalists, nnd a few adventurers, may have amassed fortunes in some few instances, but ten times the number of cach description have been ruined; and uoder any clrcumstnuces, the great mass of the community, the laboring classes, salaried officers, nnnnitants of every sort, professional men, medical, legal, and clerical, while they derive litthe benefit from the golilen hirvest, are Inevitahly doomed to suffer their full propertion of the losses which ensue.

Tho moral tone of society is also deteriorated and corrupted by the continuance of prosperity; lusury, with its enervating influence; extravagance, with its Invish expeniltures, undermine the foundation of our moral strength, cconouy, and Integrity, and corrupt not only our mornls but our legislation. An extravagant style of living and habits of persennl expenditure on the nameless artiticinl wants and luxurles of soclety, which are almost Insepnrable from suddenty acguired or even suppositive wealth, have no smill share in creathg a demand for money, which ultimately leads to ruln ; first, hy a loas of cenfidence and impnired credit; next, teniperary sacrifices ; and, finslly, by bankruptcy. And it ls better that it should be so, for the ocensional sifting of the ehaff from the wheat has al ways heen fellowed hy perioda of well-regulated trade, reasonable profits, and that degreo of thifit with which men of integrlty and substance are contented. Trade flows on In lts nat-
ural channels, neither impeded by artificial barriera nor impelled by the force of speculation. Reverses, then, are the aurest safeguards against approaching ruin, and banks managed by conscientious and prudent directors are the great conservatives which arrest the proclivity of financial protigacy to national destruction. What reason ia there, then, in the popular outery in the dominant party against banks, when it is obvious that they are one of the strongest and best protectors of the interests of the Industrial chasses? " It is true that the banks are not beyond the reach of adversity; like other business corporations, they may be on the high tide of success, and tempests from distant quarters may sink them beneath the waters, without any fault of their own. Channels of trade, now full, may dry up; important departments of industry may be broken down ; the earth may not yield Its increase in unpropitlous seasous; wars may arrest or reverse the great currents of trade; embargoes and non-intercourso may sweep commerce from the ocenn; and when the whole ceuntry is overwhelmed with embarrassment by events so great and controlling in the commerce of the world, it can not be expected that the banks should escape."

From 1843 to 1850 , there was at first a diminution and then an increase of enpital, but the circulation steadily advanced cach successlve year, especlally in 1848, oceasioned by the large exportntion of breadstuffs to Europe the preceding year, and the return of nearly twenty-five millions of specie, which gave to all the western banks the long-needed relief. During the fimanclal year ending in June, 1847, our exports amounted to $\$ 158,000,000$, of uhich $\$ 68,000,000$ were in breadstuffs, and $\$ 54,000,000$ in cet ${ }^{\circ}$, and exceeded our imports $\$ 12,000,000$. This amount of exports was larger by $\$ 10,000,000$ than in any preceding yenr (excepting in 1839, when the nmount was $\$ 162,000,000$ ), and nbout $830,000,000$ more than in $1855-16$ or 184 . The amount of domestic experts has never been exceeded before nor slnce, with the exception of $1 \times 54$, when the export of breadstuffs was nenrly $\$ 66,000,000$, and of cotten $\$ 94,000,000$; the whale export having been, in 1847, $\$ 158,000,000$, ns above stated, nud in 1854, $\$ 2-7,000,000$; but In the latter year the imports exceeded the exports nearly $\$ 30,000,000$; while in 1847 the latter were $\$ 12,000,000$ grenter.

We have stated these facts increly to show some of the causes of the fluetuatlons which periodienlly occur in our financial difficulties. It is common to attributo these difficulties to excessive impertations; but this is not so. A tabular statement of the excess of imports over experts will aid us fil our examlnation of this sulject. Slnce 1800, there have been thirteen years when the exports have exceeded the amount of imports frem two to tive millions; $\ln 1839$, $\$ 11,000,000 ;$ in 1813, \$20,000,000; and in 1847, \$12,000,000.

| Years. | Eixersa of limports, | Years. | Excesp of limparis. |
| :---: | :---: | :---: | :---: |
| 1800 | 2t, (061, 000 | $18: 8$ | 16,1000,400 |
| 190t | 17,000,000 | 1831 | 22,(0)0,606) |
| 1805 | $25.0010,006$ | 1832 | 14, (0) (, 4000 |
| 1806 | 28, 0600,1000 | 1833 | 18, $6000,(6) 0$ |
| 1817 | 30,000, 600 | 1834 | $2 *, 000,46 \%)$ |
| 18188 | 85, 0000,000 | 1835 | 28,000, 6000 |
| 1810 | 11, 0000,000 | 1836 | 61,000, 1 MK$)$ |
| 1812 | 83, 0000,000 | 1837 | 28, $\mathrm{KNO}_{2}$, IWH ) |
| 1815 | 61,000,0010 | 1840 | 27,000, 100 |
| 1816 | 60, 6000.190 | 1850 | 42,400, 0100 |
| 1818 | 99, 3010,000 | 1853 | 87, 000,400 |
| 1819 | 17,0N0,000 | 1854 | 20,600, 0000 |
| 1824 | 15, (\%H), (\%) |  |  |

In the intervening years the excess was from two to ten millions, but which our freighta discharged by their enrnings. Wlth the exception, therefore, of 1836 , none of our crises can with justice be attributed to excessive importatiome.

We do not, however, nssort that our hanks are inculpable, ner that they are net responsible for much of the mischlef that this overtrading and speculative approaching us and priswhich arrest national dethe popular aks, when lt rest and best rial classes? ad the reach ations, they mpests from the waters, els of trade, ments of inay not yield may arrest bargoes and n the ocean; ed with em. olling in tho pected that
diminution circulation specially in m of breadhe return of h gave to all f. During our exports 300,000 were and exceedt of exports ceding year (62,000,001), -36 or 1841 . er been exion of $1 \times 54$, $\$ 66,000,000$, port having ted, and in the imports ; while ln
ow some of ically occur to attribute ; but this is of lmports tion of this rteen years t of imports 100,000; in
$\underset{\substack{\text { Exceaza of } \\ \text { lup }}}{ }$
lumpors. $(0,1 \mathrm{H}(1),(1) 0)$ $22,101010,1 \mathrm{MOO}$ $1,0 \mathrm{OH}, \mathrm{OM} \mathrm{M})$ $18,010,001$ 2, OH: 014 , $8,010,046$ $31,000,0106$ 28, (Mnt, (Mh) 17,000, 0000 t2, (100, 0100 $37,1411,000$ 29,000, (H16) jeculatlvo
spirit has occasioned. When the course of our foreign trade is prosperous, and specie is not in demand for export, the baaks have been and are strongly tempted to extend their loans, by the seeming impunity with which they can increuse their prolits, while the cheering influence of public prosperity lias given a great spring to the spirit of enterprise, and by affording aliment to this spirit, they give it a force and vigor of misehief which lt would not otherwise attaln. Thus, without intending $i$, and in tho mero pursuit of their own vocation, they stimulate tho love of gain in all sorts of schenes and adventures. The wihd and extravagant spirit of speculation is never found to prevail to such an extent as will be found in all places where there are banks of eirculation, and especially in those cities and Jarger towns where banks aro numerous; If banks would confino their discuunts to the paper of those who are engaged in a regalar cours, of business, and refuse accommodation to tho rash, adventurous, and oversanguino; if they would restrain their issues whenever the spirit of speculation was rife and rampant, they would do much to preservo the balance of trade, and keep the equilibrium between imports and exports. But whilo hank clarters, for small capitals in country towns as well as larger ones for citica, ran bo so easily obtained, and often is trusted to the ranagement of directors destitute of the knowledge eve 1 of the theory of banks, and especially of that practical knowledge so essential to $n$ right managenent, the course pursued by them will inevitably be injurious to tho commnnity, and probably disastrous to those who own tho stock.
We have in the United States at this period (1856) about 1400 bnoks, with capitals amounting to $\$ 34,000,000$, and a circulation of $\$ 200,000,000$. The discounted paper of these banks is abont $\$ 634,000,000$, and the amount of bonds and stocks held in Europe is prohably near $\$: 100,000,000$ moro, making an aggregate of $\$ 93 \cdot 1,000,000$. Now the ralife of this immense amount of credit is affocted by the condition of our money market, and a depreciation of ten per cent. of its nmonnt ls equal to tho loss of one of our colton crops. Should we allow a few reckless alventurers to trespass upon the rights of others, and by the agency of a few small banks, scattered throughont tho country, disturb our financlal equilibrium and deprecinte the value of property, by causing needless fluctuations? Still, however. the multiplication is going on with fearful rapitlity; some orlginating with partles who havo surplus capital, and wish to facilitate their own and their neighbor's commercial transactions; with others, who wish to invest funds for the suko of tho incomo; with ancther class, who tre solicitous to creato bank capital, as it is called, for tho supply of thelr business wants, by an exchange of thelr own stock notes for tho bills of their chartered banks; and last of all, by those whose sordid motivo is to speculate on the community, by folsting upon it notes of circulution, and then decrying their value, to purehase them baek again through other chanuels at a discount, or perhaps finally abundon them to their fate, without relemplion, on any terms. Our banks are the otspring of twenty-seven different Stntes, and are founded upen the thre different systems of a specio hasts, a safety fund, and tho "freo banking" prinelple, a deposit of stocks; but untll some uniform system of bank circulation is adopted, wo can not hope to escupe the evils of our present heterogeneous currency. The issucs of our bnnks or $\boldsymbol{r}_{\text {d }}$ ht to be regulated ly the state of our foreign exch rges, restricted when gold is thowing out of the conntry, and expanded when it is combig $\ln$. As it is now, however, if the banks in our commercial eities curtail their circulation, the vacumin is seon supplied by tho comintry banks, who eagerly avail themselves of the opportunity, and thas nothing is gained, bul, on tho contrary, much is lost by this substitution of a weaker curreney ; and when n pressure comes, these smaller hnuks adh fuel to tho flames, by their linportumate eries for assistanco and indul.
gence. Tho efforts of our banks on the sea-board can produce but littlo perceptible effeet in contracting the currency, if the great mass of the interior banks persist in issuing their paper as long as they havo contidence in their customers, or the public are willing to receive it. We therefore need a restraining or an werawing power, which can be exercised for the general good; tund until wo have this, tho currency will contiaue to be fluctoating, both in quantity and quality.

An annual report on the condition of the banks throughout the Union is mado to Congress by tho Treasury Department. The resolution adopted in July, 18:32, under which these annual reports are made, calls for "such statements and returns as may havo treen communicated to the Legislatures, governors, or other ollicers of tho several States within the year, and mado public." The want of uniformity of dates, however, is not the only deficiency in theso annual reports; there is no specitication of immediate liabilities and deferred, or of immediate and drferred resources-wit hout a knowledgo of which it ls impossiblo to arrivo at a true knowledge of the condition of the banks. It will be fortunato for the conntry if this sulject should ever nttract the attention of Congress and the State Legislatures, and they should be induced to unito in some common system of action, by which all the banks ln the country sloould be required to mako quarterly statements of their affairs at the same specified dates, at the close of the day's business, and upon a uniform and simplo plan, so that no one who is acguainted with an ordinary account current could fail to understand them. Such, however, we fear, will never tako place, and for the present wa must bo content with tho imperfect, heterogencous, and mystitied statements which are annually furnished to Congress in the voluminous documents of the Secretary of the Treasury, with such condensed tables as the arts of fitunce and divintion will enablo him to mako out, and we must abandon the idea of stntistical exactness.

1800-1810.-The number of State banks in 1800 was thirty-two, having authorized capitals of $\$ 23,550,000$, but it was not all paid ln; nnd it has been stated that the caplanl of the first United States Bank, chartered in 1791 ( ( $10,000,000$ ), prohably excceded the paid up capital of the thirty-two local banks. Of these, eighteen were in New England, five in New York, two each in lemneylvanla, Maryland, District of Columbia and Sonth Curollan, and one in Delaware. Thers are no reliable statements of tho amount of circulation or speeit on record prior to 1808 , but estimates have been putblished by the Secretary of the Treasury, in 1855, which givo tho circulation at $\$ 10,500,000$ in 1800 , and gradually increasing to $\$ 18,000,000$ in 1807 , while tho specie in the country was cstimated at $\$ 17,500,000$, run ning up to $\$ 20,000,000$ during tho aame reriod; tho nmount in the banks, however, is not even conjectured. In 1808 the Bank of the United States had $84,787,000$ in circulation, against $\$ 15,300,000$ in opecio ; and the Secretary adds, "the poliey of the bnnks in New England was whlely different. They pushed their issues to the very limits of their credlt, some of them issuing notes for even frnctional parts of the dollar. The result was, that thero was, in 1808-9, a grand explosion minong tho bauks in New Eugland, by whiel nost of them wero shattered, and some of them totally destroyed."

The tirst return of specio In tho binnks was in 1811, when the amonnt was $\$ 15,400,000$ agralust a circulation of $28,000,000$. Thls amount mast havo heen mainly Irawn from the United States Bank, whoso chartor expired the same year; for from tho time of the embargo in 1808 to 1811, "when our produco could no longer be exported, nll who had any engagements to meet in foroign countrles-nill to whom remittances abroad waro ndvantageous, If not Indispensable-transinitted specie as the commodity must easily concoaled and transported. From this timo the amount of specie di-
minished; the unsettled state of our commereial and political regulations with foreign powers during the three succeeding years presented a new accumulation; and soon after our declaration of war against Great Britain, in 1812, the banks throughout the Middle and Southern States, which had for some time been paying specie reluctantly and sparingly, suspended altogether their specio payments."-South Carolinu Bank lieport.

In 1814 all tha banks in the Union, with the exception of those in New England, suspended payment, and the confusion and depreciation of their notes assisted the plan of re-establishing another United States lank, which was finally accomplished in 1816, with a capital of $\$ 35,000,000$, and a charter of twenty years' luration. This capital, as in the former bank, was paid "oncfourth in coin and three-fourths in stock, which the bank anight sell at the rate of $\$ 2,000,000$ per year." Though its allairs were mismanaged, and it sustained some heavy losses in the flrst ycars after its establishment, it was afterward cenducted with great skill, prindence, and success. It established branches in nesrly every State, and bought and sold bills of exchange lictween all parts of the Union to an immense amount, beeause the low rates of itr -niums and discounts gave to it almost a monopu. of this branch of business. While it rendered this and other important services to commerce, it was the general tinancial agent of the government through nearly the whole term of its existence, and transmitted the public revenue te whatever points it was wanted with equal promptitude nad certainty, and without charge. Its charter expiring in 1836, it was then dissolved, after inctlectual attenpts in both houses of Congress, during twe terms, to connteract the opposition of l'resident Jackson, and to renew its charter. In June, 1832, the rencwal of its cusrter passed the Senate by $n$ vote of 28 to 20 , and in July following tho llouse of hepresentatives contirmed the vote by 107 to 85 , but the president vetoed the bill a week afterward. The same cerporation afterward obtained a charter from the State of Pennsylvana, but in 18.11 it tinally suspended payment, and its shares were sold during that ycar at $\$ 17 \frac{1}{2}$, and subsequently at 89 , the sume year. After the fate of the United States lank was acelded, in 1832, the number of local banks was greatly multiplied, aul rose from 330 banks in 1830 , with eapitals amounting to $\$ 1 \cdot 4,000,000$, to 829 banks in 1838 , with $8: 317,000,000$ capital. So great an increase, and the consequent distention of the circulation, contributed, with the execssive inportations of the four preceding years, especially in 1836, to the general suspensien which tuok place in May, 1837. At this period we commenced these remarks, and we will now advert to some of the local diversities in lanking; for which purpose we will consider the State banks according to the geographical divisions of the United States, as tho banks in each of the tive divisions have some common features of resemblance. We shall then take up the several States where there is a material difference in each division.

New England.-Banking in the New England States has, whth the exception of the Suuthwestern States, been carried on to a greater extent than in any other portion of the Union. The first attempt at banking among the colvaies in New lingland was in the years 1739-10, when the " Land Bank" was established by about eight hundred subscribers, who pledged their real estate to the amount of their respective slaies, and, after the choice of ten directors and a treasurer, agreed to issue $£ 150,000$ in bills, to be circulated as lawful money, each $\& 1$ note beling eeg ' alent to three ounces of silver; but it was soon aiter dissolved by act of l'arliament, and each holder of the lills was entitled to a right of action agaiast any indivhlual purtner fur the amount, with interest. The tirst legitimnte bank in Hoston was instituted in 1781 , the second $\ln 1792$, the third in 1803, all of which are now in existenee; there were, howover, four other banks in the State in 1800,
one of which was the Essex Bank, in Salem, incorporated in 1799. There are no reliable tables of the aggregate condition of the banks prior to 1836; but from various sources we ascertain that the following tabular statements of the number of banks, and the amount of capital at the periods mamed, arc nearly correct, in reference to New Eingland:

| Pears. | Bankn. | Capital. |
| :---: | :---: | :---: |
| 1805 | 47 | \$13,353,000 |
| 1811 | 47 | 12,207,3¢4 |
| 1815 | 63 | 19,053,092 |
| 18:0 | 42 | 19,802,194 |
| 1830 | 172 | 36,297, 869 |
| 1838 | 319 | 66,257,640 |
| 1860 | 312 | 06,2:9, 185 |
| 1856 | 480 | 111,340,836 |

The amual reports of the Treasury for 1850 and $185 \cdot 1$ present the following comparative views of the condition of the New lingland banks on the lst of January:

| 1850. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| stintes. | llanks | Capitul. | Circulation. | Surcia. |
| Matre. | 34 | \% 3,0, 8, 040 | 42,252,704 | \$4839,231 |
| New Ihampshire | 23 | 2,180,5141 | 1,716,921 | 130,125 |
| Vermont . . . . . | 24 | 1,826,0\%5 | 2,322,962 | 120,7¢8 |
| Massachnsetts . | 119 | 34,030,011 | 10,700,935 | 2,749,017 |
| Connecticut ... | 30 | 8, 228,264 | 4, 511,670 | 5,5,660 |
| Hhode Island. . | 61 | 11,212,404 | 2,5,5,549 | 291,245 |
| 1854. |  |  |  |  |
| Mulne. | $6{ }^{6}$ | 84, $, 218,870$ | 4 $4,317,750$ | 41,152,610 |
| New lampehtre | 35 | C, 376,1480 | 3,021,579 | 180,239 |
| Vermont...... | 33 | 2,014,040 | 4,764,43) | 188,173 |
| Nassachubetls . | 143 | 49,060, 16 | 25,620,472 | 3,731,564 |
| Connceticut... | 63 | 13,164,604 | $10,224,411$ | 1,145, $5^{5} 1$ |
| Hhodo I lanml.. | $7 \%$ | 15,917, 429 | 4,85 5,629 | 259.699 |

Of tha six States of New England, Whode Ishand has the greatest amomint of bank capital in proportian to its population, but its extensive matufacturing concerns require it all. Vermont has the smallest capital, tat its circulation is proportionately the largest, as the preceding tables exhibit.

Prior to the commencement of the present century, and for several years afterward, the presperous condition of the commerce of New lingland gave an inpetus to trade, and a speculative spirit prevailed, athd large invesments, for those days, were made in real estate and the construction of turmpikes. Muncy, in 1808, was in great demand, and at a high rate of interest, lout during that and the succeeding year a great vevulsion occurred; real cstate and all other descriptions of property, depreciated, and several banks failed. The Farmers' Exchange Bank of Hhode 1sland, with a cirenlation of 8650,000 , was among the number, nund the entire amount was a total loss to the billholders, in February, 1809. The falure of this lank caused others to tall, and nmong them, the Farmers' llank of Gleucester, the Coos Bank in New Hampohire, and others of less nete. No slieck of pullic or private credit had taken place, since 1783 , which so alarmed the people of New lingland ns did these fuilures.

Mussachusetts:-After this peried the amonat of hank capital was diminished ahout one million of dollars, although the mumber of hanks was, in 1811, the sume as that of 1815 , being forty-seven in both of those years. In 1811 the State llank, with a cupital of threu millions, was chartered in loston, and tho Merchants' Mank in Salem, both of which were subseribed for by the dominant purty of the digy; and when war was declared in 1812, the State lhank suliseribed \$500,000 toward the tirst war loan of eleven millions, the Merchants' Hank $\$ 20,000$, and the Providence llanks \$80,000, which was the entlie sum taken by the Lanks oi New lingland of the ilrst loan. Of the second lom of thirteen millions, in 1 lecember, $1812,89,230,000$ was subserlbed for by the hanks throughont the conntry, and $88,870,000$ by indivhluals; but the whole amount centributed ly New Eingland was only $3: 2,311,500$, of which Hoston and Salem furnished $\$ 2, i 41,100$. During the war of $1812-1 \cdot 1$, all the banks in New lomgand maintalned specte payments, while all the rest lu thu Middle, Western, nid
em, incorposs of the ag6 ; but from ving tabular the amount y correct, in

Southern Statea suspended payment. The following table exhibita the accumulation of specie in Masaachusetts $\ln 1814$,

| Years. | Banks. | Copplat, | Circulalion. | Sprecia. |
| :---: | :---: | :---: | :---: | :---: |
| 1805 | 16 | \$5,460,000 | \$1,553,824 | \$817,988 |
| 1810 | 15 | 6,685,000 | 2,008,491 | 1,347,722 |
| 1814 | 21 | 11,450,000 | 2, $1222,6 \mathrm{tI}$ | 6,146,542 |
| 1815 | 25 | 11,402,000 | 3,464,241 | 2,740,5tt |
| 18.0 | 28 | 10,600,000 | 2,614,734 | 1,280,852 |
| 1825 | 41 | 14, 635,000 | 6,094,264 | 1,038,986 |
| 1830 | - 63 | 10,205,009 | 5,124, the | 1,258,4+4 |
| 1835 | 105 | 30.410,000 | 9,430,35 | 1,136,357 |

As all the banks in the other New England States were founded on the same basis, It is fairly to be inferred that they wore all well fortified wlth specle, but we can not find any specifications of their condition in any anthentic sliape. We give, however, a comparative view from 1820 to 1837 , to show how rapidly both banka and banking capital were multiplied during thia brief period of seventeen years: showing an Increase between 1820 and 1830 of eighty banks and $\$ 15,335,675$ capitgl, and between 1830-37, of one hundred and slx-ty-three banks and $\$ 33,650,328$ capital:

| 8 tatag . | 1320. |  | 1830. |  | 1837. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Banki. | Capital. | Ennka. | Capital. | Bank. | Capltal. |
| Staino................... | 15 | \$1,054,900 | 18 | \$2,050,000 | 69 | \$5,535,400 |
| New llanpshtro . . . . . . . | 11 | 1,005,276 | 18 | 1,701,670 | 28 | 2,603,908 |
| Vermont . . . . . . . . . . . . . | 1 | 44,955 | 10 | 432,625 | 20 | 2,200,000 |
| Massachusetts . . . . . . . . . | 28 | 10,485,700 | 66 | 20,320,000 | 138 | 40,830,000 |
| Rhiodo Istand . . . . . . . . . . | 30 | 2,082,026 | $\rightarrow 7$ | 6,118,397 | 64 | 9,100,58t |
| Connceticut. | 8 | 3,63,, 387 | 18 | 4,485,177 | 81 | 8,510,808 |
|  | 92 | \$19,862, 104 | 172 | \$ $86,197,869$ | 335 | \$68,848,107 |

In the suspension of specie payments in 1837, all tho New England banks concurred, but they all resumed in 1838 ; ar.d in the suspension of 1839 , only three banks in Maine (one of which resumed) suspended; one in New IIampshire partlally, and sixty-threo In Rhode Island, twenty-one of which immediately resumed payment; the remaining banks in the other fivo States all redeened their bilis.
The banks of New England were originally founded upon the only true principle of banking-a full paid up capital in coin, placed under the management of disereet and responslble directors. The caution which characterized these important personages in those early days superseded the necessity of providing ngainst the cunniug devices which modern financiering has discovered; aad hanks were regarded as the depositories of surplua wealth, concentrated for the ostensible purpose of accommodating the publle by discounting short paper with anple security, and thereby yielding to the stockholders a satisfactory remuneration whthout any personal exertion or care. The trade of our country was then limited in its extent ; manufacturep were carried on by individual exertions only, and disposed of within the narrow precincts of their own neighborhood. The products of agriculture were exchanged for artleles of domestic use, and our commerce, then in lts infancy, was principally employed in the conveyanco of our domestic productlens, and the proceeds of our fisheries, to the West Indies, South Amerlea, and Europe, and returned home with such productions of those countries as were required for consumption or use ; and for such eperations bank facllitles were not needed. But the unparalleled increase of the commerce and navigation of Massachusetts, Maine, and Rhode Island, as well as throurhout the country at large, aoon ereated a class of traders who purchased and held larger stoeks of merehandise for their husiness, and whose transactions were protlalily enrrled on between the merchant and the agriculturist, the lmporter and the consmmer, the exporter and the producer. In proportion as trade and commerce increased, their operations call dinto requisition a larger amount of capital, and bank facilitles were more and more needed. The stringent regulations of earlier days did not suit the whats of the community, nul new hanks were created with more liberal views, liut still conducted with great cantion. With every decude of years, the hanking institutious have always kept pace with the legitimate wants of trade, nul sometimes transcended then. They have now renehed a point where it is desirable that they should rust a while, as tho banks in New laghand are more than one-third of all the conntry in number, and but little less than one-thitrd of Its entire hank capilal.

It is now upward of seventy yenrs sluce tho first bank was established In New England, and the country has passed through the varlous viclssitudes of prosperity, und adversity, commercial selzures and embar-
goes, peace and war, growing out of the continental troubles in Europe; and when, after the general peace of 1815 , the country emerged from its dark cloud of despondency and resumed her commercial pursuits, it was with a buoyancy which astonished the world with her unprecedented succeas. Since that period we have been in imminent peril of war, once with France, three times with Great Britain, once with Spain, and engaged in actual hostillties whth Mexico, to say nothing of Austria and Peru, which were of minor importance; and although all theso national troubles have, with but one exception, been amicably acttled without an appeal to arms, atill their effeets have been felt in our financial circlea, producing those audden fluctuations which operate so disastrously upon tho interests of trade. Throughout all these perilous periods the New England Stetes heve proudly sustained their banking system, yielding only once to the financinl erisis of $183 \%$, which prostrated every bank in tho Cuited States, for one brief year, and even then with reluctance. It must then be conceded that a system which has been aubjected, fer so long a period, to such various vicissitudes and severe experience and trial, must possess elements of vitality and atrength which should entitle it to the confidenco and support of the community, however antiquated lt may appear to he, in comparison with those aubtle theorica which our modern linanciers so strenuously advocate.

In reviewing the bank listory of New England, we find many errors and omissions which have from thene to time been corrected, as the various developments of batik failures were scrutinized ly successive Legislatures in every State. The very first charter granted in Boston was unlimited in its duration, but it has aince been restricted by consent, and expires in 1870. But the greatest error was in relation to the power of issuing notes. An overissue of pajer is one of the greatest mischiefs of hanks, nnd one to which they are most strongly tempted by the desire of inereasing their profits; it is obvlously wise, therefore, to impose a limit on these issues, which should not under miny circumstances be transcended. But we tind that when tho tirst eharters were granted, the Legislatures, heing unfomiliar with the subject of banking, and lenrning probably from English books that the Bank of lingland considered it a safo rule to huve in its vaults one-third as much specie as it had notes in circulation, they coneeived that after having refuired the whole enpital stock to be puid in specie. they were ndopting tho same rule ns the llank of England, ly limiting the amount of circulation to three times the amount of the capital steck.
I'his provision having once found its way into some of the early churters, it was copied linto others on the presumptlon that it had been tested by experience. In some of tho States the only restriction was that the mmount of their loans should not exceed three times
the amount of thelr capltal stock, or that their issues should not eaceed that proportion; but both theae restrictions are merely nominal, for there is not a bank In Naw Eagland whose discounts have ever amounted to three times the capltal. Thia error, however, has been remedied in all the States of New England, first by law, and secondly by the operation of the Suffolk Bank aystem, whlch exerclsea a constant watchfulneas over the iasues of every bank, and not one can venture apon an excessive issue without immediate exposure. The laws of Massachusetta, in relation to clrculation and leans, are as perfect as leglslatlon can make thein; they limit the circulation te 25 per cent. hayond the amount of the capital pald In, and impose upon the atockholders an individual lisbillty to the amount of thelr atock, for the redemption of the billa of the bank. The loane are Ilmited to double the amount of the capital pald in, nor can they be extended beyond this amount, however large or permanent the deposits may be. Weekly returne from the banks in Beaton, and monthly returns from all others in the State, are required to be made to the Secretary of State on the first Monday of the month, showlng their true condition, under a penalty of $\$ 500$ for every omlasion; and, finally, three commissionera are appointed, whose duty it is to visit every bank and savinga bank "at least once in every two years, and to examine every new hank, and every bank whose capital has been increased, within a year after they go into operstion, or after the atock shall have been pald in respectlveiy." Msine, Vermont, and Connecticut. have bsink commissioners also, and with the aid of the proposed new" Bank of Mutual Redemption," shoult it go inte operation, the currency of New England will be the safest in the Union.

There liave been other crrors In banking in past tlmes, of which we have not yet taken notice. The Legislatures of the different States have not been eufflciently careful to discrimlnate between real and nominal capital; and while the stockholders have gone through the form of paying up the stock of the bsnks, it has been too often nothing but form. In some instances, stock notes have constituted the chiof part of the capital; gold has been borrowed from other banks for the purpose of exsmination on pay day, and then returned to its rightful owners. The stock notes were the nrxt day discounted by the new bank, its bills paid out therefor, and acattered far and wide for the purpose of circulation. Being new, curiosity would retain them for a whlle, until the bank could gather In its deposits, and these would enable lt to redeem that portion of them whlch would be presented for specio payment.
Again, the banks have been too numerous, though the capltal may have been real, and thls part of the machlnery has been not only more expensive, but more casily deranged. In consequence of the excessive competition induced by the undue multiplication of banks, arts and achemes have been resorted to for the purpose of obtaining a larger share of circulation, thereby enlarging thelr profits, the currency greatly distended, and the safety of the lisnka themselves endangered. In general, the same capltal will be safer, as well as more profitable, if concentrated in one bank, than If distributed among severul smaller ones. When the number of banks has been sufticlently enlarged to secure to the public the benefit of competlition, $1 t$ appears to be as unwise to moltiply them any farther as lt would be to make any unnecessc. $y$ addition to the number of our collegea, churehes, or any other public inatitutions.

The only innovations which have been attempted upon the banking system of New England have been Introduced in Vermont, Massschusette, and Connectlcut, hy the passage of free banklng laws; but the experiment has signally failed, and the laws have become almost inoperatlve. The charters of the banks in Maine expire by limitation in 1857 ; those in Rhodie Island are perpetuai, and therc, aa in Massachusette,
sterkholders are Individually liahle for the redemptlon of the circulation. The faiiures which have occurred have been numerous, but they have all originated elther from a deficiency of the paynient of the original capital, or by palpahle mismanagement. It hmo been truly remarked by a keen observer, that "the personal charac. ter of the officers and atuckholders of banks is intimately bleaded whth thelr amfety. At the atart, good intentions prevail as a general rule, and the directors psy strict attention to business; gradually, however, the management passea into fower hands, and sometimea into one only. Trade in money has lts pecullar effecta upon character, like all other occupations and avocations, from which effect only the most sterling men escape. Malpractice will grow as care and dillgence slacken; so, from neglect or undue anxiety to make me.1ey, lossea occur. Thls ls the general feature of all banking; much of the safety of banke lles in the unreinitting attention of directors and atockholders to the affairs of the bank."

The truth of these remarka will be admitted by those who were conversant with the circumatancea attending the dissaters of the followlng banka in Masaschusetts: American, Kilby, Conimonwealth, Oriental, Middling Intereat, Cochituate, and many othera in Boston; and the Newburyport, Woburn, Rox bury, Chelsea, Nahant, Dover, and others in the country. In Malne-Kennebec, Custlne, Hallowell and Augusta, Wiscasset and others. In Connectlcut-Eastern, Derby, Esgle of New Ilaven, Commerclsl Bank of Tolland, Bridgeport Manufacturing Company, and others. In New IIsmp-shire-Hilsboro and Piscataqua. In Verment-Windsor, Barrington, Agricultural, Green Mountain, etc. In Rhode Ialand-Bnrrlllvlle, Eagle, Franklin, Mount Hope, etc. We hava speclfied these banks becsuse they are the most promlnent and the most recent, and, with perhaps some few exceptlons, owe their downfsli to one of the two causes to which we have alluded, viz., fictitious capital or palpable nilsmanagement. Tie art of auccessful banking is in itaclf a science, not acquired with facillty or mere observation, but by laborlous study and application to its practical details and operations; and when we investlgate the orlgin, foundation, and carcer of the various hanka in New England, and the vlclssitudes and political changes througit which they have passed during the period which we lave been considering, it appeara marvelous that any of the earlier banks should have been conducted in safety through the mysterics and perplexities of currency in its frequent contractions and expansions, and of exchange in lts constant fluctuations, produced by silent operatlons in distant mickete, and imperceptibly, yet inevitably, influencing the monetary condition of their sphere of operatlons. And yet, in comparison with the whole number of banks In New England, how few of them have failed? And to what cause can we more probably attribute it then to the excellence of the system under whleh they aro constitnted-a specie basis 9

Middle States. New Iork,-In the early history of banking in Now York, since 1800, politics and finance were so intermingled that the question of granting a bank charter was a matter of direct isaue between the two polltical partlea of the day; but prior to that period, in tise cstabllshment of the first banks, this state of partisan excitement did not exlst, but in lieu of It there was a jealousy in regard to the incorporation of moneyed instltutlons; and after they were estabiisised, great caution was requlred to avold the perils which their opponents had predicted would inevitsbiy ensuc. Fortunately, however, tha first bank cstablished in New York was managed with such abillty and diseretion that It disarmed all opposition, and became an important auxiliary to the gevernment of the Unlted States, by' a losn of $\$ 400,000$ at five per cent., thereby securlng in its early career great popularity, aa the bank owed no favor to the government, and hed ted either al capitas, a truly retal charac. intimately ond intenectors pay wever, the sometimes liar effiects ind avecarling men 1 diligence $y$ to make ature of all n the unreders to the 8 attending sachusetts: 1, Middling oston; and ea, Nahant, ne-Kennescasset and , Eagle of Bridgeport New llamp-ont-Winduntain, etc. klin, Mount aks because recent, and, eir downfall lluded, viz., ment. The pace, not acput by labodetails and prigin, founw England, yes through d which we us that uny onducted in ities of curansions, and roduced lyy perceptibly; condition of comparison igland, how Luse can we xcellence of d-a specie arly history and finance granting a etween the to that pe3, this state n lien of it poration of estallishthe perils inevitably k establishability and Ind becaine ent of the oper cent., opopularity, ht, and had
no interested motives in loaning the money. The organization of this bank (the Bank of New York) was, however, an association for banking purposes, rather than a regular bank. It commenced business in 1784 (ita first application for a charter having been unsuccessful) without a charter, and diacounted short paper at 6 per cent. per annum, which rate was advanced to 7 per cent. three years aftervard. In 1791 a charter was granted, the act of iacorporation having been drawn by General Alexander Hamilton, which was not materially altered before its expiration. Its authorized capital was $\$ 1,000,000$, but it is now double that amount, and its annual dividends hava uaually been 8 to 10 per cent. per annum.

The next banks incorporated were the Bank of Albany in 1792, and the Bank of Columbia, which were chartered without any other opposition than that of the timid portion of the community, who had not forgotten the disastrous losses by the Continental aystem of paper money.

In 1799 the Manhattan Company was incorporated, with an unlimited charter, and was regarded as a partisan triunph; and from thls period all projected moneyed institutions in the city of New York were advocated or opposed on political considerationa only, and thus finance and politics became blended in the contest, which continued untll the question of the construction of the Erie Canal diverted the gladiature of zealous politicians to this new area of strife. In 1801 the whole number of banks in the Stata wae but five, whose authorized capitals were $84,722,000$. In 1803 the New York State Bank at Albany was chartered, and In 1805 the Merchants' Bank in New York, having cominenced busincss, however, two years previous to its being chartered. There were then, in 1805, but seven banks in New York State, the aggregate of whosc capitals was oaly $85,430,000$; but it has now 300 banks, having a capital of $\$ 96,000,000$. In 1810 the Mechanics'Bank was chartered; in 1811, the Union, and the Farmers and Mechanics' in Albany; in 1812, the Phoenix, the City, and the Bank of America. The projectors of this latter bank originaliy applied for a cspital of six millions of dollars, to eupply the place of the United States Bank, whose charter had ao recently expired, and offered for the charter a bonus to the State of $\$ 400,000$ unconditionally : $\$ 100,000$ in ten years, and $8 \mathbf{1 0 0 , 0 0 0}$ in twenty ycars, if, at the expiration of those terms, there should be no additional banking capital authorized by the Assembly in the city of New York. Th $3 y$ further offered to loan the State one miliion of dollars, at 5 per cent., for the construction of the Erle Canal, and one iniliion more at 6 per cent., to be reloaned to farmers and otiters ou landed security.

As in the case of the Manhattan Company'e application for a charter in 1799, all the arts of political intrigue were brought into requisition, but after a protracted and violent opposition the bill was finally passed as pettioned for; hut a subsequent Legislature suthorized the bank to reduce its capital to two millions of dollara, and at the same time reduced its bonus to the State to $\$ 100,000$, as immediately after the charter was granted war was declared against Great Britain, and "with it came the long scries of commercial disssters and financial troubles, and a gencral interruption of our forcign trade." In 1814 the banks in New York, in consequence of their iiberal bonus to the government, and their excessive iseues of paper consequent thereon, suspended epecie payments, ill common with all the other banks in the Middle, Western and Southern States. Six months after the euspension, the news of peace was recelved, but the banks did not resume specio payments; and instcad of contracting their circulation, they increased it, and were ellcouraged to do so by the general governinent, who coutinud to recelve their inconvertible paper for public dues, until February, 1817, when there was a partial resump-
tion of specie payments, and the second United States Bank commenced lts operations. After the peace in 1815, large amounts of specie were annually exported to the East Indies and China, and the premium on silver was from 15 to 18 per ceat. The United States Bank resarted to forced importations of specie to supply the vacuum, and having spent 8500,000 on one experiment, they wisely abandoned the acheme, and allowed trade to follow its natural chanacls. Between 1812 and January, 1818, about two hundred new banks were chartered in various parta of the Union, which distended the currency to its utmost point; but a day of reckonlng was near at hand, and ail further inflation was at an end. In the middle of 1818 the contraction commenced, and banka and individuals were owept away in one promlacuous masa of ruin. The disastrous effects of this local banking mania were felt until the cloas of 1820 , and in many pertions of the country for many succeeding years. The following tabular statement exhibits the lanking capital of New York during this period of twenty years:

| Yoare. | 8enka. | Copital. |
| :---: | :---: | :---: |
| 1801 | 5 | $\$ 4,720,000$ |
| 1805 | 7 | 8 |
| 1811 | 8 | $7,480,000$ |
| 1815 | 26 | $19.62,760$ |
| 1816 | 27 | $18,766,818$ |
| 1820 | 38 | $18,988,766$ |

but we have no means of ascertuining the amount of circulation or specic. The estimates of the whole country for 1815 were 208 banks, $\$ 82,260,000$ capital, $\$ 70,000,000$ to $\$ 110,000,000$ circulation, $\$ 15,500,000$ specie.

When the suspension of epecic payments took place in 1814, a public meeting of the merchants and others interested was held, and they promptly sanctioned the measure, under the assurances of thie banks, however, that whenever the war was terminated specie payments should be resumed. Duubtless this was the intention of the banks, as they commenced the curtailment of their loans immediately after their suspension; but when peace took place the redemption of this pledge was not demanded at the stipulated time, and the banks, regardless of all moral obligations, and scinnulated by the prospect of large profita and enormoua dividends, extended their circulation to an amount unexampled in the anuala of foliy. The "plenty of moncy," as it was called, was so profuse, that the bank directore were fearful that they could not fiad a demand for all the "mouey" they could falsricate, and not unfrequeatly aolicited individuals to become borrowers, under promises of indulgence of the most liberal and tempting nature. Every city, town, and county had ita own local currencs; bearing no equivalent with, or fixed proportion to, any other; and r. acw and extensive class of brokers appeared, who stih exist, and have cver been supported at the expense of those who have been defrauded by tite banka of their just right, the par value of their notes.

When the United States Bank was incorporated, the city banks becane alarnied for their safety, and made a retrograde movement, and, by a reduction of their loans immediately, occasioned great commercial distress. This temperarily produced a reduction of the currency, and the directors of the National Bank proposed to the State banks a resuinption of apecie paymests on the 21st Feliruary, 1817, and the city banks, reiying upon the forbcarance which had been extended to them by a conflding but defrauded commanity; whe for two years and a haif had been paying 6 per cent. per annum for their depreciated and dishonored bank bills, assented to the arrangement, and specie payments were nominally resumed on the appointed day. But the resumption was merely nominal, for silver, beth foreign aud American, stiil commanded a premium over the par value of city bank-notes, and depreciation may result, as weli from the forbearance of
creditors in demanding their righte as from tha refusal of hanks to meet their engagements; and this arrangement was not a real resumption, but a mere change of one species of inconvertible paper for another of like character. As soon, however, as the directors of the National Bank had completed their arrangement for elevating this depreciated paper to the atandard of their own convertille notes, instead of reviewing the experience of the past, or acting upon the genersl principle that circulation could not be extended beyond a certain limit, and that, when this point was reached, any further isenes would occasion depreciation, and with the full knowledge tinat auch was the actual state of exiating affairs, they at once commenced issuing their own circulation, and in a few months added to the currency an anount greater than that which had previously been withdrawn. By their operations, the currency nominally convertible was depreciated below its former rate, and retrograded instead of advanced toward restoration. But the bank tinally diacovered its error when almost too late, and sought to retrieve it by withdrawing their circulation, reducing their Joans, and curtailing all their other transactions, thereby causing a second pressure in October, 1818, which continued for more than a year, and in many parts of the country many years longer. If the city banks had availed themselves of the opportunity of curtailing their operations while the United Stater Bank was extending, it would have heen financial wiadom; hut the same cupidity controlled their movements, and they were aiso compelled to contract thelr issues, Joans, and all other operations.

The banking system of New York was originally founded on the universal principle of a specie basis; but after tho disasters of the period which we have just been reviewing, financiers and political economista were impressed with the beiief that there was something defective in tho system; that sone reform was necessary in regard to the currency, and that unless a remedy was found, the whole banking fabric would uitimately be overthrown. The first innovation which was tried commenced in New York with the adoption of the "safety fund" system in 1829. It required from each bank an annual contribution of half per cent. of its capital to a common fund, to be deposited with the State Treasurer as a "bank fund," until it amounted to 3 per cent. of the capital of each bank, and was to be applied to the payment of the dehta of any bank whicit might become insolvent which had contributed to the sama; and in case the fund was at any time dimiuisined by payment thereffom, the lanks were again required to make their aunual contributions, till each had in deposit the 3 per cent. on its capital stock. For a series of years this system was regarded with favor, but the sudden failure of 10 banks, with capitala amounting to $\$ 2,059,000$, occasioned a loss of $\$ 1,548,560$ for redemption of circulation, and $\$ 1,010,376$ for the payment of the other liabilities of these insolvent hanks. At the time of the failure, the fund amounted to $\$ 1,876,073$, and the balauce was paid lyy a 6 per cent. stock authorized by the State, the redemption of which stock was provided for by the subsequent contributions of the banks to the fund. Under this same law of 1829, three bank commissioners were appointed, with large powers, to superviso and Inspect the several hanks of the State. These officers were at first appointed, one by the governor and Senate, one by the city banks, and one by the country banks; but in 1837 the power of appointing the whole number was transferred to the governor and Senate, which placed these officers " within the vortex of the great political whirlpoel of the State, and the place was sought for and conferred upon partisan aspirants, without due regard, in ali cases, to their qualifications to discharge the delicate trust committed to them." In 1843 the Legislature abolished the office, couferring the power of examining the banks upon the controller of the State.

After nine years trial of the " safety fund" acheme, it was virtually abandoned, and arother experiment was sulustituted in 1838, by the passage of the "free bank" law. Ey this system "every jndivldual and agsociation was anthorized to engage in the business of banking; and on depositing with the controller the stocks of the United States, the storks of any State which should be or be made equal to a $\delta$ per cent. atock, or auch stocks and bonds, and mortgages to the same amount on lmproved, productive, and unincumbered real estate, worth double the amount secured by the mortgage, over and above all buildings thereon, and bearing an intereat thereon of 6 per cent. per annum, the controller was required to deliver to auch individual or association an equal amount of hanknotes for circalation, duly numbered, registered and aigned at his office." No specific amount was required from individual hankers before they commenced operations, nor were the stockholders Hable in their individual capacity. The reault was, that in the alundant supply of stocks of every description, banka were immediately created out of the chespest materiala, and bank-notes were furnished to the community with the most generous profusion. This extraordinary expansion prodaced the uanal resulta, inflation of prices, extension of credits, and wildness of speculstion; and to aid the delusion, the bonds of the Western and Southwastern States were freely supplied. But the crisls came with fearful reaults; firat in the ahape of nonpayment of interest, next of great depreciation, and, finally, the repudiation of the State bonds, and this consequent failures of the banks which owned them. But these disaaters did not discoarage the peopie from a peraistence in the scheme of free banking; on the contrary, the Legislature of 1840 preserved the system, by excluding tha stocks of other States, after that date, and required the banks to deposit the stocks of New York and the United States only. Although the sys. tem has been materially impreved by legislative enactments since it was first established (and aimost every year furnishes some valuable amendment to its provisions and restrictions), and is now regarded witis favor by prominent financiers, as affording ample security to bill-holders, yet even on this point there may iinger some doubts. In perieds of prosperity all would be well; but in the event of severe pressure and a panic, a sudden contraction of the currency, and a general withdrawal of all fiosting capital, the free banks would find it difficult, if not impossible, to convert their stocks and mortgages into the requisite funds to carry on their redemption; and the failure of cven one of them wonld be disastrous to inany. In confirmation of these remarks, we have only to recur to the contreller's past reporta, and ascertain what the results of the failures of some of these free banks were, and we find the following, among others: St. Lawrenco Bank, securities $\$ 81,277$, sold for $\$ 27,23250$; New York Banking Company, N. Y., securities $\$ 26,000$, sold for $\$ 4,370$; Erie County Bank, whose mortgages for $\$ 15,000$ on property valued at $\$ 31,500$, exclusive of buildings, were sold fer $\$ 3,000$; State Bank of New York, Buffaio, $\$ 5,000$ lilinois 6 's, sold for $\$ 81250$; and so on with the remaining 27 banks in his report of 1849. To illustrate the rapid progress which the banking interest has made within the last twenty years, we add the following tabic:

| Years. | Bank. | Capital. |
| :---: | :---: | :---: |
| 1838 | 160 | $\$ 37,101,480$ |
| 1850 | 198 | $48,618,762$ |
| 1854 | 298 | $80,726,370$ |
| 1850 | 300 | $06,000,000$ |

Weekiy returns of the condition of the banks in the clty of New York were first made In Septenker, 1849, and in October, 1853, a "clearing-house" was establisined for the city banks. The returns for two years, for 1858 to 1855 , show an aggregate of exchunges of $\$ 11,875,996,450$, and of balances aettjed of $\$ 600,273,826$.

## $\mathrm{d}^{n}$ acheme,

 experiment $f$ the "free lual and agbusinese of troller the fany State 5 per cent. rages to the d mineumsecured by gs thereon, ent. per an. ver to such at of bankistered and vas required anced operaeir individe abundant ka were imterials, and ity with the nary expanf prices, extion; and to and Souththe crisia 1spe of nonciation, and, Ids, and the wned them. people from ing; on the I the system, er that dete, ocks of New ugh the sysgislative enalmost every to its proviwith favor le aecurity to may Ilnger all would be and a panic, nd a general banks would onvert their nds to cäry even one of conlirmation the controlresults of the and we find ce Bank, seYork Bankd for $\$ 4,370$; - 815,000 on of buildings, ork, Buffalo, l so on with 1849. Te ilking intereat o add the fel-Pennsylvania,-The first bank which was established in this State was the Baok of North America, whici was chartered by Congreas on the 81st December, 1781, with a capital not to exceed ten millions of dellars, and withont any llmitation of duration. The charter was confirmed by the State In April, 1782, and It commenced its operationa upon a capital, paid $\ln$, of \$ 400,000 , and as the country was deficient in netes of circulation, and its credit stood high, it was enabled to extend its issues vastiy beyond its capital. The extensive circulation of the notes of the bank, occasioned by the disbursements of the government, which was a heavy borrower, emboldened Ite directors to overstep the bounds of discretion. The channela of circulation soon became surcharged, and the public, beginning to doubt the ability of the bank to redeem its notea on presentation, they were reiurned so rapidly for payment, that it was compelled to call epon its debtors for payment also. This reduction of losns occasioned a genersl preasure for money; bankruptcles, nsurlons extortions, the disappearance of apecie, and the impos. sibility of procuring money at the legal rates of intercat. Petitlona were ahortly after ward presented to the Legislature for the repeal of the charter, which was granted on the 13 th September, 1785 ; but the bank contioued its busineas, claiming the right to do so under the charter granted by Congresa. In March, 1787, the i.egislature revived its charter, limiting its capital to $\$ 2,000,000$, of which only $\$ 830,000$ were paid in, and its duration to fourteen years. In Februs ry, 1791, the first Rank of the United States was chartered, with a capital of $\$ 10,000,000$, for twenty years, and on the expiration of its charter in 1811 , It was weund up. In 1793 the Bank of Pennaylvania was chartered, with a capital of $\$ 2,000,000$, for twenty years, with four branches; in March, 1804, the Philadeliphis Bank, with s capital limited to $\$ 2,000,000$, of which $\$ 1,800,000$ were paid in, and limited to 1st of May, 1814, but afterward oxtended to 1824 , with liberty to establish branches, and four of which were established; in March, 1809, the Farmers' and Mechanics' Bank, with a capital of $81,250,000$, to continue till tho 1 st May, 182. These were the only incorporated institutions in 1811, although there were others in the State, such as the Farmers' Bank of Lancaster, with a capital of $\$ 300,000$, establiahed in 1810, and several others in the city as well as in the State. The foliowing circulation of the three chartered banka wo give:

| Sanks. | $\begin{aligned} & \hline \text { Circulation. } \\ & 1811 . \end{aligned}$ | Circulation. 1816. |
| :---: | :---: | :---: |
| Bank of Pennsytvania | \$1,425,203 | \$1,400, 850 |
| Phtisdelphta liank ............ | 718,309 | 654,420 |
| Farmers and Mechanics' Bank | 804,730 | 504,700 |

In March, 1810, the Legislature enacted a law to prohibit unincorporated associations from issuing notes or pursuing any of the operstlons of banks; but in defiance of its provisions, the system was persevered in, and even companies Incorporated for the purpose of constructing bridgea departed from the apirit of their charters, converted themselves into banks, and isaued notes for circulation. This mania for banking would soon have been checked by the return of the notes for paymeut, had not the war of 1812 intervened, and the cessation of the demand for apocie for exportation to India and Chins removed the usual check at that period agsinst excessive isanes of bank paper. The apparent success of the Farmers' Bank of Lancaster, wiich, frem the enormous extent of its lssucs, was ensbled to divide 12 per cent. per annum, and to accommodsto its atockholders with loans to double the amount of their stock, had a powerful influence on the public mind. During the session of 1812-'18, a bill was passed by the Legislature, by a majority of one $\ln$ each branch, to incorporate twenty-five new banks, whose aggregate capitals amounted to $\$ 9,525,000$, but it was vetoed by Governor Snyder, and returned with his objections, some of which were, that "it would, by
readinese to give credit, invite to visionary speculations, divert men from useful pursuits, danmp the ardor of industrious enterprise, and consequentiy demoralize the community." In March, 1814, the aubject was renewed, and a lill was passed Incorporating fortyone banka, witi capitala amounting to upward of \$17,000,000, of which only one-fifth part was required to be paid in. Although the hill passed both houses by large majorities, Governor Snyder returned thia bili also, with his objections, but two-thirds of both houses voted for its passage notwithstanding; it became a law, and thirty-seven banka went into operstion nuder its aanction.

The immediate commencement of a number of these banks, whose bona fide capital was licie more than the first installment required, increased the amount of circulation, already too redundant, and the depreciation of the currency grew worse and worse, and ali confidence In Ita convertibility was lest. The new banks discounted stock-notes to meet the remaining installments, and hence only one-fifth part of their capitals was ever paid in, aa before atated. In our remarks upen the New York banks, wo have commented upon the movements and operations of the United States Baak in 1817 and 1818, and their influence was, of course, more severely felt in the central polnt of its negotiations, Philadelphia. And hero it would be most appropriate to glance at the rise, progress, and final doom of the second United States Dank; but so much has been written on the subject, a ad its history is so familiar to our readers, that we shall add no further remarks to thoan which have already been made in a previous portion of this review.

In 1819, 16 of the 37 banks chartered in 1814 failed, and in due time were officially announced as "diasolved, unlawful, and unincorporated," and there were at the same time 22 banka more in the State transacting business without charters. In 1820 there were 86 banks in existence, with capitals amounting to $\$ 14,681,780$, and an indefiaite number of "freebooters." It is an unpleasunt task to run over the next deeade of years, from 1820 to 1830, for there is nothing cheering in the review; throughout almost this entire peried there was a rs.pld succession of untoward events, leading to embarrassments, insolvency, litigation, diahoneaty, and more flagrant crimes. It is a continuous history of bankraptey throughout a large portion of the country, and of frauds npon the community wlthout any provious parallel. Hanks wers bribed to fuil, that the stockholders night pay their indebtedness in the currency of the same bank, after it had reached its minimum poiat of depreciation, commenly 50 per cent. "Money mills" were established In New York, Yhiladelphia, and other places, which were based on the system of the celebrated Malepar, the keeper of an oyster cellar in New York, who had the adroitness to swindle the community out of $\$ 500,000$ by his notes of circulation, and whose moto was, "Make money, horestly if we can, but ruscally if we must." In 1822 there was a pressing acarcity of money; in 1825 and 1826 , convulslona and bankruptcies among the banks; in 1827 and 1828 among the banks and the manufacturers from Now England to Georgia; but in 1829 and 1830 the gloom which had settled so long upon the country was dispelled, and a brighter prospect was unfolded. For the first time for eight years, the natural conrse of trade had brought a balance in specie of eight millions and a half of doliars into the country, and to Pennsylvania there is due a large share of this fortunate resnit, by her effective act for the suppression of the circulation of sinall notes wlthin the horders of the State. Here was an illustration of the principles which have been alwaya maintalned by the ablest financiers of our country, "that we must widen the basis of our metallic curreney by aioliahing the use of small notes, so as to allow coin to take the place of them, as it inevitably would."

Another causo of this influx of gold in 1830, and its
temporary retentlon in this couniry, was the partial cessation of tha exportation of apecie to India and Chinn, occasloned by the sulstitutlon of bills of exchange, and letters of credit on London for the inperts from these countries. On a review of the talular atatements of the capitals of the banks in Pennsylvania, there does not appear, with the exception of If14, when the 41 banks were chartered, any exiraordimary augmentation of banking capital.

| Yaars. | ginakg. | Capital. |
| :---: | :---: | :---: |
| 1901 | 9 | \$5,000,010 |
| 1805 | 3 | 7,000,000 |
| 1811 | 4 | 6,153,000 |
| 1815 | 42 | 15,048,800 |
| 1820 | 86 | 14,081,780 |
| 1588 | 25 | 98,760,838 |
| 1845 | 51 | 16,154,400 |
| 1850 | 54 | 18,066,360 |
| 1806 | 57 | 21,281,464 |

During the four years of $1832-1836$, the speclo ime ports exceeded the experts more than thirty-six milljens of doliars, owing to a combination of favasable causes, viz., high prices for cotton, au increase of English credits, foreign Indemnitles paid in gold, Increased production of our Southern gold minea and the sllver mines of Mexice, loans effected ln Europe by the United States Bank, and varieus other operatlons in atocks and bends. The consequence of this influx of gold was an increase of lasues by the old banks, and the establiehment of new ones. The number of banks in the country was estlmated in 1830 at 829 , wlth 110 millions of capital. In 1837 there were 788, including branches, and a capitni of 290 milions.

In 1836 the Bank of England required payment from the "American housea" in Lendon, whicis was resounded throughout our commercial cities, and shortiy after Congress passed "the surplus revenue" bill, and tho bank credits, which represented the surpluas revenue, were tranaferred from place to place without any regard to tho laws of trade. The combination of theso circumstances was too much for the banks, and they all simultaneously stopped specio payments in May, 1837, as well as three of the leading American banking hourcs in London. The depreciation of bank-netes throughout the country varied from 12 to 25 per cont. The banks at the eastward adopted all needful measures to secure a speedy resumption of payments, but in the west and south an opposite pollcy was adopted, and new banks were created. During the residuc of 1837 and 1838 , the excess of apecie importa over exports was eighteen millions of dollars, of which a part was aent by the Bank of Eingland to enable the American banks to reaune. In May, 1838, the banks in New York and New England resuased, and continued to pry specie. In Augusi following, the banks of Philadelphia professed to pay specie; and in January, 1839, there was a nominal resunption throughout the United States. In October, 1839, the Philadelphla banks suspended a second time; resumed in January, 1841 ; suspended a third time 4th February following, and permanently resumed in March, 1842.

Moryland.-The first bank established In this State was the Bank of Maryland, which was incorperated In 1790, with a capital of $\$ 300,000$. Next in the order of successlen was the Bank of Baltimore, incorperated in 1790 , with a capltal of $81,200,000$, of whlet $\$ 1,122,900$ were paid In. In 1803 the Farmers' Bank of Maryland, wlth two branches, was chartered, with a capltal of $\$ 1,000,000$, of which $\$ 752,745$ were paid in. Next,

| The Tolon Bank of Baltimore . . . . . In | Capital. ,001, 000 |
| :---: | :---: |
| The Bank of liagerstown ........... in in 181 | 250,000 |
| The Commercial and Farmers' ...... in in 1810, | 1,000,000 |
| The Farmers' and Merchants'....... in in 1810, | 600,000 |
| The Frankilin Bank, Baltimore...... in 1810, | 600,000 |
| The Marine Bank, Baltimore . . . . . . . In 1810, | 600,000 |
| The Eikton Dank, Maryland. ....... in in 1810, | 200,000 |
| The Cumberland Bank, Alleghany . 1 la 1812 , | 200,000 |
| he Farmers' Bank, Cumberiand and |  |
| Worcester ..................... in in 1812, |  |
| The City Bank of Baitimore......... in in 1813, | $180,000$ |

and four others in. 1814, one in 1815, and one in 1816, the aggregate capital of ali uf which was $\$ 13,300,000$, of which only $88,506,595$ w ere pald in.
Thn annexed tabular statement, derived from the Treasurer's reperts and eatimutes, will exhibit the amount of lianking capital In the State for the last fifty years, and presenta a striking contrast to the banking mania of other Atlanilc citles.

The progress of bank caplial in Maryland has heen less than In other States, viz.:

| Yamm. | Banks. | Capital. | Years. | Bank. | Capital. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1702 | 1 | \$500,000 | 1530 | 21 |  |
| 1801 | 9 | 1,600,000 | 1887 | 23 | 10,438,656 |
| 1806 | 4 | 5,600,000 | 1840 | 23 | 10,5.0,494 |
| 1811 | 6 | 4,8 5,:02 | 1845 | 24 | 8,854,834 |
| 1315 | 17 | 7,882,002 | 18:0 | 23 | 8,104,711 |
| 1 220 | 14 | 0,708, 180 | 1860 | 80 | 11,180,881 |
| 1830 | 13 | 6,280,496 |  |  |  |

Somo of the banks apecliedi In the preceding schedule failed in 1834, auch as the Bank of Maryland, Farmers' Benk of Maryland, Elkton Bank, liavre de Gruce Ilank, Susquehanna Bridge and Banking Company, and various others; but the loas of their capltals was supplied by the enlargement of others, and is scnrcely perceptible in the above returns. As an Illuatration of the vlelssitudes of some of these banks, we select at random the history of the FrankIIn Ilank, of Baltimore, chartered in 1810, whth a capital of $\$ 600,000$, for five years, and of which $\$ 415,000$ only were paid In. In 1815 the charter was extended twenty ycars, and in 1821 ten years more, but a tax for the benefit of the acheel fund was impesed, of twenty centa on every hundred doilars of its stock. In 1834 the charter was extended from 1815 to 1857 , and in 1835 the bank was autherized to double its stock, making its capitat \$1,200,000; but in 1840 it was discorered th.. i is caahior had conmitted Jarge frauda on the bank, and it was compelled to stop payment $\ln 1841$. After an exambation of Its affalrs, tha legislature authorized a reduction of its capital to $\$ 301,595$, and in 1853 lt was Increased again to $\$ 500,000$. The acioption of the new Constitution in 1851 imposed upon stockholders in new banks, or in these whose charters might be renewed, personal liabillty for the debts or lishilities of such banks, to the extent of the stock held by them respectively. lin 1852 the circulation of notes under five dollara was prohilited by law, under similar penaltles to those In various other States, and we believe has had a favorable influence in creating a isrger clrculation of coln.

The banks of Maryland all suspended specie payments in 1814 and 1887, in comnion with all the others In the Middie, Weatern, and Southern States; and it would be superfluous to recapitulate the circumatances attending these events, as they have already been doecribed in the precedling pages. The same cnuses occasioned and the same results followed in hoth periods. It wlll be recellected that in 1814 the New Eugland banks did not suspend payment, and this produced great jealousy and acerbity of feeling, especially in Baltimore. In Niles' Register, in 1814, we find the following remarks: "If meney (specie) be the evidence of commercial prosperity, Massachusetts was never half so well off as now. Soine ycars ago, when tho trade of the United States naturally sougint the places where its commeditics were to be had, one of the Baltimore banka had mere specie than all the banks in Massaclusetta combined; nay, prebably nore than there was In the whole State, whether in possession of the banks or of Individuala ; and so it will hava again, when a regular and honest commerce shall succeed the British war and Eaatern smuggling." Instead of the "cominercial prosperity of Massnchusetts" being derived from " Eastern smuggling," the true cause may be found in the following ahstract from the report of a committee of the Senate of Pennaylvania in 1819:
"The 'rws of the New England States hed been so rigerous on the aubject of banks, which were llable to

- in 1816 , $.3,300,000$,
from the chibit the e last fifty e banhing


## pecie pay-

 the others es; and it umstances y been decausea octh periods. $v$ England jroduced ecially in e find the e evidence never half the trade aces where Baltimore in Massahan there ion of the ve again, ncceed the ad of the being deause may eport of a 1819: d heen so liable toa penalty of 12 per cent. per annum for the non-puyment of their notea, that no diprecintion of their currency twok pitice. The connequence thereof was, that the difference between the New England pricea of commoditiea, stocka and foreign bille of exchange, and those of lennsylvania, was equal to the extent of the depreclation of the currency of the latter, and as our hank-notea were at that time redeemable on demand, the moat protitable remittance which could le made to New Englánd in exchange for her commodities was specie; and this demand created a run upon the banks which they were not able to withatand. The aituation of the Southern and Weatern banks was precisely oinilar to that of our own; all had overiasued, and a general depreclution had ensued. The aume cuusea produced the same effects, and a general atoppage of payments of ail the bunks in the United States, except those of New England, took place in Auguat and Septemier, 1814. The New Lagland demand, it is true, was Increased by two causes, viz. : tirst, by fucilities in foreign trade through neutral vessela, which wero afforded them by an exemption from the blockade of the enemy ; and, secondly, ly a well-grounded apprehension that the Southern Lanks, from tiseir extensjve emissiona, would necesaarily become embarrassed. Certain it ta, however, that all these causea combined conld not have produced a general suspension of payment hat our banks observed the same caution in their issues fas that which characterized the banks of the Eastern States." Again, in Niles' Register of 1821, we find the follow. ing remarka: "That country whose money currency is kept at the highest rats of value will havo tho greatest advantage in trade with other countriea. The hand of lubor ia not injured by monoy being scarce; no interest of the country la injured, but the apeculator and monopolizer. It is true that the acarcity of money checka imports, but it encouragea exports; it is not ao important in what the money consiste, as that it ahould be at aa bigh a rate of value as that of other countries."

New Jersey.-There are two other States in our subdivision of "Middle States"-New Jersey and Dela-ware-which claim our attention next. Tise increuse in New Jersey was us followa:

| Yuara | Bunka | Crapital, |
| :---: | :---: | :---: |
| 18105 | 2 | $\$ 1,000,000$ |
| 1811 | 3 | 780,740 |
| 1815 | 11 | $2,121,932$ |
| 1820 | 14 | $2,120,049$ |

From and after this period banks occasionally failed, and new ones created to take their places, and talular gtatementa would not exhibit the unnual rise and fall of the moneyed institutions. In our ordinary "Bunk-note Reportera" there may be found the numea of about thirty of these banks, ogainst three of which the word "fruud" appears, and among these ia the "Morris Canal and Banking Company"-a concern which made no inconsiderable commotion in Wall Street at one period. Besides these fuilures, there is nothing in particular to note, until 1835, when the Fegislature pussed a law prohibiting the issue of amall bills. From authentic sources, we learn that the New Jersey banks had in circulation $\$ 500,000$ in bitis of denominations below tive dollars, and an equal amount in five dollar notes, being one-eighth part of the entire amount of small bilis in circulation in the United States, and one-half of their own emissions.

In 1850, general bunking iaw wus passed in New Jersey, which, like those adopted in other States, has subsequently been revised and amended. "The new banks establighed, or at least noat of them, instead of being legitimate banks of discount as well as of issue, are simply manufactories of paper money, for the benelit of their owners rosiding in other States, having no affinities here, and of no advantage to Now Jersey, save in the amount of tax on their capitals that may be pald into the State Treasury ; and it ia queationable
whether that ls not more tian counterbalanced to the people of the State by the loss they suatain in the diacount upon notes pasaing through their hunds. As the protite to the ownera depend entirely upon the depreciation and the circulation of their notea, it becomes deairable that the tanks should be oatensibly located in places difficult of accese, ao that no one wiil be disposed to apply at their counters (if perchance they should have offices) for the "pecie or its equiralent; and the more diatant and out of the way, the greater the discount they will bear, and the greater the accruing protit. And to extend their circulation, nothing ia easicr than to adopt the name and general nppearanco of some well-known bank, in good eredit, keeping the place of issue as mucin in tho background as possible. For example, locuting a 'Delaware and Iludson Bunk' amidst the sanda and pines of Oceun County, making the title very prominent, but having the place quite the reverse, so that the inexperienced are readily induced to recelve tho noten." These bankn aro entitled to three days' grree upon any application for rudenption, and of course they have ample time to procure the specle from Wall Street whenever they are pressed. In 1853 there wero 24 regulur banks in New Jersey, the aggregate of whose cupitals was $\$ 4,080,815$-whose charters expired in from one to twenty-one yeura. Besides these, there were fourteen "free banks," the aggregute of whose capitals was $\$ 1,026,966$, and circulation $\frac{1}{8} \mathbf{i} 22,895$. In him message of 1852, Governor Fort recommended the prohitition of the issuo of any notes under five dollars; after two years, ull uncer ten dullars, and in a few years all under twenty doltars, and then proceede: "I am satiated, however, that fifty dollars, as tho minimum denomination of hank puper, should be our ultinuate aim. If we excommunicsto all small notes, whether of our own or other States, specio must necessurily flow in to aupply their places.. The smalliness of our territory presents no serious olsjection; the constant trade with the large cities on our borders would supply us with an abundance of the precious metals, which no adverse policy of neigibboring Statea could possibly prevent. The State which soonest ndopts the use of coin, by the expulsion of paper in the amaller business trunsactions, will outatrip all others in the permanent prosperity of every other branch of useful industry. Bank explosions and individual bankruptciea would then be as rare as they srenow frequent."

He further adds, "the persistent evasion of the law by some of the free banka calls for prompt and efficiont action on the part of tho Legislature. They are of no adrantage to the business community, and add nothing to our reputation as a State. I would recommend that an inguiry be instituted in regard to theso banks, to the ead that auch as do not coniluct a regular and buma fide banking busineas be dissolved. This may be done by the legialature, under the provisions of the 17 th aection of the general banking act."

The following atatement showa the practical working of the general banking law:

| Vans. | Banko. | Carital. |
| :---: | :---: | :---: |
| 1841 | 26 | \$3,834,816 |
| 1849 | 25 | 3,407,061 |
| 1850 | 24 | 3,5c5,283 |
| 1882 | 25 | $4.019,00$ |
| 1854 | 24 | 4,080,st5 |
| 1854 | 14 Free | 1,006,023 |
| 1850 |  | 5,522,060 |

Delaurare.-In the State of Delaware there was onc bank in 1801, with a capital of $110,000-$ Bunk of Delaware.

| Yoarn. | nanka. | Capital. |
| :---: | :---: | :---: |
| 1815 | 5 | \$990,980 |
| 1800 | 6 | 974.900 |
| 1807 | 8 | 818,020 |
| 1849 | 2. | 210,009 |
| 1850 | 4, with 8 branchea | 040,000 |
| 1854 | 6 , with 3 branches | 680,000 |
| 1856 | 8, with 3 tranches | 1,090,000 |

Banking is done in this State on a specie basis, and we believe that the oniy failures which have ever occurred in it were the Bank of Milford, in 1854, and the Laurel Bank. In New England, as we have previo ousiy jtated, there are 486 banks, with capitals amount-
 are in Maskechusetts.

Weatern States: ${ }^{7}$ Ohio.--The first bank chartered in Ohio was in 1803, called the Miami Exporting Company, with a capital of $\$ 200,000$. It was nut a regular bank, but "its main. arpose was to facilitate trade, then suffering under great depression." The Bank of Mariotta wat chartered in 1808, and subsequently the Buak of Chililicothe, the former with $\$ 600,000$, the latter with $\$ 100,000$ capital. Other institutiona were soon after incorporated, and the following atatement shows the progress of banking in the State:

| Yearl | 旦nake. | Caplial. | Years. | Bank. | Capital. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1805 | 2 | \$ 2000,00 | 1568 | 88 | \$9,247,296 |
| 1811 | 4 | 8.6,000 | 1840 | 87 | 10,807,521 |
| 1815 | 12 | 1,484,710 | 1845 | 8 | 2,151,807 |
| 1810 | 21 | 2,031,927 | 1850 | 66 | 7,189,827 |
| 18:0 | 20 | 1,797,463 | 1850 | 60 | 6,906,240 |
| 1836 | 24 | 6,510,692 |  |  |  |

Of the banks chartered in this State, 18 have been closed under various circumatances of disaater or want of auccens, and their bilis are sold at 50 to 75 per cent. diseount, and about 86 of them have falied, and their bihs are reported as worthless. Two branches of the second Bank of the United States were astablisired in Cincinnati and Chilicothe is 1817, and the State imposed a tax of 500,000 on each brancl: in $1819 \boldsymbol{i}$ inut after a long controversy in the courta, it wes decided at Wuahington that the tax was ilieral, and the State sabmitted to the decree. In 1845 a new syatem of banking was introduced into the State, knowr as the "safety fund syatem," and under the ammo act, an "independent bank aystem." The fonner was based upon the New York system, but it was more perfect; it ereated a State bonk, subdivided into about forty branches, under the supervision of a Board of Control, who farnish all the notes required for circulation ; and to this board each branch is required to contribate 10 per cent. of the amount required for circulation, either is stocks of the State or of the Uuited States, or the amount in money; to be appiied by the board, in case of need, to the redcmption of the notes of circulation of any coe of the Granches which may fall to redeem its bills; and each brinch is required to contribute in the ratio of the circulation to which it is entitjed, to the sumn necesaary for the redemption of the notes of the failing bank, to be remunernted from the anfety fund as scon as the sale of the atocks in the hands of the board of control can be effected. Whenever a tranch fails, all its property, notes and assets, pasp inco the hands of the Board of Contrel, who appoint a receiver to wind up its affaira, and distribute the proceeds among the stockholders after all the delits are paid. Of the $\mathbf{4 2}$ branchea there arv aow $\mathbf{8 6}$ remalning, whose aggregate capital is $\hat{⿻} 4,034,525$; four irranches have become insolvent and are closed, and one hus withirawn and become re private tank. The atreugth of this inatitution lics in the obligation of each branch to recelve the notes of the others in payment of debts, and with a safety fund of 10 per cent., serared by a deposit of 4808,000 , io protect the circuiation in the event of the faliure of any one or mora branches; the constant superviaion of the lloard of Controi over ail thinir movementr, and the jeaious vigilance of each other to protect themselven from lose by tie mismanagement of others. All these furnisil a guarantee of the eirculation as perfect as can be desired; quarterly atatements are required from each bank, which are regularly published by tine Auditor of Stute, and the community et large have tiereby a full knowledge of their true condition at desiraile intervais. Under the old syatem, bank commiasioners were appolnted to ex-
amine the banks periodicaily; but the Board of Control now perforn these duties. The independent banka are twelve in number, having a capital of $\$ 587,500$, one of them having become insolvent, and two others are liquidating thelr concerns. These banka are required to deposit with the Stata Treasurer certiflentea of atocks, either of the I'tate of Ohio or of the United States, for the entire amos nt of their circulation, which can not exceed three times the amount of their capital. These banka are annualiy examined by a commissioner appointed by the auditor, and quarteriy returns of their condition must be furnished to him, and are publiahed with those of the State Bank branches. The banke are all required to have 80 per cont, of the amount of their circulation aiwaya on hand, in goid or silver coin, or its equivalent in value, one-half at least being in gold or dilver; "but deposita in any bank or banker'a hands of established credit in the cities of New York, Boston, Philadelphia, or Baltimore, subject to drafta nt aight, and payable in apecie, shail be deemed equivalent to gold and ailver." Of the brnke chartered prior to 1845, but one remains in existence, the Ohio Life Insurance and.Trust Company, whcre operations are managed in two departments: the "Trust Department," and the "Banking Department." Its capital is two millions of dollars, and it was chartered in 1884, and at one time ita circulation was nearly one miliion of dollare; but in 1842 the bank surrendered the right to isaue noten, and its circulation has all been rednemed, excepting 84350 , which hav: never been presented for payment, and a large portion of which probably never will be; as, for the past aeven years, long intervala (in one instance, neariy eighteen months) have elapsed without the presentation of a singie bili, and that for only five dollars. in 1851, the Legislature passed on act authorizing "free banking," and under its provisions 18 banks were established, the aggregato of whose capitais was $\mathbf{7 3 8 , 0 5 0}$, and a circulation was created of $\mathbf{6} 769,397$. At one period thls was nearly one million of dollars lurger; but in consequence of some of the bank plates having been stolen, un alarm was raised, and the notes of these banlis were auddenly presented for redemption. A few monthe after the passage of the free bank law, the now Conatitution of Oinio was submitted to the prople and was adopted. By its proviaions, the Generai Assemily were no longer authorizad to grant hanking powers to associations, untii the peopic ratified any act passed for that purpose, and approved it thy thelr votea, taken at the next general election after the passage of auch acts. : In addition to thls fatal blow to all projected banks, in 1852, the General Assembly pasaed the notorious "tax law," which, under a forced cunstruction, levied an exorbitant tax upon all the banka, and which for a time ihreatened deatruction to every moneyed institution in the State. Fortunately, the Supreme Court of the Unlted States overraled the decisions of partisan judges, and pronsunced this outregeons tax wnionstitutional. From the preceding, it appears that there are fo r clasaes of banks in Ohio, and each of them has furnished one or more instances of failure, oceasioned more by imprudence and mismanagement than from any defect in the syatem under whicin they were organized. Tho experience of four yeers has taught the people of Ohio some aevere lessons in regard to currency, whilch hua been chiefly supplied to them by the banks of other States, unt eapecially iy Indiena; and a law has passed the Legisiature, which is now before tie peopic for adoption or rejection, during the present montis, authorizing "the incorporatlon of the Jank of Ohio and other isunks," in order to furnish additional banking fucilities to the increnaed trade and popuiation of this pronpeross Stata. ${ }^{2}$ We are, however, nnt without apprehenalon that the "personal liability" clause, or thir-ty-fifth section of the act, will render it inojerative, oven If the act should be ratifled by tise peopie. certlficates the United tion, which eir capital. mmissionreturns of ad ẹre pubhes. The nt. of the d, in gold one-half at ite in eny dit in the Baltimore, pecie, shali " Of the ains in exCompany, sartments: ng Departand lt was lation was the bank ts circula350, winch nd a larga as, for the ance, nearo presentaoliars. In zing "freo As were es© 738,050 ,

At ono ors larger; tes having e notes of demption. bank law, ted to tho , the Genrant hanklo ratified ved it ly tion after this fatal neral Asch, under tax upon rencel dehe State. ed States and prol. From classes of ed one or y imprudefect in ed. The o of Ohio hich lus of other hus passeoplo for minth, allJhio and banklug n of this hout ap, or thitrserative,

Indiana.-Next in order comes the State of Indisna. This State was admitted iato the Union in 1816, snd in 1820 it had two banks, whose capitals'amounted to \$202,85\%. In 1834 the Stata Bunk of Indlanu vas incorporated, with a capital of $\$ 1,600,000$, and with tea branches, subsequently irsreasel to thirteen in num ber. By the originul charter, $\$ 160,000$ were assigned to each branch, but they were subsequently authorizes to increase the amount to $\mathbf{\$ 2 0 0 , 0 0 0}$ each. The branches were muttally liablo for the debte of each other, but divided cheir own profits; each share was subject to a tax of $12 y$ cents for educational purposes, In lieu of all other taxea; but in case of an ad valorem aystem of taxation in the State, then the atock was lisblie the eame as other capitai, not exceeding, however, 1 per cent. sltogether. No note under, five dollars was allowed to be issued, and the Legislature reserved the right to restrict it to ten dollars within ten years. Tho capitul of any branch might be increased by and with the asseat and concurrence of the Legisiature and the directors of the State Bank. The directors of the parent bank were to have charge of the platea and bank paper of the branchea, and were empowered to delive: "o them an amount of auch paper not exceeding twice the anount of the stock subacribed for. One-half of the stock was subecribed for and owned by the State, for which they anthorized bonds to be issued to the amount of $\$ 1,300,000$, at $\overline{5}$ per ccit, to realize tho funds to pay for their half of the stuck; the remsining half was to be subscribed for, and owned by Individuala and corporations. : 'The depta of oach branch were limited to double the amount of cupital puid in, exclusive of deposits. In Jenuary, 1836, an amendment vas passed by the Legislature, and the discounts were allowed to bo extonded to twice and a half of the amount of the capital paid la. In 1841, the branches were authorized to issue notea of $a$ less denomination than five dollars, not exceeding one mililion of dollars, on the payment of ono per cent. for the privilege; and of ita circuiation, about $\$ 3,800,000$, nearly one-sixth part was ic small notes. After tho resumption of specie bayments in 1838, out of the 959 banks thou in existence, 848 wholly auspended, and 62 partislly so; of which latter numiser were thoee of the Stute Bank of Indiana, which dis not again resume the payment of apecie until October, 1841 , when the branchea held $\$ 1,12 \overline{4}, 018$ In specio, to meet a circulution of $42,340,414$, and deposits amounting to $\$ 317,890$ oniy. Since that period the bank lias muintained Its credit Inviolate, and under able management succeasfuliy offerted a regular reduction of its saspended debt, which had rapidly socumulated during the inflation of basiness in former yeare, without ruinous sacrifices to tho debtors of the bank If we scrutinize the origin of this bank, we perce ve at once that lt was founded on false princlplos, and that the lssue of the State bonds for $\$ 1,300,000$, to provite for tho payment of $\$ 800,000$ of atocks, was a violation of the tirst article of the Constitution of the Inited States, which prohibits any State from issuing "bills of credit." "No Stato can coin monay -na State (not even Congress itself) can make any thing a tendor hut goid and silver-no State can emit lills of credit." In direct opposition to those views, Indiana issued hor bonds to procire her quota of stock, und for upward of twenty years has been participating in the prolits of the institution. In Novembor, 1851, a now Censtitution wont into operation, and in May, 1852, a general banking law wae passed under ite provisions; it is called "An act to authorize and regulate the business of banking." It was liberal enough in its detalls to ault all parties, and ninety-four banke wora in a brief period in full operation, und supplying all the neighloring States, and expecisily Ohlo, with avery variety of pictorial bank-bills which the art of engravera could devise. In Ootober; 1804, there were 84 of these hunks whose bilia could be found in any
of the banks of Cincinnati, and the returns whleh were publighed of 67 of these exhiblted $\$ 7,428,067$ in circulation; and their authorized capitale $\$ 32,900,000$. At one time the circulation was not far from nine millions of dollare, and as the securities deposited with the anditor (and for which bank-notes were exchanged dollar for dollar) might be ladiana 5 per cent, bonds, worth only about 95 per cent., the law prosented atrong temptatlone to bank operators, :"A Board of Direntors was not a necessary appenduge to a bank, nor were the stockholders required to be citizens of the "tate.". The reault wan, that after the oppreseive tax law of Ohlo had driven banking capital from that State, It was at once lavested in the "free banks" of Indiana. The puil., were duly warned of the danger of thle acheme of banking in the following suggestions: "Is It not obvious tha; a banker who issues ten times the amount of his capital in circulation does so for speculative purposes only ? The temptation is great-for in periods of proeperity he can make 80 to $\$ 40,000$ per annum by hie circulation; and $\mathrm{j}_{\mathrm{c}}$ the bank faile, he $\mathrm{I}_{\mathrm{s}}$ oaly liable for $\$ 50,000$, or the amount of hia atock; and even this he might avold by a timely tranefer of hia stock to irreeponaible parties, and thua avoid personul responsibility altogether. But how long would it require to dispose of the $\$ 000,000$ of Indiana 5 per ceat. bonds in the New York market at par (at which rate they have been received by the auditor), in a period of punic, or even In a severe monetary crisis; and meanwhile, what would be the discount on the bills of his lunk if driven into liquidation P Past experience hae taught us that the comusunity would suffer a loss of twenty-fice per csut. of their amount, and we maintain that that is not legitimate banking which axposes a community to such a contingent huzard." Such was the prediction in 1854; whut was the result? Of the 04 iree banks of Incliana, 81 have, suspended, and their bills are selling at from 25 to 75 per cent. discoant in the city of Cincinnati. The charter of the State Bank of Indiaas expirea this year, but the Legislsture, at their last eession, churtered a new State Hank, with a capital of $\$ 6,000,000$, having 15 to 20 branches, one in each apecitied distrist-the new bank purchasing the Interest of tho State in the old bank, and the capital to be puid in by the lst of January, 1857.

- Jliznoir,-Bank legialation in Illinois has been quite as extroordinary as in any other State in tho Union. This State was admitted into the Union In December, 1818, hut the firat bank was established whilo it was under territorial government, in 1818, at Shawnee iown, the whole territory then containing but 1500 lniabitants. In 1816 it was regularly incorporated, and, aided by the governmont deposite, it acquired extensIve credlt, paying specie for ita bills until Auguat, 1821, after the Kentucky banka had ouspended; it was at length compelled to atop, and remained dorinant until Fobruary, 1885, when tho Legislature renewed its churter until 1at January, 1857. In the following month its capital, originally $\$ 300,000$, was lncreased to $1,400,000$, and subseribed for ly the Stato; and their bonds, payable in 1861, were issued to provide the funds for this increase of capital.

Tho Constitution, in 1818, prohibited the establishment of any new hanks oxcept a State Bank and its tranches ; and in March, 1819, "the Stnto Hank of Ilinoia' 'ras incorporated, with n capital of $\$ 4,000,000$, for 25 ye d, ouc-hulf to be antisacribed for ly individuala, and the bulance by the Stute, whenevor the legislaturo thought proper. This charter was repealed in 1821, ss no effort wns made to carry it into operation, and another bank was chartered In liou of lit, with a eapital of $\$ 000,000$, for ten years, to be owned by the State and managed by the Legialature. The capital consisted of ifs office furniture and banh-nofe plates only; andi 3000,000 were dirgeted to be lissued and loaned on notes for one year, with mortgages as securities, and
noi exceeding $\$ 1000$ to each individual. These notea were receivable for taxes and all debte due to the State or the bank. It had hurdly commenced operations before lta bills fell to $\mathbf{7 5}$ per cent. ; shortly after to $\mathbf{5 0}$ per cent., and finally to 25 per cent., when they ceased to circulate at all. The members of the leglslature recelved their pay in the dapreciated currency at the market value, and on one occasion received $\$ 9$ per day for their servicea, which the State was compelled to redeem at par; and a loan of $\$ 100,000$ recelved in these notes at par was pald out at fifty centa on the dollar.

In February, 1835, a new bank was lncorporated, with a capital of $1,000,000$, with the liberty to incl 188 it to $\$ 2,000,000$-the State taking $\$ 100,000$ of the atock; but in March increased the cuplitul $\$ 2,000,000$; the whole of which tise State subscribed for. The bank was allowed fifiy days for the redemption of its billa, and was required to redeem the $\$ 100,000$ loan above referred to. The career of this bank was brief; it was sortly compelled to auspend pryment, and in 1842 it went Into liquidation. After the auspension of epecle payments in 1837, the State was without any bunks until 1851, when a gencral banking law was passed, similar to that in the States we have already elescritied. The bonds of all States paying 6 per cent. Interest, United States atocks and Illinois bonds st 80 per cent. were received by the autitor in exelange for the notes of circulation, and the bank commenced operations. The amount of burk-notes is limited to the umount of the honds in the hands of the aadItor; but the denominutions are optlonal, so that the whole circulation may lie in one dollar notes if the parties choosa to require them; but in case of fallure to redeem them, they are subject to $12 \frac{1}{2}$ per cent. Alamagea per annum, ten days having elupsed after specio is demumed, and the corporate privilege becomes forfeltel. The stockholders are individually liable for atl the debtes and liabilities of the bank, and provision is made for the collectlon oi the aame, if occasion ahould require. The act iloes not limit the amount of caplal, excepting that it shall not be less than 850,000 for cach brak, nor the 'ength of time, but learea tooth optional whth tho applicants, who may designate any number of millions for any mumber of years, unlimited end perpetual. There are now Ifty banks in Illineos, whose enpitals amount to alout $\mathbf{8} 5,000,000$, and thirteen of uncertain value, rangine from 10 to 75 per cent. discount.

These three States-Ohlo, Indlana, and lllinolsall of which are usually culled "Weatern;" but there are three more ilealgnated as "Northwestern"-Mlehigan, Jowa, and Whaconsin-which we include in the aame divislon. Michigun was almitted into the Unlon of the States in Jsnuary, 1818 ; and in 1838 there were 11 thanks, with an eggregute capltal of $\$ 1,400,000$. IHring that year many more wero creatod, as tho following atatement will slow:

| Yoars. | Hanka and nranchea. | Capital. |
| :---: | :---: | :---: |
| Fubruary, 1819........ | 43 | \$2, 2177,715 |
| January, 1841......... | 4 | 1,040,000 |
| January, 1848........ | 2 | 488,760 |
| Docemiser, 1844. . . . . . . | 6 | T10,100 |
| Decrinber, 1844. . ...... | 3 | 20?,6i0 |
| Iherember, 1845. . . . . . . | 6 | 815,007 |
| Jhecember, 1\$40........ | 2 | 17t1,107 |
| January, 1849........ | 1 | 189,450 |
| January 1949........ | 1 | 147.060 |
| dannary, 1850........ | 5 | 802,6\%0 |
| danuary, 18t-4....... | 0 | 1,084,718 |
| Jathary, 1*bo........ | 5 | 1,100,000 |

The obly linnka whl is are now in existence In the State are the Michlgun Insmrance Company, the J'enlnnular Ilank, and F'urmers' and Meehanies' Hank, all of Detroit; the llank of Macomb County, and llank of Tecumseh in the interior. "Free lank Inws" were adopted by this State in 184!, mind persomil liabillity is also imposed upon the stockholiters. The Treasurer of the Stute has the supervision of the banks, and the cus-
tody of the aecurities deposited for the bank-note circulation.
lowa.-Iowna was admitted into the Unlon In 1946, but at present this State is deatitute of sny Incorporated banks. There la a private bank, called the Miners' Bank, ut Dubuque, but lts bills are not current, nor even salable in Cincinnati.

Wisconsin was admitted into the Unlon in 1848. The first bank was established in Milwaukie, in 1851. with a capital of $\$ 220,000$. In 1852 the free banking law was adopted, almilur to those in other States, receiving all Stato atocks paying 6 per cent., and first mortgage railread bonds, on roads of their own State, at 80 per cent. of their par value, but not exceeding one-bulf of the cost of the road on which they are a lien, nor for more than one-half the amount of the circulating notes delivered. A tax of $1 \frac{1}{2}$ per cent. was imposed, and the personal liability of the stockholders, to the amount of their stock.


There is a bank controller by law, wio has the supervision of the banks, receives the aecuritles, und issues the notea therefor. Dills under $\$ 5$, of forcign banks, are prohibitel from cireulation.

Soutifen Statis, Keutuchy.-This State was admitted into the Unlon in June, 1792, and the first bunk was establibhet in 1802, with a cupital of $\$ 150,000$, in Lexington, under the covert name of an insurance company, which was authorized to lssue notes, payable ta Learer. In 1904 a regular bank was incorporated, uniler the nane of "The llank of hentucky," with a capital of $\$ 1,000,000$. This bank suspented payment in 1814 , but resuncd it in 1815; in 1817 forty new banks were incorporatel, with capitals amounting to $\$ 10,000,000$, and had permission to redeem their notes with the bills of Kentucky banks, instead of apecic. In 1818 the State was lnundated with the paper of these lisaks large loans were maile, apeculation was rife, and mont of the bublles which were set afluat collapsed within one brief year. The pressure became universal, and for "reliei" the Legisla: are churtered a new bank, "The Commonwoalth," wiih a capital of three mill lons, pledging the public faith for the redemption of its clrculution; and as security held certain lands, south of Tennessea River, us a gruarunty. If a creditor refused to receive this paper in payment, the debtor was authorized to "replevy the telt for the spuce of two years." Tho paper of the new bunk fell 60 per cent., and creditors hat the choice of the payment of one-l:slf the amount of their clalma, or a delay of two years in the settlement, with all tho hazard of ultimate bankrujtey, and a totnl loss. The conflict of the two parties, known as the "rellef" and antl-rellef," or the "old court" and "noer court," was the flercest which ever agitated the State, but ufter five years struggle, tho "old court" party trimphed, the replevin act was repealed, and the paper of tho Commonwealth Bank was suppreased, and ultimately leatroyed by anceessive acts of the legishature. In 1883 the dominant party determined to supply the place and curreney of the two branches of the United States Bank, at Lexington and Lonisville, ly the establishment of State hanks and in 1884 the llank of Kentucky, with a capitul of flive millions, the Northern llank of Kentucky, with three millions, and the llank of looujville, with tive millions of dellars, were chartered, and aro now in exiatene; but whose aggregute capitals are only $\$ 7,030,000$, instaad of tha thirteen millions grantel. In 18107 all theae banks suspended paymenta in specie, but resmmed agrin in 1830, and the Legishinture ehartered the Southern llank of' Keutucky, Shortly afterward, however, the banks suajended a second time,
onk-note cir-
lon in 1946, $y$ incorporaIthe Miners' current, nor
on in 1848. kie, in 1851 . ree banking $r$ States, ret., and first own State, $t$ exceeding it they are a it of the cirar ecut. was tockholders,

## Círealation.

 tain lands, If a creditor the deliter to space of fell 50 per ayment of lay of two of uitimate of the two ef," or the cest which s struggle, in act wis alth lank successlve mant party ney of the Lexingion te hanks; cky, with with five fo now lil are ouly granted. in specie, ture charrtiy afterond time,and the universal prostration of trade, the repudiation of their bonds by some of the Stater, and the universal derangement of the currency South and West, prevented the atock of the now bank from belng taken up. The trading community was in a desperate condition, yet they staggered on under their oppressive load of debts; but by the liberal accommodations and indulgences of the banks, thay were partially relieved, until 1843, when the pressure gradually diminished, and shortly afterward it ceased altogether. In 1842 the three banks resumed specie payments, and from a circulation of $\$ 2,800,000$ in 1842, gradually extended their issues until $: 950$, when they amounted to $\$ 6,688,000$. The Soutisern Bank of Kentucky had i. : $\mathbf{c}^{\mathbf{L}}$ \& r amended, and in : 852 went into operution with. : capital of $\$ 1,800,000$. Since then chas ers have beela granted to the Farmers' Bank, with $\$ 2,300,000$ eapital ; the Commercial Bank, with $\$ 400,000$; the Kentucky Trust Company, with an unlimited capital ; and tho Newport Safaty Fund Bank, wilth $\$ 300,000$ capital. Both of these institutions failed in 1854, and their notes are now selling at 50 per cent. discount; and the small netes of the latter bank at 00 per cent. With the exception of the charters of these two laat banks, the legislation of Kentucky has bee. I of a fixed character, and her circulation has ever been eateemed in the Western Stutes as of the highest charucter. There
now 34 banks and branchea in the State, the ag-
te of whose capitals is $\$ 11,730,000$, and circuLitien abeut $\$ 13,3000,000$. In the session of 1854 , it was proposed to charter six new banks, with capltuls anounting to $\$ 0,100,000$; but tho governor having veloed one of the blils of incorporation, the bilis all failed to pass, and there for the present the matter rests.

Tennessec.-In 1807 the Nashville Bank was incerporated, with a capital of $\$ 200,000$, afterward increased to $\$ 400,000$, and after one or twe suspensions It wound up with loss to all parties. In 1811 the Bank of tho State of Tennessce was chartered, with a capital of 400,000 , and nine other banks, with capitals of $\$ 200,000$ to $\$ 400,000$ each, and wero permitted tu become branches of the Bank of Tennessee. In 1819 the Farmers' and Mechanics' Bank of Nashville was chartered, with a capital of $\$ 400,000$, but within a year it was insolvent. In 1820 tho State Bank of Tennessee was established, with a capital of $41,000,000$, on the basis of funds belenging to the State. This bank loaned money to individuals, in sums of $\$ 500$ to each, on twelve months' credit, secured by a mortgage. The bank was not required to haeg any specie, but was anthorized to sell $\$ 250,0006$ per cent. State stocks as its working capital. The proceeds of the IIlawasse lands, and seme other securitles, were pledged for the redemption of the clrcuiation, and although its paper was rejected by two of the oldest banks In the State, and was 10 per cent. below par, yet the bank struggled on, and after six years it attained an availablo capital of $\mathbf{6} 575,000$ out of the proceeds of the pledged lands. The bank was llnally weund up in 1892, with consideralle loss to the Stato. The Union Ilank was incorporated in 1832, with it capital of $\$ 3,000,000$, the Stato owning one-third of the stock; in 1833 tho Planters' lank was incorpornted, with a capital of \$2,000,000; and in 1885 tho Furmers' and Merchanta' Bank of Menphis, with $\$ 600,000$ eapital. This latter hank for a short time enjoyed a high credit, but it attempted to do too much business, ond falled in consoquenco. In 1838 the Jank of Tennessee was incorporated, with a capital of $\$ 3,220,976$, all owned by the Stute, its nominal capital lieling $\$ 5,000,000$. Tho State requisitions on this bank were so onorous, that its capItal, in 1849 , was reduced to $2,500,000$. Subsequently to the charter of the Bank of Tennessce, in 1843, the Bank of Eaat 'l'ennessec, enpital of $\$ 800,000$; in 1848 , the Lawrenceburg Bank, capitai $\$ 100,000 ; 1852$, the Citizens' llask of Nashrille and Memphis, capital
$\$ 200,000$, were chartered. In 1852 a free banking law was passed, similar in its provisions to thoae we have previously described, but, like those in other States, requiring amendments. Some eight or ten banks have been organlzed under it, but it is not very popular in the State. In addition to this, the Legisluture, in 1853, chartered seven stock banks, with a view of supplying the vacuum which the winding up of the Bank of Tennessee would occasion, and which Governor Johnson recommended in 1855. The last returns of the banks in this Stete are in number 46, capltals $\$ 11,827,197$, and all are under the supervision of a State controller.

Arkansas.-We have little to say of Arkansas, where there are no remaining banks to claim our attention, and proceed at ence to $M$ ississippi, whera the theme is as fertile as thelr cotton crops are luxnriant. Thero were formerly two banka In Arkansas, the Real Estato Bank and the Bank of the State of Arkansas. They are both in the hands of trustees for liquidation, and are indebted to the State about $\$ 1,500,000$, and interest to an equal amount for State bonds loaned to them, and still unpaid. This State was admitted into tho Unien in December, 1817, and it had then one bank, with a capital of $\$ 100,000$. In 1820 this capItul $w$-a increased to $\$ 900,000$, and in 1830 it had but one bank, capital 8950,600 . At thls period there wero no banks in Kentucky or Missouri, enly ene in Tennessee, two in Alabama, and four In Louisiana.

Afississippi.-During thls year tho Planters' Bank of Mlasissippi was chartered, with a capital of $\$ 3,000,000$, of which two-thirds were reserved fer the State, and one-third alletted to individuals. In July, 1831, tho State lssued $\$ 500,0006$ per cent. bonds, and in March, 18:2, $\$ 1,500,000$ more, for her proportion of the stock. These bonds were sold at $13 \pm$ per cent. advance, and yielded to the State a preminm of $\$ 250,000$. This was deposited in the bank as a slinking fund, to he increased by the dividends on the State's stock in the bank, from which fund the interest on the two millions of bonds was te be regularly paid. Tlte bank paid 10 per cent. dividends up to September, 1889, when tha State stock was transferred to tho Natchez Railroad Company. The sinking fund was then $\$ 800,000$ boyond the amount roquired to pay the interest on the State bonds. In 1830 to 1839 , a large proportion of this fund was lost, and the remnants left were only $\$ 00,000$, to which nbout an equal sum has since been added by the commissloners, ly collectlons from the assets of the Planters' Bank. In 1835, the banking capital of the Stato amounted to $\$ 12,000,000$, and such was the presperous condition of the State, thut it was proposed to add $\$ 10,000,000$ mere te the amount; and in the sessien of i835-36 about $\$ 17,000,000$ in banks and rall. roads were chartered. In 1837 there were 18 banks in Misaissippl, the aggregato capltals of which were $\$ 12,872,815$, having a circulation of $\$ 5,073,425$, and loans $\$ 24,851,414$. But the emi was not yet. In 1838 the Mississippl Union Bank was chartered, with a capital of $\$ 15,500,000$, to be "ruised by means of a loan, to be ehtalued by tho directora of the institutiun." Tite governor was authorized to lsane 7500 houds of $\$ 2000$ each, interest at $\sigma$ per cent., and payable $\ln 12,18$, and 24 years, and for the payment of which the faith of the State was pledged. Two nud a half per cent. in casis was required of indivitual sul)scriptiens, and the balanco aecured by mortgerges on real estate. In Juno, 1838, Governor M'Nutt executed and delivered to the bank 2500 of the proposed honds. The three cemmissioners appointed under the charter negetiatod these bonds with Mr. lliddle, who pald the commiasioners of the hunk $\$ 5,000,000$ thorefor, in five installments of one miliion each. I'his contract was guaranteed by the Pennsylvania liank of the United Staice:, on behnif of Mr. IHdile. Upon this suin of tlve millions, and $\$ 8000$ recelved from indl-
vidual subscribers, the bank based all its operations, and the deplorable issue of which we shall shortly state. In 1889 another series of bonds, for a similar amonnt, was isaued to the bank for further "active capital; ${ }^{n}$ but in 1840 the governor isuued a proclamation, warning the community against advancing inoney on the hypothecation of these bonds, on any ferms not authorized by the charter. In 1841 the governor communicated to the Legislature that this prociamation had prevented an illegal sale of these bonds, and with it the following interesting summary of the "coudition ${ }^{n}$ of the Union Bank:


Nearly a year previous to thia date the bank had become hopelesaly insolvent. The governor's proclamation was followed shortly after by his atrocious scheme of "repudiation" of the $\$ 5,000,000$ of the bonds of 1838, on the pretext of "alleged fraud and illegality," snd communiested to the Legislature; to which they reaponded, "that the State of Mississippi will pay her boods, and preserve her faith inviolats!' In the whole of this disastrous transaction, there is no-
thing but diegrace; Governor M'Nutt was the first open, avowed, and relentless assassin of American credit in Europe, and the "deep damnation of its taking off." originated a feeling of diatrust and disquistude in financial circles, which will be forgotten only when John Law's Mussissippi scheme has been surpassed in extravagance. Well and truly did the Seuator from Mississippi utter that unforgotten sentonce, "the moral sense of communities and of mankind will condemn us," unless a tax was raised for the payment of these bonds; and it may be safely asserted that the deepest injury eyer inflicted upon the commercial and financial reputation of the United States was in this reprobated and diahonest act of "nepodiation." The Planters'. Bank bonds were not officially repudiated, hut the people of the State, in 1852, refused, by a majority of 4400 votes, to authorize a tax to pay them, and redeem "the plighted.faith of the State." In July, 1854, the amount of these bonds, with intereat, was $63,518,081$, and the bende of the Union Bank, for $85,000,000$ and interest, may bo added thereto, as the cost of banks to the State, independent of the individual loss that can be superadded thereto. The following tabular statement furnishes a sufficient warning of the fate of banks which are based upon fictitious capital. There were in the State in

| Years. | Bankn. | Capital. | Cireatation. | spoele. | Loans. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1890 | 1 | +0100,000 | \$ 4040,150 | \$77,000 | \$1,997,436 |
| 1897 | 18 | 12,872,816 | 5,073,425 | 1,369,000 | 24,081,414 |
| 1840 | 18 | 80,370,403 | 15,071,689 | 807,000 | 48, 238,728 |
| 1848 | 17. | 0,261,200 | 2,874,189 | 1:,000 | 13,849,481 |
| 1850 1850 | $1{ }^{1}$ | 290,165 | 984,880 | .... | * . ${ }^{\text {c }}$ |

Louici.nn.-We gladly turn away from this melancholy review of past disasters, and enter upon a acene of still larger operations in Louisiana. The State was admitted into the Union in 1812, but there was a bsonk capital in the Territory in 1805, of $\$ 500,000$, which in 1815 was increased to $\$ 1,432,800$, distributed among three banks; and in 1820 four luanks, with $\$ 2,597,420$. There are no reliable returne of the banks between 1820 and 1830 ; lut as the increase of their number in the United States was but twenty-two, and of their capital only eight millions, we take Mr. Gallatin'a report of four banks in 1830, as the actual number in Louisiana at ilat period, as "in all the Western and Southwestern States there were, in 1830 , only eighteen banks, with capitaia amounting to $\$ 9,462,268$. By the 1st of January, 1837, the number of banks in these States was increased to 161, including branchos, with
paid up capitals of tho amount of $888,699,974$," of which Louisiana had 16 banks, with 81 branches, and \$36,769,455 capital, $47,909,788$ circulation, $\$ 11,487,431$ deposits, $\$ 3,108,416$ specie and losns $\$ 59,108,741$, which wae the ligheat point of the operations of the lanks. Niles* Regiter, of March, 1836, givea the following statement of bank capital in Louisiana at that date:

of whici about thirty-two malions were paid in, and the circuiation of six millions-less than the specio in the banks to redeem it. The officiul reports, however, exhibit a more correct viow of the matter, und from it we copy the following table:

| Yeara. | gonk. | Aranches. | Caplial. | Circulation. | Specle. | Loans. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1837 | 16 | 91 | 480, 769,465 | \$7,009,789 | (93, 148,416 |  |
| If 40 | 16 | 31 | 41,711,214 | 6,448,788 | 8, t68,248 | 48,640,7!0 |
| 18. | 6 | 28 | 20,020,340 | 1,087,377 | 4.451,023 | 80,420,048 |
| 1) 4 - | 6 | 82 | 17,5:8,910 | 4,200,789 | 6,036,304 | 91,5s2,744 |
| 1-1 | 6 | 29. | 14,257,620 | 6,069,807 | 6,070,772 | 18,608,040 |

to los, in the last line, in 1850, were


Besides these, there were tho Clizens' Bank and Consolidation Association, with Hiabilities amounting to $88,751,813$, and assets, $48,000,971$. In 1852 the new consolidution was adoptel, and the Citizens' llank charter was restored to the bank, which had been forfeited by its continued suspension. The charter of the City llank expired in 1853; that of the Mechnnics' and Trudors' also expired. Tho latter reorganized under the general banking law, The provisions of the free banking law of Louisiana are auch as will compel the banka to retain apecie to the amount of one-third of their liablities. In 1854 the returns were,

In 1856 there were nine banks, whose capitals amounted to $\$ 15,702,600$. As New Orleans is the grand entrepit of the products of the whole Weatern country, large lanking fucilities aro requisite to expedite the cotton, sugar, and tobaceo shipped annualiy from this great commercial mart, ond to supply the demands of the planters during each successive mason. For many years past there has been a deflciency of Lanking eapital in New Orleans, in consequenco of ths restrictive limita of the banking policy of the Stute in relation to discounta, as the supply of apecie in the banks has teen always large enough to justify a nuch larger amount of circulation than has ever been iscucd. Under the general banking law, it is probalife, from the general appearances of things, that this deficiency wili no longer exist, but, on the contrary, there will be a tendency to an upporite extreme.

## BAN

the first American of lts takid disquieotten only been surd the Sensentenee, nkind will e payment erted that ommercial tea was in diation." ly repudlefused, by ex to pay he State."
with interion Hank, hereto, as of the inato. The ient warnfictitious

Etattenent of the Banks of New Oaleang, Oot. 1t, 1886.

| govemanth-hatilitils. |  |  |  |
| :---: | :---: | :---: | :---: |
| Barke. | Cireulation. | Dapoalt. | 00 Dintant aanks. |
| Bank of Louista | \$7708,430 | \$2,417,644 | $\$ 243,808$ |
| Loalsdana State Bank.. | 1,292,100 | 2,025,970 | 99,858 |
| Canal Bank | 1908,175 | 608,895 | 174,586 |
| Cltizeos' Ba | 2,744,945 | 8,128,115 | 122,131 |
| Mechanics' and Traders' | -851,465 | 571,412 | 20,048 |
| Unlon Bank | 659,900 | 94:1,242 | 123,432 |
| Southorn Bank | 168,6.0 | 1i8,691 |  |
| Bank of New | 645,495 | 703,801 | 00,201 |
| Total | \$7,873,690 | \$11,741,570 | \$844,664 |
| 1.1 | amevercra. |  |  |
| Baaka. | 8pocio. | 90 day Papor. Erehmagat |  |
| Hank of L | \$1,360,288 | \$3,805,828 | \$284,619 |
| Loulslann State Bank.... | 1, 049,3311 | 8,725,925 | 212,128 |
| Canul Bank | 64),850 | 2,619,325 | 465,771 |
| Ctizens' Ban | 1,915,503 | 6, 185,112 | 756,198 |
| -Mechanics' and Traders' | 277,460 | 1,004,138 | 76,645 |
| - U'nion Bank | 366,702 | 1,494,994 | 442,418 |
| - Soathern Bank | 132,456 | 673,298 | 153,444 |
| - Bank of Now Orlemas. | 826,36) | 1,942,480 | 187,776 |
| Total . . . . . . . . . | 86,674,973 | ¢-0,250,595 | \$2,579,990 |

- Fres hanks uader the general law; the others are chartered banks

| Yearn. | Capltal. | Cireulation. | 8pecle. | Depontic. | Dineounta. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1836 | \$6,603,909 | \$0,172,107 | \$1,562, 4 \% 4 | 43,152,047 | \$15,0.0,505 |
| 1840 | 14,870,256 | 7,211,141 | 1,58, ,510 | 2,827,622 | 24,180,586 |
| 1841 | 14,340,334 | 1,728,042 | 0S5, 192 | 080,428 | 28,065,522 |
| 1842 | 8,06T,700 | 10,871 | 28,204 | 629,659 | 2,948,029 |

With the State of Texas we ahall close the remarks on the Southwestern division of the Southern. States, with merely atating the fact that there is one bank in the, State, at Galveston, having a capital of $\$ 822,000$. This State was admitted into the Union in 1845, and although she has cost the country a vast amount of monsy, in prolonged debates In Congress, in the wasted bours of the excited masses of the people, in cities, towns, and villages, and the exhaustion of all the intease expletives that suppositive patriotism could invent, yet beyond those straws, after the payment of the hard money of the contract, we believe that the government have made a good bargain, and that her territory may be our favored pathway to the Paclfic. We have done with the Southwestern division, when we have quoted a remark of Professor Tucker, twenty years ago, 1836. "The banking manta has prevailed in the Southwestem States beyond any other in the Unlon, not excepting New England, but in consequence of which, with the most profitable agriculure in ths United States, the bank circulation has been the most depreciated, and they are still sutfering the evils of a disordered currency."

Virginia.-The first notice of any bank in Virginia was in 1805, mentioned In Mr. Gallatin's report, capitul $\$ 1,500,000$. This was the Bank of Virginia, chartered in 1804, and which oxpires in April, 1857; Ita capital has been enlarged to $\$ 2,650,000$. There was, it is true, a branch of the first Bank of the United States in Norfolk; but the paper of this bank rarely found lts way into the interlor of the country, where the currency was purely metallic. "The desk of every agrioulturist in Virginia had some gold or silver to spare, if he was a prudent, hulustrious man; or he had something like money to spare In the hands of his merchant, whe, $h_{1}$ the dnys of which I min speaking, acte ss a banker to bls prospering eustomers. The curven $y$ heing specle, was widely scattered through the lanal, and indiversilled hande, so that ita concentration at nny particular point was impossible ; and consequently ita removal from the country could not huppen to any grent extent." The same writer proceeds: "No people had more cause to rejoice than the people of Virginia; but ulas! the banks cume, and all things became changed. like the Upas-tree, they have withered and ilestroved the henlthful eondition of the country, and intlicted on the people polltical and pecunlary discase of the most deatly character."

Alabama was admitted into the Unlon in 1819, and in the following year there were three banks, whose capitals amonnted to $\$ 469,112$; in 1830 , one bank, with $\$ 495,503$ capltal ; and we glve below the tabular statementa of four yean o, to exhibit its hank history during the memorable epoch of 1836-'42.
In 1843 the hanking capital was redueed to $\$ 1,500, \hat{\imath}^{\wedge} \eta$, the Bank of Mobile being the only institution until 1851 . The State owned two-ffths of the stock, $\$ 600,000$, for which it issued its bonds, and the bank paid the interest thereon. Slnce then the Southern Bank of Alabama, capital ${ }^{\text {t }} \$ 500,000$; Bank of Montgemery, $\$ 100,000$; and the Northern Bank of Alabama, $\$ 200,000$, have been organizèd. In 1850 a free banking law was passed, but there has been no advantage taken of its privileges, by establlshing any auch inatitution in the State. The Bank of the State has been winding up ita affairs ever aince the expiration of its charter, and it has furnisined another illuatration of the principle that there abould be no interwoven intereats of State and bank, or of politica and finance; they may be correlative, but not comjoint. The executive messages have fully argued this point, and there is no occasion for further comment.

Such was the tone of public sentiment in the Southern States, originating with the establiahment of the first United States Bank, and cherished by Virginla until the expiration of its charter in 1811, when, through fear that its sovereignty would not be represented at the funeral orgles, the Assembly, in January, 1811, passed a spechal resolve, "to instruct their senators and request their representatives to vote afainst the renewal of the charter of the United States Bank" -a puny little insitution, on Its last lega, with an embargo behind it, and a war before ita last expiring moments. But in one brief year the mystery was explained: Virginia vanted a bank of her own, and in F'eiruary, 1812, we percelve that the Formers' Bnnk of Virginia, with a capital of $\$ 2,000,000$, and with a right to lssue $\$ 0,000,000$ of circulation, was cha:tered; and with the Bank of Virglnia (in which the State was interestel $\$ 300,000$ ), and the enlargement of capital to the old, and the creation of new banke, it certainly was very politic that the State should wish to avold cither the rivalry or the survellunce of a national instltution. Three other banka followed in quiek succession, with copitals amounting to four mililions more, and there was no further ontery againat paper money or banks, hecause the "Old Dominion" had adopted them. The charters of the two first banks prohibited the issue of notes under 45 , whicn they adhered to, until it was found conventent to lssue $\$ 7, \$ 8$, and $\$ 9$ notes to suppiy the use of coin ; and thus the lutent of the law was frustrated. Our usual iabular statement furnishes the readiest mode of showing the banking operations of the State from 1820 to 1850:

| Yeare. | Banka. | C'apital. | Lomme. | Circulation. |
| :---: | :---: | :---: | :---: | :---: |
| 1800 | 4 | \$5,212,192 |  |  |
| 1890 | 4 | 5,751,100 | \$7,000,000 | \$3,568,000 |
| 1837 | 6 | 6,781,200 | 18,021,000 | 9,107,000 |
| 1840 | 6 | 10,283.083 | 15,500,900 | 6.707,000 |
| 1549 | 0 | 10,303,362 | 14,170,000 | 7,740,000 |
| 1844 | 6 | 0,684,970 | 17,302,060 | 8,907,000 |
| 1850 | 0 | 0,731, 170 | 18,163,000 | 8,044,000 |
| 1854 | 16 | 12,791,436 | 24,013,000 | 14,248,000 |
| 1850 | 60 | 18,734.806 | $\cdots$ | .... |

With the exception of 1837 , there docs not eppear to be any extravagunt banking; but in January of that year the proportlon of loans to capital was lurger than that of any other State in the Unlon-being 50 per cent. nhove the ar erage rate of all the hanks, and lits cironlation in excess ly a larger ratio, 214 to 91 average proportion of circulation to capital. In 1851 the general
banking law was passed, ond as the chartored banks ly undertaken. The consequence was, that the bank expire, they buve lieen required to comply with the general rule of securing their circulation by a pledge of pullio stocks. The Bank of Virginia and the Farmers' Bank charters expire in 1857; but they have been wisely renewed upon their old basis, "as the experlment of 'independent banklng' bas not so triumphently vindicated the sound wisdom of the principle as to induce the public to sacrifice a system which has oper. ated, in the main, equally to the advantage of the State and the community. There is certainly nothing in the financial condition of the State to warrant any hazardous experiments with its monetary relations."

North Carolimu.-The first bank incorporated in thia State was the Bank of Cape Fear, in 1804, with a capital of $\$ 250,000$, located at Wi'nington. Ita charter has been extended, and its capital increased by varions enactments. It has now $2,000,000$ of capital, of which the State owns $\$ 532,200$; and lts present charter expires, by limitation, in 1880 . It has seven branches. Tha Bank of the State of North Carolina was origioally Incorporated in 1833, with a capital of $\$ 1,500,000$. It is now $\$ 2,000,000$, of which the State owns $\$ 500,000$; and its charter expires in 1860. It has nine branches. In 1834, the Merchants' Bank, $\$ 800,000$ capital ; in 1847, Commercial Bank, $\$ 300,000$; in 1849, Bank of Fayetteville, $\$ 800,000$; in 1850, Bank of Washington, $\$ 400,000$, and Bank of Wadeaborough, \$200,000 capituls, were severally incerporuted; and the whole number in the Stato ot present is 29 banks and branches, the aggregata of whose capital is $\$ 6,050,000$. In one of the late reports of the Bank of North Carolina we find the following remark: "By auccessful management, this bank has obtained a position and infiuence which acarcely any State institution ever possensed, ond certalnly none in North Carolina. After pussing uninjured through the crisis of 1837, under the able gutdunce of its first president, Mr. Cumeron, it rapidly acquired confidence and atrength, and now stands pre-eminent emong the State institutions of our lund." We are happy to add that there are no "free hank" laws io this State.

South Curtina,-The first bank established in this State wan the Bank of South Carolina, chartered in 1792 , with e capital of $\$ 1,000,000$. In the uppendix to Mr. Woudbury's report of the banks in 1837, he states tie South Carolina banka aa follows:

| Yearn. | Unaka. | Capital. | Veara. | Ranka. | Capital. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1742 | 1 | + 6376,010 | ISII | 4 | \$3,475,010 |
| 1801 | 9 | 8,000,000 | 1815 | 5 | 8,780,900 |
| 1805 | 2 | 6,000,000 | 1820 | 5 | 4,475,000 |

But wa belleve that tha account we subjoin is tho correct one:

| Yame. | Name. | Banke. | Capital. |
| :---: | :---: | :---: | :---: |
| -17:2 | liank of South Carolinn | 1 | 罒1,000,0010 |
| 1802 | State Bank of South Caro | 1 | 1,000,000 |
| 1810 | Unlon Bank | 1 | 1,000,000 |
| 1810 | Planters' and Mechanica' lank .. | 1 | 1,001,000 |
| 1812 | Hank of the State of Bouth Carolina\| | 1 | 1,123,067 |
| Making an aggregata eapitai, In 1880, of. . . . . |  |  | 45, 463,357 |

The Bank of the State of South Carelina was a purely State institution, and had no private atockholders. It was originally founded tor the purpose of furnishing temporary aid to planters, by loans of $\$ 2000$ to each, and for many years was a mere "Inan inatitution." In 1820 the cupitai of this bank was pledged us security for the redemption of the honds of the State, lssued to carry out a system of interual improvementa recent-

| Years. | Banke. | Capital. | Clreviation. | Doposite. | Bpatia. | Loant. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1830 | 10 | 4 $47,186,318$ | \$7,488,727 | \$4,021,210 | \$2,600,427 | \$10,316,819 |
| 1887 | 12 | 8,870,118 | 7,228,016 | $5,049,477$ | 1,684,780 | 18,8n0,438 |
| 1842 | 11 | 11.472,922 | 9,882,164 | 1,748,000 | 1,805,178 | 18,800,039 |
| 1846 | 11 | 11,646,269 | 8,911, 260 | 8,253,168 | 1,729,561 | 14,181,729 |
| $18^{*} 0$ | 14 | 13,109,671 | 8,741,705 | 8,322,138 | 1,711,002 | 80,601,137 |
| 1806 | 10 | 18,003,258 | 9,789,023 | 9,871,045 | 1,289,284 | 88,140,098 |

Georgia,-In Georgia, the first bank which appears in Mr. Woodbury's report is, in 1811, one bank, rapital $\$ 210,000$; in 1815 , two banks, capital $\$ 628,580$; in 1816, three banks, capital $\$ 1,502,600$; In 1820, four banks, with an aggregate capltal of $3,401,510$; and
the following table shows that Georgia has had her fult phare of banking business, notwithstanding her frequent complaints of dependence upon Charlenton for facilitiea, and her own want of bank capital. There were in the State, in

| Yeame. | Bankn. | Capital. | Cireulation. | Deponits. | Apecla. | Loans. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1831 | 9 | 84,204,029 | \$2,718,856 | \$1,382, 684 | \$1,305, 141 | 4 ${ }^{3} \mathbf{6 , 2 6 : 4 7 4}$ |
| 1837 | 82 | 11,438,828 | 8,058,789 | 2,149,682 | 2,800,828 | 16,608,215 |
| 1840 | 39 | 15,048,6:4 | 5,518,822 | 1,985,418 | 1,800,604 | 13,783,221 |
| 1848 | 24 | 10,250,708 | 1,972,215 | 1,056,812 | 1,204,971 | 6,461,761 |
| 1848 | 24 | 8,970,789 | 2,471,204 | 1,818,263 | 1,104,236 | 5,549,238 |
| 1849 | 18 | 12,505,010 | 4,118,419 | 1,607,009 | 1,547,026 | 6,058,166 |
| 1859 | 18 | 12,957,600 | 9,618,777 | 2,529,227 | 1,570,818 | 18,507,460 |
| $18 \% 5$ | 21 | 13,413,100 | 6,998,866 | 2,084,455 | 1,451,880 | 11,648,659 |

These statements give a very imperfect idea of tha real state of financlal operations in Georgia, For instance, In the report of 1849, tho Central Bank, the property of the State, which had for ten years been winding up its concerns, had its capital lacluded, $\$ 1,480,000$, and the two railroad companies, capitals $\$ 6,694,000$, making, in the aggregate, $88,171,000$, which should be deducted from the banking capital, as above stated, when the return would be, in 1849 , fifteen banks.

| Capttal. . . . . . . $84,480,764$ | Specle. . . . . . . . \$1,404,706 |
| :---: | :---: |
| Deporlta. . . . . . 1,373,780 | Loans. . . . . . . . . 5, 502,714 |
| Circulation . . . . 8, 019,749 |  |

The banking community are indebted to a distlnguished representátive from Georgia (the late Richard Henry Wilde) for the introduction and adoption of the resolution in Congress by which we havo our nnnuul reports on the banks of the United States. Imperfect as these reports are, they illustrate the importunce of having moro attention bestowed upon them, even if their preparation should require an additional bureau at Washington.

| Years. | Rranchen. | Capltal. | Circulation. | Depoults. | 8pecie. | Loanc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1837 | 1 | 4533,5038 | \$028,0MM | \$810,000 | \$406,000 | \$1,109,000 |
| 1810 | 2 | 1,16.123 | 410,000 | 1,174,000 | 562,000 | 2,077,000 |
| 184:1 | 3 | 1,200,688 | 731,000 | 1,116,000 | 1,260,000 | 951,000 |
| 1845 | 5 | 1,200,582 | 2,106,000 | 1,2 50,000 | 1,458,000 | 2,658,000 |
| 1843 | 5 | 1,208,107 | 2,560,000 | 1,735,000 | 2,4i7,000 | 3,152,000 |
| 1853 | 5 | 1,208,751 | 2,524,000 | 1,877,009 | 1,002,000 | 3,265,000 |
| 1858 | 5 | 1,216,400 | 2,805,000 | 1,331,000 | 1,355,000 | 4,300,000 |

This bank is owned by the State to the extent of $\$ 951,205$, and the balance by individuals, and its chnrter will expire in February, 1861, having been extended to that date by act of 1856 . A committee on banks formerly recommended a sale of the State's interest in the luank, and the charter of a new one with $\$ 5,000,000$ capital. The constitution allows but one bank and branches, and, of course, without its alteration free banks can not be introluced. It will be perceived that the bank has always had on hand a large supply of apucie for the redemption of its circulation, and hus consequently always enjoyed a high reputation. It has muintained specie payments siuce $\mathrm{fts} \ln$ corporation, althuugh Its circulation was necessarily restricted, while many of the banks of the East and West were under suspension during the years 1837-1840. We trust that it may conthus a fortress of strength to resist the encroachment of free banking principles, which are now pervading several of the States, and furnish an enduring evidence of the profit and socurity of banks based upon a specte cnpitnl.

California.-We are not aware of any incorporated banks in the State of California; and it only remalns for us to apeak of those of the District of Columbin. The tirst bank estubllsined at Washington was in 1792, with a capital of $\$ 500,000$; in 1802, there wire two lanks, $1,500,000$; in 1805 , three bauk., $\$ 2,000,000$; In 1811, four banks, $\$ 2,341,395$; in 1815, ten banks,


| Yean. | Hanke. | Captial. |
| :---: | :---: | :---: |
| 1830 | 0 | \$3,870,674 |
| 1837 | 7 | 2, 204,445 |
| 1842 | 8 | 1,7814,020 |

Florida.-We come now to Florids, the last State in the Southern diviaion, and which was admitted into the Union in 1845. Under its territorial government, it hat, in 1838, fivo banks, with an aggregrte amount of capltal of $\$ 2,113,302, \$ 774,040$ circulation, $\$ 145,842$ specie, $\$ 493,623$ deposits, and $\$ 2,652,614$ loans. These were located at Pensacola, Tailahassea, Appalachicola, and Magnolia, but they are all broken and worthless. A law was passed in 1849 authorizing a bank at Tallahassee, but we believe that it was not organized, and we know of no regular bank in the State.
Missouri.-'This State was admitted into the Union in 1821. There was one hank in existence prior to this date, the operations of which were disastrous, but the first we find In the regular reports is the State Jank of Misaouri, at St. Louis, with one branch, in 1837, and a capital of $\$ 583,588$, circulatlon $\$ 28,000$, and specio $\$ 466,000$. Thls is now the only bank in the State, although it has Increased the number of its branches. to meet the increasing demand for banking facilitles. We give a tabular atatement of Its operatlons, during a serics of years, from 1837 to 1856 :

The chartera of all these banks expired some years since, and passed into the hands of trustees for the benefil, of the stockholders. The Farmers and Mechanics' Bank, Georgetown, the Bank of the Metropolis, Bank of Washington, and Putriotic Bank of Washington, are of the above class, and are about the only banks whose bills are current on any terms, and they are looked upon with diatrust out of their own neighborhood.

Conclusions.-The past financinl history of the Unlted States abounds with examples and warnings; but the milfortune ls, that they are apt to be unheeded and írgotten. How many of our merchanta now on the atuge of netive enterprise have an intimate acquaintnnce with the past hilatory of commerce in our oun country during the present century, if, Indeed, they know that which relates to their own business, beyond the Inst twenty ycars?

IIow few statesmen and financiers of these modern days of high attainments are familiar withr the finunclal events of 1836-'42! Those who retnin a fresh remembrance of that financial crisls will ever dread a recurrence, and be Insplred with cautlon, prudence, and diatrust. Hut the race of these "conservatives" is fast passing away, and the counsels of the few remaining are nlmost derlded. Junior partners, or successors, and "Young Amerlea," fill their places, and now take the lend. The pust is dlsregarded, and similar errors will probably eventunte in similar dlsasters.

Our illustrlous statesman, Daniel Weister, who has left for our use invuluable lessons of political wisdom, in his celebrated speech at Trenton, $\ln 1844$, uttered these words: "We are well instructed by oxperionce; hut let us not he lost to experience. Iet not all the good, all the comforls, all the blessinga, which now
veem in prospect for all classen, be blighted, ruined, and deatroyed, by running into danger which wa may avoid. The rocks before ua are all visible-all high ont of water. Thay lift themselvea, covered with the fragmenta of the awful wrecks and ruin of other timen. Let us avoid them. Let the master and the pilots, and the helmaman and all the crew, be wide awake, and give the breakers a good berth."

In 1832, Mr. Biddle, the Fresident of the United States Bank, was examined by a committee of the House of Representatives, of which Mr. Cambreleng, of New York, was chairman. Tu one of the interrogatories he answered in the following language: "The Idea, at the present day, of doing the basiness of this country scithout bonks wonld be equal to the project of renouncing canals, and railroads, and steamboats, and all the other improvementa belonging to trade. That hanks do occasional miachief there can be no doubt: but nutil some valuable improveinent is found which at'pp jeq numixed goud, thia is no objection to them, an'i, $\cdots$ astituted as they now aro, tha banks of the United States may be considered safe instruments of cotnmerce. On the whole, it seeris wisar to retain thn established Institutiona of the couniry, instead of $r$ sorting to doubfful and hazardous erperime $\neq s, \quad$ W/hat is wanted, I think, in our binking system id this: first, to widen the basis of our metullic circulation, by abolishing the use of small motes, so ne to aliow coin to take the place of them, as it inevitubly would; und, secundly, to annex to the non-payment of specie by the banks so heavy a penalty, aay an interest of 12 per cent., as in the case of the Bank of the United States, or $2 \cdot 4$ per cent., as in some of the Jersey banks, as would deprive the banks of all temptation to incur the risk of insolvency."

Nearly a quarter of a century has elapsed aince these remarks were niale by the "moneyed autrcrat of l'hiladeiphia," and the very principles avowed by him are now the adopted dogmas of his former opponents. We believe that it is now generslly adiaitted that, in order to carry on successfuliy the extensive business of this country, we require a solid, stulle, and uniform currency. It is undeniable, also, that a system like bankIng, which has constituted a prominent engine of trade, commerce, and manufactures in all civilized comman?ties, must possess intrinsic, tixed, and ascertained principles; the dlacovery, development, and application of which, in the most equitable and advautagcous manner, shenld be the leading oiject of those who exercise any agency in the creation or management of our moneyed institutions.

The early antipathy of our people against banks was $n$ blinded prejudice; the retrospect of half a century discloses many great evils und albuses, springing from inultifurlous causes not iniputable to the aystem, but rather fungous exerescences, which a luxurinnt growth has produced. Frunds without number have been perpetrated, andiscovered anil hepeless; thousands and millions of dollars have licen scattered in thoughtless profusion by Boards of Dircetors, who knew nothing of tho first elemants of insiking, and loaned their paper pronises wo otilige thoir friends, taking a worthle.e written individual promise for an equally worthless printed bank-nete. But what of all these things, and many inore which might be adided, the great extension of credit, consequent upou the increased banking facilities, unrestrained as they havo fiomerly been, has leen beneficiai to all clarses, to the farmers and mechanics not less than to the arerchanta. "Young Americunn," men of industrious, enterprining, and energetic charucters, have left the comiforts of their parental homes, and by the ail of bank capital have fount the facllifies liy which they conld ennvert houndless torests and untrodien wilds into cultivatedifirms and viliages, within the precincts of which they have estathished schools and churches, erected work-shops and factories, and clustered arouml them the chsiliza-
tion, the comforts, ond refinements whlch are now spread over our Western Statea. True it is, that this expansion of bank facilities has cast ita dark shadow as well as lts sunlight. In many a eity and town, thousands have been ruined by the recklessness or improvidence of thoae who have made haate to he rich, and many a possessor of an ample fortune, acquired by a life-long labor, has gone down te hia grave in asdness, sorrow, and deprivatien, by the violent explosion of those fearful volcanoes which periodlcally bave acattered harning lava and ashes over the golden vistas whlch apeculation had conjured np.

But the question now arisea, When are our experimenta in banking to end? We have tried national banks, specie banks, safety-fund banko, free banks, and bogua banks; and we have a sub-treasury scheme, and untold treasures of gold in California, bat these are merely chaotic materiala, moving in apace at randomno single mind directs their movementa, and the result will probably be "confanion worse confounded." Where, then, are we to ivok for succor? ? We can discover but oue sure point, and that is the general govermment, who alone have the power to excreise a saluary control over the currency of our whole country, through the agency of that grand regulator of exchange, an exchequer aystem, aided, if need be, hy that pet of the government, the present aub-treasury acheme.

From the following; thble of the number of banks, amount of capital, and circnlation, it will appear that the number of hanke had doubled in a peried of nearly twenty years; while then capital and circulation have incresscd only about 30 per cent. in the same time, whish ratio is not equal to tho growth or increaso in wealth of the country.

| Yanm. | Banks | Capital paid in. | Eirealation. |
| :---: | :---: | :---: | :---: |
| 18: | 768 | \$24.0,000,040 | \$140,000,000 |
| 1838 | 8:9 | 3t9,000,000 | 110,000,040 |
| 1839 | 849 | 827,000,000 | 155,000,040 |
| 1840 | 907 | 803,000,000 | 107,000,000 |
| 1841 | 784 | B18,000,000 | 107,000,000 |
| 18.12 | 698 | 260,020,000 | 83,000,000 |
| 1848 | 691 | 228,000,000 | 68,000,000 |
| 1844 | 606 | 210,000,000 | 75,000,000 |
| 1845 | 707 | 200,000,000 | $89,000,000$ |
| $18: 6$ | 707 | 100,000,000 | 105,000,000 |
| 1847 | 715 | 203,000,000 | 105,000,000 |
| 1848 | 761 | 204,000,000 | 188,000,000 |
| 1849 | 782 | 207,000,000 | 114,000,000 |
| 1850 | 8.4 | 217,000,000 | 131,000,000 |
| 1851 | 876 | 227,000,000 | 155,090,000 |
| 1852 | - | .... | .... |
| 1863 |  |  |  |
| 1854 | 1208 | 301,000, (001) | 204,000, 060 |
| 1855 | 1807 | 882,100,000 | 187, DKK, OHO |

Our task is ended, when we heve acknowledged the sourres from which this compilation has been derived. From Condy Ragnet and Heffessor Tucker's works on Banks and Banking, front Nies' Figister, the Bankers' and Hunt's Mogazines, liberal sxtracta have Leen mate, and all the tabilar statemants t.ave been derived : ther from the Bankers' $M_{\text {egasine or the renorts of the }}$ Secretary of the Treasuy. The adniratila Index to Periolical Literadure, by the accomplisined librarinn of the Boaton Athena m, has heen un efficient guide to authoritles and essuys which mikit etherwise have escapeti our atiention, and has fully verifled the motto on his title-page
"Qui meit ubl ait retentia, hahenil est proximus."
Bonk of the Inired Nutes,-The old Bank of the linited States was incorpotated hy an act of Congress, approved February, 1791. Ity tha limitation of the charter, it was to expire on the 4th of March, 1811. This, like the lla'iks of linglund, F ...ise, and Sweden, was a bank of de, onit, liscount, aud clreulativ. :, with a canital of $\approx 10,000,300$.

Those Europear writers, loth 13ritish and French, who have enlogized this linstitution ur beping purciy commercial, aril distinguished from those of Enghatd
lleh are now $t$ is, that this dark shadow y and town, saneas or im. te to he rich, , acquired by ve in sadness, explosion of ly have scat. golden vistas
e our experiried national ee banks, and scheme, and but these are at random, and the reconfounded." We can dis. Eaneral govcreisa a saluhole country, alator of exneed be, by sub-tressury
ber of laanks, 1 appear that riod of nearly culation have o same time, or increase in
and France by not belng connected with the govern-
ment, or un englne of finance, can not have read the charter, the preamble to whlch begins thus: "Whercas the establishment of a bank will be very conducive to the conducting of the national finances, will tend to give facility to tho obtaining of loans for the use of the goverument in sudden emergeneles, and will be productive of considerable advantuges to trado and industry in general," etc. Instead of being a merely commercial establishmont, thereforo, it was essentially and mainly of a financlal and political charaeter, and it was on this ground that its constitutlonality was defended; the right of Congress to grant such a charter leing claimed inostly upon tho strength of that elause of the Constitution which gives to Congress the power necessary for carrying into oxecution the powers enumerated, and exprossly vested in that boly. The origin of this establishment was, thorefore, similar to that of the Bank of England, and the resemblance is not limfted to the general parposes of its institution, for, as the Bank of England originated in a lonu to the British government, so the act by which the old Bank of the United States was chartered provided that the sums sabseribed by Individusls and corporations should be payable one-fourth in gold and silver and three-fourths in the public debt certificates. Tho President of the United States was authorized to subscribo for two millions of the stock in behalf of the United States. The directors, being twenty-fivo, were chosen by the stockholders withont any interference on the part of the government in tho election; but the government reserved the right of inspeeting the atfairs of the Bank, and for this purpose the Seeretary of the Treosury was atthorized to demand of the president and directors a statement of its concerns as often as ho might sce fit. The corporation was authorized to establish branches in sny part of the United States. Tho only restriction as to circulation was, that the amonnt of dobts due from the corporation by bond, blll, note, or otherwise, besides the debts dae for deposits, should nover exceed $\$ \mathbf{i 0}, 090,000$; and in caso of excess, the directors by :/hose agency such delt should bo incurred were vade personally answerable. This bank went into oparation, and liad a most powerfnl agency in establishing the credit of the governinent, facilitating its financial operations, nud promoting the interests of industry and comnerce. Congress having refused to renew the charter, it exphad, by its own limitation, in 1811. But during the war which ensued the want of a national bunk was severely felt, not only as an agent for collecting the rovenues, but inore espocially for transmitting funds from one part of the country to another, and then it might have been a useful anxiliary to tho pnblic credit by supplying temporary lonis in cases of emer. gency. So thoroughly convinced wore the public of the nesesaity of such un institution, that the members of rete same political party from which the constitutif I oljeetions had been made to the ohl Bank, and which harl to e'sed to renew its charter, passed an act of Congress, whicis was approved hy the President, April 10, 1816, chartering the second Bank of the United States, with a capital of $\$ 35,000,000$, upon principles and with provisions very simitar to those contained in the former charter. For this charter the government demanded and received a bonus of $\$ 1,500,006$ from the stockhoiders, I'l: govermment leecame a stockholder in the samo proportion as in the former bank, taking one-fifth, or $\dot{\psi} 7,000,000$ of the stock. The direction of the institution was left to the stockholders, as in the old bank, except tinat tho govermment reserved the right of appolutment and removal at plensure, by the l'resident, of 4 ve directors out of the twenty flive, the other twenty belng eiected by tho stockho'ders. The government also reserved the right to demand a statement of the concerns of the institution by comnittees of either branch of the Legislature. Ono quarter of the subscriptlon to the stock was payable cither in
gold and silver or Unitel States stock, at the option of suhscrituers. The $\$ 7,000,000$ to be subscribed by the government was payable either in gold and silver, or public stock, at an interest of 5 per cent., at the option of the pevernment. The transactions of the corporation wer. Ilmited to making loans and trading in the precious "retals, and the sale of such goods or proceeds of such lands as should be pledged.

Branches were established in various parts of the Union. No other almilar corporations could be chartered by the government, except banks in tha District of Columbia, with a eapital not exceeding in total $\$ 6,000,000$, during the perlod for which the charter was granted, namely, to the 3d of March, 1836. The bank was prohibited from purchasing any part of the public delt, taking interest over 6 per cent., or loaning to the government over $\$ 000,000$, or to any State over $\$ 50,000$; and the debts of the bank were in no case to exceed the amount of doposits by more than $\$ 35,000,000$. And in case of refusing specte paymeut of its notes or deposits in specie, the bank was made liable to pay interest at the rato of 12 per cent. per annam. The bank was also obliged, by its charter, to give the government the necessary facilitles for transferring the public funds from place to place withln the United States without charglag commissions, or clainnling any allowance on necount of the difference of exchange, and to transact all the business of commis. sioners of loans whenever required so to do. The bank was prohibited from issuing bills under the deaomination of $\% 5$.

The bank commenced operatlons on the 7th of April, 1817; and soon after entered into a compact with the State banks for a simultaneous resumption of specie payments, which took place on the 20th February, $181 \overline{7}$. Every effort was made to push its paper hato circulation. Its discounts were Increased in one month from $\$ 3,000,000$ to $\$ 20,000,000$; and in October, nine months after going into operation, they had increased to $\$ 38,000,000$. Of course, with this immonse expansion, the currency denreciated; prices of overy thing ranged high; apeculation, especially in stocks, was rifo. The management of the lank was very bad; money was lent on the stock of the bank to lts par valuc, and so persons of no means lecame stockholdersnledging the stock for the loan with which they bought the stock. Tho branches which had heen made at all points, North, East, West, and South, wero issuing notes, limited by the abillty to make them. In obedience to a fixed law of action and reaction being oqual, a revulsion soon came, and, owing to the mismanugement of the directors, it was increased. The branches met with great losses: at Baltimore, for instance, from the impruper conduct of the officers, it whis estimated at $\$ 1,{ }^{\prime} 71,221$; and the aggregate losses of the parent bank up to the Gth of March, 1810, excceded $\$ 3,500,000$. The dividends in the same time amounted to $\$ 1,410,000$, of thits sumn $\$ 1,348,553$ was recelved for interest on public delt held by the bank, which made the profits on tha banking operations less by half a million than lts losses. These losses, and the flucturtions cansed by the difficulcies of the bank in the currency and in money affairs genorally, created a strong feelirg aguinst the bank, which added to the party who held that the bank was unconstitutional and inexpedlent.

In the sessions of 1831-'32 the bank made appliea. tion to Congress for a renewal of the charter; and a bill was passed incorporating anew the bank. This vas votoed loy President Jackson. It was then reconsidered by Congress, but failing to obtain the constitution. " mujority of two-thirds, it was finally rejected, July, 1882.

The removal of the government depoilta from the Dank of the United States by the Presldent, September 23,1833 ; the adoption, lis consequence, by Congress of what was afterward called the "deposit-bank
system," at a means of safely keeping the public monev ; the resolution of the Senate that the removal wat uncalled for, and the responsibility assumed by the President unconstitutional, atc., lntroduced by Mr. Webster, and passed March 28, 1884; the passage of the act of June 28, 1886, for the distribution of the surplua revenue among the different States of the Union; the lasue by the Secretary of the Treasury of the famous specie circular of July 11, 1836; the incorporation of the Bank of the Unlted Statea by the Legislature of Pennsylvanla early in the aame year; the derangement in the currency of the country, which led, in May, 1837, to the general suspension of apecie payments by the banks; the resumption of specie payments by the banks in the aummer of 1838 , with the adoption of the "free-banking aystem" by the State of New York, and several others, were events which may be regarded as belag latimately connected with the suspeasion of the Bank of the United States,-E. A.
"When It was faally settled that no recharter of the national bank was to be olitaised, a plan was projected to combinc the advantages of the long-cstablished correapondonce, name, and machinery of the former bank, by lncorporatigg its atock with a new institution under the name of "The President, Direct ors, and Company of the Bank of the United States of Pennsylvania," which was chartered on the 18 th of February, 1826, by the Legislature of that State. The transfer of the funds of the old institution was made into the new State bank. More than 15 per cent. was restored by the govermment beyond ite subscription at the period of the transfer, and 34 per cent. had been paid to the same soureo every six montiss for a ling course of years. In ronsequence of the advantages te be derived from tho new institution, the stockholders were content to subscribe anew in the new State bank; and it is alicged that all of them might, at this juncture, have received their investments back, not only at par, but with a large advasace. Thia the government actually did, and no power was enjoyed by the government that wos nut shared by every individual. Indeed it was alleged by Mr. Nicholas Biddle (who heid the administration of the affairs of the State lunk, as he had done in the national bank), as recently as April, 1841, that the State institution was prosperous down to the end of his admiaistration in Marth, 1839. The downfall of the State institution, Jowover, soon occurred, bringing dissster upon tho atockholders. From March, 1839, to March, 1841, the stock of the State bank deelined from 116 to 17 per cent., nnd this loss fell in considerable part upon those who had been the origian stockholders of the national bank. The stock is now quoted from $\$ 1$ to $\$ 2$ per sharo. The new iastitution did not rest upon the broad foundation of national aid, and of course had not the confldence jossessed by the national banik."-Hunt's Merch. Mag.

A bill for establishing a Fiscal Bank of the United States passed the IIouse of Representutives, August 6, 1841 ; vetoed by President Tylor, Auguat 16. Another bill for a Fiscal Corporation vetoed September 9, 1841, followed iyy a resignation of all the Cabinet, except Mr. Webster, which eaded for a time all efforta to ohtain under any name a new national bank.

Canaina.-There are eight hanks in Cunada besidea the Bank of British North America, which has ita chief effice in England, nad spreads its lirnaches all over British America. This tinnk, which was incerporated in 1840 , has a capital of $£ 1,000,000$ sterling. Of the eight more strictly coloninl banks, four ore in Inwer and four in Upper Canada. Tho most important of these is the Bank of Montreal, with a present capital of $£ 1,500,000$ currency. The three other banks in Lower Canada are, the City Bank of Montreal, with a capital of $\mathbf{£ 3 0 0 , 0 0 0 ; ~ t h e ~ B a n q u e ~ d u ~ P e u p i e ~ i n ~ M o n t - ~}$ real, with a capital of $\mathcal{A} 300,000$; and the Quelsec Bank, with a capital of $£ 500,600$. The luanka in Upper Cansda are, the Bank of Upper Canada, Torontn,
ineorporated 1821, with a present capital of $£ 1,000,000$; -he Commercial Bank of the Midland District, Kingston, incorporated 1832, capltal $£ 1,000,000$; the Gore Bank, Hansilton, incorporated with a capital of $\mathbf{£ 1 0 0 , 0 0 0 ; ~ a n d ~ t h e ~ N i a g a r a ~ D i s t r i c t ~ B a n k ~ a t ~ S t . ~ C a t h - ~}$ erines, with a capital of $£ 500,000$.

Almost all of these instlutions have branches In various parts of the country, and lesue notes, payable on demand, from one dollar upward. The least denomination of the notes of the Bank of British North America is fourdollar notes, representing $£ 1$ colonial currency. The greater number of these jastitutions ure now understood to be paying from 6 to 7 per cent. jer anaum upon their paid-up stock; and the stock of the most successful among them was selling, in April, 1854, at from 16 to $\mathbf{2 5}$ per cent. premlum. All occounts are kept in Canada in pounds, shillings, and pence, provincial currenc; . The present one pand of provincial currency is about equal to $16 s .4 d$. sterling, or four dollars United States currency. The English aovereign is equal to 24 s .4 d . currency ; the shilling within a fraction of 1 s .3 d. ; and the half-crown about 3s. $1 \frac{1}{2} d$. colonial curreney. The bank capital of Canada was largely increased by act of 1854, viz.:

| Names. | $\begin{aligned} & \text { Former } \\ & \text { Capital. } \end{aligned}$ | Addition, 1854. | $\begin{gathered} \text { Caspíal, } \\ \text { isbc. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Mank of Montreal ....... | $1,000,000$ | 500,000 | $1,600,000 \mid$ |
| Hank of Upper Cianada.. | 500,000 | 600,000 | 1,000,000 |
| Comm, Bank of Canada . | 500,000 | 600,000 | 1,000,060 |
| Clty Bank, Montreal .... | 225,000 | 75,000 | 300,000 |
| Hanque du Peuple ...... | 200,000 | 100,000 | 3100,000 |
| Quebee lank | 250,000 | 250,000 | 500,000 |
| Total | 2,675,000 | 1,425,000 | 4,610,000 |

Fniexdly Societies.-Friendly Societies are associationa, mostly in England, of persons chiefly in tho humbler classes for the purpose of making provision by mutual contribution against those contiagencies in human life, the occurrence of which can be calculated ly way of average. The principul objecte contemphated by such societies are the following: the insurlag of a sum of aoney to be paid on the birth of a member's child, or on the denth of a member or any of his family; the maintenance of members la old age and widowhood; the admiaistration of relief to members incapncitated for labor ly sickness or accident; sad the endowment of membera or their nominees. Frieadly societics are, therefore, associations for mutual assurance, but are distinguished from assurance societies, properly so called, by the circumstance that the sums of money which they insure aro comparatively small.

Although the period when auch societies originated appears to be unknown, their existenco in ancient times is unquestionale. They wero numerons in Englead among the Anglo-Saxons, but from the general want of saraing at so early an age, and the difficulty of preaerving written documenta even of the lighest importance relatiag to a period so remote, it can not bo expocted we should now possess any vary complete records of their history or proceedings. Writers of credit, however, have mentioned severnl of these fraternities or "guilds" as existing both before and subsequently to the Norman Conquest, and their rulce, which are still preserved, are highly interesiing, from their similarity to those of the friendly societies of the present day. "These guilds or social corporaticns," observes an excellent writer, "seem, on the whole, to have beon friendly associations made for mutual aid and contribution to meet the peeuliar exigencies which wero perpetually arising from torrials, legal oxactions, penal mulets, and other payments and compensations." -Tuner's Anglo-Sazons. Some of them had for their objecte the bestowal of annual charity, the jnyment of stipends to poor persons, the entertainment of poor strungers and travelers, and various other works of a like claritable and benevolent character.

Banks of the United States, 1857.-The following is $\mid$ ficial returns in or near January, 1857.-From the Fia summary of the liabilities and the resources of the nance Report of the Secretary of the Trecusury, December, banke of each State in the Unlon, according to the of- 1857.

| Blatces. | Laskitita. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No of Banks. |  | Date. | Caplana. | Cirealalioa. | Doporits. | Den othar Bapks. | Labilition |
| Main | 76 |  | Jan., 1887 | \$8,135,785 | \$4,641,646 | \$1,004.782 | 145,083 | \$121,743 |
| Now IIsmpshire. | 41 |  | Dec., 1856 | 4,681,000 | 8,677, 889 | 1,058, 303 |  |  |
| Vermonl. ....... | 41 | . | Juty, 1950 | 8,856,946 | 8,970,720 | 797,.336 | 7,843 | 17 |
| Masazelbusettd . . | 179 |  | Och, 1856 | 69,508,800 | 20,544,895 | 28,497, 8 , 111,66 | 4,807,601 | 981,868 |
| Conaectleut | 70 | 1 | April, 1850 | 18,918,872 | 0,197, 762 | 4,090,835 | 875,287 | 911,458 |
| New York ... | 810 | 1 | Bept., 1850 | 96,881,801 | 84,019,633 | 96,907, 970 | 29,014,125 | 0,707,083 |
| New Jertay ..... | 48 |  | Jan., 1887 | 6,539,770 | 4,769,8*5 | 4,891,970 | 1,438.658 |  |
| Penasylvania ... | 11 | - | Nov., 1850 | 28,609,844 | 17,908,006 | 27,598, 634 | 4,216, 515 | 127,009 |
| Delawara | $\begin{array}{r}3 \\ 81 \\ \hline\end{array}$ | 3 | Jan., 1857 | 1,428,185 | 1,894,194 | 868,414 | 147,260 | 1 |
| V1rglnta. | 19 | 38 | Jan., 1857 | 13,868,000 | 12,685,627 | T,897,474 | 1299,507 | 08,235 |
| North Carolina. | 12 | 15 | Jan., 1857 | B,426,250 | 0,801,202 | 1,170,026 | 224,82t | 0,045 |
| South Carollna.. | 13 | 2 | Jan., 1857 | 14,887,642 | 10, 654,652 | 8,602,788 | 8.518,983 | 3,355,119 |
| Georgia .. | 18 | 1 | Jan., 1857 | 18,483,690 | 9,147,011 | 8,128,670 | 1,683,429 | 872,644 |
| Alshama | 4 |  |  | 2,297,800 | 3,177,234 | 2,423,263 | 708413 | 5,000 |
| Loulslana | 9 | 10 | $\begin{array}{lll}\text { Dac., } & 1850 \\ \text { Jan., } & 1857\end{array}$ | $21,730,400$ 386,000 | 9,184,189 | 13,478,729 | 065,595 | 2,207,653 |
| Mlasisalppl. | 23 |  | Jan., 1857 | 386,000 $3.451,422$ | 8, 856,3015 | 88,435 4875,946 |  |  |
| Tenncssen | 2.3 | 13 | Jan., 1887 | 3,451,422 | 8,401,948 | 4,875,346 | 941,917 | 951,262 |
| Kentucky. | 8 | 27 | Jan, Dec., 1856 | 10,596,806 | $\begin{array}{r}19,682,215 \\ \hline 8.780,880\end{array}$ | 4,473,878 | 2,083,873 | 60,000 |
| Missourl. |  |  | Dec., 1850 | 1,915,415 | ¢,780,380 | 1,188,082 | 111,984 |  |
| 1111nols | 49 | is | Oct, 1868 | 5,372,144 | 5,834,945 | 1,002,399 | 219,483 | 157,981 |
| Indians | 83 | 18 | Oct., 1856 | 4,183,08.) | 4,721,705 | 1,852,742 | 279.815 | 177,309 |
| Ohlo | 61 | - | Nov., 1850 | 6,742,421 | 9,169,829 | 6,543,4:0 | 1,202,001 | 892,756 |
| Michlgan . . . . . . | 4 | . | Dec., 1850 | 841,489 | 670,049 | 1,847.956 | 118,062 | 62,640 |
| Whaconsin ......' | 4 | . | Jan., 1857 Jan., 1857 | $\begin{aligned} & 2,0155,000 \\ & 2015,000 \end{aligned}$ | $\begin{array}{r} 1,702,670 \\ 8.53 .796 \end{array}$ | $3,606,562$ 125,291 | 1749 | 1,290,480 |
| Total liahilities | 1283 | 133 | ......... | \$370,894,030 | \$214,778,822 | \$230 $851,85 \pm$ | \$57,674,383 | \$19,816,850 |

ies are asefly in the provision gencies in calculated c contemthe lusurbirth of a per or any in old age f to mem. accident; nominees. 3 for muassurance
ance that comparaus in Ene general difficulty 9 highest can not complete riters of and subir rules, ng, from es of the raticus," hole, to tual nid es which actions, "ations." had for he pay. ment of $r$ works

| athater. | matoutacra. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loana. | stocke. | Rasal Estata. | Other Investananta. | Due by otber Ganks. | Notes of olher Banks. | Specia Funds. | $8^{\text {pecian. }}$ |
| Msine. | \$13.277,620 |  | \$138,251 |  | \$1,158,276 | \$375,216 | ... ${ }^{\text {a }}$ | \$705,143 |
| Yev llampehire. | 3,846,421 |  | 75,893 |  | '641,475 | 136,594 |  | 238,018 |
| Varmont........ | 7,302,95t | \$114,583 | 135,208 | \$582,881 | 1,149,104 | 48,146 $\times 098$ | \$30,440 | 208,858 |
| Masssehuselts . . | 101,132,792 |  | 1,426,892 |  | 7,574,701 | \$,248,879 |  | 4,655,571 |
| Rhodo 1stand | 28,679,643 | 128,539 | 473,052 | 70,183 | 1,255,622 | 1,281,754 |  | 648,343 |
| Connectleut | 28,611,149 | 1,216,680 | 458,182 | 483,108 | 9,432,975 | 807,819 | 240,248 | 1,006,493 |
| New York | 205,892,499 | 24,027,683 | 6,868,945 |  | 12,179,163 | 2,036,205 | 22,678,628 | 12,803,771 |
| New Jersey . . . . | 18,830,085 | 681,773 | 224,711 | 288,286 | 2,287,204 | 710,072 |  | - 819,026 |
| Pennsylvanis ... | 62,287,234 | 2,801,626 | 1,200,563 | 808,780 | 8,143,830 | 5,719,284 | 1, $0.78,696$ | 5,073,188 |
| Delswara. | 3,021,378 | 83,070 | 130,030 | 1,065 | 5:9,514 | 40,680 | 195,601 | 146.367 |
| Maryland | 22,298,554 | 758,278 | 402,217 | 28,528 | 1,894,701 | 1,668,608 | 9,168 | 3,522,061 |
| Vlrglnia... | 24,899,575 | 3,184,066 | 872,368 | 484,032 | 2,405,211 | 1,509,089 | 18,402 | 8,092,741 |
| North Carolina. | 12,630,521 | 04,116 | 102,475 | 7,018 | 846,416 | 306,070 | 1,873 | 1,108,983 |
| 8outh Carollna. | 28,227,870 | 8,268,976 | 681,278 | 638,062 | 1,181,1138 | 539,497 |  | 1,107,774 |
| Georgla | 16,649,20t | 9,249,083 | B, 368,280 | 534619 | 1,368,87! | 1,480,570 | B1,928 | 1,702,108 |
| Alsbama | 6,545,209 | 142,201 | 78,148 | 1,259 | 665,802 | 604,287 | .... | 1,189,812 |
| Loulslana | 31,200,290 | 4,704,855 | 2,470,683 | 1,403,905 | 6,416,728 |  | ... | 6,811,168 |
| Misisslppl. | 057,020 | 519 | 11,413 |  | 257,005 | 28,503 |  | 7,912 |
| Ternesses. | 10,893,399 | 2,459,303 | 690,715 | 24.109 | 2,380,700 | 1,069,408 | 62,767 | 9,094,682 |
| Kentucky. | 23,404. 551 | 730, 126 | 405, 007 | 868,924 | 4,115,480 | 840,959 | , | 4,406,106 |
| Mlvouri. | 4,112,701 |  | 99,254 | .... | 75,09t | 190,910 |  | 1,215,134 |
| Itilnois | 1,740,671 | 6,129,613 | 52,832 |  | 3,953,45/ | 488,717 | 19,897 | 685,810 |
| Indians | 7,089,691 | 1,694,357 | 227,589 | 380,911 | 1,338,418 | 657, 293 | 68.508 | 1,420,476 |
| Ohlo | 15. $3.38,241$ | 2,749,686 | 810,145 | 637,837 | 2,749,558 | 1,190,803 | 39,007 | 2,016,814 |
| Michigan . | 1,003,603 | D88,889 | 60,110 | 11,145 | 245,161 | 183,480 | 9,141 | 82,762 |
| Wisconetn. | 5,280,084 | 2,025,160 | 150.315 | 1,802 | 458,771. | 701,101 | 78,222 | 642,985 |
| Nebraska Terri'y | 4t8,097 | , | 3,97b | 2,151 | 12!,804 | 15,604 | 210 | 130,325 |
| Tolst resonrces | \$634,456,857 | 9,272,324 | 1,124 522 | -0,686 | 5,849,205 | 8,124,008 | 81,041 | ,849,808 |

Since the early portion of this article was prepared ber following, a resumption of specio payments took for the preas, important oventa have occurrad both in Europe and tho United States, Involving the stability of the banking concerns of both continents. The above tsbles contain the latest official returns of the liabillties and resources of the banks of the Union, and may be considered as a fair exhibit of the condition of theso institutions in tho several States at tho beginning of the yesr 1857. The unfavorable condition of the foreign trsde of the Union, added to a redundant baok circulation, led to a large export of specie from the United states daring the nine months ending September, 1857. A panic followed theso continuous exports, which was sccompaniod by a sudden reductlon of bank loans during the monthe of August and September in the Atlantic cities, producing in September a suspension of tho banks of Philadelphia, Baltimore, Washington, and other cities; and in October, 1857, to a suspension of those of the citles of New York, Boston, and other portions of the Union. Thoso of Ohio, Kentucky, Illinois, Indiana, and a portion of those In South Carolina, Now Orlesns, Pennsylvania, Missouri, ete., and one in New York city, being the axceptions. On the 14th Deceluplace throughout New York and New England; a measure soon after adopted by those of Pennaylvania, Maryland, and other States.

The enspenslon of specio payments in the United States was followed by the fallure of several provincial banks in England and Scotland; and by an order in council on the 12th November, authorizing the tempornry auspension of the Bank Charter Act, whereby tho bank was authorized to enlarge its issues, if necessary, beyond the charterod prescribed limits. This necessity did not, however, arise; but the announcement had the effect at onco to allay tho panic prevailing in England at the lime. The rato of interest adoptod by the bank was raised to 10 per cent. temporarily. In Scotland, tho City of Glaggow Bank, and Western Bank of Scotland, suepended, and are now in process of liquidation. The Borough Bank of Liverpool also failed, together with numerous small banks In tho interlor.-For recent discussions as to tho principles of banking and tho currency, the render is referreil to tho Bankers' Mragazine, Now York, 1850-1858; London Quarterly, 1857-'58.
VIII. Saviwge Banks.-These banka were originally eatabilished in Eagiand for the receipt of emali sums deposited by the poorer class of persons, and for their accumuiation at compound interest. They are there managed by individuala who derive no benefit whatevor from the deposits. All montiys paid into any Savings Bank eatablished according to the provisions of the acts 9 Geo. 4, c. 82 , and 7 \& 8 . Vict. c. 83, are ordered to be pail into the Baaks of England and Ireland, and vested in Bank annuities or Exchequer billa. The interest paysbie to depositors is not to exceed $2 d$. per cent. per diem, or $\mathcal{C 8} 0 s .10 d$. per cent. per annum. No depoaitor can contribnte more than $\mathbf{8 3 0}$, exclusive of compound interest, to a Savings Bank in any one year; and the total deposits to be reccived from any individual are not to exceed 150 ; and whenever the deposits, and compouad interest accruing upon them, standing in the name of any one individual, sidsil amount to $\mathbf{c} 200$, no interest shail be payablo upon such deposit so long as it shell amount to $£ 200$. The commissioners for the reduction of the national delt have the dispossl of the sums vested in the pullic funds on acconnt of Ssvings Banks.

Titis system began in 1817; and on the 20th of November, 1850 , there was due to depositors, including interest aceruing on deposits, $£ 31,208,322$. It farther appears that from the 6th of August, 1815, down to the 20 th of November, 1842, the pubic paid on account of interest and charges on the sums dua to Savings Banks and Friendly Societies under the act 9 Geo. 4, e. 92 , $\mathbf{E} 14,070,34128.6 d$. , and that the dividend received during the samo period on the stock and other public securitice in which the commissioners for the reduetion of the national debt inveated the said sums, amounted to $£ 12,039,7818 s .6 d$., leaving a balance of $£ 2,030,659$ 14s., which consequently may be said to be the sum which tho system has cost the publlc.-Parl. Paper, No. 258, Sess. 1843. But the reduction of the interesi. on deposits in 1844 from 21d, to $2 d$. per cent. per diem, has cither entirely or in a great measure obviated this source of loss.
The principio and object of Savings Banks can not be too highly commended. In the metropolis, and many other parts of Vingtand, pubtic banks do not recelve amall deposits, and untii recently they did not pay any interest on them. And oven in Scotiand, where the pathic banks aliow intereat upon deposits, they do not generally recelve less than $\Sigma 5$ or $£ 10$. Bat few poor persoos are ahie to mave even this much, except by a lengthened course of cconomy. The truth, therefore, is, that until Savinge Banks were estahilshed, the poorer ciasses were evory where without the means of secureiy and profitabty inveating those smail auma they are not uafrequently in a condition to asve: and were consequently led, from tho difficulty of disposing of them, to negiect opportunities for making savlnges, or, if they did make them, were tempted, by the offer of high interest, to iend them to persons of doubtful cisaracters and deaperate fortunca, by wbom thoy were, for the most part, squandered. Linder such circumstances, it is pialn that nothing couid be more important, in the view of diffusing habtes of forethongit and economy among the laboring classes, than the establiahment of Savingn Banka, where the smallest sums are ptaced in perfect affety, are accumutated at componad interest, and aro paid, with their accumalations, thin moment they are demanded by tho depositors. The syatem in yet ittle more then in lts infancy; hut the magnitodo of the deposita already received sets its powerful and salatary operation in a very striking point of view.
We subjola a copy of the rutea of the St. Panercs Savings Bank, which may be taken as a model for similar institutions, inasmuch af they have been drawn up with great care, aud ciosely correspond with the provisiona in the acts 9 Geo. 4, c. 92 , end 7 \& 8 Vict. c .8 ,

1. Maingement.-Thls bank is under the management of a president, vice-presidonts, trustees, and not less than fifty maasagers, none of whom are permitted to derive any benefit whatsoever, directly or indirectly, from the deposits reveived, or the produce thereel One or more of the managere attead when the benk is open for business
2. Superintending Committec.-A fommittee of not iess than ten managers, three of whom form a quiurum, is empowored to superintend, manage, and condnct the general. husiness of thia bank; to add to thefr number from aniong the inanagers; to
fill op vacancies ta their own body, and to appoint a treasarer or treasurssh, agent or ageate, auditors, an setuary and claris, and other officern and servants, and to withdraw any such appotetuents, and to appolnt others, should it be conuldered aecessary so to do. The proceedinge of thia committee are regulariy taid before the general meetings of the bank,
3. Eleetiona.-The auperintending committes is ompowered to add to the aumber of managers, uatil they amount to one huadred and twenty, excluaively of the precident, vico-prealdents, and trustees; and any vacancies of preuldent, vios-prealdenta, and trunteen are to be filied ny at a general meeting.
4. General Meetings,-A general meeting of the president, vice-prealdents, trusteen, and managers of thia bank shall be held once a year, in the month of February. The auperinteading committee shalt lay before every such meeting a report of the (ranaactions of the bank, and atate of tha accounta. The superinteading committee for the auceeeding year shall be elected at such general meeting1 and falling such oleotion, the former comnittee ahati be conatidered as reappointed.
5. Special Meetings.-The mperintending committee are authorized to call apecial general meetings when they think proper: and also, on the requiaition of any ten managena, delivered in writing to the actuary, or to the manager in attencance at the bask: and of such meeting seven daya' aotice alall be given.
6. Liability of Trustees, Managere, Offeers, etc. $\rightarrow$ No trustee or manager ehali be personally thatie except for hia own acts and deeds, wor for any thing done by him in virtue of his offle, oxcept where he shall be gullty of wiliful negiect or default ; but the treasurer or treamorers, the actuary, and every officer intruated witi tho recelpt or enstody of any sum of money de. ponited for the purposes of this inutitution, and every offleer, or otier person, receiving aalary or allowance for their services from the finde thercof, shalt give good and sufficient securlty. b- boad or bonds, to the cierk of the pesce of the county of j: 1 lditesex for the juat and faithful execution of auch office of tirust.
7. Investment and Limitations of Deposita,-Deposila of not less than one shilling, and not exceeding thirty pounds in tho whole, exciusive of cooppound interest, from any one de. poaitor, or truatee of a depositor, during each and every year onding on the 20th of November, will be received and invented, parsuant to 0 Ge0. 4, c, 02, s. 11, uatil the same sinais amount to one humired and Afty pounds in the whole; and when the principat and intereat together whali amount to two hundred poundo, then no intereat will be payable on ouch deponth, ao long as it shall continue to amonnt to that num. But deponifors whosh accounts amounted to or exceeded two hundred pounds at the passiog of the said act, on the 28th of July, 1828, will continue to be antitied to intereat and compound interest thereon.
8. Interest to be alloured to Depoeitors.-In conformity wilh the act 7 \& 8 Viet. c. 88, an interest at the rate of 2 d . per ceat. per day, being $\mathcal{L 8} 08.6 d$. per cent. per annam the full amount authorized by the aid act, will be allowed to depositors, and placed to their acconnts as a cash depoatt, in the month of November in each year. Depositore domanding payment of the whoie amount of their deposite in thia bank witt be allowed the intereat due on zuch deposita up to the day on which nollee of withdrawing ahali be given, but no intereat wili be allowed, In any case, on the fractional parts of a pound atering.
9. Description and Declaration. - Every person deeirous of making any depostt in thts benk shall, at the time of nusing their first deposit, and at auch other times es they shali 1 required wo to do, declure their reaileneo, oceupation, profor $\mathrm{m}_{\text {, }}$ or calling, and aign (cither by themselves, or, in case of infunts under the age of seven yeurs, hy some perion or persons to he approved of by the trustees or managers, or their offecr) a declaration that they are not directly or indirectiy entitied to any doposit in, or bencfit from, the finds of any other Sarings Bank in Engiand or Ireland, nor to any sum or sums standing In the nsme or names of any other person or persons in tho booka of thits bank. And in case any much declaration shali not be true, evory such person (or the person on whose behalf such declaration may have been signed) shail forfeit and lose all right and tide to such depoaits, and the trustees and mana. gers shali cause the sum or sums so forfeited to be paid to the commissioners for the reduction of the astional deht; but no depostor shall be subject or lialile to any such forfeitare on account of being a truntee on behalf of others, or of being interested in the funda of any Friendly Socicty legally established.
10. Trustees on behalf of o'hers.- Persons may act as trustecs for depositora, whether such persons are themselven depositors in any Savings Bank or not, provided that such truatee or trunteea ahall mako such deciaration on behaif of euch depositor or depositors, and be subject to the like conditions in every respect as are required in the case of persons making deposits on their own account, aad the receipt and receipts of
nueh trontee or truateen, or the aurvivor of them, or the exeentors or administrators of any sole truatee, or aurviving trustee with or without (an may be required by the maasgera) the receipt of the perwon on whose sccount such sum may have been deposited, shall bo a good and valld discharge to the truiteen and managery of the inatitution.
11. Minork - Deposits are rocelved from, or for the benaft of, minors, and are eubject to the mame regulations as the dopontts of pernons of 81 years of age and upward.
12. Friendly and Charitabls Soclefies.-Friendly Socletien, legally eatablinhed previous to the 28 th of July, 1828, may deposit their funds through their treasurer, ateward, or other officer or officers, without any limiltation as to the amount. But Friendiy focteties formed and enrolled after that date are not permitted to make deponitr exceeding the num of $\mathbb{\&} 00$, principal and Intareat included i and no interent will be payable thereon, whenever the mame ahall amsunt to, or continue at, the sald aum of $\mathbf{2 3 0 0}$ or upward.
Deposits are recelved from the truatees or treasurers of Charitable Socletics, not exceeding $£ 100$ per annum, provided the amoent ahell not at any time exceed the anm of $\& 200$, excluaive of intereat.
13. Depoeite of Persone unable to attend.一Forma are given at the office enabling persons to become depositona who are unable to attend perwonally; and thome who have previously made e deposit may send additional anma, together with their book, by any other permon.
14. Depositors' Dook.-The deposits are entered in the books of the bank at the time they are made, and the depositor recetves a book with a corresponding entry thereln; which book muat be breught to the office every time that any further aum is deposited, also when notice is given for withdrawing money, and at the timu the repayment in to be made, so that the transactiona may be duly entered thereln.
15. Withdrauing Depostts.-Depositon may recelve the whole or any part of their doposits on any day appointed by the managers, not exceeding fourteen days after notice has liece given for that purpose: but auch deposits can oniy be repald te the depositor personaliy, or to the bearer of an order under the hand of the depositor, aigned in the presence of etther the minister or a chureh-warden of the pariah in which the depoastor realdes, of a juetice of the peace, or of a manager of this bank.
The dipositor's book must altoxy be produced when notice of uithdrauing is given.
16. Money withdraven may be re-deposited.-Dopositors may withdraw any aum or auma of money, and re-depoalt the amme at any time or timea within any one year, reckoning from the 20th dey of November, provided such aum or sums of money re-deposited, and any previoua deposit or depoaits which mey have been made by auch depoaltor in the course of the year, taken together, whall not exceed, at any time in oueh year, the bum of ClO additional principal money bearing Intereat.
17. Return or Refusal of Deposits. -Thia bank is at Hiberty to return the amount of the deposits to all or any of the depoaltora, and may refuse to recelve deposits in any case, where It ahall be deemed expedient so to do.
18. Arbitration of Dfferences.-In case any diapnte thall arise between the trustecs or mamagers of this bank, or any person er persons acting under them, and any individual depoasitor therein, or any trustee of a depositor, or any person claiming to be such executor, adminiatiator, or next of kin, thell, and In cvery such case, the matter so in dlapute shall be refurred to the barrister at law appolated hy the commissionera for the reduction of the national debt, under the enthority of the $9 \mathrm{Geo} .4, \mathrm{c} .92, \mathrm{~s} .45$; and whatever award, order, or determInation clall be made by the sald barrister, ahall be binding and conclusive upon ell pertion, and shell be final, to all intenta and purposes, without any appeal.
Government Annuities by Depositors in Savings Banks. -The act 2 \& 3 Wiil. 4, c. 14, enables depositore in Savings Banks and others to purchase governmont annuitica for life or for yeara, and either immediato or deferred. At present these annuities are limited to ci30 a ycar. The money advanced la returnablo in esse the contracting party does not live to the age at which the annuity is to become payable, or is unatie to continue the monthly or anmual instalimenta. Thel this measure waa benevolently intended, and that it may be productive of advantage to many individuals, can not be doubted; but we look upon all attempte, and poriculariy those made by government, to get individuais to excbange capital for annuities, as radicaliy objectionabie, and as being subversive of principies which ought to be atrengthened rather than weakened. -See Fuxtes. We subjoin

BAN


Bankoks, or Bangkok, the capital of Siam, situated about 20 miles from the sea on both aidea the Kiver Menam, but chiefly on its left or eastern bank, in lat. $13^{\circ} 49^{\prime}$ N., long. $101^{\circ} 10^{\prime}$ E. The Menam opens in the centre nearly of the bottom of the Gulf of Siam. There ia a bar at its mouth, consiating, for the most part, of a mud flat 10 milea in length. Tho outer edge of this flat, which is little more than 200 yards broal, is sandy, and of harder materials than the inner part, which is so sof, that when a ship grounds on it during the ebb, she often sinks 5 feet in the inud and elay, which supporta her upright, so that abe is but littlo inconvenienced. The highest water on the bar of the Menam, from February to September, is alout 13i feet; and in the remaining 4 months aomewhat more than 14 feet; a diffierence prolably produced by the accumalation of water at the head of the bay after the southweat monavon, and by the heary thoods of tho rainy season. On account of thodet $\therefore$ ney of water out the bar, vessels sent to Bangkok had better, perhapa, not oxceed 200 or 250 tons bardeu. In all other respects tho river is extremely safe and commodious. Ita mouth is no aooner approacl- ${ }^{`}$, than it
 there are 6 and 7 fathoms water. This depul nereases as you ascend, and at Bangkek is not less than 9 fathoms. The only danger is, or rather was, a sandbank eff Paknam, baro at low water; but on this spot a butiery has been erected within the last few years, affording at all times a distinct beacon. The chamel of the river is so equal, that a ship may range from oun side to another, approaching the banks so closely that her yards may literally overhang them. The navigation is said to be equally safe all the way up to the old capital of Yuthia, 80 milea from the mouth of the river.
The city of Bangkok extends along the banks of tho Menam to tho distanes of about $2 \frac{1}{2}$ miles; but is of no great breadth, probally not exceading $1 \frac{1}{2}$ miles. On the left bank there is a long atreet or row of floating houses-meach house or shop, for they are in genera: both, consisting of a distinct vessel, which may be moored any where along the bnnka. Besides the principal river, which at the city is about a quarter of a mile broad, the country is intersected by a great number of tributary streams and canals, so that almost all intercourse at Bangkuk is by water. The population has been computel at 50,000 or 60,000 , half of whom are Chinese settlers.

The total area of the kingilom of Siam has beell estimated at 190,000 square miles, and the population at ouly $2,850,500$, principally resident in the rich valley of the Menam. Of the entire population, it is aupposed that not less than 40, mof aro Chiuese. The common necessarien of life at langkok are exceedingly cheap. A ewt. of rice may always be had for 28. , and very often fer 1 s. Other necessaries, auch as salt, palm-sugar, apices, vegetables, fish, mul even flesh, are proportionully cheap. The price of good pork, for example, is 2td. per 1b. A duek may be had for $\overline{\text { did }}$., and a fuwl for 3d. The neighliorhood of laugkok is one of the most productive places in the world fer fine fruits ; for here are assembled, and to be had in the greatest perfection aed abundauce, the orango and lichi of China, the mango of ilindostan, and the mangosteln, durian, and elsaddock of the Malay countries.

Trade. -The foreign trade of Siam is conducted with China, Cochin China, Cambogia, and Tonguin, Java, Siagapore, and the other liritish ports within the Straits of Malacra, with an ocensional intercourse with Bonbay and Surat, England and America. The most important branch of the foreign trade is that with China, which is wholly carried on in vesels of Chinese form, navigated by Chineac, the greater portion of them belng, however, built in Slam. The lmports fromi Clina are very numerous, consistiug of what are called in cominercial language "assortcd cargoea." The fol-
lowing ia a llat of the principal commodities: coarse earthen-ware and porceluin. spelter, quicksilver, tea, lacksoy (vermicelli), dried truits, raw ailk, crapes, satins, aud other silk falrica, nankecna, ahoes, fans, unbrellas, writing paper, sacrificial paper, incense rods, and many othor mincr articles. Not the least valuable part of the importations are immigrants.
The exports from Siam are also very varlous, inclading, among others, black pepper, sugar, tin, cardamoms, eagle-wood, sapan-wood, red mangrove bark, rose-wood for furniture and calinet work, eotton, ivory, stick-lac, rice, areca-nuts, salt lish; tho hides and akins of oxen, buffaloes, elephants, rhinoceroses, deer, tigers, leopards, otters, civet cats, and pangolins; of snakes and rays, with the belly-shell of a species of land tortoise; the horns of the Luffalo, ox, deer, and rhinoceros; the bones of the ox, buffalo, elephant, rhinoceros, and tiger; dried deer'a sinews; the feathers of tie pelica:l, of stverul species of storka, of the peacock and kingfisher, etc.; and, finally, esculent awallowa' neats. The tonnage carrying on the China trade amounts in all to probably aliout 130 junks In number, a few of which are 1000 tous burden, and the whole shipping is net short of 35,000 tons.

The crade with the ditferent countries of the Malay Arehlpelago is, also, very considerable. In this intercourse, tho staple exports of Siam are sugar, salt, oil, nad riee; to which may be added the minor artieles of stick-lac, iron pans, coarse carthen-ware, hogs lard, etc. The returus are British and Indian piece goods, opium, with a little glass ware, and some British woolens from the European settlements, with commoditiea auited for the Chinese market-such aa pepper, tin, dragon's blood, rattans, bicho-de-mer, esculent swallows' nests, and Malay camphor from the native ports.
The total exports of clayed sugar and black pepper, the staple articles of Siamese export, may be estimated, the former at about $10,00 \mathrm{C}$ tous, and the latter from 3500 to 4000 tons.

Bankrupt and Bankruptoy. Bankrupts, in England, tirst haw enacted regarding them, 35 llenry VII1. 1543. Agaln, 3 of Elizabeth, 1560; again, i Jamea I. 160\%; again, 1706; and more recently. It was deternined liy the King's Bench that a luankrupt may be arreated except in going and comiag from any examination before the commissioners, May 13, 1780. The lord chaneslor (Thurlow) refused a bankrupt his certificato beet ase he liad lost five pounds at one time in gaming, July 17, 1788. Enseted that members of the II ouse of Commons becoming bankrupts, and not paying their debts in full, shall vacate their seats, 1812. thit new baukrupt bill, constitating a new bankrupt court, passed October, 1831.—Statutes at Large.
Nevera er haneuepta in great Batain at hiffreat pearous.

| 17 |  | 1820......... .... 1389 |
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|  |  |  |
|  | 432 |  |
|  | 120 |  |
|  | 13311 |  |
|  |  |  |

It would really, therefore, as it appears to us, be for the ndvantage of creditors, were all penal proceeding, against the porsona of honest deltors abolished. The dependenco placed on their effleaey is deceifful. A tradesman ought rather to trust to hir own prudence sud sagacity to keep out of acrapes, than to the law for redress: hefmay dual upon eredit with those whom he knows; but ho ahould deal for ready money only with those of wiose circumsinncea and characters the is either ignorant c: suspicions. By bringing penal statutea to his aid, he ls r-nderod momiss und negligent. lle has the ouly effectual means of aecurity in his own hands, and it aecuas highly liexpedient that ho should to tanght to negloet them, and put his trust in prisous.

It is pretty evident, too, that the ethicacy of imprisoinent th deterring individuala from runing into delt has been greatly overrated. Insolventa who are bon-

## ties: coarde

 ksilver, tea, ilk, crapes, shoes, fans, ier, incense ot the lenst grants. ious, incladtin, cardagrove bark, jtton, ivery, es and skins deer, tigers, ; of snakes of land terrhinoeeros; weeros, and tise pelican, k and king. lows' nests. amounts in er, a fow of le shipping $f$ the Malay In this h sugar, salt, miner arti--ware, hegs ndian plece some British th commodas pepper, culent swalintive ports. lack pepper, restimatell, latter frommkrupts, in 1, 35 llenry 0 ; again, 1 cently. it a boukrupt g from any y $13,1 i 80$. tukrupt his at one time nembers of ts, nad net seats, 1814. y bankrupt rge.
mpfedent poceeding, red. The ditful. A prudence o the law use whom mury only ters he is ng penal egligent. 1 his own ie should prlsons. mprisoanto dobt are holl-
est mus'. have sufered from misfortune, or been dlsappolnted in the hopes they entertained of being able, in one way or other, to discharge their debts. The fear of imprisonment does not greatly influence such persoas; for when they cuatract debts they have no doubt of their abllity to pay them. And though the imprisonment of bona fule insolveats wero abolished, it would give no encouragement to the practices of those who endeavor to raise money by false representutions; for these are to be regarded as swindlers, and ought, as such, to be subjected to adequate punishment. At present, indeed, the lav is much too indulgent to this description of persous. Traders or others who endeavor to obtain goods or loans of monoy, whether by conccaling or misrepresenting the real state of their affairs, are, in fact, about the very worst specles of cheats; and the temptation to resort to such practices, and the facility with which they may be carried into effect, should make them, when detected, be visited with a proportionally incs:ased saverity of punishment, on the prineiple laid down by Cicero, that ca suat animadrertenda peccata maxime, que dificillime precaventur.

While, however, the law of England has always given the crediter an unnecessary degree of power over the delitor's person, it did not, till very recently, give sutficient power over lis property. In this resject, indeed, it was so very defective, that one is almest tempted to think it had been intended to promote the practices of fraudulent debtors. The property of jersons subject to the bankrupt and insolvent laws was, $i$ is true, nemloally placed at the dicpossal of assignees or trustees, for the benelli, of siteir creditors; bet when a person possessed of property, but not subject to the bankrupt laws, contracted debt, if he went abrond, or lived withln the rules of the King's bench or the Ivet, or remained in prison without petltioning for relief, le continued most probably to enjoy the income arising from that property without mulestation.
accoont of the Number of Bankruitoler oazetted in badi Yeag, from 1847 to 1852 inclubive.

| Districte. | 1847 ? | 1848. | 1849. | 1 1sso. | 1881. | 1889. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| tiverpool ..... | 150 | 10. | 113 | 06 | 130 | 72 |
| Manchester ... | 164 | 145 | 80 | 06 | 69 | $5 s$ |
| Birmangham .. | 158 | 173 | 118 | 102 | 13 | 106 |
| Leeds . . . . . . . | 140 | 119 | 94 | TII | 90 | 78 |
| Bristal........ | 120 | 152 | 08 | 52 | 68 | 49 |
| Fxeter. | 63 | 85 | 52 | 33 | 15 | 27 |
| Neweastle..... | 52 | 60 | 60 | 82 | 22 | 33 |
| Totat country.. Loddon....... | (56) | 1108 | 682 | 426 | 462 | 452 |
|  | 800 | 7115 | 574 | 411 | 478 | 399 |
|  | 165.1 | 1008 | 1268 | 8.7 | 435 | $8: 2$ |

France.-In June, 1838, the French law of bankruptey and insol voncy was abrogated, and an entirely new law was promulgatel, which now forms llook III. of the "Code de Commerce."

Cnitel States.-The power of maklng uniform laws on the subiject of bankriptey in :lu Thited States, is, by the Constitution, conferred upon Congress, and was generally understeod to be excluslvely vested in that body. This power was exercised by Congress ln 1800, by the ennctment of a hankrupt law, limited to tive years, and which was repealed by act of December 19 , 180:1.-Kenr. The Congress of the Uuited States legislated a second thme on the subject of bankruptey, by an net, pussed in Angust, 1811, to establish a uniforn' system throughout the Uniun, which took effect on the 2d February, 1842, but was repealed Mareh 3, 1843 . The repeal of this act scarcely allected any existing interests, us almost every delitor lind hastened, in anticipution of the possibility of lts repenl, to take advantare of it voluntarily. *At present there ls uot any bankrupt system under the general govermment of the United Stater, and the several States are left free to Institute their own haukrupt systems, under certaln limitations. The Suprene Court of New York had ileclared the bankrupt net of Cougross to be cunstitutional (Justice Bronson dlssenthg), but the U. S. District Court of Mlissouri deelared it to be uuconstitutional.

Barbadoes, or Barbados, is one of the West India islands belonging to Great Britain, and the oldest of her settlements in that part of the world. The exact date of its discovery is unknown, but it was probably not later thar the early part of the sixteenth eentury. The Portuguese are supposed to have heen the first Europeans that visited this islantl, as it lay alr ost directly in thelr course to and from Brazil. They, however, had not regarded it as holding forth sufficient inducements for colonizing, as when first visited by the English in 1605 it was destitute of inhabitants, and covered with thick forests. The first Eugllsh vessel that arrived there was the Olive Blossom, the crew of which took possession of the island in the name of King James, by erecting a cross upon the spot where Jamesiown was afterward built, and cutting upon the bark of a tree that stoed near, "James, K. of E. and this island"-Iames, king of England and this island. The favorable accounts which Sir William Courteen, a London merchant, afterward received of the island from one of his ships thnt had tonched there, iaduced him to attempt a settlement. He accordingly fitted out two large vessels under the protection of Lord Ley, afterward Eari of Marlborough, who had obtained a grant of this island from Jamea I. One only of these ships arrived at its destination on 17th February, 1625, and landed 40 Eoglish, and 7 or 8 negroes, who laid the foundation of a town, which, in honer of their sovereign, they called Jsmestown.
Harbadoes is the most eastern of the Caribbee islands, lying 78 miles due east of the island of St. Vineent, between lat. $13^{\circ} 2^{\prime}$ and $13^{\circ} 19^{\prime}$ N., and long. $59^{\circ} 26^{\prime}$ and $59^{\circ} 39^{\prime} \mathrm{W}$. It presents almost the form of m irregular triangle; its greutest length, in a direction north by west, is nearly 21 miles, and its extreme breadth from east to west is $14 \frac{1}{2}$ miles. Iis circumference, excluding the sinuosities of the bays, is 55 miles, and its area 106,470 acres, or about 166 square miles. $\mathrm{J}_{\mathrm{i}}$ size, and in some measure in its outline, it bears a considerable resemblance to the Isle of Wight. It is almost, encircled by coral reefs, which in some parts extend seawaril for nearly three miles, and $p$ :ove very dangerous to navigation.
The chlef stople articles produced in Barbadoes for export are sugar, arrow-root, aloes, and cotton. The following table gives the value of the imports and exports for the years 1849,1850 , and 1851 :

| Yent. | Importa. | Exporis. | Tonnage. |
| :---: | :---: | :---: | :---: |
| 1849 | C691,478 | 2701,740 | 85,731 |
| 1850 | 784,368 | 831,634 | 96,38t |
| 160t | 78:1,477 | 887,627 | 95,272 |

Carlisle llay, the port or harbor of Barbadoes, forms an open roalstead, which is much exposed to the wind when blowing from the sov:h and southwest. It is spacions, and capable of contalning upward of 500 vessels of all sizes. It allords, however, no protection cluring gales; and at such thmes vessels at anchor generally prefer putting to sea, to runnlug the risk of being driven ashore.-E. 13.
Barcalao, or Bacalao, the Spanish nume for cod. Barcelona, the enpitnl of Catalonia, nut the principal town of Spain on tho Mediterranean, lat. $41^{\circ} 22^{\prime}$ $68^{\prime \prime}$ N., long. $2^{\circ} 8^{\prime} 11^{\prime \prime} \mathrm{E}$. It is a strongly fortilied, well-bulat city. The population is supposed to amount to about 120,000 . Burcelona is eminently distinguished in the history of the Middle Ages for the zeal, skill, mad suceess whth whleh her citizens prosecuted commercial adventures at a very enrly perlod. She would seem also to be eatitled to the honor of having compiled and promulgated the famous cole of marithme law known by the nawe of the Consolato del Mare; and the earllest authentle notlces of the practice of marine insurance anal of the negotlation of bills of exchange are to be found ln her annuls. Catalenla has continued, amidst all the vicissitudes It has undergone, to be the most lndustrious of the Spmish provinces. Soveral

## BAR

extensive manufacturea hava been eatabliabed in Parcelona, especially of cotton; and no fewer than 23 steamengines were erected in Catalonia in 1842, the greater number being in Barcelona. Latterly, however, her commerce, owing to a varlety of causes, but principally to oppressive restrictions on the importation of foreign groods, the emancipation of South America, and internal dissensions, haa very much declined.

Imports.-The principal articles of import are raw cotton, sugar, coffee, cocoa, and other coionial products, principally from Cubs and Porto Rico; aalted fish, lides, and horns; iron and hardware, etc. Moat species of manufactured goods are prohibited; but it is needless to add that they are, not withatanding, largely imported into this as inte most other parta of Spain. The trade with the colonics, France, and the coasting trade is pretty active. The imports from England are not very considerable, and the exports little ornothing. In 1842, no fewer than 3667 vesacla entered the port: but these were mostly consters of small size, the bur den of the whole being only 189,117 tons.

Exports.-The principal exports are wronght silks, soap, tire-arms, paper, hats, laces, ribbons, steel, etc. But no vessels, except a few that take on board manufactured goods for the Spanish West Indies, are loaded here; and even this trate is much fallen off. Upward of 2000 hends used formerly to be employed in the city in the manufacture of shoes for the colonies; but their export hes now nenrly ceased. The prineipal articles of native produce that Catelonia has to export are most conveniently shipped at Villanova, Jarragona, and Solon. They consist of wine, brandy, nuts, almonds, cork, bark, wool, fruits, etc. Of these, Cuba takes annuelly about 12,000 plpea of wine, worth at an average $£ . l$ per pipe, and about 3000 pipes of brandy, worth $£ 8$ per do. ; South America, 16,000 pipes of wlne, and 6000 do. brandy ; the north of Europe, 2000 pipes of wine, and 2000 do. brandy. A good tieal of brandy is sent to Cadiz and Cette: most part of the former finds its way into the wine vaults of Xerea; and the latter, being conveyed by the ennal of Languedoc to the Garonne, is used in the preparation of the wines of Bordenux. From 25,090 to 30,000 bags of uuts are annually sent from Tarragona to England. Tarragoua also exports about $12,000 \mathrm{bags}$ of ainonts. The shipss belonging to the port carry on no foreign trade except to the Spanish West Indles; thoy are fow in number, and are daily decreasing. Those engaged in the coasting trade are usualiy of very kmall burden. We linve derived these detalls from various sources; but principally from Ibritish Consular Returns, and from Inglis's Spain in 1830, vol. ii. p. 384-387, and 362.

Barilla (1)u. Sr la; Fr. Soude, Harille; Ger. Sode, Barilla; It. Burriplia; I'ort. Solde, Barrilha; liuss. Socianka; Sp. Barilla; Arab. Kali), carbonnte of soda (see Aıkarizes), is found native in Hungary, Efypt, and many other countrics. It is largely used by bleachers, manufacturers of harl soaps, flass-makers, ete. The barilia of commerce consists of the nshea of several marine and other planis growing on the seashore. The best, or Allcant Ibarilin, is jrepared from the Salsolu soda, which is very extensively cultivated for this purpose in the huerta of Murcia, and other places on the eastern shores of Spain.-'t'owsensis Trurels in Spain, vol. IIi. p. 195. The plants are gathered in Sepitember, dried, and burned in furnaces heated so ns to bring the ashes into a state of imperfect fusion, when they conerete into hard, dry, cellular masses of a grayish bue color. Sicily and Teneritlo produce gool barilla, hat inferic: to that of Alicant and Cartharena. Keli, which ls a less pure alkali, Is formed by the incineration of sea-weed. See Ket.r.

The Saracens established in Spain scens to have been the first who introduced the manufacture of bariila into Eorope. They ealled the planta employed in its preparation kali; and thia, witl the Arabic article al prefixed, has given rise to the modern chemical term
alkall. Prime quality in barilla ia to be distinguighed by Ita strong smell when whetted, and by its whitish oulor. I'articular attention ahould be paid to have as littie small or dust as possible. The manufacture of artificial soda (soude factice), now very extensively carried on, occasioned an oxtraordinary decilina in the imports of barilla, the quantity entered into Great Britain for home consumption in 1834, amounting to 237,712 ewt., having been reduced in 1811 to 47,380 ewt. Conslderable quantitiea used formerly to be im: irted from Tencriffe, but it now comes principally from Alicant in Spain, and Sicily. Thus, of 1744 tons imported into Great Britain in 1850, 836 came from Spain, 753 from Italy (Sicily), 109 from the United States, and none from the Canarics. The duty on barilla, after being reduced ill 1842 from 40 g , to 5 s , a ton, was whelly repealed in 1845 . But even this judicious measure has not had so much infiuence over the consumption of the article as was expacted. In 1852, the imperts amoonted to 1807 tons, or $36,140 \mathrm{cwt}$. none of which was re-exported.-Parl. Paper, 1853.

Bark, the outer rind of plants. Thero is an immense variety of barks known in commerce ; as, cinnamon, Perovian bark, oak bark, quercitron, ete. Tho ' rm " bark" is, however, generally empleyed to ex1:ress either Peruvlan bark or oak bark, and it is these only that we shall notice in thia place.

1. Perurian or Jesuits' Bark (Fr. Quinquina; Ger. Kron-china; Du. China-bast; Sp. Quina, Quinquina; Lat. Quinquina Corter Pervrianus). There are three principal species of this bark known in cemmeree, which have been elaborately descrihed by Dr. A. T. Thomson, from whose account the following partienlers are selected. The first species is the pale bark of the shops. It is the produce of the Ciuchona lancifolia, and is the original cinchona of Peru. It is now very searce. It is imported in chests covered with akins, ench contuining about 200 pounds, well packed, bat generally mixed with a quantity of dust nnd other heterogencous matter. It consists of pieces 8 or 10 inches long, some of them leing searcely one-tenth of an inch thlek, singly and donbly quilled, or rolled inward, the quilis generally being in size from n swan's quill to an inch and a half. It is internally of a palide fawn or cinnamon hue, but approximates, on beling moistened, to the color of n palo orange. When in subistance it has searcely any odor, but during decoction the odor is sensible, and agrecably aromatic. The taste ls bitter, but not unpleasant, acidulous, and austere. The second species, or rei linrk, is olitained from the Cinchona oblongifolia, growing on the Andes. It is imported in chests containing from 100 to 150 pounds cach. It conslsts of variously alzed pieces, most of them liat, Int some partialiy quilled or rolled. The internal part is woody, and of a rust red color 1 it has a weak jeculiar odor, and its taste is much less bitter, but more austere and mauscous, than that of the other barks. The third species, or yellow hark of the shojes, is obtained from tho Cinchona corlifislia, growing in Quito and Sunta Fí, It is imported in chests containing from 90 to 100 pounds ench, consisting of pieces 8 or 10 inches long, some quilled, but the greater part flat. 'The Interior is of a yellow color, passing to orange. It has nearly tho same odor in decoction as the pale; the taste fa more bitter and leas anstere, nud it excites no astringet feeling when chewed. 'The goodsess decreases when the color varies from orango yellow to pale yellow; when of a dark color, bet ween red and yeliow, it should he rejected. It is needless to add, that lark is one of the most valuable medleal remedies. The Indians were unacquainted with its uses, which seem to have been Ilrat discovered by the Jesuits. It was lutroduced into Europe in 1082, hat was not extensively used till the latter part of the nevententh century. Accorling to IIumboldt, the Jeaults' bark minually exported from America amounts to from 12,000 to 14,000 quintals. Of these, 2000 are
furnished by Santa Fó, and 110 by Loxa; Peru furnishing the remainder, which is shipped at Callso, Guayaquil, ete.
2. Oak Bark (Fr. Ecorce de la Chêne; Ger. Eichenrinde; 1t. Corteccia della Quercia; Lat. Quercus cortex). The bark of the common oak la a powerful astringent, sad is preferred to all other substances for tanning leather. The bark of the larch is now, however, used for twe same purpose. Though the importatlon of oak bark into lingland for tanning has somewhat decline?, it is still very considerable. It is impossible, however, to state its exact amount, inasmuch as a species of oak bark, called quereltron, the produce of the Quercus tiactoria, importell from abrond, and used to give a yellow dyo to silk and wool, is mixed up in the cus-tom-house retu.ns with bark for tanning. rite dat: which is ly far the most important, is brought pri pally from lBelgium and Holland, Germany, Itai, wid Spain, Norway and Australia. Quereltron is found prineipally in the United States. The quality of bark differs-according to the ago and size of the tree, the season when it is burked, etc.-so mueh that its price varies from $£ 5$ to $£ 10$ a ton. The duty on bark for tanning and dyeling, which prevlously to 1842 was 8 d . a ewt., after being then reduced to $3 i$., was repealed in 1845. In 1852 the imports and exports of Pernvian bark were rospectively 18,207 and $10,092 \mathrm{cwt}$. DurIng the same year was lmported 403,930 cwt. bark for the use of tanners and dyers, of which only 146 cwt. was re-exported. But in addition to the above wero imported, in 1852, 2515 tons divi livi, and 13,871 tons valonia, of which very littlo was re-exported. Belgium, IIolland, the United States, Germany, Italy, and Norway furnish by far the largest portion of the imports of oak bark. Wo are intobted for the discoverv ind application of the uscful properties of quer eitron to Ibr. Bancroft. The tloctor obtalned a pritent for his invention in 1755; but the Amerlean war breaking out soon after, deprived him of its advantages. In consideration of this circumstance, l'arliunent passed, in 1785, an act ( 25 Geo. 3, e. 38) securing to him the privileges conveyod by his patent for 14 years. At the expiration of the latter period the Honse of Commons agreed to extend the doctor's privilege for mil additional 7 years, but tho House of Lords rojected the hill. Like too many discoverers, Dr. Bancroft prolited but little by hls invention, though it has been of great use to the arts and manufactures of tho coun-try.-J. K. M. See Bancroft on Permanent Colors, vol. li. p. 112, and the Report of the Committee of the Ilouse of Commons on Patents, Appondix, p. 175.

Barley (Fr. Orge; Ger. Gerstengraupen; Du. Ryg; It. Orzo; Sp. Cebada; Russ. Litschmea; lat. Ifordeum; Arab. Dhourra; Ilind. done), a species of hread-corn (Ifordeum, Limu.), of which there aro several varlotles. It is extensively cultivated in most European countries, and in many of the temporato districts of Asha nud Africa. It inay also be ralsed between the tropics; but not at a lower elevation than from 3000 to 4000 feet, and thee it is not worth cultivating. Large quantitles of barley have leen, for a lengthened poriou, raised in Grent Britnin. Itecently, howover, its eulthvatlon lans been supposed, thought probably on no gool grounds, to be decllaing. In 1765 Mr . Charles Smith estimated the number of bari ; cousmmers in England and Wales at 739,000 ; unil as a large propertlon of the population of Wales, Westmorehand, and Cumberland continue to subsist chictly on larley brend, wo aro Inellued to think that this estimate nay not, int present, he very willo of the inark. But the prinelpal temmal for luarley in Great IIrltain is for conversion fito malt, to lie used in tho nunufucture of ale, jorter, and BrltIsh spirits; and though its consumption in this way has not certalnly lnereased proportionally to the lincreaso of wealth and population, still thero does not scem to be any ground for aupposing that lt has diminlshed. Barley is also extenslvely used In futten.
ing black cattle, hogs, and poultry. It now generally followa turnips, and lo a very important crop in the rotation best adapted to light soils. The produce vam ries, according to soil, preparation, season, etc., from about 20 to 60 or 70 bushels an acre. The most usual crop is from 28 to 86 or 38 bushels. Barley is a tendar plant, and easily hurt in any stago of ita growth. It is more hazardoua than whent, and is, gencrally speaking, raised at a greater expense; so that its cultivation should not be attempted except when the soil and climate are favorable for its growith.-For further Catails as to its consumpition and culture, see Smitu's Traets on the Corn Trule, 2d ed. p. 182; Brown on Rural Affairs, vol. il. p. 42; Lovdon's Encyel. of Agriculutre, etc.

Barometer and Thermometer. Torricelli, a Florentine, having disoovered that no principlo of suction existed, and that water did not rise in a pump) owing to nature's abhorrenco of $a$ vacuum, imitated tho aetion of a pump with mercury, and made the first barometer in 1643, and Descartes explained the phenomena. Wheel barometers were contrlved in 1668 ; pendent barometers in 1695; marine in 1700 . The invention of the thermometer is aseribed to severs] selentific persons all about the same time. Invented by Drebbel of Alemaer, A.d. 1609.-Bomminavic. Invented by Paulo Sarpi, 1609 .-Fulaentio. Invented by Sanetorio in 1610.- Bonelin. Fulirenheit's thermometer was invented about 1726 ; and tho scale called Reaumur's soon after, 1730 . The mode of construction, hy substituting quicksilver for spirlts, was invented some years subsequently.

Barra, or Vara, in Commerce, a long measure used in Portugal nud some parts of Spain, to measure woolen and linen eloths and sorges. In Valencla, 18 barras $=$ 12 6-7 yarls English measure; in Castile, 7 barras $=$ $64-7 \mathrm{yds}$; and in Aragon, 3 harras $=24-7$ yds. -E. I3.

Barracan, in Commerce, a sort of stutf somethiog liko camlet. It is used to make various outer garments. The citios where barracans are chiefly made, in France, are Valenciennes, Lisle, Abbeville, Amiens, and Ronen.-D. 13.

Barratry, in Narigation, is, in its most oxtensivo sense, any frandulent or unlawful aet committed by the master or mariners of a ship, contrary to their duty to their owners, and to the prejuctice of the hatter. It appears to bo derived from the Itallian word barratiare, to cheat. It may be committed by running away with a ship, willfully earrylng her out of tho courso preseribed by the owners, telaying or defesting the voyage, deserting convoy without leave, sinking or desertiag tho ship, embezzllug the cargo, smuggling, or any other offense wherely the shlp or curgo may bo subjected to arrest, detention, loss, or forfeiture. It is the practice in most countries to insuro ngainst barratry: Most foreign jurists hold that it comprehenils every tault which the master and erow can commit, whether lt arise from iraud, negligenco, unskillfulness, or mero imprudence. But in England it is ruled that no act of the master or crow shal] bo deemed barrutry, unless it proceed from a criminal or froudulent untive. "Jlarratry can only bo committed by the master and mariners ly some set contrary to their luty in the relution in which they stand to the owners of tha ship. It is, therefore, an offense agalnst them, ume censerpuently an owner himself can not commit barratry. He may, by his fruudulent conduet, make bimselt liablo to the owner of the goods on hoatd, hut not for barratry. Nelther can barratry be vommitted apainst the owner with his consent; for though he may lie linhle for any loss or damage oceasioned by the misconduet of the master to whleh he consents, yet this is not larratry. Nothing is more clear than that a man can nover set up as a erime an act done by lifs own tlirectlon or consent."-Mansilaid on /nauramice, look 1. c. $12, \S 0$.

When, therefore, the owner of a ship is also the mas-
ter, no act of barratry can be committed; for no man can commit a fraud against himsolf. It is a maxim in law, that fraud shall not be presumed, but must be clearly proved; and it is a rule in questions of insurance, that he who charges barratry must substantiate it by conclusive evidence. It is not necessary, to render an act barratrous, that it should be committed with a criminal intent as respects the owners, in order to injure them, or to benefit the eaptain or erew. It may chen be committed with a view to promote the owner's interests; for an illegal act done without the authority or privity of the owners, and which proves detrimental to them, ia barratry, whatever be the motives in which it originated. Lord Ellenborough, in ati able judgment, has laid it down as elear law, "that a breach of duty by the master in reapect of his owners, with a fraudulent or criminal intent, or ex maleficio, is barratry; that it makes no difference whether this act on the master be Induced by motives of advantage to himself, malice to the owner, or a disregard of those laws which it was his duty to obey; and that it is not for him to judge or suppose, in cases not intrusted to his discretion, that he is not Ireaking the trust reposed in him, when he endenvors to advance the interests of his owners by means which the law forblds, and which his owners also must be taken to have forlidden." The circumstance of the raners of ships heinf permitted to insure against the warratry of the master and mariners can hardly fiill, it may ? not uncharitably presumed, of rendering then less serupulous in their inquiries with respect to their character than they would otherwise 's. Perhups, therefore, it might be expedient to prohilit such insurances, or to lay some restrictions upon them. They were, indecd, expressly forbidden by the Ordinance of Rotterdam; and lord Manatield, whose authority on all points conneeted with the law of at: rance is so deatrvedly high, seems to have thought that it would be well to excludo lan ratry entirely from pulicies, and to cease "making the uncierwriter become the insarer of the conduct of the eaptain whom he does not appoint, and ean not dismiss, to the owners who can do either." Hut though it were expedient to prevent the owners from making an insuranee of this sort, nothing can lie inore reasonalle than that thirt partos, who freight a ship, or put goods on tourd, should be allowed to insure aguinst such a copious souree of loss.

F'er a further diseussion of + .s sibjeet, see the articlo Mabine Insulance; nnd Nanshalif om ${ }^{\text {B }}$ Insurance, book i. c. 12, § 6, ...d Palik on Insur.nce, e. b. Owners, masters, or seamen, wloo wulfully cast away, harn, or destroy ships, to the prejudice of freishters or insurers, incur the penalty of death. - -See Stamus.

Barrel, a caak or vessel for hohblag licuids, particularly ale and beer. Fomerly the burrel of bear in London contained only 32 ate gallons $=32 \frac{1}{2}$ [mperia] callons; but it was enacted by 43 Gico. 3, e. 69, that 86 galtons of heer shoulit be tuken to be a hat rel; and ly the 6 Geo. 4, c. 58 , it is enaeted, that whenever any gallon measure is mentioned in any exelse law, it shall always be deened and taken to be a staniard imperial gallon. At present, therefore, the harrel contalns 86 imperial gallons. It may le worth while observing that the barrel or cask is exciusively the produce of Finropean Ingenulty; nud that no such article is hnown to any mation of Asin, Afrien, or Ameriea, who have not ilerived it from Europeans.
Barricade, in Natal irchitecture, a ktrong wooden rall, supported by stauchions, extending acrose the foremost part of the quarteraleek in ships of war. The vacant spaces between tho atanchions ure coms. monly tilled with ropemats, cork, or pleces of okd eable; and the upper part, which contains a double rope-netting alove the rail, is stuffed with hammocks, to prevent the execution of small-ahot in time of no-tion.-E. B.

Barwood, a red dye wood brought from Africa,
particularly from Angela, and the River Gaboon. The dark red which is commonly seen upon British bandana handkerehiefs is for the most part produced by the coloring matter of barwood, saildened by sulphate of iron.-Bancuoft on Colors. The imports of barwood into England, in 1841, amounted to 2012 tons. It brought, in January, 1843, from $£ 3$ to $£ 4$ a ton (duty 2s. Included) in the London market.

Baskets (Fr. Corbeilles; Ger. Körbe; It. Paniere; Sp. Canastas, Canastos; Russ. Korsinü) aro made, as every one knows, prineipally of the interwoven twigs of willow, osier, bireh, etc., but frequently also of rushes, splinters of wood, straw, and an imnense variety of other materials. They ar used to hold alt sorts of dry goods, and are constructed of every variety of tuality and shape.

Bast, for straw hats or honnets.-See Hats.
Batavia, a city of the islund of Java, the capital of the Dutch possessions in the East Indies, and the principal trading purt of the Oriental islands, lat. $6^{\circ}$ $8^{\prime} \mathrm{S}$., long. $106^{3} 50^{\prime}$ l., on the northwest coast of the islomul, at the month of the Jaceatra River, on an extenslve bay. The harbor lies between the main ?and and several small uninhablted islands, which, luring the boisterous or northwestern monsoon, afford sufficient shelter and grood anchorage. Population in 1842, 03,860 , ineluding about 3001 Europeans; the rest are Chinese, Javanese, Malays, etc. It is built on marshy ground, and intersected by canals in the Iuteli style; defented by a citatel and several batteries, anil has a consideraille garrison and marine arsenal. Mean temperature of year, $78^{\circ} \cdot 3:$ winter, $78^{\circ} \cdot 1$; summer, $78^{\circ} \cdot 6$ l'ahrenhelt. Temperature at midday, $80^{\circ}$ to $90^{\circ}$; nt night, $70^{\circ}$ Fuhrenheit. It has a studthouse, exchange, hospital, numerous churches, a mosque, a Chinese and two orphun hospitals, several Chinese temples, a large clubhouse termed the Harmonie, and a br tanic garilen. Hutavia was formerly so very iasalubrious, that General Daendels was anxions to transfer the seat of government to Sourabaya; but belng thwarted in this, he set about luilding a new town, a little farther inlund, on the heights of Welte. vreden, whither the government uffices were immeliately removed. Most of the principal merchants have now their residences in the new town, repairing only to the old city, when business reguires it, churing a portion of the day. In consequence, the ohd town is at present principally oceupied by Chinese, and the rescendants of the ancient colonists, several of its streets having been deserted and demollshed. More recently, however, the Haron Capellen, whose enlightenced ahatinistration will long he gratefully rememlered in Juva, seusible of the superior ulvantages of the old town as a place of trade, exerted himself to 1 revent its further decay, by removing the causes of ite unhealthiness ; to accomplish whleh, he whilened sercral of the streets, filled up some of the cumals, and eleansed others, demolished ureless fortificutions, ete.; and the effect of these judlcious measures has Leen, that Batavia ls now as healthy as any other town of the silant. It is the sent of a supreme commission of pullic instruction for the Dutch East Indies, und has a sched of arts and selences, and jublishea n newspuper. The Juecatra la navigalie by vessels of 40 toms two miles inland; whips of from 300 to 400 tons anchor in the luy; one mille and a half from shore. Hatavin is the great commercinl emporimm of the Asiatic Archipelago, and absoriss by far the greatest projortion of the trude of Java mid Madura; the annual exports of which islands amount to $\mathbf{t 0 , 4 0 0 , 0 0 0}$ florins ( $825,123,000$ ), mul the imports to $89,000,000$ Ilorlas ( $012,000,000)$, Exports consist mostly of coffee, sugar, pepper, hudigo, hides, cloves, uutmegs, mace, tin, rice, ratans, and nrrack. Chief imports, linen anil cotton good, woolen stufls, provisiona, whes, metallle wares, fad munufnctured articles of all kinds from Europe nod Amerina; with the prod-
oon. The ritish banoduced by y sulphate rts of bsr12 tons. It ، ton (duty
t. Paniere; c made, as oven twigs ly also of 1 immense to hold all every vari-

ATs.
the capital es, and the Ids, lat. $6^{\circ}$ t of the islan extens. a !and and during the 1 suffieient in 1842, he rest are on marshy tth style; s, and has al. Mean ; summer, ay, $80^{\circ}$ to tadthouse, mosque, a d Chinese monie, and o very innxiois to saya; but
ing a new of Weltee imbuelipants have iring only during a dd town is , and the ral of its d. More e enlight. renternntages of himself to causes of willened mals, and uns, etc.; has lseen, town of rission of , nud has a news. els of 40 400 tons min share. n of the greatest the an1,100),(010 1,000,000 $y$ of cofutmegs, imports, wisions, icles of he prod-
nets of the Archipelago, China, Siam, Bengal, Japan, and the West Indies. It was founded by the Dutch in 1619; taken by the English in 1811, and occupled by them till 1816. The district of Batavia, extendligg along the north shore of the island, is flat and not so fertile as the other provinces of Java. The residence of the governor general was transferred from Buitenzorg to Batavia in 1847. As the population has inereased slnce, it may at present be estimsted at from 130,000 to 140,000 , independently of the military, of which there are always a considerable number. Among the principal merchants are Dutch, Engllsh, Americans, l'reneh, and Germans. The island of Java forms the most important portion of the Dutch possessions in the East, and is, in fact, oue of the finest
colonies in the world. It contains, Including Madura, an srea of 52,000 square miles, with a population of nearly, if not quite, $\mathbf{1 0 , 0 0 0 , 0 0 0}$.

Tur Values of tile Exponts fron Java, and tuein Destination, in 1846, 1830, and 1820, weak as follows.

| Countris. | 1846. | 1836. | 1836. |
| :---: | :---: | :---: | :---: |
|  | Floring | Floring. | Florion. |
| Netherlands... | 39,003,848 | 27,232,588 | 6,613,526 |
| Indlan Archipeiago. | 0,326,548 | 6,702,153 | 4,357,783 |
| Great Britain . . . . . | 2,005,987 | 139,592 | 840,098 |
| Chtna, Mneao, ete. . | 1,886,703 | 3,318,706 | 1,076,102 |
| Franes . . . . . . . . . . | 1,326,149 | 1,944,145 | 42,232 |
| America . . . . . . . . . | 1,192,644 | 1,002,520 | 211,281 |
| llambarg . . . . . . . . | 615,041 | 108,142 | 09,284 |
| , wrden ............ | 845,049 | 253,059 | 57,172 |
| (0'her places . . . . . . | 711,808 | 309,315 | 059,735 |

Offlotal Account of the Quantities of tue Pbinchal Abticles of Pbodece exported from Java and Madera in tir foliownti Yeaas.

| Yeara, | Coffee. | Pepper. 1 | Iadigo. | Hides. | Cloves. | Nutmega. | Sugar. | Tin. | Rice. | 20. | Meec. | Arrack. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pieuls. | Pieuls. | Pounds, | Piecea. | Picuia. | Pienis. | Picula. | Picula. | C'oyacs. | Piculs. | Picuis. | LogR: |
| 1830 | 288,740 | 6,061 | 22,003 | 30,249 | 803 | 1,304 | 108,640 | 21,420 | 16,621 | 5,020 | 177 | 1,427 |
| 1835 | 460,871 | 11,868 | 535,763 | 139,005 | 4,660 | 5,022 | 489,043 | 40,856 | 25,577 | 4,905 | 1,600 | 2,075 |
| 1540 | 1,132,124 | 0,011 | 2,129,011 | 110,404 | 53 | 3,600 | 1,024,493 | 02,334 | ${ }_{\text {Pleala. }}$ | 28,082 | 870 | 5.261 |
| 1811 | 001,46* | 13,477 | 1,827,386 | 160,472 | 7.000 | 5,125 | 1,040,576 | 48,840 | 670,213 | 37,017 | 1,171 | 4,072 |
| 1342 | 1,013,854 | 10.441 | 1,627,487 | 167.677 | 1.718 | 5,120 | 884,685 | 09,127 | 85.1 .157 | 38,50 | 1,432 | 4,668 |
| 1843 | 1,018, 102 | 23,083 | 1,820,124 | 152,310 | 2,027 | 2,113 | 020,709 | 45,705 | 1,008,774 | 73,535 | 490 | 6.302 |
| 1844 | 1,299,985 | 12,484 | 1,048,520 | 154,224 | 2,800 | 8,131 | 1,003,632 | 08,729 | 785,276 | 73,600 | 2,300 | 6,258 |
| 1845 | 1,006,190 | 11,527 | 1,055,369 | 105,751 | 2,234 | 3,403 | 1,455,423 | 73,537 | 447,017 | 61,260 | 830 | 4,378 |

Account of the Quantities and Valurb of the Pbinetipl Aaticles exported from Java and Madera in 1830 and 1815.

| Principal Aricles. | Quantitien exported ia 1836. | Value of Eiaports in 1838. | Quanlities asported in 1845. | Value of Euporta in 1845. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Florias. <br> 115, 205 | 4,378 leggers. | Floring. 153,228 |
| Arrack . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 109,008 pleces and 846 picuis. | 217,715 | 105,5\% pleces. | 103,228 220,649 |
| Indige. | 407,798 pounds. | 1,122,382 | 1,513,869 poumds. | 4, 4001,608 |
| Coffee . . . . . . . . . . . . . . . . . . . . . . | 498,078 pleals. | 16,040,362 | 1,000,100 pleuls. | 20,123,708 |
| 1'rpper . . . . . . . . . . . . . . . . . . . . . | 7,006 pleuls, | 125,035 | 11,527 plenls, | 184,483 |
| Rice... | 3e,430 coyans, | 3,389,615 | 447,017 pleuls. | 2,682,101 |
| Splees, Mace . . . . . . . . . . . . . . . . | 991 piculs, | 890,268 | 830 pieuls, | 132,834 |
| Clover. | 2,185 pieuls. | 153,030 | 2,234 pleuls. | 201,045 |
| Nintmegs . . . . . . . . . . . . . | 3,880 pleuia. | 1,711,600 | 3,403 pleuis. | 510,083 |
| Sugar . . . . . . . . . . . . . . . . . . . . | 509,514 plecits, | 0,083, 141 | 1,455,423 pleuls, | 20,350,209 |
| Tobaceo . . . . . . . . . . . . . . . . . . . . | 2,4i7 kodles. | 769,950 | 5,811 kodtes. | 2,324,480 |
| Tit1.......................... | 47,739 pleuls. | 2,718,810 | 73,530 pteuls. | $4,0+4,618$ |
| All other artleles and treasure... | -** * | 7307.833 | 析 | 10,005,888 |
| Totals.. . ........... |  | 42,261,642 |  | 05,805,168 |

Bank of Bataria. - A bank, for the issue of notes must have stopped payments! This intervention has, and other lanking business, was established at Butavin in 1827, with branehes at Sanarang and Sourabays; the history of which ls not unlustruetive. The eapital of the bank, consisting of $2,000,000$ tlorins, divided into 4000 shares, was subseribed with difficulty; and the most unfavorable unticipations were entertainel of the success of the establishnent. No sooner, however, had the bank been set on foot than she began to enjoy a large share of prosperity. Tho rapid inerease of cultivation and commerco in Java led to a corresponiling demand for capital, anil to tho payment of a very high rate of interest on loans; and as the leans mado by the bank consisted of bauk-notes, which cost next to nothing, the protits became quite enormous; so much so that they anounted in 1837 to 33 per cent., the price of the 500 florins share of hauk stock heling then also 1550 florins. But this prosperity was us lirief as it was signal. The offor of an exorbitant Interest had tempted, in not a fow cases, the lank to make advanees no doultful security ; mill in Java, as elsewhere, issucs of paper payable on demand necessurily stop, the moment the circulation lus been fully saturatel with notes; and this result having theen attuined in 1838, mad the notes isaued by the bank beling henceforth returned on her for payment, she speedily became luvolved in the greatest difieultizs; many of thuse who depended on her advances for suppiort were no louger nblo to meot their engagemrnts ; and the whole lsland was suljeeted to a severe pecuinary and commerelal orisis: in fact, lint for the interventlon of the government, in 1840, when lianknotes were made ligal tender for a limited period, site
however, given her time to recover from the difficulties into which she had been precipitated; and having again, after sustaining a very heavy loss, resumed specie payments, it is to be hoped that she may profit in future by her past experience. We subjoin dividends paid by the Bank of Java from 1829 to 1840, both inclusive:

|  | Por Cent. |  | Per Ceni. |
| :---: | :---: | :---: | :---: |
| 1829. |  | 1835 |  |
| 1890. | . 12 | 1830 | 82 |
| 1831 | . 12 | 1837 | 33 |
| $18: 32$ | . 18 | 1838 | 20 |
| 1833 | 21 | 1830 |  |
| 1834. | 87 | 1840 |  |

General Remarks on Java.-The previous statements show that the produce and trade of Java have increased during the last dozen years with a rapidity unknown in any other colony, Cuba, perhaps, excepted; and if the resources and capahilitles of this noble island he fully developed, it is quito impossible to say how much further her trade may be extended. It would far exceed our limits, aml, even were this not the case, it would Invelve us in discussions nowlse sultalle for thils work, were we to enter into any detailed examination of the means by which the extension of culture in Java has lieen brought ehont. We may, however, shortly mention that the produce for exportation is prinelpally roised on account of government, partly by contributlons in kinu, and partly and principally by contributions of compulsory lator applied to its production. And, provided these contributions le not carrled to an excess, we inc., ne to think that they are at onco the loast onerous mode in which

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the natives can be made to pay their taxes, and the most profitable for the goveriment. It is, we apprehend, Idle to suppose that industry, If left to Itself, will ever become flourlahlng in a country llke Java, where the wants of the inhabitants are so fow and so easily satlsfled, or where the climate Indisposes to exertion. No doubt the system of compulsory labor may be eavily abused and converted into an inatrument of the most grinding oppresslon; but so long as it is managed with discretion and good sense, we are dlsposed to believe, from all we can learn, that it is preferable to every other system hitherto devised for developing the resources of tropical countries.-For some remarks on this aubject, see the learned and able Dissertatio IIstorico-Politica, on the Dutch East India Company, by Van Lijnden, published in 1839, p. 161-171.

Very great public improvements have also been al. ready effected, and are still in progress in the isinnd. Among others, an exceilent high road has been constructed through its whole length, from Bnntam, on Its weatern, to Sourabaya on ita enstern coast, whencecrossroads lead to all the principal stations. A number of forts have, also, been constructed in commanding situations In the interior, the principal of which, at Surackarta, near the centre of "te island, is a regulnr and atrong citadel. It is said to be the intention to transfer the seat of government thither from Batavla. These forts have been erected principally to keep the natives in check, and to prevent those outbreaks that have done so muci to retard the prosperity of the island. Several important establishments have nlso heen recently founded along the southerin coast, which had previously been all but neglected,-See Argout sur Jara, Singapore, etc.

Rice used to be the stnple product of Java; but it is now far surpassed by coffec and sugar, the culture of both of which has been astonishingly increased. In proof of this we may mention that the exporte of coffee, whlch in 1830 amounted to 288,740 piculs, had increased in 1845 to $1,006,190$ picula, or to 61,090 tons; while the exporte of sugrar, which in 1830 ambunted to 108,640 piculs, had increased in 1845 to $1,455,423$ piculs, or 88,365 tuns. More than linlf the trade of the lslund centres in Batavia. Indigo has also become an Important product. The other principal articics of export are tin from Banca, tobaceo, tea, and birds' neats. The Imports compriso cottons, woolens, and other manufactured goods; wines and spirits, with iron, hardware, and machinery ; opium from the Levant and from Bengal; and a great variety of other articles.

Port Regulations.-The following is the aubatance of the port regulations of Batavia: 1st. The commander of a ship arriving in the roada is not to lund hlinself, or permit any of his rrow or passengers to land, until his vessel be visited by a loat from the guardshlp. 2d. The mnster, on Innding, is flrst to wait on the master attendant, and nfterward report himself at the pollce office. 3d. A manlfest of the whole cargo must be deiivered at the custom-house within 24 hours of the ship's arriving in the roads. 4th. The mnster of a vessel must lodge the ship's pnpers with the mnster attendant when he tirst landia, which are duly delivered up to hinı when the recelves his port clenrance from the aame authority. 5th. No goois cun be ahipped or landed after sunset, under n penulty of 500 florins. 6th. No goods can be rhipped on Sundey without a special permission from the water fiscal, whleh, however, is never refused on npplication. 7th. No muskets or ammunition can lie imported; but tho prohibitlon does not extend to fowling-pleces exceeding 100 forine value.

Tariff.-After a good deal of negotintion, it has been fixod that goods imported In forelgn vessels shall pay an ad ralorem duty of $\mathbf{2 5}$ percent., and under the Netherlanda flag of $12 \frac{1}{2}$ per cent. ; that la , a duty upon the wholesale price at Eatavia, not in bond. 'l'te export
duty on coffee, if exported on a forelgn bottom to a foreign country, is 5 florins per picul; if on a foreign bottom to a port in the Netherlands, 4 florins; and if on a Netherlands bottom to a Netheriands port, 2 florins. Sugnr exported on a foreign bottom pays 2 florins per picul ; but if exported on a Netherlands bottom, 1 florin. Rice, on whatever bottom exported, and to whatever country, pays a duty of 3 florlns per coynng of 27 pleuls. Tin, exported in a forelgn ship to whintever port, 4 florins per picul; and by a Netherlands ship, 2 florins per plcul. The trade in splces is monopolized by the Netherlunds Tradling Company.

Goods are received in entrepot not only at Batavin, but at the porta of Samarang, Sourabaya, and Anjler in Java, and Rhio In the Straits of Malacea, on paymient of a duty of 1 per cent. levied on the lnvoice valuo.

Money.-Accounts are kept, at Batavia, in the florin or gullder, dlvided into centimes, or 100 parts, represented by a copper coinage or doits. The florin is a new coln made expresaly for Indin, but of the same value ns tho florin current In the Netherlands. It is usually estimated at the rate of 12 to the pound aterling, but the correct par is 11 florina 58 cent. per pound. Doubloons, and the coins of Contlnental Indin, are receirable at the custom-house at a fixed tariff; the Spanish dollar, for example, at the rate of $\mathbf{1 0 0}$ for 260 florins.

Weights.-The Chlnese weights are invarlahly used in comnercial transnetions at Batavia nud tirroughout Javn and the other Dutch possessions in India. Theae are the picul nud the eattie, which is its hundredth part. The pieul is commonly estimated at 125 Duteh, or $133 \frac{1}{3}$ lhs. avoirdupois, but at lhatavin it has been long ascertained and considered to be equal to 136 Jbs , avoirdupois.-IIooennonp, Coup d'thil sur l'lle de Jaia, cap. 8, ete.; Eividence of Gilinan Maclaine, Hisq., before the Nelect Committee of the IHouse of Commons on the Affairs of the East India Company, 1831 ; Nederlandsche Staats-Courant, 13th August, 1842, and other official information.
Batten, a name in common use for a acnntling of wood $2 k$ inches thlek and 7 wide. If above 7 inches wide, it is called deal.
Bay (Saxon byge, nn angle), an arm of the sea extending into the land. It is omaller than a gulf, and larger tha: a creek.
Bayou, bioo, or more nsually bio, n term confined chictly to Inlets of the Lower Mississippi River, signifying properly any strenm whlch ls derived from some other strenm, or from n lake; In other words, uny atream which is not fed by fountains. The word is supposed to be $n$ corruption of the French boyau, a "gut" or "chnnnel"-a derivation which is rendered more probable by the prevalent pronuncintion, b'o. Several of the bnyous from Lake Pontchartraln, near New Orleana, and from the Gulf of Mexico, are very important chmnnels to the interior country, nnd aftord great facilities to commerclal intercourse.

Bazar, a term used in the Enst to designate a market, or bulliling, in which varlous articles of merchandlse are exposed for snle. Baznrs nre now met with In most large citles of Europe. There are several in London, of whieh the one in Soho Square is the most conslierable.

Bdellium (Arnb. Affatoon), a gum-resin, remipellneid, nad of a yellowlah-hrown or dark-irown color aceording to its nge, unetuous to the touch, lut britthe; soon, however, softenling between the thgers: In appearance it ls not unliko myrrh, of a bitterish taste, nad moderately atrong amell. Two kinds have been diatinguished: the opocalpasum of the nacients, which ls thick like wnx, and the common dark sort. It is found in Persia nud Arabla, hut prineipally in the Intter; all that la met with In Indin is of Arabic orlgin. The tree whieh proinces it hins not heen clearly aseer-tuined.-Ainslie's M/ateria Indica.
ottom to a 1 a forelgn ns ; and if ort, 2 fierays 2 florda bottom, ed, and to er coyang p to what etherlands ces is mopany.
it Batavia, and Anjler a, on payhe invoico
a the florin arte, repre florin is a $f$ the same nds. It is round sterper pound. lia, are returiff; the 100 for 260 iahly used I through 3 in Indla. Is its hunated at 125 avia it has e equal to
 han Mace House of mny, 1831 ; 1842, and
antling of co 7 inches gulf, and term conppi River, ived from her words, ns. The which is ronuncia-Pontcharf Mexico, country, rcourse. signate a 8 of mernow met are sevluit brit thugers: hitterish nde have anclents ark sort. Hy hat the le origin. iy ascer-

Beach, a shelving tract of sand or shingle washed by the sea or a fresh-water lake, and intorposed between the water and the land, on which regetation growa. The beuch of the occan is, generally speaking, little nore than the space between high and low water-murk; the beuch of a lake, that between the water marks of the highest and lowest ordinary level of the lake. An inlund 'ea without tide, such as the Mediterranean, has commonly very littls beach, except on tlat coasts, where tho waters are apt to fall and rise considerably, according to the prevailling winds. -F. A.

Beacons, in Commerce and Navigation, public murks or signals to give warning of recks, shoals, etc. No man is entitlod to erect a light-house, beacon, etc., without belng empowered by law.-See Buoys.

Beads (F'r. Resaires; Ger. Rosenkrünze; Du. Paternosters; It. Corons; Sp. Coronas), sinall globules or balls uset as necklaces, and made of different muterials; as pearl, stee, smber, gurnet, ceral, diamonds, erystal, ghass, etc. Roman Catholics use bests in rehearsing their Ave Murias and Paternosters. GLass beads or bugles are imported in large quantities into Iudia uinit Africa, 288,058 lus. having been shipped from linglant to the west const of the later in 1841. Large quantilies are sent from China to fudia, the Liasten islands, etc. The glase beuds sent from lingland are neurly all hojorted, prineipaily from Venice, where they are very largely prodnced. Their non-manufacture in Great Ilritain is suld to le a consequence of the excise regulations as to the manufacture of glass; but the truti is, that the Venethin manafueturers color them hotter, und give them a vetter thish than the Englith.

Beam, la weaving, a long thick wooden cylinder, placed length wise on the lack part of the loom of those who work with a slouttle. That eylinder on which the sl:ait is relled as it is weuved is also culled the beam or roller, and is placed on the fore part of the low.s.-EV. 13 .

Beam-compasa, an instrument consisting of a square wooden or brass beum, with sliding sockets that carry steel or pencil polnts. lleam-compasses are used for describing larger cireles than can conveniently be drawn by the common compasses.

Beams of a Ship are the great main cross-tinbers which hold the sides of the ship from falling together, and also support the deck and the orlops. The main lieum is noxt the muin-mast, and from it they are successively reckoned us tirst, second, thlrd, and 80 on . The groatest benm of all is called the midship beam. A ship is suid to be on her beam-ends when she laclines so mueh to one shle that her beums approach to u vertical position.-E. $\mathbf{3}$.

Eean-cod, a small tishing vessel, or pilot-boat, common in Portugal. It is extremely sharp forward, having its atem bent above into a great curve inwurd, plated on tho fore side with lron, and fortitied with bolts. It is commenly navigated with a large lateen saii.-E. II.

Feans (Fr. Feves; Ger. Rohnen; It. Fave; Russ, Bondïi; Sp; Habu; Lat. Faba), a well-known vegetable of the pulso species, largely cultivated both ingardens and fields. Its cultivation is of much importance in rucal economy, innsmueh ns it has gone far to supersede fallows on strong lonms and clays.
Bearing, in Navigation, an urcla of the horizon intercepted between the nearest meridian and uny distant ohject, either discovered by the eye and referred to a point on the eompuss, or resulting from the spherical proportion; as, in the tirst case, "At four J.m. Cape Spuilo, in the Isle of Candia, bore south by west by the cempass." In the second, the longitudes and latitndes of myy two places being given, and consequently the difference of latitude and longitude letween them, the bearing of one from the cther is discovered by the following anulogy: As the me-
ridlonal differenco of latitude is to the difference of longitude, so is the radius to the tangent of the bearlng.

Bearing is slso the situation of any distant object estimated from some part of the ship according to her position. An object so discovered must be either ahead, astern, abreast, on the bow, or on the quarter. If the ship salls with a side wind, it alters in some mensure the names of such bearings, since a distant object on the beam ls then said to le to leeward or to windward; on the lee quarter or bow, and on the weather quarter or bow.-E. B.

Beating, in Navigation, the operntion of making progress at sen agaiost the wind, by steering in a zigzug courbe.-E. B.

Beaver, er Castor, an amphlbions quadruped of the order Rodentia, with a thick glossy fur, and horizontally flattened tail, abounding in North America and Siberia, and still found in the north of Europe. It formerly appears to have been known as far south as the Rlione and the Danube; and though with us now extinet, was formerly an inhabitsnt of Great Britain. The fur of the beaver forms a considerable article of commerce. Among truders the skins ure distinguished into three kinds: 1. The fresh beaver, which is obtalned in winter, before the animal has shed any of its hair, and consequently that is most csteemed by furrlers. 2. The try or lean beaver, which is captured in summer, when the animal is moulting. 3. The fat beuver, which differs from the fresh only in having acquired additional seftness and oiliness from belng worn for some time on the persons of the native hunters. This is the kind that is chlefly used in hat-making. The substance called castor is found in pouches in the inguinal region of the beaver. It is regarted as a powerful antispasmodic.-E. B.
Beech (Fapus sylvatica), a forest tree met with in England, the linlted States, etc. There is only one epecies, the difference in the wood proceeding from the diflerence of soil and situation. A consideruble quantity of beech is grown in the sonthern parts of Bueks. It is not much used in building, as it soon rots In damp places; but it is used as piles in places where it is constantly wet. It is manufuctured into a great ruriety of tools, for which its great hardness and uniform texture render it superior to all other sorts of wood; it is also extensively used in making furniture.

Beech-mast, the fruit or nuts of the beech-tree, used for fattening hogs, deer, and other animuls. It has sometlmes proved a useful substitute for bread, as experlenced at Chios during a menoruble siege.-E. B.

Beech-oil, an oil expressed from the mast of the beech-treo. It is common in Northern Germany, also in licardy, and in other purts of France, instead of butter ; but it is said to he unwholesome.- l:. 13.

Beef is used either fresh or sulted. Formerly it was usual for most tumilies, at least in the country, to supply themselves with a stock of salt beef in Oetuler or November, which served for their consumption until the ensulng summer; but in consequence of the unjversal establishment of markets where fresh beef may he at all times obtained, the practice is now nearly relinquished, and the quantity of salted heef mude use of as compared with fresh beef is quite inconsiderable. Large supplics of sulted beef are, however, prepared in the United States for exportation to the East and West Indies. During the war, large supplies were also required for victualing the nuvy. The vessels engaged in the consting trade, nnd in alurt voyages, use only fresh provisions. The Englifh have at all times been grent consumers of beef; and at this moment more beef is used in Londun, es ceapared with, the population, than any where else. Previously: to 1842 tho jmportution into England of fresh leef was prohibited; and sult beef from a forelgn country was charged with a duty of 12 s . a cwt. But in that
year the duties on both sorts were reduced to 8s. 4 $\ddagger$ d. a ewt., and in 1846 they wers wholly repealed. In $185:$ the imports of salted beef into Great Britaln amounted to $122,665 \mathrm{cwt}$., and those of fresh beef to only 2028 cwt.-SLee Phovisions.
Beer. All ancient Greek witers egree in assigning the honor of the discovery of beer to the Egyptians; but fros: the circumstanco of no notice being taken of beer in the books of Moses, it has been rather rashly concluded thut such a drink was unknown to them till after his death. This, however, is unlikely. Thu vine was alone cultivated in Egypt in those distriets which were beyond the reach of the inundations; and the quantity of wine raised being limited was reserved for the rich, while the poorer classes had to content themselves with a cheaper drink prepared from barley. Herodotus, who wrote about 450 years n.c., is perhaps t' arrliest writer who gives sm. vartienlars regardin ${ }_{6}$ digypt, and he describe leer prepared from parlcy an tho ordinary drink of the Egyt tlsos in his day. Plimy, Aristotle, Strabo, and ethers, who mention that this beer was knewn by the name of Zythos, give full descriptions of its qualities and intoxicating properties; and Diciorms evon aflirms that some kinds were so palatalile as to lee scarcely inferior to wine. The regearches of Sir J. G. Wilkinson relative to the ancient Egyptians have thrown much light on this suliject, and render it probable that beer was used as a drink by the ameient ligyptians nearly as early as wine itgelf. Xenophon, in his account of the retrent of the ten tholasand Greekn, 400 years o.c., mentions that the inhabitants of Amenin used a fermented drink made fr $\quad \mathrm{m}$ barley. Diodorus Siculus states, that the aation of Galatip prepared a fermented drink from harley, styling it zythus, like the Egyptians. Jeer was distimguished among the Greeke ly a varicty of names. It was called únos noithoos (barley wine), from its vinous properties, and from the materinl employed in its formation. In sophocles, and probably in other (ireek writers, it is dis. tinguisied by the name of Bpuzov. Dioseorides describes twe kints of heer, to one of which he gives the name 弓ilos, and to the other koipht; but he gives no description of oither sufficient to enable us to distlnguish them from each other. Both, he informs us, were made from harley, and similar liquors were masufactured in Spain and Britain from wheat.

Tacitus informs us that in his time beer was the common driak of the Germans, and from his imperfect description of the process which they followed, it is not unlikely, or rather there can be no douth, that they were acguainted with the met'wod of converting barley into malt. lliny gives us some details respecting beer. ITe distinguishes it by the mame of cererisia or errrisin, the appeilation liy which known in modert Latin works.

This theverage does not appear to have come into general use In Grece of Itsly ; but in Germany and Britain, and some ather countries, it appears to have been the commen drink of the Inhabitants in the time of Tacitns, and probably long lefore. It has conthued in these countries ever since; and great duantities of beer are still manufactured in Germany, the Low Countries, and Britain. We might quote mumerous prasages fros's the narratlues of recent travelers to show that the use of a drink prepared from barley is nearly universal over the northern and temperate parte of Eurone and Asla. One of the latest of these travelers, M. Hac, the French missionary, remarka that the drink of the tarmers in Thitect is " n sort of sharp drink made with fermented barley, which, with this addition of hops, would be very like our beer."

Purier is a strong lieer of a dark color and peeuliar flavor, and Is said to be so named, cither from its have lag been the common drink of tho porters, or from Harwood, the original brewer of the drink, sending It round to his eustomers by men, who when they
knocked at the loors called out "porter," meaning therely not the drink, but themselves, its prortere or carricrs. lorter was originally lirewed to take the place of two or three kinds of becr which used to be mixed by the retailers in the mug as they drew them from the taps; and as this new drink had tho taste of all three, buc was brewed at once, and run onc of one tap, it saved the publican trouble, and was denominated "entire." Hence, as the sign so oftea noticed in London, such a brewer's "entire."

Bavarion leter is the only other malt liquor which, from the pecularities attending its fernentation, requires a spesial notice. The liermans, from the earliest historital periods, have teen a lieer-drinking nation, and some expallent malt liquors are mude in that conntry. Th, " wriss bler," the trily patriotic bev. rice of $F{ }^{\circ}, 1 a$, is made from warley alo e, tut $\because$ wn 1 , one or it and 5 part, wheat mal!; but Aco: ind ent: 10 give the admired tartness. The othe: 1. somwer nore especially the ones now to the notict, the Buwit . heers, ivoth the common fot beer (schank-bi r) in intoxicating luscious herklieer, are brewed from berey malt alone.--Sce Lager BiEn,

Ale appears to be an nneient drink, and the name is usually given to strong beer of a pale color, as perter is to that of a dark color. The varicties of ale are infinite, but wo jurpose only to notice the peculiarity in the manufacture of English ale, Imian ale, Euglish home-hrewed ale, and Scottish ale.

In all ligh-priced Finglish nles of the present day, brilliancy and paleness of color, with as little excess of sweetriess as possible, are the oliects to be attained by the brewer. fo accomplish these ends, nothing but the finest pale malt must be used; and to secure sound-keeping ale, it is of first Importance that the malt shall have been thoroughly dried on the kiln. If prepared from what is techicically known as "slackdried malt," that is, malt not thoroughly dried for far of coloring it, or which has had water sprinkled over it whilo still warm from the kiln, the wort as run from the mash-tun will he found acid, and will tinge litmus paper of a much deeper red than ordinary wert from well dried mult, mill the alr prepared from it will not keep beyond a few months. It is necessary also to le carcful in the selection of the hops for ale. Gool sound hops should alone he used; many brew* cra now use a proportion of forelgu nops along with the English hop.

Anle, Indian, or Burtun Ale, origirally intended for exportation, and now so deservedly in high repute as amongy our most estecmed anil wholesome heverages, requires more partienlar treatment in its manuficture, This ale can only be prepared from the best gale malt and the hest hops; and the ehief peculiaritice attending its munufneture are, that it requircs more than donble the usual iroportion of hops, that the attemation is generally carried to a much grearer extent, sud that the temperature during the fermentation should never be allowed to exceed $65^{\circ}$ Fahrenheit. That a considerable amount of sheetness should exist in common ale is allowable, and indeed it is the presence of a large quantity of unlecomposed asecharine extract which gives to common strong ale its hascious mill. ness. It is, however, the presence of this large quantity of undecomposed saccharlme extract which prevents common ule from being uked us a diet drink by the invalid, or being relished in a warm country; and it is the circumstance of the Indian or pala ale laving its fermentation carried so much furtier, and its saccharine matter rednoed in guantity, together with its larger proportion of bitter, that commende it on much us a grateful and stimulant stomachie to the Eurojean resident in a warm climate, and to the invalit.

Home-bretced Aic, as brewed by the middle classes
Yeart

[^2]Beet,
The cemm heet, has I is also use dured for tury from of manget termed wh chictly bee thon of sug leet-root is $\mathrm{t}_{3}+2110$ gen, nine extrict of formerly : is capalile process of Was espercis policy it w render the possession in a comp manufictu any digree in 1828 no
e imated
in England, is usually made ir quantities of 2 barrels, i. e., 72 gallons. For this purpose a quarter of malt, or if wished to be extra strong, 9 bushels of malt, are taken, with 12 lbs . of hops. '1, ध malt being croshed or ground, is mashed with 72 K :ifons of water, at the temperature of $160^{\circ}$, and cov. up for three $b: a r$ s, when 40 gallons are drawn of ; f... into this the 12 Jbs . of hops are put, and left to iufato this the 12 jos. vater, at the temperaturs $\mathrm{c} 1100^{\prime}$, ire then added to the malt in the mash-trib and well rif ed, and, after standing two hours, 60 gallons are irawn of The wort from these two mashes is boils: lonig with the hops for two hours, nd after being ". ated down to $65^{\circ}$, it is strained thenur', $n$ flanel bag into the fermenting-tub. wharn it in mix d with $1+$ gailons of yeast und lefe ti rook for twenty-four or thirty-six hours. It is then run into barrets to cleanse, a few gallons being reserved for 1 lling up the casks as the yeast works over. Eighteefl or twenty gallons of beer are obtalned from the used malt by making a third mash with 25 or 30 gallons of water, ant boiling the wort thus procured with the used hops.

Scottish .Ile, but especially the Elinburgh ale, has been long celebrated, but as an ordinary heverage it is much more loseions and heady than london porter, Encrish aie, or pale Indian ale. It is a much stronger drink than any of these, the home-brewed English ale approaching nearest to it in thia respect; and as the attemution of the saccharine extract is only carried the length of the decomposition of two-thirds of its original strength, the largo quantity of undecomposed saccharine extract renders it much moro luscions to the taste, and milder than the linglish ales. The Scottishales are brewed of varion- atrengths, and are known in the uarket ly their price pur hogshead, and are hence commonly mentioned ns $£ 7$ ale, $£ 6$ ale, ete.-E. B. See Ale and Buewing.
hamptation of llerr, Ale, and Ponten into the Tinited
States, acxorming to Trapasury Mepont of 1855.

| Teans. | Beer, Ala, and Porter from England. |  | Beer, Ale, and Porler fromscotlend. |  |
| :---: | :---: | :---: | :---: | :---: |
| 18.4 | Gallona. 107,483 | Valbe. क1H2, 163 | Gallons. 19, $2: 216$ | Value. <br> $\$ 18,343$ |
| 1345 | 79,302 | 73,749 | 26,711 | 21,294 |
| 1014 | 117,621 | 110,397 | 39,464 | 89,831 |
| 1317 | 178,303 | 110,223 | 17,520 | 10,55\% 2 |
| 1849 | 130,000 | 101,171 | 29,282 | 21,6\%3 |
| 154! | 146,473 | 118,283 | 52,297 | 30,089 |
| (-5) | 156,735 | 129,957 | 62, 3:6 | 41,690 |
| 1530 | 275,336 | 189,010 | 88,174 | 80,730 |
| 185 | 202,838 | 180,904 | 110,752 | 67,804 |
| 1553 | 397, 120 | 984,347 | 181.367 | 77,414 |
| 1504 | 835,571 | 424.805 | 270,064 | 128,667 |
| 145 | 919,252 | S5:1, ¢\%M | 345,016 | 188,457 |

Beet, or Beta, a well-known genus of plants. The common beet, Refa rulgaris, a variety of the red beet, has long been eultivated as a food for cattle, and is also used for the table as a piekle. It was introdued for this purpose in the latter part of the last century from Germany, whero it is known ly the mame of mangel-icurzel. - See Acmicultine. The variety termed white beet is smaller than the former, and has chictly been eultivated on a large acale for the formaton of sugar from its root. The chemical clements of beet-root sugar are expresed atomically thus: C12, II9, $0_{3}+210$, or, twelve atoms of carbon, nine of hytrogen, nine of oxygen, and two of water. The largest extract of pure sugar from bect-roet in llelgium was formerly 3 per eent., but is now 6 per cent., and is capathe of further increase liy hoprovement in the process of manfucture. The cultivation of beet-root was especially fostered in France by Napoleon, whose poticy it was te enconrafe every thing that tended to realer the Continent independent of IMritaln, then in possession of the chlef sugar colonies. It is only within a comparatively recent period, however, that the mamufneture of beet-root sugar in Curope las assunsed any tlegree of importance, the total quantity produced in 1828 not exceeding 7000 tons, while in 1851 it was $t$.imated at not less than 180,000 tons. Wro sulpoin a
few statisties relatlue to the increasing importance of this manufacture from The Economist (Nos, 431 and 482, Nov. 29th, and Dec. 26th, 1851). The quantity of beet-root sugar ar. mally produced in France is 60000 tuns, or filly ons-half of the entlre consumption. Thotgh now subject to a higher duty than colonial ame augar, it is considered probable that very shorily it will excludo foreign susi + from the French market altogether. The producti, is of beet-root sugar in Belgium also is rapllly on the increase, the quantity produced in 1850 lelng 7000 tnns, or half the entire consumptlon of that ki.uglom. This had increased in 1851 to 10,000 tons, while of foreign cane augar only 4000.13 wero imported. In Germany it has made simiar progress. In 1818 tho quantity produced was 26,000 tons, which had risen in 1851 to 43,000 , with a corresponding decrease in the imports of forelgn sugar. Of 85,000 tons of sugar estimated to have been consumed in Isussia, 35,000 tons were heet-root sugar. In Austria, also, the production of this article inereased from 8000 tons in 1848, to 15,000 tons in 1801, while the consumption of cane sugar had sunk from $3:, 000$ to 25,000 tons.-E. B.

Behring's Btrait, explored by a Danish navigator in the service of Kussin, whose name it bears. Behring thus estallished that the continents of Aala and Amerlca nre not unitel, but are distant frons ench other about thirty-nine miles, 1728.
Belfast, a maritime town, a municipal ind parliamentary horough, the capital of Clster, the chief manufacturing and commercial town in Ireland, and since 1850 the county town of Antrim. It is mainly comprised in the county of Antrim; but the large suburb of Ballynaentret, sepurated from the town by the River lagan, is in the founty of Jown. Belfant is sithated in lat. $54^{\circ} 36^{\prime \prime} 8 \cdot 5^{\prime \prime}$ N., sml long. $5^{\circ} 00^{\prime \prime} 53.7^{\prime \prime}$ W., at the month of the River lagon, which flows immediately into Jlelfast Lough (Carrickfergus Bny), an estutry about 12 miles in length, and 5 miles broad. The town is built upou an allavial deposit and land reclamed from tho sea, tho greater portion being not more than six feet above high-water mark. In common with all places so situate, it is exposed to oceasional inundations, and somewhat to the visitatious of epidemics; but independently of the lowness of its site, Belfast is in other respects advantageously placed, and generally by no means unhealthful. The environs of the town are highly agreeablo and picturesque. Helfast has been steadily progressive in population from an enrly period. In 1758 the number of inhalhitants was 8519 in $1782,13,105$; in $1798,18,320$; in $1821,45,177$; in 1831, 48,221 ; in 1841, 75,308 ; and in 1851, 100,310 . Tho custom duties collected at the port in 378.1 momented to $£ 104.376$, nul, after various lluctuations, reached $£ 288,756$ in $1834,\{339,989$ in 1843 , and $£ 377,320 \mathrm{in} \mathrm{18052}$. The great increase of shipping fiequenting the port uppears in the following necount of the mumber and tonnago of vessels entered inward at various periods:

| Years. | $\begin{aligned} & \text { Nu. of } \\ & \text { Vessels. } \end{aligned}$ | Toncage. | Veark | $\begin{aligned} & \text { No. uf } \\ & \text { Ven sela. } \end{aligned}$ | Tonnage. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1766 | 75 | 34,487 | 18.5 | \%, 1160 | 133,441 |
| 1795 | 801 | 52.6 \% | (30, ${ }^{\text {c }}$ | 2,730 | 290, 16.9 |
| 1805 | 840 | 08,255 | 18.5 | 3 3, 065 | 445.637 |
| 1815 | 1,154 | 91,361 | 1851 | 6,0t6 | 650,408 |

The chief export trade is carried on by the cross-channel mavigation; lout a consilerable direct trade also exists with the United States and Cundu, the West Indles, the Mediterramean, and the Baltic. Ilelfust is the centre of the Irish linen manafacture, to the cultivation of which it is mainly indelted for its prosperity, In 18.11 about 240,000 spindles were employed, and the increase during the last ten years has been so rapid, that about 510,000 spindles are now in operation. The total value of all products of the linen mamufacture exported abroad in the ten menths ending oth Novemher, 1852, was $£ 1,357,87 \cdot 1$, agaiust $£(150,157$ in 1851 ; and
the export of linens and yarns, eapecially of the latter, continnes on the increase. In $1851,5,060,160$ pounds of liney yams wero exported from Belfaat; and in 1852, $\epsilon_{.}^{779,680}$ pounds. The harbor of llelfast, originally a creek of the River Lagan, has been much improved of late years, and nuw allows vessela druwing eighteen reet of water to reach the quays at spring-tides.-L. B.

Belgium. Belgium extends from lat. $49^{\circ} 27^{\prime}$ to $51^{\circ} 50^{\prime} \mathrm{N}_{\text {i }}$, and from long. $2^{\circ} 34^{\prime}$ to $6^{\circ} 4^{\prime} \mathrm{E}$. On the north lt is bounded by Jlolland; east by Duteh Lintbourg and Luxembourg, and Ihenish Prussia; south by France; and on the west by the North Sea. It is somowhat of a triangular form, of which the longest side is that adjoining Frunce, being 366 miles in length. The eastern boundary is 233 miles, and the northern and western are together 259 miles in length. Its greatest length from northwest to sontheast (from Ostend to Arlon) is 503 leagues of $\mathbf{b} 000$ metres, or 174 English miles, and its greatest breadth from north to south is 105 miles. It has an area of $2,945,593$ heetures, equal to $7,278,968 \mathrm{E}$, ish acres, or 11,373 square miles; being about one-etghth of the area of tireat Britam. This country is divided into nine provinees -Antwerp in tho worth; West and East Flandors and Hainanlt in the west; Namur in the south; Luxembourg in the southeast; Licgo and limbourg in the east ; and brabant in the centre.

Cemmercial Association.-Belgium possesses a great number of commercial and tinancial associntions. In 18il there were no fewer thin 191 legally authorized joint-stock compunies for carrying on public works or entergrisea, having a united capital of $880,34 \overline{7}, 208$ franes. Of these 12 were ussurance compmies, 12 private Lanking eompunies, and 1.1 railway compankes. It has eight commereial exchanges, under the diresfien of government; namely, in Antwerp, Erussels, Gibent, Bruges, Osteud, Mons, Tormonde, and Louvin. In $182: 2$ the General Society for the Encouragement of National Industry was lormed at Brussels, under a roval charter for 27 years, and which has since heers extended to 1875 . It has a social chpital of $30,000,000$ ) Horins, divided into 60,000 shares of 500 tlorins, bearing intorest at 5 per cent. The nuministrative body consists of a governor, nominuted by the liug, six directors, a secretary, and a treasurer. It discomits bills, receives money at interest, grants loans and advances on titles and other deposits, etc. The national hank, instizuted by churter granted in 1800, for twenty-five years, has its seat at Jrussels, and has branches in all the provincial capitals and several other towns. Its capital is $25,000,000$ franes, in shares of 1 owo frumes each. It lays a dividend of 5 per cent. upon the shares, and one-third at least of the profits, exceding is per cent., goes to form a sinking fund. The udministration conshats of u governor, nominated by the king, six directors, and a council of censors. The banking operations are sujerintended by a government commissary; a report npon its atite is presented to the government every monith. The situte funds ure deposited in this lank. The Bank of llelgium, charfered in 1885 for twenty-five yearn, but which has been extended to 18.5 , has a eapital of $30,000,000$ fruncs. Its seat is at Brussels. The Bank of lhamers is established in Ghent. Antwerp is the principal sea-port of Delgium; it has a good harinor, and st:perior commercial facilities. Population, in 1850, 420,000 .

The weights and measures of Belgium are tho same as those of Franco. Gold, silver, and copper coins are struck at the royal mint in Irussels. The gold cuins are ten and twenty-five Irunc pieces; tho silver are of the value of $1, \frac{1}{2}, 1,2$, and $2 \frac{1}{2}$ franes; and the copper of $1,2,5$, and 10 centimes.

Commerce.-In 1851 Belginm possessed 149 tradiug vessels, of the agigregate burden of 30,577 tons. The value of the imports and exports for the years 1849, 1850 , and 185 l , was as follows:


In 1851 the imports by Belgic vessels were valued at $44,702,097$ francs ; by foreign, 124,736,164 franes; and by land und rivers, $249,117,064$ francs. Exports by Ilelgic vessels, $24,107,306$ franes; by foreign, $81,326,815$ f:ancs ; and liy land and rivers, $295,741,931$ franes. The laden lielgie vessels enterhig were 402, of 70,261 tons ; and forelgn 1591, of 229,771 tons. The laden Belgle vessels leaving were 351 , of $C 2,996$ tons; and foreign, 1168 , of 161,314 tons. The number entering in ballast was 149, of 17,484 tons: 1359 vesaels entered the port of Autwerp, 448 Ostend, 234 Ghent, and 101 Nicuport. The imports are prinelpully from France, England, Holland, and the United States; and the exports principally to France, IIelland, l'russla, and England. The imports are divided into three classes : those for direet consumption in the eountry, those for transit, und those lirought into warehouses to be either consomed in the country on paying the duties, or exported. The value of geols imported for consumption, ond of the productions of the country exported, was for the three years alove as follows:

| Years | Imported, | Esported. |
| :---: | :---: | :---: |
| 1810 | Franea. 60, 77000 | franes. <br> 50) 1b4000 |
| 1850 | O1t, 523,0000 | $210,083,000$ |
| 1851 | 218,045, 070 | 200,129,626 |

Theee are divided into three branches. 1. Fremiares matieres, articles consumed in the state in which they are found, as. conls, ete. ; 2. Articles of food; und, 3 . Manulinetures. The imports and experta of 1851, so divided, give

|  | Imports. | Exporls. |
| :---: | :---: | :---: |
| Premicres matieres. . . . . . . | varanes. | Frioci. $01,442,481$ |
| Food . . . . . . . . . . . . . . . . . | 8t,36: 555 | 26, 658.255 |
| Manulacture | 40, (5, 015 | 70,128, 590 |

The value of the grods in translt for the years 1850 and $18: 11$ was

| 18 mb | Dirued. | By Warchotike. |
| :---: | :---: | :---: |
| 155.) | tranes. <br> $1754 \cdot 508,6060$ | Franer. <br> $25,710,100$ |
| 1581 | 175, 144292 | 25,049,134 |

Of the latter, the value exported by Belgic vessels was $7,046,645$ franes ; by foreign, $28,712,479$; and by land and canals, $165,287,202$ francs. Although there is a slight decrease in 1450 ns compared with 1850 , in comparing 1850 with 1841 we find an inerense of 259 per eent. The value of goods in warchouse on the 1st Jumuary, 1851, was 26,626,000 franes; entered during that year, 65,006,000; taken out for consumption, $32,922,000$; for export, 25,542 ; and $25,480,000$ were in bond at the end of that year.

Linder the rule of Frince, Belgium, like th:e other parts of the Continent, had suffered severcly from the operation of the conscription laws, which had aleprised the country of those active laborers whe were necessary to cultivate the fields. Although peace could not restore the great numbers who had perished, yet it stopped the further progress of the evil in the Netherlands, by the establislment of a voluntary enrollment for a sinail regular army, and of a militia, whose servhe was required only for one month in the year. The mines felt the benefit of this regulation. The minerals of dielgrium consist of coal, iron, and calmmine. As seon as the union had been formed, and latorers became less searce, a grent impetus was communicated to this branch of industry; and companles were formed, who were most literally' repaid ly the profit of their investments in this branch of industry, which was augmented from yeur to year as long as Belgium and Jouland censtituted one kingdom. Ily the exeltement com-
munlcated to mining, the provinces of Llege and perlod the demand for tron was great, and the prices Hainatit, and a part of Namur, were greatly ea- were augmented by the number of railways constructriched; and a company formed to explore the mines of Inxembourg were amply rewarded in their latora and their protits, till interrupted by internal commotions. The various branches of manufacturing industry received a similar impulse, thouglt at first they wero checked by the peace. The continental system of llonaparte had given a factitlous encouragement to some articles of manufacture, which coased with the return of peace; and, till the formation of the kingdom of tho Netherlands, many branchea wero doprossed by the rivalry of foreign goods in the markets to which they had aceess. But as soon as the junetion was completed, a sthmulus was given to tho manufacturers, by opening to their good; the markets of the East and West Indies, and those of all countries with which tho llollanders bad traded. The iron manufactures of Liege alvanced rapidly ln prosperity; the woolen manufactures of Verviers felt most powerfully a similar impolsion; and many large establishments wero formed at Ghent and other places, whero cotton goods were falbricated which rivaled those of England, and so far surpussed those of Frunce, that much of tho roods was sold by the contraband trade in that kingdom. The opening of the Scheldt was the necessary effect of the formation of the united kingdom. Merchants from various countries formed es ${ }^{+}$gblishments with large capitals at Antwerp; its deeks becume crowded with ships from all countries; its warehouses were loaded with celonial and other produce; and it advanced rapidly to a rivalry with Ainsterdam, lectterdam, and llamburg in the transit trade to the interior of Germany. Tho king directed his best efforts to the state of the roads, the grenter part of which had suffered dilapldation, while the cross-roads, so important in a country chiefly agricultural, were in many places acarcely passable. The management of tho former was under the general govermment, while that of the latter was auperintended by the loeal authorities; but in the first few years of the union the whole wero repaired and placed in tho most e:cellent stute. The interests of internal uavlgation were sedulously watched over by the king. The old canals were repaired, the shallow parts of the rivers were deepened, and now and important water communicatious were formed. The ehief of these, the Camal Guilhame, which extends from Maestricht to Bois-le-Duc, was an expensive but highly bencticlal work; and that of Antoing in Haimault, that of Charleroy in the province of N:mur, and that of Ternuse in Flanders, have been found in a very ligh degree heneflcial. Though no longer of any importance to Belgium, it may not be quite out of place to remark, that the spirit of Improvement which spread throughout the whole kingdom was to be seen in IIolland in the Grund Canal of North Mollaud, which opens to Amsterdum a way for shlps of the largest size to the oeean by way of the Helder, without ineurring the risks arising from the shonls of the Zayder Zee.

The following table shows the annual income and expenditure for the seven years preceding 1851:

| Yearn. | Ineonis. | Eixpendliture. |
| :---: | :---: | :---: |
| 1844 | Franea. $108,810,508$ | Franca. $195,1 \times 5,657$ |
| 1845 | 196, $25 \%$, 961 | 184,1884,349 |
| 18.41 | 114,064, 043 | 122,762,909 |
| 1817 | 113, 228,003 | 127,572,874 |
| 1818 | 140, 117,886 | 18F 060,595 |
| 1819 | 113,871,437 | 112,207,069 |
| 1850 | 132, 577.157 | 118,730,904 |

The number of works, in 1850 , for the preparation of iron was 351 , steel 2 , lead 8 , copper $9 \overline{0}$, zine 19 , slum 2, thass 35 ; 13,223 workmon were ongaged, and the value of the produce was $51,261,457$ francs. There is a decrease of 37 per coat. on the average of the three years preceding 1848, us compared with the three subsegnent, in the irom manufacture. Duriug the former
ing in Belgium and other countries.
The population of Belgium In 1881 was $3,7 t-814$; in $1840,4,078,162$; and In $1850,4,426,202$; distribated as follows:

|  | 1831. | 1840. | 1350. ? |
| :---: | :---: | :---: | :---: |
| Antwerp. | 340,942 | 871,157 | 420,553 |
| Urabani | 561,828 | 621,078 | 734,617 |
| Wiest Flanders | 608,226 | 640,084 | 661, 187 |
| Fast Fianders, | 7.12,073 | 779,468 | 783,450 |
| Hamault | 613,179 | 661,701 | 7 3 9, 740 |
| Liege. . | 875,030 | 410,17i | 407,843 |
| Limbourg. | 100,090 | 169,000 | 188,198 |
| Inxemtrourg | 100,762 | 174,719 | 192,688 |
| Namur. | 218,784 | 238, 868 | 274,073 |
| Tutal.... | 8,785,514 | 4,073,162 | 4,426,202 |

There are aineteen chambers of commerce and manufacture established ln the principal towns, the memhers of which are nominated by the king from es triple list of candidates presented to him by the chambers. The members of each vary in number from ninc to twenty-one, one-third going out amually. They present to tise government or legislative cbambers their views as to the best means of increasing the commercial and industrial prosperity of the country, report annually upon tho state of their districts, and give useful information or direction to the provinclal or clvie authoritics under their administration.
Schools of navigation have been established at Antwerp and Ostend for furnishing properly educated unsters for merchant vessels. Instruction is given gratuitously in navigation and the branches connected with it-as arithmetic, geometry, trigonometry, nautical uatronomy, etc. ; with the elements of commercial law, as applicable to merchant vessels, the English langrage, and the manouvring, rigging, and trimming a vessel, both theoretically and practinally. Certificutes of qualitications as musters or mates are given by a jury of examiners.--E. B.

Alteratoons and Modefications in the Tariff, Tonnage Duties, and Port Regulations of Belgum, by Acts of the 12: h day of i pril, and the 30th day of March, 1855.-A lat of the 21st July, 1844, article 6, suthorizes the government to provide, by royal order, the necessary messures for admitting the products of Asia, Africa, und America, imported direct into Belgium nmder the flag of the countrles of production, or of the countries whence imported, on the same termas as if imported under the Belgian flag, provided Belgian veasels are plaed in such countries on an equality with the national flag. By royal order of the 12 th July, 1854, this law is mado applicable to Mexican ressels and products. Tho law of 8th June, 1853, provides that the government is empowered to allow vessels procecding from transatlantic countrics, or from a port beyond the Straits of Gibraltar, to touch at an intermedlate port, whether for the purpose of receiving orders or carrying on commercial transactions by discharging or receiving cargoes. This law, being of limited duration, is continued in force until the 31 st day of Mnrch, 1856, by the law of 30th March, 1855.* 'l'he law of the 11th of Jane, 1853, authorizes the government to adnit, free of duty, machines, new or innproved machinery imported for the purpose of introdueing new branches of industry or perfeeting those already establlshed, or for agrieultural purposes; also, steam-vessels constructed on a now principle or improved plan, or such as could be regarded as models. This law is continued in force to the 24th day of May, 1856, hy law of 4th June, 1855.

[^3]Tamity Cuanges.

| Deseription of Merehandipo. | Duty. | Codor which Lew. |
| :---: | :---: | :---: |
| Whaiebo | Frue. | Mar. ${ }^{\text {30, }}$, 1855. |
| Timber for building, 5 centimetres or under in width, per sea ton Apirta-brandy, gin, and liquors of every kind: |  |  |
| In barreis, per hectoitre | 112 | $\because$ |
| In botties, 118 or more to the hectolltre, per 100 | 224 | " |
| Terra japonica . . . . . . . . . . . . . . . . . . . . | Free. | $\cdots$ |
| Coffee, fron country of production dircet: |  |  |
| In national veaselas, $\dagger$ per 820 pounds | 167 214 | $\because$ |
| In forelgn veasels, per $\mathbf{2 2 0}$ pounda $\qquad$ From other places: | 214 |  |
| In national vensela, per 220 pounds. | 989 | " |
| In foreign vessels, per 220 pounds. | 288 | * |
| Cinnumon and cassin ligna: |  |  |
|  | 484 | $\because$ |
| Pot and perrl ashes. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Free. | " |
| Flax in bulk, and other vegetable filaments not otherwlse enubiereted, per 220 pounda | ${ }^{671}$ | " |
| Iforns and bonc-tjps of oxen, cows, etc.............................................. | Free. | 19 |
| Cotten, raw ....... | Frie. | April 12, 1884. |
| llidea and akins, untanned and dry; per 224 pounda. <br> clipplogs | 0 int Free. | Mar. $80,1855$. |
| Copper ore.............. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | Free. | " |
| Spleen, not apeclaliy enumerated.................................................. | per cent. | " |
| Tin, crude | rive. | " |
| Clinger . | 20 per reat. ad valorem. | " |
|  | Free. | " |
| Flaxseed, Imported direct from Riga, from 1at Aug. to 1st Aprii, upon proof of origin | Free. | ${ }^{4}$ |
| Fat, tallow, and lard, per 220 pounda. | 47 | $\because$ |
| Ofi, of jalm, cocoa, Touloncuпa, per 220 | 16 | $\because$ |
| Indigo. | Free. | " |
| Honey, per 220 pounda | 295 | " |
| Marbie, in blocks and rough | Frue. | " |
| Iead ore and old lead. | Frec. | " |
| Fish: Herrings, other than in dry aatt and plekied, per 1000.. |  |  |
| Herrings, other than in dry nalt and plekied, per 1000.......................... | 180 | $\because$ |
| Codtish, plickled or in dry salt, per ton of 180 to 160 kliogrammea . . . . . . . . . . . | 465 | $\because$ |
| Stockfinh, per 220 pounds ..... | 28 | " |
| Pepper and pimento, per 220 pounda. | 298 | " |
|  | Free. | ${ }^{+}$ |
| lice, not huifed, or paddy, direct from countries of production: |  |  |
| In forelgn vessels, per 220 pounds | 05 | 4 |
| In Front elsewhere: |  |  |
| In national versels, per 220 pounds | 8 | * |
| In foreign vessela, per $2: 20$ pounda | 94 | " |
| Rice, halied, from the country of production, or froul transatiantic countrica: |  |  |
| In national vesceld, per 220 pounds | 150 | $\because$ |
| In foreign vesseis, per 220 pounds From elsewhere: | 168 | " |
| In national vessets, per 220 pounds . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 185 | " |
| In foreign vessels, per 220 pou | 2 (15 | " |
| Saltpetre, crude, per 220 pounds | ${ }^{27}$ | " |
| Sompt hard, per 220 pounds. . | 279 |  |
| 8irup and molasses of every kind, per 220 pounda..................................... | 1396 | Nor. 30, 1554. |
| Tobaceo-1lavana, l'orto Rico, Culumbia, and Orinoco, direct from transatiantic countries: |  |  |
| In nationat vessels, per 220 pounde . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 274 | Mar. 80, 1850. |
| In forelgn vescels, per $2: 60$ pounds From elsewhere: | 306 |  |
| In national vesseis, per 200 pounds | 202 | " |
| In forcign venseis, per 220 prounds . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 325 | " |
| Tobacco-St. Domingo, or Weat Indies, direct from transatiantic countries: - $^{\text {a }}$ |  |  |
| In national vensels, per 220 pounds | 282 | $\because$ |
| In foreign vessels, per 220 pounds <br> From elsewhere: | 201 | " |
| In national vessels, per 220 pounds | 282 | ${ }^{\prime \prime}$ |
| In foreign vessels, per 220 pounde ........................................... | 270 | ${ }^{\prime \prime}$ |
| Other kInds of tobscco, of countrics uut of Europe, direct from country of production, or transatiantic countries: | - |  |
| In national vessels, per 220 pounds. | 180 | " |
| In foreign vessels, per 220 pounds From elsewbere: | 213 | " |
| In national vessels, per 220 pounds | 209 | " |
| In forelgn veasels, per 220 pounda | 232 | " |
| Tea, per 220 pounds .............................................................. | 1210 | * |

- Within the year ending September 30, $18: 5$, changes and modificationa lave been made in the general customa tariffs of Mexleo, New Granada, P'eru, Guatemala, San Salvador, Costa Rira. Turkey, Beggium, Holland, Jortugal, England and Lur Cependencles, and France; but inasmuch as these tariffs, thus modified or clanged. will appear in detait in the answer to ths clanges in the tariffa of lelgivn, IIoliand, Portugal, Itermuda, and Newfonndiand, are ntono given in the present report in tabular form; snd those in the tariffs of Eingland and France lay abstracle of the acts and decrees of tho governments of those countries reapectively.
\$ Wherever the term "national vessels" occurs, it is to be understoch as applicable to vessels of the United States.
Bell, a well-known instrument, ranked by musielans among the musical Instruments of percussion. Bells were used among the Jews, Grceks, Boman Catholles, and heathens. The responses of the Dodonaan oracle wero in part conveyed by bells.-Stra. Bo. The monument of Porsenna was decorated by pinnacles, each surmounted by bells.-Pliny. Introduced by Paulinus, bishop of Nole, in Campagna,
ahout A.d. 400. Firat known In France in 550. The army of Clothair II., king of France, was frightencd from the siege of Sens by the ringing of the lells of St. Stephen's church. The second Excerption of the English King Egbert commands every priest, at the proper hnura, to sound the bells of his church. Bells were used In churches ly order of Pope Jolin IX., as a defense, by ringing them, against thunder and lightning,


## BEN

about 900. First east in Fingland by Tnrkeytel, chancellor of Fingland, under Edmund I. IIIs successor improved the invention, and caused the first tunable set to be put np at Croyland Abbey, 060.-Stowe.

| Great Ibell of St. Panl's, weighs. . . . . . | 8,400 lbs. |
| :---: | :---: |
| (ireat Tom of Litneoin, weighs | 9,80.4 |
| (Ireat Tom of Ozford, wetghe | 17,000 |
| Jetl of the 1'slaszo, Elorence, wetghs. . | 17,000 |
| St. Peter's, at Rome, weighe | 18,600 " |
| (i rest Bell st Erfurth, welgh | 28,224 " |
| St. Ivan'a Betl, Moncow, wetgh | 127,838 ${ }^{\text {" }}$ |
| Heil of the Kremilin, weighs . . . . . | 419,772 |

The last is the grest unsuspended bell, the wonder of travelers. Its metal alone is valued, at a very low calculation, at $\mathbf{£ 6 6 , 5 6 5}$ sterling. In its fusion great quantities of gold and silver were thrown in as votive offerings ly the people.- IIayns.

Bell-metal, an alloy of copper and tin, usualiy in the proportlon of 80 parts of copper to 20 parts of tin. Zinc generally enters into the composition of small shrill bells. By anslysis Dr. Thompson found an Einglish bell-metal to consist of 800 parts of copper, 101 tin, 56 zinc, and 43 lead. The thickness of a bell's elige is usually 1-15th of the diameter, and its height is twelve tlmes its thickness. The bell-founders have a diapason, or scale, wherewith they mensure the size, thickness, welght, and tone of their bells.-F. B.

Bending, in Nautical Language, the tying of two ropes or caliles together; thus, to bend the cable, is to make it fast to the ring of the anchor; to benil the sail, to make $\%$ fast to the yard.
Bends, in a ship, more generally called uales, are the thickest and stoutest planks in her side, on which mea set their feet when climbing up. They form the chicf strength of a ship's sides, and have the beams, knees, and foot-hooks boited to them.

Bengal, the largest and most important division of Hindostan, aituate toward its eastern extremity, and containing Calcutta, the seat of the British government In India. Exeluding the possessions of the native princes, over which the IIritish government merely exercises politicai supremacy, and excluding also tie Punjab and the Agra, or northwestern provinces, which are administered by functionaries having the powers and authority of lieutenant governors, the tract embraced within the presidency of Bengal lies between $10^{\circ}$ and $28^{\circ} \mathrm{N}$. lat., and between $83^{\circ}$ and $99^{\circ} \mathrm{E}$. long. Its most northern extremity is situate in the province of Assam, and its most sonthern point lies on the const of Tenasserim. The district of Mirzapore, under the jurisdiction of the lientenant governor of Agra, forms the extreme boundary on the west, and the frontier of Siam constitutes its most eastern limit. The longest line which could be drawn with extremities lying within the limits of the presidency, is that in a direction from southeast to north west, from the Pak Chan River, in Tenasserim, to the northwesteris angie of the district of Sarun, where the River Gunduck issues from the meuntuins of Nepaul, in lat. $27^{\circ} 25^{\prime}$, leng. $83^{\circ} 55^{\prime}$, and would measure about 1550 miles in length. A consiterable part of this line would, however, lie across the Bay of Bengal. The longest line that could be drawn without crossing the bay is from northenst to southwest, from the boundary of Assam to tinat of the British district of Palamow, a distance of about 870 miles. The extreme breadth of the presidency, mansured at right angles to this last-stated line, is about 465 miles, bearing from southeast to northwest, from the mouth of the IIooghly to the exit of the Gunduck from the mountains of Nepaul. The aren of the presidency, as thus defined, umounts to 225,103 squares niles.
Bengal, especially as it approaches the sen, may be designated a level country. Even in its northern frontier, it is reached only on one point by any of the brunches that diverge from the Himalayas. A epur from the grest culminating range bounds the nertheastern extremity of Assam; and thence taking a southeriy direction through the native States of Mun-
neeporo nnd independent Tipperah, forms the castern frontier of the British district of Chittageng. Continaing from this polnt its southerly course, it stretches, under the name of the Yoomadonng Mountains, through the province of Arracan to ita soutiternmost point at Cape Negrais, forming the veatern boundary of the valley of the Irrawaddy. This spur where it tonches upon Assam attains an elevation of $\mathbf{1 4 , 5} 50$ feet above the level of the sea, and there its aummit is cevered with perennial anow.

The soil of so extensive a province varies, of course, in its character and fertility with the physical peculiarities of the country. In the level tract interlaced by the Ganges and Brahmapootra, with their numerous branches and tributaries, the aoil is alluvial, its basis being composed of anand, on which are nnnually deposited, by the retiring watera, clay, calcareous matter, and other fertilizing substances. In the tracts which lie beyond the reach of inundation, it is marked by different degrees of productiveness, from the dry and arid rocks of the southwestern frontier overrun with brushwood, to the hills of Chittagong and Tenasserim clothed with magnificent forests. Taken as a whole, howerer, the soil of Bengal, enriched as it is by the combined influence of fierce auns and deluging rains, may he said to be characterized by an amazing fertility. Its productions are those hoth of the tropical and the temperate climates. Of the gra na which contribute to the subsistence of man, rice is of the first importance: It is the great stuple of Bengal agriculture, is purtlcularly laxuriant within the tract of inundation, and thrives in all the southern districts. It is sown after the first showers at the end of March down to the setting in of the rainy season, and occupies a period ranging (according to ita variety, of which there are three principal denominations) from three to five months to ripen. The early crop is sown broadcast; the later crop, after the seed hns attained the height of $n$ few inches, is plantell with the hand in rows at the distance of ubout a foot asunder. The rice harvest is succeeded by the cold-weather crops, which are sown In autumn and reaped in spring. They consist chiefly of vetches, granu, barley, peas, mustard, etc. Millet and other amall grains, sown at the beginning of the rains and reaped at the end, constitnte the food of the poorer classes, and, bearing a very low price, are of importance. Maize is less cultivated in Bengal than in those countries where the climate is more suitable, having no preference above millet to compensate for the grenter labor required for ita culture. Potatoes have lately been introduced into Bengal, and have succeeded well. They are suited to the climate; and the small potnte is little inferier to that raised in England. Esculent plants are found in Bengal in great nbundance and variety. The different species of the cucumber are much more numerous than in Europe, and whole fields are covered with them. The watermeton is of incredible size; snd its stalk, leaves, and blowoms form a finely variegated matting, with which most of the cottages in the villages are entirely covered.
The universal and vast consumption of vegetable oils which takes plnce in Bengal is oupplied by the extensive cultivation of mustard, linseed, sesamum, and palma-christi, in addition to the produce obtained from the cocos-nut. The sesamum comes to maturity during the rains, or soon after them, the others during the cold season. Among the most important of the commercial crops are tobacco, augar, the opium poppy, indigo, cotton, and silk, most of which require land solely approprinted to their peculiar culture; of late years coffee has been succesafully cultivated. Tobacco, which was unknown in Indis before the discovery of America, is now produced every where. The sugar-cane h..s flourished in Bengal from the remetest times; there is scarcely a district in which its cultivation is not pnrsued with auccess, and there seems to be no limit to its production, except the demand for it. It is cheaply
and frugally manufactured; and as it now enters the British market on opual terms with West India sugar, it forms an iaspertant article of export. The manufacture of indigo appeara to have been known and practlced In Bengal trom an early period; and from the East Europe was aupplied with this dye until the superior produce of America engrossed the uarkets. European skill has, however, succeeded in reviving this branch of trade in Bengal, and the indtgo now exported from this presideney amounts to five-sixtha of the supply obtained from the whole world. Cotton is raiaed in abundance, but the produce scarcely exceeds the consumption; and the demand of the Brit sh and China markets tor the cotton wool of India is ulmost wholly supplied from the weatern side of the country. Silk is an anclent product of India; the silkworm, it is said, belng origiually introduced from China. FormerIy the raw material was brought from India to Greeeo and Itsly, whenco Evrope was chiefly supplied. Bengal still carries on a trude in this valuable article; and although the quality is acarecly equal to the tinest Italiau silk, the annual export from Culeutta exceeds in value half a million aterling. A course species of silk is procured from the wild silkworm, which is found in the countries bordering on llengal, and in several districta ineluded within it. It is rendered uecinl in the fabricathon of infecior silke, though hearing rocemparson to the produce of the domesticated insect. The cultivation of the poppy ia entirely regulated and controlled by the goverament. Amual contracts are made wirh the farmers to sow rtain quantities of, land with the plant, and to delive so proluee to the government in the torm of opium ic a tixed price. The sowhigs commence in Novomber, and the crop arrives at maturity by the end of February. The revenue realized by the government from the sule of opium produced in Bengal alone amounts to between two aud three millions sterliug per annum.

The orebard is a great object of eultivation with the peasant in Beagal; und it attaches him to his native soil, from the almest superstitious predilection which he feels for the trees plauted ly his ancestor. The seasons, howe:-er, from the long continuance of tho ruins, which occupy the greater part of the summer, are not particularly faverable for bringing fruit to maturity ; yet the orange, lime, shadilock, citron, tamarind, and other fruits, may be reckoned among the productions of Bengal. Cichards of mango, a tree thriviey with little care, and vielding a fruit estemed one of the best among those of Indis. diversify the plalins. In si e. and feliage this tree restmblea the Spanish chestnut; ita fruit ia extramely delicious, and is said to surpass ..) flavor the large yello's peach of Venice. Another fruit tree is the cocoa-nut, valuable not only on aecount of the nut, from whlel a superior oil is largely extracted, but in consideration also of its timher, which is peculiurly fitted fer the construction of waterpijes and other useful purjoses. Even the luusk which emselops the lirult furnishea a tibre irom which the best corlage is manufactured. The molberry is extensive1y planted in consideration of its leaven, which afford the food of the silkworm. Assam ahounts witit the gemuine tea phant; and the bassla thrivea in various loealities, expecialyy in the hilly districts. Its prodneco is esculent and nutritious, und its tlowers yich an intoxicating spirit. From its seedy la expressed un vil which is somethmes used as a substitute for butter. There are also valuathe forest trees, among which may be notieed the teak, byual to the oak for purposes of ship-building, the sul, and the banym. 'There is also the hamboo, which, behg hollow, light, mud strong, is serviceable la supplying the peasant whth materiais for his bubhlings, us well an for the manfacture of buskets, mats, and other articlea of like character, to which, when kjlit, lta llexible thire is well nilapied.
d/ineruls.-From the alluvial character of the grenter jurtion of the soil of llengal, no great amount of
mineral wealth is to be expected. In the hilly tracts, however, both in the eastern and western parts of the country, two of the most useful products whilel the mineral kingdom can boast, coal and irun ore, exist in abundunce. Gold, in the form of dust, is found in s few places, but not in quantities sufficient to encourage to any extent the seareh for it.

Manyfactures and Commerce,-Cotton plece goods form the stuple manufacture of Bengal; though the use of Indian fubrics of this description in Europe has almost entirely ceased, while even in India the demund for them has been in a great degree anperseded by the cheuper gooda of Groat Britain. The district of Ducea, In the eastern quarter of Bengul, has long been famed for the munuficture of pluin nuslins, distlmguished by various names uccording to the fineness and the closeness of their texture, as w ell as for flowered, striped, or eheckered muslins of the most beuntiful und expuisite fabrics. Soveral kinds more closely woven are munufactured on tho western side of the delta of the Ganges; but those of a more rigil texture do not seem to be limited to purticular dlstricts: coarse turbans und handkerchiefs are also mude in almost every province. Uuder the general appellation of ealicoes are included various species of cloth which are still distinguished ly thetr Indian designations. Moorshedubud und its neighborhoed is the ehief seat of the silk manufucture.

The internal trade of Bengal consiats chiefly in the expurtation from the grain districts of corn and rice in exchange for salt. The supply of this article in Bengal is provided partly by manufacture condactod on account of the government, partly ly importation, and to a small extent by private manufucture under a gystem of exeise. Tho duty on all imported salt is at the rate of tive shillings on $8^{2}$ pounds, or about three furthings per pound; and the sume rate of duty is levied ou the home mamufucture of the article, the prime cost of which amounta to about one farthing per pound. The wholesule price of sult at Culeutta may therefore be estimuted at one peony the pound. Its supply is no longer a monopoly; for though the manufucture and sale have not been relinquished by the government, yet the public purticipate in ita provision, under s combined system of customs and excise. The net revenue derived from salt by the government within the presidency of Bengul exceeds a million and a half sterling per unnum.

Salt is a very ancient source of rovenue in the Bast; but a feeling agginst its manufacture being carried on by the government has been for some time on the incrase. During the parliamentary session of $1 \times 53$, a clanse was preposeal to to laserted in the India bill, then in its progrees through l'arliament, forbidding the manufucture uffer the Iat Muy, 1856; nnd thongh oppesed by the ministry, it was in the llouse ot Commons carricd. lly the IIouse of Lords it was, howerer, rejected, it belug deened nusafo thus auddenly to diminish the resources of ludia by bo large manamit us that of the revenue produced by the trade as at present conducted. The facilities atlorded for the introduction of Engllah salt have for several years past cansed a grent increase of the imported srticle, the conntity recelved in Calcutta in the otheisl year 1850-51 heing double that of previous years.

The intermal trade of Ilengal la greatly aided lye the nuvigulle communications which haterseet the comintry in every direction. The boars uset in this navigution vary in form and constructlon, helng each alapted to the nuture of the rivert which they kenerully travers? Stean movigation has been introgluced upon the Ganges with success; and the Mucadmized trunk road from Calcutta to Dellif has athorded fueility of communicatho: with the caplal to varioun parts of tho presidency; but there can be little doubt that in the course of a few years the rivers and roads of Ilengal will ulike lecome subsidiary to the great arterles of commundeation which, in the form of rallways, ure now com- irts of the which the e, exist in lond in a encourage Europe has he demamil ded by the tof Daeca, seen famed guibhel by the closestriped, or 1 exquisite are manu10 Ganges; $a$ to bo linnand handrince. Une included stinguished bad and its anufacture. iefly in the and rice in cle in Benuducted on rtation, and mder a sys alt is at the it three farty is levied a prime cost per pound. y therefore supply is no facture and overmment, m, under a the net revwithin the and a half
n the linst ; carricd on on the inof 14i3, a India lill, theding the though opse ot Com. as, howerutdenly to ail amount tas at presthe introyears past irticle, the ticial year
meneing to intersect the country. The line from Cal- elosed on all sides by rngged rocks and lslands: the cutta to Burdwan is advancing rapidly to completion; frem this point it will be continued in a northerly direction to Rajmathal, on the Ganges, whence it will traverse the heart of the presidency in a northwesterly direction to Allahabad.

Bengal carries on an extensive commerce with Britain. The exports consist chlefly of all the staple articles of the country-such as cotton, silk, sugar, rum, and Indigo. The imports are metals of all sorts, wrought and unwrought ; woolen and cotton mannfactures of various kinds, which oan be sent from Britain and sold cheuper than the home manufactures of the same description; naval and milltary stores; gold and silver bullion ; and almost every article of Uritish manufacture. An extensive trade is carried on to China and the conntries and island' to the east. The exports are chiefly opium, saltpetre, gunpowder, cotton, and cotton piece goods.-E. B.

Bengal, Bay of, a portion of the Indlan Ocean of the tigure of a triangle, having on its western aide tho coast of leagal, and on the east the const of Arracan, Pegn, and tho Malayan peninsula. Its two sides, from Bengal to Ceylon on the west, and to Junkseylon on the east, may be estimated at 1120 miles in length, and the whole is comprehended within tho latitudes of $8^{\circ}$ snd $20^{\circ} \mathrm{N}$. At the bottom of the bny the breadth from Chittagong to Balusore is not above 250 iniles; and at its mouth, from Cape Comorin te the Malnyan peningula, the breadth may be estimated at 1200 milles. Tho westorn and eastorn coasts of the Bay of Bengal form a singular contrast in all the points most essential to $n$ navigator. On the western coast thore are no harhors for large ships, whilo on the eastern coast there nro many excellent hurbors, such as Arraean, Chedutia, Negrais, and Syriam, in Pegu; a harhor near Martaban, Tavny River, and King's Island; and several harbors in tho Mergul Arehipelago, besiden Junkseylon, Telebone, and l'ula Lada. Off the west const of Coromandel thero are no soundings about thirty milles from the shoro, whilo the cast coast has soundings two degrees from it. Coromandel presents an open comntry : it is parched with drought from winds hlowing over sultry sands; the mouthe of its rivers ure shallow from bars of sand, and it is often vistted by dangerous gales. The east coast, on the other hand, is covered with wood. The climato is always temperato; the rivers ore deep and muddy; and the weather is generally caln. The monsoons blow over tho Bay of llongai, though it is remarkable that here, as in many parts of India, strong whads are found blowing directly from the sea, while at some distance from tho land it is a dead calm. Thus in Bengal thore are strong northerly winds, while at sea culus prevail until May nud June; and on the Malabar coast the southwest monsoon dees not commenco blowhg thl the beginaing of the ralny reason, whilo on shore there are strong westerly winits about and after the time of tho vernal equi-nox.-li. 11 ,
Bergamot, a species of citren, Citrus limetta, disthguished from the orange and womon by having wingless leaf-stalks. It is a native of the south of Europe, and is produced abundantly in the neighborhood of Nice, The fruit luns a deliclons taste and smell, and its essential ofl is highly esteemed an a perfinne. Tho essence of hergamot is also called pasenzia di cedro. It is extracted from the yellow rind of the frult by eutting it in small pleces, and expressing tho oil, or by distilling it from vater. Une hundred bergamots of Nhe yiedi, by oxprosalon, at ounces of oll.
bergamot is also the denomination of a coarse tapestry, manufuctured with tlocks of silk, wool, cotton, hemp, cow's or gont's hair, and supposed to be invented at Bergamo, In ltuly.

Bergen, tha ilrst commercial elty of Norway, situated at the bottom of a leep bay, in lat. $60^{\circ} 24^{\prime} \mathrm{N}$., long, $t^{\circ} 20^{\prime} \mathrm{E}$. l'opulation 26,000 . Tho hay is in.
water is deep; but, owing to the number and intricacy of the passages, the access to the town ia attended at all times with a good deal of difficulty; and ahould never be attempted without a pilot. Codfish, salted or dried, is the principal article of export: when dried, it is called stock-figh, and goes chiefly so Italy and Helland. Tho fishery is the princlpal employment; and considerable quantities of fish and other products are also brought hither for exportation frum the more arortherly parts of the kingdom. At an average, from $25,000,000$ to $30,000,000 \mathrm{lbs}$. salted and dried fish are annually exported. Herrings, whale-oil, skins, bones, tar, lobsters, ete., are also largely exported. The ex. ports of timber from Bergen are inconsiderable, and nono has latterly gone to Englend. Norway timber is not so large as that brought from Prusslan ports, nor so free from knots; bnt, heing of slower growth, it is moro compaet, and less Ilable to rot. The planks are either red or white flr or plao: the red wood•is produced from the Scotch fir ; the white wood, which is inferior in price and estimation, is the produce of the spruce fir ; each tree yields three pleces of timber of 11 or 12 feet in length, and is 70 or 80 years of nge before it arrives at perfection. The planks or deals of Bergen are, however, a good deal inferior to those of Christinna. The imports into Bergen prlncipally consist of grain from the Baltic; and salt, hariware, coffeo, sugar, etc., from England.-For Moneys, Weights, and Mensures, see Cumstiana, where thero are further detalls ns to the trade and navigation of Norway.

Berlin Decree, a memorable interdict against the commerce of England. It declared the British islands to be in a state of blockade, and all Englichmen found In countries ocenpied by French troops were to be treated as prisoners of war; tho whole world, in fact, was to ceaso from any communlention with Great Initain. Issued by Bonaparte from the court of the l'russian king, shortly after the hattle of Jena (which for the timo dechled the fate of l'russia), Nov. 21, 1806.
Bermudas, or Bomers' Isles, wero dlscovered by Joîo Bermudas, a Spaniard, in 1527; but were not inhabited until 1609, when Sir Georgo Somers was cast away upon them. They were settled by a statute 9 James l., 1612. Among the exlles from England, during tho efvil war, wis Waller the poet, who wrote, while resident bere, $n$ poetienl deseription of tho islands. There was an awful hurricane hero, Oct. 31, 1780, and noother, hy which a third of tho houses was destroyed, and all the shlpplag driven ashore, Juy 20, 1818.

Berrles (Bacer), the fruits or sceds of many dlffer. ent spectes of plants. The berriea quoted in London price-currents are bny, juniper, Turkey ant Persian. 1. Bay-berries (Fr. Baies de Laurier; Ger. Iorbeeren; It. Bacehi di Lauro; Sp. Bayas), tho trult of the Laumus nobilis. This treo is a nutive of the south of Europe, but is cultlvated in England, and is not uncommon in thelr gardens. The berry is of an oval shape, fleshy, and of a dark purple color, almost black; it has a sweet fragrant oflor, nud an nromatic astringent taste. 13ny-berries, and the oll obtalued by boilligg them in water; aro haported from Itnly and Sphin.-Titomsox's IVispensatory.
2. Juniuer Rervies (Fr. Gevirrier; Du. Srcenbom; It. (ine pro; Sp. Fimbro), the frult of the common junlper (.luniperts commumis). They are romod, of a black purple color, and reguire twn years to ripen. They haven moderately strong, not lisagreenble, but pecullar smell, and a warm pungent, sweetlsh faste, which, If they be long chowed, or prevtonsly well bruised, is followed hy a conslderable bitterness. They are found in lingland; hut most of those made uso of there are imported from IJolland, Germany, and Itaiy. They shoukd bo chosen fivesh, not much shriseled, and free from inouldiness, which they are apt is contract in keeplag. On distilintion with water, they yfeld a volutlle essential oll, very subtle and pungent, and in
amell greatly resembling the berries. The peculiar flavor and diuretlc qualities of Geneva depend principally on the presence of this oil. English gin is asid to be, for the moat part, flavored with oil of turpentine. -Lewis's Mat. Med.; Thomson'a Dispensatury.
3. Turkey Yellowo Berries, the unripe fruit of the Rhamnus infectorius of Linneus. They are used as a dye drug la prepuring a lively but very fugitive yellow, for topical application in calico-printling. Conaiderable quantitles of them are exported from Salonica, to which thoy are brought from Thessaly and Albania. An inferior aort is produced In France.-Bancroft on Colors. Price in tho London market, September, 1853, 34s, to 40 s , per cwt.
4. Persian Yellow Berries are aaid by the merchants to be of the same species as tha Turkay yellow berriea. The colors which they yield are moro lively and laating. They are high-priced, fetching from 80 s . to 110 s a a cwt.

Beryl, called by the jewelers Aquimarine. This stone was suspected by lliny to be a variety of the emerald; a conjecture which modern mineralegists have completely confirmed. The term emerald is applied to that particular variety which presents its own peculisr color, or emerald green; while that of beryl is given Indiscriminately to all the other varicties; as the aea green, pale hlue, golden yellow, and colorless. Pliny says that the beryl is found in India, and rarely elsewhere; but besides India, it is found in Peru and Brazil ; at Nantes and Limoges, in France; in the Wieklow Nountains, in Ireland; in the district of Cairngorm, in Scotlend; and in various other places. -Plixy, Ilist. Nat. lib. xxxvii. cap. 5; Eneyc. Brit. new edition.

Those only which are of gooll color and sufficient depth are manufactured; they have a pretty, lively etfect, if in good proportion and well polished. Large atones, from one to three and four ounces, are not uncommon, but from their bulk are ouly in request as specimens for the cabinet; smaller stones, suitable tor neckluces, may be bought at low prices, within the reach of every description of purchasers.- Mawe on Diamonds, etc. 2 d edition.

Besant, or Bezant, a coin of pure gold, struck at Byzantium in the tine of the Christian emperors; and hence the gold offered by the king at the altar is called besant or bisant. It seems to have been current in linglend from the tenth century till the the of Edward III. Its value is not prectisely ascertained, but it $\mathrm{i}^{3}$ generally estimated at $9 s .44 d$. sterling.

Betel-leaf (IIind. Pan; Nalay, Sireh; Javan. Surv), the lcaf alluded to in the following article. It ls the prodines of a species of pepper vine (liper brtle), and somewhat resembles the iry leaf. In. their fresh ainte, betel le wes form an important article of Eastern trathe, being every where used in the preparation of betel. The Piper betle la a scandent plant, nud poles ure placed in the ground, round which it twles itself. In consequence of the great comsumption of its leaves, It is extensively cultivated throughout tropical Asin' It grows in the greatest perfecion in rich noils close to the equator, and is raised whlt more difliculty the farther we recede from it.-Encyc. Britannica, new edition, article Betel; Cantwevin's iodian A rchipelago, vol, 1. p. 403.

Betel-nut, or Axeca (Sans, and Ilind. Suapri; Malny, I'inang; Javan. Jambi), the frult of the Areca catechu, a slender and graceful palnt, rising to the height of aboat 30 or 40 feet; it produces frot: at the ag, .... - nix years, and continues bearing till its 25 th o: 30th year. The fruit, which is the only part of the palm that is made uso of, is eaten both in its unripe and In its mature state. When rlpe, It is of the size of a small egg, and of an orange color; the extirio: part consiats of a soft, apongy, til roun matter, inclosing a nueleus resembling a nutmeg In shape, lnternal st ructure, and color, hut usually larger, und always liarder. A sliggle tree producea, accordlug to les aitu-
ation, age, culture, etc., from 200 to 800 nuts. They are objecta of great importance in the East, forming the principal ingredient of a compound in universal use as a masticatory in all Central and troplcal Asia. The other ingredients are the leaf of tle betel pepper (which aee), in which the areca-nut is wrapped; a fittle Chunsm (which aee); and generally, but not alwaya, a little catechu or terra japonica.-See Catecne. The whole compound is called betel, and is uaed to an extent of which it is difticult for a European to form a just lden. All individuals, without exception of age or sex, begin at ancarly period to accustom themselves to betel. They are unceasingly masticating it, and derive a gratitication from ita use that strangers can neither underatand nor explaln. It reddena the saliva, givea a bright bue to the lipa, and, in course of time, renders the teeth quite black. It is sald to dispel naosen, excite appetite, and strengthen the stomach. Besiles being used as an article of luxury, it is a klnd of ceremonial which regulates the intercourso of the move polished classes of the East. When any persen of consideration visits another, after the first salutations, betel is presentad: to omit it, on the one part, would be considered neglect, and its rejection would be judged an affiront on the other. No one of inferior rank nddresses a dignlfed individual without the previous precaution of ehewing betel; two people seldom meet without exchanging it; and it is always offered on the ceremonivus interviews of public missionaries. The areca-nut is, in consequence, an article of very extensive trade. The countries which yield it mest lurgely for exportion are, Malabar, Ceylon, and Sumatra. Of the extent of this trade some notion may be formed from the fact that the imports of areca into Calcutta in 1841-1842 umounted to 53,633 Ind. mannds, or 1966 tons, and those into Cunton in 1837, by British ships only, amounted to 25,978 pieuls, of 1502 tons, notwithstancting Bengal and Southern China are countries in which areca is largely produced.--See the article P viten. in the new edition of the Cincyc. Britannica; Belu's Rericw of the Erternal Commerce of Bengal; Cuswran's Indian Archipelago, vol. 1. j. 102, vol. ii. p. 414 ; Chinese Colendur ond Register.

Beyrout, Beirout, or Bairut (hery/us), a fortified sea-port, and the most flourishing commercial town of Syria in proportion to its aize, pashawlic of Aere, on a bay of the Nediterruneun, 57 miles west-northwest of Damascus, of which eity it is the port, and 3 miles south of Cape Beyrout, which is in lat. $33^{\circ} 50^{\prime}$ N., long. $35^{\circ}$ $26^{\prime}$ E. I'opulation estinnated at 12,000 . Its walls are ubout 3 miles in cirmmference, outside of which are suburbs equaling the town in extent. It has some large and well supplied bazars. Streets narrow, hut rean, it being plentifully furnished with springs; and it is said to have lerived its origlual name from the Phœuician deity, Baul Reerith, "lord of wells." Along the shore are same rumalus of antloulty, comprising moraic pavements, columns, and a thick wall. The harbor, protected by n mole, is adnpted only for small boats; but In the bay beyond it ships may nuchor in from 6 to 11 futhoms. The town has seme manufactures of silk stulls, and gold and silver thread. I'rineipal exports, silk, gallk, madder, gulns, wine, and oils: imports, muslins, cottons, tiu, hardware, cloths, and manufactures of western Europe. In 1811, $8 \times 3$ ships, woatly Turkish, Arab, and Greek, nggregnte burdet 38, $4 \cdot 11$ tons, entered the port with cargoes to the value of $£ 66,7.18$, nud nearly the sume mamber cleared ont with cargoes worth e2di, 128 , hesides ballast. Heyrout was bombiaried mel teken by the English in 1840.
Bezoar (Arab. I'alyj; Ilinch. Zehrr-mowh; l'ers, I'adzehr Konie), a concretion found in the stomach of an auimal of the goat khed; it has a smooth glossy surface, and is of a dark green or olive color: the word hezonr, however, has Intely been extended to p!l the concretions found lu animals; such at the hog bezour, found In the stomach of the wild boar In Indla; the

1uts. They ast, forming in universal opical Asls. betel pepper ped; a little not always, Ecuc. The d to an exn to form a ption of age themselves ting it, and trangers can Idens the saIn ceurse of sald to dispel he stomach. , it is a kind oursa of the n any person first salutahe one part, ion would be e of inferior out the preeople seldom ways offered missjensrics. le of very exield it most lon, and Sue notion may of areca into Ind. maunds, 837 , ly l Brit, 011002 tons, ina are coun--See the arriBritannica; e of Bingal; D. 10:, vol.
(8), a fortified cial town of of Acre, on a northwest of 3 miles sonth N., long. $35^{\circ}$ lts walls are of which are It has some narrow, hut prings; and me from the Ils." Along comprisiug wall. The ly for small y anchor in le manufacead. I'rin1c, and oils : cloths, and , $3 \times 3$ ships, ente burilen to the value cleared out lleyront (1) 18.10. woh; Pers. stomach of poth glossy : the word to pll the hag bezour, India; the
borine bezoar, found in the gall-bladder of the ox, common in Nepaul ; and the camel bezoar, found in the gall-bladder of the camel : this last is much prized as a yellow paint by the Hindoos. The fineat bezoar is brought to India from Borneo and the sea-ports of the Persian Gulf; the Persian article is particularly sought sfter, and is said to be procured from animals of the goat kind, Capra Gazella. Many extraordinary virtues were formerly sseribed to this substance, but without any sulficient reason,-Alnside's Materia Indica.
Bible. The first translation from the Hebrew into the Greck was made by seventy-two interpreters, by order of l'tolemy Philadelphus; is is ibence called the Septuagint version, and was completed in seventy-two days, nt Alexandria, 277 n.c.-Joseritus. It was commenced 284 a.c.-Lenglet. In 283.-Bbain. The Jewish Sanhedrim consisted of seventy or seven-ty-two members, and hence probably the seventy or seventy-two tranelators of Josephus.-Hewhett. The seventy-two were shut up in thirty-six cells, and each psir translated the whole; and on subsequent comparison, it was found that the thirty-six copies did aot vary by a word or a letter.-Justin Martyr.

Incient copies of the Bible.-The oldest version of the Old and New Testament belonging to the Christisus is that in the Yatican, which was written in the fourth or fifth century, nud published in 1587. The next in age is the Alexandrine MS., in tho British Muscum, presented by the Greek patriarch to Charles 1., and said to have been eopied nearly about the same tine. The most ancient copy of the Jewish Scriptures existed at Toledo, about A. D. 1000; and the eopy of Ber Asher, of Jerusalem, was made about 1100.llarion.
Bishops' Bible.-Hishop Alley prepared the Pentateuch; llishops Davis and Sandys, the Ilistorical Books; Bishop Bentham, the I'sulms, etc.; Bishop llorne, the l'rophets; Bishop Grinalal, the Minor Prophcts; lishope Prarkhurst rud Burlow, the A poerypha; lishop Cox, the Gospels and Acts; and Archbislop l'arker, the remainder, l'rinted A.D. 1558.

Dirivion of the Bible.-The Ilible was divided into twenty-two books by the Jews, the number of letters in the alphathet. The Christlans divided the Bible inte thirty-nine books. The IIehrew division into chapters was made by the Rabbi Nathan about 1445. Our lible was divided lato chapters, and a part into verses, by Archbishop Langton, who died In 12:8; and this division was perfected by Robert Stephens, about 15:1.
biditions of the Bible.-The vulgate editien, in Latin, was made by St. Jerome A.D. 405, and is that acknowlelged by the Catholic Church to be authentic: it was first printed by Guttenberg at Mayence, 1450 -145j.-Wee books. The flrst perfect edition in English was hinisbed, as njpears from the colophon, by Tindal and Covertale, October 4, 15:35. A revision of this edftlon was made, linis-rias. This last was orderel to he reail In clurehes, 1549 . In 1604 , at the conference at liampton conrt, a new translation was resolved upon, which was executed $1607-1611$, by ordor of King dames $I$., and is that now generally used in Great Brituin. J. Ellot's luillan llible, one of the first books printed In North America, at Cainbridge, 1664. The lible was first printed ln Ireland, at lielfast, in 1704. Permitted by the Popo to be transinted into the langunte of the Catholie States, 1750. The lllble Was prlited in

| Sparlsin . . ........... 1478 | Tndian (Ifass.) ...... 1064 |
| :---: | :---: |
| (ierman............. 1632 | Turklbh. . . . . . . . . . 1046 |
| F:ngltalı . . . . . . . . . . . . 1584 | 1rish. . . . . . . . . . . . . . . 148') |
| Frenelı. . . . . . . . . . . . . 1515 | Portuguewe. . . . . . . . 1748 |
|  | Manks . . . . . . . . . . . . . $17 \%$ |
| laninh. ............. 1650 | Italian............. 1776 |
| Ilutch .............. 16w | Henpalee. . . . . . . . . . . 1801 |
| Russiat . . . . . . . . . . . . 1581 | 'Jartar . . . . . . . . . . . ${ }^{\text {a }}$. 1818 |
| Itingarian........... 1680 | Lersian . . . . . . . . . . 1815 |
| lbilsh . . . . . . . . . . . . 1504 | Afrlenn . . . . . . . . . . . 181d |
| Mudurn (ireek ...... 1089 | Chinese. . . . . . . . . . . . . . . 1820 |

Editions of the Old and New Testament, separately, appeared in eeveral instances at earlier dates, particularly in Europeau languages. The Polyglot Bible, edited by Walton, bishop of Chester, in the Hebrew, Syriac, Chaldee, Samaritan, Arabic, Ethiopie, Persic, Greek, and Latin languages, 1657,-Wood'a' Fasti. Oxon.-Illaydn.

Bight (Dutch bogt, participle of boogen, to band), a bend in the sea-coast, forming an open bay; also a round of a rope or cable when coiled.

Bilbao, a city and priacipal pert of the north of Spain, capital of the proviace of Vizcaya (Biscay), on the Nervion, 6 miles from its mouth at Portugalete, and 28 miles north of Vitoria, lat. $43^{\circ} 14^{\prime} 3^{\prime \prime}$ N., long. $2^{\circ} 56^{\prime} 5^{\prime \prime} \mathrm{W}$. Population 11,906 . It is inelesed by lofty mountaizs, and is well built. Prineipal manufactures, hardware, anchors, leatber, paper, hats, tobacco, and earthen-ware ; there are large rope-walk. and docks for building merehant vessels, with iron and copper misee in the vicinity. Exports comprise weol, iron, fish, and fruits. Princlpal imports, cotton snd woolen fabrics, and colonial produce. Bilbao was fou.2ded In 1300 ; at the end of the 15 th century it became the seat of the famous consulado, originally cstablished nt Burgos, and having the highest authority in Spain as a commercial tribunal. It was the scene of frequent contests in the late Carlist wars, and Zumalacarregui received his death wound here, June 10, 1835.
Bilge of a ship, the buttom of her floor, or the breadth of the part she rests on when agrounl. Bilgerater is that which lodges on her floor below the level of the well of the pump; and bilge-puiaps, or burrpumps, are those that carry off the bi'ge-water. A ship is said to be bilged when her bilg' is broken in and she springs a leak.

Bilge, the greatest circumference of a cask.
Bill, in Nautical Language, the point of the fluke of an anchor.

Bill, in English Law, a declaration in writing, expressing either some wrong the complainant has suffered from the defendant, or a fanlt committed by the person complained of against some law or statute. In Scottish law, every summary applieation, by way of petition to the Court of Session, is called a bill.
bill, in Commerce, has been usually defined a writing in which one man is bound to another to pry a sum of money, on a day that is future, or presently ou demand, according to the agreement of the parties at the time when it is drawn; and on which, in the event of failure, execution may be summarily done to enforce pay-ment.-E. B.
Bills of Exohange. Withont evtering into any Inveatigation regarding the origin of hills of exchange, which has been assigned by dillerent writers to different countries and cmises, we may say that it is now the most generally adoptel oplnlon that they originated in the twelfth or thirteenth century, in ltaly, ut the public fairs, which raceived a marked importances in commerce, threugh the Crusades. The noney-changers transacted their principal business at the pe:blle fairs in the principal citirs, and bills or orders tor the payment of money at a distant place were at first drawn only from one fair to another, and were ealled cambia regulatio. Ilat when commerce increased, through the Ilmuspatic lengue, and extended to placea where $n o$ public fairs were held, bills of exchauge wers also drawn upon such other places, and these bills were ealled conbiz irregularia.
The oldest copy of a formnil lill of exchange known at present is one ilated at Milan on the 9th of March, 1825 , and runs in the orgginal ns follows:
"Ingute per questa prima litera [lettera] a di $I X$. thtobre a luco de foro Lib. WLI. Somo per la vaiuta qui da Marco Reno, ul tempo il pagate e joneto a mio conto e R. che Chriato ei grtarde Bionrumeo de Bonromei de Milan IX. de' Marzo, "TMo."-"Pay for this Ilre", bill of exclange, on the 9 of of I'ctober, to Luea de

BIL

Goro XLV. Livres; they are for value recelved here from Maseo Reno; at the tlme of matnrity pay the same and pasa it to my account, and thanking yon, may Chriat protect you, Honromeo de Bonromei of Milan, the 9th of March, 1325."

In England, reference was made, in the statute of 5 Rich. II. ch. 2, to the drawing of forelgn bills, whieh was in the year 1381. The legal propertics of bills in England are derivud from the cuatom of merchants, but promissory notes are aald to derive thelr propertiea from the aet of Parliament of the 3d and 4th Anne, c. 9 , which puts them on the same footing with inland bills. In the United States, bills of exchange and promissory notes are reeognized in law as negotialle instraments, with all the properties ustially attaehed to them by the custom of merchants. The slatute laws in many States espectally provide for their negotiability ; but In States where this is not the ease, the same customnry properties wonld be held to attach to them.

Name and Inefinition.-A bll of exchange, in common speceh called a draft, is an open letter of request, addressed by one person to a second, desiring him to pay a sum of money to a third, or to nny other to phom that thlrd person shall order it to be prid; or it may be macie payable to bearer. For instance:
" Exchance for $\$ 1000$.
" Eoston, let January, 1852.
"Sixty duys after sight of this bill of exchanye, say to the order of G'eorge Gireen, One Thousamb Dollors, ealue received, ond place the same to account, as adrised by
"C'iariaea Winte.

## "To Mr. Jacon Brown, Dee Iork."

Parties.-The person who writes the request is called the drazer, and he to whom it is nddressed is ealled the drauce; and if he ngrees or consents to pay the money signitied in the bill, le is said to accept it, and is then called the acceptor. The third person, to whom the money is payable, is callet the payee. In the tabove Instance, Charles White is called the drawer, Jacob brown the dravee, and after he has cousented or aceepted to pay it, the ouceptor, and George Green is called the payye. If it is made paysble to him or order, or to the order of him, as above, and he then assigns it to another person, to whom the money is to be paid, by writing his name on the back of the hilt (which is called indorsing the hill, and the act itself an indorsement), he is then called ant indorser. The person to whom he orders the money to be paid is ealled the indorsee or holler, and if this one again asslgns the bilil to mother person, the later is called the indorsee or holder, and the cther the second indorser; and every other person whe successively puta his name oa the back of the bill is called nu indorser, and the person to whom it is last delivered is called the bolder.

If in the above-cited instance George Green should write on the back of tho bill, "l'uy to the orter of Whllam llaker," blgnhng his name bencath, "tieorge Green," the latter would be called anl indorser, and Willian liaker wonld be called indorsee or holder; and! if laker, agnin, should slgn his name under that of Green, and order the contents ot the bill to he paid to someboly else, baker would be called an indorser, and the person designated by him the indonsee or holder, and so on .

Blank Indorsemente -t is velvermmon for porties to erign simply their not wo with Pi is of thin bill, whont designathg to whas the wottents y! , ll be pald. This is ealled $n$ "blar: Siniorsement," und Whosoever hollds the bill miny wate wove the shennature that it is paynble to 'is ar r. Fin 'nstas ', If

 nad hall dellvered it to " $n i^{\prime \prime}$. fisior, nut raker nyalu had stmply put hin s:anit of the bin k w1 r that of Green, ant hat delivere "th: '111 : one J. Brown, the latter would lie the hoilet it, 1 m .t w is. owe:
the signature of Green, "Pay to the order of Willlam Baker," and over the signature of Baker, "Pay to the order of J. Broum." Although these blink indorsements are very common, it woald be desirsble, and it is highly to be recommended, that each indorier should write in full over hia name the place of hia risidence, the date, and the name of his indorsee; that is. the name of the person to whom he assigna the bill. Thus, In the above instance, if George Green resided in New York, he ahould write on the tack, over his aiguature:
"New York, January 8d, 1852.
"Pay to the order of William Baker,
"Geonge Green,"
And in a similar way the suceessive indorsers should do. This way of indoraing has two advantages. In tha first place, if the bill alould be lost or stolen, with a blank indorsement on it, any person who finds or holds it might fill up the blank in his own name, and demand payment; whereas if it were Indorsed in full, the finder or holder wonld have to forge the name of the indorsee before he could get payment. In the aecond place, if the bill should be protested for nonacceptance or non-payment, the holder would know at once the places of residence of the different ludorsers, and be able to glve them due notlee withont delay.

Forms.-When blls of exchange are drawn on a place at a dlstance, and In a forelgn country, it is castomary to glve a set of three bills of the aame tenor, dint they may be sent separately by different mails, so that in case one should be lost, one of the others might reach the pe:son concerned safely. One of the common forms of a bill of this kind would be substantially as follows :
"Erchange for $£ 1000$.
"Sixty duys after sight [or after dute, or at sight, or on demand ], pay this my vinst bill of exchange (second and third of the same tenor and date not puid) to the order of $1 / r,-$ One Thousamd Pounds Sterliug, value received, and place the same to my account, as adrised by
"Pael Jones.

## "To Messrs, Guern \& Co., London."

The aecond hill of the anme set would be the every respect the aame with the tirst, exeept that it would rend, "Pny this my sccond bill of exchange, tirst sud third, etc., not pald."

And the thied bill would rin, "Pay this my third hill of exchange, flist nnd second, ete., not paid."

Foreign and Inland Jills.-Wills of exchange are divided into foreign bills of axclange and inland lills of excha' re, becanse the rights of proceeding ind rementies mereon are not unlformly groverned by the same rules and regulations. A lill of exchange is called a foreign bill when it is drawn in one state or country upon a person residing in a forelgu state or country; as, for lr tance. when trawn ly a person in one of the I'nite 1 States of America yion a person resident in Eugland, and pinyable liy the latter. And it is entled an inland bill (or a domestie bill) when hoth the drawer and drawee reside in the same state or country; for instance, when the bill is drawn in loston upon a person residing in Salem, lioth places bring in the State of Massachusetts. The different States of the Unitel States are cor uidered as forelgn to each other, so that a bill drawn in Massachusetta upon a pervon in New York is considereil a forelign hill. In like mmmer, a bill drawn In England upon Scotland or lreland is considered it forelgn bill-Mahoney r. Ashlin, 2 Jlarn. \& Adolph, in. : : $8,4 \times 2$.

The fomm,- A Bllils not confined to any set form of words, nuif is not essential that the very language of the cormulary which has been given above shoald le usid. It is moly requisite that it be in writing, nud contain m. stler or direction hy one person to another serson to pay money to a thiril presson, absolntely und

BIL ik indorse ble, and it rier should 3 rishlence, that :4. the ill. Thus, ded in New his signa-

Green." sers should ges. In tho len, with a dds or holds me, and desed in full, lie name of In the ted for nonould know it indorsers, it delay. drawn on a untry; it is same tenor, rent mails, tho others One of the be sulistan-
$y$ 18f, 1sk2.

- at sight, or ange (second to the orter. $g$, ralue redrised by L Jonces.
ho in every at it would e, first sud
is my third puld."
change are inland hills eedluy and ned by the veluange is 10 atato or nll state or person in a person ter. Aud when beth e state or in lforton 8 becing in ates of the ach other. petson in e munner, I relund is n, 2 litarn.
ft form of langrage se sliould ting, and a anether ately and
at all events. The writing may be in peneil, as well as in ink, nor is it necessary that tho whole inatrument be in writhg ; the general formulary is generally printed, bat the eignatures must be in writing. If a person shoald order another person to deliver a particular sum of money to A. B., or to he accountable or reaponsible for a partioular sum of money to A. B., it would constltute a bill of exchange. So if the expression should be "Please to pay," or "I request yon to pay or deliver," it would be a good bill, becauas theso expressions are mero words of politeness, in the place of an absolate order. But if the language used necosaarily or natarally imports a request as a favor, and not as a matter of right, it would not be a good bill. So it has been held in England that a noto addressed by $A$ to 13 in these words: "Mr. Llttle, please to let the bearer hava $£ 7$, and place it to my account, and you will mach oblige your humble servant, J. Slackford," was not a bill of oxchange,-Little $v$. Slackford, 1 Mood. and MI. 171. However, where the languago used is susceptible of two interpretations, the true rule seems to be, that the mere drawing of a bill is deemed to be the demand of a right, and not the asking of a favor, and to deem it a favor only when the language used repels, in an unequivocal manner, tho notlon that it is elaimed as a right.-Stony un Bills of Exchange, § 33. If the word "at," instead of "to," should be put before the name of the drawee; e.g., "Two months after date pay to the order of J. J. £z8, value received, T. S. At Messra, John Morson \& Co.," it might be held a hill of exchange (Shuttleworth $v$. Stevens, 1 Cump. $\mathbf{f 0 7}^{\circ}$ ), or a promissory note, at the electlon of the holder. So in a ease where the instrument was as fellows: "May 20, 1s13. Two months after date pay to me or my order the sum of.E30. W. S. l'ayable at No. 1, Wilmot Street, opposite the Lamb, lethnal Creen, London," and was accepted hy the person reslding at that place, it was held to tre a bill of exchange.-Gray o. Wilmer, 8 Taunt. 739. The rule is, that, where an instrument is so framed as to admit of reasonable donbt whether it was intended for a bill or a note, the holder is at liberty to treat it elther as $\mathfrak{a}$ bill or as a note, as against the maker.

It does not seem necessary that tho whole of the blll be written on one and the same sille of a paper, or on one snd the same paper; It may be written in part on one papor, and in part on another aeparate and detachod paper, provided the writing ou each be done at ono and the same thme, and both parts be intended to furn one entire contract.-Stoliy on Bills of Erchange, $\$ 3$, and note 1 . If there should be no room left for indursements, a paper might be affixed to the orighal bill for this purpose, but it would require proef of the fact that this paper formed a part of the bill. It often happens that there aro but two parties to a bill, which is the case when tho drawer makes the bill payable to his own order; and when he then indorses it, the indorsee becomes in fact the payeo. And if no drawee should be numed, hut the bill be made payable nt a particular place, and the person living at that place should aceept it, he would be held answernble as neceptor.

Negotiability.-In order to mnke a bill negothable, it must be made payable to the payee and to his order or assigns, or to bearer. The counmon form, ns staterl thefure, is "to the uriler of A. H.," or "to A. H. or errler," or "to lemerer." It would the adviabile to adopt the dirm, "to A. Il. or his order." If no expression be used which gives to the payee the power of transfer, it is nevertheless a bill. If the payce of a negotinhle bilf indore it in hank, it in transferatile liy nere delivary, In the samo manner an if it were payatile to bearer. If the nume of the pryee be left in blank; e, g., "l'uy to - or order"-imy holder may insert his nave, and then indorse It ; the etleet would be the sume as if it were mado payahle to lomarer. Ko, niso, If the name of the payee is thetitious, and the bill be
indorsed in the name of thls fictitious person, a holder who was Ignorant of this fact when he took it may regard is as a blll payablo to bearer, and may sue the drawer, and also the acceptor, if the latter knew that tho name of the payee was fictitious. The words "value received" are generally inserted in a bill, but it is not necessary, for the law in cases of negotiable Instruments of this kind presumes it.

Seceral Inawees,-A bill addressed to " A, or In his absence to B," Is valld, and will, if aceepted by elther, bind him. If a bill is intended to be aecepted by two persons, it should be addressed to both; otherwise, although accepted by both, it will bind only the person to whom it ls addressed as aceeptor. If a bill is drawn upon A, B, and C, it may be accepted hy A and B only, and it will bind them.-Stouty on Bills of Exchange, $\S 58$. On the Continent of Europe it is not unfrequent to put, besides the name of the principal drawee, the name of another person, to whom application may be mate for acecptance or payment, if the first-named drawee should be absent or refuse payment; which is generally done in this form: "In ease of need, apply to Mr. - at _-" (In French, "Au besoin, chez M. -, $\stackrel{\lambda}{2} ;$ " in Germun, "Im Nothfall bei llerrn $\qquad$ in Is obliged to follow the direction, If the first drawee should be alsent or refise. Although it is common to use the wordr, at the ent of the bill, "and put it to my account," or "to your accomt," or "and put it to the account of A. B.," or "put it to account as jer advice," or "as ndvised by," these words are not essentlal, but are used only as a matter of convenience. If the llawer should be indebted to the drawee, he would say, "and put it to my aceonnt;" if, on the other hand, the drawee should be intebted to the trawer, he would say, "and put it to your account;" and if the hill were drawn on account of a third person, he won'd say, "and put it to the account of $\Lambda$. B." If the hill concludes with the words "us per adviee," then the drawee is not obliged to accent or pay, without receiving further directions or advice, and if he do so, he does it at his own peril. If the bill conclude with the worls, "withont advlee," or "with or without ndvice." then the Irawee may oecept or pay without theing further Instructed by the drawer. But the worls may be altogether onitted without impuiring the validity of the bill. We may geberally state, that all persons who are legally capable of entering into any other contract are capatle of tecoming parties to a hill; or, in other words, all persens of full age and sound mind, both mules and females, may draw, hold, indorse, and aceept bills.

I'arturrs.-In regard to partners, the sigunture of the firm must be put to the hill, either in case of indorsement, Irawing, or acceptlag; and each partner has complite authority to use it ; and when so used, the hill is deemed to be on partnership account, unless It appear on the fice of the bill, or it can the proved that the party fuking th had full knowledige that the bill was inrawn, Indorsed, or aerepted, not for partnership, but individnal purpeses.

Agerts.-Agents, if cmpewered for the purpese, either expressly or tacitly, many hand thelr prinelpals to the full extent that their prinelpals might do for themselves, provided that they to not exreed the scope of their unthority. Hat If rigents would hind their prine elpals, they must Iraw, indorse, or aecept tho bills in the name of their primeipals, and not in their own name. The most proper way of delurg this is lin the following form, supposing A. Green to be tho prinei[nl, and II. White, the ngent :

## "A. Green,

## by II. White, hle Agent."

A number of other forms may he usel; eare shomld he takem, however, liy the ngent, if he means to exempt himsplf from persomal responsibllis, to use clear and explleit words to show that intention, mad to ex-
press on the contract the quality in wisich he acts; otherwlse he does not bind tho party who employa him, but binda himself. A great many lawsuits have arisen in consequence of an indistinct and loose way of stathg the quality in which a person signs a biil, and different decisiona In difierent States have been the consequeneo. It ia understood in all these cases that the agent has aufficient authority from hia prinelpal to draw or necept billa, or make notes. If the agent, however, has no authority, then the agent himaslf is llabla on the itstrument.-Sea Ballour. Talbot, 16 Mass. 461 ; Rossiter v. Roasiter, 8 Weni. 494.
Ioyment in Money.-A bill of exchange must be for the payment of mowey, but it mattars not what denomination the money specified has, whether it la called dollars, francs, pounds aterling, Mare Banco, or nny other currency, because tho value of aach kind can be ascertained. In England negotiablo paper mast be for the payment of money in specie, and not in banknotes, and it may be anid that the ame rulo obtains generally in the United States of Anerica, although there are some cases lu gomo States which huve extended this rule.-Kent's Comm., Ieet. XLIV., p. 45, 46. Hence an order to pay money "in good East Indis, bonds," or to pay "in cash or Bank of lingland notes," or "ln foreign bills," or "in goods," is not a negotiable bill. In New York it las been held that a note payable "in Sork State bills or specie" was a nerotiable paper.-Keith v. Jones, 9 Johns. IK 120. So also a nute " payable in bank-notes current in the city of New York;" and the court remarked that it would have been a note under the atatute if payable in lanknotes geaerally.-Judnh $v$. IIarris, 19 Johns. R. 144. IHut a note payalile "in Pennsylvanha paper currency, or New York, to be current in the State of Pemsylvania or the State of New York," was held in Now York not to be a note for the puyment of money, within the statate, becanse the court say that they may take notice, officially, of their own bank paper ijang rega lea as casl, but not of the value of the paper eurrency of other States.-Leiber r. Goolrich, 5 Cowen, 116. A note made payatle in New York in Canada money, is not a negutiable promissory note within the statute. -Thompson r. Sloan, 23 Wendell, 71 . In l'emazlvania it was held that a note payable to A. 13, or order "in bank-notes of the chartered banks of I'ennsylrania" was not a negotiable note. - I'Cormick $v$. Trotter, 10 Safg . and Llawle, 9.f. In New York it was held that a check, drawn in that State, upon a bank in Mississippi payable in currint notes, is not nego-tiable,-Little r. The Iharnix llank, 7 lill's 13. 359. A note payable to the bearer in goorls is not negotinhllo. -Clark $f$. King, 2 Mass. $\mathrm{j}_{2} \mathrm{I}$. Nor a note payable in "foreign bills."-Jones $\varepsilon$. Fules, 4 Muss, 215 . It is not necessary that the sam paynhlo should he expressed in wodds; it is suflicicut if it he in ligures. Ihat it is necessary that the order lee for a specitic umount. A lill or nute for a gives sum, "and for whatever else may be dre to the payee," is wot, even between the
 $1 \because$. So an order for " $\% 1000$, or what might be due after delucting all advances mad "xpenses," is not ne-gotiable,-C'ushman $r$. 11 aynes, 20 l'ick. 132.

Pagable abolutely, - $I$ hill mast also be payable airsolately and at all events, and the payment must not be made to depoul on ayy umeertainty or contiagency, or it will mot be comblered a bill of exchunge. Thas a bill drawn payable "provided tho terms mentioned in certaln letters shall be romplied with;" or "out of rents;" or "on the sale of produce when sold;" ar "when the drawer shall come of age;" or "at thirty days after the ship A. shall urrive nt 11 .;" "or when the drawes shall marry;" or "when freight hecomes due;" or "if the money be not paid at a certain duy by a thirll party ;" or "provided a eertain act is donio of not done;" or "on the balance of aceount bet ween the parties;" or "provideal, et the maturity' of the bill,

I am living ;" or "when eertaln carriages are aold by payes;" in all these and almillar easea the inatrument is not considered a bill vi exchange.-Bayıey on Bills, p. 14-17, and Srony on Bil's, §46. But where payment only seemingly depends upon a contingency, lut in roality is certain and at all evonts, although the particular time when It will arrive la uncertaln, it will ta a good bill of exchange in law ; e. g., a hill payable at the death of the drawer or of another person, or at a tixed timo afterward. A note payatile "provided the shlp M/ary arrives," stc., "fres from capturo and condemnation," ia not negotiable.-Coolidge i. Ruggles, 15 Mass. 387.
deceptance.-The person who mecivea a blll or note theraby contracts with overy other party to the bill or note who would be entitled to bring an action on paybing it, to present it in proper time to tha drawee for acceptance when acceptance is necessary, and to the acceptor for payment when the hill shall have arrived at its maturity and be payable; to allow no extre :ne for paymeat to the acceptor; and to give notice in a reasomulie time, and without delay, to every Licch person, of a failure in procuring a proper acceptanca or payment. Any default or neglect in any of these respects will discharge every such person from responsibility on account of a non-acceptrance or non-payment; und will mako it operate generally as a satisfaction of any tlebt, demand, or value for which it was given.hidebxhear on Eridence, vul. ii. § 175; Wallace $v$. 11 Connell, 13 Peters's IS. 136; Stony on Dills, § 227.

1 "hen Necessary.-If a bill is payable at siglit, or in so ${ }^{1}$ any daya ufter sight or after demand, or upon miy other contingeney, or after a certain avent, a presentwent of the hill to ?! o drawee for accent nee must he made, $n$ order to tix the period of pryment. But if the bill is payable on demand, or payible at a certain ur aber of days after dute, or after any other certain
sut, it need not le presented merely for neceptance, tut only for payment ; lint if it be presented for aeeeptance, and aceeptance be refused, the hulder must give notice of the dislionor, in the sane manner as if the bill were payable at sight or after aight.-STonr on lills, § 112, 227, 228. It is, however, usial nud alvisable to present a bill drawn payalile a certain number of days ufter date, for acceptance.

By thom to be presented.- Tho presentment for acceptance must be mude by the holiler or his agent. If the bill is presented by one not authorized to hold the bill, the drawee may not lee bound to accept it ; but if he does accept it, it is availulle to the holder. A presentment by any person in possession of a bill or nute bona jide is suthicient, and no letter of attorncy or other writing from the proprietor of the lill or bute is necessury to give an authority to another person to make a presentment,-Freeman $t$. Hoyntun, 7 Mass. 13. 483 ; Bank of Útica $\because$. Smith, 18 Johns, 1:. 230. And a person'a having a bill or note in his jossession on the day und at the place of payment is presimptive evidence of authority to demand payment.-Agnew $r$. Bank of Gettysburg, 2 Ilar. and tiill, 478.

To whom to be presented.-The bill must be presented to the Irawee, or his muthorized agent. If it is Irawn in partmors, a presentment to one of them is sullirient; but if drawn on several persons rot partners, it has been said that it should he presented to ench; mul if one of the drawees should retuse to aecept, the holder woald not le loound to take tha sceeptamee of the oth. ers abone,-Stokx on Bills, §229. The death, baikruptey, insolvency, or abscomlling of the drawee will not nibsulve or excuse the holder fron presenting the bill. If he ls slead, it should bo presented to bis personul representatives, hits executor or uiminiatrator, if nuy there lo, not if not, at his last domleile; and if he has nhsconded, it should he presented at hils last domicile or phace of buiness,-Cuitry and Ilveas un Billa, p. 279, 220; (iroton r. Dulheim, 6 Greenl. 476. If the hulder, upon presentisent, should ascer-
are sold by - Instrument LEY on Bills, $t$ where payIngeney, but ithoagh the artaln, it will blll payaule person, or at "provided espturo nind ldge \%. Rug-

- Llll or note to the bill or tion on paydraweo for , and to the tave urrived o extri: :me notice in a ry Li.ech perceptances or of these re-mirespensi-n-payment; isfaction of as given.Wullace e . cithe, $\S 222$. sight, or in rupon muy a presentco must be t. But if ta certain rer certain ceeptance, ed for aeIder nust nner as if - Stony asual and a certain
nt for aeIgent. If held the it; but if $A_{\text {pre- }}$ il or nute $y$ or oth. $r$ noto is rerson to 7 Mass. R. 230. msessien umpivo gnew r . tlicient; "it has mull if - lumbrer , husikee will ing the ins per. null it is lust Ive.me reenl.
ascer-
tain that the draweo is a married woman, or a person under age, or etherwise incapable of contracting, ho is not bound to take their acceptan ee, but may treat the bill as dishonered,-Chitty on Bills, eb. 7, p. 810.

Time of Presentment.-As regards the time within which a bill ought to be presented for aceeptance, no definite sule can be laid dewn, and the law says only that it must be presented within a reasonable time; but what this reasonsbla time is, depends upon the peculiar circumatances of each case. If the heisar keeps a bill, payable at sight, or payable a certain number of days after sight, in his own possession for an unrensonable time, he makes the bill his own, and loses his right of claim upon the drawer and indersers. But if the bill (whether it be foreign or domestic) is kept in circulation, and not held by any one holder an unreasonable time, no particular time can be assigned in which it ought to be presented. It is nat necessary to send a bill, payabla after aight, by the most clirect route to the place where it is payable, when it is the common ceurse of trade to send such bills by an indirect route. Thus, where a bill of exchange was drawis in llavama upen Londen, payeble at sixty days after sight, it was held that the holder need not send it dlrectly to London, but might send it to the United States for sale, such being the common course of trade. -Wallace $v$. Agry, 4 Masen, 356. So, where a bill wus drawn at New Orleans on Liverpeol, it was held that it might be sent to New York lirst for sale, that being the usual course of business.-Belton $\boldsymbol{c}$. Harrod, 9 Martin, 326. But if the holder of a foreign bill carry it to the place whore it is payable, he ought to present it fur acceptanes witheut delay.-Fernandez $v$. Lowis, 1 M 't'orl, 32:. But if a bill, puyable utter sight, is negotinted, and thus sent to different places before it is presented for acceptanco, the courts have held this delay allowable.-Goupy e. 1Iarden, 7 Taunt. 159; Gowan r. Jacksun, 20 Jelns. R. 17 f. A presentinent for acceptance or a demand of puyment must also be made at a proper time. No drawee is required to aceept a bill on any day which is set apart, by laws or observances, or usages of the country or place, for religiuas or other purposes, and which is net deemed a day for the tranaction of secular business, such as Sambay, Finst, er Thanksgiving-day, the Vourth of July, or any other general beliday. Out of New England, Christmas und New-year's day are also generally regarded ns holidays. The statates of several States point ont the days, which may be found under tho statute laws appended. And in all cases the presentment must be made at a reasonable hour of the day. If mate at the place of business, it must be made within the usual basiness hours, or, at farthest, while some person is there who has authority to receive and answer the presentment. If made at the dwelling-house of tho druwee, it may be mude at any seasonable hour, while tho fumily.is up.-Cuitty sind llulate om Billd, p. 4ït, 9th ed.; stony on Hilld, § 236 .

Ilace of I'resentment.-As to the proper place where presentment for nereptance shouhl te made, the general rule is, that it is the town or municipality of the domicile of the drawee, withont any regard to its being drawn payable generally, or payable at a particnar specitied place.-Cutrry mul llumat on Billa, p. 365,
 dwelts in one place, and hus his phace of tusiness in another, whether it be in the sume town or in another town, the bill may ho presented for acceptance at either place at the option of the holder. If the bill is adilressed to the drawe ut a place where he never lived, or if ho has reunved to another place, tho prosentment shoull be at the placo of his netunl domictle, if by diligent inquiries it can be ascertained; and if it can not be ascertaired, or if the draweo has a breonded, the hiit may be treated as dibhonored.-Cumty and
 held that if the drawee or maker of a nute has moved
out of the State of his former residence, either into a foreign country or into anothe: State, a presentment to him is not necessary.-Magruder $v$. Bank of Washington, 9 Wheat. R. 598 ; Baxley on bills, p. 198, 109. If, however, an absent drawee has a known agent int the same place, the bill sliould be presented to the agent.-Stony on Bills, $\$ 235$. Or if he have still a place of business there, it should be presented there. But it he have neither, then it sheuld be presented at his last placo of abode, if it cun be ascertained, and the bill is to be consldered as dishonered. In the case of the draweo's bankruptey, it is not necessary to present a bill for acceptance to the assignees of his catute, lecause eccepting bills forms no part of their duty.
Foreign Laus.-As the English law agrees, in ulmost every particular, with that is the United States, we shall here peint out only the prineipul and essenLial rules which prevail on the Continent of Eurepe, ameng tho difierent nations, in regard to tills of exchange and promissory notes. The most important untiens aro the French and the (Jermun. The French Commercial Code on bills and notes has heen adopted In a number of other countries, viz. Belgium, Moilena, Sardinia, Lueca, Polund, Greece, Geneva, Hayti, Ionian Islands, Turkey and Wullachia, the Pupal States, Luxemhurg, Tessin, and Wallis, with but slight variations here and there; so that when we speak of the French law, it will equally apply to all these countries. A new and nniform colle of laws regarding bills of exchange and promissory notes has teen introduced, since 1849, throughout Gormany (with the exception of the small States of the Grand Duchy of Luxemburg, the Duchy of Limburg, and the principality of Lichtenstein), so that when we speak of the Gerinan law, it will apply to every one of the thirty-eight states of Germany (excepting the above-named three), includling the whelo of Austria and her erown-lunds, and the whole of Prussia, Wurtemierg, Bavaria, llumover, Saxony, Brunswick, Iladen, ete., containing more tham sixty millions of people, and the inportant commercial cities of IIamburg, Bremen, Frankfort-on-the-alaine, Lulseck, Leipsic, Berlin, Vienna, Trieste, Brunswick, Stuttgart, etc. There exist yet distinct cotes on tills and netes in Russia, Ilolland, Copeniagen, Spain, Iortugal, at Baslo, und St. Gallen, which we shall notice where they essentially difler from other cedes. The luw on the Continent of Europe, in regurd te legul remedies on bills and netes, is more stringent than in regard to ether civil centracts, in so far as it ullows personal imprisonment for a breach of such a commerciul engngement, be it as drawer, acceptor, or indorser; whereas no persenal arrest and imprisenment can be had against a debtor for un ordinary deht. When we uso the expression, that a purty is liable according to the laws of bills of exchange, it must bo understeod, also, to mean that these extremo legul remedicio of coercion may be applied to him. Tho timo of imprisomment diflers in diflerent States, and varies according to the amount of indebtedness. The French law allows personal imprisonment net execeding one year, if the debt does not exceed 50 franes; two years if tho debt does not exceed 1000 francs; three years tor a hill of from 1000 to 3000 franes; nud four years for a delit of from 3000 to 5000 franes; und tive years for any sum hevond this. But persons of the age of seventy are entirely oxempted from arrest, and parties to promissery notes (billets it ordre), if not merchants. except the netes were given on account of seme mercantilo transaction, trattie, oxelange, banking, or brokerage, are also free from personal urrest in France. In Anstria the imprisonnent for a debt on bills can not excced one year, in l'russin tive yeurs; other German States difler in regard to thene, but they are generally less rigorens than the French law, and exempt from arrest, hesiles persons of the nge of seventy, vurlous uthers; for instance, relations by blood or otherwise, military persons, public oflleers, ete. The creditor,
however, has to bear the expenae of bont for the law of Copenhagen, the bills payable to hearer (letires debtor, and if he neglects to provido for it, the debtor is released and can not be arrested agaiu.

Requisites of bills of Exchange.-A Hill of exchange Is called in French luttre de change; in Ittilian, lettera tii cambio; in Germun, vecheel, or gezogener wechsel (a Drawn Bill, to diathiguish it from a promissory note, which is called a Dry 11ill, trockner wechsel).-See Piomissonv Notes. The essential requisites of a bin of exchange in Germany are $\left(A r A^{\prime}\right)$ ) 1. That the word "bill of exchange" (teccheel) the contained in the instrument, or, if written in a foreign lamgunge, the expression corresponding to it. 2, The epecifioation of the sum of money. B. Tho name of tho person or tirm to whom or to whose order it ia payable. 4. The statement of the time of payment; arid this can be mate only on a day certain, at sight (a vivta, etc.), or at a certain time after sight, or at a certnin day ufter date, or at a certain fair (messe). b. The signature of the drawer, ly his name or firm. 6. The atatement of the pluce and date of month and year where nod when it was drawn. 7. The name of the person or firm on whom it is drawn (dratree). 8. The specification of the place of puyment; if wo place is mentioned, the place of the drawee is to he taken es tho place of payment and the domicile of the drawee. The hill munt be for the payment of a sum of money, and not for gools or State atocks; nor can it he male payable with interest, or wish any conultion nttuched to it. The Code of the Kinglom of the Two Nicllies allows also payment in gools. The bills of exchange payable to bearer (au portetr) are not andmissible, either in (iermany or France. The French law (Avt.110) requires that bills of exchange shall he drawn from one place on $y$ ' Mace; that they shall he daterl, and that they The sum to lie paid. 2. The name of the person who in to pay the same. 3. The time when, and the place whe payment is to to made. 4. The valuo furnished, v vother ill money, in merchandise, in account, or in any other manner. They are drawn to the order of a third person, or to the order of the drawer himself. If they he drawn in sets, $1,2,3$, etc., it must le so expressed.

In Germany, every person who can lawfully hind himself by a contract may become a purty ' $n$ lifll of exchange. The age of majority is, howev:r, lifierent in different Stutes; in I'russia it commencen vith tise completion of the twenty-fourth yeur of age; a Anstria, llavaria, Saxony, Baden, and in those Statea on the Hhine where the French Civil Code presails, it commences with the twenty-first year of age, and the same is the case in Frunce nud Turkey. In Sardinla, only merchants can draw inland billis, hut any body may draw foreign bills. The Russian law excluden on ${ }^{1 \text {. }}$ women who dir not earry on commerce. The Code of the Kingdom of the Two Sieilies exchides women in generat. The Code of Copenhagen makes the capalility of becoming a purty to a blll of exchange general, but confines it only to bills of exehange, and does not include promissory notes. The Spanish Code of Commerce of $1829, \S 434$, prants to other persons than merchants the right of also becoming parties to hills of exchange, but only in cases where they have drawn or accepted hills on account of a mercantlle transactiom. Parma and Tuncany grami only to merchants the right of becoming pirtles to hills. The Code of Basle of $1809, \S 68$, requires that a person'a name be entered in the book of mercantlle firms, called the look of Roygiones, which is in many cities kejt either at the exchange or the city-hall. The law of Basle requires the amm payable to be atated in letters, and not merely in ligures; the lawe of Ruashat and Copenhagen require the sum to the stated both in letters and in figures; and the law of St. Tiallen provides that any eranure or alteration of the annt, or any other reculalte part of the bill, renders the bill vold, and entitles the drawee to refuse parment. liy the
au porteur) are allowed, but not by the law of Germany or France.

By the Fronch law (Art. 129) a bill of exchnnge may be drawn payable at sight, or at ono or more days, or months, or usances, atter sight or after date; or on a day fixed, or at or during is falr (en joire); and (Art. 132) the usance is thirty days, which run from the day after the date of the bill ; and (.1rt. 13:1) a bill payable at the fair is at nuturity on the evening preceding the day fixed for the termination of the fair, or the day after the fair, if it comrinue only one day. The fierman law ( ( $1 \cdot t .4$. No. 4) tioes not now allow bille drawn in Germuny on $u$ foreign country, or inland bills, to be drawn at usance (a uso, mezzo umo, doppio uso, i. e. nt single, half, or doabls usance), or a piacere, "on demnnd" (with the exception of Austria, which allows the latter). If forelgn bilis are drawn upon any (ierman State at a uance, the time of maturity (ichernee, scandenza) is to be determined by the forelgn law, viz. that of the place where the hill In drawn, which law also deterinines whether the unace ls comuted from the day of presentation, or from the day of drawhg. The German lav does not admit either of fixing the time by the happening of certain events, or if certain periods of time, as "en luster," etc. The law in
 this respect from the French law. Tl:e law of Norway (of 1842) provides (Art, 1) that tills shall not be drawn leyond the time of sis: monthe, or, if jayuble ont of Europe, not hesond one year. The law of Copenlagen appolats still shorter jeriods.

Iudursement. - In Germany, the law in regard to indorsement (indossamevt, widoxa, giro) is, that the payee can transfer a hill of exchange mens nuwther person ly indorshag it elther bin thank or in full, and the indorsee will have the same rights against nll other antecedent partien as the indorser; and the payee mayindorse, and the bill ls negothale, althongh the drawer did not make it payable to order. If de drawer does not wish to make it neqotiable, lie must insert the words "not to order" (nicht an order), or something aimilar. Tho mere striking out of the word "order" in the printed formula, anil adding the word "self" to the name of the payee, wili not operate as forbidding the negotiability. The blank indorsement must be put on the luck of the bili, or of a copy of it, or on a piece of paper, commonly called "rider" (alonge), connceted with, and joined to the till or eopy. Gvery holder muy fill up the Wank indorsement, or may also indorse it further in blank, and is unswerable to all suhsequent holdera, unless ho adds the words "without gunranty" (whne gezeihhrleiveng, ohne wigo) or some similar expression, which corresponds to onr "without recourse." If the words "not to order" (nicht an ordre), or a almilar expression, are added to an indorsement, and the lill is yet indorsed ni lambed over to other persons, these sulisequant holders can have no recourne againat auch un Indorser. But if tho words in procura, "for collecting" (zur cinkassirung), are added to an indorsement, then surh an indoraement does not transfer the projerty in the hill, lut empowers such indorsee to imborse it further for the amme purpose, and also to have the hill protested, and to give motice to his antecedent indorser, and to commence legal proceerlings for non-payment. The lawe of Copenhagen (Demmark), LIolland, Juspha, mot Swolen, nimo allow blank indorsements. Hat the Freneli law refuires (. $1 \mathrm{~m} .1: 17$ of the Code) that, in order to pass a ralld title to a hill, the indorsmemt shonll be lated, and the name of the indorsee and the valuc should he stated, nul it' further megotialility be Intended, the words "to order" should lie nded. A blank Indorscment is held to lee a mere "procum ithdorsement," i, e. for the purpose of collectlmir. The Spmish law, which also prevnils in Mexico and South Amerien, lolds the blank Indorsement of no effect. w of Germany exehnnge may more days, or date; or on a e) ; and (Art. from the day n till payolje preceditig the ir, or the day y. The Gerw bills dravn nd tills, to le io uso, l, e, nt cere, "on ibs which allowe pon any (ierity (ichurner, ign law, viz. n, which law nted from the awlog. The ink the time ry eprtala The law in dithering in law of Norshall not be r, if rayble The law of
in regard to is, that the jen another in fill, and against nll 11) the payee lthengh the If the drawmust insert ), or sume$f$ the word y the word operate as pilorsement copy of it, a " rider', ill or copy. sement, or nsweralle the words hine obligo IIlA to our to order" added to ir handed lders cmin
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The French and liassian laws panish the antedating |drawn on the western coust of Africa, ae far as, and of un ludorsement like forgery. But tho Spunish and including, the Cape of Good Hope. A year ls also Dutch laws regard it as forgery only when it is dono for an avil parpose. The law of Portitgal requires the date to a blank indorsement. The French law, and all the countries fellowing the same, the Hussian law, aul that of St. Gallen, hold ouly bills mude payahle to ordar as negotiable and transferable. The Spanlsh law (of Billsio) requires the indorsenent ou the back of the lustroment The Sardinian luw regards the clanse "without recourse," "wlthout obligo," as uoi written at all; and if the druwer should add these wori's to his name, the instruntent is not regurded as a bili. The law in Germany is (.tet. 16), when a bill has been indorsed after the lapse of those accorded to pretesting for non-puyment, that the intorsee acquires the rights springing from the accoptance against the drawee, nad the right of recourse against thosa who indersed it after the lapse of this period, Jlut if the hill has been proteated for non-payment before the indersement is made, then the indorsee has only the rights which his indorser has agalnst the acceptor, the drawer, and the indorsers up to the time of protest. Nor is such min indorsor after protest, in such a case, liable according to the lawa on bills, but only aceording to the common law. The Russian law makes a like distinction. The Dutch and Portugueso laws regarl $s n$ iudorsement after maturity only as a cession of rights. The Sardinian law regarde it only as an indorsement for procuration. The French daw is not decidect on this point, and the courta regard such an indorsement generally as admissible, but sometimes as a fall aud goed indorsement, and then again only as one for prucuration, i. e. power of attorney. . In Italy it is regrrded as a procura indorsement, i. e. as a power of attorney.

Presintation for sceeptance.-The German law ( Irt . 18) provides that the holder of a bill is eatitled to preseat the lill for acceptance at once, and, if not accepted, to have it protested for nondicceptance. Hat hills payable at fairs (mess-wechsel, cambia regularia vel jeriurum) ean be presented only ut the time fixal by the law for presentation. Tho mere possession of a lill cetitles a persen to present it, and to have it protesifd, lu case of dishonor. Bnt (Art, 19) the Lolder of a bill, payable at sight, or a certain time after sight, must present it at least within tuo years from the date of ite being drawn; and if a perlod of presentation has been prescribed either by drawer or indorser, the bill must be presented within that period, or the holder will loso his right of recourso aguinst drawer and indorace as deltors on accomnt of tho bill. The law of Russia fixes the time within which bills at sight or after sight must be presented at one year, unless the drawer has preseribed a period; but in case of neglect to prosent the bill, it will still be grood as evidence of indebtedness for the ordiuary period beyoud which debta become outlawed. The laws of other countries tix the time of presentation for aeceptance or payment accorling to the distance from the place of drawing to the place of payment. The French law ( 1 Nt .160 ) requires that the holder of a bllf ot exchange, Irawn from the Continent and the European islands, and payable in the European possessions of France, whether at sight, or at one or more days, months, or usances after sight, must demend pay. ment, or acceptance, within six months from its clate, under the penalty of losing his remedy apainst the indorsers, and even against the drawer, if the latter had made provision for the payment of the hill in the hatuls of the drawec. A delay of cight menths is allowed for the presentment of a bill drawn from the ports of the Levant, unl northern eoast of Africa, on the European possessions of France, and, reciprocally, from the Conthent and Eurepean isdauds on the French estahlishments in the Levint, nud northern coast of Africa. A year ia allowed for the presentment of blls
allowed for the gresentment of bills of exchangedrawn from the Amer, an coutinent and West Indla islands on the European possemsions of lirance, and, reclprooally, from the European coutinent and islands on the Freneh pussessions or establishaments on the western coust of Africa, on the American continent, und West India ialands. Two yeara is allowed for the presentment of bille of exchaugg drawn from the East Indiau coutinent and islands on the European jussessions of Frauce, and, reciproenlly, from the European continent and islunds on the French possessions or establislsments on the East Indian continent and islands. The delaya above mentioned, of eight montha, one year. aud two years, are allowed to be doubled in time of maritime war. If the druwer has not made provision for payment with the drawee, the former will be ield liable, although a protest has beeu made after the time fixen by law.
Of Acceptance.-The law of Germany (Art. 21) requires that acceptunce of a bill shall be made in writing on the bill itself; and lf the drawee writes but his name or that of the firm on the face of the bill, it is considered an abselute aceeptance, and every declaration written on the bill and signed is taken as an absolute acceptance, unless the drawee expressly states in it that he will not accept, or will aceept ooly on certain conditions. The acceptance, once made, can not be taken buck. The French law (Art, 122) requires that the acceptanco of a bill of exchange must be signed; it is expressed by the worl "accepted" (accepte); it is. datel, if the lill be at one or mere days or months after sight. And in the latter case, the want of a date to the aeceptance renders the bill payalle at the term specitied in it, counting from the date when it was drawn. The saune rule prevails in those countries which havo fermed their laws on bllla after the French law, which countrics have been specified before; it also obtains by the law of Copenhagen. 13y the Spanish law, suth a bill runs from tho day on which it might have been presented, according to the ordinary course of the post. The French law (Avt, 124) enucts that the acceptance can not be conditional, but it may be limited in regard to the sum accepted. But in this case the lolder is beund to have the bill protested for the deticiency. Aud (Arf. 125) a bill of exchange must be necepted on its presentment, or, at the latest, within twenty-four hours afterward. Aftor the twentyfour hours have elapsed, if it be not returned, necepted or not accepted, he who has retained it la liable in damages to the holder. The German law (Art. 20) provides, that if a ilraweo refus a acceptance, or refuses to date his aceeptance, tho holder must have tho bill pretested within the period preseribed for presenting a bill (i. e. two years from date or the time proserited by drawer or indorser), or he will lose his legal chan against indorser and drawer. The day of pro. teat is, in that case, takon for the day of presentation. If no protest has been tahen, and the scceptor has omitted to date his accentance, the maturity of the hill is counted from the lust dny of the period within which it ourht to have theen presented. The liw of Portugal and Russia and St. Gallen makes it generally obligatory, and the law of I Iolland makes it obligatory only upon the holder, who presents the bill for aceeptance, to have the bill protested, absolutely and without delay. The Spanish law (Law of Bilbae, chap. 1:l, § 35, which also provails in Mexico and South America) provides that the drawee who gets tho bill into his hamils with the consent of the holder, and lets the day of presentation pass ly without returuing it, is obliged to pay, that is, it is clecmed a silent acceptance; and If tlie accoptunce is made in writing, it is required (Bilbno, chap, 13, §33) that, besides the mame of the drawee, also the worl "accepted" be added. The law of bilisoo (chap. 13, § 82) has yet the peeuliar
provision, that, when bills at aight aro accepter, only one-half of tha name of the firm need be algned. By the French and Portuguese lawn, is simiiar word with "accepted" may be substituted; but it is a mooted juestion whether the word $v$, " seen," in sufficient. The iawn of Copenhagen and Portugal also aliow, like the French and German lawn, the acceptance for a smalier sum than the face of the blli states, and oblige the holder to have the bill proteatell for the rent, but consider all other conditions as not written. The Rusxian law also requires the holder, in such a case, to have the bill jrotested, or he will lose his right of recourse against the other parties. In Germany, the law requires the drawee to dechare at once, withont delay, whether he will accept er not. But the law of France, and of those coumries which have been named lufore as having followed tho French law, allows the cirawec twenty-four hours' time, as stated before. The law of Cepenhagen also aliows twenty-four hours for consideration, and requires the protest culy on the next day following. The law of Tessin allowa three days for consideration, and the law of Russia grants time, for taking protest and rending it, till to the secand past.
Proceedinya npon Non-asceptence.-When acceptance has been refused, or when the acceptance is qualified, or fur a smal'r ram than stated in the bill, the law in tienmayy (.12. 25) ebliges the indorsers and drawer, upon receiving the protest for non-acceptance, to give sufficient eecurity that payment of the whole sum, or of so much as has not heen aceepted, shali be made on the day the bill falls due fur payment, together with the annount of cost. The sum may likewise he deposited in seme court of justice, or other authorized lastitution. (Aft. 28.) The deposited security is resterell if the bill should afterward be fully acecpited, or if the holder or other jerson who takes recourse does not commence a suit within a year from the maturity of the biil, or if the biit has been puid. The Frencli law is the same with that in Germany: But the law of Denmark, Sweden, and Norway; like the Engiish and American law, allows immediate zecouse against drawer and indoriers for payment if the bill has not tuen aceepted. The law of lortugal follows the Freneh law, but gives the holder also the right to demand from the drawer that he assign and hand over to hime all his claims against the drawee, and all the papers relating thereto. The German law further prevides, that when the bill has been accepted, and the acceptor stops payment or goes into bankruptey, or if an execution against the property of the acceptor has not bern eatisfied, or his percon has lieen arrested for non-payment-in all these caser, the holder of a bill may demand serurity, if tie acceptor has not gives security, and a protest has been taken in consequence. The French luw ( Art J 163 ) goes yet farther, and provides that, if the acceptor failis before the day of payment, the bill may be cousidered as due, and recourae may be had for payment against the drawer and indorsers;
and that if the drawer of a prominsory note, or the acceptor of a bill, or the drawer of a non-accepted hill, shull fail, the other persons liable on the instruments shall lie oblliged to give security (Law of 28th May, 1838).

Time of Payment. . The following days have been fixed by law at the principal citics: in Brunswick it is law that no proteat for non-acceptance can be had on a blll drawn on - Hrunswick fair before Monday in the first week , theo fair, and the day of payment of theac billa is the .esday in the first week of the fair. In Frankfort-on-the-Maine it has been enacted that bills which are drawn payable at a fair, without specifying the week of the fuir, must he prid or protesteri on Tuesday of the third week, i. e. on the last day of the falr. In Austria, in the countries where the general civil code prevails, such bills fall due, if the fair last but one day, on this day; if it last severai duys, but not mere than eight, on the duy before the legal termiantion of the fair; and if the fair last longer thun a week, on the third day before the legal termination of the fuir. In II ungary such bilia fall due, if the markets last hut one day, on this day; if they last from two to eight days, on the last day of the market ; if the markets last ionger then eight days, on Wednesday of the second week. In Leeipsic bills that are drawn payable at the Michaclman fuir fall due on the Thursday after the fair has been opened by the ringiag of the heli, and bills payable at the New-year's fair fall due on the 12 th of January, and if this sheuld fall on Sunday, then on the next following day. According to the law of Portugal and Spuin, bills itrawn payable at the fairs full due on the lust day of the fair. The law of France (Art. 130) providics that a bili drawn at sight is payable on its presentment, and (1rt. 131) that the maturity of a bill, ut or after a certain time after sight, is determined by the date of the aeceptance, or hy that of the protest for non-acceptance. (Irt. 132.) The uance is thirty days, which run frem the day after the date of the bill. The mentis are according to the regulation of the Gregorian calendar. (.trt. 133.) A bill payable at the fuir (en foire) is at maturity on the evening preceding the day fixed for the closure of the fuir, or the day of the fair if it centinue ooly one day. The law of Copenhagen conunta the day when the bill is dated, and grante to the acceptor eight days of grace, and to the holder ton daysuf grace (catied in Itaiian giorni di riepetto). The inw of Russia (§ 66) allows on bilits at or after sight three days of grace, and ou other bilis ten days of grace, and the same on promissory notes. The law of St. Gallen allows aix days of grace on bilis and promissory notea. The German Ian ( $A \mathrm{rt} .38$ ) enacts that the holder must net rufuse an ofiered part-payment, even though the bill has tieen recepted far the whole sum. The French law (Art. 156) statet inat the payments made on acceunt, as part of the amount of a bill of exchange, operate in discharge of the drawer and inderscrs. The holder is bound to have the bill protested for the balance.

FORMS OF FOREIGN BILLS OF EXCHANGE.
French.
Lille, te 28 Septembre, 18 ő6.
Bon pour $£ 1589$ Sterlings.
Au vingt-cinq Dícembre prochain. it rous plaira jayer par ce mandat it bordre de nous-mêmes la somme de cent cinquante-huit livres sterlings 9 shellings valeur th nous-mimes et que passerez suivant laris de
A Messienrs
$\dot{a}$ Inndres.
Gebrian.
Nürnberg, den 28 October, 1856.

## derren

 Londom.te, or the ace ccepted bill, instrumenta of 28th May,

## s have been

 Brunswick it e can be had fore Monday of payment $t$ week of the been enacted fair, without paid or proe, on the last ntries where fall due, if $f$ it last sev. e day before the falr last ore the legal ch bills fall this dsy ; if last day of a elght days, Leipsic billy fair fall die rened by the : New-year's this should clay. Acbills drawn $y$ of the fair. a bill drawn d (Art. 131) certain time the accept. -acceptance. ch run from nths are acn calendar. re) is at ma. xed for the it continue ints the day ceptor eight race (called sia (§66)alrace, and on on promis six days of he German ot refuse an 11 has been law (Art. unt, as part ate in dis. e holder is ance.Groure, den 1 st Nowember, 1856.
Tures muanden $n$ n dato gelieve UEd to betalen voor dezen onzen prima Hisselbrief de secunda niet betaald zynde ann de ordie ran de Heeren negen $\dot{\xi}^{\text {P }}$ tyftiy Vonden zeventien schelling en zeapences sterling, de waarde in rekening UEd stelle het op rekening met of zonder adeys van

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de lleer
    ts london.
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Italian.
Livorno, le 25 Settembre, 1856.
Per $\mathbf{x} 600$ Sterline.
I Tre mesi data pagato per questa prima do Cambio (una sol colta) all' ordine
, la somma di lire cinque cento aterline valuta cambiata, e poneto in conto M. S. secondo l'ariviso Addio
16
lomira.
Malaga, is le Setbre de 1856.
Son $£ 300$.
A noventa dics fecha se servinan I' mandar pagar por esta primera de cambio a la orden de los $S^{\text {rue }}$ Ires cientas libras Esterlinas en oro oplata valor recibido de dhos $S^{\text {rew }}$ que anotaran valor en cuenta segun aviso de
$A$ los $\mathrm{S}^{\mathrm{vec}}$ Iondres.
£ 600 Esterlinas.

## Portuause.

A Sessenta dias de vista precizos pagará $V$
Lisbon, aos 8 de Dezembro de 1856. d his ou is nossn Ordem a quantia acima de Seis Centas Liuras Esterlinas ralor de mos recebido em bizend passera em Comta segundo o aviso de
Ao Sen
Londres.
Bjorneherg, den 23 September 1856, SwEDISH.
Nittio Dagar efter dato behagade II. II. emot denna prima Wexel (secundo obetid) betala till Herr ——elle ordres Etthundra Pund Sterling som stalles i rakning enligt avis.

## Herrar

Loridon.
Danisif.
Kiobenhurn, 9 December, 1856.
Tre maaneder efter dato behager de at betale denne Primn Vexel, secunda ikke, til /ferr
eller ordre med Fi•e Tusinde Rigsbank Daler, Valutta modtaget og stillez i Regning ifilge advis.
Herver
London.
Proceedings upon the Non-payment of Bills.-In order note or bill of exchange has been lost or destrnyed, the to entille the holder to redress, it is required of him, holder must, nevertheless, make demand of payment in Germany, that he present the bill for payment, and at its maturity, and, in case of non-payment, give due that he have the bill duly protested. The protest may notice to the antecedent parties. But whether the be made on the day of payment, but it must be made, promisor or ncceptor and indorsers can be compelled at latest, on the second secular day after the day of to make payment, without a delivery or production payment. The presentation of the bill for payment of the note or bill, is a question on which the authorinay likewise be made within this period of two days, and the holder would not lose his rights, even if he had waited with the presentation to the last day of protest, and the drawee were yet solvent on the day the hill fell due. But a protest before the day of maturity is not good, although payment would not have been made on the day of maturity. The law of Basle, St. Gallen, Zurich, Russia, Spnin, and Portugal, requires ihat the bill be protested on the day of maturity, and up to a certain hour of that day (the latter provision is not law in Portugal). The law of Franco (Art. 162) and IInlland (§ 179), however, requires protest on the day after the day of maturity (lendemain); and if this day be a legal holiday, the protest is made on the following day. If a bill is made paynble at a place different from the domicile of the acceptor, nnd a person there is specified, the German law requires that it must be presented to such person; and if no person be specltied, it must be presented to the acceptor at the place specified; and, in case of non-payment, it must be protested there. If the proper protest is neglected the holder loses his recourse, not only against the drawer and indorsers, lut also ngainst the acceptor. But in no other case is tho acceptor discharged from his liability by the German law.

Notes and Bills lost or destroyed.-If a promlssory ties in Amcrica differ. In England it has been held that the holder can not recover in a court of law, but only in a court of equity, on a negotiable note or bill lost or destroyed. A distinction is had between negotiable and non-negotiable instroments, or those which have been specially indorsed, so that no person but the holder, who sues, could have acquired a right to sue thereon. In the latter cascs, the note or bill may be recovered at law. And in an action on a lost note, where the evidence does not prove affirmatively that it is negotiable, the presumption in New York is held to be that it is not negotiable, and the plaintlff is thercfore entitled in such case to recover. If a bill or note transferable by delivery be lost, the loser ehould give immediate notlce thereof to the drawee, or persons who are to pay it; and if such persons afterward pay it to a person who has not taken it bonn fide, or puid valite for it, they will be responsible to the loser. If the note or bill lost is negotiable and trinsferable when lost, it has been held in some States that a suit at law is maintainable against the maker, in others that it is not; and, again, in others it has been held that the holder muy recover nt law, provided he executes a proper instrument of indemnity. It was held in Missachusetts that, where a note has been stolen from the payce, he may still prove his demand against the


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maker, and enforce payment ; the court in such case prescribing the bond to be given to the maker. But If a bill or pote be destroyed by fire or other aecident, an ection may be brought thereon for recovery. Bayley on Bills.

Forged Instruments.- When the slgnaturs of the drawer of a bll of exchange is forged, and the bill is accepted by the drawee, the latter will be bound to pay the same to a bona fide holder; and if he has gaid it, he can not recover back the meney frem the person to whom he paid it, although ha'can not recover it beck from the repated drawer. The same doctrine applies to an acceptor supra protest, as to the signatures of the parties for whose honer he accepts. But If the slgnature of the payee, or of any other indorser, be forged, and even if the drawer is at the same thme payee and indorser; and his signature be forged, in these cases the aceeptor is not bound to know their aignatures, and if the indorsement under which thie helder claims is forged, the acceptor is not be-יnd to pay the bill; and if he does, the real owner is entitled to recover the amount from him and the bolder. If a person not a party to a bill pays it for the acceptor, or indorser, whose name is forged, he may recover back the money from the person to whom he paid it, if he gives notice thereof on the same' day to the holder. Bat If he does not discover it or give notice until the next day, then he is not entitled to recever back the money from the holder. But if an indorser pays the blll under a forged indorsement of the name of a prior Indorser, or of the drawer, he can not recover back the money from any subsequent indorsee to whom he paid It, because hia indorsement admits the genuineness of the antecedent indorsements and that of the drawer. -Story on Bills, §451. In cases of promissory notes, If the signature of the payce, or other indorser, under whom the actual holder claims, is forged, and the maker pays the note, such payment to the holder will be null and void, and he will be entitled to recover back the money from the holder. So; if the payee should pay the note to the holdèr under a suhsequent forged Indorsement, he may likewise recover back the amount. But if a subsequent indorser should pay tho amount to the holder, where the signature of the moker or of a prior indonser is forged, he could not recover it back, because every indorser warrants the genuineness of the signatures of the antecedent partles, both of the Indorsars and maker. - Soe Stony on Notes, § 887. Therefore, before the maker or an Indorser paya a note, he should be satisfied that the algnature of the payee or other indorser under whom the actual holder claima is a genulne signature, for if it be a forgery, the paymont would be a nullity.

Damages ta be Recorered. - When the holder of a bill of exchange has complied with all the requlaitions of the law, upon the dishonor of a blll, either for non-beceptance or non-payment, he is catitled to an Immediate recourse againat the drawer, acceptor, and indorsers or guarantors, and to a full reimbursement of all the damages sustained by him. These ilifferent parties are llable according to the law of the place where they entered into their respectlve contracta; uamely, the drawer according to the law of the place where the bill is drawn; tno acceptor according to the law of the place of acceptance; and the ladorsers and guarantors according to the law of the place where the Indersements and guarantles wore made. Tho acceptor, upon mon-payment of the bill, is ordtaarily liable to the holder only' for the princlpat sum, aut the expenses of the protest, and literest thereon from the tlme of the maturity of the bill, and he ls not liable for re-exchange. liat if the acceptor line expressly or Implledly agreed with the drawer, or with any indorser, for a valuable consideratlon, to pay the bill at its maturity; and has failel so to do, and the drawer or indorser has been compelled to take up the bill, and pay damages and other expenses, he may perhaps be

Lipble to the drawer or indorser for ell such damages auli expenses. - See STopy, on Bills $\frac{8}{8}$ 398, and BAy-
 bills of exchange are liable to the holder for the principal sum, and fotercot, and the damages and expenses incturred liy the dishonor. The intereat is due according to tho legal rate allowed at the place where the Lill is payable; and the expenses ara the ordinary cost of proteat and other incidental expenditures, such as postuge, commission, and brokerage, if the party has been obliged to pay the holder, in consequence of the acceptor's refusal. The damagen, in the absence of any positive rule, which, however, exists in nearly all the States of the Union, are ascertained by the rate of re-exchange between the conntry where the bill is accepted and the country where the bill is drawn, in case of the drawer; and between the former and the country whare the bill is indorsed, in the case of the indorser. If the bill hes been in part paid by the acceptor, damages and interest are to he dedactad in proportion. By re-exchange la meant the amount for which'a bill can be purchased in the country where the acceptance is made, drawn upon the drawer or indorser in the country where he resides, which will give the holder of the bill protestad a sum equal to the ausaut of that bill at the tlme when it ought to have been paid; together with his necesbary expenses and interest. The full lademnity of the helder, hence, requires him to draw for such an amount as will make good the face of the bill, together with interest from the time it ought to have been paid, and the necessary charges of protest, postage, and broker's commission, and the current rate of exchange at the place where the bill wai to be demanded or payable, or the place where it was drawn or negotiated. The law does not require an actual re-drawing, but it gives the holder the right to recover what would be the price of another new bill, with juterest, and the necessary expeuses, including the amount, or price, of the re-exchenge. But the indorser of a bill is not entitled to recover of the drawer the damages incurred by the non-acceptence of the bill, unless he has paid them, or is liable to pay them.- 3 Kent's Comm., Lect. XIIV.

Billa of Exciange dnawn in the Enated States,-In order to avoid the difficulty of ascertaining what is the true rate, of exclange, most of tho States of the Union have provided by a atatute a certain fixed sum, in the place of damages and re-exchange. The law In the different Stutes, in this respect, is as follows:

Maine.-The damages on bills of exchange negotiated in Maino, payable in other States, aud returned under protest, are as follows (R.S. 510): 1. Now liampshlre, Vermont Massachusetts, Mhode Island, Connecticut, New York, 3 per cent. 2. New Jersey, l'enusyIvania, Delaware, Maryland, Virginia, District of Columija, Souti Carolina, Georgia, 6 per cent. 3. North Carollna, Alabama, Arkansss, Florida, Illinois, Indiana, Iowa, Kentucky, Louislaza, Mlichigan, Miso sissippi, Missonri, OLie, Tennessee, Texas, Wiscensin, 9 per cent. The danages on foreigu bllls of exchange returned under protest are 10 per cent.

New Hampshire.- No statute in force in this State allowing dainages on foreign or domestic bills returned under protest.

Vermont.-There is no statute in thls State lu reference to damages on protested foreign or domestic bills of exchange.

Masachusetta.-The damages on lills of exchange negotiated In Massuclusetts, payable In other States, and returned under protest, are as follows: 1 . $13 i 11$ s payablo in Mahno, New llanpahire, Yenwont, linede Island, Conneetlcut, or New York, 2 per cent. 2. Illis payahle In New Jersey, Dennsylvanla, Marylami, or Delaware, 3 per ceut. 3. Dills paynhie In Virgluia, Distriet of Columinin, North Carolina, South Carolima, or (jeorgla, 4 jer cent. 4. Bille juyable elsewhere
within the United States of the Territeries, 5 per cent. 5. Bilis for one hundred doliars or more, paysble at any place in Masaachnsetto not within seventy-five milea of the place where drawn, 1 per cent. Foreign Bills.-1. Bilis payable, returned under protest, beyond the limits of the United Statee (excepting places in Africa beyond the Cape of Good Hope, and piaces in Asia and the islands thereof) shall pay the current rate of exchange when due, and 5 per cent. additional. 2. Biils payable at any place in Africa beyond the Cape of Good Hope, or any place in Asia or the islands thereof, ahall pay damages, 20 per cent.

Rhode Ialand. -The damages on bilie of exchange, payabie in other States, and returned under protest, are uniformly 5 per cent. The damages on foreign bills of exchange returned under protest are 10 per cent.

Connecticut.-The damages on blls of exchange negotiated in Connecticnt, payable in other States, and returned under proteat, are as follows: 1. Maine, New Jiampshirs, Vermont, Massechusette, Rhode Island, New York (interior), New Jersey, Pennsylvania, Delaware, Maryland, Virginia, District of Colmmbia, 8 per cent. 2. New York city, 2 per cent. 3. North Carolina, South Carolina, Georgla, and Ohio, 6 per cent. 4. Ali the other States and Territories, 8 per cent. There is no statute in force in Connecticut in reference to damages on foreign bilis of exchange.
New lork,-The damages on bilis of exchange negotiated in this State and payable in cther States, and returned under proteat for non-acceptunce or non-payment, are as foliows: 1. Maine, New Hampehire, Vermont, Massachusetts, Rhode Ialand, Connecticut, New 'ersey, Pennaylvanie, Delaware, Maryland, Virginia, Listrict of Columbia, and Ohio, 8 per cent, 2. North Carolina, South Caroina, Kentucky, and Tennessee, 8 per cent. . B. Alabama, Arksasaa, Florida, Illinols, Iadiana, Jowa, Louisiana, Missisaippl, Missouri, Michigan, Texas, Wisconsin, 10 per cent. The damages on foreiga bills, roturned under protcat, are 10 per cent.

Nero Jersey.-There is no statute in force in reference to damages on protested bilis of exchange, either foreign or domestic.
Penneylrania.-The damages on bilis of exchange negotinted in this State, payable in other States, and retarned under protest, are as follows: 1. Upper und Lower California, New Mexico, and Oregon, 10 per cent. 2. All other Stute? ${ }^{5}$ per cent. The damagea on foreign bills returned under protest are aa follows (May 13, 1850): 1. Payablo in China, India, or other parts of Asla, Africa, or islanda in the Pacitic Ocean, 20 per cent. 2. Mexico, Spaniah Main, West Indies, or other Atlantic lalands, east cosst of South Amorica, Great 13 ritain, or other parts of Europe, 10 per cent. 8. West coast of South America, 15 per cent. 4. Ail other parts of the world, 10 per cent.
Delascare.-There la no statute in force in reference to damages on domestic bilis. The damages upon blla of exchange drawn upon any person in England or other parts of Europe, or beyond the seas, and reiurned under protest, are 20 per cent.
Maryland.-The damagea on bilis of exchange negotiated in Maryland, payalle in other States, and returned under protest, are uniformly 8 per eent. The claimant is entitied to recelve a sum aufficient to bny another bill of the anme tenor, and 8 per cent. damages on the value of the principal sum mentloned in tie hill, and interest from the time of protest, and costs. Imefice includen the District of Coiumbia in this law of tamuges (Act of Assembly, 1785, c. 88), but it is questionntile whether the District the within the law, which provides only for States. Foreign Bills.-The dausges on these, returned under protest, aro 15 per cent. The claimant is to receive a aum sufficiont to buy snother bill of anme tenor, and 15 per cent. damages on the value of the princlpal sum mentloned in the till, and Interest from the time of protest, and conts.
'Virginia,-Demages on bills of exchange negotiated in Virginia, payable in other Statea, and returned under protest, are uniformly 8 per cent. The damages on foreign bills of exchangs returned under protest are uniformly 10 per cent.
North Carolina:-The damages on bills of exchange: negotiated in this State, payable in other States, and returned under protest, are uniformly 8 per cent. The damages on foreign bills of exchangs returned under protest are as follows: 1 . Bills payable in any part of North America, except the northwest coast and the West Indies, 10 per cent. 2. Bills payable on Madeira, the Canaries, the Azores, Cape de Verd Ialands, Europe, and South America, 15 per cent. 3. Bill: payable elsewhere, 20 per cent.
South Carolina. -The damages on bllls of exchange negotiated in South Carolina, payable in other States, and protested for non-payment, are nniformiy 10 per cent., together with coats of protest. A bill drawn in South Carolina, payable in another Stato, is deemed a foreign hill, and damages may be claimed, althongh auch bill be not actually returned after proteat. For eign Billa.-The damages on foraign billa of exchange negotiated in Snuth Carolina, are: 1. On hills on any part of North America other than the United States, and on the Weat Indiea, $12 \frac{1}{2}$ per cent. 2. On bills drawn on any other part of the world, 15 per cent.

Georgia.-The damages on billis of exchange negotiated in Georgia, payable in other Statea, and returned under protest, are uniformly 5 per cent. The damages on foreign bills of exchange returned under protest are 10 per cent.

Alabama.-The dat: ages on lills of exchange negotiated in Alabama, payable in other Statea, and returned under proteat, are uniformly 15 per cent. Bills payable within the State of Alabama, 5 per cent. The damages on foreign bills of exchange returned under proteat are 20 per cent.

Arkansas.-The damages on bills of exchange drawn or negotiated in Arkanas, expressed to be for value received, and proteated for non-acceptance, or for nonpayment after non-acceptance, are as follows (R. S. 1848, c. 25): 1. If payable within the State, 2 per cent. 2. If payable in Alabama, Louisiana, Misaissippi, Tennessee, Kentucky, Ohio, Indiana, Illinois, or Missouri, or at any point on the Ohio River, 4 per cent. 3. If payabla in any other State or Territory, 5 per cent. 4. If payable within either of the United Statea, and protested for non-payment, after acceptance, 6 per cent. 5. The damages on bilis of exchange, expreased for inlue received, and payable heyond the limits of the United States, 10 per cent.

California.-By an aet passed April 18, 1850, the damages on protested bills of exchange drawn or negotiated in Calitornia were fixed as follows: 1. If drawn upon any person or persons cast of the Rocky Mountains, and within the limits of the United States, 15 per cent. 2. If drawn upon any person or persons in Europe, or in any foreign country, 20 per cent. Isy nu set passeci March 13, 1850, the rate of interest on monoy loaned in California was tixed at 10 per cent. per annum, whare there is no special contract; but "partles may agree in writing for the payment of any rate of interest whatever on money due, or to becom? due, on any contract. Any jucigment rendered on auch contract shall conform thereto, and shall bear the intereat agreed upon by tho partics."

Florida,-The damages on bilila of exchange negotlatod in Florida, payable in other States, and returned under protest for non-payment, are uniformiy 5 per cent. Damages on foreign billa of exchange, 6 per cent.

Illinois.-The damuges on hills of exchange nogotiated in Illinola, pay able in other Statoa or Territories, and returned uniler proteat for now-payment, are uniformly (by act of March, 1845) 6 per ceat. Damages on foreign billa, 10 per cent.
Indiana.-The damages ou bills of oxchange negotl-
ated in Indiana, payable in other States, and returned under proteat for non-payment, are uniformly 5 per cent. The damagee on foreigm bills are 10 per cent.".
Joven.-The damages on bills of exchange negotiated in Jowa, payable in other States, and protented for nonpayment, are uniformly 5 per cent. No atatute exista aa to damages on foreign bille of exchange.

- Kentucky.-There la no statute in force upon the anbject of damages on either domestic or foreign bills of exchange.
Louisiana.-The damages on bills of exchange negotiated in Lonisiana, payabie in other States, are uniformaly 5 per cent. The damages on fireign bills of eachange, returned under protest, are uniformly (atatute of 1838) 10 per cent.
Michigan.-The damages on bllls of exchange negotiated in Michigan, payable in other States, and returned under protest, are uniformly 8 per cent. ; and the damages on foreign bills are also 8 per cent.

Misaissippi, - The damagea on bilis of exchange negotiated in Misaissippi, paysble in other States, and returned under protest, are oniformly 5 per cent. The damages on forrign bills are 10 per cent.
Miesouri.-The damagea on bills of exchange negotiated in Missouri, payable in other States, and retarned under proteat, are uniformiy 10 per cent. On billa payable within the State, 4 per cent. On foreign bille, 20 per cent.

Ohio,-The damages on bills of exchange negotiated in Ohio, payable in other States, and returned under proteat, are uniformly (by act of February 15, 1831) 6 per cent. On foreign bills, 12 per cent.

Temnessee.-The damages on bille of exchange negotiated in Tennessee, paysble in other States, and proteated for non-payment, are 8 per cent. The damages on foreign bills protested, are: 1. If drawn upon any person out of tho United States, and in North America, bordering upon the Gulf of Mexico, or in any part uf the Weat India Islands, 15 per cont. 2. If puyabie in any other part of the world, 20 per cent.

Texas,-There is no atatute in force $\mathrm{i}_{\mathrm{t}}$ tuserence to damages on either domeatic or foreign bills of exchange.

Wicomsin - The damages on bills of exchange drawn or Indorsed sconsin, payable in either of the States adjoining this ate, and jrotested for non-acceptance or mon-payment, aro 5 per cent. If drawn upon a person, or body politic or corporate, within either of the United Statca, and not adjoiaing to that State, the damages are 10 per cent. The damages on bilis of exchange drawn or indorsed in Wisconsin, payable beyond the limits of the United States, and protested for mon-acceprance or non-payment, ere (1. S. 1849, p. 263) 5 per cent., together with the current rate of exchange at the time of demand.
See Manual jor Novariea Public, by 11. Roklken, New York; Stony on Bills; Cintry on Dilla; Kent's Commenturies; and for late decisions in the United States Courta, refer to the Bankers' Magazine, pullished in New York.

Bill of Eiealth, a certilicate or instrument signedi by consula or other proper authorities, delivered to the masters of ships at the time of theiz clearing out from all porta or places auspected of being particulariy sub)ject to infectious disoriera, certifying the atate of licalth at the time that such ship sailed. A clean bill Imports that at the time that the ship sailed no infectious disorder was known to exlst. A suspected bill, commonly calied a fouched patent or bili, imports that there were rumors of an infectious disorder, but that it had not actuully appeared. A foul hill, or the absence of clean bilis, inioorts that the place was lufected when the vemel asiledi.--Sec Quainanting.

Bill of Iating, is a formal receipt subscribed by the muater of ship in thia eapacity of carrier, acknowledging that he has received the goods specified In It on boaril his ship, and binding limself (under cer-
tain exceptions) to deliver them, in the like good order as received, at the place and to the individual named in the bill, or hia asaigne, on hia or their paylog him the etipulated freight, etc. When goods are sent by a ohip hired by a chs"'er-party, the billa of lading are deliv. ered by the mister to the merchant by whom the ahip is chartered, but when they are sent by a general shipthat is, by a ship not hired by charter-party, but employed as a gencral earrier-each individual who aende goods on board receives a blll of lading for the same, In all casen, therefore, the bill of lading ia the evidence of and titie to the goods shipped. The lisbility of a carrier, at common law, to deliver the gooda intrusted to hia care, is canceled only by "the act of God and the king's enemies." But to limit this responsibility, the following oxception is now invarially almost introduced into the clause in bills of lading binding the mater to the delivery of the geods: "The act of God, the ling's enemies, fre, and all and erery other dangere and accilents of the seas, rivers, and nurigation, of whatever nature and kind soever, excepted." Billa of lading are not, in general, imnediately given by the master on receiving the goods. The usual practice ia for the master or hia deputy to give a common receipt for the goods, which is delivered up on receiving the bill of ladiog. The latter ahould alwaya be required within twenty-four hours after the gools are recelved on board. Three seta of all bilis of lading are made ont: one of these should be remitted by the first post to the person to whom the goods are consigned, a second beling sent to him by the ship; the third is retained hy the shipper of the goods. The master ought always to retain copies of the bills.of lading for his govermment.

Trangfer of Bills of Iading.-Blils of lading are transferable either by blank or special indorsement, liku bills of exchange. And whatever may le the cisaracter of the person to whom the gooda are consignen, whether ho be a buycr, or merely the factor, agent, ar broker of the consiguer, the bona fide holder of a bill of lading indorsed by the consignee is entitied to the goode, and anay claim them from the master if he can prove that he has purchased the hill for a goord considerotion; but unjess he can do this, he in not entitjed to the goods.-Ilol.t, Law of Shiping, 2d ed. p. 363.

Delitery under Bill of Jading.-It being usual to sign and deliver three bills of lading, it is possible that there may be conflicting demands upon the captain by the different hoiders. Nothing, however, is, in such a case, required of him, except that he act with good faith, and to the best of his judgment; and that he make delivcry of the goods to the person who first demande them of him, upon presentment of the bill of ladiug, prorided the circumstances be not such ne to jutify a surpicion of his having unfairly got possession of it. If he act differently, he is answerabie, according to the pecutieritics of the case, to the person injured by his negijgence; the bill of Jading being not only the lnstructhons of the merchant to him, as his carrier or servant, but his own expecial agreement to deliver according to ita cond['ons. Where several bila of lading of a different import have been aigned, no regard is to be jaid to the thase when they were first aigned by the master; but the person who first gets legal posacssion of one of them froms the owner or shipper, fias a right to the consignment ; and where ouch bilis of ladlug, thengh different upon the face of them, are constructively the same, and the master has acted bona fide, a dellvery according to such legad title will diacharge him from all.-HoLt, p, 875 and 377.

Bill of Sale, a contract under acal, ly which an individual conveys or passes away the right and litereat he luse in the goods or chattels named in the bill. The property of ships is transfurred by hill of sute.

Bill of Bight. In Eugland, when a merchant is ignorant of the real quantities or qualities of any goods assigned to him, so that he is unable to make a jerfect
od order il named 3 him the by a ship are delivthe ship ral shipbut emwho aends the same. evidence illity of a intrusted God and onsibility, dmost innding the cl of God, er dangers n, of whatof lading is for the lipt for the the bill of red within 1 on hoard. nt : one of the person leing sent $y$ the ship's to rotain ent. lading are dorsemcht, nay be the da are conthe factor, fide holder is entitled e master if for a good e in not en$9,2 \mathrm{~d} \mathrm{~cd} . \mathrm{p}$.

## sual to sign

 e that thero tain by the such a case, d falth, and nake delivhands them ug, procided a surpicion If he act the peculy lifs negilthe listrucor servant, necording to ing of a difIs to be paid the master on of one of figlit to the ing, though uctively the , a delivery se hilin fromby which 8 n it and linter. IIt the bill. i of saie. merchant is of any goods ke a jerfeet
entry of them, he mast acqualnt the collector or controller of the circumstance; and they are anthorized, upon the importer or hila agent making oath that he can not, for want of full information, make a perfect entry, to receive an entry by bill of sight for the packages, by the best description which can be given, and to grant warrant that the same may be landed and exanined by the importer In presence of the officers; and within tbree days after any goods shall have been so lended, the importer ahall make a perfect entry, and shall elthor pay down the dutles, or ahall duly warehouse the same. $\mathbf{8}$ \& 4 Will. 4, c. 52, § 24. In default of perfect entry within three days, such gooda are to be taken to the king'e warehouse ; and if the importer shall not within one month make a perfect entry, and pay the daties thereon, or on auch parts as can be entered for home use, together with chargea of moving and warehouee rent, such goods shall be sold for payment of the duties.- 82.

Bill of Btore is a license granted hy the customhouse to merchants, to carry such stores and provisions as are neceseary for a voyage, free of duty.

Billiards. Invented by the French, by whom, and by tho Germans, Dutch, and Itallans, they were brought into general vogue throughout Europe.- Nouv. Diet. The French aecribe their invention to Henrique Devigne, an artist, in the relgn of Charies IX., about 1571. Slate billiard-tables were introduced in Engiand in 1827.

Billingegate, a market for fish, contiguous to the custom-house in London. It is held every lawful day, sod was eatablished in 1669. Every person buying fish in Blilingegato market mey sell the arme in any other markat-place or places wlithin the elty of Iondou or elsewhere, by retail, with this condition, that none but fishmongers be permited to sell in fixed ahops or houses. No person or porsons shall purchase at 1311lingagate any quantlty of fish, to be divided by lots or In shures among any fishmongers or other persons, in order to be afterward put to asie by retail or otherwise; not shall any fishmongor enmoss or buy in the sald market any quantlty of fish, but what shall be for his own sale or use, under the penalty of $£ 20$. No person Is to have in his possession, or expose to sale, any spawn of fish, or fish unsizable, or out of season.- 36 Geo, c. 118. The minimum slze of the lobsters to be mold at lifllingsgate is fixed by statute.-See Lonaren.

Previously to 1842 no fish of foreign taking or curling, or In foreign vessele, could be imported Into tho lintted Kingdom, except turbote and lobaters, stockfish, live ceis, anchovies, sturgeon, botargo, and caviare. But the importation of all sorts of fish was then permitted on payment of duties, whilh were finaiiy repeaied in 1858 . At present, therefore, the trade in fish is quite free.-For some further remarks with respect to this sulijeot, see Fisis.

Binacle, or Binnacle (formeriy Bitfucle, from the French habitucle), a wooden ease or bex in which the compasses are kept on board a slilp, with llghts to show the compasa at night.

Birch (Fr. Rouleas; Du. Berke; Germ. Birke; It. Betulh; lat. Betula; Pol, Brzoza; Russ. Rereza; Sp. Abedul, Betulla), a forest tree inet with every where lin the north of Europo. It is applied to varions purposes. In Lapland, Norway, and Sweden, the long twigs of the birch are woven linto mata and twisted into ropes; the outer bark forms an alniost incorruptiblo covering for houses; and tha inner bark in used, lu periode of scarcity, as a substinte for bread. Russin leathor is prepared by means of the empyreumatic oil of the birch. It is an excelient wood for the turner, heing light, compact, and easlly worked. It dirability is not rery great. It is sometimea used in the manufacture of herring barrela,

Bird-lime (Germ. Vogelleim; Fr. Glu; It. Inain ; Sp. Lign; Kuss, I'itschei Klei) exudes spontaneor ly from certain pianta, and is obtained artificially from
the middle bark of the holly. Its color is greenish, Ite fiavor wour, and It is gluey; shining, and tenacious. The natural is more adhesive than the artificial bird-Itme,-T1romson'a Chemistry.

Birds' 2Teste (Germ. Indianische Vogelnerter; Dn. Indiaansche Vogelnestjes; $\mathbf{F r}$. Nide de Tunkin; It. Nidi di Tunchino; Sp: Nidos do la China; Javan. Subu; Malay, Sarungburung), the neata of a apecies of swallow peculiar to the Indian lelands (Hirundo esculenta), very much esteemsd in China. In shape chis nest resembles that of other swallows; it in formed of a viseld substance; and In external appearance, as well as consiatence, is not unlike fibrous, ill-concocted isinglass. Esculent neste are princtpally found in Java, in caverna that are most frequently, though not alwaye, situated on the sea-coast. Many conflicting atatemente have been made as to the substance of neate; some contending that they are formed of sen-foam or other marine ,producte, and others that they are elaborated from the food of the bird, otc. But these are pointa as to which nothing vatiafactory la known.

We borrow from Mr. Crawfurd'a valaable work on the Eastern Archipelago (vol. II. p. 482-437) the following authentic and carious detaila as to the traffic in thls aingular production: "The best neste are those obtained in deep damp caves, and auch as are taken before the birds have laid their eggs. The coarsest are those obtained after the young nre fledged. The finest nests are the whitest, that la, hose taken before the nest has been rendered impure ly the iood and faces of the young birds. They are taken twicen year, and, if regulariy collected, and no unueual injury be offered to the eaverns, will produce very equally, tho quantity being very little, if at ail, improved by the caves being left altogether unimolested for a year or two. Some of the caverns are extremely difficult of access, and the nesta can only be collected by persons accustomed from their youth to the office. The most reinarkablo and productive eaves in Java, of which I superintended $n$ molety of the collection for several years, are those of Karang-bolang, In the province of Biglen, on the south coast of the island. Here this cavea are only to be approached by a perpendicular descent of many hundred feet, by ladders of hamboo and ratan, over a sea rolling violently agalnat the rocks. When the mouth of the cavern is attained, the perilous office of taking the nests must often bo performed hy torch-light, by penetrating into recesses of the rock, where the slightest trip would be Insiantly fatal to the adventurers, who seo nothing belore them bit tho turbuient surf making its way Into the chasms of the rock.
"The only preparation which tho birds' uests undergo ts that of simplo drying, withont direct, exposuro to the sun, after which they are packed in small boxes, usually of half a picul. They are assorted for tho Chincse market Into three kinds, according to their qualtties, distinguished into first or best, second, and third qualities. Caverns that are regulariy managed will ufford, ill 100 parts, $53 \cdot 3$ parts of thone of the first quality, 85 parta of those of the seconil, $11 \cdot 7$ parts of those of tho third. The common prices for birds' neats at Canton are, for the first eort, no less than 8500 Spaniah dollare tho picul, or $£ \delta 18 \varepsilon .1 \frac{1}{2} d$. per pound ; for the second, 2800 Spranish doliars per pleul; and for the third, 1600 Spanish doilnrs. From these prices it is sufficiently ovident that tho bircis' nests are no more than an articie of expensive luxury. They are consumed oniy ly the great ; and, indeed, the hest part ls sent to the eripital for tho coneumpition of tio court. The sensual Chinese use them, under the Imagination that they are powerfnily atimulating and tonic; hut it is probable thint their most valuable quality is their being perfectly harmleas. The jreopie of Jnpan, who so much resemble the Chinese in many of their hahits, have no taste for the edlbl/s nests ; and how the jatter acquired a tasto for this foreign commodlty is no lems
singular than their persevering in it. Among, the Weatern nations there is nothing parallel to it, unless wo except the whirasionl eatimation In which tbe liomans held some articles of luxnry, remarkabla for their scarcity rather than for any qualities ascribod to them."
Mr. Crawford eatimatee the whole quantity of birds' neats exported from the Archipelago at 242,000 pounds, worth $\mathcal{L} 284,290$. "The value," he observes, "of this immense property to the country which produces it reste upon the capricioua wants of a aingle people. It is claimed as the exclusive property of the sovereign, and every where forms a valuable branch of his income, or of theq revenue of the State. This value, however, is of courne not equal, and dependa, upon the situation and the circumatancea connected with the caverns in which the nests are found. Beligg often in remote and sequestered situations, in a couatry so lawless, a property so valuable and exposed is subject to the perpetual depredation of freebooters, and it not unfrequently happens that an attack upon it is the principal object of the warfare committed by one petty State against anothor. In such situations, tho expense of aftiording them protection ia 20 heavy, that they are necesaarily of little value. In aituationa where the caverns are difficult of access to atrangers, and where there reigna enough of order and tranquillity to aecure them from Internal dopredation, and to admit of the uests being obtained without other expense than the simple labor of collecting them, the value of the propcrty is very great. The caverns of Karang-bolang, in Java, are of thia dencription. These annually afford 6810 pounda of neats, which are worth, at the Batavia prices of 3000,2500 , and 1200 Spanish dollars the picul, for the reapective kinds, nearly 139,000 Spanish dollars ; and the whole expense of collecting, curing, and packing, amounts to 10 moro than 11 per cent. on this amount. The price of birds' neats is of course a monopoly price, the quantity produced being by natare limited, and iacapable of augmentation. The vaiue of the labor expendod in bringing birde' nests to market is but a trifing portion of their price, which consists of the higheat sum that tho luxurious Chinese will afford to pay for them, and which is a tax paid by that nation to the inhabitsnte of ie Indian islands. There is, perhaps, no production upon which humau induatry is exerted, of which the cost of proluction bears so small a proportion to the market price."-See also the valuable work of Count Hoaendonr, Coup d' Eill sur C lle de Java, p. 291.

Búrmingham, a parliamentary and municipal borough, one of the principal manufacturing towns of England, near its centre, county and 17 miles northwest of Warwlek, 100 miles northwest of London, and $78 \frac{1}{2}$ miles southeast of Liverpool. Area of borough, which includes the adjacent townships, Aston, Edgbeston, etc., 2660 acres. Population in 1690,4000 ; in $1801,00,822$; in $1841,182,922 ; \ln 1851,282,841$. The towd, on the River Rea, occupica the eastern declivity of three undulating hills, and from the southeast presents to view a mass of red brick houses, intersperined with several lofty church spires, and a vast number of tall chimneys belonging to Ita factories. Birmlugham exiated in the relgn of Alfred, A.13, 8i2; but ita importance as a manufacturing town commenced in the relgn of William III. Birmingham was besieged and takeu by Priuce Rupert In 1643 . The great works of Soho wcre established by the illuatrivus engineer, Matthow Boulton, in 1764. The Birmingham canal was originated by act of l'arliament, lics. Memorable riots commeuced here, July 14, 1701, on some perwons conmemorating the French Itevolution. The theatre was deatroyed ly fire, August 17, 1792. Mure commotions, November, 1800. The theatre again burned in 1817; and again, January 7, 1820. Birmingham poitical union formed, 1831 ; dissoived itseif, May 10, 1834. Town Hall built, 1838. Birmingham and Liverpor! railway opened as the Grand Junction, July 4, 1837.

London and Birmingham Railway opened Its entive length, September 17, 1838. Great political riot, firing of housea and othar outrages commilted by the Chart. iste, July 15, 1839. Corn Exchange opened, October 27, 1847. Birmingham has made most rapid progress in manufacturing induatry within the present contury. Ite manufactures comprise almost every description of iron and steel goods, bracs and Iron founding, saddlery, fire-arms, cutlery, gold, silver, plated, bronze, ormolu, and japanned wares; papler-mache goodn, toys, jewel. ry, clectroplated goods, buttons, ateel-pens, glass, tools, steam-engines, and all kinds of machinery.

Biecay, Bay of (Fr. Golfe de Gascogne, Aquita. nicus Sinur), a vast bay or gulf formed hy the Atlantic, and extending between Ouessant ialand on the weat coast of France, and Cape Ortegal on the north coast of Spain. It receives the waters of the Loire, Charente, Gironde, and Adour. Ita principal ports are, L'Oricat, Nantes, La Rochelle, Rochefort, Bordeaux, and Bayonne, in France. Paeaages, San Seloastian, Bilhan, Santander, and Gihon, in Spain. Chief islands, Bello Isle, Ré, and Oleron, on the coast of France, Ite north and south conste are bold and rocky ; but on the east, from the nouth of the Gironde to the Adour, the coast is composed of sand downs, and interrupted by numerous lagoons. The depth varies from 20 fathoma on the west coast of France, to 200 fathoma on the north of Spain. Navigation is mach Impeded by the heavy seas prodacod by the northwest winde, and by a current (Renmel's) which sets in from the Athantic, and sweeping round the north coast of Spaln, runa nerth and northwest along the weat coast of France, and cnters the Irish Channel.
B'mmuth (Ger. Wimmuth; Dn. Bismuth, Bergateen, Fr. Bismuth; It. Biomutte; Sp. Biemuth, Piedra ingu; Russ. Wiomut; Last. Biemuthum), a motal of a reddish white color, and almost destitute of taste and smell. It is softer than copper; its specific gravity is 9.822 . When hammerell cautioualy, ite density is considerably Increased ; it breaks, however, when struck smartly ly a hammer, and, consequently, is not malieable, neither can it tee drawn out into wire; it melts at the temperature of $476^{\circ}$,-Thomson's Chemidry. Blamuth is used in the composition of pewter, In the fabrication of printers' types, and in various other metallie mixtures. With an equal weight of lead, it forms a brilliant white alioy, much harder than lead, and more malleable than bismuth, though not ductile; and if the proportion of lead be increased, it la rendered still moro malleable. Eight parts of lismuth, five of lead, and threc of tin, constitute the fuaible metal, sometimes called Newton's, from Ite diacoverer, which melts at the heat of boilling water, and may he fueed over a cartdle in a picce of atiff paper without burning the paper. Pewterers' solder is formed of one part of bismuth, with five of lead, and three of tla. It forma the besia of a sympathetie lak.-URE.
Bitumen (Germ. Judenpech; Du. Jodenlym; It. Aefallo; Sp. Aefalto; Port. Anphadto; Russ. Aefali; Lat. Aaphaltum Bitumen Judaicum). This term includes a considerable renge of inflammable mineral subatances, hurntag with the flame in the open air. They difier in consistency, from a thin fluid to a solid; but the solids aro for the most part liqueflable at a moderate heat. They are: 1. Naphtha; a fine, white, thin, fragrant, colorJess oil, which issues out of white, yellow, or black clays In Persia and Media. This is highly infiammable. Near the viliage of Aniano, in the State of Parma, there exists a spring which yielda tivis substanco in sufficient quantity to lilluminate the city of Genoa, for which purpose it is cmployed. With certaln vegetable oils, uaphtha is said to form a good varnioh. 2. Detroleum is much thicker than naphtha, resembiling in consistence common tar. It has a strong disogreeable odor, and a blackish or reddish brown color. During combustion, it emits a thick biack smoke, and Jcaves a littio reaidue in the form of black conl. It is more abund-
entir6 ot, firing - Chart October progress contury, iption of saddlery, , ormolu y, jewel ces, tools,
ant than the first-mentioned variety, from which it does not seem to differ, except in being more inapiseated. It is found in various conntries, and is eapeciaily abundent in the Birman empire, where it is imet with above Prome, within abont two miles of the Irrawaddi. The gross annual produce of the wella in this place has been estimated at about $80,000,000 \mathrm{lta}$., worth on the epot about 1 s .8 d . a ewt. ; and the aupply might; if a market could be fonad, be indefinitely incressed. It is used as a lamp oil, and, when mingled with earth or ashes, as fuel and in the paying of boats.-Geographical Dictionary, i. 377. In the United States it is found abundantly in Kentucky, Ohio, and New York, where it is known by the name of Seneca or Genesee oil. It is also obtained from weils in the isisnd of Zante. Herodotas tells us that he liad seen these weils (lib. iv. c. 105) ; and the description he has given of them, and of the mode of obtaining the petroleum, corresponds in all respeots with the accounts of the best modern travelers. The average annual prodace of the Zante springs is about 100 barrele. - Cuandlkir'y Travels in Greece, 1 to ed. p. 301 ; Holland's Travels in Greece, 4to ed. p. 18. Petroleum is particularly abundant in Peraia. "When taken from the pit, it is a thick liquid resembling pitch. The botto:ns of most vessels which navigate the Euphrates ant Tigris are covered with it, snd it is also used in lampsins tead of eil by the natives. The most prorituctive fountains are those of Kerkis., Mendall, and Badku. The welis In the neighborhood of the latter seem to be quite inexhaustible, being no sooner empticd thsn they sgain begin to fill. Some of them have been found to yield from 1000 to 1500 llas . a day !"-Kinnien's Persian Eimpire, p. 39 and 359. 3. Maltha, or Sea-wax, is a solid whitish substance, not unlike tallow. It melts when heated, and in cooling assumes tite consistence of white cerate. This ia most probably the bitumen casdidum of Pliny.-Hist. Nat. 1ib, xxxv. c. 15. It is not used as pitch; but it affords a better light than petroleum, and emits a lass disagrecable smell. It is found on the surface of the Baikal Lake In Siberia, at the foot of the mountains of Bucktiari in Persia, and in some other places. 4. Elastic Bitumen yields easily to pressure; is flexible and clastic. It emite a strong bituminous odor, and ia about the weight of water. On exposure to the air it bardens, and lases its elasticity. It takes up the traces of crayons in the same manner as caoutchous or Indian rubber, whence it has obtained the name of mineral ccoutchouc. It has hitherto been found ouly in the lead mines of Derbyahire. 5. Compact Bitumen, or Asphaltum, is of a shining black color, solid, and brittie, witil a conchoidal fracture. Its specific gravity varies from 1 to $1 \cdot 6$. Like the fermer varieties, it burns freely, and leaves but little residuuni. It is found in India, on the shores of the Dead Sea, in France, in Switzerland, and in large deposits in sandstone in Albania; but nowhere so iargely as in the island of Trinidad, where it forms a lake tiree miles in circumference, and of a thickness unknown. A gentie heat renders it ductile, and, when mixed with greaso or common pitch, it is used for psying the bottous of ships, and is said io protect them from the teredo of the West Indian seas. Tite ancients employed bitumen in tise construction of their buildinge. The bricks of which the walls of Balyion wero bui: were, it is sald (Henonotue, lib. i. $\$ 170$ ), cemented with hot hitumen, which gave them unusual solidity.
Blacking (Ger. Schuhachoörze, Wichse; Fir. Noir (de cordonnier); 1t. Nero da ugner le scarpe; Sp. Negro de sapatos). A factitious articie, prepared in various ways, used in the blacking of boots and shoes. The priseipal ingredients in its manuiacture are oil, vincgar, und various sorta of blacking matter. It is in very extensive demand. Some of the establishments for ita manufacture, especially those in the metropolis, are on a large seale; and it ia in sucin only thst it can be cheaply and advantageousiy produced.: One of the
principal, or rathet we may say the principal outiay in eatablishing a blacking businese, consists in advertising: Indeed, any individual or set of individusls, provided tieey supply a reasonably good article, may, by continnous advertising and pufing, attsin to the higheat eminence in the "blacking line."

Black-lead, Plumbago, or Wad (Dn. Potioot; Fr. Mine de Hlomb noir, plomb do mino, Potefot; Ger. Pottloth, Reisobley; It. Miniera di piombo, Piombaggine, Corezolo ; Lat. Plumbago ; Sp. Piedra mineral de plomo), a mineral of a dark steel gray color, and a nuetallic lustre; it is soft, has a greasy feel, and leaves a darkcolored line when drawn'along paper.
This mineral is found only in a state of purity in Borrowdale, in Cuniberiand, the mines in which have been wrought since tha days of Elizabeth. The lead is not found in veins but in detached pleces, or in what are called acps or bellies, so that the supply is very irregular, the miners being frequentiy employed for a lengthened period in seeking at random for the lead. Its quality also differs very widely. The beat is that which is lightest, and the trace of which on paper is easily and completely removed by the application of India rubber. The mine used only to be opened at intervals, but for a considerable number of years past it has been constantly open. The supply; however, has been extremely scanty, and inostly also very inferior. This lead is now almost whoily employed in making pencils: an inferior variety from Spain and Ceylon being used in the mamifaeture of crucibice, the polishing of cast-iron utensils, the diminishing of friction, and other purposes to whioh genuine black-lead was formerly applied.

Black-lead Pencils (Du. Potlootpennen; Fr. Crayons noirs; Ger. Bleystiffe; It. Lapis nero; Port. Lapis negro; Russ. Karanaschü; Sp. Lapiz negro) are formed of black-lead, encircled with cedar. There is hardly, perhaps, any thing in which the temptation to substitute a spurious for a genuine article is grester, or in which, consequently, the purchaser is more liable to be deceived, than black-lead pencils. This is occasioned hy the vast difference between the cest of genuine Cumberland lesd and of the other articles that are or rasy be substituted for it. ${ }^{\text {. }}$ Pencils are usnaliy described as foliows: first quality, or drawing pencile; second quality, or prepared pencils ; third quality, or composition pencils. 1. Pencils of the firs quality are, when genuine, made of puro Cumberland lead, and coet, in the year 1848, 80s. per 1b., or $£ 168$ per cwt. From 18 to 20 tiozen such pencils are produced from a pound of this lead. These pencils are usualiy made by sawing the lead into the pieces inserted in the cedar. Sometimes, however, the lead is in parts gritty and defective, so that a pencil of this kind may, in fact, be very infcrior. To obviate this defect, some makers prepara the lead, to free it from the grit or earthy particles; and, provided no antimony or other alloy be mixed up with the prepared lead, the pencils produced from it are most to be depended on. 2. Pencils of the aecond quality are manufactured out of the sawinge or dist of pure lead, with the dust of the small pleces picked up by peer people from the rabbish thrown out of the mine, mixed or alloyed with a greater or less quantity of antimony. The goodness of this pencil depends, of course, on the proportion in which the pure lead exceerls the antimony. But as the cost of the former may be taken at $\mathcal{C 1 0 0} \mathrm{a}$ cwt., and that of the latter at only 26 s ., there is an all but irresistible tev ptation to increase the propiortion of the latter beyond dre bounds. This sort of composition produces about 15 or 16 dozen pencils to the pound; their price varying aocording to the purity of the lead. 3. The third quality of pencil is made by using Mexican or Spanish lead dust, coating 45 s , or 60 s . a ewt., with antimony costing about 26 s . per owt. It produces abont 14 or 15 dozen penciis to the $1 \mathrm{l} .$, which may be soid at from 2 a .6 d . to 12s, per gross, aecowing to the cost of tite articles employed
and the care taken in mixing them. This sort of pencil may take a firm point, and make a fine atroke, but its trace will not obliterate on being rubbed with India rubler. The easy and complete obliteration of the atroke ia, in fact, the best and perhaps only teat of a pencil being of pure Camberland lead.-Private infor mation.

Black Ben, or Buxine Sea (Pontus Euxinua of the ancients), la a large inland sea, hounded on the west by Rumolia, Bulgaria, andi Bessarabia; on the north by Russian Tartary ; on tha east by Mingrelia, Circaseia, and Georgla; and on the eonth by Anatolia. It is entered from the Mediterranean through the channet of the Dardanelles, anciently the IIcllespont, the Sea of Marmora or Propontis, aud the channel of Conetantinople or Thracian Bosporus; and it is connected with the Sea of Azof, or Palus Masotis, by the atrait between the Crimea and the Isle of Taman, anslentiy the Cimmerian Bosporus, and known by the various modern namee of the Strait of Kertch, of Yenikale, and of Taman.

Tili within less than half a century, the extent of the Black Sea, and the position of aeveral of ita principal capes, gulfs, and ports, were very imperfectly ascertained. But soon after the commencement of the French Revolution, the National Institute sent M. Beauchamp to examine this sea, and eapecialiy its southern shores. In this enterprise he was muels impeded by the jealousy of the Turks: nevertheless, he ascertained that Cape Kerempe, Carambis, was placed in the charts too fur to the soath; that the Gulf of Sansoan, A misenua Sinus, was deeper than it is commonly represented; and that Trebizend, the Tarahazan of the Turks, anciently Trapez was five or six leagues farther ts the west than i) eleared in the charts. But recent travelers have discovered that even the Parisian charts are inaccurate. According to Dr. Clarke, the Iale of Serpenta, the Ulan-Adassi of the Turks, the Fidonisi of the modern Greeks, and ancient Leuce, lies fifteen minutes, and the port of Odessa twenty-seven minutes, too far toward the north (Clanke's Travels, i. 653); and Mr. Macgill ascertalned, from two observations of his own, compared with those of some eaptains who had navigated this sea, that in the French charts even Cape Kerempe is set down fifteen miles too far north, while Cape Aria or Saritch or Careza, Kriu-Metopon, in the Crimea, is placed twonty-two mitea too far south. This, of course, makes a difference in the width of the sea at thia place of thirty-seven miles.-Macoilh's Travshe, i. 190.

According to the best anthorities, which Mr. Arrowanith has followed in his mape of this sea, it lies between 41 and $46 \frac{1}{2}$ degreen of north latitude (the bottom of the Bay of Sansoun peoetrating searly to the 40th degree, and Cape Kerempe stretching out nearly to the 42 d ), and between 28 and $41 \frac{1}{2}$ degrees of east longitude from Greenwich. This wiil give for ite extreme breadth, from Cape Baba, in Anatolia, to Odessa, about 380 iniles, and for its extreme length, from the coast of Rumelia to the mouth of the Phasis, 700 mikes. The Black Sea, however, may be considered as divided into two parts, by Cape Aria on the south of the Crimea, and Cape Kerempe on the coast of Paphlagenia; the former lying in about 44t, and the latter in about 42 degrees of north latitude. Both these capes being high land, vessels sailing between them can liscover the coast on either side. The circumference of the Black Sea is about 8800 miles.

Kuatian statistical reporta are so little to be relied upon, thist it is difficult to give any very ascurate returns of the generai trade of the Black Sea. Within the last twenty years a total change has been effected in the aspect of its commerce. This is ehiefiy to be atttributed to the exiatence of the British market. When importations of corn into Eingland wero freed from fiacal influences, the vast and fertile plains of southern Russia, and the rich valiey of the Dauabe;
supplied the ever-jncreasing demand; and the requiremente of Great Britaln, however they may Increape, will be met by enormoully eiantic powers of prodaction. The prohibltive policy of Russis exercises, however, a most injurions influence upon foreign trade, and combines to render the oxpense of freight opon the coasta of the Blatk Sea higher than upon any other eastern sea-board. In conaequence of the more liberal commercial peiicy of Turkey and the Danubian principalitiea, the exporta of Rumelia, Moldavia, and Wallachis, are increasing far more rapidly than those of the Russian provinces, while the grain is more highly eateemed in the English market. The total amount of wheat received by Great Britain in 1852 from the Russian shores of the Black Sea was 789,750 quarters, in 874 vessels. The total amount shlpped from Kumelia and the Danubian principalities was 112,650 quarters, in 92 vessela. The general exports of the principaities have been gradualiy increasing. In 1849 the total value of the importe amounted to £809,240; in 1850, $\mathbf{2 8 9 8 , 7 1 5 ; \text { and in 1851, } £ 8 9 6 , 8 9 5 . ~}$ The total value of the exports in 1849 was $£ 1,118,272$; in 1850 it was $£ 839,712$; and in 1851, $£ 1,274,525$. As the com trade to the Britiah dominions is the mainly important branch of commerce in the Black Sea, those atatiatics connected with it which are derived from the Eıglish official reporte contain all that is most importanc. Apart from this no very remarkuble features in the local trade have been recently developed, nor, if there were, are there any authentic reports of its extent.
The principal articles of commerce afforded by the countries on the Black Sea are, wheat, rice, tobacco, lides, tallow, hare-skins, honey, wax, iron, and yellow graina for dyelng from Rumelia and Bulgaria, by the ports of Varna and Bourgas. The same articles, with theaddition of wool, butter, hemp, masta, ship-timber, and pitch, are exported from Moldavia and Waliachia, by 1 braiia and Galata, on the Danube. From Bessarabia by Ovidopol, and from the province of Cherson by Odessa, Akermann, and Cherson, come corn, eak timber, hides, tallow, ter, shagreen, wax, honey, hemp, sail-cloth, and wool; from the Crimea, by the ports of Actiar, Kosloff, and Cafia, corn, wool, wax, honey, dried and salted hides, deer-akina, moroceo leather, sineep-skina, saited and dried fish, potash, felt, caviare, whe, silk, and saltpetre; from the countries on the Sea of Azof, by the ports of Taguerog; Berdianski, and Mariapol, iron (of which Constantinople and Snyyrna require about 60,000 quintals each), dried fish, caviare, butter, hides, tallow, wheat, timber, furs, saii-cloth, corilage, hemp, linens, wax, and wool; from Anatolia, by the ports of Erekii, Amasreh, Inebohi, Slnope, and Unish, lides, dried fruits, linena, linen thread, wax, honey, hemp, copper, and ahip-timber; from the ceast of lloum and Sansoun the same articles; from the couutries of the Laziens and Gurions, principally by Trelizond, all the above articles, except ship-timber; and from Mingrelia, and the country of the Abasses, principally by Soudjuk and Anapa, slaves, timber, Lox-wood, wool, ailk, furs, butter, hides, wax, and honey. The trade to these coasts is entirely carried on by a few Greeks of Constantinopie, and is very in-signilicant.-E. B.

Blank (Froncin Blanc) hiterally signifies white, Blancus, or Blaner, was a kind of winite or silver moncy, of base alioy, coined by Henry V. In those parts of France which wore tinen subject to England. It was valaed at 8d, sterling. Blank also denotea a small copper coin, formerly current in France, at the rate of five deniers Tournola.-EL. B.
Bleaching is the art of depriving cotton, linen, silk, wooi, wax, oto., of their coloring matter, and rendering them as white as possible. The word is probaluly derived from the French term blanchiment, which signifies the process of rendering whita.

This art was known oariy in Egypt, Syria, and
requireincrealae, produc ses, howrade, and apon the any other reliberal jan prinand $\mathrm{W}_{\text {al }}$ these of ro highly I ameunt from the quartera, from Ku -- 112,650 rts of the ing. In ounted to £896,805, 1,113,272; 525. As he mainly Sea, those d frem the ost imporfeatures in ed, nor, if of lts ex-
ded by the e, tolacco, and yellow ria, by the tlcles, with hip-timber, Wallachia rom Bessaof Cherson corn, ouk mey, hemp, he perts of ax, honey, co leather, lt, caviare, ies on the hel Sntyrna sh, caviare, sail-cloth, A Anetolis, inope, end read, wax an the coast from the clpally by lip-tiniber; te Alasses, es, timber, wax, and cly carried is very in-

## fles white.

 ailver monse parts of d. It ws ea a amal] the rate ofIndia. Known in ancient Ganl.-Pliny. In the last century an Improved chemical syatem was adopted by the Dutch, 'ho introduced it Into England and Scotiand in 1768. There are now Immense blen :t. fields in both countrise, partlcularly in Lancashlr and in tho countiee of Fifo, Forfar, and Renfrow, so in the vale of the Leven, in Dumbarton. *The c'.cemical process of Berthellet was introduced in 1795.-Blanchíment des Toiles.
Blockade, in war, the shutting np of any place or port by n naval or military force, se as to cut off all communlcation with those whe are wlthent the hoatile line. There ls, perhaps, no part of the law of nations which, In practice, presents so many perplexing questions as that which concerns the respectlve rights of neatral and belligerent states. No definite llne of distinction has yet been drawn between the prlvileges of war and peace; and the consequence has been, that, In all tite wars which have been waged in Europe, tho general tranquillity of the world lius been endangered by the jarring of these two different faterests. It has commeniy happened, too, that all these important questions have been agitated during a seasen of war ; when the passions of the contending parties were keenly engaged in the dispute; when principles were slready subverted; and when the minds of men, exasperated by the glaring infraction of acknowledged rights, were not in a state to agree on any system of general equity by which to regulate and reform the erring policy of states. In these clrcumstances, many points of internatlonal law, which appear to rest on the most ebvious princlples, and which are very clearly settled in the writlngs of clviliane, have, nevertheless, been the occasion in practice of no amall controversy, and have frequently Involved nations in all the miserics of protracted war. Thls has been in some measure msnifested In the case of the Rights of Blockade, respecting which, though no difference of opinion has ever prevailed ameng speculative writers, a controversy arose during the late contests in Furope, which, along with ether points, ultlmately Involved Great Britain in a war with the neutral powers. We propose, in the course of the subsequent observations, to state, 1st. The general prlaciples from which the most approved writers have deduced the rights of blockade; and, 2 d . Togive a short account of the differences which took place between the neutral and the belligerent states respecting the extent of those rights.

In regulating the respective privileges of the neutral and the belligeront, it has generally been held as a fundamental principle, by writers on the law of nations, that those rights from the excreise of which less henefit would accrue to one party than detriment to the other should be abendoned; and in all cases where the rights of war happen to come into colllsion, the appilication of thls rule will decide which of the two parties must yield to the convenlence of the other. Thus the neutral state is debarred from carrying on any trade with elther of the beliigerents in warlike stores. The general right to a free trade is modlfled, In this particular instance, by the paramount rights of the belligerent. To refrain for a tlme from trading with an individual state in warlike steres can at most enly impose a trlfiling inconvenience on the neutral power, whlle the continuance of such a trade might terminate in the destruction of the belligerent. The detriment occasioned to the one party by the existence of such a trade, is, in this manner, infinitely greatcr than the loss auffered by the other from its abandonment. Warlike stores, and whatever else bears a direct reference to war, sre accordlngly proscrlbed as unlawful articles of trade, and made liable to selzure by either of the belligerents. To this Inconvenlence the neutral Is exposed, to avold the greater Inconvenlence and damage which might fall on the belligerent by the licensing of such a trade. On the other hand, the neutral state enjoys the most unlimited freedem of
trade in all other articles with either nf the powers at war; and though, by means of thia beneficial interconrse, they may be both furnished with the means of carryling on a protracted conteat, thla la a centingent and incidental coneequence of the trade, which, In Its character, is aubatantially pacific, and which is attended with such great and immedlate advantages, that they could net, with any regard to equity, be sacrificed to the remote convenlence of the belligerent.

Applying these principlea to a slege or to a blockade, it is evident that the belligerent who had an expensive acheme of hostile operations of either kind in dependence would be far more serieusly injured by its interruption than the neutral would be benefited hy in free intercourse with the bleckaded place. On this ground, therefore, a belligerent who has formed a sicge or a blockade har an indisputable right te debar the neutral from all intercourse with those who are included within his lines; and any attempt to penetrate the bleckade for the purpeses of trade subjecta thoae whe attempt it to destruction, and their properties to col. fiscation. The very exlstence, indeed, of a siege or a blockade, as a lawful act of hostility, implies the right of enforcing it by an Indiscrimlante exclusion of all who seek access to the besleged.

But although this vlew of the natnre of $n$ blockade, and of the righte attaching to $i t$, ls clearly laid down by all writers on the law of nations, and although it has been acknowledged in practice by all clvilized atates, a question was agitated in the late wars of Furope, between the neutral and the belligerent powers, as to the degree of restraint necessary te constitute a biockade, and, of course, to entitle the bleckading party to all the rights consequent upon this scheme of operations; and It is this dispute which was, in a great measure, the occasion of a general war with the neutral powers.

The success which attended the naval operations of Great Britain during the war with France naturally snggested to her rulers the possibility of extending this species of annoyance, and of converting the all-pewerful navy whlch they possessed iuto an instrument of active hostility. With this view, instesd of confining its efforts to the mere watching of the enemy's already ruined trade, it was resolved to give greater scope to such an Immense engine of maritime power, by placing under hlockade the enemy's ports, the moutha of nevigable rivers, and even extenaive tracts of his coast. Proclamatiens to this effect were accordlingly issued; and the neutral trader was duly varned off, and prolibited, under the peril of detention, from all intercourse with the interdicted coast. But the legality of these blockades by proclamation being disputed both by the neutral powers and by the enemy, their executlen was resisted by a counter decree, which, on the plea of retallation, placed under blockade the whole island of Great Brltaln, and subjocted all neutral vessels to detention and capture whlch should have been found touching at any of tis ports. On the same plea of retallation, sevoral decrees or orders in council were lasned by Britain, ordalning that no neutral vessel should have any Intercourse with France and her dependencles, except such ressel should first touch at a British port, whero, in some cases, the cargo was to be landed, and was to pay certaln dutles to the Britlah government. From this perlol the maxims of equity and the rules of internatlonal law were set aelde, and the occan became a scene of proscrlption and plllage. All thls anarchy having orlginated in a dlsagreement respecting the nature and extent of a blockade, it becomes of impertance to iring back the question to Its true elements, and to fix the princlples by which alone It shnridd be settled.
The ulject of a blockade is to reduce the inhabitants of the blockaded town to such stralts that they ahall be forced to surrender to the discretion of their enemics In order to preserve thelr IIves; and hence the legality
of avery blockade, except with a view to ceiptare, has ' been questioned. But without entering into this question, it seems obvious that, in order to conatituse the hlockade of a town, either with a view to capture or to temporary anneyance, the line by which it is aurrounded ahouid be so complete as entirely to obstruct all access into the place. When a place is blockaded with a view to capture, the task of maintaining a real blockade may eafely be left to the blockading party. Bnt when a port is blockaded with a view to mhere maritime annoyance, the case ia widely different; because, in these circumatances, the beliggerent will equally attain his end by maintaining the mere show of a blockade, while he is in possession of all its aubstantial rights. He may, to save himself expense and trouble, relax the blockade of his enemy's ports, while he enforces the exclusion of all neutrals as rigorously as if he were maintaining an effectual blockade; and, in this case, his prociamations, while they are basued oatensibly for the blockaile of the enemy's ports, would, in reality, amount to edicts for the suppression of the neutral trade. The urgent, immediate, and obvious interests of the neutral wouli here be sacrificed to the remote, and in many cases imaginary, convenience of the belifgerent. An ediet might be issued for the blockade of the enemy's ports, or of extensive tracts of his coast, round which no hoetile line could ever be drawn to as to conatitute a real blockade; and the whole trade of the neutral with these interdicted parts of the enemy's territory would be immediately annihiIntel at the arbitrary mandate of one of the belligerents. Instead of being carried on as a matter of right, instead of beiog regarded as a common benetit to the civilized worid, and on this account as proper to be cherished and encouraged, the neutral trade would, under such a aystem, be looked upon in the light of a toleratec evil, existing only by the sufferance of those who imagined they had an interest in obstrueting and in erushing it. The law of nations is not a partial syatem, modeled to suit the convenience of one party. It is a system of general equity, and its ediets are founded oa a comprehensive view of what is for the common welfare and protcction. In this view, then, the consequences to the neutral of those extensive and nominal blockacies are aufficient to constituto them illegal. The damage to the ueutral is infinitely greater than the bencfit to the belligerent. The rights of blockade, atd the limitation of those rights, must stand upon the same principle of justice and of publie law ; and their extension beyond this equitable principle must termiuate in univeralal confusion and anarchy.

In opposition to these arguments in favor of the neutral powers, it has been urged that the new system of naval annoyance, introduced by Great Ilritain in 1806, was legal according to the atrictest construction of the law of blockade, because the proclamations for interrupting all intercourse between the different parts of the Freach coast were not issued until it was ascertained, by the most particular inquiries, that Great Britain possessed an effectual naval force to blockade the enemy's coast from Brest harbor to the mouth of the Elbe. It is eolely upen this principle that the minaters of that country maintained the legality of those blockades; and any breach in the line of blockade, they admitted, would be sufficient to constitute them ilicgal. Such, then, is the state of this innjortant controversy, which seeuse to resolve itnelf into a mere question of fact, namely, whether the blockading power has actually carried into effect the blockade, of which notice by proclamation has been given to the neutral powers.
At the conclusion of the last treaty between Great Britain and America, no settiement of these disputed questions took place. The main wa' between the Etrropean belligerents, ont of which ",ee American diepute had incidentaliy sprung, boing at an end, the controveray respecting righte whith could only be exercised
atate of war had lost all practical importance. It become mere queation of ahatrict right, the da. cinion of which was wieely adjourned by the powers at war, and net suffired to clog the work of a general peace. It is likely, however, that on the breaking out of any new war, this and other questions of a like nature would recur, and on this account it might be of importance to the future peace of the world if these questions could be cettled according to some acknowledged rule of equity or policy, and that without delay. -E. 1.
Blubber (Germ. Threw, Fiecheran ; Du. Thraan; It. Olio di pescs; Sp. Giraesa, A eeive de pescado ; Russ. Salo worwanmee, Worworn; Lat. Olewm piscinum), the fat of whales and other large sea-animule, of which train-oil is made. The blubber la the adepe of the animal: it lies under the okin, and over the muscular fieah; it is about six inches in thickneas, but about the uader lip it is two or three feet thick. The whole quantity yielded by one of these animais ordinarily amounts to 40 or 50, but sonnetimes to 80 or more honured weight. For merly train-oil was menufactured from the blubber in the seas round Spitabergen, and other places where whales wero ceught; lut the practice ia now to bring the blubber home in caake, and to prepara the oil afterward.

Board of Irade. Cromwell seema to have given the first notions of a board of trade. In 1655 he ap pointed his son Kichard, with many lords of his council, judges and gentlemen, and about twenty merchanta of Loudon, York, Newcastle, Yarmeuth, Dover, ctc., te meet and consider by what means the trade and navigation of the republic might be leat promoted.Thomas's Notes of the Rolle. Charles II., on his restoration, eataillshed a council of trade for keeping a control over the whole connerce of the nation, 1660 ; he afterward instituted a board of trade and plantations, which was remedcled lyy Wiliom III. This board of superinspection was abolished in 1782; and a new council for the affaire of trade, on its preeent plan, was appointed September 2, 1786.-11Ayms. In many cities of Europe and the United States, a voluntary Board of Trade is established by the merchants of such cities-in aome instances termed a "Chomber of Cinnmerce." Such associations are productive of incalculable benefit to the commercial interests at large.

Boat, a small open vessel, propelled on the water by oars or sails. The construction, machinery, and even the names of boats, are very ditterent, according to the various purposes for which they are intended, and the eervices on which they are to be employei. Thus they are occasionaliy slight or strong, sharp or flat-bottomed, open or deeked, plain or ornamented; as they may be designed for swiftness or burden, for deep or shallow water, for sailing in a harbor or at sea, and for convenience or pleasure. The largeat baat that ususily accompanies a ship ia the long-boat, which is generally furnished with a mast and sails. Longboats fitted for men-of-war are oceasionally decked, armed, and equipped, for cruising short distances against marchent ships of the eneny, or smugglers, for impressing aeamen, and oth services. The berges, which are next in order, are longer, olighter, and narrower. They are employed to corry the principsl seaofficers, as admirals and captains of ships of war, and are unfit for the open sea. Iinnaces exactiy resemble barges, but are somewhat amalier, and have never more than eight oars; whereas a barge properly never rowa less tian ten. The cutters of a ship are brosder, deeper, and shorter, than tho barges and pinnsecs: they are fitter for sailing, and are commonly employed in carrying atores, provisions, pessengers, and the like, to and from the ship. In the atructure of this sort of loet the lower edge of every plank in the side overlays the upper edge of the plank below, which is called by ohipowrights elinker-build. J'ouls are somewhat less than cuttera, nearly of the aame form, and used for
tance. It ht, the da. powers at a general 1 breaking is of a like aight be of Id if these acknowlnout delay.

Thraas; It. Rues. Sal , the fat of ch train-oil animal: it fleuh; it is a onder lip intity yicldnts to 40 or eight. Forblubber in laces where ow to briug the oll aft-
havo given 1655 he apof his ceuny merchanta Dover, etc., ade and nav-promoted., on his resor keeping a ation, 1660 ; and plantm1II. This I782; and a present plan, N. In many a voluntary hants of such noer of Com of incalcula. large. on the water chinery, and tt, according re intended e employed. ng, sharp or maneented burden, for bor or at sca largest boat -bout, which ails. Jongally decked, rt distances smugglers, The barges, er, and narrincipal seaof war, and ly resemble have never perly never are broader, 1 pinuaces: y empleyed nd the ilike, this sert of aide overich in callet somewhat and used for
imilar mervioes. They are generally rowed with aix ours. The above boata more particularly belong to men-of-war.- Merchant veasels above 150 tona huve at least two, a long-boat and yawl. it Merchant shipe employed in the Mediterranean find it moro convenient to ase a launch, which is longer, fiatter in tha bottom, and better adapted every way to the harbors of that sea than a long-boat. A wherry la a light, aharp boat, used in a river or harbor for carrying passengers from place to place. Punta are a aort of oblong, flat-bot tenned beate, nearly resembling floating atages. They are used by ohip-wrights and caulkers, for breaming, auikinz, or repairing a chip's bottom. It is also the name for the emallest boat of yachta, etc. A moses is a very flat, broad bout, used by merciant ahipo among he Caribbee lalands, to bring hogsbeads of sugar of from the sea-beach to the shipping anchored in the ronds. A felucca is a strong passage-boat used In the Mediterranean, and propelled with oare and lateen uails. The pirogue of the Southern and Eastern seas is a kind of cance made of the trunk of a tree hellowed out. It is generaliy worked with paddies, but some times it is decked and furnisher vith aails and an ontrigger. The proa, so much used by pirates in the Eistern Archipelago, is sharp at both ends, in order to sail either way. Its lee wide is rounded, but the weather side ia flat, and provided with an outrigger to secure its stability.-E. B. The invention of boats was se carly, and thair use so general, the art ran not bo traced to any age or country. Flat-bottomed boats wero made in Eagiand in the reign of the Conqueror the flat-hottomed boat was again brought into use by Barker, a Dutchman, about 1690. Tho lifo-boat was first suggested at South Shields; and one was built by Mr. Gresthead, the inventor, and was firut put to sea, January 30, 1790 - IIArns.
Boatawain, the officer in a ship who has the charge of the boats, sails, rigging, colors, anchors, cabies, anil cordage. It is also the duty of this officer to aummon the crew to their duty; to assist with his mates in the necessary buainese of the ship; and to relieve the wateh when its time expires. He has a mate who has the charge of the long-boat, fer setting forth anchors, weighing or fetching home an anchor, warping, towing, or mooring.
Bobbin, a amall cylinder of wood, with a littla border or head at each ond, and bored througit to receive an iron pivot. It is used in spinning, to wind thread, worsted, hair, cetton, silk, gold, and silver.
Bobbing, among fiahermen, a method of entehing eels, different from sniggling. To bob for cels, a number of large lobs aro well acoured, and a twisted silk thread is run through them from end to ond with a neelle: they are then tied fast with the two ends of the silk thread, that they may hang in so many hanke; after which the whole mass is attached to a strong cord, with a plummet fixed a little above the worins to sink the bait, and the cord is mada fast to a strong pole. This apparatus is tisrown into muddy water the ceis tug lustily at the bait; the rope is then to be drawn in gently, and the cels are brought ashore.

Bogs, commonly the remains of fullen forests, covered with peat and leose soll. - Moving bogs aro slips of land carricd to lower leveln by accumulated water. Of recent acto, one relating to Ireland for their drainage, passed March, $\mathbf{1 8 3 0}$. The bog land of Iroland has been estimated at $3,000,000$ acres; that of Scotiand at upward of $2,000,000$; and that of England at near 1,000,000 of acres. In January, 1849, Mr. Rees Reece took out a patent for certain valaablo products from Irish peat.-ffousehold Words, No. 41.

Bohea, a species of tes. Sec Tra.
Bole, a frialile earthy subs ance, a apecies of the soap-atone fumily. Specific gravity $1 \cdot 4$ to 2, It is feund in the island of Lemnos, whenea it is sometimes csited Lemmiall earth; and in Armenia, Italy, France, Silesia, various parts of South America, ete. Arme-

Dian and French boler ere at one time net uncommon in this country, boing used in the materia medica; but they are now ontirely, or almost entirely, disearded. In India, however, Armonian bole acill continuea to be in extensive demand. : It is hrought to Bombay from the Persian Gulf. It la soft, feals greasy to the touch, adheres atrongly to the tongue, and is very frangibles It is generaliy of a yellowish hrown color; though sometimes it is seen of a fine flesh red, whloh is the variety held to the higheat eatimation. Some savage nationa, such as the Ottomaques, dencribed by M. Humboldt, are in the hablt of allaying the paina of hunger by eating bolos. The Javanese, when they wish to become thin, eat caken, called tannampo, made of bole,-Lewis's Mfateria Medica; Tiomaon's Chemistry; Ainalis's Materina Indica.
Bolivia. Thia name wan given in 1825 to a new State or Republic in South America, formed froin the rrovinces of Upper Peru, which formerly constituted part of the vice-royalty of Buenos Ayres, and were well known by the nnmes of Charcas, Potoal, La Paz, Cochabamba, and Santa Cruz de la Sierra. These provinces, on securing their independence, soon after the battle of Ayacucho, 9th December, 1824, found it necessary to come to a determination as to their future political state and inatitntiona; and therefore it became n question with the inhabitants of Upper l'eru whethor they should contlnue their former connection with the Buenos Ayrean or Argentine provinces, attach themeelves to the republic of Peru, or form their country into a separate and independent republic. Bnt the existing government of Buenos Ayres hnviag with equal judgment and generosity divested itself of the cluim which it had on the provinces of Jpper Peru, the inhabitants of the latter were left at jerfect liberty to decide on the future political government of their country. Deputiea from all the provinces wero in consequence nominated; and having assembled in Chuquisaca, the capital of the republic, in August, 1825, the resnlt of their deliberations was, that the provinces of Upper Peru should in future constitute a separate and independent nation. This ussembly, continuing its sessiona, lamed a decluration of national independence; and, in the exuberance of their gratitude to General Bellivar for the inportant influence he had exercised in accomplishing the liberation of their country, they determined on giving the nume of Bolivia to the whole country

Bolivia extends from $9^{\circ} 30^{\prime}$ te $25^{\circ} 40^{\prime}$ of S . lat., and from $68^{\circ}$ to $71^{\circ}$ of W. long. from London, and it is bonnded on the north by l'eru and Brazil, on the east by Brazil and Paragnay, on the south by the Argentine provinces and Chili, and on the west by the Pacific Ocean and l'cru. It has been diviled by the constituent Congress of Bolivis into six departments, viz., Potosi, Chuquiraca, La I'az, Santa Cruz, Cocinabainbn, and Orure; and these have been aublivided finto provinces and cantons. Thue cach dejartment in cludes in its jurisdiction certain provincen of the ancient régime. The department of Petosi contains Atacama, Lipez, Potosi, Porce, Chayanta, and Chicas; Chnquisuca contains Charcas or Chuquisaca, Cinti, Yamparnea, and Tomina; La l'az, the provinces of La I'ax, Pacajen, Sicuslea, Chulumani, Omasuyos, Larecaja, and Apolobamba; Snnta Cruz, the provinces of Sunta Cruz, Mojos, Chiquitos, Vallegrande, Pampas, and 13nires; Cochabamba containe Cochabamba, Sa cata, Tapacari, Arque, Palca, Clissa, and Misque; nad the department of Oruro, the provinces of Paria, Oruro, and Carungas.
The only productions hitherto furnished by Bulivia as articles of cominerce have been the precious metnls, which were exchanged for various articies of huxury and necessity. The rude and simple fabrica manufactured liy the Peruvian Indians are usualiy appropriated to their own domestic uses; while the valuable vegetable productions, and the herds of cattle and
mules, whieh are reared in the eastern parts of the repulsic, have hitherto scarcely been auficient for the supply of the inhabitants of those populous mining districts that are princlpally dependent on them for subsistence. Cocos to the value of $\$ 200,000$ is annually exported from La Paz to other parts of Bolivia and Peru.

Before the Revolution, a very oxtenaive traftio was maintained between the upper provinces on Peru and the provinces of the Rio de la Mata, for aupplies of cattle and mules. These were reared in great nombers in all the interior Argentlne proviuces, expresely for the use of those conntries, and wore first sent by easy journeys to the luxariant pastures of Salta and Jujuy, where they were carefully fed and tended during the winter, previous to their being conveyed to their final destination In Bolivia and Peru. Sonie Idea may be formed of the extent of this traffic by stating, that besidea all those fornished by the other Argentine provinces, the prevince of Salta alone sopplied annually to Upper and Lower Peru from 60,000 to 80,000 mules, on all of which they reallzed considerable profits, the prices being projortioned to the distance to which they were conveyed. The war of independence, which has so greatly desolated the northern provinces of the Rio de la Plata, and the diminished working of the mines of Balivia, have almost annihilated this lucrative truffic; but it may be expected to revive with increasing vigor on their again resuming their former babits of tranquillity, and becolning stimulated ic increased exertion, by the accession of hahorious and intelligent Europeans, and by the spresd of education nd intelligence.

By the route of Cordova, Tucuman, and Salta, the provinees of U'pper Peru or Bolivis formerly received their supplies of articles of commerce from Europe, which were landed at Buenos Ayres; and by the same channel they likewise obtained inge supplies of Kerba or Paraguay tea, to the great amount, it is affirmed, of 100,000 arrobas, or about $2,500,000$ pounds annually, which had been proviously conveyed by water from Praguay to Baenos Ayrea, and from thence by wagons and mules to Jujuy and Bolivis; thus enhancing its value by a circuitous and expensive land-carriage of from 2000 to 8000 miles, while, by a more improved syatem of conveyance, it might be sent by the rivera Vermejo and Pilcomayo into tho heart of Bolivia, at a vast saving of trouble und expense. The large amount of goods sent from Buenos Ayres by wagons to Jujuy tended greatly to enrich the various provinces through which they passed, giving employment to numbers of the inhabitants ; and Jujuy, which formed the most distant point that could be reached by wagons or carriages, became a place of considerablo importance, forning the entrept of the cemmerce of Pertu and the Argentine provinces. From this place the various articles of commerce were conveyed on mules to their ulterior destination.

The new order of affinis consequent on the Revolution has neceasarily produced importunt changes in this branch of commerce, and Bolivia has in a great measure ceased to reccive her supplies of foreign commoditiee by this expensive route. Commerce, where unrestricted, always finds out the shortest and least expensive channels for the introduction of its commodities. The trade is now in a great degree diverted to the ports of the Pscific, called the Puertos Intermedios. Taena and Arequipa, with their respective ports, have now become the principal channels through which Bolivis receives the produce and manufactures of other countrien. How far the Bolivian government has succeeded in making Cobija or Puerto la Mar of that exclusive commercial importance which it contemplated, remains yet to te ascertained. Nature presents great ohstacles to the success of the underteking, which is certainly a most praiseworthy one; while all the rest of the coast, in which are situated
the I'uertos Intermeding, forms part of the republic of Perv, to which, therefore, they must necescarily pay tranait duties. A now and very lmportant channel of communication for commerce w!ll be upened between Bolivia and the Atlantic, whenever commercial onterprise and increasing civilication shall heve established atesm navigation on the lio de la Plata and its tributary streams, the Vermejo and Pilcomayo, and from the mouth of the A mazon to its distant tributaries, the Beni and the Mamori.
By a decree of the republican government of Peru, dated 22d February, 1881, the following judicious reg. ulations have been established for settling the commercial relations of that state with the reputlic of Bolivia: 1. The productione of the territory of the Holiviun republic, jntroduced Into Peru for its consumption, shall be aubject to an import duty of 4 per cent. on their valuation. 2. Those productions uf Bolivia which only pass through the territory of Peru for embarkation from its ports, shall only be subjeeted to a transit duty of 2 per cent. 8. Silver and gold, cither coined or otherwise, introduced from Bollvia into Peru, shall be exempted from any duties. 4. All foreign articles of commerce passing through the territory of Pern, and destined for Bolivia, shall only be eubjected to the payment of 2 per cent. ad valorem; and the decree of 22d January, 1830, which imposed transit dutios of from 15 to 45 per cent. on such commodities, has been repealed.
Silver, however, has hitherto been the staple metal lic production of Bolivia, rud has given to it thst celelrity which it has long possessed. In the rich mountain of Potosi alone, from the year 1545 to the yoar 1800, no less than $\$ 823,950,509$ were coined; and if to this he added the smount of the preceding years, not included, and that olstained in a clandestioe manner, S1,647,001,018 has been olitained in the apace of 225 yeare.-E. B.
 large shell of cast iron, with a vent to recejve a fusee, which is made of wood. The shell being filed with gunpowder, the fusee is driven into the vent within an inch of the head, and fastened with a cement made of quick-lime, ashes, brick-dust, and atcel-filingn, worked together in a glutinous water; or of four parts of pitch, two of colophony, one of turputine, and one of was. Thir tube is filled with a combustible mutter made of tr ounces of nitre, one of sulphur, nnd three of gunpowder-dust, well rammed. To preserve the fusee, it is pitched over, but uncased when the bomb is put into the mortar, and covered with gunpowderdust, which, taking fire by the flash of the powder in the chamber of the mortar, burns all the time the bomb is in the sir; and when the composition in the fusce is spent, it fires the powder in the bomb, which bursts with great violence and commits dreadful devastation.

Bombs may be used without mortars, an was done by the Venetians at Candia, when the Turks had jossessed themselves of the ditch. Bombs were rolled down upon them along a plank with ledges set sloping toward tucir works. Bombs did not come into comonon use before the year 1634, and then only in the Dutch and Spanish armies. One Malthus, an English engineer, is said to have first carried them into France, where they were used at the siege of Collioure.-E. 13 .
Bombay (Portug. Buon-Bahia, "good hurhor"), a city, sea-port, and capital of the presidency, is situated on a narrow neck of land at the southeastern extremity of the island of Bombsy, separated from the main land by an arm of the sea, forming, with the contiguous islands of Colabah, Salsette, Butcher's Island, and Caranjult, one of the beat harbors in India. Lat. $18^{\circ} 56^{\prime}$ N., long. $72^{\circ} 58^{\prime} \mathrm{E}$. In 1716 the populstion was 16,000 ; in 1816, 161,350; and, according to the Bombay Calendar, in 1845, 235,000. Of these twothirda are Hindoos, 20,000 Parsees, and the rest Mussulmans, Jews, and Christlans; with a great varicty

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of fuctaating population, chlefly sallors and traders. It conalsts of the fort or old town, 1 mile in length by $t$ mile in bremdth, in which the European inhabitants and most of the Parsee merchants reside; and the new town, about 1 mile diatant northward, inhabited by the Hindcos and Mohammedan native population, leyond which auburb are many detacbed villas and iungalows, belenging to Furopean and other res!dents. Bombay Island was ceded by the Portuguese to the Engliah in 1661, as the dower of Queen Cath arine, wife of Charles II., ant was taken possession of in 1664 ; so that it has been in their ocoupation about 180 yeara, being by far the oldest of their possessions in the East. In 1068 it was tranaferred by the crown to the East India Company by letters-patent, in free and common soceage, on payment of the annual rent of E10. 3ut by the present charter It has reverted to the crown, wlth the rest of the company'a assete, being lield by the company in trust merely. On its ceseion to the erown of England, in 1661, its population did not exceed 15,000 ; but at prasent it has npward of 230,000 inhabitante. The fort stands on the southesstern extremity of the island, on a narrow neck of land, Immediately over the harbor. The fortifications are extensive, and on the sea-side very strong.

Bombay has a lively appearance from the sea; but as a city it is greatly inferior to Calcutta or Madras. The houses within the walls are built of wood, and covered with tiles. Principal editices in the fort are the coart-house, secretariate, and other government offices, custom-houso, town-hall, castle, mint, eathedral of St. Thomas, St. Andrew's Scotch church, European hospital, etc. In the centre of the fort is an irregular open apace called the "Green;" and outside of the massive fortifications is the csplanade. In the new town are Elphinstone college, Sir J. Jejeobhoy's hospital, the Byculla church and club, the house of correction, theatre, and the great Hindoo temple of Momba Devi. On the southwest the fort is connected by Colabba causeway with the Island of Colabba, on which are the light-house, observatory, lunatic asylam, some mercantile buildings, and a stono pier. The government-house is at Parell, 6 miles north of the fort. There are two banks-the Bank of Bombay and the Commercial Bank of India. The property of the island belongs principally to the Parsecs, who are the chief merchants and moneyed men. The harbor of Bombay is one of the beat in India, and aftords good anchorage for ships of the largest burden. On it are also excelient buitding and other docks for ships of the first class. Next to Calcutta and Canton, Boinbay ls the principal commercial emporium in the East, and for many years its trade has been uniformly incrensing. In 1837 a steam navigation was commenced between Bombay and Suez; three stenmers were at first employed, which the war in 1848 increased to 8 ; and a regular monthiy passage is now miade from London to India, under the arrangements of the Orientai Stenn Navigation Company. Bonbay Island, on which the city is built, la 8 miles in length, and 3 miles in breadti, and is formed of two ranges of green-stone, connected in the middle by sand-atone strata. The interior lies low, and was at one time liable to be flooded hy the tide, but an embankment was erected to keep ont the sea.
Rombuy IIarbor is one of the safest and most commodious in India. It is bounded on the west and north by the island of Colabai, or Old Woman's Island, Bombay Island, and the laland of Sulsette. The first two nre separated only by a narrow creek fordable at low water, and Bombay Island was joined to Saisette by a causeway constructed in 1805. On the east side of the harbor, between it and the main land, is Butcher's Ialand, distant aloout 4 milies from Bombny; and Imnediately behind lluteher's Island is the famone island of Elepisanta. About 3 mifes sonth from Butcher'a Island is the lsiand of Caranjah, on the west-
om aide of which, next the harbor, ia an extenaive shoal. Southwest from Caranjah, dictant nbout 5 milen, is Tull Point ; between which and Cclabah, or Old Woman's Island, is the entrance to the harbor. There $i_{b}$ n light-house on the southern extremity of Colubah Island, elevated abont 160 feet above the level of the sea, which In clear weather may les seen at the distance of 7 leagues. The point on which the lighthouse standa is surrounded on all sldes by an extensivo reef of rocka divided lnto prongs: of these, the most dangeroua is the prong atretching southwest about 8 milea from the light-house, and forming tha northern bonndary of the entrance into the harbor. The reef, stretching west-northwest from Tull Polnt about 8 miles, forms tho southem lat ndary of the entrance; the breadth of the channel between them being about 8 miles, with a depth of from 7 to 8 fathoms. In going into the harbor, it is necessery to clear a s ink en rock, Jying almast due east from the light-l use, at aiout $1 \frac{1}{2}$ mile distant; and also a bank, f ed the middle-ground, lylng rearly oppoeite to ani avout 11 mile from the southern extremity of the town.-Dfe Nicholson and Watson's Pian of Bombay Hirbor.

Docks.-Bombay is the only port of consequence in Britiah Indis in which the rise and fall of the tlde are so considerable as to admit of the formation of extensive wet doeks. At ordinary spring-tides the rise is about 14 feet, but oceasionally si high as 17 feet. The capacious docks constructed by the East India Company are their property, and are for the most part under the direction of Parsees, who, exeepting the Chinese, are the most industrious and intelligent people of the Last. Merchant vesseis of the largest class, or from 1300 to 1400 tons burden, for the cotton trade to China, have been built ln these docks. Frigates aud line-of-battle ships have also been occaaionally constructed ln them, sometimes under the exclusive direction of Parsee artificera. The timber having to ise brought from a great diatance, shlpa built at Bombuy are very costly; but being, contrury to the practice In other parts of India, entirely constructed of teak, they are the most durable vessels in the world, requiring little repair, and often running 50 or 60 yeurs. Being for the most part buit by natives, without any very strict application of the rules of the art, they are cominonly, though not aiwaya, heuvy sailers.

Com nerce, etc.-The amall and sterile ialand of Bombay aucords no produce for exportation; indeed, hardly a week's consumption of corn for its inlabitants. Nor does the whole presidency of Bombuy, although comprising about 130,000 square miles, and from $8,000,000$ to $9,000,000$ inhabitants, with a net revenue in 1848-'49 of $£ 2,460,000$, yield, with the exceptlon of cotton, rice, and coffec, any of the great colonial ataples, such as augar and indigo; a cireumstance which muy, perhaps, be ascribed to the impolitic restraints upon the employment of British setticrs and capital that were long imposed by Jaw, and acted upon with peculiar rigor in this and the sister presidency of Madras, in contradiatinction to the greater latitude afforded in Bengal. Bombay is also much less favorathy situated, in respeet of internal communieations, than Calcutta. The Ganges and its tributary atreains intersect the richest provinces of India, and give Calcutta a vast command of injand navigation; whereas all the inland trade of Bombay has to be carried on by means of rouds that are scidon availablo for carriages and which can be used only by pack-bullocks and camels. Tie transit dutics, by which the inland trede wus grievously oppresaed, have been aboliahed; and if this judicious measure be followed up by the formation of tines of railwaya to the principal markets in the interior, a great increase of the trude of tho town and improvement of the presidency muy be expected.

The principal trado of Bombay is carried on witi China, Great Britain, the countries on the Persian and Arabian gulfe, Calentta, Cutch and Scinde, the Mala-
bar coast, foreign Europe, etc. The imports from China consist principally of raw. sillk, sugar, and sugarcandy, ailk piece goods, treasure, etc. I The principal articles of export to Chine are, raw cotton, oplum ( 18,000 chesta), principally from Malwa, sharks': fins and fish mawn, sandel-wood, pearls, etc. The exports to China being mnch greater than the imports, the returns for several yeare past have been made to a large oxteut in bills on London, and on the Indian governmenta, drawn by the merchants in China.
The trade with the United Kingdom has been regularly increasing since the abolition of the restrictive syztem. The chief articles of import from Great Britain are, cotton and woolen atuffs, cotton yarn, hardware, copper, iron and lead, glass, apparel, fur, atationery, wine, etc. The principal articles of export to Britain are, raw cotton, raw silk from China and Parsia, ivory, pepper, and spices, piece goodk, coffee from the Red Sea, and wool. The export of the last-mentioned article increased with extraordinary rapidity, the quantity ghipped for England in 1838-'34 being only 69,944 lbs. ; whareas the shipments for England in 1840-'41. amounted to $8,428,055$ lbs. But it has aince continued nearly stationary. At present the principal aupply of the article is drawn from Cutch and Sojude, and from Marwar, ria Guzerat; but active measures have been taken by government for improving the flocke in the pastoral country of the Decean, po that a further and very conaidersbla increase of this naw and important trade may be anticipated. .
Bombay Presidenoy, the most westerly and the smallest of the three presidencies of British India, mostly between lat. $14^{\circ}$ and $24^{\circ} \mathrm{N}$., and long. $72^{\circ}$ and $76^{\circ}$ E., having northwest and north the Guicowar's dominions, east the territorice of Indore and the Nizam, south Goa, Mysore, and the Madras presidency, and wast the Indian Ocean. Area, with Scinde and Sattara, 120,065 aquare miles. Population 10,485,017, and is composed of the following subdivisions: Bombay lsiand, Poonah, Ahmeduugrur, Candeish, Dharwar, South Jaghiredars, South Concan, North Conean, Surat, atc., Baroach, Ahmodabad, Kaira, Sattara, etc. The Western Ghauts separate tile western or maritime from the castern districts, which latter form a part of the great table-land of the Deccan. In the north the mountains belong to the Sentpoora and other ranges connected with the Vindhyen chain. Prineipal rivers, tho Nerbudda, Taptee, Mhye, end Sabermutty, falling into the Gulf of Cainbay. Above the Gliauts, the rivors are tributary to tile Godavery and Kistnah. Climate for tile most part leas hot and more haalthy than in the other presideucies, a great part of the country being under the infiuenee of the aea-hreezes. Rice and cotton are the f.incipal artieles of culture, and the cotton of this presidenoy is decidedly superior to that of the othere. Soma bugar and indigo are rnised in Can©wis. Opium la nowhere cultivated, and other gre "captos of Indian produce are only prodnced :. .asall phantities; but in return, the cardamoms, pepper, and toak, exported from India, are almost excluaively the i. it th of this region. The northern districts are famuna for thoir great variety of fruits; cocoa pelimn cover a very large extont of sundy land in the Concan, ate.; wool has lately been exparted in considerable quantities from Bombay; and great exertions huve been made to latroduce the culture of silik. The cattle of Gujerat are a large and fine breed. Weat of the (ihaute, the ox end buffalo are almost the only domestic animals. Tho whole presideney ia assebsed under the native village system of India, except the districth of Surat and Kairn, where the ryoucarry system da in force. In the capital of anch colleetorato is tine seat of a British collector and a judge, aubordinata to the central court of Bombay. A few years ngo the army comprised about 30,000 men and officers, of whom 6250 were Europeans. Tho whole of the Indian marine ls attuched to this presidency. In the south there aro
many native and Roman Catholic and Nestorian Christians. The Parsees are now almost confined to this part of Asia. Revenue, 1849, 24, $\mathbf{6 0 8}, 876$ rupees. There are in the presidency an English eplseopal bishopric with 24 clergy, a Scottish kirk, and Roman Catholic establishments, which receive government ald. E1phinstone college was founded in 1837, and there are 120 schools for the native Hindoos, in which from 800 to 900 boys receive education, besides nearly 2000 ma tive village schools. Bombay was the earliest possession of the British in the East. It was ceded by the Moguls to the Portuguese in 1530, and it came into the possession of the English in 1662 as a part of the dowry of the Infanta of Portugal, on her marriaga with Charles II.; bnt by far the greater patt of the terrltory has been acquired between 1803 and 1818.—See India.

Bombazine, a kind of silk atuff, originally manufactured at Milan, and thence sent into France and other countries. Now, however, it is manufactared in large quantities and of a good quality in Great Britain as well as on the Continent.
Bomb-vessel, or Bomb-ketoh, a small ship of unusual strength, employed for throwing bombs into a fortresa; said to have been invented by M. Reyneau, and firat used at the bombardment of Algiers. Till then it had been judged imprecticable to bombard a place from the $\mathrm{pan} .-$ E. $\mathbf{B}$.

Bond, in Laur, is a deed whereby the party obliges himself, his exeeutors, or administratore (and, if the deed so expresa $i t$, his heirs alao), to pay a certaia sum to another at a day appointed. If this be all, the bond is called a simple one (simplex obligatio). But there is generally a condition added, that, if the obligor does some particular act, the olligntion shall be void, or elee shali remain in full force; as, payment of rent, performanes of covenants in a deed, or repayment of a principal sum of money torrowed of the obligee, with interest ; which special aum is usually one-half of thr penal sum specified i.. the bond. In ease this condition is not performed, the bond becomes forfeited, or abselute at law, and charges the obligor while living, and, efter his death, his personal repreeentatives, and lisa heirs if the heirs be named in the bond. In ease of a failure to perform tha condition of tha bond, the obligee can recover ouly his principal, interent, and expenses; if the bond were given to secure the payment of money, or if it were given to secure the performance of a covenant, he can recover only searonable damages for the breachi.-E. A.

Boves of eattle and other animals are extensively used is' the arts, in forming hundles for knives, and various other purposes; hat of lata years they inave been of most importance in agriculture. When employed in tie latter, they are, in most instances, ground or reduced to powder, and are commonly used as manure for turnips, boing in general drilled in with the seed, though somatimes, nlso, they are sown broadesat, and with other eropa. The quantity used varies from alout 25 bishels of dust to athout 40 busiels large an acre. Their effect is sald to to comsiderally incrensed when they have undergone tho process of fermentation. They were first used in England on a largo acala as a manure in Lincolnshire; and there can the no doult that their extensive employment in that county ilas been one of the chief eauses of its rapid limprovement, and of the high state of cuitivntion to which it has attained. Bone-dust is now, however, very fargely used, and ite influence in inereasing the crops of corn and turniph, and consequently, also, the supplies of butcher's meat and farm manure, has been quite extraordinary.
Book-keeping, the art of keeping the necounts and books of a merchant. Book-keaping by dontle entry moans that mode or ayntem in which every entry is doulie, thint is, has both a deltor and a creititor. It ia called siso the Italian method, hecause it was
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fivat practiced in Vonice, Genon, and other towns in Italy, where trade was conducted on an extenalve acale at a much earlier date than in England, France, or other parts of Europe.". This method, however familliar to merchants andi book-keepers, seems intricate to almost ell who have not practiced fit; nor is the dryness and difficulty of the task much lessened by the printed works on the subject, which, having been compiled more by teachere than by practical merchants, contain a number of obsolete rules and unnecessary details. To dlscuss this subject fully would require more space than could be appropriated in this work. We therefore refer our readers to the reliable volumes of Mr. Marsh (published by Appleton \& Co., New York) and other writers.
Books (Ger. Bücher; Du, Boeken; Da. Böger; Sw. Bücher; Fr. Llvres; It. Libri; Sp. Libros; Port. Limos; Ruse. Knigi; Pol. Ksiaski, Kniegi; Lat. Libri), written or printed treatises on any branch of science, art, or literature, composed in the view of instructing, amusing, or persuading the reader. Ancient books were originally boards, or the inner bark of trees; and bark is stlll used by some nations, as are also skins, for whleh latter parchment was substitnted. Papyrus, an Egyptian plant, was adopted in that country. Books whose leaves were vellum were Invented by Attulus, king of Pergamus, about 198 n.c., at which time books were hi volumes or rolls. The MSS. In Herculanoum consist of papyrus, rolled and charred, and matted together by the fire, and are abont nine laches long, and one, two, or three inches in diameter, each being a separate treatise. . The Pentateuch of Moses, and the history of Job, are the most ancient in the world; and in profane literature, the poems of llomer, though the names of othera still more ancient are preserved.-Haydn.
Prices of Booke.-Jerome states that he had ruined himself by luying a copy of the works of Origen. A large estate was given for one on cosmography, by Alfred, about A.D. 872. The Roman de la Rose was aold for above £30; and a Homily was exchunged for 200 sheep and five quarters of wheat; and they usually fetched double or treble thelr weight in gold. They sold at prices varying from $£ 10$ to $£ 40$ each, in 1400 . In our own times, the value of some volumes is very great. A copy of Macklin's Bible, ornamented by Mr. Tomkins, has been deelared worth 500 gulneas.-Butler. A yet more superb copy is at present ingured in a London office for $£ 3000$,-Times. Il Decamerone of Boccacio, edition of 1471, was bought at the Duke of Roxburgn's asalo by the Duke of Marlborongh for £2260, June 17, 1812.-Pinlutis. A copy of the "Mazarin Bible," being the first edition and first book (ver printed (by Guttemberg at Mentz, in 1455), was sudat auction In London, in April, 1816, for $\mathbf{5 0 0 0}$. This eopy, the only one known to exist exeept 10 in publie libraries, is now in a private library in New York.-Id.
Irinted Books.-The first printed books were trifling hymns and psalters, and, being printed only on one side, the leaven were pasted back to back. The tirst printing was, as a book, the Book of Poalms, by Fanst anil Schweffer, his son-In-luw, Aug. 14, 1457. Several works wero printed many years before; but as the inventors kept the secret to themselves, they sold thelr first printed works as manuscripts, This gavo rise to an adventure that brought calamity on Faust. He began in 1450 an cdition of thn Bible, which was finished $\ln 1460$. The second printed was Cicero de Offciit, 1466,--llwark. The first book printed In England whs The Gome and Play of the Chesse, by Caxton, 1474. The first in Dulilin was the Liturgy, in 1550. The first clessical work printed in Russla was Com. Nepotis Vite, in 1762. Lueian's Dialogues was the first Greek book printed in Americe (at Phllatlelphln), 1789. Books of astronomy and geometry were all tlestroyed in England as belug infected with maigle, 6 Rdw. VI. 1852.-Stuwe'a Chmides. Accordlag to Pritignew
(Biblio. Suserv.), the first book printed with movable. types was the Latin Bible, printed by John Guttemberg at Mayence, about 1455." It was in' two folio volumes; and so excellent was the workmanship, hoth In type, Ink, paper, and press-work, that it has scarcely been eurpassed since. * The succeeding editions for 200 years were mach inferior. "This edition is called the Mazarin Bible, as a copy was first found in the library of Cardinal Mazarin. Only 20 copies are now known to exist, all but one being in pubile libraries in Europe. Specimens of the block books, printed with engraved wooden blocks, Instead of type, are now very rare. Of the Biblia Pauperum, done in this way, only two copies exist, one of which belongs to a citizen of New York.

Copyright is the right whieh the authors of books or treatises claim to the exclusive privilege of printing, publishing, and selling them.

Books are divided into classes, according to the mode in which the sheets of the paper on which they are printed or written are folded: viz., folio, when the sheet is folded into two leaves; quarto, when folded into four ; octaro, when folded into eight; duodecimo, when the sheet is folded into twelre, etc. In making these classifications, no attention is paid to the size of the sheet.

Progress and present State of the Law as to the Copyright of Books.--It has been doubted whether, in antiquity, an author had any exclugive right to a work, or whether, having once published it, he could restrain others from copying it and selling copies. We incline to think that he could. The public sale of copies of works is often referred to in the classics; and in such a way as warrants the inference that they were productive to the anthor, which could not have been the case had every one been permitted to copy them at pleasure. Terence, in one of his plays (Prol. in Eunuch. 1. 20), says, Fubulam, quam nunc acturi sumus, postquam cedilea emerunt; but why should tho magistrates have bonght it, had it been free to every one to copy it ? It wonlal have been singular, indeed, had it been otherwise. Of all the species of property a man can posseas, the fruite of his mental labors eeem to be most peculiarly his own. And though it may, wo think, be shown that many serions inconvenieaces would result from giving the same absolute and intermlnable property over inleas that is given over material objects, these inconvenlences could hardly have been perceived in antiquity. It will also be olserved that in antiquity a copyright was of much less value than in modern times. Books could then only be multiplied by copying them with the pen; and If any one chose privately to copy a work, or to buy it of another, it must lave been very difficult to hinder him; but when printing lad been introduced, the greater cheapness of books not only extended the demand for thein in far greater proportion, and consequently rendered copyrights more valuable, but it aiso affordod the means of preventing their piracy. Printing la not a doviee by whleh a few copies of a book can be olitalned at n cheap rate. It is productlve of chenpness only when it is employed upon a large seale, or when a considerablo impresslon is to be threwn off. Anil hence, after Its invention, plraey could hardly be committed in secret: the piruted book had to be brought to market the frand was thus sure to be tetected, and the offendling party might be prosceuted and punished.

For a consldarable time after the invention of printIng, no questions seem to have oceurrod with respect to copyrights. This was occasioned by the early adoption of the lleensing syestem. Governments soon percelved the vast importance of the powerful engine that had heen brought into the field; and they endeavored to avail themselves of its energles ly interdleting the puhlication of all works not previously liconsed by authorlty. During the continuation of thils aystem, piraey was effectually preventorl. The licensing act ( $18 \& 14$ Chas. II. c. 2), and the previous acts and proclamations to the enme effect, prohibited the printing of any book
without consent of the owner, as well as withont a l1oense. In 1094 the licensing act finally expired, and the prese then became really free. . Instead, however, of the summary methods for obtaining redress for any invasion of their property onjoyed by them undar the licensing acts, authors were now laft to defand their right at comanon law; sad as no author or bookseller could procure any redreas for a piracy at common law, except in so far as he could prove damage, property in books was virtually annihilated; it leing in most cases impossible to prove the sale of one printed copy out of a hundred. Under theme circumstances, applications were made to Parliament for an act to protect literary property, by granting some speedy and effectual method of preventing the sale of apurious copies. In consequence, the etatute 8 Anne, c. 19 , was passed, securing to authors and their assignees the exclusiva right of printing their books for 14 yeare certain, from the day of publication, with a contingent 14 yeara, provided the author were alive at the expiration of the first term. Persons printing books protected by this act, without the consent of the authors or their asnignees, were to forfeit the pirated copies, and $1 d$. for every sheet of tho asme. Such books as were not entered at Stationers' Jiall were excluded from the lenefit of this act.
Every one mnat be satisfied that 14 years' exclusive possession is far too short a period to indemnify tho author of a work, the composition of which has required any considerable amount of labor and researeis; though 28 years is perhaps, all thinge considered, not n very improper period. But the grand defeet of tho atatute of Anne conaisted in ite making the rigint to the excluaive posseasion for 28 years contingent on the fact of a person having lived a day more or less than 14 years after the publication of his work. This was making the enjoyment of an importart right dependent on a mere accidentai circumstance over which man has no control. Could any thing be more oppressive anti unjuat than to hinder an author from bequeathing that preperty to his widow and children thut would have belonged to himaelf had he been alive ? Nothing, indeed, as it appears to us, can he more obvious than the justice of extending ali copyrights to the same period, whather the authors be dead or not.

In the Uinited States, the jurisdiction of this nulject in vested in the Federal government iny the Conntitntion (art. 1, sec. 8), which declares that Congress shall have power "to promete the progress of reience and useful arts, by aecuring for limited times, to nuthors and inventors, the exclunive rigit to thair respective writings and diseoveries."

By the acta of Congress, May 31, 1790 (c. 15), and April 20, 1802 (c. 86), the authors of mapa, elarten, books, engravings, etehings, stc., being citizens of the United States, or resident therein, are entitled to the exclusive right of pullishing for 14 years, and, if the nuthor be living at the end of that period, for an additional term of 14 yours.
The English law does not distinguish ietween residents end non-residents, aliens, like the A merican law.

A copyright may exist in a tranaiation, or in part of a work (as in notes or additional matter); imt a boma jule abridgment of a trook is not considered in Eingland and the United States a violution of the original copyright. So a person mny use a fair quotation, if by appiicution he makee it part of his own work; but ean not tako the whole, or Jarge part, under pratense of quotation. If an oncycioperlia or review coples so inuch of a hook as to serve as a abbatitute for it, it loecomes liaile to an aetion for a violation of the law. An encyciopedia in not allowed by its transeripte to sweep up all modern works. In Germany abriligments are not protected ms in the United States.
The great practical difficulty in interproting tho eopyright acts is in dintinguishing between an orig. inal work and a copy made, animo furandi, frout one
already in existence. The following is a summary of Mr. Godson's remarks on this sulject:
"The identity of a Itterary work consista entirely in the sentiments and language. The same conceptions, ctothed in the same words, must necessarily be the mame composttion; and whatever iuethod is taken of exbibiting tbat compoattion to tho ear or the eye, by recilal, or by woriting, or by printing, In any number of coptes, or at any period of time, the property of an. other persom bas beon violated; for the new book in tilli the Identical work of the real author. Thua, therefore, a transeripk of neariy all the nentiments and language of a book fa a giasing pirucy. To copy part of a book, elther by tuking a fow pagea verbatim, when the sentiments are not new, or by $\mathrm{fm}(-$ fation of the princtpal Ideas, although the treatises in other reapeets are different, is also cousidered to be ittegal. Although It was held by Chtef-justice Ellenborough that a variance in form and manner ta a varianco in subetance, and that any material elteration which is a melionation can not be constdered as a piracy ; yet a piracy ia commttted, whether the euthorat. tempt an original work, or call hta book an abridgment, if the princtpal parts of a booik are mervilety copled or unfairly varied. But if the main dcalgn be not copted, the eircumatance that part of the compositton of one authoris foand in another to not of itself ptruey aufficlent to support an action. A man moy fatrily adopt part of the work of another: the may so make use of another'a labora for the promotton of sclence, and the benefit of the pablif; but having done ae, the question whil be, Was the matter so taken used falrly with that view, and without what may be termed the animus furatidi In judging of a quotation, whether it ta fair and candid, or whether the person who quotea has been swayed by the animus furandi, tho quentity taken, and the manner in whitch it ta adopted, of courso must bo conatdered. If the work compleined of be in stibutance a eopy, then it is not necessary to show the intention to ptrate; for the greater part of the matter of the book having leeen purioined, the intention ta apparent, and other proof is superflaous. A piracy has undoubtedly been committed. But If oniy a mall portion of the work ta quoted, then it becomes necessary to show that th was done animo furandi, with the Intention of depriving the author of hta jast reward, hy giving hits work to the puhile tn a cheaper form. And then the niode of dolng tt becomea a aubject of inquiry; fer it is not auftictent to conatitute a piracy that part of one authrr'a hook fa found in that of another, untess it be nearly the whole, or so much as will ahow (belog a question of fact for the jury) that it was done with a bad futent, and that tho matter which accompanien it has been colorably introdueed,-P. 2to-217. If a work be of such a tlbelous or mischievous neture as to affect the publio morals, and that the aotbor can not matutain anaction at law upon it, a court of equity will not interpose with an injunction to protect that which can not be cailed property. Even if there be a doubt an to ftes evil tendency, the tord chisueclior witit nut interfere."-Gonson, p. 8 t2.

Expediency of limiting Copyrighta to a reasonable Term.-It is argued by muny that copyrights shoutd Lo made perpetual; that, were this done, men of talent and jearning would devote themselves much more readily tiun at present to the composition of works requiring great labor; inasmuch an the copyright of euch works, were i. perpetuul, would ie an alequate proviaion for a family. But we doubt mueh whetiser these enticipations woult be realized. Most books ur manuacripts are purchased by the bookseliers, or published upon the presumption that thero will immediately be a consideralse demand for them; and we apprehend that when copyrights are secured for 42 years certain, very little more would be given for them weru they made perpetual. When an annuity, or the rent or profit ariaing out of any fixed and tangible property, with reapect to which there can be no riak, is nold, if the number of years for which it is to contisue be consideraile, the price which it is worth, and which it fetehes, does not differ materially from what it would bring were it perpetuai. Hut the copyright of un unpuhilisined work in, of ail descriptions of property in which to speculate, the most hnzardous, and tho chnnces of reaping contingent advantages from it, at tho diatance of 42 yeare, would be worth very jittlo indeed.

Perhape the period of 28 yeara has been ndvantegeous) y extended to 42 ; but we are satinfled that more injury than nufit would resuit to jitorature by extending it beyond this term. In France, copyrights
continue for 20 years after the death of the author. In must of the German States they are perpetual; this, however, until very recently, hardly indemnitied the authors for the ease with which spurious copies might be obtained from other States. But by s lute resolution of the Diet, in copyright eecured in one State is good in all.

International Copyrights.-The establishment of an internatlonal copyright system, that should enalise the uthors of one country to secure the copyright of their works in other countries, has of late excited a good deul of attention. We doubt, however, whethor the sdvantages that would result from such a system, were It established, would be so great as many seem to suppose. No doubt it would be advantageous for the authors of popular works in Great Britalis unt the United States, for example, to be able to secure a copyright in both countries; but the real question $\mathrm{I}_{\mathrm{s}}$, wouid the interests of literature and of the public be promoted by such arrangement? Now we incline to think that thls question muet be answered in the nogative. The eingle market of either Great Britain or the United States is quite large enough to secnre a sale for really good works sufficlent to afford smple encouragement to their suthors; and such being the case, it is diflicult to see on what ground the republication at s cheap rate in the one country of books originally published in the other should be prevented. Indeed, such prevention would appear, by obstructing the circulation of knowledge and of amusement, to be injurious to both. It has, it is true, been alleged that if we had a copyright system in common with England, English and American books might be published at a leas price, Inasmuch as the extension of the market would securo them a larger sale. But though this result might, we doubt much whether it reully would, happen. We apprehend that then, as now, authors snd publishers would impose such prices on their works as they supposed would reulize the largest amount of profit, and that if they thought a high price more likely to do this than a low one, it would be preferred. The extensive reprinting of cheup editions of French works that has for a lengthened period been curried on at IBrussels has certainly bean disadvantageous to the literuti of France. Still, howaver, the :izatict of that kingdion seems to be sufficlentiy oxtensive to insure the unlimited production of works displaying the greateat talent, reseureh, and Industry ; and it is plain that if the production of valuable works be not checked in France by thoir being roprinted alirond, the injury done to French men of lettera redounds to the udvintage of every foreigner who has occusion to look into or consult their works. Every effort shouid tie mude to prevent copyrights beligg invaled ly pirates at home, and by the clandestlne importation of books printed abroad; but fartier than this we should not go. We are well convenced that it is for the ndvantage of the putble and of literature that nations should have full liberty to republish ouch otioer's works in such forms and at such times and prices as they may think fit.
The renl evil with whicil our literature has to contend ortginates in the burefuced piracy carried on at home, and not in the proceedings of forelgnars. The latter may, perhaps, interfure a little with the sale of native works, by supplying the publle with foreign thstesi nf home editions; but the proceedings of the indigenous pirates are ten times more mischiovous. 'They consist, for the most part, of knaves and drudges, without talent or learning of any sort, save only that of transmuting and adulternting the lubors of others, and disgulsing thoir own ruseality. Such persons fusten like lecehes on any now work of talent, research, and induatry ; they forthwlth announce some system, compilation, or abridgment of the same sort, every ilea mull statement In which is stolen; and then publish their spurious rubbish at a low price, advertles it as
boing decidedly the beat work on the subject, and find numbere of newapaper writers reedy to puff off and eulogize their disinterested and meritorious labors I It is difficult, we admit, to deal with such a nuiasnce, and it can not, perhaps, be abated by legislation. But while we regret the fact, there can not, we believe, be a question that courts and juries have for a lengthened period inclined too much to a lenient interpretation of the law as to piracy ; and that literary plunderers, whose robberies are but little disgulsed, too often escape with Impunity.

By the following table it will be meen that the forelgn trade in books and maps is limited. Tho imports are from England and France principally, and also a fow from Germany.
Donestio Exponte fron the Unitmb States, yor the Yraps endino June 30ti, 1853, 1854, 1855.

|  | 1858. | 1864. | 1855. |
| :---: | :---: | :---: | :---: |
| Fooke and Maps | \$142,604 | \$187,336 | \$207,218 |
| 1'ajer and Statlonery.... | 122,2:2 | 191,848 | 185,637 |

Imforts of Paper anj Booke nto tile United Btatig,
Foa tife Years endino Juna 30TH, 18\%8, 1854, 1865,

|  | 1853. | 1804. | 1855. |
| :---: | :---: | :---: | :---: |
| Faper and 8tationery.... | \$002,059 | \$755,829 | \$768,129 |
| Bookn and printed motter | 723,22t | 917,044 | 793,431 |

Boom (Dutch boom, a beam), in naval language, a long spar for spreuding out the clew or corner of particulur ssils; as the jib-hoom, studding-sail hoom, main hoom, square-ssil boom, etc. Boom denotea also a strong chain or cable stretched across the mouth of a river or harbor, with apars lashed to it , to prevont the entrance of an enemy's ships.-E. B.

Booming, smong sallors, denotes the application of a boom to the sails, in order to aceelerate the speed of the ship.--E. 13.

Boote and Shoes, the external covering for the legs and feet, too well known to require any description. Boots are sald to have been the invention of the Corians, and were made of iron, brass, or leather; of the last materisl, some time after thelr Invention, boots were known to the Greeks, for Homer mentions them about 907 n.c.-FFor an account of the value of the boots and shoes annually produced, see Leatiren, and for tho duties on those imported Tarifr.

Borax, or Tincal (Arul. Burak; Pers. Tunkar), one of the sults of sodu. It is white, transparent, ruther greasy in its fracturs; its taste is styptic, and it converts sirup of vlolets to a green. It readily dissolvea in hot water, and swells and bubbles in the tire. It ia of grest use as a flux for metals.-Tuoason's Chemitry. This snlt is found in a cryatallized state at tho bottom of ecrtain lukes in Thibet, and in various localitice in Persiu, China, South America, and Europe. Formerly, however, the domand of Europe was alnost wholly supplied froin the East, and cepecially by importations from Thibet, where the salt is comparatlvely abundant. Crude borax, when imported, is called tincal, being enveloped ha a futty matter, from which it has to be separated by a process that was long kno *n only to the Venetinns and Dutel. Large quantitios uro supplied from the fumoua lagoons near Monte Cortolo, in Tuseany. Theno lagoons, which occupy a large extent of surface, coneiat of an infinlte number of low volcunoes, and springe in a turious atate of obullition; the ground, which shakes and burns benenth the feet, is covered with erystalizations of sulphur and other minerals; the wholo scene presenting a atriking pleture of the most tremendous energy und sterility. The vapors that are constantly burating forth from the hoiling lagoons helng foumb to contain boracle acid, It occurred to a most ingenlous person, a M. Larderel, to construct pans through which tho vapora being mude to pass inpregnate the water in them with the acid. The pans are kept boillng ty the heat of the lugoona; and the water being evaporated, the acid io deposited lu crystala. In consequence

## BOR

of this discovery, the lagoons, from being altogether worthless, have become most valuable. From 10,000 to 12,000 ponnds ( 12 ounces each) of acld were, a fow years ago, daily produced; and thly vast enpply, and the facility wlth which borax may be obtained from the acid, bas occasioned a great reduction in its price, and enabled it to be much more extensively employed than before,-Nee Dr. Bowaina's Report on Tuscany.

Bordeauce, a large and opnlont commercial elty of France, on the Garonne, about 75 miles from its mouth, lat. $44^{\circ} 50^{\prime} 26^{\prime \prime}$ N., long. $0^{\circ} 34^{\prime}$ W. Population, in 1851, 180,927. The commerce of Bordeaux is very extensive. The Garonne is a noble river, with depth of water aufficient to enable large ahipe to come up to the city, laying open, in conjunction with the Dordogne and their tributary etreams, a large extent of country. The commerce of Bordeaux is greatly promoted by tho
famoge canal of Languedoc, which eommanleater with the Mediterranean. Hy Its means Bordeanx is enabled to furnish the south of France with colonlal products at nearly as cheap a rate as Marsellies. Wlaes, brandies, and fruits are the staple artleles of export; but the merchants apply themselves more partlcularly to the wine trade. Most part of thelr other buainess le confined to dealing on commission; bat thln they conduct almost invarjably on thelr own account. The reason they asaign for this is, that the difficulties attending the purchase, racking, fining, and proper care of wines, so an to render them fit for exportation, are so very great, an to make it almost impossilule to condnct the business on any thing llke the ordinary terms so as to satiafy their employers. Colonial products, cotton, dye-stuffs, pepper, hldes, tobacco, rice, form the priacipal artleles of inportation.
 French of Fombion Vregh of 300 tona Burden, mbom a Foreion Pozt to bormeacx, on faom borueaux to a Formen Pobt.

| Nature of Charges. | On a Proach or Brlish Vamel. |  | On $\frac{1}{\text { Forcign Vasal. }}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | in Frencli Money. | In Bierling Money. | $\begin{gathered} \text { In Franeh } \\ \text { Mopay. } \end{gathered}$ | In stering Monay. |  |
| Report and pitotage from mea to Bordeaux for a vessel drawlog 14 | France. e. | c a. d. | Frances.e. | $\boldsymbol{S} 0$ | d. |
| French feet wator (16 feet 80 in British) ........................ | 91898 | 8152 | 24780 | 918 |  |
| Lazaretto dues . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 61 | 91810 | 618 | 2181 | 10 |
| Moving vessel up and mooring her | 100 | 080 | 108 | 08 |  |
| Entering vesset at custon-house, and brokcrage Inward........... | 1000 | 100 | 1000 | 40 | 0 |
| Advertisement for freight and passengers, 6 fruncs (4s. 10d.) to each new spaper. |  |  |  |  |  |
| Tounage money and navigation dues on 800 tons | 4680 | 19160 | 12300 | 4911 |  |
| Visiting ofticers, clearancea, harbor master, etc. |  | 0 11 <br> 0 12 | 14 15 | 0111 | 10 |
| Manifest and fretght list <br> Mattast taken in or out, 1 frane 20 centimes per ton $\mathbf{~ ( i n . ) . ~}$ | 150 | 0120 | 150 | 018 |  |
| Consut's bli. Usual fees (Engliah vessela), 17 frances 25 cent: (15\%) |  |  |  |  |  |
|  | 2200 | 8100 | 24534 | 010 |  |
| Broker's conamission outward, care and attendsnce for expediting the vessel: |  |  |  |  |  |
| In battast, 80 c . per ton ( 6 d.), say 120 fr , at most ( C 410 R ) Loaded per charter or on owner'a acconnt, 1 fr. (10d.) per ton Loaded in frelght, 1 franc 50 centimes ( 1 s .3 d .) per ton | $\} 3000$ | 1200 | 2000 | 120 | 0 |
| Total.... | 140406 | 87710 | 2232 6) | 890 | 1 |

N. B.-No regard paid to the natore of tho cargo, as all gooda are imported etther for consumption or exportation, which does not expose vessela to pay more or less charges.

Wine,-The culture of the vine la by far the most important branch of industry carriod on in the department of the Gironde. The ennual produce of ita wines, the red growths of which are known by the general uame of claref, amounta to about $2,500,000$ hectolltres, or about $55,000,000$ imperial gallons. The vineyards are the property of about 12,000 familles, and the expensea of their cultlvation are estimated to amount to 45 or 46 million francs a year. The best growths are from the confines of the "Landes," behind Hordeaux; the secondary growths are chiefly the produce of the country between the Garonne nnd Dordogne, and the l'alus, a district of a strong rich soll bordering the banks of those rivers. The firat growths of the red wines are denominnted Iafite, Intomr, Chiteau-Morgaux, and Ifaut Brion. The first three are the produce of the district of Hout Medoc, northwest of Bordeanx, and tho last of the district callod dea Graves. These wines are all of the highest excellenco; their produce is very limited, and in favorable years sells at from 3000 to 4000 francs the tun, whleh containg 210 linperial galions; but when they have ficen kept in the cellar for slx years the price is toubled, so that even in Bordeanx a bottle of the best whe cun not bo had for less than 6 or 7 franca. The lafitte is tho most cholee and delicate, and is characterized by its ailky moftness on the palate, and ita charming perfunc, which partakes of the nature of the violet and the ruspberry. The Iatour has a fuller body, and, at the same time, a considerable aroma, but wanta the softness of the lafitte. 'The Chatteau-Margaur, on the other hand, is lighter, and possesses ail the delicate quaifica of the Lafitte, except that It has not quite wo high a flavor. The Haut Brion, again, has more apirit and boly than any of the precedling, but is rough when new, and requires to be kept 6 or 7 yeara in wood; while the
others become fit for hottling in much less time.Henderson on Wines, p. 184.
Among the secondary red wines, those of Rozith, Gorce, Leoville, and Larose, Bran-Mouton, PichonLongueville, and Calon, are reckoned the best. The thind-rate whes comprise those called Pauillac, Margoux, St. Jullien, St. Fitiphe, St. Nimiliom, etc. It is but seldom that any of theso growthn are exported in a state of purity. The taste of the Jinglish, for example, has been so much modified by the long-continued use of port, that the lighter wines of the Gironde would scem to us to want body. Hence it lis naual for the merchants of Hordeaux to mix and prepsre whes according to the markets to which they are to be sent. Thus the atrong rongh growths of the l'alus and other districts are frequently bought up for the purpose of strengthening the ordinary wines of Medoc; and there la even a particular manufacturo, called travail à r'A nglaise, which consista In adding to ench hogshead of Hordeaux wine three or four gallons of Alicant or Ilenjearlo (large quantliea of which are imported into llordoaux by way of Cette and the camal of Sanguedoc), half a galion atum wine, a bottle of alcohol, and sometimes a smsll guantity of hernitage. This mixture undergoes a alight degree of fermentation; and when the whole is sufflefently "fretted in," it la ex. ported under the name of elaret. This mixture chiefly conajsta of aecondary wines, the first-rnte growtins fallIng fur short of the demand for thent.- Hfendension, 1. 184; ace ilso Julliek, Tipegraphie des Vignolles, p. 203. Iiut even the first, ilase wines are most frequently intermixed with tho best seconinry growths; and It is eustousary to employ the wines of a superior to mix with anil bring up thoso of nil inferior vintuge. Hence we need not wonder at the statement of a gentioman who, after living twenty years in the best soel- Ines, bransport ; but leularly to business le they conunt. The icultles atproper care ration, are ble to coninary torme 1 products, rice, form
cOONT or A deaux to a on, I'ichonhest. The uillac, Mar, etc. It is exported in lish, for exhe long-conthe Gironde e it la usual and prepisre hey are to ho $f$ the l'alua t up for the ef of Mefioc; 9, called trao each hegsis of Alicant re impurted minl of Lana of alcohol, tage. This itation; and ," It is ex"ture chietly rowtis full. fendenson, Vignolles, p. at frequentowths; and superior to or vintuge. it of a genbeat nocl
oty in Bordeanx, doubted whether ha had tasted more than thres times any pure: wine of the firnt quality! The white wines of the Gironde are of two kinda; those called Grares, which have a dry, finty taste; and an aroma somewhat resombling cloves i of these, the principal are, Souterme, Barsac, Preignac, and Langon. These are said by Jullien to be tris-moelleux, ou, pour mieux dire, semi-liquoreus aset spiritueux. .is The white wines of the Gironde have for ceveral years past been adyancing in eatimation and value, and may be ssid, speaking generally, to come to us in a less adulterated state than tha red wines. $n$ About half the winas of the Gironde are aent to other parts of France: onefifth part is conqumed in the department; one-fifth is exported, the finest growths to England, but the larger quantity; to the north of. Europe and Holland; and about one-fifth part lo supposed to be converted into brandy. A person aocustomed to good soclety in Iondon, and, indeed, in most other parts of the country, would be apt to conclude: that French wines were consumed in England, to the almost total exclusion of other wines. But any such inference would be in the last degree erionequs. : The fact Is, that French wines are rarcly drunk, except by the upper classes, and their, consumption. Is inconsiderable, compared with that of the middle and lower classea. So much is this the case, that while, in 1852, 2,489, 850 gallons port, and $2,696,857$ gallons sherry, were entered for home consumption, the entries of all descriptions of French wines (including champagne, claret, Sauterne, and every thlng elae) mounted to only 475,948 gallons ! See jout, art. Wint. The purchase of wines, whether from the grower or merchant, Is always effected through brokers, some of whom have aoquired a reputation for securacy in diseectling the difierent flavors, and in traclag the reaults of the wines by certain measures of traiaing or treatment. Eugland takes off nearly half the highest-priced winen, snd very little of any other quality. Except in Bordesux itself, there is but a very moderate portion of the superior Medoe consumed in France. The eapltal takee off only second, third, and fourth rate wines. The Dutch, who are large consumers of Bordenux wine, go most economically to work. They send vessels to the river in the wine soason, with skilliful supercargoes, who go among the growers, and purchase the wines themselves cheaper eren than a broker would do. Thay livo on board abip, take their own time to select, and wait often for moaths before the cargo is completed; but they attain thair object, getting a supply of good sound wine, and at as low a rute, witt. all charges of shipping Included, as the wine-merchanta can deliver it into their stores in Bordenux. Thoy never purchase old whe; they tako only that nowly made, which, being without the support of stronger-bodied wines, must be consumed in the course of 2 or 3 years. They follow the samesyatem at Bayutne, where 2 or 8 shijs go anuually for the whito wines of Jurançon, etc. The cargo wines, which are the lowest class, are so manufactured that it is hardly possible to know of what they are composed. Thay are put free on board for $£ 2$ per hogshead and upward, accorling as thoy are demanded. They will not bear exposuro in a glass when shipping; the tasters have a small flat silver cup expressly for them. These whon are principally alipped to America and India, and some at a higher price to the north of Europe.

Branelies, atul spivita of Wine. --The quantity distilled in the neighiborhood of Horleaux is estinated at sbout 18,000 pleces, of 50 veltes each; ditto, in the Armagnao, 20,000 dittol ditto, In the Marmauduis, 8000 ditto; making in all 40,000 pleces, ordinary proof. Of this quantity France takes off ehout 28,000 pleces for consumption; England, 2500 ; United States, 10,000; Iatha, 2500 ; north of Europe, 5000 ; In all 48,000 pieces. Languedoc produces ennually about 40,000 pieces, of 80 veltea each, the greater part of which comen to llordeaux to be forwarded to the different jorta of the
north of France, or to foreign countries. France conrumes about two-thirds of the above quantity; the remalning one-third goes to the north of Europe. The prices of brandy are from 130 fr . to 150 fr . per 50 veltes, ordinary proof; spirits of wine, from 4 fr. to 5 fr; per velte, The greatest ahlpmenta of brandy take pluce to England from the port of Formay, on the Charente. Cognac, from which the brandy takes its name, and whene there are large distilleries, is a few leagues up the river. The quantity exported is far greater than what is made at Cognaci the .0 lesding distillers thers (Martel and Henessay) buying great quantitles from the small cultivators. = The greater part of the wines made a bout Angoulême, and thence down toward the sea, are of inferior quality, and fit only for making brandy ; and ao little do the prices vary, that the proprietors look upon it nesrly in the same light as gold. When they augment their capital by ssvings or profits, it is employed in kceping a larger stock of brandy, which has the further advantage of paying the interest of their capital by its improved value from age. England is said to recelve upward of 6000 pieces annually from Charente. At Bordeaux, as at Paris and Maraeilles, there is a constant gambling business in time bargaine of spirits of wine. It is in whe form of apirita of wine that nearly all the hrandy consumed in France is oxpedited, as in this form there is a great asving in carriage.-For an official account of the exports of wine and brandy from France, see Wing. The fruits exported consist almost entirely of prunes and almonds. The latter como prineipslly from Languedoc. Burdeaux posseases nome iron foundries, cotton factories, sugar refinerles, glass works, etc., but labor and living are too high to admit of lts becoming a conaiderable manufacturing city.

Banking Eistablishments.-The "Bordeanx Bank," which had a capital of $8,000,000 \mathrm{fr} .$, in shares of 1000 fr. each, was inco"porated, in 1848, with the Bank of France, of which it is now a branch. Its affairs have been well managed,-See Banxs, Fonergn.

Brohera,-No one is ullowed to act as a inercantile hroker in France who is not 25 years of age, and who has not served 4 years in a comncreial house, or with a broker, or a notary public. They are nominated by the govermment, after their qualifications have been ascertained hy the Chamber of Commerce. All brokers must deposit the sum of 8000 fr , in. the treasury as a guarantee for thoir conduct, for which they are allowed interest at the rate of 4 per cent. All foreignors are obliged to employ ship brokers to transact thelr business at tho custom-house; and although masters and owners of French vessels might sometimes dispense with their services, thoy never to so, finding it to be, in all cases, most advantageons to use their intervention. All duties outward on vessels and cargoes are puld by the shlp brokers, who invariably clear out all vesaels, trench as well as foreign.

Operation of the French Commercial System on the Trade of Bordeaur, etc.-The trade of this great city has suffered soverely from the shert-sighted, nntisoclal polley of the French government. This pulicy was first broadly laid down, and systemntically acted upon, by Napoleon; and wo lelieve it would not be difficult to show that the privations it entailed on the people of the Contionent powerfully contributed to nccelerate his downfill. Ibut those by whom he has beon succesded have not hitherto seen the expediency of re. turning to a sounder system; on the contrary, they have carrled, in somo reapects at least, the "continental systen" te an extont not contemplated by Napolcon. Notwithstanding the vast importance to a country like France of supplies of iron and hardware at a cheap rato, that which is produced by foreigners in oxeluded, though it mighit be obtained for a thlrd part of the price of that which is manufactured at home. A similar line of pollcy has been followed ns to cotton-yarn, earthen-ware, etc. And in order to forco the manufac-
ture of singar from the beet-r00*, oppressive dutias have been laid, not only on foreign sugar, but even on that imported from the French colonies. The operation of this system on the commerce and industry of the country has been most mischiavons. By forcing France to raise at home articles for the production of wisleh she bas no natural or acquired eapabilities, the exportation, and consequently the growth, of those articies in the production of which she is superior to avery other country, has been very greatly narrowed. All commerce being bottomed on a fair principle of reciprocity, a country that refuses to import must cease to export. By excluding foreign produce-by refusing to admit the sugar of Brazil, the cottons and hardware of England, the iron of Sweden, the linens of Germany, and the cattle of Switzeriand and Wirtemberg-France has done all that was in her power to drive the merchants of those countries from her markets. Thay are not less anxious than formerly to obtain her wines, brandien, and silks; inasmuch, however, as commerce ls merely an exchange of products, and as France will accept very few products belonging to othere, they can not, how anxious soever, maintain that extensive and matualiy beneficial intercourse with her they would otherwise carry on: they sell little to her, and their purchases are, of course, proportionally diminiahed. This, indeed, is in ail cases the necessary and inevitalle effect of the prohibitive system. It never faila to lessen exportation to the same extent that it lessens importation; so that, when least injurious, it nerely subatitutes one sort of industry for another-the production of the article that had been obtained from the foreigner for the production of that which had been sent to him as an equivalent.

France is not only extremely weli sitnated for carrying on an extensive intercourse with foreign countriet but she is largely supplied with several productior... which, were she to adopt a iliberal commercisi system, would meet with a ready and advantageons asle abroad, and enabie her to furnish equivaients for the largest amount of imports. The superiority enjoyed by Amboyna in the production of cloves la not more decided than that enjoyed by France in the production of wine. Her claret, Burgundy, Champagne, and brandy are unrivaled, and furnish of themselves the materials of a vast commerce. Indeed, the production of wine is, next to the ordinary business of agriculture, by far the most extensive and valuable branch of industry in France. It is stated by the landholdera and merchants of the department of the Gironde, in the adinirable P © tition et Memoire à I'Appui, presented by them to the Chamber of Deputies in 1828, that the quantity of wine annualiy produced in France amounts, at an average, to about $40,000,000$ hectolitres, or $1,060,000,000 \mathrm{gal}$ lons; that its value is not iess than from $800,000,000$ to $1,000,000,000$ franes, or from $£ 32,000,000$ to $£ 40,000,000$ sterling; and that upward of thres millions of individuals are employed in its production. In some of the southern departments it is of paremount importance. The popilation of the Gironde, exclusive of Bordeanx, amounts to about 450,000 individuals, of whom no fewer than 230,000 are supposed to be directly engaged in the cultivation of the vine. Here, then, is a branch of industry in which France han no competitor, which oven now afforde employment for about a tenth part of her population, and whieh is susceptible of indefinite extension. She has, in this single articie, the means of carrying on the most extcasive and iucrative commerce. "Le gouvernement Francaia," says M. Chaptal, in his work Sar I'Industrie Fłangaise, "doit les plus grands encouragements à la culture des vignes, soit qu'il considére ses produits relativement d̀ ia consommation intérieure, soii, qu'li les envisage sous le rapport de notre commence avec l'itranger, dont il est en effit ia bas essentielle."

But inatead of iaboring to extend this great branch of industry, government has consented to sacrifice it
to the Interests of the lron-founders, the cotton and IInen manufacturers, and the planters of Martinique and Guadaloupe! We do not, indeed, imagine that thay were at all aware that such would be the affect of their policy. Theirs is only one instance, among myrinds that may be apecified, to prove that ignorance in a ministry is quite as pernicious as bad intentions. The consideration, apparently not a very racondite one, that, notwithstanding the bounty. of nsture, wine wis not gratuitously produced in France, and conld not, therefore, be exported except for an equivalent, would seem never to have occurred to the ministers of Louis XVIII. and $\mathrm{C}^{\prime}$ arles X.' Bnt those whose interest. were at stake lid not fail to apprise them of the hollowness of their system of policy. In 1822, when the project for ralsing the duties on sugar, iron, linens, ete., was under discussion, the merchants of Bordeaux, Nantes, Marseilles, and other great commercial cities, the silk manufacturers of Lyons, and the wine-growers of the Gironde, and some other departments, presented petitions to the Chambers, in which they truly stated that it was a contradiction and sn absurdity to attempt selling to the foreigner without, at the same time, buying from him; and expressed their conviction that the imposition of the proposed duties would be fatal to the commerce of France, and would consequentiy inflict a very serious injury on the wine-growers and silk manufacturers. These representutions did not, however, meet with s very courteous reception. They were atigmatized as the work of ignorant and interested persons. The Chambers approved the policy of ministers; and, in their ardor to extend and perfect it, ald not hesitate deeply to injure branches of industry on which several millions of persons are dependent, in order that a few businesses, nowise suited to France, and the support of which costs her aeveral mililions a year, might be bolstered up and protected! It is piain, had there not been some powerfui counteraeting cruse in operation, that the exports of wine from France should have been very greatly augmented since the peace of 1815. The United States, Ruasia, Engiand, Prussia, and ali those countries that have at all times been the great importers of French wines, have made prodigious advances in weaith and population aince 1789 ; and had the commerce with them not been subjected to injurions restrictions, there is every reason to think that their imports of French wine would have been much greater now than at any former period. So far, however, from this heing the casc, they bave deciined in a most extraordinary degree. This is proved beyond all question by the following extract from a report made to the Council General of the Gironde in 1841, and published by ita orders and with its sanction. "Previousiy to 1790, the wine trade at Bordeaux had an immense development. The books of our most ancient housen, tranemitted down religiously from father to son, and the registrics of our lands, prove that in the years preceding 1787 our exports had reached more then 100,000 tuns of wine, 10,000 casks of brandy, and 5000 of vinegar. They also show that from 1200 to 1400 versela from the north took large quantities of wine, in return for their national produce, witich they ensily diaposed of among us. It was a nost luerative commerce, for we then sent 15,000 tuns to Prussia, 18,000 to Enginnd and Ireland, 6000 to Dantzic, 40,000 to Hamburg, l.ubeck, and Bremen, 15,000 to IIoiland, 7000 to Sweden, 5000 to IDenmark and Norway, and 12,000 to Rusaia. But at that period we had not ciosed our frontlers to the produce of all these nations; we received at moderate duties their woolens, linens, hemp, iron, wood, cattle, and other articies, the consumption of which was leas expenaive, and the quality better, than similar articies made at home, and forced on us by cuatoms duties. At present, notwithatanding the rapid inerease of commercial affuirs, notwithstanding the new nations of America, the advantages of a nore expeditions, certajn, and economical navigation, the
ton and irtinlque ine that effect of ong myrorance in tentlons. Idite one, wine was ould not, $n t$, would 1 of Loula interesta when the nena, etc. 3ordeaux, clal citles e-growers , presenthey truly surdity to the same ir convictiea would uld conse. vine-growtatlons did reception. ant and $\ln$ the policy and perfect tof indusre depenid9 guited to protected ul counterf wine from ented since Sussia, Enhave at all wines, have population m not been would have period. So y linve deis ls proved act from a Gironde in s sanction. denux had ur most anfrom father ove that in ached more randy, and om 1200 to ontities of which they at lucrative to I'russia, tzice, 40,000 to Holland, orway, and I not closed ons; we re ens, hemp, onsumption llty better, preed on 119 miding the thatandling 8 of a more gution, the
demands of nations increased in number nnd indnstry, and consequeatly more disposed to purchase for consumption, our commerce in declining in a most alarming manner. Anthentic documents prove that ia 1839 our axports only reached 1839 tuns to England, 2499 to Russia, 147 to Swedan, 342 to Norway, 2964 to Prassia, 612 to Denmark, 8188 to the Hana Towns, and 7621 to the Netherlands. Since then our exports have not locreased, $s 0$ that Instead of 100,000 tuns at least taken by the north of Europe from the dapartment of the Gironda previously to 1790 , not more than 25,000 tuns are taken at present. Yet tha taste for wine and the necessity to uae It have not been weukaned among the varions natlons; but the exaggerated duties with which lts introduction has been loaded only allow It to be consumed by the weslthy classes, who are every where the least numeroua. Theae duties are eatablished in retaliation of those which France lays on foreign productions. If the exportation of wins has diminished in so great a proportlon, the cauas must ba sought in the protective system. When the variations in the exporta of wins ara attentlvely axamined, and thalr decreasa looked to since 1822, when this systam attalned its helght, to 1840, it is limpossible not to be atruck with tha fact that these variations are intimately connected with the aystem Itself. The decrease in the exports of wine has followed tha increased development of the protective system, and tharefore we are forced to draw this conclusion, that it is this system which destroys our export trade. Yet foreign consumption is the most certain and moat profitable for Bordesux wines, and it is perticularly in the markets of the north of Europe and of England that the wines of the finest juality which our dapartment produces tind purchasers. Let us, then, Insist on the acceselty of reopening these markets, which hava been cloaed by tha enormous amount of duties imposed by foreignera In reprisal of those luid by us on thelr products."

Besides the injury inflicted on the wine trade by tha prohlititive aystem of comnercial policy adopted In France, and the retallatory measures it has provoked In other countries, It has suffered aeverely from the octrois and other dutles on Internal consumption. But the depression, though felt avery where, is greateat in the Gironde, which la eapeclally dependent on lits axport trade. This la strikingly evinced by the larga stocks of wina that remain in the hands of the growers snd merchants, and by the full in Its price. This hus, of course, reacted on the vineyarda, many of which have become all but unsalablo; and a stop has been put to avery aort of Improvement. Nor hava matters been in the least amended during the current year: on the contrary, they acem to ba gradually gettlng worse. Such is the poverty of the proprictors, that wine la now frequently seized and sold by the revenus officers in payment of arrears of taxes; and such la at present the extent of the evil, that In the course of thits year (1843) the committes of wine growers have spplicd to goverument for a loan of $2,000,000$ franca to be applled to the payment of taxes due by the wine growers.
Such are the effects of the restrictive syatem of policy on tha wine trade of France-on a branch of Industry which, as already seen, employs three millions of people. It is satisfactory, however, to ohserve that the lanl-ownera and merchanta are fully oware of tha souree of the misery in which they have been involved. They know thut they are not suffering 80 much from hastile or vindletlve measures on the part of foreigners as from the blind and aenseless policy of their own govermment; that they are victims of an attempt to counteract the most obvious principles-to make Frnnce produce articies directly at home, which she might obtain from the foreigner in exchunge for wine, brandy, etc., at it third or a fourth part of the expense they now cost. They can not export, because they are not allowed to imporf. IIence they do not ask for bounties and prohibitions; on the contrary, they disclalm all such
quack nost ums ; and demand what can alone be useful to them, nd beneficial to tha conntry-a free commercial system. And notwlthstanding the powerful Interests involved in the support of the prohilitive policy, we can not doubt but that, In the end, they will be compelled to give way; and that France, by opening her porta to a freer lmportation of foreign producte, will insura the proportional extenaion of her exporta of wines, brandles, silks, and other products, which she can furnlah more chaaply and of a better quality then any other conntry. It is reasonable to auppose that the experience that has been afforded of the rulnous effects of tha prohibitlve system, and tha more general dlffualon of correct ldeas with reapect to the real sources of wealth, will at no diatant period occaslon the adoption of such changes in the commercial legislation of France as way render It more conducive to her interest, and more in accordanca with the apirit of the age. Indeed, we incline to think that but for the unfortunate misunderstanding about the Turklah question, and the Irritation thance arising, a commercial treaty on a comparatlvely liberal footing would hava been already entered into hetween France and this country; and It la much to be wlahed that some auch arrangement ahould apeedily be completed. If, indeed, we were hostile to France, we should wish her to continua her present aystem, for it must effectually prevent her making any considerabla progress either in manufacturea or commerce; but we disclalm being actuated by any such feelings. We are truly anxious for her prosperity, for her sake and our own; for unless she ba surrounded by Bishop Berkeley's wall of brass, whatever contributes to her well-being must, in aoms degree, redound to the adventage of her neighbors.-J. R. M.
"Were such narrow and malignant politics to meet with auccess," gald Mr. Hume, writing in the middle of tha last century, and when tha prosperity of others was gencrully regarded with an evil eye, "we should reduce all our neighboring nations to the same state of aloth and Ignorance that prevails in Morocco and the coast of Barbary. But what would be the consequence? They could aend ua no commodities; they could tako nona from us: our domestic commerce itself wonld languish for want of emulation, exumple, and instruction; and we ourselvea should aoon fall into the aame abject conditlon to which we had reduced them. I ahall, therefore, venture to acknowledge, that nut only as a man, but as a British subject, I pray for the flourishing commerce of Germany, Spain, Italy, and even France itself. 1 am , at least, certsin that Great Britain, and all those nations, would flourish more did their soverelgn and ministers adopt such enlarged and benevolent sentiments toward each other." - Eissay on the Jealousy of Tirude.

Borneo, or, as it la called by tha natlyes, Brıné, an Island forming part of the great East Intian Archipelogo, and, next to New IIolland, which may be consithered as a apecles of continent, the largest in the known world. It reaches from about $7^{\circ} \mathrm{N}$. to $4^{\circ} \mathrm{S}$. lat., and from $109^{\circ}$ to $118^{\circ} \mathrm{E}$. long. Its length may be estimated at 750 mil $s 8$, its grentest breadth at 600 , and its average breadth at 350 . Its area has been calculated by llaron Melvillo, of Carnbee, at 12,745 geographical square leaguce. It exhlbits the usual insular structure, a mass of lofty mountains in tha centre, aloping gradually down to level and alluvinl tracta along the seashore. It is in every part intersected by fine rivers, inany of them navigable to a considerable distance from the aca. The interior of Borneo ts covered with lmmense forests, filled with wild animals, partlecularly orang-outnngs. A great part of the coast is marshy, so that it la in portions only thint it displaya the exuberance of tropienl fertility. Of all the East Indian Islands, Borneo ranks lowest as to civilization and lmprovement. Nothing, perhaps, has tended so powerfully to check Its progress as the solld and unbroken form of Ita coasts, lestitnte of those large bays or in.
land seas which have always proved the noreery of commerce.
The commerce of Bomeo, though not equal to its extent aod natural capacitiea, is by mo meand inconsiderable. , Gold is its principal export. ' Mr. Mitiburn estimates the annual quantity exported at 200 peculs, or $\mathbf{2 6 , 0 0 0}$ lbs, avoirdapois, which wouid coin into upward of 900,000 gaineas. Like some other commodities, it is divided, by a grotesque acale, into three kinds, called the head, the belly, and the feet; the first being tha beat, and the two othera gradually diminishing in value. "Camphor is exported to the extent of thirty peculs (3990 Ibs.), all to China, where it is more esteened than that of Sumatra. The singular Chinese luxuries of biche-de-mer, or sen-slugg and edible birds' nesta, are found in Borneo, as orer all the Indian Archipelago. Pepper to a considerable amount, canes and ratans of various descriptions, sago, and a littie tin, complete the list of exports. . The chief import is opimin to a very grest extent, with piece goeds, hardware, coarse cutlery, arms, and toys. By far the greater proportion of the trade is in the handa of the Chlnese.-E. B.
Boston, city; capital of Massschusetts, and metropolis of New Englaud, the second conmercial city, and the fourth in population in the United States of America, is mostly situated on a peninsula, 3 miles long, and a little more than 1 mile broed, st the head of Massachusetts Bay. The harbor extends from Point Alderton to Medford, a distance of 14 miles; is 8 mlies in width, and covers an sres of 75 square miles. It has a depth of water sufficient for 500 vessels of the largest ciass to ride at anchor in safety. The entrance is barely sufficient for two slips of a large ciass to sail abreast, and is defented by three fortresses, two of which, situsted on George's and Castle Islands, are on the largest scale, ard constructed with all the improvements of modern science; the third, or the citadel, on Governor's Island, is stlil incompicte, but, when finished, the defenses may be cousidered impregnable.

Tise territory now covered by the city was, in $\mathbf{1 6 3 0}$, a peninsula, connceted with the main land by a narrow isthmus : this tract contalned 600 acres-it was called Shawmut or Trimountain, and derived its name from
fts eprings, and three lofty hills. The spot was un. doubtedly selected for its security from the inroads of the Indians, an'! its facilities for trade, Before the Revolutionary War, Boston became the most commercial town in the colonies. The narrow limits of the peninsula have long since been found insumicient for the growth of the popalation, and her extended commerce. "Dorcheater Polnt, containing 600 acres, was firat annexed, then Noddle's island, comprising 600 acres more, and several hundred scres have heen reclsimed from the sea; but so rapid has been the increase of populstion, that the number of inhabitants of the suburbs within a few miles of the city limits nearly equals the city proper. Boaton lies in $42^{\circ} 21^{\prime} 27^{\prime \prime}$ N. lat., $71^{\circ} 8^{\prime} 30^{\prime \prime}$ W. long., from Greenwich, England. It is 105 miles seuth-southwest from Portiand, Maine; 216 miles from New York, tia Stónington, 236 via New IIaven and Springfield; 313 Philadelphia ; 411 Baltimore; 449 Wasihington; 990 Charlesfon, South Carolins, and 1838 from Now Orleans. The population in 1790 was 18,033 ; in $1800,24,037$; in $1810,38,250$; in $1820,43,298$; in 1830, 61,391; in 1840, 93,383; in 1850, 138,788; and in 1854, 178,000.

Boston has overstepped her sca-girt isles, and attached herself to the main Jand by one wide, enlarged avenue, the Neck, pered, and planted with trees; by one granite structure, the Western evenue, a mile and 3 half in length, 6 bridges; 8 railroads, and 3 ferries; 8 railroads branch into 16 , and 10 avenues divide into 80, within the first 9 miles from the Exchenge. The city e.ibibits a picturesque and beantiful appearance when approacled from the sea; and in surveying its several parts, the visitor finds much to adnire. Beacon Hill, ol which the State House stands, is 110 feet above hIgh water mark; it was originaily 30 feet higher. Fort IIIII, on the east side, fronting the harbor, is 80 feet, and Copp's Hill, in the north part, is 50 feet above high water. On this hill the British had $n$ battery in 1775, from which, during the memoralle battlo of Bunker IIill, they bombarded and luried Charlestown. Mount Washingion, or Dorchester Heights, is 130 feet above the ses. On these lieights, the Americans under Washington erected a fortification, in 1775, which soon compelled the British to evacuate Boston.

Table of thin Ratzs of Pilotaoz on Gutward and Inwabd nound Vegezle tn tie Poat of Bogton.

|  |  |  |  |  |  |  |  | Iuwamd. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From Novamhar 1 to Say 1. |  |  |  | From May 1 to Novamber 1. |  |  |  | From Novamber 1 to May 1. |  |  |  | From May 1 to Novamber 1. |  |  |  |
| dib Wiater. | Dol. poot. | 贮pe drawing: Walar. | Dot. per Fol. | $\begin{array}{c\|} \hline \text { Shlpe } \\ \text { drawipg } \\ \text { Water. } \end{array}$ | $\begin{aligned} & \text { Dol. } \\ & \text { poot. } \end{aligned}$ | $\begin{aligned} & \text { Bhipi } \\ & \text { drawing } \\ & \text { Wator. } \end{aligned}$ | $\begin{aligned} & \text { pol. } \\ & \text { pory. } \\ & \text { Hoot. } \end{aligned}$ | $\begin{gathered} \text { Bhipa } \\ \text { drawing } \\ \text { Witer. } \end{gathered}$ | Doit. poot. | shipu Waler. | Dol. per Fool. | $\begin{gathered} \text { Shipn } \\ \text { 4rawing } \\ \text { Water. } \end{gathered}$ | $\begin{aligned} & \text { Dol. } \\ & \text { per } \\ & \text { Foot. } \end{aligned}$ | $\begin{array}{\|c\|} \text { ghips } \\ \text { drawing } \\ \text { Water. } \end{array}$ | $\begin{aligned} & \text { pol. } \\ & \text { par } \\ & \text { Foot. } \end{aligned}$ |
| 7 ft . | 0 00 | 17 ft . | $-1.10$ | 7 ft . | $0 \cdot 75$ | 17 ft | 1.00 | 7 ft | 1.45 | 17 ft . | 1.87 | 76. | $1 \cdot 10$ | 17 ft | 1.36 |
| 8 | 040 | 18 | 120 | 8 | 075 | 15 | 100 | 8 | $1 \cdot 45$ | 18 | $2 \cdot 50$ | 8 | $1 \cdot 10$ | 18 | 1.68 |
| 9 | $0 \cdot 90$ | 10 | 1-80 | 9 | $0 \%$ | 10 | 1.25 | 9 | 145 | 19 | $2 \cdot 75$ | 0 | 1.10 | 19 | 1.88 |
| 10 | 0.95 | 20 | 156 | 10 | 0.80 | 20 | 150 | 10 | 186 | 20 | 800 | 10 | 120 | 20 | 1.88 |
| 11 | 100 | 21 | 200 | 11 | $0 \cdot 85$ | 21 | $1 \% 5$ | 11 | 1.72 | 21 | $4 \cdot 00$ | 11 | 1-25 | 21 | $2 \cdot 80$ |
| 12 | 145 | 22 | 25 | 12 | 090 | 23 | 200 | 12 | $1 \cdot 77$ | 22 | 400 | 12 | 130 | 24 | 300 |
| 18 | $1 \cdot 10$ | 28 | 8.6 | 18 | 015 | 23 | 2-55 | 18 | 1.77 | 23 | 440 | 18 | $1 \cdot 65$ | 88 | $3 \cdot 00$ |
| 14 | $1 \cdot 10$ | 24 | 275 | 14 | 0 -5 | 24 | 2.25 | 14 | $1 \cdot 87$ | 24 | 400 | 14 | 1-85 | 24 | $9 \cdot 0$ |
| 15 | 1.10 | 25 | $2 \cdot 76$ | 15 | 045 | 25 | 2.25 | 15 | 1.87 | 25 | 400 | 15 | 135 | 25 | 8.09 |
| 76 | $1 \cdot 10$ |  |  | 16 | 025 |  |  | 18 | 187 |  |  | 10 | $1 \cdot 35$ |  |  |

gtatment of tif dechared Valee of Goodg, Wares, and Meromandise expobted from the Digtaict of boston and


| Quarter ending. | Amerieas Merehandise. |  | Preign Merchandies. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1858. | 1854. | 1858. | 1854. |
| March 81. | \$3,184,914 | \$2,084,941 | W415,857 | \$027, 016 |
| Juat 80............................... | 8,115,190 | 2,078,925 | 015,121 | 607, 857 |
| Frptember 80. ........ . . . . . . . . . . . . . . . . . | 1,902,029 | 2,050,202 | 477,575 | 682,789 |
| December 81. . . . . . . . . . . . . . . . . . . . . . . . . | 2,350,707 | 2,450,255 | 865,050 | 5T4,817 |
| Total In American vessels. . . . . . . . . . . . . | \$10,013,059 | \$8,074,113 | \$1,774,209 | \$2,302,070 |
| March ! 81............................... | \$768,280 | \$034.322 | \$279,208 | \$293,268 |
|  | 1,372,030 | 2,2511,874 | 878,054 | 430,700 |
| September 80. . . . . . . . . . . . . . . . . . . . . . . . . . | 1,745,472 | 2,597,706 | 220, 427 | 801,710 |
| December 81............................... | 8,000,672 | 2,206,899 | 821,860 | 185,107 |
| Total in forelgn vessels . . . . . . . . . . . . . . . Total in American vessels (as abore). | $\begin{aligned} & 97,186,860 \\ & 10,613,020 \end{aligned}$ | $\begin{aligned} & 97,970,890 \\ & i, 074,118 \end{aligned}$ | $\begin{array}{r} \$ 1,199,575 \\ 1,774,209 \\ \hline \end{array}$ | $\$ 1,210,863$ $2,892,070$ |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . | \$17,1298, 889 |  | \$2,073,784 | \$3,602,914 |



PLAN OF BOBTON HABDOR.
Aaferences to Plan.-A, outer light-house, 65 feet high, having a revolving light, alternately brilliant 40 ; and olscured 20 seconde; 13, buoy on the outward edgo of the thoal, off Alderton Polnt; ©, D, E, Great, Middie, and Outward Breweter's Istands: F, George's Island. The pasage for ahips, IyIng britweeu this laland and $V^{\prime}$ o rocks on the opposite elde of Lovell's liland (G), beligg very narrow, it is, in effect, the koy of the lierbor ; and large anma have recently been expended on its fortification. To the south of George'a Iuland and Hoppltal Ietsud (II) is Nantasket road, where there is good anchorage. The

 taele Juland; O, Middle Ground, dry at three-quarter ebb; P, Ipper and Middle Ground, having, at ehb, only $\mathbf{D}$ feet water; Q, Thommon'e Isiand; R, Dorehester Peninsmia; \& , Noodle Island; T, Charloatown. Governor'a Isiand (N), Cantls Island (M), and Noodle's Ialand ( 8 ), are all fortified. The course thai a shilp ourfht lo steer la marked by the dotted line leading belween the lighthonse and Alderton Point, nod betw an Geerge's Island ( $k$ ) and Lovell's Ialand ( $\mathcal{A}$ ). Tho soundinge are laid down is fathoms at low witer.

 Heoal IEars 1848-1856, emding Juma 80

| Year cadtes June 30. | Ambriena. |  |  |  | Torotym. |  |  |  | Coenties Trade. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Xatoren. |  | Cleared. |  | Entared. |  | Clomed. |  | Eutared. |  | clearad. |  |
|  | $\begin{aligned} & \text { No. of } \\ & \text { ventecte. } \end{aligned}$ | Tones | $\begin{aligned} & \text { No. of } \\ & \text { Voneole. } \end{aligned}$ | Tons. | $\begin{aligned} & \text { No of } \\ & \text { Veapole. } \end{aligned}$ | Tons. | $\begin{aligned} & \text { No. of } \\ & \text { Vomela. } \end{aligned}$ | Tom. | $\begin{aligned} & \text { Na. of } \\ & \text { Vempla } \end{aligned}$ | Tons. | $\begin{aligned} & \text { No. of } \\ & \text { Vemela. } \end{aligned}$ | Tous. |
| 1848 | 1150 | 269,24T | 1019 | 989,801 | 1896 | 163, 375 | 1829 | 164,019 | 1648 | 845,683 | 8110 | 054,730 |
| 1849 | 075 | 948,095 | 889 | 214,145 | 4038 | 948,026 | 90184 | 195,185 | 1428 | 344,184 | 2980 | 680,177 |
| 1850 | 1028 | 260,640 | 904 | 916,801 | 190 | 213.205 | 8199 | 908,776 | 1493 | 326,887 | 8171 | 602,6<16 |
| 1851 | 944 | 286,989 | 881 | 907,044 | 9144 | 275, 317 | 2045 | 286,828 | 1688 | 814.979 | 8843 | 518.4118 |
| 1858 | 908 | 257.844 | 848 | 224784 | 1899 | 200,768 | 1896 | 285.845 | $8670{ }^{\circ}$ | 727,171 | $2818{ }^{\circ}$ | 071.877 |
| 1853 | 908 | 287,969 | 1246 | 265,518 | 2089 | 994,021 | 2118 | 814,689 | $2340{ }^{\circ}$ | 620,282 | 9:184 | 829,489 |
| 1854 | 991 | 820,638 | 090 | 234,080 | 2083 | 883,249 | 2004 | 320,038 | $8108{ }^{\circ}$ | cs8,089 | $80-47^{\circ}$ | 610,947 |
| 1865 | 1073 | 875,886 | 1083 | 958.587 | 2071 | 384,9:18 | 1911 | 334,283 | 1675 | 491,438 | 2941 | 608,108 |
| 1806 | 1005 | 654,5.8 | 1096 | 397, 183 | 2033 | 327,853 | 2089 | 8tit,164 | 1504 | 8S6, ES1 | 2778 | 702,321 |

- In these years the number of veasels arriving and departing, but which did not enter and clear, are tneluded in the atatement. In the other yearm only auch as entered and cleared are given.



| Y cars | Domeate Goode. |  | Torsigo Goode. |  | Dorneolio end forolen Maports. |  | Tonolga Importe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tatal Valne. | or which wor | Total Valoe. | of which wort Gold ond 6ilvar. | Total Value. | Of whleh were | Total Malae. |
| 1846. | ¢ $51.609,805$ | \$53.574 | \$2,203,436 | \$404, 2 41 | * | \$100,815 | \$22.6.5.117 |
| 1547. | 7,872,099 | 30,018 | 1,843,010 | 344.453 | 9.716,991 | 374,471 | 35,5 3,963 |
| 1843. | 8,149,833 | 191,100 | 4,0161.879 | 9,350.757 | 12,204,812 | 2,5500,85t | 27,182,308 |
| 1849. | 6,714,590 | 88,697 | 1,977,438 | 144,999 | 8.693,078 | 178,598 | 28,841,145 |
| 1850. | 6,053,528 | 170,847 | 2,188,126 | 838,621 | 9,141,653 | 681.468 | 28, 655,733 |
| 1551. | 8,209,645 | 805,025 | 2,228,008 | 453,980 | 10,408.153 | 1,205 8*5 | 30,608,417 |
| 1859. | 11,110,010 | 8,070,025 | 2,278,502 | 988,718 | 18,888,512 | 4,206,743 | 81,958,192 |
| 1859. | 15,203,208 | 8,786,989 | 2,891,480 | 267,810 | 18,094,683 | 4,004,549 | 30,300,912 |
| 1854. | 16,408,841 | 4,080.487 | 3.843,675 | 337,963 | 10,751,916 | B, 03,450 | 45,088,545 |
| 1555. | 29,970,460 | 12,029,598 | 3 671,201 | 258.470 | 26.041.661 | 12,270,063 | 43,250, 279 |
| 1856. | 24,078,577 | 11,860,868 | 3.312,076 | 149,721 | 27,085 658 | 12,010,063 | 41,661,088 |

India Trade of Boston.-This important branch of business has attelned in Boston at the present tlme a magnitude Jitllo thought of hy the early founders of this trade. Salem wae the pioneer in many branches of the India trade, and for many years a great mart for the sale of teas, splees, dye-stuffs, drugs, coffee, etc. Shlps and brigs from two hundred to three handred and fifty tons burden were at that time the class and aize of the vessela employed. The course of trsde, and the anperior advantages of Boston and New York as central markets, have diverted thla buainess very much from its ancient sest. Quite a number of Salem houses have atlll an extensive interest in the East India and Pscific buainess, but their vessels are, for the most part, fitted from and arrive at Boston or New York. The East Indla and Pacific trade of the United States employs, in all its varioua branches, at the prasent time some six hundred ships and barks. Most of these ves-eels-at least two-thirds of them-are owned in Boaton and New York, and many of the remaining third at ports east of Boaton, in Massachuaetts and Maine. To show the extent of the Boston tracle with India, we would atate that one hnndred and nine ahips were, in January, 1857, expected at this port from Calcutta alone previous to August 1, 1857.

The salo of the heavy and bulky kinds of East India gooda at Boston has greatly inereased witiln a few years, in consequence of the enormous growth of the manufactures and gereral trade of the common wealth. The annual sale at the present time in Boston of the principal articles of East India produce would much surpriae any one not acquainted with the extent and rapld growth of this important branch of our business. Onc would hardly beliera that we received at tints port nearly as many hushela of Iinseed as of Indian corn; yet for several years past auch has been the fact.Boston Board of Trade Report, 1857, p. 104.

Mediterraneon Trade.-Among the various brapches of commerce which have contributed to augment the wealth and extend the fame of Boston, nono deserve mention more than the Mediterranean and fruit trade. At various porta of Malaga, Palerme, Messina, Marsellles, Genos, Leghorn, Trieste, elc., the merchants of Boston enjoy a large portion of the American trade, and at some of the above-named places the trado may be said to be entirely controlled hy the cities of New

York and Boston, the other commercial citles of the United Statea baving but an occasional vessel arriving st titelr purts from these places. It fa well known that Doston hes neerly the entire control of the American trade whith Turkey through that country's princlpal port of Smyrna.-Boston Board of Trade Report.

Direct Trade with British Irovinces.-The treaty betweon the United States and Great Britain, cencluded the 5th of June, 1854, known as the "Reciprucity Treaty," was intended to regulate a direct reciprocal free trsde between the British North American provincea and the Unlted States in certain deaignated artlcles of their respective growth and production. This purpuse is clearly atated in the preamble of the treaty, and in the act of Congress cerrying it Into effect.

On an application, titerefore, tor the free admission of certain products of the British North American Provinces, Imported into the United Ststes from IIavana and London, tho Treasury Department declded that they could not be so admitted; and that the sricles, if of the growth and production of the North American British Provinces, and dealgnated as free in the treaty, would he entitled to the privilege of free entry only when imported directly from those provinces into the United Ststes.

Statement minimitino tif prolamed Valde of MreCHANDIBR TBANEPORTED IN BOND TO CIANADA FROM THR Dibteict op llogton and Cilableatowit, dobino the tem Ifars ending Jund 30, 1850.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| 18 | 24,344 | 1853. | 4041,484 |
| 44. | 33,140 | 1854 | 6,175,911 |
| 1850. | 151.817 | 1555. | 4,970.408 |
|  |  |  |  |

This talite fully Illustrates the operation of the Reciprocity Treaty and other treatles with Great Britain in reference to Canada.
It may not be uninteresting to mention here that the "Clearing-house" for the banks in Boston, which was orgenized January 15, 1856, is in full operatlon, snd perfectiy succeaeful. The business began March 29, 1856, and tine transactions from that date to the 31et December, incluaive, amount to $\$ 1,129,794,519$, being a monthly average of $\$ 125,532,724$. With tie commencement of the Clearing-houne all the bank ledger accounts of daily transactiona with each other were merged into ond Clearing-house account.-Ibih.

Ship Buiding.-Number of vessels launched during the yeare 1854 and 1855, at East Boston, Medford, Chelsea, Bouth Bostoa, and Charieatown:

|  | 1854. |  | 1855. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number. | Tomincy. | Number. | Tonvege. |
| East Boston . . . . | 30 | 49,604 | 20 | 14,675 |
| Medford . . . . . . . | 19 | 19,760 | 10 | 8,870 |
| Cheisen . . . . . . . | 10 | 10,116 | 5 | 4,805 |
| Sculh Boston... | 4 | 4,254 | 4 | \$,000 |
| Charlestown.... | 8 | 9,308 | 9 | 1,308 |
| Total....... | 60 | 78,147 | 41 | 89,658 |

Estimating this amount at 860 a ton, which is a fair average price paid for shlpe during the year, the amount of the ship-buildlag la Boaton and vicinity during 1855 is as follews:

|  | Toas, | Valum. |
| :---: | :---: | :---: |
| Fast Boston | 14,675 | 1,174,500 |
| Medford ............... | 8,870 | 539,200 |
| South Bostou. . . . . . . . . | 8,000 | 300,000 |
| Chelses . . . . . . . . . . . . . . | 4,805 | 988,800 |
| Charlestown . . . . . . . . . . | 1,308 | 78, 100 |
| Total. . . . . . | 84,658 | \$2,873,480 |

Duties collected at Boston.-The annexed statement exinilita the amount of dutles collected at the port of Boston ln aach year, from 1838 to 1853, distinguishing the amounc paid on merchandise brought in American snd foreign vessels.

| Years. | Ammricas. | Foruign. | Total. |
| :---: | :---: | :---: | :---: |
| 1838 | \$3,305,197 | \$105,858 | \$2,411,155 |
| 18:39 | 3,134,614 | 160,916 | 3,294,829 |
| 1846 | 2,804,506 | 92,419 | 2,450,026 |
| 1841 | 9,018,083 | 218,579 | 8,223,683 |
| 15.4 | 8,543,748 | 236,437 | 2,780,180 |
| 1248 | 2,784,184 | T57,854 | 8,491,019 |
| 154 | 4,800,877 | 1,234,067 | 5,084,945 |
| $18 \pm 5$ | 4,027, 836 | 1,242,297 | 6, 240,684 |
| 19.10 | 3,030,744 | 1,241,825 | 4,872,610 |
| 1847 | 3,936,325 | 1,012,086 | ¢,448,381 |
| 1848 | 8,790,247 | 1,118,553 | 4,908,827 |
| 1819 | 8,607,003 | 1,429,708 | 5,037,810 |
| 1850 | 3,008,440 | 2,224,877 | 6,127,817 |
| 155t | 3,899,822 | 2,696,704 | 6,490,627 |
| 18.22 | 3,826,428 | 2,466,028 | 6,293,050 |
| 18.3 | 4,589,777 | 8,187,415 | 7,696,108 |

In the year ending June 30,1853 , the amount of duties was upward of a million dollare more than in ady previous year. The foreign trade of Boston has increased very rapidly since the Cunard steamers commenced running between that port and Liverpool.
British Royal Mail Packets,-The mall packets between England and America (nine in number) leave Liverpool every Saturday, alternately for Boston and New York. The iatter convey large quantities of tho more valuable descriptions of goods; the Imports by them into Boston in 1846 leing estimated at $\$ 4,445,000$. They aleo convoy large numbers of the more opulent ciass of passengers.
Ihsurance Companies.-Insurance, both fire and marine, is carried on to a great extent by jolnt-stock compsnics, and to some extent also by individuals. The stacks of the different insurance conipanies amounted, in 18.56, to $\$ 5,000,000$. There is a great deal of risk In the business, which ls more, indeed, like a lottery than a regular trade; and the dividends consequently vary from next to nothing to 10 and sometimes even 20 per cent. and upward. The dividends paid by the different companies varied, at an average of the previous ten years, from $3 \frac{1}{3}$ to 20 per cent.
Banks.-There were, In January, 1807, in Boaton, 36 banking companles, having an aggregate capital of $\$ 31,960,000$. Their dividends have recently varied from $5 \frac{1}{2}$ to 10 per cent.

East Boston, a part of the city, Suffolk county, Massachusetts. P'opulation, In 1850, 10,214; and in 1854, 15,000.

The following summary of statistics will exhinit the amount of capltal inveated in manufacturing and mechsmical business in East Boston, the number of handa enployed, and the amount of annual producta:

| Maslasen. | Cupiual. | $\begin{aligned} & \text { Kaf of } \\ & \text { Hunda. } \end{aligned}$ | Ananal |
| :---: | :---: | :---: | :---: |
| Manufacturing wnd mechanies | \$1,858,000 | 1148 | \$3,760,010 |
| Shlp-buldtag . . . . . . . . . . . . . | 71,000 | 898 | 861,000 |
| Lumber, wood, conl, | 45,000 |  | 33y,000 |
| Teamlog, trucking, etc........ | 32,000 | 275 | 140,000 |
| curing and packíng fish..... | 49,000 | 23 | 188,600 |
| Total. ..... | \$2,056,00 | 1786 | \$5,231,710 |

Steam power is used in twenty of the eatabllahsnents mentloned ia the table, and several others are making preparations to use it. There ware built in 1850 at the different ahip-yards fourteen slipe and barks, making an aggregate teanage of 14,035 tens. East Boston, with lts superior location for commerclal and manufacturing purposes, will doubtless soon double its present population. It ha water frontage of 17,000 feet on the deep water of tne harbor, as well adapted and better protected for commerce thar, wharves in the city proper. The Grand Janction Rallroad unites East Boston with all the principal roads from the city, thus affordlag au unbroken chain of railroad commanication from the deep-water wharves in this eection of the city through the great mannfacturing districts of New England to the Canadas, the lakes, and the Great Weat, greatly' to the advantage of the commerce of Boston, by bringing to and taking from the ships and warehouses all merchandise intended for the interior, and products and manufactures destined for shlpment, free from expense of transhipment. East Boston was for merly known as Maverlek's, Noddie's, and Willams' Island. In 1814 the cltizens of Boston erected a fort on its eastern extremity, which was called Fort Strong. In 1830 some eight or ten of the most enterprising capitalists purchased this island, and commenced laying it out into atreete and lots, with a view of making it an important vart of the city. Among the important improvement in that portion of the city termed East Boston are the introduction of the Cochituate water by the city of Bor ton, the construction of the Grand Junction Railrosd, and the construction of tho sea-wail across the Basin, thns reclaiming a large quartity of low lands which were hitherto partirlly covered by the tide-watera. These lands consist of marsh and fiats to the extent of about ninety-five acres, lying between Westwood Island and the Eastern railroad.-Ses Massachusetts.

Botany Bay. A bay of the Pacific Ocean, on the east coast of Australis, i ir South Wales, county of Cumberland, five miles south of Sydney, about five miles ia length and breadth. Lat. $34^{\circ}$ S., long. $151^{\circ}$ $15^{\prime}$ E. It was discovered by Captain Cook in 1770, and derived its name from the varicty of new plants then observed on its shores. It became an English penal colony in 1787. On its coast is a column crected in 1825 to the memory of the French navigator, La Perouse.-See Syinner.

Botargo, called in Provence Bouargues, a sausage made on the shores of the Mediterranean and the Black Sea, of the roe of the mullet. The beet come from Tunis and Alexandria.

Bottles (Fr. Bouteilles; Ger. Bouteillen; It. Botiglie, Fiaschi; Russ. Bulülhi; Sp. Botellas), glass vessels for holdíng liquids, too well knewn to require any description. They are manufactured in considerable quantities. The imports of bottle glass ioto the United States average about $\$ 140,000$ annualiy. The imports of all other descriptions of glass amount to about $\$ 2,200,000$ yearly, and are very conatant. About one-fourth of this coneists of window glass. The principal places of manufacture of bottle glass, in the United States, are Pittsburg, Pennsylvania, and Esat Cambrldge, Massachinsetts.-For further detalls, see Glass.
Bottles, of glass, wore first made In England about 1558. The art of making glass bottles and drinkingglasses was known to the Romans at least before 79 A.D., for these articles and other vessels have been found :ie ruins of Pompeil. A bottle which con-
talned two hogeheads was blown, we are told, at Lelth, In Scotland, in Ianaary, 1747-'8,

Bottom, in Mercantile Language, is a famillaz expression for a ship; as in the phrase to ship goode in foreign bottome,-E. B.

Bottotonry, a maritime contract by which a ship (or bottom) is bypothecated in security for money borrowed for the purposes of her veyage, under the condl. tion that, If the ahlp arrive at her port of deatimation, the borrower perspaally, as well as the ship, shall be liable for the repayment of the loan, together with auch premium thereon as may have been agreed on; but that, if the ahip be loat, the lender shall have ne clalm against the borrower, eithe: for the aum advancad or for the premium. In consideration of the risk thea incurred by the lender, the premiun (which is sometimes termed maritime interest) is usually high : it may rarge from 10 to 25 per cent., or even more, according to the nature of the tisk, or the difficulty of procuring the neoessary funds. The fretght may be piedged as well as the ship, and, if neceasary, the cargo also. When money is borrowed on the security of the cargo, It is said to oe takea up at respondentia, a term which seems to have been introduced from the circumatance of the borrower engaging to answer for the repayment of the loen on the arrival of the goods. But theugh the terms are distinetive, there ia no essential difference in the nature of bottomry and respondentia contraets, and beth are regulated by the same principles of maritimo law. Indeed, the contract of reapondentia is now seldom or nevor entered into unless in conjunction with that of bottomry.

A bottomry contrect may be writton out in any form which oufficientiy shows the conditiona agreed on between the two parties; but it is usually drawn up in the form of a bond. The document muat ahow, either by express terms, or from its general tenor, that the risk of loss is assumed by the lender; this being the consideratit n for which the high premium is conceded. The lender may transfer the bend by indoriation, in the aame mannar as a bill of exchange cr bill of lading, and the right to recover its value becomas invested in the indorsees.

According to the law of England, a bottomry contract remaing in force so long as the ahip exiats in the form of aship, whatever amount of damage she may have sustained. Consequently, the "construetive total loss," which is recognized in marine insurance when the ship is damaged to such an extent that ahe is not worth repairing, ia not recognized in reference to bettomry, and will not absolve the borrower from hia obligation; " .t If the ship go to pleces the berrower is freed from all liability nader the hottomry contraet; and the lender is not entitied to recelve any share of the proceeda of such of the ship'a stores or materials as may hase been saved from the wreck. Money advanced e bettomry la not liable, in England, for general av' age lossea.

If the ship should deviate from the voyage for which the funds were advanced, her subsequent loss will not discharge the obligation of the berrower under the bottomry contraet. If she should net proceed at all on her intended voyage, the lender is not entitled to recover the bottomry premium in addition to his advance, Lut only the ordiaary rate of interest for the temporary loan. As the bottomry premium is preaumed in every case to cover the riaks ineurred by the lender, he fa not entitled to charge the borrower with the preminm which he may poy for insurance of the aum advanced In addition to that atipulated in the bond.

The contract of bottomry seema to have arisen from the eustom of permitting the master of a ship, when in a forelgn conntry, to pledge the ship In order to raise money for repairs, or other extraordinary expenditures rendered necessary in the course of the voyage. Circumatances often arise in which, without the exercise of this power on the part of the master, It would be im-
posalbla to privide meana for acoomplithing tio voy. age : and it is better that the master should have atsthority to burden the ahip, and, If neceasary, the freight and eargo alse, in security for the mency which has become requifite, than that the adventure should be defeated by Inability to proceed. But the right of the master to pledge the ship or goods must always be created by necensity; if exercised witheut necessity the contract will be void. Accordingly, the master of a Bricish ahip has no power to grant a bottomry bond at a British port, or at any foreign port where he might have been able to raise funda on the personal credif of the ahip-owners. Nelther haa he any power to pledge the ahip or goods for private debti of his own ; but only for such supplies as are indiapeneable for the purposes of the voyage.

The bottomry lender must ase reasonable diligesce to ascertain that a real necessity exiats fur the loan; but he is not bound to see to the applieation of the money advanced. If the lender have originally advanced the funda on the persenal eredit of the master or owners, or on any otiver security than that of bettomry, he is not entitied at a subsequent period to convert his claim into a bottomry obligation; and although the master ahould grant him aach obligation, it would not bind the owners. In overy case a bond procured by compulsion would be vold.

The power of the mester to pledge the cargo depend upon there being some reasonable proapect of bencfit to it by bis so doing. Ile has no such power axcejts in virtue of circumstances which may oblige him to assame the eharacter of agent for the cargo, in the absence of any other party authorized to act on its hehalf. Under ordinary cireumstances he is net at liberty to pledge the eargo for repairs to the ship. If, indeed, the goods be of a perishalife nature, and if it be impossible to get the ship repaired in aufticient time to obviate serious loss on them by delay without including them under the bottomry contract, he has powor to do so ; because it may fairly be mesumed, in the case supposed, that the cargo will be benefited by this procedure. But if there be time to commusicste with the proprietors of the cargo, it is his duty to give them notice before resorting to this course. The general principle is, that the master must aet for the cargo, with a reasonable view to the intereats of its proprietors, nuder the whole eircamstances of the case. When he does this his proceedings will be sustained; but shonid he manifestly prejudice the intereats of the cargo by Including it under bottomry for the mere purpose of relieving the ship, or of earning the frelght, the owners of the cargo will not be boand by the bottomry contraet. Any bottomry or reapondentia bond may be good in part, or bad in part, eccording as the master may have aeted within or beyond the seope of his iegitimate authority in granting it: If two or more bottomry bonds have been granted at different atages of the voyage, and the value of the property be insufticient to diecharge them all, the last-dated bond has the priority of payment, as having furnished the menns of preserving the ship, and thereby preventing the total lose of the security for the previons bunds.

In a recent case In the English Admiralty Court (the Cynthia, 20 L. 7, 54), it was decided that a hond granted by a Britioh consul over a British ship, the master of whieh had been' murdered in a mintiny by the erew, was valid, although the new nisster, appointed by the consul, had not been required to sign it.

When the sam due under a bottomry bond over ship, freight, and eargo, is not paid at the stipulated time, proceeding: may be taken by the bond-holder for rccovery of the freight, and for the sale of the ship; and should the proceeds of these be ineufficient to discharge the olaim, a judicial sale of the cargo may be reeorted to. As a goneral rule, the value of the ship and freight must be exhausted before recourse can be taken against the cargo.
, The bottomry preminm must be ulitimately paid by the parties for whose especial beneff the advasces were obtalated, as ascortained on the final ndjustment of the avarage expenditures at the port of clestination. Ind it

For further information on this sutject the reader is refirred to: the oanes of the Gratitudine; 2 Rom Ni. R. 240,272 , the Lochiel, 8 IRobs 84 ; the Alexander, 1 Rob. 846 ; to Soarea v. Rahn, 3 E. F. Moore; Dobeon v. Lysll, 8 Juriat 969 ; and especially to the cases of the Lord Cochrane, 8 Juriot 714, and of Jacolseen $v$. Reinharit, 28 3cottish Jurist 809:1 Sea also Maramalic oti Inaur ance, bonk 2; PaRE on Jmeuramee, c. 21; ABsiould on Musuance; Lord Thxteriden on the Law of Merchant Ships, part 2, c. 8.-EE. Bv

Bougalnville, Count Louis Antonio M., n circumanvigntor of the eighteenth century, wis born at Parls, 1729: | He first madied law; and was. afterward a ulstinguished soldior, diplomatist, tcholar, and navlgatur, anil remarkable in each for his energy of character. Ile fought In. Ganada, under Montealm, where he was wounded, in 1758. On the denth of his auperior mid friend, ha roturned to France, and served with distinction In Germany, In'1761. + On the conclusion of peace, he entered the French navy, and led the expedition intended to form asettlement in the Falkland Islands, for whioh he sailed in 1763. The prior elaim of the Spanish government to these islands compelled him to surrander them; and he returned to France, the government of whleh commissioned him to carry the surrender iato oxecution, on receiving from the Spanish government roinuneration for his expenses. Having accomplished this, he set sall on his voyage of circumnavigation, and having eariched geographical nejence by number of naw discoveries, he returned to France in March; 1769. 1 During the Amerlean war, ho was again in service, from which, however, he wholly retired is 1700, and devotod himself exoluaivaly to cientific research.
Boulogne-mur-mer (Gesoriacum), a fortlied seaport town of France, capital of arrondisyoment, department Pas de Calais, on the Euglish Channol, at the mouth of the Lianne, and on the Boulogne and Amiens Railread, 140 miles from laris, and 112 from London, and 19 southwest from Calais. Lit. (of the column) $50^{\circ} 44^{\prime} 32^{\prime \prime}$ N., long. $1986^{\prime} 10^{\prime \prime}$ E. Population, 1853, 31,000 , of whom a great number are English reaidents. It la divided into the Upper and Lower towns. The first, on hill whence the English coast is distinctly visible, is well, though irregularly built, and has two quares ornamented with fountains, a feudal citadel, and ramparta, a modern cathedra, an episcopal palace, a town hall, and a house in which Le Sage, the author of Gil Blas, lived and died. The Lower, or new town, stretching from the Upper town to the sea, is newly and regularly: built, and more populous. It has fine public buths, with ball and concert reoms, a commercial college, a theatre, a musdum, including a library of 23,000 voluues, a henpital, custom-house, and barracks. Boulogne has also an English librasy and reading-room, six English churches, several excellent hotels, a great number of boarding-schools (beth French and Engilsh), a school of navigation, tribunal of commerce, societies of agriculture, commerce, and arts; manufacteries of coarse woolcns, sall-cloth, cordage, bottle-glass, and earthen-ware. In its vicinity are $\mathbf{i m}$ portant marblo quarries. Its fisheries aro very extenslve, and furnish tho chief anply of fish for the Parls markets ; but the town is ma' ily indebted for its prosperity to its Engliah realdents, whe, since the peace, bave resorted thither in great numbers, particularly during the summer. Steamers make the passage to Folkstone in two houra, and to London in ahout twelve hours; and the number of passengers who diseinbark here annually exceeds 50,000 . The port la not very easy of access, being formed by two wooden piers stretching out anly to low-water mark, but the tide rises upward of 16 feet, and ships find pretty good anch-
orage about half a $-\cdots$ from the htrbor: It was of the heights of Bosiogne that the Emperor Caligula, A.D; 40, eneamped an army of 100,000 men for the fruitises parpose of Invading Britain, and here also, in 1804, nearly 18 centuries later, the Vimperor Napoleon anjombled an artiny of 180,000 mien, and a flotilld of 2100 traneports, with the same design. The Colonine Napoldowe, a column 164 feet high, nearly one millefrom the town; commenorateg the lateer futile attonipt;

Bounties. They wers first granted on the exportation of Britigh commoditles-a new prinefole'Introduced Into commarce by the Britioh Parliamert. The firat bounties: granted on com were in 1688. First legally granted in England for ralsing naval storea In America, 1708. Bountles have been granted by Great Britain on alil-cleth; linen, and other goods, and by thin country on fiaheries.-See Fismerika, Elamenifa of Commerce, il Boantiea on production are most commenly given in tha view of encotaraging the establishment of some new branch of induatry ; or they are intended to foster and extend a branch that is belleved to be of paramount importance, is In nelther case, however, is their utillty very obvions. In all old settled and wealthy countries, numbers of individuals are always ready to embark in every new undertaking, if it. promise to be really advantagcous, without any atimulus from government; and if a braneh of lndustry already astablished be really important and suitable for the country, it will assuredly be prosecuted to the necessary extent, without any encouragement other than the natoral demand for its produce.

However injurious to the state, it has been pretty generally suppesed that bounties on exportation are advantageous to those who produce and export the artheles on which they are paid. Bat the fact is not so. A trado that can not be carried on without the aid of a bounty must be a natarally disadvantageous one. Hence, by granting it; individuala are tempted to engage or coutinue in businesses which are necessarily very insecure, and are rarely capable of being rendered lucrative; at tho same time that they are prevented, by trustisg to the bounty, from making those exertions they naturally would have made had they been obliged to depend entirely on superior skill and industry for the sale of their produce: The history of all husinesses carricd on by the ald of lountiea proves that they are hardly lese disaidvantageous to those engaged in them than to the publie.

Bowaitch, Nathaniel, self-taught American mathematician, born in 1773, of humble parents, at Salem, in Massachusetts. He was bred to his father's business as a cooper, and afterward was apprenticed to a ship-chandler, His taste for mathematics early developed itself; and he acquired Latin that he might study Newton's Principia. In 1795 he aailed as eupercargo, In which capacity he mado four leng voyagen ; and, boing an excellent navigator, he afterward commanded a vesdel, instructing his crewa in taking lunsar and other ohservations. He edited three editions of Hamilton Moore's Navigation. In 1804 he became nctuaty to a Boston insurance company; and in the midst of his active and nseful career pubitished a transIation of the Mécanique Celeste of Laplace, with annotations; a work which will better prove the great acquirements of this self-taught philosopher than any labored panegyric. He died in 1838, nt Boston. A statuo of this distinguished mathematician has been crected to his memory in Mount Auburn Cometery, Cambridge, Massachusetta.

Bowline, a rope leading forward from the leech (side border') of a square sail, to keep it tightly out. When a vessel is aniling close-hauled she is then s id to he sailing on a bowline or on i taut bouclins. Bowline bridles are the spans of cord by which the bowline ie fastened to the leech.-E. B.

Bowaprit, or Boltsprit, a largo spar whleb projects over the etem of a ship, resting slopewiso on the
head of the maln stem, and having its lower end fastened to the partners of the foremaat, and further supported by the foreatay. It carries the sprit-bail, aprit-tep-sail, and jack-staff; and its length is usually the mame as that of the foremast.-E. B.

Bor-haul, in Navigation, to bring a shlp, when close-hauled, round upon the other tack, when she refuses to stay and there is net room to wear,-E. B.

Boxing the Compass, denetea the rehearsing the points in their proper order.-E. B.

Box-wood (Germ. Buchsbaum; Du. Polmhout; Fr. Buis; 1t. Busso, Bosso, Borsolo), the wood of the box-tree (Buxva semperrirens), growing wild from Massachasetts to Florida. A very cemmon name in the United States is dogwood, though both namea are used. This tree was greatly admired by the ancient Komans, and has been much cultivated in medurn times, on account of the facility with which it is faehiened into different forma. Bex is a very valuable wood. It is of a yellewish color, close-grained, very hard, and heavy; it euts better than any other wood, is susceptible of a very fine polish, and is very durable. In consegaence, it is inueh userl by turners, and mathematical and musical instrunent makers. It is teo heavy for farnituic. It is the conly woed used by the engravers of weod-cuts fer books; and provided duo care be exercised, the namber of impressiens that may be taken from a box-wood cut is very great. In France, box-wood is extensively used for combs, knIfehandlea, sad button meulds; and sometlmes, it has been said, as a substitute for heps in the manafactare ef beer. The value of the bex-wood sent from Spain te l'aris is reperted to amount te about 10,000 francs a year. In 1815, the box-trees cut down on Bex-hill, near Derking, In Surrey, England, produced upward of $£ 10,000$.

Bracelets. They wero early worn and prized amongthe ancients; vesead of then in almest all natiene: these that wero called armille were usually distributed as rewarda for valor among the Roman le-gions.-Nout. Diet. Those of pearls and geld were wern by the Roman ladies; and armlets are female ornaments to the present day.-ILayins.

Bradford, a parliamentary borough, market, and parish of England, county of York, West Riding, on an afflaent of the Aire, and branch of the Leeda and Liverpool cana!, 8 miles west of Leeds, en tho Leeds liailread. Area of parisl. 34,146 acres. Population in 1851, 140,643. Pupulation of the berough, 103,778. Area of parliamentary beroagh, comprising the townships of Bradford, Manningham, Bow, ng, and Ilorton, ti590 acres. The town, built entirely of atone, has atrects mostly narrow, hut well paved and lighted. Brulford is now the principal seat of the worsted yarn and stuft manufactures in England, and the great mart for the leng wools used in these fabrics. In 1838 it had 142 worsted, 9 woolen, and 2 cotten mills, empleying together $11,6 \mathrm{~B}_{5}$ hands. In the same year there were In the town upiwned of 1500 pewer looms, each producing three to four feces per week. Its rapld advance
is mainly attributable to Its central position in the great manufaetaring district of Yorkshire, and to the abundance of coal and iron in its immediate vicinity. The Leeds and Liverpool canal connects it with both the Irish and North Seas.
Bran, the thin skins or husks of cnm, particularly wheat, ground, and separated frou the corn by a sleve or bolter.
Brandy Germ. Brantewein; Du. Brandewyn; Fr. Eau de rie, Brandevin; It. Aquarzente; Sp. Aguardiente ; Port. Aguardente; Russ. Wino; Lat. Vinum adustum), splrituous and inflammable liquor, obtained by diatillation from wine and the husks of grapes. It is prepared in most of the wine countries of Europe; but the superiority of French brandy is universsliy admitted. The latter is princlpally dlatilled at Bordeaux, Rochelle, Cognac, the Isle de Rhé, Orleans, Nantes, and in Poitou, Touraine, and Anjou. That of Cognac is in the blghest estlmation. Whos ef all deseriptlons, but chiefly those that are strong and harsh (pousses), are used in the manufacture of brandy. The ouperior vintages, and thoee that heve most flavor, ere sald to make the worst brandy. It is neturally elear and colorless. The different shades of color which it has in commerce arlse partly from the casks in which it is kept, but ehlefly from the burned sagar, sanders weod, and other coloring mattor intentionally aclded to it by the dealers. It is sald that the burned sugar gives mellowness to the flavor of the liquor, and renders it more palatable. The art of distillation is believed to have been firat discovered by the Arablans. From a passage in the Testamentum Norissimum of the fanoua Raymond Lully, who fleurlohed In the thirteenth century, it would appear that the production of brandy and alcohol from whe was familiar to his contempo-rarles.-I'. 2, edit. Argent. 1571. But the practice does net appear to have been Introduced inte France till 1313.-Ie Grand d'Aussi l'ie privé ds Frangois, teme iii. p. 64. When first introduced, brandy or barned wine (cinum adustum) appears to have been used prineipally as an antliseptle and reatorative medicine; und the most extravagant panegyries were bestowed en its virtues. It was deseribed as a soverelgn remedy in almest all the disorders of the human frame; it was commended for Its efficacy in comferting the memory and strengthening the reasoning powera; it was extolled, in short, as the elixir of life, and an infalitie preservative of youth and beauty.-IIendenaon'i. Ilistory of Wine, p. 24. Dr. IIenderson says that the experience of later times has shown how little the culogy was merlted; but in this he is contradicted by Burke, who malntains, with equal eloquence and ingenuity, that "tho alembic has been a vast henellt and blessing." -Theughts and Details on Scarcity, p. 41. Brandy form ed, fer a lengthened periorl, a prominent artlcle in the exporte of France-few ships sailling from Berdeaux, Rechelle, or Nantes, without taking a certaln quantity of it on board; but of lato yenrs there has been an extraordinary falling eff In the exports of brandy as well as of wine. We sulijoin

| Vears | To the United King dom. |  | To all Countries. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | पuaniliy. | Value. | 4 Uianlity. | Talue. |
| 1836. |  | France. <br> 8,164,071 | $\begin{gathered} \text { Lifres } \\ 17,913,830 \end{gathered}$ | $\begin{aligned} & \text { Francs } \\ & 15,317,280 \end{aligned}$ |
| 1881.......................................................... | 0,030,719 | 6,480,600 | 14,132,788 | 11,200,000 |
| 1R82. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 13, 509,445 | 12,208, 900 | 23,787,782 | 20,732,624 |
| 1833............................................... | 10,457,076 | 51,210,740 | 22, 1830,126 | 18,703, 430 |
| 1884. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,899,306 | 6,054,056 | 16,146,280 | 13,719,700 |
| 1885. | 8, $8,12,050$ | 6,926,120 | 18,458,284 | 14,987,588 |
| 1886........... ........................ . . . . . . . . . | 7,179,544 | 6,930,123 | 19,59t, 316 | 10,262, 194 |
| 1837. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 | 5,906,2110 | 4,783,241 | 18,838,909 | 14,028,811 |
| 18イ8..................... . . . . . . . . . . . . . . . . . . . . . | T,410,810 | 6,092,613 | 20,603, 714 | 16,066,437 |
| 1830. | 5,234,283 | 4,187,43t | 16,418,605 | 12,508,600 |
| Totsla. | 80,408,575 | 07,877,215 | 187,986,060 | 105, 0300,618 |
| Average of ten ypart . .......................... | 8, 046,267 t | 6,787, 7211 | 18,788,696 | 15,603,601: |
| Average of the 10 ypars in imperial gallonn..... | $1.771,155$ |  | 4,124,740 |  |

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tion in the and to the te vicinity. t with both partlcularly a by a sleve
ndexyn; Fr. p. AguardiVinumadus. or, oltained grapes. It of Europe; universally lled at Berhé, Orleans, you. That Wlies of all 1 g and harsh randy. The It flavor, are curally clear lor which it ks in which gar, sanders Hly added to Isugar gives d renders it believed to 18. From a the famous rteenth cenI of brandy a contempooractice does France till angois, tome $y$ or burned n used prindicine; and towed on its a remedy in ame; it was the memory It was exn infallible rnson's Ilis* hat the exthe eulogy thy Burke, ingenuity, d blessing." randy form ticte in the llordeaux, in quantity ieen an exndy as well

Years endo

| Value. |
| :---: |
|  |
| (000), (100) |
| ,732,624 |
| ,703,180 |
| , 712,700 |
| ,987,583 |
| ,202,194 |
| , 928,811 |
| ,068,43\% |
| [893,609 |
| 630,613 |
| 5081,061 |

The export value of brandy from France to the United Statea in the year 1853 was 16,661,000 france; wines, $23,402,000$ francs.
Impobtation of Braniy into tifz Uniten Stateg, Treagugy
lherort, 1855.

| Year ending Juen 30. | Gellons. | Valua. |
| :---: | :---: | :---: |
| 1844................. | 782,010 | \$ 406,688 |
| 1845...... . . . . . . . . | 1,081,814 | 819,450 |
| 1816................. | 003,147 | 889,231 |
| 1847................ | 954,417 | 03t,082 |
| 1848..... . . . . . . . . . . | 1,870,111 | 1,135,089 |
| 1849...... . . . . . . . . | 2,964,001 | 1,347,514 |
| 1550. . . . . . . . . . . . . | 4,145,802 | 2,659,637 |
| 1551................. | 3,163,783 | 2,148,679 |
| 1552:................ | 2,751,810 | 1,792,729 |
| 1853................... | 3,854,956 | 8,251,408 |
| 1854................ | 2,152,366 | 2,255,344 |
| 1555................. | 1,024,447 | 1,479,368 |

Brass, an alloy of copper and zinc. This name, however, has not been oxcluaively applied to the alloy of thess metals; for the gun-metal, which has been also called brass, is an alloy of copper with tifn. The same alloy, with more tin, is used in machiaery, and is preferred to the alloy of copper and zinc on account of its greater hardness. It appears from the analysis of the brass of tho ancients that it was an alloy of copper and tin. A small portion of tin gives to copper great hardness, and renders it capable of bearing much greater resistancs. A larger portion of tin gives increased hardness, but is less fitted to bear a straining resistance, on account of its brittleness. Its elasticity is very great, which fits it for bells. In thia state it is called bell-metal; and with a still greater proportion of tin it forms an alloy employed for the mirrors of roflecting telescopes. The alloy of copper with th is essily distinguished from that with zinc, from the agreeaile color of the latter, which varies with the proportions of the metals. Pinchbeck has the lenst proportion of zinc. Common brass has more zinc, and the gold-colored alloy called prince's metal contains a still greater proportion of zine. An alloy of copper with a very large propertion of zinc is used for the common white metal buttons.
Brass-color is prepared by braziers and colormen to initate brass. There aro two kinds, tho red brass or broaze, and the yellow or gilt brass. The latter is made only of copper-tllings, the amallest and brightest that can be found; with the former it is usual to mix aome red ochre, finely pulverized.
The various alloys of coppor with tin and zinc forming the different kinds of brass, are to be considered as chemical compounds, and, of course, governed by the same laws of detinite proportions which obtuin in the more conspicuous compounds. On these principles, which can not be doubted, wa havo an unerring rule for uniting these and other metals in the best proportions, the weights of their atoms being previously known. The woight of the ntom of copper being 8; tin 7.35 , and zine 4 , the following tables exhibit the proportions of tha various alloys, expressed in atoms, and their proportions by weight, tho third column pointing out the color and character of the reaulting compound. $\mathrm{C}, 7$, and T are to represent the atoms of tho mutals respectively.

Compounds of Zino witll Compra.

| Atoms. | Proparilona by Werght | Charselar and Color of the c'ompounde. |
| :---: | :---: | :---: |
| C+7 | 2 tol | $\begin{aligned} & \text { Thu hest proportions for common } \\ & \text { prass. } \end{aligned}$ |
| c+2 2 | 1 to 1 | The altoy calied prince's metal, of a beantifil gold color. |
| C+3 2 | 2 to 8 | Of a palar yellow, very littie malle. able. |
| C+4\% | 1 to 2 | Still lighter In color, and not malieable. |
| $\begin{gathered} c+5 z \\ c+0 z \end{gathered}$ | $\begin{aligned} & 2 \text { to } \delta \\ & 1 \text { to } \end{aligned}$ | Yullowlah-white and brittle. Very brittle, nearly white. |
| 2 c+z | 4 to 1 | \{ A very majleable brush, used in |
| $8 \mathrm{C}+2$ | 0 to 1 | $\begin{aligned} & \text { An ailoy mueh harder than copper, } \\ & \text { and Inclining to tem color. } \end{aligned}$ |

Compounds of Tin witil Coprer

| Aloms. | Pmportiona by Weight | Cbaracter aod Color of the Compoude. |
| :---: | :---: | :---: |
| C | 11 to 12 | $\left\{\begin{array}{c}\text { A very britile and rather white } \\ \text { ailoy. }\end{array}\right.$ |
| $2 \mathrm{~T}+\mathrm{C}$ | 11 to 6 | Still more brittle |
| 3 T |  | ( Comeremalind, and too britlo |
| $4 \mathrm{~T}+\mathrm{C}$ | 11 to 3 | $\left\{\begin{array}{l}\text { Coarse-grained, and to brittla for } \\ \text { any purpose. }\end{array}\right.$ |
| T+20 | 11 to 24 | $\left\{\begin{array}{l}\text { A yellowish alloy, very hard and } \\ \text { sonorons. }\end{array}\right.$ |
| T+3C | 11 to 36 | Bell-metal. |
| T+4C | 11 to 48 | $\left\{\begin{array}{c}\text { A very hard slloy, used for some } \\ \text { cullnary vessels. }\end{array}\right.$ |
| T+5C | 11 to 00 | Softer, but not malicable. |
| T+6C | 11 to 72 | $\left\{\begin{array}{l}\text { Still hereased in softness, and of a } \\ \text { yellower color. }\end{array}\right.$ |
| T+70 | 11 to 84 | $\left\{\begin{array}{l}\text { Used for soma purposes lo machin } \\ \text { ery. }\end{array}\right.$ |
| T+8C | 11 to 96 | An alioy used for cannon. |
| T+3 ${ }^{\text {c }}$ | 11 to 103 | $\left\{\begin{array}{l} \text { More common for cannon and ma- } \\ \text { climery, and used for brenzo } \\ \text { etatueg. } \end{array}\right.$ |

IItherto the proportions of these alloys have depended upon the practice of workmen, guided by numerous trials; but what confirms the law of definite proportions, is the necesaity of adhering to fixed proportiona, ascertained by trial. By attending to the proportions pointed out above, the most striking and proper compcunda will be produced, without the trouble of trial. Any intermediate proportions will, douitless, be marked by defective color, irregular cryatallization, or imperfect malleability.

Although the most direct way of forming these difforent kinds of brass is by immediately comblning the metals together, one of them, which is moat properiy called brass, was manafactured long before zinc, ons of its component parts, was known in its metallic form. Tho ore of the latter metal was comented with aheets of copper, charcoal heing present; and the zinc was united with the copper without becoming visible in a distinet form. The same method is still practiced for making brass.-E. II.

Brass was known among all the early nations.Usnent. The British, from the remotest period, were acquainted with its use.-Whittaken. When Lucins Mummius burned Corinth to the ground, 146 b.c., the riches be found were immense, and during the confiagration, it is sail, all the metals in the city melted, and, running together, formed the valuable composition described as Corinthian brass. This, however, may well be doubted, for the Corinthian artists had long before obtained great eredit for their method of combining gold and silver with coppor; and the Syriac translation of the Bible says that lliram made the vessele for Solomon's temple of Corinthian breas. Articlea made of this brilliant composition, though in themselves trivial and insigulicant, were yet highly valued. - D) Finessnoy.

Brazil, an extonsive empire of South America, occupyiug n large proportion of the eastern and central part of that country, extending between lat. $4^{\circ} 28^{\prime} \mathrm{N}$. and $32^{\circ} 45^{\prime} \mathrm{S}$., and long. $34^{\circ} 55^{\prime}$ and $65^{\circ} 20^{\prime} \mathrm{W}$. Length Prom nerth to eouth, about 2030 miles ; greatest breailh, 2540 miles. Its internal boundaries cone in contact with all the different stutes and territories of South Amerlea, with the exception of Chili and Patagonia, while the Atlantic tecan washes its shores from its northeast to its southern limits.

Ilrazil was discovered by Alyarez da Cabral, a Portuguese, who was driven npon its coasts by a tempest in 1500. Ho called it the land of the IItoly Cross; but It was subsequently ealled IIrazil, on account of ita red wood, and was earefully explored by Amerigo Vespuecl about 1504 . The golil minos were first opened in 1684; and the diamond mines ware discovered in 1730. The French having aeized on Portugal in 1807, tha royal family and nobles embarked for Brazil. A revolution took place here in 1821. lirazil was orected into an empire, when Don Podre assumed the title of emperor, Nov, 18, 1825. He abdicated the throue of Port-

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ugal，May $2 ; 1820$ ；and that of Brazil，in favor of his infant son，now（1855）emparor，April 7，1831，and ra－ turned to Portugal，where a civil war ausued．－Haydn．

The empire is divided into 19 provinces， 14 situated along the shores of the ocean，and four in the interior， the relative population of which is exhibited in the following table，drawn up according to the most recent and accurate authorities．

| Provinces．$\quad 1$ | $\begin{aligned} & \text { Area in } \\ & \text { square millog. } \\ & \hline \end{aligned}$ | Population． |
| :---: | :---: | :---: |
| Afarilime Provinces． | ${ }^{\text {t }}$ |  |
| Pars ．．．．．．．．．．．．．．．．．．．．． | 684，970 | 165，000 |
| Maranham．．．．．．．．．．．．．．．．．．．． | 84，900 | 890，000 |
| Hiauhy ．．．．．．．．．．．．．．．．．．．．．． | 109， 468 | 80，000 |
| Cears ．．．．．．．．．．．．．．．．． | 60，878 | 1110，000 |
| Rlo Grando do Norte ．．．．．．． | 28，800 | 110，000 |
| I＇aralba | 81，948 | 200，000 |
| Pernambuco：．．．．．．．．．．．．．．．． | 103，896 | 000，000 |
| Alagoas ． C ．．．．．．．．．．．．．．．．．． | $\therefore \quad 70,036$ | 220,000 |
| Bergipe del Rey ．．．．．．．．．．． | 40，484 | 175，000 |
| Bahis ．．．．．．．．．．．．．．．．．．．．．．． | 202，020 | 780，000 |
| Esplrito，Santo ．．．．．．．．．．．．．．．． | 43，200 | 140，000 |
| Rto do Janelro ．．．．．．．．．．．．． | 89，460 | E50，000 |
| Santo I＇aulo． | 178，100 | 458，000 |
| Eanta Cintarins．．．．．．．．．．．．．．． | 31，748 | 90， 000 |
| Santo P＇edro do Sul． Interior Provinces． | 118，763 | 200，000 |
| Amasonas ．．．．．．．．．．．．．．． | 750，000 | 128，000 |
| Minas Greraes ．．．．．．．．．．．．．． | 216，4100 | 400，000 |
| Matto Grosso ．．．．．．．．．．．．．．．． ， | 865，800 | 180，009 |
| Goyaz | 360，750 | 185，000 |
| Total． | 3， 9150,800 | 0，150，000 |

The surface of lirazil is about equally divided into uplands and lowlands，or valleys．Two parallel mount－ ain ranges traverse the country from north to sonth， forming elavated ridges of table－land－the greatest beight of the ceutral range being from 6000 to 7000 feet． Several minor ranges intersect the country，inclosing tracts，soma of which are elevated，and othera low－ly． ing piains．The northern part of Brazil consists of the greater part of the vast plain through which flows tho River Amazon and its tributaries，and varying in width from 350 to 800 milies．Tho rivers，lakes，and water courses are so numerous as completely to jatersect this great plain，the soil of which is deep and soft，and cov－ ered for the most part with dense forests．Southeast of thls is another plain．＂The principal rivers in thle direction are the Tocantins，Araguay，Paramahiba，San Francisco，Belmonte，Doce，Paraiba do Sut，and Rio Grande do Sul，all of large size，but of difficuit navi－ gation，in consequence of rapide，ete．The tablo－land on the west is separated from the Andes of Bolivia by a large and extensive plain，traversed by those rivers whicin join to form the Madeira；the elovation of this plain is from 1200 to 1500 feet．On the banke of the Iriuana，and westward to tha north branch of the Serra Parecis，exteads a sandy aad nearly barren deaert， cailed Campos dos Parecis．From seven lakes（Sete Lagoas）on this table－land rises the Kiver Paraguay， which flows southward through a awampy country， and then through tise great plain of Paraguay to join the Perana．The latter has a course of 1000 miles，and receives the lio Gramle，the Paranabiba，Sapncalyy， Pardo，etc．Severai sunall streams flow In a soutijeast direction into the Atlantic．The Uruguay flowe south through another tabiooland of anailer dimenaions to the plain of tho Missiones．The prinelpal lakea are Iratos，an enlargenient of the Rio Granic，and Lake Mirim．Many others of less size aro in the western prov－ inces．The elinate of tise Amazon valley is of a trop－ leai nature；only the dry and ralny seasons are not very distinctiy marked．The nights aro clondiess； but in the moruing ciouds accumulate and continue tiil the afternoon，when thunder and lightnligg，with tor－ rents of rain，prevail for two hours，and ail again is clear．＇I he climato of Central and Weat Brazil is more varied，the heat in the dry seasoa being excessive， while frosty nights are of frequent occurrence in win－ ter；rain in some situations is of rare occurrence．The elimate in the valiey of the southeast coast is，notwith atanding its low latitude，as genial as that of Italy
being elear and serena，and refreshed hy tho sea－broeza from the east．，At Rio Janciro the annual mean of Fahrenheit＇s chermometer is $77^{\circ}$ ．The ahores of the east const aro generally low－lying，the ground rising gradually behind into tho mountaia region，which rung parallel to the cosst．The harbors are generally good， particularly those of Ikio de Janeiro and Bahia．Tha population of Brazil consiste of Europeans，whites born in the country，who call themselves Brazilians；Mn－ lsttoee，Mamalucoes，or offsprings of whites and nativa Indiane ；Negroes；Meatizoes，or Zamboes，mixed castes between Negroes and Indians；and the Aborigines，or American Indians．The alave popolation consiats of Negroes and mixed breeds．Of the Alorigines，a por－ tion are in a civilized condition，who are styled Cabo－ elocs；the rest ara in a savage and unreelaimed state． Dense forests furnish almost every variety of useful and ornamental timber，more than 100 ajecies of palma， logwood，mahogany，Brazil，and numerous other dye－ woods，with sassafras，sarsaparilla，ipecacusuha，and a great variety of other druge．Cocoa，eaoutchone， and manioc，are indigenous producta；maize，sugar， eoflice，cotton，rice，whoat，and tolsceo，liave been in－ trodueed by European colture．The culture of the tea－ plant was，some years ago，unsuecessfully attempted by a colony of Chinese，in the province of Sas Paulo； the yerba mate，or Parsguay tes，is，however，an ahuad－ ant product of the weatern provinces．Tha horse，ox， ond sheep，derived from European stocks，have long been naturalized in the country；and vast herds of eattle are reared on all the more open parts．Hides， horns，honee，tallow，and other animal products，form leading articies of the export trade．Wild animaio con－ prise the jaguar，hyena，tiger－cat，and other rapacions genera；with tho tapir，wiid－hog，etc．，end a great va－ riety of lirds of the richest plumage；the animal ss well as the vegetalle products hero presenting the greatest diversity．The diamond mines of Minas Ge． raes are the most productive at presont known．Esti－ mated value of the djamonds produced here，from 1740 to 1850 ，exceeda $\$ 20,000,000$ ，Other gems，and large quantities of gold，besidos silver，copper，iron，and pla－ tinum，ars among the mineral products of tine samo province．Manufactures are alaost wholly in their in－ fancy in Brazil，being confined to cotton weaving，taa－ ning，and the production of goods of primary nucessity； and nearly ail brancies of indastry are performed by slavo labor．From its central position in reference to the chiof eommereial countries of the globe，and its very axtensive line of cuast，Irazil is most faverably situ－ ated for trade，which，thongh extensive，is not yet nearly commensurate with the resources of the empire． The articles imported in 1850 consisted，of cottons， 42,5 to packages；woolens， 5488 ；linens， 5695 ；silks， 1088 ，and mixed goods， I 263 ；coditish， 54,602 quintais； coal，42，007 tons；ale and porter，23，704 barrels；flour， 288,898 inarreis ；candles－sperm， 90 ，composition， 6052 ， and tallow， 10.13 boxes ；wines－Portugal， 14,033 jiljes， Mediterrancan，7644，and Bordeaux，4421；butter， 25,561 tirkina ；cordage， 5480 cuils，etc．

The produce of the country exported consisted of， coffee， $1,846,213 \mathrm{bags}$ ；hider， 147,296 ；sugar， 7821 eases；rum， 3802 jipes ；rice， 8229 bags；horns， 2514,949 ； tobacco， 28,755 rolla；rose－w ood， 36,547 pleces；haif－ tanned hites， 12,744 ；tapioca，17，737 harrels，ete．The Imports from the Cinifed States，in 1801，amounted in valuo to $\$ 3,764,409$ ，consisting mostly of llour and other provisions，and cotton manufnetures；the ex－ ports it the aune period amounted to $\$ 10,517,36 t$ ， mostiy in coffee，sugar，and hilites，

Commerce of Brezil．－From tho report of the Minis－ ter of Finance，resi in the Chamber of Deputies on the 10th May，we gatier the foliowing particulars of the imports into，and exporta from，the empire of Ilra－ rll，for tho years 1854－＇55．Tho commerce of Brazil
 ployed $60 \mathrm{i}^{\circ}$ shlps or ressels，measuring $1,657,015$ tous．
sea-breeze 1 niean of ret of the ind rising hich runs ally good, hila. The hites born fans ; Mu. ind nativa xed castes rigines, or onsists of nes, a porled Cabomed atate. of useful $s$ of palms, other dye311ha, and eutchouc, ze, augar, been inof the teaattempted aō Paulo; horse, ox, have lohg herds of Hides, ucte, form male comrapaeious great veanimal as nting the Minas Gen. Estifrom 1740 and large , and plathe same their inving, tanlucessity; armed by erence to d ito very bly situnot yet o empire. coltons, 5 : silks, juintals; ; flour, on, 0052 , 33 plpes, butter,

The revenue of the last three years amounted to--1852-'63, $\$ 18,191,458 ; 1858-54, \$ 17,249,806 ; 1854-55$,

On the 31st of December, 1855, the exterior public $817,797,950$. Total, $58,289,214$. Average, $\$ 17,746,405$. debt amounted to $\mathbf{£ 5}, 635,900$. I'he passive interior debi, $\$ 28,969,600$.

| Couptries. , )\| | Imports. | Proportions. |  | Experta, | Preportions. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1883-34. | 1854-75. |  | 1883-154. | 1854-35. |
| Great Britain and her possessions . . . . . . . . . . . . . . | \$22,775,420 | 6.77 | 83.69 | \$19,687, 308 | 32.43 | 82.32 |
| France and her possessloas. . . . . . . . . . . . . . . . . . . . | - 4,989,187 | 1171 | 11.07 | 4,086,181 | 795 | 9.02 |
| Unlted States . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8,905,868 | 906 | $8 \cdot 25$ | 11,908,644 | 28.85 | $26.28^{\prime}$ |
| P'ortugal and her possessions . . . . . . . . . . . . . . . . . . . | - 3,234,396 | $6 \cdot 83$ | 763 | 2,324,889 | 4.85 | 5.12 |
| Ilanseatic Towns. . . . . . . . . . . . . . . . . . . . . . . . . . | 2.442,233 | $0 \cdot 25$ | 5.76 | 3,387, 670 | 8.27 | T-\%t |
| Rlo de ts Plata . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,108,645 | 509 | 4.97 | 2,087,433 | 4.25 | 461 |
| 1relgiam . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 885,762 | $2 \cdot 16$ | 497 | 1,391,847 | 1.78 | 8.07 |
| Spaln and her possessions. . . . . . . . . . . . . . . . . . . . . . | 605,468 | 0.84 | 1.45 | 488,069 | 0.84 | 0.06 |
| Chlli . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 564,188 | 0.40 | 1.33 | 789,5059 | 1.02 | $1 \cdot 63$ |
| Sardinln . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 877,584: | 0.78 | 0.89 | 603,078 | 0.88 | 134 |
| Sweden and Norway. . . . . . . . . . . . . . . . . . . . . . . . . | 189,774 | $0 \cdot 26$ | $0 \cdot 45$ | 1,254, 049 | $2 \cdot 18$ | $2 \cdot 77$ |
| Austrla . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | -130,277 | 0.84 | 0.81 | 812,011 | 3.63 | 179 |
| Ilulind and her posgessions. . . . . . . . . . . . . . . . . . . | 69,750 | 0.07 | $0 \cdot 14$ | 109,611 | $0 \cdot 18$ | $0 \cdot 24$ |
| Other countries . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 322,327 | 0.94 | 0.70 | 087,557 | 103 | $1 \cdot 47$ |
| letmmark . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | -碞 | . | .. | T79,1138 | $2 \cdot 64$ | 1.72 |
| Thurkoy. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | . | . | 164,709 | $0 \cdot 15$ | 0-20 |
| lio-exportation . .e...... . . . . . . . . . . . . . . . . . . . . . . . | 300,400 | $\cdots$ | $\cdots$ | ..... | $\cdots$ | . . |
| Total. .................................. | \$43,010,174 |  |  | \$ $150,634,805$ |  |  |

A decree of the govermment of Brazil, under date of January $10 \mathrm{th}, 185 \tilde{5}$, exempts foreig. iers from permits of residenee, and permits them to trs vel in the interior of the emplre with such passports as they may have brought with then, and, for the want of such, with the passport of their respective ministers, consuls, or viceconsuls, the same bearing the $\boldsymbol{v}$ isa of the Brazilian authorities.
[Translation.]
Art. 1. Permits of resideuee aro abolished, and forelgners coming to the emplre are exempted from tho same.
Art. 2. At every pollee offiee a book shall be kept for the reglatration of forelgners entering or loaving the emplre.
Art. a. On the occasion of the police vialt forelgnera ainall state their names, oondition, the place of thoir nativity, pro. feasion, the object for coming liere when they arrived, and where they intend to reside. In thuse phaces where no poltco visit is made, the oforesaid dectaration shath be mado before the chlef of police, delegaie, or sub-delegate within twenty-four hours after landing, under peralty of from $\$ 10$ to $\$ 50$ fine, im. posed by tho competent anthority.
Art. 4. The deelaration alluded to in the foregoing article does not exonerate captulns and masters of merchant vessela from the olllgaton haposed upon them by the twenty-fifth arHele of regulation No. 120, of Jnauary $31 \mathrm{st}, \mathbf{1 8 4 2}$, to declare, in a statement signed by them, the mumber, namo, employment, occupalion, and placo of nativity of the passengers they bring wlit them, with or whithout passports.
Art. 5 . The deelaration of the foreigner and of the master or eaptalit of the vessel shall be immediately transmittod to tho tureas of pollee by the visting offieer or the authority who recelves them.
Art. 0. The visithing offieer, tho ehtef of pollee, or the detogate or anb-delegate to whom the forelgner presents himself, shall exumine his possport, and the same istug found in duo form, It ahail be rethrned to him visaed, dated, und algned.
Art. 7. If there should be any doubt as to the legallty of the paspiprt, or the forikner come withoat one, the ohicf of peltee, the delegate, or sub-delegate shall pormit him to hand fif there Is no reuson for auspeeting him to be a eriminal; lut if he should be suspielous, and have no cerlificate to present in his fisvor from his mblalster, or, In the abseuce thereof, from his respeetivo consul or vice-consul, the chief of police, the twlegate or suld-delegate ehall compel the vessel which brought him to lake him back, reporllag the eircumataneo to the gove ernaent at the eapital, and to the prealdent in the provinces.
Art. 3. To euahle a furelgner to travel from ono provlace to another, or ln the finterior of the amas, the paspport whth which he arrived th the empire with be anmedent, provided it bears the vise of the cempetent authority whil this chanse, "For the province of --_" The vipa must he dated, algnen, phid for, and renewed overy tho the forelgner fenvers ono proviace for another.
Art. 0. Itht If the foreigner should happen te have come without a puespert, or have lost the ene he brought whth him to the enpile, the pasyonert of the minister, or, in the absente thereof, that of his respeellve consal or vice-eonsul, with the viba of the Itrazillan anthorthes, na set ferth in tho preceding artlelo, nhall nawer tho same purpose.
Art. 10. A forelgner who has resided in the emplre for two yeary, belag in possesmion of an entablithmeat, and combucted hamall well, or belug married to a liraaltimn, ahall be at llburty to truvel freely tike a liraalian, afor having obtalued
from the cillef of pollee a vertifieate of elther of sald conditiona. thas certlficate is revokable in case of a change of elrcumataneer.
Art. 11. In case of there being no diplomatle or consular agent, or the forelgnor be in refugee or emigrant, or not come uader the provisions of the preceding article, tho passport ahall be lesued by the chlef of police, the delegato, or aub-delegate, the same beling alwaja fred of charge for the omigrent or the poor.

Art. 12. The ministers of atate, or the chlef cierks of the several departments at the seat of government, tho presidente or their aecretartes in the capitala of tho provinces, the chlef of pollee, the delegato or anb-delegate, at the plaec of Innding or of departure, ahall be empowered to grant the passport or the visu referred to in the preooding artleles The poword con., ferred by this decree upon the chief of pollee, tho delegate and sub-delegate, are not concurrent, but shall bo exercleed hy the delegate in places where roo chief of pollee resides, or by the sub-delegate where no chlef of pollce or delegate exists.
Art. 13. In eonsidenation of the foregolng artleles, the re. spectlve portlons of the artleles in regulation No. 180, of Jah. uary 31 at, which, referred to permits of realdenee, and to pasa, ports for forelgners travellag in the luterior of the emphe, are herely abolithod.
Brazil-nuts, or Chestnuts of Brazil, tho fruit of the Juvia (Bertholletin excelsa), a majestic treo growing to the heiglt of one hundred or one humelred and twenty feet, aboundiag on the banks of the Orinoeo, and in the northern parts of Brazil. The nuts are trl. angular, having a euneiform appearance, with sutures at each of the angles; the shell is rough and hard, and of a brownifis ash color. The kornel resemblos that of an almond, but is larger, and tastes moro like a comnon hazel-nut ; it contalas a groat deal of oil, that mny be obtainod by oxpression or otherwise. These unts do not grow aeparately or in elusters, but are contalned, to tho number of from fifteen to litty or more, in great ligneous pericarps or outer shells, generally of the size of a child's head. This outer shell is very hard null strong, so that it is rather diticult to get at tho nuts, which are closely packod in cells inslde. The notives aro partieularly fond of this fruit, and celobrate the harvent of tho juvia with rejoleings; it is also very much esteemed in Europe. The nuts exported to Bugland and the Europoan continent aro chlefly from lara, and form an nrtiele of conshlderable commereial importance.- 11 umnobat's ${ }^{\text {norsonal }}$ Narrative, vol. v. p. Sids, English trunalntion.

Bragil-wood (Fr. Bois do Brisil; Ger. Brasilienholz; Du. Bravilienhont; It. Leyno del Brasile, I'ersino; Sp. Malera del Bresil; l'ort. Pao Brasil). It has heen commonly supposed that this wool derived its unmo from the comitry in which it is princlpally preduced; but 1r. Hancroft has conchusively shown that woods ylelding a red dye were called llrazll-woods long previously to the discovery of America; and that the enrly vojagors give tho namo of lirszil to that part of that conlinent to which it is still nppled from their having ascertained that it abounded in such woods.-

See the learned and excellent work, Philosophy of Col ors, vol. il. p. 316-321. It is found in the greateat abundance, and ia of the beat quallty, in the province of Pernambuco, where it ia called Pao de rainha, or Queen'a wood; but il ia also found in many other parts of the Western hemlaphere. The tree is large, crooked, and knotty; the lenves are of a beautiful red, and exhale an agreenble odor. Ita botanical name la Cow salpinia Brasileto, but it la called by the natives ibiripitanga. Not withatanding ita apparent bulk, the bark is so thick, that a tree as large aa a man's body with the bark will not be so thick as the leg when peeled. When cut into chips, it loses the pale color it before had, and hecomes red, and when chewed has a sweet tasto. It is used for various purposea by cabinet-makers, and admits of a beautiful varnish, but ita principal use ls in dyeing red; and though the color is liable to decay, yet, by mixing with it alum and tartar, it is casily made permanent. There is also made of $i t$, by means of acids, a sort of liquid lake or carmino for painting in miniature. Brazll-wood has been for many years past a royal menopoly ; its exportation, except on account of governmicnt, being prohilited under the severest penalties. Owing to the improvident manner in which it has been cut down by the gevernment agents, it is now rarely found within several leagues of the coast. Indeed, wo are assured that many of the planters have privately cut down the trees on their estates, and used the timber as tire-wood, that they might net expose themselvea 10 annoyance from the arbitrary and vexatious proceedings of these functionariea. The quantity of Brazil-wood imported Into Great Britain is but inconsiderable. Its price in the London market, exclusive of the duty ( 2 s , per ton), varies for the first quality from $£ 60$ to $\mathbf{E 8 0}$ per ton.-Dr. Banerort in loc. cit. Encyclop. Metrop. Modern Traveler, vol. xxix. p. 87 ; Malte Bnun, vel. v. p. 525, Englibh edition, etc.

Bread, the principal article in the food of mest civilized natiens, zonsists of a paste or dough formed of the fleur or meal of ditferent serta of grain mixed with water, and baked. When stale dough or yeast is added to the freah dough, to make it swell, it is said to be learened; when nothing of thla sort is added, it is said to bo undeazened.
historical Sketch of Bread.-The President to Goguet has endeavored, with his usual sagacity and learnbing, to trace the successive steps by which it is prob.. able men were led to discover the art of making lread (Origin of Laves, etc. vol. i. p. 95-105, Linglish translation); but nothing posilite is known on the subject. It is certaln, however, from the statements in the sacred writings, that the use of unleavened bread was commen in the daya of Abraham (Gen. xvili. 8); and that leavened bread was used in the time of Moses, for he prohibits eating the l'aschal lamb with such bread.-Exod, xij. 15. The Greeka affirmed that Pan had instructed them in the art of making bread; but they ne doult were indelted for thin art, as well na for their knowledge of agriculture, to the Egyptinns and Phenicians, who had early settled in their country. The method of grinding cern by hand-milla was practiced in Bgypt and Grecee from a very remete epech; but for a leugthened period the llomans had no other method of making flour than by beating roasted corn in mortars. The Macedonian war helped to make the Romans nequininted wilh the arts and refinements of Greces; and lllay mentiona that public bakera were then for the firat time eatablished In llome.-Hist. Nat. lib. xviii., c. 11. The conquesta of the Remans diffused, among many other useful discoverles, a knowledge of the art of preparing bread, an praeticed in Rome, through the whole south of Europe. The use of yeast in the raising of bread seems, hewever, from a passage of Pling (lib. xvili. c. 7), to have been practieed hy the Germans and Gaula before it was practiced hy the liomans; the latter, like the Grecka, having lenvened their bread ly lutermixing the fresh duagh with that
which had become atale. The Roman practice seema to have superseded that which was previously in use in France and Spain; for the art of raising bread by an admixture of yeast was not practiced in France in modern times till toward the end of the seventeenth century. It deaerves to be mentioned that, though the bread made in this way was decidedly superior to that previously in use, it was declared by the faculty of medicine in Paris to be prejudicial to health; and the use of yeast was probibited under the severest penaltics. Luckily, however, the taste of the public concurring with the interest of the bakers, proved too powerful for these absurd regulations, which gradually fell into disuse; and yeast has long been almost every where used in preference to any thing else in the manufacture of bread, to the wholesomeness and excellence of which it has not a little contributed.

The apeciea of bread in conmon use in a country depends partly on the taste of the inhabitants, but more on the sert of grain suitable for its soil. Hut the superiority of wheat to all other farinaceous plants in the manufacture of bread is so very great, that, wherever it is easily and auccessfully cultivated, whesten bread is used, to the nearly tetal exclusion of most others. Where, however, the soil or climate fs less favorable to its growth, rye, oats, etc., are used in its stead. A very great change for the better has, In this respect, taken place in Great Britain within the last century. It is mentiened ly Ilarrison, in his description of lingland (p. 168), that in the reign of Henry VIII. the gentry had wheet sufllelent for their own tables, but that their household and poer neighbura were usunlly obliged to content themselvea with rye, barley, and outs. It appears from the heuschold book of Sir Edward Coke that, in 1596, rye bread and oatmeal formed a considerable part of the diet of servants, even in great families, in the southern counties. Barley bread is stated in the gront of a monopoly by Charlea I., in 1626, to be the usual food of the ordinary sort of pee-ple,-Sir F. M. EDEN on the Poor, vel. i. p. 561. At the Revolution, the wheat produced in England and Wales was estimated by Mr. King and Dr. Davenant to emount to $1,750,000$ quarters.-Davenant's Works, vol. ii. p. 217. Mr. Charles Smith, the very well informed auther of the Tracta on the Corn Trade, originnlly published fil 1758, states that in his time whent had become much more generally the food of the commen people than it had been in 1689; but he adds (2d ed. p. 182, Lond. 1766) that, notwithstanding this increase, some very intelligent inquirers were of ojinion that even then not more than half the people of lingland fed on wheat. Mr. Smith's own extlinate, which is very carefully drawn up, is a little higher; for, tnking the pepulation of England and Wales, in 1766), at $6,000,000$, he supposed that $3,750,000$ were censumers of whent ; 739,000 of barley ; 888,000 of rye and 623,000 of oats. Mr. Smith further aupposed that they indivilually conammed, the tlrst elass, 1 quarter of whent ; the accond, 1 quarter and 3 bushela of barley; the third, 1 quarter and 1 bushel of rye; and the fourth, 2 quarters and 7 bushels of oats.

About the middle of last century, hardly any whent was used in the northern countlea of linglaid. In Cumberland, the princlpal families uned only a small quantity nbout Cliristmas. The crust of tho goose pie, with which almost every talise in the comnty is then nupplled, wha, at the period referred to, almost miformIy mado of barley meal.-limen on the I'oor, vol. i. p. 6ibs.

Every one knowa how innpplicablo these statements are to the condition of the people of England at the present time. Wheaten brend is now malvereally made une of in towns and villages, and almost every where In the country, larley is no longer used, except in the distillerles and in brewing ; oata are employed only In the feeding of horses; and the consumption of rye hreal is comparatively liconsiderable. The produce
etice seems aly in use in bread by an nes in modenth centilth tho bread to that pre. lty of mediand the use at penaltics. coneurring powerful for fell into diswhere used lufacture of co of which

## country de.

 s, bat more But the sulants in the wherever it en bread is 108t others. a favorable s stead. A his respeet, at century. tion of lin. $\checkmark$ VIII. the tables, but ere usualiy barley, ond 8 of Sir Eidaneal formits, even in arley bread arles 1 ., in sort of peop. 5 tii. At gland and . Davenant NT's iYorks, ry well inade, origintime wheat of the com. he adids (2d ing this inof opinion ple of En ate, wilch $r$; for, takin 1760, at consumers and 623,100 ry ludivitiwheat ; tie he third, 1 2 quarters any wicat tanid. In ly a small goose pie, ty is ticol t uniform; vol. i. 1. sally mule ery whero except in loyed only ion of rye a produceof the wheat creps has been, at the very least, quadru. in the form of dough, its glutinous or adhesive properpled sinco 1760. And if to this immense increase in the suppiy of wheat we add the atill more extraordinary increase in the supply of butchers' meat (see article CATrick), the fact of a very signal improvement having taken place in the condition of the population, in respect of food, will be obvious.

But great as has been the improvement in the condition of the people of England since 1700, it is but trifling compared to the improvement that has taken place sinco the same period in the condition of the people of Seotland. At tho middle of hast century, Scotch agriculture was in the most depressed atato; the tenants were deatitute alike of capital and akill; green crops were almost whoily unknown; and the quantity of wheat that was raised was quite inconsiderablo. A feld of eight acres sown with this grain, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity that it exclted the attention of the whole neigiborivood.--Robentaon's Rural Recollections, p. 267. But even so late as the Anerican war, the wheat raisod in the Lothians and Berwicksiiire did not exceed a thini part of what is now grown la thom; and taking the whole country at sa average, it will be a moderato estimato to say that the cuitivation of wheat has increased in a tenfold proportion aince 1780. At that period no wheaten bread was to be met with in the country places and viliagea of Scotlind, oat cakes and barley bannocks being universally made use of. But at present the caso is wideiy diflerent. The upper and also the niddle and lowcr ciasses in towns and villages uso only wheaten bread, snd even in farm-houses it is very extensively consumed. There is at this moment hardly a viliage to be met with, however limited ite oxtent, that has not a public laker. In many parts of Englaud it is the custem for private familios to bake thoir own bread. This is particulariy the caso in Kent, and in some parts of Lancashiro. In 1804 there was not a singlo public baker in Manchestor, and their numbor is still very limited.
The word bread is sometimes used for all the necessaries of human life, especially in tho Scriptures. Chilug-Noung, the successor of Fohi, is reputed to have been the lirst who taught men (the Cinnese) the art of husbandry, and tine method of making bread from wheat, and wine from rice, 1998 n.c.--Universal Ilistory. Baking of bread was known in the patriarchal ages; see Lixodus, xii. 15. Baking bread became a profession at homo, $170 \mathrm{n} . \mathrm{c}$. During the aiege of laris iny lienry IV., owing to the tamine which then raged, bread, which had been sold, whilo any romained, for a crewin a pound, was at last made from the bones of the charnei-house of the lioly Innocente, A.D. 1694. -ilesault. In the time of James I. tho ubual ibead of the joor was mals of barley ; and now in Iceland, cod-fishi, beaten to jowder, is madio into bread; and the poor uso potato-breai in many parts of Ireland. Farth has been eaten as bread in seme parts of tho world; near Moseow is a pertion of land whose clay will ferment when mixed with tienr. Some of the Indians of the Southwest eat a white earth with salt; and the indiuns of the Oronoko eat a white unctuous carth. -Gham; Pumbive.

Breal-making.-Bread is a most inuportant and genecally used article of food, and its proier proparation is a matter of the first Importance. In Now York it is chieftiy composed of wheat tiour, although ryo and $\mathbf{I n}$ dian meal enter somewhat into the composition of gome species, $\quad 100$ parts of wheat flour consist of

| Stareh. | s. |
| :---: | :---: |
| Ulutun | 24 " |
| Suga | 5 |
| Vegeta |  |

Of thoso different constituents, tho gluten is that which gives to it tho universni preference it enjoys over all other articles for bread-making. In onta, bariey, and ryo, the amount of gluten is small. Aa its name imperts, it gives to the tiour, when mixed with water,
ty; and hence, although wheat flour can easily be converted into a plastic paste with water, yet it is found exceedingly difficult or impossiblo to mako an adhesivo dougl with rye or oat meal flour without the addition of a portion of wheat flour.
Tho quality of wheat flour is greatly insproved by threc or four months'age, and it makes a much stronger bread after this period than before. If, however, it is kept too long, it is not only liable to fermentation, but loses in part its giutinous property. It is the custom with bakers, who seldom une flour before it is of the age Indieated, to mix that of three or four months' ago with that which is one or $t$ wo years old; beyond tiin period it can not be well kept without especial care; and, indeed, so great is the demand, that it is aeldom permitted to accumulato for a longer time.
Most of tho bread used in New York is fermented or raised bread, which is induced by adding to tho dough a portion of leaven, or yeast, which quickly diffuses itself through the wholo mass, and cansea it to ferment. This fermentation, which, although daily observect, is far from being so weil understood as st flrat siglit might be sopposed, evolves a quantity of fixed air into the dough, which the gluten of the flour, by ita tenaeity, causes to ho retsined in tho littlo ceils seen in the raised dough before baking, or in the bread as it comes into the consumer's handis. Flour is now sold which contains tartaric ueid and saleratus, or soda, in a dry state. When water is sdided to this, it causes an evolution of tioe carbonie acid gas contained in tho soda, or potash, and tho bread is suddenly raised without the process of fermentation.

Tho method of making bread in large bakerica is to aift a quantity of flour into a kneading-trough, into which is thrown a quantity of hot water in which salt has been dissolved. Into this mixture yeast is cast in the centre, and worked with a portion of the surrounding mass, which is made of the consistence of a stiff batter. The surface is covered with a little loose flour, and tho whole is left in a stato of reposo untii it begins to manifest decided signs of "working," when it is kneaded into doagh.
This dongh is sprinkled with a littlo flour, covered witi a warm woolen cioth, and left for an hour and a half, when it is anbjected tc $n$ secoud but less general kneading, eut in pieces, welghed, and shaped into the form it is iutended to assome in tho loaf, and bet abidio for some time in a warm place. When ready for the oven, the loaves aro placed in It, buked, and removed in tho form of bread. Thic loaf increases to about twice the sizo which it had in the form of dough, but loses somowhat in weight in the process of baking.
In most Europenn countries the weight of the loaf is regulated by law, the assize being at tended with atrict rogulations and penalties; but in this country the subject of quantity and quality, as a general rule, has been left for tho baker and inis customars to regulate between themselves, it being conaidered that competition would irrobabiy regulato this matter as advantageously for the consumer as it could be done by atriet legal enactments. This is the nore alvisaile, becauso the baker lans it in hila power to increaso tho weight of his loaf iy adulterntions, which are difficult to detect, without adding to its nutritious properties. Is it is, ino is free to solect tho mixture of tlour which la best suited to the wants and tnates of his customers.

There is a great difference in tho ability of varioua kinis of flour to make a given quantity of breai. A portion of this dillerenee consists in tive eapacity of the Hour to nbsori, and retain water, which is not ouly used to meisten the fleur, but absolutely enters into the composition of the bread. Notwithastanding a large portion of tho water used in makiug dough is expelled by the hent of the oven in linking, yet a sufficiency is retainod to ineronse tino weight of the bread largely over tho solid materinls usad in making it.

Whan the bread is weighad immediately after baking, it is found that for every 100 pounds of flour about 138 pounds of bread are mads. This will diminish, by keeping, four or flve pounds, but even when atale It is much above the weight of tha flour actually used. As a general rule, fifteen pounds of flour and ten pounds if water will make twenty pounda of bread, so that ine-fourth of ecich louf of bread consists of roater chemically combined and solidified.

Each baker has his own standard for the aizo and welght of his loaves, as well aa his partlcular method of making bread, "As a general rule, the sixpenny loal welgha from ons pound two ounces to ons pound six ounces, and larger loaves bear a liks proportion of weight to price, Those whose custom ia among the more fashionable classes use a higher-pricad quality of flour, and make a smaller loaf, whilo those who supply tho laboring class of tho community use a good but less high-priced flour, and furnish their custemers whth a large loaf. Many of tice shops contain American, Freuch, and German loaves, whila large numbers of establishmonts confine themselves to the one or the other of tiess species. The chicf difference between the Amorican and French bread consists in the larger quantity of yeast used in the latter, and its greater porosity, or want of closencss. The German bread is more danse than either of these, and contains, in addition to wheat flour, a small admixture of rye flour, which gives to it a slightly sweetish taste, much relished by those accustomed to its use.
The amount of bread censumed every whero is very great. According to M. Iusson, the l'arisim uses about one pound cach day, or three hundred and sixty pounds ench year. 'Tbo Londoner consumes in the ssume time about three hundred pounds; and tha Naw Yorker about two hundred and sixty pounds. The reason of this great disparity in the cousumption of hread in these thres great citlea is easily acen in the larger quaritity of meat and vegetablas used in the one than ill the other. The Loadoner consumes more meat than the Parisian, and consequently less breal, while the amount both of meat aud vegetables used by the New Yorker exceeds tliat of the Londoner; and his consumption of hread is preportionably diminished. This, however, is sulject, in svery country, to great variations; but it may be safely assumed that the famliy that uses nueh mest consames but little bread; and that which consumes but little meat requires a corresponding incrense in the amount of bread.
Bread-fruit. The bread-fruit is a large, globular berry, of a pale-green color, about the size of a child'a head, marked on the surface with irregular sixsided deprossions, and contalning a white and somewhat filrous pulp, which, when ripe, becomes juley and yellow. The tree that produces it (Artocarpus incisa) grows wild in Otahelte and other islands of tha South Seas, is about 40 feet high, with large spreading branches, and has large, bright green leaves, deeply divided into seven or nina spear-shaped lobes. We are informed, in Captain Coek's first Voyago round the World, that the eatable part of this fruit lies between the ekin and the core, and that it is as white as snow, and somewhat of the consistence of new bread. When gathered, it is generally used immeilately; if it be kept more than 24 hours, it becomes lard and choky. The inhabitants of the South Sca islands prepare it ns food tiy dividing the frult into three or four parts, and roastlug it in liot embers. Its taste ls insipid, with a slight tartness, somewhat reaemhing that of the crumb of wheaten bread mixed with Jerusalen artichoke. Of this frult, the Otaieitans make various messes hy mixing it with water, or the milk of the cocoanut, then beating it to a paste with a stone pestle, and afterwarl mingling with it ripe jlantalus, bananas, or a sour pasto, made from the lread-fruit jtself, celled mahie. It continues in season eight montha, and so great is ita utility In tho island of Otaheite, "that," observes

Captain Cook, "t if in those parts where It ia not apontaneously produced, a man plant but ten trees in bis whole lifetime, he will as completely fulfill his duty to his awn and to future generations as the native of our leas temporate climate can do by plowing in the cold of winter, and raning in the aummer'a beat, as often as these seasons return; even if, after ha has procured bread for his present hpusehold, he should convert the surplus into money, and lay it uip for his chlldren." Not only does this tree supply food, hut elothing, and numerous other conveniences of life : The inner bark, which is whito, and composed of a net-like series of fibres, is formed into a kind of cloth. The wood is soft, annooth, and of a yellowish color, and is nsed for the buililing of bosts and housess: In whatever part the tree is woandad, a glutinous mliky juice lasues, which, when boiled whth cocoa-nut oil, is smployed for maklng bird-llma, and as a cement for filling up cracks in such vessela as ars intended to hold water. Seme perts of the flowers serve es.tinder, and the leaves are used for wrapping up foor, and other purposes. As the climate of the South Sea islands is conidered nol very different from that of the West Indies, it was, about 42 yeare ago, thought desirsble that some of the trees ahould he transferred, in a grewing atate, to ths Engilah islands there. Ilis majesty's ship, the Bounty, sailed, in 1787, for this purpose, to the South Seas, under the command of Lieutenant, afterward Admiral Bligh. But a fatal mntiny of the crew at that time pravented tho accomphishment of this benevolent design. The cominander of the vessel, however, returned in zafoty to his country, and a second expedition, under the same person, and for the same purpose, was fitted out in the year 1791. He arrived in eafety at Otahelte, and, after an alsence from England of aboat 18 monthr, landed in Jamaica with about 852 hread-fruit trees in a living state, having left many others at different places in his passage thither. Froin Jamaica these trees were transferred to other Islands; but the Negroes having a general and long-established predilection for the plantain, the bread-frult is not unch relished by them. Where, however, it has not been generally introduced as an article of food, It is used as a delicacy ; and, whether employed as bread, or in the ferm of pudding, it is considered highly palataile by tho European inhalitanta.-E. A.

Breadetuff. Noxt to the cotton trade, that of hreadstutis and provisions is the most important in our foreign export trade, and of far more importancs in ita general bearings upon commerce, and amounts yearly to about one-fifth of the total exports from the United States. As will ajpear from tide table loclow, the exports are increasing very rspidly, laving quadrupled from 1844 to 1804 . It is probabile that this increase will contlnuc, as tho same causes are now operating to enlarge tha demand that have increased the exports for the past.

Great Britain has always heen the best customer for the surplus breadstuffs of the United States. To most other countries which take bresdstuffs of us, our shijiments of flour havo been comparatively unlform, whetier the crop was large or smilil; but to liritsh perts the shipmenta have varied with the quantity we inve had to apare, although averaging nearly half the totai clearances of all farcign ports. Brazil and the West Indies aro regular customers for our tiour, as they furchase about the same quantity every year, nul, nfter Great I3ritain, take tise largest quantity in a series of ynars; but a large portion of our shipments of grain (with' wheat and corn) go to Jritish ports. Thus, of 18,548,151 busbicls of wisent alsipper to all ports from July 1, 1849, to June 30, 1855, 14, 061,211 were sent to Grent lBritain; and of $43,737,517$ bushels corn oxported to all ports within the aame period, $\mathbf{3 6 , 6 6 3 , 9 5 1}$ inshels had the anme destination. We annex a tubinlar statement showling the exports from all jorts of the United States to all forelgn porta, of wheat, whent

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flour and Indlan corn, both in quantity and valuo, from 1849 to 1855 iaclusive, with a comparison of the quatity of each sent to Groat Britain. The totals are all taken from official documents, and may bo relled upoa as nuthentlo, although it must be noted that of many direct clearances to Great Britaln for orders there are sometimes conaiderable quantities directed from thence to Continental ports. The "famine" of 18.17 led to large shipments of breadstaffe, and to the inauguration of free trade In Englanel, and we commence, therefore, with 1848-' 9 , when the business hat becomo settled under this ayatem. The perlods noted are for the fiscal years endiag June 30:

Exports from the Cinited Statea, of Wheat, Wheat Floub, and Imdlan Colln, pron 1819 to 1855, hoth indlubife

| Articlen. | To (1reab Britais. | To all | Valu. |
| :---: | :---: | :---: | :---: |
| Whetist. | Quantily. | Quastity. |  |
| Wheat, bushels. | 1,074,780 | $\text { 1, } 627,5 \% 4$ | $1,756,543$ |
| Flour, barrels . . | 053,815 | 2,108,013 | 11,280,588 |
| Corn, bushels . . | 12,890,242 | 13,257,309 | 7,966,369 |
| Whest, bushels. | 816,920 | 608,661 | 643,745 |
| Flour, barrels.. | 870,777 | 1,885,448 | 7,070,670 |
| Corn, bushels . . | 5,987,206 | 6,505,092 | 8,802,103 |
| Whest, bushels. | 592,583 | 1,026,756 | 1,025,782 |
| Flour, barrels . . | 1,004,788 | 2, 24, 2,385 | 10,524,881 |
| Corn, bushels . . | 2,760,320 | 8,426,811 | 1,761,549 |
| Whest, bushels. | 2,049,557 | 2,604,640 | 2,056,209 |
| Flour, barrels . . | 1,632, 094 | 2,700,859 | 11,860,148 |
| Corn, bushela . . | 1,894,700 | 2,027,075 | 1,640,225 |
| Wheat, bushets. | 3,572,248 | 8,800,141 | 4,354,408 |
| Flour, barrets . . | 1,388,045 | 2,020,018 | 14,783,394 |
| Corn, bushels . . 1854. | 1,653,840 | 2,274,000 | 1,974,077 |
| Wheat, busheis. | 0,058,003 | 8,030,065 | 12,420,172 |
| Flour, barrela . . | 2,020,121 | 4,022,370 | 21,701,444 |
| Corn, Iushels . . | 5,905,850 | 7,768,816 | 0,0T4,27T |
| Whest, bushols. | 890,215 | 798,894 | 1,329,246 |
| Flour, barrels .. | 189,712 | 1,204,540 | 10,898,908 |
| Corn, Dushels . . | 5,935,284 | 7,807,585 | 0,961,571 |

The ordinary ehipments in former years havo not : cluded any thing direct for France. In the first year named abovo (1849) thero were no exports of flour to French ports, and only 108 bushels of wheat; in 1852 the total includes 2700 barrols of flour, and In 1853 only 8784 barrels; but in tho year ending June 30, 1854, there wera shipped direct to France $1,0.11,086$ busbels of wheat, 728,279 harrels of flour, and 39,200 bushels of Iudian corn. In the following fiscal year (1851-'55) the shipments of flour to the same ports hat dwindled down to 8557 barrels, and thero was no shipment of wheat, but the exports of corn increased to $312, i t 0$ bushels. During the year 1855 , the partinl failure of the crops on the Continent of Larope led to large direct shipments, nul the total exporta to France for 1835-'j6, not yet otficlally compiled, have been larger than ever before recorded to the same ports. As soon as the threshing of whent commenced in the west and north of France ln 1855, its bad quality and light weight created a general panic, nud prices continued to advance up to the firat of Jumury. The abundance caused by the largo recelpts from this country, Spmin, and other sources of supply, cansed a downward temdency in prices throughout Jmuary, 1850, nud every thing was promising for the next harvest until tha Inundations in May. These cheekel the decline without wholly arresting it; but ins the harvest approached, the hopes of an averago crop becumo less sanguine, and it is now generally admited that the supply will be teficient from flve to ten million heetolitres, that is, from fourteen to twenty-elght millions of bushels. The quantly of arable lund in France is set down at Sf,810,000 neres, of which fourteen million hectares, or $34,580,000$ acres, ara devoted to the eulture of grain. The average annunl product is $495,000,000$ bushels of wheat, oats, rye, malze, and meslin, of whith about one-fourth are oats, and two-fifths, or $198,000,000$ hushels, are wheat. With an averago crop, Franca has
beretoforo been able not only to anpply her wanta, but to furnish about $5,500,000$ bushels of wheat (or its equivalent in flour) for the coneumption of Great Britain. It is evident that this export trade muat be cut off or greatly reduced during the current year, as the crop in France is below the wants of her own peoplo. Indoed the total exporte to Great Britain from all the French ports for the year 1855 amounted to an equivalent of only 880,000 bushels, or about 15 per cent. of the usual shipments, and this was all foreign produce, shipped from bond.
Statement exiliuitino the aggregata Value of BreadgTUFFi Anh Phovibione kxporteb Annuai.ly finom tira UNiteb Stater, yaom tie YEar 1821 to 1855, Hotil ine oluelve

| Yar onding soptember 80. | Amo 'ut. | $\begin{aligned} & \text { Year asoding } \\ & \text { Soplembar } 80 . \end{aligned}$ | Amount. |
| :---: | :---: | :---: | :---: |
| 1821 | \$12,341,901 | 1839 | \$14,147,770 |
| 1828 | 13,886,856 | 1840 | 10,007,635 |
| 1823 | 18,767,847 | 1841 | 17,106,102 |
| 1824 | 15,059,484 | 1842 | 10,002,876 |
| 1825 | 11,634,449 | $1843{ }^{*}$ | 11,204,123 |
| 1820 | 11,303,496 | 18.44 $\dagger$ | 17,970,135 |
| 1827 | 11,685,556 | 1845 | 10,743,421 |
| 1828 | 11,431,144 | 1846 | 27,701,121 |
| 1829 | 13,181,853 | 1847 | 68,701,921 |
| 1830 | 12,075,430 | 1848 | 87,472,751 |
| 1831 | 17,538,227 | 1849 | 68,155,507 |
| 1832 | 12,424,703 | 1850 | 20,051,378 |
| 1833 | 14,209,128 | 1851 | 21,998,051 |
| 1834 | 11,524,024 | 1852 | 25,857,027 |
| 1835 | 12,009,399 | 1853 | 32,985,322 |
| 1830 | 10,014,130 | 1854 | $65,941,323$ |
| 1837 | 9,589,369 | 1855 | 98,895,843 |
| 1838 | 0,036,650 | Total.... | 720,834,956 |

months, to June 30 . $\quad+12$ months, to June 30
In Great Britain the crop this year is very good; but it is never sufficient to supply the wants of the people. The total imports of breadstutts into the United Kingilom for the last threo years (reckoning flour, etc., at its equivalent in grain) are as follows:

| Yoars. | Equal to Hushols Wheut. |
| :---: | :---: |
| 183 | $84,416,632$ |
| 1854 | . . . . . 63, 207,240 |
| 1855 | . . 58,227,608 |

The high prices have contributed to reduce the imports into the United Kingdom during the last two years to the lowest possiblo point; but the first six months of the current year tho total imports amounted to $1,859,000$ quarters, showing an increase of 161,000 quarters, or $1,248,000$ bushels, and must continue at about this rato throughout the remainder of the year. Even with a good harvest, the kingdom must need at least $40,000,000$ bushels of grain, or its equivalent in flour, forits own consumption. Of this amount Russia -Northern and Southern ports-whose supplies were cut off during the war, can now furnish $10,000,000$ bushels; Prussia, whose harvest is this year below the avernge, $10,000,000$ bushels; all other countries $5,000,000$ bushels; leaving $15,000,000$ to come from the United States. If prices rule at a comparatively low rate, the consumption will be increased, and the quota from this country may reach 20 or 25 millious of bushels. Spain and Portugal havo hitherto exported to both Franco nul England, the shipments to the latter Inst year being upward of $4,000,000$ bushels.

It is difficult to ascertain the exact production of the United States. The total arnble land under actual eultivation le glven in the Census of 1850 at $113,032,614$ neres, of which $51,700,000$ neres were producing lireadstulfs. The fellowing was the total production of graln as given in the Census returns for 1840 and 1850:

| Articlef. | Isto. | 1850. |
| :---: | :---: | :---: |
|  | Huthits | Huehelis. |
| Wheat................... | 84, 83:1,272 | 100,436,944 |
| 及уе . . . . . . . . . . . . . . . . . | 18.515,507 | 14,188,818 |
| Oats. . . . . . . . . . . . . . . . . | 123,071,341 | 146,684,170 |
| Corn | 377,631,875 | 692,071,104 |
| liarley. | 4,101,504 | 0,107.015 |
| Huckwhent. . . . . . . . . . . | 7,291,743 | 8,966,912 |
| Tetal. . | 615,526,802 | 867,463,907 |

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A large amount of arablc land haa been brought under cultivation aiace 1850, and those most convarsant with the Weat think that tha product of wheat has increased 50 per cent. aince tha date last given, while other graln has lacreased 20 to 25 per cent. The total yield of wheat being computed at $150,000,000$ bushela, it ls easy to see that the export demand can be filled without creating any extraordinary excitement throughout the country. Last year the farmers anticipated such high rates, that many of them refused to sell in time, and thus were obliged to dispose of their stock far beiow the average price. This ycar the early saics promised to be the best, but there appears to be a limit below which foreign orders will rapidly diminish any home accumulatlon. At present good whito wheat is worth hero about $\$ 160$, and good red about $\$ 150$. Wa acarcely expect to see a decline of 20 centa from these rates during the current season, but within that rango an active foreign businces may be expected. The prospects for Indian corn can not be given until nearer the ciose of the harvest. Fiour will fluctuate more than wheat in price; salcs have been made to arrive in England at a price which would net here about $\$ 5$ for a standard superfine, but this is general'y thought to be an insido price. We have complied from the official recorids a atatement of the averago export price in flour since 1836. The highest price, since 1800, was \$14 75 per barrel, at which ali the shipments averaged in the year 1817. The lowest was $\% 425$, which was the average of 1852. The following is the average of the totol shipments to all ports in each year for the last twenty years. The price in $1854-155$ was enhanced materialiy by the demand arising for export to Europe during the war with Russia. At intervals of that period lirst brands producell over $\$ 13$ in the New York market, and common shipping flour over $\frac{10}{} 10$ per bar-rei.-See Cenaga lepport, United States.
Iearit avbzage Pricg of the Fixports of Wheat Floun fbon tue Unitei 8tates to fonkion Ponts, frow 1886 to 1855.

| Years. | Price. | Years. | Pries. | Yaars. | Price, | Yearo. | Price. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1836 | \$750 | 1841 | \$5 20 | 1846 | \$518 | 1801 | \$477 |
| 1837 | 1025 | 1848 | 600 | 1847 | 5 tis | 1852 | 424 |
| 1838 | 960 | 1843 | 450 | 1848 | 622 | 1553 | 560 |
| 1809 | 675 | 1844 | 475 | 1849 | 535 | 1854 | 788 |
| 1840 | 587 | 1845 | 451 | 1850 | 500 | 1855 | 1010 |

The periods before noted are the government fiscal years, ending June 30. The average of 1856 is not yet made up, but will be considerably below thet of 1855. If any think we have overestlmated, in the following table, the present production of wheat in this country, we have only to remind them that the cultivetion of thia grain for export received but little stimulus until the repeal of the British corn laws; and since that time we have added the States of Illinois, Iewa, snd Michigan to our wheat-producing States, and by means of railroads made them equal compatitora with the At lantic States.-See Art. Wheat.
1'monuction or Wugat, Rex, and Indian Conn in tha UNITED gTATEA, in 1850.

| Otates and Torrilorice. | Wheat. | Rye. | Indian Com, |
| :---: | :---: | :---: | :---: |
|  | 1 | Buahela. | Buahula. |
| Maloe . . . . . . . . . | 296,269 | 102,916 | 1,500,056 |
| Now liampahlre. | 185,658 | 183,117 | 1,573,670 |
| Vermont. . ...... | 685,965 | 176,203 | 2,082,398 |
| Massachusetta... | 81,211 | 481,021 | 2,245,490 |
| Rhode Island ... | 419 | 26,409 | 539,901 |
| Connectleut. | 41,762 | 600,893 | 1,935,043 |
| New York. | 18,121,498 | 4,148,182 | 17,858,440 |
| New Jersey | 1,601,190 | 1,265,578 | 8,759,704 |
| Pennaylvania | 15,36T,601 | 4,805,160 | 19,835,214 |
| Delsware....... | 482,511 | 8,066 | 3,146.542 |
| Maryland. | 4,494,680 | 226,014 | 11,104,631 |
| Diatriet of Col. | 17,870 | 6,609 | 65,290 |
| Virginla... | 11,232,616 | 458,980 | 36,254, 819 |
| North Carolina. . | 2,130,102 | 229,563 | 27,941,051 |
| South Carollna. . | 1,066,277 | 48,709 | 16,271,434 |
| Georgla | 1,088,684 | 83,750 | 80,080,099 |
| Florida. | 1,027 | 1,152 | 1,096,809 |
| Atabana. | 294,044 | 17,281 | 28,754,048 |
| Mlssiskippl | 187,996 | 9,606 | 22,446,552 |
| Loulsisna....... | 417 | 45 | 10,246,573 |
| Texas......... | 41,689 | 3,109 | 5,920,611 |
| Arkansas | 109,639 | 8,047 | $8,588,939$ |
| Tennesse\% | 1,616,381 | 89.169 | 82,276,223 |
| Kentueky. | 2,140,822 | 415,073 | 88,675,591 |
| Oblo... | 14,487,351 | 425,718 | 69,078,695 |
| Mitelhlgan | 4,028, 889 | 105,871 | 6,641,420 |
| Indlana. | 6,214,4r* | 78,792 | 52,964,363 |
| 111nols | 9,414,575 | 83,364 | 57,640,984 |
| Missouri | 2,981,659 | 44,268 | 36,214,537 |
| Iows | 1,530,681 | 10,916 | 8,650,709 |
| Wisconsin | 4,288,181 | 81,253 | 1,958,979 |
| Callforrls | 17,328 |  | 12,236 |
| Minnet ota Ter... | 1,401 | 125 | 16,72b |
| Oregol. Territory | 211.493 | 106 | 2,91S |
| V'tah Perritory .. | 107,702 | 210 | 9,809 |
| New Nexlco | 106,516 | ... | 365,411 |
| Total. . . . . . | 100,603.899 | 14,188,039 | 502,326,612 |

An Accofnt of the Exports of Flour and Wheat, Imoian Cors anjindian Cobn Mral, Rye, Guip Breap, gtc, froz
 INO THE C'OUNTHIES TO WHICH THE BAME WERE SENT, AND TIE QUANTITIES BENT TO EACH,

| TO AMERICA. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Articias, | Briaiah Noth Amarican Coloniea. | Went ladies. |  | Seuth Amarica. | North Abietice geberally. |
| Flour, tharrela. . . . . . . . . . . . . . . . . . | 272,209 | 483,54 | 328,987 |  | 66, 198 |
| Whent, buahels . . . . . . . . . . . . . . . . . | 919,068 | 15,106 |  |  | 200 |
| Iodian com, buabelt . . . . . . . . . . . . . . . | 119,015 | 593,020 |  | 2e4 | 29,925 |
| Corn meal, barrela . . . . . . . . . . . . . . . . | 89,936 | 176,418 |  | 150 | 16,35-4 |
| Rye mexh, barrels . . . . . . . . . . . . . . . . . . | 27,401 | 3,480 |  | 101 | 190 |
| Rye, oata, elc. . . . . . . . . . . . . . . . . . . | (24,812 | \$118,85 |  | 291 | \$18,599 |
| 8htp bread, barrels. . . . . . . . . . . . . . . . . | 20,506 | 64,788 |  | 11 | 21,218 |
| 8hlp bread, kegs . . . . . . . . . . . . . . . . . . |  | 18,267 | 7.434 |  | 673 |
| TO RUROPE. |  |  |  |  |  |
| Artieles. | Oreal Aritain. | 1 reland. | France. | Bpain and Fortugal. | Other parta of Eur ${ }^{2}$. |
| Ftour barrets. . . . . . . . . . . . . . . . . . . . | 2,144,541 | 842,485465,911 | 612,641 | 1312 | 113,429 |
| Wheat, bushels . . . . . . . . . . . . . . . . . | 9,078,652 |  | 749,248 | 4892 | 170,421 |
| Indtan corn, lushets . . . . . . . . . . . . . . . | 7,027,580 | 7,008,981 | 7,248 |  | 29,203 |
| Corn meal, barrela . . . . . . . . . . . . . . . . . | 426,070 | 287,018 | 4,401 | 4892 | 605 |
| liye nieat, barrels . . . . . . . . . . . . . . . . . . | 4,030 | 2,369 | 8,000 | $\cdots$ | 8,302 |
| Hye, oats, ettc. . . . . . . . . . . . . . . . . . . . . | \$506, 322 | \$ 866.680 | \$50,697 | . | \$752,081 |
| slilp tread, barrels. . . . . . . . . . . . . . . . | 84,736 | 11,904 | 3,771 | * | 1,728 |
| Whip bruad, kegs. . . . . . . . . . . . . . . . . | 6,047 | 106 | 18 |  |  |
| TO OTHKR COUNTRIKS. |  |  |  |  |  |
| Articles. | Abla ganerally. | Afriea Genersilly. | Buuth Enase end peocitic. | Tulal wall Parta. | Tutal Falise of Eaporta. |
| Florr, barreta. . . . . . . . . . . . . . . . . . . | 8,614 |  | 764 | 4,382,496 | \$26,189,811 |
| Wheal, buahela . . . . . . . . . . . . . . . . . . . | $\begin{array}{r} 1,362 \\ 175 \end{array}$ | 24,474 | - | 4,399,951 | 6,040,350 |
| Indtan corn, husbels . . . . . . . . . . . . . . |  |  | . | 16,328,050 | 14,395,212 |
| Corn meal, berrela. | $\begin{array}{r} 175 \\ 71 \end{array}$ | $\begin{array}{r} 24,474 \\ 430 \end{array}$ | . | $\begin{array}{r} 948,090 \\ 48,092 \end{array}$ | 4,301,304 |
| tryo meal, barreta . . . . . . . . . . . . . . . . . . . Rye, oats, etc. | 4,4,590 |  | 4131 |  | 225,502 $1,600,602$ |
| Rye, oata, etc. . . . . . . . . . . . . . . . . . . . . . . . . . | $\begin{array}{r} 8,160 \\ 163 \end{array}$ | 5,6091,482 | 1,753 | $\left.\begin{array}{r}160,980 \\ 81,08:\end{array}\right\}$ | 550,206 |
| 8hip bread, kegr........................... |  |  | 100 |  |  |
| Total value. ................ | . . . | . $\cdot$. | $\cdots$ | $\cdots$ | 463,262,437 |

Breakers, a namegiven to those billows that break violently over rocks lying below the aurface of the aea. -E. B.
Breakwater is any obstruction of wood, stone, or other material, as a boom or raft of wood, sunken vessels, etc., placed before the entrance of a port or harbor, or any projection from the land into the aea, as a pier, mole, or jetty, so placed as to break the force of the waves, and prevent their action on shlps and vesaels lying at anchor, within them. Thua the plers of the ancient Piruus and of Rhodes; the moles of Naplee, Genoa, and Castellamare ; the piers of Ramagate, Margste, Folkstone, Howth, and the wooden dike de Gichelien, thrown across the port of Roehelle, may all be donominated Breakoaters. In French it ls sonetimes called Battre d Eiau; a nsme which appesre to have heen applled to the mole at Tangier, a work commenced In 1663, under the direetion of Lord Tiviot, Sir J, Lawson, and Sir IIugh Cholmley, and finished, or rather discontinued, in 1676, after having cost Englsnd the sun of $£ 243,8975 \mathrm{~s}, 4 \frac{1}{2} \mathrm{~d}$. The term Breakwater, however, has of lato years been considered as more pecnliarly appropriate to large insulated dikes of stone, whether of regular mssonry or sunk promis cuously in rough masses, so placed as to form an artificial island across the mouth of an open roadatead, and therely, from obstructing and breaking the waves of the sea, to convert a dangeroua anchorago into a safe and eommodious harbor tor the reception of ships of war or merchent: .en.
Of this description of dike for sreating an artifielal harbor on a grand scale, fit for the reception of ships of war of the lurgest class, there are remarkablo examples in the break waters of Cherbourg, Plymouth, Portland, Delaware, ete. The first stone of the break water at Plymouth was lowered in the presence of multitodes of the peoplo, August 12, 1812. It was designed to break the awell at I'lymonth, and stretches 5280 feet across the Sound; it is 360 feet in breadth at the bottom, and more than 30 at the top, and conguned $3,666,000$ tons of granite blocks, from one to five tons each, up to April, 1841 ; and cost a million and a half storling. The architect was Rennie.-See Art. Ciennotug and Dela waire Bneakwatens.
Breeches. Among the Greeks this garment indlcsted slavery, It was worn by the Dacians, Parthiaus, sud other Northern nations; and in Italy, it is said, it was worn in the time of Augustus Cresar. In the reign of ILonorius, ..bout A.1. 394, the braccari, or breeches-makers, were expelled from Rome; but soon afterward the use of breeches was adopted in other countries, and at length it beesme general,-Ilayids.
Bremen, one of the free Hanseatic eities, on the Weser, about 50 miles from its mouth, lut. $53^{\circ} 48^{\prime} \mathrm{N}$., loug. $8^{\circ} 48^{\prime} 3^{\prime \prime} \mathrm{E}$. Population in 1849, 53,478. Its situation renders Bremen the prineipal emporium of Ilsuever, Brunswlek, IIesse, and other countries traversed by the Weser. Tha charges on the buying, selling, and shipping of goods are very moderate. The principsl German exports aro, woolen goods, linens, grain, osk bark, glass, smalts, hides, rape-seed, beef and jork, rags, wool, whe, etc. 'The wheat and barley shipped here are mostly inferior ; but the oats are useful common feed; beans are good. The linens are mostly the same ns those from llamburg. The limports consist of tobace (of which large quantities are re-exported), coffeo, sugar, and other colonial prodnets; whale-oil, iron, rice, hilles, wines, raw cotton, cotton stuffs and yarn, earthen-ware, brandy, tar, tea, dye-woods, timber, hemp, etc.
Bramen lias long been, and continues to be, the most inportant eatrepôt on the Continent for the sale of tolacco. In 1851, about 5000 hands were engaged in the manufacture of cigars, of which the export was estimated at 235,000 boxes of 1000 euch; hut an increase of the duty on eigars lmported into the German Custems Union subsequently gave the trade a check.

Entrance to Bremen.-The entrance to the Weser lies between the Mellum and other aands on the southweatern, and the Teglers Plaat, etc, on the northeastern side. Ita conrse from Bremerlehe to its mouth Is nearly seutheast and northweet. It la buoyed throughout. The buoya on the right or starboard side, when enterlng, being black and marked with letters, while those on the left or larboard are white and numbered. The first or outer llack buoy has a gilt key upon it, and ls, therefore, called the schlussel, or key buoy; it lies in 101 fathoms, bearlag northeast 5 mlle from Wrangeroog light. Thls is an intermitting light, having replaced, in 1850 , the old coal-fire beacon on the lsland of Wrangeroog, opposite to the northern extremity of East Frlesland. It ls, according to the most authentic ststements, in lat. $53^{\circ} 47^{\prime}{ }^{\prime}$ N., long. $7^{\circ}$ $51^{\prime} 55^{\prime \prime}$ E. $;$ is elevated $68 t$ feet above high-water masrk, being alteraately visible and lnvislble for the apace of a minute. A light-vessel la moored in the fair-way of the Weser, between the blsek buoys $E$ and $F$, and the white buoys 2 and 3. She has two maata ; during the day a red flag, with a white eross upon it, is kept flylng at the main-mast ; and at night ahe exhibits 7 lantern lights, 28 feet above deck. This vesael is on no ac count to leave her station, unlesa compelled by the ice. Large vessela do not now gencrally ascend farther than Bremerlele, on the east side of the river, about 38 miles below Bremen, where a new and spacious harbor, called " Bremer Haven," has been constructed. But vessels not drawing more than 7 feet water come up to town; and thoso drawing from 13 to 14 feet may come up to Vegessack, about 13 miles from Bremen. The latter had, in 1849, a population of 8538 , und Hremer Haven of 3618.--See the Sailing Direetious for the North Sea, published by Mr. Norric.
Accoent of the Abrivals of Sihtrg at 13hemgn in 1850 and 185t, biectyyino the Countrife hrom wilence they "ane, anb tile Ncmuers and tonnade of those pbon zaciti.

| Countrice. | 1850. |  | 1851. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Veaselo. | Tons. | Vomelt. | Todi. |
| Great lirinain | 3st | 49,237 | 402 | 52,481 |
| Denmark | 84 | 2.58 t | 107 | 8,270 |
| France | 44 | 5,649 | 61 | 6,068 |
| 1 fotland. | 151 | 8,313 | 217 | 14,304 |
| 1 'russia. | 133 | 12,160 | 136 | 10,452 |
| Russla. . . . . . . . . . . | 00 | 7,473 | 125 | 15,601 |
| Swoden and Norway | 161 | 9,008 | 172 | 10,600 |
| United States...... | 128 | 62,1249 | 131 | 64,714 |
| Cnbs. | 61 | 18,146 | 57 | 12,245 |
| 1tayt1 .............. | 18 | -4,310 | 17 | 3,1198 |
| Yorto Rieo. . . . . . . | 19 | 8,515 | 21 | 3,863 |
| Mexico. | 8 | 1,801 | 6 | 042 |
| Venezuela | 13 | 2,4S5 | 11 | 1,859 |
| Braztis. | 14 | 2,873 | 50 | 8,006 |
| Other places . . . . . | 20 | 6,400 | 84 | 7,578 |

Breslau, a city of Prussia, capital of the province of Silesia, and of the circle of same name, on the Oder, at the intlux of the Ohlau, snd on the railroad from Berlin to Vienns, 409 feet above the Baltic, 190 miles sontheast of Berlin. Lat. (of observatory) $51^{\circ} 6^{\prime} 57^{\prime \prime}$ N., long. $17^{\circ} 2^{\prime} 33^{\prime \prime}$ E. Population of the circle in $1849,1,17 \cdot 1,676$; of the eity, 112,194, of whom nearly three-fourths are I'rotestants. It is the greatest emporium for tho linens of Silesia, for which it has four annual fairs of eight days each, and the grentest mart for wool in Germnny. It has mnnufactures of linen, wool etr, cotton, and silk fu'brics, lace, needles, plate, jewel ry; earthen-ware, colors, sonp, alnm, starch, snuff, und sealing-wax ; and an extensive trado in mining produce, timber, fins, hemp, madder, corn, and oxen, from the southern Russian provinces, and in IIungarlan wines and other merchandise. It hass an active trade on the Oder, and communientes by railroad with Berlin and Frankfort on the north, Dresden on the wesi, Cracow and Warsaw on the east, and Vienna in the south. It was bomburded and taken by the Frenel, January 7, 1807, and its fortress, then partly destroyed, has since been eutirely razed.

Brewing is the art of preparing an exhilarating or
intoxicating beverage by meana of a process of fermentation; but at the present day the term is usally linitted to the manafactare of different kinds of beer, from lafuslota of malt or of gralns. In all ceuntries, aavage and civillzed; one kind or ether of exhllsrating or Intoxicating drink is prepared. In the warmer regions of the globe the julee of varlous palm-trees is extracted, and, when fermented, forms the favorite beverage. Over all the warmer regions of South Amerlea, and in Mexico, the universai drink is Pulque, the fermented julce of the American aioe (Agare A mericana). Guarapo, a favorite drink with the Negro races is the fermented julca of the sugar-cane; and when the sugar-cane is not in season, these races prepare fermen'ed drinks from heney and from rice. In many North rn countrics, aud even occasionally in the highiands of Scotland, the juices of the birch, maple, or ash, are fermented, and form a palatable drink. Koumis, the intoxicating beverage of the Mongols and the 'Sartars. is' the fermented miik of the mare. In countries favorable to the growth of the vine, wine is the usual heverage. The Peruvians and many other Indians prepare their favorite intexicatlng drink, chicha, from maize. The Arablans, Abyssinlans, and eeveral tribes in Africa, prepare their fermented drink, bousa, from the flour or bread made from teff (Poa Abyssinica) ; but the durrha or millet (Sorghum rulgare), and even barley itself, are occasionally substituted for the teff to prepare the muddy, zour bousa. Tha universsd Russian beverage, krass or quass, a sharp, aeld, muddy liquid, almest the samie in taste and appearance as "bousa," is made by mixing rye bread or rya flour, or sometimes barley fiour, with water, and fermenting it. The well-known natlonal German drink, the weiss bier, is prepared from a fermented infusion of wheat malt with only a gixth part of bariey malt. But over almoat sll the civilized world, the fermented infuaion of barley malt, seasoucd or not with hops or other Litters, when it takes tho name of beer, is the favorite leverage.-E. $\mathbf{B}$.
Bribe. The glving or offering a recompense or :ward to any person to induce bim to neglect lis dury.
Bricks and Tiles, well-known articles used in the bullding and covering of houses. They ure made of baked clay and sand.

Fire-bricks.-A mode has been invented intended to do away with menual labor in the manufacture of tre-bricks made from ground clay, by passiug it directly from the griadlng-mill to the machine, whare it is made lnto bricks ready for the kiln, instead of adding water and making it lnto a paate according to the present process. The Invention consists of a combination of hydraulic machinery, for compresslug clay in a pulverized atate inte bricks, and for chenging the position of the moulda in which the clay is compreased, so that they may fill and discharge themsel ves after compresslon. After the clay is formed inte bricks the aides and end of the mould recede, and leave them free, without any forcing, which cffectually prevents ali liability to fracture or damage. A machine with two moulda wlil produce from 2000 to 4000 per day.
Bridges. Se eariy and gencral, and the expedients for their construction so various, their origln can not be traced; they were firat of wood. The ancient bridges In China are of great magnitude, and werc built of stone. Abydos ls famous for the bridge of bonts which Xerxes built across the licilespont. Trajan's magnlficent stone brldge over the Danube, 4770 feet in length, was huilt in A.d. 103. The Ievil's bridge, in the canton of Uri, so called from its frightful altuation, was built reating on two high rocks, se that It could acarcely be concelved how it was erected, and many fabuleus stories were invented to account for it . At Shaffhausen an extraordinary bridge was bullt over the Rhlne, which is there 400 feet wide: there was a pler in the middle of the river, but it is deubtful whether ti bridge rested upon it; a man of the iight-
est weight felt the bridge totter under him, yet ragons heavily lsden passed over without danger. This bridge was destroyed by tha French in 1790. Suspension bridge at Niagara Falls completed Jnly 29, 1848. The ancient bridges in England were of woed, and were fertitied wlth planka and merlined; the first bridge of stene was buit at Bow, near Stratford, A.D. 1087. Westminster bridge, then the finest erected in these realms, and not burpassed by any in the world, except in China, was completed in twelve years, 1750 . Tho other London bridges are Blackfriars, completed 1770; London (reluilt), 1831; Sonthwark, of Iron, 1819. The first iron bridge, on a large scale, was erected over the Severn, in Shropshire, 1779. The fineat chain anspension bridge is that of the Mens! Strait, completed in 1825. Hungerford suspension bridge, 1848.-Flaydn.

Bridgewater Canal, the first great werk of the kind in England, was begun by the Duke of Briagewater, styled the father of canal navigation in that country, in 1758. Mr. Brindley was the archltect. The canal commences at Worsley, aeven miles from Manchester; and at Barton bridge is an aqueduct which, for upward of $\mathbf{2 0 0}$ yards, conveys the canal across the navigable River Irwell : the canal is $\mathbf{2 9}$ miles ieng.

Brimstone. Sce Sulriun.
Bristles (Fr. Soies; Ger. Borsten; Da. Borstels; It. Setole; Sp. Cerdas, Setas ; Pol. Szezeciny; Russ. Schtschetina; L.at. Setae), the strong glossy halrs growing on the back of the hog and the wild boar.

Bristol, a clty, sca-pert, and county of England, situated chiefly in Qloucestershire, and partly In Somersetahire, on the A von, at its confuence with the Frome, and 8 miles southeast of its emhouchure in the Bristol Channel, $11 \frac{1}{2}$ miles northwest of Batli, $33 \frac{1}{2}$ miles south-southwest of Gloncester, and $118 \pm$ miles west of London, with which it is connected by the Great Western Railroad. Lat. of cathedral, $51^{\circ} 27^{\prime}$ N., long. $2^{\circ}$ $36^{\prime} \mathrm{W}$. Area of border, including the distance added by the mundeipal act, 9870 acrea. Population in 1801, 39,914; in 1841, 123,188; and in 1851, 137,328. Bristol extends over several hills and intermediate valleys. It long ranked as the second commerelal emporiuns of England, but its progress has not kept pace with that of other porta niore adventageously placed as outlets of great manufacturing districts. It has, however, large Iron and brass founderies; copper, tin, zinc, and giasa works; chemical and color works; sugar refineries and distilicries; and considerable manufactures of plns, shet, chlns, carthen-wares, soap, leather, tolacco, cottons, hats, and foor-clothe, with extensire estsblishmenta for shlp-building; and in its vicinity aro large brick and coal works. The Avon at l3ristol, though narrow, is deep enough for large ships, and carly in the present century its course was turned for some distance at a cost of $\mathbf{5 7 0 0 , 0 0 0}$, and its own channel now forms a harbor furnished wlth locks and qusys 6000 feet in length. Ships of large burden and tirst-rate ateainers load and discharge carge at Kingruad, in the mouth of thls river. The city retains a large share of the West India trade. Imports consisting chiefly of sugar, molassea, rumi, coffee, tolaceo, wlth wool, turpentlne, hemp, timber, wine, and brandy, from North and South America, the Baltle, and France. Bristol communicates by raliroad with Birmingham and Eseter, with the Themes, ete., by the Kennet and Avon canal. It was the first port in Britain whence regular steain communicatlon with the Unlted States was established. It has a chamber of commerce and seversl mercantile corporate bodies; and it lately had six banking companles. In 1848 it was made a free port. The city is divlded into ten wards, and governed by a mayor, sixteen aldermen, and forty-eight councilors. Ita corporation has jurisdletion on the Avon from four miles sbove the city down to the sea, and along the channel to Clevedon; also the right to license pilots for numerous perts on the Brlatel Channel. Markets
daily, that on Thuraday, for cattlo. Fairs for horses, leather, etc., Mareh 1st and Soptember lst. Spring Assizes for civil causes, Quarter Seasions, Sheriff'a and other coarts are held here. ; Bristol bolenge to Clifton and Dedminater poor-law union. Under Henry VIII. It was made a blahop's see, lately united with that of Gloucester. It sends two members to the House of Commonn. It was a fortified clity as early as the fifth century. In Norman tlmea it had a castle built by the Earl of Gleucester, mon of Henry 1. In 1831 it was the scone of a vlolant riot, during which Its Episcopal palace and many other buildinga were destroyed. Among its distinguished nativea may be noticed Sebastian Cabot, Chatterton, Southey, and the sculptor Bailey. Bristol confors the title of Marquis on the Her vey family. The sconery in the vicinity, especially at Ilot well Saline Spring, la exceedingly beautiful.

Bristol Channel, an arm of the Atlantic, entering between St. Ann's Head on the north and Land's End on the sonth, extending lnto the southwest part of Great Britain, between lat. $50^{\circ}$ and $51^{\circ} 40^{\prime} \mathrm{N}$., and long. $3^{\circ}$ and $5^{\circ} 30^{\prime}$ W., bounded northward by South Wales, and southward by the English countlies of Somerset, Deven, and Cornwall. At its eastern extremity it terminates in the estuary of the Severn, besides which river it reccives the Parrat, Taw, Torridge, Taff, and Towy. Sandy island, with its lighthouse, is in tho meuth of the channel, and the towns of lifracombe, Combe-Martin, Watchet, Swansea, Kidwelly, and Tenby, are un Its coasts. It contains Milford Haven, Carmarthen Bay, and Swansea Bay on the nerth, and Barustable, Porlock, and Bridgewater Bay on the south. Ita tides tow rapidly upward, and, meeting with the currents of the Severn, cause the phenomenon called the bore.

Britain. See Great Baitain.
Brocade (Spanish brocodo), a stuff of gold, silver, or silk, raised and enriched with flowers, foliages, and other ornaments. Formerly the word signitied oaly a stuff woven all of gold, both in the warp and in the woof, or all of silver, or of both mixed; at present all stuffs which are ralaed and enriched with flowers or other figures are called hrocadcs. The trads in this article was carried on by the Venetians.-Anderson. Its manufacture was established with great success at Lyous in 1807.
Brokerage, the commission or percentage paid to brokers on the sale or purchasc of bills, funds, goods, etc.-See Factorages.
Brokers. Those both of money and merchandise were known early in England. Their dealings were regulated by law, and it was enacted that they should be licensed before transacting busincse, 8 \& 9 Will. III. 1695-96. The dealings of stock-brokers wero regulated by act 6 Geo. I. 1719, and 10 Geo. 1I. 1736. Some derive the word broker from the French broier, "to grind;", others from brocarder, "to cavil or lilggle;" and others, again, from a trader broken, and that from the Saxon broc, "misfortune."
A broker is an agent or intermediate person appointed for transacting special business on account of another, but differing somewhat from an ordinary factor in functions and responsibility. Of this class there are various descriptions exercising employment witheut the smallest analogy, though all are brought under the general name of brokers; and of these the principal aro exchange brokers, whose province is to ascortain the rates and rolation of exchange between countrios; stock-brokers, who negotiate transactions in the putblic funds; insurance brokers, who effect insursnces on lives or proporty, aud pawnbrokers, who advanco money on goods, on condition of being aflowed to sell the goods, If the aum advanced la noi repaid with Interest, within a limited time,-See Agent, Insurance, and Sale.

Separating pawnbrokers and those dealers in old warss whe are ealled brekers, as beth listinet from the class to whom the term In its broader acceptation ap-
plies; the broker is an agent for both : riles, the buyer and the seller; and for the general principles of jurisprodance applicable to his position, referance may be made to the word Agesr. It la a murked pocullarity, however, of the broker an an agent, that his quality of agency is not only palpable in the face of the transaction, but he is agent for both partles, and therefore those subtle niceties of law whlch arise out of the agent acting as principal can not apply to this class of agencles. The function of the broker $\mathrm{ls}^{2}$ ladeed, a very aimple one, and easily aeparatea ltself from the usual in. tricacies of the law of sale and of agency. It is hls proper function to find buyers and sellers, and to bring then together that they may trausact with each other. Hence the rise of such a class in any department of busineas is an indication of its great increase. In small towns, and in narrow and peculiar departments of business, the buyers and the scllers know each other, and need not be at the expense of employing a third party. But where both bodies are numcrous, and the individual members of each find enough to occupy their attention in the production of their commodity, or its purchase and distribution, thero is economy in the establishment of a distinct class who bring the buyer and the seller togother. The late enlargement of the railway system has created a pecnliar and extensive aygtem of brokerage transactions.-E. B.

Brokers are divided into different classes, as bill or exchango brokers, stock-brokers, ship and insurance brokers, pawnbrokers, and brokers, simply so called, or those who sell or appraise household furniture distrained for rent. Exclusivo, too, of the classes now mentioned, the brokers who negotiate sales of produce between different merchants usually confine themselves to aome one department or line of business, and by attending to it exclusively they aequire a more intimate knowledge of its various details, and of the credit of thoas engaged in it, than could bo looked for on the part of a general incrchant, and aro consequently able, for the most part, to buy on cheaper and to sell on dearer terms than those less familiar with the business. It is to these circumstances-to a sense of the advantages to bo derived from using their intervention in the transaction of business-that the extensive employment of brokers in all large commercial cities ls wholly to be ascribed.

Bronge (Ger. Stülgut, Stükmetall; Du. Stühgoed: It. Bronzo; Sp. Metal de Canones; Lat. Metallum tormentorum), "a mixed metal, consisting chiefly of copper, with a small proportion of tin, and sometimes other metals. It is used for casting statues, camon, bells. and other articles, in all of which the proportions of the ingredients vary."-Urk. Bronzo was knewn to the ancients, some of whose statues, vessels, and various other articles, made of bronzo are in the l3ritish Museum. The equestrian statue of Louis X1V., 1699, in the Place Vendóme at Paris (demolished August 10. 1792), was the most celessal ever made; it contained 60,000 pounds' weight of bronze. Bronze is two parts brass and one copper, and the Greeks added one fifteenth of lead and silver.

Brooms (Ger. Besen; Fr. Balais; It. Scope, Granate; Sp. Escobas; Iluss. Metlii) aro principaliy mnde of birch or heath. Vast quantities are manufactored in Southwark for the supply of the London market.

Bruges (Fleu. Brugge), a fortified city of Belgiam. capital of the province of West Flanders, on the Brussels, Ghent, and Ostend railroad, 75 miles from Brussels and 14 from Ostend, and at the junction of the canals from Gheut to Ostend, and to Sluis. Lat. (of the halle apire) $51^{\circ} 12^{\prime} 80^{\prime \prime}$ N., long. $3^{\circ} 13^{\prime} 44^{\prime \prime}$ E. Population, 50,272 . Bruges is surrounded by walls, and defented by an old citadel ; it is one of the most flourfshing commercial cities in the kingdom. It owes its name to the number of its bridges (upward of fifty), which cross its canals, and is remarkable for the many fine Gotlic buildings which it a ntains. Chief ladue-
try; the manuficture 0 . sace, which is celebrated, and occuples more than a sixth part of the female population; manufactures of llaen, woolen and cotion fabrics, cordage, foliacco, and soap. Bruges has numerous dlstilleries, breweries, tanneries, dye-works, sagar and salt refneries, and ahip-bullding yards. Its docks are capable of containing one hundred barges, and are surreunded with spaclous warehouses. Principal exports, lace and other manufactured goods, graln, and cattle. Importa, wool, cotton, dye-woods, wine, and colonial products. Bruges was formerly the capital and residence of the Connta of Flandera; In the thlrteenth century it was one of the most commercis! citlea In the world, and the richest entrepót of the Hanseatio Leaguc; It was long renowned for the excellence of its woolen cloths and tapestrics; It began to decline at the end of the tifteenth century, when the religioua persecutlons of Philip 1I. obliged Its Inhabltants to seek refuge in England. In 1430 Philip the Good, duke of Burgundy, here institated the order of the Golden Fleece. Charles II. lived at Bruges during his exlle from England.

Brush, a well-known Implement used for various purposes, such as clearing away dust, amoothing or pulishlng surfaces, etc Ordlinary brusher se made of amall bundlea of bristlea or hairs, secured at one end by a ligature; and this knotted end is set with glue or censent into a wooden stock, which is shaped and pierced with holes for the purpose. A patent was obtained in 1830 for aeveral improvements in the construction of brushes. Of these the chlef feature consists in pressing the knotted ends of the bundles into wedge-shaped grooves in the stock; after which they may be further secured by being covered with a ferule of metal, or a wooden pallet. Small brushes are generally made by doubling the hair or bristle, and bringing it through the holes in the stock by means of a thread or wire which ls engaged in the fold, and serves to secure it; after which the bristles are cut even. Brushes vary In thelr size, form, and materiala of construction, according to the several uses to which they are applied. Silver-smitha and other artificers use a wire brush for scrubbing sllver, copper, or brass, previous to gilding. In some countries the luainboo or other fibrous plant is converted into a kind of brush, for paintlag and slmilar parposes, by fretting the extremity by beating and then bhding it firmly above the part so treated.

Brusself (Fr. Bruxelles), a city of Central Europe, capital of tha kingdom of lelgium and of the province of Brabant, on the Senne, and on the Belgian railroad, 88 milea from Ostend, 27 from Antwerp, 48 from Ghent, 71 from Liege, 92 from Lille, 149 from Cologne, 150 from Paris, and 272 from London. Lat. (of observatory) $50^{\circ} 51^{\prime} 11^{\prime \prime}$ N., long. $4^{\circ} 21^{\prime} 10^{\prime \prime} \mathrm{E}$. Population in $1845,117,462$; in $1853,145,000$. Altitude of oisservatory, 190 fcet. Cllmate temperate, humid, and very variable, but healthy. Mean temperature of year, $49^{\circ} \cdot 6$; winter, $38^{\circ}$; summer, $64^{\circ}$ Fahrenheit. It is the most important city in the kingdom, and the chief acat of publlic instruction and industry, the residence of the courts, the seat of the legislative assemblies, courts of appeal, and chamber of commerce. Brussels is remarkablo for the number and richness of its ancient baildings; and, from the elegance uf its new quarters, it ranks amoug the finest cities of Eorope. It Is the seat of the priacipal hanka, end of the only mint of the klugglom, and has a savings lisnk and many wealthy ard charitable institutiuna; it la one of the great centres of Belgian industry, and lt ja stlll celebrnted for its lace, considcred the finest in the world; its other chief manufactures are of fime linens, damask, silk and cotton ribbons, gold and silver embroldery, hats, paper, machlnery, jewelry, and mathematical and nusical instruments. It has also establlshmenta for coach-hullding and cabinet-making, msnufactorics of chemical products, soap, porcelaln, and crystal, and extensive sugar refincriea and breweries. It has many extensive
typographlcal and Ilthographic estahlishmente, which are chlefly employed In reprintis of workn published In France. The commerce of Brussels fs facilltated by a canal which connects it with Antwerp, and admits vessels of 300 tons burden, by excellent roads and by rallways, which radiate from It In every directlon. Brussels is a very anclent city; it is belleved to have been founded in the seventh century; It was fortlifed In the eleventh centary, and was the reaidence of the Dukes of Brahant, and afterward of the Spanish and Austrian governors general of the Netherlands: Its furtifications were dismantled by Joseph II. It was, under the French empire, capital of the dependencles of the Dyle; prevloua to 1830 , it was one of the capitals of the kingdom of the Netherlands, and alternately wlth the Iague, the seat of the court and of the States-General: It ls the blith-place of the physicians Vesallus and Van IIelmont, and one of the two painters Champaigne.

Bubblea, famltiar name apolied generally to fraudulent or unsulastantial commerelal projects, which hold ont hopes of rapld galn, for the purpose of enrichIng the projectora at the expense of sanguine and ignorant adventurers: and partlcularly used to designate those projects the funds for whlch are raised by the sale of shares or aubscriptlon to a transferable stock.

In consequence of the mischles produced by the gambling in transferable shares of buhble companies at the tlme of the South Sea project, 1719 and 1720 , the stat. 6 Geo. I. c. 18 , reciting that several undertakings or projects had been contrived and practiced, which "manIfestly tended to the common grlevance, prejudlee, and Inconvenience of great numbers of hla majesty's subJecta in their trade and commerce," and describing, among other practices of the time, the ordinary mode of ralsing money by shares and subscriptlons to a pretended transferable stock, enacted that the undertaklngs and attempts so described, and public subscriptlons, assignments, and transfers for furthering them, and particularly the ralsing or pretending to raise transferable stocks without authority of charter or act of Parliament, should be deenied illegal and vold, and prohiblted them under severe penaltics. Some declslons limited the operatlon of, and finally the stat. 6 Geo. IV. c. 91, sltogether repealed these enactmenta and prohibitions. The projectors of bubbles, therefore, are now punishable only when they can be deemed guilty of frauds or conspiracies at common lsw; and there is no other check on the adventurers than the los ind troublesome labilitles under the law of partnershı, la which partlcipation in these projects ofteainvolver them.

Buccaneer (from the French boucaner), In its primary sense, denotea one who drles and smokes flich or fish after the manner of the Indians. The name was particularly given to the first French setticrs In the island of St. Domingo or Hayti, whose principsl employment consisted ln hanting bulls or wild boars, In order to acll their hldea and flesh. The name has also been applied to those famous piratical adventurers, chlefly English and French, who joined together to commit depredations on the Spaniarda of America.

The Buccancers of St. Domingo.-The Spanlards had not long been in possession of the West Indles and of the contloent of America, when other natlona, especially the Einglish and the French, began to seek establishments there. But though the Spaniards were unable to people auch extensive countriea themselves, they were resolved that no others should do it for them, and therefore waged a cruel war on all those of any other nation who attempted to aettle in any of the Antilles or Caribiee 1slands. The French, however, were at last lucky enough to acqulro some footing in the island of St. Christopher's; but by tho tlme they began to subside into a regular form of government, the Spanlards found means to dislodge them. Upon thls the wretched fugitlvea, considering at how great a distance they were from their mother conntry, and how near to the Island of Ilispaniols or St. Domingo, the

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northern parts of which were then uninhabited, and full of awina and biack cattle, immediately resolved to take possession of that country, in eonjunction with anveral other adtwaturers of their own and the English nation; especially as the Dutch, who now began to appaar in these eeas, promised to aupply them plentifully with aill kinda of nec•ssariea they might require, in exchange for the hidea and taliow they ahould procare by hanting.
These now settlera ohtained the name of buccaneers, from their custom of bucanning their beef and pork in order to keep it for asie or for their own consumption. But some of them aoon grew tired of thia new way of life, and took to planting; while many more ehose to turn pirates, trusting to tind among those who remained on shore a quick saie for ali the plunder they could make at sea. This new body of adventuren were calied freebootera, from their making free prey or booty of whatever came in their way.
The colony now began to thrive at a great rate, by the cheap and easy manner in which the freebooters acquirad the greatest riches, and the profusion with which they distributed them among their old companjens, the buecancers and planters, for the merest triffes. Thía brought numbers of settlera from Franee in qualjty of indentured servants, though they toiled rather liks slaves than aervants during the three years for which they generally bound themselves. One of these men presuming to represent to his master, who always fixed upon Sunday for sendlog him with skins to the port, that God had forbidden such a practice when he had deelared that "six days shalt thou labor, and on the seventh day shalt theu reat," the brutish buccaneer repiied, "And I say to thee, six days shalt thou kiil buils, and atrip them of their skins, and on the eeventh day shalt thou earry their hides to the sea-shores ;" and this command was followed by blows. Thus the colony consisted of foar classes-buceaneers, freebooters, piantars, and indentured aervants, who generally remained with the huecanears or planters. And these four orden composed what they now began to call the body of adventurera, who lived together in perfeet harmony, under a kind of democracy ; every freeman having a despotic authority over his own family, and avery captain beling sovereign in his slip, though liable to be discarded at the diseretion of the crew.

Tise pianters had settled chiefly in the little island of Tortuga, on tho northern coaat of Ifispaniela; but soon afterward some of them having gone to the great island to hunt with the buccaneers, the rest were surprised by the Spaniards ; and ail, oven these who had surrendered at discretion in hopes of mercy, were put to the aword or hanged. The next care of the Spanjards was to rid the great istand of the luccsueers; ant for this purpose they assembled a body of fiva hundred lance-men, who, by thair seldoin going fewer than fifty in a company, obtaincd frem their enemiea the name of the Fifties. But before detaliling the particulars of this attuck wo ahali endeavor to give some account of the manners and eustoms of the peopie whom it was proposed to extirpate.

The buecancers lived in little huts built on aome apots of cleared ground, juat large enough to dry their skins on, and contain their bacanning houses. These spots they calid boucans, and the huts they dwelt in ajoupas, a word winch they borrowed from the Spaniarls, and the Spaniards from the natives. Though these ajoupas lay open on all sides, they were very agreeable to the hardy inhahitants in a climate where a free cireulation of air is so desirable. As the buceancers had neither wives nor children, they associated by pairs, and mutually rendered each other all the services a master eouid reasonably expect from a servant, living togetier in so perfect a community that the survivor always succeeded his deceased partuer. This kind of union or feliowship they cailed s'emateloter (insailoring), and each other matelot (sailor), whence is derived the cuatom
of giving, at loast in some parts of the French Antilies, the name matelotage (aaliorage) to any kind of society formed by private persona for their mutual advantage. They behaved to ench other with the greatest juatice and openneas of heart ; it was considered as a erime to keep any thing under lock and key; but, on the other hand, the least pilfering was unpardonable, and punlahed with expulaion from the community. And, indeed, there could be no great temptation to steai, seeing it was reckoned a point of henor nover to refuse a neighbor what he wanted; and where there was so little property, it was imposaible there should be many disputes. If any such happened, the common friends of the parties at variance interposed, and soon put an end to the differenco.

As to law, the buecaneer acknowledged none bnt an odd Jumble of conventions made between themselves, wh!eh, however, they regarded as the sovereign rule. They stenced all objections by coolly answering that it was not the cuatom of the coast; and grounded their right of at ng in chis manner on thair baptism under the tropic, which freed them, in their opinion, from all obligations antecedent to that marino ceremony. The governor of Tortuga, when that island was again settled, though appointed by the French court, had vary little authority over tham; and they contented themselves with rendering him from time to time some slight homage. They had in a manner entirely shaken off the yoke of religion, and thought they did a great deal in not wholly forgetting the God of their fathers. Wo are surprised to meet with nations among whom it is a difficult matter to discover any trace of a religious worship; and yet it is certain that, had the buecanecrs of St. Deminge $t$ en perpetuated on the same fuoting on which they subsisted at the time we are speaking of, tho third or fourth generation of them would have possessed as littla religion as the Caffres and Ilottentota of Africa, or the Cannibals of the South Sea islands.

Such were the buecancers of St. Domingo, and such was their situation when the Spaniards undertook to extirpate them. And at first the assailants met with great success ; for as the buccaneers hunted separately, every one attended by his servants, they were casily purprised. Hence the Spaniards killed numbers, and took many more, whom they condemned to a mest cruel slavery. But whenever the buecancers had time to put themaclves into a state of defense, they fought like lions, to avoid falling into the hands of a nation from whem they were sure to receive no quarter; and by this meana they often eacaped; nay, there are many instances of single men fighting their way through numbers. These dangers, however, and the success of tho Spaniards in discovering their boueans, where they used to aurprise and ent the throats of the buccaneers and their servants in their sleep, engaged them to cohalit in greater numbers, and even to act offensively, in hopes that by ao doing they might at last induce the Spaniards to let them live in jeace. But the fury with which they behaved whenever they met any $S_{j}$ )aniards served only to make their enemies more intent on their destruction; and assistance coming to both parties, tie whole island was turned into a slaugh-ter-heuse, and so much blood spilled on both sides, that many places, on account of the carnage of which they had been the acencs, were described as the hill of the massacre, the plain of the massacre, the valley of the massacre, and so forth.

At length the Spaniards grew tired of this mode of proceeding, and had recourse to their old method of aurprise, which, againat enemies of more ceurage than vigilance, was likely to sueceed better. This placed the buecancers under the necessity of never hunting except in large partiea, and flxing their boucans in the littie islands on the coast, where they retired every evening; an expedient which succeeded very well, and the boucans, by baing more fixed, aoon aequired
the alr and conaistency of little towna. When the buccancers had once cetablished themselves, as here related, each boucan aent out acouts every morning to the highest part of the isliand, in order to reconnoitre the coast; and see if any Spanish parties were abroad. If no enemy appeared, they appointed a placo and bour of rendeavous in the evening, and were never absent if not killed or mado prisoners. When, therefore, any one of the company was miesing, it was not lawful for the rest to hunt again till they had got intelligence of him if taken, or aveaged his death if killed. Things continued in this altuation for a long time, till the Spadiards made a general hunt over the whole Island, and, by deatroying the game, forced the buccanoers to hetake themselves to another courso of life. Some of them turned planters, and thus increased the French settlements on the coast, or formod othera; while the rest, not relishing so confined and regular a life, entered among the freebootera, who thereby became a very powerful body. France, which had hitherto disclaimed for her subjects these ruffians, whose succosses were only temporary, acknowledged them, hovever, as soon as they formed themselves into settlements, and took proper measures for their government and defeaso.
Buccaneers, the Pivates.-Defore the English had effected any zettlement ln Jamaica, and the French in St. Domingo, some pirates of both nations, who were afterward so much distinguished by the name of Buccaneers, hail driven the Spaniards out of the small island of Tortuga; and, fortifyiag themselvea there, hat with an amazing intrepidity made excursions against the commen onemy. They formed thenselves into small cempanies consisting of fifty, a hundred, or a himdrod and fifty men each. A bont, of groater or amaller size, was their only armament. -Here they were exposed vight and day to all the inclomeacies of the weather, having scarce room euough to lie down. A love of aboolute independence readered them averse from those mutual restreints which the members of society impose apon themselves for the common good; and an the authority they had conferred on their eaptain was confined to his giving orders in battie, they lived in the greatest confusion. Like the savages, having ne apprehension of want, nor any care to preserve the nocessaries of life, they were constantly expased to the reverest extremitics of hunger and thirst; but deriving from their very diatressea a couruge superior to every danper, the sight of a ship tramsported them to a degree bordering on frenay. They never delliserated on the attack, lut it was their custen to board the ahlip as soon as pessilite. The amallness of their vessele, and the akill they showed in the management of them, acreened them from the fire of the larger class of ships; and they pmented only the fore part of their little vessels filled with fusileers, who fired at the port-holea with so much exactness that it entirely confuanded the most experienced gumuers. As soun as they threw out the grappling, the largest vessels aeldom cacaped them.
In cases of extrence necessity they attacked the people of everf oation, but fell upon the Spaniards at all thees. They thought that the crueltien whleci the latter lad exereised on the inhabitants of the New World juatified the implacalile aversion they had aworn againat them. Hut this was hoightenell by the mortification thoy felt In seeing theuselves debarred frown the privileges of hunting and lishing, which they contshlered us natural rights. Thetr principles of justice and rellgion in no degrec interfered with their prednatory habits ; for whene. er they embarked on any expedifton, they used to pray to IIeaven for the buccens of it; and thoy nover came buck from plundering witheut returnlug thanks to God for their victory.
The ships which eniled from Europe to America seldom tempted their avility, since the merchandise which these contained could not have been easily nold, nor indeed very proftallo to those bariarians. They al-
ways walted for them on their return, when they were certaln they were laden with gold, eilver, Jowels, and all the valuable productions of the Now World, If they met with a single ship, they never failed to attack her. As to the fleeta, they followed them till they eailed out of the Gulf of Bahama; and as soon as any one of the vessels was aepurated by accident from the rest, it was taken. The Spaniards, who trembled at the approach ot the buccaneers, whom they called devlis, immediately surcendered. Quarter was granted if the cargo provecu to be a rich one; if not, all tho prisonors were thrown into the sea.

The buccaneers, when they had got a consideralle booty, at first held thoir rendervone at the island of Tortiga, in order to divide the spoilf, but afterward the Freach went to St. Domingo, and the English to Jamaica. Each persen, holding up his hand, soleminly protested that he bad secreted nothing of what he had taken. If any one among them was convicted of perjury, a case whloh seldom happened, he was left, as soon as en opportunity ofercd, upen rome desert Island, as a traitor unworthy to live in soclety. Such of their number as had been malmed in any of their expeditions were first provided for. If they had lost a hand, an arm, a leg, or a foot, they recelved twentysix pounda; while an eye, a fillger, or a toe, loat in fight, was valued only at half this sum. The wounded were allowed half a crown per day for two menths, to enable thein to have their wounds taken care of; and if they had not money enough to anawer these several demands, the whole company were obliged to engage in some fresh expedition, and to continue it till they had acquired a sufficient atock to cnable them to antisfy theso honorable contracte. The ramainiler of the booty was then divided into as many bhares as there were buccancers. The commander could eulylay elaim to a siogle slare; but they complimented him with two or three, in proportion as he had acyuitted himself to thoir satisfaction. Favor never had any influence in the division of the liooty, for every share waa determined by let. The most rlgid juatice was extended even to the dead. Ilis share was given to the man who was knowu to le his connpnion when alive, and thercfore uccounted hie holr. If the person who had been killed had no intimate, his g ertion was sent to his relations when they were known; and if there were no friends or relations, it was distrihuted in charity to the poor, and to the churelsee, which censented to offer up prayers for the person in whore name these benefactions were given.
Among the buccuncers who signalized themsolves in this new species of freebootling, Monthur, a gentleman of Langnedoe, particularly diatinguished himeelf. Having by chance, in his infancy, met with a circumstanthin account of the crueltlea practiced in the conquest of tho New World, he conceived an aversion, which he carried to a degree of frenzy, aguinat that nation which had committed auch cuormities. The enthusiasm which this epirtt of humanity worked him up to merged In a ferocity still more crael than that of the relgious fanaticiem to which so nany victims had been sacrificod. The sounes of these unhaypy sufferers seemal to rouso him, and call for vengeniec. He bad heurd some account of the linccaneers, whe were anid to bo the most invaternte enemies to the Spanish nume; aud he therefore embarked, with some others, on board a ahlp in order to join them.

Hlis anvage diaposition, us well as that of the other buceaneers who attended him, having ohliged the Spaniarila to confine thenselves within their setticmente, the freohootera resolved to uttack them there. This now method of carrying on the war required superior forces; sud their associntions in conectuence beeane more numerous. The first consideralle one was that furmed hy L'Olonols, whoderlved his name from the sande of Olones, the place of his tirilh. From tha abject utate of a bondaman, he had gradnally raised himseif to
they were owels, and Forld. If d to attaek a till they oon as any It from the rembled at called dev as grantod 20t, sll the
onsiderable e island of afterwar Englind! to di, Ecleminof what ho convicted ue was left onse desert oty. Such ny of their ey had los ed twentytoe, leat in The woundwo months, en care of iswer these obliged to tinue it tili ble them to moinder of - slures as could only mplimented had acyuitcer hud any every share justice was aa given to anien when the person ortion was in; and if distributed which conwhore namo
themselves r, it gentiered himsetf: 1. a circumin the cona aversion, golust that ties. The vorked him than that ny victims hhipiy sufvengeanco. neers, who dies to the with some of the ofthwhiged the seir settlehem there. cired nupequence bele one was no from the the ulyect himself to
the command of two canoes, with tweaty-two men; and with these he was so successful as to take n Spanish frigate on the coast of Cuba, it lie then repaired to Port-au-l'rince, in which ware four ships, fitted out purposely to aail in porauit of bim; but ho took them, sul threw all tho crews into the sea except one man whom he saved in order to send him with a letter to the governor of tho Huvana, acquainting him with what he had done, und assaring him that he would treat in tho aame manner all the Spaniards who should fall into his hands, not excepting the governor himself, if ho were fortunata enough to take him. : After this expedition he ran hia canoes and prize ehips aground, and sailed with his frigate only to the island of Tortuga.

But while they were idly dissipating tho spoils which they had made on the coast of Venezuela, Morgan, the most renownod of the English buccmneers, sailed from Jamaica to attack Porto Dello. Ilis plan of operations was so well contrived that ho aurprised and took the city without upposition. The conquest of I'anama was an object of much greater importance. To secure this, Morgan thought it necessary to eail in the Iatitudes of Costa Rica, in order to procure some guides in the island of St. Catharines, where the Spanhards confined their malefactors. T This place was no strongly fortified that it might have held out for ten years against a considerable army. But notwithatanding this, the governor, on the first appearance oi the pirutes, sent privatoly to concert measures how he aight surrender himself without Incurring the imputation of cowardice; and the result of this consultation whs, that Morgan in the night-time was to attack a fort at seme diatance, while the governor was to sally out of the cltadel to defend a poat of ao much consequence, and that the asaailants should then attack him in the rear and take him prisoner, which would occasion an immediate surrender of the place. It was sgreed that a smart firing should be kejt up on botis shise, without doing mischiof to either. This furco was almirably carried on. Tho Spaniarda, without being exposed to any dangr" appeared to have dono their duty, and the buccanears, after having totaliy demolished tho forttications, and put on bonrd their vessels a prodigious quantity of warlike ammunition, which they found at St. Catharines, ateored thelr courso toward the River Chagrea, the only chanael whereby thoy could arrlve at the place which was the olject of their wishes.

Morgan left his vessels at anclior, with \& sufficient number of men to guard them, aud alled up the river in his sloops for thirty-three miles, till ho camo to Cruces, whore it ceabea to bo navigable; and he then procecded by land to Panama, which was only tive leagues distant. Upon a large anse extenaive plain which stretched ont before the city, he mot with a considersble body of troops, whom ho put to flight with the greatest ease, nud entered the city. which was now sbandoned. Hore were founil proaigious treasures concealed in the wella and caves; some valuable commeditics were also taken in the boats whieh were left aground at low water; and In tho voighboring forests were likewise found neverul rich leposits. Having burned the eity, they set eail with a great number of prisoners, who wore rassomed a few day afterward, sid arrived at the mouth of the Chagres with a prodigouna booty.

In 1603 an expedition of the greatest consequence Was furmed by Yan Hom, a native of Ostend, but who hasd served all his Hfe among the French. Hia own intrepility preventod his tolerating the least sign of cowardice among thome who assoclated with bim. In the heat of an ongagemont he went about his ahlp, observod tis inen In succession, and Inmedlately killed those whe ahrunk at the audden report of a pistol, gun, or cannon. This extraordinary diecfiline rendored him the terror of the coward and the idal of the brave.

In other reapects he readily shared with the men of spirit and bravery the immense richee which were acquired in the course of his marauding expeditions. When he went apon such expeditions, he generally sailed In his frigate; which was his own property. Bat his designs requiring greater numbers to carry them into execution, he called to his assistance Grommont, Godfrey; and Jonquef, three Frenchmen distinguished hy thelr oxploitg, and Lawrence de. Graff, a Dutchman, who bad aignalized himself still more than they. Twelve hundred buccaneera joined themselves to these commandors, and sailed in six vessels for Vera Cruz.
The darkness of tho night favored their landing, whtch was offocted about three Inagues ixom the place, whero they arrived withont boing discovered. The governor, the fort, the barracks, and the posts of the greatest consequence, every thing, in short, which conld occasion any resistance, were taken by the hreak of day. All the citizens, mon, women, and children, wers shut up in the churehes, whither they had fled for shelter. At the door of each church were placed barrels of ganpowder to blow up the building; and a buecaneer, with a lighted match, was to set fire to it upon the least appenrance of an Insurrection.

While the city was kept ln this state of terror, it was oasily pillaged; and after tho buccanears had carried off whatover was most valuabla, they made a prom posal to the cltizens who were kept prisoners ia the churches to ransom their lives and libortics by a coutribution of $£ 437,500$. This unfortunate people, who had neither oaten nor drunken for three days, cheerfully accepted the terma which were offiered them. Half of the money was puid the same day, and the other part was expeeted from the interior of the country, whon there appeared on an eminence a considerable body ot troope advancing, and uear tho port a flect of seventeen ships from Europe. At the aight of this armament, the buccancers, without any marks of surprise, retired quietly, with fiftecn hundred slaves thoy had eeized, as a tritllug indemuitication for tho rest of the monoy they expected, the gettling of which they referred to $n$ more favorable opportunity. Their retreat was equally daring. They boldly sniled through the midest of the Spanish floet, which let thom pase without firing a single gun, and, in fact, scemed afraid of leing attacked and beaten. The Spani. is would not probably have esonped so easily if tho vessels of the pirates had not beon laden with silver, or If the Spanish fleet had heen freighted with any othor effects hut such merchandise as was littlo valued by these daring frcebooters.
A year had acarcely elapsed since their return from Mexico, when, on a sudden, they were all seized with a passion for going to plunder Peru. It is probablo that the hopes of tinding greater treasures upon a sea Ilttle frequented than on one long exposed to piracies of this kind, was the eanse of this expedition; but it is somewhat remarkable that both the English and French, and tho associations of these two nations, had projected thls plan at the a. co time, without any cominunication, intorcourse, or design of aeting in concert with each other. About four thousand men were omployed in this expedition. Some of them proceeded by Terra Firma, othera by the Straits of Magellan, to the place which formed the olffet of their wishes; and if tho intrepidity of thene harbarians had been directed, under the intluence of a skillful commander, to a single end, it is, certain that thoy would have deprived the Spaniarde of this important colony. But their natural character presented an invincible olistade to so rare $n$ union; for they always formed themsulves into several distinct bodiea, sometimes even so fow in number as ton or twelve, who acted together, or separated, as whim or caprice dlotated. (iregnier, Lecuyer, Picard, anil Le Sage, wors the most diatinguished officers among the French; David Samme, Poter Wilner, and Towley, among the English.
Suclt of theae adventurers ao had got into the South

## BUC

Sea by the Siralts of Darien seized $u_{j}$ on the first vessel which they found upon the coast ; and their associates, who had sailed in their own vessels, were not much better provided. Weak, however, as they were, they several times beat the squadrons which were fitted out agalnat them. But these vietoriea were prejudicial to them, by interrupting their navigation; and when there ware ne more ahips to be taken, they were continually obllged to make descents upon the coasts to get provisions, or to go hy land in order to plunder those cities where the booty had been secured. They successively attacked Seppa, Puehla-Nuevo, Leon, Realejo, Puebla-Viejo, Chiriquita, Lesparso, Granada, Villia, Nicoy, Tecoanteca, Mucmeluna, Chiloteca, New Segovia, and Guayaquil, tho mest considerable of all these places.

Many of these places were taken by aurpriso, and most of them deserted by their inhabitants, whe fled at the sight of the enemy. As soon as the buccaneers took a town, it was directly set on fire, unless a sum proportioned to its value was paid to anve it. Tho prisoners taken in battle were massacred witheut mercy if they wero not ransomed by the governor or some of the inhabitants; while gold, pearls, or precious stones, wero the only things accepted of for the payment of their ransom. Silver being too common, and too woighty for its current value, would have been troublesome to them. The chances of fortune, which seldom leave guilt unpunished, or adversity wilhoul a compensation for Its suffering, atoned for the crimes committed in the conquest of the New World; and the Indlans were amply avenged on the Spaniards.

While such piracies were being committed on the Southern Ocean, the Northern was threatened with the same by Grammont. IIe was a native of Paria, by birth a gentleman, and had distinguished himself in a inilitary eapacity in Europe; but his passion for wine, gamiag, and women, had obliged him to join the pirates. Nevertheless, he was affablo, polite, gencrous, and eloquent ; enducd with a sound judgment, and a person of approved valor; qualities which soon made him be considered as the chief of the French buccaneers. As aoon as it was known that ho had taken up arms, he was immediately joined by a number of brave men. The governor of St. Dominge, whe had at length prevailed upon his master to approve of the project, equally wise and just, of fixing the pirates in some place, and inducing them to become cultivators, was desirous of preventing the concerted expedition, and forbade it in the king's name. But Grammont, who had a greater share of sense than his associates, was not on that account inclined to comply, and aternly replied, "How can Lonis disapprove of a design he is unacquainted with, and which has been planned only a few days ago ?" This answer highly pleased all the buccancers, whe directiy embarked in 1685 to attack Campeachy.

They landed without opposition. But at some diztance from the coast they were attacked by eight hundred Spaniards, who were beaten and pursued to the town, which both parties entered pell-mell together. The cannon they found there were iminediately leveled against the citndel; but as theas had very littie effeet, they were contriving some stratagem to enable them to become masters of the place, when intelligence was brought that it had been abandoned. There remained in it only a gunner, an Englishman, and an officer of signal courage, who chose rather to expose himeelf to the greatest extremities than basely to fly from the place with the reat. The commander of the buccanesse reeeived him wlth marks of distinction, generonsly released him, gave him up all his effects, and, besides, complimented him with some valuable presente 1 such influence have courage and fidelity even on the minds of these who aystematicaily violate all the rights of society.

In 1697, twelve hundred luccanecrs were induesd to
join a squadron of seven ships whlch sailed from Europe under the commiand of one Pointis, to attack the tamous city of Carthagena. This was the most difficult enterprise which could be attempted in the New World. The aituation of the pert, the atrength of the place, and the badness of the climate, were so many obstaclea which would have aeemed insurmountable te any but auch men as the buccancers. But every ohatacle yielded to their valor and good fortune; the city was taken, and booty gained to the amount of £1,750,000. Their rapacious commander, however, deprived them of the advantages resulting from their success. ILe scrupled net, as soon as they set sail, to offer £5250 for the share of those who had been the chief instruments in procuring hin so conslderable n spoll.

The buccaneers, exasperated at this treatment, resolved inmediately to board the vessel called the Nefptre, whero Pointis himself was, and wore with great difficulty prevented from assassinating him. They then set sail for Carthagena, where they amply repaid themsalvea for the losses they had austained through the avarice of their late commander.

At length, after amassing all they could, these adventurers set sail, when unfortunately they met with a fleet of Dutch and Einglith ships, then In alliance with Spain. Several of the pirates were either taken or sunk, with the cargoes they had on beard; and the rest escaped to St. Domingo.

Such was the last memorable event In the history of the buccancers. The separation of the English and French, when the war on account of the Prince of Orange divided the two nations; the success of the means employed to promote the cultivation of land among their colonics, by the assistance of these enterprising men; the prudence ovinced in selecting the mest distinguished among them, and intrusting them with civil and military employments ; and the protection afforded to the Spanish settlements, which till then had been a general object of plunder; all these circumstances, and various others, besides the impossibility of supplying the pluce of theso remarkable men, who were continually dropping off, concurred to put an end to a society as extraordinary as ally that ever existed. Without any regular system, without lawa, without subordination, and even wilhout nny fixed revenue, they became the astonishment of the age in which they lived, as they will be also of posterity.E. 1.

Buckles. Tho wearing of buckles commenced in the reign of Charles I1., but people of inferior runk, and such ns affected plainness in their garb, wore at $; 8$ in their shoes some years after that jeriod: these last were, however, ridiculed for their singularity in using them. Buckles continue to ho used In court dress, and by persons of rank in most countries of Europe.

Buckwheat (Fr. Ble Sarrasin, Nlé noir; Gerın. Buchureizen, Meidekorn; It. Grano Saraceno, Faggina, Fraina; Sp. Trigo Saraceno, Trigo negro; Pol. Tra* tarca, Giyka, Pohanea; liuss. Gretseha; Lat. F'agopyrum) is principally cultivated in order that it may be eut when young nna green, and employed ns fodder for cattle, when allowed to ripen, the grain is usually employed to feed pigeons and poultry. When rije, it is of a deep yellow color, the seeds bearing a great resemblance to becels-mast : it will grow on the poorest moils. It is cultivnted in almost every part of the temnerate and arctic cilmates of the elvilized world for the farinuceous albumen of its seeda, which, when jroperly cooked, affords a delicious article of food to a large portion of the human race. It also nerves as excellent fodder to mileh cowa, and the straw, when cut green and converted into hay, as well as the ripened seeda, are fed to cattlo, poultry, and swine. It is believed to be a native of Central Asia, as it is aupposed to hava been first lurought to Europe in the carly part $o$ attack the 1 most diffiength of the re ao many countable to it overy obortune; the amount of r, however, ; from their $y$ set sail, to ad heen the asiderable a

## eatment, re-

 ed the Scepwith great im. They mply repaid aed throughd , these admet with a Hilance with er taken or rd; and tho the history English and Prince of ccess of tho tion of land these enterelecting the uating them t the protec, which till $r$; all theso the impussirkable men, rred to put y that ever thout laws, nuy fixed the age in posterity.umencel in rerior rank, garb, wore hat perlid: ir sing ylaribe used in et countries
oir; Gern. to, Faggina, ; Pol. Tat nt. Fagoy It it may be 1 us fodder his usually hen ripe, it a great rethe puorest of the temworld fur when propd to a lirge a as excel, when cut he ripened

It is hes supposed early part
of the twelfth century, at the time of the Crusadea for the recovery of Syria from the dominion of the Saracens; while others contend that it was introdnced into Spsin by the Moors, four hundred years before. This grain appears not to have been much cultivated in this conntry prior to the last centiry, as it is not often mentioned by writers on America previons to that period. Holm, in his History of Pennsylvania (Nieu Swedeland), published at Stockholm in 1702, mentions it smong the productions of that province; and Kalm, the Swedish naturalist, whe visited this country in 1748-49, speaks of it ns growing in Pennsylvania, New Jersey, and New York; and several American writers on agricultural subjects have treated of it since. The cultivation of bnck wheat, in one or other of its species, is principally confned to Great Britain, France, Switzerland, Italy, Netherlands, Germany, Sweden, Rustia, China, Tartary, Japan, Algeria, Canada, and the middle and northern portions of the United States. In this country, from thirty to forty-flve bushels per acre may be considered as an averago yield in favorable sessons and situations, but sixty or more bushels nre not unfrequently produced. This grain heretofore has never entered into onr foreign commerce. According to the census returns of 1840 , the annual quantity raised in the United States was 7,201,743 bnshels; and of 1850, 8,956,916 bushels.-Census Report. Sec Bneadsturrs.
The following table shows tho produet of barley in tho year 1840, and of buckwbeat in 1840 and 1850 ,in each State, according to the census returns:

| Stater and Torrilories. | Dinley. | auckwhonl. |  |
| :---: | :---: | :---: | :---: |
|  | 1840. | 1840. | 1850. |
| Alabama | Bushel. 7,092 | $\begin{array}{r} \text { Dumheln. } \\ 68 \end{array}$ | $\begin{array}{r} \text { Buchols. } \\ 348 \end{array}$ |
| Arkanzas. | 760 | 83 | 175 |
| Callfornis . . . . . . . . . |  |  |  |
| Columbla, Dlatrict of.. | 294 | 278 | 378 |
| Connecticut . . . . . . . . | 33,759 | 308,043 | 229,297 |
| Delamare. | 6,200 | 11,299 | 8,615 |
| Florida. | 39 |  | 55 |
| Georgia . . . . . . . . . . . . . | 12,979 | 141 | 250 |
| Ittnola. . . . . . . . . . . . . . | 82,25t | 67,884 | 184,504 |
| indiana | 28,016 | 49,010 | 149,740 |
| Jows. | 728 | 6,218 | 62,516 |
| Kentucky . . . . . . . . . . . | 17,491 | 8,169 | 16,097 |
| Lontsiana |  |  |  |
| Malne. | 355,101 | 51,543 | 104,523 |
| Marytand . . ........... | 0,694 | 78,606 | 103,071 |
| Massachuselts . . . . . . . | 105,319 | 87,000 | 106,895 |
| Meligan. | 127,802 | 118,802 | 472,017 |
| Misslssippt . . . . . . . . . . | 1,654 | 61 | 1,121 |
| Missouri | 8,891 | 15,318 | 23,041 |
| Naw IIampshiro . . . . . | 121,890 | 105,193 | 65,205 |
| New Jersey. . . . . . . . . . | 12,501 | 800.117 | 878,934 |
| New York. | 2,520,068 | 2,287,885 | 3,183,055 |
| North Carolina | 8,574 | 15,091 | 10,704 |
| Ohlo .. | 212,440 | 688,130 | 638,060 |
| Pennsylvania | 203,893 | 2,113,749 | 2,108,692 |
| Rhode Ialand . . . . . . . . . | 06,490 | 2,079 | 1,245 |
| South Garolina | 8,907 | - 72 | 283 |
| Tonnesser . . . . . . . . . . | 4,800 | 17,118 | 10,427 |
| Texas.................. |  |  | 69 |
| Vermont . . . . . . . . . . . | 54,78t | 228,416 | 209,819 |
| Virginta. . . . . . . . . . . . . | 87,430 | 243,822 | 214,898 |
| Whaconaln. .......... | 11,082 | 10,054 | 70,878 |
| Mhıuenota Territory . | .... | .... | 515 |
| Naw Moxico Torritery, Onvgon Territory | .... | $\ldots$ | 100 |
| Utali Territory......... | .... | - | \% 89 |
| Total. | 4,161,604 | 7,291,743 | 8,906,016 |

Buenos Ayres, the Inrgest and most important provinco of the Argentino Confoleration, ts bounded on the north liy the l'orana, which separates it from the prevince of Entre Rioa; and ty the provinces of Suntu Fo, San Luia, and Mendorn; on the enst by the Atlantic; on the aonth by the Rio Negre, which separates it from Patagonia; and on the west by the country of the Indians, which extends westward to tho Andes. The aren of the province is estijsated by Sir Woodbine Parish at about 200,000 soquare miles, being little leas than that of Frunca, Itesen-hoard alohig the Jie de la llata and the ocean is upward of 600 mites in lengeh. Since 1825 wo oenams of the population has been taken.

At that date it was found to amount to 183,000. Parish eatimates the present popnlation at 320,000 , of which number 120,000 belong to the city of Bnenos Ayres. By M'Cann, another authority, the entire population of the province is computed at 200,000 . This small increase over the results of the censns of 1825 is attributed by him to the civil wars, to the prohitition of the slave-trade, and other causes.

The general aspect of the conntry, as vlewed from the sea, is eminently uninteresting. From the month of the Plata to the Bahla Blanca the sea-line presents an unbroken series of sand-dunes, varied here and there with low ridges of rock. From this latter point to the Patagonian frontier the aspeet of the coast is less monotonous, though equally destitute of life or interest. Though Buenos Ayres is tho only province of the Argentine Confederation that borders upon the sea, and thongh all the exports and imports of the country pass throngh it, it possesses only two harhors, ono of which (that of the city of Buonos Ayres) is extremely bad; the other (that of Belgrano, near the southern extremity of the provinee), though possessing great natural advantages, is by no means adequately appreciated. It might bo turned to good account as a starting-point for vessels engaged in trado with the South American states that border upon the Pacific, but the difficnlt and sometimes dangerous navigation of the adjoining seas connterbalances in the mean time the other advantages which it offers. The interior of the country, except where it is intersected by the low monntain ranges of the Ventana and Vaulean in its southern portions, and the spurs of the Andes in the west, is one vast plain, of which by far the larger part is laid out in estancias, or cattle farms, though the soil is in itgelf well adapted for prodncing all the European cerealia. Agricultural pursulta, however, are by no means in favor with the natives, who can not bring themselves to engago in any pursuit that can not be prosecntect on horsaback. "Every man, woman, and child in the conntry rides," says Parisi. "One might fancy one's self in the land of centaurs, amid a population half-men half-horses. Even beggars rite on horseback." Some of tho eattle-farms are of immense extent; one in particular is mentioned by travelers as comprising more than 300 aquare miles of land, and yidding an enormous revenne to the proprietor. Some of the largest of them belong to British setttlers, and are worked by British servants. Tio cattlo were formerly hunted down and killed merely for the sake of their hides and tongues, while the curcasses were abandened to heasts and birds of prey. They are now slaughterd in abattoirs, where every part of the animal is made available. The beef is salted for exportation; the tallow is beiled down, sul now forms an important item in the farmer's revenue; and the trade in hides is steadily increasing. Ileef and minfusion of the native ten are the ataple food of the untives. By the care of $n$ fow British colonists, sheep have of Inte years been extensively reared, and their wool ts annually increasing in value. Till recently they were reputed so valueless that their careasses were used ns fuel for kilns, ete. A decree of government orlaned that no livo sheep should the employed for this purpose. The number of cattle in the provinco is estimated at $12,000,000$; of sheep, about the linif of that munher. The total value of exports from lluenos Ayres in 1849, was $£ 2,537,821$; in $1850, \pm 1,083,513$; and in $1851, \mathrm{c}^{2} 2,126,705$. In this latter year the vilue of tho jerked heef exported was $£ 172,749$; of hides, $£ 1,800,570$; of tallow, $£ 217,690$; of wool, $£ 190,060$. Tho other exports consisted chiefly of hair, homs, bones, skins, and foathers. The vulue of tmports into liuenod Ayros may he stated approxi. mutely, for the year 1851, at $£ 2,110,000$; of which Great llritnin contributes $£ 900,000$; France, $£ 500,000$; northern Eurojee, $\mathbf{5 1 7 0 , 0 0 0 ;}$ Gibraltar, Spain, und the Mediterranenn, $£ 120,000$; the United States, $\mathbf{£ 2 0 0 , 0 0 0 ;}$ Brazil and othor countrios, $£ 220,000$. Of the cerouls
grown in Buenos Ayres, the anost important is maize, which is indigenous to the country. Wheat thrives well in the southern parts of the province, but the inhabitants rarely grow more than enough to supply their own necessities. In the event of a surplas, it is commonly exported to Brezil. Flax and hemp are cultivated with success. The vlne, fig, orange, and olive, have been introduced from the Old World, and are found to suit the climate adiulrably; hut the anost valuable of European fruits is the peach. A consideralle fruit trade is carried on in coasting vessels, by merchants for the most part Italiun or French. The geographical position of Buenos Ayres is auch as to enable it completely to control the foreign commercial relations of the entire confederation of which it forms a part. The exclusive poliey which it has always pursued on this point has often involved it in serious quarrels, not only with many of the South American states and the other provinces of the Argentine Confoderation, hut with England and France. Since the expulsion of General Rosas, tho navigation of the Parans and Uruguay has been thrown open, and other mensures have been taken to place both the provinee and city of Buenos Ayres on a level with the other provinces of the confederation. Buenos Ayres has published a protest agninst any such measure, and the dispute is still unsettied. The only other towns in the province of nny importance, besides the capital, are San Nicolas, which is situated on the Parana, about 200 miles northwest of Buenos Ayres, and contains a popnlation of about 10,000; San Pedro, also on the Parana, about 150 miles from the capital in the same lirection, with a population of 1000 ; Chascamas, on the shores of a cognominal lake, once a place of considerable importance, but seriously injured by the long continuance of the civil wars; and Belgrano, which, from its position, bids fair to become the rival of the capital itself.

Buenos Ayres, the enpital of the Argentine Confederatiou and of tho province of Buenos Ayres, is situnted on the right bank of the estuary of the Plata, in lat. $34^{\circ} 39^{\prime} \mathrm{S}$., long. $58^{\circ} 18^{\prime} \mathrm{W}$. The river is at this poini so wide, that it is quite impossiblo with tho naked ey'e to distinguish the opposite bank; and at the same time so shallow, that ships drawing 15 or 16 feet of water must anchor seven or eight miles from the city. Small eraft generally anchor in what are cailed the inner roads, abreast of the city. As the depth of water is never sufficient to admit of their coming to shore, passengers and goods are landed by means of targe-wheeted carts, which nre either drawn or pushed by the requisite number of horses. The town of Buonos Ayres is situnted in a vost plain extending wostward to the Andea. The level uniformity of its outline in only broken lyy the spires of tho various churchos. The stranger, on landing, ia struck with the regularity of tho streets, which nro quito straight, and intersect eachother at distances of 150 ynrda, forming equares like those of a chess-board, with the clemily appearance of the houses, and the general air of independence that distinguiahes the inhailitants. The only publie iuildings that havo any jretensions to nrehitectural beauty are the churches, which were built for the most part by the Jesuita. The housea have never more then two steries, and commenty only one, the rooms of whieh open into each other, and till lately were chlefly supphied with furniture of a very inferior deacription from the United Stater. A chinney was a thing unknown, as tho old Spanish irazero alone wan omployed in
heating the damp and white-washed rooms, A great change has, however, taken place in these respects within the last fow years. The furniture is now supplied from Europe, the walla are papered, grates and chimneys have conse into fashion, snd English coal is burned at a lower priee than it brings in the London market. These comforts are all the more valuablo, as the climate of Buenos Ayres is one of the most humid and changeable in the world. Aa the system of police is still somewhat of the rudest, the inhahitants are obliged to guard themselves and their property by means of the iron railings with which they protect the windows of the housen. Even this, however, is not alwhys found to be an efficient guard against the dexterity of thieves. Though the city is built within 50 yards of the largest river in the world, the supplies of fresh water are both scanty and expensive. There are no public reservoirs or fountains, and the wells of the city yield only a brackish and disagreeable wster. By the wealthier classes tanks are constructed, in which a sufficiency of rain-water for demestic purposes is collected from the roof of the house. The common people are obliged to purchaso water from the water-carricts. As it is derived from the river, It is commonly muddy, and must stand for twenty-four hours till the sediment sinks to the bottom. It is then found to be excellent. The streets of the city are now tolerably paved with gronite. Many of them, however, are still unpaved; and these in wet weather can hardity he traversed ty a mounted horseman, and are utterly impassable ly a person on foot. Floricultare is a favorite pursuit; and many English and Scotch gardeners have uurseries ln tho neighborhood of the town.-E. B.

The I'lata is one of the largest rivera of the worde, traversing a vast extent of country, of which it is the great outlet. Unluckily, however, its estuary, though broad, is in most parts shatlow, being also encumbered with sund banks, and infested with sudden gusts of wind cailed pamperos. Its navigation is consequently attended with a good deal of difticulty, and ships bound for Buenos Ayres generally take pilots on board. There is no harbor, and vessels drawing 16 or 17 fect of water anchor in the outer roats, cnlied the Amarradero, 7 or 8 miles from shore, loading and unloading ty' menns of lighters. This, tow, is mn operation by' no means free from danger, hoats being sometimes awamped in crossing the bar tietween the outer and inner roads. From the want of a pier, mad the shallowness of the water on the beach, even the hoats are net able to come close to the ahore, but are met at a little distance from it by a rude sort of ex-cnrta, Jito which they deposit their goods at no Jittle risk, and sometimes much loss. These unfnvoraide circumstances, which might, hewever, be materially improved by $n$ little exertion nad outlay on the prit of the government, operate as a heavy drawhack on the trade of the city, and tead proportionaliy to nugment that of Montevideo, which is more easily necessibie. But notwithstanding the competition of the latter, Buenos Ayres is atill the principal outlet for the produce of the vast countries traversed by the Plata, and especially for the provinees situnted on its right bank. The prineipni articles of export nre specitied in the subjoined talle.-See Plata Riven.

I'revioualy to 1828 no wool was exported from Bucnos Ayres. Inut in that year merino and Saxon sheep) were introduced; and notwithstanding the constant recurrence of diaturimncen, they have surcceeded remarkaily well, as is obvious from the following

AOcount of tha Expoats of Woot itom Jlurnos Ayazs fon nive Yange, Endinh with 1868,

| Yearn. | Enplead. | Francea. | United Biatue. | Menua | Belgamm. | Bundries: | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1852 | $\begin{aligned} & \text { Pound } \\ & 2.5: 9.0100 \end{aligned}$ | $\begin{aligned} & \text { Poopda } \\ & \text { 2. } 1 \mathrm{M} 57,750 \end{aligned}$ | Pounds. $0.65!1,630$ | Poninde. 516,000 | Pounta. $1.814,14$ | Poonde. 81,118 | $\begin{aligned} & \text { Pounda } \\ & 13,607.5100 \end{aligned}$ |
| 1451 | 668,812 | 884,614 | 11,897,830 | 305,042 | 890,270 | 105,300 | 13,036,934 |
| 1880 | 1,809,100 | 2,1059,758 | 8,611,320 | 267,402 | 715,420 | 271,339 | 18,848.340 |
| 1949 | 8,180,442 | 1,000,708 | 10,034.828 | 830,4t5 | 665,840 | 168,930 | 17,415,600 |
| 1848 | 3,784,242 | 2,012,018 | 7,6¢6,400 | 170,120 | 98,893 | 60, 146 | 13,890,32t |

8. A great eso respecta is now sup, grates and glish coul is the London valuablo, as most humid em of police mbitants are property by protect the ever, is not nat the dexlt within 50 the supplies ive. There the wells of eable water. ed, in which poses is colimon people ter-carriers. nly muddy, he sediment e excellent. paved with 11 unpaved; versed by a ssable by a to pursuit; B. f the world. leh it is the ary, though neumiered n gusts of onsequently ships bound on hoard. 6 or 17 feet the Amarnd unloadn operatien - sometimes ther and inhe shallowats are not $t$ at a littlo Into which andi someunstances, roved by a he governrade of the ast of MonBut noter, Buenos produce of and espeight loank. fed in the
from Buc. xon shet: 1 - constant ceeded re*ing

Corn, which for a considerable peri $\mathfrak{d}$ was not produced in sufficient quantity for home consumption, has latterly hecome an occasional artlcle of export. Most part of the jerked beef, and numbers of males, are exported to the Havans and Brazil. Ilides, tallow, okins, tones, and homs, especially the first, are leading articles of export. Sir Woodbine Pariah eatlmates the total amount of the imports into the Plate at about f: $2,110,000$, of which about one half may be for Buenoa Ayres. The value of British exports to the latter, in 1851, amounted to $\mathbf{5} \mathbf{4} 8,329$, cottons being by mueh the mest important article, and next to it silks, lineas, and woolens, wlth cutlery, hardware, etc. Franco auppiies silks, wines (of which the limporta have largely increased), jewelry, perfumery, etc. The Imports from the United States consist chiefly of unbleached cloths, spirits, boap, sporm candles, dried and aalted provisions, tobacco, furniturc, and deals. Germany sends woolen and linen cloths, and Rhenish cottons; the Notherlands, fire-arms, sworda, etc. ; Hollund, butter, cheese, Westphalia hams, cte. The Bulttc furnishes iron, cordage, canvas, pitch, doals, ote. The Mediterranean trade is principally in Sicilian and Spanish produce, partieularly cheap wines, brandies, olive oll, ascaronl, dried fruits, and peppor. Spanish gooda ore in little demaud, though some sargea, handkerchiefs, and ribbons, sewing silk and salt, are luportod. The annual importation of Spanish and Sicilian winos is from 10, 000 to 12,000 plpes, besides about 1000 pipes of brandy. The yerba mite, or Puraguay tea, formerly an import article of aome consequence, has beell nearly superseded, even in Buenos Ayres, by genuine tea. The trade with Chili and Peru is insignillcant. The markets are well supplied with butcher'a meat and fish. Poultry, vegetaliles, and fruit are generally dear. All the butter used is imported. (We have derived these details principally from the excellent work of Sir Woodbine Parish on Buenos Ayres, 2d edition, p. 349-369.)
Iorl Charg"s.- The Argentine government has notified that, 1. From the 1at of January, 1847, national vessels sniling for ports beyond sea shall pay 8 dollars per ton; 2. Foreign vessels shall pay 4 dollers por ton, except those whlch, in virtue of existing treaties, are assinitated to national vessels; 3. Voreign vessels shall psy, for the visit of the health officer 25 dollars, and the same amount for the bill of health; 4. Foreign vessels beionging to nations having no consul, and whose reil is made out by tho captain of the port, shall pay 40 deilars for it; 5 . The duties fixed by tho preceding articles shall bo paid one half on tho ontrance of the vessel, and the other half on her departure; 6. National and foreign vessels, which do not leave nor receive cargoen, shall pay oue half of the dulles bere established; 7. let this decree be communicated and published in the official registers.
Buff (Ger. Bilffl, Baffelhiute; Fr. Buffe, Prau ds bufles, at Pinux passice en bufthes; It. Bufalo, Cunjo di bufido), a sert of leather prepured from the skin of the bullilo, dressed with oll, miter the manner of ehamois. The skin of elks, oxen, and other liko animals, when prepiared after the same manner as that of the buifulo, is tikewiso called buff. It is used In making swordbelts and other articles, whore great thickness and firmness are required.
Buffalo, city, port of entry, and capital of Erio county, Now York, is sitnated at the entranco of Buffalo Creek into Lake Erie; it ls at the northoastern extremity of the lake, and near tho commencement of its outlet, Niagara River. Lat. $42^{\circ} 53^{\prime}$ N., und $78^{\circ} 56^{\prime} \mathrm{W}$. long, from Greenwleh, England; 208 miles west from Allany, 391 northwest from New York, 188 east from Cievelund, Ohio, 327 from Dotrolt, and 810 from Washington. Population in 1810, 1508; 1820, 2005; 1830, $8803 ; 1840,18,218 ; 1845,20,773 ; 1850,42,261$; and $\ln$ 1834, with the addlion of Black Ituck, annoxed to it in 1853, 73,000.

The eity of Buffalo occupiea a very important and commanding position at the western terminus of the Erie Canal and the central line of railroad from Albany and loaton, and also the northern termination of the Erie and otiler railroads, and has communleation with the principal cities of the Weatern States, and also with Western Canada. It is the eastern port of tra. hipment of the great lakes Erie, Huron, Mlichigan, and Superior. Ita coinmerce is immenze, employing a vast number of ateamers, brigs, and aloops, whieh convey from the several lake ports a large amount of produce, which from hence is transported to eastern markets by canal and railroad. The ground on which the city is built rises gradually from Huffalo Creek on the south, and within a short distance from the lako on the west it becomes an extended plain 50 feet above the surface of Lake Erie. From this elevation is obtained a picturesque view of the Canadian shore, Niagara River , and the lake. The streets are broad and straight, crossing each other mostly at right anglea. Main Street is 100 feet in bruadth, and extenda for a distance of four miles, and is built very compactly with stores, hotels, and expensive private dwellings. The housea gencrally aro constructed with neatnesa and taste.

The manufactures of Baffalo are very extensive, consisting of engine and bolier factories, furnaces, carwork, founderies, etc. The capital employod in 1850 was $\$ 1,946,348$; value of manufactured articles, $\$ 3,674,988$; and ainco that time both the capital employed and value of products have been largely increased. In 1853 there were six steam flouring mills, manufactaring during the year 216,206 barrels of flour.

The connnerce of Bufialo is inmensely large, iar surpassigg all other ports on the great lakes. The number of arrivals and clearences in 1853 wore 8298 vessels, with an aggregate tonnage of $3,252,978$. There are owned in Buffalo 30 steamers, with an aggregate tonnage of 26,$503 ; 46$ propellers, aggregata tonnage 18,004; 39 brigs and barks, aggregate tonnage 10,376 ; 115 schooners, aggregate tonnage 17,090; total tonnage of steam and sail vessels, 72,917. Value of tho leading articles landed at Buffalo churing the year 1858, $\$ 1168,898,360$. Value of the real and personal estate, \%27,155,502. Buffalo was origiaslly laid out by the Holland Land Company in 1801. Its progress was slow for many years. In 1812 It contained 100 houses; in December of tho next year (1818) It was entirely burned by the Dritish and Jndians, with the exception of two houses, und at the close of the war the inhabitants received from the Uaited States government $\$ 80,000$ as a compensation for their losses. The rapid growth and its commercial importance commenced at the completion of tho lirie Canal in 1825. It was incorporated as a city in 1832. It is divided into thirteen wards, and is governed by a mayor and common council, elected by the people.-See Lake Trades.

Bugle-horn, a small brass instrument used in the buntling-fleld, and in cavalry reglments. The compass of the bugle is now extended by finger-keys.

Bugles, small glass beads of difterent colors. They are in considerable demand in Africa, to which they are mestly exported.
Buhl, ormamental wood-work, Inlaid with mother-of-pearl, brass, etc. The name la derived from the inventor.

Bullder, in the general sense of the term, and undertaker of works of buidding. With reforence to the operutions of ivil architecture particularly, the builder stauds betweon the proprietor and arohitect on the one hand, snd the artisan, merchant, and mianufacturer on the other, he engages to the first to carry a certain proposed work into execution, as ho may bo directed by the second, and saves to both of them the trouble and responsibility of procuring materlals and employfing workmen.

The builder's emolnment arisea from an inproved price, or charges bearing an advance on the prime cost,
to remnnerate him for the use of his capital in materials, work-shope, plans, and labor, and his own personal application and risk. A builder has the power also of deriving an advantage from the divislon of labor by employling artissus in those operatlons only whlch habit onables them to executo with the grestest facllity.
The bullder contracts to do certain specified worka for a certain total sum of money, the amount of which he determines by a previous eatimate, or to do prescribed operations at so much for a certain fixed quantity of every sort invelved, per yard, per rod, per foot, and so on, the amount to be ascertained, when they are completed, by measurement; or he executes works according to instructions or specifications, leaving the charges to be determined according to the usual and accustomed rates, on the quantitics ascertained by admeasurement. In the two former cases he is sald to work by contract, and in the last by measure and value. For jolbing, in repairs and alterations, a day account is kept; that is, a record of the time workben are employed, and of the materials used, In performing certain operations. This is made out with an advance of so much per cent. on the prime cost, or wages of the workmen and selling prices of the unwrought materials, for the builder's protit or remuneration efore stated.
A builder should be theoretically acquainted with the priniples of construction, and practicully converaant with the details of all the mechanic arts used in huilding ; as well to be enabled to carry on his business with advantage to his own laterest as to the proper execution of the works he may undertake. He sloonld be qualified to ascertain with the utmost minutencss, from the drawings of a design, and the apeclfication of the manner in which, and matter of which, it is to be carricd into execution, the quantity of labor and materisls of every kind and description, and the exact value of them all. In this is involved the necessity of being well acquainted with the market prices of raw and msnufactured articles to a very great extent, and a matured judgment of the quantity of labor required, or how much time a workman will take to produce a certain result. These things, however, whleh involve the making of eatimates on which to make contracts, in the practice of this country are generally referred to a nurveyer or measurer, becamae of the gencral lguorance and incompetence of huilders, or hecause of the greater aptitucle of the latter, in consequence of their attention being solely occupied by such things.-li. 13 .

Euilding. The first structures were of wood nad clay, then of rough stone, and, in the end, the ert allvanced to polished marble. Building wlth stene was practicel carly aniong the Tyrinas; and as oruaments and taste arose, every natlou pursucd n different aystem. The art of buslding with stone may he referred in England to Benedict or Benet, a monk, about $A, n$. 670. The first bridge of this material In England was at low, in 1087. lluilding with brick was introduced by the Romans into their provinces. Alfred encouraged it in Eingland in 886. Driek-building was generslly Introduced by the Earl of Arundel, about 1598 , London being then almost built of wood. The increase of building in London was prohibited within three miles of the city gates by Elizabeth, who ordered that one family only should dwell in one house, 1580.

Bulk-heads are partitions made nthwart a shlp with boards, by which one part is divided from the other; as the great cabin, gun-room, bread-roam, ete.E. 13.

Bulk of a Bhip, the whole space in the hold for the atowage of goods.
Bullets. Those of atone in use, A.D. 1514; and iron ones are first mentiored in the loedera, 1550. Leaden bullets wers made before the close of the sixteenth century, and continue to be thore in use in all natlens for muaketry. The chanen-ball in some Eastarn countries la stlil of stone Inatead of irc $n,-$-Ashe.

Bullion, uncoined gold or silver in the mase. The
preclous metals ars so called either when smelted and not perfectly refined, or when refined and melted down in liars or ingots, or in any form uncoined, as in plate. $-E .11$.

Bum-boat, a small boat used to sell vegetablea, etc., to ships lying at a distance from shore.
Bunk is a word used, in the United States, to sig. nlfy a case or cabln of boards for a bed. Thus, in the arny, the soldier's berth is called his bunk.
Bunt, the middle part or cavity of the pritucipal square salls, as the malnsail, foresail, etc. : if one of them be supposed to be divided into four equal parts from one side to the other, the two middle divisions, which comprehend balf of the sall, form the limita of the bunt.-E. A.

Bunting, a thin woolen stuff, of which the colore and signals of a alip are usually formed.
Buoy, a close empty cask, or a block of wool or cork festened by a rope to an anchor, and floating on the water to show where the anchor is situated. Huoys are of varions kinds; as can-brooys, in the fcrm of a cone; nun-buoys, which awell in the middle, and taper to a point at each end; cable-buoys, cmpty casks cmployed to buoy up the cable in rocky anchorage. Buoya are also used to indicate the position of rock a and shosls, or to mark a chanuel.

The life-buoy, of which there are various kinds, is used to throw overboard to preserve a persen from drowuing. The kind now commonly used in the navy cousists of two hellow copper vessels connected togeth. er, between which there is fixed a hollow pole, with a port-firo fixed to its top. This apparatus, which is properly bsllasted, is suspended so as to he ready for use at a moment's notice; and it is so contrived that by the act of letting It off the port-tire is ignited; thus enabling the person in the water to discern the huoy in the darkest night.
Burden or Burthen (Saxon byrden or byrthen), a fixed quantity of any commodity for transit.
Burden of a Bhip, its contents, or the number of tons It will carry.-See Tonnage.
Burgundy. See Wine.
Burgundy Pitch, a resin, the produce of the Pinus Abies, or spruco fir. It is obtained ly making incisions in the bark down to the wood, whence it flows thickly and languidly, Immediately concreting into flakes that ndhere firmly to the tree. These, heing taken off, nre melted in boiling water, and strained through coarse claths. It is of a close consistence, rather soft, has a reddish-brown color, and a not unpleasant smell: it is very adhealve. The greatest quantity is collected in the neighborhood of Neufchatel, from whonce it is brought packed in casks. A tictitious sort is made In England, and found in the shops under the title of cammon luurgundy pitch: it may bo Ilistinguished ty Its friability; want of viscidity, and of the odor which characterizes the genuine sort.
A species of liurgumly pitch exudes spontancously from the Norway spruce fir. This, whith undergocs 110 proparation, is the resin or thus of the old J.ondon Pharmacopoias. It is limported in the form of tears or small masaes, packed in ensks, cach containing from 1 to 2 cwt. It fetches about half the price as that which is stralned.-Ghay's Supplement to the Iharmact peias, Tuomson's Dispensifory.

Burmah, or Birmah, the Burmese empire, or kingdom of Ava, a statc of Farther Indla, ond formerly the most extensive and powerfui in that peninsula; but slnce the war of the Burmese with the 13ritish, In 1824-'26, itn territories have been comprised within lst. $16^{\circ}$ and $27^{\circ} \mathrm{N}$. , and long. $03^{\circ}$ and $99^{\circ}$ E., hsving on the west Aracan and Munipoor, on the north the Nngas territory and Upper Assam, on the east the Chinese provlace of Yun-min, the independent Luos country, and the British province of Martaban (from which last it is separated hy the Sa-luen or Than-lweng Rlver), and on the south the Gulf of Martaban, a perticn

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smelted and aelted down as in plate. :ted togeth. oole, with a 8 , which is e ready for trived that nited; thus n the buoy
of the Bay of Bengal. Estimated area, 200,000 aquare miles; population from two to three milliona. It is composed of the kingdoms of Burmah, Pegu, and Pong, with portions of the countries Inhabited by the Khyen, and the Shang countries, and the Kubo valley (Munipoor), reanmexed to it by treaty with the British in 1834 ; It is inclosed on most eides by mountain zanges, in clevation from 2000 to 5000 feet above the sea, ita central part consisting of the basin of the Irrawaddi. Lagoons are numerous in low beds of the south, and in the centre, a little north of Ava, is a lake thirty miles Ia length by ten miles across. The country is reekoned salubrlous. From May till the middlo of September is tho rainy season. From September till March the weather is dellghtful, the temperature seldom exceeding $75^{\circ}$; In April and May the heat becomes very great, but la soon mitlgated by the commencement of rain. Annual fall of rain 150 to 200 inches. The soil is of very hlgh fertility; but except near the towns most of it llea waste, or is only irregularly tllled; and agrlealture is generally in the most backward conditlon. Rice is the chief crop, especially in the south; pulges, Indian millex, and maize are raised in the north, and sesamum is universally cultivated for cattle. Other products are, cotton of short staple, indigo (though this product is so badly managed as to be untit for export), yams, sweet potatoes, tobacco, capsicums in grent quantitios, gourds, oil-plants, bananas, and other fruits, betel nut and leaf, eugar-cane, onions, garlic, and in the north a kind of tea. Teak, of a quality inferior to that of both Malabar and Jeva, oak, and other valuable woods, abound on the mountaln ranges, and palm and bamboo are also plentiful. Oxen, buftaloes, and goats are the prlacipal domestic animais used for draft, and the elephant ls domesticated for the same purpase; a gooll breed of horses is also rearel. Nlineral products are numerous and valuable. The gold and silver obtalned in the empire has been estimsted in value at upward of $£ 200,000$, and the produce of petroleum in pits, along the Irrawaddl, to $8,000,000$ lbs. ammally. Fine marble, serpentine, amber, sapphirea, and other gems, iron, copper, tia, lead, antimony, sulphur, nitre, and coal, are also found. In physical form the Burmese are more allied to the Mongolians of Eastern Asla than to the Hindoos. Their figure is short, squat, robust, and fleshy, face lozenge-shaped, ehcek-bones large, and eyes obliquely placed. They excel in bont-bullding, and they cast hells, woris in gold and silver, and lyo silk and other fabries, weave silk and cotton goods, and manufacture lacquered wares, paper, coarse earthenwares, and some other artieles in a respectuble manner; but most of their manufactured gooda in ordinary use are imported from foreign countries. China aends silks, porcelain, copper, carpeta, metals, drugs, tea, ete., in return for raw cotton, festhers, lvory, hirds' nests, horas, gums, and some British manufactures; this intercourse being chiefly conducted at a large annual fair at llhamo. From the Shan tribes the llurmese obtain their best sword-blades, with lac, wax, varnish, in return for salt and dried fish; other articles are mostly imported by sen from British India and the A. Intic Archipelago, and consist of British eatton goode, areca and cocom-nuts, tobacco, lron, hardwares, copper, lead, and other minerals, opium, sugar, spirits, linglish glass, earthen-wares, fire-nrms, and gunpowier, the manufnetures of the liurmese In the two last articles being of the most wreteled description. Publie revenue is derlved from a titho of the profit of cultivation, duties of 10 per cent. on imports, and 5 per cent. on exports, and on petrolcum collected, a royal monopoly of marble, amber, and the preelous metals, and gems above a certain size, a poll tax on the unsettled tribes, etc.; and the whole fiscal system is "replete with uncertalnty, rapacity, and volenee." The llurmese empire is divided into aeven provinces. Ava and Monchobo have alternately been constituted the capital of the empire. The other principal towns are, Amarapure, Sa-
kaing, Rangoon, Bassain, Martaban, Setang, Taungo, Prome, Patango, Yandabo, and Bhamo. In 1823 the Burmese, by encroaching on the East India Company's territories, brought on a war with the Brltish, which lasted during tho years $1824-25$, and terminated in their defeat and the cession of several territories to the English.

Burning-glass and Concave Mirrors. Their power was not unknown to Archlmedes, but the powers of these instruments are rendered wonderful by the modern improvements of Settallu; of Tchirnhausen, 1680 ; of Buffon, 1747 ; and of Pazer and others more recently. The following are experiments of the fusion of aubstances made with Mr. Parker's lens, or burning mirror :

| Substances fused. | Welyde. | Ti |
| :---: | :---: | :---: |
| Pire getd | 20 gratns | 4 beconds. |
| Sllver. | 20 gralng | 3 seconds. |
| Copper. | 33 grains | 20 seconds. |
| Platina | 10 grains | 3 seconds, |
| Cast iron | 10 grains | 8 seconds. |
| Steel. | 10 grains | 12 meconds. |
| A topaz | 3 gralns | 45 нeconds. |
| An emerald | 2 grains | 26 seconds. |
| A erystal peb | 7 grains | 0 secends |
| Flint... | 10 graina | 30 seconds, |
| Cornellan | 10 grains | 76 seconds. |
| Pumice-rton | 10 gratns | 24 seconds. |

Green wood takes fire instantaneously; water boils immediately; hones are calcined; and things not capable of melting at once become red hot like iron.

Bushire or Abushire, a sea-port town of Persia, in the province of Fars, on the northenst const of the Persian Gulf, lat. $29^{\circ}$ N., Jong. $50^{\circ} 50^{\prime}$ li.. Population uncertain, but estimated by Major Wilson at from 15,000 to 20,000 . Bushire is sitnated at the northern extremity of a asandy peninsula, to the north and east of which is the bay. There is a convenient anchorage for large ships due west from the town, three or four miles distant, in from 25 to 28 feet of water; but ships of 300 tons lurden or thereby lie in the inner rouls, to the north, about six miles from shore; the anclorage is pretty good; but during violent northwesterly gales they are sometimes obliged to cut their cables, and bear up for Karak, a sinall island about 15 leagues west-northwest of Bushire. The water immedintely to the east of the town is deep, but the passage to it is obstructed by a bar, which ean not be passed by vessela drawing more than eight or nine fect of war ter, except at spring-tides, when there is a rise of from eight to ten feet. The variation in 1811 was $4^{\circ} 43^{\prime}$ W.-Chart of the Persian Gulf, by Captarn litrcuis: etc. The climate here, as in all the other ports of the Persian Gulf, is extremely hot, particularly June, July, and Auguai. The unhealthy season is in the fall of the year.

Buss, a small sea-vessel, used ly the English and the Duteh in the horring tlshery, commonly from 50 to 60 tons burden, and sometimes more. A buss has two sunall sheds or cabins; one at the prow, and the other at the stern: that at the prow serres for a kitchen.
Bussorah, or Basrah, a clty of Arnbla, on tho western bask of the Shat-el-Arab (the name given to the river formed by the junction of the Thgris and the Euphrates), above 70 miles from Its mouth, lat. $30^{\circ}$ $30^{\prime}$ N., loug. $47^{\circ} 32^{\prime} \mathrm{E}$. Population about 60,000 , conslsting of Arabs, Turks, Persians, Armenians, dews, etc. The houses and strects are mean and filthy There is a vast aren within the walls, oceupied principally by gardens and plantutlons of date-trees, ond interseeted by canals, on which are numerous smul) cruft.

The bur at the mouth of the Shat-el-Arab lias only about twelve feet of water, but the chansel within is deep, so that ahlps of 500 tons burden, provided they cross the bur at the springs, may without difficulty ascend the river as far as the clty ; and both its grand branches muy be navigated to a great distance by amnlier vessela. Bussorah is the principal inlet on the east, through whish Indian and other Eustern protucts find their way into the Turkish empire. Ita eommerce
is, therefore, eren at present, pretty considerable ; and were the rioh and extensive countries traversed by the Thgris and the Euphrates oceupled by a elvilized and induatrious people, it wonld be very great. Its lmports from Indis and Europe are oimilar to those at Bushire. From Persia it imports shawls, pearls from Buhrein, etc., and coffee from Mocha. At an aversge, six or eight British ships arrive in the course of the year from India; but the principal part of the trade is carried on in Arablan bottoms, the nerchants of Muscat being the owners of some of the finest ships that are to be met with in the Indiun seas. Its exports are prinelpally bullion, poarls, dates, copper, raw ailk, horses, gall-nuts, and drugs. Ciptain Hamilton mentlons that in the early part of last century the exports of dates from Buseorah excceded 10,000 tons a year.New Account of the East Indice, vol. i. p. 78. The commerce with the interior is conductel by means of caravans to Aleppo and Bagdad; but it might be carried $r z$ to much more advantnge by means of ateamboata. It was at one time proposed to forward mails from Indla by steam by the Shateel-Arab and the Euphrates to Bir, thence by land to Scanderoon, and again by steum to the Gibraltar und Englund; but this project was very wisely given up in fiver of the route by the Red Sea.

Money-All sorts of coins circulate here, but their values are constantly fluctuating. Accounts are kept in manoodis of 10 danims, or 100 floose; 100 mamoodis make a toman, which may be valued at about 10 sleca rupees, or 26 s. sterling.

Wights and Mcasures.-Gold and silver are weighed by the chekl of 100 miscale, or 7200 English grains.

The commercial weights are the maund atteree, the maund sofy or sesse, and the oke of Bigdad. 1 vakia $=19 \mathrm{oz}$. avoirtupols; $2 \frac{1}{2}$ vakias $=1$ oke of Bagdad $=$ $47 \frac{1}{2} \mathrm{oz}$. avolrdupois; 1 maund ntteree $=28 \mathrm{lba} .8 \mathrm{ez}$. avoirilupois; 1 maund sofy $=20 \mathrm{lbs} .4 \mathrm{oz}$. avoirdupols; 1 cutra of indigo $=138 \mathrm{lbe} .15 \mathrm{ez}$. avoirdupois.

These are the weights used by the Europeaus settled at linssorah; those used by the A rabians differ a littlo from the above, and frequently also anong themselves -a circumstance to which the merchant must pay particular attention.

The long measures are the Aloppo yard for silks and woolens $=2$ feet $2 \cdot 4$ inches; the liadded ditte for cotton and linens $=2$ feet 12 inches; the Bagdad ditto for all purposes $=2$ feet $7 \cdot 6$ inches.

For further details as to the conmmerce of Bussorab, see Kinney's Mcmoir on the Persian Empire, p. 283; Keliv's Oriental Metrology; Tuonntox's Last Indian Calculator, p. 42:1. Niebuhr has given a plan of Bussorah, Voynge en Arabie, tome ii. 1. 170.

Butchers. Among the Romans there were threo classes: the Suarii provided hoge; the Boarii oxen; and the Ianif, whose office was to kill. The butchera' traile is very ancient in lingland; so is their company in London, although it was not incorporated untll the second year of James I., 1604.-d nnals of Lomdon.

Butierage. Sce Impagk.
Butt, a veasel or measure for wine, containing two hogsheads, or 126 wine gallons.

Butter and Cheese (Da. Smor; Du. Botcr; Fr. Beurre; Germ. Butter; It. Burm, Butiro; Lat. Butyrum; I'ol. Maslo; Port. Mfonteiga; Russ. Masslo Korowe; Sp. Mantecra; Sw. Smör). Jlutter is known as a fat, unctuons, and, in temperate climates, a pretty firm anbstance, obtained from milk, or :nther from cream, by the process of churning. According to somo writers, it was late before the Greeks had any notion of luatter, and liy the early Romans it was used only ns a medleine-never as food. The Christians of Figypt burned buttor in their lamps, instead of oll, in the third century. In 1675 , there fell in Ireland, during the winter time, a thick yeliow dew, which had all the medlelnal properties of butter. In Africa, vegetable butter ls made from the fruit of the shea-tree, and is
of richer tasto, at Kebba, then any butter made from cows' milk.-Mungo Park. The various circumstances attending the introduction and uae of butter in antiquity have been investigated by Beckmann with great learning and induatry. The conclusion at which he arrives is, "that butter was not used elther by the Greeks or Komana in cooking or the preparation of food, nor was it brought upon thelr tablea by way of dessert, as is every where customary at present. We never find it mentioned by Galen and others as a food, theugh they have spoken of it as applicable to other purposes. No notice is taken of it by Apicus; nor is there any thing suid of it in that respect by the anthors who treat of agriculture, though they have given us very particulur information with respect to milk, cheese, and oil. This, as has been remarked by others, may be easily accounted for by the ancients having accustomed themselves to the use of good oil; and in the like manner, butter is very little employed at present in Italy, Spain, Portugal, and the southern parts of France."-History of Incenticns, vol. ii. p. 413, Engllsh edition.

Beekinann has further ahown that the little butter that was used ly the ancients was in an oily or liquid state; and such is its usual state in ell hot countrics. It ia rather singular that Beckmann does not allude te the consumption of butter by the Aralos, by whom it has been very extensively used from a remote period.
"Arub cookery is extremely fiuint, more so thas even the Itallan; but no oil is used for eulinary purposes, except in frying fish. Butter is their universal sauce, and of it the consumption is lmmense; their vegatable dishes tlost in butter; with it they work their adjoue (paste made of dates) into a proper consistency ; driod corn, or bread crumbs, boiled in butter, is a cominon breskfast with all classes; and In the dessert, the ktmnutyes are prepared for use in the same manner. In short, lutter forms an indispensablo part of the diet of the Arab; and, besides the various forms in which it ia taken with other articlea, it is a common practice with both Bedouins and townspeople to swallow a coffec-cupful of butter every morning; the former, and the lower orders of the latter, adding snother half cup, which-to the disgust of strangers-they sunff up their nostrils! Arab butter is made from the milk of sheep and geats, that of enmels not belng used for that purpose. The home supply ls not nearly sufficient for the consumption, and butter consequently forms an important article of importstion." - Cieographical lictionary, article Aralia.

Considorablo quantitics of butter are made in Ireland, and it forms a prominent article in the exports of that country: gencrally it is very inferior to that of Irritaln; but this is a consequence rather of the want of cleanlluess and attention than of any inferlority in the milk. Some of the best lrish butter brouglit to Londen, after being washed and repacked, is sold as Dorsetahiro and Cambridge butter. The salt butter of IIolland is superior to that of every other country; inge quantities of it are annually exjorted. It forms about two-thirds, of all the forsign butter imported by England, the rest being brought from Germuny, Denmark, ete. The production and consumption of lutter in Great Iritalis is very great. The consumption in the English metropolis may, it ls belicred, be averaged at alout elght pounds a year for eachi individual; and supposing this estimate to be nearly accurate, and the population to amount to $2,300,000$, the total annual cousumption would, on this hypothesis, bo $18,400,000 \mathrm{lbs}$., or 8214 tons; but to this may be added 3000 tons for the butter required for the victualing of ships and other purposes; making the total consumption, in round numbers, 11,200 tons, or $25,088,000$ llis., which at IOd. per poind would be worth $£ 1,045,333$.

The ceasun of 1840 furnishes us no statlaties from which we can accurately determine the quantliy of butter and cheese then produced. The vslue of bot: 8 circuum.
Cbuter in nann with at whlch her ly the aration of by way of sent. ${ }^{2}$ as a food, e to other us ; nor is by the autave given $t$ to milk, by others, tos huviug il; and in di at pres-- 413, En. ttle butter y or liquid countrices. not sillude hy whom oto period. re so than inary par-- universel nee; their
hey work ner consista butter, is in the des. the salise ssable part ions forms a common te to swal; the for. ag another they sunff a the milk 5 used for \%ufficient tly forms ographical
de in Ireo exports to that of the want rlority in rought to is sold as alt butter comury; It forms iermany, pition of colsumpiovell, be ach indirly accu. 0, the to liesia, be be added ruling of onsump. 000 lbs. 15,333 . ies from ntity of of bot:
is gi.ven under the heading of "value of the producta of the dsiry" at the sum of $\mathbf{8 3 3 , 7 8 7 , 0 0 8}$. It is presunsed that the marahals made their returns in accordance with the prices governing in their respective districts, which would differ so widely as to render any avaumed sverage a mere conjecture. New York la far in advance of any other State in the productiveness of Its dairies. They yiold one-fourth of all the butter, and nearly one-half the cheese produced in the Unlon. Penusylvaula, whlch makes $40,000,000$ pounds of butter, is less prollific in cheese than soveral smaller States. In this latter article Ohio is before all other competitors, except New York.
Census Report, 1850.-The following table showe the
amount of dairy products exported from the Unlted States for several years:

| Voers. | Buttor. | Chome. | Value. |
| :---: | :---: | :---: | :---: |
| 1820 | Pound. | Poupde <br> 706,43 | 7 |
| 1880-81. | 1,728,212 | 1,131,817 | 264,796 |
| 1840-41. | 8,785,008 | 1,748,471 | 604,815 |
| 1841-42. | 2,050,133 | 2,456,607 | 885,185 |
| 1842-'33. | 8,408,247 | 3,440,144 | 508,968 |
| 1843-24. | 3,251,052 | 7,843,145 | 768,829 |
| 1844-45. | 8,687,489 | 7,941,187 | 878,865 |
| 1845-46. | 8,436,060 | 8,675,800 | 1,063,087 |
| 1846-47. | 4,214.433 | 16,073,600 | 1,711,770 |
| 1847-48. | 2,751,088 | 12,018,305 | 1,361,688 |
| 1848-49. | 8,406,242 | 17,433,688 | 1,654,167 |
| 1849-50. | 8,376,175 | 13,020,817 | 1,215,468 |
| 1850-61.. | 8,994,642 | 10,361,189 | 1,124,652 |

Paontet of Buttriz and Curzbe in thie baviral States in 1850, and Valez of Daify Producta in 1840.

| Statee and Territorico. | Patter. | Cheese. | Tolsh, 1850 | Palry Produets. |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounde. | Pounds. | Founda. | 0800 |
| Alabama . . .............................. | 4,008,811 | 81,412 | 4,040,223 | $206,200$ |
| Arkantras . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,864,289 | 80,088 | 1,884,827 | 69,205 |
| Catiforuia . ............................. | 706 | 150 | 855 |  |
| Cofumbla, Dtstrict of . . . . . . . . . . . . . . . . . | 14,878 | - 1,500 | 16,872 | 5,566 |
| Connecticut. . . . . . . . . . . . . . . . . . . . . . . . | 6,498,119 | 5,363,277 | 11,861,396 | 1,376,594 |
| Delaware . . . . . . . . . . . . . . . . . . . . . . . . . | 1,055,303 | 3,187 | 1,068,405 | 118,828 |
| Floridn. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 871,498 | 13,015 | 889,513 | 23,004 |
| Georgla . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4,640,550 | 46,978 | 4,687,635 | 605,172 |
| Ilifnols . . | 12,626,543 | 1,279,205 | 18,604,768 | 428,175 |
| Indisna. . . . . . . . . . . . . . . . . . . . . . . . . . | 12,881,035 | 624,564 | 18,506,099 | 742,269 |
| Jown . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,171,188 | 200,840 | 2,881,028 | 28,609 |
| Kentneky . . . . . . . . . . . . . . . . . . . . . . . . . | 0,947,523 | 218,964 | 10,101,477 | 031,883 |
| Loulalans . . . . . . . . . . . . . . . . . . . . . . . . . | 683,069 | 1,957 | 685,020 | 158,069 |
| Matne... | 0,943,811 | 2,484,454 | 11,678,265 | 1,406,902 |
| Maryiand. . . . . . . . . . . . . . . . . . . . . . . . . . | 8,806,160 | 8,975 | 8,810,135 | 457,466 |
| Massachusetta. . . . . . . . . . . . . . . . . . . . . . . | 8,071,370 | T,088,142 | 15,159,519 | 2,873,299 |
| Jjichigan . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,005,878 | 1,011,402 | 8,077,270 | 301,052 |
| Misstaslppt . . . . . . . . . . . . . . . . . . . . . . . . . | 4,346,294 | 21,191 | 4,007,425 | 859,685 |
| Missoluri.. | 7,834,559 | 203,572 | 8,037,981 | 100,439 |
| New IIamphire . . . . . . . . . . . . . . . . . . . . | 6,977,086 | 8,196,563 | 10,178,019 | 1,038,543 |
| New Jersey . . . . . . . . . . . . . . . . . . . . . . . . . | 9,487,210 | 865,750 | 0,852,066 | 1,823,032 |
| New York. | 70,766,094 | 49,741,413 | 129,507,507 | 10,496,021 |
| Nerth Carolins. . . . . . . . . . . . . . . . . . . . . . . . | 4,146,290 | 95,921 | 4,242,211 | 674,849 |
| Ohlo . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 84,449,379 | 20,819,542 | 55,268,921 | 1,848,809 |
| Pennsylvank . . . . . . . . . . . . . . . . . . . . . . . | 89,878,418 | 2,505,034 | 42,383,452 | 8,187,202 |
| Rhode lsiand . . . . . . . . . . . . . . . . . . . . . . . | 905,870 | 816,503 | 1,312,178 | 223,299 |
| gonth Carohas. | 2,081,850 | 4,970 | 2,088,820 | 677,810 |
| Tennessee . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8,139,585 | 177,681 | 8,317,266 | 472,141 |
| Texas . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,344,000 | 95,290 | 2,440,199 |  |
| Verment | 12,137,080 | 8,720,834 | 20,858,814 | 2,008,737 |
| Virginia... | 11,069,359 | 436,292 | 11,625,651 | 1,480,488 |
| Wisconstn ..... . . . . . . . . . . . . . . . . . . . | 8,638,750 | 400,283 | 4,084,083 | 35,077 |
| Mtnaesota Territory . . . . . . . . . . . . . . . . . . | 1,100 |  | 1,100 | .... |
| New Mextco Territory. . . . . . . . . . . . . . . . . | 211.111 | 6,848 | $\begin{array}{r} 5,959 \\ 249,444 \end{array}$ | . $\cdot$. |
| Oregon Territary . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 211,464 83,300 | 86,980 50,998 | 248,444 114,307 | .... |
| Total........................... | 813,346,306 | 105,695,894 | 418,881,200 | \$83,776, 808 |

Milch Cows,-Under the general term of "neat cattle" were embraced In the sixth census of the United States the three deacriptions of animals designsted in that of 1850 as milch cows, working oxen, and other cattle. The sggregate of the three classes, in 1840, was $14,971,586$; In $1850,18,355,287$. The Increase, therefore, between the two periods was $3,383,70 \mathrm{I}$, or about 20 per cent. They eppear to be distributed quite equally over the Unlon. The amount of butter produced gives an sverage of something over 49 pounds to each milch cow. The average production of cheese to each cow is 16$\}$ pounds. As with horsea, the samo allowance must be mado, on account of the omisaion of cows, except in connection with agrioulture. The only schedules in which the llve stock of the country conld be coumerated were those used for obtaining the agricultaral products of farma. From the fact that the schedsles for enumerating agricultursl productions and iive atock were not used In citiec, their live atock was necessarlly omitted. Tho value of the butter producell in the United States in 1850 was estlmated at $\$ 50,235,000$; and cheese, $\$ 5,276,000$.-Census Report, 1800 .
Butternut-tree (Juglans cathartica). This species of walnut is known is the United Statea under different denominstions. In Muesachusetta, New Hampshite, and Vermont, it bears the name of vibnut; in Pennaylvanis and Maryland, and on the banks of the Ohio, it is generally known by that of white walnut; in Connectinut, New York, New Jersey, Virglnia, and
the mountainous districts of the upper parts of the Carolinas, lt is called butternut. The lest of these names we have sdopted, because it is most generally used. This tree is found in the Cansdss, in all of the New England States, New York, New Jersay, Kentucky, Tennessee, and on the banks of the Missonri, and in the bottoms which border on the Ohio. It flourishes most abundantly in a cold, unproductive soil, luterspersed with large rocika, and on the steep, elevated banks of rivers. From lta want of solidity, and from the difficulty of procuring pleces of considcrable length, the timber of the butternut la acldom used In the construction of houses. As it long resists the effects of heat and of moisture, it is esteemed for the posts and rails of rural fence. For corn shovels and wooden dishes, it is preferred to the red flowering maple, because it is lighter and less liuble to aplit. In Vermont lt is used for tho panels of coaches and chaises; the workinen find it excellently adapted to this object, not only from lts lightness, but because it is not lisble to split, and receives paint in a superior manner. Bnown's Sylva Americana.

Button-wood, or Byoamore-tree. In the Atlantic Stutes this tree is commonly known by the name of button-wood, and sometimes in Virglais by that of water-beech. On the banks of the Ohio, and in the States of Kentucky and Tennessee, it is moat frequently known by the name of sycamore, and by some persons plane-tree. The Franch of Canada and of Upper Louialana, give lt the name of coiton-tree. The wood,

## CAB

In seasoning, becomes of a dull red; its grain is fine wad close, and it is susceptible of arighter polish than the wood of the beech, to which it bears some resemblance. Its concentric circles are divided into numerous sections, by fine nedullary rays extending from the centre to the circumference. When a trunk is sawn in a direction parallel to these rays, they appear larger than when it is cut parallel to the concentric circlea. It would seem, then, that the division should be made in the intermediate direction, so that the spots may be of a proper size and at equal distances, which gives an elegant surfuce to the wood. Cabinetmakers seldom make ase of this wood, on account of its liabillty to warp, except for bedsteads, which retain the color of the wood, and are coated with varnish. This wood speedily decays when exposed to the atmosphere, hence it is only proper for work that is sheltered from the weather; when thoroughly sessoned, it may be usefully employed in the interior of houses for joists, and for sheathing the frame. It never is used in nasal architecture.-Bhown's Sylra Americana.

Buttons (Du, Knoopen; Fr. Bouton; Ger. Knöpfe; It. Rottoni; Russ. Pogovizin; Sp. Botones) are wellkucwn articles, serving to fasten clothes, etc. They are manufactured of an endless variety of materials and forms. Buttons were of early manufacture in Eargland; those covered with cloth were prohibited by a statute, thereby to encourage the munufacture of netnl buttons, 8 Gea. 1., 1721. The manufacture owes nothing to encouragement from any quarter of late years.

Buttress, a kind of abutment built archwise, or a mass of stone or brick, aerving to support the sitle of a
building or wall externally, when very high or loaded with a heavy superstructure. Buttresses are chiefly used against the angles of ateeples and on the outside of such buildinge as bsve heavy roofa, which would be apt to thrust out the walls if nnsupported in this manner. They are sometimes placed for a support and abutment againat the feet of archee that are turned acrose great halls in old palaces, abbeyn, etc. Flying buttresses are anch as are carried acrose by an arch from one wall to enother.

Byron, John, was tho second son of Willlam, lord Byron; born November 8, 1723. He went out with Lord Anson, in the Wager, alout 1740, and was wrecked on the ceast of South America. An Indian chieftain conveyed him and his companions, after thirteen months of dreadful sufferings and privations, to the lsland of Chiloe, from whence they made their way northward, and were kindly treated by the Spaniards (though they wore at war with England), in consequence of the chivairous conduct of Lord Auson toward some Spanish lndics whom he had taken prisoners. Thia wreck, and the oufferings throagh which they pussed, form the subject of "Byron's Narrative," which was published in 1745. He was constantly emploced by the British government, both in war and peace, and, among other public services, he destroyed the French squadron, then lying in Chaleur Bay. In command of two ships, he made a roysge to the South Sea in 1764; was appointed superior of the West Indis fleet in 1778 , and soon after created vice-ndmiral of the white. Ife died in London, A pril 10, 1786, enjoying to the lnst a well-earned reputation. The poet, Lord Gcorge Gordon Byron, was his grandson.

## C.

Cabbage, a biennial plant (Brassica, Linn.), of which there are many varieties. It is too well known to require any particular description; it is extensively cultivated in the United States. Sour-crout, or more properly sauer-hraut, ia a very favorite dish in Germany; it consists of a fermented mess ofsalted cabbage.
Cabin, an apartment in a ship for officers and passengers. In large ships there are several cabins, the principal of which is oceupied by the commander. In small vessels there is only one cabin, which is in the stern. The bed-places in ships are aiso called oabins; or, more commonly, berths. Berth is used, likewise, for the room where a number of men mess and reside. -E. A.
Cables are strong ropes or chains, principally used in the anchoring or mooring of ships. Rope cables are principally manufactured of hemp; but in the East they are more frequently made of coir, or the fibrous part of the cocoa-nut, and in some places, particularly on the Red Sea, of the costing of the branches of the date-tree. Hemp cables are formed of three principnl strands, every straud of three ropes, and each rope of three twists. The twists havo more or fewer threads, according to the greater or less thickness of the cable. All vensels have ready for service three cabies, which aro usually designated the sheet cable, the beat bower cable, and the mall bower cable; but besides these, most shipe have some spare cables. The ordinary length of a cable is from 100 to 120 fnthoms.

Iron Cables.-The application of strong iron chains or cables to the purposes of navigation is a late and an important discovery ly Captain Samuel Brown, British navy. It is singular, indeed, that this application should not have beeu made at a much earlicr period. On rocky bottoms, or where coral is abundant, a hempen cable speedily chafes, and is often quite destroyed in a few monthg, or perhaps days. M. Hougainvilic, the French navigator, in his voyage of discovery, lost six anchors in the space of nine days, and narrowly
escaped shipwreck-a result, says that able scamen, which would not have happened, "si nous eussions tete munis des quelques chaines de fer. C'est une précaution que ne doivent jamais oublier tous les narigateurs destines $\grave{a}$ de pareils rogages."-loyage autour du Monde, p. 207, 4to ed. The work from which this extract is taken was published in 1771; and yet it was not till nearly forty years after that any attenipt was insde practically to profit by so judicious a suggestion, The difficultics in the way of importing hemp from 1808 to 1814, and its consequent high price, gave the first great stimulua to the manufacture of fron cables. Iron cables are constructed in different ways (seo Kincyciopedia Metropolitana); but they are uniformly tested by a machine, which strains them by a force greater than the absolute strength of the hempon cable they are intended to replace. By this means the risk of aceident from defective links is effectually obvinted; and there aro exceedingly few instances in which an iron cable has broken st sea. Their great weight also contributes to their strength, inasmich as the impulse of the ship is checked before the calle is brought nearly to $n$ atraight line, or that the strain appronclies to a maximum. Bolts and slanckles aro provided at every fathom or two fathoms, ly striking out which the ship may, If necessnry, be detached from her nnchors with leas difficulty than a hempen cable can le cut. Even in their most defective form, iron cables are a great desl stronger than those of hemp; and as to durability, no sort of comparison cmn be made. No wonder, therefore, that they should be rapidly superseding the latter; which are now almost wholly inid aside in the mavy, and to a great extent nlso in the merchint service. The sheet anchor able is the greatest cable belonging to a ship. The strcam cable is a hawser or rope used to moor the ship in a river or haven shelteled from the wind and sea.

Cabot, Sebastian, the celebrated nuvigator and re-discoverer of the American continent (the continent of Nortis America had been gecm, and even repeatedy are n great s to durabilNo wonder, erseding the aside in the rchant servpst cnble ben hawser or wen shelter-
vislted about five centuries beforo by the Icelandere), was the son of John Cabot, a Venetian merchant resident in England, and waa born about the year 1477. Although long the aubject of much dispute, it is now certaln that England was the place of his nativity. In an anclent collection of voyagea and travels by Richard Eden, a learned writer and contemporary of Sebastlan, the author, in marginal note, says, "Sebastian Cabote tould me, that ine was borne in Brystowe (Bris(ai), and that at liti yeare ould he was carrled with his father to Venice, and so returned agayne into Engiand with his father after certayne years, whercby he was thought to have been born in Venice."-Decades of the Neio World, fol. 255. It also appears that he returped, while still young (pane infans), to England, and remained there till he grew up to manhood. The brilllant diecoveries of Columbua having awakened $n$ spirit of enterprise throughout the enlightened nations of Europe, Henry VII. of England was not slow in percelving the adrantages to be galned by promoting sdventure in the new career opened up to haman ambition. The all-important and engrossing object was to discover a route to Indla; and an expedition in a northwesteriy direction, ostensilily to reach what was cal!ed Cathay, or the Land of Spice, was projected by Sebastian Cabot, and fitted out under the auspices of ths English government. The first patent, which bears dste March 5, 1496 (Rymen, Fadera, vol, xii. p. 595), was given to John Cabot and his three sons, Lewia, Sebustlan, and Saucius. The patentees were empowered to set up the royal banner, and occupy and possess all the "newly-found" lands in the name of the king, who reserved a fifth of the profits. It was also stipulated that the vessels should return to Bristol, and that the privilege of exclusive resort and traffic should belong to the patentees. Although the patent waa conferred on John Cabot and his threo sons, there can be no doubt, even if the father did necompany the expedition, that ite suecess was entirely owing to the genius of Sebastian.
It is now undoubted that to Sebastian alone belongs tbe glory of the re-discovery of the terra firma of the Western World. The expedition, conslisting of the ship commanded by Sebastian, and three or four smalier vessels, sailed from Bristol in the beginning of Mar, 1497; and an ancient Bristol manuscript records the fact that. "in the year 1497, the 24th June, on St. John's day, was Newfoundiand found, by Bristoi men, in in ship called the Mathew." On the authority of Peter Mnrtyr, we learn that, after quitting the north, where he reached latitude sixty-seven and a haif, Cabot proceeded along the coast of the continent, to a latitude corresponding probabiy with that of the Straits of Gibraltar. Indeed, hu is said to have gone so far soutiwward, "ut Cubam Insulam n lieva longitudins graduum pene parem habuerit." A fallure of provisions nt this point compelled him to desist from further pursuit, and the expedition returned to England. The sceond patent is dated 3d Feloruary, 1498, and gives nuthority to "John Knbotto, or his deputies," to take at pleasure six English ships, and "them convey nuld lede to the tonde and isles of late found." Shortly after the date of this patent, Juhn Cabot died; and it is said that his sons, Lewis and Snucius, went to settic in Itaty. Sehastinn, however, did not abandon the enterprise in which he hid embarked; and a secand voyage was zealously undertaken under his superintendence. A shlp equipped at the king's expense, aiong with four small vessels, sailed from Bristol in the spring of the year 1498. The repuit of the expedition is unfortunately wrapt in much obscurity. Gomara alone furnishes us with what may be a correct account. Accerding to this author, Cahot "directed his course by the tracte of islande, uppon the Cape of Labrador, at iviii. degrees; affirmynge that, in the monethe of July, there was such could, and heapee of ise, that he durst passe no further ; niso, that the dnyes
were very longe, and in maner without nyght, and the nyglites very clear. Certayne it is, that at the lx. degrees, the longeet day is of xviii. houres. But consyderynge the coulde, and the straungeness of the unknoven lande, he turned his coarse from thense to the west, folowynge the coast of the lande of Baccalios unto the xxxvili. degrees, from whense he returned to Englande."-Eden'a Decades, fol. 313. The reaults of this aecond voyage were not snfficientiy important to induce Henry to equip another expedition. We have good anthority for belleving, however, that Cabot, in 1499, "with no extreordinary preparations aett forth from Briatoll, and made greate dlacoveries."-Seyen's Memoirs of Bristol. But the narratlve of Cabot's Ilfe for tise ifteen yeare subsequent to the departure of lis second expedition is meagre and nnsatisfactory. One circumatance deserves notice, that during that period Amerigo Vespucei, In company with Hojeda, croesed the Atiantio for the first time, while Selastian was prosecuting his third voyage.

After the death of Henry VII., upon the invitation of Ferdinand, Sebastlan Cabot went to Spain; and Vespucel, who held the office of pilot-major, having died, he was appointed his suecessor. He was soon employed in a gencral revision of mapa and charts; and his public and private character endeared him to most of the learned and good men in Spain. Tho death of Ferdinand put an end to an expedition then in contemplation. The ignoble commencement of the reign of Charies V. frustrated all further hopes of its prosecution; and Cabot returned to England, where, under Henry VIII., ise got honorable employment, and performed another westwardiy voyage in 1517, which, however, proved unsuccessful. In 1518 we find Cabot in Spain, and again reinstated in the appointoment of pilot-major. The dispute between Spain and Portugal in regard to their respective rights to the Moluceas having been decided at the Congress of Badajos, in 1524 In favor of Spnin, a company was formed at Seville to open a commercial intercourse with those islands; and Cabot, with the title of captain general, after many delays, set sail with a fleet in April, 1526. The squadron was ill assorted, and a mutiny broke out; in consequence of which he diverted his course from the Moluccas to the mouth of the Rio de la Plata, up which he penetrated about three hundred and fifty leagues. He erected a fort at St. Salvador, and afterward sailing up tise Parann, he built other two forta. He subsequently entered the Paraguny, where he was drawn into a sanguinary contest with the natives. From the report thes made by him to Charles V., it is probabie, had he been supplied with means and ammunition, he would have made the conquest of Pern, which Pizarro afterward accomplished with his own private resources. After turrying in the hopee of receiving supplics, Cabot was forced to returu to Spain, where he resumed his functions of pliot-major.

He finally settied in England, where he appears to have exercised a general supervision over the manitime concerns of the country, and enjoyed a pension of two hundred and fifty inerks. It was then that he disclosed to Edward VI. his discovery of the phenomenon of the varintion of the neelle; a discovery for which alone his name deserves to be immortaiized. It was also at his instigation that the important expedition wes undertaken which resulted in the opening of tho trade with Russia; and in the charter of the company of merchant adventurers ine was nominated governor for lifo, as "the chiefest setter forth" of the enterprise. Cabot lived to a very ndvanced age, and died about 1557, probnbly in London; but neither the date of his death nor the place of his interment is properly authenticated. Sebastinn Cabot may be justly regarded as one of the most illustrious navigntors the world hns ever scen, and the worid owes him a deltt of imperishnble gratitude. "Ho ended," says the author of the memnir whlch has rescued so much of his life from
obscurity, "he ended, ns he had hegun, his eareer in the service of his native country; liffusing into her marine a spirit of lofty enterprise, a high moral tone, and a ayatem of milid but inflexibla disciplins, of which the resulta were not long after so conspleuousiy displayed. Finally, he is seen to open new sources of commerce, of which the influence may bo distinetly truced on lier present greatness and promperity."-E. B. See Memoir of Sebastiam Cabot, with a Revievo of the History of Maritime Discovery, illuatrated by documenta from the Rolls, now firat publiched. 8vo. London, 1831.

Caoso, or Cocoa, the anhatance prepared from the seeds of the Theobronia cacao. When the hruised seeds are flavored with the Eipidendrum eanilla, mixed with a Littie augar, thay form the agreeable confection well known under the name of chocolate.

Cadis, the principal commercial city and sea-port of Spain, on its southwestern coast, on the rocky and elovated extremity of narrow, low peninania, or tongue of land, projecting from the Isle de Leon, northnorthwent mbout $4 \frac{1}{2}$ nautleal iniles. It is anrrounded on all sides, except the south, where it joine the lind, hy the sea, aid is very atrongly fortified. Population in 1837, 58,025. It is well built, and has, at a distance, a very striking appearance. The tower or light-house of St. Sebastian stands on the western side of the city, being, according to Tolino, in lat. $36^{\circ} 31^{\prime} 7^{\prime \prime}$ N., long. $6^{\circ} 18^{\prime} 52^{\prime \prime} \mathrm{W}$. It is a most conspicuous object to vessels approaching from the Attantic. The light, which is 172 feet high, is of great brilliancy, revolves once a minute, and in fair weather may be seen more than six leagues off,

Bay of Cadiz.-The entrance to this noble basin lies between the city and the town and promontory of Rota, bearing north west hy north, distant about if league. The bay is of very great extent, atfording, in most places, good anchorage. The port is on the eastern aide of the city, where a molo of considerable dimenslons has been constructed; but the water ia not sufticiently deep to allow large vessela to approach nearer than within about three-quarters of a mile, where they anchor in from 5 to 7 fatnoms. The rocks called the Cochinos, the Puercas, and tho Diamante, lle to the north of the eity, in the entrance to the bay ; the first two at abont three-fifths of a mile distant, and the Diamante at rather more than it mile from the city. Vessels may enter between the Puercas and the Diamante; but none, except those not drawing more than 15 feet water, and well acquainted with the channel, ought to attempt entering between the Cochinos and Puercas and the city. The town of St. Mary's, on the opposite side of the bay, is famous for being the dépit of the wines of Xeres. The outer bay, or that of Cadiz propcrly so called, is separated from the inner bay by the promontory having at its extremity the castle of Matagorda, which approaches within about three-quarters of a mile of the Puntales castle, on the Iala de Leon.

Within the inner bay in the famous arsenal of the Carucas, the town of San Carios, the canal of Trocadero, atc. At apring-tides the water in the bay risen 10 or 11 feet, but at neapm the riee does not axceed 6 feet.For further particulara see the excellent Chart of the Ray of Cadix, by Tofino; Malham's Naxal Gazelleer; and Pondy's Sailing Directigas for the bay of Biscay, etc.

History, Trade, etc.-Cadia la a very ancient city, having been foonded by the Phoenicians about 1200 years before the Christian era. The temple which they erecied in it in honor of IIercules was one of the most celehruted in antiquity.-Sainte Croix, dea Ancienmes Colonien, p. 14 ; Pemp. Mela, lib. lii. cap. 6. Its excellent port, and ita situation, favorable alika for commarce and security, have made lt , whether possessed by Carthaginians, Romans, Moora, or Chriatians, and under every vicissitude, alace of considerabie commercial and political importance. It has long been one of the principal atations of the Spaniah naval foree. In 1720 the commerce with Spenish America, which had previously been exclusively carried on from Sevilie, was transferred to Cadia. It enjoyed thle valuable monopoly till 1765, when it was partially relaxed by the trade to Cuha, St. Domingo, Porto Rico, and the other iolands, being opened to all the grester ports of Spain. The benefits reaulting from thia relaxation were ou very great, that in 1778 the trade to all parts of America was opened to ships from every considerable Spanislı port, except those of Biscay, which, not being subject to the general laws of the kingdom, were not allowed to participate in this privilege. In cousequence, however, of her aituation, the great capital of her merchants, and their established connections, Cadiz coutinued, notwithstanding the abolition of the monopoly, to preserve by far the largest sharo of the American trade. But since the colonies achieved their independence, her commerce bas been contracted within comparatively narrow limits ; nor is there nuch prospect of ita being materially improvad, without a total change of policy on the pert of the Spanish government. Barcelona is at present the principal meat of Spanish commerce.Rodentson's America, b. viii. pubsim; Townsend's Trarels in Spain, vol. Ii. p. 395-401, 2d edition.

The white wines of Xeres in ita vicinity form by far the principal articie of export from Cadiz. The quantity exported may amount to about 30,000 pipes a year. The prices vary from $£ 12$ to $£ 65$ per pipe; but as the lower qualities predominate, the price may be taken, at a medium, at uhout $£ 25$, making the tutal vaiue of the exports $£ 750,000$. More than three-fourths of ihe whole goes to England. The other articles of export are quicksilver, brandy, oranges, and other fruita, oii, proviaiona, flour, salt, wool, etc. The Imports consist principally of sugar and coffee from the IIavana and Porto Rico, cocoa, hemp, Hax, linena, dried fish, hides, cotton wool and cotton manufactures, rice, apices, indigo, ataves and timber, etc.
 WHEL ENTERED AND CLEARED AT THE PORT OF CADIZ IN 1845 AKD 1846.

| Natione. | Entered. |  |  |  | Cleared. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Veseols. | Tones. | Crews. | Value of Cargoes. | Veneels. | Tons. | Crowr. | Value of Cergoen. |
| (1ritigh................ | 297 | 44,576 | 2,857 | 230,616 | 307 | 51,102 | 2,465 | 2847, 4.47 |
| French.................. | 40 | 6,217 | 635 | 20,654 | 37 | 5,684 | 678 | 14,937 |
| 4) Atmerican (U, G.) ........ | 63 | 7.041 | 001 | 12,071 | 68 | 8,213 | 657 | 15,976 |
| क Rwedlah and Norwegian | 64 | 13.090 | 668 | 7,634 | 68 | 14,370 | 721 | 13,020 |
| - I'rusatan . . . . . . . . . . . . | 46 | 15,231 | 683 | 20,280 | 62 | 17,121 | 774 | 0,910 |
| 8pandah | 234 | 42,708 | 3,410 | 471,031 | 161 | 86,125 | 2,830 | 223,217 |
| Total. | 734 | 124,763 | 3,300 | 2562,786 | 681 | 132,035 | 8.b75 | E1, 121,801 |
| (Britinh . . . . . . . . . . . . . | 257 | 39,833 | 2,334 | 200,808 | 250 | 38,633 | 2,270 | 2707,540 |
| - French............... | 42 | 7,634 | 677 | 8.010 | 45 | 7,008 | 720 | 12,842 |
| \% American (U. 8.)....... | 63 | 20,688 | 729 | 35,719 | 48 | 19,230 | 078 | 14,307 |
| $\ldots\left\{\begin{array}{l}\text { Swedluh and Norwegian } \\ \text { Jrusalan.............. }\end{array}\right.$ | ${ }_{54}^{685}$ | 11,250 15,479 | ${ }_{747} 81$ | 11,485 44,104 | 46 | 0,104 13 13 | 479 | 7, 717 |
|  | 817 | 15,479 45,881 | $\begin{array}{r}747 \\ \hline 3,146\end{array}$ | \$44,104 | $\begin{array}{r}49 \\ 158 \\ \hline\end{array}$ | 13,271 36,624 | 2,654 | 2 $2.5,6,600$ |
| Total | 678 | 140,405 | 8,214 | ¢687,396 | 580 | 124,766 | 7,020 | 2975,416 |

The commercial greatness of Cadiz has long been commercial Intercourse between Spain end the Spanish on the wane. At oue time it was tise great focus of colonies, and from $1 \mathbf{7 2 0}$ to $\mathbf{1 7 6 5}$ it enjoyed a monopoly
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the Carrocadere, sen 10 or 6 feet.ait of the Gazetteer; sacay, etc. ient city, bont 1200 ble whici? one of the , det $A n=$ i. cap. 6 . a alike for pr possesshristiuns, nsiderable long been aval force. which had m Sevilie, luable mored by the the other of Spain. ere sp very nerica was
tnisit pert, ject to the red to parhowever, nerchants, continaed, oly, to preican tradit. adence, lier paratively of its lieing e of policy arcelona is mincrce.lien. Corm by far The guanpes a year. but as the be taken, al value of irths of the 8 of export fruits, oil, orts consist a vana and fish, hides, spices, in-

15,066
13,620
13,620
6,910
6,910
of the traffic with Spanish America. It proaperity began to decline when the trade of St. Domingo, Cuba, Porto Rico, and the other islands was opened up to the greater ports of Spain, and decayed almoat eatirely in the begianing of the present century, when the coloaies achieved their independence. An sttempt was made by the Spanish govemment in 1828 to restore its former greataess, by making it a free warehousing port; but this valuable privilege was withdrawn in 1832, and commerce relapsed into its former depreased condition. By far the greatest obstacle in the way of its future profperity is the oppressive commercial reatrictions imposed by government on all imports-a poilicy which throws three-fourths of the trade of Spain iato the ksands of contrabandistas. The principal manufactures of Cadiz are, soasp, glass, coarso woolen, cotton, and silk stuffi, and hats. There are alse some sugar refineries and tanneries. A considerable stimulus to induatry is given by the Sociedad cconomica de Amigos del pais; which introduced the cochineal plant, and grants medals for improvements in manufactures. -E. B.

Caen, the capital of the arrondissement of the same name, in the department of Calvados, in France. It stands in an extensive valley, on the jeft bank of the Orue, at the infiux of the Oden, 9 miles from the Engiish Channel, and 122 weat of Paris, Lat. $49^{\circ} 11^{\prime} 12^{\prime \prime}$ N., iong. $0^{\circ} 21^{\prime} 88^{\prime \prime}$ W. The town is handseme and weil built; the atreeta are generally wide, straight, and clean; and the houses, being bulle of freeatone, have a very good appearance. Population (1851), 40,569 ; while that of the arrondissement amounted 'o 139,922 . The cemmerce and manufactures of Caen are considerable. It exports corn, wine, brandy, fruit, cattie, stones, hardwure, eto. Its manufactures consist chiefly of laces, caps, table-linen, cotton fabrics, eartheu-ware, cutlery, etc. ; it has also breweries, dyewerks, and ship-building yards. Several large tairs are annually held hore. At high water, vessels of 150 or 160 tons can come up to the town, and a canal to connect it with the sea is in course of censtruction, which will render it acceasible to large vessels.-E. B.

Caffila, a kind of caravan or company of merchants. It differs, however, from a caravan, at least in Persia; for the caffila properly belongs to some sovereign, or to some powerful company in Europe; whereas a caravan is a company of particular merchants, each trading upon his own account. Caffilas also cross some parts of tie deserts of Africa, particularly that of Sahara. E. B.

Cagliari, the capital of Sardinia, on the northeast shore of a spacious bay on the south coast of the ialand, lat. $39^{\circ} 12^{\prime} 13^{\prime \prime}$ N., long. $9^{\circ} 7^{\prime} 44^{\prime \prime}$ E. Population in 1850, 30,000? The city stands on a rising ground, and has an imposing effect from the ees. The public buildings and churches are numerens, and some of them splendid; hut the streats are, for the most part, narrow, steep, and filthy. The Gulf of Cagliari extends from l'ula on the wesi, to Cape Carbonara on the east, a distance of about 24 miles acress, and about 12 in depth, with good ancheruge every where after getting into soundings. A mole projects from the Pratique office, nud ahips usually jie abeut 1 mile southweat by south from it, in 6 or 8 fathems water, on an exccilent bottom of mud. There is a very convenient pier harbor at the south angle of the tewer wall, capable of contsining 14 or 16 vessels of a tolerablo size, besides smull craft. Altogether, Caglisri is oue of the best and afest ports in the Mediterranean.-See Sardinia.

Cairo, the modern capital of Egypt, occupies the natural centre of the country, situate on the east bank of the Nile, 12 miles above the apex of its delta, 112 miles southesst of Alexsndria, and 75 miles west from Suez. N. lat. $30^{\circ} 2^{\prime} 4^{\prime \prime}$; E. Jong. $31^{\circ} 15^{\prime} 88^{\prime \prime}$. It is bnilt partly en the plain and partly on the lower alopes of the rocky range of Mokattem, on a apur of which
stands the citadel, in a most advantageous position to command the town. Cairo occupied a site of about 7 milea in circumference, and is surrounded by a wall strongly built and fortified with lofty towers. The prospect from the ramparts of the citadel is one of great magnificence and benuty. The commerce of Cairo, although still depressed, is conaidarable. Deing the readezvous of one of the great caravans to Mecca, it ls the centrai mart in which the slaves, gun, and gold duat of the interior, and the olls and flamels of the north of Africa, with tho European zuerchandise from Alexindria, are exchanged for the coffee, perfumes, spicen, and shawls of Arabia and India. As the residence of the learned and wealthy of Egypt, it affords a market for the agricultural produce of the surrounding districta; and in addition to the making of arms, already extensive, it contains manufectories of sal-ammoniac, saltpetre, coarse gunpowder, glass lamps, and linen cleths. From the central situution of Cairo, and ite proximity to the hot sandy deserts, its temperature is much higher than near the cosst; but the diseases whlch infeet it, auch as the pingue, ophthalinia, and malignant fevers, seem 's originate in its " stifled filth," and other local causes which advanciag civilization wili greatly remove, rather than in the unhealthiness of its situation. Population estimated at abont 200,000 , comprising abont 121,000 Mohammeduns, 60,000 Copts, 4000 Jews, and the rest Franks, Greels, and Armenians.-E. B.

Cajeput Oil, the volutilo oil obtained from the leaves of the cajeput-tree (Mehileuca Leucadendron, Linn.). The namo is a corruption of the native tern cayu-puti, that is, white-wood oil ; because the bark of the treo which yields it has a whitish appearance, like our birch. This tree is commun in Amboyna and other Eastern islands. The oii is obtained by distilla. tion from the dried lesves of the smaller of two varieties. It is prepared in great quantities in Banda, and sent to Iolland in copper flasks. It is of a green enlor, very limpid, Jighter than water, of a strong smell rescmbling campher, and a strong pungent taste. It lourns entirely away without leaving any residunm. It is eften adulterated with other essential eils, colored with resin of milfoil. In the genuine ell, the green celor depends on the presence of copper; fer, when roctified, it is colorless.-Thomson's Dispensatory.

Calabar Blcin (Fr. Petil-gris; Ger. Grauterk; It. Vaor, Vajo; Rusa. Bjelka; Sp. Gris pequeno), the Siberian equirrel skin, of various colors, used in making muffa, tippets, and trimmings for clothes.

Calabash (Spanish calabaza), in Commerce, a kind of vessel formed of the dried ahell of the cucurbita, or gourd plant. It is nsed for containing liquors or guma, as pitch, rosin, and the like.

Calamander Wood, a beatutifnl species of timber brought from Ceylon. It is ao hard that common edge-tools can not werk it, se that it must he rasped and almost ground into shape. It is singularly remarkable for the variety and admixture of colers. The most provailing is a fine chocolate, now deepening almost into absolute black, now fading inte a medinm between fawn and cream colors. It arrcsts the eye from the rich beauty of the intermingled tiats, not from any undue showiness. It takes a very high polish; and is wrooght inte chairs, and particularly inte tables. Sir Robert Brownrigg, late governer of Ceylong had the doors of the dining-room of his seat in Monmouthshire made of calamander. It is scarce in Ceylon, and is not regularly imported. In a few instances, it has been imported by private gentlemen, returning from the colony, for their own use. It is iny far the meat beautiful of ail the fancy woods. The nearer it ls taken from the root of the tree, the finer it is.-Milburs's Orient. Com.; Library of Entertaining Knowledge, Vegetable Subatances, p. 179.

Caloedony. The distinction between this nnbatence and agate rests upon very arbitrary gronnde.

Agate frequently presents a variety of colors, and a multiplicity of beantiful delineations. Calcedony is generally of ons nniform coler, of a light hrown, and sometimes nsarly white. IIt occure in irregular masson, formin; grotasque cavition in the trap rocks, particulariy in Ireland and the Faroe Isles, from the former of which there are apecimons in the Museum of Edinburgh of a very large aize. These atalactites appear alwaya to have proceeded from the upper pert of the cavity, which is sometimes filied to the very summit with solid met+ar. Crlcedony ie used for the conotruction of caps anci platas, and ether artielee of tarte, of which the most aplendid specimens are imported from India. The labor which has been beatowed in the manufacture of theae articles, and the perfectlon with which It has been accomplished, is a matter of surprise to all who examine them. There are some of them as thin and us delicate as cbina, The fineat stones are of course selected for this purpose. , They are generally clear and almoat tranoparent, atill mailltalning the warm brown color which characterizes the stone. They often hava the appearance of having been hammered, so shaded and undulated is the aspect of the mass; and to add to their beauty, the fine dondritio Mocha atonis are often selected, We are in ig. norance even of the locality where these beantiful objects are manufactured, whether in Japan or Chiua; but thoy generally come from India, where, we lelieve, they are found among the mont preclous treasures in the repositoriea of the nabobs and princes of the East. - E. 1 .

Caloutta, the prinelpal city of the province of Bengal, the capital of the Britieh dominions in India, and, with the excejtion, perhups, of Canton, the greatest emporium to the eastwand of tha Cape of Guor IIope. Its citadel is in lat. $22^{\circ} 84^{\prime} 49^{\prime \prime}$ N., long. $88^{\circ} 27^{\prime} 10^{\prime \prime} \mathrm{E}$. It is about 100 miles from the sea, being situated on the eastern bank of the western "Jranch of the Gengee, denominated by Buropeans the Hooghly River, which is the ouly arm of the Ganges navigable to any considerable distance by large ehlps. At high water the river opposite to the town is about a mille in breadth; but during the obb the side opposits to Calcutta esposes a long range of dry sand banke. Owing to the length and fotri sacy of the navigatior: from the ses, It can not be undertaken without a pilot; so that, even If it did not excesd our limits, it wonld be useless to attempt any description of ${ }^{\prime}$ in this place.-See Hooghly River.

Ic 1717 Caleutta was only a petty village; but it subsequently increased very rapidly, and was aupposed, toward the clusu of the last century, to have 600,000 or 700,000 inhabitsnts. This, however, was a gross exaggaration. A census of the population, taken in Mey, 1860, by order of the chief magistrate, gives the following reaults :


The occuputions of these various classee are nearly what might be expeoted la the luxurious capital of a greac omplies, and in so great an emporium of maritime commerce. Public efficers, lawyera, phyaicians, merchants, and their fumilion, make up the luilk of the British Inhabitanta. The natives and forelgnern of respectability are mostly engaged in trade, or live upon their property; and the lower classes are principally compowed of retail dealers, mechaniog, and aervanta. A great part, however, of what may be fairly considered the population of Calcutta, conaiatligg of laborora, mechanice, and persons engac od in trade, reside at night in the suburbs, or nelgh ring vilia-
ges, coming into town early in the morning to their reapective smployments. These were eatimated, in 1887, on tolerably good data, at 177,000 . The smal! number of Engliah resident in Calcntta (where, howover, thoy are far more numorons than in any other part of India) may weli icrite surprise." It' was sup posed thut the cessation of ithe Eat India Company'n monopoly, and of the prohilition of European resort to Indis, would occasion an isflux of British settlers and capltal. But this antioipation has not been realised. Scarcely a single English agrieulturist, with capital anficient to cultivate 100 acres of lend, has establishid himself in Indis, and there has been no immigratlon of artisans. And this, after all, is only what might have been expected-the country being too fully ocenpied, the burdens on the land too hauvy, and the wages of labor far too low, to admit of suy thing like ar extensive imnigration. The Eurasans, the progeny of white fathers and native mothers, are mostly employed as clerks in the government offices and mercantlie eatabhshunenta, and are aald to be an industrious end useful class.-Bengal and Agra (iozettees. The town, excluding suburbs, extends about 44 miles along the bank of the river, with an average breadth inland of $1 \frac{1}{2}$ mile. Fort William, the citadel, lies on the ame aide of the river, a little lower down. It is a strong, regular fortification; but so extenaive that it would require a garrison of 10,000 men for lts effectual defense. ${ }^{\text {ch }}$ Calcutta possesses great natural advantages for iviand navigation, all sorts of foreign nroduce being trenaported with great faclity on the Ganges and its subaidiary atreams to the northweatern quarters of Hindostan, over a diatance of at least 1000 miles, while the productions of the interior ann received by the same eaay channels. "
The principal morehants and truders eonsist of liritish and other Europeans, Portuguase born in India, Armenians, Jews, Persians from the coast of the Peraian Gulf, cunomoriy called Parsees, Moguls, Mohammedans of Hindostan, and Mindocsj the latter ueualiy either of the Brahminical or mercantile esstes, and nativee of Bengal. The native Portuguese and Armenian morchants have of late greatly declined in wealth and importance. On the other hand, the l'eraian merchants have increased in numbers and wealth, several of them being worth $\pm 250,000$ sterling. The large fortunes of the llindoo marchants heve been much broken down of late yoars by litigation in the courts, and uaturally through tha law of equal coparcenary anong brothers. To connterbalance this, there hus been, since the opening of the free trade in 1814, a vast nugmentation of the number of inferior mer chants, worth from $£ 20,000$ to $\boldsymbol{£ 5 0 , 0 0 0}$ aterlhing. There are but few Hindoo merchants at jresent whose weslth exceeds $\mathbf{\$ 2 0 0 , 0 0 0}$ starling.
the British merchants form a most respectaile clase, and contribute essentially to the proaperity of the settloment. Many of tbens are possessed of large fortunes, and live in a atyle of suitabla splendor. The Armenians are the mest numerons body of foreigu merchants in Caleutta. They trade oxtensivi y to all parts of the East, are uncommonly diligent and attentive to buainesa, and are coma!dered to lave a more minuto inteligence from foreign ports than any ether body of merchants. The native bankera, sgente, und money-dealars, are numerous. Though formerly timorous, the llindoo now adventures in alnoat every species of mercantile speoulations; and gooris belong. ling to native merchants, to the amount of neveral millions steriing, are generally lying for asle in tho warebousea of Caicutta. The native merchants of an inforior class engross nearly :lie whoie of the retull trade of Caleutta, under the titles of Barlans, Sirears, and other appelintions. In the transactions of usury', these men are watciffil and acnte beyond tven those engaged in similar pursuits in the Went.
The Engliah society in Caloutia is of the beat de-
aing to their stimated, in The small where, howin any other It was supa Company's opean resort trish settlers ot been reslIturist, with of land, hag has been no r all, is only untry being d too heavy, dmit of any - Euratiana, mothers, are ament offices ald to be an Agra Giazetnda about 4 4 an average $m$, the eitadon; but be on of 10,000 вseaser grest all sorts of reat facility to the north. atance of at the interior triat of llithrn in India, of the Perule, Moham-- latter usuatile esestes, luguche and declined in od, the l'erand wealth, rling. The have been ation in the qual copare this, there ade in 1814, fforior merlling. There hose wealth

## respectabie

 oxperity of ed of large ndor. Tlise of foreign ive y to all and attenave a more 1 any other genta, and merly tim nost every das belong. overai milit the wareof an inforetail trude irears, and sury; these those en.acription, and numorous fetes are given during the ${ }^{\text {abbroad }}$ in the heat or the day, whioh, f , tha reat of cold season, which lasts from Soptember to April, on $A$ oplendid scale, by the governor general and other public functionaries, at well as by private individuals. There is a theatre, chiefly supported by amataur performers ; and publlo concerts are given, also supported by amnteur taiont. The usual n.ode of visiting is in palanquins, but many of tha British have carriages adspted to the elimate; and the breed of horses haviag been greatly improved, it is the universal practice to drive out between sunset and dinner. It is only during the cold season that it is poselbla to venture

mpia, witi tizia Equivalints
MADDAS, AND Bombay Wriouts.


Caicutta is the great emporium of India. By meane of the Ganges and its tributary streams, it has an uainterrapted water communication with the whole of the lower provinces of Bongal, and alao with the fertile territory subject to the jurisdietion of thu linuteanat governor of Agra. Being thus advantagnorsly sltuated for commerce, it trades oxionsively with almost every coantry in the worid, and numbers of vesaels of every form and description are constartly arriving in or departing fron the river, which, in the vicinity of the town, presenta the buaiest aceno Imaginshis. Numeroua dock-yards have aiso been established, in which are built vessels of great burden and of admirable construction. Indigo, bugar, cotton, rice, oplum, silk, and saltpetro, are the ctaple commoditios of export. Those of Import nre, British cotton goods, sait, copper, Iron, and hardware.
The comiserce of Caleutas has for a long period of years onjoy sd the advantage of a bank, called the Bank of liengal, estahlished by government authority and earried is "nder government inspection. Various acts lave at different periods been passed hy the govermueut of Iudia for its regulation $I$ the last bears dato the 18th of March, 1839, and took effect from the 1st of May following. By this all previous charters and acts, excopt on far as conthued by the new act, were canceled and repented; the capital stock, proviously fixed at 75 lace of rupecs, whe increased by ono half, the nature of the tranauctions in which the bank migit engage was preseriled, and the conditions and limitatiens under whleh Its husiness was to be conducted were ladd down. The stock is divided Into shares of 4000 rupees, or quarter shares of 1000 rapees oach; and a portion in, and always hae been, held ly governmant.
Pilotage.--The navigation of the River Ilooghly, from the Sand Heads to Caleutta, a distance of about 130 milen, fo naturally dangorous and intrioate; but rendered comparatively afofo by a akillful and excellent, though costly, pilot estabitishment.
the year, is devoted to repose. . The hot aeason begins in April. Every day the beat incresses until the middie of June, when the periodical rains begin, which last till Auguat. The weather then being extremely elose, is more oppresive and more unhealthy than before. The mean temperature is about $66^{\circ}$ in Jamuary, $69^{\circ}$ In February, $80^{\circ}$ in March, $85^{\circ}$ in Aprll and May, $83^{\circ}$ in June, $81^{\circ}$ in July, $82^{\circ}$ in August and September, $79^{\circ}$ in Octuber, $74^{\circ}$ in November, and $66^{\circ}$ in December. The annual fall of rain during six yeare, commencing with 1880, averaged sixty-four inches.,-E. B


All foreign veasels pay the same pilotago as those under British colors. By brokon pilotago is meant the proportion of full pilotege botweon the different atages or places of snchorage. All ships the property of foreignors, as well Asiatic as Earopesn, are subject to the charge termed "Jead money;" it being ladispensably necessary that the pilot should have with him a leadsmen in whom he can confide.
Dotention money, at the rate of 4s. per diem, from British and foroiga vessels, is charged by persons of the pilot service kept on bosrd ships at anchor by desire of the commander or owner.
In the river before Caicutta, and in other parts, there are chaln moorings, of which the eharges are as follew:

| Burden of shipe. | $\begin{aligned} & \text { April to Oelober, } \\ & \text { \& Monlhe. } \end{aligned}$ | Novamber to Marth, 5 Monihe. |
| :---: | :---: | :---: |
| 500 tons and upward. | 108. per dtem | 12e. per olem |
| Under 500 tons. . . . . | 148, per dilom | 103. jer dlom |

Hire of the chain-mooringe at Diamond Harhor, $£ 1$ per diem. The lowest ehargo to a ship requiring the accommodation of the cbain moorings at oither of the places above mentloned is for ten days; and using them longer, a further chargo is mado at the establiahed rato por diem for every day oxceeding ten. Tho elarge for transporting a ship from her moorings into any of the docks at Kildorpore, Howrah, or Sulkea, or from any of the docks to her mooringe, is fixed at 50 rupees; and no highor clarge for such sorvice ia autiorized. Bealdes pilotage, every ship is chargeable with the iste of a row-hoat to accompany her; viz.: for a boa' of ine first class, 24s.; of the second clasa, 18 a .1 ana of the third clasc, 14e. Of late years a light-house has bnen oreoted at Kedgeree, for which the charge on Britieh or Amerioan Aags is at the rate of $8 d$. per ton per annum. Shipe preceeding to Cal. cutta must land their gunpowier at the powder maga$2 \operatorname{lne}$ at Moyapore: the charge ls at the rate of 1 dd. per ton for each voyage. The wholo pilot establishmont, and the care of the navigation of the Hooghiy,

Is under the management of government, and is directed by a marine board, with a master attendant and har-bor-master.

The Marine Board at Calcusta have isened the following resolations with respect to pllotage, ete.:

1. Commanderz are requented, prior to quitting their vessela, on arrival of Calcutte, to all up and certify, or canse to be flliod op and certised, a form of cortificate chowing the actuais rugidered tonnaye, the draupht of water, and whether the veecol has or has not been tugred by a steaner any part of the way, or has or has not had the use of a row-boet? which form will be furnished to the pllot, in order to the bllts of the verseln being correctly made out 2. Commanders are further requested, as early aftor thoir arrival as posaible, to notily in writing to the master attendant the name and rendence of the refomnee for the paymont of his veriouta bllis. On the recelpd hy the master attendant of the above cartiscate, and written reference for payment, $r$ single bill will be prepared, Includ!ng in ward pilotage, Ight-thouse duty, Moyapore magazine duty, and row-beal hire (ff any), which, together with the certificate, will be forwarded to the marine peymaster, for collection within fifteen daye of the arrival of the vessel, and having on it ''s name and residence of the party referred to for payment, Jich commanders are requested to furnish to the master attendant, in writing, as eariy after their arrival as practicabie, that offiver will more readily be enabled to present it. By this nrrangement, all the eharges connected with the vemel, up to her arriral of Calcutta, will be embodied In one bilt, instead of, as htherto, being made up in meparate billa. $\therefore$ In the event of vessels docking, or being transported at the desire of the commander, it is requetted that a certificate may be given by the commanding officer of the operation having been performed, In order to its accompanying the bill when preeented for payment to tha referee. 6 . The practice of chargIng for hauling to the chaln-moorings, for thicir monthly hire, and for hauting from the moorings, lis i pparate bliis, Is discontinned, and henceforward one hill will be prepared, including the charge for haulligg to the moorings, that for occupying them, and that for hauliog from them; and commanders are requeated to give, or cause their commanding officers to give, to the manter attendant, or the harbor-master, cortificate of the daie of hatiling to mad from the moorings, which certifioate, es before, will accompany tho bill when presented for payment. The hire of the mooriogs will be charged for the day on which the vessel is hauled thereto, withoni: reforence to the period of the day; and Ia like manner, no charge will be made for tho day on which ahe hauls from her moorings, hewever late in the day she may yuit them. Tho chargea conneuted with the chainmoorings will thus be emiodied in une bill, anu be discharged in one payment, inasead of thre 3 or more, according to the number of munths the versel occupied the moorings, 6. The aystern of charging eutward pilotage on an estimated draught of rister, with an addition of 10 per cent., subject to adjubtment after the vemsel has aslied, and of charging $n$ certnin number of daya for a mow-bout, aubject to a like adjratment, Is aboitshed; and In future the entwand pilotage and ciarge for rew-boat hire on outward-bound vesmela will be as followa: When the vessel is Anally laden, the commander is to give notice thereof to the master atteadant, when the draught of water is to be ascertalned and certified by the commander or commanding officer on the part of the vessel, and by the harbor-master on the part of the government! subjeot, in case of diapute, to the decision of the master attendant. On receipt of the eertificate, the manter attendant will cause a blii to be made out for tiee regular amonnt of pliotage, and for the row-boat hire, soconding to an average rate, with refereuce to the size of the veselis and the season of the year, fixed by a marine commitico which Iately eat at the Bankshall, the majority of which was composed of menibers of honses of agency and commanders of ahipa. The hill and certificate will bo presented in due connci for payment. 7. As, however, it frequently happena that vesolis are taking in cargo or alling their water up to the last day of their departine, or that from other eaunes the bilia for tbe chain-ntooringa and outward pilotage can not bo made out till the eve of depariure, ownerg, agenta, and commandors are in auch easen particulariy requented, with a view to dinpatch, to caume an individnal to attend at the Bankehall, and oxpedite the tranamiselon of the bill and certificate to the boand for regintry, and to the pay 'ffice for coliection! at each of which ofticen they may in auch cases depend upon the mont reedy and special attentlon. 8. in the event of a resnef beIng tugged any part of the way down by mtemm, or not bavIng the use of a row-boat, commanders are to obtain from the pllot of Kedgeree a certificate to that effect, which they ahould forward by the DAk to their agenia, Un recelpt thereof, agenta are requented to make out a bill ogalast the honorabie company for the quarter deduction from the pllotage allowed

If tugged by eteam, or for the row-boat hire prifd, as the case may be: and to forwand it, together with the certificate, to the marine board for audit and payment. 9. In casea where a vensei leaves Calentta avowedly intended to fill up cargo at some place beiow, the pllotage will be charged at the draught at which she leaves Caleutta, in like manner, though at the reduced amount, as if sho had preceeded to sen ; and, with respeot to the subnequent pllotage charge, from the place at which the vemel takes in the additional carge to mea, owners or agents of veasela will be required to furniah a apecial guarantee to pay the amount ohargeable according to a certificate of the draught of water, to be adgaed by the cormmander, or commanding officer and pilot. 10. Bix mets of moorings at Diamond Harbor having been fitted eapecially to enable vessela arriving in distress from lons of al hurs and cablea to be readHy moored, the charge will be Co.'s Rs. 60 for mooring and unmooring, and the dally hirs the mame as for the mooring at Calcutte. The moorings will, of conrse, be ., valiable to ves. sels not in distress from loss of anchors and cubles; but the harbor-master will be ingtructed at all timen to keep two nets vecant during the southwest monsoon, to meet casualties.
There are several dry docks at Calcutta, in which vessels of any size may be built or repaired. Ships built at Caloutta are of inferior durability to those constructed at Bombay, in conaequence of the framework being always of the inferior woods of the conntry; and the planks, sheathing, upper works, and decks, alone of teak; which last is furnished almost entirely from Pegu. In 1848, the number of registered ships belonging to the port of Calcutta was 184, of the burden of 43,569 tons; being at an average of abous $\mathbf{3 3 0}$ tons for each. The iargeat claes of vessels carry nearly 750 tons; but ships drawing 60 much water are unfit for the navigation of the Hooghly. Not being able to load et Caicutta, they are obliged to receive part of their cargo at Diamond Ilarhor, about thirty-fuur milea farther down the river. The most convenient-sized snip for trade between Calcutta, and Europe, and America, is from 400 to 500 tons.

Duties, etc.-The export and import duties and drawbacks are regulated by an ordinance of the year 1886, revised in 1845, and are the eeme for every port under the government of Bengal ; or, es it is technicnily called, the Presidency ef Fort Wiliam and Britisi India generally.

The following ls an act of the Indisu government, which took effect from the 251 h Marolh, 1848 , and which abolished all duties on goods carried coastwiee in the company'a territorlea.
I. It is herrby enaeted, that from and after the $25 t h$ day of Mareh, 1849, all goods imported on foreign bottoms by sea foto any port of the Iresldencien of Fort Willam, to Bengal, Fort 8 i. George, or Bombay, ahall be chisged only with the aume rates of duty as such goods would now by law be charged with if auch gooda were imported Into any of the mald ports on Britioh bottomes, any thing in any act of the Couneli of India contalised to the contrary notwithstasding.
II. And It is herehy enacted, that from and after the aald day, all goois exported on forelgn bottoms by wea, from any port of tio mald prealdenelies, shall be eharged only with the mame rates of duty as such good would now by law be charged with If anch goods were exported from any of the aald poris on Iritiah bottoase, any thing in any act of the Councll of Indla contained to the contrs:y notwithatanding.
III. And it ta hereby enacted, that from and after the arid day, no duty shall be chargen on any goods lawfully carried from any port in the territeriea aniject to the government of the Eant Indis Company, to any other port in the sald terrltorios, any thing in any act of the Counell of India contalued to the contrary notwithatanding.
IV. I'rovided niwnyw, that nething in this Aet contained ahall apply to the aricies of alt or oplum.
Schedule A.-Ratea of duty to be charged on goode imported by mea into any port of the Prealdenclen of Fort Wililam, In Bengal, Dombay, or Fort Bi. Goorgo.
Buition and celn .......................................... Tree. Preclous atones and pearis. . ............................. Free. Grain and pulfe . ........................................... Free. Ioe . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Free
 Books printed in the United Kingdom, or in any lirit-
luh ponseation. 1 up cargo at $t$ the draught hough at the at and, with the place at - sea, ownera opecial guar. - a certlficato mamender, or mooringe at cablie vesseif es to be read. oring andun. moorings at diable to veabien; but the keep two sets sualtea
a, In whlch red. Ships ity to those t tho frameof the connworks, and thed aimost , of registerwas 134, of average of sof vessels to much waghly. Not diged to rearior, about The inost alcutta, and ons. es and drawe year 1836, ery port untecinically British In-
overnment, 8, and which twise in the
be5th day of in by sea into , In Bengal, poly with the by law be o any of the ny net of the lithatanding. fler the said an, from any aly with the w be charged to aaid porta e Councll of
fler the sald fuliy carrled verament of e alaid terrl. is contaiuod
et contained
oda ImpportFort will-

Forplgn bookf. . . . . . . . . . . . . . . . . . . . . . . . . . . Ber cent Foreign book. .................................
Yarine storen, the produce or manufico Marre of the United Kinglom, or of any Lure of the Laited kingtom, or of say
British poseession ....................... Marino stoces, the produce or manuficture of any other plece or country .....
Metals, wrought or unwrought, the prod. Mctals, wrought or unwrought, the prod uce or manufacture of the United King dom, or any Britioh posmeation ......... Metain, wrought or nawrought, the production or manufacture of any other
piace . . . . . ...............................
per cant.
10 per cent.

5 per cant. the Linited Kingdom, or any Britiah ponsession.................................... or eountry .i.............................. Cotton and siik plece goods and ail manufactures and yarn or of cotton inread, twish, and yarn, or of cotom, the produce of the United KIngdom the produrs of the United Kingdom Ditto, tho produce of other ptaces. Opium.

10 per cent

5 per cent.
10 per cent.
orter, ale, beer, ctder, and other fermentad ilquora.

6 per cent.
10 per cent
24 rsg, per seer of 80 tolas.

| Alam | 80 tolas per seer. 10 per cent. |
| :---: | :---: |
| Camphor | 10 per cent. |
| Cassla | 10 per cent. |
| Cloves | 10 per ecat. |
| Coffer. | Tt per cent. |
| Coral | 10 per cent. |
| Nutrs mace | 10 per cent. |
| Pep ${ }_{\text {t }}$ : . . | 10 per cent. |
| Ratalus | $7 \not$ per cent. |
| Tea.. | 10 per cent. |
| Vernillon | 10 per cent. |
| Winếa and liquors. | 1 rup. per imp. gal. |
| Spiris | 1 rup. 8 annam, per tmp. gal. |

And the duty on apirite atiali be ratably Increabed as the atrength exceede London proof, and when imported in botties, five quart bottles ahali be deemod equal to the iniperial galion.
All manufactured arlicles not inoluded in the aliove enumeration
All other articies not inciuded in the above enumeration
...............
And when the dinty ts deciared to be ad valorem, it ahall be levied on the market value without deduction; and If the collector of customa ahall see reason to doulit whether the goods come from the country from whtch they are deciared to come by the importer, it shall be fiswful for the collector of cuntoma to call on the importer to furniah evidence as to the place of mannfacturo or production, and if attch evidence siall not satiefy tho maid coliecior of the truth of the deciaration, tho goods ahali be charged with the highest rates of duty, subject alway to an appeai to the Board of Customas, salt and oplum. Aud upon the re-export by sea of goods imported, oxcepting oplam and sait, provided the re-export be made within twe years of the date of import an per custom-honse reginter, and the goods be identifled to the gatinfaction of the collector of cuatoms, there ahall be retalned mme-elghth of the amount of duty levied, and the rembinder shall be repaid an drawback. And If goode be ro-exported in the ame hifp without being janded (aiways excepting opiun and sall, in regard to which the epeciai ruies in force ehall contlute to apply), there whall be no import duty levied thereon.

Schedule $\boldsymbol{R}$.-Rate of duty to be charged upon goode export. ed by nea from any port or place in the Prealdency of Fort William, in Bengel.
Builion and coin. . . ......................... Frea
Preclons atonea and pesris . . . . . . . . . . . . . Free.
Books printed in Indls. . . . . . . . . . . . . . . . . Free.
Ilorses and living anjmats................. Frea,
Oplum purchased at govarntuent saiee in
Cotton woot exported to Europe, ine Üni. Froe.
ted Etates of America, or any Britah posmession in Amerien, . ..................
Cotton wool exported to piace other than Free, the sirove . . . . . . . . . . . . . . . . . . . . . . . . . . II. 8 per mid, of 80 tolas to the meer.
Sugar and rum experted to the Intted Kingiom or to any Iritiah possomalon. Free. sugar and rum exported to any other pin and pulte.................. Indlgu .. pulse ef all mort 8 per cont Indlgu . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Ra. Re 8 per md. of 80 tolae to the seer.

Lac-dye and shoilac速k rav, filsture

4 per cent. Bt as. per seer of 80 tolas. 3 as. per aeer of 80 tolas.

Tobaceo . ...........................................
All country articies not enumorated or
named above. .............................. 8 per cent.
When the duty is declared to be ad valonem, the same shad be levied on the market value of the articie at the place of export, without deduction. Since the 1et of April, 1837, eredit has not been given, nor drawbeck aliowed, of any inland cuntoms or land-frontier duty pald at any cuntom-hotuse or chokee of the Jumas frontler Ine, or of Benares, except only upon the article of cotton wool, covered by ruwanas taken out at the custom-house of the western provinces, and proved to have been deatined for expert by eea when passed out of those provinces.

The policy of charging duties on exported articies seems very questionable. Tho great difficulty under which India labore, in a commeroial point of view, consists principally in her inability to furnish equivalents for foreign imported goods, and to make the necessary payments abrosd; and, when anch is the case, it is certainly not a littlo contradictory to lay dutiea on exports. The most obvious considerations of expediency and common sense would auggest that they should bo aliowed to be exported duty free. There can le no dou't that the stimulus this would give to their production would, by increasing the pullic wealth, infinitely more than compensato the government for the loss of the inconsiderable sum produced by the duties with which thoy are charged.

Trade of Calcutta. Exports,-During the last forty years the trade of Calcutta has experienced somo very striking vicissitudes. Previously to the opening of the trade in 1814-15, cotton piece goods formed the principal article of export from India; the value of those exported from Calcutte, at an average of the five years from 1814-'15 to 1818-'19, being (at 2s. per alcea rupee) $£ 1,260,786$ a year. The extreme cheapness of lator in India, and the excellence to which the natives had long atteined in several departmenta of the manufacture, would, it might have been supposed, havo sufficed to placo this important department beyond the reach of foreign competition. But the wonderful genius and the admirable skill of the European machinista, and their inmense capital, have fur more than countervailed the apparently insuperablo drawback of high wages, and the expense of bringIng the raw material of the manufacture from America, and even India Itself; and have onabled English manvfacturers to boar down all opposition, and to triumph over the cheaper lulhor, contiguous material, and traditional art of the Hindoos. The imports of British cottons and twiat into Inlis have increased alace 18:4-15 with a rapldity unoxampled in the aunals of commerce, and the native manufueture has sustained a shosh from which it is not very Hkely it will ever recover. The Influence of theso circumstonces on the trade in plece goods has been very striklug. During the your 1851-'52, the value of those exported from Bengal was no moro than $£ 62,352$, ieing only about one-twentieth part of what it amountal to twenty-six or twenty-eight years previously.
It does not, however, appear to be very difficult to account for these variations. Formerly the oxport of Inallion to India, thongh influenced hy other catises, was mainly oceasioned iy the dificulty under whilch merchants were placed of proviling articles of merehandise auitable for the Indian markets sufficient to balance the imports. The uatoulahing Increase of Britioh exports of cottou gooils and yurn to India has, however, gone far to olviate this diffeculty; In truth, the fair presumption seome to be, that in future the circumatances of the case will te reversed, and that the difficulty of procuring return oargoes of produce sultable for a market will, In ordinary years, be found to be the principal obstncls to the extenslon of the trade with Hilndostan ne woll as with Clina. There seems

## CAL

tu be no limit other than the necessity of furnishing equivalents in their stead, to the indefinite sale of our producte in the East; and in so far, at least, as India is concerned, the facilities for furnishing such equivalents will, most likely, be gradualiy increased. "The soil and climate of Bengal seem to be peculiarly well - quited to the production of grain; augar, indigo, oplum, silk, cotton, ealtpetre, and a host of other articles. And as the inhabitants are not deficient, in industry, nor in the desire to improve their condition, it would seem that there wante only a reduction of the landtax, which is so heavy as to paralyze all their energiee, to cnabie them to increase their articles of export to an indefinite extent, and to render their, country comparatively flourishing and prosperous.
In the ycar 1853, the great articles of export from Calcutta were opium, indigo, sugar, raw silk and silk plece goods, saltpetre, rice, hides, cotton and cotton plece goods, gunny bage and ganay cloth, rum, otc. We subjoin

An Account of tin Quantitize and Values of tus Native Produce and Tgeasure exportib ynom Calcutra duming THE Official Yfab 1801 -. 68

| Merchandies. |  | 28810.6) |  |
| :---: | :---: | :---: | :---: |
|  |  | Quantity. | Value. |
|  |  |  | Bupeen. |
| Oplumi . . . . . . . . . . | Chests | 177001 | 8,12, 77,814 |
| Iadigo . . . . . . . . . . | Indian mds. | 1,77,004 | $1,89,10,586$ $1,51,38,618$ |
| Saitpetr | ${ }^{4}$ | 7,09,6004 | 41,09,008 |
| Rice. | 4 | 80, 01,569 | 35,38,136 |
| Paddy | * | 1,494 | 879 |
| Wheat | 4 | 2,87,203 | 8,83,516 |
| Gram | ${ }^{4}$ | 1,01,040 | 1,05,694 |
| Dhoti and | 4 | 86.038 | 98,272 |
| Oata | 4 | 40,6144 | 44,109 |
| Harley | 4 | 250 | 250 |
| Bran. | ' | 1,170 | 877 |
| Raw cotto | 3 | 4,06,890 | 49,08,758 |
| Raw silk | 4 | 20,858 | 77,85,884 |
| Cotton plece gooils (country) | Plecra | 40,002 | 02,352 |
| Bill plicee gooda.. | 4 | 5,60,197 | 97,47,058 |
| Mixed plece gooda | 4 | 1,20,810 | 8,73,466 |
| Country wootens. | " | 8,008 | 78,720 |
| Arrow-root. . . . . . | Indian mds. | 794 | 2,118 |
| Borax and tincal | ${ }^{4}$ | 12,767t | 1,82,704 |
| Castor oll | ${ }^{4}$ | 60,085t | 5,00,853 |
| Canvas... | Bolts. | 1,580 | 9,707 |
| Cigars . | Indlan mis. |  | 40,007 |
| Elephants' tecth .. | * | 84 | 404 |
| Ghee . . . . . . . . . . . | 4 | 1,005t | 14,129 |
| Ginger. | ${ }^{*}$ | 82,078 | 1.15,099 |
| Gunny bagr . . . . . | Nom. | 1,44,00,498 | 16,58,845 |
| Gunay cloth. ..... | Pieces. | 4,34,349 | 17,36,424 |
| IIfeapp twlue. . . . . | Indian mdx | 11, 8541 | 1,04,779 |
| Ilemp............. | 1 | 8,3104 | 10,632 |
| Hiden of sorts. . . . . | Nos. | 85, 02,654 | 87,69,171 |
| Horn tipa . . . . . . . | Indian mds | 4,397\% | 90,697 |
| Jute . . . . . . . . . . . | 4 | T,28,707 | 18,10,308 |
| Lac Dye . . . . . . . . | 4 | 02, 3814 | 6,00,707 |
| \% S Shelt . . . . . . . | 4 | 48,149 | 3,87,084 |
| S $\left\{\begin{array}{l}\text { Seed } \\ \text { gtict }\end{array}\right.$ | 4 | 6341 | 9,587 |
| - Stic | 14 | 14.98091 | 8,889 |
| Linseeu | 4 | 14,96,821 | 82,53,601 |
| Melass | 3 | 0,0601 | 0,018 |
| Munis | 4 | 694 | 1,786 |
| Muatar $\mathrm{v}^{\text {c }}$ [t. | 4 | 6,48,391 | 10,96,776 |
| Muatard \% | 4 | 3,327 | 62,909 |
| Putchuek. . . . . . . | \% | 8,406 | 00,135 |
| Proviaiona and land | 4 |  | 1,62,008 |
| Rum (lienga') .... | Gallons. | 3,5.763t | 1,19,997 |
| Safflower ......... | Indian nude | 28,128 | 0,90,208 |
| Sal anmonli c | ${ }^{1}$ | 2801 | 3,243 |
| Boap. | $\cdots$ | 2,491 | 14,010 |
| Tallow . . . . . . . . | ${ }^{11}$ | 9,904 | 91,489 |
| Teel seed. . ....... | " | 00,0461 | 1,90,191 |
| Teel-meed oll. . . . . | 4 | 259 | 1.782 |
| Tobacco teaf. | 4 | 18,809 | 47.780 |
| Turmerio ........ | ${ }^{4}$ | 50,0881 | 1,88,871 |
| All other exporis., | 4 | .... | 6,44,787 |
| Toial exports_Company's rupeen . . . . |  |  |  |
| Goodir re-exported |  |  | 84,97,856 |
| Treasure exported . . . . . . . . . . . . . . . . . |  |  | $10,45,800$ |
| Total private exporin. .................... Epeelo exported by E. I. Company .... |  |  | $\begin{array}{r} 11,04,09,106 \\ 6,62,000 \\ \hline \end{array}$ |

The export trade of Calcutta would be much increased if facilitios were creatsd for internal commerce, especially in inuilding railroadu and improving the water communications with the interior. Something hne
been done in the way of building good tnmplke roads and in locating railroads, and farther improvements may be anticipated. The preseat mode of communication between Howra, on the oppoalte bank of the river, and the metropolie, is by ferry; but How'ra has been selected as the locality for the terminus of the East India rallway; and upon the opening of the first section, which is now complete, greater facilities will be required, as well of access from Howra, ae ef egress from the city in the same direction.

Oprum.-The trade in opium has rapldiy grown in magnitude and importance. At an average of the years 1830-'31 and 1831-'32, the exports from Culcutta were 7278 cheats, worth $£ 1,121,560$; whereas during the year 1851-'52 the exports had increased to 82,306 chests, worth $£ 8,137,781$. China is not the priacipal morcly, but almost the only market for opium, eo that the trade between Calcutta and her is now second only to that between the former and England. It is troe that large quantities of opium are ahipped for Singapore and other intermediate porta, but China is its ultimate destination. Suljoined is a statement of the quentity and value of the opium shipped from Culcutta in 1840-'41 and 1851-'52.

| Cheens, to ${ }^{\circ}$ | 1840-41. |  | 1851-169. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Valuan. | Quautily, | Value. |
| Chln | 5,852 | Rupeen. 39,47,745 | 27,92! | Bupees. <br> 2.7134 .650 |
| 8ingapore | 10,822 | 70,05,083 | 3,916 | 37,05,980 |
| l'ctang. | 646 | 3,54,340 | 808 | 3,77,040 |
| Mataria | 65 | 82,073 | 60 | 60,850 |
| Pegu | 79 | 49,130 | 21 | 19,705 |
| Elsewhe | 8 | 1,390 |  |  |
| $\cdots$ Total. | 17, 3 20 ${ }^{\text {d }}$ | 1,18,20,318 | 81, 006 | 8,18, $\overline{77,814}$ |

Previously to the year 1815, the exports of indigo from Calcutta were comparutively trifing. But about that period Europeans began to engage in the business; and the culture of the plant was, la consequence, so much extended, and the preparation of the drag so much improved, that it has bcen for a lengthened period an article of primary commercial importance. Of late years, however, the growth of Indigo appeurs to have been nearly stutionary, the shipments in 1830 '31 and 1831-'32 licing about equal to those in 1840-'41 and 1851-52. This stationary state of the trado has been ascribed partiy to the influence of the imposta. tions from Java, where indigo fs now very extensively raised, and partly to the alleged decrease in the use of biue cloth. France is, next to England, the great market for indigo.
Stathmint of till Quantits and Valur of the Indigo BHIPRED FROM GALOUTTA IN 1840-14, AND 1851 -'69.

| Countrion. | 1840-'4! |  | 1851-153. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Qusalily, | Value. | Quanlily. | $V$ alue. |
| Great Britaln. | $\begin{array}{\|r\|} \hline \text { Fari'y Mda, } \\ 8,205 \end{array}$ | $1,05,31,074$ | $\begin{array}{\|r\|} \hline \text { Indian Midan } \\ 80,870 t \end{array}$ | Rapees. 1.27,18,127 |
| France. . . . . . | 20,280t | 40,86,2t0 | 24,791 | 29,04,162 |
| North America. | 4,827 | 9,45,888 | 3,7611 | 5,97,207 |
| Arabla, etc. | 0,0083 4, | 9,64,414 | 6,8871 | 6,81,194 |
| 130mbay. . . . . . | 087 | 1,21, 99 | 207 t | 22,705 |
| Bremen . . . . . . . | $806 t$ | 41,260 |  |  |
| El ewhor | 781 | 15,775 | 1,6871 | 2,28,901 |
| Total | 1,15,268 | 9,27,11, 602 | 1,17,0141 | 1,82,16,636 |
| Belng in lhe | \$,601,6571 |  | $0,033,871$ |  |

In 1835, the Britisi duty on East India augar, which had previously been comparatively high, was redured to the same amount as thut on West India sugar; and that circumstance, and the continued high price of sugar, did not fail to give a powerful stimulus to its culture in and exportation fron Indiu. On the whole, bowever, great as was the increase in the exjorts of sugar between 1830 and 1840, it hns sinco receded. And now that the sugar trade is placed on a proper footIng by the abolition in Great Britaln of the discriminating dution on foreign sugara, the imporiations from India will, perhapa; be still farther reduced. Sulijoined is a statement of the quantity und value of the augar shipped from Culcutta in 1840-41 ard 1851-'52.
mpike rosds nprovement of communibank of the tt Howra hss minus of the gof the first facilities will , as of egress dly grown in erage of the rom Culcutta ereas during eed to 82,806 the principal pium, so that eecond only It is true d for Singaina is its ulment of the from Calcut-

851-389. $2{ }^{\text {anupeab }}$ 2,71,14,659
$87,05,080$
$3,77,140$
60,850
19,750 in the busi:onsequence, the drug so ugthened peortance. of 0 appears to uts in 1830 e in 1840-41 1e trade has he impoitaextensively $p$ in the use $d$, the great
mis Inmo 851-52. |ulus to its the whole exports of e receded. roper foote discrimportations reduced. and value 0-'41 und

| Countries. | 1840-931. |  | 1851-39. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantily. | Volue. | Quapilit. | Velue. |
| Great Brtain. | $\begin{aligned} & \text { Indine Meande } \\ & 17,17,200 \end{aligned}$ | $\begin{gathered} \text { Rupeoen } \\ 1,60,00,863 \end{gathered}$ | $\begin{aligned} & \text { Indiun Mounde } \\ & -15,00,417! \end{aligned}$ | $\begin{gathered} \text { Rypoca. } \\ 1,42,50,698 \end{gathered}$ |
| Bormbay . . . . . . . . . . . . . . . . . . . | - 48,181 | 3,40,565 | 80,5131 | 6,17, 866 |
| Arablan and Persian Gulfs : .......... | 6,071 ${ }^{\text {c }}$ | BT, 170 | 2,090 6 | 24,957 . |
| Xadras . . . . . . . . . . . . . . . . . . . . . . | 251 | 9,083 | 2001 | 1,000 iz |
| Ceylon. . . . . . . . . . . . . . . . . . . . . . . . | 1,294 | 9,608 18804 | 0,4341 | 68,714 1 |
| Pegu ........, ...................... | 2401 | 1,864 | 964t | . 0,417 |
|  | 8,930\% | -6,979 | 10,418 | 99,201 , |
| Cape of Good IIope . . . . . . . . . . . . . . . . | 2,030\% | 10,887 | ${ }^{5} 5751$ | 6,758 |
| Eldewhere.......... |  | $\ldots$. | 7,016 | 71,191 |
| Total | 17,31,781 | 1,04,68,3*3 | 10,16,324 | 1,51,88,515 |
| Belog in pounds, , . . . . . . | 146,675,0817 | $\ldots \ldots$ | 133,118,674 | 3 |

The exports of cotton from Calcutta continue stationary; the expectations that it would be improved in its quality by greater attention belng given to its culture and preparation have not been realized. The exports of aaltpetre fron India have not, ae many anticipated, been affected by the competlition of nitrete of soda from South America. In 1830-'31, the exports from Calcutta wore 424,729 factory mannds, whereas in 1851-'52 they amounted to 709,500 Indlan maunds. The exports of rice from Bengal fluctuste very greatly. This is not caused so much by variations in the crops of the country as by variations in thoes of other countries; for when a scarcity occurs in most parta of continental Asia, or in any of lta lslands, recourse is almost invariably had to Bengal to aupply the deficlency; and the demands thence arislng have been sometimes enormous. In 1831-'82, for example, the exports of rice from Calcutta to the coast of Coromandel amounted to only 16,545 maunds, whereas in 1832-'34 they amounted to $1,252,056$ maunds.-BELL'S Comparative View of 1832-'33 and 1833-'34, p. 41. It is worthy of remark, that while Bengal is shipping Immense supplies of rice and other grain to distant parts,
a large part of her own population is frequently. In a state of great want and suffering. Ireland is not, tharefore, the only country in which the most abject poverty and wretchedneas on the part of the inhabitants are found combined with great fertility of soil and a large exportation of food. Bealdes the articles of natlve Indlan produce exported from Calcutta, she reexports pretty considerable quantities of varlous articles brought from other parts. The value of the British cotton goods re-exported amounts to about $\boldsymbol{£ 2 0 0 , 0 0 0}$ a year. They are princlpally bartered with the Burmese for silver. The conveyance of the latter out of the Burmese dominions is strictly prohlbited; but in Burma, as in England and clsewhere, the ingenuity of the smuggler is too much for the vigilance of the government, and the trade is carried on without much difficulty. The great articles of import into Calcutta are, colton manufactures and cotton twist ; bullion; copper, with spelter, tin, lead, iron, and other metals; woolens; wines and splrits; ale and beer; haberdashery, millinery, etc. ; coffee; hardware and cutlery; splces; coal; coral, glasa, and bottles; plate, jewelry, watches, etc. ; books and stationery; tea, 'etc.
statremet of tag quantity and Valde of the phincipal Abtioles of Mzrchandige impobted into Calcutta duana tue Years 1881-" 02.

| Morohondise. | 1851-'69. |  |
| :---: | :---: | :---: |
|  | Quandity. | Velue. |
| Alum . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Indian maunds. | 14,268 | $\begin{gathered} \text { Rapeos. } \\ 28,602 \end{gathered}$ |
| Bends and false pearls. . . . . . . . . . . . . . . . . . . . . . |  | 2,28,938 |
| Books and pamphlots . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 2,85,148 |
| Cloves . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3,293 | 78,058 |
| Coffeo | 10,591f | 1.83,760 |
| Coala . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7,67,794 | 3,82,242 |
|  | 8,06,203\} | 1,82,164 |
| Cocoannt shollis, etc. . . . . . . . . . . . . . . . . . . . . . . . . . . . | ....: | 8,78,44! |
| Glass-ware, etc. . .i................................ | .... | 2,33,774 |
| Ifaberdashery, millinery, and apparet. . . . . . . . . . . . . | .... | 18,94,440 |
| Jardware and cutlery............................. ${ }^{\text {a }}$. |  | 6,08,07T |
|  | 02,8201 | 21,40,489 |
| . Copper $\left\{\begin{array}{l}\text { gheet and uall . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . } \\ \text { Old }\end{array}\right.$ - | $\underset{2,315}{25,444}$ | $\begin{array}{r} 7,77,988 \\ 8,78,190 \end{array}$ |
| f Spetter................................................. | 60,071t | 4,08,605 |
|  | 2A,480t | $5,87,000$ |
| (Ironmongery, wachinery, and anchors............ | , 5el | 14,18,084 |
| Pepper, black.......................................... | 02,3471 | 4,08,149 |
| White cotton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Ploces, } \\ \text { Yarls, }\end{array}\right.$ | $\left.\begin{array}{l}80,89,755 \\ 80,35,4514\end{array}\right\}$ |  |
|  | -0,30, 7,3641$\}$ | 2,51,00,10t |
|  | $\left.\begin{array}{r}11,68,702 \\ 85,123\end{array}\right\}$ |  |
|  | $\left.\begin{array}{l}85,123 \\ \mathbf{3 0}, 3056\end{array}\right\}$ | 65,43,032 |
|  | $\left.\begin{array}{r}18,306 \\ 3,00,022\end{array}\right\}$ |  |
|  | 3, ${ }_{30109}$, | 6,70,103 |
| Balt (duty pald) . . . . . . . . . . . . . . . . . . . . . . . . . . . . Indian mir .ode. | 31,74,370 | 31,74,370 |
| Sugars nad cheroets. . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | 1,62,718 |
| Btationery and cards . . . . . . . . . . . . . . . . . . . . . . . . . . | $\cdots$ | 4,60,477 |
| Alo and porter...................................... ${ }^{\text {. }}$. |  | 6,72,904 |
| Twint and yarn . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,70,85,885 | 07,03,640 |
| Woolens | ..... | $11,37,882$ $\gamma \quad 18,27,380$ |
| Alt other articigs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | 80,45,314 |
| Tctal merchandise by private traders ......................... Treasure by pivate tradors | .... | $\begin{array}{r} 6,78,44,750 \\ -2,40,63,194 \end{array}$ |
| Private trado, grand total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | 9,24,75,904 |

- In addition to thia, the registered amount of apesto luported hy the IIonorable Company la na follown: $1860-{ }^{-61}=$ Company's veasels $=37,47,150 \quad \mid \quad 1861-{ }^{-} 58=$ Company's venule $=1,24,659$.

Abstract Vizw or taz Extzẹal Commercie or Bergal.

| Couatries of Stales. | Imports. |  |  | Exponta. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1861-158. |  |  | 1851-76. |  |  |
|  | Merehendime. | Trameure. | Total. | Merehandien. | Treenurs. | Total. |
| Great Britain. | 5,59,79,288 | 91,74,644 | 6, 51,08,826 | 4,78,20,145 | 78,083 | 4,78,98,189 |
| France.......... . . . . . . . . . . . . . . . . . . . | 9,88,091 | 4,25,850 | 18,68,881 | 48,07,431 | .... | 48,07,431 |
| North Amerlca . . . . . . . . . . . . . . . . . . . . | 9,99,653 | 2,22,090 | 12,21, 743 | 76, 94,224 |  | 76,84,224 |
| Madras Coast. . . . . . . . . . . . . . . . . . . . . . . | 9,94,388 | 18,08,503 | 27,82,891 | 12,52,890 | 1,47,924 | 14,00, 014 |
| Ceylon. . . . . .......................... | 90,681 | 1,30,225 | 1,60,906 | 1,50,240 | 67,100 | 2,07,840 |
| Maldiver and Laceadives . . . . . . . . . . . . | 17,86,292 |  | 1,86,902 | 60,682 | .... | 6090,632 |
| Malabar coast . . . . . . . . . . . . . . . . . . . . | 17,75,800 | 8,47,880 | 21,28,180 | 29,71.501 | .... | 29,71,501 |
| Arabian and Permian Gulfis., ......... | 7, 29,906 | 1,80,729 | 9,09,927 | 12,51,597 | 840 | 12,61,697 |
| gingapore. . . . . . . . . . . . . . . . . . . . . . . . | 14,69,481 | 16,25,031 | 80,94,469 | 44,04,137 | 546 | 4, 04,677 |
| Penang and Malaces . . . . . . . . . . . . . . . . | 6,12,629 | 1,84,631 | 7,47,280 | 6,44,759 | 7,148 | 5,51,907 |
| Ching......... . . . . . . . . . . . . . . . . . . | 16,00,846 | 89,12,898 | 1,05,18,244 | 8,22,17,277 | , 1 | 8,92,17,977 |
| New Holtand | 12,86,255 | 16,459 | 12,82,707 | 3,16.644 | .... | 3,15,544 |
| Java and Sumatra . . . . . . . . . . . . . . . . . | 87,162 | 2,497 | 29,649 | 68,971 |  | 69,071 |
| Pegu ...................................... | 6,84,963 | 8,51,063 | $8,90,026$ | 14,43,688 | 16,06,174 | 80,40,067 |
| Mauritus . . . . . . . . . . . . . . . . . . . . . . . | 22,323 | 8,61,008 | 8,84,016 | 15,95,29\% | 66,870 | 16,51,667 |
| Bourbon . . . . . . . . . . . . . . . . . . . . . . . . . | 20,003 | 7,83,906 | 7,68,903 | 6,06,805 |  | 0,06,505 |
| Cape and 8t. Helene . . . . . . . . . . . . . . . | -95,67\% | B5,860 | 71,625 | 2,68,585 | 8,600 | 9,71,085 |
| Hamburg . . . . . . . . . . . . . . . . . . . . . . . . . | 1,40,014 | - | 1,40,014 | 2,27,950 | , | 2,27,950 |
| Cadiz. . . . . . . . . . . . . . . . . . . . . . . . . . | 1,18,098 | ... | 1,18,096 | .... | *... | , |
| Amsterdam . . . . . . . . . . . . . . . . . . . . . . | 1,563 |  | 1,568 |  | *... |  |
| Trieste. | 0 | . | 95.980 | 88,068 | ... | 83,009 |
| Genom. | 96,960 |  | 85,966 | 4,21,888 | *** | 4,21,838 |
| Gther places. . . . . . . . . . . . . . . . . . . . . . | 00,602 | . $\quad .$. | 98,602 | 2,66,273 | … | 2,60,278 |
| Total, Company'a rupeen....... | 6,75,14,760 | 2,49,63,184 | 9,24,77,034 | 10,84,68,897 | 19,45,809 | 11,04,09,700 |

Btatiment exiliting tie Paonomion of the Extibral cominerce of Bengal enjoyed by each Codntay and State deding tir Years 1850-61 and 1S51-6\%.

| Countries. | Impart Trade. |  |  |  | Export Trade. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1880-71. |  | 1851-759. |  | 1850-161. |  | 1851-792. |  |
|  | Velus. | Per Coath | Velue. | Porcent. | Value. | Per Coni. | Value. | Por Cent. |
| United Kingdom . . . . . . . . | $\begin{aligned} & \text { Rupoen } \\ & 4,91,12,783 \end{aligned}$ | 096 | $\begin{gathered} \text { Rupeen } \\ 6,51,63,826 \end{gathered}$ | 70.5 | $\begin{gathered} \text { Rupees } \\ 4,48,74,200 \end{gathered}$ | 460 | $\begin{gathered} \text { Rapees, } \\ 4,78,48,188 \end{gathered}$ | 43.4 |
| France . . . . . . . . . . . . . . . . | 16,80,031 | 24 | 13,68,881 | 1.6 | 4688,262 | 44 | 48,07,431 | $4 \cdot 3$ |
| Hamburg . . . . . . . . . . . . . | 6,58,938 | 0.8 | 1,40,014 | $0-2$ | 1,85,413 | 02 | 2,27,050 | 02 |
| Altona. . . . . . . . . . . . . . . . . . | $1 \ddot{80} 60$ | $\ddot{0}$ | 113090 | $0 \cdot 1$ | 13,005 | * | ..... | . |
| Cuam. | 1,80,60 |  | 1,18,306 |  | $\because 0,450$ | $\cdots$ | *... | . |
| Triente | .... | . | ... | .. | 1,59,200 | 9.8 | 88,006 | $0 \cdot 1$ |
| Glbraltar . . . . . . . . . . . . . . . | . . . | .. |  | . | 20,732 | . | 88, | .. |
| Lisbon. . . . . . . . . . . . . . . . . . |  |  | 37,436 | . | .... | . | .... | . |
| Amsterdam | 55,856 | $0 \cdot 1$ | 1,568 | - |  | 0 |  | $\cdots$ |
| Rotterdam . . . . . . . . . . . . . . | .... | . | .... | . | 06,062 | $0 \cdot 1$ | 76,578 | $0 \cdot 1$ |
| Antwerp . . . . . . . . . . . . . . . |  |  |  | . |  |  | 84, 5159 | $0 \cdot 1$ |
| Genos. . . . . . . . . . . . . . . . . . | 1,17,801 | 02 | 85,950 | . | 56,081 | $0 \cdot 1$ | 4,21,836 | 04 |
| sia. | 5,16,57,264 | $73 \cdot 8$ | 6,68,60,077 | $72 \cdot 3$ | 5,45,83,05-4 | 510 | 5,85,90,602 | 450 |
| Coromandel Coast | 17,72,347 | 25 | 27,82,891 | 29 | 15,18,022 | 1.4 | 14,00,614 | 13 |
| Ceylon. . . . . . . . . . . . . . . . . | 57,404 | $0 \cdot 1$ | 1,00,900 | 02 | 10,77,085 | 10 | 2,07,840 | $0 \cdot 2$ |
| Malabar Coast. . . . . . . . . . | 18,00,015 | $2 \cdot 7$ | 21,23,180 | $2 \cdot 8$ | 89,23,987 | 87 | 29,71,501 | 20 |
| Maldives and Iaccadives | 1,67,479 | 0.2 | 1,80,999 | $0 \cdot 2$ | 79,460 | $0 \cdot 1$ | 60,682 | $0 \cdot 1$ |
| Arabian and Persian Gulfs | 11,05,759 | 17 | 0,09,027 | 10 | 18,77,988 | $1 \cdot 3$ | 12,51,507 | $1 \cdot 1$ |
| Chlna . . . . . . . . . . . . . . . . | 80,52,851 | 86 | 1,05,13,244 | 114 | 8,04,54,909 | 28.4 | 8,29,17,277 | 29.2 |
| Singapore. . . . . . . . . . . . . . | 84,77,786 | 49 | 80,04,402 | $8 \cdot 8$ | B8,47,281 | 36 | 44.04,877 | $4 \cdot 0$ |
| Penang and Matacca ..... | 6,40,024 | 69 | 7,47,260 | $0 \cdot 3$ | 4,88,280 | $0 \cdot 4$ | 5,51,907 | 0.5 |
| Java and Bumatra....... | 49,748 | $0 \cdot 1$ | 89,649 |  | 1,60,784 | 02 | 68,971 | $0 \cdot 1$ |
| New Holland. | 3,95,164 | $1 \cdot 1$ | 12,82,707 | 14 | 1,42,409 | $0 \cdot 1$ | 8,16,544 | 0.9 |
| Pngu .. . . . . . . . . . . . . . . . . | 6,72,841 | 10 | 8,88,132 | 10 | 22,68,211 | $2 \cdot 1$ | 80,40,067 | 2.6 |
| Nev Zealand ............. |  | .. | 1,021 | .. | , | .. | .... | .. |
| Gand wieh Islands . . . . . . . | 1,856 | . | 98ik0 | .. | .... | . | $\cdots$ | .. |
| Manilla . . . . . . . . . . . . . . . | 20,044 | . | 29,150 | . | ... | . | . | . |
|  | 1,c8,22,918 | $23 \cdot 3$ | 2,26,50,721 | 24.5 | 4,60,34,270 | 42.8 | 4,64,91,117 | 42.1 |
| Maurtine. . . . . . . . . . . . . | 6,70,503 | 10 | 8,84,816 | 10 | 12,83,791 | 12 | 16,51,667 | 1.6 |
| Bourbon . . . . . . . . . . . . . . | 4.50,405 | 00 | 7,68,908 | 0.8 | 4,67,984 | $0 \cdot 4$ | 6,06,805 | $0 \cdot 1$ |
| Cape and 8t. Ifelena ..... | 70,441 | $0 \cdot 1$ | 71,625 | $0 \cdot 1$ | 1,45,217 | 0.1 | 8,74,085 | 02 |
| Cepo Verd Ielandu . . . . . . | 20,008 | .. | 82,200 | .. | .... | .. | ... | .. |
|  | 12,20,607 | 7.7 | 17,42,004 | 19 | 18,07,082 | $1 \%$ | 46,29,617 | $2 \cdot 3$ |
| North America. . . . . . . . . . | 8,32,1\%1 | 12 | 12,21,743 | 13 | 83,98,653 | 50 | $70,84,224$ | 64 |
| Solith America. . . . . . . . . . | , | . . | 2,789 | .. | 43,280 | .. | 71,643 | $0 \cdot 1$ |
| Trialdad . . . . . . . . . . . . . . |  | . | ... | . | 24,107 | $\cdots$ | 83,503 | .. |
|  | 8,82,171 | 12 | 12,24,682 | 1.3 | 54,06,030 | $5 \cdot 0$ | 76,80,870 | 70 |
|  | 7,02, 82,010 | 100 | 6,24,77,084 | 100 | 10,72, 80,895 | 100 | 11,04,09,700 | 100 |

Experta of W'ifat from Calcetta. In Inilan Maunde.

| Places. | 1852-183. | 1853-154. | 1854-'s5. | Mey I, $1 \mathrm{ABs}_{\text {s }}$ to Jenuary 31, 1856. |
| :---: | :---: | :---: | :---: | :---: |
| Maurltiua. | 75,8166 | 64.620 | 116,010 | 78,940 |
| 13ourbon. . . . . . . . . . . . . . . . . . . . . . . . . | 45,300 | 50,600 | 80,800 | 65, 800 |
| Ceglon .................................. | 440 | 1,400 | 2,810 | 106 |
| Madras Coatt. . . . . . . . . . . . . . . . . . . . . . . | 23,050 | 85,9\%0 | 118,106 | 8,068 |
| 8ingapore . . . . . . . . . . . . . . . . . . . . . . . . | 87,828 | 47.149 | 88,976 | 88,401 |
| 1'etrang . . . . . . . . . . . . . . . . . . . . . . . . . * | 16,212 | 15,026 | 15,824 | 9,948 |
| Batavia. ................................ |  | 6,900 | 8,420 | 16,874 |
| 1egu................................... | 10,064 | 8,702 | 62,128 | 4.262 |
| The Cape . . . . . . . . . . . . . . . . . . . . . . | 2,040 | 2,006 | 8,764 ${ }^{\prime}$ | 8,730 |
| Now Holland and Australian porta. . . . | 48,683 | 4,687 | 9,184 | 56,229 |
| Crreat Britatn . . . . . . . . . . . . . . . . . . . . | . $\cdot$ • | 9,000 | 98,018 | 473,321 |
| North Americs . . . . . . . . . . . . . . . . . . . . . . . . . . | ..... | - 420 | $\cdots 40$ | $\begin{array}{r} 8,980 \\ 81,286 \end{array}$ |
| Total. . . . . . . . . . . . . . . . . . . | 258,489 | 259,814 | 426,078 | 084,178 |




| $\frac{\text { coal }}{4,78,8888}$ |
| :---: |
|  |  |
|  |
| 2,07, 4,40 |
| $20.70,15$ |
|  |
| $4,0,6,677$ |
|  |
|  |
| ${ }_{80,80,687}^{80,067}$ |
|  |  |
|  |
|  |
|  |
|  |
| \%eter |
| ,04,00,700 |

Ann State

| Countries. | Britula Importa. |  | Countriea, | Forel [a Importh. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yemela. | Toanarg. |  | Vemola. | Tontargt. |
| Enited KIngdom | 270 | 164,795 | Foreign Enrope.................... | $\underline{83}$ | 11,680 |
| Foreign Europe . . . . . . . . . . . . . . . . . | 1 | 6609 | North Americs (United States).... . | 120 | 69,415 |
| Bombey and Malabar Coast : . . . . . . | 84 | 20,221 | Madras and Coromandet Coast . . . . | 8 | 997 |
| Mfadras and Coromandel Const ..... | 69 | 10,607 | China and singapore ............... | 8 | 950 |
| Madras and Snss . . . . . ............ | 13 | 13,649 | Bourbon. . . . . . . . . . . . . . . . . . . . . . . | 88 | 11,156 |
| Rangoon, Atyah, and Moulmsin ... | 66 | 20,048 | Cape . . ... . . . . . . . . . . . . . . . . . . . | 1 | 256 |
| China and Sfogapore . . . . . . . . . . . . | 02 | 24,674 | Muscat, Judds, and Aleppee........ | 11 | 5,216 |
| Elogapore, Malecen, and Penang ... | 80 | 9,482 | Penang, Malaces, and Slogapore... | 1 | ${ }^{-609}$ |
| Mtguritius........... ................. | 85 | 18,754 | Mauritus. . . . . . . . . . . . . . . . . . . | 6 | 1,909 |
| Muscat, Judda, and Aloppee. . . . . . . | 20 | 10,445 | Bombsy and Malsbar Coast. . . . . . . | 1 | 385 |
| Cape .............................. | 8 | 2,125 | United Klogdom . . . . . . . . . . . . . . . . . | 18 | 9,557 |
| Coylon, Msidives, and Laceadives. . | 20 | 1,916 | Anstralis. | 1 | 898 |
| Austratla . . . . . . . . . . . . . . . . . . . . . . . | 29 | 11,146 | Aden. . . . . . . . . . . . . . . . . . . . . . . . . | 1 | 737 |
| Sumgtra . . . . | 4 | 1,241 | Total \& relgn Imports. . . . . . . . . . | 297 | 112,907 |
| British vessels from North America. | 1 | . 835 | Add total Britsh imports . . . . . . . . | 640 | 312,696 |
| British vessels from West Indes <br> Total British Imports. | 4 | $\begin{array}{r}2,850 \\ \hline 32,596\end{array}$ | Total Erttiph and forelgn Imports. | 886 | 425,053 |

Total customs duty collected at Calcutta in 1851-'52,
 kinsen'a excollont Account of the Commerce of Bengal ia 1850-'51 and 1851-'52.
The number of vesaela which arrived at Calcutta during the year 1854, and their aggregate tonnage, were as follows:

| British shtps | 441 |
| :---: | :---: |
| French ahipe | 108 |
| Amertcan ahipa | 96 |
| Arablan ohips | 17 |
| Dutch ahips. | 8 |
| Hamburg shipa | 6 |
| Swedish shipg. | 6 |
| Sardinian shipa | $g$ |
| Belgian ships. | 2 |
| Danish shtps. | 2 |
| Prusalan ships | 1 |

Aggregate tonoage about. 430,000 tons
This gives an increase of vesaels over that of the previons year of 49, and of toanage of 49,281 tona.-Bengal Ilarkaru, March 21, 1855.
Failures at Calcutta.-During the three years ending with 1833 some of the principal mercantile establishments in this city failed for immense sums. To examine minutely into the origin of these diaastera wonid lead us into inquiries foreign to the object of this work, and with respect to which it would be difficult to get accurate information. We believe, however, that the main source of the evll was the combination, by most of the principal housea, of the business of merchants with that of bankers. Their credit being high, at the ead of the war iarge sums wore doposited in their bands, for which thoy engaged to pay a high rate of interest. But instead of employing these depnsita, as bankers in England would have done, in the discount of hills at short dates, or in the purchase of government aecurities readily convertible into money, they employed them, probably because they could with difficulty diapose of them otherwise, in ail manner of mercantiia speculations; advancing very large sums to the indigo pianters, exporting goods to Euroie, either directly on their ewn account, or indirectly by iending to those who did, becoming owners of Indian ahipping, etc. Most of those speculations turned out excoedingly iii. The production of indigo was ao much increased, partly in consequence of tho large capitals turned to the business, and partiy of the high prices in England, that "fine blue violet," which had brought in the London market, at an average of the tirree years ending with 1827, from 12s. 10d. to 18 s .4 d . per lb., foll, at on average of the three years ending with 1832, to from 68. 8d. to $6 \mathrm{~s}, 4 d$. por lb., and other sorts in propacion. At these prines tiso production would not pay; and very heavy losses were sustained and much capitai sunk by the planters and those who had supplied them with funds to extend their undertakiags. The inventmenta in Indian shipping turned out eveu worse than those in the Indigo plantations, the shipping of England having noarly Iriven that of Indla out of tie
field. The embarrassment occasioned by this locking up of their capital, and by the ruinous nctare of the adventures in which they were embarked, began to manifeat itself aimaltaneously with the scarcity of money occasioned by the draina on account of the Burmese war. The grest mercantile housea began then to find that thay ware entnngied in difficulties from which they were wholiy unsble to extricate thomaclves. After struggling on, some for a lenger and some for a ahorter period, most of them subsequently failed, the greater number for very large sums.

But, however distressing in the mean time, the embarrassment and want of confidence arising from the failurea alluded to were not of long continuance, and have in the end been advantageous. It is of the utmost consequence that the vicious combination of tho business of a merchant with that of a banker ahould be put an end to. It is singular, indeed, that individuals ahould be found willing to intrust large sums in the hands of those who they are aware are employing them in the most hazardous advertures. The higher the interest promised by such persons, the greater ought to be the caution of tive public in dealing with them.
Internal Transit Luties.-A very great improvement has been effected in the domeatic economy of British India by the abolition of the duties on the tramsit of gooda from one part of the country to mnother. This import int measure was preceded, and, wo believe, principully brought about, by the publication of an elalorate and valuable report on the inland customs of Bengal, by Mr. Trevelyan (now Sir Charles, K. C. B.), then one of the accretaries to the Indian goverament, and now Secretary to the Treasury. These duties had existed in India from a vory remote period; and, by obatructing the intercourse between its different districts, wero singularly pernicieus. After the East Indi.4 Company began to acquire a footing in India, they availed tinemseives of a favorablo opportunity to procure an exemption from the transit dutiea in favor of their own trade ; "the goods which they imported heing allowed to pass into thie interior, and those which they purchased for exportation in the interior being allowed to pass to the sea, without either atoppage or du-tics."-Mill's India, 8vo ed. vol. iii. p. 289. They wero, however, not long permitted to monopoliza this privilege. Immedately after the victorice of Clive had raised the company to the situation of a great torritorial power, their servants engaged largely in the inland trade, and cndeavored, partiy by frand and partiy by force, to extend to their own goods the exempcion from transit duties estabilisiad in favor of those bsionging to tie company. Every reader of Indian history is aware of the muitiplied abuses and diaturbances that grew out of this attompt of the company's servants to reioase themseives from duties nnd charges that pressed with grinding severity on the natives, and, by conseçuence, to engross (for such was their object) the whole internal trede of the country. The company endeavored to olviate the evil by atrictiy forbidding
their aervants from engaging in Internal traffic ; but its orders to this effect were long either totally disregarded, or bat very limperfectly obeyed. At length, in 1788, Lord Cornwallis adopted the declsive and Judicious measure of abolishing the dutiea. They were, however, agaln renawed in 1801. Tha exclusion of Englishmen from all participation $\ln$ the interior traffic of the country having been gradually carried Into complete effect for a leng thened period, they were less allive than they wonld otherwise have been to the injurious influence of the duties, so that their re-establishment met with comparatively little oppoeition. In 1810 a new tarif was introduced, by which the dutiey "were frightfuily augmented;" and they continued from that epoch down to their receat abolition seriously to obatruct all sorts of luternal traffic, and to oppose the most formidable obstacle to the improvement of the country.

Had the hiland transit dutiee been productive of a large ame $\cdots$ of of reveutr, that would lave been some set-off agai ast the teormous evila of which they have been ${ }_{\mathrm{p}}$ ruluctive. But such has not been the casc. The expenses of coliection, and the interruption of convuanichain, were so very great that the net produce of the inland transit duties was quite inaignlficant; so mueh so, that, according to Trevelyan, it did not exceed in Ho , ctensive proviace of Bengal, the miserntio pit ..nle , i $£ 27,500$ с year.-Report, p. 148. We see no reason to doubt the accuracy of this statement; and, assuming lt to be correct, we are warranted in affirming that there is not another instance to be found in the history of taxation of a tax so fruitful of mischievous results and so barren of revenue.

Town Duties.-These were charged on tho principal articles of consumption in 23 of the chief towns of Bengal. They were in many respects similar to the octrois in France; and, though not nearly so injarious as the internal transit duties, were productive of much inconvenience. We are glai, however, to have to atste that they, as well as the transit luties, have recently been abolished; and that the internal trado of Bengel ls now as free, in so far, at least, as statutory regulationa can make it, as the iaternal trade of England.
This article has been compiled from various authorities. Inciuding Milaurn's Ifiental Commerce ; Belle's Comparative Vieno of the extirnal Commerce of Bengal, with the Continuation by Wilkisson for the years from 1828-'29 to 1841-'42; The Bengal and Agra Guide and Ginzetteer for 1841 and 18:2; Parliumentary Papers relating to the Finances of India, and the Trade of India and China, 1830-1848; and private communications.

Caledonian Canal, from the North Sea to the Atlantic Ocesu. By means oi this magnificent canal the nautical intercourse between the western ports of C reat Britain, and those also of Ireland, and tho North Sen and Baltic, is shortened in some Instances 800, and in others $\mathbf{1 0 0 0}$ miles. $\Lambda$ sum exceeding a million sterling was granted by Parliament from time to the; and this safe navigation for ships of nearly every tonhage wat completed and opened in 1822 .-Hayin.

Calendar. The Ioman calendar, which has in great part been "lopted by almost all nations, was introduced by Romulus, who divided the year into ten monthe, comprising f04 days, A.d. 758 n.e. The year of Romulus was of fifty daya less duration than the luuar yetr, and of sixty-one less than the solar year, and Its commencement did not, of courso, corrsspond with. any fixed season. Numa Pompillus, 713 a.c., conserted this caleudar by adding two months; and Julins Cesar, lesirous to make it more correct, fixed the sclar year as belng 365 tlays and six hours, 45 n.c. This almost perfect arrangement was denominated the Julian sty te, and prevailed generally throughout the Christian world till the time of Iope Gregory Xilit. The calendar of Julius Cesear was defective in this particular, that the solar year consisted of 806 days five heurs and fortymine minutes, and not of 363 days and
inx hours. Thladifference, at the tlme of Gregory XIII., had amounted to ten entiro days, the vernal equinox falling on the 11th instead of the 21 st of Narch. To obviate this error, Gregory ordained, In 1582, that that year should consist of $86 \dot{b}^{\circ}$ days only; and, to prevent further Irregularity, It was determined that a year beginnlag a century should not be bissextile, with tha exceptlon of that beginning each fourth century ; thus 1700 and 1800 have not been bissextile, nor will 1900 be so; but the year 2000 will be a leap-year. In this manner three days aro retrenched In 400 years, because the lapse of eleven minutes makes three days in alout that period. The yeaz of the calendar is thas made as nearly as possible to correspond with the true solar yrar; and future errors in chronology are avolded.Haydx. Sea Almanac.
The Gregorian calendar was Introinced lato Spain, Portugal, and part of Italy, the same day as at Romo. In France it was received In the same year In the ronth of December, and by the Cathol'c atates of Gerniany the year following. In ih. Protestant states of Germany the Julian calendar was adhered to tiin the year 1700, when it was decreed by the Diet of Ratisbon that tbe new atyle and the Gregorinn correction of the in. tercalation should be adopted. Instead, however, of employing the golden numbers and epacts for the determination of Easter and the mevable feasts, it was resolved that the equinox and the paschul meon shonld be found by astronomical computation from the Rudoljhine tables. But thit melind. though at first view it may appear more accurate, wis socn found to be attended with numerons iaconvenieneca, and was at length, in 17ii, a a andoned at the listance of Frederick II., king of Pruesia. In Deumark and Sweden the reformed calendar was received abou: the same time as in the Protestant states of Germany. Russia still adheres to the Julan reekoning.

In Great butain the alteration of the atyle was for a long time auccessfully opposed by popular prejndice. The inconvenienee, however, of using a different date from that employed by the greater part of Europe in matters of history rnd chronology began to be generally felt; and at length, in 1751, an act of Parliament was passed for the adoption of the new style in all public and legal transactions. The difference of the two atyles, which then amounted to eleven days, wns removell by ordering the day following the $2 d$ of September, of the year 1752, to be accounted the 14th of that month; and in order to preserve uniformity in future, the Gregorian rule of intercalation reqpecting the secular yeurs was adioptel. At the sane time, the commencement of the legal year was changed from the 25th of April te the first of Januery. In Sootland the new style wns vdopted from the legerning of 1600 , acrorting to an act of the l'rivy Council in December, 159\%. This fact is of importance with reference to the date of legal deeds exceuted in Seotlund het veen that period and 1751, when the change was efected in England. With refpect to the movable feasf, wiste: is determined by the rule lald down by the Cou reil of Nife; hat inatead of ensploying the, new moons and rpacte, the golden numbers are pretis : to the days of the fill moons. In those years in which the line of epncts is changed in the tiregorian calendar, the golden numbers are removed to different clays, and of cour. 3 a new table is retuired whenever the solar or lemar eqnation occurs. The golden numbers have been placed so tuat Easter may fall on the same day a3 in the Giregorisn calendar. The enlendar of the Chuych of Euglade 13 therefore, fiom century to century, the sane in form as the old Romnn calendar, exceping that ""gnlden numbers indicate the fu. noons lustead of the new meons.-E. 13.
Calender, a mechanical ensine employell ly chothlappers for dressing and finishlag cloths and stuftis of various descriptions no i fabrice, before exposure to nale, or delivery to purchasers. It is nloo used hy eal-
gory XIII. al equinox larch. To 2, that that to prevent a year he. e , with the tury ; thus $r$ will 1900 r. In this is in alout as made as truo solar avolded. -
ato Spain, at Rome, the ronth Germay es of feris tho year Iston that of the in. wever, of or the detts, it was on shonld a the Rufirst vlew and to be d was at Fredorick en the rec time as a still adrejıdice. rent date urope ia generalerliament all pub-- the two was re-Scptem$h$ of that $n$ future,
the secuhe cornthe 25 th the new acrorser, 1096 ditte of t perioul thgland. determsce; lout cts, the
the fill pats is
ico-printers, in order to oxtend and smooth the surface of their cloths after they have been bleached; and before they are subjected to the operatlons of the print-iag-table or coppor-plate press. Britleh muslins are folded generally to a yard in length, with a small allowance for extra measure ; and as the foldlag is alternately trom right to ieft, every part can be instantly exsuined upon a table or connter, every fold openiag os easily as the loaves of a book in its uncnt state. The picce, when folded, is reduced by doubling it longitudinally to about ninoteen inches, aud it is then folded across to tho broadth of about thirteen inches. An ordinary-sized trunk, $39 \times 19$ Inches, thus contains three laycrs of pleces, in which package goods for exportation to the coloulos are generally paeked, the tronk there forming an artlele of merchandiso as inuch in general demand as the muslins which it contains. Even the indian ornaments of gilt silver threads which were at firet woven into one end of each piece, although they did not exceed the value of twopence each, have been either greatly curtaited or totally glven up upon principles of aconomy. Even the cost of this trivial ornament has been computed to have amounted annually in Glasgow and Paisley to about $\mathbf{£ 3 0}, \mathbf{0 0 0}$. Pullice te and other hsadkerchiefs are most commonly folded up in dozens. For the African and some othe foreign trades, pieces containlng only eight handkerchiofa are preferred. Thege, are still Imitations of Indian precedents, coafined to markets where competlion continues to exist, not only with the British company, but with Americans snd others trading to Iudia. A specles of pale orange-colored Indis handkerchiefs, dlatlnguished by the name of Malrus, heing in extensive reputation in the Caraccas and other Spaniah sottlements in South Americs at the period of tho enpture of Trinldad, in 1703, patterns were procured by some British traders, who ordered very large quantitiea to be manafectured in Scetland of the same quality and appearance. With such etfect were these imitated in texturo, in dye, in finishing, and evria in the packages, that some hundreds of pieces sont to London for exportation were aetnally seized at the custom-house as India goods, either illegally lstported, or stolen from some of the Company's shipls in the rivor. A scrutiny, howover, clearly ascertained that those goods were not Indion, but British, and that no trespass oither against the privileges or the property of the company had been even attempted. The goods were of courso rcleased, and per:nittod to proceel to thelr destination, where, after examination and trinl, it was found totally unnecessary longer to conceal their real origin; and a very extenslve trade, through direct chamnols, has since been carried on for similar goods.-E. 13.
Calloo (Ger. Kattun; Du. Katoen; Dan. Kattun; Sw. Cattun; Fr. Coten, Toile de Coton; It. Tila Bambagina, Tela dipinta; sp . Tela de Algodon; Port. Pano de Algodar lRuss. Wiboik; Pol. Aawelnik(), cloth made of co in; so called from Calent, on the Malabar coast, s.tence it was Irst imported. In Eugland all winte or unprinted cotion clothe aro denomianted calicoes; but in the United States this cerm is applied to those only that are printed.
Calico 1 'rinting.--'lisis art, though npparently one of tha most difficult, has been practiced from a very remote era. LIerodotus mentions (lib. 1, \& 202 ) that $n$ nation on the shores of tha Caspian were in the hablt of painting the figures of animals on their ciothes with a coler formed from the leaves of treos bruised and soaked in water; and ho adds that this coler wns not einecable, ard was as durable as the clothes themnelves. it is difflcule to imagine that the colore could nave been so promauest, had not thoso using them been acquainted with the vise of mordants. There is, however, a passago in Pliny (llist. Nut. lib. xxxv. § 11), which, though in some respects obscure, ahowa that the ancicut Egyptims isere fully acquainted with the prinriple of calico printing. "They pmint,", says ho, "the
clothes, not with colors, but with druga (sorbentibus medicamentis) that have no color.: Thls being done, they immerae them in a vatfol of bolling dye, and leave them there for a little: when they take them out they are palnted of varlous colors. It is extraordinary, zeeing that there la anly one color ln the vat (unus in cortina color), that a w. iety of colors should be produced by the operation of the drugs." Pliny further states that the colors wero so adhesive that they could not be washed out ; and that clothes waro the stronger for belag dyed. A similar process is known to have been followed in India from tho earliest times. The chemleal and mechanical laventions of modorn ages have been the canse of vast improvementa in this ingenlons and beautiful art; but the passage now quoted shows distinetly that wo have, in this instance, been only perfecting and improving processes practiced in the remotest antiquity.

California. The name "California" is found in the history of the conquest of Mexico by Bernal Disz, a compsuion of Cortez. But there it lis only applied to a bay. Afterward it was glven to the whole country north of that bay. Its origln is uncertain. Some learned men atarted the opinion that it ought to be derived from the Latin "Calida fornax" (a hot oven), and that it was given to the rocky peulnsula because the first discoverers suffered there much from the heat. Some other derivations of the name Californin from the Latin may he found in Clavigero's history of Mexieo, in paragraph firat. Clavigero makes the remark that Cortez was very fond of sueh Latin words. Prohably It is a corruption of the original Indian name. Because it was for n long time supposed that it was a large ialand, and that many amall islands belonged to It, some called tho country "Las Californias" (the CalIfornias). One hundred and thirty years after Cortez, after the middle of the soventecth century, some geograpiers culled those supposed Californian islands "Islas Carolinas" (King Charles' Islanils), In honor to Charles II., king of Spain, who intended to conquer the whole.

What wo now call "Lpper Califomia" was called by the geographers of the sixteenth centary " Zuivira," from a supposed rich kingdom of this numc. The northern part of this same Upper California and of our Oregon 'Territory was called (1578) by Sir Praneis Drake "Nora Albion," and this name was pretty genorally adopted by the European goographers, execpt the Spanish. It whs extended at last over the whole of Oregon and Lpper California.
Tho name "L'pper California or Neso California" (California Nueva) sprung into existence when the Franciscan missionarics, since 1769, mado settlements to the north of the old Califor:ian Peninsula. They ealled "California Nuera" the wholo Pacific slope, ns far north as it became know: to them.
Since 1819, the date of the so-called Floridn treaty; the northern boundaries of New California were fixed at the $42 d$ degree of latitude, nud ihen soon the more northern part began to he called the "Oregon Cuantry."
Sinee the conquest and cession of the provinco to the United States (since 1847), tho southern bemadaries were fixed at $82^{\circ} 35^{\prime}$ of lit.
Wo now generally cull the country only "California," By geographers it is sometimes ealled "Contirental Culifornia," ins contrast to the Californian penin-sula,-1rom Mistorical Notes on the Ancient and Morlern Names with which the Regions, Countries, Territories, awd States alomg the C'oasts aj the North Anerican Union have bees designated, by J. ©. Knill..

Caltfornia is bounded on the north hy Oregon, on the east by Ute" and New Mexleo, and on the west ly the Pacific Ocean. The Constitution of the State thus describes its limits. Commencing at the polnt of intersection of the 421 degree of north latitude, with the 120th degree of lougitude west from Grecuwich, and ruming south on the line of eald 120fin legree of
west longitude until it intersects the 89th degree of north latitude; thence running in a straight line in a southeasterly direction to the River Colorado, at a polnt where it intersects the 35th degree of north latltude; thence down the middle of the channel of aaid river to the boundary line between the United Stateo and Mexico, ss entablished by the treaty of May 80, 1848 ; thence running west and along said boundary line to the Pacific Ocean, and extending thereon three Engliah milea; thence runaing in a northwesterly direction, and following the direction of the Paclic coast to the 42 d degree of north latitude; thence on a line of suid 42d degree of north latitude to the place of beginning. Also all the islands, harbors, and bays along and adjacent to the Paclic coast. Area, 188,982 aquare milles. Population in 1802 (IUumboldl), 16,862, consisting of 15,562 converted Indians, and 1300 of other elasses; In 1813 the population was eatimated by Forbes to be 23,025 . Emiguante from the United States began to enter the country before 1835, and so numerous had become the settlers that when the war commenced with Mexico, Colonel Fromont had little difficulty in raising a regiment of 500 men. At the close of the war, the population, exclusive of Indisns, amounted to about 12,000 .

The number of wild Indians scattered through the movintains is tankuowa, but is very cousiderable. The native Californians are, like the Mexicans and South Americans, chiefly of Spanish descent, but generally with a very large mixture of Indian blood, so that in complexion and features they are of all shades and degrees, from the pure Indian to the pure Castilian.

The population of the State, according to the census of the United States In 1050 , was 92,569 ; and by the State census in 1852, 264,435.

The seat of government is at Sacramento City, on the left bank of the Saeramento, Just below the entrance of the American Fork. The principsl places are Sars Francisco, Stockton, Monterey, Santa Barbara, San Dlego, Humboldt, etc.

Surface.-The greater part of tho State ls hilly or mountainous. The most prominent range of mountains is the Sierra Nevada, lying nearly parallel with the coast, and from 100 to 200 miles distant. On the weatern slope of thls range are the principal gold roines, extending 400 or 500 miles in length, snd $\mathrm{E0}$ or $\mathbf{v 0}$ in wldth. This slope of the Sierra is broken by the numerous tributaries of the Sacramento and San Joaquin into deep gorges and ravines, and tho surface of the region is extremely rugged and uneven. West of the Sierra Nevada range of mountains, the great valley of the Sacramento and San Joaquin spreads 500 miles in leagth, and 00 or 60 in width. This 18 very ievel, contains but little timber, and though fertile in some portions, is extenslvely covered with an arld unproductive soil back from the streans, and by lmmense tule or bulrush marshes In the vicinity of the rivers. The annual freshets in this valley secur In the winter and apring, and the streams are often at their maximam height as lato as June, in consequenco of the melting snows of the Sierra. This grest valley is bounded on the west by the coast range of hills and mountains, which rise in some parts to the helght of 3000 fent and upward, and lio from 30 to 80 miles back from the coast. These hills are Interepersed with numerous valleys, some of them of grest beanty and fertllity,

Soil and Productions.-The best agricnltursl lands are found in the grest basins of the Sacramento and San Joaquin, and these valleys in spring and summer are covered with a luxuriant vegetation of various grasses, wild oats, etc. The hills are generally covered with wild oats, and furaish excellent pastnrage, though for the nost part too dry for cultivation. Farther north, the valley of tho Mendocino or Eel Itiver is represented by recent explorers as well adspted to agriculture. Tho lands in the vicinity of Ifumboldt
harbor are also said to be very fertile, and In consequenc $i$ of oceasional ahowers through the dry aeason, they stand in no need of irrigation, which, though not essential to the auccess of most crops in other parts of the country, la, nevertheleas, occasionally deairable.

The grape flourishes all over the State, and wlae has long been manufactured at Loa Angelos and other placea. The varions vegetables and frults of the temperate sone flourish finely, and in the southern counties many troplcal productions may be suecessfuliy cultivated. Californis seems by nature peculiarly adapted for graaing; but, under a judieloue cultivation, ite agricultural resonrces are very great.

Thure were in this State in 1850, 62,824 acres of land improved, and $8,881,571$ of unimproved land in farma; cash value of farms, $88,874,041$, and the value of Implementa and machlnery 8108,483 ; live atockhorses, 21,719 ; assea and muids, 1666 ; milch cows, 4280 ; working oxen, 4780 ; other cattle, 258,599 ; sheep, 17,574; awine, 2776; valne of live atock, $83,851,058$.

Agricultural Products.-Whent, 17,328 bushels; It dian corn, 12,236 busheis; barley, 9712 bushels; peas and beaus, 2292 bushels ; potatces, 9292 bushels ; sweet potatoee, 1000 bushela; value of producta of the orchards, 817,700 ; producs of market gardens, 75,275 ; pounds of butter made, 705 ; of cheese, 150 ; pounds of wool produced, 6520 ; of tobaeco, 1000 ; hay, tone of, 2038 ; and were made 58,055 gallons of wine; value of home-made manufactures, $\$ 7000$; of slaughtered animals, $\mathbf{8 1 0 0 , 1 7 8}$. The State census of 1852 shows an lucrease of improved lands tu 110,748 acres; of live stock - horees, 64,778 ; mulcs, 16,578 ; mileh cows, 104,339 ; beef cattle, 315,392 ; working oxen, 29,065 ; agricultural producte-wheat, 271,763 bushels; Indisn cora, 62,532 bushels ; uats, 100,497 bushels; potatoes, 1,393,170 bushels; barley, 2,978,734 bushels.
The State, as a whole, can not be described as well timbered. The plains and valleys are, In the main, destlute of forests, though in many of them is an extensive growth of scattered oaks. Among the coast range of mountains are many forests of red-wood, species of cedar, growing to an immense size, anid furnishing an extremely durable material for building. In the nerthern part of the State, and among the snowy mountains, are forests of gigartic pines, firs, cedars, and other valuable foreat trees, ranging from 100 to 200 feet in height, and from 5 to 15 feet in diameter. In the central part of tho valley of the Sacramento and San Joaquin, nesr the junction of these rivers with the Bay of Suiann, is an extensive tract of low, marsh land called the Tulares, or Tule lands, from the tule or bulrush with which they are thickly covered. These lanls aro estimated to cover an area of at least 600,000 scres, and aro drained ly a net-work of eloughs which generally afford navigable channels from two to six fathoms in depth. Should these lands be reclatined, their fine al. vial soil will doubtless prove well sdepted to the cultivation of rice. The coast range of mountains, and the valleys of the Sacramento and San Joaquin, abound in deer, elk, antelopes, and other wild game, and the plains are traversed by inmense herds of wild horses. The furmidable grizzly bear is found in ueurly all parts of the State. The cattle of the country are fine, and are owned by the native Californlans often in herds of many thousanda. These were formerly kilied in grest numbers for their hides and tallow, which conatituted the prlncipal exports of the country, and the ehief aourco of veaith to the Inhabitants.

Mines,-Silver, lead, copper, platlnum, and other mines, have been discovered In California (though not yet worked), but the great minersl wealth of the State consists in its mlacs of quleksilver and gold, particularly the latter. The quicksilver mine of New Almaden, discovered in 1845, 18 miles south of San José, Is prohably the richest in the world, and, if properly orked, would yield a iniliion of dollare a year. Gold
d in conse dry season, though not ser parts of deslrable. e, and wina $s$ and other of the temthern coun. successfully peculiarly us cultiva at.
24 acres of ed land in 1 the value ive stockalleh cows, 609 ; sheep, 3,851,058. ashels; lashels ; peas ela; sweet of tbe or, 775,275 ; 0 ; pound bay, tons line ; value htered anshows an es; of live ilch cows, n, 29,065; la ; Indian ; potatoes, ed as well the maln, is an ex. the coas! d-wood, , aind farbuilding. the enowy 's, cedars, m 100 to dlameter. nento and 3 with the arsh land de or bul-

These st 600,000 ha which wo to six eelaimed, ell adaptof mountSan Joaher wild ase herds la found e of the Califorese were ides and
ta of the Inhabitsugh not he State particu, AlmaJosé, is roperly Gold
ia Ilberally acattered ovar a larga portion of the State. From lts first discovery, in February, 1848, to the present tine, new deposits have been auccesaively opened in various directions, and the whole extent and richness of the mines atill remalna a matter to be developed bereafter. The first gold discovered was on the American Fork, about 50 milea east of Sutter'a Fort (now Sacramento City). About three montha afterward It began to be found on the Yube and Feather rivers to the porthward, and on the Coaumnes to. the southward. Subsequently it was diacovered on all the principal eastern tributaries of the Sacramento and San Joaquin, and, atill later, extenaive deposita have been opened among the coast range of mountains in the northern part of the State, partleularly on the Trinity and Klamath, and thelr tributarien.

| ary 1, 1858. | 40,081,108 |
| :---: | :---: |
| Produot of 1852. | 67,609,6-48 |
| Product of 1853. | 02,100,000 |
|  | 300,630,651 |

There were in 1852,108 quartz mills, with a capital of $85,871,405$, and other mining operatlons employing capital of $88,026,042$.

Position of the Gold.-The gold la found under two principal forms; interspersed in irregular velns through beds of quartz rock; in grains and irregular water-worn lumps of all sizes, mingled with the beds of drift or gravel, which cover the face of the country, but most abundantly in the bottoms of the mountain ravines. These grains and lumps wero once parts of veins traversing quartz rock, and have been dislodged from their original matrix and reducei to the form in which we now beheld them by those aqueous and clemental agencict which have every where dialntegrated and broken down the gurface rocks, and of their ruins formed the present aand and gravel beds that cover the face of the earth. Their origin, or rather the origin of the forms in which we see them, was tho same as that of all our aand and gravels. They are, in faet, aething more nor leas than golilen pebbles-nretallic gravel and sand. The idea so prevalent that the gold has been thrown out from volcanoes In a melted state, is antirely unscientific and erroneous. The gold region is not voleanie, and all soarch for the "blowholes," or "fountalns," from which the gold is suppesea to have been thrown must always be, as it heretofore has been, antirely fruitless. In general, the loose gold is found in the immediate vicinity of the parent veina of which it once formed a part; or, at least, at no great distance down the slopes of the valleys and ravir. 3 which have in process of time been excavated by the clements.

The vein gold found in place in the quartz rocks occurs in various parts of the mines, but chietly In the southern districts-in the neighborhood of the Cosumne, Moquelumne, Tuolumne, and Mariposa rivers, and elsewhere. Tho working of these veins requires machinery, and has not yet been fairly tested. Some trials have been made with fiattering success.

The scale and lump gold is found most abundantly in the bottoms of ravines, and in tho banks and beds of the rivers, particularly in the bars of sand and gravel thrown up in the streams by the rush of the mountain torrents. The gravel bed containing the gold lies generally not ovcr two or three feet below the aurface; but occasionaily it is covered to the depth of 10,20 , and even 50 feet. Most of the gold hitherto obtained has been taken from such localities. The banks and beds of the rivers yied most abundantly at the lowest stage of water In the autumn and lntter part of summer. The side "gulches," or ravines, are usually destitute of water in the dry season, and hence the explorations in thom are denominated "dry diggings," and are condueted most auceessfully during the winter, spring, and early part of summer, particularly the two latter.

It is imposaible to any which portion of the mines is tha richest. All parta of then have ylalded Immense quantities of gold. The southern mines have turned out the greateat number of large lumps, and more of the cosrse or lump gold is generally found in that reglon. But for this very resion, perhaps, digging in them is somewhat more precarious and lottery-like than elsewhere. In the northern minee tha chances of fiading large apecimena may be lesa, hut the proapect of making fair dally wages has been considered rather more certaln there than in the southern mines. . Tho recently-discovered depoaits In the coast range on the Klamath and Trinlty, and their affluents, ara reported to bo unusually rich, and many have hasteaed to glve thom a trial.

The implements needed for procuring the alluvial or loose gold are plcks, shovels, and washera. The washers are either simple pans or wooden bowls, or machines, generally in the form of a cradle, nad hence called cradles or rockers. These are sometimen more expensively constructed, and furnished with cells for quicksilver; by maane of which the gold may be more completely and economically extracted.

It is well known that comparatively but a small portion of the products of the nines is entered at the San Francisco custom-house. Large sums are takon by passengers leaving the country among their baggage. An immense amount has also been taken out overland, by the Sonoratalans and other Mexicans who have returned from the mines to their homes. It may be eatlmated, therefore, that not muel less than three hundred and twenty millions of dollars have been dug from the gold region of California ainee its discovery.-II. G.

For later Callurnis statiatics, see articles San Francisco and Gol.D.

California, Gulf of, en arm of the Pacific Ocean, separating the peninsula of Lower California from the main land. It lies between lat. $23^{\circ}$ and $32^{\circ} \mathrm{N}$., and long. $107^{\circ}$ and $114^{\circ} \mathrm{W}$. ; and is atout 700 miles in length, with a breadth varying from 40 to 150 miles. Its weatern shores aro generally high and rocky, with few places of shelter; its eastern shores aro lower and less rocky. It contains numerous islands, and at its northern extremity receives the rivera Colorado and Gila.

Calk, to drive a quantity of oakum into the seams of planks, to prevent the entrance of the water. After the oakum is driven in, it is covered with melted piteh or resin, to preserve it from tho action of the water.

Callao, a fortified town of Peru, department, and six miles west of Lima, of which it is the port, on the Pacitle, in lat. $12^{\circ}$ S., long. $77^{\circ} 13^{\prime} 7^{\prime \prime} \mathrm{W}$. Population perhaps 20,000. It is generally well built ; lts castle, formerly very strong, has lately been diamantled, and is now used for a euston-house. Its roadatead, sheltered by the island of San Lorenzo, is the best on the Peruvian coast. It has a convenient quay, and communicates with Lima by a good carriage road, along which omnibuses now run daily. Customs revenue, about $\$ 1,000,000$. Exports consiat chiefly of bullion, specie, copper, cotton, bark, and hides: In 1841, 498 vessels, aggregate burden 101,034 tons, entered; and 494 vessels, burden 09,944 tons, cleared out of the port. In 1746 tho old town of Callao was deatroyed by an earthquake. In 1820, the Earl of Dundonald (then lord Cochrane) gallantly cut out the Eameralda, a large Spunlsh ship of war, from under the guns of the fort.-See lisha.

Calms, Region of. In the Atlantic Ocean, between the Trople of Cancer and latitude $29^{\circ}$ north, and on the confines of the trade-winds, between $4^{\circ}$ and $10^{\circ}$ north latitude, calms of long duration prevail; and hence these tracts nre ealled the calm lutitudet, or the region of ealms. In the latter tract, particularly, these perpetual ealms are accompanied by in suffocating heat, by thunder-storms and floods of raln, so that it is some-
times called the Rainy Sea. The only winds that occur are sudden squalls of short duration and extent. In these calma the provislons are corrupted, the deck seame open, and the atagnant air breeds disease. When a ship is in this position, if the current sets in toward rocks, and the eea ia too deep to caat anchor, her deatruction is almoat inevitable. In the Mediterranean, where there are no tides, dead calms are more common than in the open ocean; but they are often the presages of approaching storma,-E. A.

Calomel, a preparation of mercury, much used in medicine.
Calorio, the principle or matter of heat, or the aimple slemant of heat.

Cambric, or Cambriolx (Ger. Kammertuch; Du. Kamerykwdoek; Fr. Cambruy Batiste; It. Cumbraja; Sp. Cambrai; Port. Cambraia; Russ. Kamertug), a species of very fine white lines, firat made at Cambray, in French Flanders, whence it derives ita appellation. Cambrica were tirst worn in Engiand, and accounted a great luxury in dreas, 22 Elizabeth, 1580.-STowe. The importation of them was reatricted in $1745 ;$ and was totully prohibited by atatute of 82 Geo. $11 ., 1758$. Readmitted in 1786, but afterward agnin prohibited: the importation of cambrice is now allowed in Grest Britain.-Hayidn.

Camel (Fr. Chameau; It. and Sp. Camelo; Ger. Kameed; Arab. Djimel; Lat. Cumelus; Greek Ka ${ }^{\prime} \eta \lambda$ os), is indlgenons to Arabia, and we only mention it in this place on account of its extreme importance in the commerce of the East.

The camel is one of the mest useful of the animala over which the inhabitants of Asia and Africa have acquired dominion. These continenta are intersected by vast tracts of borning sand, the seuts of desolation and drought, so as, apparently, to exclude the posnibility of any intercourse taking pluce between the countries that they separate. "But aa the ocean, which appears at first view to be placed as an insuperable barrier between different regions of the earth, has been rendered by navigation subservient to their mutual intercourse ; ao, hy means of the camel, which the Arabians emphaticaliy call the Ship of the Desert, the most dreary wastes are traversed, and the nations which they diajoin are enalied to trade with one another. Those painfui journeys, jupracticable by any other anImai, the camel performs with astonishing diapatel. Under heavy burdena of 600,700 , and 800 pounds' weight, they can continue their march during a long periont of time, with little food or rest, and sometimes without tasting water for eigit or nine daye. By the wise ecenomy of lrovidence, the camel seems formed on purpose to be the beast of burden in those regions where lie is placed, and where his service is most wanted. In ali the diatricta of Asia and Africa, where deserts are most frequent and extensive, the camei abounds. This is his proper station, and beyond this the uphere of his activity does not extend fur. He dreads alike the excesses of heat and cold, and does not agree even with the mild climate of our temperate zone."-Ronertson's Ancient India.

The first trade in Indian commodities of which we have any account (Genebla xxxvii. 25) was carried on by camels ; and they stili continue to be the medium eimployed in the conveyance of merchanta and mer. chandise throughout Turkey, Persia, Arubia, Egypt, Barbary, and many contiguous countries. The merchants assemble in considerable nuubbers, forming themelves into an association, or caravan (see CaraVAN), for their mutual protection against the attacks of robbers, and the ciangers incident to a journey through such rude and inhospitable countries. These caravans are often very largo, and usually conaist of more camels than men. The capacity of the camel to endure fatigue, and the small supply of provislons that he requires, fs almost ineredible. "His ordinary hurden," says Volney, "is 750 poands; his food what-
ever la given him-straw, thistles, the stones of dates, beans, burley, etc. With a pound of food a day, and as much water, he will truvel for weeks. In the journey from Cairo to 8 ues, which is 40 or 16 heurs, they neither ent nor drink; but these long fasta, if often repeated, wear them out. Their usual rate of traveling is very slow, hardiy alove two milea an hour: it is in vain to urge them; they will not quicken their pace; but if allowed some short rest, they will travel 15 or 18 hours a day."-Voyage en syrie. The Arabians regard the camel as a sacred animal, the gift of ILeaven, without whose aid they could neither subsist, nor trade, nor travel. Ita milk is thelr ordinary food; they also eat its flesh, especially that of the young camel, which they reekon excellent; ita hair, which is renewed every year, is parily manufactured into stuffis for their clothes and furniture, and partly aent aliroad as a vainable article of merchandise; and even its feese serve them for fucl. Blessed with their camels, the Aralis want nothing, and fear nothing. In a single day they can travese 40 or 50 miles of the desert, and interpose Its trackless sanda as an impenetrable rampart het ween them and their foes. (See the admirable deacription of the camel, in Hupros.) But, however oseful to the inhabitants of parched, sandy deserts, it may be worth while, perhaps, to olserve, that the camel is of very little service elsewhere. He can not walk 100 yards in wet or slippery gronnd without stumbling. He is totally unknown in all hilly or woody countries; and, with few exceptions, may be said to be as great a atranger in the Eastcrn Islands, Japan, the southern parts of Chints the whole country lying bet ween China and india, und sli the southern parts of the lister, including Bengal, as he is in Europe. In all those vast countrics the ox is the most usefui of the lower noimais. It is used for draught (for which the camel is totally unfit), in the curt and plow, in the carrying of hurdens, in treading corn, in the oil-presa, etc., and finally as foot.
In 1855, Congress, in accordance with a recommendation of the Secretary of War, granted an approprlation for the purpose of importing and introducing the camei into the United States, to be used principally on the prairies end deserts of the Weat-the States of Texas and New Mexico especially. To cearry out tbis julun, an expedition, under Major Wayno, of the United States Artillery, and Lientenant Porter, United States Navy, visited tha Mediterranean, and purchased a number of camels and dromedaries, and conveyed them to Texas. A second expedition has just started, as the plan promises to succeed, and the plan wlll be tested on a larger scale. Emigrants have suffered much in their trains for the want of a burden animal that could do without water for a long time, and a great number of animais are annualiy lost on the plains with thirst.
There are now thirty-t wo camels, old and young, in the State of Texas, in charge of officers of the army. and forty more on their way to this country. Witi the natural increase, the experiment will thus he commenced with nearly a bundred of these "shijp of the desert." The War Department has the highest expectations of their avallability for the Iniand truvel on southern portions of this continent, and there can be little doulit of the justification of hin hopes. The route to the Pacillc offers better foraga for these hardy animals than they find in their own deserta; and as to climate, the Tartars use them on the steppes of Asia, in regions as inhospitalile as can be found on the Cadifornia route, except in mid-winter, when travel may be suspeoded. A correapondent of the Galreston Nerrs states that the Indians have never yet had a sight of these strange animala, and it is expected that the appearance of such ungainly creatures will cause, for a aeason at least, such terror to the red man as to prove a protection for caravans. The indians may get over this; lut, unless the horses of the prairies differ from their Asiatic cousins, they will require long training to learn to like the aspect of the camel. The Tartars

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who visit Chinese frontier towns and markets throw every thing into confusion. Horses fling, and bound, and break their halters to escape a creature to which they wlil not get accustomed. We happened once to see a couple of camels driven through a country viliage, and never were horses and muies Inspirited with mere ridicuious frlght than the farmers' naga were at this ungainiy apparition.

Camel, a machine, of Datch invention, for rajuing large ships so far above the water-line as to enable them to pass over the obstruction of a bar or shallow. It consisted of two large boxes, or half ahipe, which were applied to each aide of the huli of a large vessel, and from which a number of cables were paseed under the keel, and attuehed to horizontal windlasses on the deck of either haif of the camel. When the machine was to be used, water was allowed to enter, so as to sluk the two parta of the machine to the requisite depth; the ropes were then caat loose, and large leams were placed horizontaliy through the port-holes of the ship, with their ends resting on the camel on each side. When the ropes were made fast, and the ship properly secured, the water was pumped ont of the camel, which then rose and bore up the shlp along with it. By thle contrivance, East Indlamen drawing 15 feet could be made to draw only 11 feet; and ships of war carrylng 90 or 100 gans were enabied to pass the sand banks of the Zuyder Zee.-Deckmann's Hist. of Inventions, vol. iii. p. 338. This machine is also available for ruising sunken vessels.-E. B.
Camel's Elair (Germ. Kameelhaar; Fr. Poil de chamesu, Laine de chevron; It. Pelo di camello; Sp. Pelo i lana de cimello). The lhair of the camel lanported into this country is prineipally used in the mannfacture of fine pencila for drauing and painting. In the East, however, it is an important article of commerce, and is extensively used in the arts. It aerves for the fatiricatlon of the tents and carpets of the Arabs, and for thelr wearing apparel. Cloth is also manufactured of it in lersia and other places. Tho mort esteemed hair comes from Perala, divided into three qualities-luack, red, and gray. The hinck is the deareat, and the gray only worth half the red. Considerable quantities of eamel's hair are exported from Smyma, Constantinople, and Alexandria. It is used in the manutacture of hats, particularly by the Firench. -Rees' C'yclopedia, art. Camei.us.

Camelia, a very ornamental genus of plants, natives of China and Japan, belonging to the nutural order Ternstromincece. Many varieties of this plant are grown in England and Belglum, sometimes in the open air, but more generally in hot-houses. Though usually cultivated in pots, they are found to thrive best in open soil in a glass-house artlicially heated.

Cameo, a peculiar kind of onyx ; also a stone, on which are found various figures or representations of landscapes, a kind of lusus natura, exhibiting pleturea without puinting. It is of these camaieur that Pliny is anderstood to speak when he says of the manlfold pictures of gems, und the party-celored spots of precious stones, Cemmurum pictura tam maltiplex lapilunique tam discolores macule. Cameo is alao frequently applied to any kind of gem on which tigures are sculpturen, elther indentedly or in reiievo. The shell of large univalves is now much used for making cameos, the auhject being wrought on the onter or white layer of the shell, and the pink or hrown under one serving for the ground. Cameo is ulse naed for a painting of only one color, where the lights and shadows are of gold, wrought on a goiden or azure ground. When the ground is yellow the French call it cirage; when gray, gristaile. This kind of work is ehiefly used to represent basso relievos. The Greeks called such works $\mu_{0} \boldsymbol{\rho} \boldsymbol{\chi \rho} \omega \mu$ ага.-E. B.

Camera Lucida. Invented by Dr. IIook, alsout 1674.-Woon's Ath. Ox. Also an Instrument invented by Dr. Wollaston, In 1807.

Camera Obsoura (i. é. Vark Chumber), in Cpfice, a machine or apparatus representing ant artlficial eye, by which the images of external oljects, recelved through a doubie convex gians, are exhibited distinctly, and in thelr native colore, on a white matter placed within the machine, in the focus of the glass. The camera obscura affords very diverting spectacles, hy representing images perfectly like their objects, while at the same time it exhibite all their motiona. By means of this instrument, a person unacquainted whth desiguing inay delineate objects with the greatest ac-curacy.-E. B. The camera obscura, or dark chamiser, was invented, it is believed, by the celebrated Roger Bacon, in 1297; it was improved by Raptista Porta. the writer on natural magie, about 1500.-Moncri. Sir Isaac Nowton remodeled lt. By the recent invention of M. Daguerre, the pietures of the camera are renderod permanent : the last was produced in 1839.IIayde.

Camlet, or Camblet (Ger, and Du. Kamelot; Fr. Camelot; It. Ciambellotlo; Sp. Camelote; Rusa. Kanlot), a plain stuff, manufactured on a loom, with two treadlea, as linens aro. There are cainleta of various colors and sorts; some wholly of gouts' hair; others In whieh the warp in of hair, and the woof half halr and bulf silk; others, agaln, in which both the warp, and tho woof are of woot ; and, lastly, some of which the warp ls of wool and the woof of thread: some are striped, soine watered, and somo figured. The true Oriental camlet is made of tho hair of a sort of goat frequent about Angora, and which coostltutes the riches of that eity. Camlets nre now made in Europe. Writers of the Middle Age mention stuffs of camel's hair, under the denominations of camelctam and camelinum, whehce probably the term; but these are reprenented as coarse and rough, and seem to have been chlefly used among the monks by way of mortification, as the hair shirt of later times.

Camomile, or more properiy Chamomile, tho flowers of the Anthemis nobilis. The flowers have a white ray with a central yellow dlsk, and an aromatic bitter taste and powerful oclor. The infusion of the flowers is, when cold, a useful stlmulant, bitter or tonle; the infusion taken warm, however, acta as an emetic. The virtues reside in a volatije oll, and in a bister principle, which may be separuted from one another.

Camphor or Camphire (Ger. Kampfer; Du. Kamjer; Fr. Camphre; It. Canfora; Sp. Alcanfor; Russ. Kumfira; Lat. Camphora; Arab. and Pers. Küfoor; Mal. Kuy $\mathrm{fur}^{\prime}$ ). There are two deachiptions of this valuable article, which must not be confounded. 1. Camphor of Commerce, which is obtained by boiling the timber of a species of laurel (Laurus camphora) found in the foresta of Fokien, in China, near the elty of Chineliew, and in certain localities in Japen. Most of tho camphor imported Into Europe is from Chinn; but a small quantity, considered of superior quality, comes from Japan by way of llatuvia. The exports from Canton may be estimated at about 3000 piculs, or $400,000 \mathrm{llss}$. ; and if to this we add the experts from Batavia of Japan eamphor, amounting to about 500 piculs, the totai annual exports will be alout 466,000 Ibs. It is packed in chasts, drums, and casks; and is in small, granuiar, frialio masses, of a dirty white or grayish color, very much resembling half-refined sugar. When pure, the camphor of commerce has a strong, peeuliar, frugrunt, penetrating odor, and a litter, pungent, uromatic tnate. It is in renlity a concrete essentlal oil. Cauphor, when retined, is in thin hollow enken, beatifully whito, and, if exposed to the air, totaliy evuporates. Great care is, therefore, reguisite in packing camphor to prevent serious loss. 2. Camphor, Ifalag, commonly calied, to distinguish it from the last, camphor of Baros, from the port of Sumatra, where it is mostly shipped. It is a product of the Dryobalanops camphora, a forest tree confiner? to Sumatra, Borneo, and the Malay peninauia. It is

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found in concrete masses in the flssures of the wood there are, however, but vety few trees that afford it; and those thet do, o.lly in small quantities. This apecies of camphor is more frugrant, and less blting and pungent, than that yielded by the laurel, and is in high repute among the Chinese, by whom it is almost whel ly conrumed. There is an immente disparity in the pricea of the two apeclea in China; the fident Chinese camphor being sometimes quoted at $\$ 30$ per picul, while the Malay eamphor is quoted at $\$ 30$ per eatty, making the price of the latter 100 timea greater than that of the former! Mulay camphor is wholly unknown in this eountry as an article of trade.

Camphor Oil (Malay; M/inyak), a fragrant essental oit, obtained in large quantities by heating the wood of the Iryobalanops camphora. It is nearly as cheap as spirita of turpentine, but is not held in any esteem by the Chinese. It might, perhsps, be profitnbly imported as a aubatitute for spirits of turpentine in the arta, and for medicinai purposes. We nay add, that the timber of the Dryobalanops camphora is not inferior to any prodnced in the countries where it grows, for the purposes of house and ahip builling Private information, and Crawfund's Indian :Itr. pel:(y).

Cam-wood, a red dyewood, firat brought to Europe from Africn ly the Portuguese. It is principally ohtained from the vieinity ef Sicrra Leone. The coloring muiter which it affords differs but little from that of ordinary Niearagua wood, either in quality or quantity; and it may be employed with similar mor-dants.-Banchoft on Colors.

Canada. This extensive tract of country, and most important colony of England, may be tescribed as a great belt of territory stretching from the centre of North America to the shores of labrador, and from the waters which flow into the Northern Ocean to the parallel of Pennsylvanis, in the United States. Its extent from east to west is computed at about 1400 miles, and from north to south at from 200 to 400 miles. Its precise geographical limits are between the parallels of $41^{\circ}, 71^{\prime}$ and $50^{\circ} \mathrm{N}$. lat., and letween the meridian of $57^{\circ} 50^{\prime}$ and $117^{\circ} \mathrm{W}$. long. Canndn, Jying diagonally along the frontier of the United States, from northenst to southwest, and possessing an Inlund navigation along its entire border, i.l a eeries of fakea and rivers unrivaled for extent and grandeur, han, especlally of late years, heen making such rapld jrogreas, that it promises soon to become, in conjunetion with ita alster IIritish provinces, a power of irst-class importance, commrercially and politieally. The entire surface of the present terrltory of Canads, exclualve of its grent waters, has lieen estimated at $196,000,000$ neres, or bet ween two and three times the size of त́reat Britain and Irelund. This sountry, formerly divided Into two provinces known an Ipper and Iower Cansda, was is 1841, by an act of the Imperial Parllument, constituted one province, with one Legisluture. Although sow united, bowever, for legislative and other purposes, the country will mogt probaily continue to be viewed and spoken of under lta formerly recognized divisions of Upper and Iower Cannda.

Canula may be anid to comprise one vast valley, throngh which the great Rlver St. Lawrence takem its course, isaning from lake Superior and fowing successively through Iakea Iltron, Erie, ond Oatario, until it falls lato the ocean after a course of $\mathbf{2 0 0 0}$ millen. This immense valley is on each side encomparsed by diffrent mouniain ranges, sometines nearly approaching the water, nui at other thes receding into the interior, and thus forming exiensive plaina, for the most part alluvial, and nuitabie fur nearly every deserijution of prodisee. The high table-lund along the northern boundary of thas valley separatea the atreams which toke their rise wlthin it and flow into ita busin from those that take their rise in the almost unknown territory beyond, and whleh fall Into Hudson'a llay. The
high land along the southern boundary of the valley separates the atreams whieb flow northward Into its basin from those that have thelr course southward toward the Atlantle and Mississlppl. Commencing at tie northern ohore of the St. Lawrence, toward the mouth of that river, whrie the width is 90 miles, we find oue of the walla of thia vaat valley which constitutes Canada rising boldly in mountaineus form, close to the river, and continuing thus to form ita rugged bank for upward of 100 miles. One of the most remarkalle of the heights of this northern lank is Cape Tourment, overhanging the very brink of the river, and somewhut prepering the voyager for the still bolder and more magnifieent grundeur of Cape Damond, the Gibraltar of Ameriea, which risea to a height of 400 feet, and is crowned hy the citadel of Quebec.

The city of Quehec, here elinging around the rocky steeps of Cupe Diamend, and overlooking one of the noat magniticent harbors in the world, la situate on the northern bank of the 4 . Lawrence, and ahout 400 miles from the mouth of that river. The view from the citadel presents on every side a country with fcutures of jeeuliur and striking grandeur. Immediately . poaite Quelsec the St. Lawrence contracts to about half a mile in width, with bold rocky banks on elther ide. Tho northeru or Cape Diamond alde, being much the bolder of the two, coinmands a view of the wide stretch of table-land extending beyond the southern bank, the vast plains presenting for leugues upon leagnes their dark masses of forest, with houses and eultivatel tields interspersed, until the distant mountains of the States of Maine and Vermont bounl the view. The northern shore prenents a wilder und inore rugged aspect. From the heights of Cape Dhumond the sjectator aurveys bold ranges of hilla fringing the northern borizon, und forming the beundaries of almust unexplorel territories beyond.
Al:ont 30 miles below Quelise is Crpe Tourment, to which, in our upward progress, we hind traced the roeky northern hank of the rivet. Here the ridge, takiry a direction west-southwest, terminutes on the River Ottawa, about 120 miles aheve its confluence with the St. Lawrence, thus extending westward from Cape Tourment along the course of the St. Jawrence about 800 miles. Tho tract of country y ying hetween this ridge and the St. Lawretace, wifh may lis estimuted at from 15 to 80 miljca is breadth, is heautifully picturesque, well watered, level, nud fertle. "his portion of Cansala, n reteli!ng along the northern shore of the river, from below Quebee uprurd to Montreal, in distance of about 200 miles, rind thence along the banks of the neautlful Ottawa, may he considered, especially toward its upper and weatern extremity, one of the choicent parta of the country.

The terriony lying heyond this ridge is internacted by another and higher range of monutnins, which runs into the interior ln a nortiwest direction, at the diatance of about 200 milies from the other, and furms the witer-ahed between the trlhutary st.eums of the St. Lawrence and those that fall into Iludson's Buy. 'Ihis territory may ho sald to le only one great wilderness of forest, whose solitndes are as yet unexplored, and only ocensloantly traeked ly wandering hunters.

Glancing at the south alore of the St. Lawrence, a ridge commences nenrly 100 miles lichow guelec, which, passing rpwaril In a aouthwest direction, njposite that city, at a diatance of $\mathbf{0} 0$ milles from the rlver, crosaes tho bound.ay line lietween Conath und the United States, and finally alopes down to the River IIndson. Ileyond chis ridge, at ahout the dilatume of tho miles, is nother ant' a higher one, which commences at Cape linaicre, the hold hradlanal at the moutio of the St. Jawrence, and, running for aliout 400 milles in a difectlon nearly $p$ :nllel with the river nud with the other ehain, terminatea upon the eastern i, ranch of the River ('omerticut. This forms the divilling ridige ine tween the tributary atreams of the St. Lawrence and
if the valley card lnto jts uthward toamencing at toward the 90 milles, we thich consti8 form, close ite rugged the moat reank is Csp of the river, he still boldpe Niumond, a helght of Quebec. nd the rocky $g$ one of the s situate on nd ahout 400 le view from ry with featImnediately cets to atiout iks on either , being much of the wide the southern eagues upon 1 houses and stant mountit bound the ler and more pe Diamond fringlig the ries of almost

Courment, to $d$ traced the e the ridge, nates on the $s$ confluesice st ward from it. Law remee Ing between may to estis beantifolly rtile. This rthern shore to Montress, re along the nsidered, estremity; one

- Intersacted , which runs , at the diahd forms the has of the St. - Bay. This. wifleruess iplored, and wuters - Lawrence, ow Quelec, irection, opr es from the Cunata and to the Niver distance of commences e mouth of 100 miles in nd with the anch of the ig ridue le. wrence mud
those which flow toward the At'antic Ocean, and sep-1 arates a portion of Canada from the ter ritory of the United States. The general charmeter of the country slong thie south side of the river, from Cape Zozicre upward, to within about 100 milles of Quehec, where the lesser ridge commences, is somewhat rugged and mountsinous; but there are many fertile parts near the river which are populous and well cultlrated. On the south side of this main ridge, down to the shores of Gasps and Chaleur Bay, tha country is mountainous, but interspersed with level and fertile spots, some of which are under cultivation, especially along the coast, where the inhabitants are principally dependent on the fisheries. The country for 100 miles below Quabec, and extending to the River Chsudiere, a fow miles above that city, has much of the broken and billy character which it has farther down tho river, but with extensive tracts of excellent land. This portina, ss well as for a distance of above 100 miles farther down along the banks of the river, is a succession of settlements. Between Quebec and the lower ridge of mountuin-land already meutioned, the country presents a fertile plain, bruken by a few insulated hills covered with trees to their summits. It is well setthed, and a considerable portion of the land cultivated. The country atove Quebee, stong the south sido of the St. Lawrence, to the line $45^{\circ}$ of N . lat. (which is the southern boundary of Lower Canada), may be characterized as one extensive and fertile plain, in parts agreeatly broken and undulating. N. ach of it is covered with populous and prosperous settlements. As it lies contiguous to the United States, and embraces soms of the principal points of communlention hotwen the two territories, it is at present, and bids fair to conthne to be, the most flourishing portion of this lower division of Crmada.
The city and $\mathrm{l}_{\text {oinnd }}$ of Montreal, situated in Lower Cauad, and inmediately below the confluence of the River Ottiwn with the St. Lawrence, muy he sald to form the chief connecting link between the lower and upper provinces. ' Being about 180 miles sbove Quebec, and Quebee being itself about 400 miles up the river, Montreal is thus oltuated nearly $\mathbf{6 0 0}$ miles in the interior of Canada.
"The Lanks of the St. Lawrenco are here presented otretehed out into smiling plains of most luxuriant sppearance, in mitst of which, and forming a main fenture, is the garden-islund of Montreal-jroduciag grain and frult, especially some descriptions of the latter, in perhaps greater perfection than in any other part of the country. The slze of this island is 82 miles in length and about 10 in broudth, upon which is situatel the eity, covering nbove one thousand aereswith its quaint inixture of Engilish, American, and old French architecture, in its streets, shops, English, American, and Scotch churehee, French cathedrala and spiter, and ancient convents. Rislng frori., aid forming a sheltering background to the elt, on the north, is 'The Monntain,' as it is called, thickly wooded to the summit-an elevation of between 500 and 600 feet, commanding a nungnificent vlow of the pleturesque mid laxuriant country around, the expanse of the St. lawrence, and the bold mountaln acenery in the distalice. Along the substantially-built atone wharfe skirting the south of the town, and toward the broudest channel of the river, lio thirongs of shlps, barges, and ateam-vessels, londing and unlouling the naturaj products of the interibr, und the manuficture end other merchandise of Ibritnin. Montreal, situated alnut 600 milles up the St. Lawrence, forms the hend of navigation for the large elass of ocean vessels, and is the maln polnt at which the produce of the interior arrives, In steamboata, screw-propellera, and barges, for reshlpinent on board of the Atlantle vessels."

Ocenn veasela may now, however, by recent improvements of the internal navigation upward through the great lakes, proceed with their cargoes many hun-
direds of milee farther into the interior; then opening up to Canadu not only the fertile regions of her own most westerly districts, but the famous Far West of the United States, etretching even to the territorien of the Mlssissippl; snd It may be at no remote period to the yet dlstant shores of the Pacifle.

Cpper Canada.-We will now briefly describe the leading features of Upper Canada. This division of the cenntry, er nmuncing about 80 miles up the St. Lawrence from Montreal, upon the north side of the river, extends for about 100 miles farther slong this shore of the river to the eity of Kingston, at the foot of Lake Ontario, and thence along the north shorea of the greut lakes Outario, Eric, St. Clair, Huron, and Superior, with their connecting rivers or straits, and stretching to the head waters of the streams which flow into Lake Superior. This great stretel of territory, with its almost unsurpassed extent of inland coast navigation, extends from $74^{\circ} 80^{\prime}$ to $117^{\circ} \mathrm{W}$. long. The grand course of navigable waters directly inland through Cangda, by the St. La wrence and grest lakes, may be safely stated to exceed 2000 miles. The coast of the lakes alone has been.estimated at upward of 5000 miles. The shores of this great valley, through which these waters tako their course, embruce a country which has been styled " the Garden of North America." It hus alreudy in our own duy presented an increase in population, and in agricultural and commercial wealth, so wonderfully rapid as to be unprecedented in history. Upper Cansila, thus so fuvorally situated-comprehending one side of tha entire upper portion of tho great valley of the St. Lawrence-is bouncled on the south by the territories of the United States, on the north ly the 11 udson's Bay Territory, and on the esst by Lower Canada, while to the west extends that vast truct of country within British dominion, but as yet in a comparstively primeval state. and most generally known hitherto as the Northwest Indian Territory:

That portion of Upper Cunada which has been ret apart and divided for settlement, extends from its extreme ecatern point, where it leaves Lower Canadn, 80 miles abova Montreul, and raaches aloug the northern shore of the St. Lawrence, and upward along the lakes to the shores of Lake II uron-a direct conrse of about 700 miles. This breudth of settled country toward the north may be said to vary from 50 to 80 miles. Throughout the whole of this tract the soil is excellent, and is not aurpassed by any other part of the American continent. It consista, generally speaking, of a fine dark loam, mixed with a vegetuble mould. but it is in a great nesasure so varled as to present solls adspted to almost every rpecies of produce. From the commencement of Upper Cansila to the head of the Bay of Quinte, on Lake Ontario, the land is spread out into an ahmost uniform levei of great benuty, which rises only a few fect from the banks of the St. Lawrence. It is in every direction wesi watered by numerous streams, which are generally navigable for boats and canoes, und at the same time present the most desirable situntions for the erection of machinery. Farther into the interior, ulong the conrse of the grent streum of the Ottawa, which flows into the St. Lawrence a ahort dlatance above Montresi, and thetween the O'tawn and Lake Ontario, the face of the country-whleh we have notical us being apreal ont into n plain so attractive-is, in parts, heru diversified by rhigen and tolet heights, and also by numerous streams and Inlsud lakes. The Nhleun Canal, a work construeted by the imperial government for militury purposen, pussing through this purt of the interior, from the town of Ilytown, on the Ottowa, 120 nalles above Montreal, through the country to Klngaton-a distunce of 135 milen-Is almost one continued chnin of uatural lakes and streams. The chief link of these waters is kidean lake, 24 miles in length, forming the aummit level of the canal, and beling 280 feet abovo
the level of the Ottawa River, and 150 feet above Lake Ontario. Lake Ontario, which racelves the waters of the upper lakes from the Nlagara River, and dlacharges them Into the St. Lawrence, nearly $\mathbf{8 0 0}$ miles from the mouth of thut river, may be said to be the firat link in our upward progress of the chaln of great lakes which so distingulsh Canada, and confer upon the country unsurpassed means of internal communlcation. The height of this lake above the sea is 232 feet. It is 180 miles in length, 50 miles in breadth, and 470 miles in circumference. While tho shores of thia lake present the most populous and prosperous parts of Canadn, the lake itseif is believed to be the safest of the three lower lakes for the purposes or navigation. It possesses several excellent harbors; and from its great depth of 500 feet, compared with the two lakes abjve it, it is not so easily moved by storms as Lako Erle, while it is quite exempt from the shallows, or flats, as they are called, of Lake St. Clair.

There are several pretty large lelands scattered over the lower extremity of Lake Ontario, one of which, Amherst laland, is abont 10 miles in length ant 0 in breadth. One of tho most fertile and beautiful portlons of this lake is the magnificent iniet of the Bay of Quinte, commencing near the clty of Kingston, at the foot of the lake, and forming a opacions indentation of sbout 70 milics to the mouthe of the rivers Trent and Moirs. The shores of this bay are more diversified and pleasing in their features than thoog of the great lake itaelf, whose Indian name, "Ontarif," signifies the Beautiful. Lako Ontario is never frozen over, and throughout winter steamboats frequently run across tho npper part of the lake from Toronto to Niagara when the westher is finc. All along the north shore of Lake Ontario, a distance of 180 miles, one extensive fertile plain presents itself, now and then agreeably sloping to the very edge of the lake, and bearing evidences of successful cultivation end progress. Several thriving towns are growing up rapidly along the shores of Ontario, the chief of which are, Kingston, st the foot of the lake; Toronto, 35 miles from the head; and Hamilton, at the extreme head. Toronto, which is very finely situated, tpresiing over a wide and gentiy rising piateau, and in a protected part of the lake shore, is the largest city of Upper Canada. The generaliy lovel atretch of wellcultivated plain which forms this northern ehore of Lake Ontario is only partially broken by an Inconsiderable ridge which runs through it, and which, coursing around the rasd of the lake, and crossing into the United States at the Falls of Nisgara, forms the commencement of the exiensive and fertile table-iand which atretches westward from Lake Ontario, and, situated between Lakes Erie and Huron, forms the great western peninsula of Upper Cansila. The eastern hourdary of this peninsula, thus aituated between these three great lakes, is the neck of lund of $\mathbf{8 6}$ miles between the shores of Lake Ontario, at Toronto, and Lake Simcon, which communieates liy means of the Rlver Severn with the Georgian Bay, on Iake Ifiron. The settled parts of this great peninsuia embrace about one-half of the settled parta of Upper Canedn; and It is eatimated to have at present a cultivated aurfice equal to about a fourth part of the cultivated aurface of Scotiand. This eettied and partially oceupied portion of the peninsula contalns upward of $9,000,000$ neres. The entire district has been atyled "the Garden of Upper Canada." "I am delighted to have meen this part of the country," sald the :ate Lord Sycienham, In recording his Impressions to a friend, after having visited thifs diatrict in the course of a tour which he performed in the capaclty of governor general of Ganada, In the auturra of 1840-"I am deligited to have seen this part of the country; I mean the great ilatrict, nearly an targe as Ireland, jlaced between the three lakes-Erie, Ontario, and Huron. Yuu can conceive nothing finer! The most magniffent soil in the
world-4 feet of vegetable monld; a climate certalnly" the best $\ln$ North America-the greater part of it audmirably watered. In a word, there is land erough and capabilities enough for some millions of people, and in one of the finust provinces in the worid."-E. B.

The number of acres held by the $19 \cdot 1,809$ occupierg of land in Canads is $17,987,148,9,283,333$ acres of which are in Upper Canada. The number of acrea under sultivation In Canada in 1852 was 7,308,241, the greater proportion of this cultivated land being in the upper provinces. The increasing quantity of cultivated land in Upper Canada is another of the gratifying proofs of the aubstantlal progrese of the country; and this increase of the area of cnitivation keeps full pace with the Increase of popnlation. In 1842 the population of Upper Canada, amounting to 486,055 , possessed $1,927,816$ acree of iand under cultivation; and In 1852 the population, which had increased to 952,004 , possessed an area under cultivation of $3,697,724$ acres. The proportlon of occupled lands in Canada under cultlyation, under crops, pasture, and used as gerdens ani orchards, and also in forest or wild state, were us follows:

| Land under cropa | $4 \stackrel{\text { Acrea. }}{347,639}$ |
| :---: | :---: |
| land under pastur | 2,80,064 |
| 1,and under gardons | 85,098 |
| Land forest or wild. | 10,633,907 |
| Total. | 17,967,148 |

Tho distribution of the land under crops, and the produce of these crope respectigely, were:

| Under | Acren. | Produce. |
| :---: | :---: | :---: |
| Wheat | 1,209,296 | Huaheh. <br> 15,76s,720 |
| Oxtr....................... | 1,012,108 | $50.161,488$ |
| Peas | 357,301 | 4,000, 584 |
| Potatoes. | 160,016 | 0,443,586 |
| Buckwheat | 96,046 | 1,160,501 |
| Maize. | 08,240 | 8,0016,500 |
| Rye.......................... | 84,976 | 821,094 |
| Barley | 72,843 | 1,204, 501 |
| Trurnips . . . . . . . . . . . . . . . . . . | 21,082 | 4,014,651 |
| Fallow and other crops ..... | 1,240,854 |  |
|  |  |  |
| Total produce of above spectifed crops. . |  | 68,820,37\% |

Besides these amounte of apecified produce from these $4,347,589$ acres of land under crojis, the Canadian farmers pussessed other crops, such as hay, clover, and grass seeds, carrota, mangel-wurzel, beans, hops, fiax, hemp, and tobacco. The quantity of tobacco prodined In Cunada in 1852 amounted to $1,253,128$ pounds; of this 764,476 pounds were the produce of Upper Canada; and the greater portion of which was grown along the shorea of the upper part of Lako Erie, and of the River Detroit, where the soil and climate seem best adapted for this description of crop, and where the furmers in those parts have had the best opportunities of receivIng the aervices of the colored or runaway alave population of the United Stutes, who have been accuatomed to the management of such proluce in the tolinece plantatlons of the South. The produce in tobacce of the two countles of Kent and Essex sione, sitisated in this southwestern point of Cunudu, amounteci lin 1852 to 760,300 ponnds.

The growth of hemp In Canarla assumes a position of grent national importar. ${ }^{\circ}$ at the present time, when Iritish supplies have beer oa aeriousiy checked hy the war with Ikusala. The Iniportant tawns upon the cast coast of Scotland, which are the chicf seats of tie flax trade, have suffered eeverely by the check received ly their dependence upon Russia for this great staple of a growing liranch of national manufuctures.

One effect of the Canadian Reelprocity Trenty has been to give business to the leading rallroads of New York and Massachusetts, and to reduce the import and export trade of Quebec; thus benefliting the towns of Canada West, while those on the St. Iawrence are irecomilig less and less the polnts of transhipuent. Thus the exports of Quobee in two years have decjlined
e certalnly rt of it ad. nd erough of people, Id."-E. B 9 occupiers 33 acres of er of acrea 108,241 , the eling in the $y$ of cultihe gratifye country; keeps full n 1842 the to 486,055 , ultivation creased to of $3,697,724$ in Cansda nd used as wild state,
one-third, and the imports in the same ratio; waile at Toronto the exports have nearly doubled, and the imports have increased twenty per cent, between the years 1853 and 1855. The exports and imports of the leading towns for the years 1853, 1854, and 1855 are as follows:

| IMPOMTAYIONE. |  |  |  |
| :---: | :---: | :---: | :---: |
|  | 1888. | 184. | 188. |
| Qucber......... | 21,141, 505 | 21,754,320 | 2732,056 |
| Moutreal. . . . . | . $3,881,540$ | 3,816,082 | 3,064,061 |
| Toronto........ | 1,165,066 | 1,362,760 | 1,401,454 |
| Empomta. |  |  |  |
| Quebec......... | 22, 43,453 | 22,611,707 | ¢1,558,702 |
| Montreal. . . . . | 1,883,723 | 572,514 | 475,656 |
| Toronto....... | -221,490 | 278,040 | 404,17\% |
| putirs ools icted. |  |  |  |
| Quebeo......... | $\pm 128,464$ | 2179,189 | 274,807 |
| Montreal....... | 440,162 | 478,603 | 810,219 |
| Toronto....... | 166,083 | 172,570 | 152,586 |

The Canadian $\mathcal{E}$ is equal to four dollars United States currency; the shilling being equal to twenty cents. Fomerly, all the importations into Canada were made vis Quebec, but the opening of the Atlantic and St. Lawrence Railroad, between Portland and Montreal, has developed a large and increasing import and export trude with Montreul direct. At the same time, the Reciprocity Treaty is the meane of facilitating, by s period of fifteen to twenty days, the delivery of goods at Toronto via New York, in lieu of Quebec. Tho export trade of the lstter is malnly products of the forest, grain, etc.

Exponts of Caxada yor the Yzar 1855.
Produce of the forest. . . . . . . . . . . . . . . . . . . . . . $£ 2$,
Froduce of the miness .............................. . . . 27,389
Produce of the sea, ............................... $\begin{array}{r}85,000 \\ 020,000\end{array}$
Value of sh|ps burt................................................000,000
Vegetablo foc. .....................................................
Msnufactures, produce, etc. . . . . . . . . . . . . . . . . . . . . . . . . 026,006
Totsi.
$4 \overline{25,050,325}$
The reduced businens of Quebec is further shown in the comparntive number of arrivals and tonnage at that port for the first ten menths of 1854 and 1855.

| Arrivala. | Vensale. | Tons. |
| :---: | :---: | :---: |
|  | $\begin{array}{r} 1276 \\ 665 \end{array}$ | $\begin{aligned} & 559,631 \\ & 341,901 \end{aligned}$ |

The value of exports from the United States to Conada for the liscal year 1852 -' 63 was $87,829,000$, excoeding these to any country, except Great Britain, France, and the Hanse Towis. Since then the trade with Canade has been increasing rapidly, and assumhog each year a greater importance to us.

Reciprocity Trealy between the U'nited States and Great Britain.-This treaty was coneluded and sigued by the reapeetive miniatera of the two governmenta on the bth of June, 1854. The following is a synopsis of it:

Art. 1. It is agreed that United States tlahermen shall have the privilege of taking tish on the sea-consts and shores, in the bays, harlors, and ereeks of Canada, New Brauswick, Nova Scotia, I'rince Edward's Islund, and the aljacent ialands, without being restrleted to any distanee fron the ahore; with permission to land on these coants and islunds for the purpose of drying their nuta and euring their flsh, provided thry du not interfere with any prior right of Dritish fisinermen. It is understood thint this Includes only sem-tish-shell-flsh, salmon, and shad theheries, and all river fisheries, are resorved exclualvely for llritish fishermen.

Art. 2. It is agreed that Britlah fishermen shall have similar privileges to take lish on the sea-coasts and shorea of the United Stutes nurth of the B6th parallel of lutitude.

Art. 3. It is agreed that the articles enumerated in the following schedule, being the growth and product of the uforemald IIritish colonien, or of the United States, shall be admitted into eael country free of duty:
Gratn and breadstuff of alt Manuroa,
kinds,

Animain of all kinde. Fresh, moked, sad salted meatig.
Seeds and vegstable:
Undrisd fuite.
Dried fruits.
Fish of all kided.
2roducts ot fish, and of all oth
or el satures dyving in the water.

## Poultry.

Egga
Hldce, furs, wiking, or talle, undressed.
Stons or marble in its crude or u' "rought stals.

## R19 Bit.

1, en
Lard.
1lorns.
Con.
l'itch, tar, turpeatine.
Ashes,
Tlmber and Lumber of all kinds- round, heved, and gawed, unmanufactured in wholo or in part.
Fire-wood, plants, shrubs, and trees
Pelta,
Wool.
Fish-011.
Fish-0
ittce.
Broom-com and bark.
Gypsum, ground or unground, Hewn, or wrought, or unwrought burr or grindstones.
Dye-stuffin,
Flax, hemp, aud tow, unmanufactured.
Cnmennfactured tobacco.
Lume
luge.

Art. 4. It is agreed that the citizens and inhabitants of the United States shall have the right to navigute the River St. Lawrence and the canals in Cauada used as a means of communicating between the Great Lakes and the Atlantic Ocean, with their veasels, boats, and crafts, as fully and freely ss the subjects of her Britannic majesty, subject only to the sama tolls and other assessments as are now exacted of Britith subjects.

Art. 5. It is agreed that British subjects shall have the right to navigate Lake Michigan on the same terms, as long as the Canada canels and St. Lawrence River are open.

Art. 6. It is agreed that no export duty shall be levied on lumber or timber cut on that portion of the State of Maine watered by the River St. John and its tributaries, and floated down that river and shipped to the United Statea from the province of New Brunswick.
The offect of this treaty, eepecially of Art. 3, has been to give a great impetus to the trade between the United States and the British possessions, especially Canada. This treaty has been and will be of great advuntage to both countries, promoting intercourse and extending comnercial relations.

Canal, Canals. A canal is an artificial channel, filled with water kept at the desired lovel by meana of locks or sluices, forming a communicatlon between two or more plares.

Ancient Canals.-The comparative cheepness and facility with which goods may bo conveyed by sea, or by means of navigable rivers, seem to have suggested at a very early period the formation of canals. The bestauthenticated accounts of ancient Iigypt represent that country as lutersected by camala conveying the waters of the Nile to the more distant parts of the country, partly for the purpose of irrigation, and partly for that of Internal navigation. The efforta made by the old Lgyptian monarehs, and by the I'tolemies, to construct a canal between the Red Sea and the Nile, are well known, and evince the high sense which they entertained of the importance of this specien of communiear tion,-Amellion, Comm. des Eyyptiens, p.76. Greece was too amall a territory, too much hintersected by arms of the sea, and subdivided into too many Judependent states, to afford much ssupe for inland nutigation. At. tempre were, however, made to cut a eanal neross tho lsthmus of Corinth; but thoy did nut ancceed. The Liumung didy not distiuguish themselves in canal navigation, Their agueducts, the stupendous rulus of which attust the wealth mad power of their fomuiern, wero intended to furnish suipilies of water to womo addjoinhig elty, mul nut for the cunveyance of vessels or produce,

Chinese Canals.-In China, eanals, partly for Irrigution and partly fur nuvigution, have existed from a very early periol. The must celebrated among then is the Imperial or Grund Camal, cummeneing at IIang-tchou, near the month of the Teling-tang-chlang rizer, in

es north, and, crossing the great rivers Yang-tse-Kiang and Hoang-ho, terminates at Lang-tIng, on the Eu-ho River, In about lat. $37^{\circ}$ N., long. $116^{\circ}$ E. The direct distance between the extreme llmits of the canal Is about 512 miles, but, Including its bends, it is above 650 miles in length; and as the Eu-ho, which is a navlgable river, unites with the Pel-ho, also navigable, an internal water communication is thus established between Hang-t chou and Pekin acrose $10^{\circ}$ of latitude. But, apart from Ita magnltude and utllity, the Grand Canal does not rank high as a work of art. A vast amount of laber has, however, been expended upon it; for though It mostly passes through a flat country, and winds alw, at to preserve its level, its bed is in parts cut down to a great depth, while In other parta it is carried over extensive hollows, and even lakes and morasses, on vat mounds of earth and stone. The sluices, which preserve its wuters at the necessary level, are all of very sinuple construction, being merely intended to elevate or depress the height of the water by a few Inches; as, exceptiag these, there is not a single lock or interruptlon to tise navigation throughout the whole length of the canal. It is seldom more than five or six feet in depth, snd in dry sessons is sometimes conalderably less. The vessela by which it is navlgated are sometlmes rowed, and sométimes dragged by men, so that the navigation ls for the most part slow. The canal is frequently faced with stone. The construction of this great work Is usually accribed to the Tartars, but the Chinese allege that it was merely repaired and renovated by the latter, and that It had been completed in the remotest period of their history.-Barnow'h Chima, p. 335, etc.; La Lande, Canaux de Navigation, p. $\$ 29$, etc.

Italian Canale.-The Italians were the first peoplein modem Europe that attempted to plan and executa canals. They were principally, however, undertaken for the purpose of irrigation; and the works of this sort executed in the Mllanese and wher; arts of Lombardy, in the eleventh, twelfth, and thirteenth centuries, are still regarded as models, and exclte the warm admiration of every one capalle of appreciating them. In 1271, the Naville Grande, or canal leuding from Milan to Abbiste Grasso and the Tesino, was renderen naviga-ble.-Yuung's Trarels in Prance, etc. vol. II. p. 170.

Dutch Cinnals,-No country in Europe contains, in proportion to lte slze, so many navh ble canals as the kinglom of the Netheriands, and par.icular'y the provInce of Holland. Tha constru' 'on or thene canalse mmenced as early as the twelfth century, v:hen, oving to Its central and convenient ituation, Flanders becan to be the entrapót of commerce between th" north and south of Europe. Their number has since been nstonishingly increased. "Hollend," says Mr. I'hillipa, in his Ilistory of Inland Navigutiun, "is intersected whih Innuinerable canals. They may be compared in number and size to our public roads and highweys; and us the latter with us are continually full of vehicles and hormemen going from and to the different citles, towns, and villages, so, on the former, tho Mellunders In tieir boats and pleasure barges, their treekschuyts, and vessels of hurien, are continnally joumeying and conveyIng commoditles for consumption or exportation from the interiar of the country to the great citles and rivers. An Inhabltant of Rotteriam may, by means of these canala, breakfast at Delft or the Hague, dine at. Leyden, and sup at Amsterdam, or return home again before night. Ity thom, also, a most prodigious Inland trade in carried on between Holland and every part of France, Flandern, and Gemmany. When the canals are frozen over, they travel on them with skates, and perform long journeys in a very ahort time, while beavy burdens are conveyed in carts and sledges, which are then as much used on the canals as on our atreeta. The yearly profitn produced by these canals are almont beyond telicf; but ithas been incontestably proved that they amount to more than $\mathbf{£ 2 5 0 , 0 0 0}$ for sbout $\mathbf{4 0 0}$ miliea
of inland navigation, which is $\mathbf{x 6 2 6}$ per mile, the square surface of which mile does not exceed two acres of ground; a proft so amazing, that it is no wonder other natlons should imitate what has been found so advantageona. The canals of Holland are generally 60 feat wide and 6 deep, and are carefully kept cleen; the mud, as manure, is very profitable. The canals being generally level, but few locks are required. From Rotterdam to Delft, the Hague, and Leyden, the canal is quite level, but is sometimes affected by strong winds. For the mest part, the canals are elevated above the fields or the country, to enable them to csrry off the water, which In winter inundates the land. To drain the water from Delftland, a province not more than 60 miles long, they employ 200 wind-mills in spring. thine to ralse it into the canals. All the canals of Holland are bordered with dams or banks of Immense thickneas, and on these depends the security of the country from Inundation; of course, It Is of great moment to keep them in tho begt repair; to effect wh; ! there is a kind of militia, and in every village is a magazine of proper stores, and men whose bnsiness it is to convey stones and rubbish in carts to any damaged place. When a certain bell rings, or the watcrs are at a fixed height, every man repsirs to his post. To every house or family there is assigned a certain part of the bank, in the repair of which they are to as sist. When a breach is apprehended, they cover the banks all over with cloth end stones."

Canal from A materdum to Nieredit $p$, near the Ihelder.The object of this canal, which is the greatest work of its kind In IIolland, and probably in the world, is to afford a safo and essy passage for large vessels from Amster. dam to the German Ocean. This city has 40 fect of water in the road in front of Its port ; but the pampas or thar at the junction of the $Y$ with the Zuyder Zee, 7 miles below, has only a depth of 10 feet ; and hence all slips of any considerable burden entering or leaving the port must unlead and load part of thelr cargoes without the bar. As the Zuyder Zee is every where full of sinallows, all ordinary means of improving the accees to Amsterdam were necessarily Ineffectuai; and the resolution was, therefore, at length adopted of centting a canai from the city to the Ilelder, the most northerm point of the province of Holland. The distance bet ween these extrame points is 41 English millea, but the length of the canal is sbout 50 . The breadth at the surface of tine water la 124 English feet ( 120 Kh Incland feet); the breadth at bottom, 86 feet ; the depth, 20 feet 9 Inches. like the Dutch canals generally, its level is that of the inighest tides, and It recelves its supply of water from the sea. The oniy lecks it requires are two tide-locks at the extremities; but there are, bealdes, two sluices, with flood-rates in the intermediate apace. It In crossed by ahout 1s draw-bridges. The locks and aluices are douthe--that is, there are two In the breadth of the canal; and their construction and workmanship are said to be excellent. They aro bullt of brick, for economy; but bands of limestone are interposed at intervals, and these project about an Inch beyond the brick to protect It from abrasion by the aides of vesacls. There is a broad towlng-path on each alde, and the ranal la wide chough to admit of two frigates pasaing. The line which the cannl follows may be earlly traced on a map of Holland. From the $Y$, at Amsterdum, It proceeds north to l'urmerend; thence west to Alkmaur Iake; again north by Aikmaar to a point wlthtn 2 miles of the coast, near Jetten; whence it runs nearly parallel to the coast, till it joins the see a little to the east of the Helder, ut the fine harbor of Nlewdlep, formed within the last 30 years. At the latter place there in a juwerful ateam-engine for supplying the canal with water during neap-tiden, and other purposes. The thme rpent In towing vessela from Niewiliep to Amsterdsm is 18 bours. The IIelder is the only apot on the aheres of Holland that has deep water; and it owes this sdvantage to lta being opposite to the Toxel, whin a by contract-
the square wo acres of vender other d so advanrally 60 fect n ; the nud, heing genrom Rotterthe caual is trong winds. d above the carry off the

To drain a more than Is In springinala of Holof immense urity of the of great moeffect whi: village is a business it to any dam$r$ the waters to his post. ed a certain cy arm to as y cover the
he Helder:th work of ita t, is to afford om Amster0 feet of waimpas or bar \&, 7 miles beall ships of fing the port withont the of sinallows, 8 to Amstere resolution a canal from point of the en these exength of the ce of the wathe breadth 8. Like the the highest on the sea. \& at the exluices, with is crossed sluices are h of the cahip are said recenemy ; ervals, and $k$ to protect There is a nal is wide

The line doll a map it proceeds naur jake; 2 miles of - paralifel to enst of the ned within is a juwwith water tine spent rdam is 18 sheres of hla advanty contract-

Ing the communication between the German Ocean and |the canal. This is a sufficient evidence of ita utllity. the Zuyder Zee to a breadth of about a mile, produces a current which scours and deepens the channel. Immediately opposite the Helder there are 100 feet water at high tides, and at the shallowest part of the bar to the westward there are 27 feet. In the same way, the artiftial meund which runs into the $Y$ opposite Amsterdatn, by contructing the water-way to about 1000 feet, keeps a depth of 40 feet in the port (at high water), while above and below there are only 10 or 12 . The catnal was begun in 1810, and finished in 1825. The cost was eatimated at $10,000,000$ or $12,006,000$ flerins, or shout $£ 1,000,000$ sterling. If we compute the magnitude of this canal by the chibie contents of its bed, it is the greatest, we believe, in the world, unless some of th Chinese canals be exceptions. The volume of water which it contains, or the prisme de remplissage, is twice us great as that of the Now York and Erie Canal, or the canal of Languedoc, and two and a half times as grent as that of the artificial part of the Caledonian Canal. In consequence, however, of the facility with which the Dutch canal was dug, and of the evenness of the ground through which it passes, the difficulties with which the engineer had to contend in making it wers tritling compared to those which had to be overcome in construeting the cunala now mentioned. We have not learned what returns this canal yields; mest probably it is not, at luast in a direct point of view, a prefitable cencern. Even in liolland, notwithatanding the lewness of interest, it would require tolls to the amount of $£ 40,000$ a year to cover interest and expenses; and so large a sum cun hardiy, we should think, be raised by the very moderate toils laid on the ships passing through it.-Sea Amsterdam, This, hewever, is net the only consideration to be attended to in estimating the value of a work of this sert. Its influence in promoting the trade of Amsterdam, and, indeed, of Holland, may far more than compensate for its cost. It is evident, too, that the imposition of oppressive tells would have effectually counteracted this advantage; that is, they would have defeated the very olject for which the canal was constructed,

Ianish Cancls.-The Iloldein Canal, in Denmark, is of very considerable importance. It joins the River Eyder with Kiel Bay, on the northeast cosst of Melstein, forming a navigable conimunication between the North Sea, a little te the north of Ifelligolind, and the Buitic; enabling vessels to puss from the one to the other by a short cut of about 100 miles, instead of the lengthened and difficult voyage round Jutland, and through the Cattegat nnd the Sound. The Eyder is navigatle for vessels not drawing more than 9 feet of water, from Tonningen, near its month, te Rendeburg, where it is joined by the canal, which cemmunicates with the Baltic at IIoltemm, abent 3 miles north of Kiel. The canal is abont 26 Inglish miles in length, laciuding about 6 niles of what is principally rive: navigation. The excavated pertion is 95 feet wide at tep, 51 feet 6 inches at bottom, and 9 feet 6 inches deep (Euglish measure). It highest elevation nhove the lovet of the sea is 21 feet 4 inches; to which helght vessels nre raised and let down by 6 locks or slulees. It la navigable by veasels of 120 tons bu;den, or more, provided they are construeted in that view. The totai coat of the eanal was about $£ 500,000$. It was opened $\ln 1786$, und has se far realized the views of its projectors, as to ennble consting vesaels frem the Danish blands in the Baitic and the east coast of llolatein, Juthund, ete, to proceed to IIaminarg, lloilind, Eagland, ete., in less time, and with much leas risk, than, in the ordinary course of navigation; they could have cleared the point of the Skaw; and eonversely with shipe from the weat. The amaller class of forelgn vessels, purticularly thone under the Dntch and Ilanseatic fluys, uavigating the Baitic and North Sean, have largely availed themaelves of the facilities afforded by this canal. About 8000 vessels pass annuaily through

It would, however, be much mere frequented, were it not for the difficult navigation of the Eyder from the ses to Rendshurg. The dues are moderate.-Coxe's Travels in the North of Eur,pe, 5th editien, vol. v. p. 239, where there is a plan of the canal; Catteau, Tableau des Eitata Danois, tome ii. p. 300-304; and private information.

Swedish Canals.-The formation of an internal navigation connecting the Cuttegat and the Baltic has long engaged the attention, and occupicd the efforts, of the peopic snd government of Sweden. Varieus motives conspired io make them embark in this arduous undertaking: The Sound and other cbannels to the Baltic being commanded by the Danes, they were able, when at war with the Swedes, greatly to annoy the latter, ly cutting off all communication by sea between the eastern and western provinces of the kingdom. And hence, in the view, partly of obviating this annoyance, and partly of facilitating the conveyance of iron, timber, and other bulky products, from the interior to the coast, it was determined to attempt forming an internal navigation, by means of th: Yiver Gothu, and the Lakes Wener, Wetter, etc., from Gottenburg to Soderkœping, on the Baltic. The firat and most difficult part of this enterprise was the perfecting of the communication from Gottenburg to the Lake Wener. The Gotha, which flows from the latter to the fermer, ia navigable, through by far the greater part of its course, for vessels of considerable burden; but, besidea others iess difficult to overcome, the navigation at the point called Trölhnetta is interrupted by a series of eataraets alout 112 feet in height. Owing to the rapidity of the river, the stubbern red grayite rocks ever which it flowa, and the perpendicular banks by which it ia bounded, the attempt to cut a lateral canal, and still more to render it directly navigahle, presented the most formidable obstacles. But undismay 1 by these, on which it is, indeed, most probable he had not sufficiently reflected, Polhem, a native engineer, undertook, about the riddle of last century, the Herculean task of constructing locks in the channel of the river, and rendering it navigable. Whether, however, it were owing to the all but insuperable obstaclea opposed to such a plan, to the defective execution, or deficient atrength of the werks, they were wholly awept away, after being considerably advanced, and after vast sums had been expended upon them. From this period, down to 1798, the undertaking was abandoned; but in that year the plan was propesed, which sheuld have been adopted at first, of cutting a lateral canal through the aolid rock, abont $1 \frac{1}{2}$ mile from the river. This new enterjrise was begun under the auspices of a company Incorporated for the purpose in 1794, and was successfully completed in 1800 . The canal is about 3 miles in length, and has about $6 \frac{1}{2}$ feet water.-CAttesiv, Tableau de la Mer Baltique, tome li. p. 77; Ondy, int his European Cummerce, p. 306, and 13at.mi, Abrégé de lo Geographie, p. 385, say that the depth of water is 10 feet. It has 8 sluices, nad admits vessels of ahove 100 tons. In one part it is cut threugh the solld rock to the depth of 72 feet. The expense was a gool deal less than might have been expected, being only about $\mathbf{\& 8 0 , 0 0 0}$. The Lake Wener, the navigation of which was thms opened with Gottenburg, is very large, deep, and encircled by seme of the richest of the Swedish provinces, whieh now possuss the inestimable ndvantuge of a convenient and ready outlet fer their products. As soon as the Trollizetta canal had been completed, there conld be ne roon for doubt as to the practicabillty of extending the navigation to Snderkcoping. In furtherunce of this ohject, the Lake Wener was joined to the Lake Wetter hy the Gotha Canal, whleh admits vesala of the same aize as that of Trollhwotta; and the prolongatien of the navigation to the Baltie from tas Wetter, partly hy two canala of equal magnitude with the above, and partly by lakes, has slnce been com-
pleted．The entire undertaking is called the Gotha Navigation，and deservediy ranks among the very firat of the kind in Europe．Besides the above，the canal of Arboga unites the Lake IIjelmar to the Lake Mae－ Isr ；and，since 1819，a eanal has been constructed from the latter to the Baltic at Sodertelge．The canal of Strcemabalm，so called from its passing pear the castle of that nume，has effected a navigable communication between the province of Dalecarlia and the Lake Mae－ lar，etc．－For further detoils，see，besides the authori－ ties already referred to，Coxs＇s Travels in the North of Europe，5th ed．vol．jv，p．253－266，and vol．v．p． 58－66；Thomson＇s Travels in Suceden，p．35，ete．

French Conals，－The first canal executed in Franee was that of Briare，342 Engliah miles in length，intend－ ed to form a communication between the Seine and the Loire．It was commenced in $1 \mathbf{1 0 0 5}$ ，in the reign of Ilenry IV．，and was completed in $16 \pm 2$ ，under his auc－ cessor，Louis XIII．The canal of Orleans，which joins the ．．Jove，was commenced in 1675．But the most stupendoua underaking of this sort that has been exp． suted in Frunce，or indeed on the contioant，is the ca－ nal of Languedoc．It was proje sted i ader Francis I．； but was begun and completed in the reign of Louis XIV．It reaches from Nurbonne to Toulouse；nid was intended to form a safa and speedy means of com－ munication between the Atlantic Ocean und the Medi－ terranean．It is 64 French leagues in length，and 6 feet deep；and has in all 114 locks and sluices．In its highest part it is $\mathbf{6 0 0}$ feet above the level of the sea． In some places it ia conveyed，by bridges of great lengtlı and strength，over large rivers．It cost upward of $£ 1,300,000$ ；and reflects infinite eredit on the engi－ neer，Riquet，by whom it was planned and executed． Besides this great work，France posseases several mag－ nificent canals，such as that of the Centre，connecting the Loire with the Saone；of St．Quentin，joining the Scheldt and the Somme；of Besancon，joining the Saone，and consequently the Rhone，to the Rhine；of Burgundy，joining the Rhonn to the Scine，etc．Some of thess are of very considerable magnitude．The ca－ nal of the Centre in about 72 English miles in length． It was completed in 1791 ，at an expense of about $11,000,000$ francs．Its summit level is shout 240 feet atove the level of the Loire at Digoin；the breadth at the water＇s edge is aloout 48 feet，and int hottom 30 feet； depth of water，bi feet；number of locks，81．The csnal of St．Quentin， 28 English miles in length，was compicted in 1810．The canal joining the Ihone to the lhine is tive most extensive of any．It atretcies from the Saone，a little above St．Joan do Losne，by Dole，Benaucon，and Muihouse，to Strasburg，where it joins the Rhine－a distance of ahout 200 English miles．From Dole to Vogeaucourt，near Montbéliard， the canal is principully excavated in the bed of the Douhs．It is not quite finisised．The canal of Bur－ gundy wiil，when completed，be about 242 kilometren， or 100 Euglish miles，in length；but ut present it is only navigable to the distance of about 90 kilometres． In addition to these，a great many other canala have been finished，while several are in progress，and oth－ ers projected．There is an excelient account of the French canala，in the Histoire de la Narigution Inte－ rieure de la France，by M．Dutens，in 2 vols．4to，and to It we beg to refer the roader for further detaila．Ile wiil find，at the end of this socond volume，a very inoull－ tifui map of the rivers nud canais of Franee．The rall－ roads now in the course of construction in France have， however，cherked the progress of eansla．We mayob－ serve，too，that tha state of the law in France is very unfavorable to tha undertaking and success of all great publie works；and we are inelined to attribute the comparative fowneas of canals in France，and the re－ cent period at which most of them have been eonatruct－ ad，to its influence．In that country，canals，docks， and such like works，are montly carried on at the cx－ peuse and for behoof of governmant，under the control
of its agents．No soape has been given to the enterpries of individuals or associations．Before either a road or a canal can be constructed，plans and estimates must be made out and laid before the Minlster of the Inte－ rior，by whom they are referred to the prefect of the department，and then to the Bureuu des Ponts et des Chnusses；and supposing the project to be approved by these，and the other functionaries consulted with re－ spect to it，the work muat after atl be carried on under the superintendence of some public officer．In conse－ quence of this preposterous aystem，very few works of thia deacription lase been undertaken as private spec． nlatious．And while not a few of those thegun by gov－ erument remain unfinished and comparatively useless， those that are completed have，as was to be expected， rarely proved protitable．There are some good re－ marks on this subject in the usnful work of M．Dupin， on the fiorces Cunmerciales of Great Britain．

Prussian Canald．－The I＇ruesian states are traversed by the great navigable rivers the Elbe，the Oder，and the Viatula；the tirst having its embouchure in the North Sea，and the others in the Haltic．The forma－ tion of an intermal navigation，that should join these great wouter－uvays，excited the attention of govermment at a diatant period；and this olject has been success－ fully accompliahed，partly by the rid of the secondary rivers fulling into the alove，and partly by csnals， In 1662，the canal of Muhlrose was undertoken，unit－ ing the Oder and the Spree；the latter being a naviga－ bie river failing into the Havel，also a navigaile riv－ er joining the Ellie near Havellourg．But the navigs－ tion from the Oder to the lilbe by this ehunnel was dif－ ficuit，and liable to frequent interruption；and to ob－ viate these defects，Frederick the Great construeted， toward the middle of last century，the Finnow Cunal， wtretching from the Oder，at Oderiourg，to the linvel， near Lielenwulde；the communication is thence con－ tinued by the latter and a chuin of lakes to llauen； from which point a canal has been opened，joining the Elte near Magdoburg．The lilbe being in this way connected with the Oder by a comparatively easy nav－ igation，the latter has been united to the Vistula，part－ ly by the liver Netze，and partly ly a cansl juining that river to the lirahe，whieh fain into the Vistuia near Bromberg．A vast inland navigation has thus been completrd，barka passing freely through the whole extent of the country from Jlamburg to Dantzic；uf－ fording the means of shipping the products of the inte－ rior，and of importiry those of foreign countries，either by the North Sea or the Baltic，as may be found most udvantageous，－Catteav，Tablema de la Mer Balique， tome ii．p．11－18．
Russian Canals，－The inland navigation of Russia is of vast oxtent，and very considerable importance．By means partly of rivers，and partly of canals，St．Peters－ hurg is connected with the Caspisn Sea．Goods are conveyed from the latter to the capital，a distunce of 7434 iniles，without reahipment．

Bavarian Comuls．－A grand canul，which was for a lengthened period in progress in havaiju，was com－ ileted in 1846，and promises to become of great puilic ntility．It extends from Dietfurth，on the Altminhi，a navigalle afluent of the Danube，to Hamberg，on the Mayn，a distance of $28 \frac{1}{2}$ Germun，or nbout 112 Englisin miles．It is on a large scale，nud lise cost utiove fl，000，000．This maguifleant undertuking，which enr－ ries an inland navigation through tho centre of liurope， and realizes the projeet of Charlemagne for uniting the Hack Sea with the German Ocean，is conducted liy a joint－stock compuny，with the assiatance of the llava－ rian government．Ilut the navigation of the Mayn and the Danube requirea to be considerably improved thefore this grand channel of communication nçuires all the importance which，most probatbly，it is deso tined to olbtain．

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ages that might reault to the fersign trade of the empire from so great a command of river navigation have been materisily abridged by the jealousy of the Turks, who command the embouchure of the river, and by the difficuities that are in some piaces incident to its navigation. Twe pretty extensive canals have been constructed in Hungary. Th.t called the Bega Canal is 73 English miles in length: it stretches frem Fascat through the Bannat, by Tameswar to Becskerek, whence vessels pass by the Bega into the Thelss, a littie above lts junctlon with the Danuhe. The other llungarian canal is calied after the Emperor Francis. It stretches from the Danube by Zamber te the Theiss, which it jeins noar Feldvar, being 62 Engilsh miles in length; its eievatlon, where highest, tioes net exceed 27 feet. Besides the above, the cansl of Vlenna establishes a communicatlon between that city and Neustadt. It is sald to be the intention to centinue this canal to Trleste; but however desirable, we doult much whether this be practicable. A railrosd has been made from Munchausen, on the Dumbe, to Iludwelss, on the Moldau, $n$ navigable river that falls into the lilie, which promises to be a highiy useful com-munication.- Bricirt'd Travels in IIungary, p. 246; Baloi, Abregd de la Geographie, p. 216.
Spanish Canals.-Newhere are cansis more necesaary, beth for the purposes of navigation and irrigation, than in Spain; but the nature of the seil, and the poverty and lgnorance of the gevernment, as well as of the peopie, oppese fermidable obstacles to thelr constriction. During the reign of Charles II., a company of Dutch contractors offered to render the Mancansres pavigabie from Madrid to the Tagus, and the latter from tisat point to Lisben, provided they were allowed to levy a duty for a certain number of years on t'se qeeds cenveyed by this channel. The Ceuncii of Castile twok this proposai into their aerious conslderaion, an $\$, after maturely weighing it, pronounced the singuia decision, "That if it had pleased God that these two rivers should have been navigable, he wouid not have wanted human assistance to have made them such; but that, as he has net dens it, It ls plain he did not think it proper that it shouid he lene. To attempt it, therefore, would be to vlolate the decrees of his providence, and to mend the imperfections which he deslgnedly left in his works!"-Clanke's Letters on the Spronish Nation, p. 284. But such undertakings are no ionger looked upen as sinful; and many have been projected since the sccession of the Bourbon dyansty, though fow have been perfected. The canal of the Eibro, hegun under the Emperor Charles V., Is the most important of the Spanish canals ; but it is only purtlally compieted, and during dry seasens it suffers from want of water. It runs paraliei te the right bank of the Ebro, from Tudela, in Navarre, to helow Sarsgosea; the intentlon being to carry it to Sastago, where it is to unite with the Eiro. The canul of Castile Is intended to lay open the country letween the Douro and ikeynosa, and to facilltate the conveyance of grain from the interior to Ssintander and ililibao. It passes by Vaiiadaidd, Pulencin, and Aguilar del Campes; a smaii part has been exceuted, atid is now in operation. A company has aiso undertaken, what the Dutch contractors formerly offered, to render the Tagus navigable frem Aranjuez to Lishon-the iree navigation of the river having been stipuinted at the Congress of Vienar. A preject for deepening the Guadaiquiver and seme ethers are aiso on foot.-Gsographical Dictionary, il. 710.

British Canale.-Owing partly to the rise of extensive manufactures and commerce in Grent Mritaln, but more, perlups, to the insulur situution of the country, no part of whieh is vary distant from the sen, or from a navigabie river, no attempt was made in England to censtruct canals tiil a comparatively recent peried. The etforts of those whin tirst begnin to impreve the means of internal navigution were limited to attempts
to deapen the bells of rivers, and to render them better fitted for the conveysnce of vessels. So early as 1685 , a project was formed for rendering the Avon navigable frem the Severn, near Tewkeslury, through the ceunties of Warwick, Worcester, and Gloncester, "that the towns and country might be better supplied with woed, iron, pit-ceal, and other commodlties." This scheme was approved by the principal nelility and land-owners in the adjolning counties; but tl. civii war having breken out soen after, the project was abandoned, and does net seem to have been revived. After the restoration, and during the earlier part of last century, various acts were at different times alitained for cheapening and improving river navigatien. For the mest part, however, thase attempta were net very successful. The current of the rivers gradually changed the form of their channels; the dikes and other artlficlal constructions were apt to be destroyed by inuudations; alluvial sand banks were formed below the weirs; in summer the channels were freçuently too dry te sdmit of being navigated, while at otiner periods the current was se strong as to render it quite impossitle te ascond the river, which at all times, Indeed, was a laborieus and expenslve undertaking. These difficultles in the way of river navigation seem to have suggested the expediency of elandoning the channels of most rivers, and of digging parallel to them artificial channeis, in which the water might be kept at the proper level hy means of locks. The sct passed by Pariament in 1755 for impreving the navigation of Sankey l3reok, on the Mersey, gave rise te a lateral canal of this descriptlon, about $11 \ddagger$ miles in length, which deserves te the mentloned as the eariiest effort of the sert in England. But before this canal had heen completed, the celebrated Duke of Bridgewater, and his equaliy celabrated engineer, tha self-instructed James Brindley, had concelved a pian of Inland navigation independent altogether of naturui channeis, and intended to affori the greatest facilities to commerce, by carrying canals across rivers and through mountains, wherever it was practicable to censtruct them. The duke was proprictor of a large estate at Worsley, 7 miles from Mifnchester, in which were some very rieh ceal-mines that had hitherto been in grest measure useless, ewing to the cest of carrying coai to market. Being desirous of turning hls mines to sems account, it eccurred to his grace that his purpose would be best accomplished by cutting a canai from Woraley to Manchester. Mr. Irindley, having been consulted, declared that the ocheme was practicable; and an act having been obtained, the work was immedlately commenced. "she principle," says Mr. PhIllips, "laid down at the commencement of this husiness reflects as much honor on the noble undertaker as it does upon hid engineer. It was resolved that the canal sheuld be perfect in its kind; and that, In erder to preserve the level of the water, it should be free from the usual obstruction of locks. But in accomplishing this end many difficulties were tleemed Insurmountatio. It was necessury that the canal should be carried over rivers, and many iarge and deep valleys, where it was evident that such stupendons mounds of earth must be raised ns would scarcely, it was thought by numbers, be cempleted by the lator ef ages; and, above all, it was not known from what source so large $n$ supply of water could be drawn, even on this improved plan, as would supply the navigation. But Mr. Brindiey, with a strengtil of mind pecuifine to hinaelf, and being possessed of the confidence of his great patron, centrived such admirable inachines, and took such methods to facilitate the progress of the werk, that the world soon began to wonder how it could be thought no difficult.

The success that attended the Duke of Bridgewater's canal stimulated pubitc-spirited indivlduais in other districts to undertake similar works. Mr. Brindley had early formed the magnificent scheme of joining
the great port of London, Liverpool, Bristol, and II ull, by a aystem of internal navigation; and theugh he died in 1772, at the early age of 56 , he had the aatisfaction to see his grand project fal a fair way of being reallzed. The Treat and Mersey, or, as it has lieen more commonly termed, the Grind Trunk Canal, 96 miles in leagth, was legan in 1766, and completed in 1777. A wate: communication between IIull and Liverpool was thus completed; and by means of the Stafferdshire and Worcestershire Canal, which joins the Grund Trunk near Haywood in the former, and the Severn near Stourport in the latter, the same means of communication was extended to Briatol. During the time that the Grand Trunk Casal was being made, a canal was undertaken from Liverpool to Leeds, 130 miles In length; another from Biriningham to the Stafforishire nud Worcestershire Caunl, joining it near Wolverbamy. '; and one from Birminghn to Fazely, and thears to Covintsy. By can a rtabequently undertaken, communieation was formed between the Grand Trun's Caual and Oxford, and cousequently, with London, coinjleting Jriudley's magnificeut scheme. In 1792 the Grand Junction Canal was begun, which ruas in a pretty struight line from Brentford, on the Thames, a hittle above the metropolis, to Hrannston, in Northamptonshire, where it unites with the Oxford and other central cannls. It is about 00 miles in length. There is also a direct water communication, by means of tha River Les navigatlon, the Cambridge Innction Canal, otc., between London and the Wash. In addition to these, an immense number of other canals, soma of them of great magnitude and importance, have lieen eonstruc ${ }^{\wedge}$ d in different parta of the country ; so that a command of intemal uavigation has been obt vined, unparalleled in any Liuropeas country, with the exception of Holland.

In Scotland, the great canal to join the Forth and Clyde was begun in 1788, but it was auspended in 1777, and was not reaumed till after the close of the American war. It was finally completed in 1790. Its total longth, including the collateral cuts to Glasgow and the Monkland Canal, is 381 miles. Where highest, it Is 150 feet above the level of the sea. It is on a larger scale than any of the English canals. Its medium width at the surface is 66 , and at the hettom 27 fect. Originally it was about 8 feet $G$ inches deep; but within these few yeara lits banks have been ralsed, so that the depth of water is now about 10 feet. It has in all 39 locks. In completing thia camal mary serious difticulties had to be encountered. These, however, were all auccesafully overcome; and though anprofitable for a while, it has for many yerrs past yielded a handsome return to Its proprietors, the dividend having latterly been ahout 20 per cent. on the original steck. Swift beats on the plan of thoes subsegu itly deseribed were astablished on this canal in 185́s.Ses Cleland's Statistics of Jlagonv, p. 170, etc. The Lnion Canal joins the Fortil and Clyde Canal near Falkirk, and stretehes thence to lidiaburgh, beIng 31 f miles in length. It is 40 feet wide at the top, 20 at the bottom, and 5 deep. It was cempleted in 1822. But It appears to havo been on extremely illadvised undertaking; se much so that its proprietors have sold it, at a heavy loas, to the Edinburgh and Glnogow lnilway Company, whe employ it in the conveyance of coal and other heavy goods. A canal intended to form a communication between filoggow, Paisley, and Ardrossan, was cemmenced in 1807 ; but only that portion connecting Glaagovy with l'aisley and the village of Johustonn has hitherto been finished. Thls part is about 12 milles long; the caual being 30 feet hroad at top, 18 at bottom, and $4 \frac{1}{4}$ deep. It $w$ as here that the experlmenta were erigimally mate on quiek traveling by conala, which are sald to have demonstrated that it was praeticatle to limpel a proper-ly-constructed boat, carrylng pasaengers and goods, along a canal at the rate of 9 or 10 milea an hour, with-
out Injury to the banks! The Crinan Canal across the peninsula of Kintyre, admitting vessels of 160 tons burden, is 9 milea in length, and 12 feet $\ln$ depth. The Caledonian Canal is the greatest undertaking of the sort attempted In the empire. It atretches southwest and nurtheast acresa the island from a point near Inverness to another near lort William. It is cliftly formed by Loch Ness, Loch Oich, and Loch Lor by: The total length of the canal, including the laked, is 601 miles; but the excavated part is only about 23 miles. At the $8,1 m m$ it $t$. la $96 \frac{1}{2}$ feet above the level of the Western Ciean. It is mostly constrncted upon a grand scale, weing intended to be 20 feet deep, 50 feet wide at bottom, and 122 at top; the locks are 20 feet deep, 172 long, and 10 liroad; and had it tieen wholty executed as vis winally intended, frigates of 32 ar: 17, aut l: ant ips of 1000 t wa burden, wight
 th er ely or thexpense of gevernnient, from Telerai. $\qquad$ is entire cost amounted, exclusise vi intwe k, was lie lnt May, 1858, tu $£ 1,347,780$. It would $a_{i}{ }^{\prime}$ (ext, how ene to have been projected without due considerittle", und caas been a most unprotitalle speculation. The revemuc of the canal amounted. in 1852-53, to only $£ 8889$, whereas the expenditure during the same year amounted to $£ \mathbf{5 2 9}$ ! Hut this is not all. Owing to a wish to lessen the expeuse, ond to hasten the opening of the canal, paris of it were not excavated to their proper depth, while others wete executed In a hurried and Insufficient manner. Hence the canal does not really arhuit vessels of above 250 or 300 tons burden; and previonsly to steam-tugs being provided on the lakea, they were frequently delayed in making their passage across for a !engthened jeriod. During 1837 and 180, the works sustained considerablo danage ; and the reader need not be surprised to hear that it was gravely debated whether it weuld not fie hetter entlrely to break up and abandon the canal! There was naturally, however, an extreme disinclitation to destroy a work which, how inexpedient soever oripitally, has been executed at in enornous expenee; and various schemes have been suggested for relieving the public from the expense of keeping it up without involving its teatruction. Aroug others, it has tieen proposed to assign it to s joint-storv company, on their agreeing to complete the werks and keep them in repair; and an act authorizing such transfer was passed in 1840. But hitherto it has not beco found possibile to dispose of the canal in than way; und Parliament has since voted large sums for the purtinl repair of the works, which, though a goed deal impreved, will every now and then require fresh outlays. Nome other canals have been projected and completed in different parts of Scotland. Of theae the Monklund Canal, for the supply of Giaggow with ceul, has leen the most successful.

Irish C'annls.-Varieas canals have beer undertaken In Ireland, of which the Girand Canal sud the Koyel Canal are the principal. The Grand Canal was licgun in 1765, by a body of aubseribers; but they coutd not have completed the work without very large advances from govemment. The cansl commences at Dublin, aud stretches in a westerly direction, incliniag a little to the routh, to the Shannon, with which it unites near Janagher, a dintance of 85 stutute miles, and thence on the weat side of the river to Jiallinasloe, 14 miles. Hut, oxcluklvo of the min truak, there is a braneln to Athy, where it joins the Jharnow, a distance of shout 27 mlles ; and there are branchea to PortarIlngton, Mount-Mellick, and nome ofher places. The total lencth of the canal, with lta varicias brancles is ahout 164 English milea. Its summit elovation is two hundred feet above the level of the sea at Dublin. It Is 40 feet wide at the surface, frem 24 to 20 feet st lnottom, hes six feet water, and cost in ull abvve £2,000,000.

Ameri tinguiahe taken, an ecating, extendln seription Mant igation, ghout 50 The head is 10 mill

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 tinguished by the arirlt with which they hava undertaken, and the perseverance they have displayad in executing, tha most aagalficent plans for ianproving and extending internal navlgation. The following is a dascription of the principal canals at the United States:
 igation, partly natural and pe '" artificlal, extend" shout 50 mifes from Portland, $10 \% \%$. to Sebuge Lake. The head of the canal is at the er.s. Lot $g$ Poud, which is 10 miles in leagth.

New Youk. -This Stata has th. most extended and important system of canals, coun cting tl.e suigation of the II udson Piver with that ese great 1 akes, and Lako Champlain, Delaware, $s: 1 \perp$ Alleghany Rivers. Champlat a is eg mile in length, 40 feet wide it tho suriace, $2 \dot{c}$ fest at the bottom, and 4 foot in dentt. and cunnecte Albany, on the Hudson River, with Wiltehall on Lake Champlain.

Inyortant Connection of New York Canals.-The Lateral Caual, connecting the canals of New York State with the hend waters of tha Alleghany River, has just been linished to lts terminus at Olean, on that rlver, in Cattaraugas coaniv, New York. From thence it extends to the Geneaee Canal, on the Genesee Miver, in Alleghany county, New York, which runs north to Rochester, where it commands the trade of Lake Ontarlo, and, connecting with tha Erie Canal, Jeads to Buffalo and Albany. The connection of Pittsburg and Rochester, by this route, depends on the navigation of the Alleghany liver. Tha whole distance to Olean, 240 milies, is said to be navigable, and fer 200 milea above littsburg it is navigable for small steamloate. The consummation of this work will be of vital importance to the people of the Alleghany Valley, and a large share of the raplaly increas $g$ trade of that section will find its way to this city over the Penusylvania Railroad. The distance from Pittsburg to Philadelphia is 353 miles, and from Olean to New York, by the New York and Eris Rallroad, is 306 miles.

Delaware and Hudson Canal, built by a private company. It is 33 miles in leugth, 32 feet wide at tha surface, 20 feet at the bottom, and 4 feet leep. It connects the Iladson at Iondout with the Delaware River, and coonects with the Laekawaxen Camal, in Pennsylvania. The principal trade of this canal is in coal, as it extends by its connections into the coal region of Penusylvania.

New Jeasey.-Morris Canal is 102 miles long, 32 feet wite at the surface, and 18 fect at the bottom, and 4 feet deep. It extenls from Jersey City, on the 11 udson, to Easton, Peunsylvania, where it connects with the lehigh Canal, Pennsylvania.

Pexngilvania.-Schuyikili Canal or Navigatlon. It is 108 miles In length, is 36 feet wide at the surface, 24 feet at the bottom, and 4 feet deep. It extends from Philadelphia to Reading, and from thence to Mount Carbon, where It has connections with the anthracite cosl mines.
The leunsylvania Canal la formed of several divisions: it ls to comect Colombia with Pittsburg, on the Ohis; but its middle divislon over the Alleghany Monatains, from IJollidaysburg, on the eastern side, to Johustown, on the westeru side, is a division of railread. Its total length, including 37 miles of railroad, is 315 miles.

The Chesapeake and Ohlo Canal, had it been completed, would have been a great and nseful werk. It beghins at the tide-water of the lotomac River, above Georgetown, in the District of Columbia, and is intended to terminate at I'ittshurg, in Pennsylvania, n distance of $311 \frac{1}{2}$ miles. Its dluensions are nearly identical with those of the new Frie Canal ; its breadth at the surface being from 60 to 80 feet, 50 feet at the bottonn, with a depth of water varying from 6 to 7 feet. Several tumels ocenr in the line, which crosses the A1. leghany ridge. The cost of this work w'as estimated at
$822,275,000$, which were to te subscribed partly by indlvlduals, and partly by the United States and the States of Maryland and Pennayivanis. This canal now terminates at Cumberland, Maryland, aad thers la but a slight proliability of Its ever beling completed.

Omo.-The inclpal canal in this State la from Portamutth, on itho Ohic, to Cleveland, on Lake Erie: it is 307 miles long.

Illinots,-The canal from Chicago, on Lake Michlgan, wlert, on the Illinols Hever, is of the first importance to the trade of this State.

Indiana.-The Louieville and Yotland Camal, now the sole property of the United Stotes, has been under the direction of the Treasury Depurtment the past two years. The tolis, by curection of the departwent, were redumen one-half, and the receipts for the past two years he. : cen expended in the repair of the locks and enlargement of the casal, improvement of the bridgee, etc.

Eric Canal.-Besldea othera of great, though inferior, magnitude, a canal has been formed connecting the IIudson with Lake Erle. This work is 363 miles in leugth, the rise and fall along the entire line being 602 feet. It was originally 40 feet wide at the surface, 28 feet at the bottom, and 4 fcet deep. But these dimensious being found, from the rapidly increasing traffic and importance of the canal, to be far too limited, an act was passed in 1835 provilling for its ethlargement. Under thls act the canal has been increased, 80 as to be 70 feet wide on the surface, 42 feet at the bottom, and 7 feet in depth, the locks belng of corresponding dimensions. The original cest of the canal was $\$ 9,027,456$; and the cost of the enlargement has been about $\$ 25,000,000$, or nearly three times its first cost. The Erie Canal is the property of the State of New York, and is one of tha greatest and most important works of its kind in the world. Notwithstanding the contracted scale ou which it was originally constracted, it has completely verified the predictions of its projector, De Witt Ciinton, having been of siagular adrantage, in a public point of view, to the State of New York and the Unicn generally. This work was first suggested as early as the year 1816, by a memorial from the City of New York to the Legislature. An artificial canal from the II udson to Lake Erie had, in fact, been under consideratlon by eminent citizens of the Siate for a century before. As early as 1724 , Cadwallader Colden, then aurveyor general of the province of New York, described the route as practicable to Lakes Champlain and Ontario. Daring the Revolution, the importance of such a work was made evident. After that period, General Washington made a tour to the interior of New York, and also westwardly to Pittsburg, and at that early day urged the conaection of the OLio with tha waters of tha Chesapeake. President Jefferson took a deep interest in the same subject, andsald, "there will be a competition between the II adson and Potomac Rivers for the residue of the commerce of all the country westward of Lake Erie."-See IIUnt's Merchants' Magnzine, September, 1850, p. 262. IIe urged the construction of a canal from the Ohio to the Chesapeake, as nearer to Alexandria than New York by 580 miles; and that navigation through New York woul' be closed several moaths of the year; "whereas the channel to the Chesapeake leads directly into a warmer climate, so that vessels may pass the wholo whter, subject only to short delays."-Ibid. The inpertance of adding facilities for communlestion with the western parts of New York was also urged ly Governor Clinton, in 1791 and 1792; by General Schuyler; Surveyor general De Witt, in 1808 ; and at every meeting of the Legislature from the thme of the adoption of the Constitution, the subject was strongly urgel upon the consideration of the inembers. In Mareh, 1810, a joint resolntion was introduced for the appointment of Govarneur Morris, Stephen Von Rensseluer, De Witt Clinton, Petcr B. Porter, and others,
as commissionera for exploring the route for inland navigation from the Murson to Lakes Ontario and Erie; and $\$ 3000$ appropriated for expensea of surveys. A through canal was then considerel as the acme of human wishes, se far as communication with the Far Went was concerned, Railroads were not dreamed of then, nor in fact, until the years 1820 and 1825.

The commlasioners said In 1812: "Vlewing the extent and fexcility of tho country with which this canal is to open a cominunication, it is not extravagant to suppose that, when sottled, its produce will equal the present export of the United Siates." (The forelgn exports of that year amonntel to the eaormous sum of $888,000,000$, and four years hefore were $\$ 108,000,000$ ). And they add, "Will it appear improbable that twenty years hence (1832) the canal should annually bring down 250,000 tons?"

The prophecy of the commissioners was more than fulfilled. In twenty jears after the completion of the Erie Caaal, there camo to tide-water on that canal $1,10 \overline{7}, 000$ tons, valued at more than $\$ 45,000,000$; and the tolls smounted to two and e half millions of dollars.

On the 26th of October, $1 \varepsilon^{\wedge} \div$, eight years and four months from tho time of ita commencement, the Eric Canal was completed. Tho original profile of the Eric Canal, published in 1825 , shows 83 locks, and a rise and fall equal to 687 feet. These were finally reduced to 71 locke, and a rise and fall of 610 fcet.

In 1828, an act was passel to connect the Cayuga and Seneca Canal with Cayuga Lake. In 1829 the constrnction of the Chenango Canal wss anthorizetl, and survers ordered of a route from tho Lirin Canal to the Alleghany Rlver; 2. For the Black River Canal 3. For a canal from Otsego Lako to tho Eriu Canal.

In July, 1835, the Canal Boarl resolved that tho Erio Canal be enlarget, so as to give 6 feet depth and 60 feet width of water on tho surface, and that the locks bo 105 feet long and 15 feet wido in tho clear. It was finally tecided 10 make the locks 110 feet long and 18 feet wide.

Previous to this time, in addition to the Erie and Champlain Canals, the following had beea authorized:

1. The orwego Canal: from the Eric Canal at Syracuse th Iake Ontario thirty-elgit mifers, finished in 183s, at a cost of ..
2. The Cayıga and seneca $-\cdots n a 1$, connecting the Cayugn and Seneca lakea with the Erie Canai at Monteznma, twenty-tiree miles, finlshed in at Munteznma,
$182 h$, at n cost of
3. The Chemnng Cunai, comecting the Chemuing liver ul Elmitra rith the hemd of seneca Lako: lengih in all, thirty-ntwe milea; flaisied in 1833 , at a cost af.
4. Crnoked Lake Crail, eiglit mitez, finiuliced in 1830
$\$ 405,437$
5. The Chenango Canai, from the susquehsana River at Binghamton to the Eric Canal at Ctica, ninety-aix mifer, filithed in $183^{\circ}$
................ $\$ 2,417,000$
Canal. Totila of the Eme ant Champain Canale.

| Yuans. | Kra"canal. |  | Chaniplatis Canal. |  | Total Tolk. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Miles. | Tolli. | Milem. | Talle. |  |
| 1820 | 04 | \$8,24 |  |  | \$4,244 |
| 1521 | 04 | 28,001 | 24 | \$1,386 | 24,338 |
| 1522 | 116 | 60,440 | 49 | 3,825 | 64,1079 |
| 1823 | 160 | 126,152 | 61 | 20,1106 | 158,100 |
| 1824 | 280 | 214, 646 | 04 | 46,214 | 840,761 |
| 1825 | 893 | 492, 6 t | 64 | 73,615 | 561.280 |
| 1826 | 368 | 6:7,466 | 64 | 84,536 | 762,103 |
| 1827 | 668 | 776.919 | 64 | 83,341 | 800,260 |
| 1828 | 663 | T27,6>4 | 6.4 | 107, 5157 | (836,407 |
| 1829 | 363 | 707,883 | 64 | 87,171 | 795,056 |
| 1530 | 363 | 043,545 | 64 | 89,4633 | 1,032,000 |
| 1531 | 363 | 1,091,514 | $6 \cdot$ | 10\%,996 | 1,184, 610 |
| 1832 | 963 | 1,085,012 | 14 | 110,191 | 1,195,846 |
| 1838 | 1063 | 1,200,136 | 64 | 132,639 | 1,442,6115 |
| $18: 4$ | 36.3 | 1,179,744 | 04 | 15,211 | 1,294,1056 |
| 1835 | 363 | 1,375,821 | 64 | 116,131 | 1,414,052 |
| 1836 | 363 | 1,440,639 | 64 | 115,425 | 1,5.5,965 |
|  |  | *12, 225\%,029 |  | \$1,290,084 | \$16,584, 119 |

A further enlargenent of the lirie Canal, and of the Genesee Valley and Black River Canals, was anthorized hy the law of July 10, 1851. This Act, although deelared nucomatitutional, was subsequently confirmad.-See Niew Yoak and Hifusos Riyen.

| coonlic. | Miles. | Gaunte. | Miten. |
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| ne. |  |  | 8 |
| er'd and Oxford | $20 \%$ | Leligh Navigutio | 4 . |
| Songo liver Impr.... <br> Sev Hampahire. | $80^{\circ}$ | Delaware. |  |
| Bow Falta.. | '8 | Maryland. | 14. |
| Ifungset Foil | $\cdot 1$ | Chesapeake and Ohto | 19. |
| Amoekeag Fall | 1. | Cherapeako and Dela- |  |
| Seweit's Fulls. |  |  |  |
| Middtesex |  |  |  |
| White River |  |  |  |
| leeinw'a Faila | -2 | nwha.............. | 148 |
| Watorquee | ${ }^{4}$ | Dis | 23. |
| Massach |  | Hranche | 11. |
| Middlesex.. | 27. | North C |  |
| $\mathrm{F}^{\text {a awtuel }}$ | 1.6 | Weidon | 12. |
| Ihackato | 45. | Cluh Foot | $1 \%$ |
| Ifampshire | 22. | Dismal Swamp |  |
| Montague Fall | $0 \cdot$ | South Caro |  |
| South Hadiey Falls .- | 2. | *antce | 22. |
| Blackntcne Inlaid. |  | Winya | 75 |
|  |  | Rainda Drelir | 1.3 |
| f.nficid Faifs. | $5 \cdot 5$ | Lorick | 13 |
| New York. |  | Lorkha | \% |
| Erie | Sb4. | Wn |  |
| Chumplaln Junction.. | $64^{\circ}$ | Cataw ba. | \%.8 |
| Waterford Junction | 2. | Geor |  |
| Oawego .. | $35^{\circ}$ | Savannah | $16^{\circ}$ |
| Cayugland Sone | 81. | Srunswiek. | 12. |
| Crooked I | 8. | Alaba |  |
| Chemung | 39. | Mnselo Eloal | $65 \%$ |
| Chenimig F | 16. | [Inntavitic... | 16. |
| Chenango | 37. | Loutiana. |  |
| Gencsee Yali | 1085 | Orleans Bank. . . . . . . | 2 |
| Dasvifle 11rav | 11. | Carondefel |  |
| Hack hiver. | 77.6 | Ilarataria | 85 |
| iliack River Feed | $10 \cdot$ | Lako Veret. |  |
| Delaware and LIudson | $8{ }^{\circ}$ | Kentucky |  |
| harlaem (nut used) | $3 \cdot$ | Laniaville and P'ort'd |  |
| Croton Aqueduct. | $40^{\circ}$ | Kentucky Iiver lmpr. | 106. |
| Oncida. | 8. | C.leking $\quad 4$ " | 4 |
| Neto Jeracy. |  | Green " | 190. |
| Delaware and karit | 42. | Barren | 100 |
| Mioiria | 101. | 1anois. |  |
| Salent.............. <br> Pernurivania | $4 \cdot$ | 1ilínolu and Mehigan Indiana. | 100. |
| Delawaro İivition | 50.7 | Wabash | 66 |
| Eastern Diviuion. | th. 5 | Whitew ater |  |
| Strquarhama Divis | 39. | Ohio. |  |
| funiuta | 127.5 | Olito and Firo | 90\%. |
| West Bra | 36. | Zanesvilte Branch | 14. |
| Nortis Branch | $73 \cdot$ | Coiumbus | $1{ }^{-}$ |
| Western Divia | 105 | !ancaster " | 8. |
| Frank Ifin | 22. | Horkiog Vinlicy | $5{ }^{5}$ |
| Erie and 1 | $130^{\circ}$ | Walhouding liraneh. | $20^{\circ}$ |
| French Creek | 97. | Easiport | 4. |
| Lnckawaxen | 22. | Urenden " | 2 |
| Hald Eagle | 25. | Mami und Eranches. | 87\% |
| Tlde-water | 45. | Miami Extension, cte. | 13.4 |
| Conestog | $15^{\circ}$ | Wabash and Eric | 11. |
| Codort | 11. | Mukkingum Inpr | 91. |
| *ehnyikill | 108. | Nandy and leaver | 86. |

combarativg cobt of canal.b.

|  | Miles. | Par Mila. |
| :---: | :---: | :---: |
| Of Now York | 18 | * 4.11 l |
| Of lennsylvania. | 642 | 26,109 |
| Of Naw Jersey. | 14.1 | 41,3149 |
| If Maryland and 1kelnware. ........... | 2047 | 62,250 |
| Of Virginta. | 147 | 84.150 |
| Of Ohto. | ${ }_{646}$ | 16,6i9 |
| Of Indiana | 379 | 33.028 |
| Of Atimois | 102 | 84,846 |
| Of Canada. | 89 | 163, 314 |

Recupitulation of canals (including slack-water navigation) In cach State in 1854.


Camadian Canals,-The British government has expended a very large sum upon the Rideau River and Canal, atretching from Kingstoo, on Lake Ontario, to Bytown, on the Ottawa, or Grand River, an affluent of the St. Lawrence. But this work was undertaken as mach in tho vien of improving the military defensea of Cunada ar of protecting its commerce, though in the latter respect it has bean of considerable utility. The British government has also constructed the Welland Cannl, uniting Lakes Erie and Ontario, the navigatien between which by the river is interrupted by the Falls of Nlagara. Thls canal has become a well-frequented commercial channel, and is every day rising in importance. The publie works of Canadn have already attained aome degree of celebrity, both in America and England. "There is no country," observes Mr. I. D. Andrews, in his report to tie United States Senate, "which possesses canals of the magnitude and importance of these in Cunada." The Erle Canai, which is the rival American water route for carrying the produce of the great Western wheat-growing ceuntries to the Atlantic sea-board, is capable only of transporting barges of 75 tons burden; whereas the cansls of Cnnada are on a scale to allow of ocean-going veasels of from 350 te 500 tons, and carrying 4000 harrels of flour, to proceed through them, and thus accomplish in inland uavigation into the heart of the continent fer a dlatance of 1587 iniles from tide water at Quebec. The public productive works of Cansia, consistlng of canals, light-houses, etc., yielded a net revenue in 1851 of $£ 58,738$. The work yielding the largest amount of revenue was the Welland Canal, extending frem the head of Lake Ontario to the foot of Lake Eric, thus orarcoming the interruption to navigntion cansed by the Fialis of Niagsaru. The length of the main trunk of this canal is 28 miles, and of a feeder branch, from the Grand River to the main trunk, 21 miles. Its width at bottom is 35 feet, st top 71 feet, and the depth is 10 feet. The dimenslens of the locks are from 150 to 200 feet in length, the width from $26 \frac{1}{2}$ to 45 feet, and the depth on metre $9 \frac{1}{2}$ feet. Tho arhount of Jocknge is 346 feet, nad the number of locks 27 . This canal is also important as affording an nnliraited supply of water-power to numbers of mills and factories on Its banks. The St. Lawrence Canals, connecting Lake Ontario with the River St. Lawrence at Montrenl, extend in all to $40 \frac{1}{2}$ miles, hnving 27 locks, ned an amount of locknge of $204 \$$ feet. The wholo of these have the dimensions of their locks as large as those of the Wellanl Canal, and have all 9 feet of water in these locks. The Lachine Canal, cutting through the island of Montrenl, is 8 miles $\ln$ length and 10 feet doep. It is now in contemplation to construct another important canal, cennecting Lake Chumplaln with the St. Lawrence, and thus afford a more desirnble route for the trade between the IIudson River and Canada and the Western States.
Increased Speed of Traveling by Canals,-Great, however, as have been the advantages derivod from the formation of canals, thelr progress has been to a censiderable degree checked by the formation of RailRoans (which sce). We believe, however, that canals will always be preferred for the conveyance of coal and other bulky and heavy products; and even passengets are now cenveyod along them with a rapidity that would previously have been supposed lmpossible. This new system was introduced on the Palsley and Glasgow Canal, by Mr. Monatnn, in June, 1831. The resuits are described In the fellowing statements, to which it is nnnecessary to eall the reader's attention.
Mr. Thomas Grahame, civil engineer, in hls "Letter to Canal Proprieters and Traders," says, "The experi-
ments of great velocity have been tried and proved on the narroweat, shallonoset, and noat curved canal in Seotland, viz., the Ardrossan or Palaley Canal, connecting the city of Glasgow with the towa of Paisley and vlllage of Johnstoun, a distance of 12 mlles." The result has disproved every previous theory as to difficulty and expense of attuinlag great velocity on canals, and as to the danger or damage to their banks by great velecIty in moving vessele alning them. "The ordinary speed for the conveyance of passengers on the Arirossan Canal has, for nearly two years, been from nive to ten miles an hour; and, although there are jourteen journeys along the canal per day at this rapill apeed, its banks have sustained no injury. The boats are 70 feet in length, about 5 feet: 6 laches broud, and, but fer the extreme narrowness of the csnal, might be made broader. They carry easlly from 70 to 80 passengers; and, when required, can and have carried upward of 110 passengers. The entire cost of a beat and fittlugs up is abont £125. The hulls are formed of light iron plates and riba, and the covering is of wood and Jight oiled cleth. They are more airy; light, and oomfortable than any coach. They permit the passengers to move about frem the outer to the Inner cabin, and the fares per mile are one penny in the first, and three furthings in the second cabin. The passengers are all carried under cover, having the privilege also of an ancovered apaco. These beats are drawn by two horses (the prices of which may be from $£ 50$ te $£ 60$ per pair), In stages of four miles in length, which aro done in from 22 to 25 minntes, including stoppages to let out and take in passengers, cach set of horses doing three or four stages alternately each day. In fact, the boats are drawn through this narrow and shallow canal at a velocity which many celebrated engineers had demonstrated, and which the public believed, to be impossible. The entire amount of the whole expenses of attendants and horses, and of running one of these boats four trips of 12 miles each (the length of the canal), or 48 mile: daily, including interest on tho capital, and 20 per cent. laid aside annually tor replacement of the boats, or loss on the capital therein vested, and a considerable sum Juld nside for nccidents and replacement of the horses, is $\boldsymbol{\Gamma} \mathbf{5 0 0}$ some odd shillings; or, taking the number of working days to be 312 annually, semething under f2 2s. $4 d$. per day, or about $11 d$. per mile. The actual cost of carrying 80 to 100 persons a distance of 80 miles (the length of the Liverpool Inailway), at a velocity of nearly 10 miles an hour, on the Paisley Canal, one of the most curved, narrow, and shallow in Britain, is therefore just $\boldsymbol{L 1}^{\mathbf{7}} \mathbf{7 s} .6 \boldsymbol{l}$. sterling. Such are the fucts, and, incredible as they may appear, they are facts which ne one who inquires can possibly deubt. Boats on this principle have since been established on a great many British canals, and on tho Grand and Royal Canals in Ircland.

Proits of Canals.-It is a well-known fact that ennuls, at an nverage, and allowing for the length of time that must clapse from the first ontlay of capital before they vield any return, are not very preductive. When, indeed, they connect places that have an extensive In. tcrcourse, and when no very extraordinary difficulties have to be summounted in their construction, they most commonly yleld very large profits; but, generally speaking, thls does not appear to bo the case; and, on the whele, they ouem to have been mere beneficial to the public than to their projectors.

Canary Islands. They IIe In the Nortl Atlantic Ocenn, between the parallels of lat. $27^{\circ} 40^{\prime}$ and $29^{\circ} 30^{\prime}$ N., nud the meridians of long. $13^{\circ} 30^{\prime}$ and $18^{\circ} 20^{\prime} \mathrm{W}$. The names of the soven principal islands, their respective aren in English square miles, and thelr population in 1835, are given in the following table:

|  | Teneriffo. | Grand Canary. | Palma. | Lamentote | Fuerteventira. | Gomera. | Hierro. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area, sq. miles.... 1'omintion . . . . | $\begin{aligned} & 8777 \\ & 85,000 \end{aligned}$ | $\begin{aligned} & 758 \cdot 3 \\ & 68,000 \end{aligned}$ |  | $\begin{array}{r} 323.5 \\ 17400 \end{array}$ | $\begin{aligned} & 820 \cdot 1 \\ & 13800 \end{aligned}$ | $\begin{array}{r} 169.7 \\ 11.700 \end{array}$ | $\begin{aligned} & 82 \cdot 2 \\ & 4400 \end{aligned}$ |

Fuerteventura lies nearest to the African coast, the interval being between 50 and 00 miles. Besides these, there are many ialeta, moat of which are pininhabited. The grape disense made its appearance at the Cunariea In 1863, and deatroyed nearly the whole crop. Previously the total anaual produce wae estimated at about 40,000 pipes, of which 25,000 pipes were produced In Teneriffe. Hetween 8000 and 9000 pipes were exported. The price per plpe on board ranged from $\mathbf{5 8}$ to $\mathbf{E 2 0}$. Some of the wine la distlled into good brandy. Sumach for the tannera, cenary-seed, and a little flax, are grown. The gardene produce, In addition to the vegetables of Euglleh gariens, pumpkins, gourda, yams (taro), garlic, red pejper, and the caatoroil plant. The fruit trees are budly managed, so that the fruit is generally inferior. Here are found fruits from every quarter of the globe, including oranges, figs, bananas, dates, pine-apples, pomegranates, papaws, guavas, custurd apples, and prickly pears (the fruit of the cactus). There are no cocoa-nnt trees or bread-fruit trees, as II umboldt reports. A little oil is obtained from the olive in Grand Canary. The agave is abundant, and supplies a material for ropes, girths, etc. The leaves of the clate palm are made into hata and baskets. A good deal of orchillia lichen is guthered for exportation ; and the ice-plant is cultivated for barilla. The sugar mannfacture, onee so largely carried on, has fallen before the American and West Indian trade; the only two existing mills are on Palina. Wine having been for some time so little remunerative, other things have received attention, the chief of which is the coehineal insect, which feede on the commen cactus (Cpuatia tume), and is now largely produced on all the islands, land formerly occupied by grain and vioes being devoted to its cultivation. The insect hus not been long introduced, but the cultivation has rapidly extended. In $1840,800,000$ pounds were exported, principally to krance and England. Since that year the exports have much increased; the price paid to the Canary exporter is about a dellar per pound. The silkwcrm is reared to a small extent, chiefiy on Pulma. Raw silk is exported, and some is manufactured on the spot inte stockings, ribbons, etc. Some linen and woolen atuffis of a coarse kind are made for home consumption, lont the great bulk of the clothing in use is of British manufacture. The island geats (a peculiar and cateemed breed) furnish milk, from which butter and cheese are mude. Sheep, of a amall coarse-wooled breed, are numerons. Horses and cattle are searce ; domestic fowls and rabbits are plentiful. Asses and mules are mach used. A fishery on the African coast, at present engaging from 40 to 50 vessels, and giving eniployinent to many persons, has existed since an early period. It was deemed of such importance, that the home government lately sent out a commissioner to report on it with a view to its improvement. The fish taken is principally hream, It is salted, and largely consumed at the Canaries. There is an extensive intercourse by meane of boats and amall sailing vessels among the different islands. In this way wine, raw silk, cochineal, harilla, and dried fruits are taken to the places of expert; and grain is conveyed from those islands where it is abundant to those where the supply is defiecent. The principal foreign trade is with England, the chief exports being wine, cechineal, barilla, and orchilla. The imports consiat of irun, met${ }^{\text {al }}$ goc. is, j lass, erockery, leather, pilk, cotton, anil woolen manimaetures. There is also a consideratile trade with the United States, and the conntries berdering the Mediterranean. With Hamburg and France an exchange of commodities takes place. The ahips employed in this commeree are foreign, chiefly British, but the islanders aend a few vessels of tieir own with brandy, coarse earthen-ware, and silk goods to the Spanish West Indiea, loringing back cigars, angar, coffee, rum, cacao (the material of chocolate), and a few other articles. Santa Cruz, Orotava, and Las Paloas,
are the only ports edgaged in foreign trade: nearly 200 vessela enter these porta in the cuurse of a yeur. In 1852 the porte were pructically made free-the ainail duty of 22. per cent. only being now levied upon himported goode, with the exception of tobacee, which paye $6 d$. per pound and cigare, which pay 10d. per pound. A Spanish steamer from Cadiz makes two voyages to Santa Cruz every month. The Spanisi goverament pucket, on her outward voyage to $\mathrm{H}_{\mathrm{a}}$. vana, touches at Santa Crua once a month; and the asme port in viaited monthly by the English mail steamers to Brazill and the African cousth, both on their outward and homeward vayges.

Temeriffe, the largeat jeland of the group, llee between Canary and Gomera. It is of en Irregular shape, 60 miles in length, with an extreme breadth of 30 miles. Not more than one-seventh is cultivable. A chain of mountains traverses the island in the direction of its greatest length, and in the middle of the broadest part rises the celebrated peak locally known as the lico da Teyde, which, with its supports and apurs, occupies nearly two-thirds of the whete laland. It has a doutie tep; the highest, E1 liten, le 12,180 feet above the sea ; the second, Chahorra, connected with the first ly a short and narrow ridge, has a height of 0880 feet. They ars hoth orifices in the same grand dome of trachyte. Noither reaches the line of perpetual snow. There is, however, a natural cavern, 11,000 feet ateve the sea, where snow ls preserved all the year. Snow remains about four months on the upper part of the peak.-E. B.
There are several epecies of nopal (la Tunera nilrestre), Indian fig (Cactuas tuna), short leaf with numereus tharns, which serves only for coloring angar, fruit, and wafers; and $h 1$ Tunera annarilla, with large, yellow, sweet fruit, and ronnd green leaves. The Tunera blanca is best adapted for the culture of cochineal; but it is incenvenient on account of its numerons thorns. Lastiy, there is an American species, with very soft therna, which is likewise available for cochineal cuiture.

The following table shows the increased product and exportation of cochineal from the Cazaries:

| Yoarb. | Pounde. | Year. | Pounda. |
| :---: | :---: | :---: | :---: |
| 180 | \% 7 | 1842. | 69, 116 |
| 1832. | 118 | 1843. | 74,964 |
| 1833. | 1.060 | 1844. | 88,294 |
| 184 | 1,752 | 1845. | 168,109 |
| 1835 | 4,561 | 1846. | 252,550 |
| 1836 | 8,960 | 1847. | 286,292 |
| 183\% | 7,001 | 1848. | 375,685 |
| 1533. | 23,119 | 1849. | 449,757 |
| 1830 | 27,061 | 1850. | 752,670 |
| 1946 | 66,521 | 1851. | 868,119 |
| 1841 | 90,010 | 1852. | Smbi, 25 |

Thus, in the year 1853, the exportation " uld probably amount to $1,300,000$ pounda; and the valae of this, since the increased price consequent on the failure of cropa in Ilonduras, woull be $£ 225,000$.

Candle (Ger. Lichter, Kerzen; Du. Kanzen; Fr. Chandelle; 1t. Candelle; Sp. and Port. 'elas; Kuss. Sujetschi; Lat. Candela), n taper of tallow, wax, or spermaceti, the wick of which is conimoniy of severai threads of cotton spun and twisted together. The Roman candles were composed of atrings surrounded ty wax or dipped in pitch. Splinters of wood, fatted. were used for light among the lower elasses in Engiand about A.d. 1300. At this time wax candies were litthe used, and esteemed a luxury, and dipped candies usuaily burued. The Wax Chandiers' Company, of London, was incorporated 1484. Mould candies are said to be the invention of the sieur Le Brez, of Paris, Spermaceti candles are of modern manufacture. The Chinese candles are made from the berries of the ean-debury-myrtle, and they univerally burn this wax, which is fragrant, and yields a bright light.- Hayns.
Dr. Ure gives the feilowing table, as containing the result of certain experimenta he had made, in order to determine the relative intensity of the light, and the duration of different sorts of tallow cundies:

| Number ta a Pound. | Duration of a Candlo. | Warint in Grules. | Cocomploin por | Proponglise of | Eocogis) of | Canallee equal Qav Argahd. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 mould | 6 hrs 9 mm . | 689 | 182 | 128 | 68 | 57 |
| 10 dipped | $4 \because 86$ | ${ }^{678}$ | 160 | 18 | 65 |  |
| 8 mould | ${ }^{6}$ "18 81.1 | 858 | 118 | 104 | 604 |  |
| 4 moutd | $\begin{array}{lllll}7 & 4 & 84 \\ 9 & 14 & 86\end{array}$ | 1160 1787 | 163 186 | 141 | 86 | 8.5 |
| 4 mould | $9{ }^{16}$ | 1788 | 1819 | 60.4 | 100 | 8 |

"A Scetch mutchkin," saya Dr. Ure, " or th of a gsilien of good seal oll, weighs 6010 gr ., or 18 1-10 ox. aveirdupois, and laats in a bright Argand lamp 11 heurs 44 minutes. The weight of cil it conaumes per hour is equal to fonr timea the weight of tallow in candies eight to the pound, and three timea and a quarter the weight of taliow in candles six to the pound. But tita light being equal to that of 5 of the latter candies, it uppeara from the ahove table, that 2 pounds weight of eili, value 9 d., in un Argand, are equivalent in illaminating power to 8 pounda of tallow candies, which cost about 2 s. The larger the flama in the above candies, the greater the economy of light."
Untii of late years, candles were solely manufactared from beeswax, spermaceti, or tallow. The appilcation of scientific chemical rescarch, however, to this branch of art, coupled with the withdrawul of the vexations excise supervision, which prevents improvements in every trade which comes under its influence, has so improved the materiala used, as well as the manufacture itself, that all the beat candles are new made from the pure solid and crystallizatie margaric and stearic 0 .ids. These nre freed from the fluid olele acid, and from glycerin, which exist in combination with them in urdinary tailow, as weil as from other maslogous substances, as from paraffine (a carlo-hydrogenous substance resembling spermaceti, prepared from tar and peat), the stearic and margaric acids of the cocoa-nut oil and the palm oil (Elais guineensis), besides the old substances spermaceti, and wax, both vegetahie and animal.
The discovery by the celebrated French chemiat Chevreul, that fats wera composed of three highly intammabie bodics, stearic and margaric acids (solids), and oleic acid (a iiquid), combined with a comparatively uninflammable hody, glycerin, has led to the creation of the great new manufacture of stearic and composite eandies; the importance and growth of which wiil be understood when we state, that whiie in 1833 the new candlea were unknown in England, and the quantity manufactured in France amounted to only twenty-five tons annually, a single London house (that of E. Price and Co.) manufactured last winter (1854) more than that quantity of atearic and composite candies daily, and employs in thia business above 900 hands, and a capital of nearly three-quarters of a miliion. The old procesa for making stearic acid may ye thus described: Tallow is boilcd up with thin cream of lime, which causes the fat acida by superior affinity to forsake their giycerin and combine with the lime, the giycerin dissolving in the water; this combination is then broken hy means of sulphuric acid, which, seizing on the lime, sets free the fat acids; these are then separated (the iiquid from the soiid) by means of pressure. This process of making fat aclds is called "lime saponification." The hard matter remaining in the press is stearic, or a mixture of stearic and margaric acids, and the candles made from it are called stearin, or mere properiy stenric candles.
In 1840, it was discovered in Engiand that by combining steario acid with the solid matter, or stearin obtsined by pressure from cocoa-nut oil, good candiea not requiring snuffing might be made at a considerably less cest than stearic candles. These werc cailed by the inventor "cemposite." The trade in these composite candics ia now very great. Since 18:i0, numerous great improvements have been invented, which bave reauited in the present manufacture of candles having ail the good qualities of the oid stearic, while
they are sold at prices little exceeding that of tallow candlea. The present improved process la thla : Palm oil or other fatty matter is exposed at a high temperature to the action of concentrated aulphuric acid, which changes it into a mixture of fat acida of a very dark color, with a high melting point; thia is then distilled in an atmosphere of steam. The distilled material is either used for making the cheaper descriptions of composite candles; or is subjected to hydraulic pressure, firat at the temperature of the air, and then at a high heat ; the result of pressure being the material used for making what are known as "Belmont sperm," correaponding with atearic candies.

A great improvement has been made in the mannfacture of wicks; Instead of the common twisted wick, a wick la now uaed plaited hy machinery. The new wick, together with an improved process of preparing stearin, are used in the manufacture of the Star candles, which are burned In Jarge quantities in the TVited States.
Wax candlea do not appear to have participated in the improvementa which have attende, the manufacture of the improved stearic or composite candlea, and they appear to be atill chiefly manufactured by hand. They are made of a cotton or flaxen wick, slightly $t$ wisted, and covered with white or yeliow wax. Of these there are saveral kinds; some of a conical figure, used to illuminate churches, and in religious processions, funeral ceremonies, ctc.; others of a cylindrical form, used on ordinary occasiens.--E. B.

Sale or Auction by Inch of Candle, is when a amall piece of candle being lighted, the by-atanders are allowed to bid for the merchandise that is seliing; but the moment the candie is out, the commodity is adjudged to the last bidder.
Candy, or Sugar Candy, a preparation of sugar made by melting and crystallizing it six or asven times, to render it hard and transparent. Candying la the method of preserving fruita, etc., in substance, by boiling them in sugar.

Canella Alba (Fr. Canelle blanche; Ger. Weisser Zimmet; It. Canella bianca; Sp. Canella blanca; Lat. Canella alba), the inner bark of the Canella alba, a tree growing in the West Indics. It is exported packed in casks and cases, in long pieces, some rolled in quills and others flat ; the quilied sort is considersbly thicker than cinnamon, and the flat nearly one-fourth of an inch in thickness. The quilled pieces are yellow on both sides; the flat pieces are yeliow on the outside and pale brown within. The odor of both kinda, when fresh broken, is aromatic, something like a mixture of cloves and cinnamon; and the taste slightly bitter, and estremely warm and pungent.
Canea. See Bamboo, Ratans.
Cannon, Cannons (Du. Kanonen; Fr. Canons; Ger. Kamonen; It. Cannoni; Pol. Dziala; Port. Canhoes; Russ. Puscllki; Sp. Canones; Sw. Kanon), a kind of long holiow engines for throwing Iron, lend, or stone balis by the force of gunpowder, commonly made of iron, but frequently alse of a mixture of copper, tin, and brass. They are either cast hollow, or solid and then bored; those made in the latter way being very superior. Brass cannons, or cannons made of mixed metal, are aiad not to be so well calculated for hard service, or quick and continued firing, aa those made of iron. The proportions of the ingrediente uacd in making the former do not differ materially in different col.atries, though they rareiy coincide. To 240 pounds of metal fit for casting, is commonly put 68 pounds of copper,

52 pounds of brass, and 12 pounds of tin. To 4200 pounds of metal fit for casting, the Germans put 3687 3-41 pounds af copper, $20411-41$ pounds of brass,






















 pounds. The inseriptl on it shows that it was made by one Simon in 15\%. In Dover Custle is a brass gum called Queen Elizabeth's pocket-pistol, which was presented to her by the States of Holland: this plece is 24 feet long, and is heautifully ornamented, having on it tho arms of the states, and a motto in Dutch, importing thus,
"Charge me wett, and sponge me clean,
I'th the ow a ball to Catals Creen."
Some fine specimens are to be seen in the Tower, A leathern cannon was fired thrce times in the King's Park, Edinl urgh, Oetober 23, 1788.-Puninirs.

The precise date of the first enst-iron guns is not known, hut it has been nsserted hy Genernillaguenin, that a plece of this deseription at look-le-1)uc lears the date 1411. Some doubt, however, has been expressed on this suljeed, and it has heen thonght more ?rolaHe, with reference to the invention of high smilting furnaces, to suppose this date 1011 . In 1510 talph Page cast eight fron guas at lackstalt ; aml :-i 1517 the use of sieh artillery hestan to become general, mad was for neariy n eentury exchasively adopted in some countries. In France cast-iron gitns were not manufactured before 1600 ; but so evident were the nlvantnges to be gained by their use, hoth as regards tho qualities of the gions anil their moderate cont, that they were siectily adopted in most commeries; fonmerics for fron guns having been established in Sitesia in 1170, in Germany in 15:\%, in Saxony in 159, in the 1lart\% in t626, and in Sweten in 16.10; one foundery alose, in the datter comitry, having heen sall to have supplisal for some time from 400 to 500 cammons annually.

All these pieces of ordnanco were cast hollow until 1724, when a horizontal lorhg machine was established at lyons, aml, ufter some trinls made in 1731, M. Marizz ubsuloneal hollow casting ut Strasburg in 1744-45, and alopted the boring mathines.- $\$: 11$.

Canoe, or Canoa, the term generally used to designate the amall vessels whieh murivhized poojile, livlug near the water, bse. In ihe East lmines there is a khid of boat known hy this name, sometimes fron. 10 to 50 feet fong, nud 5 or 6 bromi. The North American Inilians generally imjel their canoes with paddes, which have a very large blale mad are managed perpendicularly. The canoes of Camala are of the most
and $30736-41$ pouads of tin. Others, again, use 100 brass, and 15 pounds of tin. Capmany hus produced some statements which render it almost certain that some sort of artillery was used
 for ": welghs 180 pount" ulls charge of powder 9.1
fragile texture, and of so ilttle welght, that in passing from one river to another, the hoatmen carry them on their heads acroes their portages. They are mostly covered with bark, the pieces of which are sewed together with a kind of grass. This bark ls generally not moro than a quarter of an inch in thickness; yet, in these frsil vessels, the Indians and Canadians do not hesitate to descend very dangerous rapids. The Esquimaux are exceedingly dexterous in the management of thelr canoes. These consiat of a light, wooden frame, covered with senl-skins, sowed together with sinews. The skius are not only extended round the bottom and sides, but likewise over the top, forming a complete deck, and having only one opening to admit the Indiun to his seat. To this hole a flat hoop, rising about four Incles, is iltted, to which is fastencil the surrounding skin. The paddle is alout 10 feet long, light, and flat at each end. In the Eequimaux lunguage, the canoe is called a kaiak, of man's boat, to distinguish it from umiak, the roman's boat, which latter is a large boat for transporting the women with their familles and possesslons. The Greenlanders and Esquimaux use the sume kind of canoes, and it is astonishing, when we consider their insignificant construction, at what a distance from the reglons they conmonly Inhubit, these people, expecially the former, are found in them. In the islands of the South sea, the nativea have a double canoe, united by a strong platform, serving in this way as ono vessel. Suchn cance is capable of earrying a number of persons, and a considerable lading. Captain Cook gives us a long secount of the different kiuds of canoes used in Otaheite. -l:. A.

Canoe Birch (Betula papyracea). By the lirench Canadians Bouleau Blanc, white birch, and Bouleun à Cimot, canow lirch: it is known to the American also by these denominations, and sumetimes by that of paper birch. The henrt or perfect wood of this tree, when first laid open, is of a reddish hue, und the sap is perfectly white. It has a tine glossy grain, with a considerable share of strength; that it is but little employed is attributed partly to its spreedy decay when exposed to the succession of dryness and moisture, and partly to the existence, in the countries whith produce it, of several species of wool, which are fur preferable for the uses of the carpenter and the wheclwright. It is sometinses employed by cabinet-mukers for tables which are stnined in imitation of mahogumy. But the most important purpuse for which it is employed, and one in which it is replaced by the bark of no other tree, is the construction of camoes. To procure proper pieces, the largest and smoothest trunks are seletted: in the spring two cireuhar incisions are made several feet apart, and two longitudinal ones on opposite sides of the tree; after which, by intraducing a woulen wedge, the ibark is ensily detached. These phates are usually ten or twalve fect lomg, and two feet nine Inches liroad. (ireat use is made of these canoss by the Indians and by the French Camalimas in their lonig journeys into the interior of the conntry ; they ure very light, and are easily transportel on the shoulilers from one lake or river to mother, which is called the poruge. A canoe ralculatel for four persons, with their hage gage, weighs frum forty to tifty pounds: some of then are mate to carry fifteen passengers. Such are the ordinary uses of the hark and of the wood of this tree.lluown's sylua Amerieana.

Cantharides, or Bpanish Fly (Ir. (iuntharides, Wouches d'Expuyn"; tier. Spanische flifgen; it. 'unlurelle; Lat. E'muthıria; liuss, Mischpanshie murhi; Sp. Chnturilus). This losect is found on a variety of shoubs in Spain, luly, lirance, etc. 'Those used in lingland are imported purtly from Nibily, tut primilpully from Astracan, jacked in caskos and small chests: the most esteemed come from St. I'utershing. The Lest are of a lively fresh coller, a small size, and not monldy. They are frequently adulterated whith the

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in passing $y$ them on are mostly sewed togenerally ness ; yct, nadlans do pids. The 10 manageht, wooden ether with round the , forming a ig to admit loop, rising stencd the feet long, imaux lanoat, to dishich latter with their sts and Esit is aston. it constructhey comformer, are th Sea, the troing platuch a canoe and a cona long scn Otalsite.
tho French 1 Bu erican also by that of f this tree, anil the sap rain, with $n$ 4 but little decay when oisture, and ieh produce preferahle wright. It s for tables

But the hoyed, and of wo other cure proper e selected: ule several resito sides a wouden : phates are of feut nine cmoces ly t their long y ure very iders frem the poriage. their tangne of them are the orhis tree.-

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 ; It. Canmuchi; Sp. varicty of se used in int primeiall thests: arg. The e, and not with theMelolonthe vitis; hut this la distinguishable by its form, which is aquaror than the cantharis, and by its black feet. If they bo properly dried and protected from the air, they may le kept for a very long period. -Tıomson's Dispensutory. There were four now varisties of cantharides from Indla abown at the London Exhlbition of 1851.

Canton, one of the greatest emporiums in the East, rankling, es a port of trade, elther before, or immediately after, Calcutta, in the province of Quantong, in Chlea; belng, proviously to 1843, the only placo in that empire open by authority to European rraders: lat. $23^{\circ} 7^{\prime} 10^{\prime \prime} \mathrm{N}$. , lon. $113^{\circ} 14^{\circ} \mathrm{E}$. Canton stands on the eastern bank of the Pekin River, which flows from the interior in a nevigable stream of 800 miles to this city, where it is rather broader than the Thames at London Bridge; falling, after an adilitional course of 80 mlles , Into the sonthern sen of China. Near its jubction with tho sea, it is called by foreigners Bocea Tigris. The town is surrounded by a thase wall, partly of stone and partly briek, and is divided Into two parts by another wall running enst and west. The northern division is ealled the old, and the southern the new elty. In the old city is the Mantchon or Tirtar general, with his garrison of Mantehou troops. The lientenant governor or Fooyuen's office is also in the old eity, hitt tho governor and hoppo (principal customs officer) reside in the sow elty, not far from the river.

All forelgn eommerce is conducted in the sonthwest suburb, where the foreign factories are situated; and which, with the other suburbs, is probalily not less populous than the eity itself. The residenco of liuropears is confined to a very smnll space, on the lunks of the river; which might, however, be as pleasant as a crowded mereantile placo can well be, were it not for the great number of small dweling boats which cover the face of the river. The peoplo who ocetpy the larger portion of these boats aro hall to have eome origlanly from the south; and leing a forelgn und despised race, were not, at first, allowed to dwell on shore; but most of the distlinctions between them and the rest of the people have been abolished. Although Canten is situated nearly in the same parallel of latitude as Calentta, there is a considerable difference is their temperature; the former helng much the coolest, and requiring fires during the winter months. The streets are very narrow, paved with little round stones, and flagged close to the sides of the houses. The frost of every house is a shop, and those of particuiar atreets are latd out for the supply of stinngers, Chlas Strect is npproprinted to Europenias; and here the productions of nlmost every part of the globe are to the found. One of the rhop-kecpers is always to he found sitting on the eonnter, writling with $a$ comel'shalr hrash, or ealeulating with his swampan, on which instrumeat a Chinese will perform operatons in numbers with an much celerty as the most expert liuropeess arithmetlelan, 'Ihls purt of Canton belng mueh freguented by the meanen, every artifice is used by the Chinese retallers to attinct thelr uttention; ench of them having an English name for himzelf pabited on the outside of his shop, besides n mumer of alvertisements composed for them by the anllors in their own peruliar lillom, 'The latter, it may he supposed, ars often duped by thelr Chinese frlends, who have, in general, picked up a few sea phrases, lyy whith the seamen are iuduced to enter their shops; hut they sult each other extremdy well, as the Chhese denlers possess an lmperturbable command of temper, langh heartily it their jokes whthout understanding them. noth humor the seamen in all thele sallles. Ships only asceul the river as far as Whumpon, ahout 15 mhea liclow (Gaton, loading anil unlonding by means of native hoats.
The Chinese, conshlered as truders, are mmirently active, persevering, and intelligent. They aro, in
fact, a highly commerclal people; and the notion that was once very genorally entertained of their being peculiarly charaoterized by a contempt of commerce and of strangers is as utterly unfounded as any notion can possibly be. Business is transacted at Canton with great dispatch; and nowhere in the world may cargoes be sold and bought, loaded and unloaded, with more business-like speed and activity. Provisions and refreshmonts or ull sorts are abundant in Canton, and, in general, of an excellent quality; nor is the price exorbitant. Every deseription of them, dead and allve, is sold by welght. It la a curious fact that the Chinese make no use of milk, elther in Ita liquid state, or in tho shape of curile, butter, or cheese. Among the dolleacles of a Chinese market are to be seen horseflesh, dogs, eats, hawks, and owls. The country is well supplled with fish from the numerous canals and rivers by which it is intersceted.

Foreign Factories.-These extend for a conslderable way along the banks of the river, at the diatance of about 100 yards. They aro named, by the Chinese, hongs, and resemble long courts, or closes, without a thoroughfaro, whirl generally contain four or five separate honses. They are built on a broad quay, and havo a paride in front. This promenade is railed in , and is genorally called Respondentia Walk; and here the European merchants, commanders, and officers of the ships meet after dinner and enjoy the cool of the evening. The English liong, or factory, far surpasses the others in elegance and extent. Thls, with the American and Dutch hongs, are the only ones that keep their national flugs flying. The neighborhood of the factorles is occupled with warehouses for the reception of European goods, or of Chineso productions, untll they are shipped. In 1822, during a dreadful conflagration that took place at Cunton, the British factorics and above $\mathbf{1 0 , 0 0 G}$ houses were destroyed; on which oceasion the East Indla Company'n loss was estimated at $£ 500,000$ sterling, threefiftlis in woolens.

For the space of four or five miles opposite to Canton tho river resembles an extensive floating city, conslsting of bonts and vessels ranged parullel to each other, leaving a narrow passage for others to pass and repass. In theso the owners reside with their families, the latter rarely visiting the shore. All the business nt Canton with Europeans is transacted In a jurgon or the Engllsh language. The sounds of such letters as B, D, K, and X are unknown In China. Instead of these they substitute some other letter, such as I. for R , which oceaslons a Chinese dender lin rico to offer for nule la English a rather unmarketable commodity. The name mandarin lo unknown among the Chinese, the word used ly thom to denote a person in authority belng quan. Mandarin is a Portugnese word derived from tho verb mandar, to command.-llamidon's Lisast India tiazetter; Munume's Orient. Commerce; Companion to 1 uglo-Chinese Calendar, ete.
The trade of Canton is retrograling, while that of Shanghini is Inereasing; and indeed it is not unlikely that the latter will in time supplant Canton in the Eirrepean trule, as it enjoys the additlonal alvantage of helng nenrer the tea districts. Canton was no doubt tlxed upon ly the Chinese government for the Buropean trale, as belng the most distant from the eapital, lekln.

Formerly only a llmited number of merehants, ealled the hong or necurity merehants, were allowed to trate with forelgners. 'they were commonly men of large property, ind wero famed for lategrity in thelr transactions. All forelgu caryoes pussed through tho hands of these merchants, and liy them ulno the return corrgoes were furnkind. They became scenrity for the payment of duties, and it was trensos for miny other berchant to engruge la the trade with forelgoers. This never law, however, has reeently been abollahel, and forelguers may now deal with any merehurip they think fit to employ.

All goods are sold by weight in China-oven articles of food, such as fowls, hoge, and the like.

The foreign trade of Canton is very extensive ; but the great article of export is tea, for which the demand in Europe has been increasing for upward of a century. This artiole was formerly monopolized by the East India Company; and from their accounts it appears that they imported annually into England abont $80,000,000$ of ponnds. But this monopoly was abolished in 1884, and the commerce with China was thrown open to all. The other exports are raw silk and ailk manufectures, nankeen cloth, cassia, lignea, etc. The principal imports are cotton and woolen goods, earthen-ware, iron, steel, etc. In 1948, 176 British vessels of 73,975 tons, with goods of the velue of $8,653,088$ dollars, left, and 171 of 72,815 tons, with goods to the value of $6,534,597$ dollars, entered the port of Canton. The Ainericans, Fresich, and Dutch, also carry on a considerabie trade with Canton.

Although situated in the same parallel of latitude as Calcutta, the climate of Canton is much cooler, snd is considered superior to that of most places situated between the tropics. The thermometer, during the months of Jaly and August, nverages from $80^{\circ}$ to $88^{\circ}$; and in January and Fehruary from $50^{\circ}$ to $60^{\circ}$. The highest recorded observation in 1831 was $94^{\circ}$ in July, and the lowest $29^{\circ}$ in January. In ehallow vessels ice sometimes forms at Canton a line or two in thickness. A fall of anow, nearly two inches deep, oceurred at Canton in February, 1835, and remainedi on the ground three hours-a circumstance so ununual that the cifizens hardly knew its proper name. Fogs are common turing February and March. Moet of the rnin falls during May and June, but it is nothing in comparison of a rainy season in Calcutta. July, Auguat, and September are the regular monsnon montis, the wind coming from the southwest, with frequent showers, which allay the heat. In the succeeding months the northerly winds commence, with some interruptions at first; but from October to January the temperature is sgreeable, the sky clear, and the air invigorating. Few large cities are more healthy than Canton; no epidemice nor malaria prevail there, though much of the town is built upon piles.

The intercourse between Chinn and Europe liy the way of the Cape of Good Ilope begnn in 1517, when Emanael, king of Portugal, sent $n$ fleet of eight whips, with an embsssador, wio was conveyed to Pekin, and who oltained the sanction of the emperor to establish a trade at Canton. It was in 1596, in the reign of Queen Elizabeth, that the English first attenipted, with two shipn, to open an intercourse with China; but they were fost in the outward voysye. About 1634 neveral Fingliah shipa visited Cantun; but a minunderatanding having oceurred with the Chinese authorities, by the tresehery of the Portuguese, in rupture and a battie took place, and it was with difficulty that this misunderstanding was rectilled. Cibima was again vieited in 1673 by an Engiish ship that was refused admiasion into Japan. In 1677 a factory was establiahed at Amoy; but in 1,880 the factoriy was deatroyed by an irrnption of the Turtara, and it was not till 1685 that the emperor permitted any truide with the Europeans. Upon the union of the two East India companies in London, an imperiai edtict wanissued, reatricting the Europeain comneree to the port of Canton. Tea was first inported about the year 1 tiki. This is nne of the tive Chinese ports opened to Europeans by $\mathbf{t}^{\prime}$ : .. - © 1842.-E. 11 .
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- Filota-Whenover a Britiah merchantman ahall arrave of the five ports ojened to traile, viz., Canton, Foo-chow foo, Amoy, Nlngpo, or Bhanghal, pllotw mhall be allowed to take her Immediately Into port; and In like mannar, when such Brilikh vilj ablall have nettled all logal dutien mul charges, and ls about
to return homo, pllote ahail beimmediately granted to take her out to sea, without any atoppage or delay. Reganding tha remuneration to be given these pilots, that will be equitably settied by tha Brilith conall appointed to each partieular port, who will determine it with due reference to the distance gone over, the risk rua, ete.

2. Custom-house Guards.-The Chinese Buperintendent of Customa nt esch port wili adopt the means that he may judge mont proper to prevent the revenne auftering by fraud or amuggling. Whenaver the pilot ahall have brought any Britlah merchantman into port, the puperintendent of customa wlit depute one or two trusty custom-house officers, whose duty it will be to watch against franda on the revenue. These will elther live in a boat of their own, or atey on beard tho Engllsh ship, as may beat suit their convenience. Their food and expenses will be aupplied them from dey to day from the custom-house, and they may not axact any fee whetover from cither the commanuer or consignee. Should they violate this regulation, they shall be punisicd proportionately to the amount so exacted.
3. Maters of Shipe reporting themselves on Arrival.Whenever a Hritish vessel shall have cast anchor at any one of tho above-named ports, the captain wilt, within forr-sindtwenty hours after arrival, proceed to the Britinh consulate and deposit his ship's papers, hills of !adlng, manlfest, ete., in the bands of tha conaul; falling to do which he will subject litm. self to a penalty of $\mathbf{2 0 0}$ dollars, For presenting a false mand. fest the penalty will be 800 dollars. For breaking hutk and commencing to discharga before due permission shali be obtained, the penalty will be 500 dollars, and confiscation of the goods se diseharged. The consul, havlug taken possession of the Ahlo's papers, will immediately send a written communleathon to the auparintendent of customs, specifying the register tonnage of the ship, and particulars of the cargo she has on board; all of which being dona in die form, permission will then be given to dlscharge, and the dutlee levled as provided for In the tariff.
4. Commercial Dealings between English and China Mer-chants.-It having been stipulated that Engllah merchants may trade with whatever natlve merchanta they please, should any Chmese merchant fraudulently aiscond, or Incur dehts which he is unable to discharge, the Chinese authorities, upon complalnt being mada thereof, will of course do their utme st to bring tha offender to Justice; it must, however, be fistiuetly muderstood that if the defaulter really can not be found, or the dead or hankrupt, and there bo not wherewlthat to pay, the Engilsh merchanta may not appeal to the former customes of tho Ilong merchants paying for one another, and can no longer expect to have their losses made fond to them.
5. Tonnage Dues-Every Fingllsh merchantman, on enterlag any one of the above-mentloned fivo ports, shall pry tonnage dues at the rato of five mace per register ton, in fult of all charges. TI a feen formerty lovied on entry nud departure, of every deseriptlon, are henerforth abolished.
6. Inyort and Irport Duties.- (ioods, whether imported Into or exported from any one of the above-mentioned five norts, are thenceforward to be taxed according to the tariff as now fixed and ngreed upon, and no further sums are ta be levled beyond those which aro speciflid la the turiff. Alt dution Incurred by an English merchant vessel, whether on goods im. ported or in the dhape of tonnage dues, must first be paid up in futl; which done, tho whigerintendent of customs will grant port clearance, and this being shown to tho Jritlsh consul, he wlil thrreupon return the ahip's japers, and permit the vessel to dejpart.
7. Eramimation of the Goods at the Custom-house.-Every l'uglish merchant liaving eargo to toad or diaeliarge numbt pivi Ino Intlmation thereof, and linind particulars of the same to the consul, who will lmmedlately dingatch a recognized l'nguist of bis own establisiment to communtate the particulars to tha 3uperintendent of customs, that tho goods may be (xmmined, and nolther party subjected to loss. The Fingtish merehant must have a properly qualifled person on the apot, to nttend to h]s interests when his goods are belng examined for duty; othcrwise, should there be eomplalnth, theme can not be atternded to. IRegurding auch goodia as are subject by the tariff to an ad walorm daty, If the Finglish merehant can not agree with the Chineas offleer in fixing a value, then ead party shail call too or three mextilants to look at the goods, ant the highowt pirtee at which any of thene merchanta would bo willing to purchase whall be asmimed as the value of the goodn, To fix the tare on any srticle, such natea: If the Fugliwh merchnnt can not agme with the enstom-lionse officer, then each party flall choome an many chexth out of evary 100, whlch, being first welghed in grosa, alanll aftetward le tared, and the sverage taro ligen theme alall be asaumed as the taro upon the wholo, and ujon this prinelplo aliall the ture be fixed upout nll other goods in packages. If there alioult ntili he any dimputed polnts which ean not be mettled, the Einglish merchant may appal to the
d to take her ding the requitably set. ticular port, mteadent of may Judge and or amug. any Brittsh
loma will deduty it will se will either Engilsb shlp, and expenser ustom heuse ther the comculatien, they exacted. n Arrival. or at any one tin four-andsonsulste and t , etc., In the subject litma falac manilog buik and I shall be obscation of the possession of communtes. $g$ the register po she has on rmissiun will 1 as provided horities, upon heir utnicst to , be cilstuctly found, or be I to psy, the or customs of can no ionger
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 rge unnt give He same to thit ed Fuguist of leulars to tho he examited. ish therchant t, to nttend to for duty; oththe attended ariff to an ad sree with the dhall call two higionst price of to purchase ix the tare oll can not agry ball choome an t welghed in ye taro upen he, mud minn ther goude in pothta wild aymeal to theconsul, who will communicate the particularg of the case to the superiatendent of customs, that it may be equitably arraaged. But the appeal must be made on tho sama day, or it will not be regarded. While auch pointa are still open, the eupertntendeat'of enstoms will delay to Insert the same in his books, thus affording an opportunity that the morits of the case may be duly tried and sitted.
9. Manner of paying the Iruties.-It is harein-bofore prorided, that overy Engllah vessel that enters any one of the five ports niali pay ali dutice and tonaage dues before she be permitted to depart. The auperirtendent of cuatoms will select certaln shroffs, or banking eatablishmonta of knewn stabillty, to whom ho will give licenses authorizing them to receivo duHes from the English merelatata on behalf of government, and the recelpts of these ahroffe for any money paid them shall be consldered as a government voucher. In tha naving of theso dutler, different kinds of forelgn moncy may be maido use of; bul as foreign money is not of equal purity with sycea silver, the English consuls appolnted to the different ports will, acconding to time, place, and circumutances, arrange with tho superintendent of customa at each port what coins may be taker in payment, and what percentage may be necessary to make them equal to standard or pure silver.
9. Heights and Measures--Sets of bulance-yards for the welgling of goolla, of money weights, and of measures, prepared in cxact cenformity to those histherto in uso at tho cus-tor-iouse of Canton, and duly atamped and seated in proof thereot, will be kept in possession of the superiatendent of customs, and also at the Brtish consulate, at each of the five ports, sad these ahnil be the standard by which all dutles shall be charged, and all auma pald to government. In case of any dispute arising between liritish merchants and the Chinesc officers of customs regarding the weights or meseures of goods, referenco whall be madu to there atandards, and disputee deeded secordingly.
10. Lightern or Cargo Boats.-Whenever an English merchant shall have to load or discharge cargo, he may hire whisterer kind of lighter or cargo boat ho pieasea, and the sum to be puld for such hont can be settled between tho parties themselves, without tho interfereace of gevernment. The number of ticse brats shail not bo limited, nor shall a monopoly of them be granted to wny parties. If any smuggllng taku place in them, the offenders will, of course, he punished according to daw. Should any of these loat people, whilo engeged in rouseying goods for Eingllah merchants, fraudutently abscond with the property, the Chisnese authoritses will do their best to sppreheme them; but, at the same tlme, the English merehanth must take every due precantion fer the safety of their goods.
1i. Thansh:pment of Goods--No Englian merchant ahips may tranship goods without ajecial permission; should any urgent ease linpien where transhipment is necessary, the circumstances must first be aubinlted to the consul, who will give a certificate to that effect, and the superintendent of chatoms will send a apecial oficer to be present at the tranalipment. If any one presumes to tranship uithout anch permission belng sakell for and ohtulued, the whole of the goode so hilicitiy tranoilpped will le cenflacated.
12. Subordimate Constlar Oftcers.-At any placo selected for the anchorage of the Engilsh merchant slijjs, there may be appolntel subordinate consuiar officers, of approved good conduct, to exercime due control over tho seamen and others. lle must exert himsetf to prevent quarrets between the Eugish semmen nad the natives, this being of the atmost importance. Should any thing of the k!nd unfortunately take place, fie wlll in the like manner to hils best to arrango it amicaliy; When sailors go en shore to walk, oflicers shall be required to accompany them; and shonid disturbances take place, such ofticers wifi he held wsponsible. The Chinese otheers may not mpede natives from coning aloupside the shipa to seli clothes, or other necensarles to tho sailorn fiving on hoard.
Opium.-A notion having been eritertainod that oplum might be legally imported into Chinn, under the provisions of this tariff, on paying an ad valorem duty of 5 per cent., tha foilowing proclamation has heen issued in the nulbject:

Phorasmation.-It having been lmought to my notice that stich a atep hats been contemplated as sending traseln with optun on butird into tha porta of Chinn to be opened hy trenty fo foreign trade, and damanding that the sold opium shall be mimitted to importation, by rirtue of tha conctuding clause of the new tariff, which provides for all articles not actudly enumergted in that tariff pasating at an ad valorom duty of 5 per rent. I think it cxpredient, by thfs poriamation, to $j$ woint out to all whom it may concern, that opfum being in artirte the trufice in which in well knowen to to derlared illeqnal ant contraband byt he lurs and imyerial ediets of China, any peraon to he
may take such a step will do so at his oun risk, and will, if a British oubject, mesl with no support or pnotection from her Majesty's consuts or other afficers. This proclamation will be translated and published in Chinese, so that no one may plead. ignorance of $i t$.
Goveanment-nouse, Victoris, thie1st daj of August, 1843.
But, notwithstanding this proclamation, and in defiance of the strong denunciation of amuggling in the proclamation of the 2d day of July it is distinctly stated in Hong Kong papera that there was, on the 21at day of September, 1848 , alnost In sight of the consular flags, a "fleet of British vessels openly engaged in the vending of opium to the Chinese!" This certalnly is a curious commentary on the above proclamation; and it wero much to be wishel, seoing that the trado can not be suppressed, that it were legalized on opium paylng a reasonable duty. The consula for the United States have salaries.-See Consuls. The payment of British conauls by fees is mnch, snd we believe justly, objected to at Canton. Supposing, howover, that the treaty with Cbina is bona fule carried into effect, still it may be doubted whether the trade with that empire will ever be so extensive as many suppose. We believe, Indeed, that China will afford a most extensive outlet for various deseriptions of manufactured goode, provided we can bring away equivalents suitable for the European and other foreign markets. But this, we incline to think, will be no easy matter. Excepting ten, China has few articles suitable for extensive uso in Europe, other than silk and silver. Chinese silk is, however, losing ground as comparod with that of Italy and Turkey, while it is most probable that the enhancement of its price, conaequent to uny great inerense la the exportation of nilver, would in no very long time bring it tr a close. Ten is the grand equivalent which the Chimese have to exchange for our protucts, and this trade is increasing very rapidly.-For tho exports of tea to the United States for the last ten years, see Cinma.

Hong Kong.-The island of this name, ceded to Enghand by the above treaty, is situated on the northern side of the entrance from the sea to the estuary of the Canton River, being aeparated from the main land by a narrow channel having 14 fathoms water. It stretches about 8 miles from enst to west, and is of $n$ very irregular figure, having several promontories, and being deeply indented with hays. It consists principally of a series of high hills, the highest having an elevation of ahout 1200 feet. Victoria, the principal British settlement on the north side of the island, in lat. $22^{\circ}$ $16^{\prime} 27^{\prime \prime}$ N., long. $114^{\circ} 10^{\prime} 48^{\prime \prime}$ E., has tho advantage of an excellent roadstend, with from 8 to 7 fathoms water nid good holding ground. Thero are also numerous well-shelterell roads and bays with deep water on the eouth side of the island, which, indeed, appears, from its position and other advantuges, extremely well titted for a naval station. Fivery thing, however, will depend on the fact of its being healthy, of which, we are anrry to observe, grave doubts are entertained. Shouli these happily prove unfounded, it is probable that in no very lengthened period a consideruble portion of the trade which is at present centred in Canton will he transferred to IIonge Kong; and, under the ahove condition, it can hardly fail to become an importunt entrepót not merely for trado with the Canton liver, bat with China generally.

In 1814 the total population of IIong Kiong (consisting of Chinese) was 11,463 ; while on tho 31et of December, 1853, the Chinese population was 37,536 ; Ettropeans and Americans, 476 ; other racea, 1008. In 1853,1103 square-rigged vessels, carrying in all 447,058 tons, arrived in Vietorin harbor. Of these vessels 201 imported, anil 154 exported goods into and from the colony, being an lncrease over 1852 of 74 and 79 vesrels respectivoly; while the tot 1 ] tonnage of veesels arrived as compared with the preceding year shows an tncreaso of $\mathbf{1 3 , 6 7 0}$ tons.-SSee IIono Kioner.





Currency.-Doubts huving been entertalued reajectIng the value of the colna current in llong Kong and lit dependencles, the $i, \frac{2}{}$ ving rates ut which au. $h$ colns are made legal exth ínre i. ed by ' prociana. tion dated tho 1st of May, ( $\mathrm{P}, \mathrm{H}_{3}$.
"The gold mohor of the East I" di cimpeny', ? ritory,
 2d. atering money of the 1 'nt'e 1 K!-mom
"The dollar of spalh, Mest 0 or $A$ imen enten, an the rate of ta. sd. atering
"The rupee of the "Pr: ' Alat - pomy' 保itary', wo ner since the luid day of Fepton , 1, ${ }^{n}$ to is ine rate if is. lun
 pee pleces in proportion.
"The ecsh, or copper "ois cum *is. "is C'n. at ria rate of 288 cash for 1a, iterilng.

The following proviso establishes, with respect to allver currency, the principle that prevails in England:
"Irovdled that nothing hereln contained ahalt be deemed or taken to rendor it comp liaory on any person to accept at any one payment a larger amonat In allver colus of the Luited Kingdon of lower denomination than 18., or in the half, quarter, or etghth rupe pleces herein-before mentioned, than thr equivalent to 20a. aterilng monoy, or a larger amoint la copper colng of the Untted Kingdom, or in the Chinese ropper colna tefore me m . oned, then the equivalent to 1 s . ateriling.

 pola; 1 tacl $=583 \mathrm{f}$ grulne Troy ; 400 Ibw , avoirdupois z: 8 phents; 1 cwt. avoirdupois $=84$ cuttles; 1 lb . avolriluy is $=12$ tinels.

Chinese Meastres: 1 chang $=141$ Engllait Inchea, or

12 chang $=4 \overline{7}$ yards．Liquids，and generally grain， are soll by weight．

Chiness ． 1 oneys： 1 tael $=10$ mace $=100$ cendareen $=1000 \mathrm{cash}$

The principal monetary integer，the tael，is this weight of sycee sllver，there being no Chinese coins In gold，and no other Chinese currancy，or medinm of payment，in sllver，than small ingots of sycee sil－ ver，stamped by the shroffs or bankers appointed by the government．The sverage purity of aycee silver may le reekoned at 98 touch，or $13 \$$ dwts．，better than British standurd；and as it contains，on the average， sbout 12 grains of gold in the pound Troy，the net value at 60 pence per ounce standard，after making the usual allowance for the extraction of the gold，is rery nearly equal to 78 si pence sterling per tael．

In mercantile currency，or the money of account of foreigo merchnnts trading with Chlna，the dollar is divided into 100 cents，and 720 taels of Chinese necount are reckoned equal to 1000 dollars in this curreney， making the tael equal to $\$ 1888-9$ th centa ；but in small amounts it is reckoned at $\$ 140$ cents．This is， however，only n nominal valuation，by which the dol－ lar is made nearly 56 多 pence sterling，or $13 \nmid$ per cent． abovo lts real value．

According to the 8 th article of the general regula－ tions under which the British trade is to be conducted at tho five ports of Canten，Amoy，Foo－chow－foo，Ning－ po，and Shanghai，the English consula appointed to these ports are to arrange with the superintendents of the cnstoms at each what coins may be taken in the payment of the duties，and what percentage may be nec－ essary to make them equal to standuril or pure silver． In purauance of thia regulation，the following estims－ tiens have theen made ut Canton，and will，probably，be followed at the other perts of trade：rupees welghing 109t． 7 m ．2c．Oc．；l＇eruvian dollars．111t．4m．5c．5c．； Mexican dollars，111t．9m．0c．Oc．；Bolivan dollars， 112 t .1 m ． 5 c .0 c ．；Chillan dollars， $112 \mathrm{t} .5 \mathrm{~m} .2 \mathrm{c} .0 \mathrm{c} . ;$ and chopped dollars， 113 s .2 m .0 c ． 7 c ．：are to bo accounted as 100 taels of sycee silver，being．acearding to this menetary tariff，respectively equal to 2 dwts．， $5 \frac{1}{2}$ dwts．， 64 dwte．， $6 \frac{1}{2}$ dwte．， $7 \frac{1}{2}$ dwts．，and $8 \frac{1}{4}$ dwts．worse than British standard．To these percentnges are to be added $\frac{1}{2}$ per cent．for difference between the hoppo＇s and the sliroft＇s welghta，and another $\frac{1}{2}$ per cent．for refining．Ilence the value of the tael of syeen silver is rendered very nearly equal to 79$\}$ pence，nad with the 1 per cent．，to 80$\}$ pence sterling，nt which value the Chinese rates in the above schedule have been re－ daced．－Trite．

Monejs．－Accounts are kept at Canton in taels， mace，candarines，and cash；the tael being divided lato 10 mace， 100 candarines，or 1000 cash．There is hut one kind of money made in China，called cnsh， which is not colned，but cast，and whleh is only used for small payments ：It is composed of aix parts of cop－ per and four of lead；it is round，narked on one side， and rather ralsed at the elges，with a square hole in the inidlle．Thesn pleces are commonly carriad，like beads，on $n$ string of wire．A tael of tine silver should be worth 1000 eash；lut，on account of thelr conven． ience for cemmon use，their price is sometlmes so much raised that only 750 cash are given for the tael．

Forcign coins，however，eireulate here，particularly Spanish dollars；and for small change they are cut Into very exact proportions，but afterward weighed； fur which purpose merehants generally enrry senlea， eullod dotchin，made somowhat after the plan of tho Euglishasteelyards．

Tho tael used to be reckoned at tis， $8 l$ ，atering in the hooks of the Jast India Compuny；but lts value varies，and fs generally computed accordling to the price paili per ounce for Spanish dollarn in London． The tahlon given for thin proportionsl value may be ealeulated in penee aterling，liy the multiplier 1－208． Thus，if the price of the Spanish dollar be GOd．per
ounce，the value of the tael will he $60 \times 1 \cdot 208=72 \cdot 48 d$ ； if at 668 ．，the value of the tael will be $78 \cdot 728 d$ ．；and for any other price In the same proportion．

Fineness of Gold and Silver．－The fineness of gold snd silver is expressed by dividing the weight into 100 parts，called toques or touch；similar to the mod－ ern practice of France．Thus，if an ingot be 03 tonch， it is understood to coutain 7 parts of alloy and 98 of pure metal，making in the whole 100.

The fineness of the precious metuls，expressed in these declmal proportions，may be cenverted into En－ glish proportlons by the following analogies：Suppose gold is $91 \cdot 66$ tonch；say，ns $100: 91 \cdot 66:: 12: 11$ ，the stundard，and vice versa；and to convert standurd silver into touch，say，as $240: 222:: 100: 92 \cdot 5$ ，the touch of sterling silver．Pure gold or silver without alloy is ealled by the Chinese sycee；and sometimes，when of less purity，the metal is accepted as aycee．

Silver Ingots are used as money，and welgh from $\frac{1}{\frac{1}{2}}$ a tael to 100 taels，their valne being determined by their weight．These ingots are of the hest sort of sil－ ver；that is，about 94 touch．

Gald Ingots．－Gold is not considered as money，hut as merchandias：it is sold in regular ingote of a de－ termined weight，which the English eall shoes of gold； the largest of these weigh 10 taels each；and the gold is reckoned 94 touch，though it may be only 92 or 93.

Weights．－Gold and silver are weighed by the catty of 16 taels；the tacl is divided into 10 mace， 100 can－ dareens，or 1000 cssh .100 taels are reekoned to weigh $120 \mathrm{oz}, 16$ dwts．Troy，which makes the tael equal to $579 \cdot 8$ English grains or $37 \cdot 566$ grammes．

The principal weights for merchandise are the picul， the catty，and the tnel；the picul being divided into 100 catties，or 1600 taels．


ILence the picul weighs $60 \cdot 472$ kilogrammes，or 162 lus． 0 oz .8 dwts． 13 grs ．Troy．

The above weights are sometimes otherwise denom－ inated，especially by the natives：thus，the catty is called gin；the tael，lyang；the mace，tchen；the can－ dureen，fivun；and the eash，lis．
There are no commercial measures in Chins，as all dry goods and liquids are sold by welght．In deliver－ ing a cargo，English weights are used，and afterward turned into Chinese piculs and catties．

Long Measure．－That used in Chinn is the covid or cobre；it Is divided into 10 punts，anl is equal to 0.3713 metre，or $14 \cdot 625$ English tnches．

The Chinese have four different measures answering to the foot，viz．：

The foot of the mathematical tribunal．$=0 . \%$ Men $\stackrel{\text { Eng．Tach．}}{=} 13 \cdot 125$
The foot of the mathematical tribunal．＝0．20̈3 $=13.125$
The builders＇foot，ealled congpu．
$=0.3248=12 \cdot 7$
The tallors＇and tradesmen＇s foot．． $=0.3383-13.93$
The foot used by englueers $=0.3211=12.65$
The li contains 180 fathoms，each 10 feet of the last－ mentionel length；therefore the $\mathrm{li}=1897 \frac{1}{2}$ English feet；und 192⿺ lla measure $n$ mean degres of the me－ ridian nearly；lut Eurepena missionarles in Chins have divided the degree into 200 lis ，each it making 1820 linglish feet，which gives the degree 69＇166 En－ glish miles，or 11／131 lirench myriametres．
fiuropoan Trade at Canton．－As soon ns n vessel ar－ rives among the islunds which front the entrance to the Canton lliver，she is generully hoaried ly a pllot， who comluct her into Macno or llong Kong roads． The entrance is，however，so sufe that ships push on withont waiting for the pilot，whe，If the weather be bad，is sometimes long in coming on board．The pi－ Ints＇names are registered at the Keun－min－fon＇s office near Macno；and for in license to act the sum of $\$ 600$ is pall．The person who takes out thn litense some－ thmes knows nothing alout shipe or the river，but omploys fishermen to do the duty，On the vessel＇s

## CAN

arrival in the roads, the pilot goes on shore to repert ber at the effice of the kean-min-foo, who, when re has recelved anewers to his inquiries, gives a permit for her to pass threugh the Bogue, and orders a river pilet on beard. This pilot seldom repairs on board the vessel before 24 hours have elapeed. When arrived, the vessel proceeds through the Bogue, and up the Canton River to Whampoa.

Every ship that enters the port requires the service of a lingulat and comprador befere ahe can commence unloading. The master used to be required to give a written declaration, in duplicate, solemnly affirming that the ship has brought no opium. Ail the trade with foreigners used to be confined to the hong or security merchants; but this restrlction has recently been abolished; and forelgners may now deal with any merchant or other party they think fit to employ. The linguista are government interpreters, who procure permits for delivering and taking in cargo, transact all the custom-house business, and keep accounts of tha dnties. All the minor charges of the government, also, are paid by them; in consideration of which they receive a fee of abont $\$ 173$ previously to the vessel's departure. When a vessel wishes to discharge or recelve cargo, the lingnist ls informed a day or two prevlously what kind of goods are to be received or discharged, and in what quantities. He then applies for a permit, whlch being issued, the lighters or chopboats proceed to Whampos, where they usually arrive on the evening of the accond or morning of the third day. For a single loat the linguist used to receive a fee of $\$ 23$; lut if a permit be obtained for from two to alx boats at a time, the fee for each beat was enly 11 taels 2 mace 6 cand., or about $\$ 15$ ?

When the goods are ready to te landed from or sent to the ship, the hoppo (principal custom-house officer) sends a domestic, a writer, and s. police rmmer; the hong merchant who has secured the fhip sendr a domestic, called a court-going man (one who attends at the public offices on ordinary occasions in behalf of his master); and the linguist sends an acconntant and interpreter to attend at the exambination of the goods. The hong merchants used to be held responsible ly government for all intice, whether on imports or exports in forcign vessels; and therefore, when goods were purchased, it was customary for the parties, before fixlag the price, to arrange between themselves who was actunlly to pay the duties. Of an impert cargo, each chop-bont, according to rule, which, however, la not rigidly enforced, shonld contain-of woolens, camlets, end long-ells, 140 bales; tin, 500 hare; lead, 600 pigs; Bombay cotton, 55 bales; llengal cotton, 80 liales ; betel-nut, pepper, etc., 306 piculs.

Of export goods, a chop-bout should take-of ten, 600 chests ; of other sorts of goods, 500 piculs. If more than this, the hong merchant gives to the chop-bost, for each additional picul, $\boldsymbol{\$ 6 2}$. In calculating the duties on export goods, 90 rattles are considered 100. The woolens, long-ells, and camlets, are meusured by the chang of 10 covids, without any deduction; and slagle erticles are numbered.

If, after entering the port, any persons transhlp goods, it is consilered that the one ship wold them to the other; and In that case the same duty has to be paid as if the goods were brought up to Canton. Provisions are not lueluded In this regulation. Ships' bsats are not allowed to carry up or down any thing chargeatle with duty. Geld, silver, coppor, and Iron are prohibited to be exposted; a few culinary utensila are the only exceptions. When it is clesired te export treasure, the hong merchant must make an estimate of the value of the import and export cargoes, and whatever balance there may be In favor of the shlp may then be ahipped off as treasure. If more cargo ho sent to a ship than she can take on board, and she wishes it to the shippell on boarl another, it must be done within 3 daya afive amnounclne tite goods at the
custom-horse, and a hong merchant must state it to government; if granted, a hong merchant and lingulst are ordered to go to Whampoa and take an account of sach goods; all whlch, with the expenae of boats, runners, etc., at Whampos, coste 40 or 50 dollars.Companion to Anglo-Chinese Calender, p. 99-101.

Ifong Mferchants.-Previoudly to the cominencement of the new system, it had been the invariable practice, enforced by law, that all foreign vessels arriving in the port shoula omploy, aa broker or agent, a hong or security merchant, who became, by deing ao, responsible to the government for the dutles. These merchants, who were lut few In number, were the only individuale in the empire legally authorlzed to trade with forcigners, a privilege for whlch they had to pay very largely. But after an arrangement had betn made with any particular hong merchant for securing a ship, her captaln or supercargo might deal with pay other hong merchant, or, even with any outside marchant (or merchant not belonging to the hong): pleased. The peculiar duty of the hong merchart was to pay the duties on both the inward and outwaric caryoes; and hence arose the practice of foreiguers buying all goods for export duty paid, and selling all the g veds brought with them free of duty, the dutles being, In both casce, paid by the hong merchants who had sec ired the ship; and hence, also, the ignorance of mos: forelgaers is to the amount of the duties. But now that the privilege of the hong merchants has been aboli bed, the luties will have to be paid to the Chinese a thorities by the parties lmperting and exporting, in the same way as in this country.

Port Tharges are fixed widue the new treaty at five mace pe. register ton, in full of all charges; so that the complix system that previously obtained for charginf those duties is now, in so fur at least as liritish $\mathrm{s}^{\prime} i^{+}$, are concerned, at an end. Vessels Inmorting rice us other grain into any of the five ports open to Bricish vessels, are liable to no charges whatever; but if they take away an export carge, they then have to pay the duties on such cargo agreealily to the turiff, and one moiety of the tomage dues, or $2 \frac{1}{2}$ mace per ton.

The whole number of vessels arriving at Canton in 1854 was 320 , with the tonnage of 154,157 . Of this number, 137 were British, 65 American, 23 Duteh, 21 Spanish, 11 Danish, and 18 Peruvian. The latter, we imagine, are all engaged in kidnapplng, a system which condemins hunilreds of Chinese to a speedy death among the guano islanda of Callara. These vessels brought in the same year goods to the value of $£ 795,255$, constituting Canton a good, but not a first-rste customer to Europe. Of cotton goods our merchants purchased $\$ 2,706,425$; of rice, $\$ 300,000$ worth; and every thing clse In intinitesimal quantity. Fleh-maws, beche-demer, cloves, shark-fins, sandul-wood, liquors, upear to meet with the resdlest sale in the great sea-port of China. The exports make a little better appearance; but still they are far from lurge. The tea trade has flown to Shanghal, the value exported from Canton being In 1854 only $84,627,552$, but a fraction of the export at the northern port. Silk is sold to the value of about $81,140,000$, and curiesities make up the remainder. Bamiwo and rattan ware, bone and Ivory toys, China dishes and lacquered ware, mother-of-pearl ana marble slabs, preserves and drugs, sugar-candy mid pitchers, all testily to the ingenuity of the Chinece. and the boundess opulence of certuin classes in Furope and America. The whole amounts only to $\mathbf{E 1 , H 5 , 3 4 8}$ a year, and this endires an exorhitant weight of taxathon.
The tonnage paid by llritiah ships alone amounted to $\mathbf{4 1 1 7} 8: 4$, or nearly 10 per cent. ad valorem npon the whole movemunt of Ilritish trate in that port. The customs dues of Caleutta, heavy as wo believe them to be, are a tritle when compured to those of Canton, which avenge very nearly 17 rupeea a toth.-Hong Kong Gorernment liazette.

Foreign Merchants.-These consist of Brltish, American, French, Dutch, Danlsh, Swedish, Spanlsh, and Portuguese, with Parsee and Indla a Mohammedan British subjects. The Americans, French, and Dutch have esch consular agents recognized by the imperial government. The same privileges have been, or are to be, coneer sd to all foreigners that have been granted to the Engllsh.
Ratrs of Commigsion in Cilina, agreed efon in Novegmere,
t931, and ezviazd iy the Chaxiek of Commerce, March, 1535.

1. On oll aalee of oplum, cotton, cochineal,
cainphor baroos, birds' nesta, dlamonds,
and other precious atones, pearis, ships, hounes...
2. On salos of nill othor goode........................ 8 . 8 per cent.
3. On returns, if in goods ........................ 27 per cent.
4. On returns, if in treasure, bullion, or bilts. 1 per cent.
5. On purchases, not being returne for goods aold: $\qquad$
1at, Of raw silk.............
2d. of manufactured alik. 2d. Of manufactured al $\qquad$ 8 per cent. dd. Of all other poods 8. On inspecting toas, whether for returns or otherwise, an additional chargo of....... \& per cent.
6. On rale, purchase, or shipment of bullion.. 1 per cent.
7. On drawing, sale, or negotiation of bills
when not involving reaponal bility as drawer or indorser..

1 per cent.
. On drawing, anle, or negotiating of bilin when guaranteed by the agent as drawer or indorser, and not covered by adequata 10 on purclusing bills, or effecting re............................. by bilta, of the agent or otherwise...... On negotiating lonus or respondentia......
12. On gunranteelug bilis, bonds, or other engatements................................. On guaranteding indulug reponily re goired without including reaponsibility Oa goaranteeing botis sales and remisttunce of proceeds..

24 per cent.
On bills of excliange, retorned protested.
15. On lills of excliange, retorned protested.. 1 per cent.
17. On all advances of moncy for purposen of trale, whether the goods are consigned to thongent or not, and where a commis. sion of 5 per cent. is not charged........
18. On ordering goods or superintending the fulthiment of contracts, where no other conmission is derived.
$2+$ per cent.
1 per cent.
2 per cent.
21 per cent.

On all goods, treasure, etc, consi.............. afterward withilrawn or sent to anetion, and for goods conslgned for addltional dellvery to others...................... On procuring frelght, or advertising as agents, or owners, or commanders, on the anount of frolyht, whetber the same passes through the hunds of the agent or not..

22. On allps'disbursements . 1 jier cent.
隹bursementa . ................... 21 per cent.
at on
On effecting insurance, or writhug orders for lnsurance ............................. and on procuring return of premium ...
26. Debts, where a prucens at law or arhitrathon is necessary, $2 \frac{1}{2}$ per cent. ; and if reenvered.
$\dagger$ per cont.
1 per cent.
27. Collecting house rent. of persons dece............ Acting for the eatates of persons deceaselt,
as excentors or admiolstrators. .......... as excenters or admlolstrators, ...........
The nanagemant of the ostatos of others, All cash reecipts, not serving for the pur-
All caah reedipts, not serving for the pur-
chase of goods, and not etherwise specifind nbovo goods, and not etherwise sipech-
31. Shmeflig.

5 per cent.

Transhlpping goods........................ agent to havo the option of elonrging a agent to havo tho option of elingrging a
accond comminsion, an upon a freah edvance, provided the charga doen het oceur vance, providedis charge doenter ccur
twhee in tho same year. . . . . . . . . . . .
At the option of the ngent, on the amount debited or credited within the yenr. inelndiag interent, and exropting only ltomn on whicha commiasion of $D$ fier ceut, has been chat com
N,B.-Thiarged . . . . . . . . . . . . . . . . . . . . . . . . . 1 per cent. ance duo on an necomnt made up to a partleular peri ad, a hal where nirli balance in w'thdrawn withont reanotalide botlest
Opinm, which is hy far the most prolitnble of all the urticles imported linto Chlua, is oxcluded from the
official account of imports, whlch comprises those articles only that are legslly adnisalble. Although, however, it be nominally exclnded, opium is openly; systemstlcally, and easily introduced; the trade in it leing, in fact, as safe and as regular as that in any other commodity, while it is incomparably more extensive. Notwithstanding the efforts that have sometlmes been made to effect its exelusion, the imports have cont'nued rapidly to increase. In 1816-'17 they amounted to only 3210 ehests, whereas in 1829-'30 they had increased to abont 14,000 ehests; and they are now estimated at about 54,000 chests, werth about $\$ 33,000,000$. So rapid an increase in the production and consumption of a drug is, perhaps, unparalleled in the history of commerce. It is probable, however, that its importation will shortly receive a clieck; for it ls believed that the Chinese, aware at last of the Impotency of the attempts to prevent its introduction, sre about to legalize its importutionand culture in the empire. And as the soil in muny parts of China is understood to we well suited to the growth of the poppy, there can be little doubt that its cultivation will be rapilly extended. Should this expectation be realized, it will produce a very important change in the trade of China. On the whole, however, we incline to think that the ehange will be beneficial. It will go far to restore the balance between the imports and exports without draining China of her bullion; and it will enable her to purchase larger quantities of the manufactures and other produets of this and other countriea. The change in question, supposinir it to be ralized, will, however, seriously affect India, which furnishes almost all the opium sent to China, and the culture and sale of which, besides affording emplnyment and subsistence to a large population, yields a net revenue to the East India Company of considerably more than $\boldsymbol{£ 3}, 000,000$ a year!

Shanghai is situated in the southern part of the province of Kiang-Su, at a considerable distance from the sea, on the Kiver Woo-Sung, in about lat. $31^{\circ} 10^{\prime} \mathrm{N}$., long. $120^{\circ} 50^{\prime} \mathrm{E}$. The river, which may be navigated by large ships for a considerable distance alsove the town, erosses the granil eanal, and, consequently, makes Shanghai an entrepót for all the vast and fertile comntries traversed by the canal and by the great rivers with whieh it is connected; and hence the present importance of this emporimm, as evinced by the extent of our trade with it in 1848 ; and hence, also, the infinitely greater importance to which its conuneree will hereafter most probally attain.

Expoats of Ten prom Ghina.

|  | Black Tea. | Green Ten. | Total. |
| :---: | :---: | :---: | :---: |
| t Britaln, | Pound. | Pounds. | Poundk |
| To (reat Itritails, 149-*iv. | 45, 445,900 | 8,120 , 4u1 | 53,260, 300 |
| To (irent ltritain, 16010-61. | 65,696, 810 | 8,056,600 | 63,753,400 |
| To lonited stutes. 185l-02. | 13,301, b13 | 20,065, 915 | 34,327, 128 |

From this statement it will be seen that the amount of the exports of black tea to Great Britaln is lacreasing very fast, at the rate of 90 per cent. per annum; and was in 1850-51 seven times as great as the exports of green tea; whilo the exports of black tea to the United States were ouly two-thirds the exports of green toa.

Fixporta of Tea from Cinina.

| Yenr ending June. | 1 bited nintes. | Great Britain. |
| :---: | :---: | :---: |
|  | toundy. 27.817 .000 | Pound. T7,217, 600 |
| 1-84................ | 27.807 .000 <br> (11, bl | St, 6149,0001 |
| 1856. . . . . . . . . . . . | 40,240,04M | 01,035,000 |

Trade with the Indian Islomds, ete.-In his evtdence Irfore the select committee of the Ilouse of Commons, Mr. Crawfurd gave the fullowing details with respect to the native foreign trado with China:
"The prinelpal part of the junk or hilippisg trade is earried on ly the four eontiguous provincer of Canten, Fokien, Ohekiang, and Kiannen. No foreign trado In permitted with the Island of Formosa; and 1 havo no meank of dewcrihing the ex-
tent of the traffio which may be conductad between Chinth, Corea, and the Lepchew lalands The foilowing ary the coun. trica with which China carrien on a trado Ju junka: viz, Japan, tho Philinpines, the Sor-loo Isiands, Celebes, the Moluccas, Norneo, Jara, Sunintra, Singapore, thio, the cast const of the Malayan peninsuia, Simm, Cochin China, Caubodith, and Tonquin; and these m*y, In all, employ about ex'd junks The ports of Chlns at which this trade la conducted are, Can. ton, Tehan-tcheou, Nomhong, Iloeiteheon, Suheng, Kongmson, Changlim, and Ilaiban, in the province of Cunton; Amoy and Chinchew, in the province of Fokien; Ningpo and slang-hal, in the provisco of Chekiang; and Soutcheon, in the frovince of Kiannan. The above estimate doea not inciude a great number of small Junks weionging to tise lainnd of IIalnan, which carry on trade wth Tonquin, tookin China. Cambudia, Siano, and Slugapore. Thoge for Slam anoount yeariy to about 50 , and for tha Cochin Chinese alominiona to ahont 42 ; these alone would bring the total number of veasels carrying on a direct trade between Chita and forelgn conntries to $50 \%$. The trade with Jajan is confined to the port of Ningpo, io Cinckiang, and expressly limited to 10 vesaels: hut as tho diatance from Nangasukl is a voyage of ro more than four days, it in performed twice a year. With the exception of thim nranch of trade, the foretgn intercouree of the two provinces, t'rokiang and kiannan, which aro famous for the production of ra* ailk, teas, and nankecns, is confined to the Ihilippine Isiands, Tonquin, Cochlu Chimn, Cambodia, athd Slam: and none of this class of vessels, that I an aware of have ever fonnd their way to the western jurte of the Indian Archipeiago. The number of these trailing with siam is 24, all of conkiderablu aize; those trading with the Cochin ethinese dominions, 16 , also of considerahio size; and those trading witis the litilippines, 5 ; naking in all 45 , of which tho evcrage burien does not fail mhort of 17,000 tons, Bealdea the junks now dencribed, there is another numerous class, which may be denomiated the colonial alpplag of the Chtinese. Wherever the Chlurse aro settled in any numbers, junks of this $d$ scription are to be found: much as In Java, Sumatra, the $\cdot=$ " Malacea, elc. ; bu, the largest commerce of this des '. onducted from the Cochin Chinese dominiona, eupeciaily Irom Slam, where the number was estimated to mo at 200 . Several junks
escrijtion from the intter country come annuaily to $\$ H_{6 j} \quad e_{0}$ of which the burden is not less than froun 800 to 400 tons. The junks wisich trade between Chion and the eljacent countrics are some of them owned and huilt In China; but a considerabie zamber aise in the latter countries, particuiarly In Slam and Cochin China. Of those carrying on the Siamese trude, Indeed, no less than 81 out of the $\mathrm{S9}$, of considerabie size, were represented to me at lofigg buit and owned in sinus. The small junk i, however, carrying on the trade of Ilainan, are alf hilit an! wod in China. The junks, whetioer coionial or truiling wide t with China, vary in berden from 8000 pienls to $15,0 \mathrm{~m}$, or at ry dend welgit from 120 to 900 tons, Of thone of the lavt sise have only scen tiree or forr, and theso were at Siam, and the same which were commonily empioyed la carrying a mission and a tribute yeariy from Slam to Canton. Of the whote of the largu class of Junks, $\boldsymbol{I}$ thoutd think tho avirage burdun wili not le overrated at 800 tons eneh, which woulil make tije total tonnage employed in the nativa forelgn trade of ('hilna between 60,000 and 70,000 tons, ezclusi ve of the small junks of 11 ainsh, which, eatimated at 100 tona each, woutd make in ail about 80,000 tons.
"The junks buit in China are panaily constructed of fir and other infarior wouds. When they arrive in Cambodin, Sinm, and the Malaynin istanda, they commoniy furnish them. selves with masts, rudders, und wooden anchors, of the supe. rior timber of these countrics, Tite junks lmilt in Siam are a superior class of vesacls, the pianks and upper works being invariahly teak. The cost of ainip-inilding is inginett at the port of Amoy, in Fokien, and iowest in Siam, At these places, and at Chang-lim, in Canton, the cont of a junk of Sono pleuis, or 476 tons lonrden, was atated to me, by neverat commandern of
 Amoy, $\$ 21,1 \times N$, A juok of the mize Junt named has commoniy a crew of 90 hands, consisting of the following officem, beridea tho erew i a conmandier, a pilot, an nccountant, a capitain of the heinh, a captain of the anchor, and a captaln of the hold. The commander recuiven no pay, but han the adiantago of tho cabin accommodation for passengers, reckonod on the voyage tetween Canton and Singapore worth 150 Spaninh doliars, Ilo is atse the agent of the owners, and recelvea a commisalon, commonly of 10 per cent, on the gmoftr of nuch aliare of tho adventure, generaliy a very considerabite one, in whieh they are concurned. The pilot recolven for tho voyage $\$ 200$ of wagen, and 50 pienis of freight out and home. The beimamun lise is pieult of frelight and no wayges. Thu captalas of the anctior and the luid lave 9 picuia of freight cach; and the beanen i
piculs each. Nona of these bave any wages. The oftcers and endien of the coloulal junks are differently rewurded. bu Siamese Junk, for exampie, trading bet ween the Siamese cap. ital and Singupore, of 0060 plevis burden. the commander and pilot had eaci $\$ 100$ for tho voyage, with 12 piculs of frelght aplece. Tho accountant and heimaman had half of thits aliow. suce, and each seaman had $\$ 13$, with 5 picuio of iruight. In construction and outit, Chinese junks are clumsy and awk. ward In the extreme. The Chiuess are quite unacquainted whth narlgatlon, saving the knowledge of the compass; netwithstardinf this, as their pilots are expert, their voyagea thort, and as they hardly ever sall except at the height of the munsoons, when a falr and ateady $\hat{f}$ or 8 knota' oreeze curries them direetly from poit to poit, the sen risk is very semall. Iuring 13 years' acquaintance $w^{\frac{1}{t} \text { th }}$ this branch of trade, 1 can recollect huaring of but fuur shipw recku; and in all thes. jostances the crewa ware saved, The conctruction and rigging of a Chituese junk miny be louked upon as her proper registry, and they are a very iffectual one; fur the least deviation from them would subject her at once to forelgn elarges and forelgn duties, and to ali kinds of suspicion, Tho colonial funks, which are of a moro commodous form and ontfit, if vistime China, aro subjected to the sunte dutien us forcign vessels, Junks buitt in siam, or any oticer adjeent country, if constructed and fitted out after the custenary model, ne ndmitted to trade to China upon the aame terman an those bult and owned in the conntry, If noy part of the erew consist of Slamese, (cochin thinese, or edicr forelgnerg, the later aro ad. mitted only at the port of Canton; sud if funnd in any other part of Chinu, would be seized und inken up by tinc police ex. actly ln the same manner as if they vers Europeans. The native trade of Chima condu*ted with foreign combtricu is eot a ciandentine rommeree, unacknowiedged by ihe Chinese lawr, Int has in every case at least the express sanction of the rice roy or governer of the province, who, or petition, decides the number of jumks tiat shait be aliowed to engago in it, and even emumemater the articles which it alag? bo legal to export and import. At every port, alko, where mach a forelga trade is manctloned, there in a hong or body of security merchante, an at Canton: a fact whicll nhows cleariy enough that this 'ristitution fa jured of tise laws or customs of Cinna, und not a peculiar restraint imposed upen the intercourse with Duro pennk. The Chinese junks jroucrly enmatrueted pry no ueasurement duty, and no enmshaw or present; dutles, hurever, are paid upon goods exported and imporied, which seem to differ at the different jrovinces. They are highest at Imoy, and lowest in the island of Ilainan. The Chaese truders of Slam Informed the that they carried on tho finirest and casiest trade, suligect to tiv fewest reatrictions, In the jorte of Ningpo and Slang-lai, in Cheklang, and Soutcheon, in Kiann::n. Eireat dexterity seems every where to be exerelsed ly the Chinese in evading the datics. Onc juractice, which in very often follow. ed, wili afford a good example of this, The coasting-trude of China is neariy free from all duties and other imports. The mercinant takes udvantape of thin: and, fatending In rerlity to proceed to slam or f'ochin Chlan, for exumpic, cioars a junk ont for the faland of Ilainan, and thus avolifa tho paymut of duthes, When alhe returns she wild ife four or five days off the month of the pori, nutif a roguiar hargain be made with the enstom-house oflicers fur the reduction of duties. Tis thereat boid out in meh cases in to procecd to another jort, and thus deprive the publie officera of their custonnary perquiltes. $\mathbf{I}$ wat usaured of the frequenry of thia practice by thinose merchants of Cochin China, as well an by seversi commanders of junks at singapore. Fruri the iast-named persuns I had au. uther fact of some consifucnce, as conacted with the Lhinese trade; viz., that a good many of the Junks carrying on tnde with forogign jorts to the wertward of China often proceded on voyages to the northward in the mame aeason. In this nanner they ntated that nlout 20 considerable junke, bealdes a kreat many amail unes, proaceded ansuatily from fianton to ronchotgg, one of the capituts of Kianuan, nitd in woalth and commerec the rivai of Canton, where tiney sold about 200 chests of opium ut un advance of to per cent. beyond the liunton prires. Anotiner place where the Canton janks, to the number of five or six, repair annamify, is Chinchew, in the province of Ganton, withln tho finif of leehuley, or Yeliow Sen, and ta far nortil at tise 87th degree of latitude."-Apmendix, Iifmit of 1500, p. 298.

A Chinese ship or junk is seldom the properiy of one individual. Sometimes 10,50 , or oven 110 ditiferent merchants purchase a veskel, und divile her into ass many diliferent compartuents as thero are partncrs, so that each knows his own partieular part of the ship, which he is at llherty to the up and recure us he pleases. The luilk-henits, by which these divisions are formed, conkist of slout planke, so well cuulked as to be con-
pletely water-tight. A ship thus formed may atrike on a rock, and yet sustain no serious injury; a leak springing in one division of the hoid will not be attanded with any damage to articles placed in another ; unt, from ber tirmmess, she is qualified to resist a moro chan orilisary shock. A considerable loss of stowage is, of course, austained; but tho Chinese exports generully contain a considerable value in small bulk. It is only the very largest class of junks that have so many owners; but even in the smallest clase the number is very considerable.-See Cunsa.

Canvas ( Fr , Toile is voile; Ger. Segeltuch; It. Canevaze, Lona; Kuss. I'urussnoe polotno, I'arussina; Sp. Lom $)$, unbleached cloth of hemp or fax, chiefly used for suils for shipping.

Caoutchouc. "This substance, which has been improperly termed clastic gum, and valgarly, from jts common application to rub out pencil marks on paper, India rubber, is obtained from the milky juice of different phants in hot countries. The chief of these are the Jatropha elastica, and L'rcrola elasticu. The jusee is applied in successive coatings on a mould of clay, and dried by the fire or in the sun; and when of a satheient thickness, the mould is crushed and the pieces sluken out. Acids separato the caoulehoue from the thinner part of the juice at once, by coagulating it. The juice of old plants yields nearly two-thirds of its weight; that of younger plants less. Its color, when fresh, is yellowish-white, but it grows darker by exposure to tho air. The elasticity of this substance is its most remurkuble property; when warmed, as by inmersion in hot water, slipis of it may be drawis out to $7 \mathrm{or}, 8$ times their original length, and will retarn to their former dinsensions nearly. Cold renders it stift and igid, but warmoth restores its original elasticity. Exposed to the fire, lt softens, sweils up, and burms with a bright flume. In Cayenne it is used to give light as a canalle."-ITar's lict. Sec Inima Rimmea.

Caontchoue has become nu article of very considernble importance. M, do In Condamine, who was one of tho tirst to communiente authentic information with respect to it, mentions that, owing to its being impervious to water, it wns made into boots by the Indians. - l cyage de la Riviere des A mazones, p. 76 . It is now empl" j ed in a similar way here. Dleuns have, within these few yeurs, been discovered of reducing it to a state of solution; and when thin tilaments of it are apreat over cloth or any othet substunce, it is rendered impervious alike to air and water. Air-cushions nnd pillows are manufactured in this way; us are waterproof clonks, now in very extensive demand, hats, boots, shoes, ete. It is ulso extensively used in the manufucture of bruces and other artleles which it is desirable should possess consideruble elasticity; and there can be little doubt that it will bo employed still more extensi vely, mud in a still greater varicty of ways.

The great variety of purposes to which its elasticity' and impervionsness to water and to air have occasioned its applicntion are too numerous and fumiliar to be particularized in this place. The extent of its employment in Britain in the severnl branches of manafarture is shown by the quantity of enout choue imported, which, for the year eniling January 5, 1854, amonuted to $1 \overline{17} 326 \mathrm{cwt}$. The total quantity exported from l'ara alone, in 1852 , was 32,860 ewt., and 116,465 puirs of shoes. The tiluture of enoutchoue, for the manofacture of clastic fabrics, such as cloth, cord, tape, braces, etc., is nu important and increasing branch of our nutional industry. This operation has been mute the sulject of various putents, all moditlentions mere or les. perfect of our general prineiple, numely, that of reducing it to threads by meuns of sted ediges ucting either on the bottle caoutcheuc compressed in a mouh, on the solid eake, or by eutting it when stretched on a mandre] of woot, which is aet in rupid revolution. In this operation water is nllowed to trickle over the cuttiag blades in order to provent the colsesion that would
otherwise impede their progress. In thia mamer thread of 5000 yards to a pound weight is produced. l'revlous to its employment in the manafacture of textile fabrics, it is ${ }^{\prime \prime}$, essary to render the thread inelastic, which is effected by winding it tightly on reels and allowing it to remain in that condition until neurly deprived of Its elastlcity-which is afterward reatored by exposing it to the action of a heated smooth-ing-iron. Sheets are sometimes cut from the solid cake, and may likewiae be obtained of any size, and of extreme temulty, by apreading a solution in naphths upon eloth previously atzed, stripplng it off when dry. The use of rollers, with a piece of cloth similarly jrepared and auperimposed on the varnished surface of the first, may also be employed in this operation,-E. II.

Cap. The Romans went for many ages without regular covering for the head, and lence the heuds of all the ancient statues appear bare. lout at one period the enp was a symblol of liberty, snd when the Romuns gave it to their slaves it entitled them to freedom. The cap was sometimes used as a mark of infuny ; in Italy the Jews were distingulshed by a yellow cap, and in France those who had been bankrapts were forever after obliged to wear a green cap. The general use of eaps and hats is referred to the year 1449; the first seen in these parts of the world beling at the entry of Charles Vll. into Rouen, from which timo they took the phace of chuperons or hoods. A statute was passed that none should sell any hat sbove 20d. (40 centa) nor cap above 2s. 8.l. (G6 centa), 5 Henry VII., 1489.IIAvun.

Cape FIatteras, a headland, Nortb Carelina. Lat. $35^{\circ} 15^{\prime} 12^{\prime \prime}$ N., long. $75^{\circ} 30^{\prime} 54^{\prime \prime} \mathrm{W}$. The light-house was built in 1798 of brown sand-stone. The light is fixed, elevated 112 feet above the sea, and is visible for a distance of 17 nautical miles. Very dangerous shoals extend off from this point 10 navtical miles.

Cape Eaytien, fomerly Cape Francais, and Cape Henry, a sea-port town of the island of Hayti, on its north coast, 90 miles north of Port au Prince. Lat. $19^{\circ} 40^{\prime}$ N., long. $69^{\circ} 54^{\prime} \mathrm{W}$. J'opalation probably from 12,000 to 16,000 . Previously to the IJaytian revolution it whs a hantsome city, and it still has some tine buildings, with a secure and tolesably defended harbor, and a considerable trade, chiefly with tho United States, Great Britain, France, and Germany:

Cape Fenlopen, Delaware, a headland on the south side of the entrance to Delaware Bay. Lat. $38^{\circ}$ $46^{\prime} 36^{\prime \prime}$ N., long. $75^{\circ} 4^{\prime} 42^{\prime \prime} \mathrm{W}$. The light-house shows a fixed white light elevated 170 feet above the sea, mul is visible for a distance of $18 \frac{1}{2}$ nautical miles.

Cape Eenry, VIrginia, a headland on the south side of the entrance to Chesapeais Bay. Lat. $36^{\circ} 55^{\prime}$ $30^{\prime \prime} \mathrm{N}$., long. $76^{\circ} 0^{\prime} 12^{\prime \prime} \mathrm{W}$. The tight-house, huilt in 1791, is the leading mark for ressels bound into Chesapeako Bay. It shows a fixed white light elevated 120 feet above the sea, and is visilile for a distance of 18 nautical miles.

Cape of Good Hope, an important celony of Grest Britain, occupying the south part of the peninsula of Africa, between lat. $20^{\circ} 41^{\prime}$ and $34^{\circ} 51^{\prime} \mathrm{S}$, and long. $17^{\circ} 10^{\prime}$ and $27^{\circ} 32^{\prime}$ E. ; bounded on the sonth and east by the Indian Ocenn, and on the west by the Atlantic Ocean, on the north by the ceuntries of the Namnquas, Griquas, nud other Hottentot tribes, and on the northeast by British Kafraria. Length, west to enst (Cape peninsula to Keiskamma River), 550 miles; average breatth, 250 miles. Area, estimated at 110,000 square miles. Population in 1850, 261,436, mostly Africans, Dutch, negroes, and a amall number of Ilottentots. The country is formed of a series of territories rising in successive stages from south to north. Bays, Itelena, Table, False (the west part of which forms Simon's Bay), St. Sebastian, Mossel, Plettenberg, and Algon. Streams ne numerous but rapid, mostly dry in summer, and untit for navigation; the
chief are, on the east and sonth coart, Kelakamma, Great Jiah, Buahman, Sunday, Camtoes, and Hreode; on the west, Berg and Efephant or Oliphant ; and on the north, several small streams tributary to the Orange. The climate is mild ind healthy, but very dry; rains irregular, often falling in torrents on the coast, but rare in the plaina of the interior. Snow falls only in the mountains, and is not permanent, even on the most elevated. December and January are the warmest, and June and July the coldest months. Mean tempernture at Cape Town-in summer, 58.3 ; in winter, $76^{\circ} .6$ Fahrenheit. The greater number of discases are unknown at the Cape; the moat cemmon are consamption and spoplexy. Few of the inhabitanta attain an advanced age. Soil fertile where sufficiently watered, but the genemal appearauce of the country is sterile and menotonous. The arid steppes or Karoos of the fiterior are destitute of trees, and covered with an ephemeral vegetation, only after heavy ralas. The fora of the celony is of a peculiar character, comprising 1200 apecies, which, however, are more remarkable for the variety and beauty of their flowers than for their uses. The nost valuable is the aloe, the produce of which has been exporied in one year to the annount of \$12, 1000 ; a apecies of soda found in the Karoo, is ennplovert be tre "ailituts in the nunufacture of soap, and cances are made from the covering of the waxbeiry. European grains, and the fruits of temperate and tropical regions, have been successfulty introduced. Corn is raised more than requisite for consumption, and the cultivation of the vine is an important source of wealth; in good white wine is produced in the intcrior, but only the small vincyard at the foot of Table Mountain produces the celelrated liqueur called Com stantit. Cattle-rearing is the chief branch of rural indestry; and the introduction of the Merino sheep has rendered the rural trade of the colony important. The value of produce of the colony exported in 1840 amonnted to $\mathfrak{f} 359,517$. The coasts ahound with niackerel and herrings, and in 1812 the whale and seal fishery employed 144 boats. Some of the wild animals of Africa are still met with, lut the larger apecies decrease in proportion as colonization extends. The lion, hyena, buffalo, hippopotamus, and zebra, are occasionally seen: the rhinoceros is rare, and the elephant is driven beyond the bomniary. The ostrich and eagle are found io the monntains, and snakes are numerous. The commerce of the colony is extensive; the ports are Cape Town and Simon's Town in the west, anif fort Elizabetin in the oast. Total valuc of exports in 1814, f. 350,435 , of which $£ 2.6,217$ were to the United Kingdom. Imperts samo jear, $\mathbf{£ 1 , 1 2 3 , 0 6 1 . ~ I n ~} 1845,35$ ships ( 3713 tons) and $30{ }^{7}$ men belonged to the colony; and itr 1847, 791 ships ( 209,426 tons) entered, and 782 ships ( 205,618 tons) cleared from its ports. The colony consists of an east and a west province, and these are divided into 14 districts; viz., Cape Division and Stellenbosch in the southwest; Zwellendain, George, Uitenhage, and Albany, on tho south coast ; Clanwilliam on the northwest; Woreester and Reanfort, Graaf Reynet, and Somerset in the interior; CGlesherg on the northeast ; Cradock and Victorla on the east. The capitals have the same names as the districts, except Graham's Town, which is the capital of Albany, and Fredericksburg, of Victorin district. Stellenborch is the chief wine, and Zwellendam the principal corngrowing district; the otbers are mostly approprinted to grazing. Government is administered by a Parliament, compesed of the governor, legislative Councll of 16 members, and a $l$ louso of Assembly of 16 menbers, elected for a term of fivo years. (Salary of yovernor and commander-in-chief, $\mathbf{5 0 0 0}$.) The Dutch fornded $r$, colony at the Cape in 1648, which was taken by the Sritish in 1795.-See Cape Town.

Ft.d heers or farmers of the Cape colony, deacendrats of the original Dutch settlers, have lost much of their ancestral induatry and cleanliness; they are affec-
tionate in their family relations, and strict in religionn observanced, but prejudiced and illiterate. Education has been long neglected in the colony; the only institutions of importance were, till lately, the South African college, and the South African institution at Cape Town; but a comprehensive system, ombracing primary and classical scho-1s, was iastituted by the goverument in 1839. In 14 / of the diatriets are mission. ary achools supported ${ }^{2} c^{2}$ erent Protestant aceietics. In 1842 there were 40 p...bice and 102 private schools, attended by 2700 children. The colonial grants in the asme year were, for educational purposes, $\mathcal{L 6 0 2 1}$, and for religious purposes, distributed among the difierent sects, $£ 10,481$. Slavery was abolished in 1833. The Finglish language is alono used in the courts of law, but the Duteh is also taught in the governnient schools. The money in use ia exelusively British; and Dutch weights and maanures are nearly superseded by the English. The peaee of the celony is frequently interrupted by incursions of the Kaffers, and other savage tribes on the frontier.

Capers (Fr. Capres; Germ, Kappern; Du. Kuppers; It. Cappari; Su. Alcaparras; Russ. Kıuperszu; Lat. Capparis), the pickled buds of the Capparis spinosat, a low shrul, generally growing out of tho joints of olit walis and tho tlssures of rocks, in most of the warm parts of Europo. Capers ire imported from different parts of the Mediterrancan ; the best from Toulon, in France. Some small salt capers come from Majorca, and a few flat ones from the neighborhood of lyons. In 1852, 117,067 pounds of cajers wers retained for consumption.

Cape Town, the rapital of the British territory in Sonth Africa, at the bottom of Table Bay, about 32 miles north from the Cope of Good Ilope, and on the western side of the territory to which it gives its name; Iat. $83^{\circ} 55^{\prime} 56^{\prime \prime} \mathrm{S}$., long. $18^{\circ} 21^{\prime} \mathrm{E}$. . The town was founded by tho Dutch ir 1650 ; and remaincel, with the territory sialject to it, in their possession tiil it was taken by the liritish in 1795 . It was restored to the Dutch liy the treaty of Amiens; but heing agsin coptured ly the British in 1806, it was finally ceded to then in 1815. The streets are laid out in atraight linea, crossing each other nt right angles; many of then being watered by canals, and pianted on each side with oaks. The population in 1.42 amounted, according to the statement in the C'aje Almanac, to 22,543 , of whom about a third were blacks. 'The town is defended by a castlo of considerable at rength. Table Bsy is capabie of containing sny number of ships; but it is exposed to the viesterly winda, which, doring the nonths of June, Jaly, and Angust, throw in a heary awell, that has teen productive of many distressing necidenta. This, in fact, is the great irswback apon Cape Town, which in sll other respects is most admirably fitted for a commercial station. At the preper scason, howe ver, or during the prevalence of the easterly monsoon, Table Bay is perfeetly safe; while the cheapness and nbundance of provisions, the healthiness of the climate, and, alove all, its poaition, render it a peculiarly desirable resting-place for ships bound to or from India, China, Anstralia, etc.

The plan of Tablo Bay on the opposite page is taken from the survey of the Cape of Good IIope, exceuted by Licutenant Vidal and others, under the direction of Captsin Owen.

Port Insiructions.-Art. 1. On the arrival of nerchant vessels in Table Bay, a proper berth will he pointed out to the masters thereof by the port captain when he boards them; and no master of a merchant vessel shall sbift his birth without permiasion from the port cajtain, unless in case of extreme emergency, when lie must report his having done so as early as possible at the port-office.

Art. 2. Should it be the intention of a master of a vesael to discharge or recelve on board any considerable quantity of merchandise, a berth will be pointed
n religions Education only inst. outh Afrl. m at Cape aelug pri$y$ the goro mission$t$ societles. te selhools, unts in the :6021, and - different 333. The te of law, it sehools. nd Dutch dd by the tly interer savage

Du. Kар. Kaperszü; zris spinajoints of the warn different 'oulon, in Mujerca, of Lyona. ained for
territery about 32 d on the ts naine ; wn was ed, with on till it tored to og again ty ceded straight many ${ }^{2}$ on each rounted, anac, to he town h. Taships; , during w in a my dis-tirawpecta is on. At valence ly safe ; ous, the osition, rr ahips $s$ taken cecuted :tion of of merwill be captaln rclant om the gency, arly aa or of a asiderolnted

plan of tadle day. by hieutenant vidal., b, n, See p. 208.
References to the Man.-A, Ilght-house, furnished with doubie lights. They may be geen clearly off deck at 16 mites' distance; tut they do not appoar double Lill withln 6 or 7 miles to the westward ; from the northward only one light is seen. B, Llon's Rump. C, Tsble Mountatu. D, Devti's l'eak, in tat. $30^{\circ} 57^{\prime} 2^{\prime \prime}$. E, Mohbin Isiand. F, Sail River. The figures denote the soundings it. fathoms.
out to him as elose to the jetty, or other landing-place, by the bearings of two landmarks, and the depth of as the safety of the vessel aud other circumstances will, the water; and should aecident oecur, by which the sdmit. And the master will then moor with two bower anchers, with an open hawse to the north-northeast, taking especial carc, in so mooring, not to overlay the anchors of any other ship, or in any way to give the vessel near him a foul berth. Ships and vessels touching in Table Bay for water and refreshmenta alone may ride at aingle anchor in the outer anchorage; but In this case it is particularly recommended to veer out 80 or 90 futhoms, if they ride by a ehain cablo, as the liability of starting or fouling the anehor, or breaking the chain, will theraby be greatly lessened; and if riding by a rope or coir cable, to run out a stream or geod kedge, to steady the ship; and In both cases the oflser bower anehor ahould ba kept in perfeet readiness to let go. When the vessel is properly moored with hower anchors, or well seeured with a bower and atreain ancher, and with good calles, buoys, and buoy-ropes, the master wlll then take the exact place of the ahip
vessel may drift from this situation, or lose her anchors, a good bearing and depth of water must be taken at the time, and the sanus inust be notified in writing to the port eaptain. It is partieularly recommended that vessels be kept as snug as possible, to counteract the effects of the periodical winds, which at times blow with considerable violence.
The district subject to Cape Town ls of very great extent, and contains every variety of sill, from the richest level lund to the wildest mountain, and tracts destitute of even the nppearance of vegetation. The elimate fluctuates between the two extremes of rain and drought. On the whole, its advantages and disadvantages seem to be pretty equally balanced; and the prospects whieh it holds out to the industrious emigrant, if not very alluring, are cartainly not diseouruging.
Population.-Aceording to the officinl returns, the


IMAGE EVALUATION TEST TARGET (MT-3)


Photographic Sciences
popnlation of the Cape Colony 1,1847 conaisted of 167,995.
Produce.-Large quantities of corn of a very good deacription are produced in the immediate neighborhood of Cape Town, and in other parts of the colony; but agriculture is crippled by the Dutch law of succession, which, by dividing a man's property equally among his children, hinders the accumulation of oapital in masses, and the formation of proper farming es-tabllshments.-Thosson's Travels in Southern Africa, p. 824.

The Marritius and Rio Janelro are the principal markets for the corn of the Cape. The exports of wool have increased very rapldly within the last ten years, and it now forms by far the most important article sent from the colony. The native breed of eheep is very inferior ; its fleece is worth nothing, and it is remarkable only for the size of the tail, which sometimes weighs 20 lbs.! But fine-wooled Spaniah merinos, Saxon and English sheep, succeed remarkably well, and their wool fetches a high price. The eastern district of Albany is eapecially suitable for sheep.
Large quantlies of wine, and of what is called brandy, are produced at the Cape; but, with the ox. ceptlon of Constantia, they are very inferlor. The effect of allowing the importation of Cape wines into the United Kingdom at a comparatively law duty le, not to occasion thelr direct consumption, but to cause them to be employed as a convenient means of adulterating others ; so that, beeides being injurious to the revenue, such reducition of duty promotes frand-
ulent practices, and detracts from the comforts of the pnbilic.
Considerable quantities of hides, akina, and horns are exported. They are principally brought from Algoa Bay, on the eastern side of the colony; and the trade has increased very fast during the last six or seven years. Aloes aro an important product; and harses, butter, beef, ivory, argol, and vatious other articles, are smong the exports. The latter also include dried fish, whale and seal oll, etc., the Cape fisheries being of considerable value.
The imports at the Cape consist of woolens, cottons, hardware, earthen-ware, furuiture, haberdashery, soap, paper, books, and portions of most articles nsed in this country. Plece goods and teak tlmber are imported from India, tea from China, sugar from India, the Mauritius, etc.

Trade.-The trade between the colonists and the independent natives is subjected to various restraints, of which it is not always very easy to discover the policy. The sale of gunpowder and fire arms to the nstives bas been prohibited: a regulation which might have been a judicious one, had they not been able to obtain them from any one eise. The Americans bave, hawever, treded with the eastern coast, and have liberally supplied the natives with these and various other articles; so that by keeping up the regulation in queation, the English exclude themselves from participating in what might be an advantageaus trade But since they have taken possession of Natal, this intercourse may perhaps have been stopped.

Account or tur Quantitige amid Values of taie araple Aeticleg, tha Phonucz of the Colony or the Cape or Goon,
Hopk, Expoated in the Year Enmino סTil January, 1847.

| Artielea. | quantities. | Value. | Arleles. |  | Quantitioa, | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Num. |  | cill |
|  | 60,00 | 200 0 |  |  | 83, | ,244 00 |
| Beef and 1 | 4,806 | 18,434 00 | Hors |  | 400 | 17,028 0 |
| Bono (whale) . . . . . . . . P Pounds. | 8,851 | 26400 | Ivory | ounds. | 28,842 | 6,872 0 |
| Butter. | 81,7cb | 6,807 00 | Mules | Num. | 18 | 2150 |
| Candles. | 25,209 | 94500 | Oll-viz: Whale. | Gallons | 2,684 | 2110 |
| Cors and meal-vic, : |  |  | 8kine-vias : Cialf. | Num. | 120 | 200 |
| Barley ......... Mulde | 2,309 | 1,302 000 | Go | - | 280,104 | 22,640 0 |
| licans and yeas . . ${ }_{\text {limi }}$ Pound |  | 1,058 1,432 0 |  |  |  | 188 0.703 00 |
| Miran............ Poun | $\begin{aligned} & 853,196 \\ & 750,438 \end{aligned}$ | 1,492 <br> $\mathbf{7 , 0 1 8}$ <br> $\mathbf{0}$ <br> $\mathbf{0}$ <br> $\mathbf{0}$ <br> 180 | Epirits-Vis.: Bran | Wons. | 240,049 4,047 | 0,703 000 |
| Oata . . . . . . . . . Muid |  | 40000 | Tal | ounds. | 147,071 | 2,491 00 |
| Wheat | 240 | 24200 | Wax |  | 2,843 | 1080 |
| Feathers (ostrich)..... loond | 1,827 | 7,06050 |  |  |  |  |
| Fish (cured) | 1,602,925 | 7.22100 | Constantis. | allon | 8,064 | 2,014 00 |
| Frulis (dried) | 255,818 | 8,888 000 | Ordla |  | 808,708 | 87,689 136 |
| Frults (green) | 6,800 | 60.0 | Wool | und | 3,271,128 | 178,011 00 |
| Other Articles |  |  |  |  |  | $\begin{array}{r} 2360,290186 \\ 32,48500 \end{array}$ |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\overline{\text { £818.775 } 130}$ | Totai . ............................................................................... 2818.3 . 130 |  |  |  |  |  |
| Of the mbove, the value of the exports from Cape Town was. . $228,815{ }_{0}^{6}{ }_{0}^{d}$ Lltto, exported from Slmon'a Town Ditto, exported from Port Elizabeth$\qquad$ 170, 471180 289 00 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Ditto, exported from Blmon'a Town. Ditto, exported from Port Elizabeth $\qquad$ |  |  |  |  |  | 2038,76 100 |

- Port Elieabeth, on the eaft elde of Algoa Bay, is rapldly rising In commenclal Importance: and from the greater fertility of the country in tis vieinity, its oxports will probably, in no very longthoned period, oxceed those from tise cape.

A scmmaly Vien of the Trade and, Nayhoation of thr Colony in the Yead ending btil Jandary; 184 ti.

| Ports. | Vemeola inward. |  | Veseela oniward. |  | Total CiuntomsDaites. | Total Revenue col. Leated by the c'uetome, lusluiding Feen, Wharioga, ele. | Total Valun of Imports. | Total Valun ofEzports. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Na. | Tonnega. | No. | Tonoag ${ }^{\text {a }}$ |  |  |  |  |
| Cape Town | 390 | 168,685 | ${ }^{874}$ | 131,708 | $74,103 \text { i2 } \frac{d}{8}$ | $80,137 \quad i \quad d$ | $814,68 \overbrace{0}^{\circ} \stackrel{d}{4}$ | $315,1000{ }_{0}^{\varepsilon}$ |
| Coastwlae ..... | 181 | 21, 133 | 116 | 27,780 |  |  |  |  |
| slmon's Town.. | 83 | 12,782 | 81 | 12,360 | 4281010 | 1,040 40 | $\begin{array}{r} 4,600 \\ 80,000 \\ \text { 15 } \end{array} 0$ | $\begin{array}{rrr} 4708 & 0 \\ 800 & 0 & 0 \end{array}$ Specie. |
| Coastwise. . . . . | ${ }^{B}$ | 003 | 8 | 1,401 |  |  | 10890, 0 | 004 |
| Port Elirebith, Coastw/re...... | 70 89 | 19,8015 15,107 | 119 | 16,828 10,101 | 18,489 7 11 | 18,774 198 | 258,848 0 | 172,014 0-0 |
| Total Codony... Coantwise. ..... . | $\begin{aligned} & 649 \\ & 5 \times 46 \end{aligned}$ | $\begin{aligned} & 171.629 \\ & 37,004 \end{aligned}$ | $\begin{aligned} & 467 \\ & 815 \end{aligned}$ | $\begin{array}{r} 100,1366 \\ 45,232 \end{array}$ | $48,08105$ | $\begin{gathered} 100,768+9 \\ \ldots \end{gathered}$ | $1,128,0011510$ | 480,60486 |
| Grand Total . | 794 | 200,420 | 782 | 205,018 | 93,081 0 \% | 100,758 4 9 | 1, 124,001 is 10 | 488,3648 |

By an act passed by the colonial government of the Cape of therotn, being originai packsges as imported, to be shipped Cood Ilope, It is provided, "That it shall be lawfil for the propor officers of endiome to deliver, from any of tho bonded warehounen in this coiony, any articlus whatever duly warchnused free from ouatoms duty as atores for the use of any veasel, not
being then on any voyage from sny one port to any othrr being then on any voyage from any ond port to any othrr
port of this colony: auel delivery and alipmont ulinil be un-

der auch rales and regulationa as the eollector of custome chall dinect; and any auch artiolee shipped as storea contrary to such rutes and regulations shall, be, forfelted, and shall be deali $w$ ith to the same manner as is provided in the ordinance Yo. 6 of 1S63, in respect of goods forfited, or liahle to forfolture, Ifir breaches of the cuatomis Itive."
${ }^{1}$ Hy an'set passed June' 8th,' 1850;" it is further provided, "Thet the following articles shall be exempt from the payment of wharfage and cramage duttes, npon belag landed or mbipped ta Table, Bay or Simen'a Bay reapeotively-that is to to say, oll surplue storea or provistons for the use of whallog vensels; all whatcbone, whale-head matter, and whale or flath oll, innded or shlpped from or on board of whallag vessels, or from or on board of any other vesset conveying auch whalebone, whele-head metter, or oll, from or to any whaling vesael; provided, that such whalebone, whale-hesd matter, be not eotered for colonlal conaumption. ${ }^{\text {.", }}$, $)$

Cape Ferd, the most: western cape of Africa, in the Atiantic Ocean, between the rivers Senegal and Gambia. Lat. $14^{\circ} 43^{\prime}$ N., long. $17^{\circ} 34^{\prime}$ W. Its name is derived from a group of enormous baobab-trees which crowns its aummit.

Capa Ford Islands are situated 829 miles west of the Cape, between lat. $14^{\circ} 45^{\prime}$ and $17^{\circ} 13^{\prime} \mathrm{N}$., and iong. $22^{\circ} 45^{\prime}$ and $25^{\circ} 25^{\prime}$.W. The Archipolago consists of the following ten islands: Sal, Beavista, Mayo, Santiago (St. James), the: largest, Forgo, Brava, Grande, Rombo, St. Nicoläo, and St. Luzia; and feur islets, Branco, Razo, St. Vicente, and St. Antio. Area estimated at 1680 square miles. Population in 1850, 80,738. The white population, in the whele Archipelago is to the colored as 1 to 20 . The surface of the isiands is ${ }^{\text {t }} \mathrm{n}$ general mountainons, and some of their peaks have a considerable elevation. The volcano of Fogo is 0167 feet in height. The soil is extremely various, but mestly fertile; the absence of trees and the scarcity of water are the causes of frequent and severe distress. Climate very het, but tempered by the sea-breezes; mean temperature of May and August, $70^{\circ} 9$, A pril to September $70^{\circ}$, during the other months $65^{\circ}$ Fabrenheit ; the mornings and eveninge are cool, and dews abundant. Chief vegetable products, maize, rice, and French beans. Coffee, introdnced in 1790, has completely succeeded; the cotten shrub is indigenous; indige growa wild, and tobaeco is cuitivated in some of the islands; little sugar is grown, and wine of inferier quality; tropical fruits are abondant.-See Portugal.

Capital, in political aconomy, is that portion of the produce of industry existing in a country which may be made directly available, either for the suppert of haman existence or the facilitating of production. But in conmerce, and an applied to indirlduals, capital is understood to mean the sum of money which a merchant, banker, or tracler, adventures in any undertaking, or which he contributes to the commen stock of a partnership. It signifies likewise the fund of a truding company or corporation; in which sense the word stock is generally added to it. Thus we suy the capifal stock of the bank, etc. The profit derived from any undertaking is estimated by the rate which it bears to the capital that was employed.

A desiro to accumulate some pertion of the produce of industry being natural to mankind, and nearly universal, the growth of capital may be expected wherever the means of accumulation exist; or, in other werds, wherever men are not obliged to consume the whole products of tieir labor in their own subsistence. From the mement at which a man produces more thou he consumes, he is creating a capital; and the accumuinted surplus of production over the coneumption ef a whele community is the capital of a country.Kniant's Cyclopedia. Puhlie credit and publio order are essentially bound up with each other, and with the maintenence of generai prosperity. An infringement of either, or both, is the first and surest aignal of derangement in commerce, and iessened employment. At the preaent moment, when the atate of Euroje furniahen mo many rad axamples of the minery and ruin
which have resulted to the commercial and working classes, it is of the greatest impertance that we should form a just eutimate of the consequences which would result, In this conntry, to the various classes of soclety from any important interraption of that peace and order for which it has been generally so much distinguished; and under which, in comparison with those countries whicin have been exposed to continual outbreaks, it has riser tormo mach apoial and general prosperity.

Capoo, anort of cotton, so short and fine, that it can not be spun. It is used in the East Indies to line palanquins, to maks beds, mattresses, etc.

Caprioorn, Tropio of a lesser circle of the sphere, which is parallel to the equinoctial and at $23^{\circ}$ $30^{\prime}$ distance from it southward, passing through the heginning of Capricorn.

Capaioum. See Prpper.
Capatan, or Capstern, a strong massive column of timber, formed llke a truncated cone, and having its upper extremity pierced with a number of holes to receive the bars or levers. It/is let perpendicularly dewn through the decks of a ship, and is flyed in such a manner that the men, by torning it horizontally with their bars, may perform any work which requires an extriordinary effort.

Conslderable improvements have of late years been made in Phillips' capatans, which in their original form are not now much used in her majesty's service. A part of Phillips' plan, however, is retained, that, namely, of connecting the upper and lower capstan together. A' Fronch plan was recently devised, in which, instead of the wheel, an iron flange is fitted to take the three cables (the one ahove and the other below the class, or rate, for ships), and by this means a messenger is net required. Mcssengers are generally of chain; but rope ones are also supplied to each ship, in case the chain onee sheuld becone defective. The chain-messenger is made with a large link and a small one. This latter the apikes of the whesl enter as the wheel revelves. This messenger is passed half round the capstan, taken forward round the roliers in the bow, and the two parts of the messenger shackled together. Rope-messengers are passed three times round the capstan, and with an eye at each end lashed together. The rope-messengers in all ships are cut from five to cight fathoms longer than the distance between the capstan and the bow, in order that the men may hold on when the cable is hove in. Nlppers, made of rope, from four to five futhoms long are used to attach the cables to the messenger. These are taken off when the cable is hove in, and come aft to the chain locker (or, if the cable is hempen, to the hatchwsy near the tier).

A patent has Jately been taken out by Mr. Thomas Brown, of Lonilon, in which various improvements ure intreduced. The principal of these are illustrated in the following weod-cuts. The numbers 1 mal 2 represent the pian and elevation of the capstun flunge, for working various sizes of chain cable; 3 and 4 are the plan and elevation of the deck-pipe stopper, to be used for checking the cable when bringing the ship to, and for riding by when at ancher; 5 and 6 are the pian and elevation of the ciearing guide.

The annexed wood-cut represents Mr. Aylen's mode


CAP
872
CAR
caput), literally a head, or chjef officer ; bat the term is used in particnlar to denote an officer holding a certain zank in the arny or the navy. In the army, a captain is the officer who commands a troop of eavalry; or a company of infantry, or of artillery. His full pay in Britioh cavalry regimenta is 14 s . 7d. a day; in the infantry 11s. 7 d . Captains in the Life and Foot Gucrds rank with the colonela of other regiments, and their full pay la 15 s , a day. Captain General, the commander-inchief of an army, or of the militia. Captain Lieutenant is an officer who, with the rank of captain, but the pay of lientenant, commands a troop or company in the name and place of some other person. Thus the colonel of a regiment being uaually captain of the first company, that company is commanded by his deputy under the title of ceptain lleutenant. Cajtain of a ship of war, the officer who commands a ship of the lle or a frigate. Officers who command amaller veesels are called commanders. In ships of the line a commander ls also appointed with the captain; the former is therefore second captain. The charge of a captain in the navy ls very comprehenaive, inasmuch as he is not only anawerable for any bad conduct in the military government, navigation, and equipment of the ship he commands, but also for any neglect of duty or mismanagement on the part of his inferior officers, whose several charges he is appointed to anperintend and reg. nlute. Captain of a merchant ship, he who has tho direction of the ship, crew, lading, etc.
of anchoring a ship during a ealm, when out of soundings, to prevent her drifting when astrong current is running against her.
Sopposing a sbip of from 500 to $\mathbf{6 0 0}$ tons in a calm, with the corrent running three knota againat her, and out of soundings; let go the kedge anchor, having previouly secured two pieces of canvas to it as per figuro, No. 1 and 2 ; veer out 40 to 50 fathoms of 3 to 4 inch hawser; then lower the quarter boat or cutter, and atop the above hawser to the ring in the how and atern of the boat; then veer from the ghip 70 to 80 fathoms on the hawser, between the boat and ship; put on a anatch-block to traverae, with one or two pigs of ballast, to be nsed according to the etrength of the current.
Sapposing that the current at from 40 to 60 fathoms deep is running in a different direction from that of the aurface-as has been frequently observed in clear water at sea-it is prain that a great stranil is taken off the anchor by using the beat, inammuch as the whole atrain would be on the hawser bc, the greater part of which is borne by hawsor $a b$; tinat if the sthip rode immediate at $b$, the whole of the strain being at $b c$, would naturally require a greater weight to hold her; in fact, a bower anchor with $\mathbf{6 0}$ fathome of cable would not be aufficient, beaides the difficulty of again reoovering the anchor.
If the eurface and deep current shouid happen to run in the same direction, the ship would not then separate from the bont; all would drif together. This pinn for anchoring, there is every reason to suppose, will nnswer near the equator, or at any phace at a distance from the main land, but it is not intended for a tide way.-1.. 1.
Captain (Fr. capitaine; It. capitano, from the Latin

Caracas, or Caracoas, the capital eity of Venezuela, South Anserica, department and provinee of Caracas, lat. $10^{\circ} 30^{\prime} 13^{\prime \prime}$ N., long. $67^{\circ} 4^{\prime} 45^{\prime} \mathrm{W}$., on a declivity 2880 feet in elevation, and 16 milcs southsontheast of La Guayra, its port, on the Caribbean Sea. Population estimated from 35,000 to 50,000 . It is regularly built, well supplied with water, and has a heulthy climate. Mean temperature of June $\mathbf{7 2}{ }^{\circ}$, Feliruary $68^{\circ} 2$ Falireuboit. Principal buildings, a eatiedrsi, the fine church of Alte Gracia, and three hospitals. Exports from La Guayra consiat principally of cacao, cotton, indigo, tobacco, coffee, hides, and live cuttie. By the earthquake of 1812, 12,000 persons perished; aince which time most of its houses have been constructed of aun-dried bricks. It is the seat of a university, and the residence of the principal merchunte, on whose account the trate of La Guayra is conducted. It is the hirth-place of Bolivar. The provinee lies between lat. $7^{\circ} 38^{\prime}$ and $10^{\circ} 26^{\prime} \mathrm{N}$., and long. $65^{\circ} 30^{\prime}$ and $68^{\circ}$ W. Area, 2842 square lesguen. Population, 242,888 . Surface partiy mountainoun and partly flat; the former toward the sea-coast, where acvorsl deep inicntations oceur, and form good harbors; the latter in the interior, and on the sonth, where the country atretehes out into vast plains. It jroduces the hest cacao, und anf tropical fruits are grown in perfection. It is divided into 16 cantons.
Carat, the weight which expresses the degree of fineness of gold. The word is also written carvact, carrat, karruet, and karrat. Its origin in contested; but the inost probable opinion is that of Kemnet, who derives it from carecta, a term which anciently denoted any weight, und came afterward to be approprinted to that which expreases the tineness of gold and the gravity of dlamonds. Carata are not real theterminate

## y of Vene-

 rovine of f' W., on a iles southbbean Sea. It is reg8 a healtity , February cathedral, hespitals. of cacae, ive cuttle. perished; been contof a unimerchants, conducted. ree lies be$30^{\prime}$ and $68^{\circ}$ n, 242,888. the former dentations It the interetches out 10, anil all is divided degree of in carract, contested ; nuet, who y denoted printed to the gravterninateweights, but only imaginary. The whole maas, whatever be the weight, is conceived to be divided into twenty-four carats; and aa many twenty-fourth parts as it contsins of pure gold, it is called gold of eo many carats, or 80 many carate fine. Thus, gold of eighteen carats is mixtnre, of which elghteen parts are pure gold, and the other aix of inferior metal. Carat is also a certain waight which goldamitha and jewelers use for waighing preelous stones snd pearla. In this sense the werd is supposed by some to be derived from the Greek кepúrıov; a fruit which in Latin is called siliqua, the carob bean, each of whirh may weigh above four grains of wheat; and hence tbe Latin siliqua has been used for the waight of four graina. This carat weighs four grains; hut they are sometimea lighter than the grains of other weights. Each of these grains is subdivided into $\frac{1}{1}, \frac{1}{1}$, t, $\frac{1}{16}$, etc. Sea Weiraits and Meas-unes.-E. B.
Caravan, an organizad company of merchants, or pilgrims, or both, who associate together in many parts of Aaia and Africa, that they may travel wlth greater security through the deaerta and other places infested with robbers; or where the road is naturally dangerous. The word ia derived from the Persian kervan, or carvin, a trader or dealer.-Shaw's Travels in the Lerant, p. 9, 4te ed.
Every earavan is under the command of a chief or aga (caravan-bachi), who has frequently at his dispoasl suci a number of troops or forces as is deemed sufficient fer its defense. When it is practicable; they encamp near wells or rivulets, and observe a regular discipline. Camels aro used as a means of conveyence, almest uniformly, in preference to the horse or any other animal, on account of their wonderful patience of fatigue, eating little, and subsiating three or four days or more without water. There aro generaliy more camals in a caravan than men.-See Cambl.

The commereisl intercourse of Eastern and African nations has been principally carried on, from the remotest neriod, by meana of caravans. During antiquity, tne products of India and China were conveyed elther from Suez to Rhinoculura, or frem Buasorah, nesr the head of the Parsian Gulf, by the Euphratee, to Babylon, and thenes by Palmyra, in the Syrian desert, to the ports of Phoenicia, on the Medterranean; where they were exchanged fer the European productians in demand in the East. Sometimes, however, caravans set out directly from China, and, oceupying shout 250 days in the jeurney, arrived on the sineres of the Levant, after traveraing tho whole extent of Asia,-Gininon, vol. vii. p. 03. The formation of caravass is, in fuet, the only way in which it has ever been possible to carry on any considerable interual commaree with Aaia or Africa. The gevernments that have grown up in those continents have seldom been sbia, and aeldomer indeed have they attempted, to render traveling practicable or safe for individuals. The wandering tribes of Arabs have always infested the immense deserta by which they are intersected; and those oniy who are enffieiently powerful to protect themselves, or sufficiently rich to purchase an exemp. tian from the predatory attacka of these freehooters, can expect to pasa through territories sutiject to their incursiene, without being exposed to the risk of robbery and murder.
Since the eatablishment of the Mehammedan faith, religious motives, consplring with thoee of a less exaited character, have tended to angment the intercourse between different parts of the Jastern world.
The numerous camels of each earavan are loaded with thoso conmodities of every country which are of emaleat carriage and readiest sule. The holy city is crowded during tise month of Dhalhajjn, eorreaponding to tise latter part of June and the begiuning of Juiy, not only witi zealous devotees, but with opulent merchunts. . fair or market is hold in Maces and its vicinity on the twalve days that the pilgrims
are allowed to remain in that city, which ueed to be one of the best frequented in the world, and continues to be well attended. "Few pilgrims," aays Burckhardt, "except the mendicants, arrive witheut bringing some productions of their respective countries for sale ; and thla remark is applicable as well to the marchants, with whom commerelal pursuits are the main object, as to those whe are actuated by religious zasl; tor, to the latter, the profits derived from seling a fow articles at Mecca diminiah, in some degree, the hesvy expenses of the journay. Tho Moggrebyns (pilgrims from Moroceo and the north coast of Africa) bring their red bonnets and woolen closks; the European Turks, shoes and slippers, hardware, embroidered stnffa, sweetmeats, amber, trinkets of European manufacture, knit silk purses, etc.; the Turks of Anatolia bring carpets, silks, and Angors shawle; the Persians, Cashmere shawls and large silk handkerchiefa; the Afghans, tooth-brushes, called Mesenak Kattary, made of the spongy boughs of a tree growing, in Bokhara, beads of a yeliow soap-stene, and plain coarse shawls manufectured in their own ceuntry; the Indians, the numerous productiona of their rich and extensive region; the people of Yemen, saskes for the Persian pipee, sandals and various other works in leather; and the Africans bring various articles adapted to the slave-trade. The pilgrims are cowever, often disappolnted in their expectations of gain ; want of money makes them hastily aell their little adventures at the public auctions, and often obliges tham to accept very low pricea."-Trarels in Arabia, vol. ii. p. 21.

The two principal caravans which yearly rendezvous at Mecea are those of Damaseus and Cairo. The first is composed of pilgrims from Europe and Western Asla; the second of Mohammedans from all parts of Afries. The Syrian caravan ia said by Burekhardt to bo very well regulated. It is always accompanied by the pachs of Damascus, or one of his prineipal officers, who gives the signal for encamping and starting by firing a musket. On the route, a troop of horsemen ride in the front, and another in the rear to bring up the atragglers. The different parties of pilgrima, diatinguished by their provinces or towns, keep clese together. At night torehea are lighted, snd the daily diatance ia usually performed between three o'clock in the afternoen and an hour or two sfter sunrise on the following day. The Bedouins or Arahs, who earry proviaiona for the troops, travel by day only, and in adrance of the caravans; the encampment of which they pass in the morning, and are overtaken in turn and passed lyy the caravan on the following night, st their own rest-ing-place. The journey with these Bedouins is less fatiguing than with the great body of the caravan, as a regular night'a reat is ebtained; but their bad charneter deters most pilgrima from joining them.

At every watering-place on the route is a amall castic and a large tank, at which the camels water. The caatlea are garriaoned by a few persons, who remain the whole year to guard the provisions deposited there. It is at these watering-places, which belong to the Bedeuins, that the aheikho of the tribe meet the caravan, and receive the accustomed tribute for allowing it to pass. Water is plentiful on the route; the statiens are nowhere more distant than 11 or 12 hours' mareh; and in winter pools of rain-water are frequently found. Those pilgrims who ean travel with a litter, or on commodious eamel-saddles, may sleep at night, and perform the jeurney with little incenvenience; lut of those whom poverty, or tie desire of apeedily acquiring a iarge sum of money, induces to follow the caravan on foot, or to hire theinselves as servants, many die on the resd from fatigue.-Travels in Arabia, vol. ii. p. 8-9. The caravan which sets out from Cairo for Meces is net genurally so large as that of Damascus; and its ronte aleng the ahores of tha Red Sea ia more dangerona and fatiguing, But many of the African and Egyptian merehants and pilgrims asill from Suen, Cos-
seir, and other port on the western shore of the Red Sea, for Djidda, wheuce tha journey to Mecca is short and easy. The Persian caravan for Mecce sets out from Bagdad; but many of the Porsian pilgrims are now in the habit of embarking at Bussorah, and coming to Djidde by, sea... Carevans from Bagdad and Bussorah proceed to Aleppo, Damascus, and Diarbeker, laden with all sorts of Indian, A-abian, and Persian commodities ; and large quantities of European goods, principally of Engiish cottons, imported at Bussorah, are now diatributed throughnut all the eastern parts of the Turkiah enpire by the same means. The intercourse carried on in thia way is, indeed, every day becoming of more importance.

The commerce carried on by caravans in the interior of Africa is widely extended, and of considerable value. Besides the great caravan which proceeds from Nubia to Cairo, and is joined by Mohammedan pil. grims from every part of Africa, thare are caravans which have no object but commeree, which set out from Fea, Algiers, Tunis, Tripoll, and other states on the sea-coast, and penatrate far into the interior. Some of them take as many as 60 days to reach the place of their destination; and as their rate of travaling may be estimated at about 18 miles a day at an average, the extent of their journeys may easily be computed. As both the time of their ontset end their route is known, they are met by the people of the countries through which they travel, who trade with them. Indian goods of every kind form a considerable article in thia traffic; in exchange for which the chief commodity the inhabitants huve to give is alaves. Three diatinct caravens are employed in bringing slavcy and other commoditias from Central Africa to Calro. One of them comea direct from Mourzouk, the capital of Fezzsn, across the Lilyyan desert ; another from Senaar ; and the third from Darfur. Thay do not arrive st atated perioda, but after a greater or less interval, according to tho auccess they have had in procuring slaves, ivory, gold dust, drugs, and auch other articies as are fitted for the Egyptian markete. The Mourzouk caravan is said to be under the best regulations. It ia generally about 50 daya on its passage ; and aeldom consiats of less than 100 , or of more than 300 , travelers. The caravans from Senaar and Darfur used formerly to be very irregular, and were somatimes not seen in ligypt for two or three years together; but since the occupation of the former by the troops of Mohummed Ali, the intercourse between it and Egypt has become comparatively frequent and rogular. The number of siaves imported into Egypt ly these caravana is said to amount at present to about 10,000 a year. The departure of a caravan from Darfur is looked upon as a most important ovent ; it engagea for a while the attention of the whole country, and oven forms a kind of cra.-Bhowne's Travels in Africa, 2ci ed. p. 78. A caravan from Darfur is considered large if it has 2000 cameis and 1000 slaves. Many of the Moorish pilgrims to Mecca cross the sea from Sounkin and Massounh to the opposito coast of Arabia, and then travel by land to Mecca; and Burckhardt states, that of all the poor pilgrima who arrive in the IIedjaz, none bear a more reapectable character for induatry than those from Ceutral Africa.

Caravans are distinguished into heary and light. Camels loatied with from 500 to 750 lise. form a heavy caravan; light caravans boing the term applled to designate those formed of camels under a more moderato load, or perhaps oniy Jialf londed. The mean daily rate at which heavy caravans truvel iu about $18 \frac{1}{2}$ miliea, and that of ligist caravans 22 milica,

The safety of a caravan dependa materialiy on the conduct of the caracambachi, or leader. Niebutir aays, that when the latter is intelifigent and honest, and tho traveler undarstands the language, and is accustous. ed to the Oriental method of traveiing, an excursion through the desert is rarely oithar diaggreeable or dan-
gerous. - But it is not unusual for the Turkish pachias to realize considerabie sums by selling the privilege of conducting caravans; and it is generally belleved in the East that leaders so appointed, in order to indemnify themselves, not unfrequently arrange with the Arabian ahaikha as to the attack of the caravans, and share with them in the booty. At all events, a leader who has paid a large aum for the situation, even if he shouid be honeat, mast impose proportionally heavy charges on the association. Hence the best way in travaling with caravans is, to attach one's asif to one conducted by an active and experienced merchant, who has a considerable property embarked in tho expedi. tion. With ordinary precaution, the danger is then very trifling. It would be easy, indeed, were there any thing like proper arrangements made by government, to rendar traveling by caravans, at lesat on all the great routes, abundantiy secure.-Niesonik, Voyage en Arabue, tome ii. p. 194, ed. Amst. 1780.

No particular formsilites are required in the formation of a caravan. Thoae that atart at fixed perioda are moatly under the control of government, by whom the leadera are appointed. But, generally apeaking, any dealer ia at liberty to form a company and make one. The individual in whose name it is raised is considered as the leader, or cararan-bachi, unless ho appoint some one else in his place. When a number of merchants associate together in the design, they elect a chief, and appoint officers to decide whatever controversies may arias during the jonrney.-For further detaile with respect to caravans, see the Modern Part of the Universal History, vol. xiv. p. 214-243; Roneritson's Disquisition on Anciuni India, Note 54; Reres' Cyclopedic, art. Cararan, most of which is copied from Rovertson, though without a aingle word of acknowiedgment; Buнckuandt's Travels in Arabia, vel. ii. passim; Unquilart on Turkey and its Resources, p. 187,151 , etc.

Caravanserat, a large public building or inn appropriated for tho reception and lodgment of the caravans. Though aerving in lieu of inns, there is thls radical difficrence between them-that, generaily speaking, tho traveler finds nothing in a caravanacral for the use elther of himself or his cattle. He must carry all his provisions and necessurlea with him. They are chiefly built in dry, barren, desert placea; and are mostly furnished with waler brought from a great distance and at a vast expense. A well of water is, indeed, indispenaable to a caravansersi. Caravanserais aro also numerous in cities; where they servo not only as inns, but as shops, warehouses, and even exchanges.

Caraway-seed (Fr. Carii, Cumin des pris; Ger. Keummel, Brodkümmel; It. Carvi), a smail seed, of an obiong and siender figure, pointed at botin ends, and thickest in the middle. It is the produce of a biennial plant (Carum carus), with a taper root like a parsulp, but much amalier. It ahould be chosen Jarge, new, of n good coior, not duaty, and of a at rong agreeable smell. It is priacipaliy used by confectioners. The stem rises from two to three feet in helgit, and produces numerous umbela of smail whitisin or reddish flowera; and each flower is aneceeded by two singlo-scecied capauies, which are the caraway-seeds of commerce. These have a strong poculiar odor, with an nromatic bitter taste, and yield, on distlijation, about 4 per cent. of a voiatife oil, on which their properties depend.

Carboy, a large globular bottlo of green glass, protected by wicker-work; uscd chiefly for hoiding acids and inghiy corrosivo iiquidis. The average capncity of these bottles is 12 gnilions.

Carbunole (Gor. Karfunkel; Fr. Wacarbouhie; 11. Cnraonchio; Sp. Carbunculo; Lat. Carbunculus), a precious stone of tho ruby kind, of a very rich glowing blood-red coior, higisly catcemed by the ancients.See Runy.

Card (Fr, Cardes; Ger. Kardiatschen, Karden, Wollkratzen; It. Cardi; Russ, Bardü; Sp. Cardas), an in-

The stem nd produces eddish flow-ingle-sceded of commerce. an nromatic ut 4 per cent. 3 depend. en ciass, pronolding acids ago capncity
rrboukie; It. culus), a prerich glowing s ancients.-

Karden, IFollridas), an in
strament, or comb, tor arranging or sorting the halrs of wool, cotton, etc. Cards are either fastened to a flat plece of wood, and wrought by the hand; or to a cylinder, wrought by maehinery:-Sce Playino Cards.

Cardamoms (Fr. Cardamomes; Ger. Kardomom; It. Cardamomi; Sp. Kardomomos; Hind. Gujarati elachi), seed capsulea prodaced by a plant, of which there are different species growing in India, Cochin China, Siam, and Caylon." The capsulea are gathered as they ripen; and when dried in the sun, are fit for sale. The small capaulés, or leaser cardamoms, are prodnced by a particular species of the plant, and are the inost valuatle. They should be chosen full, plnmp, and difficult to be broken; of a bright yellow color; a piereing smell; with an aerid, hitterish, though not very unpleasant taste; anil particular care should be taken that they are properly dried. They are reckoned to keep best in a body, and are therefore packed in large chests, well jointed, pitched at the seams, and otherwise properly secured, as the least damp greatly reduces their value. The best enrdamoms are brought from the Malabar coast. They are produced in the recesses of the mountains by felling trees, and afterward burning them $;$ for wherever the aahes fall in the openings or fissures of the rocks, the cardamom plant naturally springs up. In Soonda Balagat, and other places where cardanoms are planted, the fruit or berry is very inferior to that produced in the way now mentioned. The Malahar cardamom is described as a species of bulbous plant, growing 3 or 4 feet high. The growers are obliged to sell all their preduce to the agents of government at prices flxed by the latter, varying from 550 to 700 rupees the candy of 600 lbs , aroirdupois; and it la stated that the contructor often puts an exhanced value on the coins with which he pays the mountaineers; or makes them take in exchange tobacco, cloths, salt, oil, betel-nut, and auch neecssary articles, at prices which are frequently, no doubt, estimated above their proper level. Such a system ought a asuredily to be put an immediate end to. Not more than one hundredth part of the cardamons raised in Malabar are used in the country. They are sent in large quantities to the ports on the Red Sea and the Persian Gulf, to Sind, up the Indus, to Bengal, Bombay, etc. They form a universal ingredient in curries, pillans, cte. The market price, at the places of exportation on the Malabar coast, varies from 800 to 1200 rupees tho candy,-Mnlnuns's Orient. Commerce, sod the valuablo evidence of T. II. Baber, Esq., before Parilament, 1830.

Cardinal Points, in Cosmography, are the four intersections of the horizon with the meridian and the prime vertical clrcle, or North and South, Eust and liest. The cardinal points, therefore, coincide with the four cardinal regions of the heavens, and are $90^{\circ}$ distant from each other. Tho intermediate points are called collateral points.

Cards, or Playing Cards (Du. Knarten, Speelkarden; Fr. Cartes à jouer; Ger. Karten, Spicl Karten; It. Carte da giuoco; Russ. Kartu; Sp. Carras, Napes; Siv. Kort), manufactured of pleces of paste-board, having various devices, and arranged in paeks, gencrally of 52 pleces in n pack and used for playing numerous games.-Sce Playina Canms.

Careening (F. nch Faire abbattre carèner), heaving a vessel down on one pide, hy applying a strong purchase to the inasts, so that the vessel may be cleared from any filh that adheres to it hy breaming. A half careen takes place when it is not possiblo to cone at the bottom of the ship, so that only half of it can be carcened.

Caribbean Bea, that part of the Atlantic Ocean lying between the consts of Central and South Ameries and the islands of Cubs, Haytl, Porto Kico, and the Leeward and Windward Islands.

Caribbee Islands, in its more extended sense, is spplied to the whole of the West Indies; but efrictly

It only comprehends that clnster of lalands atretehing from Porto Rico to the coast of Soath America, and known as the Leeward and Windward Islands.

Carline, or Caroline, a ailver coln current at Naples, worth about 4d. sterling.

Carlines, or Caringes, in a ship, two pieces of timber ranging fore and aft from one beam to another directly over the keel. On these reat the ledgen to which the planks of the deck are fixed. Carline kneea are timbers lying athwart the ship, from the sides to the hatchway, and serving to sustain the deck.

Carmine' (Ger, Karmin; Du. Karmyn; Fr. Cormine; It. Carminio; Lat. Carmintum), a powder of a very beautiful red color, bordering upon purple, and used by painters in miniature. It is a species of lake, and is formed of finely pulverized cochineal. It is very high priced.

Carnelian. See Aartr.
Carpet, Carpets (Ger. Teppiche; Du. Tapyten, Vloer-fapyten; Fr. Tapis; It. Tappeti; Sp. Alfombras, Aleatifas, Tapetes; Russ. Kourni, Kilimi), is supposed to be derived from Cairo (whence also the French Cairan, a Turkey carpet), and from the Latin tapes, tapestry, corresponding to the Italian carpetta and the Dutch karpet. It is lagitimately applied to an article of manufacture used for covering the floors of chambers or spreading on the ground, although, while it wes a novelty in Europe, tables also were covered with it. Carpets and rugs were manufactured at a very remote period in Egypt, India, and China; but those of Persia an-1 Turkey are the most celebrated. They were originally used for sitting and reclining upon, as may still be observed in Eastern countries, where they conatitute the entire furniture of the people. In Egypt they were first applied to religions purposes by the priests of Heliopolis, and were also used to garnish the palaces of the Pharaohs. It was also a custom of antiquity to place them under the couchea of guests at banquets. Sardinian carpets are mentioned by Plato, the comic poet, as being disposed in this manner-" henenth the ivory feet of purple-cushioned couches." The carpets of the EIomeric Age were generally white or plain cloths; but they were also sometimea produced with various colors and embroidered designs. At the supper of Iphicrates, purple carpets were spread on the floor; and at the magnificent banquet of Ptolemy Philadelphus (nn aecount of which is given by Callixenus of Rhodes) we learn that underneath 200 golden couches "were strewed purple carpets of the finest wool, with the carpet pattern on both sides ; and there were handsomely embroidered rugs, very beantifully elaborated with figures. Besides this," ho adds, "thin Persian cloths covered all the centre space where the ghests walked, having most accurate representations of aniinals embroidered on them."-Athenceus, v. 26. The Babylonians, who were very skillful in weaving cloths of divers colors (PLiny, viii. 48), delineated upon their carpets entire groups of human figures, together with such fahulous animals as the dragon, the sphinx, and the irriffin. These were numbered among the luxuries of IIcliogabalus. On the tomb of Cyrus was spread a purple Babylonian carpet, end another covered the bed whereon his body was placed.-Armins, vi. 29. These earpets were exported in conslderable quantities to Greece and Rome, where they were highly esteemed, Carthige was also noted by ilemippus, Antiphanes, and others, for its magnificent carpets.
"Carpets we"e in use, nt least in some kind, as early as the thys c. Amos, ahout 800 n.c.-Amos, ii. 8. Carpets were spread on the ground, on which persons sat who dwelt in tents; but when first used in houses, even in the East, wo have no reeord. In the twelfth century carpets wero articles of luxury; and in Encland, it is nientinned as an instanee of Beeket's splendid style of living, that his sumptuous apartments were every day in whiter strewn with elean straw or hay; about A.d. 1160 . The manufacture of woolen
carpets was Introduced Into France from Persla, in the relgn of Heary IV., between 1589 and 1610. Some artisans who had quitted France in disguat went to England, and establisthed the carpet manufacture about 1750. There, as wlth most nations, Persian and Turkey carpets, especlaily the former, are most prized. The famous Axminster, Wilton, and Kiddernic ser manufacture is the growth of the last hurdred years. The manufacture of Kidderminater and Brussels carpets has much advanced within fifteen yeare, at Lowell, Massuchusette, and Thomsonville, Connecticnt."Hayds.
Sir J. Gardiner Wilkinson gives us an account of an ancient carpet-rug of Egyptiun manufacture. "This rug," he tells us, "is made, like many clothe of the present day, with woolen threads on linen strings. In the centre is the figure of a boy $\ln$ white, with a goose above, the hleroglyphic of a 'child,' upon a green ground, around which is a border composed of red and blue llnes," etc.-Manners and Customs of the Ancient Egyptians, vol. iii. p. 141-2. He further informs us that there are in the Turin Museum some specimens of worked worsted upon linen, "in which the linen threads of the weft had been pleked out, and celored worsted sewed on the warp." In thers two examples we hare evidence of the existence, at a very early time, of a syatem of tapestry-weaving. The anclent carpet manufacture of the Asiatle countries may resolvo itself under the appeilation rif needle-werk. Of this, the present process of carpet-weaving ${ }^{1 n}$ Persla and Turkey, and the tapestry manufacture oi France, may be considered aa fitting examples. The tapestry, as is weil known, consists of woolen or other thresda sewed on the strings of the warp by means of smali shuttle-needles. The Persian carpet is formed by knotting into the warp tuft after tuft of woolen yarn, over ench row of which a woof shot is passed, the fingers being hers employ ed Instead of the shuttle-needles, as the fubric is of a coarser description. In both methods the principle is the same. Both are fermed in leoma of very simple construction, the warp threads are arranged in parallel order, whether upright or horizontal, and the fabrle and pattern are produced by colored threads, hand-wrought upon the warp. This may be designated the hand-wrought or needle-work method, which only nakes one stitch or loop at a time, in contradistinctlon to the machine-wrought process, the result of meehanical appliances, wheroby a theusand stitches are effected at once. Herein lies the easential difference between the nncient and modern, the simple and complnx carpet manufacture.
rersia.-In Persla there ere eutire tribea and families whose enly occupation is that of carpet-weaving. These dispose of their productions at the bazars to native merchunts, who remove them to Smyrns or Constantinople, where they meet with European purchasers. The trade in real Persian carpeta is, however, very limited, owing to their small size. They are seldom larger than hearth-rugs, long and narrow. Very many of them, moreover, are considerably tarnished by exposure in bazars, if they have not indeed been already used. To render them more salable they are cleaned. Thls is done by cropping the surface, which in some cases is shaved quite close to the knet; hence a great proportion of those brought to this country have not their originai richness and depth of pile. Felted curpets or nurmuds are alse made in Persia, but do not constitute an export commodity. SIr Henry Bethune, late Perslan embassader, hail in his pessesslen a very singular specimen of this felt carpeting, in which colored tufts of worsted had been Inserted durIng the process of manufacture, producing a regular pattern when finished.

Turkey.-The greuter part of those Turkey carpets imported Into Western Europe are manufactured at Usaisk or Ouchsk, in the province of Aldin, about six days' journey from Smyrna, and ruge princlpally at

Kulah or Koula, an adjacent village. In the provincen of Hoodavendignlar, Adana, and Nish, numerous householda are employed in their production, as also in the districts of Bozah, the city of Aleppo, and the villages of Trebizoud. Here and there, throughout Caramania, anch carpete are also made. The Turco mans of Tripoll, the women of Candla, and the peasantry of Tunla and Algiers, are likewise engaged In their fabrication. In none of these places, however, does any large manufactory exlat ; the carpets are the work of familles and households. These carpets are woven in one plece, and there is this notable pecullarity in their manufacture, that the same pattern ls never again exactly reproduced; no two carpete are quite alike. The patterns are very remarkable, and their origln is unknown even to Mussulmans. The Turkey carpet pattern represents Inlald jeweled work, which accords with Eastern tales of jewels and dlsmonds. If thls were rightly understood, it would prevent such speculations as these of Mr. Redgrave in hir Great Exhibition Report on Design, where he remarks, that "the Turkish carpets are generally designed with a fuct berder of fiowers of the natural size, and with a centre of larger forms conventionalizen in sems cases even to the extent of obscuring the forms-a fault to be aveided." This is doubtless a very ingenleus mede of aecounting for the curlous forms of a Turkey carpet ; but these, hewever fantastle, are never obscured, nor are there any flowers, flat or otherwise, tn the borders or elsewhere. The great beauty of these carpets lies in the equal balance of color, of dull nexitrul shades, some what sembre in effect.
India.-Generally throughout British India the carpet manufacture is carried on. At Beasres snd Moorshedebad are produced velvet carpets with gold embroidery. A very elaborate carpet, sent from Cashmere to the Great Exhibition by Maharajnh Goolab Singh, was composed entirely of silk, and excited great admiration. In every square foot of this carpet, we are informed, thero were at least 10,000 tles or knots. Silk emlroidered hookah carpets are made at Lahore, Mooltan, Khyrpoor, Tanjore, and Bengal; cotton carpets, or satrunjees at Rungpore, Agra, and Sasserum; printed cotton carpets at Ahmedabad; printed floor-cloth at Mlooltan. Woolen carpets are far mere extensively manufactured; seme of which come from Ellore, Mirzapore, and Goruck pore; but the prineipal manufacturs is at Masulipstam, 292 miles north from Madras. There the capital and enterprise of Great Britain have lent their ald to the rather tardy movements of the natives, and this artlele is new in general demand. Of late years llnen warp laa been introduced instead of cotten, and the faliric is therely much improved. The deslghs of the Indian carpets have more regularity than those of Turkey, and the colers are moatly warm negatives, enlivenef with brilliant hues Interspersed. For the Introductlon of Masulipatam carpets, as of msny others, the English are indebted to the firm of Watson, Bell, \& Co., whoso Indian connection is the sole means of obtaining these beautful fabries.-EE. B.
The total value of Persian, Turkey, and Indian carpets imperted into England may be computed at about $£ 20,000$ per annum.

Oriental carpets were first introduced into Spsin by the Moors ; end at a later date the Venetlans inported them Into Italy, and supplled Western Europe with this luxurious manufacture. We have frequent mention of them during the Middie Ages, and their costliness and magnifficence are celebrated in the illuminated puges of fabliaux and romances. They were sprea. In the presence-chambers of royaity, before the high altars of chapels and cathedrals, in the bowers of " ladyes faire," and on the summer grass. Many artlcles of furniture were also covered with them-heds, couches, tables, and regal faldestels; but here it becomes difficult to distingulsh between carpet and tap-
estry, Bulde of $\mathrm{Ba}_{\mathrm{a}}$ silver lifted sonag of gol beneat geousl tha ha peried such the w black snd lit tory 0 1577. ry's pr additic to thls, In the muale

Cbeck ally us tlece is fllures made Lydga 2278) saint mattin befure leather antlqua was lat of Parl and pa Fran afuctur inta F establit which and prc these, was ex afactor carpets tished chased whoss Gobelin Flander ry VII ture in it was intende rey, wl Toward tributec brough any thil ocation of ever. tapestr; parts. a prent tion Tu lishmen the pat quently at Axm afterwa tured. of arts the beg
estry, both boing naed promiscuously. Tapestry of Buldekine or Baldachine (from Baldak, ancient name of Bagdad), was a carpet inwronght with geld and siiver threads. Such were carried on poies, and uplifted as a canopy over the host, and over great personages in procesaion. The troubedoure had carpets of gold embroidery which they laid upon the grass beneath them. Hearth-rugs and throne carpets, gorgeously embiazoned with heraldic ceatre-piecee, were the handiwork of high-born dames during the romence period. To some of these were attached frlages, but such were mere usually composed of the fag-ends of the warp, like those of Persia, India, and Turkey. A biack veivet carpet, "fringed with silver and goid, and lined with taffeta," is enumerated In the inventory of Archbishop Parke's househeld furniture'in 1577. Rushes were strewn on the floor of Quer.a Mary's presence-chamber, and that of Eiizabeth had the additional covering of a Turkey carpet. Long prior to this, however, Eastern carpets had been introduced. In the reign of Edward V1. we read that before com-munion-tabies were placed
"Carpeta full gay,
That wrought wore tn the Orient."
Checisered matting appears to have been very generaliy used about the fifteenth century. The samo articie is produced in many parts of Asla from the grassy fibres of tite ratan. $\boldsymbol{A}$ superior description is now mude from cocea-nut fibre and Manillan flax. In Lydgate's metrical lifo of St. Edmund (MS. Harl. No. 2278 ) is a representation of the room wherein that saint was born; the floor is covered with checkered matting, and a fringed hearth-rug of Gothic design is before the fire-place. Carpets composed entirely of leather strips interlaced together may be seen in our antiquarian museums, A sample of this cescription was iately prepared for the inapection of the new houses of Parilament, and offered as a covering for their halls and passages, but was rejected.

F'rance, -in the reign of Henry IV, the carpet mp.asfacture appeare to have been introduced from Persia into Frunce. Coibert, the miniater of Louis XIV., established the manufactory at Beuuvais in 1664 , which is now in the hands of the French government, and produces very artistic specimenp. A variety of these, "in Turkiah, Peruvian, aid Chinese btyics," was exhibited in London in 1851. The national manufactory of Gobelins, which likewise sent its beautiful carpets and tupestry to the great exhibition, was established shortly after that of Beanvaia. It was purchased in 1677 ly Colbert from the Gobelin family, whose progenitors, a century ago (Gilles and Jean Gebelin), brought their art, as was supposed, from Flanders. An attempt was made, in the time of Henry ViIt., by Wiiiiam Sheidon, to start this manufuctare in Engiand; but under the patronage of James I. it was more succesafully establiahed, with the superintendence of Sir Francis Crane, at Mortlake, in Surrey, where both carpets and tapestry were produced. Toward this object the sum of $£ 2676$ sterling was contributed by its royal patron, and French weavers were brought over to assiat. But it does not appear that any thing considerable was effected until afteit the revocation of the edict of Nantea $\ln 1685$, when articans of every trude fled to England, among whom were tapestry and carpet weavers, who settled in vilous parts. Abeut the year 1750, Mr. Dloore was awarded s premium by the Society of Arts for the best Imitation Turkey carpets; and Parisot conducted an nstabs lishment for their mnuufacture at Paddington, under the patroage of the Duke of Cumberinnd. Suisequently, carpets were wrought on the same principle at Axminster, in Devonahire, whence the name; and afterward at Wilton, where they are still manufactured. The board of trustecs for the encouragement ef arts and manufactures in Scotland offered prizes for the best Perslan and Turkey carpets. About ninety
years previously they had been made in the vicinity of Holyrood Palace. These expensive and magnificent carpets are now made in many parts of Europe, hut more particuiarly at the Gobelins manufactory, at Aubusson and Fellitla, In the department of Creuse, at the mannfacture royal de tapis de touruai in Belgiam, and at Deventer in the Netherlands. They are ulso made in London and Kidderminster.

Hitherto we have been treating of the simple handwrought or needle-work process, which implies great expense and waste of time and iabor, and is therefore not calculated to snppiy a general demand. The ma-chine-wrought fabric now ciaims onr attention; and first in arder, the common ingrain, Kidderminster, or Scotch carpet, which is mado in many parts of Scotiand, the north of England, and in the United States. This consists of worsted warp traversed by woolen weft, and is woven in pieces about a yard wide. It is composed of two distinct welss interlaced together at one operation, and is therefore a double or two-ply carpet, similar on either side. In this artiole only two colors can with propriety be introduced, as otherwise it has a striped or mixed appearance. A pure or plain color can oniy be obtained where the weft traveraes the warp of the aame color. Suppose a orimson figure on a maroon ground; the one web is maroon, the other is arimson, and the pattern is produced ly theso intersecting and decussating each other at points predetermined; thus what is crimson on one siue is maroon on the other, and vice rersa. One beam contains the warp of both pliea, arranged in two tiars, which is passed through the mails or metalic eyes of the harne日s-two threada through each eye-and thence through the reed. The harnese drawe up certain warp threade, to admit of the pasage of the ahnttie with the weft, the pattern depending upon auch warp threada as are so drawn : Th. This was formerly effected by means of a tevolving barre!, whose surface was studded with pins, which by retatic.e a cied upon the warp threads. These studs being arranged so at to produce one pattern, a separate berrel, or a new arrangement of the atuda, was requiaite for every other pattern. But this machine is now superseded by the more efficient Jacquard apparatus, which produces the pattern by means of an endlesa chain of perforated cards working against paralicl rowa of needles. This double fabric is also made in France, and apriga of divera colors inserted. A detalied account of this process, with elsborate diagrams, is given by M. Roland de la Platiere, in the Encyclopedie Methodigue. An improvement upon the Kidderminster carpet is the triple or three-ply fabric, the invention of Mr. Thomaa Morton, of Kilmarnock. This is composed of three distinct webs, which, by interchanging their threads, produce the pattern on both sides. A variety of color is thus obtained, and the texture is of great thickness and durability. Fignred Venetian carpeting is of aimilar description; here the woof is compietely covered by a heavy body of. warp. Dutch carpeting is much Inferior in quality, and was originaliy made of cow-hsir, but now of the coarsest wooi. Neither fabric has great capabilities of design; simple diced patterns are wrought in the Venetian, at: 'pes and checkers in the Dutch.

The Brusseis carpet is a very superior texture. It is composed of worsted and linen, and has a rich corded appearance. The figures are raised entircly from the warp, by inserting a serics of wires between the iinen foundation and the superficial yarn. These wires are afterward withdrawn, leaving a looped surface. In this manufacture there is a great waste of material, and the colors are usually limited to five. Each color inas itz continuous layer of thiread, running from end to end of the web, which rises to the surface at intervals indicated by the deaign, and then ainks into the body of the fabric. Thus there are flve layers or covers, only a fifth part of which is visible; and owing to the lrregularity of their ascent to the surface, they can
not be placed upon ano bean, but esch thread is wonnd on a aeparate bobbin, with a weight attached to give a proper tenaion. These boblins are arranged in five framer juttiog ont behind the loom, two hundred and sixty bobbina in each frame for the ordinary width. Additional frumes are requiaite for additional colors introduced; but where more than flive are engaged the pattern ia rather indiatinet. The threads of all the bobbine are then drawn through the harnese, heddlea, and reed, to unite with the linan yarn in the compound fabric, the inequard machine being employed to produce the pattern. Brussela carpets were first introduced into Wiiton about a century ago, from Tournai, in Belgium. Kidderminater is now the chief aeat of this manufacture, where upward of 2000 looms are in operation.

Moquette or Wilton curpeta are woven in the same manner, and differ only in this, that the loopa are cut open into an clastio vejvet pile. To effect this, the wires are not circular as in the Brussela fabric, but fiat, and furnished with a groove in the upper edge, wherein the aharp point of a knife is inserted and drawn across the yarn, cutting the pilc. These carpeta, besides being manufactured in many parts of England and Scotland, are also made in Frauce.

Recent Improvements.- We now proceed to deacribe a very ingenioua improvement in this branch of carpet manufacture, the invention of Mr. Rielsard Whytock, of Edinburgh. This is a combination of the arts of printing and weaving, at the same time simplifying beth. These arts may be said to be combinced when any woven faluric is primed; but hero the process is reversed, the threada : ging printed before they are in cloth. This, to be sure, is the case when warps are printed and then woven; but the grand novelty of this invention is that the threads are printed beforo even the sarp is formed. One thread, or two treated as one, in some cases milies in length, are colored by steps of half an iach, faster than a swift runner would make the distance. When these threads have been all particolored in this manner, they form the elements, as it were, of the intended deaign or fabric. Singly, they exhibit no regular figure or pattern; but when arranged in their proper order, ready for the weaver's beam, the figure comes into view, much elengated of course, inasmuch as eighteen feet of the warp will sometimes be gathered into four feet of cloth, in order to secure the due propertions of the intended object. It has been said that the two combined arts of printing and weaving are aimpilifed by this contrivance. With regard to the weaving: First. The loom occupies only one-third of the space in length that the Brussels loom requires. Second. The latter must have 1300 little beama or bobbina, from which the werated pile has to be gathered; wherea3 this toom requires only one beam for the whole of the worsted threada. Third. While the Brussels or Wilton, on a wels of twenty-seven inches, requires for the best fabric 2860 threads, only 780 are here requisite-one layer instead of five-to produce an good or a better surface. Lastly. While the number of colors in auccession tengthwise, on the ofd principle, must not exceed six or seven, upward of twenty er thirty can be introdnced by the new method. Then, again, as a aimplification of the printing process: whereas formerly a change of blocks was required for every change of pattern, in thia new process the same blocks serve for all patterns, as the pen serves for every form of type. Nany of those manufacturers who are now availing themselves of this invention do not see wherein its true economy consists. If an object, say a rosebud, recurs a thonsand times in the length of a web, at inter/ala of four feet, the block printer must apply hio ziock a thousand times to point the opening bud; but here the huds are congregated, so that one stroke may dye them all. If it be desired to have a thousand buils in the length of the web, let a thread be wound reund a hoilow cylinder a thousand timea, and a trav-
ersing wheel charged with color be passed acroas ithe coil. The threai, when uncoiled, will be found to be marksd in a thouand places, exactly where it is wanted to tip the opening bud with red from end to end of the web. Deaign-paper, whereon the pattern is indicated in amall squares, eerves as a guide to the printer; each aquave being one atroke of the color-pnlley. After the threada are thus atreaked ncrose with color, they are removed from the cylinder or drum, and the dyea are fixed by the action of ateam. The threads are then arringed in setting-frames, according to the squares of the deaign-paper, to conatitnte the warp of the projected web. The Jacqua. . a now so far at a discount, and the loom restored to nearly the same simplicity as of old, when
"Between two trees the web was linng."
The principle here referred to is only in ita infancy. The workr of the first masters may yet he multiplicd by this process, if they will condescend to furnish the cartoons. Already flowers are produced which the betaniat can clasaify withent mistake.

Like cvery other improvement, this invention met with considerable opposition, particularly en the part of manufacturers and dealers. During the first fourteen years, the number of looms employed gradualiy increased from one to fifty-six, the greatest number in operation at Lasawade in 1847. Now, so extensive is the manufacture in England, that one house preduces to the extent of half a million sterling per annum, having upward of thres hundred loonss at werk by steanpower. It is gratifying to learn that these pewerlooms, instead of thro sing out of employment, engage more operstives with letter wages and easier work. Messrs. IIenderson and Widnell of Lasswade, John Crosstey and Sons of Ilalifax, Pardoe, Hoemans, and Pardoe of Kidderminater, and Sutherland and Ted of Lanark, are the principal manufacturers engaged upon this patent. An extraordinary consequence upon the introduction of this article is that it has not interferel with other branclics of the carpet manufacture, not one of which appears to have been diminished. There is, therefore, an addition to the trade of the conntry, to the whole amount of its prodace, itself no mean result; the whole trade being at least donbled. as fir ns fine carpets are concerned. Whytock's carpets are known under the designation of Patent Tapestry and Velvat Pite Carpets. Rugs, table-covers, fine velvets, and tapestry hangings, are wrought on the same principlc.

Another great improvement in carpet-making, which originated also in Scotland, was patented hy Mr. James Templeton, of Glasgow. It is on the chenilite principle, and consists of a process of double weaving. First a thin striped fabric is made; rand this, when cut up, is again woven inte a denser fabric for carpets, rugs, and table-covers. The ehenille atripes, like the parti-colored threads in Whytock's invention, form the elements of the second fabric, only these clements go to compose the woof instead of the warp, as in the former case. Extremely beautiful carpets have been made on this pr. iple, and these being woven in large squares, have interfered much with the Tournai or Axminster carpets, having the same depth of pile, withont being 80 expenalve. Hitherto, however, the manufacture has been confined to the place where it originated.

Patent woel mosaic is another novelty. This mnnufacture was introduced into England frem Germiny. It is produced by cementing with caoutchoue $n$ close velvet pile on a plain cloth. "Messrs. John Cressley and Sons of Halifax have brought out some ndmiralile specimens of this mesaic-work, in carpets, rugs, and hangings for walls; but as yet this method has teen more oxtensively applied to the manufacture of small articles. A very cheap description of carpet is now made near Manchester. It is first woven in plain colors hy ateam-power, under Scivier's patent, by Bright \& Co. It is then printed with colored blocks ly machinery patented by Burch \& Co. This article has a gier work. sde, John nans, and nd Tod of aged upon upon the interferell c, not one There is, ountry, to an result; far as tine re known mi Velvet , and tapneiple. ng, which Hr. James prineinle,

First a cut up, is rugs, ond arti-colorelements - compese mer case. le on this ares, have nster car$t$ being so eture has
large export sale. T The carpet menufecture is rapidly increasing in Great Britain. Upward of 6000 looms, It is computed, are now in operation, upon every description.

It remaine to spesk of earpet design. This matter is regulated by prevalling fashion and caprise, under the ever-varying semblance of good taste. There are revolutiona in decorative art as in ali things eloe, and ia these carpet design is involved.- An acute observer can discover here aymptomatic Indicationa of national or individual character. The supremacy of Gothic architecture, in our day, implles the revival of mediseval art. Simple ornamental deaigns, in quict and subdued coloring, are now about to take the place of their
L..ure brilliant predectasors. Many colors will only be tolerated in Moorish and Arabesque ornament, or in the bizarra Turkey carpet.-E. B.
The production of carpets is carried on extensively in the United States, especialiy in Massachusetts, Rhode Island, Connecticut, New York, and New Jersey. In Mussachusetts alone, in 1850, the capitsi invested in this branch of business amounted to $\mathbf{2 , 2 0 4 , 0 0 0}$, and the annual product about $\$ 1,400,000$, in wh'ch 1600 persons were employed. Oar manufacture of carpets is increaslag, and will probably equal the demand when the production of wool shall supply the wants of our manufacturers. Of the imports into this country fuily nine-tenths come from Great Britain.

Imporis or Calipites into the United Statyb.

|  | Yoar ondlot Jume $80,1868$. |  | Year andlan Jmba 80, 1886. |  | Voar endiar Jona $80,1866$. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yorde. | Valne. | Varda. | value. | Vards. | Valáa. |
| Wition | 73,879 | \$2,572 | 48,687 | \$083,280) |  |  |
| Brusaels, Turkey, and treble It | 785,402 | 752,487. | 2,236,268 | 1,318,107 | 1,492,053 | \$1,327,707 |
| Venetian and ether Ingralned | 239,167 | 142,817 | 853,725 | 165,391) |  |  |
|  | ,16. | 229,404 | .... | 697,087 | $\ldots$ | 178,870 |
| Total. |  | \$1,217,279 | ... | \$2,268,815 |  | \$1,006,677 |

The duty en carpets and carpeting, and earpet-baga and ell-cloth Imparted into the United States is 30 per cent. ad valoremp. On straw matting, worsted carpet-baga, and carpet binding, 25 per cent.
Carriages.". The invention of them is ascribed to King's Bench on a case of this sprt, Lord Mansfield Ericthonius of Athens, who produced the first chariot said: "A carrier, by the nature of his contrect, obliabout 1486, n.- Carriages were known in France in the reign of IIenry II. A.D. 1547; but they were of very rude coustruction, and rare. They seem to have been known in England in 1555; but not the art of making them. Close carriages of good workmanship lregan to be uaed by persons of tha highest quality at the close of the ei ateenth century. Henry IV. had one, Lhut without straps or aprings. Thelr construction was various: they were firat made in England in the reigu of Elizaleth, and were then called whirlicotes. The i)uke of Buckingham, in 1619, drove six horses; and the Duke of Northumberland, in rivalry, drove eigit. They were ilrat let for hire in Paris, in 1650, at the IIotel Fiacre; and hence their name.- IIaydn. Premiume at tha World's Fair held in London were given to the makers of carriages in the United States, as tiey were superior in lightness and strength, with an equal finish. New York carriages are very celebrated.
Carriers are persons undertakling for hire to carry goods from ona piace to another. Proprietore of carts and wagons, masters and ownere of shipa, hoymen, lishterncu, bargenen, ferrymen, etc., are denominated common carriers. The master of a atage-coach who only carries pasisengers for hire is not llable for goods; but if he undertake to carry goods and passengers, then he is liahie for both as a common carrier. The post-muster-gencral is not a carrior in the common acceptation of tise term, nor is he subjectod to hie Habilitien.
Duties and Liabilities of Carriers.-Carriess are bound to receive and earry the goods of ail persons for a reasonable hire or reward; to take proper care of them in their passage; to deliver them asfely, and in the same condition as when they were received (exceptiag only such losges as may arise from the act of God); or, in defailt thereof, to make compensation to the owner for wiatever loss or damage the goods may have received while in their custody, that might bave been prevented. Henco a carrier is liable, though he be robired of tine goods or they be taken from him by irresistibie force; and though this may seem a hard rule, yet it is the only one that could be safely adopted; for if a carrier were not llable for loases unless it could be ahown that he had conducted himself dishouestly or negligently, a door would he opened for ev.'y species of fraud and colluaion, inasmuch as it would be linpossible, in most caece, to ascertain whether the facts were ouch as tho carrier represented. On the sams princlple a carrier has been held accountabie for goods accidentally consumed by fire whils in his warehouse. In deliveriag the oplaion of the Court of
ges himself to use all due care snd diligance, and is answerable for any neglect. But there is something more imposed upon him by custom, that is, by the common law. $\boldsymbol{A}$ common carrier is in the nature of an insurer. All the casep ahow him to be so. This maken him liable for every thing except the act of God and the king's enemiss ; that is, even for ineritable accidents, with ticse exceptions. The question then is, What is the act of Gods I consider it to be laid down in opposition to the act of man; such as lightning, storms, tempests, and the ilke, which could not happen by any human intervention. To prevent litigation and collusion, the law presumes negligence excapt in those eireumatances. An armed foree, though ever so great and irresistible, does not excuse; the reason is, for fear it may give room for collusion, which can never happen with respect to the act of God. We all, therefore, are of opinion that there should be judgment for the plaintiff."-Forward v. Pittcrd, 1 T. R. 27. A carrier is not obliged to have a new carriage for every journey; it is sufficient if he rovido one that, without any extraordinary accident, may be fairly preaumed capahis of performing the journey. A carrier inay be disciarged from his liability by any fraud or concealment on the part of the individual emp'oying inim, or of the baiier; as if the latter copresent a parcel as containing things of little or no vulue, when, in fact, it contains thinge of great value. But when the carrier has not given a notica limiting his responsibility, and when he puts no queations with respect to tho parcel to the beiler, the latter need not say any thing with respect to it; ard though the bailer should represent the thing dellivered to tha carrier as of no valne, yet, if the latter knovo it to be otherwise, he will ibe reaponsible in the event of its being lost or damaged. If the bailer deliver goods imporfectiy packed, and the carricr does at perceice $\dot{i}$, he is not liable in the event of a loss occurring; but if the defect in the paekage were such that the carrier could not but perceive it, he would bs liabie. On this principle a carricr was made to anawer for the loss of a greyhound that had been improperly secured when given to him. A carrier may refuse to admit goods into his warehouse at an unseasonuble time, or before he is ready to take his jouruey; but he can not refuse to do the ordinary duties incumbent on a person in his situation. It is felony if a carrier open a parcel and take goods out of it with intent to ateal them; and it has been decided that if goods he delivered to a carrier to be carried to a specitied piace, and he carry them to a different
siace, and diapose of them for his own profth, ha is guilty of felony; but the emberzlement of goods by a carrier without a felonious taking merely exposes to a civil action.

A carrier is always, unlees thare be an exprees agreement to the contrary, entltied to a reward for his care and trouble. In some cases hila reward la regulated by the Legislature, and in othera by a apeclal stipulation between the parties; but though there be no legislative provislon or express agreement, he can not claim more than a ; vasonable compenaation.

Commencement and Termination of Liubility,-A carrler's liablility commences from the time the goods are actually delivered to him in the character of carrier. A delivery to o carrier's servant le a delivery to himself, and ho will tee responsible. The delivery of goode at an inn yard or warehouse, at which other carriera put up, lo not a delivery so as to charge a carrier, unless a special notice be given him of their having been so delivered, or some previons intimation to that effect.
"In New York it was held that placing goode on the wharf without notice to the consignee is not a deIlvery to the consignee, so as to diacharge the carrier, even though there was a usage to deliver goods in that manner. The carrier must not leave or abandon the goods on the wharf, even though there be an insbility or refusal of the conaignee to receive them."Kent's Commentaries.
A carrier'a liability ceases when he vesta the property committed to his charge In the hands of the consignee or his agents, by actusi dellvery; or when the property is resumed by the consigner, in pursuance of his right of atopping it in tranritu. It in in all cases the duty of the carrier to deliver the goods. The leaving goods at an inn is not a sufficient delivery. The rule in such cases, in deciding upon the carrier's liability, is to conalder whether any thing remains to be done by the carrier, as auch; and if nothing remains to be done, $b^{2}$ liability ceasea, and conversely.

A carrier has a lien upon gooda for his bire. Even if the gooda be atolen, the rightful owner ls not to have them withent paying the carriage.

Fer further details as to this subject, see Jearemy on the Lave of Carriers, pasuim; Chitry'e Commercial Law, vol. iii. p. 369-486; Buans' Justice of the Peace, title Carriers; and Kent's Commentaries, Lect. XL. There are some excellent observatione with reapect to it in Sir Wilhiam Joneg's kimay on the Lavo ('Bail-ments.-For en account of the regulations as w the conveyance of passengers in stage-coaches in England, ses M'Culloch's Dictionary.

Carrot (Duucus carota, Llnn.), a biennial plant, s native of Britain. Though long known as a garden plant, its introduction into agriculture has been comparatively recent. The uses of the carrot in domeatic economy are well known.

Cart, a carriage with two wheele, drawn commonly by horses, and used to carry heavy goods, etc. The word seema formed from the French charrette, or the Latin carrela, s diminutive of carrus. Curts of War, a peculiar kind of artillery anciently in use ameng the Scotclı. In an act of Parliament, passed in 1456, they are thue deacribed: "It in thought speidfull, that the king may requeist to certain of the great burrous of the land that are of ony myght, to mak carta of weir, and in ilk cart twa gunnia, and ilk ane to have twa chalmers, with the remnant of the graith that effeire thereto, and an cunnand man to shute thame." By another act passed in 1471, the prelatee and barons are commanded to provide auch carts of war againat their old enemies the English.-E.B.

Cartagena (Carthogo Nowa, or "New Carthage," it having been a principal colony of the Carthaginiane), a celebrated city and sea-port, and the chief naval arsenal of Spain, on a noble bay of the Mediterranein, province, and 27 miles south-woutheast of Murcia. Lat.
$87^{\circ} 36^{\prime} 5^{\prime \prime}$ N., long. $0^{\circ} 566^{\prime \prime} \mathbf{~ W . ~ P o p u l a t i o n ~} 27,787$; In 1786 it contained 60,000 inhabitants. It oceupies the declivity of a hill, and a small plain extending to the harbor, which in one of the best in the Mediterraneen, and protected from all winda by surrounding heights, and by an ialand on the south, which, at well an the city, la strongly fortified. The city, though dull, dilapidated, and unhealthy, owing to an adjacent awamp, has some good atreate and houses, numerous churches and convents, a marlne achool, lurge royal heapital, foundling hoapital, to wn-hall and cuatom-houee, observatory, theatre, circus, etc. In its westarn diviaion, an arsenal, docks for building man-of-war, and a bagme for galleyslaves. Ita port communicatea with the Segura Hiver, by tho Lorca Canal. Its manufactares of cordage and canvas, with trado in barilla and agricultural produce, bave decayed, hut it atill has a valuable tonny fishery, and a glase factory recently established by an English house; and in 1848, 14 new smeltlng works had been set up bere. The minea of Cartagena, criginally wrought by the Carthaginians, were re-discovered a few years agn; and in 1839 the new mine of La Carmen was opened succesafully by a joint-1 sck company. Since then, drainages and mining have proceeded vigorously. Cartagena was taken by Scipio b.c. 208, at which period Livy states that it was one of the richest oities in the world. It was ruined by the Gotles; and its modern importance dates only from the time of Philip II.

Cartagena, or Carthagens, a strongly fortified city and eea-port of Now Granads, South America, of which repablic it ia the chief naval arsenel, capital of ths provinco, on a sandy peninaula in the Caribbean Sen. Lat, of the dome $10^{\circ} 25^{\prime} 36^{\prime \prime} \mathrm{N}$. , leng. $75^{\circ} 34^{\prime}$ W. Population 10,000, nine-tentha of whom are a mixed black race. It is well laid eut, and built mostly of atone. It has a massive citsdel, several churches, a college with about 200 pupils, various seminaries, and two hospitals. The tempersture is very high, from $80^{\circ}$ to $86^{\circ}$ Fahrenhelt, but the air dry and healthy. Its excellent port is defended by two forts, and is the only harbor on the north coast of New Granada adapted for repairing vessels. Cartagona in the principal depot for the produce of the provincea watered by the Cauca and Magdalena Rivers, and la cotinected with the Magdaleus by a cenal. It exporta sugar, cotton, coffee, tobacco, hides, apecie, hullion, etc. Under the Spaniards, this city was the seat of a captain general, and of one of the three tribunals of the Inquisition in America. It was the first town that proclaimed independence, and in 1815 endured a most vigorous siege, and was subdued only by famine. Population of the province, 108,783.

Cartaldge, in the military art a case of pasteboard or parchment, holding the exact charge of a fire-arm. The cartridges for muskets, carabines, and pistola, contain both the powder and ball. Thoee made for cannon and mortars are cases of pasteboard or tin, sometimes of wood; and simple flannel laga have been found convenient In practice. Cartridge-bor, a case of wcod or turned iron, covered with leather, with celle for holding a dezen or more cartridges. It is worn upon a belt thrown over the left shoulder, and hanga a little below the pocket-hole on the right side.-E. B.

Carving. We have Scriptural authority for it early ir roduction.-See Exodus $x \times x i$. The art of carving is firat mentioned in profene history 772 n.c., and ls referred to the Egyptians. It was firat in wood, next in atone, and afterward in marble and brasa. Dipcenus and Scyilia were eminent carvere and sculptors, and opened a acheol of atatasry, 568 n.c.-Pisiny. See articls Wood. Carvers of meat were called by the Greeks deribitares, as mantioned by Homer.Haydn.

Cane, In Printing, a large, flat, oblong frame or box, placed aslope, and divided Inte nameroua little square compartmente, each containlng a number of
typen the P matte
types of the same kInd, whence the cempositor takes the particular letters he requires in composing his matter.
Case-hardoning, the prosess of converting the superficies or outer part of iron into steel. This is effected by placiog the artiele in a box with some animal or vegetable eharcoal, and exposligg it to a red heat. It diffirs only from the making of stecl in the aborter duration of the process. Iron tools, etc., when thus treaterl, combine the toughness of Iron with the hariness of steel.
Cash, in Commerce, means the coln, bank bills, drafts, bonds, and all immediately negotiable paper in an individual's possession.

Cash Aocount, in Book-keeping, an account to which nothing but cush ls earried on the oue hend, and from which all the disbursements of the concern are drawn on the other. The balance is the cash in hanl. When the credit side more than belances the deblt or disbursement side, the account is anid to he in cash; when the contrary, to be out of cash. Cash account, in Banking, is the name given to the account of the advances made by a banker in Scotland to an iadividual who has given security for their repayment.

Cashew-nute (Ger. Akajunüsse, Westindische A nakarden; Du. Catajuenooten; Ir. Noix d'acajou; It. Acyu; Sp. Nueces ducaju; Port. Nozes d'acaju), the produce of the A narcardium occidentale. They are exterouliy of a grayish or brownish coler, of the shape of a kidney, somewhat convex on the one side, and depressed on the other. The shell ls very hard; and the kernel, which is sweet and of a very fine flevor, is covered with e thin film. Between this and the sheli is lodged a thick, blackish, infiemmatle oli, of such a caustic auture in the fresh nuts, that if the lips chance to touch it, wlisters immediately follow. The kernels are used in eooking, and in the preparation of chocolate.
Cashier, a eash-keeper; he who receives and pays the delits of a society. In the generality of founda tions the cashier is calied treasurer. In a banking iastitution the cashier is the officer who superintends the books, payments, and receipts of the bank. He also signs or counteraigns the notes, and superintends ail the transactions uader the order of the ilirectors.
Canhmore, a kingdom in Northern Inciia, so called from its principal division, the celebrated valley of that name, and comprehending within its limits the various territories which constitute the dominions of Gholab Singh. Its boundaries are, the Kar: ;orum Mountalns on the north; Thibet on the east ; the British possessions of Spiti, Lahoul, and the Punjaub on the sonth; and the II uzareh country on the west. It extenda from lat. $32^{\circ} 17^{\prime}$ to lat. $36^{\circ}$, and from long. $73^{\circ} 20^{\prime}$ to long. $79^{\circ} 10^{\prime}$; Its extreme leng th from east to west belng 350 miles, and its breadth about 270 . Area about 25,000 square miles. The population has been estimated at 750,000. Within its limits are included the valley of Cashmere, and the provinces of Jamoo, Ladahk, IBulti or Iskardoh, Chamba, and some others. Cashmere hae been long famed for the manufacture of shawla, which are distributed all over northern and western Asia, and are exported in great quantities to Europe. These shawls owe their peculiar beanty and fine texture to the wool which is brought from Thibet, lying at a distance of a month's journey to the northeast. The wool forms the inner coat with which the goat is covered, and the breed is peculiar to Thibet; all attempts to introduce It inte India or Persia having invariably failed. The wool, which is originally of a dark gray color, is Dleached in Cashmere by a preparstion of rice flour. The process of manufacture is very slow, not more than one inch being adcied to the finest shawis in the course of a day. It is estimated that about $\mathbf{1 6 , 0 0 0}$ looms were at one time employed in this manufacture; but of late years the demand has declined, owing to the decay of the Persian and Ottoman empires, and
the desolation and poverty of the Eastern conntries. Whea Cashmere was tributary to Afghanisten, a great portion of the public revenus was exacted in shawla. The yarn into which the wool $\mathrm{j}_{\mathrm{a}}$ apun is dyed with various colors, and, after being woven, the piece ls once washed, and the border, in which is displayed a variaty of figures and colors, la attached to the shawls In so dexterous a manner that it is hardly possible to discover the junction. The price varies in proportion to the quality. A species of writing-paper is also made in Canhmere, whish is highly praised throughout the East, and was formerly a great erticle of traffie; as were also its lasquered ware, cutlery, und sugar. A wine resembling Madeira is manafactured, and a spirituous liquer is diatilled from the grape. The internal intercourso of the country lo chiefly maintained by means of the numerous streams which intersect it, and which are navigated in long and narrow boate moved by paddles,-E. B.

Cashmere Bhawle. The district from whence come these costly shawls is described as being "the happy valiey, and a paradis in perpetual spring." Tho true Cashmere shaw) an be manufactured of no nther wool than that - Thibet. They were firat brought to England in ludif; but they were well imltated by the epinning at Bradford, and the looms of Huddersfield. Shawla for the omrahs, of the "thibetian wool, cost 150 rupees each, about the yeur $160^{\circ} 0$.Bernien.

Caspian Bea, the Mare IIyrcanum of the ancients, derives its name from the Caspii, is tribe who settled on Its shores. Among the Orientals it is known under a variety of names; by the Russians it la called the Sea of Astracan, and by the Turks Buhri-Ghong. It is situated between $36^{\circ} 35^{\prime}$ and $47^{\circ} 25^{\prime}$ N. lat., sud $46^{\circ} 15^{\prime}$ and $55^{\circ} 10^{\prime}$ F. $1 . n g$., is the largest inland lake in the wrold, and has no outlet to the ocean. It is surrounded by the Ruasian governments of Astracan and Orenberg, the Caucasian countries, Persia, and 'lartary; its greatest length is about 760 miles , end its greatest hreadth about 400 from esst to west; generaliy, however, only half that breadth, and where narrowest not more than 120 miles across. Ite estimated area is from 120,000 to 140,000 square miles. There are no tides in this sea, nor are there any regular currents; but the high winds which occasionally blow over its large surface cause considerable and irregular agitations in its motions. The mean depth of the Caspian Sea is from 400 to 600 feet, and in some places is found to bo 2700 feet; but its waters are every where very shallow near the shore, especially toward the west. Vessels drawing 9 or 10 feet water are thus compelled to unlead far from the shore, excepting near Bakou and some other parts of the lake. Navigation is, in general, dangerous, owing to the frequency and violence of the east and west winds; and the contracted space forces the navigator to beat about in order to avoid the sand banks concealed near its shores. The waters of the Caspian havo a elightly bitter taate, communicated by the naphtha which abounde $\mathrm{I}_{1}$ the surrouriding countrics, and is cariied into it by the streams which it receives; but they are not so alt as those of the ocean, in consequence of the great volume of water poured into it by the Volga and its other tributaries. Horses do not refuse todrink along the shores and near the mouths of the rivers.-E. B.
Cassia. There are four species of cassia in the market; viz., Cassia Lignea, or Cassia Bark; Cassia Fiztula; Cassia Buds; and Cassia Senna.

1. Cassia Lignea, or Cassia Bark (Fr. Casse; Ger. Cassia: Port. Cassia lenhosa; Arab, Seleekeh; IIind. T'uj; Malsy, Kayü-legi), the bark of a tree (Jaurus Cossin, Linn.) growing in Sumatra, Borneo, the Malabar coast, Philippine Ialands, etc.; but chictly in the provinces of Quantong and Kingri, in China, which furnish the greatest pert of the cassia met with in the markets. The tree growa to the height of 50 or 60
feet, with large, spreading, horizontal branehes. The bark reaembles that of cinnamon in appearance, amell, and taste, and is very often substituted for it ; but it may be reudily distingulshed; it is thicker in substance, less quilled, breaks ohorter, and is more puncent. It ahould be chosen in thin plecea; the best being that which appronehea nearest to cinnamon in flavor: that which is small end broken should be rejected. A good doal of the cassia in the Indian markets is brought from Borneo, Sumatra, and Ceylon. Malabar cassia is thicker and darker-colored than that of China, and more sulject to foul packing; each bundle should be separately inspeeted.-Ainslin's Materan Inliea, Mabunn's Urient. Com., etc. See Cinnamon.
2. Cassia Buds, the dried fruit or berry of the tree (Jurus Cassia) which yields tho bark deseribed in the previous article. They bear some resemblance to a clove, int are smaller, and, when fresh, have a rich cinnamon fiavor. They should be chosen round, fresh, and free from stalk and dirt. Cassia luds are the produce of China. -Mrnuns's Orient. Com.; AngloChinese Kalewdar; and Part. Poper, No. 257, Sess. 1843.
3. Cassia Fistuln (Fr. Casse; Ger. Rhonkasie; It. Polpa di cassic ; Lat. Cossive pulpa; Arab. Khyar aheber) is a tree which grows in the East and Weat Indies, anl Egypt (Casein fistula, Lina.). The fruit is a woody, datk-brown pod, ntont the thickness of the thumit, and nearly two feet in length." It is oxported principally from the West Indies, packed in easks and cases; hut a superiar kind is brought from the Enst Indies, and is ensily diatinguisied by its smaller smooth pod, and by the greater biackness of the pulp.

Castanet (Spmish Castantia, or rather Castañuela, probalily from Coutaña, a chestnut), an instrument much used by the Spaniards and Moors as an accompaniment to their dances and guitars. It is composed of two smaii pieces of elony, or other well-dried hard wood, shaped like apoons, which are placed together with the concavities inward, fustened by a string to the thumb, and beat with the middle tinger, so as to prodnce a rattling sound. This instrument is very similar to the ancient crotalum, which appears to have consiated, in its original form, of two pleces of reed, which made $n$ elattering noise when shaken with the hand.-E. B.

Casting, the rumning of liquid metal into a mould propared for that purjose. Cating in Sand or Earth, is tive running of metals between two frames or moulds flled with sand or earth, in which the figure that the metal is to tuke has been impressed en ereux, liy means of the pattern. Castiny, among neuiptors, implies the tuking of easts and impressions of figures, busta, medals, leaves, or the like. The method of taking casts of figures and husta is most generally by the use of plaster of laris, that is, alahast alcined by a gentle hent. The advantage of $\cdot \cdots$ this substance in preference to others is, that notwithstanding a slight calcination reduces it to a pulverized stnte, it becamos again a tenaciens and cohering hooly by being moistened with water, nodi afterwari sulfered to dry. 13y this means either a ecacave or a convex figure maty he given liva a poper mould or model to it when wet, and retained hy the hardiness it acguires when dry ; and, from these qualtics. it is fitted for the doubie jurpose of making casts, anci mouids for forming ensts. Tho particuiar manner of making easts deqends on the form of the suliject to be taken. Where there are no projocting parts it is very simple and easy, as likewise where there are sucit as form only a right or any greater angle with the principal surfice of the boty; but where parts project in lesser angles, or form a enrve incined towari the principal surface of the body, the work is more cilfienlt.-W.. I3.

Castor (Kr. Ganoreum: (inr. Kosforennt; It. Castoro; Sp. Custoveo), the produce of the beaver. In the
inguinal region of this animal are found four bags, a large and a small one on each side: in the two large ones there is contained a softish, grayish-yellow, or light-brown subatance, which, on exposire to the air, becomes dry and brittle, and of a brown color. This is castor. It has a heavy bui somewhat aromatic smell, not unlike musk; and a bitter, nauseous, and subactid taste. The best comes from Russia; bnt of late years it has been very acarce; and all that is now fonnd in the shopa is the produce of Canada. The goodness of enstor is determined by its senaible qualities; that which is black is insipid, inodorous, oily, and unfit for nse. Castor is said to be sometimes counterfcited by a mixture of some gummy and resinous substances; but the fraud ia easily detected'by comparing the small and faste with those of real castor.-THomson's Dispensatory.

Castor-oil (Fr. Ifuile du Ricin; Ger. Rizinusohl; 1t. Olin di Ricino; Sp. Ricinsoel) is obtained from the seeds of the Ricinus communis, or Palma Christi, an annual plant found in most tropical countries, and in Greece, the south of Spein, ete. The oil is separated from the seeds either by boiling them in water, or $1, y$ sulbjecting them to the action of the press. It is said that though the largent qoantity of oil may be procured by the first method, it is less sweet, and more apt to become ranctd, than that procured by expression, which, in consequence, is tho process now most commonly followed. Good expressed castor-oil is nearly inodorous and insipid; but the leest leaves a alight sensation of aerimony in the throat after it is swaliowed. It is thicker and heavier than the fat oils, leing viscid, transparent, and colorless, or of a very pale straw color. That which is obtained by loiling the needs has a hrownish hoe; and both kinds, when they hecome rancid, thicken, deepen in color to a red-dish-brown, and aequire a hot, nauseous taste. It is very extensively employed in the materia medica as a cathartie.-Titomson's Dispenentory.

Culture and Man" facture of ''ustor-oil.-Sonthern 11 linois is tine source whence all the castor beans are lirought that are sold or mannfactured in St. Louis. The ground is prepared as for other crope, and when there is no longer any danger from the spring frasts the seeds are planted in hilis and rows, much in the manner of planting Indian corn, with the exception that there is hut one reed put into ench hill, and that at every fourth row a space is left sufficiently wide to admit of the passage of a team for the purpose of guthering the crop. Colike the cereal grains, the ririnus liears at the same time flowers and froit, and the severity of our climate, which renders it in this latitude an annual plant, destroys its vitality while yet deeked with biom. Tise ripening commences in Augast, and the crop is gathered at intervals from this date asial the plants are destroyed hy frost.

The yield, of course, varies with the quallty of the koil and the care of the culture. Twenty-five hushels from an arre of gronnd is considered a very largo crop, and is hut ecliom olitained. From sixteen to twenty lushels per acre is a very fuir yield in a scuson not marked by drought or other unfavorable fenture.

The primitive moxie of making enstor-ail was hy putting the (hruiked) lieans in a liag, and jlacing the same in a kettle of water, and as the ienns were hatled the oil eame to the surface and was akimmed off. Sulisequently there were adopteif the serew and lever presaes, and other devices for pressing the heans, and many mills aprang up thronghont the aonticern part of Illinois, some of whiein remain in use until tiois time. The licans aro first kiln-dried, and then pressed without grinding, the oil thus oltained being called "coll pressed," to distinguish it from the bolled oil (that ohtained by boiling the beans in winter).

About ten yeara ago, the St. Lonis manufacturera commenced using tha ordinary hydraulic prean, inerensing the yleld from the raw material, and work.
bsge, it ro large llow, or the air, le This subacrid te years found in dness of es ; that unfit for cited by stances; ring the zinusohl; from the $i$, an sn, and in eparated I $t$ is said be prond more - expresow most or-oil is leaves a
fter it is e fat oils, $f$ a very kis, when to u redc. It is aedica ns thern 11 . eans sre t. Louls, nd when ig frosts it in the xeeption and that wide to of guth. B yirinus I the selatitude t decked ost, and te unsil $y$ of the imshels ge crop, twenty mon not
log the heans with greater rapidity and economy. About two yesrs since there was introduced a now press, which has brought the business to a greater stute of perfection, by increasing the product of oll from the bean $87 \frac{1}{2}$ per cent. over the ordinary hydranlic prssa, and securing other advantages in the economy of labor and fuel. One of these presses will work 100,000 bushels of beans per annum, producing as much as 400,000 gallons of oil. It is said that one of these presses worked on castor-oil, in connection with others on linseed-oll, furnishes auficient combustlble refuse from the castor bean to supply fluel for the works; and in this way the fuel from the besn is of sufficient value to pay all the expenses of manufacturing the oil. The amount saved in Latourette's establishment by burning the above refuse, when in full operation, is sbout lifty dollars per week. After the oil is pressed from the beans, it is clurifted by boiling In large kettles with a small portion of water, and when perfectiy cloar is uliowed to cool, and is then drawn off into barrels ready for market. During the months of July, August, and September, 1854, there wers manufactured thirty-two thoussend gallons of castor-oil at this establishment alone. The manufacture of the oil, which, in 1850, was largely carried on in Ilinois, is now mostly effected in the city of St. Louis.

|  | 1850. | 1851. | 1852. | 1853. |
| :---: | :---: | :---: | :---: | :---: |
| Crop in bubhelig. ...... | 250,000 | 160,000 | 90,000 | 60, 010 |
| Factories in St. Louls. . | 8 |  | - 2 | ${ }^{3}$ |
| Fselorles in Itinola . . . | 18 | 7 | b | 8 |
| Barrels of will made ... | 9,900 | 7.000 | 5,600 | 4,900 |
| Equivalent in galions. | 350,000 | 255,000 | 192,500 | 147,000 |

The estimated crop of beans for 1854 was but 10,000 bushels, being almost a total failare; arising from the excessive drought that prevailed during the summer over that part of the country. The number of mills in operation in 1854 was only flve, and those ouly em ployed part of the thme. These statements exhibit a graduat decline in the amount of oil produced, which arises partly from the decreased crops, and partly, probalily, from a limitation in the demand. The price of oil in 1852-53 was aq low as 60 to 80 cents per gallon, and is at present nbout $\$ 125$ hy the barrel, whieh, with the short erop of the past year, will probably prove an inducement to the farmers to ngain turn their attention to raising the hems. It has been stuted that castor-oii had been used on one of the Western ruilroads for oiling the axles of cars, and probably also on the locomotives. Since the rise in the price of whale oil, the attention of machinists has been turned to various sutstitutes, and it is probable that the notdrying quality of the castor-oil, when pure, will render it very valuable for lubricating purposes, if it can be produced at a sunfctently low price.-Atererican Journal of Pharmacy, 180̄5.

Catechu (Fr. Cuchou; Ger. Kaschn; Ilind. Cut, Gantbir), a brown astringent anbstunee, formerly known by the name of Terva Japonict, becauso supposed to be a bind of earth. It Is, howover, a vegetable substance obtalued from two plants; viz. the Uimosth, or more correctly the Acacia catechu, and the E'nearia gambir. The lirst of theso is a tree from 20 to 80 feet high, found in abundance in many of the forests of India, from $16^{3}$ of lat. up to $30^{\circ}$. The places most reinarkabic for its production are the llurnese territoriea; a large provhnce on the Malabar coast called the Conenn; and the forests skirting the northorn part of Bengal, under the hills whinh divide lt from Nepmul. The catechu is obitulued from this tree liy the simple proeese of boiling the heart of the wood for a fow hours, when it assumes the look and consistency of tar. The suis stunce hardens by cooling; is formed tuto anmill baila or squares; and being dried in the sun, is tit for the market. Joinsou, in his "Cheinistry af Common Life," says, "In the most roluxing cltnintes of the Einst this atrougly natringent anbstance acta beneticially upon
the system." Perron, the traveler, states that he preeerved his health during a long and difficult voysge by the habitual use of betel, while his companions, who did not nse it, died, mostly of dysentery.

Cat-head, a atrong timber projocting from either bow of a ship, to which the anchor is ralsed and nocured.

Cat'm Bye, a minoral of a beautiful appearance, brought from Ceylon. Its colors ere gray, green, brown, red, of various shades. Its internal lustre is ahining, lis fracture imperfoctly conchoidsl, and it is tranalucent. From a peculiar play of light, ariaing from white fibres interspersed, it has derived its name. The French call the appesrance chatoyant. It seratches quartz, is easily broken, and resiats the blow-pipe. It is set by the jewelers as a precious stone.

Cat Skins. Tho skin or fur of the cat is used for a variety of purposes, but is principally dyed and sold as false sable. It appears from evidence taken before a late Committee of tho IIouse of Commona, thst it in a common prsctice in Iondon to decoy the animal and kill it for the suke of lts skin. The fur of the wildcat in, however, fur more valuable than that of the domestie cut. The wild-cat akins imported Into Europe are brought almost wholly from the territories of the II udson's Bay Compuny. The animal from which they are taken is a good doal larger than the English wild-eat, and is somotimes called the loup servier, or Canadian lynx.

Cattle, a collective term applied to designate all those quadropede that are used cither as food for insn or in tilling the ground. By neat or horned catth is meant the two species included under the names of the ox (bos) and the buffolo (bubulus); but an the tatter is principslly confined to Asiatic countriea, it is the former only that we have here in view. The ratsing and feeding of cuttle, and the preparation of the various products which they yield, have formed, in all countries cuerged from the savage state, an important braneli of industry. It would be quite inconsistent with the oljjects and limits of this work to enter into any details with respect to the difforent breeds of cattlo raised in this or other countries. They are exceedingly various. In Great Britain and in this country they have been vastly improved, both in the weight of carcass, the quality of the beef, and the abunlance of the milk, by the extruordinary attention that has been given to the selection and crossing of the best breeds, according to the objects in view. This sort of improvement began about the middle of lust century, or rather later, and was excited and very mueh forwarded by the skill and enterprise of two individuals- Mr . ljakewell, of Dishley ; and Mr. Culloy, of Northumberland, England. The suecess by which their efforts wero attended roused a spirit of omulation in others; and tho rapid growth of commeree and manufncturea aince 1760 huving occasioned a corresponding increase in the demund for loutcher's meat, improved systems of lireeding, and improved breeds, have lieen very generally introduced. Hut the improvoment in the sizo unl condition of eattle has not been nlone owing to the circumatsnces now mentioned. Much of it is certninly to be aseribed to the great improvement that lus been male in their feeding. The introduction and universal extenaion of the turnip and clover cultivation has had, in this respeet, a most nstouishing intluence, und has wonderfully incressed the food of catlle, and consequently tho aupily of butcher's ment.

Among the various races of cattle exiathig minoigg us, where strict regaril is puid to breeding with n dellnIte object in viow, a preferenco in given to the Durliame or short horns, the Herefords, the Ayrshirea, and the Devons. The Durinma, from their rapile growth, carly maturity, and capubility of taking on fat, are adajted only for high keeping, or to the richest pustures of the Middle and Northern States, und thean of Ohio, Kentucky, and other parts of the West. Tho
males, when judiciously crossed with the other breeds, or with the common cows of the country, often beget the beat of milkers, and for this purpose they have been eapecially recommended. The Hereforda, on the contrary, from their peculiar organization, are better adapted for poor or indifiorent pastures, and regions sabject to continued drought; aud for this reason they are well auited for California, New Mexico, Texas, and other parts of the South. The oxen of this breed are good in the yoke, and the cowa, when properly fed, give an abundance of milk. The Ayrahirea are best suited for a cool, mountainous region, or a cold, rigorous climate. They aucceed well in Massachusetts, New Hampshire, sind Vermont, and are highly prized for their tameness, docile tenupers, and rich milk. The Devons, from their hardihood, comparatively small aize, and peculiar structure, appear to be adapted to almost every climate, and to all kinds of pasturage. From their atoutness, good tempers, honesty, and quickness of action, they make the beat teams, and in this reapect their chief exceliency consists. The cows make fair milkers, and their tiesh very good beef. They also possess great aptituds to take on fat.-Wes Abattoir.
Caullaing, or Cavising, the driving of oakum or old rope untwisted into the seams between the planks in a ship's deck or sides, to prevent the entrance of water or leakage. Tha seama are then covered with melted pitch or rosin, to keep the oakum from rotting.

Cavendish, Thomas, was the son of a gentleman of good estate in Suffolk, England, but having impoverished himself by early extravagances, with a view to retrieve hia affairs he titted out three veasela for a predatory expedition againat the Spaniah American colonies, for which he sailed in July, 1585. After ravaging the weatern consts, and taking a Spanish veswel richly ladeaed, he sailed acress the South Sea, and returned to England by way of the Cape of Good Hope, in September, 1668, having circumnavigated tho globe in a shorter time than any preceding adventurer. The great wealth which he acquired from thia undertaking prompted him to engage in another voyage, on which he embarked in August, 1501. Tempestuous weather, aickneas, and other causes contributed to render this acheme unfortunate; and Cavendiah himaclf died on the coant of Brazil on bis passage home, in 1502.

Caviar (Fr. Cuviar, Cavial ; Ger. Kaviar ; It. Caciario, Cuviale; Sp. Coviario; Russ. Ikrw; Lat. Caviarium), a subatance prepared in Ruasia, consiating of the salted roen of large fiah. The best, which is made of the roe of the sturgeen, appears to conalat entirely of the eggs, and does not easily become fetid. It is packed in amall casks or kega, the inferior aort being in the form of dry cakes. Caviar is highiy eateemed in Ruasia, and considerabie quantitica are exported to other countries. It is principally made of tho roo of the aturgeon caught in the Wolga, in the neighborhood of Aatrachan, as many as 30,000 barrele of cavjar have lng been exported from that city in a single seanon.See Gegg, Lict. art. Astrachan.

Cayenne, a mea-port town, and the capltal of French Guiana, on the weat point of the faland of same name, at the mouth of the Cayenne or Oyaque River, In the Atlantic. Lat. $4^{\circ} 56^{\prime} 5^{\prime \prime}$ N., long. $52^{\circ} 30^{\prime}$ W. Popus. lation 6000. It ia built mostly of wood, and consista of an old town, with the governinent-house and Jesuits ${ }^{\text {a }}$ college, and the new town, with wide and clean atreet, large warehouses, and good residencee, between whieh two divisiona is a large open apace planted with orangetreea. Nlarbor ahallow: it has two queya, and in protected by a fort and several batterics. Cayenne in the seat of a court of asaize, and the centre of all the trade of French Guiana. Exporta to France amount to $6,000,000$ francs, and Importa thence to $5,000,000$ francs. The ialand of Cayenne, in the Atlantic, aeparated from the continent of Sonth America by a narrow chanmel, Is 30 milies in circumference; chief productu, sugar, cotton, coffec, and fruits. Population (excilan of
the town of Cayenne) 8000. First settled by the French in 1625 , but they left it in 1654 . It was afterward succesaively in the handa of the English, French, and Dutch. These Iast were expelled hy the French in 1677. Cayenne was taken by the British, January 12 , 1809, but was restored to the French at the peace in 1814. In this settiement is produced the copsicum baccatum, or Cayenne pepper, to esteemed in Europe. -Haydn.

Cayenne Pepper la prepared from several varieties of capsicum, a genus of solanaceous plants which produce a fleahy-colored fruft. This fruit contains an extremely pungent principle, that exiats in greateat activity in the seed. The capsicum from which the Cayenne is procured Is a native of the East Indiee and America. The principal Indian speciea is $C$. frutescenr, and the American C. annutum. The capsicum entera largely into the seesoaing of food end the preparation of pickles; and is also used in medicine, both internaily and externally. The pods may be preserved in vinegar, or in a dry state in sait. The strongest variety of Cayenne pepper comes from tho West Indies, and is prepared from the capsicum baccatum (bird pepper).
Cedar (Germ. Zeder; Du. Ccder; Fr. Cedre; It. and Sp. Cedro; Rues. Kedr; Lat. Cedrua). Tise Cedar of Lebanen, or great cedar (Pinus cedrus), is fumeus in Scripture: it is a tall, majestic-looking tree. "Behold," says the inspired writer, "the Absyrian was a cedar in Lebanon with fair branchea, and with a shadowing shroud, and of a high stature; and his top was among the thick boughs. Ilia height was exalted above all the treca of the ficld, and hia houghs wera muitiplied, and hia branches became long. The firtrees were not like his boughs, and the chestnut-trees were not like hia branchee, nor any tree in the garden of God was like unto him in beauty."-Eizekiel, xxxi. $\mathbf{8 , 6}, 8$. The cedar grows to a very great size. The timber is resinous, has a peculiar and powerful oder, a slightly bitter taste, a rich yellowish brown color, and is not aubject to the worm. Ita durability is very great ; and it was on thic account (pivpter aternitatem, Vitruviua, Hib. hi. \$9) employed in the construction of temples and other pubilo buildings, in the formation of the atatues of the goda, and as tablets for writing upon. In the time of Vitruvius, cedars were princjpally produced in Crete, Africs, and some parts of Syria.-Loc, cit. Very few are now found on Lebanon; but some of those that still remain are of immense bulk, and in the highest preservation. Cedar exceeds the oak in tougloness, but is very inferior to it in streogth and atifiness. Some very fine cedars have been produced in Engiand.

There are several other kinds of timber that are naually called cedar : thus a species of cypress is called white cedar in America; and the cedar used by the Japancse for building bridges, ships, houses, etc., is a kind of cyprese, whi: : Thunberg describes as a heautiful wood, that lasts long without decay. The Jumiperns orycedrus is a native of Spain, the south of France, and the Levant; it is usually called the brown-berrled cetlar. The Bermudian cedar (Juniperus Bermudiana), n native of the Hermuda and Bahama islanda, is anether apeciea that proilucea valuable timber for many purpones ; such as interns] joincra' work, furniture, and the like. The red cedar, so well known from its being used in making black-lead penella, is produced by the Virginian cedar (Juniperus lírginiana), a native of North America, the West India islands, and Japan. The tree seldoin exceeds 45 feet in helgit. The wood ia very durable, and, like the Cedar of Lebanon, is not attacked liy worms. It ia employed in varlous ways, but principaliy in the manufacture of drawers, wardrobea, etc., and as a cover to pencils. The internal wood is of a dark red collor, and has a very strong odor. It is of a neariy uniform texture, brittle, and light.See Tukibuolid's I'rinciples of Curpentry.

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French erward :h, and ench in lary 12 , eace in paicum Europe.

Coments. The auhbtances used for producing coo basion between different materimis are very varions. Thsy are mostly, however, eoft, or, semi-fluid, and harden in the course of time. The number amployed is very great. We can mention ouly a few. The joints of iron plpen and the flanges of steam-engines ure cemented with mixture composed of aulphur and muriate of ammonis, together with a large quantity of iron chippings. The putty of glaziest is a mifture of linseed oil and powdered chalk. Plaster of Paria, dried by heat, and mixed with watar, or with resin and wax, is used for uniting pleces of marble. A cement composed of brick-dust and resin, or pltch, is employed by turners, and some othor machanics, to confine the material on which they are working. Common paint, made of white-lead and oil, is used to ecement Chins ware. So also are resinous substances, sucis as mastic and shellac, or isinglass dissolvad in proof-spirit or water. The paste of book-hinders and paper-hangers is made by boiling flour. Rice-glue is made by boiling ground rice in aoft water to the consistence of a thin jelly. Wafers are mado of flour, isinglase, yeast, and whito of eggs, driod in thin layera upon tin plates, and cut by a circular instrument. They are colored by red-lead, etc. Sealing-wax is composed of shellac and rosin, and is commonly colored with vermiiion. Cominon glue is mostly employad for unitiag wood, and similar porous subatances. It does not answer for surfacea not porous, such as those of metals, and is not durable if exposed to water. The caments moatly used in buiding are composed of lime and sand. Lims is procured hy burning substancea is which it exists in combination with carbonic acid, such as linnestous, marbles, chalk, and shells. By this process, the carbonic acid is driven off, and quicklime is oltained. The quicklime is elaked by mixture with water, after which it swelis and cracks, becomes hot, and assumes the form of a white and inpalpshle powder. This is a hydrato of limo, and contains about thres parts of lime to ono of water. When intendod for mortar, it should imınediately be mixed with sand, and used without delay, before it imbibes carbonic acid anew from the atmospiere. The lime adheres to and unites the particies of sand. Coments thus mado lacrease in strength and aolidity for an indefinite perod. Fresh ssnd, wholly silicious and sharp, is the best. That taken from the sea-shore is unfit for makiag noortar, as the salt is apt to deliquesce and weaken the mortar. The amount of sand is always greater than that of the lime. From two to four perts of sand are used, according to the quality of the lime and the labor beatowed on it. Water cements, calied also Romas cemente, harden under water, and consolidato atmost inmpediately on belng mixed. Common mortar dissoives or crumbles sway if lrid under water befors it has had time to hardon; but certain rocks, which bave an argillaceous as well as a silicious character, communicate to lime or mortar the property of hardening in a very few minutes, both in and out of water. The ascient Romana, in making their water coments, employed a pecullar earth, oltained at tho town of Puteoli. This thay called pulvis Puteolanur. It is the sams as is now called Puzzolana, and is evidently of volcauic origin. Thu Dutch, in their great aquatic structures, have mostly employed a substanco denominated tarras, terras, or trasw, found noar Andernach, in the vieiuity of the Rhine. It is said to be a kind of decomposed hasalt, but resemblos puzzolana. It is very durable in water, but iuferior to the other kinds in ths open alr. Baked clay and the cominon greenstone afford the basis of very toleralio water cemento, when mixad with lime. Some of the ores of manganese may be used fur the samo purpose. Some limestones calcingd, and mixed with sand and water, alao affiord water cements, usualiy in consequence of containing some argiliaceous oarth. Soune cementa, of grest hurilneas and permanency, have been obtainod
from mixtures into which animal and vegetable anbstances enter, euch as oil, milk, mneilage, etc: The name of maliha or mastic is given them. They are not mueh used. The principal manufacturing places of cament in the United States are in the 8tate of New York, along the Delaware and Hudson Canal.

Census is now almest solely used to denote that enumeration of the people made at intervals in most European countrien, and in Britain decennially. The term had its origin in Rome, where a group of the many functions performed by the high officer called censor received the name of census. An enuiaeration of the people was only one of them, but they were chlefly of a statistical character. : They were eapecially directed to fiacal objecta; and it does not appear that the ennmeration of the people was then deemed. of velue as a source of statistical knowledge which might influence morala and legisiation. It was connected with the Servian constitution, which apportioned the rights and duties of citizens to the amount of property, dividing them into aix classes, which were aubdivided into centuries by a mixed ratio of wsalth and numbere.
The Roman census must have been minute and full. It indicated not only the number and respective classes of all free parsons, but their domestic position as husbande and wives, fathers and mothers, and sons and daughters. The slaves and freedmen wero indicated in connection with the possessions of the head of the house, and landed property was analyzed into anveral classes, according to its character and produce. The important practical effect of the census caused it to be conductad at intervals generally so frequent as every fifth year. It was followad by a sacrifice of purification or lustration, whence the term of five years came to be denoted a lustrum.

While the word census was thus applied to the taxation of the Mlddle Agea, it will readily be understood that in its modern sense it received no practical appllcation, since neither taxation nor the adjustment of social rank required a numbering of the people; and the statistic or acononinic ends of such a procens were as little known as they had been to the Romans. Under the despotic goveruments of the Continent, howover, the tendency to central organization for purposes of administration and police prepared the way for statistical inquiries into tho numbers of tho inhsbitants of particular areas whenever there should occur an occasion for enumerating them. It was in Britain, with its abstinent government and unrestrained people, that tho want of population statistica becamo most flagrantly conspicuous. It is difficult at present to realize the idea that, long after Adam Smith's day, the simicier of ths inhabitants of the British empire could only be gucesed at, as tho popilousness of Chins is at tho present day ; and, as in all mstters of statiatics, which tave their own simple solution through specifio inquiry, the gueeses about the population of the empire were not only vague but extravagantly contradictory. During the aighteenth century, the most trust-worthy geographers were generally those who did not venture on an estimate of the population even in those European states which had the lest means of enumeration at their command.

Tho first effort to take a census of the population of Great Britain was made in 1801 ; It did not then extend to Ireland. The success which attended this and the two succeeding efforta was mainly owing to the zeal and ability of Mr. Rickmen, the assiatant clerk of tho llouse of Commons. Where there is an organIzation like that in many of the European states for preserving a constant official record of all the fluctustions of the population, not only in their absolute numbera throughout a whole tarritory but in the relstive numbers in its respective parts as thoy may be affected by fluctuations, systematio arrangements are thua prepared not only for obtuining a general consus at any one moment, but for checking its ascuracy and
classifying its elements. But te deal at once with the raw material in the self-governed British empire, required great ingenuity and sagacity, is cenaus, to be accurate, must be taken on aniform aystem, and must be taken simultaneously. m a.

The enumerations of 1841 and 1851 in England were much facilitated by the aniform aystem of registration of birthe, marriages, and deaths; eatabliched in 1886, which not ouly afiorded the means of checking the wcenracy of the returns, but provided a prompt and skilled machinery accustomed to statistical work. Far more dependence could now be placed on the discretion and skill of the officers 10 whom the local duties were committed; and tho returns were made more minute and complete. Scotland and Ireland are perhape the only considerablo countries in Christlan Europe where there is no uniform ayatem of registration. In Scotland it was necessary to.adopt the clumsy method of employing the parish schoolmasters to perform the local duty in the country diatricts. In Ireland the tirst attempt at a general ceneus was made in 1811, but it was decidedly unauccessful. It was repeated in 1821, but went no further than a bare enumeration of doubtful accuraoy. The census there taken in 1891 was subject to correction in 1834, to make it the basis of the new aystem of netional education. In the two subsequent enumerations the aid of the admirable conatabulary force, and the uso of an ordnance survey, nearly complete in 1841, have gono far to anpply the want of permanent local etatistical nachinery. The census of 1851 was taken on tho 81at day of March, the preriously-distributed schedules being then collected.
Popllation anio Nemien of Imiabitante to the Square Mile of various Amertoan and Euborgan Cocmteizs.

| Counitiles. | Population. | Density. |
| :---: | :---: | :---: |
| Unired Stater | 23,191,876 | 710 |
| Cianada . . . . . . . . . . . . . . . . . . . . | 1,842,606 | $0 \cdot 81$ |
| Mextco. . . . . . . . . . . . . . . . . . . . | 7,601,910 | 7.37 |
| Central America, .............. | 2,049,950 | 10.07 |
| Brazil. . . . . . . . . . . . . . . . . . . . | 6,005,000 | $2 \cdot 19$ |
| Peru | - 8,106,408 | 3.63 |
| Hussia In Europe | 60,315, 180 | 88.44 |
| Austria | 36,514,466 | 14183 |
| Franco. | 35,783,170 | 172.4 |
| Engisnd . | 16,4,21,888 | 33200 |
| Great liritalin und Ireland ..... | 27,475, 271 | $225 \cdot 19$ |
| Irusala ......................... | 18,381, 187 | 151.38 |
| Spaln | 14,216,210 | 78.08 |
| Turkey in Europe | 15,500,000 | 73.06 |
| greden and Norway | 4,645,007 | 15-83 |
| Helgtum . . . . . . . . . . . . . . . . . . . | 4,426,209 | 888.60 |
| Portugal ...... . . . . . . . . . . . . . . | 2,478.758 | $15 \cdot 14$ |
| Itoltand........................ | 2,267,638 | 280.31 |
| Denmark. . . . . . . . . . . . . . . . . . . . | 2,996,097 | 101.92 |
| 8witzerisnd . . . . . . . . . . . . . . | 9,892,740 | 100ヶ5 |
| Greece . . . . . . . . . . . . . . . . . . . . . | M8,260 | 05-i0 |

The United Siates.-There have been seven enumerations of the Inhabitesnts of the United States, the periode and aggregate results of which are as follows :

| Censum of 178 | 8,929,827 |
| :---: | :---: |
| Census of 1500 | 5,605,1.25 |
| Censits of 1810 | T,239, 514 |
| Census of 1820 | 0, 1988,131 |
| Census of 18\% | 12,866,0\%0 |
| Census of 1840 | 17,063, 463 |
| Census of 1850 | 23,101,876 |

At the close of 1857, the total popuiation of the United States, upon the supposition that ita averago ratio of increase has been malutained, or nearly so, may be stated in round numbers at $28,600,000$.
The present population of the Uuion may be aald to conslist of, first, the number who were in the country on the furnation of the government in 1780, and their descendants; sccond, of those who have como luto the country since that period by lommgra:ion, and their descendanta (of thin class much will be said under the head of Nativitises) ; thind, of those who hesve been brought in by annexation, as in Lonisiana, Florida, New Mexico, ete., and their descendants. It is aufficient to say of the last class, that Loniniana, when purchaaed, had $\mathbf{7 7 , 0 0 0}$ inhalileants, including 63,000
slaven ; Florda about 10,000 ; California and New Mexico about 60,000; and that Texas and Oregon: only brought back into the Union clizens who had emigrated thither but a short time before. 'The num. ber of Indians (taxed) domestleated and absorbed in the population can not be aecertalned. The colonial population was ewelled, in 1765, by the extension of the boundary to the Missiesippl, and the introduction of 2000 French residents of the territory incorporsted.

Cent, a contraction of the Latin centum, a hundred, in used in commerce to denote a certain rate by the handred; thua 10 per cent. profit or 10 per cent. loss upon the sale of any merchandise implies that the seller has gained or lost $\$ 10$ on every; $\$ 100$ of the price at which be bought that merchandise. The rate is termed percentage,--See Dolisar.
Cent Is also the neme of a copper coin of the United States, equal to the hundredth part of a dollar, or rather more than a halfpenny Engllsh money. The copper colnage of the United States to the end of 1853 amounted to $\$ 1,518,987$. We have of that ponderone currency about 1590 tona of 2000 pounda apoirdupois. This circulation le almost entirely confined to the Northern and Middle States, as it lo rejected ly the South and Weat. Accoriling to the lawe establishing the Mint of the United States, "of the copper coins, the weight of the cent shall be ono hundred and sixtyeight grains, and the weight of tho balf cent eightyfour graine; and the cent elhall be consldered of the value of one hundredth part of a dollar, and the half cent of the value of one two-hundredth part of a dolisr. Copper lullion shall be purchased for the Mint, from time to time, by the treasurer, under instructiona from the directur; the cost shall te pald from the fund hereinafter provided for ; and the copper bullion shall be of good quality, and in the form of planchets fit for passing at onee into the hands of the chlef coiner. The copper planchets shall bo delivered, from time to time, by the treagurer to the chief eoiner, to be by him coined; and all such copper shall he returned to the treasurer Ly thochlef coiner, weight for welght, without sllowance for waste. It shall be the duty of the treasurer of the Mint to deliver the copper coink, in exchange for their legal equivalent In other money, to any person who shall apply for them : Provided, 'That the sum ssked for be not less than a certain amount, to be determined hy the director, and that it be not so great as in his judgment to Interfere with the capacity of the Mint to supply other applicants. The copper colas miey, at the discretion of the director, bo delivered $\ln$ any of the principal eitles and towne of tho Unlted States, st the cost of the Mint for transportation. The money received by the treasurer in exchange for copper coins shall form a fund in his hande, which shall he nsed to pureliase copper planchete, and to pay the expense of transportation of copper colns; and lf there be a surpine, the came shall bo appropriated to defrey the contingent expenses of the Mint. No copper colns or pieces whatsoever, except cents and hslf sents, shall pass curreut as money, or shall be pald, or offered to he paid, or received in payment for any delit, demand, claim, matter, or thing whatsoever; and all copper coins or pieces, except the cente and half centa, which whall be paid, or offered to be paid, or recelved in payment, contrary to the prohibition aforesald, shall be forfeited, and overy person ty whom any of them shall have been so pisid, or offered to be paid, or ruceived in payment, alaill also forfelt the sum of ten dollars, ond the aaid forfeiture and penalty shall and may be recorered, with costs of sult, icr the benefit of sny person or persons by whon inforinstion of the incurring thereof shall have been given."-See Corns, Comagr.
According to the acts of Congrens prior to 1800, the gola and silver coins of tho United States were legal tender to sny extont, but hy the law of 1853, autharizlug the debased silver coine, the iatter are receivable in small suma only. Copper colne are not ly statute le- a fortreas cipal edit brary.
19 feet in ter in fro A broads honess, c the cana Rhoae, b with the from Spa glish and where is potash, $f$ 36,900 tu with aim saltwwork glass-wal is the ent sesses $m$ yards, at is the re whoily of XIV, at its name Ceyl the suatil which it between $82^{\circ} 10^{\prime} 1$ breadth north 81 ern extru of ltg hi the sout 170 mile coffee, a

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gal tender to any amount. Frequent suggetions in Congress hava been recently made to reduce the weight of the copper coins, but thus far withont effect.
Cereal Grassee (Lat, ceres, corn), grassea which produce the bread corns; auch as wheat, rye, barley, oats, usize, rice, and millet.

Cette, a commercial and fortified sea-port town of France, department of Herault, capital of the canton, at the head of the rallroad from Beaucaire, between the Mediterranean and the lagoon of Thau, 17 miles southwest of Montpellier. Lat. of light-house, $43^{\circ} 28^{\prime}$ $48^{\prime \prime} \mathrm{N}$., long. $8^{\circ} 42^{\prime} 16^{\prime \prime}$ E. Population 16,613. It is a fortreas of the first clans, defended by a citadel; principal edifices, Chureh of St. Loeis, public baths, and library. Its harbor is specious and secure, from 16 to 19 feet in dopth, formed by two piers with a breakweter in front, defended by two forta, one on either pier. A broad and deep canal, bordered with quays and warehouses, connects the port with the lagoon of Than and the canal du. Midi, and with canals leading to the Bhoas, by which moans Cette has an extensive traffic with the interior, Imports comprise Benicarlo wine from Spain, for mixing with French wines for the English and other marketa. It has a large eatablishment where is manufactured aulphate of soda, magneeia, and potash, from sea-water. The exports consist of about 33,000 tane of wine, and 4000 ditto of brandy annually, with almonds, Montpellier verdigris, salt from adjacent salt-worke, and siraps, liquors, soap, perfantery, and glass-wares, the products of its owa fuctorice. Cetto is the entrepôt for an extencive coasting-traile, and posseases much foreign comnerce. It has ship-bullding yards, and an active oyster and anchovy tishery; and is the residence of various Eeropean consula. It is wholly of modern origin, having teen founderl by Louis XIV, at the base of the ancient Alons Setius (whenee its aame). Steamboata to Marseilles daily.

Ceylon, an isiand in the Indian Ocean, situated at the suuthern extremity of the Coromandel coast, from which it is separated by the Gulf of Manaar. It lies between lat. $5^{\circ} \overline{6} 4^{\prime}$ and $9^{\circ} 50^{\prime} \mathrm{N}$., and long. $79^{\circ} 50^{\prime}$ s-d $82^{\circ} 10^{\prime} \mathrm{E}$. Its length is $2 \overline{0} 0$ miles, and ite greatest breadth 145 miles. It is of an oval form, pointing morth and soath; ita broadest part being at its southera extremity, whore also is to be found the great mass of lts high lands. It is distant from Cape Conomin, the southerumest point of the Indian peninsula, about 170 miles. Tho most important cultivation is that of coffec, a branch of industry which, since the year 184i, has assumed a position of groat and growing prominence. Coffeo was an articie of growth and export from Ceylen 80 far back as the time of the i'ortuguese, but like the cinnamon it grew wild without any attempt at cultivation. l'atchos of it were to be seen aroend the Kandian villagges in wild laxariance, and the berry gathered before ripe, and imperfectly cared, seldem possessed inach flavor, and was lighty esteened as un article of Duropean commerce. Cofleo caltivatiou on the West Indian plan wae first connnenced by Sir E. Llarnes, the then governor of Cayion, in 182j, who hoped by his examplo to introduce collee-planting hy Leropeans into the island.

The Cocos nueifera, or coces-nut palm, is a native of the islund, and may justiy be considered the most valestio of its trees. It grows in vast numbers aleng the cutire sea-coast of the west and south sides of the island, and furnishes almost all that a Siaghalese villager requires. Its fruit, when green, supplies food und drink; when ripe, it yields oil. Ita sap gives him toddy and arrack. The fibrous casing of the frait, when woven, makes him ropes, nets, and matting. Tho nat-shells form drinking-veasels, spoons, ete. The pluited leaves aerve as plates and diahes, and as thutch for his cottage. The dried tlower-atalks are used as torchee, the large leaf-stalks as garden fencea. The trunk of the treo aswit up is employed for every possiblo jurpose, from knife-landlea to door-pesta; hollow-
ed ont, it forma alike a canoe or a coffin. There ara fous' kinds of this palm; the common, the king cocoa-nut, the dwarf, and the Maldive sorts. The Palmyra and Areca palma grow luxuriantly and abundantly; the former in the northern, the latter in the weatern and central diftricts. The one is valuable chiefly for its timber, of which large quantlties ure exported to the Indian coasta; the other supplies the betel-nnt, in such common use among natives of the Eastorn tropics as a masticatory. The export trade in this latter to India and Eastern ports is very considerable, amounting in some years to $£ 12,000$. Next in importance to the cocoa-nub psim among the indigenous producta of Ceylon is the cinnamon-pl+, yielding the well-known spice of that name.-See Uinnailon. The fruite indlgenous to Ceylon are few and Inelgnificant. Others of more value' have been introduced with success froin various troplcal and extra-tropical countries $;$ smong these are the citron, orange, lime, shaddock; banana, pomegranate, custard apple, guava, grape, rambatam, alligator-pear, ete.

Pearl Fishery.-Although the once far-famed and lucrative pearl fishery of thie island has ceased since the year 1837, It will bo well to give in this place a passing netice of the pearl-oyster, especially as a survey of tho "banke" or beds off Aripo, made in 1852, holds out promise of a good fishing at no distant date. The banks on which these oyaters are usually found lie off the northern part if the west coast of Ceylon, at a distance of from 16 to 20 miles from the shore. They extend for many miles north and south, varying conslderably in their size and productivenese. The oyster arrives at maturity in its eeventh year; the pearl within is then of full growth, and if the fish be not then taken up, it will shortly die, and the pearl bo lost. The fishery, which ia in the hands of tho local government, took place in the month of March, when the water was perfectly calm, and most favorable for the work of the divers. It was formerly rented to native specalators, who paid a certain aum for the privilege of fishing with a fixed number of divors daring a given perlod. In 1797 and the following yeat, the rental of the fishery realized $£ 128,982$ and $£ 142,780$ respectively. Sinco that time the government have flohed on their own account, selling the produce of each boat by auction on the beach beforo the fish could be examined. This mode, however, had not proved so lucrative as tho old method; the annual returns never having oxceeded £87,000, and frequently falling as low as $£ 10,000$; in some cases, indoed, amounting to but a few hundred pounds atcrllug. Various causes liave been assigned for the falluro of these fisheries. It may, however, be properly attributed to the mismanagement of an inspector of the pearl banks, who in 1836 took charge of them, and, from neglecting to attend to tho iustractions given him by his prodecessors, caused the wrong beds to be fiahed. The rosult was a complete falluro of the fishery; the oysters which should have been brought up were left to die; young beds were disturbed, and from that time this large source of revenue hus been lost to the island. A survey of the pearl banks made in March, 1853, induced the local government to look for a ilshery of eome oxtent in 1855 or the following year.-E. $\mathbf{B}$.
llowever, the pearl fishery of Ceylon continues to engross a large share of publionttention. The importanco of any dlacovery which would enable us to preserve and flsh the mature oysters is ovident from the statement made by Captain Stuart, that from the fifth to the sixth year the pearl-oyster cloubles in value, and again doubles should he sarvive the seventh year. The pearl-oyater, though called the mother-of-pearl shell, and though its interior surface ia beautifully lined with the pearly secretion, is valuoless as "mother-of-pearl." Tho latest, Intelligenco from the acene of the fisherlea is as follows 1

17th Sale.-205,000 oysters broaght on ahore on the 7th (by 42 boata) were aohl at ratea varying from 15 to

18 rupees per 1000, and produced £315. Total recelpta 49080.-Overland Calonibo Observer, April 18th, 1855.

The trade of Coylon has been greatly augmented since the opening of the clnnamon trade and the commenceinent of coffee plating. In 1832 the imports amounted to $£ 351,222$; the exports to $£ 163,587$. In 1842 the imports and exports amounted to $£ 622,447$ and $£ 421,418$ reapectively. In 1852 those amounts were $£ 1,000,474$ and $£ 948,400$. The largest increase in exported produce has been in coffee, whlch from 17,287 cwis. In 1881 grew to $77,475 \mathrm{cwts}$. Ia 1841 , and to $287,910 \mathrm{cwts}$. in 1851. In 1854 the crops of native and plantation kinds are expected to amonnt to 500,000 cwts. Tha cinnamon trade of Ceylon forma a remerkable exception to the rule that by the removal of fircal restrictions the consumption of articles will be increased. Cinnamon is now exported from Ceylon duty free, yet the anaual demand for the splce is found to be no greater than when burdened with an export duty of 8 a. the lb . When the ialand was transferred from the admluistration of the East Indla Company to that of the crown in 1802, the governoient entered into a contract with the company by which tha latter acquired the exciusive privilege of exporting cinnamon from the colony. It was agreed that the Ceylon government should deliver annaally 400,000 pounds of cinnamon, for which the company was to grant a credit of $£ 60,000$, making the price of tho cinnamon $3 s$. per pound. In 1814 the company agreed to allow to the Ceylon government a sum of $\mathbf{\Sigma} 200,000$ eterling for aurplua profits on their sales of einnamon; and to give in futuro $£ 101,000$ sterling annualiy, instead of $\mathbf{£ 6 0 , 0 0 0}$, for a supply of 400,000 pounds of that commodity. This contract was entered into for aeven yeara, and it does not appear that during this period tha stipulated quantity of cinnamon was ever delivered. In 1821 the cxclusive privilege of exporting cinnamon was given up by the company; and in 1833 the government abar oned their monepoly of the trade, throwing it open to the publlc, but levyIng a duty of 3s. per pound on its exportation.

In $1835^{\circ}$ an inferior or third sort was allowed to bo shipped on payment of $2 s$, the pound. Two yeare later, the duty on the beat sorta was lowered to 2 s .5 bd .; and in 1843 the duty on all kinds was fixed at 1s. It was sinco reduced to $4 d . ;$ and in 1853 the artlcle was declared duty free. These periodical reductions of duty were in all cases followed by heavy shlpments of the spice; the sole effect of which has been to overstock the European markets, and reduce its price beyond the reduction of duty. The annual European consumption is at the present time precisely what it was ifty years ago; thus proving that artlcles of mere luxury are not affected by the laws whleh govern the consumption of the neecssaries of Ilfa. Of the exports, fourfifthe are to Grest Britain; of the Imports, one-third is from the Unlted Kirgdom, and the remainder cliefly from India. The imported goods from Great Britaln consist of cotton manufacture, glass-ware, hardware, millinery, hosiery, metals, tools, beer, wines, etc. ; those from India are mainly rice and coarse cotton cloth. The exports to Europe belng larger than the Imports thence, the balance of value is drawn for by bills of exchange, a part of which are negotiated ln India to pay for rice, the rest for rupeea sent down to Ceylon to pay the Nalabar coolies on tho coffee eataten, who carry three-fourths of their earnings out of the island. The trade of Ceylon is carried on by upward of thenty Eurupean firms, and eight or nine natlve houses; tha lattor contining their transactlons to Hritish India. Besides these, there are nearly a dozen European estate agents in Kandy, and a great number of amall native dealers, called "Chitters," In connection with Madraa and Bouibay firms. Thero are no export duties, and the duty on imports is 5 per cent. on the declared value, with some few exceptious, buch af arms, wines, splrita, and grain. In 1852 the ravenue derived from custons dutles was $£ 121,354$.

The coasting and Indian trade is carried on by coun-try-bullt brige and dhomies, a craft pecullar to Ceylon. Of the former there are 56 , of 8178 tons In the aggregate, and 559 dhomles, of a tonnagy equal to 24,270 tone, belonging to the island. The value of the former is $£ 0$ per ton, and of the latter $£ 1$ per ton. In 1836 the custom-house shipping entries gave 1881 vessels illward, and 1200 outward; in 1852 they gave 8140 Inward, and 8074 outward, The banking business of the Island is conducted by branches of the Orlental Bsink Corporation of Loudon, and the Mercantile Bank of Bombay, in Colombo and Kandy. The former establlshment possesses the privllege of issuing notes of $10 s$. and upward,-E. B.

Chafi. The husk or withared calyx of grasses, and more especially of the bread corns. The terin is also applied to straw or hay cut into very ohort lengths, and used for mixing with corn, roots, or other food for horses or cattle. This kind of chaff, In greater lengths, Is also used for mixing with mortar on some parts of the Continent, mere particularly in Germany and Russia ; and it is used as a substltute for hair in making plaster for rooms. Both stubble and cut hay were nsed by the anclent Egyptians in making bricks.
Chain, in Surreying, a measare of length, composed of a certain nomber of linke made of Iron wlre, serving to take the distance between two or more places. Gunter's chain contains 100 such links, each measuring $792-100$ inches, consequently equal to 66 feet, or four poles.

Chaldron, a dry English measure of 36 coal bushels; 21 chaldrons make a acore. The coal bushel is $19 \frac{1}{2}$ inches wide from the outside, and 8 lr thes deep. It containg $2217 \cdot 0$ cubic Inches; but when heaped, $2815 \cdot 5$, making the chaldron $58 \cdot 65$ cubic feet. There are 12 sacks of coal in a chaldron; and If 5 chaldrons be purchased at the same time, the aeller must deliver 63 sacks: the 8 sacks additlonal are called the ingrain. liut coals are now sold in Londen and almest every where else by the ton of 20 cwt . avolidupeis. The Newcastle chaldron of coals is 53 cwt ., and is exactly double the London chaldron.

Chaleura, Bay of, an inlet of the Gulf of St. Lawrence, In North Ancrica. Lat. $48^{\circ} \mathrm{N} .$, leng, $65^{\circ} \mathrm{W}$. Length from east to west about 90 miles; breadth varies from 12 to 20 m iles. It separates Canada East from New Brunswlek, and at lis western extremity recelves the Ristigouche River. This bay possesses grest advantages for the prosecution of the flsherles. The entire bay may be considened one grest harber, as throughout its entire breadth and extent there is not a single rock, reef, or shoal. During the summer it literally swarms with fish of every description known on the ahores of thla portion of America; and lts ancient name of "Echetaun 'Nemaoch"一the bea of fish-well denotes its character.

Challe (from calx), in Latin called creta, a species of carbonate of lime, found abundantly in Britsin, France, Norway, and other parts of Europe. The island of Candla is sald to have received Its anclent name of Creta from the quantity of chalk found there. Chalk is used as an antl-acid; and from the readiness with which it Imbibes liquids, it is much employed as an ab)sorbent. When powdered and freed from gritty particles by washlng, it forms the subatance called rhitening, or Spanlsh white, used to pollsh metalline uteuslls and glass. It is prepared as follows : mix chalk thet has been well triturated with a large quantity of water, allow the sllicious and ferruglnons particles to subside, and then decant the supernatant fluld into a very fine sieve or linen beg, where the whltening will be ticpos-ited.-Black Chalk, a mineral used by artists for drawing. It la a variety of bituminous shale, the schistegraphique of IIany.-Frewch Chalk, steatite or soapstone, a hydrated ailicate of magnesia and alnmina. It oceurs of several colors, as whilte, brown, green, etc.; and is used In the preparation of crayons, the manu-
facture of basis of cet durated clo reddle, or E. B.

Chamb society of business o court of jus tried.

Chamb chants and treated of. art in mos Chamo Anthemis , used ln me which is st is aromatic Champ brated of $t$ by the dire ment of M to the tran 1846, and tributed an nay, and 1 in the cell tles of this Epernay, 5 number of of April, 18 lons, 2,497 $4,000,557$; quantities

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From Rhe

## Champ

York and York, to th and thence wilich polt 126 miles. 13 miles; its large isl unohstruct mort. Its and La Ma the penins Vermont. plaio, a Fr of many in Revelution aloeg Its grand by t it on beth commerce, many sleo It receives is Soretle has been 1 (Canada), large vesse plain Cana River on $t$ with fish, a other fish. passed on January or narrow pay has threal collection
facture of porcelain, for polishing marble, and as the basla of certaln coanstic poviers.-Red Chalk is an indurated clayey ochre used for almilar purposes. It is reddle, or earthy clay-Ironatone of the mineralognoc.E. B.

Chamber of Assurance, in France, denotes a socicty of merchants and others for carrying on the business of Insurance; but In Holland it algnifiea a court of justice, where causes relating to assurances are tried.

Chamber of Commerce. An assembly of merchants and traders, where affairs relating to trade are treuted of. There are several establishments of this gort in most of the chief citles. - Sice Board of Tnade.

Chamomile Flowers. The flower-heads of the Anthemis nobilis, or common chamomile. They are used in medicine in consequence of their bltter cxtract, which is strengthening, and of their cssential oil, which is aromatic and stimulant.

Champagne, one of the mose esteemed and celebrated of the French wines. An official report, made by the directors of the indlrect taxes for the department of Marne, furnishes the following Information as to the trade in champague between the lst of April, 1846, and the 1st of April, 1847. The produce is distributed among the arrondlssements of Chulons, Epernay, und Rheims. On the 1st of April last there were in the cellars of the wholesale deaters $18,815,367$ bottles of this wine; viz. at Chalons, $4,404,237$ bottles; at Epernay, $5,710,753$; and at Rhelms, 8,500,377. The number of hottles sold and delivered between the 1st of April, 1846, and the 1st of April, 1847, were, at Chalons, 2,497,355; at Epernay, 2,187,553; at Rheims, $4,090,577$; making a total of $8,775,485$ bottles. These quantities wero thus distributed:

| Placea. | To go Abroad. | To other Depots. | Within the Depol. |
| :---: | :---: | :---: | :---: |
|  | Botulen. | Botlles. | notles. |
| From Chalons , . . . . . . | t,074,214 | 753,175 | 669,063 |
| From Epernay. . . . . . . . | 800,643 | 886,425 | 904,465 |
| From Rheims.......... | 2,881,033 | 1,2t5,760 | 43,773 |
| Total. | 4,711,915 | 2,365,366 | 1,707,304 |

Champlain Lake lies between the States of New York and Fermont. It extends from Whitehall, New York, to the 45th degreo of north latitude 102 miles, and thence about 24 miles to St. John's, in Canada, to which point it is navigable, making its whole length 126 miles. Ita breadtl is from one-fourth of a mile to 13 miles; but, including the expanse which contains Its large islands, it is 15 miles wide. Its broadest part, unobstructed by islands, is opposite Burlington, Vermont. Its chief islands are North Hero, South Hero, and La Motte, which, with some sinaller islands, and the peninsula of Alburg, constitate Grand Isle county, Vermont. This lake was discovered by Samuel Chantplaio, a French nobleman, in 1609. It was the theutre of many important milltary operations, in the French, Revolutionary, and the war of 1812. Tho scenery aloog its shores is highly picturesque, and rendered grand by the lofty monntains at a little distance from it on both sldes. It forms an important medium of commerce, and is navigated by steamboats, and by many sloops, generally from 80 to 100 tons burden. It receives a number of considerable rivers. Its ontlet is Sorelle or Richelicu River, the navigation of which has been Improved by the works of the Chambly Canal (Canada), so as to afford an easy communication for large vessels with the St. Lawrente River. The Champlain Canal, $6 \mathbf{4}$ miles long, connects It with the IIudson River on the south, and cost $81,079,872$. It abonnds with fish, among which nre salmon, lake shad, plke, and other fish. It ls generally frozen entirely over, and is passed on the ice, in winter. The hroad lake closes in Jsnuary or February, and opens early in March. The nerrow parts continue frozen conaldcrably longer. It hss three light-ltouses on lis coasts. It compriaes the collectlon districts of Burllngton and Champlaln. Ag-
gregate tonnage in 1853, 1,461,749. The aggregate ohipplag in 1851 measured 107,500 tona, and employed $11,850 \mathrm{men}$. The commerce of the lake in the same year amounted to $\mathbf{\$ 2 6 , 3 9 0 , 8 9 5}$; and the enrolled tonnage was, of steam, 4157 tons, and 8983 tona of sailing vessels.

Chanks, or Chank Bhelle, common conch shells (Voluta pyrum), are fished up by divers in the Gulf of Manaar, on the coast opposite Jaffinapatam, in Ceylon, In about two fathoms water; and at Travancore, Tuticoreen, and other places. Large fossil beds of chanks have also been found. They are of a spiral form, and constitute a considerable article of trade in India, whers they are in extensive demand all over the country. They are sawn into narrow rings or bracelets, and are worn as ornaments on the arms, legs, fingers, etc., by the Hindoo women; many of them are also buried wlth the bodies of opulent and distingulshed persons. Those which, from being taken with the fiah, are called green chanks, are most in demand. The white chank, which is the shell thrown upon the beach by atrong tides, having lost its gloss and consistency, is not worth the frelght up to Calcutta. The value of the green chank depends upon its aize. A chanl, opening to the right, called in Calcutts the right-handed chank, is so highly prized as sometlmes to scll for 400 or 500 , or even 1000 rupees.-Bellis Commerce of Bengal, and private commuaications.

The fishery of chanks used to be monopolized by government, who formerly let the banks for from $£ 3000$ to $£ 4000$ a year. But of late years the fishery, partly from the poaching of the fishermen of the contiguous coasts, and partly from a decrease in the supply of chanks, decllned so that the rental of the banks fell off to from $\boldsymbol{£} 300$ to $\boldsymbol{£} 400$ a year. And this smaller sum was not paid, as formerly, for a licenso to dive for live chanks, but for permission to dig up the dead shella along the shores of the Gulf of Mantar. Under these circumatances government have whely abandoned the chank monopoly, which, without being of any value in a financisl point of view, obstructed the employment of the inhabitant. on the shores of the Gulf.-See the valuable Report of Sir J. E. Tennent, p. 55, of Papers on Ceylon, presented to Parllament in 1848.
Charcoal (Fr. Charbon de bois; Ger. Reine Kohle; It. Carbone di legna; Sp. Carbon de lena; Lat. Carbo ligni), a sort of artificial coal, conslsting of wood burned with as little exposure to the action of the air as possible. "It was customary among the ancients to char the outside of those stakes which were to bo driven into the ground or placed in water, in order to proserve the wood from spoiling. New-made charcoal, by being rolled up In clothes which have contracted a disagrceable odor, effectually destroys it. When boiled with meat beginning to putrefy, it takes away the bad taint; It is, perhaps, tho best tooth-powder known. When putrid water at sea is mlxed with about one-ninth of lis weight of charcoal powder, it is rendered quite fresh ; und a much smaller quantity of charcoal will serve, if the precaution bo taken to add a little sulphuric acid provlously to the water. If the water casks he charred before they are filled with water, the llquor remains good in them for years; this precaution ought always to be taken for long sca voyages. The same precaution, when attended to for wine-casks, will be found very much to lmprove the quality of the wine." -Thomson's Chemistry. Common charcoal intenciud merely for fuel ls prepared by cutting pleces of wood from one to three inches in diameter into lengths of from one to three feet, forming them Into a conical pile, and covering them with turf or clay; leaving two or three small holes close to the ground for lighting the wood, and boring through the turf in the upper part of the cone, a few other small holes for the escape of the smoke. The pile beling lighted at the scveral holes along the bottom, continues burning with a slow smoullering flame for a week or two, and lo allowed to cool before
the turf is removed. In the case of very high winde, the holes to the wiadward are stopped, to prevent combuation from going on with too great rapidity. Charcoal obtained by distilling beach-wood, log-wood, willow, and other woods which are free from resin, is calied cylinder charcoal. The charcoal employed in the manufacture of guapowder is now always so prepared.

Charge d'Afintres. The third or lowest elass of forelgn minieters, accordlng to the regulations adopted at the Congress of Vienna.
Chariota. The Invention of chariots and the manner of harnessing horses to drsw them, is ascribed to Erichthoniue of Athens, 1486 n.c. Chariot-racing was one of the exercises of Greece. The chariot of the Ethlopian officer, mentloned in Acts vii. 27, 28, 81, was, It is supposed, something in the form of our modern chaise with four wheels. Casar relates that Cassibelanue, after diamissing all his other forces, retained no fewer than 4000 war chariots. Those of the ancients were like the modern phaetons, and drawn by one horse. -Haydns.

Charleston, city, port of entry, and capital of Charleston district, South Carolina. It is the metropolis of the State, and the tweifth elty in popalation in the United States. Situated in $32^{\circ} 46^{\prime} 33^{\prime \prime}$ N. Ist., and $79^{\circ} 55^{\prime} 38^{\prime \prime}$ W. long. from Greenwich, England; $2^{\circ} 56^{\prime} 3^{\prime \prime}$ W. long, from Washington; 124 miles southsoutheast from Columbis ; 110 miles from Savanuah, Georgis ; $\mathbf{1 6 5}$ nilles from Wilmlngton, North Carolina; 547 miles from Weshington; 587 miles from Baltimore; 684 mies from Philadelphis; 773 miles i.om New York, and 989 miles from Boston. The population in 1790 was 16,859 ; in 1800, 18,712; In 1810, 24,711 ; In 1820, 24,780; in 1830, 30,289; in 1840, 29,261; a1 i in 1850, 42,985; to whieh may be properly added th. inhabitants of the Neek, north of the elty, but lying without the charter limits, which contains about 15,090 inhabitans, Charleston is on a peninsula, formed by the confluence of Ashley and Cooper Rivers, which unite immediately below the city, and form a spacious and convenient harbor, communicating with the ocean at Sullivan's Island, seven miles suaticast of the city. The city is defended by Fort Plnckney, two miles below, and Fort Johnson, four miles; and hy Fort Mouitrie on Sullivan's Island. The city is divided into eight wards, and is buitt on ground but slightly elevated, being only abrit nine feet alove the level of the harlor at high tides. It extends from Battery Point on the south to the elty limits on the north, a distance of three miles, and at an average width of one and a quarter mile. Meeting Street, the principal strect, is aixty feet wide, and extends for a distance of three miles nearly in a direct line north; tho cross-streeta run neerly parsilel to each other, and at right angles to Mecting Street, and extend from east to west, and from Ashley to Cooper Rtvers. The houacs built within a few years aro of brick; none are now allowed to be constructed but of this material or of stone. The wooden houses are generaliy kept well painted, and moet of them have piazzas extending to the roof, tastefuily srranged with vines and creepers. Thoso in the suburbe are surreanded by gardens, planted with orange, peach, and other ornsmental and ueeful trees, andi s profusion of vines end shrubbery.

Charieston is a great mart for cotton, rice, and tobacco; and rice espeeisilly, as it ie the heart of the ricegrowing region, forms the great staple, of which it exports 125,000 therees annually. There is a line of steamers with New York weekly, a line with Maitimore and Philsdelphia, and also with IIavana and Cuba. Tonnage of the port in 1852,42,658 tons. The light-house at the entrancu of Charieston harbor is on Light-house Island, and weat of the ship channel. Lat. $32^{\circ} 41^{\prime} 54^{\prime \prime}$ N., long. $79^{\circ} 32^{\prime} 30^{\prime \prime} \mathrm{W}$. from Greenwich. The tower is 102 feet high, ehows a revolving Ilght elevated 125 feet above the surface of the sea, and is visible for $c$ distance
of $16 \frac{1}{\text { a }}$ antical milee. There is also a beacon, which with the light is used ae a range to crose the main bar, and two othera, the Morris Isiand and Sullivan's laiand beacons. By tis being the port of an extensive aystem of ralironde, it dralns supplies from a wide range of territory ; besides alnost the entire State of South Carolina, it comprises a large portion of North Carollna, Georgia, and of Last Tennessee." Charleston was frst settled in 1680. A colony of French refugees, exiled in 1690, in consequence of the revocation of the edict of Nantea, fled to Sonth Carollna, and a portion of them settled in Charleston, from whom some of ite most reapectable inhahitants have deacended. At the cluse of the year 1779 the city was captured by the British, who held it until the following May.

Export Trank of Cuarlegton.

| Placee. | 1854. |  | 1865. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Bem leiand. | Upland. | Sen Islard. | Upland. |
|  | Bales. | gales. | Bales. | Bates. |
| To Great | 14,186 | 148,784 | 14,640 | 189,572 |
| To France. | 8,066 | 37.279 | 4,150 | 66,506 |
| To North of Europ | 2 | 12,639 | .... | 13,700 |
| To South | $\ldots$ | 18,401 | .... | 27,020 |
| Total to forelgn por | 18,154 | 217,608 | 18,680 | 246,798 |
| To Bosto | 891 | 16, 321 | 120 | 2,0C5 |
| To Rhode tmand, |  | 488 |  | 011 |
| To New York. | 6,140 | 148,486 | 5,651 | 157,106 |
| To Phllsdelphis. | 81 | 12,934 | , | 10,118 |
| To Baltimore \& Norfolk |  | 12,887 |  | 0,101 |
| To other U. States \%o |  | 102 |  | 102 |
| Total to coastwise ports | $6,612$ | $190,675$ | 5,771 | 118,453 |
| Total to forcign ports | $18,154$ | $217,608$ | 18,680 | 206,748 |
| Grand to | 24, 606 | 408,278 | 24,461 | 4!5,251 |
| Exposti oy inca. |  |  |  |  |
| Places. |  |  | Bough Rice. |  |
|  | 1854. | 1885. | 1854. | 1853. |
| To Britinh | Bushata. 7,204 | $\left.\begin{array}{\|c} \text { Bonkefe. } \\ 2,691 \end{array} \right\rvert\,$ | $\begin{aligned} & \text { Buabela. } \\ & 16,639 \end{aligned}$ | Buatele 41,740 |
| To Franee. | 7,182 | 2.847 | 18,122 |  |
| To North of Euro | 9.740 | 3.805 | 134,284 | 24,326 |
| To Wert ludles | 22,152 | 17.05\% | 100 |  |
| Total forelgn p | 46,278 | 45,960 | 264,045 | 68,066 |
| To Boston. | 0,766 | 4,38\% |  |  |
| To New York. | 41,060 | 82, 8.45 | 43,385 | 6,502 |
| To Ihitsdelphia .... | 4,785 | 6,767 | .. ${ }^{\text {. }}$ | .... |
| To Balttmore \& Norf | 10,197 | 7,512 | .... | ... |
| To New Orleana | 16,176 | 17.142 |  | -0, |
| To other U. Statee por | 64T | 236 | 15,684 | B00 |
| Total to cosatwlee porte | 70,521 | 67,085 | 64, 019 | 7,102 |
| 'total to forclgt porta | 46,278 | 25,960 | 264,045 | 06,066 |
| Grand total | 125,790 | 88,546 | 323,064 | 73,068 |
| Exponti os Lemxxa. |  |  |  |  |
| Placen. |  | 1854 |  | 1855. |
| To Grest Britaln . . . . . . . . . . . . |  | Feel.$15: 1,404$ |  | Feet. 663,042 |
| To France |  | 330,716 |  | 1,143,382 |
| To North of Furope. . . . . . . . . . . |  | 648, | . 772 | 407,305 |
| To South of Europe. . . . . . . . . |  | 1,265,402 |  | 3,988,771 |
| To West Indie: etc.............. |  | 8,826,651 |  | 2,025, 653 |
| Total to forelgn ports. . . . . . . . . |  | 6,730,645 |  | 7,383,663 |
| To Boston . . . . . . . . . . . . . . . . . |  | 4,190,779 |  | 1,633,466 |
| To Fthode Ialand, ete. . . . . . . . . . |  | 4,846,103 |  | 6,406.655 |
| To New York . . . . . . . . . . . . . . . |  | 1,498,961 |  | 1,135,193 |
|  |  | 2,008,416 |  | 6,525,205 |
| To Jaltmore and Norfolk ...... |  | 2,709,809 |  | 2,577.531 |
|  |  | 856,977 |  | 1,240,709 |
| Total to eoast wise porta . . . . . . . . . <br> Total to forelgn prorts. |  | $\begin{array}{r} 17,114,005 \\ 0,750,645 \\ \hline \end{array}$ |  | $\begin{array}{r} 16,510.764 \\ 7,389,653 \\ \hline \end{array}$ |
|  |  |  |  |  |
| Grand total. . . . . . . . . . . . . . . . |  | $23,844,650$ |  | $23,8 \cdot 9,417$ |

## -1Iunt's Merchants' Magnzine.

Port.-Charicaton harhor is apacious and convenient; but the entrance to it is incommoded by a range of sand banks, siretehing from Sullivan's Island on the north to Folly Island on the south, about 2! leagues. There are neveral cliannels through these banks, but only three, the middle or direct channel, the ship channei, and Lawford ciannel, between the latter and the main land, that ought to be attempted by ehips of congiderable burden. The entranco to the ehip channel is in lat. $82^{\circ} 40^{\circ}$. The depth of water on the shnllowest part ofthe bar at ebb-tide ie 12 feet, and at flood-tide from

17 to 18 st low channel has beet and, bea channel high, he and obs that of latter g never weather the chan on each bring th stand di the cour enter in entering are hall fall pilo not. I cepted; the tide not per shipa th formly 1 of Charl of Majo
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plano,
consid

17 to 18 feet; while the depth in the middle channel at low water does not axceed 9 feet, and in Lawford channel it does not exceed 10 or 11 fest. A light-house has been erecterl on the south point of Light-house Island, bearing from' the middle of the har of the ahip channel nerthwest by weat half west. It fa 80 feet high, having a revolving light, alternately brilliant and obscure, the period of obscuration belng doulle that of brilliancy; but on approaching the light, the Ister gains upen tho fermer, and within it league it is never wholly dark: The light may be aeen in fine wether at from 8 to 4 leagues off. After getting Into the channel, which is marked by the breakers and bueya on esch side, the propar course for a ship to steer la to bring the light-honae to bear nerthwesi by west, and stand direct for it till you get within the banka, when the course is north by west. But it is unnocessary to suter into further detalls on these points, as all ahlps entering Charleston harbor are bound, provided they sre hailed by a licensed pilot off the bar, to pay him fall pilotage fees, whether they accept his aervices or not In polnt of fact, however, they are alwaya accepted ; for the shifting of the aands, the influence of tha tlies, otc., render the entrance ao difficult to those not perfectly familler with 1 , that even the packet ships that aall regularly to and from New York uniformly heave to without the bar for a pllot.-See Plan of Charleston Harbor, reduced from the original survey of Major II. Bache.

Ships usually moer alengside quays or wharfs, where they are in perfect safety.
Shipping Charges.-The charges of a publle nature pald by|ahips entering this port differ but little in smount on a native and a foreign shlp. On a ressel supposed to be of 300 tons burden, entering, unloading, taking on board a mixed cargo and clearing ont, they would be as under:

| Fee on entry nt tho custom-hous |  |
| :---: | :---: |
| Surveyor's fee on s forelgn ship | 500.1114 |
| Surveyor's fee on n nativo ship | 3004012 \% |
| Ifrbor-master's fee | $200 \% 00861$ |
| Portwarden's eurvoy, when req | 1000 " 2228$\}$ |
| Fees, on clearance at the eurtom-house, \} of a native shtp | 350 " $01411 \%$ |
| Ditto, of s foretgn ship . . . . . . . . . . . . . . | 270 " 01164 |
| Hlotage in ward and outward, nupposing \} the slitp to draw 14 feet of water..... | 5000 * 1013 6t |
| Wharfage per dlem | 100 " 0488 |

The difference in the fees on the clearance at the custom-house of a native and a foreign ship is owing to the former being obliged to give certain bonds which are not required of the latter.
The greater or amalier tonnage of the ahip makes no difforence on any of the above charges except that of pilotage, which is in proportion to her draught of water, and is the same whether for a foreign or a native shlp.

Rates of Commission.-The rates of commlasion or fsctorage usually charged and allowed at Charleston on transacting different sorts of business, are as follows, viz. :

For aclling demestie produce, $2 \frac{1}{2}$ per cent.
For seliing foreign morchandise, 5 per cent.
For guaranteeing elther of these sales, $2 \frac{1}{2}$ per cent. additional ia commonly allowed.

For purchasing with funds in hand, or drawing domastlc billa for reimbursement, $2 \frac{1}{2}$ per cent.
For purchasing goods and drawing forelgn billa for reimbursement, $\overline{0}$ per cent. la charged.
For the sale of real or persenal estate the regular charge is 5 per cent. ; but where the property to be soid is of any considerablo value, the parties in general enter lnto an agreement beforehand, and a much lower rate of commission is allewed.-Ses Soutir Canolina.
Chart, or Bea-ohart, a hydrographieal map, or a projection of some part of the earth's superficies in plano, for the use of navlgators, Charts differ very considerably from geographical or land-innps, which sre of no use in -avigntion. Nor nre sea-charts all of
the asme kind; aoms being what are callsd plane charts, others Mercator charts, and others globular charts. Plane Chart is a representation of some part of the sinperficies of the terraqueous globe, in which the merldisna are aupposed parallel to each other, tho parallels of latitude at equal distances, and consequently the degrees of latitude and longitude every where equal to, each othor. Mercator's Chart is that where the ineridians ars atraight lines, parallel to each other, and equldistant; the parallels also straight lines, and par: allel to each other; but the distance between them ln= creasing from the equinoctlal toward cither pole, in the ratio of the secant of the latitude to the radlua. Globui lar Chart, a meridlonal projection, In whlch the distance of the eye from the plans of the meridlan, upon which the projection is made, is supposed to bo equal to the slng of the angle $45^{\circ}$. This profectlon comea the neareat of all to the natare of the globe, because the meridiana are placed at equal distances; the parallels also aro nearly equidistant, and consequently the several parta of the carth bave their proper proportlon of magnitude, distance, nd aituation, nearly tho aame indeed as on the globe itaelf. Hydrographic Charls, aheets of large paper on which aeveral prirts of the land and aea are deacribed, with thelr respective coasta, harbors, sounds, flats, rocks, abelves, aands, etc., together with the longltude and latitude of each place, and the points of the compass. Selenographic Charts represent the spots, appearancea, and macula of the moon. Topo graphic Charts, druughts of small parts of the earth, or of particular places. Anaximander, of Mlletua, was the inventor of geographicai and celestial charts, about 750 n.c. Modern seu-charts were hrought to England by Barthelomew Columbus, with a view to illustrate his brother's theory respecting a Western Continent, 1489. Mercater'a chart, In which the world ia taker as a plane, was drawn 1556.-E. B.

Charter-party, the name given to a contract in writing bet ween the owner or master of a ahip and the freighter, by which the former hires or lets the ship, or a part of the ship, under certain specified conditions, for the conveyunce of the goods of the freighter to some particular place or places. Generally, however, a char-ter-party is a contract for the use of the whole ship: it is in commercial law what an fndenture is at common law.-See Affneiontment.

No precise form of words, or set of atipulations, is requisite in a charter-party. The forms subjoined to this article are those most commonly in use; but these may, and, indeed, in many cases must, be varied, to suit the views and intentions of the partics. A char-ter-party is gencrally under seal; but sometimes a printed or written instrument is signed by the partles, called a memorandum of a charter-pet'ty; and thia, if a formal charter-party be not afterward executed, is binding. The atamp lin either case is the same. Charterpartics, when ships ars let or hired at the place of the owners' resldence, are generally cxecuted by them, or some of them ; but when the ship is in a foreign port, it must necessarily be executed by the master, and the merchant or his agent, unless the owners have an are it in auch port, having proper anthority to act for th in in such matters. A charter-party made by the master in his name, when he is in a forcign port in the uaual course of the alif's employment, and therefore under circunstances which do not afford evidence of fraud; or when it is mude by him at lome, under circomatances which afford evidence of the expressed or implied assent of the owners, is hinding upen the latter. But according to the law of England, no direct action can be maintained upon the instrument itself against the owners, unless it be signed and aealed by them, or unless they authorize the master (or agent, as the case may be) to enter into the contract, and unlesa it be distinctly expressed in the charter-party that he acts only as ngent. When a shlp is chartered by several owners to several persons, the charter-party should be
execuied by each，or they wili not be liable to an action for non－perfonnance．But if the charter－party be not expressed to be mado，between the partice，but runs thus：＂This charter－party ludented，wltnesseth，that C．，master of the alip W．，with congent of A．and B． the owners thereof，leta the ship to frelght to E．and $F$ ．，＂and the instrument containa covenants ly $E$ ．and F．to and with A．and B．；in this case A．and B．may bring an action upon the covenants expressed to be mado with them；but unless thoy aeal the deed，they can not be aued upon It．This，therefore，is a very proper form．The general rule of law adopted in the construction of this，as of other mercantile instruments， is，that the interpretation ahould be liberal，agreeable to the real intention of the parties，and conformaile to the usage of trade in general，and of the particular trade to which the contract relates．The clarter－par－ ty usually expresses the burden of the ship；and by the fumous French Ordinatice of 1681，it is required to do so．According to Molloy（book ii．c．4，§8），if a ship be freighted ly the ten，a：a found of less burden than expressed，the payment shall be only for the real burden；and if a ship be froightod for 200 tons，or there－ about，the addition of thereabout（says the same an－ thor）is commonly reduced to five tons，more or less；lu．： it is now usual to say so many tons＂register measure－ ment．＂The usual covenant that the ship shall be sea－ worthy，and in a condition to carry the gouds，binds the owners to prepare and complete overy thing to commenee and fulfilit the voyage．But though the char－ ter－party contained no such covenant，the owner of tho vessel woold be，at common law，bound，as a caryier， to take care that the ship shoold be fit to perform the voyago ；and even though he siould give notice，limit－ ing his responsibility from losses occasioned to any car－ go put on board his vessel，unless auch losa should a rise from want of ordinary eare，etc．，he would he liable if his silip were not sea－worthy，－See Sea－woutny．
In ail maritime transactione expedition is of tine ut－ most consequence ；for even by a short delay the ob－ ject or season of a voyage may be lost；and therefore， if either party bo not ready by the timo appointed fer the loadiag of the ship，the other may seek another ship or cargo，and bring an uction to recover the damages he has sustained．Tho manner in whiel tho owner is to lade the eargo ia，for the moot part，reguiated by the custom and usage of the place where he is to lado it， unless there be any express stipolation in the charter－ party with respect to it．Generully，however，tho own－ er io bound to arrange the difierent articies of the car－ go in the most proper manuer，and to tuke the greatest care of them．If a cask lo accidentally stavedi in let－ ting it down into the held of the ship，the maater must anawer for the less．If the owner covenants to load a fuil and complete cargo，the master must take as much on board as he can do with safety，and without injury to the vessel．The master must not take on board any contraband goods，wherety the ship or cargo may be liable to forfeiture and detention；nor must he take on board any false or colorable papers；but he must take and keep on board ail the pajiers and documents re－ quired for the protection and manifestation of the ship and eargo by the law of the countries from and to whieh the ship ts bound，by the law of nations in generai，or by any treaties between particular atates．If the mas－ ter receive goods at the quay or beaeh，or send his beat fer them，his responsiliility commences with the receipt in the port of London．With respects to goods intend－ ed to be sent coastwise，it has been held that the chief responsibility of the wharinger ceases ly the delivery of them to tha mate of the vessel upon the wharf．As sooll as he receives the goods，the master must provide adequate means for their protection and aceurity；for even if the crew be overpowered by a superior force， and the gooda taken while the ship is in a port or river within the country；the master and owners are liable for the loss，thoubh they may have committed neither
fraud nor fault．This may seem a harih rule；but it is necessary，to put down attempts at colluaive or fraud－ ulent conbinations．The mauter must，according to the terus of the charter－party，commence the voyage without delay，as soon as the weather is favoralle，but not otherwlae．
Sometimes it la covenanted and agreed upon between the partien that a apecified number of daya shall be allowed for loading and unloading，and that it ahall be lawfol for the freighter to dotain the vesael a further specified time，on payment of a daily sum an demur－ rage，－Niee Demurrage．If the vessel be detained beyond both period，the freighter ia liable to an aetion on the contract．The rate of demurrage mentioned in the charter－perty will，in general，be the measure of the damages to be paid；lut it is not the absolute or necessary measure；more or leas may be payabie，as justico may require，regard being had to the expense and loss ineurred by the owner．When the thine ia thus expressly ascertained and limited by the terms of the contract，the freighter is liable to an action for damages if the thing be not done within the time，al－ though this may not le attributabls to amy fuult or cmis－ sion on his part；for he has engaged that it shall be done．－Anuutt on the Lavo of Shipping，part iii．c．1． If there has beell any undertaking or warranty to sail with convoy，the vessel must repair to the place of rendezvous for that purpose；and if the mastor neglect to proceed with convoy，he will be answerabio for all losses that may arise from the want of it．The own－ ers or master should sail with the ship for the place of her destination with ali duo diligence，and by the usual or shortest course，uniess in cases of convoy，which the master muat follow as far as possible．Somatimes the course is pointed out in the eharter－party．A deriation from the usual course may be justilied for the purpose of repaire，or for avoiding an enemy or the perite of the seas，as well as by the sickness of the master or mar－ iners，and the mutiny of the crew．By an exception in the eharter－jurty，not to be liable for injuries arising from the act of God and the king＇t enemies，the onuer or master is not resionsilie for any injury arising from the sea or tho winde，uniess ic was in hie pewer to pre－ vent it，or it was occasioned by his imprudeuce or gross neglect．＂The question，＂said Lord Mansfeld，in an action brought by the East India Company，＂is， whether the owners are to pay for the damage ocea－ sioned liy the storm，the aet of God；and this must be determined by tho intention of the parties and the na－ ture of the centract．It is a charter of freight．The owners let thalr ships to hire，and there never was an idea that they insnre the curgo against the perils of the sea．What are the olligations of the ownere whieh nrise out of the fair construction of tho charter－party？ Why，that they shall be liable for damages incurred by their own fauit or that of their servante，as from defects in the ship，or improper stowage，ete．If they were liabie for damages oceasioned by storms，they would become inssurers．＂The House of Loris con－ firmed this ductrine by deeiding（20th of May，1788） that the owner is not liablie to make satisfaction for damage dene to goods by storm．The charterer of a ship may lado it eitier with his own goods，or，if ho have not sufficient，may take in the gooda of other per－ sons，or（if not prevented by a clause to that effect in the charter－party）ho may wholiy underlet the ship to another．－－For further details，see Annot on the Lav of Shipping，part iii．c． 1 ；Curtr＇s Commercial Law， vol．iii．c．9，ete．；and the articies Bilit of Lading， Fneight，and Master．
Forms of Charter－parties，－－The following is one of the most usual forms of a charter－party：
Thit oharter－party，indented，made，ete．，between A．B．，etc．， mariner，master，and owner of the good ahip or vassel，called， etc．，now riding at anchor，etc．，of the hurden of 200 tona，or thereabout，of the one part，and C．D．of，etc．，merchant，of the other parb，witnosseth，that the said A．B．，for the coneld－
at it is frauding to joyage le, but
eration berelaafter montioned, hath granted, and to freight letton, and by these precentin doth grant, and to freight let, unto the sald C. D., hita ozeentore, adminiotrators, and ansigns, the whole tonnage of tha hold, etern-aheeta, and haifdeck of the sald shlp or vemel, called, etc., from the port of London, to, etc., In a voyage to be made by the said A. I. with the aald ohip, In manner heretnafter mentioned, (that fe to asy, to aall with the firat falr wind and weather that aball happen after, etc., next, from the port of London with the goode and merchandise of the said C. D., bis factors or ataigna, on board, to, etc., aforemaid the act of God, the king'a enemies, fire, and all and every other dangera and aceldenta of the mena, rivera, and navigation, of whatever nature and kind, in wo fur at ohipa are liable thereto, during the aild royage, always excepted), and there unlade and make diecharge of the eaid goods and merchandises and almo shall there take Into and on board the mald thlp again the goods and merehandiven of the aald C. D., his factore or absigna and ahall then return to the pert of London with the raid roode, in the space of, etc., ilmittod for the end of the sald voy. age. In consideration whereof, the sald C. D., for himself his executors, and administratorm, doth covenant, promi and grant, to and with the and A. B., his executors, admin'trators, or sasigna, by theme presents, that the sadd C. D., his executorn, adminiatrutore, factork, or andgna, ehall and vill wetl and truly pay, or cauce to be pald, unto the aald $A$. B., hia executorm, administrators, or asaigns, for the freight of the satd ohip and gooda, the sum of, ets. (or se much per ton), within twenty-one daya after the sald ohip arrived, and gooda returoed, and discharged at the port of Yondon aforesald, for the end of the nald voyage: and aiso shall and will pay for demurrage (if any abail be by defantt of him, the sald C. D., hia factora or aselgna) the aum of, etc, per day, daily, and every day, me the mame ahall grow due. And the $^{\text {a }}$ cald A. B., for himmelf, ble executora and adminletratore, doth covenant, promise, and grant, to and with the said C. D., his executors, adminiatratore, and asielgns, by thene presenta, that the sald ship or vessel shall be ready at the port of London to tske in goods by the sald C. D., on or before, etc. next coming. And the aaid C. D., for himeelf, hia, ete, doth covenant and promice, within ten dayn after the amid ship or vessel ahali be thus ready, to bave hla gooda on board the eald nhip, to proceed on in the aald voyago; and also, on arrival of the sald ahlp at, ete., within, ete., daya to have hils pooda ready to put on board the anid yhlp, to refurn on the id voyage. And the sald A. B., for himself, his executora a indministrators, doth further covenant and grant, to and w th the sald C. D., his executors, administrators, and assignr that the aald ablp or veseel now is, and at all times during the voyage ahall be, to the beat endeavors of him, the sald A. B., his executors and administrators, and at bls and their own proper costs and charges, in silt thinga made and kept atif, staunch, strong, well-appareled, furnished, and provided, as well with men and marinera sufficient and able to sell, gulde, and govern the asid aht p , as with all manner of rigging, boata, tackie, and apparel, furniture, provislon, and appurtanances, fittiog and ascessary for the sald men and marinera, end for the sald uhip during tho voyage aforemaid. In witoess, etc.

The great rariety of clrcumstances under which dlfferent voyages aro made produce a corresponding diversity In charter-parties. The charter-party of which the following is a copy affords a good example of the more complex species of these instrumenta.

It la this dey mutually agreed between Mr. T. B. Rann, owner of the good ehlp or vessel called the Mormaid, Wiliam Henniker, master, of the measurement of 472 tons, or thereabout, now in the River Thames, and Mr. Devid Thomson, of the firm of Messra. Thomaon, Passmore, \& Thomson, of Maurituk, merelanta, that the sajd ship, belog tight, staunch, and strong, and every way fitted for the voyage, alhall, with slf corvenlont speed, sail and proceed to Calcutta, with leave to take conviets out to Ncw south Wales, and from thence troops, merchandise, or passengers, to the afore-mentioned port of Calcutta, with leave to touch at Madras on her wsy thither, if required on uwner's account, or so near thereunto as she mey safely get, and thers load, from the factors of the sald merelianls at Calcutto, a full and complete cargo of rice, or any othcr la wful goods which the cherterer engagea to allip. and proceed whth the same to Port Louls, in the Islo of Framec, and deliver the ssme freo of frelght; afterward load there a full and completo eargo of angur in bags, or other lawful merchandise of as favorable tonnage, which the charterer engages to ship, not exceeding what she can reatonably stow and carry over and above her tackle, apparel, provisions, and furniture; and, being so lomded, ahail therewith proceed to London, or so near thereunto as ohe may mafely get, and de-

Ilver the aame on being paid freight, riz., for auch quantity of sugar equal to the setual quantity of rice, or other gooda that may be ahipped at Calcutte, at the rate of 25122 . ©d. per ton of 20 cwh net, shipped there; and ahould the vemel deIIver more net nugar in the port of London than the quantity of rice, or other goods, actailly shipped in Calcutta, the own. orm to be pald on the oxcema at the regular enirent rate of freight for sugar which other vessels, loading at the same time at Port Louls, receive ; the tonnage of the rice, wheat, or graln, to be reckonad at 20 ewt . net per ton; that of othes gooda at the unual measurement (the act of God, the kingia enemies, Br $_{1}$, and all and overy other dangera and aceldents of the seas, rivers, and novigation, of whatever natare and kind seever, during the mind voyage, alwaye excepted). The frelght to be pald on nnioading and right deilvery of the car. go, at is cuatomary in the port of Londod. Ninety running daye are to be aliowed the sald merchant tif the ship is not sooner dispatched) for loadiog the ship at Calcutta, dischargIng the cargo at Port 1ouls, and loading the cargo thene; the sold lay daya to commence on the veasel betng ready to recelve cargo, the master giving notice in writing of the same at Cnlcuttia, and to continue during the loading there; and from the time of her arrival at Port loula, and belng ready to discharge, till the final loading at that port, and to be discharged in the pert of London with all pomelble diapatch; and 20 daye on demurrage over and above the sald laying dayn at $\mathrm{E12}$ per day. Penalty for non-performance of thil agreement, 24000 . The cargo to be brought to and taken from alongside at the expense and risk of the merchanta. The necessary cash for the disbursementa of the vessel at Calcutta, not exceeding £350, to be advanced by the cbarterer's agents: they taking the master'e drafta on the owner for the same at the regular current rate of exchange, and at three monthe' atght; and if the aald bills be not regularif accepted and pald when due, the same to be deducted from the freight payable by this charter-party. The vessel to be distursed at Port Louis by the chartering agents; sum not to ezceed C 300 , free of commisolon: and tho amount to be deducted from the freight at the final settiement at the port of London. Captain not to ship gooda without consent. In the event of the ship being prevensed, by damage or any other cause, reaching the Mauritius on or before the Ist day of Jamuary, 1843, the charterer or his agents shalt be at ilberty to employ the vessel for one or two voyages to Caicutta, at the rate of $£ 2$ per ton of rice, or other gooda, delivered at Mauritius, Fifty running days, to load and diacharge, to be allowed on each voyage; it beligg understood that the charterer or his agents ahall foad the ohip, as before agreed, eltber at the end of the frat or becond voyage, as tha case may be. The freight on the intermodiate voyagea (if any) to be paid on delivery of the cargo, in cash, $0_{i}$ by bills on London at usance, at the option of the master. The vessel to be addressed, both at Calcutta and Isle of France, to the agente of the charterer, In witness whereof, the sald parties have hereunto set their bands and seain, at London, the 2d day of December, 1841.
Slgned, sealed, and daliv-?
Tuos. B, Rank, (l. en)
ered, in the presence of $\}$ D. Tnomson, (Signed) E. Fonsyтu.
Chase. In nautlcal language, pursult; also the veasel pursued.

Chaser. The vessel pursuing; also guns at the heed and stern for firing when in chase.

Chay, or Choy Root, the roots of a amall biennial, rarely trlennial, plant, growing spentanceusly in light, dry, sandy ground near the sea; and extensively cultivated, especially on tho coast of Coromandel. The cultivated roots are very alender, and from one to two feet in length, with a few lateral fibrea; but the wild nre shorter, and supposed to yield one-fourth part more of coloring matter, and of $a$ better quality The roots are employed to dye the durable reds for which the Indian cotton yarn and chintzes have been long famous, and which can only be equaled by the Turkey red.

Chay root forms a considerable article of export from Ceylon. Only a particular set of people are allowed to dig it. It used to be all bought up by government, who paid the diggers a tixed price of 75 or 80 rix-dollars a candy, and sold it for exportation at about 175 rix-dollurs.-Bentolacci's Ceylon, p. 270.

This root has been im* rted into Europe, but with no succesa. Dr. Bancroft auspects it may be injured by the long voyage; but he adds, that it can produce ne effect which may not be mora chesply produced from madder. It is a very bulky article, and is cen-
cequently burdened with a very heavy frelght. $-P_{\text {er }}$ mament Colory, vol. II. P. 282-303.

Chooks, Chequet, or Drafte, are ordors addressed to some perion, generally a banker, directing him to pay the aum apectiticd in the check to the pernon named in it, or bearer, on demand.

In point of form, checks nearly rosemt'e hille of axchange. They ure aalguable by delivery only; and are payable instantly on presentment, without any days of grace being allowed. But by the custom of aome places, a banker has untll tive of the afternoon of the day on which a cl rak la presented for payment, to return it; so that where a check was returned before five, with a memorandum of "eanceled by miatake" writion under it, it was held a refusal to pay., If a check upon a bauker be lodged with another banker, a presentment by the latter at the clearing-house is onfficient. Checks are usually taken conditionaliy as cash; for unless an exprese atipulation be made to tho contrary, If they be presented in due tine and not pald, they are not a payment. It is difficsilt to define what is the due or reasonable time within which checks, notes, or bills should be presented. A man, as Lord Ellenborough has observed, is not obliged to neglect all other buolness that he may immediately present them: nevertheless, it is the safest plan to preaent them without any avoidable delay; and if received in the place where payable, they had better be presented that day, or next at farthest. If a check be not presented withln a reasonsble time, the party on whom It is drawn will be justified in refusing to pay it; and the bolder will lose his recourso upon the drawer.Cintty on Commercial Law, vol. iil. p. 591 ; Woolrycil on Commercial Lawo. See Bilas of Excianan.

Choese (Germ. Käes; Du. Kaas; Fr. Fromage; It. Fornuagio, Cacio; Sp. Queso; Rues, Sur ; Lat. Caseus). The curd of milk compressed into solld masses of differont sises and shapes; and, when intended for keeping, salted and dried, and sonsetimes colored und flavored. It is almost always made from the milk of cows, but occaaionally from that of ewes, and sometimes, though very rarely, from the milk of goats. The following are the princlpal British cheeses: Bricibat, formed of new milk and cream, chiefly In Wiltshire, in the autumn, and sold in little square pleces about the size of brickhats. Cheddur, round thick cheeaes, weighing about 150 or 200 libs., with a spongy appearance, and the eyee or vesicles filled with a rich oil. Cheshire, large, round, thick cheeses, commonly welghing from 100 to 200 pounds each; solid, homogencous, and dry and friable rather than viscid. They are made from the whole of the milk and cream; the morning's milk heing mixed with that of the preceding evening previously warmed. Derbyshire is a small, white, rich cheese. Dunlop, orlginally made in Ayrahire, but now general throughout Scotland, is large, round, white, buttery, and weighs from 80 to 60 pounds. This and the Derioyshire cheese are very much alike in form, color, and flavor. Gloucester, large, round, and mild; battery rather than friable. There are two kinds, tho single and double Gloucester; the single is made of the milk deprived of about half the cream, and the doable of the milk with the whole of tho cream. Green or Sage cheese may be made of any of the other kinds, by mixlog the milk before it has curdled with a decoction of sage lesves, among which some put a few flowers of marigold and leaves of parsley. In the Highlands of Scotland tho leaves or seeds of lovage aro added to the sago, which communicate a very strong flavor. Livcolushire is made of new milk and cream; it is quite soft, not above two ibrhes thick, and will not keep more than two or three months. Norfolk, the welght is generally from 30 to 50 pounds the curd is dyed yellow with arnotto or satfion; snd though not a rich cheese, it is considered a good keeper. Sof or Slip-coat is a amall, soft, rich cheese, which might almost be
mistaken for butter, if $f^{\prime}$ were not white, and which muat be eaten in a week cr two after maklog. Siltion, so named from the town in lluntingdonshire where it was firot brought into notice, bnt which la made princlpally in Lejecstershire. It in solid, rich, butiery, and white ; and, unlike all the other cheesee which have been mentioned, It ls twice as high as it is broad. It is much improved by keeping, and is seldom used before it is two years old. It is the dea: ent of all English cheeses, the price being generally to that of Chester as 2 to 1 , or 2 to $1 \frac{1}{4}$. In order to Induce premature decay, and the consequent appearance of age in these cheesee, It is said the makers sometimes bury them in masses of fermenting straw. Cotfenham, so named from a town in Cambridgeahire: It differe chiefiy from the cream cheene of Stilion in being fiat, hroader, and superiorly flavored. The flavor is ald to be owing to the sleh grasses which grow on tho fens. Suffolk, or akim-milk, is round and thin, weighing from 25 to 30 pounds each, and in the beat-keeping cheese made in England. Wiltahire resembles the Cheshire; but is poorer, and of iuferior tavor. It la apt to become scarfy, to provent which it is generally conted over with red paint. Yorkshire, or Cream Cheese, is the same as the slip-cont cheese, already mentloned.

Luropeon Cheeses.-The mott remarkable of these are the following : Purmesan is chlefly made at Parma and other places in Lombardy, of the curd of skimmed milk hardened by heat. Its favor is asid to be owing to the rich pastures of that part of Italy, where all plants, from the greater quantlty of bright sunshine than in Britaln, have doubtlese their aromatic properties greatly increased. Swisa cheese is of varlous kinds; but the ehlef aorta are the Gruyere or Jura cheese, and Schaluzieger or green checee; the last is flavored with the seeds and leaves of the melilot (Melilofis officinalis). German cheeses are of difforent kinds; but nore are celebrated, unless we except that of Westphalla, which is made up into round balis or short cylinders, under a pound welght each. The pecullar gavor which this cheese acquires arises from the curd being allowed to become putrid before it is compressed. In Holland very good cheese is made, particularly the Edam and Gouda cheeses : the former is very ealt, and keeps well at sea. In many parts of the Continent, and even in the interior of Poland and Russin, there are insitations of English cheese made; but what may be called the Indigenous cheese of the Rusaian empire is nothing more than salted curd put into a bag and powerfuliy pressed, and taken to market as soon as it is made, in tho eame manner as hutter is. In some places, instesd of a press, tho whey is forced out of the curd by putting it into a lorg cloth midway hetween the two ende, while a person at each end twists the cloth in an opposite difection, and thus wri:'ga out the whey. In some miserable Russian viliages the curd is exposed for ealo in small lumpe, retaining the marks of the fingers, which shows that no other pressure has been employed than what can be given with the hand. In France the Roquefort cheese is the most eateemed, and pext that of Neufche ${ }^{\bullet}$ l. The former somewhat resembles Stilton, but is much Inferior; and the latter is - cream cheese, eeldorn exceeding a quarter of a pound in weight.-See Johsaton's Lectures on Chemistry.

Cheese, in the United States, except for local consumption, is manufactured principally in New York and Ohio. The New Xork Orange county cheese, when new, is equal to any of the mild cheeses; but it does not aequire by sge that richness of flavor that English cheese does, The Ohlo checse is procuced at a very low price, and is taking a rank among the important products of that agricultusal State. The prairice of the West, affording wild grasses of great nutriment and flue flavor, are exceedingly well adapted for the production of cheese of good quality, and at a price that exeludes foreign cheeso from the market, except for epicurean tastes.

## CHE

Expoate of Curban phom tum Cnithid Btates.

| Yowr endiag Jum 30. |  Briale. | Tu other Plaemb. | 7 \% |
| :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Penndes } \\ & 8,048,036 \end{aligned}$ | $\begin{aligned} & \text { Pounden } \\ & 744,107 \end{aligned}$ | $\begin{aligned} & \text { Pennde } \\ & 3,764,982 \end{aligned}$ |
| 1853.................. | Y, 048,886 $8,822,804$ | 1,68t,110 | $\begin{aligned} & 8,763,982 \\ & 7,008,074 \end{aligned}$ |
| 1854.................. | 8,410,687 | 1,446,69\% | 4,846,603 |
| 1855................. | 4, 304,154 | 100,880 | - 014,084 |



| Your ondief Joen 20. | Pounda. | Velue. |
| :---: | :---: | :---: |
| 1N53............................. | 874,949 | \$70,528 |
| 1854............... . . . . . . . . . . | 949,416 | 08,153 |
| 1855) ............................ | 1,526,941 | 149,200 |

Fully one-half of these luports came from France. -See Butten.
Chemistry and Diatiluing. Introduced into Europe ly the Spanish Moore about A.D. 1150; they had learned them from the African Moors, and these from the Egyptians. In Egypt they had, in very early ages, extracted salts from their bases, separated oila, and prepared vinegar and wine; and embaiming was and of chemical process. The Chinese also claim an early sequaintance with chemistry ; but the futhers of true chemical philosophy were, Bacon, Boylo, Hocke, Msyow, Newton, etc. The modern character of chemistry was formed under Beecher and Stabl, who perceived the connection of the stmosphere and the gasca with the production of phenomena. Bergman and Scheele were contemporsry with l'rieatley in England, and Lavoisier in France; then followed Thomson, Davy; and other distinguialied men.--Haydn.
Cherbourg, s commercial and fortificd sea-port town of France, and nearly opposite the western extrenity of the Isle of Wight, 10 milos east-southeast of Cape ia Hague. Latitude of Fort Hoyal, $49^{\circ}$ $40^{\prime} 3^{\prime \prime}$ N., longitude $1^{\circ} 35^{\prime}$ W. P'upulation, 22,460. Its climate is remarkably mild. Its naval docks are cut out of solid rock; and it has a commereial harhor lined with stone quays. Its roadstead, defended by several large forts and batteries, is now one of the Leat in the Channel, being sheltered by a digue, or break water, 411 yards in length (or considerably more than twice as long as the 1'lymauth breakwater), legun under Louis XVI., and completed in 1810. Cherbourg hus a maritime tribunal, a national academic society, commercial cellege, naval achool, and muscums ; sugar and sode refineries, and tanneries; and an active trade in eggs, cattle, lard, butter, wine, and other producc, exported to England and the Channel Islands. It was the last place in Normandy resigned by the English. Charles X. cmbarked here with his family, on quitting France, August 16, 1830. The tirst French transatlantic steamer arrived at New York from Cherbourg, 8th July, 1847.

Cherries. They were brought from Pontus, to Luculus, to Rome, about 70 a.c. Apricots from E:pirus; peaches from Persia; the finest plums from Damascus and Armenia; pears and fige from Greece and Egypt ; citrons from Media; and pomegranates from Carthage, 144 n.c. The cherry-tree was first planted in Britain, it is said, about A.d. 100 . Fine kinds were brought from Flanders, and planted in Kent, and with such success that an orchard of thirtytwo acres produced in one year $£ 1000$, A.D. 1540.
Cherry-tree (Cerasus lirginiana). The wildcherry tree is ene of the largest productions of the American forest. In the Atlantic as well as the Westcrn States, this tree is known only by the name whlch we have adopted. It is mere or less abundant as the soil and climate ure more or less favorable to lts growth, to which the extremcs of heat and cold in the seasons, sad of dryncss and humidity in the soil, are alike unpropitious. It sbeunds in Illinois, in New York, and in Upper Canada ; but it is nowhere more profusely multiplied nor more fully doveloped than beyond the monutains In the States of Ohlo, Kentucky, and Tennessee. The porfect wood is of a dall, light red tint,
which deepene with sge. It is compack, fine-grained, and brilliant, and no: liable to warp when perfectly eeaoned. It is oxtensively employed by cabineto makers for every species of furnitura, and when chosen near the ramification of the trunk it rivals mahogany in beauty. This wood is gentrally preferred to the black walnut, whose dim complexion with time becomes nearly black. On the lanks of the Ohlo it is employed in ship-building, and the French of Illinois use it for the felloes of wheels.-Bnowns's Sylra Amer.

Cheaspeake Bay (Maryland), is 190 milen long, and from 7 to 20 broud, and generally of futhoma deep, being the lurgest bay in the United States. Its entrance is wholly in the State of Virginia, between Cape Charles on the north and Cape lienry on the south, which are about 12 or 15 miles apart. But the bay lies moatly In Maryland, dividing the State into two parta, called the Eastera and the Weatern Shore. It has several commodious harbors, and a safo end easy navigation. It receives the waters of the Potomag, Rappahannoc, and Jumes rivers, which are all large and navigable; ulso of the Susquehanna and York rivers.

Chentnut (Fague castanea), is forest tree growing sbundantly in most parts of the southern countries of Europe. It is long-lived, grows to an immense size, and is very ornamental. The wood is hard and compact; when young, it is tough and flexible; but when old, it is brittle, and often shaky. The chestnut contains only a very small pruportion of sap-wood; and hence the wood of young trecs is found to be superior to even the oak in durubility. It is doubtful whether the roof of Westminster Had be of urk or chestnut, the two woods being, when old, very like each other, and having been formerly used alumost indifferently In the construction of buildings. A good deal of chestnut has been planted in England within the last thirty years.-Trabdgold's Principles of Carpentry.

Chentrut (Castanea l'esta). The American chestnut does not venture beyond the 4tth degree of Istitude. It is found in New Hampshire, Letween the 43d and 44th degrees; hut such is the severity of the winter, that it is less common than in Connecticut, New Jersey, nnd Pennsylvanla. It is the most multiplied In the mountainous districts of the Carolinas and of Georgia, and abounds in tho Cumberland Mountains and in East Tennessee. The coolness of the summer and the mildness of the winter in these regions are favorable to the chestnut; the face of the country, slso, is perfectly adupted to a tree which prefers the sides of mountains, or their immedinte vichity, where the soil in general ls gravelly, though deep enough to sustain its perfect development. It is a strsnger in Vermont, the Siate of Maine, and a great part of New York, to the maritime parts of Virginia, to the Carolinas, Georgis, the Floridas, Louisiuna, and as far as the mouth of the Ohio. The American chestnut sometimes attaina the height of 70 or 80 feet, with a ciroumference of 15 or 16 feet. The wood is strong, elsatic, and capable of enduring the succession o. dryness and moisture. Its durability renders it especially valuable for posts, which should be made of trees less than ten inches in diameter, and charred before they are set in the earth. It is also used for rails, and is said to lust more than fifty years. For shingles this wood is superior to any kind of oak, though it has the ssme defect of warping. It is not extensively used for staves, and its pores, like these of the red-oak, are so open, that it is proper only for dry wares. The chestnut is little esteemed for fuel, and is not much used; it is tilled with uir, and snaps whun it burns. The coal is excellent.Bhowne's Sylea Americana.

Chestnuts (Fr. Châtaigner: Ger. Kastanien; It. Castagne ; Sp. Casta. is), the fruit of the chestnat-tree. In some parts of Europe they are frequently used as a substitute for bread, and form a large proportion of the food of the intabitants. This is particularly the
case in the Limousin, in Coraica, and of eeveral districts of Spain and ltaly. The inhabitunta of the Limousin are euid to prepare them in a peculiar manner, which deprives them of their astringent and bitter properties. Chestnuts imported from Spain and Italy are frequently kiln-dried, to prevent their gormination on tho passage. In this country they are princlpally served up roasted at desserta.
Chetwert, or Tschetwert, a measure of corn in Russia, equal to 5.77 Imperial bushels; hence 100 chetwerts $=\mathbf{7 2} \cdot 12$ Imperial quarters.
Chicago, city and capital of Cook county, and the most coumercial place in Illinois, 204 miles northnortheast from Springfield and 717 from Washington. The city was laid out in 1830, and lots first sold in 1831. Population in 1840, 4470; in 1850, 29,964; in 1852, 38,734 ; and in 1854, 55,000 . It is beautifully situated at the terminus of the Michigan Central and Southern Railrond, on level ground, elevated about tive feet suove the lake, which secures it from ordinary floods, and extends on both sides of the river of the same name, between the junction of its north and south branches, and diatant $1 \frac{1}{2}$ milo from ita entrance into Lake Michigan. The harbor has a depth of from twelve to tifteon feet of water, which makes it a commudions and safo haven; and it has been much improved artificially by the construction of piers which extend on each side of the entrance of the river for some distanco into the lake, to prevent the accumolation of sanil upon the ber. The light-house is on the south side of the harbor, and shows a fixed light on a tower 40 fect above the surface of the lake; and there is a beacon on the end of the picr. Numerous ateamboats and vessela ply between this place and Buffalo, and the various intermediate places on tho upper lakea. West of the city, toward the Weat Plains road, ia a fertile prairie, which, for the firat three or four miles, is elswated and dry. Along the north branch of the Chicago and tho lake ahore are extensive bodies of fine timber. White pine lumber is obtained fiom the regions about Green Boy and Grand liver, in Mieligan, and acrozs the lake frem St. Joseph's liver. The city is a great shipping point for an immense and fertilo region. The llinois ant Miehigan Canal, which is 60 feet wide at the top, 6 feet deep, and 107 miles in length, including 5 miles of river navigation, through which is brought a large amount of produce from the south and southwest ; and the railroads radiating from Chicago, add to the vast acemmulation which is here shipped for the Atlantic sea-board. There are 10 steamers, 34 propeller , and 190 harks, brige, schooners, and sloops, engaged in the Chlengo trade. In 1836 the value of the exporte was $81000 ;$ in $1840,4228,635$; in 1845, $\$ 1,543,519$; and in 1852, $\$ 12,000,000$. The assessed value of real and personal estate in 1853 wos \$1t, $\mathrm{k}=11, k 31$. There are twelve trunk rallronds now constructed and in process of conatruction, all centreing at Chicago, and measuring in the aggregate 2485 miles. Of this amount, 1725 miles with lie within the State of Iltinois, and the remainder In Incliana, Mlehigan, and Wisconsin. Nesides these trunk roads, thero are several hundred miles of t,ranches, all centreing toward Chilegge. The trunk andl lirench roads reach the Miseissip $f^{\prime}$ River at ten different points from tialena sonth to Cairo. Chicago is supplied with the parest of water from the lake, is within a short distance of the mest extensive coul fiekds to he found in Illinols, ant is the natural outlet for the produce of one of the richest agriculturnl seetions of the Unimn.-Sied ¿AAKEs, commerce of.

The lum'. er trade of Chieago is immense. During the year 1855 over three hundred millions of fett were received here. The following table will show the receipts for the past six years:

| Yeat | Feel recelred. | Years. | , |
| :---: | :---: | :---: | :---: |
| 1N4, ${ }^{\text {d }}$ | 101, 246,789 | $18:$ | 2192, 17t, 018 |
|  | $12{ }^{2}, 4040,437$ | $18{ }^{\circ}$ | 228,234,0013 |
| 1652. | 147,816,282 | 1655. | 305,277,005 |

Flolr and Grain receivpt at Cnioaoo for tir Yeabs 1854-65.

| Articlea. | 1854. | 1865. |
| :---: | :---: | :---: |
| Flour, reduced to bushele of whems | 796,520 | 1,210,600 |
| Wheat, bushels . . . . . . . . . . . . . . . . | 3,070,880 | 7,000,328 |
| Corn, hunhels | 7.478443 | 8,489,036 |
| Oats, huahels | 4,194,189 | 2,890,922 |
| Hye, bushela | 85,640 | -68,520 |
| Barley, bush | 200,000 | 150,000 |
| Totul | 16,824,611 | 20,458,784 |
| Increase In 1855 |  | 15,824, 611 |
|  |  | 4,034, 173 |

The total value of articles of commerce reeeived at Chicago in 1855 was nearly two hundred millions of dollars; viz.:

|  | liviporta | Exporis. |
| :---: | :---: | :---: |
| By lake........... | \$15,744,79748 | \$44,788,726 32 |
| by canal. . . . . . . . | 7,417,709 80 | $80,918,16747$ |
| By rallroais | 85,38t,597 90 | 83,421,324 86 |
| Total value.. | \$191,524,105 13 | \$214,118,218 25 |

Chiengo has grown more rapidly up to this time than any city in the world. In 1823 Niajor Long ond party made a journey to examine the sources of the St. Peter's River, etc.; and in his account of the expedition writes as followa of Chiengo:
"The village presents no cheering prospect, as, notwithstanding its antiquity, it consista of but few huts, inhabited by a miserable race of men, scarcely equal to the Inclians from whom they aro descended. Their log or bark houses are low, filthy, and disgusting, displaying not the least trace of conifort. Chier , is, perhaps, one of the oldest settlements in the Indinn country; its name, derived from the I'otawatomi languge, signifies elther a skunk or a wild onion; and either of these significationa has occasionally been given for it. A fort ia said to have formerly existed there. Mention is made of the place as having been visited in $16 i 1$ ly Perot, who found 'Chicagou' to be the residence of a powerful chlef of the Miamis. The number of trails centering all at this spot, and their apparent antiquity, indicate that this was prohably for a long period the site of a large Indion village. As a place ef husiness, it ofiers no inducement to the settier; fin: the whole annual amount of the trade of the lake lid not exceed the eargo of five or six schooners, even at the time when the garrison received it supplies from Markinaw. It is not limpossible that at rome dlistant day, when the banks of the Ilitals shall have been covered with a dense population, and when the low prairies which extend hetween that river and Fort Wayne shall have nequired a population proportionate to the produce which they can yleld, Chileago may hecome one of the points in the direct line of communication between the northern lakea nod the Mississippi. Hut even the intercourse which will be carried on through this communiention will, we thluk, at all times lie a limited one; the dungers attending the navigatien of the lake, and the seareity of harbors along the shere, must ever prove a serious obstacle to the larrease of the commercial importance of Chicago. The extent of the sand hauks which are formed on the enstern and southern sheres by the prevailing north and nerthwesterly winds, will likewise prevent any important works from lelag umiertaken to improve the port of C'hicugo."
It Is estimated that tho city now (1857) cemains 100,000 inhablants, and does a larger trade in proportion to its size than any elty in the Union. What better illustration can be given of the rapid growith of the Weat at this place?

The population for the years hetween 1850 and 1860 (the last four years being estimatel) is as follows:

| Years. | Populailon. | Years. | Popainition, |
| :---: | :---: | :---: | :---: |
| 1861. | 33, 3196 | INARI | 83.1000 |
| 185\%. | 41, 169 | 1857. | . 1100,060 |
| 185\%.5. | 48,000 | 1468. | . 11t, (kat |
| 1204. | . $8 \mathrm{~S}, 1460$ | 184. | . 143,000 |
| 1855. | , 05,000 | 1800. | 172,000 |

Tha foll completed tension lir
Chleago an Raclue Chiengo, 8 ytitwa Galena and Fox Ifeloit Iteloit
Belait Beluit
Bliner Galeas (Fu Galeas (Fu Chteag Chicago, B Jurlion Northo Ilsmall Chicago an Missise Peoria
Peorla Cblesgo, A Olinola Cer Puttiburgh. Miehigall Michtgall Mehigan New
11 trunk

Taking the State ferent rou State, we seven hun Five yeate facts show citizeu of

Total num Chicago Total $\ln 1 \mathrm{~m}$ operallon Increaso In Total num clght yen Total numb Illigois 11 Increaso In (0aly 5 m Caly : 0 in
Iscreaso in iscreaso in per year) Chiengo (Fivo yeara locrease in trerease of Totat anms daily (uni song as 1
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$1855, \ldots$

The following list embraces the Irunk roads actually campleted nnd in operation, with their branch and extension lines, centring in Ciricago:

| go and Milwaukle . . . . . . . . . . . . . . . . . . . . . . . . . . mil $_{\text {8 }} 5$ |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
| Mitwaukie and Misilaippl, .................... . |  |
| Fox miver Vailey............ |  |
| Wircousin Ce |  |
| Heloit Braneh |  |
|  |  |
|  |  |
|  |  |
|  |  |
| eagu, Burlington, and Quiney . . . . . . . . . . . . . . . . . . . . . 210 |  |
| Burlington and |  |
| Northern Cross..................................... . 100 |  |
| lisnnibal and St. Jonep |  |
| Chicago and Rock laland ............................... 182 |  |
| Mississippl and Mlissourl, $\operatorname{lnd}_{3 d}$ Divis |  |
| Pcorin and Bureau Valley... |  |
| P'eoria and Oquawkis |  |
| Chicago, Alton, and St. Lnuis. |  |
| lilinois Centrai...............ä........................ 70 |  |
|  |  |
| Michigan Southern and Northern Indiann |  |
| Mtehigan Contral, ................... |  |
| Sew Albany and Salem . . . . . . . . . . . . . . . . . . . . . . . 28 ! |  |
| 1 trunk and 17 branch |  |

Taking the portions of the above lines which lie in the State of Illinois, and ndding tho length of the different roads completed in the central portions of tho State, we find that lllinois now contains two fhousand seren hundred and sixty-one miles of completed railucay. Five gears agg there were only ninoty-fivo miles. These facts show n most gratifying progress, of which every citizeu of Iliinois may well be proud.

GENETAT GUMMART OF RAILMOADB.
Total number of milies of railway centring in Chicago February 20, 1852
Total number of zultes now completed and in operatlon.
Incresso In $18 \%$
Total number to be conipleted in from fivo to cight yenrs.
Total number of inilu of railway in the stato of Illinoin now in operation
nerease in 1856
(Only 15 miles wero completed fivo years ago.)
Jacreasn in the State In tivo years (over 500 milea

total carninga of nil the railwars centring in Chimugo for the year 1850 .
Fhinage years ago they were only $\$ \mathbf{\$ 0 , 0 0 0}$.)
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ian. i, is in, catlmuto (in
June, $185 \%$, it was $83,6 \mathrm{~s})$
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 Total reetpta of grain fur tho your $\mathbf{1 s 5 0} 3$ (inerease In $18 ; 6$ over 20 per cent.) . . . . . . . . . . . . . blithols Shipmesata of grain from tho jort of Chicugo for the ycar ls bt. . . . . . . . . . . . . . . . . . . . . . . . bishels the ycat lvoh. . . . . . . . . . . . . . . . . . . . . . . . . . . bushicls Com riepived in 18:6. . . . . . . . . . . . . . . . . . . . bushicls bush Sumber of hoga nive and drenacil reccivod in C'alcus, for 1855-0 50
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prieent $\$ 5$ per hindred, the valuo of the buge
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becelpte of lamber at the port of chileago for the ycar 18* . . . . . . . . . . . . . . . . . . . . . . . . . . . . funt leecepten of lead for the yarar $1=50$ flos.
Ibs.
Now latid up in the port of Chiengo, ateaners and sall vormia . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Tutal oumber of veavela arriving tin i'hiengo for the year ISbo
Totni tommge of venaula arriving in this jurt for the year 1856
Amount of lmportn recelvod at the chiliongo....... tom-henme on forelgo goods fur tho yenr isso 0 . .
Capitailinvested lu manufacturen during the year
 $185 \%$

Number of hands employed-showing an Incresse over 1655 of 1893.

Tho above facts and figures will be regarded with special satiafsction ly the people of the Northwest generally. They show a hesithy, but rapid and most astonishing progress. It may be doulted whether the history of the eivillzed world enn furniah a parallel to the vigorons growth and rapid development of the eountry which has Chicago for its commercial metropolis. When it is remembered that twenty yesrs ago it was not an incorporated city, and less than a quarter of a eentury since tho Indisns atill had possession of the largest portion of this magnificent country, these facts, stubborn and incontestablo though they be, ecem more like the dreams of some vagrant imagination thnn sober matters of renlity, which scores of men still among us havo themselves seen and realized.
Twenty years ago Chicago was an insignificsint town at the southern end of Lake Michigan, importing nearly nll its produce from Western New York and Northern Olio. Last year it shipped 21,583,22I bushels of grain, and tho total receipts were over twenty-four and a half millions. Six years ago she had only a single railrosd somo twenty miles long entering the city; now there aro 3676 miles completed and in operation, and the earnings of these lines for the last year amount to the enormous sum of $\$ 17,343,242$. The increase of earnings during tho year 1856 is over four mill of dollars. Nore thsin a hundred trains of cars arrivo nad depart daily. The trade in lumber exceeds ly far that of nny other eity in tho world, amountling to $456,673,169$ feet. Ten yeara ngo tho manufactures were in their Infaney, and were seareely worthy of commendation. In 1856 the eapital investod amounted to $87,759,400$, nnd the valuo of manufactured articles to more thanfifteen millions and a half of dollars. Six ycars ngo Chicago was repronched ns belng a city of wooden shanties; last year sho invested in mangnilicent atores, many of them with superb marblo and iron fronts, elegant palatial residences nncl other improvements, 85,708,624. And wonderful as has been the progress of the city, it has not been ablo to keep pacs with the improvements of the country hy whict li is surrounded.

The atntistics of the movement of population westward show that peopilo enough found their homes west of Chiengo lurlug the year 1857 to furn two entira States. Nor is this a movement of mero human bone and musclo; it is a concentration upon tho rieh rolling prairics and maid tho beautiful groves of a vast host of active, vigormin, intelligent men, who plant schools null churches wherever they settlo, and bring wilh them all the ejewents of nu enterprising Christian civllization-n deep, controlling, ever-nbiding reverence for likerty natd for law. They aro laying the foundations for an empiro of whoso wenlth, intelligence, and power, the sun in all hils course has never seen the equal. Lire tho next quarter of a century shall havo rolied nway, the heantiful valleys of the Upper Missont, the Yellow Stone, the Plate, and tho Kansas, ay, antl cyen that of the Red River of the North, wili all have heen setted, and this over-deepening ourrent of embration will meet an equally resistless atream from the Pacilio const, and roll back in mingling eddica from tho summlts of the Rocky Monntalns. lourteen Stutes as large as Ohio, but on an average more wealthy and pepulous, will have grown up on the magulifent eountry lietweon tho lakes and the Rock $y$ Mountains, nud how msuy will repose upon the "Pacille slope" wo dare not attempt to predict.

Chicory, or Euocory, the wild endive, or Cichorium Intybus of Linnous. This plant is found growing wild on calcareoua aolls in England, and la most countries of Europe. In its natural atate the stem rises from one to three feet high, but whon cultivated it shoots to the height of five or aix feet. The root, which runs deep into the ground, is white, fleshy, and yields a milky juice. In Germany, the Netherlands, and France, chicory has long been extenaively cultivated for the sake of its root, which la usod aa a subatitute for coffee. When prepared on a large scale, the ropta are partinlly dried, and sold to the manufacturers of the article, who wash them, eut them In pleces, klln-dry them, and grind them between fluted rollers into a powder, which in packed up in papers containing from two ounces to three or four pounds. The powder has a atriking resemblance to dark greund coffer, and a atrong odor of liquorice. It is largely used in Prussia, Brunswlek, and other parts of Germany ; but as it wants the essential oil and the rich aromatic flavor of coffee, it has little in conmmen with the latter except Its color, and has nothing to recommend it except its cheapness. Chicory is now grown in Westchester county, New York.
Chill. The republic of Chili occupies that long strip of lund whitch lles on the southwestern side of South America, extending from $24^{\circ}$ to $55^{\circ} 59^{\prime} \mathrm{S}$. lat.; and from $69^{\circ}$ to $72^{\circ} \mathrm{W}$. loug. It is bounded west by the Pucifle Oceun, and east by the Anles, by which it is separated from the Argentine Confederation. On the north, Chill is separated from Bolivia by the extensIve desert of Atacama; and it extends aonthward to the extreme limita of that Archipelage which embraces all the islanda between Chiled and the Straits of Magellan. Reckoning its length from the desert of Atacama to Cape IIorn, it comprehends 36 degrees of Jatitude. Its averuge breadth is only 150 , nuid where grentest not more than 210 geographical miles. The superitcial area of Chili is computed ut 218,925 Eughish square miles, which is about 3195 miles more extensive than that of France and Belglum together. Except where the Andes are intersected by ravines, which frequently chunge into vales or phains tit for cultivation, these mountains, with their parullel ranges and apurs, oceupy a great part of its area. South of tho Cuesta de Chacalnco there are extensive phans, broken only by a few ridges of hills; but the highluands are almost continueus from north to south ulong the coast of the Pacille.
Chili is rich In alnost every class of metals; but the silver mines of late years have yichled enormons quantitics of ore. The metals at present dlacovered are gold, silver, copper, lead, autimony, colualt, zine, nickel, blanuth, Iron, molyblenum, und quleksilver; but the only ores which are worked are gold, silver, copper, ned oecasionally quieksilver. The latter will now be abandoned in consequence of the low price of merenry, caused by the quantity produced in Culifornia. The metals are found in all the series of rocks letween granite and trachyte, in weins which generally run from north and northwest to south und southeast; In some places, however, their course is irregular, or they extend east and west. The nuriferons veins run nearly purallel to the grain or limperfect cleavage of the surrounding granite roeks. Gold is foumal most ulumdantly in the beds of detritus, derived from the legradation of the upyer portion of the rocks. Copper ores, contalulug a small puntity of gold, are generally associnted with mienceous apecular lron. In the hills of Altrue, almout four leagues from Ranengua, In the province of Santligo, are the only gold mines worked with any spirit, excepting aome new mines near Copiapo, anil they are remarkable for the viriety of minerals mixed with the gold, such us ghlena, blenise, copper and Iron pyrites, and peroxyd of fron. Tha suhatancea are found disseminuted in quartz velus ruming nearly worth and south, Near Illajel aro
some very poor gold mines, in the beds of the gypseous formation, in altered fellspathic clay-atate, which alternate with purple porphyritic conglomerate.

Until 1832, the only silver mines in Chili were those of Deheaa, San Francisco, San Lorenzo, Sema and San Pedro Nolazco, in the province of Santlago, and Arqueros mineral district, about 17 leaguea from Coquimto ; but these mines now produce very little silver, and are nearly alandoued for the rich silver mines in the province of Atacama, near to Coplapo. Within a circuit of 25 leagucs from Copiapo, there are 19 silver mineral districts; the richest are Chanurcillo and Tres Puntas. In Chuniarcillo the upper 1.art of tho mines produces untive silver, iodid, and bromid, associated with chlorid of silver and carbonate of lead. In the "Colorudo" mine of Chafiareillo, cmbolise with native silver is occasionally found. In the mine of San Antonio, in the same distriet, is found bismuthic silver ore, combined with native silver, copper, and arsenic. As the mines become deeper, the silver ores are changing principally into what the netives call "metales frios" (cold ores); these contain different proportions of antimony, sulphur, and one sort a little arsenic. The dark-red silver ore is a pyrargerito, containing sulphuret of silver nud antimony, with sometimes a little arsenle. The gray ore contains silver, arsenic, and anthony. Of these two sorts upward of 5000 tons were exported to England during 1852, ns the nutives are unable to extract the silver by the usual phan of numalgomation adopted with the other ores. The export of the "metales frios" to England will in a great moasure cense, as an English establishment is forming at Calilero, the port of Copiapo, to treat them on nn improved plan. Seme of the mines in Chanareillo yied nearly pure silver; the most productive nre in the hands of four or five larf. capitalists. The ground near some of the riebest mines is sometimes sold at enormens prices, the price beiog in some regulated hy the probatility of the rich veins of metal rumning into ft . In Cophapo a regular trufle is carried on in buying and selling "barras" (a 24th purt) in diflerent mines.
A ruilroad runs from Caldera to Copinpo, a distance of 54 miles, which is to le continued on to Chanarcillo, nlout 50 miles from the city ; and a trum-road is projected to the riel minerul Ilistrict of Tres Puntus ( $8+00$ fcet ulove the sea), which, when completed, will enaWe the miners to send down the poor silver ores which they now throw awny. The commerce of Chili has vastly incrensed since the tine when the conutry lay torpiil under the yoke of Spulin. As soon as it hail recovered from the unsettled condition caused by the revolution, business of all kinda acquired new energy, mid the trade, freed from tis oppressive restrietions, extendell to the larger ports of the United Stutes and Europe. A few years were suthelent to show a large increase ln its export nud lmport trade, and Yalpuraiso soon becane a douriahing port.

The procious metals are the most vuluable exports from Chilh. While obtuining nummully from her minies metal to the amount of $\$ 1,500,000$, she exported in the year 1851 gold to the vnlue of $\mathcal{L} 59,950$, silver to the value of $\mathcal{f} \% 09,467$, and copper to the value of $\mathcal{\&} 11,5,503$. Flour, whent, barlyy, and bisenits figure largely in her exports, but with considerable varintlous in amount. In 1850 ' there were shipped more than $6(6,000,10011 \mathrm{~s}$, of flour: in 18: $11,41,000,0610$; mind in 1852 maly $41,000,000$. Above 62,000 quarters of whent were exported in 1850; In 1851 the quintly was 26,470; and in 18.52, 56,570 quarters. In barley, however, there has heen a consideralido increase. Prom 17,750 quarters in 18in), it rose to 96,190 quarters in 1n52. The luerenseld export of whent and tlour in $\mathbf{I R} 50$ arlses from the oxiensive shipmenta made in that year to Callfornia.

In the latter half of 1852 the exports of wool nuounted lin vilue to $£ 32,3: 10$, pulse to $£ 20,818$, coal to $£ 13,970$, hides nul skins to $\mathbf{C 9}(62$, gnano to 55562 , and charqui
or jerked beef $t$ export ure figs, per, wine, bran fut, cheese, butt
In return for England cotton articles of luxu of articles for do ies of commerce men, Sardinia, 1 sla, Sweden, N ollonhurg, the Sand wich Islanc extensive with the imports into and the exporte the trade with l mia. With the canmercial trum ble, appear to be
In $1 \times 51$ severa frem the custom: partinlly modifle. 3 prodice was smull duty was 9 very few articl of iruin, steel, zin tools, surgical in moderate duty. mules, und drie stufl's, furniture, 30 per cent. T to 10 renls per do; 2 reals the pound movable tariff. market does not e forcign grain pay negu; but if the falls to 8 reals, an duty teases altoge paralso are desiro strietive duties ; any furtlier steps of the reform alre experience. The muder tho admini: erto leen to inere
The weights an those used in Sp Janlury, 1848, the in Junuary, $1 \times 58$. pacity is the fane almuils, and cont usual corn mensur parallelopipedon h ioldal. The limpe inches, so that the $241 \times$ to 1 . The a is 157 llis .
The old talle of pulgulas, pies, var yarls, nud yuadru to Tray welght the sind tiliras-or gra avoirdupois welge ewt, In liquili in 102es Spunish cun 4.084 cuartillos. mareo. Its relati or curits, feur gra The weight of the $n$ or to 707.7 dwt. The stumbird fine relative fineness of dinero thelug equa fineness of that me old gold colus are
or jerked becf to $\mathbf{5 6 3 9 3}$. Among the minor articles of export are figs, dried penches, walnuts, Cayenne pepper, wine, brandy, bones, horns, hoofs, leuther, bam, fat, cheese, butter, rugs, and timber.
In return for her various exports Chili recelves from Euglanil cotton goods, from France silks and varlous srticles of luxury, sid from other countries a variety of articles for domestic use. Chill has reciproeal treaties of commerce with Austrif, Brazil, Belgium, Bremen, Sardinia, D nmark, France, Great Britain, Prussla, Sweden, Norway, Tuseany, 1 Iamburg, Lubeek, Oldenhurg, the United States, l'eru, Eeuador, and the Sundwich Islands. Hercommercial relations are most extensive whth Great Britain and the British colonies, the imports into Chili anounting in 1852 to $£ 1,159,613$, and the exporte to $£ 1,098,7 \overline{2}$. Next in importance la the trade with Franee, tho United States aud Callfornia. With the other republies of South America her conmereiul transuctions, which were ouee considerable, nppear to be ou the decline.
In 1851 several important restrietions were removed from the castoms eode of Chili, which had been only partially modified in 1834. The exportation of national produce was then deelared free in principle, but a small duty was to be maintained for a short timo upon a very few artieles. All imports, with the exeeption of iron, steel, zine, cotton, mereury, coal, ugrieultural tools, surgical Instruments, and books, aro liable to a moderate duty. Jewelry pays 2 per cent. ; horses, mules, and dried fruit, 6 per cont.; shoes, linen stufls, furniture, und articles used only ly the wealthy, 30 per cent. The daty on whito wine is reduced to 10 reals per dozen, and on red to 8 reals. Teas pay 2 teals tho pound. Grain of all kinds is suljeet to a movable taritf. As long as tho price in the lome market does not exceed 10 s .8 bl . the fanega of 150 lbs ., foreign grain pays an import duty of 12 reals the fanega; but If the prico rises to 20 shillings, the duty falls to 8 reals, and if it exceeds 25 shillings the import duty ceases altogether. Many of the merchunts of Valparilso aro desirous of the completo abolition of all restrictive dutles; but government will probably delay any further steps in this direction until the advantuge of the reform alrealy made has been tested by further experience. The effect of this legislation, introduced under tho admlnistration of General Buhes, Las hithcro been to increase the revemue.
Tho welghts and measures of Chili aro the same as those used in Spain; but necording to the decrec of January, 1818 , those of lirance are to ho substituted in Jamary, 1858. The largest dry measure of eapacity la the fanega, which is subdivided into twelve almuds, and contuins $0,430,626$ cubic inches. The usual corn measure is the half fanega, which is a long parallelopipedon having one of its narrow sides traplezodal. The imperial fushel contains $2,218,27.1$ cubie behes, so that the fangig of Chill is to the former as 2.48 tu 1 . The average weight of a fanega of wheat is 157 ll 1 s .

The uld tallo of long measure is divided into lineas, pulgulas, ples, varas, und enulras, or lines, inches, feet, yards, and quadras, Corresponding exuetly la value to Troy welght there aro the Spanish granos, onzas, and libras-or grains, ounces, and pronds; and to avoirdupis welght, onzas, libras, mal quintales, or cwt. In liquid measure the Engilsh quart is equal to 1022 Spanish euartillo, and the lmperfal gallon to toxy cuartilles. Gold is bought ly the castelluno or marce. Its relative llneness is expressed by quillates or earats, four grames or gralis making one quillate. The weight of the marco is equal to d800 Spunish gralus, or to 7 0z. 7 diwt. and 22 gr . Fnglish Troy weight, The stamard dineness of goll is 21 quillates. The relative fineness of silver is expressed by dineros, the dinero belng equal to 24 granos; and the standard fineness of that metal is 10 dineres and 20 granes. The oll gold coins aro the ounce, cqual to 17 dollars 2 reuls,
£3 98. sterling money; the half ounce, equal to 8 dollars 5 reuls, $\pm 114 s .6 d$. ; the quarter ounce, equal to 4 dollars $2 \frac{1}{2}$ reals, $17 \mathrm{~s} .3 d$. ; and the escudito, equal to 2 dollars $1 \frac{1}{4}$ real, $8 s .7 \frac{k}{2}$. Among the silver coins, besides the renl, whose value is $6 d$., there are now piecos representing various values, expressed in centavos, a copper coin, of which one hundred make dollar. Thero are silver pieces of 5,10 , and 20 centavos. One of 50 centavos $1 s$ equal to hulf a dollar, or $2 s$. English money. The new gold and silver coins contaln ninetenths of pora metal, and one-tenth of alloy. The copper colns are quite pure, containing no alloy. Their names, value, and weight may be most conveniently represented by meuns of the following table:

|  | c e.d. | Spenish Granos. | French Grammes. |
| :---: | :---: | :---: | :---: |
| Gold Condo | $=200$ | 305540 |  |
| Giold Doblon | $=100$ | 152.770 | $7 \cdot 678$ |
| Gotd Escudo. | $=080$ | $01 \cdot 108$ | " 2.071 |
| Stiver 1'eso . . . | $=040$ | $500 \% 08$ | " 25 |
| Silver Medto peso | $=020$ | $250 \cdot 384$ | " $12 \cdot 500$ |
| Sitver Quinto.. | $=00{ }^{5}$ | 100.153 |  |
| Sltver Jécimo. | $=00$ 行 | 00070 |  |
| Stitver Velnteno | $=002$ | 55.088 | " 1-250 |
| Copper Centavo | $=00048$ | $200 \cdot 307$ |  |
| Copper Medlo ect | $=000.24$ | $100 \cdot 163$ | " |

The communieation between the several towns of Chili is now greatly facilitated by roads, ruilways, rand steam-vessels. The excellent road from Santiago to Valparaiso was constructed at a great cost by Generul O'Iliggins, when l'resilent of the republic. A road, generally kept in gool repair, conneets the towns of Atnemma und Concepeion. By fur the most pleasant for the traveler is that by which Santiago und Talen are united. A ruilroad has been already estallished between Coplapo and Caldern; and in 1852 the President, M. Montt, laid the first stone on the line (about 90 miles in length) between Suntiago and Valparaiso, and it is now rapidly advuncing to completion. When tinished it will bo the most extensive work of the kind in South Ameriea. Proposils for ruilways from Screna to the sea, from Copiapo to Tres l'untas, nul from Concepcion to Taleahuano, have ulso heen laid before Congress. A line of electric telegraphi has also been established between Valparaiso and Santiago.

The revenue of Chili is in a very prosperous condltion, exhibiting a surplus of recoipts over expenditure in tho returns of several years. In 1845 the revenue umounted to $£ 1,083,16913 s$., leaving, after the nocessary outlay, a surplus of $£ 410,215$. In 1849 the revenue, ineluding the surplus from 18.48 , was $£ 1,352,210$. The surplus of 1849 was $£ 57,048$, whieh, together with the receipts of 1851 , nmounting to $£ 885,3818 \mathrm{~s}$., were entirely swallowed up during the revolution of the latter year. With tho restoration of pence in 1852, the revenue rose to $£ 1,096,096$, which, with the sum of $\pm \cdot p, 000$ paid by l'eruas interest for its debt, glves an incrense of $£ 234,71412$, over the Incoms of the preceding yeur.

Tabif of Jtevbnul for 1852.

| Customis. | 2603,007 140 |
| :---: | :---: |
| (iovernment monopollex. . . . . . . . . | 150,072 100 |
| Liernmes. | 11, 155 120 |
| Ntamp papr | 12,887 70 |
| 'tithes. | 105,383 20 |
| Mint | [19,420 60 |
| Post-0 | 14,0е5 110 |
| $1{ }^{\text {Prajo. }}$ | 12,3S2 160 |
| Anchion-honsers. | 1,212 14 п |
| Cutastru. | 19,724100 |
| Alcabala | 30.857140 |

The eatastro is n duty of 5 per cent. levied upon the salo of lands. The aleuhala is a duty of 4 per cent. on tho sale and exchange of inmovable property, and of 2 per cent. on the sule of mines. Peajo consists of tolls and pontuges, and is lovied on enttle, mules, vehicles, etc.-5, 11 .

In 1835, the exclusive right of steam navigation between the purts of the repulile was granted to a
company，whlch commenced Its operations in 1840 ，from which by travelling acrosa the lsthmus the Pacific A slmilar privilcge was afterward extended to the same is reached In about four hours，and the remalnder of company by the governments of Peru，Ecuador，and the journey contlnued ln steam－vessels．The voyage New Gramada．The communication between England from England to Chili by this route occupies ahout and Chili is maintalned by way of the Isthmus of Pan－forty or fifty days；while the voyage from the United ama．Steamers sall between England and Chagres，States to Chlll requires about thirty days．

Conngrer of tae Linted States witil Chili，fiom Octoner 1，1824，to July 1， 1856.

| Voar ending Septeuber 30. | Exporta |  |  | Imports． | Whareof there was Bolilon ood specie． |  | Tontage Cleared． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic． | Forelga． | Total， | Total． | Kxported． | 1 mported． | American． | Foreligin． |
| 18．55．．． | \＄454．254 | 407.184 | \＄121，438 | \＄24ty， 009 | \＄88，760 | \＄ 40.300 | 7，207 |  |
| 18：0．．．．． | 612，050 | 984.818 | 1，447，403 | 689，949 | 69，110 | 201，774 | 6，798 |  |
| 1827．．．． | 1，040，748 | 661，853 | 1，702，601 | 184，693 | 20,781 | ［0，602 | 12，604 | ．． |
| 1898. | 1，51！，978 | 1，103，424 | 2，020，402 | 781，863 | ．．．． | 330，803 | 19，838 |  |
| 18：9． | 8．30． 150 | 530.778 | 1，421，104 | 410，118 | ．．．＊ | 150，850 | 0，070 | $\ldots$ |
| 1836．． | 015.718 | 620，396 | 1，536，114 | 182，685 | ．．．． | 1，009 | 12，287 |  |
| Total． | \＄3，332，714 | \＄4，324，483 | \＄4， 608,187 | \＄2，424，717 | \＄108，841 | \＄879，814 | 67，373 | $\cdots$ |
| 1831. | \＄8．4， 493 | \＄ 518,662 | \＄1，808，155 | \＄413，758 | \＄21，362 | \＄191，694 | 11，145 | ．$\cdot$. |
| 1832. | 679，370 | 6－11，749 | 1，221，119 | 504，623 | 100，762 | 37，483 | 8，103） | $\ldots$ |
| 1839．．．．．． | 730，140 | 728，800 | 1，408，1440 | 334，150 |  | 07． 550 | 8，5100 |  |
| 1534．． | 714，407 | 761，148 | 1，470，365 | 787,409 | 301 | 385，531 | 8,560 | 6－1 |
| 18．5．．．．．． | 5\＄6，188 | 955， 606 | 041，884 | 017，095 | $\ldots$ | 416，150 | 6，1180 | ．．． |
| 1890. | $552,840^{\circ}$ | 805，05 1 | 037，017 | 811，497 |  | 203，480 | b，837 | 81 |
| 1897．．．．．． | 1，022，3\％5） | 3：5， 4.49 | 1，487，709 | 1，180，150 | 1，580 | 5 50， 017 | 6，044 | ． |
| 18．18． | 1，047，572 | 324.692 | 1．870．264 | 042，095 | ．．． | 262， 033 | 6，205 |  |
| 1839. | 1，007．148 | 457.410 | 1，704．65： | 1，180，041 | ．．． | 134，603 | 8，089 | 241 |
| 1810．．．．．． | 1，372，204 | 306， 545 | 1，728， 529 | 1，616，859 | ． ． | 450，636 | 7，414 | ．．．． |
| Total． | － $48,561,752$ | \＄4，12：2， 023 | \＄18，700，815 | \＄S， 604,263 | \＄124， 166 | \＄2，648，684 | 77.602 | 963 |
| 1841. | \＄846，410 | \＄256，578 | \＄1，102， 988 | \＄1，280，980 |  | \＄ 346,496 | 6，962 | 901 |
| 1842．．．．． | 1，270， 14.41 | 968， 735 | 1，639，476 | 831.1139 | \＄540 | 9：4，420 | 7.082 | 62.4 |
| 184\％＊．．． | 869，853 | 170.580 | 1，04！3，463 | 857,560 | ．．．． | 18，680 | 5，878 | ．．． |
| 1844t．．．． | 8501.1445 | 248576 | 1，106，2世1 | 751， 370 | ．．． | 185，817 | 7，247 | ．．．． |
| 1845 + ．．．．． | 1，247，360 | 300，831 | 1，548，111 | 1，123，600 | ．．． | 64，080 | 8， 674 |  |
| 1846r．．．．． | 1，539，180 | 229,404 | 1，768，5i0 | 1， 275,960 | ．．． | 111，024 | $8,144!$ | 1．462 |
| 184才， | 1，401，847 | 210，26： | 1.671 .610 | 1，716，943 | ．．．． | 70.112 | 7，185 | 1，073 |
| 1548t．．．． | 1，703， 0 发 | 2：6，8＞0 | 1．924， 011 | 1， 1210,451 | ＊＊＊ | 20，5！3 | 10，465 | 304 |
| 184＋．．．．． | 1，722，497 | 2974.648 | 2，017，100 | ： 817.7428 | ．．．． | 170，462 | 25， 1131 | 1，3at |
| 1850†．．．． | 1，247，133 | 155．648 | 1，422， 281 | 1，7：6，877 |  | 110.067 | 41，27！ | 25， $3 \times 4$ |
| Total．．． | \＄12，814，037 | ＊2，435，114 | \＄15，250，051 | \＄12，711，649 | \＄300 | 41，225，751 | 127，466 | 31，314 |
| 1851＋．．．． | \＄1，609， 877 | \＄286，428 | \＄1，8\％ 5,305 | \＄2，734，740 | \＄3，000 | 774 | 48，140 | 41．63） |
| 185：†．．．．． | 2，048，836 | 295． 297 | 2，339，133 | $2.1642,161$ | 17．250 | 34.723 | 21,386 | 23,402 |
| 1833t．．．．． | 2，157．820 | 169，117 | 2，326，437 | 2，914＋459 | 30,010 | 12，813 | 28，488 | 35，6\％ |
| 1854t．． | 1，942，340 | 250，929 | 2，119，269 | 9，232， 107 | 6，670 | 24，815 | 22，371 | 2＊，408 |
| 1855 | 2，904，231 | 432，026 | 3，424，257 | 6，518，890 | 13，166 | 11，708 | 21，667 | 10，109 |
| 1850 | 2，591，364 | 276，589 | 2，811，743 | 2，467，819 | 10，000 | ．．．． | 22，47\％ | 4.75 |

－ 6 montis to Juno 30．
$\dagger 1$ year to June 30.

Chillies（Hind．Gas Murridge；Javan．I．ombok； Malay（＇habai），the pods or fruit of the C＇apsicum an－ nuum，or Guinen pepper．This is one of the hardiest and most productive plants found in tropical climates； growing luxuriantly in almost all dry soils，however Indifferent．In the wild state the pods are small，and ao pungent and arrid as to whister the tongue；int when raised on rich solls，they are large and compara－ tively mild．The phant is soid to lie a native of lonth Indies．It is very extensively cultivated；and，with the exerption of salt，it is far more extensively used than any other condlment．In tropical countries，the pods nie frequently made use of when unipe and green；when ripe，they liecome of a deep red color； and ln that state the are exported dry and entire，or relued to powder．－Se Carense Perren．
China．The conterminous empires of Rinssia and China occupy between them about one－lifth part of the habitahle globe，in pretty nearly equal portions；limt the populatlon of the latter is alout four times greater than that of the former，cuen after ineluding lis recent annexation of Poland．Weesn casily trace the hound－ aries and mark the extreme limits of these two great empires，by parallels of latitude and meritional lines of longitude ；but when wo cone to rednce them to spare miles，or speak of thelr contents in acres，the mind is hewilderd ly the magnitude of the mumbers reyuired to express them，and forms but an hadistinct ldea of their superficial extent．
No country in the werld is better adauted，from situ－ atlon，cllmate，and products，for extensive commerce， than China；yet no elvilized eotentry has proited less ly these arlvantages．The happy distributhon of its numerous rivers，alded thy artilicial caaals，afforis an almost uninterrupted water communication from the
northern to the southern，and from tho western to the enstern extremities of this grand empire；and thos a faellity is glven for the interchunge of the probluits of one province with those of another，unk nown in any other country，and unequaled even in Great Britain． The multitudes of barges of different serts and sizes， whieh vary in their construction on almost every riv－ er，are incredible．The Chinese are rarely to be irust－ ed where numbers are conecred；lhat they are prob－ nbly not far amiss in stating that the number of in－ perial barges employed in the grand canal and its lateral hranches，for the purpose of collecting and lis－ tributing among the public granarles the rice and grain paid in kind as taxes，mmounts to 10,0040 ，or， as they express it，where they mean to be correct，to 9999．A vast number of vessels are atso cuployed in conveying the copper currency from place to jilace， wherever it may he wanted；whers in collecting the silks，cottoms，inal varlous articles of taxes，puld in kind，and deymesiting them in tho publicemakaines； and the salt larges alone are probally not less numer－ ons than thase which carry gralla．It was calculated that the depuit of salt accumulated nt Them－sing for tho use of the calithl and the northern provinces was sulii－ elent fur a year＇s consmuntion for thirty millions of peto pile．This was all lirought up in the course of the summer，from the nea－cunst of Trele－klang and Fokien， In sen－going vessels．Cakes of coal－dinst and turf，for fuel，and cakes made up of varions logredients for gar－ den manure，employ a multitude of harges；and when to these are added tho various kinda of vessels an－ phoyed in general commerce，In the conveyunce of pas－ sengers，and in the fisherles of the Interiur，we may be suro that the number of persone who constantly reside upon the water amounts to many millians．

Conmence of the United States with Cilina, from Octobels 1, 1820, to Jelf 1, 1856.

| Year ending <br> Septeniber 30. | Exports. |  |  | $\begin{aligned} & \text { Imports. } \\ & \hline \text { Tolal. } \end{aligned}$ | Whereof there was in Bullion end Speoie. |  | Tonnago Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Donueatie. | Foreign. | Total. |  | Exportid. | Imported. | American. | Forofmin |
|  | \$4388,536 | \$3,1412, 0225 | \$4,240,560 | \$3,111,151 | \$3,8911,447 |  | 6,040 |  |
| 1322...... | 4210,230 | 5,500, 108 | 5,035,808 | 5,242,538 | 5,075,012 | \$500 | 8,185 | .... |
| istg...... | 288,3i5 | 4,847,680 | 4,030,081 | 6,511,425 | 3,684, 182 | 22,036 | 0,478 | $\ldots$ |
| 1514...... | 330,405 | 4,970,705 | 5,301,171 | $5,618,802$ | 4,463,852 | .... | 0,569 |  |
| 18-6...... | 101,059 | 5,410,456 | 5,570,515 | 7,583, 115 | 4,523,075 | $\ldots$ | 8,667 |  |
| 1826...... | 242,451 | 2,824,103 | 2,566,644 | 7,422,186 | 1,651,605 | .... | 4,C56 |  |
| 1582...... | 2210,862 | 3,573,543 | 3,561,405 | 8,617,183 | 2,5:4, 518 |  | 8,050 |  |
| 1925...... | 200,485 | 1,252,417 | 1,182,802 | 5,369,168 | 454,500 | 24,390 | 6,664 |  |
| 18.9.. | 200,759 | 1,094,103 |  | 4,680,847 | 601,518 79,084 |  | 6,351 |  |
| 1531. | 156,200 | 585,903 | 742, 103 | 3,8i8,141 | 79,884 | 0, 104 | 8,501 |  |
| Total | \$2,777,412 | \$32,007,100 | \$35,744,5s1 | \$52,054,004 | \$20,350,008 | \$50,120 | 60,356 |  |
| 1831...... | \$244,790 | \$1,040,045 | \$1,290,835 | \$3,083,205 | \$307,024 |  | 5,061 |  |
| 15622...... | 336,162 | 024,360 | 1,260,522 | 5,344,907 | 452,119 | \$26,032 | T,232 |  |
| 1823...... | 637,774 | 895 ¢:85 | 1,433,759 | 7, 511,570 | 290,450 | 6,400 | 0,308 |  |
| 1534. | 200,750 | TH4, 727 | 1,010,483 | 7,892,327 | 378,680 |  | 8,123 |  |
| 143\%...... | 385,568 | 1,832,712 | 1,868,680 | 5, 887,187 | 1,391,666 |  | 7,104 |  |
| 18:0...... | 341,503 | 852,701 | 1,194,264 | 7,324,816 | 418,601 | 50 | 5,662 | ... |
| 1837...... | 818,973 | 811,618 | 630, 091 | 8,965,337 | 165,060 |  | 8,703 | .... |
| 1838. | 645,681 | 801.021 | 1,516,602 | 4,764,696 | $72 \mathrm{~S}, 661$ | 4,060 | 7,314 | .... |
| 18 st. | 430,464 | 1,100,137 | 1,633,601 | 3,678,509 | 909,563 |  | 6,410 |  |
| 1840...... | 409,180 | 540,780 | 1,009,466 | 0,644,820 | 477,003 | ... | 3,360 |  |
| Total... | \$2,926,117 | \$ $\mathbf{\$ 3 , 8 2 3 , 0 5 6}$ | \$12,749,203 | \$61,423,423 | *5,646,083 | \$36,382 | 68,376 |  |
| 1811...... | \$115,322 | \$ $\$ 85,404$ | \$ $\$ 1,200,816$ | \$3,006, 2 SS | \$426,592 | \$485 | 4,876 |  |
| 1812...... | 737,509 | 706.888 | 1,44,397 | 4,134,645 | 606,714 | .... | T. 250 | B64 |
| 1443'.... | 1,765,393 | 663, 10.5 | 2,418, 58 | 4,285,560 | 571,660 |  | 18,502 |  |
| 15419. | 1,110, 623 | 646,918 | 1,756,041 | 4, 1831,265 | 5060,55 |  | 15,035 |  |
| $1545+$. | 2,079,341 | 196,6i-4 | 2,275, 405 | 7,485,914 | 168,800 | 27,107 | 17.477 | ... |
| 1st6t..... | 1,178,188 | 153,653 | 1,931,741 | 6,568,881 | 12,574 | $\ldots$ | 18,697 | $\ldots$ |
| $14_{1} 1+$ | 1,708,655 | 124,229 | 1,832,854 | 5,588, 243 | 63,308 |  | 12,324 |  |
| 149t | 2,068, 025 | 120,385 | 2,190,013 | 8,083,496 | 72,013 | .... | 17,160 |  |
| $184+$ | 1,460,045 | 122,279 | 1,688,204 | 5,613,785 | 1, ¢, 67 |  | 11,740 |  |
| $15.0+$ | 1,485,961 | 110,250 | 1,605,217 | 6,500,462 | 25,000 | .... | 17,800 | 8,106 |
| Total | \$14,241, 062 | \$ $4,045,224$ | \$17,60,186 | \$77,000,735 | \$2,6\$3,643 | \$27,502 | 130,930 | 3,470 |
| 1551+..... | \$2,165,045 | \$329,342 | \$3,4.6,287 | \$7,0665,144 | \$147,475 |  | 46,317 | 10,1:8 |
| 19 ist..... | 2, 480, 0 (10d | 183,111 | 2,603,177 | 10,50, ${ }^{\text {d }}$, $0^{0}$ | 19,728 | \$281 | 67,264 | 21,507 |
| is 3r..... | 3,262,674 | 52,4,418 | 3,736,002 | 10,670, 110 | 489.344 |  | 66,041 | 24,808 |
| 13int $\ldots$..... | 1,203,925 | 104, 163 | 1,1988,088 | 10,506,329 | 115,688 | 108,174 | 68,458 | 18,547 |
| 1s:5t.... | 1,533,005 | 153,372 | 1,719, 4 ? 9 | 11,048,726 | 674,483 |  | 101,600 | 15,768 |
| 186it.. | 2,048,244 | 609,043 | 2,558,267 | 10,454,436 | 633,5612 | 1,000 | 85,438 | 10,487 |

- 6 monllhs to Junc 30.

All foreign commerce is systematically discouraged. them capable of ndmitting the largest Euronean shlps, The extent, fertility, and varicty of their soil and climate, happily situated lotween the extremes of heat and culd, partaking ot the advantages of both, without experiencing the inconveniences of either, supply the Clinese with the productions of nlmost all the world besides, whether to minister to the necessitios, tho comforts, or the luxuries of their numerons population; and leave this great empire, as a nation, ulmost independent of forelgn supplles throngh the methin of coumerec. Satished, or affecting to be satistied, with the prodigal bounty of nature, jealous of strangers, und goveraed by a gradation of arbitrary despots, the Chinese loug considered it us a fuvor bestowed on foreigners to open any of their ports for the interchange of coummentities. The revenue derived from this limitel inturconrse was of little or no importance at the chief seat of govermment.

A very extensive intereourse is carried on hy them with lajuan, the Philipplue Islands, Java, Sumatra, limer, tielolo, und the great Island of llorneo, in all of which are found multitudes of Chinese, living in hahits of penceful industry, in the midst of the mare idte and less civilized natives, conducting the soncerns of tralle, cultivating the ground, and exercising all the various branclies of the mechanical arts; in no place, however, varying in the smallest degree their origimal character. Hat though the Chimese spread lhemelves over every part of the Asiatic, and into mayy of the l'olynesian islands, there seems to be no reciprocity of commerce by the vessels of thoso countries visiling the ports of Chinn, excepting some ten or twelve junks that annually visit the southern ports of lokien from lapman, and perhaps as many from Cochln C'hha. "From Canton," says Lart Macartney, "to 'len-chou-foo, ut the entrance of the fiulf of Pe-tclie-lee (to say nothing of the country within tho liulf itself), is an extent of coast of near two thousmend miles, inclenled with innumerable harbors, many of
and all of them sufe and sufficiently deep for the vessels of the country. Fivery creek ur haven has a town or city upon it ; the inbabitants, who abound beyond credibility, aro mostly of a trafficking mercantile cast, and a great part of them, from their necessary employment in the fishery, whleh supplies them with a principal article of their sulisistence, ore accustomed to the sea, and the management of shipping." From Java alone they import birds' nests to the value of half a million dollars annually ; the sea-slug or biche-de-mer (holothuria), from the coast of Now Holland, 'Timor, and adjoining islunds, to a still greater extent; sharks' tins from the sume quarter; copper from Japan, and tin from llantam; pepper, arece-nut, splees of different kinds, ebony, sandal-wool, red-wood for dyelng, tortolse-shell, pearl-shell, coral, cumphor, wax, and a variety of articles, generally produced or collected by their own countrymen resident in the lslands of the East.

The Chinese levy no specific duties on the articles imported, nor ad talorem dutles on the cargoes; the only impost is on the ship liself, and is cstimuted lyy a rule sa absurd as it is partind and wequal. They measure the length from the centre of the foremast to the centre of the mizen-mast, and the breadth is tuken close abuft the mainmast. The length is then multiplied hy the breadth, nat the product, divided by ten, gives the measurement of the ship. All ships, according to this measurement, are classed under first, seeond, or third rates; all other vessels, however small, are classel as third-rates. By this rule a ship of a hundred tons would pay from ${ }^{3} 1000$ to $\$ 5000$, and a ship of a thousand not ahove clouble that sum.

Revenue.-'To ascertain exactly or even approximately the revenine of the Chinese Vimitro is nimost impossille. In 1587, Triganlt, a French missionary, stated it at $20,000,000$ taels- the thel lieing equal to about $5 s$, Bh. Einglish, or $\$ 125$ United States currency.

In 1655, Nieuhoff estimated it at $108,000,000$ taela. Tweive yeara later, Mageihaens reckoned it at about $\boldsymbol{£ 4 , 0 0 0 , 0 0 0}$ sterliog. In 1721, it was calculuted to have rlsen to $£ 10,000,000$ or $£ 14,000,000$ sterling. Toward the cloae of ths eighteenth century it was given by Sir George Staunton at $£ 66,000,000$; of which sum, however, little more than a fifth was transmitted to Pekin. According to the Chinese constitution each province is obliged to aupport itself, and to transmit a certain surpluaggo for the maintenance of the Emperor and his court. The manner in whlch the items of the revenue are divided are thus stated by $\mathrm{D}_{\mathrm{o}}$ Guignes, the last authority on this subject:
Income in money. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $27.7^{\text {Taelf. }} 0.000$ Equal revenue in ktud from gratn .................... 27,907,000 Tax on the recond crop in the sonthern provtnces. $2 t, 800,100$ Gubel, coal, transit duties. .......................... 6,470,401 Costoms at Canton .....
Revenue from slik porcidain, ......................... 800,100
Revenue from slik, porcelain, etc. . . . . . . . . . . . . . . . . . . $4,0100,000$
Taxes, licences, tonnage duties. . . . . . .
Total.

- $\frac{4,0,7}{80,73,410}$

Till within a few years ago, Canton was the principal mart for foreign commerce, and was in fact the only port open to foreigners. In virtue of the treaties, however, concluded at the termination of the war with England, four additional ports have heen thrown open, viz., Shanghal, Ningpo, Foo-chow, and Anoy. Under the respective heads of these articies will be found detailed accounts of the exports and imports of the distrieta in which they are respectively situated. The foreign commerce of China, as more fuily detailed leelow, may be roughiy estimated at between 20 und 25 millions sterling. This, however, bears a very small proportion to the iniand trade. It has been asserted that there is a greater amount of tonnage belonging to the Chinese than to ail the other nutions of the world combined; and from the length and number of the canals, and the myriads of bonts necessary for currying on the enormous inland trade of the empire, it is believed that this statement is not very wide of the truth.

The mode of conducting the trade is fally described in the Chinese Commercial Givide, where the forms of custom-house bianks are given both in English and Chinese. The forcigners themselves employ clorks calied linguists to transact their business, and these linguists net niso in many transuctions as brokers. Every Chinese who intends to engage in trade in this capaclty, or as n trader, previously lenrns to speak English by studying manuseript vocabuluries in whtch the English aounds of worda and phrases nre written underneath in the Chinese character, the student obtaining the arsistance of more advanced scholars to correct his pronunciation. The idions of the English learned in this rira roce manner are chietiy Chineso, which explains the inverted arrangement of sentences in the Canton Englisi, as this jargont is calied, and the utter disregard jnid to gender, number, person, time, and other propricties considered of importance in most languages. The whole trade is conducted in this meagre gibberish, whicis the nativen, however, suppose to be as copions and correct as forelgners themseives speak, tut which hardly aerves even the common purposes of trade noi household need, much iens enabies the two parties to exchange ideas upon recondite subjects. Duch of the mianderstunding and trouble experienced in daily intercourse with the Chinese is doultiess owing to thits imperfect medium, for they seldom take the trouble to ascertain if their itlea of what is told them ls the correct one; and mutuai vexathus nnd iil-will arise, when one piaty finds his orders to have been heediessly performed, and the other that his efforts to plesse have only earned muledletions inatead of commendation. These petty nnnoyancen have also had more sorions resuits in atrengthening the national disiikes, and atiii farther separating those who orlginatly intended, perhups, to endure each other only su long as they could make gain thereliy.

The total amount of the exporta and imports of the five towns now open to foreign commerce is given in the subjoined tabie for 1845:

| Canton | Imports in vessets of sill nations. | 48 |
| :---: | :---: | :---: |
| Canton | Exports in vessets of all nations | 0,022,726 |
|  | Illupors in British versels....... | 147,494 |
|  | Eixports in British vessels | 154,781 |
| Ningpo | Imports. | 18.000 |
|  | Exports. | 10,0100 |
| Foo-chow | Imports. | 100,000 |
| Foo-chow | Exports. | 85,000 |
| Slisnghal | Imports. | 1,223,080 |
| Shisughal | Exports. | 1,347,058 |

The contrabund trade ln opinm is estimated to amount to upward of 40,000 ehests, at a sale price of nearly $£ 5,000,000$ sterling, which with the pearls, foid and silver ware, precious stones, ned other articies snuggied, will swell the totnl of the foreign trade to about $£ 21,000,000$ sterling annualiy, exclusive of the Russian trude nt Kiakhta. The consumption of tea in England is about $60,000,000$ of pounds annually ; in the United Stutes it is nbout $20,000,000$; In the Netheriands, 2,000,000; in Russia, 5,000,000; in Germany, $3,000,000$; In New South Wales, 4,000,000; in Spain and France, $3,000,000$. The aggregate consumption of tea in Chinn itself has been estimated, though not on very good authority, at about $700,000,000$ of pounds. The prospects of the rapid extension of the foreign trade with China are not very promising, except in a few artleles. The raw produce furnished from that country is very trifling, silk and alum being the chief, and there is in the mean time littie prospect of any great increase in the exportation of her manufactured articles, excejt tea and silk goods. The opium trade inas been for many yenrs between three and four mil. lions sterling in excess of the regular exchange of commodlties, and the iruinage of the country for this balance will probably go on as long as the taste for this pernicions nureotic continues, or there is any specie to pay for it. To leguize the opium trado woutd make no material difference in the expurtation of specie, as long as tho baiance of imports ao greutly exceeds the exports. England may make every effort to supply China with her inanufactures, but so long as the (hinese furnish po little that she wanta leyond a suply of tea, it is ilifficuit to perceive with what they are to pay for all the cottuns nni woolens they may be expected to buy.
The Chinese nppear to have no reguiar established system of credit amonk themselves, and the only circulating metium in the ahape of coin is a small piece of hase metal (copper, tin, or lead mixed), of the valus of the one-thousindth part of six shillings and eightpence, of little more intrinsic value, in fact, than a cowric-shell, which the Chinese, as well us the llindus, would seem once to have used; as the same character in their languge which signities a shell stgnities also money and wealth, and it enters into the composition of characters which represent buying, selling, payiny, etc. Nilver in smuli ingots is used in commerce, bat they have no determinate vajuc, the prece finctuating with the demand, as in other articies of commerce. The high rate of interest operates as a discouragement to mercantite sjeculations, and the rigor of corporal punishment is added, with the view, ns it wonid appear, of deterring the most hardy specuintor. The law says, "whoever whali ient either money or goods, shatl only receive three parts in the hundred per month," and that "how much soever may be sulfered to necumulate, the enpital shail remuin the same." It is lent from month to month, and if the lemer shonhl complain of the interest not being punctuaily paid, the borrower is suljeet to the punishment of ten stripes of the bamboo the first month, twenty the recond, and so on. The legai rate of interest, however, is seldom paid, and In inrge transactiona among lmakness men it is from 12 to 15 per cent. per annum. 'The horrower makes a njecini agreement with tho lender for a rate of literest varyhig between these two sunus.

On the signed befo Sir IIenry by Ke-ying Emperor of the treaty the two em doliars dur the ports Shanghai, ounur oftice side ut thes and export and publist in perpetui successors, terms of pe governmen signltied is the 31st of governmen chauged at sion of by emuent at

The amin considerab in the con Chinat fros Prussia, S interviews to court. sent emhia but neith: ring hav: purpose, a United St tions of the to with En of hospital for permis: coasts of leges to a were exch enbassark into negot between t United St

Their ontiquity, in fact, n from the forelgn in same kino at the por were foun huudred descriptio whicit the anchors o bants and ration ur cially the thenis sui and the spective navigate supersede common in barge for sleepi
victuals.
name.
pation is
be watht
An Bugt
of Cinima.
xE:s, ete,

On the 29th August, 1842, s treaty of pesco was signed before Nankin, on board of the Cornoullis, by Sir Henry Pottinger on the part of Grent Britaln, and by Ke-yling, Elepoo, and Niu-kien, on the part of the Eaperor of China. The most important provisions of the treaty were, lasting peuce and friendshlp het ween the two empires ; Chins to psy twenty-one millions of dollars during that and the three succeeding years; the ports of Canton, Amoy, Foo-chow, Ningpo, and Shanghai, to be thrown open to foreign trade; conaulir officers to be appolnted by forelgn powers to reside at these places; regular and just tarlifs of import anil export and inhund transit dues to be established and published; the Island of Hong Kong to be ceded in perpetuity to her Britannie majesty, fer heirs, and suceessors; and correspondence to be conducted on terms of perfect equality between the officers of hoth governments. To this important treaty the emperor signitied his assent on the 8th of September, and on the 31st of December it was ratified by the British government. In June, 1843, the ratifications were exchangel at IIong Kong, whileh was then taken possession of by proclamation, and the functionarles of gorermment appolnted.

The announcement of the treaty of Nankin excited coasiderable sensation in Europe and America, chiefly in the commercial elreles; and agents were sent to China frem the governments of lielglum, IIolland, Prussia, Spain, and Portligal, and most of them had ialerviews with Ke-ying at Canton before he returned to court. France and the United States of Amerlea seat embassators extraorlinary to tite court of l'ekjn, but neithor of them went farther than Canton. Keying having been reappointed commisslaner for the parpose, a treaty was aigned between China and the Uaited States, embodying all the important stipulations of the treatles and commercial regulations agreed to with Eugland, and providing further for the erection of hospitals, chapels, and cemeteries nt the five ports; for permission to slips of war to visit any part of the eoasts of China; sul for the extension of these privileges to all nations. The latifieations of this treaty were exchanged on 81st December, 1845. The I'rench embaswalor having also arrived at Canton, and entered into nerotiation with Ke-ying, s treaty was conclnded between them at Whampoa on the basis of that of the Cuited States.
Their naval arehitecture wenrs the stamp of grent antiquity, and is exceedingly grotesque. They have, in fact, made litule progress in maritime novigation, from tha inveterate dislike of the government to all forcign intercourse, and to all innovation. The very same kind of vessels as those described by Mareo Polo st the port near st to l'ekin, in the thirteenth century, were fonnd without varlation by Jord Macartney, five hundred years afterward, and securate to the ltalian's description, even to the number of compartments into which the hold of each vessel was livided. They had sachors of wood, and ropes and sails of bamboo. The boats and barges for internal commerce and commoniaation are very varied, generally commodious, especially the passage-boats on the grand canal, and all of them suited to the depth and velocity of the stream, and the width of the locks and lood-gates of the respective canals and rivers which they are intended to navigate. These vesgels ure so numerous as almost to sujursede the necessity of hand-earriage; and the most common und convenient mode of traveling in China is in barges, which are generally providetl with eabins for sleeping, and a kitehen and utensils for cooking victuals. Their milltary navy is unworthy of the name. It consists of a thotilla, whose principal oceupation is that of conveying soldiers where they may be wantel, and looking after pirates and smignlers. An linglish frigute would beat the whole nuval foree ef China.-Ghozient, Du llaldel, Bahnow, De GuigNes, cte.

The princlpal articles of export from China are tea and raw sllk; and of these the following quantitles have been exported during the ten yesrs ending 1st July, 1858:

| Tea exportely | Thom Cirs | TO THE Lnitel | Kingoon, |
| :---: | :---: | :---: | :---: |
| Year anding Jone. | Pounds. | Year ending June. | Poonds. |
| 1844. | 50,618,600 | 1851. | 64,020,000 |
| 1845. | 63,670,260 | 1852. | 65,187,000 |
| $18+6$. | 57,584,610 | $185{ }^{\circ}$. | 72,010,000 |
| 1847. | 63,365,000 | 1854. | 77,217,000 |
| 1848. | 47,004,800 | 1855. | 80,500,000 |
| 1849. . | 47,242,6u0 | 1850............ | 01,0:5,000 |
| 1850... | 53,401,000 |  |  |

Thus, in the last seven years, the quantity of tea shipped from China to the United KJngdom has become nearly doubled, and, even compared with 1852 , is nearly one half more. But, as wo have already intjmated, It is as important a question, as regarils the exchanges with China, what progress has been made in the shipments to the United States. These have been as follows:

Tea exionted fron Cinna to tie Únited Statras.

| Vear ending June. |  |  |
| :---: | :---: | :---: |
| 184! | 18,1072,000 | 1850. . . . . . . . . . 40,074,000 |
| $18 \% 0$ | 81,757,000 | 1854........... $27.867,040$ |
| 18 | 28,700,000 | 1855. . . . . . . . . . $81,615,000$ |
|  |  |  |


| $1851 \ldots . . . . .$. | $28,700,000$ | $1885 . . . . . . . . . .$. | $81,615,000$ |
| :---: | :---: | :---: | :---: |
| $1852 . . . . . . .$. | $84,834,000$ | $1856 . . . . . . . .$. | $40,246,000$ |

From these two tables it appears that since 1840 , only seven years ago, the quantity of tes axported from Chinn to the United Kingdom and the United States has inereased from $65,314,000 \mathrm{lbs}$. to $131,280,000 \mathrm{lbs}$, Since 1852 the incrense has leen from $99,471,000 \mathrm{lbs}$. to $131,282,000 \mathrm{lh}$. Then as to silk: the entire exports from China to the United Kingdom, eleven years ago, momoted only to 10,727 bales. In the year ending June, 1848 , there were 17,229 bales, since which time, particularly during the last four years, they have very rapidly increased. The followhing tuble shows the export in each yeer:

Silis exiontyd to the United Kinodom yhom Cilina, | Year onding Juno 30. |
| :---: |
| $18+9$ |



Imponts of Silig into the Unitrd States.

| $\begin{aligned} & \text { Yenr ending } \\ & \text { Juoo } 30 \text {. } \end{aligned}$ | Piece Goods. | Sewing | Enbibrold- | Row. | Others. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1858. | 7:3,143 | 3,497 | 486,050 | 647, 457 | 7,505 |
| 154. | 1,065,510 | 2,353 | 174,566 | 748,457 | 20,420 |
| 1855. | 1,372,365 | 10,736 | 9,164 | 455, 770 | 1,015 |

Statement of Cininese Parbingreb and Tonnage to Califonnia.

| Yeers. | Vessels. | Tounage. | Paspengerm, |
| :---: | :---: | :---: | :---: |
| 1849.......... | 13 | 6,700 | 328 |
| 1850........... | 22 | 7,708 | 447 |
| 1851.......... | 8.5 | 11,700 | 2,716 |
| 1652.......... | 84 | 43,144 | 18,434 |
| 1853.......... | 54 | 25,535 | 4,316 |
| 186t. . . . . . . . | 52 | 28,021 | 16,063 |
| 1855.......... | 87. | 15,527 | 3,212 |
| Total. | 297 | 185, 38 | 44.611 |

Statemant of Limoration of Cinnere to their own CounTRy, AND TONNAGE EMPl.OYELD,

| Veara. | Vessels. | Tonomge. | Passengers. |
| :---: | :---: | :---: | :---: |
| 1851.......... | 96 | b1,241 | 261 |
| 1552. . . . . . . . | 120 | 72,5:0 | 2.0513 |
| 18,3........... | 80 | 63, 540 | 4,405 |
| 1854........... | 118 | 85,098 | 2,356 |
| 1855.......... | 02 | 73,003 | 3,528 |
| 'Totul.... | 610 | 345,077 | 12,446 |

China Porcelain. This manufacture is first mentioned in history in 1531: It was introduced into England in the sixteenth century. Poreelain was made at Dresden In 1706 ; the ware in England, at Chelsea, 1752; at low in 1758; in various other parts of England, about 1760; and ly the Ingenious Joslah Wedrwool, who much improved the British manufaeture, in Stafiorishire, 1762 et beq.-IILuvs. See Poncelains.

China-root (Ger. Chinawurzel; Du. Chinavortel, Fr, Squine, Esquinc; Sp. Ruiz Chinte Cerebmera; Arab.

Rhubsinie), the root of a spocies of climber (Smilax China, Ilinn.). It comes from the West Indies, as woil as from China; but that from the latter ia best. It is ollong and thlek-jointed, full of irregular knots, of a reddisilmbown color on the outside, and a pale red within; whillo new, it will snap short, and look glittering within; if old, the duat flies from It when broken, and it is jight and kecky. It should be chosen large, sound, heavy, and of a pale red color internaily. It is of no value if the worm be in it.-Miliburn's Oriental Commerce.

Chints, or Chintz (Vr. Indiennes; Gcr. Zitze; It. Indiane; Rusa. Siz; Sp. C'hites, Zaraza), a pecuilar juttern upon printed calicocs, in which tlowers and other deviees are printed in five or aix different colors, upon white and colored grounds. A good chintz pattern in fast colors is one of the most surprising and dinticult efforts of the urt. It wus tirst manufactured in the East Indics, but is now largely manufacturel in Europe, particuiarly in Great Britain.-See Calico.
Chocolate (Du. Chocolude; Ir. Chnculat; Germ. Schokolate ; It. Cioccolata; Port. Chocolute ; Russ. Sehokodud; Sp. Chocolate), a kind of cake or confection, prepared principally from the cacao-nut. The muts are first roasted like coffeo; nad being reduced to powder and mixed with water, the paste is put into tin moulds of the desired shape, in which it specdily hardens, leing, when taken out and wrapped in paper, fit for tho market. Besides cacao, the Spanlsh use vaniilia, sugar, ma'ze, ctc., in the preparation of chocolate. Chocolate was first introc' ced into Europe from Mexico about A.1. 1520. It was sold in the London coffee-houses soon after their establishment in 1650.-Tafler.
"Alike ensy to convey and cmpley as an aliment, it containa a large quantity of nutritive and stimuluting particles in a smail compass. It has been said with truth that, in Africa, rice, gum, and shea butter, assist man in crossing the deserts. In the New Workl, eliocolate and the flour of maize have rendered necessible to him the tabie-lands of the Andes, and vast uninhabited forests."-llennon.dt's Personal Narrative, vol. iv. p. 234, Engl. transl.

Christiana, the capitai of Norway, situ.ted at the bottom of a tiord or gulf, in the province of Aggerhuus; in lut. $\left.59^{\circ} 5 \overline{5}\right\}^{\prime} \mathrm{N}$. , long. $10^{\circ} 4 \times \mathrm{F}^{\prime} \mathrm{I}$.. Population in 1845, 26,141. Christiana is alout 60 miles from the open sea: the guif is in some places very narrow, and its navigation somewhat difficult; but it is aufticiently deep for the largest vessels, laving 6 or 7 futhoms water close to the quay. It is compulsory on all ships to take a pilot on board at the mouth of the bay. The trade of the town is considerable. The prineipal exports are timber and deuls, which are largely imported into Eugland; gluss, porticularly bottles; iron and naiis, bones, smalts, onk burk, ete. Saited and piekled fish, one of the staple products of Norwny, is princi;ally exported from Bergen. The deals of Christiana have always been in the highest estima-tion-a consequenee of the excellence of the timber, anl of the cure with which the sap-wood and other defective parts are cut away; and not, as Mr. Coxe seems to have supposed, of the akiiffol sawing of the plank. The saw-mills were formerly licensed to cut a ecrtuin quantity only, and the proprictors were bound to muke oath that it was not excecied.-Coxse's Travels in the North of Europe, 5th edition, vol. iv. p. 2x. This absurd regulation no longer exists. There are far fewer restrictions on industry and commerco in Norway than in Sweden. In the formmr, manufacturel goods are admitted on moderate duties, and are very generully made use of. The principal articles of import are colontal produce ; iron and liardware; machinery ; woolen, linen, and cotton goots; coals, butter, wine, brandy, etc.; corn is sometimes extenslvely imported.
Customs Regulations.-Within 24 hours after a vessel has got to ler moorings, the master should defiver to the collector his generul report as to ship and cargo,
or present the requisite documents for having such report made out with the assistance of a ehip-broker, whoso services mastera of foreign vessela can nut entirely dispense with. On making thia general report, the measuring bill is to be exhibited, and payment of the tonnage and other dues inward is to be mado. If the ship have not Leen previonsly measured in Norway, and is, consequently, not provided with a Norwegian measuring bill, she ia to be measured, to ascertain her burden in Norwegian commerciai laats, for the calculation of the tomage duty. The gencral report having been made, the cuatom-house officera in clarge of the vessel are furnished with the books for delivery; and the discharge of the carge commences under their inspection ; and the cousignees may make their special reports under their responsibility and signature. If they are without preciso information as to the contents of any or all of the packnges or halcs to their address, these bales or packages may, at their request, te opened in the presence of the ollicers before report is made. If a cousignee omits a vailing himself of this permission, his pretending thereafter that more or ether goods than he had ordered or been advised of huve been sent to his aididess, will not be nutended to. In the reports or entries is to be atated whether it is intended to pay tho duties forthwith, whether the goods are intended for exportation, or whether they are to te landed. l'rior to commencing loading outwari, the master is to give verbal notice of his intestion at the custom-house. If he have no Norwegian measuring biil, the vessel is to be measured. 'This being done, the shipper or shippers of the outward-bound carge are each of them to make their special entrics as to the quajity, weight, and measure of the goods tiey mean to load. A copy of such entrics is to be deposited at the custom-house, und tho loadiug conmences under the control of the officers. This applics to all mixed curgoes; but if the outward-hound cargo consist exclusively of wood, the slipper or shippers are only to notify that they intend loading wood, without speeifying quantity, measure, etc., as the export duty on wood is charged aecording to the burden of the vessel. When the master clcars outward, he produces the proper documents for showing the burden ot his vessel, and to whit port ale belongs, and he is then, on proper application being made, provided with a pilot, who takes his vessel to sea.

Harehousing.-In Norway goods brought from abroad may be bonded or warehoused, with a view to their being again exported at some future period. (ioeds entered for home consumption may also be bonded for u certain period, in order to faellitate the payment of the dutics. The former is calicd "transil cplag;" that is, depositing or wareiousing goods for expertation, subject to transit duties only. The litter is called "credit oplag;" that is, warelousing or bonding on credit.

Trausit Oplag.-Under this system goods from alroarl may be warehoused for exportation frec of import duty, puying on exportation a transit duty, which in most cases is 1-10th of what they would pay if entered for home consumption. If tine goods are deposited in the custom-house wareh juses, they lie free of rent er dues during 14 days, $r$ id if in privato warehonses, under the key and aca' : the customs, during six mo.ths. If they remain long, viz., heyond 14 days in the one, und berond six montis in the other ense, they pay rent or dues equal to $\frac{2}{6}$ of the transit dinty per month, which, after the lapse of three months, as regaris goods in the custom-house warehouses, is increased to $\ddagger$ of the transit duty per month.

Credit Opleg.-This system nllows most grools importell from aliroad to be placed in the ownrr's or importer'a own warehonses, under his own lock, frec of duty, for a given time, on lis reporting to the customs, every three months, how much he has sold, otherwiee consumed, orexported, and then paying the dutyon such amonnt; the custom-house officers, who aro heund quar-

## terly to exam

 ocular demons tho quantity $r$ crestit on the from the timeBy way of which the cre themselves, 1 . question. 2. gools, and effc traice avaiiin, property is not erty for the cu they shall dee teriy inspectio view of ascert value for the this, fuil right beligg offered, or as much as death or failur with tho whol retain as mucl ties; and in ca the remainder rupt, as the ea allownce is $n$ houses. Tine under the trat - unses, is as fo On a quarter of months..... Afterward. Atterward ..... On a ten of rav Afterward Money, Weis, are no gold co species doilar, also hulf speci or 21 skilling pi and what is de -that is, 4 an contains 390.58 consequentlyw being four spec Norway coins, with $1-$ th eop 448:38 English 'nall change weight of copl picess of coppe IVeights and which see.
Shipiping Cho nature payubic tering the port board, unioadin and clearing ou

## Churgea Inem

 month of Cl take a pilot 1311 of health, the master,Tom:age dues Brosers' fees.
2. Charges Outer Cuatle dues. . Mrster-roll of Pale or stake Measuring bu Cilarity chest Tharity chest Itighotm Itgh Piftetago to F Brokers' fees
N.B.-There ships in Norweg is tho ships of os
torly to examine the goods, convinclng themselves by ocular demonatration that no morc ia missing than the quantity reported to have been taken away. This credit on the duties in no case to exceed two yeara from the time the goods were imported.

By way of security for payment of the duties on which tho credit is granted, government reserve to themselves, 1. Priorlty of mortgago on all the goods in question. 2. Priority, or firat right, in the property, goeds, and effects of every deseriptlon belonging to the trader availling himself of this credit, in as far as such property is not previoualy legally mortgaged. 3. Liberty for the custom-house officera, when and as often as they shall deem It expedient, between the stated quarterly inspeetions, to look over tho atock on hand, with a view of ascertalaing whether there remains sufficient vslue for the duties; and if thay see reason to doubt this, full right, in default of other satisfactory security being offered, to seize the stock, and to sell the whole, or as much aa shall cover the duties. 4. In case of death or failure of the party, an equal right to sell forthwith the whole of his stock at public auction, and to retain as much of the proceeds as shall cover the duties; and in case of defleiency, an established claim for the remainder on the estate of the deceased or bankrupt, as tho caso may be. In charging tho duties no allowanee is mado for waste or damage in tho warehenses. The warehouse rent charged on gooda bonded under the transit syatem, in the custom-house waro-- Juses, is as follows:

On a quarter of wheat for the first 3$\} 0 \quad 0.6508$ per month

 On a ton of raw sugar for tho first 3 ) $011 \cdot 5394$ per mooth

Money, Weights, and Measures.-In Norway there are no gold coins. The principal silver coin, called a species dollar, is divided into 120 skillings. There are also half species, or 60 skilling pieces; 1 -5th apecies, or 21 skilling pieces; $1-15$ th species, or 8 skilling pieces; and what is denominated skillemynt, or small change -that is, 4 and 2 skilling picces. The ajecies dollar contains $390 \cdot 58$ English gruins of pure silver, aud is conseguently worth 48 . 6fd. sterling, the par of exchange being four species dollars $\mathbf{4 2} \mathbf{6}-17$ skillinga $=£ 1$. All Norway coins, except the simall change, are alloyed with 1-ith copper, so that the species dollar weighs 448:38 English grains, anal its divisions in proportion. spall change coins are alloyed with three times their weight of copper. Thero aro one and two akilling pieces of copper.

Weights and Mcasures, bamo as at Coreninagex ; whilh see.
Shipping Charges.-The various charges of a puldic nature payable by a ship of about 300 tons burden, entering the port of Christiana with a mixed eargo on board, unloading there, taking on board another cargo, and clearing out, are as follows:

1. Chargen Inimard.-Pllotage from Farder, at the month of Cliristiana Bay, where nll ellpa must take a pllot on board
b:In of health, assuming that the crew, includiug the master, conatats of 14 persons ..............
Tonsure dues and itght money.
Urokers' fees.
222
017 ?
brokers fees . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
15
21420
2. Charges Outuard.-P1lotage
cartie dues. .......
Muster-roll of crew
Muster-roll of erew.
Pale or atake money
Measuring bill
Charity chest
Tommage dues and iight mone.
lligholm light.
Pilotage to Farder.
Brukors' fees.
$\qquad$ 092 0 . 0

418 11
hipa.-There thargea on naltue is, tho ships of countries and privileged forelgn ships, that is, the ships of countries having reelproedty treaties whiti Nor.
way; nor in the duties on gooda importes hy native ahipa and wuch privileged foretgn ohipa. Great Britala ta a privileged country.

The ahlpping of Norway has declined considerably of late years; a proof, If any such were wanting, of the groundlessnese of the clamors kept up in Great Britain as to tha supposed pernlcious influence of reciprocity treaties on shipping.

Banking.-There are no private banking establishments In Norway; but there is a public bank, having ita principal office at Dronthelm, with branches at Chriatlana, Bergen, and Chriatianaand. It was establistied by a compulsory assessument in 1816. Ita capital consists of $2,000,000$ species dollars, in transferable shares, divided among those who were forced to contribute to its formation. These sharea are now at a premium of 30 por cout. Its managera are appointed by, and are accountablo to, the Storthing or Norwegian Parliament. It lasuea notes for $100,50,10$, and so low as 1 species dollar. Theso notes should ba payable in specic on demand; but they are at a discount of 35 per cent., and are paid by the bank at that rate. It discounts bills at twoand three monthadate at 6 per cent. per annuin; advances money on mortgage at 4 per cent.; and transacts the ordina:y banking businese of individuals. It does not allow interest on deposits.

Credit.-Goods are sold partly for ready money, and partly on credit, but principally tho former.

Commission, etc.-The number of brokers in Christiana is limited to four. Commission on the sale of goods, 2 per cent., or, del credere included, 3 per cent. Jrokerage is fixed by law at 5-6ths per cent., which, in practice, is paid by the sellers.

Insurance.-All houses situated in Norwegian market towns must be insured in the General Insuraneo Company at Christiana, which is guaranteed by the state. The prenium is moderate, being, on buildlage situated in towns, th, and on thoso situated in the country, $\frac{1}{8}$ th per cent. Sumetimes, however, when very destructive tires occur, it is raised.

Provisions, etc.-Christlana is not $a$ favorable jlace for careeving and repairing ships; but supplies of beef, bread, water, and other sea-stores, may be had as cheap or cheaper than in any other port of Norway; but its distance from the sea is too great to allow of its being visited by ahips deairous merely of victualing.-We havo derived these detalla frous various sources, but principally from Consular Returns.

Timber.-A standard Christiana deal is 11 feet long, $1 \frac{1}{4}$ inch thick, and 0 inelses broad; and $51 \cdot 2$ such deals make a load. Freight of deals from Norway to England is calculated at the rate of single deals, the standard measure of which for Christiana and all the south ern ports of Norway, except I)ram (a small towa on the Drammen, about 20 miles southwest of Christiana), is 11 feet loug and $1 \neq$ in thickness. A singlo deal from Dram is reckoned 10 feet long and $1 \frac{1}{2}$ inch thick.

Battens.-Tharee batiens make 2 deals, retaining their own length ant thickiess. Half teals aro only counted as ileal ends, if they run under $C$ feet; but if they run 6 or 7 feet long, then two half deals aro counted a deal, retaining their own thlekness.

Ends of Deals.-Four ends of deals, although 5 feet long, mako but a leal 11 feet long, retaining their thickness; but as the freighters of ships seldom wish to have this assortment, which commonly run from 3 to 5 fect, and are taken on board as stowage, consequently for the advantage of the ship and not the freighter, the ship vught to bear the burden.

Ends of Buttens, called Larvick I'alings.-No less than six ought to be counted a single deal, 11 feet long and $1 \pm$ inch thick.

Pale-boarts, when they havo their proper length, are 7 feet long; three pale-hoards are counted a single deal.

Staves for hugsheads take up much room; in consequence of which more than ten can not be computed a singlo deal.

Christopher ( $\mathbf{8 t}$.), or $\mathbf{8 t}$. Kitt's, one of the BritIsh West India islands, Leeward group. Lat. (Fort Smith) $17^{\circ} 17^{\prime} 7^{\prime \prime}$ N., long. $60^{\circ} 42^{\prime} 2^{\prime \prime}$ W., 46 miles west-northweat from Antigua. Length, northweat to southeast, 20 mites, breadth 5 milea, except at ita southeastern extremity, whero a narrow tongue of land extends towarl the island of Nevis. Area, 68 squaro miles. Population in 18.18, 23,127, of whom abont 2000 are whites. The island is an irregular oblong, traversed in the centre from north to aouth by a mountain ridge of volcanic origin, in the middle of whith rises the perpendicular craggy summit of Mt. Misery, elevation 3711 feet, and overhnnging the crater of an extinct voleano: from thils central ridgo the land gradualiy and uniformly slopes to the sea, every portion of wheh is a rich fertite soil, and highly cultivated; pnsture and woodlands ascending almost to tho mountain summits. Four rivers water this country, anti in tho northeast there aro severnl salt ponds, producing abundance of salt. Soil composed of loam, clay, and volcanic asher, in somo places with a depth of it feet, resting on gravel. Brimatone-hill comalsts of granite, limestone, and primary schists. Sulphur is found in the central range, nnd some indication of siiver ore. The climate is dry nod healthy ; mean annual temperaturo of coast $80^{\circ}$, but the mornings and evenings are cooled by sea-breezes. The coldest month is February, the warmest August. Prevalling winds, nertheast and southenst; rains frequent, but not in excesa; hurricanes occur occasionally, and a terrific and fatal one uearly destroyed the island in 1722. The scenery, especially the vale of Basseterre, is rich and beautiful. The soil is particularly adapted for sugar plantations. Chief towns, lasseterre, the capital, and Sandy Point. Besides the parish churches, thero are three Methodist congregations, and several sehools. This island was discovered by Columbus in 1493, and was then densely peopled by Carils. In 162's it was simultancously taken possession of ly colonies of English and French, and divided into upper and lower portions. From that period it became the seene of frequent and bloody contests between the two nations, tili at last it was tinaily cedcia o the llitish in 178.3.
Chronometer (Greck xporoc, time, and $\mu \varepsilon \tau \rho o v$, metsure), a watch of peculiar coustruction, and great perfection of workmanship, used for determining geographical lougitudes, or other purposes where time must be measured with extreme accuracy. The chronometer difficrs from the ordinary wateh in the prineiple of its escapement, which is so constructed that the balance is entirely free from the wheels during the greater part of its vibration; anel also in having the balance compensated for varintions of temperature. Marine chronometers generally bent half seconds, and are hung in gimbals, it loxes alwut six or elght inches square. The pocket chronometer does not ditlier in appearance from tho ordiuary watch, excepting that it is generally a little larger. Chronometers nro of immense utility in nuvigation; and ships going on distani voyages are usually furnished with several, for the purpose of thecking onic noother, and nlso to guard against the effeets of accidental derangement in any. singlo one. The accurary with which some of the betthe sort of ehronometers have been foumb to perform is truly astonishing; the error in a two months' voyage not exceeding two or threo seconds.--iee Dext on the Construction and Manuyement of Clir, nometers.
Chunam, the name given in India to lime. The lest, obtained by the calcination of shells, is employed in the mastication of beted (which see), to provent, it is sainl, its injoring the stomach.
Cider or Cyder, a vinous liquor made from the expressed and fernented juico of the apple. In England, the counties of Devon and 11 creforil are noted as the cider counties; but good cider is also produced in the counties of Glourester, Monmouth, Worcester, Dorset, Somerset, and Cornwall. Normandy has long
been known for the exeelleneo of lts eider; and considerable quantities are manufactured in other districts of France, and also in Belgium, Germany, and in North America.

In England the manufacture of cider is almost entircly in the hands of the common farmer, so that litte or nothing has been done either to improvo the machinery or bring science to bear on the processes which are followed. Heneo mueh of the cider is of inferior guality, and much waste ensuea in the manufaeture. The apples for cider should only be gathered when fuily ripe, as it is only then that they contain their full jroportion of saccharino matter. As the apples are gathered they are laid in heapa, and are allowed to lis thus from 15 to 30 days, in ordier to become fully ripe or mellow. They are then thrown into a atono trough, round which a heavy cireular stone is turned hy means of one or two horses. When the applea are thoroughly ground, the pulp is carried in pails to the serew-press and poured into squaro picce of hair-cloth, the edges of the hair-cloth being so folded over the pulp us to prevent any escaping. The pulp is then suljected to pressure, when the juice eseapes, leaving a solid cake. The juice is now transferrel to casks, where it rapilly. undergoes a process of fermentation, without requiring any addition; and in three or four days the process is completed, when it is drawn off into casks. The lest cider is almost always that in which the process of fermentation has been moat slowly conducted. Whien the fermentation has been rapid the cider is apt to run to acidity.
In France several manufacturers of eider hnve lately employed improved apparatus for masbing their apples, somewhat similar to that used for mashing the beet-root in the manufacture of sugar; and have also given special attention to the management of the process of fermentation. The quality of the cider is said to lonve been thereby greatly improved. The cake after its first pressure is sometimes broken up with water, and smbjected to a second pressure, and the juice it then yields furnishes, on fermentation, an :nferior cider, which must be soon usel, as it will not kecp. Cider is not tit to be drunk till about three montiss after it is made. Good cider yields alout 6 per cent. of alcohol on distillation, and thus contains nearly the same amount of alcohol as the ordinary hitter Indian ales; but the inferior kinds do not contain above half that proportion. Cider appears to be a refreshing and healthful drink; and the natives of the connties in which it forms the ordinary drink are remarked to be nearly exempt from stone and from gravel complaints.-E. B.
Cigars. See Tonacco.
Cincinnati, the metropolis of Ohio, eapital of llamilton county, and the largest and most commereia! place west of the Alleghany Mountains. It is situnted on tho right bank of the Ohio River, $4 \overline{5} 5$ miles helew l'ittshurg, and 1548 miles above New Orleans, and 502 miles from Washington. It is the largest city of the Mississippi Vailey north of New Orlems, and the tifth in population in the Enited States. Jopulation in 1800, 750; in 1810, 2540; in 1830, 24,831; in 1840, 46,338 ; in 1845, 65,000 ; in 1850, 115,438 ; in 1853, 1ti0, 141 . The suburtus have 25,000 inhabitants additional.
This city is nenr the eastern extremity of n valley, ahout twelve miles in circumference, surrounded by a series of hills, which rise to the height of 300 feet hy geatle and varying slopes, and are partly covered with the native forest trees. lirom the summit of these hills is presented a beautiful and pieturesque view of the city and valley. It is built on two tahle innuls, the one elevated from 40 to 60 fect ahove the other. l.owwater mark in the river, which is 108 feet below the upper purt of the city, is 432 feet abovo tide-water at Albany, and 133 feet below the tevel of Lake Erie. Covington and Newport, opprosite, in Kentucky, and

Fulton an on the no added to 185,000 . stantially with float fall of the fing of $g$ g
The 0 one-third from low rauge ma pressions October, May, and very rarel ters not a three mil and when

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Apples
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Buref ...
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leans.
Butter
Butter
Corn...
Cheese
Cotton
Coffiec.
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Fork an
Pork an
Pork an
Pork an
P'ork in
Pofatee
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Ryc...
Ryc...
Sugar.
Sugar.
Sugar.
Whisky

Valce 0
EINNA

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Beef, 1
theef,
Buther
Corn
Cheest
Candis
C'attlo
Cattlo
Cutton
Cutton
Flonr
Flonr
Lard.
lard.
Pork a
Sugar
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Other

- Hit:sx

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Fultoo and the ailjacent parts of Mill Creek township on the north, are but suburbs of Cincinnati, and If aided to tho shove population would extend it to 185,000. The shore of the Ohie at the landing is substantially paved to low-water mark, and is supplied with flouting wharves, adapted to the great rise and fall of the river, which renders the landing and shipping of goods at all times convenient.
The Ohio Rlver at Cincinnati is 1800 feet, or abont one-third of a mile wide, and its mean annual range from low to high water is about 50 feet; the extreme range may be sbout 10 feet mere. The greatest depressions aro generally In August, September, sad Oetober, and the greatest rise in December, March, May, and Juno. The upward navigation is in winter very rarely suspended by floating ice, and in some whters not at all. Its current at its mean height is about three miles an hour; when higher or rising, it is more; gad when very low, It docs not exceed two miles

The commercial retutns for the ycar 1856 show that Cincinnati has participated in the general prosperity of the $W$ st. The tetal value of principsl imperts for the year ending September 1, 1856, was $\$ 75,205,000$, agginst $867,501,000$ the previous yesr; and of exports $\$ 50,744,000$, against $\$ 38,777,000$ the previous year, showing an increase in the value of lm ports of $87,794,000$, and in the value of our exports $\$ 11,967,000$ : these figures do not represent the total value of imperts and exports at Cinclnastl. To the value of the imports 10 per cent. msy be added, and to the exports 25 per cent., to cmbrace those articles not included in them. The flgures then would stand thus:

Value of lmports.
Value of exports. $\qquad$ $. . \$ 32,825,000$
Volue of exports. ...................... 63,430,000
No record being kept of imports by the Cincinnati cus-tom-house officers, except those which come under cus-tom-heuse bond, the Chamber of Commerce, at its own expense, keeps a record of the imports and exports.

Imfonts into Cinoinnati por Five Yeabe, commencino Seftemegr 1st, and endino Adoust 81bt, baci Yiar

| Artieles. | 1850-131 | 1851-'58. | 1852- ${ }^{5} 5$. | 3853-64. | 1864-159. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Apples . . . . . . . . . . Barrels, | 16,984 | 71,882 | 19,845 | 81,477 | 15,971 |
| But............... * | 1,101 | 1,609 | 1,118 | 1.841 | 1,766 |
| Marley . . . . . . . . . . . Bushols. | 111,257 | 89,904 | 225,844 | 286,536 | 204,224 |
| leans.............. * | 81,037 | 14,137 | 20,439 | 21,882 | 17,173 |
| Butter . . . . . . . . . . . Barrels. | 8,25) | 10,203 | 16,494 | 16,842 | 10,185 |
| Dutter . . . . . . . . . . F Elrkins and kegs, | 11,043 | 18,720 | 11,331 | 11,092 | 7,182 |
| Corn.............. Bushols. | 489,145 | 663,788 | 723,334 | 745,465 | 845,579 |
| Cbress. . . . . . . . . . . Boxes, | 205,444 | 241.753 | 212,380 | 210,892 | 183,879 |
| Cotton . . . . . . . . . . . Bales. | 7,168 | 12,770 | 16,550 | 22,513 | 15,107 |
| Coffico. . . . . . . . . . . Sucks. | 91,177 | 815,732 | 109,138 | 191,425 | 114,118 |
| Flonr . . . . . . . . . . . . Barrels, | 482,772 | 511,042 | 449,089 | 427,464 | 342,772 |
| llogs . . . . . . . . . . . Iload. | 111,484 | 100,684 | 420,504 | 525,273 | 496,860 |
| Lard. . . . . . . . . . . . Barrels. | 30,680 | 30,047 | 51,744 | 76,094 | 63,654 |
| Lard.. . . . . . . . . . . . Kegs. | 81,087 | 82,283 | 26,159 | 19,752 | 14,881 |
| Molasets . . . . . . . . . Barrels. | 61,490 | 03,132 | 115,112 | 80,430 | 50,267 |
| J'ork and lucou. . . Hogsheads. | 6,277 | 10,333 | 15,251 | 12,184 | 6,947 |
| Pork and liscon . . . Tlerees. | 1,183 | 1,987 | 8.550 | 2,730 | 6,770 |
| Pork atid Ibacon ... Barrels. | 31,595 | 22,601 | 39,517 | 39,387 | 38,365 |
| Pork lu buik . . . . . Pounds, | 14,981 | 17,417 | 27,209 | 27,986 | 19,197 |
| Potatces . . . . . . . . . Itarrels, | 10,649 | 20,789 | 15,085 | 85,244 | 20,288 |
| Byc............... Bushels | 41,308 | 68,618 | 33,6i0 | 29,512 | 63,164 |
| Sugar . . . . . . . . . . . . Jogsheads. | 29,809 | 8!, 324 | 44,999 | 0440 t | 46,953 |
| Sugar. . . . . . . . . . . . 13arrels. | 18,594 | 15,237 | 24,004 | 25,441 | 19,405 |
| Wheat ............ Hushels. | 888,060 | 377,937 | 348,049 | 408,084 | 437,412 |
| Whisky . . . . . . . . . . Ilarrels. | 244,040 | 272,483 | 280,317 | 285,34 | 272,165 |

In the above table the number of hogs does not haeludo those driven Into the elty or by private eonveyance.

Vaice af the principal exports yoon tie port of Cin. cinnati fou the Yeabe ending Auoust 31bt, $1861-65$.

| Arlicles. | 1854. | 1855. |
| :---: | :---: | :---: |
| Alcohol. . . . . . . . . . . . . . . . | \$ $\$ 528,883$ | \$311,047 |
| Beef, Ilarrels . . . . . . . . . . . . | 202,216 | 261,504 |
| Ihef, Tlerces . . . . . . . . . . . | 237,609 | 122,339 |
| Bnter. . . . . . . . . . . . . . . . . | 808,530 | 524,040 |
| Corn . . . . . . . . . . . . . . . . . . | 90,081 | 80,420 |
| Checse . . . . . . . . . . . . . . . . | 337,761 | 454,110 |
| Candes | 1,057,851 | 1,064,470 |
| Cattle. | 719,960 | 502,100 |
| Cottou | 440,924 | 634,135 |
| Flour . . . . . . . . . . . . . . . . . | 1,044,099 | 2,096,601 |
| lard. . . . . . . . . . . . . . . . . . | 1,158,607 | 1,458,000 |
| lard-oil. | 1,307,850 | 1,223,728 |
| P'ork and Bacuu | 5,994,081 | 0,378,815 |
| Sugar.. | 2,010,784 | 1,985,365 |
| Whinky................. | 2,922,612 | 1,900,840 |
| Other artleles | 20,434,996 | 27,300,215 |
| Total. . . . . . . . . | \$38,777,394 | \$45,432,780 |

-llust's Merchants' Magazine. See Onio.
Cinnabar (Germ. Zinnober; Du. Cinaber, Vermilioen; Fr. Cimaabre; It. Cinabro; Sp. Cinabrio; Russ. Kinurur ; Lat. Cimabrium).
Natire Cimnabar-a mineral substance, red, heavy, and brilliant. It is found in various places, chietly in quieksiiver mines, being one of the ores of that metal. The cimasbar of the Philippino lslands is said to be of the highest celer; but that of Almsiden, in Spain, is the richest. The best native cinuabar is of a ligh color, brilliant, and free from earthy or stony matter.
Artificial Cinnabur.-" When two pasts of mercury anio one of sulphur are triturated together in a nertar, tho mercury gradually disappears, and the whole assumes the form of a black powder, formorly called Ethings nineral. When this mineral is heated red hot,
it sublimes; and if a proper vessel bs placed to receive it, a cuke is obtained of a fine red color. This cake was formerly called cinnsbar; and, when reduced to a fine powder, is well known in commerce under the name of rermilion."-Tnonson's Chemistry.

Cinnamon (Du. Kaneel; Fr. Cannelle; Ger. Zimmet, Kanehl; It. Canella; Lat. Cinnamonum, Canella; l'ort. Canella; Sp. Canela; 1'ers. and IInd. Darchinie; Aral. Darsini; Malay Kaimanis; Greek Kıvapov), the bark of the cinnamon-tree ( Laurus cinnamomum), a native of Ceglon, where it grows in great abundance, Cochin China, and perhaps of seme other countries. It is brought home in bags or bales weighing $92 \frac{1}{2}$ lbs. each; snd, in stowing it, black prepper is mixed with the bales to preserve the cimnamon. The best cinnamen is thin and rather pliabie; it ought to be about the substance of royal paper, or somewhat thicker; is of a light yellow color, approaehing nearly to that of Venetian gold; it is smooth nad sifining; fractures splintery; has an agreeable, warm, arematic flaver, and a mild, sweetish taste; when chewed, the pieces become soft, and seem to melt in the mouth; it is not so pungent but that it may be borne on the tougne without pain, and is not succeeded by any after taste. Whatever is hard, thick as a half-crown piece, dark-colored or lirown, or so het that it can not be borne, should be rejected. Particular care should be taken that it he not false packed, or mixed with cimamon of an inferior sort. -Milavun's Oriental Commerce; Marshala's Essay.
The cinnamen of Cochin China grows in the dry sandy listricts lying northwest of the town of Faifoe, between the 15 th and 16 th degrees of nerth latitude.

It it eferred in China to the cinnamon of Ceylon. The a : ual imports into Cunton and other ports vary fromi 250,000 to $300,000 \mathrm{lba}$. There are no fower thau ten varietles of thls speeiea in the market. It is not cured, like that of Ceylon, by freeing it from the epidermia. Cbawrund's Eimbasy to Suim, etc., p. 475.

Cinnamon Monopoly.-Down to 1833, the cultivation of cinnaiuon ln Ceylon was restricted to a few gardens in the neighborhood of Colombo, the production and sale of the article being wholly monopolized by governinent. Upon the transference of the Island from the East India Company to tho king's government, the former agreed to pay $\mathbf{£ 6 0 , 0 0 0}$ a year for $400,000 \mathrm{lbs}$. or $4342 \frac{1}{2}$ balen of cinnamon; It being atipulated that if the quantity collected exceeded this amount the surplus was to be burned! But this agreement was afterward broken off; and the clmamen was sent to E:ngland by government, and sold on its account nt quarterly sales. The net reve $u$ derived from the chanamon monopoly, in 1831, is sald to have amounted to £127,961. As the monopoly could not be enforced, except by confining the culture of cinnamon to certain districte, it necessarlly led to the most oppressive interferences with the rights of individuals, to the creation of numberless imaginary offenses, and the multiplication of punishment forming a heavy drawback upon the prosperity of the Island. A sense of these disadvantages led at length to the abolition of the monopoly system in 1833, when England ceased to be amenable to the charge of upholding, without improvIng, the worst part of the Duteh policy, and restored to the natives their right to cultivate cinnamon anywhere and in any way they think fit.

Cinque Ports (i. e. the tive ports), five havens on the southenstern coast of Eugland, opposite lirance, ond thus called by way of eminence, on account of their importance as safeguards against invasion. These comprise IIastings, Romney, Ilythe, Dover, and Sandwich; to whleh were afterward added the two ancient towns of Winchelsea and Kye. These places were anciently deemed of so much importance in the defense of the kingdom against invasion, that they received royal grants of particular privileges, on condition of providing during war a certain number of ships at their own expense. They are governed hy n warden with the tltle of Lord Warden of the Clinque Ports, and each had the privilege formerly of returning to Parliament two members under the title of liarons of the Cinque Porta; but since 1831 this privilege has been contined to Hastings, Dover, and Sandwich. W'e are told by Camden that William the Conqueror appointed the first warden of the Cingue Jorts; but their charters are traced to the time of Edward the Confessor. The salary of the Lord Warlen is $\mathcal{L} 3000$ a year. E. B.-See Cinity's Commercial Jaic.

Circumnavigators. Among the greatest and most daring of human euterprises was the circumnavigation of the earth at the period when it was first attempted, a.d. 1519. The tirat ship that sailed round the earth, and hence determined its being globular, was Magellan's, or Magethoen's; he was a native of l'ortugal, In the service of spain, and by keeping a westerly course he returned to the sume place he had get out from in 1519. The voyage was completed in three years and twenty-nino days; but Magellan was killed on his homeward passage, at the Philippines, in 1521, - Iletlen. The following are the most renowned of this illuatrioua class of inen: their voyages were undertaken at the dates affixed to their names.-See Navigators.
Magellan, a Portuguese, the first who entered the A.b.Hactic Occan
1519
Groalva, a spanish navigstor. ..... 1537
Avairadl, a spaniard. ..... 1537
1647
Sir Franels Drake, firnt English ..... 1577
Cavendish, hls finst voyage ..... 1586
Le Maire, a Dutchman..
1616

DUrvile, French ..... ........................... 1837
Several voyages have been since undertaken, and, among other nations, ly the liussians.-llayns.
Cities. The word city has been in use in England only since the Conquest, at which the even London was cniled Iondonburgh, as the capital of Scotlaud is still called Edinburgh. The Engllsh cities were very Inconsiderable in the twelfth century. Clties were first ineorporated A.1). 1079. The Institution of elties lias aided mueh in introducing regular governments, police, monmers, and arts.-Honentson.
Citron (Ger. Succade; Ja. Sukkat; It. Confetti di cedro; Sp. Acitron terde; Fr. Citronat rerd), an agreeable fruit, resembling a lemon th color, smell, and taste. The prineipal difference lies in the juice of the eitron being somewhat less acid, and the yellew rind being somewhat hotter, and accompanled with a considerablo bitterness.-Lewis' Mot. Med. It is imported, preserved and candied, from Madeira, of the finest quality.

Civet (Germ. Zibeth; Dn. Ciret; Fr. Cirette; Jt. Zibetto; Sp . Alyalia), a perfume taken from the civet cat: it is ottensive unless extremely diluted, and then, in combination with other perfumea, it adds to their energy. It is hrought from the Brazils, Guinea, and the interior of Africa.
Civita Vecchia, a fortified sea-port town of the papal doninlons, on the Mediterranenn, Int. $42^{\circ} 4^{\prime} 38^{\prime \prime}$ N., lung. $11^{\circ} 44^{\prime} 6 z^{\prime \prime} \mathrm{E}$. Population 7000. The part of Civita Vecclin is artificial, and is formed by three large moles. Two of them projecting from the main land, inclined one to the north and the other to the south, form the sides of the harbor; while n third mole, or breakwater, constructed opposite to the gap between the other two, serves to protect the harbor from the heavy aea that would other $\cdot$ lse be thrown in by the westerly gales. A light-bou., ... ving the lnntern elevated seventy-four feet abova the level of the ses, is erceted on the southern extremity of the outward mole; the distance from its extremities to the extremities of tho lateral moles, on which there are towera, being about ninety fathoms. Vessels may enter cither ly the south or north end of the outer mole, but the zoutbern channel is the decpest, having from cight to six snd four fathoms. Ships may anchor within the port, in from sixteen to eighteen feet of water; or between it and the outer mole, where the water is deeper. Within the port there is a dock and an arsenal.-I'lan of Critita lechia.

Imports and Exports.-Though the wealth unl popuIation of tho country round Civita Veechia be much fullen off in modern times compared with antiguity, it still continues to be the entrepôt of lome, and engrosses almest the entire trade of the papal dominions on the side of tho Mediterranean. The imports consist principally of cotton, woolen, allk, and linen stuffs; coffec, sugar, cocoa, and other colonial products; salt and salted fifh, wines, jewelry, glass anil earthen ware, etc. The exports consist of staves and timber, corn, casl, wood, cheese, potash, pumice-stonc, alum, from Tolfa, in the vicinity, and other articles. The total value of the imports may be reckoned at from $£ 650,000$ to © 700,000 , and it may be fairly presumed that tha real value of the exports is not much Inferior. Marseilles
and Geno of Civita Juties. into whle -llued or thearan sel with a any of th tim ' tom Clare rived fro clear.-S
Clarif clearing o separation ed ly dep stances u tie albun two are boiling $b$ the cold beaten when the ters that the heat, the form Isinglass purpose, into the solved m then mix after whi Clear ed for ex snd sett a'clock, house, wi ers whicl deposits alloted separatel himen, ns $f$ from all ene to a celed th three ot Clea: termed house we ience of olis ly fa of bank plished meoting dellver checks $e$ necessar exactly this arr avoldan the ann ¢954, 00 n day. I ings we
and Genos have the largest share of the foreign traile of Clvita Vecchia, and next to them, Fugland.

Inties.-Clivita Vecebla is a froe port; that ia, a port into which produce may be imported, and either con-s-med or re-exported, free of duty.
(Suarantine regulationa are strictly enforced, no veso sel with a foul blll of heaitll leing permitted to enter any of the papal ports.-Annunire du Commerce Maritim, tons. li. p. 366, etc.
Claret, one of the lest Firnch wines. It is derivel from the Latin Claretum, from Charere, to Le slear.- See the articles Bonmeavx aml Wise.

Clarification, the act of ciearing; partleularly the clearing or thing of liquids from feculent matter hy the separation of the insolublo particles. This is performad thy depuration, filtration, or coagulntion. Tho sul) stances usually omploved fur clarifying lifguors are tie nlbumen of eggs, blood, and lsinglasa. Tho first two are used for such liquors ns are clarified while boiling bot; the last for those which are clarified in the cold atate, wis wines, etc. The whites of eiges are beaten up into a froth and mixed with the liquor, when they unite with and entangle the fimpure matters that float in It; and, presently coagulating by the heat, carry these impuritles up to the surfice in the form of scum. Blood operates in the same manner. isinglass is much employed for fining wines. For this purpose, about a quarter of an ounce may he thrown into the cask, or the isinglass may ho previously dissolved and boiled down to a slimy consistence. It is then mixed with tho liquor by rolling the cask about; after which it is allowel to settle.
Clearing, among London bankers, is a method adopted for exchanging the drafts on each other's honses, and settling the differences. Thus, at half-past three o'elock, $n$ clerk from each bnnk attends at the elearinghouse, where he brings all the draftson the other bankers which have been paid into his house that dny, nnd deposits thein in their proper drnwers (a Irnwer heing allotted to each banker) ; ho then eredits thelr accomints separately with the articles which they havo against him, ns fount in the drawer. Balunces are then struck from ali the accounts, and the clalms transferred from one to another, untii they are so wound up and caneeled that each clerk has only to settle with two or three others, and their balaness are immedlately paid.
Clearing-house, the place where tho operation termed clearing is carricd on. The London clenringhouse was established some years sinee, for the convenience of hankers and joint-stock banks in the metropolis hy facilitating tho transfer, liquidation, or exchange of bank checks and hilis. This object is fully accomplished by each party, or some one representing it, meeting at a fixed place, at a fixed hour per dny, to dellver checks on each other, and recelving in retarn checks on themselves, or cash to balnnce. It follows, necessarily, that the pnyments and receipts daily must exactly counterbalsnce each other. The utility of this arrangement, Its cconomy of time and Inbor, nod avoidance of risk, may be estimnted from the fart that the annual clearings for one year (1839) amounted to £ $94,040,000$ sterling, or over $815,000,000$ each husiness day. In the year 1810 , the nvernge payments or clearings were $\$ 1, \dot{7} 00,000$ dnily, on an average.

| 1539. | Agkregata Demands. | Oank-nates. | Per Cent. |
| :---: | :---: | :---: | :---: |
| Jatumry . . . . . | 252, 66\%,400 | 20,345,000 | 27672 |
| Februıry . . . . | 76,164,709 | 4,960, 260 | 6513 |
| March . . . . . . | 75,879,200 | 5,621,500 | $7 \cdot 108$ |
| April . . . . . . . | $85,83!$, 200 | 5,536,040) | 6.800 |
| May . . . . . . . . | $80,687,600$ | 5,6:5,000 | 0.852 |
| Junc . . . . . . | 67,413,900 | 5,060,000 | 7506 |
| Iuly ... | 81, 86\%,200 | 6,994,900 | 7493 |
| Angitst . . . . . . | $87,016,500$ | 6,164, 1000 | $7 \cdot 037$ |
| Sceptenber .... | 74,437,700 | 5,120,800 | $6 \div 10$ |
| Octoter . . . . . . | $87,478,200$ | $5,700,500$ | 6.534 |
| Nowember .... | $81,729.200$ | 4,793,100 | 5.8140 |
| Leceruber | 70,833,800 | 4,765,000 | 6.713 |
| Total. | 1904,401,600 | ¢ $66,275,600$ | [ 06.944 |

The New York clearing-heuse was establlehed In 1853, and a constitution adopted In September of tbat year, when fify-two of the banks of the elty were represcited and became members. Operations were commenced the second week In October, 1853, and havo been carried on regularly ever since.

The hour for naking exchanges at the clearinghouse is 10 o'clock A.M., when all the checks or bllla of each bank are delivered by a clerk, and distributed by the manager or hla assistant to the clerk or representative of the lianks respectlvely. At 1 o'clock r.s., the dehtor banks jray to the manager the balances against them, elther in coin or in bank certificatesthe latter representing coln and used only by and among the banks, to nvold the carrying of speele to nud from the clearing-house. At the same hour the creditor banks receive from tho mannger, at the same place, the respective balances due to them. The manayer receives a salary of $\$ 3000$, and has two clerks under him. Tho expenses of the clearing-louse are horne by a tax ufon tho city lianka who are members, now fiff-three lil all. Ilanks liaving a capital lesa than 8. 0,000 pay 8100 euch, annually; lesa thnn $\$ 1,000,000$ pay $\$ 260$, and those over $\$ 1,000,000$ pay $\$ 300$ each, annually.
Tasisactions of the New Voak Gifammo-hotse, from ita Giommefempat, thtoben, t\%\%3, то October 1, 1856.

| Mata. | Clearinga. | Balances |
| :---: | :---: | :---: |
| Wetoler. 1503. | *325,790,702:15 | ,275 |
| Novemlier, | 470,625,765 67 | 24,216,866 59 |
| Jecenber, | + $81,443,321$ bT | 27,611,805 47 |
| January, 185 | 405, 245,49037 | 23,160,400 96 |
| Ficbruary | 448,236,297 98 | 23,294,241 75 |
| March, | 520,929,949 17 | 25,959,085 11 |
| April, | 511,03t,155 98 | 24,484,423 40 |
| May, | 581,011,472 41 | 20,251,962200 |
| Junc, | 607,360,722 12 | $25,162,99 t 65$ |
| Juty, | 469,250, 09311 | 20,649,709 51 |
| Augrast, | 45S,402,906 7t | 25,601,446 23 |
| September, | 454,161,119 18 | 25,722,465 47 |
| Tota | \$ $\%$, $7500,455,48705$ | \$297,411,493 60 |
| Oftoter, 18 | \$478,977, 12033 | \$24,574,049 04 |
| November, | 44i, 128,246 10 | 22,240,636 87 |
| Ineember, | $4: 40,945,10446$ | 22,023,515 76 |
| , hathary, 185 | 472,20-4,524 60 | 211,159,158 09 |
| Pibrume, | 883,052,087 45 | 20,607,744 42 |
| March, | 446,302,248 30 | $24,184,07112$ |
| Aprit, | 441,336,357 $6 \mathrm{6t}$ | 24,144,093 52 |
| May, | $48,1164,69424$ | 25,543,048 94 |
| Sume, | 405,222,84464 | $26,700,64507$ |
| ${ }^{\text {July, }}$ | 439,644,305 99 | $27,306,54885$ |
| Augnst, | 457, 258,91812 | 25,485,105 90 |
| september, | $462,762,71154$ | 24,745,618 B6 |
| Tot | \$ $\$ 4.406,912,69888$ | \$289,094,733 14 |
| October, 1855 | \$357,111,40483 | \$20,090,900 25 |
| Novemter, | 652,708,67T 43 | 25,841,747 17 |
| necember, | 652,903,465 14 | 20,166,321152 |
| January, 1850 | 644,800,535 98 | 23,062,804 67 |
| Pebruary, | 044,143,624 37 | 20,855,260 63 |
| March, | 557,426,296 80 | 28,364,462 92 |
| Aprit, | 603,421,614 63 | 27,128,724 61 |
| May, | 605,013,835 23 | 32,063,642 09 |
| June, | 507,700,305 47 | 28,2:7, 068930 |
| July, | 696,557,43910 | 30.649,95854 |
| August, | 547,674,5:8 61 | 26,688,913 78 |
| September, | 615,402,471 84 | 27,074,71495 |
| Total. | \$ $60.940,218,3: 8 \mathrm{B8}$ | * $8316,714,4883$ |

The Ihoston clearing-house was organized in that city September 26, A.1). 1855, and commenced business March 29, A.J. 1856. All the banks in the city (thirty-five in number) are connected with the institution, representing a capltul of $\$ 31,960,000$. The executive committee consigts of five gentlemen, all of whilh are presidents of banks. The total transactions from its commencement to Novemher $\mathbf{3 0 t h}, \mathbf{1 8 5 6}$, nmounted to $\$ 1,060,390,841$. The Merchants' l3ank is the depository bunk for the specinl deposit of coin from the several hanks connected with the association.

Cleveland, city, port of entry, and the capitnl of Cuynhogn county, Ohlo, on the south shore of Lake lirie. I, at. $41^{\circ} 30^{\prime} \mathrm{N}$., long. $81^{\circ} 47^{\prime} \mathrm{W}$. The population in 1799 consisted of one family; in 1825 about $500 \ln$ habitants ; in 1830, 1000; In 1834, 4300; in 18.10, 6071;
in $1850,17,034$; and in 1854 , about 25,000 ; and with the addition of Ohio City, 7000 more, making a total of 32,000 . Cleveland is the emporium of Northarn Ohio, snd, next to Cincinnati, the most important town in the Stato; possesses a commanding situation on Laxe Erie, at tho mouth of the Cuyahoga River, and the northern termination of the Ohio Canal, by which it is comected with tho Ohio River, and hy railroad to New York, to Buffalo, to Philadelphia via l'ittsburg, to Cincinnati, to Chicago. It is 130 miles north st from Pittsburg, 146 northeast from Columbus, 200 by water from Buffialo, 150 from Detroit, and 350 from Washington. The valuo of imports in 1851 amounted to $\$ 22,80,159$; exporta same year amounted to $\$ 12,026,497$. The licensed and enrolled tonnage of the district for 1851 was 36,070 tons; 11,355 steam, and 21,615 sail. The harbor of Cleveland is formed by the mouth of the Cnyahoga River, and improved by a pier on each side, extending 425 yarils into the lake, 200 teet apart, and faced with substantial stono masoury. Cleveland has a ready communication with New York vin railroad and the Erio Canal, with Philadelphia by railrond and canal, with Cincinnati by railrosd, had with the Ohio River by the Ohio Canal, and it experts much by the way of the Welland Canal to Canada.-Sce Onio.

Clock, Clocks (Ger. Lluren, Grosse L'hren, I"iandumhe; Du. Uuren, L'urwerketr, Horologien; Fr. Horloges; It. Orologgi, Oriuoli; Sp. Relojes; liuss. Tschasi"), a kind of machine put in motion by a gravituting body, and so constructed as to divide, measure, and indicate the successive portions of time with very great aecuracy. Most elocks mark the bour by striking or chiming. It is a highly useful instrument, ant is extensively employed for domestic ant philosophical purposes. Clocks are made of an endless variety of materials and models, so as to suit the different uses to which they are to be applied, and the different tastes of their purehasers. The Germans, Duteh, and Americans are particularly celebrated for their skill in the manufacture of clocks; while the Euglish, lrench, and Genevese, especially the former, have carried the art of making metallic clocks, so as to keep time with the greatest precision, to a highl legree of perfection. The history of the invention, introluction, mal nuccessive improvements in the manufucture of rlocks, has been carefully investigated by some very learned and induatrious antiquaries (see Bercmans"s IIst. at Incentions, vol. i. p. 419-162, English ed.; and liees' (yclopedia); but, notwithstanting theso researdios, the subject is still involved in conshlerable ohseurity. It seems, however, that the middle or the fourteenth century may bo regarded as the epoch when clocks, having weights suspended as a moving powar and a regulator began to log introduced. The periorl when, and the individual by whom, the pendolum was Brst applied to elock-work, havo been suljects of much contention. Galileo ond Huygens have disputed the honor of the discovery. "Hut whoever may have been the inventor, it is certaln that the invention never flourished till it came into the hanis of II uygens, wio Insists that if ever fialileo thought of such in thinf, he never brought it to any degree of perfection. Thr first pendulum clock made in Eing and was in the year 1662, by one Fromantel, a Ditelman."-llettos's Meth. Dictionary.

The origin of clock-work is involved in great obsscurity. Notwithstandlag the statemenis by muny writers that clocks, horologin, were in use so early us the ninth century, and that they were then invented by an arehdeucon of Verona, named Jacincus, there appenrs to be no clear evidence that they were machines at all resembling the se which have been in use for the last five or six centuries. But it is certain that for that period at least clocks limve heen made deprending on the action of a welght on a train of wheels, as disthiguished from the water-clocks, clepsydres, which aro well known to have been used many
centuries hefore. We will refer the reader who is curions about it to the articles on clocks, cte., in the Encyclopedia Britannica and the various werks there cited. We will only add to the information there given, that it appeurs from a communicatlon of Captuin Smith to the Antiquariun Society in 1851, that there is still a elock in existence at Dover Castle learing the date 1348 , earlier by thirty years than that of the elock made by De Vick for the palace of the Emperer Charles V., which has generally heen deseribel as the earliest clock of which the actual construction knowa. Mr. Denison also, in his Rudimentary Tratwe on Clocks (of which we havo largely avalled ourselves throughout this article, and also of various papers by him in the Cambridge Philosophical Transactions, and the Journal of the Society of Arts), mentions a clock in Peterborough Cuthedral, still in use as to the striking part, of which the construction is more like that of the Dover Castle clock than that of lle Vick ; and Lord Chief Justice Coke tells us that a eleck was set. up in Westminster Ilall in the thirteenth century out of a fino levied on one of his predecessors in that seat, from which, perhaps, the appropriate inseription liscite justitian moniti was copjed on to the sundial on a house now facing the hall.

The clock called the clepsydrs, or water-clock, was intwoduced ut Rome 158 a.c. by Scipio Nasica. Teothed wheels were applied to them by Ctesibins, about 140 n.c. Said to have been found by Cæsur on invading Ilritain, 55 n.c. The only cloek supposed to he then in the world was sent by i'ope Paul l. to J'epin, king of France, A.1). 760. Ineitieus, arehdeacon of Verona, invented one in the ninth century. Originally the wheels were three feet in cliameter. The earliest complete clock of which there is any certuin record was made by a Saracen mechanic, in the thirteenth century.
The scapiement, aseribed to Gerbert, a.s............... 1000 A clock cumstructed Ly Rlchard, abbot of St. Ahan.e. about. 1300

A perfect one made at I'aris by Vlek....................... ]fit0
'ine first portablo owe made.................................
In England no cleck went accaratcly before llat sct up
nt Dfampton Court (maker's minlats, N . (1.).......... Richard llarris (who crected $s$ clock in the chitrolio of St. 1'aul's, Covent Garden and tho yomger Gsiltco constructed the pendulum. $\qquad$
hristian muygens contented thia discovery, mad mado his pendutim clock some the previonsiy to........ Ifrs Fromantel, s Itutchman, lmproved the pendulum, abont dibs lepeatling clocks and watehes invented by liariow, about $16 i 0$ The dead beat, sud horizontal escapements, by Gralimm, nbout. 1600

The sulsequent inprovements were the spiral balance spring suggested, und the daplex seapement invented by Dr. llooke; plot holes jeweled hy liacio; the dethehed seapement invented liy Nudge, und improved by Berthodd, Amold, Earnshaw, and others.- I Aarns.

Clocks Imported into the C'nited States pay a duty of 30 per cent.; watches, 10 per cent. Of clocks, the
 watches, $\Psi 3,651,187$.

Olive-oil is most commonly used in lubuicating elock mathinery and preventing too great wear. We belicve, however, that animal oil is beter than any of the vegetalle oils, as somo of them aro too thin, white others soon get thlek and viscid. For turret clowk and common louse clocks, good sperm oil ts flue enough, und is probuthly the hest. For finer work the oil requires abino puritication. Even common nent'sfoot oil may he made extremely the and clear ly the following methed: mix it with about tho same grantity of water, und shuke it in a lurge bottle, not full, until it liecomes like a whito soup; then let it stund till fine oll appears nt the top, which may be skinumed off: it will take severul montlis before it has all separated into water at the lottom, dirt In the middle, and fine oil at tho top. And it shond not le done in liot weather, becausu heat mukes some oll como out as the
which in middlle, as er will be oils sold some for hibition, have ne $i$ to it, and would be cent. in 1 use of spe quiring $c$

Close shects af lines hau direction Clotb in verye inte Eing werkers Edward thereby i were tirs uficture seat to 13 Eagrand The man of linen c l'arliam Clov
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of the $s p$ or trient merly t that wh superior prectario and gras States, Clov nagelen. rotima, rillos,
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which in cold wonld remain among the dirty oil in the middle, unll in coll weather that fine oil of hot wenther will hecone moddy. There are various vegetable eils sold at tool-shops as oil for watches, including some for which a prize inedal was awarded in the Exhibitien, but not by any of the mechunical juries; wo have no information as to the test which was applied to it, and none bot actual use for a considerable time woald be of much value. We havo heard of 5 per cent. in power being saved in a manufuctory by the use of sperm instead of sweet oil to small spindles requiriug constant lubrication.-E. B.

Close-hauled ; that is, the tacks close down, the shects aft, the yards braced sharp up, and the bowlines hauled, the ship making her progress as neur the direction of the wind as sho can.

Cloth. Both woolen and linen eloth were known in very early times. Conrse woolens wero introduced iate England A.D. 1191; and seventy fumilies of clothwerkers from the Netherlands settled in England by Edward III.'s invitution, and the art of weaving was thereby introduced, 1331.-Rymun's Feder:3. Woolens were first made at Kendal in 1390. Medleys were manufictured 1614. The tine English broad-cloths were yet sent to IIolland to be tlyed, 1654 . Dyed and dressed in England by one Brewer, from the Low Countries, 1667. The manufacture was discouraged in Ireland and that of linen cotintenanced, at the request of both II ouses of Parthment, 1698.-Ilaybs. Nee Wool.

Clover (Ger. Klee; Din. Klater; Fr. Trefle, Luzerne, It. Trifoylio; Sp. Trebal; Russ. Trilistnik; lat. Tiff hum), a very important speeies of grass. Some of the species in cultivation are mnual, others biennial or trienaial, and others perennial. The seed used formerly to be principolly imported from IIolland; but that whieh is ratsal in liugland is now said to be of a superior quality. Culture for sced is, however, very precarious, and of uneertain profit. For erops of hay and grass seeds (including clover) raised in the United States, see arf. May.

Cloves (Ger. Nägleın, Gewurznelken; Du. Kruislnagelen; Fr. Clous de girytle, Girofles; 1t. Chiori di garofiena, Gerofina, (iuraffoli; Sp. Claros de cspecin, Cllorillos, "nss, tiuosdika; Arab. Kevenful; Malas, Charkef), the fruit, or rather eup of the unopened tlowers of the clove-tree, or Cetryophyllus aromaticus. The elove-tree is a native of the Moluccas, where it was originally found; but plants have since been carried to Cayenne und other places, where they succeed tolerably well. Cloves are sluped liko a nail, whence the name, from the French clon, mail. They are innported from the Dutel, setllements; the best in chests, and an infurior kind in bags. The hest varicty of the Amboyna cloves is smaller nad backer than the other varieties, very searce, and, as a mark of pre-eminence, is termed the royal elove. Good cloves have a strong, fragrant, aromatic odor; and a hot, aerid, aromatic taste, whieh is very permanent. They should he chosen large sized, jerfect in all parts; the color should be $n$ dark browh, almost approuching to black; aud, when handtel, shount leave an olly moisture , en the tingers. (iool cloves are sometimen adulterated by mixbig them with those from which oil has heen drawn; but thase are wenker than the rest, and of a paler color; and whenever they look shriveled, having lost the knob at the top, and are light anel broken, with but litthe smell or taste, they should he rejected. As cloves readily absorb, moistin? it is not uncommon, when a quantity is ordered, to keep them heside a vessel of water, hy which means a considerable midition is made to their welght.-T'tomson's Ihivenensatory; Mahuun's Oricntal Commerce.

Policy of the Dutch as to the Trade in Clowes.-From the expulsion of the English from Auboynn, in 1623, the Dutch have, n fow short intervals onjy excepted, enjoyed the exclusive pusseaston of the Moluceas, or Clove Islands. In thelr conduct as to the clove trade,
they have exhlbited a degree of short-sighted rapacity, which has been, we believe, seldont equaled even in the annuls of monopoly. Their object has not been to encourage the growth and trade of cloves, but to confine both within the nurrowest limits. They have preferred deriving a large profit from a stunted and petty trade to a moderute profit from a trade that might havo nfforded employment for a very large amount of capital; and to prevent their narrow and seltish projects from leing counteracted by the operations of the nativen, they have subjected them to the most revolting tyranny. "That they might," says Mr. Crawfurd, "regulate and control production and priee just as they thought proper, the clove-trees were extirpated every whero but in Amboyna, the seat of their power; and the surrounding princes were bribed by annual stipends to league witia them for the destruetion of their subjects' property and birthoright. This plan was begun abont the year 15051 . The contracts are still in force, and an annual flect visits the surrounding islands to suppress the growth of cloves, which in their native country, spring up with $n$ luxuriance which these measures of Satanic rigor, and of sacrilege toward hountiful nature, can scarce repress. lby the plan on which the clove trade is now eonducted-a plan carried into effect through so much iniquity and bloodshed-the country ot spices is rendered a petty farm, of which the natural owners ure redneed to the worst condition of predial slavery; and the great monopolizer and oppressor is that government, whose duty it should have been to insure freedom and afford protection. Junum ingenuity could harilly devise a plan more destructive of industry, more hostile to the growth of pullic wealth, or lujurious to morals, than this system frumed in a barharous age; and it rellects disgrace upon the chameter of a civilized people to persevere in it. It Is curious to remark how the nonopolizers, in carrying the detoils of this syetem into etleet, at once impose upon the natives and deecive themselver. The nominal price praid to the matives is aetually above the natural price of the commodity, but they are cheuted ha the details. The caltivator brings his promluce to the publice stores, where it is suljeeted at once to $n$ deduction of one-llfth for payment of the sularies of the civil and militory officers. The price of the remainder is inxed at the rate of $9 \cdot 6 \mathrm{Spanish}$ dollars the picul; but hefore puyment is mute, nother deluction of $r$ s-fifth is made; one-half of which is for the chicfs or $r(t) \cdot s$, and the ether for the native clders, who are overscers of the foreed culture. The real priee, thercfore, puid to the grower is \& Spunlsh dollurs per plenl, or if ac. per peund avoirdupois, instend of $1152-100$ Spanish dollars per pienl, or ligh., which is pretented to be given. When rloves have been sold on the spot, the price usunlly exucted hus heen about 6.1 Spanish tollars the picul, or eight times the price paid to the cultivator. The average price in llolland, previously to the war of the l'rench Revolution, may he tuken at fis. per pound, or 177 78-100 Spanish dullare per picut, being 2122 per cont. advance on the real cost of the commoditr lin the place of lts growth. When bought dlrect o England, they have cont at an nverago ds. 8a. the pound, making 100 6\&-100 Spunlsh dollars per picul, un advance ont tho matural expert price of 1268 per cent."-Lastern Archipelago, vol, iii. p. 388-3!0.
ofil of Clores is procured from cloves by dlatillation. When new, it is of a pule reddish brown coler, which beecmes darker by age. It is extremely hot and fiery, nus sinks lin water. The kind genernlly lmported from ludia contains nearly lanff its welght of an Insipid expressed oil, which is discovered by dropping a little into spirits of wine: and on shaking it, the genuine eil mixes with the apirit, and the insipid separathg, the frumd is discovered,-Mithanin.

Clyde, one of the largest and most Important rivers in scothad. It taken its rise from numerous streams tlowing from the mountain range in the south-
ern part of Lanarkshire and borders of Dumfriesshire; the chief summits of which are the Lowthers, Leadhills, Queensbury Hill, and Rodger Law, with elevation approaching 8000 feet. Its course is through rich and fertile valleys to Glasgow. From this city it expands into a river nsvigable for ships of 300 to 400 tons, and flows northwest, dividing the county of Renfrew on the west, from Dumbarton on the northeast, receiving the tributaries of the Kelvin, Cart, and Leven. After passing Dumbarton, it opens up into a noble estuary four miles in width, spreading northward Into Loch Long, and sonth ward into the Firth of Clyde, with the islsnds of Bute and Cumbraes, situated at the mouth of the eatuary. Here the Clyde expands into a firth averaging nbout 32 miles in width, and at the distance of 48 miles becomes identfied with the North Channel. The length of the river from its source to Glasgow, including windings, is about 75 miles. From Glasgow to the south point of Bute Island about 40 miles. In the Clyde was launohed the first steambost constructed in Rritain, 1812. Clydeddale is the district forming the valley of the Clyde, and is celebrated for its orchards, coal and Iron minea, and horses.

Coaches, vehicles for commodious traveling. They have sometimes two, and sometimes four wheels. Tho body of the coach is generally suspended, by means of springs, upon the frame-work to which the wheels are attached. They are usually drawn by horses, but recently have been impelted by steam. The forms and varieties of coaches are alinost innumerable.

Historical Notice.-Beckmann has investigated the early history of coaches with his usual care and learning. $t$ la certain that a species of coaches was used at Rome; but whether they were hung on aprings, like those now made use of, is not certain. After the subversion of the Roman power, horseback was almost the only mode of traveling. About the end of the fifteenth century, however, covered carriages began to be empioyed by persons of distinction on great occasions. In 1550, there were at Paris only three coaches; one of which belonged to the queen; another to the celebrated Diana of Poitiera ; and the third to a corpulent, unwlekiy nobleman, René de Laval, lord of Bols-Dauphin. Cosches were seen for the first time in Spain in 1546. They began to be used in England about 1580; and were in common use among the nobility in the beginning of the soventeenth century--Ilitory of Inventions, vol. i. p. 111, 127, English translation.
According 10 Hayds's Jictionary of Dates, the coach is of French inventloa. Undier Franels I., who was a contemporary with IIenry VIII., there were but two in Paris, ono of which belonged to tho queen, and the other to Diana, the natural daughter of lienry II. There were but three in Paris in 1550; anc enry IV. had one, but withont straps or springs. The first courtier who set up this equipage was John de Laval de Bels-Dauphin, who could not travel etherwise on account of hia enormous bulk. Previously to the uso of coaches the kings of France travelcd on horteback, the princessen were carried In litters, and ladies rode behind their squires. The first coach seen in Jingland was in the relgn of Mary, about 1553.-Pmestiev's Jerture. They were introinced much earlier.-AnDnews' Ilistory of Great Britain. They were litroduced by Fitz-Ailen, eari of Arundel, in 1580,-Stowk. And In eome years afterward the art of m:xing them.-Anbenbon's History of Commerce. A bill was bronght into Pariiament to prevent the effeminacy of men riding in coachen, 43 EHi . 1601 .--Hards.
Stage-coaches, Traveling by.-Owing to the Improvement in the breed of horses and thr building of carriages, but above ail, to the extraordinary improvements that were effected within the last half century in the laying out, construction, and keeping of rosds, the ordlnary rata of traveling liy atagocoaches, previously to their all but total extinction by railways, was seliom under 9 or 10 milea an hour, atoppagen included, and
on some roads was as much as 11 or 12 . The stages having been ahortened, this apeed was not found to be materially more injurious to the iorsea than the slower rate at which they previoualy traveied. The surface of the roads being perfectly smooth, and most sharn turns or rapid descents having been got rid of, truveling even at this rate was comparatively safe; and it was surprising, considering tho number ef cosches, how few aceidents occurred. They were occasioned, for the most part, thy the misconduct of the drivers ; and principally ty their endeavoring to. make up by increased apeed for time lost at stoppages, or by their attempting to pass each other. It ia, perhaps, needless to add that since the opening of rallways between ali the principal places of the country, traveling by stage-cosches in England no longer exista, except in a fow remote distriets, and has now bec.me almost a matter of histery.

Coal (Du. Steenkoolen; Fr. Charbon de terre; Ger. Steinkohlen; It. Carboni fossili; Lat. Jithanthrax; Port. Carvoes de terra, ou de pedra; Russ. Lgolj, Ka; mennoe; Sp. Carbones de tierra, Carbones de piedra; Swed. Stenkon). This highly important combustiblo mineral is divided by mineralogists into the three great fumilies of black coal, uninflammable coal, and trown coal; each of these belng agsin divided into many subordinate species.
It is contended, with much seeming truth, thnt coals, although they aro not mentioned by the Romans in their notices of Britain, were yet in uas hy the ancient Britons.-Brandt. They were first discovered at Neweastie-upon-Tyne in 1234; some say earlier, and others in 1239. Sea-coal wns prohibited from being used in and near London, as leing "prejudicial to hittman heuith;" and even smiths wero olligedi to hurn wooti, 1273.-Stowr. Coais were first made an article of trade from Newcastle to London, 4 Rich. II., 1381.-Rymen's F'edera.

This minerai will be considered under the general heads of-I. Origin of Coal; II. Cosl Stutistics of Great Britain; III. Areas of Coal-heds in the Worid, and a Comparison of their Extent ; IV. Comparison of the Coal Trade of the United States and Europe; V. Statistics of the Coal Traile in the United States.
I. Origin of Coal. Phenomena of Combustion, etc.Coal heds, or strata, lle among those of gravei, sand, chalk, clay, etc., which form grest part of the present surface of tie earth, and havo been evidently arcumulated during remote ages by the agency of "moving water"--similar to accumnlations now in process of formation at the moutha of all great rivers, sni in the bottoms of lakes and seas. When these struta had, by long contact and pressure, teen solidilied Into n rocky crust to the earth, this crust, by snisequent convulslous of nature, of which innumerahle other proofs remain, has been in various parts broken and heaved up above the level of the nea, so as to form the greater part of our dry or habitable land; in some places appearing as lofty mountains, in ethers as extended plalis. In many situatlons, the fracture of the crust exhibits the edges of the various distinct atratu found in a given thickness of it. When the fracture han the form of a precipltous clift, these edges appear one uheve another, like the eilges of plied plenks or books; but often also thoy am met with in horizontal succeasion along a plain, as the edges of a pile of tooks latd down ujon a table; or they may be seen surroumling hills of granite, which protrude throngh them. Coul, and other precimus minerain, were first disenvered nt the fractures of the strata ahove described, and by the continued dlgging of the atrate or velns the vant excnvs. tlans called mines have been gradually formed. When It was at last discovered that the minerai atrata oceur every where in nearly the aame order or anccession, so that the exposure of a portion of one atratum ls a good Indication of the other atrata leing noar, the operatlons of the miner beeame of much surer reanlt, and expenaive horing through superior strata might ise
prudently desired bu seen.

Before of cheap nsed as f have not pally emI purposes, fact, tho $t$ in their $u$ woth have atance cal other ings when sep hydrogen either con when it 1 used to li remains o called cok ed, is the pure carb nees. T surprise is resily erldently gether in to, and a these ml formed $t$ mens, ml which'ln tensive p earth cor stage of formation
A sul swers the called fur calied co talned $t$ an appea when ve forming act is ies and ther when in ter aid 9 It is kno unfortun kind wh metal; coal or combust atmosph ture of $t$ much th an appe butrilug metalby $800^{\circ}$ degrees superio strongl yet ex freen b whale thons by recover enon 0 the fue atmosy Is true
coal,
but if
being
prudently nndertaken, even where no specimen of the desired but more deeply buried substance hsd yet been seen.

Before the discovery of coal mines, or the invention of cheap means of working them, wood was generally ased as fuel; and in many countries where the arts have not much flourished, it continues to be principally empleyod as such. Coal, however, for many purposes, answers much better than wood; and, in fact, the two, although in sppearance so different, are in their ultimate composition very nearly sllied. They both have for their busis or chief ingredient the substance calied by tire chemists carbon, and for their chief other ingredient the substance cslled hydrogen, which, when separated, exists in the form of air or gas. The hydrogen is casily driven awsy or volatilized from either coal or wood, by heating in a close place; and when it is caught and preserved, it forms the gas now used to light our atreats and public buildings. What remains of cosl, after leing so trested, is the substance called coke ; and what remains of wood, similarly treated, is the substance culled charcoal-both being nearly pure carbon, but differing as to the states of compactness. This kindred nature of cesl and wood does net surprise when the fact is known that much of our cosl is really transformed wood; many cosl mines being gridently the remsins of antediluvian forests, swept together in the course of the terrestrial changes slluided to, and afterward soliditied to the atate now seen. In these mines the apecies of the plants or trees which formed them are still quite evident in a sundant apecimens, mixed often with the reminants of the animnts which'iahabited the earth at the same tine. The extensive peat-mosses now existing on the surface of the earth consist chiefly of vegetable remsins at an early stage of the kind of change which terminates in the formation of coal.
A substance which, like ceal or wood, cheaply answers the purpose of producing great hent and light is called fuel, and the phenomenon of that production is called combustion. Now modern discovery has ascertained that, in every instance, combustion is morely sa appearance which accompanies the mutual action, when very intense, of two substunces in the act of fonning an intimste or chemical union. Wiere tint act is iess energetic, the heat produced is less intense, and there is no light. Thus, water and sulphurie acid, whan mixing, preduce great heat, but no light. Water aid duick-lime produce atill greater heat ; sufficient, it is known, te set tire to a ship in which the mixture uafortunately eccurs. It is an occurrence of the eame kiad when heat is ovolved from an seid dissolving a metal ; and it is atill of the aniso kind when a mass of coal or wood in a fire-grate is, with the appearance of combustion, undergoing solution in the oxygen of the atmospicere. In this last case, however, the temperiture of the fuel is, by the very intense action, raised so much thit the fuel becomes incsudescent or luminous; an appeurance assumed by every substance, whether burniug or not-of a stone, for instance, or piece of metal-when heated beyond the temperuture indicated by $800^{\circ}$ of Fahrenheit's thermmmeter. The inferior degrees of sucil incandescenco are called rol heat, the superior degrees whits heat. The reuson why any strongly heated body throws out liglit, we can not yet explain. When a quantity of wood or conl has feen burned to nsh in a consined portion of air, the whofe of the fuel, vanished from view, is held in solntion by tie air, as salt is held in water, and is agnin recoverable by the art of the cinemist. The phenomenon of common fire, or cominustion, then, is merely the fuei being chemically disaolved in the air of the atmospinere. If the fuel has nothiug volatils in it, as is trus of puro carben, and nearly truz of coke and charcosi, it burns with the appearsnce of sed-hot atones; but if there be an ingredient, as hydrogen, which, on being heuted, readlly assumes the firm of air, that in.
gredient dilates before burning, and in the act produces the mere bulky incandescence called flame.

Varieties of Coal. -There is a curious chain of links which connect living weod with dead coal. 'First, there is peat, consisting of various kinds of plants and moss, imbedded and pressed together into a mass, and exposed to the action of air or water, or both, and perhaps heat, for unnumbered centuries. Then there is lignite, formed in neariy the same way from trunks of trees, and accumuluted in layers of vast thickness in Germany and other parts of Europe; it has not hitherto been much used as fuel, but there are indications that it will so be ere long. Next comes jet, which appears to be a peculiar varicty of vegetable matter brought almost to a bituminous state. Then we have cannel coal, which not only yields the best and most abundant gas for street-lighting, but has often such a bsrdness, blackness, and polish, as te enable it to be worked up into vary besutiful ornsments. One peculiar kind of cannel coal, called the Breckinridge coal, was lately discovered in Kentucky, from which a burning oil has been manufuctured, which by experiment has proved quite equal to sperm whate oil, if not superior, and can be manufactured for one-half the cost of sperm oil. The United States government have under considcration a contract to use it in the light-house system. Next is the caking, or common bitumineus cond, which combines so many usoful qualitios for household purpeses. Somowhat different from this is the stratified coal of the midland countics of England, which is obtained in very long pieces, and has less bituminons or caking quality. A still less gaseeus cosl is that which, from the purpese to which it is now feund to be admirably adapted, is called steam coal; it is obtained chicfly from Wales, and burns with intense heat, and little flame or smoke. Last on the list is anthracite so nearly without gas as to consist almost entirely of carbon; its intense heat and freedom from sulphur render it invaluable for iron-smelting and other manufacturing processes.

The two great purposes which combustion serves to man are to give light and heat. By the former he may he aad to Jengthen considerably the duration of his natural existence; for he converts the dismal and almost aseless night into what, for many ends, serves him as well as day; and by the lattor, besides converting winter into any climate which he desires, ha is cnablod to effect mest important mutations in mnny of the substances which nuture offers for his use ; and since the invention of the steam-engine, he makes heat perform a great proportion of the work of society. From these considerations mas be perceived the Importance of hsving fire at command; and, as the cheapest means of commanding fire, of having abundance of conl.

1i. Conl in Great Rritain.-As respects the supply of coal, Great Britain is singulurly favored, a large portion of the surface of the conntry having under it continuous and thick lede of this valuable minerslvastly more precious than would have been mines of the precious metuls, like those of I'eru and Mexico; for conl, since it has been applied to the stemen-engine, is reully hourded jower, apillicablo to almost every purpose which human labor directed ly ingennity can nccomplish. It is the possession of her coul mines which has rendered Grent Britain, is relation to the whole world, what a city is to the rural district which surrounde it-the producer and dispenser of the variels products of art und industry. Calling her coal mines tine coul-ceilars of the great eity, there is in them a supply which, at the present rate of exjenditure, will last for 2000 yoars at least ${ }^{\text {j }}$ and, therefore, 11 irevision which, as coming improvements in the arts of life will unturally effect econony of fuel, or suistitution of other menus to effeet sinilar purposes, may be regariled as inexlaustible.

The kinds or differences of coal depend on their
comparetive proportlons of carbon and hydrogen, and of earthy impuritles totally incombustible. Whilo some specles of coal contain nearly a third of their weight of hydrogen, others have not a fifieth part. The former kinds are flaming coal, plessing in parlor fires, and fit for the manufacture of gas. The other kinds-some of the Welsh stone coul, for instancewill only burn when in large heaps, or when mixed with more inflammable coal: they have no flame. When flaming coal is burned where a snfficiency of oxygen can not pass through or enter above the fire, to combine with and consume the hydrogen as fast as it rises, a dense smoke Is given out, consisting of hy. drogen and curbon combined in the proportions which form a pitchy substance. The Welsh ceal above mentioned cun as little give out smoke as flame, and bence is now much used lin great breweries, and in the steamengine furnaces of towns, where smoke is a serious nuisance. The folisted or cubical coal, aud slate coal, are chiefly used as fuel in private houses; the caking coals, for smithy forges; the slate coal, from its keeping open, answers best for giving great heats in a wind furnace, as in distillation on a lurge scale; and glance coal, found in Staffordshire, is used for drying grain and malt. The coals of South Wales contain less velatile matter than either the English or the Scotch; and heace, when employed in smelting the ore, produce a greater quantity of iron. It ia supposed that three parts of gool Newcastle coal are equivalent, as fuel, to four parts of good Scotch coal.

Consumption of Coal. Number of Cersons engageis in the Trade. Supply of Coal. - The grent repoxitories of coal in England are in Northumberland and Durham, whence London and most parts of the south of England aro at present supplied; in Cumberland, whence large quantities of coal are exported to Ircland; and in Staffordshire, Derbyghire, Lancashire, Yorkshire, Lelcestershire, Warwickshire, South Wales, etc. In Scetland, coal is found in the Lothiana, Lanarkshire, Renfrewsitire, Ayrshire, and other counties. In Ireland, coal is hoth deficient in quantity and inferior in quality to that of Great Britain; and turf forms the great article of fuel.

The importance of coal as a necessary of life, and the degree In which superiority in arta and manufactures are dependent upon obtaining supplies of it at a cheap rate, has naturally attracted a good desl of attentiou to the question as to the period when the exhaustion of the coal mines may he nuticipated. But the inventigations hitherto made as to the magnitude and thickness of the different coal-heds, and the extent to which they may be wrongit, are too vague and unsatisfactory to afford grounds for forming any thing like a toterably near appreximation to $n$ eolution of this question. But such as they are, they are sufticient to show that many centurics must elapse before posterity can feel any serious difliculties frem a diminished supply of conl. According to an estimate prepared by Mr. Taylor, an intelligent coal engineer, In 1829, the cosl-flelds of Durham and Northumberland are adequate to furnish the present unnual supply for a vory long period. We subjoin Mr. Taylor's estimate.
Eatimate ov the Extent anib Pionece of the Duriay
and Noatilishemani, Cionl-ftelige.
Fmm South shielda southwindid to Castle Faten, $21{ }^{\text {Squ }}$. Mulos. milen: thenen weetwarl to Weat Auekland, B2 milter ; northerat from Woat Auckland to EItringham, $\hat{6} \hat{3}$ miter: and then to siltelds, 22 miles; beIng an extent or area of. . ............................. Northumkerland.
From Rhields northward 27 millex, by an average breaith of 9 miles . . .................................... . 243

Portion eseavated.
Ia Durbam, on Tyne, suy.............................. 00
on Wear.....
In Northuruberiand, say 13 miliea by 2

Estimating the workahle cosl atrata at an average thicknews of 12 feet, the conteats of one equare mille will he $12,300,000$ tone, and of 782 square miles.
Deduet one-third part for loes by emali coni, in. $\qquad$
terceptiona by dikes, and other Remainder. .........
This rematnder is adequate to supply the preaent vend from Newcastle, Sunderiand, 11 artley, 1lyth, and stockton, of $3,500,000$ tons, for a period of 1727 yesrs.
It will be understood that thla catimote of the quantity of coal in Durham and Northumberland can only be an approxImation, especially as the southeastern coal dlatriet of Durham ta yet almoat wholly unexplored; but theattempt is made, in the hope of eatisfylng your lordohlps that no spprehension need be entertalned of thla valuablo mineral being exhauated for many future gencrations.
Thero la aleo a conslderable extent of coal-field in the northern and southweatern districta of Northamberland, hat the foregolng comprises that which Is continuous, end mos: multable and avallable for eapurtation. It Is, however, to be obsorved that the ahlpments of coal from the ports mentioned by Mr. Taylor has been largely Increased during the last docen years: so that, aupposing the cestimate to be In other reapecta accurate, it must now be modified accordlagly. Lorda' Report, 1829, p. 124

Dr. Buekland, the celebrated geologist. considers Mr. Taylor's estimate as greatly exaggerated; but in his examiuation before the committes of the House of Commons in 1829, ho quoted with approbation a passage of Bakewell's Geology, in which it is stated that the coal-bede in South Wales wero alone sufficient to supply the then demand of England for coal for 2000 years. The passsge is us follows:
"Fortunately we have in South Wales, adjoining to the Bristol Ciannel, an almost exhaustless supply of coal and iren-stone, which are yet neurly unwrought. It hus lieen stated that thin coal-ficld extends over about 1200 square miles; and that there are 23 beds of workable coal, the total average thickness of which is 95 feet; and the quantity contained in each acre is 100,000 tons, or $65,000,000$ tons per square mile. If from this we deduct ons half for waste, and for the minor extent of the upper beds, we shall have a clear supply of coal equal to $32,000,000$ tens per square mile. Now if we adnit that $5,000,000$ tons from the Northumberland and Durham mines is equal to nearly one-third of the total consumption of coul In England, each square mile of the Welsh c,al-field would yield coal for two years' consumption; and as there are from 1000 to 1200 सquare miles in this coal-field, It would supply England with fuel for 2000 years, aftor all the Engllsh coul mines are worked out!"
But supposing this supply to lsst only 1000 years, that carries us so far into futurlty, that it nppenrs to bo quite idle either to prohibit or impose heavy dutics on the exportation of coal, on the ground of its accelerating the exhnustion of the mines.

Profits of Coal Mining. Cual Ouncrs' Jonopoly, etc. - Instead of the business of coal mining being, genernlly speaking, an advantageous one, it is cllstinctly tie reverse. Sometimes, no doubt, large fartunes havs been made by individuals and associations emgaged in this business; but these are rare lastances. The opening of a mine is a vory expensive snd hazardous ojerntion, and of very uncertain result. Collieries are exposed to in infinite number of accidents, ngainst which no caution can guard. The chances of explosion have, It in true, been a good deal lessened by the introiuction of Sir linmphry Davy's lamp; and some mines are now wrought that, but for the invention of tilis admirable instrument, must have been entirely abandoned. Llut besidea explosions, which are still every now and then oecurring, from the enrelessness of the worknen, and other contingenciea, mines are very liable to be destroyed by creeps, or by the sinking of ths roof, and by drowning, or the irruption of water from old workings, through fissurea which enn not be aeen, and consequentiy can not be guarded ngainst. So great, lndeed, is the hazard attenling this sort of
property, that it has never been possible to effect an insurunce on a conl-work aguinat fire, water, or any other aecident.

Coul Trade.-It is estimated that not less than forty million tons of coals are raised annually from the virious mines in the United Kingdom. Of these the greator part is either used in the immediate neighborhood of the mizes, or sent by inland navigation or land carriago to different parts of the kingdom. In $1852,12,709,771$ tons of coals, cinders, and culm were shipped from ports in the United Kingdom; of these, $9,069,577$ tons were sent coastwise to other ports of the kingdon; beiog, coais $8,805,934$ tons, cinders 43,376 tors, culm 220,267 tons. The quantities of coals, cinders, and calm shipped coastwise from the different ports of the United Kingdom in 1851 and 1852, were:

|  | 1851. | 1889. |
| :---: | :---: | :---: |
| Emorand. | Tons. | Tons: |
| Portemonth................... | 6,103 | 6,014 |
| Mristol . . . . . . . . . . . . . . . . . | 1,062 | 1,085 |
| Gloncester. . . . . . . . . . . . . . . . | 85,903 | 88.801 |
| Cardiff . . . . . . . . . . . . . . . . . | 601,002 | 462,243 |
| Newport . . . . . . . . . . . . . . . . | 45t,491 | 451,760 |
| 8wangea,. . . . . . . . . . . . . . . . | 352,247 | 875,182 |
| Llanelty . . . . . . . . . . . . . . . . . | 210,460 | 214,735 |
| Mllford . . . . . . . . . . . . . . . . . . | 49,573 | 50,102 |
| Chester . . . . . . . . . . . . . . . . . . | 101,044 | 85,772 |
| Liverpool . . . . . . . . . . . . . . . . | 116,004 | 105,982 |
| Preston . . . . . . . . . . . . . . . . . | 42,257 | 37,018 |
| Fleetwrod..................... | 0,808 | 0,349 |
| Lancan ter . . . . . . . . . . . . . . . . | 5,837 | 4,838 |
| Whitchaven.............. . . | 220,266 | 222,208 |
| WorkIngton . . . . . . . . . . . . . . . | 05,703 | 85,014 |
| Mtaryport. . . . . . . . . . . . . . . . . | 201,076 | 231,012 |
| Carlinlo . . . . . . . . . . . . . . . . . . | 15,153 | 17,851 |
| Neweastle . . . . . . . . . . . . . . . | 2,067,112 | 2,175,857 |
| Shiclds.. | 214,829 | 168,172 |
| Sundertand. . . . . . . . . . . . . . | 1,899,100 | 1,068,011 |
| Stockton . . . . . . . . . . . . . . . . . | 888,046 | 380,821 |
| Ilarthepooi . . . . . . . . . . . . . . . . | 1,107,089 | 1,340,870 |
| Galusborough . . . . . . . . . . . . | 0,577 | 7,605 |
| 1lull . . . . . . . . . . . . . . . . . . . . | 12,705 | 10,113 |
| Goole . | 104,330 | -96,083 |
| Other ports. . . . . . . . . . . . . . . . . . 8cotlayd. | 4,252 | B,084 |
| Lelth . . . . . . . . . . . . . . . . . | 0,001 | 8,358 |
| Barrowstounness . . . . . . . . . . | 30,850 | 34,550 |
| Grangemouth . . . . . . . . . . . . | 0,521 | 2,143 |
| Allou. . . . . . . . . . . . . . . . . . . . | 23,015 | 18,206 |
| Kirkcaldy . . . . . . . . . . . . . . . . . | 37,035 | 29,504 |
| Glasgow....... . . . . . . . . . . . . . | 80,898 | 81,060 |
| Irvinv. . . . . . . . . . . . . . . . . . . | 224,103 | 250,847 |
| Ayr. | 72,500 | 77,883 |
| Other porta. . . . . . . . . . . . . . . . <br> tarlard. | 430 | 2,091 |
| Ross . . . . . . . . . . . . . . . . . . . . | 476 | 179 |
| Total.................... | 8,816,598 | 1, 040,577 |

In 1852 the exports from the United Kingdom to foreign countrics, including British settlements, were as fellows: Coals $3,479,282$ tons, of the value of $\{1,287,626$; cinders 159,040 tons, of the value of $£ 83,832$; culm 1872 tons, of the value of $£ 656$; total, $3,610,19 \cdot 1$ tons, of the declared value of $£ 1,3 ; 2,114$.
The prineipal foreign countries to which coals, cinders, and culin were exported from the United Kingdom in 1851 and 1852, were the following:

| Countries. | Quantition Eajootted. |  |
| :---: | :---: | :---: |
|  | 1851. | 1559. |
| Rassla. | Tons. $215,221$ | Tone |
| lhenmark | 200, 168 | 310,689 |
| l'russin. | 211,003 | 214.513 |
| Itanseatle Towns. | 343,065 | 360,409 |
| 1lolland . . . . . . . . . . . . . . . . . . . | 182,268 | 147,649 |
| France . . . . . . . . . . . . . . . . . . . . | 6112,508 | 6t88,201 |
| Spala nud Canaries.............. | 101,865 | 903,371 |
| Italy . . . . . . . . . . . . . . . . . . . . . . | 152,010 | 171,307 |
| Turkey . . . . . . . . . . . . . . . . . . . . | 118,295 | 72,782 |
| Britinh Fant Indlen | 07,788 | 94,804 |
| Jrrisis West Indien, ........... | 82,14: | 06,449 |
| United States, North Amoriea... | 83,840 | 122,245 |

The quantities of coal brought coastwise ond by inland nuvigation luto the port of Loudon were:

| Yeare | Comatwisa. | taland Naviga. tion and tanal Carriago. | Tolal. |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & 18.51 . . . . . . . . . \\ & 1852 . . . . . . . . \end{aligned}$ | $\begin{aligned} & \text { Tone. } \\ & 8,2346.512 \\ & 8,030,428 \end{aligned}$ | $\begin{aligned} & \text { Tons } \\ & 254,481 \\ & 414,017 \end{aligned}$ | $\begin{aligned} & \text { Tond } \\ & 8,490,909 \\ & 8,745,345 \end{aligned}$ |

During the six months ending 80th June, 1852, 179,386 tons of coal were imperted iuto London by rsilway, and 19,637 tons by canal : for the corresponding period of 1853 the imports by railwsy were 290,361 tons, and by canal 10,322 , showing a decrease by canal, but a very censiderable increase by railway.

The coal trade was 1 rig subjected to very heavy and oppressive duties. A duty of 17 s . per chaldren on large, and 4s. 6d. per chaldron on small coals, was levied on all coal exported to foreign countries. In 1831 these dutice were considerably modified, and in 1835 they were repealed, with the exception of an ad valorem duty of 10 s . per cent. on coal exported in British veasele, or in those of foreign countries entitled to the privileges conforred by treaties of reciprocity, while in other foreign vessels it was subjoct to a duty of 48 . n ton. These duties were, in 1840 , altered to 10 s . $6 d$. per cent., and $4 s .2 \frac{8}{20} d$. per ton respectively. In 1842, duties of $2 s$. per ton on largo, and 1s. per ton on small coal and culm were imposed, and on all coal exported in foreign vessels not entitled to the privileges conferred by treatics of reeiprocity a duty of $4 s$, per ton. The two former were abolished on 12th March, 1845, but tho last continued in foreo till 14th August, 1850.
In the reign of William III., a duty of $5 s$. per chaldron was laid upon coal carried eoastwise from one part of the kingdom to another. During the last war with France this wus raised to $9 s, 4 d$., but in 1824 it was reduced to $6 s$. , and in 1831 was repealed. This tax pressed unequally on different parts of the empire, for while it amounted to 6s. a chaldron, or $4 s$. a ton in the metropolis, and all the south of Eugland, it was only 1s. $7 \frac{1}{4}$. a ton on conl carried by sea to Ireland, and $1 s .8 d$. on that to Wales; while Seothand was for many yeurs entirely cxempted from this duty.

Though these duties are now abolished, the coal trade is still in some places burdencd with leavy local duties. Thus a duty of 1 s .1 ll . per ton is ehargeable upon all coad brought into the port of Louden. By aet 1st and 2d Willian IV., cap. 76, soveral oppressive acts were repealed, and the duties payable to the cerporation of tho eity of London were commuted for a duty of 1s. 1 ll . per ton; and by 8 th and 9 th Viet., eap. 101, a like duty was imposed on coal brought into Louden by railway, camal, or other inland carriage. Of this duty 8 a. per ton is carried to the London Bridge Approaches Fund, for effecting street improvements in the metropolis; 4d. jer ten is the property of the corporation of the city of London, and after defraying certain charges is carried to the genernl account of the cerporation; 1d. per ton is payable to her majesty'd commissioners of works, to be applied by them in effecting public improvements in the metropolis, anthorized by eoveral nets of Parliament. The produce of theso duties, with the drawbucks allowed upou coal exported, was, in 1852,

|  | Grous the | Drawback. | Nel Duty. |
| :---: | :---: | :---: | :---: |
| 8d. per ton to bth January, 1853 $\qquad$ | \} $£ 123,657$ | 210,098 | 2113,650 |
| $4 d$. per ton to 3tst Wecember, 1852. | 0 | 6, 010 | 67,501 |
| 1d. per ton to 31st December, 1852....... | 15,600 | 1,262 | 14,298 |
| Totas. | 2401,567 | (2) 6,416 | 1885,45 |

In 1851 the gress amount of duty was, on sea-berne cenl, $£ 175,840$; on conl brought landwise, $£ 12,1011$. The 4 ll . por ton duty, in 1851, ameunted to $£ 54,104$, of which $£ 215$ were eularies in relation to collection; £ 3009 drawlack allowed upon coal exported; $\mathbf{£ 7 6 0 7}$ retiring allowances paid to deputy sea-coal meters and others, upon the abolition of their offices in consequence of act 1st and 2d Will. IV., cap. 76, and which had uradually clecroased froin $£ 16,820$ in 1886 ; und f20,000 an anumal elmarge for making a now atreet in the line of Cuncn Street, und other improvemente. The attention if goverument is at present directed to these unjust local imposts, by which our home trade is unnecessarily burdened, and the merchant and ship-
owner made to pay for improvements which ought properly to be charged against the landlords or inhubitants; and it la expected that they will speedily be abolished.-E. H.
III. Areas of Coal-beds in the World, and a Comparison of their Extem.-From the clubornte work, "Statistics of Coal," by R. C. Taylor, we extract a comparison of the proportionute areas of coal land in Europe and America:

The following table shows the relative magnitude of the prineipal coal-producing countries, and their respective areas of coal land, together with the proportions which they geverally hear to each other. Those of France and Spain are considerably lesa than the actual nmount. Coal oceurs in almost every principal subdivision of Spain, but we have only included the Asturias region.

Hence, as regards European countries, Great Britain takes the first rank; lelgium, as regards territorial proportion, occupies the second rank, ulthough in relative coal area she is the least of the four. Pennaylvania, in respect to territorial proportion, is higher than any of these, being relatively one-third; hut in absolute area of coal formation, the four castern colonies of Hritish America united exceed thent ali, heing larger than that of Great Britain, France, Belgium, and Spain conjoined. This table is not strictly perfect, since we possess the arens of the concessions only in France; and in Spain, only of the single coal rogion of Asturias. We add the coal nreas of Prussia and Anstria, but can not state the proportions of conl formation thereln. The Anerican urea of coal is nearly three-fourths of the whole amount in our table.

| Counities. | Entire Area of enelh Country. | Area of Coal Ladas. | Propartion af Coal Iu thalt whala Areas. | Proportiona, Ralativa Parts of 1000 , of Coal Areas. |
| :---: | :---: | :---: | :---: | :---: |
| Great Britain. | $\begin{gathered} \text { Square Milee. } \\ 120,290 \end{gathered}$ | $\begin{gathered} \text { Bquart Milet. } \\ 11,859 \end{gathered}$ | 1-10 | 64 |
| Spain (Asturias regton)............................. | 177.781 | 1,408 | 1-52 | 18 |
| France (area of fixed sonceseion) In 1845......... | 203,736 | 1,119 | 1-118 | 9 |
| Ibelgium conceded fands. . . . . . . . . . . . . . . . . . . . . | 11,379 | b18 | 1.22 | 3 |
| J'enusyivania, United States.. . . . . . . . . . . . . . . . . . . | 43,560 | 15,437 | $1-3$ | 84 |
| Britiali Provinces, North Amorica. . . . . . . . . . . . . . | 81,113 | 18,000 | 1-4i | 95 |
| Yersian dominions . . . . . . . . . . . . . . . . . . . . . . . | 107.437 | ...' | .. | . |
| Austrian 1ro' containing cosi or lignito ..... | $150,000$ | .... | $\cdots$ | $\cdots$ |
| L'ntted States. ................................... | $2,280,000$ |  | 1-17 | $\cdots$ |
| Twetro principat coal-producing States............ | 10E5,283 | 100, 132 | 1.4 | 724 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . | $\cdots$ | 144,073 | $\cdots$ | 1600 |

We assume these, in round numbers, as correct ; and here we perceive at a glance the vast resourees of the Lnited States in their coal-produclng regions, when compured with Europe. It must be recollected, too, that several of our States have not had geologieal surveys; and it would not be surprising if other States than those enamerated were fomad hereafter to pose sess coal in abundant quantities.

The whole coal region of Europe is by Mr. Tnylor siown to be only 50,941 square miles, being somewhat less than that of the IV'cstern States of Illinois and Indianz; while England has only 8139 miles, and Irclund 3520 miles, the aggregate being somewhat less than that of the State of Ohio. But Great Britain produces ammally upward of $3 \pm, 000,000$ tons of coal; while that of Pennsylvania is nbout $1 \mathrm{C}, 000,000$ tons.
IV. Comp rrisen of the Coal Thade of the United States and Eurepe.-Tie consumption of coal in Europe and the United States was estimated as follows in 18.5, showing also the square niles of coal formation, the relative proportions, and the valte in dollars:

| Countries. | $\begin{aligned} & \text { Byuare } \\ & \text { Miles. } \end{aligned}$ | $\begin{gathered} \text { Produclion, } \\ 1846 . \end{gathered}$ | Pruportiob. | Value. |
| :---: | :---: | :---: | :---: | :---: |
| Crest Brit | 11,859 | $\begin{array}{\|c\|} \hline \text { Toan. } \\ 31.500 .0000 \\ \hline \end{array}$ |  | \$45,735,000 |
| Belgiun | , 118 | 4,960,000 | $\cdot 101$ | 7,649,000 |
| United Stat | 133,182 | 4,430,000 | (189 | 0,650,000 |
| France. | 1.719 | 4,141,000 | 084 | 7,663,000 |
| Prussian Staten | undefined. | 8,500,000 | 070 | 4,122,000 |
| Austrian States | undefined. | 650,000 | 014 | 800,090) |
| Total... | . . . $\cdot$ | 49,160,000 | 1000 | \$72,462,0611 |

The quantities of conl imported into the United States from England and the Initish provinces were, in 1850, 180,439 tons; and in the year 1853, 231,508 tons. From a letter of Mr. E. K. Collina, we learn that the Collina line of stam vessela had used the Cumberland conl, lut had relinquished it, and ufterward tried the anthracite, whieh was used for three vears. In January, 1954 , they thought of using the Cumberland conl agnin.

Mr. Cunarl states that for hil line they use the Welsh er is on the voynge from liverpool, and the Cumberlaud coal on the return tripa.
"We have in the United states mere iron ore and more con!, with the unanl fuxes, ill conventent connection and of cheaper acceas, than all the other civifized natlons of the world, and have the n meonary capital, akili, and labor to pro-
duec all the tron and ateel, and manufactures of fron and steel, required for our consumption, or that may be required for our consumption, for centuries to come, and also to enabls us to supply the markets of other countries in fair compettion with the Iron and steel of other nations. Our production of fron and steel, sad manufactures of Iron and steel, was greater in proportion to population in 1850 than it was in 1840 , and that it was greater in 1855 than it was in 1850 , giving us the right to assume thas, in fluenced by the same canses, it will be greater in 1560 than it now is, and in time wilt be sufficient for our own conaumption, and then give us a aurplus for export. But taking into conalderation our present papulation nnd acenmulated eapital, with the amonnt of capitni ananasily drawn from other countries in the course of emigration, and the great cost of carringe to the interfor of our country, with the lato inprovements in the modes of production and manufacture of iron and steel, it woutd not be rasil to expect a full aupply for our owa consumption between this and the returns of the census of 1870. "-United States Treasury Report, 1860.

The question of duty on coal attracts considerable attention, and it is well to understand certalit facts which have a direct bearing upon its decision.

In the year 1815, when the duty on foreign coal was $\$ 360$, the price in New York was $\$ 23$ the chaldion of 36 businels.

From 1816 to 1823 the duty was $\$ 180$, and the nverage price was $\$ 11$.

From 1824 to 1834 the duty was $\$ 216$, and the average price was 14.

In 18.22 the duty was 175 per ton, anil the market price was $\$ 716$; and in 1841, with a duty of $\$ 1$, the price was $\$ 556$. In the year 18.16 the duty was altered to an ad valorem one of 30 per cent., or afout 45 cents per ton, ant the market price since has ranged from $\$ 650$ to $\$ 750$.
V. Statixtics of the Coal Trade of the Cnited States. -Penngylvania is rich in its conl product. This article is one of the great sources of woalth to tiant State, and ..d importance may be seen from tho single fact Ihat about $6,000,000$ tona are carricd over or through the varlons railroads nnd canais of that State cast wnedly, We refer only to the anthracito recrion, which mines gecm to be inexhauatible, and we leave oat of view the Immense production in Western Pennsylvania. The latter portion of the State owes its growtin mainly to its coal-leds, in conjunction with its iren and glass manufactures.
The maximum capabilitics of the transportation
compan with th

Lelitgh
Schuylki
Reading
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If we
three ye conveya and bets We have Professo tion, in formatio mining, marks on manufact formutio ble as we merchun Virgin imntic) s fact, one us the pos
Arasa of taie Cos
"These
Eastern Pe
kill, tho N
Wyoming,
(semi-litu
these beds, nis of scmi which, ion without an parposes; Vireinia, w and whoso the market confined ch
"Of the Seuthern is important, tire supply whileh have Canal Com hy the Rear interior, an Other raily onic: nfford tantic citles ter, and thr
The thilri third of its tr ough in Pennhigher ; tht in m colo. II, heing elgium, tly percessions a eingle areas of propor can ares nount in
compsales may be act down at 7,600,000 tons per year, with their ${ }_{i}$ - ssent forces ; viz.:
Lehigh (Canal) Navigation Company Tona. sehuykli (Canal) Navigatlon Company............ $1,000,000$ Reading trailrond. ................................... 4,000,000 Delaware and IIudson Caaal. . . . . . . . . . . . . . . . . . . . . . i, 500,000

If we may judge by the Increase of the last two or three years, the quantity of coul required by the above conveyances will be $7,500,000$ tous for the coming year, and between cight and nine millions for the year 1856. We have received from London the special Report of Professor W'ilson on the New York Industrial Exhibition, in which docunent wo find a variety of useful information in reference to the manufactures, minerals, mining, and metallurgy of the United States. Ilis remarks en the iron, lead, copper, snd zinc products and manufactures will be a valuable addition to the information nlready in possession, and will be uc sptaLie as well to the legislator as to the msnufacturer and merchant.
Virgiula takes the lead among the Eastern (or Atlantic) States ss the owner of coal-fields, and is, in fact, one of the prominent States of the whole Union as the pessessor of this valuable mineral.
Arg. of the erveral. States wimere Coal 18 mound, And the Coal Agea of eacit, and the l'ropoation of Coal.


North Carolina is reputed to hold about as much coal land as Georgia. Lown is one of the richest coal States, and has a coal arca simost equal to Ohio.
from this valuahle reforence-table it will be seen that Illineis takes the lead, having within her own borders one-third of the entire coal region of the United States. Next in importance ls Pennsylvania, producligg beth antliracite and bitaminous coals, Of these immense fields Professor Wilson says :
"These comprise the three anthracite coal-fields of Eastern l'ennsiyl vania, known as the Southern Schuylkill, the Middle of Shamokin, and the Northern or IFyoming, and the Frostburg or Cumberland coul-field (semi-hitumineus), In the State of Maryland. Besides these bels, a small outlying bed exists in Pennsylvanis of semi-bltuminous coals, known as the Brondtop, which, however, owing to its insulated position, being without uny means of access, is only available for loen purposes ; and some deposits of considerable areu in Vircinia, whose importance is being cluily recognizet, and whese produce is gradually finding its way into the markets. The demand at present, howover, is confined chiefly to gas-mnking phrposes.
"Of the three anthracite leds of Pennaylvania, the Southern is, beth by altuation and magnitude, the most impertant, aud furnishes a lurge propertion of the entire supply. It presents great facilities of access, which have been mado advantageons use of by two Canal Companies, the Lehlgh nnd the Sehuyikill, and by the leanling Railroad, whieh penetrate far into the interior, and form the great outlets for its proluce. Other rallways are now in progress, which will not only ufford additlonat facilities of transfer to the Atlantic citics, but also open $n$ communication to the fatter, and through them to the Western markets."

The thirl in importance is Ohio, haviug nearly onethird of its area in coal. The returns as to production
are not copious; hut Charies Lyell, who made critical inquirles on the subject, reported the following ss the yield for 1851-'52:

|  | Buahols. | Tons. |
| :---: | :---: | :---: |
| Western Pesitgylvania. ..... | 35,000,000 | 1,170,040 |
| Virglnla.................... | 15, 000,000 | 1000,000 |
| Eastern Ohlo | 16,000,000 | 535,000 |
| Tothl. | 66,000,000 | 2,205,000 |

At the Exhibition were produced ssmples of cosl from Valley Falls, Rhode Island, but the product is of inferior quality.

Of the Vlrginia cosl, twelve miles west of Richmond, and cxtending fifty miles, the seams are 800 feet in thickness, being the decpest mincs known in Amerlca. In Belgiunn some of the mines are known to be from 1140 to 1476 feet in depth. In England, 1000 to 1794 feet-with an average in Lancasnirs of 750 feet.
Dibtances of tile cilikf Coal Dibtnicts of Penngylyania and Maryland from Tide-wateb.
Bryuinova Coal.
Farrandsville

to Havro de Grace. . . . . . . 202
Alteghany Coal Minca to Ilavre de Grace.. 190 to 200
Cunberland, Maryland, to Georgetown ............. 199
Cumberland, Maryland, to Batimmore............ . 189
Dauphin and Susq. Co. to llavre de Grace .......
Cosl.
Del. and Iludson Co.
Pline Grove
Lykens' Valley Co.
Bear Mountaln Co.
to Rondout

Lehlgh Room Run
to 125
to Hayre ${ }^{\text {G }}$ Grace. 120

P. Grove by Minersville to l'hlladelphils............... 110

信 110
Minersville 100
to Port Richmond.......... 98
Imponted Conl.-.The only countries from which coal ever finds its way into the United States are Groat Britain and British America, and tho contributions from them appear to be annually diminishing. For a time there was an increasing foroign importation; viz., from 22,123 tons in 1821, to 181,551 tons in 1839. By the operation of the American tariff this advance was not only checked, but a retrograda movement was prodluced, so as in 1843 to amount to only 41,163 tons, by the United Ststos returns. By the last annual return, that for 1817, the entry of forcign coals, whether from Europe or from British America, was 148,021 tons ; of which from 12,000 to 15,000 tons were re-expurted for the scrvice of the English steamshipa. In 1850, 180,439 tons were imported into the United States; in 1853, 231,508 tons; showing an increase.

Incheased Produczion of Coal. Anthracite Coal. -The production of anthracite may bo said to be cntirely confined to Pennsylvania, which possesses a numerous and interesting group of coal basius of various slzes and character.

Our returns show that the consumption of anthracite, in other words, tho coal trade, commenced with 365 tons in the year 1820; that the production reached 48,017 tons in 1827; that it had increased to 881,026 tons in 1837, and advanced to $3,000,000$ of tons in 1847, without incluting much thst is consumed on the spot, in the mining districts, or interior of tho country.

The increased production, therefore, was, in the first ten years, viz., from 1827 to 1837,1735 per cent. ; in the second ten years, viz., from 1837 to 1847,240 per cent.; and in the twenty years previous to 1848 , that is, from 1827 to 1847,6100 per cent.

Wo introduco another vlew of the subject, which exhithits this accelerated increase in the consumption of anthracite, perhape, with yct greater perspicuity. The ameunt which was periodically forwarded to market, exclusive of tho consumption in or near the places of production, and which has not been estlmated, is as follows:

Aggrgalo in tho 21 years, from 1820 to 1840, Tons. ${ }_{6}$, 847,1 2
ncluatve ................................... 12,37

From 1847 to 1853, Inch.idve ................... . $28,841,358$
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 48,1000,401

We add the statistics from the various regions for the year 1855 .

| Sciturixill Raoion. | 1854. | 1855. | Increnae. | Decrease. |
| :---: | :---: | :---: | :---: | :---: |
|  | Tuna. | Tons. | Toun. | Toes. |
| By raliroad | 087,804 | 2,213,204 | 225,438 | , |
| By ennal. . . . . . . . . . $*$. | 907, 354 | 1,105,283 | 197,909 |  |
| İ'negrove . . . . . . . . . . | 62,462 | 15,019 | 15,019 | .... |
| Total. . . . . . . . . . . . . Lemiah Rearos. | 2,057,670 | $3,3 y 6,037$ | 488,806 | ** |
| Lehigh Canal | 1,207,186, | 1,224,842 | 17,650 | *** |
| Lehigh Valtey Railioad Wronims henton. |  | 9,063 | 9,038 | .... |
| Del. and If udson Co. . | 4-40,944 | 565,460 | 124,516 | . $\cdot$. |
| Pennaytvanta Coal Co. | 490,648 | 507,803 | 8,155 |  |
| N, Branch Canal . . . . | 492,689 | 664,039 | 10077 | 25,650 |
| White II aven Ratlroed | 80,262 138,065 | 50,209 187,000 | 10,977 $\mathbf{5}, 035$ | $\ldots$ |
| Yeatern Reilroad Shamokin .... | 136,860 69,506 | 187,000 116,117 | 68,036 62,017 | .... |
| Anthracite | 5,881,834 | $\begin{aligned} & 6,517,500 \\ & 5,831,818 \end{aligned}$ | $\begin{array}{r} 715,385 \\ 28,6500 \\ \hline \end{array}$ | $28,050$ |
| $\left.\begin{array}{r} \text { Increase of anthra- } \\ \text { cite in } 1855 . . . . . \end{array}\right\}$ | . $\cdot$. | 086,735 | 686,735 | * |

Showing an increase of anthracita coal in 1855 of 686,735 tons, againat 734,690 tons last year.

An Official Statrment of the Amount of Coal gent to Market from tue Lehioh Rroion, from tus oonmence ment of the Thade to the Clobe of tur Yeab 1 Sko.

| Yeare. | Tons. | Yaars. | Tona. |
| :---: | :---: | :---: | :---: |
| 1820. | 366 | 1839.. | 222,042 |
| 1821. | 1,078 | 1840. | 226,591 |
| 1822. | 2,441 | 1841. | 142,507 |
| 1823. | 6,823 | 1842. | 271,018 |
| 1824. | 9,841 | 1348. | 267, 125 |
| 1525. | 28,390 | 1844. | 876,803 |
| 1820. | 31,280 | 1845. | 430,988 |
| 1897 | 32,074 | 1846. | 522,018 |
| 1528. | 30,232 | 1847. | 643,563 |
| 1829. | 25,110 | 1848. | 680.197 |
| 1830. | 41,750 | 1849. | 800,983 |
| 1831. | 40,066 | 1850. | 722,681 |
| 1832. | 75,000 | 1851. | 989.254 |
| 1835. | 123,000 | 1852. | 1.118,843 |
| 1834. | 106,244 | 1563. | 1,080,550 |
| 1835. | 131,250 | 1854. | 1,245,815 |
| 1836. | 146,622 | 1855. | 1,274,963 |
| 1837. | 225,037 | 1350. | 1,357,520 |
| 1838. | 214,211 |  |  |

Bituminous Coal.-We have given, in the first part of this article, data by which the approximate increase of this description of fuel can be determined, and give hero all the statistics that can be collected.

|  | 1884. | 1855. | Incremeo. | Decromee. |
| :---: | :---: | :---: | :---: | :---: |
|  | Toos. | Tona. | Tons. | Toos. |
| Lykens' Valtey Co. . | 87,600 | 66,72t | 0,221 |  |
| Short Mountain Co. | b0,009 | 60,000 | 600 |  |
| Dauphin Co. ...... | 68,000 | 1,000 |  | 62,000 |
| Cumberiand Region | 649,299 | 664,304 | 16,005 |  |
| Foretgn cosi........ | 254,865 | 287,403 | 84,643 | $\ldots$ |
| Total. | 1,071,664 | 1,009,933 | 00,200 | 6:, (140) |
|  | 1,0039,953 | .... | .... | 60,400 |
| Dестеане in 185\%... | 1,731 | $\cdots$ | .... | 1,731 |

The increase of seml-anthracite or bltuminous coai in iest includlng foreign, over the provions year, was 218,167 tons. This year (1855) there is a decrease of 1731 tons, making the total increase of all kinds in 1855 684,00\& tons, against 952,857 tons in 1854 .
Almost as luteresting as the atatiaties of the areas and preduction of the conl countries, is the consideration of the means of transportation and the facilities needed to give us fuel la abundance and at a low price. It is of grent importance to the cousumer, and an extract from a private letter will be of Interest, throwing some light on the ways and means, the cost and contingencies in the transit to market:
"] ly canal, besins the distance and cost of the atructure, there are so many contingencies, arising from too much or too little water, as to weaken the dependenea; and on the railroads, the gradea and the adaptation to the business are alono the objects by which the price can be regulated. If the grades be lavel or descending, tha capacity of the eagine is not only Inereased, but the expense is so much reduced as to determine its value, and it is only upon a road so graded and so conatructed as to endure the burden that the price can be
flxed or defined. On the down-hlll grade the momentum keeps up the speed, and relieves the engine, whlle on the up-hill gracle the apeed ia depressed, the power is reduced, the strain is increased, and the expense aug. monted.
"On the Readlng Rallroad, in operation since 1811, these facts are so illustrated and defined as to establish their existence beyond a question. On the stem ns upon the laterals, the descent is from 22 feet to a mille to a level of 36,000 feet, and as tho maximum is but four mlies in length, the balance descends to the level wlthout the allghtest rise to interfera with the speed. On this descent and over the level, a slngle engine ean take as many cars loaded as it can briag empty to the place of atarting. This difference, from the weight of the descending and ascending trains, is ascertained to be equal to two and three-quarters engines, or 175 per cent. more than on the downward grade-consequently a reversion of the trade; or upon a road where the grade is equal to twenty-two feet to the mile against the trade, the expense for engines, fuel, and wages, would be more for the same distance than the profits derived from the coal in market.
" Bot as these are the questions for railroad-makers, we wil] next consider the extent of the trade, and arrive at ourobject by the expenditure made to accommodate it. On the Lehlgh, we have an expenditure on the part of the Lehigh Coal and Navigation Company of $\$ 8,441,405$, and on the part of aome fourteen or fifteen companies passing over their works alout five millions more, making together $\$ 13,441,405$. From the commencement of tho company in 1820 mntil the elose of the aeason in 1855 , the production of the region is $12,278,012$-equal to 353,725 tons per annum. But if we take the amount sent to market during the year just closed, $1,274,986$ tons, and admit a clear profit of 75 cents per ton, which it did not give to the several partiea concerned, the income would be less than 7 per cent. on tho money expended. In the region it is also understood the mining operations are above waterlevel, and that until recently they were conducted on the prinelple of a quarry, and that the experses, togethei with the transit, prevented a dividend to the stockholders nntii the outslde operators came in to theit rellef.
"On the Lackawnna, the Delaware and IIudson Company, and the Pennsylvanla Coal Company, with capltals amounting to $\$ 11,626,761$, brought to market during $1855,1,092,000$ tons, and during the period they have been in exlstence the average is equal to 332,000 tons per annnm. The protuction of 1855 , at 75 cents per ton elear prefit, glves, however, but 7 per cent.
"On the Schuylkill, the operatlons aro more extensive, and the expendlture, Includling the
Readtng Railiroad, eost . . . . . . . . . . . . . . . . . . $\$ 18,464,114$ 0t
Schuyikill Canal eort . . . . . . . . . . . . . . . . . . . 10, 8 . 0,45 t 41
496 uiles Lateral Roads to the Coliteries. 4, 600,01000
Total.
\$33,314.566 05

Besides thls expendlture for reaching .he traile, there is a populatlon depending upon it of $60,717 \mathrm{in} \mathrm{1850}$, which is divided into 10,927 families and 10,670 houses. In the region thero are also 300 stationary engines, equal to 10,000 horse power, used $\ln$ mining. In 1855, the production was $3,318,340$ tons, nad duriug the exIstence of the works (the Navlgntion Company thirtyfour years, and the Reading fifteen years), the product has been $28,508,944$ tons, equal to 838,495 tons per annum. At 75 cents on the product of the year just closell, clear profit, the percentage on $\$ 36,631,516$, including the improvements at the mines, wo:ld be between 7 and 8 per cent.
"Aitogether the cost for improving and reaching the three regions in operation, including tho castern division of the Pennsyivania works, is $\$ 62,272,898$. T? 10 product during 1855 amounted to $5,262,189$ tons, which, at 75 cents profit, would be equal to $7 \frac{1}{\text { p }}$ per cent. profit." -See articles Inon and United States.

Coasting-trade, the trade or intercourse carrled on by sea between two or more ports or places of the same country. It has been customary in most countrles to exclude forelgners from all participation in the coasting-trate. Thls policy began In England in tho reign of Elizabeth ( $5 \mathrm{Ellz} . \mathrm{c} .5$ ), or perhaps at a moro remote era; and it was perfected by the aets of navigathon passed in 1651 and 1660. Thls policy is now entirely abrogated In Great Britain.-See Gheat 13nitain.

Of Fessels which muy engage in the Domestic Trade of the linited States.- Vessels of twenty tons and upward, entolled, and having a license in force, and vessels of less than twenty tons, not cnrolled, but having a lieense in force, and no others, shall be deemed vessels of the United States, entitled to the privileges of vessels employed in the coastiag-trade and fisheries. Evary vessel of twenty tons or upward (other than such as are registered) trading between district and distriet, or between different places in the same district, or carrying on the fishery, without being enrolled and licensed, or if of less than twenty tons, and not less than five tons, without a license, if laden with goods the growth or manufacture of the United States only (distilled spirits only excepted), shall pay tho same fees and tonnege in every port at which she may arrive ss are payable by vessels not belonging to a citizen of the United States; and if she have on board any srticles of foreign growth or manufacture, or distilied spirits, other than sea-stores, she, together with her tackle, apparel, and furniture, and lading, found on board, shall be forfeited. But if such vessel be at sea at the expiration of the time for which the license was given, and the master shell swear that such was the case, and shall also, within forty-elght hours after his arrival, deliver to the collector of the district in which he iall first arrive the license which shall have expired, she shall not be forfeited, nor shall be liable to paysuch fees and tonnage. No goods shall be imported, under penalty of forfeiture thereof, from one to another port of the United States, in a vessel belonging wholly, or in part, to a subject of any foreign power; buts such - vessel may sail from one to another such ports, carrying such goods only as were imported in lier from some forcign port, and which shall not have been ualaden.

Of the Enrollment and License of l'pssels.-The like qualifications and requisites are necessary for the enrollment as for the registry and record of vessels, and the same duties are Imposed on, and authority given to, all oflcers respectively, in relation to such enroilments, and the aame proceedings shall be had in similar cases touching such enrolhments; and vessels so enrolled, with thair masters or owners, shall be sulject to the samo repuisltes as are in these respects provided for registered vessels. The record of such enrolhment shall he made, and an abstract or copy thereof granted, as nearly as may be, in the form directed by law. Enrolled and lleensed vesedis may be registered upon the registry beiag given up; and registered vessels may be enrolled, upon surrondering up the enrollment and license. And when any vessel sball he ln any other district than that to which she belengs, the collector, on application of the master, and on his making oath that, to the best of his knowledge sind belief, the property remalns as expressed in the register or enrolhment, propesed to be given up, and upon his giving the bonds required for granting register, shall make such exchanges; aud such collector shall transmit the rugister or enrollment given up to the register of the treasury. The register ur enrollment and hicense granted in lleu thereof, shall, within ten days after the arrival of the vessel within the distriet to which she belongs, bo delivered up to the collector of such district, and ba by him caneeled. And if the master shall neglect to deliver such register or earollment ond license within the time speelled, he shall forfelt one hundred dollars. In order to the licensing of any vessel for currylng on the cousthig-trade
or fiaheries, the hushand, together with the master, with one or more sureties, to the satisfaction of the collector, shall become bound to pay to the United States, if she be of the barten of five tons and less than twenty tons, the sum of one handred dollars ; and If twenty tons, and not exceeding thlrty tons, the aum of two hundred dollars; and If above thirty tons, and not exceeding slxty tons, the sum of flve hundred dellars; and if above sixty tons, the sum of one thousand dollars, in case it shall appear, within two years from the date of the boad, that she has been employed in any trade whereby the revenue of the United States has been defrauded, during the time her license remained in furce; and the master of such vessel shall also swear that he is a cltizen of the United States, and that such license sholl not be used for any other vessel, or any other emplyment, than that for which it is specially granted, or in any trade whereby the revenue may be defrauded; and if such vessel be less than twenty tons burden, her husband aball swear that she is wholly the property of a citizen or citizens of the United States; whereupon the collector of the district whereto such vessel may belong (the duty of six cents per ton being first pald) shall grant a license, In the form directed by law, for carrying on the constingtrade, whale fishery, cod fishery, or mackerel fishery. A steam-vessel, intended to be employed only in a rlver or hay of the United States, owned wholly or in part by an alien, resident withln the United States, shall be enrolled and liceused as if she belonged to a citizen of the United States, except that no oath shall be $\mathrm{r}^{-}$ quired that she belongs to a citizen or citizens of the United States. The owner of such stenm-vessel, upon application for enrollment or license, shall give bond to the collector of the district, to and for the use of the United States, in the penalty of one thousand dellarg, with sufficient surety, conditioned that she shall not be employed in other waters than the rivers and bays of the United States. When the master of any licensed vessel, ferry-boats excepted, shall be changed, the new master, or, in case of his absence, an owner, shall report such change to the collector residing at the pert where the same may hoppen, if there be one, otherwise to the collector residing at any port where such vessel may next arrive, who, upon the oath of such new master, or in case of his absence, of an owner, that he is a citizen of the United States, and that she shall not, whilo such license continues in force, be employed in any manner whereby the revenue may be defrauded, shall iadorse such change on the license, with the name of the new master; and when any ehange shall so happen, and shall not be reported, and the indorsement so made, such vessel, found carrying on the coasting-trads or fisheries, shall bo subjeet to pay the same fees and tonnage as a vessel of the United States having a register, and the new master shall forfeit and pay the sum of ten dollars. Before any veasel, of the burden of five tons, and less than twenty tous, shall be licensed, the same ndmensurement shall be made, and the samo provisions observed relative thereto, as are to be observed in ease of admeasuring vessels to be registered; but in all cases where such vessel, or any other licensed vessel, shall have been once admeasured, it shall not be necessary to measure her anew for the purpose of obtaining another enrollment or license, except she shall have undergone some alteration ns to her burden subseguent to the time of her former license. Every licensed vessel shall have her name, and the purt to which she belongs, painted on her stern. is is directed for registered vessels, and if found with:uut such painting, the owner shall pay twenty dollars. No collector shall grant to any vessel, whose enrollment or license for carrying on the coastling-trade has explired, a new eurollment or license, before the master shall have rendered a true necount of the number of seamen, and the time they have severally been employed on board such vessel during the continuance of the expired license,
and shall have paid to the collector twenty cents par month, for every month auch seamen have been so severnily employed, which sun the master may detaln from the wages of such seamen. If the master shall rendar a false account of the number of men, and the length of time they have aeverally been employed, ha ahall forfelt and pay one hundred dollara. Any boat, sloop, or other vessel of the United Statea, navigating the waters on our northern, northeastern, and northwestern frontiers, otherwisa than by sea, shall the enrolled and licensed in anch form as may be preseribed by the Secretary of the Treasury; which enrollment and license shall authoriza any such bout, aloop, or other vessel, to be employed either in the coasting or forelgn trala; and no certificate of registry shall be required for vessels so employed on sald frontiera: Provided, That such boat, aloop, or vessel, ahall be, in every other reapect, liable to the rules, regulations, and penaltics, now in foree, relating to regiatered vesacla on our northern, northeastern, and northwestern frontiers.-Laucs of the United States.
Tonnage eyplofed in the Cuagtivg-thade of ties $\mathrm{U}^{\dagger}$. S .

| Yean. | Tonoge. | Yearn. | Tonnage. |
| :---: | :---: | :---: | :---: |
| 1815. | 488,066 | 1830.. | 873,023 |
| 1810. | 470, 179 | 1837. | 056,080 |
| 1817 | 481,457 | 1888.. | 1,041,105 |
| 1818. | 503,140 | 1839. | 1,153,551 |
| 1819 | 523,556 | 1840. | 1,170,694 |
| 1820 | -09,0s0 | 1811. | 1,107,067 |
| 1821 | 559,435 | 1842. | 1,045,753 |
| 1892. | 573,080 | 1843. | 1,076,155 |
| 1823. | 563,408 | 1844. | 1,109,014 |
| 1524. | 689,223 | 1845. | 1,190, 598 |
| 18.5 | 687,278 | 1846. | 1,289,870 |
| 1826. | 666,420 | 1847. | 1,452,023 |
| 1827 | 732,437 | 1S48. | 1,120,983 |
| 128. | 758.922 | 1849. | 1,730,410 |
| 159. | 508,858 | 1560. | 1,855,796 |
| 1830. | 510,978 | 1851. | 1, \$4+817 |
| 1831. | 639,123 | 1858. | 2,008,021 |
| 1832. | 049,627 | 1853. | 2,134,250 |
| 1833. | 744,198 | 1554.. | 2,273,000 |
| 1834 | 783,618 | 1855. | 2,491,108 |
| 1835. | 702,301 | 1856. | 2,211,085 |

From this tahle we ace that our coasting-trade has increased 12 per cent. on an average for forty years, and has doubled in the past ten years-from 1845 to $185^{\circ} 5$. The total tomnage has increased from 435,066 tons $\ln 1815$ to $2,491,108$ tons in 1855 , glving an $\ln -$ crease of 10 per cent. per annum; alowing that we have at this thme a larger tonnage than any other nation.
"The coasting-trade of the United States has, from the begianing, heen atrictly reserved for vessels built within the United States, and owned by citizens of the United Statea, to the exclusion of foreign-built and foreign-owned vessels. The American tonnage engaged in foreign trade and in the coasting-trade has been American built, and has had the absolute protection of our laws, and the licensed tonnage alsolute protection, in the carrying-trade on our coast, and in our own waters. The protection given to our foreigncommercial and to our coasting-commercial marine has
aecured a larga and efficient body of skillful officers and sailors, at all times ready for the defense of our cities and const, for repelling aggresaion on our comsmerce, and for manning our ahipa of war. In the protestion given to our ahipplng intereat, for the purpose of having at all times the power to repel forelgn aggression, and protect our coast and trade, there appears to have been but little diviblon of acutiment, from the earliest time to the present, while the yearly lucrease of our tomage proves tho wlsdom of our laws in this particular. We have no data to ascertain the annuul number of persons, or the annual cona of freight carried, in our coasting-trade, nor the value theremf. Each person muat make hia own estimate of the tonnage employed, and the average number of trips the veasels can make, comblned with the facta that capital constantly tends to that bualness, and the growth of our enrolled and licensed tonnage keeps pace with our increasing population and wealth. The aluount of coaating-tonnage, and the annual number of tona of freight transported on our railroads, with an estimate of that carried by other modes of transfer, exhibit the magnitude of the means required for our interual trade."-U. S. Treasury Report, Decemher, 1856.
Coast Line. The following atatement of the river navigation and ahore line of the United States was prepared by Colonel Abert, of the Topographical Engiocers, at the requeat of the Treasury Department, Deecmier 7 th, 1845 . It has since been completed to date. The head of tide-water is assumed as the limit of steam navigation, as furpeding falls or rapida are encountered at that point, above which many rivers are adapted to steam navigation, but to what extent is not sufliciently known. The shore line of rivers to head of tide-wuter, from
Matno to Texas, ta. ................................ 10,501 miles ittivers of Texas.. $\qquad$ 10,501 miler Lower Mississippi, islands snd bayous............................. Upper Misalisilppl and tributaries. Hig lliack, Xazoo, and hayous
Red Hiver and tributarles....
Arkansas River and tributartes
Mlbsouri hiver and tributaric
$\begin{array}{ll}8,372 & \text { " } \\ 2,71 \\ 1\end{array}$

Olito diver and tributarica.
Total.
Add rivers on the Pacific-Kacramento..... Gu0
Ann Joaquin... 600
Oregon . . . . . . . 490
பиццииа ......
Total Hyer shore line io the Culted statea to 49,005 milles. 1854, lucluding both bankr.....................
8hore line of northorn lakea, including bays, 8 hore Ine of northorn lakea, Including bays
sounds, and (slanda (American) .............
sounds, and tslanda (American) $\qquad$ $8,020 \quad "$
A calculation made at the oflice of the Coast Survey in 1853 gives for the total maln ahore line of the United States (excluslve of bays, sounds, ialands, etc.) 12,G09 statute milea. If all of these be followed, and the rivers entered to the head of tide-water, the total shere liae will be awelled to 33,009 mlles.

Snore Line of the C'ited States in Statute Miles.

| Coantial | Main Bhore, inelading Bayn, Sounds, ete. | Proportion of each Part of coant to Total. | Lolestas. | Proporlion. | Rivento llead of Tile. | Propertion. | TotaL | Propor. tion. | Oepan Line In sieps of Teo Milen. | Contioental Shore Litne of States North of Virginia. | Continental Shore time of 8tates South of Miarylad. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Atlantic | $\begin{aligned} & \text { Mulos. } \\ & 6,86! \end{aligned}$ | Per Ceal. $54 \cdot 41$ | Milen, 0828 | $\begin{array}{\|c\|} \hline \text { PorCl\| } \\ 68.44 \\ \hline \end{array}$ | Milea: $6,050$ | Perct. 59.05 | Milen. | $\begin{array}{r} \text { Perct. } \\ 60 \cdot 61 \end{array}$ | Milea. 4059 | Miles. 907 | Miles. 1250 |
| J'aclfic coast. | 2,281 | 18.09 | 702 | 7.59 | 712 | $0 \cdot 6$ | 3,695 | $11 \cdot 17$ | 1415 | .. |  |
| Gatf coast. . . | 3,407 | 27.50 | 2217 | 23.27 | 8,846 | 34.30 | 8,530 | 25.82 | 1643 |  | 1764 |
| Total | 12,009 | 100.00 | 4247 | 110000 | 11,213 | t(N) vo | [3,069 | 10000 | 5107 | 907 | 3080 |

The main shore line of the Atlantic, including hays, etc., is twice that of the Gulf, three times that of the pacific, and moro than equal to that of the I'acific and Gulf combined. The Southern States hare three times as much sea-coast as the Northern.

Europe, In extent of shora llne, is more favored than any other portlon of the earth, and North America next; the former having, according to Guyot, only 156 milea, and the latter 228 mlles of aurface to one mile of coast (the United States having 241); while South Amerlea has 376, Africa 623, anil Asia 459 milea.

The following table furnishes three measurcments:

1. The coat tine, i. e. sea-cosst, bays, tslands, etc., of tho Atlaptic conat. The rivers to head of tide, bot $h$ shores ..... For the Gulf of Mlexleo, the coast Itne ls.... levgth of rivers to head of tide. .

12,359 m!les.
6,655 2. Cuast line, exclusive of inslands and rivers to head of tide-for thie Attantte............. 3,546
. Coast line, exclusice of bay, islainds, ctc., etc., except Massachusetts Bay-Attantic. Gulf....

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| Biatos. | 8hom Line, lacludlag Baym talanda, and and Imregularitien. | Ahare Line, except Inlarida. | Oontineal Lime; <br> vis.: Bhare <br> Line, excopl lat. <br> ands, Bayn, ste. | Pemarla. |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Mersurementa taken on heat mape of the Coset Survey Archives. |
| Malne . . . . . . . . . . | 2,436 | 784 | 278 | Measured on Greenleaf's map of Maloe, as correct as posathle, but the great irregularitien of coasa prevent a correct result. |
| New Hampshire ... | 49 | 41 | 18 | Measured on Garrigaly's map of N. H., generally correct as compared with Soulth's map. |
| Massachusetts . . . . | 886 | 628 | 286 | Mcasured on Borden's map of Jfass, geneially correct an compared with Smith's map. |
| Rtode Islsnd...... | 320 | 245 | 45 | Measured on 8mith'a and Mitchelt's maps. |
| Connectleut ....... | 202 | 240 | 104 | Measured on Coast Survey off shore charts. |
| New Yerk......... | 680 640 | 50 800 | none. 120 | Yeasured on Coast Survey off thore cliarts. |
| $\underset{\text { New }}{\text { Nelaware }}$ de. | 118 | 100 | 23 | Measured on F. Lucas's map of Md., Ches. Bay, and C. 8. |
| Maryland . . . . . . . | 609 | 411 | 83 | Sketches and Charts. <br> Measured on F. Lucas's map of Md., Ches. Bay, and C. S. Sketches and Charta |
| Nor'hern Atlantic | 6,150 | 2709 | 907 | From northeat houndary to State line between Md. and Va. |
| Vinginia ...... | 644 | 348 | 116 | Mcasured on F. Lucas's map of Md. and C. S. mapa |
| North Garolina | 1,641 | 1080 | 320 | Mensured on Bracler's map of N. C., and compared with Smith's. |
| Sonth Carolina | 756 | 207 | 220 | Measured on Smith's map, and compared with Mitchell's. |
| Georgia ........... | 684 | 480 | 123 | Mcasured on Smith's map, and compared with Mitchell's. |
| Florida, Łast Coast. | 2,474 | 1034 | 472 | Measured on map of Topographteal Engincers. |
| Southern Atlsntie | 6,209 | 3218 | 1256 | From State Ine between Md. snd Va. to S. extremity of Florida. |
| Total Atlantic | 12,889 | 6017 | 2163 |  |
| Florida, West Conat | 1,662 | 883 | 674 | Measured on map of Topograplueal Engineers. |
| Alsbana | 316 | 247 | 58 | Measured on Smith's masp, and compared with Mitchell's, |
| Misslsslppt . . . . . . . | 287 | 225 | 88 | Measured on Smith's map, and compared with Mitchell's |
| lanlisiana. . . . . . | 2,250 | 1256 | 082 | Neasured on Gordes's Reconuolssances and Smith's map. |
| Texas ..... | 1,830 | 040 | 302 | Mcasured on Blunt's and Smulth's map. |
| Total Gutf. | 6,744 | 3551 | 1764 |  |
| Total South Atlantie and Guif........ | 11,053 | 6760 | 8020 |  |
|  | 3,251 | 2638 | 1343 | Measured on Alden'a Reconnolssances. |

Coast Burvey of the United Btates. It was to be expected that a people devoted to the pursuits of comnerce, and depending in some degree on the sea as a means of communication between distant parts of the national territory, should demand, at an carly period of thel history, a competent survey of their coasts and inland waters.
But $n$ short time previous to tho separation of the colonies, charts had been constructed of the shores and hartors of North Amorica, under the direction of F. W. Des llarres, his majesty's Surveyor General for the Colonles. The progress of his labors was interrupted by the Revolution. The surveys made under the personal superintendence of Des Barres atill bear testimony to his skill and fidelity, and present a generally correet viow of those parts of New Fingland and the British possessions whlel, being rocky, are but little liable to chauge. They continue to form the principal basis of the eharts of the northeastern const of this continent. In the Southern and Middle States, however, they have been reulered worso than useless by the inconstant character of the bottoms, and the unequal merit of the or.gimals. The surveys of Des Barres, covering a vast extent of coast, were originally deticient in minuteness of detail, and In hydrographical information; and these defects havo been incrensed by the rapid nud extensive changes in the direction, means, and wants of navigation caused by the growth of the conntry.

The project of a complete survey, conducted upon a uniform system and extending over the whols const, wss first proposed by the late Professor Patterson, In 1806. It comblned three oljeete, the astronomical determination of prominent poluts, a triangolation to connect those points, and a hydrogrnphic survey based upon this triangulation. Mr. Gallatin, then Secretary of the Treasury, encouraged the project, and obtained In writing the opinions of learned men as to the best mode of oxecuting it. Me selected the plan of operations recommended by Mr. Hassler, the first superinteadent of the Coast Survey. Thls gentleman, a na-
tive of Switzerland, had been employed in the trianguIntion of tho Canton of Berne, and had studied the selence of geodesy under the most distinguished masters. It was exceedingly fortunate that his presence and advice here secured the early adoption of the only methorl of condueting a comprelensive trigonometrical survey that selence approves-the only one of which the results have a certain and permanent value.

It is only, however, since the year 1832 that the sorvey of the coast has been in steady and netive operathon. During this long interval of negleet on the part of tho government, the coasting trado and forelgn commerce of the country have been chlefly indebted to the indefatigable labors of those distlnguished hydrographers, the Messrs. Blunt of New York (hoth father and son), for tho means of safe navigation.

The history of its fortunes, or rather misfortunes, lluring the preceding twenty-five years, may be recited in a few words. A law anthorizing a survey of the coast was passed in 1807 , but nothing was done under the Inw until 1811, when Mr. IIassler was sent to Europe to procure the instruments specified in his plan. They had all to bo constructed. Tis war of 1812, and the failure of remittnnees, preven: d Mr. Inssler's return before 1816, and in August of that year he was appointed to the offico of superintendent. In 1818 Mr . Hassler's connection with the work was broken off by the repeal of thit part of the law of 1807 which authorized the omployment of citizens. During the ten years that followed, the const survey seems to have been forgotten by the public and by Congress. In 1827 Mr. Southard, the Secretary of the Navy, a name never to be mentloned without an expression of the high respect which ability, pntriotism, and long, faithful, and valuable serviees must always command in the republic, took oceasion in his annual report to say that perfect surveys and charts of our harbors could not be made without the aid of the means contemplated by the act of 1807; and in February, 1828, the House dlrected the Committee on Naval Affalrs to inquire into the expe-
diency of carrying Into effect the ptovlaions of that act. Finally, in 1832, the act of 1807 was revised, and an appropriation made for carrying it into execution, and alnce that period regular annual appropriationa have been made, varylog in amouut, but geacrally auch as hare been called for by the eatlmated of the superinteadent.

In 1843 there was added to tha apprepriation a proviso atipulating that a board, conalsting of sclentific persona la the service of the government, ahould be empowered to reorganize the work, and the plan presented by them, whea approved by the prealdent, was to be, and is now, the law regulating the operatlons of the aurvey. The scientific methoda puraued by Mrr, 1lassler were continued, and it was directed that the topogrophy should be carried so far inland as might be necessary for a proper dellineation of the shore, and for purposea elther of commerce or defenac.

It is now understood that the alin of the coast aurvey is to furnish with the utmost attainable accuracy, and In a connected and uniform manner, all the geogrnphleal, topographical, and hydrographlcal data that can be made in any way useful to the navigation and defense of the coast. And it ls also supposed that, in collectlag these data, information will bo aceumulated that may become aerviceable in suggesting and directing local and general improvements; anch aa the placing and conatructing of light-houses, beacons, buoya, etc., the means of improving channels, the effeet of contemplated constructions upon harbors and tidal deposits, the sultableness of a submerged soil for building, ete. And, lastly, it is presumed that those States through which the survey passes will, suoner or later, avail themselves of the base it is able to apply, to form a correct geographical map of their own territory, under cireumstances very favorable to economy and accuracy. These are the practical bonetits, either direct er incidental, conferred by the const survey.

In alstract acienco it has also its mission, equally useful and distingulshed. It is to contribute a part of the means by which the irregularly clliptical form of the earth may be atisfactorily determined, the variations lu local gravitation, their canses, and thence the internal structure of the earth, be made known, and the phenomena of terrestrial magaetism be explained. It will lllustrate the astronomical prollem of the tides. Its numerous meteorological records will also contitbute to a better knowledge of the climates of the United States, and of the nature and netion of meteoric storms, and thus be of aervice to tha farmer as well as the navlgator.

The science of geodetica preseribea the principles upon which a survey of an extended region should be conducted. In the ordinary operations of land-surveying, the surveyor ba permitted to regard his field of work as a plane surfuce; but the engineer who is to construct a map of a whole country, or of a long line of continuous sea-coast, must take sato consideration the sphereidal figure of the earth, and present an exact delineation of that part of the spheroid upon which he is employed. This necessity controls the processes osed In computation, and the plan of projection upon which the detailed results are given, whether it be called a map or chart. Both the projection and the formula for computation involve the higher mathematics, and require an acquaintance with the most advanced state of the mathematice-physical sciences.

The system of projection fatroduced by Mr. Massler originated with Flamsteed. It is the development of a part of the earth's surftce upon a cone, either a tangent to a certain latitude, or cutting two glven parallels and two meridians equidistant from the middle merldian, and extended on both sides of the meridian and In latitude only so far as to admit of no deviation from the real magnitudes, such as would be sensible ln the detall surveys. In this method of reducing the curved aurface of the earth to a plane, the radii of curnat ie
of the parallels and meridians, depetdling upen the value given to the expresalon for the elliptleity, and the aasumed form of the globe, are important terma. For practical use, tables have heen computed In the office of tha coast aurvey, ahowing the length in metres of every minute and second of the ares of the meriliana and parallels cemprehended In the maps. It has been found necessary to recalculate these tables since 1844, on account of the now value of the elliptlelty announced by Ilessel, and adopted hy the present superIntendent. There wlll be occaaion to reeur to this subject.

The practical operatlons of the coasat aurvey are elass. ed unter the general heada of triangulation, astronomleal and magnetie observatlona, topography, and hydregraphy. The fundamental basla of the survey ls a net-work of great triangles, the sliles of which, varying from ten to one hundred and ten miles, are the longest that the limita of vision or the nature of the country wlll allow, and hence a mountalnous region is much the most favorable for a first or primary triungulation. The starting llae, or first side of the first triangle, ealled the base line, is measured Iy mechanleal means, and this ia a labor demanding, aa much as any other on the survey, accuracy, a philosophical regard to milnute detalla, and long prevlous preparation. Obscrving, in passing, that gev ernl $k \ln d s$ of measuring-rods have heen heretoforo used, as wood and glass, and that the apparatus of Mr. Ilassler consisted of an assemblage of four Iron bars, each of them two metres in length, with which he ohtalned excellent results. In 1817 the preliminary measurement of two base lines was made by Mr. Hassler, and In 1834 the length of the same lines was determhed by eompntation, carried from the new base on Thin Island leach. The difference between the measured and computed lengths of thesc lines was in one case less than a foot, and in the other about foer inches; the bases themselves were $5 \cdot 9$ and 4.8 miles long. It will, perhaps, lest serve to convey an idea of the difficulty of measuring a base-line if some account be given of Professor Bache'a bose-apparatus. The measuring bars are upen the compensuting system, first used by Colonel Collyy In Great Britain, and by Mr. Borden in the trigonometrical survey of the Stnte of Massachrsetts; but a principle not before applied was introduced in reference to the dimensions of the bars, which is thes stated. Burs of bruss and iron (the materials employed), of the same dimensions will not, owing to their different conducting powers and opecitic heats, heat equally in equal times, and thereforo. during changes of temperature, the aystem ceases to be compensating. This Mr. Bache corrected by giving a coating to the bars that made them abserb equally, and by proportioning the sections to each other, so that lieth wouhl have the same temperature during variable temperatures of tha atmosphere. In order to do this satisfactorily, it was nceessary to make direct experiments upon the materials of the bars themselves, ufter having first arranged them approximately by means of the numbers tuken from the books. The contact between two sets of bars is made by a blunt knife-edge and a plane of agate, and a lever of contact at tho ends of the bars is corrected by a level so delicate that several of its divisions make up a quantity entirely insignificant in the measurement. The bars aro covered with a doable conical case of tin, to keep the flactuations of the temperature within moderato limits, and the bases on which they are supported are covered with several thicknesses of imperfectly conducting material for the sume porpose. The leugth of the apparates is compared, before and after final measurement, with a standard jron bar that had been compared in the coast-aurvey otfice by means of Mr. Sayton's reflecting pyrometer. Ity this lastrument, a change of the one hundred thousandth part of an inch in the length of the atandard bar is perceptibie.

To the preceding description It should be added that
the of th of th der $t$ over Briti ncees lar w appli by ly 1 les co ror. crose the c two Such and billty petty seven $2 \cdot 4$ is miles migh] The twel and t of a 11
Th. be kr winte lengt coast rough woult the si one-t tion 1 racy W6 whict The 1 with make Scatt work, tailed in the const They pogra angol
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Fol
the bara (regulated in size by the relative apecifle heats of the two metals) were heated above the posaible temperature to which they could be exposed in use, In order to give them a set. This precaution was at first overlooked in the compensetion basc-apparatus of the Britisi ordlnance survey, and it was afterward found pecessary to resort to it . Those who are at all famillar with the suiject will perceive that Professor llache'a applicatlon of the lever of contact and level (first used by llessel in atandarila of measure) hat not only greatly increased the delicaey of the instrument and lessenet its complexity, but also removed aeveral sources of error. 1 ly optical contact, and the employment of a microscople apparatus to determine the distance betweed the compensation points, the measures are repeated $\ln$ two dlfferent terms, eacil inaving Its peculiar standard. Sueil was the cass in the British and Indian surveys, and Colonel Everest complains of the consequent lia. bility to error, and the burdenseme accumniation or petty correctlons. The remessurement of a base of seven ant a lialf mites, in Indin, dlffered, however, only $2 \cdot 4$ inches from the first length. In a base of geven miles, Professor llache found that the sume ditference might be about 0.5 inch , if all the errers were supposed to full on the same side, which is most improLable. The probable error in remeasuring one hundred and twelve yarda was less than five thousandtis of en inch, and the actual resulting error in remeasuring one-third of a mile was nothing.

This may appear like refining too mnch, but it must be known that the lines measured by the same bar in winter and summer might differ materially in nominal length. This difference in the original bnse of the coast survey mlght be about twenty feet, and, at a rough estimnte, an error of twenty feet in this place woukd anount, in one of the large triangies, of which the sidies are between fifty and sixty miles, to about one-tenth of a miie. The source of error and its correction being recognized, there is no other limit to aceuracy than the pessibic.

We return now to the great triangles of the survey; which, as has been said, form its fundameutal bnsis. The points of the prinary trisngulation are selected with scrupulous regsrd to all those conditions which make trisingles, in the technical acceptation, good. Scattered at distant Intervals over the vast field of work, they are certain guides hy which the more detsiled operations are conducted and controlled. Within them tie space is subdivided into smailer tringgles, constituting tine secondary and tertiary triangulations. They bring down the work to the minute detalls of topography and inydrography, and these subsidiary triangulations and details, circumscribed as they ure by the primary polnts, are restrained and corrected hy them in their deviations. As an additional expinnation of the necessity for this tirst net of great triangles, it may ho well to inform the general reader that there is no instrument, however delicste in construction, tiat Is aot liable to very small errors, whleh the most studious attention to every disturbing influence, whether mechanical or metcorological, can not altogether remove. Now this primary trianguiation, which in a mountaineus region spans the surface with giant strides, has fewer of these unaccountable errers, simply becanse it has fewer triangles. It is hardly necessary to ndd that better instruments also are used ln lt. The two and a half feet theodolite, made by Simms (after Troughton's death), under Mr. Hassler's supervision, and used by him and by Professor Ilache in the primary triangulation, is still regarded in this country and ia Europe as a master-piece of invention and mechanism. It reads to seconds.
Magnetic and astronomical observations accompany the primary trianpulation. The latter are for latitude, longitnde, and azimuth, or angular direction from the meridian.

Following the secondary triangulation in order comes
the Topography, the duty of which is to delineate faithfully the features of the ground. It exinituita the height and centour of elevations, the shape and extent of piains, the courses of atreams, all the constructions of man, and the waving and indented outiine of the shores. It dlstlngulabes the tiiled iand from the pasturege, and the grove from the orchard, and designatee the character of the wood-land. It speaka a nolversal language, and observes atrict fidelity to nature.

Dependiag opon the secondary trianguiation and the topography for ite ineans of progress, follows the Hydrography. In this term is included all that concerna local navigation, as the deptis and character of the bottom, the direction and strength of the currenta, the ebb and flow of the tides, and the information, comIng under the head of saillog directions and nautical instruction, which make up the valuable knowiedge of the local or generaj pilot. This branch enjoya the honor of announcing the nautleal discoverles of the coast survey, which, though resulting from the combined operations of all, are yet brought out by its meana.

In the preceding pages the plan of the surves ls presented, and the ge aral distribution of ita labora is stated; it remains now to speak of the exccution of the various details, and of the benefita that have been conferred by the ceast survey upon sclence, and upon the local and general commerce of the country and of the world. In doing this it will be most convenient to keep to its actual state at this clay.

It would not be just, however, to leave Its past histery without a tributc of respect to the menory and services of the man by whose enlightened efforts a right direction was given to the views of the government in founding the survey, who was faithful to it through thirty-five yenrs nâ checkered fortunes, and who literally died in the performance of its duties, having wrltten the fast few lines of his finel report after lie felt that he had been touchel by the hand of death. Educated in the best European schoels of theory and practice, and devoted to the pursuits of science, for which he was eminently qualified by natural endowments, Prufessor Hassler always brought to the task before him that zeal and tenacity of purpose which give spirit to enterprises of great moment, sud gain for them the name of action. Ile is honorably known for his mathematical and astronomical writings, and his papers in the American Philosophical Transactions, containing an account of the metheds employed by him on the coast survey, will nlways be regnrded as a valuabje contribution to gcorletical knowledge. Those who knew him intimately praise the nrdor of his friendship and the generosity of his disposition, while the labors of his life, and the mnnner in which they were performed, bear ample witness to his industry and integrity. Thnt he inad some defects of character it is hardly necessary to say, for tinis is the inevitable lot of humanity; but they were not such as it requires the exercise of magnanimity to forget, and time, which is rapidly drawing over them the veil of perfect obscarity, wilf endear his name and his virtues to the reverent and affectionate respect of all true lovers of American science.

On the death of Mr. Hassler, in 1843, the appointment of his successor was regarded with deep interest by the lenrned men of the country. The office of anjerintendent of the coast survey is recognized as one of the central positions of American science, and the incumbent is expected not only to be able to fulfill its prescribed duties, but to be qualified to direct his powers to the advancement of khowledge in every department of the work. IIow far the present superiniendent, Professor Bache, is suited to answer these expectations, to austain the national reputation, and to promote the cause of science, may be estimated from the fact that his appointment was solicited by gentlemen in all parts of the country engaged in the pursuits of learning. He was educated at West Point, and since graduating there ine has, in connection with the Franklin Institute
and the University of Pemsyivania, followed a course of physical science that has made him well known in this country nid in Europe. While traveling as the President of Girard College, he recelved from the principal European academies distinguished marks of conslderation. It ts but justice to Professor Bache to say that there is no branch of the work into which he has not been able to introduce improvements, either owing to the discoveries of the day, as in the use of the magnetic telegrapls for meridian differences, or owing (still oftener) to his own great and embnent scientifie attainme. . This must ajpear in the course of these remarks, but it is quite as creditable to his administration to state, as may be done with strict accuracy, hat the amount of results now ohtained is double that under the former plan, for an increase of 50 per cent. in the cost.

The points of the primary trianfulation are selected by neenns of a preliminary reconnoissance. The reconnoissances thr " precede the triangulations are indispensable, and 'equire great judgment. The object of the general rcomoissance is to mako known the facilities and difficulties of the work, and to discover the best plan for its execution. A puricular reconnoissance desides the position of the stations, and preserts a generrl sketch of the triangles in any section. As they constitute the authority to which the rest is subordinate, and by which it is controlled, it is of the greatest consequence to know the circumstances under which a satisfactory result may be secured with the least delay. The rule generally followed (and atopted ly the former superintendent) is to observe on those day conly that appear entirely mobjectionable. This rule is attended with a serious loss of time. Mr. Buche has increased the rapidity of the work, and improved rather than dimlaished lto valee, by applying the mathematleal test of the least probable error $t$, ohservations made under such conditions as are ordinarily favorable and of frequent ocenrence. The number of observations made under these conditions, which will reduce the prolable crror to what is attributalle to the unaroidable errors of instroment and observer, is ascertained and taken as a goveruing rulf. Six trimgles measured ly Mr. lache in 1841 gave for the greatest difference from $180^{\circ}$, after allowing for the spherical excess, $v^{\prime \prime \cdot} \cdot \mathbf{2}$ (of spnce) to each nugle; from this the difference descraded to nothing.

Allasion has lreen made to the necessit - of recomputing the first tables of projection, in consequente of the adopticn of Bessel's latest determination of the ellipecity. The tables for computing the triangles have also been atlieted by this chenge, anse the formule have leen revised, and undoubtedly grently improved in convenlence mat accuracy. 'The tables lave undergone a further modification ly substituting the legal ratio of the metre to the wise in the place of the arbltrary nambard resulting from the lugenious, lat (as Ilessel has said) "not allowable," comparisons of Mr. Hassler.

This is the proper plate to advert to the me le of opm eratimes pursued on the Suuthern coast. It was percelved, In the early progress of the work, that the innotitude of this level region for a compretsonsive triangulation was to be overcome, either hy great exprase, or by resonrece not yet developed. The mont apparent expentient was that employed in the northern section of the great meridional are of India, where it crosses the that tirritory of the Doab. Costly edillees of masonry, with walls five feet thick at the buse mad two at the summit, are crected at each of tho princijal statlons, and their height, about tifty fect, is sutheient to comman:: , : lew above the vegetation. And this expedient was, if contemplated, in accordance with the former progress of the Amerlean survey; which, alvanclug in two tircetions frum a central base, was nesessarily sluw.

In 1845 , however, the present superintenilent exhib-
ited in his annusl report a plan for the more rapid executlon of the surrey, which consisted in dividing the whole of our extended sea-board, fneluding the Gulf of Mexleo, Into nine sections, comprising a nearly equal extent of shore line, and in prosecuting the work sepa. rately and simnltancously in as many of these seetlons as the apprepriations would allow. The work of esch section is con menced by the measurement of a bescline, and, as the triangulation is extended, this base serves as the verification-base of an adjoining section. The rapidity of this plan is made spparent by considering that all the ditterent processes of the survey (in their necessary order) may be conducted at the same time in every section, and thus, if the appropriations were sufficiert, the whole coast might be completed in the time required for a single division of it. Ilut this plan accommodates itself more easily to the character of the ground than ono in whlch the direction and progress are derived from previous connections. Indeed, every latitude is allowed for the selection of sites for bases, and for the most fayorablo disposition of the triangles, because ench section is for the time a distinct undertaking. The combination of all wlll unite the exiended coast of the United States into one comprehensje schence of triangulation.

The value of permanent and conspleuous structures of minsonry to designate points of primary triangulstion is not, however, underrated. While temporary means of elevation are employed, such as the high tripods, with independent stands for the instruments, tirst used in Delaware Bay by the senlor assistant of the survey, Mr. Eelward lllunt, of New York, it must be remenbered that the coast survey is enabled to avail itself of the light-houses, and other lofty structures along the const. And it may be safely concluded that the govermments of the Southern States will raise appropriate edifices at those polnts of the primary trisngulation of the coast survey which limit the bases of their local operations.
diccompanying the primary triangulatlon, as an essential part of it, art, the astronomical and maynetic observotions. The fomer are for aximuth, Jatitude, and lomgltude. For the determination of azimaths, Mr . istche has employed (for the tirst time on the work) the elongations of l'oloris in its eastern and western digressions. At the time of clongation, when the change in altitude is most rajuid, the movement In aximuth is nothing; and thus the opportunity is enjoyed of making carefal and delibernte observations. This methed is independent of local time. Hy using several circmmelongation observations, a mean of a number of results is sulistituted for a simgle one. In this reduction a very simple formula, tirst investignted by Mr. Nulty, of lhidadelphin, has been applled, and the practice is simplif ed by the use of tables for the computations of latitude, suljeeted to a slight trigonometrical change. It is proper to state that this methed has been in use on the survey since 1845 , as one similar to it, if not identicul with it, lus recently been communicated to tho IRoynl Astronomical Nociety of London.

The sujerintendent has nilo'ted the suggestion of the nstronomer royal at Greenwieh, who propused referring the points of greatest clongation of cireumpolar stars to marks in the horizon, by perpendicular lines demitted by menns of an altitulo and azimuth cirele. Blongation sigmols are estublished about two miles distant, consisting of a delicate wand by day aud a lamp by night, the latter seen through a perforated heard.

The determinations of the Iatitude (as well as of the azinuths) are frequent. Sinco 1844 fourteen stations have heen occupied for latitude, nud seven for azimuth, in Sections I., II., and III. of the survey. A comparison of the latltudes theduced geodetically from a central pioint with astronenileal determinations led the super'ntendent, In 1844, to tho diseovery of certain varlations In the level, which conlil only be attributed to ehanges in form and density of the materlal compos-
ing the earth's crust. Theso variations are similar to thoso caused by the proximity of mountalns; but while the latter have been well understood, the former had escapel notice. Tho numerous determinations of this element will, therefore, occupy an important place in the future discussions of the general furm and internal structure of the earth. A similar discovery has since been made in ths ordinanco survey of Ireland by Ma-jor-general Colhy, and appears to havo been anticigoted by Laplace in tho opinion given by him in the Chamber of Peers, in 1817, upon the toplographical map of France: "If the latitudes of the extreme points (of certain lines) ond of several intermediate points aro observed, and tho length of the seconds pendulum corresponding to these points measured, a great deal of light will be thrown upon the figure of the earth, and upon the irregulurities of its degrees and of gravity."

It is very Interesting, in this respect, to know that lstitudes observel at the extremities of tho side of a triangle, and forward and backward azimuths on the same line, have ditfered by several seconds, and that these devintions in the plumb-lino have oceurred where the want of uniformity (whether arising from liffereaces in density, or the want of homogencousness of structure) was not $\rightarrow$ prarent as a tepographical feature of the coun.. $;$. After the computations from which the preceding conclusions aro derived wero verified, the results were confirmed by the introduction of new instrunents on the work. During the last year a zenith telescope has been used for obtaining tho latitude, by a method invented by Captain 'lalcott, which consists in observing the differences of zenith distances of stars colaninating within a short distance of each other, and at nearly tho same altitudes, on different sides of the zenith. The circummeridian altitudes by the repeating eircle, the prime verticul transits, and the alosolute messurement of zenith distances by tho zenith sector, sre atill used.

Olservations for the comparison of these instruments and methods havo been made by the superhatendent, and by Captain T. J. Lee, of the United States 'Tgoographical Engineers, an assistant in tho const survey, whoso valuable labors have been chiefly devoted to the astronomical and magnetic observations. Of tho magnetic ohservations it will be sufficient to say, as an inclication of their charaeter, that they are mude with the new instruments invented by I)r. Lioyd and Mr. Weber. Tho portable declinometer of Mr. Weher (perfected by Licotewant Riddle, and manipulated according to his instructions) ineusures inclination, and, by a subsidiary apparatus, tho horizental forec, by tho method of Gaus. Fox's dip eirele, with the use of the deffecting magnet, has givon very satisfactory result by means of these instruments, the cleclination, inclination, and intensity (horizontal and vertical) are determined in a manner that supplies all that is practically necessary, and contributes valuable additions to general magnetic resenrches.
Leugitudes have been letermined by oceultations, celipses, moon-eulminatjons, and the frequent transportation of ehronometers. Mr. Bond, the alirector of the observatory at Cambrilke, Massuchnsette, rommunicates the merdian ditterences hy chronomoters between the Iritish observatories and lloston. All determinations of this alement are referred to a principal purt on the sea-coast, and are connected in the nggregato with differences obtalaed from Europe ly chroannetric nul astronomleal compurisons. The sucurity against error adforded by employing persons to compute who are disconnected with the duties of the fieli: or the observatory, is well understood. Gentlemen is private life are engaged to repent the important enlenintions of the surve, and this system, which enlarges the p tere of lator in a way not less commendable for lis ecnnomy than for its other advantages, receives univeral sanction.

But tho di-coveries of Professor Ilenry (secretary
of tho Smithsonian Institute), resulting in the laventlon of the magnetle $t$.egraph, have provided a new and more preciso method of arriving at the difference between the times of two places, or their difference of longitude expressed in time. The details of these observations were consigned to Mr. S. C. Walker. The following concise account of the manner of transmitting the signals, of the possible errors of observation, and of the real value of the results, is from the pen of Dr. Bacho: "The signals are given at one of tho stations by pressing a key, which causes $f$. closing of tho circuit. This closing, it is intended, shall be simultaneous with the ticking of a clock or onometer at tho station. The circult heing elosed, if the electrical wavo or current fakes a sensible timo to propagate itself, or in pass from one station to another, the absolute time a which the signal reaches the second or receiving station is sensibly different frons that of making the signal ai the first or giving station. A coil about the poles of a horse-shoe magnet of soft iron forms part of tho circuit through which the electrical effect is transmitted. Unter its influened the soft iron becomes magnetic, attracting tho seft iron bar (armaturo or keeper) delicately poised at a determined distanee from tho poles of the magnet; thio inovement of this keeper gets in action a local battery, which gives suflicient power to make the dots and lines constituting the Morse telegraphic signals. The click of the keeper of this temporary magnet is compared, at the receiving station, with that of a clock $0^{\circ}$ chronemeter, thus marking the time at which the signal mado at a known time at the giving station is received. From this explanntion, it appars that there is llability to error."
Dr, Bacho then proceels to enumerate five possibto errors, numbered in order, nud shows that the numerieal values can be in each caso assigned to two (viz. I nnd 5), nul that one (viz, 2) is insensible. A comparison of tho observations proves that the errore denoted by 3 and 1 aro cancel d liy a very small residual quantity laving the opposito slgn, and "the interesting consequences follow, that tho telegraphic method $\mathrm{cf}^{\text {. }}$ comparing elocks, tistant two hundred miles from each other, is free from error when the methot of coincidencs of bents is employed; and that the probable error of tho longitude, from this method, is tho same as the mean result of the computed relutive correction of the clocks fer the nights of observation.' Ar investigation of the probable value of such error slows that, under faverable astronomical clrcumstances, und witht duo care in the use of the transit instrument, 'the astronomical difference of longitude hetween any two stations of a trigonometrical survey may be determined uy telegruphie f'guals, with a degree of precision of the same order as that of difference of latitude, the inaccurasy tepending pon the same causes as the teviation of the plumb-line." Before concluling with tho primary trlangulation, it musi bo observed that Dr. Hacho uses reelprocal vertical angles for determining diflerences of heights at the primary stations. These angles niny he measured at a timo of day when it is lupracticable to observe horlzontal angles, and the effect of vefraction near the surface is luvestigated by a long series of ohservations. Tho space circumserithed hy the terrestrial angles of the first order, and defined liy the celestrial olservations that accompany them, is subdivided into a minnte net-work of smaller trinny? constituting the seconlary and tertiary triangulations, the points of winch embrace and determine headlands, ligh . honses, bencons, churches, hills, and all c.mspicuUN objects along the ceast, that cun be made useful in its navigation. They also bring down the work to the details of the topography and hydrography, and supply the hases for these branches of the survey.

It has been ilroady mentloned that the topography is mhintely and exaetly deseriptlve of the ground, both in form and character. The Lehman system of topographical drawing has been adepited, but with such
modificationa as the nature of this conntry exacted, in order to preserve the beauty of the maps. The slopes are represented by hachurea, the atrength and distance apart of whicb ludicats tho degree of inclination. In the original maps, the horizontal curves limiting the different slopes are drawn in red ink, is the draughtsman progresses in hia sheet.

The scalco of the original aheet is rodou, or about 63 inches Eaglish to the mile. Plans are frequently executed in the field, and furnished from the office, when wanted for local improvement, on twice this scale. But tho charta designed for navigators are necesaarily redaced in dimension. The harbor charts are published on the acalo of $\frac{200}{200}$, or abouf $3 \frac{1}{f}$ inches English, and the nore general chatis on that of $\frac{0000}{}$, or ahout three-feurths of an inch to the mile; which last is the scale of the reat top graphical map of France. In all the maps, the topographical details ars faithfully preserved, including helght, contour, etc.

It appears from the report of tho council of the Roye al Astronomical Society to the twenty-seventh annual general meeting, that a similar seale of execution, and an equal fidelity of representation in the topographical detalls, have been fioally attained in the ordinance maps of England and Ireland. In both the American and English maps, the suldivisiona of tho meridians and parallels are so minute, that parts of a second of space can be estimated.
As the first olject of the coast survey is the knowledge of our own shorea and inland waters, a id the general improvement of the navigation, both external and internal, of the coast, so the large class of facts and researches embraced in the general term hydrograpiny are regarded aa being of paramount importauce. It is to tho hydrography that the frienda of the const survey direct the public attention for the evidences of its great practical utility, and the discoveries in this depariment have been so numerous and valuable as to secure for it a high degree of public favor. The first ponular inquiry conce ning the const survey is as to the progress it has made, and this inquiry ls satistied ly learning the extent of the shore line over which the hydrographer has passel. But beforo estimating ita performance in this way, it is necessary to soy, that, as the opr sations of the tring gulatlone, ete., must precede the hydrography, this leuda to an rafair estimate. The hydregraphy can only he laid down when the trigonometrical points on which its operations are based have been establlshed; thus two-thirds of the work may be completed when the hydrographleal labors commence. In 1844, the first year of Dr. Dacho's superintendence, nine States on the Atlantio sca-board shared in the benefits conferred hy the coast survey; in 1845, thirteen Statea; in 18.1G, fifteen; and in 1847, elghteen States. The estlmates for the present year inelude all the States on the Atlantic and the Gulf of Mexico, and it may he inferred at onee from this siatement that, if sufflechert appropriations aro supplied by Congress, a definite and net distant period can be assigned for the completien of the whole work.
Having premised this atatement, which was necessary to give a cerrect ilen of the progress of the work, it may he added that the nautical parts of tho survey havo extended genorally from Nantucket Sound to Hampton lloads nearly, includlag the Vineyard Sound, Hock Island and Long Island Sounds, with all their harbors, grent and small, New York llay and harbor, Delawne llay and river, a large part of Chesajeake Bay, together with most of the rivers emptying into it north of e Potomac, and all the external sea-const, from tho southern soast of Masaachusetts to the Capea of the Delawsre. In this broad seld a little remains to be done, but very little in comparison with the whole. In addition to the above, something has been accomplished in the hyilragraphy of Albenario and Missigslppi Sounds, anil in the latter especially great bencfits have already resulted to it local coumerce.

It will givo, perhapa, the best idea of the value of the hydrographical work to enumerato some of those discoveriea and corrections which, in different places, have signalized the progress of the cosat survey. The first of these in order and in merit is the discovery of a new channel, atraighter and deeper than the channels before known, over the outer bars of New York harbor, Such a gift as this to the first conmercial city of the continent, where it was very much needed, ought to gain permanent favor for the enterprise by which it has been made. Important changes in the main ship-channel near Sandy Hook were first noticed by Major Bache, of the Topograchical Engineers, by a comparison of his own limits with those of tho coast survey in 1842, and this discovery has since been confirmed by the latter. So rapid has been the accumulation upon the extreme point of the Hook, that the lighl-water mark now stands where there was a depth of 40 feet in 1836. The Chamber of Commerce of New York has graicfully acknowledged the communication of this innportant faci by the present auperintendent. In Delaware Bay a new and straight channel wae discovered, lying parallel to the main ship-channel, more narrow than the latter, but likely to prove acrviccablo in scant winds, and lecter sheltered from floating ice. Three chamnels were opencd through tho ridges of Cape May, and a passage made known through the "Cver-falls." The future clanges in the latter, which may prove to be the gern of a new pass to the ocean, will we watched with intercst. The resalt of the survey in Delaware Bay has been wholly to change the form of the bottom, as it stood on the old charts. Some shoals have heen erased altogether, a new one near the deep water of the chan-nel-way has been added, and the limits, shape, depth, and direction of every shoal in the bay have buen altered.
In Long Island Sound, Buzzard's Bay, Massachusetts Bay, and Chesapeake Day, so much has licen added to the safety of navigation by laying down positions correctly, and by good sailing directions, bot chiefly by the actual discovery of useful chanuels or of hi!!den and unknown dangers, that a list of these additions alono would oceupy too much space. In Long Island Sound, $n$ rock liaving ouly 13 f fect of water on it, on the Cerberus Sioal, was discovered and deternined ly the brig Washington, in September, 1815; and in the same year thecorocks were found in the most frequented jart of Buzzard's Bay hy the Galhath. Changes of the highest limportance, which, owing to nnturn causes, lad iaken place in the channel-way of the entrance to Mobile lay, were found out by the Phonix in 18.17.

In the off-shoro work, the most valuable discoveries have been made by the hydrographical party employed on the Nantueket Shoals. They deeply coneern the navigation, foreign and domestic, of the whole const: especially the Earopean trade from New York and the West India trade from the Eastern States. Tho insurance offices of New York and loston have publicly acknowiedged their oldigation for these discoverics.
To this part of the hydrugraphy belongs the exploration of the finlf steam, an enterjrise that origimated whth the present superintendent. 'I his is a work of diflevity and the. It was commenced by the hyibrogriphicinl assistant in command of the lirig Washington, in 1845, who obtalued bottom wear the imer cige of the stream at the depth of 5800 feet, mul the mathed and rapild change of temperature at this place fave reasou to hope that a eurve of similar depths might he traced, corresponding to the imer line of direction of the Gulf Stream, of which any point would he known when crossing, from the characteristic changes of temperature. The Intitude (the most casy of the two coordinates to ascertnin correctly) leling given, the ship's longitude would result sufficlently near the truth to lie of essential service in approaching the coast. 'The derp gea and surface temperatures were both taken in 18:10.

Licutenant Bache succeeded to the charge of this anty in 1846. Professor Henry has thus spoken of his merits and success: "In the last report, an account was given of a series of olservations on the Gulf Stream, made by Lieutenant George M. Bache, whose life fell a sacritice to his zeal in the discharge of hls duty, and whese loss science was called upon to mourn just as he was commencing, with hls accustomod ardor, the investigation of one of the most interesting phenomena of our globe. The results he obtained will bo given to the world in another publication, and it will be sufficient to state in thls place that he examined thre entire sections across the stream. His researches exhibit the remarkable fact that the whole current of warm water, to the depth of nt least 480 fathoms, divides itself into twe princlpnl branches, separated by a portion of cold water, and that the tratisition from the cold water, along and nex to the coast, is ... st instantancous, as if the two were separated by . searly perpendicular wsll, slightly inclining to the cast at the top."

The sutject of the tides is now recelving for the first tine, in thls country, proper attention. The tlde-tabtes on the charts contain all the irformation as to times, heights, and durations, that is required in practice. Corrected establishments are deduced from the mesos of the huni-tidal intervals combined for ench halfhour of trnesit. The astronomicnl problem of the tides is worked out for prominent points where the observations have sufficiently aecumulated.
The menn curves of semi-menstrual inequality of tinse and belght, corrected for the mean annual paralisx and declination, ara compared with the curves of observation (freed from the diurnal inequality) at each seml-lunation, and the variations in the times and helghts of high water, due to chnuges in the moon's declination and distance from the earth, ara tabulated for the future improvement of the tide-tnbles.
Hy the centinuance of careful and constant observations, the means will be supplied of adding to tho knowledge of the dlurnal and solar inequalities, and of studying nil other phenomena of the tides. Tho residunl errors that appear in the semi-menstrual curves, after elioinating the etfeets of parallax and declination, sre caused by atmospheric changes. The local hufluence, therefore, of particular winds, and the genernl effect ef chnnges in the pressure of the ntinosphere, are to be investignted, and enough is already known to prove that the scaman will derlve great profit from this part of the labors of the coast survey. The direction nud velocity of thal currents are now carefully determined for the normal cendition of the tides, and fur their disturbsnce by winds and storms, nud a knowlege of the courses and cenflets of the thles in the harbors and inland waters of tho United States (us Long Ishand and Vineyard Sounds) will alse result from the comparison of numerous recoris, kept with n special view to their investigntion.
To the preceding ncconnt of the operacions of the cosst survey it inust be ndded, that the reduction of be maps to the senle of publiention, the engraving and printling of them, are entirely executed in tho otlice at Washington. An exceptlon is made in the engraving of the smaller harbor mops, partleularly of the harhors of refuge. They are somethmes placed in the hunds of private nrtists, which serves the deuble olject of an carlier publication mid of encouraging the art of mapengraving lat this country. The jropriety of pulilistilig to the world the important resultis of the const surveyas ason as ohtained wns lumedintely recognized by Professer liaehe. In the enso of a discovery nffecting the genernl navigntion of the coast, like that of the "New South Shonl," a "preliminary aketch," anticipating the complete chart, has been freely tistributed. In other enses, information has been disseminated through the press, or furnlshed by authority, to ehartselfers. The oflec at Washington contalns nlso werkshops, at wheh the various instruments of the survey
are repaired and made. All the details of the office duties, whether relating to the verification and engraving of maps, or the occupation of the workmen, in the aliseace of the superintendent, are under the direction of Captain A. A. Humph: eys, of the Topographical Engineers, an assistant. As the operations of the coast survey are numerous and various, and its duties very multiplied in detail and complicated in their connection, it will be readily believed that the direction and adjustment of them-the instructions, the reports, and communications arising from them-make the office of superintendent one of increasing labor and respensibllIty. Besides personal attention to these duties, Dr. Bache occupies the station of the primary triangulation at the north, and the observations, whether geodetic, or astronemical, or magnetic, are either made by himself or under his immediate supervision. In the same manner he has also measured a buse line for Section VIII., on Dauphin Island, and carried the main triangulatlon across from the Chesapeake to Washingten. In a work of such magnitude and extent, occasional indirect contributions to knowledge may be expected, and there is every disposition to nake them.

A point of interest to the geologist, developed by the operations of the coast survey, is the changes that are constantly occurring in different parts of the coast. In this respece its present accurate determinations will furnish in futuro the means of interesting comparisons. It must bo remarked here, also, that too much importance com not be assigned to this view of the results of the coast survey. With regard to most harbors of consequence, the question is repeatedly asked whether they have undergone any change; and this question can rarely be satisfnctorily answered, for the want of a correct standard of comparison. The charts of the coast survey will enable the future hydrographer to point out the changes, If any, and the future engineer, in his endeavors to improve or to preserve the chamela of navigation, will, by a careful stady of these changes, be able to guard ngainst the causes of obstruction, and to co-operato intelligently with natural lnws, instead of blindly opposing their effects. The manner in which harbers aro atfected by the matter held in auspension loy the rivers emptying into them, that is, the place and form in which thls matter is deposited, will receive such elucidation from the inquiries of the coast survey as will nssist the coumsels of the constructing englneer.
The charts of the coast survey exhibit, as far as they go, a view of the topographical formation of the bottom of the sca. Specimens ars collected, and preserved in the office, of the bettem in all its varieties, and it was the intention of the lata Licutenant Bache to form a geelogical mmp, on which the materials thus collected should appear, in the naturnl order of their formation. lesides serving as useful indications to the navigator and pilot, they prove to be, when placed under th, microscope, highly interesting to the naturalist. The decp-sen soundings hava been examined by Professo: I. W. Hailey, of West Polnt, and have been found to be tilled with organisms, particulnrly those of the calenreous polythalamit. to an memeunt thint is reallyamizzing, hundreds of millions existling In overy cubic inch. "One speclmen, from the depth of ninety fathems, is crowded with remains, most of them large enough to Le recognized by a practiced eye without the ald of a marnitier." And it is not impossii.le that, in similar enses, science may supply the matines with nother mode recognizing the clanrncter of the bottom. In 18.17, J'rofessor I.. Agnssiz, of Camb idge, aecompanied one of the hydrographiens parties engaged in the offshore work, by the invitation of lts commander, and enjuyed nn opportunity of examining the animals inhabiting dopthis that are rarely accessible. It proved to the $n$ rich fleld of discovery. Not only many new species, bint acveral new genera, were ardleil to the known tists; the subject of embryolugy recelved fresh Hiustrations, and a now light wad thrown upon the
laws of the geographical diatributlon of anlmals, showing that in the different depths of the sea, as in the elavathons of the land, dlstinct families have each their assigned and native dwolling-place.
It would lead to but a partial eatimate of the value of the coast survey to omit these examples of its incldental benefits to knowledge. There are othere upon which there is not room to dwell. The friends of this work have reason to be satisfied with its progress, and it is confidently believed that they may lay aside all
apprehensiona for its future prosparity. It rests upon the firm support of a controlling pubilc oplaion in the government and among the people. Workiag, as it does, in a fiald that is useful and honorable, and belng conducted in all its branches with zeal and efficiency, it can not fall to add every year to the coasideration with which it is now regarded, not only at home, but in every country where scienco and its application to the arts of life are justly appreciated.-American Al. mamac for 1849.

Resclits of tue Coabt Survey at mifyerent Perione, from 1844 to 1864.

|  | Previaus to 1844. | $\begin{aligned} & \text { From 1444 } \\ & \text { to } 1859 . \end{aligned}$ | For 1858. | For 1853. | Total from beginning of Surves. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Reconuolsamnce: |  |  |  |  |  |
| aren in вquare milea . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0,642 | 30,548 | 1,704 | 1,768 | 48,604 |
| Baso partiea, nuinber of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ...* | ... | 6 | 5 | .... |
| number of. | 1 | 6 |  | 2 | 8 |
| prelimiaary, number of. ...... . . . . . . . . . . . . . . . . . . . . . . . . | ${ }^{2}$ | 14 | 4 | 4 | 24 |
| leagth of, in miles . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 193 | 64 | 41 | 18 \% | 1061 |
| $\underset{\text { Triangulation: }}{\text { aren in spuare mijea . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . }}$ |  |  |  |  |  |
|  | 0,076 310 | 17,294 976 | $\begin{array}{r}1,703 \\ \hline 224\end{array}$ | 8,089 154 | 81,162 1,604 |
| extent of shoso tine, in milles | 8,215 | 6,427 | 900 | 888 | 1,604 11,430 |
| horizontal angle stations, number | 760 | 1,160 | 223 | 224 | 2,357 |
| points determined, nusuber of. . . . . . . . . . . . . . . . . . . . . . . . . | 1,183 | 2,008 | 446 | 840 | 3,983 |
| vertical angle stationa, number of . . . . . . . . . . . . . . . . . . . . . . | 15 | 71 | 14 | 7 | $1 H_{4}$ |
| heights determined, number of . . . . . . . . . . . . . . . . . . . . . . . | 44 | 244 | 06 | 0 | 883 |
| Astronomlcal atations: azlmuth, number of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {a }}$. |  |  |  |  |  |
| nzimuth, number of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 82 | 6 | 0 | 56 |
| latitude, number of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0 | 44 | 17 | 20 | 10 |
| longltude, number of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1 | 27 | 18 | 21 | 67 |
|  | *..* | .... | \% | -•* | .... |
| Magnetle stations, nuniber of | . | iio | 8 | 18 | i37 |
| Triangulation parties, number of |  |  | 13 | 16 | 134 |
| Astronomical parties, number of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | .... | 4 | 7 | *..' |
| Magnetie parties, number of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | .... | 5 | 0 | .... |
| Topograpliy : |  |  |  |  |  |
| area in equare inllea | 0,222 | 8,967 | 601 | 5.51 | 11,841 |
| length of shore llae, in milea . . . . . . . . . . . . . . . . . . . . . . . . . | 6,100 | 7,083 | 1,301 | 1,468 | 15,902 |
| Topographical parties, number of. . . . . . . . . . . . . . . . . . . . . . . . . . . | $\ldots$ | .... | 15 | 14 | .... |
| Hydrography: <br> arua in square milea | 9,629 | 20,950 |  |  |  |
| parties, number of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | $\cdots$ | $\cdots 10$ |  |
| toundings, nunaber of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 808,147 | 1,852,000 | 258,076 | 305,377 | 3,253,008 |
| soundings in Gulf Stream for temperature. . . . . . . . . . . . . . . | .... | 1,455 | .... | .... | 1,45 |
| fathoms of line used in sam | $\cdots$ | 143,108 | $\cdots$ | $\cdots$ | 143,108 |
| tidal atations, number of . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 108 | 174 | 66 | 100 | 488 |
| tidal parties, number of . ..... . . . . . . . . . . . . . . . . . . . . . . . . . | .... | - ${ }^{\text {- }}$ | b | 6 | .... |
| current parties, number of. | .... | -is | 3 | 3 |  |
| current stations, number of . . . . . . . . . . . . . . . . . . . . . . . . . |  | 321 | 21 | 80 | 431 |
| spectmens of bottom, number of. . . . . . . . . . . . . . . . . . . . . | 1,327 | 4,345 | 254 | 105 | 6,02!? |
| Topographical minps (originai), number of | 164 | 187 | 20 | 81 | 416 |
| 11 ydrograplical naps (original), number of . . . . . . . . . . . . . . . . . | 127 | 172 | 25 | 49 | 873 |
| Reductions and other thaps . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 326 | 399 | 174 | 133 | 1,0\%2 |
| Totat number of manuscript maps . . . . . . . . . . . . . . . . . . . . . . . | 619 | 765 | 228 | 216 | 1,821 |
| Records of triangulations (oricinal), number of volumen. . . . . . . | 07 | 183 | 33 | 64 | 327 |
| Kecords, antronomical (original), number of volunues. | 17 | 149 | 48 | 29 | 243 |
| Records, magnetie (orfgital), number of $\backslash$ ulumea . . . . . . . . . . . . . | 4 | 52 | 7 | 0 | 69 |
| Duplicates of the above, number of volumes . . . . . . . . . . . . . . . . | 27 | 250 | 73 | 70 | 420 |
| Computetions, number of volumes.. . | 78 | 158 | 72 | 101 | 400 |
| Hydr-graphical booke, munding ( ( ${ }^{\text {ariginal), }}$ number of voiumes | 1.48 | 990 | 200 | 188 | 1,567 |
| and angle observations....... (luplicates), | 288 | 70 | 27 | 15 | 140 |
| Hydrographleal looka, ildal and (original), "4 | 127 | 499 599 | 139 | 123 | 889 |
| current observatione. . . . . . . . , (duphicates), 4 | .... | 599 | 132 | 114 | 845 |
| 17ydrographical books, tidal reductlung, nimber of volumes. . . . | $\cdots$ | 2201 | 20 | 6 | 2082 |
| Total records, numbur of volumes. . . . . . . . . . . . . . . . . . . . . . . . . . | tut | 8,110 | 703 | 717 | 5,160 |
| IJbrary, number of volunes . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 1,643 | 171 | 273 | 2,117 |
| Fingraved platen of maps, number of. . . . . . . . . . . . . . . . . . . . . . . . | 5 | 40 | 8 | 4 | tit |
| Engraved pintes eiectrotyped, number of. . . . . . . . . . . . . . . . . . . . | .... | 65 | 28 | 47 | 146 |
| Pubilshed mapes, number of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | , | 87 | 5 | 6 | 47 |
| Printel sheets of mape distrihuted, autuber of. . . . . . . . . . . . . . . . | . . . | 15,50t | 8,709 | 8,042 | 29,342 |
| Printed sheetm of maps, sale ngenta, nutnier of . . . . . . . . . . . . . . . | ... | 28077 | 6, 810 | 4,8i5 | 39.319 |
| Totat nimber of printed sheets. . . . . . . . . . . . . . . . . . . . . . . . . . . |  | E7, 601 | 31,818 | 24,066 | 112.485 |
| Inatrimenta, cont of. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . . . | \$ 167.104 | 4 41,635 | 46,290 | \$170,225 |

General List of Const Survey Discoveries and Deerlipments to 1853 inclusite, compiled by Lientenant 5: B. IIunt.-As the operations of the survey alvance along the coast, lmportant facts before unkuown are constantly brought to light. Many facilites for, anul dangers to, navigation are thus diseoverel, which had been before wholly unknown, and those before but inperfectly known aro developed by accurate surveys. Many such devolopmenta and discoverles oecur In the geodetle and topographical operations, some of which are of no slight value; but those wheh are embraced In the hydrographic work are often of vital importance to commerco and navigation. The following list presents some of the most limportant items of this nature,
and may collectlvely be regarded as exlibiting one of the most valuable results of the survey. In fact, each shoet which glves shere line and hydrograply with increased accuracy has somewhat of discovery or development to clain; but ln this list only thosa casez are Included $\ln$ which a spleclfic bencfit has theen conferred on navigatlon, elther by unfoldhig some new fucility, ullsclusing some serious danger, or Indlenting some İmportant change of contlguration. The arrangement is geographical, and in tho oriler of soctions.

1. A rock not on any clart, in the laner harbor ef Gloucester, Massachusetts-ilisco vered In 185 si .
2. A bank 90 miles eastward of Boston, whili about 36 futhoms water-probably a kuoll cennected with

Casho'
ledge-
3.

covered
South
York a
Easter
5. D
tucket-
b. D ermost 7 ered in
8. D survey north a Davis's -surre
10. 1

Shoal a
11. I
fathoms
lip, the northwa ries of s
12. C omoy Is harbor-
12 bis
c. II. 1
in 1850.
13. N
Long Is connect
14. G
two feet
trua dep
iag old o
been kn
D'Estain
the asse
15. S
the mait
reys of
by sever
15 bis.
certaine
tenalu !
16. 1
discuver
dosed 4
velop sti
"arc.
17. 1
18. Cl
13. T
shouls ns
20. M
x fect in
21. T1
ginia-
esstward
1852.
22. 1 any chat more's 1 on it, an
2i. G
lisve a
har at lo
in from t
the Ches

Cashe's ledge, but with deep water between it and the ledge-185?.
3. Degton harbor : Broad Sound channel thorenghly -nri. ed, an ${ }^{\text {c marks recommended- } 1848 . ~}$
4. Nantucket Shoals: Davis's New South Shoal, dlscovered in 1846, slx miles south of the old Nantucket South Shoals, in the track of all vessela between Now York and Europe, or runnlig along the coast from the Eastern to the Southern States, or South America.
5. Ditto: Two new ghoals north and east of Nan-tucket-discovered $\ln 1817$.
i. Ditto: Six new shoals near Nantucket, the outermost one 14d miles from land, and with only ten feet water-discovered in 1848.
7. Ditto: McBlair's Shoals, off Nantucket-discovcred in 1849.
8. Ditto: Davis's Bank-discovered $\ln 1848$, and survey finisbed in 1851.
9. Ditto: Flshing Rip, a large shoal extending north and south abont 10 miles to the eastward of Dsvis's Bank and 30 from Nantucket, with $4 \frac{1}{2}$ fathoms -urrseyed in 1852.
10. Ditto: A ridge connecting Davis's New South Shoal and Davis's Bank-found in 1853.
11. Ditto: A small bank or knoll, with but five fathoms on it, about five miles east of Great Rip, with 12 fathoms between it and Davis's Bank and Fishing Rip, the water gradually deepening outside of it to the northward and castwarl, beyond the limits of the serics of shoals.
12. Contraction of the inlet at the north end of Monomoy Island, and opening of new entrance to Chatham barbor- 1853.

12 bis. Maskeget Channel-surveyed hy Lleutenant C. II. Davis in 1848, and Lieutenant C. II. MeBlair in 1850.
13. Numerous rocks in Martha'a Vineyard Sound, Long Island Sounl, and the varinus bays and harbors consected with them.
14. Gedney's Chamel into New York Bay, having two fect more water than the old channels. IIad the true depth of this ehanuel (which is scen, by comparing old and new charts, to have then probably existed) been known in 1778, the French tloet under Count D'Estaing would have passed into the bay and taken the assembled 13ritish vessels.
15. Sandy Ilook: its remarkabla Inerease out across the main ship-chamel has been traced from the surreys of the topographical engineers and others, and by several successive special surveys.

L5 bis. lnerease of depth lin Muttermilk Channol, ascertainet and made known in 1818, by survay of lieutenalac 1). 1). lorter.
16. Delaware Bay: Ilake's Channel nt the entrance discovered in 184-open when the enstern chanmel is closed by the lec. This illscovery has served to develop strikingly tho resources of that portion of Delaware.
17. Blunt's Channel in Dciaware Bay.
18. Changes in the Delaware near tho Pea Patch.
19. The true extent and position of the dangerous shouls near Chincoteagno Inlet, Virginin-1852.
20. Metompkin Inlet, Virginia, shoaling from 11 to A feet in the channel churing 1852 .
21. Two chamels lato Wachapreagne Inlet, Vir-ginia-one from the northward and the of .er from the castward-both with seven feet water at low thle1832.
22. A shaal half a mille in extont, not put down on any chart, $5 \frac{1}{2}$ milles cast from the north end of Praramore's Istand, Virghia : it his but four fathoms water on it, and his wine futhoms around $\mathrm{It}-1852$.
23. Grent Machipungo lulet, Virghia; found to have a the whle channel, with 11 feet water on the har at low tide and 14 at ligh; goot anehorage insido In from two to elght futhoms: the best harbor between the Chesapenke and Delaware enlrances-1852.
24. Two shoals near the entrance to the Chesapeake -one $4 \frac{3}{4}$ nautleal miles southeast by east fro:n Smlth's Island light-house, wlth 17 feet upon it; and the other cast by south nearly, 78 miles from the same light, with $19 \frac{1}{2}$ feet upon it-1853.
25. Only three feet water upon the "Inner Niddle," the shoal part of the Mlddle Ground west of the "North Channel," at the Chesapeake entrance-. $\mathbf{d 5 2}$.
26. A 25 fathom hole $2 \frac{1}{2}$ miles west-sonthwest from Tazewell triangalation polnt, eastern shore of the Chesapeake; all other charta give not more than 16 fathoms in this vlcinity.
27. A shoal at the mouth of the Great and Little Choptank, in Chesapeake Bay-1848.
28. Dceper water found on Diamond Shoal, and a dangerous nine-fect shoal off Cape Hatteras-1850.
29. A new channel, with 14 fect water, Into Hatteras Inlet, formed during the year 1852, which is better and straighter than the old channel.
30. The well-ascertained influence of prevailing winds in the movement of the bars at Cape Fear and New Inlet entrances, and the gradual shoaling of the main bar ; the latter fact being of grent importance to the extensive commerce seeking this harbor-1853.
31. Frying-pan Shoala, off Capo Fear, North Carolina. A channel of $2 \frac{1}{2}$ fathoms, upward of a mile wide, distant 11 naulical miles from Bald Head lighthonse, across tho Frying-pan Shoals. A channel extencling from 3 to 4 miles from the point of Cape Fear to 8 to $8 \frac{1}{2}$ miles from it, with aufficient water at low tido to allow vessels drawing nine or ten fect water to cross safely. A channel at the diatance of 14 nautical miles from Bald IIead light-house, one mile wide, with 8t to 7 fathoms water on It. The Frying-pan Shoals extond 20 nautical miles from Bald IIead light-house, and 16,17 , ant 18 feet water is found 17 and 18 nautical miles out from the light-1851.
32. Shoaling of Cape Fear Rlver bar thoronglily examined for purposes of improvement- 1852.
33. Changes at the entranco of Winyah Bay, Georgetown harbor, and the washing away of Lighthouso Point, at the same entrance- 1853 .
34. Maftitt's new channel, Charleston harbot, with the same tepth of water as the ship-channel-1850.
35. Changes in the chamels at tho entrance of Charleston harbor-1852.
36. The remarkable discovery of continuous deepsen soundings off Charleston, and of soundings in the dopth of hetween 400 and 500 fathoms beyond the Gulf Stream-1853.
37. The ilscovery of cold water at the hottom of the sen below the Gulf Strean, along tho coasts of North and South Carolina, Georgia, and Florida-1853.
38. The diseovery of tho cold wall, alternate warm and cold hands, and various other fentures of the Gulf Stream, espectally such as concern its superficial and deep temperatures on sectlons, and its distribution relative to the shore and botlom.
39. Various facts relative to the distribution of miunte shatls on the ocean-bottom, of prohable use to navigators for recognizing their positions.
10. Hetzel Shoal, otl Cape Canavernl, l'lorida--1850.
11. A new passage, with threo fathous water, through l'lorlda IRef to Legaró harhor, uniter Tri1 mph lieef (lat. $25^{\circ} 30^{\prime} \mathrm{N}$. , long. $80^{\circ} 03^{\prime} \mathrm{W}$.), which, if properly bnoyed, will be valuable as a harbor of refuge.
42. A new chmael lnto Key West harbor-1850.
43. Isatac Shoal, near Robocea Shoal, Florida Reef; not lald down on any chart-1852.
4. Channel, No. 4, a northweat entrance into Cc-Jar-Keys llay-1852.
15. Nobilo llay Lintrance Bar; In 1892 only 17 fect at low water could ho carried over lif in 1811 it was 19 fect; and in 18.17 It was 208 foct, as shown by successive surveys-18.17.
46. The dimhution, almost closing, of the pussage
between Dauphine and Pelican Islands, at the entrance of Moblle Bay-1853.
47. Horn Island Channel, on the Coast of Mississippi.
48. The removal of the East Spit of Petit Bois Island in tho hurrlcane of 1852 , opening a new communication between the Gulf and Mississippi Sound, and the rendering of IIorn Island Pass more casy of access by the removal of knolls- 1853 .
49. The accurate determination of Ship Shoal, off the coast of Louisjana, In connection with the site for a light-house- 1853 .
50. The changes at Aransas Pass, Texas, as beariag on the question of $a$ light-house site- 1853 .
51. The determination of the position and sonndings on Cortez Bank, near the island of San Clemente, coast of Califormia-1855.
52. A shoal inside of Ballast Point, San Diego Bay, with $12 \frac{1}{2}$ fect of water; not laid down on any chart1852.
53. Changea in the channels of entrance of II umbeldt Bay or harbor, California-1852 and 1853.
54. The depth of water on the bars at the entrance of Rogue River and Umquah River, Oregon- 1853.
55. Sonth Channel, Columbia River, surveyed and made avaifabie to conmerce-1851. Changes of channels, their sontliward tendeney, and a rew threc-fathom chanuel from Point Ilancock, duo west to open water, Colnmbia entrance-1852. Further changes1853.
56. Various surveys and charts of small harbors on the Pacifie, and a continuons recomoissance of the entire western coast and islands adjacent, a great part of which was very imperfectly known.

## Additional List for 1854.

57. Determination of the dimensions of Alden's Rock, near Cape Elizabeth, Maine.
58. A bank (Stellwagen's llank), with $10 \frac{1}{2}$ to $14 \frac{1}{2}$ fathoms of water on it, at the entrance to Massachusetts Bay, and serving as an inportant mark for approaching llosten and other harbors.
59. A dangerous sunken ledge (Davis's Ledge) to the eastward, nind in the neighborhood of Minot's Ledge.
60. Several rocks in the fair channel-way in Boston hartor entrance.
61. 'The tidal currents of Nantucket Shoals and the nptroaches.

6:. The tidal currents of I.ong Island Souml.
63. Tho changes in New York harbor, near the city, between 1845 and 1854.
64. The gencral peimanence of the Bodkin Channel and shoals in its ricinity, at the entrance of the I'atapsco Rlver-between 1844 and 1854.
65. A shoal (Now Point Shoal) in Chesapcake Bay, with 16 feet water on it, southeast from New Polist Comfort Jight-house, off Mohjack Ihny.
66. A reconnoissance of the Wimble Shoals near Nag's IJeall, const of North Carolina.
67. The general permanence in depth on the bar of Beaufort, North Carolina, with the change of position of the channel.
68. Tha changes in Mafitt's Channel, Charleston harbor, South Carolina, from $18: 2$ to 180.4 .
69. A harbor of refuge (Turtle harbor) to the northward and westward of Carysfort light-house, Florlda Reef, with a depth of water of 26 fect at the entrance.
70. A safe rule for crossing the Florlida licef near Indian Key.
71. Co-tidal linas for the Atlantic coast of the United States.
72. An increase of depth of water on the bar at lass Fonrehen, loulsiana.
73. A shoal at the entrance to the Stralts of Rosario, Washington Territory, glving good holding ground in 33 feet.
74. Belle Roek, in the middio of Rosarlo Strait,

Washington Territory, visible only at extreme low tides.
75. Entrance Rock, at the entrance of Rosario Strait.
76. Unit Kock, in the Canal de Haro, Washington Territory.
77. A five-fathom shoal in the Strait of Juan de Fuca, between Canal de Haro and Rosario Streit.
78. The non-existence of two islands at the northern entrance of Canal de Ifaro, lald down oll charts.
79. The non-existence of San Juan Island, nsually laid among the Santa Barbara group.
80. Tides of San Dlego, San Fra'icisco, and Astoria. - Coast Surrey Report for 1854.

Cobalt (Ger. Kobalt; Du. Kobal; Swed. Cobolt ; Fr. Cobalt; It. Coballo; Russ. Kobolt; Lat. Cobaltum), a mineral of a gray color, with a shade of red, and by no means brilliant. It has scarcely any taste or smell; is rather soft; specific gravity about 8.6. Sometimes it is composed of plates, sometimes of grains, and sometimes of small fibres adhering to each other. Its oxides are principally employed,-See Smalis, or Smaltz. They form the most permanent blue with which we are acquainted. The coloring power of oxide of cobalt on vitritiable mixtures ls greater, perhaps, than that of any other metal. One grain gives a fult blue to 240 grains of glass.-Tuonson's Chemistry and Une's Dictionary.
Cocculus Indicus, or Indian Berry (Sanse. Kukumari; Malay, Tubabidgi), the fruit of the Minispermum Cocculus, $n$ large trec of the Malabar coast, Ceyten, ete. It is a small kidney-shaped berry, having a white kerncl inside of a most mnpleasant taste. It is of a poisonous and intoxicating quality, and has been employed to adnlterate alo and beer.

Cochineal (Gcr. Koschenilje ; Du. Conchenilje; Fr. Cochenillc; It. Cocciniglia; Sp. Cochinilla, Girana; l'ort. Cochenilha; Russ. Konssenel), an insect (Coceus catil) found in Mexico, Georgia, Sonth Carolina, and some of the West India islands; recently, also, it has been introduced into Java, and promises to become an inportant product of that rapidily improving colony. Formerly it was in Mexico only that it was reared with care, and formed a valuablo articte of commerce; bat its culture is now more or less attended to in varioos parts of the West Indies and of the United States. It is a small insect, seldom exceeding the size of a grain of barley; and was generally believed, for a considerable time after it began to be imported into Europe, to be a sort of vegetable grain or seed. There are two sorts or variethes of cochincal: the best or domesticated, which the Spaniards called grana fint, or tine grain; and the wild, which they call grana sylrestra. Tho former is nearly twice as large as the latter, probably becanse its size has leen improved by the fasorabe effects of haman care, and of a more copious and suitable noarishment, derived solely from the Cutus coehinillifer, during many generations. Wild cochineai Is collerted six times in the year, but that which is cuitivated is only collected thrice during the same period. The insects, of which there are abont $70,000 \mathrm{in}$ a peund, being detached from the plants on which they feed by a blant knife, are put inte bags, nud dipped in boiling water to kill them, after which they are dried in the sun. It is principalty nsed in the dyeing of scarlet, crimson, and other esteemed colors. The watery infusion is of a violet crimson; the alcoholic, of a dec $j$ crinson; and the alkaline, of a deep purpte, or rather violet huc. It is imported lu bags, each containing atout two hundred penuds; and has the appearance of small, dry stariveled, rugose berries or seeds, of a deep brown, parple, or mutherry color, with a white matter between the wrinkles. In this state they suffer no change from length of keeping. Ir. Hancroft says that that cochineal ls the best which is "large, plamp, dry, and of a silecr-white color on the surface." The speeles of corhineal called granilla, or dost, is supposed by Dr. Ilancroft to be princlpally formed of
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grana sylvestra. The insects of which it consiats are smaller than those compesing tho fine cochioeal, and it does not yield more than a third part of the coloring matter that is yielded by the latter. The cochineal insect was introduced into India in 1795; but a very inferior sort ouly ia produced. It has also been introdaced into Java and Spain, but with what success romains to be soen.-Thomson's Dispensatory; Bavchort on Colors, etc.

Tho cochineal plant (Cactus cochinillifer'), or some of its congeners, is found in varying abundance throughout the torrid zone, as well as in several warm and temperate countries without the tropics. But much doubt still oxista as to what particular species nourishes the cochincal insect, as it is believed that the plant wifich was named by Linnaus, and which has beenalmost universally called Cactus cochinillifer, it, not the one that produces the best Mexican cochineal; nor is it positively known in what part of America it was originally n nativo. Linnaeus spoaks of it as indigenous to Jumaica, and the warmer parts of the New Worid; but others assert that it was brought from South Ameriea by a Spanish priest.

Cochin China. This oxtousive kingdom is situated in the southern oxtremity of Asia, and forms part of the peninsula between China and Ilindostan. It is not separated, however, by any distinet boundary from the neighboring countries; and its limits have been gratily extended by conquest beyond thoso of Gochin China proper, which is merely a strip of land between the China Sea and tho mountains, and is not sbove sixty or seventy miles broad. Tho empire of Cocinin Ctina, which took lts present form in tho beginaing of the present century, comprehends Cochin China proper, Tonquin, the prineipal part of Cambo dia, and the littlo state of Chimmpa. This state, as it has been aggrandized by conquest, extends from the point of Cambodin, in about $8^{\circ} 30^{\prime}$ N. lat., to tho northern confines of Tompuin, which reach within n very few miles of the tropic of Cancer, and from the longithele of $102^{\circ}$ to about $100^{\circ} \mathrm{E}$. It is lounded on the north by the Cininese Quangsi or Kiangsi and Yunan; on the west by tive kingioms of Laos and Siam; while tho Gulfs of Siam, Tonquin, and tise Chisn Sea bound it on tise southwest, enst, and northeast. Its area is estimated at about 98,000 square miles, and its population at from $12,000,000$ to $16,000,000$. This great country is divided by long ranges of mountains, which rum nearly north and south, and in almost paralle' ehains, forming it into aeparate provinees, divided by physical boandaries, and iniabited by distinet tribes and nations, although subject to tho same sovereign. By these mountainous ridges Tonquin and Cochin China preper aro separated from Lactho, Laos, nnd Cumbodia. Another chain separates the three latter states from Siam and China, nud gradually diminishes in ieghit as it approaches tho south, terminating at tho soathern extremity of Cambolin.

The soil in Cochin China, especially in the low lands, is fertiie, and its products aro very valuable. Of theso rice, as being the general food of tho peopie, is tho staple commodity; and after supplying the wants of tho people, about 100,000 piculs romain aunually for exportation. The cultivation of the sugar-cane, as well as the preparation of sugar, has of late years much increased; and the annual exportation of sugar is considered to be not less than 70,000 pieuls, Cotton of the best quality is produced on the coast ; and of this probabiy about 60,000 piculs aro exported. 'Though raw siik is produced, it is principally for home consamption. Cimamon raml. high among its productions, and has always heen celebrated in China. In the soutiern jarts tho encon-nit grows very laxuriantiy, and honco there is a large exportation of oil. Periper of a good quality, but in smail quantity and of a high priee, is produced in the central provinees of Coehin China; but the quantity is inaderjuato to the de-
mand which the Chinese trade creates for its exportation. It grows among the central mountains of Cochin China, whence it is exported to Cambodia and Tonquin, but principally to China, where it is much more highly valued than any other quality of this aromatic. Another exclusive product of the central parta of the kingdom, which is extensively cultivated and aent to the nsighboring provinces, is tea, which is very coarse and only used by the poorer classes. The other productions of the country are, gamboge, gum, cardamoms, eaglewood, areca-palm, betel-nut, ivory, stick-lac; hides, consisting of deer-skins, buffalo, clephanta', and rhinoceros hides ; peltry, consisting of tiger, leopard, otter, and cat skins; feathers, salt fish, horns and bonea, dye-woods, and woods for ship-building and for domestic purposes. Valuable timber is only found in Cambodia, and a amall quantity of teak-wood is found in the forests; also ebony cedars, mimosas, walnuts, ironwood, and poon, and most of the other trees found in the woods of India. The wood used for ship-building and for domestic jurposes is strong and durable, and is carried to the capital in large quantities. There is a hard, black wood extensively used in cabinet-work, and of large dimensions, which takes a fine polish, and might form an article of exportation. Cambodia also produces the Portuguese rose-wood, which the Chinese export as they do from Siam; also sandal-wood and ether scented woods. Among the products of Tonquin is a specics of vegetable root, a cheap material, which forms the dead-weight of all the Chineso cargoes exported from Tonquin, and is used extensively both throughout Cochin China and the adjacent countries, and also in China, as the material of a red dye. Edible hirds'-nests, the sea-slug usually called biche-te-mer, or Nipunculus cdulis, and various marine productions of a gelatinous quality, form standing articles of trade with China, and are always in demand.

Tho geological formation of Cochin China is primitive; the mountains aro chiefly composed of granite and sienite. Mica slato and primary limestone here and there occur, while several hills consist of quartz rock. Among the mountains of Tonquin is the only portion of the Cochin Chineso empire which protucea iron, gold, and silver. The iron received from these mines, which is as chesp as that from Siam, supplies the whole kingdom, with the execption of Saigun, which is furnished from the latter country. Gold dust is found in many of the rivers; and thero are immense rocks of marble sitnated on the banks of the River Faifo, on a kind of sandy plain, of which large quantities have been exported. This romarkable range of limestone rocks rises almost perpendicularly from the low sand hills, to a height of from 300 to 400 feet, without a hill or mountain near them.
The foreign trado of the Cochin Chinese is almost exclusively with China; tho trado carried on with Sian being inconsiderable, and that with European nations still smaller. But there is no indisposition to trade, though among tho European nations the notion has been propagated by travelers that the resort of Luropean traders is in a great measuro interdieted in this kingdom, on the same prineiple as in Japan and China. In 1818, a new tariff was imposed on foreign vessels, by which the high duties impesed on all foreigu vessels prior to 1818 wero repealed, and equal duties substituted in their stead. IBy this regulation all vessels puy a rated measurement duty, moderate in ita nmount, and are exompted from all import duties paynble previous to 1818. Vessels that are driven into the perts of Cochin China by stress of weather, or that visit them fur the purpose of commercial inquiries, are free from all charges. Besides the exports above mentioned ure eardamoms, botel-nut, eagle-wood, dyce woods, stick-lae, gamboge, ivory, elephants hites and bones, and rhinocoros hones. The imports aro silk goods of various kinds, tho coarser kinds of teas, coarse china-waro, paper, cotton and woolen stufts, iron, opl-

very part of the arpose ; and an cocoa-nut trees lvely independcillty of obtainut the reverse; Ig itsinvariabla 3 height of from $t$ the leaves are $y$ strong middle a man's head; a beownish-red y of very tough manufacture of uoyant and exdiameter; and msjority of the s were supplied the fibrous ceatnearly glolular, sh, and ured for s wl.ite, $i$, tasto el-nut ; it is holled with a mitky vhole holles of efreshing, agreesolid part of the but rather indision a grest desl to that of sweet and is then emyields about 100 ut a dozen each. oats, rafters, the vey water. Tha ldings: and are iny other things c ; so that every are exudes from n wine or toddy. few hours, it hebit next day it e of 24 hours is thed, It preduces lso yichls a great in several species $r a$ is the best.INsine's Afateria the preparation iportance in the manufacture of poses to which it alm-oil met with - Cocos nucifera, s chas dy import-M-OLL.
se quantities in oil, arrack, and um that ishand. Taldiv Islamds, coast of Irrazil. over ludia, ard to lower provin? - be esprerior to average of the fallens of cucoa-
"theljaanu, Basw; Sw, Cubeljo, cca, Bacothere; (dus), a spuecies -scription. "It unted $9,3 \times 1,000$ a number that terminate. In i Iamuary, aut
deposit their eggs in rough ground, among rocks. Seme contlaue in roe till the beginning of Aprll. The col is only found in the Northern purts of the world; it is sn vecan Ish, and never met with in the Mediterramean. The great rendezvous of the codilish ls on the Banks of Newfoundland, and the other aand banks that jie ofl the coasts of Cape Breton, Nova Scotia, and New England. They prefer those situations, by reason of thequantity of worms produced in these sandy bottoms, which tempt them to resort there for food. But alsother cause of tha partieular attachment the fish have te these spots is their vicinity to the polar sess, where they retura to spawn: there they deposit their roes in full security; but want of food forees them, as soon as the mere southern seas are open, to repair thither for subsistence. Few are taken to the north of Iceland, bat they abound on its south and west coasts. They swarm on the coasts of Norway, in the Baltic, and otl ${ }^{+}$ the Orkney and Western Isles; after which their aumbers deerease in proportion as they advance toward the south, when they seem quite to cease before they reach the mouth of the Stralts of Gibraltar. Befars the discovery of Newfoundland, the greater tisheries of cod were on the scas of leeland, and ott the Western Isles, which were the grand resort of ships from all the commercial natlons; but the greatest plenty was met with near Iecland. The English resorted thither before the year 1415 ; for we tind that Henry V, was disposed to give satisfaction to the Kingt of Denmark for certain irregularities committed by his subjects on those seas. In the reign of Edward 1V. the laglish wero excluded from the tishery by treaty. Ia latter times, we find Queen Elizabeth condescending ta ask permission to fish in those seas from Christian IV. of Demark. In the reign of her suecessor, however, na fewer than 150 English ships were employed in the Ieclant tishery; which indulgence might urise from the marriage of Janes with a prineess of Den-mark."-l'vNvant's British Zoology. Cod is prepared in two diterent ways; it is either gutted, salted, and then harreled-in whichstate it is denominated green or pickled cod; or it is dried and cured-in which state it is ealled dried cod. Ready access to the shore is indispensable to the prosecution of the latter species of tishery.
bistant Corl f"ishery.-'the great Bank of New foundland, diseovered by John or Sebastian Cabot in 1197, was Jong, nad perhaps still is, the principal seat of the distant cod fishery. The extraordinary abundance of coldis' on its banks having been speedily ascertained, the french, l'ortuguese, and Spaniards soon after engaged in the ifshery. The Finglish were later in coming into the tied. In 1578 France had on the Banks of Newfoundland 150 vessels, Spain 120 or 130, Portugal 50, ant linglami from 30 to 50 . Duriug the tirst half of last century, the tishery was principally carried on hy the Euglish, including the Anglo-Americans and the Frumb; Lut the capture of Cape lireton, and of their other possessuns in America, gave a severe buw tothe fislery of tha latter. 't he Americam war divided 4... iritish tishery; that portion of it which had previously iecu carried on from New Enghand heing there after merged in that of the United States. During the last war, lue lirensh boing excluted from the fisheries, thom of Buglamal attained to an extraominary degree of prosicerity : the total value of the prohace of the New. fombland fisheryin 1814 having exceeded $£^{2} 2$, Row, 010 . lhe sime the peace, the lritish ilshery on the Newfommlland bunks has rapidly declimed; and can hardIy, inderd, $\mathrm{in}^{2}$ sand, ut thls moment, to exint. It is now carried on almost eatrely by the lrench ame the Americias; the facilities mjoyed ly the latter for its prosecution, being greater than those of any other people, nad the forner lecing rempted to engrge la it hy the extraordanary eneouragements ofered ly government. At present, the Mritish tishery carrical on hy the inhalitants of Newfoundland is confmed entirely to the shore or boat fishery. But this, though probably
not so good a nursery of allors as the bank fishery, is admitted to be "the most productive of merchantahle fish and oil."-M'Grkgdis's Brit. Amer., 2d ed. vol. I.

American Cod Fishery.-The Americans have at all times prosecutel the cod fishery with great vigor and surcess. Their tishermen ars remarkable for their ac, vity and enterprise, sobriety and frugality; and thei proximity to the fishing-greunds, and the other facuities they possess for carrying on the fishery, give them advantages with which it is very difficult to contend. In 1795 the Americans employed in the cod fishery about $3!, 000$ tons of shipping; in 1807 they are said to have employed 70,306 tons; but it subsequently deelined for several years, and was almost entirely suspended during the late war. According to the official returns (laid before Congress the lst of January, 1853), the Americans had, in the year ending the 30th of Juac, 1852, 102,659 tons shipping engaged in the cod fishery. During tho same year they exported 134,732 quintals of dried, and 19,879 barrels of pickled cod; their aggregate value being $4153,010$. "The Americans follow two or more modes of fitting ont for the fisheries. The first is accomplished bysix orseven faimers, or their sons, building a schooner during winter, whieh they man themselves (as all the Americsns on the sea-coast are more or less seamen as well as farmers); and after fittlag the vessel with necessary stores, they proceed to the banks, Gulf of St. Lawrence, or Labrador; and, loading their vessel with fish, make a voyage between spring and harrest. The proceeds they divide, after paying any balance they may owe for ontfit. They remain at home to assist in gathering their crops, and procect agaln for another cargo, which is salted elown, and not afterwarl! dried: this is termed mudtish, and kept for home consumptlon. The other plan is, when a merchant or uny other, owning a vessel, lets her to 10 or 15 men on shares. He fints the vessel and nets. The men pay for all the provisions, hooks and lines, and for the salt neces ary to eure their proportion of the fish. Ono of the number is acknowledged master; but he has to eateh ísh as well as the others, anl receives ouly about 20s. per montl for navigating the vessel; the crew have five-eighths of the fish caught, and the owners threceeighthe of the whole. The first spring royage is made to the banks; the second either to the banks, Gulf of St. Lawrence, or the coast of Labrador; the third or fall voyage is again to the banks; and a forrth, or second fali voyage, is ulso made, sometimes, to the banks."N"timedon, rol. i. p. $2 \geq 0$. It is stipulated in the tirst article of a convention between Great Iritain and the I'uited States, signel at London, $20 \mathrm{H}_{3}$ of October, 18 t , that the citizens of the United States shall have liberty to take all sorts of fish "on that part of the coast of Newioundland from Cape Ray to the lameau Islands, on the west ro and northern coasts of Newfoundland rom Cape Ray to the Quirpon Islands, on the Magdalen Islands, and also on the coasts, hays, barbors, as:il creeks, from Momet Joly, on the sonthem const of labrader, to and through the Straits of Belleisle, and thence northward indefinitely along tho coust, without prejulice, however, to any of the exclusive rights of the IIudsen's Hay Company; and that the American fishermen shall also have liberty forever to dry and cure tish in any of the unsettled bays, harbors, and erceks of the southern parts of the coast of Newfoundland here above described, and of the coast of Labirndor; but so soon as the same, or "ny portion thereof, shall be settled, it shall not be lawful fer the suid fishermen to dry or cure flsh without previous agreement for such purpose with the inhabitants, 1 roprietors, or possessors of the ground. A. al the United States herely renounce forever any liberty heretofore enjoyed or clamed by the inhabitants thereof, to take, dry, or curo llsh on or within three marlae mies of any of the ceasts, bays, creeks, or larbors of his Britannls majesty's dominions in

America not Included within tha above-mentioned llmits." The American fishermon are, however, admitted into all bays, ete., for the purpose $0^{\circ}$ shelter, of repairing damages, of purchasing wood, and of obtainIng water, and for no other purpose whatever ; and when there, they are to be placed under such restric-
tlons as may be necessary to prevent their abusing the privileges hereby reserved to them.-Ses Fisneines.

French Cod Fishery,-France has always enjoyed a considerable share of the cod fishery. The follow. ing tablo shows the extent to which she has carricd it since the peace:
 of france fboa tie Cod Fisifry heano the undpa-mentioned Yeara,


The quantitics of oil are exchustve of draches (hufles non epunis); there are afse sommds, etc. Marsetiles, Granvile, Daukirk, Bordesux, La lechelle, and Nantes are the priaclpal ports whence shlps are tlued out for the fishery.

But notwithstanding the apparent prosperity of this branch of industry, it may be doubted whether it be really so beneficial to France as would at first sight appear. It depends more upon artificial regulations than upon any thing else. Foreign cod is excluded from the French markets by the oppressive duty with which it is loaded; and the comparatively great demand for dried fish in Catholic countries revders this a very great boon to the French fishermen. But it is admitted that this would not be enough to sustain the fishery; and high bounties are paid to those engaged in it. These, however, have been reduced of late years; and they will probably in no long time undergo still further alterations. St. Pierro and M1quelon, small islands on the coast of Newfoundland, belong to the French. Their right of fishing upen the shores of that island, and upon the great bank, was replaced in 1814, upon the footing on which it stood in 1792. This concession has been mucli oljected to liy Mr. M'Gregor and others: we believe, however that they have materially overrated its influence.-For further infermation, afe Fishenies and Finanee.

Cod-liver Oil. Puro cod-liver oil is obtained from the livers of codfish; and is best prepared when tha liver is in a state most nearly approaching that in which it exists when alive, and is best adapted for medicinsl use. The finest oil is devoid of color, taste, and smell, three physical cliaracters that are more valuable than any chemical tests. The success which has attended the use of this oil in puhmonsry complaints has led to the introduction of a spurious oil, chiefly preparcd of hleached whale oil, ete., which does not possess the valuable medicinal properties of pure cod-liver oil.

Shark-diter Oil is an oil that has been lately imported from the coast of Africa. It gives the usual liveroil reactions with sulphuric acid: its peculiar interest, however, comes from its low specifie gravity. Until now, sperm oil, which has a specific gravity of 875 , wos the lightest oil known; but the specitic gra ty of this oil is only 866 , It is propared, as its name implies, from shark's liver.

Coffee (Ger. Koffe, Koffebohnen; Du. Kofy, Koffboonen; Da. Kaffe, Kuffelinner; Swed. Koffe; l'r. It. and Port. Caffe; Sp. Cafe; Kuss. Koft; Pol. Kara; Lat. Coffa, Caffen; Arali, Bun; Malay, Käue; l'ers. Tocheon, Kiveh; Turk. Chaube). The coffeetree is a native of Ethiopia and Abyssinia; but it was in Arsbia that it tirst lecame an olject of interast and importance to the civilized world. The plant is an evergreen, and is accurately described by lat hoque as follows: "The coffee-tree is from six to twelve feet high; the stem ten, twelve, and fifteen inches in circuntierence. When it is full grown, it much resembles in figure our apple-trees of eight or ten years' standing. The lower branches ordinarily bend when the tiee begins to grow old, and extend themselves inte a roumd form, komewhat like an umbrella; and the wood is so very limber and pliable, that the ends of the longest
branches may be bent down within two or three feet of the earth. The bark is whitish, and semewhat rough; its leof is mueh like that of the citron-trec. It continues green all the year, and the tree is never without leaves, which aro ranged almost opposite on each sido of the lough, and at small distanees from each other. Nothing is more singular in its kind than its productions; for almost in all seasons of the ycar hlossoms, and green and ripe fruit, may he seen on the same tree ot the same time. When the hlosson falls off, thero remains in its room, or rather springs from each hossom, a small fruit, green at tirst, liat which hecomes red as it ripens, and is not unlike a large ches $\%$, and is very good to eat. Under the flesh of this cherry, instend of the stone, is feund the bean or berry wo call coffee, wrapped round in a fine thia skin. The berry is then very soft, and of a disagrecabhe taste; but as the cherry ripens, the kerry in the inside grows harder, and the dried-up fruit, lifing the flesh or pulp of it, which was hefore eatahle, becomes a shell or pot of a deep brown color. The berry is now solia, und of a clear tramsuarent greem. Each shell contains one serry, which splits into two equal purts. When the fruit is sufliciently ripe to te shaken from the trec, the husks are seporated from the lerrics, and are used in Arabia by the natives; while the lierries are experted for the European tharkets."

From Arabia the plant was taken by the butch about the year 1690 to Java, whence its culture spread slowly among the islands of the Indian Arehipelugo. In the early part of the eighteenth century it found its way to the West lndia Islands. The jlant is now common in every botanieal garden of Europe, and there are few private conservatories without goodspecimens of the tree. When cultivated with a view to trade, it is most productive on hills and mountains, where its root is almost always dry, and its head frequently watered with gentle showers. It prefers a westerly exposure and a loose gravelly soil, but freed from weeds unl grass. The phants are inserted at distances of six or eight feet asunder, and in holes from twelve to cighteen lnches deep.

It left to themselves they would rise to the height of sixteen or eighteen feet; but in extensive plantations the trees are topped and stunted to ahout five feet, for the convenicuce of having the fruit within reach of the gatherer. Thus dwarfed, they extend their branches nutil they cover the whole spot round about them. They begin to yied fruit the thirl year. 13y the fifth, sixth, or seventh year, according to the nature of the foil, they are at finll licaring, and continue to hear for upward of twenty years.

It has but recently come to the knowledge of liuropeans that the leaves of the coflec-plant contain the sume essential principle for which the herries are so mucle valued, and that in the Dutch ikland of Sumatro, in the Indian Archipelago, the natives seareely use any thing else, and greatly prefer a heverage made from the beaf to the berry itself. The leaves undergo a proc-
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 njeyel foliow rried itess of curing similar to ter, and they possess all the virtues of either tea or coffee. This may be leoked upn as the introduction of a new element among the innocent and beneflcial neeessaries of lifo; for while the eulture of the coffee plant for the aake of its fruit is limited to particular soils and high temperatures, the treo produces leaves in abundance any where within the treples where the soil ls suffielently fertlle. This extensive habitat, added to its nutritive qualities and frectom from any deleterious prineiple, points out the cotfee plant as the best adapted for general consumptien of ail the productions affording eaffein.

The cotfee berry (for which the piant has hitherto teen chiefly cultivated), when ripe, is cured in the West Indies, in Java, Ceylon, the Fast Indies, and South America, by a process cailed pulping and wasiing. In Aratia, Persla, ote., it is neither pulped nor washed, hut cured in the ancient fasinien by the labor of the hands and the action of the sun. The pulping process is performed by machinery, which greatly expellites the work ; but practical experienced West India planters admit that this process $\mathrm{i}_{\mathrm{s}}$ in somo important respects inferior to the Oriental mode. " $A$ manifest preference," says one, "is given in the leading Earopean markets to cofteo whieh has gone tiarough the pulping and washing process; lut, strunge to say, the consumers of this beverage are totaliy ignorant of the fact that the proluce which is cured in the pulp furnishes a stronger decoetion than an equal quantity of the same cotfee which has andeigone the other process. The muclaginous substance which is washed off by the pulping process is absorbed by the bean when cared in the julp. This gives strength to the produce, and enhances its aromatic flavor." Before the ber , is availathe for use, it undergoes a process called roasting. The valuable properties of coffee depend very much on the manner in which this process is performed. For the most recent and inteligent dissertation on this point, consult Dr. Jue's Dietiontry of :Irts, Mfunufuctures, and Mines, last edition, vol. 1. p. 456.

Species of Coffe. Runsting, etc.-The coftees of Ja maica, Ceylon, and Mocha aro generally estemed the best; then fellow the coffees of Costa Rica, Dominiea, Berbice, Demerara, Bourbon, Java, Martinique, and Ilayti. Arabian or Mocha cotfee is produced in a very dry climate, the best being raised uion mountainous slopes and sandy soils. The most fertile soils are mot suitabie for the growth of very flne cotfee. Mr. Ilryan Edwards ohserves, that "a rich ieep soil, frequently anelierated by showers, will prodace n luxuriant tree and a great crop; but the beans, which are large, and of a dingy green, prove for many years rank and vapin." Aud the same remark is made by Mr. Crawfurd with respect to the coffee of Java.-Liast Intian Archipelug', vol. i. p. 187. Cotfee is improved by being kept; it then becomes of a pater color. Nocha, or, ns it is commonly called, Turkey coffee, should he chosen of a greenisin light olive hue, fresh and new, free from any mastiness, the berries of a middling size, (lean, plump, and without any intermisture of stieks or ether impurities. Partieular care should be taken that it be not faise packed. Gool West India coffee shond be of a greenish color, fresh, free from any umpeasant smeli, the berries smali and untroken. Coffee herries readily imbile exhalations from other bodies, and thereby acquire an adventitions and disagreeable tiavor. Sugar placed near cotlee will, in a shart time, so impregnate the berries and injure their flavor, as to lower its value 10 or 20 per cent. Dr. Mosoley mentions that a few bags of pepper on board a ship from India spoiled a whole enrgo of coftee.
"The roasting of the herry to a proper llegree repuires great nicety: the virtue and agreeableness of the drink depend upon it; and botit are often injured by the orilinary method, Bernier says, when he was at Cairo, whear coffee is so much used, he was assured ty the best judges tinat there were only two people in
that great eity who understool how to prepare It in perfection. If it be underdone, its virtues will net he lmparted, and In use it wlll load and eppress the stomach; if it be overdone, it will yield a flat, burned, and bitter taste, ita virtues will be destroyed, and in use it will heat the body, and act as an astringent."

Coffee also denetes the driok which is made from the coffec berries. This beverage has been familiar in Eurepe for the last two hundred years. The lirst humun beings whe appear to have used the cofice berries were the half savage tribes of the hlgher Ethiopia. According to Bruce, the berries were first parched like any other grain, bruised into powder, and mixed up with eny sort of grease into paste rolled into little balls. The same authority declares that two or three of these balls wero aufficient to support a man for a whole day in a marauding excursion, or in active war against some neighboring tribe. They merely preferred the coffee berry to other grain, because it fed them as well, and cheered them more.

From Ethiopha, both the coffee plant and the use of its fruit were Introduced Into Persia and Arabia, nnd it is to the Arabs that wo are indebted both for tho first written account of it and for the manner of using it in n liquld state. But though we derive the only authentic necount of coffee from the Arabs, they admit that they were taught by the Persians; and it was in the city of Aden, In Arabia, about the middle of the tifteenth century, that the drinking of coffee first became general. The mufti of that city introduced the custom from l'ersia; his authority gave reputation to the practice-lawyers began to drink it-those who lovel reading followed their example-artisaus who were obliged to work in the night dit the sume thing, as well as travelers who journeyed in the night to avoid the heat of the day. In short, says M. Galland, "the whole inhabitants of Aden soon became drinkers of coffee, and not only at night to keep them awake, but even in the caytime for its other virtues."

From Aden the taste for coftee found its way to Mecca, from Meeca to Cairo, from Cairo to Damascus, from Dnmaseus to Aleppo and from Aleppo to Constantinople; but it was not until $16 t 5$ that the use of coffee found its way from Constantinople to Venice.

In 1644 it was introduced to Marseilles, in 1652 to Landon, and in 1669 to Paris.

The tirst English author who mentioned ceffee was Burton, in his Inatomy of Melancholy (vol. i. i. 130), published in 1621, thirty years before the introduction of the drink into London. "The Turks," says he, "have a drink called coffee (for they use no wine), so named of a berry as bluck as soot and as bitter, which they siju up as warm as they can sutfer, because they find by experience that that kind of drink so used helpeth digestion anil procureth nlacrity:"

It wonld be an error to infer that the mode of making coffee in Europe and $\Lambda$ sia is tho same. In Europe, n infusion or a decoction of the roasted herry is all that is consumed; but this is a refinement in cookery not appreciated in Asia; there the custom is now, and always has been, difficent.

A highly trust worthy traveler, Lamartine, in descriting the ordinary khan in Palesting and Syria, says, "a charcoal fire is constantiy burning on the hearth, and one or two copper coffec-pots are always fuli of thick furinactous eoffer, the habitual refreshment and only want of the Turks nnd Arabs."-Trarels in Syriz aud the Eitst, vol. i. p. 292. A cup of weil-made coffee exhilarates, arouses, ant keeps awake. It allays hunger, to a certain extent, gives to the weary incrensed strength and vigor, and imparts a feeling of comfort and repose. Its physiological effects upon the system, so far as they bave been scientifically investigated, appear to be that, while it makes the brain more active, it soothes the body generaily, makes the change and waste of matter much slower than usual, and the demand for food in consequence proportionately less.

All these effects are produced by the conjoined action of three ingredients, cither identical with, or similar to, those contained in tea. There is a volatile oil produced during the roasting; $a$ variety of tanaic acid, which is also altered in some degree daring tha ronsting; and the substance ealled theia or caffein, which ia commen to both tea and coffee, and is found in the leaven of Guarana officinalis and Ilex paraguenvis, both used ly the aborigines of South America, as tea in in the Old Continent, a remarkable result of chemical investigation. The chentical conatitution of caffeia is $\mathrm{C}_{14} \mathrm{H}_{10} \mathrm{~N}_{4} \mathrm{O}_{4}$.
Coffee-trade. The extent to which the cultivation of coffee has beea carried in the British possessions, the vast amount of capital embarked in plantations suited to its growth, the multitude of hands engaged in its culture, and the shippiag necessarily employed lin connection with that trade, iavest the article, in a commercial point of view, with great importance; while as a beverage, the tendency of which is to wean the community from indulgence in intoxicating liquors, it is second to no commodity in the British tariff. The history of the coffee-trade prior to 1850 is only valuable now as an example of a commodity for which there is a oniversal craving among mankind, struggling successfully, and at last triumphantly, over fibcal restrictiona, high duties, differentiai daties, and an endless mass of antiquated olatructions. In commen with other important necessaries of life, it has now attained to the natural state of uarestricted competition, though it still pays a customs duty of three-pence per pound.-E. B.
The cultivation of coffee met with great : $n$ ceess in St. Domingo, and for many years that was the source whence Europe derived ita chlef supplies, hnving exported at one time about 38,000 tons, or about seven-ty-elx million pounds; and it was supposed that, had not the revolution broken out in 1792, it would in that year huve exported 42,000 tons, or alout elighty-four million pounds. The derastation by that event caused almost a total cessation in the anpplies. Being driven from St. Domingo, its culture was greatly augmented in Cuba, Jomaica, Surinam, and Jeva, and was subsequently introduced with great success into Brazill. As the cultare advanced in Brazil, It declined in Cuba, the growth of sugar having been found capuble of more rapid extension and beling more profitnble. It was some time after coffee was tirst planted in Brazil before it became an aricle of export to any great extcat.

In 1 īit a Franciscan friur, named Villaso, eultivated a single tree in the garden of the Convent of St. Antonio. Brazil was then governed by the Marquis de Lavadie as viceroy. The first fruits of the tree were presented to the marquis, who distributed them among the most respectable planters, explaining to them the advantages of adding another valuable article to the produce of the country; but being strong in their prejudices in fuvor of augar and indigo, fow took puins to cultivate it, and hence its progrese was very slow. In 1808 Don Joas VI, fled !rom Portagal to Nio Juneiro, and soon after opened the jort to foreign trade. The aunaal crop of coffec then did not exceed 30,000 bugs of 160 pounds each, or $8,000,000$ pounds. Although the revolution in St. Domingo had overthrown its cultare there, Cubsa and Jamaica continued, to aome extent, to sapply tho trader. In 1820 its :ncrease in Brazil had swelled to $\mathbf{1 0 0}, 000$ bags. The decrease of aupply, by the desolation of St. Domingo, caused it to reach the enormous price of 148 s. per cwt., or nearly 37 it cents per pound, in London, in the years 1817 and 1821. This great price atimulated the prodaction in Brazil. The fall of St. Domingo had caused the culture of indige to be transferred to Britigh Ladia, and its culture was abaadoned in Brazil, with sugar, for coffec. Hence emancipation in St. Domingo gave the monopoly of the caltivation and aupply of indigo to British India, where it has remained ever aince.'

In 1789, just provions to the revolution, Hayti exported $76,835,219$ pouads of coffee ; in 1818 we find the exports fell to about $26,000,000$ pounds, and at this time they do not probably exceed thirty or thirty-flve millions. The export of sugars in 1789, Just before the revolution, reached $140,000,000$ pnonde. It hat now ceased, and the population actually import supplies from Culas and Porto Rico. In 1834, the year in which the Emaacipation Act went into affect, Jamaica experted to England,

|  | 184. | 1608. |
| :---: | :---: | :---: |
| Sugar, cwt. .................. | 1,268,263 | 706,078 |
| Coffee, pounds.............. | 18,268,688 | 0,428,197 |

We thus find that the exports of coffee fell of the first flve yeare after emanclpation about one-half, and sugar nearly in an equal ratio. In Auguat, 1834, the negroes were cmancipated by the Eaglish government in Jamaica, which struck a death-blow at its culture there, while sagar had measurably superied dits growth in Caba. These causes combined, with the unreatricted sapply of African slave labor, to give its culture a pewerful impulse in Brazil. Hence we find by the year 1830 its crop had increased to 400,000 langs, or $64,000,000$ pounds. The slave-trade, by convention with Eagland, was to ceaso in February, 1830. This producect an enormous inport of slaves, which could ouly be disposed of at low prices and oa long credita. This, again, stimulated the plantling of new estates, and the crop rapidly increased, so that in 1840 it actually reached $1,060,898$ bags, or about $168,600,000$ pounds. The cultivation being found profitable, the demand for slaves continued, and notwithstanding the attempts of the British government to put a stop to it, the slavetrade has been continually carried on clandestinely ever since, the importations from Africa having amounted to from 80,000 to 50,000 annually, the vessels supplied for which having been chiefly built and fitted out in the Northern cities of the United States, and sailing under whatever colora best anawered their parpose.
The increase in the crop since 1840 has been very rapid, and in 1847 reached about $1,804,558$ bags, alout $288,333,000$ ponnds. The low prices in 1848 and 1849 had a tendency to check prodaction. The difficulties of importing slaves, under a new treaty made with England in 1845, cut off the sapply so far that those which were aecretly introduced barely supplied the annual loss, which was 10 per cent., and semetimes inore; and should the trade be atopped altogether, as aimed at by England, it will canse the cultivation of coffee to decrease in Brazil, to beconse augmented in the East Indies, and especially in British India; and should negro alavery be overthrown, coffee would to a great extent follow the course of indigo, and becone to some extent an article of British production and control. The climate of Brazii is highly favorable to the cultivation of coffee, the trees yielding nes ly double those of the West Indies.
The growth of Brazil, by 1854, reacued the astouishing quantity of $400,000,000$ pounds, while the production in the British West India Itlands has rapidy declined since the emancipation of the siaver in 1834, as will be seen from the follewing table:
In the year 1848 the British West India Im1ands ytilded
$10,000,000$ 1bs. In the yeara 1853,34 , and ow, they ytelded onty $\ldots . . . . . . . . . . . . . . . . . . . . . . . . . .$.
Janicica nione, in 18as, the year the Enianci-
patlon Aet was declared tu the sulaodm,
pamounted to ................................ 1s,268, 1s3 14s.
Wo sce by this the same result as that which followed cunancipation in St. Domingo. Coffee, with other tropical products, has fluctuated with the supply, and cheapness, and reliability of African slave-labor. If coolles can be brought it under a roluntary apprenticeship, why can not Africans be allowed to come in by the same method, placed under proper regulations and guarantees on the coast of Africa ? ed the annes more; as aimed f coffec to the East hould negreat exc to some d control. the cuitiable those
astonishc produc apidiy de n 1834, as

The coffee-growlog dietricta of razll are divided into the Serra Abalxo (or below the mountaina) and Serra Acima (above the mountaina). The produce of the former ia about one-aixth part of the whole erop in good years, but is much more uncertain than the Serra Acima, being more liabie to Injury from drought, which is sald of late years to have beea frequent. The quality is also inferior, and seldom ahipped to the United States. The treea usually flower three times each year, generally in Auguat, September, and October, and are ready for picking, In fivorable seasons, in Marki, Aprif, and May, with considerable variation according to situation. In April mall quantities of poor new. coffee appear in maricet. In May and June the quantity is greater, but never sbandant untii July and August. The trees of Serra Acims bloom later, but the crop is more aniform, enabling planters to gather a crop at a singie picking, which la a grest saving of labor. Entire cargoea are not generaily olbtained from the Serra Acima district until August and September. Usually the suppiles remaining over of the old crop are first sent to the msrket before planters clesn out the new, and hence it is often as late as October and November before the bulk of the new crop is in market.
The cost of transporting the coffeo to market is asid to average the planter about two cents per pound, owing to imperfect facilities. The actual cost of production is sald to be not much under $4 \frac{1}{4}$ cents per pound, and as negroes are decimated by cholers and other diseases, without new importations are required to supply their piaces, negrocs muat advance in value and enhance the cost of production.
The first import of Brazil coffee Into tho United

States wat made In 1809, which consinted of 1809 bagi, landed at Salem; by the ship Murquis de Someriulat. Hence, within the briel period of forty-seven yeare, the exports from Braall have incressed to the large amount of $400,000,000$ pounds in 1854, and $820,000,000$ in 1858. From 1809 to 1849, or in a period of forty years, the Imports of coffee from Brazil into the United States Increased from 1809 bage to over $100,000,000$ pounds.

Fqr the flacal year ending the 30 th of June, 1855, the United States imported from Brazil 185,869,883 pounda of ceffee, of the value of $811,815,818$; other Brazilian products, including somenugars, amountedto $8,408,117$. Total imports.
\$15,218,9\%6
Total exports to Miriail . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $4,281,270$
Balance of trade agalinat the Untted Staten .... $10,067,668$
The imports of coffee slone from Brazil in 1854-'56 exceeded the exports of the United States to that country by $\$ 7,558,546$.

The total importation of coflee into the United States for the year ending June 80 th, 1855 , amounted to $100,764,259$ pounds, valued at $\$ 16,764,2599^{\text { }}$ For the year ending June, 1856, the quantity has been much jarger, and ss priecs have ruied high, the value has been much greater.

The consumption of coffee has rapidly increased within the past twenty-five years, the greateat augmentation having been in the United States, where it has averaged $7 \frac{1}{2}$ per cent. per annum, while in Europe it has been $2 \frac{1}{2}$ per cent. per annum, or at the rate of 4 per cent. par sanum for the worid.

We submit the following table, showing the production and consumption of coffee for the world at different periods:

Comragatif: Statenknt of tur Produotion of Coffre in the Wohld at diftrebnt Priods, (Tue Production of onz Year exterg into tile Conguyption of the adocbedino Year.)

|  | 1845. | 1850. | 1854. | 1855. |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Pounde. | Pounde. | Ponude. |
| Brazll.................................... | 270,000,000 | 280,000,000 | 400,000,000 | 321,400,000 |
| Java. | 110,000,000 | 115,000,000 | 140,000,000 | 120,000,000 |
| St. Doming 0 : . . . . . . . . . . . . . . . . . . . . . | 40,000,000 | \$5,000,000 | 40,000,000 | 35,000,000 |
| Cuba and Porto Rico . . . . . . . . . . . . . . . | 40,000,000 | 80,000,000 | 25,000,000 | 20,000,000 |
| Brituh Weat Indies | 10,000,000 | 5,000,000 | 6,000,000 | 5,000,000 |
| Sumatra. . . . . . A . . . . . . . . . . . . . . . . . . . . | 10,000,000 | J6,000,000 | 16,000,010 | 15,000,000 |
| Mocha, ete. . . . . . . . . . . . . . . . . . . . . . | 5,000,000 | 5,000,000 | 6,000,000 | \$,000,000 |
| Ceylon, Indis . . . . . . . . . . . . . . . . . . . . . . | 25,000,000 | 85,000,000 | 40,000,000 | 50,000,000 |
| Venezueta. . . . . . . . . . . . . . . . . . . . . . | 20,000,000 | 25,000,000 | 25,000,000 | 20,000,000 |
| Costa Ittca. . . . . . . . . . . . . . . . . . . . . . . . | 5,000,000 | 7,000,000 | 8,000,000 | 9,000,000 |
| Total. . . . . . . . . . . . . . . . . . . | 040,000,000 | 665,000,000 | 116,000,000 | 607,000,000 |

Jt will be seen from this table that the greatest increase in 1855 was in Ceylon, a British East Indis possession, where its future growth is to be mont largely sugmented should slavery be overthrown in Hrazil; with regard to which attempte have already been made by a member of the Legislature. A bill was introduced for gradual emancipation, but it, of course, did not pass. The question arises, if negro slavery in Brazil shouid be overthrown, where will the cuitivation of coffee next take refuge? Java can not materially augment the supplies. There are but two other points, viz., British India and the west coast of Africa. The iree is a native of the latter locality. The consumption of the world in time of pesce, and increased wealth from the influx of gold, has overtaken the iabor of production. The futnre consumption in England and in the United States is expected to be materialiy augmented.
France.-In France, also, owing to the failure of the vintage for several yesrs, the coneumption of coffee is likely to he increased. The annexed statement shows the present estimated consumption of the world:

| Cnited Statea and British provincea | Pounda. <br> 210,010,000 |
| :---: | :---: |
| German Zotverein ................. | 110,000,000 |
| Austria, and other German stato | 75,000,000 |
| Motland and Belgio | 00,000,000 |
| France, 8witzerland, and Southern Europe . | 125,000,000 |
| Great liritat | 40,000,000 |
| Denmark, Sweden. a | 30,000,000 |
| Rusaia | 16,000,000 |
| Cape of ciood Hope, Australia, and Califorula | 15,000,000 |

The question of lubor in the cultivation of this and other tropical productions which have become commercial necessities to the populations of the temperate northern latitudes, which embrace the largest civilized portions of the human race, is becoming one of great importance. The growing deficiency mast not only continue, but in time grestly enhance the pricee of these products, whlch have become necessaries of life, and tend to drain the money from Northern nations, in order to secure them, or, in other words, place them under heavy tribute for articles which are, from habit, necessary to their comfort and well-being. England, through her East India possessions, is, no doubt, anxious to secure as large a share of this tribute as possible, and may, to a certain extent, succeed with indigo, sugar, ind coffee; but she has failed, and will continue to fail, in the prodnction of cotton. The United States have secured, and are likely to keep, and, if necessary, by the sid of England to back the South in securing this indispensable production to her prosperity, as woil as the prosperity of Europe and the Northern States of this Union. The value of alaves in Bra-zil-the only South American state which has made any great progress, and that through African Jaborhas for several years ateadily increased. Prior to 1830, when the alave-trade was legal, alaves were sold at 120\|, or $\$ 66$. From 1830 to 1850 , when the trade was, under treaties with England, prohibited, and had to be conducted clandestinely, they advanced to 400 l , or $\mathbf{8 2 2 0}$. Since 1850 , the trade having been almost
ontlrely anppressed, they have gradually advanced, alded hy the decimstlon of $\overline{5}$ per cent. per annum, to $1100 \|$, or $\$ 605$, io 1858. Since then, 10 pur cent., it is entimated, have died from choiera, as appeare by a recent statement of the Minister of ths Emplre, and they are now stated to be worth $1500 \|$, or $\$ 825$ each. It was the low price of slaves prior to 1830 which stimulated the production of coffee, and caused pricen to rule so low, which were In 1885 to 1840 not much over half the present prices.
It takes four to five years to mature coffee-trees after planting them before they will yield a crop of berries; hence the audden rise or fell in prices can not so suddenly lofluence production, as is the caso with annual crope from new plantations of augar and cotton. At the present time, owing to the high prices of slaves, no new estates can be formed, and none have been for severul years; and it is statod that there are not hands enough left in the country to pick out a full crop.

It muy be remarked that the rite and fall of tropical productions have fluctuated with the supply of tie only labor auitable for their production bencath it tropleal cun, and that is African.

Eatimated Suppleg of Com an don Eurote and tite UNITEM BHATES.

| From | 1851. | 1853. | 1853. |
| :---: | :---: | :---: | :---: |
|  | Tone. | Tors. | Tana. |
| Brazll | 143,000 | 133,000 | 126,000 |
| Java | 60,000 | 69,100 | 62,000 |
| Rt. Doming | 18,000 | 25,000 | 20,000 |
| Quba | 5,000 | 4,000 | 6.000 |
| Porto Kdco | 5,500 | 9,800 | 0,500 |
| La Guyara and Vene | 10,000 | 12,000 | 12,000 |
| Costa klea | 8,000 | 3,000 | 8,000 |
| Britieli West Irdles. | 1,600 | 1,100 | 1,500 |
| Brilsh 1:. Indlea and Ceylon | 16,000 | 21,000 | 10,000 |
| French colonles, East and West Indien. | 500 | 500 | 500 |
| Dutch West Indles .......... | 500 | 600 | 500 |
| Manilla 600, Arabla 1400 . . . | 8,000 | 2,000 | 2,000 |
| Total | $264,500$ | 281,000 |  |
| Deduct Untted Btate . . . . . . . | $04,000$ | 83,000 | $85,010$ |
| For Europe . . . . . . . . . . . . . | 170,500 | 193,001 | 172,060 |
| Consumption in Europe..... | 176,500 | 1-1,400 | 193,000 |
| Snrplua. . . . . . . . . . . . . Defirit. . . . . . . . . . | 0,000 | 1,600 $\ldots$ | 21.000 |

Eationtad Ponbumition of Comere

| Coumtrime. | 1881. | 185. | 1635. |
| :---: | :---: | :---: | :---: |
| Greal Britain (oftietal). | Tone. $14,600$ | $\begin{aligned} & \text { Tonat } \\ & 15,700 \end{aligned}$ | $\begin{aligned} & \text { Toas. } \\ & 17.500 \end{aligned}$ |
| France (official) ...... | 18,500 | 21,500 | 91,509 |
| Helgium (oftictal) ...... | 17,000 | 90,700 | 80,000 |
| Ifinland, estimated . . . . | 18,500 | 15,000 | 15,000 |
| Gerinany, Zolivoreln, Bohemia, Galitela, | 56,000 | 88,000 | 68,000 |
| bohemith, Ganleta, matinn* | 6,000 | 6,000 | 0,000 |
| Austria . . .................... | 10.600 | 11,000 | 11,000 |
| Bwltzorland . . .............. ${ }^{\text {Italy, Greec, Lerant, und }}$ | 6,500 | 7,000 | 7,000 |
| $\left.\begin{array}{l}\text { Italy, Greece, Lerant, and } \\ \text { North Africa. . . . . . . . . }\end{array}\right\}$ | 14,000 | 16,000 | 15,000 |
| gpaln and Portugal ........ gweden, Norway | 6,000 | 6,000 | 0,000 |
| Sweden, Norway, and Denmark $\qquad$ | 9,000 | 10,000 | 10,000 |
| Russla, Finlend, and Poland. | 4,600 | 5,600 | 0,000 |
| Europe |  | $191,400$ | 198,000 |
| Unitted Statc | $84,000$ | 92,000 | 02,009 |
|  | 260,800 | 283,400 | 285,100 |
| Ethmated fredh supplies in the year .................. | 264,640 | 281,000 | 256,000 |
| Defictt. Gurplus. | 4,000 | 2,400 | 27000 |

The alove quantitles may be considered the nearest approximation to the truth which the present state of commercial statistics can supply; but any one fumilisr with the writings of modern travelers in the south of Europe and in Aaia muat be convinced that a very large quantity of ceflice is consumed ln Turkey, Syria, Palestine, Persia, Egypt, Abyssinia, etc., regarding which commerce takes no noto.
Inponte of Coffre into tue United States ance 1821.

| Yaar | P | Vears. |  |
| :---: | :---: | :---: | :---: |
| 1821. | 21.271,659 | 1836.. | 019,791, 007 |
| 1822. | 96,782.390 | 1837. | 89,140,403 |
| 1898. | 37.834,782 | 1838. | 85,139,720 |
| 1824 | 30,224,298 | 1839. | 100,603,998 |
| 1826. | 45,100,630 | 1840. | -94,006, 095 |
| 1828. | 87.341,497 | 1841 | 114.084,7\%3 |
| 1827 | 50,0b1,n8e | 1848. | 112,960, 2127 |
| 18.8 | 55, 104,097 | 1843. | 92,014, 57 |
| 1899 | 61,133,538 | 1844. | 160,401,943 |
| 1830. | 61,498,248 | 1845. | 107.841,9, |
| 1831. | 81,757,880 | 1840. | 132,611,590 |
| 1832. | 01,722.329 | 1847. | 156,716, \%\% |
| 1833. | 09.955,020 | 1818. | 150, 5 59,188 |
| 183 | 80,151,366 | 1849. | 105, 434,700 |
| 1835. | 103,109,777 | 1850. | 144,580,806 |

Rempponts of Coffer from the United States yon tur Yeab endina Junz $\mathbf{3 0}$.

| Me-sxporta to | 1853. |  | 1854. |  | 1855. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounds. 6,411,060 | Dollars. <br> 537, Mit | Pounda. 9,778,517 | Dollir 840,505 | Pounde. <br> 7, 1114,368 | Dollara. 696, 120 |
| llanse Tow | 1,114,610 | 104,678 | 1,515,071 | 143.512 | 085,479 | 96,65 |
| Italy. | 1,486,843 | 138.766 | 988,691 | , 16,087 | 1,820,804 | 170,264 |
| Turkey | 827, 260 | 70.713 | 649,246 | 55,028 | 909,905 | 80,157 |
| Other piaces. | 8,449,717 | 6tP,483 | 6,173,475 | 616,298 | 6,024, 021 | 447,301 |
| Total. | 13,24!1,310 | \$t,103,875 | 12,06\%,800 | \$1,171,307 | 16,315,817 | \$1,402,697 |
| Not excapted by treaty attpulations. | 19,483 | 1,728 | 3,790 | 870 | 12,90 | 1,290 |
| Tolal. | 13,84t8,802 | \$1,165,603 | 12,000,6040 | \$4.171.740 | 16,048.217 | \$1,463,977 |



| Importa from | 385s. |  | 1854. |  | 1855. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IToltand. | Pound 747,978 | Dollars. 86, 878 | Founda. <br> 1,755.121 | Dullare. $81,520$ | $\begin{aligned} & \text { Pounda. } \\ & 3,054,410 \end{aligned}$ | Dollira. 325.52it |
| Dutch East Indien............................. . . . . |  |  |  | 404,036 | 8.121 .781 |  |
| British Fist Inden . . . . . . . . . . . . . . . . . . | 3, 018,659 | 326,675 | 6,828,009 | 4!4, 10.09 | 8,121.481 | 068,450 |
| British Fiast Indle . . . . . . . . . . . . . . . . . . | 2,012,637 | 101,012 | 82,134 1,700705 | 166,597 | 1,003,528 | 81,719 177104 |
| Bridsh West Indlets. . . . . . . . . . . . . . . . . . | 1,638,509 | 110,1786 | 1,700,705 | 165,607 | 2,0,6,1159 | 177,108 |
| fubs | 2, 068,097 | 158, 160 | 2, 0655,523 | 204,104 | 835, 168 | 35,789 |
| Ifayll. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 10,747,817 | 1,590, 618 | 10,002, 013 | 1,772,898 | 21,031,807 | 1,9:30, 220 |
| Vencxueta . . . . . . . . . . . . . . . . . . . . . . . | 18,789.879 | 1,128,78 | 11,238, 174 | 1,041,404 | 14, 1018,198 | 1,300,976 |
| lirasil . . . . . . . . . . . . . . . . . . . . . . . . . . . | 153, $33 \times, 464$ | 11,844.414 | 16,704,773 | 10,320,092 | 135. 383, 383 | $11,8(5,818$ |
| Africa qenerally . . . . . . . . . . . . . . . . . . . . . | 861,741 | 84.629 | 7 76, 223 | 68,724 | 417,1186 | 42,014 |
| Other places . . . . . . . . . . . . . . . . . . . . . . . . | 891,119 | 84,870 | 8,030,45\% | 277,142 | 3.547,018 | $4.39,101$ |
| Total. . ....................... | $\begin{array}{r} 194,088,8241 \\ 318,242 \end{array}$ | $\begin{array}{r} \$ 15,5: 35,944 \\ 20,032 \end{array}$ | $\begin{array}{r} 162,100,829 \\ 165,171 \end{array}$ | $\begin{array}{r} \$ 14,606,945 \\ 12,773 \end{array}$ | $\begin{array}{r} 100,764,659 \\ 714,3 \mathrm{~s} 9 \end{array}$ | $\begin{array}{r} \$ 10,479,1429 \\ 07,174 \end{array}$ |
| Totat . . . . . . . . . . . . . . . . . . . | 196, 408,045 | \$15,845, 086 | 162,205,0193 | \$14.5 10.718 | 111,478,657 | \$16.940.490 |

According to Mr. Cook, the pricen of Jamalca and London market, at the close of the following years, St. Domingo (llayti) coffec, exclusive of duty, in tinc were,


Crffee-houses. The first in England was kept by $n \mathrm{Jew}$, natied Jacobs, in Oxford, 1650 . In that year, Air. Edvarda, an English Turkey merchant, brought hone with Sim a Greek servant name 1 Pasquet, who kopt the firat hotsas for making coffee in London, which he opened in George-yard, Lombard Stroet, in 1652. Pasquet afterward went to Holland, and opened the firat house in that country.-Andenson. The Rainbow Cofice-honse, near Tesple-bar, was repreaented as a nuisance to the neighborhood, 1657. Coffee-houses were suppressed by proclamation, 26 Charles II., 1675. The proclamation was afterward suspended on the petition of the traders in tea and coffee.-IIAydn.
Coffer-dam. In architectare and bridge-building, a case of piling, water-tight, fixed in the bed of a river for the purpose of laylag the bottom dry for a apace lurge enough to bulld the pler on. Coffer-dama are formed in various ways, either by a single inclosure or a doublo one, whth clay or chalk rammed in between the two to prevent the water frem coming through the shes. They are also made either with piles only, driven close together, and sometimes notehed or dovetailed into one another; or, if the water ia not very decp, by piles driven at a distance of five or six feet from each other, and grooved in the sides, with boards ict down between them in the grooves. In order to build in coffer-dams a very good natural bottom of solid earth or elay is required; for though the aldes be made water-tight, if the lied of the river he of a loose consistence, the water will oozt, up through it in too great a quuntity to permit the eperatlons to be carrled on. It is almost neen!ion to remark that the silles must be very atrong, and well braced in the inslde to resist the pressure of the ambient water.-IIutcos's Tracts, vol. 1.

Coffins. The Athenian herees were buriel in coffirs of the cedar-tree, owing to Ita aromatic and incorruptible qualities.-Tutecyinioes. Coffins ef marbie and stone were used by the Romans. Alexander is said to have been buried in one of gold; and glass coffins have been found in England.-Gotgir. The sarltest record of wooden coffins in Engiand is that of tis binial of King Arthur, who was buried in an entire trunk of oak, hollowed, A.D. 542.-Assen. The patent cuffins were lnvented in 1790.-IIAydN.
Cognao (Conacum,) a commune and town of France, rapitul of arroadissement, department of Charente, 21 miles west from Angonlême, on the left bank of the Chureate. Population 4148 . It has an old castle, in which Francis I. was born. It la the entrepoft of the bramiy of the Charente, to which it gives its name, and whieh forms the object of a veryexteusive commeree Manufactures, earthea-ware and japer.

Coins, pleces of metad, most commonly gold, silver, or copper, impressed with a public stanip, and frequently insule legn! iesmer in payment of debts, either to $n$ limited or in undiniled extent. Whien the precluas metala fist legan to be used as money, or na standurds hy which to measure the value of different articies, and the equivalents for which they were most commonly exchanged, they were in an unfushioned state, in hars or ingots. The parties having agreed upon the quantity of metal to le given for a commodity, the exact amount was then ascertained by weight. llut it is elvious that a practice of this sort must have been attended with a great deal of trouble ani inconvenience. 'There can, however, be little donht that the greatest ohstacle to tile use of unfnahioned metals at money wonld be found in the diftlenty of determining their quality, or the tegree of their purity, with sufficient precislon. The operation of aspaying is one of great nicety and difleulty; and could not be perfummed in the early agea otherwise than in a clumsy, tedious and inaccurate manner. It is, indeed, most probahie that when the precious metala wero first used as meney their quality would be appreclated only by
theit welght and color. A very ohort experience would, however, be aufficient to show the extreme inexactness of conclusions derived from auch loose and ungatlsfactory criteria; and the deviaing of some method by which the finencsa of the metal might be easlly and corructly aacertained would very soon be felt as indispensable to the genoral use of gold and silver as money. Such a method was not long in presenting itaelf: it was early discovered that, to ascertain the purity' of the metal, and also to avoid the trouble and expense of weighing it, no more was necesaary than to mark ench piece with a atamp declaring ita weight and fineness. Thls Invention was made at a very early period. According to Herodotus, the Lydians were the first who coined money.-Lib. I. c. 94. Other ancient authors asy that the art of coining was invented durlag the period when Satnrn and Janus relgned in Italy; that ig, in a period antecedent to authentle history.-Gaguex, Del'Origins des Loiz, etc. tome 1. p. 267.

Mfetal used in tha Mfanufacturs of Coins.-Before the art of metallurgy was well understood, the baser metala were frequently used an money. Iren was the primltive money of the Lacedremonlans, and copper of the Romans. But both Iron and copper deteriorate by being kept; and besides this defect, the rapid improvement of the arts, by lowering their price, rendered their bulk too great in proportion to their value to permit of their continuing to be used as money. Copper, indeed, is still used, in the form of tokens convertible into siliver, in very small paymenta. In Figland, copper peuce and halfpence are rated at about 72 per cent. above their real value; but as their issue is exclusively in the hands of government, and as they are only legal tender to tho extent of one shilling in any one payment, this over-valuation is not productive of any bad effect. The use of copper in other countriea $i_{a}$ limited in much the same way'; gold and sllver belng every where the only metals made nae of in the manufheture of the coins used in considerable payments.

Standard of Cisins.-By the standari of a coin is meant the degree of its purity and its ... ight; that is, the flneness of the metal of which it is made and the quantity of metal contained in it. Silver Coins.-A pound Troy, or 12 vanmen, of the metal of which English silver colus are made, contains 11 uz. 2 dwts. pre ailver, and 18 dwts. alloy. This pound is coined into 66 shililings; so that cach shilling contains 80.727 gralus fine sllver, and $87 \cdot 27$ gralas standurd silver; and the money pound, conslsting of 20 shillinge, contains $161 \cdot \frac{545}{}$ grains pure silver, and $1745 \cdot 454$ grains standard silver. From 1600 down to 1816 , the ponnd weight of stundard silver bullion was colised lato 62 shiljings. Ail tho Engiish silver coins have been coined out of allver of 11 oz .2 dwts. fine, from the Conquest to this moment, except for the short period of 16 years, fr m the 3ith Henry VIII, to the 2d Eifznbeth. Gold Coins.-The purity of gold ls not est!mated ly the weights commonly In use, but by an Abyssinian weight called a carat. The earats are subdivided into four parts, called grains, and these agaia Into quarters; so that a carat grain, with respect to the common divislons of a pound Troy, is equivalent to $2 \frac{1}{2}$ dwts. Goltl of tho highest degree of tineness, or pi: $\boldsymbol{o}_{\text {, }}$ is said to be 21 earate time. When gold coins were first made at the English Mint, the standard of tho gold put th them was of 28 carats $8 \frac{1}{2}$ grains tine and $\frac{1}{2}$ grain alley; mal so it continued, without any variation, to the 18 th of [lenry Vll]., who in that year first introduced a new stundurd of gold of 22 carats the, and 2 eurats alloy. The first of these atandards was ealled the oll, and the second the new standard, or crown gold; because crowns, or pleces of the value of 5s., were flrat coined of this new standard. Ilenry VIII. made his gold coins of hoth theso standards utsder tifferent denominations; and thia practice wea continued by his successors untjl 1638. From that
period to the present, the gold of which the colns of England have been made has beet. Invariahly of the new atandurd, or crown gold ${ }_{i}$ though some of the colns made of the old standard, prevlously to 1633, contlnued to circulate till 1732, when they were forblddon to be any longer current.

Variations of the Standard.-The value of all sorts of property being eatimated, and the atipulatlons in almoat all contracts for its purchase, salo, or hire, belng made in money or colna, it la plaln that no change can take place $\ln$ the value of such meney or $r$;ina without virtually subverting these eitlmates and contracta, and earlehing the debtor portion of society at the expense of the creditor portlon, or vice versa. As the cost of producing all commodities is llable to vary, from improvements in the arts, the exhaustion of the present or the discovery of new sources of supply, nove can be selected to serve as money or coln that mas not vary in its real value. It is belleved, however, that the preclous metals vary less than any material that could be auggested. Airl with the exception of the extroordinary fall In their value caused by the dlscovery of the American mines, it seema to have been remarkably censtant at other perioda. Bet in additlon to the fluctuation's naturally inherent in the value of coins, arising from varialluns in the cost the metal of which they are made, their atandard has been repeatedly ehanged. Notwlthstanding that money or coin, from its beling universally used as a scalo by which to compute the value of all commoditles, and as the equivalent for which thay are commonly exchanged, is by far the mest important of ali measures used in society, and should, consequently, be preserved as invariable as possible, there is nene that has been so frequently altered. The necessi,ies or extravagance of governments have forced them to borrow; and to relieve themselves of the Incumbrances thus contraeted, they bave almost universally had recourse to the disgracuful expedient of degrading the coln; that is, of cheating those who lent them money, to the extent of the degradation, and of eablling evcry other debtor in their dominiona to do the same.

The lguerance of the pullic In remote ages facllltated this species of frand. Had the names of the coins been changed when the quantity of metal contained $\ln$ them was dininuished, there would have been no room for misapprehension. But although the weight of the coins was andergoing perpetnal, and their purity occasional, reductions, thelr anclent denopinations were alnost uniformly preserved; and the people, who saw the samo names still remaioing after the substanee was diminished-who sow colns of a certaln weight aud fineness circalate under the names of florina, livres, dollars, end pounde; and who saw them conthnue to circulate as such, after both thelr welght and the degree of their fineness had been lessened-legan to think that they derlved their value more from the stamp affixed to them by the autherity of government than from the quantity of precious metals they contained. This was long a very prevalent opinion. But the rise of prices whicle Invariably followed every reductlon of the standard, and the derangement that was thereby occasioned ln every pecunlary transation, undeceived the publie, and taught them and their rulers the expediency of preserving the standard of money Inviolate.

The standard may be reduced by almply raising the denomination of the coia; by ordering, for example, that a lialf-sovereign ahould pass for a sovereign, and the latter for a dooble soverelgn, etc. If injuatice be resolved upen, this la the least mischievous way la which it can be perpetrated, inmamuch as it sares all the trouble and expense of a recoluage. But ax it renders the fraud obvlous and glaring, it has rarely been resorted to $;$ and nost redutions have been effectel elther by diminiahing the weight of the colins, or by locreasing the proportion of alloy lu tho inetal of
wheh they are made, or both. Origlnally the coins of all countries seem to have had the same denomilnation as the weights commonly used in them, and centalned the exact quentity of the precious metale Indicated by thoir name. Thus tho talent was a weight used in the earliest perlod of the Greeka, the as or pondo by the Romans, the livre by the French, and the pound by the English and Scotch; and the ceins originslly $\ln$ use in Greece, Italy, France, and England, bore the sama namea, and welghed preclsely a talent, a pondo, a livre, and a pound. The otandard has not, however, been preserved inviolate, either in modern or anclent tlmes. It has been lese degraded in England than any where else; but oven there the quantity of vilver in a pound sterling is less than the third part of a pound weight-the quantity It contained $\ln$ 1300. In France, the livre current in 1789 cuntalned lesa than one sixty-sixth part of the silver implied In its name, and which it had actually contained pravlous to 1103. In Spain, and some other countries, the degradation lias been carried atill farther. From 1206 to 1355, the ceins of England and Scotland were of the same welght and purity; but at the last-mentioned epech tha standsrd of Seotch money was for the first tlme aunk below that of England; and by successive degradations, the value of Scotch money, at the union of the crowns in 1600, was only a tevelfih part of the value of the English money of the same denomination. It remained at this polnt till the union of the kingdone canceled the separate coinage of Scotland. The gold and silver coins of Ireland have been for a considerable period the same as those of Groat Britain; but, until 1825, they were nominally rated $8 \frac{1}{3}$ per cent. higher. This difference of valuatioe, which was attended with considerable ineonveniences, was put an end to by the act $\mathbf{G G e o}$. IV. e. 79, which assimilated the eurrency throughout the empire. Tho tables amexed to this article contain nll the information that can be desired by mercantiie men with respeet to the weight, finenesa, ete., of English and Seotch gold and silver colns, from the earliest periods to the present moment.

M/int, or Goternment Valuation of Gold and Silker Coins.-If beth gold and silver coins be made legal tenders, it is obviously indispensable that thelr value with respect to each other should be fixed by authority; or that it should be declared that individuala shall be entitled to discharge the claims upon them by paymentr, elther of gold or silver colns, according to some regulated proportion. The practice of making both metals legal tenders was long adopted in Legland. From 1257 to 1664, the value of gold coins was regulated by proclamation ; or, which is the same thing, it was oriered that the gold coins then current should te taken as equivalent to certain specifled sums of siliver. From 1664 down to 1717, the relation of gold to silver was not fixed by authority ; and silver being then the only legal tender, the value of gold colna fluctuated, according to the fluctuatlons in the relative worth of the metale In the market. But in 1717 tho ancient practico was again reverted to; and it was fixel that tho guinea should lie taken as the equivalent of 218. , and conversely. But the value of each of the precious metals is liable to perpetual change. Aul hence, how accurately soever their proportional value, as llxed by the Mi c agulations, may correspond with the propertion whasa they aetually bear to each other in the market whon the regulation is made, the chances are ten to one that it will speedily cease to express their relathon to each othor. But the moment that aueli a change takes place, It becomes the obvious laterest of every one whe has a puyment to make to make it in the orerralurd metul; whlech, consequently, becomes the sole, or nearly the sole, currency of the comatry. Hence tide reason why the colns of some countries are almost wholly of silver, and others almost whelly of gold. It is estinated, for example, that when It was
fixed, $\ln 1717_{1}$ that the guinea shonld exclange for 21s., gold was overvalued as compared with silver to the extent of 1 19-81 per cent.; and as the real valua of silver, with respect to gold continzed to increase during the greater part of last century, the advantuge of paying in gold in preference to silver became more decided, and ultimately led to the universal use of gold in all large payments, and to the fusion er exportation of all silvor coins of full weight.

In France, a different valuation of the metala hes had a different effect. Previous to the recolnage in 1785, the Louis d'or was rated in the Mint proportion ut only $2:$ livres, when it was reslly worth 20 livres 10 sols. Those, therefore, who abould hav discharged the obligations they had corcurinit ${ }^{2}$,yments of gold coin insteud of silver would pl ${ }^{-}$. , have lost 1 live 10 sols on every sum of 24 ivis. In consequence very few such payments were mado; gold was almost entirely banished from circulation, and silver became almost the only species of inctallic moncy used in France. Ia 1816, however, a new bystem was ndopted in Great Britain; it being thon enacted ( 56 Geo. 11 I. c. 68) that gold coins only should be legal tender in all payments of more than forly shillings. The pound of silver builion, that had previously beeri colncd into sixty-two shillings, was then also coined into sixty-six shillings, the additional four shillings being retained by the governmedt as a saignorage or duty (amounting to $6 \mathbf{1 4 - 3 1}$ per cent.) upon the coinage. To prevent tive silver coins from becoming redundant, government has retained the power to issue them in its own hands. Under these regulations, silver has ceased to be a standard of value, and forms merely a subordinate or mbsidiary species of currency or chango, occupying the same place in relation to gold that copr : occupies in relntion to itself. This system has been found to answer exceedingly well. A good deal of difference of opiniou has existed as to whether gold or silver coins aro beat fitted for heing made legal tender. It does not seem that the one possesses any very atriking ndvantage over the other; none, cartainly, that wonld justify a change ufter a selection had been made and neted upon for any considerable period. Down to 1626, a seignorage or duty upon the coinage wus usually charged upon the gold and sllver coins issuod by the Mint; and it may be ensily shown that the inposition of such a duty, when it is not carried to an undue height, is advuatageous. A coln is more useful than a plece of uncoined bullion of tho samo weight and purity, tho coiauge fitting it for being used as money, while it does not unfit it for being uaod for any other purpose. When, therefore, in duty or seignorage is lald upon coin equal to the expense of coinage, it circulates at its real value ; but when this charge ls defrayed hy the public, it circulates at lese than ita real value, nnd is consequently either melted down or exported whenever there is any demand for hullion in the arta, or any fall in the exchange. It is, indeed, true, that were a seignorage to be laid on gold colns, it would be necessury, to provent an enhancement of tho valno of the currency, that their weight should bo propertionsily reduced; and it is on this account hetter, perhape, to let them renain on tho present footing. But when in seignorage was lald on the cil"er coins in 1816, it was not necessary to take the circumstance now alluitod to into consideration; for as they were tuade suborilinate to gold, and were intended to serve as change merely, its imposition had no tendency to raise the value of the currency, at the aumo time that it was culculated effectually to prevent the furlon of the coine and to yield $s$ small revenue to goverumont.
Current Cimin; liss by wear.-From very caroful Investhgations mada hy the officers of the liritish Mint towsrd the cioso of the iast century, it was found that 78 1-10 ailvor ahilingg, taken as a fair averuge from ali those thon in circulation, wore required ta make 11b. Troy; whoreas 62 is tho number when now. Eleven
years afterward another fair average was taken, and another examiation made, when it was found that $829-40$ shillings were required to make a pound. But this diminution of weight is excessive, and is not likely to be exhibited by the less-worn and more frequent. ly renewed silver colnage of the present day. Still it is unquestionable that the gold and silver coins are exposed to daily wear and diminution. The British government requested Mr. Cavendish and Mr. Hatchett, two dlatinguighed fellows of the Royal Society, to make an extensive investigation respecting tho power of metals to resist friction; and their results are highly curious. They made various alloys of silver, copper, platina, jron, tin, lead, bismuth, manganese, nickel, cobslt, zinc, antimony, and arsenic, with gold; they rubhed plates of different kinds of metal over each other half a million times, to determine which resiat friction best; and they rotnted similar pieces among each other In a barrel. The effects were such as to reflect no little credit on those, whoever they were, who established the standurd of English gold coin; for the Enghah standard ( 22 gold to 2 alloy) and the quality of the alloy (silver and copper combined) were found about the best of all the combinutions sutijected to experiment. In 1807 the Mint officers, wishing to ascertain how mach tho current coln had actually lost by wear, sclected at rundom one thousand good guineas from a broker, and found that they had lost on an averago 19a. per cent. in value. A hundred guineas from a shop-keeper's till had lost 22 s. per cent. Two hundred half-gulneasexhibited a loss of $42 s$. per cent. -the smaller coins being subjected to more acvere wear than the larger. Mr. Jacob, a great authority on the sulject of prccious metals, stated it as hls opinion that, taking the average of all the gold coins in this country, and an averago of all tho hard usage to which the coins are exposed, each one bears an annual loss of about $1-900$ by frlction, which is a little more than a farthing in the pound. In silver colns the loss is aupposed to bo five or six tlmes grenter, owing to the more unceasing circulution of silver than gold, and to the less fitness of the metal to bear friction. The matter may he stated thus: put 900 new sovereigns and 900 new shillings into average ordinary circulation; in twelve months' time the former will be worth about 899, and the latter about 894.
"Recent Coins of the World.-A coin, once set in circulation, retains Its placo and use longer than any other part of the machinery of life, and is extremely slow in golng out of fashion; so that the information respecting it which the dealer, the collector, and the public at large require, does not aoon become olssolete.
"Pleces are current among us a full century old; and all that space of time is included in the history of coinage, contained In our large manual. But new coins, or modificutions of old ones, are continually appearing; and in the latter case, it often happens that the holder finds ho has become, if we nay so speak, an unconscious sutferer. Old mames aro retained, but cssentiel propertics are altered; nnd a new progeny of cloubloons, clollars, france, or shillings, is found by an assayer's scrutiny to be something different, most likely inferior, to the older stock. Keeping a stendy wateh on thesn, as it is impliedly our duty, we have collected n number of Itema which, as In our former publication, will he set forth in alphnhetical ordes, and as bricfiy as possiblo."-Manual of Coins, by Eekfislirs and Du 1 13016.

The welght ls expressed in grains, and the fineness in thouanandth parts.
Belgium.-Gold coin, 25 francs; a new denomlnation: 18.8 is the earliest dnte noticed. It expresses on its reverse the intended slandards, 7.915 gramines (cqual to $122 \cdot 12$ Troy grains), 900 fino. The a unge of twenty pleces tried is $121 \cdot 9$, finencss 899 ; value 84 72. This is a alight depreciation: it ought to be $\$ 479$, to compare with the former serioa of Bejginn goid coln, or 41 , to be equivalent with the French.

We notice also, in silver, a piece of $2 \downarrow$ francs, 1849 , weighing 192 grains; fineness (of a singlo specimen) 901 ; value $46 \frac{1}{3}$ cents.
Bolicia.-Tho dollars from 1841 to 1846, tried in parcels, vary in fineness from 896 to 001 ; a very large lot gave 897; showing some ' tendency downward. Weight, varying from 411 to 421, averagen 4161 ; value on a general average, $100 \cdot 6$ cents.

Britain.-The new florin, or two-shilling piece, being one-tenth of a pound sterling, is underatood to be an advance toward a decimal syatem. A considerable number have been coined, and the piece is fairly in cireulation; but, like other silver coins of that country, it seldoni makes its way out of the roaln.

California.-See Coins of United States, p. 344.
Central A merica.-It is not easy to keep pace with the fluctuations li' the coinage of this country, any more than with its poilitical history. Nino years ago, we averaged the doubloon $2 t \$ 1496$, and the dollar at $8100 \cdot 1$. The country now secins to bo divided (we judge by the coins) into two distinct republics, Central America and Costa Rica.

Of the recent gold colnage of Central America, we have had opportunities of examining the quarter-doubloon, the eighth or escuilo, and the sixteenth. The first, 1850 , weighed 97 grains, fincnés 863 , value $\$ 30$. The second, 1844 to 1849,48 grains, 809 fino, value 8167 . The third, 1825 to 1849,24 grains, 809 fine, value 83 cents. In silver, the dollar of 1847 is feund to vary from 880 to 820 thousand ${ }^{\text {hs }}$ in fineness; those of 1840 to 1842 averaged 887. It wuuld, therefore, not be bafo to give more than 92 cents for a single plece, or 95 by the quantity; the Jaws of wholesale and retail, in the coin merket, being directly opposite to those in other branches of trade.

Tho coins of Coata Rica, the seceding state, aro in several respects quito remarkable; and in this particularly; that the gold pieces *-3 among the haudsomest that are current in the world, while the silver are beyond comparison the rudest ; at least the samples that wo have sean. The ppecimens assayed here lately are the half-doubloon, weighing 208 graine, 851 fine, value 8762 ; and the quarter-doubloon, 97 grains, 845 fine, value $\$ 353$. The silver piece is the real (apparently shaped with hammer asd chisel), 1846, 29 to 45 grains, 550 to 637 fine; average valuo $\frac{1}{10}$ cents.

Chili.-In the dollar of 1848 wo find a variation of weight from 415 to 419 ; finenese 901 it, which is lewer than fermer $e r$. $;$; hut the average valuo is 101 cents.
Until iately. we had no opportunity of teating the fractionh coins. The quai er-dollar, 1843 to 1845, weighs only 92 , but is 903 flis; the eighth, or real, is sirictly propational. Value respectively, $22 \cdot 4$ and $11 \cdot 2$ cents ; making e profic to gevernment, and a loas to holders, of about $\$ 1$ per cent.

The newapepers of the daj contain she following statement, conceruing which we have ao uther inforination:
"The Chilian Congress, ncw in session, has passed a new coinago law, article first of which states that three classes of gold are to bo coined, of the standard of nine-tenths fine, to be denominated, respectively, condor, deulbloon (doblon), and escuio.
"1. The condor to weigh three hundred aud fivo $\frac{600}{100}$ grains, and to correapond in value with ten silver dollars.
" 2 . The doulloon to weigh one hundred and fifytwo $\frac{750}{1000}$ grains, and to correspond in valuo with fivo silver doliars.
" 3 . The escudo to weigh sixty-one $\frac{108}{1005}$ graina, and be of the value of two silver dollare.
"Art. 2. Thore shall be five classes of silver money", also of the standard of nine-tenthatine; viz.:
"A dollar, weighing five hundred $\frac{704}{70}{ }^{10} \mathbf{S}$ grains, nnd divided into hundredtif parts or cents.
"A piece of fifty ceats, containing two handred and fifty ${ }^{3804}$ graina.
"One of twenty cents, with ono hundred 1008 grains.
"One of ten cents, with fifty 1080 grains.
"One of five cents, with twenty-five $\frac{1880}{880}$ grains.
"Art. 8d eatablishen two classes of copper coinage, to be termed cents and half cents, to be composed of pure copper without any alloy:"
China.-The trashy coin of this great empire doserves notice only by way of recreation. In 1842 we quoted the cash (tong-tsien) at 800 to the Spanish dollar; in 1847 tho equivalent varied from 1200 to $1800-$ so hard is it to fasten a value upon that which is valueless. A carpenter or tailor, we are told, receives 160 of them (say thirteen cents) for a day's work, of which nixty are required for 'is daily bread. The coin is extremely convenient for alms-giving, a sloglo plece being the usual quietus for a beggar.
Ecuador.-The quarter-dollar, or two-real piece, 1847, weighs 104, and is only 675 fine ; value 18.9 cents. This depreciation corresponds with what prevails in some of the fractional coins of Peru.
France.-The twenty and five-franc pieces of the republic, although entirely changed in face, are the same for weight and fineness as befors.

Germany.-Here there is no change of standarils, but we observe the denominution of deable gulden, net in general circulation, value 79 cents. The whole German iasue of the gulden series given an average of 900 tine by actual assay.

Since the adoption of the new rate of chargea at this Mint, the thaler of Northern Germany, 750 fine, yielhs a return of $67 i$ to $68 \%$ cents, according to wear; the crown, 876 fine, 106 to 107 cents.
Hayti.-Large quantities of Haytian coins have been recoined here. They are so variable in weight and fineness that it is not easy to put a definite valuation upon them. They sheuli, hewever, yield 76 to 78 cents per ounce, taken promiseuously and unwushed. Tho piece of 100 centimes, dignified with the name of dollar, bearing the head of President Boyer, is worth abont 25 cents upon an average; while that of 25 centimes, both ef Petion and Boyer, averages $7 \frac{1}{2}$ cents. In a large promiscuous deposit of all sizes, we found the average net value of the "dollar" to be 25.7 cents. The coins rango from 600 to 625 fine, if free frem ceun-terfeics-a baser quality than is to be found iu any other coinage on this side of tho Atlantic. But sinee August, 1849, there has been a new order of things; and coin collectors and assayers are looking with inpatienco fer the heal of Faustin the First.
Mexico.-In 1842, we averaged recent dollare at 416 t grains, 898 fine, value $100 \cdot 6$ cents. The a verage tineness has sinco improved to 899, and value $100 \% 75$ cents.
The coins of two new Mints have rccently been tricd. The doubloon of Guadalupe $y$ Calvo, in ihe state of Durango, 1847, varies in weight from 417 to 420 ; fincneas 869 to 873 ; averago value $\$ 1569$. The dolinr of the same Mint, 1844 to 1847, everuges in weight 420 t, in fineness 908, and therefore in value as high as $102 \cdot 8$ cents. The Mint began operations in 1844; its distinctive mark is G. C., in the usial place in tie legend. The dollar of Culiacan, in Sinaloa, 1846 in $1 \times 48$, averages $415 \$$ grains, with a pretty wide varintion in individual pieces ; fineness 903 ; valuo 101 cents. The Mint-mark is the lotter C.

Mexican deliars are not flowing so abundantly in this direction as in former yearn, aithough they are yielding a better return.

Milim.-The revelution of 1848 produced a new gold coin in l.omhardy: it boara on the obverse a female figure with tho legend, Italia Libeia, Dio no vem.e -"Italy free, God wills it ;" and on the reverse, a wreath, within which is the deuemination, 20 liak Italiane-" 20 Italian livres;" and outside of it tha legend, Goveano Phovisomo in Lomian. A. It weight the same as the tweuty-frano plece ef France, and was evidently meant as a return to the Milaneso

## graing,

 coinsge, posed ofpire de1842 we nish delto 1800 I is valueeives 160 of which oin is exlece being alue 18.9
atandard of 1805. The coln is more rare than could be wished : only a single spectmen bas reached us. Coincollectors will considet it as a prize for its singular beauty and Its scarcity, and as the monument of a great event In history.
Netherlands.-The new $2 \frac{1}{2}$-gullders pleco was announced in our Manual as having been decreed, but had not then been received. The legal standards are, 25 grammes ( $385 \cdot 8$ grains) in weight, 945 thousandths in fineness. The actual results of dates 1842 to 1845 are, 380 grains, 944 fine; value $98 \cdot 2$ cents. The coin often appears here in mixed depos!ts. It is remarkable for its high grade of fineness; yet is is really a depreciated issuc, since, to be equal to the former guilder zeries, it ought to bo worth $100 \cdot 2$ cents.

Nem Granada.-This country continues to send a large supply of doubloons to our market, and thle makes it the more important to notice a very recent and considerable recuction in the value of the coln. Within a few months a new pices has appeared, with new devices and standards; the latter being expressed on the face of the coin by "Lei 0,900-Peso 25,8064 G." That is, fineness, 900 thousandths; weight, so many grammes-a long-drawn fraction, corresponding to 398.31 Troy grains. At those rates, the picco would be worth $\$ 1543 \cdot 8$, and would avowedly fall below the previous valuo of the doubloon; but upon actual trisi it is still worse, as will be shown directly. This change must have taken place since the beginning of 1849 , as we notice pleces of the old style bearing that date.
But as the doubloons of New Granada aro alloyed alnost entirely with silver, which ls now profitably parted at this Mint, it is necessary to restate the Mint value of tise older piece, as well as to give information respecting the new. The silver extracted makes a sensible addition to tho values of both kinds; that is, if they are offered in sufficient quantities to meet the requirement that the net product of a parting must be not less than five dollars; below that limit the operatien is not perforined. The following terms must therefore be notieed. The doubloon of the old style, down to the early part of 1849 , weighs on an average 416$\}$ grains, and contains 870 thousandths gold, and about 120 silve:; if presented in a quantity less than 58 ounces, its net Nint valne will bo $\$ 1561$; in a larger quantity than that, it will be $\$ 15$ C6. The new doubioon, beginning with 1849 , weighs 398 grnins, nud contains in parcels $893 \frac{1}{2}$ to 895 thousandthe gold, say 89.1 , and of silver ahout 100 ; net Nint value, in any quantity iess than 93 ounces, $\$ 1531$; in a larger quantity; $\$ 1536$.

Norray.-Tho fmmigration from this country brings us considerablo parcels of Norweginn and Swedish silver coins. The dalere of these two realins, which lave the same monarch, were stated in the Manual to be interchangeable as to value, although very different ss to their stnndards. Under onr new Mint charges there is aome variation of value, since those of Sweden are of so much lower fineness, and aro suljected to a greater charge for refining. They will be noticed in place. 'The daler, and half, of Norway, averago 878 the (the law enlling for only 875, or seven-eights), and their weights, unworn, aro respectively 440 and 223 grains; net Nint value of the daler, 105 cents; the half, $52 \frac{1}{2}$. This valuation lo down to 1818 , the latest date we have seen.
Peru.-A now half-dollar, with the word Pasco in the legend, 1844 , gives an average weight of 203 (varistion 200 to 219), fineness 906 ; value $49 \frac{1}{2}$ cents.
Prussin.-The years 1848 and 1819 , in other respects onsettled, show no change in tho gold colnage. It still maintains its superiority to the other classes of ten and five-thaler pieces. The double-Frederick, or ten-thaler, is 903 fine, weighe 200 grains, aud is worth $\$ 801$; practically, an even elght-doliar ploce for us.
Russin.--Flve-rouble pieces of 1848 and 1849 show the finencss of $910 \frac{1}{2}$; a proof that the assaying and al-
loylng are conducted with admirable exactness, the standard being $916 \frac{1}{3}$. The coin is worth $\$ 396.7$. As the Russian Mint depends, no doubt, upon the Ruselan mines, and not upon foreign coins, for its material, we felt an interest in examining as to what proportion of silver was left in the alloy of the coin, and found only $5 \frac{1}{2}$ thousandths. Hitherto we have found no gold coina so nearly desilvered.

Siam.-We were not aufficiently acquainted with the silver ballets of Sian to take account of them in the Mannal. Some specimens of this curious money have since been examined. They are of different calibres, and tolerably well proportioned to each other. The tical weighs, without much variation, 235 grains, and is 928 finc; value 58.7 cents. The salung, 61 grains, 929 fine, $15^{\circ} 2$ cents. The prang, 30 grains, 907 fine, $7 \cdot 3$ cents. Below this we have, as a present to the Mint collection, three varieties, weighing 10, 4, and $1 \frac{1}{2}$ grains; the last being worth aboui three-eighths of a cent, and very good silver withal. A sight of it would reconcile our peoplo to the gold dollar. Siam may claim the merit of originality in the shape of her coin, which will not admit of renting, and acarcely of lying still-the lively emblem oi at true circulating medium.

Sweden.-The specie daler of Oseal, 1847 and 1848, is 750 fine, weighs 525 grains, aud yields $104 \cdot 2$ cents after Mint charges.

T'u, key.-There was a new syatem of coinage promulgated in 1840, which did not prevail long; there is a still nower, beginning with 1845 . The gold coins aro ovidently designed to be 22 carats ( $916^{\circ} 6$ ) fine, as in the neighboring empire of Russia. By actual aseay they are 915 fine; the piece of 100 piastres weighs 111 grains, and is worth $\$ 437 \cdot 4$; the piece of 50 pisstres, $55 \downarrow$ grains, worth $\$ 218 \%$. In respect to value they compare with the former series of 20,10 , and 5 plase tres, though entirely of different standards.

The silver coins are grea... improved in quality, and apparently based upon tho Austriun standard of five-sixths ( 833$\}$ ) fine. They are the plece of 20 piastres, 371 g graius, 828 fine, net value 82 centa; 10 piastre3, 186 grains, 826 fine, 41 cents; and 5 plastres, 924 grains, 824 dne, 201 cents. These coins are well adjusted in their weight, and altogether show in their way a great advance in the progress of Turkish civillzation. The piastre of commerco seems to be hased upon the gold ; the exchange in 1845, when these coine wero received, rated the piastre at 4.3 cents.

United Stotes.-By the law of March 3, 1849, two new gold coins, the double-eagle and the dollar, were added to the list; the former weighlug 516 graine, or $21 \frac{1}{2}$ pennyweights, the latter $25 \frac{8}{10}$ grains; and both of the finencss of nine-tenths, as the other coinage. A very large number in both deliominations have been issued.

The new postago law of March 8, 1851, provided for the coinage of a three-cent piece, composed of thres, fourths sllver and one-fourth copper, and weighing 12? grains.

There are ecveral classes of gold coin which nre not of the United States, but which are struck within the national boundaries, and which ought to be notieed in this place. Theas aro the liecntlen's coins of North Carolina, and the various Californis coins. In the same conuection, it will be proper to give some details respecting several varietles of stnmped ingots.

The colas of (C. liechtler are fully described in the Mnnual (p. 160); but aince tho date of that publication, the mint has passed Into tho hands of A. Bechtler, as appears on the face of the coin; and there is a marked difference of valne between the $C$ and $A$. The five-doliar pleces of the former wero deficient from 1 to 6 per cent. upon the alleged value, averaging 8 per cent., or 8485 ; the one-dollar pleces were worth 951 to 97 cents. The five-dollar pieces of the latter vary, from the full alleged value, to a deficit of it per cent. There are no dates on tho coins to enable us to mark
the difference; but the pieces assayed in 1843 were better than those (apparently fresh) assayed in 1849. The last and neweat lot gave $\$ 49 t$ to the five-dollar piece. It is to be bosne in mind, that as Bechtler's piecea are alloyed with silver, they will prodace about a half of one per cent. more if offered in sufficient quantity. The dollars, as far as tried, are 2 per cent. below their nominal value. The coin appears to be considerahle in amount, but it is not current in the Mjddle and Northern States; It is frequently brought to the Mint for recoinage.

The number of private Mints which have been in operation in California, as indicated by sperlmens received here, is fourteen. Some of these have issued but a single denomination of coin. others two, and one (the Mormon) four. Besides these, there are the stamped ingots of Moffatt \& Co., and of F. D. Koliler, State Aseayer; and lastly, the coin of Augustus Humbert, a United States assayer under a legal provision of 1850. . 1. The coin of "N. G. \& N." doee not profess the zame degree of accuracy as Becheler's as to fineness. Its claim to be fullo weiont of hat feable is proved by a number of trials, the variation not excer ling one grain in any case; but the legend on the reve se, Calp ffarnia oole , ithout alloy, allows a pretij vide range. As far as our assays go, the truth of this stamp is proved; there is no alloy other than that already latroduced by the liand of nature, and which is generaily more than sufficient. Threa pieces gave severally the fineness of 870,880 , and 892 thousandths; all wero within the scope of "California gold." Thoy consequently are worth $\$ 483, \$ 489$, and $\$ 495 \frac{1}{2}$ respectively , withent the silver; and including that, $2 \frac{1}{2}$ centa more.

The coin is neatly exeeuted, and besides the two legends above quoted, bears un cagle, a circle of stars, the date 1849, and the name San Fanncisco. It wears the somewhat brassy tint which belonge to gold alloy. ed with silver only.
2. The Mint of the "Oregon Exchange Company" issues two denominatlons, 10 and 5 dollars. They respectively profess 260 and 130 grains weight of "native gold." One five-dollar piece was found to weigh $127 \frac{1}{2}$ grains, was 878 Ine, and contained only the natural slloy; resulting value, 84 ; with the ailver (in aufficiently large lots), $2 \frac{1}{2}$ cents more.

The coin is not well struck, but is pleasantly dlstinguished by the picture of a beaver, a good emblem of mining industry and of Weatern life.
3. Next is the mintage of the "Miners' Bank, San Francisco;" a ten-dollar plece, of plain appearuace.

The average weight is 263 graing, the finentss a bout 865 thousandths, part of the alloy being copper. Averige value $\$ 987$, with a risk of having it as low as - 975.
4. Coinage of Moffatt \& Co., 1849, 1850 ; pleces of 10 and S doilars, in imitation of the nationsl coinage. Several of the colning estalilishments, as will be sten, have adopted the same device, but evidently without evil intent, as most of their coins are worth what is professed, and some even more. The fineness, however, is in every case inferiur to the standard of the Mint, and this is likely to prove a source of discredit from European assayers, who will not take the trouble to assort. A large promiseuous lot of both kinds of Moffatt \& Co.'s coins, dates 18.19, 18ü0, shows an average of 897 ; average wolght, to the ten-doliar piece, $258 \$$ grains; average value, $\$ 997 \cdot 7$.

The S. M. V, on this and other colas is sald to mean "Standard Mint Value."
5. Ten-dollar piece oi J. S. O. (said to be Dr. Ormsby, of Pennsylvania); one plece assayed gave 842 fine; weight $258 \frac{1}{4}$ grains; value $\$ 937$. Very few have come to hand.
6. Twenty-five dollar and ten-dollar pieces of Templeton Reid; weigh respectively 649 and 260 grains. Being the only two specimeus receivod, they hare not
been cut for aasay, but appear to be of California gold without artificial alloy. Assuming this, the voiues would le about 2450 for the first, and 9975 for the aecond.
7. Ten-dollar and five-dollar pieces of the "Cincinnati Miniug and Trading Company," 1849. These elso have not been cut on account of their rarity, but oppear to be of native gold, and, at the weights of 258 and 132 grains, may be rated at 8970 and $\$ 495$ respectively.
8. Ten and five-dollar pieces of the "Pacific Company," 1849; very irregular in weight, and debased in fineneas ; a ten-duliar piece weighed 229 grains, a fivedullar, 130; assay of a third, 797 thousandths. At those rates, the larger piece would be worth $\$ 786$, the smaller 448 ; but the valuation is altogether uncertain.
9. Five-dollar piece of the "Massachusettr and CalIfornia Company," 1849; a very pretty coln, but apparently debased with copper. Oniy one specimen has been notlced here; It weighs $115 \frac{1}{2}$ grains; has uot been assayed.
10. Colns of Baldwin \& Co., four varleties; 1. A tendollar piece, 1850, distinguished by a horse and his rider, with a laseo;. 2. Twenty-dollar piece; 8 . Tendollar, 1851 ; 4. Five-dollar, 1850 ; the last two in imitation of Unlted States coinage. Of the first, ene piece tried weighed 263 grains, fineness 880, value $\$ 996$. Of the recond, four pieces tried varied from 511 to 523 grains; but one hundred pieces averaged 517 ; the fineness varied from 861 to 871 ; average fineness $868 \frac{1}{2}$, average value 1933 . Of the third, ten pieces averaged $259 \frac{1}{2}$ grains; average finesess 870 ; average vaiue 89 72. Of the fourth, average value 8492 . The Baldwin coins contain some copper; about 20 thousandths.
11. Ten and five-doliar pleces of Dubosq \& Co., 1850 , also in lmitation of the national coinge. The larger piece averages 262 grains, and three specinens gave the fineness of $899 \frac{1}{2}$, which is a mere shade lelow standard; consequent value, 810 15. A single fivedollar piece yieided 8402 . But a mixed parcel containing $\$ 1000$, gave the ineness of 887 , and the clese value of $\$ 1000$ 20. Consequently the pieces may be averaged at par.
12. Five-doliar plece of Shultz \& Co., 1851. Average weignt, 128 graina; fineness of threc pieces, 879 ; value, $8497 \cdot 4$. The devlces are in imitatiou of Cnited States coln.
13. The Mormon coinage, although executed in tie Territory of Utah, is without impropriety cisssed among California coins, on account of nelghverineai, aud the source whence the material is derived. These are the four denominations of tweniy, ten, five, and two and a half dollars. Although there is much irregularity both ia weight and fineness, the denominations are tolerably in proportion to each other. A parcei made up of all sizes, and counting $\$ 56200$, yicided at the Mint $\$ 47320$; say $\$ 852$ to tho ten-dollar piece. The fineness was 886.
14. Five-doliar piece of Dunbar \& Co., in imitation of United States coin. A lot of 111 picces averages 131 grains wejght, 883 fineness, value 498.
15. Fifly-doilar piece of the United States AssayOffico at San Francisco, established by act of Congress of 1850 . It first appeared hero in April, 1851. The coin is prepared and issued hy Mesars. Moflatt \& Ce. as contractors, and Lears the stamp of Augustus llumbert, assayer. The two professed rates of fineness, 880 and 887 thousandth3, are found upon assay here to be duly maintained, whether in single pieces or in large quantities. But some Irregularity ln the weight of so heavy a plece, alioyed with silver only, anis ufiering eight corners to wear ls to be expected. Wian prosented In quantities sufficient to allow for parting the silver, say 70 ouncea, the average Mint value is abent $\$ 5010$; in less quantities, the silver not being aliowed for, the average value is sbout 49 90. But aven with-
out the ollver they occasionally come up fully to the alleged value. 'This colnage is understood to have put a stop to all privata Iseuas In California.
The foregoing comprehend all the varietien of coin that have been brought to this Mint. ., There have been, beaides, two sorts of atamped bars or Ingots, evidently intended for currency.

1. The ingota of Moffatt \& Co., of varlous sizes, from about 8 to $\mathbf{8 2 6 0}$. It may be stated, in general, that some wera found to be rated too high, and others too lew. The sixteen-doilar Ingot ylelds about $\$ 15 \mathbf{7 5}$, but is irregolar.
2. The issue of bars by F. D. Kollor, Assayor of the State of Callfornia, cominenced in May, 1850. They are of various sizes, from $\$ 40$ to $\$ 150$. Wo find a slight undervaluing in his basis of calculation, and genersily an error of assay In the oamo direction; so that on the average his bars are worth at the mint 1 per cent., perhaps 1i, more than tho value atamped upon thern.

Recapitulation of the net Mint Value of Gold and Silter Coins isaued within twenty-fiva Yeurs past.-Inquiry Las been frequently made at the Mint for a compend of the values of foreign coina, without a due consideration of the difficulty of putling in a small space sueh a statement as would be satiafactory. The quarto volume, now entirely out of print, was not found too large for its purposo, which was to aupply auch information as dealers, anateurs, and legislatora would from time to time be likely to require. Still, a condensed table of the colns more usually seen, and within a contrected range of date, would certainly be uaeful to dealers and others, and especially with tho modifications occasioned by the new Mint tariff of charges. We therefore offer the following, inaerting valuea only, and teavlug tho details of logal weight and fineness, and of actual weight and fineneas, to be aought for elsewhere; as elso tho particulars concorning coinage of older date than just specified.

## Gold Coins.



Gold Conks.

## Turkey.-Twenty piastres (new)

Tumcany--Sequin 80
 ${ }_{10}^{230}$
Fivediollar pleee of $\mathbf{C}$. Bechtlor, averagu.......... 485
Flve-doliar plece of $\boldsymbol{A}$. Bechtler. .................. $40 \ddot{92}$ to 500
Dollar of the same. ................................... 96
Oregon Exehange Company, five dollars.
489
405
N. G. and N., San Franelsco, five dollars., 483 to 405

Mluers' Bank, Ban Frauc., ten doliars, average. . 087


J. S. O., ten-dollar plece. ............................. 9857
T. Reld, twenty-five dollar plece .................. 2450

Pacifio Company, ten and jove, uncertalo.
Massachusetts Company, fre, uncertaln.
ClaclanatI Company, ten, eutimated.......... 70


Kohlers's bar, about 1 per cent, higher than his valuation.

| Austria.-Rlx dollar | Silivan Coins. |
| :---: | :---: |
|  | Florln...................................... |
| Twenty kre | itzers. |
| Lifa (for L | mbardy)....... . . . . . . . . . . . . |
| Baden.-Crown . |  |
| Guldon |  |

Fiorin Blx kreutzars
Belgium.-Flvo franes $\qquad$
Two and a half francs.
Two franes.
Bolfvia.-Dollar
Half dollar, debased, İBu0
Quarter dollar, debased, $1 \mathbf{S 3 0}$
Brazil. -Twelva hundred reis
Flght
Four
Bremen.-Thitiy-six groto.
Britain.-Iralf erown.
Bhilling.
Brunsert-Thale
haler.................................... 68

Fighth dollar, or reai
Denmark.-Rigsbank daier.
specte daler.
Thirty-two \&
Ecuador.-Qnarier doliar ............................................... 187
Kinpt, -Twanty plestres . . . . . . . . . . . . . . . . . . . . . . . . . . . . 86
France-Five franes. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 988
Frano.
Frankifort.-Ftorin
Guiana, British.-Guiider
Hanover.-Thaiar, fino aliver
50 finc.
najpti--Dollar, or 100 centimea
Hesee Cassel.-Thaler
One-aixth thaler.
IIease Durmatadt.-Florin or gul....................... 11
IIindostan.-Itupee .................................................. 445
Mfexico,-Dollar, everage .................................. 100 \%

Netherlanda-Three gulldera ............................ . 120
Gulder ,........
Twenty-five cents........................... 096
Two and a haif guldera ................ 089
New Granada,-Dollar, neual welght................... 102
Doltar, or ten reela, $1851 \ldots . .$.
Noruray,- $\mathrm{Rt}_{\text {grdajer }}$.
feroia.-Sahib koran
Purh.-Dollar, Lima Mlut ................................... 91 5
Half Cuzco....................................... 1008

Poland_-Zloly.
Pasco .

496
112

Siliver Coing.


Double thaler, or 34 galden....
Compnisison of American and Forreign :1eng fly wa for Precious Metads.-The normal weight o. the States Mint is the Troy ounce, for considerable y wot tities, and the Troy grain, for single coins. This ounce is equal to 480 grains; to 31.09815 French grammes; to $1 \cdot 08108$ Spanish ounce. The grain 19 64.788 milligrammes. Our standarl French kilogramme weighs 15,435 grains, or $32 \cdot 15625$ ounces. The gramme is 1054.35 grains. The milligramme -0154 grain. The average estimate of the Spanish mark is 3552 Troy grains, or $7 \cdot 40$ ounces Troy. It is differently subdivided, aseording as it is applied to the weighing of gold or silver. For gold, it is divided into 50 castellanos; ench castellano into 8 tomines; each tomine into 12 granos, For silver, the mark is divided into 8 ounces; each ounce into 8 ochsvos; each ochavo into 6 tomines; each tomine into 12 grsnns. Consequent$1 y$, in gold weighings there are 4800 grains, and in silver 4608 grains to the mark. The castellano is much used, however, as a nornal weight for gold bullion. By deduction from the above, it should weigh $\mathbf{1 1} 04$ Troy grains; by an invoice from New Gramada, wo have found it to correspond with 70.935 ; so that 71 grains might be taken as the cquivalent, accurate enough in practice. This is just ono grain less than three pennyweights; or 1470 of a Troy onnce. This mark, being employed not only in Spain, but in all Spanish America, is of course a very important weight to the bullion and coin dealer, and should be duly understond. It is, perhaps, not more difficu't to master than the pounds 'I roy and avcirdupois, with their respective trains. The Cologne mark, normal moneyweight of Germany, by the German Convention of 1838, was estimated at 233.855 grammes, answering to $3649 \cdot 65$ grains Tr ro. It was beft rated usually at 360.3. Our silver dullar, since 1007, weighs 26.725 grammes. A kilogramme of atandard ( $\frac{9}{10}$ ) gold is worth $\$ 598255$.
Fiulk aid Packing of Irecious Metuls.-A solid or cubic inth of fine gold weighs $10 \cdot 1509$ ounces, num is worth $\$ 20984$. A cubic font of the same, $\$ 362,600$. A cubic inch of standard goid weighs 9.0989 ounces, and is worth \$169 28. A cubie foot of the same $\$ 292,500$. A cutie inch of fine sllver weighs $b \cdot 5225$ ousces, and le worth ©ris4. A cubie foot of the same, $\$ 12,338$. A cubic inch of standurd silver weighs 54173 ounces, and is worth 86803 . A cuble foot of the eame, $\$ 10,891$. Theso calculations are bnsed upon tho weight of water as $252 \cdot 458$ grains tn the cubic inch, the thermoneler being at $60^{\circ}$ and the barometor 30 inches,-Sunasau's F'irst Prin. Chem., 18:3. The apecific gravity of line gold is taken at $19 \cdot 3$, s.andard at 17.3 ; fine silver 10.5 , standerd 10.3 . As these gravities are only approximste, we may be excused for not carrying out the decimals very far, as is rather too often done in works of science. Gold is not measured by the pint, at least out of Caiifornia; yet it may be
interesting to know that a dry-measure pint of California grains is found to weigh from 141 to $143 \frac{1}{2}$ ounces; value atout $\$ 2560$. The average specifio gravity is consequently $9 \cdot 61$; no that It occipies about twice as much bulk, in that form, as when nelted and cast into bars. A pint of African dust was found to wetgh 148 ources. The advantage of having gold grains or dust cast into bars aa a preparative for exportation, is perhaps overrated. True, it has rather an insufficient ontit, if packed in paper, leather, muslin, Seidit/ boxes, or porser-bottlea, as it came at first from San Ir:uclseo. A good tin box, well soldered, will hold fast and keep dry ; and the Mint charges nothing for melting. This is tho most general kind of packing now used; Lit the tin case, if large, requires to be ir:$\because$ 'serer in a wooden box, and after that there is need vi" igth st watch and erre. A most daring thett was A " c. unitted, som where on $1 . \theta$ route, by boring hroo in ، $3 x$ and caso; and about $\$ 9000$ worth wss ab-$\because-$ ared. $1 \mathrm{keg} 13 \frac{1}{2}$ inches high, including the chine,
with a diameter of 10 inches at the head and $11 \frac{1}{2}$ ot is 4 : H re (outside measures), is a convenient size for
 wh obe tic u...rements are 19, 11, 13, as above, is a proper size for ${ }^{3} 000$ in sliver coln. A rectangular box, measaring inside 10 by 8 inches by $b$ in depth, is the size used at the Mint for $\$ 1000$ in silver coin. This allows the coin to be throwr in promiscuously; if plled, at least one-third more can bo put in. Such a hex would hold 336,000 in gold coin, laid in order; or $\$ 27,000$ in disorder. A lagg 6 inches by 9 holds $\$ 5000$ it gold coin, with room to tie. A bag 14 by 18 is a good size for 1000 in silver coin. One thousand pieces of our three-cent coin ( 830 worth) make a smaller budget than many of our customers seem to anticipate. A hag $3 \frac{1}{2}$ inclies by 5 easily contains them.-See Mantal of Coins, by Fekfelidt sad Du Bois of United States Mint. Publighed, New York, 1853, by G. P. Patnam \& Co.

Privilege of Cuining.--The privilege of coining money has always been claimed as a prerogative of the executive power, which was guarded with extreme jealousy. "The legitimation of money," says Sir Matthew Hase, "and the giving it its denominated value, is justly reckoncd in jura majestatis, and in England it is one apecial part of the king's prerogative." And linding observes, "As to the impression of the coins, the ataniping thereof la tho unquestionable prerogative of the crown, and it was in very fow instances communicated to those perasns on whom the privilego was conferted; for, in seneral, the dies were sent either from the Exchequer, or from the master of the mint in the Tower." The privilege implied that the avthority of the erown was necesary to give legal currency to the coin; and although Blackstone thinks it did not estend to the debusement of the coin to the injury of the people, no one can doubt that the power was not always legitimately exercised. In truth, it is only in the case of a depreciated currency that the king's proclamation is necessury to givo legal circulation to the coin of the venlm; and, ne a cetter protection to his subjects, the tender is limited within very narrow bounds.

Ancient Constitution of the Mints..-The constitution of tho mints in the eariiest limes of Britith history, and the regulations applied to the colnafe, are questlons of antiquarian research which will be deemed moro curious than j.rofitalile. The materials lor such an inquiry are extremely mengre and incomplete; for, according to Ruding, botb the Anglo-Saxor: laws and Domesday-Book are silent on the subject. They frequently mention the moneyers, but make no ailusion to any other officers of the mint ; though it is reasunable to suppose that the crown, whose prerugative it was to coln money, most have hal aome jurisdiction over those who were employed in the practical opera-tions.-E. B.

Tableg melative to tar Coing or Great Britain and otieg Colintaizg.
Exithen Corss, Account of the Quantly of Fine Sllver contained in 97.8 or the Pound Sterling; the Quantity of Standard Silver, of 11 oe. 2 dwts. Fine snd 11 dwts, Alloy, contained in 208 , or the Pound Bterifng, in the different Relgnk, from the Time of Edward III, to the Reign of George III.-A similar Aceeunt with respect to Geid. - And an Acconnt of the proportonal Value of Fine Gold to Fito and Iovoth Part: Troy Weight.

|  |  |  | Uver. |  | Gold. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A.0. | Anoo 86 | 1 <br> Gurs Fino silver th, 30 Bhillioge, or the Pound Btarling, as Coloed by lus Stint Indeature | Nomber of Gr.is.d of Aendard Allvar, 11 cm . 2 olwto "ibo 1090 ghis. linge, wr lbe Poand SterItng, he t'olmad by the Miat Indentares. | Nomber of Graine of Fine Gold in 80 Bhilitoge, of the Poued glerhiog, as Coined by the Midi Indeatures. |  | b. <br> Proportionsto Value of Fins Gold to Fine Eilver, according to the Qaea. tity of anch Metal con. talned in the Colns. |
| 4 | 18 Fdwpri IIt. | Greins. $723 \cdot 833$ | $\begin{aligned} & \text { Fralia } \\ & 6393883 \end{aligned}$ | Graing. 407900 | $\begin{aligned} & \text { Graion. } \\ & 4.55080 \end{aligned}$ | $\begin{aligned} & \text { Gold to 8ilver. } \\ & 1 \text { to } 12.091 \end{aligned}$ |
| 1349 | 29 Edwa MI. | . .140 .000 | 4800.000 | 383.796 | 418.598 | 11011.571 |
| 13156 | 30 Edwa. y III. | 34006000 | 4329000 | $58 \cdot 125$ | 390688 | 1 to 11.158 |
| 1401 | 8 IIeょ. ${ }^{\text {I IV... }}$ | 8990000 | 4320000 | $968 \cdot 125$ | 090.688 | 1 to 1t-15s |
| 140! | 9 llency V.... | 3330 000 | $7 \times 0.000$ | 822312 | $351 \cdot 613$ | 1 to 10.33i |
| 46F | 4 Hdward IV. | 2664000 | 380000 | 257.950 | $281 \cdot 291$ | 1 tu $10 \cdot 831$ |
| 1465 | 5 Idward IV. | \%604000\% | 2880.000 | 235.750 | $260 \cdot 454$ | 1 te 11.158 |
| 1470 | 49 IIenry VI... | 2004000 | 2980000 | 293-75) | 260.454 | 1 to 11169 |
| 1452 | 22 Edward IV. | $266-4000$ | 2880000 | 298.750 | $260 \cdot 45-4$ | 1 to 11.158 |
| 1503 | 1 Ifenry VIIt. | 2644.400 | 2880.000 | 298750 | $260 \cdot 454$ | 1 to 11-158 |
| 1527 | 13 IIenry VIII. | 2588.000 | 2560.000 | $210 \cdot 149$ | $229 \cdot 253$ | 1 to 11.268 |
| 1543 | 34 Ilenry VIII. | 2000000 | $2162 \cdot 162$ | $191 \cdot 666$ | 209.090 | 1 to 10-434 |
| 1545 | 36 Ifenry VIII. | 1200.000 | 1297 '2997 | $170 \cdot 000$ | $192 \cdot 000$ | 1 to 6.818 |
| 1546 | 37 Itenry VIII. | \$00 000 | 864864 | 160.009 | 174.545 | 1 to 6.000 |
| 1047 | 1 Bdward VI. | 800000 | 864.864 | $100 \cdot 000$ | 174.545 | 1 to $5 \cdot 000$ |
| 36.9 | 3 Bdward V1. | 800.000 | 864864 | 155.294. | $100 \cdot 412$ | 1 to 5.151 |
| ${ }^{1551}$ | 5 Ealward VI. | 40.1000 |  |  |  |  |
| 1551 | 5 Edward VI. | 1760.100 | 1902.702 | 160.000 | 174.645 | 1 to 11.000 |
| $15 \times 2$ | 6 Fidward VI. | 1788.000 | 1011361 | $160 \cdot 000$ | 174.545 | 1 to 11.050 |
| 1553 | 1 Mary . . . . . | 1790000 | 1902.702 | $160 \cdot 160$ | 173.080 | 1 to 11057 |
| 1660 | 2 tilzabath. . | 1770000 | 1020.000 | 160009 | 174545 | 1 to $11 \cdot 100$ |
| 1000 | 43 Ellsaheth . . | 1718700 | 1858.064 | $1 E^{*} \cdot 612$ | 171.940 | 1 to 10.904 |
| 164 | 2 ,Jamea I. ... | 1718709 | 1858.064 | 141.685 | 1548338 | 1 to 12-100 |
| 1626 | 2 Cherles I... | 1718709 | $1858 \cdot 064$ | 128.780 | 140487 | 1 to 13.346 |
| 1666 | 18 Charles II. . | 1718709 | $18 \% 8064$ | 118.651 | $129 \cdot 138$ | 1 to 14. 455 |
| 1717 | 3 (icorge I. . | 1718709 | 1858.164 | 118.001 | $123 \cdot 274$ | 1 to 15.209 |
| 1816 | 56 Georgs III. | 1614.515 | $17.15 \cdot 45$ i | 113.001 | $128 \cdot 274$ | 1 to 14.287 |

Exaltar Corwe-Aecount of Englial Silver and Gold Coina: showing their Value, the Seignorage or Proft upon the Coins:
and the Itine of the Pound Troy of Standard Gold and Silver, from the Reign of Edward 1II. to tho Relgo of George I:

|  |  | Eulver. |  |  |  | Gold. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. 0. | Anno Regul. | 1. Flaeaena of the Eilver in the Cotue. | 2. <br> Pound Weight of such Bilves colned into | 3. <br> Proflior Selgnarage on the Coioage. |  | 5. <br> Fionenes nf the Gold is the Coins. | 6. <br> Pound Weight of such Gold coioed into | $\begin{gathered} 7 . \\ \text { Proat or } \\ \text { selignorage } \\ \text { on thu } \\ \text { Colange. } \end{gathered}$ | 8. <br> Egual to the <br> Mint Prico for Standard Gold of 22 Carata fine, Troy Weight. |
| 1344 | 19 Fdward III. | Ox. dwito 11 | $\begin{array}{cc}1 & 4 \\ 1 & \text { d }\end{array}$ |  | $\begin{array}{ccc}5 & 4 & d \\ 1 & 0 & 8\end{array}$ | Cris. 2381 |  | $\begin{array}{cccc}\text { c } & \text { Pr } \\ 0 & 8 \\ 0 & 8 & 4\end{array}$ | $\begin{array}{llll}¢ & 12 & d \\ 12 & 10 & 8\end{array}$ |
| 1849 | 23 Fidward IIf. | 112 | 120 | 013 | 128 | 23 81 | 1400 | 01118 | 13 ll |
| 1350 | 30 Edward III. | 112 | 150 | 0010 | 1501 | 2388 | 1500 | $\begin{array}{lll}0 & 6 & 8\end{array}$ | 14.8 |
| 1334 | 18 Klchard II. ... | 112 | 150 | 0010 | 1501 | 238 | 1500 | $\begin{array}{llll}0 & 5 & 0\end{array}$ | 14.911 |
| 1401 | 3 Ilenry IV..... | 112 | 150 | $\begin{array}{llll}0 & 0 & 10\end{array}$ | 1501 | 2331 | 1500 | $\begin{array}{llll}0 & 5 & 0\end{array}$ | 140111 |
| 1421 | 9 Ilenry V. | 112 | 1100 | 010 | $11011 t$ | 2331 | 10134 | $\begin{array}{llll}0 & 5 & 0\end{array}$ | 1029 |
| 1425 | 4 Ifenry VI. .... | 11.2 | 1100 | 010 | $11011 t$ | 2331 | 10134 | $\bigcirc 510$ | 161111 |
| 1414 | 4 Fdward IV. . . | 112 | 1170 | 046 | $1152 t$ | 2381 | 20108 | 2100 | 18 0 5 |
| 1405 | 5 Edward IV. | 112 | 1170 | 046 | 11524 | 2381 | 22100 | 1010 | $21 \quad 110$ |
| 1471 | 49 1lenry VI. .... | 112 | 1176 | 020 | 11711 | 23 31 | $2 \% 100$ | 0130 | $210 \%$ |
| 1492 | 22 Edward IV. | 11.2 | 1170 | 010 | 11841 | 2381 | 22100 | $\begin{array}{lll}0 & 7 & 6\end{array}$ | 21150 |
| 143 | 1 Rlehard III.... | 118 | 1176 | 010 | 11841 | 2381 | 22100 | 076 | 21150 |
| 1455 | 1 Ileury VII.... | 118 | 117 a | 010 | 11848 | 23 \% | 22100 | 076 | 21150 |
| 1513 | 1 Ilenry VIII. . . | 112 | 1176 | 010 | 118114 | 2331 | 22100 | $\begin{array}{llll}0 & 2 & 6\end{array}$ | 2280 |
| 415.7 | 19 Ineury VIIt. .. | 112 | 200 | $0110 t$ | 118114 | 23 34 | 2400 | 028 | 2200 |
| 15.7 | 18 Itenry VIII. .. | 112 | 260 | 010 | 240 | 23 时 4 | $\begin{array}{lll}7 \\ 8 & 0 & 0\end{array}$ | 029 |  |
| 1527 | 19 Ifenry VIII. .. |  |  |  |  | 2203 | $25 \quad 20$ | $\begin{array}{lll}0 & 3 & 0\end{array}$ | 21196 |
| 154\% | 84 Ifenry VIII. .. | 100 | 280 | 080 | $8{ }^{8} 1441$ | 230 | 28160 | $\begin{array}{llll}1 & 4 & 0\end{array}$ | $\begin{array}{lll}20 & 8 & 0\end{array}$ |
| 1545 | 36 Ilenry VIII. . | 60 | 280 | 200 | 2110 | 220 | 3000 | ${ }^{9} 100$ | 27100 |
| 1516 | 8t Ifenry VIII. .. | 40 | 280 | 440 | $\begin{array}{llll}2 & 15 & 6\end{array}$ | 200 | 30100 | 500 | 27100 |
| 1547 | 1 Pdward VI.... | 40 | 280 | 440 | 2150 | 200 | $30 \quad 00$ | 1100 | 8170 |
| 1549 | 3 Fdward V1.... | 60 | 3120 | 400 | 21021 | 220 | 3400 | 100 | 3300 |
| 1551 | 6 lidward V1.... | 30 | 3120 | .... |  |  |  | . $\cdot$. | . $\cdot$. |
| 1651 | \$ Fidwand V1.... | 110 | 300 | .... |  | 23 31 | 3400 | . . . | . . . |
| 155! | 6 İdward VI. . . |  |  |  |  | 2820 | 8300 |  | . . |
| 155? | 6 Pdward V1.... | 111 | 300 | 010 | 21034 | 23 31 | $\begin{array}{lll}86 & 0 & 0\end{array}$ | 020 |  |
| 1582 | 0 Edward VI. | 11 |  |  |  | 2208 | 3300 | $0 \begin{array}{lll}0 & 0\end{array}$ | 39178 |
| 18,53 18897 | 1 Anry . ........ | 110 | $\begin{array}{lll}3 & 0 & 0 \\ 3 & 0\end{array}$ | 0110 | 21061 | 28 34 | 3000 | $\begin{array}{lll}0 & 3 & 0\end{array}$ | 33008 |
| 1869 1500 | 2 171zabetiz ..... | 112 | 800 | 016 | 218 0 | 9388 | 30000 | $\begin{array}{lll}0 & 5 & 0\end{array}$ |  |
| 1500 | ${ }^{2}$ Elizabeth . . . . |  |  |  |  | 220 | 3800 | $\begin{array}{lll}0 & 4 & 0\end{array}$ | 82100 |
| 180.9 1040 | 4.l Filizabeth .... | 112 | 820 | 020 | 300 | 23 31 | 80100 | $\begin{array}{lll}0 & 10 & 0\end{array}$ |  |
| 1610 | 4il Fibrabeth . . . . |  |  |  |  | 2201 | 83100 | 0100 | 33 [10 |
| 1004 | 9 Jsmes I. ....... | 112 | B 20 | 020 | 2196 | 220 | 3740 | $\begin{array}{llll}0 & 10 & 0\end{array}$ | 96140 |
| ${ }_{26} 16.6$ | 8 Charles 1...... | 11.2 | 3 | $\begin{array}{lll}0 & 9 & 0 \\ 0 & 0\end{array}$ | 3000 | 220 | 4100 | 116 | 39187 |
| \$6606 | 18 (harien 11..... | 112 | 390 | 000 | 320 | 220 | 44100 |  | 44100 |
| 1717 | 8 fieorge I...... | 112 | 380 | 000 | 380 | 220 | 40140 | . $\cdot$. | 40146 |
| 1816 | 56 (Jeorge ItI. ... | 112 | 360 | 040 | .... | 220 | 40140 |  | 40140 |

* 1561-5 Edward VI.] The colnage of debased vilver money, in tho Sth year of Edward VI., of 3 ox. fine, ought more properly to be conaidered as T'okens. The sum of $£ 120,000$ only was to colned,-See James's Ewsays, chapter fv.
$\dagger 1647$ - ileury VIIf. $]$ Tha Saxon or Tower pound was need at the Mint up to this thes, when tho pound Truy wan aubstifuld in lts stead. Tho 'Tower pound was but 11 oz .6 dwts . Tmy; se that, from the conquest to the $28 i \mathrm{~h}$ of Edward I., 20 shilifing in lale wem exactly a pound in weight.
$\ddagger 1688-18$ Giarles II.] The acignorage on the colneme wat at this time given up, and the gold buliteb brought to the Mint


GGLD Coing of biffesaric Countrisa.-A Table containing the Asamy, Welghts, and Valnea of the principal Gold Coing of all Countrigs, computed according to the Mint Price of Giold in Englend, and allowing $\& 1$ to equal 84.84 , whlch is an Av erage Value, wlli give the Valus of tho Coln in United states Declinal Cirrency. Assays bave been mede both at foudon und Panis, which have been found to verify each otner.

|  | Colns. | Asmay. | Weight. | Atandard Walght. | Contents in Pare Gold. | Vnlue in Bterling. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Acerriax Domin- } \\ & \text { lons............. } \end{aligned}$ | Souverain | W. ${ }^{\text {Car. }}$ \%t | Dwt. Er. | Dwt. Er. mi. | ${ }^{\text {Graina. }}$ | 10 10-02 |
|  | Souveruin Double ducat | W. $012{ }^{\text {d }}$ | 8 4 4 | $\begin{array}{llll}3 & 13 & 18 \\ 4 & 20 & 8\end{array}$ | 78.6 108.4 | $\begin{array}{lll}18 & 10-92 \\ 18 & 0\end{array}$ |
|  | 1) ucat Kremaity, or Hungarias | 13. 1 3 | 25 | 4 20 <br> 10  | 106.9 | 18047 |
| Bavarla . ......... | Carolia. . . . . . . . . . . . . . . . . | W. 38 | 651 | 5 5 10 | 115. | $\begin{array}{rl}9 & 501 \\ 20 & 4.23\end{array}$ |
|  | Max d'or, or M | W. 382 | 44 | $\begin{array}{llll}3 & 14 & 0\end{array}$ | 77. | $\begin{array}{ll}13 & 7.44\end{array}$ |
|  | Ducat. | 8. 1 27 | 28 | 21011 | 62.8 | $\begin{array}{ll} 9 & 4 \cdot 12 \end{array}$ |
| Bran . . . . . . . . . . . | Ducat (louble, etc., in propor | H, 1 1t | 123 | $2{ }^{2} 81$ | $4{ }^{5} 9$ | 8148 |
|  | I'sistole . .............. | W, 0 l ${ }_{\text {W }}$ | 421 | 4190 | $105 \cdot 6$ | $\begin{array}{ll}18 & 7.86\end{array}$ |
| Brexew ick . . . . . . | P'latole (double in propor | W. 0 1 | 4 4 21\% | 4195 | 106.7 | 188 |
|  | Ducat. | 18. $1 l^{01}$ | $\begin{array}{lll}2 & 54 \\ 2 & 51\end{array}$ | $\begin{array}{llll}2 & 8 & 9 \\ 8 & 8 & 8\end{array}$ | 51.8 | 92 |
| Dекмак! ........... | Dueat cur | $\begin{array}{lll}\text { 1. } & 1 & 2 \\ \text { W. } & \\ 3\end{array}$ | $\begin{array}{ll}2 & 51 \\ 8 & 0\end{array}$ | $\begin{array}{cccc}2 & 9 & 8 \\ 1 & 21 & 10\end{array}$ | $68 \cdot 6$ 42.2 | $\begin{array}{ll}0 & 8 \cdot T 6 \\ 7 & 5 \cdot 62\end{array}$ |
|  | Ducat apecl | B. $1{ }^{\text {W }}$ | ${ }_{2} 81$ | $\begin{array}{cccc}1 & 21 & 18 \\ 2 & 8 & 8\end{array}$ | $42 \cdot 8$ $62 \cdot 8$ | $\begin{array}{ll}7 & 5 \cdot 62 \\ 9 & 8.70\end{array}$ |
|  | Christlan d' | W. 01 | 47 | 4516 | $93 \cdot 3$ | 10 6.14 |
| England........... | Gininea. | 3thnd. | 5 9f | $5 \quad 910$ | 1187 | $210^{\circ}$ |
|  | 1lalf-gulne | Stand. | 2101 | 21615 | 59.8 | $106$ |
|  | Seven-ahililing | Ftand. | 110 | 1190 | $89 \cdot 6$ | 70. |
|  | Soverelgn . . . . . . . . . . . . . | 8tand. | $5{ }^{5} 81$ | 135 | 118.1 | 20 0. |
| Framar . . . . . . . . . . | Double Loula (colned before 17 | W. 02 | 1011 | 1056 | $224 \cdot 1$ | 89 0.34 |
|  | Lonls. | W. 02 | 561 | $5{ }^{5} 212$ | $112 \cdot 4$ | 10 1071 |
|  | Double Lonila (colned since 178 | W. 0 1t | 920 | 981519 | 212.6 | 87878 |
|  | Louls | W. 0 11 | 422 | 41919 | $100 \cdot 3$ | $\begin{array}{ll}18 & 975\end{array}$ |
|  | Double Napoleon, or plece of 49 froncs... | W. 0 12 | 87 | 880 | 170 | 31.886 |
|  | Nnpoleon, or plece of 20 francs . . . . . . . . . . New Louls (double, etc.), tho nimo as the | W. 011 | 481 | 4110 | 89.7 | 1510.5 |
|  | Napolcon. |  |  |  |  |  |
| Feaxeport-on-ther-Maine Ducht. . . . . . . . . . . . . . . . . . . . . . . |  | D. 127 | 261 | $2{ }^{2} \quad 914$ | 52.9 | 94.8 |
| Girngia. | 14stole, old. . . . . . . . . . . . . . . . . . . . . . . | W. 02 | 4 Tt | 4418 | 92.5 | 10 4.45 |
|  | Pistote, | W. $00^{\prime}$ | 8151 | 3154 | 80 | 1410 |
| Grnoa. | Sequin | B. 1331 | 251 | 2106 | 58.4 | 0 0.41 |
| Hispover | Jocat (double la prop | 13. 122 | 251 | 2014 | 629 | 9.435 |
|  | George dior | W. 0 lt | 4 61 | $4{ }^{4} 583$ | 92.6 | 164.60 |
|  | Ducat. | 13. 13 3t | 2 bl | 2108 | $58 \cdot 3$ | $\begin{array}{lll}0 & 5 \cdot 19\end{array}$ |
|  | (dold florin (doublo in proportion) | W. 301 | $2{ }^{2}$ | 1186 | 39. | 61083 |
| IIORLAND . . . . . . . | ${ }^{1}$ ouble ryder. | Stand. | 1221 | 12210 | 253.2 | $50 \quad 1.46$ |
|  | Ryder | Stand. | $6{ }^{6}$ | ${ }^{4} 90$ | $140 \cdot 2$ | 24875 |
|  | Ducat. | B. i $2 t$ | $2 \begin{array}{ll}2 & 51\end{array}$ | $\begin{array}{llll}2 & 9 & 12\end{array}$ | 59.8 | $984 \%$ |
|  | Doubla 1 | W. 181 | 1010 | 91818 | $215 \cdot 3$ | 08 1-2, |
|  | Louls | W. ${ }^{3}$ | 58 | 42116 | 108. | $\begin{array}{ll}19 & 1.37\end{array}$ |
|  | Deml Loul | W. 1 2t | 216 | $\begin{array}{llll}2 & 11 & 3\end{array}$ | $\underline{64} 5$ | 97.75 |
| Mthar . . . . . . . . . . | Sequin. | 1. 19 | 258 | 8100 | 04.2 | 94.98 |
|  | Doppis or pistole | W. 01 | 411 | 408 | 86.4 | 1576 |
|  | Forty-Ifre plece of 1.003 | W. 011 | $8{ }^{8} 8$ | $8{ }^{8}$ | 179.7 | 810064 |
| Natien........... | Slx-ducat plece of 1783 | W. 0 2f | 516 | 51218 | 121.9 | 21 $6 \cdot 59$ |
|  | Twro-ducat plece, or sequin, of 1762 | W. 124 | 1204 | 1106 | $37 \cdot 4$ | $\begin{array}{lll}6 & 7.42\end{array}$ |
|  | Three-ducat plece, or oncetta, of 1 sis | 13. 181 | 2102 | 2151 | 6 S. 1 | $10 \quad 3 \cdot 40$ |
| Netierblandi ..... | (Told llon, or fourtern-floria pleco.. | Sland | 571 | 5716 | $117 \cdot 1$ | 20869 |
|  | Ten-tlorín pleee (1890) ...... | W. 0 11 | 4 T | 4515 | 91.2 | $16 \quad$ ¢i23 |
| Papla | Quadruple pistole (doulite in proportlon) . | W. 10 | 180 | 171218 | 386. | 6888.75 |
|  | Fistole or doypla of 1787. | W. 0 9 | 414 | 4104 | $97 \cdot 4$ | 17 2.85 |
|  | Ditto of 1796.. | W. 1 01 | 414 | 4814 | 954 | 161167 |
|  | Maria Theresn (1818) $\ldots \ldots \ldots \ldots . .$. | W. 011 | 48 | 4110 | 68.7 | 15105 |
| Pignmore......... | Pistole colund since 1785 (\%, etc., In prop.) | W. 0 1\% | 590 | 5 17 0 <br>  16 18 | 125.6 | 2282.75 |
|  | Seyula (t) in proporibin)................ | H. 1-21 | 251 | 2.12 | 5 c 9 | $\begin{array}{ll}8 & 4.34\end{array}$ |
|  | Carino, enlned alnce 1785 (1, ete., It prop.) | W. 0 it | 206 | 28 3010 | 684.4 | 1123.33 |
|  | Plece of 90 francs, called Marengo...... | W. 20 | 431 | 3184 | 82.7 | 14.763 |
| Polant. | Ducat. . . . . . . . . . . . . . . . . . . . . . . . . . | 13. 124 | 2 m | $\begin{array}{llll}2 & 9 & 12\end{array}$ | 52.9 | 9 4:14 |
| Poretcasl. ........ | Dohraots of 24.910 rees | Etnnd. | ¢419 | 34120 | T59- | 134896 |
|  | Dobra of 12.8(M) reca . . . . . . . . . . . . . . . | 8tand. | 186 | 1800 | 401.5 | 710.70 |
|  | Moldore or Lisbonnine (t., etc., In prop.) | Btand. | 022 | $\begin{array}{llll}6 & 22 & 0\end{array}$ | 152-2 | 2011.24 |
|  | Plece of 16 testoons, or 1600 recs........ | W. 0 01 | $9{ }^{9}$ | $2{ }^{2} 514$ | 493 | 8870 |
|  | Otd cruszdo of 400 rees. . . . . . . . . . . . . . . . . | W. 0 of | 015 | 01418 | 136 | $\begin{array}{lll}2 & 4.83 \\ 9 & 7.48\end{array}$ |
|  | New crunsdo of 450 reen . . . . . . . . . . . . . . . . | W. 0 ot | 0 16t | 0 16 <br> 0 8 <br> 10  | 14.8 | $2{ }^{2} 743$ |
|  | Milree (colned for African colonlen, 17tí) | Stand. | $\begin{array}{ll}0 & 194 \\ 8\end{array}$ | 0 19 15 | $18 \cdot 1$ | 8 8 $2 \times 44$ |
| Trussia. . . . . . . . . ${ }^{\text {a }}$ | Ducat of 1749. ............................ | 13. 112 | 2 bf | 29914 | 6203 | 9814 |
|  | Ducat of 1787. | it. 2 | 2 St | $\begin{array}{lll}2 & 9 & 6\end{array}$ | $62 \cdot 6$ | 98871 |
|  | Frederick (double) of 1769 | W. 0 11 | 814 | 8 \% 918 | 185 | 32810 |
|  | Frodericic (slngie) of 1778. | W, 011 | 47 | 454 | 92.8 | 16508 |
|  | Frenterick (donble) of 18000 | W. 09 | 814 | 800 | 184.6 | $\begin{array}{ll}32 & 7.84\end{array}$ |
|  | Frederick (single) of 1801 . | W. 02 | 47 | 4413 | $92 \cdot 4$ | 10 8.43 |
| Rove . . . . . . . . . . . | Sequin (colned aince 1700) | 13. 183 | 24 | $2{ }^{2} 90$ | 52-2 | $9.2 \cdot 6$ |
|  | Skude of the Repubile | W. 011 | 17 0t | 16116 | 906 | 6411.43 |
| Rtebia . . . . . . . . . . | Dreat of 1796. . . . . . . . . . . . . . . . . . . . . . . | 13. 128 | $2{ }^{2} 8$ | 2100 | 632 | 9 498 |
|  | 1) ticat of 1768. . . . . . . . . . . . . . . . . . . . . | 11. 1. 2 | $2{ }^{2} 1$ | $\begin{array}{llll}2 & 9 & 8\end{array}$ | 62.6 | 03.71 |
|  | Gold ruble of 1756. | 8tand. | 101 | 1010 | 22. | 311.78 |
|  | Ditte of 1799. | W. 0 at | 0153 | $\begin{array}{llll}0 & 18 & 14\end{array}$ | $17 \cdot 1$ | 30.61 |
|  | Giold poltin of 17 | ${ }^{8} 8$ tand. |  | $\begin{array}{llll}0 & 9 & 0 \\ 8 & 6 & 8\end{array}$ | 8.2 181.9 | $\begin{array}{cc}1 & 5.41 \\ 82 & 9.91\end{array}$ |
|  | Imperial of 1801 | B. 1 2l | 7 172 | 868 | 181.9 | $\begin{array}{cc}82 \\ 10 & 2 \cdot 31\end{array}$ |
|  | Hralf Liopurlal of 180 | 13. 19 | 8204 | 434 | 90.9 | 16 14\% |
|  | D/tto of 1818.... | B. 0 of | 431 | 4312 | 01.3 | $16 \quad 1.92$ |
| Rambivia ......... | (Carilno (f) In proportion) | W. 0 2t | 10 T! | 92316 | 2198 | 30810 |
| Saxosy ........... | Ducat of 1794. | B. 12 | 2 B | $2{ }^{2} 98$ | 52.6 | 98.71 |
|  | Ducat of 1797 | B. 127 | 2 nt | 2014 | $52 \cdot 9$ | 9 4.0.4 |
|  | Auguatus of 1754 | W. 0 2z | 461 | 43.38 | 91.2 | 16169 |
|  | Aluguatue of 1764. | W. 0 1t | 461 | 4412 | $32 \cdot 2$ | 16 8.81 |
| Siothy*. <br> grank. | Onnce of 1751 . | W. $1{ }^{21}$ | $\begin{array}{ll}2 & 201 \\ 8 & 17\end{array}$ | 2158 | $\mathrm{CNH}^{2}$ | $\begin{array}{ll}10 & 8.60\end{array}$ |
|  | Doable ounce of 1758 . . . . . . . | W. 18 | 517 | 5714 | 117. | $20 \quad 8.49$ |
|  | 1Youbleon of 1778 (double and single in proportlon) | W. 0 2t | 1781 | 162116 | 872. | 6510.05 |

- Much variation le found in the faeness of the Sicliten gold colns.


| Coipa | Amay, | Warght. | Olendard Wuight. | $\begin{aligned} & \text { Confonte } \\ & \text { in Pure } \\ & \text { Gold. } \end{aligned}$ | Valuata Eterliag. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Srain. . . . . . . . . . . ${ }^{\text {c }}$ Quadruple platole of 1801. | $W_{.}{ }^{\text {mp }}{ }^{\mathrm{IT}}$ | $17 w^{6}{ }^{7}$ | $16 \mathrm{gwt} \mathrm{E} \text { gi. }$ | Graline. 3605 | $\begin{array}{cc}3 . & 8 . \\ & 93\end{array}$ |
| Pistole of 1801. . . . . . . . . . . . . . . . . . . . . . . . . . . | W. 1 1 | 481 | 186 | 871 | 1511.35 |
| Coronitle, goid duilar, or vinten of 1801. | W. 1 2t | 13 | $1 \begin{array}{llll}1 & 0 & 18\end{array}$ | 28. | 40.48 |
| Swemer . . . . . . . . Ducat . . . . . . . . . . . . . . . . . . . . . . . . . | B. 18 | 95 | 9812 | $61 \%$ | 9 4-29 |
| Swithrelanv ..... Pistole of the lleivetto Republlo of 1800.. | W. 0 1t | 4914 | 419 | 105.9 | $13 \quad 3.91$ |
| Tegres . . . . . . . . . Dreat . . . . . . . . . . . . . . . . . . . . . . . . . . 淮. | 18. 18 | 951 | 988 | $52 \cdot 6$ | 9 871 |
| TuEkEx.......... Sequin fonducit of Conntantinoplo of 1778 | W. 8 8t | 251 | 123 | $43 \cdot 3$ | 77.94 |
| gequin fonduelt of 1789 . . . . . . . . . . . . . . | W. 98 | 2 6t | 12916 | 42.9 | $77 \cdot 11$ |
| llaif misnter (1818) . . . . . . . . . . . . . . . . . . | W. 588 | 0 181 | 0185 | $18 \cdot 16$ | g 1.82 |
| gequin fonduetl | W. 28 | 26 | 1827 | 425 | T 6.20 |
| Yermeebeahtek | B. 0 of | 8 1\% | 3413 | $70 \cdot 3$ | $12 \quad 5 \cdot 32$ |
| m'csoasr . . . . . . . . . Zecclitino or mequin. . . . | B. 1 31 | 351 | 21014 | 88.0 | 9 5. 88 |
| , Ruspone of the kingdom of kitruris...... | 3. 188 | ${ }^{611} 1$ | 7718 | 1.61. | 28 5-98 |
| I'Nirens Srares. . . . Eagle (t and tin proportion) . ........... | W. 0 of | 116 | 11.48 | $246 \cdot 1$ | 43 6.60 |
| Ventes:.......... Zeochloo or sequin (it and tin proportion) | B. 1 8t | 80 | 2 g 1010 | 536 | 0 O $5 \cdot 83$ |
| WiarevurRu. . . . . Cticrolla . . . . . . . . . . . . . . . . . . . . . . . . . . . . | W. 89 | 6 31 | 540 | 118.7 | 20.1 .47 |
| Wracat... | 13. 19 | 25 | 2812 | 519 | 9 9-22 |
| Wucat (doubte and \& ducat in proportion) | 11. 18 | 9 St | 8 lll | 52\% | 98.71 |
| Eabt 1ndigs. . . . . . Mohur of 1770......................... | 1. 1 8t | 729 | 31115 | $186 \cdot 3$ | 330.74 |
| Mohar, Itaif (1787) (t in proportion) | 13. 121 | 3231 | 41610 | 94. | 16 T/64 |
| Mohur Sleca of 13engrat................. | 13. 181 | 723 | 8 is 0 | 189.8 | 301.04 |
| Mobur of the Duteh East India Company (1783) . . . . . . . . . . . . . . . . . . . . . . | W. 8 3t | 10 8 | 380 | 153.4 | $32 \quad 5.50$ |
| Mohur, Ifalf Ditto (1801).................. | W. 8 1t | 5 3f | 41818 | 96-2 | 17 0-80 |
| Rupee, Bonnbay (1818) . . . . . . . . . . . . . . . . | B. 0 Of | 711 | 71113 | $164 \cdot 7$ | 20 1.78 |
| Hupee of Madras (1818) . . . . . . . . . . . . . . . | Stand. | 712 | 7190 | 165* | 2985 |
| Pagoda, star . . . . . . . . . . . . . . . . . . . . . . . . | W. 30 | 843 | 12111 | 41.8 | 7 4.77 |

The London Assays In thits Table wero made by Robert Bingley, Fsq.. F. R. S., the Assay Master of tho Royal Mint, and those st l'arlm by Plerte Fredurick Lonnevilte, Essayer du Commerce, as published in its olaborate work on the colns of alt nations. specimens of all the foretgn eoine brougtit to London for commercial purpeses have been suppled for this Table trom the Bullion-ofioc, Bank of England, by order of the Bank Directors, and havo been meleeted by John liumble, Fsa., tho chicf clerk of that oftiee, who also nxamined the Tahkes in their progress. It msy likowlso bo added, that tho Mint Ileports of these commercial cotns aro chtet:y from average assays; and that all the computations havo been carefully verified by different calculators. -Note by Dr. Kerzy, to second edttion of tho Cambist, publlshed in 1821.
" By one of the articles of the Zollverein, or Cus-toms-union of Germany, it was atipulated that the settiements for the duties should be mada either in Prussian dollars or in florins, at the rate of 7 florins for four l'russian dollnrs. There were, however, no florins in existence exactly of this value; but as tha nearest approach to it was a valuation called the 24 gullenfuss, or florin-foet, these Zollvereln florins wero nominally reekoned to be $\ln$ thls rate, though the differenco smounts to more than 2 per cent. The term 24 guldenfuss implies that the mark weight of fine silver is rated at 24 gulden or florins. It was formed by glving to the coine minted or valued in 20 guldenfuss an increased value of one-fifth, as rating the 20 -kreutzer piece at 24 kreutzers. At $60 d$. per ounce standard, tho value of this mark of fine silver is worth 40s. 7id. sterjing, from which the value of the different German monetary integers is readily obtained; as reckoning 27 marks banco or 34 marks current of IIamburg, 14 doliars of Prussia, 2.1t florins of Scuth Germany, 20 flotins of Austria, and also 60 lire of Austriache of Lombsedy; to he of this anount. In order, therefore, to prevent the ioss or incon venience which would attend their adhering to this mode of valuation, a money convention was entered Into on the 208th of August, 1837, smong the states forming the unlon, by which it was agreed upon that a new basis of valuation should be sdopted for their coins, under the term of Suddeutscher Wairung, or South German valuation, nt the rate of $24!$ gulden or florins from the mark's weight of fine silver. Bavaria, Wirtemberg, Baden, and Saxony have shince issued their coins at this rate, and the other states of the confederation are doing or preparing to do the samic. Among them Frankfort, in 1840, began the mintage of coins of this value; und by a regulation of the Chamber of Commerce of this free city, all the rates of exchange, ns well ns the values of bullion and foreign coins, were ordered to be expressed in this Saddeuts cher Wilhrung from tho commencement of the year (1843). One of these new and very exactly-minted florins was assayed by Messrs. Johnson and Cock, of llatton Garden, who reported it to be, full welght, 6 dwts. $19 \frac{1}{2}$ grains, worse 6 dwts., gold under 2 grains; from which the value, at $60 d$. per ounce standard, ja very exaetly 197d. sterling, maklng the par of exchange wlth London 120 torins in S. D. W. for $£ 10$
sterling. I have been thwa particular in these explanations, protly becnuso several persons imagine that the late alteration in the rate of exchange with Frankfort was made in compliance with the wishes, or to auit the conventence, of one or more of our leading houses in exehange negotiations, but more particularly because it is maintained by many that the valuntion of this rate is not merely nominally, but realty, in 24 guldenfuss. This is a point of no small importance to the commercial world, for had it been so, the par of exchange with London would have bcen only 118 florins for $£ 10$ sterling, and the difference between this and the present price of gight bille on Frankfort would have exceeded 2 per cent.; a variation which every practieal cambist well knows could not exist, except under very extraordinary sircumstnnces, al d with nearly corresponding difforences in the other rates of exchango; neither of whlch causes is now in operation."-Letter. of William Tate, Esq., cambist to the Times.

Sterling silver remained in high repute all over the Continent, because it was auperior to any other currency; and even in England the words conveyed for centurics the ideas of goodness and purity. And we may remark here that the gold coins of England, from the reign of Henry III., when they were generally introduced, to the reign of IIenry VIII., who debased their parity, were made of nne gold. This is a remarkable circumstance, becouse as gold $\ln$ its native state is rarely discovered so pure, the existence for a loug period of a coinaga fabricated of that meta! in n state of parity necessarily implies the knowledge of the art of refining, which must have been practiced at a very early period. Pliny, indecd, says that in his time gold was refined by aercury, which mingled with it, but rejected all alloy, and the gold was freed from the mercury by squeezing both in skins, in which operation tho mercury ran through and left the gold in a pure state. Some of the Greek gold coins were also of great purity, ns those of Phllip of Macedon, and his son Alexander the Great, rivaled by those of the other prinees and cities which immediately followed. Those of the successors of Alexander in Eyypt were 23 carats 3 grains fine, and 1 carat grain alloy, which we glve on the anthority of Jacob in his book on the "Precious Metals." The Greek silver coins were inferior to vurs ; as also the Roman of the carliest perlod.-E. B.
 of all Countries, computed at the rato of Ge 9 d, per Ounce Btandard, from Aatay made both at the London and Puris Minta.

|  | Coins. | Amany. | Wolyt | Blamdand Wotght. | $\begin{aligned} & \text { Contontis } \\ & \text { la Purre } \\ & \text { olliver. } \end{aligned}$ | Veles is Btorling. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rex dollar of Franeie II. (1800), . . . . . . | $\mathrm{w.} .1 \cdot \frac{0^{0}}{5}$ | $18$ | Dwi.er, wil | Gratine. 805.5 | 41.34 |
|  | Rlx doilar of the kingdom of liungary.. | W. 19 | 181 | 16.1 | 800.5 860.0 | 41134 <br> 4 <br> 839 |
|  | Ilalf rix dollar, or fiorin, Convention.. | W. 18 | 9 0t | - 1 | 179.6 | 21.07 |
|  | Copftauck, or 20 -creutzer plece | W. ${ }^{4}{ }^{8}$ | $4{ }_{4} 4$ | ${ }^{2} 168$ | 80.4 | 0889 |
|  | 11-ereuther plece............... | W. ${ }_{\text {W. }}{ }^{\text {W }} 8$ | ${ }_{8}^{4} 11$ | $\begin{array}{llr}9 & 9 & 18 \\ 1 & 7 & 1\end{array}$ | 83.6 | $\begin{array}{ll}0 & 7.47\end{array}$ |
|  | Rix doliar. .................. | W. 14 | 189 | 1681 | E68.1 | $\begin{array}{ll}0 \\ 4 \\ 4 & 8.01\end{array}$ |
| bavama | Hix dollar of 1800 (it In propor | W. 1 4t | 1719 | 151818 | 8456 | 40.28 |
|  | Copataick | W. 43 | $4{ }^{4} 8$ | 2188 | 59.4 | 0889 |
| Bram | J'atagon or crown (t in propertion) | W. ${ }^{\text {W }}$ \% | 1898 | 18714 | 4067 | 4879 |
|  | Pleoe of 10 baizen. . . . . . . . . . . . . . | W. ${ }^{\text {W. }}$ 2 ${ }^{2}$ | 5 11 118 | 41417 892 | 108* | $\begin{array}{ll}1 & 2.31\end{array}$ |
| Bedsawick ........ | Plece of 48 grotes Rix doliar, Convent | W. W. W 1 | $\begin{array}{ll}11 & 0 \\ 18 & 1\end{array}$ | 829 104 | 108 $860 \cdot 2$ | 1 |
|  | 1lalf rix dollar.... | W. 18 | 9 0t. | 89 | 179. | 8 1.07 |
|  | Gulden, or plece of i, fine, | H. 016 | 8104 | 911 | $200 \cdot 8$ | 94.03 |
|  | Culden, comtan, of 1764. | W. 19 | 00 | ${ }_{8}^{8} 81910$ | 180. | 8 1-13 |
|  | Hulden, guiden, or plece of | W. 19 | ${ }^{11} 18$ | $\begin{array}{llll}8 & 23 & \\ 4 & 1 & 8\end{array}$ | $199 \cdot 1$ 90. | $\begin{array}{ll}2 & 3.80 \\ 1 & 0.56\end{array}$ |
| Demmare ......... | Hykedaler, specie, of 179 | W. 013 | 1814 | 171117 | 888.4 | 46.23 |
|  | Now pleee of 4 maris | W. 012 | 129 | 111814 | $259 \cdot 8$ | $\begin{array}{lll} & 5 & 0.27\end{array}$ |
|  | 11alf rykadaler. | W. ${ }^{0} 13$ | 97 | 8178 | 194.2 | 28.11 |
|  | Mark, specle, or trysdaler... | W. 31 | 40 | 22112 | 64.4 | 0789 |
|  | Rix dollar, apecie, of sleawlek and 11olstela (plecen of $\&$ and $\&$ It proportion) | W. 012 | 1813 | 17120 | 889.4 | - 6.37 |
|  | Plece of 94 ak111inge . . . . . . . . . . . . . . . . . | W. 4 T | 5 21 | 3810 | 68.9 | 08.62 |
| Emamatio. ........ | Crown (old) . . . . . . . . . . . . . . . . . . . . . | Stand. | 19.8 | 19810 | 4297 | 50 |
|  | Halferow | Stand. | ${ }^{3} 164$ | 9165 | 2148 | $2{ }^{6}$ |
|  | Shliling . . . . . . . . . . . . . . . . . . . . . . . . . . | Etand. | 821 | 8910 | $85 \cdot 9$ | 10. |
|  | 8ixpence ...................................... . . . . . . . | Atand. | 18 <br> 18 <br> 18 <br> 18 | 18210 <br> 18.4 <br> 8 | 42.9 408.8 | $\begin{array}{ll}06 \\ 4 & 8.80\end{array}$ |
|  | 11alf-erown | stand. | 92 | 9.4 | 201.8 | 4 <br> 9 |
|  | sbilliag | Etand. | ${ }^{3} 151$ | 3156 | 80.7 | 01187 |
|  | 8 8ixpence | gtand. | 1184 | 11014 | $40 \cdot 8$ | 05.68 |
| Franci . ........... | Ees of 8 Ilvre | W. 07 | 18 1s | 18716 | $403 \cdot 1$ | 48.28 |
|  | Deml ecu | W. ${ }^{7}$ | $9{ }^{9}$ | ${ }^{0} 118$ | 201.5 | 24.13 |
|  | Plece of 94 sous (dlvimions in proportion). | W. 07 | 820 | 81619 | 83.4 | 011.64 |
|  | Plece of 00 sous (it in proportion) | W. 88 | ${ }^{1} 19$ | 4124 | $100-2$ | 11.99 |
|  | Plece of 5 francs | W. 0 T | 161 | 15184 | 3449 | 40.16 |
|  | Hece of | W. 07 | 611 | 668 | 1388 | 17.38 |
|  | Prane | W. $0^{0}{ }_{8}^{7}$ | $\begin{array}{ccc}8 & 51 \\ 1 & 515\end{array}$ | $\begin{array}{llll}3 & 8 & 1 \\ 4 & 18 & \\ \end{array}$ | 69.4 | ${ }^{0} 9.69$ |
| Geneta. | Patagon | W. $1{ }^{\text {\% }}$ | 179 | 15198 | 851. | 4 <br> 4 |
|  | Plece of 15 soun of 1794 | W. 86 | ${ }_{2} 11$ | 1151 | 26.1 | 0504 |
| G | Sendo, of 8 tire, of 1798 (1. t, etc., In prop.) | W. ${ }^{0} 8$ | 219 | 201410 | 457.4 | 58.67 |
| Hamburg .......... | Scudo of the Ligurian Republl | W. 0 \% ${ }^{9+}$ | 219 | 20119 | 484.8 | 58.43 |
|  | Rlx doliar, apecie . | W. 010 | 1818 | 17 \%1 19 | 327.8 | 4749 |
|  | Double mark, or 32-schjuing plece (single In proportion) | W. 23 | 1118 | 0118 | $210 \cdot 8$ | 28.36 |
|  | Piece of 8 schilings . . . . . . . . . . . . . . . . . . . | W. 818 | 381 | 264 | 50.1 | 0 6¢9 |
|  | Piece of 4 schillinge..................... | W. 46 | $2{ }^{2}$ | 1619 | 28.3 | 03.45 |
| HANOVER . . . . . . . | R1x dollar, Conatitulio | W. $0{ }^{9}$ | 1819 | 18014 | $400 \cdot 3$ | 47.59 |
|  | Florin, or plece of 1 , fine | 13. 010 | 810 | 9010 | 200.8 | $2{ }^{2} 89.96$ |
|  | Ilalf forin, or plece of $t$, ditto $\qquad$ | B. 016 | 44 | 411 9 | $09.2$ | $\begin{array}{lll}1 & 1.85 \\ 60.65\end{array}$ |
|  | Quarter, or plece of 6 good gromeben, ditto Florin or piece of 1 base | $\left\lvert\, \begin{array}{lll} \mathrm{t} & 0 & 16 \\ \mathrm{w} . & 2 & 1 \end{array}\right.$ | $\begin{array}{ll}98 & 1 \\ 11 & 0 t\end{array}$ | $\begin{array}{llll}9 & 4 & 10 \\ 8 & 28 & 15\end{array}$ | $\begin{array}{r} 488 \\ 189.8 \end{array}$ | $\begin{array}{ll}0 & 6.78 \\ 8 & 887\end{array}$ |
|  | Florin, or piece of j , base | W. ${ }^{2} 18$ | $\begin{array}{ll}11 & 0 t \\ 18 & 1\end{array}$ | 8 28 <br> 15 28 <br> 18  | ${ }_{356}^{18 .}$ | $\begin{array}{ll}2 & 888 \\ 4 & 1.89\end{array}$ |
| 11-8sas Cabser. . . . | Florin, or plece of \& (t in proportlon) | W. $1{ }^{6}$ | 98 | 753. | 1768 | 2068 |
|  | Thaler of 1789... | W. 0 104 | 127 | 1117 \% | -59.7 | 3086 |
|  | Ficu, Convention (1815) | W. 16 | 17 23t | 15 21. \& | 849-8 | 40.77 |
|  | Bon gros. . . . . | W. 614 | 14 | 0115 | 10.8 | $\begin{array}{lll}0 & 1 \cdot 43\end{array}$ |
| 1torzand ......... | Ducatoon |  |  | 71 4 <br> 15  | 4118 | $\begin{array}{lll}5 & 5 \cdot 85 \\ 5 & 2.93\end{array}$ |
|  | Plece of 8 florin | W. 0 \% ${ }^{2}$ | 207 | $\begin{array}{rrr}20 & 212 \\ 10 & 80\end{array}$ | 4404 | 5 2.93 |
|  | Rix dollar (the amay | W. $\begin{gathered}0 \\ \text { W. } \\ 0\end{gathered} 10$ | 18 9 | $\begin{array}{rrrr}16 & 20 & 8 \\ 8 & 8 & 8\end{array}$ | $875-9$ 185.4 | $\begin{array}{ll}4 & 4.99 \\ 8 & 1.88\end{array}$ |
|  | Florin or gulder (i) io prop | W. 0 41 | 618 | 61414 | 1468 | 18.44 |
|  | 19-stiver piece. | W. $0^{16 t}$ | 418 | 4818 | 98.4 | 1090 |
|  | Florth of Bata | W. 0 8t | 618 | $6{ }^{6} 98$ | 141.6 | 177 |
|  | Rix dollar, or 80 -stiver | W. 0 - ${ }^{51}$ | 170 | 161318 | 867 - | 43.37 |
| Lubzo ............. | Rix dollar, npecle.... | W. 013 | 18.8 | 171518 | 811.9 | $\begin{array}{ll}4 & 6.72 \\ 9 & 5.36\end{array}$ |
|  | Mark | W. ${ }^{2}{ }^{2} 8$ | $\begin{array}{rr}11 & 18 \\ 501\end{array}$ | 21178 <br> 4 <br> 1714 | 1010.3 106.1 | $\begin{array}{ll}2 & 6.36 \\ 1 & 2.67\end{array}$ |
| Lcoca | 8 cudo | W. $0^{3}$ | 170 | 161810 | 872.8 | 4398 |
|  | Barbone | W. 38 | 1201 | 1714 | 59.3 | 0.4 .09 |
| Malta. | Ounce of 30 tari of Eru | W. 95 | 10 14 | 15.414 | 58.4 | $211 \cdot 11$ |
|  | 2-tart plece | W. 210 | 12 | -19 19 | 177 | $\begin{array}{lll}0 & 2.41 \\ 8 & 8.62\end{array}$ |
| MiLax . . . . . . . . . . | Seudo of 6 lire (t in proportion) | W. 0 | 14204 | 14910 | 8196 | 8862 |
|  | Lira, new . . . . . . . . . . . | W. 410 | 40 | 980 | 698 | $\begin{array}{ll}0 & 7.37 \\ \\ 0\end{array}$ |
|  | Lira, old $\qquad$ Scude of the Cisalpine lepub | W. ${ }^{1} \frac{3}{7}$ | ${ }^{2} 14918$ | $\begin{array}{rrr}2 & 0 \\ 14 & 10 & 4\end{array}$ | 829 320.2 | $\begin{array}{ll}0 & 7 \\ 3 & 8.71\end{array}$ |
|  | Piece of 90 nolds of ditto... | W. 218 | 417 | $\begin{array}{ll}3 & 11\end{array}$ | - | 010.78 |
| Modrna........... | Scudo of 15 Itre, 1239 (double, elc., In proportlon) | W. 014 | 18 12\} | 1789 | 885.2 | 45.78 |
|  | Scudo of 5 lire, of 1782 .................. | W. 08 | 510 | 5 178 | 1268 | 15.70 |
|  | Seudo of 1796........................... | W. 88 | 1818 | 192919 | 2874 | $3{ }^{3} \quad 4.13$ |
| Naples............ | 1)0est, new it in proportion).............. | W. 10 | 1415 | 1378 | $295 \cdot 4$ | 8.5024 |
|  | Plece of 12 Carini of 1791 | W. 10 | 1715 | 16018 | 858. | 4171 |
|  | Ditto of 1798 | W. 19 | 17104 | 15 22 <br> 15  <br> 18  | ${ }_{3}^{358.3 .9}$ | 41.41 |
|  | Dtto of 1815 (i) In proportion) | W. 19 | 1718 | 15 <br> 15 <br> 23 <br> 18 | $885 \cdot 8$ | 41.60 |
|  | Ditto of 10 Carliti (1818) ............... | W. $1{ }^{2}$ | 1418 | $\begin{array}{lll}18 & 7 & 0\end{array}$ | 2905.1 | $\begin{array}{ll}8 & 5.20 \\ 4 & 7.18\end{array}$ |
| Netheiluside | Crown (i, ete., Ia proportion) ............. | W. ${ }^{\text {W. }} 814$ | $\begin{array}{rr}19 & 0 \\ 8\end{array}$ | $\begin{array}{ccc}17 & 19 & 4 \\ 1 & 9 & 18\end{array}$ | 898.9 81.8 | $\begin{array}{ll}4 & 7.18 \\ 0 & 4.97\end{array}$ |


|  | Coins. | A | Woight | lavoderd Werabl. | Conionts 4s Pure | Valuo ia Beterliag. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Situmblande . . . . | Florin of 1818 |  | $D_{W \prime}{ }^{W}{ }^{\prime \prime}$ |  | Craina. 1434 |  |
|  | Half florin (with divisiona in proportion) | W. 404 | 511 | 302 | $7{ }^{7}{ }^{\text {c }}$ | $\begin{array}{ll}0 & 10 \cdot 48\end{array}$ |
| Hasma............. | Duoat of 1784 .......................... | W. 0 0 | 1611 | 151818 | 8 SH 6 | 40.5 |
|  | Ducat of 1794 (i in proportion) .......... | W. 0 好 | 16128 | 16 | 357.9 | 41.07 |
|  | Plece of 8 IIre ......................... | W. $1{ }^{4}$ | 410 | 492 | 91.7 | 10.63 |
| Pizdomart......... | Seudo, 1755 t, etc., in proportion).. | W. ${ }^{\text {W }}$ ( ${ }^{5}$ | 2914 | 98.010 | 4980 | 588 |
|  | Scudo, 1770 (f and if in proportion) ..... | W. 0 or | 9214 | 998116 | $49 .{ }^{\circ}$ | 58.42 |
|  | Plece of 2 lire (1714)....................... | W. 0 \% ${ }_{8}$ | 7820 | $\begin{array}{lll}7 & 16 & 13\end{array}$ | 1708 | 111935 |
|  | Cifrano piece (1801) | W. 08 | $\begin{array}{ll}10 & 11\end{array}$ | 151112 | 838.7 | 1199 |
| PMLAKD............ | Rix dollar, ohd (iör) | W. ${ }^{1}{ }^{17}{ }^{\frac{8}{17}}$ | $\begin{array}{ll}18 & 1 \\ 15 & 104\end{array}$ | $\begin{array}{rrrr}10 & 6 & 0 \\ 11 & 11 & 8\end{array}$ | 360.8 854.8 | 2.38 1181 |
|  | Florid, or gulden ... | W. 48 |  | $\begin{array}{llll}3 & 18 & 16\end{array}$ | $84^{\circ}$ | 01179 |
| Pobtcaak.......... | New crunado (1690) | W 0 | 110 | 10.190 | 230.2 | 29.40 |
|  | Dito (1718) | W. $0^{6+}$ | 98 | 01 | $900 \cdot 9$ | 88.05 |
|  | Ditto (1795) | W. 0 ? | 90 | 9118 | 2014 | 24.15 |
|  | Doze vintems, or plece of 240 rece (1799). | W. $0{ }^{7}$ | 416 | 41210 | 100.4 | $\begin{array}{ll}1 & 2.01 \\ 0 & 8.08\end{array}$ |
|  | Testoon (1790) | W. $0{ }^{5}$ | $9{ }_{0}^{2} 0$ | 12813 | $43 \cdot 4$ | 0 0 6.06 |
|  | New crumado (1800) . . . . | W. 04 |  | 8230 | 108.9 | 9467 |
|  | Bels vintemin, or plece of 120 reea ( | W. 0 | 84 | 938 | 46.6 | 0880 |
|  | Teatoon (1882) . ....................... | W. $0{ }^{0}$ | ${ }^{2}$. 0 | 1220 | 42.5 | $\begin{array}{lll}0 & 6.03 \\ 0\end{array}$ |
|  | Tres vintems, or plece of 69 rees (1802).. | W. ${ }^{\mathbf{W}} \mathbf{0} 90$ | ${ }_{0}^{1}{ }_{23}^{24}$ | $\begin{array}{llll}1 & 1 & 4 \\ 0 & 22 & 0\end{array}$ | $\begin{aligned} & 23.3 \\ & 20 \cdot 4 \end{aligned}$ | $\begin{array}{lll} 0 & 8 \cdot 25 \\ 0 & 8 \cdot 34 \end{array}$ |
| $\begin{gathered} \text { Postuaress CoL- } \\ \text { ONLES.............. }\} \end{gathered}$ | D'lece of 8 macutes, of Portuguese Af- | W. 00 | 712 | 7414 | $150 \cdot 8$ | $110 \cdot 81$ |
|  | Ditto of 6 d | W. 0 | 513 | 8712 | 118. | 04.47 |
|  | Ditto of 4 ditto. | W, 00 | 816 | 8198 | 78.1 | 110.90 |
| Prdesia ${ }^{\circ}$.......... | Rix dollar, Prussian ourroncy (it in prop.) | W. 28 | 148 | 1190 | 252.6 | 211.27 |
|  | RIx dollar, Convention | W. 1 | 181 | 1042 | ${ }^{351 \cdot}$ | 4 2.13 |
|  | Florin, or pleco of | W. ${ }^{3}{ }^{3}$ | 118 | 8828 | 198.4 | 3.70 |
|  | Florin of 8lloulu.... | W. 88 | ${ }_{8} 11$ | 7160 | $170 \cdot 8$ | 111.78 |
|  | Drittel, or plece of 8 good | W. 88 | 588 | 3204 | $86 \cdot 3$ | 01101 |
|  | 1 liece of 6 groachen. | W. 88 | 314 | 2186 | 62.3 | 08.69 |
| Rors .............. | Scudo, or crown (colned *ince | W. 0 | 171 | ${ }^{8} 1713$ | 6715 | $\begin{array}{ll}4 & 387\end{array}$ |
|  | Merzo ncudo, or half-crow | W. 04 | 8124 | C 810 | 185.7 | $\begin{array}{ll}2 & 193\end{array}$ |
|  | Testone (1786) | W. 0 ¢ | 59 | 4834 | $110 \cdot 8$ | $\begin{array}{lll}1 & 3.40\end{array}$ |
|  | Paolo (1785) . ${ }^{\text {a }}$, | W, 04 | $1{ }^{17}$ | 1164 | 37.2 | $\begin{array}{lll}0 & 5.19\end{array}$ |
|  | Gromso, or half Paolo (1785) | W. 05 | $020{ }^{\circ}$ | 020 | 18.6 | 02.83 |
|  | Scudo of the ltoman Republe (1700) | W. $0{ }^{8}$ | 171 | 161318 | 8 CB 8.1 | 48.40 |
| Rusbli............ | Ronble of Poter the Great | W. 27 | 18 1 |  | 312-1 | 3768 |
|  | Ditto of Catharine 1. (172 | W. $2{ }^{41}$ | $17{ }^{11}$ | 13230 | 3000 | 3787 |
|  | Dltto of Peter II, (1727) | W. 819 | 18 6t | 13234 | $310^{\circ}$ | 37.28 |
|  | Ditto of Anne (1734) | W. 111 | 10144 | $14{ }^{6} 18$ | 8178 | 3829 |
|  | Ditto of Elizabeth (17 | W. 17 | 16 18 | 141116 | 321.8 | 3883 |
|  | Ditto of Peter III, (1762) | W. ${ }^{2}{ }^{2}$ | 1510 | 19120 | 277.5 | $8{ }^{8} 2.75$ |
|  | Ditto of Gatharino 11. (17 | W. 24 | 1518 | $1210{ }^{6}$ | 275.9 | 32.52 |
|  | Ditto of Alexander. | W. 010 | 1312 | 121212 | 278.1 | 32.33 |
| , | Scudo, or crown ( $\ddagger$ aud it in proportion). | W. 07 | $15 \quad 2\}$ | 14150 | 824.7 | 80.34 |
| Saxony . . . . . . . . . | Rix dollar, Convention (t and fin proportion) | W. 13 | 130 | 16 B 4 | 858-2 | 42.01 |
|  | Plece of 16 gioschen of Lelpsic. . . . . . . . | W. 22 | 9 of | 71416 | 169.1 | 11.61 |
|  | Rix dollar eurrent of Saxo cio | W. 4 4t | 181 | 1142 | $248 \cdot 1$ | 21064 |
|  | $t$ thaler of 1504. | W. 411 | 311 | ${ }^{2} 1019$ | $45 \cdot 3$ | $\begin{array}{ll}0 & 6.32 \\ 0 & 8.87\end{array}$ |
|  | Ditio of 1908 | W. 4 11\% | ${ }^{3} 17$ | 1218 | 42.1 | $\begin{array}{ll}0 & 687 \\ 0 & 6.10\end{array}$ |
|  | Scudo (t In proportion). | W. 14 | 1714 | 15100 | 948.2 | 40.62 |
|  | Plece of $40 \mathrm{graln3}$. | W. 12 | 621 |  | 1175 | 14.40 |
| Spaim.............. | +Dollar, of tate coln | W. 08 | 178 | 16170 | 970.9 | 48.79 |
|  | IInif dollar, ditto. | W. 08 | 810 | 8810 | $185 \cdot 4$ |  |
|  | McxIcan peceta (1774) | W. 08 | 47 | 4810 | $92 \cdot 3$ |  |
|  | Real of Mozlcan plate (1775)............. | W. 08 | 231 | 2120 | 46.1 |  |
|  | eceta provincial of 2 reaia of new plate (1775). | W. 1 9t | 618 | 860 | 72.2 | 010.08 |
|  | Renl of new plate (176\%) | W. $1{ }^{1}{ }^{91}$ | 121 | 1150 | 38.1 | 0 504 |
| Swene: | R1s dollar (1742). | W. 013 | 1320 | 171910 | $8{ }^{895} 5$ |  |
| Switzerland ..... | Rlx dollar of late co nage Ecu of 40 batzen of Lucer |  | $\begin{array}{ll}18 & 17 \\ 19 & 0\end{array}$ | $\begin{array}{llll}17 & 18 & 0 \\ 18 & 13 & 14\end{array}$ | 888.5 412.3 |  |
|  | Half ditto . . . . . . . . . . . | W. 12 | 020 | 882012 | 106.7 | $\begin{array}{lll}2 & 3.46\end{array}$ |
|  | Florin, or plece of 40 achillinge of L.11carne (1793) | W. 15 | 422 | 4. 814 | ¢0.8 | 11.51 |
|  | Ecu of 40 batzen of the IIelvotle Republle 1708 ( in proportion). | W. 0 \% | 1823 | 181014 | 409.6 | $49 \cdot 13$ |
| TUREEY . . . . . . . . . | Eetl of 4 franken. | W. 0 | 1323 | 18818 | $407 \cdot 6$ | $49 \cdot 18$ |
|  | Plastre of Sellm of 1801 | W. 56 | 80 | 478 | 157 | 11.80 |
|  | Piastre of Crim Tartary (177) | W. 613 | 105 | 484 | 00.9 | 1060 |
|  | Phastre of Tunis (1787). | W. 0 6t | 100 | 480 | 945 | $\begin{array}{ll}1 & 1.47 \\ 0 & 0.15\end{array}$ |
|  | Plastre (1818) ........................ | W. 514 | 6 64 | 314 | 07.7 |  |
| Trbonisr . . . . . . . . | Plece of 10 Paoll of the klngdon of Etrurle (1801). | W. 0 4 | 17 131 | $17 \quad 518$ | 382-0 | 45.46 |
|  | Scudo Plish of ditto (1803) ................ | W. 02 | 1712 | 1788 | 3550 |  |
|  | Picce of 10 ilro ditto (1803) | II. 07 | 250 | $\begin{array}{llll}20 & 1 & 12 \\ 9 & 0 & 10\end{array}$ | 578.7 | $\begin{array}{ll}0 \\ 0 & 8.30 \\ 0\end{array}$ |
|  | LIra (1803) ............... | II. 0 | ${ }^{9} 8$ | $\begin{array}{llll}2 & 0 & 16 \\ 10 & 19\end{array}$ | 63.4 | $\begin{array}{ll}0 & 7.45\end{array}$ |
| Lntted Statie. . . | tDollar, 1785 (t, etc., in proportion) | W. 0 6t | $\begin{array}{ll}17 & 8 \\ 17 & 8 \\ 17\end{array}$ | 161910 | 9735 | $\begin{array}{ll}4 & 4 \cdot 16 \\ 4 & 4.35\end{array}$ |
|  | Dollar (17¢8) ....................... | W. ${ }^{0} 0{ }^{\text {a }}$ 104 | $\begin{array}{lll}17 & 10 \% \\ 17 & \\ 10\end{array}$ | $\begin{array}{llll}16 & 21 & 0 \\ 16 & 14 & 0\end{array}$ | $874-9$ 818.3 |  |
|  | Dollar, nn average of 8 | W. 0 \& 4 | 178 | 1618 0 | $370 \cdot 1$ | 4368 |
|  | Dlme, or one-tentirdoll | W. 04 | 1104 | 11814 | 89.5 | 08.71 |
|  | Half dlue | W. 0 \% | 0212 | 0810 | 19.5 | 0 0 278 |
| Vemior . . . . . . . . . | liece of $411 r 0$, or 24 creutzers (1800).... | W. 8 4t | 5191 | 1129 | $33 \cdot 4$ | 0400 |
|  | Ditto of 2 lirt, called moncta provinciale (1808) | W. 83 | 5 131 | 1118 | 32.8 | 0 4.68 |
|  | Ditto of 2 1lre, 1802 ( and t in proportion) | W. 84 | 501 | 1810 | 80.5 | 0 4.25 |

- The Prussian colne, having leen debased at different periods, vary in their reports,

This la the coin which is unlvorsally circulated under the neme of the 8panish doller
$\ddagger$ The American dollarg, and inferior aliver pleces of late colnage, vary in fneness from W. 4 dwts, to W. $9 f \mathrm{dwts}$.

| 352 |  |  | COI |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Colns. | Amay. | Watght. | Btandard Walghl. | Contants in Pore silvar. | Value in Starliag. |
| Wiatexpeao . . . . . Itix dollar, specle . . . . . . . . . . . . . . . . . . . . | $\text { On. dwl. }^{\text {W. }_{3}}$ | $18 \mathrm{D}$ | Dw. gr. m. | $\begin{aligned} & \text { Grains. } \\ & 05 j \cdot 1 \end{aligned}$ | $4{ }_{4}^{4} \stackrel{d}{0.14}$ |
|  | W. 42 | 4164 | 8 10 12 | 50.8 | 08.35 |
| liaat Indica........ Rupee Sleca, colneu by the Fast 1ndia Company at Calcullu. . . . . . . . . . . . . . | 13. 013 | $711 \%$ | 7220 | 175.8 | $2 \begin{array}{lll}2 & 0.51\end{array}$ |
| Company's or Standard | Stand. | $\cdots$ |  | 165. | 111.11 |
| Galcutta (38181 | Stand. | 80 | 800 | 176.0 | $20 \cdot 50$ |
| Bombay, new, or Surat (1818)..... | W, 0 0t | $\begin{array}{ll}7 \\ 1 & 11 \\ 111\end{array}$ | 710 | 164.7 | $\begin{array}{lll} 2 & 11.06 \\ 0 \end{array}$ |
| Fanam, Gananore Bombay, old. | W. 0 13. 0 $1{ }^{18}$ | 1111 | $\begin{array}{llll}1 & 11 & 10 \\ 1 & 13 & 10\end{array}$ | $32 \cdot 0$ 35. | $\begin{array}{lll} 0 & 46 \\ 0 & 4: 88 \end{array}$ |
| Pondicherry. | IB. 0 5t | 101 | 118 | 22.8 | $\begin{array}{ll}0 & 4.88 \\ 0 & 8.18\end{array}$ |
| Ditro, donble . . . . . . . . . . . . . . . . | W. 03 | 1181 | 1189 | 69. | $\begin{array}{llll}0 & 5.44\end{array}$ |
| Gulden of the Ditcli F. 1. Co. (1820).... | W. 0 i4 | 624 |  | 148.4 | 18.72 |

The sterling valua of the foreign coins, in the foregoing tables, has been computed from the assays as follows: Let it he required to assign the value, in sterling, of a French double Louis d'or coined since 1786, the assay master's report being as follows: "Weight, 9 dwts. 20 grs. ; assay W. 1t grs.," that is, 0 car. 1t grs. worso than the English standard. Wo proceed as under:

From 22 car. 0 gr . the fineness of English stantard goll, tako 0 car. $1 \frac{1}{2} \mathrm{gr}$. , there remalns 21 car. $2 \frac{1}{2} \mathrm{gr}$. Then, as 22 car. : 21 car. 21 grs. :: 1 dwts. 20 grs. : 9 dwts. 16 grs ., the standard gold contained in the Louis
 grs, : £1 17s. $7 \frac{1}{2}$ d., the value of the Louis in sterling moncy, and so for any of the other coins.

Arcient Coins.-Wo sulijoln, for the convenience of such of our readers as may nt any time have occasion
to consult works in which referenco is made to ancicnt to consult works in which referenco is made to ancicnt pally current among the Jews and Grecks. They were calculated by Dr. Arbulhnot (Tables of Incient Coins, IVeights, etc., 4 to ed., Loml., 1751), and to not differ materlally from the tahles of Paueton, whose Afitrologie ( 4 to Paria, 1780) is the nost complele nind elahorato work that has ever been published with reapect to ancient moneys, welghts, and monsures. $\Lambda 1$ the same time we confess we should not be disposed to place much reliance on these tahles, and we have clspwhere stated our reasons for holding this opinion,Encye. Britannica, art. Money.

Jewient Coing,


Solilus aureus, or вextula, worth ...................................................................... 1201
Sillus aureus, worth i 166
A talent of gold, worth

.... | 2165 | 0 |
| ---: | ---: | ---: |

- 1

Geplon Gaeoran Corng. $0000{ }^{2 \pi}$

| 7 | Chaleu |  |  |  |  |  |  |  |  | . . |  | 031 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 2 | Dicha |  |  |  |  |  |  |  | $\cdots$ |  | $1 \frac{7}{24}$ |
| 28 | 4 | 2 | Ilem | olum |  |  |  |  |  |  |  | $\mathrm{e}_{1} \mathrm{~T}_{2}$ |
| 56 | 8 | 4 | 2 | Otolus |  |  |  |  |  |  |  | $1{ }^{1}$ |
| 112 | 16 | 8 | 4 | 2 | 13iol |  |  |  |  |  |  | 23 |
| 224 | 32 | 16 | 3 | 1 | 2 | Telr | lu1 |  |  |  |  | $0{ }^{5}$ |
| 336 | 48 | 24 | 12 | 1. | 3 | $1 \frac{1}{2}$ | )ra | ma |  | . . |  | ! |
| 662 | 116 | 48 | 24 | 12 | 1 | : 1 | 2 | 1)id | hma |  |  | 2 |
| 1324 | 112 | 19 | 48 | 24 | 12 | 1 | 4 | 2 | Tetr | rachma ....... |  | 0 |
| 1630 | $3 \times 4$ | 120 | 60 | 30 | 15 | $7 \frac{1}{2}$ | 5 | 21 | 11 | Ientadrachma. |  | 3 |

 (нем II $: 1453$,


The cur silver, $\ln$ copper coi

It appes with the e which ther of $£ 22,001$ From 181 £17,081,63 and In sll to five sous XVIII. amount of mated, on franca, eqı gold and 1789, was scarcely, 1 the quantl specting $t$ within the coin has be has accord ion and co

Milut, Cn II
liranch, N
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Hranch. Sa
Assay Om

The don catel by $t$ than three from the $y$ large sum, 1848 was 1 as is showi of three 1 should le Californin, export 10 Statpaent Diroxite
$\overline{189+1827}$
1898
1837
1890
$183 \times 1547$
$1818 . . .$.
$1819 . .$.
$1819 .$.
151...
$161 . .$.
1855....
$18: 3 .$.
$1 \times 1 .$.
$184 .$.
Deduct re
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The curreney of France consiats chiefiy of gold and silver, in which larger payments are effected, and of copper coins for the amaller aums.

It appeara that from 1803 to 1814 there were coined, with the effigy of Napoleon, at the different mints, of which there are thirteen in France, in gold to the value of $£ 22,001,018$, and in silver to the value of $\boldsymbol{£ 3 6 , 9 9 2 , 5 0 2 \text { . }}$ From 1814 to 1828, the amount of the coinage was $£ 17,081,635$ in gold, of twenty and forty franc pieces; and in silver the amount in pieces of five francs down to five sous was $\boldsymbol{£ 3 3}, \mathbf{0 9 6}, 560$ bearing tho effigy of Lonls XVIII, and Charles X. On tho above data, the dmount of circulating apecie in the kingdom was catimated, on the 1st of Jamuary, 1828, at 2,713,731,183 france, cqual in value to $£ 118,072,132$ sterling. The geld and silver currency, prior to the Revolution in 1789 , was eatimated at $£ 87,500,000$ aterling. We can scarcely, however, draw any positivo inference from the quantity of gold and silver coined in France, respecting the amount of specie actually circulating, as within the last twenty-seven years the exportation of cein has been freely permitted. 'I'he coinage of Franco has accordingly become an article of trado; and bullioa and coin have been freely exported or imported,


The domestic production of gold, so far as is indieated by the deposits at the Mint, anounta to more than shree hundred and twenty-two inillions of dollars from the year 1793 to 1855 , both inclusive. Of this large suun, the gross product to the end of the year 1848 was little more than thirteen millions of dollars, as is shown by the annexed table. To tinis aggregato of three hundred and twenty-two millions ot dollars should be added several millions as tho export from California, vin Panama, to Southanpton, and alao the expert to China and elsewhere.
 di bosited at the Mint and bianchea and abaay ufyior at New York, from 1804 to the end of 1855.

| Yenre. | Gold. | siliver. |
| :---: | :---: | :---: |
| 1904-1827. | \$110,04000 |  |
| 1898-1837................. | 8,065,500 00 |  |
| $1938-1547$ | 7,086,075 00 | \$04,492 |
| 1818., | 890,075 00 | 0,101 |
| 1819. | 7,079,144 00 | 30,112 |
| 1850 | $00,939,31400$ | 260,263 |
|  | $66,540,01200$ | 380,471 |
| 18:3. | 65,622, 0100 | $404,40.1$ |
| 1551. | 57,248, 16823 | 328,199 |
| 1856 | 49,351,770 11 | 383,053 |
| Tutal. ....e. ${ }^{\text {arit }}$ | \$331, 0122,27134 | \$2,251,034 |
| Dedvel re-deposits of 1854. | $8,041,10760$ | .... |
| Actum mumint to 18\%6.... | \$322,901.134 34 | \$2,961,534 |

according to the necessities of commerce. For the ten years preceding 1830, the quantity of hullion imported exceeded the quantity exported by $£ 39,089,667$.

The amount of the gold and ellver coinage in France for 1853, with the value in francs and in sterling money, was :

| Oold. | Coinage. | Volae, | Valuesibrliog |
| :---: | :---: | :---: | :---: |
|  | Namber. | Franer. |  |
| ${ }^{5}$ J-franc plecen. | 15,641,600 | 314,830,000 | 13,200 |
| 10 -frane pleecs. | 1.763,340 | 17,033,463 | 705,336 |
| Total gold .... Silver Copper | 17,404,840 | 330,463,403 | 13,218,636 |
|  | 5,090, 30 | 20,089,778 | 803,688 |
|  | 30,360,285 | 1,974,939 | 78,970 |
|  | 53,364,007 | 852.628,180 | 14,101,120 |

Coinage of the United States.--Tho Aanual Report of the Director of the Mint, for the year 1855, shows elcarly the operation of the parent Mint and all the branches, as well as of the Assay Offico at New York, for the whole year of 1855. It appears that the total coinage for the year was over $\$ 56,000,000$; and thst the aggregate colnage of the Mint and all its branches (inelulling gold bara), from tho year 1793, has been $\$ 498,266,59582$. The portions executed at the parent Mint, and at each branch, have been as follows:

| Commenced natiaess. | Colonge, 1855. | Total Culoage 1793 to and of 1855. |
| :---: | :---: | :---: |
| 17 CB | \$12,045,952 98 | \$377,383,80897 |
| 1835 | 2,368,51000 | 67,3S6,665 00 |
| 1808 | 116,77850 | 6,600,260 00 |
| 1839 | 217,985 60 | 4,222,626 60 |
| 1854 | 21,121,752 43 | 30,858,320 64 |
| 1854 | 20,441,813 63 | 23,320,872 81 |
| ... | \$56,312,782 00 | \$498,866,566882 |

Of this aggregate, about ninety-four per cent. has been produced ly California, namely:

| Callfornia (oight years)... | $\$ 313,235,50277$ |
| :---: | :---: |
| North Carollna........... | 8,232,152 S5 . |
| Goorgia. | 0,488,032 86 |
| Virginla | 1,458,210 50 |
| South Carollua | 1,164,305 44 |
| Alabama. | 192,205 02 |
| Tennessec | 80,193 00 |
| New Mexlco. | 45,087 00 |
| Other sourcea | 64,881 00 |
| 17,766,708 67 |  |
| Total | \$331,002, 27184 |
| Deduet re-deponts of 1854.. | . ...... 8,041,187 00 |
| Net product of the States. | \$322,061,13434 |

The gold mines of North Carolina are atill in working order, with a large outlay of capital for their prosecution; but the average resulta mny be considered as not very profitable to the shareholdera.
The roduced colnage at Philadelphia for 1855 is accounted for by the unavoldable delays in the repairs at the Mint, authcrized by an appropriation made by Congress for this purpose in 1855. These repairs and alterationa were commeneed 19th July last, and oceupied six months.

The total valuo of tho coinage of the United States, from the year 1703 to 1855 , both inclusive, has been within a fraction of five handred millions, namely:

| Miots. | Gold. | silver. | Copper. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| 1'hitudetphita | \$205, 371,56266 | \$ $810,440,02090$ | \$1,672,11631 | \$377,983, 20887 |
| San frunulaco Dranen, 18i4............... | 30,089,25164 | 164,075 00 | - | 30,853,326 04 |
| Nin Orleans " 1838-1805......... | 37, $\mathbf{8 1 3 0}, 86500$ | 19,505,800 00 | . $\cdot$. | $57,886,60000$ |
| Charlote 4 \% 1838-186\%......... | 4,2:22,626 00 | , | .... | 4,229,023 50 |
| Wahdongta 4 1938-1855. | 5,690, 216600 | . . . | .... | 14,680,266 00 |
| Assay Ontec, New York, 15b) | 28,893, 87281 | . . . | - $\quad$ •• | 23, 220,87281 |
| Tutaia. | \$357, 134,464 61 | \$190, 169, 91494 | \$1,072,18631 | \$4!18,860,565 84 |

For the year 1805 , the aggregato coinage, including fine bars, was $856,312,73299$, namely :

| Minfa. | Gold. | Nilver. | Copper. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| Philadelphla | \$10,010,762 14 | 46,411, 170 | \$0,030 72 | \$62,045, 18.420 |
| 8an liranelsco . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 20, $2,57,07743$ | 164,075 | .... | 21,121,752 43 |
| New drlcana. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 460,510 00 | 1,018,000 | . | 2,308.600 ${ }^{\circ} 10$ |
| Charlolle. ............................................... | 217, 1365 t0 | .... | . | 217,035 59 |
| Dal.lonrga . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 118,778 50 | . | .... | 113,779 80 |
| Asay Ollice | 20,4tt, 8 t3 63 | … | … | 20,411,813 03 |
| Toisla. | \$ $02,795,45720$ | \$3,501,245 | \$16,030 78 | \$ $568,812,73409$ |

It will sppear from this tabular view that the branch the annexed summary of foreign coinage for the year Miats at New Orleans，Dablonega，aad Charlotto could bo advantageously dispensed with．The gold colagge last year it New Orleana was only $\$ 450,500$ ， and the silver，$\$ 1,918,000$ ．All this could have been done at Philadelphia；and now that the parent Mint is provided with new and improved machlnery，all the sllver cojnage may as well be dono at that point．

It appears that the annoal coinage at the Georgia and North Carolina brsaches is less than the years 1818－1853－having declined from $\$ 900,000$ in 1852 ，to $\$ 833,000$ in 1855 ．According to a report mado by Mr． J．Phillips Phenix，of the Conmitteo on Commerce， to the Ilouse of Representativea，in September，1850， when the coinage at these two branches was doubla what it is now，the expeuse of coinage was estimated as follows：

| At I＇hiladelphla | 2.23 per cent． |
| :---: | :---: |
| At New Orlcana． |  |
| At Charlotto． | 9.00 |
|  |  |

At this time，the percentage at the branch Mints must be greater，as the work is less．Every doliar coined at the Charlotte and Dahlonega，probably coats ten cents；whereas the raw materiai could be trans－ ported，at a small cost，to Philadelphia or New York． The annual expense of thirty or forty thousand doliars for the maintenance of these two Mints conid well be dispensed with，and the coinage executed at Philadel－ phia and New York．In fact，the heavy expense in－ curred by the government for the support of the Mint at New Orleans is eatirely superfluous．The receipts of gold at that quarter are now too amall to require the further working of a Mint there．

The Director of the Mint，in his report recently made，alludes to recent improvements in machinery which are calculated to facilitate coinage operations， and to produce more highly finished pieces，namely： ＂In the colnage of half eagles particularly，wo shali be materially aided by a very remarkable mehine lately invented．＊＊This machine was manufac－ tured at Paris，and las been introduced into the Mint there，and one of similar powers is also cmployed in the Mint of Engiand．The one imperted for the United States Mint is adapted to the half cagle onjy．It is justly regarded as a triumph of nechanism．＂

The largely increased production oi cold in Austra－ lia and California，of iste years，has，of course，stimu－ lated the workinga of the Mints of foreign countries． The colnago may be fairiy estimated at about two hun－ dred milions of dollars annually in gold，fifty millions in silver，and nearly one million in copper．We find

1853，the latest，to which we add that of the United States for the same year，all reduced to aterling：


| Countros． | Oold． | Silivar． | Copper． | Total． |
| :---: | :---: | :---: | :---: | :---: |
| Great Britain， | 211．002，391 | LiT01， 544 | 24，073 | ¢12，669，003 |
| France | 13，218，636 | 808588 | 78，096 | 14，101，120 |
| ${ }_{\text {Spain }}^{\text {prugia }}$ ．．．．．．． |  | 850,724 |  | 360，724 |
|  | 1，028，700 | 1，567．014 |  | 131，306 |
| Austria ．．．．．．． | 11，042，781 | 1，815，514 |  | 2，656，185 |
| Indja ．．．．．．．． | $11,042,000$ 123,00 | 4，848，000 | 18,412 63,600 | $\begin{array}{r} 12,871,707 \\ 4,426,600 \end{array}$ |
| Tota！ | 267，400，700 | \＄49，594，860 | c160，081 | C47， $120,6 \mathrm{ba}$ |

The act of Congress to create now siiver coins sind to reduco the welght of the old denominations，has had a good effect in providing the country with an abund－ aace of the smail coins，and the new act passed by Con－ gress in February，1857，and now in force，will have the effect to drive out of circnlation the old and de－ preciated Spanish coina that havo for many years been in uso．

The Act of Congress of February，1857，in reference to the Coinage，will produce a very desirable reform in our currency of silver and copper coins．The new act authorizea the creation and distribution of a new cent，which relieves us of a hitherto ponderous coin－ the comparative weights being as followa：Ast of Jan－ uary 18，1837， 168 grains；Act of February，1857， 72 grains ：difference， 96 grains．The former acts of Con－ gress did not make copper coins a legal tender；and it has been disputed as to what amount they were re－ ceivable for debts；nor does the new act make them legal tenders for any sum．The new cent may be read－ ily distinguished In the dark from the current silyer coin．It presenta aliout the snme surface as the ten－cent piece，but is alout double the thickness with a smooth edge；whereas the ten－cent picce has a milled edge．

With the oid of the twenty millions of dollars ia small silver coina exceuted since the act of March 3， 1853，and the ccinage of two or thre millions more annually，for the next few yenrs，the country will be liberally proviled with small siiver coins，that will not only enter into general circulation and effect the purposes intended，but they will not be liable to be used for the arts and manufactures，their legal value being alout ten per cent．heyoud that of their intrinsic vaiue as metal．

According to a careful table prepared fer the Auga－ burg Allyemeine Zcitung，published Aprii 16，1856，the following table will ahow the annount of gold and sil－ ver that has been extructed luring various periods from the birth of Christ diown to the year 1855：

| Yoant． | Gold． | Silver． | Value． | Value． |
| :---: | :---: | :---: | :---: | :---: |
| From A．D．to 1492. | $\underset{\substack{k 110 . \\ 0,115,711}}{ }$ | $\begin{aligned} & \text { Kile. } \\ & 13,664,107 \end{aligned}$ | $\begin{gathered} \text { Franea } \\ 26,460,000,000 \end{gathered}$ | $\begin{aligned} & \text { Iotian } \\ & 4,691,801,000 \end{aligned}$ |
| ＂ 1492 to 1810．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 3，8501，487 | 197，（MM6， 930 | 40，628，000，000 | $8,10+600,000$ |
| 41810 to 1885. | 270，100 | 6，237，414 | 2，288，000， 000 | 457，60H1，600 |
|  | 868,514 | 16，716，923 | 6，698，000，000 | 1，819，600， 100 |
|  | 830，80\％ | 8，018，411 | 1，803，000， 000 | 200， 2000,0190 |
| ＂ 1851 to ish\％．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1，615，684 | 4，054，263 | 6，376，000，000 | 1，276，000，006 |
| Totst．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．． | ．．． | $81,040,000,000$ | 16，206，200，010 |

IRODUCTION OF G（HLD IN TIIE UNITED STATES．


| Yran． | 隹 | In Pranimo． | Naw Oneana． | （harimio | ， | cw | 俍． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1804 | \＄110，400 0 |  |  |  |  |  | ＊110，000 00 |
| 1828－1837 |  |  |  |  |  |  |  |
| 1839－184\％． | $2,683,04100$ |  | \＄110，69 90 | \＄1，073， 418 m 0 | \＄3，218，017 00 |  | ，685，075 010 |
| 1845．． | 241.544 （10） |  | 12，893 00 | 370,28500 | 271， 76300 |  | 506，6is 610 |
| 1849. | 5，767，092 00 |  | 672，189 00 | 890，732 00 | 244， 13100 |  | 7．070，144（00 |
| 1 1850． | 31，700，806 00 |  | 4，560，021 00 | 320，2x9 on | 241，008 00 |  | 30，038，31．109 |
| 1851. | 4T，074， 62000 |  | $8,770,72200$ | 316.16109 | 370，390 00 |  | 60，610，014 00 |
| 1862． | 49，821，400 00 |  | 8，7tt， 98.4 no | 430，900 00 | 470，789 00 |  | 4， 5000,1963 （1） |
| 18\％3． | 62，心67，93100 |  | 2，016，673 0 | 805,16700 | 452，2010 00 |  | 55， 622,06180 |
| 1854. | 35，718，948800 | ＊10，842，28t 23 | 991，511 00 | 218，016 | 280,24500 | \＄2，227，177 0n | 67，268， 16823 |
| 1855. | 2，001．497 03 | 20， 860,43720 | 411，017 24 | 216，08880 | 118，652 07 | 85，054，688 it | 43 |
| Totai． | 33， 6 bi， 78 | \＄31，：02，71843 | 21，937，719 24 | \＄4，298， 230 K0 | \＄5，6N0，86i4 07 | \＄ $34,281,80811$ | \＄331，002，2i134 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

Gold，Silver， | Coing |
| :---: |
| GoLn Conns os |
| Double eagls． | Eagle Halfeaglu．．． Threo dollard． Quarter－eagle Dollar gaven Cosme Dollar Half－dollar Quertcr－dollar Dlme ．．．．．． Half－dime Threa cente． Cent（1837）．．． llalf－cant New cent（185T）

COINA
Gold and Sily Stateg in the STATEA IN THE
in 1792 ，AND Minta AND TI Organization


Gold, Silfer, and Coppre Coins of tham Cnitid Statrs.

| Coins. | Finaname | Buadand Waight. | Vslue. |
| :---: | :---: | :---: | :---: |
| Gasd Corni ${ }^{\text {ov 1885-'86. }}$ |  | Graine, | Dollars. |
| Double eagie.......... | 900 |  |  |
| Eagle . . . . . . . . . . . . . . | 900 | 258 | 10.60 |
| Haif-eagle............. | 190 | $120^{\circ}$ | 6.00 |
| Three dollars........... | $\cdot 900$ | 2.774 | 8.00 |
| Qusrter-emgle.......... | -900 | -64.5 | $2 \cdot 60$ |
| Dollar ................ | -900 | $25 \cdot 8$ | 1.00 |
|  | 000 | 412.5 | 1.00 |
| Ilalf-dollar............. | . 200 | 102. | . 50 |
| Quartur-dollar . . . . . . . | $\cdot 900$ | 90. | $\cdot 25$ |
| Dims.................. | 490 | $88 \cdot 4$ | $\cdot 10$ |
| hlaif-dims . . . . . . . . . . | . 009 | $19 \cdot 2$ | -05 |
| Three conts ............ Corphi Coins. | $\cdot 800$ | 11.53 | -09 |
| Cent (1807) ............ |  | 108. | 01 |
| Half-cent .............. |  | 84. | -005 |
| New cent (1857)...... . | $\ldots$ | 12. | 01 |

## COINAGE OF TIIE UNITED STATES.

geld and Silyen Coinage at tifo Mint of the Uniteo Srateg in the bryeati Yearg friom its Ebtabliginment, in 1702, and including thr Coinagis of the brancif Mints and the Absay Offion (New York), froy tieir organization to Septemure 30, $185{ }^{\circ}$.

| Yaars. | Gold. | silve: | Agkregate. |
| :---: | :---: | :---: | :---: |
|  | Dollars. c'ts. | Dollars. cta. | Dollars. Cha |
| 1993 to $1705 . .$. | 71,485 00 | 370,05380 | 44, 10880 |
| 1796. . . . . . . . . | 102,727 50 | 79,077 50 | 181,805 00 |
| 1797. | 103,422 54 | 12,591 45 | 110,013 \% |
| 1748. | 205,010 00 | 830,20100 | 635,901 00 |
| 179. | 213,285 09 | 423,51600 | 036,800 0it |
| 1800. | 317.76000 | 224,29100 | 642,056 00 |
| 1801. | 422,670 00 | 74,75300 | 497,328 00 |
| 1812. | 423,31900 | 54,84300 | 491,053 00 |
| 1813. | 253,37750 | 87,11800 | 845,405 50 |
| 1894. | 258,144259 | 100,04080 | 353,483 00 |
| 18145. | 170,3175 51 | 149,388 50 | 310,750600 |
| 18005. | 1324,505 90 | 471,319 00 | 795, 92400 |
| 18, 7. | 487.49500 | 597,44875 | 1,034,043 55 |
| 1688. | 234,065 09 | 034,300 00 | 963,085 00 |
| 1509. | 109,37500 | 707,37609, | 876,75103 |
| 1815. | 501.43500 | 685,773 59 | 1,149,20850 |
| 1811. | 477.4151500 | 003.34000 | 1,106,245, 09 |
| 1512. | 290,436 00 | 814,0:99 50 | 1,104,40450 |
| 1813. | 47, 140 00 | 020,051 59, | 1,0!8,09150 |
| 1214. | 77,270 00 | 561,08769 | 038,057 50 |
| 1815. | 8,17500 | 17.30300 | 20,493 00 |
| 1510. | .... | 28,675 75 | 28.57575 |
| 1817. |  | 617.79350 | 6077,78350 |
| 1818. | 242,94000 | 1,070,454 50 | 1,313.394 50 |
| 1819. | 953,015 00 | 1,140,000 03i | 1,398,615 20 |
| 18.0. | 1,319,03i\% 100 | 501,480 70 | 1,8.6,710 70 |
| 151. | 189,34500 | 825,76245 | 1,015087 45 |
| 112. | 83,980 00 | 805.80050 | 894,78650 |
| 1523. | 72,425 00 | 895,50000 | 087,075 00 |
| 1524. | 09.20109 | 1,752,47700 | 1,845,077 00 |
| 184. | 150,35500 | 1,804 583001 | 1,720,0088 00 |
| 18.6. | 02,245 001 | 2,042,490 00 | 2,024, 8: ${ }^{2} 50$ |
| 1897. | 131,605 00 | 2,869,2i00 00 | 3,000 , 6 (t) 00 |
| 18.8. | 140,14500 | 1,675,690 00 | 1,715,745 00 |
| 15.9. | 295,71750 | 1,994,578 00 | 2,230,205 50 |
| 1430. | 641,10500 | 2,405,490 00 | 8,123,565 09 |
| 1831. | 714.27000 | 3,175,000 00 | 3,483,50600 |
| 1832. | 799,485 00 | 2,579,090 00 | 8,377.425 00 |
| 1833. |  | 2, $56,1,100000$ | 3.737, 5ro (0) |
| 1834. | 3,964,270 00 | 3,415,002 60 | 7,369,272 09) |
| 1835. | 2,196,17500 | 8,443,0,83 01 | 6, 120,17800 |
| 1836. | 4,135,700 00 | $8,600,10000$ | 7,741,800 00 |
| 1837. | $1,148,30506$ | 8.0.10,01000 | $8,24.815$ (0) |
| 1838. | 1,809,695 00 | 2,815,200 00 | $4,124,845010$ |
| 1738. | 1,875,76) $0^{\prime}$ | 2,098,0311 00 | 3,474,310 00 |
| 1341. | 1,690, 80 201 | 1,712,178 00 | $3,402,980$ 00 |
| 1841. | 1,102,67750. | 1,11587500 | 2,217,972 00 |
| 18.2. | 1,833.17000 | 2,325, 515000 | 4.108, 20.8011 |
| 183. | 8412.75750 | 3,722,25) (00 | 12,025,087 30 |
| 154 | $5,4 \pm 5,23.300$ | 2,235,650 00 | 7,048,780 10 |
| 184, | 3,753,477 41 | 1,473,200 00 | 5,029,047 00 |
| 1816. | 4,084,177 60 | 2,6i8,680 00 | 0.0.12,757 50 |
| 1817. | 20,221,98*) 011 | 2,374,4 3010 | 2!,618,835 00 |
| 1848. | 3,775 518 50 | 2,141,050) 00, | 6, 816,5412 20 |
| 108. | (1,507,711 6! | 2,114,10510. | $1 t, 12$ ?,711 (1) |
| 14.6.). | 31,081,798 50 | t, 286,16000 | 88,817,838 b0 |
| 1851. | 62.014,492 80 | 774.807 no | 63.383,48:15 |
| 15152. | 518413.18781 | 00:3.410 000 | 57,810,53, 70 |
| 1883. | \$6,213,946 04 | 8,077,671 00 | (4, 201,477 4. |
| 1801. ........... | 52,094,505 47 | 8,010,2701910 | 0n,713,805 47 |
| This (Lo Selt. 09) | 41,100, $5^{\prime} 7708$ | 2,S0P, 74500 | 44, (360,202 01 |
| 18\%) (lo 8op. 109 | 55,906, 21811 | 6,347,070 4, | 14.283, 1734 90 |
| 1807 (lo 8ep 80) | 49,437,9164 71 | 8,370,008 01 | 81,813,674 82 |
| Total. | 402,880,403 | ,275,183 | $1,156,4815$ |

By an act of Congress, : The old Spanish cuhns are receivalle at the Tronsury of the United States sad several offiees, at the Poat-offices and Land-offices, st the followling rates :
[But by the sixth section, they will bs receivable at 20, 121 $\frac{1}{2}$, and $6 \frac{1}{4}$ cents, respectively, in exchangs for the new oents.]
2. Such old coins "shall not again be paid out or put in circulation, but shall be recoined at the Mint" for distribution.
3. All former acts authorizing tho currency of foreign gold or silver coins, and declaring the same a legal tender in payment for debts, are repealed; lut it shall he the duty of the Direetor of the Mint to cause assays to be made, from time to time, os such foreign coins as may be known to our commerce, to determine their average weight, fineness, and value, and to embrace in his annual report a statement of the results thereof.
4. The standard weight of the cent shall he seventytwo grains ; compozed of 88 per cent. of copper and 12 per cent. of nickel; and the coinage of the half-cent shall be discontinued.
5. Anthorizes the Treasurer of the Mint te purchase the materials necessary for the coinago of the new cent.
6. It shall be lawful to pay out tho sald cent at the Mint in exchange for any of the gold and silver coins of the United States, and also in exchange for the former copper coins issued; and to transmit parcels of the said cents, from time to time, to the assistant treasurers and other officers for exchange; and it shall also he lawful for the space of two years from the passage of this aet, and no longer, to pay out at tho Mint the cents aforesaid for the fractionel parts of the dollar herein hefore named at their nominal value of twenty-five. twelvo and a hrlf, and slx and a qua ter conts respectively.
7. IIereafter the Director 0 t the Mint shall make his Annual Keport up to the 30 th June (instead of 31 st Decemher, as heretofore), so that tho results of the yenr's operations may appear in tho Annual Report of the Secretary of the Treasury.

In the Annual Report of the Director of the Mint of the United States for 1857, ho says: "As my Report in January last presented a statement of the operations for the year 1806, this Report will embrace the operstions since that time, namely; from the first day of Jannary to the 30th of June, a period of six months.
"For the purpose of exhlliting in a condensed form the entire operations of the Mint and lits branches, I present the anmexed summary statement. It embraces the amount of gold and silver b=llion operated upon from the time of their respective organizations to the 30 th of June, 1857 :
Mint of the United Stales, established 1448.. $\$ 894,895,44981$ Hranch Mint at Now Orleans, $\quad$ " $1839 . . \quad 51,42.4,41560$ Branch M1nL at Dalitonega, ul $1835 . . \quad 3,526,74700$

 Total. $\qquad$ $1854 .$. . $\frac{62,19,413}{\$ 658,015,8817}$
"Of this amount there has been revived sirice the 1st of January, 18.t9, of native gold, the production of the United States, the sum of Gour hundred and two millions of dollars. If, in addition to thls sam, "u add the gold produced from Australia and other forelgn countries during the same period, which may be stated to bo abovt five hambred inllions of dollars, and the production of silver bullion from all sourees, which is at the rate of about forty millions per connum, it will Le seen that whin this comparatively bricf period the worli's supply of the precious metals has been Increased to the exlent of twelve humired and forty-two millions of tollars."-Further information on Cosns and Cons: Aae may be obtained by reference to the (Uuarterly Rev., Ixxil. 194; North American Review, IVL. 208 (U. F. (wnass); IIunt's Mferchants' Magazine, v. 379, vil. 267, iv. 434 ; De llow's Revicw, 11, 281 ; Bankers' Migazine, vol. x. (Professor De Mongav) ; Manual of Coins, ly Sickrelur and Du Bots, of United States Mint.

Coir, a species of yarn manufactured ont of the husk of cocoa-nuts. . The busks being steeped in water, the dry dusty substance mixed with the fibres is separated. These aro afterward spun into yarn, and inanufactured into cordage, that is deemed by some superior to that mede of hemp. The goodness of coir depends on the fineness of the filmments, and on their being of a bright yellow color. About $2,500,000 \mathrm{lbs}$. welght are annually exported from Ceylon, prinelpally to Calcutta, and other ports in the East Indies.' It is also prepared in the Maldive Islands, and many other places ; and is very extensively used throughout the East.-Bentolacci's Geylon; Bell's Commerce of Bengal, etc.

Colke, or Coale, charred plt-coal, prepared for the smelting of iron $o_{2}$, by igniting the coals piled up In long ridges in the open air, and closing in the cinders with earth when brought to a glowing red hent. For the use of the manufacturers, the method hitherto most In practice has been to burn the small or screened coal in conical ovens, built of fire-stone or brick, the floor belng generally about 6 feet in diameter, and the oren 8 feet high, while an aperture of 18 inches dlameter is left at the top. The small coal is thrown in to the depth of 15 Inches or more, and then ignited. The cren door is at first kept open, and the hole at the top left uncovered till the nuass is red hot. The door is then closed, and by degrece the hole at the top is covered over wlth two large flat stones, gradually opproaching esch other, when the whole is left to cool. When sufficiently cooled, it is drawn out with long lran. rakes, and the mass is found to have assumed a rudo columnar arrangement. The oven is immediately charged again with small conl, which the heat remainIng in the floor is found sufficient to ignite, and so the operation goes on. In both the above wsys good cokes are mads, but the celatile products are lost. To save these, Lord Dundonald proprosed to burn the ceals in a close furnace, to which he adapted an apparatus fur conveylng the coal-tar, with the ammonlacul produets, into proper recipients. About the 3 nme time, Haron Von Haak, a Germsn, constructed works in the neighborhood of Newcastle for distilling the smull coal In large cast-iren cylinders upon the plan which has since been adopted in the gas-workr, execpt that the soot from the furnace fires is, st Newcastle, during a certain period of the comlustion, before any gray ashes have begun to arise, conveyed into a chamber contrived for the purpose, and collected for lamp-hlack. It Is a curious circumstance, and illustrative of the chunges which the carboniferous structure undergoes, that the coel lncreases In lulk by getting rid of its gas; eight sacks of coal will yield ten aacks of coks.
One of the curlositins in coke is that, although so grannlar $\ln$ appearance, some of the partieles have almost the hardness of the diamond, and are found fitted for cuttlng glass.-E.E. 13 .

Colliery, a place where coal is found In stratified masses, and excavated by manual lubor, and commonly brought to the surface by mechanical power. The exact dute when cial hegan to be used as n fuel is not very certain; the appearance, If not the use of the mhicral, must havo been known fur a long time in disiricts where the deposit was naturally exposed; and, $8 \cdot \mathrm{~F}$. ling to some authorities it is mentioned as

 of digging coals 'c coctain pailis in New castle. Seven years afterwarc ed lad becone an article of export, and was 'frme' see en' $^{\prime}$; and in 1306, so extenstye wasita $\because$, if cus a lin lecelm that Iarliament com

 proclaw wios $*$ w haste uga at theis further nee, lest
 ing thei, res che. si' 'he ne tropolia. Illythe, rrit-

famous clty of London petitiocied the Parliament of England egainst two nuisances or offensive commodjtics, which were likely to comg Into great use and esteem; and that was, Newcastle ioals, in regard of their stench, etc. ; and hops, in reger 1 they would spoyle the taste of drinck, and endanger t'se people." In Belgium the earllest reference to coal was in 1108 or 1200 , In the county of Llege, where, according to tradition, a blacksmith was the first to use it as fuel.' In France the precise period of ita sdoption as a sulustitute for wood is not ascertained. The commencement of its use in Paris was in 1520, the coal beling drawn, not from the mines of France, but from tho collieries of Neweastle. In Scotland coal was known and nsed probably at a very early date. We ure informed by Chalmers, the antiqusry, that coal was worked at Bo'ness by William de Verepont before the end of the twelfth century, snd that a tenth of the coals was paid to the monks of IIelyrood House. It is mere curious, however, than important here, to trace the dute when mineral coal was first used as a fuel. The earlicst employment of It in England in the manufactrre of iron was In 1713, at Colebrookdale, In Scotland, abeut the commencement of the eighteenth century, and in France in 1782.-E. 13. See Coal.

Collision (Fr. Abordage), in a general sense, is the act of any two or more bodles coming fercibly together; but In commerelal navigation it means the shock of two ships coming into sudden and violent contaet at s: a, by which one or both may the more or less injured. From tlo great Increase of navigation, the rlsk of accidents by collision at sea has been proportionally augmented. And it is, therefore, of much linportance, 1 st, to ndopt such measures as may be most likely to prevent their occurrence; and, $2 d$, to determine by whom a loss, when it does occur, should be borne.

In regard to the first and most essential of these objeets, it is eflected, in part at least, by whatever contributes to the general improvement and security of navigation. At common law, every master of a chlp Is hound to keep a proper wateh at eea, especiully in channels much frequented by shlpping, and to use every precantion to avoid coming into contact with other vessels. But this mutter has heen judged too important tu be left wholly to depeni on the good sense and care of individunls; and with a view to the securing of attention to the subject, and to the obviating of the confusion that would unavoidably arise were shipmasters left to follow thelr own ideas with respect to it, rules and ragulations huve been luid down in regard to the courses to be steered when ships are passing each other, the nignals to be made during fogs, the number and description of the lighta to be exhibited at night, and other particulars. In 1840, the Trinity llouse, in Great Irritain, promulgsted a rule of this sort ; and though not in Itself law, masters not complying with its instructions were held to be gullty of unseammalike conduct, and the owners were mude responsilile for ti. 3 consequences. Regulations similar to those contained In the Trinity rite havo since been enacted by the Iegislature. As there la no especial statute law in the United States, we follow in a measure the decisions of the English courts, and are governed by the precedents they have establishet,-See Kent's Comm., Lect. XLVII. The existing Fenglish statute law on the subjeet is embodied in the fullowing clauses of the English Nercentile Shipping Act of 1854,17 and 18 Vict. c. 104:

Regulations as to Lights and Fog Signals.-Tho fotiowing rutes mhall le obacred with regard is lighta and fog atgnals: viz. : 1. The Admiralty shain from time to timo make regulationa requiring the exhibition of auch lighta, by mely nasses of ablija, whether ateam or selling shipa, within such places and under sueh circumatancea as they think fit sud may from time to time revoko, alter, or vary the same. 2. Tho Adatralty may, If they think ft, make regulationa requiring tho use of nuels fog sugnala, by such clasaes of whipa, whether ateum or salligg eltipe, within nuch placer and undor suoh circumatances
as they think rary the same. ecection shall b coms into oper whteh they are nach regulation to any owner on production of th snfficlent evids dll owners and same, and shall sach lights, nd such places, in a are enjofaged ether lighte or the master, or fa faut, ahall \& are iofringed in Rule ata fo $S$ whether as ates meets another ing in another their reapective any risk of aco port no as to ps shall be obeye whelher on th hauled or not, to reader a dep fmmediate dan gard shall be ht sailing ohips on log sueh ships now Channels. row channel, to that slde of starboard sido Brach of the -Ifia any can the case is trie observanee of of fog slgnals taloed, or of and sailing al las been infri peoso whateve coiliston, unle the elreumatal cecessary. D - [n cose an non-observis age shall bed tault of tive F thine, uclesa the clreumsta neressary.

An authe the Admira ping Act no and under regulations
Steamico erpropelled channels, str lavens, port treen sunset ond in auc! der steam: light on the The mast-he miles in a d tem la to be light over an pase, liviog t shead to two preen light c of at leust tw and the fan and mahrok of the compr beaso on thic is Itkewlen on that side. sareens, on vent the its chor: A con
ws they think fit, and may from time to time revoke, alter, or rary the same. 3. All regulations made in pursuance of thla section shall be publiohed In the London Gazette, and shali come Into operation on a day to bo named in the Giazette In whicb they are pubiished, and the Admiralty ahall cause ali moch reguiations to be printed, and ahall furnich a copy thereof to niny owner or master of a ahip who applles for the name, and production of the Gazette containing such regulations shail be snficient evidence of the due makiog and purport thereof. 4. All owners sad mestera ahali be boind to take notice of the same, and shall, so long as the samo continuea In force, exhibit such lights, and use auch fog signals, at such times, within such piaces, In such manner, and under sueh ciroumstances is are enjoiaed by such regulations, and shall not exbibit any other lighta or use any other fog aignala, and in cace of defanit the master, or the owner of the shlp, If It appeara that he was in fauth, aball for each ocemaion upon which such regulstions are iafringed incur a penality not excoeding $\mathbf{2 2 0}$.
Bute as to Shipa meeting each other.- Whenever any shlp, whether a steam or sailing ship, proceeding in one directlon, meets anotiser ship, whether is ateam or salling ship, procecdiog in another direction, so that if both shipe were to continue their reapective courses they would pase bo near as to Involve any riak of a cellifion, the helms of both ships shasll be put to jort so as te pase on the portelde of each other; and this rule thalt be obeyed by sil ateamships and by all salilng ships, whether on the port or starbuard tack, and whether closehauled or not, unless the eireumatances of the ense are such as to render a departure from the rule necessary in order to avoid Immedlate danger, and aubject also to the proviso that due regard abnll be had to the dangera of uavigation, and, as regards sailiag aling on the atsrboard tack close-hanled, to the kecplog such silitps under commend. Rule for Steamers in narrene Channels. - Every ateamship, when navigating any narrow channel, ahalt, whenever it is safe and practicsbic, keep to that alde of the fair way or mid-channel which lies on the starboard side of such ateamehip. If Collision rnsues from Brach of the above Rules, Owner not to be entitled to recover. -ifin any case of oolilaion it appears to the court bofore which the case is tried that auch coltigion was occasioned by the nonsbservance of eny rule for the exhibition of lights or the use of fog signais issued in pursuance of the powers before contaloed, or of the foregoing ruice as to th. pasaing of steam and salling sinips, the owner of the shlp by which such rule lias been Infringed ghaft not be entitied to recover any recompenso whatever for any damage austalned by auch shlyp in such collision, unless it is ghown to the satistaction of the court that the elcumstances of the case made a departure from the rulo necesdary. Dreaches of such Rutes to maply willful Defautt. -In case any damage to person or property arises from tho nom-elservance liy any ahip of any of the sald rules, nuch dainage shatt be deemed to have been oceastoned by tho wilt fit dethult of the person In elisrge of the deek of such ship at the Hue, unless it la phown to the astlafaction of the conrt that the ofrcumstances of the case made a departure from the ruio necessary.
An authority similar to that given to the Lords of the Admiralty by the elause of the Meresntile Shipping Act now quoted had been already given to them, and under that authority they issued tho following regulations, which are now (1855) in force:

Steami lessels,-Ali Britiah sea-going stesm vesseis (wheth erpropelied by peddles or screw) shall, wlthin all segs, gulfs, channcis, atralts, bayf, creekg, roads, roarlsteads, harbere, harens, ports, sud rivers, and under all elrcumstancen, betreen sunset snd aunrise, exhiblt lighta of such deacriptlon, and in suc't manner as herelnafter mentioned; viz, when under steam: A bright white light at the foremast head; a green Heht on the starboard side; a red light on the port slde. 1. The mast-hesd ingit Is to he vialble est a distance of at ieast five mifea In a dark night, wilth a clear atmosphere, and the lanfom is to be se constructed os to show a uniform and unbroken light over an are of the horison of twenty points of the eompask, inelug ten pointa on cach side of the ship, yiz, from ricit ahead to two pointa abat the beam on either side. 2. The preen light en the starbonrd side is to be viallie at a diatance of at least two miles in a dark night, with a clesr atmosyhere ; and the tantern is to be so conatructed as to show a unlform and unbroken light over an are of the horison of ten pohite of the compass, vis., fom right alicad to two polits aboft the beain on the atarboard aide. 3. The red light on the poit alde Is likewise to be fitted ao an to throw lis ilght the amodiatance on that alde. 4. The side ilghits are, moreover, to be fitted with screcny, on the labourd alde, of at leant three foet long, to prevent the lights from being ween across the bow. HThen af anehor: A common bright tight.

Sailing Vissels.-We hereby require that all satilng vessela when under saii, or belag towed, approaching oi belng appraached by any other vessel, shall be bound to ahow between sunset and sunrise a bright light in such n position as can be best seen by such vessel or vessels, and In suffictent time to avoid collision. All salling vensels at anchor in romizeonis or fair wayn shall be also bound to exhlblt, between sanaet and aunrise, a constant bright Ught at the mast-head, except within harbora or other piaces where regulations for other IIghts for nilipe are legaily established. The lantern to be used when at snchor, both by steam versels and salling veascis, is to be so constructed as to show a clear good light all reund the herizon. We hereby revoke all minulations heretofore made by ns relating to ateam vesseis exhibiting or carrying lights1 and we require that the preceding reguistiens be etrictiy carried Into effect ofter the 1at day of August, 1352.

Directions for Fitting the Lights -The manner of fitting the colored lights is to bo particularly attended to. They should be fitted each wilth a sereen of wood on the Inbeard slde, In order to provent both being seen at the same moment from any direction but that of right sheed. This is important, for witheut the screens (a principle first introduced with this plan) any plan of bow-lights woutd be ineffective as a means of indicating the direction of steering. This will be readily understood by a reference to the tifuatrations, where it wili appear evilent thst $\ln$ sny eltuation In which two vesseis may appreach each other in the dark, the colored lighte will instantly Indicate to both the relative course of each; that is, each will know whether the other is spproaching directly or cressing the bows, elther to atarboard or to port. Thie intima. tion is ali that is required to enable vesaets to pass each other in the darkeet night, with almoet equal safety as in broad day, and for the want of which to many lamentable aceidents have occarred. Pattcrina of the Ienternes to be carried, and of the mode in which the sereens are to bo fitted, may be secta at the custom-houses of the princlpal commerclal ports in the United Kingdom. The eystem of night lights laid down in ti.e sbope regulations has been adopted in her majekty'n eervice, and by the governments of the principal foreiga martime natlons.

Every mneter of a ship is bound, as well by the duty ho owes to his employers and to those on board his ship, as by positive rule, to keep a proper watch at sea, especially in channels much frequented by shipping, and to uso every preeaution to avold eoming into contact with other vessels. In order still better to provide ngainst danger, and to obviate disputes, the Trinity House promulgated, on the 80th of Octoher, 1840, tho following Rule of Navigation:
Rule of Navigation issued by the Trinity Mouse.-The attention of this Corporation having been directed to the numerout severe, and in some inatancea fatal, accidents which have resulted from the collision of veasels navigated by Ateam, and it appearing to be Indeapensably neceasary, in order to guard against the recurrence of aimitar ceslamities, the is reguiation ahould be catabliahed for the guidance and gover ament of persons intrasted with the charge of such vessela; and whereas, 1. The recognized rule for sailing vessels is, that those hasIng the wind fair shall give wsy to those on a wind; that when both are golng by the wind, the veasei on the starboard tackahali keep her wind, and the one on tbe larboard tack bear up atrongly, 1 ,assing each other on the larboard hand; that when both vesseis have the wind large or abesm, and meet, they ahall pass each other In the same way on the larboard hand, to effect whileh two last-mentioned oljecte the helm muat bo put te port : and as ateam veracta masy be conaidered in the IIght of vessels navigating with a filr wind, and should gite ray to alifing vessels on a teind of either tack, it becomes only necessary to proride a rule for thele ohservance when meeting vther stenmers, or asifing vesmole golng linge.

Under these conslderations, and with the object before atated, this itonrd has deemed it right to freme and promulgate tho following rule, which, on communlestion with the Lords Comemisaloners of the Admiralty, the Eider liretiren find has been ulrendy adopted in respect of ateam veasels in her majesty's service! and they isesire earneatiy to press upon tho milnda of ati perama linving charge of ateam vesaels the propriety and urgent necessity of a strict adherence thereto; via. : 2, Rute for Steam leasels on different Courses.-When ouch vesseis mast Inevitahity or weccuarily cross so near that, by conthuing their reapective courses, there woutd bo a risk of their coming in coillifon, each venaid shall put her heim to port, so as alwaya to paes on tho larboard wide of each other. A steam veasel jowing another in a aarrow channel muat aiwaya leave the vessel she la pasaling on the Jarboard hand. Hy order,

J, Himbert, Beeretary.
Tusity IIovek, London, Both October, 1840.

It may, however, be proper to etate that ne:ther this nor any rule of the sort is to be regarded as inflexlble, or to be followed at all hazards. The aafety of the ship fa the paramount consideration, and nc master is justlifed in abiding by a rule, when by doing so be plainly ineurs danger, A. may be ln bis proper course, but if by pursuing it ha will run a graat riak of coming into collision with B., who is upon a wrong course, he is bound to alter his course so as to avoid a collision. The fact of one master being lgnorant, careless, or Ir fault, la no reason why another shoulc not use erery means in his power to provide for the safety of his ship, and, consequently, of the livea and proparty intrusted to his care.
The conilitions ander whlch cases of collislor. take place differ extremely. Thus, 1st. It may be merely accidental, or be occasioned by clrcumstances beyond the poiver of control, as by the violence of the wind or waves dashing or impelling the shipa together, without blame being imputablo to either party ; or, 2d. It may be owing to the culpable negligence or misconduct of one party ; or, 8d. Both parties may be to blame. In adjudicating upon losses growing out of collisions that have taken place under such different ilrcuastances, the conclusions must also be very different.

With reapect to the first class of cases there is little apparent difficalty: wherever a loss is oce sioned by a storm, a fog, or other accidental circumatas ce without any blame belng ascribable to either party it would appear to be equitable that it should be bor, $c$ by the sufferer. And this principla having been eml sdied in the Roman law, was subsequently ingrafted is to that of England.-Manshall on Insurance, cap. 17, \& 2. But other anthorlties, to whom the greateat del rence is due, contend that the loss arising irom accic ontal collisions, however it may afiect tho partir a should be equally divlded between them; and thir fact, la tho rule followed in moat malitime sta' -s.-Urdomnance of 1681, lib. lif. tit. xii. art. 10, witit the observations of Valin. It also is the rule sanctioned by the law of England in cases where both parties are ro blame, but where the blame can not be discriminated. Those cases in which the blame is clearly aseribable to either party present no diffieulty.

The leading doctrines of the law of England with regard to collisions have been elcarly and succinctly stated by Lord Stowell. "In the lirst place," asys his lordship, "a collsion may happen vithout blame being imfutable to either party, as when the loss ls occasioned by a storm or any other ris major. In that ease the misfortune must be bome by the party on whom it happena to light; the other not being reaponsible to him in any degree. Secondly, a miafortune of this kind may ariae where both parties are to blane, where there has been a want of due diligence or of akill on both sides; In auch a case the rule of law is, that the loss must be apportloned betwcen then, as having been oceasioned by the fault of both of them. Tbirdly, it may happen by the mlsconduct of the suffering party only ; and then the rule is, that the sufferer must bear his owir hurten. Lastly, it may have leen the fault of the ship which ran the other down, and In this caso the Innocent party would be entleled to an entlre compensation from the other."-2 Donsox's Admiraliy Reports, 83.

We may add that the rule of the equal division of the danage whore both vessels are to blame has been, since Lord Stowell's tlme, fully recognized sud finally entabllshed by a decision of the Ilonse of Lords, on an appeal from Scotland.

Varioun authorities havo speken disparagingly of tho rule now referred to, and liave called it a judicium ruaticorum ; and it would, no doult, be very desirable In cames of colliaion where both partleas are to blame, that the meglect or calpability of each whould be accurately tetermined, und the damages askeased necoriingety. But from i id obseurlty in whleh such cases are
alnost always involved, and the confleting tecalmo iy brought forward by the different partles, the difficulties in the way of thls being done are uaually quite insuperable; and it is better to adopt a rule which, though perhaps less equitable in prineln'., , la fairr r ln Its application than any other thist could be adopted. Of its expedfency there can, indeed, be no reasonable doubt. The obscrvations of Valln are, In thls respect, quite concinsive. "C'otolt," says he, "le moyen le plus propre ì rendre les capltalnes ou mafiris dea navires extremement attentifa id eviter tout abardago, surtout ceux des bâtínens foibles et plus suscept tbles d'être incommodés par le moindre choc, en leur rendrant tonjours présent la cralnte de aupporter la moltié du dommage qu'ils en pourroient reeevuir. Et al l'on dit qu'i] aureit été plus simple et plus court de lalsaer pour ie compte partlculler d'un chscun le dommage qu'il auroit reçu, comme provenant d'un eas fortult; la réponse est qu'alors les capltalnes da gros navires n'auroient plus cralnt de heurter les bûtimens d'uise :zaucoup moindre foree que le leurs: rien done de plus juste que la contribution par moltié,"-Commenicuire sur COrdonnance de 1681, ii. 179, ed. 1776.
In apportionling the damage in caaes where both partles have been in fault, the question occurs, whether the damage done to the cergo ahall be taken into account or left out In the eatimate on which the apportlonment is to the made. Thia knotty polnt has been differently deelded in different countrice. But the rule wbich limits the liabillty of owners to the value of the ship and freight applies to cases of damage by collision. For further observatioue on thls curious and important auoject, In addltion to Valin and the other authorities nlrcady referred to, the reader may consult the chapter on collisslon added by Mr. Serjeant Shee to his edition of Lord Tenterden's work on the Law of Shipping, and the chapter on the same subject in Maude and Pollock's Treatige on the Law of Merchant Shipplag.
Number of Colliviona at Sea.-A statement has been prepared by Mr. John A. Rueker, underwriter, giving a classlfication of the number of collisions at sea reported In Lloyd's lists during the five years from 1845 to 1849 inclusive. It thence appears that the annaul numbera were $608,564,699,633$, and 565 ; so that there wes a decrease in 1849, notwithatanding the increased traffic of that year. The total collisions of the five years amounted to 8064. Of these 279 were cases in which a vessel was sunk, run down, or abandoned; 189 were cases in whleh there was serious damage; 686 in which the damage, although less, was still conaiderable; and 1910 in which it was only slight. The average of steamers in contact with steamers during each year is about 11 ; of ateumere in contact with sailing vessels about 37 ; of sailing vessels In conta t with steamers 36 ; and of sailing vessels In contact with saillng vessels 533 . Since that time the number of collialons has been increusing; and In the years 1855 and 1856 they have lieen partieularly large lin nuaber; and attended with great loss of llfe, especially in the cases of the Arctic, the Pacific, and the Lymnais.
Colohioum Autumnale (Mendonc Satfion, or Atve tumn Crocus), a plant of the natural orier Melenthr cece, is largoly collected for medicinal use la Eonghnd. Ita infusion la well known as a powe:iul remedy for gout, and has long heen eolebrated in Franeo undor the name of kiau Medicinale. The cormus or bulb, and also the seeds, are used in mediclue, and hive a strong, persistent, bitter taste. Ita medicinal virtues appear to be derlved from n pecullar alkalold, which has been termed colchicia. The beat preparution is the whe of colehicum, propared by digesting elght ounces of the seeds in forty oun es of sherry for about a week, shaking the veasel daily, aud preasing out the liquor. The usual doan is from ten to fifty drops taken in water. It possesses intense actlvity as a poimon. The piant derive Its name from Colchis, In Armenia, where it is
snid to have abounded,-E, B. See Cinistison on foixons.

Colocynthid, Coloquintida, or Bitter Cucumber (Germ. Koloquinten; Du. Bitter-appelon; Fr. Coloquintes ; It. Coloquintida; Sp. Colequintidas; Arab. and Pers. Hunzil), the produce of an anaual plant ( Cu cumis colocynthis, Linn.), growing in Turkey, Nubia, Iadia, and other placss, much rasembling the cucumber in herbuge. When ripe, the fruit is peeled and dried in a stove, and In this state is brought to England. It is inodorous, but has an extremely nauseous taste. It is an exceedingly powerful drastic cathartic. When it is larger than a St. Michael's orange, and has black scute-pointed ends, it is not good.-Ainslie's Mataria Indica.

Cologne (Ger. Köln; ancient Agrippina colonia), a fortified city of Western Germany, formerly capital of electerate, now capital of Rhenish Prussia, on the left bank of the Rhine, across which a bridge of boats consects it with its auburb, Deutz, 45 miles north-L orthwest of Coblenz. Lat. of cathedral $50^{\circ} 56^{\prime} 29^{\prime \prime}$ N., leng. $6^{\circ} 57^{\prime} 52^{\prime \prime}$ E. Popuiation 78,500. It communicates by railroad with Hamm, Bonn, Aix-la-Chapelle, Mechiin, and has extensive passage trafic with gteamparkets on the Khine. It has manufactures of cottonyarn and stuffs, silk fabrics, velvets, woolen cloths, hosiery, lace, cordage, tobacce, hats, wax-lights, starch, neeties, clocks, gold and silver articles, vinegar, seal-ing-wax, earthen and lacquered wares, und twentyfour factories of Eau de Cologe. Its position gives it an extensive and increasing trade between Germany and the Netherlands, and under the French it was the capital dejpôt of Roêr. Population of arrondissement is $1849,437,330$.
Colonies: Colony Trade. Colonies are establishments founded in foreign countrles by indlviduals whe either voluntarily emigrate from, or are forcibly sent abroad by, their mother country. The colcny trade is the trado curried on between colonies and their parent states.

1. Witahlibiment of Colonies. Greek Colonies.Various motives have, in different countries and ages, led to the formation of colonjes. The Greek colonics of antiquity $\begin{gathered}\text { eem to } \\ \text { huve been chicfly founded ly citi- }\end{gathered}$ zens whom the violence and fury of contending fuctions forced to leave their native land; but they were sometimes formed for the purpose of relieving the mother country of a redundant population, and sometimes also for the purpose of extending the sphere of commercial trunactions, or of providing for their security. The reiations between the mother country and the colony depended, in a grent measure, on the motives which led to the cstablighment of the latter. When a colony was founded by fugitives forcibly expelled irom their ancient homes; or when it was founded, as was frequently the case, by bodies of voluntary emigrants, who received no assiatance from, and were in no respeet controlled by, the parent state, it was from the irst independent; and even in those rarer cases in which the emigration wus conducted under the superintendence of the parent city, and when the colony was protected by her power and influence, tho dependence wias montly fur from being absolute and complote. The great bulk of the Greek colonies were really independent states; and though they commonly regarded the land of thetr forefathers with filial respect, though they yiclded to ita citizens the plece of distinction at public games and religious solemnitiea, and were expected to nssist them in time of war, they did so as ailies only, on fuir and equal terms, and never as subjects. Owing to the freedom of their institutiona, and their superiority in the arts of civilized life to the native inhabitants of the countrics among whom they were generally placel, these crionies rose in a comprastively short periol to a high piteh of opulence and refinement; and many among then, wa Miletus and Ephesus in Asia Minor, Syracuse aud Agrigentum in

Sicily, and Tarenium and Locri in Italy, not only equaled, but greatly surpassed, their mother cities in wealth and power.

Roman Colonies.-The Roman colonles were for the most part founded by and under the authority of government; being intended to serve both as outlets for poor and discontented citizens and as military atations or garrisons, to secure the snbjection of the cenquered provinces over which they were scattered. The most intimate pelitical union was always maintained between them and the mother city. Their internal government was modeled on that of Rome; and, while their superior offlcers were mostly sent from the capital, they were made to contribute their full quota of troope and taxes, to assist in carrying on the centests in which the Repablic was almost constantly engsged,
Spanish Colonies.-The early colonies of most modern nations were fornded by private adventurers, influenced either by the hope of gain or by a desire to escape from religious persecution, without any wish to relieve the mother conntry of a surplus population or to bridle subjugated provinces. On their first Institution, therefore, the modern colonies spproached, though with some essentlul variations, more nearly to the Greclan than the Roman model; but the period of their freedom was of very limited duration. They were very boon suljected to laws and regulations framed in the metropolis, and calculated, as was to be supposed, rather to promote its interests than those of the colony. At a somer hat later pexiod the foundation of colohial establishments was eagerly patronized by most European governments, in the view of extending commerce and of enriching the mother country, hy securing to her the exclusive possession of the "r rent of distant countries; and where, from the thi, nese. ! the aboriginal population, or their inferiority in 11 a wists of civilized life, the colonists were enatled \% n . ss fortunes with comparative rapidity. The Spaniards who first resorted to America after its discovery had no inteution of settling in the country, or of colonizing it. The idea that geld and silver slone constituted wealth was then universally prevaleut; and the bold and enterprising companious and followers of Columbus, instead of engaging in industrious undertakings, which they neither understond nor relished, sought only to enrich themselves by plundering the feeble and defenseless natives of the gold and silver in their possession, and of the abundance of which the most exaggeruted accounts were immediately spread throughout Europe. When new adventurers arrived on an unknown coast, their single inquiry was, whether it abounded in gold. If it did, they remained, for some time at least, in the country; if not, they immediately set sail for some other quarter. Auri rabida sitis a eultura Mispanos divertit, is the expresive statement of a contemporary writer (Petrus Martyrus, in the Novus Orbis of Gryneus, p. 511). The slow progress of the Spanish colonies after their first discovery must principally be aacribed to this cause. The gold and silver accunulated by the natives were very soon exhausted; and the skill and energy of the successive swarms uf adventurers, who continued to pour into the couns try, were princlpally directed to the unproductive snd generally ruinous trade of mining. The few large for tunes that were made in this way, like the large prizes In in iottery, infinmed the cupidity of the multitude, and gave an appearance of credibility to the fabulous accounta of the excessive productivencss of the mines. After the gnmbling epirit which had exclusively actuated the carly adventurers had hegun to aubside, the colonists gradually betook themselves to agricultural and commercial pursuits ; and the vast variety of valuable productions with which Mexico and the other Spenish colonies abounded, the extrema richness of the soli, und their advantayeous situation, wonld, had they been only tolerably well geverned, have oceasioned their rapid increase in wealth aud civilization. But
a blind and Intolerant despotism paralyzed thelr energies, and fettered and retarded their progress. All the abuses and defects of the government of Old Spain were transferred to, and multiplied 4 n , the colonles. The whole property of those vast reglons wan consid ered as seated In the crown of Spain; and every law or regulation, whether of a local or general nature, affecting their goverament, emanated from the council of the Indies, in which it was supposed the king was alwaya present. We can not stop to describe the sort of regulations to which the colonists wers subjected with any degree of minuteness; but we may notice n few of rhem, to furnish the means of judging of their general spirit and probablo effect. It was, for example, made a captajofiense to earry on any intercourse with forelgners; and the inhablants of the different colonies were even forhidden any intercourse with each other, unless under tho strictest and most vexatious regulations. There were severul articles, such as flax, hemp, and wine, which they wero not permitted to cultivate; at the eame tine that the crown reserved te itself the monopoly of salt, tobacco, gunpowder, aud some other less importnent articles. The alcavaln, snd other oppressive imposts, which had proved destructive of industry in Old Spain, were rigorously levied an well on the exports as on tho lmports of the colonies. No situation of power or emolument could be filled except by a nativo of Old Spain. Tbe Catholic religion was eatablished, to the exclusion of every other; and bishops, tithes, and the Inquisition followed in its train: while, in order still better to consolidate and strengthen the foundations of this monstrous despotism, the government endeavored to make the colonists inseusible of their degradation, by proscriblag every species of instruction, and watchfully opposfing in introduction and progress of all useful knowledge: . der such circumstances, we can not be surprised that the continental colonists, among whom the monupoly system was maintained in its grentest purity, should have languish d for above two centuries in a state of slaggish inactivity. Though surrounded by all the means of producing wealth, they were not genenally wealthy. Oppression renilered them indolent; and went far to deprive them ; : only of the power, but also of the wisb, to emerge iron poverty. The progress of the colonists who occt ped the West India Islands was not quite so slow. it is certain, however, that, lown to the middle of last century, Spain reaped no greater advantage from the possession of Cuba. Hispaniola, and Porto Rleo, than Eingland or France from the smallest of its dependencies, In proof of this we may nontion that the noble island of Cuba, which could without difficulty supply all Europo with sugar, did not, is 1750 , produce a sufficient quantity even for the consumption of Old Spain. But the conibined influence of an arlitrary and Intolerant goverilment, and of a degrading superstition, could not balance the means of inprovement which the fertility of the soll, and the command thence arising over most of the necessaries and many of the conreniences of life, gave to the colonists. Owling also to the total incapacity of Old Spain to furnish her transatlantic prov* inces with a sufficient supply of the articles sho had forced them to Import from Europe, and the consequent extension of the contraband trade earried on with thein by the other European nations, she had been compelled gradually to relax the severity of her commercial monopoly. A new impulso was thus given to the spirit of Industry. The colonists hegan to be more sensible of the natural advantages of their situation, and less laclined to sulmit to the blind and ligeted policy of the Spanish court. In 1781, a rebellion broke ont in Pern, in consequence of sn attempt made by the gov. ernment to establish a new monopoly In that province, which threatened to end in the total diasolution of the sonnectlon between Spain and South America, and was not quelled without great dificulty and much blood-
shed. But the spirit of liberty, when once exclted, could not he snppressed. It continued to gain ground progressively, until the commencement of the last con. test between France and Spuin Interrupted the communicatlon with the mother courtry, and gave the colonists an opportunity of proclaiming that independence which, after a lengthened and bloody struggle, they happily euccecded in achleving.

British Colonies.-The Engltsh, who, like all the other nations of Europe, had leen impressed with mingled fcelings of admiration and envy by the extent and importarce of the acqnisitions made by the Spaniards in the New World, apecally entered with enthusinsm and ardor into the career of discovery. Owing, however, to the lull whish Ferdinand and Jsabella had obtained from the l'ope, conveying to them the ample donation of oll the countries jnhnbited by lnidels that the Spaninrds had dlacosered or might discover, the English, to avcid encroaching on the dominions of their rivals, directed their efferts facther to the north. Several attempts to found colenies on the coast of America were mado in the reign of Elizabeth by Sir Humphrey Gilbert, Sir Richard Grenville, SIr Walter Raleigh, and others. But in consequence of their ignorance of the country, the leficiency of their iupplies of provisions, the loss of time in frultless searches after gold, and the various dificulties incident to the firut settlement of a colony, nune of these attempts proved sacceasful; and it was not until 1607 that a senall hody of edventurers founded the first permanert establiskment of the English in America, at Jamestown, in Vhrginia. Letters patent were granted in 1609 by King Jumes to the principal jersons resident in Iondon, by whom the expense attending the formation of the colony was to be defrayed, incorporating then into a company, and estatilishing a council in England for the direction of their proceedings, the members of which were te be chosen by, und removable at tho plensuro of, the majority of the partners of the company: permitting whatever was necessary for the support and sustenance of the colony for the ifst seven yenrs to be oxported free of duty; declaring that the colonists and their desecndants were to bosecurea in all the rights and prisileges of linglishmen, the same ns if they had remained at home or been born in England; and reserving only, as the stipulated price of these concessions. and in imitation of the policy of tho Sprulards, one-fifi part of tho gold and sllyer ore to be found in the colonies, which was to he paid to his Majesty nud his suceessors in all time to come. In virtur of these powers, the company issued, in 1621, a charter or srdinance, which gave a legal and permanent form to the constitution of the colony. By this charter tho supreme legislative authority was lodged, partly in the governor, who held the place of the soverelgn, partly in a council of state named by the company, and partly in a general council or assembly composed of the representatives of the people, in which were vested powers and privileges similar to those of the Jlouso of Commons. It was not long, however, before the king and the company quarreled. The latter were in consequence divested of all their rights, partly by open vlolence, and partly under color of law, without compensation, after having expended upward of $£ 160,000$ in founding tho colony; and a governor and council of state appointed ly the king succeeded to the powers of those tupponted by the committee.-lRoncmison's History of $\lambda$ merica, book ix. passim; Jeffenaon's Notes on I'ryinia. p. 179.

The founders of the colony in Vithitia had heen actuated solely hy the hopes of gain; but the colonies that were soon after established in New England were chlefly planted by men who flec: from religions and political persecution. The form of goverument in the New England colonles, though at first moditied a good deal hy tho peculfar religious opinions entertained by the colonists, was In Its lesding principles essentiall. freo. For a considershle period the colonists elected
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 of the Jhi a device o tile systes rising up merce sho raw prod is, howevetheir own governors, colned money, and exerciaed most of the rights of sovereigniy ; while the English, wholly engrossed with the contest ketween freedom and prorogutive at home, had no leisure to attend to thelr proceedings. Subsequently to the Restoration, however, tho governments of most of the New Englund States were established nearly on the same footIng as that of Virginia; which, indeed, became the fuvorite moilel, not only for the constitutlon of the colonies estabiished on the continent, with the exeeption of the pruprietary governments of Pennsylvania and Maryland, but also for those that were established in the West India Islands. But under overy vicissitude of government and fortune, the New England colonitsts were distlaguishel by the same ardent and enthusiastic love of liberty that had first induced them to quit their native land. Evory thing relnting to the intermal regulatiou and administration of the different colouies was detormined, in the colonial assemulies, by representatives frecly chosen by the sottlers. Tho perscolul liberty of the citizens was well secured and vlgilantly proteeted. And, if wo except the restraints on tieir commerce, the monopoly of which was jealonsly guariled by the mother country, the inhabitants of Virginia, Pennsylvania, atd New England enjoyed nearly the simo degree of freedom when colonists of Eagland that they new enjoy as citizens of the powerful republic of North America. Their progress in wealth and population was in consequenee quite unprecedented in the history of the world. The white population of the colonies had lnereased in 1776, at the commencement of the Revolutionary war, to aloove $2,000,000$, and the value of the exports from Great Britain to theta amcunted to ahout $11,300,000$ a year !

It is not difficult to diacover the canses of the unexampled prosperity find rapid growth of our North Americme colonles, and generally of fll colonies placed under similar circumstancee. The North American colonists carried with them a knowledgo of the arts and sciences practleed by a elvilized and potished people. They had been tralned from their infancy to habits of industry nnd subordination. Thoy were practically acquainted with the best nud wisest form of eivil polity that had been estallished in Europe; and they wero placed in a situation that enalled them, without difficulty, to remedy its defecte, and to try cevery instltution by the test of utility. But the thinness of the aboriginal population, and the consequent fucility of obtaining inexhaustible supplies of fertile mud unocenpied land, must certninly be placed nt tho hend of all the causes which hive promoted the rapill increase of wealth and population in tho United States, and la all the other colonies both of North and South Anverica. On the first foundation of a colony, and for long after, each celonist gets an ample supply of land of the best quality; and having no rent, and scnrcely any taxes, to pay, hils Industry necessarily becomes exceedingly productive, and he has every means and every motive to amass espital. In consequence, ho is eager to co!leet laborers from all quorters, and is both willing and able to reward them with high wages. But theso high wages afford the means of accuminlation, nnd, joined to the plenty and cheapness of the land, specdily change the more industrious latorers into proprictors, and enahlo them, in their inrn, to become the employers of fresh laborers; so thint every class participntes in the gencral iuprovement, and capital and population ad. vence with a rapidity hardly conceivable in old-settled and fully-prepled ceuntries.
It has been frequently said that the establishment of the Buitish American and West Indin colonies was a device of the supporters of the exelusivn or mercantile system-that they founded them in the view of ralsing up a vast ngriculturul population, whose commerce should be confined ent!rely to an exchange of raw products for other manufuctured goods. There is, however, no truth In theso assertions. On the con-
trary, the chartera granted to the founders of the settlement In Virginia distinctly empower the colonists to carry on a direct intsrcourse with joreign atates. Nor rere they slow to avail themselves of th's permission; for they had, eo early ae 1620, established tobacco warehousee in Middleburg and Flushiry; and the subsequent proceedings of the British goverament depriving them of this freedom of conmerce, were the chicf eause of those disputee which broke out in 1076, in an open rebellion of oaninous and threatening im-port.-Roneritson's america. It was not until the colonists had surmounted tho difficulties and hardships incident to their first establishment, and had begun to increase rapidly in wealth, that thelr commerco hecame an oiject of importance, and that regulations were framed in the viow of restricting its freedom, and of rendering it peeuliarly advantugeous to the mother country. The act of 1650 , passeci by the republiean Parliament, haid the first foundatione of the monopoly system, by confining the import and expart trade of the colonies exclusively to British or colony built ships. But tho famous Navigaticn Act of 1660 ( 12 Charles II. c. 18) went much farther. It cuacted that certain specitied articles, the produce of the colonies, and since well known in commeree by the name of ennmerated articles, should not be exported directly from the colonies to sny foreign country; bu. that they should first le sent to Britain, and there nnladen (tho words of the act are, laid upon the shore) before they could he forwarded to their final deatination. Sugar, molasses, ginger, fustic, tobacco, cotton, and indigo, were originally enumerated; and the list was sulisequently enlarged by tho addition of coffee, hides and skins, iron, corn, lumber, etc. In 1739, the monopoly system was so far relaxed that sugars were permitted to be carried directly from tho British plantations to any port or place southward of Cape Finisterre; but the conditions under which this indulgence was granted contimed so strict and numerous down to 1803, when they were a good desl simplificd, as to render it in a great degreo nugatory (Edwaurs's West Indies); and with this exception, the oppressive and vexatious restrictions on their diroct exportations to foreign countries were maintalind on most of the other enumerated commodities of any importance down to a late period.

But hesides compeling the coloniste to sell their produce exchusively in the English markets, it was next thanght advisable to oblige them to buy such foreign articles ne tley might stand in need of entirely from the merchants and manufacturers of England. For this purpose it was enactsid, In 1663, that "no commodity of the growth, production, or manufacture of Europe shall be in ported into the British plantutions thut such as are laden and put on beard in Eugland, Wales, or lerwick-upon-Tweed, and ia English-built shipping, whereof the master and three-fourths of the crew are English." The preamble to this stntute, which effectually excluded the colonists from every market for European produce, except that of England, assigns the motive for this rastriction to be, "the malntainlug a greater correspondence and kindness bet ween the subjects at home and those in the plantations; keeping the colonies in a firmer dependence on the mother country; making them yet more beneficial to It, in the further employme:t and Increase of English shipping, ind the vent of English manufactures and comnodities; rendering the navigation to and from them mere safo and cheap; nad making that kingdom a staple, not ouly of tho commodities of the plantations, but ulso of the commodities of othor countries and places for their supply, it leing the nasge of other natlona to keep their plantation trade exclusively to themselves." It wus also a leading principle in the system of colonial policy, adopted aa well lyy England as by the other European natione, to discourage all attempts to manufacturo such articles In the colonies as could be provided for tiem by the mother country. The
history of the colenial syatem ls full of efforts of thla great parliamentary leader and $n$ friend to colonies, sort; and so essential was this pirinciple deomed to the we need not he aurprised at a declaration of the late Idea of a colony, that Lord Chathan dld not bealtate Lord Sheftield, who did no more, Indeed, than express to declare, in his place in Parliament, that "the Brit- thes oplulon of almost all the merchants und politiclans fah colonists of North America had no Riait to manu- ot his time, when be nffirmed that "the only ute of fucturs even a wai for a horseahoe!"-Edwatids's Weat dmerican colonies or West India islands is the monorIndies. And when such were the enactments made by oLy of their consumption, and the carriage of their prodthe legialature, and suth the avowed sentinents of a $\mid$ uce! "*


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| 1700 | 41,456 | 91,913 | 17,567 | 49,410 | 4,608 | 18,629 | 817,302 | 178,481 | 14,008 | 71,003 | .... |  |
| 1701 | 92,656 | 86,528 | 18,647 | 81,410 | 6,220 | 12,013 | 235,788 | 199,683 | 16.978 | 13,908 |  |  |
| 1702 | 37.026 | 64,025 | 7,965 | 20,901 | 4,145 | 0,342 | 274.782 | 72,391 | 11,870 | 10,469 |  |  |
| 1709 | 83,639 | 5 1,cos | 7,471 | 17,562 | 5,160 | 9,699 | 144,988 | 106,718 | 13,197 | 12,428 |  |  |
| 1704 | 30.823 | 74,1996 | 10, 740 | $22^{2} 294$ | 2,430 | 11,819 | 264,112 | 60,403 | 14,067 | 6,021 |  |  |
| 1705 | 22,793 | 62,504 | 7.308 | 27,309 | 1,303 | 7,203 | 110,768 | 174,322 | 2,608 | 19,788 |  |  |
| 1706 | 22,810 | 57,050 | 2,810 | 81,583 | 4,210 | 11,097 | 149,152 | 88,015 | 8,059 | 4,001 |  |  |
| 1707 | 83,798 | 120,641 | 14,283 | 29,855 | 786 | 14,866 | 207,645 | 287,001 | 23,811 | 10,492 |  |  |
| 1709 | 44,635 | 116,565 | 10,847 | 26,849 | 8.120 | 6,723 | 210.493 | 79,061 | 10,840 | 11,906 |  |  |
| 1709 | 29,050 | 192, 349 | 12,230 | 34,577 | 017 | 6,851 | 241,668 | 80,268 | 20,431 | 28,021 | ... |  |
| 1710 | 91.118 | 104,308 | 8,206 | 81,475 | 7,277 | 8.594 | 188,429 | 127,639 | 20,703 | 19,013 |  |  |
| 1711 | 28,415 | 107,491 | 19,183 | 28,856 | 38 | 19,408 | 279,181 | 91,535 | 12,871 | 20,406 |  |  |
| 1712 | 24,690 | 198,10\% | 12.469 | 18,594 | 1,471 | 8,464 | 297,941 | 134,643 | 20,394 | 20,016 |  |  |
| 1718 | 49,904 | 120,773 | 14,423 | 46,470 | 178 | 17.007 | 206,263 | 70,804 | 82,449 | 23,907 |  |  |
| 1714 | 51,511 | 121,289 | 20,810 | 44,643 | 2,063 | 14,927 | 280,470 | 129,873 | 31,290 | 28,712 |  |  |
| 1715 | 06, $5^{5} 5^{5}$ | 164,860 | 21,816 | b4. 829 | 5,401 | 17,182 | 114,766 | 190,274 | 20,153 | 16,081 |  |  |
| 1718 | 69.5\% | 121.150 | 21,971 | 52,173 | 5,193 | 21,812 | 281,343 | 179,595 | 40,287 | 27,272 |  |  |
| 3711 | 08,898 | 132,001 | 24,094 | 44,140 | 4,499 | 2:,505 | 294,584 | 215, 262 | 41,275 | 26,058 |  |  |
| 1718 | 61, ${ }^{19} 91$ | 131,585 | 27,331 | 02,906 | 5,088 | 22,716 | 316,576 | 191,922 | 46,385 | 10,841 |  |  |
| 1719 | 54, $\mathbf{H}_{5} 5$ | 125,317 | 10,596 | 56,345 | 0,564 | 27, 108 | 332,069 | 164,039 | \$0,873 | 10,630 |  |  |
| 1790 | 47,206 | 129.769 | 10,8:6 | 37,197 | 7,028 | 24,531 | 331,482 | 110,717 | 62,736 | 18,900 |  |  |
| 1721 | 50,483 | 114,524 | 15,681 | 50,754 | 8,037 | 21,543 | 857,812 | 147,076 | 61,838 | 17,703 |  |  |
| 1722 | 47,955 | 183, 722 | 20,118 | 67,4i8 | 0,852 | 20, 997 | 283,691 | 172,154 | 79,650 | 3-4,374 |  |  |
| 1723 | 6. 9,339 | 176,446 | 27,902 | 63,013 | 8,339 | 15,902 | 287,007 | 123,833 | 78,108 | 49,246 |  |  |
| 1724 | 64,585 | 168,507 | 21,191 | 63,020 | 4,057 | 30,324 | 977,344 | 161,594 | 90,504 | 37,899 |  |  |
| 1725 | 72,021 | 201,763 | 24,976 | 70,650 | 11,081 | 42,269 | 2,4,730 | 145, 884 | 91,942 | 80.182 |  |  |
| $17: 6$ | 63,916 | 200, 868 | 28,307 | 84, 846 | 5,060 | 57,684 | 394.707 | 185,981 | 93,453 | 48,984 | . |  |
| 1727 | 75,052 | 157,277 | 11,617 | 07,459 | 12,825 | 31,979 | 421,688 | 192,965 | 00,055 | 23,254 |  |  |
| 1788 | 64,680 | 194,590 | 21,142 | 81,634 | 15,230 | 87,478 | 413,089 | 171,092 | 91,175 | 36,067 |  |  |
| 1729 | 02,514 | 161,102 | 15,639 | 04,760 | 7.484 | 29,799 | 286,17.1 | 108,92! | 112,329 | 68,360 | . |  |
| 1730 | 64,701 | 208,190 | 8,740 | 64,356 | 10,6088 | 48,602 | 346,823 | 150,081 | 161,759 | 44,785 |  |  |
| 1731 | 49,048 | 183,467 | 20,766 | 60,116 | 12,900 | 44,260 | 408,509 | 171,278 | 109,771 | 71,145 |  |  |
| 1732 | 64,015 | 216.600 | 9,411 | 65.540 | ,0, ${ }^{2} 4$ | 41,008 | 010,799 | 148,259 | 126,20T | 58,248 |  | 848 |
| 1780 | 61,983 | 154,570 | 11,629 | 65,417 | 14,766 | 40,565 | 403,1:3 | 186,177 | 177,845 | 70,466 | 203 | 1,695 |
| 1734 | 83, 508 | 146,460 | 15, 517 | 81,653 | 20,217 | 54, 5092 | 373,0630 | 174,086 | 120,406 | 99,608 | 18 | 1,921 |
| 1735 | 72,495 | 130,125 | 14.155 | 80,405 | 21,910 | 48,804 | 394, 605 | 220,381 | 145,848 | 117,837 | 3,010 | 12,112 |
| 1736 | 00.783 | 222,153 | 17,044 | 86,000 | 20,786 | (11,613 | 330,163 | 204,794 | 214,083 | 101,147 |  | 2,012 |
| 1737 | 63,347 | 228,023 | 10,933 | 125,833 | 16,103 | 60,010 | 492,240 | 211,301 | .87,758 | 58,980 |  | 5,701 |
| 1798 | 53,110 | 208,293 | 16,229 | 132,438 | 11,918 | 01,400 | 891,514 | 258,860 | 141,119 | 87,703 | 17 | 6,406 |
| 1789 | 44.604 | 280,378 | 18,403 | 106,070 | 8,134 | 41,432 | 444,054 | 217,200 | 286,192 | 94,445 | 223 | 8,394 |
| 1740 | 72,389 | 171,081 | 21,498 | 118,77\% | 15,048 | 66, 0151 | 341,997 | 281,498 | 205,500 | 181,831 | 024 | 3,5024 |
| 1741 | 60,058 | 198,147 | 21,149 | 140.430 | 17.158 | 91.019 | 577.109 | 243,552 | 2,6,830 | 224,270 |  | 2,463 |
| 17.48 | 83,166 | 148,8:99 | 13,588 | 167,591 | $8,5.27$ | 75, 21215 | 427,369 | 204,156 | 114,607 | 197,063 | 1,609 | 17,018 |
| 1743 | 63,185 | 172,461 | 15,007 | 184,487 | 0,546 | 79,840 | 657,821 | 828, 140 | 24.5, 180 | 111,499 | 2 | 2,261 |
| 1744 | 50, 248 | 143,982 | 14.527 | 110,920 | 7,446 | 6.,214 | 412,700 | 234, S* | 1:12, 0,084 | 79,141 |  | 769 |
| 1745 | 88,948 | 140,463 | 14,083 | 54,957 | 10,130 | 64,250 | 30,4,493 | 196,793 | 91,847 | 86,815 |  | 939 |
| 1746 | 35,612 | 200,177 | 8,841 | 86.712 | 15,279 | 73,099 | 419,371 | 289,545 | 76,897 | 102,809 | . | 08.4 |
| 1747 | 41,771 | 910,640 | 14,942 | 187,984 | 2,832 | 82,404 | 492,610 | 200,088 | 107,500 | 96,529 |  | 24 |
| 1148 | 29,748 | 137,088 | 12,353 | 143,311 | 12,1468 | 75,036 | 494,552 | 252,624 | 167,305 | 160,172 |  | 1,814 |
| 1749 | 63,409 | 285.296 | 23,413 | 265, 173 | 14.044 | 238,637 | 454,618 | 323,600 | 120,409 | 164,085 | 61 | ${ }^{5} 5$ |
| 1750 | 43.455 | 343,059 | 85,639 | 267,190 | 24.191 | 217,713 | 508.939 | 340,419 | 111,007 | 134,037 | ,042 | 2,180 |
| 1751 | 43,287 | 305,974 | 42,869 | 248,941 | 23,870 | 190,917 | 460,085 | 247,027 | 2-45,401 | 188,244 | 355 | 2,065 |
| 1752 | 74,313 | 273,640 | $40,6+8$ | 194,060 | 29,978 | 201,066 | 500,453 | 825,161 | 288,264 | 150,777 | 1,626 | 8,163 |
| 1753 | 8.3,295 | 945,523 | 40,203 | 277,804 | 98,527 | 245,044 | 632,575 | 350,776 | 104,034 | 213,009 | 3,057 | 14,128 |
| 1754 | 66.439 | 329,433 | 26,663 | 127,407 | 30,649 | 94. 47 | 673,135 | 323,513 | 607,238 | 149,215 | 3,2317 | 1.974 |
| 1755 | 53,033 | $3+1.796$ | 28,055 | 151,071 | 32,229 | 144,463 | 48, 668 | 285,107 | 825,535 | 180,887 | 4,437 | 2,636 |
| 1756 | 47,309 | 384,371 | 28,073 | 250,425 | 90,0,1 | 200,160 | 737,759 | 420,687 | 222,815 | 181,789 | 7,155 | 536 |
| 1757 | 27,346 | 283,404 | 19,168 | $3 \mathrm{H} 23,811$ | 14,190 | 168,420 | 419,581 | 394,897 | 130,889 | 213,949 |  | 2,571 |
| 1758 | 30,204 | 405,094 | 14,200 | 356,6\%5 | 21,383 | 260,963 | 45, 4,362 | 448,471 | 150, 511 | 181,002 |  | 10,212 |
| 1759 | 25,985 | 6.17,067 | 21,684 | 638,785 | 962,404 | 498,1 181 | 357,228 | 480,007 | 206,084 | 216,265 | 0,074 | 15,178 |
| 1760 | 87,8022 | 599,6\% 7 | 21,125 | 490,106 | 222,754 | 707,098 | 00.1,451 | 605,882 | 104,765 | 218,181 | 12,108 |  |
| 1761 | 46,225 | 384,225 | 48,643 | 250,574 | 89,170 | 204,067 | 410,083 | 645,350 | 258,002 | 254,587 | 6, 564 | 24,270 |
| 1762 | 41,733 | 247, 58 | 58,892 | 289,043 | 39,091 | 200,199 | 416,709 | 418,50\% | 131,405 | 194,170 | 0,622 | 24,761 |
| 1703 | 74.816 | 253,854 | 52,498 | 228,560 | 28,298 | 284,152 | 642,294 | 805,391 | 252,366 | 250,182 | 14.469 | 44,909 |
| 1764 | 88,157 | 459,765 | 53,697 | \$15,416 | 80,258 | 438,101 | 559,508 | 515,102 | 341,727 | 805,808 | 81,825 | 18,339 |
| 1765 | 145,819 | 451,269 | 64,90, | 852,049 | 25,148 | 343,508 | 605,071 | B63,224 | 385,913 | 884,700 | 84,183 | 29,165 |
| 1766 | 141,733 | 409,642 | 07,020, | 330,829 | 20,851 | 527,314 | 401,098 | 372,543 | 293,687 | 296,732 | 53,074 | 07,268 |
| 1767 | 128,207 | 410,081 | 61.428 | 417,957 | 37,41 | 871.830 | 437,026 | 437,628 | 305.027 | 244,093 | 35,556 | 23,084 |
| 1708 | 148,375 | 419,787 | 87,115 | 432,980 | 60,404 | 492,107 | 406,048 | 475,984 | 508, 108 | 289,868 | 42,402 | 40,562 |
| 1769 | 124, 353 | 207.908 | 78,446 | 74,918 | 20,111 | 190,908 | 061,892 | 483,262 | 887, 114 | 300,000 | 82,270 | 340 |
| 1770 | 119,011 | 294,451 | 69,689 | 475,091 | 28,102 | 134.8>1 | 445,004 | 717,788 | 278,907 | 140,273 | 85, 038 | 50.198 |
| 1771 | 150,331 | 1,4:0,119 | 98,875 | 653,621 | 81,315 | 728,744 | 577,848 | 920,326 | 420,311 | 409,109 | 63,810 | 70,408 |
| 1772 | 120,265 | 824,830 | 82,707 | 348,970 | 20.133 | 507,909 | 628,404 | 703,210 | 425,92b | 449,010 | 06,063 | 92,406 |
| 1773 | 124,024 | 527,065 | '76,246 | 289,214 | 36,058 | 426,443 | 699,803 | 348,804 | 456,513 | 344,859 | 65,891 | 02,082 57,018 |
| 1774 | 112,249 | 562.478 | 80,008 | 437.937 | 60,011 | 025,602 | 012,160 | 628,731 | 482,302 | 378,116 | 07,647 | 87,018 113,77 |
| 1775 | 110.858 | 71,025 | 187,018 | 1,228 | 176,9012 | 1,866 | 758,356 | 1,92! | 679,949 | 0,245 | 103,47\% | 113,767 |
| 1776 | 702 | 55,050 | 2,818 |  | 1,49 ${ }^{\text {a }}$ | 865 | 73,220 |  | 18,069 |  | 12,560 | .... |

- "During the war of the Revolutlob our commerce was enspended; after the peace, in 1783, our trade continued to langulsh; It had to contend with domestic and forelge ohstaclea; forelgn astons ontertained a jualousy cenceruing these Statea; at homo a rivaiship ws provalent among the several members of the confederace, and checked the prosperity of the nation. Eaeh of intercourse with them to be equally tree to all natious."


## Connec <br> Delawn Gieoryd <br> Maryla <br> Masac New 11 <br> New Je <br> New 1 <br> Nerth <br> penosy lhode <br> Sonth <br> Virgint Whttes <br> Whites, Slaves, <br> At the <br> $1.491,000$. <br> York, wh <br> 11, M. <br> withstan <br> nies of <br> try. Pre <br> contesis, <br> In extent <br> But C'ubs <br> now all <br> valual. <br> North

Britain po of East an rick, I'rin The situat be more map than shores of Lawrence, can lakes, extensive let for her produce of washeli by soil and cl the winter is covered
beginning Lawrence i renient pas ered. But ing unhent crally clear their out-d ice in the the powers their activit pidity that lemperature of labrenhe the mercury Whole, deei
of Upper or Simeoe and Lake lluron Lske Eiric a traordinary
crops of wh mate," says Low: r Cana antircly unk soll is moro
l'opulation or tifs Baitian Nogtir Angatean Colones.

| Colonies. | Cotontet Popatesion. |  |  | laeranae per Conil. Brat 48 Yearn. | laeresen per Cont. per Annum, | Tatreaes per Cont. Id Port. od, 88 Yeern. | her riace per Cent. per Annum. | $\begin{gathered} \text { Inenarese } \\ \text { Pop Conl. In } \\ \hline 14 \text { Yoars. } \end{gathered}$ | jnememen per Ch, per Aim. in 14 Veare |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1701. | 1740. | 1775. |  |  |  |  |  |  |
| Connectient. | 80,000 | 100,000 | 208,800 | 203.38 | 465 | 162.00 | 343 | 778.33 | 10.45 |
| Delaware. . . . . . |  | Inel. in Pa | 87,000 | . . . |  |  |  |  |  |
| Gieorgda ....... |  | 6,000 | 87,000 |  |  | 850.00 | $18 \cdot 46$ |  |  |
| Maryland . ...... | 95,000 | 85,000 | 174,000 | 240.10 | 5.00 | 10471 | $4 \cdot 00$ | 596.00 | 8.05 |
| Massachusetta .. | 70,000 | 220,000 | 852,000 | 81429 | 4.46 | 60.00 | $2 \cdot 81$ | $402 \cdot 80$ | $5 \cdot 44$ |
| New IIampalire. | 10,000 | 80,000 | 102,000 | 800.00 | $4 \cdot 17$ | 240.00 | $0 \cdot 28$ | 020.00 | $12 \cdot 48$ |
| New Jerrey. . . . | 15,000 | 60,000 | 138,000 | 800.00 | $8 \cdot 25$ | 180.00 | 5.00 | 820.00 | 11.08 |
| New York. ..... | 80,000 | 100,000 | 238,000 | 23383 | 480 | 188.00 | $5 \cdot 81$ | 693.30 | $0 \cdot 37$ |
| North Carolina. | 5,000 | 45,000 | 181,000 | $800 \cdot 00$ | $10 \cdot 67$ | 302.92 | 11.68 | 8820.00 | 47.67 |
| Pennaylvania... | 20,000 | 250,000 | 841,000 | 1150.00 | 28.06 | 80.40 | $1 \cdot 40$ | $1605 \cdot 00$ | 21.80 |
| Ithods Island ... | 10,000 | 854,000 | 68,000 | 280.00 | 5.91 | 0671 | $2 \cdot 58$ | 48000 | 8.49 |
| South Caroling. . | 7,000 | 80,000 | 08,000 | 828.67 | 0.84 | 210.00 | 8.08 | 1223.57 | 16.60 |
| Virginla. ....... | 40,000 | 85,000 | 800,000 | 112.50 | 2.84 | 25824 | 0.78 | 850.00 | 878 |
| Whites......... Slaves, eatimatsd | .... | $\ldots$ | $\begin{array}{r} 2,308,000 \\ 600,000 \end{array}$ |  |  |  |  |  |  |
| All classes . . . . . | 262,060 | 1,046,000 | 2,803,000 | 20924 | 023 | 167.97 | $6 \cdot 40$ | $960 \cdot 86$ | 18.18 |

At the beginning of the Revolution the Bouthern coloniea had, therefore, 812,000 white lahabltants, and the Northern 1.491,000. Connecticut was the fourth Btate in rank. Massachusetts and P'ebnsylvanta wore each a third larger than New Lork, which whs even excelled liy Connecticat.-United States Cenorts leport, 1850.

II, Magnitude of the Buitisil Colonies.-Notwithstanding the loss of the United States, the colonies of Great Brltain, exclusive of Indla, exceed in aumber, extent, and value, those of every other country. Previously, indeed, to tlic breaking out of the late contesis, the colonial domini nns $\mathrm{t}^{+}$Spain far exceeded in extent aud lmportance those of any other power. But Cuba, Porto Rico, aud the Philipplne Islands are now all that remaln to her. These, lndeed, are very valuable posaessions, though inferior to those of England.

North American Colonics.-In North Amerlea, Great Britain possesses the provinces of Lower and Lyper, or of East and West Canada, Nova Scotia, Now Brunswick, l'rinco Edward's Istand, and their dependencies. The situation and boundaries of these provinces will be more casily learned from tho inspection of the map than they could he from any description. The shores of Nova Scotia and New lBrunswiek are washed by the Atlantic Ocean; and the noble River St. Lawrence, by its communication with the great American lakes, gives to Canada all the lenefits of a most extensive inlaud navigation, and forms a natural ontlet for her surplus produce, as well as for the surplus produce of that part of tho United States which is washed by the lakes. There is every variety in the soil snd climate of these regions. In Lower Canada the winter is very severe. Tho surface of the country is covered with anow for nearly lialf the year. From the begianing of December to the midille of $\Lambda_{\mathrm{p}}$ rill the St. Lawrence is frozen over, and affords a smooth and conrenient passage for the sledges hy which it is then covered. But though severe, the climate is far from being unhealthy or disagrecable. The weather is generally clear and hrscing; and the labor of artisuns, at their out-docr employments, is rarely suspended for auany days in succession. On the breaking up of tho ice in the latter end of Aprit or the begiming of May, the powers of vegetation slmost immediately resume their activity, and bring on the fine season with a rapility that is astonishing to a stranger. The highest temperature in Lower Canada varies from $96^{\circ}$ to $102^{\circ}$ of Fahrealicit ; but the purity of the atmosphere abates the oppressive heat that is felt in noat countries where the mercury ranges so high; and the weather is, on the whole, decidedly pleasant. That part of the province of Upper or Weat Canada which atretches from Lake Simeoe and the Rivers 'Irent and Severn, westward to Lake Iluron and the St. Clair IRiver, and sowhward to Lake Irie and part of Lake Ontario, has a soil of extraerdinary fertility, capable of producing luxuriant ereps of wheat and every sort of grain. "The climate," says Mr. Bouchette, late surveyor general of Low' r Canadn, " is so particularly saiubrious, that epidemic diseasea, either among men or cattie, are ulmost catirely unknown. Its influence on the fertility of the seil is mere generally perceptible than it is in Lower

Canada, and is supposed to be congenial to vegetation in a much superior degree. The winters are shorter, and not always marked with such riger as in the latter. The duration of frost is always accompanied with a fina clear sky and a dry atmesphere. Tha spring enens, and the resumption of agricultural labers tukes place, from six weeks to two months earlier than in the nelghborhood of Quebec. Ths summer heats rarely prevail to excess, and the autumas are usually very friendly to the harvests, and favorable for securing all the late crops."-Bovchette's Tepographical Description of Canada, p. 600. The ground on the shores of Lake Ontario and Lake Erie, as far west as the junctlon of tho Thames with the St. Clair Lake, is lald out in townships, and partly aettled. But the population is still very thin. To the nerth of the River Thames, along the banks of the St. Clair and the shores of Lake Iluron, round to the River Severn, and thence to the river that joins Lake Nippissing and Lake IIuron, is a boundless extent of country that is almost entirely unoccupied. The interior of this space has hitherto been but imperfectly explored; hut the lanks of the St. Claiz and tha shores of Lako IIuron afford the finest sltuations for settlemeats. The soil is in many places of the greateat fertility, the river and lake teem with tish, and every variety of the best timber is found in the greatest profusion. The winters in the provinces of Nova Scotia, Prines Edward's Island, und New Brunswick are more aevers than in Upper Canuda, and they aro a good deal lafested with foge and mista; but their proximity to England, and their favorable situation for tho fishing business, give them considerable advantages. In addition to tbe above, Great Britlan possesses the IIudson's Bay territory, a tract of vast extent, but situated in an inhospitable climate, and worth very little except as hunting-grounds, Sha also possesses the large islands of Newfoundland and Capo Breton, the Jatter being a dependency of Nova Scotia; hut their soil is harren, and the chimate severe and foggy ; so that they are valuahle principally as fishing stations. The following table exhibita the population of the different North American colenies at the under-mentioned epochs:

| Coloniea. | Population. | Date or Conilu |
| :---: | :---: | :---: |
| Eastern (Lower) Can | 1,048,000 | 1854 |
| Western (Lpper) Caneda. | 1,860,000 | 185. |
| New lbrunswick ................ | 198,800 | 1851 |
| Prince Didward's Isl. and C. Breton | 62,634 | 1849 |
| Newfoundiand. | 90,506 | 1845 |
| Nova Sectía | 276,117 | 1850 |

Of the Inhalitants of Lower Canada in 1844, no fewer than 518,565 were of French extraction, forming what is called the Nation Canadienne. In Upper Canada, on the other hand, the population is elmest wholly of British origin.

West India Colonies.-In the West Indies the English peasess Jamaica, Barbadoes, St. Lucia, Antigua,


## IMAGE EVALUATION

 TEST TARGET (MT-3)

Photographic Sciences
Corporation


Grenada, Trinidad, and some othar islands, besides Demerara and Berbice in South America. Jamaica, by far the largest and most valuable of her insular possessiona, is about 120 miles in length and 40 miles in mean breadth, containing about $2,800,000$ acres, of which from $1,100,000$ to $1,200,000$ are supposed to be in cultivation. Being altuated within the tropie of Cancer, the heat in the West Indles is Intense, but is moderated by the sea-breeze which blows regularly during the greater part of the dsy. The rains make the only diatinction of aeasons. They sometimes fall with prodiglous impetuosity, giving birth to innumereble torrente, and laying all the low country under water: the trees are green the whole year round: they have no snow, no frest, and but rarely some hail. Tho elimate is very humid; iron rusts and corrodes in a very short time; and it is this, perhaps, that renders the West Indies so unfriendly to European constitutions, and produces those malignant fevers that are so very fatal. The vegetable productions are numerous and valuable; but the sugar-cane and tho coffec-plant are incomparably more important than the others, and constitrite the natural riches of the islands.

The Weat Incies are occasionally assailed by the most dreadful hurricanes, which destroy ita a moment the hopes and labors of tho planters, snd devastnte entire islands. Whole fields of sugar-canes aro sometimes torn up by the roots, houses are either thrown down or nnroofed, and even the heavy copper boilers and stills in the works havo, in numerons instances, been wrenched from the ground and battered to pieces. The rain pours down in torrents, sweeping before it every thing that comes in its way. Tho destruction caused by such dreatlful scourges seldom fails to produce a very great scarcity, and not unfrequently famine; and we are grieved to have to add, that the severity of the distress he* on several occasions been materially aggravatea by a refusal on the part of the authorlties to aliow importation direct from tho U.ited States! This was the case at Dominica so luto as 1817. "It is stated in a report by a committeo of tho Assembly of Jainales, that 15,000 negroes perished between the lstter end of 1780 and the beginning of 1787 , through famine occasioned by hurricanes and the prohibition of importation from the United States."-Edwands's Weat Indies, vol. il. p. 515 .

Jsmalea was discovered by Columbus in 1494, and continued in possession of the Spaniards till 1655 , when it was wrested from them by the English. Although it had thus been for more than a century and a half under the power of Spain, such was the deadening influence of her colonisl system, that it did not, when it wan conquered, contain 1500 white inliabitants, and these were immersed in sloth and poverty. Of the many valuable articies which Jamalen soon after produced in such profusion, many were then altogether unknown ; and of those that were known, such a supply only was cuitivated as was required for the conamption of the inhabitants. "The Spanish settlers," asys Mr. Bryan Edwards, "poseessed none of the clegancies of life; nor were they scqualnted even with many of these gratifications which, in civil'red states, are consldered necessary to ita comfort and convonlence. They ware neither polished by sociel intercourso nor improved by education; but passed their days in gloomy languor, enfeebled by sloth and depressed by poverty. They bad been for many years in a atate of progresalve degeneracy, and would jrobably in a short time have explated the gulit of their ancestors by falling vietims thoniselves to the vengenace of their siaves."-IIistory of the Wrest Indies, voi. 1. p. 207, 8vo od.

For a consitcrabis number of years after Engisnd ohtained possession of Jamalea, the cillef exports were cocos, hidea, and indigo. Even so late as 1772 , the exports of augsr amounted to only 11,000 hogsheads. In 1774 they had inereased to 78,000 hogehcade of
sugar, 26,000 pnnchers ' of rum, and 6547 baga of coffoe. The American rar was very injurions to the West India settlementa; and thay may, indeed, be said to be still anffering from its effects, as the independence of Amerien led to the enactment of those restrictions to the importation of food, lumber, etc., that were so very hurtful to the planters. In 1780 Jamaics was visited by a most destructive hurricane, the devastation occasioned by which prodnced a dreadful fsmine; and other bnrricanes followed in the immediately succeeding years. But in 1787 a new era of improvement began. The devastation of St. Domingo by tho negro insurrection which broke ont in 1792, tirst diminished, and in a fow years almost entirely annihilated, the annual supply of 115,000 hogsheiads of sugar, which Franco and tho Continent had proviously been accustomed to rcceive from that island. This diminution of supply, by causing a greatly increased demend for, ant a con aquent rise in the price of, sugar raised in the other isiands, occasioned an extraordinary extension of cultivation. So powerful in this respect was Its influence, that Jamalen, which at an average of the slx years preceding 1790 hed produced only 83,000 hogsheads, exported in 1801 and 1802 upward of 280,300 hogsheads, or 143,000 a year !

The same rise of price, which operated so powerfully in Jamsica, occasionod a similar though less rapid extension of cultivetion in other islands, and In Cuba, Porto Rico, and the forcign colonies generally. The vacuun eaused by tho cessation of tho supplies from St. Domingo being thus mure than filied up, a reaction commenced. The prico of sagar rapilly deelined; and, notwithstanding a forced market was for $n$ while opened to It, by anbstituting it for malt in the distillery, priees did not attain to their former elevation. On tho opening of the Continental ports, in 1813 and 1814, they, indeed, rose, for a short time, to an extraragant helght; but they very soon fell, favolving in ruin many of the speculators upon an adrance. Prices, however, continued at a pretty high level down to 1818; hut they sustained a niaterial fali in the course of the following year, and were comparatively low from that period down to 1835, when tho extrsordluary falling off In tho supplies of sugar consequent to the measures connected with the emancipation of the slaves again occasioned a considerable riso of price. But, as already seen, this high price was ontirely factitious, being wholly caused by our excluding forelgn sugar from our market. Now that the augar of Brazil, Cuha, and Java is admitted on paying reasonable duties, prices are comparatively low. And from the extraordinary facility with which sugar may be ralsed in the comutries referred to and clsewhore, we have no ldea, provided they adopt no rash or lli-advised measure in relation to sis ves, thes its prico in thelr markets would be likely to sustain any material or permanent inerease, even though the demand for it were doubied or more. The imports to England of augar from her West Iudian colonies, which amounted to $4,103,800 \mathrm{cwts}$. In 1831 , sunk, In 1841, to 2,151,217 cwta.! In 1852 they amounted to $3,408,627$ cwts.

The devastation of St. Demingo gave the asme powerful stlmulus to the growth of coffoe in the other West Indian colonies that it did to tho growth of sugar; and owing to tho extraordinary icrease in the domand for coftee In England and other European countries, the supply went on increasing tIII it was checked hy the liffuence of the messures relating to slavery. In 1752, for exsmple, only 60,000 ibs. of coffee were exported from Jamaica; lin 1775 the export announted to $\mathbf{4 1 0 , 0 0 0} \mathrm{lbs}$; in 1707 it had incressed to $\mathbf{7 , 0 3 1 , 6 3 1}$ ibs, and in 1832, whien it had attained its moxinum, the exports to England oniy amounted to $19,405,033$ ibs. Such, however, and so rapid has been their subsequent decine, that In 1852 the exports to England from Jamsies smounted to only $3,780,700$ lbs. !

Wo have already seen that whon Jamaica wea iakon
from the Spaniards it only contaiaed 1500 white inhabitants. In 1678 the population almonated to 7768 whites, and 9504 siaves. It woutd have been well for the isiand had the rices continued to preserve this relation to each other; bot, unfortunateiy, the black population has increased more than five timea as rapidly as the white; the latter having only increased from 7768 to about 80,000 , while the former has increased from 9504 to about 310,000 , exclusive of persons of color. The real value of the exports to Jamaica amounts to about $£ 700,000$ a year, being about oae-third part of the exports to the West Indien colonies." It was formerly much more; but then a large portion of the articles sent to Jamsica, and some of the other coloniea, were oniy sent there as io an entrepôt; being subsequently exported to the Spanish main. During the ascendency of the Spanish dominion in Mexico and South America, this trade, which was then contrabend, was cerried on to a great extent. It is now much fallen off, and is principaliy carried on from St. Thomas and Honduras.
Barbadoes was the earliest English posscesion in the West Indies. It is the most easterly of the Caribbean islands; Brilgetown, the capital, being in long. $69^{\circ}$ $41^{\prime} \mathrm{W}$. Barbadoes is by far the best cultivated of ali the West Indian islands. It containe about 105,000 acres, having (in 1852) a popilation of about 13,000 whitee, 15,000 people of coior, and 110,000 blecks. Of isto years it has exported from 600,000 to $740,000 \mathrm{cwts}$. of sugar. Barbadoes had attained the acme of its prosperity in the latter part of the seventeenth century, when the white population is said to have amounted to abeut 50,000 , though this is probably en exaggeration. But it is only as compared with itself that it can be censidered as having fallen off; for, compared with the other West Indian ieiands, its auperiority is manifest. Jt raises nearly as much food as is adequate for its supply. Tite isiands next in importance are St. Vincent, Grenads, Trinidad, Antigua, etc. It is unnecessary to enter into any special detalis with respect to them, their population and trade being exhibited in the annoxed talices. During the late war Great Britain took from the Dutch the settlements of Demerare, Berbice, and Essequilo, In Guiaua, which were definitively ceded to them in 1814. Tite soll of these sottiements is natarsily very rich; and they have, in this respect, a decided advantage over most of the West Intlian islands. Their advance was for a whilie very great, but recently their progress has been checked, and their exports have declined most materialiy. This, however, is entirely in consequence of the want of labor; for in other reapects these colonies have every facility of production. Various achemes have been suggested for suppiying this want ; but none of them, uniess they involve the prineipie of compuisory service, will, we apprehend, be successtui. The rum of Demerara enjoys a high reputation. The hest samples of Berbice coffee are very auperior, and it used to be extensively cultivated both in that colony and in Demerare. In 1881 the exports amounted, from both colonies, to $8,576,744$ pounds ; but they have since declined to next to nothing, having ameunted in 1852 to only 84,890 pounds. Considerabis quantities of cotton were formerly exported from Guinna; but the Americans having superior facllities for its production, its cuiture has neariy censed. Cocoa, annotto, etc., aro produced, but not abundantly.

Exclusive of the above, the English possess the settiement of Balize, on the liay of IIondurss. This is of importance as affording a means of obtaining abundant suppilies of mahogany; but it is of more importnee as an entrepót for tise supply of Gustemsla and Central America witis English manufactured goods.

The exports from England to the West Indian colonien consist of coarse cottons, linons, cheeks, hats, and other articles of nogro clothing; Iron and atcel, wrought and unwrought; leather, including aaddlery and liarnesa ; glass; beer and ale; moap and candles ; atation-
ery; hardware and earthen-ware ; staves, hoops, coal, lime, paint, lead; Iriai provisions, herrings, and other sait fish; along with furniture, wine, beer, medicines, and indeed almost every article which a great manufactaring country can auppiy to one situated in a tropical climate, which has very few mechanics and hardly any manufactures. Since the opening of the ports on the Spanish Main to ships from England, the exports to the Weat Indies have decreased both in quantity and value; this decrease being, however, more than balanced by the increased shipments to Mexico, Co: umbin, etc. The declared or real value of the exports amounted, in 1852, to $£ 2,031,358$.

Money.- What used to be called West Indis currency was an imaginary money, and had a different value in different colonics. " The value it bore, as compared with sterling money, was supposed to represent the corresponding value of the coins in circulation in the different islands at the time the proportion was fixed: these coins being for the most part mutilated and otherwise worn and defaced, currency was in ali cases less valuahie than aterling. The following are the old values of $£ 100$ sterling, and of a dollar, in the currencies of the different islands:


But latterly these currencies have been in great measure superseded by the introduction of sterling money, current at the same rates 38 in Engiand, and of the Spanish doliar.

By an order in council of the 23d of March, 1825, British silver money was mede legal tender throughout ali British colonlal possessions at the same nominal value as in Eugland; and bills for the same are given on the treasury of London, of $£ 100$ each bill for $£ 103$ such silver money. By this order, also, the value of the Spanish dollar was fixed at 4s. 4d. British silver money throughout all the colonies where it is current; but this value was further reduced on the 21st of September, 1888 , to $\mathbf{4 s} .2 d$. The value of the doubloon was then also fixed st 64s.

Australian Colonies.-This gronp of colonies, though founded in a very distant part of the world, and at a comparatively receat epoch, will probably, at no very distant epoch, far surpass the others in magnitude and importance. The countries in which they are situeted, inciuding the great Austraiian continent, formerly called New Holiand, with Van Diemen's Land or Taemania, New Zealand, etc., are of vast extent, and dlffer in inany respects from each other. Hitherto, also, by far the larger portion of the continent is wholly unexplored; and even the islands are but very imperfectly known. Enough, however, has tranepired to show that this great division of the globe differs in some most lmportant respects from most or all countries with which we were previously acquainted; and that lt is, in fact, full of anomalies. The interior of the continent has not been sufficiently explored to enable any distinct opinion to be formed as to the height of the mountain chains; but it appears to be pretty well established that it has no great rivers, or at icsat none that reach the sea. Indeed, it seems, speaking generaliy, to be a law in this new world that rivers are largest near their source; and that they gradually diminish as they proceed, and most commonly dwindle into insiguilicance, or lose themselves in marshes, before they reach the occan. In consequence, pcrhaps, of this alngular constitution of its river system, it is found that in Austraila the best land is not at the mouths, but toward the sourees of the rivers. There are, no doubt, exceptions to this rule; hut it appears to hold in the grester number of instances. Generaily, elso, the extent of fine lsud appears to be comparatively limited; and in so far as the continental portion of the country has been ex-
plored, it appears to be mnch better adapted for pasturage than for tillage.

Gold Deposits.-The land, the pasturage, the sheep, the copper and other ordinary minerals, which are found is abundance in various parts of Australia, have all been rendered, for the present at least, of no lmportsnce compared with the gold deposits with which the continent is so largely endowed. These, which were discovered so late as 1851, are of the most extraordinary richuess. They exceed in productiveness not only the gold fielis of California, but every thing, indeed, of which any Idea could previously have been entertained. Australia has, in consequence, become an object of earnest and universal attention. An almost unparalleled amount of emlgration has boen directod to her shores. Her population and her trade are both iacreasing with gigantic strides; and her gold is influencing the wages, the pricos, and the industry of every civilized people.-See art. Adstnalia and Gold.

It were idle to indulge in speculations in regard to the period whea the exhaustlon of the Australian gold fields may be expected; there are no data on which to hazard even a conjecture on such a subject. But whether the supplies from them be destined to be of loag or ahort duration, they have already been, and no doubt will continue to be, of great advantage. Wa do not mean by this te say or insinuate that the good resulting from the influx of gold from Australia and California has been unaccompanied by any drawbacks. The gambling and dissipation to which it has given rise are obvious. But these, though consideralle, are but a triffing deduction from its many advantages; from the powerful stimulus it has given to industry and civilization, from the new chanaels it has opened to commerce, and from its greatly amellorating the condition of the lahoring classes in this and most other countries.

The northern portion of Australia, including, perhaps, about a third part of the entire continent, lies between the tropics; the other portion of the continent, with the adjacent islands of Van Dlemen's Land and New Zealand, belng in the south temperate zone. The climate of the different parts continent must, therefore, it is obvious, differ veld dely. Wo, however, know but ilttle of the climate of intertropical Australia, except that it is within the range of the Indian monsoon ; that the temperature along the const is rapIdly raised by a wind from the south, which has been supposed to atford a strong presumption of the existence of sandy deserts in the laterior; and that the air is so very moist that during the season of the monsoon iron implements are with the utmost difficulty preserved from ruating. It la commonly said that the cllmate of extra-tropical Australia, and especialiy of Now South Wales, assimilates closely to that of Southern Italy. But this statement must he taken with considerable limitation; for, 1st. The atmosphere is very decidedly denser; 2d. The extremes of temperaturo are Infinitely greater; 3d. The average heat in rather less ; and, 4 th. The temperature appears to decline more rapidly by increase of elevation. The grand defect in the cllmate of oxtra-tropical Australis appeare to consist in the periodical recurrence of wet and dry seasons. Sometimes hardly a single drop of rain falis for an entire year or more; and though, happily, dews aro in such seasons pecullariy abundant, they form no adoquate substitute for rain. During long-continued droughts crops of all kinds aro destroyed; and herbage, except in a faw favored spots, suffers severely. Hence, as already stated, all the eastern parts of extra-tropical Australla, and perhspa also the southern, would seem to be much better fitted for pasturage than for husbandry. The droughts are exceedingly injurious to the latter, and they would necessarily involve any large population that depended princlpaliy on the Indlgenous products of the soil in extreme privations. Certalnly, however, no country seema to be bettor fitted for graz.
ing, or rather for the growth of sheep and wool. A dry climate is especielly suitable to the latter; and though the pastures be far from luxuriant, thelr boundless extent compensates for every other defficlency. Sheep are not native to the country, a amall flock of tweaty-nine head having been introduced for the first time by the original English mettlers in 1788. For a while, however, their value was not appreciated; but the Importance of sheep-farming, and Ite suitableness to the country, having been demonstrated by John M'Arthur, Lsq. (to whom the colony is under the greateat obligations), It has since increased with unprecedented rapidity. In proof of this, It may be stated that winile the import of wool into Great Britain from Auatralia amounted, in 1822, to only 152,880 pounds, it had increased in 1825 to 411,600 pounds, in 1830 to 899,750 pounds, and in 1851 to the enormous amount of $41,810,137$ pounds. Van Dlemen's Land beiag less subject to droughts than New South Wales, husbandry is carried on in it to a greater extont, and with more advantage; but there elso sheep-farming is the principal, and perhaps the most advantageoua employment. -See Van Diemen's Land. New Zealand, which has only beea resorted to by regulaz colonists siace 1840, is better fitted for agriculture than either Australia or Ven Diemen's Land, and its cllmate is more like that of England. The ground in it is, however, rather difficult to clear; the natives are also much moro formidable, sad it is not so suitable for sheep-farming.
Population.-The European population of the Anstralian colonies is believed to have been, at the undermuationed dates, nearly as follows :

| Coloniea. | Yaara. | Popalation. |
| :---: | :---: | :---: |
| New Sonth Wales. | 1851 | 107,168 |
| Vietoria, 31at Decenuber | 1852 | 200,000 |
| Van Diemen's Land ................ | 1850 | 70,000 |
| Bouth Australin...................... |  | 64,000 |
| Weatern Australia ................. | 1850 | 7,000 |
| Now Zealand. | 1850 | 22,400 |
| Tofal.... | $\ldots$ | 660,568 |

Expenditure by Great Britain on the Australian Cob onies.--Englend does not appear to spend any money in Victorla : the last parliamentary retart on colonial expenditure does not mention thet oolony. The following table exhibits the amounts expended on four colonies in the yeara 1853-'54, and the purposes to which they wero spplied:

| Colonies. | Military Chargen. | $\begin{gathered} \text { civin } \\ \text { chargen } \end{gathered}$ | $\begin{gathered} \text { Naval } \\ \text { Chargan. } \end{gathered}$ | Total. |
| :---: | :---: | :---: | :---: | :---: |
| South Australia | \&10,248 | 42 |  | 210,250 |
| New South Walea | 61,198 | 10,096 | 83 | 71,313 |
| Van Dlemen's Land. | 65,110 | 209, 176 |  | 204,287 |
| West Australis. | 85,711 | 98,128 | . | 183,834 |
| Total. | 2162,262 | <817,837 | 253 | E4T0,684 |

These totals do not really represent $\mathbf{£ 4 7 9 , 6 8 5}$ spent by Great Britain on her Australian colonien: except South Australia, all are "penal settlemeats," or have been, and the large expenditure has mostly been incurred ir guarding, disciplii:ng, feeding, and clothing convicts. In fact, the Austrulian colonies cost her next to nothiag, being hut a small per cent. of what it would cost to keep convicts at home. Under the new constitution for the four free colonies, Weatern Australia has become a conviet sottiement by her own choice, and has the alvantage of a large expenditure in consecuuence, the followiag sums having been raserved out of the revenue annually for the purposes indicated. The civil list incluies the governor's salary, judicial salaries, and those of departmenta. The rotiring allowances are for oflicials liable to removal on political grounds.

| Colosien | $\begin{aligned} & \text { Civil } \\ & \text { Lima. } \end{aligned}$ | Reliring Allowancot. | Poblite. |
| :---: | :---: | :---: | :---: |
| Viotorin. | 200,500 | C4,010 | 2451, 000 |
| New South Wales | 20,050 | 6,000 | 28,009 |
| Van Diemon'a la | 13,800 | 2,176 | 15,000 |
| South Australta | 16,000 | 1,760 | - 3. |
| Tot | 206,860 | 418,841 | 298,040 |

E

[^4]0 to

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## 高

 웅 inch tra－ her tion，Trade，and Navigation．

|  | Popalation， 1850， of lat Coman． | Importa into the Uaited Kiagdom， 1845. <br> （Omeral Valuo．） | Declared Valae of＇British and Inah Produce and Manufactores esported from the Upited Kingdom， 1651. | Nomber and Tonnage of Vessels， 1845. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Enterad Ioward into the United Kingdom． |  | Cleared Oalward from the United Kingdom， |  |
| Canada Fast．．．．．．．．．．． | 900，000\％ | $\frac{C}{1}$ | $\frac{\mathcal{L}}{2,451,804}$ | 6hipu． | T093． | 8hipa， | Tose． |
| Canada Wert ．．．．．．．．．．．． | 952，004 | 1，450，500 | 2，451，684 | 1880 | 620，824 | 1871 | 569，200 |
| New Hrunawick ．．．．．．．．．．．．．．．． | 193，800 | 872，807 | 449，108 | 1020 | 381，913 | 788 | 279，639 |
| Nova Scotin．．．．．．．．．．．．．．．．．． Cave Breton | $276,117$ |  |  |  |  |  |  |
|  | $\left.\begin{array}{r} 610,111 \\ 62,034 \end{array}\right\}$ | 87，161 | $\left\{\begin{array}{r} 50,2 \\ 57,100 \end{array}\right.$ | 236 | B6，2C5 | 190 | 46，786 |
| Newfoundland ．．．．．． | 96，506 | 878，171 | 884，780 | 178 | 21，189 | 210 | 20，806 |
| Total Wex Iaplas． | 2，481，001 | 8，188，710 | 8，780，860 | 8015 | 1，089，281 | 2508 | 014，980 |
| Antigus ．．．．．．．．．．．．．．．．．．．．． | 97，757 | 873，808 | 99，708 | 62 | 16，106 | 50 | 18，980 |
| Barbadoea | 135，989 | 811，608 | 410，479 | －po | 21，261 | 88 | 22，840 |
| Donilalca | 22，200 | 94，742 | 83，585 | 12 | 8，027 | 10 | 2，888 |
| Greaada ．．．．．．．．．．．．．．．．．．．．．． | 82，671 | 120，082 | 45，168 | 10 | 4，189 | 60 | 10，027 |
| Jomalca ．．．．．．．．．．．．．．．．．．．． | 377，488 | 1，691，651 | 700,290 | 170 | 60，463 | 214 | 88，365 |
| Montserra | 7，658 | 17，188 | 178 | 2 | ${ }^{679}$ | 1 | 891 |
| Nevis．．．．．．．．．．．．．．．．．．．．．．． | 0，601 | 40，764 | 2，208 | 11 | 1，798 | 5 | 801 |
| St．Chriatopher ．．．．．．．．．．．．．．．．．．．．．．．． | $\left.\begin{array}{r}20,177 \\ 2,934\end{array}\right\}$ | 188，052 | 68，604 | 24 | 6，501 | 88 | 8，122 |
| 8t．＇Lucla． | 24，516 | 120，097 | 22，874 | 16 | 8，479 | 18 | 4，088 |
| 8t．Vincent．．．．．．．．．．．．．．．．．．．． | 80，128 | 256，404 | 78，201 | 20 | 8，011 | 24 | 6，788 |
| Tobago ．．．．．．．．．．．．．．．．．．．．．． | 14，978 | 108，018 | 16，820 | 17 | 4，518 | 18 | 4，150 |
| Tortols | 6，689 | 10，162 |  | 1 | 221 | 2 | 482 |
| Trinided | 68，600 | 689，401 | 275，166 | 00 | 22，892 | 110 | 25，644 |
| Bahamas | 27，519 | 65，745 | 88，088 | 89 | 6，629 | 20 | 2，506 |
| Bermudas | 11，002 | 29，871 | 32，436 | 2 | 218 | 28 | 16，288 |
| Britieh Gulann | 127，695 | 1，227，043 | 389，054 | 174 | 44，460 | 212 | 69，350 |
| Honduras．．．．．．．．．．．．．．．．．．． | 11，006 | 774，242 | 282，683 | 77 | 22，845 | 50 | 19，828 |
| Total | \％70，4：8 | 6，428，283 | 2，408，606 | 859 | 220，688 | 054 | 268,278 |
| Gibraltar | 12，182 | 86，015 | 481，280 | 82 | 18，221 | 208 | 86，258 |
| Malta and Gozo ．．．．．．．．．．．．．．．． | 116，804 | 168，068 | 801，448 | 71 | 11，550 | 1110 | 37，062 |
| Cape of Good Hope snl Natal ．．． | 293，279 | 770，547 | 752，398 | 175 | 47，460 | 110 | 27，180 |
| Sierra Laina ．．．．．．．．．．．．．．．．． | 44，472 | 79，146 | $\left\{\begin{array}{l}94,540 \\ 47\end{array}\right.$ | 62 | 12，29\％ | 60 | 16，887 |
| Gambin | 6,671 382,000 | 64，521 | （ $\begin{array}{r}47,197 \\ 107,658\end{array}$ | 44 | 6，961 | 34 | 5，407 |
| Ceylon ． | 1，027，849 | 1，826，890 | 107,608 176.414 | 44 81 | 6,961 11,718 | 84 | 5，407 |
| Muaritins．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1，192，523 | 1，003，039 | 232，065 | 07 | 27，100 | 71 | 21，418 |
| Naw south Waies． | 107，108 | 723，630 | 1，201，261 | ． | ．．．． | ． | ．．． |
| Vletoris ．．．．．．．．．．．．．．．．．．．．． | 200，000 |  | 604，403 | $\cdots$ | ．．．． | ． | ．$\cdot$ |
| Vas Dlemen＇e Laod | 70，000 | 189，241 | 420，022 |  |  |  |  |
| Western Anstralia． | 7，000 | 01 | 84，720 | 29 | 86，158 | 146 | 88，587 |
| South Australia | 64，000 | 60，798 | 875，035 |  |  | － |  |
| New Zealand． | 22，400 | 21，055 | 171，000 | 4 | 1，184 | 6 | 1，875 |
| Ascension ．．． | 660 |  | 2，841 |  |  | 1 | 189 |
| Pt．Ifelens．． | 6，490 | 22，30t | 23，248 | 0 | 2，101 | 14 | 2，724 |
| Hong Kong ．．．．．．．．．．．．．．．．．．． | 82，983 | ． | 682，890 | ．． | ．．．． | ． | ．．．． |
| Heligoland ．．．．．．．．．．．．．．．．．． | 2，215 | － | 288 | ． | $\ldots$ |  | ．．．． |
| Total | 6，275，646 | 4，460，005 | $5,058,069$ | 044 | 174，849 | 888 | 228，604 |
|  | 2，481，081 | 2，188，719 | 8，730，880 | 3016 | 1，089，221 |  |  |
| Totaia $\left\{\begin{array}{l}\text { West Iudian．．．．．．．．．．．}\end{array}\right.$ | $070,448$ | $0,428,288$ | 2，438，666 | 889 | 290，538 | $\begin{array}{r}174 \\ \hline 98\end{array}$ | 268，\％\％8 |
| （ Other coloules | 8，278，646 | 4，460，005 | 5，058，969 | 604 | 174，849 | ¢98 | 228， 504 |
| Generai Totals．．．．．．．．．．．．．． | 6，730，165 | 18，077，007 | 11，828，814 | 4518 | 1，484，669 | 4265 | 1，406，757 |

Account of tile total Expenditure incureed if tin Unitri Kingiom fon Colonies anil Militaby and Matitime Stations in 1849－＇50．


III．Oturr Colonies，Spamish Colonies．－Spain，of Megellan，is not at present possessed of a foot of whose colonial poseeselons oxtendad a few years ago ground in the whole American continent．Still，how－ from tha frontiers of the United States to the Strails $\left.\right|_{\text {ever，}}$ her colonlal posseasions are of great value and
importance. In the West Indies, sho is mistress of Cuba and Porto Rico-the former by far tho largest and fineat of tho West Indian islands, and the lutter also a vary valuable possession. In tha East, Spain is mistress of the Philippina Isiands, which, were they in the hands of an enterprisling people, would speedily become of very great commercial importance.-See the articles Havana, Manilla, Ponto Rico.

Dutch Colonies.-Java is the principal Dutch colonisl possession, and it is one of which it is not easy to exaggerate the valua and importance,-See Batayla. In the East, the Dutch also possess the Moluccas, Bencooien, on the coast of Sumatra, Macassar, and the eastern cosst of Cclebes, Banda, etc. They have saveral forts on the Gold Coast in Africa; and in the West Indies they possess the islands of Curacoa and St. Eustatius, Saba, and part of St. Murtin; and on the continent of South America they are masters of Dutch Surinam, Curacoa and St. Eustatius are nuturaliy barren, but they have been both highly improved. From its being vory conveniently situated for maintalining a contraband traffic with tha Caraccas and other districts in South America, Curacoa was formerly a place of great trade, particuiarly during war. But aince the independence of South America, Cura¢oa has ceased in great measure to be an entreput; the goods destined for the continent being now for tha most part forwarded direct to tho place of their destination. That district of Surinam ceded to the British
in 1814, comprising the settlements of Demerara, Berbice, and Easequibo, formed tha most valuable portion of Surinam, or Dutch Guians. Tha district which still belongs to the Dutch lies to the south of Berbico. It contains about 88,000 square miles, and a population of about 65,000 . It is daily becoming of more value and importance. The exports of sugar may amount to about $25,000,000$ pouads, and those of coffee to about 4,000,000 pounds.
French Colonies.-Previously to the negro insurrec tion that broke out in 1792, St. Domingo was by far the most valuablo colony in the Weat Indies. But this disastrous event, having first devastated theisiand, tarminated in the eatablishment of the independent black republic of Hayil.-See Pont au Prince. Having also sold Louiaiana to the Americans, and ceded the Mauritius to tha English, without making any new acquisition, the colonial dominions of Franco for Alglers can not be reckoned among them) are at this moment of very limited extent. They consist of Gusdeloupo and Martinique, and the smali islands of Ma-rie-Galanto and Descada, in the West Indies; Cayenne, in South America; Senegal and Goree, in Africa; the Isle de Bourbon, in the Eastarn Ocean; St. Marie, in Madagascar; and Pondicherry and Chandernagor, with a very amall aurrounding territory, in tha East Indics. The annexed tabular statements show tha population, trade, etc., of tho French colonics.

Account of thf Population of the Fannol Colonies, and of tieif Commence witi Francti in 1830.

| Coloniea. | Population, 1887. |  |  | Rani Valur, 1636. |  | gbipe noternd. |  | bhipeclatarad out |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Free. | Slave. | Total. | Imports fato Fract. | Eiporiaram | shipa. | Tonpagy. | Shipa. | Tonnaga. |
| Salnt Pterre and Miguelon. . . | $\begin{aligned} & \text { Number. } \\ & 1,411 \mathrm{j} \end{aligned}$ | Number. | $\begin{aligned} & \text { Nomber. } \\ & 1,400 \end{aligned}$ | $\begin{aligned} & \text { Frspen. } \\ & 2,424,244 \end{aligned}$ | $\begin{aligned} & \text { Fradea. } \\ & 760,330 \end{aligned}$ | $\begin{aligned} & \mathrm{NoO} \\ & 144 \end{aligned}$ | $\begin{aligned} & \text { Tons, } \\ & 23,020 \end{aligned}$ | $\begin{aligned} & \text { No. } \\ & 143 \end{aligned}$ | $\begin{aligned} & \text { Tona. } \\ & 20,305 \end{aligned}$ |
| Martinique...... ............ | 40,043 | 77,459 | 117,502 | 16,420,433 | 17,062,292 | 358 | 48,861 | 363 | 122,214 |
| Guadeloupe . . . . . . . . . . . . . . . | 22,059 | 95,609 | 127,668 | 24,575,141 | 22,119,133 | 518 | 70,027 | 643 | 09,650 |
| Cayenne . . . . . . . . . . . . . . . . . | 6,0466 | 16,592 | 21,048 | 3,121,752 | 2,092,100 | 42 | 6,702 | 45 | 7,050 |
| Hourbon. . . . . . . . . . . . . . . . . . . | 36,803 | 69,206 | 106,009 | 10,743,859 | 0,804,040 | 150 | 43,830 | 149 | 43,483 |
| Senegai . . . . . . . . . . . . . . . . . . . | 18,040 | .... | $18,040$ | 3,374,724 | 5,466,924 | 36 | 4,701 | 62 | 0,903 |
| French factories in India (18\%5) | 167,730 | . . . | (1) Jan.;1806) <br> $167, \% 36$ | 4,323,023 | 441,826 | 76 | 11,098 | 84 | 16,592 |
| Totals . . . . . . . . . . . | 801,187 | 258,960 | 560,013 | 70,986,221 | 54,345,121 | 1330 | 209,325 | 1369 | 290,163 |



| Conomies and Entablimhmonts. | $\begin{gathered} \text { Hograrr } \\ \text { of and } \\ \text { Qualluee. } \end{gathered}$ | Cofot. | Cocon. | Cotion. | $\begin{aligned} & \text { Clovent } \\ & \text { spide } \\ & \text { spices. } \end{aligned}$ | Anmotio. | Tobacco. | Oum. | Wax. | Ekina. | Wool. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Martalque | KUog. | $\begin{array}{ll} \hline \mathrm{KLlog}_{1} \\ 002,807 \\ \hline \end{array}$ | $\left\|\begin{array}{l\|} \mathrm{K} 1 \log , \\ 125,016 \end{array}\right\|$ | $\begin{aligned} & \mathrm{K}_{12} \mathrm{log}_{i} \\ & 18,760 \end{aligned}$ |  | Ktlog. |  | Kllog. | Klog. | KLog. | Nilog. |
| Guadcloupe | 34,836,722 | 471,086 | 10,609 | 68,104 | 239 |  | 84,04i | .... | .... | .... | . |
| Bourbon... | 23,484,118 | 928,200 | 10,000 |  | 103,509 |  | 82,000 |  | .... | .... | $\ldots$ |
| Cayemme. $\qquad$ <br> Senegel | 2,422,706 | $\begin{array}{r} 42,000 \\ 1,422 \end{array}$ |  | 280,600 | 107,080 | 313,000 | .. |  | 4,134 | 227,728 |  |
| Senega...................... <br> Factoriea in India (1845). |  | $\begin{array}{r} 1,422 \\ 52,084 \end{array}$ | 1,447 | 0,720 |  |  |  | 1,701,510 | 6,134 | $\left\{\begin{array}{c} 227,728 \\ \text { Cent. } 890 \\ \text { Paq. } 38 \end{array}\right\}$ | 40,5008 13,030 |
| Totais.......... | 34,803,214 | 2,188,108 | 172,768 | 353,610 | $300,8 t 0$ | 313,040 | 116,047 | $1,791,610$ | 45,134 | 217,729 <br> Cent. 296 <br> Paq. 88 | 54, 4 ¢ |

But it would appear from the foilowing account of the exports from Martinlgue and Guadeloupe, in 1851, that the emancipation of the slaves has had much tho same influence over production in the French colonics that it has had in the Britieh colonles, without being, wo believe, in any degree more ad vantageous to tho blacks.
Accoent of tife Exponta of Native Proncee ftom Martiniqua ant Ghabeloupe in $186 t$.

Mantinique.


Danish Colomies.-In the Weat Indies, these consist of the islanda of St. Croix, St. Themas, and St. John. St. Croix contains about 100 square miles, and has about 24,000 inhabitants. The soil is fertilo, and it is well cuitivated. The principai productions are sugar, rum, and coffec, the exports of sugar having fornerly amounted to about $25,000,000$ pounds a year. Prolably, however, they have been diminished in consequence of tho cmancipation of tha slaves in 1848. St. Thomas, which has about 14,000 ininabitnnts, has iong heen, and stili continues to be, one of the principal emproriums in the Weet Iadies. It owes this distinction partly to its convenient situation, partly to its spacious and safe harbor at St. Thomas, on the south side of the island, and partly and principally to the modoration of the import duties, which vary from 1 to $1 f$ per cent. St. Thomas has in consequence become, as It were, a depot for the supply of the neighboring istands, goods being sent to it to be warchoused till opportunity oicres for conveying tiem to their final destinstion. The great articies of importation are, manufactured goods, principally from England, but partly
also frt lumber Danes and Se 1845, to Swea the 8 m dies. is very any sor ulation Selec ing can call it, which t out any the ci.po view, fa sboundi with lan He fortl bellishet sn admi nine cas required No wont nization meat; a tenght proved t cd. Bo as ons of doned by country
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also from other countries of Europe, with proviaions, lumber, ete., from the United States. In Indie the Danes formerly poasessed Tranquebar, near Madras; and Seranipoor, near Calcutta; but these they sold, in 1845, to the Esat India Company.
Swediah Colonies.-The Swades possess one colonythe amall laland of St. Bartholomew, in the West Indies. It is only about 25 square miles in extent, but is very fertlle. It has no springs, nor freah water of any sort, except such as is supplied by the rain. Populstion between 8000 and 9000 .
Stlection of Sites for Colonial Establishments.-Nothing ean be more unwise than the plan, if so we may cali it, hitherto followed in the selection of places at wiich to found colonies. The captain of a ship, withont any knowledge whatever of the nature of soils or the capacities of a country in an agricultural point of view, fails in after a loag cruise with a river or bay, sbounding with fish and fresh water, and surrounded with land that looks fertilo and is coverod with herbage. He forthwith reports all these circumstancea, duly embeliished, and atrongly recommending the situation as an sdmirahle ono at which to found a colony; and, in nine cases out of ten, this is all tine information that is required in taking a step of auch infinito importanco. No wondor, therefore, that many fino schemea of colonization should hava ended only in lase and disappointment; and that situations which the volonists wero taught to look upon as a apecies of paradise have proved to bo any thing but what they were represented. Botany Bay, though described by Captain Cook as one of the fincst places in the world, had to be abandoned by tite colonists that wero sent ont to $i t$, as the country round it, instead of being favorablo for cultivation, is a mero sandy swamp. Is it possible to suppose, had the proper inquiries been entered into, that sny attempt would havo been made to establish a colony in so pestilential a climate as that of Sierra Leone? The colony on Swan River, Australia, may be addueed gs another instanco of misplaced or premature contidence in the reports of those who wero really without the means of forming a correct estimate of the various circemstances necessary to be attended to in forming a cojony. We therefore hope that an end may be put to this system-s system which is in no common degreo injurious to the public interests, and is highly eriminal toward those who embark as colonists. The founding of a colony should be looked upon in its true point of view-as a great national enterprise. It is not an adventure to be intrusted to presumptuous ignorance, but should bo maturely woighed, and every circumstance connceted with it carefully investigated. Ahovo sil, the situation in which it is proposed to found tho colony should bo minutely surveyed; and its climate, soii, and capacities of production deliborately inquired into by competent persons employed for tho purpose. Were this tone, government and the puthlic would have the best attainsblo grounds upon which to proceed; aud neither party would have much reason to fear those disappointnents which have litherto so often followed the exaggerated representations of those to whom the important sud difficult task of selecting situations for colonies lass been delegated.
Columbia or Oregon River, In Washington and Oregon territories, and British possessions. Its northern branch takes its rise in tho Rocky Mountains, in lat. $50^{\circ} \mathrm{N}$., long. $116^{\circ} \mathrm{W}$, from thence it pursues $n$ northern course to nenr M'Gillivary's Pass of the llocky Hountains. At tiso boat encampment the river is 3600 feet above the level of the sea (here it receives two smali trihutaries-tine Canoe Iliver, nui that from the ('ommittee's Punch Bowl); from thence it turns sauth, faving somo obstructions to canoc navigation, and reeviving many tritutnries in its course to Colvilic, nmong which are the Kootania, or Flat Bow, and tho Fint Head, or Ciarke Iliver, from the east, and that of Coivilite from the west. I'his great river is bounded, tinus
far on its courso, by a range of high mountains, well wooded, sud in some places expands into $s$ line of lakea befors It reaches Colville, whero it is 2040 feet ahove the level of the sea, having a fall of 550 feet in 220 miles. To the soath of this it tends to the westward, receiving the Spokane River from the esst (which is not navigable), and takes its rise from the Cocur d'Alene. Thence It pursues a westerly coarse for about 60 miles, receiving several smaller streams, and at its bead to the south it is joined by the Ohanagun, a river that has its source in a line of lakes, affording canoe and boat navigation for a considerable extent to the northward. The Columbia thence passes to the southward until it reaches Wallawalla, in the latitude of $45^{\circ}$, a diatance of 160 miles, receiving the Piscous, Y'Aksma, and Foint de Boise, or Entyatecoom, from the west, which tako their riso in the Cascade range, and also its great southeastern branch, the Saptin, or Lewis; which has its source in the Wind River Mountains, and lings a large quantity of water to increase the volume of the main stream. The Lewis is not navigsble, even for canoes, except in resches. The rapids nre extensive, and of frequent occurrence. It generaliy passes between the Rocky Mountain spurs snd the Blue Mountains. It receives the Kooskooske, Salmon, and several other rivers from the east and west-the former from tho Rocky Mountains, the latter from the Blue Mountains-and, wero it narigable, would much facilitate the intercourso with this part of the country. Its length, to its junction with the Columbia, is 520 miles. The Columbla below this point forms the hoandary between Oregon and Washington territories to the Pscific. The river at Wulle walla is $\mathbf{1 2 8 6}$ feet above the level of the sea, ant about 3500 fect wide; it now takes its last turn to the westward, receiving the Umatilla, Quisnel's, John Day's and De Chute rivers from the south, and Cnthlatate's from the north, pursuing its rapid course of 80 miles, previous to passing tirough tine range of Cascade Mountains, in a series of falls and rapids that obstruct its flow, and form insurmountable barricrs to the passage of hoats by water during the fioots. These difficulties, however, are overcome by portages around the falls. The waters hero descend 40 feet in the distance of two miles. From thenen there is still-water navigation for 40 miles, when its course is ngain obstructed by rapids. At the Dalies the river is compressed into a narrow channel 300 feet wido and half a miio long, and flows between high walls of basalt, and the water falls 50 fect in the distance of two miles. Tience to the ocean, 120 miles, it is navignble for vessels of 12 feet draft of water nt tho lowest atato of the river, though obstructed by many sand bars. In this part it receives the Willamette from the south, and the Cowelitz from the north. The former is navigable for small vessels 20 miles, to the mouth of the Klaekamus, three miles below its falls; the latter can not be ealled navigable, except for n small part of the ycar, during the floods, and then only for canoes and larges. The width of the Columbin, within 20 miles of its mouth, is much increased, and it joins the ocean hetween Cape Disnppointment nud Point Adams, forming a sand-spit from each, by deposit, and causing a dangerous bar, whiel greatly impedes its navigation and entrance. The influmeo of the tides is felt 80 rilles ahovo its entranco into tho Paciflc. Its entire course is nbout 750 miles. During the year 1850,160 vessels entered and departed from the ports of Columbia River. Vessels of a draft of $17 \frac{1}{2}$ feet inve been safely taken over the south bar, and it is supposed that vessels drawing over 20 fect can euter safely. This noblo river was discovered by Captain Gray, of Boston, In the ycar 1792, in the ship Columbin, and named fron the ship. It was first explored from lits sources to the sea in 180t-'5, by Messrs. Lewis nud Cinrke, by orier of the goverument of the United States. By the Oregon trenty its navigation is open to Ilritish vessels. The Coast Survey are now preparing a chart of this river.

Columba, the modern capital of Ceylon, on the southwest coast of the Lsland; lat. $6^{\circ} 56^{\prime} 6^{\prime \prime}$ N., long. $79^{\circ} 49^{\circ} 48^{\prime \prime} \mathrm{E}$. It is defended by a very strong fort, nearly surrounded by the sea, In which in a ilgbt-house 97 feet high. Population of the town and fort, in 1831, 31,519. The housea, generally only one story bigh, are of elone, clay, and lime; and the town has more of a Furopean appearance than any other in India. The inhabitants are principally Cingalese. The temperature is remarkable for its equality; and though very bumid, the climate may, on the whoie, be eateemed salubrious and temperate. There la no harbor at Columbo for lar ${ }_{\text {b }}$ desselo, but only an opon roadstead. A projecting rock, ou which two batteries are erected, affords shalter to a small semlcircular bay on the north side of the fort, having a wooden quay to facilitate the loading and unloading of boats. The depth of water is not sufficient to allow sloops or large dhonics to come alongside the quay; those exceediag 100 tone burden lying at about a cable's length from it. A bar of aand, on which the wnter is not more than 12 feet deep, extends from the projecting rock across thls bay. The chanuel where it may be crossed by the larger class of ships is liable to shift; and it is only in the fine weath$r$ of the aafe season that they venturo within the bar. The outer road allords secure anchorage for half the year, from the beginning of October to the end of March, during the prevaience of the northeast monsoon, when the wind blows off the land; during the other, or southwest monsoon, when the winil blows from the sea on ahore, the road is very far from safe; and the ships that frequent it are sometimes obliged to slip their eables and atand ou' - sea.-Mninuns's Oriental Commerce; Hamiltc Gazetteer, eto.

As respects Its harbor, Columbo is, therefore, very inferlor to Trinconalee, the harbor of which is aeces aible at all times, and la one of the best in India; but the country In the vicinity of Columbo is more fertils; and it bas the command of an Interual navigstion, stretching in a lateral direction along the coast, from Putlam, to the north of the city, to Caltura on the south, a diatance of about 100 miles, partly obtainod by rivers, and parly by canals. Many flat-bottomed boats are employed in thia navlgation, the families dependent on which reside mostly on board. Nearly all the foreign trade of Ceylon ls carried on from Columbo and it has also a large share of the coasting traffic,
Moneya.-The rix doilar =1a. $6 d . ;$ but accounts are kept in pounds, shillings, and pence, na in England.

The Bank of Ctylon, established in 1840, has its head office iu London, its principal office in the isiand leing in Columbo. It transacts all sorts of banking business, romitting money to and from tho island, grsoting cash credits on the Scoteh system, discounting bills, etc.

Weights, sleasures, etc.-The weights are divided into ounces, pounds, etc., and are the sam? as in Great Britain. The candy or bahar $=500 \mathrm{lbs}$, avoirdupois, or 461 lbs . Dutch Troy Weight. The principal dry measures are aeers or parrahs. The former is a perfect cylinder, of the depth and diameter under-mentioned:
$\qquad$ 4.35 fichos.

The parrali is a perfect cube, its internal dimensions being in every way $11 \cdot 57$ in. .es.
The liquid measure consists of gallons, and their multiples and submultiples. 150 gallons $=1$ leagucr or legger.
The bale of cinnamon consiats of $92 \frac{1}{2}$ lbe. very nearly.

Account of the Qeantities and Valueg of the frincipal. Abticleg phoneceir in anj exported fiom Cexlon detino 1851.

| Articlen | Quanliuma. | Valuea. | Aruclen. | पuantilues. | Valuen. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Arrack . . . . . . . galit. | 109,789 and 1 keg |  | Kum . . . . . . . . . . . . galle, | 9,844 | $\mathcal{E} \cos +10 \begin{array}{cc} 8 \\ 10 & 0 \\ 0 \end{array}$ |
| Areca nuts. . . . . cwh. | 78,030 025 | 54,806 411 | sngar . . . . . . . . . . . . . ${ }_{\text {cw }}$ | 1.703 | 1,645 40 |
| Clanamon . . . . . pounds. | 608,401 | 614,849820 | (- | 34.740 214 |  |
| Coeomnuts ..... No. | 4,637,814 4 | 0,761 4 ¢ 1 | Wood . . . . . . . . . . . . 3 pes. | 809,658 | $\} \begin{array}{llll}16,995 & 4 & 4\end{array}$ |
| Cocosaut ell . . . galis. | 443,694, and 22 jars | 31, 41468 | (bdls, | Gid |  |
| Coffee . . . . . . . . cw b. | 949,467 010 | W $28,15614 \quad 9$ | All other goods | . ... | 48,083 4 ? |
| Colr rope...... - | 37,512 012 | 1,285 41 | Imports re-exported. \{ goods, | ... | 139,027 1011 |
| Copperah...... - | 27,020 10 | 0,078 06 | Lix. the warcliouso . . specte. | .... | 727,31110 - |
| 110rns . . . . . | 2,620 3 6 |  | Toinl. . . . . . . . . . |  | ¢1,806,577 01 |
| Plumbago ...... - Precious ntones, pack. | 25,582317 | $\begin{array}{lll} 5,609 & 2 & 3 \\ 1,205 & 1 & 0 \end{array}$ | Tohal............. | -••• | 21,000,617 |

Accolnt of the Quantitier of Coffre, Cinnamon, Cocoa-
 ed fros Chylon dubino tie following Yeabs, enilino tile btis Januaby

| Yasre. | Coffer, | Clinnamon. | Cocon-nat Oll | Coir. |
| :---: | :---: | :---: | :---: | :---: |
|  | CwL | Pounds | Giellons. | Cwl. |
| 1840 | 41,813 |  | 357, 043 | 23,195 |
| 1841 | 68,200 | 389,1737 | 475,742 | 24, 4.40 |
| 1812 | 80, 084 | 317.9194 | 321,966 | 21,648 |
| 1843 | 119,806 | 121,145 | 475,967 | 20,130 |
| 1844 | 94,847 | 692,704 | 720,206 | 22,187 |
| 1945 | 133,057 | 1,007,841 | 418,301 | 28,977 |
| 1644 | 178,603 | 408,211 | 282,180 | 10,640 |
| 1847 | 173,892 | 401,6:0 | 128, 1881 | 23,197 |
| 1843 | 203,221 | 44,3691 | 197,951 | 23,520 |
| 1849 | 280,010 | 491,487\% | 811,520 | 25,199 |
| 1851 | 373,5.13 | 798.781 | 573,279 | 29,422 |
| 1851 | 278.478 | 644,857 | 407,060 | 81,890 |
| 1852 | 349,957 | 508,491 | 443,6\%0 | 37.512 |


| Poar Dees-Comemo. |  |
| :---: | :---: |
|  | Eatry Inward, with eargo, ton. " tu baliast. tu baliast...... |
|  |  |
|  | Clearance outward, |
|  | Aud in ne case to exceed. |
|  |  |

Coffee Export. W' aro enabled ly the courtesy of the Coliector of Customs to afford the total exports of coflee for the year ending October, 10th, 1854, including shipments at Galle. The exact tigures are: plantation, 303,008 ; ordinary, 130,177 ; total, $434,055 \mathrm{cwt}$., which is an increase of $85,12 \mathrm{xwt}$. slice $185 \%$.-C' o lumbo Observer, Octuber 28th, 1854.

Abticlea exported from Colexmo and Galle Chamber of Commerce, Columbo, April 11, 1\$is.

| Articlen. | From Oct. 11,1852, to Apri! $10,1853$. | Frum Oc1. 11, 1853, 10 Apfl1 10, 1854. | Fiom Oct. 11,1554, 10 April $10,1855$. |
| :---: | :---: | :---: | :---: |
| Coffee: |  |  |  |
| I'Iantation . cwt. | 181,447 | 169,823 | 165,806 |
| Nallvo..... cwl. | 74,244 | 04,161 | 76,911 |
| Total | 200,791 | 263,457 | 241,60\% |
| Cinnamon ... prounds. | 173,583 | 836,087 | 487, 860 |
| Cocoanut bil. - galions. | 606,477 | 782,218 | 883, 1360 |
| 'lumbsgo.... ewt. | 7,805 | 14,29t | 1,843 |
| Coir: liope... - | 8,249 | 2,752 | 5,168 |
| Junk .. - | 307 | 204 | 1,378 |
| Yarn .. - | 15,289 | 14,485 | 15,8:5 |
| Fibre.. - | 1,837 | 3,8:8 | 3,272 |
| Ebony . . . . . . Ewt. | 0,535 | 4,790 | $3,5 \times 2$ |
| Deer homs . . . cwt. | 1,182 | 1,118 | 045 |
| Arrack. . . . . . , grilons. | 896 | b10 | .... |

Value of Imports and Fixports, Ceylon, Fuly 24th, 1855. -The value of the imports during the liast quarter was $\mathfrak{L} 2,597,325$, nud that of tho exports $\mathcal{£ 2 , 2 4 5 , 2 8 8 \text { . }}$

Foreign Ships in Coasting Trade.-1ly order of Couneil, Nov. 21st, 1855, goode and passengers may be conveyed from one part of tho island of Ceylion to another part thereof in other than British ships.-See Cenion.
Columbo-root (Du. Columbo wortel; Fr, Racine de Colombo; Gorn. Columbo-vurzel; It. Radics di CoLumbo; Port. Raiz di Colum,n; Sp. Ruiz di Columbo; Muzamb. Kalumb), the roet of the plant of that name. It is a staple export of the l'ortuguese from Nozam-
bique.
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his fathe followed wero of receivod having into naut age in $\mathbf{w}$ being enf Genoa in adrentur Intrusted supposed, ous, and medans a enir of his tion and nandu rel Portugnl laden fror served, an grappled, sea, seized thls mean the shore, thereafter idence in $t$ Columb most emin the encour attracted a was in the grave, cou erate and discourso, which, thot the and ent lipa, duugl Italian cav navigator, and of Port the journal hearing se lumbus was tuknown voyage tu 1 to trade wit tlements in Portuguese By the exp agee, Colum gators in E

## llis emin

 that "he di at the equat hourf, of fift and sixty in the glubo of of T'yre, thas cients, extes sads, to thebique. It is not cultivated, but grows naturally in great ahundance. It is imported in c.rcular pieces from $\frac{1}{1}$ an inch to 3 inches in dlameter, gencrally from $\ddagger$ to ${ }^{4}$ of an inch thick; the bark is wrinkled and thick, of a brownish color without, and a brightish yellow within; the pith is spongy, yellowish, and allghtly stripe 1: when fresh, its smell is rather aromatic; it is disagreeably bitter, and slightly pungeat to the taste, somewhat resembling mustard that has been too long kept. Choose the largest pieces, fresh, and of a good color, as fres from worms as poasible, rejecting that which is small and broken. The freight is calculated at 16 ewt . to a ton.-Milbtan's Oriental Commerce.

Columbus, Christopher, the celchrated navigator and discoverer of the Western World, was born in Genoa about the year 1446. Although scveral Illustrious famillea have contended for his alliance to tham, hia father Domenico, and his ancestors, appear to liave followed tho trado of wool-combers or carders, and were of humble, though repntablo origin. Columbus received his education at the university of Padua, and, having evinced an early passion for the sea, entered lato nautical life at the age of fourtaen. The first voyage in which we havo any authentic accounts of his being engaged was a warlike expedition fittod out at Genea in 1469, when, assoclated with hardy and dariag adventurers, he acquired so much distinction as to be intrusted with a separato command. After this, it is supposed, he was eniployed in various commerclal, plous, and predatory expeditions against the Mohamsmedsus and Venctians, in company with a famous corsair of his own name and family, and acquired reputation and experjence in his profession. Ilis son Fernandu rolates that, in an engagement off the coast of Portugal with four Venctian galleys, returning riclily laden from lilanders, the vessel on board which he served, and one of the Venetian ships to which it was grappled, took fire. Columbus threw hiniself into the sea, seized an oar which was floating near him, and by this means, and his dexterity in swimming, reached the shore, although two leagues distant. Proceeding thereafter to Lisbon, he was induced to tako up lise residenco in that capital.

Columbus lecame acquanted in Lisbon with the most eninent men in scienco and maritimo art, whom the encouragement of Prince IIenry of Portugal hud attracted around him. At this period (anno 1470) he was in the vigor of manhood, of engaging appcarance, grave, courtcous, and affable in his deportment, moderate and slmple in his diet and apparel, eloquent in discourso, possessing high magnanimity, and a temper which, though irritable, was under tho control of a gentie and enthusiastic piety. Here he married Dona Felipa, danghter of Bartolomeo Monis de Palestrello, an ltalian cavalier lately deceased, and a distinguished vavigator, who had discovered and colonized the island of Porto Santo. IInving obtained posgession of the journals and charts of this sea captain, und also hearing accounts of his voyages from his widow, Columbus was seized with an irresistible desire of visiting unknown reglons. In order to indulge it, he made a voyage to Madeira, and continued during several yeas to trade with that island, tho Cansries, Azores, the settlements in Guinen, and the other places which the Portuguese had discovered on the continent of Africa. By the experience acquired in such a number of royages, Columhus became one of the most skillful navigators in liverope.

Ilis eminent hographer, Washington Irving, rolates thit "he divided the ciremimferenco from east to west at the equator, according to I'tolemy, into twenty-four hours, of fifteen degrees ench, making three hundred and sixty degrees. Of these he imsgined, comparing the globe of l'tolemy with the carller map of Marinus of Tyre, than fifteen hours had heen known to the ancients, extending from the Canary or Fortunate Islands, to the city of Thina, in Asia, the western and
eastern exiremitlea of the known world. The Portnguese had advanced the wastern frontler one hour more by the discovery of the Azores and Cape de Verd Islands; atill about eight hours, or one-third of the circumference of the earth, remained to be explored. This apace he imagined to be occupled in a great measura by the eastern regions of Aala, which might extend so far as to approach tho western shores of Europe and Africa. A navigator, therefore, by pursuing a direct courae from east to west, must arrive at the extremity of Asia, or diacover any intervening land. The great obstacle to be apprehended was from the tract of ocean that might intervene; but this could not be very wide, if the opinion of Alfraganus the Arablan were admitted, who, by diminishing the slze of the degreea, gave to the esrth a smaller circumferenco t"」an was aaslgned to it by other cosmographers-a theory to which Columbus seems gencrally to have given much faith. He was fortified aleo by the opinion of Aristotle, Seneca, Pliny, and Strabo, who considered the ocean as but of moderate bresdth, so that one might pass from Cadiz westward to the Indies in a few days."

On these grounds Columbus formed the vast and daring enterprise whlch was destined to hand down hly name to posterity with unfading honor; and, firmly eatablished in a belief of the successful result of hia projects, "ho never," says Irving, "spoke in cloubt or hesitation, but with as much certainty as it his eyes had beheld the promised land. A cleep religious sentiment also mingled with his thoughte, and gave them at times a tinge of superstition, but of a sublime and lofty kind. He looked upon himaclf as standing in the hand of lleaven, chosen from among men for the accomplishment of its high purpose; lie read, as he supposed, his contemplated discovery told in Holy Writ, and shadowed forth darkly in the prophecies. The ends of the earth were to be brought together, snd all nations, and tongues, and languages, united under the banners of the Redcentor." The disturbed atate of Portugal under Alphonso retarded the progress of discovery. The compass, though in general use, had not gained that reliance which induced mariners fearlessly to brave the dangers of the deep; and the project of a voyage through boundless wastes appeared extravagant and impracticable. Nothing claunted, however, by these disheartening symptonis, Columbuspursued his favorite schemes with ardor, and longed to put them into execution. So perilous nil adventure was not, however, to be attemptod without the patronage of some sovereign power; and John II., of lortugal, having at this juncture ascended the throne, and belng favorably Inclined to the cause of discovery, Columlus made his proposais, which were graciously received by the monarch, and referred to a leamed junto. The result of their conference therefore was, that they recommended the king to fit out a caravel privately, and attempt the proposed discovery by the designated route, which they ascertalned from charts and details craftily obtained from Columbus. John, in an evil hour, had the weskness to adopt this perfidious counsel. The caravel departed, but the pilots hat neither the genius nor fortitude of Columbus; their courago falled, and putting usck to the Cape the Verd Islands, they whed from thence to Lisbon, execrating tho project as extravagant and Irrational.

Columbus next carried hila proposition to Venice, where he wns equally unsuccessful. IIe also sent his brother IBartholomew to lay his plans lefore Henry VII. of Dingland, having in the mean time sailed himselt' fer $S_{j}$ )ain, where he arrived after having spent all his means. Columbus, in this state of alject poverty, set out for the Castilian court at Cordora in the spring of 1486 . The moment was unpropitlous for such a proposition, the Spanish sovereign treing at the time engaged in military proparations agulnst the Mcorish kings. At length, through the intercession of Cardinal Gonzaloz, he obtalned an interview, and submilted
his project to Ferdinand. Worn out with a serien of disappointments and delays, and supporting himself by making mape and oharts, Colombus, despairing of the Spanimh patrenage, began to look to other courta, in hopes of meeting more encouragement. He had already made proparations for thin purpose, and taken meacures for the disposal of hia children daring hla absence, when Juan Perez sollcited hlm to defer his jour. nay, making application at the aume time to Isabellathe result of which was a gracioun invilation of Columbus bmek to court, necompanied with the present of a amall num to equip hlm for tho journey. The monarcha were now pledged to attend to his proposale, and negotiations wore set on foot to carry them into execution. He proposed that a amall fleet should be fit ted out nader his command to attempt the discovery, and atipulating that he shonld be invested wlth the tities and privileges of admiral and viceroy of all the seais mad lands be ahould discover, with one-tenth of all gains, either by trade or commerce. He further offered to furnish man oighth of the cost, on condition of enjoying an eighth of the profts. Hia terms were, however, deemed inadmisulble ; the negotiation broke off, and Columbus, In indignation, mounting his mule, was already on the rosd to Cordova, with the intention of Immediately proceeding to France, when he was overtaken by a messenger from the queen, who had been prevailed upon ly the argaments of Quintanills and St. Angel, two of Columbus' patrona, to favor his undertakings. The negotiations were now completed, and the capitulations were signad by Ferdinand and Isabelle at Santa Fé, on the 17 th of April, 1492. The articles of agreement wars to the following effect: That Colambus ahould be constituted high admiral in all the seas, islands, and continonts he should diseover. with aimilar honors snd prerogatives to those eujoyed by the high adnuiral of Castile in his district. He was also nominated viceroy and governor genernl over all the asid lands and continents; and a tenth of all free prefits arising from the merchandise and productiona of the countries within his admiralty was granted to him forever. Columbus, or his lieutenant, was to be sole judge of all causen and disputes r rising out of traffic between those countries and Spein. He was further permitted to contribute an eighth part of the expence of expeditions to the countries ine expected to discover, and was entitled in return to an eighth part of the profits. A principal object of Columbus in this undertaking was the propagation of the Christian faith, to which he was a aealous devotee. Expeeting to arrive at the extrumity of Asia, he hoped to spresd the light of the Gospel among the barbarian nations of the East; and so confident were his anticipations that lettere were actually given him by the sovereigns for the Grand Khan of Turtary. Although the royal docuunents were signed both by Ferdinand and isabella, her separate crown of Castile defrayed all the expenso; and the queen in consequence reserved for hor subjects of that kinglom an exelusive right to ali the benefits which might accrue from the success of the expedition.

The arrangement being finaily completed, Columbus set sail on the 3 d of August, 1492, in three amail vessels, only one of which (commanded by himself) waa completely decked. The two othere were commanded by Martin Alouzo Pinzon and Vincente Xañez linzon. The expedition had sailed nearly 200 leagues to the westward, when Columbus porceived that the needle of the compass, when night met in, had varied; a circumatanco which filled the pilota with consternation. For this phenomenou he was obliged to invent p resson, whleh, though it did not catisfy himself, yet served to dispel their fears. As the squadron advanced, varlous indications of land, such as birds flying from the west, the water becoming less salt, and occasionally covered with weede, animuted and supported the courage of the crew ; but at length murmurs and feara began to prevail amoug them. They had sailod for eleven days,
wattod by a moet propitious breeza, over a tranquil sen, without lowering or uhifting a sail. The rude scamen began to be alarmed that no other winds blew but easterly, and that it would therefore be impossible for them ever to return home. A few light breezen from the weat allayed for a tlme their apprehensions, uad several amall alnging birds came in the morning and flew awny ut night. But the sailors lost all patience, and became so mutinous and refractory that it required the utmost address of Columbus to maintain his suthority. The appearances of land, though frequent, were in many lastances decelving; and at last the seamen broke forth into loud clamors, and lnalsted upon abandoning the voyage. Fortunately, however, on the following day the manifestations of land were such as no longer to admit of doubt. In the evenlag Colus. bus perceived a light glimmering at a distance, and the next morniog land was clearly seen about two leagues distant. The suilors now burst forth into the most extravagant transporta. They threw themselres at the feet of Columbus, implored his pardon, and prononnced him to be a person inspired by Heaven with moro than human sagncity and fortitude, to accomplish a deaign so far beyond the ldeas and conceptions of ull former ages. At daybreak, asys his blographer Spotorno, on the 12th of Oetober, the hero landed, "e di grand'orma il nuoro mondo imprima" (and with his great footstap inpressed the New World). Columbus and his followera threw themselves on their knees; and rising, the admiral drew his sword, planted the cross, hoistoc the royal stundard, and in the presence of the astonished natives, who imagined that the Spaniards hed dropped from heaven, took possession of these new countries in the names of the Cautilian sovereigns, giving the island the name of Sun Sulvador. IIaving visited several of the West India islanda, and setuled a colony in Hispaniola, he again set sail for Spain. On the voyage he fell in with the Pinta, which had seprrated from hlm for a long time through the wickedness of the captain, who had gone in search of gold. After encountering asveral viojent tempests, Columbus arrived in the Tagus, near Lisbon, on the 4th of March, 1493. Ile was treated with the most honorable attentions by the court of Portugal, and fnally reached the port of Palos on the 15 th of March.
.The triumphant return of Columbus excited the most unbounded transport. Wherever he went the air rang with acciamations, and he recelved such honors as aro paid to sovereigns. The court was then at Bareclona, and Columbus took care immediately to acquaint the king and queen of his arrival. They were no less delighted than astonished with this unexpected event. The admiral was conducted. into the city with ell imaginable pomp. The sovereigns roceived him scated in atato under a rich canopy of broeade of gold, surrounded ly their principal nobility. When he approached they stood up, and, raising him - ${ }^{-}$he knecled to kiss their hands, ordered him to be sem..d in their presence, and give a circumstantial aceount of his royage. When ho had finiahed his oration, which he dolivered with much modesty and aimplieity, the hing and queen, knecling down, offered up solemn thanks to God for the discovery. Every possible mark of hour that could be suggested by gratitude or admiration was conferred on Columbus ; the former capitulation was confirmed, his family was ennobled, and a fleet ordered to be equipped to eqable the navigator to go in quest of those more opulent countries which ho still confidentiy expected to find.
The successful attainment of the splendid discovery of Columbus, great ond manifold as were lis advantages to mankind, was the prelvie to the dark and troubled epoch of his life. By his second voyage to the Weatern World he no doubt in part roalized his expectations, extended his discoveries, snd came back to Spain with substautial proofs of success; but the ostensible parpose of his return was to obtain reparation

Colum energetio but nobl ture," ${ }^{\text {ea }}$ les of hi raged in his plane tions of times wh ety of mi he restra brougite sapplicat tition, w sions his verity, th ed to in was deep spread," $r$ arownd hi geous colo tions, whi men of co filled his on tuystic owy porte a Spanish lived. Fo traversing Ules, and "With al adds Was! of the real cur of his tained the to the old ered some posed Ilis been visite out two into the emselves and proven with complish ons of all her Spoed, "odi his great abus and ; and rishe cross, ace of the Spaniarda these now cigns, gir. llaving 1 settled a had sepavickedness 1d. After ambus arof March, pble attedeached the ners as are Barcelons, quaint the no less deted event. ith ali jmtim seated gold, suren he ap-- he kneeldin their of his voyl:icin he de, tho hing a thanks to rk of honor iration was lation was cet ordered go in quest still confi-

## d diacovery

 its advantdark and voyage to ized his exme back to but the osreparutiouof injurions imputations which had been heaped npon him, and generally to have his privileges confirmed snd enlurged so as to enable him to exercise his authority over the coloniate, who had become refractery and unnanageable. But his third voyage only accelarated hin disastrous fate. The newly-diecovered possessions were distracted with the horrors of rebellion. The verdant and blooming lales, the expected abodes of peace and happiness, were converted into theutres of sanguinary confliets and misery; and Columbus foun" inself an object of fear and execration. It whe daring this voyage that he landed on the coast of Pa ria, ja South Americs. Meanwhile hle enemies in the Oid World were not idle. Aa invectigation into his conduct was iastituted under the control of Franclaco Bovadilla, who was empowered, should lie find the charges of maladministration proved, to supersede Columbus, and assume the government of Hispaniola. The result was, that he and his brothers Diego $r$ i Bartolomeo, after having been treated with the grea, eat indignities, were sent to Spain in chains. From these diagraceful bends he was immadiately on his arrivil released by the Spanish moaarche; but his complaints were tardily acknowledged; he again sank into obscurity, and was reduced to such straitened circumstances that, according to his own acconnt, "he had no pluce to repair to except an $\operatorname{lnn}$, and very frequently had not wherewithal to pay his reckoning."

At length he was again employed upon a fourth roysge, with restricted powers ; but the result was unpropitious, and he returned to Spain dejected in mind and worn out with bodily infirmitics. Death at last reliered him from his earthly afflictlons. He expired on the 2 (th of May, 1506 , commending, with his latest breati, his spirit to God. A marblo tomb was reared over his dust, bearing the lascription,

## A Castllla y a Leon, <br> Nuevo mondo dio Colon.

Columbus was a man of great and original genius, eaergetic in hls consluct, and possessed of lofty, daring, but nobla ambition. "The magnanimity of his nature," says Irving, "shone forth through all the troubles of hin stormy career. Though continualiy outraged in his dignity, braved in his authority, foiled in his plans, and endangered in his person, by tho seditions of turbulent and worthless men, and that too at times when suffering under anguiah of body aul anxiety of mind enough to excasperate the most patient, yet ho restrained his valiant and indignant opirit, and brought himself to forbear, and reason, and even to sapplicate." Ills piety, thougi tinctured with superstition, was genuine and fervent. If on certain ocensions his religion displnyed itself in harshness and severity, the spirit of the age he lived in must bo adverted to in palliation of his conduct. Ilis temperament was decply imbued with puetic enthusiasm. "It spreaci," romarks Irving, "a goiden and glorious world sround him, and tinged every thing with its own gorgeous coiors. It betrayed him into visionary speculations, which subjected him to tho sneers and cavils of meu of cooler and safer, but more groveling minds. It filied his mlud with solemn and visionary meditations on aystic passages of tho Scriptures, and on the shadowy partents of the prophecies." "IIls 80ul," observes a Spaniah writer, "was superior to the age in which ho lived. For him was reserved tho grent enterprise of tracersing a sea which had given rise to so many frbles, and of deciphering the mystery of his age." "With all the visionary fervor of his fimagination," adds Washington Irving, "its fondest dreams fell anort of the reality. IIe died in ignorance of the real grandcur of his dlscovery. Until his last breath he entertained the idea that he had merely opened a new way to the oid resorts of opulent commerce, and had discovered some of tho wild regions of the East. IJe supposed llispaniola to be the ancient Ophir which had been visited by the ships of King Solomon, aad that

Cuba and Terra Firma were but remote parta of Asia. What viaions of glory would have broken upon hie miad could he have known that he had indeed discovered a new continent, equal to the Old World in magnitude, and separated by two vaat oceana from all the earth hitherto known by civilized man ! aad. how would his inagranimous apirit have been consoled, amid the affictions of age and the caree of penary, the neglect of $a$ fickle publio and the injustice of an ongrateful king, could he have anticipated the oplendid empirsa which uculd ariee in the beautiful world he had discovered, and the nations, and tongues, and languages which were to fill its lande with his renown, and to revere and bless his name to the listeat posterity ${ }^{n}$ It will be remarked that Mr. Ircing, in aecordance with the generaily entertained beitef of all his biographers, alladea to Columhus as belng the first discoverer of the American continent, which is emphatically so, as far as the commercial world is concerned. It is, however, certain that the continent was visited by the Icelanders in the end of the tenth and the beginning of the eleventh centurjes; and Sebastian Cabot diecovered Newfoundland and Labrador in Juae, 1497, nearly a year previous to the visit of Columins on the ceast of Paria. It also seems more than probable that Columbus was uware of Cabot's discovery.

Several controversies have arisen bearing upon the claims of Columbus to the discovery of the Western World; but such disputes, in so far as they affect the discovery of the Columbian Archipelago, are proved to be idle and futile, as no doubt now remains of Columbus having been the first navigator of the Old World who reached the island of San Salvador, and the first who viaited the shores of the South American continent. One of the most current sianders on our navigator's fair fame, as related by Jnca Garcilaso, was that Alonzo Sanchez, sailing to the Canaries in 1484, reacied the island of St. Domingo, and communicated his voyage and route to Columbus. Some other Spanish writers notice the event without giving the name of the nuthor of tho discovery. Oviedo considers these reiatione ns mero vuigar fables. We are, however, told by Columbus himeelf that he took advantage of such accounts as were trunsmitted to him by Spanish and Portugucse mariners, some of whom had ealled westward so far as to perceive what they considered to be indications of land. Gallo and Giustiniani, authors contemporaneons with Columbus, assert that Bartiolomow Columbus first conceived the idea of western discovery, and communicated it to lise brother; but Columbus bas been triumphantiy vindicated from these ungenerous aspersions by the unanimots testimony of the Spanish writere, among whom Las Casae, who knew buth brothers, and preserved many papers bejonging to Columbus, merits cspeclal credence. But lf any doubts remained, they are completely removed by the written deciaration of Ferdinand and Isabelia, whe, in a communication dated the 4th of August, 1494, write thus to the admiral: "One of the principal reasons for which your discovery (the first) has caused eo much joy to us is, that it is to be ascribed to your gendua (por aer inventada), and that it has heen commenced and terminated by your own individual endeavors, by your conrage, your perseverance, and industry."-E. B.

Tte discoveries of Columbus were followed, $\ln 1497$, ly those of Cabot on tho northeast coast of America ; in 1000 by Cabrul, a Portuguese, who visited the coast of Brazil and the meuth of the Amazon ; in 1608 by Pinzon, who is said to have entered the Rio de la Plata. In 1511 Diego Columbus conquered the island of Cuba. In 1518 Halboa crossed the Isthmus of $\mathrm{D}_{\mathrm{u}}$ rien. In 1519 Cortéz landed in Maxico. In 1581 Peru was invaded and conquered by Pizarro.

Colsa, Oil of. The oll expressed from the seed of the Brassica oleracea, a apecies of cabbage. Colzu oil is much used in France and Belgium for burning in lumpe and other purposes.

S, amoroe. Commerce, in its most general sense, k. . - the e:cchange of articles of any kind for money or other articles. The earliest form of such exchangee is by barter, because the uee of gold and silver in not adopted until soclety has made a certain progress. "The armor of Diomed," says Homer, "was plain, and patd for by nine oxen; while the splendid armor of Glaueu cont a bundred.". Harter being now disused in all impreved countries, commerce is almoet always understood to denote the exchange of commoditien for money. In France and the south of Europe the words used to designate commerce are derived from the LatIn; In Holland, Germany, and other northern countries, a vernacular word is more frequent; but all ar alike in meaning, being applied equally to homv and ioreign trade.

We propose in the present essay to treat of,
I. The principles of commerce, and the evils of interfering with the free course of trade; II. The history of Conmerce, particularly in Great Britain, IIolland, and America; III. Prominent commercial changes of the nineteenth century:

1. Pannelples of Commence.-By " principles of commerce," we understand conclusions of $t$ wo kinds; those deduced from the practice of merchants, and applicable to the management of trade by individuals and those of a more comprehensive character, which, resulting from the course of productive industry generally, are entltled to the attention of a minister, or of ficer, of the Department engaged in the task of devising regulations for trade. Most of those conclusions seem so piain as to admit of little question; but it is a fact that several of tham have been the result of leng, and, in some casee, or uearly bought experience. As a spec Imen we give the following:
2. Mercantile Axioms; example of them.-Short credlts and quick returns, however smali the commission or profit, are eventually better than long credite and a large commission or charge.
3. The greatent mercantie profit arises from intercourse with populous and long-settled countries, such as Holland, becense tinc inhabitants are in general possessed of capital, and punctual in their prayments.
4. Recently-settled countries, llke the United States of America, the West Indies, Spanish and Portuguese America; are ulways bare of capital. There is a perpetual tendency in them to draw it from Europe; and mercantile transactions with these countries, profitable in the outset, often become otherwise, from delays of payment, and altimate insolvency.
5. Trade shouid be left as much ne possible to its natural courso, Interference being nimost always hurtful. Gorernments onght merely to rensove obstacles and grant facllitles. Privileges and monopolies were formerly very general; but these, if necessary in an carly age, when individual capital was too scanty for distant undertakings, should be withdrawn as soon as such capital becomes sufficient.
6. Division and aubdivision of employment can be carried to only a limited extent in agriculture. In manufactures thoy may be carried very far, and are productive of the greatest advantage. They affiord employment to persions of every age, and thay conduce greatly to the filished execution of work. Ilence the superiority of towns, in particular of the larger towns.

Rnies or observations like these are very seldom met with, either in printed works or in personal intercourse ; und the reason ls, that while few departmente of industry have been followed in practlee to $\mathbf{s b}$ great an extoat as commerce, hardly any other has been less an object of study in regard to its principles. There are hardly any books or written compositions for the purpose of Instructing the merchant in the practical management of his business, snd not many containIng statistical or other Information connected with trade. To no profession are written precepts considured to be so little applicabla; in none is proficiency
thought to depend so exclusively on practice. Hence an unacquaintance with principies or gencral rules, and the commission of grievous errors, as well by merchants in the pursuit of business, as by the cov. ernment in the enactment of commercial regulations. Of the former we thay take as examplee the repeated glutting of forelgn markets wilh goods, and the injudicious extensima of sugar cultivation in the West Indies; nf the latter, the fetters Imposed upon the bank ing syatem, without stability being given to the sys tem by the control and latereat which should ba taken by the general government.
Tha belief that it is for the advantage of a nation to manufacture alinost every articlu it consumes has been the cause of the most serious inconvenience and loss. It Is thus that in France the making of augar from beetroot, and the more serions error of ereeting hlast furnaces for naking iron in districts anprovided with coal fuel, have placed a large amount of capital in a situation whence it can not be withdrawn withont heavy loss. In like manner, the privileges so long conferred by act of parlinment on the silk manufacture in Fitgland frequently tended to product embarrassment, because they Interfered with the natural course of trade. No branch of Industry can be of permanent advantage to a nation, unless it can support itself without indirect or artificial ald. Were merehants and manufactarcrs left to themselves, the natural course of things would point out the branches of productive industry likely to anceaed or not in a particular country; and capital would not then be advanced on an insecure foundation. Plain as this appears, it is quite at varianco with the creed of our ancestors; a creed which, ander the name of "mercentile aystem," long retained an influence over our traders, and, In some degree, over members of the Legislature.

The Mercantile System explained.-The basis of that system was, that " wealth consisted in the precious metals; that what is gained in trade by one untion must be lost by another; and that our great object in receiring returns for our exports should be to get money instead of nuerchandise." It followed from such notions, that of all possessions, a mining country, such as MexIco and Pert, was the most desirable; and hence in a great measure the rupture of England with Spain in 1740, which led to the unfortunate British expedition to Carthagena, Involved her ir contest with France, and caused her in the courso of !ght years an inmenes vaste of blood and ireasure. The return to a state of peace in 1748 obliged her to desist from attempts on Spanish America, but the influenco of the mercantile system continued, and was singularly favored by tho annual custom-house returns. These retnras exhibit an apparent excess of exports ahove lmporta, and give rise to the notion that the balance is sent to this country in tho slape of money. Supposing the exports of England to the Continent of Europe to amount for any given year to $£ 20,000,000$, and the imports to $£ 14,000,000$; the difference, or $£ 6,000,000,1 \mathrm{ls}$, according to this alsurd notion, the amount of prefit paid in money. It is clear, howerer, that the cuistom-house returns take no netice of some very importent items, such as the export of public money for foreign garrisons, the transmission of bilis of exchange to forsign merchants, or the import of smuggled goods. Besides, if the quantum of circulating medium remain, as it probably does, very nearly on a par, what becomes of the supposed importntion of money? Were England In possession of all the annual halances which the advocates for this system suppose her to have received in money during tho last century, her metallic stock would not be below $\mathbf{£ 4 0 0 , 0 0 0 , 0 0 0}$ sterling ; that is, ten tines ite actual amount!

Wealth supposed to consist in Gold and Silver.-When a merchant exports goods, the sale, of course, takes place abroad, and a remittance is made, elther by bill or by the return of othor merchandise. It hardiy evet enters into the contemplation of the exporter that he
would or halll as an. 0 in oth which the sm divisio ant in interco dispose is it an petty $p$ Capi try is n to quiel doabie hand to much a the effe of ered paper long pro than cos sterling the cos making the latt people, of the c 4 count is by no mass of sumptio ploy It ticles at in the s money d घew pur iato all take for agency ments, trouble i the natu them for metals from the in Engia embarra tion; yer ed an aju
Losses country mercanti the influ lature ;
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a closer
would find an advantage by obtaining a rotarn in coin or bullion. Money owes the reputation it has acquired, as an object of national interchange, to its convenience in other reapects; to ita being the commodity with which wo regularly go to markat, and to ite fitneas for the smallest purchases, by the minutenese of its subdivisions. But this recommendation, however important in private business, ahould have no weight in the intercourse of nations; merohants can be at no losa to dispose of a remittance made in the shape of goods, nor is it any object with them to multiply the meana of petty purchases.
Capital defined,-The interent of a cemamercial conntry is not to increase the amount of its currency, but to quicken its circulation; the same unm performing double and triple duty when paseed expeditiously from hand to hand. Now nothing pr notes circulation so much as exernption from arbitrary interferences, were the effect nolhing more than the general preservation of eredit. In France, the monstrous abuse made of the paper syatem in the beginning of the Revolution has leng proveuted the use of any other circulating medium than coin; the result is an annual loss of three millions starling to the public, anch being the difference between the cost of paper and the precious metvls, even after making an aliowance for the retention of a portion of the latter aufficient for the purpose of banking. Some people, however, imagine that to increase the amount of the cirenlating medium is to inyease the capital of a comintry. These persons ahould recollect that capital is by no means limited to money, but embraces ali tiot mass of property which is devoted to reproductive consumption. When we wish to lend capital, or to cmpioy it in business, we begin by selling the various articles at our disposal : the amount is then in our hand in the shape of money; but this is very transient ; the money disappears as soon as we make payment for the new purchases. Tho public not having time to enter iato all thia reasoning, judge from first 'mpressions, and take for granted that money is capital, because its ageacy ie required to put capital in motion. Governneents, however, might have saved themselves much trouble in providing supplics of metsllic currency, sti.ce the natural course of businese will invariably provido them for itself. The plenty or searcity of the precious metais depends on considerations altogether different from the imagined balanee of trade. Spccie was so scaree in England in 1809 that the government was not a littie embarrassed to find $\mathbf{\Phi 2 0 0 , 0 0 0}$ for the Walcheren expedition; yet in that year her custom-house returns presented an apparent balance of above $£ 7,000,000$ in her favor.
Losses to Einglend from the Mercantile System.-No conntry has suffered se much from the errors of the mercantllo system as England; partly on account of the influence of traders and manufacturers in her legislature; partly from the temporizing policy of the ministers, who have aeldom scrupled to buy the consent of any great body of the community to a new tax, by the grant of some injurioua preference. Hence a variety of pernicious regulations in faver of the landed, the shipping, and the manufacturing intoreate; hence, also, a namber of unfortunate measures in the foreign policy.

The 17 th and 18th Centuries.-Our English anceators laid it down as a fundamental rule, that there could bo no prefit on the one hand, without a corresponding loss on the other. They considerod trade as a game of mere trangfer, and had ne idea how a country could darive weaith by an intercourse between its own inhabitants. Charles II. entered on the war of $\mathbf{1 6 7 2}$ with high hnpes, imagining that, by deatroying the commerce of Hollaud, England would not only increase her ewn, but in a manner absorb that of the world. Political reasons led England afterward into close alliance with Holland, and prevented the ebullitions of jealousy in that direction; but the alarming power of Louis XIV, and the prospect of his acquiring the crown of Spain, led her to a closer connection with Portogal, and particulariy to
the well-known Mathven trenty, coacluded in 1703, the ohject of which was to favor the conaumption of port wing, in return for a almilar preference to her manufneturvs. The reault has been, that ahe has not scrupled, for more than a century, to import injurious commoditien for the sake of an imagirary political advantage ; we say imaginary, because France cuuld evidentiy have agreed to take English manufactures in return for her produce; and if the iacrease of French trade had, on one hand, the effect of augmenting, to a certain extent, her national power, it would, on the other, have increased her dependence on England, and have rendered a war extremely impolitio and unpopular.

English attachment to Portugal arose, in $t$ great measuro, from her not being a manufactaring country, and likely, in the opinion of the calculatori of the day, to be so much the more advantageons in the capacity of a cuatomer. This notion has prevailed to a very recent period; the adminiatration of 1808 and 1809 not scrupling to give encouragement to the caport of merchandise, on a large scale, to the unproductive occupante of 13razil and Spanish America. Now, the fact is, that the means of extending trade, and consequently profits, with a foreign country, are to be eatimated by a quite opposite rulo; they depend on the prodactive power of that conntry, on its meane of affording equivalente for our commodities; in other words, on itt capability of paying for that which it suita us te sell to it. Now, what country was ever wealthy withent industry? The mines of Mexico and Pern, the richest the world ever saw, fall, in point of annual produce, far short of the annual value of the cotton, the tobacco, the fleur, and other lesa tempting products of the United States. In like manner, the cochineal, the cocoa, the barilla, and even tho indigo of Spanish America, form a amall amount when put in competition with the exchangeable commoditiea possessed by the indnstrious nations, such as France, the Netherlands, or the north of Germany.

Mercautile Policy of other Countries.-If from England's fnvorite policy we turn our attention to that of Continental atates, wo find Holland ateering a course of impartiality, and guarded from an imitation of these trespasses, not indead by auperior knowledge, but by the characteristic moderation of her government. The northern kingdoms deserve comparatively little attention, their rulcra having in general given their thoughts much more to war than to ciscussions of internal policy. The same thing was long true of a country where the commercial interest has at ne time been very considerable; the personal will of the aovereign, and the influence of the noblesse, having afforded the grand raisons determinantes for public measures. Still the history of France is not without traces of the effects of mercantile prejudices. Among other regulations of the kind, there formerly existed reveral for the purpose of favoring linen manufactures instead of cotton, because flax was a home product, while the purchase of cotton carried money out of the country.

France.-At last it was found out by some Frenchmen of greater sagacity than the rest, that cotton might be safely admitted to entry, the money required to buy it proceeding necessarily from the employment of French industry in some shupe or other. But the extent of popular prejudice was most singulariy exemplified at the time when it was proposed to permit the unrestrained use of toiles peintes, or printed calicoes; every town that had a chamber of commerce remonatrated against it. A deputation sent from Ronen affirmed, that " the proposed measure would throw ite inhabitanta into despair, and make a desert of the surrounding country;" Lyons, the centre of the silk manufacture, declared that "the news had apread terror into all its workahops;" Tours "foresaw a comnintion likely to canse a convulsion in the body politic;" Amiens asserted "that the proposed act would becomo the tomb of the manutacturing induatry of France;" and Paris declared, "that
her merchants came forward that thay might bathe the throne with their tears." The government, however, stood firm; the duty oa printed callico was withdrawn, and the inspector-gmeral of matiufactures ventured some time afterward to challenge the authors of those elegant effuslons to compare their predictions with the result. "Will any of you," he sald, "deny that tho manufacture of printed calico has been the cause of giving a vast exteasion to the industry of the country, by employing a aumber of hands in splaning, weaving, bleaching, and printing? Look only to the branch of dyeing, and say whether this change has not done more for it in a fow years than other manufactures would have accompllshed in a century."

Commerce of A ustria. - In some countries government go much farther, and still act in a counmercial or manufacturlag capacity, notwithstanding all the admonitions of political economists, or the more home-felt lessons of experlonce. The Austrian government conducts the gold and eilver mines of Hungary to so littlo account, that tha profit roalized from these splondid establishments does not exceod a few thousands a year. In the year 1817 the French government, desirous of laying in a stock of corn for Paris, obtained a loan of money, with which they mado purchasea in various msrkets both in and out of the kingdom. The result was most distressiag; the price of cora rose from 80 s. to 120 s . per quarter. The people in the provincial towns becamo apprehensive of a scarcity, and, though in general submissive to a fault, attempted at Rouen and other places to impede the course of the market, and to prescribe a limit to the price of corn. The alarm, onee glveu, extended through great part of Europe, and gave occasion to a sudden risc, as may be seen by reference to the corn prices at the time in London, Amsterdam, and IIamburg. Nothing is, therefore, more impelitic than the interference of the public treasury with markets, however good the motive; a truth which hans been so thoroughly folt in Eugland as to provent any thing of the kinsl during the last sixty ycars, govomment having confined itself in seasons of searcity, as 1800 , 1810, 1816, to permitting the fres import of corn.
Modified State of the Mercantile System.-We aro next to advert to the mercantile system in its most limited sense, in the shape which it now bears, after all the moditicatlons of the experience of a century and a lisif. The predllection for the importation of "hard dollars" has dlsappeared among a portion of the public, particularly since making the discovery that bank paper can be made to answer tho purpose of geld and sitver. But even theso persons are far from admitting the doctrines of political conomists in all their extent ; they still cling to the notion that we should discourage tha import of a forelgn article whenever a corresponding commodity can be raised at home; that we shic.hll hapede, or even prohilit, all :...i. $\quad$ n manufactures; and that wo should not scruple :o "aco, race certain fabrics of our own by conntues. Sueia, 'o. o merly the creed of tho majorlty
 $y$ yrs the then of ministers and presidents of INads in it procecils on the plausible idea,
 8.2. "h: our "ppita would he in danger of falling short si. wurj vi.3 we to purchase finished articles at the hands of forelgners. Ilut there is not In the natural course of things any such deflelency of labor as to make It necessary, or even experllent, for us to turn things out of thelr regular order for the sake of giving employment to our populatlon. Providence has evidently ordalned that Industry shond be at no loss fur objects; the interruptions to ita peaceful course arisc from our ewn wayward pulicy ; from vur restraints, prohihitlons, and, alove all, from our sudden changes from war to peace, and from peace to war.

Equally erroneous is the notion that it is morn for our linterest to send abread manufactures than raw produce or money. If you grant a bounty on an export,
you do nothing more or less than bribe a forelgner to make a purchaso from you; you withdraw from lts natural destinstion a portion of your capltal and labor; for the sake of extending one branch of busluess, you weaken your means of compotition ia others. Mr. IIume has justly remarked, that in a question of personal right, the perception of a bslf-educated man may be sufficleatly sound; but that the case is difiercat in regard to matters of general policy, where the resl is often different from the apparent result. Now this state of half knowledge has been the origin of almost all mercautlle miscaleulations; we have listened to tirst impressions, and have not scrupled to glve them a practical operation by acts of government, whlthout ever considering that the remote consequences would bo itrjurious to ourselves.

The true Principles of Commerce.-We may safely discharge from our minds all that has been said, and all that has been written, in regard to the greater relative advantage attendant in trading in this or that particular commodity; wo may feel sutisfied that protits are much more on an equality than is commonly supposed; that ne one would long be a dealer in that which did not afford him advantage, or remaln a stranger to that which was throwing an extra gain into the pockets of his neighbor. The same rule is applicalle in a national senso, tho tratlic in one commodity being either directly or Indirectly as productivo of profit as in unother. liven fereign articles of lixury should not be diseournged, since the moncy required to pay for them must be previously raised by the employment of indastry in some useful manner. This affords a new proof of the fallacy of tirst impressions, and leads to tho grand practical conclusion of allowing people to "buy commodities wherever they can be got cheapest, without seeking to favor hemo produce abovo colonial, or colonial above forelgn."

Merchants should posses8 unrestricted freedom, not only in regard to tho articles they denl in, but in respect to the time of keeping them back or bringing them to market; and this not only fros. tho general title which every one has to the management of his own property, but from a conviction that whatever benefits the individual will be productive of corresponding benetit to the public. This is a point of the last importance, as reconciling the lower orders to a varicty of unpopular employments of capitsl, such as buying up goods to bo warehoused, and not brought to market till prices aro advanced. Take, for instance, the capitalist who buys a theusand hogsheads of sugar on its arrival from the West Indies in August, for tho purpose of selling it in the succeedling Mareh or April. Such a transactlon is of uso to all parties, aflorling, in tho tirst instunce, a customer for tho planter or plantter's correspondent; a clepository for the public during tho seasen that the article ought in great part to be stored up; and fir -ll y a seller, at a the when, without such dem. and such forthcoming of supply, tho prico mig.. nave beeome exorbitant, and might have continued so until the arrival of the next year's crop,

The more we study the natural progress of commerce, the more we shall be satisfled of the expediency of leaving al! lts various agonts to thelr uncontrolled management. Iusiness then divides Itself, particularly lin a large elty, lato a varlety of separate branches, each of which may bo carried on to a surprising extent by separate establishments. The commission charged by such persons is small, their dispatch extraordlnary; capital dees not remaln lockod up in their hands, and goods find their way te the market whenever prices are encouraging, that $I_{s}$, whenever the consumers are in want of them; they ara withheld only when the market is glutted, and when to force sales would be productive of eventual Injury to the huyers themselves. Tho dectrine of tho happy medlum ls nowhero moro appllicable than in commerce: If you reduce prices for one acason below what ls necessary to
indemnlfy th. the next, ano dearth.

## Afompolies

 to be highly bavo been iss every renews pany has bee ive character In the Unite mitted, the rious effects. leged compar better terms ration of tho in other word at the expens that the con munaged wit the private 1 lies in the int transaction of lishment ; ah, has nothing privileges.The tinale ples of conmm beueficent uat finds its aeco that it would from their de trade than nat iujurious to o cessful, is atte turns to wasto it heaves us op it impedes the injury done te short, it is so viduals, as to suelh as the di overthrow of a
Dicision of Division and s distinetion bet of productive the mechanic an one who h Bdequate cone ployunent ia su a city or town tion in a parth guive than the to those of the were loug the rope, and had extent of territ cention of tho ing of York, E glish manufac populatiou con France, along Prussia and A1 number of tow is the most dell gland the iner gressive during bids fair to go
Tho divisien meree and of in that among Ind propriated to e particular klud tent in one con yet only hegin mell, for it has to cstablish, in
indemnify the producer, you discourage production for the next, and you expose yourseli to the hazard of a desrth.

Monopolies.-Monopoly ia now generally admitted to be lighly impolitic. No new grants of the kind havo been issued in Great Britain for many years, and every renewal of the charter of the East India Company has been marked by a diminution of lits restrictve character, till in 1834 lis monopoly was abolished. In the United States monopolies liave nover been permitted, the goveroment having early seen their injurious etiects. The publie are now aware that a prlvileged company can not make its purchases abroad on better terms than individuals, and that the chief operation of the privilege is to enhance the sale prices, or, in other words, to put money into the hands of a few at the expense of the nation. They are further aware that the concerns of a large corporation can not be managed with the minute economy and vigilance of the private merchant, and that its grand advantage lies in the intelligence and dexterity acquired by tho transartion of business to a large extent by one eatablishment; an advantage of great importance, but which has nothling to do with the possession of exclusive privileges.

The thasl conclusions to be drawn from the principles of commerce are of the most comprehensive and beudicent mature. They teach us that every nation finds its account in tho prosperity of its neighbors; that it would expericnce a corresponding suffering from their decline; that to aim at engrossing more trsde thinn noturally falls to our share, is sooner or later iujurions to ourselves; and that war, even when successful, is attended with the most serious losses. War turns to waste a large portion of our productive means; it leaves us oppressed with a ruinous burden in peace; it impedes the future extension of our exports, for the injury done to our neighbors recoils on ourselves; in short, it is so replete with evil to the public and indiridjals, as to be justifiahle only jn an extreme case, such as the defense of national lndependence, or the overthrow of a tyrannical usurper.
Division of Employment ; its manifold Adrantages.Division and subdivision of employment form the great distinction bet ween a back ward and an improved stato of productive industry. It increases the etlleiency of the mechanic or manufacturer to an extent of which ne one who has not studied the subject can have un sdequate conception. Now, the degree to which employment is subdivided depends mainly on the sizo of a city or town; nnd in estimating the state of civilization in a purticular country, we ca.i not have a better guide than the proportion of the inhabitants of towns to thase of the open country. Flanders and llolland wero lung the most improved part of the north of Europe, anil had the greate. number of towns on a given extent of territory. This they still have, with the exeeption of the counties (Lancashire and the West Riding of York, lingland) which are the chef sents of English manufactures. After the Netherlunils in town population come the north of Italy and northeast of France, ulong with the western part of Germany, Prussia and Austria have each a comparatively small number of towns; Polnud has still fewer, and lussla is the most defichent of nny country in Europe. In England tho increase of town jopulation has been progressive during the last eighty or ninety years, and bids fair to go on in an equal or greater ratio.

The division of employment is the result of commerce and of tucreasel population. It he of two kinils : that nmong individuals, by which a specitic task is appropriated to each, and that among nations, by which partieutur kluds of products are rulsed to a greater extent in one country than in anther. Tho latter ls as yet only beginuing to elaim the attentlon of publle men, for it has been a frequent orror with govermment to establish, in their respective territorlen, a varlety
of manufactures, without sufficiently weighing the local obstacles or disadvantages. Of thls France furnishes some atriklng examples, partleularly In the case of iron. The abundance of coal in England, and the case in conveying it, and other bulky goods, by canals, glve to their manufactures of iron end liardware an advantage which Frnnce in vain endeavors to equal. Her true policy would be to repeal the very heavy duties on the import of forelgn manufactures, and to trust to her means of supplying the world with wine, brandy, and the other natural producta of her country to an equal or greater amount.

Principles of Commerce; how far understond.-In point of knowledge of the great doctrines of politicsl economy, Germsny, or, to speak more properly, the Protestaut part of Germany, particularly Saxony, may be salil to take the lead of other countrles on the Continent. The Duteh, however exemplary in thelr practical legislation, have little turn for speculative reasening; the French have not patience to follow through its various links a chain of philosophical deductions; but their admiration of whatever is humane or liberal makes them wonderfully delighted with the brilliant concluslens of the science. They have the advantsge of possessing, in the work of the late $\mathbf{J} . \mathbf{B}$. Say, the best arranged general treatise that has hitherto appeared on the subject; and they are by no means ifl prepared for a very extensive applicntion of political improvements, such as the nbolition of prirateering, the repeal of all heavy duties on foreign goods, and the substitution of inland taxes for those customhouse imposts which implede the free communication of nations. The rest of Europe ls so mueh In the dark in regsrd to the great truths of polltical science as to see merely through the medium of loeal govermments. Such is the case likewlse in Italy, although that country can boast individuals of some note among the writers on the principles of commerce, and the reflecting turn of the people is favorable to such investigations; and even in Britain a large party is still adverse to the unrestricted appllicatlon of these simple and beneficent principles, but this party is daily diminishing. The hnppy effects of the frec-traile prinelples, which lave been for some time in operation, as proved by the periodical returns of the English Beard of Trade, are facts which can not be withstood; and we may safeJy calculate that a few yenrs will convert the remalning alvocates of protectlon to the frec-trade faith.

Speculation in Trade,-Among men of husiness this expression is applled to incurring extenslve hazards in the hope of extensive emolument; in short, to whatever is fureign to the proper business of the indivilual, or beyond the control of common rules. It is to sueh undertakings that vulgar credulity ascribes extraordlnary profits; and even well-Informed men are apt to give way to the assertions so confidently made, of vast oceasional gaing in this line of business. Dr. Smith himself, after remarking (lleallh of Nations, hook i. ebap. 10) thint to make $n$ fortune In a regular line commonly requires a long life of industry and frugallty, adds, no toubt on the faith of repeatel assurances from merenntile friends, that there are many examples of fortunes renlized by speculators in the course of a few yeurs. Now, the men who embark in speculation are, If general, very loose accountnuts; thelr estimate of prolits applies to the gross, never to the net return; hesides, they are almost ulways ndventurers, and adventurers are seldom nuted for the observance of truth. Their favorite season of activity is a tlme like that of 1808, when the sudden stoppage of ordlaary Intercourse eaused a raphl fluctuntion in the price of commolities, and when the regular merehants withdrew from the seene. Now, whint sober estimate can ho formed of loss or galu In such a chsos? Add to this, that these men trude almost alwnys on eredit, are In need of all the support which flatterlug representatlons, and rumors of sudden proflt, can glve them. All these rea-
sons seem to justify a deliberate inquirer in doing what is seldom done on such occasions, we mean in withholding his belief from the confident allegatlons of speculators, se long as they are not supported by collateraj evidence.

Frequency of Disappointment.-Oar oplnlon is, that Inatead of tho large profits commonly ascrlbed to this conrse of trade, the individuals concerned in It experience little else than disappointments, and maintaln a perpetual strugglo to keep up a fair appearance to the world. This opinlon is founded partly on a knowledge of the actual career and circumstances of speculators, but more on tho well-known fact that slmost every line of buslneca is in the hands of eatablished merchants, whe, of course, aro too vigilant to overlook tho opportunity of omolament, and who havo much letter means of information than temporary interlopers. Still, should there remain doubts as to the accuracy of our oplnion, the question may be brought to a point by referenco to tho account-hooks of any given number of celebrated speculators; their nffairs end almost always in bankruptcy; thelr papers continue open to aceess for years in the hands of thelr solicitors or assignees; and wo are much nilstaken if an inspection of them would show, in ono caso out of ten, that the parties had at any period succeeded In realizing their loasted profits.

Pernicious Effects of Speculation.-We havo heen induced to dwell tho more on the boasts of speculatora, because they aro productive of great mischief in unsettling persons In buslness, particularly young men, and in making them look on their proper line with comparative indlfforence. It would be endless to nttempt an enumeration of the various ways in which the rage for apeculation has lrought misfortunc on merchants and manufacturers. The opening of a new country, auch as Buenos Ayres, Brazll, or Caraccas, led to the oxport not only of a prodiglous overstock of merchandise fittod for the country, hut of many articies totally unsaited to the ellmate and hables of the people. Again, in 1814, when the war with lrance was drawIng to a elose, goods, both colonial and manufactured, were poured into the Contlment of Europe, as if the compass of tho markets was untounded, and as if the calamlties of war had produced no decreaso of capital.

Holland; its instructive Emmple.-The country in which trate shone forth In all its splendor; where It was cultivated without the smpport of arms or prohilhitory regulations; where, in short, it doveloped its heneficial tendency In sll Its extent, was Ifoltanch. If wo look to the eariy enterprises of the Duteh, we find them enabled, by the power of thelr productive induatry, to assert thelr ladependence at bono, and to assail their enemies In the remotest part of their empire. The Portuguese in the East, and tho Sprantaris in tho West, were each found unequal to the task of rosisting these republicans. A proul stand was male by them against the navy of England, and they illd not fall into despalr even when assailed by linglish forces In conjunction with those of France. Afterwaril, when restored to an alliance with England, nud when they cooperated with her in the great etruggle agninst Louls XIV., it is surprising how large a proportion both of troops and subsidies was furnished hy this npparently Inconsiderable atate. "No country," bays Sir Willian 'Temple, "can be found where so vast a trude has been managed, yet the inhnhitants have no native commodities toward building vessels, and hardly any that are considerable for traffie with their nelghbors. Helinnd is grown rich hy force of industry, by improvement and manufacture of foreign growths." Procceding to apecify more particularly the causes of this mercantlle prosperlty, Sir Wlliam enumerates "the easy communiention of water, particularly ly the lhine and Maese; the security of property; the undiaturied llinerty of consclence, and the progresslve influx of jeople persecuted for their reilgioua opinions in Fianders, England,

France, and Germnny." Such were the origInal causes: those of subsequent operatlon were tho " general habit of industry and economy ; the formation of canals; the institution of hanks; tho low interest of money; tho appropristlon of partleular towns to partlcular branches of business ; application to the fisheries, and, what he regrets much should not exist in England, the practice of keepling an officlal register of all purchases of land or houses;" a practice introduced into Holland and Flanders in the relgn of Charles $V$., and which at present exlsts in Scotland, to the Incalculablo convenience and securlty of money transactiens.

Effects of Trade upon Indiciduals.-We aro now to say $n$ few worls on a different topie, namely, the effects of trade in forming tho elisracter of Indivhluals ; a matter of no little jmportance in a country like ours, whero merchants both constitute so large a portlon of the community, and exercise such infuence on tho proceedings of government. The mercantlle charactur has a number of good points, being exempt from the racuity and Indecision so frequent in frshionable life, as well as frem the various viees consequent on idleness, and which are so strikingly exemplified in the gambling and libertinism of the French metropolis. Whatever good is produced by continued nctivity, and by a pointed attention to the specitic objects of one's occhpation, may be contidently lookel for anoug commerclal men; with the furtlier advantnge, in large concerns, of an exemption from petty jealousies nad lnvidious interferences. In such eities na London and Amsterilani, merchants nere awnro that the fichi is ample for all; that the prosperity of one Js very far from impeding that of others; and that when disappointment and fallure oecur, their origin will be found in a very different cause than competition. Ilere, however, wo must elose our encomium, and, in the spirit ot impartiality, proceed to exhibit tho opposite side of the picture. The merchant's knowledge is particular, not genernl ; he ohtains $n$ hahit of understanding indlvilual character, anil a dexterity in mansging his own athira; but he has not, and esn not, from his conrse of occupation, nequire the power of reasonlng comprehensively on the Interests of trade. If he observe in war a tendency to raise prices, or to Invigorate particular lines of trnde, such as ship-owning or insurance, ho will probably be led to the general inference that to $n$ maritlme cometry wnr is advantageous. The contests of Great Britnin from 1750 to 1810 having been nttendel with the undisputed command of the oceun, nothing more was required to satisfy the ninjority of traders that her mercantlle mnrine was In a atnte of equal nscendency. They took an pied de la lettre the custons-house reports of annual exports, without observing how much was to be dedueted on nceount of the depreciation of bank paper, or how surely they were laylng the foundation of future dlatress by sul)mitting to enomous taxation. Again, when in 1807 the long continunnce of war hal given a serious wound to her trade and navjgation, a mnjorlty of the merchants ascribed it, not to the true eause, lunt to the andermining competition of the UnSted States. Their range of reflection was not such as to enable them to perceivo that, hy overturning the prosperity of the latter, they would sap the foundation of their own; and that overy million which they prevented us from adding to our caplenl was so nuch withlrawn from a fund devoted to the increase of the productive industry of Iritain. Ience the unfortunate orders in council, the main cause of the overthrow of her exchanges witi the Continent, of the lnerease of expenses in Spain and Germnny, of her war with tho United States; In short, of the long centlnuance of her aufferings sinco the peace.

Bad Fiffect of long Credits.-Nothing wouid, in our opinion, conduce more to the prosperity of trade than the adoption of the plan of doit $r$ all wholesale linsiness for ready money, and the reilaquishment of that habit
of long cr and has $f$ crowding To sho go at son apprise ol of our ma ufacturer course of honses; 11 Indies, th term of er not receiv mediate Still the 1 for the be: it comes to by merear stand inte gagement remote da eral, posse lic inagin not scrujl greater th smong ue next in co duli, and within the dulgence $f$ expected may, and out much the senuls of and can uc pleasing hi qeeming p prolit has r of a dicht however, ing up for the delay ile hegins as yet little friead, or llis corres fidence, an conflding a al ameunt obliged to keeping up year after with his e sirons (for tulalile to they are in of the cou since it is recenty-se give him t Affisirs 110 y manufactu give furtho circumstan serves to with more while the f consequenc delitor ef t of liepose, is evident general, bo It ls not o debts can held by so are so rare the capitai,
of long credit which prompts to anguarded anterprlac, and has for ao nuany yeara been the princlpal canse of crowding the columns of the gazettes.

To slow the reauits of long credit, it is necesaary to go at some length into practical illuatration, and to apprise our readers of the real situation of the majority of our manufacturers and export merchants. A manufacturer on the preaent footing receives orders in the course of the yeur from twenty or thirty mercantile houses; the goods to be exported probably to the :Vest Iadies, the Spanish Main, or Brazll; the understood terni of credit twelve months. The manufacturer does not receive the orders from abroad; ho has on intermediate guarantee, that of the exporting merchant. Still the risk is considerable; but he naturally hopes for the best, and is unwilling to decline an order when it comes to him from a quarter of respectabillty. Now by mercantile respectability vur readers are to understand integrity, and the intention of acting up to engagements; but the power of dohng so, especiully at a remote late, is a very different question, and is, in general, possessed in a much amaller degree than the public inogine. Tho trader whose capltal is large will not seruple to ship goods to the valine of 50 per cent. greater than his capital, first in the hope, so general anong merchants, of realizing a handsome profit, and aext in confidence that, shond the forelgn market bo dull, and should delays oceur in obtaining returns within the given tiae, his credit will procure him indulgence for several months, at the end of which the expected remittances can hardly fail to arrive. 110 may; and in general does go on fur several years without mueh embarrassment, recciving, lindeed, less than he sends ont, but informed that all has been well sold, and can not fail to be aoon realized. Ho thns goes on pleasing himself at every balance of his book with tho seeming profit, and only regretting that hitherto that profit hus not been tangible, sinceit exists in the slanpe of a debt due by hia correspondents. LIa contimues, however, under a favorable expectation of their muking up for past deficlencies, and flatters himself that the delay has resulted from partial or tenporary causes. lle berins to ind himself straltened for funds, but has as yet little difficulty in obtalning relief from a moneyed friead, or a prolonged credit from tho manufucturers. llis correspondents continue to write in a strein of confidence, and to call for moro gools, which if he be of a coufling character, will lead him to extend the ammal amount of his shipments; hut at all events he is obliged to continue a certain supply for tho saks of keeping up tho assortment of stock. Still he finds thint year ufter yenr a larger portion of his capital remains with his correspondents, and that they, howover desirons (for we by no means put an extreme case), are unalise to prevent nu arcmmulation of debt, becanse they are in like manner left unpaill by the inhabitants of the conntry. To go to law would be of no avail, slace it ls the policy of almost overy govermment in a recentif-settled country to favor the delitor, and to give hin the means of retaining capital in his hands. Affirs now begln to be serious with the exporter; the maunfaeturer und other creditors can not or will not give further time, and denrand an explanation of his circumstances. This explanation takes pluce, and serves to show that their debtor is a man of honor, with more nsseta than debts, but the latter are certain, while the former nre at a distance of 3000 miles. The consequence is a grant of time, an allownmes to the debtor of two, three, or four years, to net under letter of Heense, in the hope of accomplishing that which it is evident can not be performed sooner. This is, in general, both the wisest and most liberal courae; atill it is not often foumd to sueceed, because the foreign delits an seldom los realized in climates where life is hell liy so uncertain a tenure, where respectable agents are so rarely found, where buyers of goods have so litthe capital, and, above all, where the law allows them
such a length of time for payment. A few of the promised installments are prababiy made good, but in general the merchant recognizes the impracticability of fulfilling the remainder, and finds it eventually necesaary to submit to bankruptcy.

Holland a Country of short Credit.-In Holland wo find that in ita better days bargaina were almost always made for ready money, or for so short a date as six weeks or two montlis; profita were small in their ratio, but the quaekness of returns made them eventnally large; fallures were rare, even in so distressing an era as the occupation of thelr country by the French, which began in 1795, and involved from the outset a stoppage of maritime intercourso with all their posgessions in India and America. The consequence of this atoppago was a decay of trade, a suspension of various undertakings, a scarcity of werk, a miserable dullness in the sale of gooda; all leading, in the first instance, to diminished income, and evantually to encroaclment on capital; but, amid this distress, the failures were surprisingly few. Another example, equally replete with instruction, was the atate of France after tho double invasion of 1814 and 1815 . There prevailed at that time a general discouragement among the upper ranks, and a great deal of wretchedness among the lower, trade lieing at a stand, and stocks of goods lying unsold in shops or warehouses for years; still bankruptcy was exceedingly rare. All this sloows what a satisfactory prospect we may anticipate when we adopt tho plan of transacting the greater part of our business for ready money. Yet we are far from recommending nny law or measure to enforce that object; the evident advantage of the plan will not fall to secure its adoption.

1I. Histohy of Commence. Origin of Commerce. -It has been an olject with many writers to ascertain in what nation of nntiquity conmerce was flrat carried to $n$ considerable extent; lut as that extent implies a previous population, the more simple inquiry would be, in what country population first acquired density, particularly in towns. The answer is, that mankind first increased their numbers in warm latitudes, especially In situations where irrigation, whether effected by the overflowing of rivers, by tha deacent of atreams from a rango of mountains, or by any other means, was ao extensivo as to counteract the parching effect of beat, and give to vegetation a luxuriance unknown in colder refions. It was thus that the Nile gave fertility to Egyplt, the Euphrates to Chalden, and the Ganges, in the lower part of its course, to Bengal.

The earllest written notice of commercial intercourse is in Scripture, where we read of Joseph being sold by his brethren to a company of Islimaelites or Arabs, who were golng to Egypt with splees, balm, and myrrh, ronreyed on the backs of camels. These itherant traders probably brought back eorr, Egypt being, even at that remote period, an occasional granary for Syria and other adjacent countries. The conveying of geods on the backs of animals onght to be remarked as indicative of a primitive state of commercial intercourse-of that which is carried on hefore tho forming of ronds or the use of wheel-carringes. Such was tha case in England two centuries nge; such at present is tha case in Spanish Amerlen, nul, in some degree, in Old Spain, the mountalnous mature of that country making it a matter of some difficulty to form roads.

Phanicia, Sidou, ond Tyre.-Hut whatever mlght be the inland traffic of the Arahians, Chaldeana, or Egyptlane, they made very little progress in navigation; that wha the province of the lhomicians, who acted as naval carricra to the neighboring nations, in the same way ns the Dutch did during the sixteenth and seventeenth centuries to the rest of Europe. Thls almest exelusive poesession of navigation may seem atrange in the preaent nge, but the cause was the samo in beth casea-nninely, the difilculty in a rude ago of tinding nen capable of conducting vessels in the open sea.

Seamanship, now so familiar to the inhsbitants of almust every port in Europe, was in those days underatood by only a limited number, and was carried on with a degree of caution and alowness hardly credible to a modern reader. Thus the saamen of anclent timea made it a rule to keep within sight of land, as if trusting for protection to a situation which the mariners of our days look on as attended with considerable risk. This arose from the great difference in the mode of propelling vessels, for which the moderns trust chiefly to the wind, and navigate with comparatively fow hands. Tho small barks of tho ancients were fitted out with oars; a method which required a great sacritice of manual lalor, but was attended with the advantage of find ing a ready shelter in a bay or creek whenever the sky porteaded tempestuous weather.

What, it may be asked, was the chief cause of the extension of the navigation of Pheenicia? The vicinIty of Egypt, and the quantity of provisions and merchandise exported from that fertile country. The navIgation of the Red Sea, also, was conducted chicfly by Pheuicians. Iliatory is not anficiently explicit in regard to the commoditles forming the oljject of traffic along the Red Sea, nor have wo any certain knowledge of the era at which the trade with India by that channel commenced. Bouaparte, when meditating his expedition to Egypt, was led, in his sanguine estimato of its advantages, to consider the lled Sea as the fittest line of communication with Indin, and to ascribe the wealth of Thebes, in Egypt, one ot the carliest of commercial cities, to intercourse with the coast of Malabur. But whether tho navigators of the lied Sea proceeded at that esrly date as far as the shores of ludia, it is evident that an extensive traffic was carried on with Cosseir, or a sea-port on tha lied Sea which communiested with Thebes. The eproch at which llomer celebrated the wealth of that city is nearly tho same as that at which l'henician mariners navigated the Red Sea on account of the Jewlsh government in the relgn of Solomon; but no historical investigator has been abla to fix with certainty the situation of Ophir and Tarshish, the ports with which these vessels traded. Some confident calculators hare considered them to have been in India; but, judging from the limited skill of navigators in that early age, it scems more likely that these harbors were near the eastern or more remote parts of the Red Sea, a part from which there probably was a direct communication with India.

Greece.-Such was the traflic of the I'hwicians with the south and east; it extended also to countries less peopled and in a still more primitive stute in the west. The taland of Crete seems to have owed to them its early cirilization; and after Creto came Attica, Baotla, the I'cloponnesus, hu all of which tradition recoriled the carly introduction of the arts by settlers arriving from l'honicia or Eigypt. These arrivals seem to have taken place about a thousund years before the Christian era, nud half of that time elspsed in the gradual attainment of that stuta of civilization to which Greece hat arrived at the period of her political celeb-rity-the invasion of her territory ly the I'ersians under Darias and Xerxes. Greece is in several respects well fitted for forelgin commerce. Her coast is greatly indented by the sea, and presents a number of inlets hardly inferior to the well-known gulfs of Argos and Corinth. Ilence an early fantliarity with the use of shipping, and the practice of sending out colonies at so early a date as a century after the Trojun war. These coloules proceeded In various directiens, to Asia Minor In the east, to Thrace and the Euxine in the north, to Sicily and Italy in the west. The progress made by the linbabitants of these colonial settlentents was rapid, particularly at Syracuse, whose capacious harhor soon acquired it extensive commerca and a numerons popnlation, Agrigentum, Mcasina, Tarentum, were likewise places of considerable limportance. It was the custom of these and other colonies to maintain an al-
liance and inercantile connection with the parent states, such as Atluens, Corinth, Argos; and a number of characters eminent in literature and the arts appesed in the colonies at a time when their establishment might have been considered as too recent to afford more than the necessaries of life. But in a newly-settled country, such as the United States of America, various circumstances occur to lncrease the number and improve the condition of the inhabitants ; provisions nre abundant, in consequence of the extent of moccupied land; the connection with the mother country insures a certain exteat of trade; while the monopolies and other abuscs natural to a long-aettled community are in a manner unknown.

Athens.-Oa the other hand, the inland territory of Greece was not well fitted for commercial intercourse, It la traversed by ao navigable river; and being mountainous and rugged, it could not, oven in the days of ita prosperity, boust of roads, merchandiso being in thoso days, as at present, conveyed, not in earriages, bot on the backs of horses and oxen. This deficiency of communication by land was one cause of tho different states of Greece so long maintaining their independ. ence, and of the limited ascendency attained by Lacedemon, which, in extent of military means, wus so superior to the other states of the Peloponnesus. Sparta and Thebes being inland towns, and Corinth comparatively a small state, Athens was the chief commercial city of ancient Greecc. Iler distance from the sea, five miles, was such as to aftord her security abiliust a sudden desecnt from an invadiug armsment, while it was suthiciently near to her harbor, tho Piraus, for tho easy transmission of merchandise. The trade and shipping of Athens, however small it might appenr to a modern reader, was such as to give it an ascendency over the different islands to the cast ward of Grecee, and to enable it to maintain, in the Peloponnesiun war, a loug struggle against a strong confedersey. When overcome at last, in consequence of what may te termed an aceidental cause, the capture of its flect by lysander, its political depression was of short duration; the activity and industry of its inhabitants revived its trade, so thut Athens continued for ages the most propulous and commercial place in Greece.

Tyre.-Tyre, theugh at no time a tuwn of great extent, remained long in the enjojment of considerable trade. From the reign of Solomen, when its commereinl activity is described in Scripture, to its captare and destruction by Alexander the Great, there elapsed a period of seven centuries. The formidabla resistaned it made to the Macedonian arms impressed Alexander with a strong sense of the value of commeres, and of its eflect in increasing the sources of national power. Though known to the world chielly as a warrior, Alexander lisd considerable claims to tho character of a politician. Ilo adopted, and caused his followers to adopt, to a certain extent, the mamers of the nations they concquered; and by the expedition of Nenrehus from the mouth of the Indus to the l'ersian Gulf, he discovered a commendable zeal for maritime discovery: Equal judgment was ovinced by him in founding his new city of Alexandria in a position such as to command an extensive range of intercourse. The Nile brought to it on ona hand the valuable prodects of ligypt, and afforded on the other a rcady inlet to the merchnindise imported from Eisurope. To India, also, tho route by Alexandria and the lied Sea was preferable to that of the l'ersian Gulf, whilh thvelvad the necesaity of a considerable journcy by land.

Curthayp.--Contemporary with the dechine of Athrus and the rise of Alexandria, but superior to either in commercial activity, was Carthage, the efestruction of which forms one of the fenlest blots in the history of the Ilomans. 'lhe situation of Carthage was well adapted fur trade; its harior was good, its range of navigation extensive, buth to cast and went. Founded by a colony from Tyre, it maintained a friendly lutercourso
wlth Phœnl nesn, in Slci with no com time uncivlli ly indelited $t$ gent settlers ages which ceived from harbors of Ca sort of shlipp calling on ou tions of the north of Eur confidence al fallen, from $t$ been tho mea great part of aeveral centu

Rome.-Th ly pacific, wa tendency to In nsvigation ble. During they sustaine fuluess of the the fury of tl over the Cart to Macedon under the nec itime power tho extension several respec and merchant part of the M in the length ed on one hav on the other $t$ easy, from the to proceed elt The mariners form ditectlor tha mavigator voyages with
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merce cnme ! at a distance trade was chis Satdinin, Cor ance was prio though it nev tlon, nor In th declined from Leghorm, whit being leeter a
fienon,-Ge 1000 until its latter half of
with Phonicia; while in the west of the Mediterranean, in Stcily, Spain, and the south of France, it met with no commercial rival. These countries, at that time uncivilized, and almost uncultivated, wero greatly indelted to Carthage for the introduction of intelligent gettlers, and derived from her tho game advantages which Greece, several centuries before, had recelved from Phœnicia and Egypt. In Spain the fine harbers of Carthagena and Cadiz were rendered the resort of shlpping by the Carthaginians ; and without calling on our readers to beliove the traditional assertions of the extent of their navigation, either to the north of Europe or the south of Africs, we may with contidence affirm that, had not this state unhappily fallen, frem the jealousy of the Romans, it would have been the means of diffusing industrious habits over a great part of the west of Europe, and of advancing by several centurlea the progress of the useful arts.

Reme.-The policy of Carthage, though not uniformly pacific, was far less perniclous than the perpetual tendency to aggression of a military state like Rome. In navigation the Romans were at no timo romarkable. During their conflicts with tho Carthaginians they sustained repeated losses, ehicfiy from the unskillfalness of their seamen, and their inalility to cone with the fury of tho elements. After they had triumphed over the Carthaginians, and extended their conquests to Macedon and Greece, the Romans wero no longer under the necessity of equipplug fleets, because no maritime power dared to dlspute their supremacy. But the extension of the Roman power was favorable, in several respecte, to commerce ; piracy ,ins suppressed, and merchant vessels had free access to almost every part of the Mediterrasean. Henca a gradual inerease in the length of mercantile voyages, which now extended on one hand to the nerth of France and Germany, on the other to the Indian Ocean, to whieh it became casy, from the progressive improvement of navigation, to proceed either by tho lied Sea or the Perslan Gulf. The mariners' compass was still unknown, but the uniform directlon of the wind in certain seasons enabled the navigaters to and from India to complete their voyares with little difficulty.

The dfiddle Ages, - It was toward the middle of the fifth century, aboat $n$ hundred years after the removal of the seat of emplre to Constantinojle, that the Romans lecame unablo to defend their frontier agalust the uncivilized tribes who pressed on them from the north and east. Tho consequence was that the coantry along the Rhino, the inlund provinces of Gaul, and, some time afterward, Spaln and thonerth of Italy, were overrun by these rude assailants. The increase fin the popalation of towns was clucked, nany places heing phudered, others sulyjected to heavy contributions, nnd property In general rendered unsafe. There was no longer a central or general goverument; tho territory of the empire was divided into a number of separate states, the rulers of which had no just idea of the inportance of commeree. These uneducated governors, accustomed to appeal on nlmost all occasions to the sword, were not sufficiently enightened to forego the temptation of a present seizure for the sake of tho lasting tivantage of mercantile intercourse.

Pisa,-Next to Venice in the history of modern commerce came l'isa, $n$ town built on the banks of the Arno, at a distanco of nenrly three leagues from tho sea. Its trade was chiefly with the western coasi of Italy, with Sardiula, Corsica, and Sicily. Its commercial importsnce was prier liy two centuries to that of Genon, although it never equaled the latter in extent of navigation, nor lin the number of distant settlements. I'isa decined from its commereial rauk in consequence of Leghorn, which was sltuated immedintely on the coast, being lietter indapted to foreign intercourse.
tienoa,-fienoa continued thourishing from the year 1000 untll its ill-judged hestilities with Venice in the iatter half of the fourteenth century. These were in-
jurious to both, yet both recovered from the effects so as to hold, during several centuries, a distinguished rank in trade. They were remarkuble also, particularly Venice, for a variety of the finer manufactures. Neither could boast of a supply of the raw materials of almost any manufacture in their respective territorles; but their numerous merchant vessels brought a varlety of products from a distance, and the amount of the population of either city was such as to render practicable that division of employment which is the soul of manufacture, and which was at that time almost unknown in other parts of Europe.

Constantinople.-Constantinoplo had the good fortuns to remain untouched by the enemies of the cm pire until the middle of the fifteenth century, a time when eivilization had made progress in the west of Europe, and literature was on the eve of receiving a great extension by the discovery of the art of printling. To this fortunate colucldence of the revival of the arts in the west, at a time when the east of Europe was sinking under the pressure of bsrbarism, we owe the preservation of mueh that was valuable in the anclent world; and, among other things, that of eertain manufaetures and branches of commerce. Constantinople had all along maintained a commereial intercourse with Venice and other ports in Italy, and, in general, with Alexandria. The same had been tha case in regaril to India; for when the oceupancy of Egypt by the Saracens prevented the trade to India liy the Ned Sea, it was kept up by the Caspian and Euxine. But by far the shortest conrsc from the east of Europe to India is by the Euphrates and the Persian Gulf. It was to the extent of intercourse carried on by this channel, some time after the Chisistian era, that we are to ascribe the wealth and grandeur of Palmyra, a city ereeted in the midst of deserts. This would have continued one of the chief routes of communication between Europe and India during the Mildlo Ages, had not the caravans been in perpetual danger from the Ar-iss after the decline of the civilized governinents in this part of $\Lambda$ sia.

Jenice.--The apprehension engendered by the approach of barbarians from the north and east, led a mmber of traders and manufacturers settled in the north of Italy to flx their families in the smsll islands near tha months of the Po. There the surrounding waters afforded them a degree of protection against invaders, who, however formidable by land, had no means of carrying on hostilities ly sea. Sueli was the orlgin of Venice, a city situated in the midst of the waters, and destined to acquire extensive trade from the security attendant on her position, and to take a lead amid the mercantile states of the Middle Ages.

The growing trade between Lurope and India, though of considernlilo value, was not extensive enough to be productive of the wealth ascribed to it by Dr. lobertson and other historians, who, unacquainted practically with commerce and its llmited gains, are realy to lend an ear to the sangulne statements of early writers. Thus the wealth of Venice, commonly ascribed to its trade with Alexandria and India, was the consequence of a variety of causes, no one being of particular importance, becanse several centuries were passed in the gradual increase of its population anil capital. Venice attorded a secure resort in ages when othor conntries wero in tlanger of invasion and plunder. It had also a prudent goverament in times when, in most parts of Europe, thero was little Iden of $u$ frec constitution, or of a regular arlministratlon of justice. Venice was in this state whell, in the twelfth and thirteenth centuries, the increaso of trafle, arising from conveying the crusaders, with their military stores, and the readiness of those zealous combatants to extend the sway of a Christian state, emblaled thut commerein] republic to increase her foreign territories. In general, the foreign poliey of Veulce was pacitic, but she found it ulfficult to aveid hostilities with tho Thrks, or to escape from takigg a part in the rejeated contests which took
place hatween France and Austria for the territory of the Milanese. Those wio take an intereat in tracing the gradual extenaion of industry will find in Venice the origin of aeveral important cominercial institutious. In that city was establiahed the first public bank, and there also was firat introduced a fundeú debt transferable from hand to hand. The same thing held in regard to lesser matters cennected with the details of mercantile business. Bills of exchango, if not invented by Venatian merchants, were first carried by them to a great extent; and the principles of book-keeping by doubla entry were there first understood and applied in practice. However familiar those principles may be to merchants of the present day, they ware too refined for the rude and primitive state of most parts of Europe in the Middle Ages.
Spain.-Here it may be well to point out the fallacy of a notion general in Spaln, and not uncommon in other parts of Europe, namely, that in tho Middla Ages Spain was a flouriahing country, and possessed, in Tarragona, Tortosa, and Zaragoza, great population and wealth, each of these towns being said to have contained several hundred thousand Inhabitants. This singular opinion was widely apread, in consequence of tho prominent figure mada by Spain in the politics of Europe, in the reigns of Charles V. and Phillp 11. The public did not take into accuunt the great aiddition of power conferred on Spain by her possessions in Italy and the Low Countries; wor were there In these days statisticians capable of expluining the very slow manner in which cither cultivation or commerce can acquire extension In a country so inountainous, and with so few means of transport, as Spain. Of roads she can boast only the few that are required for the purposes of government, the cross-roads being littlo more than bridlo paths, and the traffic of tho country being in genral carried on by mules. All this indicates a scanty population and backward state of society, as has been the case in Spaln in every ago; for there is no truth in the traditionary oplulon that her population was greatly thinned by emigration to America. The number of persons who proceoded annually from Spain to America never exceeded the tenth part of thase who at present go annually from Ireland to Canada. The truth is, that tha power of Cliarles V. and Phillp 11. was great only because the power of the other princes of Europe was very limited. The military establishments of that ago were quite insigniticant compared to those of the presént times.
The Hanse Towns.-One of tho chief features in mercantile history during the Middle Ages was the association of towns in the north of Europe for the purpose of glving securlty to mercantile property. At that time the different countries of Europe were very imperfectly governed; there were then no regular posts and very few roads, so that the means of redressing grievances, or of making communications from one part to another, wero very imperfect. Too much has been said of the pollteal power exercised by the llanse Towns, but the association wis of great use in protecting individunl property. It dated from the middle of the thirteenth ceutury, and originated at J.ubeck, a sen-port, which had not in those days more population or wealth thm at pregent, but possessed mueh more comparative inportance, becuuse very few places ln Europe could at that time boast of 30,000 or 40,000 inhahitants. The trade between the Baltic and the west of Germany centred In the harbor of Labeck, in ages when navigators were not sufficiently akilled to proceed to or come from the llaltic by the circuitous route of the Sound. The association of the IIanse Towns consisted first of Iubeck, Hamburg, and llrunswick, hut soon extended to other placen-to Amsterdam, Dordt, Cologne, on the one side, to Dantzle, Könlgsherg, Riga, on the other. These and many smaller towns, to the number of sixty and upward, becamo members of this protectlug body, which continued in a state of union during three cen-
turies. At the end of that time it was gradually dissolved, not by any violence or exerclae of authority, but by the continued progress of elvilization; the dif. ferent governments in the north of Europe having by that time acquired tho power of protecting their mercantila subjects. It is now ahout two conturies since the association of tha Hausa Towns ceased to exist in a comprehensive sense; and for a considerable tine the name has been contined to Hamburg, Lubeck, and Bremen. Hamburg took the lead of other trading towns of the north of Germany, by means clicify of the extent of lts river, and tho ronsequent casy communication with the sea on the one hand, and the interior of Germany on the other. It gained also by the improvement of navigation in the fifteenth and sixteenth centuries, when vessels from tho south of Europe found it no longer necessary to suspend their voyage at Bruges, but found it practicable, and even easy, to proceed at once aa far as tho Elba.
The Netherlands.--The wealth and possession of the Netherlanda belong, like the early opulence of Tyre, and the magnitudo of the trada of Carthage, to the remarkable phenomena of mercantile history. To judge from the physieal aspect of Holland, the general marshIness of the soil, the indifferent climate, and tha tots! ahsence of mineral products, we should be inclined to consider it among tho least favored countrics of Eurole; but all thesa adrantages were balanced, and more than balaaced, by the possesslon of extensive water communication. No part of Europo equals Flanders and IIolland in extent of inlcts from the sea, in the brealth of navigable rivers, or in the ease with which ennals may be excavated. To these advantages, much more than to civil institutions, wo are to ascribe the early prosperit" of the Netherlauls; for these apparently mpromis 'g countries took a lead in civilizntion almost as remarkable as the more favored regions of the north of Itnly. That they were not so carly in the career of improvement, was owing to the comparative barbarism of the countries in the north of liurope with which they held Intercourse; while Italy had communication on one hand with Constantinople and the Fastern empire, on the other hand with the south of lirance, the west of Italy, and various scu-ports which still preserved a portlon of ancient civilization.

Flunders; Holland.-The soil of Flanders, without being naturnlly fertile, was more easily cultivated than the comparatively marshy districts of Ilolland. Hence the early supriority of the Flemings in agriculture and munufactures. It was in the fourteenth century that the art of weaving the tiner woolens was introluced from Flanders inte England, and in the sixtecuth that we derived from the same quarter many useful imports in agriculture and gardening. The progrese of the Dutch in navigation was equally remarkable. The Maese and kiine enalied them to bring down the bulky produce of the interior, such es timber, corn or cattle, to their own const, as well as to carry up these rivers to the inland provinces the various articles of merchundise imported from the south of Europe. Henee the increase of Dorit at Rotterdam. The rise of Amsterdun was owing to a different canse ; to the extent of the Zuyder Zee; to the easy access which that expanse of water attorided to vessels from the Ellie, the Weser, and the Dhatic.

Irruges.- Ilruges owed Its increase to its adoption as an Intermedinte port for vessels from the north and south of Europe. A voyago from the Mediterraucan to the lualtic was in those days a formidable undertaking; sea-faring men accounted it too long to he performed out and home in one season, and gladly cmbraced the opportunity afforded ly the warehousea of liruges for landing their cargo from the south, and taking on board another from the north, without the delay of a passage through the Sound. This plan of dividing the voyages to the north continued during the thirteenth and fourteenth centuries; in the fiftenth it in a great
measure ceas ship muda lt Hameurg, C Intwerp.suthorized by mainly owin which may b lets in the nor perity of An population a so unimprova crease, had n iahatistants the evils of The consequo ued intoleran moval to Am of a great sha In the next $\mathbf{c}$ weight, and t gation of the might posses provinces. I the history of for the Schald til 1794, when of irance. D of tha benefit increase, and: average, of 50
Maritime $R$ gators in the the ocean, an crative traffic Arabs. The mado by the $\mathbf{P}$ than other Eu line necessaril India by a ne days more tha rouize mariti unskillful, so discovery, we the unknown only fifty or s ness marked progress towa tured to forsal sind penetrate From that tin renturers, anm India by the 1497.

Discovery wis ctleeted complished by prise belonge in a sountry well-educated have been ac passed, us is plan, and soli effect ; but, on was specedy, sufficiently en stead of retur ly an inferior the Atlantic.
We now eo when the pro considerablo i metals from A towns of Liuro a much less d In the latter being peopled out numbers.
measure ceased, because the improvements in seamasship made it easy for veasels to proceed directly to Hamourg, Copenhagen, and other northern parts.

Antwerp.-Antwerp succeeded Bruges as the atation authorized by the Hanse Towns; butits prosperity was mainly owing to the width and depth of the Scheldt, which may be said to surpass any of the maritime inlets in the north of Europe. The time of the chief prosperity of Antwerp was in the sixteenth century; its population and wealth had attained a great height for so uniaproved an age, and would have continned to increase, had not the tyranny of Philip II. provoked the iahabitants to insurrection, and exposed them to all the evils of a slege and capture by a military force. The consequence of this misfortune, and of the continned intolerance of the Spanish government, was the removal to Amsterdam of many of the inhalitants, and of a great share of the mercantile businces of Antwerp. In the next century the Dutch acqulred great political weight, and took advantage of it to prevent the navigation of tho Scheldt, that Amsterdam and Rotterdain might poesese exclusively the trade with the interior provinces. This singular prolilition, unexumpled in the history of commerce, remained in force 150 yenre; for the Scheldt was not opened to merehant vessels until 1794, when the Netherlands fell under the dominion of france. During all that time Antwerp was deprived of the bencfit of foreign trade; its population ceascd to increase, and remained stationary at the number, on an average, of 50,000 .

Maritime Route to India.-.The grest olject of navicators in the fifteenth century was to reach India by the ccean, and to curry on what was aceounted a lucrative traffic without interruption from the Turks or Arabs. The discoveries required for this purpose were made by the Portugnese, who, in situation, were nearer than other Europeans to the western const of Africa, the line necessarlly followed by those who aimed at reaching India by a new coursc. The l'ortuguese had in these days more than one prince of the blood disposed to patrenize maritime discovery; but their seamen wore very unskillful, so that in following their uwkward eflorts at discovery, we find season after season passed in tracing the unknown part of the coast of Africa to a distance of only fifty or sixty lengues, This inconceivable slowness marked the navigation of the l'ortuguese in their progress towarl the equator, until, in 1481, they ventured to forsake the evast, stool out to the open ocean, sud peactrated 1500 miles to the south of the line. From that time a bolder course was taken by these adventurers, and at last the discovery of the route to India by the Cape of Good IIope was accomplished in 1497.

Discotery of America.-The discovery of America was etheeted in a very ditferent mumuer. Though necomplished by Spmish vessels, the honor of the enterprise belonged uore properly to Ituly; for it was only in a country aceustomed to navigation, and possessing weliedueated mariners, that so distant a voynge could have been accounted practicable. Mnny years wero passed, us is well known, by Columbus lu forming his plan, and solieiting the aid required to enrry it into effect; but, once embarked in the attempt, the suceess was speedy, becanse the mind of the conductor wne sufficiently enlightened to persevere in the voyage, instead of returning, as would probably have been done by an inferior navigalor before traversing the half of the Athantic.
We new come to the sixteenth century, the time when the productive industry of Europe received a considerable impule from the influx of the precions metals from America. At that time the chicf trading towns of Europe wero in Italy, the Netherlands, and, in s much less degree, In France, England, and Germany. In the latter countries the towns were very small, not being peopled to the extent of one third of their preseat numbers. Nothing shows more elearly the back-
warduess of manufactures in tha age, the imperfect division of employment, or the lin. sd communication between one province and another. There were in those daya few lines of intercourse entitled to the name of roads, or fit for conveying corn or merchandise by wheel carriages. Even in countries comparatively level, such as the south of England, the north of France, the north of Germany, there were no carriage roads, and goods were conveyed on the backs of mules ond Lorses, in the same mamner as over the mountainous regions of the Alps. Nor were there in that time post office establishments for the service of either governments or merchants.

An increase in town population is the beat evidence of improvement in agriculture, as in commerce. In a rude state of cultivation, the lahor of seventy or eighty persons io required to raise provisions for a hundred; so that three fourthe of the inhabitants are obliged to live in country distriets, for the mere purpose of raising subsistence. But as machinery and implements bccome improved, and the art of husbandry is better understood, the farmer can render more effectual the labor of himself and his assistants; there remains a greater surplus of provisions for the support of the inhabitants of towns; and somewhat more of the population are enabled to attach themselves to employmente distinct from agriculture, namely, those of mechanics and manufactures. To this improved condition Europe was slowly advancing, when the discovery of the filver mines of America liad the effect of materielly quickening its progress. This renders it proper to make a few remarks on the supply of gold and silver in early ages.

The precious Metals.-It is somewhat singular that Egypt, a country never remarkable for mines in its own territory, should have been among the first to give an example of mining on a large scale. But the Eryptinns hacl extended their conquests to the southward, where, in the mountains of Nubia, there were extensive mining districts. In these, as in the mines of other parts of the world, mosses of ore contained only par tieles of silver, and the task of raising the ore to the surface was very laberious. This was performed in the Nubian mines with little aid from machinery, and chiefly by munual labor, ns is still the case in many parts of Spanish and Portuguese Anicrica. The next accounts of mining in nucient history relate to Grecec, where, from the monntuinous nature of the conntry, the mines were numerous, though not particularly productive. They were wronglit in Attica, Thrace, and several of the islands. The laborers were paid partly in money, partly in provisions; and the accounts handed down to us by Greck writers show that mining, like agriculture, atforded a fair return for the capitel and labor employed, but no remarkable profit. Spain ha those times, as at present, was remarkable for extensive mining ; as were in a less degree Sardinia, Corsica, and the small island of Elba.

Such undertakings were long carricd on for the public account; but toward the tifth century of the Cliristian era, the Roman government withdrew from most of its mining establislments, allowing individuals to carry them on for their own necount. The quantity of gold und silver in circulation appears to have subsequently deereased; but we are greatly at a loss for correct information in regard either to the state of mines or the prices of commodities, as represented in money, during the Middle Ages.

Influx of Silier fiom dmerica.-It is now three centurice since the inportation of silver from America, in particular from Mexico and Peru, nmounted at first to hulf a million anmunlly, and inerensed to onc, and afterwnd to two millions. This sum was such as to affect the prices of corn, labor, and merchandise generally. It eunsed $n$ gradual rise of prices, earried to the greatest length in maritime districts, in parts comected with ench other liy nuvigation. The published works of the slxtecuth conlury contain many notices
of the risa in the price of commodities, and of the inconvenlence resulting to the consamers from such rise: the advantages to agriculturists and producers generally were not so clearly perceived, or the humble classes enjoying them had not equal means of stating them to the public. The supplies of gold and silver from America to Europe continued during the seventeenth and eighteent: centuries, and on a much larger scale than during the sixteenth; yet their effect was not so great for several reasous. First, the number of persons among whom silver now circulated was far greater than formerly. Gold also had become more common, and began to form the chjef, or almost the sole medium for large payments ; and, lastly, the use of silver for plate, jewelry, watches, and other ornamental purposes, increased greatly in consequenco of the improved circumstances of the middle and upper classes. There remained thus loss silver to add to the coin in circuiation.

Bank-notes.-It was in the elghteenth century, particularly after 1750, that the uso of bank-netes becmus general in England, and subsequently in tho United States of America. This may be compared In its effect on prices to an additional supply of gold from the mine, because its tendency to raise prices is conslderable, though not so great as is vulgarly supposed; because bank paper payable in cash on demand, of which alone we spenk, can never be unduly extended. Bank-notes have as yet obtained little currency on the Continent of Europe; bat in Great Britain, Ireland, and North Anerica, their effect on prices may be said to have been similar to that of the inportation of tho precions metais from America. In either case, the consequence was a rise in the moncy price of corn, and commoditios generally. To comprehend the benefit of auch rise, wo should consider society as divided into two great parts; the producing and the non-producing classes. The latter cousist of capitalists, landl...ders, or fixed annuitants ; the former of furmers, especially tonants on lease, manufacturers, merchants, and, in general, all persona whe carry on business with berrowed capital. If a tenant on leaso continue to pay during twenty-one years the same rent, while the market price of his crops experiences a progressive rise, it fullows that his circumstances will improve. Thas, on the augmented importation of silver from America to Great Britain, which began three centuries ago, there took place a slow but steady rise in prices, tho effect of which was of great advantage to agriculturista, in particular to those who held land on lease. The yeoman who was cantious and persevering thas laid the foundation of a little property, the next generation added to it, and the third rose from the condition of cottagers to that of farmers. This, or something liko this, was the course of circumstances in England, during the chicf part of tive sixteenth, soventeenth, and eighteenth centuries. If the effect was at no time very grent, it was continuod and progressive; for we can trace no great or general decline in the price of agricultural produce until the general peace of 1814.
Trade of Great Britain.--The trade nad navigation of Great Britain, great as it now is in extent, did not by any means make an eatly figure in the commercial listory of Europe. Of this the principal cause was the thinness of her population compared to that of the north of Italy or the Netherlunds, and the consequent insignificance of her towns. The slow progress in trate is also to be ascribed to prlitical causes, to the civil troubles originating with the great barons, the frequent wars with Frauce, and still more to the long and snnguinary contests in the fiftenth century, respecting the rival claims of the houses of York and Lancaster. It was net till the reign of Henry VII., little more than three centuries ogo, that tho ndvantages arising from the extent of coast and abundance of fucl licgan to be brought into active operation. Duriug the reign of his successor, the progress of improvement received lit-
tle patronage from the court, but a most efficient indirect aid from the introduction of Proteatantism. The advantages resulting fron that happy change, and tha development of national industry, were strongly displayed during the long reign of Elizabeth, under the wise adminiatration of Cecil. At that time, also, was felt the benefft arising to the productive cla seses, from the augmented import of gold and siiver from America.
Exports to North America.-A striklng feature in ths trado of England, compared to that of France, Germany, and other Continental countries, is the magnitudo of its exports to distant parts, such as India, North America, and tho West Indies. These different loranches of trade employ a number of seamen, and make a conspicuons figure in the list of yearly exports. They are considered as the piliars of commercial prosperity; but those who estimate them so highly have no idea of tho largo sums of capital that have lieen withdrawn by each of these countries from England. The United States of America consumed English manufactures largely for nearly a century, but in no one year did wo remit back to Great Britain the full value of the articles which we imported. The amount due from the United Statcs to England has exceeded the gencrai estimate, and is known only to the merchants, whe feci the deduction thus made from their pecuniary means. A similar drain has long been mado by her West India colonles, but in a less degree, until within these fifty years, slnce which the capital drawn from England hss amounted to many millions. With India commerciai intercourse was noro limicod; and the exports, cenfined to the East India Company and to a few merenntile houses in London, were on a comparatively smali scale until the present age, durin which the extension of the private trade from Livery. ol, and the alvance of capital on indigo plantations, made the India business assume a considerahle resemblance to that with North America and the West Indies. The real and substantinl benefit arising from commerce takes place at home, and shows itscif In the extension of maunfactures, the increase of towns. the improvement of roads, canals, and harbors.
Of the courso of trade in Great Britain during the last half century, the following is a bricf summary. After the peace with the United States of America in 1783, her trade suffered for some time by the transition from war to peace, but gradually improved; and in the yenrs $1780,1790,1791,1792$, was decidedly prosperous. After this cenme the war with France, which wns at first injurious to trade, but after the abundance of moncy consequent on the extendel circulation of bank paper in 1797, assumed a very different appearance, and seemed to bring a yearly addition to the national wealti. This ostensiblo incrensc of protits was kept up during the chief part of the war, but at the peace the state of circumstances underwent a completo changc ; the transition was great beyond example; prices fell in every department of business, and the year 1810 was among the most gloomy in the commerctal histury. A revival of trado took piace in 1817 and 1818, but it was succeeded ly a long depression. In 1823 trade revived once more ; in 182.1 it became prosperons, and in 1825 afforded a striking example of the abuse of mercantils prosperity; nt the end of that year a general f:ll of prices, and afterward the heavy callis to meet the expenses of the late gigantic railway undertakings, aggravated by the failure of the potnto crop of 1846 , occasioned the grentest difficulty in procuring pecuuiary accommodation, and led to the crisis of 1847.
Effect of War Expenditure.-From the case with whicin money was borrowed by the govornment of Great Britain during the eighteenth century, the wars carried on were both of frequent occurrence and on a scale of great expense. The result was a continued increase of delt and taxation; but the burden did not appear heyond her menns, untii the unprecedented length to which it was carried by the wars of 1793 and 1803.

Both took place the extreme to w ried was the mo lang experieuco his coming into atste of the trad measures, such a and the commer antitled to great not now entertai and it wase in a to be diverted fr of the aristocrac agsinst tho Fren atrocitics of thesc parte, and, ahow checked issue of to an unpreceder In the midst Mr. Pitt, and the suceesors, transf ces to the hands men unconscious rency, and of th pago of neutral, States of Americ tion of the bank waste of the pub trj of unparallel ed by a great de well in tho army great number of ductive employ crease of the wr socuplioyed, as y of persons who it been sceounted price of corn and of a state of war reat to increased lord: and that to ployment of wor of Gireat Briduin 1814, while in th there was a corr return to higher uee fowered rent the upper classes a want of cmplo excuplifies the prices as took p than any other a hereace to peace Decrease of the ud silver from Iy to increase un orders in Spani shortered the su baif, Mr. Jacol calculated the re coin, during the of 1814, nt not 1 the supply of the effect in lowering cxtent it is not form an opinion. nis in 1848 , and ap for any defic ters, but from th filrnished more nual produce of the worid in the ing. The offec prices very larg to give a great and especialiy f Germany.-See

Both took place under the ministry of Mr. Pitt, and the extreme to which he allowed expenditure to be carried was the moro remarkable when we consider hia loag experieuce in finance, and that from the time of his coming into cffice his attention was given to the state of the trade and revenue. Several of his early measares, such as the commutation of the duty on tea, and the commercial treaty with France in 1786, were eatitled to great commendation. A similar opinion ls net now entertained of his revival of the ainking fund; and it was in an evil hour that he ailowed himself to be diverted from his pacille ceurse by the urgency of the aristocracy and his sovereign to take up arms agaiast the French revolutionists. Unfortunately tho atrocitics of these men, the ondless usurpetions of Bonaparte, and, above all, the facilitiea afforded by the unchecked issue of bank paper, carried the expenditure to an unprecedented height.
Io the midst of this hazarious carecr, the death of Mr. Pitt, and the removal from office of his imorediate successors, tranaferred tho management of Britiah finances to the handa of men wholly unequal to the task: of men uncouacious of the precarious nature of paper currency, and of the danger of such measures as a steppaga of neutral navigation, or a war with the United Statcs of America. The consequence was a depreciation of tho bank paper during tive jears, an enormous wasto of the public money, and a burden on the country of anparalleled amount. $A$ state of war is attendel by a great demand for the service of individuals, as well in tho army and navy as in the public officea. A great number of persons are thus withdrawn from productive enployment, and the consequenco is an increase of tho wages and incomes of those who remain so employed, as well as briuging into activity a number of persons who in a season of peace would hardly have been accounted worthy of employment. A riso in the price of cern ant other produce is another consequence of a state of war; this leads to a riso of rent; a rise of reot to increased expenditure on the part of the landlord: and that to a geaeral activity and continued employment of working classes. Such was the condlition of Great Bribinin during the twenty years from 1794 to 1844, while in the tweaty years that followed the peace there was a correspondiag decline, and then a graciual retura to higher prices. Tho fall in the price of prodace lowered rents, and greatly lessened the income of the upper classea; hence a contracted expenditure, and a want of employment for the lower orders. All this exemplifies the precarious nature of auch a rise of prices as took place in the late wars, and will, more than any other argument, confirm the public in an adherence to peace.
Decrease of the precious Mfetals.-The supply of gold and silver from America to Europe continued regularIy to increase until the year 1810, since which the disorders in Spanish Amorica, particularly in Mexico, thortened the supply from that quarter by at least onebalf. Mr. Jacob, in his work on the precious metals, calculated the reduction in the quantity of circulating coin, dariug the twenty years that succeeded the peace of 1814 , at not less than 20 per cent. This decrease in the supply of tho precious metnis must have had some effect in lowering the prices of commorities, but to what extent it is not possible, with ov e perfect data, to form an opinion. But the discovety Ggold in Culifornia in 1848, and in Australia in 1851, has not only made ap for any deficiency in the aupplies from other quarters, bat from these two countries alone there has been futmished more than twice the amount of the entire annual produce of the precious metals from all parts of the world in the most productive perieds of their working. The effect of this has been to raise wages and prices very largely hoth in Europe and America, and to give a great atimulus to emigration from Britain, and especislly from Ireland, and to somse extent from Germany--See Euighation.

Firee Trade.-In 1845 Sir Robert Peel abolished the customs duties on 420 different articles. This measure wasa virtual abandonment of the system of protection, which was shortly after followed by the totai repeal of the cors laws.
Progress of A nerican Commerce.-The sixteenth century introduced the leading European powera to a minute acquaintance with the continent of America. Adventurous navigation had rescued a world from anage dominion, and there were adventurous spirits enough to peopla that world, and identify thenceforward their destinies with it. A hundred years after, and civilization planted her abodes through all this waste. Peculiar, indeed, is the feeling with which these infant days of our country are regarded, so like an illusion does it seem-so like a dream of glowing imagery. We look back as to a classic era, and the romance of Pocahontas, and of Raleigh, of Fernando de Soto, and Juan Ponce de Leon, do they thrill us less than the beatific visions of the Greek, recurring to ages long ago, when Ilion resisted the shock of Agamemnon's heroes, and the Argo sailed away to distant Colchis? The dim antiquity aeems gathered around both of them alike. But let it pass, all-the romance of our history. They imegined not, the men of that day imagined not the stapendous results which have occurred so soon. They saw not tho benign and regenerating influences of a virgin land, preserved for countlesa ages uncorrupted by tyranny, and ignorant of oppression. Could such a soil havo nurtured else than freemen? They saw it not, and do we-even we-seo other than darkly yet tho great consummation, tho mighty deatinies of the regions which, three centuries ago, were proclaimed from the inast-Jead of a crazy ocean bark, a speck upon the distant heaven?

The development of American character is replete with iustruction, and solves one of the most remarkable problems in tho listory of mankind. The untried scenes of a new world, cut off by trackless occans from contact and communion with the civilization of unaumbered generations, were sufficient to introduce, what might have been predicted of them, reaults new, striking, and without a precedent. The indonitable will, the stern endurance, the infloxible and hardy spirit of independence, tho high daring, the lofty patriotism, the adventurous, unlimited enterprise, the genius resolute, active, intrepid; inexhaustible in resources, elaatic in vigor and in freahnese, bueyant ever and hoping on, and executing amid every trying scene, every danger, and difficulty, and disaster-triumphing evory where and in all things. Philosoplyy could have argued this complexion for the men whose fathera braved so much beyond the ocean, and would philosophy hare won less than the fame of prophecy by her judgment?

But we pause not here to lament the causes which have counteracted these genial influences, and left whole regions of America stagnated, as it were, in the very elements of vitality and yct living hopelessly on. Should we refer to Mexico and the South American Statos? What is there here of progress to chronicle, and how much of humiliation? Regions blessed by IIeaven in every thing but in men. Changing ever their dynasties and their despots in revolution and in blood. In motion always, without pregress. In arms, without valor. Loving change rather than hating oppresoors. Proclaiming civilization and annihilating its advances. The bitterness of Voltaire's sneer has no cruclty or injustice in its application to many of them, "en pansant les chevaux de leurs maitres its se donnent lt titre d'electeurs des rois et de destructeurs des tyrans!" Under IIeaven, as it was the destiny of the savago aboriginal, incapable of civilization, and with no law ot progress ingrafted upon hia nature, to fade away beforc the steady advances of European arms and policy, so the Anglo-Saxon element of America, by its flexihility and its power, by tho now elements which it has taken to its if in the trying, yet triumphant scenos through
which it has passed, will and must, in the inevitable course of events, prenide over the destinien of the contiment of America, aiding and direeting them, adding Wre and vitality, rousing dormant and aleeping energies, and dovcloping, apon the theatre of the world, movementa in comparison with which all that hiatory can furniah before the deluge, before the ora of Christ, and since, shall dwindle into insignificance! It noeds ne ardent tomperamant to draw a atronger pieture.

American Commerces in the secenteenth Century.-The early coloniats were exposed for a fearful probation to the mest extraordinary vicisaitudes and necensities. With the axe in one hand they reduced the aturdy foracta into the farm-yard, and with the knifo in the other they reolsted the approaches of the stealthy and sanguinary savage. A meagre enbsiatonce rewarded the toila that knew ne rest, and the charties of the mother conintry were invoked for men whose determined wills grew atronger as they suffered. This period had Its different limits. Fifteen yeare after the landing of William Sale, we find tho proprietary gevernment in England complaining to the Carolinas, "we innet bo silly indeed to maintain idle men." Thirty-three yeare after the landing of Bienville in Louieiana, the Westorn Company threw up their charter in utter hopelessness and despair.

New England's rugged soil yieided a too reluctent tribate to the industry of her sona. They went out cariy upon the ocean by which they were girt in search of hread that the plow yielded not. To this hardy and daring people the boons of Nature were to be fonnd in her apparent denial of them ali.

The eeventeenth century afforde ns, however, but a fow particulars of the trade which had been started in the colonies. That it was limited can be readily imagined; that it should be worthy of any regard at all, is the oniy aource of surpriso. The materials of this portion of our history are meagre. It in sufficient that, in 1647, a trade had been opened from the Northern perts to Barbadoes and others of tho Weat Indies ; that a collector of tho customa was appointed at Charleston in 1685, and that the hardy enterprises of the Nantacket whalemen received their first impulse in 1690.

American Commerce from 1700 to the Revolution.-In the year 1781 we ind a petition read in Parliament from the American colonies that the African trade be thenceforward laid open to them. In the same Parliament it. was conceded that the whole gain of the mother country from the trade of Virginia and Maryland alone amounted annually to $£ 180,000$. The Pennsylvanians ware exporting corn to Spain and to Portugal, and with the proceeds of their shipa and cargoes selecting out merchandise in the English markets. To the Dutch alone they sold 5000 pistelea annnally in liquor and provisions. They had their invoices to Surinam, and Hispaniola, the Weat Indies, Canaries, Newfuundiand, and the other colonies, and $£ 150,000$ from the proceeds to traffic in Britain. "New York," says a chronicle of this epoch, "seuds fewer ships to England than some other colonies do, but those they do send are richer, as dealing more in furs and skina with the Indians, and they are at least of equal advantage to England with these of Pennaylvania. The soil of New England is not unlike that of Britain. It employs about 40,000 tous of ahipping, and about 600 sail of shipe, sloops, etc., about haif which shipping sails to Europe." Now began the parent's jealousy of her offipring. Nothing, it was said in Parliament, nothing is more prejudicial, and in prospect more dangerous to any mother king. dom than the increase of ahipping in her colories. The only use of colonies, added Lord Sioffieid, is the monopoly of their consumption and the carriage of their produce. In 1730 the Commons of England struck an ineffectual blow at the American trade with the French and Dutch colonies, it having been rapresented to them as greatiy detrimental to England and her colonies.
in 1782 a writer gravely announced that the con-
venience of the Americans from the plenty of beavers, hare, coney wool, and many uther furs, gave them euch advantages that, uniens reatrained, they would soon aupply all the world with hata. The Board of Trade of the same year roport that there are more tradea carried on and manufactures set up in the provinces on the continent of America, northward of Virginia, prejudicial to the trade and manfacturee of Great Britain than in any other of the British colenies. In 1750 the Americans were forbidden to work in iron, and Lord Chatham declared not long after in Parliament that the colonies of North America had not even the right of manufacturing a nail. So atringent had becone the protective policy.

In 1764 was imposed an onerona burden upon American commeree by the mother country, grown jealous of its $t 00$ great extenaien. This commeree had greetly enriched the home as well as the colonial government, but the former was too much bliniled by erroneous policy to perceive it. She heeded not the annual purchasea made in her markets with the availis of lumber, beef, fish, pork, butter, hersees, poultry, livestock, tobaceo, corn, flour, bread, cider, apples, cabbages, onions, eto., diaposed of by our traders to the eager West India planters; and Lord Sheffield, in his observations on the commerce of the American States, tells us that at this time the Carolinians, of their exporta to Kingston, Jamaica, took back one-half in the prodace of that country, the middle provinces oneforrth, New England one-tenth, and the balance in specie doliars. The trade of Britain with the Americsa colonies employed in 1769,1078 ships, and 28,910 seamen. The value of her imports from them for that year amounted to $£ 3,870,000$, and of their imports from her to $£ 3,724,606$, ahowing a large difference in favor of the parent country.

In 1770 the imports of Carolina were $\mathbf{E b 3 5 , 7 1 4 , \text { those }}$ of New England $\mathbf{£ 5 6 4 , 0 3 4 , \text { of Maryland and Virginia }}$ C851,140, the exports of Virginia at the same time being double the value of those of either of the others named. Mr. Burke triumphantly announced in the Hoase of Commens, "Our trade with America ie scarcely less than that we carried on at the beginning of the century with the whole world! In the six years endIng with 1774 there was an average import from the colonies into England of $£ 1,752,142$, and an averago export to them in turn of $£ 2,782,066$. Crippled as our energies were, they could not be repressed. It was a vain effort to confine the enterprise of a peoplo whoso views embraced tho world itself, into the narrow conipass afforded by English ports, and by portions of Europe eonthward of Cape Finisterre. When the day of reckoning came, as it did at last, for theso reckicese abmses of power, and they were proclaimed in the bill of rights, not the least of the uaurpationa for which retribution was demanded is to be found in the clause: 'She has cut off our trade with all parts of the world.'"
In the article Colonies a table will he found compiled from the most authentic sources, which exhibits the trade of the mother country during the whole of the periods we have heen conaldering; the tablo is of great interest, embracing as it does in one view almost the entire commerce of America for seventy-six years.
From these statistics we learn the relativo commercial position of the different provinces. Dividing the whole time einbraced inte periods of twenty-five years each, we observe in the first period that Virginia, Minryland, and Carolina furnish almost tho entire exports, and import much more largely than New England and New York. In the second period New York greatiy increases her importe, which still fall short of those of New England, or Virginia and Maryland, while her exporta are enhanced but llttle. The whole exports of New York, Pennsylvania, and New England combined did not reach the amount of these of Carolina singly. In the third period Pennaylvania imports mere
largely tho the Southe Caroline gland, and plaatation, traie a ficb Cositmert Federation. prise was o jiberty me every mero mon defens of power, when that federation and for the Gbric whi when the necessities union, and From th Constifutio great regul ystem pre ras coneeq fluctuation, diffierent p governmen of encouras trade at th tute than blis wey bo liid the for From 1784 remarkable imports int otherwise t and for ser their value, consequene and great c
The folli glish custor

Commere and until 18 men and $p$ and there mach in $u$ and into t and union, fortunes, $a$ first grant Constituti eign nation dians." 1 ci under t servea, " 1 ling claims aud the se mented an struggles and marks The finsne to nee the ech state or coaveni the confed ready to fo ite ruins.
f besvers, them such ould sown 1 of Trade tradea carices on the a, prejudi. ritain thsn the Amer.ord Chatat the colht of marle 18 the propon Amerwn Jealous had grestal govemd by erro the annu. - avails of ultry, livepples, cablers to the leld, in his can States, f their exhalf in the incea oacnee in speAmerican $28,910 \mathrm{sem}$ $m$ for that iports from ce in favor

3,714, those d Virginia ne time bethe others ced in the ca is seareeoing of the years cnd$t$ from the anl average pled as our
It was a ople whosa arrow conlions of Euthe day of 30 reckless in the bill which rethe ciause: rts of the thole of the is of great almost the years. ve conmerividing the r-five years rginia, Maire exports, ngland and ork greatly of those of wihile her ole exports gland comof Carolina iports more
largeiy than New York, hut lose than Liow England; the Southern provinces retain their rank as exporters, Caroliaa being still greater than New York, New England, and Penasylvania together; and Georgia, a new plantation, equala New York. Truly is the empire of traile a fickle and inconatant oce.
Conemerce of ths United States under the Articles of Federation.-During the Revolution all forelgn enterprise was of neresalty susponded, and in struggiling for liberty men taught themselves to forget and deapise every mera physical want. Leagued together for comnuon defense, the atates were able to reaist every device of power, and sustain a long and bloody contest. But when thist conteat ; is ended and liberty won, the confederation exhibited at once ita nervelessness for peace, ad for the arta, and policy, and dutiea of peace. The fabric which conld resiat the storm crumbled away when the aunshine succeeded. So true is it that the nceessities of men aro the only durable bond $0^{\circ}$ their onjen, and that without this union there is no strength.
From the close of the war until the adoption of the Constitution there may be considered to have been no great regulating head in America. No nniformity or system prevalied among the bintes, and their commerce wss consequently exposed to the utmost uncertainty, fluctustion, and loss. Tonnage dutien were ievied in diffirent ports, as it suited the esprices of the several governments, and as they were more or less desirous of encouraging partieular branches of navigation and trada at the expense of others. By a policy more astute than that of her neighbors, Now York managed in this way soon to increase largely her foreign trade, and Laid the foundation of the empire she now maintains. From 1784 to 1790 our commerce exhibited the most renarkable results. For seven years consecutively the imports into American cities from Britain were never etherwise than twice the amount of the exports to her, and for several years were three and even flve times their value. A drain of specie is sald to havo been the consequence, a very natural, though not necessary one, and great commereial embarrassment and distress.
Tha following table mado up from records of the English custon-house will be found of interest:

| Years. | Exporth, Amerien to Uritain. | Imports America from Britain. |
| :---: | :---: | :---: |
| 1784. | 2740, 346 | 23, 279,467 |
| 1885 . . . . . . . . . . . . . | 898,604 | 2,308,093 |
| 1866.......... . . . . . | 443,119 | 1,008,405 |
| 5877................ | 898,63T | 2,009,111 |
| 1788 ................ | 1,023,784 | 1,836,142 |
| 1609 ............... . | $1,050,188$ | 2,625,298 |
| 1600 . . . . . . . . . . | 1,101,07t | 3,43t,778 |

Commerce of the United States under the Constitution and until 1812.-In this crisis the attention ol thinking men and patriots in all parts of the nation was aroused, and there was perhaps nothing which contributed so moch in urging the States into a general convention, and into the adoption of a constitutional government and union, calculated to preserve their libertics, their fortunes, and their glory in sll the future. One of the first grants of power conceded to Congress under this Constitution was that of "regulating commerce irith forrign nations, nmong the several states, and raith the Indians." Referring to the state of thinge which existed under the articles of federation, an able writer observes, "Interfering regulations of trade and interfering elains of territory were dissolving the attachments aud the sense of the common intereat which had cemented and gustained the Union during the arduons struggles of the Revolution. Symptoms of distress and marks of humiliation were rapidly accumnlating. Tho finances of the nation were snnihilated. In short, to ues the language of tho authora of the Federalist, each state, yielding to the voice of immediato intereat or convenience, suceessively withdrew itt support from the confederation, till the frall and tottering edifice was ready to fall upon our heads, and to crush us benenth its ruins. Most of the federal constitutions of the world
have degenerated in the same way, and by the same means."-Kкат, voi. i. p. 217.

No more, said a memorial from Charleston, on the adoption of this Constitution-no more shall we lament our trade, almost wholly in the posseselon of foreigners, our vessels excluded from the porta of some nations and fettered with restrictions in others; our msterials, the produce of our own country, which should be retained for our own use, exported and increasing the maritime consequence of other powers. With this memorial before them, and others of a aimilar eharacter, Congress at its first secaion appointed a committee to report upon "the expediency of increasing the duty upon foreign tounage carrying American produce to places in America not admitting American vessels; and to frame a bill placing the same restraint pon the comnierce of foreign American atates that they place upon ua."
By the report of Alexander Hamilton in 1790, it appears that the total tonnage of the United States at that time was as follows:
Amerlonn veasels in foretgn trade 803,008 tona.
Conaters above twenty tons ..... $118,18 \mathrm{I}^{11}$
In the fisheries .................. 26,262 " $-502,626$ tons. Total foretgn tonnage 262,013 Un!ted States and Briti ish... United States and other foreign ........................... 838 is

Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 7 76,089
The tariff of 1789 was specific and ad valorem, and discriminated 10 per cent. in favor of the trade conducted by our own shipping. In this we but imitated the navigation acts of Europesn states, by means of which it has been supposed the enormous maritime consequence of some of them was principally secured. We shall not pauso to argue a point in political economy so long mooted among writers of the greatest ability. The jealousies of nations have gone and atill go very far. Even the philosol lical Voltaire thought that their gain could not othe wise acerue than with each other's loss. England lo g imposed the most onerous restrictions upon all other commerce than her own, and her advances in conseqnence, or notwithstanding, have been unprecedented. Her tonnage when she commenced this system was less than that of tho United States at the adoption of the Constitution.
There was one department of our maritime industry which demanded the earliest attention of government, and we think its general interest will bo sufficipnt apology for any space wo may nliot to its consid. ationtur fisurimes. Mr. Jefferson, in 1791, then Secretary of State, furnished an admirablo report upon the subject, which we proceed to analyze. As early as 1520 there were fifty ships upon the Newfoundland coasts at a time for cod. In 1577 the French had 150 vessels there, the Spaniards 100, Portuguese 50, and English 15. The French fisheries begen early to decline. In 1768 the Americans took but little less than the English, and the French took least of all. In 1789 England obtained double the quantity of America and France together. During the Rovolntion the American fisheries were almost entirely abandoned, and Mr. Jefferson left it to the wiadom of Congress to decide whether they should not be restored, by opposing prohibitions to prehibitions and high duties to high duties, on the fish of other antions.

The whale fishery was prosecuted by the Biacayans as early as the fifteenth century. The British began its encouragement in 1672 by bounties. The Americans opened their enterprises in 1715 . They suceceded carIy in the discovery in the Sonthern Seas of the spermaceti whale, which they attacked instead of the Greenland litherto known to navigators. In 1771 we had 204 whalers. During the war England held out the largeat hountles to the trade, and so Irresistible were these in the depressed condition of our fishermen, that it is said many of them were on the eve of removing to Halifax, to prosecute the business there, and wero only deterred by a letter

Frapes would abato ber duties upon oil. The fittia isle anic of Nantucket is the great heart of these fluheries. A sand-bar, said Mr. Jefferson, fifteen miles long and three broad, capable by its agrioulture of maintaining twenty familice, omployed in these fisheries, before the Rovolution, between 5 and 6000 men and boy, and contained in ita oniy harbor 140 vensels.' In agricuiture, then, they have no resource, and if that of their fisherios eat not bo pursued from their own habitations, It is natural hey should seek others from which it can be followed, and principaliy those where they will find a ammeness of language, religion, laws, hablit, and kindred.

In 1808 Mr. Huger atated to Congress in his report, that it would seem the cod fisheries liad gained ground since the Revolition, but that the whale fiaheries, on the contrary, had been for some time past on the deciline. The war of 1812 was most disastrous to the fisharmen, but thoy soon afterward recovered their prosperity, and on the first of January, 1844, we had 64t vesseis engaged at sea, of tho vaiue, including catch ings, of $27,784,000$. On the first of January, 1846, there were 680 ships, 84 brige, 21 schooners, and 1 aloop; tonnage 238,149 ; manned by about 20,000 seamen and officers, consuning over threo miliion dollars annually of American produce. Proceeds of whale fishcries $\$ 9,000,000$ per annum, of which only $\$ 2,000,000$ are re-exported.

## In 1844, Mr. Grinnell atated in Congress:

"Thla fleet of whaltag ahips Is larger than ever pursned the buainem before. Commercial hlatory furniahea no neconnt of any parallel. The voyagea of thone engaged in the aperm Ashery avarage three nad a half ycara; they mearch every sea, and often cruice three or four montha with a manat each mact-head on the look-out, wthout tho eheering aight of a whale. They are hurily, honest and patrioile, and will, an they did In the lant war, stand by thelr country when In dan. cer; they will man sar ahtpa, and fight our battles on the coean."

## Mr. Clayton remarked ia February, 1846 :

${ }^{\omega}$ We have at thfa time a commerce of $8,417,000$ tons of thip. ping, England has $2,480,000$ tona; so that we are nearly, nay, it ts my opinion, we are completely on a par with her. I doubt, atr, whether Engiaod han a greater commerclal marion or greater intereats to protect. We have more than 700 whale chipa tn the Pacifle, an extensive Iadlan commerce and a great and dally growiag commerve whth $^{\text {th }}$ China."-Baowni's Whating Cruise and Ifictory of the Whaling Fishery, 1840, p. 689.

At the close of the last century there were many canses which tended to add a vast importance to the commerce of the United States. For several years this commerce enjoyed unparalleled and almost unmeasnred prosperity. Scarc admitted into the family of uations, we found the whole civilized worid engaged In the fiercest and most sanguinary conflict. A wise and indeed " masterly" neutrality was of course the true policy of the nat : 2 . The carrying trade of the world fell at once inte ur hands. We suppiled the mother countries with the products of their own colonies. The East and West indies alike were opened to our shipping. Their rich products filied our warehouses, supplying consumption anil ro-export. Prosperity such an this, however, was fated to be brief. The conflicting powers sacrificed every thing to their mutual hatred, and minded littie the rights of a nation they had not even learned to respect. Protestation ended in war, and the rights of our saliors were established on every sea. With the return of peace in Europe, the carrying trade departed rapidiy from us.

In 1791 the king and council of England admitted American unmanufactured goods, except fish, oli, blubber, whale fins, certain naval stores, ctc., into Britain at the same duties as British American produce. The treaty of commerce of 1794 between the two governments was a reciprocity one, both parties binding tivemtelves to impone no greater reutrictions upon each other than they imposed upon others. This treaty regu-
lated our East Indis commeree, then newiy opened and promiving a great extension.

From 1790 until 1797 Pennayivania continued largely the greateat exporter in the Union. In 1791 South Carolina oecupied the thirl rank. In 1797 N ww York for tha flrst time took aluading position, which she has over after maintained. The tirst exports of Tennessee and Mississippi date from 1861, those of Kentucky and Indiana from 1802, of M'chigan 1808, Orienas Territory 1804, and Ohio 1806. This we shall see more particulariy hereafter. It is sufficient now to induige the reflections which the facts beforo us se naturally a waken. Mysterious have been the changea. Old age and premature deeay have falien upon cities once famous for thoir trade; and the quaya, where the flags of all nations floated, have come at last to be comparatively deserted. We look around, and there have started up othere like mature creations, full of vigor and staiwort oven in their infancy. How hardiy can reason realize that these wondrons changes are not all the picturen of a fertio imagination. Where is pleced Virginia now, that mother of states, who in 1769 exported to foreign lands four times as much as New lork ? and where is Carolins, whoee experts at the same time doubled those of New York and Pennsyivania together, und were equal to five timea those of ali New Englanif? If trade grow to colossal atature, its proud empire, liasteas aiso to swift decay.

The diffeulties which beset our commerce in the eariy part of the present century, when the rival hostile powers of Europe, jealous of our prosperous neutraily, strained every nerve to invoive us in titeir disputes, will be cailed to mind by every one familiar with history. We wero made the victims of the poilicy and arts of these nations, and even as early as 1703 their depredatione upon our commerce were cousiderabic. In five months aione of that year it was stated in the liouse of l'eers, that tix hundred $\boldsymbol{A}$ merican vessels were seized or deteined in Britigh ports for aileged violations of orders and decrees claimed as principles under the iaw of nations. These aggressions upon our rights were iong and extensively practiced, as the following table will extilbit:

Seizeris of Amarican Vesseles froy 1503 to 1812.
By the British.
. 917
By the Freach. K 8 Ily the Neapoiltan. ..................................................................................... 70 Total vessels. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 ity
And this at a time when we were at peace with all the nations on eartin! Indeninity for these spoliations has been the aubject of numerous treaties; among others, that of England in 1794, France 1803, and Spain in the Florida treaty of 1819. But this whole period, so interesting in our annals, deserved a minute survey.
On the conquest of Prussia in 1806, Bonaparte conceived the iden of crushing the maritime power of Britain, by prohibiting aii the world, in his famens Berlin Decree, from conducting any trade with her or her aumerous dependencies. The retaliatory British orders in Council followed at once, and all countries in the world connected in any way with Irrance, or opposed to England, were deciared to lo under preciseiy the same restraints as if actually Invested in strict bieckade by Jritish forces. Incensed by se unexpected and ruinous a measuro, Napoleon issued the menor abie Milan Decree, making lawful prize of all vessels subnittiug at any time or in any way to British searcin or taxation. It was natural that these iilegal and unauthor: ized proceedings should excite the atmost interest and concern in the United States so materialiy and even vitally affected by them. We protested in vain. The administration recommended as the sole remaining alternative of peace an embargo, which Congress adopted in 1807. This measure tho commercial intareats warmIy opposed as ruinous to them, and memoriais were forwaided from many quarters praying for ita repeal. To
these it was leaching fo merce and dition to pr try for art to supply matter, ho ieon, who to lirance, glish comn ingston, ${ }^{4}$ woaid be just ground In 1800, was substit er regarded ify her in American
The Con sion of the named, if $t$ hostile and pretended nearly one oficialiy p part of Na turn the g milisting With Eing wa might itternately she had jor deep to bo ed a crime and the ag set ef $s i x / t$ solemu dee vere retrib dignity of
Commer been an e

## great pow

ired for 0
tice, or, if ed, and rank, the sin oniy, prepared can be wi the seas br
The his materiai e to it, even has been internation name. I most stro minds of ment, per imperfect fettered a ernment, and in eve When sh and meet ground? We advo erons. N movemen The $\mathbf{c o s}$ forthe ear been refer tariffs ha first-name radically The Gern
do also $t$ of ali nanparatively started up nd atalwart ason realize pictures of rginia now, $d$ to fereign ad where is rubled those ; and were i? If trade hastena also e rival hosperous neuill their dismiliar with policy and d 1793 their ousiderable. tated in the vessels were d violations s under the our rights 10 followiag hole period, ute survey. laparte conwer of Britmons Berlin r or her nuitish orders tries in the or opposed reciacly the trict blockspected sud mor sible $\mathrm{M} / \mathrm{i}$ sels submitarch ortsx. d unauthorinterest and $y$ and even vain. The maining aless adopted reats warmsls were for repeal. To
hese it was replied by govermment, "The embargo, by leaching foreign nations the value of American commerce and productions, will inapire them with a disposition to practice juetice. They depeud upon thin country for articles of first receselty, and for raw materials to aupply their manufactures." Such a view of the matter, however, did not occur to the mind of Napoteon, who regarded the embargo as greatly favorable to lirance, and alding him in hia warfare againat English commeree. "Tro submit," said he to Mr. Livingaton, "to pay England the tribute ohe demanda, woald be for America to aid her against hims, and a just ground of war."
In 1800, a non-intercowris with Britain and France was substlituted for tho embargo, which the latter power regarded as such an ovidence of hoatility as to justliy her in proceeding at onco to condemn millions of American property aa lawful prize.
The Congreas of 1810 determined upon tho admission of the commercial vessels of the powers abovenamed, if the act were preceded by a revocation of their hoatile and arrogant decrees. Tho lirench government pretended to close in at once with the proposal, but it was nearly one year later before her repealing ordinance was aficialiy promulgated, evideneing a dispoaitlon on the part of Napoleon to play with na in bad faith, and te turn the game at any time to hifadvantage-so humilisting to our prido are the events of this entire era. With Eingland it was long doubtful what relationship re might expect to sustain. Hoatilo and peacesble siternately, according to her capricea or her intereata, she had provoked in American minds a resentment too deep to be subdued, and forbearance longer was regarded a crime. The Ordere of Council remmining in force, and the aggressions increasing daily, a nen-intercourac act ef sixty days was reaorted to, the preludo only to a scienn declaration of war. Then was the hour of severe retribution, and then was the national honor and dignity of Amorica triumphantly vindicated !
Commerce of the United States since 1812,-This has been an ers of prosperity and rapid advance, and the great powers of tie civilized world seem to have realized for once ine rich benefita of a prolonged armistice, or, If another expression be preferred, a protracted, and we hopo permanent pesce. In commercial rank, the United Statea of America, subordinate to Britaio only, and having outetripped all the world elac, is prepared to share a divided sceptre, until that aceptre cas be wielded alone by her hand, and tho empire of the seas be transferred to her keeping
The history of our trade for the last thirty years has material enough for many more pages than we can allot to it, even with the greateat condenaation. Tho period has been celebrated by an appreach to a more liberal internationality, and a reciprocity something else than in oume. The progrese in the last year or two has been most atrongly marked toward that ultimatum, in the minds of every lover of truth and of human advancement, perceived tirst by Lord Bacon, and ably, though imperfectly, presented by his followers-comnerce unfettered as the winds that waft it-free religion, free govermment, free press, free traffic-freedom every where, and in every righteons thlug throughout all th.e world $\mid$ When shall nations escrifice their foolish jeslonsies, and meet each other on this high, broad and Christian groand? We are no partisan here, but a coamopolite. We advucate a policy as wide as the carth, and as gencrous. No aingle nation can afford to set alone-the movement, if made at all, must lie universal.
The condition of Europe now, howover, argliea little or the early trinmph of those principles to which we have been referring. The latest British, French, and Anstrian tariff have been restrictive, though in the case of the first-nained nation her policy wonld appear about to be radically changed, as in the late repeal of the corn-lawe. The German states maintain the exclusive policy, as do also the Spanidrda and Portuguese. Russis wae

Intest In adopting the restrictive syatem, hat wo soe by her last tarif some evldences of lmprov is $\boldsymbol{n t}$, which nelther Sweden nor Denmark furnishes. the datte of the Italian statea have been generally moderate, ax cept for Rome and Naples, and we recognize a great improvement in these in the late tariff of his IIolinest the Pope. The commercial aystem of Holland is the most liberal in all Euroje, but the South American taten appear to be governed by the same spirit as that which dictated the policy of Spain.

In 1824, Great Britain seemed deairone of remeving in nome degree her reatrietions upon the navigation of other powers. She entered Into reciprocity treatlet with many of them, and in thia was soon after imitated by the United States, in the treatien of 1820-6-8-0 with Central America, Denmark, Sweden, Hanse Towna, Prussia, Brazil, Austria, Hungary and Bohemia, Mexico, Russia, Veneznela, Greece, Sardinis, Netherlanda, Ilanover, and Portugal. Wo also entered into similar but limited reciprocity treatica with France in 1822 continued afterward, and with England in 1821, 1825, and 1833 , and a full reelprocity treaty with Canada in 1854. These treatiea were arranged by Mr. Kennedy, Chairman of the Committee of Commerce, Into three classes.

1. Thoso securing mutual privileges of export and import of produce, the growth, prodince, or manufacture of the stlpulating powere, transported in their ewn vessels, without discrimination on tonnage.
2. Those providing fer a levy of dutles not less favorable unon the tonnage of cither than are levied upon the tonnage of other powers.
3. Those requiring equality of port charges.

For atatistica of the commerce of the United States, see articlo Unitel States.

Commercial Policy of tho United States.-wThe United Statea have, since tho very commencement of their existence as an findependent government, ever been willing and ready to reciprocate, to the fullest extent and in the most liberal epirit, all privileges and favors, whether of navigation or commerce, extended to their flag by foreign nations. To this end, and in order to antici. pate the usually dilatory procesa of treaty negotiations, the President of the United Statea is veated, by act of Congrees, with authorlty to tasne ble proclamstion granting to the vessele of foreign nations equal and similar privileges and favors to thoso extended to the vessels of the United States In the ports of such foreign nations, on recelving official notice thereof from the sccredited agenta of such governments.

Veasels belonging to the following nations are admitted, uncler the provisione of law, trestice of com: mereo nnd navigation, or conventlons, into the ports of the United States on the ssme terms as American vessela, with the produce or manufacturea of their own or any oticer country: Argentine Confereration, Austria, Belgium, Brazil, Chill, Denmark, ${ }^{*}$ Ecuador, Great Britain, Greece, New Granada, Gustemala, Hanover, Hanse Towns (Hamburg, Bremen, and Luhec), Mecklenburg-Schwerin, Netherlands, Oldenburg Peru, Prussia, Russia, San Salvador, Sardinia, Sweden and Norway, Tuscany, Two Sicilies, $\dagger$ Venezucla.

Vessels belonging to the following nations, with which the United States havo reciprocal treatics on the footing of the "most favored nntions," or with whom reciprocity exists, are admitted into the ports of the United States on the same terms, as respects tonnage or narigation duties, as vessels of the United States, with the produce or manufactures of their own or any other country : Bolivin, Costa Rica, Mexico, Muscat, Ottoman Empire, Portugal, and Uruguay.

- The treaty between the Linlted Statea and Denmark ex pired on the 14th day of Aprit, 1858.
+ By decree of December 18, 1854, equality with the national fleg is offered by the gevernment of the Two Siclles to the vesacis of such nations as reetprocate the favor. This equality appliee to the direct and Indireet trade.
leading events of a commerctal character IN TII' $16 T E 17 \mathrm{TH}, 18 \mathrm{TH}$, AND 19TH CENTURLES.
Siztecnth Century.-1503. The Portuguese commander Albuquerque, on his way to India, discovered Zan-zibar.-1504. Death of Isabella, Queen of Spain, and friend of Columbus, November 26, s. 53. Colambis returned from bis fourth and last voyage. The Venetians, jealous of the new Indian trade of the Portuguese, incite the mamclukes of Egypt to commence bostilities against them.-1505. Francesco de Almeira, Portuguese viceroy, established factories along the coast of Malabar, and his fleets interrupted the commerce of Egyptians and Venctians. - 1500 . The sugar-cane brought to Hispaniola from the Canarlea. The Great ILurry, the first ship of the English navy, built.-1507. Sargeret of Savoy, governess of the Netherlands, concluded a commercial treaty with Eingland. I'ortuguese settlements formed on Ormus by Albuquerque, and o Ceylon by Almeida. Madagascar visited ly Tristan d'Acunha.-1509. The Venstians recover Padua, and rise again in power. Diego Colunbus (son of Christopher) governor of Spanish America.

1510-1520. -The lortuguese established themselves at : : ascea (i511), which becomes tho centro of their trade with tho neighboring islands and with China.1513. Vaseo Nunez do Balboa crosses the Isthmus of Darien, and reaches the Pacitic.- 1510 . The lio de la Plata discovered by Juan Diaz lo Sotis.-1516. Death af Ferdinend of Spain, January 23, 玉. 61.-1217. The Portuguese trado with China at Macao. Negro slaves brought to Ilispaniola. The sweating siekness (cold plague) raged in Loudon.-1518. Silveyra opens the Portugucse trade with Bengal.-1519. Feruando Cortez attacked Mexico. Fernando de Magelhaens aailed on his expedition to tho Pacific, and laving passed throngh the Straits now bearing his name, tiscovered the Ladrones and Philippines, and was murdered by the natives. -1520 . Cortea took the City of Me: ico.

15:1-1530.-After the death of Magelhaens (1521), Cano conducted the squadron the Moluccaa, und (in 15:2) returned to Seville, via Cape of Good Ilope; having concluded the first circumavigation of the globe, in 1151 days.-1521. First discovery of Reru, by l'izarro and Almagro.

1531-15t0.- P'orto Bello and Cartagena (Spanish Main) foundel in 1533.- Mines of Zacatecas discovered. - 1533. Cortez cuntuered Cuzco and Quito, the capitals of Peru. - $\mathbf{1 3 3 1}$. The Sound opened to the Netherland merchants. Canada discovered by Car-ther.-1535. Tho uso of tobacco tirst known in Earopo. -1536. Final auljugation of Peru; eliscovery of Cal . fornia by Cortez.-1537. Conquest of Now Granala.1540. Cherry-trees brought from Flanders and planted in Kent, England.

1541-1550.-The Portuguese admitted (1512) to trade with Japan.-1543. Death of Copernieus: he teferred until his las 'ays the publication of his great work, De Orbium Calestium Revolutionibus.-1ü4. Discovery of the mines of Iotosi.-1516. Rate of interest in England fixed at 10 per cent. (3i ltenry VIll.). $-\infty-15 \mathrm{ts}$. Introduction of the orange-tree from China into lortugal.
15.51-1560.-.The London Steelyard Company (the first commercial company established in lingland, 1232 ) deprived (1051) of their privileges.-1532. All loans at usury declared illegal, and subject to forfeiture in Eirgland. The King of France (IIemry II.) prohibits the export of money.-1558. The Salters' Company, London, established.-1560. Ordinary rate of interest at Antwerp, 12 per cent. ; and fixed at the same rate in Cerrany, Flanders, and Spain, hy Charles V. Lourse established at Antwerp.

1501-15i0.-Mercinant Tailors'School, London(15ti), institutad.-156\}. The Manillas, celed by l'ortugal to Spain, received the name of the Phllippanes.- 1067. The Ioyal Exchange, Lonton, fuunded by Sir Thomas Gresham, September 7. Caraceas, in Venezuela, built
by the Spaniards.-1568. Some ships, conveylng money from Spain to the Duke of Alva, are detained by Queen Elizabeth at Southsmpton and Plymouth.-1669. Luis de Atalde revives the waning power of Portugal la India. Drawing of the first Engllsh lattery- 1500 . Tha Royal Exchange, London, opened by Queen Elizabeth.

1571-1580.-Rate of i:nterest limited in England to 10 per cent. - 1571 . Large accumulations of gold from Amerlca. Manilla built (1573), and mado the seat of a Spanish viceroy.-1576. Tho plague dovastated Italy. 70,000 died at Venice. Martin Frobisher aailed, June 11, to seek a northwest passage; failed, and returned. -1577. Drake commenced his voyage round the world, November 15.-1578. The Narwegians nttenpted to interrupt the English commerce with Archangel. California explored by Drake. First colony planted in Virginia, by Gilbert. Tulips introduced into Englaad. -1509. Queen Elizabeth entered into a treaty of com. merce with the Sultan, and established the Turkey Company. - 1580. Drako returned from his voyage, November 3; the order of knighthood conferred upen him.

1581-1590.-CCorrection of the Calendar by Gregory III. (1582) ; October 5 th made the 15 th. -1583 . Queen Elizabeth claimed the soverelgnty of Newfoundlame, and fortitied St. John's.-1584. lialeigh conducted a second colony to Virginia. - 1585. Drake and Frobisher, with a powerful tleet, attacked the Spanish settlements in the West Indies. Davis explored the northeast coast of America. Coaches first urad in En-glanil.-1086. Success of Drake In IIispaniola, San Domingo, and Florida. Potatoes and tobaceo introduced into England. Cavendish sailed on his expedition.1587. The Scottish Purliament (James VI.) adepted 10 per cent, as the maximum rate of interest. $-15 \times 8$. The Spanish armada aailed from Lishon May 29, entered the English channel Juiy 19, and was defeatel. Lord Burleigh established the flrst newspaper, The English Mercury.-1589. Cavendish returned witligreat wealdh, taken from the Spanish settlements during his voyage round the world. The stocking frame invented by Rev. Wiltian Lee, of Cambritge. -1590 . The first pa-per-mill in England established by Jolm Spillman, at Dartford, in Kent.

1591-1600.-English ships parsued the whale-fishery (i591) at Cape Breton. Telescopes improved and bronght into general notice by Jansen, of Midelle-burg.-1593. Whalelone first used in Englaul.-1594. The Falkland Islands discovered by Ilawkins.-1595. Oranges first known in lingland, -1598. Whale-fishery commenced at Spitzbergen.-1600. The Linglish East India Company cotablished.

Seventeenth Century.-1601-1610.—Debato on monopelies (1601), defended by Francis llacon-abolished by Queen Elizabeth. The first English factories established on the Malabar coast.- 1601 . The rate of intereat in France (Henry IV, and Sully) fixed at 61 per cent.-1602. Artichokes introduced into Lingland from IIolland; Asparagus from Asla; Caulitlower from Cyprus,-1604. The plague raged violeatly in london.-1606. Einglish companies chartered for settlements in Virginia. The Freneh estul)lished themselves in Canada. Now Ilolland tiscovered by the Dutch.-1608. Hudson explores the bay now kinown as lludson's l3ay. Quehee built.-1609. Many l'uritans left England for Virghia, with Sir Thomas Gates and Sir (i. Somers-the latter driven to the llermulas (or Suners' lslands). The Dutch, by Jovying heavy tolls at the mouth of the Scheldt, transfer the commerce of Antwerp to Amsterdam and lottordam. Copper coln first issued by the Mint, London. Armistice of twelva years concluded between Spain and the United l'rovinces.-1C10. Batavia acttled by the Dutch on the island of Java. The Invention of the thermoneter ascribed to Fra Paolo, to Sanclorio, and to Drebbel of Alkmaar.

1611-1620.from the Turk in the Levan at surat, in I Gulf. The bu - 1614. Logar Coffee in use bay to which sge of the Dat bar. Patent last and wate engiao. - 162 Plynouth col 1621-1630.First permane by the luteh. tive by the S gland reduce Scotland in 16 in Virginia,-Cuyana.-162 ia Brazil: Ls 1631-1610. eats and priv stamp on ca Lord Baltimo quired the is 1 ing ship-mon -1335. Proc coaches stamd tiniquo appre ship-money illegal.

16:11-1050. ( $16: 2$ ), and n Batavia.-16 Diemen sent north of Japa quered by tl applied tho took possess
1651-1660. Dutch (1651) at Amboyna terest reluce - 1660 . Tea 16in-16io. (1662), and of the liagli the Duke of meree, marit under Colle April 28.-1 ber 2 till Sc £8,0001,000.every ton of aid the rebr ner lioyal

16:1-1680 ary, $\left.16 ; \mathrm{F}_{2}^{2}\right) \mathrm{si}$ commercial of newspap clared (May

1 tixt-1690 Ion (tix3) l6s5. Flie thaced the $r$ 3 per cent. ress inl bal

1694-170 25th April) ghandeomn pointed for ter of Bauk -ligan. Ad Willian I! manufactu

1611-1620. - The United Provinces obtained (1612) fiom the Turka advantageous terms in their commeres in the Levant. - 1613. Eaglish factories established st Surat, in India, and at Gombroon, on the Persian Gulf. The buccaneers noted on the cossta of America. -1614. Logarithms invented by Lord Napier.-1615. Coffec in use at Venice.-1616. Baffin explored the bay to which his name was given- $\mathbf{1 6 1 8}$. First voyafe of the Danes to India, and settlement at Tranquebar. Patent grsated for a fire-engine for raising ballast and water, nearly on the principle of the steameagiao. - 1620. Silk first manufactured in England. Plymouth colony settled.
1621-1630.-'The conquests of the Dutch commeneed. First permanent settlement on Manhattan Island (1621) by the Lutch. The colony st Nova Scotis (1622) settiod by the Scoteh.-1624. 'The rate of interest in England reduced to 8 per cent. ( 21 James 1.), and in Scotland in 1632.-1625. The culture of silk commenced in Virginia.-1626. French settlements at Senegal and Gayana.-1627. Suceess of the Dutels admiral, ILein, ia brazil: Lissequibe, in Guyana, founded by him.
1631-1610.-Charles I. revived monopolies, sold patents and privileges to new companies, and imposed a stsmp on cards.-1632. A colony of Catholics, under Lord Baltimore, settled in Maryland, The Dutel acquired the island of St. Eustatia.-1634. Writ for levying ship-money in Eugland. The Duteh took Curacoa. -1035 . Proclamation in England sgainst hackneyceaches stanning in the streets. Guadaloupe and Martinique appropriated by France.-1637. The levy of ship-meney w... 10 pular.-1640. Ship-money voted to be iliegal.
1011-1650.-Tasman discovered Van Diemen's Land (1612), and named it In honor of the Ditch governor of Bstaria.-1618. Cayenne colonized by the Frencli. Van Diemen sent De Vries and Schaep to explore the ocean north ef Japan.-1645. The greater part of Candia conquered by tho 'Iurks.-1647. Huygens invented and applied the pendulum to elocks. - 1650. The Duteli took possession of the Cape of Good IIope.
1651-1660.-Quarrel between the English and the Duth ( 1651 ) about the right of fishing; the massacre at Amboynn ; and colonial encroachments. Rate of interest reduced by the Rump Parliament to 6 per cent. - lo60. Tea used in London.

1661-16:0.-Bombay and Tangier ceded to England ( 6662 ), and free trado with llrazil. -1663 . The protits of the linglish Post-ofllee and wine licenses, granted to the Duke of York. The finances, manufnetures, cemmerce, marine and colonlal system of France, improved ander Collert.-1665. London athleted by the plague, April 28.-1666. Great fire in London, from September 2 till September 6 ; property destroyed valued at $£ 8,000,060$.-1667. A tax of twelve-pence levied on every ton of coal brought into Londen, January 18 , to aid the rebnilding of London. The tirst stune of the nev Hoval Jixehange laid (August 23) by Charles 11.
16:1-1680.-The money in the Exeliequer(12th Jansary, $16 \mathrm{i}_{2}^{2}$ ) seized by Charles 1I. Great confuslou and commercial distress followed. -1680 . The publication of newspapers and pamphlets without a license declared (May 16) to be Illegal in England.

16kt-16it.-A penny-pest first established lu London (thasi) by a private individual named Murray. lishs. The P'ojes of lione, by compulsory process, reduced the rate of interest on the publie deht from 1 to 3 jer cent.-l li88. The Venetiaus made further progress in Dahontla.

1691-1700.-Origin of the llank of Dagland (1694, 25 h Aprii), under William III. Stamp duties in Engiandeommenced, 28thJune.-1695. Cemmissionersappointed for building Greenwich Mospleal.-1697. Charter of 'lank of Lingland renew dill 12 months' nothee. - lifox. Adiress of the Einglish Ileuse of Commona to Willian III., for the discouragement of the woolen manufucture and the prometion of the linen, 10 th June.
-1699. Czar Peter introduced the computation of time in Russia by the Christian era, but adhered to the old style. Dampler explorci the narthwest coast of New IIolland.

Lighteenth Century.-1704. The Boston News Letter published-the first newspsper in tho American colo-nies.-1708. Bank of Eagland charter renewed, and agsin in 1713.-1709. Copyright set In England, 8 Anne.-1710. The South Sea Company originsted, 6th May.

1711-1720.-A espitsl of $£ 4,000,000$ raised (1711) for the South Sea Company.-1711. Rio Janciro taken by the French admiral, Duguai Trouin,-1712. The first stsmp duty on newspapers lovied in England.-1718. The Clarendon Press established at Oxford, by the profits of the History of the Rebellion. - 1714. The rate of interest in England reduced from 6 to 5 per cent., and all contracts at a higher rate declared void. -1716 . John Law originated his baaking and Mississippi schemes. -1717 . First project of a sinking fund for the liquidstion of the English nationsl debt. Law obtained extended privileges for his bank.-1718. Law's Company declsred to be the Royal Bank-1720. The South Sea Company Act, passed 7th April. South Ses stock rose to 890 , June 2. Rage for speenlative schemes. Seventeen petitions for joint-stock patents refused. South Sea bubble burst, 30th September.

1721-1730.-The directors of the South Sea Com. pany (1721) taken into custolly, 24th Jannary. Aislsbie, sud other members of Parliament implicsted, expelled. Walpole, Lorl Treasurer and Chancellor of the Exchequer, $2 d$ April. The estates of directors of Sonth Sea Compsny, amounting to two millions sterling, for-feited.-1723. Act passed to prohibit English subseriptions to the Ostend Company.-1725. 'Tumults at Glasgow, 2 tht June, on sccount of the Malt tax. -1726 . Cotton a staple product of Ilispaniola.-1729. Fire at Constantinople; 12,000 honses and 7000 people perished. Jolm Law died at Veaice, 2Ist Msreh, x. 68.1730. Clarter of the East India Company renewed.

1731-1740.-Culture of silk commenced (I732) in Georgia. Darliamentary grant to Sir Thomas Lambe (1732, April 3) for having lutroduced the sllk-enginc. -1733. The English geverument refused to join the Dutch in stopping the East India commerce of the Danes and Swedes.-1733. The Excise law proposed in Eagland, and abandoned by Walpole. - 1734. English act passed against stock-jobbing. The new Bank of England building opened 5 th June, in Threadneedle Street.-1736. High tide in the Thames. Westminster IIall tlooded. Parliamentary debates published in the Gentleman's Magazine.-1740. The first circulating library in London established at 132 Strand. Parliamentary debntes prepared by Dr. Johnson.

1741-1750.-Charter of Bank of Eugland (1742) renewed. Lord Anson returned ( $\mathbf{T} 14$ ) from lits voyage round the world, with $£ 1,250,000$ ln treasure. -1750 . A riot at Tiverton against the introduction of Irish worsted yarns, 16 th January. Dounties granted, and a company formed, to encourage tho British and white herring and cod fisheries.

1751-1760.-A1s act of P'arliament (1751, 24 Geo. II.) orters the Gregerian (or new) style to bo used In Great Britain.-1753. Two thousand bales of cotton exported hy Jamalea.-1754. Commencement of war between Eingland and France, and military operations under Washington in Virginia, etc.-1759. The llank of lingland lssued $£ 15$ and $£ 10$ notes, 31st Mareh.- 1700 . Culture of silk commenced in Comnecticut.

1:01-1770.-Opening of the Duke of Brligewater's ('anal (1761) between Manchester and Liverpool.-1762. The island of Cuba surrendered to Lord Alhemarle and Almiral Pococke. Nartinigue, St. Lucla, St. Vlneent, and other Islands taken from the French.-1764. Flrst lmprovement of the steameenghe by Watt, llank of Eingland charter renewed,-1765, Stamp Act for Ameriea passed by the Irithsh Parliament, March,-1767.

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The House of Commons resolved to Impose dutles on various articles imported into America.

1771-1780.-Arkwright's aecond patent (1771) for his lmprovement In cotton apinning. Culture of ailk consmenced in Pennsyivanla.-17i2. Commercial panic in S.ondon, caused by the failure of Neal, Fordyce, \& Company, bankers.-1778. Tea doatroyed in Bosion harbor, 16 th November. The Governor of Bengal made governor of all tha Britiah settlements in India.-1774. Tho petition of tho Massachusetta Aasembly to Parliament presented (January) by Dr. Franklin, who was then removed from office of deputy postmaster-general for the colonies. Burko'a celebrated speech on the tea tax, April 19.-1774. Watt, in partnorshlp with Boulton, founda his steam-engine establishment at Soho. -1776. Captain Cook sailed on hls third voyage.1780. Charter of the tirst Bank of North America, opproved by Congress 26th MLay.

1781-1790.-Bank of England charter renewed, on making further advances :o goverumont of $\mathbf{£ 3 , 0 0 0 , 0 0 0}$. Necker published his finencial statement for France 1781, and retired from office.-1782. National Bank of Ireland established. - 1783. Charter granted to the Bank of Ireland.-1784. Tho Bank of New York chartered, 9 th June.-1786. Brltish treaty of commerce with France.-1787. "Pennsylvania Socicty for the oncouragement of Manufactures and the nseful Arts" formod. Cotton exported by West India Islands.-1789. Issue of assignats in France, 17th December.
1791-1800.-Vancouver'a voyage of tiscovery (1791). The buckle-makers of Urmingham petitioned l'arliament againat tho use of ahoe-strings. Numerous riots at Birmingham, - 1793. The firat embassador from Turkey arrired in London, Decembor 20. Whitney's cotton-gin invented and tirst used.-1795. Eimbargo on all Duteh ships in Englislı ports, 20th January. Warren Hastings acquitted, 23d April.-1797. Suspension of the Bank of England, 26th February. Notes of $£ 1$ and $£ 2$ lirst iaaued, Mareh 11.-1798. Silver tokens issued by tho Bank of Englantl, 1at Jnnunry,-1799. Sugar first extracted from beet-root, by tho l'russlan chemist Achard.-1800. Genoral diatreas and riots in England, caused by tho high prico of brend, Jnnuary. Dispute reapecting the elose of the century. Ialande decided that 31st December, 1800, is the last day of the 18th century. Unlon of Grent Britain and Ireland, 2d July. Bank of England charter renewed until 1833.

Nineteenth Century. - 1801-1810. - Embnrgo laid (January, 1801) on all Russlan, Danish, and Swedish vessels in English ports.-I802. Santee Camal, South Carolina, complated.-1803. Louislana bold by France to the United Statos for $\$ 15,000,000$. The first printlogpresa in Naw South Wales oatablished at Sydney. Caledonia Canal opened for travel. Trial of ateamboat on tho Seine by Fulton, 9th August. The first bank in Ohio chartered.-1804. Wilberforce's slave-trade bill rejected hy the llouse of Lords. The Cote Napoleon adopted. Ice lirst exported from the Inited States to the West Indies,-1805. The Gregorian calendar agnin adopted in France. - 1806. The Cape of Gooll Hope surrendered to tho Finglish. Abolition of the alavetrade by English l'arliament, 10th June. The loom invented by Jacquard, a mechanic of Lyons. East India locks opened at London, 4th August,-1807. Milan decrees against English commerce, 11th November. Fulton's tirat voyage on the IItilson. The llank of Kentucky ohartered. First mannfactory of woolen eloths in the Unlted States establiwhed at Plttsficld, Massachusetts. Middiesex Cunal, Massachusetts, completed. -1808. Manufneturlng tistricts of Manchester, etc., petitioned for peoce,-1 $\mathbf{1} 10$. Weaths, by anicide, of A braham Goldschmidt, Francis Baring, and other English nereliants.

1811-1820.-English culneas publicly sold for a pound note and seven shitlings, - I811. 'Mr. Itnrner's
rejeeted. First steamboat built at Pittaburgh.-1812. Sorious riots in the manufacturing diatricts of lancashire and Yorkshire. Declaration of war by the IInited Statea agalnst England, 18th Junc. - 1814. London Times firat printed by ateam, 29th November. -1815 . Veto of the United Statea bank bill by President Madison. Bank rechartered for 20 years.-1816. The new Russian tariff prohibited the Importation of nearly all Brltish goods. Bank of England advanced $£ 3,000,000$ furthor to government, making a total of $£ 14,060,000$,1817. Paris first lighted by gas. Virst atommoat from New Orleana to Loulsvillo.-1818. First I'elar cespedjtion of Captain John Franklin left England. Steamboats built on Lake Erio.-1819. Emigration to Cape of Good IIopa encouraged by tha Brltish govermment. Tho steamshlp Sarannah arrived at Liverpool from tho United States, 15th July. Commoneenient of the suspension bridge over the Menai by Telford. The first bank in Illinols chartcred.-1820. Florida ceded to tho United Stntes by Spain. Suspensiou bridge over tho Tweed. First ateanier nscended the Arkansas River.

1821-1830.-Captain Parry's and Lyon's expedition to tho Arctic Ocean left England 30th Nareh, 1821. IRank of Eugland resuned specio payments, - 1822 , Funeral of Coutts, the Lonilon banker, 4 th Mureh. The first cotton-mill in Lowell erected.-1823. Revival of business in the English factories. - 182 2. Advance in the prices of agricnltural produce in England. Act passed for the 'Thames Tunnel, 2.Ith Junc. Fauntleroy, banker, hung for forgery, 30th Novenher. Chanplain Canal, New York, completed.-1825. I'nnie in tho Engllsh money market (December). Failure of numerous country banks. Firie Cannl completed. $\mathbf{1 8 2 0}$. Mr. Iluskisson's frec-trade policy advocated in llouse of Commons liy vote of 223 to 40 . Coin in lank of England reduced to $£ \div, 460,000,28$ th February.-18:27. Commercial confidence restored in Ingland, and employment for the poor. "Soclety for tho Diffusion of useful Knowledge," estahlished at the instance of Lord Broughnm. Union Caisal, Pennsylvania, completed. Quincy Iailroad completed.-1828. Delaware and Iludbon Canal, Syracuse midOswego Cnnal, New York, completed. India rubber goods manufactureal in (onnecti-cut.-1829. Increaso of silk manufactures in Eingland and reduction of dity on raw allk. Prize awarded to Mr. Stephenson for his locomotive englne on tho Liverpool and Mancliester Jailwny. Subacription by Congress to the Chesnpeako and Ohio Connal, May 8. Departure of Captain lioss on his voyage of diseovery. thesapeake and Delaware Canal opened, 17 th Octo-ber.-1830. Opening of the Liverpool and Manchester Lallway, 15th September. Freo mivigation of the Hlack Sea opened to the United States by treaty, 7 th May. Charles X. tled from l'aris, Mst July. West India trade with the United States opened to lifitish vessels. Independence of Belgium acknowledged. Jenusylvania State Canal finlshed.
$1 \times 31-18.10$. - l'arlinmentary reform bill introduced in 1831 by Lord John lussell ; rejected by the llouse of Lords, 8th October. liree trnde convention at I'hiladelphia, October 1. Stephen Girard died Lhth Deremlier, ㅈ: XI. Insurrectlon in Jnmaica, 2sth Deember. - 183:. Vete of Inited States Bank hill by l'readdent Jnekson, 10 h July. New tariff net passed by Congrese, Inly. Ohio Stnte Canal finished. Albany snd Schenertaly Railroad, Colımbia Railrond, I'ansylvanla Railroad, Neweastlo and Frenclitown IRailrond, cons-pleted.-1833. Tee first exported to the East Indies from the Linited Stntes, 18th May. Opening of the Thina trado to the English. Finst India Company charter renowed; censed to ho a commercial boily. Jank of lincland eliarter renowed. Vaury restrictions romoved in Fingland from nll commercial paper having less than threc months to mature. Mr. Clay's tariff bill passed by Congress, Removal of tho deposits from the l'nited States Bank, Septomber.-18:34. The Chinese sus pend intercourse with the Jinglish at Canton. The
first bank minster Ban lation of th dent Juckso nation of 12 rejected by British Wes opened for Bank of Ms intemnity Washingto Tlank of Ma of $\$ 20,000,0$ Boston and kailrond, co Bank expir nia United Stump duty the Commer thracite cent dependence by Spain, 4 market, Jun don. Furtl gland. Fui May 10. 4th July. erick, establ don ta Soutl shire : herois Exchange, I of specio pry bill defente ploring exp ton Roads, 1 lshed in E. stopped, De at l'hiladel ures in the cester to Spr London, col adopted in by Wilkes, 1 arrived fron (the Britant Icodia, 17 t President T by Congres public lands corporation tember. 1.

1811-18: cedelf ( $18+1$ nia Cnited ary, and ma of Cipier an teade of C'at glish renew lean clocks movement Wilkes reth Junc. Asl August. whleh it wn turn of Cap ber. 'I'rent Chinn.-18 linted Stat dime, Alnt charter of 1 tween llalti of tnited Treaty het United Sta In left F:n Anti-corn-l Britain arri
first bank in Indiana chartered. London and Westminster Bank commenced businesa, 10th March. Kesolutlon of the United States Senato condemning President Jackson for removal of depoaits, March. Nomination of Roger B. Taney as Secretary of the Treasury, rejected by vote of 28 to 18 . Abolition of slavery in British West Indies. Baltimore and Ohio Railroad opened for travel to Harper's Ferry, 1st December. Bank of Maryland falled, 24th March.-1835. French Indemnity bill paased, 18th April. Baltimore and Washington llailroad opened for travel, 23d Auguat. Haok of Maryland riota in Baltimore, 8th Auguat. Loss of $\$ 20,000,000$ by firo in Now York, 16 th Decembor. Boston and l'rovidence Railroad, lloston and Worceater Railronil, compleied.-1836. Charter of United Statco Bank expired March 4, and aucceeded by Pennsylvania Cnited States Bank. Reduction of the nowspaper Stamp duty in Eingland, 15th September. Failure of the Commercial and Agricultural Bank of Ireland. Anthracite conl used for ateamboata on North River. Independeuce of South American republics acknowledged by Spuit, 4th Decomber.-1837. Panic in the London insrket, June. Failurea of Anierican bankers in London. Further modifications of the usury laws of lingland. Faiture of banks in the city of New York, Dlay 10. Grand Junetion Railway, England, opened tith July. Revolt in Canada. Nont do liétó, Limerick, estallished.-1838. Tailway opened from I.ondon to Southampton, 17th May. Wreck of tho Forfan shire: heroism of Grace Darling, $\overline{5}$ th September. Royral Exchange, London, burned, 10th January. Reaumpion of specio payinents in New York, May. Sub-treasury bill defented in Congress, Junc. United States Explaring expedition, under Captain Wilkes, left 11 numpton Reads, 1 "th Angust. Ioprisonment for doht abolished in lagland.-1839. British trado with China stopped, Decenber. Second suaponsion by tho bauks at l'hiladelphia (9th September), followed by bank failures in tho South and Weat. Western Railroad, Wercester to Springfled, opened ist October. Unien Bank, landon, commenced business.-1810. Peuny postage adopted in Eingland. Antaretic continent discovered by Wiikes, 19th Jnnuary. First steam vessel at Boston arrived from lingland, 3d June. First Cinard ateamer, (the Britamio) arrived at Boston 18ih July; and the Acodia, 17th Angust. Fiscal Bank bill vetoed by President Tyler, 16th Augast. Bankrupt law jassed by Congress, 1 Kth August. Bill for distribution of pohlic lands passed by Congress, 23d August. Físcal corporation bill vetoed by l'resident T'yler, 9th Seltember. Loan of $\$ 12,000,000$ anthorized by Congress.

1811-1800.-'1'ho dsinnd and harhor of Hong Kong ceded ( 1841 ) by the Chineso to England. Peunsylvanla E'nited States lank fallod third time, 5th liebruary, aud made an assignment 4 th September. Union of $\mathrm{E}_{\mathrm{i}} \mathrm{per}$ and Lower Canadn, 10th Fobruary: Foreign trade of Canton suspended, and hostllities with tho linglith ronowed. 21st May. Canton taken 27th. Amerlean elocks exported to Eugland.-1842. Anti-corn-law movement in Parlimment by Sir R. Deel. Captain Wilkes returned from his exploring expertition, 11 th June. Ashburton trenty ratifled by tho Seunto, 20th August. British treaty with Chinn (e9th August), by which it was agreed to open five free ports.-1843. Roturn of C'aptalin Ress from the South Pole, Gth September. Treaty of commerce by Sir 11. I'ottinger with China.-1841. Treaty of ammexation of Toxas to the linited Stutes rejected by the United States Sunato, Rth Junc. Auti-rent riotg in New lork, August. Nocinater of lsank of lingland. Magnetio telegraph hotwrea labltimoro nnd Washington. Cheap jostago act of Colted States wont into operation Jniy 1.-1815. Treaty between United Statos and Chinu ratitiel by United Staton Seuate, 1 tith January. Sir John FrnokJln jeft lingland 25th May on hia Aretio expectition. Antiocorn-law lengue at Manchester. Steamship Gireat Britain arrived at New York, 10th August. Troaty of
annexation of Texas ratitied by United States Senate, lst March. Loss of $\$ 6,000,000$ by tire in Now York elty, 19th July. I'eel miniatry resignod, 11th Decem-ber.-1846. Oregon treaty between England and the Unlted States signed in London, 17th July. Second failare of the potato crop in Ireland. Steamship Great Britain atranded in Dundrum Bay, 221 October. Declaration of war with Mexico by tho United Statea, 12 (h May. Now tariff lill passed by Congresa, 28ti, July, Veto of French spolintion bill by President Polk, 8 th Auguet.-1847. (iold in Californla diacovered. Unitad States ship Jamestoun left Boston 28th March, and frigate Maccdoniun, 18thaly, with provisions for relief of the Irish. Great conmercial distress throughont Great Britain, Sept.-Nov.-1848. Tho State of Maryland resumed pnyment of interest 1st Jannary. Treaty of peace botween Mexico and United States, slgned 30th May. Suspension Iridge at Niagara Fulls, completed 29 h July. Edict to incorporato Bauk of France with. nino branches, 27th April. India rubber life-preserv. ers invented.-1849. Penny postago aclopted in Prussia. Eirst oxperiment of a submarine telegraph at Folk-stone. $\mathbf{- 1 8 5 0}$. lopez invaslon of Cuha. $\dot{\Sigma} 20,000$ reward offered by Parliament for discovery of Sir Jolm Franklin, 8th March. Collina line of steamers to liverpool commenced operations. Steamer Atlantic left New York, 27 th April. The celelrated Koh-i-noor dianond, valued at $\$ 2,000,000$, brought to Englind, July:

1851-1858.-Tho London exhibition opened 1851, May 1. Contract of I'acha of Egypt with Mr. Stepherison for a rnliway from Alexandria to Cairo. Railways completed between St. I'etersburg aul Moscow, Dublin and Galway. Collins steamer I'acific arrived in Liverpool, May. Yacht Anerica won the race at Cowes, 2ed August. Iludson River Railroad opened to Albany, 8th October. Dr. Kane returned from tho Grimuell expeelition, Octoler. - 1852. Construction of French Crystal Palace ordered, February. Expedition of United States naval forces to Jupan, March. Dr. Ras returned from hls seareh for Sir John Franklin, February. Ship Prince Albert retumed from search for Sir John Franklin, Th Octoler.-18ī3. Trial trip of tho caloric stenmahip Rricason from New York to the Potomac, 11th January. Second Aretic expedition left New York, 31st May. American expedition arrived at Japan, 8th July. Loss of tho steamships Humbolet, bth Decem-ber.-1854. Combined fleeta of England aud France entered the Black Sen, 11 th January. Loss of the steamer San Francisco, 5th Janunry. Stenmer C'ity of Glasgooo lost, Alareh. Declaration of war by Englnud againat Russia in behalf of 'Turkey, 28th Mareh. Commercial treaty between United Statea and Japan. French loan of $250,000,000$ frnnes, ammounced Marel 11 , and 'l'urkish loan of $£ 2,727,400$. London joint-stock bankers admitted to tho clearing-house, June 7. Crystal l'alnco at Sydenham, opened 10 th June. Bombardment of San Juan by ship, Cyam', 13th July. Loss of steamer Arctic, 27th September. Captain M'Clure retufns from Arctic discovery, 28th September. - 1855. Discovery of Captain l'rankiin's remains. $\quad £ 10,000$ nwarded Captain A'Clare ly l'arliament. Paris exhibition opencd 15th May. Submarine telegraph wire laid in Black Sea. liesistance by United States to payment of Sound dues. First raibroad truin crossed suspeusion bridyo nt Nlagara, 14th March. Jrench loan of $500,000,000$ francs taken, ieth Jnnuary. Suspension of Page, llacon, \& Company, Adums \& Compuny, San Frinciseo, 22d Februnry. Euglish loan of $£ 16,000,000$ tuken by Rothschilds, 20 th April. Ships Arctic nud Releose, Captain llartstene, Jeft New York for relicf of Dr. Kano and party.-185b. Tho Arctio discovery-ship, Resolute, was drliverod to the lritish authorities nt Portsmouth, 80th December.-185\%. I'rial trip of the United States frigute Niagara, e2l April. Suspenaion of Ohio 1.ffo and Trust Company, New York, ©4th August. Suspension of the hanks at l'hiladelphin, 25th Suptember; Baltinioro, etc., 26 th; Now York, 14th October.

Commerce, Code de. This was a part of the Codo Napoleon known as Les Cinq Codes and afterward as Les Six Codes. The Code de Commerce was promulgated in January, 1808. It was fombed in some measure upon the ordonnances of $1673-81$ of houis XIV. On account of the many modifications which the code of 1805 had undergone, a new text of the code was pronulgated in January, 1841. The Code de Commerce is considered the best part of French legislation. The institution of the commercial tribunals has been of great advantage to France, and has been adopted in other countries. These courts, of which there are 213, consist of a president and two or more judges, all chosen by the mereliants among themselves, and for a limited time: they are not paid for their services, but the greffier or reglatrar receives a salary. The Code de Commerce cousists of four books: the first treats of commerce in general; of tho various descriptions of consmercial men ; of the keeping of books; of companies and partuerships; of brokers, commissioners, carriers, etc. The second treats of maritime commerce; shipping; insurances; bankruptey, etc. The third concerns bankrupteies; and the fourth treats of the commercial tribunals, their jurisdietion, and proceedings. By a law of Apil, 1838, appeals in matters above 1000 franes (formerly 1000 francs) are carried to the Cour Roynle of the distriet.-Bons's Cyclopedia.

The French eode is retained in Rhenish I'russia; in the kingdom of Naples with some few modificntions; in the Cnuton of Geneva, in Switzerland, and in Belgium ; and formed the basis of tho code of Lonisiana, auggested or prepared by the late Lidward Liviugston.

Commercial Treaties. The first treaty of commerce made by England with any foreign nation, was entered into with the l-lemings, 1 Edward $1 ., 1 \geqslant i 2$. The second was with l'ortugal and Spain, 2 Edward II., 1308.-See Treities.

Commodore, a general oflicer in the navy, invested with the command of a detachment of ships of war destiped on any particular entorprise, and his ahip is distinguished from the rest of his aquadron by a broad pendant tapering toward the outer end, and sometimes forked. The word is corrupted from tho Spanish convendador, which signities both the superior of a monastery and a knight who holds a commandery. Commodere is also a name given to the convoy or leading ship in a fleet of merchantmen, which carries a light in her top to guide the other ships.-E. 13. See Convoy.
Companies. In commerce or the arts n company is a number of persons associated for the purpose of carrying on sonno commereinl or industrial undertaking. When there are only a few individuals associated, it is most commonly called a copartinery; tho term company being ustully applied to largo associations, like the Eust Jndia Company, the Bunk of England, ete., who conduet their operations by means of agents acting under the orders of a bonrd of directors. Companies have generally been divided into two great elasses -exclusive or joint-stock compnnies, and open and regulated companies.

1. Exclusire or ,oint-stock Companies.-By an instltution of this sort is meant a company having a eertuin amount of empital, divided into a greater or sumaller number of trausferable shares, matiaged for the common atvantage of tho shareholders by a body of directors ehosen by and responsible to then. After the stock of a company of this sort has been subscribed, 10 one can enter it withont proviously purchasing one or more shares belonging to some of the existing memhers. The partners do nothing individually; all their resolutions are taken in common, and aro carried into effect by tho directors and those whom they employ. According to the common law, all the partners in a joint-stock company are jointly and individually lable, to the whole extent of their fortunes, for the debts of the company. They may make arrangements anong
themselvea, l:miting their obligations with respeet to each other; but unless established by an authority competent to set aside the general rule, they are all indefnitely responaible to the publlc.
"In a privato copartnery, no partner, without the consent of the company, can transfer his sliare to another person, or introduce a new member into the company. Each member, however, inay, upon proper warning, withdraw from the copartnery, und demand payment from them of his ahare of the common stock. In a joint-stock company, on the contrary, to member can demand payment of his share from the company; but each member may, without their consent, transter his share to another person, and thereby introduce a new number. The value of a share in a joint atock is always the price which it will bring in the market; and this may be either greater or less, in any proper tion, than the sum which its owner atands eredited for in the stock of the company."-Wealth of Nations, p. 333.
2. L'tility of Joint-stock Companies.-Whenever the eapital required to carry on any undertaking exceeds what may be furnished by an individual, it is indispensable, in order to the prosecution of the undertaking, that an association should be formed. In all these cases, too, in which the chances of suecess are doubtful, or where a lengthened period must necessarily elnpse before an undertaking can bo completed, an individual, though ready enough to contribute a small sum in conneetlon with others, would, generally speaking, be very little inclined, even it ho had the means, to encounter the whole responsibility of such enterprises. IIence the necessity and advantage of companies or associations. It is to them that we are indebted for those caunls and railways by which every part of the conntry is intersected, for the formation of so many noble docks and warehouses, for the institution of our principal bunks and insurance offices, and for many other establishments of great public utility earried on by the combined eapltal mind energies of large bodies and individuals.
3. Branches of Industry, for the Prosecution of which Joint-stock Companies may be aldantageously establish$e d$.-In order to insure a rational prospect oî suecess to a company, the undertaking should admit of being carried on accordlag to a regular systematic plan. The reason of this is sutficiently obvious. The business of a great association nust be conducted by fuctors or agents; and unless it be of auch a nature ns to admit of their duties being clearly pointed out nud defined, the association would cease to have any eftectual control over them, and would be, in a great measure, at their merey. An individual who manages his own affairs renps all the advantage derivable from superior skill, industry, aud economy ; but the agents, and even directors of joint-stock companies labor, in nost cases, entirely or prineipally for the advantago of others; and ean not therefore, however conscientious, have the same powerful motives to act with energy, prudence, and ecenemy. "Like," snys Dr. Smith," the stewards of a rleh man, they are ajt to consider attention to small mintters as not for their master's honor, and very easily give themselves a dispensation from having it. Negligence and profugion therefore must always prevail more or less in the mangement of the aflitirs of such in company." It also not unfrequently happens that they suffer from the had faith, as well as the carelessness nid oxtravagnace of their gervants ; the latter having in many instances endenvored to advanco their own interests at the expenso of their emolnyers. Heneo the different success of companies whoso business may bo conducted according to a nearly uniform system-such as dock, canal, and insurance companies, railrond companies, etc.-and those whose business does not adinit of being reduced to any regular plan, and whero much must always be left to the sagacity and enterprise of those omployed. All purely commereial companies, trading upon a joint atock, belong to the latter clasa.

Not one tition of agents tant cou this circ ate then ment, $\mathbf{n}$ when it protecte

The $A$ 1769 (E of $C 5$ joi rious bre parts of ed, thou Most of lication lar fate. perience associati cial und not be $p$ and whe peculiar clination tion to $t$ trade, th fense an should $h$ may refu due shar tection o Compan of the ot od, seem pased ne any safo on with 1 war, fact was net traders w vested w necessary ont any o "a comp and expe moto and bie to inc to grant trade for and most pense the ехрегіне tha benefi be vindie like mond ventor, at the expir taialy to found nee hands of company, jects of t be doabte even in s lish a join whether $t$ gcously e regulated
4. 1 iper such comp ors appoit er, posses pays a fin comunonly to the lusi upon the

Not ons of them has boen able to withstand the competition of private adventurers; they can not subject the agents they employ to buy and sell conmodities in distant countries to any effectual responsibility ; and from this circumstance, and tho abuse that usually insinuato themselves into every department of their management, no such company has ever auceecded, unless when it has attaiaed some exclusive privilege, or been protected from competition.

The Abbec Morellet has given, in a tract published in 1769 (Examen de la Ripone de M. M., p. 35-38), a list of 45 joint-stock companies, for tho prosecution of various branches of foreign trade, established in different parts of Europe since 1600 , every one of which hind failed, though most of them had exclusive privileges Most of those that have been established since the publiention of the Abbe Morellet's tract lave had a similar fate. But notwithstanding both principlo and experience concur in showing how very ill fitted a large association is for the purpose of prosecuting commercial undertokings, there aro cases in which they can not be prosecuted except by associations of this sort, and when it may be expedient to grant them certnia pecaliar privileges. When, owing either to the disinclination or inability of government to afford protection to those engaged in any particalar department of trate, they are obliged to provide for their own defense and security, it is obviously necessary that they should havo the power to excludo such individuals as may refuse to submit to the measures, or to bear their due share of the expense, required for the common protection of all. Tha Russian Company, tho East India Company, tho Levant or Turkey Company, nnd most of the other great trading compnnies that have existed, seem principally to havo grown out of a real or sopposed neecssity of this sort. It was not believed that any safe or ndvantageoos intercourse could bo carried on with barbarous countries without the aid of ships of war, factories, interpreters, etc.; nnd as government was not able or willing to afford this assistance, the traders were formed into companies or associations, and rested with such peeuliar privileges as appeured to be necessury for enabling them to prosecute the trade without any oxtrinsic support. "When," says Dr. Smith, "a company of nerehants undertake, at their own risk and expense, to estublish a new trado with some remote and barbarous mation, it may not be unreasonaLee to hecotporute them into a joint-stock company, and to grant them, in casu of saccess, a monopoly of the trade for a certain number of years. It is the easiest sad most natural way in which the atate con recompense them for hazariling a dangerons and expensive experhnent, of which the public is afterward to reap the benefit. A temporary monopoly of this kind may be vindicated upon thu sumo principles upon which a like monopoly of a new machine is granted to its inventor, and that of a now book to its anthor. But upon the expiration of the term, tho monopoly ought eerainly to determine; the forts and garrisons, if it was found necessary to establish eny, to be taken into the haids of the govermment, their value to be paid to the company, and the trate to be lnid open to all the aubjects of the state."- Vealth of Nations, p. 339. It may be doubted, however, whether it bo really necessnry, even in such n case as that now mentioned, to estab lish a joint-stock compuny with peculiar privileges, nud whether the same thing might not lre more advantagcously effected by tha catablishment of an open or rogulated company.
4. Open or Regulated Companies. - Tho affairs of such compranios or associntions are mannged by directors appointed by the members. They do not, howerer, fessess a common or joint stock. Euch intividual pays a fino upon entering into the compuny, nut most commonly an annual contrlbution: a duty applicable to the business of the company is also somethmes charged upoa the goods lmported and exported from and to the
countries with which they trade. The sums so collected are applied by the directors to fit out embassadors, consuls, and auch public fanctionaries as may be required to facilltate commercial dealings, or to build factories, maintain cruisers, ete. The members of such companies trade apon their own stock, and at their own rlsk; so that when the fine, or the sum payable on admission into a regulated company, is moderate, it is impossible for its memhers to form any combination that woald have the effect of raising their profita above the common level; and there is the same keen and close competition among them that there is among other classes of traders. A regulated company is, in fact, a device for making thoso engaged in a particular branch of trado bear the public or political expenses incident to It , at the ame time that it leaves them to conduct their own business with their own capital, and in their own way. Should, therefore, government at any time refose, or be unable to afford, that protection to thoge engaged in any branch of trado which is necessary to enable them to carry it on, their formation Into a rer. ulated company would seem to be the most judicious measure that could be adcpted, inasmuch as it would obtain for them that protection which is indispensable, withoat encroaching on the freedom of individaal enterprise. The Afriean and the Levant companies in Great Britain, and some other branches of trade, were for a long timo condacted by open or regulated companies. These, however, have been recently abolished: tho African Company, by the aet 1 and 2 Geo. IV. e. 28 ; and the Levnnt Company, by the act 6 Geo. IV. c. 33 , Tho Russia Company still exists.-See Russia ComDANY.
Ia so far as relates to protection, it miny perhaps be thought, for the reasons given by Dr. Smith, tbat a joint-stock comprany is better colculated to afford it than a regulated company. The directors of the latter having, Dr. Smith alleges, no particuler linterest in the prosperity of the general trade of the company, for behoof of which, ships of war, fuetorics, or forts have to be maintained, are apt to neglect them, and to apply their whole energies to tho care of their own private concerns. Bat the interests of the directors of a jointstock company are, he centends, In a great measure jdentined with those of the nssociation. They have no private capltal employed in the trade; their profits must depend upon the prudent and profitable management of the common stock; and it may therefore, it is argued, be falrly presumed that they will be more dlsposed to attend carefully to all the means by which the prosperity of the association may be best secured. On the other hand, however, it is seldom that the directors of joint-stock compranies stop at the proper point ; having almost Invariably attempted to extend their commercial dealings by force, and to become not only merchauts but sovereigns. Nor is this nny thing but what might have been expected, seeing that the consideration and extensive patronage aceruing from suelı measures to the directors is generully of fur more importnnce to them then a moderate increase of the dividends on thelr stock. Whenever they have been able, they have seldom serupled to employ arma to ndvanee their projects; and iustead of contenting themselves with shops nud factorics, havo constructed fortifieations, embodied armies, and engaged in war. llut such has not been the enso with regalated compnies. The bushesses under their control have miformly been conducted in a comparntively frugal and parsimonlous manner; their estnblishments have been, for the most purt, confined to fuctories; and thicy have ravely, if ever, allowed themselves to be aeduced by schemes of conquest and dominion.

And hence, considering them ns commercial machines, It does not really seom that there can be any doubt as to tho auperiority of a regulated over $n$ joint-stock company. The latter has the defect, for which nothtng almost can compensato, of entirely excluding individual
enterprise and competition. . When such a company enjoya any peculiar privilege, it naturally, In pursuing its own intarest, endeavors to proft by lt; how injurious soever it may be to the public. if it have a monopoly of the trade with any particular country, or of any partlcular commodity, it rarely failo, by understocking the home and foreign markets, to sell the goods which it importa and exports at an artificially enhanced price. It is not lto object to euploy a comparatively large capital, but to make a large protit on a comparatively smail capital. The conduct of the Dutch East India Coupany, in burning spices, that their price might not be lowered by larger importations, is en example of the mode in which euch associations unlformly, and, indeed, almost necestarily act. All individuala are desirous of obtaining the highest possible price for what they have to sell: and if they are protectod by a monopoly, or an exclusive privilege, from tho risk of being undersold by others, they never hesitate about raising the price of their producte to the highest elevation that the compettion of the buyers will allow them; and thus frequently realize the most exorbitant profIts. And yet, notwithstanding these adrantages, such is the negligence, profusion, and peculation insepareble from the managemant of great commorcial companles, that even those that have had the monopoly of the most adventageous branches of commereo have rarely been ablo to keep out of debt. It will be shown in the erticla East India Company, that that association has lost by its trade; and that, had it not been for the ald derived from the rovenues of India, it must long aince have ceased to exlat. To buy in ono market; to sell with profit in another; to watch over the perpetually occurring variations in the prices end in the supply and demand of commodities; to suit with dexterity and judgment the quantity and quality of goods to the wants of each market, and to conduct each operatlon in the beat and cheapest inamer, requires a degres of unremitting vigilance and attention, which it would be visionary to expect from the directors or servants of a great joint-stock association. Hence it has happened, over and over egain, that branches of commerco whieh proved ruinous to companies havo become excoedingly profitable when carried on by individuala.
5. Constitution of Companies.-When epplication is made for an act to incorporate a nomier of individuals Into a joint-stock company for the prosecution of any useful undertaklng, cere ohould be taken not to concede to them any privileges that may be rendered injurious to the public. If a company be formed for tho construction of a dock, a road, or a canal, it may be necessary, in order to stimulate individuals to engage in the undertaking, to give them some peciliar privileges for a certain number of years. Wut if other persons were to be permanently hindered from constructing new docks, or opening new lines of communication, a lasting injury might be tone to the publle. It may be highly expedient to incorporato a company for the purpose of luringing water into a city; but, Bupposing there ware no springs in the vicinity other than those to which this company had acquired a right, they might, unless restrained by the act incorporating them, raise the prico of water to an exorbitant height, and make large profits for themselves at the expense and to the injury of the publle. In all cases of this sort, and in the case, indeed, of all joint-stock companies established for the formation of canals, railroads, ete., It would be sound polloy to limit the ratee charged for their servlees, or on account of tho water, ships, goods, etc., conveyed by their means, and also to limit the dividends, or to fix a maximum beyond which they should not be augmented: enacting, that if the rates charged by the company produce more than aufticient to pay the maximum rate of dividend, and to defray the wear and tear of the aqueduct, canal, etc., they ahall be allowed to reduce them till they only yield thia nuch;
and, in the event of their declining to do ac; that the whole surplas ebove paying the divldend shall be applied to parchese up the stock of the assoclation, so that ultimately the charges on account of d!vidends may be entirely abielished.
6. Companies en Commandite.-In France there is a sort of companies denominated socields en commandite. A society of thia descriptlon consiats of one or more partners, liable, without limitatlon, for the debts of the company; and one or more partnors, or commanditaires, liable only to the oxtent of the funds they have subsacriled. A commanditaire mnst not, however, take any part in the business of the company ; if he do this, he loses his inviolability, and makes hlmeelf responsible for the debts of the associatlon. The names of the partners in euch societios must be publlshed, and the amount of the amms contributed by the commanditaires: It has been proposed to introduco partnerships of this sort into this country; but it secms very douhtful whether any thing woold be gained by such a measure. Pertnerships en commandite mny be very easily abused, or rendered a means of defrauding the public. It is quito visionary to imagino that the commanditaires can be prevented from Indirectly influencing the other partnors ; and supposing a collusion to exlst among then, it inight be possilule for thom to divido large sums as protits, when perhaps they had really sustained a loss; and to heve the books of tho association so contrived that it might he very difficult to detect the fraud. This, it la alieged, is by no means a rare occurrence in France.
7. Cirio Companics, or Corporations.-Fxclusive of the companies previously mentioned, a number of ancient companies or corporations exist in most European countries, the menbers of which enjoy certain politicsl es well as commercinl privileges. When the feudal system hegan to be anbverted by the establishment of good order and regular government in the towns, the inlalitants wero divided into certain trades or corporations, by which the magistrates end other functionaries wero chosen. The members of those trades, or corporations, partly to enhance the value of their privileges, and partly to provide a rosource, in case of qd. verstty, for theniselves, acquired or usurped the power of enacting by-laws regulating the ardmission of new meinbers, and at the same time set about providing a fund for tho support of such as accident or milsfortune might reduce to $n$ state of indlgence. Hence the origin of apprenticcships, the refusal to allow any one not a momber of $n$ corporatlon to carry on any business within the precincts of any town corporate, and the various regulations that had to be submitted to, and tho fees that had to bo paid by the clalmants for enroliment in corporations. For a Jengthened perlod these privileges and regulations were very oppressive. Within the last eentury, however, their influenco has been progressively diminlahing. In France, wherc the abuses inseparable from the system had attained to a very great helght, it was entirely swept off by the Revolution : and though corporations still exist in Great Britain, they have been stripped of several of their pecullar franchises; and should now, for tho most part, bo regarded moro perhapa in the light of charitnble than of political institutions. It would be well, however, wero they reduced entirely to tho former character, ant were the few political and commercial privileges which they stlil onjoy communicated to the rest of tho cltizens. At their first institution, and for some the nfter, corporntions, consldered as political bodies, wero proliably useful: bi: anch is no longer the case; and in so fur as they now possess any apecial immunitles, they tend to obstruct that free competition that is so advantageous.

The following extract from a Report on the Commerce and Mantfactures of the United Statet, drawn up by Albert Gallntin, Fsquilre, then Secretary of the Treasury, and laid before Congress in 1816, aets the suporior
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advantages rebulting from the unrestricted freedom of Industry, in a very striking point of view. "No cause," says he, "has, perhapa, more promoted In every respeot the general improvement of the United Statea, than the absence of those systeme of Internal restrictions and monopoly which continue to diafigure the state of society in other countries. No laws exlat here, direetly or indirectly, confinlag men to a partloular occupation or place, or exciuding any cittzen frem any branch he may, at' any time think proper to pursue. Industry is, in every rcapect, free and unfettered; cvery opecies of trade, cominerce, and profession, and manufacture, being equally open to all, wikout requiring any regular apprenticeship, admisaion, or license. Hance the lmprovement of America has not been confined to the improvement of hor agriculture, and to the rapid formation and settlement of new states in the wildernees $;$. but her cltiaens have extended their commerce to every part of tho globe, and carry on wlth complete anccess even those branchea for which a nonopoly had heretofore been consldered cssontially necessary."
There is in Rers' Cyclopedia, art, Company, a list of the different civic companice belonging to the city of London, in which the periods of their incorporation, and various other important partlculars with respect to several of them, aro specified.

Among the earliest commercial companiesin England msy be namod the Steel-yard Society, established A.D. 1232. The second company was the mercbants of St. Thomas a Beckot, in 1248.-Stowe. Tho third was the Merchant Adventurers incorporated by Elizabath, 1564. There are ninety-one city companics in London; the first iwelve are,

| 1 Mercers. | A.D. |
| :---: | :---: |
| 2 Orocers | 1945 |
| 8 Drapera. | 1409 |
| 1 Fishmon | 1884 |
| 5 Gotdemiths | 1327 |
| 6 Sktunors | 1327 |
| 7 Merchant Tatl | 1466 |
| 8 Hiaberdashers | 1447 |
| O Salters. | 1658 |
| 10 1ronmongers | 1404 |
| 1 t Vintmers. | 1497 |
| 12 Ctoth-wo |  |

Companies, Bubble. Ruinous speculations coming under this namo have been formed, commonly by deaigning persons. Law's Bubblo, in 1720-'21, was perhapa the most extrsordinary of its kind, and the South Sea Bubble, in the samo year, was scarcely less memorablo for ita ruin of thousands of familice. Many companies were established in Great Britain in 1824 and 1825, and most of them turned out to bo bubbles ; and owing to the rage for taking ehares in each scheme as it was projected, lmmonec losses were incurred by fadividuals, and the famllics of thousands of apeculators wore totally ruined.-See Law'a Buahle and Banknupts.
Compases (Gorm. Ein Kompass; Du. Zeelompass; Ds. süekompass; Sw. Sjöcompass ; Fr. Boussole, Compas de mer; It. Bussola; Sp. Aguja de marear ; Port. Compasso de marear; Russ. Kompass korabelniri), or mariner's compass, an instrument composed of a needle and card, by which tho ship's courso is directod. The needle, with little variation, always points to the north; and henco tho mode of steering by the compass.
The common opinion is that the compass was invented by Flavio Gioia, a citizen of the onco famous repoblic of Amalphi, very near tho begianing of tho fourteenth century. Dr. leoberteon has adopted this opinlon, and regrets that contemporary historians furnish no details as to the Ilfo of a man to whose genius society ls so deeply indebted.-History of America, vol. 1. p. 47, 8vo ed. But though Gioia may have made improvements on tho compass, It has been shown that he has no claim to be conaidered as Its discoverer. Pastages have been produced frem writers who flourished more than a century boforo Gioia, in which the polar-

Ity of the needle, when touchad by tho magnet; is distinctly pointed out Not only, however, had thie siagular property been discovered, but also its application to the purposes of navigation, long previously to the fourteenth. century. Old French writere have been quoted (Macpinkraon'a Annals of Commerce, anno 1200; Rees' Cyclopedia), that seem fully to establish this fact. But whytever doubts may exist with reapeet to them can not affect the passugie which the learned Spanish antiquary, Don Antonio de Capmeny (Questiones Criticas, p. 78-132), has given from a work of the famous Raymond Lally (De Contemplatione) published in 1272. In one placo Lully says, "ss tite needle, when touched by the inagnet, naturally turne to the north" (sicut acus per naturam vertitur ad septentrionem dum sit tacta àmagnete). This is concluslve ss to the suthor's acquaintance with the polarity of the'ncedle; and the fellowing passage from the same work-" as the nautical needle directs mariners in their navlgetion" (sicut acus nautica dirigit marinarios in sua natigitione, efc.), is no less conclusive as to its being used by sailora in regulating their course. There aro no means of ascertaining the modo in which the needle Raymond Lully bad in view was made use of. It has been sufficiently established (see the authorities already referred to, and Azusi, Dissertation sur l'Origine de la Boussole) that it was usual to flost the needle, by means of a straw, on tho surfaco of a basin of water; and Capmany contends tisat we are indebted to Gioia for the card and the method now followed of suspendIng the needle ; improvemente which have given to the compass all its convenlence, and a very large portion of its utility. But this part of his Dissertation, though cqually lcarned and ingenious, is by no means so satlafactory as tho other. It is difficult to conceive how mariners at sea could have availed themselvea of a floating needlo; but, however thls may be, it seems most probable that Giola had conaiderably improved tho conat ruction of the compase; and that, the Amalphitons having been the first to introduce it to genersl use, he w. , with excusable partiality, represonted by them, and subsequently regarded by others, $B E$ ite inventor.

The reader will not consider these details out of place in a work on commerce, which the compase has done to mach to extend. "Ita diacovery," to borrow the language of Mr. Macpherson, "has given birth to a new era in the bietory of commerce and navigation. The former it has extended to every shore of the giobe, and increased end multiplied ita operatione snd beneficial effects in a degree which wee not concelvable by those who lived in the earlier ages. The latter it has rendered expeditious, and comparatively safe, by enabling the navigator to launch out upon the ocean free from the danger of rocks and shoals. By tho use of this noble instrument, the whole world has become one vast commercial commonwealth, the most distant inhabitants of the earth are brought together for their mutual advantago, ancient prejudices are obliterated, and mankind are civilized end enlightened."

According to the parposes to which the instrument is chiefly applied, it becomes the muriner's ccmpass, the asimuth compass, the eariation compass, each particular application requiring some peculiarity of construction; but whatover modifications it may receive, the essential parts are the same in all cascs. These are a magnetized bar of atecl, called the needle, having fitted to it at Its centro a cap, which is supported on an upright pivot mado sharp at the point in order to diminiah the friction as much as possible and allow the needle to turn with tho slightost force. The mariner's compass has a circular card attached to ita needle, which turne with it, and on tho circumference of which are marked the degrees, and alao the thirty-two points or thumbe, Jikawise divided into half and quarter points. The pivot risos from the contre of the bottom of a circular box, called the compass-box, whioh contains the needle
and its card, and which is covered with a glass top to prevent the needle from being diaturbed by the agitotion of the air. The compass-box is sospended within a large box by means of two concentrlc brass circles or gimbals; the outer one being fixed by horlzontal plvots, both to the innor circle which carries the compssabox, and aleo the outer box, the two sets of axes being at right angles to each other. By meana of this arrangement, the inner circle, with the compass-box, needle, and card, always retain a horizontal position, notwlthatanding the rolling of the ship.

The notation of the marlaer's compass is as foliows: The circumference being divided into the four quadrants by two dlameters at right angles, the extremities of these clismeters are the four cardinal polats (cardo, a hinge), marked N., S., E., W. (north, south, east, west). Bisecting each of the quadrants, the sevoral foints of bleestion are denoted by placing the two letters at the extremities of the quadrant in juxtaposition. Thus N.E. (northeast) denotes the polst which is half wsy between north and east; and so with N.W.,

S.E., S.W. (northwest, southeast, southwest). Let the octants next be bisected; the points of divlsion are denoted by prefixing to esch of the above combinations first the one sud then the other of the two cardinsl points of which it is formed. Thus N.E. gives N.N.E. and E.N.E. (north-northeast and esst-northeast); and so in respect of the others. Sixteen points have thus been named. Let the distances be again bisected, then each of the points so found is expressed by that one of the preceding points already named to which it is nearest, followed by the name of the cardinal point toward which its departure from the nearest point leads it, the two being separated by the letter $b$ (by). Thus the polnt half way between N. and N.N.E. is N. by E. (north-by-east); that which is half way between N.N.E. snd N.E. is N.E. by N. (northeast-by-north), ete. The whold of the thirty-two polats are thus dlstinguished in the figure.

The princlpal requisites of a compass are intensity of directive force, and suaceptibilty. The first of these is obtained by constructing the needle of the materled and form best aulted to receive and retain the nagnetic virtue. A number of experiments on this anbject were inade by Conlomo, and inore recently by Captain Kater, an account of which is given in the Phil. Trans. for 1821. Captain Kater found that the kind of steel capable of recciving the greateat magnetic forec is shear steel; and that the best form is that of a lozengn or rhomboit, cut out in tlie middle, so as to diminish the extent of surface in proportion to the mass, it being found that the directive force of the needle, whon magnetized to saturation, depends not on the extent of surface, but on the mass. Bevond a certain limit (about five inches) no additional power is gained by increusing the length of tho needle; and needlee oxceeding a very moderate iength are apt to have several consecutive poles, the effoct of which is to produce a great diminutlon of directive force. On this account ahort needles, made very hard, are to be preferred.Brande's Encyelopedia of Arts.

Like many other of the most valuable arts of iife, the origin of the compass is entlrely unknown. By some
writers it is aseribed to Flavio Giola, who lived in the thlrteenth century; yet Guyot do Provence, who llved a century earler, speaks of the loadstone, to whlch he gives the name of marinetti, or mariner's stone, as useful to navigstion. Others pretend that it was invented in France; but there seems to be no other reason for this suppesition than the fact that from time immemorial the north point of the compass card has been distinguished and ornamented with a fleur de lis. For a reason of a tlifferent kind, but perhaps of tho ssme degree of welght, Dr. Wallis and others have supposed the inventlon to belong to Eagland, the namo compass, which is given to the instrument by most Europesn countries, being used in England to signify a circle. The term bursola in Italisn and boussole la French, has also been supposed to be derived from our term box, by which tho compass is frequently designated. Gilbert, in his celebratod work De Magnete, sffirms that Mareo Polo brought the invention to Europe from China, about the year 1260. It appears very probablo that the Chineso were acquainted with tho directive property of the loadstono at an early perlod.

The azinuth compass, being intended to show tho bearing of objecta in respect of the magnetic meridian, has its circle divlded merely into degrees, instead of the rhnmbs used in navigation, snd is provided with sights to allow tho angles to be taken more accurately.

The rariation compuss is designed to exhibit the diurnal changes in tho deviation of the magaetic from the true meritian; and tho needle is generally made $\therefore$ much greater length than the mariner's compass, in order to render minute variations more sensible.

Compass Variations.-In a recent publication on the danger to which vescels are exposed from compass variations, there was suggested a plan of much importance to conmerce: that in all large porte at least, where vessels are equipped, a competent person ought to be appointed, whose dutles should be to select in every shlp an sdvantageous position for a standard comiass, combining the two requisites in such selection of a managesble local attrnction, and of convenient access for navigating the ehi - to determine experimentally the local deviations of the standard compass in different azimuths, to inst iuct the master how to repent the same on future occaslous, and to see that he rightly and thoroughly understands the deduction of the true magnetic courses from those of the standard compass, and of the course hy the standard compass corresponding to the true course whlch he desires to steer.

Self-registering Compass,-The self-registering compras, by M . Delull, is designed to register the changes of direction In a vessel for every three minutes during the twenty-four hours. The marking is made upon a sompses card. It conslate of a clock movenent placed at the centre of the apparatus for causiog the point or pivot carrying the needles to move up and down at regular intervals-of an endless acrew, furnished with a nut carryling the point, for piercing the paper-and of the compass card, made of three needles fixed to a sheot of mica. The mica is covered with a disk of velvet, firmly glued to it hy means of atrong glue, and whoso tissue has been ssturated with a kind of glue that is soft when cold. When the needle lis fixed toward the north, the axis or diametral line of the compass card ia placed in the line of the axis of the ship, and the punctures male every three minutes indicate the devintion of this nxls.

Composition, in Commerce, commonly implies the dividend or sum puid by sin insolvent debtor to his creditors, and accepted by them in payment for their debta.

Coney Wool (Ger. Kaninchenwolle; Du. Konynhair; Fr. Poil de lapin; It. Pelo di Caniglio; Sp. Conejuna), the fur of ralibits. This article is extensirely used in tho hat manufacturo; and besldee the large supplice raised at home, a great deai is lmported. The imports usually range from sbout 300,000 to about 500,000 skins a year.

Congreve Rooketa. - Invented hy General Sir Willam Congreve in 1808 . The Congreve rockets, first used against Boulogna in 1800, are of varlous dimensions, and differently armed, as they are intended for the field or for bombardment. Those of the fermer class carry shells or case-shot; those of the latter are armed with a very combuatlile material contalned in a strong metallic cylindrical case with a conleal head. When once infiamed, thla substance is unextinguishabe, it acatters ite burning particles in every directien, and when spent, the ball explodes like a grenade. The rocket is projected horizontally, and makes a loud whizaing nolse in its passage throngh the air. The ammunition used varlea from 6 to 42 lbs , and upward. These rockets wero certainly a very impertant invention; but from their liability to deflection and other defeets, they aro now regarded as less advantageous than the ordinary red-hot shot and bombs. The secret of their compoaition also is not 80 great as to defy imitation by foreign artlllerists. Sir William Congreef, Bart. (1772-1828), inventer of the rocket called by his name, was a general of artlliery, and co-operated with the Duke of York in reforming the British anmy: IIc wrote an Elementary Treatise on the Mounting of Naval Ordnance (Loud. 1812); and a Description of the Mydro-pneumatic Lock (Lond, 181ō). He died at Toulouse in 1828.-E. B.

Connecticut, the southeramest of the New England Siates, is situated between $10^{\prime} .41^{\circ}$ and $42^{\circ} 2^{\prime}$ N., and long. $71^{\circ} 20^{\prime}$ and $73^{\circ} 15^{\prime} \mathrm{W}$., and betweer $3^{\circ}$ $46^{\prime} 24^{\prime \prime}$ and $5^{\circ} 41^{\prime} 24^{\prime \prime}$ E. long, from Washington. It is brunded north by Massachusetts, east by Rhode Island, seuth by Long Islaad Sound, and west by New York. It contains 4750 square miles, or $3,040,000$ acres. Its population in 1790 , was 237,946 ; in 1800 , 251,002 ; in 1810, 261,942; in 1820, 273,248 ; in 1830, 297,711 ; in 1840, 300,015; in 1850, 370,702. The capitals are, Hartford, on the right bank of the Connecticut, at the head of steamboat navigation, 50 miles from its eutrance into Long Island Sound, and New IIaven, at the hend of a bay which sets up 4 miles from the sound. It centained, in 1850 , cigbt counties.

The beantiful river from which the State of Connecticut derives its name was first discovered (in the year I6I4) by the Dutch Captain Adrlan Block, who sailed into it as far up as the present site of Ilartford, and who named it "De Fersche Rivier" (the Fresh Rlver), probally from the fresh appearance : ${ }^{*}$ its waters and green valleys. The Dutch from New Amsterdam made some attempts at scttlement along this river. But the English colonists and explorers from Plymouth and Boston, on their way to the west, reached it about the year 1630, and became seon the exclusive proprietors of the river and its valley. They adopted for it the original name of the aborigines, which, in its true Indisn shape, is said to have been "Quonehtucut." The meaning of this word is stated to be "The Long Rirer," and it appears to be a designation whieh the Indians applied often as a river name. Among others, we find also in Long Island a Connecticut River. The nnme was at first written in dlfferent ways. We find, for instance, on one napy of the year I695, the orthography "R. Conokteook:" At last the orthography" Connecticut" prevniled. The Euglish colonists npplied the name of the river for the first time to a territory in the year 1631, when they elalmed a tract of land nround the present site of IIartford, and intended to ereet there a colony, to which the name of "Colony of C'onnectirut" was given. This whs an inland country, sometimes also called "the Colony of IIartforl." In the year 1662 King Charles II, united with thls colony that of New llaven, which was planted on the shores of Long Island Sound, and which had existed for aome time scparately under a particular name. The king named both united coloaies "The Province of Connecticut;" and in this way thls name was extended to the sea-coast. It iacluded then also a great part of Leng Island,
which had been settled and waa clalmed by planters ant emigrants from the Connecticut valleys. But seen after the conquest of New Netherland by the English (1664) the Duka of York claimed the whele of Long Island, which now was separated from the colony of Connectleut and bacame a part of the province of Now York. In compensation for this loss the houndaries of Connectleut were extended to the west as far as Mormaromek or liyram's Rlver, within thirty mlles from New York, so that now the name Connectieut covered nearly the whole of the northern shore of Long Island Sound. These boundaries along the sea-coast have, upon tho whole, remained unchanged ever since. -J. G. Kont.
Though generally hilly and broken, no part of the surface rises to a great height above tho sea. The greatest elevation is a range of mountains commencing at a bluff called Last Rock, near New Haven, nnd continuing northward through the state. The hills are gencrally of moderate size, and occur in quiek succession in rauges trending northward, presenting to the traveler an ever-varying aspect. The sotl is generally fertile, but better adapted to grazing than tillage. There were in this state, in $1850,1,768,178$ acres of Inud improved, and 615,701 of unimproved lnad in farms. Cash vnlue of farms $\$ 72,726,422$; and the value of implements and machinery, $\$ 1,892,541$; live-stock : horses, 26,879; asses and mules, 49 ; milch cows, 85,461 ; working oxen, 46,988 ; other cattle, 80,226 ; shecp, 174,181 ; swine, 76,472 ; value of live-stock, $\% 7,467,490$.
Nanufactures.-Thero were in the state, in 1850, 106 cotton factories, with a eapital invested of $84,012,600$, employing 2665 males, and 8313 females, producing $54,370,527$ yards of sheeting, etc., and 950,000 pounds of yarn, valued at $84,122,952$; 149 woolen factories, with a capital of $\$ 2,583,742$, employing 1893 males, and 1665 females, producing $8,950,372$ yards of cloth, valued at $\$ 4,021,152 ; 12$ establishments making pig iron, with a capital of $\$ 207,600$, employing 120 persons, producing 13,020 teus of plg-iron, etc.; the entire value of preducts, $\$ 379,600 ; 60$ cstablishments, with a capital of $\$ 580,800$, employing 949 persens, and making I1,210 tons of censtings, etc., valued at $\$ 981,400 ; 18$ es tablishments, with a capital of $\$ 529,500$, empleying 874 persons mannfacturing 6325 tons of wrought iron, ctc., valued at $\$ 667,560 ; 117$ flouring mills, 115 tanneries, with a capital of $\$ 360,500$, employing 407 persons; value of products, $\$ 781,006$. Capital invested in manufactures, $223,890,848$; value of manufactured articlea, $\$ 41,897,848$.
The state is watered by numerous rivers and streams. Few of the rivers nre navigable for more than a short distance from their mouths. The principal is the Connecticut, which rises on the northern border of New 11 ampshirc , and after a course of about 400 mlles falls into Long Island Seund between Saybrook and lyinc. Its general direction ls seuth-by-west, separating New Hampshire from Verment, and afterward passing through the western part of Massachusetts and the central part of Cennceticut. Below Middletown it turns to the south-southeast, and continues in that direction to its mouth. It is navigable to Middletown, 30 miles from the sca, for vessels drawing 10 feet, and to IInrtford, 20 niles higher, for vessels drewing 8 feet of water. The canals and other improvements recently made to overcome the rapids and fulls, have rendered it navigable for small boats us fur as Wells River, 250 miles nibeve Ilartford. The principal tributary of the Conncetient in this stute is the Tunxis or Farmingten, which rises in the eastern slope of the Green Mountains in Massachusetts, and flows southward to Farmington, where it abruptly changea its course to the northward. On breaking through the trap range of the 'I'alcott Mountains, it again takes a southerly direction, and falla Into the Connecticut opposite East Whindsor. The Housatonic rises in the westeru part of Massachuaetta and entera this state near ite nerthwest corner, after which it
has a south and sontheast course to the Sound. Its entrance is obstructed by a bar, but there is a sloop navigation for 12 miles. Tho Thames, formed by the junction of the Quinebang, Shetucket, and Yantic Rivcrs near Norwich, falis into the Sound at New London. The mineral wealth of Connecticat is considerable. Iron ore of oxcellent quality is found abundantly in varioue parts. The coppor mines of Bristol and Plymouth are asid to be the most proftalle in the United States. According to Professor Silliman, the Bristol veln extends in a southerly diroction for more than 30 miles, and if fuliy workad is capable of affordidg employment to 30,000 minars. The Plymouth mines are considered to bo erually rich. Copper is also found at Granby. Fine m. rbles of different kinds are abundait, and extensive quarrios of freestone exist in the mountain regions, and furnish an excellent

| Names. | Total <br> Length. | Leagth la Connartioul. | Capital <br> Pald in. | Debl Funded and Unfunded. | Cobel. | $\begin{gathered} \text { Earming. } \\ \text { l88. } \end{gathered}$ | $\begin{gathered} \text { Nol } \\ \text { Earniuge. } \end{gathered}$ | Divi. dends. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New York and New lia | $\begin{aligned} & \text { Miles } \\ & 62 t \end{aligned}$ | Milos. 4it | \$8,092,450 | \$2,888,010 | \$5,070,979 | \$ 968,975 | \$338,877 |  |
| Now Haven and liartfori | 72 | 63 | 2,360,000 | 140,000 | 8,818,988 | 730,019 | 652,790 | \$235,000 |
| Norwich and Worcester | 66 | 61 | 2,122,300 | 1,564, 889 | 2,097,153 | 304,236 | 88,459 | 52.757 |
| Ifartford, Providence, and Fishlill. . | 12: 2 | 66 | 2,008,110 | 2,030,685 | 4,060,868 | 258,085 | 110,611 | 18,141 |
| N. London, Wittlingutio, and Palmer | 66 | 57 | 509,200 | 1,078,672 | 1,504,692 | 124,043 | 668,330 | ... |
| New Haven and Now Loudon. . . . . . | 50 | $6)$ | 738,638 | 761.462 | 1,455,669 | 88,907 | 80,813 | . . |
| 110usatonie | 74 | 74 | 2,000,000 | 414,240 | 2,431,778 | 390,106 | 176,520 | .... |
| Naugatuek | 57 | 57 | 1,081,800 | 524,244 | 1,580,788 | 220,459 | 05,955 | $\ldots$ |
| Danbtry and Norwalk | 237 | 238 | 279,050 | 97,100 | 873,460 | 50,241 | 21,900 | 13,976 |
| New York, Providence, and Bon | 83 | K | 1,508,000 | 446,700 | 8,158,000 | 250,627 | T4,834 | 37,190 |
| New llaven and Northampton ....... | 65 | 654 | -923,500 | 800,000 | 1,400,000 | 145,185 | 74.054 | 30,900 |
| Boston and New York Central...... | 74t | 8 | 2,240,300 | 1,518,671 | B,463,818 | [.9,917 | 8,139 | , |
| Total. . | 772 | 5:10t | \$13,702,249 | \$12,105,366 | 29,505,662 | 3,534,839 | \$1,448,412 | \$2064,491 |

Commenob of the Statz of Conabcticut (giowing also the Digtbegt Tonnaok in 182t, 183t, 1841, and 1SE1) from Oct. 1,1820 , TO JULY 1, $18 \% 6$.

| Yeare emding | Exports. |  |  | Iniports. | Tonnage Claney. |  | Dintriet Tongage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic. | Farelgn. | Tatal. | Total. | American. | Fureign. | Regletered. | Enrolled and Liennead. |
| Sept 30, 1821....... | \$366,150 | \$10,007 | \$376,187 | \$312,690 | 14.749 | * $\cdot$ | 74,084 | 61,720 |
| 1882....... | 479,353 | 5,059 | 485,818 | 507,094 | 17.442 |  | .... | .... |
| 1823........ | 480,941 | 1,120 | 492,001 | 456,463 | 16,783 | 108 | .... | .... |
| 1824. | 570,634 | 6,919 | 575.859 | 681,510 | 20,946 | -••* | ... | .... |
| 1825....... | 684,686 | 4,684 | 699,270 | 717.478 | 24,805 | .... | . $*$ | *** |
| 1826....... | 695,454 | 13,499 | 708,893 | 730,104 | 21,694 | .... | ... | .... |
| 1827. | 567,109 | 93,175 | 890,275 | 630,004 | 18,078 | *.. | . | ... |
| 1828....... | 493,925 | 27,020 | 621,545 | 485,174 | 17,088 | .... | ... | .... |
| 1899....... | 450,985 | 6,085 | 457,970 | 390,638 | 18,090 | * 77 | .... | .... |
| 1830. | 385,610 | 3,901 | 389,511 | 269,683 | 18,285 | 77 | .... | .... |
| Total. | \$5,174,863 | \$102,003 | \$5,276,876 | \$4,905,185 | 186,940 | 155 | *** | *** |
| Sept 20, 1931. . . . . . | \$482,073 | * 810 | \$482, 883 | \$405,066 | 20,199 |  | 18,068 | 84,810 |
| 1888....... | 430,466 | .... | 430,466 | 487, 715 | 20.944 | 867 | .... | ... |
| 1833...... | 427,603 | 097 | 487,003 | 362,014 | 18,458 | 606 | .... | .... |
| 1834....... | 421,419 | 997 | 492,416 | 885,720 | 18,548 | 904 | . | * |
| 1885....... | 487,510 | 25,460 | 512,970 | 439,502 | 10,898 | 818 | . | . |
| 1838....... | 431,176 | 7,028 | 488,199 | 468,163 | 20, 442 | 1,642 | .... | .... |
| 1837....... | 523,103 | 0,487 | 532,690 | 818,849 | 20,999 | 2,145 | . $\cdot$ | .... |
| 1839....... | 543,410 | .... | $\mathbf{8 4 3 , 0 1 0}$ $\mathbf{8 8 3 , 2 9 6}$ | 843,831 442,847 | 19,892 28,308 | 420 | . | . |
| 1840....... | b18,210 | . . . | 518,910 | 977,072 | 94,129 | 479 | ... | . |
| Total. | ¢4,848,396 | \$49,777 | \$4,892,178 | \$9,870,279 | 198,680 | 7,207 | . ${ }^{\text {c }}$ | -*. |
| Sept. 30, 1841....... | * 899,348 |  | \$590,348 | \$296,989 | 27.886 | 8,027 | 26,421 | 38,858 |
| 1848...... | 539,392 | * | 532,598 | 895,707 | 27.253 | 4,701 | .... | . . . |
| 9 mas., $1883^{\circ} \ldots .$. | 307,223 | 1291 | 307,223 | 240,841 | - 14,113 | 9,743 | .... | .... |
| June 30.1844....... | 798,725 | 1,291 | 800,016 | 823,209 | 83,381 | 4,780 | .... | -* |
| 1315. | 060,810 | 8.245 | 069,055 | 872,075 | 87,080 | 2.101 | . | . |
| 1846. | 765,018 | 10,000 | 775,912 | 413,478 | 81,131 | 8.937 | .... | .... |
| 1847. | 598,702 | 400 | 609,108 | 275,823 | 80.686 | 1.960 | .... | . . |
| 1848. | 501,004 | . ${ }^{\circ}$ | 60t,064 | 829.810 | 23,500 | 4.818 | . | * |
| 1849. | 264,000 241,962 |  | 264,000 | 234.743 879 | 20,440 | 3,719 | .... | ... |
| 1850.... | 241,262 | 668 | 241,030 | 372,390 | 17,515 | 0,802 |  | .... |
| Total... | \$5,669,433 | \$20,094 | \$5,600,192 | \$3,083,656 | 252,84t | 43,170 | -•' | '** |
| June 30, 1851....... | \$433,894 | \$184 | \$434,078 | \$342.994 | 29,534 | 8,127 | 41,805 | 74,974 |
| 1859....... | 505,904 | 270 | 806,174 | 394.675 | 97,507 | 10,937 | , | ... |
| 18\%8........ | 497,769 | 11,605 | 009,434 | 545,793 | 19,942 | 8,968 | . ... | . ${ }^{*}$ |
| 1564. | 781,307 859,478 | 18,264 | 739,575 | 502,977 | 23,750 | 7.848 | . . . | - |
| $1585 . . .$. $1856 .$. | 859,492 | 19,388 | 878.874 | 683,826 | 21,309 | 7,879 | . . . | . $\cdot$ |
| 1856. | 860,542 | 20,292 | 109,576 | 741,700 | 31,417 | 8,929 | . | .... |

- Nine months to Juno 80, and fiscal year begius July $1,1848$.

Consolldated Fund. Down to 1816 the ex- $\left\lvert\, \begin{aligned} & \text { act was at the same time passed consolldeting certain } \\ & \text { portions of the jolnt revenue of Great Britain end Ire- }\end{aligned}\right.$ chequers of Gress Britain and Ireland were kept separate, certals portions of the public revenue arising in each kingdom being especially appropriated to the discharge of the intereat or Ite own debts, and other pecallar purposes. But wil January 5th, 1816, the separate exchequers were consolldated into one; and an
bailding material. Zinc, cobalt, manganese, and plambage are aleo found $\mathrm{j}_{\text {; }}$ and the mineral watera of Stafford have long been celebrated.

Connecticut has a larger productive school fund, in proportion to its population, than any other state, amounting to $\$ 2,040,482$. This originated chiefly from 1he sale of the. Wostern Resprve, constituting a large part of the northern portion of the State of Ohio included in its orlginal charter, and ceded to it iny the United States by way of compromise. In 1852 there were in the etate 53 banke, with a capital of $\$ 12,509,808$. It has no state debt. There is a etate prison at Wethersinield, erected in 1826.

The following synopsis of the length, cost, capital, earnings, etc., of the Connecticut railroads, is from the Official Report of the Railroad Commiasioners of that state for 1850 :
 and into one fund, hence called the Consolidated Fund, and providing for Its indiscriminnte applicstion to the payment of the public debts, civil lists, and other speciffed expenses of toth kingdoma. Some portions of revenue are not incladed in this fond; but it embrnces
by far $t$ 1838, of dated $\mathbf{F}$ penditu frayed b ع31,742, ble to o p. 896 ;

Cons Europe, stlll is of lsnd, on (Propon phorus, $0^{\prime} 12^{\prime \prime} \mathrm{N}$ estimate the lest tion of tb
by far the largest part of the publie income. Thus, in | view, one of the finest imaginsble. Standing on the 1838, of a total net income of $£ 47,383,460$, tha Consolidated Fand included no less than $\mathbf{£ 4 4 , 1 4 4 , 4 3 8 \text { : the ex- }}$ peaditure on account of the pecullar charges to be defrayed by the fund during the ame year amonnted to £31,742,918, leaving a surplus of $£ 12,401,570$ applicablo to ether objects.-Faimman on the Funde, 7th ed. p. 896 ; Parl. Paper, No. 849. Sess. 1839, etc.

Conatantinople, a famous city of southeastern Europe, formerly the metropolis of the Eastern, as it still is of the Turkish ompire, on a triangular point of land, on the European side of the Sea of Marmera (Propontis), at the peint where It unites with the Bosphorus, or channel leading to the Black Sea, lat. $41^{\circ}$ $\sigma^{\prime} 12^{\prime \prime}$ N., long. $28^{\circ} 59^{\prime} 2^{\prime \prime}$ E. Populatlon variously estimsted at from 300,000 to 600,000 , but believed, by the lest authorities, to be sbout 450,000 . The eituation of this renowned city is, in a commerclal point of


POET OE CONGTANTINOPLE
References to Plan-A, Seragllo Potnt; 13, Gatsta; C, Scutarl; D, Tower and Light-heuse of Leander. The arrows show tad direction of the currents. The ooundinge are inf fathoms.
and driven on Seraglio Point. It may to worth while, however, to remark that, notwithetanding thls laconvenience, the curront hae boen of aignal service to the eity, by wcouriag the barber, and carrying away the filth and bellest by whleh it must other wise have been loog since choked up. The distance acrose from Soraglio Point to the opposite suburb of Scutari, on the Asiatio coast, iy rather more than an English mile. Within less than a quarter of a mile of the latter is a rocky inlet, opon which is a tower and light-houso, known by the name of the Tower of Leander. Foroignera reoide in Galata, Pera, and the anburbs, on the eastern aide of the harbor; and it is there, conseruento 1y, that the principal trade of the place is carried on. The quays are good, and oblpa lie close alongride.
The Bosphorus, or chancel of Constantineple, rune in a northeast by uorth direction about 15 mlies, varying in breadth from $1 \ddagger$ to $t$ a mille. It is swopt by a rapid current, which it requires a brisk gale to atem, and has throughout a great depth of water. The Helleapont, or Strait of the Dardanclles, lealing from the Archipelago to tho Sea of Marmora, la abont 18 leagnes in length. In direction is nearly northeast. Where narrowest, it la little more than a mile across. It also is swept by a atrong current, aud has deep water throughont.
The subjoined plan of part of Conatantinople and lis port is cepied, without reduction, from the beautiful plan of the city and Bosphorus, drawn and engraved by M. Merzoff Robert of Munich, and published by Mr. Wilde of London.
Nothing cun be more imposing than the appearance of the city when seen from the sea, but on landing the illusion vanishes. The strets are narrow, dark, illpaved, and irregular. Owing to the want of any effective systen of police, and of the most ordinary atteation to cleanliaess, they are extremely filthy; and are infested with herds of dogs, and also with rats, which perform the functions of scavengers. The houses are mostly built of wood, and fires are frequent. Most of these happen designudiy; the burning of a few hundred houses being deemed the readicst and most effectual means of maklag the government aware of the public dissatiafuction, and of procuring a redress of grievances.

Money.-Accounts are kept in piastres of 40 paras, or 120 aspers. The Turkish coin has been so much degraded, that the piastre, which a few years ago was worth $2 s$ s. sterling, is now worth little more than $4 d$. A bag of silver (kefer) $=500$ piastrea, and a bag of goid (kiuze) $=30,000$ pinstres.

Weights and Mearures.-The commerciai weights are: 176 drams $=1$ rottolo; 2.272 rottoli $=1$ oke; 6 okes $=1$ batman; $7 \dagger$ batmans $=1$ quintal or cantaro $=$ $124 \cdot 457$ ( 124$\}$ very nearly) Ibs. avoirdupois $=56 \cdot 437$ kilogrummes $=116.527 \mathrm{lhs}$. of Ilamburg. Tho quintul of cotton is 45 okes $=127.2 \mathrm{lbs}$. avoirdupois.
The pik or pike ls of two sorts, the greater aud the lesser. The greater, calied halebi or arschim, used in the measurement of silks and woolens, is very near 28 inches ( 27.9 ). The lesser, called endese, used in the mensuring of cottons, carpets, etc. $=27$ inehes. Hence 100 long piks $=77.498$ English yards, and 100 short piks $=75 \cdot 154$ English yards. But in ordinary commercisl affairs the pik is estimated at \{ths of an English yard.

Corn is measured hy the kisloz or killow $=0.941$ of a Wineheater hushel $8 \downarrow$ kisloz $=1$ quarter. The fortin $=4$ kisioz.
Oil and other liquids are sold by the alma or meter $=$ 1 gallon 3 pints, Engligh wine measure. The alua of oil should weigh 8 okes.-Nelkenahecher and Dr. Kelly.

The Port charges on account of English vessels in the harbors of the Ottoman empire are fixed by treaty at 800 aspers, neither more nor less.

Trade, etc.-Owing to the vicious institutions of the

Turks, and the disorganized atate of the empire, the trade of Conacantinople is vary far from being so ex. tenaive ae might be aupposed from ite aituation and population. The imports consiat of corn, iron, timber, tallow, and furn, principally from the Black Sea ; and of cotton stuffs and yarn, coal, tin, tin plates, wooiens, ailks, cutiery, watches and jowelry, paper, glaes, furniture, indigo, cochineal, eto., from England and other Earopean countrica. Corn and cotioo are Imported from Aloxandria; but considerablo quantities of Braail and Weat India coffee are also imported, particularIy in British and American bottoms. Sugar is partly Imported from the East, but principally froms the West Indies. The exporta conalsc of silk, which is hy far the most important article, carpeta, hides, wool, Angola goate' hair, yellow berries, boxwood, oplum, galls, builion and diamonds, and a few other articies. But the expors are alwaye very much less than the imports; and ships carrying goods to Conatantinople either return in ballast, or get return cargoce at Smyrna, Odessa, Salonica, etc., on which places they frequently procure bilis at Constantinople. By far the largest proportion of the trade of the city, and of the Levant generally, is in the hands of Greek merchants, who by thair auperior skili, i...astry, and knowledge of those with whom they have to deal, heve completoly dietanced their English, French, and other European competitors (deneminated Franks). The Armenians only have been able to withstand the competition of the Greeke. Bargaina are uegotiated by Jew brokera, some of whom are rich.

Constantinople was known as the Stanboli of the Greeks, or Istanboul of the Torke. An attempt was made to chango this iatter name into Islamboui, that is, the town of Islam or Mohammedanism, and colns were even struck bearing the new name; but the attempt failed, and the coinsge again bears the impression "struck at Latanboul." The entire civii and ecclesiastical authority of the Turkish empire is concentrated in the city, where reside the chlef pashas, muftis, and ulemas ; the patriarch and synod of the Greek Church; an Armenian and a Catholic archillshop. That part of it which is now occupied by the seraglio, and which is seprarated from the reat by a wali, is nuderatood to have been the Byzantiam of the ancients.
Commercial Policy.-It is singular that, as respects commerce, the policy of the Turkish governucnt, whether originating in design or carelessness, is entitled to the highest praise. "No restrictions," says Mr. Thornton, "are laid on commerce, except in the instance of a general prohibition of exporting the articlea necessary for the enpport of human life to foreign countries, especinlly from the capital, where alone it is rigorously enferced; and this impolitic restraint will no doubt be removed when the Turkish goverument shall become sensible that what is intended as the means of securing abundance is, In fact, the sole cause of that searcity which is sometimes experienced. With this one exception, commerce is perfectly free and unfettered. Every article of forcign or domestic growth or manufactere is conveyed into overy port, and over every province, without any interferenee on the part of the magistrates, after payment of the dutics. On this subject I speak from actuai experience, and may appeal to every forcign or native merchant in Turkcy for lis general truth."-Present State of Turkey, voi. i. p. 82.

The duties, too, are extremely moderate, being only five per cent. on imports, viz., three per cent. on geods when landed, and two per cent. on their being admitted to consumption (Ubicini, I. 281), and about three per cent. on most articles of export. Hence, in almost ali that relatea to her commercial reguiations, Turkcy is entitled to read a lesson to the most civilized European powers; and thie she did.in a very able manner, In an official paper published in the Jfoniteur Ottoman, in September, 1832. We extract a few paragraph from this intoresting document.
" Good cence, tolerance, and houptaltty have long age done for the Uttoman empire what the other atates of Europe ars condeavering to effect by mora or lese hapyy political comilis. mations. slace the throns of the sultana hat been olevated at Conatantinopie, commercial prolifittona heva been unknown : tbey opened all the porti of thetr emplre to the commaree, to the mianufhotures, to the territorial prodnce of the Oceldent, or, to may better, of the whole world. Liberty of rombierce han relgned here without fimita, at large, an ex. teaded an it was powillie to be.
"Here every ouject of exchange in admitted, and circulatea withous meeting any ohstacie other than the paynent of an Infinluly small portion of the value to the cuatom-house. The chimers of a balanco of trade never entered tato heads mensible enough not to dresm of calculating whether there was mont proft in buying or eeiling. Thus the markets of Tarkey, anpplted from all countries, refuaing no objecte which mercantile spirit puta ta circulation, and tapponiag no charge on the veasls that tranaport them, are soldom or never the scenes of those disordored movements occasioned by the audden deficieney of auch or auch merchandise, which, exor:-. tantiy ralaling pricea, are the scourges of the lawer orders, hy ansetting their habita, and by igficting privations. From the nyatem of restrictions and prohtbitions arise thone devourtug tideu and ebba whitch eweop away in a day the tabor of yeurh, and convert commerce futo a career of alarins and perpetual dangers. In Turkey, where this ayntem does not exloh, these disustrone effecte are unknown.
"The extreme moderation of the dutica to the complement of thit rigime of commercial tlberiy ; and ta no portion of the globe ere the officers charged with the collectlon of moro confling factily for the valuations, and of so dectdediy conciliatory a apirit in every transaction regardtug commerce.
"Away with the suppoattion that theme faclitilea granted to strangers are concesslons extorted from weakneeni The dates of the contracta termed capliniattons, which cotablah the righta acturity enjoyed by forefgn merchatith, recall perods at which the Mussuiman power was altogether predomi. nant in Europe. The Arat capituintion whlch France obtained was in 1635, from Soltman the Canontat ithe Magnticent). The dispositlons of theme coniracta have become antiquated, the fumdmental principten remain. Thus, $8 \subset 0$ years ago, the aultana, by an act of munficence and of reason, antictpated the moat ardent destres of civilized Europe, and proclaimed unlimitted frecdom of commerce,"
Dil the policy of Turkey in other respects harmonize with this, she would be one of the most civilized and powerful of nations, instead of being one of tise most ebject and degraded. Unfortunately, however, this is very far from being the case. Tyranny and inaecurity universally prevail. "liso cultivator of the soil," says one of her eulogiats, "is ever a helpless prey to injastice and oppression. The government agents have to suffer in their turn from the eruelty and rapacity of which they themselves have been guilty; and the manafacturer has to bear hia full share of the commoa insecurity; lie is fixed to the spot, and can not escape the grasp of the local governor. The raw matenisl monopolized by a bey or ayan, may be forced upon him at a ligher price than he could purchase it himself, anif periaps of inferior quality ; thes may be imposed upon him, he may be taken for forced labor, 0 : troops may lo quartered on his workshop."-Unevhant on Turkey and its Resources, p. 139.

Some vigorous efforts have been mado of late years by tho Turkish government to refurm abusea; but with listle or no practical effect. There is, in truth, aeitice pubiic virtue nor principle in the country to scoond these efforts. Corruption of every kind is as prevalent as ever; and tite rayalis continue to be exposed to every aort of oppression. There are no roads in any part of the empire; and egriculture is everywhere in the most abject condition. Indeed, vast tracts of the most fertile fand of old the most flourishlug) districts of Asia Minor are wholly waste and unoceupied ; and the evil, instead of diminishing, is continually increasing. Tine greater density of population in European T'urkey, and the litto induatry found in it, are due to the energies of the Chriatian population. And when the latter bave heen emancipated from the slavery in which they have been long held, ty the expuision of their barbarian taak-masters from Europe,
the beartifll provincea in which thay have been so long permitted to encamp wlil again become the favorite seats of indnstry and civilization. "But the degradation in which the native inhabitanis are involved would have been atill more complete, but for the freedom of commerce they have always enjoyed. Thia has tended to keep aliva the seeda of linduatry, and to coantervail to some small extent the deatraetiva infuence of oppresaion and insecurity. Had thalr intercoure with foreigners been either prohibited or placed under oppressiva reatrictiona, the berbarism of Tarkey would have been completed, and it ie difficult to suppose that there could have been any thing like wealth or indusm try in the empire
"Aa the Turks do not allow a censua to be taken, all atatements of the number of inhabitante in their dominions must be doubtful and conjectural. Eton calculates the population of Constantinople at no more than 300,000 ; while General Andréonsy calculated it, withont including Seutari, at 597,600 ; his et sulation being founded on the daily conammption of bread. The number of honses is about 88,100. According to Andreosay, the division of the inhebltante is as follows: 800,000 Turks, 'Tatars, and other Musailmens; 200,000 Greeks ; 50,000 Armenians; 30,000 Jews; and the remainder of the various Frank nations. In 1851, the cenaus of the resident Britiah gave only 200. The mortality is said to be greater than in any other city in Europe; but the recruits that arrive from all parts of the Turkish dominions, and especially the slavea brought for sale, tili up the numbers faster than thay fall away by death. Of late yeary, too, the rayabs seek refuge from the exactions of the provincial pashas in the neighborhood of the seat of government, where the Tanzimat or new constitution lo better observed. Although the public slave-market hes been shut for a fow yeara, the trade in slaves is atill carried on with all fis episodes of horror and abomination. The closely latticed windewe of the harems of the rich, the pris-on-like aspect of tha better atreets, and the caravan of gaunt, shoeless Nubian girls in their cotton wrappers, are part and parcel of the odlous system.
"The trade of Constantinople consiats chiefly in the aupply of the wants of the atate officers, and of the military and naval peraona who are attracted to the eapital; but it is chiefly by foreigners that the handicraft oprerations are performed. The priacipal manufactures are those of cotton and silk goods. The Armenians are the chicf jewelers and silversmiths. The Jews are perfumers, druggiats, and brokers; the Franka are the principal mechanics; and the chief business is transacted at the several hazars.
"The foreign trade of Constantinople is favored by its excellent harbor, capable of containing 1200 ahips. It is the mediam of intercourao between that part of Asia whence laden camels arrive, and the different divisions of Europe, collecting the drugs and silks of the one, and distributing thein among the others. It would require much apace to colleet and enumerate the ramifications of such a trade as is carried on in minute articles to and from the city of Constantinople. The city is distant 1680 miles from London."-E. B. Sea Tunkey.

Consuls. We propose to divide thia article into three parts: I. Consuls, their Origin, and Lawe respecting them; II. Duties of Consula; III. Diplomatje and Consular Law of the United Statee.

Consul (vixaros), the highest ordinary magistrate of the loman republic. It is probabla that the word is compounded of con and aclio, and is formed like exsul and prosul, so that consules signifies those who go together. They were anciently called pratores, imperatores, or judices.
I. Conbula, tikir Origin, and I.aws respecting tiem.-Consula, in the nineteenth century, are commercial agenta, appointed to reaide in the sea-ports of foreign countries, with a commission to watch over the
voramercial righte and privileges of the nation deputjag them. The eatablishment of consuls is one of the most useful of modern commercial institutions. They were appointed about the twelfth century in the opulent states of Italy, such as Pisa, Lneca, Genoa, and Venice, and their origin has been ascribed to the necessity for extraondinary assistance in those branches of commerce formerly carried on with barbarous and uncivilized nations. The utility of euch a mercantile oficer has been perceived and felt by all trading nations, and the Mediterramean trade in particular stands highly in need of such accradited persons.: Consula have been multiplied and sent to every part of the world where navigation and commerce can successfully penetrate; and their duties and privileges are now generally limited and defined by treaties of commerce, or by the statnte regulations of the country which they represent. In some placee they have been invested with judicial powers over disputes between their own merchants in foreign ports; but in the coramercial tresties made by Great Britain there ia rarely any atipulation for clothing them with judicial authority, except in treaties with the Barbary powers; and in Eagiand it has been held that a consul is not strictly a judicial officer, and they have there no judicial power. It has been urged by some writers, as a matter highly expedient, to establish rules requiring merchants abroad to sulmit their disputes to the jadicial authority of their own consuls, particularly with reference to shipping concerns. But no government can invest its consuis with judicial power over their own subjecta in a foreiga country, without the consent of the government of the foreign country, founded on treaty ; and there is no instance in any nation of Earope, of the admission of criminal juriadiction in foreign consuls. The laws of the Urited States, on the subject of consuls und vice-consulf, especialiy suthorize them to receive the protests of mastera and othere in relation to American commerce, and they decisre that consular certificates under sesi, shall receive credit in the courts of the United Staten. It is likewise made their duty, where the laws of the country permit, to administer the personal estates of American citizens dying within their consuiates, snd lesving no legal representative; and to take charge of and secure the effects of stranded American vessels in the slisence of the master, owner, or consignee; and they are bound to provide for destitute seamen within their consulstea, and to send thom at the pubiic oxpense to the United States. It is made tho duty of American consuls and commorcial ageats to reclain deserters, and to discountenanco insubordinstion, and to lead their rid to the local authorities for that purpose, and to discharge the searaen craelly trested. It is also made the duty of masters of American vessels on arrival at a foreign port, to deposit their registers, sea-letters, and pastporte, with the consul, vice-consul, or commerciai agent, if any, at the port. These particular powers and duties are similar to those prescribed to Britieh consuls, and to consula under the consular convention between the United States and France, in 1788; and they aro in accordance with the uages of nations, and are not to be constresd to the exclusion of others, resulting from the nailire of the consular appointment. The consular convention between France and thin country in 1778 , allowed consula to exereise police over ali veszeis of their respective nations, "within the interior of the vessels," and to exercise a apecies of civiljuristiction by determluing dinputes concere'ng wages, and Letween the masters and crews of vessels belonging to their own country. The jurisdiction ciaimed under the consular convention with France, was merely voluntary, and aitogether exclusive of any coercive authority; and we have no treaty at present which concedes even such consular fonctions. The doctrine of our courts is, that a foreign consul, duly recognized by our government, may assert and defend, as a compe-
tent party, the rights of property of the individusis of his nation in the conrts of the United States, and masy institute suits for that purpose without any specini authority from that party for whose benefit he acts. But tiue courta, in that case, said that they could not go so far as to recognize a right in a vice-consul to receive actual restitution of the property, or its proceeds, without showing some specific pou ur for the purpose from the party in interest. No nation is bound to receive a foreign consul unless it has agreed odo so by tresty, and the refossl is no violation of the peace and smity between the nations. Consuls are to be approved und admitted in the unual form; and if any consul be gaiity of illegsl or improper conduct, he is liable to have his exequatur (a writte? recognition of his charscter) revoked, and to be punished according to the laws of the country in which he is censul; or fie may be sent back* to his own country, at the diacretion of the government which he has offended. The French snd American consuls are forbidden to be concerned in mermerce, but British consuts are generally allowed to be concerned in trade; and in such cases the character of consul does not give any protection to that of merchant, when these characters are united in the ssme person. Though the functions of a cousul would seem to require that he should not be a subject of the state in which he resides, yet the practice of the maritime powers is quite lax on this point; snd it is useful, and thought most convenient, to appoint subjects of the foreign country to be consuls at its ports.
A consul is not such a public minister as to be entitied to the privileges appertaining to that chsructer, nor is ho under the special protection of the law of nations. He is entitled to privileges to a certain extent, such as for safe conduct; but he is not entitled to the jus gentium. Vattel thinks that his functions require that he should be independent of the ordinary criminal juriadiction of the country, and thst he eught not to bo molested unleas he violatea the law of natiens by some enormous crime, and that if guilty of any crime he ought to be sent home to be panishicu. But no such immunities have been conferred on consuis by the modern practice of nations ; and it may be censidered as sottlod law that cunsuls do not enjoy the protection of the law of nstions, any more than other persons who enter the country under a safe-conduet. In civil and criminal casen they are equsily subject to the lawn of the country in which they reaide. The same doctrine, deciared by the public juriats, has been frequently laid dowa in the Engiieh and American courts of justice. It eeems, however, from some decisions in France, mentioned by Mr. Warden, that foreigu censula can not be prosecuted before a French tribunal for acta done by them in France by order of their government, and with the authorization of the French govornment, and that in general a consul can not be prosecuted without the previoas consent of his govermnent.
Consular: privileges are much jess extensive in Christian than in Moltammedan countries. In the Inter, they can not be imprisonod for any cause whatever, except by demanding justice against them of the Porte, and thoy partake very considerably of the ehsracter of resident ministers. They are dlplomatic agents under the name of consuls, and enjoy the rights atd privileges which the Ottoman Porte recognizes in relation to the foreign mininters resident at Constantinepite. By treaty an entire immunity in usually given to the persons, domestics, and effecte of tho resident consuls, and no consula reside with the Barbary States but under tl: e protection of treatien.
Considering the Importance of the consular functions, and the activity which in required of them in ali great maritime ports, and the approach which consula

- An wan the case with the Britain consula at Now York. Pltiadelphita, and Cineinnati, in the year 185C. Thic effictal pequatur of theme mentiomen was withdrawn by 1reesident Plerce, and thetr oficilal functiona ceased.
make to ters, it wo United S insi juris as entiase fedcral jun state cour In the t of Americe ulated tha ment to r their subs acting as j which may the vessels their cure. right to in case of the der and tra msy happe may be obl of the exee to be respe that this Bc prive the co ing, on thei country."
II. Dutie in the confit derstood, ar businces to conmercial agent he is: on all doubt commercial hn is appoint sary or unju ness ; to rep of the piace the sovereigr consuiship de $a$ word, to ex soljects of th its ef his cone tions es adve The follow erol dutles of on Commercia Iy qualified $\{$ make himself wod the magit as to convers doties. If th et, he must a mettic ilitte di cy ef the plac wach us sccide $\alpha$ his nation cher. Ife is siresdy, with tanff or speci exported, and laws.
" Iíe must prevent the ex the part of the emanent empla his countryme merce, to the tion of the lam diligently to ti smuggiling, an detention of a and mariners. wult or impesit Mithin his juri is not oltained h tribunal their govrench govot be presberninent. ve in Christhe intter whatever, the P'orte, aracter of cents under and priviin relation tantinejie. iven to tire nt censuis, tes but un-
sular func-
them in all ich consuls
make to the efficacy and dignity of diplomatic characters, it was a wise provision in the Constitution of the United States, which gave to the Supreme Coart orig. inal jurisdiction in all cases affecting consuls as weli as embassindors and other public ministers; and the federal jurisdiction is understood to be excluaive of the state courts.-Kent's Comm., Lect. II.
In the treaty between Sweden and the United Statee of America, ratified on the 24th of July, 1818, it is atipulated that the consuls appointed by either government to reside within the dominions of the other, or their aubstitutes, "ahcoll, as auch, have the right of acting as jadges or arbiters in aill cases of differences which may arise between the captains and crewe of the vessels of the nation whose affairs are intrusted to their care. The respective governmenta shall have no right to interfere in this sort of affairs, exeept in the case of the conduct of the crews disturbing jublic order and tranquility in the country in which the vessel may happen to be, or in which the consul of the place may be obliged to call for the intervention and support of the executive power, in order to cause his decision to be respected; it being, however, well understood, that thia sort of judgment or arbitration can not deprive the contending parties of their rights of appessing, on thair return, to the judicial authoritiea of their country."
II. Duties of Consuls.-The dutica of a consul, even in the confined sense in which they are commonly understood, are important and multifarious. It is his business to be alwaya on the spet, to watch over the conmercial interests of the subjects of the state whose agent ho is; to bo ready to assist them with advice on all coubtful occasions; to see that the conditions in commercial treatics are properly olseerved; that these he is appointed to protect are subjected to no unnecessary or unjustifiable demands in conducting their business; to represent their griovances to the authoritiea of the place where they reside, or to the embaseader of the sovereign uppointing him at the court on which tho consulship depends, or to tho government at home; in a word, to exert himself to render the condition of $t$. soljects of the country employing him, within the limits of his consulship, as comfortable, and their transaclions as advantageous and accure as possible.
The following more detailed exposition of the generol duties of a cousul is taken from Mr. Chitty's work on Commercial Law: "A censul, in order to be properly qualitied for his employment, should take care to make himself master of the langunge used by the court and tho magistracy of the country where ho residea, so as to converse with ease upen subjects relating to his daties. If tho common peopie of the coart wes another, he must acquire that aloo, that he may be able *: settic littie differences withont troubling the magistrasy of the place for the interposition of their authority; weh as accidents happening in the harbor, by the shipe ot his nation running foul of and doing damage to each other. Lie ia to mak.! himself acquainted, if lie be not iready, with tho law of nations and treaties, with the turiff or apecification of dutier on articles imported or exported, and with all the municipal ordinances and laws.
" Ile muat, tako especial notice of all prohibitiona to prevent the export or import of any articles, as well on the part ef the state wherein he resides, as of the govemment employing him; so that he may adinonish all his countrymon against carrying on an illicit commerce, to the detriment of tho revenues, and in violafien of the laws of either ; and it is his duty to attend diligently to this part of his oflice, in order to prevent muggling, and consequent hazard of confiscation or detention of ships, and imprisonment of the masters and mariners. It is alse his duty to protect from in. silt or impeaition his countrymen of evary description within hia jurisdiction. If redreas for injury auffored if not obtained, ho is to carry his complaint by memo-
rial to the minister residing at the court on which the consulahip depends." If there be none, he is to address himself directly to the court ; and if, in an import. ant :ase, his complaint be not answered, he is to transmit. the memorial to the eccretary of state.-Beawes, Warden, ate.
"When insult or outrage is offered by one from hia country to a native of tho place, and the magistrate thereof complains to the consul, he should aummon, and in case of diaobediance, may by armed foree bring before him the offender, and order him to give immediate satisfaction; and if he refuse, he reaigns him to the civil jurisdiction of the magistrate, or to the military law of the garrison; nevertheleas always acting as counselor or advocate at his trial, when there is question of life or property. But if a subject be accuaed of an offense alleged to have been committed at aea, within the dominion or juriadictien of his sovereign, it is then the duty of the conanl to claim cognizance of the cause for his country, and to require the relcase of the parties, if detained in prison by the magiatracy of the place on any such accusation brought before them, and that all judicial proceedinge againat them do instantly cease; and he may demand the aid of the power of the conntry, civil and military, to enable him to securo and put the accused partics on board such a abip as he shall think fit, that they may be conveyed home to be tried by their proper judges. If, contrary to this requiaition, the magistratea of the country persiat in proceeding to try the offense, ihe consul should then draw up and transmit a memorial to the minister at the court of that country; and if that court give an evasive answer, the consul ahoald, if it be a sca offense, spply to the proper authorities, stating the case; and upon their representation, the ascretary for the proper departmeut will lay the matter before the king, who will cause the embassador of the foreign state to write to his court abroad, desiring that orders mny immediately be given by that government that all jndicial proceedings agninst the prisoner be stayed, and that he be released. -Ses Cass of Horseman and his Crew, Beawes, vol. ii. p. 422.

1"The consul is nnt to permit a merchant ahip to leave the port where he resides without his passport, which he is not to grant until the master ani rew thereef have aatisfied all just demands upon them; and for this purpose he ought to sce the governer'a pass of a garrisoned town, or tho burgomaster't, unless the merchant or factor to whem the ship was consigned will make himself responsible.-Benwes, Lex. Merc., vol. il. p. 423. It is also his duty to claim and recover all wrecks, cables and anchors belonging to the ships of his country found at aes by fishermen or other persons, to pay the usual salrage, and to communicate a report thereof to nuthorities at home. The consuls nnd vice-consuls are, by express enactment ( 46 Geo. 8 , c. 98,899 ), empowered to administer caths in all cases resp. cting quarantine, in liko $n$. nner at if they ${ }^{* \prime}$.e magistrates of the several towns or places where they respectively reside. It is alao laid down that a conaul is to attend, if requeated, all arbitrations whero propetey is concerned between masters of ships and the freighters, being inhabitants of the place where he re-sides."-Ciitty on Conmercial Law, vol. i. p. 58-61, and the nuacrous nuthorities there queted.

Any individual, whether he be a sulject of the state by which he is appointed, or of another, may be selectcd to fill the office of consul, provided he be appreved and admitted hy the government in whose territory be is to reside. In most instances, however, but not always, consuls are the subjects of the atato appointing them. Much, however, of the peculiar chaties of a consul must alwhys diepend on the nature of the intercoarse with the country to which he is sent, and of the instructions given him. Consula are regularly sup. plied with coples of all acia rolating to trade and navigation, quarantine, slave-trade suppression, emigra.
tlon, etc., and with the treatios between thls and other countries, and must of course shape their conduct accordingly... They are atrietly forbidden from corresponding with private parties on publio mattors. Undor the General Inetructions for Britich Consuls, "he will bear in mind that it is hls principal duty to protect and promote the lawful trade and trading interests of his country by overy fair and proper nieans, taking care to conform to the lawe and regulatione in question; and while he is supporting the lawful trade, he will take special notice of all prohllitions with reapect to the export or import of specitied artlcles as well on the part of the stato in which he resides as of his govornment, so that he may caution all his countrymen against carrylug on an illicit commerce to the detrlment of the revenue, and in vlolation of the laws and reguiations of either country; and he will not fail to give thls Department immediate notice of any attempt to contravene those laws and reguiations.
"The consul will give bls beat advico and asalstance, when called upon, to bis countrymen, quieting their differences, promoting peace, harmony, and good-will among them, and conclilating as mueh as possible the subjects of the two countries upon all pointe of differonce whlch may fall under his oognizance. In tho ovent of any attempt being made to injure his countrymen, either in their persons or property, he will uphold their rightfui interests, and the privileges secured to thom by treaty, by due representation in the proper official quarter. He will, at the same thme, be careful to conduct himeelf with mildness and moderation in all his transactlons with the public authorities, and ho will not, upon any account, urge claims on behalf of his countrymen to which they are not justly and fairly entitlec. If redress can not be obtained from the locai administration, or if the matter of couplaint be not within thelr jurisdiction, the consul will apply to the consul-general, or to his minlater, if there be no constigeneral in the country wherein he resides, lu order tha: ho may make a representation to the higher authorities, or take auch other stops in the case as ho may think proper; and tho consul will pay strict attention to the instructions which he may receive from the minister or consul-general. "--See M'Culcocn's Dictionary of Commerce ; Ḱsnt's Commentaries; Aincyclopedia Mritannica, 8th ed. publithed by Messrs. Littlo, brown and Co., Boaton; Munual for United States Consuls, 1857 ; 'I'vasos's British Consul's Afanual, Loudon, 1856. The reader may with advantage refer to the articles on Consuls andi Consular Duties containod In Dis llow's Review, voi i. p. 56 ; Husx's Merchants' Magazine, vol. vi. p. 297, vol. xiii. p. 551, vol. x. p. 447, vol. xif. p. 211, vol, xvll. p. 43, vol. x viii. p. 60; Fbreign Quarterly Hz riew, vol. $x \mid x, p .106$.

Jurisdiction, Privileges, and Immunities of Consuls.-"The juriadiction of a consul only extends over the subjects of tho nation he ia nominated by, either resident in, or arriving at, the place in which he has been appointed to reside. In countries where there are embassics as weli as consulates the jurisdiction of the latter generally only extonils over the sea-faring sutjecta of our nation, at the aame time it watches over her commercial interests. That of a consul-general presides over the consul, and that of a cousul, in most instances, over that of the vice-consuls. The consular jurisiliction depends more entireiy into what country the consul may be sent. I'hus forelgn consuis in England have no judicial authority whatever. British consuls, however, in most conntries, have judicial jower, and consequontly their juriadiction lecomes either retrenchel or extended, according to the nature of the atlpuiations of the ratified treaty.
"When the consul is appointed ho Is always provided with coples of the conventlons with the country he la sent to. In rugaril to the privilegee and immumitlea a consul enjoys, there have always existed doubts whether he may be cousldered exempt from the civil
jurisdiction of the state to whlch he ie nominated; and aithough many others have laid down to the contrary, stlll it may be maintalned, and in perfect conformity to the law of nations, that where the regular exequatur has been accorded to the consul, he ought to be exempt from the civli juriadiction of the stato to which ho la accredited. By the exequatur the sovereign acknowledges him as the consular representative of his empire, hoaring her appointment, and protected by her passport; and, as regards the nature of his mission, only resident for a short time at the state. Under these circumstances he ought to be exempt.
"In countries out of Europe, or where there is no embasky, the consul enjoys the same privileges as an ombassador, and is de fucto tho embassador or reprc: soutative of his sovereigu, only under another name. He call perform all acts of a notary pubic, all deede oxecutod by him being hold to be valid, and acknowledged in our courta of law. He can attend ali levees of the sovorelgn after recolving hie oxequatur and either after having been presented to the sovereign by the embassador, or, in hla absence, by tho miniater of foreign affulra. The consulate ls generaliy considered as the territory of tho power by which It is tenanted, and all deeds, acts, and any other documenta executod under the seal of the consul are valid in the country from which ho has been sent. At tho same time, it must be perfectly understool that all acts thus issued by the consul are, with a fow exceptions, not valid in thu country in which be resldes, except there be a spoclal conveution to that effect. All documents, required to to valid before the tribunals of the country he is in, ought to be made out by the proper lawyers appointed for that purpose; for it can not be expected that where a consul is only authorized as judiciai authority for his own country, that hia acts shonid bo acknowledged and received as iegal lustrumente in the tribunals of tho country ho is accredited to, although his acts shouiti be reapected, as it might he poasibie that they could be grounded upon guite a different lix mercatorio, and could not, therefore, be taken in evidenco against documenta perhaps quite opposite in a legai point of viuw, and it would be unjust to aliow them to be reeeived."-Tuson's Brotiah C'onsul's Manual, 1856.
III. Consular System of the United Stutes.-'line establishment of a consuler system in the United States was neariy coeval with that of the general povermment. In the second annual address of President Washington to the tirst Congress, ho informed that bodiy that "the patromage of our commerce, of our merchants, and seamen, calledf the appointmont of consuls in foreign countries; thi, at seemed expedlent to regulate by iaw the exercise of that jurisiliction aml those functiona which are permitted either hy express conveution or by a friendily indulgence in the jlaces of their residence." Prior to this period consuis were not ailowed saiaries, ner permitted to domand fees or receiva jerquisites.

In each branch of Congress this recommendation of the l'resident was referred to the appropriate committee, and consular bils were :ciorted in accoriance therewith. They falied, howevor, to become laws, the llouse having strieken out the whole of the Senate hill with the exception of the tirst section.

In the early part of the second Congress substantialIy the same bili, probitily drawn by Mr. Eilswurth (afterward Chief Justice), was reported to tho Scnate by a committce to whom the recommemiation of the l'reshient had been referred; and, subsoquently, after tho adoption of severai amenimenta, it passod botí lirsuches of Congress unanimousiy, and became, on the 1 th of April, 1792, a law of the land.

From this period till the year 1855, with the exeeption of the act of July 20th, 1840, regulating the shipment and discharge of seamen and the duties of consuls, scarcely any change was mado in the laws afiectIng the consular system.

In the year 1854, Mr. Perkins, of Louiblana, then a member of the Ilouse of Representatives from Loulsiann, having devoted himself mont asaiduously to the study of the aubject, prepared a bill to remodel the diplornatic and consular syatems of the United Statea.

The bill was advocnted in the House, and finally passed by a vote of 148 yeas to 88 naya.

In tho Senate it passed unanimously, recelved the approval of the President on the lat of March, 1855, and went into operation on the 1at of July, in the eanio year.

Aecording to the recommendation of Mr. Marcy, Seeretary of State, the sebject was again brought forward in August, 1850, and a new act passed by a vote in the Ilouse of Representativen of 103 to 56 , and passed the Senate unanimoualy on the 16 th of that month.
it lias rarely happened that a law so important as this has passed Congress with anch nnaninity-mono Involving inany and important changes in the diplomatic and consular syatems of the United States; creating new offices ; increasing, reducing, or entirely abodishing the salaries of many consutar officors; containing provisions affecting every American merchant and shipmaster engaged in foreign trade, and every Amerlan traveler in Europe; repealing provisions of existing laws; rnacting others for the regulation of the agents of the goverument in forcign countrice, and of civil officers in the United States; imposing heavy penaltics for the vielation of the provisions of tise etatnto; and authorizing and requiring tio performance of important duties by tho higheat executive officers of the government. Thie favor which the bill roceived in both brancires of Congress was doubtiess duc, in part, to the fact that the near approach of the cloas of the session left littlo time for its disenssion and amendment, and to tive respect entertalned by the House for the committec on forcign sffairs, which reported tho bili, whose chairman, It was understood, had doveted much time and eare in its preparation. Tho law provides for the rate of compenastion to bo received by all diplomatic and consular officers, of whatever grade; fixes their compensation; peruits tho latter to transact businoss, or prohibits them from doing so, in certain places; prescribes the conditions of officinl bonds; imposes penalties for the violution of the provisione of tise $\ln w$, and indicates the manner in which aetions for the recovery of penalties shall be tried; authorizes tho appolutment of consular pupils, of interpreters, and of additional secretaries of legations; fixes the period at which the compensation of the officers named in the act shall commence and terminate ; provides for the filing of diplomatic and consular oflices teniporarily vacant, and the psy to bo received by officers acting ad interim; forbids the exercise of diplomatic functions by unauthorized persons; authorizes the President to deflne tho limite of the several consular and commercial agencies, to provilie for the appointment of aubordinato consular officers and their compensation, and likewise to fix tho rate or tariff of fees for consular services, and designate what shall bo regardell as official services; requlres the consular tarlfi to iee reporied to Congress annusliy, and also the ameunt of foes received at the several consulates; directs the modo in which the payment of foes shatl be mnde and accounted for, and the coin In which they shall be payntilo; impores additional intles upon coliectors and shipmasters in respect to consular eervices, receipts, and involces ; forblds diplomatio and consuinr oflicers to bo absent from their posts, or to hold correspondence in regard to the public aftairs of any forelgn government with the prese, or private persons, or otiserwise then with the proper officers of the United States; forbids consular officera being pecunlarily Interested in the receipt or diaburaoment of tho wages of seamen, or In oxpenditures made for tiselr relief or tranaportation; provides that no compensation shall be paid to diplomatic and consular officera, unlese they shall be citizens of the United Statea; ua-
thorizes the President to supply the legrations and consulaten of the United States with certain articlea necessary for the transaction of the public buaineas, and to prescribe anch regulations, and make and issue auch orders and instructions, not inconaistent with the Constitutlon or any law of the United States, in relation to the duties of ali diplomatic and consular officers, the traneaction of their business, the rendering of accounts and returne, the payment of compensation; the onfen keeping of the archives and publie property In the hands of all such officers, the communication of information, and the procurement and transmission of the products of the arts, sciences, manufactures, agriculture, and commerce, from time to time, aa he may think conducivo to tho publio intereats; requires these officers to conform to auch regulations, orders, and instructiona; makea it the duty of the Secretary of State to publish official notlficationa, from time to time, of sucis commercial information commanicated to him by the diplomatio and consular officera as he may deem important to tho publio interesta, and to report to Congresa, at least once in each year, a aynopsis of so much of tho information on all subjecte, which sliall be co communicated to him, as he may deem valuable for public information; authorizes the granting and issuring of passports, under certaln conditions, and the perfomnance of notarial duties by secretaries of legation and consular efficers; enacte various provisions in rogard to the desertion of seamen, the payment and tie forfeiture of wages and extra wages in certain cases, and the se thement of sesmeris accounts, and their discharge in foreign countries; provides for the accountablity of consular officers for tho extra wages of seamen; preseribes the kind of returns and reperts to be made by consular officers, and requires all shipmasters to apply to consular officers for the transaction of consular businesn, and pormits the detention of shipa' papers till payment shall be made of alt demands and wages on account of euch shlps and vessels; detince the duties of consular ofticers in respect to all citizens of the United States dying abroad, and the meaning to be affixed to the several titiee by which consular offlcers aro designuted; imposes heavy penaities for ali malfeasance, and for the violation of the provisiona of the act; repeals all acts and parte of acts inconslstent with its provisions; and, tinally, provides that the act shall take effect on the firet of January, 1857. It wiil thus be seen that tho law which now rngulates the diplomatic and consular aystems of the United Statea enbraces a great number of subjects, and enters into much detail with reapect to ali matters pertaining to the consulnr office. Many of its provislona are eminently judicious; the expediency of others must lue tested by tine and their practical operation. The treaties and conventions of the Unitod States with forelgn nations contaln many iliportant provisions relating to the dutios, rights, and priviieges of consuls, ess pecially those which have been negotlated with China and the Ottonan Porte.
Hut "the most complete consuiar conventlons ever concluded," as remarks Mr. Tuson, the latest writer on the aubject of the dutles of consuls, "aro those between France and the United States, and between the latter country and Holland; the former negotiated at Weshington by Mr. liverett and M. Sartiges, and the latter nt the Hingue, under the Inatructions of Mr. Marcy. The rules laid down thereln are very explicit, and ought to tie taken as examples by all other nations. They will be of great utllity to all consuls, in showing them what their present dutles are, and what they are most likely to bocomo. These conventions are suchas nro likely to he taken as precedente for future trentiea on the same anlject." Occurrences which have taken place in the United Statea and eleewhere, within the last few yeurs, have shown how defective is the legislation of thle country In respect to consuls. The subject attracted Mr. Welonter'a attention, while Secrotary
of State; and, at his auggestion, the atteation of Congress was called to it. He remarked that no country has a deeper interest in securing the protection of diplomatic and consular agents than the United States. Thsir commerce spreads over every sea, and visita nvory clime; and these agents are appointed to protect its interests, as well as to guard the peace of the country, and maintain the bonor of ita flag. While thus eagaged in the discharge of important functions, they should bo objects of especial respect and protection, aach according to the rights belonging to his rank and station.

As much has been done during the last four years as at any former perlod in this country, by means of cunsular conventions, by legislation, and by circulars issued by the Secretary of State, not only to secure these oljects, but to perfect the consular system, and to render it usefol to the country. In obedience to the circulars issued by Mr. Marcy to coneular officera on the 8 th of Octeber, 1853, the 15 th of March, 1854, the 11th of July, 1855, and also tho general and special instructions of the Dspartment of State, a vast amount of information rolating to ship-building, ehipping, navigation, tonnage, seamen, foreign tarifts, commercial regulations, and other subjects, has been transmitted to the Department by the United States consuls. The matter thus collected is Important and valuable; ite preparation reflects great credit on the industry and intelligence of the conaular corps, and atfords a striking illustration of the Importance of their services.

At the prosent time the consular corps of the United States conslsts of seven consuls-general, one hundred and seventeen consuls, and nine commercial agente, who receive for their compensation fixed salarics; nincty consals, ten commercial agents, and cighty-five consular agents, who are anthorized to retain for their compensation the official fces which they recelve. Resilling as these officers do in all the principal marts of traffic and commerce throughout the world, and having their dutics carefuliy defined by law and the instractions of the Executive, it may reasonably be expected that all information affecting the commercial raletions of the United States with foreign nations will be furnished by tham to the Department of State, and published for the benefit of their fellow-citizens.
As an illustration of the value to be placed on the correspondence of conauls, it may be stated that in a debato which took place in 1842, in the IIouse of Commons, Lord Palmerston remarked, that, during the time he had the honor of being at the lowad of the foreign department, he had read every report and every letter received from the consular officers abroad, from tho most elaborate report of the highest consul-general down to the least-importaot letter of the lowest viceconsul. "Very laborions reading it was," he adds, "but, scattered through the voluminous papers that thus came under my eye, I found many important matters with which it was my duty to be acqualnted; and it is quite a mistake to suppose that, because there is a superintendent of the consular department, the Secretary of State does not give the same minute attention to the consular as to the other duties of the ofllce, though the consular corraspondence amounts to one-half of the whole correspondence of the foreign ofllee." The perfection to which the consular system lias attained in France furnishes an Illustration of what mey ba accomplished by a thoroughly orgnnized consular establishment. The ohjects contemplated by such a system, as has been well remarked by a writer practically acquainted with the suljoct, are nothing less than the advancement of the prosperlty and power of nations. Deputed to watch over tho commerclal rights and privilages of their respective countries, consular oflicers are Intrusted with the care of the highest Interests, and excreise a more limportant lathence upon mercantile prosperity, the foundation of nationel greatness, than any other foreign agents of government.

Scattered throughout the whole world, occupying an eminent social position in all the mercantile clties of every nation, and perforoling duties which bring them more or less into collision with the people among whom they reside, they, by their coaduct and manners, influence the judgment whicis is formed of the country they represent, and either add to its digalty or reflect dishonor on its astional character.

1. Naturs and Duties of the Consular Office.-The word "consuls," as used in the Constitution of the United States, designates a class of public officers appointed by thelr government to reside In forcign countries, and especially in aca-ports and other pleces of commerce, to discharge administrative and sometimes judicial functione in regard to their countrymen who dwell or may be in tho country where they reside; to ald in the authentication of documents abroad, and generally to perform auch other duties as may be assigned to them by the lawa and orders of their government.
2. Classes of Consular Officers.-Accordingly, by various lawa of the United States, duties are imposed and rights confcrred on this description of public officers, under the names of consuls-general, consuls, viceconsuls, depnty-consuls, commercial agents, vicc-commorcial agents, and consular agents. It is provided by the 31st section of the act of Congress approved August 18, 1856, that these official designetions shall be deemed to have tho respective meanings therein assigned to them, namely: "consul-gencral," "consul," and "commercial agent," shall be taken to denote full, principal, and permanent "consular officers," as listinguished from subordinates and substitutes; "deputy-consal" and "consular agent" to denote "consular officere" subordinete to such principals, exercisIng the powers and performing the dutics within the limits of their consalates or commercial agencies re-spectively-the former at the same ports or places, and the latter at ports or places different from those at which such prenclpals are located respectively; and " vice-consuls" and "vice-commercial agents" to denote "cousular officers" who shall be substituted, tenporarily, to fill the pleces of "consuls-general," "consuls," or "commercisl agents," when they shr" be temporarily absent or relioved from duty ; and the term "consular officer" to include all auch officers as are mentioned in the seid section, and none others.
3. Application of Acts of Congress.-It is further provided by the samo section that, in the construction and for the purposes of all other acts and parts of acta which shall remain In force after the act above mentioned shall take effect, defining any of the powers, declaring any of the rlghts, prescribing any of the duties, or limposing any penalty or punishment for any act of omission or commission of any consul, commercial agent, vice-consul, or vice-commercial agent, or allowing or enjolning the performance of any act, matter; or thing, with or before any sach oficer, all such acts and parta of acts shall in all these several respects, so for as may be consistent with the subject-matter and context of the same, and with the eald act and the treatics of the United Status, be deemed and taken to include and apply to all consular offleers just as though all such officers were specifically named thereln.
4. Certain Consular Powers,-Tho Importent act of 1792 contains a declaratory provision, which is to be understood as implled In all other acts of Cougress, as follows :
"The specifiention of certain powers and daties, * *, to be exarclsed or performed by the consula and vice-consuls of the United States, shall not be construed to the exclasion of others resultling from the nature of thelr appointments, or any treaty or conventhon under which they niay ect."*

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being defined by acts of Congress, are indicated by general treaties and consular conventiens entered into between the United States and other sovereign powers.
5. International Law.-Consula possess, moreover, by the law of nations, nany functions, rights, and privileges, other than such as are defined by convention, by legislative act, or by regulation.
6. Consular Privileges.-Thcir privileges necessarily arise from the character of their appointments; but they are net, llke those of embaseadors and other public ministers, precisely defined by international jaw; and, consequently, they may be extended or limited among different natione, either by treaties or the legisJative policy of these countries. Altheugh the commissions which United States consuls receive from their government are expressed in the same terms and confer the same authority; yet, as the consuiar functions sre to be exercised in a forcign country, and in accord ance with an exequatur issued by its sovereign, they msy be more or less restricted. Whenever the imms. aitics, rights, and duties of consuls are prescribed by muturl consular conventions, they are to be enjoyed or excreised in accordance with the stipulations of such cenventions. In these countrics with which the United States have entered into no consalar convention, consular officers may discharge such duties as a e allowed or are net ferbidden by the laws of these countries, or which are allowed by common usage; and sometimes they are permitted to exercise such privileges as are granted to foreign consuls by the United States within lts own territory.
7. When Obstacles are interposed.-If the autheritics of the places where consuls reside oppose eny olstacles to their enjoyment of the privilegea which may have been accorded by consular conventions, or which, founded on usage or reciprocity, may have been claimed by thennelves, they will refor the subject to the legation of the United States residing in the country, and ruport the facts, together with their own proceedinge and a copy of all their correspondence in relation to the same, to the Department of State, and await its instructions. In no case will they strike the consular figg or abandon their post without the express permission of the Department.
8. Personal Demeanor.-One of the first duties of consular officere is to exhibit in their official conduct, and in their interceurse with the lecal authorities and with the people of the conntry, a proper respect for the supreme nuthority.
9. Style of Official Communications.-In their communications with official functionaries, they will be carcful to set forth their viows and opinions courtcousty but firmiy, avolding in all cases the use of vivient or intemperate language. All diseugsions extending beyoud the limits of a just moderation are injurious and defeat thelr owr ohject.
10. Influcnce of Personal Character.-1t is, above all, by their personal influence and character, by circuinapect conduct and a conciliatory apirit, that consuls will best succecd in settling difficulties and in the accomplishment of important objects. Commercial intercuurse is a common bond of interest aniong all countries and ail men, and it is by arguments drawn from this source, rather than by unreasonabite pretensions and disputes, thast injurious restrictions can be re-moved.-De Cuence, tome ii. p. 32 et seq.
11. Dutifs imposed by Laws.-The laws of the United States on the sulject of consuis and vice-consuls sf. cisliy authorlze them to recelve the protests of masters and others relating to American commerce, snd decine that consular certificentes under scal shail recclve falth and credit in the courts of the United States. It is likewise made the duty of consular officers, where the laws of the country permit, to collect and remit the assets of the personal estates of American citizens who may die within their consulatea and leave no legal representative, and to take charge of and secure the
effects of stranded vessela, in the absence of the master, owner, or consignee; and they are bound to provide for deatitute seamen within their consulaten, and to send thein, at the public expense, to the United States. It is their duty, likewise, to reclaim deserters, to discountenance insubordination and lend their aid to the local authoritice for this purpoae, to discharge seamen cruelly treated, and to receive from the masters of American vessels, on their arrival at a foreign port, and after the voesel shall have come to an entry, the registers, sea letters, and passports of such vessels. These duties, and some others which are prescribed by legal enactment, are in accordance with the usages of nations [Kent, vol. i. p. 42], and with special treaty stipulations with certain countries.
12. Variety and Importance of Consular Duties.-Many of the consular duties arise from peculiar circumstances: such as the character and habits of the nation in which the consul resides, its laws and customs, and the nature of its intercourse with the United States. In the most restricted sense, they are important and multifarious, are quite difierent from those of other officers employed in foreign affisirs, and require for their proper performance an amount of practical information for which the consular officer needs a special training. Consuls are so situated as to exercise $t$ ward their countrymen within their consular jurisdiction the duties of judges, arbiters, and peaceinakers; they are the registers of marriages, births, and denths; they act as notaries, and cometimes as revenne officers; they watch over and verify the sanitary condition of their consulstes; and, by their domestic relations, they can furnish a full and accurate idea of the commerce, navigation, and industry peculiar to the country of their residence.
13. Commercial Regulations.-The commercial interests of their own country are, in a measure, conmitted to their caro. They are to bee whether the stipulations In commercial treaties are observed, and report all changes in commercial regulations and municipal ordinances.

Every law, edict, or regulation of the government where they reside, in any way affecting the commerce of the United States, which comes to the knowledge of consular officers, must be immediately transmitted to the State Department; and, if it be a local regulation, operating only on a particular port, they must also give immediate notice thercof to the minister, if there be one in the country to which the district belongs.
14. Suggestions.-Consular officers are expected, in their correspondence, to note all events which bear upon the commerce between the country where they reside and the United States, the establishment of new branches of industry within the limite of their consular jurisdiction, nnd the increase and decline of such as have been before established. They should also make such suggestions as, in their opinion, msy lead to an increase of trade, and point out any circumstances which may have produced a contrary effect, with the means that appear proper for avolding such a result. When new products of the arts, sciences, or manufactures appear to be valuable elther for expert or import, cnd this is not gencrally known, the fact siould be cominumicated to the Deparment, and samples sent, if not too bulky, with the conenlar letters; but if too bulky they may be addressed to the collector of some $\because$ do of our principal ports. Sceds of plants and grain suitable for cultivation in tite United States shoutd also be sent. In general, the duties of a consular officer require an attention to cyery thing that can promete the commerce and navigation of this country, and the intererts of its citizens.
14. Contentions to bs avoided.-Consular officers are particularly cautioned not to enter into any contenthons which can be avolded, either with their countrymen or the authorities of the country in which they reside; reforring questions of that nature to the min-
lster or to the Department; ysing every endeavor to settla in at amicablo manner all disputes in which their countrymen may be concerned; and countenancing and protecting them before the authorities of the country in all cases in which they may be injured or oppressed, but withholding from them support when they have been wilffully guilty of an infraction of the laws, particularly in any attempt to defraud the revenuc. In this last case they will aid the proper officers in checking any such practices.
16. Foreign Politics.-All consular officers are forbldden to participate in any manner whatever, direct or indireet, in the political concerns of the conntries by whose governments they are severally acknowledged and recognized in their public character; and they will be on their guard against the ealistment of their feelings upon the side of any of tho political or sectional parties which may exist in these commtries. In their letters upon such subjects, even to this Department, they will confino themselves to the conmunication of important or interesting public events, as they oceur, in a clear and concise form, avoiding all unnecessary reflections or criticism upon the character or conduct of Indivlduals or governments; and will not give publicity, through the prees or olherwise, to opinions or speculations injurious to the public inslitutions of those countries, or the persons concerned in the administration of them; but it is, at the sano time, no less their duty to report, frecly and seasonably, to their own government, all imporiant fiscts which may come to their knowledge, through nuthentic channels, touching the political condition of these countries, especially if their commusications cnn be mado subservient to, or may affect, the interest and well-being of their own.
17. Prohibitions.-All consular officers are prohibited by the 19th saction of the act epproved August 18, 1856, from corresponding in regard to tho public affuirs of any foreign government with any privato person, nowspaper, or other periodical, or otherwise than with the proper officers of the United States, and from recommending any person, at homo or abroad, for any employment of trust or proit nnder tho governinent of the country in which they are located; as well es from asking or accepting, for themselves or any other porson or persons, any present, emolument, peciniary favor, office, or title of any kind, from any such goverument.
18. Diplomatic Functions.-As consuls, excepting in Moliammedan states, are not invested with diplomatic pawers, they aro not entitled to communicate dircetly, except under special circumstances, with tho government of the country in which they reside. Consular officers are forbidden by the 12 th section of the act to exercise diplomatic functions, or hold any dijlomatic correspondence or relation on the part of the United States, in, with, or to the government or ronntry to whieh they shall be appointed, or any other comitry or government, when there shali be in such conntry any officer of the United Siates nuthorized to perform diplomatic functions thercin, unless expressly authorized by tho I'resillent.
19. Morle of addressing foreign Governments.-Whenever application is to be made to such government, it must he done through the minister of the United Staten, If there he one; if not, and the case slould require it, the consul may make the application to the proper department, but in respectful ierms, stating the exigency of the ease, aud that an application to the subordinnte officers could not bo made, or that it had 1 -ved ineffectual.
20. Pririleges:-A consul is not auch a public minister as to be entitled to the privileges appertaining to that eharacter, nor is lie under the special protection of the law of nations. In civil and criminal cases, where not otherwise proviled by treaty stipulations, he is subject to the laws of the country in whith he reaiden.
21. 7reaties and Conventions.-It is the duty of consuls to be conversant with all treaties, conventlons, and consular conventions, also witht the laws and commercial and other regulations relating to their consular funcions.-Manual for Consuls, issued by the Department of State, Washington, 1857.
An Act to regulate the Diplomatio and Consular Systems of the United States, passed August 10, 18t6. - Re it enacted by the Senate and House of Rapresentatives of the. United States of Amerlea, in Congress assembled, that embassaderg envey: extraordinary and ministars pientpotentiary, ministerg resident, commlesioners, chargés d'affalrea, and secretaries of tegatlon, appolnted to the countriea hereinafter named in schedute $A$, shall he entitled to compensation for their serv. lees, respectively, at the rates per anhum hereinafter apeelfied; that is to say, embaspadors and envoys extraorilnsry and ministere planipotentiary, the fuli amonnts speclifed therefor in said schedulo A; ministers reuldent nad commiasloners, is per contum ; chargos d'affalres, 60 per centum; and secretariea of legation, 15 per centum of the sald amounts, respectively; Irovided, that the compensation of the Secretary of the le. gation to China, neting as interpreter, shall be at the rate of $\$ 5000$, and If not acting as such, at the rato of $\$ 3000$; snd that of the Secretary of Legation to Turkey, acting an dragoman, at the rate of $\$ 3000$, and If not acting as such, at the rate of $\$ 2000$ per annum.
Scheduls A.-Great Dritaln, \$17,500; France, \$17,500; Ruskla, $\$ 12,000$; Spalu, $\$ 12,000$; Austria, $\$ 12,000$; Prusela, $\$ 12,000$; Brazll, $\$ 12,000$; Mexico, $\$ 12,000$; Clilna, $\$ 12,000$; all other countries, each $\$ 10,000$.
Secf. 2. And be it firther enacted, that the President be, and la hereby authorized to appoint for the legatiens at london and Phris, respectively, an asslatant eecretary of legation, who slinil be entitied to compensation for their services respectively, it the rate of fifteen hundred dollars per ammon; for the legation to China, an Interpreter, when the secrelary of legation shall not be neting as anms, who alanli be entilled to compensation at the rate of $\$ 000$; and for the legation to Furkey, a dmgoman, when tho eecretary of legation shall not the acting na such, who shall be eatitled to compensation at the rute of $\$ 1000$ per annum.
Sect. 3. And be it further onacted, that consuls-genersl, consuls, and commercial agenta, appolnted to the ports and places herelnafter specified in schedules $B$ and $C$, shall bo cutitled to compensation for their services, respectively, at the rates per annum herelnafter speelfied in sald schedutes $I I$ und C : and if tho President shall think proper to appoist a consul to any port or place named In the sald sechedules 11 nod $c$; for $n$ commereial agent, instend of such commercial agent, or tice lersa, and an appolatment shall be made necordingly, the compensation for such consutar officer shall bo the same ln any such case as that fixed for wuch port or place In the sclicilule embrachag the same ; amt If he shasit think the publle interests will be subserved by appoliting to any such port or place a consul-generat, Instend of a cancul or commerdal agent, and an appolntment ahall be mado necordligly, the compensation for auch consul-general shall be tha same as that dxed for such port or placo in the sehedule emLrachag the same.
Sect. 4. And be it further enacted, that consuts-gencral, consuls, and commerelal ugents, not embraced In schedules II and $\mathrm{C}_{\text {, }}$ khall be entltled, as compensation for their servfeen, to such feem as they may collect in purnuance of the provisions of thia act, rebpectively:
Sect. 5. And be it further enarted, that no consul-general, consul, or conmerclal agent, embruced in sehadule 1 , shall, while he holda lisa ofike, be interested in or transuct any busluess as a merchunt, factor, liroker, or other trader, or as a clerk or cther agent for any wich person, to, from, or within the port, place, or limltn of his connulate or commerdni ngeacy, directly or Indlecetly, etther in hifa own name, or in tha name or throngh the ngency of any other person; aud if uppoiuted ufter thita act shall take effeet, he eliall, th hita official bond, at! puinte, as a condition thereof, not to volute this proathtion; and lf appelated before, and retalned thoflee ufter this act shall take effect, he ohall, within such rensonable time as the f'reshlent shall preverilio, enter into n new officdul bend, with auch st!puintion na a condtion thereof; and If any nuch ronsut-general, consul, or commerclal agent, ehan! volate anch prohibiton, he shalt be llable to a penalty therefor, for the use of the Unfted Statea, equal In umount to the annual compensation speelfied for him in sald schedule $H_{1}$ which mny be recoviret in un action of debt at the nuit of the cinlted states, eitiner difreetly for the penalty, as anch, against mach consul.general, or consui, or commereini ngent, or unon his officlai hond, as liquidated damagen, for the bruch of such condifton, agaiuat auch conani-general, consul, or

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 them; an the Unlte same aha every suc treasury 0 applicable commerci as hereina Fided bySect. 6.
and to her Chlnese ls their F : cv husdred d dent, and wuch const tblak prop Sect. 7. and is hert ile good w! not to exce ahall bo cl pensatlon $f$ ceed one th the Preside to such cor proper: ant be made, Ea ahsll be for to tho Sceret
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Seet. 11. A any consular Vajoas of tht co of the $r$ he Eliall lie al compeneatlon tion for his se by thin set for

## Sect. 12. At

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commerelal agent and his suretien, or any one or more of them: and In every auch case all suoh aotiona mhall be open to the United States for the oollection of auch penaliy till the same ahall he coltected in some one of such actions; and every auch penalty, when collected, shall be paid into the treasury of the United States; and such prohiblition ahall be applicable to all consuls-general, but not to aby coneml or commercial agent not embraced in rald schednle $B$, except as hereidafter authorized, unless otherwise expreasly provided by law.
Sect. 6. And be it further enacted, that the President be, and is hereby authorized to appoint threo interpretere of the Chinese ianguage, who shall be entitled to compensation for their e:crices, reapeotively, at a rato not to execed fifteen huidred dollars per annum, to be determined by the President, and to aselgn auch Interpreters, from than to time, to such conenlatea in China, and with cuch dulles as be may think proper.
Sect. 7. And be it further enacted, that the Preeident be, and is hereby authorized, whenever he shall thlnk the public good will be promoted thereby, to appolnt coneular pupils, not to exceed twenty-five in numbor at any one thoe, who shall be eitizens of the United Statea, and entitied to compensation for their arrvices, reapectively, at a rate not to exceed one thousand dollars per annum, to be determined by the President ; and to assign such puails, from tlmo to tlme, to such consulates, and with such dution as he may think proper; and before the appointment of any auch pupll shall be mado, हatlsfactory evldence, by examination or otherwise, shall be fornished of his quallfeations and fitness for the office to the Secretary of State, and by hla lald before the Prebldent.
Sect. 8. And be it further enacted, that no person appointed, after thly ect shali take effiect, to aoy such offee as is mentioned in tho first, second, tbird, slxth, or eeventh secthone of thla act, shali be entitied to compensation for his services thereln, except from the tims when ho shall reach hia post, and enter upon bls offelal daties, to the thmo when he shall cease to hold such othico, and for such time as siail be actually and necessarlly occupled in recelving his instructivas, not to oxceed thirty days, and in making the transit betweer the piace of his realdence, when sppointed, and his post of duty, at the commeacemeat and termination of the period of his offelal service, for which ho shalt in all cases be ullowed and paid, except es hercinafter mentloned, and ne person ahull ho deemed to hold any buch office aftor hila suecessor shall be appointed and actually enter upon the duties of his ofilec at his post of duty, nor after his offielal resblence at auch port shalt have terminated, if not oo relleved; but no such allowance or payment shall he made to any consul. gencral, consul, or commereisl agent, contetoplated by the fourth goction of this set, or to any vico-consul, vico-commercial agent, deputy consul, or consular agent, for the time so occupied in receiveng inatructions, or in such tranait as aforesald; nor shall ary such offeer as is referred to fa this sectlon bo allowed compensation for tho timo so ocenpied in such tranall, at the terminatlon of tha period of his oficinl serviro, If he shall have resigned, or been recalled therefrom, or for nuy malfeakance in his office.
Sect. 0. And be it further enaeted, that, when to any diplomatic oftico theld by any person thero shall bo superadded another, weh person thill bo allowed additional compensation for hia services, in such supersdeded ollles, at ti:o rnto of fifty per centum of the amount allowed by this aet for such aperadded thee; and such buperadded office shall be deemed to contlnue during the tlme to which it is limited by the terms thereof, and for such time as shull bo actunlly and nccessarily vecupled tn making the transit between tho two posts of duty, at the commenecment and termination of tho period of such superadded ofice so limited, and no ionger.
Sect. 10. And be it further enacted, that for auch time as any secretary of legation ahalt be lawfully authorized to act as charge d'affuires ad interim at tho post to which he ahall have been appointed, ho ahall bo entitied to recelve compensation at the rate allowed by thla art for a charged duffisires at such post; hut he shalt not be entltled ta reecive, for tuch time, the compenation allowed for hifaservlese na sedretary of icgation.
Sect. 1i, And be it further enacted, that for auch the ne any consular ofliecer ehall be autherizod, pursuant to the provisions of this act, to perform ilfinmatic functions in the allsence of the regniar diplomatio oflicer In the country to which he shalt be appointed, he rhall be entitied, In addition to his compensation as auch conaular officer, to receive compensation fur his aervioca while so authorized, at the rate allowed by this act for a yecretary of legation in auch comintry.
Sect. 12. Aud bo it further enacted, that no conaular offeer shall exereise diplomatic functions, or loold any diplomatic correspoadenee or relation on thu part of tho United Staies, in
with, or to the gevernment or the country to which he ahall be appointed, or any other country or government, when there shall be in auch country say officer of the United Btaten anthorized to perform diplomatio functione therein, nor in any case, unless expressly authorized by the Preaident so to do.
Sect. 18. And be it further enacted, that every consul-general, cousul, and commercial agent, appointed before, and retained in office after thia act shall tako effect, shall, without unnecessary delay, and every such offleer appointed after this act shail take effect, shall, before he receives his commisiton or enters upon the dutien of his office, enter into a boud with the United States with buch aureves, who ehall be permanent residente of the United States, as the Secretary of Stata oinall approve, In a penal aum not less than one thousand nor more than ten thousmad dollare, and in euch form as the President shall prescribe, conditioned for the trus and faitbful accounting for, paying over, and dellvaring up of all fees, moneys, goods, effects, books, reeords, pepers, and other property which shall come to his harde, or to the hands of any other person to his use as buch e ueul-general, coneul, or commercial agent, under any law now or hereafter enacted; and for the true and falthful performance of all other dutlea now or hareufter lawfully fmposed upon hita as auch conaul-gensral, consul, or commercial ageot; and in the casen of coneula-general, consula, and commercial agente embraced in scbedulo $B$, such bond shall contaln, by way of further condition, the alipuiatlon required by the fifth section of this act; and sll anch boads shall be deposited with the Secretury of the Treasury, and In no case shall the penalty of auch bond be less than the anaual compensation alluwed to the officer entering into ench bond; aod the Iresident shall be authurized to require a new or additional bond from nay such consul-genersl, coasul, or commercial agent, in like form and in such penalty, within the limits aforessid, in amount, as he shall prescribe, whenever, in his opinion, the public good shall require it.
Sect. 14. And be it further enacted, that the Prealdent be, and he fa herelby antiorlzed to define the extent of country to ba embraced within any consulate or commercis) sgency, and to provide for the appointment of vice-conauls, vies-commerclai ngents, deputy consuls, and consular agente therein, In such manner, and under such regulations as he ehall deem proper; but no compensation ohall be allowed for tho servlees of any sach vice-consul, or vice-commerelal agent beyond nor exeept out of the allownace made by this act for the princhpal coneuiar officer in whose placo ouch appointment fihall La made : and no viec-consul, viee-commerclal agent, deputy consal, or consuise agent, shall be appointed otherwise than In such manaer and under sach regulationa as the Prealdent shall preseribe, pursuant to the provislona of this aet.
Sect. 15. And be it further enacted, that evary vice-consul and viec-commerclal s gent shall be entitled, as compeneation for hls हervices as anch to the whole or se much of the compensation of the principal consular offeer, In whoge plage he thall bo uppolnted, as shall he determined by the President, and the residnc, if any, shall be paid to auch prineipal conaular officer; nud avery connular agent shati be entitled, an compensation for his services, to such fees as he may collect in pursuance of the proviaions of this act, of so much thereof as shail be determined by the President; and the principal officer of tide consulate or commerelal sgency within the lim. Its of whith auch connular agent shall he appointed, shall be cutlted to tho resldue, if any, in addition to any other compenation allowed him by this act for hits earylees therein and tho President shall hove power to subject any conall or commerelal agent contemplated by the fourth aection of thia uet, and any viec-consul, vico-commereial agenl, deputy connul, or consular agent, to the prohibltian as to trade conlalnud in the tifth eection of thita act, and to require from any of them sucl bond as is provided for by the thlrteenth section of this net, whenever lio shall think the public futereste witl be promoted therely.

Neet. 16. And be it further enacted, that the Prealdent bo, and is hereby anthorizel to preseribe, from time to time, the rates or turifis of fees to bo clisrged for officint services, and to designato what shall be regarded as official bervices, bebldes such an arvexprestly declared by law, in the bualnene of tho pevernl legallons, consulates, and commercial ageneles, and to adupt the same, by such differeneea us may he nocessury or proper, to encti legation, consnlate, or commercial agency, nad such rates or tnriffs sthall be reported annually to Longreps: and it ahall be the dity of all othicers and persona conneeted with such legations, consulates, or commercial agencies to collect for auch ofleial servicea, such and only such fees as any be prescribed for their reapective legntiona, consulatea, and cammer ial agencies, and it hhail be the dut: of the collectors of the evevaral diatricts, whenever any clearance in granted to any ahip or vessel of the Uniled Staten, duly registered as such, and bound on any forelga voyage, to
annex therete, in every case, a copy of the rates or tariffs of fuen which shall be allowed in pursuance of the proviaiona of thin act, and then in force; and it shall be the duty of all consular ofticerg at all timen to keep up in their oftices, reapectively, a copy of auch ratea or tariffs as ahall be in foree, in a conspicuous piace, and subject to the examination of all persons intereated therein.
Sect. 17. And be it further enacted, that it ahall be tho duty of all consular officer to give receipts for ail fees which thall be coliected for their official sarvices reapectively, expressing the particular mervicae for which the same were collected: and If any much conaular ofticer ahali colleet, or knowingly allow to be collected, for any auch service, any other or greater fees than auch as shall he allowed pursuant to the provisions of this act for such service, he shall, besidea his lablity to refund the asme, be llablo to pay to the person by whoin or in whose behalf the same shall be paid truble the amount of said unlawful charge so coliseted as a penalty therefor, to be recovered by auch person in nny proper form of action, to and for the use of auch person, besidee costs of sult; and in any such case the Secretary of the Trcasury is hereby authorized to retain out of the cciapenation of such officer the amount of auch overcharge and of auch penaity, and charge tho samo to such officer in acconnt, and thereupon to refund auoh unlawful charge, and pay snch penalty to tho person entitled to the same, if he shali think proper so to to.
Sect. 18. And be It further enacted, that all fees colfected at any of the legations, or by the consuls-general, consule, and commrelal agents mentloned in whedule $B$ and $O$, and hy vice-consula and viceacommeroinl agenta appointed to perform their duties, or by any other persons in their behalf, shali be accounted for to the secretary of the "rreasury, and held subject to his draft, or other directions; and all such consals-genersi, conauls, coramerciai agents, and consular wonts as are allowed for thelr compensation tho whole or any part of the feas which they may eollect pursuant to the proviaions of this act, and all vicc-consula and vice-eummercial agents appointed to perform tho duties of said consulsgeneral. consals, and cotomercinl agents as are allowed for their compensation the whole or any part of auch fees as aforesaid, whall make returns of all such fecs as they or any other pergona in their behalf shali so collect, in anch manner as the Secrotary of State shali prescribe; aod all such fees as shalt be so collected, accounted for, and reported, shinll be reported annually to Congress, with the report of the rates or tariffis of fees required by the seventeentis section of this act, with a fuli list of all consular officers; and if any consul-general, consul, or commereial egent, mentioned in sehedules B and C, or any vice.consui, or vico-commercial ngent, appolnt. ed to perform the duty of any such offcer meationed in said scheduics $B$ and $C$, shail omit to collect any fees which he chalt be entitled to clarge, pursuant to the provisions of thts act, for any oflicial service, ho sinll be liable to the United Stcics therefor, ae thougis he had collected the samo, unless upon good ause ahown therefor, the Secretary of tho Treas. ury abail think proper to remit the same; and every consuiar ofticer shall number all receipts given by him for fees recetved for officlal services, in the order of their dates, beginning with number one at the commencement of the period of his serv. ice, and on the first day of January in every year thereafter: and he ahail kcep a book, in which he shall register all fees so recuived by him, in tike order in which they siail be ro. ceived, apecifylug in such register ench item of service and the amonnt received therefor, fron wiom, and the datea when received, and if for any sorvico connected with any ship or vessel, the name thereof, and indicating what iteme and amounts are embraced in each recelpt given by him the refor, and numbering the samo aceording to the number of the ro. ceipts respectively, 60 that the receipts and register sinail eorrespond with each other; and to shall, in such register, apeeIfy the anmo of the person for whom, aud the dato wien he shail grant, issue, or verify any passport, certify any invoice, or perform any other official servico in the entry of the re. ceipt of tha fees therefor, and aiso number each conaular act so rceeiptod for, with tho number of auci receipt, and an shown by auch register; and it ahall be tho duty of all own. ers, ageuts, consignees, mastors, and commanders of ships and vesseis to whom any receipt for fees sitail bo glven by any consular oflicer, to furnish a copy thercof to the cellector of tie district In which such ships and vessels shail firsi ar. sive on their return to the United sitates; and it shatil be the duty of every collector to forward to the Sceretary of the Treusiry ail such coples of recelpta as stiali thave been mo furntahed to him, and algo a statemont of afi cerified involcea which shail conm to his onlice, giving the dates of the certificate and the named of tho persons for whom, and of tho conaular oflicars ly whom tho same wero certifled; and every consular ofticer, in rendering his account or repert of fees re-
ceived, shall furnish a full tranecript of the register which he is hereby required to keep, inder oath or affirmation that the same ia true and correct, and that the same contains a full and aceurate statoment of all fees received by him, or for hta use, for hia official serviees as such comaular officar, to the best of hin knowledge, during the period for which tho same shali purport to be rendered, and thant mech oath or affirmation tasy be taken before.any person having authority to admintater oatine and affirmations at the pert or place where such consular ofticer is located: and if any much consolar officer shaili willfully and corruptiy commit perjury, in any auch oath or affirmation, within the intent and meaning of any act of Congress now or hereafter made, he may be chnrged, proceoded againat, tried, and convieted, and dealt with in the same tuannec, in ali respects, as if auch offone had been comanit. ted in the Unitol Statex, before any officer duiy anthorized therein to administer or take auch oath or affrmation, and shall be mbject to the same puniahmenta and disability therofor es are, or shall be prescribed by any such act for such offense.

Sect. 10. And be it further enacted, that no auch officer as is mentioned in tho first, second, third, fourth, sixth, or seventh soctions of this act shall, nor ahall any consular agent, be absent from his post, or the performance of his duties, for a longor period than ten deys al any one time, without the permission proviousiy obtalaed of tho President; and no compensation ahall bo allowed for the time of any auch absence in auy case, except in cuses of eickness; nor sholl any diplo. matle or conular ofmeer correspond in regard to the pulilic affirs of any forelgn government with any private person, newspaper, or oticer periodical, or otherwise than with thio proper oficors of the United States, nor rccommend any person, at heme or abroad, for any employmont of trust or profit under the government of the conntry in which he is locatel; nor ask nor accept, for himself or any other person, any present, eniollument, pecuniary favor, office, or titlo of any kind, from any such goverument.
Sect. 20. And be it further enseted, that the compensution provided by this act shall bo in fuil for all the services ond personal expenses which shall be rendered or incurred by ti:o offecrs or persons respeetlvely for whom such compensation Is provided, of whatever nature or kind such services or pecsonal expenses may be, or by whatever treaty, liw, or instructions auch services or personsi expensea so renderd or tueurred are or shall be required; and no allowance, other than such as le provided by this act, shall be made in ony caso for the outfil or return home of any such offecr or person; and no consular ofticer ahail, nor ahall any person under any consular officer, make any charge or recelve, directly or indirectiy, any compensation, by way of commisalun or otherwise, for receiving or disburaing the wagea or extra wages to which any seaman or mariner aliall be entitled who shall be discharged in any foreign country, or for any money advunced to any such seaman or maciner who whall seek rellef from any counulate or commercial agency; nor blall any consular ofticer, or any person under any consular officer, be interested, directiy or indireetiy, in any profit derived from clothing, boarding, or otherwise supplying or sending home any auch semman or mariner: provided, that such prohibition as to profit shali not be contrued to relleve or prevent any ench officer who shall be the owner or otherwise interested in any ship or ressel of the Cnited states, from transporting in auch ship or vesed moy auch seaman of mariner, or from receiving or being intereated in such reasonalife allowance as may be mado for auch trausportation, uuder and by viriue of the fourth section of the act entitied "Ais Act rupplementary to the Act comeraing Conauis and Vice-consula, and for tho fortier protection of American seamen," approved February 28, 1803.
Sect. 21. And be it further enacted, that no compensation provided by this act for any anch oflicer as is mentioned in tho firat bection of this act, or for any asalstant recretary of iegation, or for any anch officer as is mentioned inschedutes II and C of the third section of this net, or any appropriation therefor, ehali be appilealie to the payment of the compensation of any person appointed to or holding any such offlee after thla act aliall take effect, who shall not be a eltizen of the Uuited States; nor ahall any other compensation be aliowed in any sucti casc.
Sect. 22. And the it further enarted, that the l'resident be, and is herehy antiorized to provide at the puisife expenso ali auch atationery, blanks, record and other books, seals, presses, fiags, and sigum, as ho shall thiak necessary for tho several legations, consuiates, and commerciai agencios in the transuctlon of their husiness; nad whenever he shall think there is sumfient reason therefor, to aliow consula-generat, consuls, and conmercial agents, whe are nol aliowod to trate, aetual expensee of oflice rent, not to exceed, in any caso, ten
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 cause pas countrles States, an and preac other pen nor shali any other shall any nay passy case the $f$ collar, no such veri: acting, or Laited St shall not or verify passport, 1 any person port or ve tharized $t$ and willf for uny pe so offend demeanor, not exceed hundred ggainst, tr trict whore the duty 0 the provls to make ri manner at shall spee sons to wh as embrac Where a 10 Boa other States at pabsiport, ative.Sect. 24.
I legatio ever lie sh so to do, a legation, e or take from outtion, ant any netary perform wi firmation, BWorn, aftir officer, whe be as good, the l'nited affiriuntim. ministered any other and compe corruptly e eon to com
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per centum of the emount of the anausal compensation al lowed to anoh officer, and to proseribe auch regulationa and make and iasue nuch orders and inatructions, not Inooundatent with the Constitution or any law of the United States, in relation to the dutiee of all diplomatio and consular officers, the tranaaction of thal business, the rendoring of accounta ned returna, the payment of compensation, the safo keepIng of the archives and publio property in the handes of sil auch officers, the communication of Information, and the procurement and franamisalon of the producta of the arts, ecjences, mbnufactures, agricuitnre, nad commerce, from time to time, as he may think conducivo to the publio intereats; and it whall be the duty of all such officers to conform to such regulstiona, orders, and instructlons. And It shall he the duty of the Secretary of State to publish official notifications, from tinie to time, of such commercial information communicated to thin by auch diplomatic and coumular ofilcers, as he may deem important to the public interest, in ench newapapers, not to exceed threo In number, an ho may melect, and report to Congress, at leart once in each year, a eynopais of ad much of the Information on all aulbecta which ahall be a communieated to him, as he may deem valuable for publle information.
Sect. 23. And be it further enacted, thint the Becretnry of Stato shall bo authorlzed to grant and issue passports, and cause passports to be granted, lseued, and verifted in forcign countrica by such diplomatic or consular officers of the Linited Statea, and under such rules as the Preaident shall designate and prescribe for and on behaif of tho Unitod States, nad no other person thall grant, Issue, or verify any such passpurt; nor thall any pasaport bo granted or issued to, or verificd for any other persona Lhan citizene of the United States: nor ehath any chargo be mude for granting, issuing, or verifying ony pasiport except in a foreign country; and in any such case the fee allowed thorefor Hhall not exceed the sum of one doidar, nor ahall any auch chargo be made for more than one such verification in any fureign country; and if nay person acting, or alaiming to act, Ia ony office or capacity under tho United States, or any of the states of the Cnited States, who shall not be lawfully authorized so to do, shall frant, issuc, or verffy aby paseport, or other Instrament lin the nature of a passprt, to or for any citize. of tho U'nlted States, or to or for any person claining to be or tienighnted as auch in sach pacs. port or verfication, or if any consuigr ofticer who slatl bo nitthorized to grant, izauc, or verify passporta, slinil knowingly and wilifuily grant, Issuc, or verify any such pasport to or for uny person mot a eitlzen of tho Cnited Statez, the person so offending shatl be deemed and taken to be guilty of a mis. demcanor, and, on coaviction thereof, shall be imprisoned, not exceeding one year, or fined in a biun not to exceed five hundred dollars, or both, and may be elinrged, proceeded agaiast, tried, convieted, and dealt with, therefor, In the dis. trict where ho may bo arrested or in custody; aud it shali ho the duty of all persons who shall be authorized, pursaant to the provisioas of inie act, to grant, issue, or verify paseports, to make retum of the same to the Secretary of State, in euch masoec and as often as he shail require: and such returns shatl specify the names and all ather particulars of the persons to whom tho same shail be granted, issued, or veritied. as embraced in such passport: provided, that fu any ceuntry where a legation of tho U'nited states is established, ne person other than tho diplematic representative of the Enited States at such place shali be pernitted to grant or issue any passport, except in the absence therefrom of such represent. stive.

Soct. 24. And be it further enacted, that every secretary of legution and consular officer is hercby aathorized, whencrer ho shall be repalred or muy deemit necessary or proper so tu do, at the post, port, piace, or within the limita of his icgation, conalate, or commereial agency, to adminiater to or take from suy person an enth, affirmation, aflidavit, or dop. owtion, nud also to perform any notarial net or acts such as any notary puhile Is required or authorized by law to do or perform within the United States; und every anch onth, af. firmation, affldavit, deposition, and notarial act administered, Eworn, aflirmed, taken, had, or done, by or before any such officer, when certified under hia hand and seal of office, whail be ns good, vaild, effectunl avil of like forco and effect within the I'nited states to all intents and purpones as if such onth, affimatin*, afldavit, deposition, or notarial act had been ad. ministered, sworn, affirmed, taken, had, or done, by or before nuy other person within the Custed States daly nuthorized and competent thereto: and If any person shall wilifuliy and corcuptly commit perjury, or by auy means procure any person to comait perjary, In uny euch oath, ufirmation, affidavit, or deposition, within tho intent and mieaning of any net of Congrese now or hereaftor made, auch offender may be charged, proceoded againsi, tried, convicted, and denit with
in any ditrict of the linited states in the amme manner, in all respecte, an if auch offense had been committed in the Cuited States, before any officer duly authorised therein to ndminieter or take much onth, nffirmation, affidavit, or depodition, and whall be eubject to the eame puniahment and disnhility therofor as are or shall be preseribed hy any auch act for euch offense; and nny document pirporting to have nffixed, impressed, or suhecribed thereto or thereon the seal and signature of the officer administering or taking the mme in tentimony thoreof, shall he admitted in evldence without proof of any such meal or signsture being genuine or of the officlal character of nuch person; and If noy person shall forge any auch aeal or signinture, or ahail tender in evjdence any such document with a false or counterfoit seal or signature thereto, knowing the anme to be false or counterfeit, he shall be deemed sid tiken to be guilty of a misdemennor, and on conviction shall be imprisoned not exceediug tirce years, nor less then one ycar, and fiaed In a sum not to excecd three thousand dollars, nad mny bo chnrged, proceeded againat, tried, convicted, sud denit with, therefor, in the district whers ho mny be arreated or in cuatody.
Sect. 26. And he it further enacted, that whenover any seaman or mariner of any veasel of the United States shall desert such ressel, the master or commander of ench vessel shall noto the fret sind date of auch desertion on tite Hist of the crew, and the same sliall be officially authenticated at the port or place of tho conaulnte or commercial ngency first visited by uuch veasel after such desertion, if such desmrtion shall have occarred in a foreign country; or If In auch case such veasel shail not visit any place where there shall be any consulate or comnereial agency before her return to the Liated States, or tho descrtion ehall have occurred In this country, the fact nnil time of such desertion ahall be officially anthenticated beforo a notary public immediately at the first port or placo whore buch vessel shall arrive after buch desertion; and all wugen that may be due to anch seaman or mariner, and whatever Interest he may have in the cargo of much vessel, ahall bo forfeited to und becomo the property of the United States, ant pajd over for their uac to the collector of the port where the crew of such veasel are accounted for, ss soon as the samo can be ascerisined: first deducting therefrom any expenso which may necessarlly havo been incurred on account of such vessel In consequence of such desertion; and In settliug the account of such wages or intereat no allownaco or deduction shall bo made except for moneys actunlly paid, or goods at a fair price supplied, or expenses incurred to or for such seaman or mariner, any recelpt or voucher from, or arrangement with such seaman or marincr, to the contrary notwithetanding.
Sect. 26. And be it further enacted, that upon the application of any eesman or mariner for a discherge, If it shals oppear to tho consulri officer that ho is entitied to his dischargo under any act of Congreas, or according to the general principles or usages of marititue law, as recognized ln the United Statos, he whail discharge such aceman or mariner, sud shall requiro from the master or commander of the ship or veasel from which such diacharge shall be made, the payment of three montha' cxtra wages, as provided by the act hereinbeforo mentioned, approved Fehruary 28, 1803; and it shall be the duty of such master or commander to pay the uanc, and no anch payment or any part thereof shall be remitted in any case, except such as are mentioned in the proviso of the ninth cianse of tho act entitled "An Act In nddi. tion to tho several Acth regulnting the Shipmest and Discharge of Scamen and the Duties of Consuls," npproved July 20,1840 , sud as hereinafter provided, and the extra wagen required to bo paid lyy tho snid ninth clause of the last bere-intrifore-mentioned act, and by this section, shall bo applleabio to the samo purposes aid In tho same manner as Is directed by tha eald ect, approved Fehruary 28,1808 , Ith regurd to the extra wages required to be paid thereby: sud if ny consuiar oflleer, when discharging nuy seamne of mariner, uhali neglect to require tho puyment of, and colleet the extra wagee required to be paid In tho case of the discharge of any seamsn or mariner, by either of tho anid acts, ne far ab they shall remsin in foree under this act or by thise act, he shail be accountabie to tho United Statea for the full anount of their share of such $\mathrm{vag}_{\mathrm{g}} \mathrm{ges}$, and to such seaman or marines to the fuil amount of his share thereof; and if any semman or mariner shall, after his dischargo, have Incurred any expense for board or other necessailes at the port or place of his disclargs before shipping ngain, tuch expenso shall be paid ont of the share of the throo montha' wages to which he shail he entitied, which shall le reteined fur that purpose, and tho belance oniy puid over to him: provided, however, that in cases of wrecked or stranded ships or vessela, or ahips or vessela condemned ns unfit for service, no payment or extra wages shail he required.

Seet 97. And be it further enteted, that every conaular officer ahe 1 keep in detalled list of all meamen and marinery chipped and diecharged hy him, apecifying thalr nanian and the names of the veseels on and from which they shall be shlpped aod Jicoharged, and the paymenta, if any, made on account of each co disobarged, and also of the number of the veacola arrived and departed, and the amounta of their regise tered tonaate, and the oumber of their seamen and mariners, and of those who are protected, and whether citizens of the United states or not, and een neariy as poeslhte the nature and value of thele cargoea, and where prodoced, and make return of the asme, with their socounta and other returne, to the secretary of the Treasury; and no consular officer ahall certify any |avolee ualess he ahall be aatinfied that the person makling the oath or affirmation thereto is the person ho repvementa himself to be, that be is a credille person, and thas the statements made uuder much oath or affirmation are true ! and he ahall, thereupon, by his certificate, atate that he was ao antiefied; and ttehall be the duty of every conaular officer to furnish to the Seeretary of the 'Treasury, an often as ahall be required, the prices current of all aricies of merchandise uaually exported to the United states from the port or place in which be whall be located.
Sect. 28. And be is further onacted, that It ahall be the duiy of every mater and commander of a shlp or vessel of the United States, whenever he shall have occallon for any concalar or other official cervice, which any coosular officer of the United States ahall be authorized by law or usage officially to perform, and for which any fees shall be allowed by the sald minten or tariffis of fees as aforeasald, to apply to auch one of the aald offleere as may then le officlally located at the conaulate or commerclal agency, if any there he where much service absll be required, to perform such service, and auch master or commander ahall pay to auch officer auch feen as ahali be allowed for much service, in pursuance of the provialons of this act; and If any auch master or commander shall omit so to do, he whall be llahle to the United Statea for the amount of the fees lawfully chargeable for anch scrvices, as though the aald wervices had been performed by anch officer. And all consular officers are hereby anthorleed and required to retala in their possession all the papera of auch ahips and vescela which ehall be deposited with them an directed by law, till payment ahall be made of all demands and wagec oe account of auch ships and vermela.
Sact. 80. And be is further enacted, that if any eltiaen of the United States who shall die alioad ahall, hy any lawful tentamentary diapoaltion, leave apecial directiona for the custody and management, by the consalar officer of the port or place where ho ahall dle, of the personal property of whleh he ahall die possessed in anch country, an contemplaled by the act entitled "An Aet concerning Conanla and Vice-consuls." approved April 14, 170\%, It shall be the duty of auch officer, so far ue the law of auch country will perult, atrictly to observe such directions; and If eny euch citizen so dying shall, by any lawfal testamentary dinfsiltloo, have appolnted any other person or persona than anch officer to take charge or and masege auch property, it shall he the duty of such officer, whenever required by such person or persona so appolated, to give his official ald In whatever way may bs neceasary to facilitate the proceedings of such person or porsona in the lawful execution of auch trust, and, eo far as the laws of the country permit, to protect the property of the deceaved from any Interference of the local authoritlee of the country where such eltizen ahall dio; and to this cod It shall be the duty of auch conaular ofticer to placo hla official neal npon all or any of the porsonal property or effecta of the deceased, and to lireak and remove auch aenls as may bo required by auch person or persons, and not otherwise.
Sect. 30. And be it further enacted, that all feea collected for and In hahaif of the Cnited States, is pursuanco of this act, ahall be oellected in the cole of the Linlted states, or at ils representative value in exchange.
Sect. 81. And be it further enacted, that in the conatruction, and for the purposes, of afl other acta and parte of acts which ahall remain in force after thia act shall tako effect, defining any of the powern, declaring any of the rights, proacribing any of the dutien, or inoposiog any penalty or puniabment for any act of omisalon or commisulon of eny conenl, commerclal agebt, viee-conath, or viee-commerelal agent, or cllowing or enjolnfigg the performanee of any ach, matter, or thing, with or before any auch officer, all anch acts and parta of acte shall in all these meveral reapecta, so far as may be conalstent with the aubject-matter and context of the same, and with this act and the treatles of the Unlted States, be deemed and taken to laclude and appiy ts all consular officera an though all auch oflleers wera apecially named therela; and the eald official designations in contemplation of all such acts, and parts of acts, and of this act, shali be deemed and
taken to have the reapective menpinge hereinafter amalgned to theni-that is to asy, "Conaul-General," "Conaui," and "Conmmerelal Agont," ahall be deemed and trken to deoote full, prinelpal, and permanent "convular ofocers" as diatingriahed from aubordicaten and aubotitutes: "Deputy Conaul" and "Conaular Agent" mall be deemed and taken to denote "censular officera" auberdinata to much princlpals, exerclaing the powerv and performing the dutles within the limitt of their conaulates or commercial agenclea reapective. ly, the former as the same porta or places, and the latter at perts or planes different from those at which auch priacipals are located, renpectively; and "vice-consula" and "vles-commerelal agents" whall be deemed and taken to denote "conaular offieers," who aball be subatituted temporarlly, to fill the places of "consuln-general," "conauls," or "commercial agenta," when they shall be temporarily ahsent, or relleved from duty; and the term "cousular ofticer," as reed in thia act, ahall be deemed and taken to Include all such officera an are mentloned in this sectlon, and none others; and the term "diplematic ofticer," aa uaed in thla act, shall he deemed and taken to Include all the ofloers mentioned in the first sectlec of thla act, and none others.

Sect. 32. And be It further enacted, that if any consular otficer shall willfully negtect or omlt to perform eeasonalily any duty lmposed npon him by this or pay other act, or by any order or instructlon made or glven In pursuance of this or any other act, or ahall be gullty of any wlllful malfeasanre or abuse of powor, or any corrupt condict in hla offico, he shall be llable to all persona lnjured by any such neglect or omiselon, malfeasance, abuse, or corrupt conduct, for all damages oceaaioned therehy: and for all much damages by any aach officer, he, and thls euretles upon his offcial bood, thall be responslibe thereon to the full a mount of the penalty thereof, to be sued in the name of the Cuited States, for the ome of the person or persons so lujured: provided, that such anit shall in nocase prejudice, hut ahall be held in ehtire aubordination to tho interesta, ctalms, and demands of the U'nlted Stetes, as against such officer, under nuch bond, for every wlifila act of malfeasabice or corrupt conduct in his office; and if any ouch officer shall refuse to pay any draft, order, or warrant whleh may be drawn upon hlm by the proper officer of the Treasury Department for any publle moneys of the linted states in hla hands, or for any amount duo from hin to the inited Statea, whatever the capaclty in which ho may have recelved or may hold the ame, or to transfer or diaburse any anch moneys promptly upon the legal requirement of any authorized officer of the Linlted States, he shall be deemed and taken to be gullty of a misdemeanor, and on cenvlction thereof alall be puniahed by haprisonment not to exceed ten years nor less than one year, or hy fina not to exceed two thousand dollars nor less than two huadred dollars, or both, at the diseretion of the court; and any such ofil. cer so offending may he charged, proceeded egalnet, tried, convleted, and dealt with, ta any dlatriet in which he may be arrented or in custody.

Sect. 33. And he if further enacted, that the fifth, alsth, and exenth sectlons of the pet hereinbefore mentloned, approved July 20, 1840, and all of the act entitied "An Act to remodel the IIplomatle and Consular Eyatems of the United States," approved March 1, 1855, and all acta and parts of acts wherely any euch fees as are contemplated by the seventeenth rection of thls act are flxed or allowed, and any usage or law wherely any attaché fa or may he allowed to any legatlon other than auch as aro provided in this act, or requiring any secretary of iegation to be employed otherwleo than as provided hy this net, and all other acta and parta of acts, so far as the eame are incoasistent with this act, be and the rame ore hereby annulled and repeaied; and no attaché shall bo allowed, In any casc, nor any secretary of legation, otherwieo than as provided by this act.

Sect. 84. Aud be it further enacted, that this aet shall take effeet on the first day of Janaary, 1857, and not before.

## SCHEDULE B.

oalabieb of coneulb-omerral and oonadle of tur umitid erates.
I. Consuls-General,-Cube : Iiavana, $\$ 6000$. Brithsh India : Calcutta, $\$ 5000$. Briliah North Anierical: Quebec, $\$ 4000$. Japan: Simoda, $\$ 5000$. Turkey: Conatantinople, $\$ 3000$. Egypt: Alezandrin, $\$ 3500$. Frankfort-ou-the-Malu, $\$ 3000$.
II. Consula-N'irat Class,-Great Iritain: Loodon, \$7000; Liverpool, $\$ 7600$; Melbourne, $\$ 4000$; Hong-Kenk. $\$ 3500$; Olasgow, $\$ 3000$, Manrtlus, $\$ 2500$; Slugapore, $\$ 2600$; Ikelfant, $\$ 2000$; Uork, $\$ 2500$; Dundee, $\$ 2000$; Demarara, $\$ 2000$; Hallfax, $\$ 2000:$ Klagnton (Jamalca), $\$ 2000$; Leeds, $\$ 2000$; Manchester, $\$ 2000$; Nassau (New Providenee), $\$ 2000$; Nouthampton, $\$ 2000$; Turk'a IJland, $\$ 2000$.

Frabe: ILavre, $\$ 6000$; Paria, $\$ 6000$; Marselllen $\$ 2500$; Bordeaux, $\$ 2000$; La Rochello, $\$ 1600$ t Lyons, $\$ 1500$.

Rusala Petersbus Spain: lago de U $\$ 1500 ; \mathrm{M}$ Auatria I'ruasta China: Amoy, \$3 Turkey $\$ 1500$. Netharl
Belglan Portugs Denma: Sardluh Switzer sticlle Sazony Bave. ila
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Ruesia: Moscow, \$2000; Odesat, \$2000; Revel, \$2000; St. Petershurg, $\$ 2000$.
Epain: Matanzag, \$2500; Trinidad de Cuba, \$2500; Santlago de C'ubea, $\$ 2600$; San Juau (Porto Rico), $\$ 2000$ I Cadie, © 1500 ; Malaga, $\$ 1500$; Jonce (Porto Ittco), $\$ 1500$.

Austria: Trieate, $\$ 2030$; Vienna, $\$ 1600$.
I'russia: Alx la Cbapelle, $\$ 2500$.
China: Centon, $\$ 4000$; Shanghal, $\$ 4000$; Foo-tchow, $\$ 3500$; Ataoy, \$3000; Ningpo, \$3000.
Turkey: Beyrout, $\$ 260$; Smyrna, $\$ 2000$; Jerualem, $\$ 1500$.
Netherlanda: Rotterdam, $\$ 2000$; Amaterdam, $\$ 1000$.
Heigium: Antwerp, $\mathbf{\$ 2 0 0 0}$.
Portugal. Eiznchal, $\$ 1500$; Oporte, $\$ 1600$.
Denmark: St. Thomas, \$4000; Elaineur, $\$ 1500$.
Sardiula: Genoa, $\$ 1500$.
Switzerlaod: Basie, $\$ 2000$; Gedeva, $\$ 1500$.
Slellies: Messine, $\$ 1600$; Nuples, $\$ 1500$; Palermo, $\$ 1500$.
Saznuy: Lelpusc, $\$ 1500$.
Bave,in: Munich, ${ }^{\text {ol }} 1000$,
Tuscally: Leghorn, \$1500.
Würtemberg: 8tuttgardt, $\$ 1000$.
llanseatio and free lowns: Bremen, $\$ 2000$; IIamburg, $\$ 2000$.
Barbary States: Tangiera, \$3000; Tripoli, \$3000; Tunis, $\$ 3000$.
Brazll: Mio de Jnnicre, $\$ 0000$; Pernambueo, $\$ 2000$.
Mexico: Vera Cruz, $\$ 3600$ : Acapuleo, $\$ 2000$.
Peru: Callao, $\$ 3500$.
Chill: Valparairo, $\$ 3000$.
Buenos Ayres: Buenos Ayree, $\$ 2000$.
Nicaragua: San Juan del Sur, $\mathbf{\$ 2 0 0 0}$.
New Giranada: Aspinwali, $\$ 2600 ;$ Paosma, $\$ 0500$.
Venceucla: Laguayra, $\$ 1600$.
Sandwich Islande: Monojulu, $\$ 4000$; Lahaina, $\$ 3000$.
111. Commercial Agento-First Class.-Nicaragua: San Juan del Xrio, $\$ 2000$.
St. Domingo: P'ert au Prince, $\$ 2000$ : 8t. Demingo (city), $\$ 1500$.
scitedule $C$.
I. Consuls-Serond Clase.-Great Britain : Bay of Islande (New Zealand), $\$ 1000$; Cape Town, $\$ 1000$; Falkland Islands, $\$ 1000$.
Austria: Venice, $\$ 750$.
Pruesia: Stelif, \$1000.
Tarkey: Candia, $\$ 1000$ : Cyprus, $\$ 1000$.
Netheriands: Batavia, $\$ 1000$.
Portugal: Fayal, $\$ 760$; Santiage (Cape de Verdes), $\$ 750$.
Denmark: Saint Ćroix, $\$ 750$.
Sardinia: Bpezzia, $\$ 1000$.
Greece: Atheas, $\$ 1000$.
Muscat: Zauzibar, $\$ 1000$.
Brazll: Bahia, $\$ 1000$; Maranhem Ieland, $\$ 1000$; Para, $\$ 1000$; 1 Ho Grande, $\$ 1000$.
Mexico: Matsmeras, $\$ 1000 ;$ D Texico (city), $\$ 1000$ : Tampico, $\$ 1000 ;$ Paso del Norte, $\$ 600$; Tabasco, $\$ 500$.
Peru: Paita, $\$ 500$; Tunbez, $\$ 500$.
Chili: Taicahmano, $\$ 1000$.
New Granada: Carthagena, $\$ 500$; Sabanillo, $\$ 500$.
Honduras: Omon, $\$ 1000$.
Ecuador: Guayaquil, \$7E0.
Rolivia: Coblja, $\$ 500$.
Vruguay: Montevideo, $\$ 1000$.
Sopiety lulandet Tabili, $\$ 1000$.
Navigators' Islands: Apin, $\$ 1000$.
Feejee Ialanda: lanthaia, $\$ 1000$.
II. Commercial Agenta-Second Class.--Portugal: St. Paul de Loanda (Angola), $\$ 1000$.
Lilberia: Monrovia, $\$ 1000$.
Gulnea: Gaboon, $\$ 1000$.
St. Domingo: Cape Iiaylien, $\$ 1000$; Aux Cayea, $\$ 500$. Rusia: Amoor River, $\$ 1000$.
Conmular Fees of the U'nited States, prescribed by the Pres. ident, in accordance with the provisions of the act of Congress approved Auguat is, 1880 , reguiating the dipiomatic and consular syetems of tio United Statea:

Disartment of Btate, November 10, 1856.
The foliowing ta the rate or tarifif of fees proacribed by the Preaident to bo cliarged by all consuiar officers for the services herein apecifed, which "sbali be regarded an effielal services," and the fecs therefor colliceted in American or Span. ish afiver doliare, or their equivatent.
At the expiration of each quarter the statement of foes must be rendered, in acoordance with the prinled instructiona, hy all consular officera entltied to salaries reniding at sea-ports and at inland placea, to tho Seeretary of the Treasury, and the smount thereof held subject to his draft or other direo-
tions, If the consular officerc are not entitied to malaries, the returne muat be made te the Secrotary of State.
Receiving and delivering Shis'e Itapers,-Fer recelving and deliveting ahip's register and papers, inciuding conaular cortificates, half a cent on avery ton, regiatered meanurement of the resel for which the mervice is pertormed.

Discharging or shipping Seamen or Mariners.-For every maman, from one to ten, who may be discharged or shlpped, Inciuding certifieates "herefor attached to crew list and ahipping artieien, io be pald by the masigr of the veanel, 50 cents; but no additional eharge ahali be made for any number of ses. men excecding ten, who may be discharged from or shipped between the dats of the arrival had departure of the vessel.

## Protests, Puseporto, te.

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And if it exceed 200 words, for every edditional 100
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For vineing a paseport
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100

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wiges to senmen, attested under neal. ................
For preparing any other official document or Instru-
ment of writing, not herein named or enmmerated,

If excceding 100 words, for every additionalion word 0 .................. 100
For the following Certificates, viz.:
Of the deposit of a shipia register and papers, when re-
quired by custom-house suthorities....................
In cases of veasela deviating from the royage............
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culate........................................................
For master to take heme destitute American seamen, no feo Of conduct of crew on board, in casea of refueal of
duty and in cases of imprisonment, etc......................
Given to master at his own request.

Of appointment of new master, inciuding oath of mas-

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masters, passengers, or crew ..................................
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To not being able to procure two-birda of a crew of
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## Authenticating Copies of Papers.

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Of governosa, judges, notisries pubilic, custom-house Of governora, judges,
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## Consula' Orders and Lettera.

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## Filing Docwomente in Connelate.

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## Reconding Doctments.

Calle of eurvey on venel, hatches, rargo, provisions, and stores, or elther; warranta and reports of ditto, ditto: entimates of repairs; cerilicates of consuls to advertimementis for funds on botiomry, and of ante of retacl ; inventories of veasel, cargu, provisiona, and atores; letter of master to conaal notifying aale of vessel, cargo, provisions, and storen, or cither; letter of master to anctloneer, and sceonat of geles of vessel, cargo, provisions, and atorua, or elther, fur every 100 word
(A) the orgginal documenta are required to be filed in the consulate, it will not be necesary to recond them. Should it ever become necessary, however, to deliver up the origloale, they mast be reconded beforo delivery, the party receiving the same paying the recond fee, as above mentioned.)
Order and consul'e certificeta to pey seamen's wagem or voysges, at home.
Certificato given to master at hil own request, when required.
Appolntment of new master
Applicatlon of eltizen of the United Statesfor a sos letter..
letter . .
sea letter, for every 100 words.
Itili of eale, when required, for every 100 worda . .
Consul's letter to captain of port, or authoritien, in canea of uinking vensele

025
$\begin{array}{ll}0 & 20 \\ 0 & 90\end{array}$
020
025
Conarl's certificates to masteri taking home destitute American seamen.
Protests of mantecs and others, other then marine protests, for every 100 worde
Average bonds, when nquired, for every 100 womis. . F'owera of attorney, then required, for every 100 wordis Any other document or fatrument of writing not here. In asmed or enumerated, prepared in or out of the eonsulate, and required to be recorded, for every 100 words..
Enfates of deceased American Cifizens-For taking into ponsession the pernonal eatsto of any clitizen who shall die Witiain the 11 mit 號 of consuiate, inventorying, welliog, and fasily settiling and preparing or transmitting, according to law, the balance due thereon, 6 per cent on the growa amount of sueh estatio. If par of such ettate shall be deliverced over before final settlemenic, $2 \&$ per cent. to be charged on the part so delivered over ats not in money, and 5 per cent. on the grose amount of the residue. If among the effects of the decaseed are found certificatee of foreign stocks, loans, or other property, $2 \&$ per cent. on the amount thereof. No charge will be inade for placing the oficial seal upon the personal property or effectis of auch deceased citimen, or for brpaking or remoring the meals, when reguired by the permon or perwons referred to in section 99 of the set of August 18,1806 .

Miacellancous Servicea.
For connul's meal and ulynaturn to clearanee from cus-tom-house muthoritien.wrecked goods or property, over and above traveling expenses, a per dem of 84 , whenaver thy cots
sul's interposition is reguinad by the parties coll
suls interposition in reguired by the parties inter eatedsaie continues
For attending sate of vensel, when required.

Fees for unoficial Services.- $A$ s the unoficial acts of a connular offrer may be porformed by a notary public, nud na
the compeneation eharged therefor is regarded as a the compenantion eharged therefor ts regarded as a perguistio of his otlice, the rate of such compenenation may be determined elt hor by agreement or the cuatom of the place, aubjeet, how. ever, to future instructions.
Exterritorial and o.her Privileges of Consuls.-According to an claborato opinion prepared by Mr. Cushing, Attornoy-General of tho United States, under dato July 14, 1855, the United Statea may, with consent of the government of another country, superadd to tho regular dutles therein of conenl any of thoso of a minsister. There aro two great classes of canes in which this fact exists, and might well be systeniatized, or at least more explicitly recognized, in consular stipulationa with foreign governmunta.
Consular Privileges in Colonial or other Irependencieanf Foreign States.- One is, that of the transmarine possessions of suadry of tho states of Europo. Here, many cogent reasona dictate that tho concession should be granted to our consuls, by such states, of the right to address the colonial or jrovincial governomr. There is nothing in tho law of nations to prevent this ; it is convenient for ail parties; it is a consular right exercised by treaty in the great pashalics of the Turkish enpirc. Tho United Statea havo recently made provision to tho same effect in treaty wlih a Christian power, namely , the Netheriands ; and that governinent having thus wisely reliaquished ita long-subsisting scruples on this point, we may reasonably expect aimilar liberality in futuro commercial negotiationa with other countries of Europe.
Consular Duties where there is no Ihiplomatic Representatire of the L'ntted States. -The other class of casss of this nature is that of a consul residing near a metropolitan government where there is no minister, either because of temporary cessation, or becsuac inducementa havo not existed for the interchange of dipionatic representatives between such government and tho United States. In this case it becomea the office, perlaps it may be aaid the right, of tie consul to place himself, with the permission of his oon government, in direct communication with the political authority of such govermment. Here, as in the other case, tho fact occurs, anii is of common coavenience; it is not inconsistent with public law; and so far as regards the Cinited States, it has example in treaties, for instance, in our last consular convention with France. It is a thing of manifest necessity as between tho United States and some of the countries of Germany, with which our reJationa are entirely amicable, without calling for permanent diplomatic representation. The German Bund, though in aomo featurea resembling our own federal republic, yet differs essentially in this, that, in the former, the federal authority, in matters of peace and war, acts on states, not individuals, and of course each stata retains the power of foreign representation and negotiation. Hence, if wa do not see cause to interchange miniaters, wo may yet well reciprucally enlarge the consular functions, in our re'nations with such states as

Bavari the Me Bund. Heri would cause a of Bav address dipion such, a commis niticn the loea sull in t1 quasi-e: the luw by genc govern any cas their co ss they offics of politieal lomatic d'affaire duplieat of consu of tho Pagan servel, $t$ privileg of haw al of other quires su for insta "diploma have in 1 exterritor enjop; th mecause atives in cause the true expl to consul penilent the suzer Eyypt, a they ase, commanit with us, $t$ Insitut stratei hii afirm, th rapscity 0 fact of diff modern E . nationalit ieci head, a distinet Comsuls ganized those of $t$ ministerec nominatio tion to thi incilent of also, at th iation to o the same poilitical or In Conn states, in t paired, ant tions of m

Bavaria, Saxony, Wurtemberg, Hanover, the IIesaen, the Nechlenbarga, or any other of the members of the Bund.

Ilerivation of Prieileges by Consuls.- Meanwhile, it woulit not is either of theae classes of casce follow, becatise a conaul of the United States in Bavaria, or one of liavaria in tho United States, may be admitted to addruss the government, that therefore he becones a dipionatic personage, with international rights as such, and among them that of exterritoriality. If his commission be that of consul only, if his public recogniticil be an exequatur, the forejgn consul is subject to the local law in the United States; and our own conlsul in the foreign conntry, if inveated in any case with quasi-exterritorial righta, does not deriva these from the law of nations, but orly from the special conecssion, by general law or otherwise, of the particular foreign govermment. If, Indeed, the United States see fit, in any case, to confer the function of chargo d'aflaires on their consul, either with or without linsitation of tlrae, ss they may lawfully do, that is, to superimpose the office of minister on that of consul, then lie lins a double political capacity, and, though inveated with fuli diplematic privilege, yet becomes so invested as chargé d'affaires, not as consul; and the fact of such casual duplication of function docs not change the legal status of consuls, whether they be regarded through the eye of the law of nations, or that of tho United States.
Pugan and Mohammedan Countries.-It hins been obseved, that "in Egypt, Twis, Tripoli, China, the islands of the Pacific, the consuls enjoy ali the diplomatic privileges. The notive is not only in the difference of haw and religion with ours, but also in the absence of other diplomatic representatives." This remark requires qualification. In the case of China and Turkey, for instance, our consnls havo not, quid consuls, any "dip/omatic privileges," except such as they might have in France during the alisence of a minister; sweh exterritorial, not diplomatle, privileges, ns they really enjoy, they enjoy, not beenuse they are consuls, ror because of the absence of proper diplomatic representatives in those countries, for we have them, bint becanse they are citizens of the United States. And the :rue explanntion of the diplumatic rights appertaining to consuls in thic Mohammedan states, whether independent ones, like Moroceo and Muscat, or subject to the suzerainty of the Porte, like Tripoli, Tunis, and Egyt, and so of the Pacific or Indian islands, is, that they are not Christians, and are not admitted to n full community of international law, public or private, with us, the nations of Christendom.
Insitution of the consular Office.-It might he lemonstrated historically, what in this place it will suffice to affirm, that the institution of consuls, in their present rapacity of international agents, originated in the mere fact of differences in law and religion at that period of modern Furope in which it was customary for tistinet nationnlities, coexiating under the same gencral politicll head, and oren in the same city, to maint 'n each a distinet municipai government.
Consuls in the Lerant,-Sucia municipal colonies, orgrnized by the Latin Cbristinns, and especially by those of the Italian republics in the Levant, were admanstered each by ita consuls, that is, its proper municipal magistrates of the well-known municipal denomination of ancient Italy. Their commercial relatien to the husiness of their countrymen was a mere incident of their general municipal authority. Such, 3lao, at the entset, was the nature of their political relation to other cocxisting nationalities around them in the same country, and to that country's own supreme political or millitary power.

In Conentries not Christian.-The consuls of Christian states, in the countries not Christian, still retain unimpaired, and halitualiy exereise, their primitive functions of municlpal magistrates for their countrymen, their commercial or international capacity in thoso
countries being but a part of their general capacity as the delegated adminiatrative and judicial agents of their nations.

Origin of the Lavo of Nations.-This condition of things came to he permanent in the Levant, that is, Greek Europe and its dependencies, by reason of the tide of Arabie and Tartar conquest having overfowel so large a part of the Eastern emplre, and establlshed the Mohammedan religien there. But the result was different in Latin Europe, lecause the modern nations, formed In this quarter unt of the broken fragments of the Western empire, being Chiristian, and thus derive ing their rellgion and their civilization from the same fountain-head of Rome, settled into something of approximatlon to ono great political community, undec the influences, potential when combined, of the military power of the Frankish or Germanic emperors, aud the moral power of the I'apal See. Thus it was that the mass of legal ideas, which we now call the law of nations, came to exist and have authority. It is, In its origh at least, the system of puhlic law of Latin or Western Europe.

Approximate Cnity of Public Law.-This imperfect political unity of Western Europe was obstructed at first by the antagonism of the Celto-Romanic and the Germanic races, and was threatened with complete dissolution when that original antagonism reappeared in the separation of some of the Germanic populations from the Papal Sec, cander the popularly assumed reJigious title of Protestants. But after thisty contlnuous years of reciprocal devastation and slaughter, the states of tho old and new faith concluded a truce at least, if not a peace, and agreed, whilo acquiesciag in the fact of religious ilifference, to maintain approximate unity of public law, and thus, by subordinating the religious idea to the legal one, to live together in some sort, as they have continued to do, with only occasional spasms of fanatical intolerance breaking out into civil or forcign war. At a late period, Russia, though of Greek faith, came into the European system of putbic law, with the less difficulty, indeed, for the reason that Latin Europe and Greek Europe alike neurished the legal traditions of the Roman empire, though these be derived in the former case from Rome, and in the latter from Constantinople.

Change in the Nature of the consular Office among Christian Netions.- Thus, by the combination of Romanic law and Christian faith it is that we bave come to have a common public law, under whose gradual operation claims of private exterritoriality soon fell into desuetnde among the governmente of Christendom; Italians in England, and Englishmen in Italy, at length submitted to the local law; foreign colonial nationalities finally ceased to exist of right; their consuls procecded to sink from the condition of municipal functionariea into that of mere commercial or semi-diplomatic ones; and thus, in process of linic, by traditional usage, by positive provisions of local law, and by treaty stipulations, the existing legal character, with its limited rights, was fixed on the foreign consuls mutually accredited in the countrics of Christian Europe and America.
In Jfohammedan Statcs,-In our relations with nations out of the pale of Christendom, we retain for our own citizens and consuls, though we can not concede to theirs, the rights of exterritoriality. Religion is tho chicf representative sign, and it is an elenient of the question of public law. But the critical fact is the difference of law. The legislation of Mohamined, for instance, is inseparable from his religion. We can not submit to one without also undergoing the other. The same legal incompatibility exists, for one reason or another, betwcen us and the unchriatian states not Mohainmedan.

Institutes and Pundecta,-Whereas Christendom, on the other hand, in all ita subdivisions of race, nationality, and religion, is the common heir of the political
ideas, and especially the legislation, of the Roman emplre; for the Inatitutes and Pandects thomselves, though compriaing the sum of the legal science of Some, were compiled and promulgated at Constantinople, and consticute the broad foundation of the jurispradence, publio and private, of the whole of Christendom.

Uniy in Christendom.- Wher the countries now Mohammedan shall be reaubjected to the doctrines of the Roman law, then can they be adinitted to the samo reclprocal community of private rights with us, which provails In Chrlstian Lurope and America. Until that event happens, Turkey, and ' ' or Modem atates $^{\text {M }}$ in Africa or Asia, may, liko China or uapan, enter into the sphere of our public law in the relation of government to government, but not la the relation of government to men. That full interchange of international rights is adinissible only among the nations which have unity of legal thought, in being governed by, or constituted out of, the once dissevered, but since then partially remited, conatituent of the Grarom loman empire.-Manual for Consuls, l'nited States, 1857.

Contraband, in commerce, a commodity prohibIted to be exparted or imported, bought or sold. Contrnband is alse a term ajpied to designate that clasa of commodities whick neutrals are not allowed to carry during war io a belligerent power. It is a recognized general principle of tho law of nations, that ships may sail to and trade with all kingdoms, countrics, and states $\ln$ peace with the princes or authorities whese flags they bear; and that they are not to be molested by the alips of any othe power at war with the country with which they are trading, unless they engage in the conveyance of contrabaid goods. Hat great ditfleulty has arisen in deciding as to the goods comprised under this term. The reason of the limitation suggest, however, the epecies of articles to which it principally applies. It is indispensable that those who profesa to act upen a princlile of neutrality, should carefully abstain from doing suy thing that may discover a lias in favor of cither party. Hut a liation whe should fornish ese of the belligerents with supplltes of Narlike atorez, or with supplies of any artiche, without which that belligerent might not lie able to carry on the contest, would obviously forfeit her neutral character; and the wher belligerent wouhl be warranted in preventing such succors from bolngs sent, and confiscating then ns lawful prize. All the best writers on fiternctional law admit this prineiple; which, besiles being enforced during erory contest, has been sanstioned by rejeatel treutics. In order to obviate all disputes as to what commodities should lee deemed contraband, they have sometimes been specified in treaties ur conventions. (See the references in Iamphent De'Commercio de Dopoli Drutrali, § 9. .) But this classification is not alwaya respected during hostilities; and it is sufliciently evident that an article which uight not be contraband at one time, or muder certalin circumstances, may lecome contrahaml at another time, or under dilferent circumstances. It is allmitted on all hands, even ly. M. Jubner, the great advocate for the fruedom of neetral commerce (le le Suisie des bitimens Neutres, tom. 1. p. 143), that every thing that inay be made dircetly aroilnble for laostile purpeses is contraband, as arms, ammunitlon, horses, timber for ship-building, and nll swrts of naval atores, The greatest difticully has oecurred in ilechling as to provisions, which are sometiner held to be contrabanl, and somethes not. Jord Stowell has ahown that the character of the port to which tha provistuns are deathed, is the principal circumstance to be attenced to In deciling whellier they are to be looked upen as contraband. A curgo of provisions intended for an enemy's port, in which it was known that a warlike armament was in preparation, would le liable to arrest and confacation; while, if the same cargo were intended for a port where hute lint merclontmen were
fitted ont, the most that could be done would be to detain it, paying the neutral the samo price for it he would have got from the enemy.

Contraband of War. "Queatlons of contraband were much discussed during the continuance of eur neutral character, in the furious war between England and France, commencing in 1793, and the United Statea professed to be govarned by the modern usage of nations on this point. The national convontion of France, on the 9 th of May, 1793, decreed, that neutral vessels lacien with provisions, deatined to an enemy ${ }^{2}$ s part, should be arrested and carried into France, and one of tha carliest acts of England, in that war, was to cletain all neutral vessela going to France, and taden with corn, meal, or tlour. It was insisted, on the part of Fugland, that, by the law of nations, all provisions were to be considered as contraband, in the case where the depriving of an enemy of those aupplies was one of the means employed to reluce him to reasonalile terms of peaca; and that the actual situatlon of France was such as to lead to that niode of distressing her, inasmuch as she had armed almest the whole laboring class of her people, for the purpose of commencing and supperting hostilities against all the geveruments of Eiurope. This claim on the part of England was promptly and perseveringly resistad by the Vnited States; and they contended that corn, flour, and meal, leling the produce of the suil and labor of the country, were not contraband of war, unless enrried to a place wetually invested. The treaty of commerce with lingland, ju 17at, in the list of centrabaud, statell, that whatever materials served directly to the building and equipment of vessels, with the exception of unw rought iron and tir planks, should be considered contrabanil, and linble to contiscation; but the treaty left the yluesthon of provisions open and unsettled, and weither power was t:derstood to have relinetuished the construction of the law of rathens which it hat assumed. The treaIy admitted that provisions wero not gemerally contruband, but might become so according to the exinting law of nations, an certaln cases, and those cases were not definet.
"It was only stlpulated, by way of relasation of the penaltv of the law, that whenever provisions were contrabane, the eaptors or 'isir goverument should puy to the owner the full value of the artieles, together with the freight and a reasomalle protit. Our government has reparedly admitted that, ar far as that trenty emmerut"il contrahand articlen, it was dedaratory of the law of mations, nud that the treaty conceded nothing on the subject of contraband.
"The doctrine of the Einglinh admiralty on the subject of provisions being considered conimband, was laid down very fully and elearly in the case of the Jompe Margoretha. It was there observed, that tho: eatulogue of contraband had varied marh, and sometimes in aurlo a manmer us to make it diflicult to assign the reasons of the variations, owing to particuiar circumstances, the history of which hail not arcompanien the history of the dwisions. In 163 , certuin articles oí provisions, as érn, wine, and oil, were demed contrabund, accordling to the juldinent of a jurson of great Know ledge med expericuce in the practice of the admiral:y ; and, in much later tinnes, masy oflier sorts of proviskos lume been condemarel as coutrahand. In $17.17^{3}$ and $1: 4 x$, butter and salted ilsh and rico wive condemned as rontraband ; and those cass's chow that artictes of human food have been conshidered as montriband when it was prohmble they were lutended for maval or military une. The modern establinhed rulo is, that provisions aro not generally contrabumd, lut may hecome so under clrcumatances arising ont of the particular altuation of the war, or the comdition of the parties engaged ta it. Among the circumatancera whith tond to preserve provisions from being liable to he trouted ne contrahmal, one is, that the." are the growth of the eountry which exports theil. Asother eircunstance
to which nations, manufact ence, tho out of it orably co sidered a to an ene of it for $:$ is, wheth use of life they wer milhary which the If the por the artiel a ship of if the gre Brest in of a port sumed the though it applied to ascertain usus, it is i use from $t$ tion of a nilitary 1 when the $n$ was notori articles wo l'hese d sentially $t$ Congress i to whomsot necessaties calonies, sl They were Court of $t]$ and feel the party to a cen, a neut in the aet o ish armies being nentr country, m military or observed, t1 jons wero become so war, or on for the orili mere not o for the arm militury or were the g for the cne band, and er navy we rect interp,
"This et seots, and flided to juro royage of the intlle tion "It wast le contraba ments of wa In the rema from time $t$ not Indeed I, in the applis to meret the are at once tion to the c the practice ing provisio
to which some indulgence is shown by the practice of nations, is when the articles are in thelr native or unmanulaetured state. Thas iron is trested with indulgonce, though anchors and other instruments fabricated cot of it are directly contraband. Hemp is more favorsibly considered than cordage, and wheat ls not considered as so oljjectionable a commodity, when golag to an enemy's country, as any of the final preparations of it for human use. The most important distinction is, whether the articles were intended for the ordinary use of life, or even for mercantile ship's nse, or whether they were golng with a highly presiable destination to military use. The nature and quality of the port to which the articles are going is not an irrational test. If the port be a general commereial one, it is presumed the articles are golng for civil use, though occasionally a ship of war may ho constructed in that port. But If the grent predominant eharacter in thut port, like Brest in l'rance, or lortsmouth in lingland, be that of a port of naval military equipment, it will be presmacd that the articles were going for military use, although it is possible that the articles might have been spplied to civil consumption. As it is impossible to oscertaia positively the tinal use of an article ancipitis usus, it is not an injurious rule which deduces the tinal use from the immediate destination; and the presumption of a hostllo use, founded on its destinetion to a military port, is very much inflamed, if, at the time when the articles were going, a considerable armament was notoriously preparing, to which a sujply of those articles would be eminently useful."
These doctrines of the Jinglish prize law were essentially the same with those adopted by the American Congress in 1755 , for they declared, that all vessels, to whomsoever belongiag, carrying provisions or other necessaries, to the liritish army or mavy within the colonies, shoukd bo liable to scizure and contlseation. They were likewise fully adopted by tho Supreme Court of the Cuted States, when we cane to know and fet the value of helligerent rights, by hecoming a party to a maritime war. In the case of the Commercen, a nentral vessel, captured by one of our cruisers in the act of carrying provisions for the use of the British armies in spain, the court held, that provisions, being nutral property, but the growth of the enemy's country, aul destined for the supply of the enemy's military or naval foree, were contrabual. 'l'he court observed, that, by the mudern law of nations, provise ions were not generally contraband, but they might becono so on accomit of the particular situation of the war, or on meiomit of their destination. If destiaed for the ordinary use of life in the 'nemy's conntry they nute not contraband, lint it was otherwise if destined for tho army or navy of the enemy, or for his ports of ailiary or naval equijment. And if the provisions were the growth of the enemys country, and destined fot the enemy's use, they welo to be treated as contraband, and liable to forfuitu e, even though the army er nayy were in a neutral prert, for it would be a direct interposition in the war
"This case followed the decisions of Sir Willian Scot, and carrided the doctrine of contralmend, as appiicd to provisions, to as grat an extent. It held the royage of the swrilish neutral so illegal as to deserve the intliction of the pualty of loss of freight.
"It was the usis belliri whidh determined an article to be contrahand ; and us articles come linto use us intobmeats of war which were before innocent, there is truth In the remurk that as the means of war vary nat shift from time to then, the law of nations shifts with them; not inded lig the clange of prineiples, but by a change in the application of them to new cases, nint in order to met the varying inventions of war. When goots are ot onco clearly shown to be contraband, contiser. tion to the captor is the natural conseqronce. This is the prartice in all cases, as to the aiticle itself, excepting provivions; and us to them when they heome con-
traband, the ancient and atrict right of forfeiture is softened down to a right of pre-emption on ressonable terms. But, generally, to stop contraband goode would, as Vattel observes, prove an ineffectual relief, especially at sea. The penalty of confiscation la applied, in order that the fear of loss might operste as a check on the avidity for gain, and deter the neutral merchant from supplying the enemy with contrahand articlea. The ancient practice was, to seize the contraband goods, and keep them on paying the value. But the modern practice of confiscation is far more agrecable to the mutual dutles of nations, and more adapted to the preservation of their rights. It is a general understanding, grounded on true principles, that the powers at war may seize and confiscate all contraband goods, without any complaint on the part of the reutral merchant, and without any imputation of a breach of neutrality in the neutral sovereig a! 'mself. It was contended on the part of the French nation in 1706, that neutral govermments were bound to restrain their subjects from selling or exporting articles contraband of war to tho belligerent powsrs. But it was successfully shown on tho part of the Etited States, that neutrals may lawfully sell, at home, to a belligerent purchaser, or carry, themselves, to the belligerent powers, contrahand articles sulject to the right of seizure, in tronsitu. This right has since been explicitly declared by the judicial autherities of thls country. The right of the neutral to transport, and of tho lostile power to seize, are conflicting rights, and neither party can charge the other with a criminsl act."--Kenr's Commentaries, Leet. VIII.

Contraband articles are sald to be of an infectious nature, and they contaminate the whole cargo belonging to the ssme owners. Jy the ancleat laws of Europe, the ship also was lialile to contemnation when captured. But the modern view, since Grotius, is milder, and latterly the ship is liable to confiscation, and when fraud is detected, the innocent portions of the eargo are also liable.
liy the ancient law of Europe, a ship conreying any contraband article was liable to confiscation as well as the articis. But in the modern practice of the courts of admi. nlty of this and other countries, a milder rule has been ailopted, and the carriage of contraband articles is attended only with the loss of frelght and expenses, unless when the ship lielongs to the owner of the contraband cargo, or when the simple nisconduct of conveying such a cargo has been connected with ot her malignant and nggravating circumstnnces. Of theso a ialse destination and false papers are justiy held to he the worst.-(5 Roninson's Almivaity R'ports, 275.) The right of visitation and seareh is a right inherent in all belligerents; for it would be absurd to allege that they had a right to prevent the conveyance of contraband goods to an enemy, and to deny them tho use of the only means hig which they can give ethect to such right.-(VATTE, book iii. c. \%. § 114.) The olject of the seureh is two-fold: first, to useertaln whether the ship is nentrul or an enemy, for the circumstance of its hoisting a nentral flag allords no security that it is really such: and, secondly, to ascertain whether it has contraband articles, or enemies' property, on board. All nentral ships that would havigate sceurely during whr must, consequently, he provided with passports from their government, and with all the papers or doemments mecessary to prove the property of the ship nud cargo; and they must carofully noold taking uny con-trat-und artieles or belligerent jroperty on hard; and bence, as lampredi has observed, a merchant ship which seeks to a voith is exarch .. . crowding sall, or by open force, may justly be captured and suljected to confiscation.

It has, inderd, been often contended that free shins make, free goods (yue le parillon courre ho marchandise), and that a ledligerent is not warranted in seizing the property of an enemy in a mentral ship, unless it be
contraband. The discussion of this important question would lesd us into details which do not properly come within tho scope of this work. Wo may, however, shortly observe, that no such privilege could ioo conceded to neutrals, without taking from belligerents the right, iuseparable from a state of war, of seizing an enemy's property if found in places where hostilitier may be lawfully carried on, as on tho high seas. In fact, were the principle in question admitted, the commerce of a belligerent power with its colonies, or other countrles beyond the sea, might bo prosceuted in neutral ships, with as much sccurity during war as in peace; so that neutrals would, in this way, bo anthorized to render a belligerent more important assistanco than, perhaps, they could ha 4 done had they supplied tim with troops and ammunition! But it is surely unneceasary to say, that to act in this way is a proceedin's altogether at variance with tho idea of neutrality. Neutrals are bound to conduct themselves in the spirit of impartiality, and must not afford such aid or assistaneo to one party as may ho better enablo him to make head against the other. It is their duty "non interponere se bello, non hoste imminente hostcm eripere." And yet it is manifest that tho lending of neutral bottoms to carry on a belligerent's trado is in direct contradiction to this rule. The ships or cruisers of a particusar power may have swept those of its enemy from the sea, snd reduced him to a state of great difficulty, by putting a stop to his commerco with foreigners, or with his own colonies; but of what consequenco would this be if nentrals inight step in to rescue him from such difficulties, by earrying on that intercourie for him which he can no longer carry on for himself? It is nstural enough that such a privilege should be coveted by neutrals; but, however advantageous to then, it is wholly subversive of the universally admittea rights of belligerent powers, as well as of the principles of neutrality; and can not, therefore, be truly said to be Lottomed on any sound prituciple.
In the war of 1756 , the rule was laid down uy Great Britsin, that neutrale are not to be allowed to carry on a trade during war that they were exeluded from during pence; so that, supposing a nation at war vith Great Britain lad, while at peace, prohibited foreigners from engsging in her colonial or consting trade, neutrals would not have been permitted to engago in it during war. 'This rule has been much complained of ; but the principle on whieh it is founded seems a sount one, and it may in most cases be safely adopted. The duims of neutrals eau not surely be carried farther than that they should be allowed to carry on their trate during war as they had been accustomed to carry it on thring peace, except with places under blockade; but it is quite a dlfferent thing when they daim to bo allowed to employ themselves during war in a trade in which they hai not previously any right to engnge. 'To grant them this, would not be to preserve to them their former rights, but to give them new ones which may be fairly withheld. Suppesing, however, that either of the belligerent powers has forco sufficient t" prevent any intercourse betwein the oher ant its colomiss, or any interconrse beficeen lifferent ports of the other, she misht, in the exercise of the legitimate rights of a belligerent, exclude neutrals from such trade, even though it hat formerly been open to them; becanse otherwise she would bo deprived of the advantage of her superior fore: and the neutrals would, in fact, when employed in this way, be acting as the most eflicient allies of her enemy.

For a full discussion of thle Important and diflicult questlon, and of the various distinctions to whicis it gives rlse, see tho work of Hubuer (I)e la suisie des Batimens Neutres, 2 tomes, 12110,1767 ), in which tho difforent arguments in favor of the primelple that "the thag covers the cargo," are stated with great pernpienlity and talent. The opposite principie has been advocated by Lampredi, in lifs very abio trratise lhel Com.
mercio de' Pcpoli Neutrali, § 10; by Lord Liverpool, in his Discourse on the Conduct of Great Britain in respect to Neutrals, written iu 1757 ; and, nbove all, by Lord Stowell, in his justly celebrated declaions in the Admiralty Court; and Kenx's Commertaries, Lect. 111. Martens incllnes to IIubner's opinion.--See Précis du Droit des Gents, liv. vili. c. 7.

Contracts. An exccutory contract is an agree. ment of two or moze persons, upou sufficient consideration, to do or not to do a particular thing. The agreement is elther under seal or not under seal. If under seal, it is denominated a speciality, and if not under a seal, an agreement by parol; and the latte: ineludes equally verbal and written contracts not under seal. Tho agreement convers an interesteither in possession or in action, If, for instance, one person sells and delivers goods to another for a price paid, the agreement is executed, and becomes complete and absolute; but if the vendor agrees to sell and deliver at a future time, and for a stipulated price, and the other party to accept and pay, the contract is executory, and rests in action merely. There aro also express and implied contracts. Tho former exists when tho parties centract in express words, or lyy writing ; and the latter are those contracts which the law raises or presumes, by reason of some value or service rendered, and beeanse common justice requires it.

Every contract, valid in lav, is mado between par. fics having sullicient molerstanding and age and freclom of will, and of the exerciso of it, for tho given case. If the contract be entered into by meaus of violenee offered to the will, or under the influence of undue constraint, the party may avoid it by the plea of duress; and it is requisite to the validity of every agreement, thet it be the result of free and lona jide exercise of the will. Nor will a contraet be valid if obtained byy mis. representation or concealment, or if it be founded in mistake ns to the subject matter of tho contract. A contruct, valid by the law of the place where it is made, is generally speaking valid every where, jure gentiom, and ly tacit consent.

The lex leci contivetus controls the anture, constraction, and validity of the contract ; and on this broad fumbation the law of contracts, founded on necessity and commurcial convenience, is said to have been originally ecablished. If the rule were othe -wise, the citizens of one cotmiry could not safcly contract, or carry on commerce in the territories of another. 'The necessary intercourse of mankind requires that the acts of parties, valid where made, should be recognized i:l other comntries, provided they be not contrary to food morals, nor repugrant to the policy and positive institutions of the state. Partics are presumed to centract in reference to the laws of the country in which the contract is made, and where it ls to be paid, unless otherwise expressed. Ilut if a contract be made under one government, and is to he performed mader mother, and the parties had in view the haws of such other country in refirence to the execntion of the contract, tho general rule is, that the contract, is respect to its construction and force, is to be governed by the law of the country or state in which it is to be executed; the foreign law is in such cuses adopted and etfect given to it. Thus, the doys of grace allowed upen bilis of exchange are to be completed ncrorling to the usage of the place in which they are to bo paid, and not of the phace in which they are drawn, for that is presumed to have been the intention of the pretles.

It is essential to the valldity of a contract that it he fombed on a sumeient consideration. It was an eariy prinelple of the common law, that a mere voluntary aet of courtesy would not upheld an assumpsit, but a courtesy alown by a prevlous request would suphert it. There must be something given in exchange, something that is mutnal, or something which is the inducement to the contract, and it must be a thing which is lawful and competent In value to sustain the
sssumption to the rali and agreen bills of exc leen negot cent indors are affected as to third paper in th origianl de be alleged.

Of the C transfer of valuable co to its valid of the cont tractiug pa $0 ;$ petentia and capabl contract of If the suly structively in the posse nevertheles: one depend the article can be no to $B$, and it time, thoug coutract is

The price of sale; ant and fixel, o mode jreser tiatien bet ulsito to the binding wh accepted on contract if $t$ circumstane the contrac mail; and t is sent with posal, and is
In every time in noo party buys sion, and he other, and f the title.
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When th purchaser o them, and $t$ of hreach of turning the scind the co recorer the after diseov right of neti

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When thu belng agree tween the pr snd the prop entitied to $t$ ditiens have made as to
assumption. The rule, that a consideration is necessary to the validity of a contract, applies to all contracts and agreements not under seal, with the exception of bills of exchange and negotiable notes after they have been negotiated and passed fato the hands of an innocent indorsee. The immediato parties to a bill or note sre affected by tho want of consideration, and it is only as to third persons, who come to the possession of the paper in the usual course of trade, without notice of the original defect, that the want of consideration can not be aileged.

Of the Contract of Sale.-A sale is a contract for the transfer of property from ono person to another, for a valuable consideration; and three things are requisite to its validity, viz.: the thing sold, which is tho olject of the contract, the price, and the consent of the contracting parties. The thing sold must have an actual er potential existence, and be specific or identified, and eapable of delivery, otherwise it is not strictly a contract of sale, but n special or executory agreement. If the subject matter be in existence, and only constructively in tho possession of the seller, as by leeing in the pessession of his agent or carrier abroat, it is nevertheless a sale, though a conditional or imperfect une depending on the future actual delivery. But if the artiele intended to be sold has no existence, there can be no contract of sale. Thus if $\mathbf{A}$ sells his horso to 1 , and it turns out that the horse was dead at the time, thought tho faet . contract is necessaril-
; bown to the parties, the
The price is $n n$ essential ingredient in the contract of sale; and it must be real and not merely nominal, and fixeci, or bo susceptiblo of being aseertained in the mode prescribed by the contract, without further negotiation between the partics. Mutual consent is requisits to the creation of the contract ; and it becomes binding when a proposition is made on one side and accepted on the other; and on the other hand, it is no contract if there be an error or mistake of a fact, or in circumstanees geing to the essence of it. In creating the contract the negotiation may be carried on by mail; and the contract is complete when tho nuswer is sent with all due diligenee after the receipt of propossi, and is ont of the control of the party accepting.
In every sale of a ehattel, if the possession be at the time in anotiser, and there be no warranty of title, the party buys at his peril. But if the selier has possession, and he sells as his own and not as agent for another, and for $n$ fair price, he is understood to warrant the title. With regard to the quality, the seller is not bound to answer unless he expressly warrants, or unless he inas made a false representation or concealment. The rommon law requires the purchaser to attend to the qualities of the artiele he buys, which are supposed to lef within tho reach of his observation and juigment, sad which it is equaily his interest and duty to exert.
When the groets are discovered to be unsound the purchaser ought immediately to give notico or return them, and therely rescind the contract. In the enso of brach of warranty, he may sue unon it withent returuing the geods; but he nust return them aud rescind the contract before he ent maintain an action to recover the priee. Jic ean not denl with the goodis after discovery of frund in a sale, withont losing his right of netion.
If there he intentional concealment or suppression of material fects in the making of a contract, in coses where both parties lave not equal aceess for juformntion, it wili bo deened unfuir dicaling, and wijk vitiate the contract.
Winn the bergnin is completed, hy the terms of aslo being agreed mpon, the contrnet hecomes binding between the partios nuld without netnal dellivery of goods, and the property is nt the risk of the buyer; and he is entitied to the goods en paynent of priee when no contitions have been made. Specinl conditions may be made as to risk, time of tellivery, credit, \&e. In the
first instance to make the contract valid, there must be a delivery or tender of payment, or earnest given, or a memnrandum in writing signed by the purchaser. When goods are to be delivered, delivery to an agent, carrier, or master of a vessel is equivalont to delivery to purchaser. The delivery to agent or carrier must be such as to create responsibility in that agent or carrier, and if insurance is the usage it ought to be done, and also the buyer informed, with diligence, of consignment and delivery. Symbolical delivery will, in many cascs, be sufficient, such as transfer of key of warehouse from seller to buyer, or putting private mark by buyer upon the goods. Unless time and place are specified, the common rule is eash payment and place where 'hey are at time of sale.-KENT's Commentaries, Lect. XXXIX.

Convoy, in navigation, the tern applied to designate a ship or ships of war, appointed by government, or by the commander-in-ihief on a particular station, to escort or protect the me'chant ships proceeding to certain ports. Convoys a:e mostly appointed during war; but they aro sometimes also appointed during peace, for the security of ships navigating seas infested with pirates.

Individuals lar atways been left to themselves to judge as to the expediency of sailing with or without convoy. The fovernments ; f most maritime states have thought proper, when they were engaged in hostilities, to oblige their subjects to place thenselves under an escort of this sort, that the enemy might not be enriched by their capture. Acts to this effect wers passed in Great Britsin during the American war and the last French war. The last of these acts ( 43 Geo. III. c. 57) enacted, that it should not be lawful for any ship belonging to any of his majesty's subjects (except as therein provided) to depart from any port or place whatever, unless under such convoy as should-be appointed for that purpose. The master wns required to use his utmost endeavors to continue with the convoy during the whole voyage, or such part thereof as it should be directed to necompany his ship; and not to sepnrato therefrom without leave of the commander, under very heavy pecuniary penalties. And in cass of any ship departing without convoy contrary to the act, or willfully separnting therefrom, sll insurnnees on the ship, cargo, or freight, belonging to the master, or to any other person directing or privy to such departurc or separation, were rendered null and voill. The customs officers were directed no to allow any ship that ought to suil with convoy to clear out from any place in the United Kingdom for foreign parts, without requiring from the master bond with one surety, with condition that the ship should not depart withont convoy, nor afterwaril desert or willfully separate from it. The regulations of this act did not extend to ships not requiring to be registered, nor to those licensed to sail without convoy, ner ro those engaged in the coasting trade, nor to those belonging to the East India Company, ete.

It is very common, during periods of war, to mnke sailing or departing with corroy n condition in policies of insurance. This, like other warranties in a poliey, must he stricrly performed. And if a ship warranted to sail with conroy, snil withont it, the policy becomes roid, whether this be imputable to any negligence on the part of the insureil, or the reriusal of government to appeint a convoy.

There aro five things ossentinl to sailing with convoy, viz. : first, it must he with a reguinr cenvoy under nn ollicer njpointed ly government; accondly, it must be from tho place of rendezvous appointed by government ; thirdly, it must be a convoy for the voyage ; fourthly, the master of the ship must have aalling instructions from the commanding oflleer of the convoy; and fifhly, the ship must depari and continue with the convoy tili the ead of the voyage, unless separated by neeessity.

With respect to the third of these conditions we may obacrve, that a warranty to sail with convoy generally means a convoy for the royage; and it is not neceasary to add the words "for the voyage" to inake it ao. Neither will the adding of these words in some instances make the omission of them In any case the ground of a different construction. A warranty to sail with convoy does not, however, uniformly meen a convoy that is to act mpany the ahip insured the entire way from the port of departure to her port of destination; but auch convoy as government may think fit to appoint ns a sufficient protection for ships going the voyage insured, whather it be for the whole or only a part of the voyage.

Sailing instructions, referred to in the fourth condition, are written or printed directions delivered by the commanding officer of the convoy to tho saveral masters of the ships under his care, that they may understand and answer signals, and know the place of rendezvons appointed for the fleet in case of dispersion by storm, or by an enemy, ete. Those sailling instructions are so very indispensable, that no vessel can havo the fill protection and benefit of the convoy without them; hence, when, through the negligence of the msster, they are not obtained, tho ship is not said to have sailed with convoy; and a warranty in a policy of lasuranco to that effect is held not to be complied with. If, however, the master do all in his power to obtaln sailing Instructions, bat is prevented from obtaining them by any insuperable obstacle, as the badness of the weather, or if they be refused by the commander of the convoy, the warranty in the policy is held to be complied with.

For further information as to convoy, see Anbot on the Law of Shipping, parı ii. c. 3; Miamsitals, on Insurance, book i. c. 9 § 5.

Cook, Captain James. This celebrated navigator was born at Marton, near Stockton-on-Tees, October 27, 1728, nud was originally apprenticed to a merehant in lorkshire; but having a stroug predilection for a sailor's life, ho sacceeded in obtaining bis discharge, and immediately entered into new indentures with some coal shippers in tho same county. In their omploy he became a good seaman, and was promoted to mate, but subsequently entered the liritish navy as volunteer. In 1755 he was a!pointed to the mastership of a sloon, nul joined the fleet operating agalust the Vrench, in the St. Hawrence. His judgment, lravery, and great skill in conducting hydrographle surveys, gained for him a lasting reputation and Incrensing honors; and in 176.1 he was appointed marine surveyor of Newfoundland and Labrador. In 1767, on the recommendation of the Royal Society, he was aent to the South "nelfic to olserve the appronching transit of Venc. ""1" . \& aceompanied by Messrs. Green, Solander,
Banks. All the jt [afterward Sir Joseph] were successfully observed at Otaheite, June o,

Cook then sailed in quest of tho supposed south. a continent, circummaviguting New Zealand, and after other scieatific observations he crossed to Batavia, and thence returned to Fingiund in the summer of 1771, vad was promoted nhortly after. In July, 1772, ho commenced bis second vosage, which lasted three years, when he was ralsed to a post-captaincy, with n lucrativo appolntment in Girenwich llospital. In 1770 ite volunter red to lead the seientifie expelition to determine the problem of a northwest passage between tho Atlantic and l'ucltic oceaus, nud running from the Cape to New Zenlund, and thence through the Pacific, he diseovered the Sandwich Islands, which he left for further olsservations, returning, however, to winter at Owyhse. An unfortunate uleunderstanding botween some of hls poople and the natives terminated in a fray, in which Cook was killed, after a desperate realstance, Fobruary 11, 1779.
Cooperage. This art must be coeval with the dswn of hiatory, and seems to have been early known
in every country. The coopers of London were incorporated in 1501.

Copal, a resin which exudes apontaneously from two trees, the Rhus copallinum, and the Elaocarpus copelifer, the first of which grows in America, and the second in the East Indlea. A third specles of copaltree grows on the coasts of Guinea, especially on the banks of some rivers, among whose sands the resin is found. It occurs in lumps of various sizes and of varions ahades of color, from the palest greenish yeliow to darkish brown. Its specific gravity is fourd to vary in different apecimena from 1.059 to 1.071 , being intermediate in density between its two kindred resins, animed and amber. Soms rate its specilic gravity so high as $1 \cdot 139$, which is probably one of the errors with which chemical compilatons teem. Copsl is too hard to be scratched by tho nail, whence the excellence of its varnish. It has a conchoidal fracture, and is without smell or taste. When exposed to heat in a glass retort over a spirit lamp, it readily melts into a liquid, which belng further heated bolls with explosive jets. A viscid, oily-looking matter then distills over. After continuing the process for sone time, no succinic acid is found in the receiver, but the copal blackens in the retort. Anhydrous alcohol boiled upon it canses it to swell, and tranaforms it ly degrees into an elastic, viscid substance. It is not soluble in alcohol of 0.825 at the boiling point, according to experiment. Copal dissolves in cther, and this ethercous solution may be mised with alcohol without decomposition. Caoutchoucine acts very slightly upon it by an experiment, even at the boiling temperature of this very volatile fluid; but a mixture of it with alcohol of 0.825 , in equal parts, dissolves it very ruplilly in the cold into a perfectly liquid varnish. Alcohol holding camphor in solition also dissolves it, but not nearly so well as the last solvent. According to Unverdorben, copal may be complete!y dissolved by digesting one jart of it for 24 hours with one part and a half of alcoliol (iprobably anhydrous), lecenuse that portion of copul which is insoluble in alcohol dissolves in a very concentrated solution of the soluble portion. Oil of petroleum and turpentine dissolve only one or two per cent. of raw copal. Hy particular management, Indeed, oil of turpentine may bo combined with copal.
lused copal possesses different properties from the substance in its solid state; for it then may be made to combine both witlı alcohol and oil of turpentine.

Unverdorben has extracted from the copal of Ifrica five different kinds of resin, none of which has, hewever, been appled to any hise in the arts.

Tho altimate constituents of eopal by an amalysis are, carbon 79.87 , hydrogen $9 \cdot 00$, oxygen $11 \cdot 1$; being of hydregen $7 \cdot 6$ In excess niove the gunntity necessary to form water with tho oxygen.

Much information has been received from various sources concerning this somewhat ill-understood prodnet of late years. It is now known that there are three different tinds of copal lin commerce, hat nething is known of their distingulshing characteristics. We have last Indian and West Indian copal, and, ander the latter nome, two very different aulistances. The Eist Indian, ealled also African, la more colorless, suft, and transparent than the others; it forms in line surface, and when heated emits an ngrecable odor. It furnishes the flnest vamish. Fresh essence of turpentine tissolves it completely, hut not ohl. Vissence ligested upon sulphur will dibsoive doublo its own weight, withont letting any full. Fresh rectified oll of rosemary will dissolva it in any propurtion, lut if the oit is thickened by ago it serves only to swell this copal.

When enutiously melted, it niay bo then dlasulved in good easence of turpentine in any proportion, jro* dueing a flun varnish, of little color.

A good varalsh may bo made ly dissolving one part of coplal, one of essence of rosemary, with frum two to three of pure alcoliol. Thia varnish sheuld bo
applled hot, durable.

The West lumps of a $g$ which are ha is usually yo Insects are $v$ the Antilles, dissolve in es
The third I was formerly is foumd in $f$ oater coverin It contalus $n$ aromatic odo pyreumatic o whield dries s. Fusel oil, solvent of th very solid va Copal varn was long kno applied to sm It preserves tributes to re by filling up of reflecting 1 be confounded dear and goot between them nish, is much . with the form Besides the ex ty distinct to furnishes a us in this fluid, 7 copal is also b softens in the tionary, etc.
Copeck ( from the hmpr handred of th copper coin, e wis in the tlift
Copenhae coast of the $\mathbf{i}$ Haltie enlled $5^{5} 5^{\prime} 46^{\prime \prime} \mathbf{E}$. $\mathbf{P}$ built, handson course is bet we left, and the li adranee of the sonthwest by roads the cour channel is frot row, nud the obligation to $t$ for one, she ma be will romo into harbor br half a mile fro bearing south boom, the wat in harior load ancherage in
Moncy.-Ac or 96 akilling nbout ts. Itd. s system was a Migstank lolla of the old apees But the mone tions is hank dtweont. The bank dollar, w terling.

Heiglts an
applied hot, and when cold becomes very hard and durable.

The West India species, or American, comes, noi in lumps of a globular form, but in small lat ${ }^{\text {s iugmencs, }}$ which are harl, rough, and without tasue or amell. It is usually yollow, and never colorless iike the other. Insects are very rarely found in it. It is also found in the Antilles, Mexico, and North America. It wili not dissolve in essence of rosemary.

The third kind of copal, known also as West Indian, was formerly sold as a product of tho East Indies. It is found in fragments of a concavo-convex form, the outer covering of which appears to have been removed. It contains many inseets. When rubbed it emits an aromatie odor. It gives out much ethereous and empyremmatic oll when melted. It forms a soft varnish, which dries slowly.

Fusel oil, or amyle spirit, has been lately used as a solvent of the hard copal; bnt it does not dry into a very solid varnish.
Copal varnish was first discovered in France, and was long known by the name of rernis martin. It is applided to snuff-boxes, tea-boards, and other utensils. It preserves and gives lustre to paintings ; and contributes to restore the decnyed colors of old pictures, by filling up eracks, and rendering the surface capable of reflecting light more uniformly. Copal is liable to be confounded with gum anime, when the latter is very clear and good. But it is of importance to distinguish between them, as the anime, thongh valuablo os a varnish, is much less so than the finest copal ; the varnish with the former being darker colored, and not so hard. Besides the extornal nppearance of ench, which is pretty distinct to a practiced eye, the solubility in alcohol furntshes a useful test, the animé being readily soluble in this fluid, whlle tho copal is herdly affected by it ; copal is also brittle between the tecth, whereas anime softens in the mouth.-Rees' Cyclopedia; Une's Dictionary, ctc.
Copeck (kopeika), a Russian copper coin, so called from the impression of St. George bearing a lunce. A huadred of them make one ruble. The value of the copper coin, compared with the assignation-ruble, vnLies in the different governments.
Copenhagen, the capital of Denmark, on the east coast of the island of Zealand, in the channel of the llaltic enlled the Sound: lat. $65^{\circ} 41^{\prime} 4^{\prime \prime}$ N., long. $12^{\circ}$ $33^{\prime} 46^{\prime \prime}$ E. Population, in $1815,126,787$. It is a wellbuilt, handsome city. In going into Copenhagen, the course is leetween the buoy on the Stublen llank to the left, and the buoy on the Mildle-grounds, and those in advance of the three Crown batteries on the right, westronthwest by compass. lirom the three C. swas to the roads the course is south-southwest. The water in the chanel is from six to four fathoms deep; but it is narrow, and the mavigation rather diffentt. There is no obligation to take a pilot on hoard; lant If a vessel wish for one, she inay heave to abreast of tho hattery, when be will come to her, Vessels not intending to come into harbor bring up in the ronds, at from a quarter to half a mile from shore, fil about four fathoms, the town bearing south-southwest. In the harbor, within the boom, the water is from 17 to 18 fect deep. Vessels in barbor load anil miload alongside the quay. The anchorage in the roads is good and safe,
Money.-Accomats are kept in rix dollars of 6 mares, of 96 skillings ; the rix dollar being formerly worth nbout $4 s$. 1d. sterling. Ilut in 1813, a new monelary system was adoped, necording to whieh the new or mightome dollar is worth $2 s, 3$ fid, being half the value of the uld specio dollar, and of the old current dollar. Bat the money generally used in commercial tranaace tions is bank monoy, which is commonly at a henvy discount. The per of exchange, estimated by the Rlgras bank dollar, would le 8 dollars $7 \cdot 6$ skillings per pound sterling.
lieights and Measures --Tha commerelal welghts
are, 16 pounds $=1$ lispound; 20 lispound $=1$ shippound; 100 llss. $=1104$ lbs. a voirdupois $=134$ lbs. Troy $=101 \mathrm{llss}$. of Amsterdam=103 lhs. of Hamburg.

The liquid measures are, 4 ankers $=1 \mathrm{ahm}$ or ohm; $1 \frac{1}{4} \mathrm{ahm}=1$ hogshead; 2 hogsheads $=1$ pipe; 2 pipes $=1$ quarter. The anker $=10$ (very nearly) English wine gallons. A fuder of wine $=930$ pots; and 100 pots $=25 \frac{1}{2}$ wine gallons.

The dry measures are, 4 viertels $=1$ scheffel ; 8 scheffels $=1$ toende or ton; 12 tons $=1$ last $=47 \frac{1}{3}$ Winchester bushels. The last of oil, butter, harrings, and other oily substances should weigh 224 llos. net.

The measure of length is the Rhineland foot $=12 \frac{1}{2}$ inches very nearly. The Danish ell $=2$ feet; 100 ells $=68$ English yards.

Trade of Copenhagen.-The trade of Copenhagen has latterly increased considerably, particulanly the grain trade with England. At the commencement of 1852, 297 merchant vessels of about 35,000 tons burden belonged to the port. The harbor is large and commodious, capable of contalning 500 merchant vessels besides the navy; and by the aid of canals, large vessels can com almost to the centre of the town. The entrance is commanded by the powerful batteries of Trekroner and Sextus. The principal imports are timber, piteh, and tar, chicfly from Norway and Sweden; fiax, hemp, masts, saileloth, and cordage, from liussia; tobacco from America; wines and brandy from France; conl, earthenware, Iron, steel, and salt from England; and West Indin produce. The principal exports are corn, raje-seed, butter, cheese, beef, pork, horses, cattle, wool, hides, skins, bones, grain-spirits.
The manufactures of Copenhagen are not important, but are making considerable advances. There are extensive eloth and ealico factories, founderies, and ironworks; nlso breweries, distilleries, tanneries, sugar-refincries, etc. Piano-fortes, elneks, watches, surgieal and mathementical instruments, tobacco, chocolate, poreclain are among its other productions. The royal China fuctory is celebrated for its models of Thorwaldsen's works in biscult China. The population of Copenhagen was in $1769,92,571$; in 1801, 100,975; in 15:14, 119, 292; in $18.10,120,819$; in $1845,126,787$; and in $1855,143,591$; of which last about 67,000 were mnles, a :d over 76,000 females, including a Jewish propulation of 2500 . The climate is damp, ehangeable, and unhealthy; which, added to the almost total want of sanntory regulntions, reuders the mortality greater here, it is sald, than in any other town of Europe with the exception of Vienna.

The Port Charges at Copenhagen vary according as the vessel has come from this or the farther side of Cnpe Finisterre, or from the Indian seas; ns she is wholly, or only part loaded; and as she elears out with goods that have heen in transitu, and are for the most part frea of daty, or has on board a eargo of uative produce suliject to duty. On a shtp of 300 tons belonging to a privileged nation from this side Cape Finisterre, unloading and loading mixed eargoes in Copenhagen, the different publie charges, Including Sound dues, brokerage, \&e., would exceed $\mathbf{f} 60$; and from tha farther side of Cape lifutsterre, tho charges would be nearly fion. When a ship is not fully londed, lastage money and light dues are only eharged in proportion to the cargo on board. lastage money is not charged on ships ontwarll bou d, laden with transit goods, as tar, pitch, iron, de. Hut notwithstanding these deluctlons, it is obvious that port charges are very heavy, and there can be no dondi that they are a material obstacle to the extension of trade.

Citizenship,-To enable a fordguer to trade as a merelant in l)enmark, he must become a burgher, whleh costs about $\mathbf{f 1 0 0}$, and it will require aboat $\mathbf{f} 60$ more to free him from the ohligation of aerving in the milltin. The obstacles in the way of a forelguer establishlug himaelf in Denmaris is a mannfacturer are much greater, on account of the excluslve privileges
enjoyed by the guilda or corporations into which the principal crafts or trades are divided.

Credit.-Gooda imported into Copenhagen are commonly sold on credit; three moaths is the term generally allowed on moat sorts of goods, and in a few instances six months. The discount for ready money is 4 per cent. Bankruptey ia of rare occurrence.

Insurance.-Mariae insurance is effected, on liberal terms, by a company established in 1746. Many Copenhagen risks are, however, iusured at Amsterdam and Jlamburg. Copenliagen has good building yards, and is $\ln$ all respects an oligible plnce for tho repair of shlps, and for supplying then with provisions:

General Remarks.-On the whole, the commereo of Denmark used to be in a stationary atate; a consequence partly of the peculiar eircumstances uader which the country is placed, and partly of the policy of government. The latter loug exerted itself to bolater up a manufacturing interost, by laying oppressive duties on most species of inanufactured artieles. Even under the most favorable circumstances, such conduct, though it may benefit a few individnals, la sure to be productive of great nationsl loss. But in tho case of Denmark, the cireumatances were such as to render the restrietive syatem peculiarly injurions. AH, or nearly all, the branches of industry carried on in the kiugdom wero subject to the governinent of guilds or corporations; no person could engage in any line of business until he was authorized by its peculiar guild; and as the sanction of thle body was rarely obtained without a considerable sacrifice, the real effect of the system was to fetter competition and improvement, and to perpetuate monopoly and routine. Even the Danish writers acknowletge that such was the influence of the late regulations. "Vos oucriers," say they, "sont chers, traraillent lentement, et sourent mal 't sans gout; leur education est neyligie. On ne les forme point it penser, et l'apprentif suit machisalement ce qu'il roit fuire au mai-tre."- Cutienc, Tablenu des Fitats Danois, tome ii. p. 260. But within the last few years this systen! has been guite changed. Industry has heen emancipated from many troublesome regulations, and moderate duties have heen substituted for prohibitions. Ilnt, however favorably situated in other respects, it would be idla to expect that a country withont waterfalls, and withnit coal, shonid be able to manufacture cottons, woolens, etc., at so cheap a rato as they may be imported from others enjoying greater nutural facilities for their production. The staple business of Denmark, her agriuultural and rural cconomy, has been most materially improved of late years; and, as already seen, her exports of raw produce are now of great value and importar . The trade of the country suffiers from the too great aagnitude of the port dues and of the transit daties; and the Sound duties, being charged on native as well as forelern ahips, operate as an inland duty on trade. Conslderablo improvements have, however, been offected in the commercial legislntlon of the country during the last dozen years, by the opening of the trade to tho East and West Indies, and the abolition and reduction of other regulations and duties; and it may he fairly prestuned that the benefta resulting from these measures will pave the way for the lintrofuction of others of a similnr chnacter. - Sire llexm suk.

Copper (Germ. Krupfer; 1)n. K̈oper; 11a. Kobler; Sw. Kopper; Fr. Cuirve; It. Rame; Sp. Cubre; Port. Cobre; IRuss. Mjed, Krasnoi mjed; l'ol. Mirdin; l.nt. Cuprum; Arab. Sehass; Snus. Thmra), a well-known ractal, so called from its having leeen lirst discovered, or at least, wrought to any extent, in the islame of Cy prus. It is of $n$ tine red color, and has a great deal of brilliancy. Its tasto is styptic and nauseuus; aud the hands, when rubbed for some thme on it, acquire a peeculiar anil disagreeablo odor. It is harder than silver : Its specitic gravity varies according to its state, belug, when quite pure, near $9 \cdot 000$. Its mallenallity is great; It may be hammered out lito leaves so thin as to be
blown about by the slightest breeze. Its ductility is slso considerable. Its tonseity is so great, that a copper wire 0.078 of an inch ia diameter is capable of supporting 802.26 lbs . avoirdupols without breaking. Its liability to oxydation from exposure to air or damp is its greateat defect. The rust with which it is then covered is known by the namo of verdigris, and is one of the most actlve poisons.- 'Inosisox's Chemistry.

It is onc of the six primitive metals; its discovery is said to havo preceded that of iron. We read in the Scriptures of two vessols of fine copper, precious as gold. - Eizra viii. 27. The great divisibility of this metal almost exceeds belief; a grain of lt dissolved in alkali, as pearl ashes, soda, etc., will give a sensible color to more than 500,000 times its weight in water; and when copper ia in a state of fusion, if the least drop of water touch the melted ore, it will fly about like shot from a gun.-Boyle. The mine of Fahlun, in Sweden, is the most surprising artificial excavation in the world. In England, copper mines were discovered in 1561 , and copper now forms an immenso branch ias the British trade.-llayin.

If we except gold and silver, copper seems to have been more carly known than any other metal. In the first ages of the world, before the method of working iron was diseovered, copper was the principal ingredient in all domestic utensils and instruments of war. Even now it is applied to so many purposes, as to rank next, in point of utility, to iron.

Alliys of Copper are numerous and of great value. Those of tin nre of most importance. Tin addel to copper makes it more fusible, less liable to rust, or to be corroded by the air and other common substances, harder, tenscr, and more sonorous. In these respects the alloy has a real advantage over ummixel copper; but this is in many cases more than comnterbatanced by the great brittleness which even a moderate portion of tin imparts; and which is a singular circumstance, considering that both metals are sejparately very matleable.

In a pure state, copjer is a very brilhiant metal, and susceptible of a high polish. It is of a tine red color, differing in this respect from every other metal exerpt titanium. Its sjeecific gravity varies, accoriling to its density, from 8.581 to 8.9 .

Copper alloyed with from 1 to 5 per cent. of tin is rendered harder than before; its color is yellow, with n cast of red, and its fracture granular ; it has considerable malleahility. This uppears to havo been the usaal composition of many of the nneient edged tools and weapons, beforo the meihod of working tron was lirought to perfection. The $\lambda$ a $\lambda$ nog of the tirecks, and perhaps the as of the lomnns, was nothing de. Even their copper coins contain a mixture of tin. The ancients did not, fin fact, possess (as las heen often contemsed) any peeniar process for hardening copper, escept by adding $n$ small quantity of tin. An alloy in which the tin is from $0 \cdot 1$ to one-cighth of tho whole is hard, brittle, but still a little mallealle, close grainet, and yellowith white. When the tin is as mach as onv-sixth of the mass, it is entirely brittle; and continues so in every higher proportion. The ydlowness of thenlloy is not entirely lost till the tin amounts to 0.3 of the whale.
Copjer (or sometimes copper whth a little rine), alloged with as moch tin as will make from ahuat $0 \cdot 1$ to nie-sixth of the $w$ bole, forms an alloy whith is principally empluyal for bells, bruss cannon, hrouze statues, and vurious other parposes. Ience It is eallal hom:e or bell metal; and is excellently fited for the uses to which it is applied, by its harduess, density, sonoronsness and fusibillty. For cannon, a lower proportion of tin is commonly used. According to I)r. Watsm, the metal employed at Woolw leh consists of 100 parts of copper and from 8 to 12 of tin; heme it retains some little malleabillty, and, therefore, is tougher tham It would he with a larger portion of tin. This nlloy belng more sonorous than iron, brasa guns give a loud-
er report th metal is 80 add to these small propo ness of tho

When in amounts so leatutiful and suseept ed for the $r$ is therefore ingredients, silver. Th above to the uity, being merly the th siam, of tin list. Nat. 1 Rres' Cyelo iv., ete.

British $C$ copper min particularly the Cornisl spirit till 18 daced at an per. Dari producal a wo exceedt 11,000 to $\mathfrak{E 1}, 100,000$ mines in th sea, were by them precedent; of tho min exhansted. other parts Thuse of I) fity produc inconsider Those of bech almor of the copt estimated consequen that were formerly; of her sup ously to 1 ply of othe demand fo ships and cretse ant ductivene ouly to to up for the 0wing to sadted being fon the contr the 'rinte Mritisheo portect fr 3603 wel

## Grark.

| 1600 |
| :--- |
| $t s i n$ |


1810
1815
1845
1845
$18: 5$
14.51
$18: 01$
$14 \times 1$
$1 \leqslant 62$
er repert than iron guns. A common alloy for bell metal is 80 parts of copper and 20 of tin ; some artists add to these ingredients zinc, antimony, and silver, in small proportlons; all of which add to the sonorousness ot the cempeund.-See Bel.Lemetal.

When in an alloy of copper and tin the latter inetal amounts co about one-thlird of the mass, the result is a l.eautiful compound, very hard, of the celor of steel, and susceptible of a very fine polish. It is well adapted for the reflection of light for optical purpeses; and is thereforo called speculum metal. Besides the above ingredlents, it usually contains a little arsenic, zinc, or gilver. The application of an alloy similar to the bibove to the construction of mirrors is of great antlquity, being mentioned by Pliny ; who says, that formerly the best mirrors were reckonel those of Brunduslum, of tin and copper mixed (atanno et are mistia). list. Nat, lib. xxxlii. \& 9 . See Tıonson's Chemistry; Ress' Cyclopedia; Dr. Watsos's Chemical Essays, vel. iv., ete.

British Cupper Trade.-Great Britain has various ropper mines in Cornwall, Devonshire, Wales, cte., but particularly in the first. Theugh knewn long before, the Cormish copper mlnes were not wrought with much spirit till last century. From 1726 to 1735 , they preduced at an averago abont 700 tons a year of pure copper. lluring the ten years from 1766 to 1765 , they producal at an averaga 2650 tens. In 1798, the produce exceeded 5000 tens; and it now anounts to from 11,000 to 12,500 tons, werth, at $£ 100$ a ton, from $\in 1,100,000$ to $£ 1,250,000$ sterling. In 1769 , the famous mines in the Parys Meuntains, near Amlwels, in Anglesea, were diseovered. Tho supplies of ore furnished by them were for a long time abundant leyond all precedent; but for many years past the productiveness of the mine has been declining, and it is new almost exhausted. At present the mines of Anglesea, and other parts of Wales, do not furnish 200 tons of copper. Theso of Ievonshire yieh nearly 2000 tons ; tho quantity produced in the other parts of England leing quite incousiderable. The Irishmines produce about 960 tons. Thuse of Seotland never were producthe, nod havo been almost entirely abandoned. Tho entiro prodnce of the copper mines of tho empire may, therefore, be estimated at present at from 15,000 to 10,000 tons. In coaseruence of the greatly lacreased supplies of copper that were thus ohtained, England, instead of being, as formerly, dependent on foreigners for the greater part of her supplies of this valuable metal, beeame, previously to 1793, one of the principal markets for the supply of others; and notwithstandling the vastly increased demand for copper daring the war for the sheathing of ships and other purposes, the exports continued to increase and the imperta to diminish; the greater productiveness of the Cornlsh mines laving suflived not only to balance the inereased demand, lint also to make up fir the falling off in the supplies from Anglesea. Owing to the want of coal In Cormwall, the ores are not suelted on the spot, but are all sunt to Swansea; it being found cheaprer to carry tho ores to the ceal than the contrary. 'The Fast Indies and China, France, the inited States, and Italy, aro the great markets for British copper. Thus, in IXbl, of the total puantity exported from (ireat Iritain, anomonting $1017,55.5$ tous, 3603 went to the East Iuties aud Chinn, $\$ 183$ to

France; 3085 to the United States; 1396 to Italy; and 2113 to the Hanse towns and Helland.-Parl. Paper, No. 462 ; Session, 1852.
Foreign Copper.-Copper ores are abundant in Sweden, Russia, Japan, Australia, Cuba, Chili, Columbia, etc. Near Fahlun, In the province of Dalecaria, in Sweden, is the celebrated copper mine of the same name, suppesed to have been wreught nearly one thousand years. For a leng tine It was extremely productive, yielding, teward tho beginning ef the seventeenth century, an annual produce of about $8,000,000$ peunds of pure metal; but it has since greatly deelined; and it is mest probable that at no distant peried it will be wholly abandened.-Tnomson's Travels in Sweden, p. 221. There are copper mines in other paris of Sweden; but the entlre produce of copper in that country does not at present exceed from 750 to 800 tons, of a quality inferior to that of England. The praduce of the copper mines of Russia has 1 een estimated at 200,000 poeds or 4G61 tons (English) a year.-Tegononski, Forces Productices de la Russie, J. 300. The copper mines of Japan are said to he among the richest in the warld. The Dutch and Chinese expert considerable quantities of their produce, which is spreed all over the East, and is regularly quoted in the prices eurrent of Canton, Calcutta, and Singapore. It is uniformly met with in the shaje of bars or ingots; and when tho copper of South America is worth in the Canton market frem $\$ 15$ to $\$ 16$ per picul, that of Japan is worth from $\$ 18$ to $\$ 20$ per pienl. Copser, the produce of the Persian mines, is imported inte Bombay and Calcutta from Bushiro and Jussorah. But, in a commercial point of view, the copper mines of the lnited States, Cuba, Chili, and Australia are, after those of England, by far the most important. The working of the mines of Cuba, which had been abandoned for a lengthened period, was resumed a few years ago, principally by an English company, which has been eminently successful. Jarge quantities of Cuba ore are taken to Swansen to be smelted; and large quantlites of Chill ore are also taken there for the same purpose. Of the total imports of copper ore in 1851 , amounting (including regulus) to 42,131 tons, Cuba furnished 20,875 tons; Chill, 8051 tons; and Australla, 7219 tous; the rest being supplied by Spain, Pur, cte. 'there was a very extraordinary increase in the suplies of copper from Australia during the four or live years preceding the discovery of tho gold flelds. The produce of the Burra Burra Mine, for esample, which in 18.16 was $6: 49 \frac{1}{2}$ tons of ore, had svielled in $18: 0$ to 18,692 tons. But since then some of the mlnes have beey aliandoned, and the progress of the ethers chedked. Foreign copiper imported into Great Britain, and the cepper obtained from the smelthig of foreign ore, were, previous1. to 1812 , wholly, or almost wholly, re-exportst ; the duty in Great Mritaln on the copler ore when it was taken or smelted for homs use being so very heavy as to mako ic le altogetier exported in un unwrught state. Ifut in 1812 that duty on copper ores and unwrought cepper was very materially rednced; and it was repealed in the course of the year 1853. The presumption, therrfore, is, that the imperts into Gircat Iritain of ore for smelting will Increase, and that censiderablo duantities of copper derived from foreign ores will he brought lato use.

Exporis of bitibit Cobela in the undementhened yeatis.

| Yeark. | Tnwrought. | Coln. | Sheetr, Nails, etc. | Wite. | Wrought Copper of other Sorin, | Total of Mritinh Copper cizportsd. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1500 | C'wl. $4 t, 165$ | $\begin{gathered} 10 \mathrm{c}, \\ 10 \end{gathered}$ | Cot. 121 | C'nt. | $\begin{aligned} & 6 n t \text {. } \\ & 22,6683 \end{aligned}$ | $121.068$ |
| 1525 | \%10 | 2184 | 61,437 | 40 | 20,002 | T8,624 |
| 18.30 | 56,724 | 640 | 66, 351 | 16 | 10, 4 4, | 151, 154 |
| 183\% | 30,401) | , ... | 100,807 | 40 | 20,210 | 161, 624 |
| 1819 | 20, 35\% | 891 | 119,906 | 89 | 10,427 | 150,478 |
| 18.5 | 10n, 727 | 618 | 164,800 | 13 | 9,443 | 860,78t |
| 18:0 | 164, 617 A | 148 | 248,067 | 857 | 7,368 | 420,613 |
| 1401 | 1 19,245 | 1510 | 29t.013 | 715 | 15,428 | W5t,11t |
| 143: | 118,266 | 057 | 20t, 587 | 2424 | 15,187 | 338,321 |

Copper ia in extensive demand all over Indla, being largely used in the deck-yarda, in the manuffactare of cooking utensils, in alloying spelter and tin, etc. The funeral of every IIlndoo bringa an accesston to the demand, according to his atation; the relatives of the deceased giving a brass cup to every Brahmin present at the ceremeny : oo that five, ten, fifty, one hundred, one tbonsand, and sometimea mero than ten times thia last number, are dispensed upon such occasions.Bell's Commerce of Bengal.
A medern, and now a very extensiva usa of sheetcopper, is for the sheathing of ships. That part of tha hull of $n$ ship that is in the water is covered whth sheetcopper. Thls cevering preserves the wood from the attacks of the teredo, and thereby gives the ship the advantage of passing more rapilly through the water, as the copper bottom remains alwaya smooth; for seaweed and ohells will not take root nud attach themselves to copper, as they do to bare planks, owing to the galvanic effeet prodiced by the action of sea-water. Aa this action, hov avar, proluces ? rupld deray of copper, it was propesert :. Jir Iluaphry Davy to neutralize it by applyiner, wetallic protecters-an object which
romplished; but as thls also deprived the cepper
the effect it was intended to produce, nud allowed
a mollascous tribeg to attach themselves, the protectIn; recess was abandoned.
$r$ bo.'s are used for fastening the planks and tim .. $=5: \cdots$ This $n^{\text {a }}$ n grent improvement in ship. buit ins. A copper-fastened shits or bont is preterable to one with iron fastenings, because the copper bolts re. aln unaitered by rust, and endure longer than the wood which they hold together, particularly when used in the state of alloy, which preserveg it from waste by newtratazing the galvanic action. For the frames of dets ate dipping needles and magnetic compasses, cop. per is employed, as it has been found that the brass generally used in phllosophical instruments somethes centains iron, which of course might affect the mag netic needle. Copper is alrawn tnto wire, used for communication with the belts in houses, and for cther phopeses. Small pipes for conveying conl-gas from the level of the atreet to the aperture by whilitho gas issurs were formerly made of copper or of brass, till superseded hy tin. These pipes were fitted on an non cylindrical mandril, and a cylindrical riag dras.in ever the outside. By this means copper and bras tubes are drawn ont. The brass tubeg for telescopes are drawn out in the same manner.

Copper may be platet; that ls, its surface may be covered with a layer of silver, by rubbing the surfuce with a mixture of nitrate of filver, muriate of sodn, and arldulous tartrate of potass (cream of tartar). Ilut the metherl practiced at limingham is tho moat permanent and effectual. A plate of coplict, with a plato of sllver apalied to it, and horas placed in the interstice, is hasted to a pintlenar degree, which it requires the skill of a worknan to know-a degree of heat, in shors, nesr that at wheh copler and silver melt. The two thetals thus heated, and in contset, are then taken ont of the furmace and passed throngh rollers. There is a fision and combination of the adjament surfiees; and their allocsion ts perfectel be the pressure of the rollers. Cosper thus plated is manufactured at Mismlogham into candlesticks, teapots, butons, buckles, and n variety of other artictes.

Standaril sliver colns contain a snall propertion of copper, for the purpose of giving them harduess. Ihas proportion is regulated by government in the geseriat countrles of Europe, and varies in different states. The comblnathon of rold amd copper in various jropertions is used fer inakhig rings and other trinkets, Zopuer is gitded by applylug on its surfare an amalgan of gold with mercury. Itronze ernaments are gilde:I fin the amme way. Copper unitell with zine forms brass; when alloyed with tin it furms bronze. 'This romblnation is hard and britte if the proportlon of tin In
great; but when the propotion of tin is amall, the bronza ls soft, and possesses tenaclty so as not to be easily broken. The ancienta employed hard bronze, contalning much tin, in making aword blades, spear heads, hatchcts, and cutting instruments. Bronze cramps are found in anclent buildiugs in Egypt. Statucs and bas-reliefs, culinary vessels, and a variety of other articles of soft brenze, ard to be seen in different collections of antiquities. In modern times soft bronze is used for casting cannon and statues.

Copper melted with a large proportion of tin constitutea bell-ntetal, whtch ia hard and brittle. The metal of which the Chinese gongs are mado is compesed of the same ingredients ; and it has the property of belng In some ulcgree malleable at a certain atage of its cooling, for their gonga are covered with marks of the hnmmer. The most common ore of copper, from whtch the chief supplies of that metal are derived, is the yellow copper ore, or copper pyrites, essentially a combjnation of copper with sulphur and iron. There are, however, numerons other ores of copper in whleh the metal is in combination with oxygen, rarbonic acid, varleis other metals, etc. Soppet In ins varied artificial combinations, as in that of verdegris (acetate if cotper). blue vit"iol (sulphate of copper), Scheele's green (ar senite r fcepper), verditer (carbonate of copper), ete., is fargely used in tho arts of dyelng, painting, enamelites, glass and porcelain coloring, cte. The salts of copper aro poisonous; and from the facility with which copper mensils become oxydated, their unes sheuld be as restricted as pessible. One or two of the salts of copper are occasionally used in niedicine: and the sall. phate of copper has been found to be on of the must efficacious emeties in creup, checking the diseran ant preventing the effusivn of the fibrinotas matter into the trachea. This salt la also used as a lotion in the treatment of ulcers, etc.

American Copper.-Although the copper-mining interest in this countrv is, as yet, in its lufancy, it has already produced results that give promisa of lis some standing among the formost of our mineral products, and of adding greatly to the nlreaty diversified resources of wealth ant power of our people. l'revious to 1810 we were, in conimen with the rest of the world, entirely dependent upon England for our supply of this usefu! material.

We are this year, 1850 , produchig about 5000 tens of it, equal to one-seventecnth of the whole amount requited to meet the demand of the world. The cepper mines ot Curnwall, lingland, havo been worked for eenturies, whild ihoso of our Iake Superior segton have only been opened $n$ few years, and not successfilly and systmatically worked until withln the last five years. The opening of the Sinlt St. Marle camal, ly comecting the navigution of Lake Superlor with that of the chain of lower lakes, has given an impetus to tho business that will soon make it the freat soure of supply of copper to our own and foreign countries on arcount of its great purity anl tho hacxhaustihlo beds of its orc. Sightecn new stamplng milla have been a rected the past year, and at least fiby more will !n: phe into operation this year. The total shipure its of the lathe superiser ecpper mince are thins stated:

Ontunagon 1Hstrtct...

## 210:

Porthae lable thatrict.
Kenceriay I'thet Itstrlet
rotal.
The value of the copper on the wharves on lake


 will be 1504 tons over 1 Nin. 'fl' gevermatent of 1 . AH o has had Mous. Rivot, of the fich of of Mines in Itanee, "xambing tho lane Suprior copiner, in consequene of the supyly from linssia ixing cut ofl'; and the An arlan coppor bas been testeil and found equal, if not ou*
perior to the Russian, and far superior to the English. The superior tenaclty of the American copper is a strong recommondation.
Copper Dusts and Statues.--These consist wholly of enpper, in a thlu sheet; and the whole of the metal has leen reduced or precipitated from a liquld solution. We believe that the first example of thls atriking production was a bust of the late Dr. Dalton, made by Mr، Choverton about ton years ago; and the practicability being thus demonstrated, the art may be now followed to any extent. Tho processes are carlous, The bust is tirst modeled In some kind of clay, which may afterward easily be broken away piecemeal; and on this a thick copper film is deposited by the electro process. The clay coro or model belng broken away, the copper remains as a hollow shell, tho inside of which has ta' en the exact impress (though reversed) of the outside of the bust. This copper shell, on belng properly prepared on tho inner surface, is mado the groundwork on which a second deposition takes place; it is used, in fact, as a mould, from which ono or more busts may be procured.

Architects and seulptors are gradually availing themselyes of this art in the furtherance of their profussional labors. The lato Bavarian seulptor, Etighmayer, who was employed by King Ladwig on so many important works at Munich, devis ed a mote of coating collossal plaster statues with copper, by the electro process, in a remarkably expeditious way. But onc of the most important applications of the art is that which is exhibited in tho new and splendid cathedral of St. Isaacs, at St. Petersburg, on wheh the emperor has expended largo sums. Certain parts have becn ornamented in a remarkablo way. The cathedral has scven very largo door3, or rather door-ways, three of which are it feet wide by 30 high; they are forned of himize, lut all the adornments are produced by the electro process. These adornments are of a most elaborate naturo; they comprise no less than 51 bus-reliefs, 63 statues, and $8: 4$ alto-rellevo busts. It is not simply ав а matter of econe:ny that the electro process has beea adopted, for the czar is not a man to entertain scruples on such 4 point ; but there are certain advantsges of an art'stic claracter. By the electro process the eculpter is sure to have his model faithfully copied and the lyghencss of the material enaliles him to mp arart bolder relief to his designs than if they wero cast in bronze; while this lighturss of weight also justifes him in anspending pendants or bosses from vaulting, of a larger size than would bo safe if nade otherwise.
Copperas, a term employed liy the ohler ehemists, and popularly as synonymeus with vitriol. Thero are three sorts of copperas: tho green, or sulphato of iron: the blue, or sulphate of copper ; and tho white, or sulphate of vine. Of these, the tirst is the mest impertant. Sulphate of iron is distimpuished in common by a vasiety of names, as Martial vitriol, Englirh vitriol, etc. Whan pure it $i$ considerahly transperent, of a tine |right, thesesth h..t very heep, grass green colur; ar: of a muysi su, astringcinc laste, accomprniod with a kind of sweetness. lis specific gravity is $1 \cdot 8 \mathrm{~d}$. It unifornuly reddena the regetable hlows. This sult was wilkuew to the nuclentr. and is mentloned by l'ling (Hist, Nat. lib, xaxiv. § 12) under the names of misy, sory, and coll huntum. It is not mado in the direct way, becanse it enn bo oltained at less charge from the dee comp sition of pyrite., on a harge seale tha the neighorheod oe rollierics. It esists ifi two tates, one containing oxyd of fron, with 0.22 of oxygen, with is of a pale groen, not altered by gallec achd, nud giving a white preclpitate wilh pruseiate of potass. The other, in which tho fron la comblued with 0 : 30 of oxygen, is rel, not erystallizaline, and gives a black preclpitate with gallic atid, and a blaw rith prussiate of potass. In the comunars sulphate, these two are oftom mixel in various propertions.

Sulphate of tron is of great importanco iat the arls.

It is a principal Ingredient in dyeing; In the manufacture of ink, and of prussian blue; it ls also used in tanning, painthg, medleine, etc. Sulphurlc acid, or oil of vitriol, was formerly manufactured from sulphate of iron.-SSec Acins.

Sulpbate of copper, b. blue vitriol, cemmonly called Roman or Cyprian vitrint, is of an elegant sapphire blue color, hard, compac: and serni-truusparent; when perfeetly crystallized, of a flattish, rhomboidal, deeabedral figure; its tate is extremely nauseous, styptic, and acrid; its speelfic gravity is $2 \cdot 1943$. It is used for various purposes in the arts, and also in medicine.
Sulphate of zinc, or white vitrlol, is found native in the mines of Goslar and other places. Sometimes it is met with in transparent pieces, but more commonly in white eftlorescences. These are dissolved in water, and crystallized into large irregular masses, somewhat resembling fine sugar, having a sweetish, nuuseous, styptic taste. Its specific gravity, when cryatallized, is 1.912 ; when in the state in which It commonly occurs in commerce, it is $1 \cdot 3275$. Sulphate of zinc is prepared in the large way from some varieties of the native sulphuret. The ore is rousted, wetted with water, and exposed to tho air. The sulphus attracts oxygen, and is converted into sulphuric ach: and the metal, being at tho same time oxydized, comblnes with tho aeid. After some time the sulphate is extracted by solution in water, and the solution being evaporated to dryness, the mass is run into moulis. Thus, tho white vitriol of the shops generally contains a small portion of iron, aud often of copper and leal.-Lewis's Mat. Medica; Une's Dictionary; Rees' Cyelopedia.
Copper Money. The liomans, prior to the reign of Servius Tullius, used rudo pieces of copper for money. In England, copper money is of extensive coinage. That proposed by Sir Robert Cotton was brought hato use in 1609 . Copper was extensively coined in 1665. It was again coined ly tho crown, 23 Car. II. 1672. Irivato traders had mado then jreviously to this act. In Ireland, copper was coincel as early as 1339; in Scotland in 1406; in France in 1580 . Wood's coinage in Ireland commenced in 1723. Penny and two-perny pieces were extenslvely issued in 1797. The half-farthing was coined in 1843.-See Cent.

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Coracle, a small kind of boat, constructed of wicker, and covered with leather, or with cloth mado waterproof with oil or tar. From its extreme lightness it may be transported on tho shoulders from place to place. Coracles aro common in Wales. A similar klad of boat has been used in the East from remote antipuity.
Coral (Germ. Korallen; Du. Koraden; Fr. Corail; It. Corale; Sp . and 1'ort. Coral; Kuss. Koralli"; Lat. Corcllium; Arat. Besel; Jers. Altrjon; 11 ind. Moon$y a)$, a marino production, of which there aro several varieties. It was well known to the ancients, but it was reserved for the moderns to disoover its real nature. It is, in fact, the nidus or nest of a certain sperics of yermes, which hus the same relation to coral that a suail has to its shell. As an oriamen, bluck coral is most esteemed; lut the ret is atso very highly prized. Coral is fuend in very great abundance in the Red sea, the l'ersian Gulf, in various places in the Nediterranean, on the coast of Sumatra, ete. It grows on rucks, mal on any solnd snlmarine body ; mal it is necessary to its production that it sheuld remain dixed to its place. It has gencrull: a shrul--like appearmuce. In tho Straits of Messina, whero a great deal is Hshed un, it uanally grows to nearly a foot in length, and its thickuess is about that of the little finger. It requires eight or ten years to rive at its greatest size. The depth at which it is ottained is vasious-from 10 to 100 tathoms or moro; but it scems to bo necessary to its pielaction that the rays of the sun should reatily penetrute to the place of its habitation. Its valeo depends upon Its size, solidity, and the depth and bril-
liancy of its color，and is so very various，that while some of the Sicilian coral sella for eight or ten guineas an ounce，other descriptions of It will not feteh 1s，a pound．It is highly prized by opulent natives in In－ dia，as well as by the fair sex throughout Eurupe．The inferior or worm－eaten coral is used ln some parts of the Madraa coast，in the celebration of funcral rites． It is also used medicinally．Besidea the fishery in the Straits of Messins already alluded to，there are valu－ able fisherles on the shores of Majorea and Minorea， and on the coast of Provence．A good deal of Medl－ terranean coral is exported to India，which，however draws the larrest portion of its aupplies from the Per－ sian Gulf．＇the prodnce of the fishery at Messina is stated hy Spallanzani（Travels in the Two Sicilies，vol． iv．）to amount to 12 quintals of 250 lbs．each．

The manner of fishing coral ls nearly the same every－ where．That which is most commonly practiced in the Mediterranean is as foliows：seven or eight men go in a boat，commanded by the proprictor；the caster throws his net，if wo may so eall the machine which he uses to tear up the coral from the bottom of the sea；and the rest work the boat，and help to draw in tho net． This is composed of two beams of wood tied crosswise， with leads fixed to them to sink them；to theso beams is fastened a quantly of hemp，twisted loosely round， and intermiogled witi some loose netting．In this condlion the machine is iet down into the sea；and when the coral is pretty atrongly entwined in the hemp and nets，they draw it up with a rope，whieh they un－ whad according to the depth，and which it somethes requires half a dozen boats to draw．If this rope hap－ pens to break，the fishermen run the hazard of being lost．Before the fishers go to sen，they agree for the price of the coral：and the produce of the fishery is divided，at the end of tho season，into thirteen parts ； of which the proprictor has four，the caster two，and the other six men one each；the thirteenth belongs to the company for payment of boat－hire，etc．See Aiss－ lie＇s Materia Indica；Rees＇Cyctopedix；Encychpedia Metropolitana；Brla＇s Commerce of Beagal，etc．

Cordage（Germ．Tauterk；Du．Tourwerk；Fr． Mancurres，Cordage；1t．Caolame ；Sp．Jarcia，Cordaje）， a term used in geucral for all sorts of cord，whether small，middiing，or great，made use of in the rigging of ships．The following tablo shows how many fathoms， feet，and Inches，of a rope of any size，not exceeding 11 inches，make 1 cwt ．At the top of the table，mark－ ed inches，futhoms，fect，inches，the first column is the circumference of a ropo in inches and quarters；the sec－ ond，the fathoms，feet，and iuches that make up 1 cwt． of such a rope．One example will make it plain．

Suppose it is required how much of a 7 －inch rope will make 1 cwt ；find 7 in the third column，under inches，or circumference of the rope，and immediately opposito to it yon will find $9,5,6$ ；which shows that in a rope of 7 inches there will be 9 fathoms 5 feet 6 inches required to make 1 cwt ．

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| 2 | 124 | 30 | 61 | 11 | 3 | 0 | 11 | 4 | 0 | 3 |
| 2t | 10 | 20 | 61 | 10 | 4 | 4 | 111 | 3 | b | 7 |
| 2t | 77 | 30 | 7 | 9 | 0 | 6 | 111 | 3 | 4 | 1 |
| 28 | 65 | 40 | 71 | 9 | 1 | 6 | 111 | 3 | 3 | 3 |
| 3 | 54 | 00 | 71 | 8 | 4 | 0 | 12 | 3 | 2 | 3 |
| 8t | 45 | $5 \quad 2$ | if | 8 | 3 | 0 | 121 | $B$ | 2 | 1 |
| $3)$ | 39 | 80 | 8 | 7 | 3 | 4 | 124 | 3 | 2 | 0 |
| 34 | 34 | 39 | 81 | 7 | 0 | 8 | $12 \%$ | 2 | 7 | 8 |
| 4 | 80 | 10 | 81 | 6 | 4 | 3 | 18 | 2 | 5 | 3 |
| 4 | 96 | 58 | 81 | 6 | 2 | 1 | 184 | 2 | 4 | 9 |
| 41 | 24 | 00 | 9 | 6 | 0 | 0 | 134 | 2 | 4 | 0 |
| 41 | 21 | 30 | $9 t$ | 5 | $\pm$ | 0 | 131 | 2 | 3 | 6 |
| 5 | 19 | 30 | 91 | 5 | 2 | 0 | 14 | 2 | 2 | 1 |
| 51 | 17 | 40 | ¢） | 5 | 0 | 0 |  |  |  |  |

Cordwainers or Cordinern，the term by which shoemakers are designated in the statutes．Tho word is formed from the French cordonnier，which Ménago derives from cordouan，a kind of leather brought from Cordova，and used for tho upper leather of shoes．Oth－ ers derlve it from corde，rope，because shoes were an－ ciently made of cords；as，indeed，they still are in some parts of Spain，under the name of alpargates．But the former etymology ls evidently more proper．

Corea，a large jenibsula of Asia，formed on one side ly the Yellow Sea，and on the other by the Sea of Japan．It is aituated immediately to the east of Chi－ na；and its length may be estimated at 400 miles， by 150 in averago breadth．A great part of what was formerly supposed to bo its western coast was found by Captains Ilall and Maxweli to consist of an immense archipelago of amall islands，whlch have since been subdlvided into several groups，and are known as Amherst＇s Islands，tho Coreau，and Hall＇s Arehipelago．Tho largest of these is the island of Quelpmert，called by the natives Musa，in tho centro of which there is a mountain peak about 6000 feet above the Jevel of the sea．Though rocky and Lare，theso groups are for the most part inhabited．The peniusula itself is divided from the Japanese Island of Kiositu by the Straits of Corea，and by a hibh mountain range called the Shanalin or Chamjeshan，from the country of the Mantchoos．It embraces an area of about $95,000 \mathrm{milles}$ with a jopulation of ahout eight millions． The interior of the celmitry is rugged and mountainous， being intersected by a icfty branch of the northern range，which in turn sends of numerous othhouts to the sea．The principal valleys lic toward the western and southern coasts，and these districts alone enjoy a temperato climate．Tho eastern coast is bienk and precipitous，while the northern frontier is coll and dege olate，and thens subserves the purposes of despotism by cutting off all friendly communication with the main land．The principal jroducts of the country comprise wheat，millet，rice，ginseng，tobacco，silk，cutton，and hemp．The thre last are exported both in the raw and manufactured state．Timber and cattle are plenti－ fully supplied from the forests and pasture－grounds， as well as furs from the northern jungies．Its mineral wealth is said to include gold，silver，iron，rock－salt， and coal ；and from the tribute sent to the Emperur of Chima－consisting both of bullion and manufactured articles－the precious metals seem to be wrought to a considerable extent．The Corcans resembie the Jap－ anese and Chinese in dress，halits，and religion，but are said to be as inferior to cither of these in mental vigor as they are superior in strength and stature． Their mode of writing is ulphabetic，and they are said to possess an extensive literature；but as all ingress into the country is denied to Europenns，and all ervess to natives，little is known of these particulars．They keep up considerable e masercial intercourse with Chi－ na and Japm，whence they import pepper，aromstic woods，alum，and goods of Dutch manifucture；but most of the trude is managed by a circuitous overland route，and，being discouraged by the government，is carried on with secrecy and at considerable risk．The kinglom of Corea，although tributary to China，is gov－ erned at will hy its own king－the Chinese emperor doing littie more than formally ratifying his decrees． It is divided into eight provinces，and contains，ac－ cording to Chineso accounts， 161 towns．The capital， King－ti－tao，atunds on the river Kiang，a smail stream which thows fito the lellow Sea．It is the residence of the king，and contalns，among other things，an ex－ tenslve library．In modern timea a fow French mis－ sionaries liave pusetruted into the country，but with little suecess．

Cork（Germ．Kork；Du．Kork，Kurk，Ihothout ；Jir． Livye；It．Sughero，Surero；Sp．Corcho；l＇ort．Curtica （ile Sorrcire）；Mass．Korkoroe derewo；Lat．Suber），the I thick and spomy bark of a species of oak（Cuercus S＇u－
ber， 1. in the and 1 feet or tlex，o er arr Iy she be of 4 moved any ins the ag barked peated cork il The la that ar dred a phique readily be cut porosit， These for stop is prini huoys making ways． cork is lessens for cutt air and of calcil the bar and lio ployed for this tili glas ing tol Other x ployed lutea，a ly in mo mombin me us in Sclav grows in a substit
Consi icsil sens in the $\mathbf{U}$ for the creasing rise fro ment in ： of rurai cork wh is ralued Cork in swim between as to be row aim waterpre ery oll lus，ment to his f made use ber，the Cork of lrelan uf itself， of Curk Area of acres． le $6,0.0 .5$ ； city prop l＇rincipai
ber, Linnaus) abundant in dry mountalnous districts
in the south of France, and in Spalu, Fortugal, Italy, and Barbary. The tree grows to the helght of thirty feet or more, has a striking resemblance to the Quercus \#ex, or evergreen oak, and attains to n great age. After arriving at a certain state of maturity, it periodically sheds its bark; but this valuable product is found to lio of a much better quallty when it is artificially removel from the tree, which may be effected without any injury to tho latter. After a tree has attained to the ago of from twenty-slx to thirty years, it may be barked; and the operation may be subsequently repeated once every elght or ten years, the quality of the cork improving with the increasing ago of the tree. The bark is taken off In July and August; and trees that are regularly stripped are sald to live for one hundred and fifty years or more.-Ponnet, llist, Philosophique des Plantes, tonse vii. 419. Cork is Ilght, porous, readily compressible, and wonderfully elastic. It may be cut into any sort of figure, and notwithstanding its parosity, is nearly impervious to any common liquor. These qusllties make it superior to all other substances for stoppers for bottles, in the manufucture of which it is prinejpally made use of. It is also employed as buoys to flont nets, in the construction of life-boats, the makiog of water-proof shoes, and in varlous other wsys. licfore being manufactured into stoppers, the cork is charred on each side; this makes it contract, lessens its porosity, and consequently fits it tho better for cutting off all communication between the external sir sand the iiquidi in the bottle. Spanish black is made of catcined cork. The cork tree, and the uses to which the bark may bo applied, were known to the Greeks and Rornans. Pliny mentions that the Romans employed it to stop all kinds of vessels; but the use of it for this purpose does not appear to have been common till giass bottles came into general use, which, according to leekmann, was not till the fifteenth century. Other vegetalile productions have been sometimes emplayed instead of cork; as, for instanec, tho spondins lutea, a tree which grows in South America, prrticuiarIf in moist places, and which is there called monbin or munhin. The roots of liguorice are applied to the fome use, and on thls account the plant is caltivated in Sclavonia, and exported. A tree called nyssa, which grows in North America, has been found also to aftord a substitute for cork.
Considering it in a politic ns well as in an cconomjesl sebse, seasonable measures shouid be taken to form in the United States plantations of this tree, suflicient for the future supply of cork, particularly for the increasing demands for that $m$ - terial which are likely to arise from the culture of the vine. As a further argument in showing the importance of fostering this branch of rural ceonomy, it may be ritated, that the amome of cork which is yearly iniported into the United States, is ralued at more than $\$ 281,000$.

Cork Jacket, nu njp:aratus to buoy up the body in swinming. It censists of pieces of cork inelosed between two pieces of strong canvas, and is shaped so as to be worn like a jacket, but withont arms. It is row shost quite superseded by the air lielt made of waterproof clott. The cork jacket nppears to be a very old invention; for Plutnret, in hls life of Cmmiilus, mentions that the messenger sont by that general to his fellow-citizens when hesicged in the capitol, made use of a corh jacket in swimming neross the Tiber, the finuls being in possession of the bridge.
Cork, a city, partiamentary horough, and river port of Irefand, cenpital of the connty of Cork, and a comity of itself, on the lee, eleven miles nhove the entrance of Cork liarbor, nad 137 miles southwest of Dublin. Area of city, 18,006 acres ; cf the municipality, 2683 acres. Popuiation of county and city, or barony, 104, 153 ; of munlelpal borough (1851), 84,114. The city proper is huitt on an island formed by the lee. Principai mauufactures are of leather, iron, and other
metallic goods, glass, gloves, and paper, and there are some extensive breweries and distilleries; the woolen and cotton manufactures, formerly extensive, are now all but extinct. The trade is extensive, the exports conslst of corn, flour, butter, and other Irish produce; imports consist chlefly of manufactured goods from England; wines, fruits, and salt from Yortugal and the Mediterrsnean; timber from the Baltic and North America. Cork communicates by steam-packets witis Iondon, Dublin, Bristol, Liverpool, and Glasgow, Cork Harbor is a fine land-locked hasin, formed by the estuary of the Lee, which is navigable to $1 \frac{1}{2}$ miles above Cork city. It is large and deep enough to contain the whole British navy, and has an entrance one mile ncross, within which its breadth varies to eight miles. It contains Spike and Haulbowline Islands, on which are artillery barracks and various ordinance works. Lat. $51^{\circ} 50^{\circ} 4^{\prime \prime} \mathrm{N}$. , long. $8^{\circ} 19^{\prime \prime} \mathrm{W}$. On its shores are the towns of Cove and Passage, with quays four miles in length, and which were erectel at a cost of $£ 100,000$.

Corn (Saxon Corn), the grain or seeds of plants separated from the splea or ear, and used for making bread. Accorting to the European interpretation there are several speeles of corn, such as wheat, rye, and barley, millet and rice, oats, maize, nad lentits, pess, und a number of other kinds, each of which has its peculiar qualities and usefulness. Eygyt was anciently the most fertite of all countrics in corn. Thls appears hoth from sacred and profnne history. It supplied a considerable part of the people sulject to the Romnn empire, and was called the diy nurse of Rome and Ifaly. Ceres has the credit of being the first who taught them the use of corn, an which nccomt she was ranked by them is a deity. Some, however, attributed the honor to Triptolemus; while others award the fonor to both alike, making Ceres the dirst discoverer, and Triptelemus the first planter and cultivator of corn. Diodorus Siculus aseribes the whole to Isis; in which, as Polydiore Virgil observes, he does not differ from other au-thors-Isis and Ceres being in reality the same person. The Athenians pretended that it was among them the art of sowing corn took its rise; and the Cretans or Candiots, Sicilians, and Egyptians, also lay claim to the distinction. Sone think the title of the Sicilians best supported, Sicily loeing the country of Ceres; and it is alleged that she did not teach the secret to the Atheninns till sho had first instructed her own compatriots. Others say that Ceres passed first into Attic, , thence into Crete, and last of all into Sicily. Many scholars, however, maintrin that it was in Egypt the art of cultivating corn first legan ; and it is certain that there was corn in Egypt and the East long before the time of Ceres.-E. 13 .

Maize, or Indim ('orn.-Among the objects of culture in the United States, malze, or Indian corn, takes precelence in the seaic of crops, as it is best ndapted to the soit and climate, and furnishes the largest amount of nutritive food. Where due regard is paid to the selection of varicties, and cultivated in a proper soil, it may be accounted as a sure crop in almost every portion of the habitable globe between the 4 lth degree of nerth latitude and a corresponding parallel south. Besides its production in this country, its principal culture is limited to Mexico, the West Indies, mast of the states of Soutil America, France, Spain, Portugal, Lomhardy, and southern and central Europe generally. It Is alse cultivated with success in northern, southern, and western Africa, Indin, China, Japan, Australia, and the Sandwich Islands, the groups of the Azores, the Mudeiras, the Canarics, and numerous other ocean isles.

Although there has been much written on the Eastern origin of this grnis, it did not grow in that part of Asin watered by the Indus at the time of Alexander the Great's expedition, as it is not among the productions of that country mentinned hy Neurchus, the consmander of the fleet. Neititer is it noticed by Arrian,

Diodorus, Columella, nor any other ancient author. And even as late as 1491, tha year before Columbus discovored America, Joan. di Cnbe, in hia "Ortus Sanitatis," makeo no mention of it. It has nover been found in any ancient tumnlua, aarcophagus, or pyramid; nor has it ever boen represented in any ancient painting, sculpture, or work of art, except in America. But in this conntry, according to Garcilaso de la Vega, one of the earlioat Peruvian hitatorians, the palace gardena of the Inces were ornamented with malso in gold and aliver, with ail the grains, apiksa, otalks, and leaven; and in one inatance, in the "Garden of Gold and Siliver," there was an entire corn-feld of considerable size, representling the maize in its exact and natural shape, a proof no less of the wealth of the Incas, than of their veneration far this important grain.

In further proof of the American origin of thla plant, it may be atated that it is atill found growing in a wild state, from the Rocky Mountalna, in North America, to the humid forest of Paraguay, where, inatead of having each grain naked, as lo always the case after long cultivation, It ia completely covered with glumes or husks. It la, moreover, a well-authenticated fact, that maize was found in a atate of cultivation by the aborigines on the isiand of Cuba st the time of its discovery by Colambus, as well as in moat other places in America frat explored by Enropeans.

The first auccessful attempt of the English in North America to cultivato this grain wos made on James River, In Virginia, in 1608 . The colonista aent over by the "London Company" adopted the mode then practiced by the Indians, which, with some modifications, has been pursued ever since. The yield at that time la reprosented to have been from two hundred to more than a thousand fold. The same increase was noticed by the carly settlers in Illinois. The present yield, east of the Rocky Mountains, when judiciously cultivated, varies from twenty to ove hundred and thirty-ffve bushela to an acre.
The varieties of Indian corn are very numerous, exhiblting many grades of aize, color, and conformation. Among these are, the ahrubby reed that grows on the shores of Lake Superior ; the gigantic stalks of the Ohio Valley; the tiny cara, with flat, close-clinging gralns, of Canada; the brilliant, rounded little pearl; the tright-red grains and white cob of the elght-rowed hematite; the awelling ear of the big white; and the yellow gourd-seed of the South.
From the flexiblity of this plant, it may be accilmatized, by gradual cultivation, from Texas to Maine, or from Canada to Brazil ; bnt, in either case, its character la somewhat changed, and often now rarieties are the results. The blades of the plant are of great valuo as food for stock, and form an article hut rarely estimated sufficienily, when considering the agricultural products of the southern and sonth-western states especially.
The increase of production from 1840 to 1850 was $214,000,000$ bushels, equal to 56 per cent. The productlon of New England has advanced from 0,903,000 to 10,377,000 bushels, ahowing an increase of $3,384,000$ bushels-nearly 50 per cent. New York, New Jersey, Pennsylvaila, Delawire, and Maryland increased $20,812,000$ bushels-more than 50 per cent. In the production of this crop no state has retrograded. Ohio, which In 1840 occupied the fourth place as a corn-producing state, now ranks as the first; Kentucky, aecond; Illinois, third; Tennessec, fourth. The crop of Illinoia hiss increased from $22,000,000$ to $57,500,060$ bushels, or at the rate of 60 per cent. in ten years.
Of the numerous varieties, some are best adapted to the southern states, whlie others are bettor auited for the northern and eastern. Those genarally cullivated in the former are the Southern big and amall yellow, tha Southern big and ameil whlte-fint, the yollow Poravian, and the Virginia white gourd-seed. In the more northerly and easterly atatea, they cultivate the
goldan Sioux, or Northern yollow-fint, the King Phillp, or aight-rovod yellow, the Canada parly white, the Thecarort, the white flour, and the Rhode Iaiand whiteaint flour.
The oxtended cultivation of this grain is chiefly confined to tho aastern, middie, and western states, though much more succespfully grown in the latter. Thie amount oxported from South Carolina in 1748 was 39,308 bushela; from North Carollida, in 1753, 61,680 bushele ; from Virginia, for several years precediag the Revolution, annually, 000,000 bushela; from Phiil. adelphia, in 1752, 90,740 bushela; in 1767-'68, 60,205 bushela i in 1771, 250,441 buahals.

The total amonnt exported from this coantry ta 1730 was 578,39 bushela; in 1791, 2,064,930 huehela, 851,695 of which wore Indian meal; in $1800,2,032,435$ bushels, 338,108 of which were in meal ; in 1810, 1,140,960 bushels, 80,744 of which were in meal. In 1820-21, thicre were exported 607,277 buahels of corn and 131,669 barrela of Indian meal; in 1830-'31, 571,312 buahels of com and 207,604 barreis of meal; in 1840-41, 635,727 bushels of corn and 232,284 berrols of meal; in 1845-46, 1,286,068 buehels of corn and 208,790 barrels of menl in 1846-47, 10,826,050 bushels of corn and 948,060 barrels of meal; In 1850-61, $3,426,811$ bushels of corn and 208,622 barrela of meal. Moro than $11,000,000$ bushels of Indlan corn were conaumed in 1850 in the manufac. ture of malt and spirituous lyquors.
Accordlag to the ceasue of 1840, the corn crop of the Unlted Statea was $377,581,878^{\circ}$ bushels; of 1850 , 692,326,612 bushels.

| Ataten and Territoris. | Indian Com. |  |
| :---: | :---: | :---: |
|  | 180. | 1850. |
| Alabana | Buchela. <br> $211,9+3,004$ | 28,74thelais |
| Arkansas. . . . . . . . . . . . . . . | 4,840,688 | 8,803,939 |
| Callfornla . . . . . . . . . . . . . . . . |  | 12,236 |
| Columbla, District of....... | 89,4*5 | 65,230 |
| Connecti | 1,500,411 | 1,935,043 |
| 1)elawa | 2,090,380 | 2,155,548 |
| Florlds | 898,974 | 1,900, 009 |
| Georgis . . . . . . . . . . . . . . . . | 20,005,122 | 80,030,009 |
| Ithnois. . . . . . . . . . . . . . . . . . | 22,034, 211 | 87,046,034 |
| Indiane. | 28,1く5, 387 | 52,964,363 |
| Iowa.. | 1,406,241 | 8,056,799 |
| Kentucky | $80,847,120$ | $88,072,501$ |
| 1.outaiana | $0,682,912$ | 10,260,373 |
| Maine | 050,528 | 1,750,056 |
| Maryland . . . . . . . . . . . . . . | 8,293,056 | 10,740, 48 |
| Mamachut | 1,800,19\% + | 2,245,490 |
| Miehlgan. | 2,277,039 | 5,641,420 |
| Missisalppi | 13,161,237 | 22,440,059 |
| Missenr . . . . . . . . . . . . . . . . | 17,842.524 | 80,214.517 |
| New liamphtre ............ | 1,162,579 | 1.578,670 |
| New Jersey . . . . . . . . . . . . . | 4.361,976 | 8,700,74 |
| New York.................. | 10,072,280 | 17,85i,400 |
| Nurth Caroline | 23,503,709 | 27,941,051 |
| Ohlo | 88,008,144 | 59,078,695 |
| Jennaylvanim | 14,240,022 | 19,835,214 |
| Rhode Island . . . . . . . . . . . . . | 450,498 | B39,201 |
| Roulh Carolt | 14,722, 805 | 16,271,454 |
| Tennemsue | 44,980,158 | 52,270,923 |
| Tехая..................... |  | 6,028,8i6 |
| Vermont | 1,100,678 | 2,032,396 |
| Virgin | 84,677,601 | 35,254,319 |
| Wliscons | 379,859 | 1,988,979 |
| Minnestata Territory | .... | 16,7\% |
| New Mexico Territory...... |  | 365,411 |
| Oregon Territory |  | 2,918 |
| Ctali Territory | .... | 9,599 |
| Totat . . . . . . . . . . . . . . | 377.531,878 | 502,320,612 |

Corn Lawse. An adequate supply of breadstum in evidently of the very first importance to every country, and should be as regular as is possibie, since sudden fluctuations in an article of auch universal necesaity are injurions, and scareity, with the consequent high prices, brings distress upon the poorer classes, and is a fruitful cause of discontent and convuisions. The best means of securing a aufficient and stealy supply of this article is a suijject of aome diversity of opininci, and the practice of governmenta has varied much at different times. One theory, urged by Adam Snith, but queationed by Mr. Malthua and moat othere, is, that the government ahouid do absolutely nothing in the matter, on the ground that the farmers and corn ite, the efy con, though t. The .78 was $3,61,580$
receding om Phit. 8, ce,205 $y$ ln 1730 4, 351,, 995 bushecis, 960 bush'21, there ,669 bar. ls of com 727 bush-1845-40, of meal; 8,060 har. corn and 20 bustiels manulac. ; of 1850 ,
merchants, if unchecked, will alwaya form correct views of their own Interest, and that their intereat will coinclde with that of the rest of the community. But broad, eweeping theories of this sort are rarely adopted in the practical adminatatration of atfaira; and a government, In making regulationa on this sulject, as on every other, looks at ite internal condition, the character and puruits of its population, and ita foreign comnerclal relations; and though it may not judge correctiy of the best meana of securing a ateady and sufficlent supply, this does not prove that a total neglect of the aubject woald be the wisest and the safent policy in all countries and at $\dot{\Sigma} l l$ times. It is cartain, however, that very unwise measures have often beon resorted to, and somotimes auch as tended rather to aggravate the evil then to provide a remedy. One way to guard agalnat a ecarcity is that adopted by the klog of Egypt in the time of Joseph-the purchasiug of corn by the goverament in time of plenty at home, or inporting it from abroad, and storing it in public magazines, to be distributed as the public wants may demand. But this system is attended with great expense, and affords but an uncertain'and inadequate provislon. Most governments, accordingly, lastead of making direct purchases, attempt to provide a remedy by tho paseage of laws. Tiis sublect of graln legislation ls by no means entirely modern. Tho Athenians had laws prohibitlog the exportation of corn, and requiring merchants who loaded their vesecls with it in foreign'ports to briug their cargoes to Athens. The public provision and distribution of com was an important branch of adminiatration at Rome, and very intimetely connected with the public tranquillity. The regulation in tho suppiy of corn, and the trade in the article, has been a fruitful subject of legislation in modern Europe. But it is to be olserved, that the public solicitude and current of legislation take this direction only in populous countries, or at least those in which the population presses hard upon the means of domestic production of breadstuff; for a country of which, like this, the staple exports are breadetuffe necde to take no measures for securing a supply; and, as flour and Indian meal are great articles of exportation in the United States, this country has had no occasion for laws to guard against a fanine, siace the ordinary course of industry and trade gives the greatest possible security, by producligg a surplus in provisions, which a high prico at home, ia anticipation of any scarcity, will bo sure to retain for the supply of domestic wants. In agricultural countries the object of sclicitude is to supply the want of arts and manufactores, as in populous and highly impreved countries it is to supply the want of food. But the laws directed to this object have been vory rarious, and some of them contradictory; for as in Athens, so in England at one period, the laws prohibited the exportation of corn; whercas, at another period, and for a very long ono in the iatter country, a bounty was given on the exportation; and both these laws had the same object, viz., the adequate nad stendy supply of the article. For this purpose the bounty is the measure undoubtedly calculated to produco the effect intended, and tho permanent prohibition of exportation must aggravate the scarcity which it is intended to prevent. Such a bounty tenda to stimulate a surplus production, and so to give a country, by this factitious encouragement, the same security in respect to a supply as results from the spontancous intercourse of industry and trade in Poland, the southern part of Russia, and the United States. But the objection to the bounty is its greet expense, requiring, as it docs, the imposition of a tax, and, at the same time, raising the price of the article to the domestic consumer. To secure the advantages and avoid some of the burdens of this law, Mr. Burke, in 1778, proposed the systen of corn laws so long adhered to in Great Britain, sccording to which no bounty is paid, bat the exportation of corn is permitted when it la sold under a certain
price in he home market. This price is dotermined by the average salea in certaln apocified placen for a given time; and when it risen above a cortain other Hixed prico, the importation la permitted. By Mr. Burko's blll, wheat might be exported when the price was under 44n. the quarter, and imported when it was over 48s. The home grower is, thorefore, aure to be free from a forelgn competition at any price under 480. and this gives him confluence in pursuing thia apeciea of caltivation. The rates or prices at which exportathon and Importatinn have since been allowed, have varied from time to time very materially; but the principles of the lawa and their effect are the same.E. A.

Reform of the Corn Laws of Exgland.-In 1843, a measure was adopted which made a wide breach in the corn laws. In 1842 the Legislature of Canada pasacd a law impusing a duty of 3 s. a quarter on all wheat imported into the proviace, unless from the United Kingdom, stating, in the preamblo to this act, that it was passed in the expectation and belief that a corresponding reduction would bo made in the duties on wheat and wheat flour imported into the United Kingdom from Canada. And conformably to this antlcipation, the act $6 \& 7$ Vict. c. 29, passed in 1843, reduced the duty on wheat imported from Canada to 1 . a quarter, and proportionately on wheat flour. This act met with much opposition from a part of the agricultural interest in England, who contended that it would lend to the introduction of anlimited supplies of corn from the United States, at a daty of only 4a. a quarter, or, allowing for smuggling, at perhaps only half that amount. But experience showed that thene anticipations were not likely to be realized; for, though the imports from Canada were materisliy increased the obstacles in the way of the importation of corn from the Ualted States into Canade, and the danger and expense of the voyage from Montreal or Quebec to England, must neccsearily have prevented the importation through thls channel from ever becoming of much importanco. Still, however, the measure was in so far an abondonment of the corn laws; and If Great Britain was juatified in admitting the produce of the United States to her markets in this indirect way, it was not easy to discover satisfactory grounds on which to exciude the produce of other conntries.
The success of the measures adopted in 1842 encouraged Sir Robert l'eel to attempt still more considerable changes in 1845, whon he abolished the customs' duties on about 420 artieles, some of which were of very considcrable importance. The measures then adopted were equivalent, in fact, to the virtual abandonment of the protective syetem; and, under such circumatances, it conid not be expected that the corn laws, on which so acrious an inroad had been made by the Canada act, would be able to maintein their place on the statute-book for any very leagthened period.
They might, however, have been continucd for some time longer, had not the unsatisfactory corn harvest, and the failure of the potato crop of 1845 , made it necessary to adopt measures for averting the anticipated deficiency in the supplies of food. Uyder the critical circumstances in which the population was then belic ved to be placed, the temporary suspension of the corn laws could hardly havo been avoided; but, if once suspended, their re-enactment would have been all but impossible, and it was better, perhaps, by at once providing for their ropeal, to make an end of the system, and of the dissatisfaction and agitation to which it had given birth, than to endeavor to continue it in any moditied shape. Such was the view of the matter taken by Sir Robert Peel; and he fortunately succeeded, despite difficulties that none ele could bave overcome, in carrying the act $9 \& 10$ Vict. 0.22 , for the immediate modification of the corn laws, and for their total repesi at the end of three years, or on the 1st Fehruary, 18:19. From that date wheat and other corn were suib-

Jected, on importation iuto Great Britain, to a fixed duty of is. a quarter; sud flour and meal, of all sorts, to a fixet duty of 4$\} d$. a cwt .-E. B.

Cornuoopia (Lat. cernu, a horn; and copia, plenty). In the tlie arts, na nrnament representiag a horn, from which issue flowers, fruits, leayea, and tho like. The orig:n of the cornicopla his been variously given. Some authors have traced it to the infant days of Jupiter, whose nurse, Amalthea, when one of her goats had broken off a horn against a tree, presented it to the gool wreathed with howers and filled with fruit. Hence it became the emblem of Plenty among the ancients, In which light it is regarded also by many modern uations. The cornucopia is found in the types of sncient coins, particularly upon those of Sicily.

Corporation is the term generally appitied to a body of men by special law endowed with the power and means of acting collectively, with tho distinctness and Individuality of une man pursulug the dictates of hls own will, while their existence is kept up by a perpetual succession, so that the collective body acts like an individual man with a perpetuated vitallty. Though the corporation might be deemed, from the admiratlon bestowed on it hy professional writers, to be the peculiar creation of English genius, there is little donbt that the system was derived from the municipia, universitates, and collcgia of the Romana; and there is oven reason to believe that there are corporations which date their history back to the institutions of the Western Empirc. The adage, indeed, expressed by a lloman jurisprude.t, that it required three to make a college -Ires facere collegium ( 50 Dieg. 16, 85)-shows a practicel consciousness of the most effective means of strengthening the action of a small corporation, in aia adjustment by which equal numbers with the chances of halanced divisions aze to be avoided, and that number is aelected which always affords a majority of two to one.-E. B. Corpozations aro stated by Livy to have been of very high antlquity among the Romans. They were introduced into other countries from Italy. These political bodies were first planned by Numa, in order to break the force of the two rival fuctions of Salines and Rommas, by inatituting separate societies of every mannal trade and profession.- Pleterancol.
Corsair (It. corsaro). A term used in the south of Europe and some other parts for a pirate or his ship. The corsairs of Barbary were commissioned ly their princes to attack tho merehant ships of hostile conntrics.

Corvette, a sloop of war; according to some autthorities, an advice-boat with fewer than twenty guns.
Cosmetio (кooff́co, to adorn), any preparation to render the skin soft and white, or to beantify and improve the complexion. The word cosmete among the Romans was used to denote a class of slaves whose business it was to dress and adorn their mistresses.E. B. Preparations for improving leanty were known to the ancients, and some anthorities refer them even to mythology, and others to thes Grecian stage. The loman ladies painted; and those of Italy exeefled in heightening their charms artlicinally, ly juices and colors, and iny perfumes. looage has always ineen in diarepute among the virtueus and well-ordered women of England, though some sinhle cosmetics are regnrided as innocent, and nre in general uso.-Asut. The females of France nod Germany palnt more highly than most other mations.-Ricuannson. In Great İritain a stamp was laid on coameties, perfumery, and such 2aedicines as really or supposithtiously benutify the skin or perfume the person, sud the vendors were obliged to take out licenses, 20 Geo. 111. Ji86,-11ayids.
Costa Rica, a republie of Centcal America, bounded on the north by Nicaragua, from which it is separated on the northeast by the river San Juan, on the east and north by the Cariliteen Ssa, on the enst by Now Giranada, from which it is separated by the river Chrigue entering the Caribhean Sea, and the Chirlqul entering the Pracilic, ant on tha south and west ly the

Pacific; botween lat. $8^{\circ}$ and $11^{\circ} \mathrm{N}$., and long. $81^{\circ} 45^{\prime}$ and $84^{\circ} 40^{\prime} \mathrm{W}$. Area, about 16,300 square miles. It is divided into six districta, viz, : San José, Cartago, Heredia, Alajucla, Guanaceute, and Punta Arenas, and estimated to contain 215,000 inhabitants, of whom 2500 are Indians. It is intersected diagonally by the primary range of tho isthmus, which throws of numerous spurs on elther side, giving to the surface a continued alternation of abrupt heights and sudden depressions. The principal range has several lofty eminences, and also several volcanoos, both active and dormant, including those of Orosi, Votos, and Cartago; from the summile of the last of which both the Pacific and the Atlantle waters are distinetly visible. Costa Rica contains sume exceediugly rich gold minea; hence the origin of its name. The mines, however, are now very little wrought. Silver and copper also exist. With the exception of the sea-coasts, the climate is mild and temperate, naver subject to excessive heata or colds, and rarely expericncing any other vicissitudes than those from the dry to the ruiny seaso... It is therefore extremely well adapted to agricultural purposes, and cap. of bringing to maturity most of the plants pectilia . tropics, and many exotles. The seil is remarkably fertile, especinlly the valleys and the tablolands. The productions aro coffec, cacao, Indian corn, tolincco, sugar, and some wheat. The horses of Costa Rica ure of an juferior description, but the mules are much esteemed; and cattle, sheep, goats, aud hogs are reared in great numbers, and of excelient quality.
Among the principal rivers of Costa Rica are the Tempisque and Grande, falling into the Bay of Nicoya; the Ueus or Macho, which afterward tukes the name of Reventason, and falls into the Caribbean Sea; the Matina, formed by the rivers Chirripo and Ba.hilla; the Essudo de Verugua, dividing Central from south America; the Banann, Tribec, and Culabra, all falling into the Caribbean Sen; the Chrico Moln or Cl-rickain Aula, falling into the Bay of Cherigui; the Costa Rica or San Carlus, and the Snrapiqul, into the San Juan. The Bayn is a canal, believed by some to be uatural, nod by others to have been cut by the aborigines, commencing at the port of Moin or Salt Creck, and ruming paraltel to the coast as far as I'earl Kay Lagoon, a distance of 180 miles.
Costa Rica protuces, in large cuantitie 3 , mal.ugany, cedar, Itrazil, and varions other kinds of timber. On the sea-coast of Nicoya some perls and large quanti ties of mother-of-penil shells ais feusd. Coltee, however, forms the most injportant preduct of the republis. Its cultiva . .o', though only introduced abent the year 1830, has lnereased so rapidly, thut 3000 to 4000 tons are now experted annally. Tobaceo, which is of excellent quality, is a govcrument monopoly, and is exported in small quantities. The other exports are gold, sugar, Brazil wood mother-of-pearl, ox nud cow hides, horns, etc. The imports consist chictly of manufactured goorls. Total revenne in 1852, \$16.1,157; exjenditure in the same yenr, $8415,207$.

The conmercial relations hetween tho Vinlted States and Costa Biea aro regulated by the treaty of July 10 , 1851, and by the local legislation of the comatry. The trenty guarantees reciprocal freedom of commeree, and phaces the two comutries, with respect to each other, ell the footing of the most favored nutions.
The loeal commercial Iegislation of Costa Rlea was completely remodeled and materially modified in the year 185i. The decree by whici thils was effected bears date August 31, 1 Roju.

The 1st article grants liberty of conımerce to the vessela of nll nations--specifying certain descriptions of merchandlen monopolizel by the a vernment, and othera prohibited; which are detalled fin the tariff of Costa Rlca.

The ed article provides that, at the minor ports, the export of prodactions of the country only can be permilted, uncer proper regulations.

Arr. 8. At the inland or frontier ports, cuatom-houses shall be establishad, under euch regulations as tho govcrnment may deem fit to adopt.
Art. 4. At such ports, inland and expurt commoree only shall be allowad, except in respeot of such mar chandise as shall be monopolized by the government or proliibited.
The second chapter of the law enntains a specification of free goods, together with a llat of prohitited articles; among the former beiog the personal effecte of, or merchandise exported for the use of, diplomatio agents or thoir sulte, but not those of consuls; and ln the latter are included rum, fire-arma, and munitions of war, which can be Imported ouly under apecial anthority. The monopolized articles are tobacco (in leaf or manufactured), powder, and saltpetre; whlch can be admitted only on government account.
This law extends to sixteen chapters; and such pai:a as apply to navigation and commerce would be translated and inserted at length, were it not underatood to have been matorially modified by a recent decree, of which n summary is glven, wind the tarlff of Costa Ricn.

Tha United Statas consul at San José (Costa Rica) communicates the following changes, under date October 8,1855 :
"I have the honor to Inclose horewith copies of three decrees itshed by this goverament, nambered, respectively, 1 , \& and 3 No. 1, dated November 24, 1854, ja merely prorogulng the time fixed for the new tariff (a copy of which han been (ransmitted), to take effoct from the 1at of December, 1854, ts the 1st of July, 1855. No. 2, of the same date, requires, artiele 1st, prerious to the landing of merchandise, in additioa to the manifest heretofore presented by the mastii of any vessel arriviag at the port of Punta Arenam, that permission to disembark be obtained from the collector of customs, and that in the document solleitiog this permisalon must be eppressed the quality f . origin of the goods intended to be janded, and elso their markot velue tin the port. Article 2 requires, previcas to the clenrance of a vessel from any port of the republic, the prasentation by the consigneea of a manlfest of the morchandise to be exported, and lis value in the
wirt of abipment Article 8, or the mame, requires, in cases whare a part only of a carga hes been lsnded, that the conaignees, previous to a clenrance, present another corrected manifest;' specifying the quelity and valne of the goode that have been landed. No. 3, rated July 24, 1855, ordern that all distilled spirits landed in lla port of Punts Areasas be deposited in the pubilio steres, and exacts the payment of four centa per pound, groes welght, upon their removal from bond. No further chamges have been made in the commercial syetera of this republlo within the time apecified.".

For the legt fifteer years the country has been rapidly progressing, owing to the peaceable and industrious character of the people; and the moderate course puraued by the government. Many internal improvements, prineic ally in common roads, have heen complated; and the productions of the country have increaned so that the exports now amount to $\$ 1,000,000$ yearly, while fifteen years ago they amonrited only to about 100,000 . In the eame time the population has been doubled, and may now (1856) be estlmated at 180,000 inhabilants. Some few emigrants, principally Germans, have gona Into the country; but the difficulties met with on the route to Costa Rlca will prevent tnuch immigration. The two principal ports of Costa Kica are l'unta Arenat, on the Gulf of Nicoya, and Mattina, on the Caribbean Sea.

Moneys.-The money of account is tha peso, or dollar, valued at the amme as tha United States dollar; but some ure colned of baso metal, which are worth only 75 cents. At Venezuela and Ecuador, the dollars are similar to thoae of New Granada. 1 dollar $=8$ reals ( 100 centu); 1 real = 16 quartos $=32$ maravedi, also 12 grani.-Cor. P.J. of T.

The values of imports and exporta between the U'nited States and Costa Rica can not be distinguished from those given for Central Ameriea generally. The following etatement, exhibiting the general foreign navigation and trade of the principal port of the republic (Punta Arenas), furnishes a fair average annual statement. It may be observed, that the values are given from ships' registers, or invoices, and are, consequently, considerably helow the market values.
 Endino Deoknter 31, $18 j 5$.

| Nationalily. |  |  |  | Dipantun. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Vesnelo. | Number of Tons. | Involen Value of Cargoen. | Number of Vemels. | Number of Tons, | Invule Valoe of Cergow |
| Tuited States | 12 | 2.201 | \% $\mathbf{4} 01,805$ | 12 | 2,204 | \$86,050 |
| Brttish . . . . . . . . . . . . . . . . . . . . . . . | 6 | 1,445 | 265,660 | $\bigcirc$ | 1,445 | 830,950 |
| Freach. . . . . . . . . . . . . . . . . . . . . . . | 2 | 048 | 17,500 | 8 | 648 | 37,063 |
| 8panish . . . . . . . . . . . . . . . . . . . . . . | 2 | 400 | 8,000 | 2 | 560 |  |
| Ifamburg. . . . . . . . . . . . . . . . . . . . . | 8 | 026 | 25,170 | 8 | 026 | 82,211 |
| Hanoverian . . . . . . . . . . . . . . . . . . | 1 | 160 | 87,050 | 1 | 160 |  |
| Sardinian .......... .............. | 10 | 1,391 | 40,006 | 10 | 1,801 | 68,610 |
| Cbiltan . . . . . . . . . . . . . . . . . . . . . | 7 | 889 | 88,408 | 7 | 889 | 109,378 |
| Peruvian . . . . . . . . . . . . . . . . . . . | 7 | 1,124 | 15,756 | 7 | 1,124 | 8,882 |
| New Granadlan . . . . . . . . . . . . . . . . | 15 | 610 | 49,026 | 16 | 679 | 18,709 |
| Central Amerlean. . . . . . . . . . . . . | 4 | 68 | 4,719 | 4 | 52 | 1,910 |
| Costa jicann. . . . . . . . . . . . . . . . . . . . | 15 | 1,240 | 64,711 | 16 | 1,249 | 22,638 |
| Total. . . . . . . . . . . . . . | 83 | 11,027 | (609,811 | 88 | 11,021 | \$765,736 |

Costume. Accounts of magnificent attirc refer to very remote antiquity. The costume of the Grecian and llonasn ladies was comely and graceful. Tha women of Con, whose country was fameus for the silkworm, wore a manufacture of cotton and silk of so bealtiful and delicate a texture, and their garmenta, which were alwayn whito, were so clear and thia that their bodies could be sesn through them, -0 Or's. As reistes to costume worn on the stage, Jischylus the Athenian was, it is said, the first who erected a regular stage for his netorn, and ordered their dresses to bo suited to thoir characters, about $486 \mathrm{n} . \mathrm{c} .-\mathrm{Parion}$ Marblea. Excess in dress was restrained by a lew in England, in the reign of Edward IV., 1465. And again in the reign of Elizabeth, 1574.-Stown. Sir Walter Roleigh, we are told, wore a white satin-pinked vest, close-siseved to the wrist, and over the body a brown doublat finely flowered, and embroidered with pearla. In tha feather of his hat, a large rulyy and pearl drop
at the bottom of the sprig, in place of a batton. IIl breachen, with his stockinge and ribbon garters, iringed at the end, all white; and buff shoes, which on great court days, wers 80 gorgeously covered with precious stones as to have exceeded the value of $£ 6600$; and lie had a suit of armor of solld silver, with sword and belt blazing with diamonds, rubice, and pearls. King James's favortte, the duke of Buckinghau, could afford to have his diamonds tacked so loosaly on, that whan ho choas to stiake a few off on the ground, he obtained all tha fane he deaired from the pickera-up, who were generally les clames de la Cour.-Maydn.

Cott, or Cot, a particular sort of bed-frame, suspendod from the beams of a ship, batween decks, for the officers to sleep in. It consists of a large piece of canvas sewed into tho form of a chest, about six fect long, one foot deep, and threa feet wide, and is extended by a square wooden frams with a esnvas bottom, and used principally in the ward-room of a man-of-war.

Cotton. . This artlele will be nonsidered mader the general heads of I. Species and Places of Production. II. Cotton Climate : 1. Of the World ; 2 . Of the Unlted States; 3. Nlle ; 4. Algeria; 6. Arrica; 6. The Medlterranean; 7. British India. III. Cotton Trade of the United States: 1. History; 2. Statistles. IV. Cotton Trade of the United States with 1. Great Brit aln; 2. France; 3. Spain; 4. Haree Towns; 5. Belgium; 6. Sardinja; 7. Switzorland; 8. Rusila; 9. Sweden ; 10. Portngal ; 11. Brazll; 12 Egypt ; 13. Mexico. V. Capacity of the Cotton Bule.

Cotton Manufactures will he treatod under lto proper head.

1. Species and Placks of Prodection of Cot-ron.-Cotton (Goseypium) ie a vegetable down of exquisite softness, with beautifully flae fibres, and is an iudigenous product of all intertropical regions. Linnaus suldivided the cotton plant Into five apecles: 1. Goesypium herbaceum ; 2. G. arboreum ; 3. G. hirsutum; 4. G. religiosum; 5. G. Barbadence.

Other authorities have ennmerated as many na ten species, but for all practical purpesea the division into three classes will be sufficiently ininute. The varieties are exceedingly numerous; yet of those most widely diffused, herbaccow cotton, ahrub cotton, and tree cotton need ouly be espectally referred to. The inost useful cotton is tho herbaceous, which is an annual plant, chiefly cultivated In the Uuited States and in the Fast Indles. It grows from two to five feet in height, is rich in foliage, and its fibreus fruit is preceded by flowers, of white or pale yellow color, like those of the convolvulus. As the tlowers fade, a pod, or eapsule is formed of the size of a small walnut, containing tho filires of cotton, and as the pod ripens it expands, and the snow-white fibres burst forth ready to bo gathered.

1. The /Ierbaceous Cotton.-This plant grows to the hejght of elghteen to twenty-four inches, with leavea of dark green, blue-veined, and fivo-lobod. The flower is a pale ycllow, one piatil, dive petals or leaves, purplespotted at the bottom. On the falling of the flower a pod of triangular shape and triple shell is doveloped. The pod, In course of ripening, burste, disclosea a snowwhite or yellowish ball of down, in three locks, inclosIng and tightly-adhering to the ceeds, which resemblo those of the grape, though of several tlmes the size. The seed in planted in spring, and the cotton gathered at fall. The rows in the fields are five or slx feet apart ; the distance of the holes, in whlch several seeds aro deposited, is about eighteen inches. Much carn in weedIng, thluning, and prunlog, is required during the process of eulture. This Is the course pursued in the Unlted States, which has the atvantage over that pursued in India, by produclag a cotton varly more valuable. A field of cotton at the gataering, saya Mr. llalnes, when the globes of snowy wool are seen among the glossy dark leaves, is slingulariy beautiful ; and in the hottest conntrles, where the yellow blossom or flower and the ripened frilt are seen at the anme time, the Ineauty of the plantation Is, of course, still more remarkable. The herbaceous cotton is grown to the greatest extent, and sald to be cultivated in nearly every country omgenlal to the gossyplum, oxlating even at Alop$\omega_{0}$ In Upper Egypt, Arabia, and Senegal.
2. The Hirastum, or Shrub Cothon-It in suld to grow wherever the herhaceous is found, and to vary accorling to cllmate, belog blennlal or trieunial in the West Indies, Iasting from six to ten years In India and Egypt, perennis) In the hettent elimates, and in the mildest cotton regions an annual. The ahrub eotten is likenel to a currant bush, and Is of several varietles. The him sutum, a low shrub alrealy mentioned, the Indicwm, attalning ten or twelve fect; the riffofium, of the south of Vrance and South Amorica; the religiosum, of Surlnam and Iudia; the kuifulium of the Weat Indies ; the Harbalewse of Barbailoes; and the flerwiom. The pod of the shrub cotton differs from that of the heris in being egis-shaped. The Guiana and Ilrazil cotton is of
this kind, and is said to yield, in the hottest countries, two crups a year.
3. The Arburescent, or Tree Cotton,-This remarkable plant la of Indian, Chinese, Egyptiarr, and Amorican growth. The helght of the tree varles from fifteen to twenty feet. Marco Polo describes the tree at Guzerat six yards high, and bearligg frult for twenty years. There is a tree deacribed in South Anerica, Indlan Isles, West Indies, and on the Guinea coast, of a hundred feet high, bearing a silky cotton, only useful for making quilting and lseds. ... The justly-celebrated American sea-island, stem is derived from the arboreum. Its fibre is long, strong, silky, and of a yellowish tinge. The seed ls black and of Peralan origin, though originally introduced Into thls country from the Bahamia Islands, whero it had been introduced by the Board of Trade from Anguilla, an island of the Caribbean Sea. This cotton was raised first in Georgla in 1786, and tho tirst bag exported by Alexander Bissel, of St. Simon's Island, two years aiter. The soction of country capable of producing thle staple is vory limited, being confincd to the low sandy islande along the const of South Carolina and Georgia, from Charleston to Savaunah. The quantity grown in 1805 and in 1832 was precisely the same.

In the United S'rates the seed of the herbaceons cotton is sown gener:ily in tho months of March and April, and its marketable fruit ls usually gathered in the period commencing whth August and terminating with the year. Boweds and Orleans cottons constituto the great productions of the United States, and aro recognized in the Eugllah and European markets as "American cutton." Theso cottous are chictly cultivated in the great valley of the MIssiasippi, the fields of its growth now extending to Tezas. The cultiva. tion of cotton the the United Stetes ls most sclentifically and induatriourly pursued, and is attended with highly profitable results, the value of the crop being little less than $\$ 150,000,000$. It is expected that in 1856 tho entire crop will amount to $3 \frac{1}{2}$ millions of lages, of more than 400 llss. each. Ilut the skill of the American planter has been most conspicuons in tho production of fine sea-Island cotton. Tho seed of thls cotton, which is also an annual and herbaceous plant, was obtained in 1784, in the Ilahama Islands, where St had been Introduced from the West Indies, and was first cultivated in Georgia. The small islands which extend along the American coast from Charleaton to Savannah were found, from thelr sundy soil and contigulty to the sea, to be admirably adapted to the prodiction of exquisitely fine, long, and strong-stayled cotton. This cotton soon acquired great and doserved celebrity. A great demand arose for it; but from the limited extent of the islnuds upion whleh It can ho grown, and the expenso attending ite cultivation, It eun only be supplied at a conparatively high prics. Hence the prodection of this cottou was inet susceptille of indefinte exteasion like tho shorter-stajpled cottons of the United States; and from the beginuing to the middle of the present century the total yearly amount of the crop has not greatly varied, the ammal yield averaging aboot ten millions of pounda weight. From the circumstance of the seed of tbin cotton having been first introluced into (ieorgia, it was consequently called Georgia cotton, though its cultivation had ouly been successful upon the sea-const of that atate. Ita colelarity, howover, cansed it to be planted upon the high'atuos of fieorgis, where it was found to degenerate; but antl the quality, though shortened in staple, was found to be of a desirable class, and it aoouired the name of uplands, or bowed (ieorgia cotton, while tha same seed ylulded the famed sea-isiand cotton. Ilere It may be observed that a humld atmospliere and a sandy soil seem most conducive to thu production of good aseful cotton; but for the growth of very fine and long stapled cotton an impregration of salt, both in the soil and in the sir, appears to tre indiapensable. of Great sessell a for prod probable reasonal ests alon producti. ing hom fsptories. English or suping pmoduced increasin remunera plies of it the past, new and ture to co remaia, veloped pational which to classes ha source.
In the ufseture o ja any ot Cbristian manufoctu then consh etablo pro ceous cotte to manipu ufacturing clunged to years befor applying ton, India weaving, t of titne, re plant inclit for intellit, rism, it is to the mee times, and duction of been impro of India, il garded as to the iike questionali site clemen to an alino. night bo an tores of Eill of years tho and comaun tenth of thi ted at nour home-cunsu supply onls the manufi qually of t weull be vo largely aup colenles ha jart of the the possessi extent of la any other dd quality mig iu Australlin

Wlthout the energy of the American planter, it is dificult to conceive the possibility of the cotton trade of Eagland and of the world attaining the extent alid importance which it now possesses. As the colonies of Great Britaln-the West Iudies in particular-possessed all the natural advanteges of soil and climate for producing cotton to an extent much beyond the probshle conaumptlon of the United Kingdom, it might reasonably have been inferred that the colonial interests alono would ha a atimulated the cultivation and production of cotton $:$ supply the certain and Increasing homo demands of the constantly-enlarging manufartories. Whether the fataity of protection to the English colonias, maladministration of colonlal afiairs, or supineness on the part of the $c^{\prime}$ 'snists themselves, produced the indifference which caused an article of increasing importance like cotten to bo neglected when remuncrative marketa were opening for indefinita aupplies of it, may be wisely inquirel into, not to remedy the past, but for the purpose of ascertaining how far a new and profitable direction masy be given for the future to coionial labore and efforts; for the stigma will remaia, that while arta and inventions were being developed at home, which became the sources of great aational wealth, tho cultivation of the material on which to exercise the skill and labor of her workingclasses had to bo sought and obtainad from a foreign sunce.
In the British East Indies tho caltivation and manpfacturo of cotton hava certalnly existed longer than in any other country. Fior five centuries before the Christian era, cotton, was largely used in the domestic manufactures of India, and the clothing of the IIIndooa then consisted chiefly of garments mado from that vegctablo product. Earliest in possossion of the herbaceous cotion plant, tho natives of Indla were enabled to manipulato its fibres, and to ryiabliah a cotton-manuacturing industry which has remained almost unclunged to tho prosent time. More than two thousand years before Europe or England conceived the diea of applying modern industry to the manufacturo of cotton, India hat matured a system of hand-apinnieg, weaving, and ilyoing, which, during that vast period of timo, received no recordod improvement. With a plant indigenous to tho soil, and a peoplo remarkable for intelligenco when Europe was in a state of barbarism, it ia wonderfut that 110 approximation waa mado to tho mechanical manufacturing operations of modern times, and atill moro atrango that tho agricultural production of cotton should uot within that period have been laproved and considerably ealarged. Tho cotton of India, during its known existence, can only le regarded as a material for manufacture greatly inferior to the like productlons of other conutries. Indin unquestionnily possesses soll, cilmato, and all tho requisito elements from naturo for the cultivation of cotton to an aimest loundless extent, and of a quality whieh minht be uost useful and atceptable in tho manufacistes of Europe, and oven of America. During a serics of years the weight of cotton grown in the East Indies and consumed in Gront liritain may have beon onetenth of tho whule, whilo the valuo can not be estimated at more than one-twentieth of the total cost of home-consumed raw cotton. Tho British West Indies supply only sumbli portions of the cotton required by the manifseturers of the United Kingdom, though the qually of the cotton there produced is excellent; and would the very largoly bought and consumed it it were largely supitiled. For a conslderable time the Ifritisi colonies have not anjplied more than onotwentieth jart of the IBrltisi consumption of cotton, and yet in the poasension of Great Hritain there exiats a greater extent of land suited to tho growth of cotton than in any other dominion. At l'ort Natal cotton of excellent quality might be grown to any reasonable oxtent ; and in Anstralin, cotton equal to the finest of the fine might the pruluced to ant almost intefluite amount.

The mont remarkablo fact is, that although cotton was cultivated in gardens from remote antiquity in China, yet this ingenious people never turned it Into any account until the end of the thirteenth century, at which time its manufisctnre among thom began:
The following pasagges from the narratives of those who have visited India, are repiete with interesting information on the subject before us. Mareo Polo found cotton in Guzerat In lareo quantities, taken fiom a tree about six yaris hif $b$, and bearing for twenty years. The cotton from a tree of this age is adapted only to quilting, but that taken from trees of twelve ycara is suitalle for muslins and other manufactures of extraordinary finaness. Sir Joha Mandeville, in the fifteenth century, later by fifty yeara than Polo, says, that in many plates the sar in the cotton in Indla which we call tree woul, fs $r$ every year, and there spring up from it copses $c \cdot v$ ehrule on which the wool grows.

A luxuriant fieid, saye another, exhibiting at the same time the expanding blossom, the burating capsule, and the snowy flakes of ripo cotton, is one of the most beautiful objects in the agriculture of Hindostan. Malto Brun is equally instructive on the point : "The cotton tree grows on ali the Indian mountains, but ita produce is coarse in quality; the herbaceous colton proapers chiefly in Hengal and on the Coromandel Coast, and there tha best cotton goods are manufactured. Noxt to these two provinces, Madure, Marawar, Peacaria, and the const of Malabar produce the linest cotton. Tho plant ia cultivated in every part of India; tho flnest grows in the light, rocky soil of Gazerat, Hengal, Oude, and Agra. Tha cultivation of this plant is very lucrative, an acre producing about vino quintals of cotton annually."

Brazil is an extensive cotton-growing country, and sends steady supplies of it to the European marketa. The qualityofits cotton is avery where highly esteemad. I'eraia, Spain, I taly, Malta, and tho adjacent countries, are all capabic of producing excellent cotton; but in Africa there are probably greater undeveloped resources for the cultivation of cotton than can be found jun any other portion of the globe. The exampla of Egypt is a great lesson for the governors of those countrics whose agricultaral resources remain undeveloped. In 1821, Mohemet Ali conceived the possibility of affectwally cultivating cotton, and succeeded. From that year to the present timo large supplies of that useful and now indispensablo raw material have been obtained from Egypt, to tho great convenience of the Dritish manufacturer, who has found the quality second only to tho sea-island cotton of tho United States.
Tho herbaceous cotton plant unquestionably exhlbits ali the desirnble qualities of cotton applicable to manufactures, as proved by tho productions of the United States and of the East Indica. The cottons prodiuced in tho West Indice, in Brazil, and in Egypt, aro from the shrub; and It is obeerved that tho odier the plant the coaraer hecomo the fibres. Tree cotton, as a murkotable product, is almost unknown; hut in llorneo, and in many other tropical reglons, the piant on which it grows is fcund fiourishling in a will stato. To insure economy of cuiture, and of gnthering the cotton as it opens mui ripers, it is evident that the plant and tha shrub nre most aceessible, and that the trea ant not always be eithor aafely or convuniently climseri to olitnin its downy fruit.

In Central Africa, cotton has also been a staplo growth since the date of our carliest recoris. It is mentioned by travelers as abundant on the lianks of the Senegal, the Gambia, and the Niger, at Timbuetoo, Slerra Leone, the Cape de Verd Islanda, on the coart of Guinea, and in Abyashia. In hot climates, also, says an authority, the cotton plant grows ao ahundantly, that this is tho cheapent insterisi of which cloth easi lio matio. With auch recommondations, It can not fail to contime the staple and unlvernal manufacturo of Afrien.

In modern times, no material on whleh the industry of mankind is exerted can be conspared with the vast Importance of that bencticent gift of Providence, cotton. Millions of our fellow-creathres depend apon its cultivation and manlpulation for support. Capitalists enabark in its prodnction and manufacture, as also in Its trading and mercantile diatribution. Natlonal recources are enlarged and benefited by it ; and to Great Britain and the Unlted States it has proved ef fountain of wealth, from which streams of prosperity have flowed from the time of its first introduction as an agent of labor and traffic to the presart moment.

The upland cotion is a different epecies from the aeaisland, and is separated with such difficulty from the seed, that the expense of cleaning the wool must have put a atop to its further cultivation, had not a machlne, by which the o,w ration of eleaning is easily and successfully accomplished, been invented. This machlne was invented in 1795 by Mr. Eli Whitney of Massachusetts. There are two qualitiea of the cotton - the one termed Upiand Georgia, grown In the states of Georgis and South Carolina; nnd the other, of superior quality, raised upon the banks of the Misalsaippl, and diatinguished In the market by the name of New Orieans cotton. A strong prejudice existed for some time against the upland wool, which was thought to be of inferior quality, and not to take a good color in dyeing; bat belng found sultable to different coarse fabrics, its cultivation was so rapidly extender, that in 1807, $55,018,449 \mathrm{lbs}$. of upland cotion were exported from the United States.

The cotton of the finest quality ever brought to the English market, or probably ever grown, was that formerly mentioned as having been raised in the island of Tot , go, between the ygars 1789 and 1792, upon the estate of Mr. Robley. That gentleman carried the cultivation of this article to some extent; bat the price of cotton falling very low, and the cultivation of sugar becoming extremely protitable In consequence of the destruction of the sugar plantations in the French islands, be was induced to convert his cotion grounds into a augar plantation. The production of cotter of this very tine deacription has hardly ever been attempted by any other person, although it is believed that the price it would yituld would amply repay its expense.

Until about the year 1815 , it was thought that the cotton wool of India, from the ahortness ef its staple, could not be apun with advantage upon machinery; and, In consequence, the greater part of the Indian cetIon was apun upon the common jenay, and useds weft for the coarsest calicoes. It was discovercd, however, that by mixing it with the longer stapled $v$ fis of other countries, it mighi be brought into a state fit for thc mule and apinaling frames.

The United States consul at Naples, in answcr to the cotton circular lssued by the Commissiuner of I'at. ents, says: "The cotton cultivated in the plains near Castelamari, Angri, Scafata, and Nocura, is situilar to that of the United States. The plant is amall and annual, and ia cultivated with so much advartage that various projects by companles have been started to give extension to its cultivation; but withont belng carried into axecution. It has been cultivated for more than ten yeara. Before the French occupation there was a very limited quantity, but during the llerlin and Milan decrees of Napoleun, the cultlyation Increased very rapldiy, and the price reached a dollar a pound, though it had to be sent by land to Lombarily, Switzerland, and France. The quautity has since decreased. I have not been able to learn whether the French introduced seed, or sowed auch as they found here; but the cotton fibre has not deteriorated either as to lengeh, atrength, or unlformity. On the contra$r y$, the quality has improved.
"About two millious of pounds are produced here. In Stelly, to the south of the island, the cultivation is greater than in Naples. In past times, amall quantl.
tles: of cotton were shipped to Ilarseilles, but since manufactures have incriased here, It is all consumed in the country. The most extensive manufacturers (Vonwllier \& Co.) jmport annually from the United States two cargoes of cotton, of inoderate size, besides quantitlea indlrectly. Much twist is imported from England. Manufactures are improving, but are still far from reaching such perfectiou as to offer any inducement to export them.
"The price of ginned cotton is about 14 to 15 cents per pound. The cultivation in protected by a duty of 88 per cantar of 196 lbm . English if introduced direct from the United States, and 16 if indirect. It is ghined by the ordinary roller and by hand, as well as by the saw-gin; and 100 lbs of unginned will yield about one-thlrd clear cotton. It is packed with hands and feet, and is not exported, nor is there any fixed numier of pounds to the bale. The cost of preducing one pound of cotton fibre, well ginned, is from 10 to 12 cents.
"An aero of gronud will prodnce about 600 lbs , of unginned cotton. The value of an acre of cotton land is $\$ 450$, and the rest is $\$ 20$ to $\$ 25$ per annum; but you must take Inte consideration the annual land tax of from one-lifth to one-fourth of the rent, whlch mast lee paid by the owner of the land every two months in equal rates.
"If any causes operate Injurlously to the cotton crop, they are to be ascribed more to the social condition of the Inbabitants than to any thing else. The relations generally between the landowner and the cultivator - re not of the best kind, tho bad faith of the latter being characteristic, while the owner barely luaves him enough to miserably aubslat on. In sume seasons, too, worms do injury to the planta, as well as foge and mists in July and August."
11. Cotron Climates. 1. The Coiton Districts of the Globe considered with reference to their Climates.On inquiring lato the cllmate best suited to the cultivation of cotton, we must remember that we have to pay attention, not only to the air, but also to the vaper. These may be considered In some respects as forming two distinct atmospheres; the one uniform in quantity, and in the proportion of its ingredienta, but ever-varying in temperature; whlle the vapor varies not only in this respect, but in the quantity in which If Is jresent, anil also in its point of depesition, when alone it becomes perceptibie an molsture.

Cotton is coltivated in so many countries, that we can not but expect it to be capable of flourishing in considerable diversities of climato. Thus, the rich alluvial ands of the Misaissippl differ not only in soll, but a'su in temperature and dryness, from the sandy thelds of Georgla. In dryuess, both must differ from the uniformity of muisture which prevails in the islanda 'ahero sea-islabd cotton is produced. Some grows naturally fis the waruer parts of Mexico, as well ss In the countries sltuated along the east of the Andea; and much is culturated in the moist parts of Guiana and Hrazil. Hunibeldt has seen it at 900 feet of elevation In the equatorisi Andes, and at $\mathbf{5} 500$ feet In Mexico. llut here differnt apecies may, perhaps, be Inciuded, as we know that which yields Pernambuco cotton is cultivated In many parts of South America. In tho Old Werld, we find cotion growing in the interior, foth of Africa aad of India, where there must be considerable dryness of climate. It ls cultivated with some success lo Egypt, and slao, of late, In Algeria, ant near d'ort Natal, In South Africa; but, in the two former, only by the ald of artificial irrigation. It is produced In various lslanda of tho Indian Ocean, in many pasts of Chlna, and in almost every part of continental India. Thence it may be suld to extend into l'erala, Asis Minor, and to the nouthern parta n? Europe, ineluding the isianda of the Blediterrancan, whence the English manufacturers recelved their earliest supplies of cotton.

Within forty degr iiderable mer in ma as might 1 perature of tha amoun continents, greater cle compajativ lacrease ev radiation $\mathbf{v}$ mosphere. Bubadense favorite eli mean anna helt, but tl In tho tem heat of $73^{\circ}$ $46^{\circ}$ or $48^{\circ}$.
But, int where cotto that many vicinity of $t$ districts wh jargest retar y been stat ties are chie or to its beir ported by "Travels in distriets whi alapted for the eca-coast plied with w ral, that the bothood of $t$ vearly reced ferred treing hard afte thing, no don cultivated, a more or less
"Travels," Bio de Janle rarely, the $\boldsymbol{G}$. ed not to furn higher and do
Proximlty tiea hesides $t$ to the soil or certsin degre mate ; that i than is forme the freer cires land and sea of molsture : sea, neceasari This it does n less it is luack litte warmed of taking up coast in a co rather checks thus dees not to give up min crer, is necess air passes over ence of moistu luaraiant vege tropical isiand
Haron Ifum out that, while beth in winter a continental rea climate ', with a cook kur

Within these limits, extending from the equator to forty dogrees of intitude, we know that there are considerable diversities of climate ; but the heat of summer in many of these localities, does not differ so much as might be expected from their latitudes. The temperature of tropical regions is known to be modified by the amount of moisture, while that of the interfor of continente, even in high latitudea, is increased by the greater clearness of sky, which is dependent on the comparative absence of moisture. This cause tende to iacrease even the cold of winter, from the more free radiation which takes place at night in a cloudiess atmosphere. Humboldt has remarked that Gossypium Baibadense, hirsutum, and religiosum, have each thoir favorito climate, from $0^{\circ}$ to $84^{\circ}$ of latitude, whero tho raesin annual temperature is from $82^{\circ}$ to $38^{\circ}$ Fahrenheit, but that $G$. herbaceum is successfully cultivated in the temporate zone, where, with a mean summer hest of $73^{\circ}$ to $75^{\circ}$, the mean of winter is not less than $46^{\circ}$ or $48^{\circ}$.
But, in takiog a general survey of the localities where cotton is chiefly cultivated, we should observo that many of them are in isiands, and others in tho vicinity of the sea. This is certaialy the case with the districts where the finest cottons are produced, and the jargest returns to tho acre obtained. It has frequently been stated that tho benefielal effeets of auch localities are chiefly due to the presence of salt in the soil, or to its being carried $u_{i}$ in the spray, which is transportel by winds into the interior. Koster, in his "Traveis in Brazil," states, on the contrary, that "tho districts which are universaily allowed to be tho best ulapted for the growth of cotton, nre far removed from the sea-coast, arld, and oftentimes very seantily supplied with water; also, that tho opinion is very generin, that the cotton plant wilt not thrive in the neighborhood of the coast, and also that plantations wero yearly reeeding farther into the interior, tho soil preferred teing a deep-red earth, whieh becomes extremeiy hard after n long interval without rain." Something, no doult, must he owing to the species which is cuitivated, and to tioc climato oi tho plantation belng more or less moist. Ihus, Spix and Martius, in their "Travels," state that "the cotton irte cultivated at Rio de daniero ( $G$. Barbadense-sometimes, but more rarely, the $G$. hertaceum) thrives very well, $i$, $t$ is atated net to furnish such durabie materiais as that in the higier and dryer distriets of Minna Novas."
Proximity to tho sea hos, however, other peculiarities besides the facility of affording saiine ingredients to the soll or to tho atmosphere. It participates, to $n$ certsin degree, in the peculiaritics of an insular climate ; that is, in greater unlformity of tenipernture than is foumi in places farther in the interior, and in the freer circulation of air from tho nsuaily aiternating isnd and sea breezes. Thero ts niso greater equability of moisture ; for air, passing over the aurface of tho *ea, necessarily takes up a larger proportion of water. This it does not inmediately deposit on tho coast, uniess it is baeked by hiliz, lecenise it usmaliy becomea $n$ lituls warmed by the heated iand, and is then eapaile of taking up more moisture. Hut, es it resches the coast in a comparatively moist atate, it necessarily rather checks than favors excessive evnporation, nud thus dioes not force thic foliage, exjosed to its intiuence, to give up an undue quantity of moisture. This, howerer, is necessarliy the case whenever a dry current of air passes over the surface of the ieaves. To the intluence of inoisture, therefore, we muat ascribe the more iuxariant vegetation of sume zen-coasts, and of many tropical isianda.
Haron llumbelit and Professor Dove have pointed out tinat, while Gurope has a true insular or sea climate, both in winter and summer, North America incilnes to a continental ,no in winter, and, in many parts, to a sea climato ' a smmer; that is, it has a cold winter, witis a coel xumber, with the excoption of certain dis-
tricts, which are excessively hot. Bat Northern and Central Asia have a true continental climate, both in wiater and summer, or a cold winter and a hot summer. Notwithstanding this, we must also recollect that, though each locality may participate in the char-- cteriatio climate of itt continent, all places near the coast will have more or less of an insular climate, while those in the interior have such as are of a continental nature, though in varying degrees.

The different varleties of cotton cultivated in the United States are believed to belong to one apecies; that is, that the "Georgian," or "Bhort-ataple," is the sea-island, carried into the interior; and that the "seaisiand" itscif was originally introduced from the Bahamas, or, more iemotely, from Anguilla, one of the West India Isiands. Ti.e "Now Orleane" does not differ spectieally from tha sea-island cotton, and is admitted by the planters of the South to be identical with the plant of Mexieo, whence they procure thelr tinest seeds. It ia coajectured that it was from the neighboring coast of Mexico that the indigenous cotton of that country was introduced into the Weat Indies, and thence taken to the island of Bourbon. Hence we may account for Gossypium Barbadense being identical in species with the New Orleans and sea-island, as well as with the Bourbon cotton.
The I Texiean plant is not a native of the temperate regions of that country, but of the tierras calientes, or hot diatricts. It is produced, for instance, in the neighborhood of Vera Cruz, and is represented as growing fpontaneonsly near Valladolid, a town situated on the great plain of the Peninaula of Yucatan, described by Iumboldt as one of the warmest regions in equatorial America. Mr. Stephens siates that the spontaneous growth of cotton around that town had led to the erection of a cotton-factory in the placo. Mr. Norman, in his " Rambles in Yucatan," says, "The cotton plantations, or, rather, the distriets where the material is raised that is conammed in the manufactory in this city, are to the north, and known as the Tizemen district. Tho same spot is seldom cultirated for two successive seasons. After the crop is gathesed, the ground is suffered to be overrun with weeds and brushwood, which, when years have clepsed, are cut down ard burned, and the field is replanted." This rude method of culture is addnced only to show how littlo attention is paid to the plant in its native comntry. Bnt, as it is desirabie to know something precise respecting the clf. mate of one ni least of its native districts, we take from Prefesnor Dove the sulyoined notice of the means of oisservations mado at Vera Cruz for thirteen years. This town, situnted on the coast, in latitude $19^{\circ} 12^{\prime}$ north, and in longitude $96^{\circ} 9^{\prime}$ west, has $n$ mean temperature of $77^{\circ} .02$ Falirenheit, with a difference of only $12^{\circ} .42$ between the hoteat and coldeat months, thus:

| Jannary | 00.98 | July . . . . . . . . . . . . 81 t0 |
| :---: | :---: | :---: |
| Febr | 71.180 | August. . . . . . . . . . . 82.80 |
| Mar | $73 \cdot 40$ | September . . . . . . . . $80 \cdot 0$ |
| Aprit | 72.17 | October . . . . . . . . . . 78.44 |
| May | 81143 | Novenuber. . . . . . . . is 38 |
| June | 81.56 | Deember, . . . . . . . it 06 |

The Mexican eotton has been introduced into Texas, ns weli as into Lonisiana and Aiabama. In the sonthern parts of 'Texas, where the climato is very congenial, the piant does not require to ho renew eid more frequentiy than once in threo or four years, to yicid a crop auperior in quality and ipuantity to the annual planting of Louisinne. Cotton pianting, in that part of Texas, commences in February, and picking legins at an eariler and continnea fur a longer period than in the other states; the average return, also, to the acre, is considerably greater in Texas than in the other states, and the expense of cuitlintion considerably less, in conse. quence, not only of the grenter richness of the ooll, but also of the peculiar miliness of the climate. The cotton, moreover, is of a superior quality, and planters of
acinnowsedged varacity atate that it is not uncommon to plek 4000 pounde of ased-cotton from an aere. No Mr. Featherstonhangh, after erossing Iuto Northern Texas, In about latitude $33^{\circ} 40^{\prime}$, observed that he had naver seen the cotton plant growing in greater perfection before; for, in the cotton districts he had passed through, the plant was a low dwarfy bush, not exceedIng two feet la helght; lut here the planta were five feet high, often bearing 800 bolla, and yielding from 1500 to 2500 pounds of seed-cotton to the acre, which gives from 25 to 80 per cent. in waight of raw, marketable fibre,
The most anceessful eulcivation of cotten in the United States, It is well known, is is the lower parts of Georgla, Alabama, Mlasissippi, Loulsiana, and 'lexas. In thise regions there la comparativaly little frost, and the winter is alwaya mild, with considerable heat in summer; but this is tompered, to a great extent, by the pleassint and salutary effects of the sea breeze, which sets in $f \mathrm{rm}$ the Gnlf or the Atlantic for a great part of the day. There are heavy dews at night, and frequent ahowers occur, in the spring as well as in tho sumber. In the Interior and more northern portions of thase atatel (which are in some parts elavated from

800 to 1000 fect above the level of tho sea), froat is axpected in October, and often continues until April sometimea it occurs oven In May, so as to injure, but does not then weually deatroy, the plant. 'I'he heat of snmmer, though frequently high, stlll is tompered by the influence of the ocean or the Gulf of Mexico, ani of the numerous grest rivers, as well as by the dews and occasional showers. Tha cultlvation of cotton is generally commenced about the beginning of April, when the land is atill saturated with the winter rains, and difficulty is sometimes experienced in getting the land aufficiently dry; otherwise, a good ahower is es. sential when cotton is firat sown, and It is desirable also to have occasfonal ahowors during the planting, plowing, and hoelng acasons. The bolls hogin to opea about the middle of July, and contlnue to do so until the appearance of frost, from the middie to the end of Octobar, and the first delivery of the new crop on the sea-board is from the firat to the twentict. of August.

In order to have a more preciae idea of the climates of the most favorable cotton dlatricts, and for the advantages of comparing thern with those ot other countrics, tac anijolnod Tabla la aelected from Prefessor Dove, as publiahed by the Britlsh Aasociation:
$82^{\circ} \cdot 69$ encea being while, being additi of the and 0
seen vea, ut Ahis resem winto cenata gether hawe as lou habit bay a stato and $u$ conal rally the 2 conto thero from of rai long, are fe oua d of the 1000 the al
much the best cotton distriets aro influenced by the Atlantic, or the Mexican Gulf. The climate, to the wout of the Alleghany Mountains, is considered more mild than that under the same parallels in the Anlantic atates, and, hy aome, even to the oxtent if three degrees of lathude. This has been explained as caused by the wartil air of tho Gulf of Mexico being driven up the basin of the Mlesiseippi and that of the thio. Thu direction of the valley, north and fouth, no deubt favors the coarse of the southern winds, while the roglons of the Atlantle slopes, being transverse, oppore any such transmission, and also the migration of plants. The majorlty of the places of which the mean tempuratures have been adduced are on the aca-coast, and neccesarily participate, to some oxtent, in the peculiarities of an lisular climate; that is, of seasone moderately eontrasted. Still, the dilfirence between the hottest and the coldeat month of the year is moch greater than at Vera Crua; that is, than $12^{\circ}$; being, at Mothle, Galveston, and Now Urleana, $2 i^{\circ} \cdot 23,29^{\circ} \cdot 10$, and $29^{\circ} 96$, reapectively. But in the Interior, at Natchez and Vlekalsurg, the differences are greater, beling
the aonthern bordera of Virginia, to the southwestern streama of the Mississippl. Thu mean quantity over all is estimated at 120 pounds of ginned cotton, of both sea-island and of the slourt ataple, to an acre, but the anount of labor la much greiter for tho former than for the latter.

In comparing the cllnates of the eetton regions above thoscribeu with those of other comntries, it is nec essary to remember the pecullarity of that of America, with which this sulject was commenced, and nlso how and the heavy rains of July and August. The cold weather seldom commences before the beginning of December, and terminates In March, but the wiuter is usually mild, and suow seldom falls near the sea, and soon melts away. The lilly parts, 200 miles from the sea, are agrecable and favorable to health. The winter is colder; snow falls to a depth of five or six inches. Thought the preceding talles are sufficient to give a general llea of the climates, it would be deairable, for agrlcultural purposes, to have also the maxime and minima for the opring, sumuser, and autumnal nomehs, fur a series of years, as a night of frost may destroy the plants, aud great heat, with drought, will ise equally injurlous, from drying them up. Cottun, as before observed, is sown in April; pleklng commences in July or August, and conthues until Novemier, and, on the coast, sometimes ever as late as December, The seaisland plant ylelds aboat 125 or 130 pounds of clean gianed cotton per acre. Of the shart staple, in the hill country, from tha Misslasippl to the Carolinas, not more than 600 pound of aced eotton, or 150 pounds of clean eotton, can be obtained to the acre. The short staple cotton ls more or lese cultivated all the way from
$82^{\circ} \cdot 69$ and $81^{\circ} \cdot 57$. In the Atlantic districts the differences are nearly as great as those on the south coast, bcing $81^{\circ} \cdot 73$ at Savannah, and $81^{\circ} .09$ at Charleston, while, in tha interior, the differences are much greater, being $36^{\circ} \cdot 02$ at Augusta, and $88^{\circ} \cdot 10$ at Columbia. In addition to the foregoing, it is desirable to notice some of the general features of the climate, both of the Gulf and of the Atlantio states, as it will then be readily seen how much it is modified by the vicinity of the sea, und by the configuration of the cosst :

Mississippi.mNear the Gulf of Mexico, the climate resembles that of the lower parts of Louisiana; the winter is mild, the summer warm, but tempered by the constant pravalence of the breeze from the Gulf, together with the elevation of the eurface. At Natehez, however, the thermometer in winter sometimes stands as low as $10^{\circ}$ Fuhrenhcic. In eickly seasons, the inhabitant frequently remove to the bigh banks of the bay of St. Louis.

Alabama.--In the low and gouthern parts of this stato the heat is very great. The climate of the inland nod upper parts resembles that of Georgia, snd may be considered remarkably mild. Frost commences generally in October, and continues sometimes as late as the 20 h of May, 30 as to injure, bat not destroy, the cotton, in the mere elevated parts. During summer, there is usuully a prevalence of westerly winds. Those from the seutheast are regarded as the sure harbingers of rain. At Mobile, from nine in the morning till evening, the pleasnnt and salutary effects of the sea breeze sre felt. The rich verdure of the earth, with the copicos dowe that fall during tho night, and tho elevation of the soil, which, in the upland parts, is from 600 to 1000 foct above the sea, produce a beneficial effect on the climate.

Louisiana,-The elimate of most parts of this state is somewhat variable. From the sea to Point Coupéc, it seldom snows or freezes, except in the months of December ani. Jnnviry, and then when the wind is from the north oi nort'west. There is less heat and more moisture than in similar latitudes on the Eastern Continent, and the climate is gencrally very mild. In winter, the therinometer seldom falls more than two degrees below the freczing point. In December, 1800, the thermometer asnk to $12^{\circ}$ near New Orleans, and anow fell for the first time in twenty years. In January, 1811, the mercury fell from $78^{\circ}$ to $10^{\circ}$, and the Mississippl was completely frozen over. At the present time (February, 1856), it is reperted ns low as $20^{\circ}$, and the Mississippi as frozen quite over with the ico severnl inches in thickness, and the ground eovered with ico and aleet to a depth of six or eight inches.

Georgia.-All the flat country of this state is described as moist nnd unhenlthy dirring the warmer montis, especiully the "rice swnmps;" the ellmate is somewhat warmer than that of South Carolina. The winter is the most pleasant senson of the year, when the thermometer usunily ranges from $40^{\circ}$ to $66^{\circ}$, though sometimes a considerable degree of cold has prevniled; snow is uncommon, but frosts have been experienced even ne Inte as April. A strong northeast wlnd will oecasionally hight a promising field of cotton, as inacets wlli sometimes deatroy it. The spring is usually rainy, the summer inconstant, with a temperature of from $71^{\circ}$ to $90^{\circ}$ from Jnne to September. The atmosphere feels apringy nul enlivening, being refreshed by geotie breezes, which blow almost daily from the nenshore. Abont the 20th of July the summer rains set in , often necompanied with storms of thunder, and severe winds, which, though not tropleal in their violence, are eften so heary an to deluge tho fields. About thu end of July, or begimning of August, the wind nsunlly changes its direction from sontheast to southwest. The menth of A agnst is the period of most solicitude to the cotton-grower, at heavy rains at that timo oceasionally cause the plant to part with its young bolls, and even its leaven. The nutumn is usaally fine and clear; and
about the 20th of October frosts are expected, but do not often come before the end of the menth. The inhabitants of the billy tracts, two hundred miles from the coast, enjoy an agreeable climate, which is favorable to health. The winter is colder, snow sometimes falling to s depth of ixve or aix inches. The summer is not so hot, and the winds of autumn are less violent; and the cotton, being less exposed, is allowed to hang longer, so as to become perfectly mature.

South Carolina. -The winter of the lower parts of this state is mild; and the difference between the mild. est and severest winter is nbout seventeen degrees, often with hoavy frosts, and sometimes anow, but with a hat sum during the day; though snow seldom falls near the sea. The winter may be considered as terminnting in March, when snow and heavy rains qaually occur ; but April and May are commonly dry months. In the low country the heat of summer is intense; but the climate is liable to sudden changes of temperature, when it is damp with fogs and heavy dews. Junc, July, and August are generally the wettest months, and the raina consist of henvy bursts and frequent showers, which are lable to occur in spring, semimer, and autumn. November is usually fine, eren after the coming of frosts, which sometimes do not occur until December. The avernge quantity of rain, for ten yeara, was 49.8 inches; the largest quantity, $83 \cdot 4$ inches, and the least, $30 \cdot 6$ inches, in any one year. In the upper country, frost appears earlier and continues later: but the weather is not so variable. In winter tho cold is consideruble, but does not last very long. The c!imate of the Santee Hills, which are situated eighty or nimety miles from the coast, is similar in character.

Teras.-The climate of Texas is decidedly more healthy than that of Lovisiana, or any other of the Gulf states; still, on the low alluvial coast, intermittents are prevnlent during the summer and autumand tnonths; but the yellow fever is rarely known. Comparatively little rain falls from Narch to October, though gusts of wind, with thunder, frequently oceur, with sufficient rain to make excellent crops. During the rest of the year, hot weather generally prevails. The winters are warm and mild on the coast, and, for some distance inland, snow is seldem seen, except on tho ligher table-lands or mountains. From April to September, the thermometer, near tho coast, usually ranges from $63^{\circ}$ to $100^{\circ}$. The grentest heats, however, nro tempered by strong and constant breezes, which begin to blow soon after the rising of the sun, and continue until past noon. The nights throughout the middle regions are cool and refreshing during the year.Report of the Drpartment of State of the United States.

In connection witi the climate of the United States, it is desirable to take some notice of that in which another species, the "Brazil" or "kidncy" cotton, is cultivated. From the observations of the late Dr. Loudon, at l'ernambuco, it is found, that the quantity of rain which falls at that place is considerable, and that the oir must nlways be in a moist state. As Koster states that cotton succeeds better from 50 to $\mathbf{1 5 0}$ lengues interior, the climate may atill be more moist than that on the const.
3. Climate of the Cotton Region of the Nile.-The soil and climate of lypyt are adapted to the growth of cotton, but the yieli diepends greatly on the rise of the Nile. When the river is low the crop suffers, as little or no rain falls before December. Alnost nll the land in Lower Fgypt is particularly well alnpted to the growth of this product, yet it is not all equally good.

It rains frequently in the vicinity of Alexandria, and but seldom on the Deltn.
The culture of cotton in Egypt, on a large scale, is comparstively recent. It was first undertaken by M. Jumel, a Frenchman, who, in 1821, lald before tho Viceroy all the ndvantages and results arising from its production. Previous to that period, the cotton produced in that country was of juferior quality. A few plants
only had bean introduced from India, and were to be found in the garden at Cairo, whore they aerved as ornaments. From these the culture was extended on a grand scale, and became one of the principal branches of the agricaltura of tha Viceroy. Although th3 soll along the Nile appeara to be generally well adapted to the growth of the "Jumel" or "Make" cotton, it is planted in preference in rich, heavy lands, which ratain considerable meisture, and whers the plant can acquire sufficient strength to produce well-filled bolla. The grounds where the cotton is cultivated are kept free from the overfluwing of the river, as tha standing water would rot the plants and canse them to perish. The agricultural labor of the country is performed exclusively by tha Fellahs (peasantry), a peculiar race, who labor under a system similar to that of the serfage of Russia. The black slaves (chiefly Nubians and Abyasinians) in the country are occupied exclusively in domestic duties, and live bett und labor lase than the Fellahs. The latur are not polanitted coleave the promises to which they beloag, and the reward of their later la left to the will of the proprictor, and generally is the minimum of subsistence. They hire in nud hovels, and are allowed to partake of animal food but once a year, and then as a religious duty. Like the Emperor of IUussia, the present Viceroy has unde aome cxperiments in making the Fellahs nominal propristors of amell farms ; but the exactions of the Turkish offcials never loava much margin in their protits. Therefore, having but little interest in the soif they ealtivate beyoad the merest subsistence, their lathor is slovenly, their fields poorly tilled, and, conseguently, hmprovements can not well be introduced. The lellahs tako great care to protect the fiedes by dikes of cart. where they are sulbect to inandation at the time of tho rise of the Nile. Neverthelegs the cottoriplanas are wetered periodically by means of Sohyiehs, Shourufi, or water-wheels. In winter, they water them wery fit. teen days; in the spring, if there is much ciew, every twelve days; and in aummer, every oight days. It may here be remarked that, in sumner and autumn, the dowa are very copious. The system of irrigation is admirable. The planters of some of our senthern States mlght prolit by its adgption. In every other respect the culture by the Fellahs is sloventy to the last éegree. They begin to prepare the lamifor culture by flooiling it in December, and allowing the water to remaln upon it from ten $t 0$ twenty days. No manare is empleyed, as the ordure of the animals of burden is used for fuel. The only fertilizer is the deposit of the sediment of the Nile when the land is overtiowed. They plant in March and April in Lower Egypt, before which they ysually give only one tillage to the ground, if it bo rich; but if the soil be indiftier. ent, it is werked two or three times. In the vicinity of the Said, they every where plow to a depth of about fifteen inches. They then run furrows at the ciatance of abont 31 feel. After plowing they level the gronnd by breakiug the clods, nind it reynisea no further preparatlon. They then maku holes from t'ree to four lnchice la depth, and 3if feet apart, in which they teposit from two to four sceds that have been previously steeped In water for twenty-four hours to haston their germination. In asme case the Fellahs cultivate vegetables, otc., in tho hatervala lefween the phants. At the time of the inundation they eradicate the weeds. The first year, they cut tho cotton plante with a kiad of pruning-hnife, and remeve all the branches, whleh they use for fuel. This operation plves more atrength to the plants, and pruteets them frons cold, which wnath otherwine cause the branches to perish. Tho second year, they only work the ground when makling a new weeding, and the plaste, which hat before eapuired a grow th of from 3 to to 5 foet $\ln$ helght tha first year, now grow only ln a less degree.

The colton begins to tlower early in July, and con. tnues to lloom till Decomber, and even into Fobruary
or March. The period of harvesting varles in different diatricts. The firat year, il commencas in July an: ends in January, when the season is not too cold. The product of each plant is $1 \nmid$ pounds in the rough; the second and third years, from $1+$ to 2 pounds: but, in tho aulsequent yeara, the plants lose their fecundity, and it has been found necensary to renew them every three, and in aome jastances avery two yesra. They would produce bolls, however, for a long period-say fifty years. At the expiratlon of three years the plant lucreases in its shrubby character, produciag a very thick follage with but few bolls.

The yiald of eotton varies waring to the circumstances under which it is euitivated. That which is sown in winter, ealled $\mathrm{Ban}_{5}$, aud which is watered only during the inundation of tho Nile, gives, on an average, shove 200 pounds to the acro. Tt watered by means of wheels, and ciled Miskor, aivis elout 300 poun is




 deticiency of rain, lin ery hig: tha reverse, from the hest of ws, the uxtrems tumn Nor ia the whole of Aleuri of corton ; it is necessary to select thoes parts which are the moat propitious. On the chala of the Atlas, as well as on the plaine which crown ita heights, the heat, although in summer excessive, does not continue long enough in antumn to permit the complete maturity of the bolls. In the region of 'lell, it becomes necessary to abandon its culture at an elevation of 2000 , or even 1600 feet above the level of the selu. Bat, beyont this centrel and mountainous country, there extend tro aones which aro declared suitable for the growth of cotton, and it is sald that proof has been given to that effect; ono is the region ot the coast from La Calle to Nemeurs ; the other, that of the Saharian oasis. Another olstade to its culture is, that cotton, in general, eall not be planted before the middle of April without ruming the risk of the seeds perishing from the excessivemoisture of the land. Consequently, it enn net arrive at maturity before the polonged rains of autama commence, which nearly stop its growth. 'The province of Oran is reputed to be hetter adapted to the growth of cotton than the other two, Algiers and Constantinc.

Algeris, sitantell as it is between tho 3th and 37 th degrees of north latitade, bounded on one side by the Mediterranean, and ens the other by the Desert of Salava, from which it is separated by mountains, prossezsea a climate, in most parta, similar to the zolies bortering on the tropies. It is not, however, sifletly a tropical, nether can it he sald to be stemperate degion. It is jarticularly remarkable for the miformity oi It a t- ajerature throughout the year.

The sfoniteur contains a mpert fieas Marshal Vaillant, uldiressed to the Finiperor, on the aubject of tha growth of cotton in Algeria. In the docament the Minister of War recognized tho good effects of the decrees of the 16 th of October, 1853 , by which an annun prize of 20,000 franes was alloted for five years to the lient cetton-grower in tha Franco-African colony'; and for three yeara, ermmencing whit $\mathbf{1 8 5 4}$, the whole cotton produce of Algerla was ordered to le purchased by the state at a price fixed heforehnind, at andrantagcous rate to the producer. In consequence of this encouragement the growth of entton han increasen, and it is said the quality is equal to that of American growth.
In the eultivation of cottou in Alreria, stableadung Is sometimes ased, though but fow farmera pay any attention to helr flebde. As their cattle nre never housed, their mrans of mahing manure become rery Hmised. They flant from the 15th of April till the l0th of May, fil rows about two feet apart. The crop is hoed four times, and irrlgnied ass often ta water can be spared from other plants; and, when abondant, it
la applle in July, tember vesting the follo 5. Ch Africa.vated fo extremi gion, an within t ble to tl stant $m$ the clim grown f describe grazing coton the best States. samples greensest represel required
6. Cl Mediter cultivat terrane apecies, and th Minor, known duced i 1s. T the bes A Nisn ufactut At the gro tien in the pla fogs as
is applled every four days. The bolla $t$ gin to form in July, and the plants conticue in tower from September untll the latter part of Felaruary. The harvesting also commencea in Soptemiver, and lasts until the following spring.
5. Climate of the Cotton Districts of other Parts of Africa.-Cotton of a very good quality has bees: cultivated for som? years at Natal, nearly at the so. thers extremity of Arrica. The coast is low along ".w. Ps gion, and, in some parte, even swampy; but w:e 1:id within ten miles of the sea is considered nost "ir. rable to the coltiv:tiun of cottor, probably frum the constant molsture of the atmosphere and the warm $h$ of the climate; though, no doubt, it may be auces. ifully grown farther in tha interior. The country by nd is described as being better ad sted to the purposes of grazing. Various attemplis he beer made po obtain
 the best varieties here been introduced from the United States. In Liberia, Dahemey, and other places, fine sanples have been produced, principslly from tho green-seaded and kidney-seeded sorts. The clinate is represented as favorable, but a different population is required for an extended and p:ofitable production.
6. Climute of the Cotton Regions and Islands of the Mediterranean.-Considerable quantities of cotton are cultivated in other coentrles bordering on the Mediterranean. It is generally the product of the India species, though seeds have been introduced from Eyypt and the United States. These are cultivated in Asia Minor, in parts of Greece, and the islanda generally known ss the Levant. The Italian eottons are produced in Sicily, in Calabria, near Naples, and in Malta. Those of Sicily, Calabrta, and Castellamare are the best, and ara usually produced from American seed. A Nankin cotton Is cultivated in Malta, but is all manufsctured for domestic use.
At Nuples, the soil and climate are $w=l l$ anited to the growth of cotton, with the aid of artificial irrigation in times of drought. In some seasons, however, the plante receive injury from insects, as well as from foge and mista, in July and Augist.
The manure, when employed, is the dung of animals, but no other fertilizer is nsed. The seed is planted in Aprit, in rown, with anfficient space hetween them for the passage of water, for the purposes of irrigation. The plants are in flower in June and July; the cetten harvested from September to November; and the yield per acre, unginned, besides other crops inetween tho rows, 600 peunds.
The soil ard climate of Sicily are bettec adapted to the growth of cotton than those of Naples, partlcularly on the southeast side of the islend, and within twenty miles of the sca. Further inland, the heat is not sufficient to mature the crop. The maximum temperiture of the cotton regions, from May till October, is $77^{\circ}$ Fuhrenheit ; minlmum, $614^{\circ}$; the mean $68^{\circ}$. The quantity of rain whlch falle during the cottou-growing months is generally fully auffielent for the perfection of the plant. The prineipal linjury to the crop is occasioned by long-continaed nerth winds, which, however, but seldom occur.
7. Climate of the Cotton Districts of British India.-The Britiah Fast India possessions etabrace an almost boundless extenat of territory, extonding from the Ilimalaya range of mountains on the north, to the ocean, Including nearly the whole of the peninsula of liindostan, the ishond of Ceylon, and that pertion of Ihrmah bying between the $20^{\circ}$ of N. lat, and the bay of Bengnl. In the peninsula of Iudia, the chimate is greatly influeneed by the two monsoons-one from the northeast, which blows ehfetly on the eastern coast, and the other from the southwest, which is mostly felt in Malahar and the western parts of the country. In some parts, the utrantages of toth monsoons are enjoyed; but his others, the change from the mointure of the rains to the heat and dryness which succeed them, is nearly as
marked in its character as at Saliarnm,ore, and the cotton-plants auffer as much from the transition. Such heing che axtremes of temperature and of dryneas, as well as the shortness of the several scasons in which the plant may be miade to grow-that ls, during the hot and dry weather, from March to Juac, or during the stcaming moistare of the rainy season, followed, at firat, by a hot sud molst summer, and then by a cold and dry automn, aceected by a braciag winker-a plapt, must be hardy to sustain onlnjuret such extreme and sudden viclssitu ${ }^{2}$ a. But all India is not identicat in climath. In some parts the accession of the $r_{i}^{\prime}$ is is earlier, t? ir termination more gradaul, and the wid of "inter less, or the country enjoys tho odvant wiges of a wible monsoon; so that there is a lomeer period of growth.

Temperature, as we have acen, is only one of the clementa of cli cate $s$, though a very inportant one, is jet unaele of itself to do any thing toward the growth of a plant, unlegs water be within the reach of its roots to dissulvo and carry into the vegetable cells and vessels the elements of mutrition. It must be decomposed, in contact with air, not too dry, nor yet too damp, but containing its due proportion of oxygen and carbanic ncid gas, and illuminated by the light of the sun. There is no doubt that cotton-plants may eyist through a long range of temperature, and of moistore and dryness of the atmosphere; but it is equally certain that they will never attain liealthy vigor of growth unless there is a due supply of moisture in a moderately warm, or rather hot atmosphere. Though the degree of hent may be measured with a thermometer, moisture is not always indicated by the rain-gauge, for rain may fall and run off the surface, or percolate the soil, and the earth and the atmospliere both he left in a parched state, even during the season of growth. The molsture can only be deternined by the hygrometer, or the wet and dry-bulbed thermometer; and, imperfect as tha majority of such instromenta are, the information obtained from many sitnations would be invaluatle, ns we might then be mere sure of drawist correei inferences, becausc, thongh we might not lie able to calculate correctly the exaet quantity of moisture contained in the atmosphere, we could sce whether this was in a state of saturation, or was capable of taking up a still larger quantity, and thus in the one case checking, and in the other favoring, evaporation from the soll, nid from the surface of plants. To the comparative noisture of the nir on the sea-coast, and in places within the reach of the moist sea air, must chietly be nseriled the prefcrence of the cotton-plant for such situations, or, at least, for its successful culture in so many islands and along so many consts. But to this it may lie objected, that a long-stapled cotton is successtilly grown in the dry climate of Egypt. In that country, however, copious irrigation produces the same beneficial effects in a warm, dry stmosphere. Exeess ot motsture in a warm climate, however, may prove as injurious ns its deticiency ; for then the parts of vegetation may be altogether stimulated, or may be in a state of continual growth, when plenty of branches and leaves are produced, but few flowers and very llttle cotton.

The seasons of Indin, over a great part of the country, are divided into the cold, the hot, and the rainy; namea which sufficiently adicate the particular characteristies of each. If we take an equatorial climate, like that of Singapore, as a standard of compsrison, we whall ohserve a very great ditferenee between it and that of a northwestern situation in the plains, such as Saharumpore, in $30^{\circ}$ of north latitude, the tirst being remarkable for uniformity, and the latter for a great range, both of the dry and wet-julbed thermometer. l'lants which live throughont the year in the open air at Simgapore, will, in most casea, sulfer both from the cold and the heat of Saharunporo, thengh they may flourish in the raing aeason alnost as well in the one as the other.





-U. S. Patent Office Rezort, 1sib.
III. Cotron Trade of the Unitho States. 1. History.-Cotton, which administers so bountifally to the wants of eivilized as well as to savage man, and to the wealth and ecoucmy of the countries producing it, stauds pre-eminent in the United States, both as regards its auperior staple and the dogree of perfoction to which its cultivation has been brought. Ono or more of its species is found growing wild throughout the torrid zone, whence it has beon disseminated, and become an important object of culture in several countries thereto adjacent from time immemorial. It is mentioued by Ilerodotua as growing in India, where the natives manufactured it isto ctotis; by Theophristus as a proluct of Ethiopia; and by Pliny as growing in Edypt, toward Aralia, and near the borders of the Persian Gulf. Nieuhoff, wha visited China in 1655 , says that it was then cultivated in great nbundance in that country, whero the soed had lween introduced about 500 years before. Colambus found it in use by the American Indiann of Cuba, in 1/92; Cortez, by those of Mexico, in 1519; Pizarro und Almugro, by the Incas of Peru, in 1532 ; and Cabeca de Vuca, by the natives of Texas and California, in 1086.
Of the precise period of the first introluction of the caltivation of this plant into the North American colonles, history is silent. In a pamphlé entited "Nova llitamia offering most excellent fruits by planting in Virgisia," published in London in 1609 , it is stated that cotton would grow as well in that province as in 1taly. It is alao btated, on the authority of Beverley, in his Ilistory of Virginia, that Sir Eilmund dndrog, while governor of the colony, in 1692, "gare particular marka of his favor towned the propagating of cotton, whiel, aince his time, has been mueh neglected." It further appears that it was cultivated for a long time in the eastern parts of Maryland, Virginia, Carolina, and Georgia, in the garden, though not at all as a planter's crop, for donestic consumption. In another pamphlet, cotitled "A State of the Province of Georgin, attested upon oath, in the Court of Savamnah," in 1740, It was averred that " large quantitics have heen raised, and it is much planted; but the cotton, which in some parts is peremial, dies hera in the wheter; which, nevertheleas, the aunual is not inferior to in gyodneas,
bat requires moro troulle in eleanning from the seed." About the year 1742, M. Duhrenil invented a cotton gin, which created an epoch in the cultivation of this product in Louisiaua. During the Revolution, the inhabitants of St. Mary'e and Talbot comuties, In Maryland, as well as those of Cape May connty, Neir Jersey, raised a sufficient quantity of cotton to meet their wants for the time. It was formerly produred in small quantities, for family use, in the connty of Sussex, in Delaware, near the head-waters of the Choptank.
The scelt of the sea-ksland cotton was originally obs tained from the Bahama Islands, in about the year 1785, being the kind then known in the West ladies as the "Anguilla cotton." It was first cultirated by Josiah Tattnall and Nicholus Turnbull, on Skidawsy Islana, near Savamah; and subsequently ly Jances Spaulding and Alexnader Hisset, on St. Simon's Island, at the mouth of the Altamalia, and on Jckyl Island, by lichard leake. Foc many years after its introduction it was confinud to the inore elevated parts of these islands, bathed hy the saline atmozphere, and surrounded by the sal. Gradually, however, the cotton cultare was extencled to the lower grounds, and beyond the limits of the islands to the adjacent thores of the contlaent, into solla containing a mixture of clay; and lasily, inte coarse clays deposited along the great rivers, where they meet the orean tides.

Previous to 1794 the year after the invention of W'gitney's saw gin-The annual amount of cotton produced in North America wan comparatively inconsiderahle; bat since that period, there Is probalily nothing recorded in the history of Industry, inclading its manufacture in this country and Europe, that would combparo whth its sulgequeit increase.

In the Enstem hemiaplere, the growth of cotion is principally restricted to the maritlme countrics lying between the toth degres of north latitule and a correspendiag parsilol south. On the casterly side of the Wextern Continent, this plant will perfect its growth in most of the dletricta arjfacent to the tidal waters, insluding the regions bordering on the Missiselppi, the Amazon, and tho Parana, between latitude $39^{\circ}$ morth and $40^{\circ}$ south; and on the west coast of America, bo-
tween gree sou The dia, Chl Europe Africa, ish Gui Vrugua isles.
Aeco gated tl rieties in the f 1. $G$ plant 0 some pi 2. ${ }^{2}$ India.
tween the 40th parallel north and a correaponding degree south.

The growth of this atapla is ehinfly coafiaed to India, China, Japan, Australia, l'ersia, 'Turkey, , wouthern Europe, Arabia, Egypt, Algeria, southern and weatern Africa, tho southern section of the United States, 13ritish Guiana, New Granada, Venezuela, Pern, Hrazil, Uruguay, the West indies, anit nutuerous other ocean isles.

Accerding to Dr. Moyle, who has recently investlgatell the subject, the different localities of the four varictics or species of cotton (see page 431) may he ataied in the following manner :

1. Gossypium Indicum, or herbacenm-the cotton plant of India, China, Arabia, l'ersin, Asia Minor, and some parts of Africa.
2. Gosmypium urboreum-a tree cotton, indigenous to India.
3. Gossypium Barbadensc-tho Mexican o West Indian cotton, of which the sea-island, New Orleans, and uplaud Georgia, are varicties. It was long since introduect into the island of llourlon, and thence into India; hence it aequired the name of "Bourbon cotton."
4. (icssypium rerurionum, or acuminatum-whicis yieds the lernambuco, Peruvian, Moranham, and Brazilian cetton, especinlly distinguished by its black seeds, which adhero firmly together. This variety has long since been introduced into India.
the chief varicties inltivated in the United States are the black sced, or sea-island (G, arboreum), known slee by tho nanae of "long-staple," from its line, white, silky appearance and long fibres; the green seed ( $G$. herbuceum), called "short-staple," from its shorter, white stajle, with green seeds, and commercially knewn by tho name of "upland cotton:" and two kinds of Nankin or yellow (G. Barbadcuse), the Mexican ame Petit Gulf. Tho average yield is about 500 poonds per acre.
The earliest record of sending cotton from this country to Europe is in tho table of exports from Charleston, in 174"-'d8, when soven bags were shipped; anothor jurcei, consisting of 2000 pounds, was shippedi in 1700 ; and a thirl shipment of 71 bags was mado in 1784, which Engiand ecized, on the ground that Anerica could not produce a quantity so great. Tho amount experted from the United Statea in 1791 was 189,316 poutds; in 1793, 487,600 pounds; in 1794, 1,601,760 pounds; in 1795,6,276,300 pounds; in 1800, 17,789,803 pounds; in $1810,03,261,462$ pounds; in 1820-'21, $124,893,105$ pounds; iu 18:10-31, 276,979,784 pounds; in $1810-14 \mathrm{i}, 530,204,100$ peunds; iu $1850-$ 'ö $1,927,237,089$ pounds.

According to the Census returns of $18 \cdot 10$, the amount cultivated was $790,479,275$ pounds ; of $1850,987,449,600$ peunds; slowing an increnso of $196,970,325$ pounds.

It appears that the culture of cotton is rapidiy diminishing in Virginia and North Carolina. In those slates it is doubtless giving place to other productions of the soil. There has been a very heavy falling off also in Louisiana, and no appreciable increase in Mississippi; but the-diminution in the former state, and the failure of any advance in the latter, are accounted for by the terrible inundations of tho Mlississippi and its :rilutaries. Jut for that enlanity, it is probable that their increased yielil would have equaled that of Alabama, which now occupiea the lirst placo as a cot-ton-planting state, nud inss aimost doubiedi ita production since 18.10. Immense as the extent andi value of this erep lase become, it is not extravagsent to anticipate a rate of increase cor the current decennial preriol which will bring up the aggregate for the year 1800 to 4,000,000 baies.
The average annual yield for the fiva years ending with 1885 was extinated at $1,055,0 C 0$ bines; for the sanse period ending in 1840, 1,440,000 bulea; for a like period terminating with $1850,2,270,000$ bales. Ilad no disturbing cause diterrupted the progressive nul-
vance, the amount of 1800 would have exceeded $3,000,000$ baleo.

The export of colton from the United States to ths countries of northern Europe commenced some aixty years ago. In the year 1800, IIolland, Including the territory now known as the klngdom of Belglum, reecived 79,694 pounds ; in 1855 the aggregate quantity exported to the two countries was $17,100,967$ pounds. In 1803 Norway and Denmark first imported American cotton, anounting that year to 184,193 pounds; in 1855 the aggregate quantity exported to these two conntries, including Sweden, was some $7,000,000$ pounds. Prussia and Sweden legan importing cotton from tha United States in 1804. Russia, in 1809, received cotton from the United Statea for the first time, and to the amount of half a million of pounds; while $\ln 1858$, the year prior to the commencement of the late war, the exportation to that ceuntry amounted to more than 21 mil lions. The Hianse-towns received cotton from the United States prior to the year 1800, and the progreas of the trade with those citiea, which is exhibited in the sutijoined statement, atrikingly exemplifies, in connection with the remarks which have preceded, and the general statement which follows it, the rapld and powcrful advancement of the king-staple, not of the United States only, hut of the commercial world.

At the oponing of the present century, the imperta of cotton wool into Great Britain were ahont 75,000 hales per annum; now the consumption of that conntry is $2,600,000$ bales annually, while the rest of Lurope, and the United States, that then had no manufactories, use sbout $1,900,000$ more, to say nothing of the consumption of Asia. Of this $4,000,000$ lales, fivesixths are the proiluct of this country. The result of the paat three years proves, that neither the existence of a war involving the chief nationa of Europe, nor the Ifuctuatiens in tracle consequent on its cessntion, have had any effeet on the demand for our great southern staplo; thus establishing the faet that, the next to the leading articles of human food, it has become a great and fixed necessity.

A document compiled from the very best data, by ono peculiarly fitted for the task, was lately read before the Manchester Chamher of Comineree, exhiliting very important facts. The value of the cotton manufacturing industry of the world was estimated at $£ 120,000,000$ sterling, or $\$ 600,000,000$. Of this amount the entire population of Great Britain consumed, in value, aloout $\$ 3.85$ per lical per annum. England exports to the United States manufactured goods at the rate of 77 centa for cach individunl in this country, but being ourselves large manufacturers, and ill view of the general better condition of the lmik of our population, it is probable that our consumption of cotton goods will exered that of Great Britain 50 per cent. per head. England exports to her North American colonies cotton goods at the rate of $\$ 1 \cdot 53$ per head jer annum, for tho whole pejulation; to Russia, only at a rate of three-fiftis of a cont per head; to France, two cents per head; to her East india possessione, at the rate of 18 cents; but these three last countries manufacture at home, eapecially I'rance, who mainly providea for her own wants, while Russia receives goods from several sources. Estimating the population of the globe at $850,000,000$, the appertiennent of the whole value of manufactured goods would be ahout 70 cents for every inhabitant, man, womnn, and child.

The tendeney of the age is gradually toward an equalization of the moral and physical condition of tha human family. The wealthier and middle elasses expend much more than heretofore in artieles of taste and luxury, in household ant personal adornaient, wherelsy the artisan, mechanie, and laborer are benefited, and their condition improved. The barbarous and debased nations and tribes of the world are fast tending toward the habits, and acquiring the tastes of civilization; the flrst symptom of which is the exchange of
their former rude and scanty clothing for dremes of our zuanufactured goods.

Hence it requires naither reflection nor argument to show that a very amall general increase in the coosumption of cotton goode would demand a supply of raw material beyood the present ability of the world to afford. A reference to tabie "Generai Import of Cotton Inte Great Britain" will show that the emall product of the Weat Iudias is almost atationary-that the same is the case with Braiil, on an average of yeare; the export thenco, last year, was only 185,000 bales, weighing is a than 200 pounde each. In Egypt, the product of the past four yeara has averaged about twice as inuch as the proceding peried; and last year oniy 115,000 bales cante from that source, weighing 250 poundis each ; while the average shipments from the East Iudies for the past six yoars is but 340,000 baics per annum, weighing about 380 pounds each.
The main dependence of tho world is on this country, which last year furnished $3,000,000$ bales out of a total proluct of $4,200,000$. As the new lands of the West come inte cultivation, and the progress of our raiiroais briags the crup within reech of the sealourd, there will be a gradual incroase of our production; but to this even there must be a limit, cousidering the nature of the elimate and soil necessary; and the time may not ie very far tistant when we elall fail to meet the demand. Under this atate of things, it is net to be wondered at that the governments of Eugland and France are putting forth every effort to foster the eultivation of cotton in their colonies. We have, certainly, no cause for fear or jealonsy in view of these efforts. Not only are we, as producers, interested, but the foreign manufaeturer, the politicai economist, and the philantiropist, alike have taken the matier into serious consideration. We can acarcely contemplate, without emotion, the disastrous results commercialiy, politically, and socially, that might follow a general fallure of only one crop in this country. There would be no reserve to fall beek upon. The atock in Great Britain on tho 1st of January last was lut fittle larger, with a censumption of $2,100,000$ Lales, than it was in $\mathbf{1 8 . 1 1}$, with a consumption of a littie over $1,000,000$ bales; and not haif so large as the stock on January $1,1846$.
2 statistics of the cotton trade of the cNITED STATES.
Statigent arbpecting tife Taniff Dities ann Ctetome bot an Requlations alyhicabi. to Anerican Corton in


| Countries. | Quantilies. | Satus of thaty. |
| :---: | :---: | :---: |
| Creat Mritalu...... |  | Free, |
| France.............. | 220 poundr.... | In national vesscla, \$3 721 In forvign verwels, 4648.0 |
| Spain . . . . . . . . . . . . . | 101 pounde . . . | In national vease!s, 791 cente: In torelgn versels, 8185 |
| Rumsia | 36 pounda | 181 cents. |
| Bremen | Ad valorem | i of 1 per cent. |
| Hardinl |  | ree. |
| Belglum. |  | ree. |
| Austria. . |  | Fres. |
| Sweden and Norway. |  | In sweden, frec; in Norway, neariy 1 ceut per pound. |
| Mexice | 101 pounds | \$160. |
| Ilsmburg ........... | Ad valorem | of 1 per ceut. |
| flolland............. |  | Fre. |
| Two Stcllies. . . . . . . . | 192000 prueds | +810. |
| IIritimh N. A, posmem |  | F'rue. |
| Dennark. |  | 'iree. |
| Portugal | 101 prounds.... | 2 1-5 centa |
| Tuscany |  | Frue. |
| P'apal statet . . . . . . . | 7468 pounds | 10 centa |
| CuLu. . . | 101 pounds . . . . | In natlonal vemeis, 191; In forelgn vesn.la, 271 per cent. on $n$ valuation of 45 (10. |

- By the treaty of 1822, C'nlted States vessels are equallzed with French vemeds In tbe direct Importation Into France of artielen the growth, mantuficture, or produce of the United
States

Votton Clof of Eacil Btatg, acontmivo to man Unitgn Br.ites C'sngus.

| states and Tarritories | Lotlem gathared. | Qinaed Cotica, |
| :---: | :---: | :---: |
|  | 1840. | 1850. |
| Alabema. | Poundis. $117,138,829$ | Bales of 400 Pounde. 064,440 |
| Arksneas ......... | 0,028,612 | 65,344 |
| 1belaware ........ | , 334 |  |
| Florlda ............ | 12,110,633 | 46,131 |
| (leorgla. . . . . . . . . . | 168,392,306 | 400,031 |
| IILInvis ............ | 200,947 |  |
| Indlaha.......... . . . | 180 | 14 |
| Kentueky.......... | 601, 464 | ${ }^{7} 758$ |
| Ioulalinam.......... | 152,505 5.868 | 179, $23 \%$ |
| Maryland . . . . . . . . | 5, 37, |  |
| Missisalppl . . . . . . . | 103,401, 577 | 444,202 |
| Minsour . . ........ | 121,182 |  |
| North Carollos.... | 61,920,100 | 60, 215 |
| Ronth Carollua... | 81,710,274 | 300.901 |
| Tunncasee ........ | 27,501,27\% | 198,532 |
| Texan ............ | $3 \times 194$ | 54,072 |
| Virginin........... | 3,494,493 | 8,947 |
| Total. . ...... | 7010.479 .275 | 2,45,793 |

The above are entimaten merely 1 and tho totals vary from the tabnlar retirms on page 4s. The quantitien consumed whew grown wIII account In part for the diacrepancles

Tailfint Comidaintive Statfment miowing term averige QUANTITIES OV COTTON dHOHLCED AND EXPORTED IN THE Lniteio Nfatay, witil filk Valuys of tiog quantities bo
 ton in the: liniteb Statma and (iught limtan, alafict.

 HoTAl INchicelvent

| İpar. | Produems. | ExPOATEA. |  | Patckin in |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Guantites. | Values. | U, fi. | 4. $\mathrm{n}^{-}$. |
|  | l'ounds. | Puands. | Dillate. | Cowis. | Pance. |
| $\left.\begin{array}{l}1792 \\ 1794\end{array}\right\}$ | 5,300,000 | T 43,000 | 233,000 | D1t | 151-6 |
| 1794) |  |  |  |  |  |
| 1802 |  |  |  |  |  |
| $\left.\begin{array}{l}1803 \\ 1404\end{array}\right\}$ | $60,000,000$ | $33,600,000$ | 6,000,000 | 191 | $10+0$ |
| $\left.\begin{array}{l}1619 \\ 1816\end{array}\right\}$ | 73,300,000 | c2, 600,000 | 2.700,000 | 124 | 201 |
| 1814 | \%3,800, ${ }^{\text {an }}$ | 2,00,00 | 2. 00,100 | 12 | -01 |
| 1822 |  |  |  |  |  |
| $\left.\begin{array}{l}1824 \\ 1824\end{array}\right\}$ | 208,300,000 | 133,600,000 | 22,100,000 | $1+6$ | $8\}$ |
| 1832 |  |  |  |  |  |
| 1833 | 431,600,000 | 344,000,000 | 35,500,000 | $11 \times 3$ | if |
| 1534 |  |  |  |  |  |
| $\left.\begin{array}{l}18.42 \\ 1.43\end{array}\right\}$ |  |  |  |  |  |
| (c) 1.8431$\}$ | 007,100,000 | 680,200,000 | 00,700,(0)0 | 743 | 5 |
| 1452 | (b) |  |  |  |  |
| 1853 | 1,227,400,000 | 1,064,900,000 | 97,000,000 | 9.12 | 61-7 |
| $1504)$ | (d) |  |  |  |  |

(a) This atatement, made "1p with earo and labor from sources ofleinal and unofincial, and often oonfletling, athough not perhapm atatistically oxart, is yet probably enongh mo for those farposen of reareral comparison for wheli it is submifted. For ebvions masons, the aggregate of the exportatlon and conaumption of cetton can not be expected to low lance the production in any aifgie ycar, ladependently of stock on hand from preceding years, An average, year with year, of some 70,000 pound consumed for household and othur uses, and of some $3,000,000$ pound 4 lokt or destroyed, and of nome $500,0 \mathrm{NY}$ pounds of Imported cotton consumed, are also Items $500,0 \mathrm{k}$ pouinds of imported cotton consumed, aro also items
to be conelifered in atriting this balance: as well, oiorcover, as the fact that the sums are in round numbers, and that the only flguren in the atatement whith can be vhewed as at all atatiatical are those giving the amounts and values of exportatlon. The data for quaniltien, valuen, and pricos, derived from the Tremsury reports, do not, it will be percelved, always afford remita entirely consiatent.
(b) The eapacity of the bale in computed, agreenhly to unage, at the pounds, in changing laten tnto pounds for thia atatehuent, although an average of $\mathbf{4} 00$ pounde to the bale would probably be more exact.
(c) Nine months only, the year ending June 30 instead of Septamber 30, as belore.
(d) The Ttis decade terminatea in 1801. The statement may, therefor, be viowed as embracing a period of beventy years, from 1792 to 1801, Inclusive.

The following talle gives, opposite to each year, the crop of the linitei States, the number of baies of now crop received in New Oriesne up to the 1st of September, with the late of killing frott. The remarks appended are a brief synopsis of the character of the masen. Reasoning from cause to effect, the reader will be enabled to form some ides of the causes
operating for or agalnat a larga crop, alwaye bearing in mind the gradual increase in the breadth of fresh land planted in the Weat and Southwest.

| Eading sopt. 1. | crop. | Balogin A0rueb. | Kilisg frouk. |
| :---: | :---: | :---: | :---: |
| 14M1.......... | 2,182,000 | .... |  |
| 141.......... | 1,084,900 | . . . | Nov. 10 |
| 1848, ......... | 1,480,600 | - | Nov. 89 |
| 1843. .......... | 2,878,000 | 1,784 | Nov. 18 |
| 1s44.......... | 2,080,400 | 298 | Oct, 87 |
| 1845.......... | 2,804,600 | 5,780 | Nov. 14 |
| 1848.......... | 2,100,600 | 6,840 | Nov. 10 |
| 1817......... | 1,778,600 | 140 | Nov. 90 |
| 1555.......... | 2,846,600 | 1,089 | Nov. 20 |
| 1819.......... | 2,728,600 | 2,864 | - ... |
| 185).......... | 2,096,700 | 477 | Nov. 26 |
| 1881.......... | 2,865,000 | 07 | Nov. 17 |
| 1854.......... | 8,015,000 | 8,155 6.977 | Nov, ${ }^{6}$ |
| 185.1......... | 8,962,000 | 6,077 | Nov, 87 |
| 1454.......... | $2,080,000$ $\mathbf{2 , 8 4 7}, 800$ | 1,891 | Nov 14 |
| 185.......... | $2,947,300$ $3,587,800$ | 28,289 | Nov. 14 |
| 1586.......... | 3,627,800 | 28,288 | Oct. 24 |

期HAEKB.
1839-First large crop. Season remarkably fine throughout. 1840 - Linfuvorablo season. Overtiow of Mt日sissippl Itiver. 1941-Weatern erop good. Bevere drought in Alabama, Georgla, Fiorida, and Minsinalppl.
184:-Geaerally good seamon and eariy plektng.
194. late apring, ralny summer, and eurly front

1844 -Very good season, and early pleking. Partial overdow of Mlaslas ppl RIver.
1845-Misalsaippl River and Weatern crop good anci early. Dronght reduced the eastern crop 300,000 bales.
1846-lata aping, early and general vialtation of army worms ; the iatter doatroylng 400,000 to 560,000 balen.
$187^{\circ}$-Late season, but fisvorablo fall. The occurrence of the French Revolution put down prices, and 200,000 bales were hetd back to the country.
1848-Summer rainy, but fioo fall | 200,000 bales bronght corward of prevloua crop.
1849-Froat In apring, heavy itina in July, partial overflow of Nusissippi River : lied liver bottomsoverflowed in aummer. 1850-1hackward spring, plek!ng began unuaually late. Partinl overflow of Misslailppl River.
18, 1-Favorable nummer and early pleking.
1852-hemarkably fine season, early picklng, and lato frost.
1853-1.ate and rainy acason.
15 5 -'55-1Backward season. About 250,000 hales kopt back by lowness of the waters in Alubams, Loulslana, Arksnsas, and Texas.
195'-'\$6-Fine season. Early pickIng, sufficiently good to ecunterbalance an early froat. Ahout 250,000 bavice of last erop recelved, which, in fact, will make the actual product of $1854-55,8,007,800$ bales, and reduce that of 1855-'56 to 8,577,800 bales.

Sen-Isand Cotton. The crop of this important ataple for the year ending Sept. 1, 1856, was 44,512 bales; 1854-'55, 40,841 bales, and in 1853-'54, 39,686 boles. The recelpts in 1855-506 being, from Florida, 10,900; Georgia, 13,245; South Carolinn, 20,367.
The extraordinary crop of the year $1855-56$ in the United States ( $3,527,300$ bales) has passed into the numerous channela of consumption at prices much higher than for five years past, leaving a stock on hand on 1st September laat of only $\mathbf{6 2 , 0 0 0}$ bales In all the United States ports. Thia consumption ia stlll going on throughout the British and Continental manufacturing districts; and the increase of machinery added to mills hitherto working, it is eatimated, will require in Great Britaln alone an additional weekly supply of 4000 bales.

Aconunt ahowing tim Dertination of thit Cotting ex PORTED YBOM THE CNITED 8TATER IN 1S47, 1848, AND 1849.

| Countrien. | 1947. | 1848. | 1869. |
| :---: | :---: | :---: | :---: |
| Rns | Pounds. 6,618,0.5 | $\begin{gathered} \text { Poends. } \\ 10,206,011 \end{gathered}$ | $\begin{aligned} & \text { Pounds. } \\ & 10,650,631 \end{aligned}$ |
| 8weden and Norway ............. | 2,887,008 | 4,978,024 | 7,024,160 |
| Denmark......... | 660,782 | 09,020 | 4,770 |
| lanae Town | 10,889,543 | 17,420,408 | 18,844,494 |
| Hlolland | 1,978,324 | 4,861,509 | 11,887, 980 |
| Belgium. | 10,184, 648 | 15,279,670 | 28,118,800 |
| Fingland. | 838,150,064 | 648, 1011,182 | 687,490,911 |
| Scotland. | 12,683,783 | 26,091,965 | 88,171,778 |
| Ireland.. | 424.497 |  | $8,968,547$ |
| Glibraltar | 90,109 | 183,202. | 5,725,818 |
| Canada .......... | $\left.\begin{array}{l}103,086 \\ 122,007\end{array}\right\}$ | 22,352 | ${ }_{8}^{04,367}$ |
| France, A tlantic. . | 97,421,906 | 120,263,272 | 142,232,500 |
| -_-Mediter'D. | 4,695,402 | 7,084,583 | 6,858,288 |
| Rpsin............ | 12,818,688 | 19,823,425 | 23,285,80, |
| Cuha ............ | 8,150.168 | 4,607,474 | 1,884,784 |
| portugal.......... |  | $6.077{ }^{774}$ | 240,805 |
|  | 8,720,718 | 6,077,621 | 10,604,482 |
| Sardinia......... | 11,780,673 | -2,614,364 | $6,063,107$ $18,279,384$ |
| Mexleo .......... |  |  | 2,208,764 |
| Central America. |  |  | 524,721 |
| Chins and Bouth seas. | 848,988 | 12,958 | 160,861 |
| Total. | 527,219,058 | 514,2\%4,481 | 1,014,688,010 |

N.B.-The sea-taland, amounting to $11,060,260 \mathrm{lbs}$, is excluded from the exports in the foregolug table for 1849 . Inctuding them, the total exports of that year were $1,026,602,209$ pounds.
gtatmint exhuiting tite Quantitr and Value of Cotton expohtrd annealiy fbom the Únited Btatre frok 1821 to 1555, incluaivg, and tie averaue 1bicr per Pound.

| Years. | Puunde of Colton. |  |  | Value. | Avarage cont per pound. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | See-Island. | Othar. | Total. |  |  |
| 1821.............. | 11,344,096 | 113,944, 389 | 124, 598,405 | \$20,15 $7,48 \pm$ | 162 |
| 1820. . . . . . . . . . . | 11,250,036 | 133,424,400 | 144,675,095 | 24,085,068 | 16.6 |
| 1823.............. | 12,136,688 | 161,680,682 | 178,725,270 | 20,445,620 | 118 |
| 18:4............... | 9,502,722 | 132,843,941 | 142,809,603 | 21,047,401 | $18 \cdot 4$ |
| 18\%6. . . . . . . . . . . . | 0,665,273 | 166,784,029 | 176,449,007 | 36,846,049 | $20 \%$ |
| 1826...... . . . . . . . | 5,972,852 | 198,562,068 | 204,535,415 | 25,025,214 | 12.2 |
| 1827............... | 15,140,798 | 270,169,817 | 204,810,115 | 20,354, 545 | 10 |
| 1828., ............. | 11,288,410 | 199,302,044 | 210,500,403 | 22,487,229 | $10 \cdot 7$ |
| 1829................ | 12,833,307 | 259,003,879 | 204, 8a7, 186 | 26,575 311 | 10 |
| 1830............... . | 8,144,105 | 920,311,587 | $298,459,162$ | 29,074, 883 | 9.9 |
| 1831............... | 8,01t,762 | 268,068,022 | 276,070,784 | 25,289,498 | $0 \cdot 1$ |
| 1892. . . . . . . . . . . . | 8,743,373 | 813,401,749 | 822,215,122 | 81,724,482 | $9 \cdot 8$ |
| 1833.............. | 11,14:,987 | 315,035,017 | 824,698,604 | 36,101, 106 | $11 \cdot 1$ |
| 1834............... | 8,085,037 | 876, 001,070 | 884,717,907 | 40,448,402 | $12 \cdot 8$ |
| 1805...... . . . . . . . | 7,752,736 | 370,686,256 | 387,354,902 | 64,981,302 | $16 \cdot 8$ |
| 1836.............. | 7,810,597 | 415,721,710 | 423,631,307 | 71,284,926 | 16.8 |
| 1837............... | 5,286,971 | 438,004,506 | 444,211,537 | 08,240,102 | $14 \cdot 2$ |
| 188.............. | 7.288,340 | \$54,615, 257 | 695,952,297 | 61,556,811 | $10 \cdot 8$ |
| 1839............... | 5,107,414 | 408.506, 208 | 413,024,219 | 61,298,982 | 14.3 |
| 1840............. | 8,779,609 | 735, 161,35:2 | 743,041,061 | 68,870,507 | 8.6 |
| 1811.............. | (1,237,424 | 523,006,070 | $530,204,100$ | 54,330, 341 | 10.9 |
| 1842,............. | 7,254, $0: 9$ | 577.402,918 | (04,717,017 | 47,098,464 | $8 \cdot 1$ |
| 1843............... | 7,515,079 | $784,782.1027$ | 702,207,106 | $49,119,806$ | 6.8 |
| 1444............... | 0,0,0,07 | 667,534 370 | 063,038,455 | [4, $4,063,501$ | $8 \cdot 1$ |
| 1845.............. | T-9,080,625 | $863,816,371$ | 872,0015,096 | 51,789,643 | 5.98 |
| 1846.............. | 5,5N8,638 | $608,109.528$ | 647, 058,064 | 42,767,841 | $7 \cdot 81$ |
| 1847. . . . . . . . . . | 0,2, 2,973 | $520,025,985$ | 527,210,068 | $63,415,848$ | 10.34 |
| 1845.............. | 7,724,148 |  | 814.274,481 | 01,098,204 | 741 |
| 1849............. | 11, 149,264 | 1,014,633,010 | 1,02t,602,269 | 68,896,967 | $0 \cdot 4$ |
| 180............... | 8,296,463 | 027,145,141 | 603, 281,604 | 71,184,616 | 11.3 |
| 1851............... | 8,209,050 | 119,907,483 | 227,297,059 | 112,315,81T | $12 \cdot 11$ |
| 185............... | 11,784,075 | 1, $681,492,584$ | 1,003,230,639 | 87,965,732 | $8 \cdot 65$ |
| 18613............. | 11,165, 165 | 1,101,405,205 | 1,111,570,870 | 109,446,404 | 9 985 |
| 1854. | 10,486,428 | 977,346,083 | 987,833,106 | 98,596,820 | $0 \cdot 47$ |
| 1505. | 18,064,690 | $058,366,011$ | 1,008,424,601 | 89,148,844 | 874 |
| Total lbs....... | 820,007,204 | 18,154,600,946 | 18,476, 264,240 | \$1,530,247,742 | *... |








| Countriee to whiek axported． | Pounde of Cotton axported from tha Uuited states in tha Yoars |  |  |  |  | Anpual avaro age Amounts of Cotton． | Annual averaga Amonnte of Daties paid． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1861. | 108． | 1888. | 1854. | 1355． |  |  |
| Cireat | 670，646，182 | 759，578，780 | 708，094，408 | 6，247，047 | 671，498，259 | 712，012，141 | Frce． |
|  | 189，164，871 | 186，214， 270 | 190，226，013 | $44,428,384$ | 210，113， 1009 | 173， 820,684 | \＄2，939，300 26 |
| Apal | 64，272， 6.5 | 29，301，928 | 86，651， 0481 | $85.024,074$ | 33，071，705 | 133， 704,292 | 265，296 06 |
| ilanse T | 16，T16．671 | 22， 818,288 | 82，071，783， | 37，719，922 | $80,509,091$ | 26，011，298 | 25，705 00t |
| Delghlum | 16，935，018 | 27，157，890 | 15，494， 412 | 13，980，460 | 12，219，00， | 17，087，478 | Free． |
| Aastria | 17，309，164 | 27， 048,494 | 17，964，C42 | $14.961,144$ | $9,761,465$ | 16，789，767 | Free． |
| Sardinla sod It | 16，320，4 6 | 17，084，908 | 17．457．984 | 14，726，840 | 16，047，004 | 14，011，110 | Different rates． |
| Rumata．． | 16，088，448 | 16，475，168 | 21，296，543 | －8， 1214,984 | 448，897 | 0，044，806 | 47，015 36 |
| Mexice | 847，98： | 6，700，091 | T，468．551 | 12．146，080 | $7,527,079$ | 6，936，612 |  |
| lloliand． | S，6015，671） | 10，260，048 | T．08s， 99.4 | 6，048，165 | 4，04t，414 | 3，760，267 | Free， |
| Sweden and Norway ．．． | $5.161) .974$ | 5，939，025 | 6，009，617 | 0,212711 | 8，425，435 | 6，065， 182 | Different rates 8 |
| Hritish N．A．possesalons | 98，525 | 16，528 | 12，295 | 78.700 | 883，204 | 241,670 | Free， |
| tram |  | 37，042 | 435，169 | 82，98， | \＄09，186． | 142，876 | ree． |
| liuba | 110，062 | 294,852 | 196，192 | 259，643 | 9.620 | 173，014 | 9．8K\％ 42 |
| Portugal |  | 98， 235 | 87,691 | 121，469 | 144．046 | 90．198 | 19 ct |
| Eisewher | 722,473 | 111，503 | 052，355 | 1，946， 295 | 270， 222 | 746,018 | ．．．．．．．．．．．．．．．． |
| To all countrie | 027，237，089 | 3，230，639 | 11，870，870， | 7，833，106］ | 8， 424,661 | $1,025,060,156$ |  |

－Tho amounts of dutes pald are caiculated on tho eustoms rates givey in tho preceding statoment th，aithongh those rates，during the five years designated，have in somo lustante ondergone clanges．Belgium，for example，did not admit cotton free untll the pressge of the jaw of Aprii 12， 1854.

+ The smount is calculated on the modlum of the ad ralorem duty of Bremen and liamburg，on an asumed valuasion of 17 cents per ponnd．
$t$ The maount ls caloolated on the rates of the existlog tariff of January 31，1850，prior to which eotton was elther pro－ hiblted or subjected to a duty equlvilent to probibition．

8 United states Treagnry reparta do nol qive quantitles $w$ Norway diatlact from those to Swedou．In the latter，cotton If free：in the former，the duty in neariy haif a cent per pound．

Exiont of Cotron to fonkion Poets frov sermamieg 1，18：5，to Augunt B1， 1856.

| Whare from， | tirnal Britein． | France． | Nurth of Europe． | Othar forelgu Ports． | Total． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New Orleanis．．．．．．．．．．．．．．．．．buies | 0N6，022 | 24－4，814 | 162，675 | 179．812 | 1，572，923 |
| Noblle ．．．．．．．．．．．．．．．．． | 361，690 | 16，462 | 22， 016 | 8,067 | 435，0，40 |
| Texas．．．．．．．．．．．．．．．．．．．．．．${ }^{\text {t }}$ | $16+31$ | t， 106 | 9，475 | ．．．． | 24，（102 |
| Florda．．．．．．．．．．．．．．．．．．．．． | 30， 20 | 2，989 | － $3,0: 0$ | $\cdots$ | 35， 25 |
| Invannab ．．．．．．．．．．．．．．${ }^{\text {4 }}$ | 162， 718 | 16，857 | 2，907 | 2，603 | 183，320 |
|  | 150，532 | 87.396 | 43,277 | 53，466 | 371，111 |
| Virginja and North Carolina＂ | 166 |  | ．．． | ．．．． | 166 |
| Jialtimore ．．．．．．．．．．．．．．．．．．．＂ | 424 | 48 | ．．．． | ．．．．． | 471 |
| 1＇hlisdeiphla ．．．．．．．．．．．${ }^{\text {a }}$ | 178 |  |  |  | 175 |
| New York ．．．．．．．．．．．．．．＊ | 181，045 | 27，15\％ | 42，893 | 6,371 | 80，4，44 |
| Boston ．．．．．．．．．．．．．．．．．＊ | 7，421 |  | D．782 | 01 | 13,074 |
| （rbann Toral，IS＇5－66．．．． Total，year 184－65．．．．．． | $\begin{aligned} & 1,9: 1,946 \\ & 1,6+3,716 \end{aligned}$ | $\begin{aligned} & 480,037 \\ & 419,91 \end{aligned}$ | 304,100 105,200 | $\begin{aligned} & 24,578 \\ & 143,2622 \end{aligned}$ | $\begin{aligned} & 9,964,660 \\ & 4,241,209 \end{aligned}$ |
| Increase | 371，660 | ［0，743 | 16\％．4（15） | （M）， 216 | 710，397 |



| Yieare． | Wald． | Sears， | s． |  | a． | O | Unles． | Veara． | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1835－66 | $6.25,759$ | 1859－90 | 437．769 | 1818－44 | 8， 616.74 | 183N－719 | 270，014 | 1438－＇84 | － |
| 14．51－0．05 | 693，654 | 1545－49 | 614．109 | 1 $+12-4$ | 345， 189 | 1307－34 | \＄46，063 | 13：3－32 | 194，412 |
| $1462-04$ | 610，5i1 | 147－48 | 131，752 | 1S 51.24 | 207，xind | 18．26－37 | 2024， 644 | 1831－32 | 173,4441 |
| 1854－63 | 673， 6104 | 1846－47 | 4：7，107 | 14．412－41 | 297.245 | 13，25＊＊36 | 230，738 | 1830－81 | 132，14： |
| 1451－72 | 603.029 | 1845－40 | 422，5ity | 1839－ 40 | 298，185 | 1534－ | 210，485 | 1849， 30 | 126，512 |
| 156．5－61 | 44，1118 | 1844－45 | 2454，（4） 6 |  |  |  |  |  | 120，51． |

We give below a table of the amount of colton con－｜those States is increasing，as well as in Virginla，Ohie， gamed the past year in the States south and west of Virginia，and not incluied in the reerpips at the ports， We have largely increased the extimate from the year previous，but＇give it only for what it purports to lee， an estimate，which we believe approximates correct－ ness．

There are no statistical returns of the quantities of cotton manufactured in the States sonth of Virginia； but it ？s well known that the yearly conamption in
 emple；ed in the manufacture of cotion georls in tho Seuthern States was as follows：Maryinnil， $82,2,26,90 \%$ ；




 probubly doubsed．

| Ntatos． | 1150. | inss | 1484. | ［ 4.33. | 1659. | 1581. | $1 \times 50$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vorth f＇aroltua．．．．．．bsies | 42，140 | 15，0\％） | 20，1000 | 20， 21811 | 10，（1）N0 | 1：1，（6M） | 20， 18.40 |
| Ruth fismolina．．．．．．＂ | 16，1410 | 10， 000 | 12，1601 | 10， 1 Nm | 10,8001 | 119，000 | 15，（0401 |
| finorgla ．．．．．．．．．．．． | \％${ }^{6}$ ， 900 | 20， $\mathrm{SOMO}_{1}$ | 23，1000 | 20.1819 | 22，000 | 18，00\％ | 27，（4）！ |
| Aisbama．．．．．．．．．．．．＂ | 6．${ }^{(N)}$ | 5，500 | 6，000 | $\delta_{\text {，}}(1 \times 3)$ | b，1）（x） | 4.9 MI | 6， 3 H 0 |
| Tunuermeri．．．．．．．．．＊ | 7,060 | 4，000 | f，（0） | D， $1 \mathrm{~m}, 0$ | 7，000 | （5， 1010 | 12，94M |
| On the（liso．ttr．．．．${ }^{\text {a }}$ | 42．0．0n | 20，003 | 85，010 | $30,0 \mathrm{nd}$ | 16，000 | 12，（191） | 27， 5 （0） |
| Toutal to Sujutemisar 1．．． | 117，1010 | N，1006 | 116，（xas） | 00， 4 Mim | 75， 1 以为 | 611，mon | 30\％\％，困成 |

To which，if added（for the past year）the stocha in $\mid$ new crop received this year to the las Sept．，and some
 tity now detainel in the incerior（say ion， 000 Lalea），and that lost on its way to market thu past year to the crop as given ahove，receiveri at tho shiping ports，the ags－ gregate will show，es nespas may he，the amount raised in the U＇nited States the past iseasen－say，in robult numbers，3，835，000 bales（after deducting 1800 bales hy low ilvers，etc．，which it is fair to sulpuse rume forwaril the pant season，and is alrenly aillod to the recejpts at the prorta），againat

COT
COT
gtatement and Totas Ahount of the Cotron Ceop of thr United Btates for the Yeazs endina Audust 8i, 1856 ANT 1856.

 AND 1857 .




 mergeamer Troutands or Bacge.)


Contrasted with the precedhg season, the yent just streams, during the whole season, have enabled the do6ed (1856), ns we have alrealy observed, may be consdered one upon whleh the trade may well be congratulated. The monetary pankes, the droughts .md the ravages of a dendly jestilenca in some of the Southern seaports, the periodical embarrassments consequent upon the clanging fortunes of the buropean war, all contribated to render the spring and summer of 1855 memorahle for the drawlacks and discouragements, not only to the cotton Interast, but to the general trade. Far different are the characteristles of the twelve monthe under review. With nothing to complain of in respect to the crop itself, the interior so liberally disposed of that the supplles on hand, on



 Bicprisent Thoviande di Hakms.)

both sides of the Atlantic, are down to a figuro which November, wo received advices of a heavy frobt in encourages the expectatiou that quite us much, in the somo of the growing regious, whleh, in cuntection agigrogate, will the required for actis 1 usmbption, at with the paucity of our stock, cansed a reactionary
 we have juat entered. Thus mach by way ... suth apect.

To revert io detaila; our markel opened acty in September, 1 Whin, with a fair limningns, at $d$ ring *t," remainder of that mouth sull ther ing :(lotfols s, the
 heavy recelpte at the $\mathbf{S}$-uth, a grulu...
prices having fallen upwaril of one . gradea during liat period. About li: br shr tha, ol
ir. re, accounts not proving an favorable as wan ex. $p \cdot 1$, the market again took a downward turn, and prleen gralually receded for neveral weeks, when intellipence arrived of the arceptanee by liuswia of the - mpertion of the Allion a the thata for peace. Itader the throneo of the wef, ane new, greater animation Wa. mofirgated In that narket, and prices were once 30.0 in the ascentant. Thls feeling continued for se eral weeks- the an wet being atpporterl, mainly by
peculatit and the ir peace proI a period o last of A of fully were, dur heavy opbales per gaems to exporters. such an as recover th pointed, th

| Dale. |
| :---: |
| 1944 |
| 1525 |
| 1826 |
| 1827 |
| 1828 |
| 1529 |
| 1880 |
| 1891 |
| 1882 |
| 1888 |
| 1884 |
| 1835 |
| 1896 |
| 1887 |
| 1538 |
| 1899 |
| 1840 |
| 1841 |
| 1819 |
| 1848 |
| 1844 |
| 184. |
| 1546 |
| 1847 |
| 1848 |
| 1849 |
| 1850 |
| 1851 |
| 1598 |
| 1858 |
| 1854 |
| 3855 |
| 1856 |

Cos
speculative shlppers-when prices took another turn, and the imprevement obtained on the atrength of the peace propositions was quito lost. Subsequently, daring $s$ period of many weeks, which brings us down to the last if April, the market was very strong, and a rise of fully one cent was reallzed. Our domeetic epinnerc were, during nearly the whole of thls period, the moat heavy operatore, taking on an average 12 to 15,000 baies per week. Early in May, a complete change gems to have taken place in the milnds of our leading exporters. Large holdors, who had been sanguine of such an adrance in Liverpool as would enable them to recover their inveetments in the staple, were disappointed, the market agaln becoming dull and drooping.

The depression was not of long duration, however, fo: the redaced aupply not only here, but in every part of the United States, now began to attract sttention, and holders became indifferent about offering their supplies; and as the high prices checked consumption, the market assumed an ?nactivity nnusual for the eeason, which continued throughout Jnly and Auguet, holders all the time maintaining an unrelenting firmness.
The year closed with a reduced atock, both here and as the South, and the eupply in tie manufacturers' hands at the eastward being aleo limited, the inclination of prices wan to a higher range.
The trade of New York has apparently fallen off; a


| Date. | TOTAL CROP RECEIVED IS ATLANTIO ATAYRA, |  |  |  | TOTAL, CLOP EECEIVID te OULT ETAYES. |  |  |  | CROP. Orand Total, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Georgia. | \|Sonih Caroline. | North Carolina. | Vintoie. | Florida, | Alabama. | Louldase. | Teras. |  |
| 1524 | 162,786 | 184,518 | 48,000 | and Virglnia | 4,800 | 44,924 | 126,481 | - | 809,158 |
| 1585 | 188,000 | 97,000 | 72,090 |  | 8,000 | 08,796 | 200,453 | $\ldots$ | 569,249 |
| 1896 | 190,508 | 111,978 | 88,480 | 4 | 8,817 | 74,201 | 251,859 | .... | 780,027 |
| 1827 | 288,920 | 179,810 | 118,811 | * | 4,168 | 89,707 | 886,879 |  | 867,281 |
| 1828 | 158,749 | 109,788 | 77,429 | " | 8,940 | 71,068 | 804,186 |  | T20,598 |
| 1529 | 249,166 | 168,275 | 104,881 | 4 | 4,146 | 79,958 | 264,249 |  | 870,416 |
| 1830 | 280,117 | 188,871 | 86,808 | 85,500 | 5,787 | 102,684 | 854,024 |  | 978,845 |
| 1881 | 290,508 | 185,166 | 86.540 | 89,606 | 18,078 | 118,188 | 426,485 | ... | 1,088,848 |
| 1882 | 976,487 | 178,878 | 28,461 | 87,500 | 22,651 | 125,921 | 822,685 | *** | 087,477 |
| 1893 | 271,025 | 181,876 | 80,258 | 80,820 | 28,841 | 129,866 | 408,443 | .... | 1,070,488 |
| 1884 | 258,655 | 227.856 | 88,220 | 44,725 | 86,788 | 149,978 | 454.719 |  | 1,205,894 |
| 1835 | 222,670 | 208,166 | 84,399 | 88,170 | 82,085 | 197,692 | 511,148 | . $\cdot$. | 1,254,828 |
| 1886 | 870,181 | 281,487 | 88,057 | 29,197 | 79,762 | 286,715 | 481,586 | ... | 1,860.725 |
| 1887 | 802,971 | 190,87T | 18,004 | 28,618 | 83,708 | 232,248 | 800,977 | . | 1,422,980 |
| 1538 | 804,210 | 294.884 | 91,489 | 82,000 | 106,171 | 809,807 | 781,256 | . | 1,801,497 |
| 1839 | 205, 118 | 210,171 | 11,188 | 22,200 | 75,177 | 251,742 | 684,994 | .... | 1,860,482 |
| 1840 | 902,698 | 818,194 | 9,894 | 28,650 | 186,257 | 445,725 | 958,672 |  | 2,177,885 |
| 1841 | 148,947 | 227,400 | 7,865 | 20,800 | 88,588 | 820,701 | 814,680 | .... | 1,684,945 |
| 1848 | 289,971 | 280,164 | 9,787 | 19,018 | 114,410 | 818.816 | 727.658 | .... | 1,688,574 |
| 1848 | 209,491 | 851,658 | 9,089 | 18,189 | 181,088 | 481,714 | 1,060,246 | . | 2,878,876 |
| 1844 | 258,697 | 804,870 | 8,618 | 14,500 | 145, 068 | 467,990 | 882.178 | .... | 2,080,409 |
| 1845 | 295.440 | 488,861 | 12,487 | 25,200 | 188,098 | 817,106 | 929,126 |  | 9,804,508 |
| 1546 | 194,911 | 251,405 | 10,687 | 18,288 | 141,184 | 421,966 | 1,037,144 | 27,008 | $2.100,587$ |
| 1847 | 242.789 | 850.200 | 8,041 | 18,001 | 197,852 | 828,468 | 705,979 | 8,817 | 1,778,651 |
| 1848 | 254,875 | 861,752 | 1,018 | 8,052 | 158,776 | 489,886 | 1,180,788 | 89,742 | 2,847,694 |
| 1849 | 891,979 | 458,117 | 10,041 | 17,550 | 200.186 | 818,706 | 1,088,797 | 88,547 | 2,728,696 |
| 1850 | 848,695 | 884.205 | 11,861 | 11,500 | 181,844 | 350, 85.2 | 781,886 | 91,268 | 8,096,700 |
| 1831 | 822,876 | 237.075 | 12,928 | 19,9.60 | 181,204 | 451,748 | 988,680 | 45,880 | 2,855,257 |
| 1832 | 82\%,714 | 476,614 | 16,4,2 | 20,820 | 189,499 | 549,449 | 1,878,404 | 64,042 | 8,016,029 |
| 1859 | 849,490 | 468,208 | 28,488 | 25,783 | 179,476 | 645,029 | 1,580,875 | 85,790 | 8,268,882 |
| 1854 | 816,005 | 416,754 | 11, 594 | 21,986 | 155,444 | 088,684 | 1,846,925 | 110.825 | 8,980,027 |
| 1855 | 878,694 | 499.672 | 86,189 | 81,000 | 186,697 | 454,595 | 1,282,644 | 80,787 | 9,847,839 |
| 1850 | 859,445 | 495,976 | 26,098 | 20,435 | 144,404 | 659,788 | 1,661,438 | 116,078 | 8,027,845 |

- Texas at Ihle Llme was not a pari of the United States

Frkioits to Eveope, Ratrs of Excianog, Stodr on IIand, and Extremp Prices from 1828 to 1856.

| Vear. | peniohts, <br> From Naw Yirk, lal October. |  | ICHAMOM. <br> At New York, lat October. | erock or mamb. |  | Eatreme Pricne In Liverpool. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liverpoot. | Hevre. | Londmn, France. | America. | Lverpool. | Uplund. "Oood" | Sea 1 | sland. |
|  |  |  |  | let Oetober. | $\begin{aligned} & \text { 10t J6nuery } \\ & 153,000 \end{aligned}$ | $\left\|\begin{array}{rl} \text { pebce. pence. } \\ 8 & 1.2-10 \\ 3.4 \end{array}\right\|$ | pence. 29 | $\begin{gathered} \text { pence. } \\ 24 \end{gathered}$ |
| 1884 | 3-8-1-2a | -1 1-1 | 10 1-4-10 1-2 -525 |  | $861,060$ | $\begin{array}{ccc} 8 & 8-4-10 & 1-2 \\ \hline \end{array}$ | 28 | 27 |
| 1845 | 8-8 -1.2 | $1-11-4$ | 10) 1-2-11 -812 1-2 |  | 821,000 | 9 9 1-2-19 19 | 27 | 48 |
| 1820 | 8-9-1-2 | - 1 | $12-12$ 1-2 525 -580 |  | 811,000 | $68.4-88.4$ | 20 | 80 |
| 1827 | 1-4-1-9 | 1.9-5-8 | 11 -11 1-4511 1-4-515 |  | 287,806 | 08-4-7 7 8-4 | 18 | 20 |
| 1828 | 1-4-3-8 | 8-4--1 | 10 1-2-11 $610 \quad-\$ 121.2$ |  | 342,700 | $68.8-7$ 3-8 | 18 | 29 |
| 1329 | $-1-4$ | 7.9-1 1.8 | $95.8-983-4 \times 281.4$ |  | 157,590 208,900 | $\frac{6}{7} 1-4=78$ | 18 | 81 |
|  | 8.8-7-10 | , -1 | $\begin{array}{llllllllll}10 & 1-4 & -10 & 1-4 & 538 & 1-2-595 \\ 10 & 8 & -311\end{array}$ | 84,895 119498 | 208,200 248,000 | $\begin{aligned} & 7 \\ & 6 \\ & 7\end{aligned} .8-7{ }^{7} 7.8$ | 18 | 20 |
| 1881 | $\left\lvert\, \begin{aligned} & -1.4 \\ & -7.16\end{aligned}\right.$ | $7.8-18.4$ | 108-4-11 | 119,428 41.599 | 248,000 212,850 | $7^{6} 7.8-7^{1-4}$ | 18 | 18 |
| 1887 | 9-8 -7.16 | $8.4-8.4$ | $7 \quad-81.98008881 .2$ | 41.599 48.205 | 212,860 197.960 | 7 7 7 | 18 | 18 |
| 1588 | $1.4-9.3$ | $8.4-1$ $1.2-8.0$ | 7 -7 $1-2$ -582 1.2 <br> 7 -588    | 48,205 29,617 | 187,860 180,770 | $\begin{array}{cccc}7 & 7.8-12 & 1.2 \\ 8 & 7.8-11\end{array}$ | 18 | $\begin{array}{r}-\quad 92 \\ \hline\end{array}$ |
| $1 \times 81$ 1835 | $19.8-1.2$ $8.8-7.16$ | 1-2-4-1 8.9 |  | 29,617 41,623 | 180,770 145,810 | $\left\lvert\, \begin{array}{ccc}8 & 7.8 & -11 \\ 10 & 1.4 & -18 \\ 1 & 1-4\end{array}\right.$ | 20 80 | 20 88 |
| 1835 1886 | $3.8-7.16$ $3.8-1.9$ | $8-1$ 8.4 $8-1$ | $\begin{array}{rrrrrr}9 & -9 & 1.4 & 022 & 1.2-825 \\ 8 & -8 & 1.2 & & -625\end{array}$ | 41,623 49,841 | 145,810 184,700 | $\begin{array}{llll}10 & 1-4 & -18 \\ 10 & 1.8-18 & 1-4 \\ 7 & 1.4 & \end{array}$ | 80 80 | 88 86 |
| $1 \mathrm{NP7}$ | 1-4-3.8 | 8.1-1 | $14-15$ - 10 | 75,420 | 204,500 | 7 1-4-11 | 80 | 40 |
| $1{ }^{148}$ | 1-4-5-16 | 1.8-8.4 | $10-10$ 1-4 517 1-2-520 | 40,806 | 170,820 | $\begin{array}{lllll}8 & 1.4 & -9 & 1.8\end{array}$ | 80 | 98 |
| 1898 | 5-16-7-16 | $8 \cdot 1-1$ | 98-4-10 1-4615 - 81712 | 62,244 | 248,840 |  | 90 | 86 |
| 1840 | 1-4-3.16 | $1.2-8-4$ | $8-81-4 \quad-420$ | 08,412 <br> 1st Bept. | 206,042 | 6 5.8-71-4 | 9 | 86 |
| 1841 | 1-4-5-16 | 8.1-1 | 9 8.4-10 - 0171.2 | 72,479 | 888,140 | $7-78.4$ | 24 | 28 |
| 148 | 8-16-1-4 | 1.2-8.4 | 68-4-71-2 - ${ }^{\text {83 }}$ | 81,807 | 429,840 | 6 8-4-7 | 24 | 24 |
| 1448 | 8-16-1-4 | $35-5-8$ | $9-91.45288-4-028$ | 94.488 | 456, 000 | $61.2-01.2$ | 24 | 24 |
| 14.4 | $5-10-3.8$ | $9-4-1$ | 98-4-10 - - - 124 1-2 | 159,774 | 653,680 | $51.4-683$ | 84 | 80 |
| 1414 | 1.4- 5.10 | $11-10-8-4$ | 98 9-4-111 1-4548 8-4-595 | 98,420 | 740,680 | $5-888$ | 80 | 80 |
| $1 \times 16$ | $1.4-5.16$ | $5.8-7.8$ |  | 107,122 | 885,480 482,870 | $58-7818$ | 80 | $\begin{array}{r} 31 \\ 95-30 \end{array}$ |
| 147 | 8-18-1-4 | $8-4$ - 1 | $71.2-8$ - 527 1-2-524 3-4 | 214,287 | 488,870 | ${ }^{5} 88.4-8{ }^{1-4}$ |  | $\begin{aligned} & 2-25--310 \\ & =210-24 \end{aligned}$ |
| 1448 149 | -8.10 | 10.9 -1.2 |  | 171,468 164,788 | 368,680 803,840 | $48.4-6$ $4.8-71.8$ | $\begin{array}{r} 0 \\ 0 \\ 6 \end{array} .8-8$ | $\begin{array}{r} -21-23 \\ 8-4-20-20 \end{array}$ |
| 149 | $-1.8$ | 1.8 |  | 164,788 | 803,840 408,000 | $47.8-71.8$ $71.8-88.4$ | $\begin{aligned} & 0 \\ & 9 \end{aligned} \quad 2-9$ | $\begin{aligned} & 8-4-20-20 \\ & 1-4-20-20 \end{aligned}$ |
| 18.00 1851 | -1.4 -1.8 | 1.9 -8.4 | $\begin{array}{lllllllllll}10 & -10 & 1-2620 & -524 & 1.2 \\ 10 & 1.4-10 & 1-2511 & 1-4 & -512 & 1.2\end{array}$ | 107,980 128,804 | 408,000 068.895 | $\begin{array}{ll}7 & 1.8-8 \\ 5 & 11.4-8.4 \\ 5.8\end{array}$ | $\begin{array}{ll}9 & -11 \\ 8 & -11\end{array}$ | $\begin{array}{r} 1-2-20-20 \\ -20-28 \end{array}$ |
| 142 | $-1.8$ | $1-1$ | 10 1-4-10 0-85t8 8-4-515 | 91,176 | 428,780 | $58.4-7$ | $10-18$ | -92-28 |
| 1458 | $8 \cdot 16-1.4$ | 1.4 | $\begin{gathered}9\end{gathered}-9$ 1-2518 8-4-015 | 185,648 | 677.810 | ${ }^{61.2-71 .}$ | $13-15$ | -28-84 |
| 14.4 | -1.8 | 1.9 | $81.4-98-45111.4-5188.4$ | 186, 1808 | 097,500 | 68-H-7 | 9 1.2-12 | $-34-86$ |
| 1 Na | 5-82-3-16 | 1-4 |  | 148,886 | (01,840 | 68.8-T 1-2 | $-18$ | $-80-84$ |
| 18.6 | - | - | - 1 - | 64,171 |  |  |  |  |

circumatance which discovers a satisfactory explana- of parties in this city, acting in the eapacity of apecution in the large increase of transitx business between latorn, brokers, agents for foreign epinners, etc. It has the principal sonthern ports and the markets of Eu- frequently happened that, when the atock hers wes rerope. These operations are mainy under the control duced to a comparatively low figure, partios who operate

 of Exchanoz ox London and Pais, yoz the Yhar inding 8xpts $1,1856$.


Exposts fhom, ano Conaluption of Cotton in, the Unitei Stateg, rhom 1827 to 1956.

in transitx cot thousand bale the etaple ove used to suffi, one fair prol tles, based ula are, favors tas York ls on th only upon the before the ree face.

New York thls rowtinent ligense from new, frie rend lines of ocean eighths of the the readiest $m$ between the and agricaltur there-New Y we repeat, it a
> .ew Orleans.. Moblle.
> Florida
> Sar'h \& Aug's: Charleston... N. Caroilna. Vew York.. New York..... Total.

1V. Cotros Great Bnita the Cotton Traa The annual a countries Into $838,335,984$ po Bnitish author three fourths, n'tal syerago e where has beet of the total 9 pounds for the nesixth of the itsh possensions In 1781, Gres of cotton to $t$ the quantity $t$ nual average pounds. In 1 ceeded 148,500, pouads wero de itan $60,000,00$ quantity of $A$ Hetisin to the pared with the of that import suggeats the su bellor adaptati example, ulou the United \& parisen bet wece a difference of the coltole of of wasto, while $12 t$ per crut. of the former. In 1788, the mencel for the for the improv unil the first es made the same to $4,000,(000$
in transitu cotton were purchasing from twenty to thirty thousand bales per wreek, and nct unfrequently tarning the staple over two or three times in the period which used to suffico, nnder the old system, of making but one fair pro lt ont of 1t. The theory of certain parties, based uinn an incorrect estimate of things as the; aro, favore tae impression that the cotton trade of New York is on the wane, but like all other theories resting only upon the basis of the imagination, it fades away before the recital of the hard facts that stare it in the face.

Neir York being the centre of the world's trade on this :oustiment-the grand focms of all the latest intelligenter from 'he old world, and sll sections of the new; rhe rendez rous of nearly all the most important lines of ocean steamers, the entrepot of more than five eighthe of the entire forelgn commerce of the country, the readiest medium, financially and every other way, between the producer and the consumer, the planter and agriculturist here, and the factor and manufacturer there-New York being all this and much more besides, we repeat, it must continue to control the cotton trade
of the conntry for a centary to come. But it is sometimes inferred that the Amerisan cotton trade at large is destined to an eventual decline, in consequence of the constant endeavors of Great Britain to eeek new fields for its cultivstion by mesins of what ls called free labor, near the pyramids of Egypt, and among the sickly malarias of the East Indies. These experiments, Wb think, have been sufficiently tested to justify the conclusion, that the cotton planter of the United States has nothing to apprehend, for at least a generation to come, from any competition from these sources. Even dld the endeavor to cultivate the plant in the Indles succeed to any conslderable extent, it must be conceded that the remoteness of the producer from the manufacturer, must always give us such an advantage, ts regards low freights and expeditious transit, as would render the colonial speculation comparatively profit leas. There are many other conslderations and arguments which might be adduced to substantiate this conclusion, but these, we take it for granted, are net required, to allay any serious apprehensions of domestic ruin from this specles of foreign competition.

Stocks of Cotton on Hand in the United 8tatrs on 8ist Auoubt. Balze.

|  | 1356. | 1865. | 1884. | 1853. | 1859. | 1861. | 1850. | 1849. | 1848. | 1847. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wew Orleasa . | 6,995 | 99,425 | 24,121 | 10,822 | 9,788 | 15,990 | 18,612 | 15,480 | 87,40t | 28,498 |
| Moblle. | 6,005 | 28,019 | 20,278 | 7,516 | 2,819 | 27,797 | 12,982 | 8,048 | 28,584 | 24,172 |
| Florida. | 74 | 166 | 683 | 628 | 451 | 279 | 1,148 | 615 | 517 | 2,108 |
| Texas........ | 623 | 2,062 | 2,205 | 428 | 817 | 690 | 265 | 452 | 747 | 88 |
| Sar'h \& Aag'a. | 8,331 | 8,837 | 11,518 | 12,984 | 6,657 | 84,011 | 29,089 | 25, 319 | 86,608 | 25,020 |
| Charleston.... | 8,144 | 2,085 | 17,081 | 15,120 | 11,146 | 10,958 | 80,608 | 28,806 | 14,083 | 29,655 |
| N. Carolina... | 842 | O50 | 750 | 400 | $\stackrel{4}{40}$ | 620 | 1.000 | 1,750 | 444 | 448 |
| Yew York..... | 84.657 | 86,846 | 82,983 | 67,675 | 48,796 | 88,410 | 60,720 | 67,085 | 41,067 | 88,259 |
| Other N. ports. | 9,560 | 9,846 | 17,129 | 20,469 | 14,282 | 8,850 | 15,456 | 15,250 | 18,180 | 26,650 |
| Total. | B4,171 | 148,836 | 185,008 | 185,048 | 91,176 | 128,900 | 167,080 | 154,788 | 171,483 | 214,887 |

IV. Cotton Trade of the United States with Great Bmitain. 1. General Information Respecting the Cotton Trade of the Unitel States.-Great Britain.The annual sverage importation of cotton from all couatries into England the last flve yesrs has been K38,335,984 pounds, of which quantities, according to ${ }^{\circ}$ British authoritics, $661,529,220$ pounds, or more than three fourths, were from the United States. The nnaral ercrage exportation to the Continent and elsewhere has been $122,810,688$ pounds, or abouc one sixth of the total quantity imported, leaving 715,525,296 pounds for the annusl average consumption. About mes sixth of the whole amount imported was from Brititsh possessions.
In 1781, Great Britain commenced the re-exportation of cotton to the Continent and elsewhere. In 1815 the quantity thus reexported had risen from the annual average of $1,000,000$ pounds to that of $6,000,000$ pounds. In 1853, the aggregate amount exported exceeded $148,500,000$ pounds, of which nearly $83,000,000$ pouads were derived from the United States, and more than $60,000,000$ pounds from the East Indles. The quantity of American cotton re-exported by Greut Britain to the different markets of Europe, when compared with the quantitics imported, is much less than of that imported from other countries-a fact which sugigets the superiority of the American article, and its betier adaptation to purposes of fabrile industry. For example, about one tenth of the cotton imported from the United St ins is ro-exported, against nearly one half of that linperted from the East Indies. A comparisen between American and liast India cotton, shows a differences of 100 per cent. in faver of the former ; the coltou of tho Fast Indies containing 25 per cent. of waste, whlle that of the United States contains only 12d jer cent. The fibre, aleo, of the latter excels that of the furmer.
In 1788 , the efforts of the East India Company commeaced for the prometion of the growth of cotton, and for the improvement of its quality, in British Iudia and the finst exportation of the artiele to England was mado the same year. In $181 /$ the exportation amounted to $4,000,600$ prunils ; it now averagea $165,000,000$
pounds per annum. An area of about 8000 square miles is aaid to be deveted to the culture. Liverpool is the great mart of the cotton trade of Great Britain and of Europe generally. Thus, while the total imports of the article into the United Kingem, according to British authorities, in 1852, amounted to 2,357,338 bales, the quantity at this port reached $2,205,738$ bales. About six sevenths of the cotton received at Liverpool cemes from the United States; and of this four fifths is estimated to be imported for the factories of Lanca ahire and Yorkshire. Since Mareh, 1845, cotton has been admitted into British ports free of duty. Prior to that period the duty was, of and from British possessiene, 8 cents; from other places, 70 eents per 112 pounds. The number of spindles in operation in England is eatimated at more than $20,000,000$. The value of cotton snpplied by the United States to Great Britain in 1853 was $\$ 57,616,749$, being about the average each year the last four. The quantity of cetton exported from the United States to England in 11 months of the fiseal year 1856 , is estimated at $2,755,000$ bales. It appears from "Commeree and Navigntion," that the importation of raw eotton from the British West Indies into the Uaited States has incroased, for some years past, in a ratio quite proportional to the ciecreaee of gueh importstion into Great Britain. Thus, the luportation of cotton into the United States and Great Britain, respectively, from the British West Indies, from 18.1 to 1855 , inclusive, was as follows :

| Years. |  | Into the Unlted Biates. | $\begin{aligned} & \text { Into } \\ & \text { Great Ifrtain. } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 1*51.. | .pounds | . 29,858 | 440,299 |
| 1259. | " | .. 6,756 | 708,696 |
| 1859. | 4 | . 258,893 | 844,080 |
| 1894. | " | . 159,88t | 205,078 |
| 1885. | 4 | . 880,217 | No data. |

The aycraze price per pound of cotton from 1851 to 1855, inclusive, in the United States and Great Britain, respectlvely, is shown as follows:


The following atatement shows the quantities of cot－gland begins January 1 ；in the United States，July 1 ； tom lmported into Great Britain，and the sountries whence importeó，from 1840 to 1850. The figures are derived from a＂Statistical Abatract for the United Kingdom，presented to both Houses of Parliament，by command of her Majesty，＂by Mr．Albany W．Yon－ blangue，superintendent of the statistical department of the Board of Trade．The commercial year in En－
hence，neeming discrepancles in figuren for apparestiy the same periods of time．In the following table thv columa headed Egypt includes Turkny，Syria，and the Mediterranean generally ；the Kast Indies includea British India generally；the West Indles，the West India lsiands bel saging to Great Britala，and British Guiana：

| Years． | Pourda of Cotton Imported lato Greal Irituin from－ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unilod States． | Brasil． | Exypt． | East Indiee． | Weuil Indles． | Eleewhera． | Alf eonatries． |
| 1840 | 437，8，8，604 | 14，779，171 | 8，824，987 | 77，111，889 | C86，107 | 8，649，408 | 808，444， 110 |
| 1841 | 858，240，984 | 16，671，843 | 9，097，180 | 97，388，188 | 1，8488，187 | 8， $0 \times 1,518$ | 487．092，950 |
| 1842 | 414，080，779 | 15，922，998 | 4，499，017 | 92，974，619 | 898，608 | 4，441，250 | \＄81，750，090 |
| 1848. | 874，788， 620 | 18，675，123 | 9，674，076 | 65， 0109789 | 1，960，444 | 8，185，224 | 678，198，116 |
| 1844. | \＄17，218，092 | 21，084，744 | 12，406，827 | $88,649,776$ | 1，707，194 | 5，004，612 | －646，111，944 |
| 1845. | －626，650，412 | 20，157，633 | 14，614，699 | $88,437,426$ | 1，894，447 | 725，816 | 781，979，983 |
| 1846 | 401，949，899 | 14，746．321 | 14，278，447 | $84,540,148$ | 1，201，857 | 1，140，118 | 487，256，274 |
| 1847 | 864，599，291 | 19，906，922 | 4，814，268 | $88.984,014$ | 748，988 | 598．607 | 474，707，615 |
| 1848. | 600，247，489 | 18，971．873 | 7，241，861 | 84，101，961 | 640，487 | 827，036 | 718，040，161 |
| 1849. | 64，504，050 | 80，784，183 | 17，869，848 | 70，888，815 | 94，807 | 1，074，124 | 780，469，012 |
| 1850. | 498，159，112 | 80，290，982 | 18，981，414 | 118，872，742 | 229，918 | 9090，62s | 683，576，961 |
| 18\％1． | 696，688，962 | 19，899，104 | 16，000，585 | 122，636，976 | 448，829 | 1．817，058 | 757，879，749 |
| 18.58. | 765，630，544 | 24，536，14 | 4 $604 \times 640$ | 84，922，499 | 708，696 | 8，900， 098 | 929，782，44 |
| 1853. | 658，451，798 | 24，190，62s | 24，848，574 | 181，848，160 | 844，060 | 2.078 .602 | 895，268，780 |
| 1854 | 722，151，860 | 19，70x，600 | $29,828,120$ | 119，829，152 | 205，072 | $8,040,800$ | 857，388，104 |
| 1845 | 679，264，096 | 24，577，952 | 82，622，689 | 145，918，576 | No date． | 8，476，100 | 80n，150．8i2 |
| Aggregale 5 yours． | $8,422,186,758$ | $114,817,423$ | 149，838， 047 | 6454，445，698 | 1，609，857 | 17，984，167 | $4,859,921,983$ |
| A\％orage ${ }^{\text {b y y }}$ y ars．． | $684,427,851$ | 22，86\％，485 | 29，867，703 | 180， 239,189 | 424，830 | 6，598，888 | 871，984，890 |

gtatement nefowino the Quantitige of Cotton Exportrd by Great Brizain to all Countripappspgctivelip，and


| Yeara． | Exported to all eountrles． | Or a bich was importod thum－ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Unlied Stater， | Bradl． | Fryph， | East Indiea， | Elsewhere， |
| 1861. | $\begin{aligned} & \text { Poande. } \\ & 111,990,400 \end{aligned}$ | Founts． 84，921．844 | 1'oande. | Pound 211.00 s | $\begin{aligned} & \text { Pounds, } \\ & 42,960,164 \end{aligned}$ | Found： |
| 1858. | 111，475，456 | 09，917，120 | 3，619，840 | 124，656 | 85，864，872 |  |
| 1858. | 14＊，509，640 | 82，701，472 | 4，786，763 | 948，416 | 60，082，064 | 50，960 |
| 1854． | $125,54.800$ | 55，101，200 | 1，484，102 | 809，600 | $6 \mathrm{C}, 145,908$ | C，000 |
| 1855．．．．．．．．．．． | 124，845， 760 | $56,989,632$ | 759,360 | 886，664 | 66，210，704 |  |
| Anne ${ }^{\text {a a a }}$ arer | 1－4，465，219 | 66，156，158 | 2，498，608 | 407，943 | $05,352,488$ | ．．．． |

Complied from the monthiv ${ }^{4}$ Accoan is Relating to Trado and Navigation，${ }^{n}$ prosented to the British Parliament，Ihe only authority at hand from whieh $t$ anoviries whence the cotton oxported was imported could be ascertaineck．Redjles gatherc from these monthly accountu．Inien vary from those given in the annual stateme
gatlon of the United Klagdom，＂from whi ．iatier document was unde up tho table that follows．

| Countries to whlch esported． | Pounds uriteotou exported from Greal Brlain in the years－ |  |  |  | Annus！ average． |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1851. | 1852. | 1858. | 1854. |  |
| Russia． | 95，185，472 | 45，605，849 | 43，987，392 | 205，54 | 82，44，912 |
| Bweden | 2，484，656 | 8，591，840 | 4，414，968 | 0， 8088,560 | 4，976．586 |
| Prusela． | 1，576，064 | 674，240 | 1，141，298 | 23，44，624 | 6，709，558 |
| Hanse Towns | 27，478，040 | 22，472，016 | 83，417，440 | $36,048,264$ | 29，$\times 54.410$ |
| 11olland． | $22,119,104$ | 15，844，224 | 88，676，302 | 26，0M4，544 | $28,891,116$ |
| Belgium | 12，856，490 | －2，657，680 | 18，466，672 | 14，041，76s | 14，505，4ke |
| France． | 1，865，504 | 4，925，440 | 2．408，963 | 2，759，282 | 2，154，536 |
| Sardinia． | 2，742，8320 | \％，285，208 | 8，860，864 | 8，681，848 | $8.165 .6(5)$ |
| Anstria．．． | 1，366，004 | 1，057，093 | 8，590，298 | 4，711，456 | 2，991，8．4 |
| Other conntries | 9，647，120 | 2，324，500） | $8,418,800$ | 8，849，492 | 8，448，465 |
| Aggregate． | 109，765，324 | 100， 051,183 | 148，569，680 | 128，820，112 | 129，810，693 |



| 1845. | Atlantle fitates． | New（H） Mobily，ete， | Tokal <br> Unalted Btates． | Brazil． | 1）－marara and therbice． | W．Indies， etc． | Egypt． | Fall Indies． | Grand Total． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ILverpool．．．．．． | 620，886 | 957，094 | 1，808，440 | 184，442 | 1，090 | 6，544 | $112,1(k)$ | 479，456 | 9，142，812 |
| London ．．．．． | 207 | 14 | 281 | 620 | ．．．． | 408 | 40 | 99，877 | 100.950 |
| Bristol \＆IIull．． |  |  |  |  |  |  |  | 65\％ | 605 |
| Glasgow．．．．．．．． | 8，786 | 8，991 | 14，717 |  |  | 644 | 2，878 | 15，626 | 83， 6 ＊ 6 |
| Total， 154. | 686，819 | 996，6099 | 1，629，475 | 184，768 | 1，009 | 7， 8.36 | 115，018 | 898，014 | 8．278，218 |
| $\cdots 1954$. | 5：3，509 | 1，152，974 | 1，686，479 | 107，898 | 578 | 9，776 | 81.043 | $80 \mathrm{~N}, 293$ | $2,1722^{*} 97$ |
| $\cdots$ 1853． | 503，757 | 1，028，276 | 1，542，068 | 138，443 | 874 | 8，267 | 105，893 | 445，527 | 2，264，270 |
| ＂1609． | 562， 194 | 1，154，49 | 1，7＊9．218 | 144，197 |  | 12，5s6 | 188.985 | 221，418 | 2，977， 838 |
| 4 1451． | 480，464 | 913，242 | 1，898，706 | 109，781 | ．．． | 4，877 | 67.488 | 823， 409 | 1，903， 513 |
| 41580 ． | \＄111，248 | 615,646 | 1，184，194 | 171，797 | ．．．． | 6，660 | 79，748 | 80） 7,601 | 1，749，2：5 |
| 41940 | 49y，280 | 1043,777 | 1，477，747 | 168，768 |  | 9,114 | 72，051 | 1＊2， 167 | 1，965，427 |
| 41949. | 451，009 | 674,148 | 1，375，875 | 100，201 |  | 7．549 | 29，010 | 297，512 | 1，789，897 |
| $\cdots$ 1．47，．．． | 274，217 | 858，449 | －574，087 | 110．829 | ． | 4，986 | 20，729 | 222，766 | 1，2432，797 |
| $\cdots$ 1816．．．． | 245，278 | 656， 228 | 990，996 | 84，174 |  | 12，909 | 60，631 | 155，140 | 1，248， 4 \％ 7 |

Expont and Consemition of Cutton in Gbeat Baitain rof voun Yeare．

| 1585. | EXPURT． |  |  |  |  |  |  | CONSUMPTLON． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Levorpoul． | London． | IMber Porle． | Trotal． | $18 \mathrm{B4} 4$. | 1 mas. | 150. | 1455. | 1 HH 4. | 1868. | $158 \%$. |
| American． | 120， 8109 | 350 | ．．．． | 124， 6 ，${ }^{\text {a }}$ | 187，800 | 17及，60 | 165，960 | 1，877，945 | 1，530，609 | 1，40x，963 | 1，507，765 |
| 1razil．．．．．．． | 4．700 | 80 | － | 4，760 | 4，42100 | 19，104 | 14， 400 | 114，472 | 100， 278 | 119，818 | 124，464 |
| Weal India． | 2100 | 50 | ， | と先） | 100 | 600 | 818 | 9，056 | 9，177 | 10，809 | 9，465， |
| Eryptian．．． | 9， 8100 | 50 | ．．．． |  | 2，003 | 8，403 | 1，000 | 130，9k4 | 105，215 | 119，648 | 109，00\％ |
| Last Iudia． | 104，$\times 10$ | \＄2，100 | ．．．． | 189， $61 / 0$ | 168,600 | 151，8000 | 100．740 | 976.48 | 907，788 | 106，0＜ | 163， 401 |
| Total | $2848 \times 0$ | －9，6）0 |  | 816,900 | 816,460 | $8+9,0 \times 0$ | 282，400 | 3，090，298 | 1，949，347 | 1，854，610 | 1，911，104 |

Sea Island hlainsad do Upland． Moblle anc Now Orles Pernamba Pahia and Maranlitum Egyptian． Surit and Rengal an Other dese

Total
stock，1st 5 Isport in 18

Total 9
Dednet

Stork， $15 t$
Taken for $\mathbf{e}$
port in
Ded．exp．te
Taken $f$

Steck，Ist Jt import in 1

Strek 1st J sipo：ted to

Taken for
The abe samption production bales，whi later bein relucing 1845－a E invelved．
From nater，worl prucess o balea of of the pr sien of m on al abo adrance of consun
to learn． larger in very rap tbe lalle in conseq ished rec 2．Fre I wo thiri to Franc ported， 1 or mann terme，$ห$ but the

| Deseripulan. | 1865. |  |  | Toral is the king ${ }^{\text {a }}$ (om. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Liverpcel. | Lasalom, | Other Pont. | 1865. | 1864. | 1863. | 1858. | 1851. | 1850. |
| Sea Ifland | 10,240 |  | 860 | 10,800 |  | .... | .... |  | $\ldots$ |
| Stainst do........... | 1,890 | 180 | 10 880 | 1,800 | 811.810 | 808.870 |  |  | 279.960 |
|  | 84,2\% | 180 | 8880 | 85,290 89.670 | 811,810 | 808.870 | 860,770 | 24,800 | 278,900 |
| New Orleans ......... | 102, vo | .... | 2,650 | 105,140 | .... | ..... | .... | . | $\ldots$ |
| Pernambuco, eto. .... | 88.300 |  | , 1 | 22,060 |  |  |  |  |  |
| Habla and Macelo.... | 18.49 | 60 | .... | 18,600 | 47,520 | 49,000 | 54,610 | 49,500 | 68,700 |
| Maranham. ........ | 91,490 $4 \times 290$ | 100 | 2,0es | 182,000 50,870 | 98980 | 85,120 | 102,7\% | $2 \mathrm{O}, 000$ | 85,100 |
| Sarit and Madrus.... | \$2,200 | 49,640 | 880 | 182,170 | 202,620 |  | 188,210 | 172,000 | 148,400 |
| Preagal and Manilit... | 140 8,400 | 890 250 | $\ldots$ | 1,080 8,660 | 4,010 | 25,40 8,046 | 18,210 | 17800 | 1,800 |
| Other desertptionas... | 8,400 | 200 | $\ldots$ | 8,400 | 4,010 | 8,040 | 6,160 | 1,800 | 1,800 |
| Total. | 428,810 | 51,120 | 6,540 | 448,470 | 624,450 | 717,530 | 657, 520 | 424,500 | 522,400 |

LIVERFOOL COTTON STATEMENT.
stock, lat Innuary, 1855............................ 851,800 Inport tu 185s.............

Bales.
3,048,080
782,880
782,880
2,142,705
2,804,000
Total quantity sold in 1855, as per weekly returas

2,265,200

428,800
Bal.s.
Taken for consmmption and ex- $\} \begin{gathered}\text { Balis\% } \\ 2,265,200 \\ \text {, ar } 43,562 ~ p r . ~ w k . ~\end{gathered}$

bales per week.]

Taken for consumption...... $2,090,000$, or $89,056 \mathrm{pr}$ wk. [In 1854, ... $1,885,800$, or $38,225{ }^{\text {w }}$ ] LONDON COTTON STATEMENT.
Stcek, 1st Jannary, 1845.
Impoit in 1855...........
8trek 1st Jannary, 1856 ...... 81,100$\}_{\text {Bales. }}$
Exported to tho Continent.... 82,600 Liverpool................
Then for coasumption la England... 19,600 or 377 pr. wk. $[\ln 1304 . . \quad 7,000 \times 140$
The ubove figures show that the past year's consumption was double that of 1840 . The aggregate production of the past 12 years aums up $37,297,500$ bales, while the consumption has been $38,212,500$; the latior heing in excess of the former 925,000 balee, thus reduing the atock on new material by that much since 1845-a startling fuct in view of the great interesta invoived.
From a sellable source of intelligence across the wster, we leurn that new machinery added to milis now working, together with manufactories nuw in process of erection, will require in 1857 about 4,000 bales of cotton per week more than tho consumption of the present year, making an aggregate of nearly 45,000 balea per week. On the Continent, the extension of manufacturing power is aupposed to be going on at about the same rate. Consequently prices wili adrance till they rench a polnt tending to a diminution of consumption. What that point will be we have yet to learn. Though the stock of cotton, at present, is iarger in ilverpool than last year, it will he reduced very rapldly, as the imports up to the closo of the year can searcely be more than half so largo as inuling the iatter monthe of 18.5 , and periups not even that, in consequence of tie latenesm of the season aud diminished receipts at our ports.
2. France.-Cotton constitutes in value more than two thinds of the domestic exporta of the United States to France. By virtue of the treaty of 1805 , it is imported, ilke all other "articles of the growth, produce, ar munufacture of the United States," on the sume terms, whether ir: United States or natlonal veasels ; but the importation $m^{\cdot \cdot}$ t he ellrect, and the origin of the srticie duly authenticated, A ministerial decree
of December 17, 1851, enlarges the provision of the treaty relative to the direct voyage, so far as to extend the equality between the vessels of the two natlons when importing cotton, even ahould the American vesael touch at a British port ; but, in that case, the captain is required to exhibit a certificate from the Franch consul at that port, stating that no commercial transaction tiere took place. The French government is directing its efforts to the development and extenslon of the cotton culture in its colonial province of Algeria. To that end, in December, 1853, an aggrgate value of 20,000 france, In prizes, was offered by the emperor to the most successful cultivator of cotton in that province. The result is announced as most favorable. In December, 1854, the entire sum was divided between three rivals, whose merita were judged equal-two of them being French colonlats, and ons an Arab-a gold medal to each being also awarded. To the meritorious of the second rank, a sllver medal to each was presented. Tise amount produced in 1854 was 180,552 pounds. Next to Grent Britain, France is the largest importer of American cetton; and what Liverpool is to the former, Havre is to the latter. At those two polnts the importations are concentrated, and thence distributed to the different markets of either empire, or re-exported to foreign countries. The re-exportations of France are chiafly to Switzerland by railway; after which country, In this trade, come Sardinia and Holland; smaller quantities being sent also to Spain, the Zollverein and other countries. Next to the United States, France derives her supplies of cotton from the Levant ; and the third place is held by South America. These facts are illustrated by the following atntemants, made up from the "Tableau Géneral du Commerce de la France," for the year designated. [The quantities are given in kilogrnmmes, each kilogramme being equal to about $21-5$ pounds. Kilogrammes multiplied by 8 and divided by 4 will give pounds.]
Tabular comparatife gtatement anowing tar Quantitiks of Cotton Iyported into France, and tim Countrirs whrycr Importrd, yor a prriod of turee Ykars, trom 1852 to 1855 , botil inclueive.

| Countries whenee imported. | Kllogrammeo of cotion lmported into $\mathbf{F r}$, 20 in the yesra- |  |  |
| :---: | :---: | :---: | :---: |
|  | 1868. | 1863. | 1864. |
| United States.. | 78,104,454 | 75,899,785 | 77,748,470 |
| kigypt.......... | 4,882, 575 | 4,881,872 | 8,001,827 |
| Turkey | 1,427, 887 | 1,871,289 | 875,884 |
| England | 958,907 | 890,823 | 1,547,994 |
| Bregatam | 231,074 | 608,449 | 875,350 |
| Brazlt | 418,569 | 280,818 | 127,012 |
| Perin. | 168,716 | 288,588 | 239,688 |
| Venezu | 815,053 | 169,636 | 68,064 |
| Ifayti. | 75,897 | 104,510 | 77,165 |
| Fast lndleb | 47,955 | 6,674 | 158,649 |
| Etsowhere. | 308,091 | 191,029 | 208, 069 |
| Aggrega | *8,989,8222 | 83,065,022 | 84,055,022 |

The only country In Europe which can, in any sense, bo auld to competo with Great Hritain in the supply of the extra European demand for cotton goods ls France. And when the character and extent of this branch of the French export trade are described it will be seen that this most formidable rival is not yet much to be dreaded.



| Years. | From Hatted Stal con | $\begin{aligned} & \text { From } \\ & \text { oubir Placen. } \end{aligned}$ | Asgeegatu. | Yowns. | $\begin{aligned} & \text { From } \\ & \text { United Blates. } \end{aligned}$ | $\begin{aligned} & \text { From } \\ & \text { other Pluces. } \end{aligned}$ | Aggregale. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1880. | khotesens. $11.630,6(3)$ | Kilograme. $8,573,000$ | Kllogreme. $20,208.000$ | 18.8. . . . . . . . | Kilogranas. <br> 43,154,400 | Kilograma. <br> 7.479,000 | Kllograme. <br> 61,240,000 |
| 1841. | 10.106,000 | 12,409,000 | 22,587,060 | 1489.......... | $34.834,000$ | 6,702,000 | 40,624,100 |
| 1829. | 0,6001,400 | 12,072,400 | 91,572,000 | 1841). ......... | 48, 8851,000 | 4,361,000 | W2, 1242,010 |
| 1 123. | 12,196,000 | 8,138,400 | 20,354,0190 | 1841.......... | 80, 850,000 | 5,540,000 | 65870,000 |
| 1884. | 15,749,000 | 12, $2 \times 1,000$ | 25,030, M00 | 1842........... | 08, 33: 2,000 | 4,905,090 | \$7, 327,000 |
| 1889. | 13.436, 0007 | 11,218,000 | 24,667,000 | 1843.,........ | 86,135,000 | 3,8ik, 0 | 60,000, 000 |
| 1524. | 21,9ist, 000 | 9,693,010 | 31,914, (Mb) | 184. | 61,241.000 | $4,4{ }^{* * *} 0$ | 58, K92.000 |
| 1827. | 21,810,000 | 7,904,000 | 20,684.600 | 1845 | 56,642,000 | 4.1 \%, | 00,778,000 |
| 1828. | 21,617, 616 | 6,708,0.0 | 27.375,400 | 1841. | 60,700,000 | 3,4 | 64,227,000 |
| 1849. | 96, 84.600 | 5,905,000 | 31,839,000 | 1847. | 42,225,000 | 3,297, $m$ | 46,522.000 |
| 1890. | \%3, 17,0,000 | 6,110,000 | 29,240,000 | 18.8 | 43,243, 000 | 1.600,000 | 44,919,000 |
| 1831. | 23,7t9,000 | 5, 451,000 | 28 2929,000 | 1849. | 60,981,000 | 8, 233,000 | 64,164,000 |
| $18{ }^{1} \mathrm{ck}$ 2. | 97,483,400 | 8, 2203,006 | 82,036,000 | 1850 | 64,919,010 | 4.: $47.0 \times 10$ | 60,486,000 |
| 1888. | 28.819 .0 .60 | 8,491,010 | $35,610,000$ | 1881 | 54.914000 | 4.570,000 | b8, 484,000 |
| 1'334. | 91,5i7,009 | $5,948,000$ | 86,983,000 | 1854. ......... | 66,750,000 | 5,329.010 | T2,060,000 |
| $18 \% 5$. | 32, 328,000 | 6. 4876.000 | 38.160.060 | 18.8. | 70, 921,000 | 4,870,000 | 75,0 41,600 |
| 1836. | 36,369,0M | 7, 6 , 4,000 | 44,3m5, 000 | 1804. | 67,453,000 | $4,141,100$ | T1,504,000 |
| 1837. | 36,469,090 | $7.361,100$ | 43,830,000 | 1865 | 71.897,000 | 4,241,000 | 76,138, 000 |

From the foregoing talise it will be seen that the isuportation of colton into France from other countrica than the United Statea, tncluding Brazil, from 18:0 to 1855, has fallen of more than 50 per cent. ; while frum the U. States it has incieased more than 600 per cent.
The Froneh tariff in 1858 imposed five different rates of duty on rave cotion imported in French vessels, accordlag to whare it eamo frons; and three uthor rates of duty, similarly is aig tsued, un cottom inported in foreigu vessels. The duty most extensively operative -that on Anerican cotcon entering in lrench bottoms -was 20 franes per 100 kilograms, or alout sixteen shilling* per 220 pounds. And as the whole quantity imported ( $73,091,000 \mathrm{kilograms}$ ) yielded to the rovenue $17,27 \mathrm{ti}, 000$ franes, giving an average of $22-23$ fraces per 100 kilograms, it is probable that by far the greater part of what was imported aclually puid this rate of duty.

The bounty on exportation was 25 francs pre 100 kilogratise of manufactures or yarn. It was allowed in 1853 on $7,117,864$ kilograms of manufacture and on 198, $\mathbf{6 0}$, kilograme of yarn. This, with a moderate allowatec fur waste of the raw material, though called a bounty, could in olfect have leeen little, if at all, more thas a drawlack of the import duty.

It would seem that the French exports in this kind are not more than a tenth in value of our own. And where werc they sent, and why? The largent customes for these French manufaclurers (taking two parte in veren of the whole value) was Algeria; but Alperian consumption may be deemed practically French consuuption. The iwo customers next on the list, when arranged In orelor of magnitude, are the U'ulted Statea and the Uuited Kingdom. These took hetween them two other seventh parts of the whoie. And the goorls sold in the English and American markets are well known to owe their peculiar value rather to the degigner and the dyer than to the splnner and weaver. Their cosisumption does not admil of any very rapiol or widr incrense. French taste and French ehemistry have deseryedly won for the Freach textile faluics, wherover they are applicable, a superiority as weli tnown as it is incontestable. But thin has little effect of the whole. With a fer trifling exceptions, of which Brazil :



| Vears. | Duteh Went lodies | British Weat indlea. | Hayt, | New tiranada. | Veneruela. | Eleenhere. | Alt ("ountries. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1051 | Howile | Poundx 424.253 | P'oubile. <br> 12, (1) (0) | $\begin{aligned} & \text { l'oubds. } \\ & 110.191 \end{aligned}$ | $\begin{array}{r} \text { Pounde. } \\ 6,010 \end{array}$ | Pomode 93. 204 | 1'ounda. <br> 160.75 |
| 1852 | 22,44 | 6.7t\% |  | 69.839 |  | 14,430 | 24.643 |
| 1843 | 8, | 254.682 | 215. 700 | $192.20{ }^{7}$ | 6!.310 | 300 | 7:2,629 |
| 154. | 100 | 165,081 | 176,197 | 155,128 |  | 3,644 | \%-4, 2101 |
| 15\% | 1,002 | 1,850,217 | 188,214 | 44.854 | 415 | 160 | 2. $115.116 \%$ |
| Aggregate | 23,608 | 2,329,619 | 618.141 | 608,594 | 67,735 | 169,648 | 8,794, 619 |
| Average . . . . . . . . . . . . . | 4,721 | 405,720 | 122,624 | 120,516 | 13,647 | 81,7011 | TS8, 6018 |

It may $\mathrm{l}_{\mathrm{s}}$ :emarked that, with the exception of $\|$ Imported into the United States was exported duriag 42,522 poovits exported to Fingland in 1853, no cotion the years designated.

Conntries ta
alported.
trade, during a period of five years, from other come

The following table shows the funntities of cotton imported into liavre from all commeries for a period of four years, ending with $185 j$

| Sears. | Prom tha Vailed Btates. | Frome Bradi. | $\begin{aligned} & \text { Vrom } \\ & \text { clasuhere. } \end{aligned}$ | Total. |
| :---: | :---: | :---: | :---: | :---: |
| 18,8 | Isales. 374.910 | Hales. nMma | $\begin{aligned} & \text { Halen, } \\ & 14,40 \mathrm{FI} \end{aligned}$ |  |
| 1 NS 3 | 374610 | $28(0)$ | 12,200 | 90, ¢, bum |
| 180゙4 | 411,000 | 2010 | 18,000 | is.e, ika |
| 1*5 | 406.60 1 | 45001 | 0,000 | \$15.100 |

Tahle ehowing the Qeantitize of Cotton hac eivid at


| Yeara. | Vrum the Viuberl statea. | $\begin{aligned} & \text { Yrom } \\ & \text { Ekypi. } \end{aligned}$ | From - Inewhere | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1802. | nalen. 17.990 | $\begin{aligned} & \text { Belea. } \\ & 3 n^{\prime} \% \end{aligned}$ | $\begin{aligned} & \text { Bnten. } \\ & 12 \mathrm{~B}: 0 \end{aligned}$ | $\begin{aligned} & \text { Halesi } \\ & \text { G7.00it } \end{aligned}$ |
| 184, | 14, 2000 | *5, 600 | 17.0401 | ctismo |
| 1834. | 19,800 | 31,400 | 4.310 | 45.tivi |
| 15\%6... | 12,000 | 30,7(6) | 2,509 | 4500 |

From tho suljoined table, showing the quuntities of otton recelved ly the Livited States in the course of azil:
French offielal documents furnish the following facts relative to our cotton trade with that empire. By the custonthouse returns for 1855 , it appears that there were received for the following years from all countries:


| Yeara. | $\begin{array}{c}\text { Vrum tha } \\ \text { Vuilei statea. }\end{array}$ | Eromin | Vrom | Total |
| :---: | :---: | :---: | :---: | :---: |

1
1854.......
1.ne...


#### Abstract

Il be p


 $158,190,000$ peunds$108, \mathrm{fi} 0,000$ 157,te0.000 , p

| Somat. | Pounds. | Value, | Total Value donvestie Eiporta |
| :---: | :---: | :---: | :---: |
| 1409 | 1:5,234, 691 | \$14,345,449 | \$17,190,27t |
| 18\% | 139,164,571 | 18,124,512 | 25,362,005 |
| 1504. | 180,214.270 | 15.438086 | 20, 190,000 |
| 15,53 | 183,226,413 | 10.248,076 | 25.120 .806 |
| 1864 | 144,423,36\% | 14, D33, T12 | $80,965,202$ |
| 1 K 5 | $211,118,819$ | 1!, 035, 423 | 31,6238:8 |

ㄴ (Intte $1: 52\left\{\begin{array}{l}\text { Engla } \\ \text { Egyp } \\ \text { Eg }\end{array}\right.$ $1553\{$
$\left\{\begin{array}{l}\text { Collo } \\ \text { Nugl } \\ \text { Egyp } \\ \text { Else }\end{array}\right.$ EIse'v $\left\{\begin{array}{l}\text { Unlt } \\ \text { Eng }\end{array}\right.$ $1334\left\{\begin{array}{l}\text { Fogy } \\ \text { Ela }\end{array}\right.$

3. Spain. the quantiti countries $w$
fron $1 \times 51$ L The stath which to'm:
The qual Statea to $\mathrm{S}_{1}$
reports, the $1531 . . . . . . .$.
$1 \times 22 . . . .$. $1433 . . .$. Gie alea Spain were 1531....... 1*s......... lrom lis that lsland 181, . . . . . 1583


 1858 to $18 \% 1$. boti inclugive. [Tin Quantitirs abe GIFEN in KiLooaly

| Conntries to which eaported. | Kilogrewnese of cation exported from Freace In the years- |  |  |
| :---: | :---: | :---: | :---: |
|  | 1852. | 1858. | 1854. |
| Bwitzerland........ | 7,029,867 | 7,029,099 | 6,607,008 |
| Netherlands, ....... | 1,709,004 | 857,982 | 688,708 |
| Saritria............ | 1,504,495 | 661,984 | 492,874 |
| Zolveretu. . . . . . . | 198,408 | 158,687 | 889,974 |
| flanse Tewas...... | 110,534 | 189,581 | 19,264 |
| Austria...p........ | 17,545 | 188,636 | 108,285 |
| Euyland. | 1,149,986 | 810,820 | 77,008 |
| Bekham. ${ }^{\text {che. . . . . } 6}$ | 75,711 | 198,061 | 63,704 |
| Spain..........tp... | 918,864 | 61,179 | 58,895 |
| Tuscany,........... | 48,915 | 18,498 | 1,720 |
| Sisewhere | 7L.013 | 80,493 | 6,498 |
| Aggregate. | 12,177,056 | 9,571.440 | 8,692,058 |

Comparativn tahelar Stati .jt ahowimg tife Quan* tities of Cotron oonsumao in France, and tha COUNTALK WHENCE IMPOATED, FOR A PEBLUD OP THRER YEAgs, fros 1559 To 1854, notrl inclutive.

| Countriet whence lsoported. | Kllogramene of ention conaumed in France in tha years- |  |  |
| :---: | :---: | :---: | :---: |
|  | 1882. | 183. | 1454. |
| Matted Staten. | 68,741, 114 | 70,206,752 | 67,452,503 |
| Soypt. | 2.754 .668 | $8,401,407$ | $8,818,685$ |
| Turkey ............. | 979.818 | 14,4,81 | 571,511 |
| Enghand | 8,966 | 8,412 | 170,664 |
| Belgiam.. | 281,074 | 7,61,066 | 895,176 |
| Brazil. . . . . . . . . . . | 482,899 | 265,450 | 105,861 |
| Pera. | 144,184 | 219,077 | 254,414 |
| Venezinola. | 2n6,589 | 161,502 | 55,263 |
| Haytl ............. | 47,964 | 70,580 | 57,290 |
| Past lndles........ | 296,953 | 968,874 | 71,517 |
| yinewher | 231,448 | 175,287 | 141,181 |
| Agaregato. | $78,008,451$ | 75,091,286 | 71,688,025 |

Tabrlag compańatife Statement showino the Quantitiss of Cotton whiolf paberd IM taankit tithouon fanor, Witit tan Connthirs FHINOE IT CAME, AND GHLTARA IT WENT, MESPFCTIVELT, DLATINOULBHINA TIIM QUANTITIES TO AND FAOY EACII, FOR THR IERLOD OF PhREE FEABA, FROM 1852 to 1354 , botil inolubive.

| Yuath | Conniriee wheace. | Quantites. | Connivics whllher. | Quantlila |
| :---: | :---: | :---: | :---: | :---: |
| $1522$ |  |  |  | Kllon. |
|  | Inited States. | $5,000,457$ | Switzerland... | $7,027,627$ $364,8 t 5$ |
|  | F | 1,2 | Saruinia..... | 264,8t5 |
|  | Els | 266,819 | Eisow | 12,618 |
|  | Aggregr | 7,8017,884 | Aggre | 7,607,5844 |
| 1538 | lnited States. | 4,501, 5229 | Switzerl | 7,108, 014 |
|  | Enyland. | 761.198 | Sardin | 107,115 |
|  | Ezyy | 1,822,878 | Zollveretn | 182,779 |
|  | Elsew | 62,178 | Belgiutn..... | 70,203 |
| 124 | Aggro | 7,476,171 | Agrregata.i. | 7,476,1)71 |
|  | Uutted Status. | 4,628,826 | Swltzerland. | 6,601,925 |
|  | England...... | 1,402,872 | Sardinis. | 265,487 |
|  | Eyyyt........ | RS 4.720 | Zollvere | 878,450 |
|  | Els | 856,603 | Eloowhe | 66,739 |
|  | Aggregate.. | 7,297,641 | Aggregrte.. | 7,297,841 |

3, Spain.-Tabular comparative statement, showing the quantitios of evtton imported into Spain, and the ceuntries whenco imported, for a period of tive years, from 1851 to 18 in 5 , hoth inclusive.
The statistical office has no offeial Spanish data from whien to make up the atatement required.
The fuantitics of cotton exported from the United States to Spain, necordiag to United States' 'Ireasury reports, the year speciffed, wero as follows:

1554. $\qquad$ Pound I. 1K19............... 20,9111,929 88,851,012

$\qquad$ | $35,024,174$ |
| :--- |
| 88,071 |
| 105 |

From Cuhb, the ame fre ales of that islant, the quantities exported to $\mathrm{S}_{\mathrm{p}}$ nin were as follows:

|  | Poonda. |  | Pnumina. |
| :---: | :---: | :---: | :---: |
| 1531. | 18,415 | 1s51.............. | 1,489 |
| 1238. | 801,225 | 1855.............. | Ne data. |
| 1533. | 188,625 | Average (4 years). | 119,498 |

lirom I'orto lico, according to offcial Halanzas of that inland, as follows:


$1854 . . \ldots \ldots \ldots \ldots . \begin{gathered}\text { Puanda. } \\ \text { No dala. } \\ \text { No data. }\end{gathered}$ 1855................... No data $\begin{array}{ll}\text { Average (8 years). } & \text { 284,147 }\end{array}$

From Brazil, according to the Proposta o Relatario of that empire, for the years 1852-'3, and 1853-'4, the quantities of cotton exported to Spain were as follows:

Spaln, eccording to the Cuadro General of that kingdom for 1849, imported that year, from countries of production, $26,136,881$ pounds of cotton ; of which quantity the Unitted States supplled $21,669,441$ poonds ; Cuba, 3,371,830 pounds ; llrazil, 832,604 pounds ; Porto Rlco, 370,881 pounds, and Venezuela 21,316 pounds.
4. Ilanse Towns.-The states of Germany are snpplied with the cotton consumed in their factories chiefly through the Ilanseatle cities, Ilamburg and Bremen. Bremen aent to the Zollvereln, in 1853, cotton Imported direct from the United States, to the value of $\mathbf{\$ 9 8 4 , 7 7 2}$ 14 , and to Austris to the valie of $\$ 156,153$ 21. The factorles of Prussla and Saxony aro numerous, and import not only the raw material from the cities, but also large quantitios of yarns. The number of splndles in operation in the states composing the Zollverein is estimated at upward of $1,000,000$. This ls, doubtless, an under estimate, as the industrial enterprise of the Zollvereln has made rapid progress since the date of the officinl document from which these tigures are derived. The export of cotton tissues from the Zollverein $\ln .1853$ amounted $\ln$ value to $\$ 2,394,497$ 34, of which ammant $\$ 2,075,29968$ in value cume from the factories of Saxony.

The IIanso Towns, from geographical positlon, are, and must always continue to be, the great marts from which raw materiai of all descriptions will be supplied to the states of the Germanic conmercial Union. Hence exports of American cotton and tobacco to these polnts are heavy, and constantly increasing. Theso commercial cities receive their sapplles of raw cotton not only from the Unitel States, in direct trade, as well as from Brazil and other countries of South America, but also in tho indirect trade from English ports and other entrepûts of Europo. In 1855, the Zollverein sent through the Hanse ports to the United States cotton falirics to the valuo of more than $\$ 1,500,000$ in return for the raw material.

The following statement shows the quantitics of cotton exported from the United States to the Hense Towns every 10 years, for a period of 51 years, from 1805 to 1855:


Tobaceo is borne in direct voyage from the United States; not so, however, with cotton, in the carrying trade, of which Great Britain has been for many yeare an active competitor. Entering the ports of the United Kingilom free of duty, her merchant flag can realize a profitable trade in its re-exportation to the various ports of continental Europe. Thus the llanse Towns reeelve their supplies of raw cotton nut only from the United States in the direct trade, but also in the indirect trade from English ports and other entrepots of Europe. The annual average quantity of cotton exported from the United States to the Hansn Towna, inelnding Prussia, daring the 4 years from 1851 to 1854 , both inclusive, was $24,811,626$ pounds; while the annual average exports from (ireat llritain during the 4 years ending Dec. 31,1851 , wus $36,563,996$ pounds.

The anmal average quantities of eotton exported from the anme countries, respectively, luring the samo periols, to the other nations of northern Europo, exhibit similar results. These facts are illustrated by the mulijoined statement, and suggest a strong argument for the ecrious consideration, by the navigation interests of the United States, of such measures as would be likoly to promote the direct exportation of our great staple from our own ports, in our own vessels, to those of the countrios by which it is consumed.



 1852 TO 1854 , BOTL INOLUBIVE.

| Countrica. | Mom time vitid matm. |  |  | Thom aniay nitati. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1859. | 1858. | 184. | 1856. | 1858. | 1868. |
|  | Pounde | Poonde | Proond | Pround | Poonde | Pound! |
| Hanas Tawna and Prus | 28,188,228 | 92,671,782 | 87,719,928 | 28,148,256 | 84,680,786 | 89,499,888 |
| Belgiam | $97,167,890$ 10 | 15,494,449 | 18,980,450 | 19,657,680 | 18,469,679 | 14,040,768 |
| Rnssta. | $10,475,168$ $10,250,049$ | 81,986,568 | $2,014,954$ 8,048165 | 45,605,840 | 48,987,892 | ${ }^{20} 208.64$ |
| Holiand......... | $10,209,042$ $6,089,025$ | 6,009,517 | 8,04,160 $9,812,710$ | $\begin{array}{r} 15,894,624 \\ 8,501,840 \end{array}$ | $\begin{array}{r} 28,676,599 \\ 4,414,868 \end{array}$ | $\begin{array}{r} 26,984,541 \\ 5,860,560 \end{array}$ |
| Aggregate | 75,969,888 | 72,501,298 | 60,976,211 | 100,885,840 | 185,005,760 | 10, 550,804 |

5. Belgium.-Most of the cotton imported into Belgium is from the United States, and is consumed by her own factories at Ghent, Llege, Antwerp, Malines (Mechlin), etc., whlch are sald to employ a capital of $\$ 12,000,000$, and more than 122,000 operatives, and to turn out an snnual value of $\$ 17,000,000$ in fabrics, which are in high repute. The Tableau General of Belgium for 1854 gives the importation of cotton into that kingdom as follows:
Statement exmifitino tue Quantitips of Cutton in-

|  |  | Pounds. |
| :---: | :---: | :---: |
| United Statea. . 15,829,266 | Hayt | 5 |
| England. ...... 14,208,765 | Brax | 10,901 |
| Holland....... 8, 888,259 | Other countriea | 80,094 |
| France........ 868,016 |  |  |
| Hanse Towns. 79,688 |  |  |

Of the above total, $25,783,292$ pounds were consumed, and $7,049,828$ exported.

The quantity imported by land and civers was $3,104,851$ pounds ; by sea, $29,729,263$ pounds.

Of the quantity exported, $6,959,965$ pounde was by land and rivers, and 89,858 pounds by sea.


The average annual amount of duties derived by Belgium from cotton for the five years ending with 1854 was upward of $\$ 40,000$, and, in the latter year, it ranked the thirteenth smong articles imported in this regard. The duty under the law of Junuary 81, 1852, was 1 franc 70 centimes per 220 pounds. By the law of April 12, 1854, cotton became free.

In 1854, Belgium exported cotton fabrics in value as follows:

> Cotton fisbries. .
> $\begin{aligned} & \text { Cotton fabrics......... } \\ & \text { Belgian manafuctnra. }\end{aligned}$ *4,701,572 2,698,586

Forelgn mannfactures re-exported.... 82,068,956
0. Sardinia.-Sardinla importa, on an average, some four or five million pounds of cotton each year from England und France, and about the same quantity from the United States; although, In 1855, the importation from the latter country suddenly rose from $1,645,372$ pounds the preceding year to $14,777,765$ pounds ! There seema no sufficient roason why American vessels ehould not convey the whole quantity roquired hy Sardinla directly to Gonoa, as well as for Eaglish and French versela to carry thither a portion of American cargoes landed at Liverpool or Ilavro. A aimilar remark in applicable to the other ports of Italy, and to those of Austria on the Adriatic; and the enterprise of establishing linas of ocean steamera between ports of the United States and those of the Mediterrancan will, if auecessful, tend greatly to encourage, if not to secure, auch direct imjortation.
Thbls ts an oxcess of 44,260 poands over the amount given above as exported, that quantly having beea entered for connumption but aubsequentiy withdrawn.
7. Swizzerland.-Four fifths of all the cotton consumed by the factories of Switzerland is estimated to be imported at Havre, whence it passes through France by railway, being burdened with heavy charges in the transit. In 1838, the quantity thus received amounted to nearly $6,000,000$ pounds. In 1848 it had reached nearly $17,000,000$ pounds. The entire receipt of cotton in 1848 was $22,000,000$ ponnds. In 1851 it amounted to $27,085,725$ pounds, of which $13,729,820$ pounds were from the United States. In 1852, Switzorland received through France $15,816,775$ pounds 1 in $1853,15,815,473$ pounds, and in $1854,14,978,257$ pounds, according to the Tableau Géneral of France for these years. Imports from the United States into Switzerland are made, for the most part, through the customs frontiers of Berne, Basle, Soleure, and Argovie, bordering on France and the southern part of Germany. A severe restriction on the importation of cotton, and also of tobacco, to Switzerland, as well as on the reception by the United States of Swiss ware and manufactures in retura, is the vexatious and expensive transitage, especially through France. The oppresion of this system may be inferred from the fact, that the annual average aggregate value of merchandise on which traneit tolls are paid, proceeding from Switzerland, is (1858) nearly $\$ 80,000,000$; and the value of that proceeding to that republic more than half as much. Switzerland sent, in transitu to France, cotton tissues to the value of nearly $\$ 3,000,000$ in 1852 ; and to the value of nearly $\$ 4,000,000$ in 1853. By the French tariff, such fubrics are excladed from France for consumption. Since 1845, Switzerland Is stated officially to have qulte superseded in the markets of Germany and Austria, the yarns of Great Britain. In 1830 that republic had in operation 400,000 spindles ; in 1840 , 750,000 , and in $1850,950,000$; the number having more than doubled in 20 years.
According to Swise official custom-house reporis, that republic recelved cotton from the United States as followe, the years specifled:


In return, cotton stuffs, as follows, wero sent to the United States:


In 1855, Switzerland returned to the United States, in exchange for raw cotton, the same article manufuctured, to the value of $\mathbf{\phi} 212,700$.
8. Russia.-llefore the breaking out of the late war, the manufucture of cotton in the Russlan empire was progreasing with extraordinary activity. The number of spindles exceedod 350,000 , producing annally upward of $10,000,000$ pounds of cotton yurns. The burter trade with the Chinese at Kiachte stimulates this trauch of manufacture in Russia, as the artiole of cotton velvets constitutes the leading staple of exehange, at that point, for the teas and other marchandise of China. In former yoars thie article was supplied alnost exclusively by Great Britaln; but the Chinase prefer the Russian manufacture, and hence the steady progress of that branch of Industry. Thus the annually increasing lmportetions of the raw material, and consequent diminution in the quantities of cotton yarns imported is accounted for. Were raw cotton
admitte Statee trade. $t$ As it is, nounced ing, 88 at St. I sult. I previous 112,427 pounda
9. $s$ accordin 7,989,42 pounda i portatiol in 1853 ; portation by more any prec pounds. from $S w$ in 1851.
10. $P$ manufao to 6,697 , $\$ 1,516,6$ This kin 1855, of from the In 1853 tugal rec imports at $\$ 171,8$ 61,142
11. $B r$ in 1843-4 authoritl

1888
1848 -

The g
to be ne largest quantitie

In 188
In 180
In 185 pounds, 26,881,20 1,896,280 total ex: $22,575,12$ 2,673,766 ports fro are insup ton cultu the rava and the transmis,
long sinc
plant wi tione ha well to lands.
province
were, uc
1829.
1830.
12. $E$
in 1818 ,
compara
Egrptlar
the port
ported,
admitted, as in England, free of daty; the. United States would, moot probably, supply, in the direct trade. the whole quantity conenmed in that empire. As it is, the coumercial reforms in Russia, already announced offlicially, and now in progress, compreghending, as they do, the establishment of American housea at St. Petereburg, must necessarily tend to that result. There are at present in Russla, or there were previously to the war, 495 cotton factories, employing 112,427 operatives, and producing annually $40,907,736$ pounds of yarns, and corresponding amounts of textiles.
9. Sweden.-The importations of cotton in 1851, according to Swediah official authoritiea, amount to $7,989,4281$ lba. againat $1,832,481$ lba. in 1841, and 749,434 pounds in 1881. In 1843, these authorities ahow an importation of $2,60,000$ pounds against $9,888,572$ pounds in 1853; which latter amount exceeded that of the importation of 1852 by $1,247,041$ pounds, and that of 1850 by more than $5,200,000$ ponnds, being the largest of sny preceding year. In 1848 the amonnt was $8,074,020$ pounds. The value of cotton mannfactures exported from Sweden in 1850 was $\$ 46,000$ against $\$ 7,500$ only in 1851.
10. Portugal.-In the year 1855, the quantity of raw manufactured cetton imported into Oporto amounted to $6,697,454$ pounds, the value of which is eatimated at $81,516,644$, on which the duty paid was $\$ 899,57918$. This kingdom imported $1,911,451$ pounds of cotton $\ln$ 1855, of which quantity 144,006 pounds were exported from the United Statea, and the reaidue from Brazil. In 1853-54, according to Brazilinn official reporta, Portugal received thence $2,678,766$ pounds of cotton. Her importa of yarn in 1855 were $1,218,157$ pounds, valued at $\$ 171,817$ 07, and paying an aggregate of duties of $861,14284$.
11, Brazil.-The exportations of cotton from Brazil, in 1843-44 and 1853-54, are stated by Brazilisn official nathoritioa as follows:


The growth and export of cotton from Brazil appear to be nsarly atationary. Great Britain, whlch is the largest cuatomer, imported from Brazil the following quantities:

In 1852-53 the exportation amounted to $31,033,050$ pounds, of which quantity Great Britain received 26,881,201 pounds, Spain 2,201,578 pounds, Portugai 1,896,286 pounds, and France 889,048 pounds. Of the total exportations in 1853-54, Great Britain received 22,575,122 pounds, Spain 2,951,279 pounds, Portugal 2,673,766 pounda, and France, 543,611 pounds. Exports from Brazil to England began in 1781. There are insuperable drawbacks to the extension of the cotton cuiture in Brazll, among which may be reckoned the ravagen of insects, the peculiarities of the climate, and the expense and difficulties attendant upon its transmission from the interior to the conat. It has loay since been ascertained in Brazil that the cetton plant will not flourish near to the aen, and the plantations have, in coneequance, receded further inland, as well to avoid this difficulty as to seek new and frosh leads. Peruambuco ia the principal cotton-growing province of Brazil. The exports from that province were, according to Brazilian authoritles, in

|  |  |
| :---: | :---: |
| 1830.............. 81,158 | 1842 |
| ....... 52,42 | 1845,............ 20,5012 |

12. Egypt.-The cotton culture in Egypt commenced in 1818, and exportation to England in 1829. The comparative tabular atatement subjoined, derived from Egyptian sourcea, showing the quantities exported at the port of Alexandria, and the countriea to whioh exported, respectively, for a period of 8 years, from 1853
to 1855, both inclusive, would indicate an increase in the culture by no means rapid in successive years:

| Years. | Pounde of Colton axported from İypt to |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oreal Britain. | France. | Austria. | Elcewhore | All countr |
| 1858 | 86,489,000 | 10,726,500 | 6,821,000 | 897,800 | 43,885,20 |
| 1854 | 24,088,700 | 7,454,100 | 10,165,900 | 988,500 | 48,546,000 |
| 1850 | 88,980,100 | 9,451,200 | 12,774,000 | 668,100. | 66,874,800 |
| Tota | 85,858,700 | 97,681,800 | 29,261,100 | 4,504,400 | 144,808,000 |
| Average | 28,403,000 | 9,810,600 | 9,738,700 | 634,800 | 48,102,000 |

If to the aggregate sxported be added from 5 to 6 million pounds worked up in the country, a liberal eatimate of the annual amount of the cetton crops of Egypt will have been made. The factoriea established by Mehemet All are, it is atated, going rapidly to ruin. The cotton goods manufactured are coarse "caftas," or soldiers' "nizam" uniform. Much cotton la used, also, in making up divans, the usual furniture in Egypt. The Egyptian bale is estimated at Alexandria at 800 pounds. The United Statea' consul general at that port, in a despatch dated the 1st inatant, from which are derived the above facta, says: "The new crop is now coming in, and is supposed to be a little above the average."
13. Cotton Culture in Mexico.-The United States' consul at Tampico has furnished the following interesting information, in relation to the varistiea, culture, and manufacture of cotton in Mexico, in answer to a circular isaued by the Commissioner of Patenta In February last: "The greatest production in this country of this article is on the coast of Vera Cruz, and southward from the capital of the State of that name toward Alvar:do, and weatward toward Flacotalpan and In its neighborhood. A little over aeventy-five pounds of seed cotton yields, when ginned, twenty-five pounds of cotton wool. The quality is good, and the whole is sent up the country for consumption in the factories of Jalapa, Orizaba, and Puebia. From Vera Cruz to Matamoras, notwithstanding the territory being ao extensive, and so sdmirably adapted for the growth of cotton, none is produced beyond a littie in the neighborhood of Papantle, which the Indiana cultivate for their own use, and apin in the same primitive manner as did their ancestors at the time of the conquest, viz., by means of a species of wooden apindle, the point of which ja put in a common wooden bowl, and its gyrations given by the fingers. From the yarn thus apun they manufacture a narrow cloth, and thia is atill the custom in many parts of the country. In the neighborhood of Matamoras cotton is raised, but in liuited quantities, and is also cultivated in Monciova. One hundred pounds of eeed are required to produce twentyfive pounda of clean cotton. All that is produced in these places is consumed in the factores of Saltilio.
"On the west coast mention may be made of Santiago, a place situated between Tepic and Mazatlan, where a considerable quantity is raised, which is disposed of hy the factories of Tepie. Further south, and between the towns of Antlin and Colima, and downwand toward the aea, a very rich cotton country is to be seen, and whero immense quantities could be raiaed were there more hands to attend to its cultivation; as it is, however, sufficient is gathered for the supply of the factories of Colima, and soine of it even finds its way to Guadadajara, the capital of the State of Jalisco.
"From Colima, a stretch must be inade to the neighborhood of Acapuloo, where cotton is raised, but by no means in abundance; but all that is gathered in that gection of the country is sent to the market at the city of Mexien. That part of the country is called 'Conta Grande, and is aeparated from the 'Costa Chica' by the river l'apagayo. On the latter, and in the neighborhood of Ayutla, cotton ia raised, but in limited quantities, and sent to l'uebla for bale. The cotton on the whole of this coast only requires seventy-five pounds of seed to produce twenty-five pounds of cottonwool when ginned. The whole of the east, us well as
that of the west const, for aboot 40 leagem inland, is admirably adapted for the growth of cotton. The country is, however, entirely unpopulated, and considerable difficultr is experienced in getting in the harvest in consequence thereof. There are very. few landed proprietors who devote their attention to the oultivation of cotton, except on the ooast of Vera Crue. All the rest is raised by amall farmets (rancheros) who are content to get about one half the amount of its value. Such payments are made in a few goods and groceries, in anticipation for which they are charged exorbitant prices: An experiment hae been made to raise cotton on a farm about 12 leagues from San Luia Potosi, between 6 and 7 thonsand feet above the level of the sea, snd the result has been fivorable. An enterprising Spaniard is now raising cotton 5 leagues from Tula, with every prospect of a sstisfuctory return. His farm is abont 4500 or 5000 feet above the level of the sea. No care is bestowed on the plant. The seed is put Into the ground, and no further notice is taken of it until it is quite ripe and ready for picking. The consequence is, that the staple is not so long, nor the cotton very fine, although quite good enough for the manufactories of this country. The growth of cotton throughout Mexico is porennial."
V. Capactit of the Cottor Bale.-The commercial standard of quantity in the cotton trade is generally the bale. The weight of the bale, however, is hy no means uniform. Indeed, scarcely any weight, measure; or standsrd of capccity may be considered less so. It varies, from different causes, in different countries, and in different sections of the same country, at different periods, and according to the different kiads or qualities of the article. Improvemente in pressing and packing, to diminish expense in bagging sud freight, tend constantly to angment the weight of tho bale. Thus, in 1790, the United Statee' hale was computed at only 200 pounds. In 1824, the average weight of bales imported into Liverpool wae 266 pounds; but, increasing constantiy, 12 yeare Jater the average was 810 poands. M'Culloch, however, in
considered 800 to 810 pounde a fair average; and

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310. At the same time, the upland cotton bale was estimated at 320 pounds, and the sea island at 280 pounds. According to Pitkine, the Egyptian bale weighed at one time but 90 pounde, thongh it now weighs more than 8 times as many. At the same period the Brazilian bele contained 180 pounds, though it now contains but 160 pounde, while the Weat Indian bale weighed 850 pounds, and the Colomioian bale 101 pounds, or the Spanish quintal. According to Burms, the United States' bale at Liverpool averaged 845 pounds, the Brazilian, 180 pound, the Egyptian, 220 pounds, the West Indian, 300 pounde, and the East Indian, 830 pounds. At the Lowell $\cdot$ factories, in 1831, uccording to Pitkins, the hale averaged 861 pounds. In 1836, the bale of the Allantic cotton States was eatimated at $\mathbf{3 0 0}$ and 325 poanda, and that of the Gule States at 300 snd 450 pounds. in Liverpool, at the same tine, the estimate for the hale of upland or shot stapie cotton was 321 pounds; for Orleans and Ala. bams, 402 pounds; for sea island 322 pounds; for Brazil, 173 pounds ; for Egyptian, 218 pounds ; for East Indian, 860 pounds; and for West Indian 280 pounds; while, according to Burns, bales importod into France were computed at only 200 pounds each. Waterston's Manual of Commerce, a reliabio Britlah publication (1855), gives the Virginin, Carolina, Georgia, and Wost Indinn hale at 800 to 810 pounds ; that of New Orleans and Alabama at 400 to 500 pounds; Enet Indies at 320 to 360 pounds; Brazil at 160 to 200 pounds; Esgyptian at 180 to 280 pounds. Alexarder's Univeraal Dictionary of Weights and Measures givea the bale of Alabama, Louislana, and Minsissippi at 500 pounds, that of Georgin at 875 pounds, and that of South Carolina at 362 pounds. At Rio de Janeiro the Brazil bsle is estimnted nt $\mathbf{1 6 0}$ pounds.

Prior to 1855, the United States' "Commerce and Navigation". gave exports of cotton in pounde only. They are now given in balos as well as in pounde-the aggregate amount of the year onding June 80, 1855, being $2,803,408$ hales, or $1,008,424,601$ pounds: the bale, accordingly, averaging sbout 488 pounds. Some bales, howaver, are evidsntly much hosvier, and some much lighter than this. For exnmple, the 210,113,809 pounds of cottion exported to France give 446 pounds to each of the 470,298 bales ; and the 955,114 pounds exported to Austria give 492 pounds to each of the 1,889 bales; while the $7,527,079$ pounds exported to Mexico give only 290 pounde to each of the 25,917 bales in which they were contained.
Liverpool Weight.-The relative average weights and cubical contents of bales of cotion imported into Liverpool, in 1862, are thus given :

| ripion of bele. Ar'ee wita lbo. Contents ! |  |  |
| :---: | :---: | :---: |
|  |  |  |
| New Orloan | 455 | 82 |
| Upland | 890 | 87 |
| Sea Isladd | 988 | 85 |
| East Indian | 888 | 15 |
| Egypttan | 245 | 27 |
| Weet India | 218 | 25 |
| Brasiltan. | 188 | 27 |

These fgures show not only the great variety of balea that enter Liverpool, but that the most eligible form of bale is that of the East Indies-double the weight being packed within the same compass as in any other description of bale. In the grest cotton marts of Liverpool and Havre, as in those of New Orleane and Mobile, the article is almost invarinbly treated of by merchanta, brokera, and commercial men, by the bale. Thus, a report on the trade of Liverpool gives the import of cotton Into Great Britain, in 1852, at $2,357,838$ bsles. The aggregste of cotton imported in that year is given in the officisl report by the Board of Trade, at 029,782,448 ponnde ; the bales everaging, accordingly, 395 pounds each.
Cotton Manufaoture. This subject will be considered nnder the geueral heads of, I. Origin ond Introduction. II. Invention and Improvements. 111 . Cotton Manufactures of Foreign Countries. IV. Statistics of Cotton Manufacture. V. Origin and Early History of Cotton Manufactures In America. Vi. Cotton Manufactare in the United States.
I. Omigin and Intnodection.-The manufacture of cotton had its origin in tho East, where the cotton plant is indigenous, and where the climate renders a light and absorbent fabric a suitabie clothing for the peopie. It has in consequence heen long eatablished over every part of Asia, although it was only in India that the fabric wes manufactured extensively, with a view to forelgn exchange. Arrian mentions cotton cloth emong the commodities which the Romans brought from Indis; but the quantity lmported by them was inconsiderable, arising from the preference which they gave to woolen clothing. Dr. Robertson remarks, that the difference between the cargoes inported from India in ancient and in modern times appears to have arisen, not from any diversity in the nature of the goods propared for sale in that country, but from variety in the tastes or in the wants of tioc nations with which they havo anccessively trased.
The antiquity of the manufacture of cottan can not be renched by any authentic records. Neither wool, silk, nor linen, can claim a higher antiquity. Ono thing is pretty certain, that its first manufucture may he traced to India, whence it passed to all the rest of the world. India, indeed, has been the source of many of the arts of civilized lifo. It was, in all prohability, the cradie of ciankind, and the source of Absyrian, Egjptian, and l'ersian civilization.
The Indians have in all agea maiutainedi an unapproached and ainost incredihie perfection in their fabrics of cotton. Indeed, some of their muslins might be thought the work of fairies or insecte rather than of
$\operatorname{man} ; 1$ eildom India ${ }^{2}$ muslins fa'rics
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went to try ${ }^{\text {they }}$ tion, thi are wov drawn t in the 1 cislly M besutifu the wor! and glas The $\mathbf{P}$ mediatel of Good ton clot! some str were mal merchant exteneiv
150 miles ton) clot because with dive livelier t sach acco it will co:
Tavern
ago, speal city of C by Europ dered so jnice. H can hardl when spu says that Maiwa, s it on, his he wss qu mitted to sead it all cipal lord noblemen weather. ure to beh nothing el the Mahar have them into a turt Eightee anthor of $t$ women, ar and the ai from the that it is a factories a ceaturics The ing is truiy w missionary Beagal mi monthe ar 500 rupees and the de ille." W athorities ufactures, will suffic the muslin poetical th
pean mand
${ }^{-}$Balae
man; but theas are prodooed in amall quartities, and seldom have been exported. In the same province of India from which the ancient Greeks obtained the finest muslins then known, namely; Bengal, these astonishing fa'rics are manufactured at the present day.*.
We are told'by two Mohammoden travelers, who weat to India in the 9th century, that "in' that country they make garments of anch extriordinary perfectlon, that nowhere else are the like to be seen. ' They are woven to that' degree of fineness, that they may be drawn through a ring of moderate size." Ma so Polo, In the 16th century, mentions Coromandel, and especislly Masulipatam; as producing "the finest and most besutiful cottons that are to be found in any part of the world ;" and this is atill the case as to the fiowered and glased cottons, called chintzes.
The Portuguese adventarers who went to India im mediately after the discovery of the route by the Cape of Good Hope, speal of "the great quantities of cotton cloths admirably palnted, also some white, and some striped, held in the highest estimation, which were made in Beagal." Cresar Frederick; a Venetian merchant, who traveled in India in 1568, describes the extensive trade carried on between St. Thomé (a port 150 miles from Negapatam) and Pegn, in bumbast (cotton) cloth of every sort, painted, whieh is a rare thing, because thls kind. of cloth shows as if it were gilded with divers colors ; and the mors they are washed, the liveller the colors will become. And there is made ach account of this kind of cleth, that a amall bale of it will cost 1000 or 2000 ducats.
Tavernier, who traveled In Indla abont 200 years ago, spesks of the white callicoes (so called from the dity of Callicut, In India, where they were first seen by Europeans), or muslins woven in Bengnl, and rendered so remarkably white by being dipped in lemon jaice. He says: "Some oalicuts are so fine'that you can hardly feel them in your hand; and the thread, when apun, is searcety discernible." The anme writer says thut "there is made at Secenge, in the province of Malwa, a sort of calicut so fine, that when a man puts it on, his skin shall appear as plainly through it as if ha was quite naked; but the merchants are not pero mitted to transport it, for the governor is obliged to send lt all to the Great Mogul's eeraglie and the principal lords of the ceurt, to make the sultanesses and noblemen's wives' shifts nnd garments for the hot weather. And the king and the lords take great pleasure to beheld them in these, and see them dance with nothlig else upon them." Speaking of the turbans of the Mohammedan Indians, Tavernier aays: "The rich have them of so fine a cloth, that 25 or 80 ells of it put iato a turban will not weigh 4 ounces."
Eighteen hundred years ago, according to Arrian, suthor of the "Periplus," there were thoueands of men, nomen, and children employed at Baroche, in Guzerat, and the adjacent villages, in the manufucture of cotton, from the cosrsest anil-cloth to the finest musling. So that it is a grest inistake to auppose that cotton manufactories are of a molern origin. They existed in Indla centuries before the Christian era.
The ingenuity of the Hindoo cotton mannfacturers is truly wonderful. The late Rev. William Ward, a missionary of Serampore, says that " int twe places In Bengal musline are made so exceedingly fine that four month are required to weave one piece, which eells at 300 rupees. When thle muslin is laid on the grase, and the dew has fallen upon it, it is no longer discernihle." We might cite a great number of creditable authorities in proof of the fineness of Inulia cotton manufactures, and the Ingenulty of the Hindoes, but these will suffice. The orleutal hyperbole, which describes the muslins of Decca as "webs of woven wind," is less poetical than is generally supposed. No modern European manufacturer of cotton at all approaches the Hin-

- Batne'a IHistory of tha Cotton Manafacture, p. BK.
doos in respect to the fineness of his fabrics. The extreme of fineness to which yarns for muslina are now apnn in Great Britain is 250 hant to the ponnd, though cotton yarn has been apun in England making 850 hanks to the pound. This was, however, oaly an experiment, to ascertain how fine cotton could be spun.' No ench yarn is or could be nsed in making masling, or for any other purpose. The Hindoos are the only ones who have ever woven such yarn into fabrics,--DE Bow's Industrial Resouroes,
The implementr nsed by the Indians in the difierent processes of the cotton manufacture, from the cleaning of the wool to ite conversion into the finest muslin, may be purchased for the value of a few shillings, and are ao rude and simple a constriction so to be evidently the invention of a very early period. With the exception of the loom, none of them denerve the name of a machine, or display the slightest mechanical ingenuity. :" They spin the yarn upon the distaff; and yet, with ull the advantages which we in this country derive from machinery; we have only recently been sble to equal, elther in finenese or quality, the yarn which is produced by means of this primitive insurament. The well managed nse of the finger and thumb of the Indian spinner, patiently and carefully spplled in the formation of the thread, and the moisture at the same time communleated to it , aru found to have the effect of incorperating the fibres of the cotton more perfectly than can be accomplished by our most improved machines.

The loom is composed of a few sticks or reeds, which the Indian carries about with him, and pnts np in the fields under the shade of a tree, or at the side of his cottage. He digs a hole large enough to contain his legs and the lower part of the "geer," and fastens the balance to some convennint branch.over-hesd. Two loops underneath the geer, In which he inserts his great toes, serve as tradies: and he empleys ths shattle, formed like a large netting-needle, but of a length somewhat exceeding the breadth of the cloth, as "battoon," using ft alternately to draw through the wift and strike it up. The reed is the only part of the wesving apparatus which approaches, in the perfection of its construction, to the inetruments ve use. The loom has no beam, and the warp is laid out upon the ground the whole length of the piece of cloth. The weavers live entirely in villages, as they could not, if shat up in towns, work in this manner. Upon this rude man chine, worked in the wny we have mentioned, the Indlans produce these muslins, which have long been such objects of curiosity from the exquinite beauty and fineness of their texture.
*. It is probsble that the whole of the implements which we have just described existed as we now find them before the people of Indla were divided into castes. The transmission of the same einployment from father to son (which, althongh not specially enjoined by the Hindoo code, is the invariable practice in India), while it has the effect of conveying unimpaired the knowledge acquired in any art, tends to check lta further advancement. It is the oplnion of Mr. Rickards, whe eo ably advocated the intereats of the natives of Indis in the discussion in the Britleh Parliament on the renewal of the Company's charter (1814), that latterly this form of eociety, with all lts dependencies, habits, and restraints, has been held together chiefly by the oppression of the fiscal exactions, the want of a free trade, and the censequent niversal poverty of the people. In support of thle opinion, he refers to what the IIIndoo population of Calcutta and llombny have achieved in the purauits of commerce. We trust, however, that we may now look forward to the speedy sbolition of this system, so much opposed to all development of talent; and which, by reducing man to the condition of a machine, has paralyzed the exertions and arrested the improvement of the people of Iadia.

To the same canse, however, which thus provented improvement in India is to be attrinated that dexterity in his particular omployment which the Indian artisan possesses. From the earliest age he learns to spin and weave under the direction of his father ; and having no hope or desire of advancement in any other line, he gains, through constant practice, that wonderful skill, which may thus be considered almost as a family inheritance. To be abie to manage his ill-constructed loom, even in the production of ordinary fabrics, he is obliged to acquire such a sleight of hand, that it is not surprising if, ont of the multitude trained in this manner, a few should be found capable of producing those muslins which are said, when spread upon the grass, to appear like the gossamer web. From the superiority of these goods, and from their rotaining the beauty of their appearance longer than European mualins, it has been supposed that the cotton of which they are made is of better quality than any known to the European manufacturers. This, however, is a mistake: there is no cotton in India of a quality superior to the best sea islands. The exceilence which these muslina possess is to be ascribed wholiy to the skillful tact of the workman in the processes of spinning and weaving. The long cloths and fine pullicats are made chiefly within the presidency of Madras, the coarse piece goods and puilicats in Surst, the finest calicoee at Musulipatam, sad toblecintis of a superior quality at Patna. Each district viar. $\mathrm{s}^{1+\cdots}$ :n the others in the nature of its productionis, as may be seen from the dif ferent denominations of cotton goods to be found in every consignment coming from India.

An apprehension has sometimes been exprest $x$ that the inhabitante of India, in possession of the raw material, may obtain a knowiedge of machinery, and by combining with its peculiar advantages their cheaper laber and superior manual dexterity, may be enabled to undersell to such a degree as to ruin and put an end to British manufacture; but in the state of the people of India there are circumstances which render this impossibie, without a change being firat produced upon
Comparativg Btatament of the Cogt of Enolisf ant
fisagd bt Ma. Kennigt of Manoupsteg to tur Indian Cotton Yagn in tir Years 1812 and 1830, pes continute to 1854.

| No. | ENGLSH COTTON YARN. |  |  |  |  |  |  |  |  |  |  |  | INDIAN COITTON YARN. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hanke per day per apindle. |  |  | Price of Cotton and Waste per la. |  |  | Labor per lb. |  |  | Cool per lb, |  |  | Pries of Cottonnad Whate perlb. | Lator perlb. | Conl perlb. |
|  | 1818. | 1830. | 1854. | 1812. | 1830. | 185t. | 1519. | 1830. | 18.54. | 1812. | 1830. | 1854. | 1812, 1890 and 1854. | 1812, 1830, and 1854 . | 1812, 1830, and 1854. |
| 40 | 2. | $2 \cdot 75$ | $2 \cdot 75$ | $\begin{array}{ll}8 . \\ 1 & 8 \\ \\ & 8\end{array}$ | $\begin{array}{ll}4 . & \\ 0 & 7 \\ 0 & 7\end{array}$ | $\begin{array}{ll}\text { a, } \\ 0 & \\ 0 & 6\end{array}$ | ${ }_{1} 100$ | a. ${ }_{0} 1$ | $\begin{array}{ll}4 . & \\ 0 & \\ 0 & 5\end{array}$ | $\begin{array}{ll}\text { a. } \\ 2 \\ 2 & 8 \\ 8\end{array}$ | $\begin{array}{ll}\text { a } & \text { d. } \\ 1 & 9 \\ 1 & \\ 1\end{array}$ | ${ }_{8}^{8 .} 1$. | $\begin{array}{ll}\text { 4. } & \text { d } \\ 0 & 8\end{array}$ | ${ }_{8}^{8 .} 8$ | 8. |
| 60 | 1.75 | $2 \cdot 5$ | $2 \cdot 6$ | 80 | 010 | 071 | 16 | 1. 01 | 08 | 86 | 1101 | 181 | 0 84 | 581 | 60 |
| 50 | 15 | g. | 2 | 29 | 0114 | 09 | 29 | $1{ }^{1} 7$ | 18 | 44 | 861 | 20 | 0 4t | $810+$ | 98 |
| 100 | $1 \cdot 4$ | 1.8 | 1.8 | 84 | 114 | 011 | 210 | 221 | 18 | 52 | 841 | 85 | 05 | 1111 | 184 |
| 120 | 1-25 | $1 \cdot 65$ | 165 | 26 | 14 | 18 | 86 | 88 | 20 | 60 | 40 | 88 | 08 | 160 | 16 5 |
| 150 | 1. | 188 | 188 | 210 | 18 | 19 | 65 | 411 | 86 | 94 | 87 | 58 | 08 | 250 | 256 |
| 200 | . 75 | 9 | 9 | 84 | 80 | 26 | 188 | 116 | 60 | 200 | 146 | 86 | 66 | 447 | 451 |
| 250 | . 05 | 6 | $\cdot 6$ | 40 | 88 | 88 | 810 | 246 | 180 | 850 | 238 | 216 | 08 | 884 | 840 |

their moral condition, their institutions, and their habits. The training which makes the Indian, with auch imperfect tools, able to perform his work so well, disqualifies him from doing it in any other was, or with any other implements than those to which he has been famillarized from his infancy. The attempt to introdnce machinery into India is, however, now being made. A spinning-mill has been built at Calcutta; and although the private company which commenced the nndertaking has failed, the work continues to be carried on. There are at present nearly 700 persons omployed in the mill, engaged at the rate of about seven shlliings each per month; but these people, it is found, can not continue to work beyond a few hours at a time; and a succession of hands to carry on the operations through the day is required. To train them, in such circumstances, to dexterity and akill is inpossible; and, accordingly, the yarn apun is not only of inferior quality, but even with the low nominal wages, costs so much as to disqualify it for competition with the yarn of Great Britain. An attempt is now being made to establish a cotton-spinning mill at Bombay.
The extensive introduction of machinery iato Great Britain has, meanwhile, by reducing the price of manufactures, enabled them to maintain a successful competition with the Indian goods at home, by sending cotton manufactures to a large amount to India itself. A complete revolution has in consequence taken place in the nature of the exports from that country to Europe, and, indoed, to all the markets on this side of the Cape of Good Hope. When England first got posscasion of India, her investmente at home were principally (in point of value almost entiryly) composed of manufactured produce. They are now, in a great measure, made up of the produce of the soil, indigo, cotton, wool, raw silk, saltpetre, etc., etc.
The following tabls shows the difference of the cost of cotton yarn produced in India and in Great Britain, and indicates the changeless nature of unaided human labor in the former, whist by mechanical appliances in the latter, cheapness and plenty result: Commirtek of parliament on kabr dndia ayfaige, and

It might have been expected that this change would $\mid$ date as that of Indis. Indeed, the lateness of its rise, have produced most distreasing effects upon the crowdel population of a country such as India, which in all ages has been a great manufacturing and exporting community; but no materially unfavorable consequences have resulted from it. In India, every manufacturgr is, at the same time, a husbandman. When not employed in making a web, he supports his funily by agricultural iabor. It tilus happened, that in proportion as the demand for goods for export declined, the natives, without difficulty, and without that distress which gencraliy attends a change of employment in other countries, were ahie to direct their attention more and more to agriculture ; and the result has hitherto been rather an improvement in their condition than otherwise.
The cotton manufacture of Chinn is of inmense amount, and in carried on aimest entireiy for home consumption; hut its origin is not of the same remote
It might have been expected that this change would and the slowness of its progress, in a situatien so favorabie, appear extraordinary. In the acceunts of the revenues and of the arts in Cinina during the period of the celelrated dynasty, which cominenced ebout 1100 years ijefore the Chriatian era, snd lasted for some centuries, no mention is made of the cetton plant; nor, indeed, is there any notice of cotton in these records until about 200 years befere the Christian era; from which peried to the sixth century, the cotton cloth, which was either paid in tribute, or offered in presents to the emperors, is always nuentioned as a thing rare and precious.

The cotton-trge was introduced into Chinn at tho time of the conquest of that country by the Mogul Tartarn, in the year 1280 ; after which period every encouragement was given by government to the culture and manufacture of cotton. But there wero considersbie difficuities to he encountered, in the pryju-
dices of engaged it was no altogethe of cotton of the pol

Almost are nanke fatrics of ited the c this to tl goverame to ancient gressive for its pro lag no m must ace own cons obtained a great How valn others, ml and how production cotton wo from Briti This inte: elghteentu China abo direct, by of the $\operatorname{ls}$ grain. Si Iadla has s small pt ture. The 40,000 bale Introduc ton goods tempted discovery Hope. T entrepôts passed to t ing sitnate the cotton racturing $p$ to attempt and bringin signs the in Europe to a Low Count afacturers fabrics whid seventeenth this last ace in 1560, in ferent nrtic from Antwe Europe, spe sorts amons Mian, and brought fro from Antw avery coun ftaiy, there tare, which the Nether? the istter co about the cl teenth cents
For tho in of these arti Mr, Jolin was originai ter, hut had
dices of the people, and in the opposition of those angaged in the manufactire of woolen and linen ; and it was not natil the yesr 1868 that theee cbstacles were altogether surmounted. After that date the progress of cotton manufacture was rapid; and now nine tenths of the population are clothed in its fabrics.

Almost the only cotton goods exported from Chins are nankeens. Barrow atates the production of all the fabrics of the Chinese mannfacture at the tima he visited the conntry (in 1792), to be stationsry, sttributing this to the want of proper encouragement from the government, und to the rigid adharence of the people to ancient usages. To keep a manufacture in a progressive state, there must be a progressive demand for its products ; and the Ohinese mannfacturers having no mesns of disposing of any surplus quantity, muet accommodate the supply to the wants of their own consumption. It is snid by travelars who have obtained access to that country, that the people show a great desire for articles of foreign manufacture. How veluable, then, to that country, as well as to others, must be the astablishment of a free interconrse, and how conducive, probably, to tha increase of the productions of all! The Chinese, over and above the cotton wool which they ralse at home, import largely from British India, and from the Burmase territories. This inte=-ourse commenced towsrd the close of the eighteenti century. A famine, which happened in Chica about that period, induced the government to direct, hy an imperial ediet, that a greater proportion of the land should be thrown into the cultivation of graia. Since then, the importation of cotton from India has been considerable, althongh constituting but s small part of what is consumed in their mnnufactare. The amount of their importstions is stated at 40,000 bales.
Introduction into Europe.-The manufactare of cotton goods in Europe is said to have been first attempted by the commerciel states of Italy, before the discovery of the pasasge to India by the Cape of Good Hope. Theas enterprising communities were the entrepôts through which the cotton fabrics of India passed to the different markets of the West; and being situsted in the neighborhood of countries where the cetton wool was grown, and familiar with manufacturing processes, it is supposed that they were led to sttempt the imitation of articles so much valued, snd bringing ao high a price. Another account assigns the introduction of the cotton manufacture into Eurepe to a later date, and givee to the people of the Low Countries the honor of having been the first manafectarers of these articles, in lmitation of the cotton fsbrics which the Dutch, aisout the beginning of the seventeenth century, began to import from India. But this last aecount can not be correct; for Guicciardini, in 1560 , in a very full list which ha gives of the different articles annually imported into and exported from Antwerp,* then the greatest commercial mart in Europe, specifies fustians and dimities of many fine sorts among the manufactured articles imported from Milan, and mentions cottons gencrally among those brought from Venice. But in the articles exported from Antwerp, althoagh we find linens sent to almost every country, cotton cloth is not nnce mentioned. Italy, therefore, at that time had a cotton manufacture, which, it is probnble, soon after made its way to the Netherlands; for we know it was brought from the latter country to Britain by Protestant refugees ubout the close of the sixtcenth or early in the seventeenth centary.
For the introduction and after improvement of many of these articles, Great Iiritain is indebted to the late Mr. John Wilson, of Ainsworth. This gentleman was originally a munufacturer of fustians at Manchester, but had early engaged in the masufacture of cot-
ton valvets, which by persevering efforts ha succeeded in bringing to the utmost degree of perfection. His improvement of the moda of dreasing, of finishing, and particularly of dyeing these goods, acquired for them so high a character, that both in the home and foreign market bls articles sold in preference to those of every other manufacturer. His plan for cleaning off the loose and nneven fibres, was by the use of razors. He afterward snccesoively employed for this end, eingeing by spirits of wine snd the application of a hot iron resembling a weaver's drying iron, which last instrumant had been introduced for the same purpose in the manufacture carried on in the Manchester House of Correctlon by Mr. Whitlow, governor of that institation. At a later period, Mr. Wilson effected his object by drawing the goods rapidly over a cylinder of cast iron heated to redness, by which they were in a superior manner clesred of the down or pile which had been raised upon them in the various operations of weaving, washing, bleaching; or dyeing. These successlve inventions of Mr. Wilison, for performing this process, glve ns some dea of the manner in which improvements are introduced into tha manufactures, when, fortunataly, the efforts of self-interest are directed by intelligence and talent. Mr. Wilson, having a turn for chemical inquiries, inventigated the different known proceeses of dyeing ; and, by the improvements he introduced in the application of them to his own mannfactnre, materially advanced that art. Having sncceeded to his satisfaction in dyeing the othar rich colors, he procured from the Greeks of Smyras, the aacret of dyeing Turkey red. An acconnt of this process was given by him in two essays, read to the Philosophical and Literary Society of Manchester, and which, on his retiring from business, he printed and distributed among his friends. The many valnable improvements introduced by Mr. Wilson into the different processes connected with the cotton manufacture had the effect not only to eatablish it more firmly, but rapidly to enlarge its extent.
II. Inventions and Imphovements in Cotton Manufacture.-It has been said that the yarn produced a century ago in England, by the one-thread wheel, the only spinning machine known, did not exceed ln quantity what 50,000 spindles of the present machinary can yield. To have reared and trained hands sufficient to have doubied this quantity, had it been possible, must have been the worik of a length of time, and the amount of manufacture would atill have been insignificant. A changa in the system, therefore, had become indiapensable ; and we find that different ingenious individuals had already begun to employ themselves in contriving a better mode of spinning. When we contrast the aplendid inventions connected with the cotton manufacture, which from this period burst forth in rapid succession, with the passive acquiescence in the use of imperfect machinery during the long period which preceded, we are apt to ascribe these improvements to the circumstance alone of a number of man of genius having at that moment ariaen, and to forget that the ultimate cause exists in the times which called their energies into action. About the year 1750, tha fly-shuttie had been invented by Kaye of Bury-one of tha most important eteps in the progress of the art of weaving ; and in the year 1760 improvements had begun to be made in the cariling process.
James Hargreaves, a weaver at Stanhiil, near Church, in Lancashire, Englan ${ }^{\circ}$ an iiliterate man, poescsed of no great mechanical knowledgo, had adaptod the stock carde, used in the woolen manufacture, to the carding of cotton, and had besides greatly im proved them. By his invention a person was able to do double the work, and with more ease thinn by handcarding. In the stock cards, one of the carda is fixed, while the other, being suapended by a cord over a pulley, is worked by the carder; and in this way, two or three cards can be npplied to the sama stock. This
contrivance was soon sueceeded by the cylinder cards, oz carding engine. It is not ascertained who wat the inventor of this valuable machine, but it is known that the father of the late SIr Robert Peel was among the persons who first used it; and that, so early as 1762, be, with the assistance of Hargresvat, erected a carding ongine with cylinders, at Blackburn. This machine did not differ materially from that now in ueo, except that it had ne contrivance for detaching the cotton from the card, an operation which was performed by women with hand-cards.
These anccesaful advantages show that the minds of the manufacturing clate had been awakened to discovery, and must have oncouraged and stimulated the offorte that were then making to effect corresponding improvements in apinning.
There had been several unsuccesaful attemptes to improve the mode of spinning before the year 1767, when James Hargreaves, whom we have already montioned, invented the "apinning-jenny." . The idea of this machine is said to have been suggested to him by saeing a common apinning-wheel, which had been accidantally overtarned, continue its motion while it lay on the gronnd. If euch was the cause, it marks a mind of no common description, which from so casaal an occurrence could elicit an invention of 80 muoh importance. After several musuccessful attempta to carry into exeention the conception he had formed, he auccesded in producing a radely-conetructed jenny of oight upindlea, turned by bands from a horizontal wheel. In it the eight rovings were passed between two pieces of weod laid horizontally the breadth of the machine; and these being grasped in the apinner's hand, and drawn out by him, formed the rovings into threads. The structure of thia jenny was soon afterward greatly improved, and it was at lant brought to work as many ae eighty epindles. This machine, altbongh of limited powers when compared with the beautiful inventions which encoeeded it, must be considered as the first and leading step in that progreas of discovery which carried improvement to every branch of the mannfacture -which, as it proceeded, changed the nature and character of the means of production, by substitnting mechanical operatiena for human labor-which caused the manufactured article to become more ard more a product of capital. The progrese of invention after this was rapid; for when it was seen that, with the aid of the few mechanical combinations we have mentioned, the apinner had been enabied to increase hia power of production eightyfoid, the attention of those engaged in other branches of manafacture, was awakened to the possibility of introducing changes equally beneflcial into their peculiar empioymenta.

Hargreavas' invention occasioned great alarm among those who earned their subaistence by the oid mode of epinning, and even produced popular commotion. A mob broke into his house and destroyed his machine; and some time after, when a better knowiedge of the advantage of his invention had begun to bring his opinning-jenny into general use, the peopie rose a seoond time, and ecouring the conntry, broke to pieces overy carding and opinning-machine they could find. Hargreaven himself had by this time removed to Nottingham, where he was enguged in erecting a smali spinning-werk, alout the same period that Mr. Arkwright came to aettie there, who had also been driven from Lanceshire by the fear of simiiar violence.

The jenny in s short time put an end to the ppinning of cotton by the common wheel; and the whoie wefte nsed in the manufacture continued to be apun upen that machine, antil the invention of the " mulejenny," by which it was in ite turn superseded. Ilargreaver died, in great poverty, a fow years after his removal to Nottingham.
While Hargreaves was producing the common jeany, Mr: Aricwright (afterward Sir Richard Arkwright) wat employed in contriving that wonderful
piece of mechanism, the spinning-frame, called first the water-frame, and afterward the throatle, which, when put into motion, performs of ltself the Whole procest of epinning; lesring to the werkman only the office of aupplying the roving or prepared material, and of joinin" or piecing the threed when it happens to break. In the jear 1769, Mr. Arkwright obtained his natent for apinning with rollers, and Mr; Need and Mr. Strutt became his partners in the concerna to be carried on under it. He erected: mill at Nottingham, which he worked by horse-power. But this mode of giving motion to the machinery being expensive, he, in the year 1771, built another, mill at Cromford, in Derbyshire, to which motion was given by water. Wo shall now proceed to give an account of the different machines used in cotton-spinnlog, invented by Sir Richand Arkwright, and of those afterward invented by others, describlog them in the order in which they are employed. In this manner we shall be abie to exhibit a view of the present state of the art. The inetruments used in the preparation and spinning of cotton-wool, re the following:
The opener ; the acutcher, and apreading-machine; the egrding-engine; the lap-machine; the drawingframe; the elabbing fly-frame; the intermediate $6 y$ frame; the finishing fly-frame; the throatle-frame for coarse werps; the self-acting jenny for numbers below 60; and the hand-mule jenny for higher numbers. The first three of these instruments are employed in $t^{-}$, rude process of cleansing the raw cotton, and separating its matted flocks. In the carding-machine it is carded and further purified; in the lap-machine it is fashioned in flat folds ; and in the drawing-frame it is formed inte a loose rope, the fibres of which have a parallel arrangement. In the slabbing-frame it is slightly twisted; and in the intermediate and finishing. frame it is atill further twisted, particularly in the higher numbers; but it is not yet yarn. The throstieframe ja chiefly used for coarse warpe; while upon the self-acting and hand-mule jennies, both coarse and fine yarna are epun.

This deacription of the carding-machine is atill spplicable for numbera of yarn above 100, which are made from sea-island cotton. For numbers above 50, a syatem of twice carding it is still enployed. The engines are generally 36 inches wide. The cotton is partially carded in the breaker or firat card; it is then re-formed into a lap; sod is lastly passed through the finisher or eecond card; for the finost yarns, however, combing is substituted.

Tu make the operations of the various machines just enumerated more plain, we will give the metamorphones of a bale of cotton, from the time it is brought to the manufacturers untii it becomes yarn ready to be made into eloth. Women and giria in the mill tske the cotton from the bale by handfulo, and feed with it the opening-machine. The cotton, laid upon an eadless ajron, is caugint between the teeth of revoiving roliers, which effectualiy tear and separate the locks asunder; the cotton is opened into a light and foculeat mass, and the few remaining seeds and the dirt are expelled. Then the scutching-machine comes into requisition; again is the cotton piaced upon an endlesa apron, and again exposed to the setion of revolving roliers; the impurities are yet further separated, and the beautiful downy cotton becomes lapped in a centinuous sheet upon a cylinder. These sheets of down -theas eoftest of all soft layers-how do we convert them into delicate yam? The broad, soft sheets go to the carling-machine, where a number of wire comba, or rather wire brushee, comb the cotton out into atraight fibree; and these fibree are dexteronsly whipped off by a "deffing" apparatus, to assume the form of dellcate, narrow ribbons, or slivers. Next we see all these slivers joined by another machine, so es to form a continuous lap; and this lap la again cardud and doffed, by whloh the substance bocomes equalized
as much to the sta inta use t yarn or tl roving-m we see nl cotten is and gives delicute 5 claborated
More cotton doe Notining e: than the 8 or 30 feet 1 many as 8 drawe out cacy and to rapid revo spinning d niacteenth almost exc is thus mal machine, $b$ stronger $\mathbf{y}$ sewing-cott trace the $y:$ more are tw denser thre in the sping ing $;$ in 80 r once in one of a number ism.

We have which Mr. cotton was t hand-cards. hls spinning plication of floats of a $w$ motion, sera a rude cont the catton n for it a jiate whici, in pla was moved crank, and teeth of tho uniform flee wound round which contri which, ss it its size by be then flattened which it was thaiform, con ton from the heautifut nnd ion-spinning part of the ap way or other ond patent (: et aside), the epiral carid w tions indisput Description structure nind frume and of "tanees it has a system of frame ; but in in sepsrate ha Whote are cout through then celvet on spi The enrringe
ss much as posalhle. The cotton is thus again brought to the state of a ribbon or alliver ; and then are bronght into use the machines which convert this ribbon into a yarn or thread. The drawing, the slubbing, and the roving-machines, all have relation to this conversion; we see numerous pairs of rollers, between which the cotton is drawn; the drawing rounds it, equalizes it, and gives it a slight twist; until at length we see the delicate yarn-fine, perchanco, as a spider's webelaborated from the thick but soft ropes of cotton.
More correctly, however, we should say that the cotton does rot become yarn till sfter the spinning. Nothing excites more astonishment in cotton fuctories than the self-acting mule. The complex carriage, 20 or 30 feet long, with its army of spindles (sometimes as many as 800 in number), travels elowly to and fro, and draws out dellicate threads to a state of atlll greater dellcacy and tenuity; the drawing out thins the cotton, the rapid revolution twiste it; and thus by drawing and spinning do the Houldeworths and the Bazleys of the nlaeteenth century produce cotton-yarn whose fineness almost exceeds belief. And while the mule-machine is thua maklng fine yarn for weft-thresds, the throatlemachine, by a different mode of action, produces the stronger yarn for warp-threads; then again, if it be sewieg-cotton, or hosiery-cotton that is required, we trace the yarn to the doubling-machine, where two or more are twisted, one around another, whereby a much denser thread is produced. The amount of machinery in the spinning-rooms of some of the mills is astonishing; in some cases 75,000 spindles whirling away at once in one room, each one requiring the co-operation of a number of other delicate little pleces of mechanism.

We have noticed, in speaking of the carding-engine, which Mr. Peel erected in 1762, that at that time the cotton was taken off the finishing-cylinder by means of haad-eards. But by the time Mr. Arkwright began his spinning, this operation was performed by the application of $n$ roller with tin plates upon it like the fleats of a water-wheel, which, revolving with a quick motion, seraped of the cotton from the card. This was a rude contrivance, and in Its operation injured both the cotton and the cards. Mr. Arkwright substituted for it a plate of metal, toothed at the edge like a comb, which, in place of being made to revolve like the other, ras moved rapidly in a perpendicolar directlon by a crank, and with slight but reiterated atrokes on the teeth of the cards, detached the cotton from them in a uaiform fleece. IIe employed narrow fillet-cards, wound round the doffing-cylinder in a spiral form, by which contrivance a continuity of fieece was produced, which, as it left the card, was gradually contracted in its size by being passed through a kind of funnel, and then flattened or compressed between two rollers; after which it was received into a tin can in the state of a oniform, continued carding. The taking off the cotton from the cards in this manner, is one of the most beautiful and curious operntions in the process of cat-ion-spinning ; and although the crank, which forme a part of the upparatus, had perhaps been ueed in some way or other prior to the date of Mr. Arkwright'e secand patent (as was urged in tho netion for having it set aside), the comb for taking off the fleece, and the spiral card which produces its continuity, were inventions indisputably his own.

Description of the Mulegenny.-The mule, $\ln$ its structure and operation, is a compound of the spluningframe and of Hargrenvea' jenny, from which circumthacea it has probably receivel it nume. It contains a system of rollers like that helonging; to the twistframe ; but in place of having every four or six of them in separate hands, as is the case in that macline, the whole ure couplod together; and the rove being drawn through them, is, in its conversion into thread, received on spindles revolving like those of the jenny. The carringe on which these spindles are placed is
movable, and is made to recede from the rollers a degree faster than the thread is given out. After a certain quantity of the roving has been thus delivered by the rollers, they are stopped; but the carriage continues to recede somewhat further; and the spindles continuing also to revolve, the thread is drawn ont to the fineness required, and then recalves its proper portion of twist. This last operation resenbles that performed by the common jenny, and produces a similar effect.

In an account of the means whlch contributed to that fall in the price of apinning which we have mentioned, we must not omit the progressive improvement in the cultivation of the raw material, and in the application of its different qualitles to their most profitable nses. Previous to the year 1793, the cotton used in the coarser articles of the manufacture, with the except.on of a small quantity imported from India and from the Levant for the fustian-trade, was wholly the growth of the English and of the French West India Islands. That for the better kind of goods was raised in Demerara, Surinam, and Berbice. The vool for fine goods was grown in the Brizils; and that for the few very fine muslins then manufactured, in the Isle of Bourben.

In 1787 the descriptions of cotton imported into Britain appear to have been as follows:

| From tie British West Indles. | Pound. $6,800,000$ |
| :---: | :---: |
| From the French and Spanish colontos... | 6,000,000 |
| From the Dutch . . . . . . . . . . . . . . . . . . . . | 1,700,000 |
| From the Portugue | 2,500,000 |
| From the Isto of Bourboo, hy Ostend .... | 100,000 |
| From Sayrda and Tarkey | 8,700,000 |

Had Britain continued to derive her sole supply of cotton from these countries, the progress of the manufacture would have been greatly retarded, not only from the difficulty of making the production of the raw material keep pace with the increasing consumption, but from the imposaibility of obtaining the quallties of wool suited to the finer descriptions of goods, which the improved machinery enabled ns to undertake.

The year 1770 has always been steted as the period at which the planters of the sonthern States began to turn their attention to the raising of cotton-wool. But we happen to know that in 1764, William Rathbone, an extensive American merchant in Liverpool, received from one of his correspondents in the sonthern States a consignment of eight bags of cotton. This cotton, on its arrival at liverpool, was seized by the custom-house officers, on the allegation that it could not have been grown in the United States, and that it was liable to scizure under the shipping-act, as not being imported in a vessol belonging to the country of its growth. When afterward released, it lay for many months unsold, in consequance of the spinners doubting whether it could be profitably worked up. But fortumately, about the year 1770, the planters in the sonthern States began to turn their attention to raising cotton-wool; and beaides currying the cultivation of the article to a great extent, they produced qualities of cotton before unknown. In 1792 the quantity of cotton exporter from the United States was only $138,328 \mathrm{lbs}$., no manufacture of cotton goods having heen attempted In America for inany years ufter that period. In 1831 they exported 619,000 bales to Great Britain, 127,000 to l'rance, and 27,000 to other parts. In 1845 the quantity grown in the United States was $2,100,537$ bales, and it is estimated that $3,500,000$ bales will be shipped in 1857.

The American cotton-wool first taken to Great Britain was very ill-cleaned, and, in consequence, was indiscrininately applied to the manufacture of the coarser species of goods. It was soon, however, perceived that the cotton rased upon the coast, termed sea island cotton, had a finer and longer ciaple than that grown further back in the conntry, and known by
the name of upland cotton. But it was not for neveral years, and untli after a aucceselion of trials, that this wool was ascertained to be of a quality ln every respect superior to the cotton of the Isle of Boaribon. Indeed, it was only in the year 1706 that the finest deacription of it was applled to the purposes for whleh Bourbon wool had till then been used, and which it soon entirely supplanted. The aecond quality of it about the same time supplanted the Brazil wool in many kinda of goods.

The cotion recelved from Egypt is found to be among the moat nseful that is grown, and that raised from sea island seed ranks in quality next to American sea island.
III. Cottox Manufactuak of Foreign Coun-tries.-Having succeeded in the production of cotton, the Pasha of Egypt thought he might advance another step, and have it spun Into yarn and woven into cloth. He accordingly formed eetahlighments for spinning and weaving ln Cairo, Bossco, Rosetta, and other places; and so early as 1826 he had at work 61 mills, moved by the power of buffaloes. The machinery was eupplied from France and England, oriers in council having leen obtained in the latter countr:' to authorize its export. Power-looma were also sent out, but did not succeed. A few years later, the pasha shipped 1,000 bales of yarn to Calcutta for sale; but it was not of a quality to enter into competition with English yarn, and it was found to be unsalable, excopt at a most disadvantageous price. He ordered it, therefore, to be woven into cloth, In Calcutta, on his own account, and to tee re-shipped to Egypt, in a 1 . anufactured state. Clapperton and Landere, on their expedition to trace the courses of the Niger, found the inhabitants everywhere clothed in cutton. They mention that cottonwool is produced in the different districts in the interior, and is apun Into cluth on the spot. There exista, therefore, in the heart of Africa, an extensive manufacture of cotton cloth. It is to be regretted that they give no information of the way $\ln$ which the yarn is spun, and no description of the loom employed to weave it. It would be interesting to know the nature of the instruments used by the natives in these processes, as euch knowledge might enable us to trace whence the Africans derive their acquaintance with the art of wenving, and thus perhaps throw some light on African history. It appears that the people of Eboe, anil of the countries near the const, are chiefly clothed in Manchester cotton goods ; a circumstance which would lead ue to expect, ehould we succeed in obtsining a commercial intercourse with the interior of Africa, that a valuable market for the manufactures may be found in that country.

Within the last 20 yeare (1854), the American settlers of Liberia have established a communication across the country to Timbuctoo, and have found there a considerable market for cotton cloth. For more extended information of this trade, see Lineria.

In France, cotton yarn is often made in a different place from cotton cloth. Paris and the northern departments are the chief quarters for the supply of the former article, which is sent in quantities to Rouen, St. Quentin, and other places. In former years, cotton yarn used to be smuggled in great quantities from England; but this is now limited to the finer qualities. The cotton manufactures of the more substantial kind, called bonneterie, such as stockings and caps, are carried on in the Ardenner, in Normandy, and the department of the Garil, in Languedoc, is also noted for this manufacture. The exportation of cotton goods from France in 184r, reached $5,000,000$ kilogrammes, valued at $105,-5,5,43$ francs. The importation of cotton thrend from Eagland in 1853, was 90,002 kilogrammes, in value, $1,559,311$ francs. That of raw cotton in 1839 was $40,534,278$ kilogrummes, In value, 71,204,784 francs ; in 1840, 52,941,581 kilogrammes, in value, $94,005,975$ francs. The cotton manufactures
of France consume between 50 and 60 millions of kiiogrammea, nnually imported.


We shall now resume our account of the progress of the manufacture in Grest Britain. From Sir Richard Arkwright having commenced his operations at Not. tingham, the seat of the stocking manufacture, and from his connection with Mr. Need, who wse largely engaged in $1 t$, the whole produce of his spinning was at first devoted to that trade. The cotton yarn for this manufacture requirea th be particularly smooth snd equal; and to eecore these qualitles, it is spun hy a procese differing a little from that employed for ordinary twist. Being from two roves in place of one, it is called double apun twist. The introduction of this article produced a great change apon the stocking manufacture. Hand-apun cotton was entirely lald aside; and stockings made of twist were of so superior a quality, that in a short time they wholly supplanted thread stockings.
The manufncture of cotton atockings in Notinghamshire, Derbyshire, and Leiceetershlre, ls now of great extent.

About the year 1773, Mr. Need and Mr. Strutt made the important discuvery, that the yarn produced by the spinning-frame had sufficient strength to fit it for warp, although its firmness and hardness rendered it less suitatile for weff. The weft, therefore, coatinued to be spun by Ilargreaves' jenny; and from this time the calicoes, and other articles in Imitation of India goods, which had hitherto heen manufactured with liven warp, enme to be made wholly of cotton; and the progressive increase of these mannfactures, particularly of calicoes, after this time, was uncxampled.
After having made a consideralle quantity of those grods, Mr. Need and Mr. Strutt discoverel that, when printed, they were anbject to doublo the duty charged upon calicoes woven with linen warp, and that their sale was even prohilitited in the home market. After a long and expensive application to the legistature, they succeeded in procuring the repoal of those impolitic laws. Nearly about the same period, calicoss entirely of cotton wero begun to be made at llackburn, and also nt Preston; which places seon becane the sent of their monufacture, and for a leng time the great market to which the printers from all parts of the kingdom rosorted for their supplies. This brauch went on lacreasing for many years in a most extraordinary degree. About the year 1805, it was culculated that the number of pieces sold annuully in the Blackhurn market was not less than a million; and by that timo the .. nufacture of this article was not confined to the country uround Blackhurn, tut had spreall into the north-west district of Yorkshire, principally akout Colne nnil Bradford, from which purt of the country 20,000 pieces weekly are said to have been sent to Manchester.
The nomenclature of Cotton Goods, and the admission of new names, nre nmong the oddities of the cottom manufacture. What these names mean, it would, perhapa, not be very ensy to say; sometimes they indicate a degree of tineness in the goods; somptines the mode of weaving; sometimes a color, $n$ pattern, " garnent for which they are suitalle, or a dist inguislued personage who first wore them; sometimes a foreign product which they imitate; sometimes a comutry for whose market they aro intended, or a tewn which is the chief seat of their mauufacture, or a firm which takee a lead in their production-it matters little what the meaning may be; a new namo has a commercial
vslue; ; rose by to in ab over a b hams an checked by the 1 mandele, book mu sacharill lias, Vlct leno mat musling, of the ml huckabac riang, an sarongs, panos da fanilly. dimittes, velveteen ings, cali other cott be almost relations gingham of threads of atripes, etc ad severs velvet, wit uncut ; da brics, are finxen good to liderease coes, sheeti duck, are v varying in ward print ings, and $m$ goods, mos is almost in
The first commenced gow about was no yar that spun of thls, it quality. from India former was quality to As soon, ho easibled the fabrics, the becume an That machi at the end wright's pa period we part of the that in 1737 musin wer Britain.
Muslin be Bolton, st C ing the pecu must those ture ; and in at first, cach ority lin the Jaconet, checked and heavier dese in Bolton an
Book, mu lighter fabri ufactured in
value; and the Shakesperian dictum concerning "a rose by any other name, ${ }^{\text {" }}$ etc., is not always assented to in shopkeeping philosophy." Let ns run hastiy over a bundle of these names. We have dress ginghams and fancy ginghams, and umbrells ginghams, checked and etriped ginghams, and ginghams known by the high-sounding names of Camperdowns, Coromandels, matallas, vicufias, and briolas. We have book mualins, jaconet muslins, bishop lawn muslins, nacharilla muslins, tarlatan maslins, Scotch lawn mnslins, Victoria muslins, India and Swise mull musling, lene muslins, striped muslins, lappet muslins, spot musiins, sprig muslins, and a number of ther nembers of the musion family. We have table-cloths, dispers, hucksbacks, Jean-stripes, clan tartans, galas, Hung's rians, and Derries-all made of cotton. There are parongs, crossovers, selampores, Granvllies, denims, panes da costa-all, we believe, of the cotton shawl family. There are connterpanes, quiltings, veatings, dimities, swanedowns, mc ikins, doeskins, lambeking, veiveteens, beaverteens, custians, long-cloths, shirtings, calicoes, everlastings, nankeens, contils, and other cotton goods, the enumerstion of which would be almost wearisome. A few groupings will show the relations between these gouds. For instance, the gingham family consists of strut cotton, In which threads of two or more colors are woven together into stripea, etc. ; fustians, beaverteens, velveteens, molealins, and several others, are woven on the esme principle as velvet, with a nap or pile, which is either cut or left uncat; damaski, huckabacks, diupers, ticks, and cambrics, are cotton limitations of the similarly-named fuxen goods; quilts and counterpanes have downy tufte to iacrease the thickness and softness ; shirting calicoes, sheeting calicoes, printing calicoes, long-cloth, and duck, are varietles of plain, serviceable cotton goods, varying in stoutness ; chintz is a stout calico, nfterward printed in several colors; corduroys, jeans, quiltings, and many other varieties, are very sirong cotton goods, mostly twilled. As for muslins, their variety is almost interminable.
The first attempts to make muslins in Great Britain commenced simultaneously in Lancashire and at Glasgow about the year 1780 , but without success. 'There was ne yarn fitted for the weft of these goods, except that spun upon Hargreaves' jenny ; and when made of this, it was found they were not of a inarketable quality. Recourse was then had to wefts brought from India; and altheugh a better article than the former was by this means produced, it was still not of a quality to compete successfully with Indian muslin. As soon, however, as the invention of the mule jenny enabled the spinner to produce yarns suited to such fabrics, the manufacture of the finest cotton articles became an important branch of trade in Great Britain. That machine, as has been mentioned, came into use at the end of the year 1785 , upon Sir Richarl Arkwright's patent being cancelled; and it is from that period we ought to date the commencement of this part of the manufacture. So rapid was its progress, that in 1737 lt was computed that 500,000 pieces of muslin were in that year manufactured in Great Britain.
Muslin began to be made nearly at the wame time at Bolton, at Glaegow, and at Paisley, each place adopting the peculiar description of fabric which resembled most those goods it had been accustomed to manufacture ; and in consequence of this judicions distribtition at first, each place has continued to maintain a superiority in the production of its own article.
Jaconet, both coarse and fine, but of a stout fabric, checked and striped muslins, and other articles of the heavier description of this branch, are munufactured in Bolton nad in its neighborhood.
Book, mull, and lino mualins, and juconets of a fighter faibric than those made in Lancasiife, are manufactared in Giasgow. Sewed and tamboured maslins
are almost exclusively made there and in Paisley. A machine of most ingenious contrivance for performing the operation of tambouring, was, in the year 1807, invented by Mr. John Duncan of Glasgow, and a patent taken out for the discovery. Each machine contains abont 40 tambouring needies, and is auperintended by a girl, who pieces the thread when it breaks. This beantiful and, at first, promising piece of mechanism has never come into genersl use. At present there are only three or four machines kept at work by the Messrs. Mitchells of Glasgow, who at an early period became proprietora of the patent. What are calied fancy goods, woven in tha loom, were first made at Paisley, which had been the chief seat of the silk gauze manufacture of this conntry, In the silk trade, which was ther beginning to fall into decay, a body of most ingenious workmen had been bred. By omploying them, the taste and invention which had produced the varieties displayed in that beautiful article were immediately tranaferred to the production of similar fabrics of muslin. From this circumatance, Psisley for a long time retained the exclasive possession of this branch; but being only seven milos distant from Glasgow, the general seat of the cotton manufacture of Scotland, and the mart to which most purchasers of mnalin resort, many of its principsl manufacturers have been induced to move their establishments to that city, although the weaving of these muslins continnes to be executed in Paisley and its neighberhood.

There is a curious circumstance to be noticed with regard to the mannfacture of the very fine fabrica of muslins in Seotland-that a great ppat of the yarn used for them is bronght from Manciester, In consequence of thie Scotch spinners net having yet been able to produce the very fine numbers of yarn of the best quality. This inferiority does not proceed from a leas perfect conatruction of the machinery employed in Scotland, the mechanics and the machine-makers of Glasgow being admitted to be excellent workmen ; neither does it arise from the want of akill in these whe cenduct the business, or from any difference in the processes employed in the two countries ; but it is to be attributed to the same cause which produces the superior yarn of India, namely, an adroitness and mechsnical eleight of hand in the operative spinners of Manchester, acquired by a few out of the great multitudes bred there. The manufacture of the thicker cotton fabrics was, at the same time, rapidly rising in importance. The mannfacture of dimities has been exclusively confined to tho north of England, all nttempts to make them in Scotland having proved nnsuccessfui. Balason handkerchiefs were tirst manufactured abcut Preaton and Chorley, where they still continue to be made. The manufacture of ginghams was for a long time confined to Lancashire, but for many years it has been extenaively introduced at Glasgow, although Lencashire continues to be the chief sent of this branch.

Pullicat handkerchiefs were first made sbout the year 1785 , at Gilasgow, where the manufacture of them has been carried on to a grest extent. They were not made in Lancasbire till some time nfterward, and the manufacture of them there has never been to the same amount; Glasgow, therefore, continues to be the principal mart for this nrticie.

Blue and white checks and stripes for exportation were at first of a linen fabric, but were afterward woven with linen warp and cotton weft; and when Sir lichard Arkwright's discovery enabled the spinner to produce cotton yarms of sufficient atrength to $1, \mathrm{~d}$ used for warps, a great proportion of these goode cane to be made wholly of cotton. This manufacture is carried on in Lancashire, and in the county of Fife, and to a small extent at Aberdeen; its chief seat, howover, is Carlisle.

The manufacture of cotton cambrie was begun about the same period, and was separated into two branches; Into cambric to be used in garments in u
white or printed state, and Into cambric made in Imitation of French linen cambric, to be used for the same parpose as that articie. Tha firat io made nearly altogether in Lancashire, where the manufacture of it is carried on to a great extent ; and the second, of much less amount, wholly at Glaagow. The Scotch manufacturers have never been able to rival the Lancashire in the firat; nor the Lancashlve manufacturers to rival the Bcoteh in the last.
Bandana handkerchleff, and Bandana clotha for garments, were first made by Mr. Menry Monteith, at Glasgow, sbout the year 1802, and are now manufaccured there to a conaiderible amount. The cloth is iyed a bright Turkey red; and the color is diacharged from those parts which form the pattern or figure, by passing a chemical mixture through them. Glasgow till continues to be the chief seat of this manufacture, ind there are in that city several large works for carrying it on. The demand for Bandanas, however, has atterly failen off, while, in conaequence of the repeal f the Impolitic duty on printed clothe, the consumpion of these has greatiy increased; and most of the proprietors of the Turkey-red dyeing establishments lave therefore leen induced to add calico-printing to heir former buineas.
The value of the present annual production of the cotton manufacture of Great Britain is estimated at $\mathbf{£ 5 4 , 0 0 0 , 0 0 0}$ sterling, of which nearly $£ 38,000,000$ is the value of goods and yarn made for exportation. The caplial invested in buildings and machinery may be calculsted at nearly the same sa the annual amount of the manufacture, and more than double what it wae 80 yeare ago, while the quantity of goode annually produced is much more then tripie; yet, from the improvement of the processes, and consequent diminutio of the expense of production, with the reduction which has taken place at the same time in the price of the raw material, this more shan tripled quantity of the manufactured article does not reprecent more capital than was represented by, and required for the bringing to market the lesser amount during the preceding period. In the year 1812, when Mr. Crompton spplied to Parliament for a remuneration for his invantion, he found by as accurate an inveatigation as he could make, that the number of mule epindles in the country was between four and five millions; and Mr. Kennedy, in his memoir of Mr. Crompton, has etated, that the number in 1829 had increased to $7,000,000$. In 1817, he estimated the number of persons employed in the upinning of cotton in Great Britain at 110,763, and the number of spindles in motion at $6,645,833$, and the quantity of yarn produced at $09,687,500$ pounds. The quantity of cotton yarn spun in 1882 was $222,000,000$ pounde, of which $182,000,000$ pounds have been manufactured Into cloth, giving employment to 203,373 looms; but in 1853 the yarn apun was $685,440,000$ pounds.
IV. Statistice of the Cotron Manufactune.It is obvious that the home consumption in the United States has always borne a most disproportioned ratio to the entire growth, and that even in the last four years, when it had attained to the highest point which it has yet reached, the quantity reserved for domestic use never exceeded a seventh part of the whole, and generally fell considerably below it. It is deserving of notice, however, that in the period of time which this table comprehends, tho internal consumption of the United States has been trebled; but large as this increase may seem in the eye of $n$ native economist, the conclusion from it will not be satisfactory if the collateral circumatances are not considered; and the chief of these is, that it is an increase on small quantities, and indicstes no more than the gradual growth of an infant trade, which the cotton manufacture was in North America in 1829. We believe that in this manufacture Great Britain has as yet littic to fosr from competition; but we are not equally confident that its prosperity may
not be exposed to riek from her ill-judged anxiety to secure a monopoly of its advantagee. The practice of excluding from her markets the manufuctures of other countries la not only contrary to sound political principlen, but gives rise to a eplrit of hostility unfavorable to her intereata, and placea her in such a state thst when other nations in rotaliation, exclude her manufactures from thelr markete, she bas no right to complain.

That we may not declde this question rashly, let us examine what is the danger to which the would be ex. posed if ahe were to take the opposite aystem, and open her ports to the manufictures of other countries. If they can now export annually to the value of abont $\mathbf{~} 82,000,000$ aterling of cotton gooda, which, burdened with freight, charges, and the exporter's proft, they are alle to aell In competition with forelgn manufacture, can they have any thing to fear from a competition with that manufacture in her home market, where the circumstances of the competing partles would $\mathrm{l}_{3}$ reversed? So far from the introduction of foreign m"uufacture into her market beling an evil, we are inclined to think that It would be advantageous to her interests; and that, in the Interchange of various fabrics which would be the reault, the sale of her own manufactures would be Increased. Commerce being altogether a matter of berter, it is necessary for every country to purchase In order that she may sell; and, fortunstely, even in the same branch of manufacture, there ia always room for such exchanges. There are shades of difference in tha fabric of every srticle, upon which taste or fashion, or caprice, never falls to fix cn arbitrary value, thereby constituting them into separate commoditles capable of being exchanged. But the view we are taking of this important question does not rest altogether upon theory. Happily we have experience in support of it. No one diaputes the advantage reaulting from the Interchange of commoditiea between Maine and Louisiana, or alleges that it would be for the benefit of either to have the munufacture of the other excluded from its market. Yet these two districts have their dependence upon manufactures which in their general features are the same.

It is well known regarding the commercial treaty with France, in which some spproach was made to in free trade between the twu countries, that while it Ine ${ }^{2}$ ad, the sale warehouses of London and Manchester wc $s$ resorted to by purchaeers from the different towns of France, with the same frecdom, and in nearly an equal proportion of numbers, as from the towns in England. And although in these warehouses French and English commodities of a similar description were to be found, and British shopkeepers were at the samo time daily resorting to France to make purchases, in no period were her manufactures in a stute of grenter progressive prosperity than during the eight years (from 1786 to 1793) that this treaty existed. There is no one, we believe, who has taken the trouble to illveatigate the matter, that will not say that both were benefited by this treaty, and probably exactly in tho uegree that the exclusive system in both had been departed from.

In addition to this, it may be proper to notice, that Switzerland and Saxony have always been open to the reception of cotton goods free of duty; and that in no other countrics on the Contluent is the cotton manufacture in a more thriving state. Might it not, thercfore, be a wise measure to withdraw their restrictions against tho importation of foreign manufactures, since tho interference of these with her own products in the home market, supposing no interchange of the two to take place, never could counterbalance the amount of the sale she may be deprived of by following the opposite policy, and thus inducing the exclusion of her own goode from the foreign market?
Fears have been expreased that the lower wages for which tho laborers of other countries that compete
with upon they take this, ars th now dimin the in for ex work plecer thouse not tu halt in been t po' T ,
with Great Britain in the manufacture can work, and upon which, from the cherpnees of their provisions, they can afford to live, may ultimately enable them to take the manufacture out of her handa. In reply to this, it may, perhape, be eufficient to recall to our readers the umall pert of the cost of the commodity which now belongs to the labor of the hand, and the daily diminution which is taking place even of that part, by the introduction of new mechanical subatitutes. This, for example, in 1767 , each spindle requirad a person to work it ; but now one man, with the nid of a few piecers to take ap and join his broken ends, can work a thousand spindles. In Lancashire, in 1818, there were not more than 2000 power-looms, and of these not a half in employment ; whlle in 1832, so extensive had been the change from hand-weaving to weaving by po' r, the number hed incressed to $\mathbf{8 0 , 0 0 0}$.
 Caluz of Cotton Makufacturea of ali. Kinde, amd 1840 тo 1850, moth ixoluaive.

| Yeara, | Manofbelurea. | Yarpa |
| :---: | :---: | :---: |
| 1840... | 87,886,060 | (195, 000.640 |
| 1841.......... | 81,169,050 | 80,844,840 |
| 1849........... | 09, 039,420 | 88,807,820 |
| 1843.......... | 81,270,000 | 85,969,805 |
| 1844........... | 94,088,820 | 84,94,920 |
| 1845............ | 00,780,480 | 84,816,175 |
| 1840........... | 88,698,890 | 80,410,240 |
| 1847............ | $80,876,225$ | 98,789,900 |
| 1849........... | 88,703,845 | 29,639,125 |
| 1849........... | 100,850,290 | 88, 520,445 |
| 1800, ...1.....al | 109,808,485 | 81,918620 |

The following table givep the extreme prices of cotton wool at IAverpool on the 81st December, from 1818 to 1858 , showing the progreasive c-duction of the raw material during that time 1

|  | 1818. | 1882. | 1698. | 2699. | 1830. | 1835. | 1884. | 1836. | 1838. | 18 mo |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8ea I | $\begin{array}{cc} d_{1} & d \\ 83 \end{array}$ | $\underset{14 i}{d}-Q_{i}^{d}$ | $\begin{gathered} d_{1} \\ 10 \ldots 20^{\circ} \end{gathered}$ | $12-20$ | $11+20$ | ${ }^{\text {d. }}$ - ${ }^{\text {d. }}$ | $18 \frac{d}{4}-20$ | $\left.\frac{\mathrm{d}}{\mathrm{~d} .} \right\rvert\,$ | $\frac{d}{14}-x^{d}$ | $\frac{d}{10}-86$ |
| Orlemat | $16+-21$ |  | $7-9$ | 6-9 |  | 8-9 | 7t-12t | $7-14$ | \$ 10 |  |
| Upiand.. | $17^{*}-191$ | 6f-84 | 68-77 | $51-7$ | 6i- 7 | $7-8$ | ti-11 | 71-12 | ${ }^{1}$ ) ${ }^{\text {a }}$ | 4t-71 |
| Egyptian |  |  | $7{ }_{3}$ - 81 | $7-84$ | $8-97$ | $9-8 t$ | $12-164$ | $11-18$ | $84-16$ | 8 -14 |
| Pernamhnco |  | 10-11 | $10^{\circ}-11$ | $77^{7} 8$ | $71-81$ | $8:-104$ | ${ }^{9}-141$ | $10-151$ | $8{ }_{7}$ | $84-104$ |
| Maranhatn.. | 20-20t | 9 - 104 | $83^{3}-93$ | 7-7 ${ }^{\text {\% }}$ | $7-7$ | 71-91 | 8 - 181 | 97-14 | $7-10$ | 71-19 |
| Demerara. | $19-24$ | 8t-11 | $8-11$ | 6i-9 | 61-9 | 9t-10 | $8-151$ | $9-18$ | $8-18$ | -7-18 |
| West Indla. 8urat....... | 17 <br> 8 <br> -14 <br> 1 | (1-81 | $64-74$ $5-6 \pm$ | $8-7$ $8 \% 5$ | $\begin{aligned} & 6-7 \\ & 4+51 \end{aligned}$ | 41-6t | $5-81$ | 84-9 |  | 8\}-61 |
|  | 1849. | 184. | 46. | 184. | 1848. | 1840. | 1850. | 1681. | 1662. | 1653. |
| Bea Ioland. | $i t-2 i$ | $\frac{d .}{d_{0}}-\frac{d_{0}}{}$ | $\begin{array}{ll} \mathrm{d} & \mathrm{~d} \\ 9 \rightarrow 80 \end{array}$ | $\frac{d .}{8}-80$ | $\frac{d}{d}$ | $\frac{d_{1}}{6!-20}$ | $\frac{d .}{d .}$ | $8$ | $\begin{array}{ll} \hline d_{0} \\ 10 & -29 \end{array}$ | $18-3{ }^{\mathrm{d}}$ |
| Orleans. | $8 \mathrm{t}-9$ | $24-84$ | $8-10$ | 4)-10 | $2+8$ | $85-81$ | 5!-10 | $3{ }^{31}-91$ | $8{ }_{8}+81$ | 4)-83 |
| Upland... | 85 | 8 8-6i | 3j-71 |  | $8-6$ | 81 - 71 | ${ }_{6}^{51}-81$ | ${ }_{81} 8$ | 88 (-7 | 41 - 74 |
| Exyptian..... | ${ }_{8}^{8}-101$ | $51-9$ | $85-11$ | $\mathrm{b}_{6}-11$ | 41-8 | 4 - 9 | $6-11$ | 5011 | $5-19$ | $5-15$ |
| Parnsmbuco.... | ${ }_{8}^{61}-8$ | ${ }_{4}^{4}$ - ${ }^{-8}$ | $6+$ <br> 4 | 6 <br> 41 <br> 1 <br> 1 | ${ }^{4} 8$ | ${ }_{8}{ }^{\text {b }}$ 二 7 | ${ }_{65}^{65}$ |  | $61-84$ -8 | ${ }_{8}^{81}{ }^{8} 8_{8}^{8}$ |
| Marsnharm. .......... Demerara........... | ${ }_{6}^{8}-17$ | 4 4, 71 | 4-8 | $41-84$ 4 4 | $8{ }_{4}^{8}-7$ | 81 $8 i$ $8 i$ $8 i$ | 51 $5-7$ 5 |  | - 48 |  |
| 8orat................. | 9 9-5 | 2j-5 | 9-6 | $21-8$ | 2t-4 4 | 29-61 | $88-94$ | 95-64 | 95-63 | 2 - 5 \% |

The aubjoined table contains comparative estimates $\mid$ manufacturing countriea during 1840 to 1853, incluof the quantities of raw cotton consumed in the chief aive (in millions of pounds' weight).

| Couniries. | 1840. | 1841. | 1849. | 1843. | 1844. | 1846. | 1846. | 184. | 1848. | 2849. | 1850. | 1851. | 1859. | 1853. | Splndlea required in 1850 to produce the quantifes tato 40's Mule Yarn. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Great Britala. . . . . | 478 | 422 | 462 | 581 | 543 | 65\% | 604 | 425 | 591 |  |  | 648 | 745 | 784 | 17,975,384 |
| $\left.\begin{array}{l}\text { Rossia, Germany, ILol- } \\ \text { land, and Boiginm... }\end{array}\right\}$ | 72 | 65 | 78 | 62 | 88 | 06 | 97 | 105 | 112 | 160 | 188 | 118 | 172 | 185 | 4,092,808 |
| Frspce., ................. | 157 | 154 | 168 | 152 | 448 | 153 | 159 | 126 | 127 | 189 | 148 | 149 | 190 | 184 | 4,869,280 |
| Epaia.................... | .. | .. | .. | .. | $\cdots$ | - | .. | .. | -* |  |  | 84 | 44 | 42 | 892,808 |
| Conntries bordering on the Adriatic. | 28 | 29 | 88 | 44 | 28 | 88 | 89 | 81 | 20 |  |  | 45 | 65 | 45 | 838,461 |
| United 8tates of Anierica | 111 | 115 | 105 | 181 | 143 | 158 | 175 | 175 | 209 | 205 | 188 | 158 | 287 | 206 | 1,834,915 |
| Sondrles, Mediterrsnean, etc. . . . . . . . . . . . | $\cdots$ | $\cdots$ | . | $\cdots$ | - | - |  | - |  |  | . | 88 |  | 88 | 5,784,625 |
| Total. . . . . . . . . . . | 841 | 785 | 846 | 940 | 944 | $\overline{1,047}$ | 1,074 | 868 | 1,069 | 1.225 | 1,182 | 1,175 | 1,481 | 1,608 | 84,836,921 |

Looking at the production of the past and the de- thongh with the prospect of better prices, As an illusmands for the future, it is not strange that the cotton manufactures ahould show unessinese lest their spindies should be idle for want of the raw material. The consumption of raw cotton has rapidly increased during the lat few years, and the unusualiy large crop of last year has been fully used up, leaving no reaidue,
tration of the increased consumption for the past year, we give the quantities of raw cotton consumed is Great Britain since 1847. It will be seen, that of the increase for the last year-equal to 15 per cent.-over three fourths, or 11 per cent., came from the United Statee.

Quantitifs of Raw Cotton mpontrd into tif United Kinodoy faom farious Countaies,

| gexp. | The Unilind States, | Drazil. | The Mediterravean. |  | Britich Weat Indiee and British Gulana | Other Coaniries, | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | pounds. 18.968909 |  | Pounds. 89,984 814 | Ponnda. | $698,587$ |  |
| 1848. | 600,247,488 | 19,971,978 | 7.291,861 | 84, 101,961 | 640,437 | 827,086 | 718,029,101 |
| 1848 | 634,504,050 | 80,788,188 | 17,880,848 | 70,838,515 | 944,807 | 1,074,164 | 755,489,012 |
| 1850 | 408,154, 112 | 80,299,982 | 48,981,414 | 118,878,742 | 229,981 | 2,090,698 | 669,076,881 |
| 1851. | 698,638,902 | 10,839,104 | 16,050,825 | 128,428,976 | 448,529 | 1,877.653 | 757,879,749 |
| 1852. | 765,630,54 | 20,506,144 | 18,058,640 | 84,922,492 | 709,696 | 8,960,992 | 029,782,448 |
| 1858. | 658,451,796 | 24,190,628 | 28,458,575 | 181,848,160 | 850,428 | 2,084,182 | 895,278,749 |
| 184. | 722,151,848 | 18,709,800 | 23,503,008 | 119,886,009 | 409,110 | 1,790,081 | 887,388,149 |
| 1855. | 681, 829,424 | 24,577,953 | 82, 004,158 | 145,179,218 | 408,458 | 6,992, 305 | 891,752,002 |
| 1858. | 780,040,000 | 21,890,000 | 84,816,000 | 180,406,000 | 462,824 | 6,499,000 | 1,023,596.529 |

According to official tables, the cotton Induatry of Great Britain and Ireland yioided last year about fiftyfour millions aterling, and which may bo ragarded ae half the cotton Industry of the whole world; but foreign countries, besidos taking half of the raw cotton sent to market, receive large supplies of cotton yarns from

Great Britain ; and in Aaia and Africa cotton is atill largoly apun by hand; hence the world's cotton industry may be valued at $120,000,000$, which would afford to every man, woman, and child, on the face $f$ the earth, 2s.98d. worth of cotton manufactures, or about fourteen yards per head per annum of excellent calico.
 mentionbd Countribs in tue Year 1558.

| Population of Conntriee eaported ta. | Value par head of Exporte to ench Couniry. | Countriee to whilah esported. | dechanea taluz. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Cotton manofice. tarec selared by the yard. | $\begin{aligned} & \text { Hoslery, Iace, } \\ & \text { 8mall Waren, } \end{aligned}$ | Colion Twist, and Yarn. | Total. |
| 67,000,000 |  |  | $84,883$ | $8,599$ | $187,824$ | 180,249 |
| 8,000,000 | $\begin{array}{llll}0 & 0 & 1.25\end{array}$ |  | $\begin{array}{r} 8,883 \\ 9,469 \end{array}$ | $\begin{array}{r} 8,599 \\ 102 \end{array}$ | $\begin{array}{r} 187,824 \\ 4,186 \end{array}$ | 180,249 |
| 2,804, 331 | $\begin{array}{llll}0 & 0 & 4.50\end{array}$ | Sweden. | 7,166 | 2,176 | 45,295 | 84,6:37 |
| 1,050,182 | $\begin{array}{llll}0 & 1 & 0.25\end{array}$ | Norway. | 27,303 | 1,728 | 25, 399 | 64,436 |
| 2,900,000 | $\begin{array}{llll}0 & 0 & 825\end{array}$ | Denmark (inciuding | 84,989 | 2,027 | 64,142 | 101,159 |
| 15,786,820 | $\begin{array}{llll}0 & 0 & 0.875\end{array}$ | Prussla............. | 687 | 200 | 26,603 | 27,245 |
| 200000 | 0 0 0.75 <br> 0   | Mecklenburg-Schw |  |  | 60 | 60 |
| $2,008,200$ 241000 | 0 1 8550 | Ilanaver.......... | 612 | 13 | 146,795 | 147,420 |
| 241,000 884,000 | 7197 | Oldenburg and Knip | 785,895 | 802,268 | 2,076,717 | 8,064,3\% |
| 2,000 |  | Heilgoland. |  | 2,28 |  | , 2 |
| 8,444,550 | 0 if 11.50 | Jfollanit.. | 473,700 | 81,435 | 1,092,043 | 2,247,173 |
| 8,888,588 | $\begin{array}{lll}0 & 1 & 8.25 \\ 0 & 0 & 6.75\end{array}$ | Belgium | 62,170 | 57,390 | 179,678 | 299,338 |
| 14,4,126 | $\begin{array}{llll}0 & 0 & 6.75\end{array}$ | Channet Isiani | 46,565 | 1.259 | 474 | 48,292 |
| 86,497,152 | 0 0 1 | F'ranco. | 65,592 | 40,574 | 43,534 | 185,710 |
| 4,580, $9 \times 1.0$ | $\begin{array}{lll}0 & 8 & 0 \\ 0 & 8 & 7.75\end{array}$ | lortugal Proper | 611,195 | 10, 858 | 42.810 | 604,389 |
| 271,418 | $\begin{array}{llll}0 & 8 & 7.75 \\ 0 & 4 & 0\end{array}$ | " Aznres | 47,009 | 808 | 1,140 | 49,552 |
| 90,000 14857010 | 0 4 0 <br> 0 0  <br> 125   | " Madelra | 16,045 | 781 | 18 | 17,684 |
| 14,857,210 | $\begin{array}{llll}0 & 0 & 125\end{array}$ | Apata, Continental, and the Balearle Ists. | 78,283 | B, 897 | 5,053 | 80,188 |
| 200, 000 |  | Qibrsitarary Islands.................. | 61,499 | 8,035 | \% 401 | 65,275 40306 |
|  | $\begin{array}{cccc}23 & 14 & 2.75 \\ 0 & 1 & 3\end{array}$ | Oibraltar ........... | 874,289 242,218 | 21,926 17 | 7,455 46,775 | 40,670 $806,7 \times 3$ |
| 1,875,000 | $\begin{array}{llll}0 & 5 & 9-25\end{array}$ | " ${ }_{\text {u }}$ Juchy of Tuscany | 280,676 | 26,605 | 104,742 | 86\%,18 |
| 2,500,000 | $\begin{array}{llll}0 & 1 & 8.25\end{array}$ | P'apal Territorica. | 80,428 | ${ }^{818}$ | 78,740 | 169,76 |
| 7,500,000 | $\begin{array}{llll}0 & 0 & 11 \% 0\end{array}$ | " | 143,621 | 18,272 | 190,630 | 361,523 |
| 7,885,000 | $\begin{array}{llll}0 & 0 & 10.46 \\ 1 & 8 & 6\end{array}$ | " $\quad$ Malta and Gozo...................... | 200,804 | 6,058 | 135,118 | 814,469 |
| 1200,000 | $\begin{array}{llll}1 & 8 & 6 \\ 0 & 8 & 3\end{array}$ | Malta nnd Gozo.. Ionlan Iblands. . | 108,445 | 2,099 | 80,447 | 140,991 |
| 20N,100 1,000,000 | $\begin{array}{lll}0 & 8 & 3 \\ 0 & 2 & 8\end{array}$ | Tonlan Iblands. | 67,020 98,590 | 623 | 18,411 | 86,060 |
| 26,100,000 |  |  | 98,500 $1,510,028$ | 18,029 | 12,161 153,363 | 105,048 $1,052,019$ |
| 20,100,000 | 0110.50 | Wallachin and Moldaria................ | 77,460 | 539 | 75,839 | 153,830 |
|  |  | Byria and Palestine. . | 24,639 | 651 | 83,430 | 976,726 |
| 100,000 |  | Egypt-l'orts on the Mediterra | 818,148 | 7,601 | 27,795 | 858,539 |
| 2,000,000 |  | Alseria. |  | $\cdots$ | $\cdots$ | $\cdots$ |
| 15,000,000 | 001 | Norocee, e | R3, 538 | 219 | 60 | 63,810 |
|  |  | Western coast of Afrla | 834.719 | 1,147 | 617 | 246,503 |
|  |  | Ilritish possesslens in south Africa | 207,785 | 12,714 | 641 | 241,440 |
| 10,000,000 | 012.75 | Wasterd const of Africa ........ | 1,530 | .... | ..... | 1,580 |
|  |  | African lorts on the Med Sean......... |  | $\ldots$ |  | 4,737 |
|  |  | Cape Verdo nalands................... | 2,787 989 | 486 | $\cdots$ | 2, 2,454 |
| 101.469 | 13725 | Maturitus................................ | 124,257 | 5,782 | 8 | 129,909 |
| 40,000 | 0 0 3 | Aden. | St5 |  |  | 545 |
| 13,750,000 |  | Persla. | .... | ... | .... | .... |
| 150,000,000 | 000 | $\left.\begin{array}{r}\text { Continentai Inila, with the contiguens } \\ \text { Islands:-viz. British Territurfes } \\ \text { Thit Mirman Emplre }\end{array}\right\}$ | 4,47,418 | 64,892 | 1,165,264 |  |
| 5,000,000 | $\begin{array}{llll}0 & 1 & 0.50\end{array}$ | Islands of the Indian Seas :-Javn.. | 412,104 | $\ddot{8,727}$ | 30,944 | $4 \dddot{40,265}$ |
| 2,500,000 | $\begin{array}{llll}0 & 2 & 9\end{array}$ | " " Philippine Isla. | 8338,160 | 8,805 | 2,140 | 344,155 |
| 86k, 0000,000 | 0 0-0.75 | Cling | 1,024,074 | 829 | 101,398 | 1,129, 199 |
| 20,000 | $1818 \quad 7.50$ | 1 long Kong. | 177,921 | 8,024 | 97,069 | 275,634 |
| 25,1000 |  | Juphnose Islands...................... |  |  |  |  |
| 2,693,000 | $\begin{array}{lll}0 & 7 & 8.50 \\ 0 & 0 & 0.75\end{array}$ | Britsh Nettlements in Australia. | 806715 | 225,388 | 8,215 | 1,040,521 |
| 600,000 | $00^{0} 00.75$ | Bnath Sen Ielands. | 18.704 | 176 |  | $1 \times, 70$ |
| 2,406,016 | $\begin{array}{llll}0 & 6 & 125\end{array}$ | British North America. | 669,635 | 60,161 | 23,450 | 719,20 |
| 94,810 | $0{ }_{8}^{8} 84.45$ | Britinh W. Indla Lsis, and Ilrtt. Gulana. | 870,616 | 24,928 | 152 | 892, wit |
| 14, 600 | $81710 \% 0$ | (fonduras (liritish Settloments)........ | 52,400 | 8.114 | 1,951 | 50,465 |
|  | 0189.75 | Forelgn Weat Inda Iola :-Cuba........ | 841,294 | 48,092 | 73 | 854.464 |
| 461,200 | $\begin{array}{lll}0 & 0 & 2 \cdot 50\end{array}$ | $" 30$ lerte itico.. | 4,778 | 146 | .... | 4,917 |
| $\begin{aligned} & 120,499 \\ & 1: 5,0100 \end{aligned}$ |  |  | .... | $\ldots$ | .... | .... |
| 81,000 | 0 ¢ ${ }^{\text {c }} 75$ | " 4 " Curacon | 11,8io | 669 |  | 11,978 |
| 8,000 |  | $\because \quad 4 \quad \begin{aligned} & \text { \# } \\ & 4\end{aligned}$ | 275,046 | 16,879 | 4,883 | 293,708 |
|  |  | French Gulana. |  |  |  |  |
| 288,000 | $\begin{array}{lll}0 & 0 & 1 \\ 0 & 1\end{array}$ | T Sutera Gnlana. | 1,010 | 21 |  | 1,036 |
| 860,000 | 0 0 1 $0 \cdot 25$ | Itayll. | 78,441 | 2,953 | 80 | 76,474 |
| 27,000,000 | $\begin{array}{llll}0 & 1\end{array}$ | United Stat | 3,824, 020 | 648,001 | 9,671 | 4,142,901 |
| 8,000,090 |  | Califorala. . . . . . . . . . . . . . . . . . . . . . . . | $\mathbf{2 2 , 4 7 9}$ 479216 | 6,914 | 11.719 |  |
| 9,00, 20 | 0 1 10\% |  | 478,216 | 4,6,801 | 7,741 | 131,429 |
| 28,000 | $\begin{array}{llll}10 & 9 & 9.50\end{array}$ | Now Gren | 2sin),994 | 12.449 | 248 | 290,731 |
| 1,267,092 | 026 | 'Yenezuel | 1, $2,4,450$ | 6,85 | 又 ${ }^{2}$ | 153,923 |
| 800,009 | $00^{0} 08925$ | Ecuador | 18,922 | 622 | 43 | 19,569 |
| 6, 1 W0, 01000 | 0 \% 11.50 | ilrazil................................. | 1,727,5017 | $60,10 \mathrm{Na}$ | 8280 | 1,7n9,866 |
| 560,000 | $\begin{array}{llll}0 & 6 & 1.75\end{array}$ | Oriental Republie of the Urugiay . ${ }^{\text {a }}$. ${ }^{\text {a }}$ | 254,072 | 11,988 | 888 | 20,412 |
| 100,0000 $1,600,00020$ | $\begin{array}{llll}2 & 11 & 1.75 \\ 0 & 7 & 7.75\end{array}$ | 13uevos Ayres, or Argontiue Repubilo.. | 239431 | 17,164 | 218 4078 | 2.40804 593,185 |
| $\begin{aligned} & 1,600,006 \\ & 1,500,0009 \end{aligned}$ | 074.75 | Chill. ....... . . . . . . . . . . . . . . . . . . . . ${ }^{\text {Bolisla }}$, | 348,418 | 45,689 | 4,178 | [93, 18. |
| 2,000),1000 | $\begin{array}{llll}0 & 8 & 6.75\end{array}$ | iperu . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 623,054 | 38,740 | 1,4st | 658.815 |
| 12.010 | 0 O 4 | Falkland Islands. | 109 | 100 |  | 210 |
| 20,000 |  | genland and Da |  |  |  |  |
| 825,990,745 |  | Tot | 23,90t,940 | £1,915,800 | 10,895,038 | 298,712,9012 |
| 97,812,607 | 0158 | Estimatad consumption of Cotten Manufa | ures in | $t$ Ifrtadn | Ireland. | 2t,224, 194 |
| \$ $53,208.432$ | $\begin{array}{lllll}0 & 1 & 8.172\end{array}$ | The amount of Brilsh Cotion Manufacta | res eupplied | or the whole | world..... | 63,037,396 |

V. 0 ufactu America iards in fection. depende hares, fe their cl hemp, n purposes ceeding beantifu they fini ers. Co mantles, back, handker cotton." ico, smal part of have ha bave loai facture. Mexico and on th alrendy ether put The Abb cans mad of Iollar Thoy wo represent ers, inter curtains, than leut finest hai lug span tilul clet their lord ncts of 1 materials of manuf thage of ceived th west.
Magel all agree nimang th as dresse M. Seal earliest streams, great 1 ll indefinite epinion $f$ Cook, thit hemisplic between the mull the inla: tions all Irres, be prowluct 2,000 bat bags ani pher, tin Crusis, al
monlity. couton in the Nan these fus manufac
V. Origin and Early History of Cotton Manufactures of Ameaica.-Cotton io of indigenous American growth. On the first landing of the Spaniards in Mexieo, they found it in considerable perfection. The Moxicans are said to have been solely lependent upon this product, the wool of rabbits and hares, feathers, and a fibrous plant ealled maguet, for their elothing materials. They had neithor wool, hemp, nor silk, and their flax was not uaed for these purposes. Ont of cotton they fabricated webs of exceeding tenuity, and their cioths were woven into beautiful figures. Mantles, bel-curtains, and earpets, they finished elegantly with mingied cotton and feathers. Cortez aent to Charies V. of Spain, "cotton manties, some aii white, othors mixed with white and biack, or red, green, yellow, and blue, waistcoats, handkerchiefs, counterpanes, tapestries, and carpets of catton." A peculiar cotton paper was made in Mexico, smali cioths of the ame material constituted a part of their earreney, and their warriors are sald to have had cotton cuirasses. The modern Mexicans have lost the parfection of their ancient art of manafacture. The Ameriean plant was not confined to Mexico alone; Coiumbus found it wild in Ilispanioia sad on tise eontinent of South Anerica, where it had alrendy grown into an articie of nse for elothing and ether purposes. The Braziilans made their beds of it. The Abbe Ciavigam aays, that of "cotton, the MLexicans made large webs, and as delicate and fine as those of lioisnd, which were ao highiy esteemed in Europe. They wove their claths of different figures and colors, representing different animals and flowers. Of feathars, interwoven with cotton, they made manties, bedcartains, carpets, gowns, and other things, not less soft than beautiful. With entton, also, they interwove the finest hair of the beliy of rabbits and hares, after having spun it lnto thread; of this they made most boautiti cloths, and in particular, winter waisteoats for thair lords." Cochineal and indlgo being nativo products of Mexieo, they were weil supplied with dyeing materiais; but the fact of their having carriel the arts af manufacturing and dyeing cottan to sueh a high stage of perfection, is proof that they must have received their knowledge from India, by way of the west.
Mageilian, Drake, Cavendish, Dampier, Van Noort, ail agree that entton was one of tha articles of dress among the Anserican savages, on the discovery of the country. At St. Saivador the women are deacrihed as dressed in cotton coats. Eiven as fur nortii, raya M. Seabrook, na the Mos-chacebe, or Mississippl, tine eariest exjiorers of that river, and its tributary streama, saw catton growing wild in the pod, and in great plenty. Theso facta, and they might almost he indefinitely multipijed, are introdueed to rebut the opinion founded on the nogative testimony of Cuptain Cook, that the gossypuin is not a native of the western hemisphere. That eciebrated voyager found no cotton between New Zealand, $36^{\circ}$ S., and tho Sandwich istands, $20^{\circ} \mathrm{N}$. In addition to flax, and tho hark of the mulberry-tree, in whieh Captain Cook anys that the inhabitants of those regions were habited, the nations ail over the continent neariy, used us articies of dress, hesides eotton, feathers, the wool of rabbits, the maguei, and silk-grass. in 1726, eotton was a stapio product of llispanioia. In 175il, Jamuica exported 2,000 thage. On ani avoruge of eight years, from 1710 to 174\%, the oxport of cotton from Harladioes whe 600 bags annualiy. In 1787 , St. Domingo, St. Christopher, (iremada, Hominiea, Antigua, Montserrat, and Xivis, aul the Virgin Isiands, exportad the amme commortity. In 180及, tiero were grown five varioties of cotton in Jumaica, the common, the brown-bearided, the Nankin, the Frenci, and the Ilrasilian. From these farts, Mr. Baines draws the conclusion that the manufacture of cotton muat therefors be supposed to be ceeval with the orighal settioment of America; but
learned mon are much divided as to the date of this ovent, some carrying it nearly as high as the deluge, and others contending for a mach later period. The American mannfacture may at all evanta claim a high degree of antiquity.
VI. Cotton Manufactures in the United States.-Historical Sketch of the Rise and Progress of the Cotton Manufactories in the United States.--AB early as the year 1787, a society was formed in Philadelphia, under the name of the "Pennsylyania Soclety for the Encouragement of Manufactures and the Usefut Arts," whieh made aome progress in the manufucturing of various kinds of goods, such aa jeans, corduroys, fustians, plain and flowered cottons, flax linens, tow linens, ete. But the machinery employed in this manufacture seems to have been of the very rudest kind. A ahort time before the formation of thia society, an attempt to apin cotton-yarn by machinery had been made at Bridgewater and Beveriy, in the State of Massachnsetta. Two mechnnies from Seotland, Alexander and Robert Barr, brothers, were employed by a Mr. Orr, of East Bridgewater, to make carding, spinning, and roving-machines, which they compieted; and on the 16 th of November, 1786, the Generai Court of Masanchusetts made them a grant of $£ 200$, lawful money, for their encouragement, and afterward added to the bounty, by giving them six tiekets in the State iand lottery, in which there were no blanks.
In March, 1787, Thomas Somers, an Engiish midshipman, construeted a maehine, or model, under the direction of Mr. Orr ; and, by a resolution of the General Conrt, $£ 20$ were placed in the hands of the iatter, to encourago him in the enterprise.
The above remained in the possession of Mr. Orr for the inspection of ali disposed to see them, and he was requested ty the General Court, to exhibit and give ali information or explanation regarding them. It is heiieved that the above were the first machines made in tho United States for the manufacture of cotton.
The Beveriy Company commenced operations in 1787, and are aupposed to be the first company that made any progress in the manufacture of cotton goods (tinat at Bridgewater had been on a very limited seaie), yet the diffieulties under whieh they labored-the extraordinary ioss of materials in the instruction of their servants and workmen-the high prices of muchines, unknown to their mechanics, and both intricate and difficuit in their constraction, together with other incidents whieh usualiy attend a new busiaess-were such that the company were putt to the necessity of appiying to the State iegislature for assistance, to savo them from leing eempelled to abandon the enterpriso altogetiner.

In their petition to the Sennte and IIouse of Representatives of Massachusetts, presentel Junc 2d, 1790, only three years after they had commenced operations, they state: "That their expenditure had aiready amountod to neariy $£ 4,000$, while the value of their remaining stoek was not equai to $£ 2,000$, and a further very consideratie advance was absoiutely necesssry to obtain that degreo of perfection in tho manufacture, whieh aione could ensure success."

Aceordingiy a grant of $£ 1,000$ was presented them, to bo approprinted in such $n$ way as wouid effecturily promoto the manufacturing of eotton pieee-goods in the commonweaith.

The petition above referred to, and other coliateral fuets, sufficientiy prove that cotton-spinning in this country, further than tie hand-eard whi one threadwheel, was earried through its tirst struggies by tho Beveriy Company in Masaachusetts. And fron this Stato the manufacture was carried to Rhode Isiandthough it must be acknowiedged that both States wero indebited to foreign emigrants for instruction and assistance in spinntag and weaving, as well as in preparing the cotton.

Cotton-spinning commenced in Rhode Island in 1788,

In which year Daniel Anthony, Andrew Dexter, and Lewis Peck, all rf Provldence, entered into an agreement to make what was then called " home-spun cloth." The iden at first was to make jeans of linen warp spun by hand; but hearing that Mr. Orr, of Bridgewater, and the Beverly Company, had imported aome models or draughts of machinery from England, they aent thither and obtained drawings of them, according to which they constrncted machinery of their own. The first they made was a carding-machine, which was something slmilar to those now used for carding wool, the cotton being taken off the machine in rolls, and afterward roped by hand. The next was a spinningframe, something simitar to tho wster-frame, or rather the common jenny, but a very imperfect machine. It conslated of elght heads of four spindles each, being 32 spindlea in all, and was wrought by means of a crank turned by the hand; thls, after being tried for oome time in Providence, was taken to Pawtucket and attached to a wheel propelled by water; the work of turning the machine was too laborlous to be done by hand, and the machino Itself was too imperfect to be turned by water. Soon after, these machines were sold to Meses lbrown, of Providence; but as all the carding and roving was done ly hand, it was very im. perfect, and but very little could be done in this way. Such were the rude machines used for spinning cotton previous to 1790 ; and the wonder is, not that the manufacturers failed in thelr undertakings, but rather that they were able to persevere. And we can now parcelve that from these amall beginnings, the present brightened prospects recelved their foundation.
The tirst cotton-mill of the United States was crected in Pawtucket, Rhode Island, by the late Mr. Samuel Slater, a native of lielper, Derbyshire, England, in 1790. The machinory was that of the Arkwright patent. There is evidence that Hargreave's jennies were in uso in this country previous to 1790 , but by whom, and when introduced, is not known. They were worked principally by Scotch and Irlsh weavers, who produced mixed goods of linen and cotton. Great Britain, at that time, uacd every means to prevent the introduction of her spinning machinery Into other countries. IIer law expresaly forbld its exportation ; and every attempt to import the machinery Into America had falled. The Hon. Tench Coxe, of lhiladelphia, entered into a bond with a peraon, who engnged to send him from London complete brass models of Arkwright's patents. The machinery was completed and packed, but was detected by the examluing offeer, and forfeited, according to the exlsting Inws of Great Britain. No way remained to obtain the benefit of the British inventions but to manufacture them on our own soll. For this parpose Mr. Slater came to Amerlica. Ite had been a pupil of Arkwright, and was perfectly fumillar with all his patents. He brought with him nelther patterns nor niemormula to asslat him in his work, but depended entirely on his memory, a thing which the statutes of Great Iritain could not reach. The King of England had frequently made proclamations sgulnst nny traileaman leaving tho klogdom, and had called on his offeers for their most vighlant watel ngninst it; hut the professions of nen lesving the kligglom could not be always detected.

Some of the lirat yarn mude by Mr. Slater In America, and some of the thrst cotton cloth made from it, was sent to the Secretary of the 'Trensury, on the 15 th of Octoler, 17 il ; and it is probably in existence now. It is stated that Mr. Clay had some of the first yarn In hils possegsion in 1834, It was as fine as a No. 40.

Mr, Nater was Induced to leave his employment under Mr. Arkwright, In lingland, to come to America, hy seelng a premium offered by the Penusylvanla Society for a cortain machine to ajin cotton.

Mr. Slater labored under the grentest dlandvantages for the want of suitalito materiala, and mechanles of suffient ingenulty to assist him. The history of his
firat labors is deeply intereating, for the details of which we must refer the reader to his biographer. His first machine was what la called s water-frame, of only 24 aplndles. Such. was tho humble origin of cotton manufacturing in America. From that first machine the advancement of the cotton manufacture has been truly astonishlag. It has caused hundreds of populous villages, towns, and even citles, to epring up as if by magic, where only a few years ago nothing was seen but a barren wilderness. Astonishing as has been the increase of the various manufncturing towns and villages in the United States, Lowell, in Masaachusetts, surpasses every thing of the kind that has been witnessed within the memory of man. In 1810 its site was a wilderness, whither sportsmen went to shoot game. The entire population of the territory around it did net exceed 200 soula. It was a poor, barren district, with but a few house on the spot where the city now stands ; and the inhabltants supported themselves principally by fishing in the Concord and Merrinac rivers, at the junction of whleh Lowell is situnted. A company of wealthy men in Boston, eceing the valuable water-privileges of the apot, purchased it for mantfacturing purposes. The first cotton mill was erected there in 1822 ; and in 1830 the population of the place had increased to 6477 persons. In 1840 the population had increased to 20,796 ; and the value of property there was $\$ 12,400,000$. In 1856 the number of cottonmills was 35 , spindles 350,848 . Thus, what only 30 years ago was a wild pasture-ground has become a large and fiourishing city; a proof of what a waterpower, aecended by capital and enterprise, can do for a pluce. Lowell is a splendid example of an American manufacturing eity, and excites the attention, and in some measure the jealousy, anys Mr. McCulloch, of Manchester and Glasgew. We need no better proof of what manufactures can accompllah than the listory of Lowell. The Lowell cotton-mills, owned by twelve manufacturing companies, extend in a continuous line of about a mile, from the Merimuc to the Pawtucket Falls.
The rapld growth of the cotton manufacture in this country is unparalleled in the history of industry. The second cotton-mill in America was erected in 1795, at the aame place as the first. No more were built untll 1803, when a third was erected in Massachusetts, followed by a fourth is 1804. During the three followIng years ten more milla were erected in Rhode Island, and one in Conncetleut, making in all fifteen mills, with 8000 spindles, producing 300,000 pounds of yaru aunually. By a report mado to the government in 1810, It sppears that 87 additional mills had been erceled by the end of 1809 , of which 62 were then in operation by horse and water-power, running 81,000 spindles. The cetton manufucture continued to spread, and received a considerable impulse from the war of 1812. In that year there were in Rhorle latand 33 cotten fuctorles, with 80,003 spindles. In Massachuseits there were 20 mills , with 17,371 spinilles.

A report made to Congress in 1816 gives the followIng statement of the consumption of cotton by our milis, shewhig how rapidly the cetton manufacture had advanced. Tho consumption of cotton was, in

$$
\begin{aligned}
& 1818, \ldots \ldots . . . .
\end{aligned}
$$

The following statement is also offichally made in the same report, showing the state of the cotton mathufacture at that time:


Rnw cotton, .........90,010 bales, . . or lba. 27,00t, Met
Ahe sulject of protection was then extensively agitated. 'Tho importatlons of cotton goorls in 1815 and 1816 were Inmense, and created great alarm among
manufactur two yeare 1817, 1818, among the posed to gr
Tariff la each of wh ported was though the glutted wit gradually

Main6 New IIsm Vermont. Massachu: Khodo Isl Conneetto New Yor Now Jers Pennayly Delaware Maryland Virgloia.
Tot

State

Mnide .... Now Iam Vermont. Massachus Rhedo Ifl Cennectic New York New Jerse Pennsyivs Deisware. Maryland Virgints. North Car South Cal Georgla. . Florilla.. Alabania. Mississipp Louisiana Texas ... Texas ...
Arkansas Arkansas Tentesse Kentuck Oblo.. Michigar Indiaga Illineis. Missoart Jowa... Wiscons Callfurala Dist. of C Total.

Tanti.as
Y'ABN
PEBIO!

Yearb.
1251..
152...

14, 23...
$18,4 . .$.
$184 . .$. Atgrega Average
${ }^{*} \mathrm{Ma}$
Decembe
$+\mathrm{T}$
He
the Sta
States'
manufacturers. The amount of importations of those two years was about $\$ 180,000,000$. During the years 1817, 1818, 1819, and 1820, great distress prevailed among the manufacturera, but Congress wae not disposed to grant thelr petitions In full.
Tariff laws wore passed in 1824, 1828, and 1832, in each of which the duty upon forelgn cotton goods imported was 25 per cent. ad valorem. These duties, though they did not prevent our markets from being glutted with foreign goods, cnused our manufactures to gradually increase.

In 1820, the first cotton mill in Pennsylvania was erected at Manayunk by Captain John Towors. There were then only two amall cottages on the spot. It now contains 500 dwelllings, 5 churches, 15 stores, and about 30 mlll .

Among the numerous towne that have sprung into existence, owing to the influence of manufactures, may be mentioned-Waltham, Paterson, Ware, Fall River, Taunton, Pawtucket, Lowell, Lawrence, Providence, Rhode Island, Saco, Lewiston Falls, Muine, etc.

The Cotron Manufactures in twelve or the Stater, in 1831.

| States. | Mlla, | Looms. | Capltal. | Number of spindles. | Yerde of oloth produced yourly. | Pound of sioth produced yearly. | Poands of cotion consmad yearly. yearly. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Malno | 8 | 91 | \$765,090 | 6,5040 | 1,780,6190 | 525,000 | 588,500 |
| Now LIampshire.... . . . . . . . | 40 | 8,680 | 6,300, 000 | 118,776 | 29,000, 500 | 7,255,000 | 7,845,000 |
| Vormont.......... . . . . . . . | 17 | 852 | 295,500 | 12,892 | 2.288,400 | 574,500 | 760,000 |
| Massachusetts. . . . . . . . . . . . | 250 | 8,981 | 12,801,000 | 899,777 | 70,281,000 | 21,801,062 | 24,871,981 |
| Rhodo Ialand. | 116 | 8,778 | 6,202,940 | 285,708 | 87,121,631 | 9,271,481 | 10,414,578 |
| Connectlout. | 04 | 9,609 | 2,825,000 | 115,548 | 20,055,500 | 5,612,000 | 6,777,209 |
| Now York. . . . . . . . . . . . . . | 112 | 8,653 | 8,869,500 | 157,816 | 21,010,020 | , 5,297,718 | 7,001,670 |
| Now Jorsey | 51 | 815 | 2,027,044 | 02,079 | 0,138,776 | 1,877,418 | 5,882, 204 |
| Pennsylvania. . . . . . . . . . . . | 67 | 6,301 | 8,758,500 | 120,810 | 21,832,407 | 4,207,192 | 7,111,174 |
| Delsware.................... | 10 | 235 | 884,500 | 24,800 | 5,203,740 | 1,201,500 | 1,445,000 |
| Maryland.. | 98 | - 1,002 | 2,144,000 | 47,222 | 7,649,000 | 2,224,000 | 8,008,000 |
| Virglala . . . . . . . . . . . . . . . . | 7 | 91 | 200,000 | 0,844 | 075,000 | 169,000 | 1,152,1000 |
| Total. | 801 | 83,488 | -40,012,984 | 1,240,703 | $230,461,990$ | 89,514,020 | 77,457,816 |

Cotron Manupactures in 1850.

| Staten. |  | Capltal laventod. | Beles of cothot. | Tone of oual. | Valoe of all raw material. | Number of hands employed. |  | Entire wages par month. |  | Vatue of $00-$ tire prodacts. | Yarda of sheeting, ete. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Males. | Females. | Malea, | Fenales. |  |  |
| Malte | 12 | 68,829,700 | 81, 881 | 2,921 | \%1,678,110 | 781 | 2,959 | \$22,805 | -35,078 | 4,2,6901,356 | 82,852,596 |
| New IIampshiro. | 44 | 10,050,500 | 88,026 | 7,679 | 4,830,420 | 2,011 | 9,211 | 75,718 | 124,181 | 8,880,619 | 118,106,247 |
| Vermont . . . . . . | 9 | 202,500 | 2,248 |  | 114,415 | 94 | 1.17 | 1,460 | 1,861 | 196,100 | 1,651,000 |
| Massaciusetts. | 218 | 28,485,080 | 223,007 | 46,545 | 11,239,809 | 0,203 | 19,437 | 212,892 | 284,514 | 10,712,461 | 298,751,302 |
| Rhodo Ialand | 153 | 6,675,000 | 50,716 | 18,110 | 8,484,579 | 4,959 | 5,016 | 92,252 | 76,650 | 6,447,120 | 96,725,612 |
| Comnecticut | 123 | 4,210,100 | 30,483 | 2,800 | 2,800,062 | 2,708 | 8,478 | 51,679 | 41,000 | 4,257,022 | 51,780,700 |
| Now York. | 86 | 4,170,020 | 87,778 | 1,589 | 1,985,978 | 2,682 | 8,683 | 48,2.44 | 35,099 | 8,591,989 | 44,901,475 |
| Now Jersey...... | 21 | 1,488,500 | 14,487 | 4,467 | 646,645 | 816 | 1,006 | 11,078 | 10,487 | 1,109,624 | 8,122,680 |
| Peunsylvanla | 208 | 4,529,005 | 44,162 | 24,189 | 8,152,380 | 8,564 | 4,090 | 63,642 | 40,656 | 5,822,202 | 45,746,700 |
| Delaware........ | 12 | 4 460,100 | 4,730 | 1,920 | 812,068 | 418 | 422 | 6,826 | 4,926 | 684,439 | 8,521,636 |
| Maryland | 44 | 2,230,100 | 23,825 | 2,212 | 1,165,579 | 1,008 | 2,014 | 15,540 | 18,108 | 2,120,504 | 27,883,928 |
| Virginta. | 27 | 1,908,900 | 17,785 | 4,805 | 828,875 | 1,275 | 1,088 | 12,983 | 11,791 | 1,486,884 | 15,640,107 |
| Nurth Carolina. . | 23 | $1,058,500$ | 18,417 | .... | 691,903 | 442 | 1,777 | 5,153 | 7,216 | 881,842 | 2,470,111 |
| 8outh Carelitur.. | 18 | * 87,2100 | 0,920 |  | 295,971 | 849 | 620 | 5,565 | 6,151 | 743,899 | 6,568,787 |
| Georgla. | 85 | 1,736,150 | 20,230 | 1,000 | 000,419 | 878 | 1,899 | 12,725 | 10,852 | 2,185,044 | 7,200,202 |
| Flordia. . . . . . . . . |  | 80,000 | 600 | . . . ${ }^{\text {a }}$ | 80, 1000 | 25 | 67 | 900 | 835 | 49,920 | 624,000 |
| Alnbama......... | 12 | 651,900 | 5,908 | ... . | 287.1881 | 846 | 869 | 4,053 | 2,946 | 882,280 | 3,031,000 |
| Misalesippl. . . . . . | 8 | 88,000 | 430 | -•* | 21,500 | 19 | 17 | 270 | 101 | 80,500 | , |
| Loulslana........ | . | .... | .... | ... | .... | . | . . . | .... | .... | . . . | . . . |
| Texas.... | 8 |  |  | $\cdots$ |  |  |  |  |  |  | -** |
| Arksnsas. | 8 83 | 10,500 | 8.170 |  | 8,975 | 18 810 | 18 | 199 | 100 | 16,637 | 809850 |
| Tennessce. . . . . . | 83 | 009,600 | 6,411 | 8,010 | 297,519 | 810 | 581 | 8,804 | 8,780 | 810,024 | 868,250 |
| Kentucky | 8 | 239,000 | 13,760 | ${ }^{720}$ | 181,007 | 181 | 221 | 2,707 | 2, 1170 | 278,489 | 1,009,000 |
| Ohlo ............ | 8 | 297,000 | 4,270 | 2,152 | 237,040 | 182 | 969 | 2,101 | 2,584 | 894,700 | 980,000 |
| Mleliggan. . Indlana... | 2 | 43,000 | 075 | 900 | 23,200 | 93 | 57 | 495 | 850 | 44,200 | .... |
| 1ilitbots. |  |  |  |  |  |  |  |  |  |  |  |
| Mlssour1 | 2 | 102,000 | 2,160 | 1,058 | 80,446 | 75 | 80 | 820 | 800 | 142,900 |  |
| towa...... | - |  |  |  |  |  |  |  |  |  | ... |
| Wlsoonsin. |  |  |  |  |  |  | . $\cdot$ |  | $\cdots$ |  |  |
| Callfurnla . . . . . |  |  |  |  |  |  |  |  |  |  |  |
| D/st, of Columbla. | 1 | 85,1000 | 960 | -... | 67,000 | 41 | 103 | 575 | 825 | 100,010 | 1,400,000 |
| Total... | 1,1094 | 74,001,1831 | 641,240 | 121,099 | 4,385,006 | 38,160 | 59,130 | 3,778 | 08,414 | 1,569,154 | 88,678,407 |

 Yaing Exponted finm (abat limitain an from the United States, afopectivelov, to all Counther, for a


| Yeers. | manufactuhea. |  | vaush. |  | MANUVACTUAE4. |  | Vallas. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantites. | Valuest. ${ }^{\text {a }}$ | Unanitlen. | Vitues. | Quabitien. | Values. | Quanthites. | Valuer, |
| 1851....... | $\begin{aligned} & \text { Yavid } \\ & 1,548,111,789 \end{aligned}$ | -110,240,410 | $\begin{array}{r} \text { Bunda. } \\ 1+3,966,106 \end{array}$ | \$833,246,010 | No data. | * 7,208,945 | No inta. | -87,260 |
| 15.2....... | 1,524, 25011,014 | 108,2 12,290 | 145, 178,902 | 88,278,275 | ${ }^{4}$ | 7,687,489 | ${ }^{14}$ | 84,718 |
| 18*3....... | 1,691,602, 658 | 110,009,700 | 147,688, 8108 | 84, 474,245 | " | 8,740,900 | - | 22,504 |
| 18,4....... | 1,434,977,471 | 116,484,800 | 147,124,494 | 83,150,935 | " | $5,4 \times 3,201$ | 10 | 40,815 |
| 1855. | 1,985, 810,987 | 130,028,975 | 165,400,04\% | $80,102,140$ | 11 | 6, $\times 187,181$ | * | None. |
| Aygregato. | 8,494, 636,776 | 685,6015,675 | 740,811,755 | 170,400, 685 | . $\cdot$. | 684,081,061) | -*** | - 148,887 |
| Averagu... | 1,05S,107, 105 | 117,101,115 | 149,022, 31 | 84,121,825 | . . . | 0,988,212 | $\ldots$ | 90,777 |

[^5]

SUMPTION OF FOREIGN COTTON LOODA, TOQ FTHEE WITA THE CONGUMPTION OF YOREIGN COTTON GOODS OVEE JOMPBTIO ESMORTATIONB; THE NUYBE OF I'OUNDS OF SEA-IBLAND AND OTLEA COKTON ANNUALLY EXPOBTED FROM TAE U. 8.

| OTTON, MANUPACTUEES OF. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years. | Foreign imporiwd. | Foraigo oxpertita. | Domestle esported. | Home com. oumption of foreiga Cotton Goods. | Hutive consemption of Forelign Cotton Gooda avar domeatio Esportallome. | Sog-hiand. | Othar. | Total. | Value. | $\begin{aligned} & \text { Aver } \\ & \text { Coke } \\ & \text { Cont } \\ & \text { per } \\ & \text { Pound. } \end{aligned}$ |
| $1840$ | $6,504,484$ | 1,108,489 | 3, 048,697 | $5,410,095$ | $1,851,389$ | Tounds. | Pounds. | Pounds. | $63,8 i 6,807$ | $85$ |
| $1841$ | 11,757,1188, | -29,000 | 3,122, 5116 | 10,827, 180 | 7,700,434 | 6,287,494 | 528,966,670 | 630,204,100 | 54, 3601,341 | $\begin{array}{r} 85 \\ 10 \cdot 2 \end{array}$ |
| 184. | 0,575,515 | 836,802 | 2,070,690 | 8,741, 028 | 5,770,089 | 7,254,009 | 677,462,01s | 584, T1T,017 | 47,593,464 | 8.1 |
| 1843 | 8,558,796 | 814,040 | 3,223,650 | 2,644,786 | 578,7944 | 7,515,079 | 784,782,027 | 792,207,106 | $49,119,806$ | $0 \cdot 2$ |
| 1544 | 13.641,4i8 | 404,648 | 2,598,780 | 13,283,830 | 10,988,056 | 6,0998,076 | 657,584, 379 | 069,633,465 | 54.008, 501 | $8 \cdot 1$ |
| 1845 | 13.868,282 | 1502,003 | 4,827,988 | $18,360,729$ | 8,362,151 | 0,98.1,625 | 883,510,871 | 67\%, 005,95:6 | \$1.789, 048 | 5.92 |
| 1846 | 13,600,625 | 673, 208 | 3,645,481 | 12,857,422 | 0,811,041 | 0,488,528, | 588, 169.52: | 547, 5088,055 | 42,767.341 | 7 Sl |
| 1847 | 15,102,875 | 486, 195 | 4,038,583 | 14,708, 740 | 10,624,217 | 6, 208,078 | 530,025,985 | 527,214,058 | 58,415, 84 | 10.34 |
| 1818 | 18,421,583 | $1,216,172$ | $5,718,205$ | 17,405,417 | 11,487,218 | 7,724,143 | 804, $50510,28 \cdot$ | 814,274,431 | 61,098,204 | $7 \cdot 1$ |
| 1943 | 15,754,841 | 571,084 | 4,088,129 |  | 10,250,680 | 11,969, 250 | 1,014,088,010 | (1,026,602,260 | 66,306, 667 | $8 \cdot 4$ |
| 1850 | 20,108,719 | 427,107 | 4,734,484 | 19,681,618 | 14, $14.4,183$ | 8,280,468 | 627.145,141 | 635,881,604 | 71,984, 816 | $1 \cdot 8$ |
| 1851 | $22,164,442$ | 677,940 | $7,241,200$ | 21,486,602 | 14,245,247 | 8,299,656 | 918,037,438 | 027,207, 689 | 112,815.817 | 12.11 |
| 1859 | 16,683,400 | 997,000 | $7,672,151$ | 15, 692, 406 | 8, (220,815 | 11,789,075 | 1,081, 412,544 | 1,038,230,439 | 87,166,782 | 805 |
| 1853 | 27,791,318 | 1,254,303 | 8,708,894 | 26,470,950 | 17,708,068 | 11, 165,165 | $1,100,415,205$ | 1,111,570,370 | 109,456.404 | 9.85 |
| 1554 | 33,049, 508 | $1,408,17!$ | 5, 545,516 | 32,481,324 | 26,045,808 | 10,480,420 | 977, 246,683 | 987,883, 106 | 98.596,2911 | $9 \cdot 7$ |
| 1855 | 17,757,118 | 2,012, 054 | 5,857,181 | 15,744,658 | 9,887,977 17 | $\|$$13,1588,590$ <br> 19,787 <br> 105 | 995 368,01] | $1,0018,424,601$ | $88,142,844$ | 874 |
| 1856 | 25,917,909 | 1,580,495 | 6,967,309 | 24,837,504 | 17.870,106 | 12,787, 225 | 1,388,634,476 | 1.651,481.701 | 188, 982,851 | $9 \cdot 5$ |
| Yearly ar. | 16,T:5,418 | 90. 1114 | 5,408,772 | 15,856,304 | 11,084,857 | 4, 201, ${ }^{2}$ (1) | $8: 7,15$ ¢,2:8 | $886.1861,150$ | 72.732, 941 | N:T17 |

* Domestio exportations over homo consumptlon of foreign cotton goods.
Whither

Russlan Pons. Guredish Weat Denmsrk ... Danlsh Wgai Bremen .. Dretch Wout Dutch East I! Belginm England scotintd Grbraitar: Malta.. Chanar Brit. Brittoh Weas British llond lirittsh Gitian Britioh Poss. British Austr British East 1 Prance on the France on th Fratice on th French N. A. Spain G.i the
Csnary Ialan Chilljping is

Exposts of
 FORRIGN GOODS, AND TIE TOTAL HOMR CONBUMPTION OF FOREIGN AND MOMEGTIO C'OTTON GOODR, AND THE ALLOTMENT per C'apita, for the lears 184 1850 , and $185 \%$.

|  | 1840. | S60. |  |
| :---: | :---: | :---: | :---: |
|  | 17,469,463 | 28,191.876 | 27.185517 |
| Toial product of manufactures of cotton and oxpe | \$110,220.760 | $\$ 133,853.810$ | \$150, 118.6 \% 21 |
| Allotment per caplta of manufacturea of cotton and exports of | 14572 | $517 \cdot 15$ | $5 \times 5 \cdot 27$ |
| Mannfactures of cotton in the Linlted 8tates . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 46,350,453 | 61,859,144 | 70,901,712 |
| Allotment per caplta of the mannfactures of cotton in the U'nlted gtates........ | $271 \cdot 54$ | 266.77 | 261.04 |
| IIome conaumption of donsestle gooda . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 42,801,846 | 57,134,780 | 05, 107,531 |
| Allotment par caplta of the home consumptlon of domeatie cotton goodm...... | $260 \cdot 74$ | $245 \cdot 311$ | 20040 |
| IIome consumption of forelgn colton goods.. | 5,400,015 | 10,081.612 | 15,74, $5 \cdot 58$ |
| Allotment per capita of tho home conamptlon of forelgn cotton goods . . . . . . . . | 031.64 | $1184 \times 8$ | 06791 |
| Total home conaumptlon of forelgn and domettle gooda . . . . . . . . . . . . . . . . . . . . | 48,201. 441 | 76,516,372 | 80, 85,2.48: |
| Allotment per caplta of total homo conaumption of forclgn and domestle goo | 28288 | 331-22 | 217710 |

Bfatement of tue Importa into tife Inited States of poteign Cottona and Compon Manupaotureg dubing tik


|  | 1834. | 1885. | 105A. |
| :---: | :---: | :---: | :---: |
| Kaw cotton | 481,318 | \$131,467 | 471.3ili |
| Printed and colored cottona . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 17,423, 2.49 ) | 12,603.522 | 10,110,752 |
| Whilse eottona . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,191,212 | 12,603.022 | 19,110,752 |
| Cottons, tamboured or eniliroldered . . . . . . . . . . . . . . . . . . . . . . . . . . | 4,1:4 2,476 | 8,000,000 | 3,0011,000 |
| Velvets of cotton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $\left.\begin{array}{c}4910,442 \\ 05,348\end{array}\right\}$ | 432,715 | 505.883 |
| Corda, glnips, and gatloons | 183, 3189 | 128,500 | 104.005 |
| Iloalery and artleles made on framea. . . . . . . . . . . . . . . . . . . . . . . . | 3,013.664 | 2,045 0005 | 2,516848 |
| Cotton, yarn and tliread....................................... . . . . . . | 1,076,987 | 907,678 | 1,270.716 |
| Ilatters pluah, part sllk... | 102.824 | 40,081 | 20,48 |
| Cotton Inserting, laces, ete. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | V10, 052 | \%67,0\% 5 | 1,191,01! |
| All other cottons. . . . . . . . | 6,314,622 | 1,5it1,0:3 | 2.297, 18. |
| Tolal Importa of cotton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4.34, $5 \% 4,035$ | \$21,455,624 | $\$ 26.1810 .369$ |

Summary showing the exports of domestic and for- Staies for the fiscal year endiug Jumo 30, 1857. This elgı unmanufactured and manufactured cotton from, and the imports of manufactured cot ton into the United
summary also specities tho countries with which this irade was conducted.



Kussia on
Itumhurg: Bremen
ther tier
Holland
Belghlun2
England.
scotiand.
Ircland. .
Cunala.
Mritish W
liritisis $1_{1}^{10}$
Britianti
France on
Eraape on
sping on
Inlillppin
Chillppin
Azims.
Nardluia
Tuscany
Ports in
New Gra
Veneznel
Chill...
Samulyle?
Cling. .

Exports of umanufaotured Cotton, of homa Produotion, fron the United 8tatee for taz Year ekdino June 30, 1857.

| Whithar axpothed. | Balen. | Sea-Sinml. | Othar. | Value. |
| :---: | :---: | :---: | :---: | :---: |
|  | Nuntior. | Pounda. | Pounde. |  |
| Rasala on the Baitic and North Mear......... | 69,83 | -••• | 31,973,534 | \$4,207.234 |
| Prassia. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 515) | .... | 30,001 | 1.674 |
| Sweden, ul Norway | $21.8 \%$ | .... | 10,033,0:6 | 1,249,042 |
| Denmark......................................... | 2,423 | ...* | 1,176,300 | 154,635 |
| Ilamburg | 22,720 |  | 10,624, 0 -5 | 1,811,985 |
| Brumen. | 71,165 | ' 19,125 | 84,35:, 56 ) | - $4,856,418$ |
| Molland. | 21,803 |  | 10,494.927 | 1,283, 3.8 |
| Belglata. | 24,218 | 100,000 | 12,147,428 | 1,420,035 |
| Engtand . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,410,627 | 0,054,093 | 647,039,434 | 81,520,012 |
| Seothand . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 16,409 | 278,014 | 7,070.805 | -050,282 |
| Ireland | 45,217 |  | 20,558.796 | 2,012,394 |
| Canads . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,04T | 080 | 8511.810 | , 12,058 |
| France on the Atisntle. | 375.870 | 3 :36,075 | 109,202,352 | 22,082,187 |
| France on tho Mediterranean. . . . . . . . . . . . . | 3,187 | . . . | 1,485,043 | 180,083 |
| Spaln on the Atlantle . . . . . . . . . . . . . . . . . . . | 8,360 | . | 3,805,130 | 474,043 |
| 8pain on tha Mediterrancan . . . . . . . . . . . . . . | 05,704 | *.. | 41,761,931 | 6,001,118 |
| Caba . ... . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4 | . . . | 2,0010 | 4.200 |
| Portaral . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 132 | - | \$6,430 | 0,002 |
| Azores . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ${ }^{4} 4$ | 335 | 1,000 | $\begin{array}{r}220 \\ \hline 007828\end{array}$ |
| Sardinia. | 30,764 | .... | 10,688,972 | 1,007,628 |
| Troo Steilies | 1,27\% | *.. | 681,687 | 71.806 |
| Austria.... | 16,137 | $\cdots$ | 7,014,532 | 052,824 |
| Mcxicu. . . . . . . . | 20,269) | . ... | 7.058 .038 | 909,747 |
| Total. | $4,2653,164$ | 12,941,725 | 1.085 .341 .750 | \$131.575,859 |

Lmorts of the Manufacturba of Cotton into the Cinited States fon the Iear endino June 30, 1857.

| Whenee imperted. | Pioen Ooodx, | Velvets. | Cords, (iimpn, and (ialluena. | Hoxirry, and Articles made on Framies. | Twist Yam and Thread. | flations Pluah of silk and Colton. | Mannfartoros of, not opuelfied. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kandia un tie liatile and North Seas | * 4.090 |  |  |  |  |  | \$785 |
| Ifamhurg. . . . . . . . . . . . . . . . . . . . . . | 129,7.6 | \$931 | \$2,518 | \$304,091 | 8181 |  | 63,990 |
| Bremen . . . . . . . . . . . . . . . . . . . . . . . | 318,100 | 19,370 | 2,4'8 | 1,637,384 | 178 | \$3,341 | 202,450 |
| Other tierman ports.. . . . . . . . . . . . . | .... | .... | . |  | $\ldots$ | . $\cdot$ |  |
| Ifoltard. . . . . . . . . . . . . . . . . . . . . . | 301 |  | 88 | 180 | .... | ${ }^{6}$ | 3,018 |
| ledghin . . . . . . . . . . . . . . . . . . . . . . . | 64, 318 | 1.417 | 073 | 20,050 | 214 |  | 19,283 |
| England. ............................ . | 16,439,037 | 053.378 | 200,870 | 1,112,385 | 094,026 | 0,10.4 | 1,107.115 |
| Scotland.. . . . . . . . . . . . . . . . . . . . . . | 9,522,295 | 1,653 | 81 | 14,1:5 | 307,318 | .... | 60,00'4 |
| Inlathd. . . . . . . . . . . . . . . . . . . . . . | 3,427 | . . . ${ }^{\text {a }}$ | *** | ..... | .... | . . . | 848 |
| Canala. . . . . . . . . . . . . . . . . . . . . | 51 N | 42 | .... | 2 |  | .... | 2,763 |
| 1ther Itritisit N. A. I'ossessions.... | 27 | * | . . . | 2 | . . . | .... | ${ }^{4} 4$ |
| liritish Weat Indles................ | 271 | .... | . . . | 2 | .... | .... | 187 |
| 1ritish lomaoskiona in Afrien....... | 184 | . . . | . | .... | . . . | - | .... |
| Mritish Australla. . . . . . . . . . . . . . . . . . | 228 | . . . | . . . | $\cdots$ | -*: | . . . | $\cdots 30$ |
| Ifdtiak Fant ladies. . |  |  |  | 832 | 770 |  | 442 |
| Framee on the Allsntio . . . . . . . . . . . | 1,914,187 | 2,8006 | 0.601 | 59,903 | 7,710 | 1,497 | 221,701 |
| trance oll the Meditermationt ...... | 1,021 | . $\cdot$. ${ }^{\text {a }}$ | $\cdots$ | ...' | 737 | .... | . ${ }^{\text {. }}$ |
| Epalin on tha Mediterranean Plilippine !sianda | 4 | ... | . . . | . . . ${ }^{\text {c }}$ | $\cdots$ | $\ldots$ | ${ }_{4}$ |
| Cabu....... . . . . . . . . . . . . . . . . . . . . . . . . | $\cdots 3$ | ....' | ....' | $\cdots$ | ....' | ..... | 24 |
| Azon'a. |  | .... | .... | 101 | .... | .... |  |
| Nardinia. | 121 | * | . | 102 | . $\cdot$. | . . $*$ | 40 |
| 'Tuscany . . . . . . . . . . . . . . . . . . . . . . . | B | . . . | .... | .... | . | .... | 5 |
| Ports lin Afrien. |  | . . . | 918 | \%ir | .... |  | 41 |
| New Graund | 41,770 | .... | 218 | 627 | .... | 501 | . . $*$ |
| Yonernein. | 10 348 | $\cdots$ | $\cdots$ | $\cdots$ | .... | $\cdots$ | ... |
| Sandwieh Ialande | 80.6 | .... | $\cdots$ | * . $\cdot$ | ..... | $\cdots$ |  |
| Chitua . . . . . . . . . . . . . . . . . . . . . . . | 2,277 |  | $\cdots$ | .... |  | .... |  |
| Toral value. | \$21,411,182 | \$678,244 | \$41384 | \$3.20.210.287 | *1,411.154 | \$11,4\% | \$1.720.613 |

Cotton Dyeing. (Teinture de Coton, Fr. ; Baumwoollenfarberei, Germ.) Cotton and linen yarns and cloths have nearly the asme affinity for dyes, and may therefore with propriety be treated, in this respect, together. After they have acquired the proper degree of whiteness, they are atill unfit to recelve and retain the dyea in a permanent manner. It is necessary, before dipping them into the dye-bath, to give them a tendency to condense the coloring particlas within their cavities or pores, and to communicate anch chemical propertiea as will fix these particles 80 that they will not separate, to whatever ordinary trial they may be aubjected. All the colors which it would be deairable to transfer to these stuffs, unfortunstely do not possess this permanence. Men of acience engaged in this important art, have constantly almed at the discovery of some new processes which may transfer into the class of fast colors those dyes which are at present more or less fugitive. Almost all the gooda manufuctured of cetton, flax or hemp, are intended to be washed, and ought, therefore, to be so dyed as to resist the alkaline and soapy solutlons commonly used in the laundry. Vitalis distinguished dyed cottons into three classes: 1. the fugitire, or fancy-colored (petit teint), which change their hue or are destroyed by one or two boils with soap; 2. those which resist five or six careful washings with soap, are goad dyes (bon teint); and those which were still more durable, such as Turkey reds, may be called fast colors (grand teinf). The colors of Brazil-wood, logwood, annotto, baftlower, etc., are fugitive; those made with madder without an oily base, are good; and thoso of inadder with an oily mordant, are fast.

Cotton-wood. (Populus argentea.) This specios ls scattered over a great extent of country, comprising the middle, bouthern and wester!, States. It is, however, quite rare in the middle states. Now York city may be considered as the most northern point at which it grows. It is quite common along the Misslasippi rlver. The cotton-tree grows sometimos to the height of 70 or 80 feet, and 2 or 3 feet in dismeter. The leaves, while very young, are covered with a thick, white dewn, which gradunlly disappears, leaving them amooth above, and slightly downy benenth. The wood of the eotton-tree is soft, light, and unfit for use, and inferior to that of most of the uther poplars. It is appropriated to no purticular use in the sarts or for fuel.-Browne, Sylva 4 mericana.

Counterfeiting. Large sums of money have been expended with a view to devise plana for the prevention of counterfeiting bank notes, bank checks, etc., but thus far no successful plan has been devised. The New England Society for the Prevention of Counterfeiting, has for aome years been in operation at Boston, and is alded by the treasury of Massachasetts to the extent of $\$ 2,500$ per year. This society has been the means of detecting and puaishing numerous counterfeiters. Forging of government cer tificatos of United States stook, land warrants, etc., is, by act of Coagress, punishable by imprisonment not over 10 years. For counterfeiting a post-office frank, a time of 10 will he inıposed. The counterfeiting of coins of the United States, or of forelgn coins, shall be punislied by imprisonment between 3 and 10 years, or limprisonment of 5 years und a flne of $\$ 1,000$.-See Dunlal's Digest Lawe $U . S .$, ppr 76, 403, 404, 726, 728, 1002.

Countermark. In Numismatics, a stamp frequently aeen on mucient coins, often obliterating a large part of the impression. The countermark is generally a figure or inscription, aud some antiquaries have considered that their ase was to augment tho value of the money; others, that it was only struck on money taken from an eueny.

Coupons, from the French, is a term entployed in Eagland and elaewhere, to denote the warrants for the psyment of the perlolical dividenda or interest on
public atocka, a number of which being appended to the bonds, sre aeverally cut off for presentation as the dividends fall due, generally semi-annually-sometimes qusiterly. The prsctice of appending coupons to bonds is now generally adopted by States and corporstions, as they facilitste the collection of the semiannual or quarterly interest thereon.

Courier (Fr., courir, to run), a messenger sent post or express with dispatches. The couriers em ployed by the ancients were of two kinds; first, those who ran on foot, called by the Greeks hemerodromi, or dav-runners, regarding whom Pliny, Cornellua Nepos, anu. Casar mention that some of them would run twenty, thirty, thirty-six, and in the circus oven forty leagues a duy; second, riding couriers (cursores equitantes), who changed horses as modern couriers do. Xenophon attributes the first couriers to Cyrus. IIerodotus says thoy were very common among the lerslans, and that there was nothing in the world more swift than such messengers. That prinee, says Xenophon, proved how far a horse could run in a day, and bullt stables at corresponding distances; and at each station a courier was always reudy with a fresh horse to forward the psckage to the next stage, snd 60 on throughout the empire. But it does not appear thisi either the Greeks or Romans had any regnlar system of couriers till the time of Augustus. Under that prince they traveled in cars, about 24 n.c., though it would appear that they sfterward went on horseback. Under the Western Empire they were called viatores; and under that of Constantinople cr'sores, Couriers or posts are said to have been ins+ituted in France b; Charlemagne, about A.D. 800. The couriers or posts for letters were established in the early part of the reign of Louis XI. of France, owing to this monarch's extraordinary eagerness for news. They were tha first institution of the kind in Europe, A.D. 1463.

Court-plaster is a considerable object of manufacture. It is made as follows: Black silk is strained and brushed over ten or twelve times with the following preparation: Dissolve $\frac{1}{2}$ an ounce of balsaun of benzoin in 6 ounces of rectified spirits of wine; and in a separate vessel dissolve 1 ounce of isinglsss in as little whter ns may be. Strain each solution, mix them, and let the mixture rest, so that any undis. solved parts may aubside. When the clear liquid is cold it will form a jelly, which nust be warmed before it is applied to the silk. When the silk coated with it is quite dry, it must be finished nff with a coat of a solution of 4 onnces of China turpentine in 6 ounces of tincture of benzoin, to prevent its cracking.

Court of Claims. This is a now court, estnblished by act of Congress of the United States, Jebruary 24, 1854, having jurisdiction of chains by individuals nganst the United States, arising from disputed cuses at the Treasury. This obviates the necessity of petitioning Congress for indemuity for losses sustained under government contracts, etc. Sce Denlar's Digest Laws U. S., pp. 1457-1459.

Coutts, Thomas. This distinguished London banker, whose death eaused much excitement in the metropolis, was at one time, in wealth and importance, at tho head of the banking and moneyed interest in England. Ile was at first a partuer in the louse at St. Mary Axe, London, and afterward admitted it to his brother's banking-house, in the Strund, london. llis own bank atands on nearly tise centre of the site where stood, many years ngo, an exchunge, similar to lexeter Exchange. It was then considerel one of the hest-constructed places of eafety in Great Britain, except the Bank of England.

Mr. Coutta died on the 24th of February, 1822, having attained the rige of ninety-one. His will was read the Sundny evening after his denth, in the jresence of his family. To the surprise of many, be hequeathed his whole property, to the amount of $£ 900,000$, to Mrs. Coutte, formerly Miss Mellon, an actress, at her own
lisposal, with leaving a sling cape the legac to others, won Coutts snd dett Coutte, is don.-See Ban

Cove. A nesrly synony ing generally dentation on admit first-cla

Cowes, 1 at the mouth and 78 miles ground on th striking appe nsrrow and ir ings are han rous elegant bathing, and for the accon safe and conv bsttery.
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disposal, without mentioning any other person, or leaving a aingle legacy. This was, probsbly, to eecape the legacy duty, which, if his fortnne were left to others, would have amounted to $\mathbf{x} 60,000$. The firm of Coutts and Co., said to be controlled by Miss Burdett Coutta, is still among the banking-housea of Lon-don.-See Bankers' Mag., N. Y., 11. p. 525 (1848).
Cove. An inlet on a rocky ceast. It is a term nearly aynonymous with harbor: the word cove beiag generally, though not always, used when the indentation on the cosat la too shallow or narrow to admit first-claas veaaela.
Cowes, West, a aeaport-town of the Isle of Wight, at the mouth of the Medina, 4 miles N. of Newport, and 78 miles from London. It occupies a rising ground on the W. bank of the river, presenting a striking appearance from the aea. The atreeta are arrrow and irregular ; but many of the modern buildings are handsome, and in the vicinity are numerous elegant villas. It is much resorted to for seabathing, and has numerous hotels and lodging-housea for the accommodation of visitors. The harbor is safe and convenient, and its entrance is defended by a battery. It forma the rendezrous of the Royal Yacht Club, who hold thelr andual regntta here. It has a vory considerable cossting trade. Experts, chiefly agricultural produce and malt ; lmporta, coal, colonial produce, manufactured goods, etc. Shipbuilding is extensively carried on. On the opposite side of the river, which is here about half a mile broad, is East Cowes, where is the custem-louse of the port, and near which is Osborne Houss, the marine resiience of her Majesty. Pop. (1851), 4,786.-E. 13.

Cowhage, or Cowitoh (Hind. Kizach), the fruit or bean of a perennial climbing plant (Dolichos pruriens, Lin.) It is a native of India, as well as of several other Eastern countries, and of America. The pod is about 4 or 5 inches long, a little curved, and contains from 3 to 5 oval and fiattish seeds; the outside is thickly covered with short, bristly, brown hairs, which, if incautiously tonched, etick to the skin, and occasion intolerablo itching.-Ainsme's Materia India.

Cowries (Ger. Kauris ; Du. Kauris ; Fr. Coris, Cauris, Bouges; It. Cori, Porcellane; Sp. Bucios Zimbos) are small shells lorought from the Maldives, which pass current as coin in amaller payments in Ilindostan, and throughout extensive distriets, in Africn. They used to he imported into England previously to the abolitien of the slave trade, in which they were subsequently employed. They are nn artiele of trade at Bombay. The best are small, clean, and white, having a beautiful gloss; those that are yellow, large, and without lustro, shonld the rejected. The freight is cnlculated at 20 cwt . to the ton.-Minnens's Orient. Com.
Cozening, tricking, defrauling. In law it denotes an offenso where mny thing is done deceitfully, either witin regard to contracts or otherwise, und which can net properly be definced ty any ajecial name. In the civil law it is called stellionatus.
Cranberries, or Red Whortleberries, the fruit of a moss plant, the iaccinium oxycoccus of Linnæus. The berries are globular, atout the size of currants; are found in mossy loggs. Cranberries have a peculiar flavor, and a sharp, acid, agreenble taste; they are eagily preserved, and are extensively used in muking tarts. They are very abundant in Norti America, and in the northern parts of Russia; the latter locing of a superior quality. It is said that some very fine ones lave recently been brought from New Sonth Woles. Considerable quantitics are produced in Now Eugland on the marshy lands near the coast.

Crank, in sea language, is applied to a vessel when, from too mucis top weight, or the want of sufficient bullast, ar cargo, or from any other cnuso, slie can not beur much sall without danger of oversetting.

It also denotes an Iron brace for smpporting the lanterns of the poop-quarters of the ahip.

Crape (Fr. Crépe; Ger. Flohr, Kraugfor ; It. Espumilla, Soplillo; Rus. Flior; Sp. Crespon), a light, traneparent atuff, in manner of gazze, made of raw ailk, gammed and twisted on the mill, and woven without croading. When dyed bleck it is much worn by ladies as a mourning dress. Crapen are crisped (crepis) or amooth; the former being double, are ueed in close mourning, the latter in less deep. White crape is appropriate to young unmarried females, and to virgins on taking the vail in nannoriea. The silk destined for the first is apun harder than for the second; aince the degree of twist, particularly for the warp, determines the degree of criaping which it assumes after being taken from the loom. It is for this purpose ateeped In clear water, and rubbed with prepared wax. Crapes are all woven and dyed wlth the silk In the raw atate. They are finished with a atiffening of gum-water. Crape is a Belognese invention, but has been long manufactured with auperior excellence at Lyona, in France, and Norwleh, in Fingland. There is now a magnificent fabric of it at Yarmouth. by po:er-loom machinery. There is another kind of otuff, called crepon, made either of fine wool, or of wool and silk, of which the warp is twisted much harder than the weft. The cripons of Naples consist altogether of silk.

Crayons. Colored cylinders used for drawing upon paper ; they are usually made of a fine plpe-clay, colored with metallic plgments or carmine. Crayons containing plumbago are styled solid lead pencils.

Cream. (Fr. Créme). A seml-fluld yellowish substance which collects on the surface of milk, and which is made into butter by the process of churning. When the mllk of any anima? is allowed to stand for some time, it spontaneously undergoes certaln changes -this substance rises to the surface and forms a thin stratum, which is called cream, and which consists chlefly of oily particles; while the milk below, which of course is thinner than it was before the cream separated from it, is of a pale blulsh color, and consiate of curd, cosgulum, or the matter of which cheese is made. When cream is kept for some days it gradaally becomes thicker, and partislly coagulated; and if put into a linen bag and suspended from the ceiling of a cool room, it will acquire the consistence of cheese; and this is one among other modes of making cream cheeses. When crenm is sbnken by churning, it is resolved into its component parts, and hence we have butter and buttermilk, In order to make butter it is not alwnys necessary that the cream should be separated from the milk; but whether separated or not, the process is facilitated by nllowing the liquid to stand for some timo, during which a part of the sugar contained In the serum is changed into an acld, which shortens the process of clurning by facilitating the separation of the butter from the milk. When either cream or milk is churned without having previougly become sour, the process is much more tedious; and sometimes, from causes not easily accounted for by the dniry-n aid, it is unsuccessfuh, nand the milk is said to be hewitched. The true causc, however, is the want of neility; because it has lieen found that the addition of $a$ small portion of vinegar will dissolve the charm, and canse the alnost immediate appearance of hutter. Cream, when sepnrated from milk and kept till it has become acid, is frequently mixed with milk newly drawn from the cow ; nud this eaten with sugar is one of the most delicious preparations of the dairy: Costorphin cream, so called from a village of that name in the neighborhood of Edinburg, is made by putting the milk of three or four dnys together with the cream into $n$ vessel, and nllowing it to remnin there till it has hecome sour and ceagulated. The whey is then drawn off and fresh ereain adiled; and when it is brought to tnble it is eaten with sugar,
and in the stratwerry season; with that fruit. Devonshire cream is simply sour curd, or sour cream eaton with freah milk, or fresh eream, with or without the addition of augar. Devonshire sealded or clouted cream ia millk and cream heated to the boiling point, and enfered to cool, when the cream will be found to have soparated from the milk, and when skimmed off may elther be made into butter or eaten with fresh cream and sugar. Common clotted cream is simply milk and eream in a coagulated stato, and sonr. When the clotted cream is broken and stirred, and the whey drawn off, the mass may' be turned into cheese by artificisl preasure, by which the whey is separated Instantaineonaly; or by suspending it in a poroas bag, in a cool, airy sitestion, whea it will be separated by degrees. See Butriar, Cimear.-Brandr's Em. of Art: See Burter Drary.:

Credentials, Iettere of. The instrument; in the forn of a letter, from one govermment to another, which constitntes the evidence of the title of a min. fister at is foreign court to the power which he exercises. There' are two sorts of credentials : the one sealed, drawn up and counteraigned by the minister of foreign'affairs ; the other open, signed oxly by the government. Unless the miaister be mentioned expreasly in his credentials as an embassador, he has only a right to the observances due to foreign ministers of inferior rank.

Credit, in the eense in which we generally treat of it, is the trust which ia given to a person when he obtsing a loan $f$ f money, or parchases any articie, the parment of which is to be made at an after periol. Every sum of credit, therefore, must be foanded on a tranafer of a cerreaponding sum of capital; and che whole amonnt of credit existing at any time can never exceed that of the lent capital. Credit is, in reference to the person who gives $i t$, the power of lending, and him who receives it, the power of borrowing. " Tho basia of credit is confidence, and this is fonnd to exist extensively oniy where good faith and punctuality have been allowed to grow into hatit, and where laws afford te creditors the easy and certain means of recovering their debts,

In young countries, before dealinge have become multiplied, we find people inattentive to their money engagemeata, when there is no want of property with the delitor, and even when the payment of the debt has been fixed by docnme ${ }^{-}$to a positive term. Bnt as transactions increase, and population preases more closely together, a knowledge of the ciroumatances of individasls is rendered difficnit, and a neceasity for punctuality arises, to prevent donbts being entertained of the ability to pay. And this apprehension of discredit entertained by the debtor, and of its consequeaces to his future transactions, has more effect to estabilish and maintain good faith and exactness than the operation of the laws ia able to produce. When capital is abundant, relatively to the means of employing it, the competition of capitalists produces a facility of obtaining credit; and parties become enabled to borrow and purchase upon credit who could not do so before. Credit is then maid to be high, but it is the value of the capital which, from the overstock, has become low. The capitalist, in these circamstances, growe lees scrupulous about his security, that he may bring within the range of his deniings a greater body of borrowere or purchasers, and therely be eusbled to keep up his price.

When the suppiy of eapitai continues in this state for any length of time, it gives rise to an imprudence of conduct which lays the foundation of much after evil. Sajes and lonns are made at credits far beyond the ordinary periods; and these into whose hands the extra capital by this means passes, considering it as a fund with which they may trade, go on also extending their dealinga and credita, antii the whole system is pat upon the strctch. In this situation any inter.
ruption to the sale of commodities ocetalona instant confualen and distress. The confidence which had prevalied gives placs to ciarm and distrust, and the sume effect is produced for the time hy the retardment of the circulation that woald have been experienced had the capital ltself been withdrawn.

By the operation of credit, not only ls the circnlatien of capital facilitated, and its omployment' increased; bnt by its means alone certain descriptions of capital can be brought into action.' When an article is soid npon otredit, the seilor placea, for the time, a portion of his capital at the command of a party who msy have no capital of hia own. "This person, neverthelesa, by mother operation of credit, is entbled to sell upon credit also, and ettll keep his engagement with the party from whom he bought. This he accomplishes by calling in the assiatance of the monay capitalist, the banker; who advances to him the amonnt of the sale opon his and his parchaser's joint security, and receives in consideration a rent for the snm advanced. By this proceas facility and extenaien are given to cincnlation, beyond what conid take place If the commodity coald be exehanged only for immediate value; while an opportunity is, at the same time, afforded of employing a branch of capital which would otherwise remsin inactive and without use. It is almost unneceasary to remark; that it is by the operation of credit that a return is got from the cspital of persons who are incapable of employing it themselvea, und which can be put into a state of nseful activity oniy by lending it to others.
In Scotland, after the disposition to commercial pursuits began to manifest itself, the progress was r -tarded, by the total want of commercial capital in $t$ o country. To get the better of this difficulty, and d.aw to these employmente any little capital that otherwise existod, it became the practice, when a commercial udertaking was to be entered upon, to associate in the adventure some persons of known aubstance, and upon the joint eredit of the parities forming the company, to borrow the capital aeceasary for carrying it on. The credit which was thus established is called company credit, and is effectual to its proposed end of borrowing or purchasing with advantage, according to the anpposed respensibility of the parties of whom the company is composed. Up to the year 1793 a considerable proportion of the manufacturing and mercantile concerns of Scotland were carried on epon this plan; and to give atreogth to their credit, and encourage those whe had money to lead to piace it with them, a rule was established, asd confirmed by deciaions of the courts of law, that, in case of bankruptoy, a creditor of a company should be entitied to claim upon each of the partoers' sepsrate eatates, in competi: 'on with the party's individual creditors, for the ifalance of his delet unpsid from the company's effects.
When a party purchaeing or borrowing capital gives a written obligation for the amount, payable to the order of his creditor at a certain fixed period, he embodies a som of credit capable of being exchanged again for capital ; and the tranaference of these documeata to new parties, who replace to the former crectitor the capital he had lent upon them, is what is called a circula ion of credit. Indecd, without the use of bills, or of some instrument of similar powers, credit must have been confined to a single operation between first contracting parties, and the circulation of capital limited to what could have been effected in this way. But a transferable document of the aun to be received becomea itaelf a negotiabie or marketable article; and the collective credit of the partics throngh whose hands it may successively pass continuing to be engrafted upon it, a new facility is gained to circulation by every movement which it makes. The whole of the credit cmbodied by bilis, however, is not brought into efrcuiation; a purt only
of the tal repl cording may be and reac impede dispositi

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of the elifers or lenders requiring to heve their eapltal replaced to thom by anticipation. But it is according to the expected facility with which payment may be thus anticipated, that credit is at frat freely and readily given; and whenever' any thing occurs to impede the circulation of credit; there is an immediate disposition in the merchant to withhold or limit lt.

Every transfor of capital made npon a buyer or borrower's own obliggation of payment oreates a new sum of transferable credit; and this ls the ccase, although it should be the same capital that is again and again transforred. But a sale of geods, or an advance of money upon the obligation of a third party, Indorsed to the eelifer or lender, forms no addition to the sum of circulating credit, the transaotion being the circulation, not the creation, of a sum of credit. Nelther does, a auccession of purchases or borrowings, effected hy means of the same document indorsed from the one party to the other, add to the sum of credit in circulation. . For although each of these trensactione is the ground of a separate obliggtion between the parties contracting, there is with the whole but one aboolate creditor, the holder of the bill, and one ahsolute debtor, the acceptor of the bill, the others being merely contingent debtors to the one, and contingent creditors of the other.

Circulated credit is to be classed into that circulated by loan, and that which is circalated by means of sale. The first is the clrculation of the credit founded apon the obligation of individuals or private companies, and called private credit; the second, of that founded upon the obllgations of the state; or the transfers of the stock of corporate bodies, and called pablic credit. The docnments of these two descriptions of credit possess different and diatinct qualities, and are differently negotiable. It'may be proper, therefore, to examine hnw they are employed as means of borrowing or purchasing, what are their separute powers, and what is the probable extent of the circulution of each. We shall begin with those helonging to private credit, which are as follows:

First, Olliggations payable to the bearer on demand, and which, being passed without recourse, are employed as money. Secondly, Transferable obligaticas payable at an after date, as notes of hand and bilis of exchange, which, being negotiated with recourse upon the preceding obllgants, are taken as guarantied plediges of a sum to be received when they become due.
The circulation of obligations, payable to the bearer on demand, or notes employed as money, is the circulation of a credit borrowed by the issuer of the note from the public; the holder of the note at the time is the creditor; and the property he gave in exch.uge for it is a loan from him to the banker. As it is in the power of the party giving this credit at any time to put an end to it by culing for his money, these notes circulate upon the credit of the issucr alone. No sesuranco of payment is required from the person from whom they are received, as is the case with bale; the payment of which being at a future date, it is thought necessary to reserve recourse against the parties through whose hands they have passed. The circulation of notes payable on clemand is therefore a circulation of what may be termed singie credit, and bills a circulation of collective credit.

When bank-notes are iasued by a banker in discount of a bill, it may be supposed that a twofoll credit is put into circulation : a credit to the party to whom tho bill has been discounted, and a counter credit from lime to the issuer of the notes. But in shis stage of the trunsaction, no circulation of credit has taken place. Credit is circulated only when exchanged for capital, and in this case it lias been but the exchange of one credit for another. The banker, indeed, in giving his notes payablo on demand in exclange for a blll payable at a futare date, gives what is of a quality different from that which he receives;
for what he gives is immediatoly; exchangeable for capital, and to the person, recelying it is the same as capital.

- Bnt atill it is only credit he has parted with, which will not be in a state of circulation until it comee to be exchanged for cepital. In an far as relates to clrculation, the transaction is the eame with that of a person lending his oredit to another, by accepting a bill to him without value. 4 sum of credit la thereby created, but is not circulated until the bill comes to be exchanged for value. The oredit that is in circulation from the oxchange of bank-notes for a bill, is a credit from the party who at the time has given capital or value for the notes. When the hanker "cashes", them, he becomes the creditor, but while they remaln in circulation the publio is the creditor. : s. The amount of credit from the circulation of cash notee never can be pushed beyond what would have been the value of the epecie that would have been In clrculation had the currency been of the precions m'tals, which the noten only it ie to represent. Should the notes cease to be convertible into specie, their amount, ladeed, may le augmented at, the pleasure of the issuer; but their value, and the credit in circulation from them, will still be regulated by thls limit. The increased sum will represent the value which the smaller did before, and each note, will he reduced in its value, in the proportion of the increase that may have taken place of the whole. This description of circulating credit is of a quality different from the others. From eupplying the place of capital, in its character of currency, it is lent out as capital; but loans from thle fund are precarious, lte amount depending upon the state of public confldence, and being liable to be diminished ly every call upon the benks to replace the notes with specie.

Circulating notes, not convertible lato specle, issued under the authority of the state, have been called a fabric of unreal credit. But this currency, however unsnituble to its proper ends, affords a circulation of real credit. It is indeed exposed to constant fluctuation of value, according to the amonnt of it in the circle; and the party taking it is ouliged, for his own safety, to include in the price of what he gives for it, sufficient to cover the difference between it and specie, and the risk of further depieciation while it may remain in his hands. Still, however, an amount of credit, to the vaiue of what has been given for the notes, in the first instance, is put into circulation, und an amount continued in circulation, to the value always of what they are exchangeable for at the time; the holders of them elways remsining creditors of the issuer, to the extent of the whole sum which the notes profess to pay. A currency of this description, however, is inapplicable as a measure of value, and thercforn unfit to be emploved as a circulating medium. And as to the other object, intended by its issuers to supply an amount of funds to the stute; the depreciation with which it must be issued at first, and the loss to be sustained from taking it back again at par, render it an expensive means of borrowing.

With regard to obligations payable at a future date, which constitutes the second brunch of private credit, and which we are next to consider, tho credit founded on them is circulated, either in the trunsfers of the ordinary capital in aales, as when the credit of indorsed bills is eurployed to purchase goods, or in the trunsfers of the bunking enpital in loans, as when tho credit of indorsed bills is employed to borrow money; the transfer under tho latter, when the bill is exchangel for money, being often 4 further circulation of a credit previously circulated under the former, when the bill was exchanged for goods.
A fictitious bill, that is, an acceptance given without vulue, vests in the person in whose favor it is drawn a sum of transferable croait not less than
would have beon the case if it had been the document of a sale, or loan of property. Mr. Thornton, in his treatise on Paper Credit, established the doctrine, till then disputed, that the credit of a blll doea not reat npen the nature of the transaction in waich it has originated, but npon the concoived ability of the obllganta to discharge the debt. The beifg able to embody in bills every sum of credit, has furniahed the means of employing, with incalculable advantage to commerce, a portion of the capital of the conntry, which otherwise, it is probable, would have remalned inactive. The aeourity they afford for the repayment, at a atipulated period, of the sums lent upon them, furnishes the means of an interim employment of money held for after occaaions, which the paity would not otherwise venture to lend ont; of money which formerly lay idle in the handa of partiea nnacquainted with any safe means of using it; and of the monsy which traders are daily recoiving in the conrse of their business, bnt which they do not immediately require. These different aume collected in the hands of a banker, form what is called the banking capital of the conntry ; and which, lent out apon anch securitlen, producea not only a profit to him, but interest to the parties who have placed them at his disposal. The importance of thla intermediary fund in the transactiona of the country is such, that when, from distrust, at any time, these deposita are withheld or withdrawn from the bankere, the mercantile body is convulsed throughout.

We now come to the second division of credit, that circulated by sale; the documents of the first branch of which are, the negotiabla obligations of government, as excilequer bills, navy billa, etc., and the whole of the public funds, constituting what ia termed the credit of atate. When capital is to be competed for, this credit has an advantage in the market over the former. Its price risee according te the demand; and by that neans it is enabled to aecure whatever share it may require of the supply. Thls ia not the case with the credit circulated by transfers of capital apon loan, the price or stipulated rent of which can not, whatever may be the demand, rise beyond a prescribed limit. It has the effect, in these circumatances, to force the capital applicable to this part of the circulation to seek the employment of the other; so that the inconvenience produced by an interruption of circulation from a diminution of the general capital, falls entirely npon the circulation of bill credit, the supply for the circulation of the credit transferable ly sale being kept full, at the expense of that applicable to the circulation of credit transferable by loan.
The transferable shares of public stock companies, from being occasionally a means of temporary investment of capital, have by some been considered as forming a part of the circulating credit of the conntry. But this is not the case. The stecks of these companics form a part of the ordinary circulating capital; and of consequence, the transfera of their shares are not operations of credit, but exchnnges of capital between the buying and selling parties. The transfers of the premiums, however, paid in the purchase of this description of stock, which, although no part of the capital, form an immediate part of the price, may be fairly considered as a circnlation of credit, to be added to the amount of the circulating credit of tho country. The mode of clrculating thia credit being the sa,no with tint of the public funds, and its market value rising or falling with the general abnndance or acarcity of capital, ita circulation. When capital is scarce, immedistely interferes with the circulation of credit by aimple borrowing.-E. B. Seo also " Hoopen on Currency, Boston, 1856. Bankers' Magazine, N. Y., 18j̈5-1856. See Ituxr's Mer. Mag. (C. F. Арамs), ii. p. 185. Nemocratic Rev., ii. p. 167; ili. p. 195 ; v. p. 147. Encyclopedia Amer.

Credit Mobilier. The Credit Mobllier Bank, according to the provislens of its charter, is a jointatock company, organised at Paria, for the purpone of developing works of publio improvement by consolidat. ing the securities of variona enterprisea into one common fund. Its capital etock ia fixed at $60,000,000$ francs, divided into shares of 500 franes each, payable to bearer. It ia authoriaed to anbecribe for or acquire publie funds, the aharea or bonds of any jointatock company, and more particularly of railwsya, canals, mining, and other publlo worko, now exiating, or hereafter to cxist ; also to bid for any loan, or for the atock of any kind of public works, aad to dispose of and realize the same. It is also anthorized to lasue its own bonda for an amount equal to its antscriptions and purchases ; such bonds may be issued to the oxtent of ten times ita capital (that is, 600,000 ,. $\mathbf{0 0 0}$ ), but they shall not have less than forty-five days to run. This privilege has not yet been availed of, the Governmert having requented then to postpone the proposed issus of 240,000 bond $(120,000,000$ francs) in 1855, in order not to interfere with the forthcoming Stata loans, as well as to guard against increased em. barrass.ient in the money market. The aggregato amount of money received in account current, and of bonds issned having leas than a year to run, can not exceed twice the amonnt of capital paid in (that is, not over $120,000,000$ francas). The conipany has anthority to sell or hypothecate ite securities, and to exchange the same for others. It ran loan on public funds, ahares and bonds, and open credit in account current on the varions securities; it can take charge of all collections for acconnt of joint-stock companies, pay their coupons and dividends, and make other dis. bursements for them. It is, however, expressly understood (so runs the statnte) that it shall not sell "short" or buy on time. (ll est eapresaément entendu que la societs ne fera jamais do ventes à dicouvert, ni d'achats is prime.)

The company, which was created in November, 1852, han, thus far, issued but three very condensed and incomplete reports, and extensive az are its operations thus far, it atates that from its inability to lisue bonds at present, it has not yet been able te show the world the full merits of its working. The reports refer to the operations of the calendar years of 1853, 1854, and 1855, and bear date April, 1854, 1855, 1856.

| Capltal pald tn, Dec. 81., | 1859. | 1864. | 18 Sb. |
| :---: | :---: | :---: | :---: |
|  | Franci | Yrance. | Francis. |
|  | 56,500,000 | 60,000,000 | 60,100, 100 |
|  | 65,800,000 | 64,900,000 | 103,180,000 |
| Total | 122,800,000 | 124,000,000 | 163,150,000 |
| Invested (together with profitg); |  |  |  |
| Stocks and Bonds Less Instaliments not due....... | 87,260,000 | 87,400,000 | 182,000,000 |
|  |  |  | 31,000,000 |
|  |  |  | 101,000,000 |
| Treasary, City of Parls, and other notes. |  |  |  |
|  | 20,700,000 | 29,100,000 | 14,000,000 |
| Rallroad and other Bonds. | 20,700,00 | 17,00,000 | 14,50, 0 |
|  | $17,100,000$ $23,000,000$ | $17,200,000$ $\mathbf{2 1 , 0 0 0 , 0 0 0}$ | $\begin{aligned} & 82,500,000 \\ & \mathbf{3 7}^{7}, 800,000 \end{aligned}$ |
| Total | 103,060,000 | 124,700,000 | 153, 804, 060 |
| Total parchases | 146,000,000 | 164,000,050 | 828,000,000 |
| Total sales through the year. $\qquad$ | $111,000,000$ | 110,000,000 | 217,000,000 |

The particular nature of the purchases and sales is not made public. We do not find in the papers befora us any reference to the dividends or total profits, except for the year 1855. Bnt the profits or Investnants and stock transactions at the Beurse alone, amounted to $3,618,000$ franes in 1858 , and to $0,207,000$ franes in 1854 ; and the profits of all kinds to $26,000,000$ franes in 1855. The profits on the "quick terms" at the Bourse are set down at $2,000,000$ francs $\ln 1853$, and

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eapital alread the con as apon priest give éc fined it 1854 Louvre 24,000, pers), trian H 000 fra begiani portion way, th Central Compar ${ }^{1}$ In 18 bonds, Railroai Montag year it of the were, $\mathbf{n}$ of 1855.
the East teen tho bonds ; probably siles of atock ( $C$ raliroad It took c Austrina almost The C the re-fo fusion of one joint of the va over, the tion of $t$ in a bid behalf 0 sum tha when th the 9 per barked tied at appear francs. mostly f drawn, pended also slio to take c tion.
in ord machine mind th men in wealth $n$ erations In conce which $n$ camstan the grea company speculat
French ture on $t$
are thus
$8,400,000$ in 1854 ; therv in no meats of avidertaining those of 1860 , the report beling allent on the subject: Full particulars are wanting as to the varions transartions of the company relating to subacriptions to the capital stock of new companies, to loans to companien already ertablished, and to tha negotiations in which the company, without ongaging its fund, wots simply as sponsor and intermediary:. But the following comprise the chief traneactions whieh heve contriberted to give deld to this active corporation: In 1858 it confined itself to previously existing corporations. In 1854 it crented the company of the Grand Hotel du Lourre, in the Rue de Rlvoli, with a capital of $24,000,000$ frincs ; the Maritime Company (of clippers), with $80,000,000$ francs capita! ; and the 'Anstrisn Railway Company, with a eapital of $\mathbf{2 0 0 , 0 0 0 , -}$ 000 francs, the shares of which were issued' in the beginning of 1855. In 1865 it anbecribed for a large portion of the new stock of the Saint Rambert Railway, the Wescern Ralliond of France (Oweet), and the Central Railroad of Switzerland, and the Elro Canal Company-amounts not mentioned.
In 1858 it took a large amount of the Credit Foncier bonds, and $80,000,000$ franes of the Grand Central Railroad bonds, and $6,000,000$ franes of the Viellle Montagne (Zine) Company's bonds. In the aame year it sold uat all the Credit Foncier bonds, and most of the Vielile Montagne; the Grand Central bonds were, most of them, still unsold at the beginning of 1855. 'In 1854 it took sbout $5,500,000$ franes of the Eastern Railiroad (Est) bonds, and purchased sixteen thoasand bonds of the Dole and Salins Railrosd bonds; the amount of these bonds is not mentioned probably 500 franes each. In 1855 it guarantied the sales of $18,000,000$ franes of the Weatern Railrosd atock (Ouest), and of 100,000 bonds of the Southern railmads (Midi), representing $28,000,000$ francs ; and it took charge of the loan of $82,000,000$ franes for thAustrinn Rsilway Co., which passed rapidly ani almost wholly into the hands of German capitalists.
The rompany acted as sponsor or agent in 1854, for the re-formation of the mines of the Iolre, and for the fusion of the several omnibus companies in Paris into one joist concern; and in 1855 for the consolidation of the various Parisian gas companies. It has, moreover, been preparing for two years past the consolidation of the Eastern and Southern Salt Works. It put in a bld for the last government loan of $780,000,000$ in behalf of itself and its correspondents, for no less a sum than $625,000,000$; but its share was reduced when the hids were adjudicated to $1,281,000$ francs of the 3 per cent. rentes. At the close of isst year it embarked in grand specalstions, which remained unsettied at the date of the lnat balance-sheet, but they appear there as yielding an estimated loss of 500,000 francs. The amounts received in iccount current are mostly from large companies, and can only be withdrawn, according to express stipulation, to be expended on their raspective works. Individuals are glso allowed to make deposits, the company agreeing to take charge of their investment and atock speculation.

In order to fully appreciate the power of this vast machine as a $\quad$ peculative agent, it must be borne in mind that the managere sad leading depositors are men in the enjoyment of extraordinnry resources of wenith and position, and thst in their speculative operations at tho Bourse, they and the company all act in concert, thus aequiring a power over the market which nothing, in the sbsence of extraordinary circamstances, can hope to resist. This power is made the greater from the large amounts employed by the company in carrylng stocks for brokers and outside speculators, la the shape of stock contracts, or as the French call them, repoits, which contracts mostly mature on the same day in each month. The company are thus ensbled to depress the Bourse when they
wiuh to buy, by refusing to make now oontractia when settlement-day comes, thereby foroing sales on a tight monay market ; and to promote a rise when they wish to sell, by granting a great increase of facilition to othar dealers in atocks. $-N_{1}^{\prime}$ Y. Times. v Sed Bankera' Magazine, N, Y. : July 1855, July 1856.
Treel (Saxon creera, aaid to be derived from the Latin oropido) is a shore or bank on which the vatar beato, running in a amall channal from any part of the sea. It is aleo applied to any part of a large rivev which is recorted to is a harbor or landing-place by small craft. In the United Statea, the term creels la used us: synonymous with the. Binglish worde brook and rivulet.
Creole. (In Spanish Criollo.) A name given to the descendants of whites born in Mexico, Sonch America, ad the Weat Indies; in whom the European blood has been unmixed with that of other races. The variona jargons apoken in the West Indis islande by slaves, etc.; are called Creole dialects. 11 mmin 5
Creonote, or the flech-pireserver, from apeas and ouऽ $\omega$, is the most important of the five new chemical products obtained from wood tar by Dr. Reichenbach. The other four, parafine, oupions, picamar, and pittocal, have hitherto been applied to no use in the arts, and may be regarded at present as mere anelytlcal curionities. Creosote may be prepared elther from tar or from crude pyroligneous acid. The tar must be distllled till it acquires the oonsistence of pitch, and at the atmost till it begins to exhale the whito vapors of paraffine. The liquor which passes into the receiver divides itself into three strata, a watery one in the middie, placed between a heavy and a light oll. The lower atratam alone is adapted to the preparation of creosote. Creosote exists in the tar of beech-word, to the amount of from 20 to 25 per cent., and in crude pyroligneous acid, to that of 14 . It ought to be kept in well-stoppered bottles; beeause when left open it becomes progresaively. yellow, brown, and thick. Creosote has considerable power upon the nervous system, and has been applied to the teeth with advantage in odontalgia, as well as to the skin in recent ecalds. But its medicinal and surgical virtues have been much exaggerated. Its flesh-preserving quality is rendered of little use, from the diffcolty of ramoving the rank flavor which it imparts.

Cresset, a great light aet on a beacon, lighthonse, or watch tow r. It also signifies a lamp or torch; a large light 1 lantern fixed on a pole. Mfnshen derives the word from the Dutch keerse, kandela; but it is more probably from the French croisset, a little croes-that symbol having been usually placed upon beacons.

Crew, the company of eailors belonging to any ship or vessel. Ready obedience to the lnwful ordere of their superiors, ability to diseharge their duties, and slacrity In their performance, at all times and under the most perilous circumstances, are the distinguishing characteristics of good seamen.-See Skamen. See Kent's Com. Manuol for Consuls. Parsons' Mercantile Law.

Crimea, a peninsula in the Dlack Sea, forming part of the Russian government of Taurida, with the malnland of which it is connected hy the iathmus of Perekop. It is situate between $44^{\circ}$ and $46^{\circ} \mathrm{N}$. lat., and $32^{\circ}$ and $37^{\circ}$ E. long. It is of an irregular square, or rhomboid form, measuring diagonally abont 190 miles from east to west, and 123 from north to south, and contsining an area of about 8,000 square miles. Its south-eastern, western, and north-western coasts, sre washed by the Black Sea, and the easiorn by' a shallow lsgoon, callod the Sivash, or Putrid Sea, which is connected with the Ses of Azoff by a very narrow strait, and separated from it by a tongue of land, conslsting of sand and broken ehells, about 70 miles in length, and 1 to $1 \frac{1}{y}$ in breadth. The eastern part of the Crimea forme a minor peninsula,
serotehing eastward to the atrait of Kortsh or Cuffa, or Jonikaleh, the anolent Cimmerian Boaphorus, which forms the communication between the Black Sea and the soes of Asoff, but it is not nuvigable by large or deoply-laden vencsls. The moet valuable commercial production to aalt, which, an already mentioned, in obtained in very large quantition from tuslas, or malt lakee, noar Perekop, Koulov, Kaffa, and Kortsh. It is a government monopoly, and yields a conaidarable revenue. The other pririple articles of commorce and exports are wine, honey, wax, leather, Mlden, wool, and lambekins ; of the last of which, callod shmmeki, great quantitios are exported yearly to Poland and nther neighboring countries. The enly manufucture worth notice is what is called moroceo leathor, which to produced of good quality. The mountains contain masces of rod and white marblen, fall of cracks and flesures, which make thom well adapted for quarrying, if there were a demand.

Criminale. By the lawa of the United States, consular officere are required, in cases of the intended shipmont of paapers, or pardoned criminals, to the United States, to give timely notice of the fact, both to the Dopartment of State and to the collector of customs of the port to which the vessel having them on board may be boand; furaishing the names of the pasties, a deacription of their persons, the name of the veasel, and the date of anailing, in onder that proper steps may be taken for the enforcement of such police regalations as may have been adopted by the several States upon the anbjuct.-Manual for Conouls.
Crockery. In uee, and made mention of as prodncell by the Egyptians and Greeks, so early as 1890 s.c. The Romans excelled in this kind of ware, many of their domentio articles being of earthen manufacture. Crockery, of a fine kind, in various household utensils, was mado at Faenza, in Italy, about A.D. 1810 ; and is still callod fayence in French. Earthenware vessels were in use among the moat ancient nations. Various domestic articles were made by the Romana, 715 в. C. The art was revived and improved in Italy, A.v. 1810. Wedgewood's patent ware was first made in 1762. His pottery in Staffordshire was extended to a variety of curious compositions, sabservient not only to the ordinary purposes of lifo, bnt to the arts, antiquity, history, etc., and thereby rendered a very important branch of commerce, both foreigu and domestic.
Cronstadt, or Kronatadt, a atrongly-fortified seaport town of Ruseia, and the great naval atation of the Rusaian fleet in the northern seas, is situsted on the island of Kotline (frequently also called Cronstadt, from the town), at the head of the Gulf of Finland, 20 miles west of St. Pesersburg, in N. lat. $59^{\circ} 69^{\prime} 26^{\prime \prime}$; E. long. $29^{\circ} 46^{\prime} 30^{\prime \prime}$. The population in 1849 was 25,120 ; but it varies conaiderably at different timea of the year, and in anmmer generally amounts to aboat 50,000 . The isiand of Kotline is in general outline an acute triangle, 7 miles in length by abont 1 in breadth, with its base toward St. Petersburg, and its apex extending obliquely seaward. The eastern or broad end is occupied by the town of Cronatadt; and $1 \frac{1}{2}$ miles from the western point of the island is the lighthouse of Tolboochin or Tolbeacon. The atreets are regular, and in genersl well paved; but the houses, with the exception of those belonging to government, are chiefly of one atory. The town was originally built of wood, and wooden structures are still numerous; but such buildings are now forbidden by law, and the majority of the housee are now built of brick, and plastered. Cronstadt is divided into two parts-the Morskaia chast, sea district, and the Koopacheskaia chast, or commercial district-and into fonr aubdivisions Of the two canala which traverse the town, that of St. Peter, coastructed of granite, is 2,160 feet long, by about 80 yards wide. It commences between the Merchant and Middle Harhore,
and is in the form of a cross, of $\mathbf{x}$ hich one arm communicaten with a dock, where ten siujps of the line oan be repaired at once. The Catherine canal, 1,880 fathoms in length, communiestes with the Merchant Harbor, and thus enables vessois to take thoir atoren, munitiona, eto., directly from the store-houses. Between the two canals atood the old Italian palsce of Priceo Monschikoff, the alte of which is now occupied by a large building nsed as a school for pilota, and oducating above 300 pupila. On the northern side of the island the passage is impracticable, except for very amall oraft, being obstructed by rovis of piles and large masses of atone, extending from the island to Lisl Nosa, on the mainland. The southern channel is the only practicable passage from the Gulf of Finlund to St. Petersburg, and it is atrongly dofended on both sidea by forts and batteries. The priacipal of these are Forts Alexander, Kisbank, Peter, Cronslott, and that of Menechikoff, already mentioned. The Great Road is commanded by Forts Alexander and Risbank, sbout 1,600 yards apart. The former, on the left side of the passage, consiats of a front with 4 tiere of embrasures, and two flanka of 8 tiers each, and a rear wall mounted with gans en barbette. It is buist of blocks of granite on a foundation of piles in 18 foet of water, and commands the road by 1168 and 10 -inch guna, all in casemates. Fort Kisbank, which was not finished last year (1853), on the opposite side, is also of granite, resting on a foundation of piles, in 16 feet of water, and is armed with tiers of guns of the heaviest calibre. Further eastward, on the loft, is Fort Peter, or Citadel Fort, with 8 towera or bastions joined by 2 curtains; the first commanding the approach to the rear of Fort Alexander, whilie the eecond and third eweep the maln channel. These bastions have 28 guns in casemates, and 28 guna above en barbette: the curtaina have no casemates, but mount 20 guns en barbette. To the right of the Little Road is Cronslott, an irreguiar pentagon, originaliy built by Peter the Great. It presente to the sea a low line of timber casematea, forming a battery of 40 guns placed à fleur d'eau, and disposed in the half of each of two bastions with a connecting curtain. Ali thia work, however, has been deatroyed, and last year (1853) the piles had been driven on which a granite fort was to be built, which by this time (October, 1854) is probably complete. The mole forming the western flank of the Merchant Harbor mounts 70 guns, beidea 12 mortars; and the channel, between Cronalott and the mole, ia only 250 yards wide. Almost all vessels bound for St. Petersburg touch at Cronstadt, and those drawing more than 7 feet of water load and unload here-the goods being conveyed to and from the city in lighters. Vessels of 10 feet draught have, however, been known to go up with high water. The port ia ice-bound during the winter, from November to April. Cronatadt was founded by Peter the Great, 1703.-E. B.

Cronstadt is tho port through which the foreign commerce of St. Peteraburg is srincipally conducted. The number of vessels cleared in 1848-49, was as followe:

| Years. | Entered. | Cieared. |
| :---: | :---: | :---: |
| $1848 \ldots \ldots \ldots$ | 1,515 | 1,470 |
| $1849 \ldots \ldots \ldots$ | 1,570 | 1,650 |

In these figures Great Britain held the first rank. Tho number of British veasels entered and cleared was 920 , measuring an aggrogate of 209,318 tons. Under the French flag there entered and cleared 58 vessels, of 8,598 tons. The total value of French cargoes imported in 1849 , reached about $\$ 5,000,000$, against $\$ 1,000,000$ of exports direct to France. Official returns for 1853 exhibit a total of 1,898 vessels, under all flaga, having entered during that year; and the following table gives the nationality and number of these arrivals from each nation :

| Commertoes. | Na. of vemelo | Countrice. | No. of vowele. |
| :---: | :---: | :---: | :---: |
| England. | 644 | Ifnovar....... | 45 |
| Ilofland....... | 494 | Oldeabarg..... | 49 |
| Denmark..... | 199 | United Btates... | 41 |
| Owedea...... | 189 | France......... | 41 |
| Prusala....... | 116 | Naples.......... | \% |
| Norway ...... Labeo. ${ }^{\text {a }}$. ${ }^{\text {a }}$. |  |  |  |
| Labec........ | 89 88 | IIamtarg <br> Greeca | 1 |
| Meoklenbirg. | 69 | droev........ |  |

Cross-trees, in a ship, pieces of oak timber, supported by the cheoks and treatle-trees, at the upper ends of the lower and top-masts to cuatain the frame of the tops in the one, and to extend the top-gailint shrouds on the other.

Croton Oll is expressed from the seeds of an euphorbiaceous ehrub, the Croton tiglium, a native of Hindoetan and of the warmer parts of Asia. The frult is about the aize of a hazel-nat, of on ovate triangular shape, and containing three ovate seeds, sbout the size of a pea. The kerneia of these yield, on pressure, about 50 per cent. of oil, which is of a pole amber color, and a thickish conaistence, like castor oil. It has no udor, but has a peouliar acrid tante, which is felt moat atrongly in the back of the palate and throat. Croton oil is a speedy, powerful, and sure cathartic, in emali doses, of one to three drops ; and it possesses two valuable properties: 1st, that however active and powerfal the purgative action may be, it soon ceases, and leaves no debility ; and, 2d, thrt it excitec the biliary eecretion, more powerfuily than any known medicine. In consequence of one or two drops being a dose, and its action commencing very shortly ofter its administration, it is invaluabie in impending apopiexy, and in almost all diseasee in which torpor or paraiysis existe. In hydrocephaius, even when effusion of water on the brain appears to have taken piace, the late Dr. Abercromble stated that it wouid often bring about the recovery of the patient. It is a medicine which deserves far more attention then it has yet recelved.-E. B.

Crown, in Commerce, a common name for coins of sevoral nations, which are about the value of a dollar. See Coins, Tanle of.

Crown Glass, the best kind of window-glass. The hardest and most coloriess, is made almost entirely of aand and alkail, and a littie lime, without lead or any metallic oxyd, except a very amall quantity of manganese, and sornetimes cobalt. Crown glass is used in connection with fiint glass for dioptric instruments, in order to destroy the disagreeable effect of the aberration of colors. Both kinds of glass are now made in the highest perfection, in Benedictebura, where Riechenbach's famous manufactory of optical instruments is situated.
Cruciblea (Creusets, Fr.; Schmelztiegel, Germ.) are smali conical vessels, narrower at the bottom than the mouth, for reducing ores in docimasy by the dry analysis; for fusing mixtures of earthy and other substances; for melting metals, and compounding metallic alloys. They ought to be refractory in the strongest heats, not readily acted upen by the substances ignited in them, not porous to liquids, nnd capabie of bearing considerabie aiterations of tamperature without cracking; on which account they shouid not be made too thick. The best crucibles are formed from a pure fire-ciny, mixed with finely-ground cement of old crucibies, and a portion of black-lead or graphite. Some pounded coke may be mixed with the plumbas ${ }^{0}$. The clay should be prepured in a similar way as for making pottery ware; the vessels after being formed mnst be slowly dried, and then properly baked in the kiln. Platinn crucibiea are not fusibie, but are too costly for general use.
Cruise. (Germ., kreutzen, to cross.) A voyage within certain limits, for tho purpose of meeting with enemy's ships, plrates, etc., or for mere exercise, or for the relief of vessels in distress.

Cruisers, in naval affalrs, vossels, as the name imports, employed on a crulse. The nama is commonly given to amall men of war, made use of to secure merchant ohipe and veasein from the enemy's small frigates and privatesrs. They are generally formed for fast salling, and well-manned.

Cuba, the largest and richeos of the Weat Indis islands, and the most important colony of Spain, was discovered by Columbus on the 28th October, 1492, during his firat voyage. It was first called Juana in honor of Prince John, acn of Ferdinand and Isabella; but after Ferdinand's death it received the name of Fernandiana. It was subnequently designated Santiago, from the patron saint of Spain; and atill later Avs Maria, in honor of tho Virgin. Its present name is that by which it was known emong the natives at the time of its discovery. It was then divided into nine independent principalities, under as many caciques.
The island of Cuba is long and narrow, somewhat In the form of an irregular crescent, with ite convex side toward the north. It divides the entrance to the Gulf of Mexico into two passages : that to the N.W. being $32+$ leagues wide at the narrowest part, between the points of Hicacos in Cuba, and Tancha on the Fiorida coast ; and the S.W. pasaage 38 leagres wide between the Cabo de San Antonio of Cuba, and the Cabo de Catoche, the most salient extremity of the peninauia of Yucatan. Cuba lies between $74^{\circ}$ and $85^{\circ} \mathrm{W}$. long., and $10^{\circ}$ and $23^{\circ} \mathrm{N}$. lat. Its length, foliowing a curved line through ifa centre. is 790 miles, and its greatest breadth (from. Cape Liaternillos to Mota Cove) is 107 miles. The area is estimated at 31,468 square milea, or, including the othe: emall islands attached to it, 32,807 square miles. The coast of Cuba is generally low and flat, and is surrounded by numerous isiands and reefs, which render the approach both difficuit and dangerous to those not acquainted with the proper channels. The low nature of the coast subjects it to frequent floods and inundstions; and especially on the north side of the isiahd, there are many large lagoons from which a considerable quantity of salt is obtained. No island, however, in proportion to its size, has a greater number of excellent harbers, many of them accessible even to ships of the line. A range of mountains extends from one end of the island to the other, dividing it into two unequal portions, of which the northern is generally the narrower. The highest are those at the S.E. extremity of the isiand, to the N.W. of Santiago de Cuba, and have, according to IIIumboldt, an elevation of 1,200 toises, or 7,673 English feet. This Cordiliera is one great calcareous mass, resting on a schistose formation. The summits are for the most part rocky and naked, occasionsiliy interrupted by more gantie undulations. The central and western parts of the island contain two formations of compact limestone, one of clayey asndstone, and another of gypsum. The limestono formations abound in caverns. The secondary formations, east of IIavana, are pierced by syenitic and euphotide rocks united in groups. The syenite strata are intercaiated with serpentine, and inciined to the N.W. In some places petroieum runs out of rents in the serpentine ; and abundant springs of this fluid are also found in the eastern part of the island. The rivers in general are necessarily short, and flow toward the north and south. The largest is the Cauto, rising in the Sierra del Cobre, and faliing into the bay of Buena Esperanza on the southern const, after a course of 59 leagues, for 20 of which it is navigable, though at low water obstructed by bars. The Sagua le Grande rises in the Sierra del Escambray, passes Sunto Domingo, i i falis into the sea in front of the Boca de Maravilias, being navigabie for five leagues. The principal of the other rivers are the Sagna la Chica, the North and South Iatibonica. the Cuyaguateje, Sasa, Agobama, and the Hanabana. On soune of the rivers are beautiful cascades, while
several of them flow, during part of their courses, under ground.

The mineral riches of the island have not yet been explored to any considerable extent. Though gold and sllver have undoubtedly been fonnd on the island, the quantity has never been sufficient to repay the labor of search. Gold was sent to Spain from this laland by the early settlers, bnt it was more probably the accumulated wealth of the aborigines in previous centuries, whested from them by tyranny and rapine at the period of the conquest, than the product of honest labor on the part of the colonlats. Traces of auriferous sand are found in the rivers Holguin, Escawbray, etc. Some specimens of the finest gold have been obtained in recent times from the workings of Agabama and Sagus la Grande, but at an expense of time and labor that could not remunerate the parties engaged in it. In 1827, silver and copper were dise, vered in the jurisdiction of Villa Clara, and the first ores gave no less than 7 oz . of pure silver to the quintal ( $=107 \mathrm{~B}$ lbs.) of ore; but they have become less productive, probably from not belng properly worked. The copper mines near Santiago, in the eastern part of the island, are of great extent, and very rich, employing naarly 900 persons, and ylelding an ordinsry average of about 27 per cent. of pure metal. They were wrought with some success during the 17 th century, bnt had been abandoned for more than 100 years. About the year 1830, Mr. Hardy, a landed proprietor in the island, happened, when on a vialt to that part, to carry off some of the refuse of the old workings in order to suhject them to analysis, the result of which was, that the metal was found so rleh as smply to repay the expense of sending it to England for smelting. Several other mining companies have since been eatablished; and the amount of copper ore exported in 1850 was 552,288 quintals, or nearity 25,100 tons. Of the 35,683 tons of copper ore imported in 1851 into. the United Kingdom, 20,825 tons came from Cubs. Coal of a highly bituminous character, affording a strong heat, and leaving; very little solid residue in the form of ashes or cinclers, is very abundant. In some plures it degenerates into a form resembling asphaltum, and nenr the coast it ls often found in a semi-liquial state like petroleum or naphthn. In the quarries near Invina a thiek alate is found, fit for floors and pavements. Marblex and jaspers of various colors, and susceptible of a high poliah, are found in many parts of the island, and particularly in the Isle of l'ines. It is generally believed that iron exasts in various parts of C'ulsa; nnd many parts of the great Cordillera undoubtedly contain rocks of a ferrughous nature; bat from the dimlculty of aicess, the searcity of fuel, and the want of capital, no extensive mining operations have been engaged in. Nntive loadstone, however, has been found in various parts, and chalybeate spriugs are numerons.

The circulating medinm of Cuha, was until lately composed entirely of the preeious metals; paper money ts now issued by the bnak which has just gone Into operation. The coins in use are the spanish doohlon, or onzt de oro, whirh is a legal tender for 17 hard dollare, and at the orilinary rate of exchange of $84-37$ per cent., is worth $\pm 310 \mathrm{~s}$. 1 hd , sterling; and the aululivisions of the dohlon, the linif, the quarter, the elpith, and the slxteenth-the last being equivalent to a dollar and hulf a real. The Mexican, Colombian, and other South Anericuin doblons are a legal tender for 16 hard dellars, equal to 836 m .8 d . sterling, und are somethes in demand for exportation at a premium: their divishons are worth, $x, 4,2$, and 1 dollar respectively. Of silver colns, the Spmulsh dollar and lts divisions, und ulso Mexican, United States, and South American dollars, aro legal tenders at their nominal value.

The princlpal port is ILavana, or IIsvanali, on the north coast of the island of Cuba, of which it is the
capltal, the Moro castle being, according to Humboldt, in lat. $23^{\circ} 8^{\prime} 15^{\prime \prime} \mathrm{N}$., long. $82^{\circ} 22^{\prime} 45^{\prime \prime} \mathrm{W}$. The population of the city and suburbs was said to be, in 1851, about 200,000 . In 1827, the resident population amounted to 04,023 ; viz., 46,621 whites, 8,215 free colored, 15,347 free blacks, 1,010 colored sluves, and 22,830 black slaves. The port of Muvana is the finest in the West Indiea, or perhaps in the world. The entrance is narrow, but the water is deep, witheut bar or obstruction of any sort, and within it expands into a magniticent bay, capable of accommodating 1,000 large ships-vessels of the greatest draught of water coming close to the quays. The city lies along the entrance to, and on the west side of, the bay. From its positlon, which commands both inlets to the gulf of Mexico, its great atrength and excellent harior, Havana is, in a political point of view, hy far the most important maritime station in the West Indles. As a commercial city it also ranks in the first class. The ports of the islund licensed for fereign trade are IIavana, Santiago, I Puerto Prince, Matanzas, Trinidad, Baracoa, Gtbara, Cienfuegos, and Manzanilla, A bank has been recently established in Cubs, under a royal ebarter.

It is impossible, from the conflicting accounts of the different writera upon the subject, to arrive at any thing like certainty as to the number of inhatitants on the island at the time of its conquest ; but it may hes estimated at probably from 800,000 to 400,000 . There is little doubt, however, that before 1560 the whole of this population hat disappeared from the island. The first census of Cuba was taken in 1775, when the $p$ ulation was 170,862. In 1791 it was 272,140 . The following table gives the population since that period:

| Year. | Whites. | Free Blacke. | Slaves, | Total. |
| :---: | :---: | :---: | :---: | :---: |
| 1811 | 874,010 | 114,010) | 212,4010 | 600,000 |
| 1817 | 2\%0, 021 | 115,691 | 225.268 | 630,930 |
| 1827 | 841,05t | 106,494 | $2 \times 6,342$ | 704.547 |
| 1841 | 418,291 | 152.838 | 480.485 | 1,007,624 |
| 1846 | 425.769 | 149.228 | 828,769 | 193,752 |
| 1849 | 457.133 | 104,410 | 823,697 | 94, 4 ,49 |
| 1850 | 605,560 | 205,570 | 436,100 | 1,247,230 |

Neither of the last two censuses include the gar. rison, crews of vessels, or the floating population.

The following is a more minnte elassifleation of the people of the istand, according to the census of 1850:

| Creole whites. | b20,000 |
| :---: | :---: |
| Spanlards. | 80,040 |
| Troops and marlacs. | 2\%,000 |
| Forelinera. | 10.569 |
| Floating popuitation. Total whites, 603,0,40 | 17,010 |
| Free mulattees. | 118,200 |
| Free blacks. ............. Total free colorel po | 87,370 |
| Slaves, mulattoes | 11,100 |
| slaves, blacks, | 405,600 |
| Total slaves, 430,100. |  |
| Grand tetal. | 1,24i,230 |

The present population, adiling garrison and thating population, ts nearly $1,100,000$. The rousus of 1816 Glves the populathon of the principal towns as follows:
 Cuba, 21,005; Matanzas, 16,986; 'Trindad, 13,222. The poralation of llavana, ha 1849 , is glven at 142,0042 , and in 1850, nt 150,561.

The chinf agricultural products of Cuha nre sugar, collece, and tobaceo. The cultivation of these has mivanced with great raphlity alnco 1809, when the ports of the island were more fredy openel to foreis, rers. The cultivation of colfee ndvanced for a time with equal or even greater ruphlity than that of sugar; but latterly, from the low prices of cellee, the caltivation of sugar has liecome the inore protitable, and lit a great measuro supplanted coffee. Amoug the other productions are Inillan corn, rice, heans, plantains, cotton, conoa, pinc-ipples, lemons, oranges, lhues, ligs, molons, ete. Of tho manafactures, the principal are the

The 1 present try, viz, tobacco which a sldes the extensiv tlon of $t$
Politi departm dental; of gover Centrul province ince of C In 18 trading moved; returns o revenue and, $a p p$ "Balanz progress of Cuba, with fore pites of pace witl comparat entire po it had ris the inter cent.
Cummer United St other nat existed br The Hav 1850, give toanage, eutered th the 10 yen for the tir $a$ tritle m tonnage Spanish a 6 menths this trad British, entered $t$ 1855, was 870 , of a Spunish; increllsed
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than two mage of ea, IIam increase.
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making of sugar, molasses, rum, and segars, and the preparation of coffee and wax.

The latest and most reliable statistics of the island present the following divisions of agrieultural industry, viz. : sugar estates, 1,442 ; coffee estates, 1,618 ; tobacco estates, 9,102 ; and grazing farms, 9,930, on which are reared about 808,199 head of cattle. Besides these, large herds of cattle are also reared on the extensive and fertile prairies of the uncultivated portion of the island.-E. B.

Politically, the isiand of Cuba is divided lnto three departmenta: tho Oriental, the Central, and the Occidental; and these are again subdivided into a number of governments, sub-governments, and colonies. The Central and Occidental departments form the civil province of Lavana, and the Oriental the civil proviace of Cnba.
In 1809, the restrictiona imposed upon Cuba, of tradiug to no foreiga country whatever, were removed; and from that period to the present, offlicial returna of the population, agriculture, commerce, and revenue of the island have been annually prepared, and, upparently, with great care. These reports, or "Balanzas Gcneraies," exhibit a regular and marked progress in the industrial and commercial movements of Cuba, from the period above specitied-its trade with foreign nations steadily advancing, and the supplies of its more prominent stapies regularly keeping pace with the increased demands of an enlarged and comparatively emaneipated commerce. In 1775 , the entire population of the island was 170,370 . In 1850 , it had risen to $1,247,230$, showing an increase during the intervening 75 years of $1,076,860$, or about 700 per cent.
Commerce with Cuba.-The increase of the trade of the United States with the port of Mavana over that of all other nations, notwithstanding the bid feeling that has existed between the two countries, is truiy wonderfui. The Havans Mercantile lleport of the 7th of August, 1850 , gives e. statement of the number of vessels, their tonnage, and the natione to which they belong, which eutered the port of Havana during the first 6 montis of the 10 years last past. The increaso in the total tonnage for the tirst 6 months of the year, from 1846 to 1855, is a tritle more than 100 per cent. While tho Anericnn tonnage has incroased more than 200 per cent., the Spanish and British are nearly atationary. For the first 6 months in 1846, the Americau tonnage employed in this trade was 71,722 ; the $\mathrm{Spmanish}, 50,528$; and the British, 32,969 . The total number of vessels which entered that port during the 6 monthe ending July 1st, 1855 , wne 1,080 , of a tonnage of 364,033 ; and of these, $\dot{\mathbf{j}} \mathbf{0}$, of a tonnage of $231,4 \times 4$, were American; $\overline{58,338}$ Spanisin; 32,165 liritisi. The Freuch tonnage has increased from 1,761, in the first 6 montiss of 1846, to 8,269, for the same period of 1854 , end 23,283 , more than two thirda of the Britisi, in 1855 . In the tennago of other nations, Beigian., Dutch, Danish, Bremea, Hanilurg, and others, there has heen no muterial increase. Prior to the removal of tho reetrictions on foreige commeree, there was some trade carried on between the Unitod States and Cuha, by virtue of Spmeish grants and occasional relaxntions of the law ; hut it was generally limited to the importation of articles neceasary to supply tho people of the isfand with tie means of subsistence.
The wars hetween the mother country and the Spanish Americun republics having driven the Spanbid fing from the ocenn, the laws of difierential duties remained in aboyance, nnd the commerce of Cuha, oxisting chielly with the Unitell States, was rarried on in American hottoms, which even extended thcir services to Spain, liringing the oil and wine of the leuinsula to the colonists. The graduul settlement of the dificulties with the revoltent provinces enabied the thag of Spain aguin to come upon the sea, nuid her mercantile marine received a new impulac. During the po-
riod that had elapsed aince the opening of the ports, the natural increase of the wants of the colonists, attendant upon an exchange of their products with those of fureign countries, opened $\varepsilon$ market in Cuba for many of the products of mechanical industry, which found their way there through the ports of the United States; so that, at the close of this era, in the year 1830, the foreign commerce of the island was confined almost exclusively to our marts, to which she looked even for those articles which were not produced in this country. This was the season of the most prosperons commerce between Cuba and the United States. The re-birth of the Spanish merchant-marine brought with it clamors for protection, and the tariff of Cuba was eltered, imposing a differential duty npon goods imported in foreign bottoms. The object of this duty was to encourage the employment of national vessels in the trade of the island with this country. Spanish ships very soon made their appearance in American ports, and were rapidly obtaining a iarge share of the carrying trade, which had, hefore that period, been enjoyed exclusively by American vesgels.
About this time, repeated but unavailing representations had been made to the Spanish government of the injustice of its course in imposing such discriminating duties both on the navigatien and commerce of foreign countries, and in favor of Spanish bottoms. Negotiations having proved abortive, a system of defensive or retaliatory measures was recommended, as the only means of gelf-protection, in an elaborate report made by the Committee on Commerce of the House of Representatives, in May, 1834, which concludes thus: "Your committee, thercfore, from a view of all the circumstances, have deemed it their duty to report a bill, authorizing the Secretary of the Treusury to collect such additional tonnage duties upon Spanish vesscis enteriag the ports of the United States from Cuba and Porto Rico as shall be equivalent to the discriminating duty that would have been imposed upon the cargoes of such vessels, respectively, if the same had been exported from Havana in American bottoms ; and also upon Spanish vessels clearing ont from the ports of tino United States, such additional tonnage duty ns would be equivalent to the discriminating duty payuble upon their cargoes, respectively, if imported into Havana in American bottoms."
The bill reported became a law in June, 1834, and conformally to its provisions, the Secretary of the Treasury, in February, 1835, issued to the collentors of the customs his cireular, in the foliowing wu.ds: "I have to call tire attention of the officers of the customs to the accompanying copy of the act of Congress concerning tonnage duty on Spanish vessels, approved the 30th June last, and winich goes into operation on the 1st day of March next. Tainular statements are annexed, showing the rate of duty to be levied, in the nature of tonnage duty, on the arrival of Spanish vessels at any port' in the United States, coming from the islands of Cuba or Porto Rico, either directly or after touching at any port or place, laden with merchandise sulject to discriminating duty when exported from the port of Huvana in American buttoms, together with the rate of duty to he exucted from the aforesaid vessels departing from a purt of the United States, with a cargo destined, directly or indirectly, to either of the islands before deseribed."

The alove extract from the cipcular contains, in substance, the first 3 sections of the act of 1884 . The 5th section slows the purport and scope of the act, and that it was designed by the committee from which it emanatoi, as well as ly Congress in its adoption, to force the government of Spain into a more liberul nud just course of legislation in regard to the commeree hotween the United States and this island, by placing Spanish vessels, with their cargoes, coming into or ileparting from the United States, in the same
condition, as to imposts of all kinds, that American vessels are subjected to in the colonies of Spain. This equality was demanded as imperatively in behalf of the interests of Cuba and Porto Rico, as ln vindication of our commerclal rights; and the 5th section expresaly limits its continuance and restricts its applicstion to the accomplishment of that end. This section is in these words:
"And be it further enacted, That whenever the President of the United States shall be satisfied that the discriminatiag dutles in fuver of Spanish bottoms levied upon the cargoes of American vessels in the ports of Cuba and Porto Rice have been abolished, or whenever, In his opinion, a satisfactory arrungement upon the subject of the said daties shall have been made between the United States and Spain, the PresIdent is hereby nuthorized to declnre the same by proclamation, and thereupon this act shall cease to have any further force or effect."

In 1849 the Treasury Department ascertained that certaln privileges had been accorded on the part of the Spanish government to vessels of the United Stutes entering and departing from ports in the island of Cuba. A circular was immediately issued from that department, which, after citing the provisions of the acts of 1832 and 1834, and specifying the privileges alluded to, says: "It consequently follows, that where no tonnage duty or discriminating duty on the cargoes of American vessels entering or departing from ports or places in the istand of Cuba la imposed and collected thereat, Spanish vessels coming from such ports or places are to be similurly treated, is regards tonnage duty, in the ports of the United States. The collectors of the customs are, therefore, instructed to abatain from the exactlon of any tonnago duty on Sanish vesaels coming from ports or places in the islund of Cuba, In lhallast, or when laden with cargoes of molasses taken $\ln$ at either of sald ports."

In 1852 a similur clrcular was issued to collectors, instructing them to admit Spanish vessels arrlving from Spanish or any other foreign ports, those of Cuba and Porto Rico exeepted [the royul decree of 3d Janhary, 1852, excepted Cuba and lorto Rico from the privileges thus reciprocated], to entry on the same footing as American vessels, as regarded tonnage duty, light-money, and all other dues to the United States, so far as respects vessels. These act. (of 1832-34) have been in force now during a period of 22 yenrs, and, with the exception of the allght privileges which called for the circulars already reforred to, have fulled to produce the effect contemplated by their caactment. The commerce between the United States and these iflunds, in the aggregate, lins not fallen off; but the increase has not been such as shoulld be expected from the great expansion of our general commerce, and the increased development of the agrienltaral and industrial resources of Cula, since that period. The moxt obvious effect has been to exclude Spanish ships from our ports, aad to destroy, in a measure, all that portion of the parrying trade hence to C'oba which comprised articles of forelign prodnct ; for the Spanish vessels, no longer permitted to engage In the earrying trade hetween the United Stater mal Cuba, on more favorable terms than Amerien vessels, were soon driven from our ports, and supplied tho wants of the island from the conntries where the articles were producell; noll thus the harlware, glass, delf, and Irygoods of Eugland, that had been previously lirought to the United States in Americnn packetahlys, principally, from Londun und Liverpool to New York, were now ilirect!y imported into Cuba; and the same result has attended the carrying trade from France in her silks amel fancy wares, and Germany in ber cottona, linens, and hoslery.
The following table exhilites the number and nationality of vessels employed in the trale of Cuba during the three yeara $1 \times 26,1820$, and 1834 :

|  | 1596. | 1589. | 1834 |
| :---: | :---: | :---: | :---: |
| Spanlsh ............... | 188 | 896 | 791 |
| Unlted States.......... | 1,106 | 949 | 945 |
| All other. . . . . . . . . . . | 865 | 837 | 294 |
| Total........... | 1,659 | 1,202 | 2,086 |
| CleazEIt. |  |  |  |
|  | 1825. | $1 \times 29$. | 1834. |
| Spanish............... | 127 | 866 | 717 |
| United States......... | 914 | 890 | 910 |
| All other... | 247 | 814 | 290 |
| Total. | 1,288 | 1,670 | 1,917 |

An onalysis of tha precediag ligures will show an aggregate increase in the number of vessels entered from 1826 to 1829, of 43 ; and to 1834 , of 377 ; and in vessels cleared, an increase, for the first period, of 282 , and for the secend, of 629 . The increase in Spanish ressela entered from 1826 to 1829 was 208, and to 1834, 609 vessels. The decrense from 1826 to 1829 in the United States vessels was 137, and to 1834, 161; and the decrease in vessels from all other nations, for the first period, was 28, and to 1834, 71 vessels.
Tahle eximitino the Value of Imports into Cuba durino the tifer Yiahs 1826, 1829, 1834.

|  | 1828. | 1889. | 1834. |
| :---: | :---: | :---: | :---: |
| A. Cownemers, |  |  |  |
| National vessels... | ¢ 409,862 | \$1,460,041 |  |
| Forsiga vosels. | 2,449,44) | 8,501,002 | \} $38,412,497$ |
| Depositt . . . . . . . . . . . \#onkion commatic. | 1,750,621 | 2,521,442 | 1,134,407 |
| National vossels . . . | 314,083 | 844,826 | 4,970,018 |
| From Indted States | \$.682, 808 | 5,784,765 | $8,6901,101$ |
| From France...... | 1,169,451 | 1,245, 947 | 906,414 |
| From Figlanil. . . . | 1,828,627 | $1,887,775$ | 1,670,918 |
| From Ilanse Towns | 1,298,959 | 1,005,740 | 562,090 |
| From Italy, Itulland, Portugal. Donmark. ant East Indles.. .... | 572,783 | 544,809 | 2,210,2i0 |
| Total | (14,925,704 | 18,695,656 | 18,568,400 |

The preceding tables show an increase in the aggregate value of imports into the island in 1829 over 1826 of $43,770,102$; while, during the second period, from 1829 to 1834, this trade remained stationary. A minute annlysis of the figures, however, will show the gignificant fact that, while the enr rying trale in SpanIsh bottoms has risen from 8844,826 in 1829 to $81,570,-$ 013 in 183-, the imports from the United States, during the sume period, fell from $85,731,765$ to $83,690,101$. During the three years compred, the imports into the United States from Cuba remnined stationary, heing in 1826 \% $3,894,597$; in 1829, $83,191,535$; and in 1834, *3,824,724.

Imports of Flour.-During the periols umider review -indeed, at all thmes-provisions form the largest item in the imports from the Unitell States. The enormous discrimination in favor of the national llag on flour has ulways had the effect of restricting almost exclusively to national vessels the trale in this article. Thus, $\operatorname{In} 18: 9$ the vulue of flour imported into Cuba, in Spmish vessels, wus $\$ 1,582,768$, while from the Unitell States it amounted only to $\$ 345,315$, and from all other places to 813,602 ; and in 1849, or twenty years after, the value of Heur imported in SpaniNh het-
 and from all other pluess, 61,725 . The ants of $1 \times 32$ and 1834 can, unquestlomathy, be tracel in this great talling off in the articlo of thour ; but, that other eallises also contributed in securing for the spanish liag so complete a monopuly of the trate in this article idemonntrated by the fiet that, whilo the valne of thour imported from all uther phaces (than the Vinited Stater) in $1 \times 29$ amminted to 8113,$6 ; 2$, , representing 1,093 hurrels, we find thin Hgure in 18.6 dwinlled down to *1,725, representing only 138 barrels. That tho repeal of these acts would largely augneent the export na well ns the louport trade of the United States with Cubn, there can le no question; but, until the discriminations in favor of the natlomal thag ure moditiond or romovel, the carrying trude between the United

Statea a unjust by Spar Comn of Spain is adher as rigor entire al tienary States a dicate th this line tervailin continue moditica the intht diplomac the king viceroy "Becar the culti ample pt the king products tions wer emphatic perfectly necessury charge ar cutiou." for the $n$ trade in 1610 , rem is no prac inations a policy, w virtually staples, ft sarily loo
Until adopts th acterizes lows the and othe necessary commere but with must ren centurypeteut as --inadeq almost ju is burdeu the ishand comfortal itants, un

If the pose, er with the the latte provinces acts and r mercial liberal re very nhour the riche any Ishun cminent? . render in the moth

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Statea end that faland would, under their nnequal and unjust operation, be almost exclusively monopolized by Spanish bottoms.

Commercial Policy of Spain.-The reatrictive policy of Spain, eepecially aa regards the trade of her colonies, is adhered to to-day, in Cuba and Porto Rico, almost as rigorously as when she was mistress of nearly the entire southern portion of this continent; and the stationary condition of the trade between the United States and these ialands since 1834 would seem to indicute the fruitleasness of any efforts to force her from this liae of policy by measures of retaliation or countervailing acts. So long as the ayatem itself shall continue to be the colonial policy of Spain but little modification in its details need be looked for, whether the influence to that end be countervailing acta or diplomacy. "Be careful," says the instructians of the king and Council of the Indies to Luis de Velaseo, viceroy of New Spain, early in the sixteenth century, "Be careful not to foater manufuctures, nor to allow the cultivation of vines, inasmuch aa there was al ways ample pravision of these things, and the comnerce of the kingdom should not be impuired by such colonial producta;" and in the year 1610 these royal instructions were repeated, with the addition of the following amphatic language: "Inasuuch as you understand perfectly how much the observance of these rules is necessury for the dependence of the colonies, we charge and command you to seo to their faithful executieu." The same spirit that dictated this protection for the wine and oil of Spain, and for the exclusive trade in these articles to her American colonies, in 1610, remains unchanged in any degree (because there is no practical distinction between prohisitive discrimiations und positive prohibitions) in the cemmercial policy, which, in 1856, two centuries and a lulf later, virtually excludes American flour, and many other staples, for which the inhabitants of Cubs must necessarily look to a foreign market.

Until the system itself is abolished, and Spain adopts the more liberal commercial policy which churacterize the present enlightened age; until she follows the example of Great Britain, Belgium, llolland, and other neighboring countries, in removing all unnocessary shackles from commercial enterprise, the commerce of Cuba, not only with the mother country, but with the United States, and all forcign nations, must remaln as it has during the past quarter of a century-crippled, restricted, and struggling ; incompetent as a source of revenue to the home government -indequate to mect the expenses of the colonial, and almost powerlese, from the restrictions with which it is burlened, in developing the exhanstless reaources of the island, or even in supplying the necessary meuns of comfortable subsistence to the great bulk of its inhabitants, unless at prices far above thpir scanty means.

If the gevermment of Spain could the induced to propose, or to agree, to a similnr commerelal rechprocity with the United States to that now existing hetween the latter country and the British Nortl American provhaces, it would not only supersede countervailing acts and retaliatory measures, by establishing the commercial relations between them on a busis of just and liheral reciprocity; lont, it is helieved that, while in a very short period it would make the ishond of Cuba the richest in wealth, as it is in natural resources, of any ishand of the smme size in the world, it would also eminently contribute to cement more strongly, if not render indissoluble, the bonds of unlon between it nul the mother comintry.
Inconte or Tobadoo into the Unitho Statha facom Cuna, yoh the Yealls exiding June 30th, $1<58,1851$, 1855 .

|  | Limaniufatirred. |  | segara. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Value. | M. | Value. |
| $1 \times 58$ | 4,201, 530 | (714,429 | 177,944 | (12, 8 96,620 |
| 14.4 | 4, 1282.187 | 700.871 | 171,822 | 2,740, 2129 |
| 18, ${ }^{\text {S }}$ | 8,718,056 | 523,118 | 157,307 | 2,031,468 |

The following table exhibits the value of exporte from the United States to Cuba during two periods, embracing three years each:

| Years. | Valus. | Quantily of Flour. | Value. |
| :---: | :---: | :---: | :---: |
| 1884 | $08,690,101$ |  |  |
| 1885 | $5,406,919$ |  |  |
| 1836 | $6,558,281$ |  |  |
| 1858 | $6,287,959$ | 1,587 bbls. | 87,780 |
| 1854 | $8,551,752$ | 11,598 | 82,489 |
| 1855 | $8,004,582$ | 8,428 | 89,176 |

It will be seen from this table that the export trade of the United States to Cuba in 1853 is leas than it was in 1836, while the increase in 1854 and 1855 is by no means proportionate to the rapid increase of our general commerce, and of the agricultural producta of Cuba. Were the diacriminations removed, flour would unqueationably become our leading ataple export to Cuba. The importationa of this article into Cuba in 1847, were 235,243 barrels, of which 175,870 barrels were from Spain, and 59,378 barrels from the United States. In 1848 the number of barrels imported fell to 231,119 , of which only 18,175 barrels were from the United Statea. The most moderate eatimnte puts the consumption of flour in Cuba, were it admitted at reasonable duties, at from 800,000 to 900,000 barrels. That this trade would be enjoyed almost excluaively by the United States is evident from the fact that flour is among our heaviest articles of export, and European competition with a country within a few days' asil of the island would be out of the question.

The balance of trade between the United Statea and Cuba is enormously against the former. In 1853, this balance amounted to $\$ 12,297,796$; in 1855 it was $\$ 10,620,757$. The value of 500,000 barrels of flour, fixing the price at $\$ 5$ per barrel, would be $\$ 2,500,000$; or one fifth of the balance against the United States would be realized on the single article of flour alone. The increased quantities of bncon, park, lard, and provisions generally, of domestic manufactures, etc., would render the commerce between this country and Cuba moro equal, as well as more just; while the exporta from Cuba to the United States would be proportionsbly augmented. One year's trade, if conducted on principles of reciprocity, would be sufficient to demonstrate the advantages which would result to both countries from the adoption of a policy cemmended allks by the products and wants of each, respectively, and by every principle of commercial economy.

Great as is the productiveness of Cuba at present, some writers assert that under a good government it would be increnred flvefold; its mineral resources would then be fully developed, and it would be able fully to take advantage of its admirable position to develop its trade. The continuance of the present line of policy in reference to Cuba must in time lead to a revolution which Spain will be unable to quell.

Since the adoptlon of the Spanish tariff of the year 1830, in Cuba, several revisions have been made, and the rates of duty from time to tlmo have been materially diminished, to the eminent ndvantage of the revenue; but there has still been retalned, and in many instances increased, the differential duties in favor of Spanish products and nationnl bottons. The following instances of tho operation of these differential duties will sufficienti, oxhlbit their general character.
haril.-An article of great consumption in Cuba, imported nlmost exelusively from the United States, is subject to a dity of $4 \frac{1}{4}$ cents per pound when brought from this country in Ameriean bottoms; the coarser qualities of oil (olive), whleh are imported for the same purposes, ure delivered with a duty of $24-5$ cents per pound; and the result is, that $10,000,000$ pounds of lard, being a vastly superior article, aro imported, while $8,500,060$ prounds of oil from other countries, fur inferior to lard, are enabled to compete with it in the markets of Cubu, because of the ditlerence in price, in Its favor, produced by the duty.

Productions.-Aguardiente (tafia, or rum) is diatilled from molasses and the refune of sugar-worka. It is sold per pipe of 125 gallons, wlth or without caak, according to agreement; good tafia is of not less than 20 degreos, clear and transparent, slightly brown in color, and smooth taste. Tho exports of thla artiela for the year 1856 were about 15,473 pipea, of witich 7535 went to Spain; 150 to the United Statea; 294 to Great Britain; 2091 to Cowes, or Falmouth and a market; 640 to Haunburg and Bremen; 2637 to France; 588 to Tricste and Veutee; 1879 to South America and Moxico; and the balance to Italy, Glbraltar, and a market. The exports of 1855 very considerably exceed any previous year, and from the number of extenaive distiilories receatly astabliahed, the article is likely to form a considerable item of exportation in future. It has commanded the last year as high as $\$ 45$ and $\$ 48$ per plpe during a portion of It ; at the termination of the year it was quoted at $\$ 40$ to $\$ 42$, brisk. The number of pipes shipped were 21,102 , of which 840 went to the United States; 3499 to Great Britain; 798 to Germany; 2114 to Franeo; 12,787 to Spain; 809 to South America and inexico; and the balanco to Italy and other conatries.

Leaf Tobaceo.-Tobacco is one of the most important articles of production in the isiand of Cuba. Tho planters commence to plant is August or September, after the heavy rains are over, and when the northers may be looked ior, which generally como accompanied by a drizziing raln that is favorubie to the piant. In February or March, and as iate as April, the tobaceo is cot and taken to a house or shed, erected for tho purpose of affording shade, and at the same time a free circulation of air; it ls placed on cryes (poles), laid horizontally $\mathrm{D} \pm$ some distance from the ground, where it is allowed to become perfectly dry until the spring rains commence, when the hunidity seizes tho leaf, causes it to swall, and to take the silky appearance pecullar to it. It is then taken from the poles and laid In a heap on the ground, the leaves being slightly sprinkled with water; in this state it undergoes a apecies of fermentation. After this operation is gone through, the leaves are placed in manojos (liandis); afterward it is a very common practee to take a quantity of refuse leaves and lafuse them in a certain quantity of water, and, in sone instances, whe, and even alcohol, or, rather, tafia is nsell when the tobneco is light colored and weak, and it is desired to give it increased strength. This infosion undergoes a state of formentation, after which the refuse leaves denosit themeelves at the bottom. The tobaceo is dipped into this proparation before boing hung up in a room almost air-tight, where it undergoes the sweating, to which the namo of calentura (fever) is given; tho process of dipping is performed as many thmes as the tobacco may require. I am under the impression that this process might he used to great advantage with tho Connecticut tobacco. The qualities of Cuba tobacco vary according to the section or distriet in which it is prodocei: that grown on the western end of tho island is the celebrated Vuelta Abajo tolacco; that ralsed In other parta of the island, which is very inforior in quality, is known under the name of Vuelta Arriba. There is another class, called Yam, from which P'uerto I'rincipe eigars are made.

Tho lest Vuelta Abajo toliacco is grown on tho margins of certain rivers, which are periotlically overtlown, and is called tobacce de ria, distinguinhed from other tobacco by a fine tand founil in the creases of the leaves. Gool tolmaco is aromatie, of a rich irown color (this color is preferred by those who aro fumil of a strong elgar, but tinero is many a light-colored leaf that is quite as strong), without stains, and the loaf thin and elastic, imrna well without hitter or bithg taste. There is proinably no production of the earth that offers so many disappointments : the raising of it is suljected to many contretempw, If I nm not mis
taken, only one good crop ia made in three years on an average. Tobacco is usualiy divided into five ciasses, to wit:

Calidad or Libra: thia ia the beat tolacco; the lales alvays contain 60 hands or manojos, of 4 gavilias or fingers, of about 25 leaves each, und marked $\mathrm{L}^{2} 60$. Tha strongent cigar is mado witis this leaf. Infuriado Prineipal or Primera (firsts): has less finvor tian Libra, and la generally of lightor color. The leaves should be whole and elastic; 80 handa, of 4 gavillas (of 30 leavea), are in each bale, which is marked is 80 . Segundas (seconds): many good wrappers in these; but the majority of tha leaves are stalneti, lave a bad color, or have been slightiy touched by the worm. This wrapper is weaker than the firsts. This class is put up in bales of 80 manojos, of 4 gavillas, each of these of 85 to 40 leaves, and marked Y 2 a 80 . Terceras, or thirds, constitute the best fillers, and somo wrappers are found nmong them, eapeciaity if the tobacco ia new. The baies have 80 manojos, of 4 gavillas, having upward of 40 leaves each; the bales are marked 3 a 80 . Cuartas, or fourths: tho most inferior class, fit only for fillers. The balea contain 80 manofos, of 4 gavillas; no determined number of leaves in the gaviiias; marked 4a 80. Vnelta Arriba tobacco is put up in the same, or a similar, manner.
It wouid be dificult, lideed, for any one to nttempt to fix prices for tobacco; they vary from, say $\$ 10$ to \&170 generaily, lint occasionally fabulous prices are paill for that which is very good in quality, and which offers a falr prospect of yielding a large number of cigars. I have it from a very reflable source, that a little over a month since, the celebrated factory of $L_{a}$ Ilija de Cabañas y Carbajal paid the sum of $\$ 10,000$ casi fer a lot of oniy 45 lales, none of which excceded 100 liss. in weight. By the foliowing quotations, given by our latest price-current, it will ba perceived how varied the prices aro for tobacco:
$\$ 120$ to $\$ 140$ for firsts, sceonds, and thirds.

| 60 to | 80 for fourtis. | According to qual- |
| :---: | :---: | :---: |
| 40 to | 60 for fifhs. | tty, selection, an |
| 20 to | 30 for sixthrs | renown; all is V |
| 17 to | 20 for seveuths and Capadura. | elta A bajo. | to 20 for zeventhe and Capadira. elta Abajo.

When tobacco is shipped, it is generaily covered with erash
Cigars are mado of all classea of tobacco, and of varions sizes and siapes, and therefore of various vaiues. There is probably no manufactured article so difficuit to estimate the true value of as cigars; there are certain well-known brands that enn command almost any price; they havo a fixed value; such, for lustance, as those of La Ilija de Cabañas y Cartajil, Cabargus, Iatargas, Ia Ifigura, etc., and even among those of high reputation, and having apparently thxed priess, cigars aro delivered at lower rates than thoso appuaring in the bill of rates to persons that advance them large sums of money for the purchase of tobaceo, and receive in payment large puantities of these cigars ier month. These celebrated brands are known to lie the purchasers of the best and lighest priced tobacco; at the same time, it is well known that they purchaso cigars from smalier factories, mako seloctions with great care, pack them in their own boxes with their own brands, and oitain for theso tha samo prices as for the cigars made at their own mmufactories; and just as good an article may he procored elsewhere for balf the price. Hut very few of the eigars jroceeding frem those celebrated factories are consumed on the island; and there are even amo, but compratively few of whoso citars aro sent to the United states, and thero are many whose works all go to the States. I mean, in the alove remarks, in the way of traio. It would he quite imioselble to give any positive figures in regard to the extent of manufucture of cigars in thia laland; notwithstanding all my diligence in procariag informaIlon, and the various modes employed for the parios', my cfforts have falled. The only mode I could find to

## makean $a_{i}$

 factured is lu the isls block-" culated as million anIt must and a very cigars; an ber use the that a ve other kine tain, in th effoets to from both varying b per day is somed by have put give for t credible a equal to 1 each thous 44 tbs . pe the amoun can not be to an exte bagis of m that I ans ers, and th Report to $t$

Sugar:island of commence aro broug as cariy a greatest $q$ Thero are "Jiscove Of this, th low, brow tations. 450 to 500 A mercha (of 25 llos cents per rejected, wouid not or to aced Muscovar pounds g usually so low or lir axamined to sample it become

The ex Humbold year only
every yen
The gr island col
was subat Neariy t llavays, The offic correct ; with afa carge ai royal rev had ber and in fe of sugars they gny give no 1 than on quantity
mako an approximating estimate of the quantlity manafactured is ly estimating first the number of smokers in the laland. And here I met one greet stumbling-block-"What is the populatlon of Cuba P": It is calculated as low as under one million and as high as one million and a half.

It must be horne in mind that alnost every man, and a very large portion of women, in the island smoke cigars; and although it is very true thnt a large number use the clgarritoa or paper cigars, stlll, it ia known that a very large portion of these also consume the other kind, or puros. My object has been to ascertain, in the first place, the home consumption. In my effo:ts to ostimate the number of smekers by inquirias from both Spaniards and Germans, I tind the estimate varying hetween 300,000 and $1,000,000$. Ten eigars per day ls considered about tho average quantity consumed by each person. As iny basis of calculation, I have put down the number at 400,000 . This would give for the cousumption of the island tho almost incredible amount of 1460 millions of eigara per annum, equal to $1,460,000$ boxes of 1000 each. Caleulating each thousand to weigh 12 lbs., each smoker consumes 44 lbs. per anuum. This, taken in conncetion with the amount of exports from all parts of the island, that can not bo less than the consumption, swells the figures to an extent that is startling, snd makes mo doubt the basis of my calculation. And yet I am told by many that I aur rather under than over the number of smokers, and the quantity they consume per dny.-Consular Report to the Department of State, United States.

Sugar.-Thia ls eonsidered the greatest staplo of the ishand of Cuba. The grinding of the cane generally commences in the month of December, and the sugars are brought to market from Janmary, and sometines as early as the mitdle of December, untll July; the greatest quantities come in Mareh, Mpril, and May, There are two kinds made, known as "clayed" and " lluscovado;" the greatest quantity by far is clayed. Of this, the principal division is: Florete, white, yellow, brown, and Cogucho. It is packed on the plantations. Tho clayed is put in boxes, weighing from 450 to 500 pounds gross; the tare usunlly is 47 pounds. A merchantable box of sugar must weigh 16 arrobas (of 25 los.) net; lf a little under, a deduction of 50 cents per box la made; and if much under, the augar is rejected, as the export duty is upon the box, and it would not be for tha intercst of the shipper or exporter to accept any box welghing less than 16 arrobas. Muscovado ls put in casks, weighing from 1200 to 1500 pounds gross; tare, 10 per cent. Clnyed sugar is usually sold in lots, assorted half whites ant half yellow or lorowns, per sample, by lleensed brokers; it is axamined before recelved, nnd that which is not equal to sample rejected. When sugar remains long in store it becomes moist and loses its grain.

The export of sugar from Havana, according to Ilumboldt, amounted, in the four years, 1760-'63, every year only to nhout 13,000 boxes. Nlue yenrs, 1770-'78, every yenr only to ahout 50,000 boxes.

The great inerense in the production of sugar in this island commeneed about the yenr 1820 , when stenm was subatituted upon plantations for ox or mule power. Nearly two-thirils of the quantity exported is from llavana, and the largest portion on Amerienn bottoms. The official returns of exports can not he considered ns correct; for many a vessel has been clenrel as laden with a full cargo of molasses when she carrled a full eargo of sugnrs, and thereby not only tefranded the roynl revenue of the export daty upon the sugar, hat had her tonnago duty not levied or returned to leer, and In former years many vessels having a full load of sugars cleared hin ballast; but even aupposing that they gavo the true quantity exported, they certainly give no liten of the extent of the crop. The consumption on the island it is impossible to cstimate; the quantity is almost incredible. No country in the
world consumes so lituch sugar as the people of this island in proportion to the population. Rich and poor, every table-almost wlthout exeeption, exclusive of the negroes upon plantations-is furnished; more or less, with the prescrved fruits of the country; and the quantity of preserved fruits sent to all parts of the world is very great. And then is to be considered the sugar that is consumed in a country where every white inhabltant, and a larga portion of the colored populstion also, take coffee three or four times a day, The prospects of the present crop, from all parts of the island, were nevar more flattering. It is probable that there will be a larga increase over tha last year's crop. Contrscts hava already been entered into, paying as high as $\$ 22$ per box. The boxes and casks are paid for separately, as will be exhibited in the proforma Invoices given in continnation. The brokerage upon sugar ls 1 per eent., of which the purchasar pays a half per cent. and the seller the other half per cent.-Consular Returns, United States, 1854-'55.

Coffee. -The production of thia article has rapidly diminished during the last 14 or 15 years on the north part of Cuba, owing to tho low prices, acarcity of laborcrs, and consequent high rates of wages, and the larger profits in the cultivation of the augar-cane. The berry begins to ripen about August, when the picking is comnenced, and continued until December or January next. It begins to flower in February, Mareh, April, or MIay ; the third flower gives the best coffee; the article is brought to market throughont the year; but in Deember, January, and February, and even as late as Mareb, it comes in greatest quantities. The pscking In sacks of from 0 to 8 arrobas of 25 pounds is effected on the plantations; the tare of a sack is 2 pounds. Coffec is sold by regular licensed brokers by sample, and before belog received Is examined, and if not equal to the samplo is rejected. It is usually classel into five grades : Superior, First, Second, Third, nnd Tréache. There is a class called Caracolillo, a ronnd bean, the produce of the first bearing year, when the pods have only ono kernel; after the flrst year the pods havo two kernels. Coffee, when a long time in store, loses its aromn, and fades in color; when good, the berries are amooth, cqual, and unbroken, free from stones or unplessant smell, and of a fresh green color. The cultivation of coffeo was introdnced in the island of Cuba In 1797-98 by the French emlgranta from IInyti. In 1804 the exports were 50,000 arrobas; In 1809, 320,000 arrobns.

It will be olserved how sadly the production of coffee has decreased wlthin the last few years. The time is now fast approaching when none will lee raised on this side of Cuba, and then the inhabltants will have to depend upon the coffee ralsed in the district of St. Jago de Cutia, whlch is still quite largo in quantity; and wero it not for the immense quantity of beans, corn, and other grain that are roasted and mixed with the renl coffee, the quantity of the lntter would seareely auffice for the consumption of a country where it is used in such great quantitles. It is belleved by many that the time will arrive when the island of Cuba will have to lmport coflee for the consumption of her inhab-itants.-Consular Returns, E'nited States.

Custom-house.-1husiness transucted at tho customhouse in IIavanais all done in writing, and pretty much all upon stamped paper, mostly nt 50 cents a sheot, excepthg that for out ward reglster, called papel de ilustres, costing 88 the sheet. Vessels that go to ontporis to lond have to pay anchorage and other small fees, averagiug somo 15 or $\$ 16$ ench. At Cienfucgos every. vessel pays the health commiesioner \$2, and as much more If orlered to quarantine. At Matanzas, hesides the charges recovered as here, the government exacts \& $\%$, and the royal exchequer $\$ 4$. At Sagua an extra fre is exactod of $\$ 4$ if she enters in hullast and lenves with cargo, and $\$ 8$ If sho brings cargo and carries away cargo.

Comyrron or tim United Statis witil Cuaa, fhom Ootobri 1, 1920, to July 1, 1966.

| Yoars ondlus September 80. | Exports. |  |  | Iapports. | Wharwof thare was in Bulilion and Speele. |  | Toanage Cleared, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeulic. | Forelgn. | Total. | Total. | Experted. | Imperted. | Anuerlean. | Foreigno |
| 1821. | \%,950,055 | \$1,690,645 | 14,540,680 | 16,034,849 | 1260,162 | 1,168,253 | 108,828 | 8,834 |
| 1822. | 3,201,045 | 1,069,578 | 4,270,618 | 6,967,054 | 221,551 | 590,109 | 99,938 | 6,986 |
| 1828. | 8,271,970 | 2,184,095 | 5,405,865 | 6,952,381 | 858,408 | 271,764 | 105,886 | 4,756 |
| 1894.. | 8,011,693 | 2,105,840 | 5,807,588 | 7,899,326 | 862,099 | 1,102,746 | 124,888 | 4,845 |
| 1825.. | 8,276,656 | 1,844,146 | 5,120,702 | 7, 506,412 | 147,\$15 | 845,164 | 111,204 | 1,212 |
| 1886. | 8,749,659 | 2,882,774 | 8,182,432 | 7,653,759 | 408.923 | 410,508 | 121,754 | 2,184 |
| 1827. | 4,160,747 | 2,655,841 | 6,816,049 | 7,241, 34 | 870,163 | 478,590 | 189,881 | 8,548 |
| 1828. | 8,919,997 | 2,400,994 | 6,408,991 | 6,128,135 | 787.010 | 579,228 | 180,018 | 8,909 |
| 1829. | 8,719,263 | 1,859,096 | 8,575,849 | 4,806,524 | \$82,144 | 808,920 | 114,009 | 8,120 |
| 1880. | 8,489,060 | 1,477,675 | 4,916,785 | 5,577,280 | 275,087 | 862,084 | 114,064 | 11,320 |
| Total... | \$8,292,844 | \$19,700,659 | \$54,998,083 | 67,427, 619 | -4,129,969 | 65,867,424 | 1,165,498 | 50,493 |
| 1881. | 13,684,144 | 1,259,608 | -4,993,842 | -3,871,797 | 8800,500 | 181,774 | 182,922 | 17,916 |
| 1832. | 8,641,897 | 1,630,754 | 5,812,151 | 7,116x,857 | 189,152 | 91,065 | 128,688 | 25,632 |
| 1888. | 8,968,118 | 1,706,087 | 5,672,700 | 9,704,757 | 458,223 | 99,858 | 188,698 | 81,081 |
| 1884. | 8,492,980 | 1,850,455 | 5,852,435 | 9,096,002 | 149,469 | 608,605 | 129,524 | 29,984 |
| 1885. | 8,917,496 | 1,089,872 | 5,501,808 | 11.846,615 | 845,175 | 266.256 | 151,318 | 26,189 |
| 1836. | 4,601,717 | 1,803,772 | 6,405,459 | 12,784,875 | 816,148 | 122,518 | 166,460 | 8,329 |
| 1887. | 4,808,783 | 9,003,820 | 6,8b7,803 | 12,447,922 | 607,147 | 1,643,110 | 175,796 | 18,194 |
| 1883...... | 4,721,483 | 1,454,825 | 0,175,753 | 11,694,818 | 235,230 | 410,794 | 198,746 | 10,619 |
| 1839...... | 5,025,626 | 1,091,405 | 0,116,481 | 12, 699,848 | 178,497 | 821.814 | 194,578 | 12,905 |
| 1840. | 5,331,471 | 979,044 | 6,810,815 | 9,435,477 | 149,570 | 548,169 | 102,548 | 15,679 |
| Total... | 4,42,876,100 | 15,238,483 | 68,114,182 | 104,050,957 | 68,023,160 | \%4,298,517 | 1,098,478 | 141,591 |
| 1841...... | -5,107,011 | 632,071 | \$5,789,082 | -11,067,027 | -156,461 | \$184,909 | 194,001 | 14.163 |
| 1842...... | 4,197,463 | 572,991 | 4,770,449 | 7,680,429 | 100,102 | 285,940 | 182,456 | 9,719 |
| 1843** | 4,9210,922 | 899,375 | 8,326,797 | 5,015,948 | 188,495 | 6515,965 | 188,838 | 4,897 |
| 1844. | 4.804, 068 | 984.538 | 5,288,595 | 9,980,421 | 578,910 | 170,927 | 224,618 | 7,583 |
| 1815. | 0,203,80s | 860.946 | 6,564,754 | 6,904,414 | 18,029 | \$23,168 | 171,892 | 16,191 |
| 1846. | 4,718,986 | 778.170 | 6,497,146 | 8,159,632 | 829,801 | \$09,091 | 177,030 | 12,339 |
| 1847. | 6,005,617 | 972,089 | 6,977,716 | 12,894,86T | 615,774 | 881,787 | 248,515 | 18,498 |
| 1843. | 6,432,830 | 464,883 | 6,898,713 | 12, 203,472 | 110,049 | 768,289 | 231,251 | 14,435 |
| 1449. | 4.64t,145 | 663,063 | $5,309,213$ | 10,659,956 | 818,500 | 412,598 | 254,568 | 19,504 |
| 1559. | 4,530,256 | 4610,041 | 4,990,297 | 10,292, 399 | 177,855 | 298,011 | 254,018 | 29,603 |
| Total. | - $49,0062,695$ | 6,238,107 | 855,300,742 | *05,325,519 | 2,524,446 | 4,1t8,790 | 8,150,297 | 146,093 |
| 1851. | -5,239,270 | \%t,2x4, 347 | 6,524,129 | 17,046,981 | 1,094,004 | \$880,018 | 961,782 | 29,942 |
| 1552.. | 5,503,196 | 7t4, 235 | 6,517,551 | 17,581,74s | 4771,657 | 254,112 | 979,608 | 22,780 |
| 1858.. | 5,778,419 | 514,540 | 6,287,089 | 13,545,.55 | 128,830 | 88, 0982 | 865,392 | 22,730 |
| 1854.. | 8.228 .118 | 823: 638 | $8,501,752$ | 17,124,839 | 61,781 | 128,508 | 898, 049 | 25,183 |
| 1853)...... | 7,607,119 | 897,463 | 8, 004, 502 | 18,624, 849 | 49,872 | 188,487 | 481,545 | 81,190 |
| 1856...... | 7,199,085 | 610,223 | 7,509,263 | 24,45, 698 | 3 $-4,062$ | 28,945 | 483,796 | 13,386 |

- 9 months to June 80, and fiscal year bogins July 1.

The following table will show the values of lard and oil imported into Cuba, in 1851, 1852, and 1853:

$$
\begin{aligned}
& 1658{ }^{\prime \prime} \\
& \text { …… } \\
& \text { 861,036 } \\
& { }^{\prime} \\
& 43546
\end{aligned}
$$

Meats.-The existence of a differential duty on ineats inported in Spanish bottoms, draws the supply of this article in the markets of Cuba from Buenos Ayres to the extent of $30,000,000$ pounda annually; while from the United States it comes to a very limited extent, notwithstanding the quality of the article imported from the United States is far superiur to that from South America.

The following table exhibits the quantity of jerked beef imported into Cuba during the years, $1800,18.51$, 1852 , and 1853 , and the countries wheneo exported. The arroba equals about 251 lbs .

| Years. | Froin the United States. |  | Froun Spaln, Central and Suath Anerica. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Arrotist. | D.ilari. | Arrubna. | IR, inals. |
| 1559 | 6,241 | 8.480 | 1,205,110 | 1.6939,101 |
| 1591 | 5,337 | 7.802 | $1.876,652$ | 1,1783,910 |
| 1852 | 4,419 | 8,236 | 1.163,241 | 1,607,823 |
| 1833 | 674 | 1,058 | 1,016,095 | 1,867,140 |

The following table shows the exports of sugar from Lavana and Matanzas, for the years 1853, 1851, und 1855:
Expont of Suean im Boxes from Ifavana and Matanzas.

| To | 1 183. | 1854. | $1 \times 55$. |
| :---: | :---: | :---: | :---: |
| United States | 149,574 | 154,346 | 197,179 |
| Great tlritala | 14,85 | 67,410 | 42,058 |
| Cowes, and a mark | 245,518 | 274,374 | 213,230 |
| Bahlo... | 89,835 | 15,498 | 28,968 |
| Ilamburg and trente | 15,171 | 44,27i | 38,643 |
| tioilant. | 8,826 | 7,930 | 10,992 |
| llalatam | 11,926 | 24,9033 | 25,817 |
| Bpala. | 81.750 | 81,980 | 194,844 |
| France................... | \$0,6630 | 67,580 | 118,808 |
| Triesto add Vonlee....... | 20,652 | 41,966 | 19,7*5 |
| Leghorn and Genoa...... | 7,5077 | 8,429 | 8,549 |
| Other 1'orts.. . . . . . . . . . . | 5, 840 | 4,737 | 15,266 |
| Total boxe | 6:5,801 | 787,755 | 9/8,177 |


| Yeara, | Fron Spain. | $\begin{aligned} & \text { From the } \\ & \text { United 8iates. } \end{aligned}$ | $\begin{aligned} & \text { From } \\ & \text { Engiend. } \end{aligned}$ | From other counirles. |
| :---: | :---: | :---: | :---: | :---: |
| 147 | *2,187,978 | *528,645 | 869,634 | * 14,517 |
| 1848 | 2,651), 228 | 174,405 | 9.711 | 25,650 |
| 1819 | 2, 072.51509 | 9,332 | 8,962 | 125 |
| 1501 | 3,204,923 | 6,665 | 1,250 |  |
| 1851 | 8.181 .525 | 26,231 | 650 |  |
| 1554 | 8,971,979 | 91,664 | 2,725 |  |
| 1953 | 2,676,791 | 29,880 | 80,149 | 25 |

The duty in Cuba on tlour imported from Spain is $\$ 250$; on that Imported from the United Stales, in American or other foreign bottoms, is $\$ 1081$; the effect of which is to drive the American article entirely from the Cuban market, except at such times as when scarcity may have carried it up to famine point. The tonnage duty that exists on Spanish bottoms is $62 \frac{1}{2}$ cents per ton, and on foreign shippling $\$ 150$ per ton, contributlng, in combination with other differential duties and restrictions, to the Spanish tlag, advantages in the carrying trade of the products of that lslgad to the northern European ports.
The imperts of tlour lite Cuba from the United States, fruin 1853 to 1856 Inclusive, are ghowa in the following table:

| Year ending Jane 30. | Barrile. | Value. |
| :---: | :---: | :---: |
| 1683 | 1,6:17 | * 2.814 |
| 1834 | 11.59:1 | 82,499 |
| 1455 | 8,424 | 88,176 |
| 1850 | 8,806 | 80,066 |

Board of Trude.-The annual report of the licard of Trade of the island, to tho superintendent of the royal treasury, of the general navigation und comuercial movements of the island, in the year 1850 , sets forth these facts In a manner worthy attention. It shows that In 1850 there had been an Increuse over the last year of $92,038,226$ In the value of goods imported In national vessels, but that the lmportation in forelgn vessels had only Inereased $\$ 574,540$; a result to be asscribed to the protectivo and differential syrstem which
favors Sp present ta actly the the expol while th $8447,104$. causes, ns both In re the nation which for island, en which the general, port duty
In the © $26,320,4$ 4885,892been expe and $\ln$ the appears, i preserved butter, an lacreased scsle of qu than 8,90 year, in ec Msnilla; creased a articles of would ha lnution. Board* to as the ext season, an
Europe ul measares flow of co may, a res trade unde 81,000,000 produce ol be taken bashness which wa tial duties valez of

Spala an Spanish Uniled S
Other eo

Tol
Frome the value Spanish s 1830 it re 18t0, and 87,000,00 vessels 85,000,00 1848, who ments, $\mathrm{c}_{2}$ $85,814,78$ of $\$ 6,423$ the other eign flour increased portation lag of fo amount 1849, and lowiug t. piled, un

- Balan
favors Spanish over forelgn shipping, and on which the present tariff is based. In regard to exportation, exactly the contrary atate of facta will appear. In 1850 the exports In foreign vessels increased $\$ 2,748,287$, while the lncrease $\ln$ natlonai bottoms was only $\$ 477,104$. These different results are tracesble to two causea, namely: as to imports, to the diacriminations, both in respect of tonnage and tariff duties, in favor of the national flag; and as to exports, to the advantages which foreign vessels, exporting the products of the island, enjoy as national vessela in the countries to which they respectively belong-advantages which, in general, more than countervail the discriminating oxport duty in Cuba in favor of the national flag.
In the year 1849 the value of importation was \$26,320,460, an increase over the previous year of 8885,892-an amount much lesa, however, than had been expected from the ateady progress of the island; and in the aame time the importation diminished, as it appears, in many articlea of provision. Forelgn flour, preserved meats, cod-fleh, bscon, jerked beef, lard, butter, and foreign wine (ulthough the national wine increased to an anount, in value, $\$ 200,000$ ), fell in the scale of quantity, and the article of rice increased more than 8,000 arrobas over the inportation of the last year, in consequence of the cargoes of that article from Manilla; 暗 that had it not been for this, and the increased amount of some other provisions imported, articles of manufacture and coin, the yearly account would have exhlited a still more considerable diminution. Thia state of things was considered by the Board* to be the result of some evident causes, such as the extreme drought, which afficted the crops of the season, and the prevalence of cholera in the ports of Europe and the United States, rendering sanitary measures necessary, which Interfered with the nutural flow of commerce. But, be these causes what they may, a result of the year was an amount of carrying trade under the Spanish flag to the island, of mere than $\$ 1,000,000$ in the value of effects imported; and if the prodace of the Peninsula, brought in antionul vessels, be taken into account, the increase of thls branch of basiness reached, in twelve monthe, near $\$ 700,000$, which was considered to be the result of the differential dutics exlating.
Value of the importation of Rice into Cuba, in the rears 1848 and 1849.

| From | 184\%, | 1849. |
| :---: | :---: | :---: |
| Spain and her colonles. | 象228,943 | (140,925 |
| Spanish Ameriean republles... | 101,664 | 51,418 |
| Undted States.. | 711,118 | 799,499 |
| Other ceuntrles. | 15,621 | 4,284 |
| Total | \%1,047,246 | 61,039,076 |

From earlier tables, it r ppears that in the year $18: 2$ the value of Spanish produce, nrriving at Cuba in Spanish ships, amounted to only $\$ 409,352$; in the year 1830 it reached $\$ 3,000,000$; it exceeded $\$ 5,000,000$ in 1840, and at the close of 1848 had risen to more than $87,000,000$. Foreign produce brought in national vessils in 1825 anounted to $\$ 2,449,440$, excceded $85,000,000$ in 1810 , and reached near $\$ 8,000,000$ in 1818, when the Spanish tlag, in both commercial movements, came to flont a value of $\$ 14,936,811$. The duties arising on importations in the year 18.19, wero \$5, 844,783 ; on exportations, $858.1,477$; making a totul of $86,429,200$, diminishing, when compared with the preceding year, in the one inatunce 8436,621 , and in the other, $\mathbf{8 1 2 4 , 8 3 6 ; ~ m a k i n g ~ a ~ t o t a l ~ o f ~} \$ \mathbf{j} 61,457$. Foreigu flours fell off 16,654 barrels, ulthough the Spanish increased 1,121 burrels; and a general increase of innportations of nutionai produce had ensued, anil a lessening of foreign, which tended greatly to decrease the amount of duties. The commerelal actlon of 1818 and 1849, and of succeeding years, is illustrated by the following tables, made up from the official exhibits compllcd, aunually, for the government:

- Balaeza General del Comerclo de la Isla de Cuba, 1849.

 dubiva the Years 1848 to 1854.

|  | Rice. | C | Flour. |  | Beaf. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Be |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 872,906 |  | 214,240 |  | 225 | 763,40 |  |  | T63,941 |  |  | 525,209 |  |  |
| 18 |  |  |  |  |  | 010,908 |  |  |  |  |  | 858, 801 |  |  |
| 1851 |  |  |  |  |  | 624,200 | 1,65 |  |  |  |  |  |  |  |
| 1859 | 837,897 | 541,742 | 8211,92: |  | 775,350 | 486,787 | 776.9 | , 1 | 460,419 |  |  |  |  |  |
| 184 | 1,168,672 | (593,535 | 214,460 |  |  |  | 1,122,5 | 6,690 | 509,140 | 981 |  | 497 |  |  |
| 18 | 1,02 | 021,31 | 281,8 | 7,237 | T89,10 | 687 |  |  | 402,265 | 250,694 | 1,876,875 | 636 | ,265,068 | - |



| Years. | $\begin{gathered} \text { Agvardleate. } \\ (H \mathrm{~nm} .) \end{gathered}$ | Cotton. | Stugur. | Cofter. | Heenwax. | Wooda, | Honsy. | Molasecs | Cupper orv. | $\begin{gathered} \text { Leal } \\ \text { tobseco. } \end{gathered}$ | Sogan. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1848 | P1pwe. | $\begin{aligned} & \text { Pound } . \\ & 28,690 \end{aligned}$ | $\begin{gathered} \text { Buxes } \\ 1,228,718 \end{gathered}$ | Arrutins. 694,187 | ©0,116 | $\begin{aligned} & \text { Du, ilars } \\ & 85,205 \end{aligned}$ | $\begin{aligned} & \text { Dellars. } \\ & 56,628 \end{aligned}$ | 11hidn. 228,746 | Qulatole. ( 50,191 | $\begin{gathered} \text { Punde. } \\ 6,275,680 \end{gathered}$ | $161,490$ |
| 1849 | 11,840 | 73,655 | 1,099,384 | 877,890 | 85,691 | 817,304 | 48,108 | 246,570 | 589,810 | 4,019,188 | 128,720 |
| 1850 | 4,825 | 88,475 | 1,249,818 | 820,134 | 88,194 | 839,128 | 55,182 | 209,044 | 502,283 | 7,978,148 | 212,640 |
| 1851 | 9,221 | 12,145 | 1,089,994 | 575,119 | 07,4\%8 | 898,811 | 69,825 | 818,423 | 492,882 | 9,486,591 | 270.818 |
| 1852 | 11,359 | 12,009 | 1,409,018 | 739,526 | 83,501 | 453,945 | 78,683 | 262,598 | 881,470 | 9,787,443 | 142,507 |
| 1853 | 14,294 | 184,625 | 1,857,192 | 444,780 | 45,946 | 448,433 | 85,969 | 808,831 |  | 8,089,797 | 247,850 |
| 1854 | 25,272 | 87.262 | 1,633,751 | \$11,498 | 11,884 | 547,818 | 104,812 | 261.815 | 840,533 | 9,800,250 | 251,818 |

> Statement of the Quantities or Valuzy of tur pmincipal Abyiolke exportri phon Coba, 1843-1854.
[Maod up paox tiea "Balankas Genkales,"]

| Artlelen. | 1848. | 1849. | 1850. | 1851. | 1889. | 1853. | 1854. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coffee ..............errobas | 644,187 | 877,1088 | 820,184 | 575119 | T30,826 | 442,780 | \$11,498 |
| Cotton............. ${ }^{\text {do }}$ | 1,143 | 2,946 | 8,889 | \$81 | 12,009 | 8,545 | 1,420 |
| Cacas............. do. | 8.45 | 2,170 | 7,708 | 7,089 | 88,814 | 87,857 | 15,6\%0 |
| Majaquo (ent)...... dollsrs | 7,857 | 8,868 | 11,076 | 28,179 | 1,458 | 1,021 | ${ }_{59}$ |
| Beeswax (browa). . .urrobas | 18,568 | 16.532 | 18,294 | 18,449 | 97,810 | 96.406 | 29,042 |
| Beeswax (white)... do. | 84,544 | 19,158 | 89,9t9 | 4t,014 | $81,2 \times 1$ | 19,540 | 42,292 |
| Tobacco, 1 Naf. . . . . .peunda | 6,275,890 | 4,019,133 | 7,078,143 | 9,486,691 | 0,737,448 | 8,089,797 | 9, 509,156 |
| Turlte-abell........ do. | 2, ${ }^{3,75}$ | 88.678 | 4.854 | 30,1+1 | 1, 8,848 | 4,863 | 2,780 |
| 8ugar.............. boxes | 1,223,718 | 1,009,894 | 1,249,018 | 1,889,904 | 1,409,012 | 1,657,192 | 1.685,751 |
| Molasses............ hbda, | 228,724 | 246,570 | 269,044 | 818,429 | 268,503 | 803,681 | 261.815 |
| Copper ore........qulntals | 866,491 | 583,1810 | 652,283 | 432,803 | 881,470 | 845,050 | 649,54, |
| Quano (palm leat). .seroons | 20,044 | 86,093 | 53,4]1 | 47,801 | 42,551 | 4,233 | 10,411 |
| Aguarilente . . . . . . plpes | 16,396 | 11,640 | 11,825 | 0.221 | 11,359 | 14,294 | 25,972 |
| Segars.........thousanis | 181,480 | 123,721) | 208218 | 970.818 | 180,010 | 287,950 | 251,819 |
| Cigarillos e pleado. dollars | 110,498 | 89.110 | 77,299 | 105,445 | 84,796 | 84,695 | 178,625 |
| 1loney ............ do. | 66,509 | 48.103 | 55,132 | 89,625 | 78,698 | 85,959 | 104,812 |
| Frults, eto......... do. | 87,267 | 24,819 | 84,647 | 82,04: | 83,478 | 68,196 | 882.629 |
| Woods...i......... do. | 8500903 | 817.894 | 859.128 | 898.811 | 458,945 | 448.488 | 547819 |
| Metals (old)........ do. | 102,698 | 88,502 | 84,880 | 68,254 | 80,126 | 188.100 | 09,18s |
| Mats.............. do. | 44.483 | T,092 | 6,774 | 7,188 | 8,069 | 80,624 | 12,698 |
| Manufacturea ...... do. | 70,143 | 47,382 | 41,087 | 49,887 | 236,180 | 151,592 | 99,136 |
| Itquide evprovisions do. | 90,234 | 100,813 | 181,008 | 142,058 | 107.510 | 89,456 | 124,977 |
| Ithdos............. do. | 7,983 | 8150 | 9,655 | 6,849 | - 25,648 | 21.162 | 21,185 |
| All other articles... do. | 174.872 | 849,492 | 281,772 | 260, 338 | 484,876 | 895,029 | 130,724 |
| Total value of all exports | -26,077,087 | \$422,430,556 | 325,681,948 | 481,341,683 | 627,458,036 | 881,210,405 | *38,689,731 |

 [Fhon the "Balanzas Grnerales."]

| Artieles. | 1849. | 1849. | 1850. | 1*51. | 1052. | 1853. | 1454. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Articlee of eubsiatence. |  |  |  |  |  |  |  |
| Olive oll. | -569,717 | \% 567,440 | \$707.974 | +477,259 | * 485264 | * 472,783 | \% $4 \times 8.162$ |
| Liquids. | 2,012,042 | 2,164,920 | $8.4+8.561$ | 2,847.786 | $2,568,309$ | 8,959,059 | 8,739,874 |
| Mests.. | 2,075,129 | 1,971,269 | 1,978.111 | 1,055,428 | 1,0014,393 | 1,625,65\% | 4,215,029 |
| Splees...... | 68, 434 | 62,084 | 66,558 | 501, 448 | 92,005 | 81,146 | 07.014 |
| Frulta, nuts, preserves. | 240,304 | 971,017 | 259,445 | 287,556 | 806,374 | 275,340 | 275,542 |
| Blce. | 1,075,636 | 1,092,597 | 1,198,744 | 1,159,656 | 1,046,604 | 1,072.655 | 1,00) 0,2421 |
| Cercals, flour, pulse, cacso. | 8,2201,082 | 8,067, 54 | 8,410,983 | $8,644,154$ | 4,404,497 | 8,127,293 | $4.84 \times \times 4$ |
| Iard nnd butter. .......... | 1,178,094 | 1,200,750 | 964,072 | 974.751 | 9.45143 | 941,415 | $1,197,643$ |
| Chees | 104, 839 | 143,751 | 167,024 | 171,662 | 186,945 | 39,416 | 158,185 |
| Fish....................... | 723,602 | 653,680 | 521,344 | 610,205 | 608,424 | $590,2 \times 5$ | 878,423 |
|  | .... | 189,783 | 201,687 | 199,842 | 72,717 | 97,942 | 119,955 |
| Cottons. . . . . . . . . . . . . . . . | 9.177.716 | 2,487,205 | 2,585,909 | 3,021,009 | 2,861,567 | 8,050,574 | 2,0,05,093 |
| Woolens. | 4054881 | 497,883 | 522,492 | 481,702 | 859,060 | 487,157 | 424,678 |
| Linena.. | 2,024,354) | 2,340,932 | 8,151,798 | 8,529,094 | 2,481,564 | 2,198,582 | 2.425,195 |
| Sllks. . . . . . . . . . . . ......... Other manufactures. | 456,672 | 830,943 | 427,967 | 520,812 | 59\%, 747 | 683,165 | 654, 888 |
| sklins and peltrles.......... | 475,152 | 488,710 | 476, 201 | 880,457 | 635,87.1 | 708,802 | \$64.825 |
| Wood | 2,812,738 | 1,721,299 | 1,805, 875 | 8,911,229 | 2,042,136 | 1,809,960 | 2,402, 807 |
| Metal. | 169,054 | 218266 | 280,749 | 480, 2004 | 1bs tis | 108,460 | 107,172 |
| Glass.. | 72,94 | 64.450 | 95,583 | 104, 014 | $1^{7} 987$ | 217,25s | 141,510 |
| Iron-ware.. . . . . . . . . . . . . . | 1,001,993 | 908,044 | 1,098,818 | 1,158,579 | 1, ¢-3, 098 | 1,684,685 | 1,876,945 |
| Hoap. | 4221,432 | 018.815 | 479,54) | 515,189 | 581,087 | 818,240 | 659,180 |
| Medlelues . . . . . . . . . . . . . . | 00,411 | 96,430 | 141,007 | 169.02\% | 187,186 | 150, 423 | $148,9(0)$ |
| Furniture. | 120,041 | 94,104 | 107,082 | 157,628 | 131,200 | 169,903 | 164,104 |
| Purfumery ............... | 27,989 | 48,219 | 80,478 | 06.141 | 103,944 | 171, 644 | 115,939 |
| Caniles, sperm, laril. . . . . . | 123,882 | 134,072 | 179,823 | 188,901 | 140.844 | 171.247 | 127,671 |
| Tobaceo of all hinds. . . . . . <br> (bin. | 24,729 | 2-2,676 | 18,2429 | 20,760 | 87,672 | 17,852 | 20,32 |
| Gold and sllver . . . . . . . . . | T69,191 | 889234 | 1,801,058 | 2.511.403 | 989,424 | 479,560 | 235,937 |
| Total value of all lonports | 825,485,565 | (20,820,400 | \%24,053,227 | +32,811,430 | \$99,780,242 | - 27 7,789,810 | \$31,394,575 |

In 1851 Cuba imported to the amount of $332,311,-\mid$ suffered diminution were liquids, woolens, and ma430, being an increase over the yenr 1850 of 83,328 ,terlals for ruilroad care.

[^6]Numers
Nalt spantsh. United st English. Freach.. German. Thanleh:. Duteh.. Belgian... span. A $\ddot{ }$ swed. A Swed. at A
Russlan... Russlan...
Prusslan.. trusalan. sardinlan Brazilian.
Austrad. itallan....

Total. .
The imp of 1850 by chiefly atti under forel eral years lars, Inerea over the $p$ from Spani a half mill the lotal in more than I than those nearly 25 from all cou
The exp 6,709,730, than three show the re and foreiga

In nallon
In forelgt
Total
Of the e 8184,013 in ahips; whis increased pr the precedin from the is which exce boxee. The lasses, coffe though ,
fuets nre sig duties, and nating expo ficiently effe the Spanish ness, nation
'The amou of Cuba dur

Under the
Under fir
Total
A compari hiose for tile flay an iner
hundred per
The value year $1852 \$ 2$
below these imports was 187,413 poun srrobas ; but arrobas; ant tgr, 130,982 per, 51,412 faliing off in to aet in $n$


| Nation. | 1848. | 1849. | 1860. | 1861. | 1835 | 18931 | 1884 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8panish. | 875 | 877 | 878 | 888 | 047 | 901 | 928 |
| United States.... | 1,789 | 1,089 | 1,596 | 2,014 | 1,886 | 2,807 | 9,180 |
| English.......... | , 670 | 451 | 493. | 570 | 476 | 868 | 467 |
| Freach........... | , 80 | 67 | 185 | 116 | 88 | 126 | 100 |
| German | 72 | 88 | 70 | 74 | 60 | 57 | 67 |
| Danlah: | 20 | 11 | 24 | 85 | 82 | 20 | 29 |
| Dutch............ | 21 | 24 | 20 | 25 | 86 | 24 | 26 |
| Belgian .......... | 28 | 24 | 49 | 61 | 27 | 45 | 24 |
| Span. Amerlean.. | 15 | 9 | 7 | 18 | 11 | 18 | 16 |
| Swed. \& Norweg. | 16 | 12 | 25 | 27 | 11 | 17 | 10 |
| Russisn.......... | 7 | 15 | 22 | 14 | 8 | 7 |  |
| Prusslan.. . . . . . . . | 6 | 18 | 1 | 7 | 27 | 17 | 4 |
| Sardiniap . . . . . . . | 9 | 9 | 11 | 8 |  |  | .... |
| Brazilan . . . . . . | 2 | 8 | 8 | 8 |  | 2 | . $\cdot$ |
| Austriad. . . . . . . . | 1 | 1. | 18 | 28 | 5 | 8 |  |
| Itallsa............ | .... |  | 8 | 4 | 5 | 6 |  |
| Total. | 8,646 | 8,218 | 8,356 | 8,869 | 8,612 | 8,918 | 8,811 |

The imports under the Spanish flag exceeded those of 1850 by $\$ 1,444,104-a$ result that was considered chlefly atiributable to the syatem of duties in force; under foreign flags, the importations, which for several years had rarely exceeded cieven millions of dolfars, fnereased in 1851 to the smount of $\$ 1,884,098$ over the previous year. The merchandise brought from Spanish ports amounted to more than eight and a half millions of doilare, being $\$ 352,181$ more than the totai imports from the United States; $\$ 1,225,300$ more than those from Great Britain ; $\$ 5,740,461$ more than thess from the former Spanish possessions, and nearly 25 per cent. on the total amount of importe from ali wuntries.
The exports of 1861 exceeded those of 1850 by © $5,709,785$, which was an increase over 1849 of more than three millions of doilara. The following will ghew the relative proportion of the exporis in Spanish and foreign bettoms in 1851 :

|  |  |  |
| :---: | :---: | :---: |
| In natlonsl vessels. | Prporta,izo | $\begin{gathered} \text { Exporta } \\ \text { en, } 204,658 \end{gathered}$ |
| In forelgn vestels | 12,412,254 | 25,187,029 |
| Total in 1851. | \$32,811,480 | \$81,841,692 |

Of the exports this was an increase over 1850 of $\$ 184,013$ in nutional ships, and $\$ 5,525,721$ in fureign ships; which was nearly equal to the value of the increased production and exports of the isiand over the preceding year. The quantity of sugar exported from the island in 1801 was 281,381 boxes over 1850 , which exceeded the previous year nearly 150,000 bexes. The incrense of the important staples of molasses, coffee, and tobacco (raw and manufactured), though a. : su great, was highly important. Thess facts are signilleant of the force of forsign reciprocal duties, and forcibly demonstrate that any discriminating export or tonnnge duty on forcign vessels, sufficiently effective to give this ontward moveanent to the Spanish flag, must fataliy injure the productiveness, nationni commerce, and industry of the isiand.
The anount of shipping which entered the perts of Cuba during 1850 and 1851, was as follows :

|  | 1850 . | 1851. |
| :---: | :---: | :---: |
| Under the national flag. | 24,112 | 270,176 |
| Under forelgn flaga. . | 99,864 | 727,814 |
| Total. | 128,976 | 007,090 |

A comparison of the returns for the year 18.15 with those for the year under review gives to the Spanish flag in increase, during that period, of nearly one hundred per cent.
The raiue of the importations diminisied in the yesr $1852 \% 2,531,188$, and the exportntions $\$ 3,887,746$, below those of the provious year. The faliing off in imports was on the articies rice, 91,382 arrobas; pork, 187,413 pounds; hams, 878,532 pounds; lurd, 3,891 srrebas; butter, 133,775 poundis ; jerked heef, 118,317 arrabas; and in exports, on cotton, 1,036 pounds ; sugar, 130,982 boxes ; molasses, 55,834 hagsheads ; copper, 51,412 quintais ; segars, $127,746,000$. The great falling off in the item of sugar could not have frited to act in a corresponding inanner on the amount of tonage, and measurubly, on the valuo of imports.

The importation in 1858 reached an aggregate value of $827,789,800$-an amount exceeded, the preceding year, by $\$ 1,000,441$. The artiules which auffered the greatest diminution were codfish, flour, beef, iard, cheese, jorked beef, bacon, Sjunish and forelgn wines. While thus the value of imports diminished, that of exports considerably increased. The total increase over 1852 amounted to $\$ 3,756,468$.

The United States exported to Cuba In 1856 goods to the, value of $\$ 7,809,263$, being a decrease on the exportations of the preceding year of $\$ 195,819 ;$ and imported to the value of $824,435,603$, ohowing an increase of $\$ 5,810,2 \mathrm{~J}$. The tatal trade between Cuba and the United States is usually about the third part, or 331 per cent., of the total imports and exports of the island. The total number of vessels entering the porta of Cubn in 1853 was 3,918 ; totai number cleared, 3,827. The foliowing table exhibita the nationality of these vessels :

| Natlonality, | Ealered. | Cleared. |
| :---: | :---: | :---: |
| Spaulah. . . . . . . . . . . . . . . . . . | 901 | 888 |
| United States. . . . . . . . . . . . . . . . | 2,307 | 2,178 |
| British.. ......................... . . | 863 | 461 |
| Franeh.......................... | 126 | 121 |
| Ilolgian. . . . . . . . . . . . . . . . . . . . | 45 | 26 |
| Dutch. . . . . . . . . . . . . . . . . . . . | 24 | $18{ }^{\prime}$ |
| Qormsa. . . . . . . . . . . . . . . . . . | 57 | 67 |
| Daaish..... . . . . . . . . . . . . . . . . | 20 | 28 |
| Dwedish.......... . . . . . . . . . . | 17 | 22 |
| Russlan. . . . . . . . . . . . . . . . . . . . | 7 | 11 |
| Prusslan ........................ | 17 | 7 |
| Spanish American. .............. | 18 | 11 |
| Ilinilan. ......... . ................. | 6 | 5 |
| Brasilian. | 2 | ..* |
| Austriad...................... | 8 | $\ldots$ |
| Tetal . . . . . . . . . . . . . . . . . | 8,913 | 9,827 |

In 1854 the total trade of Cnbn ascended to $864,-$ 078,309, viz. : imports to $\$ 31,394,578$, and exports to $\$ 32,688,731$. This movement exhibited the following result, when compared with the trade of the preceding year:

|  | Imports. |  |
| :---: | :---: | :---: |
|  | 881,394,578 | \%82,688,781 |
|  | 27,789,800 | 91,210,405 |

An enalysis of the retums from which the preceding figures are derived exhlbits the following details: Of imports, the increase is perceived especlaliy on the articles codfish, flour (national and foreign), pork, beef, hams, lard, cheese, jerked beef, bacon, and foregn wins; while there was a slight decranse on the articles rice, butter, and Spanish wine. Of experts, the inerease fell, chiefly, on rum, sugar, coffee, wax, woorls, honey, copper ore, leaf tobneco, and segars; while the articles raw cotton and molasses show a slight faliing off. Under the national flag, the increase of importations over those of 1853 , was, in value, $82,254,524$; in foreign bettoms there was a similar increase of $\$ 1,350,453$. Tha incrense in exports, under the Spanlsh flag, wns $\$ 1,232,759$; under foreign flage, $\mathbf{*} 20,566$. The exports from Cuhn to the United States, during this year, mmounted in value to $\$ 11,641,813$, or mors than one third of the exports of the isiand to ali countries; the imports into Culu from the Uuited States, during the same period, reached, in value, $\$ 7,867,680$, or over one fourth of the total imports from ali countries. Of the imports into Cubn from the United States, only 819,755 , in vaiue, was carried in Spanish vessels; while the vaiue of such imports, under foreign flags, reached ns high as $\$ 7,817,925$. The exports from Cubn to the United States were exclusively borne in foreign bottomstwo arrivals, one from llavann, carrying a value of 219; the othar from Gibarn, with frelgint amounting to $\$ 540$ : in nii, $\$ 759$-being too insignificant to constitute a noticenble exception.

The following "statements" of revenue colieeted by the muritime and terrestrial custom-houses of that island in the year 1855, compared with the jreceding year, pubished in the gevernment Gnzette, by order
nf the auperintendent-general of the royal exchequar indicate increased netivity of trade; the oxcess of revenue collected in December, 1855, over the eame
onth in 1854 , being nearly 264,000 , and the excess for the whole of 1855 over the whole of 1854 amounting to $\mathbf{8} 350,428489$.

Btathmant of Revanut collzotid in Cuna in 1855 and 1854, comparmo.

| Administrations. | If the your 1865. |  | In the your 1854. |  | Incresee la 1866. |  | Dearemee in 1805. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mantine. | Tarrearial. | Martime. | Taprouthay. | Mantilme. | Terreatrini. | Marlime. | Temestral. |
| Havana. | 66,456,859 | 82,094,971 | 6,416,416 | 82,089,246 | 889,948 | 61,745 |  | - $\cdot$. ${ }^{\text {. }}$ |
| Matanzas. | 809,011 | 290,900 | 018,509 | 905,651 | .... | 25,243 | 49,498 | $\ldots$ |
| Cardenas | 815,560 | 86,789 | 829,044 | 68,948 |  | 97,889 | 14,898 | ... |
| Trinidnd. | 860,561 | 78,719 | 216,288 | 68,903 | 14,828 | 14,818 | * | . . . |
| Vilia-Clara. . . . . . | ..... | 68.584 |  | 68,008 | .... | 4,925 |  | . |
| 8to, Espirlta..... |  | 83,584 | 80,114 | 69,010 | 10.09 | 14,578 | 80,114 | . |
| 8agua la, Grande.. | 182,511 | - 81,865 | 115,978 | 89,010 | 16,088 | 2,854 | .... | .... |
| Clunfaggos. . . . . . | 854,278 | 84,429 | 359,891 | 09,650 |  | 24,779 | . $\cdot$ * |  |
| Romedlos. . . . . | 58,715 | 87,269 | 49,822 | 41,801 | 10,898 | 90in |  | 4,081 |
| Cubs ............. | 626,699 | 804,590 | 674.869 | 990,878 | $\ldots$ | 68,149 | 47,643 | $\ldots$ |
| Manzanillo....... | 6\%,148 | 84,709 | 75,085 | 80,884 |  | 8,874 | 18,487 |  |
| Glbara. . . . . . . . . | 42,710 | 7,578 | 40,170 | 8,111 | 2,640 |  | 18, | 532 |
| Bayamo........... | . . . | 50,092 | .... | 87.089 | ** | 18,067 | . $\cdot$ | ... |
| 110ignin........... | $\cdots$ | 80,878 |  | 24,718 | .... | 6,168 | $\cdots 11$ | . |
| Baracoa........... | 8,498 | 11,048 | 22,910 | 7,267 | .... | 8,776 | 14,411 | . |
| Nuevitas. | 74,431 | 0.021 | 05,654 | 0,818 | .... | $10 \%$ | 21; ${ }^{19}$ | $\cdots$ |
| Sta. Cruz.. | 10,600 | 6\%0 | 17,950 | 685 |  |  | 7,800 | 5 |
| Guantaname..... | 16,961 | 14,59\% | 12,986 | 8,525 | 4,025 | 6,008 | $\ldots$ | .... |
| Pto. Principe..... | . $\cdot$. ${ }^{\text {a }}$ | $\begin{array}{r} 183,950 \\ 1,096.429 \end{array}$ | ..... | $\begin{aligned} & 177,169 \\ & 980,492 \end{aligned}$ | . | $\begin{array}{r} 6,791 \\ 156,987 \end{array}$ | ... | $\ldots$ |
| Total. | 6,238,761 | 64,601, 88 | 89,874,891 | 64,164,779 | 8117,868 | 6441,127 | 8008,992† | -4,560 |

- Error in originali the flgures should be $9,2 s, 061$.

It may be proper to remark in this place, that the Balanzas Generales, from which the preceding and anbsequent tables ara derived, are not to be considered as giving the precise quantitles and values of the commercial exchanges of the isiand of Cube with foreign nations. They, doubtless, present the minjmum amounts of each, as it would seem to be the policy of the custom-house offcials, by whom these annual reports are prepared, to undervalue the foreign trade of the island. As far back as the year 1825, the unrellability of these Balanzas, as authority in statistical compilations, requiring precise accuracy, was noticed by Raron Humboldt, in that portion of his "Personal Narrative" which relates to the island of Cuba. Alluding to them, he ob-arves: "t have examined, in another work, fifteen years since, the basis upon which are founded the tables published under the fallacious title of ' Dnlanzas de Comerico.'" Since that period, it would seem that but litilie improvement has been made in the preparation of these
$\ddagger$ Error af 8,618 -excess. $\ddagger$ Error of 84,700 -excess.
annual exhibits of trade ; for the Depnrtment is offcially advised, as late as 1853, that, in respect of valnes, the amounts stated in the Balanzas are fully one fourth less than the real market value both of imports and exports. However this may be, the atatements and tablea given are all which are accessible; none other being published or prepared; and for all useful purposes, they will serve the statistician ea well ae if the greateat accuracy had been attained.
The commerce of Cuba with foreign nations for ths year 1854, is fully set forth in the annexed statements, taken from the "Balanzas Generales" for that year. It is followed by two other tables, made up from the Balanzas, designed to illustrate the commercial movements of Cuba during a periol of $\mathbf{t w e n t y}$-nine years, from 1826 to 1854, both inclusive; while a third table exhibits a comparative view of the foreign commerce of Cuba and Porto Rico, with the duties received, and the number of vessels entered and cleared, during a period of seven years, from 1848 to 1854.

Commrroz of Cuba witif fogeion Nationg from 1926 to 1840, [Made up frox the "Balantab Genebales."]

| Yearts. | National commerce. | In national vessels. | Volted States. | England, | Apanlsh Anterigan porta. | Franee. | $\begin{aligned} & \text { LIasae Towns } \\ & \text { and } \\ & \text { Notherlands. } \end{aligned}$ | Porta of the Baltic. | Italy and Portugal. | Depoilt. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1928 | Peson, | $\begin{aligned} & \text { Pesont } \\ & 814,683 \end{aligned}$ | ${ }_{5}^{\text {Peses, }}$ | 1,828,627 | Peqos, | $\begin{gathered} \text { Pewon } \\ 1,109,451 \end{gathered}$ | $\begin{gathered} \text { Pesos, } \\ 1,681,125 \end{gathered}$ | $\text { Pesos, } 16,849$ | $\begin{aligned} & \text { Pesos, } \\ & 218,794 \end{aligned}$ | $\begin{aligned} & \text { Peяоя. } \\ & 1,759,021 \end{aligned}$ | $\begin{aligned} & \text { Prosen } \\ & 14,925,754 \end{aligned}$ |
| 1827 | 2,541,822 | 849,729 | 7,162,695 | 1,618,871 |  | 1,478,204 | $1,640,011$ | 192,826 | 809,047 | 2,066,646 | 17,052, 554 |
| 1323 | 4,523,302 | 481,553 | 6,599,096 | 1,770,685 |  | $1,635,855$ | 2,092,906 | 178,027 | 282,584 | 2,083,5018 | $19,534,922$ |
| 1829 | 4,961,048 | 844,826 | \$,784,765 | 1,937,775 |  | 1,245,947 | 1,846,375 | 87,546 | 115,298 | 2,521,442 | 13,693, 456 |
| 1890 | 4,789,776 | 1,041,588 | 4,791,044 | 1,745,388 |  | 721,648 | 1,101,353 | 81,958 | 102,116 | 1,236,2>3 | 16,171,562 |
| 1531 | 4,121,829 | 1.485,890 | 4,890,808 | 1,465,983 |  | 669,604 | 1,808,899 | 21, 032 | \$0,092 | 896,001 | 13,54-791 |
| 1842 | 8,576,707 | 8,178.596 | 8,542,936 | 1,257,964 |  | 805,824 | 1,018,197 | 88,843 | 87,894 | 796,512 | 15,198,465 |
| 1833 | 8,185,781 | 4,777,580 | 4,461,472 | $1,625,178$ | 1,871,786 | 927.491 | 1,145,967 | 90,981 | 96,754 | 829,198 | 18,511,182 |
| 1834 | 8.412,4s7 | 4,970,013 | $8,890,101$ | 1,676,918 | 1,747,224 | 006,414 | 855,369 | 19,215 | 151,151 | 1,134,40\% | 18,562,800 |
| 1535 | 8,508,849 | 5,200,955 | 6,406,919 | 1,639,465 | 2,094,552 | 904.140 | 619,211 | 65,087 | 145,448 | 1,107,845 | 20,722,072 |
| 1336 | 4,470,725 | 5,850,070 | 6,553,281 | 1,522,429 | 1,579,588 | 817,445 | 760,959 | 69,063 | 92,629 | 1,009,771 | 22,551,469 |
| 1937 | 4,659,158 | 4,968,191 | 6,548,957 | 1,878,961 | 1,099,887 | 861,860 | 585,048 | 28,341 | 95,450 | 2,639,521 | 22,040,857 |
| 1534 | 4,460,987 | 6,169,152 | 6,202,002 | $1,499,300$ | 1,718,650 | 816,954 | 916,498 | 79,198 | 64,598 | $2.878,546$ | 24.829 .578 |
| 1839 | 5,820,515 | 7,103,704 | 6,182,794 | 1,770.499 | 1,467,125 | 714,064 | 852,078 | 124.40\% | 86,099 | 2.047 .911 | $25,217,793$ |
| 1540 | 0,295,261 | 6,634,718 | 5,654,125 | 1,497,109 | 915,541 | 618,461 | $1.010,291$ | 47,914 | 29,482 | $8,857,162$ | 24,500,189 |


| 1526 | 1,992,680 | 186,875 | 3,994,597 | 1,583,474 |  | 1,162,21s | 2,998,154 | 478,228 | 200,761 | 1,312,899 | $19,409,488$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1827 | 2,284,250 | 184, 050 | 4,107,449 | 1,605,073 |  | 1,048,618 | 2,651,083 | 487,298 | 489,402 | 1,48, 9006 | 14.246,192 |
| 1828 | 1,5324,224 | 711,479 | 8,170,964 | 1,611,820 |  | 751,812 | 2,809,229 | 788,521 | 287,289 | 1,478,020 | 18,114.862 |
| 1829 | 2,202, 030 | 502, 073 | 8,191,53, | $1,729.404$ |  | 907,808 | 2,406,818 | 904,920 | 308,640 | 1,683,247 | $1{ }^{11}, 982.4115$ |
| 1830 | 8,740.747 | 548,267 | 4,266,782 | 1,228,594 |  | 757,736 | 2,44,290 | 1,035,268 | 334,187 | 1,521,144 | 15,571,968 |
| 1831 | 2,193,761 | 727,838 | 8,021,592 | 1,5B7, 720 |  | 441,058 | 2,188,299 | 544,899 | 443,466 | 890,644 | 12,918,711 |
| 1838 | 2,178,637 | 998,404 | 8,108,466 | 2,101,680 |  | 860,099 | 2,590,818 | 1,185,525 | 893, 574 | 787,009 | 19,593, 017 |
| 1893 | 1,854,714 | 1,274,040 | 4,896,585 | 910,981 | 19,878 | 581,821 | 1,771,891 | 1,187,774 | 250, 511 | 859,818 | $18,986,100$ |
| 1894 | 2,074,592 | 1,491,503 | 8,524,724 | 2.080,387 | 16,214 | 667,431 | $2,2 \times 9,782$ | 1,081,281 | 101,448 | 054.615 | 14,4>7,9.5 |
| 1835 | 1,901,092 | 1,114.605 | 4,865,569 | 1,754,676 | 10,275 | 603,985 | 2,076,001 | 994,771 | 158,926 | 1,179.252 | 14,050,246 |
| 1836 | 2,349,4,3 | 917,783 | 5.518,024 | 1,700,115 | 88,185 | 489,654 | 1,934,985 | 1,029,570 | 261,730 | 1,182,948 | 15,303,245 |
| 1837 | 2,919,474 | 1.294,292 | 5,792,623 | 2,990,468 | 248,323 | 1,344,609 | 2,713,586 | 644,018 | 523,106 | 1,975,918 | $20,346,407$ |
| 1898 | 2,092.159 | 1,582, $8 \pm 0$ | 6,574,591 | 8,083,383 | 80,562 | 775,572 | 2,698,163 | 1,648,958 | 866,043 | 1,674,237. | $20,71,102$ |
| 1899 | 2,719,792 | 1,951,785 | 5,523,045 | 8,141,093 | 70.95 | 845,900 | 8,054,083 | 266,401 | 424,905 | 2,473,848 | 21,41.4.49 |
| 1840 | 8,478,6\% | 8,041,441 | 5,660,739 | 6,740,498 | 87,819 | 903,605 | 2,885,620 | 024,898 | 819,941 | 2,937,745 | 25,941,788 |

Commerce of Cuba with Fokeion Nations, 1854













 1859



| Yeare | mumath of venill which smexase tus polim or tili laland. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Netional veasols. | Forsign veoceple. | Totalo. | Tonamge 4 |
| 1841 | 1,068 | 1,881 | 8,084 | 467,899 |
| 1842 | 834 | 1,173 | 2,057 | 478,106 |
| 1848 | 815 | 1,270 | 2,585 | 477,792 |
| 1844 | 855 | 3,880 | 8.298 | 801.920 |
| 1845* | 917 | 1,115 | 9,693 | 478,015 |
| 1846 | 817 | 9,244 | 8.091 | 650,158 |
| $1 \times 47$ | 819 | 2.923 | 8.7 | 689,770 |
| 1848 | 875 | 2,678 | 8.543 | 198,285 |
| 1849 | 877 | 2,836 | 2,218 | 712,079 |
| 1850 | 878 | 8,4i9 | 88856 | 874.014 |
| 1*51 | 838 | 9,088 | 88809 | 097,990 |
| 1559 | 947 | 9,665 | 8.612 | 629.016 |
| 1858 | 902 | 8,014 | 8.916 | 118,840 |
| 1554 | 928 | 9,894 | 3,819 | 142,794 |


| Daties on Imporiation. | Duties on expritition, | Tolal. |
| :---: | :---: | :---: |
| Pecos. | Pemos. | Peac |
| 5,943,819 | 1,822, 644 | $7,260,464$ |
| 6,005,682 | 1,877,714 | 7,888,846 |
| 5,894,899 | 1,590,677 | 6,981,017 |
| 6,020,408 | 1,140,228 | 7,160631 |
| 5,896,416 | 0,4,881 | 8,970,74S |
| 5,418,482 | 299,870 | 6,152,802 |
| 6,601,298 | 808,697 | 7,494,831 |
| 6,174, 088 | 710,825 | 6,888,45\% |
| 2,84,788 | 581,477 | 6,429,280 |
| 5,964,147 | 7B7,108 | 6,721,250 |
| 6,668,849 | 1,798,992 | 8,402, 634 |
| 7,225,784 | 1,647,808 | 8,878,048 |
| 7,018,584 | 1,816,782 | 8,834, 817 |
| 7,708,652 | 1,947,049 | 0,743,696 |

- From 1841 to 1845, these totala inelude the value of goode placed on deposit, ae well as of those aetually imported or exworted, and are thas condflerably augported, רdi are this consdierably augwas devoted to deposit in the Balanza Weneral; but aince that year auch distincGeneral; but since that year auch distinc-
ton has been observed, and the reauli is ton has been observed, and the resuit in
perceived in the dimination of the amounts perceived
of valnes.
+ lirlor to 1845 , but one collumn wan devoted to toanage, no diatlactlon belng made between the tonnage of national and forelgn vesselo in the Balanza; bat slince that year such diatiaction has been made, though it is not regarded in this statement. \% Of 86 gallons.
Arroha $=25+$ poands.
Gengaal conpabativg Spatmenet of the Anount and Chabactrb of the Commbrer of Cuba and Ponto Rico
 CLEAERD, AND THE HESPACTIVE TONSARE OH THE BANE.
[Fgox the "Balanzas Genzbaleg,"]
CUBA.

| Years. | IMPORTATION INTO CUDA. |  |  |  | EXPORTATION EROM CUBA. |  |  |  | DUTIES RECEIVED. | NO. OF VESEELS \& TONNAQR, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rafiokal <br> Paobvcti. <br> In Spanish <br> ressely <br> menerally. | TOREFON Products. |  | Motal |  | $\begin{aligned} & \text { Foa tus yon mion } \\ & \text { TAANE. } \end{aligned}$ |  | $\begin{aligned} & \text { TOTAR } \\ & \text { BXPOATE. } \end{aligned}$ |  |  |  | CLEARED |  |
|  |  | Io Spanith vestels. | In fereign veasela. |  | $\begin{aligned} & \text { Io Spenteh } \\ & \text { vesonte } \\ & \text { Evnerally } \end{aligned}$ | In 8panish | In forelgn vesselo. |  |  |  |  | No. | Tontage. |
|  | Thilars. | Dollara. $8,189,56$ | Doliara 0.218.2 |  |  | Dollars. 118,1886 | Bollara. 0. 151.974 | Dollarm. 8.077.098 |  | 8 |  |  |  |
| 1843 | 1,088,751 | 8.18 8.69 | $10,218$ | 5,489 |  | 1 |  | .077,068 | 6.858,859 | 8 | 72 | 4.509 | Vo data. |
| 1849 | $7,682,751$ | 8,691,71. | -189 | 80 | 107 | , 4054 | 6,4040 | 22,498,856 | 6,499,260 | 8,2 | 112,572 | 2, 599 | Do. |
| $\begin{aligned} & 1850 \\ & 1851 \end{aligned}$ | $8.640,624$ | 9,824,259 | $10,518,8$ | 7,983.22 | 8,071, | 2,957.78 | $9,608,08$ $5,122,56$ | $25,681,948$ $81,811.623$ | $4721,250$ | 8,356 8,865 | $874,014$ | 8.181 | 110. |
| $\begin{aligned} & 150 \\ & 185 \% \end{aligned}$ | $8,530,45$ $0,200,42$ | $1.418,927$ | $12,897,24$ $0,350,0$ | ,811,48 | , 8362 | $3,482,7$ 185 |  | 3 | $8,462,584$ $8,873,086$ | 8,865 8,017 | $\begin{aligned} & 997,990 \\ & 622,016 \end{aligned}$ | 8,733 8,274 | Do. 10. |
| 1858 | $7,766,906$ | 0,791,648 | 8,241,24 | 7, 789,40 | 8,298, 8 | 8,974,97 | 28,936,55 | 81,210.445 | 8,830,817 | 8,916 | 713,840 | 8,527 | Do. |
| 1604 | 9,057,42 | 1 | 10,705,993 | P04 | 8,618,698 | 4,800,914 | 4,177,12 | 32,688,781 | 0,748,096 | 8,812 | 742,794 | 8,067 | Do. |

PORTORICO.

|  |  | 1,793,870 |  |  |  |  |  | 8,505,180 | 1,084,239 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 184 |  | 2,8 |  |  |  |  |  |  | 1,052,807 |  |  |  |
| 18\%0 | 1,856,961 | 1,878, | 1,955,579 | 5,2z2,029 | 243,016 | 271,560 |  | 6, 477,819 | 1,189,001 | 1,2 | 1 $k 2,040$ | 7 |
| 51 | 1,5 | 2.21 | 99 | 8,0 | 802,451 | 250840 | 4,918,682 | 8,781,074 | 1,069,418 | 1,8 |  |  |
| 52 | ? | 8,122,784 | 2,144,663 | 6,298,395 | 419,618 | 849,718 | 8, 038,0022 | 4,852,839 | 1,250,178 | 1,45 |  | 852 168,766 |
| 1538 | 1,411,004 | 2,194,375 | 1,780,58 | 5,835,910 | 410,406 | 335,090 | 4,523,881 | 8,299,82 | 1,051,887 |  | 151,669 | 1,245 154,667 |

General Port Reguiations. 1. Ships leaving with a full argo of molasses are free of tonnage dutien.
2. Shlps arriving in balisat, and leaving in the mame atate, pay do tonnuge duty; but If they should take return cargoen of the frulta, or other articies of the Island (entire cargoen of molasses only excepted), they pay the regular duty.
8. Bhips arriving ta dlatrese for water, or other neccsasariea, are free from tennage duty; lut when they diseharge the whole or part of their cargo (natesa every part ta agaln taken In , and no more), or load with produce, forelgn or native (molassea excepted), they are sabjected to the entire tonnuge duty.
4. Veasele, forelgn or natlonal, which have left a port of the laland, having pald the proper tonnage duty, and which enter any port of the latand to repalr damages they may lave sualalned at sea, by reason of storm or other casualty, are exempt from further tonnage duty.
5. Vessela entering the ports of the leiand with mineral coni, in equal or greater quastity than the number of tons per their regiater, pay only 50 centa par ton for tonnage duty, even If they bring other merchandine besides. They are also exempt from all other local charges (excepting captain of the port's fees), such an ponton and health dnes, cuatom-honse visits, entry and clearnnce feea, wharfage, atage-hire, etc. Such as bring coal, solely, in less quantity than their tonnage
measure, pay 50 centa per ton upon the portion occupled by coal; and the difference between this portion sad the number of tona that the vesect may prove to have, by Spenish measarement, will be aubjected to the payment of the full tonuage duty ; but theso vessels are allowed the exemptlon from atl other charges except captala of the port'a fces.

Versels having on board, besidea coal in less quantliy than thelr measurement, other cargo, are in the bame case respecting the tonnage dues, but are subject to the ponton, health viatts, regiatering and other ukual dues. Mall steamers, recognized as such, are permitted to bring and earry 3 tona of cargo vithout paying tonnage dues. If the cargo discharged exceeda 3 tons, they pay duty on such excess over and above the 3 tons. Vessele golng from one pert to enother of the Island, carry a sea-letter of Introduction to the enstom-house of the other port, stating that the regular charges have been paid. Thla tetter coata \&4. By order of November 4,1864 , atl vessela having to perform quarantine must go either to 1Lavana or to 8 t . Jago de Cuba fur that purpose. Quarantine fee, 制 per day. Besldes the faregoing general regulations, which are in foree at all the porte of the jaland, there are others of a more local character, appllcablo to some, and not to others, These retate more eapectally to tonnage and port dutles, and other charges.

The tonn pal ports ar
lleaith visl Governmen Cuptaln of t

Tranalathon Tonnage dv Tomnare du
Light dues, Light dues, Ponton due
Wharinge d Whariage d
Custotn-hou

Annotation Extract of 1 Register da cargo dise thousand For oatwar Bill of heait

Thils fee applied to the of health, wh sul at the por quaratilne fo + Per 8 pan per cent, bala

Piotage. pilot, uniees the ahoals: not, she hae harbor, 10 outer harbor no port char

On agbregat LIFlit fues, Pllotage for Olearing in Governor's lfealth visit Captain of $t$ Fort pass. Mad-machin Look-0ut ma

Mode of duties is m laland of Cu of which Hz is organized the superior accounts, th ral, the adm istration of $t$ of the custe collector, th 9 vessel arri the healtit o cer and the of the custo sud English required of cargo. Fve the nanifest elylit hours signee intast coming to measures, a
All the d are stitched and senls of hands the

The tonnage dutien and other charges at the principal ports are suhjeined :

AT IFAVANA.

| Nature of charges. | Fereism vesoble pay | Bpanish <br> vessels <br> pay |
| :---: | :---: | :---: |
| Ilealth visit, per ton*. | 1008 | 1003 |
| Govornment Interp ter | 200 |  |
| Captaid of the port's fees: on entertigg.. | 80 | 800 |
| ( on clearing... | 800 | 800 |
| Tranalation of manifert. . . . . . . . . . . . . . . . . | 400 |  |
| Tonnage duty, por tont. . . . . . . . . . . . . . . . | 1 b) | 0828 |
| Light dies, per ton. . | 0003 | 008 |
| Ponton duen, per ton. | 0213 | 021 |
| Wharlage dues, per ton................... | 0011 | 0018 |
| Custom-honsa fees : Inward visit......... | 580 | 580 |
| \% Outward vislt....... | 650 | 560 |
| Annotatlen fee | 200 | 400 |
| Fixtract of Manlfost, from. | 600 | 4-600 |
| Register duas (for each dalfy returd of cargo diacharged, whether one or one thousand paokages) | 550 | 550 |
| Fer ontward yegister and stamp papor. .. | 825 | 825 |
| Bill of health, ovor 150 tont. ............ | 600 | 600 |
| under 150 tons. . . . . . . . . . . | 400 | 400 |

* This fee is recetved by the boarding physictan, and 1s applied to the general board of health. Ife recelven the bill of bealth, which mast be anthenticated hy the 8pantsh consul at the port of departure, under a penaity of heing sent to quarantine for sevon days, and a fino of ifty dollars
+ Per Spanish measurement: in addition to this duty, one per cent, balanza upon the result of the tons, multiplied by it, is eharged.
Pilonge. It is optlonal for a vessel to take a pilot, uniess she goes into the inner harbor beyond the shoals; in which case, whether she takes one or not, she has to pay $\$ 10$ coming in as far as the lnner harbor, $\$ 10$ going out, nnd $\$ 10$ from any part of the soter harbor into the lnner. Foreign men-of-war pay no port charges. If a pllet is taken, the rate charged
ts the samc as pald by 8 panieh men-of-war. -7 is , and the tame cut.

| Nature of Charges. | $\begin{aligned} & \text { Yorotran } \\ & \text { vaspay } \\ & \text { ppay } \end{aligned}$ |
| :---: | :---: |
| Tonnage duty. | 160 |
| Anchorage ........................................ | 1800 |
| Free pasa at tha fort......................... . . . . | 800 |
| Heaith offleers' fon for boarding vesela . . . . . . . . . Custom-bouse interpreter's foe. . . . . . . . . . . . . | 800 500 |
| Custom-house offleer's foe to vlalt on beard, to seal and unseal, so long as the vessol in discharging. | 600 |
| Opening vesuel's registor. | 800 |
| Register of deapateh.... | 800 |

AT SAINT JAGO.

| Nature of ehargen. | Forelga veteele par | Spaalah vesoles pay |
| :---: | :---: | :---: |
| Henis visit. | 10034 | 80013 |
| Qovernment intorprete | 800 |  |
| Custom-Louse tnternre | 400 000 |  |
| $\stackrel{\square}{4} \quad \begin{aligned} & \text { Inwa } \\ & \text { outwa }\end{aligned}$ | 560 500 |  |
| Extract of mantfost. | 050 | 050 |
| Custom-house officer, jer die sel Is dtacharging. ......... | 580 | 550 |
| On aggregato emount of per cent. |  |  |
| Light-house dues, per tor | 0064 | ${ }^{1} 0088$ |
| Captain of port's fee | 1250 | 1850 |
| Fort pass.. | 080 | 050 |
| Pilotago | 400 | 400 |
| Wharfage per diem, on 1 | 100 | 075 |
| Wharflnger......... | 160 | 180 |
| 8tamped pap | 1000 | 1000 |
| Clearance. | 850 | 850 |
| Telegraph. | 400 | 400 |
| Duty per ton..... | 180 | 0 024 |

AT TRINIDAD, MATANZAS, AND CARDENAS.

| Nelare of ehargee. | Mogrtav veserls fay |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | Al Jrinldad. | At Matanzas. | At Cardenas, |
| On afgregate amount of tonnago duty | One per cont. |  |  |
| Ifght dues, per ton. . . . . . . . . . . . . . | \%008 | 0006 | - |
| Pilotage for achooner, in and ont . . . . . . . . . . . . . . . . . . . . . . . . | 2200 |  |  |
|  | 4900 | $\}$ Ing with or with. | 10 foet, \$12. Each |
|  | 8400 | ) ont pitot, $\$ 1200$. | ( additional foot \$2. |
| Enterlng In ballast, per day. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . <br> " with cargo, whlle discharging, por day. | 825 680 | Wholo expense, 88 | Anohorage, 8000. |
| Olearing in ballast . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 275 | O Opening register and | - |
| " with cargo. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2160 | \} clearing, 27...... | $\ldots$ |
| Govarnor's fee. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 800 | -100 | .... |
| Ilealth visit, per ton. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 008 | 008 | , |
| Captsin of tho port. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1000 | (2) 0000 | . |
| Fort pass......................... . . . . . . . . . . . . . . . . . . . . . | 100 | \$250 (and stampa).. | .... |
| Sud-maching duty, per ton. . . . . . . . . . . . . . . . . . . . . . . . . . | 0217 | .... | $\ldots$ |
| Look-out minn. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 100 | [... |  |

Mode of Collecting Duties. The collection of the duties is made in a very simple manner. The friand of Cuba is divided Into customs intendencies, of which IInvana ls the principal. The Intendency is organized Into seven branches, vlz. : the Intendant, the superior counsel of the hacienda, the tribunal of accounts, the accountent-general, the treasurer-general, the administration of the customs, and the administration of the internal revenue. The administration of the customs is comprised of the adminiatrator or collecter, the accountant, and the treasurer. When a vessel arrives at the IIavana, she ls first boarded by the health officer, after whom comes the revenue officer and the sinuggling-preventivo service. A cony of the cuatom-housa regulations, in Spaniel, French, and English, is handed to the captain, and a manalfest required of him of all the particulars of his vessel and carge. Every article on beard the vessel, omitted in the manifest, is subject to contlacation. Within fortyeight heurs nfter the entry of the veasel, every consignee must deliver detniled statements of the articles coming to him, with their quantities, weights, and masures, all reduced to the legal stundard.
Ail the documents and papers relating to a vessel, are stitched together in a book, with the signatures and seals of all the government officers, through whose hands the - irral documents pass. A copy of this
book is made for the use of the inspectors and appraisers; the lutter function beling restrained within very narrow limits, by a printed tariff of all articles of inport, whth a valuation to each, which valuation, in n great degree, defines the dutles of the ad valorem character. As fast as the insjection and appraisement take place, the consignee is permitted to remove the goods, by procuring the signnture of some responsible person to the words lnscribed in the book, "I make myself nnswerable for the duties." The inspection and appralsement being concluded, the book is returned to the accountant's office, where the liquidation of the duties is forthwith made. The payment is then proceciled with. These payments ure mostly cash; that is to say, on some articles, whatever may be the amount, cash is required; upon other articles, the duties are eash under $\$ 1,000$.

If the amount is greater, a credit of one fourth ls given for sixty days, and one fourth payable at the end of each succeeding month-making tive montha' credit in sll. The security for this credit consists simply in the promissory note of the consignee, without indorsement, with the power, in case of a fuilure. to convert every other note of the same lndividual into a cash debt; the individual to be forever after inca. pacitated to enter goods, except for cash.

This syetem has been ln force many years, and un-

## CUM

der it no loss whatever has been sustained by the government.

Formerly, the same credits required the endorsement of a holder of real eatate; but this was nbandoned on account of its Insecurity.-Macorecion's Statistic's; U. S. Com. Dhg. For further Information, refer to A m. Quar. Rev., vli. xi., 230 ; Ilunt's Mag., vi., vii., xvii.-xxi., 519 ; North. Am. Rev., xxix.: De Bow's Rer., vill., p. 318, ix., 164; Ch. Kramr., Fi., 259 , xxili., 82 ; Frasen's Mfag., xil. ; Littelle's Living Age, xxii. ; Foreign Quar., iii., p. 400 ; BlackWOOD, xl. ; Southern Quarterly, iv., xxl.

Cubebs (Germsn Kubeben; French, Cubebes; Italian, Cubebi; Spanigh, Cubebas ; Russian, Kubebii; Latin, Piper Cubeba; Arsb, Kebäbeh; Javsnese, Kıtmundis; Ilindostsn, Cubab-chinie), the produca of a vine or climber extensively grown in Jsva. It is s small dried fruit, like a pepper-corn, but aomewhat longer. Cubebs have a hot, pungent, aromatic, slightly bitter tnste; and a fragrant, agreeable odor. They should be chosen large, fresh, sound, and tho heaviest that can be procured.

Cubit. This was a moasure of the anclents, and is the first messure we read of; the ark of Noah was made and measured by cubits.-IIoliden. The Hebrew ancred cubit was two English feet, and the great cabit eleven English feet. Originally it was the distance from the elbow, bending inwards to the extremlty of the middle finger.-Camet.

Cucumber, a tropical plant, of which there are many varieties, largely cultivated in hot-houses in England.

Cucumber-tree. Magnolia aruminata. In all parts of the United States where this tree is found, it is known only by the name of cucumber-free. It is a beautiful vegetable, equal in height and diameter to the big laurel. The most northern point at which this tree grows, is near the falls of Ningara, In lutitude $43^{\circ}$. It abounds slong the whole tract of the Alleghanies, to their termination, in Georgis, over a distance of $\mathbf{9 0 0}$ miles. It ls slso found on the Cumberland Mountains. The situations peculiarly adajtel to its growth sre the declivities of mountains, narrow valleys, and the banks of torrents, where the air is constantly moist, and where the soll ls deep and fertile. At the distance of forty or fifty miles from the mountains, either wsy, this tree is met with only accidentally upon the steep bsnks of rivers, where the atmosphere is constantly refrestied by the evaporation from their aurface. We may conclude, then, that this tree is a stranger to all parts north of the river Ifulson, and to all the Atlantic parts of the United Stater, to the listance of 100,150 and 200 miles from the sea; the nature of the soil, and the extreme heat of the climate in summer, beling itterly uncongenlal to lts growth. It is also rare In the parts of Kentucky and West Tennessee which are most remote from the mountains, where the face of the country is less uneven. The cucumber-tree sometimes exceeds 80 feet in helght, with a diameter of 3 er 4 feet. The trunk la jerfectly atrajght, of a uniform size, sud often destitute of branches for two thirds of its length. The summit is ample and regularly shapel, and the tree is one of the finest in the American furests. The leaves are 6 or 7 Inches long, and three or foct inches broad, upon old trees; upon sajplings growing in molst jlaces, they are sometimea twlce aa large.
On old stocks the bark of this tree in grayinh, and deeply furrowed. Tho perfect wood ls soft, and of a yellowinh brown. It ls fine-grained, and susceptible of a brilliant pollish.

Being a rare tree, It Is only aceldentally employed in the arts. Sawn into boards, It aerves in joinery for the Interior of wooden houses, and for its size and llghtness, it is selected for large canoen. Most of the inhabitanta of the country loriering on the Alleghanien, gather the cones of this tree about midsummer,

When they are half ripe, and ateep them in whisky; a glass or two of this liquor, which is extremely bitter, they habitually take in the morning, as a preseriative against autumansl fovers.- Brownx's Sylva

## A mericana.

Cudbear, a purple or violet-colored powder, used in dyelng violet, purple, and crimson, prepsred from a species of lichen (Lichen tartaretus Lin.), or crustaceous moss, growing commonly on limestone roeks in Sweden; Scotland, the north of England, etc. A bout 130 ns of this lichen are annually exported from Sweden. It commonly sells in the port of london for about 20l. per ton ; but to prepare it for uee it must lie washed and dried; snd by these operations the welght is commonly diminished a half, and the price, in effect, doubled. Though posseasing great heauty and lustre at first, the colors obtained from cudbear are so very fugaceous, that they ought never to be employed but in aid of some more permanent dye, to which they may give body and vivacity. In this country it is chiefly used to give strength and bri]liancy to the blues dyed with indigo, and to produce a saving in that article; it is also used as a ground for mailer reds, which commonly incline too much to yellow, and are made rosy by this addition. The name cudbear was given to this powder by Dr. Cuthbert Gordon, who, having obtained a patent for the preparation, chose in this way to connect it with his own naine.-Banciort, Philosophy of Colors.

Culeus, in Roman Antiquity, the largest measure of capacity for thlngs liquid, containing twenty amphore or 40 urnie ; equivalent to 115 gallons, 1.6 pints Englisb. Culous also denoted a sack or bag. Parricides were punished at Romo by belng thrown into the Tiher in a sack, along with a cock, an upe, and a viper.

Culm (Wessh culm), n rariety of coal. It is difticult of ignition, but burns for a long time, without thane or smoke, but emitting $n$ disagreeuble smell. It dues not cake, and it leaves but few ashes. Culm is the bitumen oxygenatum of Linnous, and the glanz kohle of Werner. It is otherwise known as anthracite. -See Coal.
Culna, in llindostan, a town in the Iritish dis. trict of Burdwan, presidency of Bengal, on the right bank of the river Hooghly, on the route from Cutwa to the town of Hooghly, 26 miles east of the city of Burdwan. It is the jort of the district, snd has long been noted for its trade in rice, grain, silk, snd cotton. Of late years the trafle of the place bas greatly increased, in consequence of its leing found a convenient station for stemmers plying between Caleuta and the upper provinces. The lazaar rensists of 1000 shops, and the population of tho town has been stated at 60,000 . Jat. $23^{\circ} 14^{\prime}$; long. $88^{\circ} 20^{\prime}$.

Culpee, a town of Ilengal, district if Ilooghly, on the enstern bank of the river llooghly. It stands 33 miles lelow Culcutta, st the mouth of a rreek that gives slolter to louts from the impetuosity of the thile, which runs there $w^{t}{ }^{t} \mathrm{~J}_{1}$ great violence. Ojposite the town is the place of anchorage for large ships which can not get higher up the river. The shores here are a bed of mud, and the banks of tha river aro covered with thick jungle. Culpee js considered extremely unheulthy, on account of tho swamps and woods hy which it is surrounded. Fi. long. $8 \mathrm{x}^{\circ} 1 \mathrm{~s}^{\prime}$; N. lat. $22^{6} 6$.

Cumberland river, a large river of Krntmes and Tennessee, which tlows through Kcatucky mil fulls into the Ghio. lts entire length is ahont 600 miles, and navigable for harge steambonts to Nushville, 203 milex, and for boats of 15 tons, 300 miles. large quantities of cotton, corn, and tobaceo, are transjorted by flat-boats and stemmbonts from numerrous countles on this river, to New Orleans.
Cummin-seed (Ger. Kwmin; lir. C'umin; It. Comino, Cumino; Sp. Comino; Arab. Kemur), the reeds of an annual plant (Cuminium cyminum, Liu.), a
native and $\mathrm{M}_{1}$ odor, an are long Cum shire, in Ayr. It similar which Is Snuffebo Cup cup shap in the as upon ac ing of go
Cupe palladiut of alloys the mixt then by

Taselan Exint

Denominat
Aloes....
Arrow-ro
Balsam..
Bay wate
Barlla
Gochlneal
Copper. .
Cotton..
Diri Divi
Goat-skin
Gaano...
Gaano..
Hides...
Ithe:
Iron.
Iron......
Ivory nnt
Ivory nnt
Inseed.
Ilnseed.
Mahogany
Old coppe
Old coppe
Orange pee
Orange pe
Ox horns.
Palm feaf
Pesnuts..
Pimento.
Raph.....
salt .....
Segars....
Sugar...
strap...
Tebacco.
Tortolse-si
Woed.
Wool.

Curacc
the filined
fection by
sille orang
and mare.
Curmi
or ale, mat
cortles, wa
lhat write
Mheria, und
time prepa
Curran
in; It. Uef "ce; lius. small speci Cephalonia the staple of Patria. must elaps fore it heg considerath larly liable altogether beling drled packed in la
hisky ; sy hit-eservaSylca r, used d from crustuoeks in About d from Lopden it nust ons the e price, beauty cudbear r to be dye, to In this ad lurilprolure und for nueh to 1. The C. Cuthfor the vith bis measure nty am$1 \cdot 6$ pints larriinto the a riper. $t$ is dif. without neli. It Calm is he glanz thrucite.
tish dishe right - Cutwa city of has iong and cotgreatly A a conCalcatta sists of tas been fily, ou ands 33 tek that of the Mposite ye ships C Hhores iver are
ered ex-
 entucky cky mul wit 600 o Nushl19 wites. CeO, are n numer (ni), the
native of Egypt, but extensively cultivated in Sicily and Malta. They have a strong, peculiar, hoavy odor, and a warm, bitterish, disagreoable taste. They are long and slender.
Cumnock, or Old Cumnook, a village of Ayrshire, In Scotlund, on the Lugar Water, 12 miles east of Ayr. It is noted for the manufacture of enuff-boxes, similar to those of Laurencekirk, the peculiarity of which la the "invisible wooden hinge." See artcle Snuff-boxes.
Cupel, a shallow earthen vessel, somowhat of a cup shape, generally made of bone earth. It is used in the assays of the precious metuls, which are fused upon a capel with lead. Cupellation meane the refining of gold or silver npon a cupel.

Cupellation is a mode of analyzing gold, silver, palladiam, and platinum, by adding to small portions of alloys, containing thesa motale, a bit of lead, fasing the mixture in a little cup of bone earth called a cupel, then ly the joint action of heat and alr, oxydizing the
copper, tin, etc., preaent in the precious matals. The oxyds thus produced are dissolved and carried down into the porous cupel in a liquid atate, ty the vitrified oxyd of load. See Assay, Gold, and Silver.

Curacoa. This island is situated in the Caribbean Sea, near the coast of Venezuela, and is about 42 miles long, and from 10 to 15 miles broad. The chief staples are tobacco, sugar, indigo, and maize. There are numerous harbors, but that of Santa Anna is considered the best and aafest. The principal merchandise exchanged in the consting-trade of Curaço consists of hider, goat-akins, dye-woods, corn, cochineal, sugar, indigo, and hats. The chief artclele of internal trado is salt, this being the only article manufactured for axport. The following table exhibits, in one view, the general commerce of the lsland with the United States during three years, ending with 1853. It will be seen that the export trade to the United States ia yearly increasing, and that in 1853 the increase over 1851 is nearly 100 per cent.

Tabllan Statemant of Shipments from the Ibland of Curacoa to the United States durino the three Yeara ending June 30th, 185s. [Made vp from Congular Jetunis to tur Dri'artment or Btath Washington.]

| Denomination of merchandise. | 1851. |  |  | 1852. |  | 1853. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number, weight, or mensure. |  | Value.$11,420$ | Number, weight, or mesaure. | Value. | Number, weighi, or measure. |  | Value. |
| Aloes................... | pouads | 20,203 |  | pounds 11,851 | 6748 | pounda | 18,345 | 4887 |
| Arrow-ruot. . . . . . . . . . . |  | .... | .... | " 2,084 | 197 |  |  | * |
| Balsam................. |  |  | $\cdots 14$ | $\ldots$ | $\cdots$ | pounds | 1,710 | 820 28 |
| Bay water. . . . . . . . . . . . ${ }^{\text {a }}$. Barllis . . . . . | dozen barreis | 6 400 | 628 |  | .... | puncheon | $1$ | 28 |
| Cochineal.................. | pounds | 4,842 | 8, 298 | ponnda 90746 | $\ddot{8}, \mathbf{8} 01$ | ponnda | 1,285 | 1,824 |
| Copper. |  | 9,725 | 1,495 | - |  |  |  |  |
| Cothon. |  |  |  | pounds 8,740 | 082 | pounds | 108 | 10 |
| Divi Dirt. | bags | 1,204 | 1,845 | bags 2,281 | 1,706 | bags | 921 | 764 |
| Oeat-skins. | number | 287,000 | 89,984 | number 242,887 | 95,169 | nnmber | 247,685 | 101,509 |
| Gaano..... |  |  |  |  |  | barrels | 15, 27 | 101 |
| Ilats...... . . . . . . . . . . | dozen | 1,723 | 11,461 | dozen 5,237 | 38,928 | dozen | 15,912 | 107,3is |
| Ifldes..... . . . . . . . . . . . | numbor | 22,621 | 39,164 | number 20,752 | 38,904 | number | 17,521 | 39,600 |
| Iron. |  | .... | .... | -... | .... | pounde | 9,200 |  |
| Ivory unts. . . . . . . . . . . . |  | 8 | 4 | .... | .... | * | 52,815 | 1,181 |
| Linseed. . . . . . . . . . . . . . | kogs |  | 4 |  |  |  | .... | *.. |
| Mahogany.. . . . . . . . . . |  | .... | . . . | loga 181 | 875 |  | 9i10 | $\cdots \mathrm{Brag}$ |
| Okd copper.. . . . . . . . . . |  | .... | .... | pounds 52,012 | 4,722 | jounds | 34,110 | 6,060 |
| Orsngo jeel. . . . . . . . . . . |  | $\because 006$ | -80 |  | 94 | + | 1,800 | 100 |
| Ox horns . . . . . . . . . . . . . | nnmber | 9,006 | 380 | number 1,292 | 24 |  | 90 | 112 |
| Palm lenf............... | packages | 100 | 11 | -••• | $\cdots$ | bunebes | 200 | 112 |
| Pesmuts... | barrela | 11 | 14 | buge - 104 | $\cdots$ |  |  |  |
| Plmento...... . . |  | .... | .... | bngs 104 | ${ }^{669}$ | bags | 89 | 212 |
| Rumi.... |  |  |  | punchoons 120 | 2,547 3,105 |  |  |  |
| Salt ... | barrote | 19,082 | 6,372 | barrels 11,011 | 3,105 | barrels | 43,484 | 18,185 |
| Begara. . . . . . . . . . . . . . . | boxos | 282 | 1,256 |  | 862 5,608 | M. | 2930 | 996 7806 |
| Sugar.... . . . . . . . . . . . . |  | .... | . | pounds 248,850 | 5,606 | ponnde | 294,24T | 7,866 |
| Nrup.................... |  |  | $\cdots$ | .... | $\ldots$ | graliona | 978 94.494 | 860 1898 |
| Tebacco................. | pounds | 8,127 | 499 | $\ldots$ | ... | pounds | 24,494 114 | 1,892 |
| Wortad................... | tona | -609 | 0,088 | tons $\quad \cdots 7 \%$ | 9,040 | tona | 114 618 | 0,846 |
| Woot................... | pounda | 7,429 | 662 | pounds 24,270 | 1,784 | pooninds | 12,745 | 1,084 |
|  |  |  | 6168,603 |  | \$208,806 |  |  | 600,186 |

Curacoa, a liqueur which derives its name from the island of Curagoa. It is propured in great porfection by the Dutel. It derives ita flavor from Seville orauge peel, with a mall quantity of cinnamon and mace.
Curmi ( $\operatorname{soc}_{\mathrm{c}}^{\mathrm{p}} \mathrm{ti}$ ), in Antiquity, a sort of malt liquor or ala, made of barley, and which, according to Dioscurides, was used ly maty nations insteal of wine. That writer also relates tiat in the western part of lheria, und in Iritain, a sinnilar beverago was in his time prepared from whent.
Currants (lir. Raisins de Corinthe; Ger. Koriuthen; It. Ure pmase di Corinto; Lat. Passule Corinthi"cer: Rus, Korinka, Opoed; Sp. Pasns de Corinto), a small spreies of grape, largely ciltivated in Zante, Cephatonia, and Ithica, of which isiands thoy form the etaple jroduce 1 mid in the Moran, in the vicinity of Patras. The plant la delicate ; and as 6 or 7 years must elapac, after a plantation has been formed, before it legins to produce, its cultivation requires a considerable ontlay of capitui. The crop is particulariy liablo to injury from rains in harvest, and is altogether of a very precarioua description. After lieing dried in the aun, the currants are exported packed la large butts. They are in extensive demand

In Europe and the United States, and, when mixed with ilour and suet, make a dish that is peculiarly acceptuble to the lower classes.
Current (Lat. eurrens, from curro, to run, to flow), literally signillos running, flowing, passing. Hence, passing from person to person, or from hanil to hund; circulating, as current opinions, carront coin. In comy ree it is appliad in manalagous sense to the price of any commodity: as carrent value-that is, the ordinary or present value. As applied to time, it is equivalent to now prosent or passing: as the current month or year. It is applied chiefly to the progronsive movement of fluidis, especially of air, electrieity, and water.
Currents in the ocean arise from various causog, either occasioual or constant. They may be cocasioned by an external impulsion, for exanple, a galo of wind; from a diffurence in the temperature of different parts of the sea; from the inequality of evaporathon, the melting of the puiarice, or in short any cause tending to listurb tho hydrostatic equilibriun. It ls dificalt in many cases to trace their causes, or to give may satisfactory theory of their existence; but on account of their huportance to navigation they have been observed, espgeially of late years, with
great care. Among those which have a permanent or general character, there are two which are very remarkable. The first is that of the troplcal waters westward round the globe, and the second that which constantly flows from each pole toward the equator. The troplcal or westerly current is chiefly confined within the zone, extending to about $30^{\circ}$ on each side of the equator, and its velocity is eatimated by Humboldt at abont 9 or 10 miles a day. In the Atlantle it separates into two branches, one of whlch forms tha Gulf Stream; and the other flows along the coast of Brazil, and passes through the Straits of Magellan. The Gulf Stream flows northward through the milddle of the Atlantic, till It reaches the Cape Verd Islands; It then passes through the Caribbean Sea, between Cuba and the peninsula of Yucatan, sweeps round the Gulf of Moxico, and rushes out by the Bahama Channel; then, spreading out to a greater breadth, it continues Itg course along the shores of the United States to Newfoundland, where it is deflected eastward by a current setting in from Baffin's Bay; and, paasing the Azores and Canary Islands, returns in a great measure into Itself. Its breadth is 51 leagues in the Ihahama Channel, and velocity from 3 to 5 miles an hour. (Dluarar's Geography, p. 186.) The polar currents flow constantly from the poles toward the equator, though it is evident that their sources must he supplied by currents in a contrary direction. Their existence is proved by the great masses of ice which are carried every year from the polar seas to tropical latitudes. Oceanic currents, by carrying with them tho temperature of the regions whence they flow, contribute In no small degreo to modify the tomperature of the atmosphere, and give a character to the climate of the countries to which they are contiguous. On the parallel of New York, IIumboldt found the temperature of the Gulf Stream $72^{\circ}$ of Fahrenheit, while out of the current, the heat of the ocean at the surface was only $63^{\circ}$. The current which flows alongt the eastern coast of Africa, and doubles the Caje of Good llope in a streum 130 miles broad, is from $7^{\circ}$ to $8^{\circ}$ warmer than tho contlguous sea. See Gulf Stream.

Currents of water, like currents of air, meeting from various directions, creato gyrations, which in some parts of the sea, as on the coast of Norway, assume the appearance of whirlpools, as though the water were drawn into a chasm below. The celobrated Maeletrom is caused by such a conflict of tidal or other streams. Admiral Beechey, IR.N., has given diagrame Illustrative of many "rotatory strenms in the English Channel, a number of which occur between the outer extremitles of the Channel ie nnd the stream of the oceanic or parent wave." "They are clearly to be accounted for," mays he, "by the streams acting obiliquely upon each other." It is not necessary to associate with oceanic currents the iden that they must of necessity, as on land, run from a higher to a lower level. So far from this lieing the case, some currents of the sea actually ruin up hill, while others run on a level. The Gulf Stream is of this class. The currents which run from the Atlantic into the Mediterranean, and from the Indian Ocean Into the Iled Sea, are the reverse of this. Here the bottom of tha current is probatily a unter level, and the top an helined plane, running down hill. Take the led Sea current us an illustration. That Senlles, for the nost part, within a rainless and riverlesa district. It may be compared to a long and narrow trough. Ileing in a rainless district the evaporation from it in Immense; none of the water thus taken up is returned to it elther by rivers or rains. It in about 1,000 miles long; It Iles nearly north and south, and extends from latitude $13^{\circ}$ to the parallel of $30^{\circ}$ north.

Mediterramean Currents.-With regard to an under current from the Mediterranean, we may remark that there ls a current alwayn setting in at tho aurfaco
from the Atlantic, and that thls is a salt-water current, which carries an lmmense amount of salt into that sea. We know, moreover, that that sos is not salting up; wo might infer the exlatence of an undercurrent, through which this salt finds lts way out into the broad ocean again.

The Currents of the Indian Ocean.-By enrefully exnmining the physlcal festures of this sea, and studying its conditlons, we are led to look for warm currents flat have their genesis in this ocean, and that carry from it volumes of overheated water, probably exceeding in quantity mnny times that which is dischnrged by the Gulf Stream from lts fountains. The Atlantic Ocean la open at the north, but tropical countries bound the Indian Ocean in that directlon. The waters of this ocean are hottor than those of the Caribhean Sen, and the ovaporating force there is much grenter. That it ls greater, wo mlght, without observatlon, infer from the fact of a higher temperature and a greator amount of precipitation on the neighboring shores. These two facts, taken together, tend, it would seem, to show that largo currents of warm water havo their genesis in the Indian Ocean. One of them is the well-known Mozamblque current, called at the Cnpe of Good Hope the Lagullas current. Ancther of these currents makes its escape through the Straits of Malacca, and, being joined by other warm streams from the Java and Chins Seas, flows out luto the l'aclfic, like another Gulf Stream, between the Philippines and the shores of Asia, Thence it ittempts the grest circle route for the Aloutlan Islands, tempering elimates, and losing Itself in the sea on its routo toward the north-west coast of America. Between the physlenl features of this current and the Gulf Stream of the Atlantic, there are several points of resemblance. Somatra unil Malacen correspond to Florida and Cuba; Borneo to the Bahamas, with the Old Provldence Channel to the south, and the Florida Pass to the west. The coasts ef China answer to those of the United States, the Philipuines to the Bermudas, tho Japan Islands te Nowfoundland. As with the Gulf Stream, so also here with this China Current, there ls a counter current of celd water between It and the ahore. The climates of the Aslatle coast correspond with those of America along the Atluntic, and those of Columbia, Wishington, and Vancouver are duplleates of those of Western Europe and the IIritish Islands; the cllmute of Californla (State) resembling that of Spaln; the sandy plains and ralnless regluns of Lower California reminding one of Africa, with its deserts between the same parallela, etc. Moreover, the North Pacific, like the North Atlantic, is enveloned, where these warm waters go, with mists and fogs, and streuked with lightning. The Aleuthan Islands are almost ns renowned for fogs and mists as are the Grand llanks of Newfountlind. A surface current flows north through IJehring's Straits into the Arctic Sea; but In the Atlantic the current is from, not Into the Arctle Sea: it flows south on the surface, north below; Behring's Stralts being too shallow to nitult of mighty unider currents, or to jermit the introductlon from the polar basin of any large leobergs into the Paclfic.

The ('urrevts of the I'acific.--The contrast has been drawn between the China or "Gulf Stromu" of the North I'aelfic, and the Gulf Strean of tho North Atlantic. The course of the China Stream has never been matlafactorily traced out. There ls aleng the eonst of Californla and Mexico, a southwardly movement of watera, an there is along the west conat of Africa toward the Cape do Verd Islands. In the open apace weat of thil, nouthwardly set nlong the Africun conat, there is the famous Sargasso Sen, which is the general receptacle of the drift-wood and seaweed of the Atlantle. So, in like manner, to the weat from Calfforilia of this other southwardly set, lics the

## pool into

 North Pac quantitles. where no $t$ aehore the tlon of thel Among th woods of C nized. In touching $t$ at beat, is ant Bent, graphical S its existen Siwn,' or 1 from the de with that 0 infer that contuin mo sea.The Cold ter to the C Asla, is for water ansp and the Arr In the Ath sensibly to that in the ble fisherie extensive a of ench con plies of ex carrente of

IIumbold are but littl most is tho rent of Per name it he rent is felt less climate ful. The of the narr public, and the ether, ble In the is such as t felt as opp cially after

Currents of the Atla the Gulf S Equaterial rent. The warm wate America, Oronoco as riblean Se the vapors feeder of coming fro vided by Routh unde This last prineipally dull veseel In beating loss of som which fell other hem! allvised to an olject o commected result has nor a const IIorshurgh lgators agy phyaieal A
pool into which the drift-wood and sea-weed of the North Pacifle are generally gathered, but in small quantitica. The natives of the Aleutian Islands, where no trees grow, depend upon tiee drift-wood cast ashore there for all the timber used in the construction of their bosts, fishing-tackle, and household gear. Among this timber, the camphor-tree, and other woods of China and Japan, are said to he often recognized. In this fact we have additional evidence touching this China Stream, as to which, but little, at hest, is known. "The Jspanese," says Lieutenant Bent, in a paper read before the American Geograpincal Society, January, 1856, "are well aware of its existence, and have given it the name of ' KnroSiwe,' or Black Stresm, which is undoubtediy derived from the deep blue color of its water, when compared with that of the adjacent ecean." From this we may infor that the blue watere of this China Stream also contain mere suit than the neighboring waters of the ses.

The Cold Current of Okotsk.-Inshore of, but counter to the China Current, along the eastern siores of Asia, is found a streak or layer, or current of cold water answering to that between the Gulf Stream and the American coast. This eurrent, like its fellow in the Atlantic, is not strong enough at all times sensibly to affect the course of navigation; but, like that in the Atlantic, it is the nursery of most valuable fisheries. The fisheries of Japan are quite as estensive as those of Newfeundland, and the people of each country are indebted for their valuable suppiles of excellent fish to the cold waters rhich the carrents of the sen bring down to their shor s.

IIumboldt's Current.-The curcents of the Pacific sre but little understood. Among those abont which most is thought to be known, is the Ilumboidt Current of Peru, which the great and good man whese name it hears, was the first to discover. This current is feit as far as the equator, mitigating the rainiess climate of Peru ss it gees, and making it deligitful. The Andes, with their snew-caps, on one side of the narrow Pacific slopes of this inter-tropical republic, and the current from the Antarctio regions on the other, make its climate one of the most remarkable in the world; for, thougin torrid as to latitude, it is such as to temperuture that cloth clothes are seldom feit as oppressive during any time of the year, ospeelaily after nigintfall.
Currents of the Atlontic.-The principal currents of the Atiantic wili be described in the article on the Guif Strcam. Ilesides these, ita offsets are the Equatorinl Current and tise St. Roque or Brazil Current. Their fountain-head is the same. It is in the warm waters about the equator, between Africa and America. The former, receiving the Anuazon and tise Oronoco as tributaries by the way, flows into the Caribiean Ses, and incomes, with the waters in which the vapors of the trade-winds leave their salts, the feeder of the Guif Stream. The IBrazil Current, coming from the samo fountain, is suiposed to be divided by Cape St. Reque, one brancil going to the south under this name, the other to the westward. This iast has been a great bughenr to navigatora, prineipaliy on account of the difficulties whieh n few duil vessels failing to leeward of St. Roque inve fomm in beating upagainst it. It was and to have cnused the loss of some liugliain transports in the last century, whieh feli to loeward of the Cape on a voyage to the other hemiaphero; and navigutora, accordingly, were aivined to shun it as a danger. This current has been an olject of special investigation during iny researeiten connected with the Wind and Current Charta, and the result has satisfled me that it is neither a dangerous nor a constant current, not withstanding elder writers. Iiursturgh, in his East India Directory, eantions navLgutors aguinst it ; nnd Keith Joinston, in hia grand phyaical Atias, pulisised in IR48, tims sioaks of it :
"This current greatly Impedes the progress of those vessels which cross the equator west of $23^{\circ}$ west longitnde, impelling them beyond Cape St. Roque, when they are drawn toward the northern cosst of Brazil, and can not regain their course till after weeks or months of delay snd exertion." So far from this being the case, my resuarches abandantly prove that vessels which cross the equator five hundred miles to the west of longitude $23^{\circ}$ have no difficulty on account of this current in clearing that Cape. I receive almost daily the abstract logs of veasels that cross the equator west of $30^{\circ}$ west, and in three days from that crossing they are generally clear of that Cape. A few of them repert the current in their favor; most of them experience no current at all ; but, now and then, some do find a current aetting to the northward and the west ward, and operating sgainst them at the rate of twenty miles a day. The inter-tropical regions of the Atlantic, like those of the other oceans, abound with confileting currents, which ne researches yet have enabled the mariner to unravel so that he may at all times know where they are and tell how they run, in order that he may be certain of their help when favorable, or sure of avoiding them if adverse.

Under Currents.-Lieutensnt J. C. Waish, in the U. S. scheener Tuney, and Lieutenant S. P. Lee, in the U. S. brig Dolphin, both, while they were carrying on a system of ebservations in cennection with the Wind and Current Cinarts, had their attention directed to the subject of submsrine currents. They made some interesting experiments upon the subject. A block of wood was loaded to sinking, and, by means of a fishing-line or a bit of twine, let down to the depth of one hundred or five hundred fathoms, at the will of the experimenter. A amall barrel as a float, just sufficient to keep the block from sinking further, was then tied to the line, and the whele let go from the beat. To use their own expressions, "It was wonderful, indeed, to see this barrega meve eff, agrainst wind, and sea, and surface current, at the rate of over one knot an hour, as was generally the ense, and en one occasion as much as 19 knots. The men in the boat could not repress exclamations of surprise, for it really appeared as if aome monster of the deep had hold of the weight below, and was walking eff with it." Both officers and men were amazed at the sight. The experiments in deep-see soundings have also thrown much ligit upon the subject of under currents. There is reason to believe that they oxist in all, or almest all parts of the deep sea, for never in any instance yet has the deep-sea line ceased to run out, even after the plummet had reached the bottom. If the iine be held fast in the boat, it invariably parts, showing, when two or three milos of it are out, that the under currents are sweeping against the bigit of it with what seamen call a swigging force, that no counding twine has yet proved strong ennugh to withstand. Lileutenant J. P. Parker, of the United States' frigate Congress, attenpted, in 1852, a deci-sen sounding off the ceast of South America. He was engaged with the experiment eight or nine hours, during winch time a line nearly ten miles long was juili out. Night ceming on, ho had to part the line (which he did simply ly attempting to haul it in) and return on bourd. Examinution proved that the ocean there, instend of being over ten miles in deptil was not over tiree, and tinat the line was awept out by the forco of one or more under currents.Mavny's Physical Geography.

Currency. (lat. curro, 1 run.) In Political Economy, a term sonctimes used to express the colluctive amount of the meney, and of the bills, checks, and other subatitutos for money, employed in selling or buying, or in the distribution of the commodities and services among the different ranks and orders ef the community.-See Articles Banks, Consage, Cuedit, and Goid.

Currencies in United Etates. The Treasury Department of the United States issued, on the 19th of September, 1851, the following Instructions to cellectore and officers of the customs: "In view of the embarrasments existing at some of the princlpal ports, and the want of aniformity in the practice of assessing datiee upon merchandise invoiced in depreciated foreign currencles, it is deemed propor to estallish some uniform regulatlons on the sulject, for the future government of officers of the customs. The law requires invoices of all imported merchandise aubject to an ad valorem duty to be made out in the currency of the country or place where the importation is made. The batis of value upon whlch the duties are to be assessed is the true market value in the priacipal markets of the country at the period of exportation to the United States, exhibited in such foreign currency at its intrinsic value, and converted into money of the United States according to the rates of value at which sald currency may have been determined agreeably to law. Congress has fixed the value of some of the foreign curreacies at specific rates; but where the invoice cost of goxis, wares, or merchandise is exhlbited in a depreciated currency issued and circulated under the authority of aay foreign government, the I'resident of the Únited States is duly authorized by luw to cause to he established 'fit and proper regulations' for estinuating the duties on any such goods, wares, and merchandise. In all cases, therefore, where the forcign currency is depreciated, its value in money of the United States is to be ascertained in the mode preseribed by the circular instructions issued by the Department, by direction of the President, under the dates of the 14 th of May and the 16th of August, 1831, and the 16th of Oetober, 1832. Although the consular certificate, required by said instruetions, of the value in United States' money of any foreign depreciated currency is ordinarily to be received and taken as evidence of sueh value, yet it is not to te deemed conclusive in cases where facts or circumstances may exist, producing a rational belief that manifest errer attaches to such certificute. Where Congress has fixed the value In American money of any foreign curreney, it is to be understood that the value is to attach in all cases in estimating that duty; and, should any of the said currencles become depreclated, either by the issuc of government paper money or otherwise, the collectors neverthelens will make no alteration in the value in eatimating duties, without the previous authority of the Department, whleh authority will be promptly given in all cases, so soon as the pact of such depreciation is authentlcally brought to his knowledge. Such informatlon has been received as regards the Austrian thorin, whlch, until further instructions on the subject, the colleetors will consider as deprecisted enrreney, and levy the duty accordingly on invoices stated in it. The forelgn curreneles alluded to above, the value of which is fixed by various acts of Congress, are noted at foot, for your information and government.
"It frequently happens thit lnvoiees statod In the carrency of the country of shipment have expressed on the face of them, in the curroney of another eonntry, the amount for which bills of cxehunge may have been drawn in payment of the goode, or for other causes. In eases where beth currencies have a specie basis, any difference which may exist between the two amounts thus exhlbited is presimed to arise from the interest on the aight of the bill, or a regular difference of exchange between the two points; and where the currency of the country of shipment is depreciuted, a similar difference may exist between the apecie value of the foreign currency thus expressed on the face of the involee, and the consular certified specle value of the local depreeinted currency in which the Involee is atated. As the law providea that the dutles shall be eatimated on the apecie value of the
currency of the country whence the shlpment is made, that mode, as a general rule, will therefore be adopted; yet where the difference betweea the value of two currencies, expressed apon the face of the invoice, is so great as to excite a well-founded helief that either deception or error exists, the appraisers are required to investigate the facts, and if they ascertain that there has been error, either in the consular certifieate in giving the specle value of a depreciated currrency, or that otherwise the true specie value ln currency of the United States has not been correctly set forth, it will become their duty to correct said error by advancing the cost or value given in the invoice or on the entry, either in the price of the goods or the estimatod specie value of the depreciated currency."
Curriole (Lat. curriculum, a chariot), a carriage with two wheels, drawn by two horses alirenst, sad supported ly a pole connected with a bar across the horses' bueks.
Currying of Leather (Corroyer, French; Zu richten, German) is the art of dressing okins after they are tanned, for the purposes of the shoemaker, coach, and hurnessmaker, ete., or of giving them the necessary smoothness, lustre, color, and supplencss. The currier's shop has no resemblance to the tanacr's premises, having a quite different set of tools and manipulutions. Every kind of tanaed leather net intended for soles or such coarse purposes, is generally curried before belng delivered to the workmen whe fashion it, sueh as shoemakere, couchmakers, suddlers, etc. The chief operations of the currier are four: 1. Dipping the leather, which consists in moistening it with water, and beuting it with the mace, or a mallet, upon the hurdle. Ile next applies the cleasiers, both blunt and sharp, as well as the head-knife, to remeve or thin down all inequalities. After the leather is shaved, it is thrown once more iato water, and well scoured hy rublulug the graln eide with punice-stone, or a piece of elaty grit, whereby it purts with the bloem, a whitlish matter, derived from the ouk lark in the tan-pit. 2. Applying the pommel to glve the leather a granular appearance, and correspondeut flexibility. The leather is first folded with its graln side in contact, and rubbed strongly with the pommel, then rublicd simply upon its grain adde; whereby it becomes extrenely fiexible. 3. Seraping the leather. This makes it of uniform thiekness. The werkman holds the tool nearly perpendicular upen the leather, and forcitly scrapes the thick places with both his hands. 4. Dressing it ly the round-kuife. For this purpose he stretches the leather npon the wooden eylinder, lays hold of the pendent under edge, with the pincers attached to his girdle, and then with both hands upplies the edge of the knife to the surfuce of the leather, sluntingly from above downward, and thus pares off the cosrser fleshy parts of the skin. This operstion requirea great experience and dexterity; and when well performed, improves greatly the liok of the leather.

The hide or skin, being rendered flexitle and uniform, is conveyed to the shed or drying-house, where the greasy substances are applied, whilh is called dubbing (daublng) or stuffing. The all used for this purpose is prepared by boiling sheepwkini or doeskins in col oil. This application of grease is often made before the graining-boarl or prommel is employed. Hefarn waxiug, the leather is commonly colored by rubling it with a bruel dipped into a composition of oll and lampblack on the flesh side, till it he thoroughly hath; it Is then black-sized with a bruah or aponge, dried, tullowed with the proper eloth, and slleked upon the thesh with a broad, amooth lump of glass ; sized oguln with a sponge ; and when dry, again curried as ahove described. Currying leather on the hair or graln side, termed black on the grain, is the aame in the first eperation with that dressed on the flesh, till it is scoared.

Then th selution been rul urine is to make now stuf is, ruble on the g slicked w kles, and raised wi ling it to thorough ways. II nearly as grain.
Curta great vari prineipal eist chief ployed in former be foundatie in the san A species twe in te and clega silk, and itself, it ti or a dama the silk d purposes, challi, whi patterns. shy thing printed an
Custo their bein, They wer under Eth by grant 1274. farmed to years, in farmed 1 -Daren
In 1530 .
In 1599.
In 1614 :
In 1622.
In 1642.

| In 1642. |
| :--- |
| In 1720. |

In 1748.
The cu on every 6d. ; and lin. Cus were disq, bers of Pa

Custom mercial eo on the cor eign coun exportel f able on th from, the a very ane nulo. The fluctuat in , apecting $t$ corn expo time, 5 le the amoun caprice of state. Thu entirely re creased. as high ns

Then the first black ls applied to lt while wet, by a solution of copperas put upn the grain, after this has been rubbed with a stone; a brush dipped in atale urine is next rubbed on, then an iron slicker is used to make the grain come out os fine as possible. It is now stuffed with oil. When dry, it is seasoned; that is, rublued over with a brush dipped in copperss-water, on the grain, till it be perfectly black. It is next slicked with a good grit-stone, to take out the wrinkles, and smooth the coarse grain. The grain is finally raised with the pommel or graining-board, by applying it to the leather in different directions. When thoroughly dry, it is grained again In two or three ways. Hides intended for covering coaches are shaved nearly ss thin as ahoe hides, and blacked upon the grain.

Curtains. Window-curtains are now made in great variety, both of materials and manufactare, the principal difference being $n s$ to the former, which conaist chiefly of 3-silk, wool, and cotton. Silk is employed in damasks and tabarets, mixed with wool, the former being a flowery pattern of silk on a woolen foundation, whilst the latter is a satin stripe arranged in the same way as regards the composing materials. A species of terry-velvet is also now used in which the two $m$ terials are blended, and which makes a rich and elegnnt curtair, this is made slso in wool without silk, and then called repp. When wool is used by itself, it then forms a broad-cloth suiteu to dining-rooms, or a damask, which is not so beantiful to the eye as the silk damesk, but still sufficiently so for common purposes, or else a morfen, either plain or watered, or a chatli, which is a thin trill material, printed with chintz patterns. Cotton is made into a plain article, without any thing but a mere weh and woof, which, when printed and glazed, is ealled chintz.

Customs are duties chnrged upon commoditles on their boing lmported into or exported from a country. They were collected upon merchandise in England, under Ethelred II., in 979. The king's claim to them hy grant of Parliament was established 3 Edward I., 1274. [This is questionslsle.] The customs were farmed to Mr. Thomas Stnith, for $£ 20,000$ for several years, in the reign of Elizabeth.-STowe. They were farmed by Charles II. for $£ 390,000$ in the year 1666. -Dayenant. The dutios collected in England were


The customs in Ireland were, in the year 1224, viz. on every snck of wool, 3d.; on every last of hides, 6d. ; and 2d. on every bnrrel of wine.-Annals of Dublin. Custom-houss oflcers, and oflicers of excise, were disqualified from voting for the election of nembers of Parliament, by statute 22 George III., 1782.

Customs duties seem to have existed in overy commereial country. The Athenians laid a tax of a fifth on the corn and other merchandise imported from foreign countrics, and also on several of the commodities exported from Attica. The portoria, or customs payabie on the commodities imported into, and exported from, the different porth in the Roman empire, formed a very ancient and important part of the public revenue. The rates at which they were charged were fluctuatiug and various, and little ta now known respecting them. Cicaro inform sus, thast the dutios on cern exported from the "orts of Sicily were, in his time, 5 per cent. Under the Imperial governinent, the anount of the portoria depended an much on the caprice of the prince as on the real exigences of the state. Though sometimes diminished, they were never entirely remttted, and were much more frequently $\ln$ creased. Under the Byzantine emperore, they were as high ns $12 \frac{1}{8}$ per cent.

Custome dutios exlated in England previous to the Conquest. They appear to have derived thelr name from having been immemorially or customarily charged on certain articles when conveyed across the principal ferries, bridges, etc., within the kingdom, and on these and other articles of native and foreign produce, When exported from or imported Int the kingdom. In 1206 the entire cuatoms revenue of England, including that derived from toils and fairs, amounted to only £4,958 73. $3 \frac{1}{2} \mathrm{~d}$. 1 It is not, therefore, troe, as has sometimea been stated, that the king's first claim to the customa was established In the reign of Edward I. But that able and politic prince, by rendering the levy of the old duties more effectual, and procuring the sanction of Parliament to the imposition of new duties, was the first who msde the customs revenue of any material importance. The dutiea were at first principally lald on wool, woolfels (shoepskins), and leather when exported. There were also extreordinary duties paid by aliens, which were denominated parva custuma, to distinguish them from the former, or magna custuma. The duties of tonnage and poundage, of which mention is so frequently msde in English history, were customs duties; the first being paid on wine by the tun, and the latter being an ad valoram duty of so mnch a pound on all other merchandise. When these duties were granted to the crown, they were denominated subsidies; and as the duty of poundage had continued for a lengthened period at the rate of 1 s . a pound, or 5 per cent., a subsidy came, in the language of the customs, to denote an ad ralorem duty of 5 per cent. The new subsidy granted in the reign of William III. was an addition of 5 per cent. to the daties on most imported commodities.-Treatise on Taxation, by J. R. McCulloch, 2 d ed., p. 834.

The various customs duties were collected, for the first time, in a hook of rates published in the reign of Charles I. ; a new book of rates being again poblished in the reign of George I. But, exclusive of the duties entered in these two books, many more had heen imposed at different timea; so that the accumulation of the duties, and the complicated regulations to which they gave rise, were productive of the greatest embarrassment. The evll was increased by the careless manner in which new duties were added to the old, a par centage being sometimea added to the original tax; while at other times the commodity was estimated by a new standard of hulk, weight, number, or value, and charged with an sdditional impost, without any reference to the duties formerly Imposed. The confusion arising from these sources was still further angmented by the epecial appropriation of each of the duties, and the consequent necessity of a separate calculation for ench. The intricacy and confusion inseparable from auch a state of things proved a serious injury to commerce, and led to many frauds and nbuses.
Customs duties, like all duties on particular commodities, though advanced in the first instance by the merchant, are ultimately paid by thoae by whom they sre consumed. When a government laya a duty on the foreign commodlties which enter its ports, the daty falls entirely on such of its own subjects as purchase these commodities; for the foreigners would cease supplying its market with them, if they did not get the full price of the commodities, exclusive of the tax; and, for the same reason, when a government lays a duty on the commolities which its suhjects are about tu export, the duty does not fall on them, but on the foreigners by whom they are bought. If, therefore, it were posaible for a country to ralae a sufficient reveune by laying duties on exported commodities, euch revenue would be wholly derived from others, and it would be totally relieved from the hurden of taxation, except in so far as duties nilght be imposed by foreigners on the goods it impoits from them. Care, however, must be taken, in imposing dutios on exportation, nct
to lay thom on commodities that may be produced at the same, or nearly the asme, cost by foreigners; for the effect of the duty would then le to make the market be supplied ly others, and to put an entire atop to their exportation. Hut in the event of a country posseaslag any decided natural or acquired advantage in the production of any sort of commodities, a duty on their exportation would seem to le the most unexceptionable of all taxes. If the Chinese chose to act on this principle, and had the power, they might derive a considerable reveaue frem a duty on exported teas, Which would fall entirely on the linglish and other foreigners who buy them. The coal and tin, and perhaps, aleo, some of the manufactured gooda produced in this country, seem to be in this predicament. The revenue derived from the customs duties in 1590 , in the reign of Elizabeth, amounted to no more than $£ 50,000$. In 1618, it had increased to $£ 148,075$; of which no loss than $£ 109,572$ were collected in london. In 1660, at the Restoration, the customs produced £421,582; and at the Revolution, in 1688 , they produced £f81,987. During the reigns of William $1 I I$. and Anne, the customs revenue was considerably augmented, the nett paymente into the exchequer in 1712, being 21,315,423. During the war terminated by the peace of Paris in 1763, the nett produce of the customs revenue of Great $1 \mathrm{Br}^{*}$ smounted to nearly $£ 2,000$,000 . In $1 \mathbf{1 7 9 2}$, it am, ated to $\mathbf{£ 4 , 4 0 7 , 0 0 0 \text { . In } 1 8 1 5 , ~}$ at the close of the war, it amounted to $£ 11,360,000$. See Great Britain. See Tariff, United States.

Consular officers are instructed that the following valuea have been established by the laws of the United States for certain foreign currencies, viz.: dollars of Mexico, Peru, Chili, and Central America, $\$ 1$; dollar, specie, of Denmark, $\$ 105$; dollar, rix, or thaler, of Prussia, and the Northorn States of Germany, 69 cts. ; dollar, rix, of Bremen, 784 cts. ; dollar, specie, of Sweden and Norway, \$1 0t; ducat of Nsples, 80 cts.; franc of France and Belgium, 18 6-10 cts. ; florin of Netherlands, 40 cts. ; florin of Austria, $48 \frac{1}{8}$ cts. ; florin of Southern States of Germany, 40 cts. ; guilder of Netherlands, 40 cts. ; lira of the Lombardo Venetian Kingdom, 16 cents; lira of Tuscad:- 16 cents; lira of Sardinia, 18 6-10cts.; livre tournolse of France, $18 \frac{1}{3}$ cts. ; livre of Leghorn, 16 cts.; mifrea of Portugal, $\$ 112$; milrea of Azorea, 83 z cts. ; mare banco of Ilamburg, 35 cta. ; ounce of Sicily, . 240 ; pound sterling of Grest Britain, 4484 ; pound sterling of British provipces of Nova Scotia, Now Brunswick, Newfouulland, and Canada, 84; pagoda of India, 184 ; real vellon of Spuin, 5 ets.; renl plate of Spain, 10 cts.; ruhle, silver, of Russin, 75 cts.; rupee, company, $44 \frac{1}{1}$ cts.; rupee of British India, $44 \frac{1}{1}$ ets. ; tael of China, 4148.

Invoices of merchandise made out in the depreciated currencies of Austria, Chile, Bolivia, Peru, Porto Rico, and Nova Scotia, with certificates of United States' consuls annexed, will he received by the collectors of the Inited States.

The repreciated pound sterling of Nova Scotia will be taken, in computation at the custom-house of dutles, In the case of involces of merchandise from that province made out in that depreciated currency, at \&3 84, as compared with the silver curreucy of the United States, provided such depreciathon, at thd date of exportation, is certified by the United States' consul at the port of shlpument.

The value of the Austrian silver florin is fixed by the laws of the United States, and the Austrian paper florin is usually depreciated in comparison with it. Assuming it to be, for example, depreciated 38 per cent., the computation will be made ly collectors liy proportion, to $w$ ue $138: 100$, so ts the muount of paper florius stated in the involee to the value in silver tlorins. Of course the consular certificate, showing tho rate of depreciatlon, must le produced in such caees. $\rightarrow$ See contra, AuT, Hib. 185\%.

Table biowivo tia Revinez colleotrd fhom Tix beoining or tita Govianment TO Junk 80, 185
 TAaipy
gounozs Was colixcted.

| ra. | From Customs. | Date of tarif. | Total reeelpts. |
| :---: | :---: | :---: | :---: |
| From |  | July 4, 1789-gen- |  |
| March 4, |  | eral; Auguat 10, |  |
| 1759, to Dec. 81 | 84,890,478 | 1790- general ${ }^{1}$ | 10,210,025 |
| Di801 |  | general.. |  |
| 1792 | 8,448,070 | $\mathrm{y}^{2-g e}$ | 8,140,766 |
| 1798 | 4,255, 806 |  | 6,720,624 |
| 1794 | 4,801,065 | June 5 - apectal; Jene T-general... | 10,041,101 |
| 1795 | 8,888,461 | an. 29-gencral ... | 0,419,802 |
| 1796 1797 | 6,567,097 |  | 8,740,329 |
| 1797 | 7,549,649 | March 3- general; July 8-spectal.... | $8,7 \times 0.916$ |
| 1798 | 7,106,061 |  | 8.209,060 |
| 1799 | 6,610,449 |  | 12,621,499 |
| 1800 | 9,050,932 | May 18-apeclal..... | 12.451,184 |
| 1801 | 10,750,788 | . $\cdot .$. | 12,945,455 |
| 1802 | 12,438,285 |  | 15,001,881 |
| 18 | 10,470,417 |  | 11,064,047 |
| 1804 | 11,098,565 | March 20-mpoctal; March 27-spectal. | 11, $5 \times 3,840$ |
| 1805 | 12,980,487 |  | 13,689, 50 |
| 1806 | 14,007, 9 ,9e |  | 15, (in) 828. |
| 1807 | 15,845,521 |  | 10,398,019 |
| 1819 | 16,863,580 | -•.. | 17.062.544 |
| 1809 | 7,896,080 | .... | 7,778,478 |
| 1810 | 8,583,809 |  | 12,144,206 |
| 1811 | 18,818,22 |  | 14,481,838 |
| 1812 | 8058777 | July 1-speclai. | 22, 63991082 |
| 1818 | 18,244,029 | July 29-spectal. | 40,524,64 |
| 1814 | 5,994,772 |  | 34,0599,536 |
| 1815 | 86,306,874 |  | 50, 961,287 |
| 1816 | 86,306,874 | February 5-spectal; Aprtl 82 -general. | K7.171.423 |
| 1817 | 20.284,348 |  | 83,483,502 |
| 1818 | 17,176,885 | April 20-special. | $21.5993,996$ |
| 119 | 20,289,408 | March 3-speclal. | 24,605,665 |
| $1 \times 30$ | 15,005,612 |  | 20,851,489 |
| 1821 | 18,014,447 | .... | 19,578,769 |
| 18:2 | 17,589,761 | … | 20,282, 422 |
| 1823 | 19,08s,483 |  | 20,540,666 |
| 1824 | 17,873,825 | May 22-gencral.... | 24,851.212 |
| 1825 | 20,098,718 |  | 26,84084 |
| 1826 | ${ }_{19}^{23,841,381}$ |  | 25, 260,484 |
| 1847 | 19,712,273 |  | 22,966,363 |
| 1828 | 28,205,523 | May 19 -general ; May 24 - spectal... | 24.763,629 |
| 1829 | 22,681,965 |  | 24, 27,627 |
| 1830 | 21,022, 891 | May 20 - speciat; May 29-spectal. |  |
| 1831 | 24.224,441 | May 29-spectal... | $24,544,116$ $29,520,820$ |
| 1882 | 28,405,237 | Joly 18 - spectal; July 14-generat. | 1,965,501 |
| 1893 | 29,032,508 | Mar, \%-special; Mar. 2-compromise .. . | 83,048,42e |
| 1884 | 16,214,957 |  | 21,791,003 |
| 1835 | 19,891,810 | .... | 85,480,047 |
| 1886 | 23,409,940 | .... | 81, $\times 200709$ |
| 1887 | 11,109.290 |  | 27, $\sim^{8} 8,838$ |
| 1889 | 16,159,400 | .... | $89.119,982$ |
| 1889 | 23,187,924 | .... | 93, 51,242 |
| 1540 | 18,494,512 |  | 25, $0,2,108$ |
| 1811 | 14,487,216 | Sept. 11-general ... | 80,519,474 |
| 1842 | 18,187,904 | Aug. 80-general. ... | 94:73,74 |
| Jane 80, 43 | 7,046,48 |  | 20,7*2,410 |
| 1843-44 | 26,183,570 | .... | 31,19,055 |
| $1545-45$ | 27.024,112 |  | 29,941,833 |
| 1845-46 | 26.712,667 |  | 21,099,967 |
| 1848-47 | 23,747, 4 ¢ | July 80,1846-general | 64,838,16 |
| 1817-48 | $81,757,070$ | Mar. 29, 1843-apecial | 56,092,479 |
| 186-19 | 2x,446,738 | Aug. 12,18.5-spiectal; Jan. 26, 1849-spec. | 59,796,592 |
| 1810-50 | 99,068,688 | , | 47.649 .8 sc |
| $15000-31$ | 49,017,507 |  | 02.602,74 |
| 1551-58 | 47,339,320 | .... | 49,036145 |
| 14952-53 | \% 51031,808 |  | 61,50410102 |
| 1483-54 | 64.224,190 |  | 73,802,291 |
| 1154-53 | $54,425,794$ |  | (55,301,874 |
| $1563-36$ | 64,022,804 | .... | 73,914,141 |
| Total. | 11,827,101,091 |  | 11,8.5 $, 1977,266$ |

The value of the epecie dollar of Sweden and Norway luving been fixed hy an act of Congress of ths 22d Mny, 18.t6, at 106 cente United States' currency, and the rix dollar banco of Sweden and Norway, heing a component part of their apecie dollar, and in the invarlable proportion of $2 t$ to 1 , and consequently equal to 80 cents United States' currency; the rix dollar baneo of Sweden and Norway la therefore taken, in computations at the custom-liouses, at the rate of 39 ?
cents, Ur tificate $w$ depreciat of foreign a legal t pealed; 1 mint to $\mathbf{c a}$ auch forei to determ and to em results the

The cer the value the merch is made ou must be re such forel United St: which the tixed t t preciated, stating the the entry, by such ed value of th Customs taxes levie sumption f times colle and upon $g$ another in
The ear the crown the $3 \mathbf{d}$ of $\mathbf{E}$ collection o value upon grant what subsidy wa shillings of early acts subshdies of was applied tion of each applied to o
The first of Common cemraittee i publlshed u rence Black have any re of Common Charles II.J. Bownt Wiuttlegar Jewrtt).

Custom maritine ci sgement of imported or
Custom is a peenlin whols of th recognized i ple was ord town, wkille man accordi chant is com customs of $m$ and the stat toms preced before they not written aequire all $t$ grafted 1 ן⿴囗 customs of $n$ terminations sul they be
cents, United States' currency, and no consular certificate will be requ* 3d, unless the currency should be depreciated. All former acts anthorizing the currency of foreign gold or silver coins, and declaring the same a legal tender in payment of debts, are hereby repealed; but it shall be the duty of the director of the mint to cause assays to be made, from time to time, of such foreign coias as may be known to our commerce, to determine their sverage weight, fineness, and value, and to embrace in his annual report a statement of the results therefor.
The certlficate of the United States' consul, showing the value of the currency of the conntry from which the merchandise is imported, and in which the invoice is made out, in United States' or Spanish silver dollars, must be required in every case in which the value of such forelgn currency is not fixed by the laws of the United States. And in case the foreign currency in which the invoiee is made out, whether its value is fixed ly the laws of the United States or not, is deprecinted, the certificate of the United States' consul, stating the rate of depreciation, must be produced on the entry, and the officers of the customs are governed by such certificate in computing the foreign market valae of the merchandiae.
Customs Duties consist for the most part of taxes levied upon goods, and produce brought for consumption frem foreign countries; such duties are sometimes collected upon exports made to forelgn countries, and upon goods and produce passing from one port to another in the same country.

The carliest statute passed in England, whereby tha crown was authorized to levy customs duties, was the 8 d of Edward I. The mode long employed in the collection of these duties, was to affix a certain rate or ralue upon each kind or article of merchandise, and to grant what was called a subsidy upon these rates. This sabsidy was generally 1 shilling of duty for every 20 shitlings of value assigned in the book of rates. The early sets which grant these dutios speak of them as subaldies of tonnage and poundage. The worl tonnage was applied to a specitic duty clarged on the exportation of each ton of beer; and the w'sri poundage was applied to other articles valued as already explained.
The first " hook of ratos agreed njon by the House of Commens" is believed to he that compiled by a committee in 1642, during the reign of Charles I., ind pullished under the anthority of the House by Lawrence Hlacklock. The next hook of rates of which wo have any record, was published by order of the IIouso of Commons, In 1660, the year of the restoration of Charles II.-Nut. Cyclu. See Hunr's M. M., v. 145 (J. llowhing), vi. 9 (C. Raguet), ix. 448 (C. C. Wimtlaksey), iv. (G. Tucken), xiv, 456 (by C. C. Jewftr). See also Encyc. Am., Art. Tares.
Custom-house, an othce established by law in maritime cities or scaports, for the receipt and managenent of the customs and duties imposed on goods imported or experted.
Cuatoms of Merchants. The law merehant is a pecultar system which prevailed throughont the whole of the Anglo-Saxon times; it was especinlly recognized in the time of Edwarl III.; *hen the staple wss ordained, a mayor was to bo chosen in each town, skilled in the law morchant to do right to every man according to that law. The modern law merchant is composed of threo distinct elements, viz., the customs of merehunts, the orilnunces of foreign statos, and the statute law-as art precedes srience, so customs precede law. long aro these customs practiced before they are committerl to writing. llut though not written or declared by the legialative power, they aequire all the authority of law, and are gradually engrafted upon the comnen law of the country. The customs of merchants are part of the law. Judicial determinations settle what is the custoin of merchants, and they becomo tho lex mercatoria as to the different
questlons. In ordor that a custom he binding, it must be either the usage of the whole mercantile world, or of a particular trade universally known as such. A usage of a particular place, or of a particular class of persons, would not be binding on other persons unless these were acquainted with those usages und adopted them. In all coses, however, no castom can be aet against an express statute law. Among the most important customs among merchants are the establishment of boards of trade, the settlement of disputes by arbitrations, and the binding force of the decision of a referee. See Levi's Manual of Mercantile Law.

Cutlass, a short sword used by seamen. The art of fencing with it is i:ferent from that with the small sword or broad aword. A guard over the hand is an advantage. It is, if well anderstood, a very effectual weapon In close contest ; on account of its shortness, it can be handled enoily, and yet it is long enough to irotect a akillful swordsman.

Cutlery (Fr. coutellerie; Lat. culter, a knife), generally speaking, includes all cutting tools made of steel. Various countrios and cities have at different periods excelled in the manufacture of some particular article, as Damascus for a besutiful sword blade, which has hitherto baflled all attempts at imitation. If this blade is mado, ns is commonly supposed, by welding together extremely fine wires of iren, steel, and gold, laid altomately on each other, the dexterity required is such as must astonish the most active and experienced worknen of other countries. The peculiar wave, usually called the water, so universally admired, is eflected by the application of a weak acid to the poliehed surface of iron und steel. At Damascus, sulphate of alumine is used; but any dilute acid seems to answer the purpose. The cutlery of England is deservedly held in high estimation in every part of the civilized world. The finer articles, as razors, penknives, scissors, and surgical instruments, are made of cast ateel, that is, steel purified and equalized by fusion. Dexterity snd nice attention on the part of the workman to a varicty of circumstances, as the quality of the steel, nature of the fuel, necurucy in the process of lardening and tempering, and many other minor considerations, arg essential to the production of a good cutting instrument. For table-knives, and all cutlery of that description, shear-steel is generally used; the tang and shoulder of the table knife and fork are iron, united to the blade by welding. The celebrated Indian steel called wootz is not used in ths manufacture of British cutlery.

The principal seat of the cutlery trade of England is at Sheffield, where nll kinds of table cutlery, razors, peuknives, scissors, aurgeons' lnatruments, and every variety of cutting iastruments, are manufactured. There are also some small manufactures of similar articles in London; but much the greater proportion of the cutlery sold as London-made, is actunlly manufactured in Sheffild, tilthough bearing the name of London manufucturers. Sheffield cutlery has deservedly ohtained a high degree of reputation in almost every part of the eivilized world ; and it is of the greatest inportance to the commercial interests of the country that this high character should be maintained. But here it must not he omitted to be mentioned, that there is also an extensive manufacture of an inferior description of cutlery, principally censisting of table knives and forks, scissors, and pocket-knives, which are professedly made for export to the lese civilized portions of the ghobe, but also retailed in large quantities in this country. It is manufactured by casting from a species of pig-iron. This iron is, from the superabundance of its carbon, highly susceptible of liquidity, and readlly easts into the required form. In this state the cast-iron cutlery is extrumely liard, nud as brittle as glass; but it is reduced from this hardnces by decomposition-being suljected to a strong and long-continued liro in close vessels, in contact with
iron ore, oxyd of iron, or any auhatance containing oxygen, with which the superabundant carbon combines, and flics off in the state of carbonic acid gas. This cast-iron cutlery is, when finished, not always distinguishable in appearance from that made at the forge, and can, of course, be afforded at a much lower price. This very fusible iron may be applied to many purposes. It le hardly necessary to add, that it is quite unfit for any description of edge instrnment.

These observations apply generally to every deacription of knife nsed in eurgery; but the nature of each particular operation should not be considered, in judging of the requisite degree of strength or delleacy of edge. Next in importance to the knives are the saws used in surgery. All of these mist be of the best apring temper, which, for the cast-steel blads, is about $570^{\circ}$ of Fshrenheit, and for one of Indian steel $600^{\circ}$, or quite the boiling point of mercury. Of another class of instruments, namely, those denominated blunt, It will he sufficient to observe, that what is known by the name of shear-steel is best adapted for the purpose. Case-hariened iron hae been most improperly used, this hardening being very enperficial. It is, in fact, converting the surface only into steel, by heating it to redness, in a close vessel, in contact with animal charcoal, such as charred bone, leather, or horn, snd quenching it when red-hat in a cold fluid. Iron thus treated, will take a beautiful polish; but, excopt for ornamental purposes, it ought never to be employed. Some imstruments are necessarily made of goid or silyer; us catheters, and other tubes and probes. When for these ductility is required, the metals should be unalloyed; the extra expense of which, will be more than compensated by the convenience of giving to the instruments, in all cases, the desired curve nud form.
The handles of instruments, together with all ornamental parts, must in a graat measure depend on the taste and choice of the purchaser. It would be well, however, to svoid such materials sa are known to produce chemical sction when in contact with polished steel. I yory, muther-of-peari, and eiony are much nsed; but the fine walnut-tree, such as the londen gunmakers employ, is perbaps of all the woods the best for the purpose. Sandal-wood answers very well, although it by no means deaerves all the credit which has been given to it as a preservative of steel from rust. The instrument-maker whe wishes to axcel will do well to avail himself of every opportanity of witnessing the operative part of surgery ; that he may observe how far the instrument is mechanicaliy and physically adapted to its purpose, and, if necessary, be the better able to make the requisite alteration.-E. B.

The vaius of hardwares and cutlery exported from Great liritain in 1855, was $£ 2,960,391$. In the New England States the manufacture of cutlery is rapidly increaking. In Massachusetts about $\$ 400,000$ is invested in this branch, with an annual product of about 8500,000 .

Quietly, but rapidly, we are day by day gaining on the old world, and the time is not far distant when it will be discovered that the majority of our manufactures are actualiy superior to those of Europe. As an lllustration of this, we will venture to assert that there are very few persons, not concerned in the business, who are aware of the degree of excelience which the manufacture of cutlery has attained in the United States, or that, if it were generaliy known and encouragel, we should in all probability be entirely selfdependent as regards its production. On this suljeect, Fleischmann, whose work on the "Branches of Industry in the United States" has contributed more than any outher book to enighten Germany as to our country, remarks as follows:
"The manufacturers of cutiery in the United States have far aurpassed those of the old world in the manufacture of tools, and that not merely In the excellence of the metal used, but eapeciaily in the practical utiiity
of their patterns, and In the remarkable degree of finish of tbelr work."

It is a somewhat remarkahle fact that American hardware is overy year developing in its shapes a practical economy of material and a straight-forward adaptation to the end in view which are unknown to the greater part of Europe. The American lalorer or mechanic, it is well known, even where not gifted with a greater degree of physical ability, will stili, sa a ruie, turn ont more work in a day than a foreigner under the same circumstances. With euch men, who go directly at thair work and stick to it, there is no play and no trifling with labor. A result of this is shown in the fact that the American ax, which, in its well. known form, is entirely a native American pattern, is far more practically useful than the misersble European ax which it hes supplanted. And not in axes alone, but in many other implements there has been a marked progreas, and a gradual, though unnoticed, communication of practical patterns to English manufactories. In our factories, which are themselves very generaliy proofs of the same principle of economy and of keeping directly at the object proposed, there is sctually more of the first quality English steei used, than in England itself. Of Hoop L, the best quality of Eaglish steel, thare is annually ten times as much used as in England, though that country manufactures about fifty times as much cutlery as we do.
Could our American mechanics receive the credit so justly their due, for the improvements which they have gradually introduced into the shape of carpenters' tools, and couid the world be made aware of the degree to which of late years the Engiish trade has been indebted to them for these improvements, we will venture to atate that there are few who would not be amazed. The European-especially the continentaisuffers in this respect under a tyranny of "old customs," which no Yankee mechanic would beiieve. If we look through Paris, if we examine the patternplatas published, we are amazed at the luxuriance of beautiful and practical forms annually produced, which glitter in shop windows, or are displayed at exhibitions. But go into the country, and we find tha same clumsy, unpructical old Impiements which were used three centuries ago. The seed falls on stony ground.

At the present lay, American cutlery is extensivelyimitated in Germany, even to the marks and names of our manufacturers. This is also dons by English goods, but the complimentary fraud has been of late yeara greatly on the increase as regards our own. We will not assert that there is net, especially in lingland, a vast amount of inventiveness, nor that a corresponding degree of improvements has not been made. llut a practical invention is less likely to die in the birth in America, and we conndently assert, without fear of refutation, that if any one wiil etudy the history of cutlary patterns adepted for the last 50 years, including all the aliied branches of manufacture, he will find that by far the greater proportion of practical improvements have been of American origin.-llust's Merchants' Magazine.

Cutter. A vessel with one mast and a bowsprit, of considorable lreadth in proportion to lier length. The distinction between a cutter and other vessels of one mast, which are called sloops, is, that in the cutter the jib has no stay to aupport it.

Cutters, Revenue. These vessels are usually about 100 or 150 tons, built as fast sailers, to aid the revenue officers. The captains and lieutenants of revenue cutters of the United States, are appointed by the Prealdent. Thair reports are made to the Treasury Department ; the veasels oubject to the diraction of the coilector of the port. Their officers and seamen are piaced upon the navy pension list, when disabled. Congress has recentiy authorized the construction or purchase of ateam revenue cuttera, which will furnish muterlai aid to the government officers in extraordinary casce.

Cyclo from the in a circle. of the prit learaing, eithar acco etc., or the alphabetica Dictionnair annica, hs species; b Technicum French wor of one, but

Cypres varieties, $\mathbf{t}$ press (Cup (Cupressus cypress is in to several $p$ a grent size It is nevar trees, even nians, when heroes and press coffing of the Egyp ing material age; and th dark, grean emblem of and History has given tl found in the ippi : " The from a large ence at the g jar shaft of $t$ with a regul the cuise tow taper after it shaft. Very titudes of he those of the have an air than describe are short, tin seem brown, lemnity to th viewed from terlaced arms has the aspet It grows, too, of fever, mus all loathsome gate far from common caus press loves t swamps ; and with sable fest of mourning w to flourish besi year. Uupro stances of its is found is so knots, it is easi ehingles, and t and incompara ani country of the building is ared with cyp felled in the $w$ are preferred houses, and for exposed to the

Cyclopaedia. (More commonly Encyclopaedia, for the inside of mahogeny furniture. It is highly from the Greek words $\dot{\varepsilon} v$ кu̇к $\lambda \omega \pi u ́ \iota \delta \varepsilon \iota a$; instructions in a circle.) A werk containing definitlons or accounts of the principal suhjects in one or all departmenta of learaing, art, or aclence. Ita arrangement may be either according to divisiens into the varions aciences, etc., or the subjects may be arranged and treated in alphsbetical order. The Encyclopedie Frangaise, or Dictionnaire Encyclopedlique, and the Eincyolopredia Britannica, have been the most celebrated works of this species; but the earlieat appears to be the Lexicon Technicum of IIarris, published in 1706. The great French work, the Eincyclopedie Methodique, consists, not of ene, but of a series of encyclepedias or dictionaries.

Cypress, a forest tree, of which there are many varieties, the specles denominated the overgreen cypress (Cupressus sempervirens) and the white cedar (Cupressus Thyoides) being the most celebrated. The cypress is indigenoue to the southern parts of Europe, to several parts of Asla, and to America. It grows to s great size, and is a mast valuable species of timber. It is never attacked by worms; and exceeds all other trees, even the cedar, in durability. Hence the Athenians, when desirous to preserve the remains of their heroes and other groat men, had them inclosed in cypress coffins; and hence, also, the external covering of the Egyptian mummies is made of the same enduriag material. Tho cypress is anld to live to a great age; and this circumstance, combined with its thlek, dark, green foliage, has made it be regarded as the emblem of death and the grave. In his Geography and Mistory of the Western States, Mr. Timothy Flint has given the following account of the cypress-trees found in the southern parts of the valley of the Missisaippl: "These noble trees rear their atruight columns from a large cone-shaped buttress, whose circumference at the ground is nerhaps 3 times that of the regular shaft of the tree. This cone rises from 6 te 10 feet, with a regular and sharp taper, and from the apex of the cuisa towers the perpeadicular column, with little taper after it has left the cone, from 60 to 80 feet, clear shaft. Very near the top it begins to throw out multitudes of horizental lirunches, which interlace with those of the adjoining trees, and, when bare of loaves, have an alr of desolation and death, more easily felt than described. In the season of vegetation the leaves are short, tine, and of a verdure so deep as almost to seem brown, giving an indescribnble air of funereal 80 lemnity to this singulur tree. A cyprese forest, when viewed from the adjacent hills, with its numberless interlaced arms covered with this dark-brown foliage, has the aspect of a seuffolding of verdure in the air. It grows, toc, in deep and eickly ewampa, the haunts of fover, musquitoes, meccasin enakes, alligators, and all loathsome and ferocious animale, that congregate far from the abodes of man, and seem to make common cause with nature against him. The cypress loves the deepest, must gloomy, inaccessible swamps; and eouth of $33^{\circ}$ is generally found coverec with sable festoons of long mose, hanging, like shrouds of mourning wreaths, almost to the ground. It eeems to dourish best when water covers its roots for half the year. Unpromising as are the places and circumstances of its growth, no tree of the country where it Is found is so extensively usiful. It is free from knote, it is easily wrought, nud makes excellent planks, shingles, and timber of all sorts. It is very durable, and incomparably the most valuable tree in the southent country of thls valley." Of whatever materiuls the luilding is constracted, the roof is unlversally eovered with cypress shingles, which, if made of trees felled in the winter, last forty years. Cypress bourds are preferred to those of pline for the laside of brick houses, and for window-sashes, and the panels of doors exposed to the weather ; cabinet-makers also choose it
proper for the masta and sides of vessels, and wherever it grews it is chosen for canees, whlch are fashioned frem a single trunk, and are often 30 feet long and 5 feet wide, light, solid, and more durable than those of any other tree. It makes the best pipes to cenvey water under the ground; especially the black variety, which is mcie resinous and solid.-Browne's Trees of America.

Cyprus (Kybris), an 1sland in the N. E. cerner of the Levant, lylng at about equal distances from the shores of Cilicia and Phonicia. Its extreme length from the promontory of Dinaretum to that of Acamas is about 140 miles; its extreme breadth, from the premontory of Cronmyon to that of Curias, about 70 miles. The area is roughly eatimated at about 4,500 English equare miles. The greater part of the island is occupied by the central ridge and spurs of the Stavro-Vuno and Santo Croce mountaine (the nncient Olympus). The loftiest peaks of this range attain a height of from 8,000 to 10,000 feet above the sea. The nerthern slopes are rocky and bare, but on the side of the south they are well wooded and highly picturesque, and inclose, in various parts of their course, valleys of unrivaled fertility. Considerable part of the wealth of ancient Cyprus arose from its copper mines, the most important of which were those of Tamasus in the centre of the island, Soll on the nerth coast, and Amathus and Cyrium on the south coast. In these mines gold and silver were also found. The precioue stones of Cyprue were also highly valuad. The chtef of these were the enuerald, agate, maluchite, jasper, opal, and the minerals asbestoe and rock crystal.

The first eettlers in Cyprus appear to have been of Phoenician origin. Under Augustus it became an imperial province, and was governed by a preconsul, with n staff of inferior officers. Befure the close of the 1st century of the Christian ern, the Jewish population of the islund bad greatly increased, and in the reign of IIadrian, is said to have risen in rebellion, and slain 200,000 of the other inhabitants. In the 7th century, Cyprus fell into the hands of the Saracens; and in the 0th, it owned the supremacy of the "good" Haroun Al Raschid. At the close of the 12 th century, it was conquered by Richard Coour de Lion, who made it over first to the Kinghts of the Temple, and ultimately to Guy of Lusignan, titular king of Jeruaalem. For three centuries the laland remained in the fumily of Lusignan, till, in 1473, it became an appendage of the Venetiun repullic. Cyprus was retained by the Venetians till in 1571 it was overrun by an army of Turkish invaders, who stormed Lefkosia and Finmagosta, and made a general massacre of the inhabitants. Since that date the islund has remained in possession of the Turks, and now forms a pashalic in the Eyalet of Djizairs. Under the Turkish rule the material prosperity of Cyprus has greatly declined. In the times of the Venetiun supremacy, the island muintained a populution of $1,000,000$; its present population is only about 150,000, of whom the great minjority are Greeks. Many parts of the island, formerly heulthy and fertile, aro now, from nalaria and other cuases, barren and uninhubitable. Its trade was at one time valuable and important ; now the value of its annual imports docs not exceed $£ 26,000$; of its exprorts, about $£ 60$, 000. Besides corn, of which it produces about 120,000 quarters nnuually, Cyprus yiedds in considerablo quantities cotton, wine, varlous kinds of fruit, opium, und madder; while the mountain districts furnish ollves, nines, and many species of valuable timber. Cia tho island ure found great quantities of tho $F \cdot r$ rula greca, which the Cypriote upplies to a great variety of domsatio purposes. This is the plant whose uses are feigned by the poets to have been taught to mortals of old by l'rometheus.

Daooa, the capital of an extenslve and rich district in the eastern quarter of the province of Bengal, a large city, and for 80 yenra the capltal of Bengal, of which it is still the third city in point of extent and population. It is situated beyond the principal stream of the Ganges, on the northern bank of a very large branch of that river, called the Boor Gungn, or old Ganges, at the distance of a hundred miles from the mouth of the Ganges. Its position is admirably well adapted for Inland trade, as the river which flows past It communicates with all the other Inland navigations by a direct course. The present town covers a great deal of ground, extending four miles along the bank of the river, though it is not of proportional hreadth. The houses of the wealthy are built of brick, hut there are many thatched houses, with very narrow and crooked atreets; the bazaars are only tiled or thatched; and as every vacant spot is covered with trees, the town looks from a distance like agrove. Owing to the effects of British competition, the manufactures of Dacca are at this time scarcely deserving of notice; hut here were formerly manufactured the most beantiful muslins, which were exported to all quarters of the world, and which had long been famed for their delicacy and beuuty. The spinning of the thread was carried on with wonderful nicety. The operation was performed with the fiagers on $n$ fine steel spindle liy young women, who could only work during the early part of the morning while the dew was on the ground : for such was the extreme tenuity of the fibre that it would not bear manipulation after the sun had risen. Such was the skill of the darners that they could remove an entire thread from a piece of muslin, and replace it by one of a finer texture. From their wonderful fineness these muslins were called Abrawan, or "flowing water," and Shabnam, "evening dew."E. 1 .

Daguerreotype. The name given to $n$ process invented by M. Daguerre of Paris, in 1839 , by which perfect fac-similes of objects are transferred upon thin copper plates with plated silver. The images are proluced by the action of light upon the iodine, through the focus of the camera obscura. An apparatus somewhat kladred in design, was in contemplation about the same time ber M. Niepcé, and nbout five years previously hy Heary Fox Talbot of Iondon; the original ldea, however, is traceable as far back as the days of Roger Hacon. By meana of the Talbotype, a recent improvement upon the above process, pictures in colors are produced both on paper and plates. So important a discovery in the fine nrts was the daguerreotype deemed by the Freneh government, tiat it awarded to its inventor a life pension of 6000 francs.-IIaynn. See Silmman's Jommel of Science, xxxvii., p. 6! ; xl., p. 137 ; xliii., p. 185 ; Forrign (Quarterly Rev., xxiii., p. 218; Westminster Rev., xxxlv., p. 434.

In 1802 Mr. Thomas Wedgewood and Sir llumphrey Davy succeeded in forming pictures of oljects laid on paper prepared with nitrate of silver, and in taking profiles (silhouettes) by menas of shalews. They proposed to obtain similar effect, ly means of the camera obscura, but their paper was not sufficiently sensitive. The effectual bar to thelr proceedloge was, however, this: that they could discover no means of firing the shadones which they hal olbtsined, or preventlog the whole surface of the pnper from leing gradually blackened by exposure to light.

In 1814 J . Nicerilohe Niepce, a retlred proprictor at Chalons sur Saine, entered into a similar inguiry, but by methods quite different. He employed the solar effect upon resinous lodies, and some, at least, of his pictures wero executed upon plates of pewter or
of rotted allver. The;- were mostly coples of engrav. Ings, and the light parts norresponded to the lights of the originals. He, however, at length succeeded in fixing impressions of views in the enmera obscura, though in an imperfect manner, and after very long exposire. The pietures thus ohtained hal this in common with more perfect precessen, that the luminous impression was first brought into view by a chemlcal process subsequent to exposure In the camera. In 1825 Nicephoro Nicpee becnmo azsociated with Daguerre, who had previously heen engaged in the same research; they agreed to communicate the reatles of their eeveral experiments. The result, as is wail known, was the invention of the Daguehreotype, not improperly called after Daguerre, who scems really to have worked it out almost entirely for himself after the death of Niepce in 1833; while so patient nad determined wns Daguerre in keeping his secret till breught to perfection, that he did not even show his results nntil early in 1839, when tho numerous specimens lie had to exhibit rivaled in delicacy any thing that the art has siace produced.-Ency. Brit. Pre. Dissertation, by Fonnes.

Dahlia. This benutiful flower was imported from China, of whlch it is a nutive, early In the present century, nnd amateurs in flowers have annually laid out hundreds of potuds in Englani, and thousands of francs in France, in the purchase of it. The Swedigh lotanist, Professor Dahl, first cultivated and made it known. It soon nttracted notlee in England, where, from the leanty of its form and variety of color, it becament once an especial favorite. In 1815, thout 2 months after the battle of Waterloo, it was introluced into France, and the celelrated florist, Andre Thonine, suggested various practical improvements in its manngement. The botanist, Georgi, land shartly before this introduced it at St. Petersburg ; and bence it is, that to this day the dahlia is known throughout Germany under the name of Genrgina.-Hayon.

Dairy. Milk, either in its natural state, or in the form of butter and cheese, is nn nrticle of dict so wholesome and so palatable, that the health and comfort of peopie, especially such of them as dwell in cities, lepend much upon their having a pure and plentiful supply of it at all seasons. Dainy Mavagsment, which includes every thing about the production and treatment of milk, is consequently a very important branch of busbunilry, and one in which every body fecls interested. The physical conditions of the different countries of the worlid have determined in each case the particulnr milk-y-lelding animal most suitable to be there used for dalry purposes. Tho Laplander obtains his supplies of milk from his reindeer, the roving Tartar from his mares, and the Bedouin of the desert from his camels. In the tempersto regions of the earth many pastoral tribes subsist mainly upon the milk of their sheep. In some rocky regions the goat is invaluable for this purpose ; and the buffalo is equally so amid the swamps and jungles of tropical climates. The milking of ewes was onee a common practice in Great Britaln; luut it has falten into disuse hecause of its hurtful effects upon the flock. A few milch nases nnd gonts nre kept for the benefit of infants or invalids; but with these exceptions the cow is the only naimal now used for dairy parposes in this country and Europe.

Butter is inade either from cream only, or'by chuming the whole milk and cream together. The best butter is obsained from the cream which rises during the first 12 hours after milking, nud the next best by churning the whole mik. In the former case the new milk, after being earefully strained, is poured into
shsllew Iron, woo sorts are able from and the la by the ac When it the butte skinuming followed tervals. kept in a milk in th by the pr aither stir another, apon it $b$ In large d is as long safety to $t$ recently $\mathbf{c}$ ter and po of these c ishing and ble chang when a co cases the that doubl churn it th same time heated, elt ovardriven milk becon hutter is se The succe on the ten Lated. A to be the b rises about $65^{\circ}$ is then tage is deri in summer dition to th water, as $\mathbf{t}$ Box or ba: only is ch mail dairi See Butter
Damag re goods, injury eith warehouses Damar exnding sp to mest of $t$ different ap ing to thei Damar-but which mea comnton us softer. Th amazing qu gity of mak and is citise In large lun trees. As t banks of ri and cullecte in large qu for all the cipslly in $p$ srrangemer Bomeo, at rokd, East
Damas
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shallow vessels of glazed sarthenware, glass, tinned iron, wood, lead, or zine, of which the 8 firet-named sorts are the best. The wooden vessels are objectionable from the difficulty of cleaning them thoroughly; and the last two from the noxious sait which ia prodnced by the sction of the seid of the milk on the metal. When it is intended to extract as nearly the wholo of the butter from the milk as is practicable, the 18t skimuing takes place at the end of 24 hours, and is foilowed up by oae or more akimmings at further intervals. The cream is stored in jars, which should be kept in a piace separste from the milk-room, thut the milk in the coolers may not be prematurely acidulaterl by the proximity of the sour crean. The latter is either stirrad repestediy, or poured from one vessel to nather, to prevent the formation of a tough coat apon it before enough is accumulated for churning. In iarge dairies it is usual to churn daily. Three days is as iong as the oream can ordinarily be kept with safety to the quality of the butter. When a cow has recentiy esived, her milk is comparatively rich in butter and poor in curd ${ }^{\mid}$but soon the relative proportions of these constituents change places, the cream diminishing and the milk becoming thicker. A very sensibis change in the quality also usually takes place when a cow again becomes pregnant. In not a few cases the cream is so affected by this circumstance, that double or treble the length of time is required to chura it thst sufficed before, and the butter is at the same time of inferior quality. If cows are flurried and heated, either by gadding in the pasture, or by being overdriven in bringing them home for milking, their miik becomes peculiarly itable to corrupt, the yield of butter is sensibly lessened, and its quality is impaired. The success of the process of churning depends much on the temperature of the cream being nicely regulated, A mean temperature of $60^{\circ}$ Fahrenheit seems to be the best. Ths temperature of the cresm usualiy nises about $10^{\circ}$ during the process of churning. About $55^{\circ}$ is therefore the desirabie starting-point. Advantage is derived from rinsing the churn with cold water in summer and with warm water in winter. The addition to the cream of small quantities of cold or hot water, as the cass requires, is also found heveficial. Box or barrel charms are preforred when the crosm oniy is churned, the formor being best adapted for smail dairies, and the latter for large ones.-E. B. See Butter and Cheese.

Damaged Groods, in the language of the customs, afe goods, subject to duties, that have received some injury either in the voyage home or in the bonded warehouses.
Damar, a kind of indurated pitch or turpentine, oxnding spontaneously from various trees indigenous to most of the Indian islands. Different trees produce different species of resin, which are designated according to their color and consistence. "One is eslied Damar-butu in Malsy, or Damar-selo in Javanese, which means hard or stoney rosin; and another in common use, Damer-Puteh, or white rosin, which is softer. The trees which produce the damar yield it in amazing quantity, and generaily without the necesaity of making incisions. It exudes through the bark; and is citier found adisering to the trunk or branches in large iumps, or in masses on the ground under the trees. As theso often grow near the seaside, or on tise banks of rivers, the damar is frequently tionted away, and collected in distant places as drift. It is exported in large quantities to Bengal and China; cond is used for ail the purposea to which we apply pitch, hut principaily in paying the bottoms of ships. By a previous arrangemert, almost any quantity may be procured at Bomeo, at the low rate of $\frac{1}{8}$ doliar per pieul."-CanwFokb, East. Archip., v. i., p. 455, v. iii., p. 420.
Damasous. This city was in being in the time of Abraham.-Gen. xiv. It is, consequently, one of the most ancient in the world. From the Assyrians,

Damascus passed to the Persians, and from them to the Greeke nnder Alezander; and afterward to the Romans, about 70 n.c. It was taken by the Saracens A.s. 683 ; by the Turks in 1006 ; and was dastroyed hy Tameriane in 1400. It was in a journey to this place that the epostie Panl was miraculously converted to the Christian faith, and here he began to presch the gospel, abont A.D. 50 . Damsscus is now the eapital of a Turkish pachalic.-Haydn. Damascus is the scat of an extensivs trade both with India and with Europs. The productions of India, consisting ehiofly of spices, cotton manufactures, coarse and fine muslins, and gold stuffs, are in great demand, and bring high prices. They are lirought frem India by the Perslan Gnlf, Bassora, Bagdad, snd Aleppo. The manufactaree of England are much suught sfter, and hell in very high esteem, particulariy light woolen elothe of gay colors, printed cottons and chintzee, and silk snd cotton shawls made in imitation of those of Cashmere; also nsedles, pins, knives, sciasors, and flne hardware, as well as chins and earthenware, whether English or Indian. These goods being generally imported through Saida, Beirût, and Tripoli, ars sold at very high prices. Iron, lead, tin, cochineal, sugar, and other European articies, are also imported through the same channel. Wearing apparel for fashionable persons of both sexes at Danaseus, and clothes that have been worn, are brought from Constantinople; and being distributed all over the country, are frequently the means of spreading the contagion of the plague. Among the various manufaetures to be found in the bazaars are superb caparisons for horsee, of which the Turks, as well as all the other eastern natims, are extremely fond. These are inade in European Tarkey ; and a number of fine bridies, martingsles, and silver and ombossed breast-pleces, come also from Persia. The firearms are chiefly of French and Germsn manufacture, being prepared in sn ornsmental style expressly for this markst. The sabre blades are almost all of the old Persian or Damascus manufacture. The nrt of making them, however, is no longer known or practiced in this city; so that they grow daily more valuabie, as no modern sword enn compare with them in temper and quality. The silk seen in the bazsars of Damascus is principally of Chiness and Indian manufacture; the furs come from Russia, Georgia, Circassia, and Armenia; the velvet from Italy; copper from Asia Minor; the manufactures of Britain through Smyrna; and various other articies of an inferior kind from Germany and France. There sre fow msnufnctures in Damascus; and theso consist chiefly of siik atuffs, plain, colored, and embroidered with gold ; fabries of plain cotton, and cotton and silk mixed, all for home consumption, and mostly of broad, striped, or wavy patterns, for the caftans of the Turkish dress.

Commerce, as in all other places in the East, is carried on by means of caravans, of which the principal is that which goes with the annual pilgrimage $t_{0}$ Mecca. It is conducted by the pasi s , who receives the standard of the I'rophet from the governor of the castla, and gives a solemn pledge for its restoration. This expedition unites commereial with reiigious objects. A caravan accompanied by a numerous train of armed men goes thrice a yenr to Bagdad, tho journey occupying 30 days; that to Aleppo travels twice or thrics a month. Besides theso, many other caravans go to different ports of Syrin, Damascus being a grent rendezvous and emporium of trade. Provisions and fruits of all kinds are abundant; also ice and snow, which may always be obtained from the noighboring mountains. Damaseus is genorally regarded as the oldest city in the world, its history remounting beyond the time of Abraham, whose atoward Eliezer was a native of this place. A grent era in its history is Jts conquest by the Sarecens.-E. B. See Am. I Whig Rev., vol. viii.

Damasous Blades are awonds or cimeters, proseating upon their surface a variegated appearance of watering, as white, silvery, or black velns, in fine lines, or fillets $]$ fibrous, crossed, interlaced, or paral. lel, ete. They are brought from the East, belng fabricated chiefly at Damacas, whence their name. Their excellent quailty has become proverbial ; for which reason these blades are much sought after br- anilitary men, and are high-priced. The oriental processes have never been satisfactorily described; but of late yeara methods have been devised in Europe to imitate the fabric very well.

Damask (from Damascus, whence first brought), a variegated textlle fabric of ailk, richly omamented with raised patterns representing flowers, fruits, etc., woven in the loons. It is also fabricated in woolen stuff. Woolen damasks and moreens are sold in England at 9d, to 1s. 6d. per yard.

Damask likewise denotes a kind of wrought linen, used chiefly for table-cloths and napkins, and so called because its patterns reaemble those of real damank. It was first made in Flanders, but it is now wrought extensively in Britain, partlcularly at Dunfermline in Scotland, and also at Lisburn and Ardoyne in Ireinnd. An inferiur description has latterly been made of cotton. See Linen,

Irish Itamask.-As early $s$ the beginning of the last century, the manufacture of linen damanke was introduced into Ireland from Germany ; and there still exist specimens woven in Ireland 130 years ago. The manufacture has gone on incressing In excellence, and it is now considered that the bigh-ciass Irish damaske equal any from any other country. Almost all are used in Great Ibritaln, and the better kinds are so costly that none bat the wealthy can purchase them. Hand-loom weaving in invariably adoptod for the best damssks; but the power-loom is now beginning to be employed for the cheaper damasks and diapera; and it is hoped that this will create a forelgn market fur then. The Jacquard loom is extensively used for the richer damasks, for which its wonderful action eapecially adapts lt. What a Jacquard loom is, a long and wearisome description wouid scarcely make intelligible; what it appears like, the thousands who watched the working of the several Jucquard loome at the great exhibition may perhsps remember; what it does is exemplified by specimens of pattern, or damask, or figure weaving, for which it is especialisy adapted. In designing table-cloths, table napkins, and d'oyleys, for roysl personsges, city companies, rlub houses, and regimental messes, the damask manufacturers of Ireland sometimes display considerable taste; and this taste afterward reflects seme of its light npon the cheaper and ordinary commercial products. It is yed a diaputed point among persons artistically inclined, what kind of ornamentation is best fitted for colorless damssks ; human forms and features are seldom damasked satisfactorily, and buildings are very tame affairs when so depicted; at preseut, heraldic emblems seem to take the lead.

Damask is also applied to a very fine steel, prepared in some parts of the Levant, but particularly in former times at Damascus, whence its name. It is used for sword and cutlass blades, and is very finely tempered.

Damaskeening, or Damasking, the art of nrnamenting iron or stecl, by making incisions on its surface, and flling them up with some other metal, genernlly gold or silver. It is chicfly used for enriching sword blades, garde, locks of pistole, etc. There are two ways of damasking; the one, which is the finest, is when the metal is cut deep with proper instrumenta, and inlaid with gold and ellver wire; the other is superficial ouly. This art is of great antiqnity, and its lavention is attributed by IIerodutus (1. 25) to Glaucus of Chios, who lived s.c. 490 . It would appear to lave flourished at some period in Danascus, whence the name is generaliy derived.-E. B.

Damansin. A species of woven damask with gold and ailver flowers.

Dampier, William, an Eagliah navigator, was born at East Coker, Somersetshire, about 1652. IIaving early become an orphan, he was removed from the Latin achool, and placed with the maeter of a shlp at Weymouth. In this ship he made a voysge to Newfoundland; but, disgusted at the cold of that northern climate, on his return he engaged himself as a common sallor in a voyage to the Fast Indies. He next served in the Dutch war under Sir Edward Sprague, and was presont at two engagements; but the declining state of his health induced him to come on ehore, and remove to the country, where he remained some time. In the year following he became an under-manager of a Jamalca eatate; but only continued a short time in this situstion. He afterward engaged in the coasting-trade, and thus acquired an sccurate knowledge of all the ports and bays of that island. Having entered on board a veesel bound for the bay of Campeachy, and returning a eecond time to the same coast, he remained with the logwood-eutters, and engaged himself as a common workman. During him stay in that country he collected the materials for the minute and interesting account which he has given of the laborious life of these people, ss well as of the geographical deacription and the natural history of the country. It appears that he was preparing in 1703 for another voyage. It is mentioned in Woodes Rogers' Voyage Round the World, that Dampier had the command of a shlp in the South Seas alout the year 170 , and along with Captain Stradllog, whose vessel foundered at sea. Dampler accompanied Woodes liogers in his voyage round the worid in the years $1708,1709,1710$, and 1711, but only in the capacity of pilot, which is supposed to be a circumsta-ce due to some remissness in his conduct. During this expeditlon Gunyaquil was taken, and Dampier had the command of the artillery. Nothing further is known of the life of Dampier; and we are equally ignorant of tl: place and time of his death.-E. IB. See Retrospective Review, vol, ix., p. 73, for an account of the voyages of Dampier.

Dantzio (in German, Danzig), the principal port and commercial city of Prussia proper, and capital of a cognominal government, lies on the left bank of the Vistula, about 4 miles frcm its mouth. N. lat. $54^{\circ}$ $20^{\prime}$; E. long. $18^{\circ} 38^{\prime}$. Population in 1849 , including military, 63,917; of whom 2,369 were Jews, 13,339 Catholics, and 47,723 Protestants. Kamparta, bastions, and wet ditches, which have been vastly strengthened since the war, and gigantic works for isying the country under water, have done what fortifications can to make Dantzic impregnable. The road or bay of Dantzic is covered on the west side by a long, narrow, low, asandy tongue of land, extending from Reserhoft Point (on which is a light-house), in lat. $54^{\circ} 501^{\prime}$; long. $8^{\circ} 23^{\prime} 15^{\prime \prime}$, upward of 20 miles in an E. by S. direction, having the small town of Heela or IIcel, near its terminntion. A light-house, elevated 123 feet (English) above the level of the sea, has been erected within about $\frac{1}{2}$ mile of the extremity of this point. The flashes of the light, which is a revelving one, succeed ench other every $\frac{1}{\frac{1}{2}}$ minute. Dantzic lies about S. $\frac{1}{2}$ W. from the Heel ; its port being distint about four leagues. There is good anchorage in the reads for ships of any burden ; but they are exposed, except immediately under the Heel, to the north snd northeasteriy winds. There are harbor-lights at the et. trance to the port. All ships entering the Vistula must heave-to about a mile off the port, and take a pllot on losard ; and pifots must always be ompleyed ia moving ships in the harbor, or in going up and dewn the river. The usual depth of water at the mouth of the river lo from 12 to 13 fect (English); in the harbor, from 13 to 14 fect deep; at the confluence of the Motlau with the Vistula, from 9 to $9+$ feet; and in
town, fri both eld eastern s granite, of atone
Trade. importan owes its Vistuia, rew, etc. nsvigatio pius prod gary, and laported from $D_{a r}$ Odessa e tingulahe red, accor quality of lent ; for, as many nad yield exported very supe ports of $b$ abie, and white peas most inp latterly t quality ls The prine brought by rises in old Bag nent Oak plank higher part of Dunajet lisseed ane feathers, et Imports. berrings, w spicer, salt but their $v$ exports.
Deties on P

Vessel draw
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Yersel of 25
town, from 8 to 9 feet. Molem have been erected on both sides tha ontranca to the harior; that on the eastern side, which is most exposed, is constructed of granite, but le not yet completed; the other is partly of stone and partly of timber.

Trade.-Next to Petersburg, Dantaic is the most important commercial city ln the north of Europe. It owes its diatinction In this respect to its situation; the Vistula, with its important tributarles the Bug, Narew, etc., giving it the command of a great internal navigation, and rendering it the evarepie where the surplus products of West Prussia, Poland as far as Hungary, and part of Lithuania, are exchanged for those imported from the foreigner. The exports of wheat from Dantzic are greater than from any other port, Odessa excepted. There are four sorts of wheat distinguished here; viz., white, high-mired, mired, and red, nccording as the white or red predominatcs. The quality of Dantaic wheat is for the most part excellent ; for, though anall in the berry, and not so heavy as many other sorts, it is remarkably thin-skinned, and yields the finest flour. The white Polish what exported here is the best in the Baltic. Hye is ulso vary suparior, belng both clean and heavy; the exports of bariey and oats are comparatively inconsiderable, sud the qualities but indifferent. Very fine white peas are exported. Next to grain, timber is the most inportant article of export from Dantzic, but latterly the supply has been diminishing, and tho quality is said not to be so good as formerly,-Meek. The principal supply of fir timber, masts, etc., is brought by the river Narew, which, with its 1 tanches, rise in old Prussia and Lithuania, and falls into the Bug near the confluence of the latter with the Vistula. Oak planks, ataves, etc., are brought down from the higher parts of the Vistula, and the tributary streams of Dunajetz, Wieprez, etc. Salted pork, weed ashes, linseed and rapeseed, mato, bones, zinc, apruce beor, feathers, etc., are also exported.
Imports.-These consist paincipally of iron and ateol, herrings, wine, sugar, coffee, cotton and cotton yarns, spices, salt, coal, tolacco, dyewoods, spirits, rice, etc.; but their value is seldom more than hulf that of the exports.
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| $"$ 200 <br>   | 276 | 850 |
| " above 400 lasts | 85 | 415 |

Soney.-Accounts used formerly to be wholly kept in guldens, guilders, 0 : florins of 30 groschen. The rixdollar $=3$ florins $=90$ groschen $=270$ schillings $=$ 1,620 pfennings. The florin or guilder $=9$ d, sterling, and the rixdoliar $=2 \mathrm{~s}$. 3d. A new system was, however, introduced into all parts of the Prussinn dominions, conformably to the decrecs of the 30 th of September, 1821, and of the 22d of June, 1823. The Cologne mark (containing 3,609 English grains) is the weight at present used in the Prussian mint in weighing the precious metals. Tho fineness of the coins is not determined, as previonsly, by carats or loths, but the mark is divided for this purpose into 288 gruins. Accounts are now kept in the public offices in thalers or dollars (R.), silver groschen, and pfennings; 1 dol. $=30$ sil, $\mathrm{gr} .=12 \mathrm{pf}$. The only silver moncys now coined are dollars and $t$ dullar picces; but emaller ceins are in circulation, of former coinages. The Prussian silver coins have $f$ of alloy; and as the
mark is coined into 14 dollars, each should contain 257-68 Fuglish grains pure ailver, and be worth about 2s. 11dd. sterling; but the nsaays do not always strictiy colncide with the mint valuation. The gold coins are Frederic d'ors, double, single, and half pleces. The mark of 288 grains, having 260 grains of fine gold, is coined in 35 Fred. d'ors. The Fred. d'or is worth from 5 dol. 18 sil. gr. to 5 dol. 22 sil. gr., accorllng to the demand.
Weights and Measures,-Ths conumercial weights are,

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| 16 | oances | = | 1 po |
|  | pounda | $=$ | 1 1t |
| 20 | ponads | $=$ | 1 ar |
| $89$ | pounds | $=$ | 1 large atom |

$110 \mathrm{lbs},=1$ centner ; 3 centnerszal shippound ( 330 libs.) ; 100 lhse , of $\mathrm{D}_{\text {antzic }}=103.3 \mathrm{lbs}$, avoird. $=46^{\circ} 85$ kilog. $=94.7 \mathrm{lbs}$. of Amsterdam $=96.6 \mathrm{lls}$. of Hamburg. The liquid measures are, for beer,

| rts | $=$ | r. |
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| 4 atnkora | $=$ | 1 ahtn , |
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| 2 boths | $=$ | 1 "der. |

2
2 fuders
$=1$
In wine measure, which is less than lieer measure, the shm $=39 \mathrm{~g}$ Eng. gallons. The pipe $=2$ ahms.

The last of corn $=54$ malters $=60$ scheffels $=240$ viertels $=960$ metzen; and welghs 4,680 lbs. Dantzie weight in rye. The scheffel $=547$ of a hectolitre= $1 \cdot 552$ Winchester hushels. Hence the last of 60 schoffels $=11$ quarters 3 bushels; the last of $55 \frac{1}{8}$ scheffels $=$ 10 quarters 7 bushels.

The Dantzic foot $=11 \cdot 3$ Eng. Inches, or 100 Dantzic feet $=94 \cdot 16$ Eng, feet. The ell is 2 feet Dantzic measure. The Rhineland or l'rusalan foot $=3138$ French metres, or 12.356 Eng. inches; hence 100 Prussian= 102.8 English feet. Tho Prussian or Berlin ell has 251 Prussian inches $=26.256$ Eng. ditto. 100 Berlin ellis= $72 \cdot 93$ Eng. yards; and $137 \cdot 142$ Berlin ells $=100$
 graphical milos.
Oak planks, deals, and pipe staves are sold by the shock of 60 pieces; wheat, rye, etc., are sold by the last of $56 \frac{1}{2}$ scheffels.-Kelly's Cambist; Ne.kenbrecher, Manual Universel.

Corn Trade of Dantzic.-Grain is almost whelly brought to Dantzic by water, in flat-bottomed boats suited to the navigation of the Vistula, Bug, etc. The English consul estimated the expense of the conveyance of wheat and rye, including the duty at 'Thorn and the charges of turning on the river, till put into the granary, as follows:

Por Imp. quarter.
From the upper provinces on the Bug, a dis-
taneo of froth 700 to 500 mfles................
From the propinces of Cracow, Sendomir, and

From Warsaw and its uelghborhood, about 240
miles..........................................
From Whaclaweek and its nelghborhood, about
140 Oranden .................................
no daty at Thorn, and when not turnod on
the river.................................... 010 " 00
Tho Bug has many windings, and its navigation, which is tedious and uncertuin, can only he attempted in the spring, when the water is bigh. It is the sane, though in a less degree, with somo of the rivers that fall into the Vistula hefore it reaches Warsaw ; and toward Cracow tho Vistula itself is frequently unnavigalile, especially in lry seasons, except in spring, and after the midsmmer rains, when the snow melts on the Carpathian mountains. The navigation of the I'olish rivers in some seasons is more than usually bad. The corn from the upper provinces does not reach Dantzic till from 2 to 4 monthe Inter than usual, and is burdened with a very heavy additional expense. In fact, the supplies of grain at Dantzic depend quite as much on the abundance of water in the rivers, or on their easy navigation in summer, as on the good-
ness of the harvests. "There are," says Mr. Jacob, "two modes of conveying wheat to Dantzle by the Vlstula. That which grows near the lower parts of the iver, comprehending Polish Russin, and part of the pros lnce of Plock, and of Masovla, In the kingdom of Poland, which is generally of an inferior quallty, is conveyed in covered boats, with shlfting-boards that protect the eargo from the rain, but nat from pllfering. These vessels are long, and draw about 15 lnches water, to. ' bring about 150 quarters of wheat. They are not, however, so well calculated for the upper parts of the river. From Cracow, where the Vistula tirst becomes navigable, to below the junetion of the Ilag with that stream, the whent is mostly conveyed to Dantzic in open flata. These are constructed on the banks, in scasons of leisure, on spots far from the ordinary reach of the water, but which, when the rains of autumn, or the melted snow of the Carpathian mountains in the epring, fill and overflow the river, are casily iloated. Burges of this description are alout 75 fest long, and 20 broud, with a depth of $2 \frac{1}{2}$ feet. They are mude of Ir, rudely put together, fastened with wooken treenails, the coraers dovetailed und secured with sllght iron clnmps-the only iron empleyed in their construction.
" A large tree, the length of the vessel, runs along the bottom, to which the timhers are secured. This roughly-cut keelson rises 9 or 10 inches from the floor, and hurdles are laid on it, which extend to the sides. They are covered with mits mnde of rye straw, and serve the purpose of cionnage ; lenving below in spa e in which the water that lenks through the sides and bottom is recelved. The bulk is kept from the sides and ends of the barge by a slmilar plan. The water which these ill-constructed and imperfectly-calked vessels receive, is dipped out nt the end anl sides of the bulk of wheat. Vessels of this description draw from 10 to 12 inches water, and yet they frequently get aground in descending the river. The eargoes usually consist of from 180 to 200 quarters of whent. The wheat is thrown on the mats, piled as high as the gnnwale, and left uneovered, exprsed to nll the inclemencies of the wenther, ned to the pilfering of the erew. During the passafre, the large is carried along hy the force of the stream, onrs being inerely used it the heal and stern, to steer clear of the sand-1anks, which are numerous and shlfting, and to "rect the vessel in passing under the several bridges. These vessels are conducted by 6 or 7 men. A small boat precedes, with a man in it, who is employed somoding, in order to avoid the klifting shonls. This mode of navigating is necessarily very slow; and during the progress of it, whieh lasts geveral weeks, and even months, the ruin, if any full, soon canses the whent to grow, and the vessel nssumes the appearance of a floating mealow. The shooting of the firres soon forms a thick mat, and prevents the rain from penetrating more than an lnch or two. The mais bulk is protected by this kind oi cosering. and, when that is thrown aside, is found in tolerable condition. The vessels are broken up at lontzic, and usually sell for about of their original eost. The mea who conduct them retarn on foot. When the carigo nrrives at Dantzic or lilbing, all hut the grown surface is tirown on tho land, epread abrond, expered to the ana, and frequently tarmed over, till any alight moisture it may have imhibed is dried. If a shower of rain falls, as well as daring the night, the heapis of whent on the shore are thrown together in the form of a stecp roof of a house, that the rain may rom off, and are covered with a inen cloth. It is thas fregnemely a long time after the whent las reached Inatzic, before it is fit to be placed lin the warehouses.

The warchouses (speichers) are very well adupte: for storing corn. They conslat generally of 7 stories, 3 of which are th the roof. The floors are alout 9 feet asunder. Each of them is divlded by perpendicular
partitions, the whole length, about 4 feet high, by which different parcels are kept distinct from each other. Thus the floors have two divisiona, each of them eapable of storing from 150 to 200 quarters of whent, and leaving aufficlent space for turning and screening it. There are abundance of windows on each floor, which are always thrown open in dry weather to ventilais the corn. It is usaally turned over three times a werk. The men who perform the operation throw it with thelr shovels as high as they ean, and thus the gralns are separated from each other, nnd exposed to the drying influence of the air. The whole of the corn warehouses now left (for many were burnt during the aiege of 1814) are capuble of storing 500,000 quarters of wheat, supposing the quarters to he large enongh to fill each of the 2 divisions of the floors with a separate henp; but as of late years it has come down from Poland in amaller parcels than formerly, and of more various qualities, which must of necessity be kept distinet, the present stock of alont 280,000 quarters is found to occupy nearly the whole of these warehonses which are in repair, or are ndvantageonsly situated for loading the ships. Ships nre loaded by gangs of porters, with great despatch, who will complete a cargo of 500 quarters in about 3 or 4 hours."-First Neport.

Banking Establishments.-There is none such here, excepting a branch of the Royal or Govornment bank of Berlln. This was founded partly in the view of receiving deposits of money under litigation in the courts of the province; moneys the property of minors and cbaritablo lnstitutions, the former until disposable or placed on good security ; and moneys belonging to individuals not merchants, and at times, also, those of the latter. Interest la pald on such deposits as follows, viz. : 3 per cent. on sums belonging to minors; $2 \frac{1}{2}$ per cent. on sums belonging to eharitable institations, churches, and sums depositad by the courts of justice, and 2 per cent. on all other deposits.

The principal is demandable at pleasure, unless otherwise stipnlated. The bank makes advances on gruin nnd some other kinds of goods at 5 per ceent. interest; (1)* counta bills with 3 signatures, not huving more than 2 months to run, at 6 per cent., and sometimes, when money is plenty, at a lower rate. It also makes advances at 4 per cent. on deposits of Frell. d'ors sad certnin forejgn moneys ; and it occasionally buys bills for account of, and sells bills cn, the Berlin Jiank. It does not issue notes. The annount of its eapital is net thxed; liut government guaranties its transactions. It is relleved from the payment of postage on muney, and it is not required to l.se the кtmmps fixed by law, on bills for its deproitt transactions, but only those of 10 s . gr. (about 11 fle ) ; while individuals must fise stamps for such lifls of $5 \mathrm{~s} . \mathrm{gr}$. for every 400 r . of not longer date than 3 months, and for every 200 r . of longer date. On negotiable bills, however, the lank must use the stmmps Axed liy law, say of $5 \mathrm{~s} . \mathrm{gr}$. (about 5 ghd.) for sums of 50 ilol. to J00 dol., and at the same rate for every ndditional sum between 100 dol. and 400 dol. Itills from and e 7 forelgn places, negotiated at Dantale, are not sulject to the stanuj dity. The atficirs of the bank are not made public. Heing a government concern, there nro no dividends. It is not anpposed to be very profitable, at lenst in the present circumserthed state of trade, although enjoying the advantages of exemption from postape of moneys, and paying less atamp luty. It is true, however, that the direct advantage of the lower stamp duty is enfoyed ly the horrower.

C'redit, Brokerage, atr.-Very few goorls are conslgned frem aliroad for sale, for such ronslgmoents rarely turn to good account. Imports are seldom nohd for cash, but generally at 1,2 , and 3 months' credit, or longer. The dikcount nllowed for cash payments, when sold on thme, is usually 6 jer eent., but it varics according as money is plentlful or otherwise. Any
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be cl
chant aworn
Ister)
large
torn:
wald,
level
Briga gardes Dons alpine Passa
san to
and tt
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gate,"
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person, being a burgher of the town (which any one of good character may becoms), may transact business as a commisaion merchant or factor; but brokers mast be chosen by the elders of the corporations of merchants, approved hy the regency of the province, and sworn in by the magistracy of the town.

Danube (Germin, Donar ; anc. Danubius and Ister), an important river, and, next to the Volga, the largest in Europe, originates in the Berge, a mountain torrat which riees in the E. decllvity of the Schwarzwald, in Baden, at an elovation of 2,850 feet above the level of the ees. The atream, when jolned by the Brigach, and by whe waters of a spring from the castle garden of Donaueschingen, takes the mams of the Donau. It flows first generally E. N. E., through an slphe country to Ulm, thence E. N. E. and S. E., to Passau, it traverses the plain of Bavaria. From Passau to Vienna, E. S. E.., it intersects a hilly region, and the remainder of Its course, E. S. E. to Waitzén, S. to Buze, and E. to the Black Sea, ls through a country generally flat, except at the defile of the " iron gate," E. of Orsova. Length (direct), 1,000 miles ; or, including windings, 1,725 miles. It drains a surface of about 250,000 square miles; ita average full is 18 lnehes per mila, but bulow Pesth it ls only 3 inches; at Ulm it is $1,4 v$, at Regensburg 1,000 , at Passau 800 , at Vienna 450 , and at Pesth 300 feet above the Jevel of the sea. Its breadthat Ulm ia 108 feet, and in its lower course 6,000 feet। dapth at Ulm, 6 fest ; at Passau, 16 feet ; and lower down, a veruge 20 feet. It paeses Sigmaringen and Uhm in W ürtemberg, Dillingen, Ilochatadt, Donaawörtl, Ingolstadt, Regensburg, and Passau, in Bavaria; Linz, Diernstein, Korneuborg, and Viedns, in Austria; Preaburg, Komorn, Gran, Waitzen, Buda, Pesth, Peterwardein, and Carlowitz, in Hungary ; Belgrale, Semendria, and Orsova, in Servia; Widin, Nieopoli, Ratschak, Silistria, and Hirschova, in Hulgaria; Giargevo and Brahilov in Wallachis. The chief afluents of the Danube are, on the right, the Iller, Lech, Isar, Inn, Ens, Raab, Drave, Save, Morava, Timok, 1sker, Vid, and Jantra; and on the left, the Altmühl, Nab, Regen, Mareh, Waag, Gran, Theiss, Temes, Chyl, Aluta, Jalomnitza, Serath, and Prath. Near its month In the Black Soa, it separates into several branches, the southernmost of which, culled the branch of St. George, forms, ly the treaty of Adrianople, the boundary between the Ottoman empire and lussia. It communicates by canals with the Elbe, by means of the Moldan, and with the Rhine by the Altmahl. It is navigable for vessels of 100 tons from Uim. Stean packets ware eatablished on the Dunube in 1830 , and there are 10 steunt vessels employed between Presburg, Pesth, and Constantinople, and 2 betweou Regensburg and Linz.--See Filusich's Mag., xxil., 560, 684; Qusn's Steam Voyage down the Danube.
The ports of Llaila nad Galatz are appointed as ports on the Danule for the connmerce of neutral powers, both as regards exportation and importation. The vessels of neutral powers coming from the Black Sua can return freely into thut sea ufter having received their cargoes in the ports ubove mentioned, on condition always that they abstain, before entering the Black Sea, from touching at uny port on the Danube. Conseyuently these vessels, hefore quitting the ports of Braila and Gulatz, mast present their documents to the Russian consular agent, who will furnish them gratis with a certificate bhowing the destimation of tha ship, and hearing the formal declaration, that if hofore entoring the sea they alauld disembark rorn or provisions upon any point of the right bank of the Danube, they will, by this contravention, jucur sequestration. Neutral vessels which wish to ascend the banume in order to procesd at once into the Austrian States, und which earry down cargoes lestined e'ther for lirila or Galatz, or for exportation liy tho Black Sea, will he llable to the same formallty of a Rascian certillcate ladicating thair destination, and
prohihiting them, under similar penaltios, from entering into any traffic on the ight hank of the Danube. Neutral vessels wiehing to descend the Dannbe will not meet with any hinderarce, provided that on thelr passage by Orsova they furnish thamselves at the Russian consulate with a certificate, stating that they belong, bonâ fide, to a neutral power, and that their cargo is not destined for one of the Turkish ports of the Danube.-P. J. of T. 1856.

Dardanelles (Straits of the), form the communication between the Sea of Marmora and the Archipelago. This channsl, through which there flows a constant current out of the Sea of Mar irs into the Archipelago, is upward of 50 miles long, and varies in breadth from 1 mils toward its western, to 10 mlles at ite enstern extremity. It derives its name from two aucicat fortresses on either side of the river, of which ons is built on the site of the ancient Sestos, and the other on ths site of the anclent Abydos. About 20 miles to the west of these are two modern fortressen called the New Csstles, and between the old and the new forts are military works of various descriptions. The total number of guns mounted on these fortresses is 689 , some of which discharge atone shot, and require a charge of more than 3 cwts . of powder. It derived ite ancient name of the Hellespont from the tradition of Phryxus and Helle, and is celebrated in sncient times for the bridge of boate built over it by Xerxes. It is memorable also as the scene of the death of Le-ander.-E. $\mathbf{B}$.

Tlie gallant exploit of forcing the passage of the Dardanellas was achioved by the British squadron undar Admiral Sir John Duckworth, Folb. 19th, 1807 ; but the acimiral was obliged to repass them, which he did with great lose, and immense damage to the fleat, March 2, following; the castles of Sestos and Abydos hurling down rocka of stone, each of many tong' weight, upon the decks of the British ships.-Maydn. So long as the shores of the Black Sea were exclusively pussessed by Turkey; tnat sen might with propriety be considered a mare clausum; and there seems no reason to question the right of the Ottoman Porte to exclude other nationn from navigating the pasaage whicb connects it with the Mediterranean, both ahores of this passage being at the same time portions of the Turkish territory; but since the territorial acquisitions made ly Rassia, and the commercial establishments formed by her on the shores of the Euxint, both that empire and the other maritims powers have hecons entitled to purticipate in the commerce of the Black Sea, and cousequently to the free navigation of the Dardanelles and the Bosphorus. This right was expressly recognized liy the 7 th article of the treaty of Adriunople, coacluded in 1829 between Russia and the Porte, both ns to Russian vessels and those of othor European States in unity with Turkey. The th artlele of the treaty of 1830 , between the Unlted States and the Ottoman Porte, provides that merchant vessels of the United States, in like manner as vessels of the most fuvored mutions, shall have liberty to pass the cumal of the lmperial lesidence, and go and come in the Bhack Sen, elther laden or in hallast; and they may ho laden with the problice, manufactures and elfects of the Ottoman empire, except such as are prohibited, as well ns of their own country.-Winaton's International Lam, 1. 241.
Daric. A lersian gold coin (so called by the Grocks, from Darias, the naine of several lersian worereigns), having upon the obverse an archer, owned und kncelling upon one knee, and on the revurse a quadrata incusa, or deep cleft. The weight of the daric ls about 1110 grains .

Darien (Isthmas of'). "The Iathmus of Darlen, or, as it is more commonly styled, the lethmus of Panama, conncets Nurth and Suuth Amerlca, and is prinelpally comprised in the republic of Granada. On the northern side is the Caribbenn Sea and the Gulf
of Darien ; on the eouth tha Gulf of Panama. In length the isthmus proper is ahout 200 miles, with an average breadth of 40 milea; but in long. $79^{\circ}$ it narrows dewn to leas than 30 milea. At this point it ls proposed to establiah the ahip canal. The country is undulating, with chalns of small mountains, hut very fertlle and wall simbered. The expense of a commodleus ship cunal, aay 30 miles long and 200 feet wlde, would not be less than $\$ 50,000,000$. When it is considered that one half the world's commerce would in all probability pass through thls canal, the expense is triffing. All the India and China trado, instesd of doubling Cape Hora, would find pasasge through the canal. It should be free to all nations who asslst In the constriction by monay or credit."
An appropriatlon was embraced in the navnl approprintion bill of 180 d , giving a aum not to exceed $\% 25$,000 , to be paid to officere selected by the Secretaries of War and Navy " for the purpose of making explorations and verification of the surveye already made of a ship C.. al near the 1atbmus of Darien. to connect the waters of the Pacific and the Atlantic by the Atrato and Truando rivers."
Dates (German, Datteln; French, Dattes; Italisn Datteri; Spanish, Datiles), the fruit of the palm-tree (Phenix dactylifera Lin.;', This tree is abundant in Egypt, Barbary, Arahia, Persin, and the adjacent countries, particularly on the confines of the desert, and wherever there ls sufficient molsture. It is a tall, majentic trec; and repeated references are made :o it in the sacred writhgs (Ecclus. siv. 14), and in the Koran. Mohammed, in one of his asyings, beautifully compares the upright and generous man to the pnlm-tres: "He stands erect before his Lord; In lifs every action he follows the impulag receivel from above, and his whole iife is devoted to the welfare of his fellow-crentures." But the vencration in which the pilm-tree is held in the East in to be ascribed more to its utility than to its beauty. Dates furm the princlpal part of the suL. isteuce of the Inhahitants of muny parts of Arahia sul liarbary, and they are held in the highest estimation wherever they are met with. "They ure," nays Ihurck hards, " hy fur the mont easential article of fool for the lower classes of Mellina; thelr harvest is expected with as much anxiety, and attiended with as much general rejoichng, as the ; intage in the south of kirope; nua if the crop fuils, which often happens, us those trees are seldom known to produce abundantly for 3 or 4 successlve years, or is caten up ly the locust, universal gloom overypreads the population, as if a famine were ayprehended."-Truerls in Atrabia, vol. |v., p. 21\%.
There is an endless variety of dates. Generally. however, they may be deseribed as leing somewhat in the simpe of an acom, bat usoally larger, emnslisting of a thlek, fleshy sulistance, including and freely separnting from an obloug stome or kernal, having a furrow on the one sille. Their taste is agreeably sweet, accompanted with a alight astringency. 'The new fruit la culled ty the Arabs rueb. When the dates are allowed to remain on the erree till they are quite ripe, and have becone soft and of a high rell color, they are formed into a hard, solld puate or cake, called adjume. 'This is formed by pressing the ripe dates forrihly luto large lowkets, each romtuining nhout 2 cwt "In this state," says Burckharit, " the Bedouins export the atljone; in the market it is cut ont of the hasket, nad sold by the penid. It furms part of the dally fool of all chasses of people; in travelhige it la dissoived in water, nud $t^{\prime}$ 's aflibrda n weet and rafrowhing drink. Daring the munson, the shipa from the l'ersian tiulf liring aijene from husserah to Djadda, for sulte, in small baskets, welghing aloup 10 pumals each; this kind is preferred to every other. Ships hound from Arabia to India take with them a conalderable cumatity of nifoue, which is readily dispored of among the Molmmmedans of llindestan."-7ravels in Arabin, vol. i., p. 57.

The Arabians and Egyptiana use the loaves of the trees In the preparatien of bage and baskets, the boughs, tha outer and Inner bark of the trunk, and the flezhy substance at the root of the leaves, where thay spring from the trunk, bave all their respective uses; and besides this, the kernela of the frult, notwithstanding their hardness, aro used as food for cnttle; they are sosked for 2 dxys in wator, when they become eoftened, and are given to camels, cowa, and sheep, instead of barley; they are aaid to be much more nutritive than that gralu. There are ahops at Medina in which nothing else is sold but data kernela; and the beggars are contlnuslly em?'nyed in all the main streets in picking up thoee that are thrown away.-Burckhardt, vol. 11., p. 212. All the refinements of Arablan cookery are exhausted in the preparntion of dates; and the Arabs say thnt a gcod housewife will dally supply her lord fer a month with a dlah of datea differently dressed. Palm-trees are ralsed by shoota ; and Dr. Shaw mentiona that they arrive at their vigor in about 30 years, and continue so 70 yeare afterward, bearing yearly 15 or 20 clustere of dates, each of them weighling 15 or 20 pounds; after this period they begin to decline. Trarels in the Levant, p. 142, 4to ed.

The best dates Imported are sald to come from Tunix, hut they are most commonly brought from Sinyrna and Alexandria. They should be ct osen large, softish, not muen wriakled, of a reddish yellow color on the outside, with a whitisa membrane betwlxt the flesh and the atone. Thoss that are dry and hard are of little value.

The date-tree is indigenous to Syria, Arabia, and the lower parts of Persia, Egypt, and northern Africa, whence it was introduced Into the south of Europe; nud it is also more or less cultivated in IIritish India, Sonth Airica, and in some parts of Amerlea. Though belonging to the extensive family of palms, which abound and flourish in most tropical regions, it attains perfection only In comparatively high lutitules, and doubtless would he alapted to the eoll and elimate of the more arid regions of Callfurnia and of our southem states.
The date is a lofty tree, growing to a height of 60 feet, with a rugged trunk, crowned with leaves 6 or 8 feet long, with pinne 3 feet long, and a little more than an inch liroall. The flowers of both sexea, which grow on ме parate tri:s, come out in very long bunches, from the trunk, leetween the leaves, and are covered with a spathin, which opens and withers. Those of the male tree have 6 short stanens, with narrow, fourcornered anthers, filled with pollen. The femule flowera have a roundixh germ, which afterwarel liecones an aval berry, with a thiek pulp, faelosing a hard, oblong stone. 'This berry is the frult known as the date of commerce, upon which a considerable portion of the people of Eigypt, Arabia, and Persla, almost entirely subslat. A single tree will produce from 100 to 300 pounds of thls truit in the season. They come lito hearing at from 6 to 10 years of age, and nre fruitful for upward of 950 years.
The extensive impurtance of the date-tree, in the countries whare it oceurs, is parhaps one if the most rariona walijects to which n traveler ean cireat blas attention. Independent of the use of the fruit as ford, the inhmintants make a conserve of It with sugar, and even grimel the hurd stones, to fred to their camels, In lharbury they form handsame heals of these stumes. From the leaves they make couches, hakents, hags, mats, hroushes, and ty-t rups ; the trunk is oplit, and employed in "recting small huildings, also fur frowes to sardens; and the stams of the leaves are used for making cages for their psultry. The threads of the web-like Integument nt the hine of the leaves are twisted linto ropes, which are employed In righing small vessels. The nmylaceous central part of the trmak is also good to pat, nad the buls are extemod a delicate vegetible; nid even the young shouts are eail
to rese when $f$ erage, ern con by cutt hollow lodges. slagle Report, Dav hlocks stern, Day rantile ern $\log$ France, lies, and introduc the Gert Great B Amerlea days; in at slght, ton of B tagal, nc The 1 peoples. a day sac be on Sa maker $n$ The wor A note d the carre the day w always ary at 10 and not Leone L have been when \& $b$ the of Jul in New shall be $p$ Dead cabin.win Deadthat is ma out havin ies. It 1 by the lo steered, $m$
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brated in rah, lietwe $26^{\prime}$ and 35 Jerusalem averape br greatly in It is inchos mountiuns is about $3:$ that of the the derpes river , Jorda are thoroo heell provi mountain Usilum, " city, ruine $24-2 \mathrm{~N}$; and on doullitfil times in it fuce at its, the carthg sni Smith ing ut Eng
to resemble asparagas. The sap, which is sweetish when first collected, and may be drunk as a mild beverage, is distllled into a kind of apirit, known ifr eastern countries by the name of "srrack." It ts obtained by cutting off the head of the tree, and scooping out a hollow in the top of the stem, where, in ascending, it lodges. 8 or 4 quarts may be obtained daily from a single palm, for 10 or 15 days.-U. S. Patent Office Report, 1855 , p. 56.

Davita, beams of wood or iron, with shenves or blocks at their ends, projecting over a vessel's side or stern, to hoint in the borats.

Days of Grace. These vary in almost all mercantlie towns and countries, but the tendency of modern legislatien is to abolish them altogether. France, Relglum, Lombardy, Tuscany, the Two Sicilies, and other States whers the French code has been introduced, there are no days of brace. So threnghout the German States they are altogether done away. In Great Britaln, nad Ireland, and the United States of America, there are 3 dnys; in Denmark there are 8 days; in Sweden, 6 days; in Russia, 3 days for bilis at slight, 10 dnys for bills at a fixed time; in the Canton of Berne, Switzerland, 6 days; in Spaln and Portagal, none; and in the Netherlands, none.

The law merchant respects the rellgion of different peoples. A Jew would not be bound to ph. bill on a day eacred to him. So if the first day of grace should be on Saturday, and Monday Christmas-day, and the maker a Jew, the note would be pryable on liriday. The word month means generally a calendar month. A note duted on the 30 th of August would end with the corresponding day of the month. In calculating the day when the bill falls due, the day of the date is always excluded; so a biil drawn on the 1st of January at 10 days after date would become due on the 11th, and not on the 10th.-Manual of Mercantile Law, by Leose Levi. In New York and other States statutes have been adopted by the Legislature, providing that when a biii falls due on a public holiday (Christmas, 4th of July, 'Thankspiving Day, New-Year's Day, and, in New Orleans, Janusry 8th, for instance) the bill shall be payable the day preceding.

Dead-lights, ports or shutters to close in the cabin-windows of a ship in bad weather.

Dead-reckcning, in Navigation, the eatimation that is made of the place where a ship is situnted, without having recourse to observation of the celestial bodies. It is made ly observing the distunce she has run by the log, and the course on which she has been steered, making allowance for drift, lee-way, etc.

Dead Bea or Lake Asphaitites (Arubian, Bahr-el-Lout, "Sen of Lot"), a lake of Palestine, celebrated in Scripture as the site of Sollom nnd Gomorrah, hetween lat. $31^{\circ} 5^{\prime}$ and $31^{\circ} 52^{\prime}$ N., and long. $35^{\circ}$ $26^{\prime}$ and $35^{\circ} 43^{\prime}$ E., its N. extremity nearly 20 milea E. Jerusalem. Mean length N. to $S$. about 15 miles; average brealth from 10 to 12 miles; hut its size varies greatly in different sensons and years.-Romnsos. It is inclused in a valley; bounded by bare limestone mountains, and according to recent researches, its depth is about 350 fathoms, and its surface 1,312 feet below that of the Mediterranean Sea; it being thus by far the deepest known fissure on the earth's surface. 'The river Jordan enters it on its north side. Its waters are thoroughly imparegnated with sult ; mul it has not leen proved that any animal exists in this son. $A$ moutain of rock salt on its S. W. side, called Hajr Usdum, "Stone of Sodom," preserves the nume of that eity, ruined with others, as descrilied in Genesis xix., $24-2 x$; and traces of towns or buililings are reported, on douhtful authority, to have been geen at certain thmes in its bed. Asphultum was thrown to the surface at its southern extremity in large qiantities after the murthquakes of 18i4 anil 18:17. Messra. Robiason and Smith have found the "A selepices gigantec," growligg at Engedi, on ita western coast, the fruits of which
(the famed "apples of Sodom") though Inviting in appearance, crumble in the hand into powder.-See $N$. A. Rev., l., p. 203 (by B. B. Edwards) ; Bib. Sac., v. 897, vii. (by Dr. Robinson); Silesman's Jour., xlviil viii., 817 ; North Brit. Rev., il., p. 201 ; Living Age, xxili. (same article) ; so Lit. Mess., xiv. (M. F. Maury); Methodist Quar. Rev., ix., 633; Living Age, $\mathbf{x x x l}$., 307.
' In undertaking to explore the phyrical geography of the sea, I have found myeelf standing side by side with the geolegist on the land, and with him, far away from the sea-shore, engaged in considering some of the phenomena which the inland basins of the earth-those immense indentations on its surface that have no sea-drainage-present for contemplation and study. Among the most interesting of these is that of the Dead Sea. Lieutenant Lyrach, of the United States' Navy, has run a level from that sea to the Mediterranean, and finds the former to be about 1,800 feet bclow the general sea-level of the earth. In seeking to account for this great difference of water-level, the geologist exsmines the neighboring region, and calls to his aid the forces of elevation and depression which are supposed to have resided in the nelghborhood; he then points to them as the agents which did the work. Truly; they are mighty agents, and they have diversified the surface of the earth with the inost cowering monuments of their power. But is it necessary to suppose that they reaided in the vicinity of this region? May they not have come from the sea, and heen, if not in this case, at least in the case of other inland basins, as far removed as the other hemisphere? This is a question which I do not pretend to answer definitely. But the inquiry as to the geological agency of the winds in such cases is a question which my investigations have suggested. It has its sent in the sen, and therefore I propound it as one whlch, in accounting for the formation of this or that inland basin, is worthy, at lenst, of consideration.
"Is there any ovidence that the annual amount of precipitation upon the water-shed of the Dead Sea, at some former period, was greater than the annual amount of evaporation from it now is? If yea, from what part of the sen did the vapor that supplied the excess of chat precipitation come, and what has cut off that supply'? The mere elevation of the rim and deprestion of the lake basin would not cut it off. If we establish the fact that the Dead Sea at a former period did send a river to the ocean, we carry along with this fact the admission that when that sea overtiowed into that river, then the water that $\mathrm{fe}^{\text {² }}$ from the clouds over the Jead Sea basin was more than the winds could convert into vapor and carry away again; the river carried off the excess to the ocean whence it came.
"In the busin of the Dead Sen, in the basin of the Caspian, of the Sea of Aral, and in the other inland basins of Asia, we are entitled to infer that the precipitation and evaporation are at this time exactly equal. Were it not so, the level of these seas would be rising or sinking. If the precipitation were in excess, these sens would he gradnally becoming fuller; and if the evaporation were in excess, they would be gradually irying up; but observation does not show, nor history teli us, that either is the casc. As far as we know, the lovel of these seas is as permment as that of the occan, and it is ditlleult to realize the ex; itence of subterranean channels between them and the preat ocomn. Were there such a channel, tho Dead Sea being the lower, it would be the recipient of oc:an waters, and wo can not conceive how it should be sueh a reriphent without ultimitely rising to tho level of its. feeder. It may be that the question suggested by my researches has no bearing upon the Dead Sen; that local elevations and aubsidences alone were concerned in placing the lovel of its waters where it is. lut is it pro'nable that, thronghout ull the geolegical periods, tiuring ofi the changes that havo tuken place in tb
distribution of land and water sinface over the earth, the winds, which in the general channela of circulation pass over the Dead Sea, have alone been unchanged? Throughout all ages, periods, and formations, is it probable that the winds have brought na juat as much moistare to that nea as they now bring, and have just taken ap as mach water from it as they now carry off? Obviously and clearly not. The salt-beds, the watermarks, the geologlcal formations, and other facts traced by Nuture's own hand upon the tablets of the rock, all indicate plainly enough that not only the Dead Sea, hut the Caspian also, had upon them, in former periode, more abundant rains than they now have. Where did the vapor for those ralna come from ? and what has stopped the auppiy? Snarely not the elevation or depresaion of the Dead Sea basin." Mavry's Phys. Geog. of the Sea, p. 222.
Dead-water. The water that cleses in with a ship's stern.

Deale, or Deal-boarde (German, Dielen ; Dutch, Deelen; Danish, Daeler; Swiss, Tiljor; French, Planches minces; Italian, Tavole, Piane; Rusaian, Dorshi; Polish, Tarcire), a thln kind of fir planks, much used in carpentry. They are formed by aswing the trunk of a tree into longitudlnal divisions, of greater or leas thickness, according to the purposes they are intended to werve. They are Imported from Mantzic, Petersburg, Narva, and many other ports in the Baitic, and from North America; but those from Christiana, the capitai of Norway, are the best, and loring the highest price. They are diatinguishable from thone produced in the contiguons provinces of Norway; their superlority has been sald to depend principaliy on thelr helug more perfectly sawed; but it really depends on the greater eare with whleh the sap-wood and other defective jortiona of the timber are cut away, and on the quality of the timber. A Russian standard deal is 12 feet long, 11 inches wide, and $1 t$ inch thick; 400 feet of 1 lach plank make a load. A Christians standari leal is 11 feet long, 9 inches wide, and it inch thlek. There is another standard of Norway deals at Dram, 10 feet long, 9 inches wide, and $1 \$$ inch thick.

Debenture, a tern used at the custom-honse to Ngnify the rerificase subseribed by the custonss officers, and given to the exporter of goods on which a drawback is allowed, bearing that the exporter has complied with the required regulations, and that be ls entitied to such drawback.

Debt, in law, la a apecies of contract, whereby a chose in action, or right to a certain sum of money, is mutnaliy ner, dired and loat; usanliy divided intn debta of record, delits by apechal contract, and delits by aimpie contract. A delte of recond in a sum which appeara
${ }^{3}$ e due ly the evidence of a court of record; auch as
hit on judgment or recognizance. Debt by speclalty aere a aum la acknowiedged to be due, or becomes s, by instrument under aeal ; such us a covenant, oond, itc. Woth these species of delits, boing contracted by a mun for himself and hila heirs, at mach on hi lands and tenemenin, and bind them in the hands of his heir or devlsee. Bebt by almple contract is either thy paroie or lyy written ohiggation unseaied; within which ciass fall billm of exclange and promissory notea. bebt in also a persomai action of contract, in which the plalntiff seek the recovory of debt; ; i. e, a liquidated or certain sum of money alieged to be due to him.

Debt, Imprianoment for. See llust's M. Mag., Iv.
 Am. Almomac, $1 \mathrm{H} 4 \mathrm{x}, 1 \mathrm{k} 1$; Westminater lerien, $1 \mathrm{x} .$, xix., xx., xiiv; Britiah and For. Rer.; $\because$. ; Hankers' Magntzine, lii. in. 88.
Decade (Latln, decaf, from Greek deka, ten). A worll used hy some old writers in a general nense for the number ten, or an enumerntion by tens ; but mure pecullarly appropriated to the number of books into which the hlatory of the lioman empire iny Llvy is dividied, ench division consisting of ten trooks or decades.

It was siso the name given to the space of 10 days; rhich in the French republican caiendar was subeti. tuted-for the ordinary' week. The 10 th , or last day, was termed decadi. Thus, except in bissextile years. the whole number of decades was 361: the days of the half decades, falling at the close of the year, were at one time called aansculottides, and afterward complementary; and dedicated respectively to Virtue, Genius, Labor, Opinion, and Recompenco.

Deoimal Coinage, a oyatem of monetary calculation adzancing to infinlty from a fixed atandard of value, and performing its multiplications by any increasing progression of tens, and its divisions by a decreasing progression which is aiso decimal.

This system, whose superiority to all others now in use is universally acknowledged, was first organized and established by the Constituent Assembly of France in 1790 . It forma a part of that vast decimal metrical system of weights and measurea, which, since the close of the last centary, has obtained in France, and is slowly spreading thence into the other conotries of Euroje and America. The subject was so widely and keenly agitated throughout Great Britain in the opening monthe of 1853, that the llouse of Commons appointed a committee to inveatigate the whele matter. The report of this committee wae laid hefore the liouse on the 1st of August of that year. This document was introdneed with a atrong recommendation of the decimal system of coinuge, and proposed that the basis of that systein when introduced should be tice present pound aterling. By the retention of the jound, the decimal system might he introduced with the least possible change. Its 10th part already exists in the shape of the florin or two-shilling piece, while an aiteration of 4 per cent. in the value of the prosent fartiing wili serve to convert that coin into the lowest step of the decimal ncale, which it is necessury to represent ly means of an aetual coin, viz., the one-thourandith part of a pound. To this lowest deromination it was jroposed by the committee to give the iame of $m i l$, in order to mark its reiation to the unlt of value. 'The addition of a coin to be calied a cent, of the vaine of 10 mila , and equal to the 100 th part of a pound, or the 10tih part of the florin, would serve to complete the list of coios necessary to represent the moners of account, which would accordin-ly be pounde, tlorins, cents, and mila. As to the coins ly means of which the decinal system will be deveioped, it Is proposed that some of those now in use be retaned, and that new coins l.e substitnted for others of tiem. The coins thus retainel would be the present sovereign ( 1600 mils). the haif-sovereign ( 500 mils), Horin ( 100 miis), and shilling ( 50 milis, or 5 cents). The present sixpence, under tho denomination of 25 miis, might be retained; and the erown-piece, or a plece of 250 mits, of withel few are in circuiation, need not be witidrawn. On the other inand, it would he desiralice to withdraw the half-crown, and the threepenny and fourpenny pieces, which ore inennsistent with the decinal scale. In the United States the decimai system ins been introducedi into the colnage with great acivantage ; and an effort is now heing mude to introduce it into weights and measures, which it is hoped wiil succeed in a few years.

Decimal Fractions, are fractions which have for titeir denominator $10,100,1000$, ete., or in general some powor of 10 . Thie use of dechas fractions is mereiy an extenalon of the ordinary acale of aritimetleal notatlon. Setting out from the unit's placo, the Ist figure to the left (in the expression of uny whole number) Genotea so many telns, the ed to the teft so many hundreds, the 31 no many thousands, and no on; so that in tho number 765, for example, each unit of the 6 in the loth part of eacil unit of the 7 , and esch anlt of the 6 a loth of each unit of the 6. In tike manner, lin the exprension of a decimal fraction, setting ont from the unit's place, the 1st figure to the right expresses so many loth parts, the ed to the righit so

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many 100th parta, the 8 d so many 1000ths, and so on ; so that each figure, 38 before, expresses parts, which are eaci 10 "tiales smailer than those expressed by the figure mmediately zreceding. By expressing fractions in this manner, the operations of addition, oubtraction, multiplication, and division, are exactly the same as in integer numbers. In order to distinguish the integral from the fractional part of a numerical exprassion, a point or comma ls placed between them. Various marks have been used for this purpose at different times; but the point is now mast commonly employed, and, nccording to the practice of Sir Isase Newton, it should always be placed near the top of the figure, thus $2 \cdot 46$, which prevents it from beiog confounded with the ordinary marks of punctuation, Decimal fructions appear to have been introduced by Regiomontanus, about the year 1464 ; but Stevinus was the first who wrote an express treatise on the aubject in his Pratique d' A rithnetique, published $\ln 1582$. They are now universally employed in all arithmotical calculations ; and it is much to be regretted that a decinual division of weights, messures. money, etc., has not been adopted in nll civilized countries, by which the reduction of fractional parts from one scalo to another would be obviated, and all the applications of arithmetic to the ordinary purposes of life greatly simplified. A suldivision of weights and measures on this priaciple was adopted in France at the time of the levelution, but has not been imitated by other countries.

DecimaI Weights and Measures. I. Introduction of the Decimal System.-The introduction of the decimal system is so important to all nations, and the advantages so apparent, that any discussion on the subject will be of interest. The faclity of transacting avery business, and the snving of liabor, would be much increased by having a general and convenjent system of weighte and measures. The good result of the introduction of the declunal system into our coinage is so universally admitted, that efforts ahould be made to carry the system out in all our standards. The importance of the clause in the Magna Charta, and expressod in an old linglish law of older date, is not folly felt, that there shall be only one meastre and one ueight throughout the land. This has never been realized eitler in England or tais country; though many efforts have been made to introduce a common syatem. Commercial intercourse would be facilitated, and many of the embarrusamenta and delays woukd be obviated, could a system be made universal in all maritime countries. There is no bar to the introduction of such a system; for whatever difference there may be in the systems adopted or in tho notation used, yet they nre ail founded on the Arnbian numbers. All huve the same numerical system for a foumdation, though the superstructures nre vaulud. It would be scarcely practicable to introduce into the whole world a general system at once; but it is practiculie for the principal marltimo nations, who are so mueh Interested, te have a congress, and unite upori some completo system that would take the place of the many diajointed and empirical ones now in uso. 'Ihes rest of the world would follow in thene, from the fact that convenience and advantage are more than equal to custom. However, the principal end would be attained in $n$ short time-rommercial intercourss would be carriod on smong nations with one stanlard ; having, if ne ssaary, the motation admitted into eaph country affected by the language, but yet to be equivalent in values. It is a very interesting questlon what shall be the standuriy and one where rival claims can be brouglit forwarl, each standard of measure, of welight, and of colnage having some advantages; and it may he ditlicult to decide what are the hest. It seoms, however, to he ulmitted that the decimal division is the only perfoct one. It lreing atated as a general principle, that for convenlence a standard varying but littlo from some old standard, shoukl, if possible, be used.
II. The Natural Standard or Unit for the Base of the System. - In respect to coinage, our standard ci a dollar for a unit seems to answer every purpose, and is the most convenient of any in use in the world. So it will, perl.-ns, be sufficient to examine with respect to weights and nieasures. The standard or unit for measurement that would seem to be given bv nature, is the circumference of the earth taken at a givon latitude. We have there an unvarying base, and one alwaya practicable to measure. For convenience, we would naturally take a part of this circle, using any natural division. This is given to uat ance by the rotation of the earth on Its axis, and the arc a fixed star traverses in a given time, and then dlviding by a decimal division this time of rotation, gives a atandard of convenient length. Having to call in the aid of astronomy to determine this distance, the notation used in that science, of degrees and minutes, ctc., was naturally adopted. It was found that one degree, or 360th part of the earth's circumference divided into 60 parts, was abont equal to a nile of the old empirical aystem. A very amall change will be therefore necessary, taking this mile as a unit. From this unit a table is constructed that will give the most convenient medsures, with the least possible change from the old syatem, and one that could be adopted at least by the United States and Great Britain with ndvantage:
III. 1. General Table of New Lineal Measure proposed 10 tentbs

10 tnehos or 100 tenthe $=1$ inch.
6 fect or or in tenthes, $=1$ foot.
1000 fathoms or 6 inc $=1$ fithom.
$\begin{aligned} A_{0} \text { mithoms or } 6060 \text { feet } & =1 \text { mtle. } \\ & =1 \text { degre }\end{aligned}$
the merldan. thermomer trien generally used in France and other coun ries, having ite zero at the freezing point-the only invarlable point of temperature in nature-and its 100th degree determined by the temperature of boiling water, when the barometer stands at $24 \frac{1}{2}$ inches of the new lineal measure proposed to the adopted in preference to Fahrenheit's scalo. The barometer to be marked In inches and l0ths of the new measure. The new standard of lineal measure to he the fathom of 6 feet marked on a rod of lorass or other metal, and made equal to 6 fect 0.91548 lnch of our present measure at the temperature of $62 \cdot 6$ degrees of Fahrenhelt, or 17 degrees of the centlgrade thermometer. 'Thls proportion will make the proposed mile equal to $1012 \cdot 715$ fathoms of our present measure, being the meen length of the minute of a degree of terreatrlal meridian, according to Mr. Airy's treatise on the figure of the earth.-Kincy, Metro. Slould more extensive surveys of meridianal areas, since made or in progress, lead to a more accurate value of the said minute, it is proposed that the necessary correction shall be effected, not by changing the standard rod, but by altering the legal teinpernture to a higher or lower point than 17 degrees cehtigrado.

For mensuring worke of architecture and engineering, the foot and Its dechmal aubdivislons will he used, and ineasurements by 10 feet and 100 feet, and not by the yurd or rol.
2. For Land Measure.-The fathom to be the unit, and 1uth and 100th for fractions, and all equare-work to be so meusured:

1000 square fatbems $=1$ aere.
1000 acres $=1$ mile
3. For Sofid Measure.-The foot to he the unit: 1000 cuble inches $=1$ foot.
Liquids to be measured by solid measurements :
$\begin{array}{ll}10 \text { cuhle Inehes } & =1 \text { plat } \\ 100 \text { cuble Inehes } & =1 \text { galion. }\end{array}$
100 eubte gallons or 10 cuhte feet $=1$ barrol.
4. Measmes of IVeight Priposed.

10 tenths $\Rightarrow 1$ ounce
10 ounces $=1$ pound.
1 100) pounds $=1$ hundreil-weigits, 1 1000 pounds $=1$ theusand-welght, govo pouads

And 1 pound be the welght of 1-60th of a cuble foot of water at 17 degreea centigrade, and the barometer atanding at $24 \frac{1}{2}$ lnchea of the new lineal meaure. By this arrangement, 100 pounds will be equal to about 108 pounds of the preaent avolrdupois weight. All the weights for coins, bullion, apotheoariea' weighta, etc., be regulated by thia system, and all customs and dutlea collected by these tables. Thls wóvld aoon introduce the system withont any compulsory messures.
IV. Some of the Adrantages of the New System of Mfeasures and Weights.-The mile proposed is the nautical or geographical mile, and used exclusively for the purposes of navigation by all the maritime nations, and inserted in all the acales of charts and maps of the world, is the only universal measure now recognized. Also the weights, as well as the measures, are decimal parts of the unlt, as far as can be, without a total change of our present aystema. The French metrical aystem has proved a failnre practically. Theuretically it is perfect ; taking the degree for a unit, and using the decimal divislens throughout. But our whole notation in astronomy and navigation is founded upon the division of the degree into 60 parts, and we can not have a complete change untll we manufacture our clocks and watchea so as to mark thtue by decimal divisions, and change our hours and minutes into corresponding 10 ths and 100 ths; in facs, abandon entirely our present system. This is too great a change ever to be practlcable, especially where so many different people have to conform. The ayatem that has been proposed, only introduces the decimal divisions into the atandards already adopted, and is not only practicable, but the change can readily be made, as in the case of our coinage. It will be sufficient to convince the most akeptical of the necessity of a change, to make an examinution of the tablea of weights, measurea and coins in the world. And as no better time to correct an evil can be had than the present, it is hoped that our government will lead the way $\ln$ so useful a change. The British government have alrealy taken measures to have an examination and researches made for this object, as muy be seen from the following:
"Sir John Wrottesley brought the decimal system of coinage, weighta, etc., before Parliament, February 25 th, 1824 , but it was not till May, 1838, that a conlmission of inquiry was appointed at the inatance of the then Chancellor of the Exchequer, Mr. Spring Rlee, since Lord Monteagle; and in June 20, 1643, another commission was upwointed; they both consisted of eninent scientilio men, and both reported atrongly in fuvor of the change. A committee of the llouse of Commons reported to the same effect, August 1st, 1853. Mr. Gludstone, however, whils admitting the advantages of this asstem, thought its introduction premature. In June, 1854, an associatlon was formed for the purpose of oltaining the udoption of the syistem. In July, $180^{\circ}$, the cominissloners for inquiry were again appointed." See Weights and Measures. See Bankers' Jfagazine, N. Y., 1856 ; Bunkers' Register, N. Y., 1857.

Declination of the Needle. Professor Christopher Hansteen, of Christiana, in Norway, Is the persen who has given, probably, the grentest limpuise, in recent times, to the elforts to methodize the facts anil laws of the earth's magnetism. M. llansteen was born September 26, 1783, and is I'rofessor of Astronony in the University of Christlana, and Hirector of the Observatory. Hia dissertation, entitled Jaymatismus der Firdo, published in 1819, whith recoived a prize from the Royal Danlsh Acadomy, recapltolated all the authenticated facts obtained by voyagers and others, from the eurliest times. It will he recollevted that llalley had represented the nagnutic variation at different parts of the globe lig llnes traced on Mercator'a chart, and passing through all the places where the variation (or declination) of the needlo from the
true north was equal ; and being well aware of tha progresaive (or secular) changea in the course of these lines, he prepored the hypotheais of 2 palrs of magnetio poles interior to the globe, of which 1 pair rovolve. slowly.

Profesaor Hansteen alao conatrueted charts of the lines of equal dip. In certain positiona between the tropics the dip la nothing, or the freel $y$-auspended mag. netle needle remains horizontal. The line connecting these placea ls called the magnetic equator lt is an undulating line, inclined somewhere near $12^{\circ}$ or $13^{\circ}$ to the terreatrial equator, and cuttling it in 2 points, not exactly oppoaite, bint in about $3^{\circ} 20^{\prime}$ and $174^{\circ} 80^{\prime}$ of E. long. from Paris, according to Admiral Duperrey's observations in 1825. The position of these nodes is, however, variable. The north end of the needle (as in well known) dips more and more in the northern hemisphere, until in a certaln place it becomea vertical, when therefore the horlzontal componont of the magnetic force la nothing, and the commen compasa lases altogether lts diractive power. Similar phenomena occur in the aouthern hemisphere. Lines of dip of $10^{\circ}, 20^{\circ}$, etc., may be drawn, and where the dip is $90^{\circ}$ there is a true magnatle pole. The best observations serve to show that there is but one such true pole in each hemisphere.-E. B. Preliminary Dissertation, by J. D. Fonnes, F.R.S.

Deed is a written contract, sealed and delivered. It inust be written before the aealing and delivery, otherwise it is no deed; and, after it is once formally exccuted by tho parties, nothing can be added or interlined; and therefore, if a deed be sealed and deliv. ered, with a blank left for the sum, which the obligee delivers up after sealing and delivery, this will make the deed void. A dced must be made by parties capalile of contracting, and upon a good consideration, and the subject-matter must be legally and formaliy set out. The formal parta of a deed are the premises containing the number, names, additlons, and titles of the parties, the covenants, which are clauses of agreement contained in the deed, whereby the contracting parties stlpulate for the truth of certain facts, or hind themselvea to the performance of some specific acts; the conclusion, which mentions the execution and date of the deed, or the thme of ite being given or exccuted, either expreasly, or with reference to bone day and year hefore-mentioned. Every deed must he founded upon good and sufficient consideration, not upon an ustirious contract, nor upon fraud, collusion, either to docelve bona fide purchasers, or just and lawful creditors; any of which conslderations will vacate the deed, and sulject the parties to forfeiture, and in some cases to imprisonment. A deed, also, without any consideration, ls void. A deed must be executed by the party himself, or by another for him in his presence, or with hls direction; or, in his absence, by un agent authorized so to do by another deod, alse under seal; and In every such case, the deed must ise made and executed in the name of the principal. A deed takes effect only from the day of delivery; and therefore, if it have no date, or a date impossible, the delivery wifi, in all cases, ascertain the date of it ; and if nnother party seal the deed, yet, if the party deliver it himself, he thereby adopts the soaling and slgning, und by such delivery makes them beth his own. The delivery of a doed may ho alleged at any time after the date; bot unless it be sealed and regularly delivered, it is no deed. Another requisite of a deed is, that is loe properly witnessed or atteated. The attestation in, however, necessary rathor for preserving the evlijenco than as intrinsically essential to the validity of the instrument. There are four principles uinpted by the courts of law for the exposition of deede, vla.: 1 . That they bo beneficial to the grantec, or person in whose favor they are intended to operate. 2. That where the words may be employed to some intent, they shall not be void. 3 . That the words be con-

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strued according to the meaning of the parties, and the Intent of the parties be carried into effect, provided such intent can possibly atand on a law. 4. That they are to be expounded consonantly to the rules of law, and reasonably, without injury to the grantor, and to the greatest advantage of the grantee.-F. A.

Degree of Latitude is the space or distance, on the meridian, through which an observer must move to vary his latitude by 1 degree, or to Increase or diminish the distance of a star from the zenith by 1 degree ; and which, on the supposition of the perfect sphericity of the earth, ls the 360th part of the meridian. The length of $a$ degree of a meridian, or other great circle on the surface of the earth, is variously determined by different observers, and the methods made use of are various; and, therefore, without entering into the history of all attempts of this kind, we shall present our readers with the following
tanleg of tife difpragnt Lengtua of a Degaga, as measuegn in various Pahts or tile eanti, chis tina of its measuagenent, the latitude of its midder point, btc

| Date. | Laltude. | Extene In English cuilua and declungls. decturals | Mensurat. | Countrles. |
| :---: | :---: | :---: | :---: | :---: |
| 1525 | $49^{\circ} 20{ }^{\prime} \mathrm{N}$ | 68.763 | M. |  |
| 1620 | 584 | -66091 | Snellus | . |
| 1635 | 5315 N. | 69.545 | Norwood | land. |
| 1644 |  | 75.086 | 13celoht. | taly. |
| 1669 | 49 ¢2 N. | 68.945 | Pjeard | France. |
| 17 | 10620 N. | $69 \cdot 403$ | Maup | aplan |
| 1740 | $\begin{array}{lll}48 \\ 40 & 22 & \mathrm{~N} .\end{array}$ | 89•21 | Casslal \& LaCall] | Frsnec. |
|  |  |  | Jusn d'U |  |
| 1744 | 0 | 65.789 | Bon |  |
|  |  | 6 S 718 | Cond |  |
| 17.2 | 3881848. | 69.076 | La Calle | of G. 11 |
| 1755 | ${ }^{43} 80{ }^{0} \mathrm{~N}$, | 68.998 69081 | Boscorteh | ty. |
| 176 | 444 N. | 6908 t | Becearla. | Italy. |
| 1766 | 4740 N. | $69 \cdot 442$ | Llosganlg | Germany. |
| 17 AS | 13912 N | 68.898 | Mason sid Dixon | U. Statee. |
| 1502 |  | $69 \cdot 146$ | 1/eut. Col, Mudge | England. |
| 18 | $1{ }^{16} 20 \pm \mathrm{N}$. | 69-292 | swanberg. | nt. |
| 1803 |  | 69.748 68.768 | Lambto | Mysore. |

Degree of Longitude is the spaco between 2 meridians that make an angle of $1^{\circ}$ with euch other at the poles, the quantity or length of which is variuble according to the latitude. The following table expresses the length of a degree of longitude in different latitudes, supposing the earth to possess a perfect sphericity :

| Lat. | Miles. | Lat. 1 | Miles. | Lat. | Mile ${ }^{\text {a }}$ | Lat. | Smles. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 6947 | 23 | 63.51 | 46 | 47.98 | 69 | 24.78 |
| 1 | $60^{\circ} 06$ | 24 | 63.08 | 47 | $47 \cdot 06$ | 74 | 28.60 |
| 2 | 69.03 | 25 | 62.53 | 44 | $46 \cdot 16$ | 71 | 22.47 |
| 8 | 63.97 | 26 | 62.02 | 49 | $45 \cdot 28$ | 72 | 21.82 |
| 4 | 6.890 | 27 | 61.48 | 50 | 44.35 | 79 | $20 \cdot 17$ |
| 5 | 68.81 | 28 | 60.98 | 51 | $43 \cdot 48$ | 74 | $19 \cdot 02$ |
| ${ }^{8}$ | 6s.6z | 29 | 60.83 | 52 | 42.48 | 75 | 17:38 |
| 7 | 68.45 | 30 | 59.75 | 53 | $41 \cdot 3$ | 6 | 18.70 |
| 8 | 68.3t | 31 | 50.13 | 54 | 40.56 | 77 | 15:62 |
| 9 | 6.45 | 82 | 58.51 | 55 | 80\% | 78 | 14.85 |
| 10 | 67.95 | 33 | 57.87 | 58 | 88.54 | 70 | 18.17 |
| 11 | 67.73 | 34 | 57.24 | . 7 | 37.59 | 80 | 11.98 |
| 12 | 67.49 | 88 | 56.51 | 58 | 88.57 | 81 | 10.79 |
| 18 | $67 \cdot 21$ | 86 | 55.81 | 59 | 85.64 | 82 | 9.59 |
| 14 | 6645 | 87 | 55.40 | 60 | 84.50 | 83 | $8 \cdot 41$ |
| 15 | 60.65 | 88 | 54.67 | 61 | 88.45 | 81 | $7 \cdot 21$ |
| 16 | ${ }_{68.89}$ | 39 | 58.62 | 62 | 82.40 | $8 \%$ | 6.19 |
| 17 | 65.93 | 40 | 52.8 | 63 | 81.83 | st | 4.8 t |
| 18 | 65.62 | 41 | 82.07 | 64 | 38.24 | ¢7 | $8 \cdot 61$ |
| 19 | $65 \times 4$ | 42 | 51.27 | 63 | 29.15 | 85 | $2 \cdot 41$ |
| 20 | $64 \cdot 94$ | 49 | 50.48 | 81 | 28.06 | 89 | $1 \times 1$ |
| 21 | 64.42 | 44 | $49 \cdot 63$ | 87 | 26.98 | 90 | $0 \cdot 00$ |
| 24 | 88.97 | 45 | $48 \cdot 74$ | 6s | 25.85 |  |  |

A degree of the meridian on the surface of the globe has been variously determined by different observers. M. l'icart measured a degree In the latituds of $49^{\circ} 21^{\prime}$, and found it equal to 57,060 French tolses. But the French nuthematicians who examined Pleart's operations, found that the degree in that latitude is 57,183 toises. Mr. Norwood measured the distanco hetween London and York, and found it 905,751 English feet, and finding the differonco of latitudes $\mathbf{2}^{\circ} \mathbf{2 8}^{\prime}$, determined
the quantity of 1 degree to be 867,196 English feet, or 69 English miles and 288 yards. Msupertuis measured a degree in Lapland, in the latitude of $66^{\circ} 20^{\circ}$, and found it 57,438 toises. A degree was measured at the equator by other French mathematlelans, and found to contain $56,767 \cdot 8$ toises. From these measurements it appears that the earth is not a sphere, but an ollate spherold.-E. B.

Delaware, one of the middle United States, next to Rhode Island the smallest in the Union, and in population the least, is bounded north by Pennsylvania, east by Delaware River and Bay, south and west by Maryland. It Is between $38^{\circ} 27^{\prime}$ and $39^{\circ} 50^{\circ} \mathrm{N}$. lat., and bet ween $75^{\circ} 04^{\prime} 42^{\prime \prime}$ and $75^{\circ} 56^{\prime} \mathrm{W}$. long., and between $1^{\circ} 13^{\prime}$ and $1^{\circ} 57^{\prime} \mathrm{E}$. long. from W. It is 92 miles long and 23 broad, and contalns 2,120 aquare miles, or $1,356,800$ acres. The population in 1790 wan 59,094 ; in 1800, 64,272; in 1810, 72,674 ; $\ln 1820,72,-$ 749 ; in 1830, 70,739 ; la 1840, 78,085 ; in 1850,91, 532.

Early History,-That Delaware Bay was already known to the Spaniards a long time before Hudson, there is no doubt. But the question is what they called it. Benson, in his memeir on the names of the State of New York, says that they called it The Bay of all Saints. Ilo does not give his authority. In the most ancient Spanish deacription of the east coast which wo have (that of Oviedo), this "Bay of all Saints" is not mentioned all. But Oviedo mentions a Bahia de $S$. Christoval on the east coast, and says that it stands under $39^{\circ} \mathrm{N}$. lat. This is nearly exactly the latitude of Deloware Bay, which therefore probably is designated by him under that name. If it is true that tho Spanish Cabo de las Arenas is our Cape Henlopen, then that large bay which the Spanish maps invariably paint immediately to the north of this cape, must be Delaware Bay. The figure which they give to this bay, as well as to the river which they make run into it, corresponds with the configurstion of our bay and river. Often we find on the maps the name given by Oviedo-that of Bahia de S. Christocal or Chripstoval (St. Christopherus Bay), written to it. So for instance on a Spanish map of 1580, so on a French map nude after a Spanish original of 1587 ; but sometimes other names appear here; for instanco, that of Bahia de la Buelta (Repulse Bay), or that of Rio de S. Antonio, probably only because the map-makera confounded all those names in a mest irregulur way. Aa to the Spanish navigator who brought home the sketch of our bay, and guve it the name of St. Christopherus Bay, there la yet some doubt.

The first navigator whom we can provo to have been at the entrance of the bay, is IIenry IIudson, when (1609) he sailed along the coast from Chesapeake Bay toward the north. Ile looked into the bay, found it full of shoals, did not explore it, gave to it no name, and "suspected, from the carrents which came out from it, that there was a river leading into it." It ls pretty generally said that Lord Delaware, when (in the year 1610 ) ho sailed to Chesapenke Bay, was thrown ont of his way and tonehed at this bay, and that it was therefore called by him, or by his companlons, and tho first English settlers in VIrginia, Delaware Bay. This was not only the first English, but upon the whole the flrst nume under which the bay became more generally known ln Furope. We see it for the frst time mentioned and written in the letter of Cuptain Argall, of tho year 1612, in Purchas' Pilgrlms. The old Virginian writers spelled or corrupted the name in very different ways. Sometimes they write " My Lord Delaware's Bay," sometlmes Delavar Bay, and sometimes Delawore Bay. Later French mapmakers (for instance Bellin) made of this Ray Delanare or Layar. The first mop on which we find this name, is a little map of the greater part of the east coast by Captaln Smith, of the year 1624. Fot the first time, pretty well drawn, the bay is to be found on the first map of Maryland, of the year 1635.

## DEL

After Hudson and Lord Delaware, Dntch akippers and navigators were the first who entered this bay. The Datch Captaln Hendricksén salled (1618) np into the bay and river as far as Schuylkill river. Captain Cornelios May entered the bay 1623, explored 1t, sailed up in the river ss high at least as the present site of the city of Philadelphia, and built there a fort called "Fort Nassau." The hay was from him called "New Port May." The river was called by the Dutch Zuydt rivier (the South river), with respect to the second great river of the New Netherlands to the north (Hudson's river). It is not evident, hat it is probablo that the Dutch commenced at once after ILudaon'e discovery to deaignate the river under that name. The first book In which the name Znydt rivier is mentioned and printed is the "New World" of Lait, 1624. From the river also the bay was generaliy called Zuydt Buy, the Nouth lay, and this uame becane among bu Dietch es common thet the otiner name, New Port siuy, was soon forgotten. Another Dutch nume for the bay was that of Godyn's Bry, from the well-known Amsterdam merchant, Samu:l Godyn, who purchased from the Indians Cape May, and a sract of cnns ${ }^{+} r y$ from this cape along the shores of tou bay. Other Dutch names of this river sornetimes used were siossar rivier, Prince Hendrick's ririer, an : Charles rivier. Tuis latter name was in uae as well among the English as among the Duteh. We find in an English document of the year 1648 , the name Delavare or Charles river. And so we find on the Italian map by lucini, taken from a Dutch original In abont tho year 1631, the name Rio Carlo. We do not know in honor of which Charles the river was so called. The English clalmed the bay and river in consequence of Cabot's and Delaware's discovery, and from different other reasons. The Dutch claimed it from IIudson's discovery, and took possession of it ahout 1623 , through Captain May. In the year 1629 they built another fort there, called Swanandael, and 1633 the gre:t navlgator, David Pletersz de Vries, entered the hay and river, explored it, and msde there also a temporary little settlement, Fort Upland.

But all these Dutch settlements disappeared again, and were partly deatroyed by the Indians, and the river and bay were without any hnbitation from 1633 to 1638 , when at last the Swedes entered it under Peter Minult, Minuct, or Menewe. They chaged the who'e geography of the bay and river. Tho river was under them called The New Streileland Straam, and the bay Vew Swedeland Bay, and the Swedes erected also new forts and gave Swedish names to the old Dutch forts, which they partly rebuilt. The greater number of the Ewedish and Dutch setllements on Delaware river and bay were made on the western shore, and thls first Dutch and Swedish population formed from the beginuing a peculiarly situated commnuity. What since 1638 was called New swedeliond, comprised principally the teritory of the present State of Delaware. The Swedos remained 17 years in possession of the river and hay, and one of their engineers, Linilstrom, who accompan: $n$ d the Swedish governor lisiug, in the , aar 1054 , made a minute exploration and the first special map of the whole. In the following year, 1955, however, the Dutch governor of tho New Netherlands, Stuyvesandt, appeared with sorae men of war in the bay, and snidued the whole little New Sweden to the Dutch. They reintroducad the oll and some new Dutch names, but retainerl possesaion only for 9 years. When the English (1664) conquered this land from the Dutch, it was, until 1681, attached to the great province of New York. But durink; the aame time the founders of Maryland considered it to be comprised under this namo and to be a part of their colony of $\mathbf{3} / a: y-$ hand. Ic this period were formed the 3 oountles of which the State still today consists, and the whole tract was usually called the thrce lover counties on th. Deliguare. In tho year 1681 William Penn bought these 3 coun-
ties from the Dake of York, and they made now a part of Pennsylvania, under the naual name of The Territories of Pennsylvania, or the Three Lonver Counties. They remained in connection with Pennsylvania until 1776, when these territories separated from Pennsylvania and declared themselves independent, under the name of the State of DelowardinJ. G. Koisl.

A somewhat elevated table-land passes through a portion of the State from north to south, dividing; the waters which fall into Chesapeake Bay from those which flow into Delaware Bay. This table-land contalns a chain of swampe in the western part of this State, from which lts princlpal streama originate. The soil in the north ls a strong clay: Along Delaware River, and for about 10 milea weat of it, the soil is generally a rich clay, well adapted to agriculture; but between this and the swamps the soil is light and sandy. Proceeding toward the eonth, the soil hocomes more sandy, and in Sussex county sand greatly predominates. Krolinu, or poicelalu clay, is fond in the nor hern $f$ - tion, bog-iren ore in the southern, and shell marl throughout the State. Thero were in $18: 0$, 580,862 acres of land improved, and 375,282 of unimpreved in farms. Cash valuc of farms, $\$ 18,830,031$; aud the value of implements and machinery, $\$ 510,279$.
Live Stock, ctc.--IIorses, 13,852 ; asses and mules, 791 ; milch cows, 19,24d; working oxen, 9,797 ; other cattle, 24,166 ; sheep, 27,503 ; swino, 56,261 ; value of live stock, $\% 1, \mathrm{~b} 19,281$; of daughtered animals, $\% 373$,665.

Agricultural Produr 's, etc.- Wheat, 482,511 bushels; rye, 8,066 ; ${ }^{\text {rydiar corn, }} 8.145,542$; oats, 604,018; surey, 56 ; buckwheat, 8,615 ; peas and beans, 4,120 ; petatoes, 240,542 ; eweet potatoes, 65,443 ; value of producta of the orchard, 846,574 ; produce of market gardens, 212,714 ; pounds of butter made, $1,055,308$; of cheese, 3,187 ; molasses, 50 gallons; beeswax and ioney, 41,248 pounds ; wool, pounds produced, 57 ,768 ; flax, 11,174; hops, 848 ; luy, tons of, 80,159 ; clover-sced, 2,525 hushels ; other grass seeds, 1,403 ; flax-seed, 904 bubiels; and were made 145 gallom of wine; value of home made mannfactures, $\$ 38,121$.

Manufactures, etc.- There were in the State in 18i0, 12 cotton factories, with a capital invested of ${ }^{\mathbf{w}} \mathbf{5 8 5}$,100, cmploying 413 males and 425 fomales, producing $5,205,000$ yards of sheeting, etc., valued at $\$ 538,439$; 5 woolen factories, with a capital Invested of $\$ 1 / 6,500$, employing 113 males and 80 females, munufacturing 157,000 yarils of cloth, valued at $\$ 244,510 ; 13$ estal)lishments making pig-iron, with a capital of 8373,500 , employing 250 persons, and making 8,630 tons of castings, ete., valucd at $\$ 206,462 ; 2$ estebliaments, with a capital invested of $\$ 15,000$, employing 60 peraons, mannfacturing 550 tuns of wrought iron, valued at 855,000; 70 tlouring-mills, 83 saw. milis, 16 tann ${ }^{\text {a }}$-s, with a capital of $\$ 99,350$, employing 108 persons; value of products, 9163,$742 ; 8$ printing-ofices, issuing 2 semi-weekly, and 8 reekly nowspapers. Capital invested in manufactures, $₫ 2,978,945$; value $\boldsymbol{t}^{4}$ manufactured aiticlen, $4,64,2,206$.
'The principal jort is Wilmingtur. a port of entry, and the primipal commercial town of the State, situated hetwee Brandywine and Christiana Creeks, 1 mile abeve their junction. On llrandywine Creek are sound of the fincst flouring-milly in the Unitel stases, to which vesaels drawing 8 feet wator can come. Christiana Creek is navigable for vessels drawing 14 feat of wator, and gives to Wilmington considerabin commerce. The tonnage of the port in 1856, was 13,Gi5 tons. The foreign :rale of Dillaware is evected chiefly through Maltimon; New York, and Philadelphia, esracially the last; tl :at its direct foreign commerc. is very inconsiderable. Darirg 1850, 16 vessols were built, of an aggregate burden of $1,8.18$ tons, viz., 12 schooners, 3 sloyps, and 1 steamer. The Chesapeake and Deleware Canal connects theso ifro bays.

Formon Commetog of fele 8tath of Delawarll yrom Ootober 1, 1820, to July 1, 1850.

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Therer
Coum :n Penneylvania ated from Pennependent, under G. Конь. nesen through a th, dviding the 3ay from those table-1.ind conern part of this ceame originate.
Along Dela at of it, the soil Ito agrienture; soil is lighte end th, the soil hooty mand greatly clay, is fond in ue southern, :und to wero in 1830 , 75,282 of unimws, $418,88,0,331$; inery, 4510,29 . sses and mules, en, 9,797 ; other , 56,261 ; value

482,511 bushels; oats, 64,518 ; nd be:ms, $, 1,20$; 5,443; value of oduce of market made, $1,05 \overline{5}, 308$; s ; beeswax snd 9 produced, 57 , tons of, 30,159 ; uss seeds, 1,403 ; de 145 gallon of res, 38,121 . he State in 18.30, vested of $\$ 355$,males, prolucing aed at 5538,139 ; sted of $\$ 136,500$, 8, manufacturing 4,510 ; 1:1 estalt pital of $\% 173,500$, ; 330 tona of castblishments, with yiog 50 persoms, iron, vslued at ilis, 16 tann : 2s, hg 108 persous; hg-oflices, issuing rers. C:ppital invalue . F manu-
a port of entry, f tho State, situstiana Creeks, 1 ty wine Creek are 10 Unitel Stases, vator can come. sacls drawing 14 ton considerabla in 1856, was 13, oware is e.tected k , and Philadelts direct forelgn Daring 1850, 16 burden of 1,818 1 stommer. The noects these iwo

| Yeara endlag. | Erports, |  |  | Importa. | Toonage Cleared. |  | Matrel Tomnage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Donneatic. | Ferelsu, | Total. | Total. | Americas. | Foreigu | Regiotered. | Enrolled and I.teensed. |
| Sept. 30, 1821.....1. | 6 \% 59.95 | 0, 0,380 | \%85,445 | ¢80,9\%\% | 2,388 |  | 667 | 0,721 |
| 1882........ | 168,050 | 4,648 | 168,492 | 216,90. | 4,082 | 145 |  |  |
| $1828 . . . . . .$. | 35,724 18,064 | 15,118 | 58,837 | 60,124 | 124 198 |  | .... | . |
| 1824....... | 18,964 | 2ٌ205 | 18,904 81,656 | 12,089 <br> 18,698 | 190 $82 \%$ | 127 | $\ldots$ | $\ldots$ |
| 1826........ | 88,818 | 1,877 | 85,195 | 10,009 | 1,186 | .... | .... |  |
| 1827........ | 9,406 |  | 8,406 | 6,993 | 817 | .... | $\ldots$ | $\ldots$ |
| 1898, ....... | 27.028 | 2,867 | 29,305 | 15,260 | 1,050 | .... | $\ldots$ | .... |
| $1829 . . . . .$. $1830 . \ldots .$. | 7,195 52,258 | $\ldots$ | 7,195 $\mathbf{8 2 , 2 5 8}$ | 24,179 26.574 | 818 902 | i4i | .... | .... |
| Total.... | \%453,119 | 688,524 | \$491,948 | 4 471,878 | 11,843 | 418 |  | ... ${ }^{\text {+ }}$ |
| Sept. 30, 1831....... | 34,514 |  | 84,514 | 21,656 | 799 | 805 | 89 | 18,468 |
| 1\$\%2....... | 16,242 | . | 16,242 | 83,643 | 690 | 883 |  |  |
| 1888....... | 45,911 | . | 45,911 | 0,043 | 186 | . | $\ldots$ | . |
| 1884....... | 51.945 | .... | 51,945 | 185,943 | ... | .... | .... | .... |
| $18835 . . . .$. | 88,346 | . | 88,326 | 10,611 | .... | .... | .... | - . |
| 1887......... | 40,989 | .... | 40.839 | 66,841 | .... | .... | ... | .... |
| 1898. . . | 36,844 | ..... | $80,3+4$ | 1,345 | ..... | $\ldots$ | $\ldots$ | $\ldots$ |
| 1839........ | 8,680 |  | 8,640 |  | . | . | .... | .... |
| 1840. | 87,001 | .... | 37,001 | 812 | $\ldots$ | .... |  |  |
| Total.. | +435,277 | -••• | (345, 277 | *420,000 | 1,654 | 1,248 | -••• | .... |
| Sept. 80, 1841....... | 89,683 | .... | 88,585 | 8,276 | 1,689 | 2.202 | 006 | 0,150 |
| 1842....... | 65,665 |  | 55,665 | 3,057 | 2,597 | 2,674 | $\ldots$ | ... |
| $9 \mathrm{mos}, 1843 * \ldots .$. | 95,490 | 192 | 95,692 | 4,685 | 1,949 | 866 | . | .... |
| Jane 30, 1841....... | 1.5,771 | 406 | 120,177 | 8,074 | 8,982 |  | .... | .... |
| 1846......... | 188,195 | 2,177 | 188,105 146,222 | 2,274 11,215 | 4,905 | 100 | $\ldots$ | $\ldots$ |
| 1847....... | 285,406 |  | 235,459 | 12,722 | 4,496 | 339 | $\ldots$ | $\ldots$ |
| 1344. | 88,039 | 10 | 83,054 | 4910 | 2,466 | 8,612 | .... | .... |
| 1349 | 87,951 | 879 | 3*,220 | 1,400 | 1,091 | 1,599 | $\ldots$ | .... |
| (sbo | $\cdots$ | $\cdots$ | $\ldots$ | ... | .... | ... | $\ldots$ | $\cdots$ |
| Total.. | *057,099 | 3,178 | 4960,272 | 647,712 | 26,101 | 11,300 | -... | .... |
| Juno 30, 1851....... | .... |  | $\ldots$ | ... |  | $\ldots$ | 663 | 11,217 |
| 1852....... | .... | .... | ... | $\ldots$ | $\cdots$ | $\ldots$ | .... | .... |
| 1854........ | 880,020 |  | 8090 | $\ldots$ | 2,053 | ..... | $\ldots$ |  |
| 1855. | 683,197 |  | 63,087 | 5,821 | 2,444 | .... |  |  |
| 1854. | 76,990 | .... | 76,980 | 3,053 | 1,674 |  |  | $\ldots$ |

* Niae months to June 30, sad the fiseal year beglas July 1 ,

Dedaware Bay, at the month of the Delaware Bt.er, is a lnrge arm of the sea, 75 miles long, 20 miles wile between Gape May on the north, and Cape Menlopen on the south, and 31 miles wide in the middle. The bavigation is difficult and dangerous, being interrapted by many shoals. Its low and sandy shores were without harbors until the construction of the Delaware Breakrater within Cape IIenlopen.
Delaware Breakwater. This breakwater is situated at the entranco into Deluware Bay, near Cape IIenlopen. The anchorage ground, or roadstead, is formed by a cove in the southern shore, directly west of the pltch of the cape, and the seawarl end of an extensive shoal called The Shears. The entrance from the ocean is 1,950 fcet in wilth, and is accessible during all winds from the sca. The depth of water is fiom 24 to 80 feet deep, at low tide, throughont the harber. There are two lykes, one of 1,500 feet, and the other of 6,000 feet, giving a secure harbor of seven tenths :a, q square mile. The olijects of this artificlal harbor are to protect vessets from winds from east to noth-west, by way of north, and ngainat the flonting leo of the bay.

Dela soare River, a river of the United Statea, which rises on the west alde of the Catskill Mountain', State of New York, and after separating Penusylvanla from New York nud New Jersey, talls intes the Delaware Bay 5 miles below Newenstle. It is formed by the taion oi two streams. The Mohawk, or westem and main branch, rises from a amall lake in Jatitude $42^{\circ} 45^{\prime} \mathrm{N}$.. at in nlevation of 1886 feet above the sen, and fows south-west for uearly 50 miles, when it turas auddenly to the routh-enst, flowing in that direction for 5 miles to the Pennsylvania boundary linn in latituder $42^{\circ}$ N. Eight miles below this spot it is jolned by the Popacton branch, whleh has a previoud sonth-west course of about $\tilde{0} 0$ milea. After the union of these two otreams, the river pursues a winding south-
east course hetween New York and I'eunsylvania for 60 miles to the north-west corner of New Jersey, where it receives the Neversink River. It then turns sontli-vest, along the loase of the Kittaning range, for 35 miles, in passing through which it forms what is called the "Water Gap," a great matural curiosity. The banks here rise precipitously from the wnter's edge to the height of 1,600 teet, overhung by immense masses of rock, and at the south-enst entrance loaving acarcely room for a rosd. The passage, however, widens toward the north-west. Its entire length is abont 2 miles. From this point it pursues a southenst and then a south-west course to Easton, where it receives the Lehigh, a large trihutary, from the west. A little below thi the river passes through Sonth Mountain, and hrs a south-east course to Trenton, 60 miles helow East on ; having in that distance 25 rapids, with a totnl fall of 165 feet. These falls sre nnvigable at high water. The river below Trenton turns to the sonth-west until near the bay, which it enters in a south-enst direction, aftet an entire course of 309 miles. It is navignble for vessela ef the largest class to Philadelphia, 10 miles, and ior sloops 85 miles further, to Trenton. Above the fulls at 'Trenton it is navigable for boats of 8 or 9 tons for 100 miles. The Delaware Is egnnected with the Hudson Kiver and tho bays of New York by the Delaware and Itudson Canal, the Morris Canal, and the Delaware and Raritnn Canal.

Del Credere Counmission. All agents who aell soods fur thoir princlpals, and guaranty the price, are suid ubroad to act under a del credere commission. In the United States, this phrase is seldom need, nor is stsh graranty usually given, except by commisslon merch. ats, And where such guaranty is given, the factor ls still but a surety; so fur that his employers must firat huve recourse to the prineppl telitor. But his promise is not "a promise to pay the debt of another," within the atatute of frauds. Nor does he
guarsnty the safe arrival of the money received by him in payment of the goods, and transmitted to bis employer, but must use proper caution In sending lt. If he take a note from the purchaser, thls note is bls employer's ; and If he take depreclated or bad paper, he must make it good.-Parsons on Mercantile Lae, ch. X., p. 159.

In mercantlle law, a term derlved from the Itallan (credere, to trust), which denotes a commlsslon granted by a merchant to a factor to dispose of goods; the factor, for the consideration of an additlonal perceatage, agreelng to guaranty the solvency of the purchaser.

Delft or Dolf (German, Fayence, Unachtes Porzellun; Duteh, Delfa porcelyn; French, Faienbe), a coarse specles of porcoluin, originally manufuctured at Delft, whence its name. It la a kind of pettery of haked earth, covered with an enamel of white glazing, which gives it the appearance and neatness of porcelain. Some kinds of this enameled pottery differ from others, either in their austaining sudden heat without breaking, or in the beanty and regularity of their forms, enamel, and the painting with which they are ornamented. In geaeral, the fine and beautifullyensmeled potteries, which approach the nearest to porcelain in external appearance, are, at the same time, those which least reslst a brisk fire; while those which sustain s sudden heat are coarse, and resembio common pottery,

Demand and Bupply are terms used in political economy to express the relutions between consumption and production-between the demand of purchasers and the supply of commodities by those who have them to sell. The relations between the demand for an article and its supply, determine its price or exchangeable value: the relntlons between the demand for labor and its supply, determine the anmount of wages to be earned by the laborer. For causes explained elsewhere, the price of an article will rarely vary, for any length of time, very much above or below its cost of production; nor will the wages of labor, fur any leagth of time, much exceed or fall below the amount necessary to maintain laborers and their families in such comforts as their lubits of life have accustomed them to believe necessary for their subsistence; but bearing In mind that, in the prices of commodities and labor, there is a certain print, determined by canses independent of demand or supply; above or below which prices can nut materially vary for any consideratile time: all variations of price, if the medium in which they are calculated remsin unchanged, may be referred to the proportion which exists between the demand for commoditles und the supply of them-between the quantities which purchasers are willing and able to buy, and the quantities which producers are able and willing to sell.
'lo have any influence upon prices, a demand must be accompanied by the means of purchasing. A demand ls not simply a wunt-a desire to otitain and enjoy the products of other men's labor; for if this were its meaning, there would never be the least proportion between demand and supply : all men wouhl always want every thing, and production coull not keep pace with consumption. But an "effective domand," as it is termed by Adam Smith, exists wherever one man is anxious to exchange the products of his lator for that of other men. It is, therefore, of an effective demand only that politieal economists are epeaking when they exanine the circumstances of denand and supply lin connection with prices.
But although a demand, without the means of purchase, can not uffect prices, the universal desire of mankind to possess articles of comfort and luxury suggests other important considerations. As this desire is natural to man, and too often is so strong as to tempt him even to cominit erime, it obvionsly needs no encouragement; men will always gratify it whenever they have the means, and these means consist in
the products of thelr own labor. Hence all that is required to convert thls desice of nequisition inte an effective demand is umple employment for ladustry. Increase the production of all commedities and an Increased consumption of them ls the certaln result; for mea, having larger products of their own latior to offer In exchange for the products of other men's labor, are onabled to purchase what they are always eager to acquire. Production, therefore, is the great object to be secured, not only as furnishing a supply of commodities necessary anil usoful to mankind, but also as creating an effectivo demand for them. When trade Is depressed by u languld demani, It is commonly said that increased consumption is all that is requiral to restore its prosperity. But how is thas consumption to be caused? The desire to consume is invariathe, and thus any falling off in consumption must be attributed to a diminished production in some departments of Inilustry wulch canses an Inability to consume. When production is restorel, nu effective demand for all articles will immediately follow; but until the productlve energies of the consumers are in a state of activily, it ds In valn to expect from them an increased demand.

These considerations lead us to the coaclusion that a universal glat of all commodities is impossible. The supply of particular commodities may easily exceed the demand for them, and very often does exceed it; but as the constant desire to oltanin commodities needs nothing but the power of offering other commodities in exchunge, to become an effective demand, it is evident that a unlversul increase of production is necessarily accompanied by a proportienate increase of consumption. Men are stimulated by no love of production for its own sake, but they produce in order to consume directly, or because, by exchanging their produce with others, they are uble to enjoy the various comforts and luxuries which they are all desirous of obtaining. Active proluction, therefore, in all departments of industry, causes a general and effective demand for commorlities, which will continue to be equal to the supply unless it be checked by war, by restrictions upon commerce, or by iti!er circunstances which prevent a free interchange of commoditiea.

A country is in the highest prosperity when there is an active und steady demand for commodities and lithor, and a sufficient supply of them. Any disturbance of the proportion between one and the other is injurious to the community; and the injury is greater or less according to the extent and duration of such disturbsnce. When the proportion is well adjusted, the whole community derive benefit from the circumstance, both ns prolucers und consumets; whea it is disturbed, they are injured in both cupacities.

Ilaving descritied, thus generally, the nsture and causes of demand, and its intimate connection with sopply, it becomes necessary to examine the influence
demand and supply upon one another, snd upon production, consumption, prices, and profits. This intluence varies uccording to the circumstances of the market, and the nature of the commodities to which its law may the applied. These may be lest understood ing considering, 1nt, the effects of a demand exceeding the supply; anl 2 dly , of a supply exceeding the demand.

1. The firnt effect of a demand excueding the sopply of a commolity, is to raise its price. As more persons want to buy the commodity than the producers ure uble or willing to supuly, they can not all ohtain what they desire; but must slare the supply betwoen them in some manner. But their wunts uro very much rogulated ly the cost of gratifying them. One man weald purchase un article for $n$ dollur for which he ray be unwilling or unable to pay iwo ; while others, rather than forego the purchase, will consent to pay that amount Those who have commodities to sell, finding that they havo more cuatumers than they ean
satlafy, In too cheap stuck at ralsed, wh not restra principle, in the na obtain th rises whth the highe market, $h$ perceptibl prices den prices, but their dem advantago

Sume c allpport of very short This is th country' w war or by proportlen tition fer driven to $t$ and others eat. The while the tberefore, can the obs greater. the rich al der,

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These a lacreased $t$ is monopol ities may 1 them is $n$ slse rises the ir rear and attrac Fresh capi of the prot dated to th nally fall, ame level lower. T thus withd to the pro more.
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tomed lux
satisfy, inmediately Infer that they are selling them too cheaply, and that they could dispose of ail their stock at a higher price. The price is accordingly ralsed, when the sale beesmes limited to those who are nut restrained from buying by the incrensed price. In principle, though not in outward form, the market is in the nature of an auction. The sellers endeavor to obtain the highest price for their goods; the price risea with the eagemess of those who wish to buy, and the highest bidders only secure the prizes. In the market, however, the competition of the buyers is not perceptible among thamselves, except through the prices demanded. Their competition determines the prices, but the sellers judge of its extent, and regulate their demande so as to obtain the greatest possible advantage from it.
Some commodities are positively necesasary for the enpport of the people, of whieh the supply may full vary short of the demand and be lneapable of increase. This is the case when there is a ball harvest in a country wisich is excluded from a foreign supply by war or hy fiscal restrictions. IIsre the price rises in proportion to the deficiency of the crops. The competition for food is universal. Some, indeed, may be driven to the consumption of inferior articles of food, and ethers to a diminished consumption; but all must eat. The number of consumers is not diminished, while the supply is reduced 1 and the price must, therefore, rise and continue high untll a fresh supply can be obtained. In a siege tine compaticion is still greater. The prices of provisions become enormous; the rich alone can buy; the poor must starve or plunder.
A similar effect is produced if the smpply, without being leficient, be contined to the possession of a sinall number of persons, who ilmit it to the consumers in order to secure higher prices. However nbundint corn might be in a besiaged town, if ons man were exciasiveiy nuthorized by law to ssil it, it might rise to a famine price, unless the people broke into the granaries, or tho government interfered with the monopoly. Less in degree, but simiinr in principle, is the effect upon prices of every iimitution of the market by fiscal restrictions. When nny sellers are excluded, the others aro enabled to raise their prices.
These are cases in which the supply can not be incressed to meet the demand, or in winich the supply is monepolizsd. But the greater number of commodities may be increased in quantity, and the supply of them is not artificially limited. The price of thens alse rises when the demand exceeds the supply: but the ir reseed price raises the profit of the producer, and attracts the competition of others in the market. Fresh capital and lator are nppiied to the production of the profitable articie, untli the supply is aecommodated to the demnnd, or exceeds it. The prices gradusily fall, and nt lengti the profits are reduced to the ama ievel as the profits in other undertakings, or even lower. The encouragement to further jroduction is thus witbdrawn, and prices are aijusted so as to secure to the producer the ordinary rato of protits, and no more.
llut nometimes the demund for in commodity is diminished, if the supply fall short of it for any consideralie time. Thers are various articles usefui and agrecabie to mankind, but not ogsentini to their existence, which they are eager to enjoy as far as titey cam, but fur which they are nit prepared to make grent sacritices. When tite price of an articie of this description is raised by a deficient supply, continuing for some leugth of time, it is piaced beyond tho reach of many persons who learn to regnrd it with Indifference. They woulu huy it if it were cheap; but as it is dear, they go without it, or are satisfied with a suhatitute. In this menner the number of consumers is diminished. Others again, who will not be deprived of an accustomed luxury, enjoy it more sparingly, and consumo it
in lesa quantities. But so long an the supply io not increased, the price will continus high, bseause the consumers who atill purchase the articie, not withstanding ite price, keep up an effective demand equal to the whole supply; while there is still a dormant demand, only a waiting a reduction of price to become effective.

For the same reasons, a demand for articies ia diminished when their price is artificially raised by taxation. The demand is gradually confined to a emaller number of persons, and many consume more aparingly.

In these various ways demand and supply become adjusted through the medium of price, whenevar the one exceeds the other. This is the result of natural laws, the operation of which is of the highest value to mankind. If the supply be incapable of incresse, it economises consumption; if the supply can be increased, it encourages production. In either case, it la of great benefit to the consumer. To revert, for a moment, to the exnmple of a bad harveat, in a country sxcluded from all foreign supply. Suppose that prices did not rise, but remained precisely the same as if the harvest hed been abundant, what would be the consequence? The whole population would consume as much bread as usual, and use flour In every way that luxury points out, unconscious of nny scarcity. Farmers might even feed their cattle with wheat. By reason of this Iniprovidence, tho whole of the corn would be consumed befors the next harvest, and the horrors of famine would burst, without any warning, upon a people living as if they wers in the midat of plenty. This evil is prevented by a rise of prices, which is a symptom of scarcity, just as pain is a aymptom of disease. By timely precaution the danger is averted. A high price renders providence and economy compulsory, and thns limits coneamption. The supply, therefore, instead of being sxhausted before the next harvest, is sprend over the whole year. In the case of food, it is true that such economy is painfill and presses henvily upon the poor: but this evil is a mercy compared with famine. If no privation had been endured before ocarcity became aisming, none but rich men could buy a ioaf: for every one who had a loaf to sell, would be risking his own life if he sold it.

These observations are also applieable in some mensuro to cases in which prices are raised by the supply being confined to one or to a few persons, who have contrived to buy up the whole or nearly the whole of any commodity. But such exclusive possession (sometimes improperly called a monopoly) can not exist, for eny length of time, in articles of which the suppiy is enpable of increase. The extreme case has been put of a besieged town, in which the whole suppiy of corn was monopolized by one man. Under those circumstances of course lie would demand a high price; but unless his exclusivo supply were upheld by law, it does not follow that the inhabitants would suffer on that account. A most provident consumption of food is nbsolutely necessary for the defense of a town, and no orgonization conid distribnte provisions accoriing to the wants of the people so well as a system of purchase restrcined hy a high price. It must also the recollected that, without any such exelusive possession, the fuct of the siege alone must raise prices by cutting off fresls supplies. If the siege continte, provisions are more likely to hast ont by the inatrumentaiity of prices than by any other means. At the same tinie the soic possessor of the corn would be restrained from keeplng back the supply beyond the actual necessity of the oceasion by many considerations. He would know that if a popular tumult arosa -if the tow $n$ were rolieved, the siege raised, a capituIntion agreed to, or the pinco suddenly carried by assanlt-the value of his exclusive property would be destroyed. Ifis own interest, therefore, is coincident with that of the people. It is better for both tiat the

## DEM

supply should be meted out with parsimony ; it is dangerous to both that it should be immoderately atinted.
In clrcumstances leas peculiar than these, very little ovil can arise from nn exclusive possomion of any commodity not protected diractly or indirectly by law. If the supply be capable of increase, and the demand lee sufficient to enaine the owner to aecure a high price, for reasons already explained, the market would rapidly be aupplied from other quarters. If the supply can not be increased, that fact alone wonld ralse the price: and it is probnble that the supply would not have been se grent without the extraordinary activity of the capitaliet who had been able to esenre for hls country the whele accessinle supply to he collected trom the markets of the world.

A monopoly, properly so called, is of a totally different character: for, however abundant the supply of an article may be, it may, neverthelese, be inaccessible to the consumer.

When prices are high by reason of the demand exceeding the supply, it is by no means necessary that the profits of those who sell the dear commodities should always be greater than the profits in other branches of trade. It must always be recolleeted, that where searcity is the cause of the high price, the sell. ors who demand it have the less to sell. Where scarcity is net the cause, hut the demand is great because the supply, notwithstanding the exertions of producers, can not keep puce with it, the profits are undoubtedly greater than usual, until the supply has been incrensed.
II. It is now time to consider the effects of a surfis exceeding the demand, and this division of the lng iry will require less elucidation, as the effects of such a condition of the market may be atated to be the veryreverse of those which we have just been examining. When there is more of a commodity than people are prepared to buy, its price must fall. Its cellers must offer it for sale at the price at which ther can indace people to purchase. All is now in favor of consumers. They are no longer bidding against each other: but the sellers are competing among themselves to get rid of their goods. The price falls generally in proportion to the excess of the quantity, but this result is very much qualified by the nature of the article. If there be an excess of supply in perishable goods, there is nething to prevant the natural fall of prices. When fish is unusually abundant, it must be cheap, or a great part of it will he destroyed: it must be enten at ence, or not at all; and to induce people to eat it, it must be offered to them at a low price. But with artieles which may lie held back, in expectation of higher prices, their value may be partially sustained. Production may be reduced, and the atock gradually brought into the market, until the supply has been equalized with the demand; and wherever the article is such as to admit of voluntary increase or diminution, the patural result of an excessive supply is to reduce production, until the balance of suppiy and demand hus been restored. This mutual adjustment is In perpetual operation, and is ordlnarily effected with such precision, that it nuy be said, without exaggeration, that a large city is supplied exnctly with every thing its inhalitants requlre-even down to an egg or a pint of milk. There is always enough of every thing, and rurely too much.

Whenever there is an excessive production of any commodity, it is an evil almost as grent ns searcity. It is true that the consumer derives benefit from it, ont the producing elasses are most injurioukly affected. In order to raise the value of the produce of their lator, they must cease to produce, or must protuce in less quantities. The workmen are thus either deprived of employment altogether for a time, or are employed for a portion of their tine only, at relluced wages; while their employers are dispoeing of their goods at low prices, which scarcely rejay the outlay of their capltal.

Nor does the penalty of over-productlon fall exclusivaly apon these engaged in the trade in whieh supply has exceeded the demand. Thelr distresses exteni to ether elasees. It has been shown already that it is to productlon we must look as the cause of sastained consamption, and thus the prasanre apon any considerable branch of productive industry must be sensilily felt by those who have the produce of thelr own lator to sell. Production has falled, and consumption must therefore be diminished.

The ruinous consequences of gluts, in particular staples of trude and manufacture, are too well known, especially in this country, to require any further illustration; but their eauses are not always agreed upon. Such gluts are often attributed to the facility with which manufactures are produced by machinery; but we have ghown that over-production $\ln$ all branches of industry is impossithle; and if that be true, it is evident that when partial gluta are produced by the aid of muchinery, that powerful agent must have been misappliel. It is not contended that nothlng esen be produced in too great abundance. Whether machinery be used or not, production mast : governed liy the same laws of demand and supply. those thitus only must, be produced for which there ls a demund, and they must not be produced in greater abundance than the demand warrants. But the more generally nachinery is used, the more abundant will be the produets which men will have to exchange with each other, and therefore the hetter will be the market. It follows that machinery can only cause a glut when applied excessively to partlcular objects, precisely in the same manner as an excessive quantity of labor would cause one if applled where it was not needed by the demands of commerce.

The supply of markets is a very apeculative business, and is often conducted with more zeal than discretion. When a particular trade is supposed to be more prosperous than others, capitalists rush into it in order to secure hlgh protits; and in this country the abundance of capital, the perfection of our machinery, and the skill of our werkmen, enable them to produce with extraordinary faeility. Over-production in that particular trade is the consequence, and all enguged in it suffer from the depreclation in the value of their goods ; but if, instead of rushing into the favorite trade, they had distributed their enterprises more widely, their own interent and that of the community would have been promoted. When a ship is wrecked, if all the crew precipitate themselves into one boat, they awamp it; but if they wait till all the houts are lowered, anil apportion their numbers to the size of ench, they may nll reach the shere in safety. And so It is in trade : one trade may easily be glutted, while there is room in other trales for all the capital and industry that neel employment.

In proportion to tho extent of the mark and the variety and abundance of commodities he exchanged, will be the facility of disposing of the products of capital and labor; and this conaideration peints out as the most probsble antidete to gluts, a universal freedem of commerce. When the free interchange of commodlties is restricted, not only is a glut caused more easily, but its causes are mere uncertain, and depeailent upon unforesecn events. With the whole world for n market, the operation of the laws of demand and supply would be more equable, nal the univeranlity of the ohjects of exchange would make glats of rare occurrence. The market would still le liable to disturbance by bad harvests, by errors in the monetary syatem, !y shocks to public credit, and 15 war; butupart from these caunes of derangement, demand and aupply would be adjusted, and the productive energles of all nations called into full activity.Botin's C'yclo. Po!. Eeon. ; Adam Smiti, llealh h f Nations, hook 1.; M'Cvlsoon, Principles of Politictl Economy, part i., ch. 7, and part ii., ch. 1, 2; Male

THUS, $\mathrm{Im}^{2}$ 30; Mila Economy, Demu lowance $n$ freighter, riod agree ulated ln certain $n$ days, shal cargo, and a furthor payment
When the
lates that lng or rece time, sucl stipulation shall in n tuined he even in cas fault on th exsmple, state of th the centrac aa action f lations, or house office for a delny ship, or th nor ls it cla the msster, clalm for deared out le detained
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Professor tile Law [13 "As tim commercial should be and for suc remedy nga usually prov 'demurrage days which ualoading tl the arrival o of discharg destination, In the abse trary; Sund days at the specifics" are exclule is ocenpied means what to pay so m
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Demurrage, in commercial navigation, is an allowance made to the master or owners of a ship by the freighter, for detaining her in port longer than the period agreed upon for her adiling. It in usually otipulated ia charter-parties and bllis of lading, that a certain number of days, called running or working days, shail be allowed for receiving or discharging the carge, and that the freighter may detain the vesael for a further apecifial time, or as long aa he pleases, on puyment of so much per diem for such over-time. When the contract of affrelightment expressly stipnlates that so many daya shall he allowed for diseharging or recelving the cargo, and so many more for overtime, such limitation ia Interpreted as an exprese stipulation on the part of the frelghter, that the veasel shall in no event le detained longer, and that if detuined he whil be liable for demurrage. Thia holda aven In casea where the delay la not occastoned by any fault on the freighter's part, luut is inevitable. If, for example, a ship be detuinel, owing to the crowded state of the port, for a longer thme than is allowed by the contract, demurrage is due; and it is no defense to as actlon for demurrage, thut it arose from port regubations, or even from the unlawful acts of the Customhouse officers. Demurrage is not, however, claimable for a delay occasioned by the hostlie detention of the ship, or the hostile oceupation of the intended port; norls it daimable for any delay wilfolly occasioned hy the master, or ewners, or crew of the vessel. The clain for demurrage ceases as soen as the ship is leared out and ready for suiling, though ahe should le detained ly adverse wimls, or tempestuous weather. -Curty's Gommercial Law.
Professor Parsons in his admiruble work on Mercantile Law [Boston, 1856], says:
"As time has lecomo of the utmost lmportance in commercial tranactions, both parties to thiz contract whould be punctual, and cause no unnecessary delny; and for such delay, the party injured would have his remedy ngainst the party in fault. The charter-party usually provides for so many 'lay-days,' ond for so much 'demurrage.' Lay-days, or working-days, are so many days which the eharterer is allowed for loading, or for unloading the vessel. These lay-days are counted from the arrival of the ship at the dock, wharf, or other place of discharge, und not from her arrival at the port of destunation, unless etherwiso agreed on by the parties. In the absence of any custom or bargain to the contrary, Sundays are eomputed in the calculation of laydays at the port of discharge; but if the contract specifies "working lay-days," Sundays and helidays are excluled. If more time than the agreed Iay-days is occupied, it must be pahd for; and 'demurrage' means what is thus paid. Usually the charterer agrees to pay sis much deniurrage a day. If ho egrees only to pay lenturrage, without specifying the oum, or if so many working days are agreed on, and nothing mare is said, it would, generally, at least, he consilered that the number of lay-days determined what was a reasonable and proper delay, and that for whatsoever was more than this, the party in fault must pay a reasonable indemnity. If, nfter the lay-days ailawed for unloading, have commenced, and, of course, after a safe arrival, but before the cargo is unhaden, ship and cargo, or enrgo alone, Is lost, without the Guit of the ship, of the owner, or of the master, the freight or charter-money is due, because that was earned lyy the arrival.
"If time be occupied in the repairs of the ship, which are made necessary, without the fanit of the owner or muster, or of the slip itself, that is, if they do not urise from the original unsenworthiness, the charterer pays during this time. Many enses liave atisen where the ship was ilelayed ly different causes,
and the question occurred, which party whould pay for the time thus lost. On tha whole, we should say, that no delay arising from the elements, as from lee, or tide, or tempent, or from any act of government, or from any disabllity of the consignee, which could not be imputed to his own act, or to his own wrongful neglect, would give rise to a claim on the charterer for denurrage.
"Demurrage eeems essentialiy due only for the fuult or voluntary act of the charterer; but if he hirea at so nueh on tlme, that ls, hy the day, week, or month ; then, If the vensel be delayed by seiaure, entbarge, or eapture, and the impediment is removed end the ship completes her voyage, the charterer pays for the whole time. If she le condemned, or otherwise lost, this terminates the voyage and the contract.
"The contract may be disaolved by the parties, by united consent, or againat their consent, by ony circumatances which make the fulfillment of the contract lilegel ; as, for example, by declaration of war on the part of the country to which the ship belonga, againat that to which she was to go. So eithar an embargo, or an act of non-intercourse, or a blockade of the port to which the ship was going, may either annul or suspend the contract of charter-party. And we should say they would be held to suspend only, if they were temporary in their terms, and did not require a delay, which would be destructive to the purposes of the voyago.
" In reference to all these points, it is to be understood, that if the parties know the circumstance, which they make their bargain, and provide for it , any bargaln they choose to make in relatlon to tt would be enforced, unless it required one or the other of the parties to do something prohibited by the law of nations, or of the country in which the parties resided, and to whose tribunals they must resort.-Parsons' Mercantile Law, p. 862-367. See Kent's Com., 111., pp. 26i, 265.

Denarlus, in Roman Antiquity the chief silver coin, among the Romuns, worth in aterling money, about $74 d$, or about 15 cents. It was originaliy of 62 graine weight; and was considered equivalent to the Attio trachma, which, however, weighed 67 grains. It was originally one-seventh, but afterward fell to one-eighth ounce. (See Arbuthnot on Coins.) There was also a golden denarius, of which there is a specimen in the British Museum weighing 60 grains, beaides others of less welght. As a weight, it was equal to the seventh part of a Roman ounce. Denarius was also used as of the value of an Engliah penny.
Denier, a amall krench coin-copper coln, of which there were 12 to a sol.

Denmark, a kingdom in the north of Enrope, small in extent and scunty in population, but known in histery from en early period of the Christian era. There is no authentic account of the origin of the name of Denmark, nor of the quarter from which the ceuntry received its early inhabitants. From the similarity of the Danish and German languages, us well as from the general course of migration in early ages, it seems probable that Denmark was peopled by immigrants from the south-irom Ilolstein, Ilanover, and Saxeny. There are no means of ascertaining whether natives of Denmark formed part of the formidable hordes which passed tis lioman frontiers in the fifth and sixth centurius; but the attacks on this empire were probaly made by tribes less remete, the expeditions of the Dancs being in general maritime. For such expeditions they wore remarkable as early as the eighth and ninth centarien, as was proved by their repeated iavasions of England, their occasional descents on Scotland, and their conquest, followed by permenent oceupation, of Normandy. To cross a sea of three or four hundred milles in breadth was a bold undertaking for men unacqualnted with the use of the compuss; but the number of islands in Denmark early aceuatomed the in-
habitants to navigntion, and gave them a practical dexterity In It, similar to that acqulred hy the Dutch from their vicinity to arma of the sea, and to the mouths of grest rivers. Both countries proved the advantage of a maritime positlon, for in those days nelther France nor England were capable of sending forth a naval armament.

Denmark is a portion of the great European plain, and may be described as almost uniformly level, with partial Inequalities of surfsce, particularly in Schleswig and IIolstein, and the Islunds of Funen and Zealand. The kingdom conslats of two great divialons, the one a long peninsula, extending from the Elbe to the Scaggerrack, and the other a clister of ialands separating the Cattegat from the Fast Sea. The western conats of the peninsula are a contlnuous level of marah-land; the Interior is dry and sandy; and the Islanda partake of the same characteristics. The soll of the low-land is generally fertile, priducing the linest pasture, and excellent corn crops. The cllmate is milder thrn the northern situation of the country would indicate; but the sky is very' equently olscured with vapors and moist fogs, in "1 , suiamer lasis only from June to the midale os cugust. The climate, however, la not unwholzaome. The mass of the populatlon consists of Danea, who occupy the IAlands, North Jutland, sull the northern part of Schleswig. Germans occupy the southern part of Schleswig, Holstein, and Lauenburg: Frisons nnd Angles live on the islands and other parts of the W. coasts. Agriculture and fisheries are their principal occupations. From 1660 till 1848 the kinglom was an Abselute Monarchy; but in the latter year a constitution was granted by the king; and the legisintive power la now vested in two parliamentary bodies, the Volksthing and Iandesthing, both consisting of elective members; the former resembling the House of Representatives, and the Inticr the Senate, of the Congreas of the United Stated of North America, rather than the Iords and Commons of Great liritain. Denmark is a amall and poor country, and her nivhi and millitary power correaponds with her amall reaources. She possesses In Furope the Firoe Iglands, and the large, voleanic, and poor island of Icelund, with a portion of West Greenland.

Lubec and Dantzic.-The chief mercantile intercourse of Denmark in the fourteenth centiry was with Lubee and the north-west of Germany. To the Bultis L-pbec was nearly what Venice was to the Mediterranean, the earliest commercial town of consequence. There was also some traffic from Den iark to the mouths of the Vistul. ; the name of Dantaic or Danavik (Danish town or pori) hulieating that a I banish colony, aware of the adivantugen of the sltuation, bad entabilished l elf there. The more remote provinces of Courland and Eathonia were also objects of ambition to the Danes; but they did not ind it practioable to keep settlements there. Itolstein was mere within their control, nad much more advantageous, from tha comparative clvilization of its inhahitants.
Hinnse Tourns.-During the fourteenth century, the assnciation of the IIanse 'Towns hat aequired considerable atrength, and assarted atrenuonsly the fredem of commerce in the north of Vurope, Lenmark conimanding the great entrance into the llatic by the Sound, was the power most Interested In Inying mer. thant vessels uniler $n$ toll of regular contribition ; and the result was repented contentiona, followed at times by ofen war, between the Dimish govermment and this powerfal ronfederacy.
Shipurrecked l'essels.-The rule linhits of the uge were atrongly inorked by the diffoulty whild the lanlsh government found in putting a stopito the pructice of plundering merchantmen shij:wrecked on the coant. Veasela proceeding to and from the lialtic necessarily approached! the coant of Juthand, partleularly In an age when the lgnorance of mariners led to their consider-
ing the vicinlty of the land in the light of a protection. Slipwrecks were constantly of frequent occurrence there, and were generally turned to the profit of the nobility, who were proprietors of the maritime districts. We may here remark, that the nobles claimed not only the soll, hat even the persons of the peasantry ; for the principle of personal bondsge was until lately maintained in Denmark. The practice was to collect in the vicinity of a wreck auch a number of the inimbitants, us to prevent the master or mariners from opposing the seizure of the merchandlae. Even hishops residing on the coast, though humane in their treatment of the crews, did not acrople to ald in taking forcible possession of the csrgo; so crude were in those days the notions of justice toward merchanis. It is a remarkable fact, that a law passed by the king about the year 1521 for the prevention of these practices was abrogated and publicly burned at the instance of the barons and clergy a few yeurs after, when a new bovcre: $\cdots$ had rucceeded to the crown.

Nary,-The following was the state of the Danish navy lı180̆ :

| 5 Sh ps of the Litue. | $\int^{8}$ of 84 guns - 258 ghns. |  |  |  |
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| 120 |  |  | 888 | ${ }^{\sim}$ |

The financial state of the kingdom will best appear from the following summary of revenue for the wholo monarely, with tho exception of Lamenburg, as contained in the ludget for 185.-5:


Hesidea thesp, there are special estimates for each of the Ihuchlea, and ulmo for Denmark Proper. The total amonuts of earh fur the abeve year are a follows, vik. :

'Total.

Graeral Expenser.

speclal Expernes of the ktukdom. Men, (14):
 uf the thehy of lamenburg... $-1,496$
$81, \overbrace{2}+21$ 21,40
Tutal....................................... . . $2.4 .43,401$
The national delit in I85il anomited to $\sum^{\prime} 33,612,500$.

Soun 11 made a co gland, by dues on Baltic ; an cantile col Norway. given rise class, amos try the me nobility; Denmark from a nun chandise.
The Arn cal question In the year gland, Fran During tha had no diff men, in all stores, from to receiving British gov carry warlik by the ambl compact, cal out resortin awe Englan Happily no and the ques gotiat ion for The king became afte son, the crov and soon pa peat ..s liy emancipated aobility on $t$ oit the Africa taking the 1 The rrown Bemstorff, sc remained neu by the Fren steadfastly to of Russia hav formed a co England, a 1 the orters o his secoud In It was th capital wats $n$ then-of-war 1 sufllelent thef The attack the resistunco The loss of ceeted 1000 marh greater Itsppily littl sation of hos lowed hy a tr Paul, which compact hetw
llat an tre nent during frating ilest nary han fou Emperer Ates 1817 Ihreutene aguinst Engh tiscovered n English mint on a system o fleet and un a the llanish n

Soun 1 Dues.-In 1.190 the reigning king of Denmark made a commercial treaty with. Henry VII. of England, by whlch the English engaged to pny the Sound dues on all vessels entering or returalng from the Baltle; and in return they were allowed to have mercantile consuls in the chief ecaports of Dennark and Norway. By thle time the extension of trade had given rise in Denmark, as ia England, to a middle class, among whom tho eovereign found in each country the menns of balancing the political welght of the nobility; hence a grant was made by the kings of Denmark of various privilegrs to traders, and relief from a number of local imposts on the transit of c.erchandise. See Danish Sound Dues.
The Armed Neutrality._One of the principal political questions between England and Denmark occurred In the year 1780, in the midst of a war between Encland, France, Spaln, and the North American colonies. During that arduons contest, England, superior at sea, had no difficulty in obtaling, by her own merchantmen, a supply of hemp, cordage, and other naval stores, from the lhaltic, while France nud Spain trusted to receiving such supplies by neutral vessels. But the British government denied the right of neutrals to carry warlike stores; nnd the northern powers, headed by the ambitions Catherine of Russia, entered into a compact, called tho Arned Neutrality, br which, without resorting to actual hostility, they sought to over. swe England, and to continue the questionable traflic. llsppily no bloodshed followed thla diplomatic menace, and the question fell to t'le ground in 1782, on the negotiation for a general peace.
The king of Denmark, subject all alor.g to imbecility, becume after 1784 quite Incapalilo of governing. 111 s sen, the crown prince, was therefore appointed regent, and soon passed several judicions enactments. The peat as living on the crown lands were gradually emanelpated-an example followed by a number of the aobility on their respective estates. In tha abolition oi the Afrienn slave-trade Ienmark had tho honor of taking the lend nomong tho governments of burope. The crown prince, guided by the ecunsels of Cour: Bemstorff, son of the ninister already mentioned, long remained nout onl in the polltical convalsions engendered by the French Revolution. He continued to adhere steadfnstly to this plan natil in 1801 tho Emperor J'anl of Russia having, as in the case of the armed nentrallty, formed a compact of the northern powers hostile to Eagland, a llritish fleet was sent lito the lbalte under the orders of Sir lIyde Parker, with Lord Nelson as bis aceond in command.
It was this fleet which thught the Danes that their capital was not impregnable, and that the long line of men-uf-wor moored in front of the harbor was nin insufficient defense agalnst surh enterprising opponents. The attack took place on the ed of $\Lambda_{p}$ ril, 1801; nad the resistance of the banes was s!i irited, hat fruitless. The loss of the linglish in killeil and wounded exceeded 1000 men , but that of their oppouents was murh greater, amd most of their shipping was destroyed. llapplly little injary was done to the capital. A cosartion of hostilities took place forthwith, and was tollowed lyy a treaty of peace. The death of tho Emperor Paul, which occurred anon afterwarl, dissolved tho compact between the northerm courts.
llat ne treaty of peace could be regnaded as permanent during the ascemaney of lomuparte. After dofeating tlrst Anstria, and then Drussia, that extraordinary man fomme mene to obtaln the condidenco of the Bimperor Alexander of Russia, and in the antmon of 18if threatened to mako Denmark take part in the war against bughand. Although the lanlah government discoverel no intention to vlolate lis nentrality, the English ministers, eager to please the publie by methg on a system of vigor, despatehed to the lhatle hoth it fleet and nin army, in order to compel the sumtomber of the Danlsh navy $\quad$ upon conditlon of lts heling restored
at a peace. To such a donand the crown prince gave an immodinte negatlve, declaring that he was hoth able and willing to maintaln his neutrality, and that his flect could not be given up on any auch condition. On this the Engligh army landed near Copenhagen; lnid siege to that city; and soon obliged the government to purchase Its safety by surrendering the whole of its naval force.
this act, the most questionable in point of justice of nny conmitted by the liritlsh government during the war, can hardly be defended on the score of pollcy. The battle of Trafalgar had ere this been fought; and after that great vlctory ber superiority at sea was 80 decisive as to evempt her from the necessity of offending forcign powers by adoptling extreme measurea. The resentment felt on that nccasion by the Emperor of Russia was ao grent as to deprive England during four arduous years of the benefit of his alliance; and the reizure of the Danish fleet so exasperated the crown prince and the nation at large, that they forthwith declured wa against England, throwing themselves completely into the arms of France.
The hoatilities between England and Denmark were carried on by aca, partly at the entrunce of the Baltic, and partly on the const of Norwny. These consiated of a scrios of actions between slngle vessels or small detachments, in which the Dancs fonght alwnys with spirit, and not infrequently with success. In regard to trade, both nations suffered eoverely; the Britiah merchantmen in the Baltic being much annoyed by Danish crulsers, while the sorelgn trade of Denmark wns in a manner suspended by kingland's naval superiority.

Population.-The increase nnd distribution of the population of Denmark will appear from the following table:

|  | 1769. | 1884-35. | 1 125. |
| :---: | :---: | :---: | :---: |
| Denmark Proper.... | 811,288 | 1,228, $\overline{9} 97$ | 1,8511,827 |
| Schleswig. . . . . . . . . | 240,104 | 887,878 | 382,900 |
| Molstetn. | 258,968 | 435,596 | 479,364 |
| I suenbury. |  | , | 413,486 |

The population of Denmark Proper, 1st Febriary, 1850, was as follows:

|  | Cowns. | Rural Dista, | Total. |
| :---: | :---: | :---: | :---: |
| Zeiblant and Moent | 1710,892 | 895.168 | 508,480 |
| liornisolm. | 0,451 | 14,176 | 27,927 |
| Fonen, ete........ | 81,824 | 153.40. | 184,018 |
| Lamathi and Falster. | 11,164 | 67,443 | 79,017 |
| North Jutlami. | 138,284 | 530,291 | 604,525 |
| Total. | 2010,165 | 1,117,182 | 1,407,747 |

The population of the principal towns of Denmark l'roper (lsi February, inaio) was as follows, viz.; Copenhagen, 149,600; Olensee, 11,100; Helsingor, 8,100; Aarhuus, 7,800; Aalborg, 7,7100; Randere, 7,400; Tlorsens, 5,800 ; Rönne, 4,700 ; Svendborg, 1,500 ; Fredericin, 4,300 ; Viborg, 4,000 ; Shagelse, 4,000 ; and Roeakilde, $3,80 \mathrm{c}$. In the dueliy of Schleawlot, the principal towns with their populations on 1st Fehruary, 18.10, was as follows, viz.: Filenshorg, 12,561; Sehleswig, 11,204; IIndersleve, 6,165; Eekerns, firde, 4,058; and Apenride, 4,021 . In that of Holstein us follows, vlz: Altoma, 28,095 ; Kiel, 12,844; Rendshurg, 10,009 ; and Gliackstadt, $5,939$.
The prinelpal ports are Copenhagen and Elsinore. Copenhagen, capital of Demmark, situated on the enat coast of the paland of Zealand, in the chaonel of the Baltic called the Somm, in lat. $65^{\circ} 41^{\prime}$ N., lomg. $12^{\circ} 85^{\prime}$ $16^{\prime \prime}$ Fe. The water in the channel la from 25 to 35 fect deep; but it is narrow, and the navigation difficult. Vessels not intending to come linto the harhor bring up in the roads, at from one quarter to one half a mille from where, in ubout 25 feet water. In the harhor, within the boom, the water la from 17 to 18 feet deep, and veasels momal alongside of the quay. The ancharage in the roads la good and safe.

Bilshore, or Eisineur (Dnulsh Helsingör), a seaport town of Denmark l'rojer, on the enst coast of the isl-
and of Soeland. It stands at the narrowest part of the Sound, opposite the Swedish town of Italsingborg, from which It. is three miles diatanto. All marchant vessels are obliged, under certain reservations depending on the weather, to salute the castie by lowering their top-sails in passing. In the vioinity is Marlenlyst (Mary's. delight), till lately a royal chateau, now the property of the corporation, and lot to a private family. The towns of Altona and Wansbeck are included pnder the head of fureign commerce, as standing witho: . the toll-ragulations of the kingdom.
The navigation from the north of Germany to Denmark, around the northern point of Jutiand, being always tedious, and ametimes dangerous, gave rise to the didea of uniting the two seas by means of a canal, communicating with the river Eyder. The work wad commenced in 1777, and finished in the course of seven years, at a great expense. This is the Canal of Kiel, which begins near the town of that name, on the side of the Baltic, and extends enatward s.bout twenty-three miles, when it comes in connection with the Eyder. This canal is nearly 100 feet wide at the ourface, and 54 at the bottom; It has six locks, and Ita least septh of. water ie 10 feet; it admits vessels of 120 tons brirden; and of such small shipping no less than fru:a 2,000 to 3,000 pass in a year. Of no less importance is the Stecknity Canal, which, along with the railway between Altons, Glackstadt, and Kiel, scrves to promote the commerce of the duchies. There are also railways from Copenhagen to Elsinore, and from Copenhagen to hoeskilde; and one has been recently opened from Tonning to Klensburg, with a branch to Kendsburg. Tonning is the port on the east coast, and the iength of navigation from there to the Baltic is about 105 miles.

The passage to the Baltio by the Sound continues to be followed by English, Dutch, and other vessels of heavy burden, as well as by Swedes and Norwegians, on account of the vicinlty of their reapective countries to the Sound; but cossting vessels and other traders from Oidenburg, Hamburg, the mouth of the Elibe, as well as from Tonning and the ports of Sctuleswis, and still more small Dunish bariss belonging to the islands, find it a great convenience to traverse the Canal of Kiel. The hazard on the north cosst of Jutland ariaes from exteneive sand-banks and a number of currents.-F:. $\mathbf{B}$.

The customs regulations of Denmark did not asanme any tixed or permanent character untll toward the close of the last century. No regular system of commercial policy was pursued; and the regulations which, from the to time, ware enforced, were issuod more with the immediate vien of recruiting the treasury of the crown, than with any regard to the encouragement of the industrial or commercial enterprise of the country. HLyh and prohibitory duties were imposed; exclusive privileges were granted by the crowa to such companiea as were either rich or favored enough to secure them; competition, so essential to success in every purnult, was prevented; and the induatrini energles of the nation, the only true buais of indlvidual as well as of nutional wealth, were cruained by tho monopoliziug spirit and grasping cupldity of thene privileged asaociations. They enjoyed the exclusive right of trading, even with the colonista; of supplying their wants; taking In exchunge their surplus productions at auch valuations and pricee as they thought proper to fix and were wilifing to puy. Alout the period already reforred to, a better nysteun was gradually introduced. Many of the reairictiona which had hitherto contrihuted to fetter and depress tho foreign ticule of Demmark were taken off; a new tariff was adopted $;$ and the whole aystem of regalations was consolidated into the "ordinance 31, Christlan VII., dated the 1at of Feliruary, 1797, relating to the customs;" which, wlth the various enastmente aince adopted, conatitutes the baais of the present commercial policy of Denmark.

Under these regulntions, a distinction is drawn le-
tween privileged and unprivileged pations. The former are those, with which, by treaty, convention, or other. wise, a reciprocity and equality of commerce and navigation have bsen established--buch treaty, convention, etc., preserihing the terms on which reclprocity is granted; the latter are subject to extra duties, smounting to as high as. 50 per cent. above the rates fixed in the general tariff. "To the former clase the United States belong, the treaty by whilch entire reciprocity and equality of commerce and navigation are guarantied, dating as far back as April, 1826. The following abotract embraces the principal stipulations of this treaty, so far as lt relates to commerce and navigation:

No particular favors in respect of commerce or navlgation to be granted to other nations, which shall not become common to the other party, on like or equivalent terms. Commerce and navigation between the two countries to rest on the liboral basis of perfect equality and reciprocity; and the citizens and subjects of each to enjoy all rights, privilegea, and exemptions, in the territories of the other, which native citizens or subjects do or shall enjoy; Icelund, the Faroe islands, and Greeuland, and the places, situated beyond the Cape of Good Hope, and the direct trade between Denmark and the Danish West India colonies, being excepted from the operation of the treaty. Duties to be alike on all manufactures or merchandise of any country that can be lawfully imported into either country, whether such importation he made in the vessels of one nation or the other. Similar equality to exist in respect to exportations or re-exportations from either country, and in the vessels of either. The produce and manufactures of each country, when imported into either, to bs subject to no other or highar duties than similar produce or manufactured of any other country; and this equality to extend to exports from either country to the ports of the other. Article 5th stipu3stes that neither the veseels of the Unlted Statee nor their cargoes shall, when they pass the Sound or the Belts, pay higher or other duties than those which are cr may be paid by the most fayored nation.

Weat India Colomies.-In the intercourse between the United States and the Danish West India colonies, it is agreed that whatever can be lawfully imported into or exported from the anid colonies, in vessels of one party, from or to the porte of the United States, or from or to the ports of any other foreign country, may, in like manner, and with the same duties and charges applicalie to vessel and cargo, be imported into or exported from the ssid colonies in vessels of the other party. The treaty to continue in force ten years, with the usual stijulation for twelve months' notice if either party should desire to terminste it after that period.
The general forcign navigation of Denmark, in 1844, employed 33,845 vessels, mensuring $1,266,417$ tons, and, as appears from official returns, floating 765,475 tona of merchandise.

It may be interesting to inquire to what extent the national thag of Demank participated in this gensral movement. The total number of vessels whieh entered and deared on foreign voyages in 1814 was 83,815 , with a tonnage of $1,266,417$ tons, and couveying 765,475 tone of freight. Of these vessela, thero wero under the Danial hag 22,275, with a tomage of 717,*91 tons, und win eying 459,079 tons of freigit. Thus, Denmark had,
1st. In the number of vessola. . . . . . . . . . . . . 68.8 per cont. 2d. In the tonnage
$68.7^{80.8}$ jer cent
84. In the cargoes. . . . . . . . . . . . . . . . . . . . . . . . . 60

Leaving for all other uatlons,
1mt. In the number of vensels. ............... 84.2 per cent. 2d. In the tonnage. . . . . . . . . . . . . . . . . . . . . . . 47.8 80. In the cargoen $\qquad$ $4{ }^{47.8}$
The aggregate tonnage of vessels eniployed in the trade letwern the United States and Deumark in 1814, was 3,458 tons. In 185.1, it had decrensed to 2,608; in 1856, it wиs 2,013.

\section*{mar <br> :har-: <br> lavi- <br> | tion, |
| :--- |
| $y$ is | <br> unt. <br> aited <br> acity

cran- <br> wing <br> this <br> navi- <br> 1 not <br> uiva. <br> 1 the <br> rfect <br> tions, <br> ns or or
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Meromant Fesseizs or Drimabe, Januamy, 1856.

|  | Denmerk. | gohlrawle. | Holstsin. |
| :---: | :---: | :---: | :---: |
| Vestels . . . . . . . . . . . . . | 3,408 | 1,476 | 1,275 |
| Steamers . . . . . . . . . . . . . | - 26. | ${ }^{1} 11$ | 1 |
| Tonnage of vessele........ | 65,684 | 27, 144 | 20,898 |
| \% of steamera. . . . | 1,002 | 218 | 105 |
| Hinse-power............... | 1,678 | 522 | 59 |

Totsl nomber of vessels, $\mathrm{B}, 1 \mathrm{LC}$; steamers, 87. Trunage of salitug vessels, 108.171 ; ateamers, 1,818 . Horse-power, 2 , 59 Beo Gotha ALmanao, 1857 .
From ofloial returns of the foreign trade of Denmark, it appears that in 1847 the imports and export: naited amonnted to $\$ 46,500,000$; a sum nearly equally divided bésreen Denmark Proper and its dependencies. In estimating the true relative value of this commerrial movement, we must bear in mind thet ihe $\mathrm{F}_{\mathrm{y}} \because$ a proper contains a population of $1,350,000$ inh $h^{\text {i- }}$ ts, and comprises an area of 683 Danish euperfic'? s. 'ee ; while the duchies contain a population of 842,000 souls, apread over an aros of only 818 Danish miles. The Dsaish miles are given as found in the authoritice from which thess facts are condensed, and because they will suffice for the purpose of comparloon. Denmark and dependencies in Europe contain an area of $1,031,075$ geographical miles, and a population of 2,296,587, exclusive of Greenland, Ice!and, and the Faroe islands. Thue, the latter, with a territory less than ons half, and a population more than one third less, contributes more than its proportionate share to the general commerce of the country. The importance which Denmark attaches to the oovereignty of the duchies is thus accounted for. They are not only the granaries from which her cereal supplies are ohtained, but they also constitute the commercial conduits through which her principal products-live cattle, hotses, etc.-pass to a market. The loss of the driutes would, besides, inflict an irreparable injury apon Denmark, hy cutting off the enormous revenue which she has so long derived from the Sound dues; as, in the event of a aeparation, the Schleswig-Holetein Canal would soon become the principal route to the Baltic.
The description nnd quantities of merchandise which constitute the chief basia of the exchangce hetween Denmark and foreign countries, for any one year of average commerciai activity, will furnish the most accurate standard by which to judge of the present or prospective importance of the trade between that kingdom snd the United States. Dati from which to calculate, even approximately, the value of importations, are not at hand. A valustion baeed upon such data as are possessed may, however, be attempted. We find that the duties levied on importations for the year 1847 reached as bigh as $\$ 2,685,654$, or, in round aumbers, $82,500,000$. Allowing 12 per cent. on the imports as the amount of unties, we have as their value for that year over $\$ 20,000,000$. The value of the exports, as regiztered in the Danish custom-houses, ia more accesslble, and will be found uuder lta proper hesd in the foliowing talies.
Of the $2,685,604$ which is found under the column of duties on imports, the portion reccived in the cus-tom-houses of Denmark Proper, amounted to $\$ 1,806$,246, and that which was levied in the duchies reached 8879,408 . While this latter sum is less than 50 per cent. of that roceived in Denmark l'roper, we must not infer that importation into the duchios was in the same proportion. On the contrary, the tatile which follows will show that, in general, they import morein eome cases 100 per cent. more-man the kIngdon proper. The disproportion in the amount of duties results from the operation of ilfferent tariffis; that of Denmark Proper being much isigher than the tariff applicable to the Duchies of Schleswig and 11olstein. Altona, in the Duchy of IIolsteln, the most important commercial city in Denmark next to Copenhagen, is a free port; and all goode may be landed and stored without any other charges thin port dues.

Gminal Stathiannt of Importa into Denmark and DiPENDNNOIRS IN 1847, wITH AMOINT GY DOTEEA,

| Detarlpton of Morchandise. | Measure or quantily. | Total. | Amonute of dutlee. |
| :---: | :---: | :---: | :---: |
| Cotto | Kilogs..... | 1,085,000 | - 3253,500 |
| Sugar and syrup |  | 16,074,000 | 291,090 |
| W ootens. |  | 656,000 | 253,878 |
| Wood.. | Cobio feet. | 8,454,000 | 208,506 |
| Coffee.. | Ktlogs..... | 6,578,000 | 159,588 |
| lron $\begin{gathered}\text { unmanfactored } \\ \text { and manufactured... }\end{gathered}$ | " ..... | 20,562,000 |  |
| Wines. | $4 \quad \cdots$ | 81,000 | 124,484 |
| Salt.................... | Hectoittres | 16,006,000 | 88,888 |
| Brandy and other spirits................. | Ktloge. | 28,000 | 83,886 |
| Tорлсео............... | Tons.... | 8,815,000 | T7,878 |
| Coat . . . . . . . . . . . . | d | 614,000 | 51,336 |
| Cloths, linen.......... | 㫛 | 812,000 | 49,476 |
| Cetton, sitks.......... | 家 | 87,000 | 48,888 |
| Tea. . . . . . . . . . . . . . |  | 1,874,000 | 89,060 |
| Glasswares. | ${ }^{*}$ | 1,766,000 | 81,248 |
| Pettery .............. | 4 | 958,000 | 23,830 |
| Homp sad flax........ |  | 2,555,000 | 28,994 |
| Rtee... | \% | 2,882,000 | 18,228 |
| Frutes. |  | 1,28s,000 | 18,740 |
|  | \% | 884,000 | 18,020 |
| Skina and hides tanned | 5 | 680,000 | 9,114 |
| Yarn, cotton.......... |  | 162,000 | 8,184 |
| \# wooten......... | 2 | 65,000 | 8,848 580,820 |
| Total daties collected. |  |  | 2,685,654 |

The hectolitre is equal to 26.4178 gallons.
The authorities from which the preceding table is compiled omit the countries from which the different articles were exported. The United States' Treasury Report for 1847, however, furnishes data to oupply the omiesion ss respects the United States. From that document the following statements are derived:
Amertesn tonnage, entered from Denmark....... none. otoared from the U. S. for Den-

216 tons. " " cloared from the U. S. for Den- $\qquad$
Total tonnage enterad and olvared $1847 . .8,207$ tona.
The trade of the United States with Denmark is ehown by the following oxhibit of exports from and imports into the United States.

| 1828. | Exporta. $1845,879$ | Imports | To'al. 885,184 |
| :---: | :---: | :---: | :---: |
| 1880. | 585,985 | 48,971 | 684,958 |
| 1846. | 121,248 | 1,818 | 124,555 |
| 185b. | 227,715 | 1,180 | 229,846 |

The total exports of domestic produce to Denmark from the United States for the flacal yar anding Juns, 1856, were,
In American vessula.................................... 8158, 8 .
In foretga vessels.
85,968
Total.
195,960

Total for the year............................... $\$ 227,718$
Exponts fiom tife Unitrn States to Denmaby foa tne Yrars endino Jung 30,1847 and 1856.

| Desoripilon of morchandise. | Quanilitos. | Values. | $\begin{gathered} 1856 . \\ \text { valuen. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Dyo woods. . . . . . . . . . . 1 |  |  | 81,758 |
|  | 2,119 | \%210 | .... |
| Spirits of turpentine.galis. | 7,758, | 9,708 |  |
| J1ıce. . . . . . . . . . . .tterces | 5,629 | 115,525 | 40,659 |
| Cotton (raw)..........lbs. | 660,782 | 62,609 | 127,790 |
| Rye and vther gratus....̈. | ${ }^{17}$ | 6,000 181 | $\ldots$ |
| Flear. . .i. ur...... bbis. | 17 155 | 181 455 | -** |
| Whale \& othor fish oll, gls. | 88.330 | 11,298 |  |
| Sundrles................. | , | 5,019 | 8,816 |
| Drugs and medicines..... | . . . | , | 15,202 |
| Totat............... | . . . | 208,895 | 227,718 |

It appears that the United States supplied Denmark in 1847 with all the rice imported into thnt country, and a large share of the raw cotton, epirita of turpentine, fish-oil, grains, ste, Wines und spirite are chiefly imported from France, either direct or hy way of IInmhurg, and cottons almost exclusivaly from Englata, but in 1855-6, the exportation of tohacco, grain, flour, olis, and turpentine, had ceased.

The tollowing table exhibits the value of exports from Denmark and the duchies to all foreign countries during the years designsted. The values are given in franca, each equal to $18 \cdot 6$ cents.

| Deseription of merohandice. | 1846. | 184. | 181. |
| :---: | :---: | :---: | :---: |
| Cereals | 41,885,000 | 46818,000 | 65,714,000 |
| Live an | 12,498,000 | 11,780,000 | 11,606,000 |
| Butter. | 8,800,000 | 11,708,000 | 9,858,000 |
| Bacon, etc. | 1,522,000 | 1,802,000 | 1,670,000 |
| llides and | 2,714,000 | 1,790000 | 1,815,000 |
| Seeds | 1,168,000 | 1,095,000 | 1,225,000 |
| Wool (raw) | 779,000 | \$86,000 | 1,674,000 |
| galted provisluns....... | 698,000 | 451,000 | 780,090 |
| Bones. | 850,000 | 269,000 | 807,000 |
| Tolal Fra | 70,405,090 | $76,178,000$ | 84,745,000 |

The following suggestion is found in a commercial report recently lasued under the direction of the French government, which mar be found useful to others besides the French merchants engaged in the trade with the countries of northern Europe:
"In the northern nations, expecially Denmark, Sweden, and Norway, there is an active demand for a beverage extensively used in those countries, which our merchants engaged in supplying them with ligmeurs, might advantageously imitate. It la a mixture knnwn among the northern people as gamriel Fransk viin (old French wine), and composed of white wine, rum, syrup, sind rpices. This kind of negus is highly esteemed by a people who have no relish for liquors, unless they are highly nweetened."

In 1850 there was pulilished, by order of the Disnish government, a atatistical report of the co-t merce and navigation of Demmark Proper for the year 1848. From this publication, It appears that though Denmark was involved in difficultles with the Germanic Confederation during the year 1848, the gencral commerce of the kingdom suffered no sensible diminution. This was mainly owing to the geographicul position, as well as to the military marine of Denmark, by means of which she was enabled to blociande most of the German ports, and thus give free scope to her own merchant flas. Cnt off from the Gerinsn markets, from which she nsually draws her supplies of articles of first neeessity for her manufactures, she sought for new channels through which to supply her wants; and at once found England aiready waiting to avail herself of the difticulties in whith she was embroiled. Hence, the principsl foreign trade of Dinmark during this year, was csrried on with England.

The number ol' vessel- employed in the foreign trade of Denmark in 1848 whe as fillows:
Entered....... Ve is 7,1018 Torirage.. .......... 888,747

The tonnage of merchandise was $4: 0,240$ tons.
From North and South Aheaies there entered, durIng the same year, 61 vervela of $\{2,8 \div 0$ tons; while there cleared 67 veasels of 15,868 tony, of which there were 18 vesseis of 3,736 tons under a foreign flag.
The value of the imports end exports from e! countries, in 1848, as compared with 1847, was as follows: 1848,-Imporis.


Of the above figures, the trade of Copenhagen alone abosorlied:

See Commercial Relations if the U. S., 1857.

The following table exhlbits the trade between tho United States and Denmsrk during the yesr 1848 Navioation amp Commence.
Entered the United 8tatel from Denmark......... 1,494 tons, Cleared from the United States for Deamark.... 8,488 Imports from Denmark. .................................. 819,817 Exports to Denmark. ...................................... 181,918
Of the general exports from Denmark during 1848 , England received 50 per cent, ; and of grains, as high as 65 per cent.; whiie in 1847 the proportion exported to Great Britain was only 36 per cent. of the whole. The exports to the United States were,
Woolen and worsted yarna. $\qquad$
110slery.
Bristles
${ }^{862}$

Coal, of tons. 1,614
410
Unennmerated, paylng a duty of of $\mathrm{F} \boldsymbol{x}$ cont. 410
0,457

Sundrlea
Tolal. 12,617
Copenhagen, ns already remarked, absorbs shout 80 per cent. of the entire trsde of Denmark. In 1851 there entered at this port 821 steam-vessels, propelled by engines of 44,865 horse-power aggregste, and floating 4,700 tons aggregate of merchandise, viz.:
From Prassfa.
520 tans.
${ }^{*}$ Kingland
$\begin{array}{rl}1,689 & 4 \\ 1,098\end{array}$
" Wubee... 1,009
The chlef lmports into Copenhsgen from foreign countrice in 1851, were iron, coal, cablnetmakers' and other wood, fire-wood, and heavy merchandise. Fram the United States and Culbs there entered 15 vessels, of 3,158 tons' measurement, and with 2,884 tons of merchandise; and from the Denish West Indies, 34 vessels, of 8,670 tons' measurement, ond with 8,632 tons' merchandise. The imports of sugar were as follows:
From Danish West Indes $\qquad$ . kilogrammes, $3,500,000$
Total. $\qquad$ ${ }^{4}$ 2. $750,(0)$ 650,000 10,500,000

Imports of coffee were from Brszil, Isyti, an: European entrepots, $5,250,000$ kilogrammes ; of which there ware exported frem Copenhagen 500,000 kilogrammes, leaving $\mathbf{4 , 7 5 0 , 0 0 0}$ kilogrammes for consumption.

The vaiue of the foreign commerce of Denmark for 1853 and 1854 is exhibited in the subjoined tuhle:
Commerce of Denmark ant the Dttenibs of Gembewia and holstein fon tile Ygase 1868 ann $1 \times \%$.

| Couniry. | 1868 |  | 1854. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Importa | Exports. | 1 Imports. | Export. |
| Hamb | 16,934,878 | 0,019,752 | 18, 509,656 | 9,64,7\%5 |
| Great Britai | 7,504,040 | 10,662,224 | 10,8*2,963 | 12,194,070 |
| Altona. | 4,141,248 | 8,321,693 | 4,481,490 | 6,268,919 |
| Norwa | 2,179,625 | 8,059,797 | 2,246.998 | 9,548.514 |
| Sweden | 2.918594 | 1,321,123 | 8,657, 818 | 1,778,6+7 |
| Ruswin. | 8,585,109 | 812,750 | 854,618 | 49,810 |
| U. States, West fndles, snd 8. |  |  |  |  |
| Sea. | 8,4 7 7,458 | 850,245 | 2,097,489 | 142,175 |
| Lubec | 2,109,565 | 1,015,844 | 2,051,947 | 1,170,229 |
| Dan. Cal | 1,914,642 | 886,906 | 2,800,730 | 849,800 |
| Pruasla | 1,203,309 | 912,129 | 2,001,48 | 050, 0101 |
| Ifolia | 718,090 | 1,109,44 | 84, 830 | 2,929,1118 |
| Imelsind | 805,058 | 507,758 | $8410,78.3$ | 6ix, 119 |
| Ifremen | 1,012,164 | 46,026 | 1,212,62.5 | 74,86 |
| Fran | 561,407 | 825, 010 | 610, ${ }^{118}$ | 17,0¢9 |
| lielgiur | 252,469 | 49\%,449 | 222,605 | 872, 092 |
| Meckionbu | 877,071 | 278,429 | 678, 374 | 969,64 |
| Hanover. | 165,277 | 825,012 | 201,092 | 815,50 |
| Medltorrancan. binlla Chla | 444,781 | 14,451 | 148,364 | 相 |
| ant Grinea.. | 2s 0,020 | 129,018 | 978, 677 | 73,44) |
| Greenlan | 275,3122 | 206,445 | 43,188 | 75,4) |
| Faro | 146103 | 64,806 | 105,203 | 89, +11 |
| All | 207, 565 | 424,964 | 2.006,1830 | 698,530 |
| Total (thalere). | 00,850,712 | 81,264,500 | 50,861,711 | 89,099,109 |

Dunish versela arriving In the United States from the Danish Ialands of Santa Cruz and St. Thomas ara
not ch
Unite

## State

## spect,

the 31

The I from the were 2,0 about 4 and Han purchase the Unit nualiy al segars. sale of to doty [ lea msnufact from the
not chargeable with tonnage duties in tiva ports of the tue 26th April, 1826. The following table oxhibits United States ; the vessele of Denmark and the United States being placed on the same footing, In that respect, under the provisions of the act of Congress of the 81st May, 1830, and the treaty with Denmark of
the commerce of the United Statea with Denmark, from the year 1820 to the year 1856, by which it will be seen that this commerce does not assume any additional importance from year to year :

| Years ending. | Ezporta to Donsmark. |  |  | Imporia. | Whoreof thore wat in fullion and Epeele. |  | Tomangs Clieared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatic. | Foralgn. | Total. | Total. | Exported. | Impared. | American. | Foralgn. |
| 8ept. 80, 1821..... | 185,368 | 8800,585 | \$026,108 | \%16,158 |  |  | 4,149 |  |
| 1829...... | 82,028 | 160,757 | 192,780 | 21,239 | ... |  | 1,948 |  |
| 1828....... | 89,783 | 58,184 | 92,917 | 24,023 | .... | .... | ${ }^{908}$ | 257 |
| 1824...... | 85,487 | 299,828 | 885,809 |  | ... | .... | 2,416 | 88 |
| 1825...... | 214,517 | 687,146 | 851,868 | 46,827 |  |  | 5,693 | 200 |
| 1826...... | 100,689 | 845,268 | 845,876 | 49,264 | .... | $\$ 842$ | 2,691 | .... |
| 1827. | 148,958 | 258,988 | 409,94t | 40,889 |  |  | 2,928 |  |
| 1828...... | 150,979 | 886,639 | 299,668 | 117,948 | 暘00 |  | 4,889 | 202 |
| 1829...... | 78,097 76,298 | 18,168 29048 | 86,700 105,840 | 82,911 | $\ldots$ | .... | 1,048 | 1,070 |
| Toral... | 81,037,786 | 82,439,568 | 88,477,854 | 8854,670 | 8500 | 8842 | 27,976 | 1,811 |
| Sept, 80, 1881. | \$178,883 | 8176,888 | \$855,216 | 4575 | \$10,000 |  | 8,060 |  |
| - 1882. | 181,605 | 850,115- | 581,729 | 68,918 | 18,600 | .... | 4,268 | 723 |
| 1888.. | 180,011 | 112,458 | 298,964 | 93,178 | 7,000 | . | 2,907 | 791 |
| 1834. | 99,643 | 818,461 | 418,104 | 62,549 | 5,842 | .... | 12,028 | 2,280 |
| 1830....... | 212,461 | 110,889 | 823,800 | 121,000 | 4,900 | $\cdots$ | 2,681 | 1,282 |
| 1836...... | 814,288 | 271,717 | 585,955 | 48,971 | ... | $\ldots$ | 8,718 | 1,190 |
| 1837...... | 172,260 | 109,421 | 281,081 | 108,819 | .... | . | 1,092 | 4,797 |
| 1888...... | 98,081 | 24,750 | 122, 881 | 97,118 | .... | .... | 880 | 1,072 |
| 1899...... | 80,834 | 88,177 | 88,811 | 80,997 | . $\cdot$. | .... | 708 | 961 |
| 1840.... | 76,183 | 17,868 | 94,051 | 7,501 | ... | .... | 824 | 1,852 |
| Total... | \$1,563,979 | \$1,580,634 | 68,004,688 | \$548,037 | 64,8i2 | . $\cdot$. | 1,811 | 14,448 |
| Sept. 80, 1841...... | \$110.424 | \$24,864 | \$184,789 | \$8,791 | $\ldots$ | $\ldots$ | 859 | 1,9x5 |
| 1842.. | 70.768 | 27.819 | 93,585 | .... |  |  | 795 | 917 |
| $9 \mathrm{mos} .1843 . . . .$. | 74,657 | 6,610 | 81,187 | $\cdots$ | .... | .... | 465 | 1,714 |
| Jane 80, 1844...... | 100,850 | 11,975 | 112,834 | 6,063 | .... | .... | 481 | 2,567 |
| 1d15....... | 124,866 | 20,501 | 145,187 | 22.429 |  |  | 1,040 | 2,110 |
| 1846...... | 97,748 | 28,498 | 191,249 | 1,818 | $\ldots$ | .... | 686 | 1,898 |
| 1847...... | 188,959 | 4,948 | 908,895 | 475 | $\ldots$ | .... | 916 | 2,274 |
| 1848. | 164,661 | 17,252 | 181,918 | 19,617 | .... | ..... | 168 | 2,675 |
| 1849. | 85,188 185,874 | 20,706 | $\begin{array}{r}85,198 \\ \mathbf{1 8 6 , 5 8 0} \\ \hline\end{array}$ | 19,204 | .... | .... | 502 | 1,681 8,282 |
| Total. | (1,163,743 | -167,58d | \%1,821,809 | 678,418 |  |  | 5,817 |  |
|  |  |  |  |  |  |  |  |  |
| Jane 80, 1851...... | \$02,857 | \$19,540 | \$111,797 | 838,887 |  | ... | 199 | 2,056 |
| 1858...... | 83,009 | 22,643 | 115,852 | 16,811 | $\cdots$ | .... | 874 | 8,918 |
| 1853....... | 82,903 87,970 | 29,647 | 82,903 111,417 | 8,097 | ..... | .... | 882 714 | 2,174 1,894 |
| 1855....... | 70,996 | 8,675 | 79,671 | 1,701 | .... | ... | 1,218 | 1,027 |
| 1856...... | 195,960 | 81,755 | 227,715 | 1,180 | .... |  | 2,197 | 716 |

8ratryent kxilemtino tife Cuaracteb, Qifantities, and
Valufs of Domertio Phoducts of tif United Statrs,
tooether witit the total. Values of Foaeige ProdUCTS, IMPORTIO INTO DgNMARK, FAOM THE UNITEO States in 1854 and 1855.

| Dexripitio of merehnadise. | 1854. | 1354. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Valuee. | Quantites. |  | Voluec, |
| O1, spermaceti........ | 3485 | gills, | 1,920 | 88,616 |
| Whalebone. ........... | 1,416 | Tbs. | 8,089 | 1,218 |
| Candles, spermacetl. .- | " 191 |  | 858 | 104 |
| Manufactaros of wood. | 191 |  |  | 297 |
| Rosln and tarpentino. . | 8,815 | bbls. | 4,808 | 18,845 |
| Flotir.... . . . . . . . . . . . | 67 |  | .... | 80 |
| Blseult. |  | bbls. |  | 80 |
| Rlce..... | 74,974 | tlerces | 770 | 19,209 |
| Colton. | 8,846 | lbs. | 209,136 | 20,971 |
| Tobstece............... | 1,868 |  | .... | . ${ }^{\text {c }}$ |
| Splrits from molasses. | 988 |  | .... | .... |
| Bpirlts of turpentine... | 1,000 |  |  |  |
| Tobeceo, mannfactured | 100 | jbe. | 11.728 | 1,741 |
| 8hoes, Indlsalubber... | 904 | paira | 6,000 | 4,519 |
| Miscellancous. . . . . . . . | 604 |  | .... | 897 |
| Tot domes, products, | 887,870 |  | -••• | - 70,990 |
| Tot. forelgn products | 29,547 |  | . $\cdot$. | 8.675 |
| Telal Irale........ | 6111,417 |  | . $\cdot$. | 870,671 |

The Danish merchants no longer import tobacco from the countries of its production. In 1848 there were $2,032,3^{5}, 7 \mathrm{kilogrammes}$ imported, at a value of about $46^{\circ}, 46020$, principally from Holland, IJremen, and llami,urg, where alect cargoes can at all times be purchased. These markets are supplied chiefly from the United States. From Cuba Denmark imports annuaily about 12,250 kilogrammes-say $27,000 \mathrm{lha}$ of segara. There are no reatrictions of any kind on the sale of tobacco in Denmark; and under the molorate daty [ieaf or unmanufactured, 898 cents per $110 \frac{1}{f}$ lbas. manufactured, 815 per $110 t$ libs.], direct importations from the United States could not fall to le profitable.

In the article of cigars, at least, there is no reason why the Jnited States could not successfully compete with Cuba. The quantities of tobacco exported direct from the United States to Denmark during the four years specified, were as follows:


So long, however, as any duty is imposed in Denmark higher than that levied or similnr merchandise in Hambnrg and the other Hansostic towns, viz., from to to 1 per cent., they will continue, more especialiy Hamburg, to be the entrepots from which Denmark will have to draw her supplles of such colonial produce as her own islands in tho West Indies can not furnish. Cereal produce constltutes the leading staple of Danlsh exports, and forms the chief basis of her exchanges with foreign countrics. Indeed, Denmark may be considered an exclusively agricultural and maritime country. Such, at least, is the predomluant fcature of her national character. In 1851 tho entire exporis of the kingdom ainounted to upward of $\$ 7,500,000$. Of this sum, cereala appropriated $\$ 4,500$,000 . The comaterce of the kingde $n$ and the duchies for the year 1852 , imports and exports, reached the sum of $842,450,81090$; end the proportion of cereals In the export trade was aloout equal to that of the preceding year. During the nast 10 or 12 years, however, manufuctures have made considerable progress In tho kingdom and the duchies ; and, were the obstaclen removed, with whici this branch of national industry'
has to contend, the most oppresslve of which are royal and privileged monopolies, and heavy consumption dutles, that progress would be atill more ancouraging, and its influence more perceptibly felt in the angmented wealth and Increased commerclal prosperity of Denmark. The following brief aummary of the prese ent state of manufuctures in this kIngdom is condensed from recent Danish official publicatlons, and is given for the purpose of showing the extent to which Denmark must rely on the workshops of other natlons for the necessary supplies for her $2,800,000$ subjects.

Woolens. -The woolen manufactures of Denmark are coarse, and of a very Inferior quality. The chicf factories are those of Neumunster, In the duchy of Holstein. The proportien which these manufactures bear to the quantity annually consumed in the kingdom may be seen from the following statement :

Forelgn woolens conaumed. ..... 050.960 lbs . $145,000 \mathrm{lbs}$. Neumuoster woolens consainei 86,700 " 88,000 o
Besidea these woolen cloths, Denmark consumes large quantities of other manufactures of wool, particularly such as are auitable for women's apparel. These are all important. During the 2 years abore-named, thla class of Imports resched as high as $320,000 \mathrm{lbs}$. each year, ylelding a revenue to the government of nearly $\$ 10,000$.

Cottons,-The manufacture of cottona was introduced into Denmark about 40 years back, but its progress was slow and inconsiderable until within the past 10 years. At Copenhagen there were manufactured from 1835 to 1840 about 800,000 Danish ells (about $2 \cdot 26$ feet each) per annum from cotton $t$ wists supplied from English markets. Since 1840, the custom-house declarations Indicate a large augmentation in the quantity of spun cotton (twist) imported. In 1844 It reached as high as 911,000 Danish livres. The Danish live is a fraction over $1 \mathbf{~ d b}$. avoirdupols. The inunufacture of printed cottons has been attempted, but the experiment has but indifferently succeeded; indeed, its present continuance is.owing to high protective duties. The chief cotton manufacturea mas, therefore, be said to consist of old-fashioned, lieavy', coarse pleces, brought through the loom by a procesa at once elow and expensive. There is but one factory in the kingdom-that at Nyhavn-where modern improvementa are introduced. The success which has so far attended the operations at this factory may eventually create an extcuslve demand in Deninark for American cotton.

How far these factories fall short of the demands for home consumption may be gathered from the following figures:
Cotton Clathe baportto inyo Demmage raoren, faom

These importations were destined for the kingdour proper. The quantities imported for consumption In the duchies can not be ascertained; but their relative consumption of such manufactures considerably exceeds that of the kingdom proper.

Paper.-At Strandmollen and Silkberg there are several flourishing paper-mille; but the prices rule so high, that, despite the protective duties, paper figures largely in the inuports from fureign countries. In Is 50 there were lmported 217,563 kilogrammes, valued at \$58,139 88.

Sugar.-Sugar refineries have reached a high stato of prosperity In Denmark. Of upward of $12,000,000$ libe. of refined augar consumed in the klugdom, or exported, but little is imported from furelgn countries. Raw augars, however, constitute an important item in the importations of the country ; indeed, it is known, that if we except England, there in more augar consumed in Deminark, in proportion to its popinlation, than in any other country in the world. In 1850 raw
angar imported reached 18,186,283 kilogrammes, valned at $\$ 1,615,93165$. Of this, there were Imported direct from the United States only 77,258 lbs., valued at 88,192.
Purcelain.-There is a factory at Copenhagen, under government monopoly, for menufacturen of this description. It contributes but little, however, elther to the revenues of tho country or the wants of the people. The manufactures are of beautiful fabrication sad brilllant colore, but they sre not cousldered durable. Notwlthatanding a hlgh protective duty, the marketa of Denmark are anpplied with manufacturea of porceIain from France. In 1850 there were about $40,000 \mathrm{lhs}$. Imported.

Distilleries.-Thls is the moet flourialing branch of manufactures, both in the kingdom and In the duchies. Nearly all the spirits produced in theae establlshinents gre from grain. The excise duty, or impust, derived from the distillerles, forms a large itom In the reven"e of Dennark. In 185C they produced $21,262,678$ Danish cans (over 1 quart each) of spirituous liquors. During the sama year, 2,492 gallons of spirits from molassea were imported direct from the United States, at a value in the home market of $\$ 1,009$.

Brezeries.-The number In Denmark is not known, officlally; but they can not add much to the internal wealth of the kIngdom, as their annual consumption of malt does not exceed 700,000 lbs. In 1850 there were imported direct f:mm the United Statea 14,617 lbs. of hops, valued at $\mathbf{8} 85$.
Class-noorks,-There ari ', establishments in the kingdom, 4 in Schleswlg, and $1 \ln$ IIolstein. They are chiefly devoted to the manufacture of bottles, of which they produce, amnally, upwurd of $3,000,000$.

Ship-builiing.-The princlpal ship-yards in the king. dom are at Copenhsgen and Elsinore, and are chiety used in the repair of vessels. At Apenrado, a capaclous port opening Into the Little Belt, vessela of ths largest class are built. In $18 \pm 612$ vessels, and in 1847, 15 were built at this place. In the former year, 30 large class vessils, belonging to thla port, entered the harbors of Rio de Janeiro and Muntevideo.

Housuleries,-Prior to the separatlon of Norway, Denmark drew all her aupplies of Iron from that country. Since that event, the efforts to obtain sufficient supplies, even for maritime purpeses, have not been crowned with success. The geological formation of the country is not auch as to furnish mineruls ; hence, wi.h the exception of buidding materials, but little is left for the niner to develop. There are, however, founderles at Garlshytte, near Rendsburg, which employ upward of 250 hunds, and produce, annually, 200,000 lbs. of lron; one at Copenhagen, of abont equal annual produce, from which considerable quantities of anchors, chains, etc., sre obtained; and sevoral others, distributed throughout the duchies, at Altona, Kiel, Flenshurg, and Ottensen. Near Elainere there is a foundery for the manufacture of fire-arms, which produces, annuslly, about 2,000 muskets. Bewdes the manufacturing establiahmenta above enomerated, there arv in the kingdum 200 tan-yards, and 60 tan-milla, yielding annually, the latter $2,500,000 \mathrm{lbs}$. of ground tan, and the former $8,080,000$ tanned hides. In addition to these, there are 88 currying establishments, in which 164,000 lhs. of skins are annuuily prepured for hosiery and other uses. At Altona 600,000 Ibs. of candles are manufactured each yeur; 100,000 lbs, of refined wax are annually produced in the kingdom and duchies ; soap, oila, chemicals, gunpowder, etc., but the manufacture of these last-asmed articles is so inconsiderable as scarcely to affect importations from forelgn countries.

The only manufactures in Demmark which yield a supply equal, or nearly equal, to the home consumptlon, are those of refined sugars and tobacco. The furmer in fully adequate to meat the demands of the home market ; and the latter, augmented to some ex-
tent $b$ equally these counts produc 487 lbs gen 4: produc 000 seg factorie Hulstel supply. obtains why' he ond han porting It ri how mu for the has bee and oth duty on she is $n$ industry derived, from the Coxpara
tent by imports from the United States and Cuba, squally so. The quantitles annually lmportsd from these countries have already been glven. Altona counts 28 tobacce factories, omploying 488 hands, and producing, annually, $1,062,068 \mathrm{lba}$. of tobacco, 106 ,487 lbs of annff, and 12,000,000 segars. At Copenhagen 425 workmen are omployed, and the annual produce reaches $1,000,000 \mathrm{lbs}$. of tobacco, and 10,000 ,000 segars. Besldes these, thers are other tobacco fuctories, at Flen burg In Schleswig, and Kiel in Holstaln, which contributa largely toward the matlonal sapply. It has been already shown whence Denmark obtains har supplles of unmanufactured tobaeco, and why her manafacturers are forced to purchase it at second hand in the nelghboring entrepots, Instead of Importing direct from the countries of production.

It vill be easily seen, from the preceding summary, how much Denmark etill deperds on forelgn countries for the supply of her most esacitial wants. Since she has been induced to profit by the example of Englnnd, and other nelghboring countries, in abolishing the daty on raw cotton, her spindles have maltiplied, and she is now learning to depend on her own capital end industry for the apun cottons which ahe has haretofore derived, and whlch, to a great extent, she still derives, from the English spinning-fuctories. A aimilar modi-
ficatlon in her tariff in respect to nnmanufactured tobacco, and other raw material not grown on her eoil, wonld tond not only to augment the importations of such prodace from the producing ceuntries, hut would eminently contribute to attract investments of her own capitallsts, multiply her manufactured productlons, and enable her to become an experter of the same dascriptions of merchandise which hnve so long been an annual draln upon the wealth of the kingdom, and a heavy drawbuck upon the industry of ths people. A more sppesite illuatration of this trith can not be found then that which the general returns of trade, for any one year, will furnish. Her average annual imports are about $\$ 15,000,000$ in value, a large portion of which sum is absorbed by manufactured articles, or articles half-manufactured, such as col.'_n twists, etc. ; while her annual exports scarcaly cover half that sum (say $\boldsymbol{\oplus} 7,000,000$ ), two thirda of which are derivad from cereals and other agricultural producs. Untll the manufacturing Induatry of Denmark recelvea grester encuuragement from the government, the heavy disproportion between Imports and exports which the above figures exhibit, or, in other words, the rulnous balance of trade against Denmark, in her commercial relatlons with forelgn countries, must contlnue to exist.-Com. Rel. U. S.

Comparative Statement of tife Comeneace of the Umited Statrs with tie Danisi Wegt Indieg, expiaitivo the
Valor or Exports to anu Ixports faox eabic Countet, ant the Tonnabr of Amebican ano Danigu Vebsels abrivino from and depabtino to bacil Countay, duaine the ybabs debienated.

| Yxams. | COMMERCE. |  |  |  | NAVICATION. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | VAlus of Expoits. |  |  | Value of imparta, | amymican tonnage. |  | Fomkion tomsage. |  |
|  | Domestlo producs. | Forelgn .prodnea. | Total. |  | Entered tha Unlted Staina. | Cli-ared fram the U glaten. | Enlered the Uniked Staten. | Cleared from the U, 8tates. |
| 1845 | (883,508 | \$160,926 | 999.4,429 | \%60,809 | 28,812 | $2 \times, 920$ | 1,689 | 1,437 |
| 1846 | 959,452 | 168,464 | 1,125,916 | 752,614 | 29,018 | 27,964 | 969 | 1,875 |
| 1847 | 836,672 | 152,681 | 980,803 | 846,743 | 26,893 | 22,106 | 2,900 | 4,815 |
| 1848 | 876,969 | 76,874 | 903,849 | 685,733 | 19,781 | 25,579 | 1,890 | 4,065 |
| 1840 | 727, 197 | 64,149 | 781,846 | 889.141 | 12,466 | 25,397 | 8,514 | 6,426 |
| 1850 | 867.140 | 114,815 | 981,958 | 267.459 | 12,040 | 19,975 | 986 | 8.690 |
| 1851 | 902,687 | 125,602 | 1,023,289 | 235, 894 | 10,886 | 18.283 | 5,052 | 4,175 |
| 1852 | 810,489 | 120,097 | 981,186 | 191,745 | 14.292 | 20,409 | 9,062 | 6,381 |
| 1853 | 918,481 | 41,160 | 954,641 | 184,497 | 11,618 | 14,099 | 4,965 | 9,071 |
| 1854 | 928,924 | 84,026 | 902, 050 | 280,044 | 12,749 | 22,848 | 8,992 | 7,984 |
| 1855 | 843,111 | 45,358 | 888,404 | 225,308 | 12,145 | 24,247 | 0,441 | 5,120 |

Danish West India Colonies.-. Prior to the year 1833, the trade between the United Statea and St. Croix was not regulated by any law or act of the Danish government. The inhabitants were at first allowed, by the local authorities, a llmited quentity of sugar or melasses from thelr estates, to exchange for provisions. Afterward they ware permitted to purchase one hulf of their supples in this way; and, finally, the privilege was extended so as to ennble them to purchase from forelgners all they needel for the supplies of their plintatlons. St. Themas was at the same tlme epened as a free port for the trade of all countries, snd, in consequence, became the emporium of an exlensive commerce. The datles ujon inports and exports are moderate, not exceeding $1 t$ per cent. nd valorem; and port charges do not exceed 19 cents per ton. This does not npply to veasels from European ports, which pay 45 cents per ton. The distinction is, grobably, made to encourage the introduction of provisions, rather than the funcy artleles and liquors introduced from Europe. At St. Croix, however, vessels employed In the forelgn trade, even if they do not take a pilot on board, are compelied to pay half-pilotage. Tha full charge is \$1 jer foot of the veasel's draught, in and out. In $18: 12 \mathrm{~min}$ ordinance of the King of Denmark, duted nt Copenhagen, prescribed reguiations far forelgn navlgation and commerce with St. Crolx. This was saperseded by an ordlnance of June 30th, 1850, publlshed at St. Croix 15th of Aughist of the same year, and which la now in force.
Section I providen that all vessela, native or forelgn, both from nistional and forelgn ports, may 'rade to St. Crotr, and there diseliarge and load at the two ports of entry, Chrietisnated and Frederieksted. Section 2. Vessela belonging to the Daniah Weat India Ialanda, trading between Dummark and
the colontes, ahall enjoy, in future, the aame rights and privlleges as veasels beionging to the mother country. Section 0 . Every vessel la to pay tonnage ducs according to Its tonnage, both on entering and lcaving, at the folloming rates: If the veseel discharge or load to the emount of one half its tonnage, and above, per eommareial last 30 cents; if it discharge or load from one querter to one balf of its tonnage, per commer. clal laat 20 centa; if it dtacharge or load lean than ons quarter of tha tonnage, per oommercial last 10 cents. All vessels not diseharging or loading are exempt from tonnage dnea, aa well as vessela belonging to the Danlab Weat India Ielands, when trading between St. Crolx and the ather two tslends.

If tonnage dues are paid at one of the custom-houses of this island, or at St. Thomas, additional tonnage dues are to be puid only in case the vessel should again discharge or load, during the aamo voyage, gooda to such an amount that, together with the previous amount discharged or loaded, it shall reach a quantity on which a higher tonnage due is fixed. At Christiansted, vessels are further to pay one half the ameunt of tonuage dues, at the above rate, for keepling the larhor, with wharves and other appurtenauces, in repair. The 5th section provldes that, within 24 hours after the veasel has bcen lironglit to anchor, the whole cargo, whether intended to be discharged or not, shall bo entered ut the custom-homae, specitied, and in writing. If the whole carge is nnt to he discharged, the remainder shall, on the vessel's clearing out, be entered for export in the same manner. For dutlea on imports and exports, articlea free of duty, and regulations relative to the trile of St. Croix, reference is made to the tariff, in its proper place. (lurt II.) For the deacrip)tions of merchuadise entering into the trude between the United States and the Danish Weat India Iolands, seo Consular Returns, "St. Crolx, 1/hh June, 185t,", Part III. The vessels of the United States arriving
at Frederickated，St．Croix，from July the 1st to Do－ cember 31st，1853，were 8 lJrigs， 3 barkn， 2 schooners． The aggregato value of their in ward cargoes was \＄49，－ 902，and that of the outwand cargoes， 922,452 ．There arrived daring the same period at Christiansted， 7 brigs and $\Sigma$ schooners under the Ameriran flag．Value of cargoes not stated．

For notice of Danish Exploring Expeditiona Round the Worỉ，see Hunt＇s Mag．，xxlii．， 406 ；Edinburg Rev．，xliv．（article by Sir James Mackintosh）； IIvxr＇s Mag．，x．，pp．218， 303 ；Edinb．Rev．，vol．ii．，p． 287 （by Syiney Smitu）；Westminster Kev．，1．，p．75， viii．，p．469，xlviii．，p． 195 ；North Am．Rev．，xxvii．， 1． 285 （by Henay Wheaton）．

The Sound Dues．－Connected with the commercial relations which exist between the United States and Denmark，is the question of Sound dues，to which sub－ ject the Sth article of the treaty of 1821 relates．＇Tl is has long $b$＋a vexata $q$ vistio between the two ge rasi
 discuasion ；and is fully iaid before Cu aress in a cop musication from the Department of State，unde ${ }^{\text {d }}$ ： of May 30，1854．（Executive Docnment No 108， Honas of Representatives， 3 sd Congress，1st session．）

In 1848，the Daniah Minister of Forelign Affairs ad－ mitted to our representative near the court of Den－ mark＂that the principle upon which those daes are collected can not be defended；＂yet，tho final set－ tlement of the question has lieen put off，from time to time，under various pretexts，ulthough the govern－ ment of Denmark has been more than once officially notilied that＂the United States have thus long sub－ mitted to the exartion from deference and respeet for Dennark；but it can not．be expected，great as is our regard for that ancient unu sespectable power，that we shall kubuit to it much longer．＂
The 10th articie of the treaty of 182 h stipulates as follows：＂The present convention swall be in force for ten years from the date hereof；and further，until the end of one year after elther of the contracting frarties shall have given notsee to the other of its in－ tention to terminate the same ；each of the contracting parties reserving to itself the rifitt of giving such no－ tice to the other，at the end of the said term of ten years ；and it is heroby agreed between them，that，on the expiration of one year after such notice shall have been received by either，from the other party，this con－ vention，and all the provisions thercof，shall altogether cease and determine．＂

The notlee required by the foregoing article has heen given by the government of the United States， and it is believed that no new treaty will be cniered into with the government of Denmark，without a spe－ cial article stlpulating that vessels of the Uialted Staters， in pasaing and reprassing the Sound and ths Belta， shall he forever iximpt from the pey：ent of any duties，either upon thel；tonnuge or it $z$ cargoen． By virthe of a resolution of the Senate，in execative session，March 3，1855，Mr．${ }^{\text {＂Hedinge：was instructed }}$ by the President of the United States to communicate， and on the 14th April，1855，did communicate，to the Minister of Forcign Affairs，of Denmark，notice of the desire of the goverument of the United States to ter－ minate the treaty of 1826 ，in accordance with the 10 th article of the arme，and that at the expiration of $z_{2}$ months from the date of asid notice，anid treaty＂shsll cease and determine．＂In the communication to Eon－ gress from the Department of State，alrendy referred to，the histery of the Sound dues is thus given：
＂The date of the origin of the Sound tolls has nuver leen，ao far ad la known to thin government，authentic－ ally ascertained．They are jreaumed to be the relles of exactions by the Norman pirates of the dark ngem． Aa civilization advanced，they were enforced apoa the plea of protecting the lucrative lierring－tiahery at Schenen．The coasts of the three straits（\＄kaggerack， Cattegat，and the Sound）were owned by Denmark
until 1658 （with the exception of 30 yearc in the 14th century），when，by the treaty of peace of Rothschild， the east coast of the Great Belt，lincluding the fortifl－ cations of IIelsinburg，was transferred to Sweden，and is still owned by har．The right of aoverelguty upon which Demnark presumed，in consequence of her own－ ership on either side of this connecting link of ocean water，neressarily ceased after this occurrence，even if it had been before，In the slightest degree，in conform－ ity with national law．But，nevertheless，sh + persisted at Cronberg，the key to the Sound，in extottling large sums from every boticm that passed．l＇revions to the tresty wit is Sweden in the 14th century，the collec－ tion of the Sound tolls was resolutely and successfully resiate，？by the Hansentic League．Then，as now， they came in direct contlict with the interests of ali the eitien up．the Bultic；and that powerful confede－ racy，at that tuso in the meridian of its greatness，ok taln．re fage for its sidipa and car coes througis ther of the year lions，Denmor－i，perceivinis Haz sents League held her authority over the miter co．itempt，deemed it judicious to invite to engage in the trade of the Baltic；and caveutio：：v entered into with England，and sub－ sequ－ntly $w$－fin＂，lland，by which their vessels were pernitted to $u s$ s．rough the Sound by the payment of mere nominal toile．In 1515 ，it appeara that the latter country paid no tolls whatever，but stipalated to give a small sum instead thereof．This was，as in－ tended，a blow at the Hansestic cities；and in their rame Lubec demanded the imniediate exclusion of the Dutch from the Baltic－a demand，however，that was not complled with．In 1544 a treaty of conmerce was concluded between Christian III of Denmark and Charles V．，Regent of the Netherlands，by which the subjects of the high contracting parties were permitted to trade with each other，by paying the sound dues which had been levied＇slnce days of old．＇The Datch ut this period wero a great navigating and com－ mercial people，and the stipulations which they en－ tered into imparted dignity to the jurisdiction claimed hy the Danes over the Sound．The influence of the Ilanse towns began to declino about the beginning of the 15 th century，but they exercised a aupremacy over the North and Baltic seas until the middle of the 1Eth．From their unconsing quarrels with Denamark， relative to the Sound tolle，recourse was liad to nego－ thation；and，in 1560，＇the King of Denmark and his subjects on the one part，and the right honorable lian－ seatic cities and the inerchants thereof on the other part，＇concluded the treaty of the Odensee．In 1663， Denmark was involved in a war with Sweden，and she made this circomstance a pretext to increase the Sound toils against the Hanse towre，notwithatanding her covenant to the contrary threa years before，which was still in force；but the Hanse towns，in their declining power，were compelled to submit to this violation of her obligation．In 1570 a treaky was contracted is－ tween Dennark snd Sweden，at Stettin，by which it was agreed that the latter nation should be exeupted from the Sunnd dues；but this was evaded frem time to time by Denmark，in levying the toll upon the wines intended for Queen Christinas＇s own private use， and by the prohitition of ammanitien when Sweden was in absolute waut of it for prosecutiag the thirty years＇war．At length Demmark becane mo intolerant as to search Swedish Fessens，unnecessurily detain them，and，in some instances，convey thent to Copert－ hagen．Tho Netherlands experienced but little tetter treatment．The Stadtholder complained，and he was put off with promisea．In 1640，the year after the dis－ solution of the Haneeatic I．eagne，the United Nether－ lands，which had sceured their independence，formed a cmpact with Sweilen for the malntenance of their respective rights ；and in 1615 a new truaty was con－ cluded between Denmark ard Sweden，and on the same day（August 13）one hetween Denuark and the

Mcívrlan then：，the manded f nations． the Sound collected at the mou land．Fr under con nient perio ests of De bestoral e been besto limit as to a treaty w by whi as大新號 vious to 17 her treatie the ierms time she favored n resteration by Demı？ treaty of $\mathbf{F}$ of Sound ed cargoes of self the rig prevent im These con treatics $h$ since）con century，$S$ seem tio ha states with al now tr sions prohi st Elsinore
＂This found whe was quite Danisti So for the dell tiemient of sbrogated． sent at Vi representa account of destructios teaderness question w intination at Copenhs to Delima nity for $t$ mitting th goverune！ ingst，the way，mun spect tho mote from day on wh of surrend ocean as claims，an welf the fi glabe．

The us tuate is their opera ever us， 1 accorting Departme！ valurem in twist，of $50,000,000$ per cent．

Mei. arlands. In the negotiations which soncluded thent, the I utch and Swediah plenipotentiarles demanded fres navigation through the Sound for all nations. The Danish plenipotentiaries contended that the Sound was a 'Daniah cunal,' and that the tolls collected were of a simila character to those exactol at the mouths of certain ivers In Germany and Holland. France, acting as ivedator, held the queption under consideration, to
lecided at a mor, convenient period; and, subsegris if she sustained the interests of Denmark, for wha: ahe was rewariled by the bestowal of the iane wiv intages to ber flec us had been bestowed upon the vitherlands, and wituout any limit as to duration. in: 1654 Gres ${ }^{\text {' }}$ Irltain concluded a treaty with Donmar'., .loh was .enewed in 1670, by whicall the adva: gee were to be enjoyell by her whin I d beer conforied upon the Nethorlands. Pre vious to 1320 (from 1647), Denmarb fixed this (oll, us ber treaties with other countries, in conformity to the ierms granted to the Netherlands; but after that time she pluced them upon the footing of 'the inost favored nations.' Sweden, in consideration of the restoration of her provinces which had been conquered by Demiork, stipulated to pay, in future, by the tresty of Frederieksburg of June 3, 1720, the same rate of Sound dues that were collected upen the ships and cargoes of the moat favored nations, reserving to herself the right to establish a commissary nt Fisinore, to prevent impositions upon her navigation and commerce. These conditions and obligations (although several treaties have beon male between the two nations gince) continue to be observed. During the 18th century, Sweden having been quieted, the Bound tolls seems to have been submitted to by other powers and states without epposition. Denmark concluded aevesal aew treaties, but none of them contained provisions prohibitory of "'e exaction of the dues demanded at Elsinore.
"This was the condition in whieh Denmark was found when the Congress of Vienna assembled. It was quite naturally expected, at that time, that the Danisil Sound tolls would pregent a legitimate subject for the deliborations of that body, and that, in the settiement of the nffalrs of Europe, they would be entirely abrogated. But lirederic VI. of Denmark was present at Vienna, and the object of compassion with the representatives of the sovereign most interested, on account of the bombardment of Copenhagen and the destruction of his fleet a few years before; und out of tenderuess to him, as it is reusonable to suppose, this question was permitted to remain in statu quo. Vague intinations, it is stated, have occasionally been given at Copeohagen, that the Sound tolls were guarantied to Denmark by the Congress of Vieuna, as an indemnity for the surronder of Norway to Sweden. Admitting the trath of this, and that overy European government was irrevocably bound by such proceedings, the United States were not a party to it in any way, nud no obligation is imposed upon them to respert the arrangement. Nothing has been more remote from the purpose of our government, from the day on which it was ushered into existence, than that of surrendering to any power its right of using the ocean a\& the highway of commerce. This right it cluims, und whil use all proper means to sucure to itself the full onjoyment of it in every quarter of the giobe.
"The fact is nutorious, that the Sound duos affect us more sensibly than any Juropean nation. Under their operation, (ireat Britain lias a decided advantage over us, as concors: our chlof staple. Ruw cotton, according to the most relialie statements before the Department, is charged with about three per cent. ad valurem in its transit through the Sound; whilo cutton twist, of which Great Britain ships from $30,000,000$ to $60,0(0), 000 \mathrm{lbs}$. to purts of tho llaitice, pays only one per cent. ad valoren! If we quietly submit to such a
tax upon the raw material of our helds, Great Britaln, as a matter of profit, cun well afford to consent to the comparatively inoderate one upon the article manufactured from it, because she can not fail to percoive that, were the dues abolished, we should as certuinly guin markets for the raw product, as she should lose them for the fanufactures of her spinnerigs. For the five $\boldsymbol{y}^{\circ}$ fars ter rlanaing the 31st, Necemiler, 1848, 264 American res."is entered the Batic, upon the tonnage and eargoss of which the Sound toll3 amounted to 570,473 Danish bank rixdollara. Sinee then, no tabular statements have been recelved ; our vesaels passing Elsinore, nor the sums an usily paid. Tho Sound toll levied upon our chief products, which find a market in the countries lordt ing upon the Baltic and beyond them, according to the most reliable information on the subject, is as follows:

"Consequently a cargo of 2,000 bules of cotton pays a tax o: about $\$ 1,720$; a curgo of 800 hhds . of tobacco, $\$ 1,400$; a cargo of 1,000 tiorces of rice, $\$ 700$. In addition to the toll on tonnage, tho cost of pilotage for a ship drawing 18 feet of water, from Dragon to Elsinore, varies, according to the season of the yesr, from $\$ 20$ to $\$ 30.1$

The following statement exkibits the number of Ameriean vessels that passed the Sound at Elainore, to and from the Baltle Sea, from 1837 to 1843, inclugive:


Statemeyt oy the Numoer of Vegeele of all Nationa that pabseo the Sound at Elesinobe, to and yhon tile Baltio Sea, from is8s to 1348 , ineldive.

| Nationality. | 1838. | 1639. | 1840. | 1841. | 1848. | 1843. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Americas. | $1: 3$ | 114 | 148 | 122 | 118 | 158 |
| Belgian. | 24 | 34 | 20 | 11 | 6 | 6 |
| Bremen.,... | 45 | 65 | 88 | 65 | 56 | 6 |
| Danlsh. | 1,019 | 1,189 | 1,045 | 1,082 | 1,070 | 1,410 |
| Dute | 955 | 1,192 | 950 | 970 | 917 | 1,236 |
| Engilish | 4,009 | 4,498 | 8,972 | 8,777 | 8,519 | 3,515 |
| French | 263 | 240 | 239 | 218 | 238 | 179 |
| Ifamburg. | 29 | 18 | 23 | 20 | 14 | 27 |
| tranover | 528 | 819 | 768 | 523 | 765 | 837 |
| Lubec | 107 | 108 | 96 | 88 | T 7 | 76 |
| Mecklenburg. | 842 | 970 | 958 | 958 | 826 | 810 |
| Neapolitan... | 23 | 44 | 43 | 15 | 61 | 67 |
| Norweglan... | 1,497 | 1,691 | 2,052 | 1,0é6 | 1,848 | 1,635 |
| Oidenburg. | 59 | 125 | 83 | 182 | 142 | 189 |
| Pertnguese. |  | 8 | 4 | 8 | 2 | 2 |
| Prusslan. | 2,491 | 3,045 | 2,990 | 2,850 | 2,812 | 2,582 |
| Russiath. | 750 | 837 | 820 | 831 | 757 | 738 |
| Spantsh. | 17 | 20 | 18 | 14 | 4 | 8 |
| Swedts | 1,152 | 1,252 | 1,88! | 1,182 | 1,278 | 1,451 |
| Total. | 13,983 | 18,214 | 15,702 | 14,780 | 12,994 | 14,980 |

Statempat of Round Dues paid on Goode binpred by Aneaican Vrarkls to and fhon the Baltio Ska, yRom 1887 to 1843 inclublve.

| Year. | To the Bualtio Som. | N scona satirek From the Aaltie 15 Amor. porta. | From the Ealtic to foreign ports. | $\begin{aligned} & \text { Toin } \\ & \text { Specte } \\ & \text { Dillars. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1887 | 75,327 | 14,230 | 666 | 90,224 |
| 1898 | 109,149 | 17,498 | 1,526 | 129,165 |
| 1839 | 70,762 | 11,249 | 119 | 84,119 |
| 1840 | 04,110 | 18,294 | 1,010 | 118,414 |
| 18.41 | 72,325 | 15,987 | 2,218 | 90,014 |
| 1848 | 57,254 | 8,860 | 1,030 | 67,144 |
| 1843 | 71,762 | 7,895 | 1,916 | 81,518 |

The old specio dallar of Denmark is valued in the United States at \$1.05. (United States' Com. Dig., 180fi-7, p. 300, issued under the ordors of Secretary Marey, of the State Department.)

We lind, now and then, full official returns published in the different commercial papers of Europe. From some of these, und from other reliable aources, wo have compited the following tabular stutements which will serve to show tho amounts of rovenue dorived by Denmark from the Sound dues, as well as the
proportion aselgued to each of the leading commercial countries in the oame:

| 1880........ 1,074,000 | 1888. | 1,14,64 |
| :---: | :---: | :---: |
| 1881........ 1,029,000 | 1899. | 1,188,889 |
| 1882........ 1,149,000 | 1840. | 1,194,806 |
| 1838....... $1,086,000$ | 1841. | 1,129,000 |
| 1884........ 983,000 | 1842........ | 1,028,952 |
|  | 1848......... | 1,169,600 |
| 1188........ 1,060,800 | 1844......... | 1,186,14\% |
| 1817........ . 1,074,708 | 1815......... | 1,208,628 |

Aggregate.
Annnal average
….........
17,400,342 $1,105,646$ 1,175,478
The following table, exhlbiting the number of reszela that passod the Sound from 1750 to 1846, is derived from a statistical work recently published in France:

| Yeare. | Veseels, | Yeare, | Vessels. |
| :---: | :---: | :---: | :---: |
| 1780...... | 4,600 | 1813. | 1,426 |
| 1768..... | 8,025 | 1814...... | 8,186 |
| 1770...... | 7.786 | 1815...... | 8.816 |
| 1777...... | 0,068 | 1816...... | 8,871 |
| 1778...... | 8,476 | 1817...... | 18,149 |
| 1719...... | 8,974 | 1818....... | 12,566 |
| 1780...... | 8,201 | 1819..... | 10,667 |
| 1781...... | 8.281 | 1830...... | 10,484 |
| 1789...... | 8,876 | 1821...... | 9,188 |
| 1788...... | 11,828 | 1829....... | 8,486 |
| 1784..... | 10,867 | 1823...... | 9,655 |
| 1780...... | 10,183 | 1824..... | 10,494 |
| 1786...... | 9,060 | 1525...... | 18,149 |
| 1787...... | 9,750 | 1826....... | 11,068 |
| 1788...... | 0,216 | 1887..... | 12,099 |
| 1780...... | 8,823 | 1498...... | 18,263 |
| 1790...... | 0,782 | 1829...... | 18,566 |
| 1791...... | 10,453 | 1880...... | 18.210 |
| 1792...... | 19,114 | 1881...... | 12,912 |
| 1798....... | 9.926 | 1832..... | 12,202 |
| 1794...... | 10,611 | 1838..... | 10,985 |
| 1798...... | 12,118 | 1884...... | 10,605 |
| 1797...... | 9,623 | 1835...... | 10,255 |
| 1799.. | T,849 | 1836...... | 11,925 |
| 1800...... | 9,048 | 1837..... | 18,100 |
| 1801...... | $8,9 \times 3$ | 1684...... | 18,959 |
| 1805.... | 11,687 | 1899...... | 16,175 |
| 1808...... | 7,140 | 1840...... | 18,668 |
| 180T...... | 6,240 | 1841...... | 14,703 |
| 1808.. | 121 | 1842...... | 18.952 |
| 1819...... | 879 | 1844..... | 14,940 |
| 1810..... | 2,808 | 1844..... | 17,898 |
| 1811...... | 2,898 | 1345..... | 15,915 |
| 1818....... | 2,4:5 | 1846...... | 18,710 |

If we divide the preceding table into periods, we have the following annual average number of veasels for each period:

|  | Aver:-za manual number. |  | Avorage annoal вมтnher. |
| :---: | :---: | :---: | :---: |
| 1750. | 4.500 | 1811-1820. | . 7,943 |
| 1706-1760. | 6.380 | 1821-1880. | 11,002 |
| 177\%-1730. | 8,525 | 1501-154). | 12,781 |
| 1781-1700. | 9.545 | 141-1943. | 14.88s |
| 1791-1900. | 10,204 | 1844-1846. | - 17,883 |
| 1901-1810. | 6,287 |  |  |
| From various authorities, the number of vessela that |  |  |  |


| Tears. | From tha North 8ea. | From thin Baltia Sin. | Total. |
| :---: | :---: | :---: | :---: |
| 1841 | 11,675 | 10,812 | 81.487 |
| 1849 | 8,525 | 8.214 | 16,78) |
| 1849 | 10,0423 | 8.696 | 18,787 |
| 1830 | 9,501 | 9,408 | 19,003 |
| 1851 | [1,983 | 9,976 | 19,901 |
| 1858 | 8,8197 | 8,786 | 17,54'5 |
| 185\% | 10,6012 | 10,650 | 21,811 |
| Annual average nambur fiom 1947 to 16\%H. 19,284 |  |  |  |

The official reports relative to the navigation of the Sound, in possessiou of the Department of State, do not come down to a later pierion than 1853. The annual returns of the forelgin enmmerce of the lifanse towns for 18.4, compared with the two preceding years, are, however, at hand; and from theso it appoars that the number of lianse vessels which passed tie Sound was as follows:


The late war, of which tho Maltle was one of the chief theatres, will explain the diminution in 1834.
in the years apecifled, was as follows:


Total, 471,854 franes, equal to $\$ 59,55780$ an annunal average of 78500 frances, or $\$ 14,02821$.
If we are correctly lnformed as to the assessment and the bases on which Denmark proposes to raise her revenues under the scheme of capitalization, it would seem quite evilent that ohe has at least tuken care of "her own Interests" as Implicated in thls question; and our government, in rejectlng the compromise thus tendered, accompanied as it was with the entanglements of the "bulance of power In Europe," under whore shield Denmark wishea to place these exactions, pursuod the true pollicy of the country by avoiding any such "dangerous enmplicity;" at Mr. Marcy terins it. The offer of the United States to ehare liberally in compensating Denmark for her expenditures at Elssinore in tho intereats of commerce ought, as it seems to us, to satisfy any reasonable demand which she can urge upon our own country or the countries of Europe; and, if all combine to pay a "fair equivalent" for the advantages derived by their commerce from the out. laye of Denmark, it sitould be accopted by her without further delay or protest, and, inatead of making the intiquity of her exaction tine plea for its continuance, rhould rathers acknowledge tho equity of those governments whleh are willing to meet all her just claims in the future without aeeking any indemnity for the past.
The folluwing table exhiblts the number of vessels of all natlona thut have passed the Danish Sound during the years 1854-55:

| Nation. | $\begin{aligned} & \text { Prom the } \\ & \text { Narth } \\ & \text { Sea. } \end{aligned}$ | rom the Bultic. | Total. $1886 .$ | Total. 1ass. | $\begin{gathered} \text { lacr'se. } \\ \text { 188s. } \end{gathered}$ | $\begin{aligned} & \text { Decer'm. } \\ & 1885 . \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Trussla.: | 1,410 | 1,449 | 2,564 | 8,093 |  | 231 |
| Dentark. | $90(6)$ | 721 | 1,621 | 1,498 |  | 277 |
| Norway. .... | 1,426 | 1,414 | 2,440 | 8.828 | .... | 488 |
| Swedon. | 1,263 | 1,265 | 2,468 | 2,583 |  | 120 |
| England | 1,919 | 1,109 | 2,415 | 2,032 | 888 |  |
| Russla...... |  | T |  | 166 | .... | 159 |
| Meeklenberg | 858 | 879 | 797 | 878 | $\cdots$ | 186 |
| Labee. | 84 | 86 | 70 | 111 | . | 41 |
| Llamburg. | 16 | 2 d | 48 | 61 |  | 19 |
| Bremen. | 16 | 18 | 29 | 11 | 18 |  |
| llanover | 841 | 854 | 095 | 497 | 193 |  |
| trolland. | 798 | 705 | 1,893 | 1,460 | 138 | $\ldots$ |
| Olidenburg | 74 | 76 | 150 | 19 | 11 | .... |
| France. | 62 | 63 | 12 | 81 | 44 | $\cdots$ |
| Belgtu | 5 | 1 | 11 | 11 |  | ... |
| Italy... | 29 | 24 | 58 | 23 | 88 | $\ldots$ |
| Bpata. |  | $\ldots$ | .... |  | .... |  |
| Pustri | 8 | ${ }^{\cdots} \cdot{ }_{8}$ | 16 | 12 | i | 1 |
| Prera....... |  |  |  |  |  |  |
| United St:tes <br> S. Amorica.. | 23 | 86 | 54 | 46 | 8 |  |
|  | - 1 | - 1 | 2 | $\ldots$ | 2 | ... |
|  | 7,059 | 7,798 | 15,787 | 16,868 |  | 1,472 |
|  | acreas |  |  |  |  | 391 |
|  | Decrea |  | e In 1 | ., |  | $5 \times 1$ |

It will be seen that the total number of vessels that passed the Sound $\ln 1853$ exceeds that of the preceeding year by 3,967 vessels. Of the whole number, 18,16i were ldden, and 3,346 were in ballast. The conntrics which contributed most to thls augmentation aro Prussla, Great Britaln, Denamark, Mecklenburg, sod Russia. The following table will Ahow tho nation, and the numier nf wasels from each natlon, in 1.853:

| Nathinc. | No. of vemaria. | Natlonn. | Vo. of reasels. |
| :---: | :---: | :---: | :---: |
| England. . . . . | 4,069 | Mecklenburg. | 1,067 |
| Frussia....... | 8,472 | lisnover.... | 743 |
| Norway...... | 8,411 | France..... | 848 |
| Jenmiark, .... | 2,094 | Oldenburg.... | 191 |
| Aweden...... | 1,996 | Lubeo ...... | 158 |
| liolland....... | 1.574 1,202 | United States. | 96 |

For a akctch of the Danish Exploring Expedition around the World, see Munt's Merchents' Mayazine, vol. xxiii., p. 406 ; viii., 469 ; Westm. Rer. 1., 75, xlviii., 195; N. A. Rev., xxvil., 285 (by H. Wheatox.)
 SHARA ABSLONAD TO EACH, AND THE PRORORTION OF HACM PME OENTUM ON 'GHE WHOLE, FROM 1850 to 1854, toth inolusitm.

| Years, | England. | Sorwen and | Denouark. | Russia, | Pramala. | Meeklonbura | Ifaneo Townd | United States. | Frunce. | Hfolland. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1850........ | 5,489 | 4,583 | 1,2468 | 1,188 | 8,801 | 1,081 | 175 | 105 | 44 | 1,906 |
| 1\$5t........ | 4.889 | 6,177 | 1,640 | 1,023 | 2,650 | 1,048 | 285 | 119 | 992 | 2,081 |
| 14\% $2 . . . .$. | 8,909 | 8,189 | 1,464 | gak | 8.819 | 771 | 904 | 78 | 280 | 1, eli |
|  | 4,688 | 8,407 | 2,094 | 1,208 | 8,472 | 1,087 | 286 | 96 | 848 | 1,8: |
| 1854.. .... | 2,048 | 6,841 | 1,929 | 178 | 8,108 | 858 | 181 | 48 | 87 | 1,898 |
| Aggregate.* | 20,926 | 26,030 | 8,298 | 4,087 | 18,985 | 4,780 | 1,051 | 441 | 1,046 | 8,900 |
| Average... | 4,185 | 6,218 | 1,009 | 007 | 2.787 | 958 | 210 | 88 | 200 | 1,780 |
| Proportion per cent. | 28.08 | 280 | 98 | 6 | 18.5 | 688 | 18 | 0.5 | 12 | $0 \cdot 9$ |

Regulations observed on passing through the Sound into the Balic.-If the vessel be laden with cotton for Rnssia, the eaptaln must ie provided with a certlicate, properly atteated by the Danish consul at the port of departure, verifying that the eotton does not come from Egypt or the Levant. Every vessel not thus protected will be aubject to quarantine, and may have Ler entire eargo put ashoro.
Every eaptain must be able to show legal ovidence of the nationality of his vessel; must be provided with a munifest and a clesranee from the custon-house offcers at hls last port. Should the vesael come from France, Iloiland, Belgium, Portugal, or liamburg, the captain must exhibit his pansport. If from Ilolland or Belginm, destined for Prussis, the certifiente of the Prussian consul at the port of departure will suffice.
If the vessel eomen from the United States, laden with cotton, the euptain must be provided rith a manffest of his esrgo, custom-honse elearance, register of nutionality, and the certificate of the Danish consul attesting that the cotton was actually grown in the Cinited States; or If it eome from Irazil or any other country, thet it was first landed at a port in the Uaited States, and not transhipped from a foreign vessel.
If the veasel comes from Cuba, the captain must be provided with a register attesting the nationality of his vessel, a manifest, passport, and custom-house receipt; and it would be advisable for him to have, also, a bill of health, attested by tho Danish consul at the port of departure.
The papers and certifieates referred to in the preceding remarks must be in duplicate ; and, when the ressel is destived for Russia, sho'td there be any interlinestions, or marginal notes, or adilenda, the captain's signature must be affixed to each, so as to give it autheoticity:-Com. Rel. U. S.

Since the preceding article was in type, a convention was held in referenee to thefunding of the Sound dues on the part of the several governments interosted. For the results of these deliberations, the reader is referred to srtlele entitled "Sound Dues."
Deposit. This term is applien to the sum of money which a man might deposit with the sheriff after he was arrested, instead of putting in speeial bail. The amount of the deposit was the sum sworn to on the back of the writ. (Blacketone's Comm.) Deposit is also used for any sum of money which a man puts in the hands of another as a kind of seeurity for the fullilioent of come agreenment, or as a part payment in advsnee. The Romsa word, depositum, slgnified any thing which a man put in the hainds of another to keep till it was asked back, without any thing being given to the depositarius for his trouble. The depositor was called deponens or depositor. The depositary was bound to take eare of the thing, and to make good any damage that happened to it through fraudulent dosign (dolus) or gross aegleet (lath crilpa). The depositor could recover the thing by action; but the depositary was entitled to satiafaction for any loss that he sustained in the matter of the deposit by any default (culpa) on the part of the depositor. The depositary eculd muke no use of the deposit, exeept with the permission of the depositor, elther given in express words, or arising from Implication. If a man refueed to return a deposit, and was condemned in an aetion of
deposit (actio depositi), infumy (infamia) was a consequence of the condemnation.-DiG.; 16, tit. 8; Ju venal, Sat. xili., 60.

Depot (Fr.), is used to designate a place where all sorts of military stores and provisions are kept, or where recrulta are recelved and trained. It is alao applied to that portlon of a regiment which remaina at home when the rest is ordered upon forelgn service. And is used generally to denote any place intended as a place of doposit for merchandise; as the terminus of a rallroad. The term station is more proper for places Intended merely for passenger accommodation.
Depression of the Eorizon, or Dip of the Horizon, in Nautleal Astronomy, denotes tho depression or dipping of the visible horizon before the true horizontal plane, and which arises from the elreumstance that the eye of the observer is not placed on the same level with the surface of the sea, but at some distance abovo it. Hence in observing the altitude of the sun or a atar above the horizon with the eextant, the altitude appears greater then 't really' is. let $a=$ the radius of the earth, and $x=$ the height of the eye above the horizon; then the cosine of the angle of depression $\frac{a}{a+x}$. At the height of 10 feot this amounts to about three minutes of a degree.

Derrick, in nautical language, used in a variety of meanings, but chiefly for a tackle used at the outer quarters of a mizzen-yurd, consisting of a double and single block eonneeted by a fall.
Desert (Lat. desertum, partielple of desero, to desert, to leave), a lerge traet of barren conntry; a waste,-E. 13. A term generally used to designate an uninhablted place or solitude; In which sense, as has been judiciously remarked, it is equally applicable to the fertile plains watered by the Maranon, and the sandy wastes of Lybla, but applied more partleularly to tho vast sandy nnd stony plains of Afriea and Asla. In every region of the globe plains are to be found of grester or less extent, whieh, though marked by atrong features of resemblanee in their grand outlines, exhibit with the different latitudes in which they are plaeed a corresponding variety of eharacter, and aecordingly the distinguishing peeuliarities of each aro known by different appellations. Thus we have the steppes of Europe, the deserts of Asia and Afriea, the savannahs of tho Mississipni and Missenri, and the pampas and llanos of Sonth Ameriea.

The most striking feuture of Africa consists of Its immense deserts, which have in all ages presented to the speeulations of the geographer objects highiy worthy of attention. Of these the ehlef is the Sahara, or the Desert, so called by way of eminence. This prodiglous zone of sand stretehes, with few interruntions, from the shores of the Atlantic to the confines of Egypt, and comprehunds in its length and breadth a supertieies of aiout $2,200,000$ square miles. The sand raised by tho burning wind ealled the simoom is frequently in a state of motion, and as it sweeps along in its career $0^{c}$ desolation bears a strong resemblance to the waves of a tempestuous sen. Thls lmmense expanse, however, is by no means a uniform suyface of loose sand. In many parts the dreary wastes is broken by low hills of naked sand-stone, or by tracts of arid
clay, and occasionally it is enlivened by verdant islea or oases, which serve as resting-jlacen for the caravans that traverse these dismal regions. But for theae oases, Indeed, the Bahara would be wholly impasabile. It presents, saya Malte Brun, no traces of a beaten path, and the caravans that traverse it, directing their way by the polar atar, deseribe a tortuous road in order to proft by the oases, which are represented as brilliant with vegetation, but which probably owe a great part of their reputation to the contrast they form wlth the absolnte barrenness of the desert.

The great deserts of Africa are only separated from those of Asia by the valley of the river Nile, and the Bed Sea. But upon this subject we can not refrain from transferring to onr collunns the remarks of Dr. Tralll, who has sketched with a masterly hand the grand outlines of the Asiatic deserts. "Soon after quitting the Nile, the traveler by the route of Suez encounters sand, which is continued into the centre of Arabla, where it forms the desert of Nedsjed, oxtendIng to the valley of the Euplirates. The sandy zona then inclinea northward, enters Peraia, and forms the saline deserta of Adjemi, Kerman, and Mekran; it is turned north-east by the valiey of the Indus, pesses through Caubul and Little Bukharia, till it joins the vast deserts of Cobi and Shamoo, which occupy so large a portion of Central Asia between the Altaian and Mustag chains, and reach to the confines of China. The sandy zone, thus traced throughout the breadth of the ancient continent from western Africa to the $120^{\circ}$ of east longitudo, has been computed to cover an area of $6,500,000$ square miles ; but the Ariatic portion of this tract includes many chains of mountains and fertile valleys. It is characterizod by the occurrence of arid wastes of sand or clay, sometimes with saline incrustations on the surface, and is remarkably deficient in considerable rlvers: except the Nile, the Euphrater, the Indus, and the Oxus, there are no large rivers in a region which embraces almost a fourth part of both Africa and Asia. This portion of Central Asin forms a series of elevated plains, 6,000 miles in length from east to west. Some of these plains, ssy, limmboldt, are covered with herbage; others produce only evergreen saliferous plants, with fleshy and jointed stems; but a great number gitter from afar with a saline efflorescence that cryatallizes in the semblance of lichens, and covers the clayey soil with scattered patches like new-fallen now." Under the head Minaor will be found some account of the so-called singular optical illusion 80 often seen in the desert.
In Scripture, the term desert beurs a wholly different interpretation from that usually attached to it in profane writings. It has been fully shown by lleiand (Paleat. 1. i. p. 375) that the Hebrew -270 (midbur), the $\ell \rho \eta \mu \mathrm{o}$ of the Greeks, and the desertum or solitudo of the Latins, bear no analogy to each other; the tirat being appropriated almost exclusively to those thiniypeopled districts of the IJoly Land which yielded pasturage for cattle, and were remarkable at onco for their beauty and the luxuriance of their vergetation.
"The arid plains and deserts, as well as high mountain ranges, have, it may weli be supposed, an influeace upon the movements of the great aerial ocean, an shoals and other obstructions have upon the channels of circulation in the ses. The deserts of Asia, for instance, produce a disturbance upon the grand system of atmospherical circulation, which, in summer and autumn, is felt in Europe, in Liberia, and away out upon the Indian Ocean, as far to the south as the equinoctial line. There is an indraught from all these regions towad these deecrts. These indraughta are known as monsoons at sea; on the land, as the prevailing winds of the seamon.
"We perccive how a desert land spreads its intluonce through the distance upon the winds. The first effects of heating up the plains are necessarily felt by the air nearest at hand, and by that further off at a

Jater poried, no that the sonth-west monsoon influence is in this part of the ocean propagated from the iand out upon the aea at the rate before atated. Of course, the vaat plaina of Asis are not brought up to monsoon heat per saltem, or in a day. They require time both to be heated up to this point and to be cooled down again. The monscon season may be always known by referring to the causes which produce these wind. Thus, by rocollecting where the thirsty and overheated plains are which cause thu moneoons, we know at ance that these winda are rushing with greatest force toward these plains at the time that it is the hottest season of the year upon them. The influences of these heated plains upon the winda at aea la felt for a thousand milen or more. Thus, though the deeert of Cobi and the sunburned plains of Asia are, for the most part, north of tatitude $30^{\circ}$, their influence in making monsoons is felt south of the equator. So, too, with the great desert of Sahara and the African monsoons of the Atlantic; also, with the Salt Lake country and the Mexican monsoons on one side, and those of Central America in the Pacific on the other. The influences of the deserts of Arabin upon the winds is felt in Austria and other parts of Furope, as the observations of Firici, Lamont, and others show."-Mavry'a Physical Geog. of the Sea.
Desertion by a Beaman. "Desertion from the ship without just cause, and animo nors revertendi, or the justifluble discharge of a seaman by the master for bad conduct, will work a forfeiture of the wages previously earned; and this ia a rule of justice and of jolicy which generally pervades the ordinances of the maritime natious. By the English statute iaw, and by the act of Congresa, deaertion is acoompanied with a forfeiture of all the wages that are due, and an absence of forty-eight hours without leave, is made conclusive evidence of desertion; and whatever nnjustitiahie conduct will warrant the act of the master in discharging a seaman during the voyage, will equally deprive the seaman of his wages. But the farfeiture is asved if the seaman repents, makes compensatica or offer of amenda, and is restored to his duty. l'oblic policy and private justice here move together, and the maritime ordinancea unite in this conclusion. The mater has power to remit a forfeiture, and the penaity of forfeiture is not applied to slight fauits, either of meglect or dirobedience. Thore muat be either an habitual negiect, or disobedience, or drunkenness, or else a single act of gross dishonesty, or soune other act of a heinous and nggravated nature, to justify the dis. charging a seaman in a foreign port, or the forfeiture of wages; nor will the admiralty courta, except in cases of great atrocity, visit the offenses of a seaman with the cuntulated load of forf .ure of wages and compenation in damages. They on $p p^{p^{2}}$ the forfeiture of the wages antecedently earnel, and in the application of the forfeiture, the advanced wages are made a charge on the forfeited wages, but the hospital money is apportioned ratably on the wages for the whole voyage. In these regulations the moderation of the courts, and the solicitude which the peculiar condition and character of seamen excite, are equally manifest. So, if the seaman quits the ship involuntarily, or is driven ashore from necessity, from want of provisions, or by reason of cruel usage and for personal asfety, the wages are not forfeited, and he will be entitled to receive them in full to the prosperaus termination of the vayage. On the other hand, it is the duty of the seamen to abide by the vessel an long as reasonable hoje remains; and if they desert the ship under circumstances of danger or distress from the perils of the sea, when their presence and exertions might have prevented damage, or restored the ship to safety, they forfeit their wages, and are answerable in dumages. And even when a seaman might well have been discharged in the course of the voyage for gross mishehavior, if the master refuses to discharge him, and
lesves him h case, be ontit United Stater of inuprisonm There are, $h$ atances, whie his ship in a with clearnes Story holds she arrives moored, thoug tion afterwar s partial forfe duty.-Ibid.
Design ( of plan; pui thing by an manufactories workman ehri after some pas of a large wo fully executer Drsign, Sch pupiis in the is contined to in others, esp ment at Edir Arts and Ma the instruction dign is taught of his art, w Such rehools rarious parts fit has been c of those coun appears to ho for the expret try. It is mo pils in demun turing srt. I Somerset Iou design in Spl schools are no ter, Coventry feld, shefflel on-Tyne, Ha have been est Boston, and their utility is De-silve, tains a little England, has of separating jead mines w abandoned. galena, a bu aversge ahout of silver ; and working or no 20 ounces of would pay for tinson has en from so small lead-smelting lock iead hill Pattinson's p This proces which it is bn After the ore into the form re-melted in lead, while gr ly with an iro These crystal of the lead. $f$. by the aid o these crystala

## DET

lesves him in imprisonment abrosd, he will, in that case, be entitled to his wages untli his return to the United Statew after deducting from the claim his time of impriconment."-Kent's Commentaries, Lect. xlvi. There are, however, at times, oxtenuating circnmstances, which will in part authoriae a alior to leave his ship in a foreign port. This subject is discussed with clearness In the work above-mentioned. Jndge Story hoids that the voyage of a shlp is ended when she arrives at her port of destinstion, and is asfely moored, though her cargo be not delivered; and desertion afterward does not forfelt the wages entire, but a partial forfelture only as compensation for breach of duty,-Ibid. See Digctiaran of Seamex.
Dealgn (Fr. desscin, from Lat. designo), a scheme or pian; purpose, intention; a representation of a thlag by an outline or aketch, etc. Design, in the manufactories, expresses the figures with which the workman enriches hin stuff or ailk, and which he copies after some pattern. Design In lainting, is t.' + first ldea of a large work, drawn roughly, to be afterward carefully executed and finished.
Design, Schools of, are establishments for instructing pupilis in the art of drawing. In some the Inetraction is contined to what is aubservient to the fine arts, but in others, especially in the very admirable establishment at Edinburg, under the Board of Trusteen of Arts and Manufactures, not only ls attention paid to the inetruction of the painter and the eculptor, but design is taught, to perfect the mechanic In the principlea of his art, wherever ornamental pattern is required. Such rehools have been long opened In France and rarious parts of Germany, from which important beneft has lieen conferred on the manufactuting Indastry of those countries. The Edinbarg School of Design appear to have been the first eatablished in Hritain for the express improvement of manufacturing industry. It ls most ably conducted, and has found its pupils in demund for the chief seats of Engiish manufactaring art. In England, besides the establishment at Somerset Ifosse, London, there is a brunch school of design in Spitalfields that is well nttended. Simijar schools are now established in Birmingham, Manchester, Coventry, Nottingham, Leeds, York, IIuddersfieli, Sheffiejd, Norwich, Stokeion-Trent, Newcastleon.Tyne, Haniey, Glaggow, and Puisley. Several have been established in the cities of New York and Bostou, and other portions of the United States, and their atility is ciearly demonstrated.-linasde's Enc.
De-allvering Lead. Nearly all lead ore contains a little silver ; and Mr. Pattinson of Newcastle, Engiand, has devised an ingenious and beautiful mode of separating it. His discovery has renderad many head mines workable which must otherwlse have been abaadoned. The chief ore whence lead is extracted is gaiena, a sulphuret of the metal, containing on an areraje ahout 80 per cent. of lead and a minuto portion of silver; and this siliver treasure often determines the working or non-working of the mine. Until recently, 20 ounces of siiver to a ton of lend were the least that would pay for the expense of separating; but Mr. Pattiason has enabied the lead amelter to realize a profit from so amall a ratio as 8 or 4 ounces to the ton. The lead-smelting at the Allenisead mines, and at the Waniock lead hilla in Dumfriesshire, aro both founded on Pattinson's process.
This process is not only scientific in the principle on which it is based, but it is really beautlful to witness. After the oro has been sinelted, and the lead run off into the form of blocks or "pigs," these pige are elowly re-melted in large cast-iron open vessels. The molten lead, while gradually cooling, is atirred uninterruptediy with an iron rod, and cryatals of lead gradually form. These crystula, being denser and heavier than the rest uf the lead, fall to the hottom, and are thence removod by the ald of a colander or perforated ladle. Now these crystals contain less siliver than an equal woight
of the uncrystallized lead; end here we begin at once to see the rationale of the procese: since none of the silver is actualiy gone, that which has left the erystala has tended to enrich the remaining portion of the lead. Again are the crystais melted, to get more and more silver ont of them; again is the richer lead meited, to increase its richness at the expense of the newly-formed crystals ; and thus do the double processes advance antil almost every atom of silver is obtsined from the lead. But this requires another kiud of operation. The very rich lead is brought to an intense heat in a pectuliar furnace, and a blast of air is driven upon it ; the lead combines with the oxygen of the air to form litharge, while the eilver sinks to the bottom in a pure atate, forming a slab of delicate sllver. A very beautiful appearance presents ittelf during the process ; the molten allver absorbs much oxygen, which escapes again as the metal solidifies; bursting through the gradually hardening surface of the mass, the bubbles of gas force along with them portions of the fluid metal from below. It really afforda a very close representation of a volcano; for the same chemical lawe are In operation in both cases. This escape of oxygen leaves the surface covered with beautiful and fantastical concretions of pure and brilliant allver-silivery mountains and valleys, furmed by a process bearing much analogy with that by which our earth mountains were probably formed. In the recent London Exhibition there was a cake of silver weighing no less than 8000 ounces, obtained from lead in Mr. Beaumont's minea in Northumberiand.-Novelties and Inventions.

Detroit, a clty and port of eatry of the United States, capital of the county of Wayne, Milchigan, eituited on the west bank of the Detroit Strait or River, which connecte Lakes Huron, St. Clair, and Erie. Lat. $42^{\circ} 2^{\prime} \mathrm{N}$. , long. $83^{\circ} 2^{\prime} \mathrm{W}$. The city extends along the river for more than a mile and a half, ita central point being 7 miles from Lake St. Ciair, and 18 from Lake Erie. The river is here ahout five eighthe of a mile In width; and Its depth varics from 12 to 48 fect. The descont from Lake St. Clair to Lake Erie is about 6 feet, or 3 inches per milio; and the velocity of the current at the deepest part, opposite the city, is $2 \frac{1}{8}$ miles per hour. Its shores on both sides are hlghly cuitivated; and from lts outiet into Lake Erie to its origin at Lako Huron reseinble a continuous village, with fine farms, pleasant villas, groves, gardens, and excellent roads. The town is well and reguiarly buadt, extending in the form of a rectangle for about 1200 feet from the river, nnd afterward terminating In a triangle. Some of the principal streets are 200 , others 120 , and others 60 feet wide. These generally cross each other at right angles. The housea are mostly of wood, but many of them are of brick. The princlpal of the public buildings are-the old Stata House, the United States' Buildinge (of poliahed limestono), the Stato buildings for the supreme court, public offices, county court-house, county jail, city-hall, and inarkot, the new Catholic cathedral, and the cathedral of St. Anne. Detroit is well supplicd with water from tho river, by means of hydraulic machinery in the upper part of the town. Shlp and boat building is a large and important branch of business ; and there are geverah large stean suw-mills, iron founderies, etc. Detroit has a very extensive trado, for which it enjoys many advantages. The harbor is capacious and secure. It is connected by the Michigan Central Railroad with Chicago vià New Buffalo and Michigan City, a distance of 258 miles, and by the Pontiac with the town of that name, 20 miles distant. The Great Western Railrond, constructed through Cantudn, bringa it into direct communication with the New York and other eastern routes. The population in 1801 was only 770 , and in 1830,2222 ; in 1840 it amounted to 9193 , and 1850 to 21,000 , while in the summer of 1853 It was 34,400 . This, however, includes only thoss within the corporate limits, beyond which there is a num rous popula-
tion, whose entire occupation and interests aro in tho city.

Dials. Invented by Anaximnnder, 550 n. c.Pliny. The first dial of the sun seen at Rome, was placed on the temple of Quirinus by L. Papirius Cursor when time was divided into hours, 293 n. c.-Blair. In the times of the emperors, alnost every palace and publle building bad a aun-dial. They were first set up in charches in A. D. 613.-Tenglet.

Diamond (Ger. Du. Da. nnd Fr. Diamant; Sw. Demant, Diamante; It. Sp. and Port. Diamante; Rus. Almas; Pol. Dyamant; Lat. Adamas; 1lind. Hira), a precious atone which bus heen known from the remotest: agea. lling hus descrilbed it (Ifist. Nat.. lib. 37, 84); but his account is, in many respects, innecurate. It is found in different parts of India, and in Borneo; it is also found in lirazil, on which, indeed, Europe may be said to be at present entirely dependent for supplies of dinmends. Ilitherto, however, it has not been met with anywhere except within the tropics. It is the most beautiful and mest valuable of precious atones. Its mast common colors are white and gray, of various shades. It oceurs also red, blue, brown. yellow, and green. The colors are commonly pale. It is always crystallized, but ametimes so imperfectly that it might pass for amoryhons. It is the hardest body in nature. External, lustre from splendid to glimmering: internal, always pplendid. It is lirittle; its eprecitic gravity is 35.5 . When rubbed it tecomes positively electric, even befere it has been cut by the lapidary, which is ot the case with any other gem.Tromsos's Chemistry.
Diamonds were first bronght to Europe from the Fast whero the mine of Sumbulpour was the first known; and where the mines of dioleonda were discovered 1584. This district may he termed the realm of diamonds. The mines of lirazil were diseovered in 1i2s. From these last a linmond, weighing lima carats, or 14 ounces, was sent to t..e court of lortughl, and was valued liy M. Homeo de lisle at the extravagant sum of 224,000,000 reals; ty others it was valued at $36,000,000$. Its valuo was next stated to be $3,500,0,1001$; bat its trie value is $\mathcal{f ( N ) , O ( N ) \text { . The dianond ralled }}$ the " mountain of llhht," which belonged the the king of Cuubul, was the most superb geme ever seen. It was of the linest water, and the size of an rgg, and war nlso valued at $3,5(0)$, ,thk). The great diamond of the emperor of Russin weighs 193 carate, or $10 \%$. 12 dwt. 4 gr., troy. The empress Catharine 1I. offered for it s104,166, liesides an annuity for life to the owner, of flot1, which was rufusel ; hut it was e!terwarl sold to Catharine's favorite, connt Orloff, for the irst menstioned sum, whithot the annuity, anll was ty himp presented to the empress on her birth-lay, 1i:-2. It is now in thr sceptre of Russia. The, litt diamond weighed 136 carats, and, after cuting, 106 carats. It
 Haydn.

Accorling to Mr. Milhurn (Orient. Com.), the colur should be perfectly erystalline, resembling a drop of clear epring water, in the nidhlie of which you will perceive a atrong light playing with a great deal of epirit. If the coat be amooth and liright, with a little tincture of green in it, it is not the worse. and widlum proves had; lat if there lie a mixture of yollow with tho green, then loware of it-it is a soft greasy atone, and will prove lad.
Trst of lhiammis. Cutting, etci--Tonsertaln whether any apiectinen is a true diamend or not, a tine file may the used; and if the surface of the stone the the Jeast aliraded or serateshed by ha aetion, it is not a diamonis. The difference will alse appear upon close examination without this instrument : the rays of light patily pass through other gems, but in the dhamond they are refracted to the surface, which oecasions ity waperior lirillaney. If the specimen under examinution bo very mlinte, it may lis placed hetween two hulf.
erowns, or other flat metallic surfaces, and pressed with the thumb and finger: if a diamond, it will not be injured; but if otherwise, it will bresk and fall to powder. On account of the extreme hardness of the diamond, the art of cutting and polishing it was for a long time unknown in Europe. But, in 1456, a young man of the name of Louls Berghen, $n$ native of Bruges, is sald to havo constructed a polishing wheel for the purpose, which was fed with diamond powder instead of corundrm, which the Chinese and IIindoos had been long acenstomed to employ. Berghen was lell to this diseovery by observing the action produced by rubbing two rough diamonds toget her. Diamonds are eut ints brillinnts and rose diamonds; the former being, for the most part, made out of the octihedral rrystals, and the Intter from the spheroidal varieties.-Joy ce's Practical Mineralogy; Ress' Cyrlopardia, etc.

Commercial Value of Jiamonds.-In the great or wholesale trade there is but little fluctuation in the price of those diumonds which may be terined stones in goneral demant. I will begin with lirilliants from one Grain to $2 \frac{1}{2}$ grains each. Such brilliants double eut, and what may he termed fine, are worth from 5 to $x$ s per earat. Needy sellers may take 10 per cent. less for eash; but this is the general averago price for a lot of 10,20 , or 50 carats of well-made stones, if the quality the gord. Brilliants, from two grains to three, may he bought in lots at from $\pm 7 \mathrm{7s}$. to $£ 8$ per carat. It is to be understoon, that diamonds in a lot are never all ipuite free from faults; hence there may arise a difference of 10 per cent. in the price. Stones of 3 grains, if fine anl perfect, are always in demand at $\mathrm{N} x$ to f ! per carat. Hrilliants from is grains to 4, if very fino and well proportioned, are worth from is to ed fer earat. Those of $n$ earat euch, if very tine anll wel] selected, are worth f9 to $£ 10$. Three years ago 1 of ferell it 2 each for 8 , and conld not obtain theu. Hrilliants from it grains to 6 , if pure, are worth, from $\pm 18$ to $\boldsymbol{E 1 4}$; if perfectly tine, anil of the full weight of 0 graths, they are wort li from 517 to $5^{\prime} 18$ each. 1 have for such pahl e\%o. Ilrilliants of e carats each, are worth from fert to tu30. Stones of this weight, is well pros portionell, are considered of a tine size, nud well walcalated for pins, or the centre of elusters ; indeed, well jroportioned diamonde, from 6 grains to 2 carats earh, are alwuys in demand, and are retailed at from $\mathbf{f} \%$ to e:tis earli, meoriling to their degree of perfection, or as the retailer may think tit to charge them. For larillinnts of 1 carats, if fine and well formed, from $£ 70$ to f(x) may te ohtaised. Stones of this size, and larger, are nore llatile to capricious floctuations of price than the smaller ones hefore named, being chiefly required for the centre stone of salahle necklares. Irilliants of 4 carats, le tine, are worth from d'lou to flio. I have sold stones, single cut, a little off color, of this weight, at k0 guincus. I passessecl one of 17 grains, jerfectly white, having a surface largo as that of a 7 carat stone ought to he; it was, conseguently, very thin, hat beinge much in refpest, on aceount of its great apread or surface, it was soll for $£ 160$. Irrilliants of $\bar{j}$ carats are nut frequently met with in general trule, and are valnable in price : as the doalors exact mese if they kuow that such stones are wanted than they would in the regular conre of tmainess. The prlces may he satid to vary from fle to $£ 200$.

Brillhats of f carata, as before ntated, are not common: they are suitable for centre atones of expenive recklaces anl ainglo atone rings. If jerfeet and well shaped, they sell for $\mathcal{L} 230$ to fe500, ir more. Fur emio mating the valus of peculitarly tine dianomis there is no itxed stundart. Jough diamouls, selected as fite, and well formell for cutthig, may be estimated as follown: Sifare the wejght of the stone, multiply the promint by 2 , and the result will the the value in jumuls aterling. Hrillianta, if sine, may be eatimated by squaring the weight in carats, and multilyang the prom duct ly $K_{\text {, }}$ which will give the emount in poumels stere
ling. aral in o it may price of whele, on the a the liast monds i deutand has been stantly 1 gressive dismond zil, has 1 went and still there wo of time relace it famed Gc ture year from the Brazil m $30,000 \mathrm{cat}$ reduced market of tise on Di The ru jewelers,
ply the sq product is in the ease weigh mo diamonds, et ïs admo depend ul chasers.
llazail is and weigh elers' rule $\pm 5,64 \cdot 1,800$ imperial m
with it fo dismond b the jewele £150,000.

Dlamon orasurent with'great diamonds,' powder, an than brillia many oper fine came diamond, The beaut bad not $t$ called forth agate, or ea rabstance. is indebted oust it block spectarless, used in we grain, 5 d grsing, S Magnzine, Bankrre'
Dlaper ourer ; It. isrus; lus linem, com brought to in the nor it sometin It is sald ripres, In rupted into
ling. As a very large property, both In Great Britain and in other countries of Europo, is vestell in diamonds, it may be intereetlag to be informed, that not only the price of these $g$ ms has for several years boen, upon the whole, gradually rising, but that it is likely to continue on the advance. At the present timo, indeed, and for the hast few yoars, there has been a dull sale of diamonds in England, nor did the coronation occasion a demand worth notice; but on the Continent the trade has been steady, and rough diamonds have been constantly rising in price. 'That this advonce will be progressive may be assunued from the fact, that the best dismond ground now known, the Serro do Frlo in Briw zil, has assuredly passed the zenith of its prosperity. I went over the greater part of what is yet reserved, and still remains to bo worked, and I conceive that there would be no difficulty in calculating the length of time in which the present number of working may reduco it to a atate of exhaustion, llike that of the farfamed Golconda. The average annual produce of filture years may be cetlmated by the amount obtninel from that portion which has been alrendy worked. Brazil may be said to furnish Europe with 25,000 or 30,003 carats per annum of rough diamonds, which, if reduced to brilllants, may make an influx into the market of 8000 or 9000 carats annually.-Mawe's Treatise on Diamonds, 21 ed. pp. 9-14, and p. 60.

The rule stated by Mr. Mawe, and alopted by the jewelers, for estimating the value of diamonds (multiply the square of the weight in carats ly 2 , and the product is the value in pounds sterling), ean only hold in the case of those that are of a small size, or do not weigh more than 20 carats. The value of the largest dianonuls, which are exceedingly rara (non nisi regibus et ïs odmodum parcis cognitus, Pliny), can, it is clear, depond upon nothing but the competition of the purchasers. The diamoni belonging to the emperor of Brazil is the largest in the world. It is still uncut, and weighs 1680 carats; so that, according to the jowelers' rule, it must bo worth the cnormous sum of $£^{5 j}, 644,800$ ! It may, however, be doubted whether his imperial majesty would have any disinclination to part with it for the odil sum of $\mathbf{E} 644,800$. The famons diamend belonging to the emperor of liussia, which the jewelers tell us is worth $\dot{x} 4,804,000$ did not cost $£ 150,000$.

Diamonds are not used exclusively as articlos of omsment or luxury. They are frequently employed with'grent advantago in the arts. "Ilad, discolored damouds," buys Mr. Mawe, "are sold to break into phwder, and may be suld to lave more extensive anle than brilliants, with all their captlvating heauty. In many uperations of art they are indlapensable; the fine canco and intaglio owe their perfection to the diamond, with which atone they can be engraved. The heauty of the onyx would yet remain dommat, bad not the unrivaled power of the diamond been called forth to the artiat's assistanco. 'I'he carnellan, the agate, or caingrorm, can not be engraved by any other kubstance. Eivery crest or letter cut opon hard atone Is indelited to the diamoul. This is not all; for without it hlocks of crysi.: could net be cut into slices for spectacles, agate for snútubones, etc." The carat graln meed in weighing diamonds is dlilerent from the troy grain, 5 diamond grains heing only equal to 4 troy grains. See I'retminster Rer., xxi., p. 297 ; llunv's Nagazine, xv., p. 600, Fiazki, xv. (by Cahlasles); Bankera' Magazine, N. Y., vol. Y., 270, :169.
Diaper. (Ger. Irell; Iu. Irrl; Fir. Iingeouterd; It. Tela 'essuta r opere; Sp. Ifanteles alemoniscus; Rus. Salfetotsschnar), a sort of the flowered linen, commonly used for table-clotha, mapkins, etc., braught to the highest perfection in the manufactories is the north of Ircland, in Germany, and Scotland. It sometmes rosendblas an inferior kind of damask. It is said to have been originally mannfactured at Ypres, in Flandera; whence the term d'Ypres, corrupted into dlaper.

Dice (Ger. Würfel; Du. Taarlingen; Fr. Des (d jouer); It. Dadi; Sp. Dados; Rus. Kostı), cubical pleces of bone or ivory, marked with dots on each of their sides from i to 6, according to the number of the face. They are nsed in various games of chance, by being thrown from a box.
Dicker (probably from deкa, ten), in our old writers, is used to denote the number or quantity of ten, particularly ten hides or skins, of which twenty made a last; and is sometimes applied to other thinga, as a dicker of gloves or ten pairs, a dicker of iron or ten bars, etc.

Dictionary, in its original acceptation, is the arranging of all the words of a language sccording to the order of the alphabet, and annexing a definition or explanation to each word. When arts and sciences began to bo improved and extended, the multiplicity of technical terms rendered it necessary to compile dletionarios, either of science in general, or of particular sciences, according to the views of the compiler. Hence dictionaries may be said to be of two sorts, of world, and of facts or things; in the former sense, the term dictionary belng equivalent to lexicon, in tho latter, to encyclopedia. A standard dictlonary of the Chincse language containing about 40,000 charocters, most of them hleroglyphic, or rude representations, somowhat like our signs of the zodiac, was perfected by Pa-out-she, who lived about 1100 B. c.-Morrison. Cyclopaedins were compiled in the fifteenth and sixtcenth centuries. The first dictionary of celobrity, perhaps the first, is by Ambrose Calepini, a Venetian friar, in Latin; be wrote oue in eight languages, ahout A. D. 1500.-Niceron. The Lexicon Heptaglotton was published by Edmund Castell, in 1659. Bayle's dictionary was published in 1696, "the first work of the kind in which 8 man may learn to think."- Voltaire. Chambers' Cyclopadia, the first dictionary of the circle of the arts, sciences, etc., was published in 1728. 'The great dictionary of tho English lunguage, by Samuel Jelinson, appeared in 1755. Francls Grose's Dlctionary of the Vulgar Tongue, was compiled in 1768; and from this period numerous dictionaries have been added to our atore of literature. Noal Webster's great American Dictionary of the English language, in two quarto volumes, was first published at New llaven in 1828 . It was repriuted in London in 1832. Numerous abridgments and new editions of the whole work have since been published in London and New York.-I/aydn.

Die (lir. de), in coinago, is the Instrumont by which tho impressions are given upon the various denominations of coin. The following is an outline of the die manufacture: The engraver selects a forged plug of the best cast steel of proper dimensions for his intended work; and having carefuily annenled it, and turned ita surfaces nonooth in the lathe, proceeds to engravo upon it the intoniled device for the coin. When this is perfect the letters ure put in, and the circularity and size duly allosted; it is then hariened, and is termed a matrix. Another plug of soft atcel is now selected ; and the matrix heing carefully adjusted upon it, they are placed under a vory powerful fly-press, and two or three blows bo directed ns to commence ant impression of the matrix upon the plug; thls in then annealed, and the operation repeated till the plag recolves a perfect impression of the work upon the matrix. This impression if of conrse in relict, the origlnal work upen the mutrix being ladented, and producos what is termed the punch. This, lelag duly shaped in the lathe, is hardened, and is employed in the produetion of impressions in soft ateel or dies, which, being properly turned or hardened, whe exact facsimiles of the orighal mutrix, und aro used ln the process of coinage. When a pair of dles are made of good steel, duly hardenod and temperd, and wise carefilly used, they will sometimes yidl from two to threo hundred thousand impreasions lefore they become so
far worn or injured as to require to be removed from the coining pressea.
Dieppe, a commune and seaport town of France, capital arrondissement, Department Seine Inferjeure, at the mouth of the Arques on the English Channel, and 38 miles north of Ro"en, and by railrond 125 milles from Puris. Lat. of light-hnuse, $49^{\circ} 55^{\prime} 7^{\prime \prime}$ north, long. $1^{\circ} 5^{\prime} 2^{\prime \prime}$ east. Population 17,000. It is divided into the town proper, and the suburb le Pollet, which conmunicate ly a flying bridge, both being well furniehed with water from an aqueduct supplying nearly 200 fountains. Principal edifices, mn old castle on a cliff west of the town, 2 churches, the town hall, commune college, theatre, public library, bathe, and a school of navigation. The port, inclosed liy two jettlen, and borlered by quays, can accommodnte from 60 to 80 vessels under 600 tons; but it dries at low wator, nnd it is otherwiso inconvenlent. Dieppe has nn active general trade, shlp-building docks, manufactories of ivory wares, watehes, lace, etc., and it is a packet station, communicating daily, by ateamboats with Brighton; the traffic having incrensed consideraWy since the opening of the Paris and Rouen Railrond. It is also resorted to hy summer visitors; but its inhabitants depend chiefly on its fisheries of herringe, manckerel, and oysters.
Digit, or Monade, in Arithmetic, any integer under 10, as, $1,2,3,4,5,6,7,8,9$, and by menns of which all numbers are expressed. Diyit, in Astronomy, the $t$ welfth part of the diamerer of the sun or moon; a term used to express the quantity of an eclipee. Thus, an eclipse is aaid to be of sir digits when one hnlf of the disk is hid.
Dike, or Dyke, in its primary sense, denotee a ditch or drain. The word seems to have lieen furmell from the verh to dig; though athers derive it from the Dutch dijk, n dam, sea-bank, or wnll. It is generally usell to signify n work of stone, timber, or fascines, raisel to oppose the entrance or passage of the waters of the sea, a river, lake or the like. Junius and Mónage concelve the Flemish to havo hurrowed their worll from the (ireak teitor, wall; hut tinichard derives it from the llebrew daghah.
Dimity (Frencl, Basin; Italian, Doblefto; Spmninh, Dimite), a species of cross-burrell stuff entirely composed of cotton, similar in faliric to fustlian. Diniity was originally imperted from Indin. Dr. Johnsen cails it dimmity, and describes it as a kimd of fustinn. The distinction letween fustiun and dimity seems to be, that the former iesignates a commen tweoled cutton cloth of a atout fatric, which recelves no ornament in the loom, but is most frequently dyed after being woven. Dinity is also a a tout cotton cloth, thit nut usually of so thick a texture ; ond is ormmentell in the loom, either with raised stripes or fancy figures, is seldum dyed, hut usually worn white, ae for thell mud bedrom forniture. The stripel dimities are the most commen, they require less lator in weaving, than the others ; and the mounting of the loom being nore sim. ple, and consequently. less expensive, they cau to solld at much lower rates.

Dime, a ailver coia uf the Unived Stutes, welghing, accorling to the art uf Congress of $1553,8840-104$ graine. The half-dime welghing one half, or 1! $20-100$ graine; luth legal tenulers of the amount of fire atol-

Dipping-Needle, n magnetic neclle that dips or inclines to the earth ; an lastrument for aspertaning the anount of the magnetic inclination at the ditterent
ruts of the earth's surfince. 'This fact was first ofsserved by ono loobert Norman, an Linglishman, and a makur of compasses for mariners, abuut the year 157 t , who, flading that he was alvays obliged to emuterbalance that end which turns to the north ly a hit of wax or such other substance, though the balanee lua! lieen ever so exact hefure, ;ubhished an account of his discovery as a matter of hafortance. Tho aulject was
instantly attended to ; and instruments ware not only contrived for ascertaining the quantity of the dip, but various epaculstions were formed concerning the cause of ao surprisling a phenomenon. The general phenomena of the dipping-needle are, that in the equatorial regions it remalna in a horizontal position, but as wo recede from the equator toward either pole, it dips; the north end, if we go northward, and the aonth end, if we proceed soutbward; and the further north or south we go, the greater is the inelination. Its inclination is likewise found to vary very considerably at different times in different places of the eurth.-E. B.
In the most improved form of construction of the dipping-needle, the axis, instead of being a cylinder, is a knife-edge, resting perpendlcularly, like the aupports of a pendulum, on two agate planes. A needle thus supported, however, must necessarily make small oscillations; consequently it must be ao adjusted that when it points in the direction of the magnetic furce, the knife edgea may be perpendleular to the agate planes. The mean value of the angle of the dip must therefore be known previously to its construction ; but it is the best adapted, on account of ita delicacy, for ascertaining the minute variatlons of the dip at the arme place. The ungle of the dip, like that of the variation, changes its value when at the same place, following, of course, the motion of the magnetic poles, which, from the observations made by Secresby, Parry, Ross, and others, in high latitudes, appear to have a motion weet warl, the annual amount of which is ahout $11^{\prime} 4^{\prime \prime}$. In the summer of 1831, Commander Rove, in an excursion from the veseel in which his party were so long detained in the polar sens, reached a spout on the continent of North America, which had been calculated to the the position of the magnetic pole. There he fund the dip of the needle to he $x y^{\circ}$ $599^{\prime}$, within one minute of the vertical; nul cempassneedles sukjendent in the most delicate manner possible exhitited no polarity whatever. The latitude of this spot is $70^{\circ} 5^{\prime} 17^{\prime \prime}$ north, and its longitude $96^{\circ} 46^{\prime}$ $40^{\prime \prime}$ west. For $n$ deseription of some other furms of the dipping-ueelle, see Buewsien's Treatise on :Mag. netism.
Diplomacy, in its most restricted sense, is used to express the nit of conducting negetiations or arrauging treaties lutween nations hy means of their fore gn ministers, or written correspondence; hat in its most extended signification, it emhraces the whole science of negotintiun with foreign states as fomuded on public law, positive engagements, or an enlightened view of the interests of each. Hut, upon this sulject, wa can not do hetter than emboly in our pages sane remarks from the Intreduction of Marten's. Manuel Diplomatinue, in which a distinct view is exhilited of the importance amel maln objeets of diphomary. 1hiplomacy, says that athe statersman, mast he placell in the foremost rank if the useful sciences. The fate of nutimue, in the present state of the worlit, depends grently on their relations with othery; and these again ars materially influencell and determinel hy the nature of thelr foreign policy, that is, hy the success with which they have cultivated and applied the principlea of thia science. Diplomacy eubraces-1. The law of nations, by which the relations of one state with nother are acturmineal huth in peace and war. 2. The pulitical prineiples of indivilual status, as de. duecel from a regaril to their peenliar interests; and a knowledpe of the way la which these intrerent may te reconciled with, and made sulservient to, the law of mations. 8. An nequaintance with the privileges and datios of liphomatic agents. 4. The combuct if negotiations, or the rourse to be pursuel in treatime of the interents of dilifrent atates. 5. The moral und physient statistics of each prower, 6. The pulitical anil military listory of the states having diphomatic relatiens; and tho projects, tendency, and pollty of their reapective governments. 7. The various ays-
tems of g equililiriu be broug diplomati tion the culation a

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{ }^{4} \text { tact de. }
$$ not he ex Integrity. will proc sagacity, sooner or minds of

It must natien is being subj affairs, th uncertaint of nuinistr any quart these caus crnment; ether gov influence. variation, great pow and diflic against tt prognostic hensive. of a gove have often or those having $m$ of their su
From w staod, that formed of looking ut course, ex operations sweralile corditions
A diplo circumsta man of g tane; but In their re clrcumsta and aecide

Diplow since mat states, tho rial at $w$ however, of foreign courts, as nitel wit time emb sions, but nue than the suliat courts whe charater. rope, in tl tions of $t$ 2. Favoy thary ; 11. b. Neeret: however, are muly legatlon.
Amony the Trait. de: Relitia M. Lat Co
tems of government, supremacy, concession, retention, equilibrium, centralization, confederacy, ctc., that may be brought into operation. 8. The art of composing diplematic despatches. To this multifurious informatlen the diplomatist should unite the powers of calculation and application peculiar to strong minds-the "tact des convenances," which may be felt, but can not lee expressed-circumspection, address, and perfect integrity. The combination of these varions qualities will procure fer the diplomatist such a character for sagacity, rectitude, and straightforwsrdness, and will, sooner or later, obtain for him an ascendency over the minds of others, and give grest weight to hls opinions.

It must be remembered that the diplomacy of every nation is more or less within tha range of casualties; being subject to the versatility inscparable from human affairs, the ficklenesa and passions of man, and the uncertuinty of ovents-an unlooked-for denth, a change of ninistry, treacherous designs, undue influence frem nny quarter, a false calenlation, corruption-each of these causes may clsange the policy or course of a gevernment; and this will more or less affect every ether gevernment, in proportion to tho extent of its influence. In addition to these numerons causes of vuriation, if ambitious projects he entertained by any great power, diplomscy becomes still more intricnte and difficult. Every state desires to be protected sgainst the storm which its rulers imagine they can prognosticate, and of whose lursting they are apprehensive. Again, wo must remark, that the schemes of a government, how admirably soever centrived, have often miscarried, either from subordinate persons or those intrusted with putting them in execution having misapplied or misunderstood the instructions of their superiars.
From what has been said, it will be easily understod, that in diplomacy, fulse estimates are frequently formed of the merits of orlginal plans or designs from looking at their results only. The diplomatist is, of course, exempted from all responsibility in regaril to operations mixed $n p$ with the events of war-ho is answeralile only for the success of his prejects under the eanditions on which he proposed them.
A diplomatist of moderate eapacity, if favored by circunstances, may accomplish much more than the man of genlus who has to contend with alverse fortune ; but this difference of success makes no change in their relative ability, and thuse aequainted with the cireumstances readily discriminate between sagacity sud aecident.
Diplomacy has been practiced in substance ever since mankind have been fermed into Independent states, though it is difficult to ascortain the precise periul ut which the term came into use. The system, however, of the regular and unlaterrupted residence of foreign minlsters during pease at the Liuronean conrta, as at present practiced, is said to have originated with the tharilinal de Rlelselien. Hefore that time embassles had been omly sent in special oceasions, but attended with murh greater show and retinue than has heen the fashion In motern thenes; while the substantial business of states at the nelighboring courts was transacted ly :ugnts of a lower stamp and character. Diplonatic ngenta are now rankel, in Eitrope, in the following order, accoriling to the reguliations of the Comgress of Vienna:-1. Ambassadors; 2. Fuvoya extriordinary and ministers plenlpotenthary; 3. Minlsters reshdent; l. Chargés des andines ; 5. Secretaries of legation und attachés; the later, however, have no preciso aliphomatic character, and are only consideral by courtesy as attached to the legation.

Among tho best works on this important suliject are the Traits compht de Iliplomatie, on Theorie generale des Relutions extrieures des Puissances de l'Aurope, par M. lee Comte de Ganden (1'ails, Is:il), 3 vols. 8 vo.; and De Wiequefirt's A mbassadeur et ces t'unctions (lid.

Opt.) 1746,12 vols., 4to. See also the Manuel Diplomatique, by Von Manten (Paris, 1825); Flassan's Ihist. Gen et Raisonn. de la Diplom. Francaise, 7 vols. (Parls, 1811), and Von Marten's (senior) Grundriss einer Diplom. Geschichte der Europ, Staatshandel, etc., (Hamburg, 8vo.) Brande's Enc. See N. A, Rev., xxxix. 802 (by E. Everett) ; xxiv., p. 82 (by T. Pitkin) ; U. S. Lit. Gaz., v., p. 1 (by C. Cusiino); Fraser's Afagazine, xli., p. 605; Foreign Quarterly. xiii., p. 1.

Disoharge of Seamen. Whenever a ship or vessel belonging to a citizen of the United States is sold in a foreign country, and her company discharged, or when a sesman or mariner, a citizen of the United Stutes, is with his own consent discharged in a forcign country, it is the duty of the master or commander to produce to the consular officer the certified llat of his ship's company, and pay to such consular officer for every seaman or mariner so discharged, being designated on such list as a citizen of the United States, three months' psy, over and above the wages which may then be due to such mariner or scaman, two thirds thereof to be paid by such consular officer to each seaman or mariner so discharged, upon his engagement on board of any vessel to return to the Unitel States, and the other remaining third to be retaized for the purpose of creating a fund for the payment of the passuges of seamen or mariners, citizens of the United States, who may be desirous of returning to the United States, and for the maintemance of Amerlcun eamen who may be destitute, and may be in such forcign port. The soveral sums retained for the seamen's fund are to be accounted for to the Tressury Department by' the consular ofticers receivint the same.-Statutes at Large, U. S. See IItnst's JIag., xi., p. 344; Ibid., p. 230; Kent's Cominentories; Parse ns' Ifercantile Law.

According to the laws of the United States, consular officers are not to discharge a seamme for slight or venial oftenses, and cettainly net for a single offenso unless of a very aggravated character. If the charge bo negligence, drunkenness, disobedience, or dishonesty, the question should be, whether the misconduct was of such a degree as to show a habitual inattention to or unfitness fer duty, having always in view the particular station of the party and the nature of his duty. If the allegation be that the seaman is a dangerous person, from a spirit of insubordinutlon, or hostility to the minster, it has heen held that the master nust show that the danger is such as would affect the mind of a man of ordinary firmmess. liat even in cases of aggravated offenses, or of a continued course of conduct which wonld justify the discharge of a scaman, if he repents and offers amends, the principle which is always eperating in his favor against all kinds of forfeiture, with very fare exceptions, intervenes to restore him to his rights, and he is ordinarily entitled to be recelved again on lxard. To dieprive a mariner of the lenefit of this rule, it should appear that the misconluct nmounts to a radical disquallication, as dishonesty and habitual drunkenness in a steward; or that the party fa really dangerous to tho peace and srefety of the ship. These principles receive additional force from the general policy of the itws of the Enited States, which diseountennees the disebarge of seamen in fureign ports. 'the various enactments in respect te ilestituto scamen sufliciently sliow the paternal solicitude of the goverment for the preservation and protection of the seamen if the country.-- Ifautal for Consuls. Sce IDesigution hy Seamon.
"The right of the seaman to he brought inuck to his own homo, is very joalously guarded ly our laws. The manter should alwayd present his shipping articles to the consul, or commercial agent of tho United States, at every foreign port which he visits, hut dues not seem to be requirel by law to do this, unless the coneul lesires it. He must, however, present them to the flrat boarding officer on his arrival at a home port.

And if apon an arrival at a home port from a forelgn voyage, it appears that any of the scamen are missing, the master must account for thelr absence. If he discharges a beaman abroad without his consent, he must pay to the American consul three months' wages, of which the consul gives two to the seaman, and remits one to the Treasury of tha United States to form a fund for bringing home seamen from abroad. Thls obligation des not apply when the voyage is necessarily broken up by a wreck, or similar misfortune. 13nt proper measures must be taken to repair the ship, if possible, or to obtain the restoration, if captured. And the seaman may bold on for a reasonable time for this purpose, and if diacharged before, may ciaim the extra Wages. Onr consuls and commercial agents may anthorize the dicharge of a seaman abroad for gross mlsconduct, and he then ha: 10 claim for the extra wages. They may also send our seamen home in American ahips, which are bound to bring them for a compensation not exceeding ten dollara each, and the seamen so sent must work and obey as if originally shipped. Besides this, if a master dischargen a beaman in a foreign port, he is liable to a fine of 500 dollars, or aix months imprisonment. And a seamsn nay recover full indemnity or compensation for his loss of time, or oxpenses incurred by reason of ench diseharge."Parbess' Mercantite Law, p. 393.

Discount, a sum of money deducted from a debt In consideration of its being paid berore the usual or stipulated tlme. The circnmstance on which its fairness is founded is, cast the creditor, by receiving his money before it comes due, has the Interest of the money during the interval. Consequently he should only receive so much as, jut ont to interest during the period in question, will realize the amount of his delit at the time when it would have become due. For Instance, 8100 is to be paid at the end of 3 years; what shonld be paid now, interest being 4 per cent. ? llers it is evident, that if we divide the whole delit into 112 (or $100+3 \times 4$ ) parts, 100 of titese parts will make the other 12 in thres years (at simple interest), wheace the payment now due is the 112th part of $£ 10,000$, or $£ 895 \mathrm{~s} .9 \mathrm{~d}$. The rule is, $n$ being the number of yeurs (a fraction, or number and fraction), $r$ the rate per cent, and D the sum due,

$$
\begin{aligned}
\text { Present value } & =\frac{100 \mathrm{D}}{100+\mathrm{nr}} \\
\text { Discount } & =\frac{10 n r}{100+n r}
\end{aligned}
$$

In practice, it is usual not to find the real discount, but to allow intersst on the whoie debt in the shape of abatement. Thus it wonld be coneidered that, in the praceding example, three years' discount upon $£ 100$,
 the present valne.

In transactions which usualiy proceed on componnd interest, as in kaluing laases, unnuities, ete., the principuie of disconnt is ntrictly preserved. Tho present value in the preceding case is, in its most naual form,

$$
\frac{1)}{(1+\rho)^{n}} \text {, and the discount } n-\frac{1}{(1+p)^{n}}
$$

whare $\rho$ is the rate per ponnd (not per cent.: thus it is - 04 for 4 per cent.). Lut reconrse is usuaily ind to the tahies of present valnes which accompany ali works on annuities e $c$ a mpound interest.

The nurro, iscount is also anolied to certain trade allowances uphe thic sume the: jrite of goomis. Iu some brunches of trads then $n!$, wauce vy according to the circumstances win. $\cdot$ : th the markets; and what is eailed cisconnt is in face orewaioned by fluctuations In priees wi ich. $i$ aine iht veni to mathialn

 business, and " ber inafore is a lent of pricen
 at Sheffield, in v. Me aminal price of eachartlele
is continued the same st which It has atood for many years, while to every different specisa of tool there is applied a different and a fluctustin! rate of disconnt, this fluctuation constituting In fact 11 difference of prico between one period and another. The rates of discount in this list vary from 5 to 10 per cent. upon the nomiual prices of the different articles.
The term discount ia also employed to eignify other mercantile allowances, auch for example as the ulratement of 12 per cent. made upon the balunces which underwriters, or insurcrs of sea riska, receive at the end of the year from the brokers by whom the insurances have been effected. The word disconnt is further used, in contradistinction to premium, to denote the diminution in value of seourities which are sold according to a fixed nominal value, or according to the price they may have originally cost. If, for example, a ehare in a campl company, upon which $\mathbb{C l 0 0}$ has been paid, is sold in the market for c98, thie value of the share is stated to be at 2 per cent. discount.-Bons.
Discriminating Duties. The discriminating duty of 10 per cent., under the 11 th section of the $U$. S. tariff law of 1842 , is an additional duty of 10 per cent. on the rute of legal duties chargeuble on the imports, and not a duty of 10 per cent. on the vulue of the goods; as, for example, an import chargeahle witb a regular duty of 20 per cent., and also with the discrininating dinty of 10 per cent., under the 1 : H hection of tariff act of 1842 , would become chargeable with a duty of 22 per cent., and not 30 per cent.
It has been deched that a diseriminating dufy exacter? on a Spanish veasel elearing frem u port of the United States for Cubs or Porto Rico, under the 2 d section of the aet of 30th June, 1834, "concerning tonnage duty on Spanish veasels," can not be refuuded, although the vessel may never arrive at her destination, being wrecked on the voyage.-Manual for Consuls.

Dispensary, a piace where medicines are made up and distributed; but used more generaly for a charituble institution, where the poor are supplied with medicines and advice. Institutions of this mature are of comparatively recent origin; though they are now to lie met with in every town of any importane, inoth in this country and in Europe. To every dispeasary there are always attached one or more jhysicians, surgeons, and ajothecaries, whoso duty it is respectively to prescribe and dispense modicines to the poar, und to viait them in their own houses in the event of their being too ili to attend personaily at the institution. In most cases dispeusuries are supported by voluntry; contributions.

Distaff, the staff to which hemp, fiax, wool, or other substances to be spun, is fastened. The art of apinning with it at the snuali wheel, first tanghit to Engiah women by Anthony Bonavisa, an lalian, 20 Ilen. VII., 1505.-Stows. The distaff is used us an embiem of the femule nex,-ijownti. The distat formeriy oceupied the place in the draving-foom or bouduir of the Eagiish ladies that the harp or piano doen niw.

District of Columbia oceupies a space of e0 square miles, and is situated on the left lank of the Potomac liver, 120 miles fron its entrance into Chesidpeake Bay, anil at the heed of navigation. The territory was formerly 10 miles siluare, and wan ceded by the Statea of Maryland and Virginia for the jurpand of becoming the seat of government of the United Staten. The jertiont west of the lotomuc was retroceded to Virginha in 1846 . Tho Distriet, whiub is under the immediate jurisdiction of Congress, contains the rities of Wanhington and Georgetown, and is eflti.el, comprehended in the roonty of Washingtua. t $P_{4}$ dation in $1800,11,093 ; 1810,21,023 ; 1820,38,049$;
 whites, 38,027 ; free colored, 0,973 ; an 13,687 silaves.

In 1850, there were 16,267 acres of land improved, und 11,187 of unimproved land, in furms. Casit value
of farms, machinery

Live St milch cow sbeep, 150 Agricult rye, 5,509 75 ; buckv toes, 28,29 orchard, \& $67,222$. 1,500 poul pounds; w 15 pounds jons. Valt the value 0 Georgete try, situate milos from Rock Creel
Fossion Co

## Years ei

Sept. 30,18
80, 18

Diatilla quent cond refrigerator of the art aichemists; remote age: detived frol tilintion, th pharmneeut extensive s the distiller Fribmenta tails bearin of 8 pirituon we shall in processes w are two dist
of farms, $\mathbf{8 1 , 7 3 0 , 4 6 0 \text { ; and the value of implements and }}$ machlnery, $\$ 40,320$.
Lire Stock.-Horses, 824; ssises and mules, 57 ; milch cows, 818 ; working oxen, 104 ; other cattie, 123 ; sbeep, $150 ;$ swine, $1,6 \pi 5$; value of live stock, $\$ 71,643$.

Agricultural Products, etc.-Wheat, 17,870 bushels; rye, $\overline{5,509 \text {; Indian cern, } 65,280 \text {; osts, } 8,134 \text {; barley, }}$ 75; buckwheat, 878 ; peas and beans, 7,754; potatoes, 28,292 ; sweet potatoes, 3,497 . Products of the orchard, 814,843 . Produce of markes gardens, 467,222. Pounds of butter made, 14,872 ; of cheese, 1,500 pounds. Hay, 2,279 tons. Tobacco, 7,800 pounds; wool, 525. Clover seed, 9 bushels. Hops, 15 pounds ; beeswax and honey, $\mathbf{5 5 0}$. Wine, 803 gallons. Value of heme-made manufactures, $\mathbf{\$ 2 , 0 7 5 \text { ; and }}$ the value of slaughtered animals, 49,089 .
Georgetown is the principal port, and is a port of entry, situated at the head of the Potomac navigatlon, 120 miles from the see, and is divided from Wasbington by Rock Creek. It is built on a range of bllls, and com-
mands a megnificent landscape. The city is one of the handsomest in the country, and the seqt of aeveral well-known educational establlahments, and is the residence of many persons of distiaction. It manufactures are increasing, and perhaps no other place is so celebrated for its fisheries of shad and herring, thousands of barrols of which are packed in the fishing season. The Alexandria branch of the Chesapeake and Ohic Canal here crosses the Potomac on a magnificent aqueduct, 1,446 feet long, and 86 feet above the ordinary tide. The tonnage of Georgetown in 1856, was 20,968 tous.
Alexandria, formerly in the District of Columble, is situated 6 miles below Washington. It has a good harber, and considerable trade in flour aud coal. Since 1850 the commerce has nearly doubled. The tonnage in 1850 was 7,221 tens.

The foreign commerce of the District has been decreasing since 1831, and is now coufined to the imports of West India. produce.

Foreion Commerce of the Distriot of Columbia, prom Ootober 1, 1820, to Jult 1, 1856. Includino Alexandeia To JUnE 80, 1846.

| Years eadlog. | Erports. |  |  | Imports. | Toanage Cleared. |  | Datrick Tounage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestle. | Foreign. | Total. | Total. | American. | Foreign, | Reglstered. | Earolled and Licented. |
| Sept. 30, 1821....... | 6843,609 | 849,843 | \% 893,452 | 8898,934 | 15,035 |  | 8,492 | 10,268 |
| 1822........ | 1,081,475 | 11,955 | 2,043,430 | 470,618 | 15,025 | 178 | , | . . |
| 1823....... | 779,502 | 21,798 | 801,295 | 276,083 | 12,086 | 128 | .... | . |
| 1824........ | 696,858 | 26,558 | 728,405 | 879,958 | 12,16T | 221 | .... | .... |
| 1885....... | 749,150 | 9,208 | 768,367 | 277,297 | 12,848 | $\because$ | . | . . |
| 1828....... | 620,891 | 8,840 | 621,281 | 209,6,30 | 11,164 | 59 | . . | . |
| 1527. | 1,182,142 |  | 1,152,142 | 827,023 | 17,340 | 485 | .... | .... |
| 1528....... | 705,581 | 1,862 | 707,443 | 181,665 | 18,269 | 990 | . . . | .* |
| 1529. | 914,235 746,591 | 12,812 | 928,097 | 205,021 | 18,466 | 281 | .... | ... |
| 1330. | T46,591 | 7,882 | 708,978 | 168,550 | 18,808 | .... | .... | .... |
| Total.. | 83,274,688 | 8140,247 | 43,419,485 | 20,955,824 | 186,706 | 2,817 | . | $\cdots$ |
| Sept $80,189 \mathrm{t} . . . . . .$. | 1,207,517 | 18,453 | 1,220,975 | 198,055 | 19,862 | 878 | 6,072 | 8,749 |
| Seph $1882 . . . . .$. | 1,146,066 | 8,408 | 1,154,474 | 188,047 | 14,743 | 8,099 | 0, | 8,74 |
| 1898. . . . . | 981,866 | 21,450 | 1,002, 318 | 150,046 | 12,962 | 2,140 | *** | *** |
| 1884....... | 806,902 | 111.492 | 820,394 | 190,254 | 10,792 | 9,269 | .... | . |
| 1835 .. | 514,571 | 8,063 | 617,689 | 111,195 | 9,298 | 1,188 | .... | .... |
| 1880....... | 828,092 | 3,152 | 826, 874 | 111,419 | 4,650 | Sje | . | . |
| 1437....... | 467,706 | 1,448 | 469,209 | 108,225 | 8,894 | 8,600 | .... | .... |
| 1888....... | 868,769 | 6,358 | 878,118 | 128,749 | 4,464 | 1,1069 | .... | .... |
| 1839....... | 497,905 | 5,759 | \$03,717 | 182,511 | 6,693 | 1,547 | .... | .... |
| 131). | 751,490 | 2,494 | 753,023 | 118,952 | 12,515 | 8,689 | . ... | .... |
| Total. | 87,064,084 | \% 70,100 | 87,143,184 | 1,427,552 | 08,681 | 18,920 | ... | . . ${ }^{\text {c }}$ |
| Sept. 80, 1841. . . . . . | 764,885 | 4,496 | 769,8381 | 77,263 | 11,478 | 8,861 | 8,438 | 7,018 |
| 1812....... | 498,320 | 2,855 | 501,675 | 89,056 | 7,054 | 4,107 | , | .... |
| $9 \mathrm{mos}, 1 \times 43+\ldots$. | 984,763 | 9.954 | 284,948 | 95,412 | 5,242 0,801 | 8.001 | . | . $\cdot$ |
| June 36, 1844....... | 550.298 | 9,254 | 650,552 | 65, 383 | 9,801 | 8,983) | .... | .... |
| 1845....... | 609,429 918,741 | 785 | 510,104 | 70,529 | 10,772 | 2,629 | . | . $\cdot$ |
| 1868........ | 918,761 124,269 | 1,218 | 914,914 184,209 | 79,770 $\mathbf{2 5 , 0 1 9}$ | 15,890 0,128 | 8,508 298 | . | *** |
| 1849... | 88,666 | . | 83,866 | 25,983 | 1,018 |  |  |  |
| 1810. | 111.607 | . . . | 111,607 | 85,068 | 2,920 |  | .... | . . . |
| 1550. | 80,883 | 240 | 80.588 | 59,819 | 1,520 | 200 | .... |  |
| Total.... | \%8,821,776 | 818,888 | \$ $8,910,614$ | ( 564,162 | 04,747 | 21,071 | *** | * |
| Juno 30, 1551....... | 72,803 | ... | 72.880 | 80,818 | 1,859 | . . . | 2,908 | 80,001 |
| 1852....... | 79,0015 | ** | 79,005 | 64,142 | 2,014 | -• | .... | ....* |
| 1894. | 75, 356 | . . . | 78,456 | 71,494 | 1,681 | . . . | . . . | .... |
| 1854....... | 87.998 | . . . | 87,982 | 48,103 | 841 | . . . | ... | . |

- Nine months to $\bar{J}$ une 80 , and the fiscal year from this tiace beglas July 1.

Distillation (Lat.), the evuporation and subsequent condensation of llquids hy means of a still and refrigeratiry, or a retort and receiver. The discovery of the art of distillution is genernliy ascribed to the slehemists; but it was douhtless knowu in more remote ages to the Arablans, and by them probably derived from nations further east. The process of disbilation, though in continual use in the chemical and pharmaceutical laberatory, is earried on upon the most extensive sesie for the production of ardent spirits in the distillerifg. Under the werld Aiconoct, Branior, Frimentation, Wing, etc., will he found some details bearling upon the unture, sources, and production of apirituous liquors ; iu the present artieie, therefore, we shall limit ourselves to an outline of the different processes which are conducted in the distlliery. There are two distinct operations in the production of ardont
spirits : the one is the conversion of certaln vegetable principles inte alechol; and the other, the sepsration of the alcohol fron the other substances with which it is necessarily bleuded durling its production. Tho vegetalile principle which is essential to the formation of alcohol is sugar ; and this is sometimes used directly, as where molasses and analogous saccharine products are subjected to lmuodiate fermentation ; or it is indirectly oltained by suljecting amylaceous grains to certain precesses, by which the stareh they contain is inst eonverted into sugar, and then that sugar afterward nicoholized.

In many distilleries the latter alternative is adopted ${ }_{3}$ and variens kinds of grain, but chiefly barley, wheat, and rye, with mere or less malt, are subjected to the operation of mashing. For thls purpose the ground grain and the braised malt aro duly mixed, and infused
under constant agitation in a proper quantity of hot water in the mash-tun; the wort is then run off, and freah water added, till the soluble materials of the grain are extracted. In this way the mixed worta or wash is obtalned, which ia afterward to be anbjected to fermentation. When the wash is adjusted as to denslty, It is run into the fermenting-vats, where, mixed with a small quantity of yeast, it is auhjected to the procese of fermentation, which continnes from 6 to 10 or 12 days-the time ruquired for its completion varyIng. The proof spirit of commerce, and thet of the Pharmacopcin, is generally stated to be of the specifle gravity of 0.920 at $62^{\circ}$ and is considered as a mixture of equal veights of absolute alcohol at the specijic gravity of 0.791 at $60^{\circ}$ and of water. The rectified spirit of commorce, or rather that of the Pharmacopela, is directed to be of the specific gravity of 0.833 at $60^{\circ}$, and may be regarded as a mixture of about 82 parts of absolnte alcchol and 18 of wuter.-Brandi's Cyclo. See also Ency. Brit., 8th edition.

Divan (Aralic diuan), among the Arabs, Persians, and Turks, is a word that bears very various significations. It primarily denoted a book of accounts, a mus-ter-roll of troops, etc.; and hence came to be applied to a colloction of lyric poeme (called gazelles) arranged in a kind of alphabetical order. Thua we have the Diwan of Saci, the Dival. of Hafiz, etc.; a practice which has been imitated ly Goethe in his Westöstlic her I. iwan, a collection of poems in the Orientel atyle. The vord among the Orientals denotes also a council-chambir, a tribunal of justice, and in like manner is applied to lie general council of state. Under the khaliffs of 1315 dad, the diwan was a court of justice over which tle khaliff presided in person. At Constantinople in th present day the term is used to denote the great ceuncil of the empire. It is also a common application among the Turks for a seloon or chanber of rer tion, or in which business is transacied, or used place of occasional repose. The ativan more properly is a kind of stage, raised about a foot above the floor of the saloon, covered with rich tnpestry, and furnlshed with a number of embroidered cushions leaning against the wall ; nut on this the master of the house is seated when he recelves visitors. Hence the word is irequently applied by other nations to a kiod of public coffee-room, furnished in a manner somew hat similur. - E. 11.

Divi Divi, the commercial name of the pod of the Cresalpinin coriaria, a leguminous plant, found in low marshy situations on the north const of South America, and in some parts of the Weat Indies. It is used hoth for dyeing and tanning, but chietly for the latter purpose. The pod is from 2 to 3 inclies in length lyy $\frac{9}{4}$ inch in brealth, and when la perfection is of a rich brown color. It contains a few small sceds; but the only valuble portion is a resinous matter, of a brighit yellow color, casily pulverized, which lies betwixt the outer skin and the husk thut incloses the seed, and contains a large quantity of tannin. About $9-10$ has of the inports into England come to Liverpool, where the following quantitics were recelved during the last four years, viz. : In 1849, 3660 tons; 1850, 2700 tons; 1851, 2280 tons; 1852, $20: 10$ tons. It might be supposed from this statement that the article was going out of favor; but suth is not the case. When, however, the price in England ts under f 10 per ton, the imports decrease; and it has latterly leen bolow this limit. liecently, however, its price has risen considuratily; and with this rise the inports may be expected to increase. Maracails, Ro de la Ilache, and Savanilla are almost the only places whence this article is imported. That brought from Maracaibo is the leses, that from Savanilla the most inferior. During the last 1 years prices have ranged between $\mathbf{f 8} 1 \mathrm{Cg}$. and f 14 per tom for dio Hache and Maracallo, and $\mathbf{8 7}$ and flo 15s. for Savanilla, the highest quotations being now current (Sejitembor, 1853). IHvi livi is used by dyera, not for the coloring principle which it contains, but for ita strong
astringent qualities as a mordant. For thla purpose fs is at present usech, to some extent, instead of aumaoh, which is acarce and dear; and hence the recent high price of the article. In tanning, it accelerates the procoss, and imparts to the leather a clean and healthy apearance.

Dividend, in commerce, is a worl which hns twe very distlact meanings. In its more general employment it is understood to express the money which is divlded, pro rata, among the creditors of a bankrupt's en.tate, out of the amount realized from his asseta. The other meaning attached to the werd dividend aigr: fies the periodical division of profts among shareholders of Insurance, rallroad, bank, and other corporations.

Diving-bell. First mentioned, though obacurely, by Aristotle, 325 n. c. The d'ving-bell was first used in Europe A. D. 1509. It is aaid to have been used on the coast of Mull, in oearching for the wreck of part of the Spanish Armada, before A. D. 1669 . Lalley greutly improved this machine, and was, it is aaif, the first who, by means of a diving-bell, set his aot on dry ground at the bottom of the sea. Sm saton applied the condensing-pump to force down air. Mr. Spmlting and his assistants going down in a diving-bell in lieland were drowned, June 1, 1783. The Royal Giforge man-of-war, which was aunk off Portsmouth in 1782, was first surveyed, by means of a diving-hell, in May, 1817. Lately, and particularly in 1840, it has been employed in sub-marine surveys. The first divingbelle was the wife of Captain Norris, at Plymouth, who descended in one a fow years ago.-llaydy. It is an apparatus ly means of which persons are let down and enabled to remain under water, and execute various operatigno: such as leveling or clearing the buttom of harbors, preparing a foundation for buildings, bringing up sanken mnterials, etc. The principle of the diving-hell depends on the impenetrability of atmoapheric air, and may he illustrated by a very famitiar experiment. Bring the edge of an inverted tumbier, or any close vessel, to the surface of the water, ant, keeping the mouth horizontal, press it down in the water. It will be seen that, though some portions of water ascend into the tumbler, the greater part of the space remains empty, or only filled with air ; and any object placed in this apace, thingh aurrounded on all sides with water, would remain perfectly ${ }^{\circ}$ dry, In fact, the quantity of air remains the same, hut is compressed Into a smaller volume, in proportion to the depth to which it is made to descend. Now, if we conceive a vessel of wood or iron, suffleiently capacious to hold several men, to be suspended hy a chain, and lowered, ty means of welghts attachel to it, to any momerate depth under water, it is evldent that they may remain there for a conviderable time, and perfurm atiy operattion that could be exceuted on land in the same comfined space. The machine, however, us thus describeit, is liable to two great defects, which must be obviated by other contrivances before any great alvantares can be derived from it. In the tirst place, as the uir by its compressibility allows the water to enter the lower part of the 'sell, the dry space is not only diminished, but the bottom on which the lell rests, nud where the operations are to be carried on, is also covered with water to a proportional depth. In the recond place, the air within the bell, by the repented respiration: soon frecones mephitie, and unfit to suport life; so that it is neceasary to clevate the apparatus after short intervals to admit a fresh supply.
it is not known at what period the diving-iell was Invented. Heckman, in his "1listory of Inventime," ment lons that nt 'Toledo, in the 1 ith century, $t$ wo (irecks, In the presence of the emperor Charles V. nnd several thousand spectators, let themselves down uniler water In a large inverted kitle, whth a burning light, and rose again without heing wet. (ieorge Sinchair, the author of "Satan's Invisible World Displayed," in his work entitled "Ars Nova et Magna Gravitatis et Le*
vitatis,' the year treasure went to bridea, ployed. have allt sittle use means of der wate alr to esc as havin feet in it: whose di tom 5.
could sin its bottom direction. the light had been caused a be cased having a as the air let it eut low. To trank or $h$ bunc-hole could esce The barrel the bell. the bell w as their en in the bar per parts o the bell, w low nnil fil snce the al advantnge sufficient $q$ pelled fron the sea leid
lly mear fresh nir, it of time unt atill found and even c bell having pends entl water; and considerabl the chain $t$ Inevitubly divers. An is, thant of come upon from the bo could be gi riated by Spalding o of being $u_{1}$ uneven bot which lo ea rope passin. other welgh that they ce as soon ins t mained sus] of the heil weight is in tom ; nnd a the divers, 1 in their pow or, by ullo Another con Me diviled above the
vitatis," mentions soma attempts that were made about the year 1605 to ralse, by means of a diving-bell, the treasure from the ships of the Invinclble Armada that went to the bottom near the Isle of Mull, in the Hebriden, and describes the kind of bell that was employed. But on account of the defects to whlelı we have alluded, the divlug-bell contlnued to be of Very inttle uee till the tlme of Dr. Halley, who contrived a means of introdueing freeh air lnto the bell while under water, and of allowing the mephitic or breathed air to escape. The bell he made use of he describes as having been of wood, containing about 60 cubic feet In lts cavity, and of the form of a truncated cone, whose diameter at the top was 3 feet, and at the bottom 5 . This was coated with lead, so heavy that it conld sink empty, and the welght so distributed about its bottom that it conld only descend in a perpendicular direction. In the top a clear glass was fixed, to let in the light from above, and a cock to let out the alr that had been breathed. To snpply the air to the bell, he caused a couple of barrels, of about Bi gallona each, to be cased with lead, so as to sink empty, each of them having a lonng-hole in lts lower part, to let in the water as the air in them condensed on their descent, and to let it out again when they were drawn up full from below. To a hole in the uppermost part of the barrels a trank or hose was fixed, long enough to fall below the bung-hole, and kept down by a welght, so that no air could escape by the hose till its end was raised up. The barrels thus prepared were let down by the side of the bell. A man etatlonod on a stage suspended from the bell was ready to take up the hose; and as soon as their ends were brought to the surface of the water in the barrels, all the alr that was included in the upper parts of them, was blown with great violence into the bell, while the water entered at the bung-holes below and filled the barrels. Ily means of this contrivsnce the air was not only kept freeh, but another great advantage was gained, namely, that by admitíng a sufficient quantity of it the whole of tho water was expelled from the inelde of the bell, and the bottom of the sea lsid dry.

By means of this contrivance for the admission of fresh alr, it was now possible to remain for any length of time under water; but the use of the apparatus was still found to be attended with sune inconveniences, and even considerable danger. The divers within the bell having no power over it, its rising or sinking tlepends entirely upen the people at the surface of the wster; and as the hell, even when in the water, has considerable weight, there is always a possibility of the chain by which it is raised breaking, which would inevitably be attended with the destruction of the divers. Another danger, atill inore to he npprehended, is, that if the mouth of the bell, in it descent, shonld come upon a sunken ship, or a rock projecting abruptly from the bottom, it inight he overset hefore any slignat cauld he given to those above. These defects were obviated by the very ingenious contrivances of Mr. Spadiling of Edinburg. In order to avoid the risk of being upset when the bell descends on a rocky or uneven bottom, he suspended a considerable weight, which ho called a balance-reight, helow the bell, by a rope passing over a pulley fixed in the Inside; and the other welghts aitached to the hell being so aljusted that they could not sink it without the balance-welght, as son as the latter rested on the ground the bell remained suspended in the water. In case of the mouth of the bell being caught by any obstacle, the babanceweight is immectiately lowered, till it rests on the bottom; and as the bell, when thus relieved, is buoyant, the divers, having disengaged it from the rock, have it in their power elther to descend, by pulling in the rope, or, hy allowing it to run, to asecend to the surface. Another contrivance of Mr. Spalding deserves mention. Ifediviled the bell Into two compariments, the one above the other, and conmmicating by means of a
stop-cock. The divers are statloned ln the lower one, and the welghts are so adjivated that when the cavlty above ls empty, the bell is buoyant; when it is filled with water, the bell slnks. Immediately above tho partition are some slits in che sldes of the bell; and at the top is an orifico, which can be opened or shut at pleasure. Suppose, now, thls orifice being open, the bell is required to be lowered; as it descends, the water enters at the slits, and the air escapes by the orifice. When the apparatus is entirely under water, and the cavity coneequently completely filled, let the orifice be shut. The bell will now continue to descend ; but If the stop-cock communicating with the upper compartment be opened, the air will rush from the under to the upper, and displace a quantity of the water, and the apparatus will be lightened ly the whole of the water so displaced. The divers have it thue lu thelr power to regulate the descent or rise as they please. By admitting a certain quantity of air Into the upper oavity, the deecent of the bell is arrested; by admitting a greater quantity, it becomes buoyant, and rises to the top. This method of constructing the diving-bell has not, however, been adopted.

The greatest lmprovement on the diving-bell, since that of IIalley, was made by the celebrated Mr. Smeaton, and consists in forcing down a continued stream of air, by means of an air-pump, through a flexible tube; and this plan is now always adopted. In the year 1788, Smeaton constructed a diving-hell, to be used in the operations then contemplated at Ramsgate harbor, on a new and improved nlan. Instead of a bell-shaped vessel sunk by weights, his apparatus consisted of a square chest of cast-iron, $4 \frac{1}{2}$ feet loug, $4 \frac{1}{3}$ feet high, and 3 feet wide, affording sufficient room for 2 men under it. It was cast of such a thicknese that its own weight was sufficient to sink it ; and its thickness was gre? $\cdot r$ near the mouth or lower part, to provent it from $b$ 13: easily overset. This construction of the diving +11 gave the men within it no power of raising or sinkin ${ }_{e}$ it ; but as the apparatus was made to be used nt a place where the nature of the bottom was known, this disadvantage was not considered of great consequence; and, in fact, it is found by experience that it is better to leave the bell to be entirely guided from above. On account of the fucility with which water conveys sound, the atrokes of a hammer on the inside of the bell can ba heard at a great distance; and thd sound coming through the water has a peculiar character, which can not be mistaken. By provious arrangement, any directions can be given in this manner. For instance, 1 blow may denote more air ; 2, stand fast ; 3, heave up; 4, lower down, and so on. With these successive in1provements, tho diving-hell is found to be a most important machine in all the great operations to bo performed under water. It was used with great advantage by Mr. Rennie in the construction of the vurious harbors he projected; and it has recently been successfully employed in deepening tho Clyde between Glasgow and Grecnock, and Inproving the navigation of the river. Sce the article Diving-bell, in the new edition of the Eincyclopedia Britannica. See Am. Jour. Scince, xxii., p. 825 ; Nlewkwod, xvii., 336; L1TTEL's's Museum, vi., p. 515.

Djidda, $a$ town of Arabia, on the Red Sea, cliont 21 miles from Mecen, of which it is the seaport, in lat. $21^{\circ} 29^{\prime}$ N., loug. $19^{\circ} 14^{\prime} \mathrm{E}$. It is well built. Tho strects are unpared, hut spacious and airy; the houses hijgh, and constructed, for the most part, of madrepores and other mariue fossils. The supply of water is seanty, and its quality Indifferent. Small vessels upproach close to the quays; but large vessels are obliged to anchor in the ronds, nhout 2 miles off, loading and unlouling ly moans of lighters. The entrance to the roads is diffenlt, and should not be attempted withont a pilot. Djidita le a place of considerable commercial importance. It is the entrepft in which is centered the greater part of the conunerco between India, Egypt,
and Arabla. Many ol its inerchant possess large capitals: some of them as unuch ss from $£ 150,000$ to $\mathbf{\varepsilon} \mathbf{\varepsilon} 00,000$. The trade in coffee brought from Mochs and cther ports in Yemen, is the moct considerable, but it is said alsc to be the mest hazardous. The returna ure princlpally made in cash. The trade with India and the Gulf of Persin is asfer than the coffee trade, and is very considerable. Djldda hns also a good deal of intercourse with the ports of Cusseir, Sounkin, and Masseuah, on the opposite coast of the Red Ser. The imports from the last two principally consiat of alaves, gold, tebacco, dheurra or barley, hides, butter (of which immense quantities are maile nee of in Arabia), matn, ete.; In return for which the Africsns receive Indian goods suitsble for their markets, drusses and ornaments for their women, dates (which are not proluced in any part of Nubia), iron, etc. The prinelpal article of import from Cosseir is wheat ; and net only Djidda, but the whole Hedjaz, or Hely Iand of Arabia, is almost entlrcly dependent upon Egypt for corn. Coffee is the principal article sent in return. Business is transueted at Djidda with ease and expedition. The number of ahips belonging to the port la estimated at 250 . Owing to the acarcity of timber, nene of them are huilt sit Djidda-these lielonging to it leing either purchased at Bombay or Muscat, or at Mocha, Ilodeida, or Suez. For a conslderable perlod each yenr, lefore and after the feast of Ramadian, whan pilgrima come from all quartera to visit Merca, the town is thronged with sirangera, and a great deal of mercantile Imsiness is transaeted. Djidda is at present, and han lreen for a number of years, under the government of the Racha of Eigy?t. The moneys, weights, and meas-
ef the latter coontry (for which see Alexanidia) ..re now generally unel in Djidda, the commerce of which ha tran much improved and extended in consequence $u$. comparatlve security and good order enforced by we pachn.-Bunckilaind, Travels in Ambia, vul. i., pp. 1-100.

Dock, an inclosed place for the reception of ships, either for their aecurity or for the convenience of building or giving them repairs. This worl has benn derived by some, hosurilly enough, from the Greek iexopal, to recejve. That we lit jt , along with almost the whele of ous aen tern:, from tha northern continental nations, is sufficiently o svious. Thus, in J'lemish, it is dok; Tentonle, dock Swedish, docka; Sulo-Gothic, docka; perhaps originally from dekken, to cover, protect, secure, inclese. The dock for inclesing the prisoner In a court of justice is evidently from the sama origin.

Docks for the reception of ships are of two kinds, tret and dry. A rect-dock may either have gates to retaia the water In It, so that ships shall constantly remain afleat, or be left open for the tide to flow into and ehb out of it at pleasure, either leaving it dry at low water, or with a certain depth of water remsining in it, according to its construction and situation with regard to the low-water mark, and to the elbing of the sea at rpring or neap tides. A wet-lock without gates is generally distinguiahed lyy the name of a basin, which, however, is sometimes indiscriminately applied to a wet-dock, whether with or witheut gates. A dry-dock either becomes dry by the chbing of the thle when the gates are left open, or by shutting the gates at low water, and pumping out whatever water may remain in it at that time, by the power of men, hersea, wind, ar by the atean engine.

IFet-docks.-A wet-dock may bo defined to be "a basin of water, in which rhips may te kept afloat at ull times of the tide;" a dry-doch, a "receptacle in which every part of a ship can he examined, and its lefects repaired." Ship may also be conveniently lulit in dry-locks, and floated out by openiag the gates; though in all dockyards there are places aet apsart fer this purpose, under the name of alips. A wet-dock is calied by the Franch un basin; a dry-dock,
une forme; and a slip, une calle. The digging out the earth, and bullding the surrounding walls of masenry to prevent the sidea falling in, and the preparation of the mortar and puzzolana, in the construction of a wet-dock, are atzended with great labor and expense. The two wet-decks or basinn of Cherberrg (nee BreakWATER), which are ameng the finest rpeeimens that exiat in the world, are eatimated to have ecast $\mathbf{£ 3 , 0 0 0 , -}$ ( 00 sterling. The jabor of excavation may sometimes be sparod, and a series of wet-docks or basias convenisntly made, by turning the course of a tide-river throngh an isthmus, and placing a pair of gates at aach end of the old channel. In this way, were the new decks of Bristol constructed out of the bed of the Avon. Wet-docks are ar improvement in navigation and commerce oi the aimost importance, but of very modern date in this country; indeed, they owe their introduction entirely to a spirit of intividual enterprise In commerslal spectilation. Liverpool might still have remained a poor fishing-viliage but for its cenvenient dorks, which net conly produce to the town and corporation a large revenue, but insure to the merchant every possible facility in refitting, loading, ases discharging his shlps, whatever their burilen or their cargo may be, without being exposed to the risk of lesing both ship and cargo in a rapid tide-river; and at all events, to an unavoidable delny, occasioned by distance, the vesther, or tue state of the tides.

London, though unquestionably the first city in the world for its opulence, its commerce, and public apirit, and possessing withtn itself the powerinl internal mesns of supporting docks, and all other conveniences that trade and shipping nusy require on the most extensive plans; Lordon wos the last to try the experiment of docks, except in the cose of two spitited individuals, Mr. Perry, at Blackwall, and Mr. Wells, at Greenland Dock, both private ship-builders. Notwithstanding the totnl inadequacy of legal quays, which subjected the merchants to incalculable losses and delays, and in many cares proved absolutely ruinous; notwithstanding the effect of the heary, expensive, and fatal embarrassments experienced regularly on the arrival of the Weat India fleets, and the annual leases, hy plunder in the rivar, on Weat India produce, which alone were calculate! to amount to $\mathbf{\leq 1 5 0 , 0 ( 4 )}$ to the proprieter, and $£ 50,000$ to the revenue, and more than the double of those alima, including other branches of commerce; it was net till the year 1799 that prejudices and private intereats wera so far removed as to enalife the merchanta concerned in the West India trade to obtain an act of Purliament to catry Into execution a plan of docks, quays, and warehouses, for the convenience of that trade on the Isle of llogs. Since that time the London Decka, St. Katharine Docks, and various othe:s, have been completed, to the incalculable benefit of the shipping interest and the commezce of the metropolis.
The docks of Liverpool were the first of the kind that were construeted in this kinglom, by virtue of an act of Parliament, jassed in 1708 ; and from that period the town of Liverpool has rapilly nuised itself from a poor fishing-village, and a port for ceastingveasels, to the the second commercial town and port in the empire ; and the improvements carrici out for the enlargement and better arrangement of the decks, rendered it, for convenience and appearance, in this respect the very tirst, not even London excepted.
It appears from a statement, apparently authentic, that in the ten years ending with 1808 the number of ships which entered these docks was 48,497 , tonnage $4,054,204$; nnd the dock duties received, $£ 329,566$; and that in the following ten yenrs, ending in 1818 , the number of shipa was 60,200 , the tomnage $6,375,560$, and the amount of dutien, $\boldsymbol{f} 660 \% 38$; while for a singie year, endiag June, 1853, no less than 20,490 vessels entered the docks, the tonnage of which was $\mathbf{3 , 8 8 9 , 9 8 1}$, and the amount of dutiea, $£ 256,702$-the
largest amount yet received-the following being the return for the last ten $y$ gars :

| Yoar. | Number of vensele. | Tonanga. | Amount of duales recelved. |
| :---: | :---: | :---: | :---: |
| 198 | 16,906 | 2,445,278 | 2188230 |
| 1814 | 18,411 | 2,682,712 | 185,164 |
| 1943. | 20,52t | 8,016, 0.41 | 2:88,247 |
| 18.15. | 19,98t | 3,094,444 | 213,428 |
| 1817. | 20, 8,9 | 8,851,539 | 244,435 |
| 1835 | 20,811 | 8,294,963 | 197,617 |
| 149. | 20,783 | 3,4230,146 | 234,224 |
| 1*) .................. | 20,4.7 | 8,546,897 | 811,718 |
| 151. | 21,071 | 8,787,086 | 285,527 |
| 1542................. | 21,473 | 3,912,506 | 243,686 |
| 1453.... ......... | 20,490 | 8,890,981 | 250,702 |

It may also be ohserved, that this extraordinary increase has taken place since the abolition of the slavetrade, which, it was formerly asserted, would bo the ruin of Liverpool.

The W'est India Docks, on the River Thames, were comnenced in lebruary, 1800, and opened in Augrist, 1802. They conslst of an outwarl and a homewardbound dock, and communicate by means of locke with a busin of five or six acres on the end next to llackwall, and with another of more than two neres at the end next to Limehouse, both of which basins communleate with the Thames. The outwarl-bound dock is about 870 yards in length, by $13 \overline{5}$ in width, containing consequently an araa of more than 24 acres; the home-ward-bound dock is of the same length, sind 166 yards in width, its area being little short of 30 aeres; and the two together will contain with ease st least 500 vessels of from 250 to 500 tons. The whole are surrounted with a high wall, and, as a security against fire, th:e moment that a ship enters the dock the crows are discharged, and no person whatever is allowed to remain on board, or within the premises, the gates of which are closed at a certain hour. They are surrounded by immense warehouses, winich are estimated to contain nearly 10,000 hogsheads of sugar, and an imnense quantity of rum. The sum authorized by Parliament to be raised for completing these docks and warehonses was $£ 1,200,000$, and the total expense was probably not far short of $£ 1,500,000$; yet on this eaptital the subseribers have been receiving from a very shert period after their opening, 10 per cent., which, by the terms of the net, is not to be exceeded, and the term granted ls limited to $\mathbf{2} 1$ years; lut, like most otler property, these docks have been greatly depreciated in value, and at present barely pay 8 per cent.
The next set of docks that were undertaken for the advantage of the trade of the capital were the Levidoit Docks. These docks are situated In Wapping, and are appropriated for the reception of all ships arriving in the port of London with wine, spirits, tobaeco, and rice on board, but not exelusively, ships having on boaril other cargoes being admitted on the payment of certain fees. The act of larliament for incorporating the Dock Company was passed in 1800 , anthorizing them to raise a capital of $£ 1,200,000$; but such was the number of houses to be purchased. (we betieve not lesa than 1200) occupying the site of the dock, that this capital, ty subsequent acts, was extended to $£ 2$,200,000 , the dividends on whieh are limited, as in the West Inctia Docks, to 10 per cent. The great dock is 420 yarls in length, and $2: 30$ yaris in width, covering an area of 20 acres. A lasin of 3 acres nearly, connects it with the river. The warehouses are very naggnificent, and the tomacco warelouse is the grandent and most spacious bullding of its kind in the worlit, being capable of containing 25,000 hogsheads of tohacco, and the vaults underneath as muny pipes of wine. This aingle building, under one roof, is said to occupy upward of 4 acres of ground. These docks were npened in February, 1800.
The East India Ducks, for the exclusive reception and accommodation of the Eant India shlow, were the last in successinn. The act for the incorporation of the comjany was passed in July, 1803, authorizing
them to raise a capitsl of $\mathbf{\Sigma 2 0 0 , 0 0 0}$, which was afterward increased to $£ 600,000$, the dividend, as in the case of the two others, to be limited to 10 per cent. These reks are altuated at Blackwall. That for the reception of homeward-bound ships la 470 yards in length by 187 in width, containing a surface of rather more than 18 acres; the outward-bound dock is 200 by 178 yards, snd is consequently something moro than 9 acres. An entrance-baeln of 3 acree nearly, and n spacions lock, connect them with the Thames.

Beeides these there are the London Docks, the St. Katharine's Docks, and the Victoria Docks, in course of construction; of these, detailed secounts will be found nader the article, London.

In other yortions of England and Scotland, there have been costly docke constructed of late years, viz. : Ilull has 5 docks, occupying, with their basins, a water area of 494 acres. A timber-pond of 9 acree wasp constructed in 1853 . The tonnage of shipping in 1852 was 799,866 sulling-vessels, and 305,021 steam-vessels; the amount of dock dues, $£ 433,755$. Southampton, tho station for the West India mail and Liebon and Alexanilria steamers, is now constructing extensive doeks and quaya to accommodate their great and increaslug traffic. Grinsby IIarbor has lately been greatly improved. Wei and dry docks have been constructed, on the most approved principles, st tl -xpense of $£ 250,000$, and a cunal cut into the Humber calculated to alinit vessels of 1,000 tons' burden. Hertlepool has also been of late years greatiy enlarging its harbor and dock accommodation. Sunderland has new doeks of 18 acres' extent, which were opened in 1850 , and which can accommodate 300 sail. Dundee has lately immensely improved her barbor and docke; besides two emaller docks, the wet-dnek now conatrueting will occupy $14 \frac{1}{2}$ acres, the lock of which will be 60 feet broad. Aberdees has a wet-duck, where the largest vessele may float in safety; it covers nearly $\cdot 10$ acres, with quay room of about 9,000 feet. Leith, the port of Edinburg, has 3 wet-docks, containing about 15 acres of whter room. Detailed accounts $0 \dot{f}^{\circ}$ these docks will be given under the names of the respectito ports.

The naval dry-docks of the United States are among the most stupendous mechnaical enterprises of the country; they are constructed at the navy-gurds of New York, Charlestown, Norfolk, ete. By far the mest extensive and magnificent of these atructares is the granite dry-dpek at Brooklyn; 80,000 tone ot atone have been nsel in its construction; the masonry fonntations are 400 feet in length, and 120 in breadth. The main chamber is 286 feet long, and 30 feet broad on the bottom; 307 feet long, and 98 fect broad at the top within the lolling-gowes; the haight of the wall is 36 feet. The work was commenced in 1841, and took 10 years to complete it; the aggregate expenditure was above $\$ 2,100,000$.

Dry-docks.-A dry-dock, requiring to bo perfectly water-tight, demamils the greatest care in its construction. It is sometimes lined all around with wool, but more generally with masonry, mostly of hewn granite. The expense is rery considerable, as the foundation, by means of piles or otherwise, must be well secured, all leakuge prevented, and the enlvers or drains prop)erly constructed, to let in and carry off the water without its untermining the quays or piers. The cost of a complete dry-dock will vay probably from $£ 20,000$ to $\mathbf{£ 1 0 0 , 0 0 0}$, accorling to the size of the ships it is intended to admit, and the nature of the ground on which it is to lie constructed. A ilry-dock may be single, or mude to contaln only one ship; or double, to contain two ships; but the former is the most common, hecause most convenient. As it is of the utmost importance to preserve the water is a wet-dock, and to keep it ont of a dry-dock, it may be proper to describe the ditlerent kinds of gates which are in use for this purpose.
bock Gatez.-Tho most common, and on the whole perhaps the best and nost convenient, fre swinginggates, which open in the middle, and lie flat, one part against each wharf or side-wall of the passage leading into the dock or basln. This kind of dock-gate reguires to lee made of great strengith, with sound timber and good iron, and the guilgeons on which the hinges turn to be well secured into the stone abutnents. Care also must he tuken to make the tottom of the passage and the bottom of the gates perfectly plane and parallel, to prevent leakage, and give facility to their opening and shutting, which is usually usslsted ty roliers fixed in a groove, and performed by meana of a small capstan on each pier. Attached to the top of the gates is nsually a foot-bridge with railing, which, separating in the middle, opens and shuts with the gates.
The most simple but by no menns the most effective contrivance for keeping out the water, is the wicketgate, It consists of three parts, which when opened are removed separately. This gate is rarely made use of unless whare the ubutnents are not sufficiently strong, or their foundation suffielently secure, to bear tho welght of a pair of swinging-gates.

A thind kind of gate consists of a floatiugodam or caissoor, first introduced Into this country by General 13. widan, and first appied to the great new hasin in Port-mouth dechyarl. They are built somewhat in the shape of a Greenhand fikhing-loat, sharp at the two ends, narrow, and deep in proportion to the depth of water at the eutrance of tho dock. The keel fits inte a groeve at the bottom of the passage, and the two slauting ends rise and fall iu correrponding grooves cut into the two abintments. Py letting in the water, the caissoon sinks in the grooves, and acts as a closed gate; and by pumping out the water, or letting it out to a certain dejth, the dam thoats as the tide rives, nud the nurrow part, rising to the top, is readily disengarged from the groores, and easily floated wway as a hoat. The advantages of these floating-dams, as stated by General Bentham, are, that they are cheaper of conetruction than the gates heretofore in use for closing docks or lasins; that they occupy less space, are more easily repaired, and one and the same dam is capable of being used, an need may require, in different places at different times. These calssoons have also the atvantage of serving as bridges of communication for losded carriages across the entrances they close, and they require much less labor than athtes in opening or shutting up passages into docks or basins, since their occasional buovaney anay be obtained without pumping water or untoading ballast.

Docking a Ship.-When a ship is brought Into a dry or graving doek, she gradually subsides as the water flows out, till ber keel rests upon the line of square blocks which are placed to receive it along the middie for the whole length; and on these blocks whe is kepi steady and upright by a number of shores or poles on each alde, one of their ends loeing placed on the altars or steps of the dock, the other under the sblp's bends and bottom. Ao a ship under repair generally requires something to be done to the main or faise ked, or at any rate these parts require to lee inspected, sometimes to whift the main keel, or to add to the whole length of th. false keel, it was always found necessary in such cases to remove the blocka, in onle- to get at the bottom of the ship; but this operation could not be performed withsut the more serious one of first liffing bodily the ship clear of all the blockn, and suspending her as it were in the air. This process was performed liy driving wedges sinuitaneonsiy uniler the eudn of nill the shores that supported the ship; an operation that required from four to five hundred men to enatile thens to suspend a ship of the first rate. When the Son Josef, a large three-decker, regulred lier bottom to be examined in 1800, the assistance of almest every artificer in the dockyard was found necessary to per-
form thia process of lifting her; ner was this the only inconvenience; the shlp, thus suspended, suffered very material Injury by the pressure of her ewn enermous weight against the ends of the shores that supported her, such as forcing in her sides, straining the knees and all her fastening, breaking the treenalla, etc.

Tu remedy these gharing incenveniences and very serious injurim that ships thus placed were apt to sustuin, and $t($ et ct a saving of time and expense in the operation, , r. ( 'erward Sir Rebert) Seppings, then master shipn. 'gat, and afterward surveyor of the navy, contrived, several years ago, an improvement, as ingenlous as it simple, by which twenty men wifi suspend the largest slifip in the navy, or rather, which amonnts to the same thing, wlll disengage any ons block that may be required, in the space of two or three minutes, wlthout the necessity of suspending her st all; and, us a first rate in dock sits apon about fifty blocks, these twenty men will clear her of the whole of these blocks in alout two honrs; and as the saving of a day in compieting the repairs of a ship is frequently ths asving of a whole spring-tide, the decking and undock. ing of a ship may make, and frequently has made, by this new method the difference of a fortnight in the time of equipping her for sea.

The block of Mr. Seppings, instead of heing one solid piece, consisted of three wedges, or, more properly apeaking, cf one obtuse wedge and two inclined planes, which, when put together and placed under the shlp's keel, appear as under, when viewed ln the dircc-

tion or line of the keel, whera $G$ is the wedge on which the keel rests, having its obtuase angle equal to $170^{\circ}$, and IIII are the two inclined planes, each having an acute angle of $5^{\circ}$. The wedge is of hard wood, having its two sides lined with iron; the two inclincd planes are of cast iron. When one of these blocks is to be disengaged from under a whip's bottom, nothing more is required than a few wibut blows alternately on the two sides of the two inclincl planes, when they fly out, and the middie part or wedge drops; and the facility of thus disengaging any of the blocks is in proportion to the quantity of pressure upon that hlock. The strokes are usually given by a kind of catapulta or battering-rans, being a thick apar or pole moving on a pair of whecls, as KK. This simple centri"ance to get

at any part of a ship's bottom by remeving In auccession all the blocks, without tho necessity of lifting ths ship, which the removal of any one block required to be done by the old method, is now universally adopited in all the dockyarls; and the lords of the admiraity marked their sense of the great utllity of the improvement, ty bestowing on Mr. Seppings in reward of $\mathbf{£ 1 0 0 0}$ for the invention.

Ronfing the Docks.-Another very material improve-
ment intr bullding of war by of the $d r$ sffects we were ente quite ollv moisture activity to and that a open to th to frost, r her timbe water-seal rifted with f. king d. .s.ace ol workmen, the vichssi and their I detriment roofing ov edly been false econo practice, b roofs are having the to the qua liy this col ing, as it draught of vented fro numerous are in gene sred with no répair, s ships in 81 statement of the Nar tions and into the do iavention house over afford " me artificially duction of within the for assisti mure labori on all the s sides a vari iaconvenie to have ex ter's shop only he et crowiled st: With rega slips, they morial ; an Mr. Stran year 1792, that two-at cred slips, Carlserona both are : sbips under

Hutling were made pediting th, of which m that the : with mest was that o sions, on b docks. It of this kis basins, ner
ment introdnced is that of covering the dry-docks and bulling slips with roofs. The rapid decay of shipe of war by that species of diaease known by the name of the dry rot, attracted very general attention; ita effects were well known, hut a variety of opinions were entertained as to its causes and its curo. It was quite olvvione, however, that exclusion of air and molsture wore the two great operating causes in giving activity to the progress of the disease (see Dry Rot) ; and that a ship in dock, atripped of her planking, and open to the weather in every part, niternately exposed to frost, rain, wind, and sunshine, muat at least have her timbers dtfferently affected, aome swelied and water-soaked, others shrunk with heat, and others rifter with the wind and frost ; and, if closed up with r. king in this stato, might be expected, at no great d. .ice of time, to exhibit bymptoms of decay. The workmen, too, in the open docks or sllps, suffered from the vicissitudes of the weather ne less than the ships, and their iabor was frequently anspended, to the great detriment of the naval service. The measure of roofing over tho docks and slips had long and ropeatedly been suggested, but, oither from prejudice or a faise economy, it was only of late years carried into practice, but is now universal in all the yarde. These roofs are generally constructed so as to be capable of having the siles and ends occasionally closed, neconling to the quarter from which the wind may blow; and by this contrivance the timber ia prevented from rifting, as it is liable to do, by the action of a thorough draugit of wind, and the henith of the artificer ta prevented from injury. The $\mathrm{l}_{\mathrm{g}} \mathrm{ht}$ is admitted through namerous windows placed in the roof. These roofa are in general supported on a row of pillara, and covared with plates of iron. The same roof, with little or no repair, serves as a covertng for eight or ten different ships in ancecssion. General Bentliam, who, in his statement of Services rendered in the Civil Department of the Nary, seems to claim to himself all the inventions and improvements which have been introduced into the dockyards for the last forty years, carries bis iavention beyond a mera covering, and proposes to house over the docks and ships ao completely as to afford "means of heating, warming, ventilating, and artificialiy llghting the interior at pleasure; the introdaction of boilers or steam-kilns for bending the planks within the inclosure; the introdaction of machinery for assisting in various operatinns, particularly the mure iaborious ones; the providing room for carrying on ull the shipwright's work within the building; besides a variety of lesser works, such as it is found very inconvenient during the building or repairing of a ship to have executed, for example, in a smith's or carpenter's shop at a distance." Such buildings would not only he enormously expensive, but, in the present crowided state of the dockyards, utterly impracticable. With regard to the invention of covered doeks and slijp, they have heen used in Venice from time tmmemoriai; and it appeared from the evidence given by Mr. Strange, the British consul at that port in the year 1792, before the commissioners of land revenue, that two-and-twenty large ships had heen under coverel silips, sume of them for sixty years nearly. At Cariscrona, also, there nre several covered docks, and both are strongly recommended for the building of ships under cover.
Huuling up Ships.-Among other experiments which were mate in the dockyards for facititating and expeliting the repairs of shlps, one may be mentioned, of which many persons were sanguine enough to think that the successful resuit was likely to be attended witio most important benelits to the naval service. It was that of hatuling up ships of war, of any dhnensions, on building sifis, instead of taking them into docks. It is no uncommon practice, at various ports of this kingdom, where thero are nelther artificial basins, nor natural harbors, to haul vessels of the bur.
den of ffity to two hundred tons, or probably larger, upon the beach, by means of capatane, to give them repairs ; in like manner, most of the large filbing amacks are hanled up for security in tempestuons weather; but the practicability of hauling up ohlpe of war, especially of the larger classes, was a matter of some doubt. Several frigates had, at various times, been hauled upon slips, when the docks were all occupied; and the ease with which the operation was performed induced the officers of the dockyard to propeas the bauling up of a line-of-battle ship. The Kent of 74 guns was selected for this purpose. It was necesary, in the first place, to take her into a dock, to have proper bllgeways prepared, and to be stripped, 80 as to be made as light as posaible ; her weight being, according to a calculation made from the water she displaced when afloat, about fourteen hundred tona. To heave up this weight fourteen capstans were employed, and the number of men to work these were as under:
Nine men to each bar and awifter
1,512
Eight men to hold on at each 112 Three men to esch capstan, to attend the fail.............. 42 Men on board the ship, and employed in other opera-

450
Total of men employed.......................... 2,110
The time occupied in hauling her up, after all the purchasea were brought to bear, was forty minutes. The expense of preparing her, and the loas and wear and tear of the materials, was eatimated at somewhere about $£ 2,000$.

The advantages which slips are auppoed to posseas over dry-docks are many and lmportant, They can be constructed at one twentieth part of the expense; they occupy lesa space; they can be constructed on a steep or a sheiving shore; and ships can be hauled upon them either in spring or neap tidea; whereas a dry. dock can only be made in particular aituations, and, when made, shipa can only be docked and undocked in certain states of the tides; from which circumstance a considerabla delay and inconvenience are frequently experienced. It should be recollected, however, that a large ship must necessarily go into a dock preparatory to her being hauled up on a slip.
It has been considered aa not at all impossible, as was anggested some time ago by Mr. Perring, then the ingenlous clerk of the check in Plymouth dockyard, that the whole ordinary might heroafter bo laid up on sllps, which, if housed over, would unquestionaliy be the best means of increasing their duribility, and preserving them from partial decay. Nor is it certain that in the end it would not be the most economical mode of preserving then. The expense, as appears from the Estimates of the Ordinary of the Nary for the year 1817, is $£ 187,300$ for harbor victuala, harbor moorings and rigginge, etc., besides $£ 135,000$ for wages; tlie chief part of both which aums is on account of ahlps of war laid up in ordinary, nove of which would be required by placing them on slips. It would indeed form a aingular revolution in naval management, if shipe hereafter should be laid up in ordinary on dry land, while the timber of which they are built was considered to be the best preserved under salt water; a process which, from aome experimenta recently mode, promises fair to be the most effectual prevention of, and a probable care for, the dry rot. (See Dny Rot.) This method of preserving timber bas long been practiced at Brest, Carthagena, and several other places on the continent; and the only objection to it in some of our ports appears to bo the attack of the worm known to naturalista by the nsme of Teredo nuvalis, whose bite is almoat aa destructive as the iry rot.

On the other hand, there are very many and aerious objections, even were the measure practicable, of hauling up shipa of the line in particular, to be laid in ordinary on slips. In the first place, the length of seabeach which would be required ia greater than probably all the dockyards in the kingdom could furnish. Sco-


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ondly, the three warrant officers who are !: Jw employed in each ship, and who are the beet men in the service, being no longer necessary, would be turned adrift, and, in all probability, ntterly lost to the navy. Thirily, no large ship could be havied on the slips without being proviously taken into a dock to have her bilgeways fitted, and her bottom prepared for placing her on the slip. The time taken for this purpose must necussarily interfere with the other works of the yard; and after taking her ont, the preparations for heaving; her up, the capstans, blocke, parchaee-falle, chains, and a varicty of other articles, amount to a very largs expenee, not less, with the expense of the roof to cover the ship, than $\mathrm{E} 10,000$ for each ship so bsuled up.
Dockyards.-Previously to the reign of Henry VIII. the kings of England had neither navy arsensls ncr dockyards, nor any regular establishment of civil or naval officers to provide ships of war, or to fight them. They had admirals, howeves, poesessing a high jurisdiction and very great powerr And it would appear, from a very curious poem in IIfackluit's Collection, called The Policic of Keeping the Sea, that Henry V. had both shipe, officere, and men exclusively appropriated to his service, and Independently of those which the Cinque Porte were bound, and the other ports were occasionally called apon to furnish, on any emergency. By this poem it slso appears that Little Hampton, unfit as it now is, was the port at which Henry built hla great Dromions
Which passed other great shlppes of the commons.
But what these dromione were no une can now tell; nor is it easy to conceive how the building and repairing of the (ireat Harry, which in the reign of Henry VII. was launched at Portsmouth, and cost $£ 15,000$, was managed, considering the very rapid strides made at once from the small Cinique Port vessels, manned with 21 men and a boy, to this enormous floating castle. At that time it is well known that thoy had no docks, nor even subatitutes for them.

The foundation of a regular navy, by the eatablishn.ent of dockyards, and the formation of a board, consisting of certain commissionors for the management of its affairs, was first laid by IIenry VIII., snd the first dockyard erected under his reign was that of Woolwich. Those of Portsmouth, Deptford, Chatham, and Sheerness, followrd in succession ; and the last, excepting the new and unfinished yard of Pembroke, was Plymouth, which was founded by William III,

From the first establishment of the dockyards to the present time, most of them have gradually been enlarged and improved ly a succession of expedients and make-shifts, which answered the purposes of the moment; but the beet of them possess not those conveniences and advantages whlch might be obtaiued from a doekyard syetematically laid out on a uniform and consistent plan, with its wharfs, hatins, docks, alips, magazines, and workshops, arranged according to certain fixed principles, calcuiated to produce convenience, economy, and despatch.

Neither at the time when dockyards were firat eatablished, nor any subsequent periods of their enlargemer! as the nacessities of the service demanded, conld it have been foreseen what incalculsbie advantages would one day be derived from the aubstitution of machinery for human labor; and without a reference to thie vast improvennent in all mechanical operations, it could not be expected that any provision would be made for its future introduction; on the contrary, the docks and slips, the workshops and atorehouses, were successivoly built at random, and placed wherever a vacant space would most conveniently admlt them, and in auch mannor as in most casea to render the suim sequent introduction of machinery and iron rallways, and those various contrivances found in the large manufacturing estabilshments of privato individuals, quite imposalule, even in the mout commodious and roomy dockyerds.
i The perfection of a dockyard, independently of the advantages of machinery, which are but contingent, may be considered to depend upon one or more extensive basins, surronnded by spacious wharfs or qusys. By means of these a prodigious saving of time, labor, and expense may be saved, in every stage of the progrees of fitting out a ship for sea, from the moment ohe is lamahed from the slip, or taken out of a dock, as well as in dismantling a ship on returning to port to be paid off and repaired, or lald op in ordinary. For this purpose the docks and slips should occupy one of the sides of the basin, with working-sheds for carpenters and joiners, smiths' shops, saw-pits, and seasoningsheds between them. The ship, when completed on the slip sad launched into the basin, may then be taken immediately into the adjoining dock to lee coppered. From this she proceeds to the second side of the hasin, in the corner of which is the ballast-wharf. The remainder of the side will prolimbly be occupied by the victualing department, with appropriate stores in the rear for various kinds of provieions, and behind these the bakery, brewery, and slaughter-houses; on the wharf the iron tanks for holding water, now univeraally used for the ground tier in lieu of wooden casks. These are taken on board next after the ballast, and, together with the superincumbent casks, would be filled in the ship's hold by means of fiexible pipes to convey the water into them. The provisions would at the seme time be taken on board st the same wharf, in front of the victualing stores. The third side might be appropriated to the ordnence department, with the gun-wharf extending along the whole side, and the gun-carriage storehousea, magazines, etc., in the rear. The fourth side would be occupied as the anchor wharf, with the cable storehouses, the sail-lofts and stores, rigging-loft, and magazines for various stores, in the rear. Bohind these, again, on the first side, contalning the dry-docke, and building-8lips, the ground would be appropristed to the reception, berthing and converting of timber, from whence iron railways would lead to the saw-mills, saw-pits, and workshops, all of which would be placed on that side. On the second sido a pond or basin for the victualing lightere and craft, with wharfs communicating with the manufactories and storehonses; the same on the ordance or third side; and on the fourth side ulght be placed the ropery, hemp etorehouses, tar-houses, with a basin for hemp-vessels, lighters, and the like. Coumunicating with the great beain on the building side, and siso with the river or harbor on ti: a shore of which the dockyard is to be formed, shonld be a mastpond, with a lock for the storing of spars. In front the mast-houses, top-houses, capstan-houses, and a slip to launch the masts into the pond. IIere siso might be placed the boat-houses and boat-pond.
A Systematic Dockyard. $-\mathbf{A}$ peninsuiar situation, having at least three fourths of its shore surrounded with deep water, is peouliarly favorable for some such arrangenient as is hera mentioned, as any number of loeks and canals might be made to communicate with the river, so that ships coming into the basin might not interfere with those golng out, nor the lighters aad other eraft bringing their several species of storea, with either or with one another. By such an arrangement a ship would be equipped for sea at half the present oxjense, and within half the uausl time. A ship fitting out for an anchorage distant from the dock yard, Ia liable to every inconvenience atd delay, as afl her guns, stores, provisions, and water, must be carried to her in dockyard lighters and other craft, into which and out of which they must be hoisted and re-hoisted; lialie to delay from bad weathor and contrary winds; to be stove aiongside the shity, to the total loas or dumaging of their cargoes. Added to which is the loss of time in going baekwarl and forward, eapechally to the artificers; the desertion of the men; the aceidents from the upsetting of boats; and many other ovila, of a
magnitude not easlly to be calculated, and exceeded only by the disappointment and vexation that navzoidsbly occur when ahips are preparing for some partionlar and pressing service ; all of which, when ships are fitted out in a basin for aes, are avoided. Here no delay, no embezzlement, no desertion can take place. A ahip in roturning from aea may be docked and undocked into the basin with all her stores on board; and If to be puid off, instead of keeping the crew on board for weeks, till all the stores have been delivered into the dockysrd, tine ahip, by the proposed plan of basins, would remain aecurely in the basin, to be atripped at leisure by the riggers and laborers of the yard, and the crew become immediately avallable for other ahips.
Portsmouth Dockyard.-Portamouth dockyard will stways be considered as the grand naval arsensl of England, and the headquarters or general rendezvous of tie British fleet. The dockyard, accordingly, is by far the most cspacious; and the safe and extensive harbor, the noble anchorage at Spithead, the central situation with respect to the English Chunnel and the opposite coast of France, and particularly with regard to the asval arsenal at Cherbourg, render Portsmouth of the very first importance as a naval station; and in this view of it, every posslble attention sppears to have been paid to the extenaion and improvement of its dockyard. The noble ateam-basin, which was opened by the Queen, in May, 1848, with grest ceremony; is one of tha most important of the recent limprovements. Tho sea wharf-wall of this yard, extending $\ln$ the direction of north and south, rlong the western shore of the harbor, is about 3,900 feet in length, and the mean depth may be 2,000 feot ; and it incloses an area of more than 100 seres.

Ia the centre of the wharf-wall, fucing the harbor, is tha antrance into the great basin, whose dimensions are 380 by 260 feet, and its area 21 acres. Into this basin open 4 excellent dry-docks, and on esch of its sides is a dry-dock opening into the harbor; and all of these 6 docks are capable of receiving ships of the largsst class. Besides these, is a deubie dock for frigstes, the atern dock communicating, through a lock, with the harbor, and the hesd dock with another basin about 250 feet square. There is also a chamber, with a wharf-wall on each side, 660 feat in length, and of sufficient width to admit of transporta and merchantships bringing stores to the dockyard. In the same fsce of the yard are 8 building-slips, capable of recsiving the largest ships, and a small one for sluops, besides 2 building-slips for frigates on the northern face of the yard, and a amaller alip for sloops. The range of atorehousea on the north-eust aide, and the rigginghouse and suil-loft on the south-west sidie of the chamber, are magnlificant huildinge, the former occupying nearly 600 feet in length, exclusive of the two intermediate spaces, and nearly 60 feet in width, and the two latter 400 feet. The two hemp-houses and the two ses-store houses occupy a line of buitling which, with the three narrow openinge between them, of 20 feet aach, extend 800 fast. Thie rope-house, tarring-house, sad other appendages of the ropery; are on the same scala. The two sets of quadrangular storehouses, and tha two corresponding buildings, with the intervening timber-bertha and saw-pits, at the bead of the drydocks, losuing from the grent basin, are all excellent, and conveuiently placed. The smithery is on a large scalo, and contiguens to it is an iron-mill, a coppermill, and a copper-reflaery, at which is remelted and rolied all tho old copper which is taken from shipa' bettons; and here, also, are cast bolts, gudgeons, and various articlea of copper used in the navy. The number of sheets manafsetured In one year of the war, amountod to about 300,000 , weighing above 12,000 tuns; on which it has been calculated that a aaving of at least $£ 20,000$ was effected for the public, besidea obtaining a good, pure article. Most of these were constructed under the direction of General Bentham.
(Bentham's Servicea.) At the head of the nerth dock are the wood-mills, at which every article of turnery; rabetting, etc., is performed for the use of the navy, from boring the chamber of a purnp to the turning of a button for a cheat of druwers. But the principal part of these mills is the machinery for making blocks, contrived by that ingentous artist, Mr. Brunoll (see Tbedgoln'a Carpenty y), which can not be regarded without exclting the highest respect for the talents and skill of the inventor.
The northern extremity of the dockyard ls chiefly occupied with seasoning-sheds, saw-pits, and timberberths, the working boat-house, and bout storehouse. On the eastern extremity are situsted the housea and gardens of the superintendent and principal officers of the yurd, the chapel, and the royal uaval college.
Capacity of a Dockyard.- The eapacity of a dockyard for building, repairing, and rofitting ships of war, depends npon so many circumstances that to acarcely admits of calculation; chlefly, however, on the facilities afforded by a suitable arrangement of dry-docks, buidding-slips, and basins, and on the number of shilpwrighta and other srtificers borne on the strength of the yard. In building new ahips, where the materisla are at hand, and no interruptions occur, the capacity may be ascertained to a tolerable degree of accuracy. To complete the building of a $74-\mathrm{gun}$ ship, it-is ciateulated that the labor of one man would be required for 18,000 days, or of 18 men for 1,000 days, or about 54 men to finish her in the spane of one year. A dockyard, therefore, with 500 geod shipwrights, might be expected to launch from 8 to 1074 -gun ships every year, if the cenveniences of the yard sdmitted them all to be employed on the building ; but this kind of ship ia now aupplinnted by ships of 120 and 130 gans, requiring a relative incroase of hands. With regard to repairs, they are so varlous and so uncertain, that it would be next to impossible to form any calculstion that should at all approach to the truth. A writer well versed in naval matters, in attempting to prove the sufficiency of our dockyards, without having recourse to private merchant-yards during, war, has stated, that by a uniform system of management, "the annual regeneration of ships-of-the-line may be safely reckoned at twelve sail, and that of frigstes, at eight sail; and that, besides, there might be docked for casual repairs, in the course of one year, two hundred and sixty-seren sail of ships and vessola of war." -Letter to Lord Melville on the General State of the British Navy.-E. B.

The Brooklyn Nayy Yard ls the most extensive naval dépôt in the United States, situated on the south side of Wallabout Buy, at the north-eastern part of the city, and contains 45 acres of land. It is inclosed by a substantial brick wall on the land side, and on the left hand, as you enter its gate, there ta a flower-garden most tastefully arranged.

This spacious yard affords sufficient room for the residence of the officers, machine-shops, storehouses, etc. The most conspicuous buildings are two large edificea, 250 fect long by 125 feet wide, and 120 feet high, capable of containing the largest ships of war white being bullt. In time of peace several national versels are usually to be seen here, sither laid up or undergolng repairs. A vast amount of cannon, can-non-bulls, bombs, and all kinds of munitions of war, ls always on hand at this deppôt. The Brooklyn drydoek is locnted at the Navy Yard, and is capable of receiving the largest ships of war. This is a magniflcent work, unequaled by any of the kind lu America, and acarcely aurpassed by any in the world. The foumintion is 400 feet long by 120 wide, and the main chamber or baain is 286 feet long ly 30 wide at the botton, and 307 feet long and 08 wide at the top. The weight of the lron folding-gutes is 150 tons; the pumps discharge 40,000 gallous per miuute. The enginehouse is a fire-proof building, containing machinery of
the most perfect kind. The whole occupied 16 yeare in the course of construction.' See Appleror'a Dic tionary of Mechanics.
Doswood (Cornus Florida). The wood of this troe is hard, compact, heavy, and fine-grained, and is suscoptible of a brilliant polish, from which circumatance it may be anbstitated for numeroras purposes to which boxwood is applied. The eap-wood is perfectly white, and the heart-wood is of the color of chocolate: In the United States, it enters into the conetruction of many articles, both for utility and ornament,' such as the handles of light tools, mailets, toys, etc. "It is sometimes used by farmera for harrow teeth, for the hames of horse-coliars, and also for shoeing the runners of aleds ; but to whatever purpose it is applied, heing liable to eplit, it ahould never be wrought till it ie perfectly seasoned. The ehoots, when three or four years old, are found enitable for tha light hoope of emall casks, and $\ln$ the Middle States, the cogs of millwheels are made of them, and the forked branches are converted into the yokes which are put npon the necks of swine, to prevent them from breaking into inclosed fieids. In the parts of the country where it abounds, it serves for excellent fael. The inner bark of this tree is extremely bitter, and is nsed as a good sabstitute for the Peruvian berk. The bark also may be substituted for galls in the manufacture of ink, and from the bark of more flhrous roots, the American Indians obtain a scarlet dye. An infusion of the flowers of this tree is also used by them in the cure of intermittents. The fruit is sometimes taken as a tonic, in the form of a spirituous impregnation, and it likewise forms a favorite repast for various spucies of birds. In England the sole use of this species is an ornamental ahrub, and from its large, white flowers, "emulous of the purity of anow," which finely contrast with tha "forest green," it richly deserves a place in every coilectlon where it will thrive.-Bnowne's Trees of America.

Doldrums. Seafaring peopie have, as if hy common consent, divided the ocean off into regions, and characterized them according to the winds ; e. g., there are the "trade-wind regions," the "variables," the " horse latitudes," the "doldrums," etc. The "equatorial doldrums" ${ }^{\prime \prime}$ is another of these caim piacee. Beaides being a region of calma and baffing winde, it is a region noted for its rains and clouds, which make it one of the most oppressive and disagrseable places at gea. The emigrant ships from Europe for Australia, have to cross it. They are often baffled in it for two or three weeks; then the children and the passengers who are of delicate health suffer most. It la a frightfal grave-jard on the way-side to that golden land. -Maury's Phyz. Geog. of the Sea, p. 209.
Dollar, the name of a ailiver coin of Spain and of the United States; worth 100 centa. The dollar appeare to have been originally a German coln; and in various parts of Germany there are coina of different values so called. This word corresponds to the German thaler, the Low-German dahler, the Danish daler, the Itallan tallero. All these worde, together with our dollar, are derived from the name of the Boheminn town Joachims-Thal (Joschim's Valley), whers, in 1518, the Count of Schlick coined allver pieces of an ounce weight. These, indeed, were not the firat of the kind coined; yet, as they were numerous and very good they became generally known by the name of Joachim'a-thaler, which is the German adjective of Joachim's that, and alao Schllckenthaler from the name of the Counts. As these coins were In good repute, thaters were aleo coined in other countries, but of different value; thus originated the laub-thaler (lenfdollar), Phil $h_{1 p p s}$ thaler, the Swedish copper dollar eto. In Russia, a doliar is called jephimock, from Joachim. -F. A. See Corma.
Dolphin, in nantical langusge, a rope or strap factened round the mast of a ship to give aupport to
the puddening (a mass of yarn or oakum used to provent chafing), where the lower yards rest on tha slings: Dolphin ie also applied to a spar or buoy furnished with a large ring, and anchored, to which a vessel may bend its cable.
Domioll. In' regard to the etates not Christian, not only the Mohammedan states, but all the rest, the true rale appears to be, that contracts of citizens of the United States in general, and especiaily the contract of marriage, are not aubject to the lex loci, bnt must be goverued by the law of tha domicil ; and that, therefore, in auch countries, a valid contract of marriage may be oolemnized, and the contract authenticated, not only by an ambassador, but by a consul of the United States. The English authoritiea come to subatantisily the same conclusion, for similar reasons. "Nobody can suppose," eays Lord Stowell, "that while the Mogul empire existed, an Englishman (in Hindostan) wae bound to consult the Koran for the celebration of his marruge." In mest of the Asiatic and African countries, indeed, law is personnl, not local, as it was in many parts of modern Europe in the formative period of ite present organizatien. Hence, In British Indin, Hindoos, Parsees, Jews, Sohammedans, Christians, all marry according to the law of their reitgion. The ecclesisatical inw of England goes further than this, for it recognizes the marriage of Engllshmen, celebrated according to the English iaw, that is, by a clergyman, in British factories abroad, though situated in Christian countries, but countries of the Roman Catholic or Greek religien.Manual for Consuls, U.S.
Merchants.-The national charactor of merchants residing in Europe and America, is derived from that of the conntry in which they reside. In the eastera parts of the worli, European persons, trading under the shelter and protection of the factories founded there, take their national character from that association under which they live and carry on their trade. This distinction arises from the nature and habits of the countries. In the western parts of the worid, alien merchants mix in the society of the natives; access and intermixture are permitted; and they become incorporated to nearly the full extent. But, in the East, from almost the oldest times, an immiscibie character hns been kept up: foreigners are not admitted into the general body and mass of the nation; they continue strangers and eojourners, as all their fathers were. Thus, with respect to establishments in Turkey, the British courts of prize, during war with IIol. iand, determined that a merchant carrying on trade at Smyma, under the protection of the Dutch consul, was to be considered a Dutchman, and condemned his property as belonging to an enemy. And thus in China, and generaily throughout the East, persons admilted into a factory, are not known in their own pecullar national character ; and not being permitted to assume the character of the country, are considered only in the character of that association or factory.
But these princlples are considered not to be applicable to the vast territories occupied by the Britlish in Hindostan ; because, as Sir W. Scott observes, "though the sovereignty of the Mogul is occusionaily hrought forward for the purpose of pollcy, it hardly exists otherwise than as a phantom; it is net applited in any way for the regulation of their estallisiments. Great Britaln exercises the power of deciaring war and peace, which is among the atrongest marke of actual sovereignty ; and if the high and empyrean soverelgnty of the Mogul is sometimes brought down from the clouils, as it were, for the purposes of poilcy, it hy no means interferes with the actual autkority which that country, and the Enat India Company-a cres. ture of that country - xercise there with full effect. Merchants residing there, are hence consldered British subjects."-Whraton's Internatinnal Lav, Part If., ch. 1, p. 408.

Dominion, one of the Leeward group of islands in the Weat Indles, belonging to Britaln, and lying between the French Islands of Martinique and Guada loupe, 24 mlies north of the former, and about the same distance south of the latter. Dominica was so named by Columbus from his having discovered it on a Sunday (In 1493). It was ceded to England by the peace of Paris, in 1763, but was taken by the French In 1778. At the peace of 1788 it was restored to England, in whose possession It has since remained. Dominica is 29 miles in length from north to south, and 16 in breadth, and has an area of about 186,436 acres. The princlpal town Rosesu, sitnated on the S.W. side of the island, is in lat. $15^{\circ} 19^{\prime}$ N., long. $61^{\circ} 28^{\prime} \mathrm{W}$. The sarface is generally rugged and mountalnous, Interspersed with fertlle and well-watered veileys. The highest polnt is 8,814 feet above the level of the eea, The origin of this island is volcanlo, and sulphir and other volcanic products are abundant. The soil is light and well adapted for the growth of coffee. The hills are covered with valuable tlmber trees of the kinds commonly found in the West Indies. Game is shundatit, and the fiaheries on the coast are very productive. The princlpal productions are sugar, molasses, rum, coffee, cocoa, and oranges. The cultivation of cotton has lately been introduced to $a$ amall extent, and has been found to answar very well, particularly on land near the sea-coast. The princlpul staple products exported in the years ending 5th January, 1852, and 5th January, 1853, were as follows :


The value of exports and imports, and the revenue for the years 1849, 1850, and 1851, were as follows :

|  | 1849. | 1850. | 1881. |
| :---: | :---: | :---: | :---: |
| Imports. | 250,616 | 257,656 | 271,828 |
| Experts. | 45,070 | 58,265 | 62,527 |
| Revenne | 8,918 | 10,2i5 | 12,901 |

The population in 1844 was 22,200 , of whom 11,604 were females. The principal harbors are Roseau and Prince Rapert's Bay.-E.B.
Dornock is a species of figured linen of stout fabric, Which derives its name from a town in Scotland, where it was first manufactured for table-clotha. It is the most simple pattern of all the varleties of the dispes or dumask style, and therefore the goods are usually of coarse quality for common household wear. It receives the figure by reversing the flushing of the warp and woof at certaln intervals, so as to form squares or oblong rectangles upon the cioth. The most simple of these is a succession of alternate squares, forming an lmitation of a checker hoard or mosale work. The coarsest kinde are generally woven as tweels of three leaves, where every thread floats over two, and is Intersected by the third In succession. Some of the finer are tweele of four or five leaves, hut few of more; for the six or seven lesf tweels are seldom or never used, and the eight lesf tweel is confined almost exclusively to damask.

Dort, or Dordreoht, an important commerclal city of IIolland, capital of a cognominal district in the province of South Holland, 10 mlles south-east of Rotterdam. It ls sltuated on un Island of tise Meuse, sald to have been separated from the mulnland in 1421, by an Inundation which swept a way 72 villages, and about 100,000 inhabitants. Thls is one of the oldest cities of Holland, but the period of its rise is uncertain. It Was surrounded by walis in 1231 by Florent IV., Count of Holland, who inade It hls residence, and granted it many important privilegee. In 1457, almost the entire town, includlog the church of Notre Dame, founded in 1366, and other publio bulldings, was dentroyed by fire. It was one of the first towns to emirace the Re-
formed religion, and to throw off the yoke of the Spanish king. In 1572 a meetligg of depnties was held here, when the independence of the United Provincen was first declared; and In 1618 and 1610 ant the celebrated Synod of Dort. The town-hall is a handsome lbulding; and the principal church is an old Gothic structure 800 feet long by 125 feet wide, with a heavy square tower, and numerous monumental stones, some of great antiquity. The hall in which the synod was held is now a public house. The houses are generally of an untique fashion, with the gables turned outward, and many of them date from the period of the Spanish ocenpation. "Dort possesses a good harbor, from whlch two canals lead to the centre of the town, and thus facilltate the conveyance of goods to the warehouses. It carries on sn extensive trade in corn, flax, salt fish, train oll, and timber, bronght down the Rhine ; and has. ship-building docks, saw-mills, eugar and salt refinories, tobacco factorles, llnen-bleaching and whitelend works. Dort is the blethplace of the brothers De Witt. Population (1850), 20,878.

Doubling, in navigution, the act of salling round or pasaing beyond a cape or promontory.

Doubloon, or Doblon, a Spanish and Portnguese coin, being the double of a platole,-E. B. See Corns. Dover, Stra'is of, the narrow channel between Dover and Calais, whlch scparates Great Britaln from the French coast. Britnin is aupposed by many to have been once a peninsula-the present straits occupying the site of the isthmus which joined it to Gaul, "The correspondency of strata," says Mr. Pennant, in his Arct. Zoology, " on part of the opposite shores of Britain and France, lesves no room to doubt that they were once united. The chalky cliffs of Blancuez, between Culais and Boulogne, and those to the westward of Dover, exactly tally. The last are vast and continued; the former short, and the termination of the immense bed. Between Boulogne sud Folkestone (about 6 niles from the latter) is another memorial of the junction of the two countries: a narrow submarine inill, called the Rip-raps, aloout a quarcer of a milo broad, and 10 miles long, extending eastward toward the Goodwin Sands. Its materials are boulder-stones, adventitions to many strata. The depth of water on it, in very low spriag-tides, is only 14 feet. The fishermen from Foikeatone have often touched it with a 15 -feet oar, so that it is justly the dread of navigutors. Many a tall ship has struck on it, and ounk lnstantiy Into 21 futhoms of water." In July, 1782, the Belleisle, of of 64 guns, struck, and lay on It during three hours, but by startlig her beer and water, got clear off. These celebrated straits are only 21 miles wide in the narrowest part ; from the pier of Dover to that of Calais, 24 miles. It is e id that thelr breadth ls diminlahing, and that they are $t$ wo miles narrower than they were iu anclent thines. An accurate observer for 50 years, romarks that the increased helght of water, from a decrease of breadth, has been appurent, even In that space. The depth of the channel, at a medium, In tine hlghest springtides, is about 25 fathoms; the bottom is either coarse sand or rugged seare, whlch have, for ages unknown, reslated the attrition of the currents.-E. A.
Down (Ger, Dunen, Flaumfedern; Du, Dons; Fr. Duvet; It. Penna matta, Piumini; Sp. Flojel, Plumazo; Rus. Puch; Lat. Plumas), the fine feuthers from the breasts of several birds, partlcularly those of the duck kind. That of the elder duck is the most valuable. These birds pluck it from thelr breasts, and line their nests with lt. Mr. Pennant says that le is so very elastio, that a quantity of it welighing only $\frac{n}{3}$ of an ounce, more than tills the crown of the largest hat. That found in the nest is most valued, and termed live down; It la much more elastle than thut plucked from the deud bird, which is comparatively little esteemed. The elder duck is found on the western islands of Scotland, but the down is princlpally imported from Norway and Ireiand.

Downs, a bank or elevation of sand, which the sea gathers and forms along its shores, and which sarves it as a barrier. The word is formed from the French dume, or the Celtio dun, a mountain. Charles de Visch (Compend. Chronolog. Bixord. el Progress. Abbat. Churiss, B. Marice, de Dunis) ssys, lallem reperit arenarwm collibus, quos incolas Duynen vocant, undique cinctam. It is also applied to a large open plain, primarily on elevated land.

Downs is particularly applied to a famous roadstead for ships along the eastern coast of the county of Kent, from Dover to the North Foreland, where both outward and homeward-bound shlpa frequently, make some stay, and squadrons of men-of-war rendezvous in time of war. It affords excellent anchorage, and is defended by the casties of Deal, Dover, and Sundwich.

Dragoman, or Drogueman, sn interpreter; a term of general use in the Levant and throughout the East. There are dragomans attached to the embassies and consulates of Christlan nstions residing at the Porte. The word ls formed from the Arahic targeman or targiman, of the verb taragem, " he has interpreted." From dragoman the Italians formed dragomarno, and, with a nearer relation to its Arabio etymology, turcimanne; whence comes trucheman, as well as dragoman and drogueman. See Turkey.

Dragon's Blood (Sang dracon, Fir.; Drachenblüt, Germ.) is a reanous aulastance, which comes to us aometimes in sinnll balla about the slze of a pigeon's egg, sometimu in rods like tho finger, und sonetimes liko it:egular cakes. Its color, in lump, is dark brown-red; in powder, bright red; friable; of a shining fracture; sp. grav., $1 \cdot 196$. It contains a little benzoic acid, is insoluble in water, but di-molves readily in alcohol, ether, and oils. It is brought from the East Indies, Africa, South America, as the produce of several trees, the Dracana Draco, the P'erocarpus santalinus, Pterocarpus draco, and the Calamus rotung. Dragon'a bion' is used chiefly for tinging spirit and turpentine varniches, ior preparing gold lacquer, for tooth tinctures and ;owders, for staining marble, etc. According to llerisenter, it conaists of $9 \cdot 07$ parts of red resin, 2 of fat oid, $\mathbf{3}$ of benzoic acid, $1 \cdot 6$ of oxalate, and 8.7 of phosphate of lime.

Dralce, Bir Francis, a celebrated Finglish admiral, was born near Tavistock, Devonshire, in 1540. His father, who had been bred a aailor, obtaiued a naval chaplainey from Queen Eiizabeth, and was afterward vicar of Upnor church, on the Medway. Young Drske was educated at the expense and under the care of Sir John Hnwkins, who was his kinsman ; and, at the age of eighteen, he had risen to be purser of a ship trading to Biscay. At twenty he inade a voysge to Guinea; and at twenty-two he was made captain of the Judith. In that capacity he was in the harbor of San Juan d'Ulloa, in the Gulf of Mexico, where be behaved most gallantly in the actione under Sir Join Hawkins, and returued with him to England, having aequired great reputation, though with the losa of ail the money which he had embarked in the expecition. Having next projected an attaek against the Spaniards in the West Indies, to indemnify himself for his former losses, he set sail in 1572, with two small ships named the Pasha and the Swan. IIe was afterward joined by another vessel; and with this emall squadron he took and plundered the Spanish town of Nombre de Dios. With his men he penetrated across the Isthmus of Pauama, and committed great havoc sinong the Spanish shipping. In these expeditions he was much assisted by a nation of Indians, who were titen eugaged in a desultory warfare with the Spaniards. Having embarked his men and filied his ships with plunder, he bore away for England, where he arrived in August, 1753.

In 1080 , Sir Francis Drake comınaniled the fleet sent to restore Don Antonio, King of Portugal, the land forces being under the orders of Sir John Norris; but
they had hardiy put to sea when the commanders differed, and thus the attempt proved abortive. But as the war with Spain coatinued, a more formidable expedition was fitted out, under Sir John Hawkins and Sir Francis Drake, against their settlements in the Weat Indies, than had hitherto been undertaken during tho whole course of it. Here, however, the commanders again disagreed about the plan; and the resuit, in like manner, disappointed public expectation. These disastere were keenly felt by Drake, and were the principal cause of his deuth, which took place on board his own ship, near the town of Nombre de Dios, in the West Indies, January 28th, 1590̄.-E. B. See Vdinb. Kev., 1xxx., 197; Lublin Univ., xxiii., p. 551 ; $N$. Am. Kev. [Pealuody], lix., p. 70; Littela's Living Age, iii., p. 289.

Drawback, a term used in commerco to signify the remitting or paying buck of the duties previously paid on a commodity on its heing exported. A drawback is a device resorted to for enabling a commodity affected by taxes to be exported and sold in the fureign market on the oume teras as if it had not heen taxed at all. It differs in this from a bounty, that the latter enables a commodity to be sold abroad for less than its natural cost, whereas a drawback enables it to be sold exactly at its natural cost. Drawlacks, as Dr. Smith has ebserved, "do not occasion the exportation of a greater quantity of goods than would have been exported hall no duty been imposed. They do not tend to turn toward any particulur employment a greater share of the capitni of the country than would ge to that employment of its own accord, but oniy to hinder the duty from driving away any part of that share to other employments. They tend not to overturn that balance which naturally eatubllishes itself among ail the various employments of the society, but to himeler it from being overturned by the duty. They tend not to destroy, but to preserve, what it is in most cases advantageons to preserve-the natural division and distribution of labor in the society." Were it not for the system of drawbacks, it would be impossible, unless when a country enjoyed some very peculiar facilities of production, to export any commodity that was more heavily taxed at home than abroad. But the drawhack obviates thia difficulty, and eanbies merchants to export commoslities loaled at home with heavy duties, und to sell them in the foreign market on the samo terms as those fetched from cunntries where they are not tuxed. Most forelgn artictles imported into this country may be wareboused for subsequent exportation. In his case tilcy pay no duties on being imported, and, of course, get no drawbuck on their sulisequent exportation. Shmetimes a irawhack exceeds the duty or duties laid on the article; and in such cases the excess forms a real bounty of that umount, and shonid be so considered.

Dredging Machine. A machine for clearing out or deejening the heds of navigable rivers, harbors, cunais, etc., by the removal of cieposited matter.

Dresclen China. The fine porcelain ware known as Dresden china was discovered by M. Bathcher, who was at the time an ajothecary's boy, 1700. Services of this ware have cost many thousands of pounds each. A costiy service, each piece exquisiteiy juinted, and the battles represented, and subjects ali different, was presented to the Duke of Wollington by tha King of 1'russia, in 1816, and is the finest in Englami.

Dressing. A term applied to gum, starch, and other articies used in stiffening or prejaring sik, linen, and other fabrics.

Drift, in navigation, tiee sugle which the iiue of a ship's motion makee with the nearest moridian, when ahe drives with her aide to the wind and waves, and is not governed by the heim. It also implies the distance which the sinij drives on that line. Drift, in mining, a passage cut between shaft and shaft, or a way wroaght under the earth.
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Drift of Eottles. It is a cuatom often practiced by geafuring people to throw a bottle overboaril, with a paper, stating the time and place at which it is done. In the absence of other information as to currents, that afforded by these mute little navigators is of great value. They leave no tracks behind them, it is true, and their routo can not be ascertained. But knowing where they wore cast, and seeing where they are found, some idea may be formed as to their course. 'Striight llnes may at leust be drawn, showing the shortest distance from the beginining to the end of their voyage, with the time elapsed. Admiral Beechey; R. N., has prepared a chart, representing, In this way, the tracks of more than 100 bottles. From it it appears that the waters from every quarter of the Atlantic tend toward the Gulf of Mexico and its stream. Bottles cast into the sel midway between the Old and Now Worlds, near the coasts of Europe, Africa, and America; at the extreme north, or further south, have been found either In the West Indies or the British isles, or within the weil-kriown range of Gulf Stream waters. Of two cnet oat together in south latitude on the coast of Africa, oae was found on the island of Trinidad, the other on Guernaey, in the English Channel. In the absence of positive information on the aubject, the circumatanthal evidence that the latter performed the tour of the Gulf is all but conclusive. And there is reason to supnose that zome of the bottles of the admiral's chart L. $7 e$ also performed the tour of the Gulf Stream ; then, without being cast ashore, have returned with the drift along the coast of Africa Into the inter-tropical region; thence through the Caribbean Sea, and so on with the Gulf Stream again. Another bottle thrown over off Cape Horn by an American master in 1837, has been recently picked up on the coast of Ireland. An inspection of the chart, and of the drift of the other bottles, seems to force the conclusion that this hottle too went even from that remote region to the so-called higher level of the Gulf Stream reservoir.-Madry, Phys. Geog. of the Sea.
Drift-Bail, a sail used under water, veered out right a-head by sheets, as other anils are. It serves to keep the ehip's head right upon the bea in a storm, and to prevent her driving too fast in a current.
Drift-wood, trees or timber carried ont to sea by rivers when in flood; timber drifted or floated by water.

Driving, in sea language, is said of a ship when her anchor falis to hold her fast, and site fioats away with the wind or tide. A vessel is also said to drive when she scuds before a gale.
Droits of Admiralty. The perquiaites reaulting chisfly from the seizure of the property of an eaemy at the coinmencement of a war, und nttached to the office of Lord-high-admiral, or to the crown when that office is vacant. These perquisites were originally vested in the sovereign, to enable him to provide for the expense of defending the realm, and clearing the seas of pirates; and their value and importance will be st once pertcived from the following lrief statemeat. In 1798, one ship which had been captured brought $\mathbf{5 5 5 , 0 0 0}$; in 1800 , another brought $\mathbf{5 6 5 , 0 0 0 ;}$ in 1804, one captured ship was worth $£ 105,000$; and in 1806, several taken at once netted $£ 155,000$. I)uring the last war, also, the Duteh ships at one seizure brought $£ 1,030,000$; the Spaniah ships, $£ 2,200,000$; and so large wers the sums made nt one and tho aame mement in this rich fund, that tho crown one yoar, after paying many hundreds of thousands to captors, and large suins to different branchea of the rayal family, gave a million out of the residue to the pubile service. (Edinb. Rev., vol. xxxiil., p. 482.) By the civll jist, Introduced on the accession of Wililam IV., it was arranged that all droits of admiralty which might accrue during his relgn should be paid into the exchequer for the benefit of the public service; and the civil list of her present majesty hus made no alteration in that arrangement.-Brands.

Drowned Persons. Directions for Restoring Persons Apparently Drowned. From R. B. Foreses, Esq., of Boston, an officer of the Maseachusetts IIumane Society.-Convey the body to the nearest house, with head raiaed. Strip, and rub dry; wrap in blankets; inflate the lungs by closing the nostrils with thumb and finger, and blowing into the mouth forcibly, then pressing with hand on the cheet. Again blow in the mouth and preas on the chest, and so on for ten minutes, or until he breathes. Keep the body warm, extremities also. Continue rubbing. Do not give up as long as there is any chance of success.
, Drugs, Inapeotion of. By an act of Congreas, pasied June 20, 1848, to prevent the Importation of aduiterated and spurions drugs and medicines, it was provided, that all drigg and medicines, medicinal preparations, including medicinal essential oils and chemical preparations ueed wholly or in part as medicine, imported into the United States from abroad, shall, before passing the custom-house, be examined and approved, as well in reference to their quality, purity, and fitneas for medicinal purposes as to their value and identity specifted in the invoice.
Also, that all medicinal preparations, whether chemical or otherwiee, uaually imported with the name of the manufucturer, shall have the true name of the manufacturer, and the place whcre they are prepared, permanently and legibly affixed to each parcel, by stamp, label, or otherwise ; and all such medicinal preparationa imported without such names, affixed as aforeaid, shall be adjudged to be forfeited.

That if, on examination, any drugs, medicines, medicinal preparations, whether chemical or otherwise, including medicinal essential oils, are found, in the opinion of the examiner, to le so far adulterated, or in any manner deteriorated, as to render them in strength and purity inferior to the atandard eatablished by the United States, Edinburg, London, France, and German pharmacopœias and diapensaries, and thereby improper, unsafe, or dangerous to be used for medirinal purpores, a return to that effect shall be made upon the invoice; and the articles so notod shall not pass the customhouse, unless, on re-examination of a atrictly analytical character, called for by the ownar or conaignee, the retarn of the examiner shall be found erroneous; and it ahall be declared as the result of such analyais, that the said articlea may properly, safely, and without danger, be used for medicinal purpores.
That the owner or consignee shall at all times, when diesatisfled with the examiner's return, have the privilege of calling, at his own expense, for a re-examination; and depositing with the coliector such sum as the latter may deem aufficient to defray such expense, it shall be the duty of that officer to procure some competent analytical chemist posacasing the confidence of the medical profesaion, as well as ef the colleges of medicine and pharmacy, If any such inatitutiona exist in the State in which the collection dietrict is situated, a enreful analyais of the articles included in said return, and a report upon the samo, under oath ; and in case the report, which shall be final, shall declare the return of the examiner to be erroneous, and the said articles to be of the requisite atrength and purity, according to the standards referred to in the next preceding eection ot this act, the entire invcice shail be passed without reservation, on payment of the customary duties; but in case the examiner's return shall be sustained by the analysis and report, the gaid articiea shall remain in charge of the collector, $r$ d the owner or consignee, on payment of the charges of storage and other expenses neceasarily incurred by the United States, and on giving of bond, with suroties satiafactory to the collector, to land eaid artleles out of the linits of the United States, alall have the privilege of re-exporting them at any time within the perlod of six monthe after the report of the analysis; but If the said articles shall not be sent out of the United States within the time specified, it
shall be the duty of the collector, at the expiration of the said tlme, to cause the same to be destroyed, holdIng the owner or conelgnoe responaible to the United States for payment of all charges, in the same manner as if said articles had boen re-exported.

Drugget, a coanse and flimsy woolen texture, chiefly uaed for covering carpets. . It was formerly extensively employed as an article of elothing among the poorer classes, more eapecially of females; but this and similar fabries are now almost wholly superseded by cotton goods, which induce greater cleanliness.

Drummond Ifight. The three, angles of the onormous triangles by which a topographical survey is primarily conducted, sometimes 80 or 100 miles asunder, must be viaible one from another; but how to produce the vlsibillty? In the esrlier aurveys, where suoh daring distances were not attompted, a signal light was in aome cases obtained by refeeting the light of the sun from a well-adjusted surface of polished tin, or by Bengal lighta being fired at night, or by a poworful Argand lamp being placed bekind a lena or before a parabolic reflector; but Lieutenant Drummoud, during the progress of the Irish survey, made a happy auggestion whica eclipeed in efficiency all others. In what is culied the Druminond or Lime Light, a small ball of lime is exposed to the aetion of a spirit-flame fed by pure oxygen gas; the flame, In a highly-vivid state, heats the lime to an intense degree, and in . is heated state, it emits a light of surprising lurillianey, far exceeding that of any flame jet seen. So beautifully was Drummend's apparatus constructed, that the lamp fed itself with spirit and with oxygen, supplied itself with balls of lime as each one slowly wasted, and reflected its surpassing $H_{\text {ght }}$ from un exquinltelypolished parabolic surface of silvered copper. It was not merely figuratively but literally true, that a piece of lime, net bigger than a boy's marble, enittod a light at Londonderry which was visible at Belfast-a distance in a direct line of, nearly seventy miles. On a later occasion Colonel Colhy made a lime-light signal visible from Antrim in Ireland to Ben Lomond in Seotland, a atraight-lins distance of 95 miles. See Light-hovazs.

Dry Distillation. This term is applied to the distillation of aubstances per se, or without the addition of water : thus if we put wood into a retort or other distillatory apparatus, and aubject it to heat, it ylelds tar, vinegar, water, and various gaseous and other inatters. See Distihiation,

Drying Maohines. The drying process, by centrifugal agency, is of vory wile spuplication. Bleachers, dyers, and ealico-printers use it. The wet mass of cloth or yarn la put into a hollow cylinder; this eylinder is made to revolve from 1 to 2 thousand times in a minute; the molsture is driven from the cioth with great violenee; openings are left to afford an exit for thls water into an outer vegsel, and in a few aeconds the cloth is nearly dry. Nothing lut actually witnessing the process, can eonvey an adequate idea of the rapidity of this drying process. In some of the baths and laundries now eatsblished, machines of this kind are eniployed to supersede the hard neeessity of "wringing" the wet lineu-a grent boon to the poor women who avail themsalves of these mivantages.

Dry Rot. A most deatruetive, and apparently infectious disease in timber, which, by decomposing the fibres, deprives it of all strength, and in no great length of time, reduces it to a mass of dry dust; a elreumstanes from which it acems to have derived its name, which, perhape, would be better axpressed by that of sap rot.

Though this disease must from its nature have been co-existent with the timber-trees, it would not seem to have exeited much attention, and perhape was not known, certuinly nut by its present name, before the middle of the last century; at some period, we
rather think, of Bir John Pringle's prealdency of the Royal Society of London. But for a long time after thia little notice appears to have been taken of it; Ita ravagea being, in all probability, Inconsiderable, in comparison with what they have been of late years. E. on now, the disease is, in fact, chiefly confined to modern-built houses and modern-built shipe, and more particularly to the ships of the navy. The proximate cause of it has, therefore, rightiy enough, as it would seem, been ascribed to the unseasomalile state of the timber, when placed in certaln altuations, and under partleular circumstanees. It could not fail, in the course of the late long-protracted war, to become a matter of general observation, that a more rapid decay than usual had become almost universal throughout the fleat, and aspeeially among the neweat and most recently repaired ships. Many anxious inquiries were instituted, and experiments made, with the view of ascertaining the real cause of a decay, the further prevention of whieh was so highly important to the national walfare and securlty. The alarm was greatly increased when, in 1810, the Queen Charlotte, a firat rate ship of war, ahortly afterward launched at Deptford, was discovered, after a close examination, to have all her upper works infected with the dry rot; or, in other words, the ends of moat of the beams, carlings, and ledgen, the joinings of the planks, ete., were observed to be covered with a mouldy, fibrous, and reticulated crust, and the parts of the timber so eovered to be perfectly rotten. All the newspapers and jouraals of the day were filled with this alarming faet, and, in consequence thereof, a multitude of dry rot doctors proffered their ussistance: one having a nostrum for eradicating the disease where it had made its appearance, and another for preventing its further approach. Some of these specifies were expensive and incenvenient, many of them impractlcable of application, and most of them futile and objectionable in one way or anether. These doctors, in fact, like the pliysicians for tho human body, when the eeat of the disease is unknown, were laboring altogather in the dark, having no other gulde to direct them than their own whims and fanciea, each being ignorant of the effect of the respective experiments which they wished to try on this diseased machine.
Process of the Common Rot.-Anthers are at variance among themselves, whether the common rot in timber, or the dry rol, be not one and the name disease. A littie refiection, howsver, will, we conceive, lead us to consider them as essentially different, both in the symptoms, the progress, and the causes, though the effect of destroying the fibre of the wood is pretty nearly the same. If a post of wood, for instance, be driven inte the ground, scasoned, or unseasoned, it will speedily begin to decay just at the surface of the ground, or, as it were, between the earth and the air; if driven into the earth through water, as in a pond, tho deeay will cemmence at the surface of the water, or, as it is teehnically expressed, hetween wind and wator, while all above water, and all that is constantly immerged in the water, as well as the part in the earth, will remain sound. Thus, also, a beam of wood let Into a damp wall, will begin to rot just where it enters the wall; so will wooden Uannisters when they are let through the top and foot-rails. In these, and similar cases, the rot begina externaily, and its progress is in. ward, and is more or less aecelerated by the altermato action of wind, heat, and moisture, being greatest when the alternatives of exposure to wet and drought are moat frequent, and least when eonstantly immersed in water, or constantly preserved in a dry atmosphere. Such we believo to be the usual process of the common rot in wood, and it is evidently occasioned by alternate exposure to the vieissitudes of the weather, to moisture and dryness, to heat and cold.

Process of the Dry Rot.-If the same pust be well charred, or covered ovor with a thick coating of paint,
or varnish, or tar, no such wfiect will be prodaced exter ally, the coating being sufficient to protect it agginst the action of the weather; but if it ahould happen to he a green, or unseasoned piece of wood so tarred or painted, in no great length of time the wood will be found to have begun to decay internally, while the outer aurfuce appears uninjured, but at length it will sleo yield to the disease. If this piece of wood had been placed ins warm celler or close room, where there is little or no circulation of air, and more particularly if the room or cellar ware damp, there would be perceived, in no great length of time, a fine mouldy coating spread over ith surface, of a brownish yellow or dirty white; and shortly afterward it would be found, on examination, to resemble in its form and struature some of the beautifully ramified alga, or sea weeds: which, in process of time would become more compact, the interatices being so completely flled up as to give the whole mase the appearance and consistence of lesther. "At first," sayr one writer, "its appearance is that of fins fibres running on the surface in endless rumifications, resembling the nervous fibres of leaves; presently the interstices are filled up with a spongy or leather-like subatance, asauming the character of cryptogamous plants distiaguished by the name of fungus."

By Mr. Wade, the general aymptoms of $d r y$ rot are thus described: "The wood at first awells; after some time it changes its color, then emite gases which have a mouldy or musty smell. $:$. In the more advanced stages of it the mass arises, and cracks in transverse directiona. Laatiy, it becomes pulverulent, and forma vegetabie earth; and, generally, in aome of these stages of decay; the different species of fungus are fouad to vegetste, on the mass."-Trratise on the Dry Iot in Timber, by Thomas Wade.

These appearances do not invariably take place, the aurfsee of the diseased timber sometimes remaining unchanged, while the process of rotting is going on within; they are, however, pretty constant. But however sound the surface may be, it will sppear, on oxsmining the piece of wood, placed in a situation similar to thoae above mentioned, that the whole of the interior fibres are decomposed, and become a mass of dust inclosed within a thin external shell. No charring of the surface, no paint, tar, or varnish, will prevent this process from taking place, when the seeds of the dry rot exist, and are placed in a situation favorable for their growth, though thay may prevent the external character of mouldineas from taking place on the surface.

Characteristio Difference of the two Rots.-The bymptomatic difference, then, between the common rot and the dry rot may perhaps be thus defined: Common rot is a disease in timber, occasioned by the alternstions of the weather acting on its surface, and destroying its fibres externally inward. Dry rot is a disease in timber, occasioned by being shut up in wrim, close, and moist situations, the effect of which is to destroy ita fibrea by a procesa acting internally outward.

Causes of the Dry Rot.-Without stopping to inquire in what manner, and by what agency, chemical or mochanical, or both, the common rot acts on the external fibres of the wood, the effect of alternate exposure to tho westher is too well known to require any further proof ss to its being the immediate cause. The immediato cause of the dry rot is equally obvious; but the predisposing siate of the timber to contract the disease is not so clear a problem. Accordingly, theories without end have been hatched to explain the phenomenon. A writer in a public jourual, who has alightly touched on the subject, thus explains it: " lt is well known," he observes, "that if a piece of green wood be laid scross a fire, the air within, expanied by the heat, will driva out at each extremity a viscous fluid, possessing the property of disposing itself on the surface in retic-
ulated filamente. The mame appearance of nervous foliation ls not uneommon in the intermediate spacea of the concentric layers of the alburnum of wood; and the core or heart of trees, and particularly of the pitchpine, after ita passage in the heated hold of a ship, is often enveloped with a membranous corticle, like that which lise immediately beneath the bark. . All these appearances are cortain indications of the dry rot $;$ and they point out, with anfficient clearness, that the sap, or principle of vegetation, brought into activity, is tho cause of the disease; ths effect, though infinitely more rapid, is the same as that of the common rot. It is atill a prollem, in what manner. this sap circulates; hut there is no doubt that the tabes and cells of the alburnum, or sap-wood, are filled with it in the spring of the year, and that they are empty in the winter; that it is organized matter, daveloping itself by heat in all the various forms of new bark, leaves, and branchea. The stem of a tree cut down, will, on the return of aummer, make an effort to pubh out leaves; a more feeble effort of this organized sap ends in the production of fungus only."-Quarterly Review, No. xv.

The real efficient cause of the dry rot, is that of the juices of the timber being brought into a state of putrefaction, ocoacioned generally by exposure to a moderate degree of heat and moisture in a stagnant atmosphere. "To favor this process," asya Mr. Wade, "as much aa possible, the air and water should not be renewed, as they undergo a decomposition, which takes place very slowly." From the atructure of timber being composed longitudinally of an assemblage of pipes or tubes, it is only necessary that one end of a log of wood ahould be pli ced in a damp or wet situation, to ocorsion the moistuia to be conveyed to the opposite ond by capilary attriction ; and hence arises the inifctious nature of the c'isease, which will alwaya apread wherever the moisture finds its way; and even where there is no moiature, it wiil be created by the filaments of the fungl working their way through the tubes of the dry wood and carrying it with them. Hence, also, the rapid decay in ships of war, from the great internal heat occasioned by the number of men, the moisture, and the close air. Hence, also, in housea, the dry rot always first appears in tha lower apurtments, where the floors, partitions, skirting-boards, etc., are aupplied with moisture from the wet walls on the ground. In the London houses there is genorally a room on the basement story, called the bouse-keeper's room, which is boarded, and carefully covsred over with an oiled floor-cloth. In such a room the dry rot is sure to make its appearance. The wood absorba the aqueous vapor which the oll-cloth will not allow to escape, and being assisted by the heat of the air in such apartments, the decay goes on most rupidly ; and, as Mr. Wade observes, " if the seed of fungus be present, the plant is developed in all the superifuity of vigor exhibited in a hot-house, where the same means are resorted to, namely, an atomosphero scientifically and artificially heated, and highly charged with aqueous vapor." Timber may, in fact, have the seeds of dry rot within it, and yet by proper treatment be kept sound for a great length of time. Thus, ships laden with particular cargoes, aftord remarkable instances of the effects of such eargoes on their duration. The warin moisture creuted by a cargo of hemp is communicated to the timber, and promotes a rapid putrefaction. Mr. Chapman says, thut the ship Brothers, built at Whitly, of green timber, proceeded to letersburg for a cargo of hemp. The next year it was found, on examination, that her timbers were rotten, and all the planking, excepting a thin external skin. A lading of cotton is always injurious to the ship, and even teak is affected by a curgo of pepper. The timber which is brought from America in thie heated hold of a ship, is invariubly covered over, on being landed, with a complete coating of fungus. It was the too general use of this timber in ahips of the royal navy that at one time
increased the disence to anch an alarming degree. Those nhips, on the contrary, which are employed conatantiy in the coal and lime-trade, are very durable, and have heen known to last for a centnry. These effects are olviously to be aecribed to the exclunion of alr in the one case from, and the free admission of it in the other to, the interior anirface of the ohip, asoisted in the latter instance by the absorption of moisture by the emals and lime from the timber and planking.

Precention of Dry Ror.-If we arrive at the right conclusion as to the cuase of dry-not in timber, we can be at no loss with regand to the mode of treatment for the precention of the dinease. The experiments for this purpose have been very numerous, but may be classed under three general heads; deslecation or seasoning ; immersion in earth, eand, or water ; and impregnation with scise foreign matter, which will resist putrefaction.

The most simple and common mode of preventing the decomposition of vegetable matter, is by depriving it of noisture. Various schemes have been fut in practice for drying the juices in large logn of timber. Tlme alone will do it when the wood io placed in favorable situations, that is to say, in a dry atmosphere, and constantly expoeed to a free circulation of air ; lut time will aleo produce the rot in timber when piled np in stecka in the open air, imbibing meistinre from the earth, and exposed to the viciseltndes of the seaoons, and the alternatives of weather; ncorched at one time by the heat of the sun, at another drenched with rain, and rent and split in every possible way by the freesing of the water which has insinuuted itself into the pores and erevices of the wood. It was formerly, and, indeed, thll very litely, the practice to let shipa of war remain on the stocks in frume for two, three, or four years, to season, as it wan called; but there never was so mistaken a notion. "When a ahip," eays Mr. Wade, " is built, exposed to the weather, the lower part forms a grand reservoir for all the rain that falle ; and as the timbere in that part are placed as close together as possible, the wet escapes very slowly. Those timbere are always soaked with molstnre, and, to some distance from the keel, exhibit a green appearance ; their green matter, when viewed through a microscope, is found to be a beantiful and completely formed mons, which vegetates at the expense of the timber. If to seakon timber be only to dry it, the sooner it is dried the letter ; and when completely dry, it can not too soon be employed in ship-building, when it ahouid be kept dry. It can not answer any end to have seven years' wear ont of a ship on the atockn." At length our shipwrighte are convinced of this truth, and the plan now generally adopted in ship-building is to protect the vessel by a roofed atructure, with the sides open to adinit a free enrrent of ait, but to exclude all moistare, ate well as the rays of the sun (see DockYards); a practice which we have tardily adopted from the 8 wedes and tho Venetians. A new system scems also to have been adopted in the piling of the timber stacks. Instead of their leing placed on old, useless, and often rotten logs of timber reating on the ground, they are now insulated from the earth on stone or iron pillars; and in place of their surfaces coming in contact with each other, pieces of wood are placed between them so as to admit of a circulation of air. Nothing further appeara to be wanting but to protect the tops and the enda of the stocks or piles from the effects of the weather.

Of the various modes of artificial and rapid desjecatlon, that of charring is perhaps the beat; but it is liable to twe oljoctions; the first ls , that if the surface be complate'? charred, It diminisies very much the strength of the timber; and, secondly, it the more readily attracta moisture. The juices of timber may the drawn off or harlened by kiln-itrying; lut this also disturbs the arrangeinent of the filirea, and deprives the wood of a great part of its strength.

Experimenta-Seasoning Timber.-The experiments made by Mr. Lukin for the rapld seasoning of green oak : nber, promised at one time much success, but onded in disappolatment. His conceived, that if the acid and the watery particlea were driven out of a plece of oak timber by some procesa which shnuld prevent the nurface from splitting; the fibres would he brought closer hito contact, and whilat the log lost in weight it would gain in atrength. With this view he buried a plece of wood in pulverized charcoal, in a hented oven. The log wore a promiaing appearance; the aurface wap close and compact ; it had lont in its weight and dimensions; but when divided with the saw, the filbres were discovered to have started from each other, oxhiliting a plece of fine net-work, resembling the inner bark of a tree.

The barl effects of applying artificial heat to the seasoning of green tin ser, were atrongly exemplified by a practice introduced very generally linto our ships of war whieh had exhlbited indications of the dry rot, particularly in the Queen Charlotte.: Enormous firea, wore made in stoves placed in various parts of the ship, and the heat led in tubes to the cavities leet ween the timbers, etc. The coneequence of which was, as might be expected, in increase of the mischief they were intended to prevent. Every part of the ship was converted into a hot-house, and every part where tha seode of fungi had been deposited liegan to throw out a luxuriant crop of mushrooma; and where these did not appear, the julcee of the wood were thrown into a state of fermentation, and, in the course of a tweive-month, a great part of her upper works became a mass of rot. tennean. After staving the powder magazines of some of the shipa, there appeared under their floors, which are contiguous to mucb moisture, numbers of large exerescences of a lev.hery consistence, of the size ani shape of a quart glase-decanter ; and in all such parts where two surfaces of the wood were imperfectly brought into contaet, were whole masses of fungi.

Wincerfflled Timber.-Another mode, of vary ancient atanding, was practiced for getting rid of the juices of timber. This was supposed to be effected by felling the tree in the wintar season, when the sap had deacended and the veasele were empty. l3y this pructice the bark of the oak, so valuablo in the process of tanning, was lost, as It will atrip only from the wood In the spring of the year, when the sap is said to be rising. The supposed superior quality of the wood, when winter-felled, and the general practice of feling oak timier at that season, may be inferred from a statute of James I., by which it is enacted, that no person or persons shall fell, or cause to be felled, suy oaken trees meet to be barked, when bark is worth 2s. a cartload (timber for the needful building and reparation of houses, ships, or mills, only excepted), but between the first day of April and the last day of lune, not even for the king's use, out of barking-time, except for building or repairing his majesty's houses or shijis.

The : Sorereign of the Seas is the standing example generally quoted to prove the beneficial effects of winter-felled timber. We are informed by one writer that, when taken in pleces, after 47 yeurs' service, the old timber was stili so hard that it was no easy mutter to drive a nail into it, and all future writers have taken it for granted that this was owing to its leing winterrelled. Mr. Pett, however, who built her, tukes r.e notice of any such circumstance. He merely says he was commanded by the king, on the 14th of sixy, 1633, to hasten tuto the north to procure the frame-tinubers, plank, and treenaile, for the great new ship at Woul. wich. But he left his son hehind to ship the mouids, provisions, and workmen, in a hired ship, to transport them to Newcastle ; thut the frame, as it was got seady, was sent in colliers from Newcastle and Sunderland; and that, on the 21st December, in the same year, the keel was laid in the dock; and in less thau two years after this she was launched. Now, as it was
the mid esty's a as she $w$ prohable from Ne much le the sprin as Mr. W Nelthe

## William,

ing built wis rebn original part of b extemall vally; at brokea ul ing the al As far reason to at all mo wasal tim war, was that had winter, as usual tim a state of in piecea, covered io is said, $h$ "that the 1787, and is given a barking in timber, is the timber the sap des expected than off $t$ attention forests, an a view to portant to as 1669 , a from the 1 servators be felled y wane of $t$ naparte, th moment o asd requi fermentat been fetier forests sho ber, which mooa, fron Immersi so namem sand, that efficacy of used in shi the harhor rard, and the dry ro Carthagen steeping $i$ ably by d an ancien nome part for thresh to harden wainscoat steeped in

It is sai
ing the $f$
which ar
the middle of May before Mr. Pett recelved his maf esty's oommande to procure timber for this ahip, and as she was on the stocks the same year, it is not very probable that the timber procured and sent in collere from Nowcastle to Woolwheh, was felied in the winter 1 much leas could it have been "stripped of ite bark in the spring, and felled the second ancceeding antumn," as Mr. Wade has it.
Neither is there the least proof of the old Royal William, recently broken up, when a century old, being built of winter-felled timber. The fact ls, that ohe was rebuilt half a dozen times, and the only old and original timber remaining in her was in the loweat part of her hull, always immersed in the salt-water externally, and washed with the bllge-water intersully; and the wood from this part of her, when broken up, was perfectly mound, bnt quite Liack, having the appearance of beling charred.
As far as experimente have been made, there is no reason to comelude that t!mber felled In the winter le at all more durahle than that which la felled at the usual tlme. In se year 1793, the Hawke, sloop-ofwar, was ordered to be bnilt, one side belng of tlmber thet had been barked in the spring and felled in the winter, and the other side with timber felled at the usual time. In 1803 she was reported to be ln so bsd s atate of rottennese, that she was ordered to be taken in pieces, when no diffo. ance whatever could be discovered in the state of the timbers of the two sldes. It is ald, however, in Derrak's Memoirs of the Navy, "that the timber hed been atripped in the spring of 1787, and not felled untll the autumn of 1790," and thle is given ss an explanation of tise fullure. Why the barking in the spring shonld add to the darabllity of timber, is not easlly conceived, if the object be to fell the timber when sll the sap-veesels are empty, as, if the sap descends at all, which is doubtful, it might be axpected to descend more freely when the bark is on than off the tree. This suliject has not escaped the sttention of the commissioners of the royal woods and forests, and various experiments have been made with a view to throw more light on $n$ enbject so vitally lm portant to the British Navy. In France, bo long ago as 1669 , a royal ordinance limited the felling of timber from the 1st October to the 15th April ; and the conservators of the foreats dlrected that the trees should be felled when the "wind was at north," and "in the wane of the moon ;" and we find an instruction of Bonaparte, that "as ships bnilt of timier felled at the moment of vegetation must be liable to rapld decny, sad require lmmedinte repalrs, from the effect of the fermentation of the sap in thoso pieces which hud nut been felled nt the proper soanon ;" the agente of the forests ahould abridge the time for felling naval timber, which shonld take place " in the decrease of the moon, from the ist November to tie 15th March."

Immersion in Earth, Sand, or Water.-The facts are so aumerous and so strong in favor of tise durability of timber when steeped In water, or buried in earth or sand, that no doubt whatover can be ontertained of the effieacy of such a practice. At I3rest, all the timbor ased in ship-building is deposited in the narrow creek of the harbor which runs throngh the middle of the dockyard, and it le sald that tho l3rest-built ainjes never had the dry rot. The same practice prevailed at Cudiz and Carthagena. Indeed there is reason to thlnk that steeping in fresh water is a preventive of dry rot, probsbly by dissolving the julces of the thiber. It was an ancient practice, and we ielieve it is still foliowed in some parts of lingland, to plince the timber Intended for threshing-floors $\ln$ the midst of a atrenm of water to harden it; and all the onk planks Intendod for the wainscoating of the old mansions were previously eteeped in running water.

It is said, and there seems to be no reason for donbting the fact, that the planks of ships near the bows, which are obllged to be boiled in water or steam in
order to wad them, are never infected with the dry. rot: if the water in which they are boiled be atrongly impregnated with salt, the effects wuald probably be more durable and decisive.

In a lecture read by Mr. Ogg, a salt-refinar, to the Plymouth Institation, on the prevention and cure of dry rot in thlips of war, common aalt is atrongly recommended, for lit oheapnese, ite wholesomenees, and its easy application; but he proposes a saturuted solutlon of salt, in which he would ateep not only single logs or planks, but the whole frame of a ship, or even the shlp Itself. "Let every ship in the navy," says the ealt-refiner, " be immersed a eufficlent time in this fluld, and let every new shlp be prepared in the asme way, and dry rot would be heard of no more. Bat how is this to be accomplish si ? I anewer, provide a dock or docka aufficiently capaclous to recoive five, ten or twenty ships, and the work is done." As common sea-water will answer the purpese equally well, the apparatus of extonsive docks and water astursted wlth balt are wholly unneceseary. But Mr. Ogg, like Mr. Bowden, appeara to mistake the real oanse of dry rot. "I affirm," says he, " that dry rot is occasioned by the vegetative princlple; brine will deatroy thle princlple ; then sink the ship ln brine." The experiments in the case of the Resistance and the Eden show that brine is not neceseary.
The Dutch having observed that their busses, in whlch the herrlags were caught and stowed awsy In pickle, lasted longer thun any other craft, adopted the practice of filling up the vacancies between the tlmbers and planks of ahlpe with salt, and of boring holes In the large tlmbers and crsiaming them full of aalt. The Americans also found, that the chipe employed in carrying out salt for their fisherles and domestic purposes, were the most durable; and both they and the Dutch are glad to get a cargo of salt into a new shlp, ss the surest mesns of preserving her. The carpenter of the Franklin, an American 74 gun ship, when at Spithead, told some of her visitors, that at the junction of the beams, and at the butt end of the timbers, pieces were cut, and the hollow part filled with aalt, and covered with felt, for the purpose of preserving those parts where two surfaces are imperfectly brought together, from the dry rot, where it is always most prevalent.
There are, however, very eerions objections to the immersion of ships in a strong solution of asl, and the practlce of inserting salt in the vacant spnce between the timbers, which may not, perhape, spply with equsl force to their immersion in sea-water. It is observed by a writer in the Quarterly Revien for Octoher, 1814, that " the attraction for moisture whlch oalts and aclde possess, would keep the whole interior of the ohlp dripping wet ; which would not only destroy the shlp with the wet rot, but the ship's company also, whose healti, experlence has proved, is best preserved by keeping the ainip us dry as possible; and thus the remedy would be worse than the disease." These bad effects have unquestionably been experlenced, the muriate of magnesia, which exlate in sea-wator, belng one of the most deliquescent salts; but whether the abstraction of moisture from the atmosphere the of long duration, is a fuct which remains to be proved. In corroboration of the injurious effects sbove described, Mr. Strange In hls Evidences, observes, "that the practice at Venlce of the fresh cut tlmber being thrown into ealt wnter prevents its evor becoming dry in the ships, and that the salt water rusted and corroded the iron bolts." Mr. Chapman also observes that "the Florida, a 20 gun shlp, taken from the Americans, and subsequently commissioned In the Britloh service, had been salt-sessoned; and the result was, that in damp weather every thing became moist, the lron-work was rusted, sad the health of the crew was impalred; in fine," he adds, "vessels so circumstanced are perfect hygrometers; being as sensible to changes of the

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mointure in the atmosphere an lumpe of rock salt, or slips of fuci, or the plater of inside walle where sean sand has heen used."
Mr. Chapman, however, in of opinion, that vessola impregnated with bay-salt, or the large grained salt of Limington or of Liverpool, (being pure muriate of soda, without admixture with the bitter deliquescent salts), will possesa deciled advantages, as would also vensele laden with saltpetre, if it has been dlspersed among their timbers; and Mr. Ogg sees no dificulty In refining salt so as to deprive it of its deliquescent quality. But if a very weak solution of aalt, or even freeh water, shall be found to anawer the purpose, the objection against immersing timber in sea-water seems to be got rid of. That it will immediately deatroy all vegetable life in the delicate fibres of the fungus, and aloo prevent its future growth, in quite clear ; and if it ahall be found to prevent aleo the putrefactive process, it may be coneidered the most advisable way to pre. pare timber for all purposes of house earpentry, and ship-building.
Impregmation of Timber with Foreign Subatances.A great variety of subatances besides common sait, indeed almost any salt or acid, will destroy and prevent the growth of fungus. Sir Humphrey Davy recommends a weak solution of the corrosive sublimate as the most efficient. A solution of sulphate of iron or copperas, is much used in Sweden for hardening and preserving wood for wheel-carriagee, etc. It is boiled in this solution for three or four houre, and then kept in a warm place to dry, by which process it is said to become so hard and comp tet that moisture can not penetrate it. "The wooden vessels," anys Mr. Chapman, "in which the sulpho-ferruginous solution in finaliy placed for the copperas to crystallize, lecome exceedingly bard and not subject to decay." A solution of alum has been recommended; but Mr. Chap;man seems to think that its esrthy batis would become a midus of putrefaction. The wood, however, which ia nsed ebout alum worka, heconses hard and durabie, and resists fire in an extraorlinary manner. All timber, in fact, when compietely saturated with saline matter, is more or less indestructilile, and absolutely incombustible. A solution of arsenic has not been fonnd to prevent the dry rot. With regard to the impregnation of vils, there are various opinions, some thinking them beneficial, and others injurious to the duratillty of timber. it is known, however, that shipa in the Greenland trade have their timher uad planks preserved as high up as they are impregnated with whale oil from the blubber; and Mr. Chapman says, that one of the mastere of a Greenland ship having payed her upper works with tweive or more successive coste of while uil in hut weather, they becane covered with a thin varnish, much harder and more compact than if filled with successive conts of tarpentine. lesinous eubstances, however, are prolably better than oil.
After a variety of experimente and sensible observations, Mr. Chapman sums up the three great operations by which timber may be brought to resist the tendency to dry rot. 1. To deprive the timber of its mucilage, which is very liable to fermentation. 2. Ty impregnate timber with any strongly antiseptic and non-deiiquescent matter. 3. To dry timber progressively by the aun and wind, or by the latter alone; and then to close ite pores completely with any subatance inpervious to air and moisture, and at the sume time highly repellant to putrescencs.

Mr. Wule recommends the iupregnation of timber with sulphates of copper, zine, or iron, rejecting deliquescent saltes, as they rorrode metais, and would deetroy the iolts and inetal fasteniugs of a ship. He observes, that timber impregnated with alline matter is no logger capable of fermentation, and that, of course, the gases necessary for the nutriment of fungi are not evolved. Selenite is recommended as being
incoluble, or Learly so, and not liable to any alteration in the ordinary tomperaturs of the atmosphere, hut all salta, he observes, composed of baryten, ahould be rejected, brecause, though thay are plentiful, sheap, and have some qualities eminently fitting tham to be employed for this purpose, yot they are, wlthout any: exception, very poisonous.
From all experiments that havo boon made, it appears that the most effectual method of preventing the dry rot, and of giving durability to timber, is that of depriving the sap of its mucilage, more especially in the alburnum, where it most abounda; for though seasoning in the dry way will coagulate and harden the extractive matter of timber, yet when exposed to heat, moisture, and a stagnant alr, the process of putrefaction will commance, and ail the symptoms of dry rot will opeedily make their appearance. It will be preferable, therefore, that such timber an is likely to the expoeed to the vicissitudes of weather, should the aeasoned by immesaion or impregnation, ruther than by the dry way.
Cure of the Dry Rot.-In this disease, as in those Incident to animal life, provention is much asier than cure. In fact, there is no other cure for the part affected than excision, and the sooner it is done the better, as the disesse apreads most rapidly when fungiare propagated, throwing their minate fibros into the tubes of the contiguous sound wood, and producing that mointure which is a condition absolutely necessary to the putrefactive process. If, bowever, the filre of the wool is stili sound, and the roots of the fungi extend not beyond the alburnum near to the surface, immersion in sen-waier, ay in casea of the Resistance and biden, or impregnation with some of the nolutions above mentioned, may stop the progress of tine disease; but the only safe cure, we apprehend, is that of cutting out the infected part. The sinking of the Royal Geurge at her noorings has not been the means of preserving her timbers. On being visited in the diving-leell, her onken sides were broken down Into a confused mass of timber and black mul; having, ao duulit, been too far gone in decay, when the fatal accident happened; but her tir deck appeared as sound us the day when mhe sunk.
Miscellaneous Observations.-It is a great mistake to suppose that the anciente were unacquainted with the dry rot or premature decay of timiter. Piny has a number of valuabie observations on the preservation of timber, and on its decay occasioned ly the juices; and, among other things, recommends that a tree should be cut to the heart ail round, in order to let the juices encape, and that it should not be felled matil the whole had run out. Lle knew that the sapipy part of ouk was more sulject to rot, and advised that it should be cut away in squaring. Hie knew, too, that resinous and olenginous matter in wood preserved it ; observing, that the more oluriferous a piece of tiulier is, the more durnble. He knew that much dejended on the cluse texture of timber, and that box, clony, cypress, and cedar might almost the considered us indentructible. Wo ulso know that cedar, teak, and mahugany, are very durable woods.
The felling of timber while young and full of vigur, making use of the sup-wood or alburnum, 'and applying it to rhipe and buildinge in an unseasonel state, have, no doult, contributed to make the disease of dry rot infinitely more common and extensive than it was in former tines, when our einips were "hparts of ouk," and when in our lurge nansions the wind was sufferel to hiow freely through them, and a aurrent of air to circulate through the wide spuce left hetween the panneled wainscout und the wall. In thaso ofl munsions which yet remsin, and in the nncient cathedrals, we find nothing iike the dry rot, though jerhaps perforuted sore
And drilid in holes, the solid oak is fonnd
By worms voracloos eaten through and through.
somad.
quently posited th preservat away the was buil whole of chestnut, nithout t of them, was equa belng ex had a ec which aff of time t
mant, wi life, whic they are growth. that the by its ex nomenon a satisfac

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 noticed, as ing the t! appears to as dry rot preparing wood-wor purposes, tougher, a is as follo which isNumerons examples of the extreordinary duration of timber may be producet, both from complete desiceation and expoeare to the air, and from the complete exclusion of air and immeraion in earth or water. Without adducing the surturbraadt of Iceland, covered with eeveral atrata of eolid roek, or the logs of wood dug out ef peat-moes, the antiquity of which ts mere conjecture, we may inetance the mummy-casee of Egypt as leing in all probablifty the most ancient timber in existeace that han been worked by the hand of man. When Belzoni entered the eplendid tomb of the kings of Thebes, in whlch was the tranaparent earcophagus of gypeum, he found two human figuree larger than Hfe sculptured in wood, is as good preservation as if it had been worked in his own time; but the sockete of the eye, which had been copper, were entirely waeted away. We are told hy Pliny, that the image of Diana at Epheaus, mpposed to be of obony, remained entire and unchanged, thongh the templa itaelf wae ruined and rebuilt seven times. He adds that, in his own time, the image of Jupiter in the capitol, made of cypress wood, was atill freeh and beautiful, though aet up la the year after the foundation of Rome 551, nearly three hundred yeare before. He further asys that there was a temple of Apoilo at Utica, the timbera of which, beiag of Numidian cedar, are sald to have atood 1188 years. The roof of Westminster IIall, which is constructed of oak, has atood for more than three hundred years, and la probably better now than whea newly erected. Similar instances of the long duration of timber have occurred in eituations where the atmospheric air has been excluded. In the Leverian Museam was a post eaid to be dug out of Fleet Ditch, charred at the lower end, having the name of Julius Casar cut into it. The foundation on which the stone piers of London Bridge are laid consiat of huge piles of timber driven close to one another, on the top of which is a floor of planks tan jaches thlck, atrongly bolted together; on these the etone piers rest, at above nine feet above the bed of the river, and, at low water, may be seen or felt at a very fow inches below the surface. These piles have been driven upwarl of six hundred years, and, from the solidity of the superincumbent weight, it may be conciuded that they are perfectly sosad. In the old city wall of Jondon, timber ia froquently dug out as sound and perfoct as when first deposited there. As the last instance of the extraordinary preservation of timber, we may mention that in digging awsy the foundation of tha Old Savoy Pulace, which was built about six bundred and fifty years ;o, the whole of the pllea, consisting of oak, clm, beech, and chestaut, were found in a state of perfect soundness, without the least appearanco of rottenness in any part of them, and the plank which covered the pile-heads was equally sound. Some of the beech, howover, after being exposed a few weeks to the air, but under cover, had a coating of fungus spread over the surface; which affords a striking proof of the linmense length of time that the seeds of this parasite will remain dormant, without parting with the princlple of vegetable hife, which is called into activity from tho moment that they are deposited in a situation favorable to their growth. In this instance we have only to suppese that the indurated juices of the wood became dissolved by its exposure to the nolst atmosphere, and the phevomenon of fungous vegetation is capable of receiving a satisfactory explanatinn.* Commmuicated to the

[^7]Encyelopredia Britannica, by Sir Johm Banhow, Bart. See Am. Jour. Sc., it., p. 114, xxxiv., p. 169 ; Wentminater Rev., x., p. 414 ; Iondon Quar., xil., p. 227, xxx., 216; Monthly Rev., Ixxxvi., 361, xc., 887; Une's Dict. Arts.

Dubber, or Dupper, a leatkern veesel, bottle, or jar, nsed in India to hold oll, ghee, etc. Barrels, as already observed, are entirely a European invention. Liquide, in eastern countriea, are for the most part packed for exportation in leathern veesels. Dubbers are made of thin untanned gost akina; and are of all aizes, from a quart up to nearly a barrel.

Dublln, the metropolis of Ireland, in the county to which it gives name, and province of Leineter, ranking in importance as the second city In the United Kingdom. It is distant $\mathbf{9 9 2}$ miles W.N.W. Prom London, 188 miles west from Liverpool, and 60 miles west from Holyhead, in lat. $58^{\circ}{ }^{7} 0^{\prime} 88^{\prime \prime}$ N., and long $6^{\circ} 7^{\prime}$ $18^{\prime \prime}$ W., agreesbly situate in the great centrel limeetone district which reachen acrose the isiand from the Irish Sea to the Atiantic Ocean on the River Liffey, and extendlag to the junction of that riv r with the Bay of Dublin, the waters of which wa its suburban shores.
The population of the city 0 . Lubliu was eatimated by Rutter, in 1753, at 161,088; in 1798, by Whitelaw, at 182,037, and was ascertained by the census of 1821 to amount at that period to 185,881, and by the censue of 1881 to 204,155 . The population of the city, accordin. $\%$ to the most recent enumerations, in 1841 was 232,726 , and in 1851 it was 258,961 .

In order atill further to promote the conimercial intersats of Dublin, an aseociation was formed about thirty yeare ago, under the name of the Chamber of Commerce, which soon decayed; but the ides was revived in 1820, when a number of merchants formed themalves into a society uncer ohe same name, which otill exists. Its sbjecta are the protection and promotion of the manufacturing and commercial interests of Dublin, and of the country in general. The business is transacted by a president, vice-presidenta, and committee, instructed to communicate with the officers of government on the oubjects of the association. Their office is held in the Commercial Buildings. The Ouzel Guliey is another voluntary aseociation of merchants for dotermining commercial differences by arbitration. It takes its name from that of a vessel, which was the occasion of a complicsted and protracted suit, that was ultimntely adjusted in an amicable manner by the interference of some of the most reapectable merchanta in Dublin. The effect of ateam aavigation on the cross-channel trade has produced a great alteration in the state of commerce $\ln$ Dublin.

The Bank of Ireland was formed in 1783 in order to give security to commerce. It was opened at first lis some old housee in Mary'a Abbey, with a capital of $£ 600,000$, which was afterward increased to $£ 3,000,000$. In the year 1802 the parliament house was purchased by the direct, re, and adapted to its preaent destination. This ediffee was erocted in 1729 ; and notwithstanding the changes made in it aince it was diverted from its original purpose, the exterior has been but little altered. It consiats of three fronts. The principal, toward College Green, a colonnade of the Ionic order, formed of a façade and two projecting wings, is much admired for the noble simplicity of lts elovation. The western front, a portico of four Ionic columna, was connected with the other by a colonnade of the same order, form-
containing creasote, and with pyroilgalto of iron: the alr is then exhausted by powerfui air-pumps; after which more of the saturatlog fuld is forced in by hydroatatic pumps. Whon the wood has been subjected for aix or seven hours to a pressure of from t00 to 150 pounds on the square inch, the process is complete, and the wood la found to weigh from 8 to 12 pounds per cuble foot heavier than before. It also preserves Irou boite driven Into It frem corrosion. Wood thus prepared has been used for sieepers on neveral of the great Engilish raliroads, and is sald to have proved extremeiy darabto. (See Ube'a Dict. of Arts, etc., vol. II., p. 063.)
ing the quadrant of a circle. The eantern front, which was the ontrance of tho House of Lords, was, by thoir apecial onder, a colonnade of the Corintbian order, which the architect found great dificulty in aniting with the other parts. The spertment for the lords, a fine room, was hang with tapestry. That of the commons having been burned in 1792 (whether by accident or design has never been fully ascertained), was reconstructed after $a$ more elegant desigra, in the form of a circle surrounded by pillars, betveen which was a gallery for hearens. This fine hall was taken down by the bank directorn, and converted into a square room, now the cash-office.

The commerce of the port of Dublin had increased no much toward the close of the last century that the accommodation afforded in the river for shipping was found inaufficient, and the Iriah parliament granted $\mathbf{£ 1 5 , 0 0 0}$ for forming docks on both sides of it. The flowing and graving docks, commennicating with the grand canal on the south side, including a basin covering 40 statuto acres, with a fine quay and store frontage of 7,500 feet, were opened in 1796 ; and St. George's; the latest of the cuatom house docks, in 1821. These lattor covar an area of 8 acres, having 16 feet depth of water, and 1200 yards of quay; they are capabie of accommodating 40,000 tons of shipping, and the storen have apace for 8000 easks of augar and tohaceo, and 20,000 chests of tes, with cellarage for 12,000 pipes of wine. The docks on the sonth aide atford commodions wharfage for 100 aail of merchantmen and celliers, exclusive of that aupplied by the river quays. The formation of the asylum-harbor et Kingstown, then Dunleary, which was commenced in 1817, gave additional aid to the commerce of the port, by the increased protection it afforded to shipping. The improvements made on the bar, in the arection of the great northern wall or breakwater, and the steam dredging of the bed of the Liffey by the ballast board, by rendering the channel sufficientiy deep for the navigation of vensela of 1400 tons, has also contributed greatiy to the same effect.
There ware in 1852 belongiag to the port, incinding steamers, 454 vessels, of overy size, from 15 to 1200 tons ; the registered burden amounting to 89,814 tons. Most of those vessels were employed in the coasting or cross-channel trade, there having heen but 6 or 8 in thet of the West Indiea, the same number In that of France and the Spanish Peninsula, end 20 or 30 in the North American timber trade. The amount of cuatoma collected averages about $\mathbf{£ 9 5 0 , 0 0 0}$, and has not varied much during the last tweive years, the reduction of eluties having more than balaaced the increase in the 'fuantity of artieies imported.
"First impressions of Dublin," aaya Inglis, "are iecidedly favorabia. Dublin, for ita size, is a handsomer city than London. Sackville $-8 t r e o t$ will compare with any etrent in Europe; Merrion Square and St. Stephen's Green aurpase. extent any of the nquares in the British in. "-upolis. There are joints of view in Dublin, the quays, and some of the finest publio edifices, more striking, 1 think, than any that aro to be found in London; aud aithough the Irish capital can boast of no St. I'uul's, yet, in the erchltectural beanty of scane of her puilic buildings, she has juat reaton for pride. I need but name the Custom House, and the Bank of Ireland with its magnificent yet classically chaste colonnaiea, in proof thin asaer. tion." There is mach truth in this description, yet the chief sdivantage which Jubilin has in picturesquo leauty lies in the concentration of the objecta of interest within a mall compass, and furtier examination doea not confirm the first favorsble impression. Sir John Fories, who visited Ireiand in 1852, asys: "I own myself to have been a good deal disappointed with JubIfin as a city. To say nothing of its extent, it is greatly inferior in many other respects, not only to London, but to aeveral towns in England, and nome in Scotlund. its alte ls flat and monotonous, and ita streets and
squares possess no architectural beauty. The former, to be aure, are often very wide, and some of the latter, as Merrion Square and Staphen's Green, are of immense extent, but there is throughout a general want of ologance and grandeur.' Most of the streets seem to want dignity, and the majority of the housea are common-looking, and even mean and dingy. While denying both, beanty. and grandeur to Dublin as a city, I must jois in the universal judgment as to the splendor of many of its publio buildings, as the Bank of Ireland-formerly the Parliament House, the Custom House, the Post Office, the Royal Exchange," eto. Fow citles present a more striking picture of the extremea of aplendor and destitution than Dublin. A line drawn from the King's Inns in the north of Dablin, directly sonth, through Capelostreet, the castie, and Aungiar-street, will, together with the line of the Liffey, divide the whole erea into four districts, materially different from each other in appesranoe and character. The south-eastern distriot, which comprehends three of the great squares, and the north-eastern, which includes the two remaining squares, are chiefly inhabited by the nobility, the landed gentry, end the liberal professions. These two districts present many aymptoms of affiuence and luxury. But on proceeding westward the acene anddenly changea, A considerable portion of the south-western district, which included the liberties of St. Sepulchrs's and Thomas Court, snd wae formerly the seat of the silk and woolen manufactares, and also of the north-weatern portion of the city, are in a state of almost hopelens decay. The squalid misery visible in the ruinous portions of the city is relieved to the eyo by the beauty of the environs of the city; and in its immediate vicinity is the Phonix Park, of which the citizens are justly proud. It comprises an area of 1753 acres, within which are contained tho Viceregol Loige, the usual residence of the iord-lieuteuant, with 160 acres of demesne and gardens, the chief and nuder socretary's lodgea, and the lodges of the park rangers a d their aseistants, with their respective inclosed grounds, the Hibernian achool for soldiers' childrea, the military magazine, the vilitary infirmary, the zoological gardens, the constabulary barracks, etc. Inglis, a good authority on auch aubjects, pronounced this park as auperior, both in extent and diversity of surface, to any public park, promenade, prater, or prado, belonging to any other European city. (Wurxlaw und Walsa'a Ilistory of Dublin; Thosis Irich Almanac; Gunbert's History of the fity of Dublin, 1854.)-E. B. Dublin Univ. Mag., viii., Xvi., iii., iv., v., vii.

Ducat, a foreign coin, either of goid or silver, struck in the dominions of a duke. The dacat was first coined by Longinius, governor of Italy, who revoited against the Jimperor Justin the Younger, and mada himself duke of Kavenna, calling himeelf Eisnrcha, that is, without lord or ruler; and he struck picces of money, of very pure gold, with his own stamp, which, as Procopius relates, were called ducati, ducats. According to Du Cange, ducats were colned by loget, King of Siclly, in the year 1240. The Venetian ducrat was first struck by John Dandolo, in 1280, and inacribed with this legend :
"sl Tibl, "liriste, datum, quem Tu regia iste Ducatus."
Duoato (Cupe), the modern name of the ancicat Leucate, promontory at the south end of Suats Maura, one of the Ioniun Islanda; celebrated na the rock from which Sapphe precipitated horaeif finte the ses,

Ducatoon, a silver coin, struck chiefiy in Italy, particularly at Milsn, Venice, Florence, Genos, Luces, Mantua, and l'arina; though there are, also, Dutch and Flemish ducatoons.
Dundee, a seaport town of Scotlond, county of Forfar, 42 miles N.N.E. from Edinburg ; N. lat. $56^{\circ}$ $2^{\prime} ; \mathbf{W}$. long. $8^{\circ} 2^{\prime}$. It is situated on the north side of the RIver Tay, about 12 milen from itg mouth. Population (1855) 78,931 ; and as a cunslderabie increaso

The former ne of the latter een, ara of im. a general want ihe atreets eeem. the houses are dingy, While to Dublin as a gment as to the gs, as the Bank Honee, the CusExchange," eto. 6 pleture of the han Dublin. A e north of Dubceet, the castie, the line of the districts, matetrance and charch comprehends h-eastern, which rechiefly inhab, and the liberal ent many sympproceeding westconsiderable porich included the Court, and was in manufactures, of the city, are in - squalid misery ity is relieved to of the city ; and $x$ Park, of which prises an area of ed tho Viceregal -lieutenant, with o chief and ander the park rangers upective inclosed oldiera' children, $y$ infirmary, the y barracks, etc. ects, pronounced and diversity of snade, prater, or n city. (Wurtin; Tıos's Irish city of Dublin, iii., xvi., iii., iv.,
f gold or silver, he lucat was firs aly, who revolted unger, and madn bimeelf Eirarcha, struck pieces of wn stamy, which, cati, ducats. Ac. cuined by lloger, he Venetian ducat in 1280, and in-
fis tate Ducatuk.' ne of the ancient th end of Sauta celebrated as the terself iato the sea. $k$ chiefly in Italy, nee, Geqoa, Lucea, sare, aiso, Dutch
otland, county of burg; N. lat. $66^{\circ}$ on the north side from its mouth. nalderable increase
has since taken place, it may now be entimated at 90,000 to 100,000 . Dundee is thus the third town in Scotland in respect of population. The name applied to it by the carliest writers is Alectum or Taodunum. It was oubsequently designated Deidonum, of which the present name is supposed to be a corruption." The eariy history of the town is involved in obscurity, but it sppeate to have been a place of importance as early as the 12th century. "Frequent mention is made of it in conneotion with the diepntes regarding the enceession to the orown of Scotland; and it was the scene of severe conflicts between the English forces, who invaded the country in the reign of Edward I., and the Scotte, under the patriotle Wallace, and the other supportery of Seottish independence.

Dundee was at one time enrrounded by strong walls, and portions ot them are yet to be ceen.' The Cowgate port atill etands, and is regarded with veneration as a memorial of George Wishart, the Reformer, who is aild to havo preached from it in the year 1544, when the plague prevailed, the sick being placed on oise eide of the wall, and the healthy on the other.
The ground on which the town is built slopes gently toward the river, and is bounded on the north liy the Law of Dundee and the Hill of Balgay. The former rises to the helght of 595 feet; and must in warlike times have been a atrong position. The walls of a fortification are still to be traced on lte eummit. The towa in general is Irregularly bnilt; but within the last 20 or 80 years eeveral new and spacious streets have been opened up. The principal public buildinge are the Exchange Reading-Room; the Royal Arch, erected by pablic subscription to commemorate the landing of Queen Victoria in 1844, at a cost of nearly 88,000 ; the Publio Seminaries ; and the New Baltic Exchange Coffee-Room, a splendid specimen of the Memish-Gothie style.
Within a comparatively recent period a number of important publio nudertakings have been completed. The Dundee and Newtyle Railway was opened for traffic in 1826 ; the Dundee and Arbroath Railway in 1838; and the Dundee and Perth Railway in 1847. By measa of these rallwaye, and of the Edinburg, Perth, and Dnadee Railway, which joins the Dundee and Arbrosth Rall way by means of a ferry and branch line at Broughty Castic, four miles eaet from the town, Dandee has direct communication with all parta of the kingdom. There are two gas-light companies, each ef them with a capital of about $\mathbf{f} 50,000$ invested in their works and apparstus. The Dundee Water Company was formed in 1846. Its capital is about $£ 180$,000 . Its reservoire are situated in the parish of Monikie, about 10 miles diatant from the town; and from these an abundant eupply of water has been procnred.

The most important of the public works are the harbor and docks. Previonsly to 1815 the harbor was of very limited extent. In that year an net of Parliament was obtaized for enlarging it, and erecting a wretdock of $6 \frac{1}{4}$ aerea (King Whiliam's), a tide-harbor of 4! acrea, graving-dock, and other accommodation suitable for the increasing trade of the port. Tho plan wae afterward greatly enlarged, embracing now docke (Earl Grey's of 5t acree, and Victoria Dock of 141 acrea), patent alip, careening-beach, and additional tide-harbors. The Victoris Dock, though for some years open to vessels, is not quite completed. The quays are wide, and afford convenient berthage for sbout 70 vessela. On the soutin quay of Barl Grey's Dock, la erected a large crano, oapable of raising 80 tons. It is used chiefly for lifting the boilers and heavy machinery of ateam-vesesls. Benides the ordinary branches of ship-buiding, the bullding of iron vessele in carried on at the port. Owing to the increased burden of the veseels now employed in the trade of the place, and the greater depth of water required by them, additional works at the harbor are projected. The cost of the dockn and harbor waa about $£ 600,000$.

The number and tonnage of vessels entored at the harbor for the year ending 81et May, 1854, was as tollowa:

The following stntement shows the progresaive increase in the harbor and shipping duee. It was,


The staple trade of Dundee ts the manufacture of lieen and hemp fabrics, chiefly of the coarser descriptions. The manufacture of linens appears to have been introduced from Germany in the beginning of the last century. : Insignificant in extent at first, it gradually increased till the close of that century, when, machinery having been applied to the spinning of flax, a great impulse was given to it. Spinning-mills were orected, and of these there are now about 60 in Dundee and its immediate neighborhood. Hand-eplnning has been entirely saperseded by mill-apinning. The coaraer fabrics are still woven in hand-looms; bnt there are now eix or eeven large power-loom factories, and some emaller ones. The chief articles of maiufacture are obeetinge, sail-cloth, drille, dowlas, sacking, and bagging. Nearly one half of the quantity made is cent to London, Manchester, Glasgow, and Leeds, for home consumption. The remainder is exported, either directly or indirectly, to foreign conntries. The manufacture of jute carpeting is also now carried on to a large extent. The number of person $\beta$ employed in the linen trade of the place is eatimated to be from 20,000 to 25,000 .

The quantity of flax, hemp, codilla, and jute, imported for the year ending 81st May, 1854, was as follows : At the harbor, 54,341 tone; by raliway, 11,406 tons; total, 65,747 tone.

The quantity of linen goods sent away for exporta. tion and home-consumption for the same period, was as follows : Linens of all deseriptions shipped at the harbor, 421,432 pleces ; by railway, 686,110 plecee ; total, 1,107,542 pleces.

Assuming the value of the material at $£ 30$ per ton, ita total value used in mannfacturee will be $£ 1,872,410$. Assuming the value of the goods manufacturad to be 608. per piece, their grose value will be $\boldsymbol{4 3}, 822,628$; and on thle sesumption, the balance of $£ 1,450,216$ represents the cost of the manufacture, including wages, the rente of premises, and machinery employed in it, and the profite of the manufacturers. From the foregoing statementr, come ides may he formed of the rapid incresse of the town in commerce, wealth, and population. Dundee is now the principal sest of the ilnun-trade of the United Kingdom, and its fubrice are to be met with in all quarters of the world. In proof of the prudential habits of the people, it may be mentioned that a national security savinge-bank, opened in $\mathbf{1 8 8 8}$, now contains upward of $\mathbf{\Sigma 7 0 , 0 0 0}$, lodged by 4,032 depositore.

The country surrounding the town is fertile, and well cultivated ; and has shared largely in its prosperity, the rents having increneed much, and the value of the land being angmented in proportion. With the natural advantages which it enjoys, and the energy and enterprise for which its inhabitante are dietin. guished, Dundee may be expected to maintain the poeitiot. which it now holds among the coinmercial towns of the British Empire.-FF. B.

Dunnage, in commercial navigation, loose wood, consinting of pioces of timber, loughis of trees, faggote, etc., Juid in the bottom and against the eide of the ship's hold, either, let, by raining the cargo when ohe is loaded with heavy goods, to prevent her from becoming too etiff (bee Baidiar); or, 2d, to prevent the eargo, should it be ausceptible of damage by water,
from belng injured in the event of her becoming leaky. A ship is not reckoned eearrorthy unless she be provided with proper and aufficlent dunnage.-FalconEr'a Marine Dictionary ; Abbott (Lond Tenterien) on the Law of Shipping, Part iil., c. 8.

Duplicate, a copy or transcript of any thing ; as of a deed, lettor, bill of exchange, eto. Dupllcation, the act of doubling; the multiplication of a number by 2. Also a folding ; a fold.

Dupondius, in antlquity, a welght of 2 pounds, or money of the value of 2 asses.

Dust, or Dustee, a river of Persia, flowlag from the interior through the province of Mekran, from the southern shore of whlch it fulls into the Indian Ocean. Its course is supposed to extend, under different appellatlone, about 1,000 miles.

Dutch Gold, the commercial name of a coarse imitation of gold leaf, made of copper, of braes, or of bronze. It is chlefly used for ornamentiag toys.

Dyoing (Teinture, Fr. ; Färberei, Germ.) is the art of impregnating wool, silk, cotton, halr, and akins, with colors not removable by washing, or the ordinary usage to whlch these fibrous bodies are exposed, when worked up into articles of fumilture or raiment. We ehall here consider the general principles of the art, referring for the particular dyea, and pecaliar treatment of the stuffe to be dyed, to the different tinctorial substances in their alphabetical places; such as cochInasl, indigo, madder, etc. Dyeing is altogether a chemlcal process, and requires for its due explanation and practlce an acquaintance with the properties of the elementary bodies, and the laws which regulute their comblnations. It la true that many operations of thia, as of other chemical arts, have been practiced from the most ancient times, long before any just vlews were entertaiued of the nature of the changee that took place. Mankind, equally in the rudeat and most refined state, have always sought to gratify the love of distinction by stalning their dress, sometimes even their skin with gandy colors. Mosea speaks of ralment dyed blue, and purple, and scarlet, and of shcepskins dyed red-celreumstance. which Indicate no small degree of tinctorial sklli. IIe enjoins purple stuffs for the works of the tabernacie and the veatments of the high priest. The ancient Eigyptlans cultivated this art with some degree of acientitic precision, since they knew the use of mordants, or those anbstances which, though they lmpart no color themselves, yet enalle white robes (candida rela) to absorb coloring drugs (colorem sorbendibus medicamentis). Tyre, however, was the nation of antiquity which made dyeing its chlef occupstion and the staple of lts commerce. There is little doubt that purple, the sacred symulol of royal and sacerdotal dignity, was a color discovered in that city, and that it contributed to its opulence anil grandeur. Ifomer marks no less the value than the antiquity of thls dye, by deacribing his herves as arruyed in purple robes. J'urple habits are mentioned among the presente made to Gideon by the Iaraelites from the spoils of the kings of Midian.

The juice employed for communleating this slye was obtained from two different kinds of shell-fisit, descritied by Pliny under the names of purpura and bucrinum; and was extracted from a small vessel, or sac, In their throats, to the nmount of only one drop from each animal. A darker and inferior color was also procured ly crushing the whole aulistance of the bucrinum. A certain quantity of the julee, collected from a vast number of allels, being treated with sea-salt, was allowed to ripen for three days; after whleh it was diluted with 's times its bulk of water, kept at a moderate heat for 6 days more, occuaionally akimmed to separste the animal membranes, and when thus clarified, was applied directly as a dye to white wool, previously prepared for this purpose liy the action of lime-water, or of a species of llchen called fucus. Two operations were requisite to communicate the $\vec{i}$ aest

Tyrian purple: the 1st consisted in plunging the wool into the julce of the purpura; the 2d, into that of the bnccinum. 50 drachms of wool required 100 of the former liquor, and 200 of the latter. Sometimes a prellminary tht was given with coccub-the kermos of the present day-and the cloth recelved merely a finish from the precious animal julce. The colors, thongh probably not nearly so brilliant as those producible by our cochlneal, seem to have been very durable, for Plutarch eays, in his Life of A lexander (chap. 86), that the Greeks found in the treasury of the King of Persla a large quantity of purple cloth, whlch was as beautiful as at first, though it was 190 years old. The difficulty of collectlng the purple julce, and the tedions complication of the dyelng procese, made the purple wool of Tyre so expenive at Rome, that in the time of Augustus a pound of it coet nearly $\mathbf{x} 30$ of English money. Notwithatanding this enormous price, such was the wealth accumulated in that capitel, that many of the loading citizens decorated themselves in purple attire, till the emperore srrogated to themselves tho privilege of wearing purble, and prohlbited its use to every other person. Thls probllition operated so much to discourage this curious art as eventusliy to occasion its extlaction, first in the western, and then in the eastern empire, where, however, it existed in certain imperial manufactories till the eleventh cantury.
Dyeing was little cultlvated in anclent Greece; the people of Athens wore generally woolen dresses of the natural color. But the Romane muat have bestowed some pains upon this art. In the games of the circus, parties were distinguished by colors. Four of these are deacribed by Pliny-the green, the ornige, the gray, and the white. The following ingredients were used by their dyers. A crude native alum mixed with copperas, copperas ltself, blue vitriol, alkanet, lichen rocellus, or archil, broom, madder, woad, nut-galls, the seed of pomegranate, and of en Egyptian acacia.

Ilut the vast superiority of our dyes over those of former times must be ascribed princlpaliy to the use of pure alun and solutlon of tin as mordants, either alone or mixed with other bases; substances which give to our common dye-stuffis remarkable depth, durability, and lustre. Another Improvement In dyeing, of more recent date, is the application to textile substsnces of metullic compunds, such as Prussian blue, chrome yellow, manganese brown, etc.

The compound or mixed colors, are auch as reanlt frour the comblnatlon of two different colored dye-stuffs, or from dyoing stuffs with one color and tien with another. The simple colors of tho dyer are red, yeilow, blun, and black, with whlch, when skillfully blended, he can produce every varlety of tint. l'erhape the dun or fawn color might be oilded to the above, as it is directly obtained from a great muny vegetable aubatances.

1. Ihed with yelluw, produces orange; a color which, upon woot, la given namally wlth the apent acartet bath. To this ahado may the referred flame color, poloegranaie, capnelitn, prawn, Jonqull, cussis, chamola, caft au lait, aurora, marbgold, orange peed, morioris, clunamon, gold, otc. Snuff, cheatnnt, muak, and other alindes are prodoceed by substi. tuting wainut peeln or aumach for bright yollow. If a fittie blue be added to nrange, an olive is obtalned. The onty direct orauge dyen are anotio and subchronato of lead.
2. lied with biue producen purpio, violot, lliac, plgeoa's neok, mailow, pench hlonsom, bleu de roi, Int-hlossom, amaranth.
3. Hed with black; brown, chocolate, marone, ath
4. Yeilow with blue; green of a great varifty of alisdes, auch an nament green, gay green, grama green, apring green, haured green, mea green, celadon green, parrot green, omblage green, applo green, duck green.
b. Mixturea of colora, 3 and 8 , and 4 and 4 , produce an Indefinite diversity of tinta; thum red, yellow, and blue, form browa oilven and greentih graya; in which the Wue dyo ought alvaya to be frat given, leat the Indlgo vat ahould be solled by cther colora. Red, yellow, and gray (which is a gradation of black) give the dead-lenf that, as woll an dark
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variety
and oth
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Yellos
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of arsen
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It tmus,
Black.
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Barne
orange, manti color, etc. Red, blue, and gray, give a vast variety of ahades as lead gray, alnte gray, wood-pigeod gray, and other colore, too numerons to speelify.
The following liot of dyea, and the coloring subutances which produce thom, may prove asefol:
Red. Coohineal, kermen, lao, madder, archil, carthamus or saflower, brazll wood, logwood, periodide of mercury, alknnet.
Yellow. Quercitron; weld, funtio (yellow wood), annotto, sawwort, dyer's broom, tarmerio, fuatet (rhes cotinus), Perdan and Avignon borries (rhamnuas infectorius), willow, peroxyd of tron; chromate of lead (chrome yellow), sulphuret of arsenig, hydrosulpharet of antimony ; aitric acld on silk. Blue. Indlgo, woad or pastel, Prussian Blas, tarnsole or litmus, logwood with a salt of copper.
Black. Galls, sumnch, logwood, walnut peels, and other regetables whish contaln tannin and gallio seld, slong with forroginous mordants t the anscardium of India.
Green. Theme are produced by the blue and ybllow dyen sillifully combined; with the exception of the chrome green, aod perhape the copper green of Sobweinfurt.
Orango. Annolto, and mixtures of red and yollow dyes; anbehromate of lead.
Fawn, Dun, or Rool. Walnat peels, sumach, blrch-tree, henna, natudal wood.-Usars Dict. of Arto.
Indigo and Cochineal.-In 1548 nelther of these important dye-stuffs had made thelr way into Europe. Pliny mentions indigo under the name of inclicum; but It appeare to have been used by the Greeks and Romans anly ss a paint; yet there can be little donbt that in India lt had been employed from time immemorlal as a dyestuff. Cochineal could not be known tlll after the discovery of America. It was used by the Mexicans as $s$ dyestuff. In 1523 Cortez recelved orders from the court of Spain to maltlply this precions insect, to collect it and send it to Spain. Cochineal by itself gives only a crimson color; It dyea scarlet when mixed with a solution of tin. Thla fact was discovered accidentally by Cornelius Drebbel about the year 1630. He communicated his obsorvation to his son-in-law Kuffelar, who wse s dyer at Leyden. He soon brought the proceas to perfection, kept it a secret, and brought the scarlet color into fashion. Soon after, the aame process was dlscovered by a German chemist called Keffier, who carnied his secret to Iondon in 1649. A Flemiah dyer called John Kloeci got information of the procesa in 1647, and it gradually made ita way through every country of Europe. Indigo, though a much more important dye-atuff than cochlneal, did not make its wsy into goneral use without the greatent difficnlty. The use of it was prohiblted In England daring the reign of Ellzabeth; and the prohlbltion was not taken
off till the time of Charlea II. . It was equally prohibited in Saxony, whero it was styled in the prohlbition a corrosive sabatance, and called food for the devil. Restrictlons on the use of indigo in dyeing were imposed also in France, though it was not altogether prohlbited, as it had been In England and Saxony. See Benthollet, on Dyeing; Bancroft, on Colors.
There has been much speculation among phliosophlcal dyers respecting the nature of the coloring matters, and the way in whlch the different colors are induced by dyelng; but these speculations have not led to any information of mnch value. . There ia reason for believing that the coloring matters employed as dyeatuffa are all transparent, and that the color is produced by their action on the light tranamitted throngh them from the white fibres of the cloth. Those coloring matters that transuit all the rays equally leave the cloth white; if the blue ray be tranamitted and the rest absorbed, the color of the cloth will be blue, and so on. This is all that we know sbout the mechanical nature of the dyeatuffs.

With respect to the aptitude of being dyed, and the brillisncy of the colors thus communlcated, there is found to be very great difference in different tisaues. Animal subatances are much more easily dyed than vegetable substances. Of snimal aubstances, silk receiven color, and the shades given are brighter and more beautlful than those which can be imbibed by any other tlasue. Woolen cloth is also vary fit for being dyed, and receives very brilliant colors with avidity; though in thls reapect it la inferior to silk. Cotton and IInen are mach more difficult to dye, and can not be made to imbibe such brilliant colore as ailk or woolen. Thus the rich searlet given to cloth by the combined action of cochlueal and the oxyd of tin, has never been communlosted to cotton cloth or linen. The Turkey-red dye, which is by far the finaat and most permanent red that has ever been communicated to cotton cloth, is a crimson, or rather a crimson with a ahade of brown. It has not the least approach to a gcarlet.-E. B.

Dyke, or Dike. When a mass of unatratified or lgneons rock, such as granite, trap, or lava, appears as If Injectad Into renta and fisaures in the atratified rock, ao as to intersect the atrata, it is called a dyke. Dyke Is also the name given to a mound of earth, stonas, or other materials, intended to pravent luw land from beling inundated by the sea, etc. ; as the dykes of Holland.

## E.

Eagle, In ramismatlca, a aort of base money which was current in Ireland in the early peat of the relgn of Edward I., that is, about the year 1272. There wers also lionines, rosades, and many other colns of the same sort, named aecording to the figures with which they were impressed. The current coin of the kingdom at that time was a composition of copper and sllver, in determinste projortlons; liut these ware so machinferlor to the standard of that time, that they were not worth, intrinsicaliy, half ao much as the others. They were linported from France and other foreign countries. When Edward had been a few years established on the throne, he aet up mints in Ireland for colingig gool money, and then prohibited the uss of eagles, and other kinds of base coiu-making it desti, with contiscation of effects, to import any more of thein Into the kingdom. Fugle is the ilealgnation of the prinolpal gold coin of the United Statesvalue equal to 10 tollura.
Earing, In nuutical language, n rope attached to the cringle of a sall, hy means of which it is bent or reefed,
Earnesty in commerolal law, is the sum advanced by the buyer of goods in order to bind the seller to the
terms of the agreement. It is onacted by the 17th sectlon of the famous Statute of Frauds, 29 Charles II., o. 8, that " no contract for the sale of any goods, wares, and merchandlses, for the prices of $\mathbf{£ 1 0}$ sterling, or npward, shall be allowed to be good, except the buyer shall accept part of the goods so aold, and actually recelve the same, or give something ln earnest to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and slgned hy the parties to be charged by such contract, or their agents thereunto lawfully authorIned." As to what amounts to sufficient earnest, Blackstone lays it down, that, "lf any part of the price la pald down, if it la but a penny, or any portlon of the goods is delivored by way of earnest, it la binding." To constitute earnost, the thing must be given as a token of ratlication of the contruct, and it ahould be expresaly stated so by the giver.-Cilittr's Commercial Law, vol. III., p. 289.

Bar-ring, an ornament worn at the ear; a peudant or jewel auspended by means of a ring or a hook passing through the pendulous lobe of the ear. The use of thia kind of omament dntes from the remotest antiquity, since the first mentlon of ear-rings occura in the
book of Geneefir Ear-rings of certain kinds were anciontly, and otill are, in the East, instruments or appendages of idolatry and auperstition-being regarded as taliamans and amulets. Such, probubly, were the ear-ringe of Jacob'e family, which he boried with the atrange gods at Bethol. This somowhat barbarous opecies of adornment was used (as it still is in some conntries) by both sexes among many Oriental nations; eupecially by the Lydiaus, Persians, Babylonians, Libyazs, and Carthaginiana, as may be gathered from various ancient authors. Among the Hebrews and the Egyptians, their use appears to have been confined to women : but that they were axtensively used by the mon of various other nations is sufficiently proved by the Egyptian monumento. Among the Greoks and Romans ear-ringe wore worn only by fomales, and were sometimes of onormous value. It is a ourious fact that the ears of the Venus de Medici, and of come other female statuen, are plerced, as if for the purpose of bearing these appendages.
Barth, Figure of the The detormination of the figure and dimensions of the earth is a problem of very great importance in astronomy, inasmuch es it is in reference to the earth's diametor that the distances of the planets from the sun and from each other are evtimated. It in aleo a prohlem of very great interest and curiosity; and has accordingly attracted the attention of mankind since the earlieat dawn of civilization. There are two points of view under which this great question may be considered. The figure of the earth may be regarded as a fact to be determined hy invertigation and experience, like any other phenomena or law of nature ; in which case it is necessary to find, by the actua! iueasurement and comparison of different portions of the terrestrial surface, the pature of its curvature, and the magnitude of its diameters. Under the second point of viow, the quaetion is one of pure theory. The earth mas be regarded as a congeriea of materiul particles, attracting each other with forcea reciprocally proportional to their mutual distances, and endowed with a rotatory motion about a fixed axis; and the problem is to detarmine the form the whole mass would assume in virtue of the attractive and centrifugal forcea by which the particles ase impelied. Viewed in this light, the actual figure of the earth becomes one of the serien of consequences reaulting from the universal gravitation of matter, and depeading on the same laws which regulate its motion in its orbit about the sun.

It would be a waste of time to inquire what were the notions of the figure of the earth, which were or might have bean entertajned by ite carliest and most ignorant inhabitants. A very slight attention to the most common phenomena renders the fact of its general roundness almost palpable to the senses. The uniform level appearance of the aenaible horiaen in overy pituation in which a apectator can the placedthe depression of the circum-polar atars as he advances towsrd the anth, and their elavation as he proceeda in a contrary direction - the disappearance of a ship standing out to sea-the projection of the earth as seen in a iunar eclipee, and a number of other familiar ap-pearances-pat the globular figure of our pianet beyond all manner of doult, leasoning from auch appearances, the earliest antronomers univeraaliy regaried the earth as a aphere; and their attention was solely directed, in their variona measurements and computations, to ascertain its dimensione. Modern science has discovered that its tigure devintes slightly from that of a sphere, being compressed or iattened at the extremitiea of its axis of rotution; and the object of the astronomer, at the present time, is to dotarmine not only ite dimensiona, hut also the oxact amount of ite comprestion.
Attempts to estimate the magnitude of the carth were made at a very early date; for Ariatotle relaten
that the methematicians prior to hin time had found the circumference to be 400,000 atadia. But Eratosthenes appears to have been the first who entertained on accurate idea of the principles on which the determination of the figure of the earth really depends, and attempted to reduce these principles to practice. His results, in consequence of the imperfect data from which they. were deduced, were very ingecurate; but his method is the same as that which is followed at ths present day, depending, in feot, on the comparison of a line actually measared on the aurface of the earth with the corresponding colestial arc. He had remarked, or been informed, that at Syene in Upper Egypt, on the day of the summer solatice, at noon, objects cast no shadows; whence he concluded that the sun was ex. actly in the senith at mid-day. On the same day, at Alexandria, he ohserved the aun's meridional distance from the zenith to be $7^{\circ} 12$, or a B0th part of the circumference. Then, assuming Syene to be exactly nnder the meridian of Alexandria (the error in this essumption was about $3^{\circ}$ ), and the distance between the two places, meaeured in a straight line, to be 5,000 stadia, he had $6,000 \times 50=250,000$ etadia for the whels circumference of the earth, , It le sasy to see how very imperfect this operation must have been. Without mentioning smaller errors, the neglect of the solar diameter would alone occasion an uncertainty as to the sun's declination, and consequently as to the jength of the celestial arc, amounting to half a degree on the observation at Syene ; and there is no reason to sup. pose that that at Alexandria was more exact. The terreetrial distance between the two places was asuumed on equally, or probsbly atill more loose and inaccurate determinations.

The neat attempt to ascertain the dimensions of the earth was made by Posidonius. This astronamer adopted a method which differed from that of Eratosthenes only in determining the celostial arc by means of the altitude of a ztar, instead of the aun'e zenith distance. At Rhodes, the bright atar Canopus, when on the meridian, barely appears above the horizen. At Alexandria the same star was observed to hive e meridional altitude of a $\frac{1}{8}$ of a nign, or it degrees, which, therefore, was the celestial arc intercepted hetween the zenith of Alexandria and Rhodes. The terrestrial distance betwoen the two places was estimated, like that between Alexandria and Syene, at 5,000 atadia, and they were both aupposed to be ander the same moridian. Hence, since 74 degrees is the 48th of the circumference, we have $5000 \times 48=240,000$ stadia, for the whole circumference of the giobe.

It is impossible to form nny correct opinion of the degree of approximation attained in these ancient measurea, as the length of the atadium is not known with any certainty. That it varied in different piaces, and at different times, is sufficiently obvious frum the statement of Ptolemy, who, in his work on geography, assigna the length of the degree at 500 stadia, ani censequently the whole circumference at 180,000 , ditfering from the determination of Poaidonius in the projortion of 3 to 4, and still more from that of Eratosthenen. Ptolemy remarked that it was not necessary that the line measured should lie exactiy in the meridian: it was sufficient to know its inclination to the meridian, or tha azimuthal angla, together with the latitudes of its extreme points, in order to compare it with the meridional arc. The determination of the asimuth is, however, an operation of considerable difficulty; and I'tolemy has given no detaila of the method by which he pioposed to eatiniato it. lie has been equaliy cilent In respect of the means by which the mean length of a degree was ascertained to be 500 etadia, so that the reault which ho has recorded is stili leas satisfactory than those of the two noore ancient astronomers.

The active curioalty of the Arabians, which was exerted as auccesafully in promoting practical astron-
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From mining the rev Earope. Fernel, measure high ron made by two citie ridian, the diffe means $t$ toiass, on mвавиче cailie, in and he fi readered that the leagth allowed LAMBRE

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Norwo degree in nei, Il Yerk alo reducing The diffe the solst length of the meas a much pleyed w The a operatior indehterl who men cautions tion ren perches length; a quadra wiree in
omy, did not overlook the meisure of the earth. The Caliph Almamoun, who began his reign in the year 814, ordered a company of astronomere to measure a degree on the level plain of Mesepotamia. Dividing themselves into two parties, the one proceeded northward, and the other enthward, in the direction of the meridian, through a degree of latitude, and measured with rods the itinerary distance as they proceeded. The porfect agreement of their conclusion with that of Ptelemy, throws it open to great ansplcion; and when it is considered that their operation was repented at a different place, with exactly the same result, there can be no donbt that they blindly adopted the statement of the Greek astronomer, elther from insbility to execute the task assigned to them, or because they had no confidence in their own determination.
From the time of Alamamoun, the problem of determining the dimensions of the esth was neglected, till the revival of astronomy with general learning in Earope. The first attempt to solve it was made by Fernel, who, abont the middie of the 16th century, measured the distance from Paris to Amiens, along the high road, by observing the number of revolutions made by his cosch-wheel in the journey between theae two cities. Supposing them to be under the same meridian, which is nesrly true, and having ascertained the difference of their latitudes, Fernel found by this means the length of the degree to be 57,070 French toines, or about 864,960 English feet. A degree was measured long afterward at the same place by Lacailie, in a far more adequate and acientific manner, and he fonnd it to be $\mathbf{5 7}, 074$ toises. This agreement is rendered the leas extraordinsry by the circumstance that the tolse of Fernel was not exactly of the same leogth of that of Lacaille. After all, it must be allewed that Fernel made a fortunate guess. (DElambre, Astronomie, tom. 3il., chsp. xxxv.)
But the first who had the merit of attempting to execate the geodetic operations that are indispensably necessary to effect the accurste measurement of a long line on the surface of the earth, was Willebrord Sneil, a native of Holland, and a teacher of mathematics. Having establiehed a chain of trianglas between Alkmaer and Bergen-op-Zoom, and observed the sngles of each triangle, by mesns of a quadrant of $5 \frac{1}{5}$ feet radius, he measured a base on the frozen surface of the meadows between Leyden and the village of Soeterwoud, and deternined the distance between the two places by trigonometrical computation. The iength of the degree which he found was 28,500 Rynland perches, er about 55,020 toises, which is sbout 2050 toises too amsll. This result was published by Muschenbroek, who in fact revised or calculated the observations from the original papers a contury after the death of Sneli.
Norwood, in the year 1635, attempted to measure a degree in England nearly ln the same manner as Fernef. Lie measured the distance between Londen and York along the publlo road, taking the bearings and reduring the direction to the meridian in a rough way. The difference of latitudes he found by observations of the solutice to be $2^{\circ} 28^{\circ}$, and thence concluded the length of the degree to he 367, 176 Engliah feet. Like the measurement of Fernel, this has beeu found to be a mach nearer approximation than the methed empleyed would have led us to expect.

The application of the telescope to circular instrnments gave a far higher degree of precision to geodetio operations. Picard, to whom practical sstronomy is indeliterl for this capital improvement, was the firat who meannred the aro of the meridian with sach precautiona and eare as the delicate nature of the nperation roquiren. IIe twice measured with wooden perches a base of nearly seven English miles in length ; and observed the angles of his trisngles with a quadrant, having a telescope adapted to it with orons wires in lts focus. He even calcalated the orror pro-
duced by the instrament being placed out of the centre of the station, and detormined the zenith distance of a star In the constellation Cassiopela with a sector, for the purpose of ebtaining the differences of latitude. The distance between Amiens' and Malvoisine was fand to be 78,850 toisen, and the difference of latitude $1^{\circ} 22^{\prime} 55^{\prime \prime}$, whence the reanilt gave for the degree at Amiens 57,060 toises ; but as the sberration and mutation were unknown at that time, and the refraction was not taken into account-canses of error to which it is indispensably nacessary to have regard-a determination which agrees so nearly with the results of recent measury could only have arisen from a fortunate compensation of errore. In fact, his toise was somewhst shorter than that which has since been adopted as the standard; and the error occasioned by this circumstance nearly compensated that which was committed in determining the celestisl are; so thst in recaiculating all the observations, the degree is found to be very nearly the same as wes found by Picard.

French Experiments.-Hitherso geodetic operations had been confined to the determination of the magnitude of the earth; but a discovery made by Richer turned the attention of mathematicians to its deviation from the spherical form. This astronomer having been sent, by the Academy of Sciences of Paris, to the island of Cayenne in S.uth America, for the purpose of determining the amount of terrestrial refraction and other astronomical objecta, ohserved that his clock, which had been regulated at Paris to beat seconds, lost sbout $2 \frac{1}{2}$ minutes daily at Cayenne, snd that, in order to bring it to messure mean solar time, it was necessary to shorten the pendulum by more than a line. This fact, which appeared exceedingly curious, and was scarcely credited till it had been confirmed by the aubsequent observations of Varin and Deshavea, was first explained in the third book of the Principia, by Newton, whe showed that it could only be referred to a dimination of gravity arising from one of two causea-n protuberance of the equatorial parts of the earth, and consequent increase of the distance from the centre, or from the counteracting effect of the centrifugal farce, occasioned by the rotation of the earth. The former could not, on any reasonable supposition regarding the figure of the earth, be regarded as adequate to produce the effect; but the lstter, which would produce a retarlation of the pendulum st Cayenue in the ratio of the equare of the sine of $6^{\circ}$ to that of $49^{\circ}$ (the reapective latitudes of Cayenne and Paris), might amount to 1.46 seconds. This was the first direct proof of the diurnsl rotation of the earth.

From this time the exact determination of the figure of the earth began to assume $\&$ degree of importance whicis had not formerly attached to it. The centrifugal force arising from the diurnsl rotation completely act aside the ldea of perfect sphericity. Newton, assuming that the earth had been origiually fluld, and supposing its density to be the aame throughout the whele mase, and kupposing, moreover, that ite constltuent malecales attract one another in proportion to the inverse square of the diatance, demonstrated that it would assume, in consequence of the rotation, the form of a spheroid flattened at the poles; and that the proportion of its equatorial to ite polar sxis would be 230 to 231 . But the supposition of the squal density of the earth la obviously very improbable, and consequentiy the ratiu of the equatorial and polar diameters must be different from that now mentioned. Newten erroneoualy concluded that if the density is greater in the interior of the earth than st the centre, the comprossion would be greater than in the cabe of a spherold of equal density. This mistake was pointed out by Huygens, who, in order to determine the amonnt of the compres sion from theery, reasoned in this way. Suppose twe tubes to be united at the centre of the earth, forming a right angle with each other at that point, and extending to the surface, one ln the plans
of the equator, and the other along the polar axis, and filled with a homogeneons fluid. Now the fluld contained in the polar branch exerta a prossure on the centre equal to the whole of its weight, white the pressure of that in the other tube will be diminished by the centrifugal force. The second column; therefore, if of the aame length, will be lens heavy than the first; and in order to restore the equilibrinm, it is necessary that the equatorisl tube shali have gained as mneh in length as it has lost in weight through the effect of rotation. Hence the sea in the equatorial regions must be higher, or at a grester distance from the centre, than the polar sen, and consequently the earth must have a flattened form. Calculating from the supposition that the density increases regularly from the surface to the centre, where it is infinite, Huygens fonnd the ratio of the diameters to be that of 578 to 579. This investlgation is given in his work $D e$ Causa Graritatis, published in 1690.
French Theory.-The theoretical determinations of the form of the earth by Newton and Haygene were at variance with the results of geodetic operations that had been carried on in France under the superintendence of the firat Casaini, from 1680 tlll 1716, for the purpose of making in geometrical survey of that country. Cassini fonnd the degree of the meridian to the south of Paris to be 57,092 tolises, while on the north of that city it was only 56,960 toines. This result led to the conclusion that the earth is a protracted spheroid, or elongated at the poles; a conclusion entirely inconsistent with the principles of hydrostatic equilibrium, and the deductions of Newton and Haygens. The question, however, was of too great importance to astronomy to be allowed to remain undecided. Accordingly, the Academy of Sciences of - Paris determined to apply a decisive test, by the measurement of ares at a gres' distance from each other. For this purpose, some of the mont diatingulshed membera of thelr body undertook the measurement of two meridional arcs, one in the neighborhood of the equator, and the other in a high latitude. In 1735, Godh, Bouguer, and La Condamine, proceeded to Peru, where they were joined by two spanish officers, Don Georges Juan, and Antonio d'Ulioa, and, after ten years of laborious excrtion, they mearured an anc of above 3 degrees, between the parallels of $2^{\prime} 31^{\prime \prime}$ north, and $3^{\circ} 4^{\prime} 32^{\prime \prime}$ gonth latitude. The other party, consisting of Maupertuis, Clairant, Camus, Lemonnier, Onthier, and Celsius, were in some reapecta mere fortunate, inasmuch as they completed the measurement of an are near the polar clicle, of 57 minutes, and returmed to Enrope within 16 months from the period of their departure. The messurement of Bonguer whs execnted with great care; and, on account of the locality (the extremities being on different sides of the equator), as well as the excellent manner in which all the detalis were conducted, it has always been regarded as a most valuable determination. The original base wan determined twice, and the difference het ween the two measares was acarcely $2 \xi$ inches.

About the middie of the last century several ares of meridian were measured in varions countries, which, though of inferior importance in comparison of the more extensive surveys which have since been andertaken, are navertheless deserving of enumeration. In 1751 Lacaille measured an are at the Cape of Good Hope, whither he had gone for the purpose of detertermining the lunar parallax, and making other astronomical observations. At the latitude of $33^{\circ} 18 \mathrm{t}^{\prime} \mathrm{hn}$ found the degree of the meridian to be 67,037 toises. Thin resuit was nearly the eame as hall been obtained In France, $10^{\circ}$ further from the equator; and clearly proved either the existence of great local irregalarities in the form of the earth, or the diasimilarity of the two terrestrial hemispheres. As theory reccgnized no such abnormal condition of flgure, and on the othor hand, Lecalle': observations, all the detaile of which had
bsen preserved, appeared to have been carefully made and correctly computed, the reanit which they gave was for some generations a very vexala queatio among all geodesiato. After the lapee, however, of nearly a centary, the arc has been lately remassured under the auspices of the British government, with all the modern improved meana and appliances; and an approximate calculation of the observations ahows, that the greater part of Lacnilie's anomaly was produced by mountain attraction on his plamb-line." (1855).

In 1751 the measurement of a terrestrial arc was nndertaken in the Roman states, by the Jesults Maire and Boacovich. : It extended nearly two degrees between Rome and Rimini, and it was found that the degree of meridian betweun these parallels, namely, $42^{6}$ and $44^{\circ}$, contained 56,973 tolses. The details are given at length hy Bosoovioh, in a work of great elegance, and entitled De Litteraria Expeditione per Pontifeiam ditionem, etc. Romm, 175 b .
Liesganig, a Jesnit in 1762 also executed two measures of a meridional degree, one in Hungary and the other in the Austrian states; but it has been shown by Baron Zach, in his Correspondence Astronomique, voi. vii., that the results merit no confidence, and, in fact, would lead to certain error if employed as elements in determining the figure of the earth.

Abont the same time, in 1764, an are of meridian was measured in North America, on the peninsula between the Chesapeake and Deiaware bays, by two Engliahmen, Charles Mason and Jeremiah Dixon. They employed no triangulation but measured the line with deal-rode along the whole extent of the are, the mean latitude of which was $89^{\circ} 12^{\prime}$. Their ro' 3 were afterwarda compared with the five-feet brase rods made by Bird. The latltudes were determined with a zenith sector. The length of the degree, after the necessary correctiona and reductions were made, was found to be 60,625 Engilsh fathoms, or 50,888 toises. There is no doubt that great care was beetowed on this operation; it le, however, easy to see that the measurement of so long a line hy means of rods is lisble to many causea of error from which the method of triangulation in exempt.
In 1762 Beccaria undertook to measure a degree in the plains of Piedmont. He found the degree of the meridian at the latitude of $44^{\circ} \mathbf{4 4 ^ { \prime }}$ to contain 57,468 tolses; but great urcertainty remained respecting the correctness of the latitudes, the extreme points of the arc being in the near nelghborhood of immense ranges of mountains, which could not fail to produce a very considerable deviation of the plumb-line. It was suppesed that as both ends of the arc were terminated by mountsin ranges, whereas Boscovich's arc had been carriell across the Apennines and terminsted at the sea const, tire errors of the two measures occasioned by the tocal attraction, being of opposite kinds, would neutralize each other, and give a correct mean reault.
Amid the rapld advances of mathenatical science toward the end of the last century, the determination of the figure of the earth was not overlooked. In the year 1783 a memoriai was presented to the British government by Cassini de Thury, atating the import. ant advantages that would result to astronomy sud navigation, from having the difference of longitule of the Greenwich and Paris ohservatories deterained by a geodetic measurement. Fortunately this proposal was agreed to. The English operations were pisced under the superintendence of General Roy, who to active and indefutigable zeal united great shili and oxperience in practical astronomy and surveying. In the snmmer of 1784 a base of rather more than flve miles was mensured on Hounslow Heati. In the measurement of this base, deal-rods were first employed ; but as these were found to warp, and be affected with the variations of the hygremetrical state of the atmosphere, glass tubes wore subatituted; and, in 1791, the same base was measured with a steel chain

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carefully made by Ramsden, yet the difference from the former measare was found to be only three ir thes. The mean reault was $27,404 \cdot 2$ feet reduced to the vel of the ses, and the ecale being taken at the temperature of $62^{\circ}$ of Fahrenheit. A chain of 32 trianglea, in connection with this base, extended over the country to Dover and Hastings; and two more, stretching across the Channel, conneoted them with the French signals on the opposite elde. The instrumenta employed in this survey were of the most excellent descriptina, and far superior to any that had ever been amployed in almilar operationa. The angles of each tringgle were measured by a large theodolite constructed by Ramsden ; and it was this spleadid instrament that first exhibited the spherical excess, or the minute quantity by which, on account of the sphericity of the earth, the aum of the three angles of a triangle on the earth'a surface exceeds $180^{\circ}$.

The French part of this great operation was condactsd with equal ability by Cassini (the fourth of that name), Mechain, and Delambre. The angles were measured with the repeating circle of Borda; an instrument of a very differeat deacription from the theodolite, but which in geodetic operationa may fairly be allowed to give, if not equally, at least aufficiently correct results, while in practice it is much more commodieus. The result of the combined measures ahowed tha meridian of Paris to be $2^{\circ} 19^{\prime} 51^{\prime \prime}$ east of Greenwich, or $9^{\prime \prime}$ less than had been determined by Dr. Magkelyne.
Soen after this time, a series of geodetic measurementa both in France and England, [and also in the United Statea, in 1805, for an account of which, eee Coast Surver,] which, in point of extent, as well as minute accuracy, far surpassed all the operations which had yet been undertaken with a view to determine the figure of the earth. In 1791 the Natlonal Convention of France haviog agreed to remodal the system of weights and measures, determined to adopt a standard taken from nature, which might be universally applicable in all countries, and capable of being restored at any futurs age, if by accident is should happen to be lost. Two such standards were proposed, namely, the length of the pendulum, which makes a given number of vibrations in a given latitude; and the quadrunt of the terrestrial meridian. Of these, the pendulum is by far the most easy to be determined; but it was objected, that se the length of the pendulum varies at different latitudes, and also depends in some degree on the geological character of the country where it is measured its length, if it should happen to be lost, could not be racovered, without knowing the precise place at which it had formerly been determined. The length of the quadrant of the moridiun is, however, iavariable, and, if tie earth ls a regular apheroid of revolution, must be the same ut all places. Accordingly the Cenvention chose the ten millionth part of the meridian from the equator to the pole as the unit of their new scals; and in order that this unit might be determined with the grestest possible preciaion, it was reaolved to remeasure the meridian of the arc of Paris, and to extend it from Dunkirk to Burcelona, a distance comprehending altogether an are of about nine degrees. The practical execution of this nudertaking was confided to twe astronomers of distinguished ability, Jelambre and Mechain, by whom the requisite operations were carried on during the years 1792, 1793, nnd 179.1, anid sll the dangers and difficulties arising from the disorganized state of the country, with a resolution and courage of which the annals of acience afford few examples. The triangles amounted to 115 in number. Each of the three ongles of every triangle was separately observed with the repeatiog circle. The different observations, with the originul rogisters and remarks of the observers, were coinpared by commissioners, annong whom were some of the ablest men in France. A form was drawn up, after which all the
calculatione were made. The calculations of the triangles, as well as of the azimuths, were examined by Trallea, Van Swinden, Legendre, and Delambre himself. The triangles were connected in the nelghborhood of Paria with a base of upward of seven miles in longth, being 6075.9 toisen, at the temperature 16 $\frac{1}{6}$ centrigrade, or $61 t$ of Fahrenhelt. A base of verifica tion of 6006.25 toises was measured hy Mechain, near Perplgnan, at the southern extremity of the arc; and the measured length was found to differ by less than a foot from the length deduced by calculation from the first base, though the distance was more than 436 miles. A line of this length, measured with extreme precision, is obviously quite sufficient to enable us to infer, with all the requisite exactness, the length of the quadrantal are ; but the French astronomers resolved to extend the triangulation atill further. Accordingly, Mechain repaired again to Spain, and in the year 1805 continued the chain of trianglea from Barcelona to Tortosa, on the coast of the Mediterranean. At thia place his labors were prematurely terminated by an epidemic fever. The prolongation of the arc was, however, committed to two philoaophere of distingulahed reputation, Biot and Arago. An Immense triangle, one of the aides of which exceeded 100 miles, connected the coast of Valentla with the island of Iviza, which was joined by another triangle with Formentera, distant no leas than $12^{\circ} 22^{\prime} 13^{\prime \prime} \cdot 39$ from Dunkirk, the northern extremity of the arc. The result of the whole gave a value of the quadrantal arc, differing somewhat from that determined by Delambre and Mechain, bat so little that the length of the metre would be scarcely affected by four times the millionth part of itself. The details of this magnilicent operation are given at length in the four volumes of the Base Metrique.

The English gurvey, which had been interrupted by the death of General Roy, in 1790 , was resumed in 1793 under the direction of Colonel Mudge. The original triangles between Greenwich and Dover were extended along the coast to Dunnose in the Isle of Wight, and thence through Devonshire and Wiltshire, and connscted with a base of verification moasured on Salisbury plain. The length of this base was found, after the proper reductions, to be $36574 \cdot 4$ feet, differing acarcely one inch from the length deduced by cal culation from the base on Hounalow Heath. So near a coincldence, though probably owing in some degree to a compensation of errors, affords a convincing proof of the extreme accuracy with which every part of the operation had been conducted. In 1802 the triangulation was carried into Yorkshire, and a meridian are measured from Dunnose to Clifton. The latitudes at the terminal pointa wero detarmined with Ramsden'a zenith aector. The are was afterward extended to Burleigh Niour, and has since been carried to the Shetlands. It may be remarked that both the French and English arca present this singular anomaly, that when portions of them at particulur places, are considered separately, the length of the degree appeara to increase on going southward.

The survey has been continued, up to the present time, and the triangulation has been carrisd to the remotest parts of Scotland, and a considerable part of Ireland. In the course of the operations, several importunt improvemients, both in respect of the inatru ments employed, and in the method of conducting geodetic measurements in general, have been introduced into practice. A bnse of upward of soven miles has been measured near londonderry ; and it now only remuins to determins the latitudes of some stations, to give us the clements of a new and greatly prolonged arc.

In the yeara 1801, 1802, and 1803, Maupertuis' Swedish arc was remeasured by Svanborg, and extended nearly $40^{\prime}$ in amplitude. The methode were the same as hud been einployed by Dolambre. Tho extremities
of the now are were at Mallorn and Pahtawara. The distance was found to be 92,778 toisea, and the difference of the latitudes $1^{\circ} 87^{\prime} 20^{\prime \prime} \cdot 8$; whence $1^{\circ}=57$,196 telsen. This agrees mach better than the reeult of Mavpertnis ( 57,422 tolses) with other measu"3a; but the difference, which implies an error of $12^{\prime \prime}$ in the latitude of Kittis as determined by the French academiciana, has not been satisfactorily accounted for; to that there is still some doubt about the length of a degree in that latitude. See Svanbera's Exposition des Operations faites en Lapponie, etc. Stockholm, 1805.
Since the beginning of the present century, two ares of meridian have been surveryed in India. The first was in the neighborhood of Madras, and comprehended only $1^{\circ} 35^{\prime}$. The secend, however, is the longent which has yet been measured. The firat, and a large part of the second, was accemplished under the direction of Colonel Lambton; and the instruments and methods of observation and calculation were exactly the same as those that had been employed by Colonel Madge in the English anrver. The south extremity of the second arc, was at Pume, near Cape Comorin, latitude $8^{\circ} 9^{\prime} 32^{\prime \prime} \cdot 51$; and the northern at Danmergidda, latitnde $18^{\circ} 9^{\prime} 16^{\prime \prime} \cdot 07$. The amplitude is consequently $9^{\circ} 63^{\prime} 43^{\prime \prime} \cdot 56$, and the distance betwesn the extremities was found to be $595,629 \cdot 98$ fathoms (about 680 miles), giving 60,495 fathems, or $\mathbf{3 6 2 , 9 7 0}$ feet, for the length of the degree. Several basea were measured, and the whole of the operations appear to have been conducted with great skill and accuracy. Thin are has aince been extended by Captain Everest to Kaliana, tatitude $20^{\circ} 30^{\prime \prime} 48^{\prime \prime} .8$; so that $i$ i. e whole length now incindes more than $21^{\circ}$. The details of Colonel Lamibton's operations are given in the different volumes of the Asiatic Researches (see vols. > Hit, x., xil.), and those of Captain Everest, In hia " !ccount of the Measurement of an Arc of the Meridian beticeen the Parallels of $18^{\circ} 8^{\prime}$ and $24^{\circ} 7^{\prime}$," printed at the expense of the East India Company.
Various geodetic operations on a less extenaive scale have been recently executed, which aro better edapted, perhaps, to give linformation respecting the local curvature than the general form of the earth. Beccaria's arc has been remeasured by Plana and Carlini: the results clearly demonstrata the existence of some errors in the original measurement, but they are not yet altogether satisfactory, and the country is very unfavorable. The diatance between Gottingen and Altona has been measured by Gauss ; and the amplitude of the corresponding celestial are is known with the utmont precision, from observations of the latitule made at the respective observatories of the two piaces. The amplitude, hewever, is only about two degrees, and there is some doubt about the exact length of the Iron bare with which the base was measnrei. A more extensive aro hat been measured in Russia by Struve. It extends at present to three and a half degrees, and it is understood that it is in contomplation to prolong it still further. Many new methoda have been employed in this measurement ; and it acquires additional value from its high latitude, and the acknowledged okill and accuracy of the observer.
The above are the principal ares of merisitan, but come arcs of parallel have alno been measured. Theoretically apeaking, the figure of the earth may be determined from the measurement of ares of rarallel, as readily as from meridional arcs; and the geodetical operations in the one case differ in no respect from those in the other. But the great, and, we fear, insnrmountable difficulty, is to determine with aufficient precision the difference of astronomical longitudes. In a subsequent part of tiis article we shail have again occasion to mention Cassini's measurement of an arc of parallel acrose the moath of the Rhone; of the Engitsh arc between Beachy IIead and Dunnose; and that recently made from Marennes to Padua.

Tanle agowne thin Linoti of a Dwanm of Loweitudn
 AND IN Evolimit Milies

| Let. | Cloo. miles. | E月K. miles. | Lai. | ${ }_{\text {Glows }}$ miles. | Ent. | Lat. | Geo. milet. | Eng. zallea |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 69-99 | 69.05 | 81 | 61.43 | 6920 | 61 | 29.00 | $63 \cdot 48$ |
| 9 | 59.96 | 6902 | 88 | 00-89 | 68.67 | 64 | $28 \cdot 17$ | $82 \cdot 42$ |
| 8 | 5098 | 68.96 | 88. | $50 \cdot 82$ | 5792 | 68 | 9744 | 81.85 |
| 4 | 59.85 | 6989 | 84 | 4974 | 57.25 | 64 | $26 \cdot 30$ | $80 \cdot 27$ |
| 5 | 5977 | 68\%0 | 85 | 4915 | $88 \cdot 57$ | 65 | 25.86 | 29.19 |
| 6 | $59 \cdot 7$ | 68.68 | 88 | 4814 | 6087 | 66 | 84.40 | $28 \times 19$ |
| 7 | 59.65 | 68.50 | 87 | 47.99 | 50.15 | 67 | 53.44 | 26.98 |
| 8 | 59.48 | 68.89 | 88 | 47.28 | 54.42 | 68 | 82.48 | 25.87 |
| 9 | 59.26 | 68.21 | 89 | $46 \cdot 68$ | 88.67 | 69 | 9t50 | 24.75 |
| 10 | 59.08 | 6801 | 40 | $45-98$ | 52.90 | 70 | 20.02 | 88.62 |
| 11 | 5890 | 67-79 | 41 | 4598 | 58.19 | 71 | 1948 | 92.48 |
| 12 | 5869 | 67.85 | 48 | 44.59 | 61.39 | 78 | 1804 | 21.84 |
| 18 | 58.46 | 67.29 | 48 | 49.88 | 60.51 | 78 | 1784 | $20 \cdot 19$ |
| 14 | 88.22 | 87.01 | 44 | 48.18 | $49 \cdot 68$ | 74 | 1684 | 19.04 |
| 15 | 57.96 | 66.71 | 45 | 49.48 | 48488 | 75 | 15.08 | 17.87 |
| 16 | 57.68 | 66.88 | 46 | 41.68 | 47.97 | 76 | 14.89 | 1671 |
| 17 | 57.88 | 66.04 | 47 | 40.92 | 4710 | 77 | $18 \cdot 50$ | 15.04 |
| 18 | 57.06 | 65.68 | 48 | $40 \cdot 15$ | 4621 | 78 | $12 \cdot 17$ | 14.36 |
| 19 | 68.78 | 60.30 | 49 | 89-88 | 45-81 | 79 | 1145 | $18 \cdot 18$ |
| 20 | 66.88 | 64.90 | 50 | 88.57 | 4439 | 80 | $10 \cdot 42$ | 11.99 |
| 21 | 68.01 | 64.47 | ह1 | 87.76 | 48.46 | 81 | 9.39 | $10 \cdot 80$ |
| 22 | 5076 | 64.08 | 62 | 80.94 | 48.32 | 88 | 8.35 | 9.61 |
| 88 | 55-28 | 69860 | 58 | $80 \cdot 11$ | 4186 | 88 | 781 | 8.42 |
| 84 | 848t | 62.09 | 84 | 85.27 | $40 \cdot 59$ | 84 | 6-27 | 722 |
| 25 | 54.88 | 62.89 | 05 | 84.41 | 89.61 | 85 | 8.83 | 6.02 |
| 26 | 58-98 | 62207 | 56 | 88.35 | 88.69 | 88 | $4 \cdot 19$ | $4 \cdot 83$ |
| 97 | 88.48 | 81.58 | 57 | 82-68 | $87 \cdot 61$ | 87 | 8.14 | $8 \cdot 61$ |
| 23 | 50.98 | 50.98 | 08 | 81.79 | 86.60 | 88 | 2.00 | 241 |
| 89 | 02.48 $01-98$ | 60.40 | 69 | 80.90 80.00 | 80.57 | 80 90 | 100 | 121 |
| 80 | 81-98 | 59.81 | 60 | 80.00 | 84.68 | 00 | 0.00 | 0.00 |

Our limita de not permit us to enter into details respecting the numerous experiments that have been made of tate years to determine the figure of the earth by measuring the varistions of gravity at different places by means of the pendulum. The most valuable series of observations of this kind we yet possess, are those of Captain Foster, reduced ander the direction of Mr. Baily, and published in the Memoirs of the Royal Astronomical Society, vol. vil. But a discovery recently made by Bessel proves that less accnracy has been obtained by this method than was onpposed. It has been fonnd, that a pendulum, when vibrating, drags along with it a portion of air, the precise effect of which can be ascertained in no other way than by actual experiment in vecuo with each individual pendulum. The prebable correction which it would be necessary to apply to the resulta that bnve aiready been found, cun not le satisfactorily determined.

The mean of the pendnlum experiments gives rather a higher value of the ellipticity than the results of geodetle measares ; but there are many elements, partieularly the Irregular constitution of the exterior crast of the earth, and the denaity of the gtruta surrounding the station, which can acarcely be determined, and which yet affect materially the results of the experiments.

Besiles the methods which have now been alluded to, physical ast-vnomy furniahes other meass of arriving at a knowledge of the figure of the earth. The precession of the eqninoxes, the nntation of the earth's axis, are phenomena depending on the compression of the earth; and as their amoant la now ascertained, from astronomical observations, with the utmost aecuraey, we can reciprocally deduce from them a knowledge of the compreesion. They do not, however, give us an absolute value of the amount of compression, bnt they inake known the limita within which it must necessarily be confinel. These limits are 1-279 and 1-578. But a more delicate measure of the name element is fornished by some irregularities in the moon's motion to which it gives riae; and as the fanar theory has now attained a very high state of perfection, and as the smail irregularities which canre so much perplexity in geodetical meaanres here entircly disuppear, this is periaps, the most satiafuctory method of all of determining the ellipticity of the earth. The equatiens into which the irregularity question enters, were diecovered by Laplace; and the ellipticity necessary to produce the obeerved effect was found, on calcula-
tion, tc manner and the Tho ..The : square is wates of the 1 diversif mounta stretehi the mo Arabia sis, and land. I is the $v$ most ele principa in Euros Asia, ti Andes 0 est conc pied by the larg stretchir Holland balf the which fo between cevity is snd Ants Small the prin Euxine times tal thoy flow large col diate con cu all sid the Casp the land, or gulf, a if the hol sen. W by a nary is called the Strai channel fivers thr locity, for this curre fows con
A body is called plain. and drain ive, discl river; a rivulet or
Of the
the globe. tinents ; th comprehe the weste North an portion of reckoned A port entirely Britain, land is the island. other, the portion of water, is lacca, the
tion, to be 1-804; confirming, in a most remarkable manner, the deductions from the measurement of arca and the observations of the pendulum.
The Surface of the Earth, and its Geveral Divisions. -The aurface of the earth contains about 106,603,400 square miles. By much the larger portion of this space is weter, whlch is, indeed, more than twice the extent of the land. The surface of the land ia exceedingly diversified, almost everywhere rising Into hilla and mountains, or sinking into valleys, and sometimes stretching ont into plains of grest extent. Among the most extensive plains, are the sandy deserts of Arabis and Africa, the internal part of European Russia, and a tract of considersble extent in Prussian Poland. But the most remarksble extent of level ground is the vast table-plain of Thibet, in Asia, which is the most elevated tract of level ground on the globe. The principal mountain ridges are the Alps and Pyrenees, in Europe, the Aitai and Himalaya Mountalne, in Asia, the mountains of Atlas, ln Africa, and the Andes or Cordilleras, in South Americs. The grentest concavitie of the globe are those which are occupied by the waters of the ocean ; and of thoge, by far the largest forms the bed of the Pacific Ocean, which, stretching from the eastern ohore of Asia sad of New Holland to the weatern ceast of America, covers nearly hall the globe. The concavity next in extent is that which forms the bed of the Atisntic Ocean, extending between the new and the old worlde ; and a third cencevity is occupied by the Indian Ocean. The Arctic and Antarctic Oceans fill up the remaining concavities.
Smaller collections of water which communicate freely with the oceans, are called seas ; and of these, the priacipal are the Mediterranean, the Baltie, the Eaxine or Black Sea, and the White Sea. Seas sometimes take their names from the ceuntries near which thoy flew; as the Irish Sea, the German Ocean. Some large collections of water, though they have no immediate connection with the great body of waters, heing ca sll sides surrounded by land, are yet called seas; as the Caspian Sea. A part of the sea running up into the lund, so as to form a large hollow, is called a bay or gulf, as the Bay of Blscay, the Gulf of Mexico; but if the hollow be small, it is called a creek, a road, a ha ren. When two large bodiee of water communicate by a narrow pess between twe adjacent lands, the pass is called a strait or straits, as the Straits of Gibraltar, the Straite of Dover, the Straits of Babelmandel. A channel is a wider kind of strait. The water usually fows through a strait with coneidernble force and velocity, forming what is called a current ; and frequently this current, as in the case of the Straits of Gibraltar, flows continually in the eame direction.

A body of fresh water entircly surrounded hy land, is called a laks; ae the Lake of Genova, Lake Champlain. A considerable atream of water rising inland, and draining a portion of country more or less extensive, discharging its waters into the sea, is called a river; a smaller stream of the oamo kind is called a rivulet or brook:

Of the land, which forms the rest of the surface of the glebe, twe portions, of vast oxtent, are called continents ; the one the eastern continent, or the old world, comprehending Europe, Asia, and Afrien; the othor, the western continent, or new world, cemprehending North and South America. New Holland is a third portion of land, hewever, which has by some been also reckonel a contiaent on sccount of its great extent.

A portion of land of comparatively sinall dimensiens entirely surrounded by wuter, is called an island; as Britain, Ireland, Jamaice, Madagascar. New IIolland is the largest portion of land which ls called in island. When a number of small islands lio near each other, they aro said to form a group of islands. A portion of land which is slmost entirely surrounded by wster, is called a penineula; as the Peninsula of Malacca, the Morea or Grecian Peloponnesus, etc. Tho
term penineula la often applied to a large extent of country. Thus we epeak of Spain as a peninsula The narrow neck of land which joins a penineule to the mainland, or which connects two tracte of country togother, is called an isthmus. The most remarkable isthmuses in the world are the Isthmus of Snea, which joins Africa and Asia, and the Isthmus of Darias, which connects the continent of North and South America. A uarrow tract of land etretching out into the sea, and appearing to terminate in a point, is called a cape. The most remarkable capes are, the Cape of Good Hope, at the sonthern extremity of Africa; Cape Horn, at the sonthern extremity of South America; and the North Cape, at the northern extremity of Europe. A large portion of land jutting out into the ses is called a promontory.

Until of late, in eystems of geography, the earth used to be considered se divided into four quarters ; Europe, Asia, Africa, and America. A classification in which the whole world is arranged under seven divlsions hae now, hnw vver, been very generally adopted. These diviaions art , Jurope, Asla, Africa, North Americs, Sonth America, Australasia, and Polynesia. With regard to the last twe, the one, Australasia, or Sonth Asia. comprehends certain of the great isiands, particularly New Holland, which are usually considered as belonging to Asis ; and the other, Pelynesia, signifying many islands, comprehends all the omsller lalands which are scattered over the great expanse of the $\mathrm{Pa}-$ cific Ocean. This classification of tho parta of the earth's surface is founded on the most obvious points of distinction. We shall now explain twe divislens employed by the accients, which are fonnded upon different principles ; that into zones, and that into climates.

The divisions into zones is suggested hy the different degrees of temperature which prevail in different regions of the earth. The temperature of a ceuntry depends on a variety of clrcumatances; but of these, one of the most obvious is the position of the ann with regard to the zenith. The more nearly his rays are received vertically, the higher will be the temperature; and, on the contrary, the more obliquely they fall, the less effect will they produco in raising the tempersture. Now to every point of the earth's surface between the tropics the aun is vertical twlee in the year. It is in this region, then, that the highest temperature will prevail. Again, within the polar circles the sun's rays at all timea fall very obliquely; and for a length of time they de not reach these two regions of the globe at all. Here, then, the temperature must be lower than anywhere else, as all other places enjoy more of the eun's genial influence. In the two regions between the tropics and the polar circles, a medium temperature is found, increasing as we epproach the former, and diminishing as we approsch the latter. Thus is the earth's eurface divided, by the two tropics and two pelar circles, into five zones, distinguished from one another by the pravailing temperatura.in each. That between the tropice is called the torrid zone, bocause there the heat is understood to be extreme. This region, which has the equator passing through the middle of lt , the ancients, indeed, considered as uninhabitable. The two regions comprehended within the arctic and antarctic polar circles, are called the northern and southern frigid zones, on account of the severity of the cold which there prevails. The two regions situated between the tropics and the polar circles, the one in the northern hemisphere, bounded by the tropio of cancer and the srctic circle, the other In the southern hemisphere, bounded by the tropie of capricorn L. 1 the antarctic circle, are called the northern and southern temperato zones, bocause there neither the heat nor cold ls excessive; but the heat reachea the highost temperature of summer, and the cold sinke to the lowest temperature of winter, without either becoming extreme.

The divislon of the earth's surface into climates was amployed by the ancients for ascertaining the aitua tion of places. They aupposed the northern and sontharn hemispheree to be esch divided into small monea, to which thoy gave the name of dimatet, the breadth of each none being nuch as to make half an hour of difference in the length of the longest day at the two parallela of latitude by which the climate was bounded. Proceeding from the equator, where the langth of the day le alwaye 12 bours, they thes divided the space bet ween it and each polar circle lato 24 climates. Havlng reached the polar circlea northward and south ward, where the longest day is 24 hours, they divided the apace hetween each polar circle in such a manner as to make the difference in the length of the longeat day at the beginning and termination of ench climate, one month. Hence, as the poles are alternately illuminated for six months, there were jast six climates within each polar circle.

Tamle or Climatisa

|  | Climaten. | Latilede of the Higher Parallet. | Broadith of the Cllmate. | Longest Day under the Higher Parallet. |
| :---: | :---: | :---: | :---: | :---: |
|  | I. | $\begin{gathered} \text { Ing. Min } \\ 8 \end{gathered}$ | Deg. MIIa. 84 | Houm, Min. 1280 |
|  | 11. | 1648 | 89 | 180 |
|  | IIL. | 8410 | 797 | 1880 |
|  | IV. | 8046 | 680 | 140 |
|  | $V$. | 8688 | 549 | 1480 |
|  | VI. | 1121 | 458 | ts 0 |
|  | VII. | 4529 | 43 | 1580 |
|  | VIII. | 4959 | 880 | 160 |
|  | IX | 8 Bt | 858 | 1680 |
|  | $\mathbf{X}$ | 0423 | 881 | 170 |
|  | X. | 6486 | 28 | 1730 |
|  | XII. | 88 25 | 149 | 180 |
|  | XIII. | 59 5T | 188 | 1880 |
|  | XIV. | 6116 | 110 | 190 |
|  | XV. | 02 24 | 18 | 1980 |
|  | XV1. | 6820 | $0 \quad 58$ | 800 |
|  | XVII. | 048 | 0 48 | 9080 |
|  | XVIIL. | $64 \quad 48$ | 0 - 40 | 910 |
|  | XIX. | 6590 | 0882 | 2130 |
|  | XX | 6544 | 026 | 220 |
|  | XXI. | 66.6 | 0 20 | 2280 |
|  | XXII. | 6680 | 014 | $28 \quad 0$ |
|  | XXIII. | $\begin{array}{ll}66 & 29 \\ 66 & 89\end{array}$ | $\begin{array}{ll}0 & 8 \\ 0 & 4\end{array}$ | $28 \quad 80$ |
|  | XXIV. | $66 \quad 82$ | 0 - 4 | 24.0 |
|  | II. | 87.28 | 0 \%t | Monthe. 1 |
|  | 11I. | 69.50 | 227 | 2 |
|  | 11 L | 78.89 | 849 | 8 |
|  | 1V. | 78.81 | 488 | 4 |
|  | VI. | $\begin{array}{ll}84 & 5 \\ 90 & 0\end{array}$ | 5 84 <br> 5  <br> 8  | 8 |

E. B. (See Geognapity.).

Earthenware (Ger. Irdene Waaren; Du. Aardegoed; Fr. Vaisselle de terre Poterie; 1t. Stoviglie, Terraglie; Sp. Loza de barro; Rus. Gorschetachnite possodiz ; Pol. Gliniana naczynia), or crockery, as it is sometimes termed, comprises every sort of honsehold utensila made of elay hardened in the fire. Ita manufacture is, in F...gland, of very considerable Importance, and the improvemente that have been made in it since the middle of the last century have contrihuted powerfully to its extenslon, and have added greativ to the comfort and convenience of ali classes. "There is scarcely any manufucture which is so interesting to contemplate in its gradual improvement and extension es that of earthenware, presenting, as it does, so beautiful a union of aclence and art, in furnishing us with the comforts and ornamente of civilized life. Chemistry administers her part, by investigating the several species of earths, and ascertaining, as well their most appropriate combinations as the reapective degrees of heat which the several compositions require. Art has studied the denigns of antiquity, and produced from them vessels even more exquisite in form than the modela by which they bave iseen suggested. The ware has been provided in such gradations of quality es to suit every atation, from the highest to the ioweat. It is to be seen in every country, and almoat in every house, through the whole extent of America, in many
parts of Aaia, and in most of the oountries of Enrope. At home it has anperseded the less cleanly vesseln of pewter and of wood, and, by ita cheapnens, has been brought within the means of our poorent house-keepers. Formed from aubatances origiaally of no valne, the fabrication has induced labor of nuch various classes, and created akill of anch various degreen, that nearly the whole value of the annual produce may be considored as an addition made to the mane of national wealth. The abundance of the vare exhilited in every dwelling-house is sufficient evidence of the vast augmentation of the manufacture, which is also demonetrated by the rapid increase of the popuiation in the districta where the potteries have been es-tablished."-London Quar. Rev.

For the great and rapld extension of the mannfacture, the English are chtefly indebted to the late Mr, Joslah Wedgwood, whose original and inventive genins enabled bim to make many mont important discoveries in the art; and who was equally successful in bringing hie inventions into nee. The principal sent of the manufacture is in Stafiordshire, where there is a district denominated the Potteries, comprising a number of villages, and a population whlch is supposed to emount, at this moment, to above 85,000 , by far the greater portion of which la engaged in the manufacture. There are no authentic accounta of the population of this district $\ln$ 1760, when Mr. Wedgwood hegan his discoveries; but the general opinion ls, that It did not at that time exseed 20,000 . The village of Etruria, in the Potterien, was built by Mr. Wedgwood. The manufacture has been carried on at Burslem, in the same district, for several centuries.

Eant Indies (British). See India.
Eant Indies (Dutch). See Holland.
Eant Indien (French). See Fravce.
Dast India Company, a fumous association, originally establiahed for prosecuting the trade between England and India, which they acquired a right to carry on exclusively. Since the middle of last century, however, the Company's political have hecome of more importance than their commercial concems. Eant Indies, a popular geographical term not very well defined, but generally understood to siguify the continents and islands to the enat and soath of the River Indus, as far as the borders of China, including 'Tinar and the Moluccas, but excluding the Phillppine Islands, New Guinea, and New Holland. China and the Philippine Islands were, however, Included within tire linits of the East Indin Comipany's peculiar privileges. See India.

1. East Intha Company (Ifistonical Sketci or).-The persevering efforts of the Portuguese to discover a ronte to India, by sailing roond Africa, were crowned with auccess in 1497. And it may appear siagular, that, notwithstanding the exaggerated accounts that had been prevalent in Europe, from the remotest antiquity, with respect to the wealth of Indin, and the inuportance to which the commerec with it had rasel the Phonicians and Egyptiana in sntiquity, the Venetians in the middle ages, nnd which it was then acen to confer on the Portuguese, the latter should have been allowed to monopolize it for nearly a century after it had been turned into a chnnnel accessible to every nation. But the prejudices ty which the people of most European statea were actuated in the sixteenth century, and the peeuliar circumstances under which they were placed, hindered them from embarking with that olaerity and ardor that might have been expected in this new commercial career. Soon after the l'ortuguese began to prosecute their discoveries along the coast of Africa, they applied to the prope for a luili, securing to them the exclusivo rigit ts and possession of all countries oceupied by inlidels, they either had discovered, or might discover, to the south of Cape Non, on the west conet of Africk, in $27^{\circ} 64^{\prime}$ north iatitude : and the pontiff, desirous to diaplay, and at the

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same time to extend, his power, immedintely issued a bull to thie effect. Nor, preposterous as a proceeding of thls gort would now appear, did any one then doubt that the pope had a right to iseue ench a hall, and that all statea and empires were bound to obey it. In consequence, tha Portuguese were, for a leagthened period, allower to prosecute their conquest in Indie without the interference of any other European power. And it was not till a conslderable period after the beginning of the war, which the blind and brutal bigotry of I'hilip II. kindled in the Low Countries, that the Dutch navigatora legan to display their flag on the Eastern Ocean, und laid the foundations of their Indian empire.
The desire to comply with the injunctions in the pope's ball, and to avold ceming into collision, firat with the Portuguese, and subsequently with the Spaniarls, who had conquered Portugal in 1580 , seems to have been the principal cause that led the English to make repented attempts, in the relgus of IIenry VIII. and Ldward VI., and the early part of the retgn of Elizalogth, to discover a route to India by a north-west ur north-east passage; channels from whleh the Portuguese would have had no pretense for excluding them. But these attompts having proved unsuccessful, and the pope's hull having ceased to be of any effect in this cuuntry, the English merchants and navigators resolvad to be no longer deterred by the imaginary rights of the Portuguese from directly entering upon what was then reckoned by far the most lucrative and advantageous branch of commerce. Ceptain Stephens, who performed the voyage $\ln$ 1582, was the firat Engishman who sailed to Iadis by the Cape of Good Ilope. The voyage of the famous Sir Francis Dreke contributed greatiy to diffuse a apirit of naval enterprise, and to render the English better acquainted with the newly-opened route to India. But the voyage of the celebrated Mr. Thomas Cavendish was, it tha latter respect, the moat important. Cavendi is saiied from Eingland in a little equadron, fitted $o$ it at his own expense, in July, 1586 ; and having exilored the greater part of the Indian Ocean, as far as the Philippine Isiands, and carefully observed the most important and characteristic features of the pcople and countries which he visited, returned to England after a proepervus navigation, in September, 1588. Perhaps, however, nothing contributed so much to inspire the Eugiish with a desire to embark in the Indian trade, as the captures that ware made about this period from the Spaniurds. A Portuguese East India ship, or carrack, captured by Sir Francis Drake, during his expedition to the coast of Spain, inflamed the cupidity of the merchanta by the richness of her cargo, at the samo time that the papers found on hoard gave specitic iniormation reapectitg the traffic in which sho had veen engaged. A stiil more important capture, of the same sort, was made in 1593. An armament, fitted out for the Bast Indies by Sir Walter Ralelgh, and commanded by Sir John Burrougha, fell in, near the Azores, with the largest of all the Portuguese carracks, a ship of 1600 tons' burden, carrying 700 men and 36 brasa cannon; and, after an obstinate conflict, carricd her into Durtmonth. She was the largest vessel that had been seen in England; and her cargo, consisting of gold, apices, calicoes, silks, pearls, drugs, porceiain, jvory, etc., exclted the ardor of the English to engage in so opnient a commeree.
In consequence of these and other concurring causes, as association was formed in Jondon, in 1599, for prosecuting the trade to India. The adventurers applied to the queen for a charter of Incorporation, and also for power to exclude all other English subjects, who hail not oltained a licenso from them, from carrying on any species of traflic beyond the Cape of Good Ilope or the Struits of Magellan. As exclusive compenies were then very generally looked upon as the best inatruments fur prosecuting most branchos of commerce and

Industry, the adventurers asem to have had little diff. culty in obtaining their charter, which was dated the 81at of Dacember, 1680. The corporation was entitled "The Governor and Company of Merchants of London trading to the Eant Indies;" the first governor (Thomas 8mythe, Feq.) and 24 directors were nominated in the charter; but power was given to the Company to rlect a doputy governor, and, in future, to elect thair governor and directora, and such other office-bearers as they might think fit to appoint. They were empowered to make by-lawa 1 to inflict punishmenta, either corporal or pecuniary, provided anch punishmente were in accordance with the lawe of England; to export all sorts of goode free of duty for 4 years ; and to export foreign coin, or bullion, to the amount of $£ 30,000$ a year, $£ 6,000$ of the name being preciously coined at the mint; but they were obliged 1. amport, within 8 months after the completion of every voynge, except the first, the same quantly of ailver, gold, and foreign coin that thay had exported. The duration of the charter was limited to a period of 15 years: but with and under the condition that, If it were not found for the pabllo advantage, it might be canceled at any time upon 2 yeara' notice belag given. Such was the origln of the British East India Com-pany-the most celabrated commercial associstion of ancient or modern times, and which has now extended its away over the whole of the Mogul empire.
It might have been expected that, ofter the charter was oltalined, considerable eagerness would huve been manifested to engage in the trade. But such was not the case. Notwithstanding the earnest calis and threate of the directora, many of the adventurere could not be induced to come forward to pay thair proportion of the charges incident to the fitting out of the first expedition. And as the directors seem either to have wanted power to enforee their resolutlons, or thought it better not to exercise it, they formed a subordinate assoclation, consisting of such membors of the Company as were realiy willing to defray the cest of the voyage, and to bear all the risks and losses attending it, on condition of their having the exclusive right to whatever profits migint arise from it. And it was by such suboidinate associations that the trade was conducted during the first 18 years of the Company's existence.

The first expedition to India, the cost of which amounted, ships and cargoes included, to 569,091 , consisted of five ships, the largest being 600 and the sme': r 130 tons' burden. The goode put on board wen principaliy bullion, iron, tin, broad-cloths, cutlery, glass, etc. The chief command was entrusted to Captain James Lancaster, who had already been in India. They set all from Torbay on the 15 th of February, 1601. Being very imperfectly acquainted with the seas and countries they were to visit, they did not arrive at their deatination, Acheen, In Sumatra, till the 5th of June, 1602. But though tedlous, the voyage was, on the whole, uncommonly prosperous. Lancaster entcred into commercial treaties with the kings of Acheen and Bantam; and having taken on board a valuable cargo of pepper and other produce, he was fortunate enough, in his way home, to fall in with and capture, in concert with a Dutch vessel, a Portuguese carrack of 980 tona' burden, richly laden. Lancaster returned to the Downs on the 11th of September, 1603. -Modern Universal Mistory, vol. x., p. 16; Macpienson's Commerce of the European Powers with India, p. 81. But notwithstanding the favorable result of this voyage, the expeditions fitted out in the years inmediately following, though sometimes consisting of larger shipa, were not, on an aver age, materially increased. In 1612, Captain Best obtained from the court nt Delhi aeveral conslderable privileges; and, among others, that of eatablishlag a factory at Surat; which city was, henceforth, looked upon as the principal British atation in the west of India, till the acquisition of Bombuy.

In metablishing factories in Iadia, the English ouly sollowed the axamples of the Portuguese and Datch. It was contended that they were necessary to aurvi as diptes for the goods coilected in the country for exportation to Europe, am well as for thone imported into India, in the ovent of their not meeting with a ready market oA the arrival of the ships. Qach entabilahmonte, it was admitted, are mot requirod in civilised countries ; but the peculiar and nnsettled atate of India was aald to render them indispenseabia there. Whatover weight may be attached to this statement, it is obvious that factorien formed for auch parposes could hardly fail of apoedily degenerating into a apecies of 80rts. The security of the valuable property depooited in them, farniahed a apecious protext for putting them in condition to withatand an attack; whilo the agenta, clerks, warehousemen, otc., formed a sort of garrison, Posseaning auch atrong-holds, the Europeans were early omboldened to act in a manier quile inconsistent with their character as morchants, and hut a very short tlme elapsed before thay began to form achemes for monopolizing the commerce of particular districts, and acquiring territorial dominion.

Thought the Company met with several heary iosses during the early part of their traffic with India, from ahipwrecks and other unforseen accidents, and atill more from the hoetlility of the Dutch, yot, on the whele, the trade wat decidedly profitable. There can, however, be little doult, that their gains, at this eariy period, have been very much oxaggerated. During the first 13 years, they are sald to have amounted to 132 por cent. But then It ahould be bornc in mind, as Mr. Grant has justly atated, that the voyages were seldom accomplished in lean than 30 monthe, and nometimes extended to 3 or 4 years : and it ohould further be remarked that, on the arrival of the ships at home, the cargoes were dinposed of at long credits of 18 months or 2 years ; and that it was frequently even 6 or 7 years before the concerns of a single voyage were finaliy adjusted. - Sketch of the History of the Compony, p. 13. When these circumstances aro taken into view, it will be immediately neen that the Company's profits were not, really, by any means so great as has been represented. It may not, howover, be uninatructive to remark, that the principal complaint that was then made against the Company, did not proceed so much on the circumstance of its charter excluding the publio from eny share in an advantageons traffic, as in Its authorizing the Counpany to export gold and silver of the value of $£ 30,000$. It is true that the charter stipulated that the Conpany should import an equal quantity of gold and silver within 6 months of the termination of every voyage; but the enemies of the Company contended that this condition was not complied with; and that it was, besides, highiy injurious to the pubilic interest, and contrary to all primciple, to allow goid and silver to be sent out of the king dom. The merchants and others interested in the support of the Company, could not controvert the reasoning of their opponents without openly impugning the ancient policy of absolutely proventing the exportation of the precious metals. They did not, however, venture to contend, if the idea really occurred to them, that the exportation of bullion to the East was advantageous, on the broad ground of the commodities purchased by it being of greater value in Engiand. But they contended that the exportation of bullion to India was advantageous, because the commolities thence imported were chiefly re-exported to other countriea from which a much greater quantity of bullion was obtained than had been required to pay for them in India. Mr. Thomas Mon, a director of the East India Company, und the ablent of it: eariy advocates, ingeniously compares the operations of the merchaut in conducting a trade carried on by the exportation of gold aud uilver to the secd-time and harvest of agriculture. "If we only behold," saya
hay, "the actions of tt, husbandman in the eeedtime, whon he casteth away much cood corn into the ground, we shall weeonat him rathor a madmaa than a busbandınan. But when we conaldor his labors in the harveat, which is the end of his endeavors, wo find the worth and plentiful incroase of his ac-tions."-Treasure by Foreign Tmul, p. B0, odition of 1664.

We rany here remark, that what has been called tie mercantils agotem of political economy, or that aystem which measures the progress of a country in the career of woaith by the aupposed balance of poymenta in its favor, or by the estimated excese of the value of tis exporta over that of its imports, appears to have originated in the excuses now set up for the exportation of bullion. Previeusly to this epoek, the policy of probilhiting the exportation of buillion had been oniverally almiltted; bat it now began to be pretty generally allowed, that ite exportation might be productive of advantage, provided it occasloned the subsequent exportation of a greater amount of raw or manufactured products to conntries whence bullion was obtained for them. This, whon compared with the proviously existing prejudice-for it hardly deserven the name of aystem-which wholly interdicted the exportation of gold and ailver, must be aliowed to be a considorable atop in the progress to aounder opinions. The maxim, ce n'st que lo premier pas qui coute, was atrikingly verified on this occeasion. The advocatea of the East India Company began gradually to aeanme a higher tone, and, at length, boldly contended that bullion was nothing but a commodity, and that its exportation should be rendered as free aa that of any thing else. Nor were theae opinlons confined to the partuers of the East India Company. They were gradually communicated to othors ; and many eminent merchants were tanght to look with suspicion on sevaral of the previously recoived dogmas with reapect to commerce, and were, in consequence, led to sçpuire more correct and comprehensive views. The new ideas ultimatoly made their way into the House of Commons; and, in 1663, the statutee prohibiting the exportation of foreign coin and bullion wore repealed, and full liberty given to the East India Cumpany and to privato tradens to export them in unlimited quantities.
But tho objection to the East India Company, or rativir the East India trade, on the ground of its causing the exportation of gold and silver, admitted of a mure direct and conclusive, if not a more ingenious relly. Hlow compendicus soever the ancient intercourse with India by the Red Sea and the Mediterranoan, it was unavoidably attended with a good dea! of expense. The productions of the remote parts of Asia, Urought to Ceylon, or the ports on the Maiabar coast, by the natives, were there put on board the ships which arrived from the Arabic gulf. At Bereniee they were landed, and carried by camels 250 miles to the banks of the Nile. Thoy were there again embarked, and conveyed down the river to Alexandria, whence they were dexpatched to different markets. The addition to the price c. goods by such a multiplicity of operationa must have been considerabile; more especially as the price charged on each operation was fixed hy nionopolists, subject to no competition or cuntrol. l'iny says, that the cost of tho Arabian and Indian products brought to home when he flourished (a.D. 70), was incruased a hundredfold by the expenses of tranait-(IIist. Nat., lib. vi., c. 23); but there can be littie or no doalt that this is to be regarded ns a rhetorical exaggeration. Thero aro good grounds for thinking that the lese bulky sorta of Eastern products, auch as silka, apicos, balaams, precious atones, etc., which were those principally made use of at Rome, might, supposing there were no political obstacles in the way, be conveyed from moat parta of India to the ports on the Mediterranean by way of Egypt, at a do- ient interne Mediter-- geod des te parts of be Malabar rd the ships renice they niles to the embarked, ia, whence The additiplicity ef more espen was fixed? or cuntrol. and Indian ished ( $\mathrm{A}, \mathrm{D}$. xpensics of here can be ed as a rherrounds for in products, tones, ate, $f$ at leme, obstacles in India to the pt, at a de-
cldeily cheaper rate than they could be conveyed to them by the Cape of Good Hope.

But at the period when the latter monte to Indh. began to be frequented, Syria, EgJpt, etc., were ocenpied by Turks and Mamelukes; barbarians whe deopised commerce and navigatlon, and were, at the ame time, extremely fealous of strangere, eapecially of Christlans or infidels. The price of the commodities obtained through the Intervantion of auch permons was necessarily very much enhanced; and the discovory of the route by the Cape of Good Hope was, consequently, of the atmost Importance; for, by putting an end to the monopoly enjoyed by the Torka and Mamelukea, it Introduced, for the first time, eomething like competition Into the Inilian trade, and enabled the western parta of Europe to obtaln supplles of Indlan producta for abont a thlnd part of what they had previously cest. Mr. Mun, in a tract pahllshed In 1621, estimates the quantlty of Indian commodities Imported into Furope, and their coat when bought in Aleppo, and in India, as follows:
Cost of Indian Commoditisa consumido in Enaope wimen
Bevoht in Alsppo (ou Alfxandila).

| $0,000,000$ tbe, pepper cost, with chargea, etc., at Aleppo 2s, per lb . | $\begin{array}{ccc} \kappa 00,000 & 0 & d . \\ 0 \end{array}$ |
| :---: | :---: |
| 450,1000 lbs, cloves, at is. 9 d ............. | 106.875 100 |
| $150,000 \mathrm{lbs}$, mace, at 4 s .9 d | 85,6260 |
| $400,000 \mathrm{lbs}$ nutmegs, at 2.48 | 46,068 24 |
| $850,000 \mathrm{lhs}$, Indigo, at 4 s . 4 d | 75,888 68 |
| 1,000,000 lbs. Persian raw atlk | 600,000 |

Total.
\&1,465,000 $19 \quad 0$
But the same quantliles of the same commoditica cost, when bought in the East Indlen, according to Mr. Mun, as follows:

| $451,000 \mathrm{Ib}$ $400,000 \mathrm{lb}$ <br> $850,000 \mathrm{lb}$ <br> $1,000,000 \mathrm{Jb}$ |
| :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  | $\begin{array}{lll}62,500 & 0 & 0 \\ 0\end{array}$ $\begin{array}{ll}16,875 & 0 \\ 0\end{array}$ 5,000 00 $6,666 \quad 18 \quad 4$ $20,41612 \quad 4$ 400,000 $0 \quad 0$

,

Whleh, being deducted from the former, leaves a balsnce of $£ 053,542$ 18s. 4d. And supposing that the atatements made by Mr. Mun are correct, and that sllowance Ia made for the difference between the freight from Aleppo and Indla, the reault would indicate the saving whlch the discovery of the route by the Cape of Good Hepe occasioned in the purchase of the above-mentloned artleles.-A Discourse of Trade from Eingland to the East Indies, by T. M., orlginal ed. p .10 . (This tract, whlch Is very scarce, is reprinted in Purchas's Pilgrima).
In the same publleatlen (p. 37), Mr. Mun Informs ua that from the beginning of the Company's trade, $t 0$ July, 1620 , they liad sent 79 ships to India; of which 34 had come heme aafely, and richly laden; 4 had been worn out by long service In Indla; 2 had been lest in careening; 6 had been lest by the perils of the ses, and 12 had been captured by the Dutch. Mr. Mun further atstes, that the exports to India since the formation of the Company had amounted to $£ 840,876$; that the produce brought from Indis had cost $£ 356,288$, and had produced here the enorinous sum of $£ 1,914$,600; that the quarrels with the Dutch had occasloned a losa of $\mathbf{£ 8 4 , 0 6 8}$; and that the stock of the Company, in ships, goods in India, etc., nmounted to $£ 400,000$.
The hostility of the Dutch, to which Mr. Mun has here alluded, was leng a very formidable obstacle to the Company's success. The Dutch early endenvored to obtain the excluslve posseasion of the spice traile, and were not at all scrupulnus about the means by whlcl, they attempted to bring about thls their favorite elject ; the English, on thelr part, naturally exerted themrelves to obtain a share of so valuaiblo a commerce; and as nelther party was disposed to abandon ike views and pretensions, the most vlolent animositice grew up between them. In thls state of things, it would be ridiculous to suppose that unjustifleble acte
were not committed by the one party as wroll at the other; thongh the worst Let of the English appears renlal, when compared whth the condact of the Duteh In the massacre of Amboyna, in 1622. While, howover, the Dutch Company was vigoroualy aupported by the government at home; the English Comnany met with no effielent asoistance from the feeble and vaclllating policy of Jamen and Charlea. The Dutch elther desplaed their remonatrancen, or defeated them by en epparent compllance; so that no real reparation was ohtained for the ontragea they had committed. During the clvil war, Indian affelrs were necensarily loat alght of 3 and the Dateh continned, untll the ascendancy of the repnbiican party had been eatablished, to relgn triumphant in the Eaet, where the Engllah commerce was nearly mnilhllated.

But notwithstanding thelr depressed condition, the Company's servants In India laid the foundacion, durIng the period In questlon, of the settlements at Madras and In lBengal. I'ermisaion to bulld Fort St. George was obtalned from the nitlve authoritles in 1640 . In 1658, Madras was ralsed to the atation of a presidency. In 1645, the Company began to establish factories in Bengal ; the princlpal of which was at Hooghly. These were, for a lengthened period, subordinate to the presldeney of Madras.

No sooner, however, had the clvil wars terminated than the srmlea end conncils of Cromwell retrieved the altuation of our affialre in Indla. The war whlch broke out between the long Parllainent and the Datch In 1652 was eminently injuriona to the latter. In the treaty of peace, concluded In 1664, it waa stlpulated that Indemnification should be made by thy Dutch for the losses and Injuries sustained by the English merchants and factors in India. The 27th article bears, "that the lords, the atates-general of the United Prov. Inces, shall take care that justice be done upon those whe were partakers or nccomplices in the masacre of the English at Amboyna, as the republle of England is pleased to term the fact, provided any of them be living." A commlssion was at the same time appointed, conformably to another article of the treaty, to inquire into the reciprocal clalms which the smbjects of the contracting partles had npon each other for lespes sustajned in India, Brazil, etc. ; and upon thelr declsion, the Dutch pald the sum of $£ 85,000$ to the East India Company, and e8615 to the heirs or execrtors of the sufferers at Amboyna.-Bruce'a Annals, vel. 1. p. 489.

The charter nnder which the East India Company prosecuted thelr exclualve trade to Indla bsing merely a grant from the crown, and not ratified by any act of Parliament, was underatood by the merchants to be at an end when Charles I. was deposed. They were confirmed in thls vlew of the matter, from the circumstance of Charles having himself granted, In 1635, a charter to Slr William Courten and others, authorizing them to trade with those parts of India with whlch the Company had not established any regular intercourse. The reasons alleged in justlfication of 'his measure, by the crown, were, that "the East India Company had neglected to establlsh forified factories, or seats of trade, to whlch the klng's subjects conld resort with safety: that they had consulted their own interente only, without any regard to the king's revenue; and In general, that they had broken the condition on which their charter and excluslve privileges had been granted to them."-Rim. Fadera, vol. xx., p. 146.

Courten'e association, for the foundation of which euch satisfactory reasons has been masigned, continued to trade with India drring the remainder of Charles's relgn; and no sooner had the arms of the Commenweslth forced the Dutch to desist from their depredstions, and to make reparati , for the anjuries they had Inficted on the English in 1adla, than private adventurers engaged in great numbers in the Indin trade, and carrled it on with a meal, economy, and auccess,
that monopoly can never expect to rival. It is atated in a little work, entltled "Britannia Languene," publlshed in 1680, the author of whlch has evidently been a well-Informed and Intelllgent person, that during the years $1653,1654,1655$, and 1656 , when the trade to Iudie was open, the private traders imported East India commoditios in such large quantities, and sold them at auch reduced pricen, that they not only fully supplled the British markets, but had even come into anccessful competition with the Dutch in the market of Ansterdsm, "and very much sunk the actions (sharea) of the l)utch East Indla Company."-(p. 122.) This elrcumstance naturally excited the greatest apprehenslons on the part of the Dutch Company ; for bealdea the danger that they now ran of being deprlved, by the active competlition of the Engllsh merchants, of a consideralise part of the trade which they had previously onjoyed, they could hardly expect that, if the trade were thrown open in England, the monopoly would be sllowed to continue in Holland. A striking proof of what is now stated is to be found in a letter in the thinl volume of "Thurlow'a State l'spers," dated at the Hague, the 15th of January, 1654, where it is said, that "the merchants of Amsterdam have advice that the Lord l'rotector intends to dissolve the Fast India Company st London, and to declare the navigation and commerce of the East Inilies free and open: which doth cause great jealousy at Amsterdan, as a thing that will eery much prejudice the biast India Company in Holland."

Feeling that lt was impossible to contend with the private adventurers under a system of fair compretition, the moment the tresty with the Duteh had been conc!uded, the Company liegan to selicit a renewn of their charter; but in this they were not only opposed by the free traders, but by a part of themselves, To understand how this happened, it may ho proper to nention that Courten's association, the origin of which hus heen already noticed, had begun, in 1648, to found a colony $\ln$ Ansuda, an island nesr Managascar. The Company, alarmed at this project, applied to the Council of state to prevent its being carried into effect; and the council, without entering on the quention of either party's rights, recommeniled them to form a union; which was accordingly effected ln 1649. Hut the uniou was, for a considersble time, rather nomilnal than read; and when the Dutch war had been put all end to, most of those holders of the Company's ntock who had belonged to t'ourten's association joined in petitloning the Council of State that the trude might in future $t$ carried on, not by a juint-stock, hut by a regulated company; so that each individual engagiug in it might be allowed to employ his own ntork, servan*s, nnd shipping, in whatever way he might conceive most for his own advnitage.-I'etition of Adrenturers, 17th of Nov., 16 ant ; Bruce's dnnals, vol. I., p. 51 N.

This proporal was obviounly mont reunomable. The Company had slwayn founded their clain to a monopoly of the trate on the alleged ground of its being necessary to mahutain forts, factorles, nud whips of war in India; and that as this was not done by government, it cosid ouly be done by a company, lhut, Dy forming the traders with Indin into a regular company, they might have been subjerted to whatever rulen were conaldered mont alviablib; and soch special dutien might have heen laid on the commmolitien they exported and limported as would have sulliced to defray the public expenses required for carrying on the trade, at the asme time that the inestimable .alvantager of free competition would have been secured; each andividual trader lielng left at llwerty to conduct his enterprines, subject only to a few general regulathons, in his own way and for his own sdvantage. See Companien.
llut not wit atanding the etforts of the petitionern, and the succens that was clesrly proved to have nttemed the operations of the privite traders, the Company
succoeded ln obtainlag a renewal of thelr charter from Cromwell ln 1657. Charles II. confirmed thla charter in 1661; and at the same time conferred on them the power of making peace or war with any power or people not of the Christian religion; of establishing furtlications, gerrisons, and colonies; of exporting ammunition and stores to their settlements duty free; of asizing and sending to Englan 1 auch Britlsh sul) jects as should be found trading to Indle without thelr leave; and of excrelsing clvil and criminal jurisdiction in their settloments, according to the laws of England. Still, however, as this chartar was not fully confirmod by any act of Parlinment, it did nut prevent traders, or interlopors as they were termed from appearing within the limits of the Company's territories. The energy of private commerce, which, to use the words of Mr. Orme, "sees its irift with eugh'ss' eyes," formed assoeintions at the rlak of trying tho conseqcence at law, being safe at the outset, und during the voyage, since the Company were nut authorized to stop or ceize the ships of those who thus nttempted to come into competition with them. Hence their monopoly was ly no mems complete; and it was not till after tho Revolutlon, and when a froe system of goverument hasd been establlshed at home, that, hy a singular contradiction, the authority of Parlianent wus interposed to enable the Company wholly to engross the trade with the East.

In nuldition to the losses arising from this source the Company's trade suffered severely, during the reign of Charles II., from the hostilities that w.mo then wiged with the Dutch, and from the confusion and disorders eaused by contesta amotab the native princes; but in lified the Company oltainel a yery valuable aequisition in the island of lombay. Charles 1I. sectinired this island as a part of the marriage portion of his wife, Cutharine of l'ortugal; aul it was now made over to the Compuny, on conditlun of their mit selling or alieuating it to any personn whatever, except such as were sulyjects of the IIrlish crown. They wero allowed to leginlate for their new possession; hut it was enjoined that their laws should be consonant with reasoln, and, "as near an might be," agreeable to the practice of England, They were authorized to maintain their dominion by fore of arms; and the natives of lhmbay wore declared to have the name liberties as matural-born subjucts. The Company's weatern presidency was soon after transferred from Surat to Itomlay.

In 16t-f, the French Jiast India Company was formed; and 10 years afterward they laid the fomdition of their settlement at londicherry.

Ilut the reign of tharles 11 . in chictly memordide in the Company's anmals, from its heing the ora of the commencement of the tea trade. 'lhe tirst motice of tea in the Company's records in found in a deopatch, ahliressed to their agent at llantam, Hated ehth of Jannary, litio-y, in whel he is desired to send houe 100 lln , of tea-" the thent he con get." (bincrs's Anmala, vol. il., p. 210.) Such was tho late aul feetble beghning of the tea trade, a branch of comanere that has long been of vast importance to the ltritish mation, and without which it is more than probable that tho Fant India tompany wonld long slice have ceased to exist, ut least as a mercantile body.

In 1637 tho Company obtained a fresh ronewal of their charter: receiving the thenne time an hatemity for all past misuse of their privileges, that nulburity to eatablish a mint at llumbay.
During the greater part of the rejgun of tharles 11. and James Jl., the Company's allairs at home were princlpally manuged by the eelehated sir Josiah Child, the ablest commerclul writer of the time; and In Indin, by his brother, Sir John Chill. In lewn, Sir doalah publinhed an apology for the company, under the nlgnators of 中idorarous-" A Troatina wherereln le Demonstrated that the Luat India Trade

Is the n besides the obje sn acco it appee that the tons, et India, a customs £ 60,000
"in lead of the amounte Josiah se the Incon fore dwe rectly pr row silk, would otl proved 11 sdmitted s still low

Sir Jos the form the exped plishing t Comprny fered by during the in the prin in India latter, Sir ment, exh whatever Into immed that be sha rity and ju his countr. Child's ans Vaux rum! tis rules, 1 heap of unt gentlemeo, the grod nutch less commerce. Indies, vol. lluring t and that of turens, or 1 an unusual thenselves their right validity of charter wa, tion carries Sandys, for license. JI $\ln 168{ }^{\circ}$. Influence; lucreaso th the Conven nents hope hard they by ceeded. T being for i Gormation " The latter anison, the carried ont on this oce: history of ling corrupt in fact, a authurity in of gold dive p. 127.)

Is the most National of all Forelgn Trades"-in whleb, besides endeavoring to vindicate the Cnmpany from the objections that had been made againsi : $:$, he gives an account of lts state at the time. From this account; it appears thst the Company consisted of 556 partners; that they had from 35 to $\mathbf{8 6}$ ships, of from 775 to 100 tons, employed In the trade between England and India, and from port to port in India (p. 23); that the customs daties upon the trade amounted to about £ 60,000 a year; and that the value of the exports, "in lead, tin, eloth, und stuffs, and other commodities of the production and manufacture of England," anounted to about $\mathbf{£ 6 0 , 0 0 0}$ or $\mathbf{£ 7 0 , 0 0 0}$ a year. Sir Josiah seemus to have heen struck, as he well might, by the inconsiderable amoont of the trade; and he therefore dwells on the advantages of which it was indlrectly productlve, In enabling us to obtaln supplies of raw silk, lepper, otc., at a much lower price than they would otherwlse have fetched. But this, though true, proved nothing in favor of the Company-It being an sdmitted thet, that thoso articles were furnished at s still lower price by the interlopers or private traders.
Sir Josiah Child was ons of the first who projected the formation of a territorial einpire In Indla. But the expedition fitted out in 1686, in the vlew of necomplishing this purpose, proved unsuccessful ; and the Compuny were glad to secept peace on the terms offered by the Mogul. Sir John Chllh, having died during the course of these transactions, wan succeeded in the prinelpal management of the Company's affills in India by Mr. Vaux. On the appointment of the latter, Sir Josiah Child, to whom he owed his advancement, exhorted hion to act with vigor, and to carry whatever instructions he might recelve from home into immediate effect. Mr. Vaux returned for answer, that be should endeavor to nequit himself with integnity and justice, and that he would make the laws of his country the rule of his coniluct. Sir Josinh Child's answer to this letter ls eurious: " He told Mr. Vaux roundly that he expected his orders were to he his rules, and not tho laws of lingland, which were a heap of nonsense, compiled by a few ignorant coantry geatlemea, who harily knew how to make laws for the good government of their own private families, much less for the regulating of companies and forgifn commerce." (IIAmimon's Neve Aecount of the fiasf Indies, vol. 1., p. 232.)

During the latter part of the reign of Charles II. and that of his successor, the number of private adventurers, or interlopers, in tho Indian trade, Increased $\ln$ an unusual degree. The Company vigeronsly exerted theuselves in defense of what they conceivert to be their rights; and the question with resperet to the validity of the powers conferred on them by their charter was at length brought to insue, by i prosecution carried on at their instance against Mr. Thomas Sandys, for trading to the Fast lndles without their Hicense. Judgment was gi en lin favor of the Cempany in ltiri. Ihat this decision was aseribed to corrupt influmere; and Instead of allaylag, only served to herrease the clamor against them. The meeting of the Coavention Parliament gave the ('empany's opponeuts hopes of n successful issue to their efforts; and had they been united, they might probalily have succeeded. Their opinhons were, however, ilivided-rart being for throwitg the trude open, and part for the formation of a new company on a more lheral footing. The latter being formed into a houly, and acting in mison, the struggle against the Company was chlofly earried un by them. The proceedings that took place on this oreasion are among the most diagraceful in the history of the country. The most opeu anil unblushing cormotion was practleed hy all partles. "It ras, in foct, "t trial which shonld bribe the highest; public autharity indining to one or other os the irresistible force of gold directel." (Jfodern Unirersal IIistary, vol. x., p. 127.) Govermment appeurs, on the whole, to havo
been favorable to the Company; and they ohtained a fresh charter from the crown in 1690 . But in tho following year the trade was virtually lald open by a vote of the House of Commons, "that all the subjects of England had an equal right to trade to the East Indles, unless prohibited hy aet of Parlament.", Matters continued on thls footing till 1698. The pecuniary difficulties in whlch government was then involved, induced them to apply to the Company for a loan of
 The Company offered to advance $£ 700,000$ at 4 per cent.; lut the eredit of government was at the time so low, that thoy preferred accepting an offer from the assoclated merchants, who had previously opposed the Company, of the $£ 2,000,000$, at 8 per cent., on condition of thelr being formed into a new and exclusive company. While thla project was in agitation, the advocatea of free trade were not idle, but exerted themselves to show that, instead of establishing a new company, the old one ought to be abolished. But, however concluslve, their argumenta, having no adventitious recommendations in their favor, failed of maklng any Impreasion. The new company wae established by anthority of the legislature; and as tha charter of the nld company was not yet explred, the novel spectacle was exhitited of two legally constituted bedles, each elalming an exclusive right to the trade of the same possesaions !

Notwithstanding all the pretensions set up by those who lud obtulned tho new charter, during their struggle with the old company, it was immedistely seen that they wero as anxloui as the latter to suppress every thing like free trade. They had not, it was obvious, been actuated liy any enlarged viaws, but merely by a wish to grasp at the mol.. I, whieh they belleved would redound to thelr own Indivhlual interest. The public, in consequence, became equally disgusted with both parties ; or, If there were any difference, it is protable that the new company was looked upon with the greatest aversion, hasmuch as we ure naturally mono exasperated by what we conrelve to be duplicity nnd bad falth, than by fair undisguised hostilty.

At first the mutual hatred of the rival associatlons knew no lonnds. llut they were not long in perceivhig that such conduct would infallibly end in their ruin; and that while one was laboring to destroy the other, the friends of free trade might atep in and proenre the dissolution of both. In ennsequonce, they became gradally reconciled; and in $17^{-9}$, having adjusted their differenees, they resolved to 1 mm thenseves into one company, entitled The I/mited Company of Mferchauts of Eingland trating to the East Indies.
The authority of Parliament was soon after interpmed to give effect to this agreement.

The Walted Company enguged to advance $£ 1,200$,1000 to government without lnterest, whleh, as a previells alrance hal heen mude of $£ 2,000,000$ at 8 per cent., mate the totnl sum due to them by the putblic £ $5,200,000$, hearing interest at 5 per cent.; and government agreed to ratify the terms of their ngreement, and extend the charter to the 25th of March, 1726, with 3 yeara' notice.

While these importunt nutters were trnnsacting at. home, the ''ompmy had acquired some additional possessions in Intia. In 1692, the llengal ageney was transferred from Hooghly to Calcutta. In 16i8, the ('ompany nequirel a grant from one of the grandsons of Aurengrelie, of C'alcutta and 2 ndjolning villages; with leave to exprcise juliefary powers over the inhalo Itants, anil to erect fortlicatlona. These were soon after constructed, and recolved, in compliment to Willian IIt., then king of lingland, the nume of Fort William. The agency at llengal, which had hitherto been milisidlary only, wan now ralsed to the rank of a presldency.

The vigorous competition that had been earried on
for some years before the coalition of the old and new Companies, between them and the private truders, had occasioned a great additional Importation of Indian silks, piece goods, and other products, and a great re duction of their price. These circumstances occasioned the most vehement complaints among the home manufacturers, who resorted to the arguments invariamade use of on such occasions by those who wish to exclude foreign competition; affirming that manufactured Indis goods had been largely substituted for those of Fingland; that the Einglish manufucturers had been reduced to the cruel necessity either of selling nothing, or of selling their commodities at such a price as left them no proflt; that great number of their workmen had been thrown out of employment ; and, last of all, that Inclian goods were not bought by British goods, but ly gold and silver, the exportation of which had caused the general impoverishment of the kingdomi The merchants and othors interested in the India trade could not, as had previously happened to them in the controversy wlth respect to the exportation of bullion, meet these etatements without stacking the princlples on which they restod, and maintaining, in opposition to them, that it was for the advantage of every people to buy the products they wanted in the cheapest market. This just and sound principle was, in consequence, enforced in soveral petitions presented to Parliament by the importers of Indlan goods; and it was also enforced in several able publications that $n_{i} p$ peared at the time. But these arguments, how unanswerable soover thoy may now appear, had then but little influence; and, in 1701, an act was passed, prohibiting the importation of Indian manufuctured gools for home consimption.

For some years after the re-estullishment of the Compsny, it continued to prosecute its efforts to coneolidute and extend its commerce. Hut the unsettlod state of the Mogul empire, coupled with the determiation of the Company to establish factories In every convenient situntion, exposed their affairs to perpetus) vicissitudes. In 1715 , it was resolved to send an embass ${ }^{\text {r }}$ to LDelhl, to solicit from Furtucksur, an unworthy descendant of Aurengzebe, an extension and contirmation of the Company's territory and privileges. Alldreas, accident, and the proper applicution of presends, conspired to insure the succens of the embassy. Tha grants or patents aolicited thy the Company, wero Issued in 1717. They wero in all 34 . The substance of the privileges they conferred wim, that English vessels wreeked on the consts of the empire should be exempt from plunder; that the annual payment of a ntipulated sum to the government of Surat should free the Englimli trade at that port from nll duties and exactions; that those villages contiguons to Madras formerly granted und afterward refused by the government of Aroot, whould be restored to the Company; that the island of Din, near the pout of Masulpatam, ahould helens to the tompany, paying for it a flxed rent ; that in ljengal, all persons, whether European or native, Indehted or accountable to the Company, shoull be alelivered up to the presidency on demand; that goole of export or jmport, belonging to the Vinglah, might, under a dustuck or pasaport from the preaident of Calcutta, be conveyed duty free through the llengal jrovinces; and that tho linglinh should be at liberty to purchase the lordahip of 37 town contiguous to Calcutta, and, in fact, commanding both bankn of the river for 10 milen south of that city.-(imant'a sketch of the Mistory of the Eiast Intia Company, J. 128.

The important privilegen thos granted were Jong regarded as constituting the great charter of the Englimh in India. Some of them, however, were not fully conceded; but were withheld or moditied by the inlluence of the limporor's lieutenants, or sonbahiarn.

In 3717, the Company found themselves in clanger from a new competitor. In the course of that your
some ships appeared in Indla, fitted ont by privato adventurers from Ostend. Thelr euccess encouraged others to engage in the same line; and in 1722, the adventurers were formed into a company under a charter from hla Imperlal Majesty. The Dutch and Engllsh Companien, who hud so long been hostile to each other, at once laid asjde their animositles, aod joined heartily in an attempt to crush thelr new competitors. Remonstrances being fonnd ineffectual, force was resorted to; and the vessels of the Ostend Company were captured, under the most frivolous pretenses, in the open seas and on the coasts of Brazil. The Hritish and Dutch governments abetted the self: ish spirit of hostility displayed by their respective Companics. And the emperor was, in the end, glad to jurchase the support of Great Britain and IIelland to the pragmatic sanction, by the sacrlfice of the Company et Ostend.

Though the Company's trade had increased, it was still inconslderable, and it is very difficult, indeed, when one oxamines the accounts that have from time to time been publiahed of the Company's mercuntile affairs, to imagine how the idea ever came to be enter. tuined that their commerce was of any considerable, much less paramount, importance. At an averuge of the 10 years enting with 1724 , the total value of the British manufactures und other products annually exported to Indla, amounted to only $\boldsymbol{£ 9 2 , 4 1 0} 12 \mathrm{~s}$. Gd. The average value of the bullion annually exported, during the same period, amounted to $£ 518,10211 \mathrm{~s}$. Od., making the total annual average export $\mathbf{x} 617,513$ 3s. 10d. ; a truly pitiful sum, when we consider the woalth, population, nnd industry of the countries between which the Company's commerce was carried on ; and affording, by its smallness, a atrong presumptive proof of the effect of the monopoly in preventing the grow th of the trade.

At this period (1773) the total number of proprietors of last India stock, with their qualifications as they stool in the Company's lrook, were as follows:

| Lughshmen, possesslog $\mathbf{N 1}$ | ropreletor |  |
| :---: | :---: | :---: |
| stork and upwari. . .... | 487 | 21,012,399 |
| Foreigners, possessing $£ 1,000$ | 325 | 890,940 |
| Engilshmen, possessing di50 stock and upward. | 1,246 | 634,464 |
| Foreligners, pessrssing es500 stock and upward. ......... | 95 | 50,220 |
| Total. | 2,15: | £2, 594,029 |

Not withstanding the vast extension of the ('ompany's territories, their trade continued to bo uparently inaignificnnt. During the 3 years ending with liais, the value of the entirt exports of Hritish produce and manufactures, inclading military atores, exported by the Company to India and Chmn, amomed to $£ 1,400^{\circ}$, 411 , leing at the rate of $\mathrm{f} \mathbf{8} 8,803$ a year: the ammal exports of bullion during the mame perion being only: ext,933. During the sumo 3 years, 23 ships wailed unnually for India. The truth, indeed, seens to be, that, but for the lucreased consumption of tea in. tireat Britain, the Company would have entirely ceased to earry on may liranch of trade with the liast ; and that the monopoly would have excluded us as efrectually from the markets of India anl Chima as if the trade had reverted to lts ancient chameln, and tha route by the thape of Good llope been relinquished.

In 1081 , the exclusive privileges of the Compuny were extented to 1591, whth three years' notice; tho dividend on the Compinay's stock was fixed nt 8 per cent. ; three fuurths of their surplus reventes, after paying the dividend, and the sum of $£ 500,000$ parable to govermment, was to be uplifed to the public service, and tho remalning fourth to tho Company's own use. In 1780, the value of IIritish produce and manufactures expurted by the Company to India und Chima amounted wonly tide6,152; the bulllen exported during the same year was $\mathbf{6 1 5 , 0 1 \%}$. The total value of the exports during tho same year was $212,648,616$; showing that
the East J of the ent The ad ued scene of the $\mathbf{c o}$ woree; so quis Corn is distinct pany's lerr sbuses in rectifled; Bengal, B ed to $£ 2,12$ exhaustion in the war Company meet them petition to pay the sti lic, and pro to the suppo
During
who succee Hyder Ali, the Compan greatly ines nent settlen other impon been long di On the whol thay have 1 wallis was, people of In soccessfully kaew were
Duting the Company's tures fluctua increase is $\mathbf{w}$ duty on tea quently, ton Tra.) IIud tionary, ther Company's than in 1780 quantity of
$\ln 1793$, t the 1st of $\mathrm{M}_{2}$ species of pr India to pri jects, reaidin, were allowed duce or man military stor pitch, tar, an ants in Inilla were allowe all kinds of auslins, and chants in $\mathrm{E}_{\mathrm{t}}$ merchants in excepit in Co such convey should anmia the use of prl were to puy homeward, fo pany's milips time of war, Control.

It might h foreseen that turers would privilegge of of eugaging OUny of power their superio
the East India trade formed only one thirty-second part of the entire foreign trade of the empire !

The administration of Mr. Hastinga was one continued scene of war, negotistion, and intrigue. The state of the country, instead of being improved, becsme worse ; $\mathbf{s 0}$ mach so, that in a council minute by Marquis Cornwallis, dated the 18 th of September, 1789, it is distinctly stated, "that one third part of the Company's territory is now a jungle for wild beasts." Some abuses in the conduct of their nervants were, indeed, rectified; but, notwithstanding, the nett revenue of Bengal, Bahar, end Orisaa, which, in 1772, had amounted to $\boldsymbol{£} 2,126,766$, declined, in $\mathbf{1 7 8 5}$, to $\boldsymbol{£ 2 , 0 7 2 , 9 6 8}$. Thls exhaustion of the country, and tho expenses incurred in the war with Hyder All and France, involved the Company in freeh difficultics; and being uneble to mect them, they were obliged, in 1783, to present a petition to Parliament, setting forth their Inability to pay the stipulated sum of $£ 400,000$ a yesr to the public, and praying to be excused from that payment and to be supported by a loan of $£ 900,000$.

During the administrstion of Narquis Cornwallis, who succeeded Mr. Hastings, Tippoo Sait, the son of Ifyder Ali, was atripped of nearly half his dominions; the Company's territorial revenue was, in consequence, greatly increased; at the same time that the permanent settlement was carried Into effect in Bengal, and ether important changes accomplished. Opinlon has been long divided as to the influence of these changes. On the whole, however, we are inclined to think that they have heen decidediy advantageous. Lord Cornwallis was, beyond all question, a aincere friend to the people of India; and labored esrnestly, if not slways saccessfully, to promote their interesta, which he well knew were identified witli those of the British nation. During the 3 years ending with 1793 , the value of the Company's exports of British produce and manufactures fluctuated from $£ 928,781$ to $£ 1,031,262$. But this increuse is wholly to be ascribed to the reduction of the duty on tea in 1784, snd the vast increase that, consequently, took pisce in its consumption. (See article Tra.) IIad the consumption of tea continued stationory, there appear no grounds for thinking that the Company's exports in 1798 weuld have been greater than in 1780 , unless an increase had taken place in tho quantity of military stores exported.
in 1793, the Company's charter was prolonged till the 1st of March, 1814. In the act for this purpose, a species of provision was made for opening the trade to ludia to private individuals. All his msjesty's subjects, residing in any part of his European deminions, were allowed to export to India any articie of the produce or manufacture of the British deminions, except military stores, ammunition, masts, spars, corlage, pitch, tar, and copper; and the Company's sivil servants in India, and the freo merchants rewident there, were allowed to ship, on their own account and risk, all kinds of Indian goods, excejt calicoes, dimities, muslins, and other plece goods. Hut neither the merchants in Engiand, nor the Company's servants or merchants in Indin, were allowed to export or import except in Company's whips. And in order to lusure such conveyanep, it was enacted that the Company should anmally appropriate 3,000 tons of shipping for the use of private traders; it heing stipniated that they were to pay, in time of pence, $\mathrm{e}^{\prime \prime}$ notward, anit at 15 homeward, for overy ton oceupied by them in the Company's ships; and that thils freight might be raised In time of war, with the approbation of the Bonrd of Contrul.
it might have heen, unt, indeed, most probshly was, foreseen that very few IIritish merchants or manufactarers wonid lie inclined to avail themaelvea of the privilege of sending nut goods in Company's shipe; or of engaging in n trado fettered on all aidea by the jealousy of pewerful monopotiste, and where, consequentis, their auperior judgment and economy would have
avalled almost nothing. As far, therefore, as they werc concerned, the relaxation was more apparent than real, and did not produce any nseful reaults. It was, however, made use of to a conaiderable extent by private morchants in India; and also by the Compsny's servants returning from India, many of whom inveated a part, and some the whole, of their fortune, in pruduce fit for the European markets.

Notwlthstanding the vast sdditions made to their territories, the Company's commerce with them continued to be very inconsidersble. During the 5 years ending with 1811, the exports to India by the Company, exclusive of those made on account of individuals in their shipa, were as under:

| 1807. | 5952,416 | 1810......... $21,010,815$ |
| :---: | :---: | :---: |
| 1808. | 919,514 | 1811......... 1,088,816 |
|  | 866,158 |  |

The exporta by the private trade, and the privilegs trade, that is, the commanders and officers of tho Company's ships, during the above-mentioned years, were about as large. During the 5 years ending with 1807-8, the annual average imports into India by British private traders only, amounted to $£ 805,496$.Papers published by the East India Company in 1813, 4te. p. 56 .
The Company's exports include the value of the military stores sent from Great Britain to Indie. The ships employed in the trade to India and Chins, during the same 5 years, varied from 44 to 53 , and their hurden from 36,671 te 45,342 tons.

For some years previously to the terminstion of the Company's eharter in 1813, the conviction had been grining ground among sll classes, that the trade to the East was capable of being very greatly extended; and that it was solely owing to the want nf enterprise and competition, occasioned by its being subjected to a monopoly, that it was confined within such nurrow limits. Very great efferts were, consequently, msde by the manufacturing and conmercial interests to have the menopoly set aside, and the trade to the Dast thrown open. The Compsny vigorously resisted these pretensions; and had interest enough to procure a prolongation of the privilcgo of carrying on an excluaive trade to Chins to the 10th of April, 1831, with 3 years' notice; the government of India being continued in their hands for the same period. Fertunately, however, tho trade to India was opened under certain conditions to the public. The principal of these conditions were, that private individuals should trade, directly only, with the presidencies of Culeutta, Madras, and Bombay, and the port of Penang; that the versels fitted out by them alould not be under 350 tons' burden; and that they ahould abatain, unlese permitted by the Company, or the lloard of Control, from engaging in the carrying trade of India, or in the trade letween India and China. And yet, despite these disadvantages, sucis is the energy of individual enterprise as compared with monopoly, that the private traders guined an uimost immediute ascendancy over the Fast India Company, and in a very short time more than trebled our trade with India!

Int liexides leing injurions to the privato trader, and to the publie generally, hoth in Imdia and Enghand, this trade was of no advantage to the liast India ('ompuny. liuw indeed, could it he otherwise? A Company that maintained armien and retailed ten, that carried a swomi In the one land and a ledger in the ather, was a contradietion; and, had she traded with success, would have been a prodlgy. It was inpossibie for her to pay that attention to details that is indispensalite to the carrying on of commerce with advantuge. She may have gained something by tiue monopoly of the tea trade, though even that is questionalife; lut it la admitted on all hands that abe lost heavliy ly her trade to India. When, therefore, the question as to the renewal of the charter eame to he thacnased in 1832, the Company had no reasonabla
objection to urge egainat thelr beling deprived of the privilege of trading. And the act 8 and 4 Will. 4. o. $85_{1}$ for continuing the charter till 1854, terminated the Company's commercial character; by enacting, that the Compsny'e trade to Chins was to cease on the 22d of April, 1834, and that the Company was as soon as pos. aible after that date to diapose of their atocks on hand, and close thelr commercial husiness. And the wonderful Increase that hae since taken place in the trade with the East is the best proof of the sagacity and soundnesa of the oplnions of those by whose efforts the incubus of monopoly was removed.
II. Eaat India Company (Conatitution of).-At present the functions of the East Indis Compeny are wholly polltical. She is said to govern India, with the concurrence and under the supervision of the Board of Control, nearly on the plan laid down in Mr. Pitt's act. But, in point of fact, the government is substanthally vested in the latter; the Company's directors acting, except on some rare occasions, rather as a council to the l'resldent of the Board of Control, than as exercising an independent, or co-equal authority. All the real and personal property belongling to the Company on the 22d of April, 1834, was vested in the crown, and is held or mansiged by the Company in trust for the same, subject of course to all claims, debts, contructs, etc., already in existence, or that may hereafter be brought into exlatence by competent suthority. The Company's debts and liabllitien are all charged on India. The divilead, which is $10 \frac{1}{\text { per cent., is paid }}$ in England out of the revenues of India; and provision is made for the establishment of a security fund for its diacharge. The dividend may be redeented ly Purliament, on payment of $£ 200$ for $£ 100$ stock, any thine after April, 1874 ; but it was provided, in the event of the Company being deprived of the gevernment of India in 1854, that they might claim redemption of the dividend any time thereafter, upon three yeara' notlce.-(3 \& 4 Will. 4. c. 85.)-J. H. McCulloch.

East, (Germ. Ost.) The point of the horizon at which the sun rises at the time of the equinoxes; or the point determined ly a perpendleular to the meridian drawn toward the quarter of sunrise. The east is one of the four cardinal points of the compas.

## Dast India. See Inmi.

Bast River communicates with the IIudson in the Bay of New York, and is foimed by the narrowints of long Island Sound, which opens with a liroal uiouth at the eastern end lute, und receives a strong impulse from the tides In the Atlantic. Thils channel is so called in contradistinction to the North Kiver (the IIudsen). As the Sound contracts, to the west of the broud expanse in front of New IIsven, and forms what is called Riast River, the ocoanle currents act with a force that increases with the diminishing width of the atrean; und this causes higher tides here than at any other place around the island, arriving at New York about three quarters of an hour earler than those by the Narrows. This current drives upward along the east shore of the IIndson many miles in advance of the other, on the west; and thus the liulson has two tides, which hurdly unite their action till they have passed Tappan and liaverstraw blya, IIorll-Gate, IIeli-Gate, or IIurl-i iate, a ilnngerons and very erooked atrait li East Hiver, eight miles N. E. of New York, wan called by the lutch HorllGatt, signifylng whirlpool. The strait is formed ly projecting roeks that confine the water to n narrow and crooked clannel, occanioning strong eddy currents. Thery is a sufficlent depth of water for any vessels, but the pasage of large ships should only be utteinpted with skilliul pileta.--K. A.

Dau de Cologne. This well-known perfume la a solution of different volatile olls in pure atrong spirit. The principal condition for the preparation of a fine water is the employment of a apirit quite devold
of fusil-oil (oil of grain), and of all forelgn odor. In reapect to the proportion and kind of oils employed, wo have numerous formuls. It is of importance that these oila, which are usually purchaved of the druggists of the south of France, should be of the finest quality, and that no oil should be used in suffiolent quantity to allow of Its peculiar odor being recognizable in the mixture. The oile are to be diesolved in apirit, and the mixture allowed to stand for some weeks (or still better for some monthe), to improve its oder. Distillation does not affect thia; on the contrary a fresh distilled water requires to be kept a much longer time. Distllation is Indeed objectionable; for on account of the great volatility of the splrit, the oils in part remain behind in the etill. Distiliation can improve the odor only when the less volatile oil has been used in too great a quantity, and we wish to obtain a better proportion. Before all things, we should employ a pure, old, atrong epirit, and net too much of, nor too strongly smelling oil. The different sorts of volatile oil which are ohtained from varietles of citrons, oranges, and lemens, in dlfferent states of maturity; are the most important ; and, therefore, it is most important to ascertain their purity and goodness. Forster gives the following formula for the preparation of the eau de Celogne: Take of rectified spirit 82 per cent., of Trslles (=sp. gr. 0.855 ), 6 (wine) quarts; es sence of oranges, essence of bergamot, essence of citron, essence of limette, and essence of petits grains, of esch, $\overline{3} j$; easence of cedro, easence of sedrat essence de Portugal, and esseace de neroli, of each $\overline{3} \mathrm{ss}$; oil of rosemary, 3 ij ; and eill of thyme, 3 j .
Otto gives the following formula for a good eau rie Cologne: Hectifled spirit of 86 per cent.; of Tralles ( $=0.846 \mathrm{sp} . \mathrm{gr}$.), 200 (wine) quarts ; oil of citrons, th . iv ; oil of bergumot, th. ij; oil of neroli $\|$ th. ; oii of lavender, th. as; oil of roecmary, $\pm$ th. ; and spirit of ammeniu, $\bar{z}$ as. Nix: den't distill.

This preparation has long possessed great colebrity, in consequence chiefly of the numerous virtues as cribed to it by its venders; and is reserted to hy many votarics of fashion as a panacea against ailments of every kind. It is, however, nothing more than aromatized alcohol, and as such an agreeable companion for the toilet. Numerous fictitions recipes have been offered for prepuring eau de Cologne; the fullowing may be reckoned authentic, inving been iuparted by Fiarina himself to a friend.
'Take 60 galions of silent brandy; eage, and thyme, each 3 vi ; balin-mint and spearnint, each $\overline{3} \mathrm{xij}$; calanus aromaticus, 3 iv; root of angelica, 3 ij ; cimphor, 3 J ; petale of roses and violets, each $\frac{3}{3}$ iv; tlowera of lavender, $\bar{z} j$; llowers of orange, $\overline{3}$ iv; wormwood, $3^{j} j$; nuthegs, cloves, enswia, lignea, and mace, ench 3 iv; 2 oranges and 2 lemonn, cut in pieces. Allow the whole to macerate in the npirit during 24 hours, then distill off 40 gullons by the heat of a water bath. Add to the proluct; ensence ef lemens, of cedrat, of lmbin-mint, and of lavender, each 3 xij; neroii and the essence of the seed of anthos, each 3 iv; essence of jasmin, $3 j$; of bergamot, 3 xij . Filter, and preserve for use.

Cadet de Gassiucourt has proposed to prepare can do Cologne by the following recipe: Take alcohol at $33^{\circ}$ 13., 2 quarts ; neroll, essence of cedrat, of orange, of lemon, of hergamot, of rosemary, ench $2 \cdot 1$ drojes; add 3 ij of the seeds of leaser cartamoms; distill by the heat of a water isuth a plint und a half. When preparel as thus by simple mixture of essences, without distiliation, it ls never no geod. There in a curious content in Germiny concerning the veritable farina, who maken the celobrated ean le Cologne. The conteat was carrled even into the Crystal Palace, where there were four John Maria Farinas, all claiming to be the origlanl. It appears that apeculation la carried to ao high a piteh in Cologne, that any child entitied to the surnante of Furina is bargained for as aoon ay
born, and chri is even anticif

Eau de I scented, and $\mathbf{r}$ mastlc and bil remedy in Ind Ebony (G It. Ebano ; $\mathbf{R}$ species of woo is exceedingly susceptible of used in moss many species black, free from and of an acrid nated by lootar prity in Madag centre only of 1837, 2160 cwt fl275 were ex black, there a the latter aro Calinet-maker tree and other ine ebony; the though they $h$ varies in the 1 The quantitles Ecuador.
Eddy (Sax water of a atr striking agnins and rune in a d current. Nore to denote the the meeting of sense it is also phere.
Eel (Anguil pearance of wh dexcription. It Europe, freque pools. Eels are particularly in are appropriace considerable n other rivers.
England are few except Du even Itampton by them. The who employ in which the nar for.
Effervesce gaseous matter ation. All liqu escupe, so as verce.
Effloresce: spontaneous er in consequence
Eggs (Fir. require to he taste, etce., acet that lay them. commonly used consideruble im The egigs of $p$ and make, Ind fashiomatle din

Egypt, a cit tremity of Afri and lic long. north by the Nubis, on the Sea, and on the
born, and christened Jean Maria. At times thls event is even anticipated.

Eau de Euce. A strong solution of ammonia, scented, and rendered milky by the addition of a little mastic and bil of amber. It is considered an effective remedy in India against the bite of poisonous snakes.

Ebony (Ger. Ebenholz; Da. Ebbenout; Fr. Ebène; It. Ebano; Rus. Ebenowoederevo; Lat. Ebenus), a species of wood brought principally from the East. It is exceedingly hard and heavy, of great durability, susceptilie of a very fine polish, and on that aecount rused in mosalc and other lnlail work. There are many sjecies of ebony. The best is that which is jet black, free from veins and rind, very compact, astringent, and of an acrid pungent taste. This species (denominated by botanists Diospyrus Ebenus) is found principaliy in Msdagascar, the Mauritius, and Ceylon. The centre oniy of the tree is snid to be valuable. In $1837,2160 \mathrm{cwt}$. of ebony, of the eatimated value of $£ 1275$ were exported from the Manritius. Besides the black, there are red, green, and yellow ebony; but the latter are not so mueh esteemed as the furmer. Cahinet-makers are in the habit of anbstituting penrtree and other woods dyed black, in the place of genuine ehony; these however, want ite polish and lustre, though they hold glue better. The price of ebony varies in the London market from $£ 5$ to $£ 20$ a ton. The quantities imported are but inconsiderable.

Ecuador. See Equador.
Eddy (Sax. ed, water, and en, bachoard), is the water of a stream or tide which, in consequence of striking against some obstacle, is thrown buekward, and runs in a direction opposite to that of the general current. More frequently, however, the term is used to denote the whirling or circulur motion caused hy the meeting of two opposite currente; snd in this sense it is aiso applied to a similar motion of atmosphere.

Eel (Anguilla muraena of Linneus), a fish, the appearance of which is too well known to require any description. It is a native of almost all the waters of Europe, frequenting not only rivers hut stagnant pools. Eels are, in many places, extremely ahundant, particularly in Holland nnd Jutland. Several ponds aro appropriaied in England to the rnising of eeis; and considerable numbers are taken in the Thames nud other rivers. But a large portion of the eeis used in England are furnished by llolland. Indeed, very few except Dutch eels are ever aeen in London; and even liampton and Rieimnond are principally supplied by them. The trade is earried on hy Duteh traders, who employ in it several smail vessels, by means of which the market is regularly and aniply provided for.

Effervescence (Int. effervesco). The escape of gaseous matter from liquids, us in the act of termentstion. Ail liguids from which bubbles of gus rapidily escupe, so as to resemble isuiling, are suid to effervesce.

Efflorescence (lat. effloresen, I fiuzer). The spontaneous crumbling down of transparent crystala, in eonseguence of tise loss of water.

Egge (Fr. (Bitfs ; lat. Ora), nre too well known to require to he dencribed. They differ in aize, color, taste, etc., necording to the different apecios of birds that lay them. The eggs of ponitry are those most commoniy used as food; and torm an article of very considerabie importance in a commercini point of view. The egge of plovers are esteemed a grent dellency, and make, indeed, it perpetunily recurring dish at fushionable dinners.

Egypt, a country situated ut the north-enstorn extremity of Afriea, leetween N. lat, $81^{\circ} 37^{\prime}$ nad $24^{\circ} 1^{\prime}$, and E . leng. $27^{\circ} 13^{\prime}$ and $84^{\circ} 12^{\prime}$; bonnded on the nortin iy the Meliterranean Sea, on the sonth by Nubia, on the east hy Paleatine, Arabia, and the Reid Sea, and on the west by the Groat Desert. The chief
field-produce is wheat (which is more grown than any uther kind of corn), barley, several aorts of millet, maize, rice, osts, elover, peas, the augar-cane, roses, two speciea of the tohacco-plant, and cotton. The sugar-cane is extensively cultivated, and excellent angar is manufactured from tt. There are fields of roses in the Feiyoon, which supply the market with rose-water. The tobacco produced in Egypt is conrse and atrong compared with that which is used by the middle and upper classes, and imported from Syria and Turkey. That of Syria is considered the beat. Of textile plants, the principal are hemp, cotton, and fiax ; and of plants used for dyeing, bastard, saffron, madder, woad, and the indigo-plant. The intoxicating hasheesh, which some smoke in a kind of waterpipe, formed of a cocoa-nut, two tubes, and a bowl, seldom used for any other narcotic, is not, as has been erroneously supposed, opinm, hut hemp. The effect is most baneful. The leaves of the hinnd-plant, grown in abundance, are used to tinge, of a bright-red celor, the palms of the hande, the soles of the feet, and the nails of both hande and feet, of women and children, the lasir of old ladies, and the tails of horses. Indige is very extensively employed to dye the shirts of the natives, of the poorer classes, and is, when very dark, the color of mourning ; therefore women, at funerals, and generally after a death, smear themselves with it. Oil is extracted from the seeds of the cottonplant, hemp, colewort, the poppy, the castor-oil plant, sesame, and flax. The high, coarse grass, called halieh (Poa synosuroides) grows in great quantity in waste places and smong ancient ruins.
Mr. Lane (1834) estimates the population of Egypt at less than $2,000,000$, and gives the following numbers as neariy those of the several classes of which it is mainly composed :

| Moslom Egyptlans (f and townspeople | 1,750,000 |
| :---: | :---: |
| Chrlstlan Egyptlans | 150,000 |
| Osminlves, or Tarks. | 10,900 |
| Syrians | \$,000 |
| Greeks | 5,000 |
| Arioenlan | 2,010 |
| Jews | b,000 |

und the remainder, exclusive of the Arabs of the desert, nliout 70,000 .

Sir Gardner Wilkinson (1843) computes the total at about $1,800,000$; but Clot-Bey (1840), not always an impartial writer, places it inuch higher, upward of $3,000,000$. The following result of the government census, taken in 1847-8, is remarkuble as shewing the system of fulsifying statistics for state purposes. It is copied from un official return :

| Mldde Ezypt... | 501,294 | E1 | 35 |
| :---: | :---: | :---: | :---: |
| Ei-Gharbeeyeh | 520,931) | 1 losetta. | 18,405 |
| EI-Kalyooheeyeh | 184,240 | Datd | 24,022 |
| t'pper Eqypt. | 1,180, 1 1× | Soez | 17,499 |
| Hski-Sharkeeyeh. | 342.549 | El-Ar | 2,847 |
| Eideczela... | 228,534 | Alexan | 149,184 |
| Et-1toheyreh | 215,8111 | Calro. | 259,041 |
| Fi-Meneoferych. | 440,510 |  |  |
| El-Dakablecy ch.. | 847,477 | Total | , 542,620 |

Since the conclusion of the Syrian war, until the present struggie, the bavy has been totally inactive. At tine former period, it numbered 11 sinips of the line, 6 trigates (one moved by stoam-jower), 5 corvettes, 9 irige (il being stenmers), and 2 cutters. Some of these were constructed in the naval yard at Alexandria, but the larger number were contracted for in Enrope. Great care was bestowed on the formation of the navy, and the eatnblishments connected with it at Alexanirita, lut the Egyitians do not seem to he a maritime peuple, or, at any rate, their men-of-war have none of the tantneas and neatness of European ahips of the class.-1: 13.

The trade with liurope is carried on through Alexandria, The traftie with the intorior of Africa is carried on ly means of carnvnns, winich bring, i.n exchango for European and Egyjutian products, ivory, gold-dast,
akins, wool, gnm, ostrich-feathers, and metals. The chief commercial relations with Arabia and India are carried on ly Coseeir and Suez. Since the establishment of regular steam-packets in the Mediterranean and the Indian Ocean, Egypt has become the reute to India fer all the correapondence of Europe, as well aa for the greater portion of travelers. The principal means of communication at present are the Nile, which is traversed by ateam-packets, and the canals, many of which have been repaired by Mehemet Ali; but even the best of them are often unnavigable during a great part of the year. The route from Caire to Suez ( 180 miles) is traversed by horses and vans, and the mail is conveyed in 13 hours. Tho project of uniting the Mediterranean with the Red Sea, by re-opening the ancient canal, inas been recently revived, but it is surrounded with difficulties, and not likely to be earried into effect. The more praeticable and safe plan of a railroad communication between Cairo and Suez has been resolved on, and a portion of it built. This may again remiler Egy'pt the principal entrepót of commerce between the eastern and the western worlds.
Commerce.-The general commerce of Egypt in 1851, reaehed a total of $144,509,000$ franes, or, in round numbers, $228,902,000$; which shows an increase, when compared with 1841, of $4,000,000$ francs, or nearly $\$ 9,000,000$.
It is difficult to obtain any sccurate returns of the cemmercial movements of Egypt, except such as are prepared by the foreign consuis residing at the different ports of that country, and transmitted to their respective governments. From such sourees the following talile is compiled, showing the export trade of Egypt, and vessels employed, during a period of 11 years, ending with 1851:

| Yearn. | Plavires, | Dollars. | Vensal\|\%. |
| :---: | :---: | :---: | :---: |
| 1841. | 198,270,150 | 0,918,507 | 1,280 |
| 1842. | 180,446,600 | 9,022,830 | 1,854) |
| 1848. | 191,58\%,400 | 9,576,920 | 1,870 |
| 1844. | 167, 968,430 | 8,398,421 | 1,2017 |
| 1845. | 155,782,200 | $0.249,110$ | 1,197 |
| 1846 | 187.841.980 | 9,367,054 | 1,221 |
| 1847. | 801,343, 600 | 15,067,175 | 1,46 |
| 1844. | 157,286,546 | 7. 61,427 | 1,068 |
| 1849. | 208,0, 6, 232 | 10,152,811 | 1,619 |
| 1851. | 315,807,400 | 15,767,990 | 1,650 |
| 1851. | 825, 004,695 | 16,290,2:34 | 1.70:3 |

The value of the plestre varles. That of dlexandria is reekoned at 5 rents United States* eurreacy; that of Turkey generally is equivalont to 4 eents.
The import trade in 18.41 , the first year given in the table, reached $187,000,000$ pisstres $=89,350,000$, und ascended in 1851, the last year, to $230,000,000$ pinstres, or about $\$ 11,500,000$. The articles which diminished in the lmpert returns during the period, were sugar, linenk, certain kinds of silks, and rum; and the diminution was athout equal to the increased praluction of those articles in Egypt. The huportation Sncrensed in woolens, cottons, French allks, and articles of fushion.


The English thag oceupies the first rank in the returns from which the preceding ligures are taken, though, since the repeal of the uavigution laws of Great Britain in 18.50 , the inlwortations under the thags of other countries of northern Europe have largely litcreased.
Alexuadra.--The trade of this port has increased rapidly since the opening of the canal which communieates between Alexambria nul the Nile at Atfeh. This communication han takell a way from the ports of Damietta and Rosetta the extensive commerce formerly enjoyed by them, and for witich, from their po-
sition on the two mouthe of the Nile, they posseased great advantages. The total trade of Alexandris in 1840, amounted in value to $\$ 11,097,145$, of which thero were for imports $\$ 6,636,980$, and for exports 45,860 ,165. This trade in 1842 reached in value $\$ 21,000,000$, an increase over 1840 of ever $\$ 9,000,000$. The tresty of 1838, plaeing foroign commerce on a more secure basis than had previously existed, and the tranqnillity which followed the settlement of the dimculties of 1840, were the causes of this grest augmentation in the trade of 1842. Among the exports of this year, ruw cotton reached in value $\$ 1,800,000$, of which Austria reeeived upward of $\$ 1,000,000$ in value. The trade of 1843 exhibits a falling off from that of the preceding year, aggregating only (imports and exports united) about $\$ 19,000,0110$, of which rav: cotton reached in value alout $\$ 2,000,000$. In 1844 the total trate of this port fell again to alout $\mathbf{~} 13,000,000$; and in 1846 the totale reached nearly $\$ 18,000,000$, of which, for cotton, there were $\$ 2,000,000$. In 1849 the foreign trude of Alexandria reached $\$ 16,000,000$, of which for imports, there were $\$ 7,500,000$, and for exports, $\$ 8$, , 500,000 . The raw eotton experted this year reached in quantity 258,000 quintals (the quintal, or cuntar, is estimated at 100 lbs. ), or $25,800,000 \mathrm{lbs}$., vulued at \&2,775,000. The tranquillity whieh prevai'ed in Ekypt during the ten yeurs anterior to 3850 , wa highly favorable to the dovelopment of its foreign commerce. The treaty of 1838, guarantying the unreatricted circulation through Egypt of European merchandise, and its freedom from the vexatious taxes to which it was subjected before that perioul, contributed in like manner to the prosperity of this port in 1800. The total trade exceeted in value $\$ 19$, 1600,000 , a tigure which it had never before reached, excepting in the year 18.12, when the large augmentation was lirought about by causes paroly nceidental. Of this kum, imports reached nearly $\$ 8,000,000$, and exports about $11,000,000$. Of the lutter, raw cotton amounted in quantity to $82,084,500 \mathrm{lbs}$., and in value to $\$ 1,200,1000$.
The establishment of a national lank in Alexandria, under the title of lank of Expyt, has already, though not in operation, commenced a revolution in the ideas of the fellaas, or cultivators of the soil, with respect to money matters. It is well known that the fellahs lave hitherto hoaried or buried the cash thry have recelyed for their prolnce. Since they have heen paid ly drafts on the liank of Egypt, and they final the node in which those drafts are carbed is so satisfactory, some of the more wealthy have opencll atrounts with the bank, and deposited their savings there for safe keeping. Should this practice leeome general, and the many millions which are known to to hoarded by the fellaha lie brought into circulation and laid out in prolitable investments, it must produce an mormons elfect on the prosperity of the country in general.
It is worthy of notice, that, in the voluminous reports from which the preceding statoments of the trade, both of Lisypt and its principal port, Alexandria, are extracted, the C'nited States does not unce appear. A despatch to the State Depuirtment, dated Alexandria, May I, 1 nubi, states that "the increase in forcign traders is very perceptille, but there are few l,ranches of American houses umong them." Lingland, France, and Austria, seen to have been the priacipal foreign countries which participated in this trade. The total trade of 1851 reached *20, $000,(\mu)$, and that of $180^{2}$ ascended to upward of $\$ 1,000,000$, of which a large share is ussigned to Turkey and Syria. The quantity of raw cotton exported the latter year was 718,65is quintals, valued at $\$ 6,960,243$. The whole of this cotton was sent to Eingland, France, and Austrin, in the following proportions: to Englani, 126,118 quintals ; to Austria, 159,300 quintals; and to lrance, 128,030 quintals. These figures, as well as those cur-
ployed througho from Freneh offle on those of $\mathbf{E g}$ ever, are deemed
Countrios

Freat Britaln.
France..
Austrin..........
Total...
*The cant
During the sar drin sent two ve house two more chiefly with gum a profitalle trad United States an out such merch Egypt, and recei ports of that ext Cotton.--The in 1818, and expo is said te have America, the Me different kinds of tivation. The at ton is pronounce rapidly after the isn cotton, calle whose garden, at having, probably Bourbon during to sea island in talularar statemien turns (the bule be quantities of cott and the eountries ing a period of in $185 \%$ is stated Brituin, 57,623,4 Austria, 11,429,7 senting an aggr ceeding that of e given in the follo

Pounds of C

Conntries,
Great Britaln.
Franes.
Austria..
Elsewhere.....
Totnl.
If to the agg' six millions pout estimate of the kinyt-between have been made. unet Ali are, it is cetton goods in soldiers' " nizam in making up all Com. Relations $l$

The Eigyptian measured by the Her: the " shiln inches, the cubi for Indian good used for Europe the feddán was one tenth; it is into "keeráts," or rods. The $k$ thah, about bt with the thuinb Upper and Low
ployed throughout thls digest, generally, are derived trom French officlal sources, whlch purport to be based on those of Egyptian authorities. The latter, however, are deemed by no means rellable. The follow-
ing statement exhiblting the export trade of Alexandria for 1855, tranemitted from the United States' Consulate-general at that place, is atated to have been drewn from private sources:

| Countrles. | Colton. | Whent. | Beans. | Flax. | Indian corn. | Wool. | L.lnseet. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arest Britain. | $\begin{aligned} & \text { Cantasis } \\ & 270.610 \end{aligned}$ | $\begin{gathered} \text { Ardebat } \dagger \\ 1,114,614 \end{gathered}$ | $\begin{aligned} & \text { Ardebs. } \\ & \text { 892.840 } \end{aligned}$ | Caniare. 56,425 | Arilebs. 108,787 | $\begin{aligned} & \text { Cantars. } \\ & 19.275 \end{aligned}$ | Ardabs. 46,904 |
| France....... | 108,243 | 180,441 | - 700 | 1,250 |  | 1,680 | 1,090 |
| Auatris. | 140,412 | 27,580 | 10,962 | 8,416 | 18,035 | 689 | 724 |
| Other countries. | 1,611 | 402,217 | 40,754 | 14,258 | 3,851 | 1,900 | 8,180 |
| Total | 520,880 | 1,074,852 | 445,246 | 75,340 | 120,623 | 23,401 | 51,083 |

*The cantar of Egypt is estimated at 100 pounds.
During the same year, an English house at Alexandria sent two vessels to New York, and an Austrian house two more to the same destination, loaded chiefly with gums, rags, ete. There is 10 doult that s profitable trade might be established between the United States and the port of Alexnndria, by sending out such merchandise as usually finds a market in Egypt, and receiving in return the rich and vuried exports of that extensive emporium.
Colton.-The cotton culturo of Egypt commenced in 1818, and exportation to England in 1823. The seed is said to have been imported by the pacha "from America, the Mediterrancan, and Brazil;" and these different kinds of cotton may, therefore, be met in cultivation. The attempt to enltivate the sea Ishand cutton is pronounced a fuilure-the quality deteriorating rapilly after the first crop-although the best ligyptian cetton, ealled Maho (so called from Maho-Bey, in whose garden, at Cairo, the plant was first discovered, having, probably, been introduced from the Isle of Bourbon during the French invasion, is ranked next to sea island in length of staple. The comparative tabular statement subjoined, made up from consular returns (the bale being estimated at 300 lbs .), shows the quantities of cotton exported at the port of Alexandria, snd the countries to which exported, respectively, during a period of threo years. The quantity exported in 1852 is stated to have been as follows: to Great Britain, $57,623,400 \mathrm{lbs}$; to France, 12,350,100 1bs. ; to Austria, 11,429,700 liss. ; elsewhere, $\mathbf{3 5 9 , 1 0 0 ~ \mathrm { lhs } \text { . ; pre- }}$ senting an aggregate of $81, .62,300 \mathrm{lbs}$., und far exceeding that of either of the threc ensuing years, as given in the following table :

Pounis of Cotton expoatid from Alexandaia, 1868-1855.

| Conuries. | 1853. | 1854. | 1455. |
| :---: | :---: | :---: | :---: |
| Great Brit | $\begin{aligned} & \text { Pobinds } \\ & 26,439,900 \end{aligned}$ | $\begin{aligned} & \text { Pounds } \\ & 24,988,700 \end{aligned}$ | $\begin{gathered} 10,0 \min +0 \\ 38,080,100 \end{gathered}$ |
| Franco | :11,726,500 | T, 454,100 | $0.451,200$ |
| Austris. | 6,821,000 | 10,105,2(6) | 12.754,906 |
| Elsewh | 897, s 00 | 0『2, 510 | 668, 100 |
| Total | 43,855,200 | 43,546,500 | 56, 974,300 |

If to the aggragate exported, be added from tive to six millions pounds consumed in the country, a liberal extimate of the nunual amomet of cotton produced in Fsypt-between lifty and sixty million pounds-will have been marle. The factories established by Mohemet Ali are, it is stated, going rapidly to ruin. The cotton goods manufactured are coarse "captns," or soldiers' "nizam" unifurm. Duch cotton is used also in making up divans, the usual furniture in Egryt.Com, Refations U. S. See article Alexannhia.
The Eigypthan measures are, the "titr," or space measured ly the extension of the thumb nind tirst finger; the " shibr," or span ; the common cubit $=22$ 2 inches, the cubit of about 25 helhes, used principally for Indian goorls, and the cubit of about $26 \frac{1}{2}$ inches, used for European cloth. Of the measures of hand, the feddan was equal to about one English acro und one tenth; it is now less than an were. It is divided into " keeráts," or $\quad$-fthas, and consist s of $333 \%$ kasuleh or rods. The kasaboh is 22 "kubclalis," and the kabdah, alout $6 \mathbf{f}$ inches, or the measure of a man's tist with the thumb erect. The Eisyptian league varies in Upper and Lower Egypt, and Is stated to be, in the of dueklings is liatehed, the uest le again visited and
former, equal to a journey of an hour and a half, and in the latter, to one hour's journey. The "ardeb" is equal to very nearly five bushels, and consists of six " woybehs," and each weybeh of four "rubas."

Weights.-The weights are the "kamhah" (or gralu of wheat), the 64 th of a " dirhem," and 4th of a "keerat." It ls equal to about $\frac{8}{4}$ of an English grain. The "habbeh" (or grain of burley) is the 48th of a dirhem and $3 d$ of a keerit, and $=127-128$ th English grain. The keerat, or carst, is the 24th of a "mitkal ;" and= from 2 125-128ths to 3 English grains. The dirhem $=47$ 5-8ths to 48 English grains. The mitkál= weight of a deenár=from 71 7-16ths to 72 English grains. The "wukceyeh," or ounce=from $571 \frac{1}{2}$ to 576 English grains. 'The "ratl," or pound =from 1 li. 2 oz. $5 \frac{8}{4}$ dwt. to about 1 lb .2 oz .8 dwt. troy. The "wukkah," or oke $=$ from $3 \mathrm{lb} .3 \mathrm{oz}, 13$ 年 dwt. to 3 lb . 4 oz. troy. The "cantár," or 100 weight $=$ from 98 lbs., less 200 grs ., to about 98 lb . avoirdupois.

Money,-European sovereigns and dollara are current in Egypt, the former beingt now equivalent to about 100 piastres, the latter, if French, to about 20 piastres, and if Spanish (pillur-dollars), to about 22 piastres; but the value of these coins is constuntly changing. The Spanish doubloon, and Venetian sequin are also current, and so are Constantinople coins. Of native coin, the "faddah," or para, is equal to 6 -25ths of a farthing, and there are pieces of 5,10 , and 20 faddalis. The "kirsh," or Egyptian piastre, contains 40 fuddabs, and is equal to 2 and 2 -5ths peneo. These coins are of silver and copper. Of gold coins, there are the " khoyreeyeh," of 4 piastres, and the kheyrecyeh of 9 piastres (but the valne of these coins hus recently depreciated), and pieces of $5,10,20$, and 100 piastres. The "riyal beledee," or native dollar, is equal to 90 paras, but is only a nominal money, as is the " kees," or purse, which contains 500 piastres, and the "khazneh," or treasury' of 1,000 pursee. For the welghts, measures, and money, we are indebted tc the Modern Egyptians.-E. B. See Alexanimia.

Eider-duck. The species of duck so-called is one of the lurgest and most valunblo of tho inatide, and, from certain moditications of the beak and sternum, constitutes the type of a subgenus, called Somateria. The common eider (Somateria mollissima) frequents, in great numbers, the Orkneys, Hebrides, and Shetland isles. It is defended from the celd of the dreary uorthern coasts by the development of an unusual (fuuntity of the linest duwn benenth its denso exterior plumage, which is equally well adapted to form an impenetrable barrier to the wet. The duwn of the eider constitutes its chief value, as it combines with its peculiar softness, tineness, and lightness, so groat a degree of elasticity that the quantity of this material which might ba compressed and concealed hetween twe lands will serve to stuff a coverlet. As the fomule plucks from her own body a quantity of her finest down to line ber nest, the Oreadians avall themselves of this instinct, and take an early opportunity to rob the nest of both eggs und down. She then begins to lay afresh, and envelopes her eggs with mother fayer of down; and if thls be removed, the male is said to contribute his own down, when the
the dorin removed. Thus a cenalderable quantity of the valuable material furniahed by tha elder-duck la obtained independently of that which la plucked from the slaughtered birds. Kesiden the down and eggs, the Ialandera turn the akins and flenh of the eldera to proft; whlle these birds cost them no expenae, as they feed entirely on sen-weed and other natural productinns of the ocean.

Blantio Bands. (Tissus Elastiques, Fr.; Feder-harz-zeige, Germ.) The manufacture of lraces and garters, with thremls of caontchouc, either naked or covered, acems to have originated, aemo tlme ago, in Vienna, whence it was a few years aince imported inte Paris, and thence into thls country. At first, the pear-ahaped bottle of the Indian rubleer wna cut into long narrow strips by the scissors; a single operative turning off only sbout 100 yards in a day, by cutting the pear in a spirui direction. IIs succeeded next in soparating with a pair of pincers the several layers of which the bottle was compesed. Another modo of ohtaining fine threads was to cut them out of a bottle which had been rendered thin by inflution with a forcing pump. All these operations are furilitated by previously steeping the caoutchouc in boiling water, in its moderately inflated atate. More recently, machlnen have been successfully employed for cutting ont these filautents, but for this purpose the loottle of canutchoue la transformed into a dise of equal thickness in all its parts, and perfectly circular. Thia prelimianry operation is executed as follows: 1. The bottle, moftenad in he: water, is squeezed between the two platen of a press, the neck liaving been removed beforehand, as useless in this point of view; 2. The bottle is then cut into $t$ wo equal parts, and is a!lowed to consolklate hy cooling, hefore sutjecting it to the cutting Instrument. When the bottle is atrong enough, and of variable thickness in its different pointe, each half is submitted to powerful pressure in a very atrong cylindrienl mold of metal, into which a metallic planger descends, which forces the cuoutchoue to take the form of a flat cylinder with a circnlar base. The mold is planged into hot waser during the compression. A stem or rod of lron, which goes neross the hollow mold and piston, retains the latter in lts place, notwithataniling the resilien o of the canutchonc, when the mold is taken from the press. The mold being then cooled in water, the caoutchouc is withdrawn.

The tranaformation of the dise of caoutchenc into fine threads is performed by two mnehines; the flrst of which cuts it linto a ribion of equal thickness in itn whole extent, running In a apiral direction from the circumference to the centra; the second subdivides this ribuon lengthwlse into several parallel filamenta much narrower but equally thick.-Uus's Died.

Elba, ealled Jiva by the Jomans, and Nethatin by the Greeks, ass island in the Mediterranean Sea lying off the pronsontory of Populonium, at equal clistames from Corslea and the Italian mainland, though somewhat nearer the latter. Its outline is extremely irregular, and its sides are indented by numerous inlets and arms of the sea, reducing its breadth In some places to niont 3 miles. The extreme length of the island is about 1 s miles; its extreme trendth ahont 12 mlles ; nnil its area atont 150 miles. The whole length of the island la oceupled by a mountain range, one peak of which (that of (apanna) rises to the hoight of about 3000 feet above the sen. The mountains of thals range, though themselves barren, Inclose valleys of considerable fertility. Vines, olives, and mulberries, grow in large quantlies in this lasland, which alao produces whent, Inilian corn, and vegetnbled in abundance. Some of the wine proluced in Elba ls of excellent quality, and a consiulerable quantity of it is annually exported. The smaller domestic nnimals thrive well and are very numerous In the lsland; bat the larger
kinds, auch as oxen and horses, are somewhat scarce The fisheriea off the coast are lmportant.

The Iren mines of Elba, in modera, as in anclent times, are extremely valuablo. The great faclity with whlch the metal is worked, and the abundance in which it is found, renilor these mines among the most valuable of their kind in the world. Tha ore ls dug from a hill, 500 feet high and nearly 2 miles in eircumference, which is Itself almoat entirely one masa of ore. When rmelted, it is fonmil to contsln on an average about 60 per cent. of pure iron. Fuel on the lsland is very rearce; and the ore is consequently conveyed on shiphonrd to the adjoining mainland to he momelted. The total quantity of iron ore annually extracted amounts to nearly 20,000 tons, giving employment to 130 miners. The asit mines of Elba are hardly inferior in celelority to the iron ones. About $4,000,000$ ponnds ara annually produced, giving employment to ubout 100 workmen. Ilesides Porto Ferrajo, the capital, and the town of Porto Longene, Elba contalins no town of any size or importance. Campo, Capo Liveri, Marclana, and Rio are mere villages or fishing stiations. In ancient hlatory, tha name of lilba very rarely occurs; and in modern times it is chiefly mema. ratule as having been the residence of the Emperer Napoleon, after his first abslication, from May 1814 till Februnry 1815. From that time till the present, Ellha has heen an appanage of the Grand Duchy of Tuscany. Pop. (1851) 21,559.

Elbe (the Alhis of the ancients), a large river of Germany, which rises in the Riesen Gebirge, or Glant's Mountains, letween Silesia and Bohemia, and is known at its source by the Sclavonic name of Iadbe, Its principal seurces are the White Fountain, at the base of the Schnee-Kuppe, and the 11 fountains of the Flto in the Navnrian meadow. To the number of strenms which descend into lohemia from the neighloring monntains it owes its early increase. After its junction with the river Eger, it becomes naviguthle; and, entering Saxony, it passes successively Dresden, Melssen, Torgan, and Wittenberg. In Its course, which is northerly, It recelves as tributaries the Muldau and the Saale; mud running through the territory of Magiehnrg and the duchies of Mecklenburg and Lamenfiorg, it ilischurges itself at last into the German Ocean, about 70 miles below Jamburg, after a course of 500 miles. 'The lille has always been an important river in a military point of view. With respect ta commeree, it is of lnestimabla value to the comntries of north-west and central Germnny, being the channel by which they export their surplus products, and recelvo their imports from nbroad. It pives to llamburg its eommand of the navigation far into the interior, although the voyage is difficult on account of the numerous sand-tanks with which the estuary and the rivers are encumbered. It communicates with the Havel by the canal of Plauen, in tho territory of Magrleburg; and nt Itamburg it is coonected in tike manner with the Trive nt lubec. It is alse joined to the Wesse by a rannl running between Vegessk and Stade. By the rallway from Leitmeritz to Viema It communicates with the janube; and the other railways that tonch wism other quarters of the river supply channels for at ributing merchandise through the varions distriet:, which they traverse. A bout 40 miles from its noures, the elevation of the river above the level of the sea, is only foss feet ; at Schandau it is 311 feet ; at Drosilen, 279 feet ; and at Arneburg in Urandenhurg, only 176 feet.

Formerly ${ }^{3}$ entrepóts (Pirua, Dremlen, and Magdeburg), and 35 tolls, nad numerous corporations of privileged watermen, opposed nlmost lusurmountahio difficultiea to the nuvigation: the Austrins and the Suxons coald nlone navigate the Upper Elbe, that is, from Magleburg to where it ceuses to be navigablo, and the I'rusaians and Ilamburgers had the nole privilege of navigating the lower Filoo. Ilut the navigu-
tion of the river tlen concluded or bordering states, ever, Denmark brand duchy of principalitles of the principle of chant, to whatev with his own ve course of the riv were reduced to upon goods of th which are pald, other for the shl was bound to w passed through tl every thing injuı But netwithatan still exposed to Wood, stones, frı cipal articles the salt, and colonis which are carried the dutien are le to the abollishmes onlinary port chi

Ei Dorado name given hy try, supposed in interior of South and Amazen, an gold and all ma Spanish conques aggerated aceou newly acquired t A new region w wealth and splen out for the purpo such attempts P istence continued of last century. languace of poe lanit of boundles Bysium or the 1 article on "Sir the Eilin, Reviet speculatious thu sulject.

Electrogra line engraving, electro-copper fauiliar process lines of the eng may, tho depos distinctly-so it compared with cain produce. tiful procesmes, pose that a lar, copied. The p of eopper, and electro deposit. from the phate, to the plato, pro and cavitiex in film is cmploye turn, immersed a secont deposit to continue unt duced; and thit film, is seen to graved plata fir semblance, that an inked impr from one print explerienced juc all respecta.
tion of the river was definitely iogulated by a conventlon concluded on the 18th June, 1821, between all the bordering states, viz., Austria, Saxony, Pruseia, Hanover, Denmark (for IIolstein and Lainenburg), the $k^{\text {rand }}$ duchy of Mecklenbarg-Schwerin, and the three principalities of Anhalc. Thls convention eatablished the principle of free aavigatlon, allowing every merchant, to whatever bordering etato he might belong, with his own vessel and crew to navigate the whole course of the river without interruption ; the 35 tolle were reduced to 14 ; the heavy dues which were levied upon groods of the first necessity were reduced to those which are pald, oue for the cargo (Elbe Toll), and the other for the shlp (Recognitionsgebuhr); and each state was bound to watch over the portion of river which passed throngh their territories, and to preserve it from every thlng injurious to the commerce or navigation. But notwithatanding these regulations, merchants are still exposed to vexatious burdens and interraptions. Wood, stones, fruits, and earthenware, are the principal artleles that are brought down the Bibe. Corn, salt, and colonial produce are the principal articles which are carried up, and on these the greater part of the duties are levied. lior a later ordinnnce relating to the abollshment of all tolls on the Elbe except the ordioary port charges, see article Hambung.

Ei Dorado (Span, the golden region). The mame given hy the Spaniards to an imaginary country, supposed in the 16 th century to be situated in the interior of South America, between the Rivers Orinoco snd Amazon, and, as the name implied, abounding in gold sid all manner of precious stones. After the Spsnish conquest of Mexico and l'ern, the most exsggerated accounts of the wealth and riches of the newly ncquired territory were circulated and believed. A new region was falifed to exist far surpassing the weslth and splendor of Peru; expeditions were fitted out for the parpose of discovering it ; and though all such nttempts proved abortive, the rumors of its existence continued to bo believed down to the begimning of last century. The term has now passed into the language of poetry, in which it is used to express a land of boundless wealth and felicity, like the nncient Elysium or the Mohamimedan Paradise. See a lenrned article on "Sir Wralter Raleigh," in vol. Ixxii., of the Bilin. Reviero, which contuins a resumé of all the speculations that have been entertained upon this subject.
Electrography. The copying of an exquisite lins engraving, from a copper or stecl plate to an electro-copper deposit, although now become a very famitiar process, ls really a wonderful one; for, let the lines of the engraving be as fine and minute as they mav, the deposited atoms of copper mark them all distinetly-so infinitely small is ench intom or particle compared with any magnitude which human hands can produce. Like mnny other wonderful and beantiful processes, this is a very simple one. Let us suppose thut a large steel or copper engraving is to he so copiel. The plate is immersed in a chemical solution of enprer, mud a thick tilin is precipitated on it by electru deposit. This film may be eusily loosened from the plate, and its aurface then iresents a reverse to the phate, protubennces instend of engraved lines, and cavities instead of plain or raised portions. The film is cmpleyed us a sort of molul ; for it is in its furn, imnersed in the solution, and made the basis for a second deposition. This second deposition is nllowed to continue until a phate as thick as the original is produced; and this plute, when separated from its parent film, is seen to be an exnet counterpart of the engraved plate first operated upon. So jerfect is the resemilance, that, if the electro-plate be mule with cure, an inked impression printed from it can be detected from one printed from the orlgiual plate only liy an experienced judge ; to ordinary eyes they are equal in slì respects.

To M. Jacobl-almost simultaneously with Mr. Spencer-we are indebted for one of the simplest end moet elegant applications of electricity-the galvanoplastic art, or Volatype. In this, advantage is taken of the perfectly metallic state in which the base of a metallie salt is deposited at the negatlve pole of a volatile combination. In the case, for example, of the decomposition of sulphate of copper, the sulphurio acid unites with the positive wire, or remains enepended, while the metallic copper is slowly and homogeneously deposited on the eurfuce of any object (rendered conducting by the application of black lead or otherwise), of which it forms a perfect mold, from which a fresh cast or fac-simile in metal of the original object may be obtained by a repetition of the process. To see the veins of a leaf, or the delicate wing of an insect thus metallized, is certainly an astonishing thing ; and the applications to the useful arts are far too numerous to be noticed here. Daniel'e invention of the Constant Battery evidently euggested tho Volatype.

Elemi, a resin olitained from the Amyris elemifera, a tree growing in different parts of Amerlca, Turkey, etc. It is obtained by wounding the bark in dry weather, the juice being left to thicken in the oun. It is of a pale yellow color, semi-transparent-at first softish, but it hardens by keeping. lts taste is slightly litter nad warm. Its smell, which is, at first, strong nad fragrant, grudually diminishos. It used to be imported in long roundish cakes, wrapped in flag-leaves, tut it is now usually imported in mats and chests.-Tuomson's Chemistry.

Elixir (Arab), a term applled in old pharmacy to certain essences or tinctures; a mixture of an aromatic tincture with sulphuric acld was called elixir of ritriol. The alchemists applied the term elixir to various eoluthons employed in the art of transmutation.

Ell (Lat. Ulna), a measure used chiefly for cloth, and varying in length in different countries. The IInglish and Flemish ells were those most in use in Great Britain. The English ell is 45 inches, while the limemish ell is only 27 inches or $\frac{8}{4}$ of a yard. In Scotland the ell is 37 1-5 Finglish inches.

Elm (Ulmus), a forest tree of which there are eeveral varieties. It attains to a grent size, and lives to a great age. Its trunk is often rugged and crooked, und it is of slow growth. The color of the heart-wood of elm is generally darker than that of oak, and of a rcilder brown. The sup-wood is of a ycllowish or brownish white, with pores inclined to red. It is in general porous und cross-grained, sometimes coursegrained, and has no large sopta. It hus a peculiar odor. It twists and warps much in drying, and shrinks very much both in length and breadth. It is difficult to work, hut is not liuhle to split, and bears the driving of bolts and nails better than sny other timber. In Scotland, chuirs and other articles or household furniture are frequently inade of elm wood; Int in England, where the wool is inferior, it is chiefly used in the manufacture of coffins, casks, pumps, pipes, etc. It is appropriated to these purposes because of its grent durability in water, which also oceasions its extensive use as piles, and planking for wet foundations. The naves of wheels are frequently made of olm ; those of the heavy wagons and drays are male of oak, which supports a heavier weight, but does not holl the spokes so firmly. Nin is said to bear transplanting better than any other large troe.Tusbgom's Irinciples of Carpentry.

The wood of the Ulmus Americanc, like that of the European elu, is of 4 dark hrown color, und is linble to decay when exposed to the alternations of moisture and dryness; and when cut transversely or obliquely to the longitudinsl tibres, it exhibits the same numerons und tine undulatlons; but it splits more easily und has less compactness, hardness, und strengthweighing, when perfectly dry, only 33 pounds to a
oublo foot. The priacipal usea to which thia timber is epplied, are for making naves or hubs to whoels, for piles and foundation-piecea to milla, canal-locks, and for many other purposes where atrength is required, and the work is constantly buried in water or mud. In the State of Malne it in occasionally employed for the keele to vessels, for which purpose it to well adapted on account of ita aixe. It is alao employed for the awingle-krees of the carriages of great-guna, and in some parts of the country, where more appropriate wood is not to be found, it in used for making ox-yokea, aleds, and other implements of hushandry. The berk, which is easily detached from the tree daring 8 months of the year, is sometimes need for making bast-mats, ropes or withes, and for the bottoms of chalrs. The wood, when dry, makes excellent fuel, and, when burned, yields a large proportion of ashen, which abound in alkaline salta. In Canada, and in the northern parts of the States of Maine, New Hampshire, Vermont, and New York, a profitahle business is foilowed, especially in connection with clearing the foresta, in preparing the salta of lay, for the manufacture of potash.-Bnowns'a Trees of A merica.
glaineur, or Eelmingor, a town of Zanland, on the Sound, about 22 miles north of Copenhagen, lat. $56^{\circ}$ $2^{\prime} 17^{\prime \prime}$ N., long. $12^{\circ} 38^{\prime} 2^{\prime \prime}$ E. Population about 8,000 . Adjuceat to Elsineur is the castle of Croniborg, which

| Couniries. | 1141. | 1780. | 1785. | 1790. | 1814. | 1818. | 1880. | 1825. | 1830. | 1835. | 1840. | 2851. | $1 \times 32$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| British Islanda... | 8,5,59 | 1,701 | 2,887 | 8,771 | 8,819 | 1,848 | 8,597 | 8,186 | 4,274 | 2,472 | 4,971 | 4,811 | 8,902 |
| Ilolland | 8,567 | 2,058 | 1.571 | 2,009 | 051 | 876 | 803 | 680 | 1,247 | 054 | 947 | 2.060 | 1,691 |
| Sweden | 1,778 | 1,890 | 2,186 | 480 | 2,759 | 2,042 | 1,519 | 1,819 | 1,188 | 991 | 1,364 | 2,255 | 2.100 |
| Denmark | 1,110 | 1,941 | 1,787 | 1,586 | 476 | 787 | 792 | 803 | 744 | 752 | 974 | 1,519 | 1,464 |
| Pruasla | 479 | 671 | 1,853 | 590 | 1,088 | 1,014 | 1,554 | 2,891 | 2,253 | 1,984 | 2,996 | 2,664 | 2,819 |
| Rusala. | 47 | 43 | 114 | 6 | 495 | -890 | 249 | 885 | 405 | 625 | 814 | 1,047 | 946 |
| Untted States.... | * | .... | 90 | 44 | . | 168 | 169 | 280 | 152 | 186 | 143 | 184 | 76 |
| France.......... | 21 | .... | 20 | 128 | 12 | 16 | 03 | 72 | 199 | 146 | 285 | 258 | 253 |
| Spaln............. | 10 | .... | 15 | 82 | 28 | 9 |  |  | 8 | 7 | 18 |  | 6 |
| Ifanover......... | . | 8 | - | . $\cdot \cdots$ | 55 | 868 | 448 | 418 | 645 | 886 | 768 | 681 | 845 |
| Imperial (Austria) | 5 | 80 | 66 | ${ }^{6}$ | .... | .... | .... | .... | .... | - | .... | 2 | ... |
| Dantzic.......... | 231 | 174 | 161 | 248 | - | $\cdots$ | -i7 | -90 |  | $\because 80$ |  | 1077 | 77 |
| Mgeklenbarg .... | .... | .... | .... | $\cdots$ | - | 886 | 817 | 008 | 664 | 888 | 962 | 1,077 | 771 |
| Oldenburg. ...... | + | $\cdots$ | $\cdots$ | 24 | 18 | 9 | 47 | 84 | 86 | 46 | 85 | 224 | 183 |
| Labec. | 78 | 82 | 79 | 89 | 23 | 45 | 64 | 121 | 80 | 71 | 96 | 125 | 148 |
| Bremen .......... | 82 | 148 | 178 | 177 | 248 | 111 | 50 | 84 | 79 | 48 | 59 | 83 | 32 |
| 1lamburg........ | 22 | 81 | 61 | 104 | 86 | 86 | 15 | 81 | 25 | 21 | 93 | 77 | 48 |
| Roatock | 79 | 104 | 101 | 889 | . | ... |  | . | .... | .... |  | .... |  |
| Portugal. . . . . . . . | 18 | 81 | 85 | 28 | 48 | 48 | 2 | $\theta$. | .... | .... | .... | .... | . |
| Conrland ........ | 8 | 7 | 25 | 22 | - | .... | .... | - | ... | .... | , | .... | $\ldots$ |
| Venice...*....... |  | 2 | 4 | (lt) 6 | 8 |  |  |  | ${ }^{6}$ |  | 5 | -981 | 9 |
| Norway .......... | ...' | ..... | $\cdots$ | 99 | 83 | 704 | 946 | 051 | 1,202 | 1,857 87 | 2,025 | 2,894 | 8,020 |
| Tota | 9,059 | 8,291 | 10,204 | 9,742 | 8,156 | 8,871 | 10,928 | 18,160 | 18,212 | 10,253 | 15,662 | 19,919 | 17,068 |

The statements in tais table for the yesra 1777 and 1780 are taken from the valuable work entitled Voyage de Deux Prangois au Norl de l'Europe (1. 860); the other yeare are taken from the returns sent by the British consul at Edsinaur, printed in various Parliamentary papern. We have seen no two returns of the shipping that pass tho Sound quite agree, tiough tio differences are not very matcrial. The British consui first began to send returna of the tonnage in 1831.
The Oder, Vistula, sud other great rivers which flow ilito the Baltic, and the many large cities that are built on or near its shores, have made it the theatre of a very extensive commerce. In this respect its insportance was much increased by the foundation of Petersburg, the trade of which is now of great extent and value. Raw producta, including corn, timber, hemp and flax, tallow, hiden, linseed, bristies, wool, etc., constitute the principal articiag of export from the Baltic ports; colonial prolucta, manufactured goodn, dry stuffs, wine, salt, coal, etc., being among the priacipal articies of import. The leading porth, setting out from the Sound, are Copentragen, Lubec, Wismar, lostock, Swinemunde, Dantzic (which next to Odessa, is the principal European port for the shipment of wheat), Konigsierg, Memei, Riga, Petersburg, and Stockhnim. The Uuited Kingdom han hy far the largest portion of the foreign trade of the Bultic. This is evident from the fact of the British ships pasing
commands the entrance to tha Baitic by the Sound. All merchant ahipa passing to and from the Bultic were obliged, untll 1857, to salute Cronborg castle by hoisting their colors when abreast of the same ; and no merchant dblp was allowed to pasan the Sound without clearing out at Elsinear, and paying toll, according to the provisions in the treaties to that effect negotiated with Denmark by the different European powers. The frat treaty with Eagland having refarence to this aubject, is dated in 1450. The Sonnd dutiea had their origin in an agreement between the King of Denmark on the one part, and the linase Towns on the other, by which the former undertook to construct light. housea, landmarko, ato., nlong the Cattegat, and the latter to pay duty for the same. The duties have since been varied at difierent periods. (See articie, Danish Sound Duea.) Ships of war are exempted from the payment of duties. Most maritime nations have consuls reaident at Elsineur. The foilowing plan of the Sound is taken frn the admiraity clart, compiled from Danish suthorities. (See opposite paga.)
Navigation of the Baltic.-This is oxhibited in the following account of the number of ships that have passed (koing and returning) the Sound at different periods, from the year 1777 to the year 1852, specifying the countries to which they belonged.
the Souad exceeded those of any other country. In 1852 England imported from tho Beitic alout 818,000 qra. wheat, 344,000 do. barley, and 628,000 do. otts, exclusive of very large quantities of tallow, themp and flax, timber, linseed, bristies, etc.

Pilotage, etc. When ships come into Elaineur rogds, or lie wind-bound near the Lappen, watermen come on board to inquire if the master will be carried asiore to ciear; and in rough weather it is always best to make use of ${ }^{1}$ leir services, their loats being generaliy very safo. The Danish authorities have publisbed a table of rates, being the highest charge that can be made ly any isestmen upon such occasions; but captains muy bargain with them for as much less as they piease. Most ships passing the Sound take on board pilota, the signal for one being a flag at the fore-topmast-head. Thoso bound for the Baltic take a pilot at Eisineur, who either carries the ship to Copenhagen, or Dragoe, a smail town on the soulli-east extremity of the islund of Amack, where she is clear of the grounds. Those leaving the Baltic take a pilot from Dragoe, who carrien the ship to Eiaineur. Sometimes, when the wind is fresh from the east and mouth-east, it is impossilise for a ship bound for Copenhagen or tho Baltic to doulic the point of Cronborg; and in that case an Elsineur pilot is sometimes employed to moor the ship in the channel toward Kull Point on the Swedish shore, in in lat. $56^{\circ} 18^{\prime} 8^{\prime \prime}$ N., long. $12^{\circ} 26^{\prime}$ E. But this does

References to Plan.-A, Castle and 11 ght of Cronborg; B, Elsinear ; C, Helsingborg in Sweden; D, the bank ealled the Lappen; $\mathbf{E}$, the bank called the Disken. The soundings are in fathoma,
not oiten happen, ss the Danish government employ ${ }^{\text {are }}$ fixed by authority, and depend on the ship's steam lugs for the specinl purpose of bringing ships, in draught of water. We subjoin a copy of the tariff apadverse weather, round Cronborg Point. The pilots plicable to pilots taken on board at Elsinenr to carry are regularly licensed, so that, by employing them, ships to Dragoe, Copenhagen, or Kull Point, with the the captain'a responsibility is at an ond. Their charges sums both in silver and in Rigsbank paper dollars.

Pilotage fhom tile 1gt of Apall to tue 80th of September.

| Shipe drawiog water. |  |  |  |  |  | Dragoe. |  |  |  | Copenhagen. |  |  |  | Kull Point. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Sllvert |  | Paper. |  | Sllver. |  | Paper. |  | Bliver. |  | Paper. |  |
| Uuiler |  |  |  | fect. |  | ${ }_{11} \mathrm{R}_{1} \mathrm{~b}_{1} \mathrm{dr}$ | $\begin{aligned} & \text { sech. } \\ & 78 \end{aligned}$ | $\begin{aligned} & \text { R. }_{1} b_{1} d r_{1}^{\prime} \\ & 18 \end{aligned}$ | $\begin{aligned} & \text { Set. } \\ & 18 \end{aligned}$ | $\mathrm{D}_{9} \mathrm{~b}_{\mathrm{d}} \mathrm{dr}$ | $\begin{aligned} & \text { Sch. } \\ & 10 \end{aligned}$ | R. b. dr. <br> 9 | $\begin{aligned} & \text { Bch. } \\ & 88 \end{aligned}$ | $\mathrm{R}_{\mathrm{t}} \mathrm{~b}_{5} \mathrm{dr}$ | $\begin{aligned} & \text { Scb. } \\ & 73 \end{aligned}$ | $\int_{5}^{R} b_{1} d t_{0}$ | $\begin{aligned} & \text { Beb. } \\ & 89 \end{aligned}$ |
| Between | 8 | and | 9 | 4 |  | 13 | 16 | 13 | 56 | 10 | 6 | 10 | 86 | 6 | 63 | 6 | 83 |
| " | 0 | ${ }^{*}$ | 10 | ${ }^{4}$ |  | 14 | 80 | 14 | 94 | 11 | 2 | 11 | 85 | 7 | 83 | 7 | 70 |
| 4 | 10 | " | 11 | " |  | 15 | 84 | 16 | 86 | 11 | 04 | 12 | 84 | 8 | 44 | 8 | 69 |
| " | 11 | " | 18 | " |  | 17 | 22 | 17 | 74 | 12 | 91 | 18 | 88 | 9 | 85 | 9 | 68 |
| 4 | 12 | " | 18 | ${ }^{\prime}$ |  | 18 | 56 | 19 | 16 | 18 | 87 | 14 | 82 | 10 | 25 | 10 | 60 |
| " | 18 | ${ }_{4}$ | 14 | ${ }^{4}$ |  | 19 | 90 | 20 | 54 | 14 | 83 | 15 | 81 | 11 | 16 | 11 | 50 |
| " | 14 | ${ }^{4}$ | 15 | " |  | 21 | 28 | 21 | 92 | 15 | 78 | 16 | 30 | 18 | 7 | 19 | 48 |
| 4 | 15 | ${ }^{\prime}$ | 16 | " |  | 22 | 62 | 23 | 34 | 16 | 75 | 17 | 29 | 19 | 98 | 18 | 86 |
| " | 16 | 4 | 17 | " |  | 24 | 65 | 25 | 48 | 18 | 56 | 19 | 16 | 18 | 84 | 14 | 80 |
| 4 | 17 | ${ }^{\prime}$ | 18 | ${ }^{4}$ |  | 26 | 68 | 27 | 52 | 20 | 87 | 21 | 2 | 15 | 44 | 15 | 90 |
| 4 | 18 | ${ }^{4}$ | 19 | " |  | 28 | 71 | 29 | 61 | 22 | 19 | 22 | 86 | 17 | 8 | 17 | 54 |
| " | 18 | ${ }^{\prime}$ | 20 | ${ }^{4}$ |  | 80 | 74 | 81 | 72 | 24 | 0 | 24 | 72 | 18 | 59 | 19 | 19 |
| " | 20 | " | 21 | " |  | 82 | 77 | 33 | 80 | 25 | 77 | 29 | 58 | $2 \theta$ | 19 | 20 | 80 |
| " | 21 | ${ }^{\prime}$ | 22 | ${ }^{\prime}$ |  | 84 | 80 | 85 | 89 | 27 | 69 | 28 | 46 | 21 | 74 | 22 | 48 |
| " | 22 | * | 28 | ${ }^{\prime}$ |  | 86 | 83 | 88 | 1 | 29 | 40 | 80 | 82 | 28 | 84 | 24 | 23 |

Pilotade fbom the 1et of Octodea to the 80tif of Maben.

|  | Shtpa drawing water. |  |  |  |  | Dragoe. |  |  |  | Copenhagen, |  |  |  | Kuli Point. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Stiver. |  | Paper. |  | silver. |  | Paper. |  | Silver. |  | Paper. |  |
| Vader |  |  | 81 | oet. |  | $\mathrm{R}_{14}^{b_{0} d r_{0}}$ | Reh. 92 | $\text { R. } b_{15} d r_{0}$ | Neh. 4) | $\bar{k}_{11} b_{1} d p_{p_{0}}$ | Sch. 85 | $\begin{gathered} \text { R. } b_{1} d r_{0} \\ 11 \end{gathered}$ | $\begin{aligned} & \mathrm{Hch} . \\ & 70 \end{aligned}$ | $\mathrm{R}_{6} \mathrm{~b}_{\mathrm{t}} \mathrm{~d} r_{1}$ | 8ch. <br> 03 | $\text { R. } b_{T} d r_{0}$ | $\begin{aligned} & \text { Sch } \\ & 76 \end{aligned}$ |
| Between |  | and | 9 |  |  | 16 | 75 | 17 | 80 | 12 | 61 | 13 | 2 | 8 | 78 | 9 | 8 |
| " | 9 | 4 | 10 | 4 |  | 18 | 56 | 19 | 16 | 18 | 84 | 14 | 04 | 9 | 92 | 10 | 26 |
| $\cdots$ | 10 | ${ }^{\prime \prime}$ | 11 | 4 |  | 20 | 87 | 21 | 2 | 15 | 19 | 15 | 64 | 11 | 16 | 11 | 50 |
| " | 11 | 1 | 18 | ${ }^{6}$ |  | 22 | 19 | 22 | 86 | 10 | 47 | 17 | $\bigcirc$ | 12 | 86 | 12 | 78 |
| " | 12 | ${ }^{\prime}$ | 18 | 4 |  | 24 |  | 24 | 72 | 17 | 78 | 18 | 80 | 18 | 65 | 14 |  |
| $\cdots$ | 18 | " | 14 | " |  | 25 | 77 | 26 | 08 | 19 | 4 | 19 | 02 | 14 | 75 | 15 | 24 |
| * | 14 | 4 | 15 | ${ }^{4}$ |  | 27 | 69 | 23 | 46 | 20 | 29 | 20 | 90 | 15 | 95 | 16 | 48 |
| 4 | 15 | " | 16 | 1 |  | 20 | 4) | 88 | 88 | 21 | 67 | 22 | 26 | 17 | 17 | 17 | 68 |
| 4 | 16 | " | 17 | " |  | 82 | 12 | 83 | 12 | 24 |  | 24 | 72 | 18 | 87 | 18 | 98 |
| 4 | 17 | " | 10 | " |  | 84 | 80 | 85 | 88 | 26 | 89 | 27 | 22 | 20 | 43 | 21 | 14 |
| " | 18 | ${ }^{4}$ | 19 | 1 |  | 87 | 88 | 89 | 68 | 28 | 79 | 89 | 79 | 22 | 67 | 28 | 28 |
| 4 | 19 | ${ }^{4}$ | 20 | ${ }^{4}$ |  | 40 | 24 | 41 | 48 | 81 | 21 | 88 | 19 | 24 | 68 | 25 | 46 |
| 4 | 20 | " | 91 | " |  | 42 | 99 | 44 | 88 | 88 | 60 | 84 | 65 | 26 | 79 | 27 | 64 |
| " | 21 | " | 92 | " |  | 45 | 64 | 47 | 9 | 86 | 4 | 87 | 16 | 23 | 83 | 29 | 78 |
| 1 | 82 | 1 | 28 | ${ }^{6}$ |  | 48 | 80 | 49 | 85 | 89 | 48 | 89 | 68 | 81 | 8 | 82 | 0 |

When a pllot is taken on board at Dragoe to carry a shio to Exsinear, the eharge la the same as that given uth ar the first head of the above column. (Archives d. cummerce, tome Ifi., p. 145.) The Moneys, Weights, and Measures of Eleineur are the aame as those of Copenhagen (whlch see), except that the rixdollar la divided into 4 orts instead of 6 marcs: thus 24 skulliaga make 1 ort; and 4 orts 1 rixdollar. The Sound dutios aro, however, levied and pald in apeele rixdollara of 48 stlvers, $9 \frac{1}{1}$ such specie rixdellars constituting 1 marc fine silver, Cologne weight. Taking silver at 6s. 2 d . an ounce, the value of the specle rixiollar is 4n. 6 fd ., and taking it at 5a, an ounce, it is worth $52 \cdot 7 \mathrm{~d}$. , or 4 s .4 fd . nearly. In either case the value of tha stiver may be taken at $1 \cdot 1 \mathrm{~d}$. See Sound Durs.

Emall ©mbrant. This name, which seems to mean "shaded enamel," has been given by the Baren du Tremblay to a manufacture by whlch articles are produced, remarkable alike for cheapness, for novel and agreeable effect, and for the lagenuity of the process whereby they , re produced. It coosiete In floodlag colored but tranaparent glazes over designs stumped upon the surfaces of porcelain vessels. A plain surfice is thus produced, in which the cavities of the stamped design appear as shadows of various depths-the parts in higheat relief coming nearest to the surface of the ${ }^{\prime}$ laze, and thus having the effect of the lights of a pictur It has been said that "perhaps there is no other process in the ceraunic art ly which, at so chesp a rate, designs of high arthatic mertt can be reproduced in the most harmonious tintlng, for dessert or table services, and for other useful domestle purposes."
Embalming (Lat. balaamm, bginz), a process adopted by the ancient Eggitians, chiefly for the preservation of dead bolles from putrefaction. The term la derived from the use of balmamic subatances in the operation; In addition to these, saline substances and tanning materials seem also to have been used.
Embargo, a restralut or prohibition imposed by the public authorities of a country on merchant vessels or other shipa, to prevent their ieaving its ports. Embargoes are usually lmposed only in time of war, or $\ln$ apprehension of an Invaslon; in which cases the governasent emplays the ships underembargo in armaments, expeditione, and transiortation of truops, etc. When it is found necessary to rtop the communicstion of intelligence between any two places, an embargo in laid upon sll ships, ivoth foreign and under the national flag. In England, this power is invested in the crown, but it is rarely exerciaed except in extreme cases, and sometimes as a prelude to war. The most memorasio instances of embargo were those for the prevention of corn going out of the kiogdom $\ln$ 1766; and for tho detention of all Russian, Dunisi, and Swedish ships in the aeveral ports of the kingtom, owing to the Armed Neutrality, January 14, 1801. See Ansmi Nevtaality.
Embargo in the Cnited States.-Embargo on all vesseis in the ports of the United States, passed by Congress with reference to the quarrel with Gireat Britain after the attack on the United States' frigate Cheropeake, 1807. Repealed, and non-intercourse act passed, 1809. Enslargo agaln lald for 90 daya, April, 1812. War declared June 19, 1812. An insurance against loss by reason of the acts of one's own govemment, as an arrest or embargo, is valid. There la no distinction on thily point leetwern a foreign and dumestic embargo; and if the embargo intervene after the commencement of the risk, it eusjends, but does not dissolve, the coutract of insurance, and the insured may abanden and claim a total loss. The ame principle is incorporsted into tise new French commercial code, and it pervades universaily the law of insurance. It is no objection to the right of recovery ly the insured, that the loss happened by the act of the goverament of his own country, thugh he and the
innurer are subjects of different atates.-Kinerts Com. See also Pansons on Mereontile Contracta, p. 866.

Embassador, or Ambasaador, a word of dis. puted orgin, but probebly adopted Into the Eaglish language from the P'rench, means, lo its general sense, a minnster authorized by any otate to represent it in sume other. In its distinctive senre, as indicating a partlenlar kind of minlster so appolntod, it mesns the highest class; and by authority as well as practice, there are atates whlch may be represented at others, yet are understood not to be entitled to appoint so high a reprosentative as an embaseador. Messages require to be interchanged ty all moderately elvilized nations, unless those whleh, like the Chinese or the Japanere, peculiarly isolste themselves. lience such measnges, and the manner in which they were sent and received, are familiar occurrences in all iisisturies. Sonic unileratanding that the persuns who undertook such a function shoukl enjoy freedom and safety in the state to whlch they were sent was absolutely necessary for lts performance. The Romans adopted strict rules for the safety of embassadors ; but the less def. inite provisions of other nations were liable to be affectell ly momentary lmpulses, and many incidents of ancient warfare arose out of insults or injuries committed on embassadors. It was on the ground of an insult offerell to his eminassadors that Alexander deatroyed Tyre. The I'erslan invasions of Grece were stimulated by the slaughter of the embassadors of Darius-who, however, demending earth and water ae tokens of dejendence, were rather mes.engers of hostility than ombassadors, in any thing like the modern sense of the term. Vimliassadors now communicate irivately with soverelgns or official persons, not with legislative bodies. In Greece, however, enibassaders sometimes pleaded the eause of their state in the public assemblies, and in lome they were formaily recelved liy the senate. The legatus of the Ronisns answered pretty nearly to our enibassador extraordinary; but the terin was also used to mean anether and tutally different officer who accompanied the proconsul or governor of a province, and was more like a colonial secretary: It liecame tire practice to give honorary legations of this kind on account of the priv. ileges which they conferred on the hoider in the province to which he was accredited. There is, hewever, a diatinction of a generic and very ebaracteristic kind tetween the embassador of modiern dipiomacy and sny ancient representatives of states. The embassadur of old was chosen fer a particular meswage or negotiation, and a permanent estdent representative of one state within annther wa . . known, at least es a system. It is not yet inteligible to nations beyond the elrele of Eurupenn diplomacy. The Turks had the inveterate practice, on going to war with a state, of committing its rejresentatise to the seven towers; and though the reason nasigned for the practice was tine safety of the person of the embassador from outrage, even this, if it were sincere, slowed that the feelings of hatred indulged against a member of a hostile state would lireak out tow strongly to lie contrelled even by that despotic government. The Chinese, and their neighiors nearer liindostan, ean louk on an emDassador or diplonatic agent us merely a dignified spy, to whose presence nothing but nceessity compels them to sulmit. Nor are they entircily wrong, since the Furupean embassies may lie counted a mutuaily tolerated system of espionage. Even Whekefort callis the embasmador an honoralile spy, protected by the 'aw of nations; and La liruyire anys epigramanatically, that the embassador's function is to cheat without being cheated. The understanding that an enalassulur was a person ever ready to do wintever he could with naffety to the advantage of his own country, and the injury of that to which he was accreditei, became a atanding object of sarcasm with tise wits of the seventeenth century. Sir IIeury Wutton, hinself an embassudur
when aak burg, cou and spok lie for the bis apopi in the wo 18, howev as a deel and lirou KIng Ja. gerous system ooverelg Perma privilege feudal E of an lng the sollte t: arose, claimed Eurujiea dor ulid fonnded tice of $t$ his own part of investit! rule an leges wi posterou laws, el were se places of jnals fe fact, thit by them ereign : substitu by sove then.
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when asked to write comuthing In an album at Augoburg, could not reolat a sarcasm on the same subject, and upokn of an enibansador as a person sent abroad to lle for tha good of his country. In lts English form, his apophthegm generully lavolves a pun or equivolce in the werda " lie abroad," of which the original Latin 14, however, not susceptible. Scioppius published it at a declaration of the morality of English diplomacy, and brought Wotton under temporary disgrace with King Janses; to whom the jest neemed the more dangerous that it announced that fulse and treacherous system of diplomacy on which he, with most of the soverelgns of the age, acted when lt was safe to do so.

Permanent enbassies, with the eminent personal privileges conceded to embassadors, have existed in feudal Europe from an early time. To find the origin of ant inatitution weamingly so much at variance with the selfish and ravenoua national habits am'd which :t arose, we must look to the pacullar sacredneas claimed for their persuns by the great community of European monarchs. The privileges of the orrbassndor dill not "ise from principles of jurisprudence founded on general publie utlity, but from the practice of the sovereign investing his representative with his own aacredness, and the acknowledgment on the part of the brother soverelign of the sufficiency of the investiture. Thus in ages when international law was rude and little respected, embassadors claimed privileges which would in the present day be deemed preposterous; such as total exeniption from liability to the laws, civil or criminal, of the country to which they were accredited, and the right to have their official places of residence rospected, as sanctuaries for crinninals fleeing from justice. Embussudurs of old, in fact, thus received concessions which, though claimed by them as belonging properly to thelr masters an sovereign princes, and descending to themaulves only as substitutes, would not practically have been enjoyed by suvereign princes though theoreticaliy conceded to then. The advantage obtained over a state by seizing the person of the soverelgn, would have rendered it unsafe for the principal to trust to privileges which, in the less avallable person of his representative, were scrupulously respected.

It has always been difficult in countries not deapotic to preserve the sacredness of embassies when circumstances have made them offensive to the people. Thus it was difficult to keep Gundomar the celcbrated Spanish embaseador in James the First's reign from vlolence by the London mob for introducing sedan-chairs, which they called a device for enslaving Englishmen and making them do the work of beasts. In the antiPopery riots of $\mathbf{1 7 8 0}$ the chapels of the Bavarian and Sardinian embassies were burned. It has ever been usual to exact high satisfaction for injuries offered to embassadors, and dospotic courts have had no difficulty in conceding the demand where this was rendered prudent by the power of the offended party. Diplematic difficulties of a serious kind have often vecurred, however, in constitutional countries where the asserted privileges of the fureign embassador were found to clash with the undoulited rights of the home citizen. in 1668 the Portuguese minister was imprisoned for debt in llolland, and in 1708 a similar eveut produed a serious diplomatic difficulty in England. The lussian embessador, having had his audience of leave, was arrested for delt by some tradeamen in the opien streets of London. Deeming that he was attacked by bravos, he defended himself, and was not seeured without suffering much violence and indignity. The Czar imosediately demanded the infliction of capital punishment on those who lad been guilty of the outrage. Much parade was mude about Instituting proaecutiona against all the parties concerned in the affair; but it was impossible for the government ulthutely to treat it otherwise than as a matter for which unfurtunately the law made no provision. All that could be
done was to pass an act to retnedy the defect 1 and to sootha the Cuar its preamhle denounced in very angry terms the unparalleled wickedness of those turbulent ond disorderiy persona who had outrageoualy insulted the gerson of his excellency the embassador extraordinary of his Czarish majesty, emperor of Great Fussla, to whom a cepy of the act was sent with diatingulshed pomp. The diplomatic body In general, discontented with the haughty tone of the English court, took up the questien. When the bill was passing they objected to some parta of lt , and particulariy to a condltlon of the protection of embassadors' retlnues, that their names should be recorded with the Secretary of State and the sheriffs of London; but Parlinment, then exulting $\ln$ the continental triumphs of Marlborough, received their demands with haughty silence.

It has been usual since the Congress of Vienna to divide representatives into three great classos-embassadors, envoys, and residents or chargéa dea affaires. The first and second are acervdited from the head of the government, and communicate with the head; the third class have instructlons from the foreign department of their own government, and communicate with that of he atate they are sent to. The term embesaudor extraordinary having been applied to those sent on temporary missions of high importance, the term extraordinary came to be extended to the permanent embassadors at the courts of the great powers, as it was deemed desirable that no diplomatic rank ahould be deerned higher than theirs.

The cuatom of adinitting resident ministers at each aoverelgn'a court, was an linportant Improvement in the security and facility of national intercourse; and thls led to the settlement of a great question, which was very frequently discussed in the 15 th and 16th centuries, concerning the inviolability of embassadors. It became at last a lefinite principle of publie law, that embassadors were exempted from all local jurisdiction, civil and eriminal ; tbough Lord Coke considered the law in his day to be, that if an embasaador committed any crime which was not merely malum prohilitum, he lost his privileged dignity as an embassador, and might be punished as any other private alien, and that he was even bound to answer civilly for his contracts that were good, jure gentium.Kent's Com., vol. 1., p. 15.

It sometimes becomes a grave question, in national diacussions, how far the sovereign is bound by the act of his minister. This will depend upon the nature and terms of his authority. It is now the naual course for every government to reserve to itself the right to ratify or dissent from the treaty agreed to by its embassador. A general letter of credence is the ordinary letter of attorney, or credential of the minister; and it is not understood to confer a power upon the minister to bind his soverelgn conclusively. To do so important an aet would require, at least, a diatinct and special power, containing an expreas authority to bind the principal defluitely, without the right of reviow, or the necessity of ratification on his part. This is not the ordinary or prudent course of business. Ministers always act under inatructions which are confidentlal, and which, it is admitted, they are not bound to diaclose; and it ia a well-grounded custom, as Vattel observes, that any engagement which the minister shall enter into, is of no force among soverelgns, unless ratifled by his principal. This is now the usage, although the treaty may have been signed by plenipetentiaries.-Kent's Com., vol. i., p. 48.

A safe conduct or paseport contaios a pledge of tho public faith, that it shali lo duly reapected, and the olservance of this duty is essential to the character of the government which grants it. The statute law of the Livited Statea has provided, in furtherance of the general sanction of public law, that if any person shall violate any safe conduct or passport, granted under the authority of the United States, he shall, on con-
viction, be imprisoned not exceeding 3 years, and fined at the discretion of the court.

The same puaishment is Inflicted upen those persons who infringe the law of natlons, ly offering vlom lence to the persons of embsssailors and other public miuisters, or by Laing concerned in prosecuting or arreating them or their domestic servants. This is an offense highly Injurious to a free and liberal communication between different governmenta, and mlsc' 'evous in its consequences to the dignity and well-being of the nation. It tends to provoke the resentment of $\$ 1$. sovereign whom the embassador represents, nnd tu bring upon the state the calamities of war. The English Parliament, under an irupression of the danger to the communlty from violatlen of the rights of emsbassy, and urged by the spur of a partlerelar oecasion, carried the provisions of the statute of $i$ Anne, c. 12, to a dangerous cxtent. That statute prestrated all the safeguarda to life, liberty, and property, which the wisdom of the English common law had established. It deelared that any person convicted of suing out or executing clvil process, upon an embassador or his domestle servants, by the oath of the party, or of one witness, before the lord chancellor and the two chlef justices, or any two of them, might have such penalties and corporeal punishments inflicted ujon hin as the judges should thlnk fit. The preamble to the statute contains a speelal and inflamed recltal of the breach of the law of nations whlch produced it, by the arrest of the Russian minister.

The Congress of the United States, furing the American war, discovered great solicitude to maintuin laviolate the obllgations of the law of nations, and to have infractions of it punished in the only way that was then lawful-hy the exercise of the aithority of the leglslatures of the several States. They recommended to the States to provide expeditlous, exemplary, and idequate punishment for the violation of safe conducts or passports, granted under the authority of Congress, to the subjeets of a forelgn power in time of war; and for the commission of rets of hostility agalnet persons In amity or league with the United States; and for the Infiactions of treaties and conventlons to which the United States were a purty; and for infractions of inmunites of embassadors and other public minlsters.-Kent's Com., vol. 1., p. 18f.

A marriage, celebrated in any given place, must be celebrated accorling to the law of the place, and by a person whom the laws designate, unless the person by whom, or the premisea in which, it is celchratel, possess the privileges of exterritoriality. Therefore it may be, accorling to the opinion of Lord Stowell, that the presence of a forelign soverelign sojourning in a friendly country, or that of his miniater plemipotentiary, or the act of a clergyman in the chapel or hotel of such sovereign or his embassador, may give legality to marriage between subjeets of his, or members of his suite. Accoriling to the American view, the courtesy between the Initel States and forchgn nations, In mil. tatlly exempting from luty articles imported hy eprtain of their public officers reshlent abroal, woes wot extend tieyonil ministers or chargis des affaires, representing their respective governments, and chethed with diphomatic powers and privileges, und down not comprehend attarhes or persons belonghing to the minister's suite, nor consular officers,- Mamal for C'onsuls


From the moment a public minister enters the territory of the atate to which he is aent, durligg the thme -f hin rembidence, and until be leaver the country, lie is entitled to an entire exemptlon from the locni jurlsdiction, looth civil and crlminal. Representing the lights, Interesta, and dignity of the Aoverclign or atate by whom he la delegated, lils persobi in mapred and laviolahle. To glve a more lively hen of this complete exemption from the local jurisaliction, the firtion of extraterritoriality has been Invented, by which the
minister, though actually in a forelgn country, is sapposed still to remaln wlthin the territory of his own sovereign. He contlnuea stlll subject to the laws of his own country, which govern hils personal atatus and rights of property, whether derived from contract, in. heritance, or testament. Ills chlldren born nbroad are consldered as natlves. This exemption from the local laws and jurisdiction is founded upon mutual ntility, growing out of the necessity that public ministers should be entirely independent of the local authority, in order to fultill the dutiea of their misaion. The act of nending the minister, on the one hand, and of recelving hilm, on the other, amounts to a tacit compact between the two States, that he shall be subject only to the authority of his own nation. The passports or safe conduets granted by has own government, in time of peace, or by the government. 5 which he is sent, in time of war, are sufficient evidence of hls publle character for thls purpose.- Wrieatos's International Law, p. 283.

Embezzlement, In law, is a felony, consisting of the rame class of acts which would in any other case amount to larceny, when committed by ove cmpleyed as a clerk or servint, and by virtue of his otfice, on the goods and chattels of his employer.

Embezzlement by Neamen,-Marinera are boand to contribute out of their wages for embezzlements of the eargo, or injuries produced by the miseonduct of any of the crew. But the circumistancea must be such as to fix the wrong npon some of the crew ; and then, if tho individual he unknown, these of the erew upen whom the presumption of guilt resta, stand as sureties for each other, and they must contribute ratably to the loss. Some of the enses in the books have established a general contribution from all the crow for sudi enhezzlement, even when aome of them ware in a situathon to repel every presumption of gailt; lut neither publis poliey nor priuciples of justice extend the contribution or forfeltore of wages for such embezalements, beyond the parties lmmedintely in dilicto.Kent's Com., vol. hii., sect. 252.
As carriers by water were liable at comnon law to the same extent an land carriers, and th their reaponsibility was more extensive, und their risk greater, from the facilities for the commission of acts of fraud and violence upon the water, it was deemed in lingland a proper conse for legislative interference, to a grariled and limited extent. The statute of 7 tieorge II., ch. $\mathbf{1 5}$, and 26 George III., ch. 86, and 53 George IIt., (1). 159, exempted owners of vessela from respmansithlity, as common carriers, for losses by tire, and proviled further that the owner whould not be liabis fur the loss of goll, silver, dianonds, watches, jewels, or prechusstumes, ly robbery or ombezalement, unless the shipper luserted in the lill of ladiug, or otherwise dechared in writing to the master or owner of the vessel, the muture, quality mad value of the articles; nor should he be liable for embezalements, or lose or ilanago to the goed a nrising from any net or negle"t, without his fault or privity, heyond the valate of the whip and frelglit; nor should part owners In those enses be llable beyond their renprative shares in the shlp and freight.-Kisvr's t'om., vol. li., p. 789.

Embersing, tho forming of works in relief upon any subsance, whother hy cutting, stampins, casting, or any other inethoul. In scolpture particularly, uccorilng an the tigures are more or less jrominent, they are salil to be in alte, mezzo, or baso-relievo; or high, Intermeiliath, or low rellef.

Embossing of Leather. Heautiful ormaments In hasso-rellevo for flecorating the exteriors or interiors of haldiugs, medallions, picture-framen, catinet work, etc., have lreen reeently made by the pressure of metallic blocks and dien, for whilh invention a patent was obtuined in June, 18:19, hy M. Claudo Schroth. The dies are male of tyje-metal, or of the fusithe alloy with bismuth, callel d'Arect's. The leather is beaten

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Paris or
wise fix modo is occasion used eit pentls on blunt ins pressed sequent ormament posed sha paltern ; nisher, or parts of the same out break the depres the figure planing or after whie either hot nise to its lossed pat eperations
Embor it is used n ment.
Embio
It.; Sifek late merel account of years ago 1 chine of a male to en as accurate do with one rention wil It was displit uets of inil tionall! th usteani; for surrounded the figures ments amil were orcuph regularity, Mictimery os
Embroi workillg figs threat. As surta, amiro is usent chict atds, article. silk, cotton, times urnam precious or ployed moat collars, ete., Germany thi reisee (white cloth) embro
soft in water, then wrung, pressed, rolled and falled as It were, by working it with the bands till it becomes thicker, and quite supple. In this state it is lald on the mold, and forced into all its cavitles by means of a wooden, bone, or copper tool. In other cases the emhossing is performed by the force of a press. The leather, when it has become dry, is easily taken off of the mold, however deeply it may be inserted into its crovices, by virtue of its elastlcity. A full detall of all the processes is given in Newton's Journal, vol. xi., p. 122.

Embossing Wood (Mossage, Fr.; Erhabrnes, Arbeit, Ger.), ruised tlgures upon wood, such as are enployed in pleture-frames and other articles of ornamentul cabinet work, are usually produced by means of carving, or hy casting the pattern in plaster of Paris or other composition, and cementing or otherwise fixing it on the surface of the wood. The former mode is expensive; the litter is inapplicalile on many eccasions. The invention of Mr. Streaker may be used either by itself, or In ald of carving; and depends on the fact, that if a depression be made by a blunt instrmment on the surfuce of the wood, such dopressed part will egain rise to its original level hy salbsequent immerslon in the water. Tho wood to be ornamented having been first worked out to its proposed shape, Is in a state to recelve the druwing of the pattern; this boiug put on, a blunt steel tool, or buruisher, or die, is to be applied suceessively to ail those parts of the pattern intended to he in relief, and, at the same tlme, is to be driven very cantionsly, without breaking the grain of the wood, till the depth of the depression ls equal to the intended prominence of the digure. The ground is then to be reduced by planing or filing to the level of the depressed part ; after which, the plece of wood leeing placed in water, either hot or cold, the part previuusly depressed will nise to its former helght, and will then form an ealbossed pattern, which may be finished by the usual operations of carving.
Embouchure (lir.), slignifies the mouth of a river: it is used also for the month-plece of a musical instrunent.

Embsoidering Machine. (Machine ì broder, 1.r.; Steckmaschint, Ger.) Thils art has been tlll of late merely a handleraft employment, cultivated on account of lts elegance by ladics of ronk, 13ut a fow yeurs ago M. Iteilmann, of Malhanse, invented a machine of a most ingenious kind, which ematiles a female to cmbirolder any design with 80 or 100 needles as accurately nond expeditlously as ahe formerly could do with one. A brlef acconnt of this remarkable inrention will, therefure, be acceptable to many readers. It was displayed at the nationat exposition of the prodnets of in'ristry in I'aris for 1831, and was unquestionahls the object whleh stood highest in public esteeni ; for whether at rest or In motlon, it was always surroanted with a crowd of curlons visitors, uslmirling the figures which it has formed, or lispertlyp its morements and livestignting its mechanlsm. law needles were accuphed in copying tho same pattern with perfect regularity, alt set in motion by one person.-Une's Ihitiomiry of Arta.
Embroidery is the numo given to the art of workligg figures on stufts or muslins with a neetle ant thread, Alt embroldery muy be divided into two sorts, embrollery on stufis und on masin: the former is ised chielly in chureh vestments, housinge, stand aris, articles of furniture, ote., and is oxecutod with silk, cotton, wool, gold and silver threads, and sometimes ormamented with spangles, rent or mock pearla, precions or imitntion stones, etc. The latter is employed mostly in articies of femnte nparel, ae cap, rollars, etc., and is perfiormed only with cotton. In Gemany this division is hadicated by the expresslen meise (ichite or musiln), and bunte Ntickervi (colored or cloth) embroidery. The embroidery of stuff's is per-
formed on a kind of loom or frame; that of muslin by stretching it on a pattern already designed. The modes of embroldering etuffs or muslins with the common necule are extremely varlons; but a minute description of these processes would be as difficult as It would bo unintereating to the general reader. They consiat for the most part of a combination of ordinary stitches ; bat no limit can be assigned to their number or variety. The art of embroldery was well known to the ancients. As early as the tlime of Moses we find it practleed successfully by the Hebrews; and long before the Trojan war the womon of Sidon had acquired celebrity for their akill in embroidery. At a later period, this aut was introdnced inte Greece, probably by the $\boldsymbol{f}$ hrygtans (by some considered as the inventors); and to such a degree of skill did the Greclan women attain in it, that their performances were said to rival the finest paintings. In our own times, the art of embroidery has been cultivated with grest success, more especially in Germany and France; and though for a long period it was practiced only by the ladies of these conntrles as an elegant accomplishment, it is now regarded as a staple of traffic, and furnishes employment for a large portlon of the population. In England also it appears to have taken doep root, as it now forms an accomplishment of which almost every lady is in possession. Abont seven years ngo a great lmpetus was given to the cultivation of this art, both on the Continent and in lingland, ty the invention of a machine which enalles a female to execute the most complex patterns with 130 needles, all in motion at once, as accurately as sho could formerly do with one. Ihit as no account of this remarkable invention which we might glve conld be intelligltule withont the aid of illustrations, which would bo out of place in thls work, we must refer the roader to Dr. Ure's Dictionary of Arts, etc., for full information respecting it. One such machino, with 130 needles, is ostimated to perform dally the work of 15 hand embroiterers employed in the orllmary way. Many of then are now mounted in Germany, France, and Switzerland; and in Manchester thero is one factory where they do beautiful work. See tho Art of Needlework, edited by the Countess of Wilton. London, 1840.-BuANDe, Ency.

There is one branch of manufacturo connected witl. :otton cmbroiderles to which it would be wrong not to partlcularly allude, ond that is the embrolitering of muslins, better known under the common deslignation of " $e$ wed muslins." This is comparatively a new manufacture, having only being tirst started In Scotland about the year 1825 . At that perlod there were only two or thireo persons ongaged in the manntiseture; now there are fifty or sixty. The importance of this branch may in somo measure the estlmated from the fact that it fives employnent to a vast number of females ln the rural districts, for whom no other useful work is providel in tho intervuls of dield labor. In Ireland alone, where it is practle from the tibant's Couseway to Cape Clear, and from St. (ieorge's Channel to the Achill and other remote islands, it ls a source of great comfort to the female popuiation, an it emables them to add to the food and clathing of their familles without entailing on them any of the evils of the factory system, the work being supplied to them by agents of the large manufacturers scattered over ili the country, and excented entirely at thelr own fireshdes. As the workers are only engaged a portion of their then at this spiecies of industry, it is limpossitile to estlunate their numbers ; but it ls computed that the amount paid in the western counties of Scotland and in Ireland, renches no less a sum than three quarteta of a million sterilng nnuually. J.lke all other fancy trudes, It inas been subject to its periods of depiresslon, but its prugress has lieen regular, from atotal produce of a fow thousand pounds a your pald for lnhor $\ln 1825$ to the
amount above stated, the greatest increase having, however, taken place since 1845 .

Emerald (Fr. Einéraude; Germ. Smaragd; It. Sneruldo ; Lat. Smaragdus ; Sp. Eismeralda), a preclous stone in high eatlmation. It is diatinguiahed from all other gems by lts peculiar emerald green lustre, varying In intensity from the palest possible tinge to a full and deep color, than which, as Pliny has truly stated, nothing can be more beautiful and pleasing; nullius coloris aspectus jucundior est. "It emulates," he continues, "if it does not surpass, the verdure of the apring; and the eye satiated by the dazzling glare of the more brilliant gems, or wearied by intense application, is refreshed and strengthenod by the quiet enlivening green of tho emerald." In Pliny's time the best came from Scythla. Those met with in modern times do not often exceed the size of a walaut. Some of a much larger size, and perfect, have been found, but they aro extremly rare. Nero used one as un eye-glass in aurveying the combats of the gladiators. Litherto it has always been found crystallized. Specitic gravity from $2 \cdot 6$ to $2 \cdot 77$.- I'lisy's Mist. Nat., lib. xxxvii., chap. 5 ; Tuomson's Chemistry.

For the last two centuries and more, the only country known to yield emeralds is Peru, where they occur in Santa Fó, and in tho valley of Tunca. Several large stonea have appeared in Europe. About two years ago I cut one, exceeding two ounces in weight, for the Emperor of Moroceo, but it was full of lmperfections. The largest specinen known is a hexagonal crystal, nearly six inches long, and about two in diameter. This gem, however smali, is so rarely seen perfect that "an emerald without a thaw" has passed into a proverb. A fine stone of four carats may be
 ferior atones of one or two carats are sohl at from 40 s . to $70 s$. per carat ; and lf amaller, and defective, at 10 s . or 15 s. per carat. Fine emeralds are rare, and in such deruand, that a particular suit has been known to have passed into the possession of a scries of purchasers, and to have nade the tour of Europe in the course of half a century.-Ma've on Diamonuls, ed ed., p. 104.

Emery (Fr. Emeril, Emeri; Germ. Smiryrl; It. Smerglio, Stmeregio; Sp. E'smeril; Rus. Nashdak; lat. smiris). This mineral wos long regarded as an ore of iron ; and was called by llaüy fer oxide quartifere. It is very abundant in the island of Naxos, at Cape limeri, whence it is imported In large quantities. It occurs nlse in the islands of Jersey and Guerney, at Almaden, in Poland, Saxony, Sweden, lersia, ete. Its color varles from red brown to dark brown; lis apecific gravity is about 4.000 . It la so hard as to seratch quarti und many precious stones. 13y Mr. Tenant'a analysis, it consists of alun' 1,80 ; silica, 3 ; iron, t. Another inferior kind yiela 52 of iron, and only 50 of alumian. We have recent accounts of enery discoverien In Minnesuta; but nearly all that is used at present in the arts comes from Turkey, near ancient Smyrna. Ir. Lawrence Smith, the American geologist, made a discovery of a doposit of emory while residing in Smyrna, and he muld an examination of the locality in 1817 . Dr. Smith havimg reported his discoveries to the Turkish guvernment, a commission of inguiry was instituted, and the business soon aysumed a mercantile form. The monojnily of the emery of Turkey was suld to a mercantile house in Simyrna, and aince then the price las diminished in the market. The mhing of tho emery is of the slonpleve dharacter. The natural decomponition of the rock in which il occurs facilitates itr extraction. The rock decomposen into ma earth, in which the emery is found embedided. The quastity prowured maler these circumstances is no great that it is rarcly necosoury to explure the rock. The earth in the neighborhored of the block la almost always of a red eolor, and serves as an indication to those who are in search of the mineral. Sometimes, before beginning to excavate, the
spots are sonnded by an lron rod with a steel point, and when any resistance is met with, the rod is rubbed in contact with the resisting. body, and the effect produced on the point enables a practlced eye to decide whether it has been dune by emery or not. The bloeks which are of a convenient slze are transported in their natural state, but are frequently broken by large hammers. When they resist the action of the hammer, they are oubjected to the action of fire for several hours, and on cooling they most commonly yield to blows. It sometimes happens that large masses are abandoned frem the lmporaibility of breaking them into pieces of a convendent size.

Eimery paper is prepared by brushing the paper over with thin glue, and dusting the emery-powder over it from a sieve. There are about six degrees of coarse. ness. Sieves with 30 and 90 meahes per linear inch, aro in general the coarsest and finest sizes employed, When used by artizans, the emery-paper ls conmonly wrapped uround a file or slip of wood, and applied just like a file, with or without oil, according to circumstances. The emery-paper cuts more smoothly with oil, but leaves the work dull.

Emery-cloth only differs from emery-paper in the use of thin cotton cloth instend of paper, as the material upon which the emery is fixed by means of glue. The emery-cloth, when folded around a tile, does not ply so readily to it as emery-paper, and is apt to unroll. Hence smiths, engincers, and others prefer emerypaper and emery-sticks; but for household and other purposes, where the hand alone is used, the greater durability of the cloth is advantageous.

Einery-sticks are rods of bourl, about 8 or 12 inches loug, phanel upsquare; or with one, aide rounded like a half-rounded tile. Nails are driven into earch end of the stick as temporary handles; they are then brushed over, one at a fime, with thin glue, and dabbed at all parts in a heap of emery-powder, and knocked at une end to shake off the excess. Two confs of glue and emery are generally used. The emery-sticks are much more economical than emery-paper wripped on a file, which ia liable to be torn.
Eimery-coke consists of emery mixed with a little heeswax, so as to constitute a solid limp, with whirh to dress the edjes of buff and glaze wheels. The ingredients should be thoroughly incorporated by stirring the mixture while fluid, ufter which it is frequently poured into water, und thoroughly kneated with the hands, and rolled into lumps before it has time to cool. The emery-cake is sometimes aiplied to the wheels while they are revolving; but the more usmal toursy is, to atop the wheel, und rub in the emery- eake by the hand. It is afterward smoothed down liy the thumb.

Vimery-paper, or putent razor-strop paper, an article in which tine emery and glass nre mixed with puprer pulp, and made into eheets, as in making orilimary jupur; the emery nul glass aro saill to eonstitute together to per cent. of the weight of tho paper, which respmbles drawing-paper, except that it lus a delicute fawn color. Tho emery-papor in directel to he jasted or ghaed upon a piece of wood, and when rubhed with a little oil, to le used as razor-strop. See C'afis Jito tionnry of arts.

Emigration in the act of lenving the country or placo in which one has previonsly residel, in the view of reshiting in some other country or plate. I'ersons no leaving the phate of their residenea are called emigrants; und laterly the term inmigrants hiw hecn
 in somo place or comintry with the intention of settling In it. Bermons leaving in country for awhile, to whid they intend to return, aro not reckonel emigrants. This torm is appropriated to those who leave their present habitations to extablith themaelves permanoutly elses where. The motives which lead to emigration are various in the extreme; but, whatever its fimmediate cause
may be, al siderable The natur whlch he lncrease he easlly mad all ages th flocks and 1 began to be it was an ol capied lane the tribe to affords a $8 t$ The herds so greatly tbem both, Whereupon land before me. If tho to the right; I will go to $t$ of Jorian, a rated themse xiii. 8-11.)

Female Em obvious to ne of emigrants, ments, consla proportion of consequences. of the popula that which is facillty and en igration of wo consistent wit bave recently vate individua to Australia; a relax in their tion which now continent be mi
The applicat sels and the oth in the urt of n . cost, risk, and t given a propor rithstauding $1 h_{2}$ Elurope to Aire former, has lat previnusly to tht would net have ened perient the largest supply o years the eming extensive, and if it do not surp: llritain. The $y$ are destined for extensive distric great numbers. isin, the prinel l'nited Kingelon land; theogh lan emigrants, with resort in profere of the gold fieth grants hive got freater distanco, of the voyage, I to find, without Doralo. And, culties in the w been sujuradided kiul minimuen been set on all theugh it shoule pasture a single :
may be, all emigrants expect either to avoid some considerable evll, or to improve or amend their altuation. The natural multiplication of man and of the animais which he domesticates, and the tendency of both to increase beyond such means of subsistence as may be ensily made available for their suppert, have been in all ages the great cause of emlgrations. When the flocks and herds of the oceuplers of particular districts began to be so numerous that pasture became defictent, it was an obvious resource, in the event of any unoccupied lands belng in their vicinity, for a portion of the tribe to emigrate to them. The Book of Genesis affords a striking illustration of what is now stated. The herde of Abraham and Lot, it is there stated, had so greatly increased, that, there not being room for them both, contests took place between their servants. Whereupon Abraham said to Lot, "Is not the whole land before thee? Separate thyself, I pray thee, from me. If thou wilt take the left hand, then I will go to the right ; or if thou depart to the right land, then I will go to the left. Then Lot chose him all the plain of Jordan, and Lot journeyed enst ; and they separated themselves, the one from the other." (Chap. iii. 8-11.)

Female Emigrants.-Owing to causee which are too obvious to need being pointed ont, the greater number of emigrants, especially of those who go to new settlements, conslst of males; and the want of a proper proportion of femsles is often productive of the worat consequences. Inasmuch, too, es the female portion of the pepulation in old settleil countries is generally that which is most in excess, it is plain that every facilty and encouragement should be given to the emigration of women. Nothing, therefore, can be more cobsistent with sound policy than the efforts which have recently been made by govervment, and by privale individusle, to send out well-a nducted females to Aastralia; and it is to be hoped that they will not ruax in their benevolent lahors till the wide disproportion which now (1857) exists between the acxes in that conthent be materially reduced.'
The application of steam to the propulsion of vessels and the other improvements that have been made in the art of navigation, have greatly dimiulshed the cust, risk, and time apent in distant voyages, and have given a proportional extension to emigration. Notwithstaming their great listance, the emigration from Europe to America and Australia, but expecially the forner, has latterly attained to a magnitule which, previously to the employnnent of ateam in navigation, would not have been conceived poraible. For a lengthened period the United Kingilom has furnished the largest supply of transatlantic emigrants; but of late years the emigration from Germany has hecome very extensive, and promises at no distant period to equal, if it do not surpass, that which is carried on from Great Mritain. The vast majority of the German emigrants are dentined for the United Statea, where they occupy exiensive diatricts, and have extahilished themaelves in great numbers. The States have ulso become, sinco Isis, the principal resort of the emigrants from the Inited Kingilom, more particularly of those from Ire. land; theugh large numbers of the Englishand Scotch emigrants, with a smuller number of lrial, eontinue to resort in preference to Canada. Since the iliscovery of the gold fiches of Australia, grent numbers of emigrants have gone to that contineut. Ihat its mush grater ilistance, and the consenuent length and cost of the voyage, wake it dillenit for the poorer classes to find, without assintance, their way to thin new lii Thorado. Anil we maty adh, that to the notural dills. cuties in the way of emlgration to Australia lave been superadied those whilh ariso from an extravagut minimum price of five dollars nu neres having been set on all wasto land in that continent, even though it should require threo, four, or tlvo acres to pusturo a single sheep.

Next to the United Kingdom and Germany, China furpishes the greater number of over-sea emigrants. A Chinese population has long been aettled in large numbers in many parts of the Eastern Archipelago, where they are distlnguished by their industry and good order; and recently many thousands of them have found their way to California and Australia. We subjoin an ascount of the number of emigrants from the United Kingdom in each year from 1815 to 1853 , buth inclusive, specifying the countries for which they asiled, and the numbers that sailed for each :

| Year, | North American colonies. | UnIted 8 Biates. | Australlan colonlos and New Zealand. | All other places. | Tolol. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1815 | 680 | 1,209 |  | 192 | 2,081 |
| 1818 | 8,870 | 9,022 | .... | 118 | 12,819 |
| 1817 | 9,797 | 10,280 |  | 557 | 20,684 |
| 1818 | 15,186 | 12,429 |  | 222 | 27,787 |
| 1819 | 23,534 | 10,674 | .... | 570 | 84,787 |
| 1820 | 17,921 | 6,745 | .... | 1,068 | 25,729 |
| 1821 | 12,955 | 4,958 | .... | 954 | 18,297 |
| 1828 | 16,018 | 4,187 | .... | 279 | 20.429 |
| 1823 | 11,855 | 5,032 | .... | 168 | 16,850 |
| 1824 | 8.774 | 5,152 |  | 99 | 14,025 |
| 1825 | 8,741 | 6,051 | 485 | 114 | 14,501 |
| 1828 | 12,818 | 7,068 | 808 | 118 | 20,909 |
| 1827 | 12,648 | 14,528 | 715 | 414 | 28,093 |
| 1828 | 12,054 | 12,817 | 1,056 | 185 | 28,092 |
| 1829 | 18,807 | 15,678 | 2,018 | 197 | 81,198 |
| 1880 | 80,574 | 24,887 | 1,242 | 204 | 61,907 |
| 1881 | 68,067 | 23,418 | 1,561 | 114 | 88,160 |
| 1882 | 66,389 | 82,872 | 8,783 | 194 | 108,140 |
| 1898 | 28, 008 | 29,100 | 4,098 | 617 | 62,527 |
| 1834 | 40,060 | 88.074 | 2,800 | 283 | 76,222 |
| 1885 | 15,578 | 26.720 | 1,860 | 825 | 44,478 |
| 1886 | 84,246 | 87,774 | 8,124 | 208 | 75,417 |
| 1887 | 24, $\times 8.4$ | 86,770 | 6,054 | 828 | 72,08-1 |
| 1889 | 4.577 | 14,382 | 14,02] | 292 | 88,222 |
| 1899 | 12,658 | 83,686 | 15,786 | 227 | 82,207 |
| 1840 | 82,293 | 40,842 | 15,650 | 1,058 | 90,743 |
| 1841 | 88,164 | 45,017 | 82,625 | 2,786 | 118,592 |
| 1842 | 54,123 | 63,482 | 8,534 | 1,535 | 128,844 |
| 1843 | 23,518 | 28,835 | 3,478 | 1,881 | 57,212 |
| 1844 | 22,924 | 43,680 | 2,229 | 1,573 | 70,056 |
| 1845 | 81,803 | 68,548 | 830 | 2,830 | 98,501 |
| 1846 | 48,489 | 82,239 | 2,547 | 1.826 | 120,851 |
| 1847 | 109,680 | 142,154 | 4,049 | 1,487 | 258,270 |
| 1848 | 81,085 | 188,283 | 28,904 | 4,887 | 248,080 |
| 1840 | 41,867 | 219,450 | 82,091 | 6,590 | 209,498 |
| $18 \% 0$ | 82,081 | 228,078 | 16,037 | 8,778 | 280,849 |
| 1851 | 42,605 | 267,357 | 21,532 | 4,472 | 885,966 |
| 1582 | 32,876 | 244,201 | 87,424 | 4,203 | 888,764 |
| 1858 | 84,522 | 230,885 | 61,401 | 3,129 | 829,987 |
| Total | 1,071,289 | 2,295,466 | 871,030 | 55,144 | 8,788,529 |

Average anmal emigration from the Unitel Kingdom: From 1815 to $1858 . . . . . . . . . .$. . 97,208
For the flve years endiog 1553. 323,002
Emigration to America. Report from the State Department. Departinent of State, 18is6.-In compliance with the act of Congress of March 2d, 1819, regulnting passenger ships and vessels, I have the honor to commanicate herewith the annual stntement of the numiber und denignation of passengers arriving in the United States ly sea from foreign countries, during the year ending lecemtier 31, 1855 , compiled from returns made to this Department ly collectors of customs pursuant to providions of said net.

The measures adopted hy the Department in 18:3; with a view to obviate the previons alsence of uniformity, unl to secure nccuracy in the returns of collectors, on which the ntatement is based, and which were refarred to in the letter that accompunied the last annabl statement, und in that whieh accompanied the preceding one, have conduced most fivorably to the desired emi.
l'revionsly to the atatement of 1851 hat two reen pitulations were "ppended to the returns, namely, ono emforacing tho "arrivals" in each State during the year; the other tho number of passengers lelonging to each "country." The atatement now sulmiliter will he found to embrace recapitulations exhithiting the following facts :

1. Arrival of pasemgers in 1855.
2. Country where horn.
3. Country where they mean to reside.
4. Age and sex.
5. Occupation.
6. Dled on the voyage.
7. Comparative statement ehowing the conatries in which were born passengers arriving in the United States from forelgn cuuntries, from December 31, 1852, to December 81, 1855.
8. Comparative statement showing the age and sex of passengere arriving in the United States from foreign countries, from December 31, 1852, to December 31, 1855.
9. Comprative statement showing the occupation of paseengers arriving in the United States from foreign countries, from December 81, 1852, to December 31, 1855.
10. Compurative statement of the number of passengers arriving in the United States, by sen, from foreign countries, from September 30, 1843, to December 31, 1855.

Attentlon is once more invited to the fact, that by the net of Congreas of 1819 , requiring Immigration returns, passengers " arriving by sea" seem alone con-
templated, and that an amendment of that act, so as to embrace also those arriving by land, seema to be demanded. The attention of collectors at frontier custom-houses, especially on the northern border, has been directed to auch immigration by this Department, and the result has been returns from the cullector at Oswego, embracing the arrivals of 5,072 passengers during the last three quarters of the year.

Although the returns of collectors of customs of the passengers arriving within their distriets have been characterized by greater precislon during the past year than horetofore, there is still room for improvement, and the present statement will, like its predecessors for the last two yeara, be transmitted to them with a view to aid them in causing their returns to conform to the requirements of law.

I have the bonor to be sir, your obedient servant,
W. L. Marey.

Llon. N, P. Banks, Jr., Speaker of the Loase of Representatives.

Suljolned are the more important tablos accomjanying tho Socretary's letter:

No. L-Arbival of Pabsengers in tifí Uniten Statpe in 1855.

| States. | Flimat Quarter. | Sucoed Quarter. | $\begin{aligned} & \text { Thirdi } \\ & \text { Quarter. } \end{aligned}$ | Fourth Quarter. | Males. | Ferrales, | Ses mot stated. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Malne. | 278 | 1,084 | 1,144 | 602 | 2,147 | 849 |  |  |
| New IIumpehire | - | 1,84 | 14 | 8 | 2,17 | 4 | " | 2,006 21 |
| Mrarachusetts... | 1,868 | ¢,888 | 6,085 | 4,202 | 10,434 | 7,589 | . | 17,078 |
| Rhoda Island. | 19*17 | 18 | 61 | . 18 | - 88 | 81 | . | 88 |
| Now York. | 19, ${ }^{517}$ | 59,516 | 46,774 | 40.755 | 101,765 | 64,797 | ** | 166,592 |
| Pennsylvania.......................... | 874 | 4,119 | 1,448 | 1,440 | 8,909 | 8,672 | . | 7,5<1 |
| Maryland............................ | 1,213 | 1,91: | 1,914 | 1,702 | 8,689 | 8,138 | . | 6,530 |
| Virginia. . . . . . . . . . . . . . . . . . . . . . . . . | $\ldots$ | 8 | 8 | $\cdots$ | 8 8 | 8 4 | $\because$ | ${ }^{6}$ |
| South Carolina | 218 | 24 | '82 | 248 | 85\%) | 20.5 | 12 | 77 |
| Florlda....... | 80 | 27 | 81 | 81 | 122 | 76 | 12 | 782 219 |
| Alabarus.............................. | -137 | 14 | 8 | 18 | 97 | -69 | . | 160 |
| Loulshana. . . . . . . . . . . . . . . . . . . . | 7,178 | 6,254 | 889 | 6,898 | 11,741 | T,647 | . | 26,3*4 |
| Texas. | 811 | 6999 | 1355 | 1,077 | 1,167 | 055 | . | 2,122 |
| Callfornia. . . . . . . . . . . . . . . . . . . . . . . . . | 1,151 | 2,200 | 1,064 | 485 | 4,457 | 298 | .. | 4,6\% |
| Total. | 81,560 | 91.478 | 60,005 | 57,143 | 140,15t | 90,293 | 12 | 230,476 |


| No. II.-Covntay whers Born. |  |  |  |
| :---: | :---: | :---: | :---: |
| Coasirlea. | Total. | Cunntrie: | Total. |
| Fngland | 84,971 | Norway \& Bwoden. | 821 |
| Ireland | 49,6y7 | Kouth Miparica | 101 |
| Scotian | 5,275 | Mexico. | 420 |
| Walea | 1,176 | Central America.. | 1 |
| Great Initain | 2,251 | China. | 526 |
| Britioh Amer | 7,761 | Weat Indle | 847 |
| France | 6,044 | Azorea. | 176 |
| Spala | 901 | Boclety Islands.... | 1 |
| Portugal | 205 | gandwich isiands.. | 7 |
| Swltzerland | 4,483 | East Indiea | 6 |
| Italy | 1,024 | Arstralin. | 4 |
| Elelly. | 23 | Asia. | 8 |
| Sardinis | 5 | Madeira talands... | 1 |
| Turke | 9 | Africa | 14 |
| Ilolland | 2,548 | United Sta | 29,590 |
| Denmark | 529 | Not atated....... | 145 |
| Prusaja | 8,669 |  |  |
| belgiam | 1,616 | Total... | 230,476 |
| Itussia. | 13 | Citizens of the U. S. | 29,999 |
| Germany | 66,219 |  |  |
| Polund. | 462 | Allens.......... . 2 | 200,577 |

No, Ill. - Coustay wiffer tiny mean to Itraide. United bitates. 205,217 In oltier coantries. 13,974 Country of proposed resjilence not ntatod

Total.
No. 1V.-Age and HEx.

| Afe. | Males. | Fernaler. | Nhes nol stated. | Tolal. |
| :---: | :---: | :---: | :---: | :---: |
| Unders years | 10, 17 | 9.519 |  | 10, \% $^{18}$ |
| 1letween 5 de 10.. | 9,4\%3 | N, NKS | .... | 18,1083 |
| " 10 * 15.. | h, (190) | 7,1171 | . $\cdot$. | 18,076 |
| $\cdots$ 15 40 20... | 80,1009 | 17.342 | .... | 87.810 |
| 420 "25.. | 24,184 | 15,418 | . $\cdot$. | 89,9017 |
| $\cdots 280351$. | \%4,030 | 10,798 | .... | 84,48\% |
| $\cdots \mathrm{Ha}^{4} 85$. | 15,609 | 6,099 | .... | 21,7198 |
| " 85 4 40.. | 12.777 | 8,9041 | .... | 18,14\% |
| 40 and njpward... | 15,074 | 9,281 |  | 25,155) |
| Age not etated.... | 407 | 417 | 19 | ANM |
| Tatal | 140,141 | 90,208 | 12 | 2 210,476 |

English writers say that the late extraoriinary emigration from iroland (1846-1851) hat done much to improve its condition.

| No. V.-Ocectation, |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Oneupations. | Males. | Females, | Ser nol | Total. |
| Merclants ....... | 14,759 |  |  | 14,759 |
| Mechanlea....... | 14,997 | $\ldots$ | .... | 14,097 |
| Farmers. . . . . . . | 84.608 | $\ldots$ | $\ldots$ | 84,693 |
| Mariners | 1,156 | $\ldots$ | .... | 1,156 |
| Nubisers. | 42822 | $\ldots$ | .... | 232 |
| Inwyers. | -2,24 | . | $\cdots$ | \$2,5\%0 |
| Physiclans......... | 247 | .... | .... | 294 |
| Clergymon....... | 149 | $\ldots$ | ... | 149 |
| Servants......... | 12 | 2,590 |  | 2,599 |
| Other ocellpations | 1,496 | 845 |  | 1,811 |
| Not stated.. | 29,pise | 86,419 | 12 | 117,000 |
| Total | 140,18t | 90,263 | 12 | 230,476 |

No. Yl.- blen on tibr Voraer.

|  | Mnies. | Females. | Sernet stated. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| To ports of Mase ....... | 8 | \% |  | N |
| " Now York.. | 182 | 150 |  | 882 |
| " l'enn....... | 2 | 3 | $\dot{2}$ | 7 |
| " Maryland... | 7 | 2 | ., | 7 |
| " Touiniant... | 28 | 20 | i | 42 |
| Total. | 216 | 141 | 6 | 418 |

 mivinh in tilk United Statra hy Neq from Fomelog


| Yeara endising | Males. | Veurater. | Serinas | Toltal. |
| :---: | :---: | :---: | :---: | :---: |
| Sept. 30, 144.. | 48,047 | 35, 667 |  | 81,364 |
| 1445.. | 69,154 | 40, $2: 50$ | 1,414 | 119,801 |
| 1516.. | 90,973 | (11).78 | k97 | 158,142 |
| 1447. | 184.750 | 96,717 | 1,057 | 239.604 |
| 1544. | 186,128 | $92 . .801$ | 472 | 229,443 |
| 1449. | 179,288 | 119,95 | 442 | 2099,610 |
| 15519.. | 2(10, 1018 | 113,899 | 1,0:39 | 315,838 |
| Dec. $\mathrm{HI}, 1 \times 50$. |  | 27,107 | 191 | dx, 850 |
| - 1451. | 245,117 | 1(kn, 745 |  | 408,924 |
| 1502. | 280,60] | 104.01 | 899,470 | 898,471 4191777 |
| 184.:. | 294, 417 | 175,037 | .... | 460.774 |
| 1965.. | 140,131 | 90,287 | is | 230,476 |
| Total.. | 1,405,065 | 1,190,775 | 444,041 | 1,412,871 |

In ad begins meana of we inser a form s Unite
July, 18

We als rapid adv States. I in Ilubne sailed fro are from arrivols.
Coyparati

Vader 5
Between
1
1
21
29
24
3
40 and up
The foll York for suns:

The pro the year 1

## Janamy

Februar
March..
dprli.
May...
Nuly..
A agust.
Soplemt
Oclober
Noveml
lecemb

Linst emigratio and nav: check giv stringent
tiona to $($

In addition to this government table here-which beglue at September, 1843, and does not give the means of comparisun between calendar years till 1850, we iasert one prepared from the original authorities in a form somewhat more available:

United States' Return of Arrivats fhom Abroad.

| Yeart. | Americana and Forelaners. | Of whom were Foreignera. |
| :---: | :---: | :---: |
| 1820-1880.. | 208,979 | *** |
| 1880-1840........ | 782,869 | . . . |
| July, 1840-July, 1841......... | 83,504 | .... |
| 1848......... | 101,107 | .... |
| Jan 1-Dac 81 1848........ | T5,167 | .... |
| Jan. 1-Dac. 81, $1844 . . . . . .$. | 08,867 180,759 | .. |
| 1846......... | 178,685 | . |
| 1847........ | 288,970 | $\cdots$ |
| 1848......... | 242,180 | .... |
| 1849....... | 798,548 |  |
| 1880......... | 825,451 | 284,504 |
| 1851......... | 40S,828 | 879,461 |
| 1852........ | 898.470 | 872,725 |
| 1858........ | 400,777 | 808,643 |
| 18P 1......... | 460,474 | 427.883 |
| 1855......... | 230,478 | 200,877 |

We also add the following table, which shows the rapid sdvance of the German emigration to the United States. Up to 1851, it is from a paper by Dr. Gaebler in llubnen's Statistik; and includes only thuse whe sailed from German ports. The years 1852 and 1853 are from nur government returns, and include all arrivals. There is a considerable business done in
bringing German emigrants to England for them to take passage thence to Americs; others sail from Anlwerp and Havre. Gaebler's Statistics after 1845 are made. up from the returns of different sea-ports:


The arrivals from Germany and Prussia in the gevernment tahles are here added tegether.

Ages of Emigrants.-Tho following table, which was among those scnt to Congress by the State Department a few days since, has not till now been published. It gives the details of a matter which has been a good deal discussed, the age and chance of life of the foreigners who arrive here:

Comearative Statement bitowing the Agr and Ser of l'aseenorbs ahmiving in tire United Statrs frem Foreign Counthies, faom Dec. 81, 1852, to Deo. 81, 1855.

| Age. | 1853. |  |  | 1854. |  |  | 1855. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sates. | Females. | Totni. | Mates. | Femumlen. | Total. | Males. | Fumales. | Total. |
| Under 5 years. .......... | 15,470 | 14,788 | 29,658 | 18,759 | 17.692 | 88,451 | 10,117 | 9,819 | 19,986 |
| Between 5 and 10...... | 15,320 | 14,752 | 80,072 | 17,920 | 16,406 | 84,926 | 9,200 | 8,933 | 18,088 |
| 410 " 15. | 14,506 | 18,877 | 27,483 | 15,589 | 18,017 | 29,206 | 8,005 | 7,071 | 18,076 |
| " 15 " 20. | 29,112 | 25,105 | 54,217 | 43, 8.41 | 82,088 | 75, 814 | 20,008 | 17,802 | 87,310 |
| " 20 " 25. | 61,022 | 97,541 | 98,563 | 50,44t | 82,807 | 89,248 | 24,154 | 15,413 | 89,567 |
| " 25 4 80. | 83,009 | 20,580 | 58,609 | 61,940 | -2,424 | 74,764 | 24,030 | 10,793 | 84,828 |
| " 30 " 85. | 26,867 | 14,05! | 40,448 | 30,028 | 12,876 | 42,404 | 15,6699 | 8,099 | 21,708 |
| 4 35 to 40. | 14,575 | 7,015 | 21,890 | 20, $5 \times 5$ | 0,456 | 80,011 | 12,77] | 5,250 | 18,027 |
| 40 and upwari......... | 26,6S5 | 17,306 | 4,4,051 | 29,476 | 17,90t | 47,877 | 13,5\%4 | 9,981 | 25,155 |

The following table shows the immigration at New York for the last four yoars, with monthly comparisuns:

| Months. | 1858. | 1854. | 1885. | 1856. |
| :---: | :---: | :---: | :---: | :---: |
| Jamuary ....... | 4,901 | 15,614 | 7,485 | 2,844 |
| Yebruary...... | 14,958 | 4,445 | 6,123 | 2,224 |
| March.. | 0, $6 \times 5$ | 8,708 | 2,080 | 4, 584 |
| April. . . . . . . . | 23,283 | 81,148 | 10,105 | 8,29* |
| May........... | 80.218 | 64,078 | 24,177 | 10,006 |
| June........... | 45,578 | 25, 907 | 10,42* | 20,024 |
| Jaly........... . | 22,m94 | 85,247 | 15,716 | 15,440 |
| August........ | 89,6382 | 89,416 | 9,180 | 17,258 |
| September..... | 80,298 | 25,759 | 11,706 | 14,178 |
| Oetpber.,...... | 23,201 | 84.178 | 18,442 | 16,080 |
| Novenber..... | 8t,445 | 20,276 | 7,404 | 16,746 |
| December | 17,424 | 25.800 | 9,360 | $4.2 \times 1$ |
| Tolal. | 2SH,045 | 319,228 | 136,233 | 141,673 |

The proportion of Irish and Germans arrived during the year 1806 appears from the following table:

| Monthe. | Insh. | Garmane. ! | Tots ${ }^{\text {che }}$ |
| :---: | :---: | :---: | :---: |
| Jamusry ................. | $3 \times 4$ | 048 | 2.84 |
| February . . . . . . . . . . . . | 220 | 414 | 2.224 |
| Mlarch...... . . . . . . . . . . | 1,040 | 1,205 | 4, 084 |
| Aprll................. . . . | 3,247 | 2,280 | 8,295 |
| May . . . . . . . . . . . . . . . . . . | 0,616 | 6,808 | 10,008 |
| Junie . . . . . . . . . . . . . . . . . | 6,015 | 0,045 | 20,024 |
| July . . . . . . . . . . . . . . . . . | \$.0e8 | 6,005 | 15,446 |
| Aggust... . . . . . . . . . . . . . | 5,090 | 7,789 | 17,2763 |
| 8eptember. . . . . . . . . . . | 4,246 | 8, 241 | 11,074 |
| Oetober. . . . . . . . . . . . . . . | 8,09t | 7.015 | 16,0\% |
| November. . . . . . . . . . . . | 6,201t | 7,244 | 16745 |
| leeember ..... . . . | 1,834 | $2 \times 41$ | 4.297 |
| Tutal... | 43,996 | 50,446 | 141,674 |

Last year there was an unusunlly gmall amount of emigration, owing to the war, the irafts for the army and navy, increased employment nt home, nud the check given to emigration to the Uniteil States by thn striugent Anerican regulations and the political oljecetions to Catholies and the Irish, and to naturalization,
which had before heen freely granted. The employment of many large steamers now disengaged from the transport service and reduced fares, coupled with the prosperous state of Cannda and Australia, will lead to an increased emigration in 1857 .

Statistics of Emigration to the United States.-The emigration of the past year shows an increase as combared with that of the year 1850 , but is nuch less than any other year since 1848. The following are the figures :

| From 1800-1810 | T0,081 | 1851............ 299,601 |
| :---: | :---: | :---: |
| 1810-1820 | 114,006 | 1852. . . . . . . . . . 800, 982 |
| 1820-1530 | 135,086 | 1853. . . . . . . . . . 284,945 |
| $41830-1840$ | 870, 090 | 1844. . . . . . . . . . 310,223 |
| " 1840-1800 | 1,678,338 | 1855. . . . . . . . . . 186,233 |
|  |  | 1856. . . . . . . . . . 141,915 |

The tide of empration during the year 1856 did not set in steadily until June and ©iuly.

The following shows the number of arrivals and the proportion of emigrants :


From the want of conl, I reland is Ill-fitted for manufueturing industry ; and from tho nature of its soil and rliunate, it is much better suited to pasturage than tu tillage. In 1854 the further reduction of lts populatim hy one or two milliona, by emigration, was considered favorable to its well-being.

| Monthe. | Culsons. | Entgranta, | Total. |
| :---: | :---: | :---: | :---: |
| Janumry | 9,002 | 2,84 | 4,859 |
| February | 2008 | 2,944 | 4,207 |
| March. | 2,576 | 4,484 | 7,154 |
| April. | 4,184 | 8,285 | 12,479 |
| May. | 6,561 | 19,006 | 25,557 |
| June. | 6,118 | 25,024 | 25,148 |
| July | 4,281 | 15,844 | 20,078 |
| Augrat | 8,930 | 17,258 | 21,188 |
| Soptember | 8.439 | 14,048 | 17,497 |
| October. | 8,978 | 16,986 | 20,050 |
| Novembe | 8,518 | 16,745 | 20,268 |
| December | 1,800 | 4,550 | 6,950 |
| Tote | 39,818 | 141,915 | 185,294 |

The following tablea, in connection with the above figures, will be found Interesting:
Tife paie cent. Increabe of lopulation in tife United 8tatpa.


The fer cent. Incheabe of Immiogation in tie Unitio


The Em. ion of 1806.-The following table, showing the deatination of emigrants who landed at Cantle Garden, New York, during the year 1856, and the amunnt of cash meana they porsessed at the time of arrival, is made up from the official table prepared by the Superiatendent of the Commissionets of Einigration :

| Destination. | ransengers. | Cash menas. | Averafn per head. |
| :---: | :---: | :---: | :---: |
| Malae. | 148 | 84, 19860 | -20 98 |
| Nuw liampshi | 177 | 2.77281 | 1566 |
| Vermont .... | 280 | 5,857 80 | 2143 |
| Massechnsetits. | 6,4134 | 162,986 93 | 2668 |
| Rhode 1sland........ | 1,301 | 29,921 60 | 2209 |
| fonnectlent.......... | 2,262 | 99,081 89 | 4344 |
| New York............ | 8.41205 | 2,101,656 80 | 8917 |
| Naw Jersey ........... | 3.243 11749 | 295,490 66 | 9112 |
| 1ennsyivanis......... | 11,749 | 694,78548 | 59 96 28 |
| t)hlo........ | 7,085 | 651,637 s1 | 9620 |
| Indlann. | 1,485 | 150,184 74 | 10190 |
| Itlisama. | 11,664 | 1,400.482 48 | 12668 |
| Mlehigan | 8,298 | 821,017 89 | 10044 |
| Wlsconsln | 18,827 | 1,94,125 10 | 14889 |
| lowa..... | 2,460 | 842,888 75 | 14394 |
| Culffornian............ | 778 | 167,604 85 | 21548 |
| Delaware............. | 81 | 4,10250 | 4) 64 |
| Maryland | 1,164 | 60,704 29 | 3215 |
| VIrginla. | 867 | 25,192 43 | 4149 |
| North Carolina | 66 | 8882980 | 64 (1)2 |
| gouth Carolina | 175 | $\times, 915$ 50 | 5025 |
| Georgla............... | 41 | 8,207 00 | 17461 |
| Flertda........... . . . | 12 | 68960 | 6584 |
| Alabama | 36 | 1,707 \% | 5691 |
| Inoulsfana. | 171 | 10,054 28 | 59 kn |
| Texas. | 76 | 8.89575 | 10954 |
| Arkansas. | 80 | 4,70900 | $1: 666$ |
| M1ssourt. . . . . . . . . . | 1,1064 | 109,122 19 | 10285 |
| Miasissippl. . . . . . . . . . | 14 | 1,880 00 | US 87 |
| Tendesste... . . . . . . . | 178 | 11,806 ${ }^{2} 0$ | 6301 |
| Kentaeky.......... | 460 | 25,817 75 | 55.8 |
| Insirict of Columbla. . | 417 | - 84, 69159 | 8529 |
| Kaneas. | 11 | $8,2 / 500$ | 89583 |
| Nebraska............. | 4 | 810000 | 15000 |
| Minnimota. ........... | 427 | 56,44300 | 18100 |
| Now Mexlco. . . . . . . |  |  |  |
| U'tab.... . . . . . . . . . . . | 1,5il | 82,036 88 | \%28 |
| (Vregun ....... . . . . . . . . | .... | .... | $\ldots$ |
| Washingten........... Canala | 8,526 | 652,823 ${ }^{\text {8 }} 5$ | 76001 |
| New llrunswick |  |  |  |
| Nevn Neotla. | ${ }_{11}^{2}$ | 1500 | 7150 |
| West Indlen.... . . . . . | 11 | 1.10740 | $100{ }^{61}$ |
| Fonih Atherlca...... | 50 | 1,72280 | 5741 |
| Mextro...............* | 12 | 1,727 56 | 11068 |
| C'blitral Anerica. . . . | .... |  |  |
| Ausiru'ia. | ${ }_{0} 118$ | 80109 | 8080 |
| Unce $\therefore 7$. | 2,118 | 120.97999 | 5780 |
| Vakthewn.. | $\cdots$ | .... |  |
| Cotal | 141,625 | (0,642,10400 | C6Y09 |

The total number of arrivala dinring the year in alsout alx thousand more than the provious year, and the proportion of cash means to esch passenger is con-
silerable larger than during the last five months of 1855. The account of cash means was not kept until after the first seven months of 1805 . The number of vessels bringing emigrants last year was 579, from 21 dIfferent ports of Eurcpe, and not one serlous accident has oecurred during the disembarkatiou. Some emlgrants, Ill-advised by Interested parties, have declined to avall themselvea of the facilities afforded ly tha Comanissioners of Emlgration, and have consequenty been plundered in various way*, sometimes irremediably. The governments of Hamburg and Bremen have mude it a penal offense to solicit or book emingrants for inland travel in forelgn countries, and it is to be hoyed that other European governments will follow their example.

Since the 22d of August last a syatem of diding desticute emigrents has been establishel, which has proved highly beneficial. Since that date in 1855, 210 familles were assiated to the nmount of $\$ 2,30925$; in 158 the advances have already been rejaid, amounting to $\$ 1,45625$.

The following is a list of arrivals during two weeks of Januayy, 1857, only .

| Date. | Vrasel. | Where from. | Number of pastengara. |
| :---: | :---: | :---: | :---: |
| Jan. 1. | Ilenry Clay .... | Liverpool...... | 219 |
| 41. | Colambla..... |  | 418 |
| 42. | Vietorla. | Iondon . ....... | 123 |
| 42. | Fldella . . . . . . | Liverpool...... | 250 |
| 42. | Palestine . . . . . | Ifoniton......... | 119 |
| 44. | Cslhoun........ | Liverpool. . . . . | 230 |
| ". 2. | Red Kover..... | Itavre.. ........ | 159 |
| " ${ }^{4}$ | Wm, Nellson... |  | 803 |
| 48 <br>  <br> 8. | Wm. N. Moses. |  | 920 |
| " 8 | Orpliuus....... | Bremen. | 165 880 |
| 45. | Switzerlanil.... | İverpeol. | 898 |
| " 5. | Northampton.. | London.. | 115 |
| 48. | Unton.......... | Bremen........ | 49 |
| 418. | Germanfa...... | IInvro......... | 77 |
| "14. | Qiauntlet....... |  | 67 |
|  |  |  | 3,250 |

The Destination of Eimigrants.-The following tille shows the destination and amount of money porsessed hy all the emlgrants who arrived at New York during the eleven months previous to July 30, 1856:

| Destination. | Number uf Kimigranls. | Amonat of their Canh Capital. |
| :---: | :---: | :---: |
| Nix New Eingland slates | 8,149 | -121,523 01 |
| Fifteen Slave States and D. C... | 8,256 | 194.588 78 |
| New York.. | 89,943 | 1,291, 隹 09 |
| New Jerscy, | 2.273 | 214,95\% 79 |
| Pannsylvania. . . . . . . . . . . . . . . . | 9,421 | 846,163975 |
| Ohio... | 6,117 | $4 i 3.633910$ |
| Indiana. | 1,819 | 101, Sfic 63 |
| 1ilpois. | T,719 | 699,458 81 |
| Michlgan. | 2,85\% | 100.840 86 |
| Wlaconsin. . . . . . . . . . . . . . . . . . | 10,000 | 1,445,661 83 |
| Iown. | 1, 4*5 | 248.385411 |
| ('nlffornia. | 6416 | 165,125 18 |
| Minnesota | $8 \times 5$ | 35,156 (0) |
| Kınsas. | 8 | 12980 |
| Utali. | 1,529 | E5, 51009 |
| Oregon. | 1 | 10 m |
| Tolal. | 106, 407 | +5,894,369 84 |
| $\left.\begin{array}{c}\text { Total of tho Free States and } \\ \text { Terrltorlea............. }\end{array}\right\}$ | 102,451 | ¢ $5,208,4 \times 061$ |

Of lato years ( $1853-1857$ ) thero has heen more Immigrafion to the State of Texus than formerly, especially by Germans, who have formed large setilements in keveral countles in the western portions of the State, where lund ean he had nt 50 cents to $\frac{61}{}$ per ace, and where the climato and soil are favorathe.

Fmighation anil Immahation, - The rollowing from If unnen's "Jahrbucher" for 18..t, given the destinations of natives of Germany embarking from the ports of IIamburg und Hromen:

| Smasimailme. | 11447 | 1444. | 1849. | 1830. | I. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Thlted states. | 82,287 | 88,859 | 82,120 | 81, 881 | 44,3517 70.81 |
| British Amerlea | 7,853 | 1,522 | 316 | 693 | 647 4.918 |
| All otber places. | 1,671 | 1,601 | 1,814 | 1,244 | 4, 6944.85 |
| Tutal. | 11,810 | 30,582 | 14.248 | 18,288 | [0, 772 , 917,667 |

Whether very long The wars it the tide, hi number art Mareh 31s correspondi

The foll eaigrants
Macksmilt
IBraziers,
Jirlek and
Bricklaye
Bullders.
Cablnet-n
Carpeater
Carvers al
Conch-nia
Coal nifne
(ooplers.
Enylneer
Nillwrigh
Miners al
Pafuters,
Pafuters,
glazale
Sawyers.
Rlipipris
Siniths id
Sarveyor
Turners,
Wheelwy
Mochanl

To this joined :

Tnited
Irelani
Grent 1
Germst
Jrussla
All oll
Law
State of
that,
No pere
athenger aenger-oft
ers, milps
not withi
sellings, e
offering

Eixigration froy Gaeat Beitann.

| Years. | To North Amarican colonies. | To tha United States. |  | To Australlan Coloolea and Now Zealand. | To all other plaees. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number. | Rate par ceat. to whole amigration. |  |  |  |
| 1825......................... | 8,741 | 5,501 | $87-28$ | 455 | 114 | 14,891 |
| 1526. . . . . . . . . . . . . . . . . . . | 18,818 | T,068 | 88.79 | 908 | 116 | 20,900 |
| 1827.... . . . . . . . . . . . . . . . . . | 12,643 | 14,526 | 51.87 | 715 | 114 | 29,008 |
| 1829... . . . . . . . . . . . . . . . . . . | 12,084 | 12,817 | $49 \cdot 18$ | 1,056 | 185 | 26,092 |
| 1s29... . . . . . . . . . . . . . . . . . . | 18,307 | 15,678 | ${ }^{1} 00-25$ | 2,016 | 197 | 81,19S |
| 1*80.... . . . . . . . . . . . . . . . . | 80,574 | 24,887 | 48.73 | 1,242 | 204 | 56,907 |
| 1881.... . . . . . . . . . . . . . . . . . | 5S,067 | 23,418 | 8810 | 1,681 | 114 | 88,160 |
| 1832............. . . . . . . . . . . | 66,389 | 82,878 | 81.87 | 8,788 | 196 | 103,140 |
| 1889.... . . . . . . . . . . . . . . . . . | 98,808 | 29,109 | 46.55 | 4,098 | 517 | 62,527 |
| 1884.......................... | 40,080 | 88,074 | 48.89 | 2,800 | 288 | 76,229 |
| 1835. | 15,578 | 26,780 | 6007 | 1,860 | 825 | 44,478 |
| 1814.. . . . . . . . . . . . . . . . . . . . | 84,296 | 87,774 | 50.09 | 8,124 | 298 | 75,417 |
| 1887........................... | 29,884 | 80,770 | 61.08 | 5,054 | 826 | 72,484 |
| 1898. | 4,577 | 14,382 | $48 \cdot 14$ | 14,02t | 292 | 88,228 |
| 1839............................ | 18,638 | 88,586 | 86.91 | 15,786 | 297 | 62,207 |
| 1840.... . . . . . . . . . . . . . . . . . | 82,293 | 40,649 | 44.79 | 15,850 | 1,958 | 90,743 |
| 1841.. | 88,164 | 45,017 | 8790 | 82,025 | 2,786 | 118,592 |
| 142.......................... | 54,123) | 68,852 | $49 \cdot 75$ | 8,514 | 1,885 | 128,844 |
| 1843............ . . . . . . . . . | 29,518 | 28,835 | $49 \cdot 58$ | 8,478 | 1,881 | 57,212 |
| 1844........ . . . . . . . . . . . . . | 22,924 | 43,660 | 61.77 | 2,299 | 1,878 | 70,686 |
| 1845......................... | 81,808 | 08,589 | 68.61 | 880 | 2,880 | 98,501 |
| 1446.... . . . . . . . . . . . . . . . | 48,489 | 82,299 | $63 \cdot 88$ | 2,847 | 1,826 | 129,951 |
| 1847........................... | 109,680 | 142,154 | 55.04 | 4,949 | 1,487 | 258,270 |
| 145.......................... | 81,065 | 188,283 | $75 \cdot 87$ | 23,904 | 4,887 | 248,1080 |
| 1449.... . . . . . . . . . . . . . . . . | 41,807 | 219,450 | $78-27$ | 82,191 | 6,490 | 299,498 |
| 141................. | 82,901 | 228,078 | 79.43 | 16,087 | 8,778 | 280,849 |
| 1*51, to March 81at. . . . . . . . . . | 1,197 | 68,142 | $91 \cdot 57$ | 2,902 | 786 | 58,036 |
| Total. . . . . . . . . . . . . . . . . . | 842,898 | 1,086,407 | 88.55 | 204,385 | 40,820 | 2,624,070 |

Whether the foreign immigration can be kept up / grated in the two years having been respectively 134,very long at Ita present high tigure must be doubted, The wars in Europe, which it was thought would check the tide, have, however, had no effect as yet. Thd number arrived in New York for the quarter ending March 31st, 1854 , was 20,023 , agalnst 29,657 in the corresponding quarter of 1853.
The following table shows the occupations of the eanigrants from Englund in 1854 and '55:

|  | 1854. | 1835. |
| :---: | :---: | :---: |
| Blacksmiths and farriers................ | 1,574 | 881 |
| jraziers, tinamiths, sod whitesmithe.... | 818 | 148 |
| prick and tile makers, pottera, ete.. | 111 | 82 |
| Bricklayers, masens, plastorers and siaters | 3,954 | 1,514 |
| Bullders.............................. | 69 | 85 |
| Cablnet-makers and apholster | 182 | 81 |
| Carpeoters and jotaers. | 5,185 | 2,541 |
| Carvers and gilders. | 65 | 64 |
| Conch-namers, etc. | 61) | 25 |
| Coal miners. | 177 | 62 |
| topers... | $2 \times 9$ | 171 |
| Eugluecrs. | 817 | 285 |
| Millwrights. | ${ }^{38}$ | 10 |
| Miners and quartymen | 4,119 | 1,678 |
| Palaters, plumbers, paper-bangora and glaziers. | 697 | 601 |
| Sawyers................................. | 213 | 141 |
| Nlipwriphts. | 61 | 15 |
| Solitis grene | 216 | 258 |
| Sarveyors, | 27 | 82 |
| Turners. . . . . . . . . . . . . . . . . . . . . . . . . . | 43 | 25 |
| Wheelwrights. | 196 | 106 |
| Mechanics not before sperified. | 8,898 | 2,045 |

To this ntatement the following remarks are suljoined: The tutal number of such adults who emi-

789 and 65,363 , it fullows that the mechanics and skilled workmen connested with the building and constructive trades, who leave the country, form the proportion of about one slath of the whole number. Formers, agricultural and general laborers, and those identlfied with land, constitute one half of the bulk of emigrants.

The number of foreigners who errived in the United States, since 1790 , may be stated as follows; the arrivale from 1790 to 1820 are given on the authority of Professor Theker; those subsequent to that period, are ohtained from the custom-house reports.

Auhivals of Formioners in tib United Statps,


Nativitifs of Parsenoerb araivino in tif: Unitfd Stater.

| Wheme born. | Year cinding Sepl. 30, 1845. |  |  | Year ending Sept. 30, 1847 . |  |  | Y rar endling Pec. 81, 1859. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male. | Female. | Sen not stated. | Male. | Fenuale. | Sex not slated. | Male. | Female. | Sex nol staled. |
| Thiters st | 4,221 | 1,266 | 165 | 8,091 | 1,403 | 25 | 23,053 | 2,474 |  |
| Ireluni. | 8,854 | 8,061 | 222 | 16,066 | 18,359 | 215 | 85,715 | 71,508 | 25 |
| Great Ifritaln and Iroland | 82.751 | 80,153 | 887 | 72.429 | 88,097 | 222 | 109,243 | 28,987 |  |
| Germany . . . . . . . . . . . | 19,718 | 18,074 | .... |  | 29,306 | 256 | 84,206 | 66, 024 | 2,600 |
| Pruska, Austrla, Germany nad Ifolland. . | 21,148 | 14,010 |  | 45.921 | ${ }^{811} 705$ | $2 \times 0$ | 80,695 | 88,342 | 2,000 |
| All oflers..... | 11,488 | 8,971 | 410 | 17,785 | 11,125 | 456 | 15,484 | 8,704 | 2,953 |

Law in Regard to Kimigranta.- liy the law of the State of New York, passed April, 1857, it is provided that,
No peraon ohall, in any eliy of thia State, aolicit emigrant pasmengers or their huggage for emigrant boarding-houses, pass-senger-ellizes, forwurding trasportation llnen, or for ateamero, shipa or voumela bound or about to proceed to any port not withio thia State; or for any perion or for any company weling, er offaring for sate, passaga-thekets, or contrating or offering to costraet for passage ith any auoh ateamer, ahip or
vessel without a licenae for that purposo, whieh ahall exptre at the end ef one year from ita date; auch license may be isaned and reveked in the diacration of the Mayor of the city whero auch license may havo beon granted, except to the elty of Now York, in whteh auch license may bo tasuad or rovok ed only by and In the diacretion of the Commissioners ef Emigra. Hon. Sueh persona recetving auch license ahall pay the sum of 20 , and give a lond, wlth two auffieient guretiea, in the penalty of \$500, conditioned for the good behavior und the observance to him of the provistena thia aet, to the Mayor of the elly ianning the name, or to the Cemmisstonara of Emi-
gration, at the case may be. The money thus recelved or collected on sald bonds shail be for the bencfit of aald city, or of the emlgrant fund. Every person so leensed ohall wear In a conapicuous plave about hila person a hadge or ptate, of such character and in such timo and manner as auld Mayor, In the city of New York, at auch Commlasioners shall prescribe, with the words, "Licenacd Emigrant liunner" In. ecribed thercont, with hla namo and the number of hila licenae. No perten who ia not of approved good moral charaoter ainall be licensed aa auch runner. Every persen who shail sollelt allen emtgrant passengers or others, for the bonefit of heard-Ing-houses, passenger-oflices, or forwarding or trantportation lines, or for any ateamer, alip or vessel bonnd or ahont to procecd to any port not within the State of New York, or for any pereon or company seifing or offoring for sale passagetickets, or contracting or offering to contract fur pasange in any such ateam-ship or veasel, upon any atrcet, lane, alley; or upon any dock, pier or puble hughway, or In any other placo within the corpornte bounda of any city tn thin state, or upon any waters adjacent thereto, over wilch any of sald eltica may have jurisdiction, without auch license, shnil bo deemed guilty of a misdemeanor, and shall be punished by Imprisonment In the county prison or jail not less than three montha, nor exceeding one year.
The bonds mentluned io the foregolng acctions may be aued hy and in the name of the Mayor of the clty in which mach Hecnso may have been issucd, and in the city of New York by and In the name of the Commissloners of Enigration In any court having cognizance thercof ; and In case of a breach, the Mayor, or the said Commissioners, shall recover the full penalty of said boud.

All personal laggeage of embrant passengers arriving at the port of and destlned for the city of Now York, Nhall be landed at the piace or pler deaignated as the landing-place in said clty for emlgrant passengera; and the captain, owners, and consignees of overy ahlp or veasel arriving at sald port with emprant passengers destined for suld city, shasl be Jolully and severally aubject and liahle to a penalty of $\boldsymbol{q}_{5} 0$ for each and every emigrant passenger, or hla personal buygage, Ianded at any place or pler other than the piace or pler aforesaid ; which ponalty shall be a lien upon such ahip or vessel, and may be enforced and recovered by and in the unme of the Comalsaionera of Emigration, either by an action or by warrant of attachment, under and pursuant to articie first of title elghth of chapter elghth of the firat part of the IRevised Statutes.

The Health Officer ahall give notice in wrlting to the owner or ownera, conslgnce or conalgnees, mater, commander or person having charge of every vessel having emigrant passengers on board of nuch veasei, dcatined for the efty of New York, to land anch passengers and their personal baggage, at auch pler or place in the sald rity of New York as has been or may at any time be deslgnated njeclally by the Commlasioners of Emilgration for the landing of emigrant passengers and their personal laggage $t$ and it ahall not be Inwfui to land such pasaengers or their personal baggage at any other pler or place ; and the owner and master of any veaaci, from Whtch paseengers or their persoval baggage ahall be landed, In violstion of the proviaions of thla scetlon, shall be subject to a penalty of 80 for each and every perbon or his baggage monded la violation thereof; which penalty ahall be forthwith a lien on auch ahlp or veseni, and ray be lmmediately, npon such violation, aued for, enforced and recovered, with costis of sult, in the name of and by the Commissloners of Emlgration, cither hy an action In any court having cognlzance thereof, or hy an aitachment under and puravant to article first of title ejghth, chapiter righth, of the first part of the Revised statutes, for which purjose the sald tiommisslonera of Finggration shali forthwith be eredtiors of atieh alip or vessel, and having a direct ilen on such ship or vessel, for said penalty; the sald punalty, when recovered, to be applied and used by the asid Comunlasionera fur the purposes for which said Comninsioners aro constituted.

Eminent Domain. The right of the Stito to Ite publle property or domaln is absoznte, and excludes that of its own subjects as well as other nations. The national proprietary right in respect to those things lrelonging ta private intiviluals, or bodies corporate, within its territoria? limits, is absolute, so fur as it excludes that of other nations; but in respect to the numbers of the State, it is paramomat only, and forms what is called the eminent domain; that is, the right, in case of necesslty or for the pablic safety, of dinjusing of all the property of every kind within the linsits of the State.-Winfat. Inter. Law. See Correb. hetween Mr. Weastea and Lord Asunvutos, Dee. 1837.

Empire (Lat. Imperium). Origlnally the territory or extent of land under the command and jurisdietien of an emperor. The dominions under the sway of anclent home were the first to which the term ennpire was applled; they consisted of two grand divisions -the Empire of the East, or, as it was afterwarl culled, the Lower Erapire; and the Empire of the West. The former admitted of varlona aubdivisiens In reference to the different dynasties to whieh it was suljeet; and the latter became, about the end of the 9 th eentury, the German or IIoly Roman Empire. In all these cases, the sovereign, or chlof person in the empire, was named the emperor. But the term empir. has in several lustances been employed to designate at large extent of dominion, without reference to the title of the ruler or soverelgn of a country; thas we hear of the empire of Persia, IIndostan, etc. The dominlons of the Queen of England aro invariably designated the British Empire ; and the epithet "imperial" is officially prefixed to the larliament of the Unitel Kingdom. The term empire was applied from 1804 to 1814 to the dominions of Franco, including all the countries then ineorporated with it by the conquests of Napoleon.
Emporium, in a general aense, signifles a rity or a place where extensive commercial transuctions are carried on; but it is more particularly applied to tho commercial centre of a country, or the place to which buyers and sellers, from various countries, resort.
Empyreuma (Gr. equvpeve, I kinille). A hurned edor; henee, the oils oltained by distilling various organic substances at high temperatures, are calted empyreumatic oils.
Enamel (Fr. émail) a semi-transparent or opaque vitrified sulstance, of the nature of glass, hut difforing from it ly posseasing a greater degree of fivilility and opacity. The compound which serves an a basis to most kinils of enamel is formed by the fusiun of a pure erystal glass or frit, ground up with a fine calyx of lead und tin, in eertain proprortions; to which is usually added white salt of tirtar. The different kinds of enamel are made by the addition of coloring substances, and melting or incorporating the whole by fusion. For white enamel, Neri (De Arte V"uthiar.) directa galy manganese to be added to the mutter which constitutes the basis; for azure, zaffer mised with calx of brass; for green, calx of brass with seales of Iron, or with crocus martia; for black, zalfer with manganese or with crocus martis, or mangamese with turtar; for red, manganese, or ealx of copper and ertude tartar; for purple, munganese with culx of brass; fer yollow, tartur and manganese ; and for vio-let-colored enumel, manganese with thrice-calcined brass; in making these enamels great nicety is requisite. The general way of making the colored enamel is this: Powder, sift, and grind all tho colors very wieely, and first mix them with one snother, and then with the common matter of enamels; next set them in pots in a furnace, and when they are well mixed and incorporated, cast them into water; when dry, set them in a furnace aguin to melt; and when melted, take a proof of the enamel. If too deep-coleret, uld more of the common matter of enamels; and if too pale, adh more of the celers.
Enameling, the art of luying enamel upon metals, as gold, silver, copper, etc. Kiumel ormaments for trinkets, in almost endless variety, may be prodneel ly the nid of the blowfipe. The enamel is ustally first drawn out into threade, or reduced to thin laniinw, to facilitato the process of fusion; and by the same means the enamel may be laid upon metals. Very elegant ornamental work may be thus proluced. Enameling also signilies to paint in enumel.
Einamel phinting is performed on plates of goll or of copper, but seldem on silver, as this metal is apt to occasion lmperfections in the anrfuce of the emmel. Copper is the metal most generally used for this pur-
pose, enameled ing is executed tiro, where they of glass. This for ity peeuliar manent, the for etfaced or sulli continuing alwa workman's hand entirely confline liable to certain perfect kind of gold, the other instance, somet silver turns the ing of the enum the round or ov zsually commer enamel on both metal from swel serves for the gy otep is to draw with red vitriol, parts of the des this, the colors oil of spike som tion being given to the different pose it is neceas ture. When the gently dried ove the eclors are with the onamel, as enamelers use
Enchasing, making figures other taetals. works, ; ueh as design having $b$ the metal, the w puncheens intro proceeds to inde cation of the bl of the design; small chlsels an skillful artist is with admirable 1
Encyolopa instruction), a ter ma, but someti being etymelogi as it has been j "the l.struction :truction of Cy preposition deter in a circle." abserves, "that but Eincyclopredi
England, th division of Brita hand and the ac to $55^{\circ} 0^{9} 5^{\prime} \mathrm{N}$. extent of coust indented, and fro eept nlong a wid The aljucent set St. (ieerge's Cl Chamel on the tunately nituate is sullicient for $i$ pusition net oul agkrundizensent dering a great in alility been the tive lirunch frot ceuntries of the
Its superficia?
pose, enameled with the white enamel, on whleh painting ls executed with colors which are melted in the fire, where they take a brightneas and luater like that of glass. This kind of painting is particularly prized for lts pecular brightness and vlvacity, which is permunent, the force of its colors not leing liable to be otfaced or sullied with time, as in other painting, and continuing slways as fresh as when it came out of the workman's hands. This method of painting is nlmoet entirely confined to miniature; larger works being llable to certain accldenta in the operation. The most perfect kind of enameling ts practiced on plates of gold, the other metals being less pure. Copper, for instance, sometimes scales with the applicatlon; and silverturns the yellow white. To obviate the cracking of the enumel, the plates are generally made a littie round or oval and rather thin. The operation is asually commenced by laying on a couch of white cunnel on both sides of the plate, which prevents the metal from swelling and blistering; and this first layer serves for the ground of all the other colors. The next ftep is to draw out exactly the subject to bo painted with red vitriol, mlxed with oil of epike, marking all parts of the design very lightly with a pencil. After this, tho colors (very tinely ground, and mixed with oil of epike somewhat thick), are to be laid on, attention being given to the mixtures and colors which agree to the different parts of the enhject ; for which purpose it is neceasary to understand painting in miniature. When the colors ure all laid, the painting ls to be gently dried over a elow ilre to evaporate the oll, and the colors are afterward nelted to incorporate them with the ennnel, making the plate red-hot in a fire such as enamelers use.

Enchasing, or Chasing, the art of embossing or making figures in low relicf upon gold, silver, and other metals. It is practiced only on hollow thin works, dach as watch-cases, tankards, cups, etc. The design having been traced on the exterior surfnce of the metal, the work is hammered upon steel blocks or puncheons introduced within; and thus the workman proceeds to indent the metal by the successive application of the bloek anil hammer to the several parts of the design; after which the work is cleared with small chisels and gravers. In this simple manner a skillfut artist is able to represent foliages, figures, etc., with admirable precision.

Encyolopzedia ( $\varepsilon v$, in, кúк $\lambda o s, ~ a ~ r i r c l e, ~ \pi a t i e i a, ~$ instruction), a term nearly synonymous with Crcloresma, but sometimes adopted in preferenco to it, as being etymologically more definite and completc. For, as it has been justly remarked-Cycloperia may denote "the h.struction of a circle," as Cyropedia is "the instraction of Cyrus;" whereas in Excycloperdia, the preposition determines the meaning to be "instructiun in a eircle." Vossius, in lifs book De l'itiis Scrmonis, observes, "that Cyclopediza is used by sonse anthors, but lincyclopaedia by the best." See Cyclopamia.
England, the southern, and hy far the most fertile division of Britain, correspouds in Intitnde with Ilolhand and the north of Germany, extending from $50^{\circ}$ to $35^{\circ} 45^{\prime} \mathrm{N}$. It a figure is nearly triangular, und its extent of coast is very great, both from lieing much indented, and from the sea bounding it on all sides exeept along a wilth of 70 miles on the Scottish border. The adjacent seas are the German Ocean on the east, St. Leorge's Channel on the west, and the English Channel on the south. No country can be more fortanately situated ; its elimate is temporate; its extent is suficient for its political secarity; whi!e its insular position not only presents the greatest capabilities of aggrandizement in a commercial sense, but has, by rendering itgreat military force unneeessary, in all probability heeu the chief cause of preventing the excentive branch from usurping absolute power, at in tho countries of the Contiment.
lts superficial extent had long been a question of
considerable doubt, and the different estimstes varied no less than $10,000,000$ of scres. Mr. Pitt, on the suthority of Arthur Young, assumed, In 1798, the ouperfleisl extent of England and Wales to be nearly $47,000,000$ of acres ; a later calculation by Dr. Beoke, approaching more to accuracy than any preceding one, fixed it at $38,500,000$ acres. But according to the census of 1851 , the area of the great territorial subdivisions of Great liritian is as follows, viz. : England, 50,922 square miles; Scotland, 31,324; Wales, 7398 ; und the Islands in the Britlsh Seas, 894 square miles; making the aroa of England and Wales 58,320 aquare miles, or $87,324,015$ Imperial acres. The forms of the islands are irregular, and do not approseh simple geonetrical figures, if we except England, which waa not inaptly compared by the ancients to a triangle. The area of Great Britain is equal to a equare of 299 miles to the side; England to a square of 226 miles to the oldo; Scotland to a equnre of 177 miles to the side; Wales to a square of 80 miles to the side; the Islands in the British Seas to a square of 20 miles to the side. While the urea is in the ratlo of these squares, or as $51,31,7$, and $4-10$, the population is nearly as 17, 3, 1, and 1-7; England has, on an average, to a square mile 322 persons, Wales 136, Scotland only 92 , the lslunds in the British Seas 363 persons. While alsont $21,200,000$ acres of territory lie north, and $36,400,000$ acres south of $55^{\circ}$ of north latitude; the populations on the north and south side of the line are respectively about $3,173,000$ and $17,787,000$.
Mfarbors.-l'urtsmouth, Milford IIaven, sud Ilymouth, are the finest Iarbors in England, and are surpassed by fow, if any, in the world. Of these, Portsmouth is entitled to the pre-eminence. This noble lurbor is about as wide at its mouth as the Thanes is at Westininster Irilge, expanding within into a capacious lusin, almost sufficient to contuin the wholo navy of Great Britain. Its entrance is unobstructed by any bar or shallow; and it has throughout water adequate to float the largest man-of-war at the lowest tides. The anchorage-ground is excellent, and it is entirely free from sunken rocks, sand-banks, or any similar obstructions. The western side of the harbor is formed by the island of l'ortsea; and on its southwestern extremity, at the entrance to the harbor, is situated the town of Portsmonth, and its large and important suburb of Portsea. Here are docks and other establishments for the building, repair, and outfit of ships of war, constructed upon a very large seule, and furnishell with evory eanvenience. 11. Portsmonth harbor has tho additional and lmportant advantage of opening into the celebrated road of Spithead, lying between the Hampshire coast and the 1sle of Wight, and forming a safe and convenient retreat for the largest fleets. 11I. Milford IInven deeply indents the sonthern part of lembrokeshire. It is on great extent, and has within it many bays, ereeks, and ronds. The water is deep, and the anchorage-ground excellent; and being completely land-locked, ships lis as safely in it as if they were in dock. IV. Ply: mouth, which, after l'ortsmouth, is the principal naval dépot of England, has un almirable double harbor. The roulstead in l'lymouth Sonnd has been much improved by the construction, at a vast expense, of a stupendous l, reak water more than 1,700 yards in lenglh. This bulwark protects the ships lying inside from the effects of the heavy swell thrown into the Sonnd by southerly and sonth-easterly winds.

Lomdon stands at the head of the river ports of Grent Iritain. Considering the limited cosist of the Thames, there is probably no river that is navignble for large ships to so grent a dir ance from the sea, or whoso month is less obstrueted by banks. London is mainly indebted for tha marivaled magnitude of her commerce to her favorable situation on this noble river; which not only gives her all the advantiges of an excellont port, necessiblo at all times to the largest
ships, bnt readers her the emporiain of the extenelve, rich, and populous country comprised in the basin of the Thames. The port of Londen extends from London Bridge to a littlo below Bleckwall, and is divided Into the Pool, Limehouse Reach, Greenwich Reach, Blackwall : Reach, and Bugshy's Reach. - The coashing trade of London la greater than that of any port in the world, and givee -it 'superiority over Liverpool.

Liverpool, the principal eeaport of Fingland, lat. $83^{\circ}$ $25^{\circ}$ N., long. $2^{\circ} 69^{\circ}$ W., is sttuated on the eastern benk of the Mersey river, while on the west side are the docke, wareheuses, and other commercial buildings. The area of the wet dockn is about 185 acres, and of the dry dock 20 acres. The entrance of the Mersey is impeded by shoals, but at high water may be entered by the largeet shlpe. The docks are the finest In the worid, and In connection with its situation and Inland communication, give it the position it holds, of the first port in England, and having, next to New York; the largest commercial marine. Thr Mersey, now the second commerclal river in the empire, is more Incommoded with banks than the Thamen, and is in all respecta inforior, as a channel of navigation, to the latter. Still, however, it given to Liverpool very great adrantagee; and the new channel which has recently been discovered in the banka promisen to be of much impertance in facilitating the access to and from the pert.

Briatol and Hull are hoth river ports. Owing to the extrmordinary rise in the Bristol chanael, the former is accessible even to the largent shlps. The Humber is a good deal impeded by banks ; but it also it navigable as far as Hull by very large vessela. The Tyne admits vesseln of very conaiderable burden as for as Neweastle, which la one of the most important shippling ports in the empire.
Slatiotics.-The total length of rallwayt in England and Wales open for truffic at 81et December, 1858, was 5,811 miles. The number of passengers conveyed in that year was $84,222,96 \mathrm{I}$, of whom considerably more thap one half were first and second class pasengers. The receipts from the goods traffic somewhat exceed those from the passenger traffic. The length of lines in course of conatruction at 30 th June, 1853, was 491, while the length authorised was 2,969 miles, nearly 2,500 miles being neither open nor in course of construction. The total amount of capital and loans anthorised to be raised by railwey companies in the United Kingdon previous to 3ist December, 1852 (after deducting amonnts proponed for lines anbsequently abandoned), was $£ 556,610,456$, of which $\boldsymbol{\mathcal { E }} 6 \mathbf{6}, \mathbf{1 6 5 , 6 8 0}$ had heen rained: the amount raised in 1852 was $£ 16,898,098$. The namber of passengers that traveled by rallway In the half year onded soth June, 1854, was $45,080,816$; the amount of receipts from passengera was $\boldsymbol{x 4}, 092,661$; from horsea, carriages, luggage, and malls, $\boldsymbol{x 8 0 6 , 1 1 0 ;}$ from general merchandise, eattle, mincrals, etc., $£ 4,826,825$; total for alx monthe, $\mathbf{x 9} 424,602$. See Rarluoatos.

Electric Tolegraph.-Connected with the railwayn is the electrie tolegraph, which is now stretched along thousands of miles across the length and hreadth of the land, or ank in the depths of the ocean, conveying intelligence betweea diatant points with the rapidlty of lightning." In 1846, an associntion under the title of the Electric Telograph Company, obtalned an act of incorporation, and having bought up the various patents for electric telegraphs, they necured the exclusive right of sending intelligence through the xingdom by this meana. Since then chey have been extending their operations in all directiona; but great as are the advantages conferred on the country by this invention, there is reamon to expect that they will lo vantiy increased and extended, an the instrument is capable of atill greater fmprovements ; and when the charges for the conveyance of intelligence are reduced to their
propet lavel, the slectrio telograph will be muoh more generally used.
Comale.-The oamals of Englend are extromely numerous ; In fact no country excopt Holland can enter inte rompotition with her in this raspect. : The Engliph canals are of moderate siae, beling from 25 to 30 , 85, and 40 feet in width, and, in general, from 5 to 6 feet In depth; the bargen navigatiag them are very long, frequently 70 or 80 feet, on a width of 10,12 , or 14 feet ; but In caany cases their dimensions, at least their width, are necessarily amaller, the lese frequented canale being nerrower than thoee we have mentioned. Could the applicstion of ateam to navigation have been foreseen, the canaly of England would probably have been made wider. For fall detalis with respect to the canale of England, and tho recent improvemente in thelr conetruction, and In traveling by them, the reader is referred to the article Canals.
Bridges.-The principal bridges In the kinerdem are the raliway bridges across the Tweed and ine Tyne, and the seven erected scrose the Thames, at London, four of which have been opened aince 1817. Of these, two, the Southwerk and Vanxhall, are of cast-Iron, the one being of three very large arches, and the other of nine archea, each of 78 feet apan. The first example of an iron bridge on a large scale, either In England or any other conntry, was that erected In 7796, et Wearmouth In Darham, the span of which was 210 feet. The chain bridge over the Menal Straits, and the tubular bridge over the same place, ore wenderfal examples of engimeering skill. See article Bnidges, etc.
The principal erops caltivated in England and Walea are wheat, oats and beans, barley and rye, tumips and potatoes, with clover, hops, flax, etc. It is in be regretted that no estimate, derived from suthentio returns, has been formed on which much reliance can be placed, either of the extent of land under different cropa, or of the arernge product per acre. Mr. Caird, in his work on Einglish Agriculture, p. 522, gives the following estinate as the result of his survey of Eingland $\ln 1860-51$ of the extent of land nuder the dif. farent apecies of crops, and in fallow, In England:

| Wheat. | 8,416,750 |
| :---: | :---: |
| Barley and rye | 1,416,750 |
| Oats and rye. | 2,000,000 |
| Beans and peas. | 1,139,000 |
| Clover. | 2,277,730 |
| Roots (turnlpa, mangold, potatoes, etc.).. | 2,116,450 |
| liops, gardens of sll sorts, etc............ | 150,000 |
| Falow eod rape.. | 1,810,000 |
|  | 18,317,000 |

Mines-Quarries-Iron, Copper, Tin, and Salt Works. -In regard to minerals, England does not yield to any country in Europe in nataral abundance, and takes the lead of all In the extent to which these rude treasures have been converted to purposes of utility. England'e great superiority lies in her coal mines, which are not only more productive, but more advantageously situated, than those of the Continent. To the mines along the coast a ready conveyance is afforded by her insular position, and to those in the Interior by her inland navigation. The consumption of coal In England for domestic use has beon estimated at $20,000,000$ tons annually. Large as this quantity is, and larger as it muat be when wa add to it the vast cons amption of manufactories, auch as iron-works, cop-per-workn, salt-works, glass-houses, and the like, there is no reason to apprehend the exhaustion of this precious mineral; the depth of the coal-beds being very great, and the extent of ground containing them amounting to many hundred thousand scres. The principal coalbeds Ito in Northumberland, Durham, Derbyehire, Itaffordehire, and Glamorgenshire. The ports for shipping coal in largu quantitics are Nowcastle, Sunderiand, and liartlepool. The motive of the tax on coal exported to forelgn countries was thus neither an
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apprehension of oventual scarcity, nor oven a calculstion of revenue, 80 much as a dread of giving her Continental nelghbors the means of rivaling her manufactures. Coal is not wanting In Prance and Germany, but the mines are at a diotauce from watercarriage, and as yot very imperfectly wroug'at; while for the purpose of domestio fuel the inhabitants give a preference to wood. After various changes, the export duty on soal was totally abolished in 1850.

According to the census of 1851 the tcial number of persons engaged in the coal trade is 239,459.
in 1858 the exports of coal to foreign countries, according to the real or declared value, amounted to £1,602,762. See article Coal.

In quarries, whether of atone or slate, England is not rich; partioularly the eastern half of the kingdom; and hence the almost unlversal use of brick in ordinary buildings. It is not till the-traveler reacheo Durham that he finds stone commoniy used. In the northern conntios quarries occur frequently; In the southern, those of Portiand and Bath aro the most considerable. Still the annual profits of the whole are small.

No branch of industry has increased more rapldiy in the present age than Iron-works. A centary ago it was computed that England required an annual Importation of 20,000 tons of foreign Iron; an importation, which, for many years scems to have been on the Increase, so as, after the middle of last century, to carry the quantlity required to $80,000,40$,000 , and even to 50,000 tons. This aupply was brought from Sweden and Rusala, and, though burdened with daty, It wae In quantity more than double the native produce. But fortunately, after the year 1780, discoveries were made which Increased greatly the supply at home. Bar Iron had been manufactured in England as ou the Continent, wlth charcoal fuel only, cosl belag deemed Inapplioable to that purpose. Under that impression, the rapid consmmption of the wood In the neighborhood of the different Iren-works had necessitated a removal, at a great expense, of materials from one spot to another, and was on the point of causing sn alarming decay in the business, when the ironmasters, after long peraoverence, succeeded In applying coal to their manufacture. They had to contend with various prejadices, particularly the supposed inferiority of Iron so made; but, in the course of years, the manufacture ocquired such an extent that there were, $\ln 1805,220$ blast-farnaces, makling $\mathbf{2 5 0 , 0 0 0}$ tons of pig iron.
The tranaition from war to peace did a good deal of infury to soms branches of the lron trade; but the affect of the ciange was not of long duration, and the production of Iron in England has since been astonishingly increased. In 1820 the produce was calculated at 400,000 tons." The excitement and speculation of 1824 and 1825 had a wonderfu] Influence on this department. Accorling to careful Inquiries made at the time, the furnaces at work In Engisud and Wales in 1827, with their produce, were as under :


Owing to the fallure of various rallroad and other projects set on foot in 1826 and IV26, the supply of iron seems to have greatly oxceeded the demand; nnd there was a very heavy fall of prices in 1828, 1829, and 1830 , and again in 1850 and 1851. But within the last two years pricea have again risen; and the iron traide is, at this moment, in a state of great activity. The produce of the varlous furnaces of England and Wales, may be entimated at nearly $2,000,000$ tons.

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| $\cdots=1$ | 1824. |  | -1243. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total Fumseal | Produce of Iron. | Tetal Furnscen, | I rodues of Iron. |
| Gouth Waie | 107 | Tons | $196{ }^{+7}$ | Tons |
| North Wales. | 14 | 17,756 | - 11 | 16.190 |
| Northnmboriand |  |  | 86 | 100,000 |
| Yorkshire........ | 84 | 89,104 | . 98 | 66,560 |
| Derbyehtre..... | 19 | -92,678 | -) $80{ }^{\circ}{ }^{\circ}$ | 95,000 |
| Staflordshireserio | 107 ma, | 189,156 | , 168. | 884,840 |
| Shropshire ....... | 43 | 89.506 | 84 | 88,000 |
| Scotjand........ | 25 | 88,540 | 180 | \$00,000 |
| Tutals...... | 854 | 615,285 | 628 | 2,008,200 |

The quantity of Iron of all kinda manufactured and unmanufactured, exported in 1852, amounted to 1,035 , 884 tons, besides 25,289 toris of cutlery of the declared value of $\mathbf{£ 2 , 6 9 1 , 6 9 7 \text { . Now that the rall ways are nearly }}$ completed, it might have been expected that thls would have caused a stagnation in Ite manufacture; but iron is now so extansively used in the construction of ateam-vessels, that the demand has been maintained. For more ample detaila, the reader is referred to the article Inos.
Copper-mines have long been known in England, but they were wrought with very little akill or effect until toward the year 1700. Evon at that time the annual produce, after smelting the metal from the ore, was only a few hundred tona of copper; aud it hardly exceeded 1000 tons annually, down to the middle of last century. From that time forward, the increase became considerable, as woll in Cornwall as in Devon, North Wales, and Derhyshire; in all of which, cop-per-mines were discovered and wrought.r In North Wales, there were two mines, Parys and Mona, whloh, for some time after the year 1780 , ylelded annually a iarge quantity of ore, hut they are uo longer so productive ; the mines of Devon and Derbyshire continue to be wrought, but the great product is from Cornwall; the mines of Cornwall and Devon $\ln 1853$ yielded 181,969 tons of copper ore, the metal obtained froin which, at the rate of $6 \frac{1}{2}$ per 100 , produced 11,823 tons of standard copper, which, at the average rate of $£ I 40$ per ton, amounted to $£ 1,655,220$. It is the Welsh collleries which afford to Cornwall, as to Dew vonshire; the means of amelting; and as the ore is less heavy than the coal required for thie operation ( 1 ton of ore requiring from 2 to $2 \frac{1}{2}$ tons of coal), the praotice is to convey the ore in vast quantities to Wales, particuiarly to Swansea. In this, as in ctherminerals, France is greatly behind England. She has various copper-mines, but her coal-mines, at least those hitherto wrought, are at too great a distance to make anch undertakings profitable; and she consequently requires an annual importation from England.

In 1854 there were exported of brass and copper mannfactures $1,851,689 \mathrm{cwt}$., of the valne of $\mathbf{x 1 , 7 6 1 , -}$ 878.

Cornwall ls also the great seat of the tin-mines of Engiand. A century ago, the average pr ance of the tin-mines hardly exceede? 1500 tons; it may now be estimated at 5000 tone a-y ar. From sbroad England receives tin principally from her Indian possessions, Holland, and the Uniter States. Of this, was imported in 1858, 49,740 owt. The value of tin unwrought, and in plates, exported in 1854, was $£ 1$,307,246.
The lesd-minas of England are princlpally in Cumberland, Northumberland, Derbyshire, Flintshire, and Salop. In 1852 England and Wales produced 80,700 tons of lead ore, and 57,621 tous of lead. Blaok lead Is found in Cumberland, in the romantio district of Borrowdale. The mine was formerly opened only periodicaily, in order that the market might not be overstocked, but for a coneiderable number of years past, It has been constantly open.

There in no country better aupplied than England,
loth with brine-springs and beds of fotail, or rocksalt. The brine-springm are found in Cheshire, In the sonthern part of the county, in places contiguous to the river Weaver, und at Droitwich, in Worcestershire. The beds of rock-salt, which sre of great thickneas, were discovered in the vicinity of Northwich and Lawton. The greater part of the salt produced la obtained from the brine-springs. Formerly considerable quantitiea were produced by the eve juration of seawater, but since the ubolltion of the duties most of the works appropriated to this manufactuce have been abandened. From the brine-springs it ls obtained at the rate of one galton of solid salt from four gallons of Hquid, while common sea-water doen not yield above one in twenty-elght. The consumption of salt is immense. Necker eatimated its consumption in those provinces of France which had puschased an exemption from the gabelle (pays francs redimies) at about 191 Ibs. (Eng.) for each Individval,-Administration des F'ingnces, tome li., p. 12. From all that we have been able te learn on the sutject, we believe that the consumption of the people of Great Britain may be eatimated a little higher, or at 22 lba. ; the ilfference in food and hablts, as compared with those of the Freneh, fully aecountling for this increased sliowance. On this anpposition, and taking the popuiation of Great Britain at $21,000,000$, the entire consumption will amount to $462,000,000 \mathrm{lbs}$., or 206,250 tons.

Exelusive of this immense home-conanmption, Fngland unnoally exports alout $18,000,000$ bushels, which, at 56 ibs, a buahel, are equivalent to 857,143 tone. The Americans are the largeat consumers of British salt.

The cheapness of this important necessary of life is not less remarkable than its diffusion. Ita present cost may be eatimated, at a medium, at from 14s, to 160. at ton.

Sait has been at ali times a favorite aubject of taxa tion. It was first taxed in the reign of Wiliiam III. In 1798 the duties amounted to 5 A , a bushel, but tiney were subaequently increased to 15 a . a bushel, or about forty timea the coat of the ealt. So exorbitant in duty was productive of the worst effects, and, in particular, occasioned a great deal of amuggling. The duty having, in conseqnence, become exceedingly unpopular, was finaliy repealed in 1823,

Fiaheries.-At present our space aliows no more than a brief notice of the principal branchea of the fiaheries.

The mackerel fishery in carried on with great vigor on the coast of Kent and Sussex, in May, June, anil July. Large as the supply is, it wonld stiil admit of augmentation; and herrings aiso might be canght in vast quantities on the coast of Kent in October and November. The desideratum with the fishermen is not so mneh a high price as a certain market ; ond the most effectual way to procure that is, to quicken, by overy possible means, the conveyance to london, which has been accomplisherl by the employment of ateambuats and ruilways.
The pilehard fishery taken place chiefly on the coast of Devonshire and Cornwall, and, though sobject to great fluctuations, as well from the seasons as from England's political altuation relative to the continent, forms on the whole an important branch, employing a numier of aeamen both in eatching the fish and in carrying it to foreign markets. Its season is generally from June to Sejtember.

The herring, the most important of wil the fisherics, is happily now in a state of rapid extension. It formed, during the 17th centary, the great employment of the Duteh seamien, and was contempiated by their neightora with very jealous evea. Accordingly, in the reign of Charlen II., particularly nfter the rupture with Holland in 1672, several acts wore passed for the encomragement of the fimbermen, and in a spirit of hostility to the Dutch. The aubsequent aecession of Whllam to the throne, and the long friendahip between
the two countries, relaxed the exertlons of the gov ernment ; and it was not till after the peace of 1748 , that a large bounty was given on the tonnage of the bussea, or masted vessels, so employed, Stiil Engllih fishermen were unable to compete with the experience and patient persevarance of the Dntch, and it was found necessary to ralse the lrounty from 30 s . to 50 m . per ton. Thia had the desired effect, and the number of husace inereased; but the additional 206. being withdrawn in 1771, the fishery again declised. Tise American war, and, aubsequentjy, the wars of the French revolution, proved extremely adverse to its extension. At last, in 1808, an aet wis pasaed carrying the bounty to fB a ton on the buesea, with a further grant of 2s. per barrel on all herrings canght, whether in bussen or boata. Thia aet was further conifrmed in 1815, and the bounty per barrel raised to 46., with the qualification that the herrings ahould be gntted hefore curing.

In consequeuce of the encouragement thus afforded, the flshery was materially extended; but this was effecterl at a great expense, and had, beaides, severa: bad consequences. The lrounties given by government tempted persons without capital or skill to enter into the business, to the great injury of the reguiar fishermen; so that notwithstandling the extension of the busineas, it was found, as is invariably tise case with all departments carriel on by means of a bounty, to be in a very unhealthy atate. In consequence partly of the clrcunstances now statel, and partly in consideration of the real and substantial relief given to the fishery liy the abolition of the dutles on salt, it was reaolved gradually to withdraw the bounty, which cotally ceased in 1830. And it may be ntated, that though the fishery fell off while the bounty was in the course of being withdrawn, it has since been materially increased, and is now in a better aituation than at any former periol. From the year 1811 to 1830, the year when the bounty ceased, the greatest nunber of barreis cured in Great Britain was 442,195; and in the year ending December, 1853, they moiounted to 778.039, the largest number cured in any previous year. The quantities cured in each year vary consideratily, according to the abundance of the shoals that appear upon the coasts in different seasons; but since 1838 , the annual quantity cured has never falien below 500,000 barrels, whilo for the 25 previous years they would acarcely average 300,000 . In 1851 there wers exported 239,330 barrels of the declared vaiue of £228,835.

The cod fishery ia next in importance to that of the herring. It is carried on in a great varicty of places contiguons to the British shores. The finest tish is canght round the edges of the Dogger Ilank, but within theee few years London has been prineipally suppiied with cod taken between Yarmouth and the Nore. The fisheries ln the ncightorhood of the Shetland and Orkney Islanda, are productive and valuable, but the great bank of Nowfoundland is the principal atation of the alstant cod fishery. About 2,000 men aro euployed in tho sole fishery.

Salinon are rarely caught except in estuaries or rivors, which in most instances are private property. It is found in most English rivens, but in such mmall quantitjes us to make the fishing an olject of littio consequence.

England is chiefiy supplied from the fisheries in the Scotch and Irish rivers, but from some cause or cther there is a growing scarcity in this fish, probably from the weira or salmon-traps placed in the rivers and estuaries in the way of the fish when ascending the rivera to spawn.

Greenland was flrst diseovered by tho Eng:ish; lut in this, as in other brapches of navigation she long allowed the Dutch to take a lead. It was not till after 1750 that, the government having granted a bounty of 10s. a ton on every vessel employed in ths
whale fial thia branc

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1756, they a decrease 1763 thia ! ployed un 96. The in 17 R 2 t 1784 they this, they long contin hif the $n$ whale fishe of $16,118 \mathrm{t}$
The Ne for fully ${ }^{2}$ is accounte the object of peace. pesce, is countries all the Inte relations. fiahery at

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It is a ma time nation this great m ple. The afforded by of Ireland, only in 1818 productiven
Fish is lit Iniand coun afforded tiy larger quan supplied. Labor and t fish annual! 000 pounds, fish. Calcu on an avers steriing. $S$

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whale fishery, considerahle inerease took place in this branch.

In 1750, the veseels empioyed were only 10 ; in 1756, they had increased to 07. The war soon causod a decrease of ons half; bat at the return of peace in 1763 this fishery revived, and in 1770 the veasels employed amounted to 50 ; in 1778 , to 65 ; in 1775 , to 96. The American war again caused a decrease, and in 1682 the vessels so employed were only 38 . In 1784 they increased to 80 , and in 1785 to 140. After thid, they exceeded 200 annually till 1703 ; but the long continuance of the late wars reduced them below half the number employed previousiy. In 1852, the whale fishery employed ahips, of the aggregate hurden of 16,113 tons.

The Newfoundiand fishery has been considerable for fuliy a century past. As a nuraery for seamen, it is accounted of such consequence as to have formed the object of a spacific article In most of the treatiea of peace. The fish caught, particularly in time of pesce, is sent less to Britain than to the Catholic countries in the south of Europe; a market subject to all the interruptions attendant on a cliange of political relations. The number of vessels employed in this fishery at different timea was as follows:

$$
\begin{aligned}
& \text { Ia } 1731 . \\
& \text { 1761 }
\end{aligned}
$$

> The American war caused a diminution; but
> In 1784 the namber was. 986

At this rate the fishery continuad until the war of 1793, after which, particulariy after the rupture with Spain In 1797, It fell off greatly; the fishing-vessele in 1798 being oniy 140.
The continuance of war, and the aggrandizement of the French in Italy, occasloned additional depreasion; so that in 1810 the number of English veasels employed at Nowfoundiund did not exceed 92. The peace seamed to promise a revival of thls important nursery of seamen; and in the year 1816 the number of veasels which arrived in Newfoundland was 795, manned by 6,000 seamen ; but the trade, both then and in 1817 and 1818, proved unprofitable, in consequence of indifferent acasons, of the higa duty impored on fish imported in British vessela Into Naplea, and of the competition of the French fihermen, supported by a high bounty from their government. The total value of fish exported from the Iritish colonies in North America $\ln 1851$, was $£ 827,738$.

It is a matter of surprige to foreigners that a maritime nation should not have more effectually cultivated this great means of facilitating the support of the people. The ample supply which might have been afforded by the Nymph Bank, on the south-east coast of Ireland, has heen avowedly neglected; and it was only in 1818 that the discovery of a bank of aimost equal productiveness in the vicinity of Orkney, was made.

Fish is little known to the mass of the people in the inisnd counties, thongh the facilitles of transport afforded ity the railways ia gradually distributing it In larger quantities. London has always been amply supplied. Mr. Mayhew, In his pamphlet on " london Labor and the London Poor," estimates the weight of fish annually consumed in London at ahove 450,000 ,000 pounds, besides an enormous quantity of shellfish. Culculating tho fish of all kinds at 3d. per 1b. on an average, the amount would exceed $£ 5,000,000$ sterling. See the artlele Fisueries,

Manufactures.-In this great department of Engllsh productive industry, we begin with woolgus, which, slthough no longer the largest of these manufactures In point of exportation, nor even in the value annually made, is entitled to the first place from the priority of its estallishment, as well as from the substantial basis on which it reats. England, from the extent of her pastares, abounded in wool from a very remote age,
and the inhabitants were doutitlens capeble of manufacturing it into rude clothing ; each weaver working in hif separate cottage, and with very littie aid from machlnery. In the 12th and 13th centuries she appeara to hava had only the mont humble fabrlce, and to have fmported all cloth of finer texture ; seading abroad her wool in quantities to Flauders, a country the inhabitante of which were at that period much further advanced than the reat of Europe, with the exception of Italy. It wus in the middle of the 14th century that a better aystam was introduced. Flemieh manufacturers vere invited over to England, and improved greatly the quality of her home-made woolens. The aeats of thic branch of industry appear at that time to have been Kent and Easex; afterward Gloucestershire, end subsequently tha West Riding of Yorkshirs. It occupied at first the southern and more improved districta, and spread afterward to the northward, on account of the cheapness of laber, the ahundance of coal, and the convenience of water-falls for the machinery. The genaral charucter of the woolen manufacture of England has been that of slow progreas, but of little fluctuation; the latter evidently a consequence of its der ading more on home-conaumption than on exportation. In the long period from 1700 to 1780, the exports experionced a regular, but not rapid rise, amounting in the latter years to about $£ 3,500,000$, while the home-conaumption increased in proportion to lier augmenting numbers. More recently the manufacture has been materialiy improved by the adoption of various important mechenical inventions in the spinning, weaving, and dressing departmenta. On the whole, however, lmprovement has been much loss rapid in it than in the cotton manufecture ; so that while har exports of cotton stuffs and yarn have increased bey nd all precedent, those of woolens have been compuratively stationary.

As we ahall enter fully, in the article Woonen Manufacture, Into the details connected with its blatory, progrese, and pres ant state, it would be useiess, even if our limits permitted, to anticipate these here. We ahsil only obsorve, therefore, that the entire value of the manufacture is eatimated at about $\mathbf{£ 2 5 , 0 0 0 , 0 0 0}$. According to the census of $\mathbf{1 8 5 1}$, there were employed in the various branches of the woolen manufactures 176,131 males, and 118,642 females. By far the largeat proportion of the raw material of the manufucture is the produce of her own flocks; but for many years past she has imported large quantities. Previously to 1800 the average importe did not excead $8,000,000$ lha., mostly brought from Spain, tho wool of which long maintained a high character. In 1800 the lmporta increased to $9,000,000 \mathrm{lbs}$. Since then they have gone on increasing, till, in 1852, they reachel $93,761,458$ lbs., of which $48,197,301$ lbs. came from her own dependencles ln Australia. In 1831 tho exports of woolen manufuctures amounted to $£ 5,232$, 0I3. Since then they have annually increaaed, till, in 1852, thay roached $£ 8,730,934$. For an account of the prices and qualities of wool, etc., the reader is referred to articis Wool.

The cotton manufacture of England is entitled to the greatest attention on different accounts. Of all her manufactures, it affords the largeat export, and exhibits the most rapid improvements in machinary. Its introduction, though not remote, is less recent than is commonly suppoaed. It appears to have taken place early in the 17 th century, when it was eatablished at Manchester; but it was long conducted upon a very limited acale. The raw material, imported at first ouly from the Levant, in particular from Smyrns, began, after 1660 , to be supplied by her West India colonies. Tho quantity imported amounted, about the year 1700, to 3,500 bales; but, increasing with the extended cultivation of hor colonies, it averaged, about the year 1720, something more than 7,000 balea. From the colonial conquests of the war of 1756 her import of
cotton recelved further angmentation ; but the manufacture inereasedi very slowly, a great part of her cotcon belag re-exported to Holland, for the eupply of Dutch and German weavers. It was not till after the pence of 1/68, and the invention first of the carding machine, and next of the epinning-jenny, that this manufacture beoame conslderahly extended. In 1775, the average Import of cotton approached 18,000 hales. A variety of inventions, unequaled in the history of manufacturing induatry, were now made (see artlcle on the Cotion Maxofactures), which gave an astonighint timulus to the busineas. Fine calicoes and musling were latroduced; the workmen ware withdrewn from their dotached dwellings, and collected into larsefactorles ; and the price of the finlshed article experienced a reduction, notwithstanding a rise in the raw material, and In the wages of labor. The period which followed the peace of 1783 Is perhaps unexampled for the reduction of price, and the consequent extension of anle that took place I : regard to cotton goode. The commencement of hostlities in 1703 gave a pretty severe abock to the businese; but the improvements in machinery continuing, the manufueture soon recovered, and has gone on increasing, under many viclasitudes, with a rapidity unparalieled by any other businesa, either in that or any other country. Nelther does there aeem to be any ground for fearing that thle progress will be speedily ohecked. On the contrary, her superiority in the majority of what contributes to the advancenent of the mannfacture is so very decided, that, provided the public tranquillity be preserved unimpaired, she need not fear from the competition of othera.

The rader ia referred to the article "Cutron ManuFactore' In this work for an necount of the rise and progresa of this great branch of national industry, and for tabular statements, exhititing the present magri. tude and lmportance of the trade, the sources whence the raw cotton 18 derived, and the forelgn markets for the raw material and manafactured artieles.

Hardoware.-We have already noticed the aurpriaing Increase in the produce of the iron mines of Fingland since 1780. This Increase of the raw unaterial, joined In rome cases to the cominand of coul in the vicinity, anit in all to a facllity of conveys ce of coal and irum by canaia and rallroads, has, in the last 50 yeare, given a great extenslon to her hardwars manufacture. in nodepartment has the subdivislon of emploviment been curried to so great a length; in none ary its effects In choapaning production so eonsplenous. Birmingham and Shefliedd are the two great workshops for Binglish hardwave; tho latter is confined to iron and steel, white in the former not only lron and ateel, hut copporer and Irase, constitute the msterials of iahor. Sheftield fahrieates articles which are leas for ornament than utility, and which posaess in general a certain bulk, such as grates, apades, sickies, files, knives, fonderk, fire-irona; winile In llirmingham vaere in, in addition to artleles of nolidity, a surprising variety of toys, fancy goads, and petty manufacturas ; ench trifliog, when considered noperatuly, but the whole forming an ugyregate of great value. 'ihe most insignificant of these, aneh as a brass cock or a hutton shank, pansea through a number of handa, and each artizan jerforms oniy a single operation. lie thox acquirea an extraorlinary dexterity in his limited department, ami in the course of a day vienpatehes soveral hurdred, perhaps even a thumand artivlex, thromgh his particular stage; the result of al! which le, tiat the price, wion sold in quantities, is ineredibiy low. Another and very interesting feature in tho althation of itirmingham, is the popuinunnes of itm neighlorional. Yet in none of the large towns of lingland ia living lean expensive; an advantage owlug partly to the aimaiance of conl, partly to the rendy auplily of milk and vegetablea from the wide apace oceupled hy the jophlation.
Nails.-The nail trade in carried on, not in the
town of of Birmingham, but in a part of the surrounding district. It ls computed, by the censum of 1851, to employ, in England and Waloe, 16,065 malea, and 9976 females, of whom 7625 are under 20 years of age; for even this heavy artlcle admitts of subdivision of omployment, which lightens the labor, and enublea the workman to avail himself of tho aid of his family. Of the twi towns, Sheffield ia by much the nore ancient ; thin command of coal and iron in the same neighborhoon' having rendered it, so far back as the 18th or 14th century, a place for the fabrication of the homely articles used in thone days by our sncostors. It is about a centary aince its razors, knlves, and files began to take a more delicate shape. Birminghum, however, emifuced a wider range, and advanced with mush greater rapidity ; but Shefficld also has Its adjacent diatrict, Inhalited by manufucturera, though to a unoh less extent than the vicinlty of Birmingham. This district, called IIallamshire, oxtends six or soven milea to the weat of Sheffield.

Hardware is made in eeveral other places, anch as Eilston, Wolverhampton, Dudley, and Walsutl. Each of these towns is aituated in Staffordshire, and, in point of manufucture, la small only in comparison with Birmiogham or Sheffield, Articlea apparently very trifling are msnufnctured to a surprising extent $\ln$ different placea, such as pins at Gloucester, needles nt Red-ilitch in Worceatershire, watch-movements and main-springs at Prescott in Lancashire. The total value of articles of iron, steel, brass, und copper, incluling tho manufacture from its earliest to its most finished stage, is necessarily fluctuating, but may be computed at $\mathbf{£ 3 0 , 0 0 0 , 0 0 0}$ annually; two thinds of whieh apnear to be consumed at home, whife the other third is exported to twa great markets-the Continent of Europe and the United Stutes of America. The number of persons employci in the hardware manufacture in England in 1801 was about 460,000 . in the Unlied States, iron nud coal are found, where land and provisions are certainly much cheaper than in Britain; but the scatterenl state of Americnt faplulation inust, duriog several ages, opposo serious obstaclea to the division of employunent necessary in ali the aicer luranches of the luriwnre manufacture; partichlariy as the ease with which tio Miasissippi and Ohio are navigated hy steum opess even the Western Statea to tho importutiou of Britlsi goods. Upon the whole, therefore, we look on Einglish hardware manufactures as resting on a seldi basin, because in them nre combined several advantages:-the raw material, the comarmad of eherpy fuel, und the ase of machinery, which tho more it is adopted, will brlag is greater proportion of the work within the compass of women ani boys, and thus lesnen the proportion borne by wuges in the cost of the dinisited article.

Linen Tride.-Linen has never formed oue of the staple manufactures of Inglaui, thax having been less cultivated there than on the ofjosite mhore of the Netheriande ; a country which, in the 1 Ith und lith centuries, auplienl the rest of liurupe with the tinent linena and woslens. When linghand sulserguently advanced in inanufacturing rts, the abundant sughiy of wool pointed ont the most nuitable brancia; ani nine was contented to continuo her imports of fluen from the Netherinnis, from Franee, mid from (icrmany, or to favor the munuficture of then sister laland in a dieo partuent which did not exeded her joalonay. in fro. land, the linen manufactum datee about two centurion mgo, and is anill to have owal nuein of its extension to the mensures of tho unfortunato Wintworth, in the
 In Engiand a ceutury ago was probalily not far inelow that : Sher domble population at present, owing to the very general sut-stitution in our the of cothonarticles. At that thoe the llnea manufncture of lingiand was established chietly la Lancushire and Cumberlund, and In a county very rentote from thoue, namely; 1horset.
shlre. In of the man parts of $\mathbf{G}$ tion of mia? induatry', exportatior 18d, per y per cent. o ported. finture of lerily In Se Infinitely there was machinery. ending $\ln 1$ cently thes but it leng thls way bountles, in 1830.

The ma: West Rldin and ita nely ham, and S
Ireland superior to some of $t$ more exten

The expor from Gr in 185t a Tircail an Kinen yart
silk Mon linen, Eing eppesition and Italy ; the raw ma attemptell expected f thgher clas century.
to have be certalniy n proportion sllk heirg the vanity end of the raw silk be and the F saddltion by men who of the edir thus contr ture, while general at This guve which it r had not In continued within the policy unt

From Enginad lively ors was thos: all money provemen the super theis nidi il the mann reguiation In comsera Inieed, w that $\ln 1$
shlre. In 1745, government, apprised of the extemalon of the manufacture of coarse linen in Slleais and other parts of Germany; and actuated by the fallacloua notlon of making a monopoly of all kinds of productive Industry, granted a bounty of 11/d; per yard on the exportation of all Britlah linen of a value from 6d. to 18d. per yard; in other words, a premlum of 20 or 25 per cent. on the prime cost of all Inforior quallties exported, So large a grant soon augmented the manufisture of osnaburgs and other coarse cloths, partleularly In Scotland, although the ratlo of increate was Infinltely smaller than la the case of cotton, where there was r's premium, but a rapid improvement of machinery. The demand for bounty in the ten years
 cenily these impolitlc issues were greatly lacreased, but at length the impolley of forcing a manufacturn in thls way having becomo obvious to every one, the bounties, after being gradually reduced, ceased finally in 1830.

The manufnctore is princlpally carrled on in the West Riding of Yorkshlro, its chlef seat being $\ln$ Ieeds and its nelghborhood, nud In Lancashlre, Dorset, Durham, and Salop.

Ireland arid Scotland, partlcularly Dondee, nre both superior to Fingiand in the manufacture of linen. But some of the flax mills established nt IInll are on a more extensive scale than any other in the emplre.

| The exports of itnen manufacturea from Great Britala and Iroland |  |  |
| :---: | :---: | :---: |
|  |  |  |
| In tsst and 1852 were of the do- |  |  |
|  |  |  |
| Thrend and small wares. | 984,101 | 250,205 |
| Llaen yarn. | 951,426 | 1,140,565 |
|  | 2x,058,224 | 25, 372,851 |

silk. Monufacture.-In the sllk mannfacture, as in the linen, England has had to contend with a formilable opposition in other countries, particularly in France and Italy ; and she has also had to lmport the whole of the raw material. It would therefore hardly have been attemptell by her countrymen, but for the great profits expected from an artlele of general use among the higher classes. Its introd.ection goes back to the $15 t h$ centary. About the beginnlup, of the $\mathbf{1 7 t h}$ it seems to have been carried to a consideralle extent, owing certainly not to the luxury of the age, nor to any great proportion of affinent persona in the community, but to slik hoing almost the only artiple of apparel in which the vanity of dreas conild ilaplay lteelf. Toward the end of the relign of Charles II., about the your 1680, raw silk began to he imported In quantitjes from India; and the Finglsh manafucture received a substuntial aldition by the numbers and ingenulty of the Frenchmen who settled in that country nf'er the sevoeation of the edict of Nantes in 168: Varmus cirenmatances thus centributed to preservo nud extend the manufncture, which eontluued rather upon the increase till the genoral substltution of cuttons for silks alout $1 ; 90$. This pave a serious shock to the manufacture, from which it recovered ouly by slow degreen. Its sitmelon hai nut lndeed treen at any tho prowperous; and the continued complalints of tha munufnoturers accasioned within these fow yoars a fundmmental change la the poliey under which it hat previoualy heen comduc ted.

From the first introduction of the manufacture into Fngland down to 1825, forolign allks were elther positively or virtually wishluled. Ifit the monopoly which was thins aecured to the manufucturars prodiced; what nil monopolles invalatily do, an lidifteronce to binfinsement. Inveal of trusting to the lingenulty or ${ }^{\text {t }}$ the superior akill whith they mhint Sodve ent al to their ald for proserving their aseendeney in the raarket, the manufiacturers sepended upon the cuatom-house regilithons, ind abliltlunal permition on maugglings. In consequenco, Inventlon was quite at a atanil. Such, Indeed, was the intuence of the system in this respect, that in 1826 the member for Coventry (Mr. Blward

Elliee) affirmed in his place in the Iouse of Commons that the improved silk looms in use in various parts of the Continent enai! $d$ the workman to execute five timea as much work as ho could do In England, while in every buslness not protected by a monopoly the result was precisely opposite. At length, after a great deal of discussion, it was rosolved to udopt a noro liberal system. In 1825, a bill was in consequence paseed, allowing the importation of forelgn silks on payment of an ad ealorem duty of 30 per ecnt., accompanled, however, by the effectual reduction of the singularly oppresslve dutles whleh had proviously b en lmposed on the limports of raw and tarawn silk. Thls measure, though vehemently opposed at the time, has proved most auccessful. Wo thing that the sllk trude has made more progress einco 1826, when the nevy syge tem was introduced, than it did during the whole of the preceding century. The following quantitjes of the raw and thrown silk were imported into the Unitod King dom in

| Yearr. | 1 the | Yexis. |
| :---: | :---: | :---: |
| 1822. | 2,080, 0808 | 1850.......... 8,411,094 |
| 1892. | 4,224 597 | 1851.. . . . . . . . $2,020,979$ |
| 1840.. | 6,608,242 | 1859, . . . . . . . 7,809,017 |

This table show conclusively that the manufact are has increased nearly 200 per cent. alnce the sdeption of those sound and liberal measures which have heen the theme of so much lgnorant luvective. : It ls. of importance, too, to observe, that not only the imports of raw silk, but also the exports of manufuctured silk goods, are rapldly increasing. The following table shows this:

| 182. | caxt, 708 |  |
| :---: | :---: | :---: |
| 1889. | 629,490 | 1859......... 1, |
| 1850 | 1,425, 641 | 1853. ....... $9,044,912$ |

It is plain, therefore, that the manufneture la not incrensing merely by reuson of an increased demand is the home market, but beeause lingland is ruplilly gain. ing on her rivals in the markets of foreign countrizs. This nffords unquestlomalite evidence of the improvement ns well an the extenslon of the manufncture. In 1852 her exports of wrought sllks to lirance amountel to $\S 257,550$, nul to the Vnited States to $£ \cdot 16 \cdot 1,590$.
Leuther, however little it may flgure an min article of export, in necessurily one of extensive home consuniption In overy civilized country, particularty in such a climate us that of England, tind where there nre so many rich and smmptuous equipuges. It is matter of regret that there are so very few data, ofticinl or otherwhe, on whleh to form an estimnte of the export or import of hlles in former aye., Such an estimate would posesess intorest, ns indicating the extent of her pasturage and the number of her eattle in comparison with her pepulation. Whatover may have been tho cuse at a remoto date, the custom-house returns, for many years past, show, by the manual limports, that tho deinand for louther jus greatly exceeded the home supply oi hlies. For a lung the this importation took phace from tho Continent of Burope, nul from the luast civilized quarters; frem countries such as lithunula unil l'olund, where the quantly of hides furnished by the cattle waterally asceeds that of tho leather required by tho inhbiltants. Hut since the opening of tha trade to South Americn, it hiss heen found more ndvantageous to lmport hides from that continent, where the herds of wild cattle nro no numerous us to meet the eyo of the traveler fin nhost every polnt of the horizon.

On nu wirage, there are importal munally nbout $2,000,000$ hivises, tansed und untanned. The quantity of leather ammaliy malo la lingland nad Wates may ter witunted at alrout $50,000,000$ :"in. Tho largest taunuries aro at llermonileey, in Southwark; but thero are almo very extenslve establlshments of the kinal iu the country, us in Cheshire, Jancanhlre, WestmureIand, Cumberland, and also in Lincolnahire. The iate war, lig its long continuance, and the mignitude of her arniy und nevy, produced grat orders from gov-
ernment for her leather manufacture. Shoes were and still are made wholesale in soveral towns of Staffordshira, Cheshire, and Northamptonabire; but those made in Londmn, by: the principal dealers, are, though expensivo, by far the bert.

Of the annnal value of the leather manufectured into shoes, boots, harness, saddlery, ete., there are no means of forming a correct estimate; but we have merely to consider the population of England, and the unavoidable extent of their wanta, to be aatisfied that frem $£ 10,000,000$ to $£ 12,000,000$ are rather below than above the mark. But while her home consumption is so considerable, hor export is comparatively amall-mn ordinary years not exceeding $£ 800,000$; but in 1853 the exports of me:-ifactured leather rose to $£ 1,578,595$. Thia large ircrease was probably oceasioned by the recklesa con ignment3 to Anstralia. The leather shipped to Ireland is merely tanned: to other conntries the exports are in a manufactured shape. The duty on leather was wholly abolished in 1830 .

Connected with the general manufacturo of leather is the glove trade, a branch of no inconsiderable extent, being carried on in several of the midland and western counties, viz., it Woodstock, Worceater, Ludiow, Hareford, Yeovil in Somersetshire, etc. This branch of Industry enjoyed for a lengthened period the protection of monopoly, which, howeyer, was abolished in 1825. Many contradictory statements have been made as to the effects of this measure. We believe, however, that the depression so much complained of has not beela produced by it, but $t_{v}$, the substitution
of cotton gloves for those of leather $;$ and we have no doubt that, had it not been for the greater cheapness and improved quality of losther gloves, caused by the abolition of the monopoly, this aubstitution would have been carried much farther than it nas been. The increased imports of the lamb and kid akins, used in the manufacture, show conclusively that it is not deelining.

The manufacture of paper, and the trades connected with it, such as printing, bookselling, bookbinding, otc., give occupation to between 60,000 and 70,000 persons. From the excise returna, it appears that the quantity of paper of all kinds manufactured in England in $185:$ was $114,=2 \pm, 3041 \mathrm{be}$, ; and the duty, which is at the rate of $1 \frac{1}{4} \mathrm{~d}$. per $1 \mathrm{~b} .$, plus .5 per. cent., amounted to $\mathbf{£ 7 5 1 , 5 4 6}$. It is dificult to say what portion of this was used in printlug books, and how much was consumed by the newspapers; but the quantity used by some of the latter is 80 great, that 2 single nowspaper, The Times, is said to consume about 50 tons a week.

We como next to a branch of industry of a very different deacription, namely, the brewery, the amount of capital and lubor invested in browing establishments in England is very large, and particularly atriking to those who have lived on the Continent, and have contristod the situation of England with that of the wine countries of tho south of Europe. It ia only in Flandars and Germany that breweries are numerous; and in tho latter, from the limited eapital, and the scattered state of their population, there are hardly any of those large extablishments which exist in London.

An Account of thr total Nemben uf quarters of Maet mide between the бtic day of January, 1852 and the bth day of Jantary, 1853 , in the Unitel Kingdom; distinoulbilino tme (2'antity mado in rach dointry, and the Quantity uard by Brewers and Victualers, and dy Ietail Burwhes; ano bimilar accouny you and tile quantity cirgd by brewers anh Victuat

| Englend | Year endino bill januaky, 1888. |  |  |  | Year ending btil january, isst. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quartion of | qeasatnes oe malt vaks |  |  | Quarters of Mall made. | quantam or malt vasil |  |  |
|  |  | By brewers and thetuslare. | Hy retall browers. | Totn! |  | ny brewers. and victualera. | lly vulail brewert. | Tots, |
|  | 4,438,483 | 8,445,445 | 431,007 | 8,926,252 | 4, 53x, 730 | 8,576,186 | 457.128 | 4,063,204 |
| Bcotland. | 491,474 | 150.836 | , | 150,396 | \$20,479 | 104,677 | , | 161, 167 |
| Irelsid..... | 207.134 | 161,693 | .... | 160,688 | 208,759 | 160,029 | $\cdots$ | 160,929 |
| United Kingdom | $0,184,061$ | 8,754,821 | 451,007 | 4,237,881 | 5,94,963 | 8,901,772 | 457,128 | 4,358,940 |

Quantitica of apirits charged with excise duties in are made in Eingland is amply bhown by the excise the United Kingdom in returns; but the list of her exjorts is of more consequence to tho political economist, not from the wuigar notion sint it is lyy export only that nutional jrolit is realized, but as indicative of those commodities for which she possesses, in her soil, her climate, or her colonial poasessious-mivantuges that givo them a superiority ove their neighbors. Thus, in the case of glase, the abundance and theapness of her coal enabies her to make on onnual export of above $\mathbf{5} 500,000$. In the manufacture of hats, likewise, her conmund of wool for tho coarser kina, and of firs from her North American colonies for hearer hate, enables her to ship to un extent of nearly 45,000 dozen, or $\mathbf{£ 4 , 0 0 0}$ n yoar. In earthenware linghand has the advantage of elay, of fuel, and of rendy communication by eanals. These, joined to the tusto ani ingenuity of individuals engaged in the inanufacture, carriet it, in the course of the 18 th century, to an extent whici, has rendered it a national object-a tract of 7 or 8 mifen in Staifordshire, called the fottery District, hoing almost entirely appropriated to it. This popuhation of this tract is ntoout 60,000 . The great outlet is Livarpool, and the ripments take place partly to the United Statos-purtly to the continent of kurope. Lixports (comprising porcelain) in 1853 reached $£ 1,137,911$ in real value.

The stocking manufacture is carried on chiefly in the counties of Nottingham, Deriy; and I oicester. It formerly employed great numbers of women in knitting; but in this, as in moat other liranchea, machinery has greatly superseded manual labor. Lace is mude in vast quantities in the indland counties; and here also machinery is extensively ajplied. And so
extraordinary has been the progress of invention in this department, that Britiah lace at present commands a ready aale in all foreign markets, and is largely smuggled ever into France.
Commerce and Shipping.-With Ireland the intercourse of England is very great-that country sending them grain, salted and fresh provisions, live cattle, butter, etc., to the amount of $£ 6,000,000$ or $£ 7,000,000$ annually, and taking largely in return her manufactures, particularly cotton, weolen, and hardware.
North of Europe,-From Russia her chief imports are tallow, hemp, flax, corn, linen, timber, pitch, etc. ; from the Swediah dominions, iron and timber; from Poland, wheat, timber, and potash; from Prussia, whent, timber, and flax. All theae countries take her cottons, hardware, and colonial produce.

Central part ( $f$ Europe.-From Holland her imports are not 'oreign merchandise, as in the 17th century, when the Dutch were thn carriers of Europe, but agricultural produce, as oats, wheat, $8=\frac{1}{2} / \mathrm{s}$, hemp, cheese, butter; aiso gin; the whole to a large amount; in return for which the Dutch take her h irdware, cottons, and woolens. From France her inuports have long been burdened with heavy duties, but still they are large and increasing, consisting chiefly of wine and brandy, silk, lace, gloves, etc. With Germany, her chief intercourse is through the medinm of Holiand and Hamburg. With these : 'n atries her exports are large, particularly in cottons, hardware, and colonial produce. Her imports are also very various and
large, consisting of wool, corn, flax, timber, linen, and wine, from the vicinity of the Rhine

South of Europe.-Here we enter on countriea of much less indus ry. From Portugal England takes wine in very large, and fruit in smaller quantities, in return for her cottons, her woolens, and hor hardware. From Spain she receives wool, wine, brandy, oil, fruits, barilla, etc. Italy, without any commercial trenty, takes a large quantity of her manufactures and gives in return silk, oil, and fruit. With the Levant her traffic is similar-consisting of an export of manufactures, particularly printed cottons and hard ware, and of an import of silk, fruit, and drugs.
The United States are, notwithstanding their tariff, her best cuatemers, receiving from England manufactures of almost every kind to a great amount, and sending her in retarn vast quantitios of cotton, tobscco, rice, and flour; but the merchandiso received from the United States being far inferior to the value of English exports, the difference is paid by remittances in money from the continent of Europe, arising from American merchandise sold there. With South America a wide field of commercial intercourse has been opened; at present, however, the chief articles received from that vast region are bullion, hides, skins, indigo, and cochineal. The trade is, and will long be subject to the varions disadvantages of a newly-settlad conntry, bare of capital, deficient in industry, and possessing but a small number of consumers of European commoditics in proportion to its extent and fertility.

Commercr of the United Btates witif England, From Ootohiri 1, 1820, to Jely 1, 1856.

| Yeara ending. | Exporta. |  |  | Imports, | Whereor there was in Builion and 8pecte, |  | Tontage Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Immeatle. | Forelgn. | Total. | Total. | Ezparted. | Imparted. | Americen. | Forelga. |
| 8ept. 30, 1821...... | \%18,389,109 | 4,2,128,994 | (18,464,703 | 429,180,882 | 61,943,665 | \$645,529 | 128,729 | 19,546 |
| Sept 8, 1822...... | 21,072,895 | 1,029,224 | 22,101,619 | 82,108,947 | $798,218$ | 99,920 |  | 30,238 |
| 1828...... | 18,968,185 | 978,474 | 10,946,059 | 26,801,270 | 865,692 | 282,822 | 182,042 | 50,784 |
| 1824....... | 18,218,941 | 1,268,282 | 19,457,123 | 28,647,022 | 812,112 | 149,164 | 140,125 | 4y,810 |
| 1825 | 84,090, 390 | 2,081,186 | 84,127,576 | 84,271,610 | 308,266 | 82, 888 | 172,409 | 89,242 |
| 1886...... | 19,085,185 | 1,569,028 | 20,684,208 | 24,862,208 | 698,077 | 128,216 | 147,454 | 41,301 |
| 1827....... | 28,514,421 | 904,596 | 24,419,017 | 28,653, 83 | 200,101 | 84,111 | 202,970 | 68,706 |
| 1829. | 18,787,601 | 2,900,261 | 21,097,022 | 80,470,189 | 2,852,209 | 20,978 | 188,858 | 75,688 |
| 1829. | 21,291,894 | 1,787,457 | 28,048,701 | 24,892,768 | - 678,888 | 89,826 | 179,843 | - 60,722 |
| 1890. | 23,778,020 | 826,946 | 24,899,966 | 22,755,040 | 112,220 | 144,231 | 192,714 | 68,589 |
| Tol | \$218,006,541 | 15,40 | -228, | \$472, 650,539 | 32,47,842 | 1,621,670 | 1,580,676 | 482,021 |
| Sopt. 80, 1881 | \$23,841,430 | \$2,887,430 | 681,209,869 | , 41,854,828 | -1,615,643 | 6180,480 | 235,845 | 63,481 |
| (1882. | 26,095,768 | 2,875,187 | 29,810,905 | 84, 849,098 | 1,112,298 | 88,639 | 189,579 | 06,615 |
| 1888. | 29,682,678 | 1,458,768 | $81,085,441$ | 86, 868,815 | 244 | 31,008 | 188,928 | 87,602 |
| 1884 | 84,873,604 | 2,974,726 | 41,648,420 | 45,568,005 | 270 | 5,805,818 | 216,258 | 89,886 |
| 1885. | 47,900,682 | 915,809 | 48,936,841 | 59,066,930 | 39,087 | 1,808,489 | 215,510 | 89,582 |
| 1836. | 88,802,483 | 1,874,747 | 55,177,220 | 75,761,718 | 2,010 | 2,824,920 | 288,817 | 78,450 |
| 1887 | 46,285, 102 | 4,884,768 | \$1,110,870 | 48,548,757 | 1,839,470 | 118,209 | 288,008 | 67,125 |
| 1838. | 48, 599,888 | 1,545,188 | ${ }^{6} 1,404,076$ | 44,191,851 | 10,185 | 9,009,848 | 841,616 | 76,603 |
| 1840 | 84,615,827 | 8,054,108 | 58,068,485 | 64,564,716 | 8,168,490 | 1,420,092 | 989,486 | 92,685 12909 |
| 1840 | 61,051,778 | 5,096,892 | 67,048,660 | 88,114,188 | $4,8 \times 3,786$ | 808,803 | 888,518 | 129,218 |
| Tota | 42d, 728,075 | 827,970,002 | \%451,690,287 | 6479,482,953 | -18,160,527 | 421,087,8S0 | 2,648,897 | 871,297 |
| Sept, 80, 1841...... | \% $4,184,957$ | 48,871,220 | \% $47,565.577$ | -45,780,007 | $\neq 13,018,187$ | (\$50, 500 | 272,631 | 190,768 |
| 1848...... | 24,651,813 | 2,932, 140 | 49,018,048 | 83,441,490 | 1,702,748 | 205,910 | 285,479 | 189,054 |
| 9 mos. 1443. | 87,149,095 | 1,106,064 | 88,255,159 | 26,1+1,118 | 416) | 14,805,714 | 829.080 | 168,174 |
| June 80, 1841. | $45,814,042$ | 1,125,214 | 40,940,156 | 41,476,081 | 85,7106 | 1,181,950 | 811,741 | 102,088 |
| 1815. | 41.518,984 | 4,707,244 | 46,286,17. | 44,087,950 | 3,679,187 | 180,829 | 874,846 | 198,021 |
| 1816. | 42,781,819 | i, 854,489 | 44,540,103 | 43,84,160 | 978,11! | 452,711 | 864,149 | 188,042 |
| 1847 | 70, 923,777 | 84,421 | 71,054,698 | 65,170,97.4 | 8,085 | 10,812,980 | 457,593 | 8100,535 |
| 1418 |  | 8,024,291 | 71, 482,815 | 69,703,502 | 9,818,643 | 1,916,962 | 478,548 | 208,210 |
| 1449. | 60,101,992 | 1,480,478 | 71,042,870 | 188,815,425 | 764,407 | 2,671,792 | 676,018 | 340,9010 |
| 1850 | 64, $6 \times 6.959$ | 4,210,271 | 68,807,230 | 72,118,971 | 9,5034,15 | 587,246 | 440,058 | 269,078 |
| Totsi | (515,181,047 | ( 40,910, | *56,042,200 | 1491,106,906 | (22,078,208 | , $41,816,001$ | 8,859,527 | 2,156,185 |
| Jung 8), 1851. | (105,121.021 | 48,151,206 | -118,278,187 | - $90,012,238$ | -17,000,081 | 81,098,667 | 621,066 | 974,888 |
| 1453. | 107,754,857 | 4, $1.880,1 \times 5$ | $112,424,844$ | 86, 119,459 | 84,402, 284 | 1,457,484 | 879,484 | 808,017 |
| 188, | 112,778,850 | 8,208,264 | 115,987,623 | 12\%,7\%4, 24, ${ }^{140}$ | 18,631,000 | 0*4,799 | 864.893 | 429,174 |
| $1 \times 84$. | 1155,111,704 | $5,568.6011$ | $140,075,8899$ | 140,398.744 | 27,0921,203 | 8., 106 | 858,970 | 438,246 |
| 1855. | 129,475,907 | 0,158,179 | 145,620, 145 | 1122, 4800,298 | $47,888,015$ | 167, 46: | 881,484 | 2043,945 |
| 1856. | 152,56t,975 | 1,517,560 | 154,070,085 | 114,045, 044 | 24,161,062 | 421,071 | 828,617 | 889,108 |

For a more exteniled account of the commerce of ale sonds to Asia woolen goids, copper, and a great Engiani, as well as of Great liritain, see Gakat Blatmin.
From Asin lingland imports tea, indigo, cotton, coffee, sugar, piece goods, ivory, drugs, etc. IIer principal article of export is cotton goonis, for which, how singular eoever it may appear, Indis hat, aince the opening of the trade in 1814, becone one of the very best markets. Besides cotton atuffe and yirn.

## ENG

The recent discovery of the gold fields in Australla, and the consequent infux of immigrants into that country, bave made it an Important market for England's prodnce and manufactures. The declared value of her home produce and manufactures exported to the Australian colonies, Ineluding Van Dieman's Land and Now Zealnnd, In 1850, was $£ 1,574,145$, while in 1851, 1852, and 1853 It respectively amounted to $£ 2,807,356, £ 4,222,205$, and $£ 14,506,532$. The number of ships that cleured from the United Kingdom for the various Australian colonies was 272 in 1851, 568 in 1852, and 1201 in 1853. A return of the exports and imports to the Austrulian colonies for 1851, 1852, and 1853, shows some curions resuits. The exports for 1853 exhlhit in some instances an extinction, and in almost every article a decline, except wool, and of course gold, which is not noticed in the return; thus tanners' bark, of which 85,804 ewts. were exported in 1852, was reducerl to $4: 76$ cwts, in 1853 ; and tanned hldes, of which 642,198 lis. were exported in 1852, only amounted to 9842 lbs. in 1853 ; while untanned hides rose from $20,243 \mathrm{cwts}$. in 1852, to 41,987 in 1853. Flax and hemp, guano, wine, timber, tortoise-shell, whale-fina, etc., all daclined or disappeared from tho return. So did copper and lead ore ; but copper, partly wronght, that is, in bars, rods, or ingots, increased from 373 tons In 1852, to 686 tons in 1853. Quicksilver fell from 14,631 lhs. in 1852, to 6933 lhs . In 1853; and wool rose from $43,197,301$ lhe. in 1852, to $47,075,963$ liss. in 1853.

The amount of exports in 1851 being doubled in 1852, and quintupled in 1853, and probilily incraased still more in 1854, could not fail to cause a glut in the market, which has produced great enalurrassment in the colony, and entailed heavy losses on the specula-tors.-E. B. For complete statistics of Great Britain, see article Gneat ilhumain.

English Channel (called by the French la manche), is that part of the Atlantic Ocean which lies between the north-west coant of France mad the southern coast of England. Its easitern extremity is conneeted with the German Ocern liy the Strait of Calais, and on the weat it is imperceptibly confounded with the Atiantic Ocean. It lies hetween lat. $38^{\circ} 48^{\prime}$ and $51^{\circ}$ north, and long. $1^{\circ} 20^{\prime}$ east and $5^{\circ} 43^{\prime}$ west. At its termination-din a line drawn from Land'a Find to the extreme casteriy joint of the department of Finisterre, in Frnnee, it is about 40 leagues wide. On the French soant it forms three considerabite bays; the must easterly receives the Sevarne; the second receives the Seine and several nmaller rivers; the third and largest lies on the south-west of the peninsuia of Coteulin. On the English const is Monnt liay, hetween Lizand Point and Land"\% Find. Letween Lizard I'oint and Start l'oint is a large gulf, on which are sitnated Talnouth and Plymouth; the Gulf of lixeter ites to the east of Start Point. The principal iniands in the English Chaunei are, the Isie of Wight, on the Englian coast, and the Norman Islands, lying en the French coast, the principal of $v$ inich are Guernaey and Jersey. The prevailing winds are from the west. The Channei, being shaliow and confined, is subject, from its communication with the Atiantic, to high and inpetnous tides, its watera contain many fish, of which the most inuportant are the mackerei and the horring. The oynters of Consat are also famons.

Engraving (Sax. grafian, to dig). The urt of producing ly tncision or corrosion designs ujon biocks of wool, plates of metai, or other materiala, from which impressions or prints upon piacer or other auft sulp atances are obtained by presmure. Engraviog, an an art, aeenas wo tis re neariy the mane reiation to design and painting an typography bears to written langnage ; and its utiity anil great importance must be obvions to every one from its capahility of giving a bouniless circulation to representations of the most valuabie
examples of the arts and of ohjects connected with acience. By some authors it is plased among the representations called monochromes ( $\mu$ орохоњ́цагоt). Xylography, or wood engraving, was the earliest method practiced; but its origin is involved in obscurity. If we might rely on Du Halde (Description, ctc., de l'Empirs do la Chine, 4to. 1785), it is possibio that it was known in China 1120 yeare before Christ; thongh we think lts invention is of a much later period, as the Chinese were not acquainted with the art of making paper till 95 B.C. It has been stated that this art was introduced Into Europe from China through the Intercourse of the Venetian merchanta with its inhabitants; for it is proved that engraving on wood hat been practiced in that part of Italy which borders on the Adriatic as eariy as the 18th century. The first wood engravings in Europo of which any thing is known with certainty were oxecuted in 1285 , ly a brother and sister of a noble family of the name of Canio. They represent the netions of Alexander; and though doulta of their authenticity are expressed by Heinecken, Mr. Williain Young Outloy, the author of the elegant and learned IIstory of Eingruaing, to which we are much Indeited, thinks otherwise. But for the accidental discovery by a Venetian architect ef the name of Temanza of a decree of the magistracy of Venice, in 1441, we might have been wittont positive proof of the practice of the art in Italy previous to 1467, and the Germans might atill have continued to clalm the honor of ita introduction into liurope. This decree, dated 11th Oetober, 1441, states in sul)stance that the art und myatery of making cards and pointed figures had fallen to decay owing to their extensive importation; and in order that the native artiats might find encouragement rather than foreigners, it was ordered that no work of the said art, printed and painted on cloth or paper-via, ait:ir pieces, or imagee, and playing-cards, and whatever other work of the said art is done with a lirush and printed-should be ailowed to he brought into the city; on pain of forfeiting the works, hesides a pecuniary penalty. Thin decree mlainly inciicates that wood elgraving was practiced in Venice as eariy as the commencement of the fifteenth century. In Germany and the Low Countries, the early block books seem to hate existed as early as $1+220$, and to have given Gutteabarg the hint for usiug movable typer. At Rome, in $1 / \mathrm{tiz}^{7}$, a work entitled Jeditutiones Jnhuunis de Turreere mata, insued from the press of Uiric lian, embelilished with wood engravinge, in which the design and execution of an Itation arint are evident. The decorations if the work of Valturius by Matteo I'asti, of Verona, pubinshed fice years afterwari, exihinst considerahte npirit and accurdey; und before the end of the ifitenth century the art had been carried to great jerfection. as muy be proved by the delicacy and $\mathrm{p}^{\prime}$ urity with which the designs are engraved in the celohratel Hyprerotonachia of Colonna. At this period, howover, the diacovery of copper-phate engraving had been made, and to thin the more ancient art videmi phace. Mano Finiguerra, agohismith and soulphor of Fiorence, nal jupil of Masacelo, about the unilife on the fifteenth century, seems from the mont authentic accounts to have been the person to, whom the worid is indebted for the discovery. In his time, and for a considerabid perion jreviously, it wat the practice to decorate charein and otiber piate with works in nifllo, which wore dowigns hatched with a steci peint upon gold or ailiver, then ongraved with the burin, and run in, white hot, with a eomposition calied niello- 1 compommi of wiver, lend, eopjer, suiphur, and lwarax, which was more eanily fusibie than nityor, and of a biack color. The миpertinum jurt of this nieilo whidh remained nbove the surfice of the piate was then rubised off with scrapers, und cieaned away with pumice-stonu, ieaving the engraved design on the plape with all the efiect of a print. In order to pre-
serve copies of their designs, the artists were in the habit before filling the design with the niello to take impressions of the plates with earth, over which liquid sulphur was poured, and from which, when cold, the enrta was removed. But Finiguerra carried his practice "eyond thls; for with a mixture of soot and oll he filled the cavitles of the engraviag, and by pressing damp paper upon it with a roller, obtained Impressions on the paper, having, as Vassari says, all the appearance of drawings done with a pen, "venlvane come disigaate di penna."

Eingraving on Wood, or Xylography,-In this branch of the art the material nsed is a block of box or-peartree wood, cut at right angles to the direction of the filires, its thickness being regulated by the size of the print to be executed The subject is drawn on the block with a black-lead pencil, or with a pen and Indian ink, taking care that the whole effect is represented in tho lines so drawn. The whole of the wood is then cut away, except where the lines are drawn, which are left as ruised parts ; in which point it is that this mode of engraving diffors rasentially from copper-plate engraving, wherein the lines are cut out or aunk in the metal, instead of being raised from it. The impressions $f$ sm wood blocks are taken in the sonie munner as from printing types.
Engraving on Copper is performed by cutting lines representing the subject on a copper-plate by means of a steel instrument ending in an unequal-sidet pyramidal point, such instrument being called a graver or burin, without the use of aquafortis; which mode will be seen below under the art. litcining. Besides the graver there are other instruments used in the process; viz., a scraper, a burnisher, an eil-stone, gnd a cushion for supporting tho plate. In cutting the lines ca the copper the graver is pushed forward in tho direction required, being held in the hand at a sasall inclination to the plane of the copper. The use of the hurnisher ls to soften down lines that nre cut too deep, and for burnishing out scratches In the copper: it is about three inches long. The scraper, like the last, is of stcel, with three sharp edges to it, and about six inches long, tapering toward the end. Its use is to scrape off the burr, ralsed by the action of the graver. To show the appearance of the work during its progress, und to polish off the burr, engravers use a roll of woolen or felt calle ${ }^{2}$ a rubber, which is put in action with a little olive oil. The cualion, which is a leather hag aho:t nine inches diameter flled with suml for laylay the plate on, is now rarely used except by writing engravera, For architectural subjects, or in skies, where a series of parallel lines nre wated, in ingeaious machine was invented by the late Mr. Wilson Lowry, called a ruling machine, the accuracy of whose operation is exceedingly perfect. 'This ia mado to act on an etching ground ly a point or knife, connected with the apparatus, nud bit in with nequafortis in the ordinary way.

Fitching ia a suecies of engraving on cepper or other metals with a sharp-pointed instrument cnlled an eteh-ing-ncedle. The plate is covered with nground or varnish capable of resisting the action of mumfortis. The usual method is to dras the design on paper with. a black-lead pencil; the paper beling damped and laid upon the plate, prepared as alove, with the drawing next the etching ground, is passed through tho rollink press, and this the design in tranafe red froms the paper to the gromnd. The needhe then sf atehes out the lines of the design; and aquafortis being poured over tho plate, which is bordered round with wax, it is allowed to remain on is long enough to corrokio or bito in the lines which the etching needle has made. Eitehing with a dry point, as it is eallod, is porformed eutirels with the point without nny grounl, the burr raised heing taken off ly tho acraper. Etching with a aoft gromad ts used to limitato chalk or black-lend drawings. for this purpose the ground is mixed with a portion of
tallow or lard, according to the temperature of the air. A piece of thin paper being attached to the plate at the four corners by some turner's pitch and lylng over the ground, the drawing is made on the paper and shaddowed with the black-lead pencil. The actlon of the pencil thus detaches the ground whlch adheres to the paper, according to the degree to which the finlshing is carried: the paper being then removed, the work is bit in the ordinary way. Stippling ls also executed on the etching ground by dots insiad of lines made with tbe etching-needle, which, according' to the intenslty of the shndow to be represented are mado thlcker and closer. The work is then bit in. Etching on Steel is execnted much in the same wny as in the process on copper. The plate ls hedded on common glazier's putty, and a ground of Brunswick black ls laid in the usual way, through which the needle scratches. It is then bit in, In the wny above deacribed.

Mezzotinto Engraving.-In this specles of engraving the artist, with a knife or inatrument made for the purpose, roughs over the whele surface of the copper in every direction, so as to make it susceptlble of delivering a uniform black, smooth, or flat tint. After thls process the outline is traced with an etching-needle, and the lightest parts are scruped out, then the middle tints so as to leave a greater portion of the ground, and so on necording to the depth required in the several parts of the work.

Aquatinta Engraving, whose effect somewhat resenbles that of an Indian-ink drawlag. The mode of effecting this (the design being nlready etched) to cover the plate with a ground made of resin and Burgundy pitch or mastle dissolved in rectified splrit of wine, whlch is poured over the plate lying in an inclined positiou. The spirit of wine, from its rapid evaperation, leaves the rest of the composition with a granulated texture over tho whole of the plate, by which menns a grain is produced by the aquafortis on the parts left open by the evaporation of the spirit of whe. The margin of the plate is of course protected in the usual way. After the aquafortis has bitten the lighter parts they are stopt out, and the aquafortis is again opplied, and so on as often as any parts continue to require mere depth. Formerly the graia used to be produced by covering the copper with a pewder or some sulistance which took a granulated form, instead of using the compound above mentioned; lut this process was found to be both uncertain and iniperfect. In the compound the grain is rendered finer or conrser, in propertion to the quantity of resin introducel. This mode of engraving was invented by a lirenchman of the name of St. Non, about 1662. IIe communicated it to Jean Baptiste le Prince, who died in 1781 , from whom it was acquired by Paul Sandly, who introluced it though the medium of Mr. Jukes into Fingland. It has been practiced In this country with much greater surcess than elsewhere.

Etching on tiluss.-The ghass is covered with a thin ground of heeswax: nud the design being drawn with the etchinis-needle, it is sutijected to tho action of sulpharic acid sprinkled over with pounded four or Derhiswire spar. After four or five hours this is removed, and the ghass clemed off with oil of turpeutine, lenvlige the parts covered with the bees-wax untouched. l'his operation may be lnverted by drawing the design on the glass with in solution of bees-wax and turpentine, and suljecting the gromul to tho nction of the acid.

Eugruring on Stone, or Lithugraphy (âflos, a stone. und jpaфعu, to urite or (draw). - I madern invention, l,y means whereof inpressions may bo taken from drawings male on stonc. The merit of this diseovery belougs to Aloya Senefelder, a musienl performer of the thentre nt Munich about the year 1800. The followhyg are the prineiphes on which the art of lithography depends: First, the facility with which enleareons stense imbibe water; second, the great disposition the?
have to adhere to resinous and oily anbstances; third, the affinlty between each other of oily and reeinous substances, and the power they possess of repelling water or a body moiatened with water. Heace, when drawinga are made on a poliahed surface of calcareons atone with a resinous or olly medium, they are so adheaive that nothing short of mechanical means can effect their geparation from it, and while tho other parts of the stone take in the wnter poured upon them, the resinons or oily parts repel it. Lastly, when over a atone prepared in this manner a colored oily or reslnous substance is passed, it will adhere to the drawings made as above, and not to the watery parts of the stone. It was formerly thought that England did not possess a sort of stone like that of Germany snitable to the purposes of lithography; this, however, is now known to ve erroneons, as the neighborhood of Bsth abounds with it, being the white lias, which lies immediately under the blue. It is also found in Scotland. The ink and chalk used in lithography are of a saponsceous quality: the former is prepared in Germany from a compound of tallow soap, pure white wax, a amall quantity of tallow, and a portion of lamp-black, all boiled together, and when cool dissolved in distilled water. The chalk for the crayons used in drawing on the stone is a composition consisting of the ingredients above mentioned, but to it is added when bolling a small quantity of potush. After the drawing on the stcne has been executed, and is perfectly dry, $n$ very weak solntion of vitriolic acid is poured upon the stone, which not only takes up the alkali from the chalk or Ink, as the casc may be, leaving an insoluble substance behind it, but it lowers in a very small degree that part of the surface of the stone not drawn upos, and prepares it for absorbing water with greater freedom. Weak gum water is then npplied to tho stone, to close its pores and keep it moist. The atone is now washed with water, and the danhing ink applied with halls as in jrinting ; after which it is passed in the nsunl way through the press, the process of watering and daubing being applied for every impression.

There is a mode of transferring drawings made with the chemical ink on paper prepared with a solution of size or gum tragacanth, which heing laid on the atone and prased through the preas leaves the Irawing on the tone, and the process above described for preparing the stone and taking the impressions is carried into effect. In Germany many engravings are made on stone with the burin, in the amme way as on copper; but the very great inferiority of these to coppor engravings makes it improbable that this method will ever come into gencral use. Perhaps one of the greatesi advantages of the art of lithograjhy is the extraortinary number of copies that may be taken from a bock. As many as $\mathbf{7 0 , 0 0 0}$ copies or jurints have lieen taken fropn one block, and the last of them nearly an good as the tirst. Bxpelition is also gained, ibasmuch as a fifth more copies can the taken in the same time than from a copier-plate : and na regards economy the advintage over every other species of engraving is very great.

Zincography.-This art, which is of very recent introduetion in this country (so much so, imiped, that hut few sjecimens are as yet to be seen), is similar in principle to lithography, the surface of the piates of zinc on which it is executed being hit away, leaving tho design prominent, or in rolief. We have sern some besutiful examples of this art, but varying little in their appearance from those of stone engraving.Buanime's Jitt. of Seience.

Engromsing, is "tise buylug up of corn and other dead victuals, with intent to sell them again."-hicchstone, book Iv. cap. 42. It has beell shown how ab. surd it is to ouppose that this jrinetiee ahould have any injurious influence. Jut, for a long time, most acarcities that occurred were either entirely ascribed to the
intinence of engrossers and forestallers, or, at least, were supposed to be materially aggravated by their proceedings. In cousequence, however, of the prevalence of more just and enlarged views upon such subjects, the atatntes that had been made for the suppresaion and punishment of engrossing, forestalling, etc., were repealed in 1772, in Great britain. But notwithatanding this repeal, engresaing continues to bo an indictable offenso, punishable at common law, by fine and imprisonment ; though it is not at all likely, wero an attempt made, that any jury wonld now he found lignorant or prejudlced enough to convict any one on such a charge.

Entrepot (French), in Commerce, a warohouse or magazine for goods; and hence naed to designate a seaport or commercial town which exports the productions of a considerable adjacent territory, and imports foreign goods for its supply.

Envoy (Fr. enroyer, to send), a person deputed to negotiate a treaty, or to transact other husiness with a foreign prince or government. Envoys belong to the second order of diplomatic minlsters; ranking helow embassadors properly so called.

Epaulette (Fr. Apaule, a shoulder), a kind of shonlder-knot or ornamental badge worn on the shoulder by military men. Officers, both naval and military, wear epanjettes on one shoulder or on both, according to their rank in tho service.

Equador, or Ecuador, an independent state of South America, lying under the equator, from which it takes its name. It corresponds, with a trifling difference, to the old Spanish province or intentancy, of Quito; lut formed anciently the northern portion of the empire of the Incas of Peru, nud latterly the southwestern province of the now dissolvel republic of Co lumbin. It is situate between S. lat. $6^{\circ}$ and N. lat. $2^{\circ}$, and W. long. from Greenwich $70^{\circ}$ and $82^{\circ}$-heing about 830 miles in length from east to west, and 560 in breadth from north to sonth-and only contains an area of about 320,000 English squere miles. It is bounded on the aouth by the state of Peru, on the north ly New Granadn, on the east by Brazil, and on the west b (he tho Paeifle Ocenn; but the boundaries of the eastern portion of the etate are not yet very well defined.
l'egetable Peroluctions.-In the low countrics that flank the base of the Andes, the bamana, eycas, jlantaili, cacao, futrophn which produces cassava and manioe, the cotton-tree, indigo, coffee, and the sugar-cane ahound ; beneatis the elevation of $\mathbf{4 0 0 0}$ feet, the plants cinetly cultirated for food are the aweet potato, mandive, ynm. and hanama, with rice, mabe, and some legumes; but above 3100 feet most of these hecomo rare, and thrive only in particular situations. The sugar-eane, however, has been grown sofar up as 7500 feet. In some of the valleys aro extensive plantations of sugar-cane, cotton, tobnceo, and cocoa. The valley of ©uiyaumil is particularly fertile; the soil is alluvial, and there ure fow spots even between the tropies whicio call vie with it in richness and variety of regetation. It is coverel with growes of every kind of tropicni fruit, either wild or cultivated, ns the gineapile, pomegranate, whaldeck, orange, lime, lemon, peacis, apricot, clierimoyer, pulta, frandilia, tuma, mid pacay. In the amme region are fund the oilwe, pepper piant, tomatas, and sweet potatues, hum copar, copalba balsam, carana, drigon's lidond, sarsapariin, and vanitla. 'Io these suceced, in the humid und shated clefts on the slopes of the mount ins, tree. ferns anil cinchona or Peruvian bark, the tinest kind of which is ohtained nbout 8 to 12 mifes mouth of Loja among the mountains of Uritusinga, Villanaco, mal Humusitana, where the trees that yieh it grow in a soil resting on mica-slate and gneiss, at the modorate Blevation of 5756 to 7673 fect alrovo the level of the sea. Retween the elevations of 6000 to 9040 feet is the region hest suited for the European cereala. Whent
will not form the ear lower than at 4500 feet, or ripen higher than at 10,000 feet; but barley and rye grow at an elevation 2500 feet still higher. To theas may be added the guinoa, a moat useful production for domestic purposes. In this region also, and a little above it, grow the potato and its congeners, all of which are extenelvely used as food; the chick-pea broad-bean, cabbage, and other European vegetables, ara likewiae abundant. Within the cereril limits are found the oak, olm, ash, and beech, which never descend lower than 5500 feet, and are seldom found higher than 0200 feet above the level of the sea. Higher up, the larger forest trees, except the pine, begin to disappear; and on the mountains of Quite the escalionia mark the highest limit of trees at an elevation 11,600 feet. The bejarias, the highest of shruba, terminate at 13,400 feet, above which, in rich and beauteous verdure, rises the zone of the grasses. Above these, among the trachyte rocks, only lichen.;, lecidens, and the brightly-colored dnst-like lepraria are met with; snd to these, succeed the region of perpetual enow.
Animals.-In some parte of the low country the air swarms with musquetoes and other flies still more tormenting, while the ground teems with sankes, centipedes, and other reptiies. The banks of the grent rivers are crowded with cnimans or alligators. Bate are exceedingly numerous, and of great sizo; the foreats of the warmer regiona abound with armadilioos, moakeys, and cavys; and everywhere aro found the jaguar, the puma, tho ounce, the ocelot, and several varieties of the wild cat. The pecari and deer are likewise common, as well as that singular animat the ant-eater. The characteristic animaile of the Andes are the llama, the guanaco, the vicuna, and the paco or alpaca, some of which are trained as beasts of burden, while others, particuiarly the vicunas, run widd among tho mountains, where they are hunted by the Iadians. Sheep and cattle aro reared in great numbers, especinlly the former, in the valleys of the Andes, and on the declivities of the mountains. liorses, asses, and muies, aro reared in sufficient humbers to be articies of export. Tho chief of the birds is the condor, which is found all along tho Andos south ward as fur as the Strait of Magelian, but nowhere ty the north of the equator. Tho turkey, vulture, and gallinago, are frequently met with, together with many kinds of smaller birds. In somo districts, particularly along the coasts, conaidernbie quantities of beeswax are collected; and higher up there are spots in which the cochineal insect is reared. Along ties rivers of the great plain turtles aro numerous; and itheir fat, called manteca butter, forms a considerable article of trade. Fishing is carried on to some extent along tine consts, and a good deal of ealt-fish is prepared. A murex is also found which yields a juice used in dyeing parple.

Mineral Productions.-Equador is leso rich in mineraly, especially in the precious metrils, than any other ef the South American states. There are, indeed, several mines of geld and sllver, but the ycarly produce is inconsiderabio. In some places are found lead and quicksilver, but the latter is found, as usual, in combinstion with sulphur, in the form of cinnabar. Near Azogue, 15 miles north-enat by east of Cuenca, the ore is found in un immensely thick bed of quartzosc aanistone, containing fossil wood and asphalt. Sulphur is prepared in considerable quantities; gold has been washod from the sands of some of the rivers; and salt is obtained from sen-water along the coasts.

Poputation.-The settled pemulation is composed of Spunish creoles of pure lescent, meztisos, mulatoes, and negroes, tho greater part of thom hoing agricultarists, graziers, and growers of cocon. These form atout a half of the populution. The other half nre antive Indians, of whom those that livo among tho mountaina are mostly agriculturists, cultivating their
lands with much care, and making for themselves coarse atuffs of wool and cotton. The Indians who inhabit the oastern plains are in a mnch lower degree of civilization. They cultivate only small patches of ground, and apply themselves chiefly to hunting and fishing. Three fourths of the population dwell in the western or mountsinous part of the state; and the total number is now extimated at about 800,000 .

Manufactures.-The manufactures are unimportant, consisting chiefly of coarse woolen and cotton cloths and other neceasary articles. The foreign trade is almost confined to Guayaquil, and is ao trifing aa scarcely to deserve notice.

Political Condition.-Till 1812, Equador remained a portion of the Spanish Empire of the Indies. It then threw off the yoke of Spain, and in 1821 hecame a part of the newly conatituted republic of Columbia, This union, however, lasted only till 1831, when Equador became an independent state. It has gone through soveral revolutions; and by the last (1852-3) the democratic party has gained the ascendency, and ohown a tendency to adopt the United States of Jorth America as their political model. The state has, in consequence, received a now and more liberal cunstitution; the Jeauits have been expelled; and laws havo been made for the abolition of slavery. The government is vested in a president, with a vice-preaident and two chambers, all elective; but the constitution is still notably complicated by what has always been ite principal characteristic, a predominating mixture of military despotism, the preaident being always the master of the state. More, perhaps, than any other country of South America, Equador has been slow in the development of her resources and nationsl induatry. Frequent revolntions have paralyzed its trado, and prevented the regulation of its finamces. No interest has been paid on its public clebt since 1826. It is emphaticaliy the country of natural convulsions and political revolutions.
lor administ rative purposes, the state is divided into tho three departments of Equador, Guayaquil, and Assuay; and these are subdivided into the seven provinces, of Qnito, Riobamba, Ibarra, Guayaquil, Bababoyo, Cuenç, L^Jja, or Loxa (Loh-hn), and Jaen de Brscamor. The stnto likewise elaims the sovereignty of the Ialas de los Galapagos, or islands of land turtles, lying under the equator at a distance of 700 to 900 miles from the mainland. The chief towns are Quito, with from 50,000 to 80,000 inhabitants ; Gusyaquil, 25,000 ; Cueņa, 20,000; Riobamba, 15,000 ; Loja, Babahoyo, and Itbarra, about 10,000 ench. Quito is beantifully situated in the elevated plain to which it gives its name: and Gaayaquil on the lanks of a navigable river, opening into the spacious bay, to which it gives its name.

Tho foreign commerce of Equador is chiefly carried on at the port of Guayaquil, which, with the ports of Manta and San I.orenzo, is open for general importation and the exportation of national produce. The ports open for oxportation only are Santa Eiena, Calino, Bathia do Caraceas, Loja, and Ibarra. Guayaquil is the only port of yeneral deposit for re-exportation to foreign ports. Tho principul articles of export of this republic aro cocon, hides, enttlo, tobaceo, wool, straw-hats, coffee, orchilla, bark, India-rubber, and an Inferior description of cotton. Cocon is the leading staple, the quantity ammunily exported reaching over $15,000,000$ pounds. The total valuo of the foreign trade of Equador may be stated at $\$ 4,000,000$. The countries which participate in this trade nre the United States, Mexico, Guatemala, Chili, and Peru, in America ; and lingland, Spain, France, and Hamburg, in Europe.

The commoreial relations of the United States with Equador are regulated by trenty and the local legisinlation of that repuinlic. The treaty witi the Inited States was ratificd April 9, 1842, and stipuiatos for
perfect equality and entire reciprocity of navigation and conmerce, hoth in the direct and lidirect trade. The third article has this atipulation: "That whereas, by a law of Equalor, March 21, 1837, vessela hullt in the dock-yand of Gusyaquil shall be exempted from various charges ; therefore veasels of the United States can not claim this pifilege, hut shall enjoy it if it should be granted to vesseis belonging to Spain or Mexico and to the other Hispano-American republics." The following translation of the decree conferring special privileges on vessele constructed at Guayaquil, bearing date August 23, 1845, la made from El Comercio de Lima, October 6, 1846 :
"The provisional government consldering that the ship-yards of Gaayaquil, by reason of its favorable position, and in vlew of the interests of commerco and of the republic, merit special attention; therefore, in order to advance these interests, and to encomage the conetruction of ahips, it is decreed: Art. 1. Vessels constructed at Guayuquil, and retaining the national Alag, shall be excmpt from tonnage, ancherage, and other port dues. Art. 2. Such vessels shall be entitled to a reduction of thee per ce.t. on all produce, merchandise, etc., import d inio auy of the ports of the republic for consumpion."
The commerce bet ween ithe Uniteủ States and Equador is very limited, oriag raainly to the fact that the two great staples of the latter country, cocon and
straw-hate, find hut little demand in the United States -the former being of limited consumption, and the latter subject to a duty of 80 per cent. Before the treaty between Spain and Equador, in 1843, United States' vessele carried four and domestic manufactures direct to the port of Guayaquil, and were generaily chartered to transport cargoes of cocoa to Spain. Since that period, however, the high duties on cocos in Spsin, when imported in foreign vessels, havs been equivalent to a prohiblion. 'This, togetbse with the annually increasing importation of flour from Chill, has produced a depressing effect on Amoricun trade with that repuilic. The foliowing table will exhlbit the condition of this trade during a period of eleven successive years. Bat little improvement can be expected, it is thought, so long as the present tariff regulations of the United States continue In force. The duties ou navigation in the ports of Equador are -tonnage duties, 25 cents per ton; llght ducs, 64 cents per toli. When pilots am einployed, the fees are \$2 50 mr toot of the vessel's depth. See Com. Relatiows U. S., 1856-7.
Ecuadas, which c.ce formed part of the empire of the Incas, was discovered by Pizarro In 1526, and was held under the Spanish crown until the y ar 1812, when a revolution occurred, which ended in tho establishment of n separate republic. In 1821 Ecuador disconnected itsolf with New Grenada.

Compagative Statrment of tar Commeace of the Unithi Stap wo witn Equador, extibitino rpp Falue of Ex-
 phom and departing to each Coditay, duhino tim teabi deafonatso.

| reats | COMOERCE, |  |  |  | NAVGATION. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Valle or anfonma |  |  | TaLis 6 mapotim. | amazican tonnale. |  | poltion yoasabay. |  |
|  | Bumeatio produce. | Foreign produee. | Sotal. |  | Butered Lb. Uniled Statns. | $\begin{aligned} & \text { Clenred from } \\ & \text { lhe U. States. } \end{aligned}$ | Entered the United Stateb, | Clagreil from the U. Sisteg. |
| 1546. |  | \$1,180 | \$1.190 | -*** | *** | ... | *** | 614 |
| 147..... | 827,258 | 571 | 27,524 | $\cdots$ | $\cdots$ | 8 | 8 | 168 |
| 181)..... | 24.414 | 10,511 | 84,925 | \% 4.617 | 881 | 299 | 825 | 1,183 |
| 1851..... | .... | .... | .... | 76,692 | 686 | 218 | 410 | 069 |
| 1252..... | .... | * | . $\cdot$. | 70,585 | 035 | - | ** | 760 |
| 1853....... | .... | .... | .... | 12,600 | 503 | 220 | .... | 249 |
| 1854...... |  | .... |  | 57,034 | 1,981 |  | .... | 192 |
| 185, ...... | 64,002 | . $\cdot$ | 66,092 | 12,558 | $27 \%$ | 1,011 | $\ldots$ | .... |

Tho following summary statements of the commerce of Guyaquil, condensed from the officlal reposts for the years designated, will conver a general ilea of the foreign commerce of Equador, the port of Guyaquil being the principal port of that repuiblic:

Trade of Guayaquil poa 1945.


The United States does not appear in the list of countrics for 1845. Indeed, the fureign traile of Equador is conducted chlefly with the ports of Lins and Valparaiso, the ewo principal entreputs for the trado of South America. The following statement afford a description of the merchandise, with its values, 11 . ported in 18.15, and the countrica of urigin:

| Demeripton of merehandice. | ${ }^{\text {b }}$ | cu |
| :---: | :---: | :---: |
| Toxtlies of cothon | -141, 8in | Deru. |
| " wool. | 94, 130 |  |
| Riar | 84, 1246 | " |
| Vine. ....... | 81,541 79,420 | Pert, |
| Sprits. | 76,740 | Pera, Silli, $\mathrm{F}^{\text {rance }}$ |
| Flour. | 42,100 | Peru, ¢lifli. |
| Haberdasha | 81,710 | " "\% |
| Provisions. | 81,710 | Peru, Chili, Epaln, Yra' ce |
| Hartware. | 88,760 | Peru, Chtil. |
| Paper | 21,230 |  |
| Musicai Instruments and furnifure. | 18,050 |  |
| s'ottery and glass: wares, | 10,7\% | Cbili, Pera, France. |

EXPORTS.

| Descripuion of merchandise. | Viluse. | Whither. |
| :---: | :---: | :---: |
| Cocoa. | \$5666,530 | 8,an, liambarg, Fran |
| Straw hats.......... | 79.990 | Cbill, Peru. |
| Solo leather......... | 22,239 | Peru. |
| Corton.............. | 19,350 | Chill. |

The following tabular statement exhibits the de. acription of merchandiso exported from the port of Guayaquil ia the year 1855, with the quantity of gach article, respectively :

| Coeob | Kaporto of merehandiw. | Qnantiliter <br> 10, (159,75\% |
| :---: | :---: | :---: |
| Straw hats. | .......................tozua | 88,7i9 |
| Tanned Lid | sides | 26,246 |
| Tobneco. | quintafs | 8,859 |
| Sarsapsrilia |  | 167 |
| Tamestade, | . " | 699 |
| Orate |  | 76 |
| Rert |  | \% |
|  |  | Ti, |
|  |  | T,1851 |
| /any |  | 5 Spin |
| Anila-rub | quintal | ${ }^{6} 5$ |

The canntries to which the cocoa spacified in the alnve statement was ernt, together with the quantity to onch, is exhil'ted as foilows. Nacl: carga equals 81 lbs. :


The fuliowing table exhibits the quantities, in pounis, of cocon, exported from Guayuquil duriug a
ted States and the 3efore the 13, United aufactures genersily in. Since in Spain, n equivathe sanuChili, has trade with xhibit the leven sucan be exaent tariff in foree. quador are $t$ duea, $6 \frac{1}{3}$ he fees are Com. Relaempire of 1526 , snd y ar 1812, the estab. 21 Ecusder
period of ten yeara, from 1846 to 1855, both years inciusive:


The navigution retarns of Guayaquil for 1849, L.'A atest periol for which they are at hand, complete, es hibit a total of 169 vessels entered and cleared, with an aggregate tonnaye of 46,838 tona, distributed so foliows:

| Countries. | KKTARKD. |  | CLEARED. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tomela. | Tonn. | Vesmela, | Tons. |
| England.............. | 26 | 14,810 | 83 | 12,805 |
| United States.......... | 5 | 985 | 5 | 985 |
| France.. . . . . . . . . . . . | 4 | 1,054 | 4 | 1,084 |
| Spain. ................. | 5 | 1,648 | 8 | 1,908 |
| Italy sod Germany.... | 9 | 1,687 | 8 | 1,567 |
| 8. Amerlean republics. | 85 | 6,206 | 89 | 4,209 |
| Tetal............ | 84 | 24,805 | 85 | 22,088 |

The only commercial legislation in this republic, of recent date, is embodied in a decree given at the capital, Quito, August 15, 1855, by the President, Josd Maria Urbina, imposing an export duty on bark and India-rubber. The United Ststes' consui at Guaysquil, in communicating tais decree, under date of September 30, 1855, says: "Againat this injudicious measure of the executive, strong representations will be made te the present Congress by the commercial and lndustrial classes, sa unlawful, and injurious to the present incrensing commercial prosperity of the country ; and it is probabie that it will be modified into renting or selling the lands, or done sway with sltogether.

A translation of this decree is aubjoined: "Consldbring that the naturs) productions met with in the uncultivated lands of the republic make part of the antional riches, and that that the India-ruhber and bark discovered and extracted from said lunda are beconing ohjects of speculation to many persons, and sheuld be made to yield a revenue to the country; therefore, be it decreed: Art. 1. In the ports of the repulilic where custom-houses are established, there shall be exacted a duty of two duilars on ordinary, snd threo doilars on refined India-rubber, on every 100 lbs. exported to foreign markets. Art. 2. The hark taken from governmeut lands, and exported to foreign countries, shall pay a duty of two doilars for every 100 ihs. on yellow, three on Callessaya, and eight on red. Art. 3. Tinoso persons who export In-dia-rubber and bark withot presenting the same at the custom-house, or place appointed for the collection of the duties specified in the previous articles, with the lutent of avoiding the paynient of said duties, shall be juiged according to the process detailed in the law of the 21st November, 1853. Art. 4. Every citizen whe proposes extracting Indin-rubber or iark from national lands, shall present inimself to the respective governe", who, after hearing his proposal, and antisfying himself that the land is netually government proje erty, shall give to the parties applying the required pernission in writing. Art. 5 . Thoso engaged in the cullection of Indin-rnbier must not cut down the tree; but, to oltain their oldect, should bore a small hole in we trunk, at the helght of ahout half a yard from the ground, penetrating the greater part of the tinickness of the tree, taking care not to bore through it. Art. 6. These who are found taking lndia-rubber or bark from natienal lands without huving compliod with the conditions prescribed ln articles 4 and 5 , slutll be treated as smuggiers, and the subatancec collected taken frim then and confseated. Art. 7. The governors of provinees in the lards under their jurisaliction will take ail possible measums to discover and apprehend all partles who endeavor to infringe the proceding din, sitions, Art. 8. Article 6 spplies, also, to those individuals who do net comply with the dispositions of articles 4 and 5 , under the pretext that they are collecting tho aforesaid
aubstances from their own lands, should it be discovered that the asid lands are national property. Art. 9. Those persons who collect India-rubber and bark from their own property, are not subject to any of the duties imposed in the present decree. Art. 10. The Secretery of the Treasury is charged with the due execution of tilis present decree, of which it is his duty to inform the Congress next ensuing."-Com. Relations, U. S. See Guayaquil.

Bquator (equare, to make equal), in astronomy and geography, a great circle of the sphere, equally distant from the two poles of the world, or having the same poleas as the world. It is called equator because when the aun is in it the daye and nights are equal ; whence also it is denominated the equinoctial; and when drawn on maps, planispheres, or globes, it is called the equinoctial line, or simply the line. Every point in the equator is 90 degrees, or a quadrant's distance from the poles of the worid; and hence the equator divides the sphere into two equal hemispheres, in one of which is the northern, and in tise other the southern jole. Terrestrial longitudes are measured on the equator, or some one of its paraliel circles ; commencirg from sume arbitrary point, which different nationa assume variously, most of them adopting the meridian which passes through their enpital city or principal observatory. Latitides are counted from the equator along the meridian.

Equinox (Lat. aquus und nox, night), in astronomy, is the time at which the sun passes through the equator in oue of the equinoctial points. When the sun is in the equator, the days and nights are of equal length all over the world, whence the derivation of the term. This happens twice every yeur, namely, sbout the 21et of March, and the 22d of September; the former is calied the rermal, and the latter the autumat equinox. The equinoxes do not divide the year into portions of equal leagth; for in consequence of the sun leing at his greatest distsnce from the esrth during the sumner months, and his angular motion in his orbit being consequently slower, the intorval from the vernal to the autumnai equinox is greater than that from the autumal to the vernal. In other words, the sun continues longer on the northern than on the southern side of the equator. At the beginning of the present century, the difference amounted to 7 days 16 hours and 51 minutes. The summer in the northern hemisphere is constantly longer than in the southern by this quantity ; nod to this circumatance some meteorologists ascribe, in part at least, the higher temperature that is found to prevaii in the northern hemisphere under the same parsliel of latitude.

Erie (lake), situated north of New York, Pennsylvania, and Ohio, and constitutes a part of the bound. ary between the United Stntes and Canada. It is 240 míes long, anil 60 broad, in its widest part. It recives the waters of Superior, Michigan, and IIuron inkes, through Detroit River, and discharges its watees through Niagara River into I,ake Ontario. Ita surfaca is elevated 565 feet sbove tide-water in the IIudson River at Albuny. The soundings by the U. S. Engincers show the lake to be divided into three sections of unequal depth, viz., ono extends from the head down to Point Pellee Isiand, and the bottom presents a general level, with $n$ depth of 30 feet in the average. The second is of much larger extent, and stretchos to Long Point ; is also a levei, with a depth of 60 to 70 feet. The third section extenda to Niagara liver, and is an uneven bottom, with various depths of water, ranging from 60 to 240 fect. The business done on this lake is immense, and increasing. The liconsed tonnage of the lake is $138,8{ }^{5} 2$ tone, of which a lurge nud increasing proportion is of steam-vessels. The estimated value of the commerce smounta to \& $220,000,000$ aunually. There are 26 light-houses and beacony on the Anteidean slde, and 10 on tie Canadian aide. A battle was fought near lts west end Septem-
ber 10th, 1818, between the American fleet, under Commodore Perry, and the English fleet, in which the latter was captured. See Lakzs, Comme te of.
Ermine (Ger. Hermelin ; Fr. Hermine, Ermine ; Rus, Gormostai), a speclea of weasel (mustela candida, Lin.), abundant in all cold countriea, particularly Russia, Norway, Lapland, etc., and producing a most valnable species of fur. In summer the ermine is of a brown color, and is called the atoat. It is in winter only that the fur has that beautiful snowy whiteness and consistence se much admired. See Funs.
Esparto, s species of rush, the stipa tenaciasima of botanists. It is found in the southern provinces of Spain; and is particularly sbundant on all the sterile, uncultivated, and mountainous districts of Valencla. Beckmann (IIist. of Invent., vol. 11., p. 288, Eng. ed.) supposes, spparently with good reason, that the stipa tenaciasima is the plant described by Pilny nader tho name of Sparta, who ascribes its application to useful purposes to the Carthaginians.-IIist, Nat., lib. xix., c. 2. It is still used for the same purposes as in entiquity, being manofuctured into cordage, ahoes, matting, baskets, nets, matresses, sacks, ete. Cables made of esparto are said to be excellent; being light, thay foat on the surface of the water, and are not, therefore, so liable as hempen cables to be cat or injured by a foul bottom. They are exelusively naade use of in the Spanish navy. Esparto is largely consumed in the manufacture of alpergates. These are light shoes worn by the Valencian peasantry, having platted soles made either of eaparte or bemp, but principally of the former. They are extremely chenp and commodious in hot climates; and besides being in extensive demand at home, used to be exported in immrase quantities to both Indlea; but since the emancipation of Spanish America, this trado has greatly fallen off. The Spanish peasantry have attalned to wonderful dexterity in the manufacture of esparto. "After having soaked the rush in water, the women and children, without either wheel or spindle, contrive to twist two threads at the same time. This they do by rubbing them between the palma of their hunds, in the smme manner as a shoemaker forms a thread upon bis knees, with this difference, that one motion gives the twist to each thread, and, at the same time, unites them. To keep the threads asunder, the thumb of the right band is interposel between them ; and when that is wanted for other purposes, the left thumb supplies its place. Two threads being thus tristed into one of the blgnesa of a large crowguill, 46 yards are sold for little more than $\frac{1 d}{}$., the materisls belng worth alount a fifth part of the price." -Townsend's Travels in Spain, vol. iii., p. 177; see also p. 129; Fiscuen's Picture of Valencia, ling. ed., p. 92, and p. 57, etc.

Essence D'Orient, the name of a pearly-looking matter procured from the blay or hleak, a fish of the genns cyprinus. This substance, which is for 1 yrincipally at the base of the scales, is used in the manufacture of artificial jearis. A largo quantity of the scales lieing scraped into water in a tul, are there rubbed lotween the bands to separate the shining stuff which subsides on repose. The first water being decanted, more is added with agitation till the essence is thoroughly washed from all inpurities; when the whole is thrown upon a stove ; the substance passes through, but the scales are retained. The water being decantel off, the essence is procurel in a viscid state, of a huish-white color, und a pearly uspect. Tho inteutincs of the eame fish ure also covered with this beautiful, glistening matter. Several other finh yield it, Lut in smaller proportion. When well prepared, it presents exactly the appearance and reflectlons of the real pearls, or the finest mother of pearl; propertlea which are probably oving to the interyosition of some portions of this same substance, bet ween the lamine of these sheliy cencretions. Its chemicai
neture has not been investigated; it putrafies readily when kept moist, an accident which may, however, be counteracted by water of ammonia. See Pe.irls.'
Eamential Oils, or Volatile Oils. Under this term are included alf those peculiar compounds obtained by distilling vegetable substances with water, and which pass over along with the steam, and are afterward condonsed in the liquid or solid form. They appear to conatitute the odorous prineiplen of vegetables. Their speeifio gravity fluetuates on either side that of water; they sre very spariagly soluble in water, and these solutions constitute the medicuted waters; rose, peppermiat, and other waters being such solutions of the respective essential olls. They dissolve in alcehol and form essencea, many of which are used as perfumes. When these oila are pure, they evaporate from papor when held before the fire ; but if adulterated with fixed oils, they leave a greasy stain, and seldom dissolve perfectly in alcohol. The more expensive of theso oils are frequently adulterated with the cheaper ones, and this frand can only be detected by an experienced nose. Their chief usu is in perfumery, on account of their odor, and in modicine they form valuable stimulants. They are inflamanable, and are, with fow exceptions, compounds of hydrogea, oxygen, and cartion. The essence of turpentine, of lemons, and a fow others, are hydrocarbons.
Establishment of the Port, a term used by writers on the tides, to denote the interval between the time of high water at any given port and the time of the moon's trausit immediately preceding the time of high water, when the moon is in syzygy ; thut is, at the new or full moon. This interval is influenced by local circuinstances, and consequently different at different places. Seo Tides.

Estrioh, or Estridge (Fr. Duvet d'autruche; 1t. Penna mutta di strozzo ; Sp. Plumazo de avestrux; ; Lat. Struthionum plumes molitiores), is the fine, soft down which lies immediately under the feuthers of the ostrich. The finest is used as a substitute for beaver in the manufacture of hats, and the coarser or stronger sort is employed in the fabrication of a stuff which resemGipa fine woolen cloth. Estridge is lirought from the Levant, Ituly, and other ports of the Mediterranean.
Ether ( $\mathbf{i r} . a t \theta \geqslant \rho$ ). In chemistry this term is npplieil to a highly volntile, fragrant, inflammuble, and intoxicating liquid, proluced hy distilling a mixture of equal welghts of sulphuric acid and nlechol. When these liquids mutually act on each other, a series of complicated changes ensue, which terminate in the conversion of alcolod into ether.
Euphorblum (Ger. Euphorbiengummi; Lat. Euphorbium; Fr. Euphorbe; Arab. Aknl-mafinh), the proluce of a pereanial plant, a native of Africa, and of manyy parts of India, etc. It is a concrete gum resin ; is Inodorous; when first chewed has little taste, bnt it soon gives a very acrid, burning impression to the tongue, palate, and throat, which is very permanent, and almost insupportalle. It is imported in serons, containing from 100 to 150 lls . It is in small, hollow, forked pieces, often mixed with seeds and other in-jurities.-Thomsos's Diapensutory.
Euphrates, the most considerable river of western Asia, is formed by the junction of two grent streauss rising in the mountains of Armenha, pashatis of Eirzeroum, and uniting in about N. lat. $39^{\circ}$, E. long. 39․ The Frat or nothern brunch has its priucipal sources about 20 miles north-enst of the town of Erzeroum; and the Murad, on the north declivity of the Arghi-dag.i mountains, 45 miles nurth-enst from the nearest polnt of Lake Van. The Euphrates flows first to the south, but, leing driven westward ly the AntiTaurus and Taurus mountains, it works its eircuitous way through narrow passes and over cataructs, until, breuking through a delle formed by the casiern extrenity of Mens Amanus (Alma-dagh) and the northwestern oxtremity of Mons Taurus, it reaches the
plain coun then whod Syria, and leagth, aft and thus 1 Guif. In rich, alluv flows or is fertility on lon) the E near to ene of ample be Although o Euphrates distance of main strear depth of point of c stream ; for son, when from $2 t$ to under 3 tha dietance bel order, strag meuntains, as it forces 1 ral barrier t barriers, it c dinal points low enough in nutumn, upper portlo altel ranges high brushw suceession towns on it: Bit, Giather, Hit, Hillah, scenery abo greatly heigl cient irrigat! which are n when tire-wo snd prove th thickly inhal Hit to Buhyl the only kine is eultivated aliy isterspe scending, the frequent. 1 alove, the o which they $u$ 30 miles belo villages, sha formed of bu toward Lemil tiver ; irriga both hanks : and friuged of luxuriant Gulf. At on wania is the $t$ crto majestic iower ; and 9 srates Into ty that of Damic dating the of widh, with Lemlun mars with rice and June. Below the Luphrates and turning t Tigris, thenee name of the In this last pu
plain country not far from Samosata (Sumeisat). It then wiuds south and south-esst, paesing the north of Syria, and the north-east of Arabia Deaerta, and at leagth, after many windings, unites with the Tigria, and thus united, finda its termination in the Persian Gulf. In conjunction with the Tigris, It forms the rich, alluvial lands of Mesopotamia, over which it Hows or is carried by canals, and thue diffuses abroad fertility sand beauty. At Baghdad and Hillah (Babylon) the Euphrates and Tlgris approsch comparatlvely aesr to each other, but separate again, forming a kind of ample basin, till they finally become one at Karnai. Although oecasionally much more, the breadth of the Eaphrates varies between 200 and 400 yards, but for a distance of 00 milea through the Lemlun marsies, the main st roam nsrrows to about 80 yards. The general depth of the Upper Eujhrstes exceeds 8 feet. In point of current it is for the most part a sluggish stream; for, except in the height of the flooded season, when its flow approaches 5 milee an honr, it varies from $2 t$ to $8 \frac{1}{4}$, with a nuch larger portion of its course uader 3 thsn abovo. Its general description for some distance below Erzingan, is that of a river of the first order, straggling through ligh hills, or rather low mountains, making an oxceedingly tortuous course, as it forces its way over a pebbly hed, from one natural barrier to snother. As it winds round its numerous barriers, it carries ocessionally toward each of the cardinal points a considerable body of water; and is shallow eaough in some places for loaded camels to pass in sutumn, the water ris!ng to about $4 \frac{1}{3}$ feet. Tho upper portion of the river is Inclosed between two parsillel runges of hills, covered for the most part with high brashwood and timber of moderate size, having a succession of long, narrow islands. The pric-tpal towas on its banks are Samsat, Henroum, Lomkala, Bir, Ciaber, Doir, Rava, Anah, Hadisa, El Oes, Jibba, Iit, Ifillah, Lemlan, Kurnah, and Bawrah. The acenery sbove IIt, in itself very picturesque, is greatly licightened by the frequent recarrence of ancient irrigating aqueduets, beautiful specimens of art, which are attributed by the Arabs to the Persians when tire-worshipers; they literally cover both banks, and prove that the borders of the Faphrates were once thickiy inhabited by a highly civiiized people. From ilit to Babylon the biack tent of tho Bedouin is almost the only kind of habitation to be seen. This distance is cultivated enly in part ; the rest is desert, occasionally interspersed with elusters of date-trees. In demcending, the lrrigating cuts and canals become more frequent. Babylon is oneircled by two streams, one above, the other below the principal ruins; beyond which they unite and prodace abundance. For about 30 miles below Ilillah both banke have numerous mud villages, shaded by date-trees: to theso aneceed huts formed of bunilles of reods. The country lower down toward Lemlun, is level and little elevated above the river; irrigation is therefore easy ; in consequence, both banks are covered with proluctive cultivation, and fringed with a double and nearly continuons belt of laxuriant date-troes, extending down to the Persian Gulf. At one mile and a half above the town of DeWania is the first considerable offshoot from this hitherto wajestic river; nnother takes placo 22 miles lewer; and 9 miles further, at iLemlun, it again separates into two branelies, forming a delta not unlike that of Damietta, and when the river is awollen, inundating the country for a space of about 60 miles in width, with a shallow sheet of water, forming tho iemfun marshes, nearly the whole of whieh is coverul with rieo and other grain, when the river recedes in Juae. Below Lemlun the Tigris sends a branch to the liuphrates, which is thms incressed in its volume; and turning to the east, receives the chicf brancli of the Tigris, thence running in a single stream, under tho name of the Shat-el-Arab, as far as the Persian Gulf. In this last part the river has a depth of from 3 to 5
fathoms; varies in breadth from 500 to 900 yards, and presents banks covered with villages and cultivation, having an appearance at once imposing and majestic. The length of the entire etream is 1,400 milea. It is very ahundant in fish. The water is some what turbid, but when purified, is pleasant and salubrious. The Arabians set a high value on it, and name It Morad Sou; that is, Water of Deaire or Longlng. The river begins to rise in March, and continues rising till the latter end of Msy. The consequent increase of its volume and rapidity is attributable to the early rains, which, falling in the Armenian mountains, swell its mountsin tributaries ; and also to the melting of the winter snows in those lofty regions. About the middie of October the Euphrates has reached its lower ebb, and ceasing to decrease, becomes iranquil and sluggish.

The expedition sent out by the British government under the direction of Colonel Chesney, navigated the Euphrates in 1830 from Bireh-jik to its estuary, a distance of 1,117 miles $;$ and besides throwing much light on a country then vory imperfectly known to Kuropeana, proved that there exist no sorious obstacles to the navigation of that river by moderate-sized steamers thus far; snd even for 88 miles sbove IBireh-jik to Beles, an important atation in a commercial point of view,-E. B.

Europe, one of the great divisions of the globe. On a first view Europe appears to be less favored by nature than the other quarters of the globe over which it has obtained so great an ascendency. It is much smaller in extent ; its rocky and mountalnous surface does not admit of those noble rivers, like inland seas, which lay open the remotest regions of Asia and of America to the commerce of the world. 1ts vegetable productions are neithor so various nor so exuberant; and it is poorly supplied with the precious metsls, and with many of those commodities on which mankind set the groatest value. On the othor hand, the climate of Europe, if it sourishes a less luxuriant vegetation, is of an equal and temperate kind, well adapted to preserve the haman frame in that atato of health and vigor which fits it for labor, and promotes the development of tho intelleetual snd moral powers. Tho mountsiss that intergect its surface are barriers which enabled infant communities to protect themselvos from violonce, and to lay the foundation of arts, knowledgo, and eivilization. If it has few large navigable rivers, itt inland seas and bays are, from their position and extent, the finest in the world, and have been the moans of creating and nourishing that commercial spirit which has been one great source of its improvement. Though comparatively deficient in gold and siiver, it is abundsntly supplied with those usefil metals and minerals which minister still moro essentially to the wants of civilized lifo. Its apparent defecte have become the source of real benefits, and the foundation of its grandeur. The lisadvantages of its soil and elinate have excited the industry of its inhahitants, given them clearor ideas of property, kindlod a resolute spirit to defend their rights, and calied into existence that skill and onterprise, and those innumerablo arts and inventions, which have enabled the inbabitunts of this apparently barron and rocky promontory to command the riches and laxuries of all the most favored regrions of the ghobe. It is only in Europe that knowledge and the nuts seem to be indigenous. Thongh they have appeared at times among some of the nations of Asia, they have either stopped short after advaneing a fow steps, or thoy have speedily retrograded and perished, like something foreign to the genius of the people. In Europe, on the contrary, they have sprung up at distant periods, and in a variety of situations; they have risen spontaneonsly and rapidly, and deslined slowly; and when they disappeared, it was evident they wore but erushed for the time by external violence, to rise again whal the
pressure had subsided. It is only in Europe, and among colonies of Europeans, that the powers of the human mind, hreaking through the slavish attachment to anelent usages and institutions, have deveioped that principle of progressive improvement of which it is imposesible to calculate the final resnits. The rudest tribe in Europe, in which this priaciple has taken root, has a certain source of superiority over the most improved nations of Asia and Africa, where society remains perfectly stationary. If these natious are ever deatined to advance in civiliaation, they mast borrow from Europe those arts which she has Invented, and which belong to civilized life in every climate. But the tenaclous adherence of rude nations to the customs and superstitions of their anceators, will not allow us to hope that the benefits of civilization will be rapidly diffused in this way. It is more probable that colonies from the older states of Europe will multiply as the population becomes more and moro redunduat; and that these colonies will carry the arts and knowledge, the language and munners, of Europe with them, to the other quarters of the world. From prejudices on both aldes, it is found that $t$ wo races, in very different atages of clvillzation, do not readily amalgamate ; and it is therefore probable that the feebler lnhabitants of these countries, like the Anerican Indians, will be gradually displaced by the continual encroachinents of the more energetic races of Enrope.
Europe is bonnded on the N. and W, by tho Aretic and Atlantic Oceans; on the S. liy the Mediterranean, the Black Sea, and Mount Caucasus ; on the E. by the Caspian Sea, the river Ural, and the Uralian Monnt ains. The greatest length of the contisent is from Cape St. Vincent to the Sea of Kara, ir the direction of N. E. and S.W., and is 3400 English miles. Its greatest extent from $N$. to $S$. is from Cupo Matapan to Cape North, 2420 miles. The supericios of Europe, ineluding the Azores, lceland, Nova Zembla, and all its nther islands, is $3,700,000$ English, or $2,800,000$ geographical aquare miles ; and tne length of its coast line is about 16,000 miles

Climate.-The climate of Europe is dlatinguished by two peeuliarites. It enjoya a higher mean temperature than any of the other great divisions of the world in the corresponding latitules; and it is not subject to such violent extremes of heat and coll. These advantages it owes chiefly to its numerous seas, iuland bays, and lakea, which render its temperature similar to that of islands; and jartly also, according to Ifumboldt, to its situation at the western extrenity of the greatest range of dry land on the surface of tho glove; the western sides of all continents theing warmer than the eantern. Europe lies almost entirely within the temperate zone, not more than one fourteenth part of its surface being within the arctle circle. Only a very amall part of it is uninhabitable from cold, ard it nowhere suffers from excessive heat. The mean temperature at its southern extremity, in the latitule of $36^{\circ}$, Is alout $66^{\circ}$ of Fahrenheit ; and at Cape North, in the latitule of $71^{\circ}$, whero the mean temperature is $32^{\circ}$, the cold is not greater than in the latitules of $55^{\circ}$ or $55^{\circ}$ on the east coasts of Asia and America. Hence Europe is halitahie at a higher latitude by $12^{\circ}$ or $14^{\circ}$ than either of these continents.

Temperature,-There is a difference of the name kind between the temperature of the sea-coasts of Enrope and the interior. In inlands, and on the sea-coast the mean temperature of the year is higher, and the heat is more equally distributed through the different seasons. As we alyance from the const eastward tho mesn annual temperature diminishen, but the heat of summer and the cold of winter Increase. Thus Lon don has the bame menn aznual temperature as Vienna, but it has the summer of St. Petersburg, and the winter is warmer than at Milan. The Mediterranean, the Bultic, and inland lakes, produce the same effect as the ocean, in an inferior degroe. Tho foliowing tabie
thows, I. The temperature of the year, and the va rious seasoas, in places having the same latitude; II. The different diatribution of heat through the various seasons in places having the same mean aanual tenperature.

| rlacus, | wian tempanatuin |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Of the } \\ & \text { Year. } \end{aligned}$ | Wloter. | Spring. | 8 nnsmar. | $\mathrm{Au}-$ tида. |  | Coldust |
| I. Lat 68. |  |  |  |  |  |  |  |
| Eilinburg... | 47.8 | 88.6 | $46 \cdot 4$ | 582 | 484 | 59.4 | 88.8 |
| Copenhagen | $45 \cdot 6$ | 8908 | 41.8 | 62.6 | 48.4 | 650 | 27.2 |
| Mosenw . . ${ }^{\text {a }}$ | 402 | 104 | 440 | 67.1 | 88.8 | 70.6 | 6.0 |
| 8t Mulo... | 54.4 | 4 H | 52.2 | 60\%) | 55.8 | 67.0 | $41 \cdot 3$ |
| Vtenna. | 50.6 | 82.8 | 512 | 694 | 50.6 | 70.6 | 26.6 |
| Dablin Lastit | 492 | 892 | 478 | 50.8 | 50.0 |  |  |
| $\mid{ }^{\text {Prague }} 50 \%$ \| | 40.4 | 814 | 47.6 | 6ง.2 | $50-2$ | $\because$ | $\cdots$ |

The mountalns of Europe are more numerous in proportion to its extent than those of the other great continents, but they are of less elevation than the mountains of America and Asia. The highest and the most extensive chains in Europe run generally in the direction of east and west, and are piaced near its southern shores. The central mass of the Aips, with which all the other monntains in the south of lurope are connected, forms the summit of the coutinent, and determines the poaltion of the surface and the courses of most of the rivers.

Rivers.-Europe is well waterei. ith rivers, but they are mere brooks compared with the mighty streams of Asia and America, and, from the unevenness of the sur face, afforl in general no great extent of inland navigation. The Danabe, the largest river that is entirely in Europe, ia about 1500 wiles in length, and Irains an area of 370,000 square mlles, Hut the Amazon, though only twice the length of the Dannise, drains a surfaces seven times as large, and equal to four lifths of the continent of Europe; and, as the quantity of rain that fulls in tropicnl countries is much greater than in northern latitudea, it is proballe, notwitstanding the inereased evaporation thero, that the Amazon conveys more water than all the rivers of Europe jut together. If we divide the length of the Danube into a humdred parts, the length of the principal rivers of Enrope, exprensed in these parts, will he as follows: Danube 100 ; Volya, 130 ; Dnieper, 72 ; Don, 69 ; Rhine, 49 ; Elbe, 42; Vistuia, 41 ; Loire, 37; Tagna, 32; Oder, 31 ; Rhone, 30 ; Scine, 23 ; Po, 21 ; Tiluer, 10 ; Thames, 9 .

The courses of the great rivers show the f.ll of the conntry through which they flow, but it would be absurd to take the average of the fall per mile from the measurements of their whole lengtis, for, with the exeepition of the Volga, and other rivers of hussia, tho early parts of their respeetive courses are among monntains, or in elevatod valleys, where, and frou which, the full is very rapid ; and it is only when taken from the points where they leave their inountain cradles and resch the plains, that such an average will truly indleate the extont wlegree of the general slope of the continent. I source of the Volga is only about 560 feet above the level of the Caspian Sea, into which it flows, and the length of its courso being at least 2000 miles, withont any scrious rapils, tho average of its fall is consequently very regular, and littie more than three inches a mile; but, the direct distance behng only 900 milies, the slope of the conntry exceeds seven inches a mile. The source of the Danube, in Suabia, is about 2176 feet above the level of the Mack Sea; but its fall is in several places very rapld, particularly between Passan and Vienam, and nt the frongate, through which it passes from tho plaina of Hungary to the low lovel of Wallachia. The average fall, therefore, of such a river woull to a most fulacious index of the contiguration of the whole length of country through which it flows. Its course is indeed through a series of terraces, separated by deep falls. The sourees of the lhine, in the heart of Switzeriand, have un elevation of more than 7,90 fect,
but when ready fail it leaves and even uosity, fal burg, a dis ver, of itt about one en, or so but the ris that, after Bohemia, 280 feet.
is less than of the Odo fallen to 37 its course i tlon of the to learn, bi Cracow, to the bame as

Few of $t$ ance as me Yolga becon its sonrce, a tance of mo the river.
so many as stream; but it is of no $u$ than the pro surround the

The Volg rivers and la interrupted Sea, the Ila course of 900 nowhere nay The Dnieper course of 100 to Kicf; but, with rocks navigable co inland provin cut oll: T 1500 uiles fro Vienua, it flo readered Ilffi the frequent whirpools; a row gorge of itself across t it falls in a se fameus Irong with great ra penilous rock and smaller f be effectually (Janiary; 18 constructed a these rapids diately put up channel tir wile, and 6 f ditional depth sels. The nu gigantic unde aser a perion ins, So num Danube throu IInngary, that direct distan actuslly meas above the lak stopped liy tb that psint to ticable ; to Str
but when it reaches the Lake if Constance it has already fallen to 1300 . 'From that lake to Basle, where it leaves the mountsins, it falls more than 500 feet, and even further down it still thows wlth great impetuosity, failing 400 feet more before it reaches Strasburg, a distance of only 70 mlles. The average, however, of lts fall from the latter city to the sea is only about one foot a milo. The elevation of the Elbbrunmen, or sources of the Elbe, In Bohemia, is 4260 feet, but the river falls so rapldly, within a short diatance, that, after passing the northern mountain border of Bohemia, lts elevation le found to be, at Dresden, only 280 feet. The average fall from that point to the sea is less than a foot a mile, The elevation of the source of the Oder is 1705 feet, but at Breslau it has already falien to 370 , and the average fall of the remainder of its course is likewlse about a foot a mile. The elevation of the soarce of the Vistula we have not been able to learn, but as it is navigable from Podgorze, near Cracow, to the sen, its average fall is probably much the same as that of the Elbe or the Oder.
Few of the rivers of Europe are of much Importsnce as moans of communication and transit. The Folga becomes navigahle at Rief, about 70 miles from its source, and so continues to the Caspian Sea, a distance of more than 2000 miles, following the course of the river. It is the groat highway of Central Russia, so many as 5000 loaded boats annually descending its sireani ; but as It ends unfortunately in an inland lake, it is of no use for the transport of other foreign wares thsn the prodnce of the sandy and barren regions that gurround the Caspian.
The Volga is so connected with the other great rivers and lakes of Russin by eanals, that there is uninterrupted navigation from the Baltio to the White Sea, the Black Sea, and the Caspian. The Don has a course of 900 miles, but has so many shallows as to be aowhere navigable for large or sharp-bottomed vessels. The Daieper, the next largest river of Russia, has a course of 1000 miles, and is navigable from Smolensk to Kief; but, further down, its channel is so obstracted with rocks and fulls, for a space of 150 miles, that anvigable communication between the sea und the inland provinces through which it flows is completely cot off. The Danube hecomes navigable at Ulm, 1500 miles from its mouth; but letween Passan and Vienua, it flows among mountaias, and navigation is readered difficult by the rapitity of the stream, and the frequent occurrence of rocks, shoals, eddies, and whiripools; and, in leaving llungary, through a narrow gorge of 60 miles in length, which it has cut for itself across the mountains that inclose that conntry, it fills in a series of rapids, the lowest of which ls the fasous Irongate, through whicit the stream risies with great rapidity in a narrow channel, het ween stupenilous rocks, ending in a series of whiripools, edilies, sal smaller falls. Here navigntion was considered to be effectually stopped; but wo have just learned (January, 1855) that steamboats have nt last been constructed so as to be considered capable of jussing these rapids in safety, and that they will be immedisteiy jint npon the river. It is also proposed to cut a channel through the rocks 1200 yards loag, 40 feet wide, and 6 fect deep, which will give plenty of ndditional depth for the steamers nal other loaded vessels. The number of workmen to be employed in this gigantic undertaking is 2000 , and the work will extend over a period of 6 years, at a cost of $2,000,000$ of florins. So mmerous, besides, aro the windings of the Danule throngh the comparatively lovel plains of Hungary, that between Presburg and the Black Sea, a direct distance of 650 milles, the course of the river actualiy measures $\mathbf{1 2 0 0}$. The Rhine is navigable above the lake of Constance, but the navigation is stopped by the Rhelnfall near Sehaff hausen. From that poiat to Basle it ls not very easy or always practicable; to Strasburg it is not free from danger; but
further down the river becomes fine navigable itresm, not quite free indeed from dimenlty and risk, particularly in the deep and narrow gorge which it passes through between Bingen and Coblentz; but below Coblentz the channel is uninterrupted and free from danger. Between the Rhine and the Danube there is a navigahle communleation by means of the rlvers Meyn and Altmuhl, which are connected by the Ludwig's canal la Bavaria. The Elbe, and lis tributary, the Moldaa, are beth navigable oven in Bohemia, and from their confluence to the sea there is no serious interruption. The Oder la ns vigable downward from Silesia, and is of the utmost Importance as the channel of conveyance for the productions of that country to the see. Bresiau, Frankfurt, and Stettln, three of the principal commercial towns of Prussia, stand on its banks, and it is connected by canals with the Vistula, the Havel, and the Spree. The Vistula is, like the Oder, the principal channel of transit between the Baltic Sea and the Polish provirices of Austria, Russia, and Prussia, and begins to be navigable at Podgorzo, near Cracow.

These are the only rivers that seem to require notice as navigable streams in a general survey of Europe, aithough there are many otheri of great importance to the sevoral conntries in which they are found, as the Thames, the Tyne, the Clyde, the Rhone, the Po, etc.

The Islands of Europe, Including Nova Zembla and Iceland, oceupy a space equal to 280,000 square miles, or 1-11th part of the surface of the continent; and of this space the area of the British isles amounts to
 sea connected with Europe in which there are no islands worthy of notlee.

Seas.-The Mediterranean, the neblest inland sea in the world, forms the southern boundary of Europe, separating it from Africa, and partly als, from Asia. It may be considered as the bottom of a vast basin formed by the Pyrenees, Alps, Balkans, Taurus, Libsnus, and Atlas. These mountains are everywhere near its shores, whlch are consequently narrow and much inclined. Henco there are no such extensive plains as Hungary or Poland near the coast of this sea, and hence, also, no very large rivers fall into it except the Nilo; and altogether it receives a smaller quantity of water from rivers than the Black Sea or the Baitic, though six times larger than either. Its length is about 2350 miles, its breadth is extremely vurious, and lts surface (exclusive of the Black Sea) is nearly equal to $1,000,000$ of square English miles, or something less than part of the continent of Europe. It is generally of great depth; and its numerous islands, whieh havo uniformly a rocky surface, appear to be the summits of marine mountains.

Baltic.-The Baltic, the greatest inland sea that is entirely in Europe, is about 1200 miles long, of very unequal hreadth, and presents a surface of $\mathbf{1 7 5 , 0 0 0}$ square miles, exclusive of islands. It occupies the bottom of another large basin, 850 miles in breadti, and 1400 in length, extending from the Norweglan mountains on the north and west, to the Carpathians on the suuth, and to the blgh lands on which tie Drieper, the Don, and tie Volga rise, on the east. This basin, equal to $\frac{1}{8}$ of the surface of Europe, has a very different eharacter from that of the Mediterranean. The monntains are not very elevnted, and are so placed as to leave a large traet of land, very little inclined, between them and the Baltic, ovor which, especialiy on the south side, many considerable rivers flow with n gentle current. IIence the country round the Baltic is mueh more level than round the Mediterranean; lakes are numerous in the low grounds, from the want of declivity; the soa itself is comparatively shallow, and receiving a much gronter quantity of river water, it ls much less salt. The commerce of the Baltic ls annually interrupted by the ico, which endures 4 months in tho gulfs of Bothnia and Finand

The whole of this inland sea has sometimes been frozen over for a short time, but this is of raro ocenrrence. See Baltic.

Black Sea.-The Black Sea, whlch helongs only partly to Europe, is 700 milas long and 380 miles broad, and, including the Sea of Azof, presents a surfaco of 170,000 square miles, belng almost of the same magnitude as the Baltic. It derives 4-5ths of its water from Europe, and is curiously distinguished from the other seas of this quarter of the globe, by $i t s$ being almost totally destitute of islands.

White Sea.-The White Sea is 450 miles in length, of a very irregular figure, and occupies a space equal to 35,000 square miles. It recelves some considerable rivers, but is frozen during six months of the year.
Lakes.-The lakes of Europe are numerous, and are of two kinds: those which lie in cavitles at the foot of high mountains, and which are generally deep, auch as the lakes in the $A_{[1 s}$, on the east side of the Norwegian mountains, and nmong tue mountains of England and Scotland; and those which are formed in level countries frem the want of a sufficient declivity to carry off the water, guci - 'he lakes in Finland, Polund, and Brandenlouro. t-uths of the lakes of Europe are in the conntry round the Baltie

I'getable Productions.-Tbe soil of Europe has not the extremes of luxuriance or sterility which belong to the soil of the other great continents. If it does not yield the rich fruits of tropical climates, it is not deformed by burning sands like Africs, or by pestilent swamps like America. It does not pour forth its riches spontaneously, but, soliciting the care nnd the labor of man, it requites his industry with what is necessary to sopply his wants; and, by exereising and sharpening his powers of mind, has given birth to those arts which place the productiens of the most favored elimates at his disposal. Nany of the phants which havo heen domesticated in Europe nre natives of distant countries. The vine, the olive, and the mulberry are said to have beea brought from Syria hy the Greeks ; the Arablans introduied cotton; malze was received from the Indian tribes of America; the whluut and the peach come from I'ersin; the ayricot from Armenis, and the sugar-cane and orange from China. There are not very many plands belonging to the tropleal regions that absolntely refuse to grove in Earme, but an enlightened economy finds other productions more profitable. llesides sugar and cotton, the banana, the orange, citron, fig, pomegrenate and date, grow in the south of Enople. lut the nore delleate frnits are confined $t$ southern latitudes, nud disappent one hy one as we advance northwarl. And it is worthy of remark, that the zones in which they grow generally follow the lines of eatual summer heac, "I run obliquely across the continent ir the direction of south-west and north-east. If a line be drawn on the map from Ilrest to Konigsherg, sikirting the southern shores of the Engiah Ghannel and the llaltic, the zenes that limit the growth of different plants will run nearly parallel with this line. This holis generally In the sonth and midile of Euroje; but in the extrene northern parta, and espectally with regard to plants that regeire a moderute heat continued : $r$ a consilerahlo tine, the lines that limit the growth of certain vegetables seem to fullow a different course, and decline toward the south is we mivance castwarl, in consequence of the lincreasing severity und longth of the winter. It la scarcely neecssary to say that the zones traced as proper for lifferent plants, only mark the llinits within which their cultivation is fonsul athvantageoun. Most of thell will grow heyond thase limits; but they either reguire some peenliar ulvantages of soil and situation, or thay are less proctable thin other kinds of proluce.

The sugar cane, one of the most iesirable tropical plants, grows in Sicily nud the sonth of $S_{j}$ min, In the latitule of $17^{\circ}$ and $38^{\circ}$. The cuiture of $i t$,
whlch was onct. extensive in the latter country, has not yet been enirely abandoned, even since eugar was procured from the West Indies. Cotton is cultivated in the south of Spain on a small scale; to a greater extent in Sleily, the aouth-east angle of Italy, and in Greece and its isles, as high as the latitnde of $41 \frac{1}{2}^{\circ}$; we find it again at Astracan, in the latitude of $46^{\circ}$. The orange and the lemon come to perfection in the west of Europe, only in the countrise to the seth of the Pyrenoes and Apenninee, within the latitude $48^{\circ}$ in Spain, and $44^{\circ}$ In Italy. The ollive does not succeed on the west cosst of Irance in the latitude of $43^{\circ}$, but growe as far north as $44^{\circ}$ or $45^{\circ}$ on the east of France, and in Italy. Attempts to raise It at Astracan, in latitude $46^{\circ}$, have not succeeded, on account of the rigor of the winter. The fig and the pomegranate, which accompany the olive in the west of Liurope, are found in the Crimea in the enst, at the latitude of $46^{\circ}$, where the olive will net grow, a proof that these trees hear the whter cold better. The -ilmate proper for malze is found to terminate on the west const of France at $45 \frac{1}{3}^{\circ}$; on the Rhine at $49^{\circ}$; on the Eibe at $50^{\circ}$ or $51^{\circ}$. Rice has nearly the sume geographical range, but requires a peenliar soi! and situation. The culture of the vine extends as far north as the latitude of $47 \frac{1}{2}^{\circ}$ on the Atlantic coast; on the Rline to $501^{\circ}$; and on the Oder to $52^{\circ}$. In Russia it grows as far north nearly us $52^{\circ}$, but is not cultivated beyond 50 ? The mulberry ganerally accompanies the vine. The llmits of the culture of the common cerenlia aro not so well defined, as the necessitles of man oblige him to raise corn under the most unfuvorable cireumstrnces. In n general point of view, however, the purallel of $57^{\circ}$ or $58^{\circ}$ may be regarded as the northern limit of the cultivation of wheat in Europe. It is raised ne far north as $60^{\circ}$ or $61^{\circ}$ in Finland, bat only in some favored spots. In Russin, generally, it is chiefly confined to the provinces under the latitude of $55^{\circ}$. The hardier cerechla, rye, oats, and harley, are cultivated in some shedtered situations on the coast of Norway, ne high ns the latithide $69^{\circ} 55^{\prime}$. Hat on the east side of the Nurwegian mountains these grains scarcoly ripen in the latitude of $67^{-0}$ or $68^{\circ}$; and farther east, In Russia, it has been found impossible to carry cultivation of any kind Beyond the latitnde of $60^{\circ}$ or $62^{\circ}$. Barley, which accommolates itself better than any other grain to these high Iatitules, by whortening the peried of its growth, is sown and reaper! within the symace of soven or eight weeks. Int the introluction of potatoes promises to be of vast advantage in theso colll regions, as this plant thrives and yields a produce of 30 or 50 fold in jilaces where grain often will net ripen. Penches and aprieots succeed with much care as far north only as the latitule of $50^{\circ}$ in Russia: melons ns far ass $\overline{5} 2^{\circ}$. The pium nud the cherry grow vill as far morth as $65^{\circ}$, hut are carried farther hy cultivation. lirult trees and the oak terminute in Sweden, nt liefle, in the latitude of $61^{\circ}$; bint the pine babl the birch numame within the nretic circle; nind the former grows tu the height of 60 feret in the latitude of $70^{\circ}$. The barkherry and the whortleberry grow in Lapland, nad the gooseberry even in Grecnland. Tobmeco is extensively cultivated over the greater part of the continent of liurofe, from Sichly to Swoden. Flax amb herup have as extensive a range as corn, but they are raised In the grentest perfection between the latitules of $15^{\circ}$ and $80^{\circ}$.

We have atnted that the superficial extent of lice rope is nbout $3,700,000$ equare miles. If we draw a curved line from a point in the Uralinn mountains, abont the latitude of $60^{\circ}$ or $61^{\circ}$, to the west coast of loorway, in the latitude of $69^{\circ}$, passing through the Lake (Buega, nud a little to the northward of the tiaif of Bothnha, this line will mark the extreme limita of eultivation, hul wiil cut of a space equal to 550,000 aqtare milen, or nently j-ith of Europe. The whare
cat off, however, is not entirely uselese, as a part of it $\mid$ tries of Europe. The most extenaive salt mines of produces pasturage and wood. The cultivation of rye, oats, and barley, is confined to the reglone sonth of this line, and inclades more than 6-6ths of Europe; but in the northern parts of this zone only a very small proportion of the land will bear corn. The region adapted to the cultivation of wheat comprehends about 4-7ths of Europe, and includes all the densely-peopled parts. The region of the vlue uxtends over 3-7ths of Europe.

Minerals.-Europe, in propartion to its oxtent, is probrbly richer in miaeral wealth than the other quaters of the globe. It contains all the metals except plat na ; and though it affords gold and silver only in limited quantities, iron, copper, lead, with coal and salt, commodities of greater valuo to society, are abundantly and widely diatributed. The mountains, consisting of primary and transition rocks, are the great depositerics of these mineral treasures. Iron is found in all the chains of mountains in Europe. The richest mines are in the Dovrefield, or Scandinavian Alps. But rich mines are also found in the Alps of Styria, Carinthin, and Bavarla; in the lyrenees, the Vorges, the Cevennes, the coal districts of Britain, the Urals, the Carpathians, the Hartz, nud many other places. Copper is also widely distributed, though less abundant than iron. The richest mines sre in Hungary, in the Carpathlan mountains. It abounds also in the Saxon and Bohemian mountains, in the Dovreficld, the Urals, the north of England, and the Alps; and it is found in the Vosges, the Pyrenees, and other mountains of Spain, In the north of Germany; and in Tuseany:
Lead exists in the Alps, Carpathians, Pyrences, Cevennes, Vosges, the British mountains, and the Urilian chain. Tln is found only in a few places in Europe. The rlchest mines are in Cornwall ; next to these sre the mines In the Eragebirge. It is also found in Ilungary and Spanish Galicia. Mercury, like tin, is contined to a few places. The mines of Idria, in Austria, which vield 8000 or 10,000 quintals per numum, are the most productive in Earope. There are also censiderable mines at leux lon's, in the Palatinate, in the Spanish province of La Mancha, und in Transylvania. Gold is widely diffosed through Furope, but generally in such quantities ns not to repay tho expense of working. It ls wrought, however, in the Carpathians, the Urula, the Dovrefield, and the Alps. Anciently there were rich mines of gold in Spain nad Grecee. Silver is more abundant than gold, though less widely distributed. There are productive mines of this metal in the Erzgelirge, the Carpathiana, the Urals, the Norwegian Jovrefield, and in Sardinin. It is found slso in the Alps, the Vosges, and the Sierra Morena.

Of coal, the richest mines are found in the north and west of Englaal. It abounds also on both sides of the midulle region of Scothand; in Ireland; in the Netherituds; 1, one fourth purt of the French territory; and occurs more sparingly in Saxony, Hanover, Demmark, Sweden, Kussia, Ilungary, Mohemia, Moravia, Silesia, llavaria, Austria, Frunconia, Westphalia, Swabia, Catalonia, und some other parts of Spaln, in Portugal, and In Sardinh. After liritain, Vrance and Belghum are the countrics in buropo best aupplied with thls mineral.

Salt is procured from the waters of the ocenn, and, Ia the interior of Europe, from numerons salt in'mes snid salt springs. The most productlve sult mines in Eurupe ure those in l'oland, on the north side of the Carpathians, and those in Salziourg, on the north side ef the $\mathrm{Al}_{\text {fas, }}$ both of which belong to Austrin. Thero ars also extensive depositories of mineral salt in 'Transylvania and Hungary ; in Valencia, Navarre, and Catalonia, in Spain; In Cheshire, in England; nnd in Bayaria, in Switzeriand. Salt springs are numerous along the sides of primitive monutains in most coun-

Russia are in Asis; but very large quantitles of salt are collected from the tuzlas, or salt, lakes in the Crimea.

Antimony, cobalt, zinc, manganese, sulphur, alum, and a great variety of other mineral productlons, arc found in Europe; but it is unnecessary to specify their localitles. It ls observed that the Alps, Pyrenees, Carpathians, and other mountain chalus which run east and west, are rlchest in metals on the south side; while the Dofrines, Urals, and others which run north and south, are richest on the east side. Of the mountain chains of Europe, the Apennines are the poorest in metals, the Carpathians probably the richest.

The progress of improvement tends to level all distinctions among states, but those founded, on the extent of their natural resources. Capital, skill, intelligenes, and all acquired advantages, tend to an equilibrium. When Europe was overrun with barharism, the sity of Venice, by its commercial wealth, was a counterpoise to two or three of the great monarchies of the Continent. The discovery of America, and of a passage by sea to the East Indies, gave a new direction to commerce, and ondermined the greatness of that city. The Dutch Republic rose by its freedom and industry, and was able, in the time of Charles II., to dispute the empire of the sea with the combined powers of England und France. But England increased her commerce, and improved her constitution; and having a lar ${ }_{b}$ ar and more fertile territory, as well as a greater population, she obtained at length the ascandency over IIolland, deprived her of the empire of the sea, and stripped her of most of her colonics. At the lieginning of the 17 th contury, Spain and Turkey were tho first powers in the west and east of Europe, and inspired their neighhors with the drend of conquest, Sweden raled with undisputed sway in the north; and Russia, now so formidnble, was scarcely known. Spain, under a better government, might recover a part of her influence; but the Turkish empire scems near its dissolution ; and the inaportance of Sweden and Holland is gone irretricvably, in consequence of tho growing strength of the nelghtoring jowers. The extent of territory and the linmense natural resources of Russia must, in the end, render her hifghly dangerous to all the other powers of Eirrope, if the empire do not fall to pieces fim its own weight, or get into discord from the vices of its government, or tho barbarism, lgnorance, and corruption of its people.-E. B.

Ify menns of steam-vessels, communication betwoen uli the maritime regions of karope has been rendered easy nud certain, while the seabonrd has been connected with the inland regions by railways running in all directions. During the hatter half of the last century; nud the earlier purt of the present, lingland was covered with a net-work of canals, forming navigable communication between all her princlpal towns and rivers. Thelgit on and Holland havo long heen famous for thelr can'is. In France, likowise, the great rivers were connected in the same why; and the great canal of Languedoc formed a navigatlo communication between the Bay of Biscay and the Mediterrenean Sea. In Prussia, likewise, and in Russia, tho great rivers havo been connected by cruals; and in Sweden, the Gotho Canal extends from the Cattegat, at Gottenburg, to the llatic, near Stockholm, through the lakes Wener and Wetter. These very useful means of transport have now, however, been very much, if not entirely superseded by railways. Of these, lingiand is covered with a net-work, as sho was with canals; and minterrupted lines of communicatlon extend from near the Land's Eind, through Scothand, to the Moray Firth. In Scotland, Ireland, France, and fiermany, the principal cities and towns are connected ly rilways; nud in lussia, we understand that one is furming to connect St. Petersburg with Moscow and tive Black Soa. In Italy, Milan and Venico are con-
neeted, and railways are projected at least in other parts of the country. The later invention of the electric telograph is likewise extcading every where ueross seas and continents; but the whole system of telegraphs and rallways will be understood more readily st. once by a glance at a map.

Arga and Population of Eugopean Statis.

| Names. | Ares in English 8q. Miles. | Populetion. | Date. |
| :---: | :---: | :---: | :---: |
| I. Empinke: |  |  |  |
| Freach. | 204,000 | 85,781,628 | 1851 |
| Austrlan. | 257,7(*) | 30,514,466 |  |
| Russian. ..................... | 2,000,02. | 54,092,800 | 1816 |
| Ottoman. $\qquad$ 11. Kiwadoms: | 123,743 | 10,50c,000 | 1844 |
| Great Britala and Ireland... | 121.779 | 27,621,562 | 1851 |
| 1'russla | 103,302 | 10,935,420 | 1862 |
| llelgtum | 12,569 | 4859,090 | 1849 |
| Netherlan | 13,890 | 3,897, 501 | 1828 |
| Spain. | 176,430 | 14,216,219 | 1819 |
| Jortugal. . . . . . . . . . . . . . . . . | 84,500 | 3,487,025 | 1.81 |
| Denmark . . . . . . . . . . . . . . . . | 29,680 | 2,296,587 | 1850 |
| Sweden | 170.24t | 8,482,541 |  |
| Norway. | 142,460 | 1,825,471 | 1845 |
| - Bavarla | 29,(600 | 4,5588,452 | 1692 |
| * IJanover | 14,610 | 1, $810,2{ }^{2} 3$ |  |
| - ${ }^{\text {a }}$ yony | 5.705 | 1,947,532 | . |
| * Wirtemberg. | T,568 | 1,733,263 |  |
| Sardinia.. | 24,400 | 4,016,00. | 1848 |
| Two Slellles. | $41,8 \div 1$ | $8.704,472$ | 1891 |
| Hellas or Greece. .. ....... 111. | 10,2ب14 | 1,092,112 | 1852 |
| *EIoctoral Ilesse. . . . . . . . . . | 4.481 | 755,225 | 1552 |
| States of the Church........ <br> IV. Grand Dueniea: | 17,148 | 3,006,7i1 | 1550 |
| * Baden ....................... | S.850 | 1,856,943 | 1852 |
| -1lesse-Darmstadi. | 8.761 | Si-1,314 |  |
| * Meckienburg-Echworin..... | 4,478 | 541,449 | 1543 |
| * ${ }^{*}$ Strelltz... ... | 717 | 90,623 | 1451 |
| - Oldenbure. | 2.416 | 202.114 | 1852 |
| * Baxe. Welmar | 1.419 | 46654 | 1853 |
| Tuseany.. | 8,302 | 1,515,686 | 1854 |
| V. Dectitra and Princedone: *Naexall, 11 | 1.757 | 429.841 | 1859 |
| -13runswlex, D. ............... | 1, 8017 | 471,948 | 1808 |
| - Saxu-Cobarg-Gotha, D...... | 799 | 1514.412 | 152 |
| * * Melnlngen, D. | Ssis | 166,364 | 14.3 |
| * Altenburg, 1 . | 510 | 182,789 | 1550 |
| * Anhalt-1 essau-Coethea, D. | 64is | 171.750 | $155 \%$ |
| * ${ }^{\text {c }}$ Berabutg, D. | 840 | 52,641 |  |
| *Reuss-Griez I'.. | 14\% | 35.159 | 1653 |
| - " Schlelz, I'. | 448 | 79.424 |  |
| * Wnideck, I'. | 461 | 56.697 | 1852 |
| * Measp-llomburar 1* | 165 | 84,w21 |  |
| * Lichtensteln, P. | 53 | 0,851 | 1+42 |
| *Kniphaumen. ............ . . | $1 \%$ | 8.035 | 1-52 |
| 1'srina. D............. . . . . . | 2.144 | 607,481 | 1454 |
| Modena, D. | 2,078 | 606, 4 ²4 | 1850 |
| Mothisco l' | 51 | 6,510 |  |
| Moldavia, ${ }^{\text {a }}$ | 16,900 |  | 104 |
| Wallaetha. 1 | 30,000 | $2.060,0 \mathrm{MW}$ ? |  |
| Servish $\mathbf{P}^{\text {a }}$., | 12.409) | 1,010,040? | . |
| Montenegro. . . . . . . . . . . . . . . <br> VI. Ityplehas: | 1,4(10) | 100,060)? | . |
| *Frankfort.................... | 91 | 77,971 | 1652 |
| Lubee. | 142 | 84.16 B | 1831 |
|  | 116 | 79,647 | 1-69 |
| *llatubarg. | 151 | 206,060 | $1 \times 12$ |
| swles Coufederallon: Z:arich | 647 | 250, 58.8 | 18,0 |
| llern... | 2,443 | 4iveral |  |
| Lacerne | 6 m | 132, 543 |  |
| schwirls. | 850 | 44,164 |  |
| Ur1. | 129 | 11,515 | . |
| Unterwalden-l muer.... | 260 | 111,799 | . |
| * Lower.... | 2 m | 11,383 | . |
| Glarus.. | 241 | 810,2111 | . |
| Zag. | 145 | 17,411 | . |
| Friburg | 436 | 100, 011 | . |
| Noleurs | $2 \times 1$ | 69.174 |  |
| Hasel-t'ly | 185 12 | 29.694 | $\cdots$ |
| * t'un致y.......... | 17 ? | 47,445 | . |
| Arhaft hammen. | 116 | S5,300 | , |
| Apjenvelil-intur. | 164 | 48.681 | . |
| \%1 Inter........ | 1\% | 11.232 | . |
| 8t. Dall. . . . . . . . . . . . | T611 | 199,64, | . |
| tirlarms. | 2,801 | 49, 10 \% |  |
| Aarcal | 4.14 | $1001 \times 5$ | - |
| Thuriga | 267 | As, ink |  |
| Tesalin. | 1.041 | 117,7.9 | - |
| Vand. | 1.1 (h) | 109.575 | - |
| Valsi4 | 1.965 | 61,409 | . |
| Neafchatel | 241 | 70,904 |  |
| Cienura. | 111 | (14,146 |  |
| Ionlan Islatels | 1.20) | $240,27 \%$ | $1 \sim 92$ |
| Maint Marltio...... . . . . . . . | $2 \%$ | T, CWW |  |

Consldered in respect to political constitution and clvil government, the states of Europe may be arranged in six classes. The first class comprisen 4 cmplres, the soverelgns of which are absolute monarche; the second, 16 kingdoms, partly absolute and partly constitutional; the fourth, 7 grand-duchies, all monarchles; the fifth, 24 duchics and princlpalities, likewise all monarchies, partly coustitutional and partly absolute; and the sixth, 32 republics. The third elass comprises 2 nondescrigts, both monarchlos indeed; but'in the one case the soveroign retalus the subject title Elector of the head of an empire that no longer exis a, and the sovereign of the other la at once the spiritual sovereign of the Roman Catholic world and the temporal sovereign of that portion of Italy colled the States of the Church. The preceding table eontains tho names, territorinl extent or area, and the popolation of these several states at the dates attached to them respectively. The grand total of the population, as it is not all of the same year, can only be considered as un approximation to the truth.

In linancial importance, Jritain stands at the head of all these states; for not only is her annual revenue the largest, excepting that of France, but she enjoys hesides the unenvinble pre-eminence of being burilened with the largest deht. The bud practice of anticipatIng revenne by borrowing money is common to them all; und, as will te seen in the table, ouly some of the less important have escajed the evor-growing evil. Within the last twenty yoars the deht of Austria has increased more than threefold, and the French emperor has been borrowlug largely to pay the eurrent ex penses of the war in which he and the British gevernment were engaged with Russin. Tho govemuents of Spain and Greece are virtunlly bankrupt, being neither able nor willing to pay either princlpal or interent of their large delets. Norway, on the contrary, the poorest country in Europe, has set the bright example of paying off that portion of the Danish debt with which she was burdened when separated from that momarchy in 181-1, while the Danish portlou has gone on increas ing. Tho Ottoman sultan has escaped, until lately, only by virtue of hils want of credit.

Gryence and Jpirt of Eenorean Statra.

| Cumatios. | Anhizal Hereme. | temo. |
| :---: | :---: | :---: |
| Great Ihitain and Iroland. | S 0 , $0,000,040$ | $55^{2} 76$ |
| France. | 62,010, 1004 | $275,1011,0100$ |
| Austria | 2\%, 20010,1000 | $171,1 m 00,000$ |
| liaksla. | 85, (010, (6) 0 |  |
| ${ }_{\text {S }}$ 'ruksla | 16, mhi, MM$)$ |  |
| Epain. | 15,100, $0 \times 0$ | 1:11,1m60, 9190 |
| Turkey | 6, $50.10,1 \times(1)$ | S, MMM, into |
| Netheriand |  |  |
| blelsium. | S, $0060,1 \mathrm{MNO}$ | 20, $14 \times 14.1940$ |
| Il/nmark. . . . . . . . . . . . . . . . . . |  | 18.7R1, M00 |
| davarla, | $8.1901,190$ | 16.146, (\%)0 |
| The Two sledies | 4,5064600 |  |
| Harilnla | $8, \mathbf{1 2 H 1 , 1 4 3 0}$ |  |
| llanover | 1,3101, 8131 | $8,171.106$ |
| 1talen.. | 1, 01816,1603 |  |
| States of the Chure | 2,381,1400 |  |
| l'urtuzal ... . . . . . . . . . . . . . . . | $2,500,000$ |  |
| Kindiom of Savony ............ | 1,670, 6100 |  |
| Nweclori. . . . . . . . . | 1,1441,009 |  |
| Norway. | 060,1m0) | Note |
| Thacany . . . . . . . . . . . . . . . . | 1,250, 710 |  |
| Cruper. . . . | M610, $6 \times 10$ | 4,176, 17 ml |
| Alotena. | 843,141\% |  |
| I'arma. | 76,100 | 8-1), (hayt |
| Whrtembrers.. . . . . . . . . . . . . . . | 1, MAF, (M) |  |
| Amsller therman states togethr |  |  |
| The Bwlea Cautons uld tomether. |  | 1. |

'Their annusl revenues mad the munt'nt of ileir molote as miated in the ubove table, In the mearest ronnd numbers, and ha merling mony, will give a sufliciently near approximathon to sums that are constantly varying, nad, in many instances, not cort.inly known. Thongh there has been a gencral peace in linrope for the lomg period of forty yeare, yot thrit mutual jealousies have mala It seein nerensary, to tho Continental gevernomenta at least, to muintain brge
stand has lo of sg tion gressi Britni their not or but of of th these ning $t$ forces may $b$ are pr tains ренс mies, gives the en Decen
standing armles. Russla, safe from forelgn invasion, has long been preparing large armaments for purposea of aggression on her weaker neighbors, and of domination over all the rest; and at last her overt acta of aggression on Turkey have provoked a war with Great Britain and France, who [1854] armed ln defense of their anclent ally, the Sultan, and vith the view of not only maintalning the balance of power in Europe, but of effectually checking the undiagulsed attempts of the ezars of Russia at universal dominion. In these circumstances, with ail Europe arming, or beginning to arm, any numerical atatements of their milltary forces, however approximatoly correct when written, may have hecome quite erroneous by the time they are published. The following table, therefore, contains only the declared numbers spectively of the peace and war establicineats : ©e Continental armies, with the exception of $1 . \operatorname{st}$ of France, which gives the actual number of wers on foot, as stated in the emperor's address to bis Legislative Council in Decemtier, 1854.

| Counirlen. | Teace. | Wav. |
| :---: | :---: | :---: |
| Austria. | . $\cdot$. | 670,000 |
| Russla. |  | 1,000,000 |
| l'russis. . . . . . . . . . . . . . . . . . . . . . | 129,000 | 525,000 |
| France......... . . . . . . . . . . . . . . . . |  | 681,000 |
| Britain. . . . . . . . . . . . . . . . . . . . . . | 128,000 | - |
| Spıiя. . . . . . . . . . . . . . . . . . . . . . . | 70,000 | $\cdots$ |
| Portogni. . . . . . . . . . . . . . . . . . . . . | 29,000 | 58,326 |
| Two Sleties. . . . . . . . . . . . . . . . . . | 513,048 | 102,982 |
| Eardiuia. . . . . . . . . . . . . . . . . . . . . | 17,524 |  |
| Bulginti. . . . . . . . . . . . . . . . . . . . . | 78.093 | 100,000 |
| Netherlands. . . . . . . . . . . . . . . . . . | 87,859 | *... |
| Denmark. . . . . . . . . . . . . . . . . . . . . | 87,1443 | $\cdots$ |
| Swedell.. | 7,692 | 144,000 |
| Norwny . . . . . . . . . . . . . . . . . . . . . | 1808 | 23,484 |
| Tuseany . . . . . . . . . . . . . . . . . . . . . . | 15.180 |  |
| Parma. . . . . . . . . . . . . . . . . . . . . . | 2,773 | 4,088 |
| Modens . . . . . . . . . . . . . . . . . | 8,500 | 14,651 |
| States of the Chireh. ............ | 17,965 |  |
| Sinaller Btates of the Germ. Conf. | $\pm \times 2,686$ | $224,000$ |
| Swiss Confeduration................. | .... | 108,010 |
| Torkey. . . . . . . . . . . . . . . . . . . . . . . . |  | 450,040 |
| Greecs............................ | 9,848 | $\ldots$ |

The maritime powers that mnintain efficient navies worth notice ure, Britain, France, Russia, Austria, Turkey, Sardinia, Netherlands, Denmark, Sweden, and Norway. In Ilecember, 1854, the IBritish fleet in commission and actund service, consisted of 142 stemmers, and $10-1$ salling ships, witl $6: 1,000$ men ; that of France, of nearly the sume number of vessels niltogether, thaugh not no many steamers, with 62,000 men. The Russian fleet, in the suring of 18 n consistel of 52 lhe-of-tantle ships, 18 frigates, and 8.1 sumbler vessels (heshlea gun-boats), with 0000 guns, and 12,000 men. Austrla possessell 104 vessels cartying 7t2 guns; Turkey, 70 vessels, wilh $3.4,100$ semmen and 1000 marines; Sardinia, 19 vessels, with 359 guns; the Netherlands, 88 vessels, with 2000 guns and 6180 men; Denmark, 120 vessole, with $88: 1$ guns, and 2001 men; Sweden, $\overline{4}$ vessels beslides gun-boats; Norway, 19 whips besides gun-bouts, with but men.

In Eumpe there are two great nutioual confederncies, the Germanie and tio Swiss; hot in neither of them is there po close a union of the sovereigntien that compese it as there is in the Vuited States of North Aneriea. In (iermany, indeed, there is no principle or fereling of nity anoing either primes or prople, mud their confederation, as such, enjoys neither iniluence nur respect at home or nbroul. In Switzerland, on the contrary, recent circumsthaces soem to lave pros dured a cloger and more inthuate mion, aml given to the fellerative assembly tho nuthority indispensable to the eftivient warking of a central goverumurit.- Di. it.

Exchange, Principles of, by Joun Ramasy M'tematin, lisq.

In conmercial economy, the term "Exchange" Is commonly employed th designate that description of meremutilo transmetions ly which the debts of indivihtals residing at a distanco from ench other are lifulatad wilhont the intervention of money.

The object of thls article is to explsin the nature of these traneactions, and the principles on which they depend. This will be hest effected by treating, first, of the exchange between different parts of the same country ; and, secondly, of that between different and independent countries.

1. Inland Excirange.-Suppose a merchant of London orders his agent in Glasgov to eend him s thousand pounds' worth of cottons, and that it does not suit the agent to commission goods of equal value from his London correspondent, the latior may, notwithstanding, be under no necessity of remitting cash to Glasgow in diacharge of his debt. Among countries or citles having a considerable intercourse tugether, the debts mutually due by each other are found, in ordinary cases, to be nearly equal. The Glaegow agent, who has shipped the cottons for Loncion, does not, thorefore, transmit the hill drawn by him on his correspondent for their prico to London to be cashed, as that would suliject him to the expense of conveying the money home to Glasgow; but he gets ite value from some other party in Glaggow, who has a payment to make in London on account of tea or some other article bought in that city, and who, unless lie could procuro such a bill, would be obliged to remit its price in money. 'ihe bill on account of the cotton is, therefore, either drawn in favor of the party in London who furnished the tea, or it is drawn in favor of the tea-dealer in Glasgow, and indorsed by him to the former, who, on presenting it to the purchaser of the cottons, receives its value and consequently the price of the cottons, and the prico (or part of the price) of his ten, at the same moment. This simple contrivance obviates the expense and risk attending the transmisslon, first, of money from London to Glasgow, to pay the cottons; and, second, of money from Glasgow to Landon to pay the tea. The debtor in one is changed for the debtor in the other; and both accounts are setthed withont the intervention of a single farthing.

The bill drawn and negotiated in such a transaction ns this, is termed in inland bill of exchange. If the transaction lat taken place between London or Glasgow and a foreign city, it would have heen termed a foreign bill of exchange. A bill of exchange may, therefore, be detined to be, "sn oriler addiessed to some person residing at a distance, directing him to pay a certnin spectied aum to the person in whoso favor the hill Is drawn, or his orter."*

The price of hills tiuctuntes necording to thelr abundance or nearcity compared with tho demand. If the dehts reciprocilly due by Landon and Glasgow bo equal, whether they amount to $£ 100,000, £ 500,000$, or any other sum, they may be diacharged without the intervention of money; and the price of bills of exchange will the nt pan; that $i s$, s sum of $£ 100$ or $£ 1000$ In Glasgow will purchane a hill for $£ 100$ or $£ 1000$ puyuhle in loulon, and rice rersit. But if these cities be not mutually indelited in equal aums, then the price of hills will he increased in the city which has the greatest number of payments to nuke, and reduced in that which has the fewest. If Glasgow owe London £100,ton, while the la'ter only owes the formar $\pm 90,000$, it is clear, hasmuch as Glasgow has a larger num to romit to Lamion than Lenden lins to remit to dihagow, that the price of bills on landon will rise in Glasgow beranse of the increased temand, and that the price of hills on (ilasgow will fuli in London, heenuse of the thminished demumel. A sarger sum would, consequently, be required to diselurge a debt due by alas-

[^8]gow to London, and a less sum to discharge en equal debt due by the latter to the former; or, which is the mame thing, the exchange would be in favor of London, and against Glasgow. Bills on London would sell in Glasgow at a premium, and bills on Glasgow would aell in London at a discount; the premium in the one case being equal to the dlacount in the other.
On the aupposition that the balance of $£ 10,000$, due by Glasgow, depressea the exchange on London onc per ceut., it appears at first sight that it will cost Glasgow $£ 101,000$ to discharge her debt of $£ 100,000$ duo to London; and that, on the other hand, $£ 89,100$ would be sufficient to discharge the debt of London te Glasgow. But a very little consideration will serve to show that thia would not be the case. Exchange transactions can not take place between different cities until debtors and creditors of the one reside in the other. And hence, when the exchange became unfuvorable to Glasgow, the premium pald by its merchants for bills on London would not go into the pockets of their creditors in the latter, but into these of their neighbors in Glasgow to whum London was indebted, and from whom the bills were purehased. The loss to Glangow would, therefore, be limited to the preminm pald on the balance of $£ 10,000$. Thus, supposing that A, of Glasgow, owes D, of London $\boldsymbol{1 1 0 0 , 0 0 0}$ and that C , of London, owes B, of Glasgow $£ 90,000$, A will pay to $\mathbf{B} \mathbf{£} 91,000$ for a bill or order on $\mathbf{C}$ to pay D $£ 90,000$. In this way the $£ 90,000$ of London deit at Glasgow will be cleared off; the premium, which is lost by the debtor to lort.on lin Glasguw, being galreed lyy its creditor in the same place. If the business lad been transacted in Lendon, C , with $\mathbf{\mathcal { L } 8 9 , 1 0 0}$, would have purchased of $\mathrm{D}_{\text {a }}$ bill for $£ 00,000$, payable by A; so that, in this case, the gain would have fullen to the share of the debtor C , and the loss to that of the creditor $\mathbf{D}$, both of London. The complexity of real transactions does not affect the principles on which they are founded. And whatever may be the anount of the delts reciprocally due by different placen, the only diexdvantage under which any of them could be phaced ly a fall of the exchange would be the nuavoidalle one of pyying the expense of remitting the balance of delt.

The expense of transmitting money from one place to another limits the fuctuations in the exchange lietwoen them. If 20 s. sufflecit to cover the expensa and risk uttending the tranaminsion of elow from Glasigow to londor. ? woilli le indifferent to a merchant, in the event of the sxelange bocoming unfavorable to the fi ser, whether he po lone pre cent. preminm for a bill on London, or ren:itied money direct to the latter. If the premium were less than one per cent., it would te clecrly ils interest to mako lis payments hy means of hills rather than by remittances; and that it could not exceed one per cent. Is alslons, fur every iadivdual woud rather directly remit money than incur an umevessary expelase by furchasing trills on Lonilnn at a preater premium than would sutfice to, cover the expense of a money rematiance. If, owing to the baduens of roads, dintnriances in the country, or any other canse, the "xpeaise of remitting muncy from (ilaqgow to London were harreasel, the difference $\ln$ the rate of exchange bet ween them might alse be proportionally hereasel. Wht in every cave the extent to which this difference could nttain would be limitend ly, and coulin not for any considerable periond expees, the cost of remalting eash.
Exchange transactions hecome more complex when one place, as is often the case, discharges its deltes to annther ly means of hills drawn on a third place. Thus, though Donion should owe nothing to Clasgow, yet if Giasgow be Indelted to Lamdon, Lamdon to Manchenter, and Manchester to (ilasgoll, the latter nay wholly or partialiy discharge har dobt to Lomdon by renitting bills on Manchester. She may whiliy discharge it, provided the debt due to her hy Man-
chester exceed or is equal to the debt due by her to London. If, howover, it be not equal to the latter, Glasgow will either have to remilt money to Londen to pay the balance of debt, or bills on soms other place indehted to hor.

Transactiona in inland bllls of exchange are almost entirely conducted by bankers, who charge a certain rate per cent. for their troubio, and who, hy means of their credit and connections, are able on all occasions to supply the demands of their customers. London, because of its extenalve correspondence with other parts of the country, occasioned partly hy its immense commerce, partly by its being the seut of government and the place to which the revenue is remitted, und partly by its currency consisting of Bank of England paper, for which tl-, notes of the country banks are rendered exchangenble, has become the grand fenns in which the money transactions of the United Kingdom ceutre, and in which they are all ultimately adjusted. These circumstances, but especially the denand for bills on London to remit revenuc, and the far supertor value of lank of England paper, render the exchange between London and other parts of the country Invarially in her favor. Bills on London drawn in Elinburg and Glasgow were formerly nate payalle at 40 days' date, which was equivalent to a premiun of nbout $\frac{1}{\frac{1}{2}}$ per cent.; but, owing to the greater facility of communication, this premium is now reduced to 20 days' interest, or to about $\frac{1}{2}$ per cent. Bills for remitting the revenue from Scotland are now drawn at thirty days; previously to 1810, they were drawn at 60 days.
These statements are sufficient to show that, how well soever bills of exchange may he fitted for facilitating the operutions of commerce, and saving the trouble and expense attending the transportation of money, mercantile transactions can not he adjusted by their means except in so far as they mutualty balance each other. A real bili of exchange is metely an order entitling the holder to receive payment of a delt due by the person on whom It is driwn. It is essential to the existence of auch liill that an equivalent amount of debt shonlil be contractel. And hence, as the anount of the real bills of exchange drawn on any number of merchants can not exceel the amount of their debtes, if a greater sum be owing to them than they owe to others, the balance must either be paid in money or by the delivery of some surt of commodities. If, us in the case referred to, Glangow owe Londion $£ 100,000$, while London only owes Glasgow c90,000, a reciprocal transfer of delits may he mado to the extent of $\mathbf{f 9 0 , 0 0 0}$. But the Clasgow merchants can not diseharge the altional $£ 10,000$ by means of hills on London; for, by the supposition, Londen only owned them $£ 90,000$, and they have drawn fur its amount. This balance must therefore be ilselarged by an actual money payment, or by the delivery of some species of produce, or b,y bills mu some third party indebted to Glavgow.

It is not meant by this to insinuate that fictitions tills of exchange, or bills drawn on persens who are not really indel, ted to the drawer, are either unknown or very rare. In conmercial countries liils of this dencription are alwayn to be met with; hut they are a device for olitnining loans, and cun not trabsfer real delits. A of London may form a comection with It of Glaxpow, and draw bilis upon him payable a certain namber of daya after inte, which the later mily retire ly selling bilif mpon A. The merchants who purchase, or the bankers who discount these hills, manace their value to the drawiry, who, hy means of this nystem of draring and redruwiny, command a borrowed capital equal to the amount of the fictitious paper in circuhation. It is clear, howner, that the negotiation of such bills can not nssist in transferring and aettling the bond gide debta of two or more phaces. lictitious hills mutually balance ench other. Thone drawn is London on Glasgow equai those drawn ly Glangow on

London, the secon The ra has been it entails and is res piclous cre months' the ordina per ceat., discounted expenee of fore, supp count of th be extimate ex stamps ; borrowed $\mathbf{c}$ of merca:at than from frequently 1 gelion bap bills, the chu only. Loan colint of two bill is drawt in this cuse, due, draw u and commis will be on a commission t may, on the gain about a mission.
It is often bills from the actions. Nei terial import partics whose criteria by w whether they stances of an for discount, o excite suspici as the drawing dicative of ov to carry on the there does not refusing to dis
Within tho
to grant mone different post-o orders cost al. sums bet ween not puid unles drawn, or other by whom they thete is no ris hands. This sy aecommotation small sums to $\mathbf{r}$ sorted to. In It in the Unitel ferred ly thoir
These ohser the um:mer in parts of the sum. of excharye. ? The uniform val renders unneress. of money at thi negotiated, with the constant int parts of the sama those occurrence distant and inde to the interrupte which frequently

London, for the one act is drawn to pay the otherthe second destroys the first, and the reeult is nothing.
The raising of money by means of fictltous bille has been severely censured by Adam Smith, who says it entalls a rulnous expense on those engaged in it, and is resorted to enly by projectors, or persons of auspicious credit. When fictitione bille are drawn at two months' date, it is common to charge, in addition to the ordinary interest, a commiselon of half or quarter per cent., whleh must he paid every time the bill is discounted, or, at least, six times a year. The tutal expense of money raised in this way conld not, therefore, supposing the transaction to be always on account of the same indlvidual, and interest 4 per cent., be estimated at leas than $5 \frac{1}{2}$ or 7 pici nent. per annum, ex stamps; and the payment of so high an interest on borrowed capital, is a country where tho ordinary rate of mercausile profit is not supposed to average more than from six to eight per cent., conld not fail to be frequently productive of ruin to the borrower. But it sellom happens that, in the negotiation of fictitious bills, the charge for commission falls on one individua] only. Loans obtained in this way are usnally on account of two or more parties. At one tlme a fictitious bill is Jrawn by $A$ of London on $B$ of Glasgow ; and, in this case, the latter will, before the bill becomes due, draw upon $A$ for its amount, including Interest and commission. At another time, the trangaction will be on account of B, who in that case has to pay commission to his friend in London; so that each party may, on the whole, as Mr. Thornton bas observed, gain about as much as he pays in the shape of commission.
It is often extremely difficult to distinguish fictitious bills from those which have arisen out of real transactions. Neither does it reem to be of any very material importance. The character and credit of the parties whose names are attached to bills, are the ouly criteria by whleh merchants or bunkers can judge whether they ought to negotiate them. The clrcumstances of an individual offoring accommodation paper for discount, ought unquestlonably, if it be known, to excite suspicions of hls credit. But unless in so far as the drawing of fietitlous blls may be held to be indicative of overtrading, or of a deflelency of capltal th carry on the business in which the party ls engaged, there does not appear to be any very good reason for refusing to discount them.
Within the last few years, it has been the practice to grant money orders, payable on presentation at the different post-offices, for sums of 55 and under. These orders cost 3 d . for sums of $£ 2$ and under, and Gd, for sums between $£ 2$ and 55 inclusive; and as they are not paid unless the partics in whese favor they are drawn, or other parties well known to the poatmasters by whom they are payable, appoar to receive payment, there is no risk of the money getting into limproper hands. This system has been found to be a very great accommodation to the publie, especlally to those having small sums to renuit, and has been very extensively resoried to. In $1850: 4,49,713$ noney orders were lssued In the Vnlted Fangdom; the argrogate sam transferred hy their agency beiag $\mathbf{C 8}, 494,198$.

These observations will, perhaps, suffice to explain the mamer in which transmetions hetween difierent parts of the name country are settled hy menns of bills of excharye. They are, in general, ext remely simple. The uniform value of the currency of a single country rendets unceessary any comparinon between the value of money at the plate where tho blll is drawn and negotisted, with its valus where It ls to ho pald; while the constant latercourso malntahed among difierent parts of the same klogilom, and the nsual absenee of those occurrences by whleh the lntercourse between distant and independent conntries la always sulijnet ta be huterrupted, prevent those audilen lluctuations which frequently arise In the prices of forelgu bllls of
exchenge. We shall, therefore, leave this part of our aubject, and proceed to liveatigate the circumstancea which Influence the course of exchange between different and independent countries.
II. Foneign Exciange.-The priee of foreign bills of exchange depends on two circumstances : first, On the value of the currency of the place where they are made payable, compared with the value of the currency of the place where they are drawn ; and, secondly, On the relation whieh the aupply of bills in the market bears to the demand.

If the value of the different coins and moneys which circulate in nations having dealings with each other were iuvariable, the exchange would be exclusively influenced by circumstances affecting the supply and demand for bllls. But, in addition to variations in its cost in particular countries, the welght and finenese of the bullion centained in their coins are liable to all sorts of variations. And it is almost needloss to say that the price of bills, as of every thing else, necessarily varies with these variations, increasing when the value of the money in which they are estimated falls, and falling when it increases. But these, it is plain, are merely nominal or numerical variations. They grow out of changes in the standard smpleyed to measure values, and not in $1 / 10$ values themselves. It is otherwise, however, with variations of price oceasioned by changes in the supply of bills, or in the demand for them; that is, by changes in the payments a country has to make compared with those it has to receive. These are real, not nominal variations, for they affeet the values in bills, and not the money in which these values are expressed. And hence the distinctions of nominal, real, and computed exchange. The first depends on alterations in the value of the currencies compared together; the second depends on the supply of bills in the mariet compared with the demand; and the third, or computed exchange, depends on the combined effects of the other two. For the aske of perspicuity we shall treat of these separately.*

IlI. Nominal Eacitange.- Bullion belng everywhere recognized as the standard currency of the commercial world, the comparatlve value of the curreacies of partictiar countries depends-first, On the value of bullion in those conntries; and, secondly, On the quantity of bullion contained in their colns, or on the quantity of bullien for which their paper money, or other circulating media, will exchange.

The value of freely produced commoditles being commonly proportioned to the cost of their production, including thercin the cost of their conveyanco from where they have hoen produced to where they are to he made use of, it follows, were the trade in the precious metala perfectly epen, and the commoditles produced in different countries about equally well fitted for exportation, that the value of bullion in one, compared with its value in another, would be chiefly determined by their respective distances from the mines. Thus, on the suppesition that neither England nor Poland lud any article except corn to exchange with the Americans or Australians for bullion, it is evident that the precious metals would he more valunhie in Poland than in Enghand, because of the greatet expense of aending so bulky a commodlty as corn the more distant voynge, and also of the somewhat preater expense of convoying the gold to Poland. Hail Potand succeeded in carrylng ber manufactures to a higher pitch of improvement than England, her merchants might be ahle, notwithstanding the disndvantage of distance, by oxportling commodities possessed of yreat value in smull hulk, the frelght of which would be comparativoty triflug, to buy bullion on cheaper terms

- Rapposing every country to be in ponseasion of lita proper supply of buttion, the exchaoge may be said to be nominally affected by the ameunt of the difference between the market and wint price of buttion, and to be really affected by any devation from par exceedlug or fr. 'ling ahort of tbat difarence.
than those of England. But when, as is nctually the case, the advantages of akill and machinery are on the side of England, another reason is added to that dorived from our leis distance from the mines, why gold and silvor abould be less valuable here than in Poland, and why the money price of commodities should be higher. ${ }^{*}$

Hence, among natlons which have attained to different degrees of excellence in manufacturing industry, the value of bullion does not wholly depend on their distance from the mines. But, whatever variations a different progress ln the arts may occasion in its valne in different countries, it is always less valuable in theee inte whlch it is imported than in those in which it is produced. Like every thing else, it is exported to find, not to destroy, its level. And unless lts value in Europe exceeded its value in America and Anstralia by a sum suficient to cover the expense of its importation, including ordinary profits to the importers, we should not, though the mines in these quarters were infinitely nore productive, import from them a single ounce of buliion in the ordinary course of trade. It ls obviously incorrect, therefore, co lay it down as a general proposition, "that the par of exchange between two count ${ }^{- \text {-. }}$ es is that smm of the currency of either of the two, which, in point of intrinsic worth, is precisoly equal to a given sum of the other; that is, contains precisely an equal reight of gold and silver of the same fineness." $\dagger$ For a giren quantity of gold and silver is not always, as is here assmned, of the same Intrinsic value in different countries. It may differ but little among nations bordering upen or near each other, and Which are all destitute of mines. lhit though, to use a familiar illustration, the value of sugar appronches nearly to a level in the great trialing cities of Europe, it can not surely te maintained that lts value la the West Indies is as great as in Itordeanx or Liverpool, or that the exchange would be really at par, if a bill, which cost a hundred hogsheals of sugar in London, oniy brought a huadred in Jamaica. Now, in respect of pinclple, this is precisely the case with bullion. Though the values of gold and silver, compared with corn, iabor, etc., may, and indeed must, vary very considerably among different nations, these variations are only the necessary result of their lifferent progress in industry, and of the different quality of their cultivatedi lande, etc. Such differences of price are in the natural order of things; and bullion has not found its proper level till a quantity has been introduced into those countries which excel in manufactories, sufficient to raise the price of their corn and labor. These variations have, therefore, no influence over the exchange. Notwithstanding thls lifference of price, an onnce of buliion in one country, owing to the facility of intercourae, is very nearly equivalent to an ounce of bulition in another; and supposing the trade in the precious metals to be perfoctiy free, the exchange will be at true par when bills are negotiated on this footing. But when we compare the values of these metais in distant countries, especially in thase where they are prodaced, with those into which they are imported, there are very considerable differences. Gold and silver, like iron, coai, tin, etc., are necessarily cheaper in countries pussessed oniy of extraorlinarily productive mines, than in those poasessed only of mines of a serondary degree of fortiity, or where they huve to be entireiy bronght from abroad. And the exchange het ween such places is not a true par, unless adecinate allowauce be rade for this difference of value. Thus If, because of the expense of earriage, the value of bilion in Great Britain be 5 per cent. greater than in San Francisco, 100 ounces of jure golid in the iatter would not be worth 100 ounces of pure goill in Loudon, but 5 per

[^9]cent. less; and the exehsnge wonld be at true par when lills for 105 ounoes atandard bullion, payable in San Francisco, sold in London for 100 onnces.
The different values of the precious metala in different countries do not depend alone on their respective distances from the mines, or on their greater or less progress in the arts. The opinlon formerly so very prevalent, that gold and sllver were the only real wealth, led most nations to fetter and restrain their exportation, and to adopt a variety of measures intended to facilitnte their importation. But these, even, when mast vigorously enforced, were singularly ineffectual. The great value and emall bulk of the precious metals rendered it not only advantageous, but cemparatively easy, clandeatinely to expori them, wheaever their relative value declined.
"When," nays Adam Sinith, "the quantity of gold and silver imported into any country exceeds the effectual demand, no vigilance of government can prevent their exportation. Ali the sanguinary laws of Spain and Portugal are not able to keep their gold and silver at heme. The continual importations from Peru and llrazil exceed the effectual demand of those conntries, and sink the price of those metals there below that in the neighboring countries. If, en the contrary, in any particular country, their quantity fell short of the effectual demand, so as to raise their price above that of the neighboring countries the government would have no occasion to take any pains to import thein. If it wero even to take the pains to prevent thelr importation, it would not be siole to effectuate it. Those metnls, when the Spartans hid got wherewithal to purchase them, broke through all the barriers which the laws of lyyurgis opposed to their entrance into Lacedemon. Alt the sanguinary laws of the customs are not able to prevent the importation of the teas of the Dutch and (iottenturg biast Indis Companies, because somewhat cheuper than those of the Mritish Company. A pound of tea, however, is about a 'iundred imes the bulk of one of the highest prices, 16s., that is commonly paid for it in silver, and more than two thousand times the buik of the same price in gold, and, consequently, just oo many times more difficult to snuggle."-Wealih of Nations, p. 190.
lint though ineffectual to prevent their egress, the restrictions on the exportation of the precious metals have, nevertholess, contributed to occasion some slipht variations in their value on different conntries. 'The risk formeriy incurred by the clandestine exporters of builion from Spain, is supposed to have been equivslent to about two per cent.; or, whifh is tho same thing, it is supposel that the restrictions maintained surli nn exress of gold and vilver in that country ns to sink them two percent. below their value in countries having a free traie in bulion. In calculating the true par of exchange between different countries, circumstances of this kind must be taken inte accomit. Vor, to whatever extent lublion in one country may be annk below lts value in those with whirh it maintaine an intercourse, tho nominal exchange will necessarily lie unfavorabie to that extent. All restraints on the exportation of the precious metals was utsilished in Great ilritain in 1819. Their effect for many years previously conid not be estimated at above one fiarth jer cent.

It consequently results, that whatever occasions a rise or fall in the vaiue of the precions metals in one conntry affects to the shme extent its nomimal exchange with other countries. If more coin, or convertible japer, circulated in Great Ilritain, compared with the business it has to perform, than in other conntrios, its relative vaiue would be proportionally less. Foreign linis wonll seli for a prenitum, the amount of whilh would measure the excess of the value of the precions metals in the foreign market, eaused by thelr redumlancy in the home market. And, on the other hanil, in the event of our currency becoming
relative increas at a di excess countrie IV. I tities of tries, op $b \cdot$ which tween it standard ment. rather it standard gold or s the coin This relat considered sequent $\mathbf{v}$ together, below par. a comparis of exchang certain for exchange Hamburg, sterling, for florins, etc. sny two con gives it the favor of tha On the su quantity of fr. 57 cent, is that the valu the exchang par when a bis that rate ; t of 25,000 fran 8100 or $£ 1000$ ever, that th actly with the issued, they a ever this defe responding to and their mi sam of the e: tries which en bullion as is Thus, if our rahleed, ns not but 10 per cet and Paris wout 10 per cent. a hand, the poun ard, whilo the at par when it and in favor count ries were their respertiv variation of th countrics tradin exchange is no currency is lea curfency is mos
It is nimost show the practi, shall content ot

[^10]relatively deficient, lts value would be proportionally Increased ; bills drawn on forelgn countries would sell st a discount, the amount of which would equal the excess of the value of onr enrrency over that of other countries.
IV. Par of Excitanges.-In estimating the quantitles of bullion contalned In the coins of different countries, a particular coin of one ls selected for a standard b. which to compare the others, and the proportion between it and them, supposing them to be all of their standard welght and fineness, is ascertalned by experiment. A par of exchange is thus established, or rather it is ascertalned that a cartain amount of the standard currency of one country contains as much gold or sllver of the same fineness, ns is contalned in the coin or integer with which it has been compared. This relation, or par, as it is technically tarmed, is considered Invariable; and allowance is made for subsequent variatlons in the coins of countries trading together, by rating the exchunge nt so much above or below par. In mercantile langusge, that country, by s comparison with one or other of whose coins the par of exchungen has been establibhed, is sald to glve the certain for the uncertain, and conversely. Thus in the exchange between London and Paris, London and Ilamburg, etc., London gives the cerfain, or the pound sterling, for nn uncertain or variable number of francs, florins, etc. Hence, the hlgher the exchunge between sny two countries, the more is it in favor of that which gives it the certain; nnd the lower, the more ls it in favor of that which gives the uncertain.
On the supposition that 25 francs contain the same quantity of standard buition as a pound sterling ( 25 fr. $\mathrm{of}^{\text {cent. is about the exnet par), and supposing, also, }}$ that the value of bullion ls the same in both countries, the exchange between London and Paris will be at par when $n$ blll drawn ln the one on the other sells at that rate ; that is, when a till of exchange for 2500 , or $\mathbf{2 5 , 0 0 0}$ francs, payuble in Paris, sells In London for $f 100$ or $£ 1000$, and vice aersd. It is but sellom, however, that the colns of any country correspond exactly with their mint standard. Unless when newly issued, they are elther more or less worn; and whenever thls defect becomes sensible, an allowance corresponding to the difference hetween their netmal value and their mint value ls made in estimating "the sum of the exiating curreney of either of two countriss whleh contains precisely the same quantity of bullion as is contnined in a given sum of the other." Thus, lf our pound sterling were so worn, elipped, or rubbed, as not to contnin so much bullion ns 25 fr ., but 10 per cent. less, the exchange between London and Paris would he at real par when it was nominully 10 per cent. against London ;* and if, on the other hand, the pound sterling were equal to its mint standsrd, while the franc was 10 per cent. less, it would be at par when it was neminally 10 per cent. against Paris and in favor of London. If the currencies of looth countriea were equally reduced below the standard of their respeetive mints, there would obviously be no variation of the par; but whenever the currency of count ries trading together is unequally depreciated, the exelange is nominally $\ln$ favor of that country whose curreney is least, and nominally agalust that whoso carrency ls most depreciated.

It is almost unnecessary to refer to exnmplas to shiw the practical operation of this principle; and we shall content ourselves with selectling the following,

- It in necessary to observe, that it is here nupposed that the elfpect or degraded money exists la such a degree of abundisnce as euly to pase current at to bution raiue. If the quantity of elipped money werd suficiontly limited, it might, notwithatanding the dimiuntion of welght, pans current at its mint value; and then the par weuld have to be eatimated, not by lts relative wegght to forelgn mutuey, but by the mint price of bullion. Thla prinelple must be constantly kept In view.
from an lafinite number of equally concluslve instances.

Previously to the great recoinage in the reign of Willlam III., silver being at the time legal tender, the exchange between England and Holland, calculated by the standsrd of their respective mints, was nomInally 25 per cent. against England. Inasmuch, however, as Engllsh silver coins were then, owing to rubblng and clipping, nepreciated more than 25 per cent. below thelr int value, the real exchange was probably at the time in our faver. And the circumstance of the nominal exchange having become favorable to us as soon as the new coin was issued, tenda to confirm this conjectiare.*
Tha guinea was ao much worn and degraded, prevlously to the geld recoinage in 1774, as to be from two to three per cent. under its standard weight. Inasmuch, however, ss the coins then circulating in France were nearly of their standard weight and purity, the exehange between London and Paris was nominally from two to three per cent. against the former. We say nominally, for as soon as guineas of full weight were issued, the exclisnge rose to par.

The Turkish government, during the past century, has made successive reductions in the value of its coin. Before the first of these in 1770 , the piastre contained nearly as much silver as the English habf-crown ; and, in exchange, the par was estimsted at eight piastres to the pound starling. But, in the interval, the degradation in the value of the piastre hus been such that it is now worth only about $2 \frac{1}{d}$.; and the exchange is said to be at par when Constantinople gives about 109 piastres for $£ 1$ sterling. It is needless, almost, to say, that the nominal exchange, estimated by the old par of eight piastros to $£ 1$, became more and mere unfavorable to Turkey with every successive enfeeblement of tho coin, though it is deubtful whether the real exchange, or that depending on the balance of payments, was not all the while in her faver.

When. one country uses gold as the standari of its currency, and another silver, the par of exchange between them is effected by variations in the relative values of these metals. When gold rises as compared with silver, the exchange becomes nominally fuvorable to the country which has the gold standard, and vice versí. And hence, in estlmating the par of exchange between countries using different standards, it is ulways necessary to inquire inte the comparative values of the metal selected as standards.
"For example," to use the words of Mr. Mushet, "if 84 sehillings 114 grotes of linmburg currency be equal in value to a pound sterling, or $20-21$ of a guinea, when silver is at 5s. 2d. per oz., they can no longer le so when silver falls to 5 s .1 ld . or 5 s . an oz., or when it rises to 5 s .3 d . or 5 s .4 d , ; because a pound sterling ingold being then worth more or less silver, is alse worth more or less Hamburg curroney. To find the real par, therefore, we must ascertain what was the relative value of gold and silver when the par was lixed at 34 s .11 fg . IInmburg currency, and what is their relative value at the time we wish to culculate it. For example, if the price of standurd geld was £3 17 s . $10 \frac{1}{2}$. per oz., and silver 5s. 2d., an ounce of gold would then be worth 15.07 ounces of silver, and 20 of our atandard shillings would then contain ns much puro silver as 3 ös. $11 \ddagger$ grotes of llamburg currency. llat if the ounce of gold were fill 17s. $10 \frac{1}{c} l$, and silver 5s. (which it was on 2d January, 1798), the ounce of gold would then be worth 10.57 ounces of silver. If E'1 sterling at par, therefore, be worth $15 \cdot 07$ otunces of allver, then at 15.57 It would be at three per cent. preminm; and three per cent. premiun on 34 s .11 d d . is 1 sehllling 1 grote and $9-10$, so that the par, when gold is to silver as $15 \cdot 3$ to 1 , will he 36 schillings 1 grote and 1-10. The nbove caleulution will he more casily
made by stating, as $15.07: 34-12 t: 15 \cdot 57: 30-1$ 1.10."

As it is theirintringic worth in bullion which determine the vulue of coins in exchange transactiona, those of oqual weight a: d purity are reckoned equivalent to each othar, though seme of tham may have been coined at the expense of the state, and athars charged with a daty or reigniorage on their coinage. The latter may, if not issued in excess, pass current in the country in which they are coined for their value in bullion gins the duty; but they will not pass anywher else, except at their bullion value. $\dagger$

Bat the princlpal source of finctuations in the nominal price of hills of exchange, ls to be founds lin the varying value of the paper currency of commercial countries. The disoniers which arose in remoter age. from diminishing the bullion contint id in tolntiof tha

 in the depreciation of paper curresic
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retaining a comparatively large quantes of coin owllien, or of paper convertible into coin, in to parele lar country, limited the Issues of the Bank of lingian: previougly to the Reatriction Act of 1797 ; and lit las ecually limited them since the resumption of specie payments in 1821, and sustalned the value of the cur* rency on a level with gold. When the bank atarver the cinculation, or issuen less paper than is necessary, bulliou is imported, sent to the mint to be cuined, and thrown apon the warkot. And when, on the other hand, the 'vank lssues too much paper, and thereby depresses its value relatively to gold, it lecomes profita ble to demand payment of Its netes, and to export the specie thus obtained either as coin or as bullion. In this way the vacuam is filled up when bank-notes are deficient, the excess removed when they are redundant, and the value of the corrency prenervad nearly equal. But, from 1797 down to 1821, this principle was axapended. Duriag that period, the hank was reBleved from the obligation to pay her outes in gold ; while, owing to their belig made legal tender, their cirealation was lazured. IIence, their value exciusively depended on the extent to which they were issted compared with the demand. There is no difference, in its influence over the exchanjeg, between a degraded metallic and a iepureciated paper currency. And when a country with elther the one or the other, haa any dalinga with another whose currency is of its full valus, the exchunge is nominally against her to the extent of the degradation or depreciation. The nominal exchange letween any two or neere places is, in fact, aiways adjunted accerding to the values of their currencies, being most $t$ "orable to that whose currency approaches nearest . its atandarl, and nost unfavurable to that whose currency is most degraded or depreclated. The intercourse between Great Britain and Ircland subsequently to the reatriction on cash paynient in 1797, furniahes some striking proofs of the effect which inerdinate lesues of paper hava in depresen ing the exclange. The nominal value of the Irish whilling being raised in 1689 from 12d. to $134 ., \ddagger$ 建 108

- An Ingrifry info the effecta preduced on the Nutional C'urrencers by the Bank Rentriction Mitt, cte., 2d ed., p. 94,
+Previonaly to 181\%, no melgnlorage had for a very long pe. riod tween dedacted from uther the gold or aifror colna of ctrens Brituin; but in tife great recolnage of that year, the value of afiver wan raicad from ba, \%d. to 5a. 6d. an onnce, ar nearly in the proportion of $6!$ per cent. Tbe gold ecting however, are anil colsed freo of expente, and no varlation has been made lit their standard. The proportion of diver to guld In the colas in now as 14287.1000 to $1 ;$ but their proportion to each other, according to thelr mint valuation, it as $15200-1000$ to 1 .
; By a proclamation of Jamea 11. The arrangement was conthated by tha revolutiontry goverument, mud var eas. firmed by prociamation, zoth September, 1737. Bet in 1955 the eurrepclen of Great Brtuin and Ireland were atmilated.

6s. 8d. Irish maney becarae equal to only $£ 100$ of British money, so that the exchange between Great Britain and Ireland was sald to be at par when it was nominally 81 per cent. againet the latter. + . In the eight years previous to 1797, when the paper currency of both countries was convertible into gold, the exchange between London and Dablin fluctuated from $7 \frac{1}{2}$ to 9 per cent., that is from $6-6$ per cent. in favor of
 it was at 6 per cent., or $2 \frac{1}{2}$ par cent. in favor of Dul)lin. The amount of Bank of Ireland notes i circulation in January, 1797, was only £621,917; whereas in Aprll, 1801, thoy had increased to 22,286,471, and the exchango was then at 14 per cent., or $6 \frac{8}{g}$ per cent. against Dublin. In 1803, the Bank of Ireland notes In circulation avoraged $\boldsymbol{£ 2 , 7 0 7 , 9 5 8}$, and in Sctober of that year the exchange was quoted at 17 ever cent., 'avt is, 82 per :ent. against Dublin!
The fact of the exchang between London and Dublir haring fluctuated so little frum par for the elght years previonsly to the neatriction, shows that the circulating medium of Great Britain and Ireland had ren lieen adjuted nearly according to the wants of

- two countries. But, in these circumstances, it was evideatly impracticable, eupposing the value of British currency to remain nearly stationary, that the amonnt of Irish bank-paper cuuld be more than quad. rupled in the short space of eix years, without rendering the currency of Ireland redundant, and sinking its valne below that of Finglund. Had the Bank of England increased its notes in something lika the same ratio as the Bank of lreland, then, as the currency of both countriea would have been equally depreciated, the exchange bet ween London and Dablia would have continued at pur. While, however, the notes of the Iank of Ireland were increased from $£ 621,917$ to $£ 2$,707,956 , or in the proportion of $14,4 \cdot 3$, these of the luank of England were only increased from $£ 9,181,843$ (their number on the 7th Januury, 1797), to £16,505, 272 , or In the proportion of 1 to 1.8 . Int for this additlon to its issutes ly the Bank of Fingland, the exchange, it is plain, would have been still more unfavorable to Dublin.
In the debutes on the Bullion Report, it was contendel that the increase of lank of Ireland paper could not bave been the eause of the unfavorable exchange upon Dublin, seeing that it had again become favorable after the issues of the Bank of Ireland had been still further increasel. Ilat to give this reasonlng the least weight, it should have been shown that the enrrency of Great Britah retained its value in the interum, or that it had not been deprecinted to the esme extene as that of Ireland. For it is obvious that the depreciation of lrish lank-paper might go on subsequently to 1804, and yet if Einglish bank-paper were dequeciated still more rapldiy, the exchange would becon:s suoru in favor of Dublin. This is merely supposing the cireamstances which took place in the first six yeara of the restriction to be reversed in the secone' six. Let us inçuire how the fact ratands.

We have reen that, in 1803, when the exchange was nominally 10 per cent. against lublin, the issues of the Bank of England anonnted to $£ 16,500,272$, and those of the Bank of Ireland to $\mathbb{C e}^{2}, 700^{-9}, 956$. Anil by referring to the aceounts of the lssues of the latter from 1807 tu 1819 , published ly authority, it is seen that in 1805-1808 they were rather diminished; and that in 1810 they amwunted to only $23,251,750$, being an increase of nut more than $\{543,794$ in the space of seven yeara, or at the rate of 2 and 6.7 per cent. per annum; but in the same periot (from 1803 to 1810) the lisues of the Bunk of Eagland were increased from $£ 16,505,272$ to $£ 22,541,523$, or at the rate of $b$ per cent. per annum. And this is not all. According to Mr. Wakefield, there were 50 ragistered bankers in Ireland in 1804, and only 83 in 1810 , of which 1.1 were new houses, 31 of the old establithments having liso
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of th the ta the nn valne, the f : all t: corinct ber, live ciense? of nut perkico ? perios cimentr:
preas London able to to that wht paper cu than that and the n Dublin.

## This is

 better evi of Dublin entirely o preciation turers and inhabitant period of governmen notes in The landlo of their ren in "月 nort the nouther pression of had been oc vorable bal Britain, or 1 of absenteca tween lond ern counties that in Dece on London London was time that the paper curren agninat Irela had a gold cent. in fts ft Wam a differe between Dub the fuland ex about 10 per drawn in Dal Belfast, lrong drawn in Belf of Dublin, molIt is unne French assignt
tinental powe ta corroborate readess as wi points may he "Cours d'Ene they will find of inordinate is
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appeared; and "I kelieve," says Mr. Wakefleld "for the most part fallod." This extraordinary diminution of ths country paper of Ireland, for the reduction of the issuea was at laast proportional to the reduction in the number of banks, could not fall greatly to raise its valae, and to conntervall a corresponding increase lat the iswi uf the national bank. Now, the revarae of all $\mathrm{t}_{\mathrm{s}}^{2}+{ }^{\circ}$ 冰 place in Britai... In 1900 there were 386 covnti". anks in this country; and !n 1810, this number, iraifad of being diminished as in Ireland, had inciensed o 721, baving at lingt three times the number of notse in circulation in the latter as in the former perice : It ayf" $\mathbf{1 H}$, therefore, that when, in the perin! 'wean 179:' and 1804, the amount of paper i. cirnvis ion in Ireland was increased, and its ralue depres. d, faster than in Englayd, the :clange between Iondon rad Duhl: able to the latter; and, on the other hand, it appears, that when, in the six years subsequent to 1804, the paper currency of England was increased more rapidly than that of lreinnd, its relative value was diminlshed, and the nominal exchange became more favorable to Dublin.
This is sufficiently conclusive. Brt there is still better evidence to shov that the uafavorable exchange of Dublin upon London, 1802, 1803, 1804, etc., was entirely owing to the comparative redundancy or depreciation of Irish bank-paper. The linen manufacturers and weavers, with the majority of the other inhalitennts of a few countles in Ulater, being at the periorl of the restriction strongly dissffected toward government, very generally refused to receive banknotes in payment either of commodities or wages. The landlords having nlso stipulated for the payment of their rents in specie, a gold currency was maintained in then northern long after it had been banished from the outhern parts of Ircland. If, therefore, tho depression of the exchange between Iondon and Dublin had been occasioned, as many contended, by an unfrvorable balance of trade between Ireland and Great Britaln, or by remittances from the foriner on account of absentees, it would have been equally depressed between London and the commerelal towns in the northem countiee. But 30 far was this from heing the case, that in Deeeniber, 1803, when the exchange of Doblin on Iondon wns at. $16 t$ per cent., that of Belfust on Iondon was at $5 \frac{1}{4}$; or, in other words, at the very time that the exchange bet ween Dublin, which had a paper currency, and London, was about 8 per. cent. against Ireland, the exchange between Belfast, which had a gold currency, and London, was about 3 per cent. in its favor. And this is not all; for while there was a difference of 11 per cent. in the rate of exchange between Dublin and London, and Belfast and London, the inland exchange between Dublin and Belfast was ahout 10 per cent. In favor of the latter; that in, bills drawn in Dublin, and peyable in the gold currency of Belfast, lirought a prenilum of 10 per cent., while bills drawn in Belfast, und payable in the paper currency of Dublin, sold at 10 per cent. discount!*

It is unnecessary to refer to the history of the French asnigmats, or of the paper carrency of the continental powers generally, sind of the United States, to corrohorate what has heen advanced. Such of onr readers as wish for further information upon these points may have recourse to the fourth volume of the "Cours l'Enconomie Politiquo" of M. Storch, $\dagger$ where they will sind an inatructive necount of the influence of inordinate issues of paper on the price of hullion and the exchange, in almost every rountry of Furope.

[^12]They are, in every case, similar to those now atated. It only remains to determino the infiuence of fuctustlons in the nominal exchange over axports and imports.
VI. Infloencer of Fiuctuations of Exchayeez oven Importa And Exponts.-When the exchange is at par, the operations of the merehant are regulated entirely ly the difference between foreign prices and home prices. Tie imports such commodities as eell at home for $\mathrm{n} \cdot \mathrm{m}$ meh more than they cost abrosd as will indems'fy inm for freight, insurance, etc., and yielde, becidea, sn adequate remumeration for his trouble, and fo the capital employed in the businens; and he exports those whose price abroad ia sufficient to cover all expenses, and to afford a similar profit. But when the nominal exchange hecomas unfavorable to a conntry, the premiam which its merchanta receive on forelgn billa has been aaid to enable them to export with proft, In cases whera the difference between the price of the exported commodities at hons and ahroad might not be guch as to permit their exportation with the exchange at par. Thus, if the nominal exchange were 10 per cent against this conntry, a merchant who had sonsigned goods to his agent abroad, would : celve a premium of 10 per cent, on the aale 0 N bill; and if we suppose freight, insurance, mercns? is profit, etc., to ainount to 6 or 7 per cent.; it wo 'f first sight appear se if we might, in auch circums: - \%, export commodities, although their price at ho::\% w 3 or 4 per cent, higher than in other countrier. the other hand, the nominal exchunge were $: 1, r$ in. vor, or if bills on this country cold at a nurui zm would appear as if forelguers would then $\cdot \rightarrow$ able is conslgn goods to our mercharts, or the lati: : ip ora:goods from shroad, when the difference of $\ldots .$. would not of itself lead to an importation.

But a very little consideration will suflice, show that the flucturtions in the nowinal exchange have no suich effects, That fall in the value of the currency which renders the exchange unfavorable, and causes foreign bills to sell at a premium, equally increases the price of eommodities. And hence, huwever great, the premiun which exporters gain by selling bills on their correspondents abroad, merely findemrifies them for the entanced price of the goods exported.' In such canes, mercantile operatlons are conducted preciaely as they would be were the exchange really at par; that is, hy a comparison of real prices at home and abroad. meaning by real prices, the prices at which commodi. ties would be sold provided there were no depreciation of the curreney. If these admit of exportation or inspostation with a profit, tho circumstance of the nominal exchange being favorable or unfavorable will make no difference whatever on the transaction.
"Suppose," says Mr. Blake, who has very successfully illustrated this part of the theory of exchange, "the currencies of IIamburg and London boing in their duo proportlons, and therefore, the nominal exchange at par, that sugar, which, from its abmadance, In Loniton sold at fin per hogshead, from its senreity at IIamburg would sell at $£ 100$. The merchant in this case would immediately export. Upon the sale of his sugar, he would draw a bill upon hia correspondent abroal for $£ 100$, which he conld at once convert into cash by relling it in the bili market at home, deriving fror this transaction a profit of $\mathbf{c 5 0}$, under deduction of the expenses of freight, insurance, cominission, ete. Now, aappose no alteration in the ncarcity or ahandance of augar in London or Hanburg, and that the aame transaction were to take piace after the currency in England had been so nuch increased that the prices were douhled, and, consequently, the nominal exchange 100 per cent. In fivor of Hamburg, the hogshead of sugar would then cost c100, leaving apparently no proflt whatever to the exporter. He would, however, as before, draw his hill on his correapondent for $\mathbf{£ 1 0 0}$; and, as foreign bills
world beer a premiam of 100 per cent., be vould sell this hill in the Engllah market for $\mathbf{5 2 0 0}$, aze thus derive a profit from the transaction $\mathrm{nf} \mathbf{\mathrm { Cl }} \mathbf{1 0 0}$ deprecinted, or $£ 50$, eatimated in undepreciated currency-deduct ing, as in the former iastance, the expense of frelght, ingurance, commiseion, etc.
"The case would he preciaely similar, sautatis mutandis, with the importing merchant. The unfavora ble nominal exchange would appear to occaaion a lose amounting to the premium on the foreign bill which he saust give in order to pay his correepondent ahroed. But if the difference of real prices in the home and forelgn markets were such as to admit of a profit apon the importation of produce, the merchant woald continue to linport, notwithstanding the premlam; for that would be repald to him in the advanced nominal price at which the imported prodace would be sold in the home market.
"Suppose, for lastance, the currenciea of IIambarg and London, leing in their due proportions, and therefore the nominal exchange at par, that linen which can be bought at Ilamburg for $£ 50$ will sell here at f100. Tre importer inmediately orders hia correspondent abroad to send the llnen for the payment of which he purchases at $\mathbf{x 5 0}$ a foreign biil in the English market ; and on the sale of the convignment for £100, he will derive a profit amounting ts the difference between $£ 50$ aud the expense attending the import.

Now, suppose the same transaction to take place without any alteration in the acarelty or abundnace of linen at Ilamburg and Iondon, but that the currency of England has been so augmentel as to be depreciated to half its value, the nominal exchnage will then be 100 per cent. againat Eingland, and the importer will not be able to purchase a $£ 50$ foreign bill for less than $\pm 100$. But as the prices of commodities here will have risen in the same proportion as the moaey has been depreciated, he will sell linen to the Euglish customer for 2200 , and will, as before, derive a profit amonnting to the difference bet ween $\mathbf{x} 100$ depreciated, and $\mathbf{5} 50$ estimated in undepreciated money; and the expenses attending the lmport.
"The same instances might be put in the case of a ©-orable exchange ; and it weull be seen, in the sance manner, that nominal prices and thn numinal exchnige being nlike dependent on the depreclation of currency, whatever appirent advantage night be derived from the former, would be counterbalanced by u loss on the latter, and vice rerse." "

It appears, therefore, that fiustaations in the nomsmal uxchange lave no effect on trate. A fall in the exchange obllyes the country to which it is unfavorable to expend a grestor nominal sum in clischarging a forvign delt than would otherwise be necestary; but it does not oblige it to expend a greater real valae. The depreason of the mominal exchange can neither exceed nor finll short of the comparative depreciation of the currency. If British currency ware depreciated 10 or 15 per cent., the mominat exchunge would be 10 or 15 per cent. againit $u$ : and wo should be compeilenf, in all transactioas with foreigners, to give them 2isa. or 23s. for what might otherwine have been procurad for $20 \%$. Ifnt as neither 22s, nor $23 \%$. of such deprecinted paper is more valuubie than 20 n . of paper undejureciated, payment of a foreign delit would, it is ovilent, be as eanily made in the one curreucy as in the other; ani memantile transactions would, in ruch elrcumatances, be conducted exacily as they wonid have been had there been no depreciation, and the nowinal exchange at par.
VII. Real. Fxchange.- Having thus endeavored to trace the influence which variations la the value of currenches have over the enchange, we proceed to conwider how firr it is influeuced by fuctuations in the sup-

- Paris, 1823, 4 rolia, 8ra.
ply and demand for bills. To facliltate this inquiry. we ahall exclude all consideration of changee in the value of money, and suppose the currenciea of the diferent countries having an intercourse agether to be equal in welght end purity to their mint standarda, and that each has its proper aupply of bullion. When twu nations trade together, and each purchases of the other commodities of the same value, their debts end credits are equal, and the real exchange lo, of course, at par. But it rurely happena that the debte reciprocally due hy any two countries are equal. There is almost always a balance owing on one side or other, which affects the exchange. If, for example, the debts due by London to Paris exceed those due by the former to the latter, the demand in London for bilis on Paris will be greater than the demand in Purin for bilia on London; and the real exchange will, consequentiy, be in favor of Paris, and against Londun.

The expense of transferring bullion from one country to another, limits the range within which the rise and fall of the real exchange between them is confined. In this respect, as in most others, transactions between forelign countries depend on the same principles which govern those let ween dilferent parts of the same country. We have already seen that the fluctuations in the real exchange between London and Glasgow can not exceed the expense of tranamitting money between those cities. And this principle holds univorsally. Whatever may be the expenee of transmittiag bullion, which is the money of the commercial world, between London and Paris, London und Ilamlurg, New York, etc., the real exchange of the one on the other, cas not for uny considerable period, be depreased to a greater extent. No merchant will puy a higher premium for a bill to ilischarge a debt abroad, ti.an will suffice to covar the expense of try zomitting bullion to his craditor.

Hence It uppours that whatever obstructs or fetters the Intercourse among different countries, proportionally widens tite litaits within which fluctuations in the real exchange mny extend. And hence the reason why it varies so much nore in war than in peace. The amount of the hilla drawn on a country engaged in hostlitios ia liable, from various cunses, to be suddenly increased; though, whatever nuy be the monousts thus thrown upon the market, the dupression of the exchange can not, for any length of time, exceed the exiense of conveying bulljon from the debtor to the ereditor country. But luring war this expense, which consists of freight, insuranee, ete., is sometimes much augunested. The ovidenco unnexed to the $R \in$ port of the Brillinn Committec shows that the cost of conveying gold from Landon to Hamburg, which, prior to the ICevointionary war, amounted to " er 2t, had increasen, in the latter part of 1809 , to about 7 per cent.; so that the limits within which fluctuations in the real exclange might range in 1809 were about three times as great as those within which they were confined in 1793. Owing to our laving the complete command of the sea, and onr commorce not being aubjected even to the depredations of privateers, the cost of frtight and the conveyunce of huliion between this country and othera, has not been affected by the war in which we are now ( 1850 ) unluckily engaged. The real exthange between neighboring countries is geaerally, on the principle now expiained, less likely to fluctuate than that between distant countries. It costs conaiderably less to tranamit bullion from iondon to Duhlin or Paris, than to New York or Canton. And, as fluctuations in the real nxchange are limited by its cost, thoy may evidently exteud proporibually further betwem distant places than between such as are contiguous. We have next to investlgate the circumstances which give rise to a favorable or an unfavorallo balance of payments, and to appreciate their effects on the real exchange, and on trade in general.
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ance ls in cost $£ 450$ being thori ugaiv deper modi aum has for th conti count favor stion purpe ples aecte in op under into their apeak xcha

- Vili. Balance of Paymenta.-A very great, if not the principal, source of the errors into which merchante, and the majority of writers on exchange, have been betrayed in regard to the balance of payments, appears to have originated in their confounding the sum whioh imported commodities fetch in the home market, with their cost abroai.. It is obviously, however, by the smount of the latter only, that the balance of payments, and consequently the real exchange, is influenced. A cargo of corn, for example, which cost $£ 8000$ free on board at Oilessa, may be worth £ 4500 when imported into England; but the foreign merchant would not, unless ha sent hither the corn, be entitied to draw on London for more than ita original cost, or $£ 3000$. It la clesr, therefure, on the alighest conaideration, that the fact of the imports being more valuable than the exports, does not authorive the conelusion that the balanee of payments is againat us. A favorable or an unfavorable balance dependa entirely on the sum due to foreigners for commoditiea bought from them being less or more than the suin duc by them for commodities bought from us. It has nothing to do with the prices eventually obtained for the iupported or exported commodities.
The mercantile aystem of commercial policy, which continues to preserve a powerful influenee in most cosatries, had for its grand objeet the creation of a favorable balance of payments, by facilitating exportation and restricting importstion. It is foreign to our purpose to make any inquiry in regard to the principles of this aystem, e:cept in so far as they are connected with oxchanges. But it may bo easily shown, in opposition to the commonly received opinions, thas under ordinary circumstances the value of the inports into commercial countries always exceeds the vajue of their exports; and that this excess or balanco bas not, speaking gonerally, any tendency to render the real exchsngo unfavorable.
It is tho businees of the merchant to carry the products of different countries from those places where their valuo is least, to thoso places whero it is greatest ; or, which is the same thing, to distribute them sccording to the effective demand. Thero could, however, the no motive to export any articie, uniess that which was to be imported in its stead were more valuabic. When on English merchant orders a quantity oì 「eligh whest, he supposes it will seli for so much more than its price in Poland as will suffice to psy the cost of freight, insurance, etc., and to yield, besides, the orlinary rate of profit on the capital employed in the transfer. If the wheat did not sell for this much, its importation would be productive of loss. Merchants never oxport but in the view of lmporting articies of greater value. Instead of an excess of exports over imports being any criterion of an advantageoss commerce, it is quite the reverse. And the truth is, uotwithstanding ali that has been said and written to the contrary, that unless the value of the imports exceeded that of the exports, foreign trade could not be carried on. Wcre this not the case-were the value of the exports always greater than that of the imports, there would be a loss on every transaction with foreigners, and the trade with them wouid either not be undertakea, or, if begun, wouid bo speedily relinquished.

In England, the rates at which exports and imports are officiaily valued were fixed so far back as 1696. The very great alteration which has since taken place in the vaiuc of money, and in the cost of the greater number of the commodities of this and other countries, has rendered this official valuation, though valuable as a moans of determining their quantity, of no use whatever as a criterion of the truc value of thr imports sud exports. To olviate this defect, accounts of the real or ckeclared value of the exports, prepared from the declarations of the merchanta, are annually laid before parliament. There is, however, no such
cccount of the imports; and it is, perhapa, imposaible to frame one with any thing like securacy. It has also been alloged, and apparently, with some foundation, that merchants have frequently exaggerated the value of articlec entitled to drawbacks. But the extension and improvement of the warehousing syatem, and the decrease in the number of drai 'racke, has very materisily lessened whatevor fraud or inacouracy may have arisen from that score. The declared value of the exports may now be considered as protty near the truth, at least suffielently so for all practical purposes.

If perfectly accurate accounts could be obtained of the value of the exports aud imports, there can be no manner of doubt that in all ordinary years the latter would considerably exceed the former. The value of sus exported commodity is estimated when it is ahipped, before its value is increased hy the expense incurred in traneporting it to the place of destination; whereas the value of the commodity imported in its stead is estimated after it has arrived at its deatination, and been enhanced by the charges on aceount of frelght, insurance, importer'a profits, etc.
It is of little importance, in so far at least as the interests of commerce are concerned, whether a nation carries its own imports and exports, or employs other. A carrying nation appears to dorive a comparatively large protit from its commercial transsctions. But this exesss of profit is seldom more than a fair remnneration for the capital it omploys, and the risk it ineurs, in transporting commodities. Were tie trade betwoen this country and France whelly carried on in British bottoms, our merchants, in addition to the value of the exports, would also receive the cost of their carriago to France. This, however, would be no loss to the French. They must pay the freight of the commodities they import. And if English ships sail on cheaper terms than those of their own country, there is no good commercial reason, though there may be others of a different kind, why they should not employ them in preference.
In the United States, the value of the imports, deduced from the custom-house returna, almest always exceeds the value of the exports. And though we have been accustomed to consider the excess of exports over imports as the only sure criterion of an advantageous commerce, the practicsl politicians of America carly discovered "that the real gain of the United States has been nearly in proportion as their imports have excceded th air exports."* The great oxcess of imports in the Union is in part occasioned by the Americans generally exporting their own surplus proluce, and receiving from foreigners not only' an equivalent for the exports, but also for the cost of their conveyance to their markets. "In 1811," sajs the author just quoted, "flour sold in America for $\$ 950$ per barrel, and in Spain for $\S 10$. The value of the cargo of a vessel carrying 5000 barrels of flour would, therefore, be estimated, st the period of its exportation, ut 47,500 ; but as this flour would, becanse of freight, insurance, exporter's profits, etc., sell in Spain for 875,000 , the American merchant would be entitled to draw on his agent in Spain for $\$ 27,500$ more than the flour cost in America, or than the suns for which he could have drawn had the flour been exported on account of a Spanish merchant. But the transaction would not cad here; the $\$ 75,000$ would be vested in somo species of Spanish or othor European goods fit for the American market; and tine freight, insurance, etc., on account of the return cargo would, perhaps, increase its value to 100,000 ; so that, in all, the American merchant might have imported commodities worth $\$ 52,500$ more than the flour originally sont to Spain." It is as impossible to doubt thut this transaction is advantageous, as it is to douit that its advantage consists in the value of the imports exceeding that of the

- Pitkin on the Commerces of the Unitod States, 2d ed., p. 280.
exports. And it is clear that Amorica mitht have the balance of the payments in her favor, though anch transactlone as the above were maltiplied to any concelvable extent.

Instead, therefore, of endeavoring to limit the trade with countries from which the importe exceed the exporta, we should give it every posulble facility. Every man considers that market an the beat in which he obtains the higheat price for his goods. Why then ex: ciude bim from it? Why compel a merchant to sell a cargo of maslins, Iron, etc., for $\$ 10,500$, rather then 811,000 or $\$ 12,000$ ? The wealth of a atate is made np of the wealth of individuale. And what more effectual method of increasing indiviliual wealth can be devised than to permit buying in the cheapest and selling in the deareat markets ?

It would be difficuit to eatimate the minchief which abeund notions relative to the balance of trade have occasioned in most commercial countries. They have been particulariy injurious to Great Britnin. The reatrictions imposed on the trade in France orgginated in the prevalence of prejudicen to which they gave rise. The great, or rather the oniy, argument insiated on by those who prevailed on the legislature to declare the French trade a nuisance, was fonnded on the alleged fact, that the value of the imports from France considerably exceed the value of the exports to her. The balanee was termed a tribute paid by England; and it was argaciously anked, what had we dono that we should be obliged to pay 80 much money to our nutaral enemy P Those considerate and patriotic persons seem to have supposed that car merchauts brought commodities from France for no better reason than that they were French, or to oblige that ingenious peoplo. But they were not quite so disinterested. They imported French wines, silks, and so forth, for the same reasons that they imported the sugar of the Weat Indles, the teas and spices of the Mast, and the timber of the Baltic ; that is, because there was in demand for them, and becausd they were worth more in our markets than the native producte exported in their stead. The reason asaigned for prohibiting the trade affords a conclusive proof of its having been allvantageous. There can not, indeed, be a doubt, that an unlimited freedom of intercourse between the two countries would the of great eervice to both. Suppowing it to be so arranged, does any one Imagine that we ahould export or import any commodity to or from France, provided we could either sell or buy it on better terms allywhere eino? If reatrictions on the trade with any particular country be not injurious, that is, if it be either a losing or a less aivantageous trade tian that with other countriea, we may be assured that the throwing it completely open would not make a kingie indivldual engage in it.

Every body knows that these conclusions are not only theoreticsily true, but have been practically verIfed. The abolition of the discriminating duty on French wines, the relurtion of the exorlitant duty on brandy, the repeal of the prohibition against importing silks, and the opening of our ports to French corn and flour, bave all been advantageous. And though it be true that the prejudices of the French, and the high duties which they continue to impose on most articles of Iritish produce, confine the trade within comparatively narrow limits, they have not male it unprotitable, and ara more injurious to themselves than to us. It is a curious fact, that notwithstanding the grent amount of our imports from France, and our expenditure in that country on account of absenteea, the state of the exchanges show that the baiance of paymenta is usually in our favor. But the partignns of the exclusive or meroantile syatent may perhaps say, that they do not mean to contend that it is profitable to exprort more than is imported; but that, by exporting an access of raw and manufactured produce, the balunce

- Prohlbition Aet, Int Willam and Mary.
of payment is rendered favorable, and this balance (which they regard as representing the ontire not profit made by the country on fte transactions with foreiguera) is alway pald in bullion. It may, hnw. over, be easily ahown that this statement is alitogother orroneous $;$ that a balance, whether on the one side or the other, ia seldom or never cancelled by means of builion $t$ and that it is not a monature, and has, indeed, nothing to do with the pruflt or lose atteading foreign commercial tranaactions.

If the premium on foreign bille, in a country with an unfavorable real exchange, lie leas than the cost of sending bullion abroaci, it would be contradictory to suppose that it shonid be exported. And though the premiam on such hills were to increase, till it became equal to, for it ean not exceed, the cost of exporting the preclous metala, it does not follow that they will then be exported. That would depend on whether bullion were, at the time, the cheapest exportable commolity; or, in other words, whether a remittance of bullion was the moet advantageous way in which a debt might be discharged. If a Iondon merchant ows £1000, wr cther sum, in Paris, he endeavors to find out the cheapest method of paying it. On the supposition that the real exchange in 2 per cent. below par, and that the expense of remitting bullion is also 2 per cent., It will be indifferent to him whether he pays $£ 20$ of premium for a bill of $£ 1000$, payable in Paris, or incur an expence of $£ 20$ in remitting a $£ 1000$ worth of bul. lion direct to that eity. If the price of cioth in Paris end London be anch that it would require $£ 1030$ to purchaee and send as much cloth to Paris as would sell for $£ 1000$, he wonld no doubt prefer buying a bilf or exporting bullion. But if, by incurring an expense of f1010 the debtor may aend as much hardware or cotton to Paris as would sell for $£ 1000$, he would as certainly prefer paying his debt by exporting the one or the other. It would save him 1 per cent. more than if ho had bought a foreign bill or remitted bullion, and 2 per cent more than if he exported cloth. Hind there been any other commodity which might have been exported with more advantage, he would have used it in preference.

It is obvious, therefore, that the trade in bullion is governed by the asme principles which govern the trade in other things. It is exported when its exportation is advandageous; that is, when it is less valuable at home, and more vaiuible abroad, than any thing else; and it will not otherwise be exported. The balunce of payments might be twenty or thirty millions against a country, without depriring it of a single ounce of hullion. No merchant would romit a $£ 1000$ worth of gold ir eiliver from Fugland to discharge a debt in Pari if he conil invest $\pm 900$, $\mathbf{x} 980$, c990, of any sum under $\mathcal{L} f(000$, in any other apecies of merchandine which, exclusive of expense, wolld sell in France for that amount. Those who deal in ihe precions metaln are as much alive to their interests an thone who deal In coffee, or angar, or indigo. Hut who would nttempt to discharge a foreign debt by exporting coffee which cost $\mathbf{f 1 0 0}$, if he could effect the anme olject by exporting indign which cost only $£ 95$ ? No builion will ever the exported unless its vaine be less in the exporting country than in that to which it in sent; and unless it he, at tho same time, the most advantageolls articie of export.
2. It is in vuin to contend that an unrestricted frecdom of trade might renifer aome unfortunute conntry indeited to nnother so happily situnted that it hat no demand for any sort of ordinary merchandise, and would only accept of cash or lutilion in exchange for itn exports. A case of this sort suever did, and never will, oceur. It is not even posalble. A nation which in in want of money must he in want of other things for men deaire money only because it is the readiest meana of increasing their command over neceasarics and enjoyments. The extreme variety, too, in the
molln and clin try of the pee ordinary diffe articles of districts. ${ }^{\circ}$ for such artle may be produ quality, or st accumulation there cease t places whore where it is gr
3. In treati ored to show 1 any length of of bullion th precious meta of other coun have the real of unfavorabit true in referen incorrect if its sidered. Gre have the exch ed she have it against her wi try. "She m "be importing exporting to from countries others where it particular cane is the great in never have an i and as she mu among the dift dom have a fav which she trade vations on the
On this prine for the favorahl Iltmhurg from portation of bu was not more East Indiee and mand correspon remained pretty of bullion Into era of the bank state of the exc reduction in the inution of the of guineas.
guinens were eo ary temand for to account for period, and for tinued. But, a gold bullion for mand for ailver portionally augr

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Instead, ther of hullion from as Mr. ilosang proof of tho falla that it is imposs the natural eque countries, it la a
soils and olmatea-in the machinery, alili; anid induttry of the people of different countrien-- occasion extraordinary diferences in thelr producta and prices. Some arteles of the highest atility are peculiar to certaln diatricte. And there will ever be a demand, not only for such articles, hut also for those which, though thoy may be produced at home, may be imported of a better quality, or at a lower price: 'Ner, till the passion of gccumulation be baninhed from the haman breast, will there cease to he a desire to send commodities from places where their exchangeable value is least, to those where it is greatest.
3. In treating of the nominal exchange, we endenvered to thow that no single eountry can continue for any length of time to import or export a greater ameunt of bullion than may be necuesary to preserve the precious metals in it in their proper relation to these of other countries; or; which is the same thing, to have the real exchange elther permanently favorable or unfavorable. But though this principle be strictly trae in reference to its aggregate exchange, it may be incorrect if ita exchange wlth one country only be considered.. Great britain, for example, may generally have the exchange firher favor with America, previded the have it generally, and to a nearly equal extent, sgainat her with the Fant Indles, or sone other country. "She may," to use the worls of Mr. Ricardo; "be importlog from the north the bullion which she is exporting to the south. She may be collecting it trom countries where it in relatively abundant, for others where it is relatively scarce, or where, from some particular causes, it is in great demand. Spaln, who is the great importer of bullion from America, can never have an anfavorable exchnage with her colonies; and as she must distribute the bullion she recelves among the different nations of the world, she ean seldom haven favorable exchange with the countries with which she trades." See Reply to Mr. Bosquet's Observations on the Report of the Bullion Commiltee, p. 17.
On this principle, Lord King successfully accounted for the fivorable exchange between this country and Hamburg from 1770 to 1799. He showed that the Importation of bullion from IIamburg and other parts was not more than equivalent to the exports to the East Indiea and the home cousumption ; that the demand correapouded to the supply; and that its value remained pretty stationary. The extraordinary influx of bullion into this country from the Continent at the era of the bank restriction in 1707, and the faverable state of the exchange, were undoubtedly owing to the redaction in the lsaues of hank paper, and to the diminution of the gold currency, caused by the hoarding ot guineas. In 1797 and 1798, above $5,000,000$ of guineas were coined at the nulnt; and this extraordinary demand for gold Is of itself abundantly sufficient to account for the very favorable exchange of that period, and for the length of time during which it conthaued. But, at the same time that the demand for gold bullion for the mint was thus lucreased, the demand for silver bullion, for exports to Indin, was proportionally augmented.

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\text { In 1705, the quantity exported by the East lno Ounees. } \\
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From this period the exportation rapidly decllned; apd in the yenrs in which the exchange was most unfavoralle, ilttle or no allver was sent to India.
Instead, therefore, of the extraordinary Importation of ballion from Hamburg in 1797 and 1798 affording, as Mr. Hossnquet and others supposed, a practical proof of the fallacy of the oplnion of those who contend that it is imposithie, for any length of time, to subvert the natural equality in the value of bulilon in different countries, it is a striking examplo of its truth, With-
out this infinx, ballion in this conntry could not have maintained ths proper comparative value. We.imp ported it, because the reduction of the paper currency, and the increamed exports of the East India Company, rendered lta valua higher here than on the Continent, and made it advantageoue for the Continentul merchants to cend it to na , in the same manner an they would have sent corn, of any thing else for which we had an unurual demand. For, however favorable the real exchange between Hamburg and London might have been to the latter, wa should not havs Imported an ounce of bullien, had it not been, at the time, the article with whieh Hamharg could most advantageously discharge her debt to London.
4. In the absence of other arguments, it would be sufficient to atnte, that it is physically impossible that the excess of exports over imports, as indicated by the cuntom-house retarna, should be paid in ballion. Fvery ccuntry, with the exception of the United States, has Its apparently favorable balance; and, of courne, if they really exlisted, they would have to be paid hy an inflax of bullion from the mines correspondent to their aggregate amount. It is certain, however, that; previously to the discoveries In California and Auntralla, the entire produce of the mines, though it had been increased in a ten fold proportion, would have been lisufficient for this purpose I This fact in decisIve of the degree of credit which ought to be attached to the commonly-received opinions on this subject.
b. In the last place, the profit on transactions with foreignera does nit consist in the quantity of bullion imported from abrasi, but ln "the excess of the value of the imports over tho value of the experts." If, in return for exported commodities worth 10 or 20 milliens, we lmport such as are worth 15 or 30 , we ehall gain 50 per cent. by the transaction, though the exports oliould consiat entirely of bullion, and the imports of corn, sugar, coffee, etc. It is a ridiculous prejudice that would make ballion be imported rather than any other article. But whatever the partisans of the exclusive syatem may say about its being a preferable product, a merchandise par excellence, we may he aseured that it will seldem appear in the list of exports or Imports, while there is any other thing with which to carry on trade that will yield a larger proft. Thus it appears that the excees of exports over imports, instead of heing any proof of an advantageous commerce, is distinctly and completely the reverse; that the vilue of the imports into commercial countries may, and almost always does, exceed the valuie of their exports, without rendering them indebted to foreigners; and that when a balance of debt has heen contructed, that is, when the sum payable to forelgners for luports as greater than the sum receirable from them for exports, bullion will not be sent from the dehtor to the creditor country, unleas It be at the time the mest profitable article of export.
iX. Efficts of Real Excinange upon Imponts and Exports.-We have shown that fluctuations in the nominal exchange do not influence foreign trade. When the currency is depreciated, the premlum which an exporter derives from the sale of bills on his correspondent abroad, la barely cquivalent to the incrense in the price of the exports, occasioned by the depreciatlon. But when the premium on foreign bills is not caused by a fall in the value of money, but by a deficient supply of tills, there is no rise of prices, and then the unfuvorable exchange undoubtedly operates as a stimulus to exportation. As soon as the real exchange diverges from par, the mere iaspection of price currents is no longer enough to gulde the operations of the merchant. If it be unfavorable, the premium which the exportora receive on the sale of bills must he included in the extimate of the proft they are llkely to derive from the transaction. The greater that premiam, the lese w'll be the difference of prices necessary to make them export. An unfavorable real
exchange has, in truth, exactly the aame effect on oxportation as a bounty equal to the promium on feroign bills.

But for the samo reason that an unfaverable real exchange increases exportation, it diminishes importation. When it is unfavorable, the prices of foreign products brought to our markets must be so much under their prices here, as not merely to afferd, exclusive of expenses, the ordinary profit on their sale, but also to pay the premium which the importer must give for a forelgn bill, if he remit one to his correspondent, or for the discount added te the lnvoice price, if the latter draw upon him. A less quantity of foreign gonds will therefore anit our markets when the exchange is really unfavorable; and fewer payments having to be made abroad, the competition for foreign bills is diminished, and the exchange rendered proportionally faverable. A favorable real oxchange, consequently, operates as a duty on exportation and a bounty on importation.
Hence it ia obvious that fluctuations in the real axchange have a necosasary tendency to correct themselves. They can never, for any considerabla period, exceed the expense of transmitting bullion from the debtor to the creditor country. And the exchange can not continue permmnently faverable or unfavorable even to this extent. When favorabie, it corrects Itself by restricting exportation and fucilitating importation; and when anfavornble, it produces the rame effect by atimulating exportation and whatructIng importation. The trua pan formey the centre of theg oseillatlons. And though the thousand cirenmstances which daily and hourly affoct the state of debt and rrellit, prevent the ordinary conrse of exchange from being almost ever preeiscly nt par, its ductuations, whether on the one sile or the other, are cenfined within certain limits, aud have a constant tendency to disnppear. The natural tendency which the exehango has to correct itself is powerfully assisted by the operatiens of tha bill merchants.
lingland, for examplo, may owe an excess of delt to Amsteriam, yet, as the aggregite amonat of the dehts due by a commercial country, is generally balaned by the amount of those which it has to receive, the deficiency of bills on Amsterdam in Lombon will most probaiby be countervailed liy their redundancy in somo other quarter. And, it is the businens of the merehants who deal in bills, as of those who doal in hullion or any thing else, to buy them where they are cheap, that they may sell them where they are doar. They, therefore, buy up the bills drawn hy other countries on Amsterinm, suld dispose of them in london; and, by so doing, frevent any great fall in the pice of bills on the former in the comntries in which their supply exceeds the demand, and noy great rise in tireat Ilritain and the country in which their supply haplrens to be deticient. It our trale with Italy, the bills drawn on liaghand penerally anount to a greater sum than those drawn on Italy. The bill merchants, however, by bying up iho exvens of Italian bills on london, and welling them in France, IIolland, and other comintries indehted to bingland, prevent the reab exchange from being much topressed.

An unusual üffiency in the mupply of corn, or of any horticle of prime neremsity, by causing a sablen angmentation of loports, taterially afferts forcign delits and erodit, and depresses thes exchange. In tinno of war, the balauce of paymente is li.ablat to be still further disturbed; the amoant of the biils drawn on a conntry carrying on furegan howtilitien, being increased by the whole expense of lts armamentes abroal, and of subailies to forelgn powers. Ilat noither the conjoines nor reparate intluence of both or elther of these caunes has any permanent intluence over the exchange. A sudden increase in the aecustomed supply of bille mast, for the firmt Inatanco, lyg ghationg the market, cecasion their selling at a dincount; Iut this
feffect wlll only be temporary. The unusual facilities which are then afforded for exportation, and the dithcultles which are thrown in the way of importation, never fail speedlly to bring the real exchanga to par.

During a period of peace we may, In the too great ardor of specnlative enterprise, export an excess of produce, overload the forelgn market, and eccasion such a decline in the price of our goods abrend, as to make tha importa less valuable than the exports with which they have been purchesed. But such a state of things can only be of limited duration. The distresa of which it is productive, ussisted by the fall of the exchange, occasions a diminutlon of export:. The supply of our commodities in the foreign markets is rendered more nearly commensurate with the demand; till in no leng tima tho value of the fimports again cxceeds, es it always ought to do, the value of the ex. ports. llut when a country has a large fereign expenditure to sustain, its experts are proportionally angmented. Whatever may have licen the foreign expenditure of Great Brituin during the lata war, it is evldent that it could not be defruyed otherwisa than by our anmually exporting on equal amonnt of the produce of our lind, capital, and labor, for which payment was not received, as in ordinary cases, by a corresponding importation of forelgn cemmolities, but from the treasury at home. This is strictly true, even though the expenditure bhould have happened to be, In the tirst instunce, discharged by remittances of bulli m ; for the incrensed supply of bullion which was thus required, could be obtained only by an equally inereased exportation of other products to the countries pussensed of mines, or from which it was imported. Foreign expenditure, by increasing experts in jroportion to its own muount, has no permanent intluence over the exrlange.

Thus it appeare that an excess of oxports, instead of leing nuy criterion of increasing wealth at home, is only a certain indication of commercial losses, or of expenditure abroad. "When," says Mr. Wiwatley, "the exports exceed the importa, as they must do when there is a large foreign expenditure, the equivalents for the excese are receivod abroml in as full and ample "manner as if the produce which they jurchasud were actually imported and entered in the chs-tom-house books, nad afte: witil wint to the seat of war for consumption. llat irom the cirrumstance of Its not being inserted in the custom-house eutries as valve received againat tho produce exported for its paymen, the latter is deemed to constitute a favorable balance, when it is in reality exported to liguilate a balance ngguinat us." *

But how conclusive soever this reasoming may appenr, it has locen sald to be at variance with the fate ; and the rise of the exchange at the end of the late war, during the suspension of cash payments, has been appealed to as whowing that lts prosions law rate had not been accasioned by any depreciation of the paner currence, but by the excemsive mount of the billn drawn bjon this country to defray war expenditure. The question, however, is not whether the exchange recoverel from les ilepression during the susperasion of eash paymente, for the influener of that measure depended entiroly on the uso made of it , het whother its recoswry took phace without the amonm of bank paper of ail sorta, or of the currency, bing diminished? The statements mallo ln the arthes Moskr are decisive upenthis point. They show that the currency was very greatly diminh hed in 1811 , 1815, and 1816 ; and that thia timanntion measioned the rise in its value, mul in the nomhal exchange.

Mr. Francla Ilorner, the well-informed datiman of the Committee an the Iligh I'rice of llullion, male the fillowing statement in regard to this very question la his jlace in tho llouse of Commons: "lirom inguiries
he had made, was convinced tion of the eirc in any ceuntry th's country, that had taker scheme, and a The reduction previous fall o That fall had r paper to an exte possible, withev The Bank of $\mathbf{E}$ As nuperars by avernge ameun last year, more 000,000 ; while $£ 29,000,000$, un 000,000 . But, Bank of Laglas try paper was en taken place in tl the rise of the ex or but little, to i was entirely; or 1 value of the cur quantity. Inste: ciples we lave b afforids a strong baving bieen sanc be eensitered as An objection of other part of the which it may be
When the exe mlum, prowtred I eign merchant to ne greater than hint an equivalen etc. An unfavo chant to export portell were it at still remains of $e$ ence, whose pric sent, compared $x$ are exported, is the expense of tr to France is 3 4 per cent. agains same in hoth coun expenses of carrl in France than in ous that the expo of only 1 per cent realize, inclusive foreign lill, a pr opinkon malatain the exclange bec whech contain the or on which the e ported in preferen tion. The orieere truding tigether a porting, are r.and. prorlucition, but a from where they sumed. If Cirent fing lirance with ou of cottons la lirar to convey them tl per rent. hilgher tis comparazive fanili ported from the would but, perhap per cent. Now, s

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he had made, and from the accounts on the table, he was convinced that a grenter and mere sudden reduction of the circuluting medium had never taken place in any country than had occurred aince the peace of this country, with the exception of those reductions that had taken place in France after the Missisaippl scheme, and after the destruction of the assignats. The reduction of the currency had originated in the proviaua fall of the prices of agricultural produce. That fall had produced a destruction of country ${ }^{-1}$ )nak paper to nt extent which would not have been thought possible, without more ruin than had actunlly ensued. The lank of England kad also restricted its iesues. As nppears by the accounts recently presented, the sverage umount of its currency was not, during the last year, more than between $£ 25,000,000$ and $£ 26,-$ 000,000 ; whlle two years ago it had been nearer $£ 29,000,000$, and at one time even amounted to $£ 31$,000,000 . But, without looking to the diminution of Bank of Lingland paper, the reduction of the country paper was enough to account for the rise which had taken place in the exclange." Hence it appears that the rise of the exchange in 1815 and 1816 had nothing, or but little, to do with the cesaation of hostilities, and was entirely, or mainly, a consequence of the inereased value of the currency, cuused by the reduction of its quantity. Instead of being at variance with the principles we linve been ondeavoring to elucidate, this fact afforls a strong confirmation of their correctness. And having been sanctioned hy the fulleat experience, may be considered as beyonl the rench of cavil nud dispute. An objuetion of a different wurt has been made, to another part of the theory maintained in this section, which it miny be proper to notice.

When the exchange becomes unfavorable, the premium, precured by the sale of the bill drawn on n fureign merchant to whom bullion has been consigned, is no greater than would be olitained by consigning to him un equivalent amount of colfer, tea, sugar, indigo, etc. An unfavorable real exebange jermita n merchant to export commodities which could not he exported were it at par, or favomale. That the mbantage still remains of exporting those commodities in jrefereace, whose prico in tho country from whieh they are sent, compared with their price in that to which they are exported, is lowest. Suppose, for example, that the expense of transmitting bullion from this country to France is 3 per cent., that the real exmange is 4 per cent, ngainst us, that the price of hultion is the same in loth countries, and that coffee exclusive of the expenses of carrlage, is rally worth + per :ent. more in Finuce than in lingland. In aucis a case, it is obvious that the exporters of ballion would realize n profit of only 1 per cent., while the exporters of eollee wonht realize, inctusive of tho preminm on thu sale of the fureign lill, a protit of f per cent. And hence the opinion maintained by Colonel Torrens,* that when the excisange becomes unfavorable, those commodities which contain the greatest value in the smallest bulk, or on which the expense of carriage is least, are exporte: in prefereme, ajpears to have no good fourdathan. The prices of the remmorlithes which nutions trading tegether are in the hatit of oxporting and importing, are mzulated not merely lig the wost of their production, hat also by the exjense of their rarriage from where they aro prodnced to where they are eonsumed. If tirent liritaiu were in the lanhit of supply, ing limare with cottoms and bultion, the average price of cottuns lat frame, because of the expense required to convey thou there, would probably be from 5 to 0 per cent. hib!er than in Iritain: while, lecenuse of the comparaive lacility with which bulion may be transported from the one to the other, its value in Jaris woukd but, prinaps, execed its value herm more than 1 per cent. Now, suppose that whan the jrices of cot-
tons and bullion in England and France are adjusted aceording to their natursl proportions, the real exchange, becomes unfsvorsble to us, it is clear that its fall gives no greuter advantage to the exporters of bulfion than to those of cottons. This rise in the price of foreign bllls does not increase the expense of exporting the one or the other. It leaves the cost of their reduction and transportation exactly where it found it. During the depression of the exchange, the exporters of both articles get the premium on the bills drawn on their correspondents. But there is no inducement to export bullion in preference to cottons, unless the price of bullion increase more rapidly in France, or decine more rapidly in Great Brituin, than that of cottons.

Whatever, therefore, may bo the depression of the exchange, the merchant selects those commoditles for exportation which, exclusive of the premium, yield the greateat protit on their bule. If bullion be one of these, it will of course be exportcd; if not, not. But of all commodities, builion is that of whleh the value approaches neareat to an equality in different countries, so that it is the least likely to be exported during an unfavoruble exchange. The demund for it is comparatively nteady, and no.great surplua quantity could be iuported into one country without reducing, or exported from another, without raising its value so us to unfit it either for exportation or importation. In most cases a small part only of an unfavorable balance is pail in bullion. The operations of the bullion merchants ure confined chiefiy to the distribution of the fresh supplies obtained from the mines, in proportion to the wants of differeut comntries.
X. Computer Exchanae.- Having thus endeavored to point out the munner in which variations in the values of the currencies of nutions truding togrether, and in the supply and demand for bills, separately atfect the oxchange, it now only remuins to ascertain their combined effect, or the computed or netual course of exclange. lrom what bas been already stated, it is ubvious, that when the nominal and real exchange are both favorable or both unfuvoraHe, the computed exchunge will expreas their sum; and that when one is favorable and the othor unfavorable, it will express their difference. When, for example, the eurrency of Great llritain is of the mint standard and jurity, while that of France is 5 per cent. dogruled, the nominal exclango will bo 5 per cent. in our favor. llut the real exchange may, at the sume time, le either favorable or unfavorable. If it be, ulao, favorable to the extent of $1,2,3$, etc., per cent., the computed exchange will he $6,7,8$, ete., per cent. in our tavor. And, on tho wther hand, if it he unfavorable to the extent of $1,2,3$, ete., per cent., the computed exchange will he only $4,3,2$, ote., jer ecat. in our favor. When the wol exchange is in favor of one country, und the now inal exchange equally against it, the computed exchange is nt pur, and vice versh.

A comparianon of the market with the mint price of bullion athords the hest and readiest means by which to ascertuin the state of tho exchange. When thero aro no restrintions on the trade in the jrecions metals, the excess of the market over the mint price of hollion athoris an uceurate measure of the depreciation of tha curreney. If the market and mint prico of bullion at l'aris and lawhon oxactly corresponded, then, inasmurlh as the real value of bullion must be very nourly the sume in both countries, the nominal exchange would te ai par; and whatover thactuations the comjuted exchange might exhilit, must, la such cases, be traced to fluctuations in the real oxchange, or in tho suphly and demand for bills. If, when the marict price of bullion in l'aris is equal to its mint prico, it oxceenfa it 2 per cont, in l.ouden, it is a proof that our rurrency is 2 per cent. dopreciated, and consequatly the nominnl exdinnge between l'arls and Lonaon mast be a per cent. ngatist the latter. Instead, however,
of the computed or netual course of exchange being 2 per cent. against London, It may be against it to a greater or less extent, or in its favor. It will be more againat it provided the real oxchange be alao nnfavorable; it will he lese agalnat it provided the real exchange be in favor of London, though to a less extent than the adverse nominal exchange; and it will be In favor of London, ahould the favorable real exceed the unfuvornble nominal exchange. Thur, if, while British currency is 5 per cent. deprecisted, and French currency at par, the computed or actoal course of exchange between Paris and London were 10 or 12 per cent. agalnst the latter, it would show that the real exchange was also against this country to the extent of 5 or 7 per cent. And if, on the other hand, the computed exchange were only 2 or 3 pur cent. agalnst London, it wonld show that the real exchange was 3 or 4 per cent. in its favor, and so on.

It has been already shown, that in go far at least as the question of exchange is involved, the differences in the value of bullion in different countrles are limited by the expense of its transit from one to another. And hence, by ascertainiug whether a partlcular country exports or Imports bullion to or froin other countries, we may determine its comparatlve value in these countrics. Supposo, for example, that the expense of conveylag bullion from this country to France, Including the profits of the bullion dealer, is 1 per ecut. ; it Is clear, Inasmuch as bullion is exported only to find its level, that whenever our merchants begin to export it to France, its value there must be at least 1 per cent. greater than in England; and, on the contrary, when they import bullion from France, its value here nust be, at least 1 per cent. greater than In France. In judging of the exchange between any two countries, this clrcumstance ahould always he attended to. If no bulllon be passing from the one to the other, we may conclude that lts value is nearly the same $\ln$ both; or, at all events, that the differenco of its vulue is not more than the expense of transit. On the supposition that the entire expense, including profic, of conveving bullion from San Francisco to London is 5 per cent., and that London ls importing bullion, it is clear, provided the real exchange be at par, and the currency of tooth cities at their mint standarla, that the nomisal, or, which In this ease ls the same thing, the computed exchange, will be 5 per cent. in favor of Iomdon, but if the currency of London he 5 per cent. depreclated, or, In other words, if the marke* price of bullion at Lonilun lo 5 per cent. above its mint price, the computed exchange between it and San lirancisco, supposing the real exchange to continue at par, will obvionsly be at par. It may therefore lie laid down as a general rule, that when bullion begina to paan from one country to snother, the exprone of transit, proviled the mint and market price of bullom in the exporting comntry correspond, will ludicate how much the value of bullon in it is lodow its value in the country into which it is Imported, nind will he ihentleal with its unfavorable nominal exchange; and that when the market exceeds : he mint price of bullion in the exporting country, the expense of iransit aidded to this excesa will give the total comparative reductlon of the value of the preclons metals in that country. The converse of thin takes place in the conutry importing bullun. When Its currensy is of the mint standard, the expense of transit la the meanare of ita favorable nombal exchange; but when its currency is relatively redundant or degraded, the differencs between the oxprose of transit and the excess of the market above the mint price of hullion, will mensure the extent of the favorable or mifavoralile nominal exchange. It will to favorable when the depreciation in less than the expense of tranait, and unfavorable whon it is greater.
From 1809 to 1815 Inclusive, Great Initain contlnued to exprort gold and wilver io the Continent. During thif periof, therefore, we munt add the expense of lts
export to the excess of the market over the mint price of bullion, to get at the true relative value of Britlsh currency, and the state of the real exchange. Mr. Goldsmid stated to the bullion committee that, during the last five or six months of 1809, the expense of tranaporting gold to Ilolland and Ilamburg, includlag freight, insurance, exporter'e profits, etc., varied from 4 to 7 per cent. But at the time that the relative value of bullion in Britain was at $5 \frac{1}{2}$ (medium of 4 and 7) per cent. below its value in llamburg, the market price of gold bulllon exceeded Its mint price 16 or 20 per cent., or 18 per cent. at an averago; so that the currency of this country, es compared with that of Hamburg, which differed very little from its mint standard, was depreclated to the extent of about 231 per cent. Now, as the computed or actual course of exchange varied, during the same period, from 19 to 21 per ceut. against London, It Is plain the real exchange could not be far from par. Had the computed exchange bees less unfavorable, it would have shown that the real exchange was in favor of London; had it been more unfavorable, it would, on the contriry, have shown that the real exchange was against Landon.
Provided an accurate account could be ohtrined of the expense atteniling the transit of hullion from this country to the Continent during the subsequent years of the war, it woald moat likely be found, notwithstaniling the extriordinary depression of the nominal, that the real exclange varied but little from pur; and that the exportation of gold and sllver was not a consequence of the balance of payments belng agininst us, but of its lesing advantngoous to export bullion, because of its belag more valuable on the Continent. None will contend that, in 1809, 1810, etc., gold and silver were ao redundant In this country as to sink their relative value. Any such supposition is out of the queation. Duringe the period reforred to, they were sent abroal, tecause the depreciation of paper exceeded the cost of the transit of hulilon; and it was every tody's interest to pay their thebts in the ilepreciated currency, and to export that which was undeprecinted to countrles where it passed at lis full value us coin, or $\ln$ which bullion was $\ln$ greater demand. IIad our paper currency been sufficiently reluced, the suiply of gold in the klugiom $\ln 1809$, 1810, etc., compared with the demand which must, under such circumstanees, have been experiencel, was so very small, that lustead of exportlag, we should have limported the precluns nutals from all pirts of the world.

The extraoriliuary exportation of Iiritish gookls to the Continent during the latter years of the war, has heen very generally supponed to have theen in grent measure owlag to the depression of the exchange. Ihit, in so far as this depresslen was occasioned tiy the redundancy ur deprecintion of the curreney, it could have no such effect. It Is impossible, indeed, to form any opinion ns to the influence of thutantions in tho computed exthange on export and laport trade, withont previonaly ancortalining whet her they ure a consequeuce of fluctuntons in the real or nominal exchange. It la only by an unfavorable real exchanga that exportation in facilitated; and It may le favoralle when the computed exchauge is unfuvorable. "Suppose," to use an example given liy Mr. Blake, "the computcal exilange liet ween IIamburg and London to lie 1 per cent. agalnst this country, and that this arises from the rval exclange whito is favorable to the rumount of 4 ber cent., and a nominal exchange unfavorable to tho extent of 5 per eent, ; let the real price of bullion at ldamburg and bomlon he precisely the anme, aml, consecfuently, the nominal prlees alfferent by the nmount of the nominal exclange, or 5 per cent.; now, if the expenses of frelght, Iasarance, etc., on the transit of tullion from llamburg are 3 per cent., It is evillant that a protit would be derlved from the lugort of that article, notwithetnniling the computed' exchange was 1
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per cent. against as. In this case, the merchant must give a premium of 1 per cent. for the forelgn bill, to pay for the bullion; $£ 100$ worth of bitlion at Hamburg would therefore cost him £101, and the charges of importation would increase the sam to $£ 104$. Upon the subsequent anle, then, for $£ 105$ of deprecisted currency in the home market, he would derlve from the tratsaction a profit of £1. This oum is precisely the difference between the real exchange and the expenses of transit, that part of the computed exchange whlch depende on the nominal producing no effect; since whatever is lost by its nnfavorable state is counterbalanced by a corresponding inequality of nominal prices."* In the same manner it may be shown that, though the computed be favorable, the real exchange may be unfavorable; and that, consequently, it may be really advantageous to export when it is apparently sdvantageous to import. But it would be tedlous to multiply instances, which, as the intelligent reader will readlly concelve, may be infinitely varled, and which have been sufficiently explained in the foregoing sectlons.
The real cause of the extraordinary importation of British produce inis the Continent, in 1809, 1810, 1811 , etc., notwithstandliag the anti-commorcial syatem of Nopoleon, is to be found in the annihilation of the neutral trade, and our monopoly of the commerce of the world. The entire produce of the East and West was at our disposal. The Continental natlons could neither procure colonial products, nor raw cotton for the purpose of manufucturing, excopt from England. British merchandiee was thus almost indispensable; and to this our immense exportation, in epite of all prohibitions to the contrary, is to be ascribed.
X1. Histoity and Influence of Bills uf Ex-cinancr.-It is not easy to discover the era when billa of exchange were first employed to transfer and adjust the mutual chaims and obligations of merchants. Their invention has been ascribed to the Arabisns and Jews of the Middle Ages. But it seems certain that they were ln use in remote antiquity. Teocrates states that a stranger who brought some cargoes of corn to Athens, furnished a merchunt of the name of Strutocles sith an order or bill of exchange on a town on the Euxine, where money was owing tu him; and, because the person who had drawn the bill had no fixed domicile, Stratocles was to have recourse on a merchant in Athens, in the event of its belng protestel. The merchant, snys Isocrates, who procured this onder found it extremely advantageous, inusinuch re it enabled hilh to avoid risking hls fortune on sens covered with plrates, and the hostile squadrons of the Lacedemoninns.-De Pauw Recherehes aur les Grèes, l., 258.

There is also good ovldenco to show that the method of transferring and canceling the debts of purtics residing at a distance by means of letters of credit, which are in effect the samio as bllls of exchange, wins not unknown to the Romans. Cicero, in one of his epistles to Attions, $f$ inquires whether hils son must carry eash to defruy the expense of his studies with him to Athens, or whethicr he might not save this troulde and risk by obtainiog an assignment for an equivalent sum from a creditor li liome on his debtur in Athens. It ts evilent, from n sulisequent epistle of Clicero, that the hitter method lad been preferrel, anil that the transferenco of the money hail, in consequence, been renderad unnccessury $\ddagger$

Mupherson statess that the first montion of bills of

* ilbservattons, etc., p. 91.
$\dagger$ Koint, nd Atturu, zili. 2.
$\ddagger$ Eipist, od Atticum, xII. 27. "De Cicerene, ut weribls, Ita facham: Ipsi permittam do tempore nummorum quantum opus erit ut permutetur tu videble." In hid notes on a paraltel passage, Grevius remarks, "Permuchatio ert qued aune barbare cambium dieltur."-Evist, ad Atticum, xi. 24.
© Annals of Commerce, I. 405.
exchange in modern history occurs in 1255. The pope, having quarreled with Manfred, King of Slcily, ongaged, on Heury III. of England agreeing to indemnify him for the expenee, to depose Minnfred, and raise Henry's second son, Edmund, to the Sicllian throne. The enterprise misgave. But the merchanta of Slenna and Florence, who originally advanced the money to carry it into effect, or rather to gratify the pope's rapaclty, were paid by bille drawn on the prelates of England, who, although they protested that they knew nothing at all about the transaction, were nevertheless compelled, uader pain of excommunication, to pay the bills and interest $\mathrm{i}^{\text {中 }}$

Capmany; In his "Memoirs" respecting the commeree, etc., of Barcelona, gives a copy of an ordonnance of the magistracy, dated in 1394, enacting that bills should be accepted within twenty-four hours after thelr presentation; a sufficlent proof that they were in geaeral use in the end of the fourteenth century.

But whatever be the era of the introduction of bille of exchange, few inventions have redounded more to the pullic advantage. Without this simple and ingenious contrivance, commerce could have made no great progress. IIad there been no means of adjusting the mutual claims of debtors and creditors otherwise than by the intervention of metallic money (for bank paper is only another apecies of bills of exchange), a very large portion of that capital which is setting productive labor in motion in every quarter of the globe, and ministering to the wants and enjoyments of mankind, must have been employed in effecting those exchanges which are much better effected by the agency of a few quires of paper. Instead of a perpetual importation and exportation of gold and ellver, necessarily attended with an immenslty of troublo and expense, bills, possessing littlu or no intrinsic worth, and which ure transferred with the utmost facility, suffice to adjust the most extensive and complicated transactions. But the mere setting free of an immense productive power, engaged in a comparatively unprotitable employment, is only one of the many benefits we owe to the use of bills. By cheepening the instruments by which commerce is carried on, they have materiai!y reduced the prices of most articles; ard have, in consequence, increased the cominand of all classes over necessnties und luxuries, und acceleruted the progress of civilization, by oecasioning a more extensive intercourse and intimate connection between diffirent and independent countrles than would otherwise have taken place.

In a political point of view their effects have been equally sulutary. They enuble individuals imperceptibly to trinsfer their fortune to other countries, and to preserve it safo alike from the rapucity of their own governments and the hostile attacks of others. The security of property has, in consequence, been vustly augmented. And though wo should concede to the satirist that paper credit has "lent corruption ligliter whigs," it has, at the same time, powerfully contributed to render sulijects less dependerit on the policy, and less lialle to be injurioudy affected ly the injudicious mensures of their rulers. In sountries in a low stage of cisllization the intabitants endeavor, by burying all the gold and sllver they tan collent, to preserve a purt of their property from the despots by whom they are alternately plundered and oppressed. This was universally the case in the Middle Ages; and in Turkey, Inilia, l'ersin, and other eastern, and also in aomo European countrien, tho practico ls still carrled on to a greater or leas extent. Some economists have endeavaren to account for the long-continued inportation and high value of the precious metals in India, Ly the loss which necessarily attends the practlee of honrding; und undoubtedly this lecking-up of capital, wille it evinces an extrome degreo of Insecurity, is a

* IIume's England, cap. 12.
main cause of the poverty of these countries. But the security afforded by bilis of exchunge is infinitely grentor than any whlch can be derived from the barbarous expediont of trueting property to the bosom of the earth. "Pregmant with thousands fits the serap unseen," and in a moment placea the largeat fortune beyond the reach of denger. . Mr. Hurris was therefore right in saying, "that the introduction of bille of exchange was the greatest seenrity to merchants, both as to their persons and effects, and conaequently the greatent encouragement to commerce, and the greatest blow to despotism, of any thing that ever was invented."

Its extensive commerce, the wealth and punntuality of ite merchants, and their intimate connection with ull the other great trading cities of the world, made Amstendam, previousiy to the peace of 1768 , the chief place whi. d the accounta of commercial countrice were balanced and adjusted. But the loss of foreign trade, and the other vexations to which Holland was snbjected during the ascendency of the French, neariy divested Amsteriam of all share in this buaineas; and it has not since recovered its former superiority. London is now the trading metropclis of Europe and the world, usirersi orbis terrarum emporium. The vast extent of its commercial dealings necessarily renders it the great mart for bille of exchange. Its bill-merchants, a class of man remarkable for their shrewiness and generally possessed of large capitals, assiat in trimning and edjusting the balance of debt and credit between the most remnte countrizs. They buy up bills where they are cheap, and sill them where they are dear, and, hy the extent of their correas ondence and the magnicude of their transactions, give a steadiness to the exehange to which it could not otherwise attain.

The following is a statement of the uance and days of grace for bilis drawn at Iondon upon some of the principal commercial cities :

| Lundox on | Tsance. | Days of Rrace. |
| :---: | :---: | :---: |
| Amsterdam.. | $1 \mathrm{nL}. \mathrm{d}.{ }^{\text {¢ }}$ | 0 |
| Rotterdam. . . | 1 ml d. | 0 |
| Antwerp... | $1 \mathrm{~m} . \mathrm{d}$. | 0 |
| Hamburg. . . . . . . . . . . . . . . . . | 1 mi d. | 12 |
| Altona.... | 1 m. d. | 12 |
| Dinntzle... | 14 d. a. | 10 |
| Parls. | 81) d. d. | 0 |
| Frankfort. | 14 d.e. | 4 |
| Bremen... | 1 mm d. | 8 |
| Barcelona...................... | $60 \mathrm{~d} . \mathrm{d}$. | 14 |
| Genera. | $80 \mathrm{d} 1.$. | 6 |
| Madrid. . . . . . . . . . . . . . . . . . . . | $2 \mathrm{~m}, \mathrm{~B}$ | 14 |
| Cadiz........................... | $00 \mathrm{d}. \mathrm{d}$. | 0 |
| Bliboa. | 2 mm d. | 14 |
| (tthraltar....... ............... . . . | 2 m, z | 14 |
| Leghorn.. | $8 \mathrm{in} . \mathrm{d}$. | 0 |
| Ielpzig. | 14 d m | 0 |
| Genos. | 8 mr d. | 80 |
| Yenles..... . . . . . . . . . . . . . . . | $8 \mathrm{m.d}$. | 6 |
| Ytenas. | 14 d. a. | 8 |
| Malta. . . . . . . . . . . . . . . . . . . . . . | 80 d. d. | 18 |
| Naples. | 3 ut d. | 3 |
| Palermo. . . . . . . . . . . . . . . . . . | $b \mathrm{ml}$ d. | 0 |
| Lisbon. . . . . . . . . . . . . . . . . . . |  | 6 |
| Oprorto . . . . . . . . . . . . . . . . . . . . | 30) d. B, | 0 |
| Itlo Jsneiro. . . . . . . . . . . . . . . . . . . | 31 d. tt. | : |
| IJabiln ......................... | 21 d. ${ }^{\text {ct, }}$ | 8 |
| New York. | 60 A. s. | 8 |

- m. d., m. sa d. d., d. s., d. B., respectively denote months gfe doth, mowthe after eight, days aftor date, days after Nigh, duys aftor acceplanes.

In France, day of grace were suppressed by the ife Commerce, nrticle 1st In Austria, bilis juy-


 grace, bu fac alght only 8 day" do
l") the ratiom of tillis, the new atyle is ined ir every





and discover whether they are buyers or eallers of bilfs. A fow of the b sokers, of most influence, after ascertaining the stat/; of the relative supply and demand for bille, suggust a price at which the greater part of the transactling of the day are settled, with such deviations as particular bills, from their being in a very high or low cre lit, may be aubject to. Tha price fixed by the brokest is that which is published in Wittenhall's List ; but the first houses generally negotiate their billa on $\frac{1}{\frac{1}{2}} 1,1 \frac{1}{1}$, and 2 per cant. better terms than those quoted. In London and other great commercial cities, a class of middlemen specutate largely on the rise and fall of the exchange ; buying bllis when thoy expect a rise, and selling them when a fal: is anticipated.

It is usual, in drawing foreign bills of oxchange, to draw them in sete, or duplicates, leat the first should be loat or miscarry. When bills are drawn in aeta, each must contain a condition that it shali be payable only while the others remain unpaid; thus, the first is payrable only, "second and third unpaid ;" the secend "first and third unpaid;" and the third, "Frst and aecond unpaid."

Bllis of exchange purporting to be drawn at any place out of the United Kingdom are to be deemed to be linble to the stamp-duty on euch bills, though they may, in fact, have been drawn in the United Kingdom. (§ 4.) The holders of foreign bilis, or bilis drawn out of the United Kingdom, are to aflix proper adheaive atamps to the aame before negotiating them, under a penalty of $£ 50$. (§ 5.)

No une acquainted with the fundamental rules of arithmetic can have any difficulty whatever in estimating how much a sum of money in one country is worth in another, according to the atate of exchange st the time. The common arithmetieal books abound in examples of aveh computations. But, in conduct ing the busiuess of exchange, a direct remittance is not always preferred. When a merchant in London, for example, means to discharge a debt due by him in Paris, it if his busineas to ascertain not only the state of the direct exchange between London and Paris, aud, consequently, the sum which he luust pay in Iondon for a bill on Paris equivalent to his debt, but aiso the state of the exchange between London and Ilamburg, Ifamburg and Paris, etc.; for it frequently happens that it may be more advantageous for him to buy a bill on liumburg, Amsterdum, or Lishon, an l to direct his agent to invest the proceelis in a bill on Paris, rather than remit directly to the latter. This in termed the Amaitration of exchahige. An example or two will suffice to show the principie on which it is condineted.

Thus, if the exchnnge between London and Amaterdam be 35s. Flemish (old colasge) per pound sterling, and between l'sris and Amsterdam 1s. Gd. Flemisi per franc, then, in order to aseertain whether a direet or Indirect remittance to Paris would be most advantageous, we must caiculate what would be the value of the frane in Engilsh money if the remittance were made through Holland; for it be less than that resuiting fron, the direct exchange, it will obvousily be the preferable mede of remitting. This is deternined by stating, as ajon. Fiemish (the Amsteriam currency in a pound steriing): 1s. ©d. Heminin (Amsterdan eurrency in a frane) : : $\mathbf{~ 1}: 10 \mathrm{~d}$. the proportion or arbitrated value of the frane. Hence, if the lingtish mones, or till of exchange, to [any a debt in l'aris, were remitted by Amsterdam, it wouid require 10i. to discharge a delt of a franc, or $£ 1$ to diseharge a debt of $2 \cdot \mathrm{f}$ franes ; and, therctore, if the exchange bet ween London and Paris were nt 24 , it would be indifferent to the Engtisin mprehant whether be renitted directly to IParis, or indirectly rid Amsteriam; but if tho exchange between $\mathrm{t}_{\text {andon }}$ and Paris were abore 24 , then a direct remittance woull be preferable; white, if on the other land, the direct exchunge were lees than 24
the indi red
"Sul (Univer London of Lisbo price be dollar; if the d aterlinge rectiy $t$ wherens only 340 remit in other he will rec drawing only 34 draw dit
"1. the plac and rem " 2. through trated p the lowe than thr how mu amonnt thing, $t$ and the statemer sniples. Amsterl Amsterd and bet what is Paris ?
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Sceon
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Third 20 frame between

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ling tite t
visors ir
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Peterslun
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Berinn...
Hapenburg
Hatiburg
Amsterda
Antwerp
Brls. .
Frankfort
Ylenna.
Fenled .
Genom.
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Havana.

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on Prine
the indirect remittance ought as plainly to be preferred.
"Suppose," to borrow ar example from Kelly (Universal Cambist, vol. il., p. 137), "the exchange of London and Lisbon to be at 68d. per milree, and that of Lisbon on Madrld 500 rees per dollar, the arbitrated price between London and Madrid is 34d. sterllng per dollar ; for, as 1000 rees: 68d. : : 500 rees : 34d. But, If the direct exchange of London on Madrid be 35d. sterling per dollar, then London, by remitting directly to Madrd, must pay $35 d$, for every doliar; whereas, by remitting through Lisbon, he will pay only 34d.; it is, therefere, the interest of London to remit indirectly to Madrid through Lisbon. On the other hand, If London draws directly on Madrid, he will recaive 85d. aterling per dollar; whereas, by drawing indirectly through Lisben, he would recelve only 34 ll ; it is, therefore, the interest of London to draw directly on Madrid. Hence, the followlog rules:
"1. Where the certain prics is given, draw through the place which produces the lowest arbitrated price, and remit through that which produces the higheat.
"2. Where the uncertain price ls given, draw through that place which produces the highest arbitrated price, anil remit through that which produces the lowest." In compound arbitration, "or when more than threa places are concerned, then, in order to find how much a remittince passing through them all will amonnt to in the last place, or, which is the same thing, to find the arbitrated price between tio first and the last, we have only to repeat the different atatements in the same manner as in the foregoing examples. Thus, if the exchange between London and Ansterlam be 35 s. Flemish for $£ 1$ sterling; between Amsterdam and Lishon t2d. Flemish for 1 oid crusade; and between Lisbon and Paris 480 rees for 3 francs; what is the arbitrated price heiween London and Paris? In the first plase, as 35s. Flemisin : £1: : 42d. Flemish: 28, sterling $=1$ old crusade.
Second, as 1 oll crusade, or 400 rees : 2s. aterling : : 480 rees : \%8. $4 \cdot 8 \mathrm{~d}$, sterling $=8$ francs.

Third, as $28,4 \times 8 \mathrm{sl}$. sterling : 3 francs : : $£ 1$ sterling: 25 frumes, the arbitrated price of the pound aterling between London and Paris.

This operation may ie abridged as follows:
\&1 stering.

1 eld crusade
480 rees
$=8$ franes.
$\begin{array}{ll}85 \times 400 \times 8 & 4200\end{array}$
Hence $\frac{80 \times 400 \times 8}{480 \times 8 i}=\frac{4200}{168}=25$ francs.
This alıridged operation evidentiy consists in arranglag the terms, ,o that thuse which would form the divisurs in continued statements in the Ruje of Three,

$$
\begin{aligned}
& \begin{array}{l}
\text { 3is Flum. }=1 \text { ald crusade. } \\
1 \text { eld crusade }
\end{array}
\end{aligned}
$$

ara multiplied tegether for a common divisor, and the other terms for a common dividend. The ordinary arithmetical books abound with expmples of such operations.
The fellowing account of ine manner in which a very large transaction was actually conducted by indirect remittancee, will enfficiently illustrate the principlea we have heen endeavoring to explain. In 1804, Spain was bound to pay to France a large subaidy; and, in order to do this, three distisct methods presented themselves:' 1. To aend do'Lars to Paris by land. 2. To remit bllls of exchange directly to Paris. 3. To autherize Paris to draw directly on Spuin. Tho first of these methods was tried, but it was found too slow and expensivs ; and the secend and third plane were considered likely to turn the exchange againgt Spaln. The following method by the indirect or circular exchange was therefore adopted.

A merchant or banquier at Paris was appointed to manage the operation, which be thus conducted: He chose London, Amsterdam, Hambarg, Cadiz, Madrid, and Paris, as the principal hinges on which the operation was to turn; and he engaged correapondents in each of these cities to support the circulation. Madrid and Cadiz were the places in Spain from whence remittances were to he made; snd dollars were, of course, to be sent to where they bore the highest price, for which bills were to be procured on Paris, or on any other places that might be deemed more advantageous. The principle being thus established, it only remained to regulate the extent of the operation, so as not to issue too much paper on Spain, and to give the circulation as much support as possible from real business. With this view, London was chosen as a place to which the operation might be chiefly directed, as the price of dollars was then high in England; a circumstance which rendered the proportional exchange advantageous to Spain.

This business was commenced at Paris, where tho negotiation of irnfts issued on Ilamburg and Anverardam served to answer the immediate demands of the state; and orders were transmitted to these places to draw for the reimbursements on London, Madrid, or Cudiz, nccordiny as tie course of exchange was most favorable. The proceedings were all conducted with judgment, and attended with complete success. At the commencement of the operation, the course of exclange of Cudiz on London was $36 d$; but by the plan adopted, Spain got 301 d ., or above 8 per cent. by the remittance of dollars to London, and considerable advantages were aloo gained by the circulation of bills through the several places on the continent.-Kelily'a Cambist, vol. ii., p. 168 ; Dunost's Elements of Commerce, 2d ed., p. 228. See Bills of Exchange.

 buch l'maegs on this hyputhksig.*

|  |  |  |  |  |  |  | Par of Mxchange. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Pelersburg.... . too | copecks | $=$ | 1 pouble.......... | $=$ |  |  | giving | 6 roub, | 40 cop | = £1 |
| Beriln.......... 80 | sil, groschen | $=$ | 1 Prise dollar... | $=$ | 210 | 10 B |  | 6 dall. | 27 в. g . . . . . | $=1$ |
| Cupenhagen.... 96 | skililings.... | = | 1 Rig. dollar. | = | 2 | 21.8 | " | 9 dult. | 10 sk . | $=1$ |
| Ilamburg....... 16 | selillitiga. | $=$ | 1 mark | $=$ | 1 | 61. | " | 18 mks . | 10 1-2 sch. | $=$ |
| Amsteriatil. .... fiv) | contimes. | = | 1 Hurlo | $=$ | 1 |  |  | 11 ft . | 97 cents...... | $=$ |
| Amwerp........ 100 | centimes. | $=$ | 1 florta | $=$ | 1 | 8 | " | 11 nt | 97 cents...... | = |
| 19arls........... 1001 | centimes. | = | 1 frane | = |  | 91.2 | " | 25 fr . | 57 cents | $=$ |
| Frankfort....... 241.2 | gutd. or thor. | $=$ | 1 mark | $=$ |  | 77.8 |  | $123-40 \mathrm{~g}$ | midens, |  |
| Vlelina ........ 60 | kretusers. | $=$ | 1 thorin. | $=$ | 2 | $04-10$ | " | 9 il. | 50 kr . | = |
| Venlee ......... 100 | centisini | $=$ | 111 ra Austriaca | $=$ |  | $8 \cdot 13$. | " | 29 II . | 82 cent | $=$ |
| Genon. ......... 140 | continimi | $=$ | ( Itra Nuova. | $=$ |  | 01.2 | " | 251. | 67 cent....... | = |
| 1egharn........ 100 | centishinl | $=$ | 1 Itra Tosmana.... | $=$ |  | 7.82 | " | 311. | 69 cent....... | $=$ |
| Madrla......... 8 | reals | $=$ | 1 dollar uf 1'lato... | = | 3 | 18 | " | 6 dult. | $23-4$ reala... | $=$ |
| LISban........... 1006 |  | $=$ | 1 miltrels........ | $=$ | 4 | 8 | " | 4 mill. | 285 rets........ | = |
| New York...... 1 no | cent | $=$ | $t$ dollar. | $=$ | 4 |  |  | 4 doll. | 80) cents...... |  |
| Klo daneire. . . . limo | rels, | $=$ | 1 milirels | = | 9 | 7 | " | 7 mll . | 777 rels. | - |
| Ilavata. ........ 1601 | pents. | = | 1 dollar | $\because$ | 4 |  | " | 4 delt. | 44 centa. . . | $=$ |

* Aberactel from Tute's sodern Combint, to whelis the realer is referred for further explanations.

It is easy from this table to calculate the value of $/$ McCusiocut, in the lut edition Ency. Hrit. Qee Bills any of the nhove coins, taking silver at 5s. 2d., 5s. find. an ez., or any other price, nad thence to dednce the par of exchango at such rates. The preceding article of Bixchange.

Exchange signifies a place in most cu 3 iderable on l'rinciples of Exchunge, is from tho pen of $\mathrm{J}, \mathrm{li}$. kers, interpreters, and other persons concernel in com-
merce, assemble on certain days, at a fixed hour, to confer tegether in regard to matters relating to exchanges, remittances, payments, assurances, freights, etc. In Flanders, Holland, and France, these places are called Bourses, or Places de Change; and in the Hanse towns, Borsenhalle. The most considerable exchanges in Europe are these of London, Paris, and Amsterdam. The anclent Romans had places for merchants to meet in most of the considerable clties of thelr empire. That which is asld to bave been built at Romn in the year b.c. 493, wan called Collegium Mercatorum, of which it is alleged there are still some remalns, called by the modern Romans Leggia, the Lodge or place of St. George.

Exchequer Bills are bills of credit issued by authority of Parliament. They are for variors sums, and bear interest (generally from $1 \frac{1}{\mathrm{f}}$. to $2 \frac{1}{\mathrm{f}}$. per diem, per 5100 ) according to the usual rate at the time. The advances of tha bank to government are made upon exchequer bills; and the daily transactions between the bank and government are principally carried on through their interventlon. Notice of the time at which outstanding exchequer bills are to be paid off is glven by public advertisement. Bankers prefer vesting in exche fuer bills to any other species of stock, oven though the intorest be for the meat part comparatively low; because the capital may be received at the treasury an the rate originally pald for $i \pm$, the bolders being $3 x e m$ ted from any risk of fluctuation, except in the amout t of the premium or discount at which they may have bought the bills. Exchequer bills were first issued in 1696 , and have been annually issued ever since. The subjoined is an account of the unfnaded delt in exche puer bills, and of the annual charge thereon, on the $5 t \mathrm{t}$ of January 1817, and the 5th of January every bub equeut year down to $185^{\circ} 5$.

In 1853 , exchequer bonds were $i$, od bearing linterest at $2 \frac{4}{6}$ per cent. for ten year thereafter $9 \frac{1}{2}$ per cent. for thirty years, or ti' . 1894, to auch holders of South Sea, and three por cent. stock as chose to accept the same, a bond for $£ 100$ being given fur every $£ 100$ steck subseribed (16th and 17th Viet., cap. 23). But only a very small sum ( $£ 5000$ ) has been invested in mela bouds.

This description of temporary loan is unknown in thls country, but is a favorite investusent by British capitalists. The treanury has the power, by act of Purliament, to issue ways and means bills, or in other words, exrhequer bills, to the aid of the waya and means of the year, by issuing them in any one quarter, paysile out of the revenues of the following quarter. Indepenteut of these bills of supply, lssues are made in exchequer bills to the paymastar-general for thu ordinary service, to be aold in tho market to meet the publle demand. The bilis are signed either by the comptroller or ly the assistant-comptroller, and every means have been suggested to prevent forgery. Sounthaes the bill are lanued to the paymaster-general, and sometimes to the bank; and the bank either carrisu the amount of money for which it has contracted with the government, to the paymaster's account, or to the exchequer account. Then the credit is insued from the exchequer account for the public accountant. About 1500 bills are prepared in one day, and they aro signed in even quantitien. There aro constitutional reasons against the treanury having the insue of exchequer hills. Tho Constitution of England in founded on a jealousy of the executive govermment, and therefore chacks are required lo doaling with the action of the government, which a commerclal company like tho lank of lingland inay not in any respect reguire.

Frem the ist of January, 1812, to lith June, 1847, there were slgned liy the comptroliar-generai, and by the assistant-comptrolier, 186,707 exchequer hilis, for the amount of $\subset 197,983,423$. From the 1st January, 245, to 10th June, 1847, there were examiued and
controlled by the cemptroller-general and aseistantcumptroller, 288 royal orders of the ariourat of $£ 92$, 806,730 , and 900 treasury warrants of tha value of £283,681,258. From the first of Janua 'y, 1845, to 10th June, 1847, there were issized and su pplied to the paymaster, 90,109 bills of the amount of $£ 54,604,300$. The preparatlon of exchequer bills costs 'the public for paper-making, $£ 4000$; superintendence of ditto, $£ 30$; ongraving and pintligg, $£ 180$; superintendent, $£ 30$; and counterfoita, f10-total, $£ 6500$. . During 1855 , there were algaed 1455 credita, 1228 acquittanees, 427 Irlah transfera, 8842 Irish acqui'tances, 32,444 exchequer bille of $£ 31,827,117$; and s ntrolled 214 reyal orders of $£ 91,811,111$, and 869 trousury warrants of £178,981,985. In 1854, there were signed 22,054 exchequer bonds of $£ 6,009,400$.

| $\begin{aligned} & \text { Youre } \\ & \text { ending } \\ & \text { Jan. } \end{aligned}$ | Amonal of ctyobequer allla. | Rate of Intores per Diem. |  | Cbargo of Interest per Anoum. |
| :---: | :---: | :---: | :---: | :---: |
| 1817 | C44,650,800 | 8d. Nov. 22, | 1816 | 22, 178,927 |
| 1818 | 86,720,400 | 2f. 7 cb 24, | 1817 | 1, 391,815 |
| 181 | 43,208,400 | 2d. | 1817 | 2,026,450 |
| - 1890 | 85,902,200 |  |  | 847,091 |
| 1891 | $88,985,000$ |  |  | 1,529,181 |
| 1898 | 81,566,500 |  |  | $2,169.811$ |
| 1823 | 86,231,100 |  |  | 1,309,449 |
| 1924 | $84,741,760$ | 1td. June, 24, | 1524 | 1,11,240 |
| 1825 1896 | 89.898 .450 97.8904 .000 | 2d. Dec. 19, |  | 1,036,015 |
| 1827 | $97,89,400$ 94,505850 | 2d. Dec. 19, | 1825 | 820,1000 770,000 |
| 1823 | 27,046,850 |  |  | 8102150 |
| 1829 | 27,657,000 | 1/d. Sept. 80, | 1829 | 80,415 |
| 1840 | $25,400,550$ | 11d. Doc. 18, | 1829 | 808,076 |
| 1831 | 27,271,060 |  |  | 726.405 |
| 3 3 12 | $27.183,1450$ |  |  | 644,365 |
| 1893 | 27,275,000 |  |  | 577, 324 |
| 1884 | 27,916.900 |  |  | 723,696 |
| 1835 | 23,52, 5050 |  |  | 696,417 |
| 1836 | 28,976,600 | 23. 8ept. 90, | 1836 | 688,709 |
| Pisit | 24,076,000 | $2{ }^{\text {2fd. Nov. }} 21$, | $1 \times 36$ | 602,095 |
| 1888 | 24.044 .580 | 84. Dec. 14, | 1837 | 871.3n9 |
| ${ }_{3 \times 19}$ | 24,026,060 | 1fid. March is | 1839 | 641,370 |
| 1840- | 19,965,050 | 21d. March 16, | 1s4) | 758,707 |
| 1841 | 21,076.850 |  |  | 489,180 |
| 1842 | 18,843,450 | 2d. Tune 15, |  | 797,046 |
| 1843 | 15,182,100 | $\left\{\begin{array}{l}\text { 1/d. Mareh 17, } \\ \text { 1/4. June 16, }\end{array}\right.$ | 1s48 | 681,601 |
| 184 | 14.407,300 |  |  | 594,05I |
| 1545 | 18,414,500 |  |  | 462.3n3 |
| $18 \pm 6$ | S, $\mathrm{SNO}_{0} \mathbf{2} \mathbf{0 6}$ |  |  | 422,634 |
| 1847 | 18,810,700 |  | 1547 | 419,998 |
| 1818 | 17,946,5(4) |  | 148 | 43834 |
| 1849 | 17.788,700 | Hd. March 15, | 1499 | -97,981 |
| 150 | 17.758700 |  |  | 603, 124 |
| 1551 | 17,756,610 |  |  | 4122,790 |
| $1 \times 58$ | 17,742,500 | 13d Tone in, | 1892 | 4108,476 |
| 1853 | 17,742,500 | $\left\{\begin{array}{lll}\text { ld. } & \text { Msrch } & 10 \\ \text { 2d. } & \text { Oet. } & 11\end{array}\right\}$ | $1583$ | 412, 542 |
| 184 | $16,029,610$ | 2fd. June 12,' | 15.5 | , Hes, 414 |
| 1453 | 17,148, 100 | 2, Jun - |  | 814,518 |

The interest psid withln eseh year is given in the coluinn of ehsrge, which Interest has accrued upon the espital stated in the preceling yoar.
The interent palit upoin the $£ 16,029$, con $)$, and upon $£ 1,750$,000 of hills tasued in Aprit isish, will he pald in iss
The interest upun the $£(7,1 \times 3,00$, will $n, t$ he payable tilt 1sith, i. O, year entlig Janaary $5,1 \times 57$.

Excise, the namo given to the duties or taxes laid on certain articles proluced and consumed at home; but, exclusive of these, the duties on licenses and font-homes are alwo placel under the managemrat of the excise, and are consequentiy included la the esciso duties. The excise system was established in linghad by the Long l'arliament; was contlnued undor C'romwell sud Charles 11 ; and was organized as at prestnt in tho Walpole administration. It was ilrat cellected and anoflice oprened in 1613, and was arbitrarily levied upon llquers nid provisions to support the parllamentary forces agalnst Charles 1. The excise-ullice was built on the site of (iresham College, in 130 t. The othecrs of excise and customs were deprivel of their votes for members of l'arliament in 1782.-Ntydu.

Exclse dutles had been from an early period eatablished in Lholiand, and the large revenue which they afforded pointed them out to the leaders of the popalar party in the great civil war, as the most likely
means by great cor were con dlnance $:$ venders, soon afto both alde tinued no But it wa bo again $r$ accustome clared, in most easy the people Restoratle stone say a time its $v$ Engiand" gresaively posed on large ahare ayount er
1744 Gr
1786
189
1820
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1830
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1887
1840
1845

Exhibl
tain, etc.), In law, deli discovery. allowance of it is now apl teasnce of pending on anslogous to exhibition i press the adt
Exhibition Works of fine public inspee ized on a di gallery or mu conserved, b ally, new exa xhibition.
Exhibition In former tin church or the their product ilc ; bat now and generail they execute ed period as al sale, thees ex ing of their w in their art by efforts with $t 1$

The memb founded at $\mathbf{R}$ siens exlithite but it was in 1 Royal Acader in 1648) first These were their cominen meinbers of tl (by a decree were allowed in li96 was ag
The earliest in 1760 ; and united in the
means by which they conld raise fands to carry on the great contest in whleh thes had embarked. They were consequentiy introduced by a parliamentary ordinance it 1643; being then laid on the makers and vendera of ale, beer, clder, and perry. The royaliste soon after folluwed the example of the republicans; both aldes declaring that the excise should be continued no longer than the termination of the war. But it was found too productive a source of revenue to be again relinquished; and when the natlon had been accustomed to it for a few years, the Parliament declared, in 1649, that the "impost of excise was the most easy and indifferent levy that could be lald upon the people." It was placed on a new footing at the Bestoration; and, notwithstanding Mr. Justlce Blackatone says that "from lta first original to the present time its very name has been odious to the people of England" (Com. book l. c. 3), it has continued progreasively to gain ground ; and is at this moment imposed on various important articles, and furnishes a large share of the public revenue of the kingdom.
Ayount of the Exoise Revenur of Great Baitain in TUE following Years:


Exhibition (exhibere, to exhibit, furnish, maintain, etc.), a showing or presenting to view ; a display-. In law, delivery of writings in proof of facta; a bill of discovery. In our old writere it le aleo used for an allowance of meat and drink, a pension or salary; and it ls now applied to a benefaction settled for the rasintenance of scholars in English unlversities, not depeading on the foundation. In this sense the term is analogous to the Scottish bursary. Among physicians, exhbibition is a standard aud convenient term to express the admindstering a medicine.
Exhibitions of Worls of Fine Art.-A collection of works of fine urt, arranged in some suitable place for public inspection, Is atyled an exhibition. It is organized on a different principle from that of a natlonal gallery or museum ; for the works are not permanently coaserved, but contributed for a limited period annually, new examplea being provided for every successive exhibition.
Exhibitions are comparatively of modern institution. In former times artists were chiefly patronized by the church or the government; and the edifices in which their productions vere placed were patent to the pubilc; but now artists rely mainly on private patronage, aad generally obtain the sanction of those for whom they execute works to exhibit them publiely for a limited period as speclinens of their skill ; or if executed for asie, these exlibitions afford an opportunity of disposing of their works, while they themselves are improved in their art by the opportunity of comparing their own efforts with those of other artists.
The members of the Acadeny of the Fine Arts, founded at Roine in 1593, probably on particular occasions exbibited their works collectively to the public ; hut it was in France, in 1737, that the memilers of the Royal Academy of Palnting and Sculpture (feunded in 1648) first regularly instituted annual exhibitlons. These were made biennial in 1745, and were from their commencement confined to works executed by members of the academy; but during the Revolution (by a decree in 1791) all artists, French or foreign, were allowed to particlpate in the exhibition, which in 1796 wns again made arnual.
The earlieat attempt at an exhibition in England was in 1760; and the efforts of the artists were at leugth united in the loyal Acudemy's exhibitions, the first
of which was opened in 1769. Since then they have heen continned wlth increasing energy. In 1760; the number of works exhlbited was 130, contribnted by 69 artiste; in 1855 there were 1558 works, contributed by 918 exhlbitors. The annual revenue of the academy arises from a fee of one shilling from each visitor, and now exceeds $£ 8000$.
The Royal Scottish Academy's exhlbition is the second in importance In the United Kingdom. Though, according to Its present constitntion, it only dates from 1826, those who instituted it had prevlously organized oxhlbitlona in Edinburg; whlch had been annually continued, with some few interruptions, since 1808. At the first exhibitlon, 178 works were sent in by 27 contributors; at the exhibltion in 1855, 789 works were contributed by 287 exhibitors. The annual revenue exceeds $£ 2000$. Exhbitions are annually opened in Dublin by the Royal Hibernlan Academy. These are the only fine-art corporations in Great Britain alded by government, the two first mentioned being accommodnted in public galleries, and the last recelving an annual money grant. Besldes the above mentioned, the following societles in London have also oxhlbitions, namely, the British Institution, founded in 1806; the Society of British Artists, in 1824; the National Institution, in 1850; the Society of Paintore iu Water Colors, in 1805 ; and the New Society of Painters in Water Colors, in 1835. There are also annual exhibitions in Manchester, Liverpool, Glasgow, Birmingham, Cork, Newcastle, etc. But with the exception of those in London and the Royal Scottish and Hibernian Academies, they are mainly composed of worka collected all over the klngdom, but princ pally in London.

Exhibition of 1351 .-The great Exhibition of Works of Industry of all Natlons, held in $t$ ? : ori 'ish metropolis, was publicly announced in Oct or $r$, $1 \times 3$. Prince Albert, ne president of the Society os. 4* .."ered himself to the publlic as their leader in tho whertaking; and her Majesty's proclamation appointing a commission to promote the project was issued January 3, 1850. The amount of publle subscriptious to the Crystal Palace was $£ 67,399$ 3s. 10 d . After much discussion rclative to the site propoeed, a vast atructure was erected on the south side of Hyde Park, from a design of Mr. (afterward Sir Joseph) Paxton. This building (usually called the Crystal Palace from the material of which it was chiefly composed) resembled, upon a great scale, the Vlctoria Regia plant-house, erected at Chatsworth, after Mr. Paxton's own design. The contract with Messrs. Fox and IIenderson was for £79,800-a sum afterward somewhat increased by additions to the plan; or for $£ 150,000$, if the building was permanently retained. The exhibition was opened by her Majesty in state, May 1, 1851; and it remained open to the publle till 11th Octeber, shortly after which time the Crystal Palace was taken down.

This gigantic structure occupied an area of 21 acres, and was comprosed entirely of large sheets of glass set in frume-work of iron, except near the ground, where it was boarded. Its length was 1851 feet (a number corresponding to the year of the exhlibition); and its width, In the broadest part, 456 feet; the transept intersecting the building at right angles in the mlddle, was 408 feet leng, 108 high, and 72 wide. The entire structure consisted of three tiers of elevation, the central portion being 64 feet high, the adjecent side portions 44 feet, and the outer sides 24 feet high. The materials employed were as followis: $896,000 \mathrm{su}$ perficial feet of glass, weighing 400 tons; wroughtiron, 550 tons; cast-iron, 3500 tons; wood, including flooring, 600,000 cubic feet; nearly 2300 cast-lion girders, and 358 wrought-iren trusses for supporting the roof and the galleries (which extended nearly a mile in length); 30 milee of gutters ; 202 miles of sashbars, and 3390 cast-iron columns. The number of exhibitora was about 17,000 ; of prize medals awarded,

2918; of council medals, 170. The greatest number of visiturs in one week was in that eading 11th October, when the number of persons paying at the doors wus 478,773. The total amount of entrance fees durlug the saason was $£ 424,41815 \mathrm{~s}$.
The Great Exhlbitlon of 1851 wat altogether novel in priaciple, and unparalleled in mugnitudo and magniffence; comprehending under one rcof, in almoet ondless variety, specimens of the lndustrial productloas, uot only of Creat Britain, but of the Enropean atates generally, together with thoae of nearly every part of the habitable alobe. An account of these, as well as of the peculiar mode of construction of the Crystal Palace, may be found in the official deacriptive and Illustrated catalogaes and reports of the jurits.

Our limits preclude onr entering into the history of national industrial exhibitions, or to make more than a passing reference to the various locsl exhlbitions of works of industry which have taken place from time to thine in the United Kingdom; auch as those at Cork, Sheffield, Flymouth, and Salistury in 1852, Dublin In 1853, and in Birmingham in 1849, Similar exinlbltlons were organized in Belglum in 1830, In ti:e United Statea in 1858, at Munich in 1854, and eapecially in France $\ln 1798,1801,1802,1800,1819,1844$, and on a large acale in 1855. This last is constituted on an entirely different basis from the Eigglish Exhibition of 1851 ; being set on foot by the capital of a commercial company formed for the purpose, and on the prospect of remunerative profits; but the State also takes a distinet and positive share in the risks of the enterprise, as it does with rallways and other works of public utility. A certain percentage to the holders of stock Is goarantied by the government; and in right thereof ar iraperial commission it appointed which exercises "preme control. By this arrangement the proprletors a to receive whatever aurpius may remain after all expensea are paid ; whereas the $\mathbf{5 1 7 0 , 0 0 0}$ derived from the prices of admission to the Jondon Exhibition stands over as a public trust fund, under royal charter, to be applied to oljects in harmony with those for whlch the exhibition was held.

The French Exblibition is not contained ander one roof, nor of the sex il 1 holldinge nre all intended to he of a temporary chard: ter. The buildings, in the aggregate, will probabi'y includo a greater area than the Crystal Palace at 11, le Park. The main building is the Palais de l'Industrie, n permanent edifice of rectangular form, and with considerable pretenslons to architectural effect. In this will be exhibited all the hlgher productions of maunfacturing lndustry. There is also the "Annexe," a shed 4000 feet long, parallel to the Seine, for tho exhibition of machinery and raw produce. According to the plan, these two structurea are connected by a gallery running across the Champs Elysées, and having in its centre a tine circular space, which is appropriated to the productions of Sèvres, and the other national establishments ; and, in ndilition, there is an extra shed for the exhibition of carringea and other articlen of great bulk.-W. Ib.

The British government, in orler to secure nn adoquate representation of liritish art und industry in Paris, corresponding to the efforts whicin the French goverument had made lin 18, grantel $\mathrm{f} 50,000 \mathrm{ly}$ a parliamentary vote. The assistance of public assoriations and local committees was also ohtained for the purpose, and special reports were liy them published. The number of exhilitors from the Lnited Kingdern was 1505 , and from the liritish colonica 1070. The total number of exhibitors was 20,3339, vi\%.: 10,691 from the Frendl cmpine, and $\mathbf{1 0 , 1 4 8}$ from forcign States, viz. : France, 9790 ; Algerla, 724; French coloaies, 177 ; the 1)uchy of Anhalt, 15 ; the Argentine Confederation, 6; Austria, 1296; Grand Duchy of Baden, 88 ; Havaria, 172 ; 13elgium, 686 ; Ilrazil, 4 ; Duchy of Drunswiek, 16 ; Republie of Costa Rlea, 1 ;

Denmark, 90 ; St. Domingo, 1; Egypt, 6 ; Frankfort. on-the-Malne, 24; Great Britaln and Ireland, 1589; British colonies, 985 ; Greece, 131 ; Republic of Guatemala, 7 ; Klagdom of Hanever, 18 ; Hanse Towns, 89; Grand Duchy of Hesse, 74 ; Electorate of Hesse, 14 ; Principality of Lippe-Detmold, 2; Grand Duchy of Luxemburg, 23 ; Mexice, 107 ; Duchy of Nassau, 59 ; Notherlands, 411; New Granada, 13; Grand Duchy of Ofdeaburg, 13; Ottoman Emplre, 2; Sandwleh Islands, 5 ; Papal States, 71; Portugal (includIng colonies), 443 ; Prussia, 1313; Principalities of Renss (Elder and Younger Branches), 2 ; Sardinia, 198; Saxony, 96 ; Duchy of Saxe-Altenburg, 2; Duchy of Saxe-Coburg, 6; Duchy of Saxe-Coburg-Gotha, 11; Duchy of Saxe-Melaingen, 3; Grand Duchy of Saxe Weimar, 1 ; Prinelpality of Schaumburg-Lippe, 2; Principality of Schwarzburg-liulelstadt, 1; Spain, 568 ; Sweden and Norway, 538 ; Switzerlund, 408 ; Grand Duchy of Tuacany, 197; Tunis, 1; United Stateg, 130; Wurtemburg, 207. Total, 10,118.

New Vork Nohibition of the Imlustry of all Natione,Alt?.ough America achieved amo of the most signal and permanently valuable results which were hrought to the knowledge of mankind by the Exhbition in Hyde Park; still there was probably no Anserican Nho saw our contributions in London that did not feel some regret that they were not a more just and eqnally sustained exponent of our zesources, Industry; and arts. But stionger and more controlling than this sentiment whe the desire excited to afford the masses in Ame rica an onportunity to see the grund total of the werld'a industry, and the manifold productions and applientions of the arts of design broutht in one comprative vlew. It was seen, that while no motive but a proper regard for our own position in the great family of natlons cocild have induecd us, as a people. to aend our industrial products to Europe, where we find a market only for our jrent staple raw materials, that the fuct of our bocoming more and more every day the great purchnsers of the products of European skill and labor, expended, perhaps, upuo our own prolucts, wonld induce alf the manufacturing states of the old world to embrsce, engerly, an opportunity to expose their prolucts In the New York Crystal Palace. This convietlon, strengthened by the seatiments lefore alluded to, led a few public-spirited citizens of the United States, early in 183 , to contemplate the urganization of the effort whess results we see. It was not designed or desired to reproduce the London Exhibition, which, from the very atme of the case, must ever reminin unexnmpled; liut to draw forth such a reprosentation (f the worid's industry and resources as would enable us to measure the strength and value of our own, whilo it indicated new aims for our enterprise and skill.

There is no humiliation in the acknowledgment, that America has more to gain from such n comparison than any other uation in Christendom-and we believe she is also more willing to a vall herself of the suggedions it offers. It whe ebvious in the outset, that numerous lifficulties would embarrass the successful organization of an exhibition of Inlustry $\ln$ the United states, which should at once he universal in its scope, nad devold of the imputation of loesl or sectlonal influence. These difficulties were lnherent in the nature of our pelitical institutions. In England, the auggention of 1'rince Alliert to the Society of Arts was received with enthuslasm, and enlisted not ouly the cordial support of tho queen, but every member of a numetons and wealthy aristocracy joined his haed in setting forwarl the royal project. The government, however backwand and lukewarm they might have been at first, conld not rexist un litluence with which, as men, they were identified. Then the nlmest supreme power of the london Journals came in to swell noul direct the popular sentiment, and to make every E, glishman feel that he had an lmincliate personal stake in the suco
cess-the $t r$ an enterpris of the natio

Under the universal in Itself in cou names are ld atare, ind 0 herding the in considerin colossul ache logieal, the Statiatical Sc gineers and Geology-and veralties, wert mind for the catalogue of ers, associate nected with th tlon, it is nate and learning was this pecul of the world, names are the In their own di andertake. Si bilition. Com enormous pers carry forward chinery and re geatiemen, how inadequate. I ciation was forn cessfal prosecut been Invited to the sppeal has at is liberal and cat
New York wn bition, because c cial centre, and goods. Had it to the products more central, aa natl, might have the foreign deps seenied the only The municipul au the 3 d of Januar gard for the pros of its inhabitants, Reservoir-square tioas : one, that t glass and iron, a fee should excee State of New Yor 11th of March, 18 sociation for the E tions has leen or sct clothed the dir carry out its plans time extended its to the nmount of limitation to 8300 , met on the 17 th of election of Theode William Whetten, lost in publishing of the oljeets of $t$ thons to the stoek persons nal firins 200,000 . This w large muminer of ha lots charge, thant $t$ alesigned for the ber
The countenance government was at
ceas-the triumphant and overwhelming anccess-of an enterprise to which the honor of his aovereign, and of the nution, stood pledged before all mankind.

Under the atimulus of anich powerful moti"'a, the univeral inteilect of the United Kingdom orbanized itself in counclle, committees, and jurics. Men whose names are identified with the halis of scionce, of litersturo, and of art, left their tripods, and were found heading the various corps of hard-working volunteers in considering or perfecting the eevaral details of the colossal scheme. The rooms of the Royai, the Geological, the Geographical, the Ethnological, and the Statistical Socicties, of the Institutions of Civil Engineers and Architects, of the Mueeum of Economic Geoingy-and even of the stald and conservative Unlversities, were for a time deserted to furnish men and mind for the emergency. In looking over the long catalogue of councilmen and chairmen, of commissionors, associates, and jurymen, whose nnwes are connected with the administration of the London Exhibition, it is astonishing to see what an array of talent and learning was gathered to secure its success. Nor wes this pecuitar to Great Britain; but from all parte of the worid, we find in its publishod iists men whose names are the guaranty of ominent success, not only in their own dupartments, but in whatever thoy may nndertake. Such was the nninus of ths London Exhibition. Compared with this royal espousal, and caormous personal influence brought to sustain and carry forward the exhibition of $\mathbf{2 8 5 1}$, the simple machinery and resources of an association of private gentlemen, however enterprising, might seem utteriy inadequato. Let the results docide. Such an association was formed, and stands committed to the suceessfal prosecution of the pian. Ail the world has been invited to co-operate in sustaining the effort, and the appeal has met a regponse as cordial as the design is liberal and catholic.

New York was selected as tho locality of the exhifition, becauso of ite great advantages as a commerciai centre, and as the chiof entrepôt of European goods. liad it been proposed to limit the exhibition to the products of American industry, some place more centrai, as Washington, Philadolphia, or Cincinaatl, might have been justly preferred, but in view of the foreign department of the scheme. Now York seemed the only piace at all suited for the purpose. The municipal authorities of the city of Now York, on the 31 of January, 1852, moved by an enlightened regard for the prosperity of the city, and the interests of its inhabitants, granted n lease for five years of Reservoir-square for this purpose upon two conditions: one, that the buiding should be constructed of gisss and iron, and the other, that no single entrance fee should exceed 50 ceuts. The Legisinture of the State of Now York, upon application, granted, on the Ilth of March, 1852, the charter under which the Association for the lixhibition of the Industry of ali Nations has been organized and carried forward. The act clothed the directors with ali the powers needed to carry out its pians, and the Legisiature have sinco that time extended its privileges, so that it can issue stock to the amount of $\$ 500,000$, in phace of the original limitation to $\$ 300,000$. The iloari of Directors flrst met on the 17 th of March, 1852 , and organized hy the election of Theodore Sedgwick, Fsq., I'resident, and William Whetten, Esq., as Secretary, No time was lost in pulbishing and cireulating a general statement of the ohjects of the enterprise. A call for suhscripthons to the stock was met is due time by about 150 persons nad firms coming forward to take up tho first so00,000. This wide distribution of the interest in a large number of hands compictely avoided the ohnoxlous charge, that the unijertaking was a specuintion designed for the benefit of a few.

The countenance and co-operation of the genctal government was sought with a view to the introdue-
tion of foreign gnods into the Exhibltion duty fres. And officiai assurances were given by Mr. Maxwel, the collector of the port of Now York, that the briiding of the association would be made a bonded rarehouse, thus entiting the association to receive the goods free of duty while on exhibition. The infuence of the genersl government was ciso most cheerfully extended on behalf of the association through the kind offices of Mr. Webater, then Secretary of State, who wrote to the representatives of the United States at the principal courts of Europe, atating to them his sense of the importance of the onterprise, and the numerous reasons why in his view they ahouid give to the association all the aid and support in their power. The minlsters of foreign powers resident in the United States had previousiy responded, in terms of entire cordiality, to the general circular of the association which had been addressed to them, stating lts plans, and soliciting the co-operation of European nations. They all expressed their convictions that their respective governments would look with favor upon the proposed exposition, and unite in sending to New York their most valued and characteristic objects of industry. The leading foreign newspapers also manifested a most friendiy desire to sustain the auccess of the undertaking, and the records of the office contain the most abundant evidence of their zealn= support ; 'wisile the daily journals in foreign languages in the United States were prominent in lending their services to the cause.

The organization of the foreign relations of the association was effected by the appointment of Mr. Charles Buschek, of London, as its general agent, through whom detaiis were arranged. This delicate and importanit trast, involving the greatest responsibility, required talents, knowledge, and experience. The associntion was truly fortunate in finding these qualities combined in one person. Mr. Baschek was the Austrian commissioner at the London Exhibition of 1851 , und through him the co-operation of the European manufacturers has been secured to an unexpected extent. At a later period in the history of the enterprise, it was thought to be expedient to aspd ont to Europe Colonel G. W. IIughes, of Maryland, to cooperate with Mr. Buschek in carrying out the pians of tho association. This gentleman added to the weight of his official commission the influence of personal qualities, fitting him, in a remarkable manner, for his delicate task of soliciting or directing the countenance and support of European govermments in favor of the objects of the New York Exhibition. 'The result of his labors was the securing from various governments important contributions, which would otherwise have remained u. known in the United States.

Although the "Now York Exhibition of the Industry of all Nations" was, as a financial scheme, unsuccessful, yet its effects upon the industry and inventive powers of the country were unquestionably important. These effects will lie felt for a century to come, and siouli confer honor unen thoso enterprising citizens of the metropolis and State who conceived and carried into effect the pian now descrihed. The exhibition was clesed in the year 1855.
Exotic. (Gr. $\varepsilon^{\xi}(\omega \tau / \kappa \partial \rho$, foreign.) Any thing introduced te one country from some other country. In gardening it is sometimes applied to plants which require protection in winter, or to plants in general which aro not natives.
Expectation of lifc. Sce Insunasce.
Exploring Espedition (U. S.) consisting of the Vincomes, sloop of war ; Peacock, do. ; Porpoise, Reliff, Flying Fish, and Sea Gull, smaller vesseis, under tientenant Wilkes, U.S. N., sailed from IIampton Roads, Va., August 19th, 1838. Antsretic continent discovered, July 19, 1839. Attack on tho Fejees for mard ring two of the officers, duiy 25,1840 . The Peacock lost on the bar of Columbia River, Juiy 1841

The lincennes (Aleg-ship) returaed to Now Iork, after an absence of neurly four years, June 11, 1842. Captain Wilkes'a Narrative of tha Expeditlon, in 6 vole. imp. 8\%o. and quarto, was publiahed in 1845. The ccientific reperts of che expedition form about 20 quarto or folio volames.
Desportation, in Conmerce, the act of seuding or carrying comumodities from ons country to another.See Impontation and Eixportation.

5xpreas. There is no branch of businesa in country more extensive and important than the $c$. prase service. The over-buny handmaid of trude, agricuiture, and the useful arts, there is no community so amali as not to be auscaptible to lts uaefulness. Yet, while agricalture, art, and trade are world-old, the express is comparatively only a thing of to-lay. England had no part in creatling it. Europe has done nothing to establish it; and twenty yeare ago it was not dreamed of even in Americh, where it la now so iṇdiepensable. Pecaliarly American in Ita arigan and charsoteriatics, it has become so thoroughly interwoven with the dnily buainess of the coantry, that it seems to conatitato an inseparable jortion of its muscla and sinew.

The inquiry naturally arises, "If the express service in so indispensable an institution now, how did the American people do without it prior to its ereation ?" "the fact is, that the "expressman" is only an improvement (a great improvernent, it in true) upon the "common carrier" of olden times. It was not a very rare thing, at an earlier period, to hear of a special express run for a temporary purpose, auch es the transit of news of intense public interest, or intelligence of great private moment. In those cases tho enterprise employed one or more riders, with the necessary relays of fieet horsea at intervals upon the road. Browning's fine poem, "Hiow they brought the good news froin Ghent to Aix," vividly describes an express of this kind, bearing news of peace and safety to that belenguered city.

Ifit the express aervice, properiy so ealled, does net date back beyond the origin of American railroads. prior to that epoch, stage-drivers had performed duties similar to those now discharged by expresamen; and "baggage-ccayons" (so calied, though they carried merchandise as weli) served instead of freight-trains. With the innovation of railways, the atage-drivers and wagoners found, like Othello, their "oceupation gonc." The loas of their aervices seriously incommoded the pubilic; but the rallroad offored no remedy. Years passed; trade and intercominuuication between town and country suffering, in the mean while, from this cause. At longth, hardly realizing what an improvement he was about to effect, William F. Haraden, then a conductor upon the Boaton and Worcerter Hailroad, started the express business. It was in tha spring of 1839. The ldea was not original with him; but to him ia due the honor of having been the first to put it into execution.

The only through route from Boston to New York at that time (March, 1839) was by railroad to I'rovidence, and thence to this city, by the steamboat $J$. H: Richmond. The Old Line of ateaniboata ran from Stonington to New York. IIarnden had no jald agent in this city at the outsel. The messengers (called, during the first year or two, conduchri) attended to all the business. Marnien himself acted in that capacity, usually making thes trip in the J. W. Richmond, and carrying hia eutire express in an ordinary valise. E'pon his arrival in New York or Boston he would hasten to deliver tho parosle intrusted to him by his customers, who were mostly booksiliers and brokers.
The express was run by llarnden some time befora he mado a contract with the Old Line of bosts from Stonington to New York. Ilis messenger paid regular fare, and carried all the packages in a carpet-bag and trunk. After the lapese of six monthe or a year, he
made a contract with the Old Company and the Ston ington and I'rovidence llailrond Compuny to ruu a cur through. . Each mossenger then carried a season tiek. et-obtained by hoiding a few ahares of the company's atock. According to the termas of that contract, the Hoaton and Providence Railroad Company were entitled to one third of the gross receipte of the express for freight; and the Providence and Stoniugton Kailroad Company (including, we presume, the boats) were to secive oue third; the residus to be Harnden's. Ilis rat contract with tae owaers of the J. W. Jichmond waz to convey a car or crate for him between I'rovidence and Now York. He took five or six sharea of the stock, which entitled him or his measenger to a free passage.
The first opposition express was run on the 4th of May, 1840. Aivin Adams mado an effort to contract, In lts behalf, for privileges on tho Norwich and Worcester route from Beston to New York; but Harnden heing at that time better known, the directora gave his "well-astablished expreas" the preference; so that he was like to have the monopoly of the facilitiea ou both rontes. As Adame wea not to be defeated in that way, he went to Major Ilandy, agent for the Stonington line, and purchaned two season tiekets for himself and partner, to run aa often as they pleased between Baton and New York, until January, 18.11; with no other privilege, howover, than to carry a trunk and valise.

In the apring of 1841, the ooly express routes in the world werc those between Now York and lBoston; but, with a aucceasful rival competing for the business of those ciliea, IIarnden \& Co. thought it duo to their own credit, as pioneers, to take anether atride or two, and extend their line sonth to Philadelphia, and west to Albany, in this State.

An express was establiahed $23 d$ April, 18.11, between Boston and Albany, and another between Albaay and New York, by Harnden \& Co.

About that time, Adans \& Co. experienced not a little annoyance from their want of regular express facilities from Now York to l'hiladelph - and they nsed an infinity of "ahifts" to put their parceis through. In tho mean time, the Camden and Amboy Railroad directors had quarreled with Ifarnden \& Co. for nonpayment of compensation alleged to be due them, and bad stopped their expreas over that road. Nor were they more favorably disposed to make a similac contract with any one else. Still, at his partner's solicitation, Adams went to Philadelphia to apply for a contract. Steveas, who represented the Board upon that occasion, gavo him a very decided refusal at once. Adams then made another proposition; viz., to do the express busineas over that railroad in conncetion with the company; the latter to allow Adams \& Co. a portion of the avails. This impressed Stevens more favorably, and the inmediate result was a contract that Adams \& Co. ahould fill a certain number of erates dajly, and deliver the goods, receiving for their trouble a certain pertion of the freight money; the railroad company to have the rest.
In 1812 Haruden \& Co.'s Boston and Alibany Express was bonght out by ita Spriagfield agent, the enterprising Colonel Thompson, and called Thompson \& Co.'s Express. Messrs. Melcher and Johuson are his partners. Gay \& Co. (Gny and Iittlefield) started an express between Boston and Ne York, ria Stonington, in 18i2. They carried only a trunk of parcels, and had no contract. Gay would run one way, and littlefield tho other; and each had the protits which he hajioned to make upon each day's work, and pocketed the same, without being expected to render an accoput to hid nominal partner. This nrrangement, apparently ao primitive and simple, lid not work well in the long run, and Littlefield retirad from it. Kinsley next joined Gay, and tise firm was styled Gay \& Kinsicy. The latter, for some years past president of
a bank at as an exp
In 1844 f.owell, $\mathbf{B}$ short rout ing. The April 1, 1 members and D. D (and when express bo 1847, W. sole propri the atyle o gerving of verance, al ed from N
W, F. $\mathbf{H}$ applause o and abroac it by no in expresa in and weake more conce a Jarger sh bnsluess be was more
Canada started one plaic, in ti) winter. T quently RJ tracted witl press from Co., who is under the managemes business wi thy perseve anec.
In 184, a spring up. out, and th the newly. kell, a ligg ton office, of establish iatie pruder proposition of oferatio many thous they prefer could give ever, they a and he wer September, business. office was a ther the ow increused r or extender titudes whi or send Jett prise compe of its sangu prices.
The ehar New Yurk pound for $p$ and for par was mado a their price type; twol cominon siz advance. gling. Sin cell.
a bank at Newport, Rhode Island, has become eminent as an expressman.
In 18.44 there were expresses between Boston and L.owell, Hoston and Salem, and on one or two other short routes in Massachusetts, and they were increasing. The first express weat of Buffalo was established April 1, 1845, under the name of Wells \& Co. The nembers of that firm were Henry Wella, W. G. Fargo, and D. Dunning. For the want of rallroad facilitiea (and whea the ateamers were lald up), it was a wagon express between Inaffilo and Detroit. In February, 1847, W. G. Fargo and William A. Livingston became sole proprietors of the express west of Buffalo, nnder the style of "Livingaten \& Fargo." The latter is deservlag of honorable mention for his indastry, perseverance, and sound sense. Wells \& Co.'s line extended from Now York to Buffalo, via Albany.
W. F. Harnden \& Co.'s Foreign Express elicited the applause of the community, and gave an eclat, at home and abroad, to their already well-known name. Stlll, it by ne means contributed to the advantage of their express in the United States. It only served to divide and weaken their energies. The result was, that the more concentrated effurts of their rivals here met with a larger share of suecess, and In 1846 Adams \& Co.'s business bet ween Boston, New York, and Philadelphia was more valuable than Harnden \& Co.'s.
Canada was without an express until Virgil \& Rice started one from Troy to Montreal, via Lake Champlain, in the summer, and by wagons and stages in the wiater. Thls, we think, was in 1847 or 1848 . Subsequently Rice retlred, and Messrs. Virgil \& Co. contracted with the Saratoga Rallroad for a car. The express from New York to Troy was owned by Pullen \& Co., who in the year 1849 unlted with Virgil \& Co., under the style of Pullen, Virgll, \& Co. Under the management of these experienced and able men, the business was nursed and tended with most pralseworthy perseverance, until it grew to considerable importaace.

In 1849a new order of express service was destined to spring up. The "California gold fever" had broken out, and thousands of young men were thronging to the newly-arquired Golconda, when Dandel Iale IIaskell, a highly-esteemed clerk in Adams \& Co.'s Boston office, suggested to his employera the expediency of establishing a California express. With characteristle prudence, Adans \& Dinsmore at first opposed the proposition; foreseeing that the most important point of oferations must necessarlly be in San Francisen, many thousands of miles beyond their supervision, and they preferred to have all their business where they could give it their frequent personal inspection. IIowever, they at length yielded to Haskell'e solicitations, and he weat out to San Francisco in the steamer of September, 1840 , to act as their partner in the proposed business. The huilding which lie took for an expressoftice was a little shanty, of which I. C. Woods was either the owner or the owner's agent. As the business increased rapidly, this building liad to be pieced out, or extended in depth every few weeks, to hold the multitudes which thronged to it to hear the news, obtain or send letters, and renit their gold dust. The enterprise compensated beyond the most sanguise dreams of its sanguine projector. Let us give some idea of the prices.
The charge made by Adams \& Co. for freight, from New York to San Francisco, was seventy-five cents per pound for packages not execeding fifteen pounds each ; and for parcels of less weight, not bulky, such price was made as could be agreed upon. Threo dollars was their price for conveylag an ordinary-aized daguerreotrpe; twolve dollars for a parcel not larger than a common size novel ; and this was always exacted in advance. It was paid cheerfully and without any haggling. Since then tho prices have fallen about 60 per cent.

Upon the arrival of the steamer at Chagrea with the express, the freight would be sent ashore in bosts-a tedlous and perilous job, for the sea usally ran high, and the boats were frequently awamped. At Chagres it was tranoferred to river-canoes, and propelled by nestives to Cruces, whore it was again tranoforred and placed npon the backe of males, which bors it (by * road that would have defied tha locomotion of any other kind of beast) to Psnema, where the Pacifio ateamohip awaited to convey it to Sen Francieco. Being liable to be asturated with water in being carried ashore at Chagres, and in crosing the Iathmes, by reason of rains and atreams, it was required of abippers to put up their merchandiee in water-proof packagea The load of a male rarely exceeded 800 lbs. Usually he bore two oblong boxes or trunks welghlng not over 125 Jbs. each.

Another class of messengers to which Adums \& Co.'s express in Callfornis gava rise were wont to perform their eervice on horseback between San Francisce (and other towns) and the namerous "diggins." Sometimes they made use of mules; but in elther case the beasts must be sare and swift of feot and easy under the staddle, or they were disearded and better procured in thelr stcad. To be able and willing to run fleetly at a word from its rider, was a sine qua non in the steed of an express messenger; and there are heard wonderful stories of the time made, under the saddle, In this service.

The express companies may be said to influence the domestic exchanges of the coontry, inssmuch as they transport nearly all the specie and bullion, as well as conslderable portions of the bank-notes, bills of exchange, drafts, bonds, and other eecurities; and the price of exchange between one city and another deperds in some measure ppon the express charges for conveyance. The rates pald for the transportation of bank-notes is usually flxcd by contract in writing; and are low. For instance, between New York and Cincinaatl, 900 miles, one dollar per thousand. The total value of the capital employed in the express businesa wes valued in 1856 at ten millions of dollars. Foar yeurs ago, the entire number of miles of express routes in America was estimated at 25,000 . As facillities have been ineressed, and express routes extended, the whole distance traveled by express dally is probably not less than 28,000 . The multifarious lines stretch in every direction, crossing each other lika the threads of the spider's web. And now we find the principal exprersmen undertaking the anterprise of conveying the United States mail overland to Callfornia. September 15, 1857, Messrs. Butterfield, Dinsmore, Fargo, and others, executed an agreement to that effect. The contract, which is to run six years, is to go into effect twelve months from that date. Six hundred thousand dollars per annum is the price to be paid the contractors. The extraordinary character of the labor thus confidently assumed can hardly he appreclated until the work shall have been accomplished. Certainly the establishment of euch a route is an appropriate reward for express enterprise.-For a full history of the express business, see Bankers' Magazine, New York, September, 1857.

Extract, or Extractive Matter. The term extract is applied in pharmacy to the brown substance which remains after the evaporation of certain decoctions or infusions of vegetables; thus we have extract of bark, extract of rhubarb, and so on. These extracts aro usually mixtures of gum, atarch, sugar, or other anluble matters, along with a certain portion of a peculiar vegetable principle of a brown color, or which becomes so hy exposure to air, and which is soluble in water and in alcohol, but scarcaly soluble in ether. It combines with alumins, and is often the basis of brown dyes; it is thle principle which chemiste call extractice, and which is frequently closely allied to various forma lof coloring matter.


IMAGE EVALUATION TEST TARGET (MT-3)


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Fao-almille (Lat. facere, to make, and simile, like), oxpreseed in French by fais-semblable, nignifios an oxact and faithfal copy of any writing, ongraviug; or other work of art.

- Factor, an agent employed by some one individual or individuale, to transact business on hie or their account. He is uot generally resident in the sume place as his principal, but usually in a foreign country. He is authorized, either by letter of attorney or othorwise, to receivo, buy, and sell goods and merchandise ; and, generally, to transsct all sorts of business on account of his employere, under euch limItatione and conditions as the lattor may choose to impose. A very large proportion of the foreign trade of this and most other countries, it now carried on by means of factors or agents. Factors and brokers are, in reme respects, nearly identical, but in othere they are radically difforent. "A factor," seid Mr. Juetice Holroyd, "differs materially from a broker. The former is a parson to whom goods are sent or consigned; and he has not only the posseasion, but, in consequence of its being usual to advance money upon them, hat also a special property in them, and a general lien upon them. When, therefore, he selle in his own name, It is within the acope of his authority; and it may be right, therefore, that the principal ahould be bound by the consequences of such sale. But the case of a broker is different; he has not the poseession of the goods, and so the vendor can not be deceived by the circumstance; and, beeides, the omploying a percon to nell goods as a broker doees not authorize him to soll in his own name. If, therefore, he selle in his own name, he acte boyond the acope of his authority; and his priacipal is not bound."
A factor is usually + vd by a percentage or commisaion on the goods he sells or buya. If he act under what is called a del credere commiosion, that is, if he guaranky the price of the goods sold on account of his principal, he receives an additional percentage to indemnify him for this additional reeponsibility. In cases of this sort the factor stands in the vendeo's place, and nust anawer to the principal for the value of the goods eold. But where the factor undertakes no rosponelbility, and intimates that he acte only on account of another, it is clearly establishod that he is not liable in the event of the vendeo's failing. The sound maxim, that the principal is responsible for the acts of his agant, prevalla universally in courts of law and equity. In order to bind the principal, it is necessary only that third partios should deal boná fide with the agient, and that the conduct of the latter should be conformable to the common usage and mode of dealing. Thus, a factor may soll goods upon credit, that beiag in the ordinary conrse of condneting mercantile affisirs i but a stock broker, though acting bond fide, and with a view to the benofit of his principal, can not sell stock apon eredit, unlese he have apecial instructions to that effeet; that being contrary to the usual course of buainess.
A sale by a factor creates a contract between the owner and buyer; and this rale holds oven in cases Where the factor acts apon a del credere commiasion. Hence, if a factor sell goode, and the owner give notice to the buyer to pay the price to him, and not to the faetor, the buyer will not be justified in afterward paying the factor, and the owner may bring hle action against the buyer for the price, unlean the factor has a lien thereon. But if no such notice be given, a payment to the Individual selling is quite auficient. If a factor buy gooda on account of his principal, where he is accustomod so to do, the contract of the factor binds the prinelpal to a performance of the bargain ; and the principal is the person to be sued for non-performance.

But it is ruled, that if a factor onter into a charterparty of affroightment with the master of a ship, the contract olliges him only, unless he lede the vessol with his principal's goods, in which case the principal and lading become liable, and not the factor. Where a factor, who is authorized to sell goods in his own name, maken the buyer debtor to himeelf; then, though he be not answerable to the priacipal for the debt, if the money be not paid, yet he has a right to receive it, if it . be paid, and his receipt is a sufficient discharga; the factor may, in such a case, enforce the payment by action, and the buyer can not defend himseir hy alleging that the principal was indelted to him in more than the amount.
"Where a factor,": said Lord Mansfield, "dealing for a prinoipal, but concealling that principsl, delivers goods in bis own name, the person contracting with him has a right to consider hin, to all intents and purposes, as the principal; and though the real principul may appear, and bring an action on that contract against the purchaser of the gooda, yet that purchaser may set off any claim he may have againat the factor, in answer to the demand of the principal."
Merchants employing the same factor ran the joint risk of his actlons, although they are strangers to each other; thus, if different merchants remit to a factor cifferent bales of goods, and the factor sell them as s single lot to an Individual who is to pay one molety of the price down and the other at uix monthg' end; if the buyer fail before the second payment, each merchant must bear a proportional share of the loss, and be content te accept his dividend of the money ad-vanced.-Beawes, Lex. Merc.
A factor emplojed, without his knowledge, in negotiating an illegal or fraudulent transaction, has an action against his principal. On this ground it was decided, that a merchant who had consigned counterfelt jewels to bis factor, representing them to be genaine, should make full compensation to the factor for the injury done to hina by being concerned in such a transaction, as well as to the persons to whom the jowels had boen sold.
The office of a factor or agent being one of very great trust ond responailillty, those who undertake it are bound, both legally and morally, to conduct themsclves with the utmost fidelity and circumspection. A factor uhould take the greatest care of his principal's goods In his hands; he should be punctuel in sdvising him as to his transactions on his behaif, in sales purchases, freights, and, more particularly, bills of exchange ; be should deviate as seldem as possible from the terms, and never from the apirit and tenor, of the orders he recelves as to the sale of commodities; In the execution of a commission for purchasiog goods, he shonld endeavor to conform as closely as practicable to his instructions as to the quality or kind of goods ; If he give mere for them than he fa authorized, they may be thrown on his hands; but he is bound to buy them for as much less as he possibly can. Afer the goods are bought, he must diapose of them accordIng to order. If he send them to a different place from that to which he was directed, they will be st his risk, unless the prineipal, on getting advice of the transaction, consent to acknowlodge it.

A faotor who aells a commodity under the price he in ordored, may be obliged to make good the difforence, unless the commodity be of a periohable nature and not in a condition longer to be kept. And if he purchase goods for another at a fixed rate, and, their price havigg afterward risen, be fraudulently takes them to himself, and sends them somewhere else, in order to secure an advantago, he will be found, by the custom
of mer factor, with directe transa profft t and ba formab bed, or charge goods dischar by steai tion the which prove and the nor exe own pm $a$ theft ments, iii., p. 8 his prin cording carryin compos orders $t$ ineuran ter, dire on this not not omissior make a land th quence, the dam his entr these pi discharg has a lle eldental the bala sension. he has a auch pri for. It beit not chan rier, a o
consigne property delivery the cons consigno to a facto passes in has a lies recelved limited and sell ment ari tor actin unless he gross neg Interest misolon. without An agent to blind nominste
For fu and liabl mentaries Contracts percargoe
of merchants, liable in damages to his principal. If a factor, in conformity with a merchant's oriers, buy with his money, or on his credit, a commodity he is directed to purchase, and, without giving advice of the tranaaction, sells it again at a profit, appropriating that profit to himself, the merchant may recover it from him, and have him amerced for frand. If a factor buy, conformably to his inatructions, goods of which ho is robbed, or which suffer some unavoldable injury, he is discharged, and the loas fells on the principal. But if the goods be stolen from the factor, he will not be so easily discharged ; for the fact of their having been abstracted by stealth, and not by violence, raises a atrong preaumption that he had not taken that reasonahle care of them which was incumbent upon him. If, however, he can prove that the goods were lodged in a place of secnrity, and that he had not been guilty of positive negligence, nor exercised less care toward them than toward his own property, he will not be held responisible even for a theft committed by his servants.-Jowes on Bail ments, 2 d ed., p. 76 ; Chitty on Commercial Law, vol. Hin., p. 868.
If a factor, having money in his hands belonging to his principal, neglect to insure a ship and gooda, according to order, he must, in the event of the ehip miscarrying, make good the damage; and if he make any composition with the insurers after insurance, without orders to that effect, he is answerable for the whole insurance. A principal at the end of a very long letter, directed his agent thus; "Observe, the premium on this value is also to be insared." But the agent, not noticing this sentence, neglected to insare the premium; and being sued, was held liable for the omission. If goods are remitted to a factor, and he make a false entry of them at the cuatom-house, or land them without entry, and they are, in consequence, seized or forfeited, he is bound to make good the danage to his principal; but if the factor make his eatry according to invoice or letters of advice, and these proving erroneous, the goode are seized, he is discharged. It is now a settled point, that a factor has a llen on goods conaigned to him, not only for incidental charges, but es an item of mutual account for the balance due to him so long as he remains in possession. If he be surety in a bond for his priacipal, be has a lien on the goods sold by hin on account of anch principal, to the amount of the sum he is bound for.

It being the generai rule of law " that property does not change while in transitu," or in the hands of a carfier, a conalgnment made before the bankruptey of a consignor, but not arriving till after, remains the property of the consignor, except, indeed, where the delivery is made by the order and upon the account of the consignse, and is complete alienation from the consignor. In the case; therefore, of a consigament to a factor, the property remaine the consignor's, and passes. into the bande of his asaignees. When a factor has a lien on goods, he has a right to the price, though recelved after the bankruptcy. Where general or unlimited orders are given to a factor, he is left to buy and sell on the best couditions he can. And If detriment arise to a principal from the proceedings of a factor acting under auch authority, he has no redress, unless he can show thut he acted fraudulently or with gross negligence. A fuctor or troker acting against the interest of his principal, can not even receive hie commission. If he pay money on sccount of his principal, without being authorized, he can not recover it back. An agent can not delogate hifa rights to another so as to bind the principal, uniess expressiy authorizod to noulinste a sub-agent.

For further information as to the general powers and liabilitles of factorn and agente, see Kbrt's Commentaries ; Parsons on Mercantile Contracts ; Stony on Contracte; Beawis'e Lex Mfercatoria, arts. F'actors, Supercargoes, etc. ; Chitty's Cummercial Law, vol. Iil.,
0. 8.; Woonryon on Commercial Law; see also the article Baoker.
C Under the law with reapect to the tranasctions of factors or agents on third parties that prevailed down to the act 6 Geo. 4, c. 94, it was held, that a factor, as such, had no authority to pledge, but only to sell the goods of his pribcipal ; and it was repeatedly decided that a principal might recover back goods on which a bond fide advance of money had been made by a third party, without his being bound to repay such advance; and notwithatanding this third party was wholly Ignoe rant that the individual pledging the goods held them as a mera factor or agent. It used also to be held, that bond fide purchasers of goods from factors or agente not vested with the power of sale, might be made liable to pay the price of the goods a second time to the real owner. The extreme hardship and injurious influence of euch regulations is obvious. It is the business of a principal to satisfy himself as to the conduct and character of the fuctor or agent he employs ; and if he make a false estimate of them, it is more equitable, surely, that he should be the sufforer, than those who have no menns of knowing any thing of the matter.
"All agente who sell goods for their principals, and guaranty the price, are sald sbrosd to act under a del creders commisaion. In this country, this phrase is eeldom used, nor is auch guaranty usual. See Del Credere Commisaton.
" Generally, neither factor nor broker can olaim their commisnions until their whole service be perforned, and in good faith, and with proper akill, cere, and industry. But if the service begins, and is interrupted wholly without their fanlt, they may claim a proportlonste compensation. If either bargaine to give his whole time to hia employer, be will not be permitted to derive any compensation for eervices rendered to other persous. Nor can either have any valid claim againat any one for illegal services, or those which violste morality or public policy.
"A principal can not revoke an authority given to a fuctor, after advances made by the factor, without repaying or securing the factor.
"The diatinction between a foreign and a domeatic factor is quite important. A domestic factor is one who is employed and acts in the same country with bis principal. A foreign factor is one employed by a principal who lives in a different country. And a foreign factor is as to third parties, for moat parposes, and under most circumatances, a principsi. Thus they can not ane the principal, beoause they are anppoaed to contract with the factor alone, and on his credit, although the principal may ane them; and a forelgn factor is personsily liable, although he fully diaclose his agency, and his princlpal is known. But this doctrine is not extended to cases where a contract for personal services is made in the country where the factor is doing husiness, by a person resident there; but the contract is to be performed or executed in the country where the principal resides. For, if auch a contract be made in the name of the principal, he alone is responsible. One who deals with a domestic factor may aue the priacipal, unless it is ahown thst credit was given excluaively to the factor. And for the purpose of this diatinction, and the rules founded upon it, we hold, on the weight of authority, thet our atates are foreign to each other.
"Fvery factor is bound to reasonable care; and he is liahle for a loas by tire, or rolbery, or other aocident occurring without his default, if he had previously done some wrongful act, without which the property might have been safe. And this rule would apply even to a gratuitous agent."-Pansons' Mercantile Law, pp. 158-162.
Factorage, or Commisaion, the allowance given to factors by the merchente, manufucturers, etc., who employ them: it is a percentage on the goods they
purchase or sell on account of their principals, and ling. The grant nsually contains a cianse that it shall varies in different countries, and as it refers to difforent articles. It is customary for factors, as observed in the previous artlele, to insure the debts due to those for whom they sell for an sdditional, or del credert commission, generally averaging from $1+$ to 2 per cent. Factorage or commission is also frequently charged at a certain rate per cask, or other package, measure, or weight, especially when the factor is only employed to receive or deliver: this commiseion is nesaily fixed by special agreement between the merchant and factor.

Fatory, in commerce, a place where merchants and fuctors reside, to negotiate hasineas for themselvas and their correspondents on commission.
Fairs and Markets. These institutions are very closely allied. A fair, as the term is now generally understood, is only a greater apecies of market recnr ring at more distant intervals. Both are appropriated to the alle of one or more species of goods, the hiring of servante or laborens, etc.: hat fairs are, in mont cases, attonded by a great concourse of people, for whoee amusement various exhibitions are got up. Faira and wakes are of Saxon origin, and were firat Instituted in England by Aifred, A. D. 886.-Spelman. They were established by order of Gregory VII. in 1708, and termed Feriee, at which the monks celehrated the festival of their patron saint; the vast resort of people occasioned a great demand for goods, wares, eto. They were called wakes from the people making merry during the vigil or eve. Fairs were entahlished in France and England by Charlemagne and Wiliiam the Conqueror, about A. D. 800 in the first, snd 1071 in the intter kingdom. The fuira of Buncaire, Falniae, and Leipsie, are the most famous in Europe. Soe E. 13. - Maydn.

1. Origin of Fairs.-Institutions of this sort are peculiariy servicable in the earlier stages of society, sind in rude and inland countries. The number of shops, and the commodities in them, are then either comparatively limited, or they are but little frequented by dealere; mo that it is for the advantage of all, that fairs should he patablinhed, and merchants induced to attend them. I this porpose various privileges have been ann in fuirs, and nunerous facilities afforded to the disposal of property in them. To give them a greater degree of solemnity, they were originally, both in the ancient and modern world, asaociated with religious festivals. In mont places, indeed, they are still held on the same day with the wnke or feast of the saint to whom the chureh is dediested; and, till the practice was prohitited, it was custouary in England to hold them in ehurchyards!-(Jacob's lawe Diet., art. Fair.) Het since the growth of towns, and the opportunities afforded for the disposal and purchase of all sorts of produce at the weekly or monthly marketa held in them, the atility of fairs, in this rountry at least, has very much diminished; they have alno lont much of their ancient aplendor; and, though some of them are still well attended, and of real nas, a good number might he advantageously sappressell. Jut it is far ntherwise in infand countries, where the facilities for carrying on commercial transactions are comparatively cireumscribed. There it in of the utmost importance that certain convenient places and specified periods should be appointed for the bringing together of commodities and dealers. This is not oniy the readient and best means of promoting commerce, but also of softening national antipathies, and difusing a knowledge of the producta, arts, and customs of other conntrien.
2. Establishment of Einglish Finira.-No falr can be holden without grant from the crown, or a prescription which supposes nurli grant. And thefore a putent le granted, it is ustal to have a writ of ad quod dammum executed and returner, that it may not be fasued to the prejudice of a aimilar entainimiment already esist-
not be to the hart of another fair or market ; but this clanse, if omitted, will be implied in law; for if the franchise occasion damage either to the king or a subject, in this or any other respect, it will be revoked; and a perion whose ancient title is projudiced is entitled to have a scire facias in the king's name to repeal the letter patent. If his Majenty grant power to hold s falr or market in a particular place, the lieges cau resort to no other, even though it be inconvenient. But if no place be appointed, the grantees may keep the fair or market where they please, or rather where they can most conveniently.
3. Time of holding Faire and Markets.-These art either determined by the lettere patent appointing the fair or market, or by usage. The atatute 2 Edw. 3. enacte, that the duration of the fair shall be declared at its commencement, and that it shall not be continned beyond the apecified time. By etatute 5 Fdw. 3 , any merchant selling goods after the atipulated time is to forfeit douhie the value of tr.e grods sold.
4. Eiffecto of Sales in Fairs and Markets.-A bonâ fide sale made in a fair or open market, in general, trangfers the complete property of the thing nold to the vendee ; so that however vicious or illegal that titie of the vendor may be, the vendee's is good against overy one, except the king. But the sale, in order to come within this rule, must take place on the market day, and at the place assigned for the market. The city of London is saill to be a market overt every day of the week, except Sunday; every shop leing a market overt for such things as the shopkeeper profeases to deal in. The property of goods may, however, be changed, and effectuaily transferred to the buyer, by a boní fide sale in a ehop out of London, whether the shopkeeper be the vendor or vendee, if the goods are of the kind in which he trades. A wharf in London is not within the custom, and is not a market overt for articlen brouplit there. But a sale in a market will not be binding if it be such as carries with it a presumption of fraud; ss, for example, if it take place in s back room or secret place; If the sale the covinous, and intended to defraud the real owner, or if the buyer know that the vendor ia not the real owner of the goods, ete. It is very difficult to transfer the property of horses, even when they are mold in an open market, witheut the consent of the real owner.
5. Court of Pié Poudre.-According to English usage, at every fuir or market there is incident, even without any expreas words in the grant, a court of pió poudre, in aliusion to the iluaty feet of the suitors. The steward or mayor may proaide. It has cognizance of ali questions as to contracts made in the market respecting gooda brought and delivered thore, etc. Formerly pid poudre courts were held at every considerabie fair, but they are now entirely laid anide.
6. Principal British Foirn.-Among these may be specifial Stourbridge, in Worcestershire. Hristol has two consideratile faira, one in March and one in September. Exptor December fair, for cattic, horsea, and most morts of commodities. Weyhill fair, in liampishire (Octobar 10), has, probalily, the grentest dianjay of aheep of any fair in the kiugdom. llarthoiomew fair, in Iondon, need to be of conniderabie importance, bus: latterly it was appropriated only to shows of wild beasts, and such-like exhilitions, and has, within these few years, been very properiy suppressed. St. Faith's near Norwich (Uctoher 57 ), is the principal Finglish fair for Beotein enttic. They are noid to the grazigra and feelers of Norfoik, Nufluik, Fssex, ete., hy whom they are futtened for the Landon markets, where they are met with in great abundance. liut besides thoae sold at St. F'aith'r, inrge numiners of Scotch eattio are dinposed of at Market Ilarborough, (Jarlisie, Urmskirk, and other pinees. Ijswich hus two conalilerable faira : one in August, for lambe ; and one in September, for buttor and cheeve:
it is sold a west Wood: and horses castle, kingdo sale dr of dea from $t$ Ameri
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and ca at the mencio tieth $\mathbf{y}$ in 1842 Market a great cheese, for the is one of cattl In the cattle these a posed o four, th from fo lean; a are fit f 7. $P r$ specifiec Chartre but they the mod right be miies ea for an Internal by canal fair, wh 28th Jut thaugh vast cen also frou the Lev of conve
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it is reckoned that above 100,000 lambs are annually sold at the former. Woodborongh-hill, in Dorset, for weat country mannfactures, as kerseys, druggets, etc Woodetock October fair, for cheese. Northampton and Nottingham have esch several large fairs, for horses, cattle, cheese, etc. 'The August fair of Horncastle, in Lancolashire, is the largest horse-fair in' the kingdom, many thousand horses being exhibited for sale during its continuance: ${ }^{\circ} \mathrm{t}$ is resorted to by crowds of dealers frum all parts of Great Britain, by several from the Continent, and sometimes even from North America. Howden, in Yorkshire, has, also, a very large horse-fair, partlcularly for Yorkshire hunters. Devizes, in Wiltshlre, 'bas several large fulrs for sheep and cattle. There is usually a large display of cheese st the Gloncester April fair. A guild, or jubilee, commencing the last week of Anguet, is held every twentieth year at Preston, in Lancashire ; the last was held In 1842, and was well attended. The October falr of Market Harborough, Lelcestershlre, lasts 9 days, and s great deal of basiness is usnally done in cattle cheese, etc. Woodbridge Lady-day fair is celebrnted for the ehow of Suffolk horses. Falkirk fair, or tryst, is one of the most important in Scotland, for the sale of cattle and sheep. The Cctober fair of Ballinasloe, in the county Galway, is famous for the diaplay of cattle and sheep; by far the largest proportion of these animals ralsed for sale in Connaught being disposed of at it. The aheep are generally from three to foor, the heifers from three to fonr, and the bullocks from four to five years of age. They are mostly lean; and are kept for a year in Ieinster before they are fit for the Dublin or IAverpool markets.
7. Principal French Fairs.-Among these may be ppecifled the fairs of St. Germain's, Lyons, Rheims, Chartres, Ronen, Bordeaust, Troyes, and Bayonne; but they are mnch fallen off. The most important of the modern French fairs, is that of Beaucaire, on the right bank of the Rhone opposite to Tarrascon, 14 miles east of Nismes. It ' , very favorably situated for an entrep 0 , being, excluslve of the command of internal navigation afforded by the Phone, connected by canals with the sen and the Canal du Midi. The fair, which commences on the 22d and finishes on the 28th July, was formerly the grentest in Europe, and, though a good deal fallen off, it is still attended by a vast cencourse of people, not from France only, hat also from Switzerland, Germany, Italy, Spain, and the Levant. Almost every sort of article, whether of convenience or luxury, may then be met with in the town. It is aald that the number of visitors atill amounts to from $\mathbf{7 0 , 0 0 0}$ to 80,000 , and the amount of business done to $150,000,000 \mathrm{fr}$; but we have little doubt that these estimaten are very greatly exaggerated ; and that the first would be noarer the mark were it reduced to 50,000 or 60,000 . All bills due at this falr are presented on the 27 th, and protested on the 28th. A tribunal instituted for the purpose, takea cognizance of, and immediately settles all disputen growing out of transactions that take place at the falr. A military force attends to preserve oriler, and the prefect of the department, who is alwaya present, entertains the principal merchante and atrangers.
8. German Fairs.-The principal German, or rathor European falrs, are those of Frankfort-on-tho-Malne, Frankfort-on-the-Oder, and Lelpsic. The concourse of arerchants, and the business done at these faira, are generally very great. They are coplously aupplied with the cotton atuffs, twlat, cloths, and hardware of England; the allka and jowelry of France; the printed cottons of Switzerland nul Austrla; the raw, manafactured, and literary products of Germany ; the furs of the North; 'Turkey carpets; Ceahmere shawls, ete; and there, also, are to lo found merchants of all countrien, those of Ispahan negotiatlog with those of Montreal for the purchase of furs; and Gearglana and Servians supplying themselves with the cottons of

Manchester and the fewelry of Paris. There, in fact, are met the representatives, as it were, of every people in the world, leboring; thongh withont intending it, to promote each other's interest, and to extond and strongthen those tiea that bind together the great famly of the human race. The fairs at Frankfort-on-theMains shonld begin the first on Easter Taesday; and the secend on the Monday nesrest to the 8th of September. Their duration is limited to three weeks, but thay usnally begin from eight to fifteen days before their logal commencement. Acconnts are kept in rixdollars, 1 rixdoliar of account $=1 \frac{1}{2}$ florin, or $4 \frac{1}{2} \mathrm{cop}$ sticks, or $22 \frac{1}{\text { g }}$ batzen. The rixdollar $=38.1 .8 \mathrm{~d} . ;$ so that the par of exchange is 141 batzen per $£ 1$ sterling. 100 lb . common Frankfort weight $=1031 \mathrm{~b}$, avoirdib pois. The foot $=11 \cdot 27$ English inches. The fairs at Frankfort-on-the-Oder are three in number, viz.: Remiriscere, In February or March ; St. Margaret, in July ; and St. Martin, in November. They ought, atrictly apeaking, to terminate in elght days, but they usually extend to fifteen. The Pruseian government gives every facility to those who sttend these fairs. Accounts are kept in Pruasian money, that ie, in rixdollars of 2as. 114d. 1001b. Prussian $=1031 \mathrm{~b}$, avoirdnpois. The foot $=12.356$ English inches, The fairs of Leipsic are stili more celebrated than those of either Franhfort. They are held thrice a-year-on the 1st of January, at Easter, and at Michar nas. The first Is the least important. The Easter and Michaelmas fairs are famous, particularly the former, for the vast number of new publieations nsually offered for sale. They are attended by all the principal booksellers of Germany, and by many from the adjoining countries, who adjust their accounts, learn the state of trade in all parts of the world, and endeavor to form new connections. Most German publishers have agents in Leipsic; which ls to the literature of Germany, what London is to that of Great Britain. As many as 5000 new publicstions have been in a aingle Leipsic catalogue I They are also great markets for Saxon woolens and other goods, British calicoes, French silks, and, in fact, for most descriptions of produce. The fairs ought to close in elght days, but they usually continue for about tbree weeks. No days of grace are nllowed. The holder of a bill must demand psyment on the day it becomes due; and, if not paid, he must have it protested on that very day, and returned by the first opportunity. If he neglect any of these regulations, he loses all right of recourse upon the drawer and inderaera. Money of account at Leipsic asme sa Frankfort-on-the-Maine. 1001b. Leipaio $=1031 \mathrm{~b}$, av oirdupois. The foot $=11 \cdot 11$ English Inches.-Kelr iy's Cambist; Manuel de Nelkenbrecher; Howaing's Report on the Prussian Conmercial L'nion, pp. 255, 269, etc. Dr. Bright gives, in hls Tra"els in Hungary (pp. 201-223), an interestiag acconnt of the fairs held at Debretzin and l'esth. The latter has become the grand centre of Hungarian commerce; most part of which is conducted at its fairs.
9. Hulian F'airs.-Of these, the most celebrated is that of Sinigagia, a amall, but handsome town of the l'apal dominions, on the Misa, near its confluence with the Adrintle. The fair emmmences on the 20th of duly, and should terminate on the last day of that month, but it namally continnes elght or ten days longer. The duties on goods brought to the fair are oxtremely moderate, and every thing is done to promote the convenlence of those frequenting lt. All sorts of cotton, woolen, and silk goods, colonial produce, Iron end ateel, hariware, jowelry, brandy and liquore, timber, druga, apleca, ete., are brought here ly the English, French, Anstriana, Swisa, etc. These are exchanged for the varions raw and manufmetured products of Italy and the Iovant ; conslating, smong others, of raw, thrown, and wrought allka; oll, fruits, cheese, alum, soda, sumneh, sulphur, ete. The value of the imports for the fair of 1841 , was ontimated at about
\&1,500,000. Accounts are kept in mendi of 20 roldi ; the seudo $=4 \mathrm{a}$. 4d. very nearly. 1001b. Sinigaglia - 78 avoirdupois. The oll or bracolo measuren 25.88 English Inches.- Manuel do Nellienbrecher ; MiO enzaor'e Tarift, Italy; p. 121.
10. Ruasicen Fhirg.-These are numerous, and many of them are well attended. The most important is held at Nijnii-Novgorod, at the confliuence of the Oka with the Wolgga, int. $66^{\circ} 19^{\prime \prime} 40^{\prime \prime}$ north, long. $44^{\circ} 28^{\prime}$ $80^{\prime \prime}$ east. Previously to 1817 this fair was hold in a less convenient aituation, at Makarieff, lower down the Wolga. But the buildings for the accommodation of the merchante at the latter having been accidentally burnt down in 1816, goverament took advantage of the oircamstance to remove the fair to Nijail. It is principally carried on within the new basaare constructed for that purpose on the left bank of the Oka. These, whlch are divided into parallel rowe, or streets, are coustructed of stone walls and roofod with iron, having covered galleries in front aupported by fron pillars. They are built on piler, and, to guard againat Inundationg, the ground oa which they etand has been raited about 20 feet. Being inclosed on three siden by canala, and on the fourth by a navigabie iniet of the Oka, thore in evory faclity for the delivery and ahipment of goode. The establishmont is of great extont, comprising 2524 booths, and is adnilted on all hands to be at once the largest and most perfect of ita kind that is anywhere to be met with. But, in addition to the above, no fewer than 2506 shops and bootha belonging to private parties, and conatructed of wood, wore occupied during the fair of 1841. The fair begina on the let of July, and continues for a month or six weeks.
The total value of the various articlos of Assatic (lneluding Chinese) produce oxposed for sale at Novgorod in 1841 amounted to $9,146,719$ silver roubies, being more than double the value of the products of western Enrope oxposed in the aame year. Of the iatter, indigo, wine, and cottons rore the principal articies,-Journal des Manufactures, Petersburg, 1842. Tho atationary population of the town, which may amount to about 25,000 , is, during the fuir, sald to amonnt to from 180.000 to $\mathbf{1 6 0 , 0 0 0 ,}$ inclading Chineeo, Persians, Armeniand, Tartare, Bokharians, etc. Theatrical oxhibitions, shown of wild beasts, and other Bartholomew fair exhilitions, add to the attractions of the scene. Anothor celelirated Rusnian fair is held in the month of December, of Kiachta, in Mongolia, on the Clinese frontier, lat. $50^{\circ} 21^{\prime} 5^{\prime \prime}$ north, long. $100^{\circ} 28^{\prime} 15^{\prime \prime}$ east. The town is smali; the population not exceeding 4000 or 5000 ; but by far the largest part of the oemaierce botween the Ihussian and Chinese empires is transacted at its fali, and it is also the centre of the political intorcourse between them. The commodities brought hither by the Russians consist prineipaliy of Russian and German broadcloths, furs, sheep and lamb akins, leather, coarse linesa, worsted stuffi, cattle, etc., with, for the most part, bullion. These they change with the Chinese for tea, raw and manufactured silk, nankeens, porcelain, sugar candy, rhubarb, tobaceo, musk, etc., the value of the articles, however, other than tea, boing comparatively inconsidorable. The quantity of tea purchased at the Kinechta fairs by the Rusalana, which has iatterly increased very considerably, amoanted, in 1850, according to the official returna, to 210,173 poods, or $7,566,444$ pounds, of very superior tea, worth about 2s. 6d. per pound, and 85,440 pooda ( $8,076,840$ jonadr) inferior or black tea. At an averaye of the six years ending with 1850, the totai finports of all sorts of tee into Ituseia through Kiachts was estimated at $11,788,464$ pound, Eing., a year. Aceond ig to the anme necounta, the total vaine of the experts to China through Klachts, in 1850, amounted to $6,91 t, 071$ ailver noublea, and that of the imports to about the sume. The custome duty received at Kiachta in $18: 8$ amounted to $2 y 23,304$. The Ruaslan
trado in in the hands of a compurativoly amall number of morchanta, some of whom are vory rich; that of the Chinese to much more diffused. Commoditien may be convoyed from Kichta to European Rursia either by land or by water. In the formor case the journey takes a yoar; in the latter, it takes throe years, or rather three very short summers; the rivers being for the most part of the year frozen over.-Schnitis. ler, statistique Gíndrale de l'Empire de la Russie, p. 148, etc.
11. Turkish Fairs.-Several Important fairs, of which little or nothing in known in this country, are held at varions places in European Turkey. Among others may be apeeified those of Usundji, or Usundjova, in Roumelia ; Joanima, in Albania; Stronga on the Lake of Ocrids; Nov1-Bazar, In Upper Mcosia; Ialivni, in Thrace; Prelip and Nicopoll, in Macedonia; EeklDjouma, in Bulgaria; and Zeitoun and Pharsalia, in Thessaly. The largeat and moet important of these fairs is that of Usundji, held at tho villege of that name, on the Uanndjl, a tributary of the Maritza, about 44 miles W. by N. of Adrianople. It was vieited by M. Blanquil ln 1841, and by Mr. Spencer in 1850. The latter saya (but statemonts of this sort aro very apt to be exaggorated), that it was attended by from 80,000 to 100,000 peoplo, who had journeyed hither from all parts of European Tuirkey for the purpose of disposing of thoir wool, hldes, raw cotten, leeches, and other products of the country, and of purchasiag in retura tise manufactures of the West. The show of the latter lo very extensivo. Sheds are erected in the village by government, which serve as warehousea for the merchants, and every house is converted into a han for the reception of strangers. But by far the greater nu.aber of the latter have, notwithstanding, to eneamp with their cameis, horsee, etc., on the aurrounding plain. Blanqui apoake in high terms of commendation of the good ordor that prevailed, in the abeence of any thing like police, among the metley population at the fair.-(Blakqui, Voyage en Bulgarie, p. 252; Spen. cen's Travels in European Turkey, fi., \&46, etc.) This great fair, which lasts for 15 days (Blanqui) is held, like the other fairs, in autumn, immediately after harvest. But though it lie largely frequented by German, Swise, Italian, and Greek morchanta, who transact a great amount of businose, it is very littie, if at all, known in England. This ls the more surprising, seeing that we have consuls at Adrianople sad other places not very diatant from the seat of the fair. And it unight have been aupposed that these function. aries would have been anxious to aend home the mest ample detaila with respect to thic and other fairs in their vicinity ; deacribing the producta which might be most advantageously bought and sold at these marts; the routes by which they might be moat easilly reached, and so forth. But if such roports any where exist, they have not, at all events, been published. And hence, probably, the fact of the business of these faira being mostly in the hasds of forelgners.
12. Lastern Fairs.-The most important fair in the Eastern world is that held at Mecen during the resort of pilgrims in the month of Dhalhalja. It uned to be frequented by many theusands of Individuals of all ranks and orders, brought together from the remotest corners of the Mohammedan world; and though the numbers attending it have declined of late years, the concourse is atill very great. See Caravas. Ifurdwar, in Hindostan, in lat. $29^{\circ} 57^{\prime} \mathrm{N}$., long. $78^{\circ} 2^{\circ} \mathrm{E}$., 117 miles N.E. from Delhi, is fameus from lis belng one of the princlpal places of Ilindoo pligrimage, and the greatest fair in India. The town, which is but inconsiderablo, is situsted on the Ganges, at the point Where that anored stream isaues from the mountains. The pilgrimage and fuir are held together at the vernal equinox $;$ and Europeans, nowise eddicted to exaggeration, who have been repeatedly present on theso occashome. estiminte that from 200,000 to 300,000 atrangers
are then ascombled in the town and its vicinity. But overy twelfth year is reckoned peculiarly holy; and then it is 'supposed that from $1,000,000$ to $1,600,000$, and even $2,000,000$ pilgrims and dealers are congregated together from all parts of Indie and conntries to the north. In 1819, which happoned to be a twelfth year, whon the suspiclous moment for bathing in the Gangel wan announced to the impationt devotees, the rush was to tremendom that no fewer than 480 persons were eithar trampled to death nnder foot, or drowned in the river! The foreigners, resorting to Hurciwar fair for commencial purposes only, consist principally of natives of Nepanl, the Punjab, and Beshwaur, with Afghane, Uabeck Tartare, ete. They import vast numbers of horses, cattle, and camele ; Persian dried fruits, shawls, drugs, eto. 1 the returne are made in cotton piece gooda, indigo, angar, apices, and other tropical productions. The merchante never mention the price of their goods, but conduct the bargain by touching the different jointe of their fingers, to hinder the byatanders gaining any informatlon. During the Matrratta away, a kind of poll-tax and dutics on cattle were levied; but all is now free, withont impost or molestation of eny sort. Owing, aleo, to the precantions adopted by the Britioh government, the most perfect order is preserved; much to the surprise and satisfactlon of the natives; for, antecedent to our occapation of the country, the fairs usually ended in disorder and bloodrhed.-(Privals Information, and the excellent account us Hurdiear in Hayilion's Gazetteer.)

The fain of Portobello, Vera Crus, and Acapulco, once a famons, are now totally deserted; that of the Havang is also much fallen off.
In the United Statee, fairs are princlpally confined to exhibitlons of agricultural and mechanical articles, and also for the sale of fancy articles for charitable purposes, under the control of private compenlea, and not subject to especial restrictions or lawe. In the westera States, espeoially in the stock-growing districts of Kentucky, fairs are held in each county, at the county towns, once every month, for the sale of live atock, etc., subject only to local reatrictions. These fairs or aales are of great convenlence to the farmers or drovers, by iringing them together at stated times. As an instance of their usefalneas, in Paris, Bourbon county, Kentucky, a town of 1500 in habitants, Uve stock to the amount of 100,000 , on an average, changes hands overy court dey.
Falkland Inlande (Fr. Malouines, Sp. Malvinas), s group of lslands in the South Atlantle Ocean, beloaging to Great Britain, and lying about 250 miles east of the nearest mainland of South America, between $51^{\circ}$ and $88^{\circ} \mathrm{S}$. lat., and $57^{\circ}$ and $62^{\circ} \mathrm{W}$. long. or in precisely the same latitudes south as London and the midiand connties are north. The group conaiate of two principal Ialands, East and West Falkland, with saveral hundred others of different sizes clustered around and in the strait between them. East Falkland is about 85 miles in longth by 40 in breadth, and West Falkiand 80 miles long by 25 to 80 miles wide. They are weparated from each other by Falkland Sound. The other ialands range in size from 16 miles by 8 to mere islets of half a mile acroes. The whele group is deaply indented by namerous harbors and creeke, which, if they diminish the area, produr a more than counterbalancing sdvantages. Very little is known of West Falkland. It is uninhabited, but at certain seasons it is visited by whaling and other vessela. East Falkland is nearly divided into two unequal portions by the eatuarien called Breton Sound and Choiseul Sound, the two parts of the island being connected by an iathmus ne's more than a mile and a half across. The northem portion in crossed by a chain of rugged hilla, called the Wickham Helghta, extending due eatt and west from Port William to Port Snseex, and varying ln hoight from 800 to 2000 feet.

There are fow wild animals indigonous to the Falklands. The only quadruped is the warrah or wolffox (Camis Magellanicus), rather taller, but not much hesvier, then our fox. The other animals which are found in a wild state are those which have been left there by Europeans, as herned cattle, horses, sheep, wild hoge, and rabhlta, all of which are vory abundant. There is a plentiful supply of excellont fish in all the creeke, and of amall trout in the lahes and sivulets. Hair and fur seals abound, and the black whalo is atill numerons about thene coasta. The wild fowl are alao numerous, as owany, geeae, ducks, snipes, etc. Thera are fow land blrds or insects, and no soptilem. A gigentic sedgy grass, called tuseac, of the genus Carex, is very common on most of these islands... Its blade averages seven feet in length by about three quartera of an inch in width, is extremaly nutritious, and admirably adapted for fattening cattlo. Turnips, carrots, potatoes, and vegetables thrive well, and barley and oats have been anccessfully cnitivated. Furze and other shrubs grow well, bnt there are as yet no trees. Peet is ebundant, and some of it is highly bituminous. Coal has been discovered, but whether it can be profitably worked has not yet been ascertained.

The discovery of these felands has been by many attributed to Amerigo Veapucci, in 1502; but it is more probable that thoy were first discovered by $\mathrm{D}_{\text {bvis }}$ in 1592. In 1594 Hawkins sailed along their north shore; and in 1690 Strong sailed through the channel which eeparates East from West Falkiand, and cslled It Falkland Sound, whence the group afterward took its name. During the earlier parts of the elghteenth century these islands werefrequently visited by French vessels ; and in 1764 a French colony was ostablished at St. Louis, on East Falkland. Two years later the English planted a colony at Port Egmonton, West Falkland. In 1767 the Spaniards took possession of the French settlement, and three years later of the English. In consequence of this step, some negotiations were ontered into, the result of which was that the soverelgnty of these islands were ceded to the English, who, however, some time afterward abandoned them. Thongh frequently visited by whaling veaseis and others, they centinued without permanent inhabitants till 1820, when they were taken posseasion of by the republic of Buenos Ayrea. A settlement was formed st Port Louis, which rapldly Increased until 1881, when, in consequence of a dispute with the United States, it was destroyed by the Americans. In 1833 the English again assnmed possession of the Falklands, and stationed an officer and boat's crew at Port Louls. In 1840 the government resolved to colonize these islands, and sent out for that purpose a governor and a amall establishment, who settled at Port Louis. A more advantageeus sitnation for a settiement was aubaequently found on the south side of Stanley Harlor, whore, In 1844, a town was laid out. Mr. Lafone, a wealthy merchant, obtained from government an extenaive tract of land, and posseasion of all the wild cattle and other wild stock for six yeare, from 1at Jannary, 1848, in consideration of a payment by Installments of $\mathbf{x 6 0 , 0 0 0}$. Mr. Lafone's interests have recently been purchesed by a chartered company; which now possess, in East Fulkland, all the southern peninsula called Lafonia, consisting of about 000,000 acres, besides 138 islands and islets, with an aggregate area of about 200,000 acres, until January, 1856. The company possesses absolute right to all the wild cattle or other wild atock whlch may be found apon any of the islands, but after that period this right ceases except as to atock, etc., then In actual poasesaion of the company. In 1847 the population of the colony was 270. The governor of these islands, in January, 1853, reperts the colony to be steadily progressing. In 1851, the number of .tona of shipping that entered the port of Stanley was 17,538 , and in 1852 It was 22,024 , being
an tricrease of 4,486 tons. This necessarily produces a demand for prodnce and labor. t Onskilled Iaborers earn from ss, to bs. a day, and akilled from 6as to 10n! Provisions are abundant, and at 'reasonable prices. "The tranaference to the Falkland Islands Compeny of the large interests held 'by' Mr.' Lafone, and the commencement by that corporation of a more comprehenalve syatem of operation, supported by a large capItal, gives me very favorable hopes of benefit to the colony, and, I trust, to the shareholders." ' (Report.) In 1849, twelve allotments of one acre each; near the town, were' put np for esle; and wert sold on an average at $£ 6$ per acre; and cleven similar allotmenta, sold in 1852, prought on an average $\mathbf{2 1 2}$ per sere, or six timee the usual government price. "The master of a barque, the Record, lately in the harbor, publiely notified that he would take passengers to the gold diggings in Australia at $\mathbf{8 1 0}$ per head, and it giver me mach pleasure to add that not a person could be fonnd in the colony to accept hla proposition." (Report.) Being chiefly dependent apon the ships that call here to refit or for refreshments, the opening of a ship-canal between the Atlantic and Pacific Oceans would affect this sottloment very much, and might probably lead to its abandonment.-E. B.

Excopt as commorcial and military stations, these islands possess no importance. There is no tonnage duty levied on veasels ontering the ports of these islands; nor, indeed, any charges, except for otorage, which is offected in bulk, and for which there is a charge of from 45 to $\$ 10$ per day. In a recent official communication addresed by the present governor of the Falkland 1slands, that functionary observes: "I
to ntate that, as regarda the precine limit to which treat Britain will limit the right of tishing, I have no instractlous. " I will, however, communicate with her Majesty's government on the subject by the first opportunity." Aa American captains cruising about these islands have, on one or two recent occasions, bsen subjected to considerable inconvenience and expense by the execntive anthority of the Falkland Islands-so mnch so, indeed; as in one instance to render the interposition of a United Btates' vessel of war necessary-it becomes a matter of somo importance to American whaling intoreats to have the question settled as speedily as possible.-Com. Rel. U. S.
Fall, the name given in Scotland to a measure both of length and snperficies. As a measure of length, the fall is equal to six Scots olls, or 6.1764 English yards; and as a measure of superficies, to 36 square -lls.
Fall, the sea term for the rope of any pulley or aystem of pulleys. To, fall aboard signifies to run foul of another vessel.
Falling Home. The term applied to the timbera or upper parts of the sidea of a ahip when they enrve inwards. The old ships fell home, or tumbled in (as it is called), much more than the modern ones, which approach more nearly to being woll-sided.

Fall River, Massachusetts, 46 miles S. of Boston, situatex on the Fall River, at its junction with the Tannton, which falls into Mount Hope Bay, a branch of Narraganset Bay. The harbor on Tannton River is asfe and easy of access, and has depth of water sutflcient for the largent ohips. Fill River has a large coasting trade, and is engaged in the whole and other fieberies. It has oxtennive cotton and woolen factories, bleaching-works, founderies, etc., and communicates regulariy with New York hy steamers, and with beston by railway. Pop. (1850) 12,680.

Faimouth, a seaport town of Engiand, on a hranch of the estnary of the Falmouth, 14 m. N.N.E. the Llaard Point. Lat. $50^{\circ} 8^{\prime} 8^{\prime \prime}$ N., long. $5^{\circ} 2^{\prime} 7^{\prime \prime} \mathrm{W}$. The harbor is formed by the eatuary of the Falmonth, has nunerous creek, and is about five milee in length and one mille in breadth. The entrance in defended by Pendennla and St. Mawe's castles, both luilt in reign
of Henry VIII.; and the former containing large ban racks, maganines, etc. Its position at the ontranee of the English Channel, has rendered. Falmonth for the lave 150 years a principal station for the foreign mail-peckete, and the grent rondeavous for fleets proceeding to the sonth and weat.
Onalse Eeel the timber added below the main keel, both to sorve an a defense, and also, by deapening the plane aurfine, to enable the ahip to hold a better wind.
7. Fan; a almple and well-known implement employed to produce coolness by agitating the air. Upward of 8000 years ago the artiat of ancient Egypt painted the fin on the walls of the tombs at Thobes, where the Pharaoh alts aurrounded by his fan-bearers. These offioore acted as generals or marshals, using their fans as atandards in war, and in peace thoy assiated the Pharnoh in the temple, and waved their varlegated fana both to produce a cooling breese, and to guard the sacred offerings from the contamination of noxloas Ihsects. The fan is mentioned by Euripidee, and its Grectan forme were far more beantifal than the Egyptlan. The wings of a bird joined laterally and attached to a slender handle, formed the simple yet gracefnl fan of the priest of Ieis, when Isis became a Grecian deity. It was sometimes formed of fanthers of different lengthe, apread out in the form of a semicircle, but pointed at the top. This fan, the precise type of the state-fan of India and China of the present day, was waved by a female alave. The fan is mentioned by T ence and Ovid; and was termed indifferently "flabellum" or "muscarium." When the Romans were at meala, it was the duty of certain slavee, when the weather was warm, to cool the room with fans and drive away the flies. The modern Greek church places a fan in the handa of its deacons to guard the offliciating priest and the elements from desecration. When the fan was brought to France by Catherine de Mediels, it was so constructed that it could be folded in the manner of those used in the present day. Fans in the luxnrions relgns of Louis XiV. and XV., shone with gilding and geme, and were ornamented with the pictures of Boucher and Watteau. At that time no toliet was eateerned complete without a fan, the cost of which was frequently he high an from $\$ 60$ to $\$ 70$.

In fan-making, the Chinese and French are the groat rivals, and may be sald to monopollze the supply of the whole world. In the iacquered fane the auperiority of the natives of China is fully admitted. These are unrivaled both in lownews of price and in originallty of deaign, brilliancy of coloring, and io general correctness of workmanshlp. In Chins the manufacture of fans is aimost entirely confined to Canton, Sontehon, Hang-tehoo, and Nankin. The fans of ivory and bono, and of feathers, are made exclusively for exportation to Rurope or America. Those used hy the Chinese are of bamboo, polished or japanned, and covered with paper. They are sold at from 20 cents to 83 per dozen, according to the quality of the frame and the design of the leaf,-E. B.
In France, fan-making has arrived at a high degree of perfection, and presents a remarkaile instnnce of the aublivision of labor. About twenty different operationa, performed by as many paire of hands, are necesaary to the production of a fan which aplls for less than ons halfpenny. The processes are not all carried on in the aame manufactory, but forn four diatinci branches of trade, directed by distinct masters; bnt the operativen usually work at home at their own housen. The frame-work of fans is moetily made in the department of Oise, where 2000 men , women, all chlidren are thus employed. The woods employed are chiefly plum, obony, lime, and eandal-wood; and the plercings which form ouch a general decoratlon to fans, are performed by minute saws, which the workman makes for himself out of plecea of watch-spring.

In one piercinge printing, of fans factorien
"The who finis the provi ployed 10 166 child of fans. Paris, it makers, feuillistes, fans made ployed $5 \%$ youths, an carn 4 frax men were and printe painters,' illuminator in twenty had incre number of change is a enpecially bossing thi chromo-lith period. By abled great tion of chea Chinese.
Farina.
Meal or flou and other se
Flaroe, 0 islands belo tween Icela miles northand $62^{\circ} 25^{\prime}$, The gronp c habited iela square miles principal isia Strömó, 216 649 ; Sand throughout o height, and leyg, or rat! bills rise alr or at differen arable magn sea perpendio tic forms, pre at every turn. The higheat of Strömō, w sea. The ror little varieiy atriking geo chalcedonies specimens of Coal is found and tarf is als

The climate are frequent a only summer eevere. It BC and the harb grain erop is tainty of the ripe condition state, the infle to be to the ou It to 60. The suited to the :

In one fan there are in some opecimens 1600 sawpiarcings in a square inch of mother-of-pearl. - The $^{\text {a }}$ printing, the colorins, the mounting, and the finishing of fans are montly condncted at Paris, where the fanfactories are on e considerable acalo.
"The number of fan-makers, or eventaillites (those who enich the fans which have been roughly made in the provinces), in Paris, in. 1827, was 16, who ompioyed 1010 work-people ( 844 mon, 500 wemen, and 166 children), and wold about $1,010,500$ franes' worth of fans. According to the Statistique our l'rndustris \& Paris, it appears that in 1847 there were 122 fan. makers, comprising chamber-masters, mounters, feullistes, painters, and colorem. The value of the fans made whas 2,526,816 francs. These masters 6 m pioyed 575 work-peopls ( 202 men, 264 women, 29 youths, and 20 giris). 'The workmen on the average earn 4 france, and the women 21 francs per doy. The men were for the most part copper-piate engravers and printers, lithegraphie draughtsmen and prigters, painters, and colorers ; the women wore monnters, iliuminators, painters, colorers and overlookers. Thus in twenty yeare it appears that the produce in fans had increased in value nearly threefold, while the number of werk-peopie had diminished one half. This change is attributed to the employment of machinery, especialiy of the fiy-press, in stamping ont and embossing the ribs, and the extensive employment of chromo-ithography, an art not practiced at the former period. By these means the French have been enabled greatly to increase their exports by the production of cheap fans, to compete with those made by the Chinese.
Farina. (Lat. far, corm, of which it is made.) Meal or flour, obtained by grinding and aifting wheat nd other seeds; hence the term farinaceous food.
Faroe, or Feroe (Danish, Färjerne), a group of iulands belonging to Denmark, in the North Sea, between Iceland and the Sbetland Isiands, about 200 miles north-west of the latter, between N. lat. $81^{\circ} 20^{\prime}$ and $62^{\circ} 25^{\prime}$, and between W. long. $6^{\circ} 16^{\prime}$ and $7^{\circ} 40^{\prime}$. The group consists of 17 Inhabited and several uninhabited islands, the former having an area of 490 square miles, and (in 1850) 8150 inhabitanta. The principal islands, with their populations, in 1845, were Strömó, 2162 ; Osterō, 1909 ; Sûderỏ, 1156 ; Vaggö, 649 ; Sandö, 528 ; and Bordo, 804. They consiat throughout of roeks and hilis, rising to a considerable height, end separated from each other by narrow valleys, or rather ruvines. Although, however, these hills rise abruptly, there are often on their enmmits, or st different atages of their ancent, plains of considersbie magnitnds. They everywhere present to the sea perpendicnlar cilff, broken into a thousand fantastic forms, presenting to those who saii aiong the coast, at every turn, the most picturesque snd varicd seenery. The higheat peak is that of Skeliingfeli, in the island of Strömó, which rises to about 8000 feet above the sea. The rocks consiat generaily of trap, and exhibit little varieiy of composition, though they present some striking geological phenomena. The zeolites and chalcedonies here collected have long supplied the best specimens of these minerale to the cabinets of Europe. Coal is found in Sudero and some of the other islends, and turf is abundant.

The cimats is moiat and foggy, and violent storms are frequent at all seasons. July snis Auguat are the oaly summer months, but the winters are not very severe. It soldom freezes for more than one month, snd the harbors are rarely ice-bound. The oniy grain crop is bariey; and on account of the uncertsinty of the weather, it is frequentiy roaped in a halfripe condition. Agriculture is in a very backward state, the infield, or cultivated land, being calculated to be to the outfield, or uncuitivated, In the proportion 1 to 60 . The plow is aeldom used, being in fuct ill suited to the rugged and uneven surface of the iand.

The ground is therefore turned up with the apade, care boing taken not to deatroy the roots of the grass. Horsen and cows are fow in number, and the latter glve very little milk, in consequence, probably, of the very coaree hay upon which they are fed. Sheep are numerous, and form the chlef riches of the inlanderssoms individuals having fiocks of from three to five hundred. The sheep are never housed sithor in summer or winter, and in severe seasons they anfiar coniderably. The wool is generally coarse, and is torn off the animala in so rough a manner as often to lacerste the skin. . The catching of the numerous hiris which build their nents upon the face of the cliffs, forms a great source of subsintence to the inhabltants. The persons employed in this hazardous trado display great ingennity and the most adventuroua spirit. Sometimes the rowler is let down from the top of the cliff by a rope fastened to his waist; at other times, where there is any footing at all, he climbs the ateepest rocks, or, where that is impoasible, he is pushed upward by poles made for the purpose. The puffin (Alca arctica) is the most commen of these hirds, and the elder-duck is here often sbot for food. The fisherles are important and valuable.

The monopoly of the trade of the Faroe Islands was for seme time in the hands of a mercantile house at Copenhagen ; but it has alow been assumed by government, and neither Dane nor foreigner is allowed to interfore. The trade is carried on between Copen. hagen and Thorshavn. The chief exports are hosiory, taliow, dried and salt fish, train-oil, feathers, akins, and butter. Thorshavn, the capital if these islands, is situated on the south-east side of th island of Stromo, upon a narrow tongue of land, having creeks on each side, where ships may be safely mevred. Population about 1500. The houses are built of wood, and roofed with birch bain covered with turf, the greenness of which makes it impossibie, at a very short distance, to distinguish the place from the surrounding fislds. The character of the people is generally mariked by great simplicity of menners, kindness and hospitality. They are well fed and ciothed, and seem to be kindly treated by the Danish government. The average duration of life, as atated by Dr. Panum, is 44 2-5 years; while in Denmark it is only 86. The language of the people is a remnant of the old Norse, but that of the courta, churches, and schools is the modern Danich. See Forow and Fuerom Reserala, by Lucas Jacomskn Denes, translated from the Danish into Einglish, 1675 ; Description of the Faroe Ielands, by the Rev. G. Landt, London, 1810; an account of their geology and mineralogy, in the Trans. of the Royal Soc., Edin., vol. vil., by Sir G. S. Mackenzir, Bart., and Thomas Ahlen, Esq. ; Den Danske Stats Statistik, vol. iv., 1858 ; J. Nichol's Account of Iceland, Greenland, and the Feroe Iales; Dr. Panum'e Official Report on the Diseases of Feroe, 1849, of which an abatract in vol. vii. of the Medico-chirurgical Review. Tie scenery of these isiands is well illustrated in a work entitied Cruises of the Yacht Maria, London, 1855.-E. B.

Farthing, a amall Engliah copper coin, amounting to $\frac{f}{f}$ of a penny. It was ar sientiy called fourthing, as being the fourth of the integer or penny. A farthing of goid, equal in value to the fourth part of a noble, or 20d, in silver, is mentioned in statute 9th IIenry V., cap. 7.

Fascines (fascis, a bundle), in fortification, faggota, or bundles of rods, or small branches of trees, bound together in several places. They are used for various purposes, such as raising batterien, filling ditchea, forming parapets, etc., and vary in dimenaions according to the purposes to which they are to be applied. Fuscines dipped in pitch are sometimes employed to fire the enemy'e lodgments or other works.

Fashion (Fr. facon; originaily from the Lat. facere, to make or form), a term used to algnify the
prevalling mode or taste in any country, the only recognized quality which it possesien beiag mutability. It may safoly be a verred that, in proportion to the Infiuence which fashion exercisen in any country may the claim to civilization be vindicated-nothing being eo characteristic of a rude and barbarcua state of oxintance as a rigid adherence to the curtomin of antiquity. The term fashion has generally been conaidered as applicable chiefly to the adernment of the person, in conformity with the provailing taste as introduced by nome individual of consideration in society; but it hat a much wider signification, being applied to the most trivial kind of conventional nsages, a disregard or ignorance of which is sufficient, in the syes of the rotariea of this tyrannical goddets, to banish the offender beyond the pale of civilized societr.
Fat, an olly concreto eabatance, contained in the cella of the adipose or cellular membrane of antmal bodies. Fat also deuotes a measure of capacity, bat indofinito. Thus a fat of ioinglass containe from 84 cwt . to 4 cwt ; of yarn, from 220 to 221 bundlea, etc. Fat, or vat, a large wooden tub or vessel nsed in breweries and tanneries; also as a measure for malt, containing eight bushele.
Fathom, a measure of length, six feet, ehiefly used for measuring the length of cordage, and the depth of water and mines.
Fayal. The Azores, or Western Inlanda form a range situate in the Atlantic Ocean, extending in an oblique line from north-west to south-east, between $87^{\circ}$ and $40^{\circ} \mathrm{N}$. lat., and $25^{\circ}$ and $82^{\circ} \mathrm{W}$. long. It has been a subject of some controveray amorg geographers, to what division of the globe they ought to be referred; hut they are now generally considered as pertaining to Europe. It does not appear that the anclents had any knowledge of the Azores, or of any group in this sea, except the Canaries, to which they finally applied the colebrated appellation of the Fortonate Islands. But the Arabian geographers, Edrisi and Ibn al Vardi, describe, after the Camariea, nine other islands in the Western Ocean. That these were the Azores is highly probable, since their number is exactly nine; and because a species of hawk la specinlly noticed by these writers as existing there in great abandance-a circomstance that afterwand appeared to the Portuguese so remarkabie, that they gave them the name of Azores, or Hawk Islands. The climate in which they are placed also makes them north of the Canaries. Some other coincidences also mighte de pointed out ; and, upon the whole, there appears mo renaen to donbt that the Azores are really the nine islands enumersted by the Arabians. The Aralian writers represent them as having been populous, and as haviag contained elties of some magnitude; but they state thet the lahabitants had been greatly redaced by inteatine warfare. At the tima of their diacovery they were uninhabited, and covered with forests and underwood, which havi now entirely disappeared.

The first European discovery of this group is claimed by the Flemings. A Flemish merchant named Van der Berg, is reported, in saliing from Liston, to have been driven upon thesa shores in the year 1439. The intelligence soon reached tha court of Lhabon, where it excited censiderabie interest ; and the pavigator Cahral was sent to prosecute the discovery. In 1459 the islands begen to the planted and colonized, and in so fertile a soil the inhabitants rapidly multiplied. In 1580 they fell, with the other Portuguese territoriea, under the dominion of Spain. At this time tha Azores were the grand rendey vous in the voyage homeward of the fieets, rhleit came laden with the wealth of both the Indies. Hence they became a theatre of that maritlme warfare which was carried on wlth such spirit by the English ander Queen Elizabeth against the peninsular powers. In 1586 Sir Walter Raleigh equipped two plinnaees of 35 and 40 tona, the
command of which he gave to Captain Whiddon. Having taken two or three prizes, they fall in, off St. Michaol, with the great fleet of Spanieh galleons, connisting of 24 eail, two of them carracks of 1000 or 1200 tons. They attacked them, however, without henits. tlon, hoping to eat of soms atraggling momber of this great body, but wore unable to make any impression upon It.' In 1687, Sir Francle Drake, after having awept the harbor of Cedia, aniled for the Azores, whore he took an Eact India carrack, richly laden, and the firat that had ever fallon into the hends of the English. In 1589 the Earl of Cumberland fitted out a squadron, sallod for the Azorea, and made numsmua prizeo. Under the active administration of Pembal, considerable exertions wore made for the improvement of the Azores ; but the stapld and bigoted government which followed rather ton' 2 d to destroy these benefte, and to make the bilande take a retrograde course.
Pherical Aopect.-The Asores within a recent period attracted some attention as the theatre of contest botween the parties contending for the crown of Portugal. The adherents of the constitation, whe sapported against Miguol the rights of Maria da Gloria, obtalned possession of Terceira, where thay succeeded is raintalning themselves. After various atruggles, Queen Maria's authority was eventually established over all those islands.
The aspect of all the islands is vory similar in genoral characteriatics, presenting an olevated and nindulating outiline, with little or no tablo-land, and rising into peakn, of which the loweat (that of St. Mary's) is 1889 feet, and the highest (that of Pico) 7618 feet above the level of the sea. Their lines of sea-const are, with fow exception, bigh and nrecipiteun, with basee of accumalated masees of falien rock, in which open bays, or acarcely more inclosed inleta, form the harbors of the trading towne. The climate is particularly ternperate and equable, the extremes of sensible heat and cold being, however, increased by the degrea of humidity present in the atmoephere. The rangs of the thermometer is from $45^{\circ}$ Fahr., the lowest known extrome-or $48^{\circ}$ the ordinary lowest extreme of Jan-uary-to $82^{\circ}$ the ordinary, or $86^{\circ}$ the highest known oxtreme of July, and near the level of the sea. Between these twe points (both takan in the shade) there is from menth to month a protty regular gradation of increase or decrease, amounting to somewhat less than four degreas. (Geographical Journal, vol. xv.) They have au aggregate area of 700 square milea, and in 1841 had a population of 214,300 . St. Michaal, the largest and most populous of thess inlands, has an area of 224 aquare miles and (1840) 80,809 inhalitants. Procesding from east to west, this inland presents a conaiderable variety of surface. The enst end rises from a bluff soa-clifr of between 1200 and 1400 feet elevatien, to a lofty inland paak from which a central range, varying in height from 9000 to 2500 feet, runs to the wentward, terminating h he Serra de Agoa de Pao, 3060 feet above tha sea. The eea-coast grudually doclines in approaching the last point, where it is not more than alout 100 feet high. The part next seen is lower, and its outline, as presented by the summits of namerous volcanic menticules of about 1300 feet elevstion, united in a central ridge more undulating; the western oxtremity being marked by the conapicuous Serra Gorda, 1574 feet above the sea; and its shores on both sides are low, broken, and rocky. Of tha remalning part the aspect is that of a vast truncated cone, irregularly cut off at an elovation of about 800 feet, and falling on the north, south, and west sides to a perpendiculur coast of between 800 and 800 feet high. The outline is varied by the intervention of peaks, thrown ap on the summit and flanks, and round the foot of the mountain. In the highar parte, the surfacs is generally covered with an undergrowth of heatis, cedar, laurel, laureatinus, and other evergreen shruis


Whiddon. in, off St. oons, con00 or 1200 at heaith. mprossion or having - Azoren, laden, and ids of the itted out a numersus Pombal, imprave oted govtroy these etrogrado

## ont period

 onteat be of Portnsupported , ohtained 1 in maines, Queen d over all arin gen. nd undu and rising Mary'b) is 7618 feet sea-const :ouk, with in which form the is particuf sensible he degree a range of est known ne of Janist known sea. Beails) there adation of ; less than r.) They nd in 1841 he largest rea of 224 Procued-consideres from a elsvation, al renge, uns to the a de Pao, dually do it is not xt seen is ummits of feet elevating ; the inspicaous 3 shores on te remain. d cone, ir feet, and to a perfeet high. of pesks, round the he surface of heatiss en sirrabsWhich give the mountains an excoedingly rich and wooded appearance." Like all volcanio conntrien, the face of the finfand is unevetiand irrogular, being deeply excavated by numerons ravines and roughened by atreame of semi-vitrified and scorlaceons lava that resiat all atmospheric infuencell and repel vegotation. Ifeavy rains falling on the mountains afiord a constant supply of water to four lakes at the bettom of extinct craters or auboidences, and a number of miner reservoirs; and through them to mall sireams running rapidly down on all sides into the sea.-Geographical Journal, vol. xv. See Huxr's Merck. Mag., 1806-6; Com. Rel. U. S., pp. 288, 284 : pub. by Dep. of State.

In the year 1891 a moot tremendous earthquake appears to have been felt all over the Azores, and to have shaken St. Micheol for twelve days without intermission. Since that period, there is ne record of any such great convulsion, excopt one in 1757, of which we have no particulars, and it was probably much leas formidable; nor are 'yy of its volcanoes at present in a state of action. \& ot springs abound in every part of the island, and from almost every crevice vapor is seen isauing. But the most remarkahle phenomena are the Caldeiras or bolling fountains, which rise chiefly from a valley called the Furnas, near the western extremity of the island. The water ascends In columns to the height of sbout 12 suet, after which it dissolves $\ln$ vapor, forming clouds of various shapes and colors. The heat is such as to boil an egg in two minutes, though the sulphureons impregation unflts it from being employed In culinary purposes. The ground in the immediate vicinity is entirely covered with native sulphur, like hoar frost. At a small distance is a remarkable phenomenon called the Muddy Crater, the vertex of which, 45 feet in dlameter, is on a ieval with the plain. Its contents are in a state of violent and continual ebuilition, accompanied with a sound resmbling the waves of a tempestuous ocean. Yat they never ripe above its level, unless occasionaliy to throw to a small distance a epray of the consistence of melted lead. The Furnas aboonds also in hot springs, some of which it is impossible to touch without being scalded. There is almost always, however, a cold apring near to the hot one, so that the water can be brought to any temperature that may he desired. These springa, after being long neglected, have, within the last half century, been greatly resorted to, and the cures performed in cases of paisy, rheumatism, and similar maladies, are said to have been very wonderful.
The pisins are fortile in wheat, harley, and Indian corn; while vines and oranges grow inxariantly on the sides of the mountains. They are made to spring even from the interstices of the volcanic rocks, which are sometimes blasted in order that they may receive the plants. Raised in this manner, there fruits are said to be of superior quality; but the great expense originally required in such a mode of cultivation confines it to persons of some capital. The western part of the island yields hemp, which might be raised to a considerable extent. The exports consist of wine, fruit, and provisions. Foreign intercourse nsed to be confined rigorously to Iishon; but since the emigration of the court, the inhabitants have assumed the privilege of trading directly with England, America, and other countries. The principal town on the ioland is Ponta Delgada, which contains about 20,000 inhabitsnts. It is built with tolerable regularity, the streets being atraight and hroad. The religious edifices are numerous and elegant. When visited by Captain Boid in 1831, it had six charches, aight monasteries, snd four convents; but these last, which were noted for the irregniar lives of their vestala, have since been suppressed. The harbor receives only small vessels : those of any magnitude mast anchor in an open road, which, theagh not dangerous, can not be occupied laring the prevalence of southerly gales. Its other
town are Villa Franca, Ribeira, Grando, Alagna, Agon de Pao, etc.

Sl. Mary,-St. Mary is a emall island immediately adjacent to St. Michaol, through the medinm of which Ite trade is conducted, an it has no good harbors of its own.' It has an area of 88 equare milles, producing wheat in abundance, of which a conalderable quantity is exported. "It is of trap formation, and contains beds of marine shella. Population in 1840, 4666.
Terceira.-Terceira, though smallor than St. MV chael, yet beligg placed in a mom central positlon with respeet to the other islands has been chosen as the seat of government. The port of Augra is also superior to any of those in St. Michael. This taland dow not exhibit nearly the same extenaive tracee of vol;anio action ; and the aummits of its mountains are finerally level. It is represented by Adsnson, however, as entirely composed of volcanic producta. The lava, he says, is of a thicker grain than that of Teneriffe." It abounds in grain and cattie ; but the wines are inferlor, and the fruits are raised meraly for internal consumption. The residence of the government renders the society somewhat superior to that which is fonnd in the other ielands. The namber of inhabitants Is estimated at 50,000 .

Fayal.-Fayal is the most frequented of all the islands after St. Michael, as it has one of the best harhors in the Azoren, and lies direculy in the track of vesseis that are crossing the Atlantio in any direction. Its principal town is Villa de Herta. Captain Cook fonnd that all sorts of fresh provisions might be obtained there; the bullocks and hogs are prod, but the sheep small and poor. The town is defonded by two casties and a wall, both in decay, and eerving rather for show than strength. The city contains two convents for monks and three for nuns, with eight churches. These are the only good buildings in it, no other having glass windows. The bay is two miles in length and three quarters of a milo in breadth, and the depth of water from 6 to 20 fathoms. Thongh a good road, it is not altogether free from danger in S.S.W. and S.E. winds. Population 23,000.

Pico.-A considerable quantity of wine is shipped from Fayal under the appellation of Fayal wine, but realiy the produce of Pico, one of the most remarkable of the Azores. This island is composed of an immense conical mountain, rising to the height of 7613 feet, and hearing every trace of volcanic formation. The soil consiats entirely of pulverized lava, and the ground has even heen said to sound hollow when strnck. All the lower parts of the mountain are in the highest state of cultivation, and covered with vine und orange plantations. The wine, which forms a sort of inferior Madeira, is in considerable demand. Pico produces also a valuable species of wood, resemblligg and equal in quality to mahogany. Population 26,000.

Graciese and St. George are two small islands, sitnated between Fayal and Terceira. Graciose is chiefly noted for the extreme heanty of its aspect and scenery. About fifty years ago St. George suffered from one of those awful vigitations to which the Azores are subject. In 1808 a caldeira, situate in the centre of the isiand, was observed to be in a state of violent fermentation. It continued during several days to emit subterranean noises, and to cause violent convulsions throughout every part of the island. At length the great crisis came; vast streams of fire iasued forth in every direction, with cloude of smoke, which, but for the volcanic light, would have involved every thing in midnight darkness. The principal stream took its direction toward the beautiful town of Ursula, which it eeemed on the point of swallowing up; but auddenly changing its direction, it rushed into the sea by a different channel; a happy event, which superstition ascribed to the prayers of the Ursuline nuns. Many hundred acrea of fertile land, however, were covered with scorim and

## FAY

achen; some liven were lost, and goveral gloom and consterantion diffused throughout the inland. The ine hablinate, howover, wom applied thomeelves to repair the injury which their land had austained. Population abont 20,000 .
2. The two mall and mot wemorly lilands of Corvo and Blores coom but happerfectly to bolong to the gromp. They lie aleo ont of the usual track of navigetors; bat io thoee tha, miooing theis course, are lod hither, Elorm affords goed shelitar in its numeroua baye. Its poultry le said to be the fanest in the world; and the catcle are numeroun, bat amall. Thu surplua prodmoe of theoe thlands is not of much importance. Population above 15,000.
Commeroe of the Asores with the Unied Blates.A comanunication to the Dopertmec: of State, dated Fayal, April 8d, 1857, lemones the inability to announce any improvement in thu commerce between the Azores and the United States. Tho vintages of 1855 and 1856 wors so much lajured by the "odism," both in ragard to quatitity sod quallty, that no wine has boen shipped abroad, and the quantity yet momaining of formor vimtagoe in oxcoedingly amall. $\subseteq$ From the Ioland of St. Michasio there were shippod last season, juat ondod, an amount equal to 800,000 sicily boxes of orangen, sbout 40,000 from Terceira, and shout 5,500 from this illand; and of all that quantity onily about 1,500 boxes were shlpped to
the United Statea. Shipmonto have been A. de on a lavger soale, but the results h; ve been unfuvorable; the vemels having to contond with almont conatant galoy of coatrary windo, and the frult boints of a more parishable nature than that of Slelly, Spaln and Portugal. The importation of ceveals will awell the amount of importa, but it will be very aphomeral, and the porta vill be closed as soon as circumatancen will permil.
The ceat of government of the Asores lu at Angra, In Tarceira. Ponta Dolgada, In St. Michaels, is, however, the chief commercial city. The exports of corn from the Asores from 1835 to 1841, principally to Portugal, are given in the following table:

| Years, | Quanilice. $\mathrm{Vr}^{-1}$ | Values. |
| :---: | :---: | :---: |
| 1835. |  | 299,280 |
| 1436. | $11,090=88,840=885,20$ | 872, 965 |
| 1897. | 0,505 = 18,005 a 182600 | 180,711) |
| 1888. |  | 448,75 |
| 1809. | 4,890 $=14,670=117,860$ | 112,625 |
| 1840 | $19,138=86,459=291,079$ | 811,025 |
| 1841. | $0,000=87,000-816,000$ | 835,000 |

The oranges exported in 1801 amounted in value to 850,000 ; in 1820 , to $\$ 125,000$; and in 1840 , to $\$ 450$. 000. For five years, onding with 1840, the average annual value of exports to Portugal was $\$ 215,645$; to foroiga countries, $\geqslant 260,815$. Avorage anaual value of imports during the aame period, from Portagal, $\$ 266$,600 ; from foreign countries, $1307,110$.



The harbor of Fayal is the beat in the Azores, and greater facilities are offersd to ahipa in distress, by affording rofuge or supplies. American whalers frequantly visit Fayal, and deposit large quantities of oll, to be transhipped to other porta, amounting annually to a value of upwarl of $\$ 300,000$, moot of which If forwarled to the markets of the Uniter Statea, The direct imports fron the United States to the Azores consist chiefly of timber, ataves, heads for bognheads, etc. The duties on tumber and staves are moderats. Oa cut nalis they exceed 100 per cent.,
and on window-glass they rise over 300 per cent. American cotton manufactures are in good demand, and during the past fow years have competed advantageously with those of Great Britain. The commercial regulations differ but little from those of the mother country. Foreign vessels, bringing the productions of the constry to which they belong, sad coming from the ports of the amme, are sdmitted en the same footing as Portuguese vensela. When laten with the produce of other countries, thoy aro subject to a differential Juty of 15 per cent. There are no
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tonnage duties, light, of hompital ties, lovied un ahipping the Aisoren. The entire chargee to which vessel is aubject amount to $\mathbf{~} 1980$, whiek to ralsed to 02840 if the veesel has oroesed the equator. The navigation of these lolands omploges abont 8,000 tona in forelgn and coasting trade. The latter ta carried un with Lisbon, Madelra, and the difforent ports of the lifiande, and is reatricted to national vensela. In 1952, 77 vesaels, with a tonnage of 8,780 tons, entered these isiands ; of whioh number 8 wore Amerjean, with an sggregate tonnage of 1,800 tons.

The chief inconvenience to which foreign tonnage is auljected in these lalands, arines from the inconsistant and arbitrary sanitary reguiations, which emanate from the home government at Lisbon, and which preciude all discretionary power on the part of the local anthorities. For instance, ahenid the Portugueae consul at New Orleans notily his government that the yeliow fever prevalle in that city (asy in tha month of Sept *-nher', oders are immediately forwarded by the Board of Ifealth at Liabon to the authorities of the islands to consider that city as infected. These orders, by the ordinary mole of conveyance, will not reach the islands antil the following January ; and notwithstanding it may be netorions that the fever cassed in Octoler or November, a veasel that should srrive at Fayal, having left New Orleana in January, or later, would not be admitted, even ahould she be provided with a ciean bill of health, certified with all furmaity, hy the very aame conaul who had reported to his government the existence of the aickness ! This reguiation frequentiy exposes Amorican captains to great inconvenience and conaiderable loss.-Com. Rel. U. S.

Featherw, Bed-feathers (Fr. Plumes, Mlumea à Lit; Ger. Federn, Betf federn; Du. Bedveern, Pluimen; It. Jiume; Sp. Plumas), make a considerable article of commerce; particulerly those of the oatrich, goose, heron, swan, peacock, and other pouitry. The feathers of the ostrich have been held in the higheat eatimation from antiquity downward, and have furmiahed faverite decorations for thie funs and head-dressen of ladiea, the heimets of warriors, and the most splendid processions. Misny parts of Great Britain supply feathers for beds ; and an inferior sort ia brought from Ireiand. Fiderdown, the finest variety of its clasa, is imported from the aorth of Europe; the ducks that aupply lt being inhalitants of Greenland, Iceland, and Norway. The cider-duck breeds in tise isiands on the west of Scotlaad, bat not in anfficient numbers to form a profitable branch of trade to the inhalitants. Kudson'a Bay furnishes very tine feathers, especially for quilis. The down of the awen is brought from Dantaic, as well as large quantities of auperior feathers.

Ostrich and other Plumes.-The long feathere of the wings and the tail constitate the ordinary ostrich plume. The animal is captured and kilied with much care, to prevent any injury to the piumage. The feathers are aorted lnto various qualities, acoured or cieuned, lieached, dried, ahaken, and opened, tho rlbs scraped with a bit of glass, the filaments made to assume a cariy form by acraping, dyed or not, according to circuastances, and adapted for the adjustment of military hats or other garinents. Thote in England who are versed in the heraidry of pomp and formality would know the estrich plames worn by the Knlyghte of the Garter or the Knights Grand Crosses of the Bath from the court pinmes adapted for ladies, and the biack plumes for officers of the lighiand regiments. In recent years, means have heen devised for imparting brifiliant dyes to ostrich feathers, several different coiory to one feather, gradualiy shaded or bienderl one into another. Then, besidea the ostrich, We have the feathers of the marabout, the lbis, the bird of paradise, the vulture or rhea, the emu, the heron, the plotus, the agret, the pheasant, the peacock, the turkey, the swan, the eagle, and some other birds
-all appicied ac ormaments to dress, Some of these are very coetly : some are used almont exclusively for one particular purpose, while others heve their fashlonable and unfushionable perlods in the publio favor. Some of the marebout feathers are knotted with gold, to make a costiy trimming for dresees. The omu feathers are more worn on the Continent than in England. The heron festhers, worn by the Knighte of the Carter, frequently coet 50 guineay the plume, and sometimes above 100 guineas, on accornt of their scarcity. The large egret feathors are worn by the IIusmara.

Feoamp, seaport town in France, departenent of Seine-Inffrieure, situated on the English Channel, at the month of a amall cognominal river 28 milea N.N.E. of Havre. Population about 10,000 . It occupies the bottom and sides of a nerrow valley opeaing out toward the sea, between two clifis, on one of which standa a light-house. Its port, though amali. is oue of the beas on the Channel, and has lately been greatly Improved hy the conatruction of en inner port, with a fine quay, etc. It carries on a considersbla trade in Baltic ind colonial produce, brandy, salt, ete. $;$ and sends op ${ }^{4}$. opsela to the whale, cod, mackerel, and herring' aries. The river affords abundant water-power for numerous cotton, oil, and other milis. Fécamp has also sugar refineries, tanneriea, building-docka, and manufactures of hardware, candles, soda, te. The town conaiate aimost entirely of one atreet upward of two milea in length.

Feejee Inlands. These islands constitute a gronp in the South Pacific Ocean, farorabiy situated for the whaing interests of the United States, if the habita of the natives did not render it unsafe for whale-ehips to enter any of their porta, unless under the protection of a man-of-war. The group consista of $15-4$ inlauds in all, 65 of which are inhabited, and containa a population estimated at 134,000 zoule. The principal ielands are Viti Levu and Paou, or Sandal-wood Ialand; others are Vuna, Kandaboo, Ovolau, Bau, Mathuatu, and Gore ; each of the isiands containing from 5,000 to 13,000 inhabitants. Sandal-wood was formeriy a leading production of this group, bat it has now entirely dissppeared. The great fertility of the soil, how gver, und the low price at which veasels could recruit their stores, and olitain supplies of freah provisions and excelient water, taken in connection with the fact that the whaling interests of citizens of the United States in that quarter involve annuaily from aeven to eight millione of dollars, show how important this group might becor - to American whalers, if they were only strong enough to prevent or reeent acts of piracy and plunder.

An official commnnication to the State Departnsent, under date of January 1,1854 , says: "The chief and inhabitants of luu (at present the controlers of this group), causing the destruction of property nt Lavuke, live by the fruits of begging, theft, and robbery-one unbroken series of robleries and butcheries. In default of justice, these men escape." When our whalers are fortanate onough to escape from the atrocities above described, they can obtain a full supply of ali deacriptions of vegetablea, pork, poultry, etc., for an entire crew for about $\$ 66$, in trade. The same communication farther informs the Departntent, that American vessels are actualiy driven away from this archipelage, the natives being emboldened in the perpetration of these acts by the absence of American vessels of war in any of their ports. During the past year (I855) an American ship of war, the John Adams, visited the Feejee Isiands for the purpore of Inquiring into, and demanding reparation for, the cruolties and acta of piunder and piracy committed by the natives upon Aluericun sihips trading and fisining in the Feejeean archijelage. The result of this visit, it is beiieved, will put an end to the atrocities of these savagea, and seeure a safa and commodious retreat for Amerioan whalers in those distant eeus. It is understood that
this security is guarantied by a comvention or treaty agreed to by Tul Viti, the klug of the ialands. Thare are no quarant lae regulationa obeerved at any of these lalanda, and coneequeatly no bllis of health are required. Passengers are subjected to no port or landIng requirements, and are at liberty to go ashore when and as they plase.

There are no custom dutiee, nor are there asy light, hospital, or other dues or taxes exacted. For pilots, the ehsrges are auch as enn be agreed upon. It has been already etated that this group of islanda afforde a convenient and excellent etopping-place fur our whaleshipa engaged in their hgeardous and laborious toil In the South Pacific seas. It should be added, that our trading ahlps generally, in that quaster of the globe, could beneficially call at these islands, partictarly if freighted with miscellaneous cargoes of cotton goods, weapons of war, cutlery, and other similar vares suited to the barbarous and remi-civilized nutives, could they lut be taught to pay proper respect to the American fag. During the three years ending with 185il, the exports from the United States to the Feejee Islands amounted, in the aggregate, to 9136,000 , viz. : in 1851 , to $\$ 32,000 ; \ln 1852$, to $\$ 54,000 ; \ln 1853$, to $\$ 50,000$. The merchandise received lin barter for American imports consiat of blehe-de-mer, tortolse-shelf, gums, nrrow-root, and cocounut-oil. The exports from the United States consist of assorted cargoea, and the annual value may be estimnted from the preceding figurea, us the trade is almost exclusively one of burter, In which the American shippers usually realize 250 per cent. profit on their merchnntise. Duriag the last six monthe of 1850 , there arrived at the port of Lanthula five American vessela, including two whlps of war (the John Adams and the Sf. Mary's), measuring, excluslve of the two latter, an aggregate of 1 tis tons. Three whale-ships also touched at the islunds during the same period. The inward cargoes of two of the merchant vessels referred $t u$, mounting in value to 84000, consisted of general cargoes, of which was lunded, in value, 8000 . The remaining vessel was laden with outfits, storen, and whaling-lines, vilued at $\$ 30,000$, none of which was landed at the islands. The outward cargoes consisted of lische-de-mer, 1500 pecals, and shella, 1000 pouds, valued at $\$ 11, t h 0$. One of these vesaels made a voyage to Siviney with yams, cocounut-oil, and live stock, while the natives were collerting her eargo of biche-de-mer,-C, 1).-('um, Rel. U.S.
Felt, a kind of stuff resembling coarse cloth, mado of halr or wool, without weaving. 'The fur of the hare, rabhit, seal, leaver, and the wool of the sheep, are the materials chietly used tor maklnge elt. The hairs and loose flocks of wool are thoroughly mixed together ly an operation called boring, which depende on the vibrations of aus etastic atring; when, in consepuence * their anatumical atructure, they become matted tonsine r.

Teited Cloth. Thia woolen fabric in innde: .tat "phaning or weaving. J'arnished or Japanneaf Fedt in made by imbuing the stuff of coarse but landies with d. Abg wil, prepared lig hoiling in lba, of linseal oil wi,d whalte leal, litharge, nind umber, of earli one prond. The felt is to be dried in a ntove, and chen palinhed by pumberentone. Pive or aix coats of oill are raquired. The surface is at last varmished. When the oliject is intenidel to be stifi, like visors, the falirie is to be impreganteil firat of all with tlour-paste, then
 with the drying-sil, and pumivel ropeatedly; lasty, placed, to the number of 20 , In a hot iron molil, and exposed to atrong presaure. Japanned hats made in this way are soll in France at la. 8d. a piece ; and they will stand several years' weur.

Felting (Fr. feutruge; fier. Filzen), la the process by wheh loose flotks of woul, and bairs of varione atlnimale, an the beaver, rablit, hare, ete., are mutually
interlaced into a compact textle fabric. The first etep toward making felt is to mlx , in the propor proportions, the different kinde of fibres Intended to form the atuff $;$ and then, by the viliratory strokes of the bowntring, to tosa them up in the air, and to causo them to fall ss irregularly as possible upon the table, opened, apread, and ecattored. The workman covers thin layer of loose flocks with a plece of thlek blanket stuffalightly molstened; he preasea it with hile hands, moving the halr backward and forward In all direc. tions. Thus the different flbres get interlaced, by their ends pursuling ever tortuous paths; their ver. meular motion being always, however, root foremost. As the matting geta denser, the hand preasure ahould be increaad, In order to overcome the lneressing resletance to the decussation. A first thin sheet of seit, spongy felt belng now formed, a second is condeused upon it in like manner, and then a third, till the requisite strength and thlekneas be obtained. These different piecea are successively brought together, thaposed in a way anitalle to the wlahed-for articlo, and united by continued dextrous pressure. The stuff must be next aulijected to the fulling-mill.

Felling Timber. In arboriculture, when a fullgrown tree is cut down, it is suid to be felled ; but thls torm is never applied to young trees or bushes, undergrowth, or hedges, which are said to be rocted out or cut over. Duch has been written respecting the proper season for felling trees; some arguing in fuvor of inid. winter, and other in favar of midsummer. The questhon principally turns upon the quantity and the value of the soft or outer-wool lin the trunk of the tree to be telled, known by foresters and earpenters ns the sap. Aa this sap or outer-wood is the only portion of the tronk in which the sap or juices of the tree circulate, it is evident that if no value be set upon it the tree may he cut down ut any season, hecause the truly volmulle jart of the trunk, the maturo timber, is impermenlile to the sap in tis ascent through the soft wood, and la, therefore, In the same stnte at every scason of the yeur. On the other hand, where much value is attached to the soft o. outer-wool, where thia outerwood is wished to be mude as valuable as possibide, er where, an $\ln$ the ense of comparatively young treca, the greater part of the trunk consists of sap-wow, felling ought to take place when there is least sup in the course of circulation. This seanon is, withont donlt, milwinter, which, all other circmmatances bellfe rqual, is uncuestionably the best seasen for felling timber; the next best leing midsumuer, when the sap is chictly confined to the young shoots, the circumfurence of the suft wood, sind the bark; as the worst is the spring, juat before the dovelopment of the buis, when the treo is fullest of sat, and receiving constantly fresh suphies from tho root; and in autuun, innmedintely before the fail of the leaf, when there is a muperabondance of sap, from its leing as it were hrown out of employment by the falling of the laf. In generul, all the suft woods, anch as the elin, lime, poplar, willow, ete., shonlal he felleal during winter; hard woola, like the oak, leech, anli, ete., when the trunks aro af large size, and vulued chietly for their hart-wool, may be felled at any time. See articles IIIy llot and Wineil.
Felucca (Ital. filuca), a little vessel with oars and lateen salos, common In the Meliterranean. It has a rulder at tho atem and another at the stern, to Le apllied as occanion requires.
Ferment (lat. fervec, I hoil), the aubstance which Is essential to the process of fermentation. It ts wither naturally present in the fermentable juice, as in the grape, or it ls mided, as in the manufacture of heer, where youst constitutes the ferment. Ferments are of an albuminous or glutinoun character; the presence of nitrogen aeema casential in their compoaitlon, hence they are clased by chomists among azatized compounds. Their modus operand is still unexplained.

Fermentation (Lat.) When certain vegetable substnnces are disaolved in water, and subjected to a the temperature (between $65^{\circ}$ and $85^{\circ}$ ), they undergo $n$ series of changes which terminnte in the production of alcohol or spirit ; these changen constltute the phenomena of vinous fermentation. Sugar nnd some ferment are essential to the process; and during the formution of the alcohol the sugar disappears, and cartonic acid is more or less abundantly evolved. The simplest case of fermentation ls that of must, or of the expressed julce of the grape, which, when exposed, either in close or open vessels, to a tomperature of about $70^{\circ}$, soon begins to give off earbonic aedd, and to become turbld nnd frothy; aftor $n$ time $n$ aeum collects upon the surface, and a sedinent is deposited; the liguor which had grown warm gradually cools and clenrs, Ioses Its aweet taste, and is converted Into rine. The chief component parts of must are water, sugur, muelnge, gluten, nnd tartar. During the fermentation cartonle acid escapes, the sugar ilsappeara, and with it the greater part of the mucilnge; the glaten chiefly forms the seum and a portion of the sediment; and the tartar, originally in eolution, is thrown down in the form of a colored deposit. It aprears, therefore, that the new producta, which nre aicohol nod carbonic acil, are prinelpally formed nt the expense of the angar; nud Giny Lussac's experiments have shown that 45 pounds of sugar are resolved, in the process of fermentation, into 23 of nlcohol nud 22 of carbonic ncid. Sugar and water alone will not ferment; the ingredlent requisite to the commencement of the change is the gluten, which aboorhs in tho first instance a little oxygen from the air, hecomes insoluble, and induces the aubrequent changes. The reasons why grapes never ferment till the juice is expressed, seems to depend upon the exclusion of air liy the husk ar membranes; and if grapes he brulsed in a perfectly* close vessel, encefully excluding oxygen, the juice undergoes no ehnnge; so that the mere breaking down of the texturo of the fruit is insufficient. Hut a very short exposmre of the pulp to alr in sufficient to induce that change in the julce which leads on to fermentntion, and which is afterward independent of the further contact of air, the evolution of carbonle acill helng excluslvely referable to the decomposition of augar. In beer the alcolol is derlved from the sugar, origitul and produced, of the malt. When wine ls exposed to air and a due tempernture, n second fermentation ensues, which is called aretons formentution, and which terminates in the production of rinegar. During this process exygen is nbsorlied, and more or less enrbonie acil in mort enaes evolved; but the apparent canse of the formation of vinegar is the aliatraction of hydrogen from the nlcolol, so ne to leave the remaining elements in such proportlons ns to constltute acetic aciid. Thus alcohol is theoretionly constituted of eharcoal, water, and hyidrogen, and ncetie neld of charconl and water only; the oxygern of the alr, thasefore, converts the hydrogen of the nlcohol into water, and ao effects the change into vinegrar.

Fern, or Farn Islands, a group of small istets or rocks, 77 in mumber, lying off the const of Northumberland, lut included in the county of Durham. There are two light-lousen on these islanis. It was here, In [ 238 , that Graco 1)arling ard her futher, in stormy wenther, reseued the passengers of the Forfarshire stemmer. The lern lalands noe freguented by lunmense numbers of sea-hirils.

Fernando de Noronha, an islund in the South Atlantic, lying about 70 lengues from tho const of litazit. It is ahout 20 milea $\ln$ - circumference, and the surface is rugiged nnil motint ninous. It has sevemal harbork defended by forts, sud serves an a place of lunishment for criminals from Ilrazil. N. lat. $3^{\circ} 80^{\circ}$, W. lonts. $32^{\circ} 28^{\prime}$.

Fernando Po, or Fernao do Pao, an laland un the west coast of Africa, lying in the light of llenin,
about 20 miles from the mainland, in N. lat. $8^{\circ} 25^{\prime}$, E. long. $8^{\circ} 50^{\prime}$. It in about 44 milles in length from N.N.E. to S.S.W., nnd about $20 \ln$ breadth. 'The coasts are ateep and rocky, and the interior is mountalnous. A ridge of mountains toward the centre of the inland rises to the height of 8000 feet, and is terminated at each extremity by a peaked mountaln, the one nt the northern extremity nttaining a helght of 10,700 fert. The seuthern extremity of the Inland is also Intersected hy soveral ateep mountains, varying from 1,000 to 8,000 feiet. These mountains are covered, mest of them to their summits, together with the intervening valleys, with dense ferests of shrubs and lofty trees of luxuriant growth. The rocks are of volennic origin, nad the soll in rich and fertilo, producIng rice, sugar-enne, cotton, tobuceo, yams, palma, etc. Sheep, gonts, fowls, turtle, and fish, are abundant. The climnte is silubrous, though the ralny senson lasts from Mny to December, nnd is succeeded by a sensen of denso fogs. The harbors are small, the largeat heing Port Clarence on the northern shore. Thla island whs discovered in 1471 by a Portuguese navigitor, whose name it bears. It was taken possession $0^{\prime \prime}$ by Spain in 1778, but nbandoned in $\mathbf{1 7 8 2}$. The lingll h in 1827 formed a settlement here, but relinquinhed it in 1834; the Spnninrda reanmed posseanion of it in 184.1, und have given the name of Puerto de Isabel. The native pepulation is estimated at about $15,000$.

Ferrol, a seaport town of Spain, province of Coruña, and ome of the first naval nrsennls in the kingdom, is sitmated on the N. nrm of the Day of Betanzes, 12 miles north-west of the town of Coruna. The hnrhor, which is one of the best $\ln$ liurope, is deep, eapaclous, nud secure ; but the entrance, which la a strait about two miles in length nt the nhrrowest part, onlynimits one ship at $n$ time, and is comnanded on either side ly strong forts. The town is protected on the land-side ly a wall, on which 200 eannon might be mounted. The dockyanl is divided into two parts, the outer being the amuller, nnd the whole oceupying n space of more than 115,000 square yards. Behint the Inner dock nre the dwellings of the oparutives, and in the north nngle are the founderies, rope-walks, and magazines. They nre nll, however, as well as the arsenal, in a noglected and rulnous condition.

Ferry (Germ. nnd Sax. fuhren, to pass over), in law, n right arising from royal grant or preseription to have n loat to carry men and horses nerose a river, and to levy reasomable toll. The land on both sides onght to belong to the owner of the ferry-bonts.

Fescue grass, it valualite grass for mondows and pastures. (iestuce pratensis, lin.$)$ In deep, rich soils, somowhat moist, it is consldered ns the most bulky and nutritive of all grassea; but in poorer aoils it is equaled, if not aurpuased, liy the rye grass (Lolinm prrenne), and the meadow foxtail grasa (Aleopectrus prutensis). The meadow feacue growa to the height of leetween 2 and 3 feet; but the sheep fescue ( $F$. mermet, and several other species, seldom grow nlove G lncher or a foot in heiglit, and are chietly sown on sheep pastures, nuil used to lay down lawns and grissy anrfaces to be mown in pleasure grounds. All the faseues are peranifuls.

Fes, in extensive comintry of Africn, nud at one time the mont fourishing kingilou in the northern part of that continent. It now, however, forms a provinco of the empire of Morucoo. F'ez, or Fas, the enpital of this kingionn, was built in 793, A. b., ly n a prinen named bidris, and having somon risen to be n city of the first magnitude, beenme the capital of the western Molimmmedaus stites. In the 12th century it is mald to have contained 700 temples and mosks, und other public edilices, a ntmber of whld were erected upon a magulficent sealo, nod ndorued with a profusion of marlile pillara. 'The manufacturea of Fez consint at' woolen hhelks, sushes, and sllk hutulkerchiefs, wlipuers
of good loathar, which thay tan romarkably well, red |the 13th century; but the date of thair jatroduction is folt caps, woino coarse linen cloth, fine carpets, a ourious kind of earthenware, weapons of several kinds, saddliens' ware, joweliry, and oopper ntensilis. The arts here find little oncouragemeat, and are, indeed, far inferior to those of Enrope, oxcept in the proparation of leather, and in the fabrication of carpets and of hhaliks, which the manufucturers know how to waave as fine and as tranaparent as gauze. They are aleo expert workere in wax, weapona, and harness.. The heat during the aummer is vory great; bat in other seaeons of the year, particulurly winter, the climate is agreeable. With rogard to the number of inhabitante, much difference of opinion prevails among travelers.

Fibre (Lat. fibra), a fine thread or filament ; a fine slender body, such as those of which fiesh, nerves, plants, roots, otc., are composed. In our manufuctures vegetable filaments and fibres are among the most important of the whole earies of raw produce; furnishing thread, cloth, condage, and the like. For theae purposea the fllamentous parts of the Gossypium Cannabio, and Linum; or cotton, hemp, and lax, are used. The fibres of other plants have peen employed in different countrica for the same usea. Patrefaction deatroys the pulpy matter, and leaves the tough filaments entire, Different kinds of cloth are prepared in the East from the fibses of the bark of certain trees bolled in a strong lye. Some of thene clotha are very fine, and approach to the softness of ailk, but in durability fall ahert of cotton; othera, again, are coarser and atronger, and much exceed cotton in durability. See Flax.
Fid, a short har of wood or iron put through the heel or lower part of a topmest, and resting by its ends on the trestletrees, and on which the mast is therefore aupported. When the topmast is to be gut down, it is firat lifted to take the pressure off the id, which is then withdrawn.
Fid, or Bplicing-fid, is also a sharp cone of wood for opening the stranda of rope.

Fiddles, or Violins (Ger. Violinen, Geigns; Du. Vioolen; Fr. Violons; It. Violini; Sp. Violinea; Rus. Skripizii), musical instrunents, too well known to need any particular dencription. The finest-toned violins are those made in Italy; they are nsually called Cremonas, from the nume of the town where they were formerly manufactured in the highent perfection; $\$ 500$ and more huve not unfrequently been given for a firat-rate Cremona violin.

Fige (Ger. Feigen; Du. Vygen; Fr. Figues; It. Fichi; Sp. Higos; Lat. Fïci, Carico ; Arub. Teen), the fruit of the tig-tree (Ficus carrica), a native of Asia, but early introduced into Europe.

It flourishes in Turkey, Greece, Frunce, Spain, Italy, and northern Africa, and even somotimes ripens its fruit in the open air in this country. Figs, when ripe, are, for the must part, dried in ovena to preserve them; and then packed very closely in the small chests and baskets in which wa import them. The leent come from Turkoy; those of Kalamata, in the Mores, are euld to the the most luscious,-Tromson's Diapensentory.

Dried figa form a very conaiderable articie of commerce in Provence, Italy, and Spain ; Bendidea affordiag, as in the East, a principul article of sustenance for the poppubtion. In Spain, tige are ehiefly exported from Audulumia and Valencla; but they ure more or lean abumiant in overy province. In the northern parts of lirance there are many ilg gardena, particularly at Argenteuil.
Figure Head. The figure, atatue, or bust, on the projecting purt of the head of a ehip, called the cutwater.
Figures, in Arithmetie, are the numaral characters, or ton digit , by which nuasbers are expressed. Thoy are aupposed to be of Indian origin, and to have been Introluced into Europe by the Moorn of Spain in
much dispated.

Filbert, or Filberd, the well-known fruit of the cultivated hazel nut, or Corylus avellana, is a seedvensel inclosed within on involucre or cupule, which is the part commonly called the husk. This organ is of the same nature as the cup of the oak, and the prickly case in which the nuts of the sweet cheatnut and the mast of the beech are inclosed. In the filbert it is much larger than in the common nat; and it is this character, together with the lengthened figure of the nut, whinh distinguishes the two races of nuts and filberts. The hest hnown varieties of the filbert are the red, the frizzled, and the white, the latter being the kind most commonly grown.

File, Filles (Da. File; Du. Vylen ; Fr. Limes ; Ger. Feilen; It. Lime), an instrument of Iran or forged eteel, cut in little furrows, used to polish or smooth metale, timber, and other hard bodies. Files are of vurions forms, sizea, and cuts, aecording to the uses to whlch they are to be applied. When the surface is cut in transverse furrowa by a straight sharp-edged chisel and mallet, the instrument is properly called e file; but when it is raised by a triengular panch, it is termed a rasp. This last kind is chiefly employed for rubbing wood and horn. The larger kind of files are made of blistered steel; but the amall and fine files of cast steel. Various ingenious machines have been contrived for cutting the teeth of files, but these have not hitherto succeeded so well as to supersedo fle-making by the hand. After the file han been cut it must undergo the process of tempering. This is said to be well effected in the following manner: A saturated sulution of common salt, stiffened to the consistence of creum with ule grounds, or with any cheap farinaceous matter, such as beun-flour (somo use well-dried chimneysoot), is to be sprend over the ile, in order to preserve Its surfuce from oxydation during the process; it is then uniformly heated in a coke or charcoal fire to a eherry-red color; and on its removal from the fire it is to be suddenly quenched in cold and pure spring water. It is subsequently cleanud with charcoal and a rag; after which it is laid up in wheat bran to preserve it from rust. When the file la intended to cut iron or wteel, it is found preferable to substitute aninal carlion for the grouods or farinaceeus mitter mentloned alove, This will give even to iron a superficial hardness sufficient for any kind of file.
Filigree, or Fillagree (Ital. filigrano; Lat. filum, a thread, and granum, e gruin), a very delieate kind of ormamentul work ln gold or silver, wrought in the manner of little threads, or threads und grains interinixed. Filigree work is of eastern origin, und was first int oduced into Europe by the Itulings. In Sumatra, manufuctures of this kind huve been carried to the highant degree of perfectiva, and yet the towis employed are exceedingly coarae and clumsy. These are generally rudely and inartificlally formed from any piece of old Iron. A pieco of Iron hoop suffices fir making the wire-drawing instrument; an old hanmer head, stuck in a llock, serves as an anvil; and two old nuiln, tied together at one end, will suffice for a pair of compaseses. The gold la nielted in a piece of preewo or earthen rice-pot, or sometimes in a crucible of ordinary clay. In general no beilowa are used, but the fire is biown with the mouth, through a joint of bamino ; und if the cuantity of metal to be melted is consideratile, three or four persons sit round the furnace, which is an old broken gualiee or lron pot, and blow together. At Padung, where the manuffucture in most condidenuble, they have adojited the Chinese bejlows. The method of drawing the wire differs liut little from that which is used by Eufopenn workmen, When drawn to a auficient theness, it is flattened by beating it on the auvil; and when flattened, a twist io given to "s "y rubbing it on a block of wood with a flat stick. After twisting they agaln beat it upon the
anvil, and thus it becomies flattened wire with indented edges.' The end of the wire is folded down with a pair of pincers, and thus is formed a leaf, or clement of a flower, which ls cut off. The end is again folded and cnt of till they have a snficient number of leaves, whtch are laid on singly. Patterns of the flowern or foliage, in which there is seldom much variety, are prepared on paper of the size of the gold plate on which the filligree ls to be laid. According to these, they begin to disposu on the plate the larger compurtments of the follage; for which they use plain flattened wire of a larger size, and fill It up with the leaves bafore mentioned. In order to fix the work, they employ a gelatinous snbstance made of the berry called boca sago, ground to a pulp on a rough stone. After the leaves have bean all placed in order, and stuck on bit by bit, a solder is prepared of gold filings and borax moistened with water, which is strewed over the plate, when it is put in the fire for a short time, and the whole becomes united. This kind of work on a gold plate is called carrang papan; but when the work is open, it is called carrang trouse. In executing the latter, the foliage is laid out upon a card, or soft kind of wood, and stuck on, as before described, with the sago berry ; and the work, when finished; being strewed over with the solder, is put into the fire, when the card or soft wood burning away, the gold remains connected. If the plece be large it is soldered at several times. In the manufacture of badjoo buttons, they first make the lower part fiat, and having a mold formed of a plece of buffalo's hom, indented to saveral sizes, each like one half of a bullet mold, they lay their work over one of these holes, and with a horn punch press it into the form of a button ; after which they complete the upper part. When the filigree is finished they cleanse it by bolling it in water with common salt and alum, or sometimes lime juica; and in order to give tt that fine purpla color which they called sapo, they boll it in water mixed with brimstone. The manner of making the little balls with which their works are sometimes ornamented, is simple. They take a piece of charcoal, and having cut it flat and smooth, make in it a small hola, which they fill with gold dust, and this being melted in the fire becomes a little ball. They are very inexpert at finishing and polishing the plain parts, hinges, acrews, and the like, being in this as much excelled by the European artists as the latter fall short of them in the fneness and minuteness of the foliage. The Chinese also make filigree, mostly of silver, which looks elegent, but wants the extrasdinary delicacy of the Malay work. The price of the workmanship depends upon the difficulty or incommonness of the pattern. In some articles of nanal demand it does not exceed one third of the value of the gold, but in matters of fancy it ls generally equal to that of the metal.

In India, the articles nsually mede in gold and allver filigree nre bracelets, ear-rings, brooches, chains, groups of flowers, and nmall hoxes and caskets. Mr. Taylor, in his "Account of the Arts in India," anys: "The design best adapted for displaying the dellicate work of filigree is that of a lenf; it should be drawn 011 stout paper, and of the exact size of the articie intended to be made. The apparatus used in the nrt is exceedingly simple, consisting merely of a few rmall crucibles, a piece of bumboo for a biow-pipe, smatl huminers for flattening the wire, and seta of forceps for interveaving it. The gold and ailver wire ande by the Hindoon for this and other purposes is of varied character, according to the purposes for which it is intenied; thus, the goolrbatoon is made at Dacca for the emibroidering of muslins and silks; goshoo for caps and for covering the handies of chowriea; salmah for turbans, allppera, and hookah-snakes 1 and booiun for gold lace and brocades. For some of these purposes it is not strictly wire, but gold thread, that is, slik covered with silver and then with gold."-E. B.

E11. Tha cea term fortoracing a yand which hid been laid abbek, so that the wind may aot on the after or proper side of the sail.
Finesse (Fr.) may be defined simply as a peculiar aptitude of discovering, in any business, the best means of attaining the object in view ; or as the power of embracing in one comprehensive glance the varions Interests of any subjact, together with ingenuity to dovise and tact to carry ont the plan best calculated to obtain anccess.
Finland, called by the natives Suomemna, the Region of Lakes and Swamps, is a govemment of Rus. sia, comprising, besides the old SWedish province of Finland, the two Lapmarks of Kamt and Tornex̆, and the district of Wiborg. It liee between N. lat. $59^{\circ}$ $50^{\prime}$ and $70^{\circ} 6^{\prime}$, and $E$. long. $20^{\circ} 80^{\circ}$ and $82^{\circ} 45^{\prime}$ being bonnded on the N. by Norwegian Finmark, by Sweden W. and the Grif of Bothnia, S. by the Gulf of Finland, and E. by the governments of St. Petersburg, Olonetz, and Archangel. It is abont 780 miles in length from N. to S., with an average breadth of about 185 miles. The sea-coaet of Finland throughont its entire extent presents the same auccession of fiords and rocky headlands as characterize the whole seaward frontier of Sweden and Norway. The fiords of Finiand, how ever, are far more limited than those to the wast of the Gulf of Bothnia, and seldom exceed a few miles in extent, although their months contain an equal number of islands, some of which, as the fsles of Sveaborg, hava been converted into fortresses of great atrength. The coasts of the Bothnian and Finland Guifs are thickly etrewn with rocks of granite and limestone, presenting in soms places a labyrinthine archipelago of little islands, rendering the navigatlon extremely dangerons. The greater portion of the interior is a vast table-jand averaging in height from 400 to 600 feet, and interspersed with hills of no great elevation. In the north, however, are the Manselka Mountains, which attain a helght of nearly 4000 feet, and stretch southward, though with several interruptions, until they terminste in lofty cliffs on the Gulf of Bothnia. The grest mass of mountains is composed of red granite, and vast quantities of tha asme rock lie in boulders on the lower grounds, and prove a very serions obstacle to their cultivation. Many of the helghta are bare, but the greater part of them belag of moderate elevation are covered with forests chiefly of pine; and in their combination with the vast number of lakes inclosed by their bases, often form very romantic ecenery. Tha extensive foresta are some timas devastated by the tempests of winter, which seem to find access to their very centres in tornadoes, tearing up by the roots or bending and snapping the largest pines. Freque: dly also ravages are committed In them by conflagration occasioned often through the carelessness of the peasants. The interior of Finland is also intersected and broken up by a vast number of lakes, throwing out winding arms and branches in all directions, which, while they offer tha greatest facilities for inland navigation, render land traveling ciren itoun and dangeronn. Many of the high roade pass over isiands on theso lakes, the nuturai strength of whose nitnation hus been taken advantage of, to cover them with batteries; and some of them, as at Wiborg and Ny siot, are consilered impregnable, save to fraud or famine. The principal of these lakes are Ladega, the greater portion of which belonge to this government ; Lake Saima, which is crowded with isiands and discharges its superfinous waters in a series of cataracts into Lake Ladogn, but which is now connected by means of a canal with tho Gulf of Finland near Wl borg; and lake Enara in the extreme north, covering above 1000 square miles, and having its outiet in the Frozen Ocean. The chief rivers are the Ulea, which Is navigated by trading-vesseis, though its stream is very rapid; the Cann, which pasaen Biorneborg; the Aurajoki, which at Abo is about 100 yards broad; the

Kymon, which flows Into the middle of the Guif of Finland 1 and the Tornea, which diechargen lteolf at the northern extremity of the Gulf of Bothnia, and forme the present bounilary between Sweden and Ruscia. The cllmate varies much according to the locality. In Lapmark, in the north, it is polar eomewhat modified, and the enn disappears during December and Januarjo. Further sonth at Uleaborg, winter legins in October and continuee to May, to which month spring is limited. Summer commences in June and lasts three months, which are generally 80 hot and dry that the crops, particularly where the soil is of a sandy nature, often anffor from drought. The antumn, like the spring, is confined to one month, and may be asid to commence and terminate in Soptember. Even in summar the nighte are cold, particularly about the middie of August. During summer, however, the progrese of vegetation is remarkably rapld, and there have been instancen of grain being sown and reaped in six weeks. In tho more southern parts the climate is less severe; the winter being of five or six months' duration. Dense fogs are frequent, and heavy rains take place in antumn. . The soil is for the most part etony or aundy; but nothwithstanding this it is much more productive than the opposite part of the Scandinavian peninenla, and when in the possession of Sweden it wat termed the granary of that country. The principal crope are barley and rye, but owing to the nature of the aurface and climate a large portion of the land in fit only for pasture. In tire north, where vegetation is almost confined to the growth of mose and lichen, other domestic animals are superseded by the reindeer, of which great herds are kept. In addition to timber (chiefly fir), large quantities of potash, pitch, and rosin are obtained, and form the principal articles of export. The mineral productions are chiefly confined to iron, lead, salphur, slate, and granite. The tirst is only wrought to a limited extent for the supply of a fow furnaces; wrought iron belog now principally imported from Sweden. A great number of excelient granite quarrien have been opened chiefly on the borders of the iakes or sea-coasts to secure the advantage of water carriage. From these are obtained blocks of extraordinary maynitude and beauty, which are employed for architectural and artistic parposes. One of the finest specimens is the monolitit obelisk recentiy orected in St. Petershurg to the Emperor Alexauder. In its rough state it was 12 feet in diameter, and 80 feet in length. The mannfactures of Finiand are insignificant. Agriculture, the rearing of cattle, and fishing are the principal occupations of the lnhabltants. The coasts present many good harbors, but on sceount of the long winter they can not be extensively used. In winter siedges afford an casy and rapid communication with different parts, and oven with Sweden across the Gulf of Bothnia, In March, 1800, Barclay de Tolly croseed over with a division of the Runsisn army from Vesa to Umea in Sweden.

From official documents the returns of the trade of Finland for the year 1848, were, in silver roubles of the value of about 3 s .2 d. , si follows:

Expoats.
To Sweden and Norway.................... 197,942
To other countries.....
1,946,094
Export daty on the same.
Total.
$\qquad$ - Inroass

Dedact tmport duty thareon. ............ 8 8, 804,504
Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . $2,600,456$
8howing an excess in the imperts over the exports of 476,816 roublen, which, however, wan in part covered by the frelght earned by the merchant shipping. The
above atatemeats indicate alling off as compared with former years in the export, trade to Norway and Swoden. To these two countries the lesding srticles of export and their value were-fish, 23,569 roubles; hides, 8616 ; beef, 24,578 ; grain, 15,083; tallow, 80,809 ; tar, 11,488 ; firewood, 11,488 . The imports wers-books, 16,200 roubles ; fish, 25,228 ; iron and steel, 250,870 ; ougar, 66,418; tobacco, 4677; dyewoods and atnfif, 23,990 . The exports to other counIries were also less than in former years; the chlef articles wero-potash, 16,733 roublea; butter, 183,409; tar, 824,717 ; wood and timber, 021,860 . The chiof imports from other countriee were-medicines, $20,911$. ronblen ; cotton, 138,318; arrack, rum, brandy, 169,794; coffee, 597,708 ; fruits, 106,042; dye-staffs, 134,550 ; yarn, 849,993 ; iron and steel, 89,709 ; salt, 531,665 ; suggar, 544,485 ; wine, 140,628 ; manufactures wove, 666,145.

In 1831 Finlend was divided administratively into eight circles or lïns, which are subdlvided into fogderier or districte, and herads or balliwicks. There is a distinct establishment at St. Petersburg for the government of this vast province. The governor-generil who resides at IIelsingfors, has the superintendence of the military affairs. Finland has a diet composed of the four orders of the nobility, clergy, citizens, and peasantry, and a code of laws and judicial system simHar to that of Sweden, but the diet is rarely convoked, except to consent to the imposition of fresh taxes, $s$ senate more recently eatablished having replaced it in the exercise of its functions. The regiments raised in Finland are not promiscuousily intermixed with the general forces of the Russian empire ; and their fleet, by far the best manned portion of the Russian navy, forms diatinct squadron under the Finuish flag. None but a native Finlander can hold any office of trust in the country. Almost all the inhabitants sre Lutherans under the bishops of Ato and Borgo, except in the circle of Wiborg, where they belong to the Russian church. Public education is in a very backward state. At Ifeleingfore is a university, transferrod from Abo in 1828; and all the towns have schools, but there is a great deficiency of country schools. The majority of the inhabitants are Fins, who call thenselves Suomalans or Suomes, but they are denominated Tschudes by the lussians. They are of mildde helght, robust, fint-faced, with prominent cheek-bones, llght , reddish, or yellowish-brewn hair, gray eyes, littlc beard, and a dull sallow consplexion. They are courageons, hospitable, and honest, but obstinate in the extreme, indolent, dirty, and, it. is said, revengeful. Their customs and hasbits have been handed down from time immemoring, and their costume forcibly bears out the supposition of their being of oriental origin. The peasants wear long loose robes of a coarse manufacture, sicured by a ailken cincture like the Rummerbund of the Diussulmans. The eight lins with their areas and populaLions are se follows, commencing from the south and east :

|  | Aron. | Population, |
| :---: | :---: | :---: |
| Fiborg | 10,710 | 224,701 |
| Bt. Mlehol. | 9,27t | 185,281 |
| Nyland | 6,876 | 149,214 |
| Tavastehuss. | 7,112 | 122,580 |
| Abo | 10,626 | 850,283 |
| Vexa | 15,908 | 199,437 |
| Kuople | 17,039 | 156, 6 M |
| Ulenbore | 68,415 | 125,114 |
| Total. | 145,477 | 1,978,727 |

The chief towns of Finland are IIcisingfors, the present capital, Abo, the former capitai, Wiborg, Tavestehnua, Vasa, Vleaborg, and Tornea. The Fins were pagans livingt :nder their own independent kings till the twelfth century, alout the milddle of which Finland was conquered by the Swedes, who intronluced Christianity. The province of Wiborg was selzed by Peter the Great in 1721, and tho remsinder of the
the mot
$\qquad$ minion in 1800 . miniona in 1809,-Athemaum, 18th March, 1864.
Firo-Arms. Under this designtion is comprised all sorts of gans, fowling-pieces, blanderbusses, pistola, etc. The manufactare of these weapons is of considerable importance; employing at all times, but aspecially during war, a large number of persons. Small arms were contrived by Schwartz, A. D. 1878 ; thay were brought to England sbout 1888. Fire-arms were a prodigious rarity in Ireland in 1489, when six muskets were sant from Germany as a present to the earl of Kildare, who was then chlef-governor. Mnaketa were frat used at the alege of Rhegen, in 1425. The Spanfards were the first nation who armed the foot saldiar with theae weapons.-Ulloc. Voltaire states, that the Venatians were the first to use guns, in an engagement at sea against the Genoese, in 1877 ; but onr hietoriana affirm that the English had guna at the battle of Cressey, in 1846 ; and the ybar following at the siege of Calaia.

Fire-engine, a apecies of forcing-pnmp in which the water is aubjected to presanre sufficiently strong to raise it to the reqnired height. Thees of the ordinary construction conaiat of two forcing-pumpe, wrought by the reciprocating motions of twe transverse levers. The water ia forced into an air-vessel, by which means the inclesed air ia condensed, and by ita reaction it forces the water through a movable pipe, which terminates in a conical form, and is directed upon the flame. Braithwalte's steam fire-engins is an ingenions spplication of the moving power of steam to the working of fir cengines. ${ }^{1}$ The mechanical arrangement of this machine consists of two cylinders of about six inches in diameter, ons of them being the steam-cylinder, and the other the Fater-pump; and they are placed horizontally, so that a parallel motion is easily obtained. An engine of this kind will deliver about 9000 gallons an hour to the height of 90 teet. The time of getting the engine into action from the moment of igniting the fuel (the water being cold), is less than ten minutes. Mr. Miles Greenwood, of Cineinnati, made, $\ln 1852$, the first auccessful practical spplication of the ateam fire-engine; and enginea of bis construction are now in nse in "Cincinnati, St, Louis, and many other large cities,
Fire-damp, the explesive carburetted hydrogen of coal mines. See Safkty Lamp.

Firelock, or Fuail. A musket or amall gun, which is fired with a flint and steel ; and therehy distinguighed from the old musket, or match-lock, which was fired with a match. The date of the invention of frelocks is uncertain.
Fire-ships. They were first nsed in the aixteenth century, Among the most formidable contrivances of this kind evar user, was an explosion vessel to destroy a bridge of boata at the slege of Antwerp, in 1585. The firat use of them in the English navy was by Charies, Lord Howard of Effingham, afterward earl of Nottirgham, lord high admiral of England, in the engagement with the Spanish Armada, July, 1588.Rapin.

Firevorks. (F'eux d'artifice, Fr.; Feuerwerke, Germ.) The componition of luminous devices with explosive combustibles is a modern art reaulting from the discovery of gunpowder. The finest inventiona of thia kind are due to the celebrated Knguricri, father and son, who executed in leome and Paris, and the principal capitals of Europe, the most brilliant and beatiful freworks that ware aver acen. The following description of their processes wili probably prove interesting to many of my readera:

The three prime materials of thin art are, nitre, anlphur, and charcoal, along with flings of iron, steel, copper, sinc, and reain, camphor, lycopodium, ete. Gunpowler is used elther in grain, half crushed, or fiacly ground, for different purposes. The longer the iron-flings, the hrighter red and white sparks they
give; those being preferred which are made with a very coarse file, and quite free from rust. Steel-filings and cast-iron boringa contain carbon, and afford a mare brilliant fire, with wavy radiations. Copperflings give a greenish tint to flame; thoae of zinc a flue blne coler; the sulphuret of antimeny gives a less greenish blue than zinc, but with mnch smoke ; amber affords yellaw fire, aa well as colopheny, and common salt; but the last must be very dry. Lampblack prodncea a very red calar with gunpowder, and a pink with nitre in excesa. It aerves for making golden. ahowara. The yellow sand , glistening mica, communicatea to fireworka golden radiations. Verdigris imparts a pale green ; aulphate of copper and sal-ammoniac, a palm-tree green. Camphor yialda a very White flame and aromatic fumes, which mask the bad amell of other anbstances. Benzoin and atorax are used also on account of their agreeable edor. Lycopodium burna with a rose color and a magniflicent flame; but it is principally omployed in theatres to repreant lightning, or to charge tha torch of a fury.

Firlain, a meauure of capacity, equal to 9 ale gallons, or $7 \frac{1}{\frac{1}{2}}$ imperial gallens, or 2538 cublc inches. See Weigirts and Measubes.

Firlot, a dry measure used in Scotland. The Linlithgow wheat firlot is to the imperial uahel as -098 to 1 ; and the Linlithgow barley firlut is to the imperial bushel as $1 \mathbf{4 5 6}$ to 1 . See Weights and Meaaures.

Firman (mere properiy F'ermán), in the Persian language, signifies a command, and is the name given in Tarkey, Persia, and India, to mandates or certiflcates of the severeign, iasued for various purposes. Those beat known to Europeana are given to travelers, and serve as passporta. The Fermân has placed at its head in Turkey the cipher of the reigning Sultan, written in a complicated manner, affixed by the chief secretary of the sign manual. In the East Indies, the term firman is rsed for a written permission to trade.

Fiso (Lat. fiscua), in Civil Lav, the treasury or revenus of a state. Fiscus, in its primary sense, denoted a basket or hanaper used by the Romana for holding large aums of money, and hance was applied to a money-chest or a purse. Under the emperora the term fisens came to be applied to the imperial revenue or privy parse, in contradistinction to the ararium or publie treasury. Ultimately, when the emperors had concentrated in themaelves the wholo severelgn power, the word fiscus lost its distinctive character, and was used in the same aense as ararium under the republic. Various officere were employed in the adminiatration of the fiseus ; as procuratorea, advocati, patroni, and prafecti. Frem fiac, is derived the word confiscation, which signifies to take the goods of a condemned persen and appropriate them to the public treasury.

Fiscal Fear, The fiscal year of the United States formerly ended on 31st Deceinber, and up to the year 1843, on 30th September; but Congresa enncted, August 26, 1842, "That on and after the first dsy of July, in the year of our Lord 1843, the fiacal year of the treasury of the United States, in all matters of accounts, recaipts, oxpenditures, eatimatea, and appropriations, shall conumence on the firat day of July in each year; and the reports and estimates reanired to be propared and laid before Congrese at the commencement of each session by the Secretary of the Treasury, in obedience to the acta of Congresa, of the 2 d of September 1789, and of May 10th, 1800, shall lie a report and estlinate for ouch flseal year, commencing as aforesaid, and terminating on tho 30 th day of June, in the ancceeding calendar year."

Fish (Ger. Fische; Du. Vistachen; Da, and Sw. Fiak; Fr. Poiasons; It. Peaci; Sp. Pescades; Port. Peires; Rus. Rab; Pol. Rybi; Lat. Pisces), a term used in natural history to denota every variety of animal lahabiting ecas, rivers, lakes, ponds, etc., that
can not exist for any conoiderable time oat of the wator. - Bnt in acommercial point of viow, thone fishos only. are reforred to, that are caught by man, and used ailcher as food or for some othor neofal purpose. "Of these, herring, aulmon, ood, pilohard, mackorel, turbot, lobstar, cyster, whale, otc.; are among the most important. See the differeat artloles undor these titles.
As the seods of a plant are namorous anoagh to insure an immonse progeny. If sven a emall percentage of them be properly managed, so do Alshem produce eggs in such number as might soom overatock the waters, wore there pot destructive agencies at hand. It in not improbable that we are on the eve of valuable improvements la the management of fish. It has been found that trout and othor valnable fish have declined in some of the French rivers; and on careful investigation it has been made apparent that not one egg in a hundred comes to maturity-the reat being dovoured by other fish, wathed away; or deetroyed by mad. Two Fronch fishermen, olsorviag theee fecte, resolved on an attompt to collect some of the trouteggs, and to nocure the young fish from the voracity of tha larger ones; they did so, and placed the eggs on a layer of gravol, which they deposited in a box fall of holes. This box they fixed in the bod of a flowing atream, and covered it with pebbles, thus far imitating the practice of the mother-fish. In due tlme the eggs excluded, and almost every one was found to be good. Several hundred fish were thus obtalned, which were kept in wator free of danger, and supplied with food. Applying thin operation the next year to - great number of fish, thoy obtained sevaral thousend tront ; and in a year or two more the number had increased to millions. The rivers in many departments of France were aupplied from this artifcial source ; and the French government are now encouraging the symtom in every wny. Not only troat, but salmon, car, pike, tench, and perch, are thus preservel; and, moneover, the syatom has enabled finh of different apecies to be naturalised in atrange watora, or removed from river to river.

Fisheries. The fisheries may be divided Into deep-sen and ahore fisheries. The hatter are, of conres, under the control of the nation owning the shore along Whose line the fish are canght. But the deep-sea fishories and the ownership of dincovered ehore-linea, have alwaya given rise to disputen and quarrels. It haa, however, been aettled that a nation has exclusive control and right over the shore Aehories extending three miles from the coast ; giving, sometimes, under certain restrictiona, aight for other nations to use the shore for the purpose of curing and packing the fish caught beyond three miles of the ahore.
Although fiabing in an ancient and honorable employment, finheries were not of much importance until after the diseovery of Nawfoundland. Ilnlland had fisherias of aome note in the 15th century; but owing to the atate of maritime knowledge they were much conflued; when, however, Newfoundiand was discovered, an almost magicul change took place. In the litrary of Venice there is a map, which anthorises the conjecture that land was found before 1436. But IItle was known until 1497, when Calot made his frst voyage. From this time voyagen were made in pursuit of codish at Irmgular perioxis, until the latter part of the 16 th century, when enterprise and capltal thecame plenty. Colonien were formed firat at Newfoundland, and afterwand at Aeadla which comprised Nova Scotla and Now Branewiek, and part of Maine. So mach importance was given to the fisheries as u nursery of meamen, even at that early age, that laws were enacted in 1853 to prevent joersens from sating meat Wednsedaye and Saturdzys except under a license, so that fisheries might be lacreased.
The great heneft from the fisheries was from the early colonization of this country. It is questionable

Whother we ahould not have beon quito a century behind in this, had it rot boon for colonion soundod on our conats by the firbermon. The fint diract voyago made by the Raglinh was in 1602, and the veriol catching codilh neer the coutharn aape of Mascoahusette, gave the name it yet bears: wh firmo.
The disputes in regard to fishing havo dieturbed commerve aince this conntry was discovered. A full account of the disputes and treatiee settiling them, can bo found in the able report of Lorenwo ilabine, Eaq., to Cougreea in 1852.
We can notice but one or two affecting our own country. In 1782, Adam, Franklia, Jay, and laarens were commineloners to negotiate a treaty with Great Britain, .hich contained thia article :
5. " It lo agreed that the people of the United States shall continue to onjoy, unmoloated, the right to take fish of every kind on the Grand Bank, and on all the othor banke of Newfoundland; aleo, in the Gulf of St. Lawrence, and at all other places in tha sea where the inhabitante of both countriea used at any time haretofore to fish; and aleo, that the inhebltants of the United States ahall have liberty to take fish of every Kind on such part of the censt of Newfonndland as British fishormen shall nes (but not to dry or cure the oame on that island), and nieo on the coaste, bays, and creeks, of all other of his Britannio majesty's dominions In America; and that the Amorican fillermen shall have liberty to dry and oure fith ln any of the unsettled bays, harbors, and creeks of: Nova Scotia, Magdalene Islanda, and Labirador, eo long as the same shall remain unsettled; but so soon as the same, or oither of them, thall bo nottled, It ahall not be lawful for the aaid fiahermen to dry or cure fish at such settlement, without a previous agreement for that purpose with the Inhabitants, proprietors, or possessors of the ground."
Notwithstanding the position taken by Messrs. Adams, Clay, Bayard, and Gallatin, at Ghent, that our treaty righte were not abrogated by the war, the British govermment revived their protension to the contrary immediately after the peace. An American vessel was fallen in with by an armed ship, the Javeur, Locke, commander, in June, 1815, when about 45 milles from Cape Sable; and her papers were endorsed, "Warned off the coast, not to come within 60 miles." So extraordinary a procedure was promptly disavowed as unauthorized; hut discussions ensued, which were terminated In 1818, by the conclusion of a treaty that embodied a compromine of the adverse views of the two cabinets, and which is atill In force. The artinl $\mathrm{f}_{\mathrm{f}}$ is as follow:
"Wherean, differences have arisen respecting the liberty claimed by the United States, fur the inhabitunta thereof, to take, dry, and cure fiah on certain coasta, haya, harbors, and creeks, of his llritannic majesty's dominlona in America, it is agreed between the high contracting partien, that the inhabitants of the sald United States shall have forever, in common with the aubjects of hiis Britannic majesty, the liberty to take fish of every kind on that part of the southern coast of Newfoundlanil, which extends from Cape Ray to the Ramean Islunils, on the western and northern conat of Newfounilland; from the said Cape Hay to the Quirpon Ialands, on the ehoren of the Magdulene lalands and aleo, on the coasts, hays, hartors and ereeks, from Monnt Joly, on the southern coast of Labrador, to and through the Straits of Bellisle, and thence north warily indefuitely alung the cosst ; withont prejudice, however, to any of the exclusive rights of the Hodson'n llay Company; and that the American fiahermen ahall aiso have liverty, forever, to dry and cure fish In any of the nosettied baye, harliors and ereoke of the southern part of the conat of Newfonndland, hereabove described, and of the coast of Laibrailor; but so soon as the same, or any portion thereof, shall be aettled, It ahall not be lawful for the
anld settle with grous forev the if
ould fiohermon to dry of ours fish at such portion so settled, without previous agreement for anch porpose, with the inhabitants, proprietors, or poseessors of the ground. And the United States hereby renounce, forever, the liberty heretofore enjoyed or claimed by the Inhabitants theroof, to take, dry; or cure fieh, on or within three marine milies of any of the conats, bays, creeke, or harbore of his Britannio majesty's dominione in America, not included within the above mentioned limita : provided, howaver, that the American fishermer: ahs!l be permitted to enter anch bays or harbors for the purpose of sheiter, and of repairing damages therein, of purchaoing wood, and of oitaining water, and for no other purpose whatever. But they shall be ander such restrictions as may be necessary to prevent their taking, drying, or curing, fish therein, or in any other manner whatever, abuing the priviloges herehy remerved to them."
The diatinguishing features of this articie, as compared with the stipulations of the treaty of 1783, are obviously two: first, that we gave up the catehing slong certain shores; and, secondly, that our facilitios of drying and curing were increased. The practical construction of both governments has been, until a recent period, that our vessels could fish everywhere, as under the treaty of 1783, except within three miles of certain coasts ; in other words, that our rights were not impaired on the southerm shore of Newfoundland, between Cape Ray and the Ramesu Iblands, on the western and northern shores of Newfoundland, from said Cape Ray to the Quirpon Islands, at the Magdalene Islands, letween Mount Joly and the Straits of Bailisle, and throngh thees strsita to an indefinite extent along the alnores of Labrador; while eloeuhere in British America we retained the sea-fisheries, but antrendered the inner, or shore fisheries.
During the discussions abroad, in consequence of the outrage of the Jaseur and other British cruisers, Congress was not unmindful of the fishing interest, both to repair the wrongs of unauthorized captures and to afford protection against foreign competition. The tariff of 1816 imposed a duty of one dollar the quintal on foreign driod or amoked fish imported Into the United Ststes, two dollars the barrei on salmon, one dollar and fifty centa the barrel on mackerel, and one dillar the barrel on all other kinds of piekled fish.
So, in 1817, an aet was passed which required that ali officers, and three quarters on the crews of vessels employed in the cod-fishery, and claiming the bounty or allowance, should be Amorican citizens, " or persons not the suijects of any foreign prince or state;" while no such vessel, it was provided by further enactments, should be daprived of bounty, if prevented from fisiing the full time preseribed by law, by reason of detention or seizure by British ships-of-war.
In the revision of the tariff in 1824, there was no chango in the rates of duty imposed on foreign fish. These rates were continued alao in the tariffs of 1828 and 1832. Thus, in four revisions, the principle of smple protection was preserved, oxcept that the products of the sea, like all other commodities imported, were subject to the provisions of the "compromise" measire intreduced liy Mr. Clay. In the prenent tarIff, apeciffe dutiea on fish are entirely abolished, and tie uniform rate of 20 per cent. ad valorem substituted, which on some kinuls is merely nominal, and on all insufficient. The ad valurem system has proved extrewely beneficial to British colonists. In fact, having driven us from the marketa of Cntbolio Europe, they are in active competition with us for our own.
A iounty or allowence has been commonly aliowed by governmenta in consideration of the lisheries iseing nurseries for seamen, and a ehief dependence in time of war to supply the marine.
In 1852, the bounty iaws in this country, gave to vessels:
" 4 If measuriag more than five tone, and not exceedIng thirty tons, $\$ 80$ por ton. $\omega$ - 6 Ths "n "If Ir asuring more than thirty tons, 44 per ton. :" If the abova 30 tons, with crewa not less than 10 persons, and having been exclusivoly employed at sea in the cod-fiehery 84 calendar monthe, 8350 per ton. in "The aliuwance for one vescel: during the season, whatever may be her tonnage, can not exceed $\$ 860$.
" Vessels exelusively employed at sea in the codfishery the full time requined to entitle them to bountr, and afterward wrecked, may be allowed bounty under the previsions of the act of 26 th May, 1824, which requires the evidence of the loss of the vessel to be tranamitted to the Comptrolier for his decision thereon. Under the act of March 8, 1849, thia daty has been transferred to the Commiasioner of the Customs, to whom the proof, certified by the collector of the district to which the vessel belonged, uhould be sent for his official diraction thareon.
"Instructions will be given in due season in regard to the mode of payment of bounty aliowances, at and after the close of the year. To obviate any responsibility which might otherwise devolve on coliectors, shonld suoh payments be made upon proof regarded as Ineufficient under the present ingtructions, It will be advisable that probable claimants to fishing-bounty allowances be apprized, before the salling of vesselis on their first eod-tishing voyage, of the requirements of these instructions, which are intended to supersede and supply the place of all former instructions on this snbject. Thomas Oonwin, Secretary of the Treasury."

We make the following extracts from Sabine's able Report on the American fieherias:
Cod-fithery of France.-The French were the first European cod-fiehers in the American seas. There is a tradition among the fiehermen of Biseay that their countrymen visited Newfoundland before the time of Columbus. It is aaid, indeed, that the great discoverer was informed of the fact by a pilot who had been engaged in the enterprises. The story, improbable as it is, seems to have been treated with respect by some writers of the 16th century, but may be dismissed now as one which reste npon no clear and anthentio testimony.

But that the Newfoundland fisheries were known to the Biscayans and Normans as early as the year 1504, is quite eertaln. When Cabot discovered our continent, Europe, including England, was Catholic ; and during the fasts of the church, the pickled herring of IIolland was the principal food. The consumption of fish was immense; and the Dutch, having enjoyed the monapoly of the supply, had become immensoly rich. The knowledge communicated by Cabot and the voyagers who followed him, that the waters if America contained, not only an abundance, bnt many varietiea of fish, gave rise to an exeitament on the sulject of fishing hardly less intouse than is witnessed at the prasent time reiative to mining. Persons of the highest rank, and not engaged in commercial purauits, beeame sharchoiders in adventures to the new fishinggrounds. And though the Dutch refused to uibandon the particuler fighery by whieh they had olitained both wealth and celebrity, veasels wearing the flage of France, Engiand, Spain, and Portugal enme annually in sentch of tie eod for nearly a century befora a single European colony was founded in America north of the ancleit iimite of the United States.

We have seen that when, in 1778, France embarked in our revolutionary struggle, hor fishermen, alsent at Newfoundland, were recalled to enter her ships of war. The same relinnce is placed upon them now. War was apprehended in 1841, and M. Thiers foilowed the example of the etatesman referred to ; and M. Rodet affirmed that, "without the resources which were found in the sailors engaged in the fioheries, the expedition to Algiers could not have token place."

These reasons are not only sufiliciont to juatify, but to demand, national oncouragement. But It may bo urged, in addition, that the open or desp-aen cod-hahory diffore from almost evary othor omploymont; thas in war it is nearly or quite destroyed; that in peace it can not bo parsed for more than four or Ave moatha in a year; that often akill and induatry are insufficient to inaure good fares; and that, when succesa attends severe toll and exposure, the fiahermen buroly sabsiat. The offecte of a "" bed cateh" are, indeed, sad and calasitous. The disasters of 1817 afford a recent and a forcibic illustration. In that year the Freneh codfishery proved a faliure. The quantity of fish caught was acarcely a sixth part of that of former seasons; and the fiohormen, disconraged, abandoned the business as early as the middie of Auguat. The labor of the summer and the expenses of repairs and of outfits lost, the actual want of food and clothing until another year came round was alone provented by the bounty allowed by the govermment.
The manner of fishing is now the only topic that noed claim attention. It is to be observed that the principal fiehing-grounds are three, and that on each there is a difference in the mode of operatione and in the size of the vessels. First, the fishery on the coacte of Newfoundland, which has always been considered the most important, as being more certain and employing the greatest number of men. The veseois are of all aizes-from 80 to 200 , and even 300 tons. .The latter size is, however, rare. When the vessel arrives on the coast, which is generally early in June, she it dismantled. Her boats, with two men and a boy in each, are sent out every norning, when the weather will permit, to fish until night. On the return ia the ovening, the fish taken are apiit, salted, and put in "kewches" or piles; remaining in piles a fow daya, they are "washed out" and dried until they are fit to ship. These processes are repeated from day to day until the fare is completed or the aeason has possed away. Toward the close ot weptember, fiehing is auspended, and the vessels depart for France or the Weat Indies.

The Grand Bank fishery is pursued in vesseis of between 100 and 200 tons' burden, with two strong chaloupes, or boats, to each. From 16 to 20 men compose a crew. The vesseis proceed first to St. Plerre, land the shore fishermen and "eurers," and thence take position on the banks, anchoring in 70 or 80 fathoms of water. Every thing in readiness, the chaloupes are launched and seat out at night to place the "ground-lines," to which are attached some four or five thousand hooks. When not too boisterous, these lines are examined every day, and the fish attached to the hooks aplit, salted, and placed in the hold of the veseel. Meanwhille, the fish caaght on board by the men not assigned to the boata are treated in the same way. The first fare is usualiy secured in June, and carried to St. Pierre to be dried. The second fare is cured at the same place; but the third-if fortunately there be another-is commoniy carried to France "green."
This fishing io difficuit and dangerous. It requires expert and daring men. It is prosecated in an open, rough, and often a atormy sea, and frequently involvea the losa of bouts and their crews.
The thind fishery, at St. Pierre and Miquelon, ia aimilar, in some respects, to that between Cape Hay and Cape John, on the coast of Nowfoundland. Bouts, instead of veasela, are, however, employed in it. The boats of the two islands are between three and four handred in number, and require two men to each. They go out in the morning and return at night. Thus, as in all shore fisherien, the fishermen aiways sleep at their own homes. As this la the only businese of the islands, neariy all the men, women, and children are engaged in catching or caring. The season opens in April, and closes usually in Octrber.

Wo have seen the importance attached by France to her immenen Amorican domains, and with what pertinacity ahe maintained her pretenslone to the monopoly of the falhing-grounde. It remains to apeak more particularly than has yot been done of the two lone, base, and rocky lalands that romain to her as monu. ments of the vicissitudes of the human condition and of natlonal humalisitian.

The aituation of St. Plorre and Miquolon commands the entrance of the Gul? of St. Lawrence. The growth of wood is masufficient oven for fuel. They produce no food, and the inhabitants aro dependent on France and other countries for supplies. The population of St. Plerre in 1847 was 2030, of which about one quarter was "fioating," or non-resident. The population of Miquelon at the same time wea 625.

There are several Catholic churches and aciools, prieste, monke, and nune. In 1848 a hospital, suf ficiently commodious to receive upward of 100 sick persons, was erected. The dwellings are of wood. The government-house is of the sanse material, and plain and old-fashioned. The atreets are narrow ahort, and dirty. The official personages are a governor, a commissary or minister of marine, a harbor master, and some inferior functionariea. The military, limited by treaty to 50 men, consists of about 30 gene d'armes. Upon the station is a slagio armed alhip, thoagh other armed vessels are occasional visitors. The present light-house was erected in 1845, at a cost of 80,000 franca, and, well built of brick, is a sulutan. tial edlice.
Such are the two islands-Two leaoues in ex-text- hich remain to the power that once possessed the whole country bordering on the Mississippi, the limitless regiona penetrated by the St. Lawrence; Acadia, from Canseau, in Nova Scotia, to the Kennebec river, in. 'aine; the island of Cape Breton; and the huudred other isles of the bays of the northern and oastern poaeessions.
Tho extent of tho French cod-fishery may be estimated from the following statistics :

Fanem Cod-Fisarar.

| Yeurs | No, of vesselo. | Tonnage. | Number of mon. | Quintals of | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1504 | . | -••* | * $*$ * | ... |  |
| 1597 | 12 | .... | .... | .... | $\cdots$ |
| 1517 | 159 | ... | . $\cdot$. | .... | . $\cdot$. |
| 1578 | 150 | . $\cdot 6$ | ... | . | $\cdots$ |
| 1615 | 100 | . $\cdot$. | . | . $\cdot$. | *** |
| 1781 | 4100 | .... |  |  |  |
| 1744 | 564 | . . . | 27,300 | 1,441,500 | .... |
| 1745 | 160 | 9 |  |  |  |
| 1768 | 209 | 24,480 | 9.782 | 200,000 | (561,723 |
| 1778 | 204 | 84,9\%6 | 10,125 | .... | $\ldots$ |
| 1774 | $\cdots$ | .... | 15,185 | $\cdots$ | .... |
| 1786 1787 | **** | .... | 7,1000 | 420,400 |  |
| 1816 | ... | 30,904 | 6, 100 6,108 | 125,590 | ... |
| 1824 | 154 | 16,2:4 | 8,655 | $\ldots$ | . $\cdot$. |
| $1 \times 24$ | 848 | 86,999 | 6,672 | .... | ... |
| 1845 | 988 | $85,17{ }^{2}$ | 6,811 | ..... | .... |
| 1888 | 841 | $8 \times 95$ | 7,049 | .... | ... |
| 1827 | 887 | 44,563 | 6,248 | .... | .... |
| 1523 | 831 | 45,094 | 7,957 | ... | . |
| 1429 | 414 | B0, 574 | 9.428 | . $\cdot$. | ... |
| 1891) | 877 | 4\%,036 | 8174 | … | ... |
| 1534 | 808 | 82,150 | 6,243 | 800,000 | -.. |
| $1 \times 98$ | .... | .... | 10,000 | , | -*. |
| 18.4 | . . . | .... | 10,000 |  | ... |
| 1039 1899 | . |  |  | 800,000 | .... |
| 1541 | $\cdots$ | 04,905 | 11,469 11,900 | -** | ...' |
| 1848 | 400 | .... |  | . | .... |
| 1847 |  |  | 12,090 | 450,000 |  |

Cod-fishery of Spain.-I'articiputing in tha excitement which prevailed in Europe on the discovery in the American seas of varieties of tish not previounty known or used in the fasts of the Roman church, Spain was an carly competitor with France and lingiand Vossela of her flag were certalinly at Nowfoundland as soou an the year 1517. 60 yeara later, the number of her vesseia employed in the fishery thore is estinated at 100 . The number rupidiy diminished. Sylvester

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Spani at th to be soon! toill, betwe righte Spo own with peace vague as obs of Ki cludec slons to No
ties t and ce Canad of Ca Gulf every Isiand posses
wise."
fishery
ber ris
she ha
Joseph
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Newfo
Mr. Pi
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Wyat, of Bristol, England, who made a voyage to the St. Lawrence and Newfoundland in 1698, found only oight Spanish ships in a fleet of upward of 80 sail of French and English veseela. From the remarks of Smith-who became the Father of Virginia-it would seem that in the early part of the 17th century, the Spaniah fishery was parsued with grester vigor than at the time last mentionec. But the greater wealth to be acquired in the gold regions of South America soon lured the Spaniarda from an avocation of so great toil, and of so uncertain rewards. No controveray between Spain and Eingland es to their reapective rights to the fishing-grounds ever arose.
Spain retired from our waters in peace, and at her own pleasure. Littie is heard of her in connexion with our anbject for quite a century, and until the peace of 1763. Her claim-reating on discovery-ever vague snd uncertain at the north, had become almost os obsolete as that of the King of England to the tille of King of France. Still, in the definitive treaty concluded nt Paris, she formally renounced "all pretensions which she has heretofore formed, or might form, to Nove Scotia or Acadia, in all its parts, and guaranties the whole of it, and with all its dependencies," and ceded and guarantied to England, "in full right, Canada, with all its dependencies, es well as the island of Cape Breton, and all other islands and coasts in the Gulf and River of St. Lawrence; and, in general, every thing that depende on the said countries, lands, islands, and coasis, with the sovereignty, property, possession, and all rights acquired by treaty or otherwipe." With this treaty the history of the Spanish fishery in America terminates. Spain relinquished her rights at the peace of 1763 , with reiuctance, though she had long ceased to exercise them. A letter of Sir Joseph Yorke is quoted in the correspondence of Horace Walpole, in which it is said: "By what I hear from Paris, my old scquaintance, Grimaldi, is the canse of the delay in aigning the preliminaries, insiating upon points nelther Frunce nor England would ever consent to grant, such as the literty of fishing at Newfoundiand-a point we should not dare to yield, as Mr. litt told them, though they wore masters of the Tower of London."

Cod-fithery of Portugal.-An account of this fishery may be embraced in a aingle paragraph. If materials exist by which to ascertain its progress and final extent, I have not heen able to find them.

Yortuguese vossels were at New foundland as early as those of Spain; and in 1577, the number employed there is estimated at 50 . These $\mathbf{t w o}$ facts comprise the subatance of my information upon the subject, except that Portugal, like Spain, soon abandoned all sttention to the claims derived from the voyages of her navigators to the northern parts of our continent, and devoted her energies and resources to colonization in South America, and tho acquisition of wealth in the mines of Brazil. The rivers and coasts of Portugal alound in fish; but the fisheries are neglected by the government. The whole number of alilors and fishermen who belonged to the kingdom in 1826, was only 18,700. I find in an official document s atatement which shows that duriug the 24 years ending in 1825 , the quantity of dry codtish imported into Portugal was $7,520,000$ quintals, of the vaiue of more than $\$ 39,000,000$ ! As late as the year 1839, certainly, the government parsued the policy of levying a tax or duty on the produce of the domestic or conat fisherya fact wiich enalles us to account for the miserabie condition of the kingdom, as regards its maritime strength and resources.

Kinglish Cod-fishery - Nerofoundland. - Newfoundland is the oldest colony of Fngland in America. It is said that in the public Illurary of Venice then is a map, constructed by Andrea Bianco, in 1436, which anthorizes the conjecture that it was known to fiehermen before the voyage of Cabot, in 1497. The stery,
to state ite aubetance in a word, is, that the islapA Scom rafiara, or Stoxafira, on the map, and the island of Newfoundiand, are identical, because the codifis ia called atockfich in the northern languages. The English resorted to Iceland for the cod, provious to the year 1415, but there in no account of their fishing at Newfoundland prior to 1517 . . Some writere suggest that the French commenced at the same time. But the fact, generally admitted, thet the ships from England, France, Spain, and Portugal, to the number of fifty, were employed in 1517; is alone oufficient to show that the fishing-grounda had been visited for sevoral years. Indeed to consider that the French went to Newfoundiand for the first time in 1504, and that in thirteen yeare, and in the infancy of distent and perilons voyages, their adventures had attracted the attention of three other nations to the extent just atated, is to allow an incresae of flage and of vessele so rapid as to still require explanation, without a knowledge of the fishing enthusiasm of the period. Besidas, some forty or fifty houses for the sccommodation of fishermen were built at Newfor : Iland as early as 1522.

A few miles back from the coast, Newfoundland is almost an unbroken wilderness. The inhabitants, as a body, are as ignozant of the interior of the isiand as are others. To them, and to all the world, the colony is known for its risheries, and for these alone. To enumerate St. John'e, Ferryland, Fugo, and Burin, and the settlements on the bays of Conception, Trinity, Bonavista, Fortune, Bull's, Placentia; and St. Mary'e, is to recall almost every place of note. There was no free port until 1828, and no bank until eight jears later. From the discovery of Cabot to the arrival of a bishop of the church, was 343 years. The popnlation in 1806-about two and a quarter centuries after the attempt at colonization by Gilbert-was less than 26,000 . It was leas than 74,000 in 1836 ; and lut 96,606 in 1845 .

It remains to speak of the fishing-grounds; of the manner of catching and curing, and of the habits of the persons who are employed in the fishery. As the vessel or " bank" tishery has been abandoned by the English, an account of it is reserved for the third part of this report. The boats used for the shore fishery require from two to four men each. The number of boats in 1838, was 6159 ; and in 1845,9989 . The fisb'rg is performed within the harbors, and early in the season, near the land. The men stand while at ther toil, and each is ablo to tend more than one line. At times tha fish fasten to the hooks so rapidly, that the fishermen display great activity. A boat is often filled in two or three hours. On the shores are "stages," or buildings erected on posts, and projecting into the sea, to allow boats to come to them as to wharves or piers. The fish are carried to these "stages," where, in the hands of the "cut-throat," the "header," the "splitter," and the "salter," as four classes of the " shoreamen" are called, they are prepared for the "dryer." When sufficientiy salted, they are washed, and transported on "hand-burrows" to the "flakes," whera they are spread and dried. Once cured, they are piled in warehouses to await sale or orders for shipment. The "saiter" and the " dryer" should he careful and expert men; the one to distributa the ault with a skillful hand-the other, that dampe and ruins do not injure the fish while exposed in tha air. Three qualitiea are usually sorted for exportation, and a fourth, consisting principally of broken and discolored fieh, is retained for consumption. Women and chilidren are sometimea employed in the loats, and very frequently assist the curers on shore. During the fisting season there are no illers of either eex.
'The labors of the fiehermen and shoreamen are almost incessant. The time devoted to sleep, under ciroumatances that often occur, is insufficient for the demands of nature; while long abstinence from food is not uncommon.

The fishermen formerty llved in the rident of struetureaf but they now occupy comfortable dwellings. Their food to coarse, and their mannera rongh. Intoxtcating drinka were once an common among them as tes or water. Of late yoarn there has been a senalble change for the better; and a large clase are moral and temperate. Their habits of lifo are irregalar, from the nocessities of tholr position ; but in hospitallty and acts of kindnese thoy are not excelled by men of the hligher walks of society. They are to judged in mercy, for their opportunitles to improve are few, and their temptatione to orr are many.

Enolun Cod-Frausay, Nzwfoendland.

| Yeavo' | $\begin{array}{\|c} \mathrm{No} \text { of of } \\ \text { vencela. } \end{array}$ | Tounige. | Ne of mus. | Ne. of boals. | quiatale of ash esporied | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1077 | 80 | ...0. |  |  |  | .... |
| 1608 | 900 | .... | 10,000 | . $\cdot$. | .... | 1 ..... |
| 101b | 250 | .... |  | - | -** | ** |
| 109 | 400 |  | .... | . $0 \cdot 0$ |  |  |
| 1693 | 150 | 18,000 | 8,000 | .... |  | .... |
| 1670 | 80 |  |  |  | .... | .... |
| 1674 | 970 | - 8 | 10,800 | .... | .... | .... |
| 1701 | 121 | 7,091 | 2797 | .6.0 |  | .... |
| 1716 | 161 | 9,198 | 9,110 | .... | 106,904 | ** |
| 1784 | ..... |  | .... | **** | 111,000 | *** |
| 1782 |  |  |  | .... | 910,000 | .... |
| 1760 1163 | 17\% | 82,019 | 4,103 | *** | 488604 | ..... |
| 1769 | 854 | $\ldots$ | .... | . | .... | *...* |
| 1770 | 868 | .... | ..... | .... | .... | . . |
| 1771 | 869 | .... | - $\cdot$. | - $\cdot 1$ | .... | - $\cdot$ |
| 1774 | 508 | - |  | . 0.0 |  | - $\cdot$ |
| 1774 | 654 | .... | 24,659 | . . . | 750,877 | .... |
| 1785 | 892 | . $0 \cdot 0$ | ..... | . $\because$ | \$91,276 | * $\cdot$ |
| 1780 | 240 | .... | *.. | **' | .... | . $\cdot$ |
| 1787 | -806 | *** | - $\cdot$. ${ }^{\text {a }}$ | $\ldots$ | *.. | .... |
| 1788 | 889 | ...* | .... | - | .... | ... |
| 1789 | 804 |  | $\cdots$ | . |  | .... |
| 1700 | 259 | 81,644 | $\ldots$ | .... | 634,421 | * $\cdot$ |
| 1791 | 945 | 84,168 | - $\cdot$. | .... | ..... | .... |
| 1782 | 976 |  |  | . $\cdot$. | .... | ** |
| 1798 |  | 18,883 | 1.268 | . . . |  | * |
| 1799 | 886 | 88, 508 | 2,410 | .... | 458,887 | . $\cdot$ •, |
| 1800 |  | .... | .... | ... | 882.000 | , |
| 1805 | - | .... | -... | . . . | 898,840 |  |
| 1814 | ...0 | .... | . $\cdot$. | -.. | 1,200, 000 | 12,000,000 |
| 1815 | -1.0 | .... | - . $\cdot$. | - | 1,180,661 | -** |
| 1820 |  | .... |  |  | 899,789 | .... |
| 18.5 | ...* | *... | $\cdots$ | * $\cdot$. | 978,464 | . |
| 1890 | . 0 | .... | . $\cdot$ | .... | 760.177 | .... |
| 1582 | .... |  | ... |  | 619,177 |  |
| 1883 | .... | ... | . | . $\cdot$. 0 | 688.590 | ... |
| 1684 |  | .... | .... | ... | 674.958 | *..' |
| 1885 | $\ldots$ |  | ...0 |  | 712.643 |  |
| 1833 |  | .... | . $\cdot 6$ | 6,i30 | 784.515 | $2,420,000$ |
| 1840 |  |  | .... | $\cdots$ | 916795 | 2, 20.0006 |
| 141 | ... | .... | . . . | . | 1,909,745 | \$,085,003 |
| 1643 |  |  | .... | . . . | 1,007,980 | 2,800,000 |
| 1543 | . $\cdot$. | * | *** | - | 036,21) | 2,660, 000 |
| 184 |  |  |  |  | 852,168 | 2,410,910 |
| 1845 |  | -... | . | ${ }^{\circ}$ | 1,800,898 | 2.942000 |
| 1847 |  | .... | .... | . | 897,978 | 24412000 |
| 1848 |  |  | .... |  | 920,366 | ¢, 458,400 |
| 1549 |  | .... | . | 0,989 | 1,175,167 | 2,940,000 |

Exolisn Heraino-Fisuery, Sewfoumdland.

| Yewr. | Berrola pleliced exported. | $V$ elue, |
| :---: | :---: | :---: |
| 1885. | 15,266 | *-8, 615 |
| 1589............ | 20.406 | 69,300 |
| 1840........... | 14,648 | 45,190 |
| 1841........... | 0,905 | 81.96\% |
| 1818.......... | 12,6\%9 | 85,405 |
| 1848........... | 9,649 | 22, 80 |
| 1844........... | 18,40 | 83, 225 $^{\text {a }}$ |
| 1445........... | 20.918 | 54,170 |
| 1847...........\| | 9,007 | 25585 |

The Nenfosndland Seal-Fishery, wo called,- This business is of recent origin. The first sceount of it is In 1795, bat it was not prosecuted to any extent until the general peace, In 1814. Seals frequent the coastm of Newfoundland In the spring. They go upon the lce in the polar meas to bring forth their young, and are awept along by the currents to millder regione, where, willt upon the lee, hundreds of thousunds of them are annually killed. Dering the passage from the remote north, they apparently live without much food, but yet are quite fat when meen by those who adventore in pareult of them. The vessels engaged in cotching seals are frum finy to twe hund.ed tons, and
carry from fifteen to forty men cach; ?7 They leave Nowfoundland In March, and proceed to sea until they meet the ice, and on falling In with fit, are forced into It ase far as poselble, by Implemunte whioh ore arranged for the purpose. Fast imbedded in the rast and soemingly limitiens fielde of ice the ereww disperse in avery directlon in aearch of soals, which are inactive, and are genorally easily caught. They are killed vith fire-arms and with clubs, and often while asleep. Occasionally the large amea rediat. Tha moans of the young during the alanghter are plteous.
The flesh of aeale fo unfit for food, and they are only valuable for thelr fat and skina. The common method ts, to atrip off the okine and fat together, and to carry these parta to the vencele, leaving the ren.alnder upen the lee; but when the weather or other circumstancea will not permit this, the carcess is traneported whole, and the valuable parta are stripped off subsequently.' Seal-catching closes toward the end of April.' The moat furtunate vessele make two voyagea in a season. After the arrival of the vessela in port, the fat la eoparated from tho skins, cut into pleces and pat into vata, where, hy the warmth of the oun, the ofl cozee ont. The akins are epread and saited in piles, and when rroperly oured, are packed in hundles of convenient eize. In the whole circle of human employments, few of nove are more exciting and perilous than the catcbing of seals. A storm of aleet and onow in the night is terrible, and the stoutest hearts quail. While the vessels ure absent, the greatcst anxiety prevaila in the porte of departure, and the most distressing rumora prevsil : at tlmes, a full month elapses before the arrival of a alngle vessel, and every imaginable cause ts asslgned by alarmed fanilies and friends for the delay of tidings from the sealingground. North-enet galea drive the lee toward the ohore, and frequently produce fearfol disasters to both Ife and property In 1843 the lose of vessela was very conalderable, und several entire crews perished. Some vernels were wrecked in 1849.

The year 1827 was uncommonly prosperous. Fortyone vessels laden wlth seals arrived at St. John's in a single week. They caught 69,814 of the oijjects of their search. One of these vessels took upwarl of 3000 in six days, and another, atill more auccessful, about 3500 in the aame time. The intense excitement which attended the alaughter of so large numbers, in so short a apace, can be readlly imagined.

Statistice of the Newfoundland 8eal-Fiamery.*

| Vear. | Famployed. |  |  | Espurts. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Veasela. | Tonoage. | Mre. | Scmi-sking. | Ture of olls. |
| 1795 | -*.* | *** | **** | 4.900 |  |
| 1815 | ... | .... | . | 141.874 | 8,295 |
| 1820 | .... | .... | .... | 2y1,344 | 8,294 |
| 180) | . . . | .... | - | 291,510 | 7,506 |
| 1829 |  |  | $\because *$ | 220,619 |  |
| 1830 | 98 | 8,193 | 1,983 | 150,942 | 12,871 |
| 1881 1882 | 119 | 8,046 11.469 | $8,678$. |  |  |
| 1892 | 153 | 11,469 | $8,294^{\circ}$ | 442,693 | 10,010 |
| 1838 | 105 | 8,665 | 2.964 | (0)1,446 |  |
| 1884 | 125 | 11,020 | 2.910 | 860,155 | 9,030 |
| 1935 | 180 | 11,167 | 9,918 | D07. 494 | 11,780 |
| 1486 | 196 | 11,425 | 2,955 | 881.041 |  |
| 1687 | 111 | 10,649 | 9.940 | 252,910 | .... |
| 1834 | 110 | 98800 | 9,826 | 875,861 | $\ldots$ |
| 1540 | 76 | 6,447 | 2,029 | 487,501 | . ${ }^{\text {. }}$ |
| 1810 | 78 | 6,19] | 9,058 | 631,845 | . |
| $184 t$ | 74 | 5,965 | 9,078 | 417,115 | $\cdots$ |
| 1448 | 74 | 6,085 | 9,004 | 344,688 | . $\cdot$. |
| 1843 | 108 | 9,025 | 8,177 | 651,870 | . ${ }^{\text {a }}$ |
| 184 | 191 | 11,089 | 8,775 | 645,590 | . |
| 1845 | 12 s | 11,972 | 2,948 | 854,202 | .... |
| 1846 |  |  |  |  | * ${ }^{\text {a }}$ |
| 14.4 | 824 | 80,810 | 9,683 | 480,831 | . |
| 1848 1449 | 168 | 16,444 | 5,407 | 681,004 | .... |
| 14.49 | 975 | 36,129 | 0,848 | 800,079 | .... |
| 1850 | ... | $\ldots$ | $\cdots$ | 400,0001t | . |

- The vessels were from the port of 86 . John'a, exeept in 1847, 1848, anil 1849.
\& Entimated from the soveral sceounts of the catch of that year.

Reference to the tahle of statintice will afford information as to the general state of this branch of lindue
try ains curn of alone. Bomavi knowu ceeded procure Fiobs that hol Pierre geatlem of Pran tent, $\mathrm{g}^{\mathrm{a}}$ degrees Monts of his d the pilg to the H the bour Brunsw Maine. late Ger De Mon napolisbefore Scotia. dreunijo patents distiag gave hl seems secure carried lished at into $\mathbf{C a}$ William it. As time ap there is Nova Sc crown, i Down was hat dent $\mathrm{En}_{\mathrm{g}}$ Phillips, lect the garrison of inhal the town Massach fishery, thousan 1763 by Cape C transpor and four at prese ports at lars. 1 ع1200 ( of farm settleme particuld of the $t$ Maine, the site petition from th agents they int he waa
try aince the yoar 1830. It will be meen that the return of veasele fitted ont, in from the port cf SE. John's alone. .The xamber from Concepelon, Trinity, and Honavista Bays, and from othor parts of the bland, is known to be considerable, and in 1845 to have exceeded that of the capital, but I have been unable to procure acourate accounte for any other year.
Fisheries of Nove Scotia.--The original grantee of that half fabulous, nover dofined country, Acemili, was Pierre de Gast sionre de Monto, a Protostant, and a gentleman of the bed-chamber of Henry the Fourth of France In 1608, his royal manter, by lettere patent, gave him the territory botwoen the 40th and 46th degreen of latitudo, and in the following year $D_{0}$ Monta came in porson to explore and take posecesioe of his domaina. Sixteon yeare before the landlog of the pilgrims at Plymouth, he wintered upon an island ia the River St. Croix, which, since the adjustment of the bonadary-line between the Unlted States and Now Brunswiek, has been conaldered within the Umita of Maine. 1 This island i . claimed by the heirn of the late Genaral John Brewer, of Roblinston. Relica of De Monts' sojourn apon it centlane to be found. Ap-napolis-the Port Royal of the French-was founded before his return, and is the oldest settlement in Nova Scotia. The " lieutenant-general of Acadia, and the circuin, jacent country," accomplished but Itttle. His petent allowed tim to "carefully search after and to distinguish all corts of mines of gold and silver," and gave him the monepoly of the trade in furs. He seems to have conflimed his attention to measuren to secure the latter; yot fish were caught, cured, and carried to France. A permanent fishery was established at Caneeau. Acadia soon passed from De Monte fato Catholle hands, while the English grant to Sir Williom Aloxander, In 1021, emhruced a large part of It. As the ovente connected with our subject at this time appear in the account of the French fisheries, there is nothing te demand our attention antil after Nova Scotia was permanently annexed to the Britiah crown, by the treaty of Utrecht, $\ln 1713$.
Down to the period of our Rovolution, Nove Scotia was harilly known except for its fisheries. The resident English population was so small in 1719, that Phillips, the military governer, was compelled to select the council, required by his instructlons, from his garrison. Thirty-eix years later, the whole number of inhulitants was estimated at only 5000 . In 1760, the townshlp of Liverpool was settied by persons from Massachusetts, who designed to prosecute the salmonfakery, and who, anccessful in their labora, caught a thousand barrels in a aeason. They were followed in $1 i 63$ by about one hundrod and sixty famillies from Cape Cod, who aelected the spot called Barrington, transported thithar their stock and fishing vessels, and founded one of the most considerable flahing towns st present in the colony. The whele value of the imports at this period was less than five thensand doliars. In truth, the House of Assembly asserted in 17i55, that the amount of monsy In Nuva Scotia was $\varepsilon 1200$ (or $\$ 4800$ ), of which one tifth was in the hands of farmers. Such was the general condition. The settlement of Halifax, the capital, requires a more particular notice. Thomas Coran, a famous projector of the time, whose name occurs often in the history of Maine, engaged in a scheme to commence a town on the site of this city as early as the year 1718, and his petition for a grant of land received a favorable report from the Lords of Trade and Plantations; but the agents of Massachusetts opposed his plans, because they interfered with the freedom of the fisheries, and he was compeiled to abandon hle purpose.*

[^13]At the restoration $x$ Cape Broton, in 1746, the founding of a capital for Nova Scotis was undertaken as a government measure. "Aa a anbotitate. for Loulabourg restored to France,", sald Mr. Hartloy in the House of Commona, "you seetlled Halifex for a placs d'ermes, leaving the limits of the province as a matter of conteot with Frasee, whlch could not fail to prove, as it ild, the cauce of another war. Hed youkept Loninbourg, instead of sottling . Talifax, the Americans could not any, at least, that there would not have been that pretext for imputing the late war to thoir aco count." The new city was named in honor of the Earl of Hallfax, the president of the Lords of Trade and Plantatlons, "The sito," saya Hallbarton, "aboat midway between Cape Canseau and Cape Sable, was proferred to several uthers, where the noll was better, for the nake of ostablishing in Its noighborhood an extensive cod-fisher, nd fortifying one of the beat harbors in America.: Thus, Halifax wan designed as a fishing capital, and " as a auhutitute for Louisbourg." Liberal granta of land were made to officers and men Who were dismissed from the land and naval service at the close of the war, and Edward Cornwallis was appointed militery governor. Horatio Gates then an officer in the British army, and subsequently the victor at Saratoga, was among the first who landed at IIalifax, in 1749. The project involved the government in gerious difficulties, and the expenditure of enorinous sums of money. The amount first appropriated was $£ 40,000$. In a fow jears the cont to the nation was nearly two millions of dollars ! The fiaheriea were neglected, and the colonista, unable to support themsolvea, petitioned Parliament for additional relief, even after so large an amount of money had been disbursed for their benefit. Omitting dotaily, we may atate that five millions of dollars of pubHic money were expended finelly ln the colonlzation of Nova Scotia, according to the plan devised by the Boarc' of Trede and Plantatlons.

Un ed States.-Our continent was discovered in 1497, by Cabot; and from the moment that the chronicler of his vojage made known to the people of England that our watera teemed with fish-that here "were great seals, and those which we commonly call salmons; and also soles above a yard in length, but eapecially there is a great shundance of that kind which the savages call baccalos or codfish"-down to the year 1620, as we have seen in the first and second parts of thin report, the intercourse of the French and English th the northerly seas of AmerIca was constant $;$ and of all this were not the Puritans as well informed as others? Were they ignorant of what transpired in the New World in the ten years Immediately preceding their tlight from England, and during the ten yesrs of their reaidence in Holland? Whilo among the Dutch they were neglected, if not unkindly treated, and became poor and unhappy. Nany places to which to emigrate were mentioned, and the advantages and disadvantages of each were amply discussed. As soon as the decision of the littie flock was made, some were dissatisfied and withdrew. The question arises, why did they decide to come to America ?

I have no space to argue a question which involves so many inquirics, but can not forbeer to state that, in a few words, some of the principal incidents which attended their coming to their "wilderness home." Ouitting to notice the accounts of Amidas and Barlow, who explored the southern coast of the United States In 1584, under the auspices of Sir Walter Raleigh, and what is said of Sir Richard Grenville's expedition *: the same region the year following, es well as the various other enterprises which, in several particulura, are pertinent to the subject, we come at once to the voyage of Gosnuld, in the year 1602. He was the first Englishman who allled directly across the ocenn, and the tirst who attompted to make a eettlement within
the limits of New England. The atory of his adventarea was written by two of hin asesciaten, Archar and Breroton, and mubliahed in London immediately after Mie retnim. - Of Brereton Hitta seema to be known but Gonnold and Archer were aubeeqnently prominent among the aarly anttlers of Virgimia, and between the latter and the colebrated Amifis there was a long and a deapernte quarrel. From Brereton'a narrative, at well as from the tracte eppended thereto, it appearm that Raleigh was the patron, perhaps the original mover, of the onterprice. An containing the carlieat information of Masaschusetts printed in Eingiand, these pajers are of great valua. The attention of merchants, of fishermen, and of those intervated in colonination hitherto, and for nearly a century, directed exclusively to Newfoundland, was now to bo diverted, in some measure, to New Eingland. The reaults will appear aa we progrese.

Arrived or our const, Gosnold archored near land which he called "Shonl Hope;" but, catching a "great stere of codfish," he changed the name to Cape Cod. $t$ While there, saya Archer, "we saw wculls of herring, mackerel, and other emall fish, in great abnndance." Brereton, whose account is more exact and definite, remarks with much earnestness npon most matter connected with our inquiries. "Surely, I am persuaded," be ohserves, "that, in the months of March, April, and May, there is upon this coast better fahing, and in as grent plenty as in Nerfoumd land; for the ecults of mackevel, herringn, cod, and other fish, that we dally saw as we went and came from the shore, were wonderful ; and, benides, the places where we took these cods (and might in a faw days have laden our ship) were hut seven fathoms water, and within less than a league of the thore, when in Newfoundiand they fish in forty or fifty fathoms water, and far oft."

To pass the obeervations which were recorded as they continued their explorations, we find in the tracts appended to Brereton the prediction that, "forasmuch as merchants are diligent inquisitors afler gaine, they will $s 00 \mathrm{~m}$ remore their trade from Nearfuundland" to New Eingland, where there in a better climate, greater security against the depredations of piratee, and less expense for outfits, shorter voyages, and safer hariors. The writer, anticipating that a eelony would soon be founded, predicted further, that the ships of all the Dations that "have heen accuatomed to repair unto the Newfoundland for the commodity of flah and oils alone, will henceforth forsake" that island, "when once we have planted people in these parts; by whose industry shall be provided, for all commerce," the products of the nea, "and many commodities bealden, of goon. importance and value." Fighteen years elapsed ; the Pilgrima anchored off the same "Shoal Hope," and settled this very country.

Pring followed Gosnold, and explored the waters of Main in 1603. Ile saw and named the Fox Ialands, in Per. *cot Ilay, and fonnd gool mooring and fishing. wike Gosnold, he considerel the fish which be took superior to those of Newfoundiand. Ife made a second voyage three years later; and Gorges remarks that his dincovery of the eastern part of New England was perfect, and his account of it accarate. Waymouth, under the patronage of aeveral English noblemen, and other persons of rank, came in 1605. "A True Relation" of his adventures was written hy James Rosier, "a gentleman employed in the voyage," and printed in London in the same year. IIe egrees with those who had preceded him in every essential particular. As they departed for England, they caught very large fish; and he eays that those

[^14]on boand of the ship, Who were familiar whth 'he buginees, "would warrunt (by the holp of God), 11 a short voyage, with i feve good feliers, to make a morv jupitable nwirn from hence than from Nexpfoundland; the heh being oo much greater, better fed, and abumdance with (rain," etc."

The rioheries from the commencement of the Revolufiomany Controweray to the Dedaration of Independence. -In tracing the origin and progren of the fiaheries of New Eagland, we have seen that thay firnished our first articies of export, and laid the foundetion of our navigation and commerce. It wat mo in Eupope. Of the present maritime powern of the OH World, there in acarcely one that deea not ewe much of its commercial proaperity to the asme branch of induatry. Some fugitiven from the, wrath of the monster Attila fied to the islea of the Adriatic, where, of necessity, they adopted the avocation of fishermen. By this employment, steadily continued, Venice in a few centuries became renowned for her wealth, commerce, and naval atrength. The origin of the republic was celebrater for a long period, and the ospisaion or refusal of a Doge to provide the custonary banquet, and to suimit to the fishermen's ombrace, sllowed by his predecessors on this national festival, made the name of Contarini hateful, and wellnigh caused the subversion of all legal restraint, and the overthrow of the relyning family. Genon, teo, grew rich and powerful by the same means, and, not content with her own limited fishing-grounds, undertook the conquest of othere. Usurping the flsheries of the regions of the Bosphorua, she captured and for a while awed into sulmission their rightful owners. Amsterdam, from a village of herring-catchers, cabins, and curing-sheds, rose, by the skill of the inmates of these frail structures, by the fame of their commodil. tien in foroign countries, and by the immense consumption of them at home, to unexampled sffluence and grandeur; and the sayings everywhere current two centurien ago, that "Amsterdam is founded on herring-benes," and that "Dutchmen's bodies ars built of pickled herrings," wera harily more than quaint expreasions of historic truth.
So oteadily and maccensfully were the fisheries pursued by the people of Plymonth, Massachusetts, New liampahire, and Maine, that only fifty years elapsed from the landing of the Puritans, before an English writer of high anthority in matters of trade, expressed his apprehension an to the evente likely to resuit, in the following reinarkable worle: "New England," oaid he, "is the most prejudicial plantation to this kingdom." And w'.y ? Because, "of all tho American plantationa, his majesty has none so apt for building of ahippitug an Now England, nor any comparably so qualified for the breeding of seasien, not oniy by reason of tho natural induntry of that people, but princtpaily hy reason of their cod and mackerel fisheries; and, in ny poor opinion, there is nothing more prejudicial, and in prospect more dangerous, to any mother kingdom, than the incresee of ahipping in her colonies, plantations, or provinces." Sir Josiah Child was alarmed too much, probably, at what really was in his own time, but atill saw with a propiet's ej, what was to be. Isut the policy of Eingland, from the restonation of the Sturts down to the Revolution, was in strict accordance with the spprehensions expressed by him, and ahe not only negiected and declined all sappert to the navigation and commerce of Now England, but directly oppressed and reatrained them. Omitting notice of the acta of Parliament which do not relato specially to the suljeet before un, the first isw to claim our attention wan parsed In 1733, after a diacussion of two years. This act, by imposing dutien on rum, nuclasses, and sugar, imported into the colonies from any Weat India isianda other than British, was deaigred to break up an extensive and valuablo trade
with th thene pr flah. II of the away by now so put into diatilled of the ate inainted 1 the plant lanses frc domestic they coul losses. felture of ubmitter ence ; al Dutch, al period of Revolutic threatene produced, it, for qui
But in of the du was atter ner to cre dietion of people we arising be law, and
The mc lons and ahip-maste officers of New Engl cester, Fa and the in men, that sacrificed British ial country te "augar ay called in $t$
These in
Statistics

[^15]Fith the French, Duteh, and Spanioh blands, where thees products of the plantatione wore exchanged for fich. It If eald that, previone to the commencement of the trade to these lilands, molassen was thrown away by the plantors, and thint this article, which is now eo extensivaly need in food, was first aaved and pat into caska to be brought to New England, to be distilied into rumu. Cortaln it is, that on the paseage of the act of 1733, the people of the northern colenies Inslated that, nulous they could contlinue to moll finh to the planters of the forolgn islands, and to Import molasses from thence to be manufactured into spirit, for demestic consumption and for trade with the Indiann, they conld not prosecute the fisheries without ruinoun losses. The penalty for violating the act was the forfeiture of veseel and cargo. Yet Now Englend never snbmitted, though a fieet was ment to enfone obedlence; and the internleted trade with the Prench, Dutch, and Spanish Islands, did not ceane until a late period of the controversy which terminated in the Revolution. In fact, therefore, a measure which threatened to ruin the cod-fishery of New England, produced, as I lncline to believe, no serious injury to it, fir quite thirty years.
But in 1764 the act was renewed, and the collection of the duties it imposed on rum, molasses, and sugar, waa attempted by the officers of the crown, in a manner to creste the most anxlous concern; for, the jurisdiction of the admiralty courts was enlarged, and the people were deprived of the trial by jury in all cases arising between them and the government under this jow, and the trade and navigation laws generally.
The most alarming discontents followed the collisloas and quarrela which constantly occurred between ship-maters and merchants, on the one hand, and the officers of the customs on the other, in various parts of New England, and especialiy in Boston, Salem, Gloucester, Falmouth, and olsewhere in Massachugetts ; and the impression became general among commercial men, that their business and property were both to he sacrificed to appease the clamors of the planters of the British salanils, and to teat the ablity of the mother country to "raise a revenue in America" under the "augar and molasses act," ns this odious law was called in the politics of the day.
These incidents will serve to show the connection of
the finharles with the queations which cansed a dicmemberment oc the British ampirs. It rounalns to apeakk of the ac. $\because$, Parliamont pasced in 1776, which, by depriving the people of Naw England of the right of fishing, was designed to "atarve them into nabmitsslon." The trade arising from tha cod-fiahery alone, at that poriod, furniuhed the northern coloples with naarly half of thoir remittances to the mothor conntry, In payment for articles of Britinh mannfacture, and was thus the very lifo-blood of their commerce. The fishing towns had become populous and rich. Marblehead, for example, vext to Boaton, was the most lmportant place in Massaohusetts, and was second to the capleal only in popalation and taxable property: A fenrful change awalted all. The dispute was now to be determined by an appeal to arma, and every maritime enterpriee was to be interrupted and ruined.
We have already given in thin article a short historical account of the fishery of the United Staten, and of the treaties now or hitherto in force renpecting the fisheries ; so the remainder of this artlele will be confined to the atatintice of our fisheries since our separation from Great Britaln.
Statietics of the Cod-Fianert oy Mabaonuaztth phox the tean 1765 to 1775, asd thom 1756 to 1780.

| Towna. | From 1765 to 1775. |  |  | From 1788 to 1780. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Voenols } \\ & \text { menn } \\ & \text { emply } \end{aligned}$ | Toanage. | No. of | $\begin{aligned} & \text { Voneote } \\ & \text { ananly } \\ & \text { omply } \end{aligned}$ | Toneage. | No. of men. |
| Marblehead. | 150 | 7, 800 | 1,200 | 90 | 6,400 | 790 |
| Olonceater | 146 | 55890 | 1,888 | 160 | 8,600 | 680 |
| Mrneheste | 25 | 1,500 | 200 | 15 | 900 | 120 |
| Beverly.. | 15 | T60 | 190 | 19 | 1,285 | 157 |
| 8alem. | 80 | 1,500 | 240 | 20 | 1,800 | 1\%0 |
| Newbarypor | 10 | 400 | 60 | 10 | 480 | $8 i$ |
| Ipswich... | 80 | 900 | 190 | 56 | 860 | 248 |
| Plymouth | 60 | 2,400 | 420 | 86 | 1,440 | 259 |
| Cobasset. | 6 | 240 | 42 | 5 | 200 | 85 |
| Ilingham. | 6 | 240 | 42 | 4 | 180 | 82 |
| Scituste | 10 | 400 | 70 | , | 90 | 16 |
| Daxbury.. | 4 | 100 | 29 | 9 | 800 | 72 |
| Kingston. | 0 | 240 | 42 | 4 | 160 | 23 |
| Yermonth | 80 | 900 | 180 | 80 | 900 | 180 |
| Wellfeet. | 8 | 90 | 21 | ... | . $\cdot$ | .... |
| Truro . | 10 | 400 | 80 |  |  |  |
| Provincotown. | 4 | 180 | 82 | 11 | 650 | 88 |
| Clatham. | 80 | 900 | 240 | 80 | 900 | 240 |
| Nantacket. | 8 | 820 | 64 | 5 | 200 | 40 |
| Weymonth | - | 100 | 16 | 8 | 150 | 24 |
| In Malae. | 60 | 1,000 | 280 | 80 | 800 | 120 |
| Total. | 0651 | 25,690 | 4,405 | 690 | 19,185 | 8,202 |

statimics of tul Fibirateg of tur Unitbo States in 1840. Grifaal View bhowino the Peoduce, Men, and Capital employed in each State and Thebitoay.

| Slatec and Territories. | Number of quintale of amoked or dry fish. | Nomber of barrele of pickled tish. | Nuphber of gatilone of apernaceti oft. | Number of gallona of Whale end other fos oll. | Yaloe of whalebone end other productlone of the faberies. | Number of meo employed. | Capital larooted |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Naine. | 279,569 | 54,071 | 1,044 | 117,07 | \$2,851 |  | [526,907 |
| New Hampshire..... | 28,257 | 1,714 |  | 10.284 |  | 899 | 89,080 |
| Mnseachusetts, . ...... | 80,715 | 124,755 | 8,600,972 | 8,964,725 | 442,974 | 18,000 | 11,725,850 |
| Rhode istrnd........ | 4,084 | 2,909 | 447,268 | 638,660 | 45,528 | 1,160 | 1,070,157 |
| Cenneetlcut.......... | 1,984 | 0,503 | 189,207 | 1,909,047 | 157,572 | 2,215 | 1,901,640 |
| Vew York............. | 5 | 22,224 | 400,251 | 1,260,041 | 844,605 | 1,229 | 949,250 |
| New Jersey.......... | .... | 1,184 | 12,000 | 1,80,000 | 74,1000 | 179 | 98,275 |
| Pennsylvania......... | .... | 2,012 |  |  | 15,240 | 58 | 16,460 |
| delaware............. | .... | 29,100 | 40,704 | 142,0i5 | 7,987 | 165 | 170,000 |
| Maryland. . . . . . . . . . | .... | 7t,202 | $\cdots$ | 相 | 12,167 | 7,S14 | 83,947 |
| Virgtanm............. North Carolini.... |  | 80,815 73,850 | 202 .. | 2.898 | 4,150 $\mathbf{2 3 , 8 0 0}$ | ¢ ¢ $\mathbf{1 , 7 8 6}$ | 28,388 218,502 |
| Boath Carolina. | .... | 425 | .... | . $\cdot$. | .... | 58 | 1,617 |
| Georzis.............. |  | 14 | .... | . | . $\cdot$. | 6 | $\cdots$ |
| Alabama............ | 2 | ....* | $\cdots$ | ... | .... | . | ... |
| Mlsalsslppl. ......... | 0 | $\cdots$ | - $\cdot$. | .... | ...* | .... | - ${ }^{\text {c. }}$ |
| Lopislana........... | -.... | $9_{7}$ | . | $\cdots$ | .... | 7 | 942 |
| Kentucky............ | .... |  | .... |  | .... |  |  |
| Ohlo................. | .... | 8,5016 | .... | 14 |  | 165 | 12,210 |
| Inillana.............. | .... | 14 | .... | 23 | 1,150 | ... | .... |
| Mlinets . . . . . . . . . . . | ..... | $\ldots{ }^{1}$ | . | 23 | .... | ..... |  |
| Arkansas.............. | . | . | $\ldots$ |  | $\ldots$ | .... |  |
| Mleligan............. |  | 16,885 | .... | 60 |  | 458 | 28.640 |
| Fiorida.............. | 09,000 | 9,021 | $\cdots$ | 1,500 | 6,000 | 67 188 | 01,800 |
| lowa............... |  |  | ..... | 1,00 |  |  |  |
| Distret of Columbla. | - | 24,800 | .... | .... | 15,500 | 527 | 64,500 |
| Total. | 778,947 | 472,850 | 4,764,708 | 7,886,778 | 1,153,284 | 80,584 | 16,429,620 |

SATIATICS OF THA COD-FLAKERT OF THE UNITAD BTATE, Exitraitivo tna Toxxaon miplotad bount faid to Fisime AND the Yalve of thin RAyá.

| Y ${ }_{\text {ear }}$. | Tounage. | Bountioe | Sall Jupported. | Dried 0.h experted. | Value of exports. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1799 | 19,188 | Nene. | $\begin{gathered} \text { Buahs } \\ \mathbf{1}, 250,205 \\ \hline \end{gathered}$ | Tuntals. | Dollan. |
| 1790 | 28,348 | Nou. | 2,850,700 |  |  |
| 1791 | 82,542 | 4 | 1,590,479 | 888,287 | . |
| 1782 | 82,060 |  | 1,779,510 | 844,898 |  |
| 1798 | 50,168 | -72,98689 | 8,037,889 | 878,825 | ... |
| 1794 | 28,671 | 98,768 91 | 2,958,411 | 489,907 |  |
| 1795 | 88,984 | 68,280 47 | 2,238,186 | 400,818 |  |
| 1796 | 84,908 | 76,899 68 | 8,975, 222 | 877,718 |  |
| 1797 | 40,429 | 80,47876 | 2,674,251 | 406,016 | . |
| 1793 | 48,746 | 94,68480 | 2,891,453 | 411,175 |  |
| 1799 | 29,978 | 128,605 87 | 2,471,969 | 428,495 |  |
| 1800 | 29,427 | 87,858 45 | 8,005,807 | 892,726 |  |
| 1801 | 89,881 | 74,0908 | 8,989,064 | 410,948 |  |
| 1802 | 41,021 | 10444792 | 8,504,605 | 440,945 |  |
| 1808 | 81,813 | 117,178 77 | 8,802,804 | 411870 | 1,620,600 |
| 1804 | 52,014 | 145,986 78 | 8,479,878 | 867,828 | 2,400,000 |
| 1805 | 67,463 | 159,987 78 | 8,602,277 | 514.649 | $2.008,000$ |
| 1806 | 69,188 | 162,101 90 | 8,041,616 | 687,457 | 2,150,000 |
| 1507 | 69,906 | 181,204 17 | 4,671,698 | 478,484 | 1,896,000 |
| 1808 | \$1,984 | 142,91189 | 1,800,177 | 154,808 | 628,000 |
| 1809 | 81,486 | -47,166 11 | Nareturns | 845,649 | 1,128,000 |
| 1810 | 84,4,28 | 8,40644 |  | 280,884 | 918,000 |
| 1811 | 48,288 | None. | " | 814,887 | 757,000 |
| 1812 | 30,459 | ${ }_{4}$ | 4 | 109,019 | 592,000 |
| 1814 | 20,978 | u | " | 68,616 | 810,000 |
| 1814 | 17,345 | U | 898.844 | 81.810 | 128,000 |
| 1815 | 86,988 | 1,811 74 | 2,020,181 | 108, 251 | 494.000 |
| 1818 | 48,126 | 84,78686 | 6,454, 221 | 219.991 | 9,36,000 |
| 1817 | 64, 907 | 119.91981 | 2,844.504 | 267,514 | 1,008,000 |
| 1818 | 64, 107 | 148,915 65 | 8,678,626 | 808,747 | 1,081,000 |
| 1819 | 76,076 | 161,628 85 | 8,874,852 | 280.565 | 1,082,000 |
| 1520 | 78,040 | 197,834 68 | 4.711.829 | 821,419 | 964,000 |
| 1821 | 62,293 | 170,00891 | 8,948,787 | $267.8 \times 5$ | 708,778 |
| 1522 | 60,225 | $149,897 \mathrm{NS}$ | 4.057,881 | 841,289 | 666,780 |
| 1524 | $7 \times .259$ | 176,706 04 | 5,127,657 | 202, 666 | 734.024 |
| 1824 | 77,446 | 808,934 08 | 4.401,899 | 810,189 | 878, 685 |
| 1595 | 81,462 | 198,724 97 | 4,574.202 | 800,407 | (88n, 895 |
| 1826 |  | 215,459 01 | 4, 014,740 | 269,483 | 667,742 |
| 1827 |  | 206, 5 55 | 4,8\%0,469 | 247, 821 | 747, 871 |
| 1628 | 94,756 | 289,14580 | 8,962,967 | 265,217 | 819.926 |
| 1599 | 101,797 | 261,009 94 | 8,045, 247 | 994.761 | 747.541 |
| 1880 | 98,589 | 197, ¢12 ge: | 5,874,046 | 299,796 | DS0,690 |
| $1 \times 11$ | 106,188 | 200, $4 \times 589$ | 4,182,840 | 280,537 | 625,898 |
| 1892 | 102.454 | 219,74587 | 5, 041,424 | 250,044 | 748,909 |
| 1889 | 111.445 | 245,182 40 | 6, 422,672 | 249,649 | 718,817 |
| 1,34 | 117,455 | 218,218 78 | 6,039,076 | 254,188 | 680.895 |
| 1835 |  | 998,781 98 | 5,875,864 | 287.741 | T88,405 |
| 1836 | 69,306 | 218,091 08 | 5,038,666 | 240,769 | 740.464 |
| 1887 | 881.8262 | 250,18108 | 6,849,706 | 158,943 | 0, 6,506 |
| 11885 | 70,004 | 814,149 00 | 7.108,147 | 906,024 | 626,245 |
| 1899 | 72,248 |  | 6,061.018 | 208,740 | 719,815 |
| 1840 | 74,086 |  | x,188.203 | 211,425 | 541,008 |
| 1411 | 68,251 |  | 6, 828,946 | 2.52, 199 | 6 H 2.810 |
| 1542 | \$4,4048 |  | , | 256,083 | \$67,782 |
| 1848 | 61,228 |  |  | 174,240 | 881,175 |
| 1844 |  |  |  | 271,810 | 649,843 |
| 1845 | 70,990 |  |  | 283,890 | 804.858 |
| 1846 | 79,818 | ... |  | 277,401 | 099,559 |
| 1447 | 74,280 | .... |  | \$898,970 | 658,629 |
| 1844 | 89, ${ }^{3} 6$ |  |  | 214,549 | $619.4 \bigcirc 9$ |
| 1849 | s 1,095 |  | 11,622,163 | 197,457 | +19,092 |
| 180 | 98,406 |  | 11,224,105 | 164,610 | 865.849 |
| t851 | 95, $616^{*}$ | . $\cdot$. | 8,081,176 | 181,058 | 867,729 |

- Malne, 45,52s: Naw Hampelire, 1,916: Massachusetta, 39,952 : Khode falasd, 871 ; Connecticut, 6,is5; New York, 1,08s; Total, 95,616

The Muckrel Fiahery, from the settiment of Veu Eingland to the year 1852.-It is fremuently sald that the mackerel fishery is of very recent origin, or that, al least, reashls were not employed in it unill about the close of the last or the beginning of the jresent century. isuth suplasilions are entirely erroneuas. The Indians, regarilless of the beautiful form and color of the lish, called it ranewune ${ }^{2}$ eseag, on actount of ila fainesa. There is mention of it In the earliest records of the country. Winthrop relates that hat 1033, the whil Griffin, two daya before her arrival ht loaton, lont a pasenger by drowatng, as he was canting forth a line to eatch mackerel. The tirst selthers must bave commenced the ffaliery soon after, alnce, to unit several minor incilente, we have the fact that Allerton, one of the lidgrims whe came over in the Jfoythurer, recelved mackerel for cale at Now Haven, on "half profita," in the year 1653. That the husiness wus prosecuted with success is evident from the additional
fact, that in $\mathbf{1 6 6 0}$ the commissionars of the colonies of Now Eigland reoommended to the general courta of the oonfederacy to regulate it, "considering" that "the fiah in the most staple commodity of this country." The muckerel fishery at Cape Cod was held by the government of the colony of Plymouth as publio property, and its profite were appropriated to publie uses. The records show that it was rented from time to time to individuals, who paid atipulated nums; and that a part of the fund to anpport the girst free. school eatablished by our Pilgrim fathers.uas derived from it.-Sabine's Report to Congress, $185 b$.

The proposition to found and endow a achool of this description seema to have been made in 1663 , but nut to have been adopted until seven yenrs Iater, when the general court, "upon due and aeriona consideration, did freely give and grant all such profits as might or should annually aecrue to the colony," from this and tha bass and herring fisberies, at the same place. In 1689, the "rout of the Cape fishery was added to the appropriation for magistrates' salaries for that year."
Statibtics of tax Mackmell Fibanat of tha Uniteo Statide

| Years. | Tonnage employed. | Mackerel Inapeeted. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Maranchinebtts. | N, Itsmphire. | In Maine. |
| 1804 |  | $\begin{aligned} & \text { Harrels. } \\ & 9,079 \end{aligned}$ | Barrela. | Harruls. |
| 1805 | .... | 8,920 | $\ldots$ | $\cdots$ |
| 1306 | *... | 8,478 | .... | * $\cdot$. |
| 1807 | .... | 10,904 | .... | ... |
| 1808 | ... | 7,784 | ... | .... |
| 1809 | .... | 8,565 | *** | ...' |
| 1810 | . | 18,058 | .... | .... |
| 1811 | . $\cdot$. | 19,089 | . $\cdot$. | ... |
| 1812 | .... | 0.018 | .... | . $\cdot$. |
| 1518 | .... | 8,838 | *.. | -••' |
| 1814 | ... | 1,849 | . . . | ...* |
| 1918 | .... | 16,894 | .... | .... |
| 1816 | ...* | 80.021 | .... | . |
| 1817 | .... | 87,988 | .... | -•.. |
| 1818 | . $\cdot$. | +4,210 | .... | *... |
| 1819 | . | 105,498 | .... | .... |
| 1820 | * | 9318.248 | . $\cdot$. | . $\cdot$. |
| 1824 | ... | 111,009 | .... | . $\cdot$. |
| 1822 | - | 160,294 | -*** | .... |
| 1823 | .... | 145,006 | .... | $\cdots$ |
| 1824 | ...' | 191,650 | . $\cdot$. |  |
| 1825 | .... | 294.881 | .... | 89,0tis |
| 1826 | .... | 158,740 | * $\cdot$. | .... |
| 1827 | . . . | 190.310 | .... | .... |
| 1848 | .... | 247,324 | .... | ... |
| 1829 | - | 225,482 | $\cdots$ | '. ${ }^{\text {c }}$ |
| 1840 | , | 301) 468 | 20, 3100 | . |
| 1881 | ... | 858,160 | 21,400 | .... |
| 1598 |  | 212,452 | 21.700 | .... |
| 1888 | 43,725 | 912.946 | 19,245 | $\cdots$ |
| 149 | .... | $25.2,3 \times 4$ | 18,2(*) | 41,001 |
| 1536 | . . . | 194,450 | 15,3410 |  |
| 1616 | … | 176,981 | 9,450 | 25,205 |
| 1887 | (6,4, ] 1 | 189,157 | 5.225 | 922, fing |
| 1585 | 50,649 | 10\%,093 | 8, 420 | 24,812 |
| 1439 |  | 78,018 | 710 | .... |
| 1840 | 24.208 | 50, $9 \times 2$ | 680 | . $\cdot$. |
| 1841 | 11.921 | 85.897 | 1,1 ( $)^{\prime}$ | .... |
| 1842 | 19,640 |  | 1, 0 保 | .... |
| 1458 | 11.775 | C4. 451 | 1,175 | .... |
| 184 | 16.170 | 80.181 | 1,240 | .... |
| 1545 | 91.418 | 21228318 | 1,1175 | ' ${ }^{\text {a }}$ |
| $1+41$ | 86,464 | 174, 144 | 1,809 | , |
| $1 \times 47$ | 81,461 | 9:22, \%NT | 2, (\%) | .... |
| 1848 | 41,tins | 1461,180 | 2,4101 | .... |
| 189 | 42,949 | 231,404 | 2, 417 |  |
| 180 | 84.112 |  | 8,125 |  |
| 1551 | 50, $01030{ }^{*}$ | 827.242 | 8,1071 | 81,42 |
| 1432 |  | 10\%, 66 s | 2,140 | - ... |

- Malne, 9,89x: Now IImpshlri, 481: Masmachuetts, 80,416; Rhouto 1sland, 190; Connectleut, 594; Total, $50,539$.

Exact atatements as 10 the progressanit extent of the mackerel tishery previous to the Revolution, are hardiy to be formd ; but it Is atilf eertaln that the peophe of thode Ishand and Connecticut, as welt as those of Massa-huselta, were " largely cuncerned in it "" and that iteets of aloojon employed in It were often scen ujon the coast and in the harbora. It is certain also that aiout the year 1770 the town of Scituato alone uwnel upward of 30 vessels that were annually titted out as "mackerel eatchers;" and that the whole number of vessels in Massachusetts was nut less thas 100.

Soon paper, said t Massa Ceylo Annua Qual
otak in M $1 \mathrm{~N}, 18$
M WI
$\mathbf{N}^{2}$ Bos
Glo Glo
Bev Roc
Nov Nov
Pro Trul
Wel Wel Har
Den Yarn Barn
IIng

Cohn
Sale

The
est

Relna

All
Total

Statistice Pogtid

| $Y_{\text {est }}$ |
| :---: |
| 1821 |
| 1892 |
| 1823 |
| 1024 |
| 1425 |
| 1526 |
| $182 \%$ |
| 1828 |
| 1899 |
| 1510 |
| 1831 |
| 1882 |
| 1383 |
| 154 |
| 1845 |
| 14*6 |
| 1437 |
| 1639 |
| 14.11 |
| 1*11 |
| 1842 |
| 14.4 |
| $1 \times 4$ |
| 15.5 |
| 148 |
| 1478 |
| 148 |
| 149 |
| vivo |

There is industry for tioned. A living, ente Whas comind personally e aver matid I to me by $h$ subatance is

Soen after the peace of 1783 , a writer in a Boston newspaper, in a series of artlcles on American commerce, gutd that the mackerel fishery " was of more value to Massschusette than would be the pearl fisherles of Ceylon."
annual Retuan of tife muzbrb of Barkels, Halyma, QUartyra, and Eigntrs of Baybila or Mackerel and othri Picklad Flat, ratiyatrd tn Barkila, ingprotid 81, 1852, as par thi Briuens of tin Defuty Ingezotors, now in thi Offion or the Inbpiotos Gentrain


Total.
106,76s
The above includes all except two returns from I'rovincetown and one from Scltuate, estiniated at. . . . . . . . . . . . . . . . . . . . . . . .

1,000
Total 1852............................... 197 . 78
Rotuspected at Boaton........................ 19,771
Total. .................................. . 317,5401
All other kinds of ptekled fish.............. . 0,254
Total amount of mackorol inspectod in 1889 197,768 Total amount of mackorol tappected in 1851329,278

Decrease of 1852 from 1851.......... 181,509,
Statigtics of forion Mackrarl imported into and gxfokted fhom tile United Stateg, and of dhigd CodFisil inportho into thr anng.

| Year. | Macierel. |  | CodAsh. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Imported Into the United States, | Exporled from the Uniled States, | 1 mported. |  |
| 18.1 | Barrels. 7 | Marrels. None. | Qulatale. | Velue. |
| 18.2 | 887 | 4 |  |  |
| 1820 | 67 | * | .... | $\ldots$ |
| $1 \times 24$ | 790 | * | .... | .... |
| 1325 | 248 | $\cdots$ | .... | .... |
| $1 \times 26$ | 81 | * | .... | .... |
| 1827 | 89 | $\cdots$ | .... | .... |
| 1828 | 88 | 4 | .... | .... |
| 1829 | 95 | 4 | .... | . . $\cdot$ |
| 1940 | 891 | 4 | . . . | .... |
| 1831 | 4, BH 2 | " | $\ldots$ | ... |
| 182 | 84 | " | *.. | ...' |
| 1353 | 20 | 4 | . . . | .... |
| 1544 | 223 | \% | ....* | *** |
| 15\% | 8,103 | 850 | .... | .... |
| 1838 | 6,087 | 987 | .... ${ }^{\text {c }}$ | ** |
| 14817 | 1,256 | 850 | . $\cdot$. | * . ${ }^{\text {c }}$ |
| 1498 | 182 | - ${ }^{\text {c }}$ | $\cdots$ | $\because$ |
| 1589 | 7,046 | .... | 4,205 | 224.408 |
| 1411 | 11,888 | . $\cdot$. | 4,9011 | 19,845 |
| $18+1$ | 10,887 | . . . | 2,433 | 19,268 |
| 13+2 | . $\cdot$. | *'* | ' $\cdot$. | . . . |
| 154 | '... | .... | ..... | .... |
| $1 \times 45$ | ... | *.. | ...* | . $\cdot$. |
| $15+6$ | ... | . . . | * $\cdot$ | . |
| 12.7 | ' ${ }^{\prime} \cdot$ | *', | . $\cdot$. | ' $\cdot$. |
| 1-18 |  |  |  |  |
| 149 | 189,5065 | 29,295 | 22,820 | 48,709 |
| 1400 | 75,411 | 18,577 | 25,115 | 45,90t |
| 151 | 102, 1284 | 18,240 | 14,705 | 27,769 |

There is little of Interest relating to this hranch of industry for several years after the period last mentioned. A highly renpectable shipmaster, who ts still ilving, entertaims the opinion that the fishery In vessels was commenced within to years; und that " he was personally engaged in the firat regular mackerel voyage ever maíd in New England." Ilk account, as related to me ly himself, would occupy too mueh room. Its substance is, that he engaged in the coasting business for
some tims between Massachusetts and Maine; he commonly saw and caught mackerel during the summer mouiais in the vlcinity of the island of Mount Desert ; that belleving that they might be takea in quantitiea, he resolved finslly to fit ont a vessel for the oxpress purpose ; that his success was even greater than he hed expected, and that others were indaced to follow his example. The mistake of this gentleman probably Is, that what he considered the erigin of the veasel fishery wan only a revival of it; slnce we can easily imagine that repeated losses and discouragemonts had caused a suapension of it.

The Iferring Fishery, from its commencement to the year 1852.-We hear of this fishery among the Pilgrims. In 1641 they rented the herring wear at Plymouth for three years to three men, "who were to deliver the shares of fish, and recelve 1s. 6d. per 1000 for their trouble." We hear of it on the coast of Maine also a few years afterward. Jesselyn saye that the "herrin" were " so numerous, they take of them all summer long. In 1670," he contlnues, "they were driven into Black Point harbor, by other great fish that prey upon them, so near the shore that they threw themselves (it belng high water) upon dry land la such infinite numbers that we might have gone half way the leg among them for near a quarter of a mile." He repeats the account in his "Chronological Observations of Amerlca;" where he states, that so "wonderful" was the quantlty, that "they were half-leg deep for a mile together." Of the manner of cooking at that period he remarks, that " we used to qualify a plckled horrin by boillng of him in milk." These incidents are sufficient to show the early origin.

From the fragmentary notices of the fiehery which are to be mot with, It seems probalie that, for a long time, as the scools of herrings came to our coasts, the inhalitants on the sea and rivers, from Maine to the Curolinas, generaily secured sufficient for consumption fresh; that the more caroful provided themselves wlth snlt to cure quantities for future use; and that some, becoming regulur fishermen, caught and cared the fish for sale to their nelghbors of the interlor. And that the practice was continued, substantlally, without interruptlon, until tho waters resorted to by the herring for the depesit of its spawn were obstructed by dams and mills, ls havily to be doubted. It is certainly true that on some of the rivera, where the fishery in now nearly extinot, the supply at this revolutlonary era was consldered lnexhaustible; and that farmers and fishermer were in the constant habit of filling wagons and loasts with scoop-nets and other simple implements.
The Ilalibut fishery-The halibut fishery on George's Bank is a new enterprise. It was commenced within a few yenrs by the adventurous fishermen of Cape Ann. Pursued in mid-winter, it is as hazardous an employment ns can well be imngined.

While the fishery wus confined to the coast, the consunuption of the tish was very limited. In April, 1848, the Norfolk. Ilervld announced that " our market, yesteriay morning, was enriched wlth a delicacy from the northern waters, the halibut-a strange fish in these parts, knoutw only to epicures and naturaliats."

The New Orleans Picayune, in May of the same year, contuined a similar paragraph. At present, the tish, packed his boxes with lee, is sent, sound und sweet, by railroads and vessels, to the most distant sectlons of the country. Veasels employed on the Bank are shsent from port from six to fourteen days. The average catch of halibut is perhapis 200 to a vessel, though some obtain double that number. The woight of the fish is from 60 to 200 pounds. [For nearly the wholo of thls artide we are indehted to Dlr. Saline's valasble Report on Fisheries, 1853.]

For some thee, dealers in Boston purchased, packed, and shlpped the fish almost exclusively; but a company was finally formed at Gloucester for the purpese of transacting this part of the business as well as the
other. The fishermen, however, resort again to Botton; for this company, after losing a conalderable part of their capital, relinquiehed their deoign.
The growth of the fiebery has been rapld. The number of veesela employed in it; owned at Glouces: tor, was 30 In 1844; 63 in 1848 ; and abont 75 in April, 1852. The precent fleet contains many new, wollmodeled, and fast-sailing vessela. The value of the halibnt caught in 1851 was upward of $\$ 60,000$.

I can not forbear to add, that had our atateamen stood by the doctrine which was asserted and maintained at Ghent by the Amorican commissloners, one source of calamity at least would have been spared to our fishermen. The rights guarantied to us formed a part of, and in their very nature were as perpetual as, our independence as a nation. The first article of the convention of 1818 ahould never have been agreed to by our government. The third artiole of the treaty of 1788 ought never to have been atrickon from that instrument. It'is now too late to correct the mistake.
The earnings of the vessels sent to the Bank are generaliy ample; but the fiehory is not profitable, in consequence of the extruordinary wear and tear of salls and rigging, and the frequent lose of cables and anchors. Dlove than all, herdly a seuson passes without appalling disasters. Whenever a vessel is lost on George's, all on board perish.
An American citizen may contend, if he will, for the repenl of our bountry laws; he may favor a low duty, or no daty whatever, on forelgn fish; but he is bound to honor the courage and perseverance of the halibut catchere of Cape Ann, who, mid the storms and gaies of a northern winter, procure for him the luscious napes and fins whleh garnish hia bonrd.

The statistics of the produce of the United Statee' fisheries for 1855 and 1856 are shown by the following table, taken from the Report on Cominerce and Navigation :
Btatement ghowing yhe Doymario Exponts of Fisit ysom THR Uxten Btatas for Tuis Yean kndino Juna 80, 1640.

| Whither exported, | Drind or maoked. |  | Piekled. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Cwi. | Dollara. | Barrels. Kegra | Doliars. |
| 8wedish Weat Indles., |  |  |  |  |
| Danish Weat Indles... | 2,186 | 8,849 |  | 6,67s |
| Jutch West Inclies. | 1,185 | 4, 5 (16) |  | 818 |
| Dutch Galana | 26,249 | 03,4,5 | 2,192 41 | 11, 1.15 |
| England. |  |  |  | $14 n$ |
| Glibraltar.. ............. | ${ }_{88} 8$ | 149 | 50.... | 铦d |
| Cansis.............. | 8.454 | 26,914 | 1,964 205 | 17,004 |
| Other British N. Anterlean Posecsklons..... | 449 | 2.847 | $\begin{array}{l\|l\|} 286 & 1 \end{array}$ | 1,249 |
| British Weat Indies... | 1,618 | 0,801 | 8051 | 2,045 |
| Britieh Ilonduras, | 1,031 | 4.487 | 168. | 1,066 |
| British Gulana | 804 | 2.831 | 73. | 780 |
| Brit. Pose In A | 94 | 891 | 800 10 | 1,(004 |
| British Ansirsila | 8,897 | 87, 832 | 4,290 206 | 24,992 |
| Britsh Finst Indtea....i | 414 | 168 | 2.... | 10 |
| France on the Atlantle | 40 | 977 | $1 \ldots$ | 4 |
| French West Indles... | 1,092 | 4,171 | 8go.... | 4,814.4 |
| French Gaiana. | 8,128 | 15.484 | 062. | 4,490 |
| Cubas. | $\mathrm{CHS}_{6} \mathbf{3} 4$ | 174.822 | 1,109 501) | 6,424 |
| Perto Rico............. | 12,179 | 89,164 | $1,937,150$ | 10,120 |
| Madrlra. ${ }^{\text {Capo de Verd isiande. }}$ | 25 | 120 64 | .. ..... |  |
| Torkey In Asla........ | 184 | $4{ }^{5} 10$ |  |  |
| Other Ports in Arrica.. | 611 | 2.978 | 691104 | 3,427 |
| liayll... | 84.242 | 145.121 | $18,8 \mathrm{Cl}$ 8 81 | 68,543 |
| Gan tomingo......... | 693 | 1.978 | 7.... | \$1 |
| Mexteo ........... . . | 131 | 744 | -138 | 6\%0 |
| Central Ifepubllc. . . . . | 71 | 810 | 170.... | 124 |
| New Grenala. ......... | 983 | 4,250 | $180 . \ldots$ | 1,201 |
| Venezuela Brazil. | 1,148 | 4960 | **** | . . 8. |
| Brazil. | 4,884 | 16,651 | $4 .$. | 82 |
| Uruguay or Cisplatine Bepublie | 110 | 450 |  |  |
| Burnui Ayres, or Argentine fiepablle. | 88 | 889 | 492 | 159 |
| Chill. . . . . . . . . . . | 027 | 2,nes |  |  |
| l'eru. | 98 | 425 |  | 231 |
| Kquador. ${ }_{\text {kodw }}$ | 14 | 78 |  |  |
| Madwich islanis. | 89 | 292 | 177009 | 2.84 |
| Whina. . . . . . . . . . . . . | 874 | 1,470 | 151,910 | 2,690 |
| Whale Fisheries. . . . . | 50 | 201. | 64 840 | 982 |
| 1. Total............ | $16 \times 971$ | 675,011 | 30,40104 | 173, $\mathrm{man}^{2}$ |


 ExDLMo Juxi 80, 1856.

| 3-5 ${ }^{\text {a }}$ | Dried or ma | त1/3 Plek |  |
| :---: | :---: | :---: | :---: |
|  |  | Barrola | , |
| Passamsqnoddy. . . . . . | 868 -658 | 89 | 162 |
|  | 680 10 | $\because 85$ | - 800 |
| Portland \& Valmonth. | $10,87519,888$ | ¢ 1740 | 1,088 |
| Vermont:. | 179 , 868 | 1,181. | 10,054 |
| Newburyport........... | 6,478 16,101 | 888 156 | 8,765 |
| Gloncenter. | 11,791 80,808 |  | 6,692 |
| galem . ..................... Boston \& Oharlestown. | 8,725 <br> 84,408 870,979 | 14,80t 40 | 8,472 |
| Boston at Oharlestown. Fall River. .:....:...... | 84,408  <br> $\cdots 10$ 870,978 <br> 10 88 | 14,800 411 | 18,848 108 |
| 1'rovldence.:.:.t. .... |  |  | 58 |
| Bristel and | 11.40 |  |  |
| Newport. | $96 . .814$ |  | 9 |
| New Lovden. . . . . . . . . | 89.102 | 110. | 478 |
| New IIaven. . . . . . . . . | 688 1,040 | 408. | 1.094 |
| Ganeses. . . . . . . . . . . . . . |  | 111.... | 48 |
| Oswego. . . . . . . . . . . . . | 1,184 19,786 <br> 189 694 | 111. 295 | 1,696 |
|  | 188 698 <br> 188 071 | . $148 . .$. |  |
| Oswerghtchle.......... | 201 914 |  | 89 |
| New York . . . . . . . . . . | 80,769 149,808 | 10,150 $\ldots$. | \$8,407 |
| Champlain. . . . . . . . . . |  | 428,... | 2,192 |
| Cape Yincent. . . . . . . . | 1,414 8,194 <br> 8,896 18,68 | 20010 | 1,818 |
| Presque lisle........... |  |  | , 818 |
| Defaware.............. |  |  |  |
| 13altimor | 1,642 C,869 |  | 154 |
| Alezandrla............ |  |  | 48 |
| Klchinond. . . . . . . . . . . | 27525 | 65 $\cdot \cdots$ |  |
| Newhern | .... .... | $65 . .$. | 3 H 0 |
| Beaufort. . . . . . . . . . . Charleaton. . . . . . . |  | ${ }_{17}^{2} \cdots \cdots$ | 10 |
| Charleston........... . . . | $\begin{array}{r\|r\|} 9 & 84 \\ 8,835 & 98,042 \end{array}$ | $17 \quad 1$ | 120 |
| Key West..... 6...... <br> Now Orleans. . . . . . . . . | 8,885 28,042 <br> 68 87 | 7184 | 075 |
| Dotrolt. . . . . . . . . . . . . | 120410 | 150.... | 524 |
| Oregon . . . . . . . . . . . . . |  | $98$ | 489 |
| Paget's sound. . . . . . . | 1141079 |  | 120 |
| San Francisco. | 114 1,079 | 22.458 | 4.533 |
| Tolal. | 168,971 578,011 | 80, 8014,403 | 178,489 |

A compazative Vizw of the Tunsabk of the Úniteo Btates murioysd in tue Whala Fitagiv; atso tir Profontion of tig enzolied and Licenned Tonsage guplotbd in the Coabtino Trant, Con Fisheay Maczenel Fisitat, and Whade Fsuaby, froy 9815 to 1856, welteive.

| Year | Total toknage. | Regiet'd. <br> tonnage <br> Io the <br> whe'e <br> Behery. | Tonnare employ'd In ofeen navigetion. | PEOPOETIOR OV THE EKROLLED TONKAGE EMPLOYEO IN THR |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Comating Irade. | Cod Ashery | $\begin{array}{\|l\|} \begin{array}{l} \text { Inck- } \\ \text { erel } \\ \text { flahery. } \end{array} \\ \hline \end{array}$ | Whele fishery |
|  | , 109,121 |  |  |  | 26, 610 |  | 1,280 |
|  | 1,872,219 |  |  | 479,979 | 87.789 |  | 1,168 |
|  | 1,999,911 | 4,971 |  | 481,409 | 88,990 |  | 8:0 |
| 181 | 1,225,144 | 16.185 |  | 6018, 140 | 08,502 |  | 015 |
| 1819 | 1,280,752 | 81.700 |  | 828,860 | 65, 1445 |  | C\% 81 |
| 1820 | $1,240,166$ | 85, 981 |  | 589,030 | 60,848 |  | 1,054, |
| 1821 | 1,208,959 | 28,071 |  | 559.436 | 51,3i1 |  | 1,124 |
| 1422 | 1,824,699 | 45,149 |  | 578,080 | 88,406 |  | 8,184 |
| 1823 | 1,846,566 | 89.918 | 24,679 | 566,409 | 67,421 |  | (0) |
| 1524 | 1,859,163 | 88,166 | 21,610 | 849,22: | 68,419 |  | 1 Bl |
| 1525 | $1,424,111$ | 145,879 | 28,001 | 547.278 | 70,620 |  |  |
| 1826 | 1,234,191 | 41.757 | 57,050 | 664,420 | 63,761 |  | i |
| 1827 | 1.894. | 45,46, ${ }^{\text {a }}$ | 412,108 | 782,938 | 74,641 |  | 824 |
| 15\%* | 1.741 .882 | 4,621 | 80,418 | 75.922 | 74,94* |  | 150 |
| 152\% | , 280,798 | 07.254 | 04,073 | SUN, 818 | 101,797 |  |  |
| 1 1wh | $1,191,776$ | 84.912 | 64, 472 | \$16,978 | 61, 54, | ${ }^{3} 1,978$ | 198 |
| 1881 | 1,247,846 | 52,8]6 | 34,434 | 299,724 | (10,975 | 46,211 | 4 S 2 |
| 1 | 1,439,450 | $72,46^{9}$ | 00, 814 | 649,637 | 04.928 | 47,421 | $87 \%$ |
| 1839 | 1,606,150 | 101,18* | 101,4*0 | 7+1,19y | 62,7*1 | 44,723 | 47. |
| 1484 | 1,758,907 | 108,060 | 122,41. | 721.619 | 81.404 | 63,042 | 4 |
| 1893 | 1,824,940 | 97,640 | 122,515 | 792,801 | 72,874 | 6-4,448 |  |
| 1683 | 1,852,108 | 14.4.831 | 145,45\% | [73,023 | 62.907 | 61,425 | 1,078 |
| $18 \%$ | 1.896,646 | 127,243 | 154, 763 | 9.26.981 | 81,432 | 41,411 | 1,494 |
| 1 | 1,905,640 | 119,447 | 18:2,414 | 1, 041.165 | 71, (144 | 96, 048 | 6,2311 |
| 1 | 2, M3A,479 | 181, ${ }^{5}$ | 204,93, | , 183, 0.22 | 72.250 | 85,944 | 440 |
| 184 | $2,180,764$ | ${ }_{136} 0^{2} 9_{2}$ |  | 1, 1714,604 | 76,085 7 | $2 \times 269$ |  |
| 1811 | 2,180,744 | 157,404 | 175,08 | , 107.048 | 68,45* | 11,491 |  |
| 18 | 2,092,891 | 151,618 | 229,661 | 1,040,758 | 84, 904 4 | 10.1087 | 87 |
| 1543 | 8,154. th $^{1} 8$ | 152,875 | 216,868 | $1,076,154$ | 01,224 | 11.770 | 143 |
| 1644 | 4,290,093 | 164.294 | 278, 172 | $1,169,614$ | 55.228 | 16,171 | 881 |
| 1845 | 2,417, $\mathbf{N H O}_{2}$ | 190 , 190 | 826,01 |  | 60,426 | 21.418 | 204 |
| $1 \times 46$ | Y, 0 M2, (0xs | 149,080 | 847,899 | 1,249,511 | 78.818 | Re, 14 | 410 |
| 144 | 2,899,046 | 193, K 59 | 404.842 | 1,452,024 | 70.17 | 81, 191 |  |
| 151 | 8,134.042 | 192, 190 | 427, 41 | $1,520,968$ | $8 \mathrm{~S}, \mathrm{Ch}_{2}$ | 43, $2 \times 9$ | 4t8 |
| 1819 | 8,894,015 | 180,18n | 482,894 | , 784.411 | 42,930 | 74, mi4 |  |
| 1sno | 8,5,5,454 | 144.017 | 525, 047 | 1,700,794 | (03, 14.46 | 54.112 |  |
|  | 8,772,449 | 151.145 | 5,3,60\% | 1,821.817 | A7.476 | 81, $0: 19$ |  |
| 14 | 4, 184,4.10 | 198,798 | 643,21 | 2, 408,021 | 102,659 | 72, 546 |  |
| 1 M6 | 4,417,010 | 198,242 | \$14.198 | 2,184.254 | 109.217 | 59, $\mathbf{S N O}_{5}$ |  |
| 1N\%4 | 4,8024,903 | 181,901 | 676,1017 | 2,278, 000 | 102,104 | 85,041 |  |
| 1495 | 5,212, 0101 | 186,773 | 770, 250 | $2,491,104$ | 102, 0.24 | 21.625 | 74 |
| 18 n | 4,471,052, | 189,218 | 673,075 | 2,211,9th | 04,816 | 29,847 | 245 |

Fer a complete account of the political hlatory and preeent state of the Fisheries，see Sabing＇s Report to Congrese，1858．For more extended information in regarl to tho varions branches of the fisheries，see artieles Cod Fisiery，Hennina Fishery，and Whale Fishery；bee alao N．A．Rev．，lvii．and lxil． （by L．Sabine）；Quar．Rev．，lxix．，226， $1 \times$ ．，268， xxxvii．， 845 ；Edin．Rev．，lxxvlii．，46，xeili．，174； Herch．Mag．，xix．， 145 （Ealpour）；Blackwood， Hiil，640；Am．Whig Rev．，vi．， 400 （C．Lanman）； Nilks＇s Register，xxix．， 377 （Lloyd＇s Rep．）；Ency． Am．，Ency．Brit．，1856－7．Census Rep．U．S．， 1854.
Reciprovity Treaty betreen the United States of America and her Britannic Majesty ：concluded bth June，1854； ratified by the United States 9 th August，1854；ex－ changed 9 th September，1854；nnd proclaimed 11th September， 1854.
Artictes 1．It is agreed by the high contracting parties that，in addition to the liberty secured to the United States＇fishermen by the above－mentioned con－ ventlon of October 20，1818，of taking，curing，and drying fish on certain cossts of the British North American colonies thereln defined，the inhabitants of the United States shall have，in common with the sub－ jects of her Britannlo majesty，the liierty to take fieh of every kind，except shell－fish，on the sea－conste and shores，and in the bays，harbors，and creeks of Canada， New Brunswlek，Nova Scotia，Prince Edward＇s Isl－ and，and of the several islands thereunto adjacent， without leing restrictesl to any distance from the shore，with permisaion to land upon the coasts and shores of those coloniea，and the selonds thereof，and also upon the Magdalene Islands，for the purpose of drying their nets and curing their fish ：provided that， tn so doing，they do not interfere with the rights of private preperty，or with British fishermen，in the peacesile use of any part of the sald coast in their oc－ capancy for the same purpose．

It is understod that the above－mentioned liberty applles solely to the sea fishory；and that the salmon and shad fisheries，and all fisheries in rivers，and the mouths of rivers，are hereby reserved，exelusively，for British fishermen．

And it is further agreed，that in order to prevent or settle any disputes as to the plares to which the reser－ vation of exclusive right to 1 British finhermen，con－ tainel in this article，and that of fishermen of the United States，centained in the next anceceding arti－ cie，apply，each of tho high contracting parties，on tho application of either to the other，shall，within six months thereafter，appoint a commiskioner．The asil！ commissionera，hefore proceeding to any bosiness，shali make and subseribe a nolemn declaration that they will impartinlly und carefully exnmine and decide，to the best of their judgment，and accoriling to justice and equity，without fear，favor，or affection to their own cumntry；upon all such places as are intendod to be reserved and excluded froin the common liberty of fishing under this and the next succeeding article，and such declaration shall be entered on the record of thefr proceedings．

The commissioners shall name some third person to act as an arbitrater or umplre in any case or cases on which they may themselves difier in opinion．－If they should not be able to agree upon the name of such third person，they ehall each name a person，and it shall be determined hy lot which of the two persons so named shall be the arbitrator or nmpire in cases of dif－ ference or disagreement between the two commissien－ ers．The person so to be choten to be arbitrator or umpire shall，before proceeding to act as such ln any case，make and subscribe a solemn declaration in a form similar to that which shall already have been made and subscribed by the commissioners，which aball be entered on the record of their proceedings． In the event of the death，ahsence，or incapacity of either of the commissioners，or of the arbitrator or nmpire，or of their or his omitting，declining，or ceas－ ing to act as such commissioner，arbitrator，or umpire， another and different person shall be appointed or named as aforessid to act as anch commiseloner，arbi－ trator，or umpire，in the place or stead of the person so originolly appointed or named as aforesald，and shall make or subscribe such declaration as aforesald．
Such commissioners shall proceed to examine the cosats of the North American provinces and of the United States embraced within the provisions of the first and second articles of this treaty，and shall desig－ nate the places reserved by the sald article from the common right of tishlng therein．
The deelision of the commisioners and of the arbitra－ tor or umpire shnll be given in writing in each case， and shall be aigned by them respectively．
The high contracting parties hereby solemnly engage to consider the decision of the comminsioners co jointly； or of the arilitrator or umpire，as the cane may be，as absolutely final and concluaive in each case decided upon by them or him respectively．

Anticus 2．It is agreed by the hlgh contracting parties that British suljects shall have，in common with the citizens of the United States，the liberty to take fish of every kind，except sheil－fish，on the east－ ern sea－coasts and shores of the United States north of the aith parnllel of north latitude，and on the shores of the several ishunds thereunto adjacent，and in the haya，linriors，and ereeks of the said sea－coasts and ehores of the Unitel Stater，and of the suid islands， without being restricted to any distance from the shore，with perinission to land upon the said consts of the United Stater and of the Ixlands aforeanhl，for the purpose of drying their nets and curing their fish： provided that，in so doing，they do not interfere with the rights of private property，or with the fishermen of the United States in the peacenhle nso of any part of the sald censts in their oceupaney for the same purpose．

It is understool thint the above－mentionel llberty appliey nolely to the sea fishory；and that salmon and shad fisheries，and all fisheries in rivers and mouths of rivers，are hereby reserved exclusively for thshermen of the United St：Ites．
Anticies it it agreed that the artleles enumerated In the schednle hereunto annexed，being the growth and produce of the aforesald British colonies or of the

United States, shall be admitted into each country respectively free of duty :
 Thanty wrin tai Burtin Piovnomg of N. A. and THI UNTTED ETATMES
Graty, Floum and Bread- Coal.
wrupes of all linds.

A- wais of all kinds.
Fruah, 8M0к20, and saltad MMATS.
Corrox-wook, sxide, and Veotramlen
Unpmiad Fiuts,
Faurrs.
Fran of all kinds.
Ema of all kinds. Plants, Bun
other creaturee IIving in the water.
Poultry, kion
 nudraseed.
8rosn or Manaze, tu lts crade or nawrought otate. Slats
Butthe Cammen, Tallow.
Lamd, Ionse, Manumge.
Ones of METALS, of all kinds.
Article 4. It is agreed that the citizens and inhabitanta of the United States ahall have the right to navigate the River St. Lawrence, and the canals in Canada used as the means of communicating between the great lakes and the Atlantlc Ocean, with their veaneln, ioats, and crafts, as fully and froely as the subjects of her Britannic majesty, subject only to the same tolla and other assessments as now ure or may hereafter le, exacted of her majesty'n sald aubjecta; it being understood, however, that the British government retaine the right of auspending this privilege on giving lue notice thereof to the government of the United States.

It is further agreed, that If at any time the British government should exercise the alaid reserved right, the government of the United States shall have the right of auspending, if it think fit, the operation of Article 3 of the present treaty, in so far as the province of Canada is affected thereliy, for so long us the suspension of the free navigation of the River St. Lawrence or the canals may continue.

It is further agreed that British subjecta shall have the right freely to navigate Lake Mlchigan with their vessels, boats, and crafts, so long as the privilege of navigating the River St. Iawrence, secured to AmerIcan citizens by the above clause of the present article, shall continue; and tho government of the United States further engages to urge upon the State governments to secure to the subjects of her Britannio maj-esty- the use of the several State oanals, on terma of equallty with the inhubitants of the United States.

And it is further ayreed, that no export duty, or other duty, shall the levied on lumber or timber of any kind cut on that portion of tho American territory liu the State of Maine watered by the River St. Joln and Its tributarles, and floated down that river to the aea, when the same is shipped to the United SLates from the province of New Brunswick.

Fish-hoolch (Ilamecons, F'r.; Fiahangeln, Ger.) are constructed with aimple tools, but reguire areat manual dexterity in the workmen. The iron wire of which they are inade whould tre of the best quality, suooth and sound. A bunsle of nuch wire is cot ia lengths, elther by shearn or by laying it down upon an angular wedge of hard stcel fixed horixontally in a block or anvil, and striking off the proper leagths loy the blowe of a lisamer. In fanhioning the burbs of tha books, the atraiglit piece of wire in laid down in the groove of an fron block made on purjose, and is dexterously atruck by the chisel in a slanting direction, acrosa so mueh of tha wire as may he deemed necenary. A aharj-pointed little wedga in thme formed, whose hase graduater luto the substance of the metal. The end of the wire where the linu is to be attached is now flattened or screw-tappel; the other end is sharppointed, and the proper twiated curvature is given.

The soft iron hooks are next case-hardened, to give them the eteely stiffness and elastielty, by imbedding them in animal charcoal contained in an earthen or iron box; after whlch they are brightened by heating and agitating them with bran, and finally tempered by exposine to a regulated temperature upon a hot Iron plate. Hooks for salt-water fishing are frequently tinned to prevent thein wearing rapidly awuy in rust.

Filah-pondes are ponde msde by art, in which different kinds of fish are bred and fattened. In general this is only attempted with fresh-water fish, but in some placee ponds have been formed on the sea shore, and so contrived as to have their watera renewed every tide, and in these aca fieh have been kept for use for a conaiderable time. The fresh-water fish whlch is the mont anocessfully managed in ponds is the carp.

Flume, a neaport town of Austria. The commerclal movementa in the port of Fiume in 1850, including coasting trade, were: importa, $16,604,000$ frsnes; exports, $17,808,000$ francs. The coanting trade of Flume, at all times more important in the general commerce of that port than the foreign trade, amounted in the year 1850 to 6,840,000 france for imports, and 8,473,000 francs for exports; leaving a total for foreign commerce of $19,094,000$ francs. The latter trsde was distributed between the Pontifical atates, Naples, Ionisn Isles, Turkey, Englund, and Frence. Total tonngge employed, 342,493 tons; of which more than two thirda under the Austrian flag.

Flag, an ensign or colors; cloth on which are usually displayed certain devices, and attached to a staff. In the array, It signifies a small banner by which one regiment is distinguished from another; in the marine, acertain banner by whlch an admiral is distinguished from the other ships of his squadron, or by which the shipe of one nation are diatinguished from thoae of another. The flag acquired its present form in the sixth century in Spain; it was previeusly small and square,-Ashe. The flag is said to have been Introduced there by the Saracens; before which time the ensligus of war were extended on cross pieces of wood.- Pandon. The term flag le more particularly used at ses to denote to what country a ohip belongs, und the quality of its commander. The honor of the flag salute at sea was exacted by England from very early times; hut it was furmally yielded by the Duteh in A.D. 16i3, at which period they had been defeated in many actions. Louir XIV. obliged the Spaniards to lower their flag to the French, 1680.Henault. After an engagement of three houre hetween Tourville and the Spanish Admiral Papachin, the latter ylelded hy firing a salute of nine guns to the French flag, June 2, 1688.-Idem.

To loncer or atrike the Flag, in the navy, is to pull it down upou the cap, or to take It in, as a token of the respect due from all ships or fleets to those which ars undeniably their superiora. To lower or atrike the Hag in an engagement ia a algn of submission or surrender. The methol of leading a ahip in triumph is to attach the flags to the shrouds, or the gallery in the hind part of the ship, letting them hang down toward the water, und to tow the vessels by the stern. Llvy relates that this was the mode in which the Romans used the ships of Carthage.

To heave out tha Fhg, is to ilisplay or put abread the thag.

To hang out the White Flog, is to usk quarter; or, when a vessel has urrived on a coast, it shows that it has no hostile Intention, but comes to trade, or the like. The red flay is a sign of defiance and battle.

Fhag tyficer are those who command the several squadrons of a tleet.

Flag of the United States.-The act to estalilish the flag of the United States was enacted hy Congress, April 4, 1818, viz.: "That from and after the Ath day of July next the flag of the United Statea he thirteen horizontal stripes, alternate red and white; that the
union
the ad star be additio next st Fla of the 1 the aw rapilns, staff al thong

Flan covered illuming consist thicknes twisted one end ls poure thleknes Flan warp, ar Black a stances they com which to slowly th with ajr, assistanc ments of relation 1 elly worn that of ke quantity below), h plates for and dry German st ceding nis $85^{\circ}$ of $\mathrm{F}_{8}$ quantitiea carate bal china plat ited room posed forty of the roon At the end removed is on a table was at the meter, seen this sitnat and three round witt pletely dan they were times were

Sheep's woo
Beaver's fir.
The fur of a Elder-lown silk $\left\{\begin{array}{l}\text { Ruw } \\ \text { laveli }\end{array}\right.$
Linen $\begin{aligned} & \text { Flu } \\ & \text { Rav }\end{aligned}$
Cotton wool. Ravelings of
In regard serves, thet which it re seems to hay any other, $y$ above, that
union be twenty stars, white in a blue field. That on the admission of every new State into the Union one star be added to the union of the flag; and that such addition shall take effect on the 4th day of July then next succoeding such admission."

Flail, an instrument for threshing corn, consisting of the hand-staff, or piece hold in the thresher's hand; the swiple, or that part which strikes the corn; the rapiins, strong leathern thongs which uaite the handstaff and swiple; and the middle-band, a leathern thong er flsh-skin that ties the ceplins together.

Flambeau, a kind of torch made of thick wicks, covered with wax, and used in the streets at night, at iliuminations, and in processions. Flambeaux usually consiat of four wicks or branches, about an inch in thickness, and three feet long, made of coarse halftwisted hempen yarn ; and these, being suspended by one end, are conted with white or yeliow wax, which is poured over them from a ladle until the requisite thickness be obtained.

Flannel, a woolen stuff, composed of a woof and warp, and woven after the manner of baize. Dr. Black aseigns as a reason why flannel and other substances of the same kind keep the body warm, that they compose a rare and spongy mass, the fibres of which touch each other 80 Jightly that the heat moves siowly through the interstices, which being filed only with air, and that too in a atagnate atate, give little assistence in conducting the heat. From the experiments of Count Ramford, it appears that there is no relation between the power which the substances ueusily worn as clothing have of absorbing moisture, and that of keeping the body warm. Having provided a qaantity of seversl of these substances (as mentioned below), he exposed them, apread out upon clean chins plates for tha apace of twenty-four hours to the warm and dry air of a room which had been heated by a German stove for several months, and during the preceding six hours he had raised the thermometer to $85^{\circ}$ of Fahrenheit ; after which be weighed equai quantities of the different substances with a very accarate bsiance. They wers then spread out upon a chian plate, and removed into a very large uainhabited room upon the second floor, where they were exposed forty-eight hours upon a table placed in the middle of the room, the air of which was $45^{\circ}$ of Fahrenheit. At the end of this timo they were weighed, and then removed into a damp celiar, where they were placed on a table in the middle of the vault, the air of which was at the temperatare of $45^{\circ}$, and, by the hydrometer, aeemed to be fully saturated with moisture. In this situation they were suffered to remain three ciays and three nights, the vault being ali the while hung round with wet linen cloths, to render the air as completely damp as possible. At the end of three days they were weighed, and the weights at the different times were found as in the foilowing tabie:

|  | Woight after being dried to the hot room. | Weight aftor coming out of the eold rown. | Welghe after remalning 19 hours lo the vault. |
| :---: | :---: | :---: | :---: |
| 8heep's wrol. . . . . . . . . . . . | $\begin{aligned} & \text { PMris } \\ & 1,000 \end{aligned}$ | 1,084 | 1,169 |
| Besver's flr. ............... | ,100 | 1,079 | 1.125 |
| The fur of a luassian hare.. | 4 | 1,005 | 1,115 |
| Elder-down.............. | " | 1,067 | 1,112 |
| kaw singie thread. . | " | 1,057 | 1,107 |
| Stik $\left\{\begin{array}{c}\text { Itavelings of white } \\ \text { taffety.......... }\end{array}\right\}$ | " | 1,054 | 1,108 |
| Fibe Lint. | 4 | 1,046 | 1,102 |
| Lana $\} \begin{gathered}\text { liaveliags of fine } \\ \text { Haen......... }\end{gathered}$ | 4 | 1,044 | 1,082 |
| Cotton wool................ | 4 | 1,048 | 1,089 |
| Raveilings of aliver lace.... | 4 | 1,000 | 1,000 |

in regard to these experiments Count lumford observes, that though linen, from the apparent ense with which it receives dampness from the atmosphere, teems to have a much greater attraction for water than any other, yet it would appear, from what is reiated above, that those bodies which receive water in its un-
elastio form with the greatest ease, or are most oasily wet, are not those which in all cases attract the humidity of the atmosphere with the greatest avidity. "Perkaps," says he, "the apparent dampness of linan to the touch arises more from the ease with which that substance parts with the water it contains than from the quantity of water it actualiy holds; in the same manner as o body appears hot to the touch in consequence of ita parting freely with fts heat; while anothor body which is realiy at the sama temperature, but which withholds its heat with great obstinscy, affects the sense of feeling mnch leas atrongly. It is well known that woolen cloths, such as flannala, etc., worn next the skin, greatiy promote insensible perspiration. May not this arise principally from the strong attraction which subsista between wool and the watery vapor which is continually issuing from the human body? That it doea not depend entireiy on the warmth of that covering, is ciear; for the same degree of warmth produced by waring more clothing of a different kind does not produce the same affect. The perspiration of the human body being abeorbed by a covering of flannel, it is immediately distributed through the whole thickness of that aubetance, and by that means exposed, by a very large surfaca, to be carried off by the atmosphere; and the loss of this watery vapor whici the flannal austaina on the one side by evaporation, being immediately restored from the other, in consequence of the strong attraction betwean the flannel and this vapor, the pares of the akin are disencumbered, and they are continually surronnded by a dry and salubrious atmosphere."-Philosophical Transactions, No. 483.

Flannela are much more luxurious productions than they were in years gone by. We knew them formerly only as woolen or worsted goods ; but modern ingenaity has devised flannel made of mingled wool and silk. Its inventora claim for it a auperiority over ordinary flannels, in being less irritating to the skin; it shrinks less in washing; the silk increases the strength and durability of the taxture, and renders it less liable to tear. Such flanneis have avan been embroidered, and used for ladies' opers cloaks. 'Then we have choice "Thibet" flanneis, made from the finest wool; and flax flannels, in which fiax, prepared on Claussen's process, is mixed with wool ; and fancy-colored flan-nels-pink, roae-color, cherry, crimson, biua, orango, and other dainty tints. The philosophy of chespness has also visited the flannel regions, for some of the low-priced flannels contaia a portion, more or less, of cotton. There are striped fiannels, and cricketers' flanneis, and "onti-rheumatic" flannels, and many other special and oddjy-named kinds.

Flax (Ger. Flachs; Du. Vlasch ; Fr. Lin; It. and Sp. Lino ; Rus. Len, Lon; Pol. Len; Lat. Linum), an important plent (Linum usitatissimum) that haa been cuitivated from the earliest ages in Great Britain and many ether countries ; its flbres heing manufactured into tiread, and its secd crushed for oil. Russia supplies by far the iargest portion of the flax imported into England, the principal sorts being Petersburg, Narva, Rign, Level, Pernau, Liabsu, Memel, and Otweriand. Peteraburg and Narva finx are nearly of the same quaity, the latter being but iittle inferior to the former. Both sorts come in bundies, of 12,9 , and 6 heads. The Riga flax seems to deserve the preference of any imported from the Baitic. It is the growth of the provinces of Marienturg, Druania, Thisenbhausen, und L.sthuania. The best Marien'ourg is called shmpiy* Marienburg (M), or Marienburg clean; the second quaiity, cut (GM) ; and the third, risten drayband (iRD); of the three other provinces, the first quailty ieers the name of rakitzer ; as, Druania rakitzer (DR), Thiesenhawen rakitzer (TR), and Lithuania mkilzer (IR). The cut flax of theas three provinces is tho seconil quality; and to the third quality belongs the badntub and badstub cut (il and $\mathbf{B 6}$ ); the patemoater
(PN); and hafo threo band (HD). Badotub and patermostier are the refuse of the rakizer; flax, and the three band again the refuse of the former sort, and consequently very ordinary. The Revel and Penau conaists of Xarienhurg, cuf, ritsen, hafs thres band, and thres band. The Liebau and Memel growths are distinguished by the denomination of four and three band. These two sorts, as well as the Oberland flax, come from Konigoberg, Elling, etc., and are little enteemed In the British market. Flandera or Dutch flax is well dressed, and of the finest quality. Flax is extensively cultivated In Egypt. Of late years, some of the Italinn ports, which used to be supplied from Russia, have been fully aupplled, on lower terms, fron Alexandria.

The Phormium tenax, or Now Zealand flax, has boen asid to exceed every other species in strength of fibre and whiteness; qualities which, if it really posesses them in the degree atated, must make it peculiarly well fitted for being made into canvas and cordage. In point of fact, however, there is a great diversity of opinion as to its real merits, and lt fetches at present bat a low price. In 1831 and 1832 the imports of New Zealand fax amounted raspectively to 15,725 and 15,867 ewts.; hut they fell off in 1835 to 7812 cwts., and since then only trifling quantities have been imported. It is alleged that this is in consequence of the imperfect preparation of the fax, which has hitherto boen entirely intrusted to the native women. But without presuming to say whether the defacts with Whieh it is charged be inherent in the flax itself, or depend on its preparation, it is abundantly certain that unlesa it be furnished of a superior quality, it will not anit our markets. When flax is brought to the principal Russian ports whence it is shipped, it is classified according to its qualities, and made up in bundes by sworn laspectors (brackers), appointed by government for the asaortment of that and all other merchandise. These functionaries are said to perform their task with landable impartiality and exactness. A ticket is attached to every bundle of assorted flax, containing the name of the inspector and owner, the sort of fax, and the period when lt was selected or inspected. See Hexp. Good fiax should be of a fine bright color, well separated from the tow, codila, or courser jortion of the plant ; and of a long, fine, and strong fibre. In purchasing flax, it is usual to employ agents wholly devoted to this peculiar business.

Account of the qoantitige of flax and Tow inpontaio SKTO ENOLAND DUBING BaCII OY TUR FITE YEARE RNDime witil 1851, inhtiseltisitno til Countribs whynce THET WREA

| Comatrion. | 184. | 1848 | 1848. | 1850. | 1881. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ruasta.. | $681,16$ | $0 \times 10,782$ | $858,835$ | $2,244,766$ | $\begin{aligned} & \text { Cwto, } \\ & 818,076 \end{aligned}$ |
| L'rusela | 141,545 | 119,377 | 180.747 | 264,851 | 185,825 |
| llanse To | 84,493 | 24,500 | 24,445 | 20,003 | 14,925 |
| Holland | 78,608 | 101,950 | 118,786 | 188,8-40 | 89, 324 |
| Belgiam | 89,900 | 4,149 | 74,760 | 107,3886 | 79,918 |
| Fraiseo. | 5,177 | 801 | 2,276 | 8,974 | 8,502 |
| Italy and the Itallan Isle. | 7,00\% | 4,876 | 1,2tal | 2,247 | 1,885 |
| Exypt. | 67,885 | 4,094 | 00,490 | 46,605 | 48,088 |
| IIrit. Territ. in the E. Ind.. | 1,80 |  |  |  | 48 |
| Unttert States. | 368 |  |  | 80 | 6 |
| Other par | 8,226 | 10,478 | 8,575 | 5,806 | 7,845 |
| Total | ii) | 464861 |  | 915 |  |

Flax has been hut little cultivated in the United States, and only for home conaumption. Efforts aro now being made to increase the proluction. Linen mills have heen erected in Fall River and other phaces; and the demand will after this equal the supply.

During the last half century various attempts have been made to effect the separation of the flurous from the woody portion of the flax stem by chemical and mecbanical means. In several cases the results at fist appeared to be very promining, but lu every instanse it was soon found that there were insupersoito practics! objectlons. Among chemical agenta, oolutlous of sul-
phuric acid, caustic potash, caustic eoda, quicklime, and saft soep, were all in turn trled and discarded and among mechanical processea, the ingenious contrivances of Mr. Jamea Lee, and Messre. Hill \& Buady, shared the same fate. Whatever may have been the comparatlve merits of the two processee of these rival inventors, in the courso of a few years both were relinquished and forgotten. Various other Ingenious mechanical arrangements have been devised, but hitherto they have had very little succeas.

Schenck'e process, for which he obtained a patent in 1846, is undoubtedly a very important improvement. It conaists merely in steepligg the flax stems in warm water, heated artificially to the temperature best suited to fermentation. In this simple way the operation is rendered rapid and certain, all uncertainty from fluctuation in temperature and weather ls avoided, and the whole process is entirely undar the command of the manufacturer. The temperature best suited for this purpose is about $80^{\circ}$, or from $80^{\circ}$ to nearly $90^{\circ}$. Above this point the process proceeds too rapidly, and the fibre is almost sure to be more or leas injured. The time required is from about 70 to 90 hours. It appears to be generally admitted that the warm-water stecping increases the percentage of fibro obtained from the flax stem over that ohtained by the old modes of retting by nearly one fifth; and that, while the fincuess and spinning qualities of the fibre are increased, the strength is in no way weakened or diminished, ualess the process be permitted to proceed too far-un acsident that need nover happen, from the complete control over it which the manufacturer has througheat. Although there is no doubt as to the practical value of the uee of warm water in flax retting, yet the introduction of Schenck's process is far from removing all the thificulties of the flax manufacturer; much still remains to be effected; and it is by no means improbable that ere long a yei more perfect proceas may be devised.
It is Interesting to observe, that the use of warm water in the preparation of vegetshle fibre is not altogether new, it having been employed by the Mulays, and by the natives of Rungpoor, in Bengal. The process adopted at Bencoolen is stated by Dr. Campleell to consist of steeping the stems of the hemp in warm water, In which it is allowed to remain for two days and nights. The old German proceas, called "Motkenröst," sometimes used in preparing the fincr sorts of Glax, is also, to some extent, an application of the same principle. In this mode of retting, the flax was ateeped for four or tive days in a warul mixtare of nillk and water, end thus the desired degree of fermentation in the flax stems was proluced. This oferation must te distinguished from tie more modern one, in which sour milk was used lu order to give a grod colur to linen-a process introduced by the Dutch toward the middle of the last century. The linen was Loiled in a weak alkaline lye, and subsequently treated with sour butter-milk, for the purpose of aiding in removing the aiknli, and diesolving the earthy inpurities present in the fibre. Occasionally, also, sult of norrel was used for the same purpose ; and in 1775 heuss states that sulphuric and muriatic acids might he used for the same end; but that being too costly, they had not as yet come into general use. Of course all processea in which toiling, or evell hot, water is used, are quite different in their mode of action from those in which only warm water is employed. When boilling water is used, it is with a view of dissolving and remeving the useless matters which hacrust the fibrous parts of the plant ; while, on the other hand, warm water is used to soften them, and to aid in their putrefaction or decompoitton, through the agency of fermentation In 1787 , much interest was exelted in Ireland thy the jubllcation of a plan for improving the retting of flax by the action of hot water, In this acheme it was proposed to scald the flax-stems in boiling water to
coften vegets concel ting of ageabl proces to yiel careful princip the be light o cated $t$ the ope is the la lution of to 200 or half an 1 fect of $t$ up" the f pletely t. convertec ton. It ovely use sppears uther fibr to several
The ide so ss to co new. In mode of for some t sequently able quan into "flax B. Bailey, of the pro pablished Tranatactio that the fi tion of kel quently sc fibres seen which it in hat at $t 1$ at 3d. per believes tl carious to she saya:
I have sent of flax-cot though it the artizan great diffic hat had not particulurly it accomplis
Subsequ Germiny to ton. In 17 Alax into a lutions, etc Berchtoldsi of this proc
poften them, and to remove a portion of the extraneous vegetable matters which they contain; ; and It was conceived that after this treatment the aubsequent reto ting of the flax wonld be more rapid, certain, and manageable $i$ so that time wonld be saved, the notsome procest of pond-retting be obviated, and the rosult be to yield a stronger and whiter filbre. The minuto and csreful experiments of Hermbetasdt on the chemical principles involved in the retting of flax (made about the beginning of the present contury) tbrew mueh Hight on the whole enbject, and, to some extent, indicated the influence of temperatare on the success of the operation.
Flax-cotton is a material prepared from fax, hemp, and other vegetabie fibres, and which very nearly resemilles the fibre of the Gosypium or cottonpiant. M. Claussen's ingenious prooess for making fiax-cotton (patented August, 1850) consiats easentially in boiling the cut and crushed stems of the flax, hemp, or other plant, in a dilute solution of caustic soda, containing about $1-2000$ th part of alknili, The flbrous matter is then removed, and plungeic into a bath of diate sulphuric acid, containing 1-5000th part of acla, in which it is boiled for about an hour. It is next transferred into $a$ solution contsining about 10 per cent. of carbonate of soda; and, lastly, when it has remained in tha latter for an hoorr, it is planged into a weak sojution of anlphuric acid, consisting of one part of acid to 200 or 500 parts of water; in this it is leff for shout half an hour, and the process in completed. The ef feet of these several processes is "to divide and split up" the flbro in a most remarkable manner, so as completely to aiter its character. Flax thus treated is converted into a subatanice very nearly resembling cotton. It is probable that flax-cotton can be advantageonsly used in the manufacture of mixed fabrics, as it appears capable of being spun with wool, silk, and other filires; it may, therefore, perhapa herenf:er lead to several new nond important practical applicatione.
The idea of modifying the flire of the fiax and hemp, so as to convert it into a kind of cotton, is by no means new. In 1747, Lilljikreuzea and Palmquist des eribed a mode of converting fisx into "cotton," by boing it for some time in a solution of caustic potash, and sulsequently wuehing it with soas. In 1775, considerable qanntitiee of refuse flax and hemp were convorted into "flax-cotton" by Lady Moira, with the uid of $T$. B. Bailey, of Hope, near Manchester. The full details of the proceese employed do not appear to have been pablisheel; but from Lady Moira's letters in the Trunsuctions of the Society of $A$ rts for 1775, it appears that the fibro was boiled in an alkaline lye, or a solution of kelp, contuining earbonate of aodh, and subsequently acoured. The result of this was that "the fibres seent to be aot at liberty from c wh other," after which it many be "earded on cotton cards." It appears that at this time flax-cotton "was made anil sold st 3u. per pound;" and L.ady Moira states, that sho believes that it takes collors better than flax. It is curious to olinerve the fate of Lady Moirn's scheme : she says: "I have no renson to he vain of the samplen 1 have sent yon: they merely ahow that the material of flax-cotton, in able hauds, will bear manufacturing, theugh it is my ill fortuno to have it discrealited by the artizans who work for me. I hasi, in Dullin, with great difficulty, n gown wove, nnd three waistcoats ; but hud not the persoul whe employed n weaver for me particulariy wished to olinigo me, 1 could not have got it uccomplisheci."
Sulsequently to this, several attompts were made in Germany to convert flax into a dilre resemilhing cotton. in 1777, llaron Meidinger proposed to convert fax into a sort of cotton, by the action of alkaline solutions, ete. In 1780, a fuctory was estanilisherl at Berchitoldsilarf, uear Vienna, for the practical working of this process ; and similiar plane were suisequently bruyght forward by Kroutzer in 1801, Stadler and

Haupfner in 1811, by Sokou in 1816, and by several othera. At the factory at Berchtoldddorf, not only was flax converted into cotton, but aleo a useful cotion. like fibre was propared from tow and refuse flax ; and the same le said to have been done by Hagg, near Pres. burg, in 1788, by Gsbbell in 1803, and Segalla in 1811. Whetber thees varions plans failed from the effects of jenlousy and oppooition, like, that which prevented Lady Moira from introduclag her "flax-cotton," is unknown ; bnt it does not appear that any of them were long perseovered in. It is probable that in most cases the neighboring marturscturers set themselves against the introduction of flax-cotton; for Beckman, who speaks of ita manufacture near Brune wlek, states that the work-people determined not to use the new material, though at the same time he obeerves, that oxcellent fustians were made, whleh could not be distinguished from those manufactured with ordinary cotton. The extreme similarity of flax-cotton to ordinary cotton is also remarked by Des Charmee (1799), who states, that if the etaple be cut before it is carded, it is not possible to distinguiah it from cotton, either in its raw atate or when manufuctured. The matter was subeequenily inveetigated by Berthollet, by Gay Lussac, and by Giobert, who employed alternately ateepings in hot solutions of goap, alkali, and sulphurio or muriatic acid. Berthollet observes, that equally fine cotton is obtanined from the commonest refuse tow ns from the beet flax.
For some valuable information on fibrous materiale, the produce of India, which may be cheaply and usefully substituted for Ruesian hemp and flax; aes "The Fibrous Plante of Jndia ftted for Cordage, Clothing, and Paper," by J. Forbes Royle, M. D., F.R.S. : London, 1855 ; and also sn article entitled "Indian Substitutes for Russian Produce," in the Edinburg Review for July, 1855.
In 1816, M. Girard found means to apply machinery and to substitute the spindle in the spinning of flax. To France, then, helongs the hooror of the discovery, but England was the first to profit by it and put it in practice, and ler example was followod, at the interval of some years, by France, Belgium, and Germany, in the order indicated. The progrese of this iddustry wae rapid, and the following table presents its present position (July, 1856):


While the progress of machine-spinning in Great Britain, Germany, anil Switzerland, independent of all kinds of protection, except in the case of Prussia, certuin premiums paid by the government to these who have extablished fuctories, its extension in France and Belgiom, and more especially in the former, is due to legisiative interference. Let us, then, direct our attention to France, where an extreme import dutyexists. Aithough the duty was made high in 1826, the import of English yarn was progressive, but alow, untii 1836, when the rate was considerably reduced. Inmelliately afterward the quantity increased rapidly. In 1830 Frunco received but $7,500 \mathrm{lbs}$. of linen yarn from Eugland. In 1835, in ajite of a high tariff, the import had inereasel to $11,700,000 \mathrm{Hbs}$. Undor the roduced iluties it went on auginenting until, in 1842, it reached $24,750,000 \mathrm{lbs}$. Then came the estailishment of the present exceasively protective acale of duty; its consequences are manifest in the rapid extension of llax-spinning in Frunce. In 1840 there wero 90,000 spindles ; in 1845, the number was 127,000 ; in 1850, 275,000 ; in $1855,490,000$. In the mean time the import of yarns from all countrica fell from $24,750,000$

Ibe. to $1,698,000 \mathrm{lbe}$. If wo had only to do with the establishment of a great apinning-trade in France, and the monopoly of the supply of yarn at home, these Aguren would be triamphant. But unfortapately for the consamer, as weli as for the wealth and renources of the nation, the operation of the tariff has been a costly affir. Whilit the capitalists who had placed their money in the apinning-factorien rejoiced at tho roeults detailed, and in the large profte which their government had given tbom a logalized right to derive from the mass of consumers, we may inquire whether overy one was equally eatiafied with nuch a syatem of political economy.-Report to the Refirm Congress of Bruasele, by Mr. J. Macadam, of Belfast, 1856.
Mr. Macadam's concluslons were as follown: I. In all cases I would advocate the free entry of the raw materiala, flax and tow. Where natural and social faclities exist for the cultivation of flax, no protection is required, as it only renders the growers careless of Improvement. Where these eloments of succesa are wanting, it is evident that the culture should be abandoned. A nation should never be suljected to a tax almply to supply itself with a material which it can have better and cheaper from elsewhere.
II. I would urge a moderate fixed ad valc,em daty for the exorbitant ones now levied In many Staten, and fix it for 10 per cent. on the present value of English yarns. If to this rate of duty be added the cost of packing, traneport, commission and other charges, the rate of protection wald really amount to 15 per ceat. Frencia and Belgian apinners may. perhapa, bay that this duty would be inadequate to protect them, but I can not admit this. It is true that the cost of fuel is higier in France and Belgium than in the United Kingdom. Rut, on the other hand, I can prove that in Ireland we pay more in proportion, as compared with Great Britain, than France or Belgium does, as compared with us. For example, while at Leeds coala cost 4s. 8d. per ton, and at Dundee 8s., they cost in Belfast 10s. to 11s, 6d. per ton, making a difference in favor of the English spinners of 140 per cent., and of the Scotch of 30 per cent. At Ghent, coals cost at present 14s., and have ieen much cheaper. At Lille they cost 158. 6d. ; the difference, therefore, In favor of the Irish spinnera, as compared with the French or Belyian, is 50 per cent. We might, consequently, at Belfast, Just as well demand protection from tha English and Scotch opinners, as the French and Belginne ask it against us. As to the cost of labor, the factories of Ghent and Lille are in a better position than ours. On what, then, do the apinners of France and Belgium base thelr clainn to protection? On the auperiority of Engiish machinery ? But these machines may enter Belgium free of duty ; and lately, in Frace, great advantages have been accorted in their import. Or is it on the great capital of England, and the sinaller rate of internat of money? Aa well might we, in poor Ireland, ask protection against these, and yet in the face of them, we have progressed more raplaly than either England or Scotland. Furtber, how does it happen that l'russia and Austria have progreased to such an extent in their spinning without this immediate protection? The first named had, in 1846, but 47,000 spladies, and has now 96,000 . The second, which, in 1845 , had but 21,000 , now numbers 82,000 . And 10 per cent. duty, I repeat, is abundantly sufficient to protect the Belgian and French spinnera, while it would provo of great lieneft to the manufacturch of linen in those countries.
III. A daiy' of 20 per cent. on unbleached linena might be proposed. When it is remembered that, in almost all parts of the Continent, weaving at present conts less than in the United Kingdom, it will be recoguized that the linen manufacturers of the Continent have on advantage over ours. There wan a time when weaving cost as little in Ireland as in any other country, and less than In many: But the thinning of
the population by the disastrous yeare of fumine which followed the potato disesee t the Jarge emigration which subeequently took place; the reeruitment of able-bodied men for the army ; and other causen, hive lod to different reenits.

In the United States of America, where the manufacture of linen is on an extremoly small acale, and the whole Union only containa 80,000 spindlen, a duty of 20 per cent. existed on yarma and linena up to July, 1857. The annual lmport reaches $£ 1,600,000$, ao that the nation pays a tax of $\mathbf{£ 3 2 0 , 0 0 0}$ on lits yeariy cononmption. Originally at 5 per cont., the duty was raised to $37 \frac{1}{2}$ per cent. In 1812 . In 1832 it was abolished, but in 1842 was re-ostablished- at 25 per cent., and reduced, In 1846, to 20 per cent. In 1853, the revenne of the United Statee had so much increased, and the cash in the Treasury was of so great an amount, that Mr. Guthrie, the Seeretary of the Tressury, lesued a circular to merchants, in which he proposed to reduce or aiolish the duties on many articles, and he requested their opinion as to those on which ouch a change might most beneficially take pisce, speeifying that it should be on such articles as were generally consumed by all clasess of the population, and yot not leading items of native manufacture, and the remission of the duty on which would tend to lighten the labors of the custom-hones. Now, thero could acarcely be an article more fully answering to these requirements than linen; largely consumed by all classes, the native manufacture was quite insigniticant, while the disputes as to value, in lavying the dutien, between the custom-house and the importers, gave endless trouble.
The following table shows the number of bushels of flax-seeds, and the number of pounds of flax produced, in the United States in the year 1850:

| Statee and Territories. | Flazseed. | Flax. |
| :---: | :---: | :---: |
| Alabrma. | $\begin{gathered} \text { Buachela. } \\ 60 \end{gathered}$ | Pounds, 8,900 |
| Arkansas. | 821 | 12,2000 |
| Connceticut. | 708 | 17,900 |
| Delawn c. | 914 | 11,100 |
| Geory | 628 | 5,300 |
| Illinoli. | 10.787 | 100,000 |
| Indiara | 86,88* | 584,400 |
| lowa, | 1,959 | 62,600 |
| Kentocky | 75,801 | 2,100,100 |
| Maryland., | 2,446 | 17,000 35,600 |
| Masamehusett | 2,42 | 1.100 |
| Michigan. | 619 | 7,100 |
| Mtasles) ${ }^{\text {ppt }}$ | 26 | 610 |
| Missonri......... | 18,698 | 627,100 |
| New l'ampshira | 159 | 7,600 |
| New Jernoy. . | 16,525 | 942,900 |
| Now Yerk. | 67,963 | 940,500 |
| North Carolina | 88,196 | 393,700 |
| Ohlo. | 188, 90 | 446,900 |
| Pennaylvania. | 41,729 | 590,800 |
| South Carolla | 85 |  |
| Ternasseo. | 18,904 | 868,100 |
| Texas... | 46 | 1,000 |
| Vermont. | ${ }^{1889}$ | \% 20, 8100 |
| Virginia.. | 52,318 1,191 | 1,090,400 |
| Total. | 662,807 | 7,500,809 |

We have also compiled the comparative imports of flax and linen goods into the United ftates from forelgn ports during the lust three year

|  | 1254. | TAS5. | 1856. |
| :---: | :---: | :---: | :---: |
| Flax | \% 25811881 | - 2 Sis, 409 | 4132,461 |
| Lneas, blechd. \& unblechd. | 9,481,846 | 7,6i2,8t5 | 9,549,640 |
| Homery and articlos maile on frames. | 2,28:1 |  | 4,921 |
| Lacen, thread \& Insertlugs. | 808,800 | 818,611 | 410,591 |
| Articlen thmboured or embroldered. | 59,624 | 92,749 | 164,3n3 |
| LJnens act spectied. . . . . . . | 1,898,40i | 1,069, 891 | 1,834,912 |
| Tot | 1,432,29 | 19,815,23 | 11, 8 90, 6065 |

Flax-seed, or Linseed (Fr. Lin, Graine de Lin; Ger. Leinsaat ; Du. Lynzaad; It. Linseme; Sp. Linaza; Port. Linhaca; Pol. Siemie, Iniane; Ras. Semja len-
janoe; great is cultiv ment to : the qual ployed, beet. bright, quite fr for sowi that is I quality America not so lo sometlm erop mis who are pelied fr ill-judge Crushing conalder Italy, ar
Fleo See Wo
Flee namber of comm
Flint
0.50 lim
loss. T erally ye pact ame dispersed formatio use is for and it al dient in gan-fint Iron mal make 10
Flint
derives wes fort very ext chiefly ir property persien o or lens compoun manufac mieroser glass wit which pound i arising f lens ren glasses gentiem covery light hy of exper ing the prepare clessop aufficien the wan Impurit giving r of the 1 sition of family o
very pr the heg! good qu years, h
janoe; Lat. Lini semen), the seed of flax. It contains a great deal of oil, which it yields by expression ; and is cuitivated eithar that' it may be naed in sowing, or sent to the crushing-milia to be convertod into oli. As the quality of the crop depends much on the seed employed, a good deal of care is requisite in tolecting the best. Generally speaking, it should be chosen of a bright, browniah color, olly to the feel, heavy, and quite fresh. Dutch aced is in the highest estimation for sowing; it not only ripens sooner than any other that is imported, but produces larger crops, and of the quality that best suits our princlpal manufactures. American seed produces fine flax, but the produce is not so large as from Dutch seed. British flax-seed is somstimes used instead of Datch; but the risk of the crop misgiving is no much greater, "that those only whe are ignorant of the consequences, or whe are compelied from necessity, are chargeabie with this act of ili-judged parsimony."-Loudon's Einc, of Agriculture. Crushing-seed is principally imported from Russia, but considerable quantities are also brought from India, Itaiy, and Egypt.
Fleece, the covering of wool shom from a sheep. See Wool.
Fleet, a navy or a squadron of ships of war; or a number of ships in company, whether ships of war or of commerce.

Flint, silicious mineral. It consists of 98 silica, 0.50 lime, 0.25 alumina, 0.25 oxyd of iron, and 1.0 loss. This minera' occurs of various colors, bat generaliy yeliowish o. dark gray, and usually in a compact smorphous body, of various shapes. It is widely dispersed over the world, occurring chiefly in the chalk formations, but enpecialiy in limestone. Its principal use is for gun-flints, and for striking light with ateel; snd it siso forms, when reduced to powder, an ingredient in porcelain and glass. The manufacture of gon-flints is very simpie, and is performed with an ifon mallet and chisel. A dexterons workman will make 1000 in a day.

Flint-Clase, or Crystal, a species of glass which derives its name from flint, because that subatanee was formerly employed in its manufacture. It is very extensively used for domentic purposes; but is chiefly interesting to the philosopher on account of the property which it possesses of causing a greater dispersion of the rays of light which pass through a prism or iens formed of it than any other of the vitreaus compounds. Thin property renders it invaluable in the manufacture of the object-glasses of telescopes and microscopes ; for, by combining a concave lena of flintglass with one or two convex lenses of crourn-glass, which possesses a much less dispersive power, a compound lens is formed, in which the prismatlic colors arising from a simple refraction are destroyed, and the lens rendered achromatic. This construction of objectglasses whs first discovered by a Mr. IZali, a country gentleman in Worecstershire, about 1729; but the discovery was forgotten, and no further notice taken of it for nearly 30 years, when it was again brought to light by John Doilond, after a long-continued course ef experiments undertaken for the purpose of perfecting the telescope. It $i s$, foowever, very difficult to prepare flint-glass fit for the purposes of achromatic telescopes. This difficulty arises not from the want of sufficient dispernive power in the substance, but from the want of purity or homogeneity; the silghtest impurity or inequality of composition of the glass giving rise to a streaked or imperfect image by reason of the unequal refraction of the rays. The composition of pure flint-glass long remained a secret in the family of the Dollonds, and its munufucture formed a very profitable articie of exportstion; for, till about the heginning of the present century, no flint-giass of good quality was made on tha Continent. Of lata yeara, however, a great chunge has taken place in this respect, and glass of the best quality has been manu-
factured, both in France and Germany, In much largew masses than Engliah artists have yot sacceeded in obtaining. This result has been mainly produced by the experimental researches of $D^{2}$ Artigues, Franohofer, Cauchoix, Guinand, and Korner; Formerly, at ob-ject-glans oxceeding five inches in dlamoter could scarcely be produced. Fraunhofor succeeded in making thom of 9 , and even II inches. The object-glass of the large parallaetio telescope belonging to Sir James South, at Campden Hill, was manufactured by Cauchoix ; it excoeds 12 inches, and is throughout of the utmost purity. The exact proportion of the ingredients which enter into these choice apecimens is not known, and probably their edcellence depends in part on some accidental circumstances in the preparation. Korner produced some of his best specimens by employing tio following ingredients: 100 parts of quarta, first treated with muriatio acid ; 80 parts of litharge, or red lead; and 80 parts of the bitartrate of potanh. Flint-glass for common purposes is usually made of 120 parts of fine white sand, 40 parts of well-purified peariash, 85 parts litharge or mininm, 18 parts nitre, and a small quantity of the black'oxyd of manganesethe latter ingredient being uned to correct the green color occasioned by the presence of oxyd of iron in the sand. The principal difference between this and the glase used for optical purposes consists in the much greater quantity of lead in the Jatter, and whlch is introduced for the purpose of increasing its dispersive power. There is a vuluable paper on the manufacture of glass for optical purposes, containing the resulta of an extensive seriss of experiments npon the subject, made in the laboratory of the Royral Institution, by Mr. Faraday, in the Philosophical Transactions for the year 1830, vol. exx. See Glabs.
Floating Brealswater. This marine contrivance may consist of a series of square frames of tims ber, connected by mooring-chaina, or cables attached to anchors or blocks of marble. The framework may be made of logs of yellow pine, from 30 to 50 feet long, and from 18 to 20 inches square, bolted together very firmly, and inereased in height as the situation may be boisterous, in order to break the violence of violent waves, and to allow the verseis riding within these quadrangular basins more safety and protection. Such breaknaters are admirably adapted to bathing-places and swimming-stations, since they will always produce amooth water, and protect the machines.

Flogging. According to an act of Congress passed September 28th, 1850, it is provided, "That flogging in the navy, and on board ressels of commerce, is hereby abolished from and after the passage of this act."

Floor Cloth. This useful and ornamental maniafacture originated in Great Britain about the year 1740, when a manufactory of it was established at Knightshridge, near London, by Mr. Smith. It was originaily made of narrow canvas sewn together like sail-cloth, to which successive coats of paint ware applied; but the seams proving inconvenient, a canvas was wove for the purpose, about four yrards wide; it was then extended to seven yards in width, and afterward to nine, which is the widest at present made. The manufactory at Knightshridge, now carried on by Mr. Buber, is the largest estublishment of the kindthe common dimensions of the oil cloths produced there being 20 yarda by 8 , and 80 yurds by 7 , giving therefore entire pieces of 160 and 210 square yards without seams. These canvases are stretched upon frames, and aecesalble over their whale surfuee by stages erected for the purpose : theae are the circumstanees which render the large dimensions of the manufactory requisite. The canvas being duly strained, is rubbel over with pumice-stono, which renders its aurface smooth and even, and then brushed over with a waak soiution of size; when this is dry, the first cont of oll color is lald on, not with brushes, but with trow-
els, something in the manner of plastering; when this is dry a second coat follows it ; and in this way saven conta of paint are usually spplled in succession, three on the buck and four on the front. When the cloth in this state, and of one color, is aufficiently dry, it is removed from its frame upon a large rollor, and caro ried to the upper part of the building to be printed, that is, to receive ite pattern. This was originally effected by a process of ponciling; but in the yar 1780 , Mr. Smith introduced the great improvement of blockprinting, by which the colors are more correctly isid on and in greater body and variety. The printingtable, which is about 80 feet long, 4 wide, and 2 feet 6 inches high, is very firmly conatructed of deal timbers laid edgeways, and clamped together, the surface being truly planed; the roll of painted cloth is placed underneath :', and as it is onrolled it gradually passes over the tablu, where it is printed, and la then drawn forward so as to hang perfectly free while drying, the hoight of the bullding being such as convenientiy to adnait of this, without rolling, doubling, or folding the material, which In these atagee would of course injure it. The colors, which are the usual oll colors very aarefully propared, are put on in succession with wooden blocka, which are made of pear-tree, box, or holly-wood, and on whieh the patterns are cut in relief; they are ebout 18 inches square, and are applied in succession over the whole of the surface of the cloth lying upon the printing-table. Every color is put on by a separate block, and much dexterity ia required in so placing them that the patterns may correctly interlace and join each other, without in any case overlapping or interfering. To effect this, the workman is uided by guide-pins, or pitches, as they are termed, which direct him in placing the ilock. The colora are first brushed or tiered apon hard cushions, from which they are transferred to the block and thence to the cluth; and, though many are often required, it is astonishing how much effect is sometimes obtained by the judicions arrangement or mixture of two only, upon a third, which forms the gronnd. It will be obvious, from what has been stated, that the weight, of the finished oil-cluth, as compared with ine naked canvas, is no uninıportant criterion of its good-ness-each square yard, when finished, weighing from 34 ponuds to 4 or $4 \frac{1}{4}$ : this distiuguishes a good oilcloth from those which are vamped up and atiffened with size and other perishable materialg.

Independent of the common application of oil-cloth, it is not onfrequentiy advantageously eniployed as a roofing material, ospecialiy for covering verandas and other light structured. When used for this purpose, the canvas should be made of picked long flax, and thoroughly saturated with good oil paint ; it will then stand our climate and last for 14 or 15 years.

Florida, one of the southernmost Statea of the United States of Ameriea, lies between $21^{\circ} 32^{\prime}$ and $31^{\circ} \mathrm{N}$. lat., and between $81^{\circ} 30^{\prime}$ and $80^{\circ} 35^{\prime} \mathrm{W}$. long. It is 385 miles long, and from 50 to 250 wide, containIng 59,268 square niles. Population in 1830 , was 34,725 ; in $1640,54,447$; and in $1850,87,401$. The States was, in 1850 , divided luto 28 countiea.

Early Jistory of Florida.-The name which the conotry to the north of Caba had among the Indians of the Lucayan Islands was "Cautio," the signification of which is, as ilerrera gives it, rather olsscure. The Spaniaris heard this eountry "Cautio" alrealy apoken of befure they saw it. I'hey heard also of tho famoun and fabulous fountain of youth of which the Indians had a tradition, and which was cailed the fountain of Bimini. From this fonntain the country to the north itself was sometimes culled " Mimini." O" rome of the first majes of the 16th century it is also called "Terra de Cubu" (the country of Culab), as if there were, 1st, an island of Cuba, and, 24 , a continent of Culsa. When l'once de leon, in the spring of 1512, diecovered this coast, he gave to it the name of " $1 \% \mathrm{or}$.
ida" (the florid), from two reasons, at Herrora says t at first because the country presented a very flourishing and ploasant aspect, and then because he saw the conat at that feativul-day which the Spaniards call "Paecua Florida, which correaponds to our Palm Sunday. This name has aince that time always remained to the large peninaula which we to thin day call Florida, though the name was sometimes taken in different asases, an ithough aomotimes there have been at. tompts made quite to do away with it. At first, so long as Florida was supposed to be an island, thename had only a very limited application. When the Spanlarde, after the year 1520, discovered, however, the continuation of the coasts on both slden of Florida, they applied this name to the whole western half of North America, from the boundarlea of Mexieo find from Cape of Florida, toward the nerth, in indefinitum. The to-called "Government of HVorida" was often given to different Spanish governors within the said limits. The "Rio de las Palmas" (Inlm River in Mexico wan the eouth-weatern houndary of this government.
Wo see the name of Florida on many maps, with large letters, written through the whole Mississippi valley, throughont the whole area of the United States; and even aa inte as the year 1723, the Spanish "istorian Barcia treated, in the work which he calls "The History of Flurida," also of Canada, und even of the English expeditiona for a discovery of the northweat passugo. This latter passage the Spanish authors very often atyle "a strait through rlorida." Herrera, howevor, already remarks that the name of Florida was taken in two sensea: it had a more extensivo and a narrower meaning. In the latter eense tha peninsula was called "Florida par excellence." Some anthors looked upon this peninsula oniy as upon s large tongue or promontory attached to the great Floridlan continent, and named it the "Promontory of Hlorida' (Promontorium F'loridas). On many old maps we eet this name cover the whole peninsuls. Still other names for the whole peninsula grew out, as it were, from its root or from its southern point. At the time of the Spanish governor, Don Pedro Menendez, in the year 1566 , the Spaniards discovered near the Cape of Florila an Indian village called Tequesta, or Teguesta, also written Tegeata. This ofteu-spokenof viliuge the map-makers put down on their maps, and chrnged it to a "Provincio de Tegesta" (a province of Tegesto). Some authors applied this name to the whole peninsula of Florida: thus, for instance, did Lacit, in his work as well as on his msps (A.1). 16i3).
When the French discovered and settled the Mixsigsippi valley, and named it Joniaiana, they extended this name and their pretensions as far as possible; and on one Frean:h map by Nic. de Fer, of the year 1i13, we see the name "I'eainanle de Louisiane" even given to our poninsnla of Florida. This wus, however, only a single and unfortunate uttempt, which had no further consequences, either ln geography or politics. The Spaniards, on their wide, guve not up thein pretensions to chaim, under the name of Florida, much more than their neighbors, the Jiritish, to the north, und the Frencli, to the west, would allow them. But the Spaniards exteniled, before 1763, their actual porsesaion and goverument in Florida, toward the oast, not further than Mubile Ihay and Hiver, and to the north not further than the St. Mary's River. When, in the year 1763, the Floridas were ceded to Great Britain, and also all the Freuch dominions east of the Mississippi, then the boundaries of the name Florida were oxtended ayrain. Great Britain established two provinces of Florida, "Eiast and Hest Florida." The first extended as far north as the St . Mary's Miver, or about the M1at degree of north latitude, and the latter as far west an the Misuissippi Delta, to the Lakes Pontchartrain and Maurepas, In the year 1783 Great Britain retroceded the Floridas to Spain, and Spain at
the sar Frencb Now, all the tries ly vision ental at of this degree than 40 Gulf, a ern bo States. tended Mexica to the 1 United east as the yea sissippi, time ( 1 not che till 182 United tory of But the nnehan River a The div under $t$ Thys. aneven sea. T bays an covered at a ec brush grass a: surface borders mecks vines. usually is steril land, h welli sd Indian tion of rens aff intersec of the
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the aume time received the possession of the whole of French Louisiana to the weat of the Mississippl. Now, for the first time, Spala held in actual possesaion sll the ahores of the Mexican Gulf, and all the countries lying aronnd it. Spain adopted the English division in Eastern and Western Morida-F'lorida Oriental and Occidental-and retained also the extension of this name as far as the Miselssippi Delta. The 81st degree of north latitude, which runs not much farther than 40 miles from the northern shores of the Mexican Gulf, and is parailel to it, was agreed upon as the northsin boundary of "the Floridas" toward the United States. So, since the year 1763, the name of Florida extended again over half the circuit of the shores of the Mexican Gulf. But soon after the cession of Lonisiana to the United States Florida was curtailed again. The United States claimed the western part of it as far east as Perdido River, received the possession of it in the year 1811, and joined lt to their "Territory of Misrissippi," and afterward of "Alabama." Since this time (1811) the dominion of the name of Florida has not changed, though the so-called country changed, till 1821, Its masters, when Spain ceded it to the United States. It was then at first called "the Territory of Florila," and since 1845, "the State of Florida." But the linits remained (with some slight exceptions) unchanged--Perlido River In the west, and St. Mary's River and the 81st degree north latitnde, in the north. The division into Fast and West Florida disappeared ander the American government.-KoisL.

Physical Features, etc.-The face of the country la uneven, but nowhere elevated over 800 feet above the ses. The whole extent of the coast is indented with bays snd lagoons. A large portion of the country is covered with pine forests, the trees of which standing st a considerable distance from each other, without brush or underwood, afford an opportunity for the grass and flowers to spread with laxariance over the surface of the earth during the whole year. The borders of the streams aro usually skirted by hammocks of hard timber entangled with grape and other rines. A large portion of Florida consiets of what are usually denominated "pine barrens," and much of it is sterije, though there are exteneive tracts of tuble land, hammock, and swamp of the richeet soil, and well adapted to the cnitivation of sugar, rice, cotton, Indian corn, tobaceo, and fruits. A considerable portion of the pine land is equally rich, and even the barrens afford extensive ranges of growing land, uaually intersected with atreams of pure water. Many parts of the State abound in yellow pine and live oak timb.r. The sea coast is generally healthy, and in parts remarkably so, and the interior is equally heaithy, unless it be in the neighboriood of extensive marshes. The peninsula, which is the sonthern portion of the State, presents a singular alternation of acvannaha, hammocks, and lagoons, called collectively the Evergiades, which extend into the heart of the country for 200 milee north of Cape Sable. They are drained on the north liy the St. John River, and or. the weat by Macao or Charlotte River.
There were in this State in 1850, 349,049 acres of land improved, and $1,246,240$ unimproved in furms. Cash value of farms $\$ 6,323,109$, and the value of linplements and machinery $6658,795$.

Live stock, etc.--llorses, 10,848 ; assea and mules, B002; milch cows, 72,876; working oxen, 5704; other cattle, 182,415; sheep, 23,311; swine ; 209,453. Value of live stock, $\$ 2,880,058$; of slaughtered animals, 514,685.

Agricultural Products, etc.-Wheat, 1027 bushels; rye, 1102 ; Indian corn, $1,006,809$; oats, 66,586 ; buckwheat, 55 ; peas and beans, 135,359 ; potatoes, 7828 ; sweet potatoea, 757,220 ; rice, $1,075,090$ pounds. Value of products of the orchard, 81280; produce of market gardens, 8i21. Pounds of butter made, 871,498 ; of cheese, 18,015 ; sugar, hhds., 2750 ; mo-
lassen, 802,808 gallone; beeswax and honey, 18,971 pounds ; wool, pounds prodnced, 28,247 ; cotton, 48,181 ; flax, 60 ; silk coecons, $C$ hops, 14 pounds; tohacco, 998,614 ; hay, tons of, 251u; and were made 10 gallons of wine. Value of home-made manufoturee, $75,582$.

Rivers, Bays, etc.-There are many bays on the western side of the peninsula, some of which form good harbors. They are Perdido, Pensacola, Choctawhatchee, St. Andrew, St. Joseph, Apalachlcola, Appalachee, Tampa, Carlos, and Gallivalns. On the east coast of the peninsula, the inlets afford harbora for consting vessels. The St. John is the principal river on the eastern coast ; it often spreads from three to five miles in width, and at other places it is not more than one fourth of a mile wide. It is exceedingly winding, and flowa through a beautiful and healthy country. St. Mary's River rises in Okefinoke Swamp, Georgia, and entera the Atlantic between Cumberland and Amelia Islands. Of the rivers which enter the Gulf of Mexico, the Apalachicols is the principal. It is formed by the junction of Chattahooches and Elint Rivers, about 100 miles from the Gulf of Mexico. The Chattahoochee branch of this river is navigable for steamboats 280 milea to Columbus, Georgia. The other principal rlvers are Escambla, Suwenee, Withlacoochee, Oscilla, Oclockony, and Choctawhatchoe. Perdido River forms the western boundary between Florida and Alabama, It is navigablo about seven miles above the bay, is a fine mill stream, and its banka are covered with superior yollow pine timber. There are in thia State eeveral streams of limpld water which sink into the earth and disappear, and several which rise suddenly from the earth: one in particular (the Wakulla) fa navigable from ita very source. The quantity of lumber shipped from the St. John River annualiy is estimated at $50,000,000$ feet. Total tonnage of the State in 1853 amounted to $12,124.25$ tons.

The principal places in the State are Tallahassee, the capital, Key Weat, St. Auguatine, Jackeonville, Penaacola, and Apalachicola. On the 1st of Janunry, 1856, there were 26 miles of rallroad in operation. May, 1856, Congrese granted to railroads lands amounting to over $1,000,000$ acres, which, if rightly managed, will huild all necessary railroads.

Manufactures, etc.-There were in the State in 1850, 1 cotton factory, with a capital of $\$ 80,000$, employing 28 anales and 67 females, producing 624, 000 yarda of sheeting, etc., valued at $\$ 49,920 ; 8$ flouring and grist mills, 48 asw-milis, 4 tanneriea, 10 printing-officea, 1 aemi-weokly, and 9 weekly nowspapers pablished. Capital invested in manufuctures, 547,140 ; value of manufactured articles, $\$ 668,435$

Principal Ports.-Key West is built on an islund of the same name, aixty miles south-west of Cape Sable, lat $24^{\circ} 32^{\prime}$, and long. $31^{\circ} 52^{\prime} \mathrm{W}$. It ia a port of entry, and one of the few populous towns in the State. Ita pusition commands the Florida Pass, and hence it Is important alse as a naval atation; but the principal occupation of the people at the present time is "wrecking," and here is located a special court for the adjudication of aalvages. From fifty to sixty vessela are wrecked in the vicinity every year, and upward of $\$ 250,000$ are paid on salvagea. Salt and eponges are the principal exports, but there is a large import trade for the supply of the military atationed hore. Stamera plying between the Atiantic porta and IIavana generally call here. The town contains about 4000 inhabitants. The tonnage of the port in 1856 was 3668 tons.

Pensacola is a town and port on the west side of Pensacola llay, ten miles from the Gulf, and has a fine harlour. The United States' government has here a first-rate naval station and a marine hospital. The trade of Penaacola is principally in cotton. The tonnage of the port in 1856 was 1960 tons. A railrood from Pensacola to Mobile is in course of construction.

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|  | Dasmens. | Tomatin | Total | Towel. | Ammites. | Tonosa | Rogltowi. | Soroted ${ }^{\text {and }}$ |
| \%oph 29, 1 181....... | 1777 |  | 17\% | 18.880 | 190 | ... | 980 | 868 |
| 1883......... | 1,010 |  | 1,510 |  | ${ }^{868}$ | "*8 | $\ldots$ | $\ldots$ |
| 189........ | . 1810 | ...: | 910 | 8980 | 177 | 30 | …' | $\cdots$ |
| 1928......... | - 2,88808 |  | 2,2068 | \% 8 8,915 | ${ }_{198}^{893}$ |  |  |  |
| 1. 1897........ | . 24110 |  | 57,496 | 207,00 | 11,010 | \%iii | .... |  |
| \% $1888 . . . . .$. |  | 17,929 | 80,821 | 168,992 10842 | T,857 | 7,248 | $\cdots$ | $\cdots$ |
| 1890........ | + 7 \%,500 | 1,988 | ${ }_{\text {T,070 }}$ | ${ }_{88,689}$ | \%1,808 | 7,043 |  |  |
| Total.... | 1186,746 | 601,29 | 188,000 | 9004,860 | 88,178 | 10.898 |  |  |
| 8ept. 80, 1891....... | 188,499 | 12.008 | 80.405 | 116.71 | 6,169 | 810 | 846 |  |
| $1882 . . . . .$. | 68.696 | 4,080 | 00,716 | 107.797 | 0,94 | 901 | .... |  |
| ${ }_{1884}^{188 . . . . . .}$ | -6,619 | 88,940 | -288,820 |  | 889 | 886 | , | .... |
| 1^85........ | 49,009 | 12,701 | 61,710 | 98179 | 10,225 | 1,025 | .. | $\ldots$ |
| 18987......... | 82.176 | 0,888 | T1,662 | 121,745 | 9,280 | 045 | .... |  |
| 1888........ | \%1,988 | bash | 122,682 | 169,990 | 88.096 | 2,791 | $\ldots$ | .... |
| $18999 . . . .1$. | 291,094 | 48,719 | 8\%4.806 | 979,898 | 12,423 | 1,239 |  |  |
| 1840 | 1.850.709 | 8,141 | 1,959,850 | 190,728 | 11,168 | 1,945 | ... |  |
| Total. | 62.745171 | \$198,007 | 82,942,073 | [1,794,604 | 81,125 | 11,640 |  |  |
| Bopt so, 141....... | 288,89 | 02,80t | 089089 | 814,181 | 8.829 | 2.781 | 8,601 | 2838 |
| mon, 1893:....... | 760,885 | 878 | 780,698 | 176, ${ }^{1589}$ | 8,407 | 2,008 | … | $\ldots$ |
| June 80, 1944........ | 991.657 | 19,769 | 1.011,416 | 160,005 | 10,247 | 8,009 | $\cdots$ | $\cdots$ |
| 1845....... | 1,502,887 | 11,978 | 1,014,745 | 107,964 | 19,885 | 6.728 |  |  |
| 1946 | 187839 | 88.900 | 178,449 | 140,584 | 8,159 | 1,418 | .... | .... |
| $1847 . . . . . .$. 1849 | 1,808177 | 2,881 | ${ }^{1,810.693}$ | 149,999 | 10,950 18,206 | ${ }_{\substack{\text { 9,504 } \\ 7 \\ 7.048}}$ | $\ldots$ | …: |
| 1849........ | 1, ${ }^{1,581.688}$ | $\cdots$ |  | ${ }_{6}{ }^{6}, 211$ | 20,507 | 10.928 |  |  |
| 1850....... | 2,607,063 | 15, asb | 2,029,694 | 05.709 | 10,029 | 12,184 |  |  |
| Total... | 812,289,68? | 102,405 | 812,883,188 | 11,251,425 | 110,657 | 60,783 | $\cdots$ |  |
| Jane so, $1581 . . . . .$. | *3989,910 | *263 | *2,940,179 | 894,997 | 20,254 | ${ }^{8,049}$ | 8,754 | 5,610 |
| 1838......... | 2, $21.511,976$ | .... | $2,511,978$ 1,609208 | 80,718 | 24,170 | 11,508 | $\cdots$ | .. |
| 1884........ | 8 804,007 | ... | 20csiog | 89,969 | 19,995 | 9,489 |  | $\ldots$ |
| 1855......... | 1,908594 |  | 1,403694 | 86,014 | 41,934 | 7,985 10320 |  |  |

* Nine montha to June 80, and the Ascal year from this time begina July 1.

Florin, a coin firat made by the Florentines. A floren was issued by Eiward III., which was current in England at the value of 6s. in 1387,-CAmper. This English coin was called floren after the Florentine coin, liecause the latter was of the hest gold.Asur. The florin of Germany is in value 2s. 4d.; that of Spain 4n. 4 Jd . ; that of Palermo and Sicily 2s. ©d.; that of Holland 2a,--Aytarpe. By mint valuation the forin of the southern states of Germany is worth $\mathbf{4 0}$ cents. The florin of Austria and the city of Aggsharg, $48 \frac{1}{2}$ cents.
A new English coin, by the name of florm, was authorized by acts of Parilament, 1849-1851, of the value of two shillings, or one teath of the sovereign or pound sterling. This is the first practical attempt at a decimal currency in Great Britain. Up to thita time (1857) few of the coina have been isaued or put in circulation, and there seems some doulit of its hecoming one of general use. The ohverse of the new florin has an exquinitely graceful bust of Queen Victoria in left profile-the fayorite side in all the coins of the present reign. Unilike all the previous coins of this reign, however, the effigy la crowned-the comnal "round and top of sovereignty" of the kingdom being falthfuily copied, with its borders of Jewein, its rim of fleura-de-lis and Maitese crosses. The legend, in bold, broad capitals, is "Victonia Regrya, 1849."
Moss-silk (Filosella, Birurre de moie, or Reuref, Fr.), is the naine given to the portions of raveled silk broken off in the filature of the coccons, which in candell like cotton or wool, and spun into a soft coarae yarn or threal, for making bands, shawla, socks, and other common siik fabrics. The foas or fleuret, as firot obtained, must be ateeped in water, and then subjected to pressure, in order to extract the gummy matter, which reuders it too harsh and short for the spinning-wheel. After being dried it is mado still mose pliant by working a little oil lato it with the
hands. It is now ready to be submitted to the carding engine. See Cotrox Maxupactone. It is spun upon the flax-wheel. The female pensants of Lombardy generally wear clother of homespun floss-silk. Of late yeara, by improved proceasea, pretty fine fabrics of thia material have been produced, both in En. gland and France. M. Ajac, of Lyous, presented at one of the French national exbibitions of the objects of industry, a great variety of scarfs and square shawls of bourne de noie, closely resembling those of cachemire.

Flota, a name given by the Spaniarda to the stips that formerly sailed together, or under convoy, rum Cadiz and the other ports of the Peninauia amtherized to trade directly with the transatlantic possessions of Epain.

Flotilla (Sp.), literally a little fleet; in which sense, however, it ia neldom used, iseing applied almost invarishly to a fleet, how large soever, composed of amall veanel. Thus the term flotilia was given to the immense naval force with which Napoleon melitated the Invasion of Great Britain, and which consistell of 2,865 vessels of every description, was manned by alout 17,000 sailora, and carried 160,060 noidiers, and $\mathbf{1 0 , 0 0 0}$ horses. In Spain the name fotilia is given to a number of vessels appointed to announce to the home government the departure and nature of the carge of the flota or mercantile ships from foreign ports na their homewarl royage.

Floteam, Jetsam, and Lagan. In order to ennatitute a legal wreck, the goods must come to land. If they continue at sea, the law distinguisties them by the foregoing uncoath and barbarous appellations: Antacm is when the goois continue awimning on the surface of the waves; jetaum ls when they are sunk under the surface of the water; and lagan is when they are sunk, but tied to a cork or hooy to be found again. -(Blackatone, ’ook l., c. vill.)

Mour Fr. Fleur wheat cor The im best cush It xill be ported int States, in Indian co of wheat.
Ixponts on

Couatries

Russia, N
Russion, 8
8weden.
Norway.
Jonmark
Prusais.
Moeklent
Moekloner.
Hanover.
Ilanseatle
Iloliand.
Belglani.
Prance...
Portngal.
8paln. ..
Iuscany
rapal Ter
Naptes an
Austrian
Greece.
Turkey P'
Wallachin
Byrls and
Morpt...
Moroceo.
lirtish Ea
lirltish Ea
British No
United St
Chill......
Other part
Teto

* Quarte

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Deatin
Rlo Janalt
Pernamhue
Bahla....
Rio Grind
River Plat
Total.
statexent

Export price
Bostan.
New York.
Phllalelphia
Baltimore. .
Sew Orleans
St. Louls... .
The expo
the year ent

New York
Belilmore.
Philadeiph New Orlea Boston....
Rlchmond.
San Francl
Other port
Toial.
Flour of first inethod added, whic veseel whicl contain one tion of this

Mour (Ger. Feines mehl, Semmelmand, Du. Bloom ; Fr. Fleur do Farine; It. Fiore ; Sp . Flor), tha meal of wheat corn, tinoly ground and olfted.
The imports of breadatuffs lato Great Britain, our beat cuatomer, is fin'iy shown by tha following table. It alll be ebserved that three fourtha of the flour imported into England were obtalned from the United Ststes, In addition to three liths of the quantity of Indlan corn, and more than a forth of the quantity of wheat.

Inpont of Bamadaturf into Enolano fon tur Yeag

| Countiot whencestaporied. | Wheet. | Flour. | Iadian corm. |
| :---: | :---: | :---: | :---: |
| Rassla, Northern. . . . . . . | Qacriera.: 467,617 | $\begin{gathered} C=10 . t \\ 84,800 \end{gathered}$ | $\begin{gathered} \text { quartiont } \\ 61,386 \end{gathered}$ |
| Russla, Southern......... | 901,848 | 689 |  |
| 8 wedun | 10.708 | ....: | .... |
| Norway. . . . . . . . . . . . . . | 4,488 | .... | .... |
| Denmark. . . . . . . . . . . . . | 177,916 | 8,014 | $\cdots$ |
| Prusala. . . . . . . . . . . . . | 282, 881 | 250 |  |
| Meeklenharg-Mehwerin.. | 62,625 | 190 | .... |
| Hanover. . .............. | 8,017 | 9 | 679 |
| llanseat lo Towus......... | 187,826 | 188,014 | 16 |
| flolland. . . . . . . . . . . . . . . | 24,179 | 2,918 | 2,191 |
| Belgitum. . . . . . . . . . . . . . | 94.088 | 9,470 | 1,622 |
| Franer. . . . . . . . . . . . . . . . | 11,007 | 60,872 | 97,658 |
| Portaggl. . . . . . . . . . . . . . | 14,800 | 6,759 | 1,417 |
| 8pain. . . . . . . . . . . . . . . . | 44,719 | 460,898 |  |
| Tusanny . . . . . . . . . . . . | -9,165 | 12,800 | 4,467 |
| Fspsil Territorles......... | 47,974 | .... | 4,207 |
| Nsples snd Blelly........ | 91,000 | 67 |  |
| Austrian Territorice.... | 88,394 | 1,001 | 80,776 |
| Greeet. . . . . . . . . . . . . . . | 9x184 |  | 210.427 |
|  | 114,325 | 5,510 | 64,711 |
| Wallachla snil Moldavia. | 124,471 |  | 106,706 |
| 8yrla and l'alestine...... | 88,105 884604 | 6,298 | ${ }_{9}^{100}$ |
| Kyypt.................. | 084,663 | 441 | 9,159 |
| Morocco..... . . . . . . . . | - $\begin{array}{r}4.568 \\ 90.948\end{array}$ | 989 | 61.257 |
| British Fast Indies...... | 90,963 111,419 | 88.299 |  |
| Britsla North Amerles . . | 111,419 | 809,886 0.0097 | 28,817 |
| United Stateas. . . . . . . . . . | 1,970,150 | 2,902,707 | 1,000,871 |
| Chill... | 1,084 8,480 | 88,685 11,274 | 82,900 |
| Tetal, | 4,072,833 | 8,991,367 | 1,777,818 |

* Quarters $=8$ measured bushels. $+\mathrm{Cwis}=114 \mathrm{lbs}$

Breadoruff.-The following official atatement exhiblts the aggregato ralue of breadstuffe and previsiont exported nanually from the United States, for each flocal year, from 1821 to 1856 :

| Ame | Amouel. |
| :---: | :---: |
| 1891...... $18.841,901$ | 1840....... 19,06150 |
| 18\%)....... 18,886,850 | 1841....... 17,194,109 |
| 1629....... 18,767,847 | 1842....... 16,902876 |
| 1824...... 15,120,494 | 1843....... 11,204,128 |
| 1825....... 11,094,449 | 1844....... 17,970,185 |
| 1896....... 11,801,496 | 1845...... 16, 748,411 |
| 1827....... 11,686,056 | 1846....... 97,701,181 |
| 1898....... 11,461,144 | 1847...... 68,701,921 |
| 1829....... 18,181,898 | 1848....... 87,479,761 |
| 1880...... $18,075,480$ | 1849....... 88,105,607 |
| 1881....... 17,0836,927 | 1850....... $86,051,878$ |
| 1882....... 12,494,708 | 1861....... 91,048,601 |
| 1898...... . $14.200,188$ | 1468...... 25,857.027 |
| 1884...... 11,084,024 | 1803....... 88,9n8,827 |
| 1885....... 12,009,899 | 1804....... 65,941,928 |
| 1886...... $10,614,180$ | 1805....... 88,896,848 |
| 1887....... 0 . 5488,899 | 1856...... . 77,187,801 |
| 1888....... ${ }^{\text {c }}$, $9,886,850$ | ,187, |
| 1889....... 14,147,779 | Tolal... 798,022,257 |

Exponts of Brgadbtuyp raom tbe Unitad Btater to OBRAT BHITAIR AND IRFD.AND, FBOM SEPTRMARE 1 1855 то Avovit 81, 1856.

| From | Floar, | Meal. | Wheat. | Corn. |
| :---: | :---: | :---: | :---: | :---: |
| New York. | biarrele. <br> $1,100,068$ | Harroln. 008 | Bumbein. 6,807.874 | $\begin{gathered} \text { Humbels } \\ 8,180,899 \end{gathered}$ |
| New Orlcan | 85,866 |  | 888,591 | 2,420,619 |
| Pbiladelphta. | 199,258 | 4.195 | 478,638 | B08,478 |
| Baltimere. | 184,288 | 1,100 | 674,589 | 428,841 |
| Boston | 20,882 | 1,018 |  | 20,460 |
| Other por | 21,468 | .... | 107,226 | 115,869 |
| Total 1888 | 1,041,265 | 6,816 | 7,966,406 | 6,781,161 |
| 4 1855. | 176.209 | 4,789 | 324,797 | 6,679,188 |
| 41854. | 1,848,920 | 41,740 | 6,088,408 | 6,049,871 |
| 41808. | 1,600,449 | 100 | 4,828,519 | 1,452,878 |
| 41852. | 1.427,449 | 1,630 | 2,728,449 | 1,487,898 |
| 4 1851. | 1,500,504 | 3,620 | 1,496,860 | 8,205,601 |
| " 1860 . | 474.757 | 6,411 | 4. 1,276 | 4,758,853 |
| 41849. | 1,187,056 | 88,940 | 140.194 | 12,685,260 |
| 41848. | 184,568 | 108,584 | 241,309 | 4,890,228 |
| 41847 | 3,155,844 | 844,167 | 4,000,859 | 17,167,659 |
| Total 10 years | 18,201,609 | 1,102,748 | 29,210,290 | 68,064,450 |



| Destination. | 1856. | 1885. | 1854. | 1858. | 1859. | 1831. | 1850. | 1849. | 1848. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rlo Janelro. | 253,104 | 211,278 | 155,560 | 251,275 | 218,674 | 240,230 | 148,800 | 138,648 | 216,879 |
| Pernambuco.... . . . . . | 82,023 | 40,562 | 48,024 | 72,207 | 68,212 | 63,442 | 55,187 | 68,265 | 65,271 |
| Bahia.... . . . . . . . . . . . | 26,860 | 26,481 | 25,415 | 27,897 | 23.452 | 18,188 | 28,085 | 29,159 | 26,118 |
| Rlo Grande. . . . . . . . . . | 44.835 | 81.485 | 85,829 | 46,878 | 28,882 | 82,816 | 81,086 | 98,064 | 87.814 |
| River Plete. | 113,620 | 22,716 | 82,855 | 64,465 | 40,784 | 85,699 | 8,400 | 8.048 | 25,909 |
| Trotal. | 550,456 | 888,751 | 2-3,677 | 468,762 | 850,004 | 898,845 | 770,004 | 290,109 | 871, 017 |




|  | 1840. | 1841. | 184. | 1843. | 1844. | 1845. | 1846. | 1841. | 1845. | 1849. | 1850. | 1851. | 1854. | 1963. | 184.4. | 1856. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Esport price.. | \% 87 | *5 20 | \% 00 | 4450 | 3475 | \% 41 | - 518 | +5 05 | (1621 | ( 585 | 4500 | 477 | \% 4.9 | ¢ 560 | 47 \$8 | 1010 |
| Boston. | 5 \$1 | 577 | 567 | 487 | 618 | 582 | 558 | 717 | 649 | 600 | 600 | 5 25 | 080 | 687 | 925 | 1025 |
| New Yerk | 617 | 589 | 567 | ${ }^{5} 07$ | 461 | $\checkmark 00$ | 619 | 680 | 571 | 496 | 480 | 419 | 406 | 551 | 802 | 906 |
| Phtlatelph | 582 | 534 | 547 | 461 | 481 | 469 | 479 | 602 | 667 | 484 | 497 | 488 | 428 | ${ }_{5} 47$ | 814 | 968 |
| Baltimore. | 500 | 581 | 520 | 486 | 481 | 468 | 489 | 621 | 652. | 489 | 480 | 418 | 486 | 539 | 818 | 857 |
| Yew Orleans.. | 493 | 583 | 454 | 418 | 444 | 483 | 488 | 554 | 476 | 461 | 581 | 400 | 410 | 548 | 760 | 986 |
| St. Louls...... | 498 | 475 | 456 | 875 | 480 | 483 | 450 | 4031 | 525 | 643 | 625 | 488 | 688 | 6 08 | 609 | 783 |

The exporta of flour from the United States, daring the year ending June 80th, 1856, were as followa:

|  | Barrels, | Value. |
| :---: | :---: | :---: |
| New York............. | 1.649 .471 | 618,699,941 |
| Battimore............... | B87,993 | 4,776,175 |
| Philadelphia. | 814,846 | 2,486,068 |
| New Orlesus, . . . . . . . | 251,501 | 1,907,878 |
| Boston.. | 175,003 | 1,555,987 |
| Rlchmudd, Va | 150,821 | 1,026,082 |
| San Franelsco.......... | 114.572 | 1,070,191 |
| Ohber ports. | 806,8t8 | 2,240,602 |
| - Total. | 8,510,626 | \$20,275,148 |

Flonr of Wheat, adulterations of, to detect.-The first metholl is by specific gravity. If potato flour be odded, which is frequently done in France, since a vessel which contains one pound of wheat flour will contain one poond and a half of the fecula, the proportion of this adulteration may be easily ostimated. If
gypsum or ground bonea be mixed with the flour, they will not only iocrease its density still more, but they will remain after burning away the meal.
The second method is iny ascertaining the quantity of gluten which the auspected sample will afford, by the process prescribed under the article Bread. The two following chemlcal criteria may also be employed :

1st. Nitric acid has the property of coloring wheat flour of a fline orange yellow, whereas It affects the color neither of fecula nor starch. 2d. Pare muriatic acid colors good wheat flour of a deep violet, but dissolves fecula or atarch, and forms with it a light, colorless, viscous fluid, decomposable by alkalies. It may also be observed, that as fecula absorbs less water than flour, this affords a ready means of detectlon. The adolteration with bean or pea flour may be detected by pouring boiling water upon it, whlch devolops the peculiar smell of these two aubstances.
 Sevanty-two Yrale.

Tably sho

| Year. |
| :---: |
| 178 |
| 178 |
| 178 |
| 178 |
| 178 |
| 1740 |
| 1701 |
| 1792 |
| 1798 |
| 1794 |
| 1795 |
| 1796 |
| 1797 |
| 1798 |
| 179 |
| 1800 |
| 1901 |
| 1802 |
| 1808 |
| 180 |
| 1305 |
| 1804 |
| $1 \mathrm{sh7}$ |
| 1425 |
| 1 1910. |
| 1510. |
| 1411. |
| 1812. |
| 1818. |
| 1814. |
| 131. |
| 1816. |
| 1517. |
| 1815. |
| 1510. |
| 1N21). |
| 1821. |
| 1823. |
| 1429. |
| 1824. |
| 1935. |
| 1826. |
| 152 F. |
| 1824.. |
| 1829. |
| 1530. |
| 184. |
| 1432. |
| 183. |
| 134. |
| 15\%3. |
| 184. |
| $147 \%$ |
| 1848. |
| 1499. |
| 1440. |
| 131. |
| 182\%. |
| 1518. |
| 1814. |
| 1515. |
| 1-4t. . |
| 147. |
| 1415... |
| 1619... |
| 14\%... |
| 1431. |
| 1422. |
| 183. |
| $1 \times 14$. |
| 14**. |
| 15056. |

Is perhapis aimout is meparited, bu recelve the nam con-lituten oato oats alfort aher the loss lering t the husk, and t analyeri* (the art hand lieen dried lons of water wi nons compounds nuas do., $7 \cdot 33$; of anh, prinefpul potitana, anil ma quantify. Outu mure nutritious
 Seventt-two Years,-Conelnwed.

| Year. | July. | Augumb | September. | October. | November. | December. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1785. | 440 | $4{ }_{4}{ }_{4}{ }^{\text {d }}$ | 486 | 48. | 480 | 48 |
| 1786. | 480 | 430 | 486 | 486 | 480 | 400 |
| 1787. | 426 | 868 | 88 0 | 880 |  |  |
| 1788. | 850 | 850 | 850 | 846 | $8{ }^{1+0}$ | , 8800 |
| 1780 | 888 | 410 | 420 | 426 i | 400 | 426 |
| 1790. | $\because 0^{\prime \prime}$ | 696 | 450 | 438 | 480 | 480 |
| 1791. | 400 | 850 | 860 | 860 | 876 | 378 |
| 1792. | 876 | 876 | 690 | 886 | 886 | 086 |
| 1798............ | シ"* | 486 | 476 | 476 | 476 | 476 |
| 1704........... | $\begin{array}{ll}54 & 0 \\ 86 & 8\end{array}$ | 880 | 526 | 500 | 590 | 69 0 |
| 1795............ | $11^{75}$ | 11000 | $\begin{array}{r}806 \\ \hline 1900\end{array}$ | $\bigcirc 1800$ | -1800 | \$18 75 |
| 1746............ | - 1175 | -1100 | -1800 | 1200 | $1900-1150$ | $1150-1050$ |
| 1797........... | 8 <br> 8 <br> 60 <br> 10 | 850 800 | 880 | 850 | 850 | 3 00 |
| 170. | ${ }^{675}$ | $800-850$ | 880 | 850 | $850-950$ | $9 \times 0-1000$ |
| $17 \% 9$. | $1000-950$ | 980 | 950 | $950-1000$ | $1080-1100$ | 1000 |
| 1806. | 10.25 | 1075 | $1030-9$ T5 | 850 | 1050 | 1100 |
| 1411. | $1180-1100$ | 1100 | $1000-950$ | 825 | 900 | $800-650$ |
| 1802. | 725 | 785 | $700-650$ | 680 | 650 | 650 |
| 1518. | 700 | $700-775$ | $775-750$ | 750 | 750 | 760 |
| 1404. | 775 | 800 | $875-1000$ | 900 | $1000-1050$ | 1100 |
| 1505. | $1075-900$ | $900-80$ | 800 | 800 | $800-800$ | 825 |
| 1506. | 800 | $750-675$ | 700 | 675 | $700-750$ | 750 |
| $1 \times 17 \%$ | 675 | 675 | $712-750$ | 725-675 | 700 | 675 |
| 1 W1s. | $500-575$ | 525 | $500-600$ | 000 | $800-550$ | $580-600$ |
| 1419. | $612-700$ | 675 | $875-795$ | 725 | $750-800$ | 780 |
| 1810. | $1000-1100$ | $1100-1900$ | $1100-1075$ | $1075-1180$ | 1025 | 1185 |
| 1411. | $1000-1100$ | $1075-1000$ | 000 | 850 | 980 | 1000 |
| 1812. | 880 | $825-900$ | $000-8000$ | $1025-1000$ | $1150-1050$ | 1025 |
| 1818. | 760 | $700-800$ | $825-875$ | $925-825$ | $850-1000$ | $1000-780$ |
| 1814. | $700-725$ | $795-850$ | 880 | 875 | 875 | 800 |
| 1815. | $825-875$ | 868 | 875 | 0 (10) | 980 | 085 |
| 1816. | 1100 | $1075-980$ | 975 | $1000-1100$ | $1150-1250$ | $1250-1850$ |
| 1417. | $\left.\begin{array}{lll}10 & 51\end{array}\right)-1160$ | $1150-1000$ | 380 | 9 (1) | $950-1000$ | $075=000$ |
| 1815. | 1025 | $10 \mathrm{~mm}-1075$ | 075 | 975 | 925 | 080 |
| 1 1 19. | 600 | $600-885$ | 650 | 650 | 618 | $600-625$ |
| 1sin. | $450-475$ | 450 | 400 | 425 | 425 | 450 |
| 1521. | 4 in - 400 | $462-500$ | $525-550$ | 5 (1) - 750 | $700-600$ | $600-600$ |
| 1852. | $675-625$ | $625-700$ | 700 | 662 | \$50 | 650 |
| 1923. | 700 | 650 | 6 31) | 6 \% | 668 | $825-600$ |
| $1 \times 2$. | 5.25 | 525 | $512-550$ | 512 | $580-500$ | $475-500$ |
| 1985. | $550-480$ | 500 | 500 | $514-512$ | $512-500$ | 487 |
| 1226. | $487-480$ | 480 | $450-500$ | $506-525$ | 550 | 6 27 |
| $127 \%$ | 500 | 500 | $500-525$ | 585 | $525-580$ | 510 |
| 1N2:. | $400-475$ | $500-500$ | $580-710$ | $695-700$ | $725-900$ | $775-825$ |
| 1829.... . . . . . . | $600-519$ | $500-500$ | $550-57.5$ | $595-500$ | $500-525$ | 5 $25-402$ |
| 1416. | $450-525$ | $525-575$ | $550-525$ | $525-500$ | 500 | 5 mm - 502 |
| 1*1. | 887-475 | 475 | $525-500$ | 5 M | $580-525$ | 525 |
| 1832............. | 600 | 687-825 | $687-500$ | $580-000$ | $625-818$ | $575-550$ |
| 188. | $600-650$ | $612-600$ | $(10)$ | $587-575$ | 575 | $500-525$ |
| 184............. | $525-5 \mathrm{Ma}$ | 580 | $580-525$ | 525 | $525-512$ | $500-480$ |
| 185. ........... | 681 | 60415 | 018 | 6064 | 687 | 675 |
| 1848. | 700 | 8 87 | 887 | 081 | 10 (12 | 11 mb |
| 187. | $980-905$ | $9 \mathrm{~m}-883$ | $800-850$ | $825-900$ | $981 \sim 981$ | $950-075$ |
| $1 \% 4$. | $643-712$ | $612-712$ | $800-845$ | $895-840$ | $800-812$ | $881-860$ |
| 1489. | $589 \rightarrow 812$ | $575-612$ | $5 k 7-012$ | $584-600$ | 25 | 5 50\%-5 90 |
| 1840. | 525 | 500 | 500 | 50 m | 600 | $475-525$ |
| 1811. | $585-580$ | $600-684$ | $662-687$ | $612-630$ | $6407-098$ | 649 |
| j49. | $580-587$ | $595-545$ | 4501 | 449 | $412-487$ | $487-462$ |
| 1418. | $525-587$ | $475-5015$ | 444 | $425-450$ | $425-497$ | $425-450$ |
| 1514. | $400-487$ | $881-419$ | $889-488$ | $400-460$ | 487 | 489 |
| 14.6 | $4914-402$ | 4181 | 401 | 5116 | 591 | 6063 |
| $1{ }^{1}+16$. | 381 | 888 | $382-412$ | 518 | 510 | 476 |
| 14. | 601 | 603 | 5 MO | 645 | 681 | 648 |
| 18. | 525 | 598 | 567 | 549 | 585 | 514 |
| 1619. | $4 \pi \%$ | $487-518$ | 508 | 510 | 5106 | 487 |
| 14in). | 506 t | $512-587$ | 500 | 483 | 485 | 471 |
| 1481. | 425 | 307 | 896 | 418 | 4 91 | 415 |
| 14.8 | 418 | 420 | 444 | 4 48 | 490 | 816 |
| 1441............ | 500 | 5 \%8 | 570 | 6 Al | $690-745$ | $6719-700$ |
| 1 W | $806-820$ | $811-859$ | $8 \mathrm{80}-881$ | - [3] - 808 | $868-800$ | $9121-025$ |
| 140............. | 981 | 8.81 | 7 47 | 887 | 981 | 884 |
| 1 $56 .$. | 6545 | $0 b_{0} 1$ | 649 | - 69 | 6 | 680 |

is perhaps about a quarter per eent. When the husk flour. T'le husks conslst mainly of cellulose, and are is separated, but before the grain is ground, the seeds aluost never uned an human food. il. liyo (Secale receive the amme of groats. When ground, the dust cereale) has luen cultivated from thme lmmemorial, constitutes oatmeal, and it is fonnd in practice that and was for a long time much used for brembemaking oats afforil about half their original weight of meal, lto this country, as it still ls (constltuthg the atapla) the loss heing the water expelled by the kilna'rying, In Rusala, many parts of Ciermany, etc. A lmakiel of the linsk, and the chaff. The following ls Norton's rye weighs about 54 pounds. Rye grain la very analysiv (the arramgement belng altered) of oats that coarsely powderen, and the mixture of ilour and hran hai been dried to $212^{\circ}$. Perhaps In this drying the made into fermented bread, which is distinguished loss of water would be about 20 per cent. Allomi- from ofther breal liy its black color. The following la neus compounds, $19 \cdot(11$; saecharine to., $68 \cdot 68$; oleagi- nu aualysis of rye flour, the water luving been prevnuas do., $7 \cdot 33$; husk, $2 \cdot 24$; ash, $2 \cdot 60$. The proportion fously expelled: Alhumbous compounds, $10 \cdot 5$; sacof ash, princlpally phosphates and aulphates of lims, potissa, and magueslin, la nomuctines In much lariour quantity. Ontmeal, therefore, contains ronsiderulily more nutritious malter than the same welght of whea charitue do., 78.0 ; oll, 3.5 ; sults, 6.0, prinelpally phosjhates uf potassa, soda, and inagnesia ; loss, $2 \cdot 0=$ $100 \cdot 0$. These threw eereal gralns constltute the basis of the food of the modern linropean nithons.

Flowera (Fleurs, Fr. ; Blumen, Ger.) of benzoin, of sulphur, of zine, etc., is the appellatlon given by the older chemista to such aubstances as were obtained in a pulverulent or rather minutely crystalline form by the process of aublimation.

Flowers, Artificial, Manufaoture of. The art of representing hy flowers, leaves, plants, etc., vegetable pature in her ornamental productions, constitutes the husinese of the artlficial florist. The Itallans appear to have been the first people in Europe who excelled in the art of making artificial flowers; but of late years the French have been moet ingenious in this branch of industry. Ribhons folded in different forms, and of different colore, were originally employed for imitating fiowers by being attached to wire stems, This imitation soon gave way to that by feathers, whlch are more delicate in texture, and more capable of assuming a variety of flower-liko figures. But a great difficulty was encountered in elyeing them with due vivacity. The eavages of South America manufacture perfect feather flowers, derived from tho britliant plumage of their birds, which closely resemble the products of vegetation. The blossoms and leaves are admirable, while the colors never fude. The Italians employ frequently the cocoons of the sllk-worm for this purpose; these take a brilliunt dye, preservo their color, and possess a transparent velvety appearance, suitalile for petals. Of late years, the French have adopted the finest cambric for making petals, and the taffeta of Florence for the leaves. M. do Hernardiere employs whalebone in very thin leaves for artificial flowers; and by bleaching and dyeing them of various hues, he has succeeded in naking his imitations of nature to be very remarkable.

The coloring matters used in flower dyeing are the foliowing: For red ; carmine dissolved in a solution of carhonate of potash. Fur blue; indigo dissolved in sulphuric acili, diluted and neutrallzed in part by Spenish whitening. For bright yellow ; a solution of turmeric in spirit of wine. Cream of tartar brightens all these colors. For violet ; archll, and a bine bath. For lilac; archil. Some petals are made of velvet, and are cotored merely by the application of the tinger dipped in the dye.

Flute, a wind-instrument of great antiquity, the older varieties of which are dencribed by Pere Merseone in hin IIarmonie Unirerselle, l'arin, 1636. The Flutseabec (disused for more than a century) was of varions dimensions. The largest was a bass-flute, with a compans from F in the bass-elef, below the first line, up to 13 below the firat inne of the treble clef. The next, a tenor-flute, extended from is flat on the second line of the baes clef up to Gr on the second line of the trebie clef; and each of these iarge tiutes wan counded through a bent tube, like the $S$ of a bassoon. The alto-flute reached from $F$ on the fourth line of the luss cief up to 1 ) on the fourth line of the trelide clef. The treble-flute extended from $F$ in tho first space of the trebie clef up to $\mathbf{F}$ two octares ahove. These two had beake, like the bill of a cock. Ilut all these finten gave way, eariy in the last century, to the fierman flute, whilh, however, was then very imperfect in its lutonation, having oniy one tinger-key. liy the addition of various flager-keym, for memitunes, the Gernum thute ham been much improved in the present century. Ilke the fife, it is hiown by an oval side-hole. It conmints of four meparable tulies, and han a compass of neariy three actaven, from the lowest C In the trebie clef upuand. Smalior tiutes of thin kind are ealled thind, fonrth, and octave tinten. The octave flute in the pecculo, nsed in nuxdern orchestras nul in militesy mияіс.

Fluke is appied in navigation to the broad part of the anchor which takes hoid of the ground.

Flux (Eng, and Fr.; Fluas, (ier.), signifien any oubstamee capablile of promoting the fusion of earths or metallic ores by heat. White thax is the realduin of
the deflagration in a red hot crucible, of a mixture of two parts of nitre, and one of cream of tartar. It is In fact merely a carbonate of potash. Black flux is obtained when equal parts of nitre and tartar are deflagrated. It owes its color to the carbonaceous matter of the tartaric acid, which remains unconsumed; the quantity of nitre being too small for that purpose. The presence of the charcoal rendere this preparation a convenient flux for reducing calcined or oxydized ores to the metallic state. Limestone, flior-spar, borax, and geveral earliy or metallic oxyds are employed as fluxes in metalinrgy.
Flying Fish, a name given to several speces of fishes which, by means of long fins, can sustain theinselves for some time in the air. The common flying fish of the Mediterranean is thus able to raise itgelf so far above the surface of the sea as frequeutiy to throw iteelf upon the dock of a ship; but the extreme limit of its flight is confined to an arch extending about 120 feet, when the drying of its tins necessitates its return to its proper element. See index to lcutnyology, in Ency, Brit., 1856-7.
Fodder (Ger. futter), in agriculture, the fool given to quadrupeds, which consists of the stems and leaves of plants, such as the culmiferous stems of the grasses, the haulm of legumes, potatoes, ete.; or, in short, whatever is given as the ordinary food is designated fodder; whereas corn, beans, and other articles, which present nourishment in $n$ more concentrated furm, are not included under the term fodder, but rather known as solid food.

Fodler is the name of a weight formerly used in the weighing of lead: it was of various magnitudes, but most commonly amounted to ubout 2100 lbs .
Fog (Dan. fog), in meteorology, a dense vapor near the aurface of the land or water. Foga, in general, are the consequence of the nocturnat cooling of the atmospliere. The air, by its rapid coeling, hecomes surcharged with molsture; a part of which being precipitated in the form of a cloud, gives rise to the ordinary fog. During the day the heat of the rua generaliy diaperses the fog, because the quantity of moisture which the air ls capable of helding becoucs more considerable in proportion as its temperature is increased.

In calm weather, the snrfaces of rivers, lakes, ete., are frequently in the morning coverod with fog. The reason is this. During the nigitt the air is colder than the water; the etrata of air In contact with the water are conaequently heated, and become saturated with mointure. The inixture of the vapor with the uir, together with its elevation of temperature, renilors tho air sueclticaily llghter. It rises in consequence, anil mi, $\%$ with the coid air in the ruperior strata, is cooled, and precipitates its molsture. The clond or fog resuiting from this precipitation ean only rise to a small height, becnuse the uniformity of temperature is menn restored. Hence, it is easy to see how winda, or a great sgitation of the air, prevent the formation of fogs over the surface of water. In the equinoctiad regions, foge sometimes continue during a considerable juart of the year. Iimmboldt reiates that fima is often covered with fog half the year, esperiaily in the morninge and evenings; and that along the whole of that coast fogs nupply the place of rain, wind is extremely rare. In the polar meas thick fogs often prevall, even during the warment menths; and they aro so dense that oljecte frequently can not be dintinguished at the lintance of a few yards.

Sometimen, though rarely, foggs oceiur of which the cause in not very weil understood. In 1783, the whole of Euroje was covered with a dense fog furing nearly two months. On the 2ihl of Miny, 1822, about live o'clock in the afternoon, a fog covered l'aris and the neighborhood, which had the odur of nitrous gas; it continued sbout an hour. Iry fogm, or those ln which no motature is present, are supposed to be the vapors
and ashes ejecte mosphere by th

Foil (Fr. feul is generally appl is manufactured with a thin layer the flattling mill ished or covered foils are similiarl
Fold (Sax.fe ing eattle or othe for the purpose for protection an are foided for the of which folds a huriles; but som tain ewes and lat is made use of, th lower parts of the the under edge o upper edge is att tops of the same p on nsked fallows, stilt common in i more improved al rates the wool, and ly keeping them wholly without foo
Folio (It. a lea Thus fuiio 7-writ seventh page; Foll page; Folio verso, book $\ln$ folio, or sin is oniy foided in tw
Foo-Chow, E Fu, a city of China and one of the five $p$ stands on the nort from its mouth, and ships anchor. Nor The walied city is but extensive subu They are connected islet in the river lined with shops, an on the northern, and howout houses are $p$ rofs of buiddings, the attention of the clock-dial with Rom occur within the $w$ where equaliy weil the country around and help to drain th for boats to come u the landseape are di or, where the ground stenes. 'The maritl considerable, and its porcelain ware are ex Tchow Fon and subu
This port has no tries. Vessels enter recelve a permit to in rivais and departure year 1850 wero ove over the year immedi ever, coasting vessols were under the Itritik said to be rapidly ins the second port in Shanghai beling the it in commerce with the American vessels arr last six months of 1 tonnage of 10,540 ton of $18,0,26$ tons, and
and ashes ejected hy volcanoes, and diffused in the atmosphere by the winds.

Foil (Fr. feulile, or Lat. follnm, a leaf). Thls term is generally applied to varniehed metal. Common foil is manufactured as follows: a copper plate, covered with a thin layer of silver, is rolled out into sheets under the flatting mill; the silver surface is then highly polished or covered with a colorleas varnish. The colored foils are similariy prepared with colored varnishes.

Fold (Sax. fealde), a temporary inclosure for keeping cattie or other agricultural animals together, either for the purpose of protection during night, or jointly for protection and feeding. Sometimes, also, sheep are folded for the purpose of manuring. The barrier of which folds are constructed is commonly wooden hurdies; but sometimes, when the fold is only to contain ewes and lambs, nettling stretched bet ween ports is made use of, there being a strong rope fixed to the lower parts of the posts close to the ground, to whlch the under edge of the netting is attached, while its upper eilge is attached to a rope stretched along the tops of the same posts. The practice of folding sheep on naked fallows, with a view to manaring them, is still commen in several parts of England; but the more improved sheep farmers consider that it deteriorates the wool, and impedes the fattening of the sheep, by keeping them for the greater part of the night wholly witheut food.
Folio (It. a leaf), in account-books, signifies page. Thus fulio 7 -written abridgelly fo. 7 -denotes the seventh page; Follo reeto, or $F^{\circ}{ }^{\circ} \mathbf{R}^{\circ}$, signifies the first page ; Folio verso, or $\mathbf{F}^{\circ} \mathbf{V}^{\circ}$, the second page of a leaf. A book in folio, or simply a folio, is that where the sheet is only folded in two, each leaf making half a sheet.
Foo-Chow, Fou Tohow Fou, or Fuhohau Fu, a city of China, capital of the province of Fo-klen, and ene of the five ports recently oponed for commerce, stands on the north side of the Min liver, 34 miles from its meuth, and 9 miles from Pagoda Islnnd, where ships anchor. North lat. $26^{\circ} 5^{\prime}$, east long. $119^{\circ} 20^{\prime}$. The walled city is about three miles from the river, but extensive suhurhs stretch along both its banks. They are connected with ench other, and with a small islet in the river by a atone bridge 420 paces long, lined with shops, and resting on solid stone piers, 40 on the northern, and 9 on the southern side. Several binkout honsen are placed over the strecta, or upon the nuff of buildings, one of which immedintely attracts the attention of the visiter from its height, and its dock-lial with Roman characters. Few vncant apaces occur within the wails of the city, which is everywhere equally well-huilt. Serpentine canals divide the comitry nround iuto plats of greater or less extent, and help to truin the city, as well as provide channels for boats to come up from the river. These parts of the iandscape aro dotted with hamlets and cottuges, or, where the ground is higher, with graves and tombstones. The maritime cenmerce of the city is very considerable, and its manufactures of cotton goods and porcelain ware are extensive. The population of Fou Tchow Feu and sulurbs, is eatinated at alout 600,000 .
This port has no direct trade with foreign countries. Fessels enter at other ports, my duties, and receive a permit to land goole at Foo-Chow. The arrivaly sud departures of foreign vessels during the yeur 1855 were over 100 , showithg a large increase over the year immediatelv jreceding-inchuling, howcver, coasting vensels in the opium trade, ali of which were under the Ilritish thag. The trade of the port is sail to he rapidly increasing, bidding frir to render it the second port in China as rognris foreign trade, Shanghai heing the tirst. It already surpasses ('anton in commerce with the United Statea. The number of American vessels arriving at Foo-Chow lluring the last six months of 1855 was 13 , with an aggragate tonagge ef 10,540 tons; clearancen 20 , with a tonnage of 18,026 tons, and with $15,100,070$ lbs. of tea 1 of
which, $7,674,300 \mathrm{lbs}$. were for Now York, $523,200 \mathrm{lbs}$. for Boston, and 6,908,570 lbs. for London.

A correspondent residing at Foo-Chow writes to the State Department, U. S., that the tea exported in American ships visiting this port during the last quarter, amounted to $4,824,198 \mathrm{lbs}$., valued at $\$ 715,000$. "The entire number of American ehipe which arrived in 1856 was 84 , and one ship-0f-war, the United States' ship Levant. To give an idee of the increase of forelgn trade at thls port, I would remark that in the year 1853 (the year the port was opened for trade) there were only 6 American ships ; in 1854, there were 12 American ships; in 1855, 27 ; and in 1856, 34 . The whole number of foreign ships which entered this port in 1853, was 14; in 1854 there were 50 ; in 1855, 117; and in 1856, 175. There is very little done in the way of imports, except in opium. In this article there is an immense trade, a eingle firm selling in one month more than $\$ 200,000$ worth. Nearly every firm in the port import opium with the full sanction of the Chinese authorities. There is acarcely a day, and never a week in the year, when opium is not landed in open day, within 10 feet of the door of the custom-house, and of course in full view of the officers. There is, I believe, an underatanding between the importets of this articie and the officials, that the iatter aro to receive $\$ 10$ on each chest landed, which amount goes to the custom-house officers, anil is divided among them from the collector down to the custom-house bostmen, each receiving according to his rank."

Food. All substances susceptlble of digestion and assimilation may come under the denomination of food; but the proximate principles of organic bodien on which their nutritive powers depenil are comparatividy few. Hence, slthough the articles employed in ctiferent countries for the support of animal life are almost intinitely various, their sustaining powers may be referred to certaln gubstances capable of being separated and identified by chemical analyses and tests. Among the proximite elements of vegetable tood gluten and its modifications, starch, gum, sugar, and lignin or woody fibre, ure by far the most important ; and among those of animal food, nlbumen, gelatin, and their nodifications, together with fats and oils, which ure common to both kingdoins of nature.

To illustrate the actual simplicity of our food as compared with its apparent multifariousness and complexity, it may suffice to state, that wheat and almost nll the esculent grains consist principally of starch and pluten; that the same ingredients are found in many fruits and roots; that angar, gum, or a relation of guin which is calied vegretable jelly, together with minnte truces of nronatic principles which give fiavor, and more or less abundance of water, and of vegetable aclds, are the cllef component parts of apples, pears, pouches, currants, gooscberries, and ail analogous tribes of fruits; a very few aloo, contain wil. Then, as regards animal food, the muscular fibres of various animais closely resemble each other in composition and nutritive power; in some cases texture mercly, and in others minute additions of foreign matters, confer upon tiem their ralativo digestibilities, and their diflerent sspects and thavors: albumen or tibrin, und gelatin, smatl proportions of saline bodies, and a harge quantity of water are found in them alt.

It often happens that the truly nutritious part of food is wo combined with, or protected by indigestible matters, as to escape the solvent powers of the stomach, unless previously prepured and moditied by vart ous chemical and mechanical agents. Indurated woody llbre, for instance, or lignin, as chemints call it, wili often resist the joint action of the stomuch und bowels, nud pass through the alimentary cannl with ararcely muy alteration. The huaks of many sceds and fruits nre composed almost exclusively of this material. This is the case with the kernels of the apille, pear, etc.; the seeds of the currant, gooseberry,
melon, and 80 on; the skin, or husk of peas, beans, etc., and of wheat, barley, and oats; so that unless the woody part is elther broken down by the teeth, or previously removed, the food which it envelops is protected from the solvent action of the secretions of the stomach. This is in some respects a wise and carione provieion in nature ; for birds in thle way become the carriers of seede, whlch pass through them not only nndigested, but oven retaining their vegetatlve powera; and in this way, uninhabited and sterile portions of the globe may gradually become elothed with verdare, and shruba, and trees. Bones are highly nutritive ; hut unleas broken into very small fragments by the masticatory powers of the anlmals which eat them, they too, would elude digeetion. In reference, howe ver, to the food of man, much of its digestibility and nutritions power le referable to the important chemleal operatlons preparatory to its use which are carried on in the kitchen : in other wordn, cookery is ossentially a chemical art ; and substances totally unfit, in their raw state, for reception into the stomach, are rendered palatable, diyestible, and nutritious by the skill of the cook. And here salt, and a variety of condiments, at they are called, and which are aromatic and stimulant subatances, chiefly of vegetable origin, play an important part ; nor must the mere effect of hast be overlooked, for it in most important. Meat, by boiling and roasting, in not only softened In Its fibre, but new substances are generated lnit. Among these a peeullar extractive matter, and osmazome, or the principle which gives an agreeable flavor and odor to dreased meat, are especially recognized. Nor are the changes which vegetables suffer under the influence of heat less obvitus.

There is another important point in the hiatory of our food, namely, its ultimate composition. We have apoken of starch, sugar, gum, albumen, and other athbitances as the proximate principlen upon which we live; but what in the utimate constitution of these secondary pioducta, what are their true elements 9 It in curious that four elements only are principally concerned in the production of our food. These are earion, hydrogen, oxygen, und nitrogen. Among vegetable subatancea, gluten (ircluding vegetable albumen) is the only one whleh abounda in nitrogen; gum, augar, atarch, and the rest are constituted of carlon, hydrogen, and oxygen only; anil what In very remarkable is, that in ill these important princlples, and also in lignin, the oxygen and tyilrogen bear to each other the aeme relative proportions as in water, mo that they may be figuratively deteribed as compounds of charcoal and vater. Now there are two very curloun points in reference to that part. of the chemical history of our food, which las lieen adverted to: the one is, that no animal can subaiat for any length of time upon food whleh is dentitute of nitrogen ; and the other, that a certain mixture of different kinda of food is absolutely ensential. An animal fed exclusirely on atarch, or augar, or albumen, or jelly, soon ligeins to auffer in henlth; pecullar diseasen make their appearance, and his existence is painful and brief; lutit mix these together, and ocenslonally modify their proportions, and he then thrivea and fattens. Magendle's experlments on this subject, together with those of Thexlemann und Ontelin, well illustrate this fact. Thus, geese fed upon gum, ilied on the lfth day, those feel uron starch on the 24th, and those fed en loiled white of egg on the 46 th; in all these cases they dwlolled away and died an if of atarvation.

IIabit, as is well known, will do mach In aconstoming the atomach to particular dencripitous of fool ; many jersona live exelunively, or almost mo, on vegretatile, othera on animal mattera, and particular klnda of diet are forced on the Inhabitants of many regiona of the glole ; lut, as far an wo are comberned, a due mixture of vegetable and animal matter in nut only mont palatable, liut moat condecive to bealth. Nuthing is
fit for food whlch has not already undergone organiza tlon, and water, thengh an essential part of the food of all animala, is obviously not in itself nutritious, though lt performs the extremely important function of dissolving nutritive matter, so as to render it conveyable by the lacteals and other absorbents Into the blood. Ne compound, then, of nitrogen, hydrogen, carbon, and oxygen, whlch ean be formed artlicially, can constitute food. Air, water, and charcoal, though involving the elements of our nutriment, are themselves unfit for our support; and It is oaly by pasalng through the hldden processes which are carried on In the vessels of living things, that they are so recombined and mot. lfied as to be rendered capable of aupporting animal life. It is the vegetable world which commences this wonderful operation. Planta absorb their nutriment from the alr and from the soil ; they assimilate inorganic as well as organic matter; they become the food of the graminiverous tribes, and from these man derives the great bulk of his animal food.

In speaking of the compositlon of food, that of milk, the most important of all food, must not be forgotten; in It nature has wonderfully provided a mixture whelh, though secreted by on animal, partakes also of the nature of vegetable food, and it presents a perfect analogy to that combination of vegetable and snimul matter which has been mentioned as most congenial to the palate and stomach. The albumen or curd of milk is a highly elaborated animal principle, abounding in nitrogen, yet, from its attenuated and soluble state, easy of digestinn. A second princlple of milk is what is termed sugar of milk; in composition and properties it resembles a vegetable prodnct, and is intermediate between gum and augar. The third component of milk is butter, partuking of the nature of vegetalle oil and animal fat; there are certain saline and ucid sulastances in small projortion : and all these matters are either dissolved or snapended in a large relative projertlon of water.
I. Table siowivg the averacir quantitr of Nuthitive Mattes in 1,000 Pabts or gevgali. Vahietiks of Aninal and Vegetable Food.

| Blowd............. 215 | Carrota........... 98 |
| :---: | :---: |
| Breff............. 260 | Turnips............ 42 |
| Yeal. ............. 250 | Cablage . ......... 73 |
| Matton.. . . . . . . . . . 290 | Beet-root ... ..... Its |
| Pork.............. . 240 |  |
| Mraln.............. 2000 | Peara. ............ 160 |
| (hbicken............ 270 | Apples. ........... 170 |
| Corl. .............. 210 | Gooseberrles...... 199 |
| Hadtuock.......... ${ }^{\text {1n0 }}$ | Cherries .......... 250 |
| sole.............. . 210 | 1'tums ............ 2ilu |
| Itones.......... ... 810 | Aprlcots ........... 260 |
| Mllk.............. 72 | Pearhes........... 200 |
| Whtte of egk...... 140 | Grapes............. 270 |
| Wheat............ 950 | Melot.............. ${ }^{\text {a }}$ 80 |
| Itice.............. 8 s $0^{0}$ | Cucumber, ........ 25 |
| Barley............. 920 | Tamarind........, 810 |
| 1tyn............... 798 | Almonds.......... 6ant |
| Onts................ 742 Potatoes.......... 260 | Morels............. 890 |

The shove table represente the relative proporthon of solid digestible matter contained in luan parts of the diffrent articles of food which are annmerated. When blood, fur instance, in evaporated to Iryness, at a temperature not exceeding $212^{\circ}$, the residue amonnts to 215 parts in 1000 , and may he re. garied as almost entirely composed of digestible matters: it consints of nlhumen and coloring matter, with suall proportions of saline aulsatances. The different kinda of meat were dried in the amme way. The loas of weight Iuring their cesicention is aimost wholly referable to water; athl the try residue compasel of alhomen or flirin, with some gelatin, und jerlaps traces of fat aud sallne inattera, represente the true nutritive value. Upon an avarage, therefore, the nutritive matter in a pound of meat is not more than four ounces. This, however, only applien to raw meat ; for when dreased, a considerable portion of lin constituent water is often dissipated. The nutritive matter of wheat is chiefly starch and glutan, and in this species
of grain the tion to the rice there is 1 tle doubt that food, depends nitrogenous an the vegeto-an such as carro the leading n contain sugar, gether with a or Ilgnin, whic

The followin of those proxir adverted to as
11. Table biow BITION or 1 , Patnctples

Albumen.
Gelattn.
Fat...
Card of Milik
Card of Nik..
sugar of Milk.
Sugar of $M$
8tareh.....
Blareb.
Glaten
Glaten
Gum..
Sugar.
Lignio.
Yearly Food $n$ diet sesles of Fr are based upon numbers of men it pounds avoir quired for each in are vegetable, anc entire yenr the Enumerating und drinks-coffee, te quantity ls about the air recelved pounds. With th ical World, we are The food, water, an in the aggregate, that is, to about weight. Thls eno attention to the e supporting life. reseatation of chat
Food, Adulterati that very frandule some, adulterations but until lately it nounce decitledly o been committed. microscope and the difficulty in ao doin hava by their use b london Iancet emp acenmplished of th day) to thoroughly ports have nppeare odlcal. As he pult trades.people from terated artlcies of fo cectied in illsprovin rentured to contra thorough wecuraoy and the fuets in thi though Dr. IIatanil that he exnmined ff can he no doulit thin feund in the proving tors are the wholesal nately $i_{\text {dondon and }}$.
I. Atevitehation Avowribly of A A
of graln the gluten is in much greater relative propor-; asually supposed to be much adulterated, is comparation to the atarch, than in barley, cats, or rye. In rice there is little else than starch. Thure can be little doubt that the great value of wheat as an article of food, depends upon this excess of glaten, which is a nitrogenons substance, and has not inaptly been termed the vegeto-animal principle. In the esculent roots, such na carrots etc., but expecinlly turnlps, sugar is the leading nutritive matter; and the common fruits contain sugar, gum, albuminous matter, and aclds, together with a highly attenunted form of woody fibre, or lignin, which, in that state, is probably digestible.
The following talle shows the ultimate composition of those proximate principlea whlch have been above sdverted to as constituting the nutritlve part of food.
II. Table biowino tife ultimata Elementart Compogition of 1,000 Parys of the poliowino phoximate gition of 1,000 Pazts of the followino prox
Painciples or Animal, and Vkogtagle Food.

|  | Carbon. | Hydrogen. | Oxygen. | Nitrogen. |
| :---: | :---: | :---: | :---: | :---: |
| Albumen..... | 510 | 76 | 258 | 150 |
| Gelatin....... | 488 | 80 | 276 | 161 |
| Fat......... | 780 | 128 | 88 |  |
| Curd of Milk. | 609 | 78 | 116 | 208 |
| Sugar of Milk. | 454 | 61 | 485 |  |
| Starch........ | 657 | 78 | 220 | 148 |
| Ginten....... | 488 | 62 | 500 | $\ldots$ |
| Gam.......... | 419 | 68 | 618 | .... |
| 8ugar......... | 444 | 62 | 494 | .... |
| Lignin......... | 50 | 56 | 444 | .... |

Yearly Food of One Man.-From the army and davy diet sesles of France and England, which, of course, are based upon the recognized necessitles of large numbers of men in active llfe, it is inferred that about if pounds avoirdupois of dry food, per day, are required for ench indlvidun) ; of this about three fourthe are vegetable, and the rest animnl. At the close of an entire yenr the amount is npward of 800 pounds. Enumernting under the tltle of water ail the various drinks-cnffec, ten, alcohol, wine, etc.-Its estimated quantity is about 1500 pounds per annum. That for the air received hy breathing may be waken at 800 pounds. With these figuros before us, says the Med. ical World, we are alle to see how the case stands. The food, water, and air, which a man receivea, amount, in the aggregate, to more than 3000 pounds n-yenr; that is, to alout $1 \frac{1}{2}$ tons, or more than 20 times his weight. This enormous quantity may well attruct our attention to the expenditure of innterial required for supporting lifo. A llving being is the result and representation of change on a prodlgious scale.
Fool, Adulterations of:-It has long been known that very fraudulent, and sometimes very unwholesome, adulterations of food ure extensively practiced; but until lately it was not easy in all cases to pronounce decidedly on the nature of the fraud that had been committed. Now, howover, hy means of the miergrcope and the chemist's tent-tube, there is little difficulty in so doing, and many limportant diselosures hava liy thelr use been made. The proprieturs of the London Laneet employed 1)r. Inssull (one of the most accomplished of the microscopieal observers of our day) to thoroughly investigate the suhject, and his reports have appeared from time to time in that periodical. As he published the names of the diferent trades.people from whom he bought spurious or aldulterated articles of fool, and as none of thom have succerled in disproving (and, indeed, very few have ventured to contradiet) any of the statements, the thorough accurasy of the report may be relied upon, and the facts in this articlo are based upon .t. Although Dr. ILassall purchnsed the arti lon of food that he examined from london shop-keepers, there ean the no doubt that the same ndulterations will be foumd in the provinces. Indeed, the great adulterntors are the wholeasle honses, who supply indiscrimi. nately london and country ahop-keepers.
I. Abvetenations of Anticles ar Foon not ayowrbly of A Manufactured Natuak, - Milk, tively little so. In towns, water ia generally added to lt, and a portion of the cream is likewise abstracted; but chalk, gum, etc., are very rarely employed (as has often been alleged) to give the appearance of greater strength. Salted butter is frequently melted, snd when in that state has water added to $1 t .1 .1$ this manner 50 per cent of water may, it is aaid, he incorporated. Lard is mixed up with water, potato flour, and refuse mutton fat, and the mount of the potats starch has sometimes been known to amonnt to 20 per cant. Oatmeal, in London, and perhaps elsowhere, is extensively mixed with barley meal ; the latter, as it contains so much more water, only selling for about half the price of the former; hut wheat flour, unless it contains clum, as it perhape does, seems quite pure. Arrowroot is adulterated to a large extent. Of 50 samples bought from London shops, Dr. Hassall found 22 to be lmpure; of these, 10 scarcely contained any arrowroot at all, but were made up of sago, tapioca, and potuto starch; while in the others thero was a considerable admixture of these chesper articles. Raw sugar has many impurities, among which the immense number of acari with which it swarma are the most disgnsting ; but it is also extensively mixed with flour, apparently to make hmpure dark sugar appear like purer and lightor-colored, and perhaps with other foreign ingredients. Loaf-sugar seems sufficiently pure. Ten is in a lamentable state, for it is meddled with by both the Chinese and those through whose hands it passes here. With regard to black tes, Dickson maintains that the Chinese mix with their exportations of tea to this country many millions of pounds of leaves of other plants, which they mix with genuine tes plants. In other respecta, however, and even perhaps in this, the Chinese do not adulterate tho common black teas, as Congou, Souchong, and ordinary Pekoe; but other descriptions, as scented Orange Pekoe and Caper, are, alinost without an exception, impure; the former by being glazed with llack-lead, and the Caper by being extensively mixed with Paddy and Lie tea, i. e., an imitation of tea leaves obtained from other plants; or by not containing any tea leaves at all, but altogether oflicr leaves sprinkled with tes dust, and made up into little masses liy means of gam, and which masses are glazed with plumbago, tarmeric or l'russian-blue, and the wholo sprinkled over with mica, etc. But the imitation black teas are also entirely made up of the leaves of indigenous plants of this country, sa those of sycamore and horse-chestnut, broken duwn, sprinkled with eatechu (to communicate tannin), dried, and coated with gum. But a still more common imposition is to purchuse exhansted tea leaves, whieh are sold at about 3d. a lb., from hotel-keepers and the like, and attempt to imitate fresh tea by admixture with catechu, gum, sulphate of iron, to strike a dark color with the catechu, l'russian-blue, logwood, black-lead, talc, etc. Some of these alulterations, as the Prussian-blue, for exnmple, are calculated to have serluus effects upon the health. Green teas nre more adulterated than black ones, a really unadulterated specimen being very rarely to he met with. 'lhey are mixed in China with lenves of other plants, and are subsequently glazed with gum, l'rasslan-blue, turmoric, and various other sulbtances, some of which are very unwhulesome. I mitation green teas of home manufacture nro also occasionally. perhape even often, exposed fur sale. Coffeo, until the government Interfered to prohilit thit sale of a mixture of coffee and chicory as "cuffec," slmost invariably contnised a large, and sumetimes un amazingly large, admixture of chicory. Several contained, iil sildition, roasted corn, heans, potatues, sometimes red ferruginous earths, and other impurities. (iround chlcory itself, so mach e:upluyed to secretly mix with coffec, is itself an article extremelyadulterated. Nearly a half of the specimens cxaminel
were largely 80 , the aubstances employed for the.purpose being roasted wheat, ground acorns, mangelwartzel, carrots, mahogany sawduet, and ferruginous eartha, the two latter for the purpose of commuaicating coler. Cocos and chocolate are no better, the great majority of samples of them being largely mixed with augar, and with potato, and other atarch ; but a worse adulteration is, that they also contain ceioring, earthy matter, usually, probably, of a ferruginous nature, but which sometimes, perhaps, have for ingredionts red lead and vermilion, two very dangerous ingredients, and tallow and other fats seem to be sometimes mixed with them. The acknowledged aubstitutes for tea, coffee, and cocon, as Revalenta, Semola, I'rince of Wales't Food, otc., etc., are very familiar subatances. Du Barry's much vaunted "Revalenta" to a mixture of pounded lentila and bariey meal, and the syrup that accompanies it is treacie. Bullock's "Semels" is the gluten of wheat with a little starch ; and " the Prince of Wales's Food" is potato flour.
Ground gimger is very commonly, and very largely sdulterated. Dr. Hassall found three fiftha of his samplen to be oo, ths substancea admixed heing sagomeal, potato flour, common flour, ground rice, cayenne pepper, and mustard husks, and these generally conatituting the greater part of the of of the powder. Mustand, i. e., ground, is almost invariably aduiterated, the articies empleyed for the purpose being flour and turmeric, and these sometimes constitute neariy the whole of the article. Pepper is likewise very frequently mixed with linseed meat, pea meai, powdored mustard, and other aubstances cheaper than itself. Cayenno pepper is scarcely ever sold pure; and as the aduiteratiors empleyed are hisulphuret of mercury, red lesd, and othor mineral celering-matter, cayenae pepper ts often a pretty active polson. In like manner, curry-powdor, of which four sampies out of flve were found to be adulterated, frequontly containa red load, and is, therefore, very deleterious. Of the other spicen, cinnainon and mixed spices are often Impure ; but pimento, mace, cloves, and turmeric, are almost always pure. Vinegar was found hy Inr. llassall to vary a good deal In strength, and also in the quantity of aulphuric acid that most of tt contains ; many samples centaining more of this than was formerly aliowed when the vinegar-nakers were under the control of the exclee; but some specimens, and these very good vinegars, were found to contain none of it, and this la a satisfactory proof that the adidition of sulpharic acid is by no neans necensary to vinegar.
II. Adulithrations of Abticlees of Food avowminy of a Manvfacturad Nature.-Although some of the above aduiterations communicate poisonous propertien, yet most of them are frauds meraly; nome of which, however, must prens very neverely apon the artisan, to whom a nominaily clieap articio is almost irresintitle. Hut the adulterations now to be noticed are all of a deleterious nature, and probably produce an hnmente amount of chronic disease, and sometimes, indeed, speedy death. Every sample of breal- 49 in number-examined by Dr. Ifassail, contuived aium. Indeed, the saie of "stuff," which is a minture of alum and salt, to the hakera, is enrried on on a very large scale. The olject of the haker in using it is to take advantage of tho affinity that ft has for water, and therely make the lread retain more water than it otherwise weuld, and thus give bis leavea an artificial wolght, and also te whiten lind and discolored four, and make it pass for that of superior quality. Each four-jr ed loaf contalus on an aversge 82 grains, and a pa.con consuming two snch loaves a week, introluce. Into his system in that pericul 2 drachms and 14 gratan of aloni-a quantity which, as alum is a powerful astringent, muat be very injurious, and which prohality protuces a great deal of the dyapepsia of latge towns. Ite unnecessary
quantity of salt employed by bakers la also for the purpose of retaining water among the bread in unnecessary abundance. The plekles sold in bottiee in the ohops are very bad indeed. In the first place, few of them, if we take the definition of pickle as given in the artlcle Foon, are pickles at ail. The vegetables are greened wlth copper, preserved with aslt and water, and packed into bottles, into which some very weak vinegar and diluted sulphuric actd are poured. Even the vegetabies are not always genuine, and white cabbage is dyed to pass for red, slices of turnips made to look like cucumbers, etc. Of 20 specimens examined by Dr. Hassall, the supposed vinegar never contained the proper ameunt of acetic acid, and in generai oniy about half. All contained oil of vitriol, and, which is still worse, all ( 16 were tested for this purpose) salts of copper-two in small quantities only, eight in much, one in conslderable, three in very consideratile, one in highiy deleterlous, and two in inmediately poisonous amount. Of the extremely injurious effects upon the health of those who dally eat these pickles thus contaminated with copper, there can ho no doubt. Among the symptems produced by the continued use of cupreens nreparations in small doses, are paralysia, chronic inflammation of the respinatory and digestive apparatus, slow fever, and wasting of the body. The store auces are extensively adulterated. Of 28 samples of anchovy sauce, 23 contained Armenian bole, a ferruginous earth of a full red color. Ali the sampies of aoy were fonnd to consist of treacle and sait, or at least nearly so. Six out of seven lootthes of tomato sauce contained colering matter, in all cases save one Armeninn bole ; and a very extensivelyused fish-nstee contains ncetate of line and chips of charred wood. None of the sauces, hewevor, were found to contain lead or copper. This, however, is not the case with preserves and jams, and 33 of these out of 35 that were tested, were found to be adulterated with copper, and sone of them in very large amount. Fruits preserved in bottios, two, neariy all had copper, and French olives in particulur contained a largo amount. As in proparing lootled fruits no expper utensils are employed, the poison must be deliberately added. This, too, must often be the case with preserven. Articies of sugar confectiozery ara perhaps mest deleterious of ail. Besides often containing rulphate of lime, which ts not wholesome, the greater proportion of the colors employed are virntent peisons. Among these may be mentioned red oxyd of lead, carbonate of lead, and th3 chromate of leal, carbonate of copper, arsenite of copper, and bisuiphuret of mercury. Accorlingly, from time to time, cuses of viralent poisoning follow the uso of these colored articles of sugar confectionery.-E. B.
it is probuhly generally undentood that organic culsatances, that is, these of vegetabio or animal derivation, can not be distinguished from each other bychemical analymia, as minoral substances can be. They aro composed of few elements, carhon, hydrogen, uitrogen, and oxygen $\mid$ but these combine together in complicated forms among themselves, producing sulstances of very different properties, even whee the elements In the aggregate continue the same. Moreover, some sulitle essence, that chemicai akill can not detect, often glvea peculiar characters to organic substances. llut Natum does not leave herself without witnesses in the orgaule, any more than in the mineral world; and if theae ave not lifonght out by chenical researches, they must he lyy somo othrir. llut what these could be has been so fittle anspected, that as, Intely m the year 1850, when repated remonstrances were adidressed to the IItitish govermment to prohiblt the adufteration of coffee with chicory; the chancellor of the exchequer urged in the flouse of Commons non-interference with the inutter, on the ground that neither by chemistry, nor by any other meana, could the adulteration be detected. And this
piea, sustal tinguished Dr. Hassall croscopee, t be detected and mixed ample, each talinty' by th The principl Possil botany and species stone, tho de is more won stances, like veal to the $m$ of phants wh and indeiitly dences of ho epochs. By microscope ha aid to orgenic precision, won and labor of th and accuracy o the took nume ance under the sulmitted to $h$ grounil ceffee a mixture of thes toes, plainly ex chased with suc Family Coffee"fourths chicory chicory ; " $r$ ine great deal of chi "Celebrated Jam chicory. "Fine masted potntol the varions art milk, fleur and piekles, confecti drugs. In many well ns mierose serving to aid the be desired in the researches.
Cuffee-Thirt by Dr. Hasanll, -all of the thi masted whent in and one potato fle present in very on to one lifth, one adulterated with offered for sale, Scotch houne, elg imported express described as the I plant. It proved masted seeds of a leatil, and was nc tion of 100 tons little before ot Gla it appears, wan od of foreign nearna, purpose, no ilonit, tan and exhauste livers of horses no preferred for cofle price. In Laudon bake and grind the unimal mixtures $n$ increase its value. mixture, unless it the root of a plant no active eleurent greatly diminishes
plea, sustained hy the repori three of the most distinguished chemists of the day, was auccessful. Bot Dr. Ilassall finds, by the application of powerful mlcroscopes, that the identity of organic aulsatances can be detected, and that aven when these are ground up and mixed together, as different kinds of flour, for example, each kind can be recognized with absolute certainty by the peculiar structure of the fine particles. The principle was known before, and was applied in fossil botany, especially to the determination of genera sad species of plants. Even when converted into stone, the delicate organization still remains, and what is more wonderful than all, when fossil organic substances, like anthracite, are consumed, the ashes reveai to the microscope the peculiar forms of the famliy of plauts which prodaced the coel. Thus faithfally and indelibly does Nature record and preserve the evidences of her operations in the remotest geological eprochs. By the investigations of Dr. Hassall, the microscope has become a most convenient and efficient sid to organic analyaia, and while greatly adding to its precision, wonderfully simplifies and reduces the cost and labor of the procese. Illustrating the completeness and accuracy of his investigation, we find throughont the book numerous diagrams representing the appearsnce under the microscope of the various substances submitted to his examination. We ree the genuine ground coffee and the gennine clicery root, and the mixture of these and reasted whest, beans, and potatoes, plainly exposed in samples, that had been purchased with such high-sounding names as "Delicious Family Coffee"-really one fourth coffee and three fourths chicory ; "Coffee as in France"-principallychicory ; "Fine Ceglon Coffee"-very little coffee, in great deal of chicory with some rossted corn (wheat?) "Celebrated Jamaica"-very itttle coffee; principally chicory. "Fine Java Coffie"-much chicory and some roasted potato; very little coffee. And so through the varions articles of diet, as tea, cacoa, augar, milk, flour and lirend, butter, arrowroot, condiments, pickles, confectionery, hottled fruits, liquors, and drugs. In many of them the results of chemacai as well as microscopic examinations are given, each serving to aid the other, and together leaving little to be desired in the thoroughness and exactuess of the researches.

Coffee.-Thirty-four samplea of this were examined by Dr. Ilnssall, of which thirty-one were adulterated -all of the thirty-ane with chicory-twelve with roasted whent in addition; one of them contained lean and one potato fiour. In many instances the coffee was present in very small quantities; in some it amounted to one tifth, one third, and so on. But coffee is also aduiterated with other sulustances. In 1851 there were affered for sale, ot about two cents a pound, by a Scotch house, eighty tons of "coffina," a substance inforted expresaty for the allulteration of coffee, and described as the highly nutritious seed of a 'Turkish plant. It proved on examination to consist of the roasted aeeds of amme leguminous plant, prabably a lentii, and was no doubt prepared from an importation of 100 tons of lupine seeds, which arrived a littie beforo at Glaagow from Egypit. The sama tirm, it appears, war offered, about the same time, 600 tons of foreign acorna, at alout a cent por lh. for tise same purpose, no doubt, of aduiterating cotfec. Oak bark tan and exhausted tan are also osed, and the baked ivers of horses and cattle. Ilorse iiver appears to ha preferred for eoffee to ox liver, and brings a higher priee. In iandon, there are men whose business is to bake and grinil these articles. It Is stated that these unimal mixtures make the coffee go further, and tha increase its value. Chicory is in harmless sort of mixture, unless it operates to produce diarrhea; it is the rowt of a plant of the clanilelion family, contains no active element iike that of coffec, and no doult greatiy dininishes the evil effects attributed to the
free use of coffee. Perhaps for this reason its use ought to be encouraged; but as it is worth only one fifth or a quarter as much as coffee, the purchaser would naturally prefor to buy the articles separately, and mix them to suit himself. Sir Charles Wood, tho chancellor already referred to, appears to have a high opinion of its nutritive properties; bat the value of his opinion is somewhat lessened from the question having been raised, whether he was not largely interested in the great crops of chicory grown in Yorkshire, as well as from bis zealous efforts to sustain the practice of this adulteration. But Professor Beer, an eminent oculiat of Vienns, is cá opiaion that the continual use of chicory seriously affects the nervous system, sad gives rise to blindness from amanroais. In this city there are many like Sir Charlea Wood, who rather prefer chicory; but it is not so extensively used for artulteratiog coffee as a small variety of dried pea. In the grert coffee-roasting establishments this may be seen in large quantities, openly exposed, just as if the mixing a cheap and inferior article with one of considerable value, to sell at nearly the cost of the latter, was an houest business. It is a singular fact that chiccory, used to adulterate coffee, is itself adulterated with still cheaper materials. It is sold in powder, and this is found to coasist in part of other matters used for adulterating coffee, not excepting the laked livers. Carrots, beets, parsnips, and mangel wartzel are roasted and ground for the same purpose. One witness before the Parliamentary committee testified to having manafactured in one year 700 tons of carrots into chicory. Buraed augar and Venetian red are used to give the proper color of coffee.
Tea.-Tea is extensively adulterated in China, inferior qualities being made to resemble closely the most valuable, by mixtures of highly deleterious ingredients, and foreign substances introduced, as leaves of trees of various kinds, to take the place of genuine tea leavcs. Some of these are candidly sold by the Chinese with the name of " Lie Teas," or when mixed with other teas, the proportion is.stated of esch. The Souchongs and Congous imported into England are said to be rarely adulterated; but the black Gunpowders, Capers or Chulons and acented Orange Pekoe, are rarely otherwise than adulterated. In detecting the strang 3 leaves and determining ther names, the microscope is particularly useful. The green color of the Twankay, Hyson-skia, Young Hyson, Hyson, Imperial, and Gunpowder imported into Eingland, is stated to be imparted without exception by artificial coloring matters, such as ferrocyanide of iron, Prussian biue, turmeric, and China clay. Indigo ani sulphate of iime are also used, the last for fixing the color. The Chinese exhibit great akill in the mixture of the coloring matters to produce the desired shade, and also a remarkable readiness to execute the orders for any tea required, though it amounts to many timea the quantity of ail this tea grown. It must be admitted alse that they are not much more restrained by any conscientious scruples ns to the consoquences that may result froin their polsonous coloring mixture, than those "outside barbarians" who pructice aimitar arta in Christian cauntries. In England, besides the poisonous prussiater, it appears, from aome seizures that have theen made by the excias officers, that for the facing of tea, or giving the outxide gloss to the leaves, the highly-poisonons substances, carlonate and arsenite of coipere, and chromate of lead are used. Of the tens purchased in London and examined, it is found that some are made up of exhausted tea-leaves by the use of gum, and these are nrtiticiaily gluzed and colored; that the coloring matters are nore inJurious than thoae used by the Chinese, ant that it is not uncommon for tea, ioth black and green, to be faliricnted from Ilritish leaves, which possess none of the properties of tea leaves. The detection of the aduiterations of ten ls not very difficult, some being.
made hy the microscope, and some by chemical processes. Sand, which is added to the Lie tea, is deteeted by the increased weight of the ashea. These should amount to only from five to six per cent. of the whole wolght of the tea, hut they are found, in some impure articles, to welgh nearly one half of the whole.

Sugar.-Sugars are very little adulterated, even with sand, as is sapposed to be the case. This is easily detected by dissolving the suger in water, which will also expose any other insolnble forelgn aubatance. But though not mixed with other matters, the brown sugars of commerce are stated to he in general unfit for human conaumption, from the numerous acari, or small mites, which infeat them. The magnified mpresentutions of these upon the pages of Dr. IIasasll's book, are pictures of an anlmal that can be called extremely hideous and diaguating; and our impre:slona of it do not become any more favorable, when we learn that thls acarus sacchari is of the same family as the ararws acnbei, of Itch insect, only larger and possessed of a mors formidable organization than his brother; and further, as those grocers, who are employed in "handling" sagars, are said to be subject to a peculiar affection of the skin, a dissase that is consequently called the "grocer's itch," it is to be feared that the family tralts run through all the members, and the appearance of the augar-loving acarus does not belie his qualities. Sugar would seens to be thickly populated with them, for it is stated that they may " be seen of all sizea, that is, in all the atagee of their growith, and in every condition; nome alive, others dead; some entire and others broken into fragments; bodies here, legs there." llappily, in the process of refining these augars and the more impure inolusses, kuch substances, if they do not all turn to augar, are removed with the seum, and not a trace of their existence is detected in the pure whito article.

Milk.-The adulterations of milk are of a more serious character than any of those we have neticed; and there are few, but those whe profit by the ainful practice of contaminating the food given to infants and invalids, that will net welcome any new method of detecting asd exposing the imposture. It is now some years since public attention in thla city was directed to this anbject, and a general hope was entertained, that by the hydrometers and lactometers then introluced, the adulterations might be exposed anil prevented: but from the difference in the composition and speeific gravity of natural milk in ita different conditions, the subject was found to be attended with acrious difficulties, and we believe the use of the lastruments was given up; at least wh have heard nothing of the subject for a long time, anil the publie appear to heve relapmed into a state of hopeless indifference and submisaion to the evil, which appears irremediable. And this when, if we were to judige from the quality of milk served to us at some of the eating-houses of respectable repatation-stuff of thin, bluisli consistency, that sends a siekly acum over the surface of the tea or coffee it is poured upon-we might well doult whether we are in any better condition than the inhabitants of london, when it was estimated that all the cows supplying it with milk were lunufficient to give to each permon more than about a table-sponnfol per day. Fur if this is noticed in houses of respectable repuitation, bow is it likely to be in those of the poorer class? and what sort of milk do the children of the pror probably get, that in bought by their parenta at those corner groceries where it can be hall the cheapeat ?

The difficulty of detecting the degrees of adulterstion in milk is owing to its complex nature and the different properties it possesses, as its ingredienta cliange their condition or are removed, as the cream, for instance, is taken off when it rises to the surfice, and the skim-milk is left projurtionally heavler than when this lighter aubstance was mixed with it. If water, which is as heavy as or heavier than
the cream, be now made to replace it, the substitution can not be detected by any difference of specitic grav1ty. Thi, test must therefore be employed with another to determine the quantity of cream. This is effected by the use of a graduated tulie called a lactometer, in which the cream, by standing some time, collects in the upper end, and its proportion is at once seen to the milk at the lower end. Good milk should show about $9-100$ tha by measuro of cream, and tested by the hydrometer should indicate from 1026 to $10{ }^{2} 0$ specific gravity, water being 1000. To these tests and the more complicated ones of chemical analysis, are now added those of the microscope, by which an julen may be formed of the relative richness of diffierent samples by comparison. Cream is seen to be full of globular fatty bodica, which are of large size and closely collectel together; good milk lias similar globales, bat amaller and not нo closely united; while in adulterated milk they are seattered like the sturs in a clear night. Foreign substances, as sheep's bruins, are indicated by appearancea like nebula ameng the stara, intermixed with a multitude of comets. llat to follow out this subject, one should turn to the book itself, in which it is fally treated. The result of the examination of twenty-six samples of London milk was that fucelve were genuine, but of these two showed a deficiency of cream; and that fourteen were adalterated, principally with water, whicls rangerl from 10 to 50 per cent. It would be curioua to have a series of auch examinations of New York milk to compare with this of the London. We are strongly inclined to the opinion that Yankee ingenuity would be found as far alicad of the Ibritish in this respeet as the lititish were ahead of the Chinese in alalterating tea. Certainly, we need such an invertigation, and we hope it will be had.

Flour.-Flour is probably mach more allulterated in England than it is in this country. In this article wo are more likely to sutter by short weight than by substitutes of inferior ingredients. It is possible that damaged flour may, however, be mixed with good, or by adulterationa with various mattera be made to assime the appearance of geol thour. The unwise preference, нo universal, for flour extremely white, leads to the mixture of alum for the purpose of improving the appearance; and the baker frequently, ignorant that the miller had anticipated his worthy object, alds a second dose of alum to improve the appearance of the loaf. The effect of alum is to make the lireal indigestible, causing acidity and dyspepsia-besides, it enablea the baker to atd other articlea, which are themselves cheap substitutes for flour, and cause the bread to take up mone water, thus adding to its weight. Liebig remarks upon the indigestide quality of London bread; and he noticed, when in the alum works at Glasgow, quautities of linely-ground alum prepared for the london bakera. A ware of its injurious efliects, he recommended a substitite of lime water, which would produce the usefal without the injarious offrets; and his recommenlation has leen to some extent adopted. We know nothing of the practices of our lakers in these matters, but the thing might be easily investigated. In the country, particularly in New England, where the bread is almost universally loul, the greatert evil is probulily in the free use of earbonate of potash or aaleratus. Fifty-thres samples of London lireal were examined by Ir. Ilassall, all of which contained alam. Fraud was detected alnost as universaliy in the weight of the loaves. In bilinburg an oxcellent police act prevailx, requiring the bakers to stamp the weight upon all the haves they soll. The magniliced representations in 1r. Llasallis work of the different flours and their adulterated mixtures, an they appear under the microscope, are lighly interesting and instructive.

Various preparations of farinaceous articles for the food of invalids have been largely introduced into the

Engllsh marke found thelr wa ing names the famous and $h$ Erealenta, and sold in Englan These, exami former to be a which ta almo mon pea, and Indian-corn m ghum. The It bian lentil, an showed some as peared to be Jirothers' Aral pound, was asc probably of the it seems, being plied to the w for the paupors. ble operation to them at 67 ces form to this co oxperience, whe ical advice, the possibly weighi these valuable ! per quart, the p a uaiform powde barley tlour, 1 p tion will contal Keralenta, and cately, we have has given anoch such contingene ourselven, via. : 1 lb. ; sait, $\approx$ oz. whether sueh at Farinaceous Foo weuld ever be all ifh republican b prssess the mate sall's microscope tirely of baked .nour. Maidman of potato flour, a Spices.-Cnyen ed, and frequent tity. Vermilien, times used for th sre apt to aceumu very serious cons saall quantities, ment of colored hensible forms prisoning from th cheere poisoned into the amnotto ing ingredient in less addition to properties of its e vehicle of introd tures, its use ougl
Spices are to and probally as glami. Of !1 sa pure, the mixtur tuploea, putatoes, mustard husks, a majarity of the ca: the articlo. Ever laari, tasteless ba genaine flaver, b This is the bark of as that which pro very inferior quallt

Engliah market of late yeare, and many of them have found their way to this country, with the high-sounding namea they were christened with there. The most famous and highly esteemed of these are Wharton's Eirralenta, and Du Barry's Revalenta A rabica. They sold in England at 2s, 9d. per pound, or about 67 cents. These, examined under the microscope, prove-the former to be a mixture of the French or German lentil, which is almost -precisely the same thing as the comnoon pea, and the remainder a substance resembilng Indian-corn meal, hut possibly the meal of the Sorghum. The latter was composed of the red, or Arabiun lentil, and barley-flour. Another sampla of it showed some bugar, and a third some salt, and also appeared to the flavored with celery seed. Edwards Brothers' Arabian Revalenta, at 18. ( 24 cents) per pound, was escertained to consist of lentil powderprobalily of the red and yollow lentil mixed. Lentils, it seems, being somewhat chenper than peas, are supplied to the work-houses for the preparation of soup for the paupors. It is certainly a much more profitabie operation to convert them into Reialenta, and sell them at 67 cents per pound, or export them in this fonn to this country, where, we belleve, hy our own experience, when acting, some time since, under medical advice, they cost half a dollar for a small paper, possibly weighing half a pound. In London, where these valuable lentils can be easily procured at 8 cents per quart, the preparation may be made hy mixing to a uniform powder red or Arabian lentil flour, 2 pounds; barley flour, 1 pound; salt, 3 ounces. This preparation will contain all the valuablo properties of the Kecalenta, and cost four cents per pound. Unfortunately, we have no Arabian lentils; but Dr. Hassall has given another recipe. equally good, designed for sach contingences, and of whin we can easily ayail oarselves, viz.: Pea flour, 2 los.; Indian-corn flour, 1 lb ; a alt, B og. Nlix as before. We do not know whether such shoice preparations as Prince Arthur's Farimaceous Food and the Prince of Wales's F'vod, would over be allowed to come to this country to nourish reputlican babies; but, by great good luck, we possess the materials of this royal diet, as Dr. Hassall's microscope proves the one to he composed entirely of baked wheat fuour, and the other of potato Aour. Maidman's Nutritions Fiarina conaists entirely of potate flour, artificially colored of a rosy tint.
Spices.-Cayenne pepper is very generaily adulterated, and frequently with red lead, in considerabie quantity. Vermilion, or the sulphuret of mercury, is sometines used for the samo purpose. As mineral polsons are apt to accumalate in the system, and finally produce very serious consequences, if taken frequently, even in asail quantities, this adulteration, as the similar treatment of colored confectionery, is one of the most reprehensible forms of this vile dystem. Inatances of peisoning from these causes are known, and alse from cheese poisoned by red lead, which was introluced into the annotto used to color the cheese. This coloring ingredient in cheese and butter is an entirely ukeless addition to these articles, possessing no good properties of its own; but being frequentiy made tho vehicle of introducing ita ditlerent aduiterating mixtares, its use ought to be almandoned.

Spices are to a considerabio extent adulterated, and probshiy as much 60 in this country as lu Enghand. Of ?l samples of ginger, 15 were thus impare, the mixtures consisting of the meai of sugo, tajioes, protatoes, wheat, rice; also, iayenne pepper, mustard husks, and turmeric powder, which, in the majority of the cases, constituted the principal part of the urticle. Every one has noticed lin cinnamon the ilart, tasteless hark, thicker than that which inas tite genaine flavor, but otherwise much resembling it. This la the bark of the cassia, a tree of the aame genus oa that which proxluces the cinnamon bark, but of very inferior quality. It is largely mixed with cinas-
mon, but, even in the ground state, is easily detected by the microscope. Of 12 samples of whole cinnamon examined, seven proved genuine, and five were nothing but cassia; and of 19 samples of the ground article, only six were genuine-three conslated entirely of cassia, three of cassia adulterated, and seven of clnnamon adulterated. The adulterating mixtures were baked wheat flour, eago, meal, potato-flour, and arrowroot. In his examination of the nutmeg, Dr. Hassall does not appear to bave found any of the famous wooden lmitations ; but a French author he quotes, states, that "nutmegs are eometimes mixed with riddled nuts, eaten by insecta, and becoms brittle; the small apertures are then closed with a kind of cement, formed of flour, oil, and the powder of nutmegs. This paste has even served to fabricate fulse nutmegs, inodorous and insipid." These qualities without doubt, characterize the Connecticut article also, and will enable any one to detect it. Dr. Hassall's advice to soak them in water, when, of course, they would readily break down, would not apply to these.

To present this subject in its most revolting features, it would be necessary to carry out this description through the loag list of liquors and druge; and tho data for this might easily be furnished to considerable extent from materials already at nand of our own operations, without drawing upon those so abundantly provided in the book before us. But enough has already been said to convince the most incredulous (if there le anywhere incredulity on this subject), that whatever wa purchase to eat or to drink, or to administer as medicine, we bave no security that we obtain the articie we ask and pay for. The chance is decidedily against us in all articles, which skillful ingenuity can imitate successfully, even if it be necessary to resort to dangerous poisonous substances. The lawe afford littlo protection, though they recognize the existenco of the ovil.
Ilut besides the repugnance we naturally feel to being cheated and poisoned, there are evils of groater consequence brought upon the community by the toleration of these practices, that should rouse a higher indignation. These are, that loose state of morals the system encourages, and the lowering of the respeet which should uttaeh to the mercantile profession. The encouragensent, too, of the unscrupulous trader, hy the advantages of profit it gives him over the honest ; thue drivigg the latter out of a business in which competition is not open to him. Then, again, its evil effects upon the poor, who, ignorant of these fraude, full helplessly into the snares of those who sell at the lowest rates. Judging from the qualities of articles sold by "respectabie" traders, it is probable we have little idea of what is palmed off upon the great bulk of the population of a city like this, in the cheap shops frequented liy the poorer classes. Our newspapers make frequent mention of the more prominent traude committed upon unsuspecious strungers by the emigrant runners; but of this under-current, which is filching without cessestion the hard earnings of the multitudes, poisoning heaith and moraid aike, roducing the standard of mer. cantile integrity, and taking from the mouths of the sick and of the liffants those most nutritious foods neture has kindiy provided for their benelit-of this we hear ittie mention. 'The disease lies too deep and works too insidiously for its eralication to be hoped for. 1 lut this is net so. There is a cure for it ; and this cure is the one adopted ly Dr. Hassall. Let thoeo wh.o have the skill, and the tine, and the taste for such pursuits, adopt the course ine followed. Let purchases of articies likely to be adultorated be made in various places, and the results of their exemination be exposed, togethor with the names of the tradesmen aeling them. There is no fear liut one would be sustalned in this. All honest dealers would enconrago it ; for it would restore them to their rightful position. Tho dishonest could not help themeelves. Such a
course, steadily pursued by a fow individuals, would, we believe, coon produce as marked a change in thla elty as it has done in London. If one would undertake It, others would be likely to follow. The field is large, and will accommodate many laborers. We wish a commencement might soon be made upon milk. -See Aduliterationa Defiscted ; or, Plain Inatructions for the Discovery of F'rauds in F'ood amel Medicine. Jy Arthur Hill Habsall, M. D.: London, 1857. II. Baillere, New York.

Foot, a measure of length derived from tho length of the human foot, and consisting of 12 linear inches. For its length in difforent countrias, see Weigits and Measures.

Fore. The sea term for the part of the ship near the head.

Fore and Aft Impliee lying in the direction of the head and stern; also, the whole of the vessel generally.

Forecantle, that part of the upper deck of a ship forward of the foremast; also, In merchant vesseis, the forward part of the ship, under the deck, where the sailors llve.

Forelgner, the natural-born subject of a foreign state.

Forelock, in nautlcal language, a flat wodge of Iron, driven through the end of a bolt to provent its drawing.

Foremast, the forward mast of all vessels.
Forestalling, in lav, is described to be the buying or contracting for any merchandise or victual coming in the way to market; or diasualing persons from hringing their goods or provisions there; or persuudIng them to enhance the price when there. This, as well as engrossing, which is the buying up of large quantities of com, or other dead victuals, with intent to sell them again, and regrating, the buying np of auch commodities in uny market, and selling them again in the same market, or within four miles of it, was looked upon as Injurious to the public, by unnecessarily tending to raise the price of provisions; und accordingly several atatuten were passed in Great Britain probibiting forestalling under severe penalties. Statute 31st Fdw. I. enacted that "no forestaller shall be suffered to dwell in any town who manifestly is an oppressor of the poore, a publike enemie of the whole cominaltie and countrie, who meeting grain, tish, herring, and other things coming by land or by water to bee solde, doeth make haste to buy them before other, thirsting after wicked gaine, oppressing the poore, and deceiving the rich." In Great Britain, by the statute of Edw. VI., it was enscted that whoever should buy any corn or grain with Intent to sell it argain, should, for the first offonse, suffor two noentlis' Imprisonment, for the second, six months' imprisoument, and forfeit double its value, and for tho thirl, be set in the pillory, suffer imprisonment during tho king's pleasure, and forfeit all his goods and chattels. This statute further enacted, that no one coulil transport corn from one part to another witiout a liceuse, ancertalning his qualifications as a man of probity and fuir deallog.

The very imperfect knowledge of political economy that then prevailed led to the belief that the intervention of a third party between the producer and consumer tendel to raise the price of provisions; and that corn would be bought from the farnier cheaper than from the corn-merchant. It inay seem some what atrsnge that though the law thus compelled the farmer to deal dlrectly with the consumer, yet it in many cases prohibited the manufacturer from selling bis own wares by retail, in order that the shopkeepers might not be undersold. The farmer was thun forced to carry on two trades; and part of the capital which ehould have been employed in the luprovement and cultivation of the land, was obliged to be kejt in hin granarien and atock-yard; whereas tho corn-merchant, by afford-
ing a ready market for the farmar's produce, enablea him to employ his whole eupltal In cultivation; and the exintence of a free competitlon obliges the cornmerchant to sell his corn as chemp as the farnuer could afford to do. Tha princip'e here is the same as in manual labor. The workruan who is wholly employed in one operation accomplishes a greuter quantlty of work, and can afford to do it at a cheaper rate, than one who has to carry on several operatione; and, In the seme way, the dealer whose whole otock is employed in a single branch of business ncquires so easy and ready in method of transacting businese that, with the sume capital, he can carry on a much larger business, and no dispose of his goods cheaper than If his capital and attention were employed in a greater variety of objecte. "If," says Adam Simith, "a merchant ever buye up corn, either going to a partleular market, or in a partlcular markot, in order to aell it again boon after in the same market, it must be because he julges that the market can not be so liberally supplied thruugh the whole season is upon that particulur occasion, and that the price must, therefore, soon rise. "-E. $\mathbf{B}$.

Fore-tnolele; tackle on the foremast, and also tackle used for stowing the anchor.

Foretop-men; men stationed in tho forctop, in readinoss to set or take in the smaller sails, end to keep the upper rigging in order.

Forge, a furnace where wrought iron or other metal is hammered and fushioned with the aid of heat. This is called a smith's forge. In ohlpa a very conveaicnt kind is the portable truck forge. Forge is nlso applied to the blast furnace, in which lron ore is amelted; alao, where tho production of the blast furnace is fused, and afterwards beaten with enormous haumers, or drawn through cyliaders of different diameden, in erder to reniler the metul soft, pure, and more malleable and ductilc. Such great workshops are otherwise called ohingling mills. See lnon-making.

An ordinury amith's forge consists of the hearth or fireplace, which is merely a cavity in masonry or brickwork, lined with fire-clay or brick, and contalining ignited fuel, npon which a powerful blast of air is driven through the nozzle of a double-bollowa, worked by a lund-lever. There are ulso portable forgen, of small dimensions, but answering all the ordinary purposes of a sinith's forge. Such are the traveling forges of armies, those used on bound ships, etc.

Forgery (from the Freuch jorger, signifying accudere fubricure, to beat on an anvil, forge, or form) may Le defined at common law to be the fraudulent making or alteration of a writing or seal, to the prejulice of another mun's right ; or it is the crime of imitating the subacription of another, adhibiting it to s deed, and putting that deed to use by acting under it, recelving property in virtue of it, founding on it ss a title to sue or to defend, or transferring it to another. In considering forgery, it is necessary to attend, first, to the mode of proof by which the crime is estahblished: and secondly, to the punishment which is indicted on thu perpetrator thereof.

Thu proof of forgery is either direct or indirect. The direct proof consists in the examination of the writer of the deed, and of tho witnesses who rign the deed and attest the subseription. As the subgeription of witnessea is an attertation to which the law gives effect to the extent of receiving it on their death as ovidence of the regularity of the deenl, und as weight la given to the aubacription of a witness, even whare he doos not recollect having adhibited it; so, to cut down a deod regularly attested, the instrumentary witnesses, as they are called in sicotland, inust be brought to swear to circumstances of authicient force to luvalidato the evidence piven by their subscriptions; a specioe of proof which the law doea nut and indeed can not reject. The inlirect mode of prof consists in an investigation of all the circumstances from which it may be inforred that the person by whom
a deed is salc scribe ; as, for the atamp, the the paper, or a of the handwr of the same dn and whore the the one found pronomaced on It is an establ forgery hy a in admisaible.

Forgery in $E$ evidence forger by standing in the noatrils oll and perpetual Forgery was fir

Forgery, Rem nate Daniel an merchants, wer The Rev. Dr. bond, in the nan greatest Interes was exerted to fore the council, III., " If your have murdered necordingly, Jur a London bank Joseph IIunton, December 8, 182 gery at the Old cember 81, 1829.
Fongery of Sel lowing law, Ma shall knowlngly letter, Mediterran try, or shall kn Mediterranean pa istry, be shall fo 85010 to be recov of the United Sta diction, and if an ever therenfter be office of trust or $p$ ted Statea."
Fork, a wellbandle and a sha or prongs. The England till the re remarkable passag lstes the history mention a thlng fore in discourse served a custom in through the which other country that think any other na but enly Italy. T that are commorant use a little forke w - with their knife, cut the aueato out which they hold lit so that whatsoever of any others at dish of meate with doe cut, loo wlll giv pany as having tra nery, insonuuch that hrowleaten, if not r of feeding, I undurs of Italy, their forks yrona, steele, and a only by gentlemen. 18, because tho Italla
a deed is eald to be executed netually did not subacribe ; as, for instance, an orror in the date, an alibi, the stamp, the contexture of, or date impresaed upon the puper, or a comparatio literarum. The comparison of the handwriting is made with genuine aubseriptlons of the mame date as that alleged to liave been forged; and where the real mubacriptions differ muterially from the one founded on, the forgery of the latter may be pronounced on with a conaiderable degree of certainty. it is an established rule, however, that the proof of forgery by a mere comparison of handwriting la not admissible.

Forgery in England.-The forging of, or giving in evidence forged deeds, etc., made punishable by fine, by standing in the pillory, having both eare cut off, the nostrils alit up and seared, the forfelture of land, and perpetual imprisonment.-5 Elizanetir, 1562. Forgery was firat pumished ly death in 1634 .
forgery, Remarkable Erecutions for.-TThe onfortnnate Daniel and Robert Perreau, brothers and winemerchants, were hanged at Tyburn, January 17, 1776. The Rev. Dr. Dodd was found guilty of forging a bond, in the name of Lorl Chenterfield, for $£ 4200$ : the greatest interest was made, and the highent influence was exerted to arve him, but when the cane came before the council, the minister of the day nald to George III., "If your majesty parion Dr. Dodd, you will have murdered the Perreana;" and he wan hanged necordingly, June 27, 1777. Mr. Henry Fonntleroy, a London banker, was hanged November 30, 1824. Josejh IIunton, a Quaker merchant, sufferel death, December 8, 1828. The last criminal hanged for forgery at the Old Bailey, was Thomas Maynard, Decemier 81, 1829.

Forgery of Sea-Letters.-Congress enacted the following law, March 2, 1803 :-"That if any pernon ahall knowingly make, utter, or publish any false sealetter, Mediterranean passport, or certiflcate of registry, or shall knowingly avail himself of any such Mediterranean passiport, aea-letter, or certifleate of registry, he shall forfeit and pay a sum not exceeding $\$ 5000$ to be recovered by action of llebt, in the nume of the United States, in any court of competent jurisdiction, and if an officer of the United States, he shall ever thereafter be rendered incapable of holding any office of trust or profit under tho authority of the United States."

Fork, a well-known instrument, consisting of a bandle and a shaft terminating in two or more points or prongs. The table-fork did not come into use in Englsind till the reign of James I., he wo learn from a remarkable passage in Coryat, who thus solemnly relates the history of its introduction:-" Here I will mention s thing that might have been npoken of before in discourse of the first Itclian townes, I observed a custom in all those Italian cities and townes through the which I passed, that is not nsed in any other country that I saw in iny travels, neither do I think any other nation in Christendome doth ure it, but only Italy. The Italimes, and also most strangers that are commorant in Italy, doe aiways at their meals use a little forke when they eat their meate; for whilo - with their knife, which they hold in one hand, they cut the meate out of the dish, they fasten the forke, which they hold in the other hand, upon the same dish, so that whatsoever he be that sitting in the company of any others at meale shall unadviaedly touch the dish of meate with his ingers from which all the tabie doe cut, he will give oceasion of offence unto the company as having transgressed the lawes of good manaers, insomuch that for his error lie shall be at least browbeaten, if nat reprehendel in wordes. This form of freding, I understand, is generally used in all parts of Italy, their forks for the most part heing nuade of yronn, steele, and some of silver, but those are used only by gentlemen. The reason of this their curiasity is, because the Italian can not by any means indure to
have his dish touched with fingers, seeing all men's fingers are not ulike cleane. "Hereapon 1 myself thought good to imitate the Italian fashion by this forked cutting of nieate, not only while I was In Italy, but also in Cermany, and often timea in England alnce I came home: being once $u$ uipped for that frequently naing my fork, by a certaln learned gentleman, a familiar friend of mine, Mr. Lawrence Whitaker, who in hi- merry humor donbted not to call me a table furcifer, only by using a forke at feeding, but for no other cause."-E. B.

Formosa (Chinese, Taevan, 1. e., Terrace Beach), an island lying about 90 miles off the coast of China, from which it is apparated by the channel of Fo-kien. It ia about 250 miles in length from north to south, and 80 in breadth, lying between north lat. $22^{\circ}$ and $25^{\circ}$ $30^{\prime}$ and east long. $120^{\circ} 30^{\prime}$ and $122^{\circ}$. A voleanic mountain chain, rising to the height of upward of $\mathbf{1 2 , 0 0 0}$ feet, traversea the centre of the island from north to aonth, and anparates the Chineas portion of it on the weat from the independent portion on the east. Some parts of the coast present bold headlands; but all the west shore is flat and aurrounded with rocks and quicksands, presenting no good harbors, with the exception of Kélung at ita northern extremity. The Chinese portion of it is fertile and well watered, and possesses a very salubrious climate. Almost all grains and fruita may be produced on some part of the island, which is familiarly known as the granary of the maritime provinces of China. The rice-trade alone with these provinces employs more than 300 vessela. Among its other articles of trade, are maize, tobacco, sugar, fruits, timber, salt, sulphur, camphor, cotton, hemp, silk, etc. Of the eastern portion of the island little is known; the inhabitants bear no resemblance to the Chinese, but are apparently alilied to the Malay or Polynesian tribes. They are of a slender form, olivo eomplexion, wear long hnir, and blacken their teeth. They have no written lunguage, and their religion seems to be confined to a suporstitions belief in demons end sorcerers. Many of the aboriginal inhabitants are still to be found on the weatern postion of the ssland, living in independent villages; others, however, have become incorporated with the Chinese scttlers, or live in villages of their own, under the gelleral supervision of Chinese officers.

Forinosn was unknown to the Chinese till nbout 1403. Abont 1634 the Dutch eatablished themselves here, and built Fort Zealand on a amall island commanding the harber of the capital Taewan. After retaining posaession of it for 28 years, thoy were expelled by the famous Chinese rebel Coxinga, whose successors rulel in the island till 1688 , when it was taken by the Chinesc. Taewan, the capital, stands on the west coast in north lat. $23^{\circ}$, east long. $120^{\circ} 32^{\prime}$; but the entrance of its harbor is now choked up. The populution of Formosa is estimated at from $2,000,000$ to $3,000,000$.

Fort, a small fortified place, environed with a ditch, rampart, and parapet. The une of forts la to a sure some high ground, or the passage of a river, to lisake good an ndvantageous post; to defend the lines and quarters of a siege, and the like. Forts are built of different figures and limeasions, according to the exigences of the case. Some are provided with bastions, others with demi-bastions; some are of a square form, others pentagonal, and others again are stellated, having five or seven angles.
Forth, one of the largent rivers in Scotland. It is first formed of several amull streams rising on the north of llon Lomond, or tlowing fron Loch Katrine and the other lakes in the adjusent country, It proceeds ensterly in a direct course for above 100 miles, receiving In its progress the tributary waters of the Goodie, the T'eith, and the Allan ahovo Stirling, and below it th. Devon, the Carzon, the Avon, the A1monl, the Lelth, the Eak, the Leven, the Tyne, and
others; and it diacharges Itself Into the German Ocean in about $56^{\circ} 10^{\prime}$ of north latitude.

The Forth, like other streams connected with the ocean, eble and flows twlee in 24 hoars, hut the flood and ebbran about two hours longer in the middle than at the shore. The tide flows 41 milea above Stirling shore. At this harbor spring-tides rise 7 feet 9 inches, and at Alloa, 191 fect.

It was high water, according to Captaln Thomas's observations in 1815, at


The tides at leith and Kinghorn rine sometimes as high as 19 feet above low-water mark, the average being $17 \frac{1}{2}$ feet.
There sre in the Forth, as elsewhere In aimilar rivors and arins of the sea, particular currents. Among the most remarkable are those known ty the name of Leakies above the Queensferry, whleh are particularly observed from Culrons to Alloa. These consiat in an Internisaion of the tide at certain places during the flood, and before high water the sea ebbs. On the contraty, while inc sea ebbs, and before low water, the ebbintermits, and a How commencing, continues some time; after which the ebbing is resumed until low water. This ls aeen during two hours, and the irregalarity ocenples more or less of the river according as it is spring or neap tide.

The principal obstructions to the navigation of the Forth between Alloa and sitirling, have hiltherto arisen in a great measure from the two fords of the river, the onecalled the Town Ford and the other the Abbey Ford, and from the channel being rendered shullow partly by large boulders and partly by aceumulations of peat. The peat necumulations have arisen chlefly from the proprietors above Stirling clearing several thousand acres of their landa for cultivation, by removing the peat which covers them, and moving it into the river in order to be carried uway by the current to the sea. This practice han been followed since 1732. The moss covering the soil varies in depth from 14 to 4 or $\$$ feet, but the greater proportion is 10 feet. Mr. Drummond, of Blairbrummond, from 1783 to 1889, floated away upward of 1,600 acres of this sulistance.

The principal annt-banka which obatruct the navlgation further down the firth are the Druin-eands, near Cramond, and the Sandeend, on the east of Burntlaland harbor. The principal rocks which require to be uvoided by the mariner aro the Sonth Carr leef, lying N.N.W. from Danbar, the North Carr, about a mille and a quarter east of Fifeneas, the llae to the west of Kinghorn Ness, the Commons to the west of llurntisland, Craig Waugh S. F. one half E. of Inchkelth, and the Gunnet Rock, Pallas lRock, Iong Cralg, lsrigiga, and llarwit in its neighlorhood; and several milles further west, and nearer Inclicolm, the Oxcarea, Carcralg, and Mickry Stone. Many of these rocks are seen at the lowest eliss; their ponition, togetleer with the different land-marks, which are necessary to point them out to the mariner, ure dulineated on the admiralty cliarta, and the sailing directlons for the Firth of Forth, contained in the C'raster's Assistant, wlich is publified in Ielth. To show their position still ivetter, floating buoys have been placed upon C'raigh Waugh, the Gunnet, the IIarwit, and the Pullas Rocks; and bescons have been erected on the Oxcarel, the North Carr, and on the Inng Cralg, and on mont of the other dangerons rocke, and on several shoais and sand-banks. Ileslles the provisions for aillng the navigation, there are two light-houses on the Isle of May, one on the Ialand of Inchkeith, and various other light-houmea are now erected on all the harbors and landing-places of limportance In the firth.

The anchorage of the Firth of Forth is excellent.

Mr. Osborne, in a report to the Lords of the Adme]ralty on 2t May, 1858 , says of it t " Retween the llamber and the Frith of Cromarty there is no other harbor or anchorage into whileh large ahlps of war can aafely run for ahelter or randezvoua other than the Frith of Forth, and more partlcularly in the reach ahove the Queensferry; where the sheltar is complete. Hut as the Frits of Cromarty is away from all importent intereste, the Frith of Forth muet be consldered the only war port north of the Humber, and therefore a most fitting place for a naval arsenal." But besides the great and Important anchorage at Nt. Margaret's Hope, In the reach above the Queenaferry, which is more particularly referred to in this Admiralty report, leith loads to the west of Inchkeith Is another, which is capable of holding a large fleet of ahips of war of any size. The minor anchorages in the tirth, which arc ulso very good, are at Aberlady lay, the western part of Largo Bay, lurntisland, St. Davids, Llmekilns, etc.
The landing-placea or harbors In the Forth are, on the south side the harbors of Dunlasr, North lierwick, Port Seton, Morrison's IIaven, Flaherrow, 1,eith, Newhaven, Trinity, Granton, South Queensforry, Ikorrowstowneas, Grangemouth, and Stirling Shore, and on the north side, Crail, Anstruther, Blie, Pittenweem, Leven, Methel, West Wemysa, Dysart, Kirkcaldy, Kinghorn, Pettycur, Hurntinland, Starleyhurn, Aberdonr, ist. Davids, Inverkeithing, North tpueens. ferry, Charleston, Crombie Point, Culross, Kincardine, and Alloa. Great lmprovements and new erections have lately heen made at mont of these harbors which are of any note ; and ln particular, the Duke of lluceleuch's magnificent harbor in progress of formation at Granton, and the extension of Leith l'ier into deep water, may be referred to. Of leas magnitude is the deepening of the channel of the Forth lietween Alloa and Stirling ly commlasioners arting under the act of Parliament 6th and 7th Victoria, cap. 47. Since the passing of thls act In 1848, a channel of about 500 yanls in length has been formed thruigh the Abbey Ford, giving ahout $\mathbf{3}$ feet 6 lnches greater depth of water than formerly. A channel abont 1,000 yards in length has also been formed through the Town Ford, which ia not yet fully completed as regards its depth of water. In these operations many thousamis of large bouliler-atones and the peat accimulationa whleh formed obstractions to the navigation lave leen removed, nid no doult is entertai.,ed by the inspectors, who have reported to govermment on thls auliject, but a depth of 10 or 17 feet at springtides will te obtained up to Ntirling when the works in progress are completed. Upward of $£ 5,009$, inthding the expense of the act and of erecting a 'muy at Stirling, have alrealy heen expended by the H:arior Comminsioners on these operations, and $£ 7,000$ more In about to be expended ujon them. This sum is to be pald to the commissioners liy the Town Council of Glangow for damage likely to arise to the improvements in progreas on the Forth, from the liberty obtained by the city of (ilangow to draw a large quantity of water from loch Katrine. In millition to these sums, the revenue of the Forth Comminalonern, whinh ${ }^{\circ}$ Is considerable, will enable them ntill further toextend their works.

Further, the low-water ferry landing-place at llurntislind, belonging to the Filinburg, Perth, aud Hundee Ituilway Company, is a great improvement at that port; mud at Kirkealdy, lluckhaven, and oiher harrhorm, extensives works are in progresa ander llarbor Cominissioners.
'The coasting and foreign trade of the Forth is carried on in vessels varying in size from 18 to 500 tons. The princlpal port to which they lelong is leith: lua' there are aeveral whalem and lurge vessels enghgel in the Australian, American, Mediterranean, and Jaltic tradea, whlch belong to other ports in the Forth.

The traffio $\ln g$ in the Forth an pool, Hull, Nev verneas, Peterl aea-port in 8cot joint-atock com Joint-stock com trade with Ilam Greenock, and through the For
The number to the ports in th

At Alloa, inclu and Sttritn
At Horrowstan Chasleaton Gtollnage
At Grangemon
At Invorkefthl
At Klrkealdy
Leven, We
thland, ant
at Leithage thelu Leith, tuelu
Flaherrow, versels, wit
Total 484
Fortified Isl lying off the coas laad, o little way Onore. The jslan plantaln-t rees, and duces the bent kla tives $\ln$ paintlng from its fortificatl aned hy Tippoo Sni by three I British frl circuit. Long. $7.1^{\circ}$
Fothering, a stop a leak in the $b$ either at ses or at a ening a sail at the the ship's hottom, chepped rope-yarn, it and the ship's side this operation sever in a portion of the partly and sonretime prefer thrumming th loose stuff ; but in through by the hole out afforling sufficie
Foul, n aea phra clear, and implies foul anchor, when th and tlukes; foul bot weeds, grase, shells means that the cab by the shlp having moored. Foul rope, immedlate use. Fou rendered turbid by t| ground. Fonl winl, is unfavorable, or con posed to large or fair.
Foundery, or $F$ casting metaly. See
Foundery of Small and commonly used ef a pretty soft, yelle it heing necesary to it at lengeth becomes o is worked over and ov a kind of knife ; and ceive it, after it has $b$ prepared.
This being done, the of a length and breadt

The traffic in goods and passeagers between the ports In the Forth and Iondon, Greenock, Glasgow, Liverpool, IIull, Neweastle, Dundee, Perth, Atberdeen, Inverness, l'etorhead, and almoat every conaiderable sea-port in Scotland, is conducted chlefly by veasels of joint-stock companies, which vessels alli perlodleally. doint-stock companies are also engaged in the Leith trade with IIamburg and Rotterdam. The Glaegow, Greenock, and Liverpool trade, is chlefly conducted through the Forth and Clyde canal.

The number and tonnage of the vessels belonging to the ports in the Forth in 1855 are as follows:

At Alloa including the ereeks of Klneardtne and Sttrling, 74 vessels, with a tonnnge of 12,402
At Borrowstownness, Inclading the creeks of Chaileoion and Lituekilns, 47 vessela, with a tonnage of..

8,781

At inverketihing, 28 vossels, with a tonnage of 2,361
At Ktrkealdy, including the ereeks of Iargo, Leven, Wemyas, Dysart, Kingtiorn, Bartithatand, and Abordour, 60 vessels, with a tonnage of. .
At Letth, tacluding the creeks of Granton Fisherruw, Cocketizle, and Dunbar, 176 vessels, with a tonnage of.

25,404

## Total 484 vessels, with a total tonnage of 60,968

E. 1.

Fortified Island, an laland in the Indla seas, lying of the cosst of Canara, about a mile from the land, a littie way north from the entrance to Lake Onore. The laland slounds in cocoa-nut, palm, nod plantain-trees, and has plenty of fresh water. It produces the best kind of carl, which is used by the natives in palnting their houses. Its name is derived from its fortificatlons, which were greatly strengthaned hy Tippoo Snih, from whom it was taken in 1792 by three Britinh frigates. It is upward of a mile in circuit. Long. $74^{\circ} 27^{\prime}$ E.; lut. $14^{\circ} 16^{\prime} \mathrm{N}$.

Fothering, a pecullar method of endeavoring to stop a leak in the bottom of a ship while she ls afloat, either at ses or at anchor, which is pertorined by fastening a eail at the four corners, letting it down under the ship's bottom, and then putting a quantity of chopped rope-yarn, oakum, wool, cotton, ete., between it and the ship's side. By repeating the latter part of this operation severnl times, the leak generally suck in a portion of the loose stuff, and thereby becomes partly and sometimes wholly stopped. Some persons prefer thrunming the sail, listead of letting down the bose stuff; but in this mode the sail is soon chated through by the hole if the ieak is conslderable, without affonling sufficient substance to atop it.
Foul, a sea phrase that is used in distinction from dear, and inplies entangled, embarrassed. IIence, foul anchor, when the cable is twisterl round the stoek and liukes; foul bottom, when a bay is covered with weeds, grass, shelis, filth, and rocks. Foul hawse means that the cables are turned round each other by the slip having swang the wrong way when moored. Foul rope, a rope enta gied and untit for immedinte use. Foul water, is water iroubled, and rendered turbid hy the ship's bottom rubbing on the ground. Fonl wind, is used to express that the wind 'is unfavorable, or contrary to the ship's course, as opposed to large or fair.
Foundery, or Foundry, the art of melting and casting metals. See Coriven; luon.
Foundery of Small Works, or Casting in Sand.-The and commonly used for casting small works is at first of a pretty soft, yellowiah, and clammy nature; but it heing necessary to at row charcoal dust in the mold, it at leugtin becomes of a quite biack color. The sand is worked over and over, on a board, with a roller and a kind of kaife; and is placed over a trough to receive it, after it has by these means been sufficiently prepared.
This being done, the workmen take $u$ wooden board of a length and breadth proportional to the things to
be cast, and putting a ledige round it, they fill lt with sand a little moistuned, to make it duly cohere. They then take either wood or metal models of what they intond to cast, and apply them to the mold, and press them into the sand so as to leave their impresaion there. Aleng the middle of the mold is laid half a small braes cyilnder, as the chlef canal for the metal to run through, when meltel, into the models or patterns; and from this chief canal are placed several others, which extend collaterally to each model or pattern placerl in the frame. After this frame is finliked, they take out the patterns, by first loosening them ali round, that the sand may not give way ; then they proceed to work the other half of the mold with the same patterns in juet such another frame, only that it has pins, which entering inte holes corresponding to it in the other, make the two cavitiea of the pattern fall exactly on each other. The frame, thus molded, is carried to the melser, whe, after extending the chief canal of the counterpart, and adding the croas canals to the several modela in both, and strewing mill-dust over them, dries them in a kind of oven repared for the purpose. Both parts of the mold heing dry, they are joined together by means of the pins; and to prevent then giving way, by reason of the melted metal passing through the chief cylindrical canal, they are screwed or wedged up as in a press. Whils the molds are thua preparing, the inetal is fusing in a crucible of a slze proportional to the quantity of metal intended to be cast. When the molds have cooled, the frames are unscrewed or unwedged, and the cast work ta taken out of the sand, which aand la worked over again for another casting.

Foundery of Stataes.-The casting oi atatues depends on the due preparation of the pit, the core, the wax, the outer mold, the inferior furnace to melt off the wax, and the upper to fuse the metul. The pit ia a hole dug in a dry place, somewhat deeper than ihe intended tigure, and made according to the prominence of centain parts of it. The inside of the pit is commonly lined with stone or brick; but when the figure is very large, they sometimes work on the ground, an' ralse a proper fance to rexist the impulsion of the meited metal. The inner mold, or core, is a rude mase, to which is given the intended attitude and contours. It is raised on an iron grating strong enough to sustain It, and is strengthened within by several bars of iron. It is generally made eititer of potters' clay mixed with cow-hair, or of plaster of Paris mixed with brick-dust. The use of the core is to support the wax and the ohell, and lessen the weight of the metal. The iron bars and the core are taken out of the brass figure through an aperture left in it for that purpose, which is soldered up afterward. It is necessary to leave some of the iron hars of the core, which contribute to the steadinees of the projecting part, within the brass figure. The wax is is representation of the intended statne. If it be a piece of sculpture, the wax should be all from the hand of the sculptor himself, who usually"forms it on the core; though it may be wrought separately In cavities, molded on a model, and afterward arranged on the ribs of iron over the grating, flling the vacant space in the middle with liquid plaster and brick-dust, by which means the linner core is proportioned as tie sculptor carrice on the wax. When the wax, which is of the intended thickness of the mutal, is finished, small waxen tubes, perpendicular to it from top to lottom, are filled, to serve loth as canale for the conveyance of the metal to all parts of the work, and as vent-hoies to give pasauge to the air, which would otherwise occasion great disorder when the hot metal came to encompass it.

The work lreing lirought thus far, must bo covered with its shell, which is a kind of crust laid over the wax, and which being of a soft matter, easily receives the impression of every part, whieh is afterward communicated to the metal upon its taking the place of

## FRA

the wax, between the ahell and the mold. The matter of this outer mold is varied according as different layers are applied. The first is generally a compositlon of clay and old white crucibles well ground and sifted, and mis.ed ap with water to the consistence of a color fit iur palnisingt and lt is applied with a brush, by means of whlch it is laid on seven or elght tlmes successively. For the second improssion horse-dung und aatural earth are added to the former composition ; but for the third impreseion oaly horsedung and earth are used. Lastly, th. thell tis finlehed by laying on several more Impresslons of thin last matter, made very thick, with the hand. The shell, thus finished, is secured by several Iron girthe bound round lt , at ahout half a foot dlatant from each other, and fastened at the bottom to the grating under the statue, and at top to a clrcle of Iron where they all terminate.

If the statue be so large that it would not lo easy to move the molde with eafety, 'hese muat be wrought on the spot where it la to be cast. This is performed in two ways. In the first place, s square hole is dug in the ground, much larger than the mold to be made therein, and its inside is lined with walls of freestone or brick. At the bottom la made a hole of the asme materials, with a kird of faruace, having its aperture outws:d; and in this a fire is made, to dry the mold, and afterwarl melt the wax. Over this furnace is placed the grating, and upon this the mold, formed as sbove. Lantly; at one of the edges of the aquart pit is made another large furnace, to melt the metal. In the other way, it is auflicient to work the mold above ground, but with the procaution of a furnace and grating underneath. When tinished, four walls are run around $i$, and by its adde a melting furgace la prepared. For the rent, the method la the aame ir both casen. The moll belng finished, and thelosed ns deseribed, whether below ground or above it, a moderate fire is lighted in the furnace und.r it, and the whole covered with planka, that the wax may melt gently down, and run out at piper, contrived for that purpone, at the foot of the mold, whiel are afterwand exactly closed with earth, as seon as the wax is all carried off. When this fa done, the whule ts filled up with brick, thrown in at raudom, and the fire in the furaace augwented, until both bricks and mold in come red-hot. The fire is then extinguinhed, and every thing being rold again, the brivks ars taken out, anil their place tilled up with earth, moistened, and beaten a little at the top of the mold, In orier to render it the flimer. These proparatory measuren being duly taken, there remaina nothing but to melt the netal, and run It into the mold. Thin in done by means of the furnace ahove describel, whieh is comnionly miade in the form of an oven, with three apertures, one to put in the wood, another for a vent, and a third to run the metal out at. From this last sperture, which is kept very close while the metal is in fusion, a small tube is laid, hy which the molten metal in con veged foto a large earthen hasin, over the mold, lutu the bottom of whirb all the large hranchea of the jats or cants, whleh are to cunvey the metal ints the different parts of the mold are insertel.

Fonndery of Rells.- The metal fer cantlag liells, it is to the olserved, is different from that employed for earting statuen; there boing notin In the atatue metal, whereas In the bell metal thare in a tifth or more.

Tho dimensions of the more and the wax for bella, expeclally a chime, are not left to chance, but most be meanured upon a meale. or diapason, which gives the holght, the aperture, and the thickneas necesmary for the several tones requirel. It in on the wax that tha neveral moldings and otbreornaments and lnecriptions, to be represented in relief on the ontalde of the bell, are tul he formed. The clapper or tongue ls not properly part of the bell, but in furnished from othar handa. In Europe it in uaually of lroe, with a large anol, at the extremity : and itsumpended in the middle of the bell. In China a wooden mallet in usel, whieh is
struck by the hand against the bell $;$ and hence the Chinese bells can have comparatlvely IIttle resonance. The Chinese have a method of increasing the sound of their bells, by leaving a hole uader the cannon; but this our bell-founders would reckon a defect.

The proportions of oar balle dlffer very much from those of the Chlnese. In ours, the modera proportions ere, to make the dianeter fifter a times the thickness of the brim, and the leight twelio tlmes. The purta of a bell are, first, the sounding bow, terminated by an inferior circle, which grows thinner and thinner; secondly, the brim, or that part of a bell whereon the clapper atribes, and which is thleker than the rest, thlrdly, the outward aloking of the middle of the bell, or the point under which it grown wider to the brim; fourthly, the walat or furnitnre, and the pitt that grows wider and thicker quite to the hrim; fifthly, the uppar vase, or that part which ls above the waist; aixthly, the pallet, which supports the staple of the clapper within; and, eoventhly, the bent and hollowed branches of meta' uniting with the cannons, to receive the lron keys, by which the bell is hung up to the beam, and which forms lte support and counterpoise when rung out.

Fountain-tree, or Pil-tree, a very extruoninary trce anill to have existed formerly in the wland of Ilierro, one of the Canarics, and to have distilled water from its lenves in such abundance as to satisfy the requirements of those who lived near lt. Whether auch a trec ever oxisted is questlonable; yet varicua writers lave mentioned the foumtain-tree of llierro in appazently gool faith. Glasee, in hls History of the Canary Islands, pullished at London in 1764 , slludes to it in the following terms:-" Many writers have made mention of thls fimeus tree, some In such manner as to make it appear miraculous; others, again, deny the existence of aoy auch tree, among whom la Fiather Feyjoo, a modern Spanlsh author, in hia Teatro Critico. But he, and those who agree with him in this natter, are as much mistaken as those who would make it appear to be miract lons. This is the only laland of all tho Canaries whleh I have not heen In; but I have ar.iled with natives of Ilierro, who, when questionell about the existence of this tree, answered in the aflimative."

Frankincense, or Olibanum tree (hosvelia serrala) is indigenous to the mountains of central lndia, where it la knowin under the name of sali, and as producing the olibanum of commerce, or the gom frankincense of the ancients. It is a lofty tree, with the follage crowdel at the extremity of the branches, and is frequent in the foresta between the thome and Nangpur, from which ciremonstance it may fa inferred that It would be adapted to the soll and clinate, in farorable locations, in some of our eouthern States.
litoanum ilistills from inelolona mado in, che lark of the tree durling the summer montha, oceurring in the form of aemi-transparont masfen, or tears, of a paloyellowlah or phak color, solisl, hard, and brittle. It has a bitteriah acrid taste, and, whon chewed, sticks to the teeth, nud renders tho aaliva milk! When heated, it lurns brilliantly, and diffuses an agreeable odor, in consequatnce of which, in the early uges, it was n.ush usel as incense in the macritices, and, in molers times, the tireek and ldoman Cutholle rharches still retain the une of frankincense, in mome of their ceremonien. It is seldom employed for other puposes, except as a perfume in the rooms of the aick, uithough other guma bearing that name are in unore general use, sud arn hy many regarded an ldenstical with it ; fur instunce, limarck dealgnates the gum of the Amyris gileadensis by this name; Forskal and sprongel, that of the Amyris kataf; while linmas erronequsty thus denominates the reain of the Juniperus lycia.-Pratent Office Repert, 185.5.

Frano, a French coln of the value of 18 cents and alx allla, by ulut valuation.

France. T rope extende Itu lat., and from The greatest len from east to wes jects into the AtI France would $n$ breadth from ne its superficlal ex France, is 52,768 miles, or 180,787 total area of the
Though in poly from the interlor Grent lritain an more fortunate it territorlea of Aus vantage over the natural barriers, wark on the sout and the Jurn and The Belgian is the
Frunce enjoys, vantages than any ritol ${ }^{\prime}$ is above a $h$ and Ireland, and b the cllmate beling grater amount of s earth to perfectlon. ble land than any of cominunlention thr and casy; she is $p$ metals except tin ; than any other cour during the distractl her foreign trade wi manufuctures were lation was Increase The surface of Fral acres. It is estlmnt lami, including monul, part ; the arable la and pasture-land a seventh; the viacy quarries, buildings, plantations, making to the vegetable pmid climate of France e mutherries, and che iro of her moet vil trade has been for the northern anil ea been long famous a Eurme, a lirach of p to great perfection in woolen cioth, Has, h tensive, and havs le protectivo systen; $w$ where on the Comring which has been not and of the 17 th centa equal, or very nearly peare to have conthi itamts. In 1791, it w sind in 18.51 nearly at ways maintains a lar the peace estahlishme ualty in Decenaler, is en nervice is about ear Britain, with $62,000 \mathrm{~m}$ surfite,-The surf cral, an advantengem gramid. Leres level t many, or the greater on the whole, less mo and may with great pro with thila dlatinction,

Firanoe. This Important part of continental Eus rupe extends frum the $48 d$ to the 51st degree of north lat., and from long. $8^{\circ} 25^{\prime}$ east, to long. $4^{\circ} 48^{\prime}$ weat. The greatest length of France, exceeding 665 milee, is from east to weat-from Alases to Brittany, which projects into the Atlantic like a wedge, and without which France would approach in form to a square. Its hreaith from north to sonth is alx at 576 miles ; and its superficial extent, ss stated In the Statistique de la France, ia $52,768,618$ hestares, equal tc 204,855 square miles, or 130,787,16u English acres-nearly twice the total aren of the liritish Isles.

Though in pohnt of extent of criast and ready access from the interlor to the sea, France is far inferior to Great Britaln and lreland, she is, on the other hand, more fortunate in these reapects than the vast inland territorles of Austrin and Russia. She has the advantage over these conntries likewise in strength of natural barriers, the Pyreness forming a great bulwark in the south-wost, the Alps on tho south-east, and tho Jurn and tho Vosges Mountalns on the east. The Belgian is the only open part of tho frontier.

France enjoys, ujon the whole, greater natural adrantages than any other country in linrope. Ifer torritory is above a half larger than that of Grent Britain and Ireland, and both her suil a. d climate are betterthe climate being lesa equabie indeed, but thero being a greater amount of summer heat to bring the fruits of the earth to perfection. She has a greater propertion of arnble land than any of her noighbors ; the natural means of communication throughout her provinces are abundant and casy; she is well provided with all the usefui metals except tin; and is better supplied with coal than any other country of Europe, but Britain. Eren during the distractions of her great Rovolution, though her foreign trade was annihilated, her agriculture and manufactures were extonded and improved, her population was increased, and its condition ameliorated. The surface of France contains about $130,000,000$ of acres. It in estimateil that, of this quantity, the wasto land, including roule nod rivers, amounts to an eighth part; the arable land to near a hulf; the wood-land and pasture-land and mealows, each, to about a seventh; the vineyurds to a 2ath part; wild-lan!l, quarries, buildinga, oreharls gardens, olive, and other piantations, making up the remainder. - In uddition to the vegetahle productions that grow in Engiand, the cimate of France euables her to raise vines, olives, muiberries, and chestnuts. Wine and olivo oil are iro of her most valuable productions. The cotton trale has been for seme time rablly extending over the northern and eastern provinces; and lyons has been long famous as the centro of the silk trade of Earope, a brach of manufucture that has been brought to great perfoction in that eity. The manufuctures of woolen cioth, fin*, hemp, adid iron, ary also very extendive, and havs been earefulty fostered under the protective systen, which still provails here, na elsewhere on the Continent, notwithatanding the example wheh has lieen set by Great Britnin. Toward the and of the 17 tin centary, the territory of Frimee, then equal, or very neariy equal, to its present extent, nppears to have contained about $20,000,000$ of inhuhitants. In 1791, it was fomit to be nbove $26,000,000$, and in 18.31 nearly $\$ 6,000,0000$. Tho government alFays maintains a large standing army, amounting on the peace establishment to nbout $\mathbf{3 5 0} 0,0 \mathrm{~m}$ men, but net. ualiy in Decemher, 1851 , to 581,000 . Dier nomed fleet on servine is nhout equal in number of ahips to that of Britain, with 62,000 men.
Naffice.-The aurfice of France exhibits, lin gronfral, an advantngeous nuecession of ligh and fow groand. iness level than l'oland, the north of Germany, or the greater part of hiropenn hassin, it is, on the whole, less maustumous than Spuin or Italy, and may with great propriety le compared te Eugtand, with this distinction, that whilo in the latter, the
mountainona tracts are in the north ard west, in France they are in the south and east. I assing over lofty ridgee which form tho frontier line of France on the side of the Pyrenees, the Alps, the Jura, and the Vosges, and confining our attention to the interior, we fiad throughout Flandera, Picarly, Normandy, and the countries to the north and south of the Loire, a level tract, diversified occasionally by hills, olther insulated or in succession, but by none of the msssy elevations entitled to the name of mountalns. These we do not meet until resching the south of Champagne and north of Burgundy, near the sources of the Meuse, the Mosulle, the Saone, and the Seine. From this bleak quarter (lat. $47^{\circ}$ and $48^{\circ}$ ), in very long range of mountains proceeds from north to south in a direction parallel to the conraa, Arst of the Saône, and subsequently of the Rhône, untul, un approaching the Mediterranean, they branch off to the south-west and join the Pyrenees. Their greatest height is in Avvergne (about lat. $45^{\circ}$ ), whore this chain, or more properly a lateral branch of it attains, at the mountains callzd Cantal and Puy-de-Dóme, an elevation of fully 6355 feet, and has its highest ridge covered with snow daring the greater part of rhe year. Another, but a much lesa lofty range, extends from Bordeaux to the south-oast, a distance of 150 miles, until it reaches the Pyrenees. The smniler ehnins are numerous in the east and anoth-east of the kingdom-in Lorraine, the Nivernols, Dauphine, Provence; also in part of the interior, partlenlarly tho limousin and Guienne. They are interspersed with extensive plains, but, on the whole, the south and east of France are rigged and elovated tracta, and may lie anid io be to that counry what Wales and Scotiand are to Great liritain.

Rivers.-The course of the great rivers is easily connected with this view of the surface of the territory of Franco. The Moselle, the Meure, the Marne, the Anbe, the Seine, the Yonne, trking their rise on tho northern side of the mountain chuin, between lat. $7^{\circ}$ sad $48^{\circ}$, flow all to the north or north-west, until reaching the aea or quitting tho territnry of France. From the southern slope of tho same range proceed the Saônc, the Doubs, nad the Ain. These, along with many emaller strenms, ure all received by the Khone, which flows almost due south, with a full and rapid current, mintl it ranches the Mediterranean. The Loire har mueh the longeat courss of any river in France. It rises to the southwaril of lat. $45^{\circ}$, flows in a northeriy direction above $\mathbf{2 0 0}$ milea; turns, near Orlenns, to the west; is jolned by the Cher, Indre, and Vienne from the south, and, after receiving the Sartho from the north, falis into the Atlantic below Nantos. The Gnronge, $n$ river of less leugth of conrse, but of a grenter volume of wator, descends from the French side of the Pyrencen, flows northward, and after recoiving from these nounatains a number of tributary streans, of which the chief is the Arriege, turns to the west waril near Montnuban (lat. $44^{\circ}$ ), nad falla into the Athatic after being augmented by the waters of the Tarn, Aveyron, Lot, and firally the Doriogne-all Howing frons the western faco of tho mountains of Auverghe.

France has vary few lakes, either in the mountainous fistricts of the south, or in the grent levels of the north and west. it contnins, however $n$ umbler of maritime iniets, forming inland bays, and commanienting with the sea only by a channel of greater or less width. These ac inr partly in the south-west cosst, in Gascony; but norra : , the aouth and nonth-east, in Ianguedin and $\mathrm{l}_{2}$ rvence. Their wont of depth preventa them from ser.ing ns ronistends for shipiping, and they are usefut chietly for Ashing, or for the manafucture of hay-salt.

Forpata,--Frunce has mush less of artificial or ornamental plantation than lingland, and much mono of nitural foreat, the total extent of grounil covered by wood being eomputed at $17,000,000$ of acres, or one
elghth of the territorial surface of the kingdom. Forests are found in almost overy department. Lower Normandy contains several of considerable extent. There is a large one at Fontaineblean only 45 milee from Paris; and a linger one to the north of the Lolre; in the vicinity of Orleans. Those situated in the neighborhood of the sea, or of navigable rivers, or of great works, such as glass-hruses und fron-founderies, have long been sutijected to an improvident consumption, which is likely to be increased by the atill heavy though reduced duties imposed on forelgn coal, and by the undue encouragemente given to the smelting of iron by the heavy dutles which were, in 1814 and in 1822, laid on the importation of foreign iron; so that at present the principal forests are at a dintance iniand, particulsily in the east, in the cepartment of Ardennes, and in the long monntainons tract that forms the boundary of France on the side of Switzeriand.

Climate,-In a country of so great extent, and of such dive rified surface as France, it is difficult to condense a descriptlon of the cllmate under a faw comprehenslve l ds. The mont natural divialon is into the north, south, and central regims. The north, comprehending Flandera, Picardy, Nommandy, Brittany, and in general all thas part of France which would be bounded on the aouth by a dlagonal line from Int. $47^{\circ}$ on the west to lat. $49^{\circ}$ on the east frontior, beara a great resemblance, both in temperature and produce, to the south of England, raln occurring frequently, and the country being consequently fit for pasture. There, as with us, the predominent culture la wheat, barley, oata, rye, and auch frult as applen, pearn, cherries; ciso, hemp, flax, and rapeseed. It is here only in France, that the natural pastures are rich and extenaive; bere, also, the species of wood, oak, ash, cim, bear a close reseinblance to ours. The ceutral region may be sald to colaprehend the conntry to the south of the loire, or rather of the dlasonal line we have mentioned, until reaching a similar line in lat. $45^{\circ}$ on the weat and $47^{\circ}$ on the east frontier. Here, with the exception of tie mountainona parts, the winter is sensibly shorter and milder. Wheat, barley, onts, and rye, are still cultivated, but maize legins to appear, and vines become general. The weather in this great Iniend tract is inueli more stedy than in the north. In the summer months there is little rain, and atorms, when they occor, are frequer aly secompanied with hail; but, on the whole, the temperature is perhaps the mont pileasant in France, being exempt equally from the oppreasive heat of the south and the frequent humidity of the north. The third region, comprelending the whole breadth of the French territory from lat. $45^{\circ}$ and $46^{\prime}$ to lat. $43^{\circ}$, and in some parts to $42^{\circ} 30^{\prime}$, approaches in climate to the heat of Spain and Italy, rendering it necessary in the summer to sumpend ali active exertion during the middle of the day, and to reserve it for the moruing hnd evening. A shaded aituation is hero the deatideratum for a dweiling, and anplyly of water for agriculture. In this region the hout invarialily produces an pxalierant chop where an irrigation can be suppled; bence the frequency of wells, whieh are generally worked ly a wheel and some rode machinery. Wheat is partially cultivated; bariey, oats, and rye, only on the ligh grounds: maize is very general, and vines aupply not only the main articio of export, but the nsoni drink of the inhailants. The common fruite are ollves and mulberries, and, in a few very warm altuatlons, orangea and lemons. Pasturaje in geod oniy on mountalnous or irrigated tracts. 'To pulnonic invalida the climate may 1.advantagesars, but in this respect, also, muteris! diatinctlons cocur from locality, the winter in the anoth-east of France being at ibiervala very cold, from the rent de bise, a plercing wind that blown from the Alpm and the monntaliss of Auvergne. Ilere, notwithstanding the iatitude, the cold of winter is intense. Brittany, prujecting into the

Atlantic, is as rainy as Ireland or Cornwall. Normandy, with part of Picardy and French Flanders, may be compared to our intand countles. In the interior of France the ralng are lesn frequent, but far more heavy $;$ so that there is much less difference in the quantity of rain that falle in the courae of the year than in the number of rainy days. The stmosphere of France is much lese cloudy than that of Britain. The most freguent wind in the north of France, as in Grect l3ritain and Ireland, is the eouth-west; it prevails, also, but to a less degree, in the central part of the kingdom. In the south of France the more com. mon winds are from the north. The difference of temperatare between Londen and Paris is not considerable, nor is the degree of heat found to be lntense along the weat coast of France, until reacbing or rather fassing Poitou. In the interior it is much more perceptible, being strorgly folt at Lyons, Hordeanx, Toulouse, and still more in the latitude of Nimes, Aix, Marseilles, and Toulon. On the whole, the variations of cllmate between the north and routh of France are conalderably greater than between the north and south of Britain, where the effect of difference of latitude is ao much modified by the vicinity of the sea, end where no euch variation is known as the very material one indicated by the diagonal line from east to weat, the latter being two degrees colder in consequeace of the breezes and vapors of tho Atl ntic.

The harveat begina lis the north of France between the 20th and 25 th Jnly, in the central part shout the miduie of that month, in the pouth about the end of June. September and October are the montlis of vintage. The great hazard to the corn of the central part of the kingiloin arises from violent stomus of rain and hall ; in the nouth, from the want of ruin in the spring. In the winter, the cent de bise often proves destructive to the olives. The great heats are in July, Angust, and Septomber; a time of much a:noyance in the south of France, from masquitoes, gnats, tliea, and other insects; while even scorpions are found in that warm latitode.

Soil.-To exhilit a classification of the different kiads of soil is a task of diffeuity in any extensive country, and in aune more so than in France, where a striking difference prevails, not unly in coatiguous departments, tut in adjacent districts of the sume department. In Fiandera, l'icardy, Artois, Normandy, und the I'aya de Beance, a fertile tract to the fouth of l'arls, the soil connists frequently of a loumy meld; in the central and soothern parts of the kingdon it is often lighter; whito the grepter part of Brittany, and of the departments along the western coast, have a heathy soil, naturaliy anproductive, bat capalle of considerable improvement. Ilat these collertive estimatea are liablo to great deductions ; and the attempts made by Artiur Young, and other statistical writers, to caleulabe the proportion of the different descrijtions of soil, whether luam, henth, chalk, gravel, or the like, are consilered by the Irench as far from antecess. ful; even the more systematic effort mado by their own government, in the 'seginning of tinis centary, to compute the vaiue of land by mases de cultury, that is, ly classing all kinired soils under ono head, proved altugether alortive. We shall forbear, therefore, all wich vague calculations, and proceed to ntate the value of annmal produce in the ditierent departumens, endoavoring to cast the latter in loth, according to their ponition and relative productlveness.

Ihurbors, Rivers, Cinuls, Rosads, Bringes.-In this important paint Firance is eonsiderably inferior to Vingland, her long tract of const washed ly the Atlantic mui the liay of lliseay being indiflerently provided with sea-porte, and those on the sunthern whore of the Channel forming a ntriking contrant to the spacinus maritime indeta on the linglish side. To begin from the north-east, Hmikirk lus a small harlor, but improved in the interlor of the town, nppreacheti on
the D Boulog inuch rity an tion, b aremb posed, St. Mo mense arsenal navy. we find Brlttan of the the 40
but sec equal there is ne eas the por and sec dockya L'Orien nary pa Nant shallow obllge:l dockya Brest Rom Inc... case is which t watea rondste ing pro cious century be of Grace, France,
thie Dutch plan by a canal leading from the ses. Boulogne has a roadstead-which, however, has been mach deepened and improved-indobted for its celebrity under Bonaparte to the facility of giving protec tion, by land batteries near its entrance, to a numerbua assemblage of small craft: The port of Dleppe is exposed, and of course unsultsble for winter ; that of St. Malo is better; whlle Cherbourg, on which immente soms have been expended, is now s port and arsenal of grest utility and impertance to the imperial navy. On doubling the projecting part of Britteny, we find, in the south-west of that province, L'Orient. Brittany also possesses Brest, the great maritime port of the Atlantio for the navy. Proceeding further to the euth, we find Rochefort, st La Rochelle, a amall but secure hsrbor, and at Bordeanx a river nearly equal in width to the Thames at London. From this there is no sea-port untll we reach Reyonne, a place of no easy access. On the Mediterranean, 1 rance has the ports of Celte and Marsellles, the latter spacious and secure, and the great maritlme port, arsenal, and dockysid of Tonlon, which, with Cherbourg, Brest, L'Orient, Rochefort, and Toulon, are called, in ordluary parlance, ports militaires.
Nantes, though a large commerclal town, adjoins a shallow part of the Loire, and vessels of burdan are obligen to load and unload at Palmbeuf. The grer. $i$ dockyards and naval statlons of the kingdom are $a^{\prime}$ Brest and Toulon, both excellent harbors, and at Fow finct, which is altuated on the River Charente, ncw... wuth. In all these the accommodation for shippiag is the glft of nature; but at Cherbonrg the case is very different, that port contalning works, of which the labor and expense (see the article Bneakwatea, Encyclo. Brit.) have been very great. Its roadstead, extensive but open, has a sea-wall, affording protection from the swe!l of the sea; and its spacious dock, excavated slnce the theginning of this century, at an expense of $\mathbf{£ 8 , 0 0 0 , 0 0 0}$ storling, is capahe of containing fifty anil of the line. Le llavre de Trace, the best mercantile harbor in the north of France, has also been furmed nt a large expense,
Inland Navigation,-The square form of France, farorable as it is for military defense, subjects the greater part of the country to the want of those ready and aconomicul means of transport by sea which form the great physleal advantuge of Great Britain and Irolnd. Unluckily, this want is very imperfectly supplied by the inland waters, cansle being very littlo extended, and the navigation of the great rivera subJect to many obstructions; occurring in one part from rapidity, in another from shallowness; at ono season from drought, at another from overfiow. The appllcation of steam to navigation has corrected in part this most inconvenient tariliness; but the accommodathon which is nfforded liy the Loire in the interior, the Rhone in the aouth, the Seine in the north, and the Garonne, witi its Canal du Canguedoe in the gouthwest, is lut a small portion of what is furniahed by our numerous Interacetions in Eingland, or of what is wanted for so extensive a territory as that of France. The Canal of Innginedoe, or the Conal dir Midi, an It is now generally called, begun in the relgn of looula XIV. and completed in the year 1668 , was the tirst example in liurope of Inlund navigation on a great scalc. It is tho uost atupenilons undertaking of the sort that has been expented in lirance. Its gremeral brealth is sixty feet, It a depth mix amil a half feet. It ham 11.1 locks mad sluices, and in its highest part it in tho fret above the level of the sea. As a nclentitic work, it did honor to an ago is yet ilitlo alvanced in engheering; lout in in peemilary polnt of vow it was unproductive, the tolls never having puld the interest of the very large sum (upwarl of $\mathbf{£ 1 , 2 0 0 , 0 0 0}$ aterling) expended upon it.* The eanal leglan at Toulouse on
the Garonne, remounts the valiey of the Lhers, travorses the chain of the Monts Corbieres, which joine the Cevennes to the Pyrenees, descends the valley of the Ande at Carcasonne, which It leaves at Ginestas to pass by Bézlers, where It traverses the Rive d'Orb. Passing throngh Hérault above and near Agdet, it ends at l'Etang de Thau, at the place called le Port des Onglons. The navigation is however continued to the port of Cette by the canal of Cette, and thus the Atiantic and Mediterranean are united.

The casal of Briare is of earlier date, and of much less extent. The object here was to open a navigation from the Loire on the south to the Seine on the north, by a canal running almost due north, a distance of forty miles. It then receivee from the west the canal of Orléans, commenced in 1675 , and proceeding also from the Lolre; after which the canal is continued to the north, under the name of Canal de l'Oing, till It reachea the Selne. This canal was begun in 1605, in the reign of Henri IV., and was completed in 1642, hider Louis XIII. There are, besides this great work, ee veral other important and extensive canals in Frence. The Canal du Centre unites the Saóne and the Loire in the upper part of the course of the latter. It is 72 English miles in length, and was completed in 1791, at an expense of $\mathbf{£ 4 5 6 , 0 0 0}$. Ita qummit level is about 240 feet above the level of the Loire at
igoin. It has 81 locks, $5 \frac{1}{8}$ feet of water, 48 of eadth at the water's edge, and 30 feet at the bottom. The Canal of St. Quentin, 28 English milea in length, was completed in 1810, but the navigation was far from perfect. In 1826 the necossary expenses to render the canal perfert were estimated at $4,000,000$ francs. A concession of the canal was made to a Sieur Honorez in 1827, for a period of twenty, years. On the 11th of July, 18.77, the state entared into full and entire possession of tho line which it had conceded. It joine tho Scheldt and the Somme. The Canal of Besançon is extensive. It joins the Saône, and consequently the Rhône, to the Khine. From the Saône it stretches a little above St. Jean de Losne, by Dôle, llesunçon, and Niulhumen, to Strashourg, a distance of 200 miles, where it joins the Rhine. The canal of Burgundy joins the Khone to the Seine. This canal was opened nlong its whole line In Docember, 1832, by wny of trial, and in the past year, 1804, it was completely openel. The cnnal of the Oureq wis dug, not for a commercial purpose, but to convey the water of that little river to l'aris for the consumption of the inlasitants. At a village called La Villette, on the north side of Paris, there whs some years ago excavated, it the cost of a million ste:ling, a basin, npproaching in size to our London docks, and adapted, when the necossury canuls shall he completed, for the deposit of merchandise brought from llavre and Rouen on the one side, and Flandera and Champagne on the other. In the acuth of France there is a short canal proceeding from the lhône, near Tarascon, in a aouth-went diroction, to the Mediterrunean, called, from Its vicinity to a well-known annual falr, Conal du Beaucaire. This canal traverses a great extent of marsh, which it has had the effect of Iraining. This water-way was opene. to supply the imperfect navigntion of the lesser Khone, and of the two canals by which the communlcatlon from the Garonne to the khone was formerly carried on. These are anning the chief canals of France. In the year 1836 there were seyenty-fuur camals, having a total length of $1,699,913$ metres. noarly equal to 2280 English milos. But nince then large sums have heen allocated by the state for amblization. In the lifteen years between the 12 th inaly, 1837, and the 28th Mareli, 1852, M. lirneat Grangers, chiel-de-inurenu at the minlatry of commerce and puib-
necording to M. Erncst Grangez (see Precis Historique et Statis.pue des roina navigables, p. 404), aceording to the present value of mooey, a sum of $30,000,000$ france.
lio works, tells us that, for this purpose, extreordinary oredits have been taken for $241,936,361$ france. - Of this sum 227,695,600 francs had been expended on 81st December, 1858. In 1854, a credit of $8,000,000$ france had heen granted.

The canailation of the Mayenne from Laval to Mayenue, of the Vire from the Pont de Gomrfaleur to Vire, of Rhoims to the Marne, of Bouc to Martigues, from Caen to the sea, from the Charente to Marennes, from La Rochelle to Marana, and from Saint Thébault to the lateral canial of the Loire, is in conree of execntion. But it is probable that this improved mode of communication may be superseded by the stlll greater improvement of the railroad, which had to a conaiderable degree engronsed the pablice attention in France. There are, however, obstacles to the progress of these improvements, ariaing partly from the mode of management adopted, and partly also from the high price of the materials required. All great worka for the bencfit of the community at large, such as canals, railroads, docks, and the like, are carried on at the expense, for the benefit, and ander the control of the government. Plans and eatimaten must be made out and laid hefore the minister of the interior, who refars them to other public functionaries, namely, the prefoct of the department, and afterward to the bureau des ponts et des chanssies; and when all those persons are satisfied, a public officer is then appointed to superintend the work. The tedious official routine, through which ali public undertakings have to pass, tenda to discourage individual enterprise, and accounta perhaps for the comparativeiy few worta of this description which have been undertaken in France. The high price of iron, in consequence of the tax on foreign iron, has iikewise operated as a great discouragement to the construction of railroads in France; and thne we have an adilitional illuatration of the ruinous effectn of this tax in obstructing the domestic improvements of the country.

Roals.-The great roads in France ary managed, not, as with us, by county commisaioners, but by goveroment byreacer, or boards, the chief of which are at Paris. These lwards are all under the direction of the minister of public works. The extent of moad under their direction is alsout 30,000 miliea; and the annual expenditure from $£ 1,800,000$ to $£ 1,500,000$, the whole of which is defrayed without one toli or turnpike. An attempt was made under fenaparte to levy toils ; but this excited so manch clamor in a country where conmercial intercourse is carried on almost whoily by land-carriage, that it was found indispensahie to seek the neceasary funds from another source-a tax on malt. The great roads in France are in general in tolerable condifion; but no epithet ean convey an idiea of the wretched atate of the crosa roads in almost every lepartine - full of hollows, encumbered with stones, or innn.". y ? ${ }^{\text {ot }}$ "h water, they receive harily any repair, $\boldsymbol{b}$ of the $1 i^{*} \quad$ Notwithatanding the little done by govertimi. $\quad$ es taver foconotion. the traflie on ronds increaked . afoid in the thirty years between 1811 anll 184t.

The grea: roads In France are lutuch wider than in England, e: hibiting frequentiy a long straight avenue ifned on each side wlith cheatnut or other large trees. Roads In France are ciassed uncler three categoriesimperial roads 14 metres In hreadth, departmental roads about il metren broal, and the chemins cicinaur. They are often paved like a street for many miles in succession: the art of road-making being oa yet toss littie understood to prevent material injury from the heavy wagons and ili-constructed wheeln, without resorting to thin unpieasant aiternative. Troveling is thus much leas agreeabie than in England, particularly as the villages want neatness and checrfuiness, while moat of the towns along the road are diatigured by natrow crooked streete, in which now otone building
are often mixed with antiquated mooden structures, anch as have disappeared from our provincial towns for nearly a centary past. The mails are now conveyed as with un by the railroad, bnt where there is no rail, in and of chariot called a mallo-poote. The diligences, though somewhat improved in structure, are still clumsy and lnmbering.

Railroads.- During the twonly rears between 1828 and the 24th February, 1848, the railmad conceded to privete eompanies in France amounted to 2267 miles. The revelution of February put a audden stop to all enterprises of this kind. There was not a single concession made in 1848, 1849, or 1850. Indeed, some companies, nnable to carry on the work conflded to them, wert either seqnestrated or taken possession of by the state. The concession of the line from Paris to Rheims was made on the 16th July, 1851, of the line round Puris on the 11th December, 1851, of the line from Paris to Lyons, 5th January, 1852, of the line from Lyons to Avignon, Bd January, 1852. These and other concessions in 1852 added 2050 milen to the extent of rail. In 1853 the progress continued, and concensions to the extent of 1326 miles were granted. The year 1854 has been consecrated to the execution of the werke, and more than 872 miles have been opened between the Ist January and the 31st December, 1854. At ths breaking out of the February revolution, the concessions for railways amounted to 2237 miles; in 1804 they smounted to more than 6214 miies. At the end of 1855,8728 milea additional wers opened to the publlc. The length of lines conceded and execnted have thus increased threefeld in the space of a few yeara, About $\boldsymbol{£ 8 0 , 0 0 0 , 0 0 0 ~ h a v e ~ h e e n ~}$ expeuted on these enterprises. The crodit required in the budget of 1856 for rallways is equal to that of 1855-numely, $65,435,909$ francs. At present (18:5) the brancit rail from Strashourg to Kheims, from lhec d'Allier to Ciermont, with a lranch to Nevers, from St. Gernain dea Fossés to Roanne, frum Mons to Laval, from Mareeilen to Toulon, from Caen to Cherbourg, from Bordeaux to llayonne, and from Narbonne to Perfigman, are in couree of construction. Some of these lines are to be opened thia year, some in 1857, and some in 1808.

## Raitway Retchna.

1558. . Value recelved, $82,634,458$ fr

18ss.. Value recelved,
$1504 .$.
Fing. Miles,
Length, 2.4in

Bridges.-The French hare few cast-iron bridges, all their great structures of this deacription being of atone. Of these, the ehief are the bridges over the ioire at Oribans, Toure, and Nantea; those on a amailer seale over the Seine at Purls ; find those over the Saina and thone at Lyons. The i'ont du st Esprit above Orange, over the Rhine, is a long structure of $\mathbf{1 6}$ arches. At no great distance from it is the l'ont du (iard, one of the ruost entire, stupendous, and beautiful nonuments of Roman architecture, composell of a tripie tier of arches, erected for the purpose of conducting an aqueduct over the river Gardon. This masmiticent atructure is $\mathbf{1 5 7}$ feet In height, 530 fect in length st the hottom, and 872 at the top. Of the fately-erected bridgen in France, the most remarkable are those over the Selne at Neulily near laris, and over the Oise at St. Maixent, with two of larger dimensions, vis., one over the Garonne at itorienix, the other over the Selua nt Rouen. Ilridges, as wrill an romis, and all other means of intercummunication are under the direction of the mininter of puibie works; a apecial school for the formathon of engiteres of bridges and roads is established at l'arla. The torritory of Frazee la divided into 16 faspectorshipa of ponts et chousties. The telegraphic commanications are principaily made by means of the electric telegraph, of which the government reserves do itsuif a monopoly, but private persons are allowed to avail thynseives of it.

Agriculture.very different jand, boing ma a little surpris many departme this, however, enjoyed for ace 1814 to 1848 , th and the conditi rior to that of $t$ astical reformal sble part of the indeient life oco other great bot tion to Paris thought on thei tract from them in the capital. tion, less heavy sabjected in En politic, as evine private familles peasantry to lab joined the humi and the more su ical body in Fra as in England, the computed re
Another greal tha insigniflcant as farms or as pt smali scale has 1 and converting hie is much mo elght or ten act many more. T singular; meney ar most fertile whole, exist in 1 dom before tho I of tenure was by of a fine, of a which the lenst milit, or grapes to sil indications of striking was the practice by whic own, receives fr implements nece snd divides wit method was and north and north poorer districts it is to be rema tem; the innulhe half the cattie There is, of con apportionment of
Eiffects of the pour le cultiraten deed, that great tation of the ag elsive bhow, the other relies of fe rors of Jacolinis a strong attaclim this purific clas: lands transferred indoient lito act minate tine culog ress maie by ag sny political cha perience, and th gree of ugrleultu first Revolutien giand and Scot] that memorable

Agriculture.-The agriculture of France is in a very different state from that of England or Scotland, being marked by a degree of backwardness not a little surprising in a ceuntry on far advanced in many departments of art $y^{*} 1$ scier $\cdot$ a. The causes of this, however, are not of difficult explanation. France enjoyed for acarcely more than 38 years, i. e., from 1814 to 1848 , the advantage of a representative body; and the condition of the pessantry was long far joferior to that of the same class in England. No ecelesisatical reformation had taken place to remove a valusils part of the national territory out of the hands of indolent life occupants ; and the grands seigneurs, the other great lody of landholders, devoted their stten. tion to Paris and Versailles, without bestowing a thonght on their lands or their tenantry, except to extruct from them the means of defraying their expenses in the capital. To this was added a system of taxation, less heavy, indeed, than that to which we nre saljected in linglend, inut extremely crude and impolitic, as evinced in the gabelle, or tax on salt used in private families, and in the corvee, or obligation on the peasantry to labor on the high roads. To these were joined the humiliating ensctments of the game laws, and the more auiostantial injury of tithes; for the elerical body in France levied this pernicious assessment as in England, though possessing in property, lands of the computed rent of five millions starling.
Another great drawback on French agriculture was the insigniticant size of the oceupancies, whether held as farms or as property. A French agriculturist on a small scale has little idea of solliag his paternal acres, and converting the smount into a capital for a farm. lie is much more likely to go on as the proprietor of elght or ten acres of land, and thic cultivator of as many more. The mote of paying rent was equally singalar; money rents were general only in the north or most fertile parts of France; they did not, on the whole, exist in more than a fifth or sixth of the kingdom before the Revolution. A more freguent specios of tenure was by a grant made under the reservation of a fine, of a quitrent, or of ceriain servitodes, of which the lenst burdensome were sending corn to the mill, or grapes to the press, of the proprictor. Hut of all indications of poverty and buekwardnesa, the most striking was the system of métaire (rent in kir l) ; a practice by which a tenant, having littlo capital of his own, receives from the proprietor the live stock and implements neecssary for eultivating his petty tenure, and divides with him its produce. This wretehed methol was and still is common, not indeed in the north and north-east of lrance, but in nuny of the poorer districts of the centre and south. There are, it is to be remarked, ae: ?ral distinctions in this system; the landholder, in some parts, providing ouly half the cattle and need, and in others the whole. There is, of conrse, a corresponding differenee in the apportionment of the produce.
Effects of the Revolution.-Ia Rimolution a éte faite pour le cultirateur is a common anying in Frunce. Indeed, that great convuinion improved ao muilh the aituaticn of the agrieulturists, ly canceling, nt one decisivo blow, the tithes, the game-luws, tho corrie, and other relies of feudal servitule, that, ufter all the horrors of Jacotinism, and ail the tyranny of Ifonaparto, a strong attachment to the Revolution $\begin{gathered}\text { arvive among }\end{gathered}$ this pucitie chasa. Further, the sule of tho ehurch landy transferred a valuatile mass of property from indolent into active hamis. llut with this must terminate the eulogy en the levolution, the further progress tmule by agrieulture, having been caused less by any political change, than by the gradual effect of experience, and the diffusion of information. The degree of agricultural improvement in France since the first Revolution has certainly been less than in Eingland and Scotland, and in one very materinl point that memorable convulsion hus tended to retard it;
we mean by the law suggested by a jealousy of tho sscendeacy of the noblesse, which obliges the owner of property, whether in land or money, to maka an almost equal division of it among his children. The parent of two children has the fres disposal of only one third of his property, and the parent of three children of only one fourth, the residue being shared equally among all. Tho claim of primogeniture is thus in a manner annulled; and a law which is apparently wise and equitable, proves the source of great injury to agriculture, by multiplying the petty plots of land throughout a country where they were previously far too numerons.

The following table, taken from official documents published ly M. Duchâtel, oxhibits in hectares the physical ard agricultural division of the French territory, which has not materially changed within tha last 20 years.

Cultivablo Iand... Meadows. Vínoyards. Woods.
Orchards and gar. dons............. Willow and eira plantations, eto. Pools and wntortog places....... Dowas, pastures, and heaths..... Navigeble eanals. Diverse outtares..

Heflareo.
$45,559,162$
$4,834,621$ 2.134,822 $7,422,814$
648,699

## 64,489

209,431
7,799,671
951,631

Groand oecapted by builditngs.... Ronds, paths, plac.
es, eto es, eto. $1 . . . .$. Hivers, lakes, and brookn.......... Forests and unproduetivo domalns $1,209,432$ Cometortes, eburches, and publio establishments...........
(Aeres, 130,772,475.)

Statement of tha Abra of Fbanee, dibtinouibinfa apphoximately tug yamoug kinds or Soll or whion the Surface ia composko.


Soll of various
7,284,242
Ifectares 52,702,693
(Acres, 180,7 2,476.)
The surprising proportion of land in France under tillage is owing to the smalloess of the occupancies, the cheapness of labor, and the general use of bread instead of animal food hy the humbler orders. The last is connected with another remarkable circumstance; the very slender proportion of land under pusture, of which the main cause is the dry climate of the southern and central part of the kingdom. In the proportion of poor and unproductive land France and England are nearly on a par, but the French Incur a very heary disalvantage by using wood instead of coal for fuol, and covering with forests many tracts which might to made available for either pasture or tillage. All France in 1840 gave 13.14 hectolitres per heetare. The total vilue of cereals in 1813 was $1,780,478,000 \mathrm{fr}$., or 9387 fr . per hectare, or 59 fr . per head. In 1840 (which was the lust account) it was culculated at $2,565,238,000$, at $18,000 \mathrm{fr}$. per hectare, or 77 per head, In 1840 there were $5,586,787$ hectares in whent. In lingland $2,130,900$ heetares. Tho wheat pronluct in 1840 was $6 \cdot 0$ ? for 1 . In England it is 9 for 1. 'The total value in the United Kinglom, 978,500 ,00 fr . at 25 fr ; in lirasee, $1,400,000,000 \mathrm{fr}$. at 20 fr . the hectolitre. The arable land of Finince in 1840 was $22,240,090$ hectares. The value of the cereals, fallows, and artifleial meadows in France reaches 2,351,$518,9 \mathrm{i}$; fr ., and thelr mean value 106 fr . per hectare. 'The : ines in 18.80 covered $1,972,340$ hectares. The total return of French cultivation in ugriculture reaches:

$$
\begin{aligned}
& \text { Woods and ferests. } \\
& 283,258,925
\end{aligned}
$$

In order to present this subject more fully, we add the following condensed tahles of primary and secondary crope throughoat France in the year 1853:


Becondany Inpmovid Chops in 1959.

| Prodactions. | Acres. | Qri. per acre. | Vulue per serm. | Toial produesion. |
| :---: | :---: | :---: | :---: | :---: |
| Fine land. | 4, 878,984 | $8 \cdot 56$ | 28363 | E18,960,416 |
| Cardens. | 891,882 | . | 8.975 | 8,214,583 |
| Pnise.. | 788,745 | 160 | $2 \cdot 778$ | 2,058,883 |
| Mangel-wartzel | 142,493 | 36.18 | 7 -057 | 1,147,916 |
| IIops........... | 2,048 | 114 | 18.861 | 89,883 |
| Rape.......... | 468,781 | 140 | $4 \cdot 766$ | 9,018,760 |
| Hemp......... | 485,298 | 1-35 | 775 | 1,425,000 |
| Fiax........... | 248,76s | 105 | 9•763 | 2,256,250 |
| Madder......... | $8 \underset{81202}{ }$ | 87.80 | 10.080 | 856,250 |
| Tobaceo. . . . . . | 19,063 | 94.84 | 10.918 | 197,918 |
| Oitven. . . . . . . . | 8t2,099 | 24.76 | $2-8100$ | 870,888 |
| Chestnut | 1,123,396 | 408 | .470 | 664,166 |
| Pasture Meads | 14,277,864 | 18.95 | 1.624 | 25,799,160 |
| Total. | 28561,711 | $\cdots$ | . $\cdot$. | 561,529,168 |

 Exolisu Acpk, and calculated faon opficial scevete.


We proceed to add a fow remarks on French agricoltare, with reference to articles less known or lesd generally ralsed in Fingland. Buckwhent is cultivated extensively in Brittany, Normandy, and the north of srance, partiy as green food for cattie, partly for the diet of the peasantry; it is generally bown in June and reaped in the end of September. Wheat and meslia are prineipaly, cultivated in the north, but the prodice of the routh, though less abundaut, is gecerally preferred. Barley and outs are also more common in the north. Rye is raised pretty equally in all parte of France. llape-seed is very general In Frach Flanilers and Normandy; it anpplies oil for the market and food for cattle, either when green or in cakea. Colzs (coleseed) is raised for the same purposes. Tobacco would be generally caltivated in France, were it not monopolized for the benefit of the State; hence Its cultivation is eonfined to certain licensed listrictia, which are chiefly hin Alsace and Picardy. The iuality of the article produced under the royal monupoly is greatly inferior to that prodaced by private cultivators abroad, while the price being 400 per cent. ligher, the latter is smuggled Into rrance in great quantities, not withstanding all attenopts to prevent it. Jiax is ralsed very generally, not inerely' in French Flanders, Alsace, and Normandy, but in the provinces of the west and sonth, where the family of almont every peasant rears a little atock aanually to lee mpun by his wife nud daughters. Hops are almost exclusively grown ia these parte of Eirance 'mordering on Belginu. Ilemp also is raised la many parts of Firance, particularly In the north. Malze is a plant of great importaace, whether for the food of man or of cattle; when intended to atand for harvent, it is planted in rows with very little seed, and yielda nore than twice the quantity of wheat that would be produced on the name apace. Inaring It growth the loavea are atripued reg-
nlarly for the food of cattle; and in some districta it is sown thick and mown merely for that purpose. Maize and miliet are chiefly grown in the south and south-east. Such valuable subetituten have, as yet, prevented turnipa from being generally Introduced into France. Even potatoes were long very little knowa, and it is only during the last half century that the dialike to this tuber han disappeared. Potatoes are more cultivated In the east than in any other district. Cheatnuts are most common In the central part of Frunce, where they nupply no inconsiderable portion of the food of the peasantry, In the south the fruits are chiefly oliver, almonds, mulberries, figs, and prunee; oranges are partlally cultivated in the south-eastern extremity of the kingdom, on the verge of Italy, but with great uncertainty, for a severe winter la futal to these trees, and $\ln$ some measure also to the alives.

Irrigation is little uaderstood in the north of France, but in the south the want of frequent rain renders it a primary object of attention; it in fact doturmines the ratio of productivenese, eince the warmith of the sun seldom fuils to ripen whatever has received ar adequate supply of moisture. According to M. Ilecquerel, there has been a progressive annual increaso in the number of hectolitres produced since 1813. There bas been a very decided progress in agricultural im. provement in every part of France, but notably In the west and south-west. The Increase in productiveness in all munner of grains is estimated at $2,141,217$ hectulitres.

The culture of the vine extends more or less over fully the half of France, begianing as far north as Chainpagne, and spreading over the country to the sonth and the west. This culture is, however, very limited in Champagnc, and even in Ilurgundy; in Provence, and the lower part of Languedoc, the climate is warmer, and the culturo general, though not managed with such akill as along the banke of the Garomie, where the spirit of improvement is excited by a demand for foreign markets. Aa vines auceeed in light and unproductive suils, their culture gives: value to nuluch ground which would otherwise be uneless; und the petty subdivimions of land are here less injurioun than in tho caso of com. From the great variety of soil and climate, the quality of french wines is very various. The amount produced has been considerably Increased since 1790, ss well from the diviaton of many large estutes, as from the quantity of waxte land which has been lirought into culture. It In, however, remarked by M. Moreall de James (Statistique de l'.lgriculture de France, 1848) that the consumption of wine in France has remuined stationary aince 1791, and that the quantity consumed by each Individual is not more than it was half a century ago. Considering the increase of wealth and population, M. Jounes calculates that tho consumption should have increased 50 per cent. It is computed that nearly $5,000,000$ acres of land are planted with vines, and that the value of the unnual produce is from $£ 28,1000$, 000 to $£ 30,0 \%, 1000$, of which alout a tenth or twelfth part only is exjorted. It in very didicult to say to what extent the vine diacase and the excision of vine loranches in consequence thereof, has affected the peoduction of wine either in quantity or quality. It has unquestionably had the effert of rasing the price of the liner wines from 25 to dis per cent., and of raising the price of Lrandy, durling the last two years, nearly 800 per cent.

Quantity of Wine fromiogh is Fance bebing tife pollowino arvex Yeaba, is Inpeaial balfong.



Average annual produce befure the oidiun appeared, $424,000,000$ galluns, wurth $£ 22,516,220$ ster. ling.

Numarr or In INE TLIE YO AND Buan thinds Spil
1848.
1899.
$1850 . . .$.
1851,........
1852.
1808.

The exports the following fi

## 1851. <br> 1852. <br> 1504

It is a curio vine dlsease ha: portation of for sumption. Th imports of fore the years 1852-4

- 1852..........
1854......... . . . .

It will be obs creased during $t$ tities used for th Crinca.
Of the epirits were rum lmport A quantity eq made into brand vines are grown ; in the vicinity of staple branch of riously injured b house laws, whel during tho relgn and were not in relgn of Lonia Pl men of France at to the prohibitive proluce of other $r$ limits, by the ea produce into forel must pay for th produce, which, 1 no ether equivale procure an equiva effect of this is price of F'rench w while France exp 000 tuns of wine 000 this aupply heary datien lmp the prohilbitory d produce, to 1,800 country had in $t$ melancholy illastr policy which prete iting the free intes
lirance is the $l$ world. 'I'ho origi from the year $1 \times 1$ manufacturer of $t$ cessfully with ed culture spread thr repe, event into the lated that there is on the Continsint 0 pounds, nearly ons France. In the $v$ the sugar is 16 ton tons $\mathbf{i}$ in some loc

NuMara of Impinial Gallong of Wink mistilext merino tie pollowing bxven Yeafs into Beirit of Wing and Bhandy, tife Procortions geino about two thind Spiat of Wing and one thind Bainot.
ariatio.

|  | $\begin{aligned} & \text { wryit. } \\ & \text { Imp, Galls. } \end{aligned}$ | apiatr. Imp. Ginle. |
| :---: | :---: | :---: |
| 1818. | 151,800,000 | 19,800,(000 |
| 1848 | 208,800,000 | 24,200,000 |
| 1850. | 178,200,000 | 28,100,000 |
| 1851. | $215,600,000$ | 28,600,000 |
| 1852. | 211,200,000 | 27,000,000 |
| 1838. | 110,000,000 | 18,480,000 |
| 1584. | 9\%,400,000 | 11,900,000 |

The exports of wine and brandy from France for the following four years, are as fellows:

|  | Imp. Ualla. |  | Mnambr. Imw Ginla. |
| :---: | :---: | :---: | :---: |
|  | B0,149,078 | 1851. |  |
| 1852. | B8,991,190 | 1852. | 7,488,448 |
| 1858. | 44,180,488 | 1863. | 8,998,794 |
| 1654. | 28,808,918 | 1854. | 8,412,442 |

It is a curious fuct that the effect of the oidium or vine disease has for the last few yeara caused an importation of foreign wine into France for home consumption. The following is an account of the imports of foreign wine and elirits into France for the years 1852-4:


It will be observed, that the import immensely increased during the last year, owing to the large quanfities used for the supply of the French army in the Crimea.
of the spirits in the above table, 802,010 gallons were rum Imported from Enyland.
A quantity equal to alout a sixth of the wine is made Into brandy, for brandy is dlatilled wherever viaes are grown ; and of It also the best in quality is ia the vicinity of the Garonne. This important and stuple branch of French industry has been very sodiously injured by the prohibitory system of customhouse laws, which were extended and inerensed in rigor during the relgns of Lonis XVIII. and Charles X., and were not much mitigated during the 18 years' relgn of Louis Philippe. Many of the leading statesmen of liranee still evince a most mistuken partiality to the prohiblive aystem. Franem, by excluding the pmoduce of other nations, virtually deprives, sr greatly linits, by the same laws, the reception of her own produce into foreign countries. It is clear that they must pay for the wines of Franee with their own produce, which, if France refuse to recoive, they have no other equivulent to give her in return; they must procure an equivalent from forelgn countries, and the effeet of thie is to restrict the tralle, ly ralsing the price of French wines. Accorlingly, it appears that white Franco exported to England from 16,100 to $90,-$ 000 tuns of wine when the propulation was only 5,000 ,000 , this supply lad fallen off, partly owing to the heary duties imposed in Great Itritain, and partly to the prohilitory duties imposed in France on British produce, $t$ o 1,800 tuns, while the population of the country had in the mean time greatly increased; a melancholy illustration of the effects of that illinerul policy which pretends to improve connne:ce by prohititing the free intercourse of vommercial countries.
France is the largest pronlucer of beet sugar in the world. The origin of the manufacture must be traced fonm the year 1sta, but to years elapsed before the manufacturer of this article was enabled to cope successfully with colonial sugars. From France the culture spreal through the difierent comentries of Linrope, even into the interior of Russia; und it is catculatel that there is now produced of this kind of sugar on the Coutinnt of laurope not less than $3: 30,000,010$ prounds, nearly one half of which is manufactured in France. In the vicinity of Loile, the average yield of the sugar is 16 tons per acre, and at Valenclennen, 19 luns; in souse localities 25 tons are produced. The
annual mannfacture of sugar is abont 40,000 toas, and the non-crystallized matter extracted from the leas and dregs, furnishes enormous quantities of sweetening matter to heweriea, and also to the wine-doctors and wine-falsifiers of Cette and the Gironde. Nor is this the only use to which beet is turned, as a larga quantity of apirit is distilled from it.
The minuteness of the Cadastral enrvey has led to official calculations in France of products which havo not yet engeged the attention of other governments. Madder ls cultivated on a dmall scale, partly in the north, partly in the south of France; Its chlef use is in dyeing woolens and cottons. Woad is uaed for yellow and green colors; saffron, cultivated formerly to a great extent, is now confined to one district (tho Gatineis) tit the south of France; hope are raleed only In Picaray and French Flanders.

Subjolued are the values of the following articles produced annually in France:


Of the pasturage ground of France, occupying one eighth of its territory, the chief part is in Normandy, Brittany, and other humid quarters of the north and west. In the south, the natuzal pasture is confined to particular districts, chiefly mountainous; in the low grounds, the grass, whether natural or sown, is brought forward only by moans of irrigation. Clever and sainfoin are cultivated in France, but chiefly in the uorth and north-east ; lucerne is much more general, being raisell not nerely in the north, but in the centrai and southern provinces, wherever irrigation is practicablo and the seil nad climate are favorable. The art of improving eattle ly breeding is little understood in France, nor is thers much judgment shown in gradually fattening them by a removal to richer pasturea. Still the beef and mutton of the north and west are very good, more especially what is called the pres sallo mutton, i. e., sheep fed on the salt marshes. Their prico varies from province to province, but very seldom from year to your ; the general rate was 30 per cent. less than in Englund, but within the last four or five years the price of meat has risen much in France, and closely approximates to the price in England. llutter is made and used throughout the chief part of Frunce, as in England, but cheese comparatively little. In the south, however, even butter is little known, and its place in cooking is supplied ly ollve-oil, whith is largely used throughout southern Europe. One of the latest novelties in French pasturage is the introduction, in 1819, of a large flock of Cashuere goats, which were sent to browee in the eastern Pyrences, and are sald to experience but little fuconvenience from the change of climute.
hlurses,--ln the number of horses, as well as in their sizo and beanty, l'rance is greatly inferior to this country. In the performance of labor, however, the liferierity is much less cunspicneus; lurge, oldfashioned carriages, drawn ly four or six horses, aro seen proceeding ulong a paved road much moro easily than we should nnticipute from the welight of tho vehicle, the knotted hurness, and the diminutivo sizo of the animals. The same olsaervation is applicable to the plows, the carta, and the wagons of France, which are nwkwardly built, but all dragged on with expedition, the strength of the horses sarpassing the promise of their appeurance. A French dillgence, in the proviaces in whilch such carriages still run, performs only five mlles an hour; but this is owing less to inferiority in the horses than to the state of thu

## FRA

roads, and to the general want of dlispatch at posthounea. Of the aggregate of horses in France, inore than half belong to the northern provinces-Normandy, Brittany, Picardy, Alsace, and the Isle of France. In the central and southern departmenta a great proportlon of the work is done by oxen, which are noore sultable to petty farms and mountainous districts.
Sheep.-Sheep are reared in almost every province of France, the gentle elevations of the north snd the mountains of the south belng elike favorable to them. The mutton lis good; but in the art of improving the fleece, the French have as yet much to learn. Nerinoes were firat brought from $S$ pain $\ln 1787$, and formed into a royal flock nt Rambonillet. The consumptlon of meat In the country then was amall, and consequently the first desire was to improve the wool. The quality, originally good, thas been progressively Improved, and distrihutions of Merinoes have been successively mede to proprietors of sheep pastures in all parts ( ${ }^{\text {t }}$ the kingdom The consequence has lieen, that in wout dietricts the weight of the ficece has been ne arly doubled. The sheep-farming of lirance appears just now to be in a transition etate; its post bistory offere many points of instructive deluction, while from its fature wo may expect very be, sfficial resulta. These limported aheer were used for crossing a 'th the natlve hreeds, to which but little attention : ' limen poild either as regarded the carcass or the flieee. As tinse advanced, these crossed lireels increased with varied success; in some distiliets the wool produce was permanently improvel by continuing to Introbluce pure blood; in others it was found more advantageous to develop the physical organization of the animal. The result han been tinat, notwithstanding the laudable endeavors of the fleck-mastera to obtaln a breed associating both weight and quality of wool with the production of ment, that end has not been antisfactorily obtained; the flocks still remain in an intermediate condition, neither prolucing the fine quality of wool of the Saxon, nor the weighty fleece or carcass of the Enfiltsh sheep. To encourage the rearing of shesp, a duty of 20 per cent. was in 1822 laid on foreign wool.
Mules.-Nules are alinnat as little known in the north of France as in England; but in the central and southern parta they cre very generally reared. I'oultry, in France, are both larger in size and more abundant than in England, more especially in Normandy and the department of La Sartice.
Valen of Peobections of the Soll at different Eipochs.

| Years. | Inhabitanta. | France. | Fraber pop heent. |
| :---: | :---: | :---: | :---: |
| 1700. | 19,700,000 | 1,800, 000,000 | 77 |
| 1760. | 21,000,000 | 1,628,000, 1900 | 73 |
| 1764. | 24,003,000 | 8,081,273,000 | 85 |
| 1818. | $80,000,003$ | 8,836,971, 100 | 119 |
| 1849. | 85, 810,000 | 6.152 .199 .100 | 150 |
|  | (le sil | ? $5002,965,040$ | 1224. |

Even in the noith and north-east of Franee, the farms are of emall extent. Theect.py 200 ucres, of to pay a rent of c:00 a year, places one in the foremost rank of farmers. Laarger poseeseitus, are common in puature districts, that departinent of ngriculture admitting, in France, as in Englamd, of a greater concentration of eapital and extenvion of busibess than in the case of tillage. Hat surh disuricts are rare; nnt In liy far tha greater part of Franco the farms uniter tillage sre of fifty, forty, thisty, and often ns small as twenty, or even $t \in n$ acren, there bring;, it is computed, no fewer than three millions of such orcupancies in the kinglom. In the sonth of France the syste:n of metnirir (paying rent in kimil) is still prevalent, and nearly on the same footing as in Lombiarly and Tuscany. That nuch insignificant occupancies are adver: oto all enjrgod idean of furming, is sumeiently obvions; and to their many disadvanitagen there ean only he opposed this eingle heneint, that no ropet of tolerablo suil is neglected, even the npace given ify us to hedges being reserved for culture.

The beneficlal effect of long leases is as littie underatood in France as it still unfortunately le in a great part of Eingland. The common method is to let lmul for perlods of threo, slx, or nine years. The peasantry, though illterate, are not slow or phlegmatic. They: exhibit, ns Frenchmen in general do, no small ahare of intelligenco, of aprightliness, and of activity in the individual, with very little cancert or combination in the mass. They are content to hand down the family occupancy from father to son, without any ldea of altering their mode of life. The d wellings of the farmers, and still more of the cottagers, are like those of our forefathors half a century ago ; the outside having frequently a pool of water in its viciaity, while the inside is miserably bare of furniture. In the comparative trials that were made at the French Exhibition of 1855, the 'superior chnracter of the English agricultural implements over those of France was made very evident-in none, perhaps, more, than in the plowing trials, when the dynnmeter showed that while it reruired only a force equal to $17 \cdot 01$ to turn over a ecrtain quantity of earth in a r" rtain time with the best English plow, it required a forca of more than 27 to d the same with the best French ono. The diet of the French peasantry is exceedingly similc. Bread and clider, with soup, pens, cabbace, or other vegetaWhes, form its chief ingredients in the northern provinces; while in the central and southern ones tho sume nliments arn in nae. with the sulstitution of thin wino (rin du pays) for cider, and of chestnuts for the pears and npples of the north. Hutcher-meat is reserved for the talles of the middie aall wipper classes.

The landhulders in iranco, dive little or no attention to benut'rying the comutry; its aspe ef ix consequently monotoneus, w':hout plantations, seats, or cheerful cottages. The peasantry live in villages, frequeatly ill built and inconveniently s:tuated. The purchase of hamt, however, is the favorite mode of investing money in 'rance. It aclls, in gencral, for twenty-five years' purchase; while the publie funds seldoms fetch above sixteen oreighteen. There la at Paris a society sinilhar to the Boarl of Agriculture in England, and, forming, like it, a central point for corresponding with the different $u_{\mathrm{b}}$ ricultural societies in the kingions. It holias its sittings twice a month, and a public meeting annually for the distribution of prizes. The French have nlso (ance 1219) a corn law, pernitting imports and exports only when the homo market shali be ahove or below a specitle rate. The ebief difficulty the French government have to contend with in regari to the corn trate, is the popular prejudice that freedom of export raises the home price.

Timber.-Of the 18,3 3in, 093 arres which are coverel with woond, in 1835, there belonged to govermant $2,547,800$ ucres, which were divided into 1473 forents. A very smali pati of this is aliowed to grow into large timler. The reat ba subject to an mnual cutting and sald, for fuel; cord hieing very little used in Fruace, excejt for forgen, glasshonses, nud otive: large worke. In the govermmer: forests grose mis. management trok phace during the disorders of the first levolution. Exteas!re thacts were sold for an ingignife ant musideralion, while in those that remamed timber was felied wi a a lavish hand, and without eny reserird to the uthimute efiect on these valuable pronerties. In :801, newever, a special hoaru. njppinted for the care of the foreros, introluced the most bumpicial regulations. In the yeare of timancial jeesesure (1415, 18:6, and 2817), it was proposed to effect silles of these great domains; tut a faii price teing unatainabie, governneat continues to heep diem. incring the monaryly the revenue derived from the word annuatiy
 ling.

Tie adminlstration of the foreats is ( $185^{\circ}$ ) placed under the direction of the minister of Anance. The French territory, comprising Algerin, is divided inte??
arrond placed istratic inspect gartes nunst may be Eicole. 900 im generau Puel of irras ged silu kingdor quentiy officers, for woo recoura sultes in wolves. sre mu districts
arrondisements forestiers, at the head of whlch ls placed a conservateur who corresponds with the administration, and who has under his orders a number of inspectors and sub-inspectors. Under these are tho gardes géneraux. Every ono employed in the foresta nust be twenty-five years of age, but this provision may be dispensed with if the employo be a pupll of the Ecole Foreatiere. Thero are (1855) 32 conservateurs, y00 inspecteurs, 100 sous inspecterrs, and 500 girdes gineraux of foreste in France.
liuel being compuratively little wanted in the south of France, the foresta are confined io remote and rugged situntions. These, like most of tho foreats of the kingdom, harbor a multitude of wolves, which are frequently deatructive to the sheep and lambs. Regular officers, called lientenants de louretrie, are appointed for wooled distriets; and on occasions of heavy loss, recourse is had to a general battue, which seldom results in any sensibte rednetion of the number of wolves. Bears also are found in the forests; but they are much more rive, being eonfined to the elevated districts in the Alps and Pyrences.

Mines and Quarries.--Vrance yields in this essential article of produce, not enly to Britain, but to Germany, to Kuasit, to Sweden, and to IJungary. According to the most approvel works recently published, the mines of France may he clansed into five groups, namely, the mines of the Vusges and the Black Forest; thoso of the central provinces of France; those of Brittany; theso of the I'yrenees; and those of the Alpa. It is not many years since the mines of the Vosges yield 1 above 30,000 ewt. of lead, and a amall quantity of silver, besides copper mixed with silver. The produce did not, it is probable, repay the expense, as they have since been athandoned. There are now a very few copper mines in tho Vesges. in the central part of l'rance there are numerous mines of lead, but they are not productive. They are chiefly situated in the department of La Lazere; and they yield annually, along with the lead, 1600 mares of silver. The only metallic mines of any consequence in Brittan' now are the three great inines of gatire argentif. e of Joultaouen und Iluelgiet ; and there is one :nine of what is called in the divisional nomenclatio ef the minister of commerco and publie works, plomb argentifere. In the chain of the Pyrenees there is only one mine of cupper, which has ling since been ahandoned. Titere are, however, numerons iron mines, which furnish nuterinls for more than 100 furges. The chain of the $\mathrm{Al}_{\mathrm{j}}{ }^{\mathbf{s}}$ contains many mines of lron, but is not rich in other metals; it possesses some unpordetive mines of lead, and one of silver, which hata long been abnndonet. There are some appearances of gold in the department of the lsere, but not such as to encournge any trial of their value. If there are few other mines, those of Iron aro in great abundance, teing thity-elght in number, scattered throughout the country, und of theen the produce is everydey im oving. The whole value of the metaliac nonduce of rance win estimated in 1828 to be eciral to $\mathfrak{f 3}:\{y, \dot{v} 95$. Tue number of minns was extimated in Octuber, 1454 , at 824 , viz., 448 of coall, 177 of iron, 199 of other sebstimces; and the number of workmen they employed in $185^{\circ}$, at 31,1334 . (Trapaux Statisfiques des lfines de 18.17 is 1852 . Inprimerio 1 mperiate, oitolire, 185..) The working of mines is intperled $i=$ lirance ty the want of gocil roads and cannis which to convey the ore and the coal for smelting it. The production of fron has lneen encouraged ty the heavy dutles on foreign iron. So 18 f a duty was imposed of fifteen franes per fifty kilogrambies, or 12s. 6 d , per 110 lbs , inperial, on ull foreiga iron imported, which was, in 132:, ineluling tha decimo or the tenth added to all duties, ruisell to $\mathrm{CI} \mathrm{E}_{\mathrm{s}}$. Ihd, on ali coal-wurked foreign lern. Hut this prohihithon dill not liring prosperity to the trade, though by these daties the price of iron in France wus $\mathrm{S}^{23} 9 \mathrm{9s}$. 2d. per ton,
while English iron was zold at $£ 9$ 6a, 8d. It is extlmated that these heavy duties on forelgn iron cost the agriculturists of France, In the additional expense of plows and other implements of agrioulture, a sam varying from $£ 1,500,000$ to $£ 2,000,000$ a year. (See First Report on the Commercial Relations betuceen France and Great Britain, p. 2. ) Estimating the annual consumption of Iron in Fras -s to be 160,000 tons, and the difference of price betw. in French and English Iron to be $£ 10$ per ton, the law of 1814, whleh imposed a duty on forelgn iron, and the law of 1822 which increased that duty, can not bave cost tha French people less than $£ 80,000,000$ sterling of direct losa; while it is searcely possible to ealeulate the Indirect evil of this monopoly or protecting duty in favor of the iron-masters. One reason of the high price of French iron is the want of coal, an ovil which is aggruvated by the heavy duty on foreign coal in consequence of which the French are compelled to employ wood in their forges ; and it is calculated that one fourth part of the wood eut down in the feresta is conammed in the manufacture of iron. Coal has been discovered in more than half the departments of the kingdom (in fortyfive departments), and would doubtless be traced in others; but the want of water communication limits the consumption of this articio almost to the place where it is produced. In a report to the present Emperor of the French in 1854, by the minister of commerce and public works, that functionary attributes tho bigh price of native coal in France not to the method of working tho mines, or to the insufficiency of the mnehinery, but to the want of better intercommuaication both by land and water. (Resumé des Travaux Statistiques des Mines de 18.47 jusqu'a 1852.) It is a fact that more than half the departments that consume the coal of the Loiro pay for it a price four, five, and six times higher than it costs at the mouth of the pit. (Rapport addressé à l' Empereur par ls Ministre on department de l'Agrienlture et du Cominerce, 1854.) Ono fifth part of the conl consumed in France is used in the department Iu Norl. At St. Etienne, near I.yons, are excellent conl mines; but there being no iron mines in the vicinity, nor of course iron-works, there ls no consunoption of fuel on a large scale. The coal ls only used for demestic fuel, and for the mannfacture of hardware. M. Costaz, In an estimate contained in his work on the agriculture and commerce of France, makes the coal produced in France to amount to $15,310,687$ netrienl quintals; tho value of which he estimated at between $£ \mathbf{f} 00,000$ and $£ 800,000$. The quantity of coal imported from Grent Britain amounted in 1831 to 40,000 tons, though subject to a heavy duty of one frane sixty-seven centimes per hundred kilogrammes, or 1s. thlu. per 220 lbs . imperiai ; and there were imported from lelgium, the duty being thirty-three centimes per hundred hilngramises, 440,000 tons. The importation of coal in 1853 iose to $2,224,555$ tons, of iron (fonte brutc), to 73,689 tcns. In December, 1853, the importation of iron went on Inereasing. The beavy duty ill coal operates most injuriously on the industry of France. It is a most seilous impediment to the working of the iron mines, for the encouragement of which such henvy duties ars Imposed on foreign iron:. llut such is always the effeet of the prohilitory system. It pulls down with one hand whut it buids up with another. The iron-masters and the coal-ow'ers have each a monojoly of the home market. Ilut is it not clear that these two monopolies run counter to each other, anm that the iron trado is encournged by the cme, while it is most gerionsly dise couraged by the other, and the whole inhabitants of lirance aro taxed in a much higher price for fuel liy the heary duty laid en the importation of thia useful article? Stemboat na Igntion is also discouraged, so that no siemutrents ply regulariy between any of the Atlantic ports of Frumce. A steamboat which in Eingland cuuld be navigable at an expense of £2280 for coal, would
cost in Franne C5700, about 18 per cent. on the capltal employed. It is the owners of foreat property who are the mont ecalous supporters of thin duty, an lmpont which benefita them at the expense of the whole of France, and Indirectly depressea the national commerce and induatry in its mont Important hranches. For many years only a amsll portion of Parin was lighted with gas, which is aseribed to the high price of iron pipes; and the supply of water is also impeded by the same causa. (An imperial decree of the 22d November, 1853 , materially redaces the custems duties on the Importation of coal and imon. Coal pald with tha decime 55 centimes per $100 \mathrm{k} l$ logrammes upon the greater part of the French frontler from the Sables d' Olonne to Dunkirk; upon the remalning portion of the frontier it paid 83 centimen, by the land frontier, except in certain placen, by the Meuse, and In the dopartment of the Moselle. Hanceforth the great zone from the Sables d'Oionne, and from that by land to Helluin, ls to huve but one duty-ameanting to 83 francs for French, and to 88 france for forelgn vesaels. The rent of the maritime frontier is assimilated to the prinelpal part of the land frontier. A double duty to that levied on coal was charged on coke. Henceforth coke la only to pay a half beyond what is levied on coal. As to iron, from the 1st ef January, 1855, there is no distia thon between iron smelted hy coal or wood. Tiue fonte bruie is to pay 4 franes 40 centimes the larger bars, 11 francs the mualler bara, and steel 33 frames. Raila for railroads are to pay 132 franes. The grentest reduction is on ateel.) The mines, like other large undertakings in France, are under the direction of government, being auperintended by a board at I'aris (Consell tienernl), and having an Eiole Imperiale with putilic teacuers, the whole under the control of the minister of the home department. This, however, does not prevent their machinery being in general very elumay und antiguated.

Turf tit for fuel, or peat, la found in various parts of France, snd will be more used as wood beemmes progressively acarcer. Thia article in produced in the departments of Gand, Isere, the Lower Khino, the Summe, Pas de Calals, Iolre-Inferieure, I'Isere, Seine-et-Oise, Oiae, Aisae, Ioubs, Marne. The rutting anl preparation of turf Is computed to oecupy the lator of from 50,0c. to 65,000 workmen on an averaste of 40 days. The greatest turf-producing department in I'ran is Ian Sonme.

Salt is made in various parts of the kingdom. The works correaponding to the salt mines, or rather to the lirine aprings of Cheshire, are called, from thrir position, siclines de I'Kist, and are situated in the smsli town of Saline in Franche Camsté; they are wrought by undertakers on lease, yleld about 20,000 tons a year, and atford a considerable revenue to government. The heat of the climate on the south snd south-west const of France is favorable to tha evaporation of aait water, ond consequently to the formation of bay salt, the name given to silt made, not by the action of fire, but liy the haat of the ann, operating on sea water fuclosed In a shallow bay. The duty raised from asit in France in nearly $£ 2,000,000$, a sum of ereat importanee to the treasury, but attended with folly as woch injury to the productive powers of France as wat furmerly our malt tax to those of England. Since 1818 the droits on salt have been reduced two thirds. The first Revolution hegan by alolishing entirely the orlious gabelle; and salt Leing soon afterward made in great quanti$t i e s$, and sold very cheap, became the object of a most extensive consumptlon, being given to cattio as food, mixed with manure on the fielda, or swattored as a otimulant to vegetation at the fort of olive-trees, Jut this extended use of salt was of short duration. No sooner was the power of Bonapurte onnoblidated, than he vealured to impose a tax on salt, less impolitic ani -ppressive indeed than the gabelle, but which had the oflect of limiting the use of this article to auch a degree,
that the value of bay salt consumed, instead of amounting to $51,000,000$, did not in 1836 exceed $\mathrm{f} 10,000$. It was thought that a considerable increase in the consumption of sult would take place from the year 1849. There has no doubt been a certain increase, but it has la no degree corresponded with the diminution of the duty.
In 1847 the quantity of salt produced was $350,210,340$ kilogrammes; in 1848, 465,435,500; in 1840, 179,438,400 ; in $1850,495,183,900$; in 1851, $599,175,200$; but in 1852 the quantity produced fell to $428,037,600$ kilogrammea. Tho price of the metrical quintal of asit in 1847 was 3 franca 47 cen. In 1851 it feli to 1 frane 66 cen. The amount of sait produced from ail the sult mines and suline sources in France in 1832 was $7 \times 4,002$ metrical quintals, valued at $2,865,550$ france. The consumption is confined to dunestic purposes, and to a trilling export ; yet the fow cattle which atill receive salt as a prirt of their food are visibly in better condition than those that are deprived of it.

France is In general much better aupplied with quarries than England. The vicinity of Paris abounds in quarries of freentone. The case is similar in the mountainous districts, and even in aeveral, euch as Lower Normandy, that are comparitively level. The houses are consequently built of atone in those citics which, like Paris or Cuen, are in the vicinity of quarries.

Fine variegated murbles are quarried at Compan, in the Upper l'yrouees. It appeara from otlicial documents published by the gov yrnment that in the year 18.16 there were 22,000 quarries in course of working, which empioyed 75,396 workiuen. The value of the inaterial sent into the market was $41,047,519$ frimes. in 1849, 86,179 persoas were employed in quarrying; and in $1850, \times \overline{7}, 486$.
Munufuctures.-Our historical notices of French manufactures are very imperfect until toward the year 1600 , when the wara of religion were brought to a close, and penceful inalustry received encouragement frou Henri JV. and his minister Sully; a minister, however, who had a inorror of luxury of ail kinds, and who was much more favorably disposed to agriculture than to manufactures. It wua uuder the "roi cuillant," however, that the patronage of goverument was extended to the numufacture of silk, glass, jewelry, grid und silver tisaues: also of the timer woolens and linens, the coarser kinds having been estalitished many centuries lefore. Bat tho great extension of the liner manufactures of France took place after 1668 , during the reign of Louis XIV., and the ministry of Cotbert. It was then that workmen were invited from lienoa, Venice, and Iloliand, and induced to'settie at Sedan and Abteville, places still celabrated for their wowlens. In the south of France also entablishments wero formed for unking the light ciuth suited to the Turkey unarket; , that toward, the year 1700 the manufactures of Frauce, as well of woolens as of other articles, lad malle considurable progress. Cloth serges were improved under Colbert, and point de Gienes and point do lienise introduced. In 1656 , stocking-wearing, which had been introduced into France from linghad by two manufacturers of Nines, was extended and iimproved. The inanual labor of tho lirench workmen was ingenious, the muchinery extremely inuprfect. The linen, the puper, and in some measure the wool. ens and hurdware, found their way alroad, because in thin rest of liurope these manufactures werc very tamkward, and, in particular, becuase the exports of linfland wero then very limited. The repeal of the Edict of Nantos was a very Impolitic meaxure, but its consequences have heen overrated, for England has profited vary little by the extension of her silk fabrics; and Brandenturg, the chief resort of the French emigrants, has never become an exporting manufactarimg country: Ancther und a more important ertor is tha

## current notion

 merly (from 168 ishing than at almost total ext like muny other en mere loose sanctioning such a progressive theWoolens.-To diffused brameh, numbern of work very different $p$ viz.:

Carcassonne....
Limeux, Cbalabr Climoot, lifiss Iodeve, IÍsrault 8t. Afrique, Ave Cha, eurutur.... Roubalx, Nord.. Elbeuf..
Lowvitera.
Sedan, Ardeance
Lisieu, also, In ber of workmen ( ties of binck wool and nt louvlera, material is merio and in Normandy price being from cassone and Limo manufactures to $t$ pastures in the Py exports to the Lev their cloths has o nor of France. I dnc contuin great of the manufieture woolens, most of collected in a fact the departments cvery house has lt winter, or in the d to country labor, epinning, and the species of the wool ladies' ciuth, etc., age into France. branch, and emplo less than $20,000 \mathrm{w}$ at laris. The lo laine in 1852 amour Shavels.--Shawls indispenaable articl dition of llonaparte who wore one (in beautiful Duchess hushand was then officers who were ai presents of slawls, quantities from Co London. These al mous prive when it sarily limited their The great demand t ers to thls importa imitate the Caslame at the firpasition of made of merine and step in tho jrogress species of wool hav tries to the north msnufacturers with shawls whleh rivale In which it requirei eye to discern any proceeled on the pa
current notion that French manufactures were formerly (from 1650 to 1750 ) more extenaive and flourishing than at preaent, also that they underwent an almost total extinction during the Revolution. Theae, like many other Impreasions in regard to France, reat on mere looke allegationa. Official dafu, far from sanctloning such fluctuations, are decidedly in favor of a pregresslve though alow increase.

Woolens.-To begin with the oldeat and most widely diffosed branch, woolens, we find that the relative numbers of workmen at three distinct intervals, and in very different parts of the country, were as follows, viz.:

|  | 1739. | 1800. | 1819. | 1940. |
| :---: | :---: | :---: | :---: | :---: |
| Careassonte |  | 88000 | 9,000 | 7,000 |
| Línoax, Cbalabre, ete. ......... | 4,410 | 4,500 | 6,200 | 6,000 |
| Clernoat, Itíraialt. . . . . . . . . . . |  | - | d | 4,500 |
| Lodeve, İérault. . . . . . . . . . . . |  |  | $\cdots$ | 9,000 |
| Bt. Afrique, A veyron, ete. | 6,700 | 8,500 | 10,00, | 7,500 |
| Chas euruux...... |  |  |  | 2,0009 |
| Ronbaix, Nord.......atternately | fa w |  | otton, | 30,000 |
| Elbeuf............ " | ${ }^{*}$ |  | " | 25,000 |
| louvters.......... " | 4 | 4 | 4 | 6,500 |
| Sedan, Ardeance... | " | 4 | 4 | 11,500 |

Lisien, also, in the north, had nearly the amme numher of wrorkmen ( 5000 ) througheut. The finest quailties of black woolena are made at Sedan, in Ardennea, and at Louviers, in Normandy. In these the only materinal is merino wool. At Elbouf and larnetal, and in Normundy, the qualities are very varlous, the price being from 6s, to 28s, the Fingllah yard. Carcassone and Limoux owed the origin of their extensive manufactures on the nbundant supply of woel from the pastures in the Pyrenees. Since the reduction of their exports to the Levant, an alteration in the quality of their cloths has opencd to them a market in the interior of France. The mountainous districta in Languedoc contaln great numbers of sheep, and are the scat of the manufacture of serges, tricots, and other coarse woolens, most of which are made, not by workmen coliected in a factory, but in the hanilets or villages of the departments of the Tarn and Aveyron. Almost cvery house has its loom; and during the eveninge in winter, or in the daytime when the weather is ndverse to country labor, the women employ themselves in spinning, and the men in weaving. A highly finished species of the woolen mnnufacture, viz., shawis, vails, ladies' cioth, etc., has been introduced in the present age into France. Rheinss is the seat of this important brunch, and employs in the town and neighborhond no iess than $\mathbf{2 0 , 0 0 0}$ workmen. Similar artieles are made at Paris. The bounties granted on fils ef tissus de laise in 1852 amoun d to $7,500,000$ francs.

Shauls.-Shawls became fashonable in France as an indispenasble article of female appurel after the expedition of Ilonaparte to Eigypt. The first lady in France who wore one (in 1801) was Madame Gaudin, the beautiful Duchess of Gaeta, a Greek by birth, whose hushand was then a high functionary. Many of the officers who wero attached to the army brought back presents of shawls, and they were imported in great quantitics from Constantinople, Mosenw, Vienna, and Loudon. These shawle, however, brought an enormons price when imported into France, which necessarily limited their consumption to the richer classes. The great demand turned the attention of manufacturens to thls important articie; attempts were made to imitate the Cashmeres, and specimens were exhibited at the L rpasition of 1 k 01 . Ortinary viawls are new male of merine and other wools. Ilut this was only a step in the progress of the mannfacture; and a finer species of wow having been imported from tho counIries to the north of the Caspian Sea, the ingenious manufacturers with these materiais at last produced shawl: which rivaled in beanty those of the Fast, and in which it required the most practiced and skillful eye to discern any difference. In 1819 M. Jaubert procecied on the part of the shawl manufacturer, Ter-
nanx, to the countriea between the Black Sea and the Caspian to buy a numeroua flock of Astracan goat!, for the purpose of using the wool for shawl-makling. The apeculation was a complete fallurel and the French government, which was Interented in it, loat 800,000 francs.
Two towna very remete from each other, Lodeve in the sonth and Vire in the north-west of France, manufactured, under Bonaparte, very largely for the army. French woolens are, in general, much thicker than oars. In the fine qusitites the raw material forms (Citaptal, vol. il., p. 131) somewhat more than half the cost. In ordinazy qualities it ia momewhat leas; but it is only in the alight qualitiea that the price of fabor goea considerably beyond that of the materials. The computation for the whole country is, that a value of $\mathbf{£ 4}, 000,000$ aterling in wool hecomea converted into a manufuctured value of $£ 9,000,000$, of which a tenth only is exported. The cloth in France which corresponds to our auperfine, and which is worn in genaral by the upper ranks, is very fine and durable, but heavy, with the exception of the euperfine black. The price of the clotha produced at Sedan variea according to a graduated scale, from 15 to 50 france the yard, and of keraeymerea from 7 to 24 franca. The duty on foreign wool has heen very injurious to the French woolen manufacturers ; becauae, by compelling the French to pay a high price for the raw material, it prevented them manufacturing woolen cloth as cheaply as their Engilsh compotitors, to whom the forcign market, where the raw material had now fallen to a low price, was open.

Wool anil Woolens Importad into Finance.

| 4,912,040 |  |  |
| :---: | :---: | :---: |
|  | Coosampton in ${ }^{\text {value }}$ |  |
| 1835 .... 14, | $\because$ | 128,8i2,000 |
| 1840... 13,456,400 | " " | 29,987,000 |

Belgium, Spain, Germany, Turkey, Barbary, Atgiera, and England send wool to Frani 3. The exportation of wooten goods in 1839 reached $60,600,000$ francs. In 18.38 the exportation was $2,578,487$ kilogrammes, valued at $65,823,346$ france. The wool produced in France amounts to $20,350,000$ kilogrammes of fine wool ; $20,040,000$ of common; total, $44,350,000-$ about half that of England.

The wool imported from England in 1858 was 21,587 quintals, in value $0,481,836$ francs, and the cloth 2:31,419 kilogramines, valued at $5,795,332$ france. The worsted or thread was 19,630 kilogrammes, valued at 385,844 francs. The importation of the Thlbet far or hair was in value in 1830 8,576,480 francs, but haa since declined to $2,058,920$ francs. This material is spun in Paris, employing 500 or 600 persons. The wonif of France is of an inferior quality. Its annual value averages about $120,000,000$ franes, being $60,000,000$ kiogrammes. There are $5,500,000$ aheep of a superier breed, Saxons, Merinoes, and those imported from Finglanif; and $24,000,000$ of indigenous race. Since 1823 the l'rench shcep have increased nine per cent. The manuffacturo of merinoes and bombazines employs 17,000 hands: 6000 are employed at Amiens in the manufucture of aldpines, and aliout 36,000 pieces are made there, about a third of which are exported. The bonncterie in wool employs 15,000 workmen, 800,000 kilogrammes of colored wool, worth $8,000,000$ francs, and returis $\mathbf{1 7 , 5 0 0 , 0 0 0}$ france in manufactured goods. Coveriets are made at Rheims, Roven, Beauvals, Lilie, Iyon, Urléans, and at Sommieres (Gard). This faliric is valued at $20,000,000$ franes, and employ's 10,000 hands, besidea auxiliary assistance to the extent of 25,000 more.

Carpets,-Carpets are made to the annual value of 3,500,000 francs, the larger part at Aubusson and Felletin, two towns in the department of the Creuse, employing 1800 hands, and proifucing goods to the value of $1,500,000$. Carpets are also made at Ahbeville, at Amiens, Turcoing, and Besnnçon. The finest and
richest velvated carpeta, called " de Savonnerie," are made at Beauvais, and at the Gobelins in Paris. These are only made to order, and are not artlelea of trafflc. The exports of woolen goods reach on an average the sum of $65,600,000$ or $66,000,000$ france, conauming $2,578,487$ kllogrammes of wool. They conslat nf coverlete, carpete, cloth, cassimeres, and merinoes, varied stuffs, shawls woven or made by hand, bonneterie, ribbon of worsted, and similar llght goods, and stuffe of mingled materlals. Machlnery has been used for spinning wool in place of the hand only aince 1809. Rheims is the great centre of French wool-spinning, it being aitnated In that part of the country where sheep are most numerous. Thare are at Khelms 275 estallishmentif for spinning carded wool, anil nearly 55,000 spindles, or 60 establishnients for combed wool. The number of werkmen is 50,000 . Frnnce annually exports woolen yarn to the value of $2,000,000$ francs and upward. Neapolitan finnnels, English fisnnels or "bolivars," circassiens, lastings, cloths, cassimeres, merinoes, moussoline-de-lalne, culr-de-laine, made at Cartres tirst in 1819, and poplins, are noted manufacthres.

Cofton.-The cotton manufacture was introduced into Amlens In 1773, the raw material being supplied, not from America, but from the levant, with machinas procured from Fingland. In 1784 a privilege was conferred on an iohabitant of Seine and Oike for a manufactory; and soon afterward the manufacture passed to Romen, St. Quentin, Puris, Lille, and other parts In the fiorth, extending with a rapidity surpassed only hy that of England. At present, as for many years pust, the great import of cotton is from the United States. In this great department of mnnufucture tho French have only followed In the footsteps of Great Britain, whose machinery, after the lapse of a certain time, the French manufacturera bave Imitated; and though they have equaled the British manufacture in durability, they bave generally been inferior in cheapness. This is, in a great measure, owing to the centre of the manufacture belng at Rouen and Paris, places where the support of workmen, lncluding the extra price of fuel, is not less expensiva than in Lancashire. The districts most remarkahle for the cotton manufacture are Alasce and Normandy. The manufacture of cotton celret was begun at Amiens su carly as 1765 ; and in 1784 M . Martin of Amiens obtained, under the title of "the first importer from England of macbines inventel there for spinning cotton," the autherity to establish a cotton factory, with special privilegen. Nimes is celebrated for its fine hut not very durable cotton stockings. There are also manufuctories of bonneterie de cotton at Besadçon, Vitry. Ilar le Ihuc, ete.

The cotton mannfacture is prosecutel in many parts of France, and presents a great variety of falsrics and an extonsive division of labor. In one place the wearing alone ls followed; in other places the manufacture of threads, which nre sold to those who weave them into cloth. Such ls the case In the department Du Norl, which exports a great quantity of thread to the cloth manufneturers. In other places they bleach the linens, which are afterward dressed and stamped. The workmen employed in the cotton nuanufacture were estimated 20 years ago at 260,000 , and they now amount to 355,000 . Still, however, France in decidedly inferior to Great llritain in almost every branch of the cotton manufacture; and the consequence is, that as the limportation of Vinglish cotton goods is prohibltenl, they are amuggled into the country la great quantities. Among these, the introduction of cotton twist is most extensive; and as the French mills can not manafacturg the higher nusibers, from 170 to 200 , which are required in che fabrieation of bobbinet, it has been found inpossible to repress the contratand importation of thin article. "It makea its way," say the writers of the Report on the Commercial lelations between Great Hritain and

France, " both by land and sea, in apite of all interdictlona, and to a contlnually increasing amount." The English can be nold also at half the price of the French article, which presents an additional inducement to the smuggler. The annual value of the manufacturar thus illicitly introluced wan estimated in 1833 at $\mathrm{f} 500,000$ sterling $\mid$ but smuggling has been reduced more than a fourth since that tlme. It is difficult to eatimate the anount introduced, but very experienced persons in the trade doubt if it muchex. ceeds $£ 250,000$. English bohblnet was also smuggled 20 years ago into France to the estimated snnunl value of $£ 625,000$ sterling; but it in questionabla whether the amount of illelt traffic now amonnts to $\mathbf{£ 3 0 0 , 0 0 0 \text { , }}$ though English bobbinet sells at from soven to elight per cent. above the price of French goods of the sume nominal quality. Quiltings, cambrica, and muslins are also largely introduced ly the illleit truders; and the delivery of these goods is Insured at a premium of from 18 to 50 per cent., accerding as the risk is greater or less in the case of heavy or of lifht goolls. In 1852, $3,760,000$ francs were paid in hountics en fils et tissuz de coton. The average wages of men employed In the cotton trade is 2 fruncs 50 per centimes per day; of women 1 franc 20 centimes; chlldren are paid 50 centimes. The value of the cotton fubrics of Nermandy is $105,000,000$ francs, that of Alsace $80,000,000$ francs. In the last district 70,000 handa are employed In weaving; from 12,000 to 15,000 in printing; and 1000 in the bleaching grounds. In Normatidy and vi-inity, Incluling a part of the Somme, Pas do Calais, Alsue, Eure, and Masche, 129,000 hands are cmployeri. namely, 60,000 weavers for tho liouenneric, 20,000 for the callicoen, and 49,000 in other divisions of the labor. Alsace produces principally cotton cloths for printing, and exjorts a part into Switzerland. Tha number of pieces of printed cotton and muslins made is calculated at $1,100,000$, valued at 40, 000,000 francs. They are of three kinds and prices, but are unable to cope in cheapness with the English. Tulles, nt first made only in Normandy, are now manufactured wherover cotton fabrics are made; to the extent of $32,725,000$ francs, of which $20,000,000$ franes is the cost of the embroidery. The most important of this brunch of the manufneture is carried on at and near Calais, where from 600 to 700 looms, and 4800 men, women, and children, aro in constant employment. The manufactures of muslins are most in arrears of all, owing to the fineness of the thread required, which is not yet mude in France, but imported for the purpose. Tarare is the seat of this manufacture, valued at $20,000,000$ france. These muslins are generally embroidered. Blonds and lace are mude at Caen, layeux, and atove all, at Chantilly (Oisc) where 70,000 persons are employed. Cotton bonneto rie is made at Troyes to the vaiue of $7,040,000$ franca employing 10,000 looms, and from 10,000 to 12,000 hands.

In 1803 the import of cotton wool had reached 10 , $711,666^{\circ}$ kilogrammes, and in 1820 had doubled that momount. The cost of the raw mutcrial in lrance, and its manufacture, aro enhanced liy the expense of fuel and carriage. The profits, deducting all outlay and wear and tear of machinery, and making allowance for every oxpense, are considered to be about $30,000,000$ francs. It appeara, that prior to tho legal permisnionto inport entton thread frec, when above No. 143, not tess than $5,000,000$ kilogrammes were smuggled, when the duty was from 70 to 80 francs the kilogramme. This traflic: has not yet eeased. The spinuers number from 80,000 to 90,040 , and the mean waiges of culults and childrea are 1 franc 50 centines per head, who attend to $3,500,000$ spinales. No. 132 of the lirench thread corresponds to 120 of tho Euglish, because of the differance lretween the linglish pound weight and the French deml-kilogramme. In the year isub the utmost degree uf fineness attained in cottort thread was

No. 110. In In general the Engllah, but lt in France sells gland only 18 Rouen, and vlely dles at work. I are worked by 8 ln all. St. Quer horse-power of st ging in Alsace The dyelng of Rouen and its vle weaving takes 1 St. Quentln, an 270,000 , and empl wages la 75 cent there are workes are callicoes for pr
In the departm Par te Calais, Ail ners, wenvers, ty canluakers, amou nected with the $n$ comprising 160,00 concerned up to ately designated, thus:-

Splaners..
Nachintats......
Loom weavers." Dyers. .
Musitn fabricant
Cardmakers and
Total.....
In Alsace, inclu Voages, tha Meurt 100,000 persons are

## Bpinners.

looln weavers.
Printers . ........
Bleachers.
Totnl......
The princlpal pla Alaace are Mulha Slines, and Guetwi the principal are Bar le Duc, Lille, Darnetal, Bolloe, made in the Seinc in Alsace. In the Calais, Aisne, Fur weavers of Rouenne the other branches
Linens.-In tha France is groatly su soid is better adaptec but because Englam from Ireland and does oot form the oe Ia France, particul and almost every hemp or flax to empl ning throughout the nsual dowry of thes The panufficture of centrated in the tow many of the weaver and the hemp and This is a most valual which gives omploy their parents ; but j capital and industry and great establish Dieppe, the neighbo and the more Inland front, are all remark

No. 110. In the year 1809 it had reached No. 150. In general the French thread remalna much below the English, but it continually tmproves. No. 180, whlch In France sells at 30 france or 40 france, coats In England only 18 francs. In the Selne Inférieure, at Rouen, and vicinlty, there are about $1,000,000$ of aplndles at work. In the arroadlesement of Lisle 600,(000 are worked by 82 ateam-engines, of 850 horee-powar In all. St. Quentin worka 210,000 apindies with 200 horse-power of ateant, beskea water-power. The aplnaling in Alaace employa 18,000 persons of all ages. The dyeing of cotton occuples 87 establishments at Ronen and its velnity alone. The princlpal part of the weaving takea place In Normandy, Alsace, Amlens, St. Quentin, and Troyes. The looms are above 270,000 , and employ 385,000 hands, the mean of whose wages ls 75 centimes per day. Many of the looms there are worked by hand. The princlpal producte are calicoes for printing.

In tho departments of the Seine Inférieure, Somme, Paide Calala, Alane, Eure, and Las Manche, the spinners, weavara, dyers, muslin fubricators, machinlats, canlmakers, amount to 107,000. The indlviduals connectel with the manufactura in other ways, the whole comprising 150,000 familliea, carry the total number concerned up to 400,000 . Of the workinen lmmedlately deslgnated, the number la 107,000 , employed thus:-


In Alsace, inclucling the Ilaut and Bas Rhin, the Yosges, the Meurthe, IIaute Saone, and Doubs, above 100,000 persons are employed:


The princlpal places for the manufacture of yarn in Alsace aro Mulhausen, Wesselling, St. Mary aux Slines, and Guebwiller. In tho other parts of Vrance the principal are St. Quentin, Rouen, Caen, Amiens, Bar le bue, l.lle, Roubaix, 'Turcoing, Lyons, Paris, Dametal, llolbec, 'Troyes, Gisors, ete. Tho yarn made In the Seine Inforienre exceeds the whelo made in Alsace. In the departmente of the Somine, Pas to Calais, Aisne, Eure, and Mnnche, there are 60,000 weavers of Rouennrrie, 20,000 of calico, and $49,000 \mathrm{in}$ the other branches of the manufacture.
Linens,-In the extent of her linen manufacture, France is greatly superlor to Fingland; net that her soil is better adapted to the growth of hemp and flax, but hecause linglaud depends on importations of llnen from Ireland and Germany, and the spinning of fiax does ant form the occupation of our female peasantry. Ia France, particularly in the north, overy farmer, and almost every cottager, covers a little spot with hemp or flax to employ hils wife and daughters in spinning throughout the year; a atock of linen heing tho asual dowry of these humble occupunts of tho soil. The manufacture of this article la not exilusively concentrated in the towns, liko that of the other fabrics: many of the weavers reshto In villages and hamlets; and the hemp and the flax are spun by tho hand. This is a most valuatulo branch of domestic Industry; which gives employment to females under the roof of their parents: but it is lestined, in tho progress of capital and industry. to bo superseded by machinery and great establishments. In Normanily, Liaieux, Dieppe, the neighborhood of Ilavre, I vetot, Bolbec, and the more inland towns of Vimoirtiers and Domfronf, are all remarkable for one or more branches of
.he linen mannfacture. The more backwand provlnce of Ilrittany manufactures, at Rennes, St. Malo, and Vitré, quantlties ef cearse llnen, canvas, and sacking; but Anjou affords a much superior article; the toiles de Laval have leng been In repute, and gave employ. ment, In laval and the contliguous towns, to nearly 25,000 werkmen. Lille and lts populous district lave very extenslve manufactures of hemp and flax; for the number of workmen so employed, directly or Indlrectly, In thls part of French Flanders, is not short of 50,000. Siuce 1790, fine linen haa, in France as In England, been in a great measure' replaced by fine cotton; and the two together employ, at St. Quentin (in Pleardy) and the neighborhood, more than 30,000 workmen. In anether part of the klnglom, the provlnce of Dauphlné, there are carried on llnen manufactures of various quallties, the prlces being from 1 frane 10 centimes to 5 francs the yard. The value of the linen manufacture of France of every kind is no less than $525,000,000$ franca. The raw matertal grown in France ls valued nt $30,941,840$ franes for the hemp, and $19,000,000$ frane for the flax. The hemp $\mathbf{l m}$ ported, and the threud together, give $85,699,003$ francs value. About $1,000,000$ francs is the worth of the thax imported. Total, $20,000,000$ francs. The manufacture gives:

Tho manufactures of hemp and linen employ 600,000 workmen. The exports of linen, principally to England, wero, in 1840 , nearly $0,167,781$ kllogrammes. The manufacture has tluubled since the first Revolution. Lille, Dunkirk, Essonne, Pont Remy, Bellais, Vernon, and Alençon, are notel places for thelr linen manufacture. Normandy sende to Paris annually 20,000 pieces of linen. The llnens of Brittany are mestly consumed nt tome. The fine linen cloths called toiles de mulquinerie are principally made in the departmenta of the Aisne and Nord. St. Quentin was once noted for them ; now that town, Cambray, Valenciennes, and Solesmes, produce cloths so fine, called batiste and linon, that 70,000 pieces nre exported to lingland. Tho beantiful batist embruidery employs 1:1,(000 persons at Nancy. Coutils, a cutton cloth crussed with thread of linen, are waven $\ln$ the department of Dayenne, where 4500 looms nre employed upon this article. French linen differs in quality according to the place of manufacture; but in general it is thicker and stiffer than Irlsh linen, while in whiteness it is inferior to the linen of Flanders and Holland. It la, however, a substantial and durable article. Cambrics, threal, gauze, and lawn, rank amons the leading manufactures of the north-oast part of France. They are made nt St. Queritln, Valenclennes, Cambray, and to a sinaller extent at Doual, Chauney, and Guise. Lace is still moro peneral, being made in quantities at Valenciennes, Dieppe, Alençon, Caen, Hayeux, and Argentau. Maehinery had, up to 1820 , been very little applied to thls manufacture in France, and the number of women employed In it was very great. There are considerabse manufactures of printed linens; and the dyeing of linen thread gives rise to an extensive commerce. At Rouen, and in the surrounding ilistricts, this branch of inlustry is carried on; and many stuffe of great variety, and for which there is a lirisk demand, aro pronluced. In 1822 the luties on foreing thread and linen were ralsed by the French government till they were nearly prohibitory; and the annual linportation from Germany and llelglam, whleh formerly amounted to a million and a half, almost entlrely ceased. The price of home-made linen rose 25 und 30 per cent.; the consumers had recourse to cotton as a substitute; the French dyelng trade fell off, and nlso the entrepett traile in foreign linens, both of them sources of great business.

The vaine of the hemp annually grown in France may be oomputed at $£ 1,200,000$, the quantity imported at $£ 200,000$; together $£ 1,400,000$; a valne which is doubled in the coarse manufncturen, and tripled in the finer. Or thls quantity of. hemp, the haif is made into canvas and thread, a third into cordage, and the romalnder into cloth for domestlo use. Of the flax annually employed, the value is about $\pm 800,000$; a sum which ls tripled when lt is made up inte thread, linen, and mixed stuffs, and much mere than tripled In the finer qualities.

Iron.-F'rance had in 1855 about 669 furnaces, of which mare than 300 are and to be blast-furnaces. It is, however, almost impossllile to ascertain the exact number of blast-furnaces, the position of which is regulated by that of the iron mlnee. They are chiefly ln the mountainous departments of the Dordogne in the south-west, and of the Ilaute Marne, the Haute Saone, and the Cote do'Or, in the enst of the kingdom. Of forges for malleable iron, called forges ì la Catn lame, there are eighty-slx scattered throughout different departments, lant chleffy in the billy part of Languedoc. There nre also a numiser of wire-works Franec, in vihich, an in the blant-furnaces, there . heen since 1790 a progressive but very slow increase, altogether different from the rapid advance or the iron-werks of England previously to 1815.
The stationary character of these work ${ }^{\text {ans }}$ ling dently been owing to the deficiency of fuel and of water commanleation; disadvantages whlch prevent the hardware manufactures from treing concentrated in cities or pupuhous districta, and canse them to the spread over tho country in petty towns or villages, with a very limited division of labor, and a conseçuent inferiority of execution. The result is, that France does not export hurdware, and that in nothing is the inferiority of domestio secommodation in that country more consplicuous thnn in articles which beling to the province of the locksmith nnd cutler. The anount of pig-iron anoually made in France nppears to be about 100,000 tons. The value of the harlware of the kingdom, including cutlery, arms, and other articles of nice workmanship, is computed at $\mathbf{C H}, 000,-$ 000 or $\mathbf{C 9}, 000,000$ sterling. Fine cutlery in former times was largely smargled into France, but now to a murh smaller extent. The annual import of iron and ateel is only from $f^{\prime 2} 2,000,000$ to $\mathbf{C 3}, 000,000$. The high price of iron is a great obstruction to the progress of the hardware manufactures; and this circumatance places in a strong light the impolicy of the henvy dutien on foreign iron, by which, notwithstanding the change in the scale of duty in 1838 , all those impor-ant branchee of industry in which iron is used are stunted in their growth. In copper, the importations greatly exceed the hom produre. From (ireat lritain the quantity importell for the last ten years has increaned from 200 to 20,000 hundred weight. tyf lean, also, the chief part is imported. The manufacture of steel baz only lreen lately introluced into France. l'rlor to 1786 there was no manufactory of this useful article; and it was only after accounts hal been publiahed liy scientific peroons of the composition of that article, ned after repeated experimente, that in 1809 manufartorien of ateel were establiohod, which have been aince extended tis several departments, es. perislly to those of the falre.
sill:-As regaris silk, France possesses, both from physical causes and from tho long-entablished manafacture, a decided nuperiurity. Mulberry-trees were intronluced in the fifteenth century, and were tirat planted, not in the south, but in the ecntral part of the kingdom, near Tourw. 'That town was the seat of the earliest silk manufactures, and it was net till 1600) that the enture of the mulberry was earried mothwarl.

The muliserry thirivee in a varivty of soiln, and may be planted with success in neglected horlers or in waste land.

The manufacture of silk is censidered as an import. ant braneh of French industry, not cnly on account of the varlety and beauty of the falirles, but hecause the raw material is an indlgenous product of the country. It was estimated* 20 years ago that the amount of the annual sales to foreigners was $80,000,000 \mathrm{fr}$; that the home consumptim. of the kingdom amonuts to Eis, 838,834 ; and that the whele annnal value of the sllk manufacture was equal to $£ 4,598,889$. The manufacture of adk is not confined to any particular spot. It is carried on in different parts of the country, in all of whlch it diffuses prosperity. It has enriched the poor of Nimes, of Avignon, and of Tours. St. Chamond and St. Etienne owe a great part of their prosperity to the manufactura of ribions, and the town of Ganges to bohneterie. Paris derives immense profits from her manufncture of sille stockings, and other fisbries, either of silk with a mixture of silk, or of wool and cotton. Silk is also the great staple munufacture of Lyons, in which it is carried on in ail its branches with nstonich... succens : and rince the Revolution, ill addition to fatrics of ailk, all sorts of stuffs mixed with silk, and with cotton and wool, have been eanufactured; and to the ${ }^{2}$ manufacturee lyuns is in delted for ltas riches, having risen not only to be the seread tok $n$ ln France, but one of the most oppalent and fiourishing cities in the world. It was 20 years ago estimated that about 60,000 or 70,000 individuals, young and old, were supported ly the silk manuficture in Iyons and the adjacent dist rict ; hut the number has incriased 25 jer cent. alnce 1835. The dyeing of silk being an important branch of the manufacture, many experiments were made to bring it to perfection; and, in particular, a dye of perfect black that woula retaia its color was a desideratum. This dye was invented by a common dyer at lyons, wha received a pension, bealde boing made a member of the legion of Honor. Priser to this, the black dye which was naed changed in a few days to a brown, and cams off the stuti when it was lard pressed by the hand. Another improve. melat which was made cousisted in producing a silk of is ermanent white color. The egtss of the worm which protuced this silk were brought from China, nut how. ever with the ilesired sucesas. The worm was afterward purchased from a merchent of Alais, and distributed in the norehern departmeni of the country; and the produce of white silk is now very considerable, and of great importance in the manufacture of ganes, crapes, and tullcs. Other inventions wre devised for saving la'or a the sarious stages of the silk manufacture, by which, in this branch of industry, branco was long enabled to outstrip all her neighbors, though of late yeara the silk manufacture bas made immense advances in Great IJritain.

There were in 1820 no less thmn $9,831,624$ mulderry trees in l'rance for the nourlshment of the silk-warm. These supplied food for cocoons producing in 1819 , accoraling to Chapial, $5,147,609$ kilogrammes oi cocoons, In 1835 , the product had increased $9,0001,000$, yirlding
 granmen orgnazine. At present (1855) the quantity of silk furnixhed nmonnts to $1,600,000$ kilogrammes; whieh, nt 55 fr. per kilogramme, the nverage price, gives a sum of $K 8,000,010) \mathrm{fr}$. as the value of the mount prodaced. In 1810 the amount was only $4,038,1: 10$ kilogrammer of cocoons, at 3 fr . 15 enn. jur kilugranume. In 1830 it liad riacn to $9,007,967$, nt is fr. U2 cen.; while the wound silk (griges tilees), wheh In 1510 only reached 300,629 kilogrammes, st 4.1 fr . 1: can., in 1 nis had increased tu $\mathrm{H} 76,016$ kilogrammes, at $i 8$ fr. 64 cen. per kilogramme. llut the home growth mit leiag enangh to meet the demand, importations trok phace to the extent ; $1,154,9{ }^{4}$ kilogrammen, valumd at $53,731,6{ }^{2} y$ fr., and they still incronse. Italy,

[^16]Switzerland, part. A sma Sardinia. Tb from 1787 to lions of france in $1836206 \frac{1}{2} \mathrm{n}$ kilogrammes, goods. The Belgium, and, for the sllks and Switzerla France export transit. Lyon priacipal seats St. Etienne, St thons. In the Franche, there of ribbons at St 30,000 looms, p The fabrication and furonnes. prefix gros ; as, fintard, cropes, and the like. guished by diffe the fubric. St. dies (bruches); trames, and 114 and gauze ribbo estimasted in all . for ribtions.
The raw silk 1840 wna valued the silke in truns fowered silk con which parsed in $t$ of 136,3e9, 810 fr . permits the free
The nilk-wool o was valued nt $\mathbf{3}$, wool exported at port and Import The following are mulherry, with t! coons produced in


Total........
About $500,000 \mathrm{ki}$ in the other depart, woven silk into Frs in value $5,464,699$ f Articles of leathe in England.
Ieveíry, Iorcelai the value of 50,00 deaux, Clermont, ni Jewelty. Watchn a great extent in thme-piece in there omsmenthl furnitior of clocks and wateh is not leas in valu 10,000 hands. The factured in the eap liranches and stages further annusl vulue Paria is cemarka? axury ; in particula

Switzarland, Turkey, and Greece, aupply the larger part. A amall quentity is oitained invm Austris and Sardinia. The exportation cf eilks, plsin aud fiowered, from 1787 to 1789 , on a mean of 10 yasis, was $87 \frac{1}{2}$ millions of francs in value. In 1829 it was 111,000,000, and in $1836206 \frac{1}{2}$ millions of francs, consisting of $2,720,94.4$ kilogrammes, under 22 different denominations of gooda. The United Statea, England, Germany, then ilelgium, and, lastly, Spaln, are the prificipal outlets for the sllks of France; but South America, Rusais, and Switzerland, are aleo conaiderable purchasers. France axporta ailka to a large amount in the way of transit. Lyona, Avignon, Tours, and Nimea, ara the principnal seats of the mannfacture of silk stuffs; and St. Etienne, St. Chamond, and Paris, for that of ribboas. In the arrondissement of lyons and Ville Franche, there are 81,083 looms. The manufacture of ribbons at St. Etienne employa 20,000 workmen and 30,000 looms, producing $27,473,000$ fr. value annually. The fabrication is divided into the manufactures unis and fuconnés. Under the first head are those with the prefix gros; as, gros de Naples; those called pout de soie, juntard, cripes, whleh last ars subdivided; then satins and the like. The ribbons are, in like manner, distinguished by different appellations, after the nature of the fabric. St. Dtienne omploys in all 279,000 spindes (broches); of which 165,000 work organzinea und trames, and 114,000 work tho silk intended for crojes and gauze ribbons. The number of lowms has been estimated in all at 65,000 for weaving silks, and 80,000 for riblons.

The raw sllk or silk-wool consumed in France in 1840 was valued at $53,731,586 \mathrm{fr}$; ; whits the value of the silke in transit reached $40,134,301 \mathrm{fr}$. 1'anin and flowered silk consmmed at home, $=5,299,190 \mathrm{fr}$. that which passed In transit $=37,204,483$ fr. ; being a total of $136,369,810 \mathrm{fr}$. A lecree of the 1 hth Augnst, $\mathbf{1 8 5 2}$, permits the free :- portatione of silk.
The silk-wool of French production exported in 1840 wss valued at $\mathbf{3 , 7 8 8}, 10: 1 \mathrm{fr}$; the foreign grown silkwool exported at $47,491,154 \mathrm{fr}$. The value of the export and import together was thus $380,256,696 \mathrm{fr}$. The following are the most important districts of the mallerry, with the growth respectively, and the cocoons produced in 1840:

| Matricts. | 14artarun. | Cormony. |
| :---: | :---: | :---: |
| Gard | 14,911 | Kíligerammet. 2,096,000) |
| Drime. | 6.212 | 2,5N5,352 |
| Ardiche | 8,602 | 1,765,121 |
| Yaucluse | 8,996 | 683,809 |
| llirault. | 2,092 | 1,248,972 |
| seire.. | 2,1)71 | 80, 89.507 |
| Puuches da Rhóne. | 1,\$16 | b-19,780 |
| Rhoine. | 1.995 | 471,840 |
| Aln. | 846 | 74,716 |
| Var. | $7 \times 7$ | 491,750 |
| Tetal | $89,7 \% 0$ | 11,058.358 |

About $\mathbf{0} 00,000 \mathrm{kllogrammes}$ of cocoons are produced in the other departments. The importatio: of E.nglish woven silk Into France In $1855^{3}$ was 52,702 kilogrammes, In value $5,464,609 \mathrm{fr}$.
Articles of leather are in France mach cheaper than in England.

Serciny, Porcelain, etc.-Jewelry is made in l'arls to tha value of $60,000,000 \mathrm{fr}$. Lyoms, Marseilles, Bordeaux, Clermont, and Strabbourg are also famous for jewehy. Wateh and clock-making are earried on to a great extent in Franen, particularly in l'aris. A time-piece la there a much moro freguent artlele of ornamental furnitire than in Fagland; and the number of clocks and watches made annually in the kinglon is not less in value than $80,(000,000$ fr., employing 10,000 hands. The works in bronze are chietty manisfactured in the cepital, and reach, in their ditherent branches nud stagea, of which gililing to the chief, a further annual value of $87,000,000 \mathrm{fr}$.
Paris is remarkable for other fabrien of tasto and laxury ; in particular, the porcelaln uf Sovvres, near St.

Cloud, and the beautiful bit very axpenaive tapeatry of the Gobelines. Tha materials of the latter are ailk and the finest woolen thread; the aubjecta woven into the work are taken from paintinga execnted on parpose. Both the establiahmenta have been long conducted by govermment at a eacrifice, and both are now on a reduced scale, the articles being far too coatly for ordinary fortunce. The articlea more frequently purchssed are passementerie, by which is understood artlficial flowers, fringas, gold and silver lace, with a variety of trifling but tasteful articles, all sufficiently adapted to a city where so much more is thought of display than of utility.
Soup,-The value of all the aoap sade in France ia computed at $80,000,000 \mathrm{f}:$. The main ingredient is olive oil; and Marseilles was formerly the seat of this manufacture for almost all France-an advantage owing hoth to tho extent of the olive-grounds in the south-east of the kingdom, and the vicinity of Marselles to Italy, the Levant, and Spain, whence soda and olive oil were imported in vast quantities. A milllon of franes were paid for bounties on the export of soap in 1852. The oxport of soap from France in 1838 was $2,911,631$ kilngrainmes, valued at $2,941,631 \mathrm{fr}$. The disorders of the first Revolution, and the establishment of similar manufactures in other parts of France, have caused to Marseilles the loss of a third of ita sonp works; they are etlll, however, very extensive. Of the oil used in lirance, whale oil forms a very small proportion: the great supply is of vegetable oil, viz., that extracted from the rape and cole-seed of the nerth, and the olive oil of the south.
Beer, formerly little drunk is France, has become of extended consumption since 1790 ; but even at present, the quantity used does not exceed $£ 2,000,000$ sterling, ita place beings supplied by cider in the north, and by wine in the south. Within the last few yoars thero is a considerable consumption of English bottled stout and porter, and a losser, though increasing, consumption of Einglish ale. The breweries have increased, and are inerersing, in Parls, as well as in the northern vepartments. The consumption which corresponds to that of linglish home-made spirits and rum, is in hrandy, of which the value annually made is between $£ 2,000,000$ and $£ 6,000,000$ sterling. The distillation varies in amount with the season. The irandies of Cognac, Jarnac, and Angouléme, are most in esteem. The best brandy is made in a district called Champagne, comprehending a part of Saintes Jonzac and Cognae territory. In liranche-Compto and Alsace, a brandy called Klrach la made, but littlo of which is exported. The liérault, Aude, and Gard, supply the largest quantity of spirit of wine. The hest in called that of trois-uix. The amount virles frem 40,000 to 80,000 plpes of 80 veltes, tive of which form a quintal. A velte is $; \cdot 61$ litres $=1 \times t i 5$ gallun. lheer is brewed in the northern and castern departmen's, viz.


Clder is made everywhere ; In largest quantity in the Nord Gecidental, and the best in la Mancha and Calvadas. Some is dlatilled for trandy. The quantity is extimated at $11,004,000$ hectolitres, at 7 fr. 75 cen. Nornundy fumishos laif. The whole is worth id,000,000 fr. 'There is also a conslderable distillation of spirit from potatoes, "which," says Chuptal (vol. il., p. 19:i), "has been generally approved, and hat been brought into competition with brandy.

Lesser Manufactures.-Of hats, the manufactures, formerly concentrated at I.yons and Marseilles, are now diffiused throughout soveral towna; and the value annually nude is about $24,600,000$ fr. 'T he lut nunufacture of laris is estimated at an minual production of $1,200,000$, of the average value of five france each, and employing 2000 men and 2500 wumen. Superior
qualities of silk hate ara aold to the retail tradesmen at from 9 fr . to 11 fr ., for which the latter olstain from 15 fr . to 18 fr . The hat manufacture in France einploya 17,000 hands, and ylelde a valus of $10,500,000 \mathrm{fr}$., In 1159 workshops. The second order of hutters, who finish tha hats according to the different tastes roquired, elovate the value of the trade to $24,375,000 \mathrm{fr}$. The manufacture of gloves-princlpally maile at Grenoble, though called "Paria gloves"-employs 25,000 persons. In 1839, the value of the gloves made in France was $0,436,000 \mathrm{fr}$. $;$ In $1840,5,556,000 \mathrm{fr}$. The tanneries prepare $33,286,004$ kilogrammes of leather, valued at $82,864,70 \mathrm{fr}$., for boots, shoes anddlery, ctc. Perfumery is made extenslvely in Paris, and in the south, chiefly at Montpellier, where, from the mildness of the climate, aromatic plants aro abumdant. The value of the manufucture ls sbout $13,000,000 \mathrm{fr}$. Phper being exempe from the heavy duties of England, is sold in France upon very reasonable terms, while in quality it is equal to our own. The value annuall'; used in printing and in writing is computel at 25,000 ,000 of fruncs; and the paper employed in the nanging of rooms is estimated at an equal value. Of glass, the manufacture has been nuch inproved and extended during the present age. Whether for mirrors, for windows, or for bottlea, this articlo In Franco is good, and of a moderate prico. The nuuber of glanshouses in 1818 was 185, and ls now over 220 . Small mirrors are manufactured much cheaper in Firance than in England. Bolsemis is the country with which the French manuficturers state they can not competc. AA to earthen ware, it is only since 1790 that Einglish pottery has leen auccessfully Imitated In France. It is now made to the value of $29,000,000 \mathrm{fr}$. ; while tho conrse carthenware, fabricated in slmost every province of the kingilom, is computed at $15,900,621 \mathrm{fr}$., employing 10,433 hands. French eartheuwure is very inferier to linglish. Saltpetre, till lately a monopolized manufacture, is now unrestricted. Sulphuric acid has, since the lieginning of the present century, been graatly lowered in price and increased in quantity.

Sugar.-The manufacture of augar from beet-root was introduced into France during the relgn of Napoleon Bunaparte, when, the cousts of Frnnce being blockaded by the lleets of Jritain, the Inportation of foreign articles, and among others that of sugar, wan rendered dangerous and dificult ; and its price was so high as entirely to preclude its consumption by the middle classen of society. Varions articles were resorted to as mulstitutes, such as honsy, and juice of rsisinn, etc., but they were not relished by the taste of the people; and in this case experiments were tried by eminent chemists to extract from leet-root the sugar which it containec. These experiments were auccessful. There were in $1 \times 31$ more than 200 establishmente, from which wero promuced arnually $7,480,009$ pounds of raw sugar; und there were in 1854301 , producing $62,205,600$ pounds. 'The largest sum paid by the admiuistration of the customs has been for refined augnr. It amounted in $180 \%$ to $16,-$ $000,000 \mathrm{fr}$.

Muchinery.-The manufacture of machinery has greatly increared. Steam-engines have been introduced Into France from Cireat Ilritaln, where they aro now employed in every department of indantry. It was in the year 1789, at the village of Challot, near Paris, that the first ateam-engine was establishedi in France: hut, owing to projudices, and attachunent to old customs, it wan loug beforn these engines came into very general une. I'rejudice, however, gradually fadell away before the productive jowirs and manifent atility of this extraorilieary application of science to the business of life, and there are now many establimhmenta for the manufacture of these machines. The acarelty of coal is a great olsotruction to the extenaive une of steam-engines; and the tax on foreign coal is, In thin view, peculrarly impolitic, and injuriotin to the
general interests of the community. The tax, though otely reduced by the Imperial government, requires still further reduction.

In 1836, of 17.19 steam-engines in France, 1893 were home made. In 1839 the linport surpassed the export. Since that year the reverse has been the case. Tho metalle castings in Franca are etlll very inferior to those of England. I'aris is the princlpal seat of the manufacture of French machlnery, then Arras, Creuzot, Jouen, Mulhausen, and Nantes. Lacomotive engines are mude at Bitschwiller, in the department of the It :at-Rhin; muchinery for staani-vessels at Indret. The value of French Industry has been estimated In the moan product as follows:

| Iron from the ore to the perfect state, minorals, ote. | $\begin{gathered} \text { Frances, } \\ 124,000,0000 \end{gathered}$ |
| :---: | :---: |
| (supper, zinc and lead.................... | $26,506)(400$ |
| Gtass, erystal, and looking-glass | 47,500, (4, 0 |
| Thien, bricks, lime, plaste | 68,540,010 |
| Porcelain, pottory, | 27,500,040 |
| Chemieal nusnufacturos, the protucts. | 22,000,060 |
| Hemp and Flax (supposid to bo no less than 545 millions of france). | 860,000,070 |
| Cotton. |  |
| Woo | 4(0),06(6), (1n) |
| Silk | 230, 01001 , (6) |
| Lather and skins | $3 / 400041,00 \mathrm{H})$ |
| Augar. |  |
| $\mathbf{1}_{2}$, cr, colored nnd flyured | $25,14(4)+100$ |
| Priated paper, books, oto................. | 23, bim, 910 |
| Machivery. | 10,0, 010009 |
| Clocks unil watches |  |
| Bronzes. | 25, |
| platod ware. | 6,1amp,ien |
| " Jewelry anul goldsmithis work.... | $50,10(1), 1000$ |
| Datille ries, brewertes | 246,009,(46) |
| Dlfferent brnnches of inilustry | 185.010, 140 |
| Mechanle and domestic arts...... |  |
| $8116,460,0 ¢ 0=2$, | 211,06\% $1 \times 10$ |

" Jabor in Paris is as much dearer relatively to the provincial towns of lirance, as labor in leendon is relatively to those of lingland. It still remains for us to remove from our capital some manufactures which bave been most injudiciously eatahlinhed there; but the French have carried this falme ealculation mach further, I'uris being the centre not only of ornamental fubrics, such an jowelry, bronze, sculpture, cabinetuaking, and the vast variety of elogant tritles comprised under the term "articlen de Jerix," but of a number of coarser emplnyments, which a very slight chunge of plan might transfer to a chemper guarter. Periodical exhibitions of French inunufactures are hed at l'aris every three or four years, at which are pres. ent the sovereign, the princes, the mobility, and all emisent men of sclence. In $1 \times 55$ was openel in Paris an Sixhibition of the Industry of all Nations, similar to that which took place in loudon in 1851, and in Doblin in Iñ3. The larisian exhilition, like the Dublin one, contuined a branch dediatel to tho fine arty. Thls exprosition contintued open from May till the mildle of November. It wan twico visited by her majenty Queen V'ictoria leet ween the 20 th and $25 t h$ Auguat in her nine days' vinit to lirunce. There is Who in that capital a Conservatoire des $A$ rts at dis Mitirers a collection, on a large acale, of nomelels uf all Instruments or machines that relate to arte ani manufacturen. It is more the practice also in lirame than in Hritan to emeorago ingenious inventions in the merhational arts, by premiunta, orders of morit. aus other homorary marks of diatinction. Yet, with ail theres advantagen, imlus".' 位 not made the same progreas as In this country.
"Topreseribe the mode of mannfacture was formenly a favorito course with government in lingl.ud as in France. Vronn the thme of Culbert ( 1 1i60) the French ordombances preseribel peremptorily the length nald brealth of sergen, of Iruggets, in whort, of every kind of viluth valculated fos export, under the phausible bleas that all theme premutions were necessary to extablish a reputation fur quality. It la $n$ rurions fict, that theve rules weris desired hy the manufucturers them-
selves, an
French In and perm hls own n thus made the reguia The powe ordonnance former i'n were $n$-i; $\mathbf{p}$ tion. Kuc from the sh ecttling in which he he ahrogated I
"The ma far more th look to the of the finisl in cotton an considerahle may be term tion is still n woolena, lier ure, her silk restrictlon o riority, but $m$ ability to giv tralers and $n$ retail spirit. sequently mu tuation. It fo year. On the change, the co bors, to borro Fox, Ist April Commerce, country $\ln$ Eu galling restrict that this syete been the creati lation of the trade. It enco portation. $\quad \mathrm{Th}$ claimed ly II right ; nnd he I duty on a vari foreign countri ad ralorem dit duced is aort of tax of 50 nons restrictions wer sive system wh ststesmen of $\mathbf{F}$ flourloling com thority, Hind th:n couraged by the and hence all $t$ mercuntile ayste cial policy of ot restrictive nyater Colbert, a minis into the finnncer the system of ta: of detail, moloptet mercial leginintio port of Villiers n tlons between $\mathbf{d}$ "whole of the $b$ lurers to enter lat excensive duties w sticles, were alms on the ether hat Panaplantell into the exclualon of permsanent root;" to support by eps
selves, and wore long considered as the safeguard of ; them have been more proaperous, but for tho regula: French industry. A change was introduced i: 1779, and permission given to every manufacturer to follow his own method, provided he dletinguished the goods thus made from those which were in conformity with the reguiations. But this was of very ahort duration. The power of habit and prejudice prevalied. New ordonnances, lsaued the auccesdng year, revived the former i:nitations; and the manufacturers of France were $n$ is put on an uneestricted footing tiil the Revolution. Wuch inconvenience had also been suatalned from the absurd lnw which prevented a workman from setting in business in any town oxcepting that !n which he had served in apprenticeshlp. Thia law was alirugated in 1767.
"The manufacturing industry of France is confined, far more than ours, te the home market, whether we trok to the supply of the raw material, or to the export of the finiahed articles. Her imports are large only in cotton and elik; in wooien and iron they are not considerable; while in flax, hemp, and leather, they may be termed insignificant. In exports the llmitntion is atiil more striking, her hardware, her iinen, her woolens, her cotton, her leuther, and, in a great measure, her ailk, being confined to the home market; a restriction owing partly to our manufacturing superiority, but more to the capital of our merchants, their ability to give long credit, nod to deal with foreign traders and merchants in a liberal and not in a petty retail splrit. The productive induatry of France is consequently much less sulbject than nurs to sulden fluctuation. It fellows neariy the same routine year after year. On the occurrence of a war, or other political change, the commerce and mnnufactures of our neighbors, to borrow a phrase of Talleyrand (Letter to Mr. Fox, 1st April, 1806), re replient sur eurmémes."-E. B.
Commerce, Colonies, Fisheries, Shipping.-In no country in Europe has trade been lald under such gsiling restrictions as in Franco; and it is remarkable that this syatem of restriction has in $n$ great measure been the creation of modern times. The uncient legislation of the kingdom was rather frienilly to foreign trade. It encouraged haportation in preference to exportation. This Intter privilege of export was in 1577 ciaimed ly Henrl 1H, as his royal and aeignoriai right ; and he regulated by his ordonnances the export duty on a variety of articles, while the produce of foreign countries wns admitted on parment of an ad calorem duty of 2 per cent. Louis XIV. introducel a sort of navigation act, by which he levied a tax of 50 sous on all foreign ships. In 1667 further restrictions were introluced; and in 1687 the exclusive systen was established in its flll rigor. The ataternen of France neem to have imagined that a tlouristing comurere could be ereated by legal anthority, and that domestic Indiastry couid only be encouraged by the exchusion of nit fercign competition; and hence all the vices and olsolate maxins of the mercantile system will stili be found in the commerciat priticy of our nelghiors. The extensien of the restrictive system was promoted liy the antherity of Collest, a ninister who, though the introduced oriter into the tinancea, and improved in many particuiars the system of taxation, and was indeed a grent master of detail, miopted the roost efreneous maxima of commercini ieginlation. It is justiy olserved, in the report of Vifiers and flowring on the commereiai reinlions between Great ilritain and lranee, that the "whoie of the bounties by which ho induceni ndyenlurers to enter into remute apeculations, na well na the excessive dutiea which he impused on cheaper fureign articles, were aimost uncompensated sacritleas: while, on the other hand, of the manufactures wiich the 'ranuplanted Into Frnnce, and which he protected by the exeiusion of rival productions, nestrely one took permsnent root;" and even these which the inteniled to support hy special encourngement would all of
tions with which his mistaken zeal retarded the progrese of manufacturing industry. Hia whole syatem was an attempt to regulate by law what would have been betyer left so the sagacity of individunls, and to give a frced and artifcial direction to the national capital. Thus he encouraged a trade to the West indles by granting a bounty of 25 s . on every ton of yooda exparted, and of 41s. 8d. on every ton imported. He boasted of aettlng up 40,000 looms by virtue of legal ena, menta, without considering that the capital empluyed in these eatabliehinents would have taken a moro ratural direction, and been more profitably omployed. hut for his interference. The reatraints also whi - , re thus Inid on domestic industry were often ек.: : it by the deapotic authority of government. $\mathrm{M} \cdot$ :ig of the absurd and pernicious regulations of Colbert were broken down by the first French Revolution; but others rempined, and the tariff of 1791 was from heginning to end a system of prohibition, the object of which was to encourage the home manufactarer by frecing him from all foreign competitors. It must be confessed that England set the exampie of iliberality; and it was no wonder that the French of that day should be jealous of a country which excluded her aiiks und cambrics, and laid a discriminating duty of 334 per cent. on French wines ; and whose Parliament, under the reign of William III., declared the trade with France to be a nuisance. The commercial treaty concluded with France in 1786 by Mr. Pitt was the earnest of a better system. Since thls period the legislature of this country have been impreased with the injurions tendency of all commercial restrictiona. But in France the progress of improvement has been slower, and it has hesides been retarded by political events. The long and aanguinary war waged between Great Britain and France aubjected the latter to the maritime hostility of her powerful opponent, the consequence of whicin was, that her trade with foreign countries was interruptel, and tho supply of many of their staple artlcies of produce greatiy diminished, and raised enormourly in price. It became a great object, in this case, to produce these articles at home. In addition to the existing restrainta upon the importation of foreign manufactures, special encouragements were given to the production of articles for whicis nelther the soil nor the climnte of France was pecullarly fitted. Thus when the maritime blocknde of France was raised by the peace of 1814 , her industry, partly from ancient nad nistaken maxims, partly from the pressures of war, received a very artilicial direction, and was oppressed by ruinous and complicated rostrictlons. At the restoration of the Bourbons in 1814, the tariff of 1791 wne tho haw of the land. It had undergone a few modifications, but these were mostly in the restrictive and prohllititory spirit, and wero accommodated to the hostilo position which France occapied in regard to surcounding nations. When the barrier to a free interconrse with foreign nations was at length thrown lown ly the pence of 1814, tho exclusive provisions of the tariff of 1791 were lroight inte fuil operation; nnd when the elsstacles to the commereiai intercourse of Feance with forelga asetons raised up by the war were withdrawn, a no less effectnai fine of circumvailation was drawn around her commerve ly the restrictions nud prohilitions of her own erromeens policy. It is remarkalile, indeed, that a commaltee of the Clinmber of Deputies, in reporting on the luadget in 1832, enters into nn exposition and diefense of tho restrictive system, tie prineipie of whieh is to encnurage domentic industry ly the exciusion of the cheapor and better manufactures of foreign nations.
'The tariff of 1791 either excluded from lirance, or luid unier hony duties, almost all the great atnplo manufactures of other countries. Manufactured irou in every shapo, manufactared steel, oopper, tin, cut-
lery, and all articles manufactured from any of the metals; all fabries of wool, cotton, allk, or tissnes of halr, saddlery, aplrituons liquors, grain, refined sugar, tobacco, toys, and varions other inconslderable artleles, are Included In this charta of domestic commerce. The Inconsistency, and the fullacles on which this aystem is founded, are well expesed in the report of Villlors and Bowring. The passnge, though somewhat long, is replete with instruction.
"It requires merely to state come of the objections to Im . portations in order to show theis narrow and anti commercial spirlt. The introduction of manufactured tin, for exampio, is opposed becanme it might beneft Engiend, which in rich in iln mines, as if the Importation Into France could take piaee withont a ually bencfiting her. The reasons, too, whith are groundea on the superiority of other countrioa; as, for example, 'dnogeroun rivalry' in the case of manufactured steel : 'cheapness' of forelgn articles in the case of shipping ; threatened 'annilhitation of the Freach manufacture' In that of cutlery; 'extra advantages of the Finglidh' In pieted ware; 'apprehension of the Engilah' in articies of pottery ; 'imprudence of admittiag Einglish maddiery', as so many persons, regardless of price. prefer it; 'ndvantages of machinory' in works of iron; all are modes of annonucing the auperiority of the forelgn articles, and the powor which forcigners poseess of enjplylug them on cheaper terma than they can bo produced at home.
"There are other grounds of prohiblion by which particular French manufnetures are avowediy sacrificed to the Interest of other branchea of French tnduatry. The imporintion of extracts of dye-wooda la diantlowed for the purpose of encouraging the importation of the dye-woods themaeiven; thr interest of the dyer, the manafacturer, the consumier, being wholly forgotten. The importation of iron of certain aizes is prohilited, feat amail manufacturere should estabilish falirics, nad aupply the markets at a leas cost than the larger cstabHishments. Wiolen yarn is not aliowed to be imported tecanke It can be prodaced in France, though the high price must he a great detriment to the woolen manufacture ; a ad caat fron of a grent variety of aorts is prohibited, on the ground that a audicieney nuy be obtained at home, though the cost $h$ notoriously mure than double that of many artielen of torelgu cast Iron. Motasses is not allowed to be Introduced, because the price In France in so low, wind the exportation so large, on the gronnd that importation will lower the prices atilt more, though the lowness of prien woild olviously make importation unproftable 1 and the fact of conmiderable exportation te the best evidence that the average prices are icw'n France. Rock salt wan prohiblted in 1791, and the prohibition la now juatified on the ground that m!nes have futuly been diacorcred. The prohibition of refined sugar was supported on the ground that lis adalssion would not thencfit the troasury ; hut it is clear, If the interest of the fonatury were 1 spt in view, that sif prohibitions would be . ppriamed, or auperwided by a ayatem of deties. While poms artietes are prohibited becanse tho production os small th France, a: $d$ requalree protection, othern are prohblited (dressed skisa, for examptes because the productiou iagreat, and eugngen a large number of hands."

There is another franch of the French leginiation resarding commerce, which is ecqually exceptiopable with the prohilition to import forelga manufactures: namely, the system of drawhacks and bounties on the exportation of tomestic proiuce. Laving by sjecial encouragements created a surplus of certain articles at home, and which the high price prevented from being noll to foreignern, the public were called upon to pay the difference letween this ligh price and tho price abroal ; and thus they were taxed, by the exclusion of the fureign article, in a bligher price fur what was consumed at home, and also taxed for all that was consumed abroad, in the bounty which was phid on the exportation of the article. This is a duabia inlquity, which has gone on increasing in France. In 1817, the whole anount of what was concedel on this account amountel to tikitoo jer annum, while in 3 whi It amourted to $\mathbf{f} 600,(0) 0$, hearly one lifth of the nett amount of the whole custom-house revenues of france ; and as it was going on progreasively, it might aoon have absarbed the whule custom-house income, without In the least benefiting, but rather injusing, the genaral intereste of commerce, Juring the firat nine
months of the year 1832 premiums or bountiea were paid to the amount of $24,448,375$ francs, or $£ 1,018,682$.

The commerce of France, obatructed by these rsstrictive duties, has not made the same advances as her egriculture and manufsctares. The internal produce of every country necessarlly increases with its popuIntion; and the inhablanta of France having increased, since 1780 to 1855 , to full $36,000,000$ (for the census of 1851 makes the population $85,781,628$ ) from $24,800,010$ must produce as well as conaume more. But $\ln$ the mean time her commerce has not kept pace with this increase in her population. The value of the Imports into France amounted in 1787 to $631,790,700$ france, or about $£ 25,000,000$ sterling, and engaged 888,868 tons of shipping; and her whols imports only arrounted in 1830 to $\$ 25,500,000$ sterling, and employed $1,009,454$ tons of shipplng, which is far from being au inerease corresponding to her augmented population. According to the last accounts, the value of imports was in $1853 £ 65,2 \cdot 10,000$, of whleh to the value of $£ 44,120,000$ remained for home consumption, and engnged $4,605,000$ tons of shipping. The whole trade of France with its own coloniea and foreign powers amounted for the yesr 1853 to an official value of $8,448,000,000$ of francs, which was an increase of 12 per cent. on the year 185\%, and an increase of 32 per cent. on the average of the years between 1844 and 1848. The foreign commercs of England was, In the year 1787 about $7,000,000$ less than that of lirance, or about $£ 18,000,000$ sterling, and employed $1,349,419$ tons of shippling. Her popnlation was $9,000,000$. In 1830 her foreign trade had increased to $\mathbf{x} 69,700,748$, Including $\mathbf{5 1 7 , 1 2 7 , 7 6 4}$ to the colonies, which employed $2,866,615$ tona of shipping, Thu, while the official value of the cominerce of England had nearly quadruplen, and her shlpping nearty cloubled in forty-three years, not above one fiftieth part was allued to the foreign conmeres of lirance; a fact which strongly illustrates the pernicious influence of monopolies in damping the energiea of individual enterprise, and thus obstructing the national prosperity.

- Opfictar Valye or Inporys and Exporta,


The intereourse of France with $\mathrm{its}_{\text {colonies and for- }}$ eign States in 1853, exports and lmports united, formed a kuin in oflicial valuo equal to $3,40:, 000,000$ frazes, being an augmentation of $873,000,010$ franes ovor 1852. The actual value of tho imports in 1853 was $1,217,000,000$ franes against $1,006,000,000$ francs in 1802 , and of the exports the artual value was 1,572 ,000,600 francs againat $1,268,000,000$ franes in 18.52. The ceean imports were in actual value $1,070,000,000$ franen, and those hy land $626 i, 0001,900$ france. The exports by sen were $1,633,0 \times 0,400$ francs act unl valne, and those by land, $42(1,000,000$ france.

Obsereations on Tivide. - During the four years from 1850 to 1804 inclusive, the value of French commetre has augineuted 30d,329 franes, and the number of sesmen employed has increased 19,046 . The exporta to Kussin, owing to the war, wore reluced in leyb te three ouward-bound vessels. The commerce with England has increased with great rapidity, having nearly doniber! tho amonnt in 1800 . With sweden and Norway the lnerense has alao heen ronsiderable. With Aust rid, on the other haml, theru has been a iliminuthm, and also with the Koman States. With China there is an inerpasing trate, as well as with the United Statea of America, but with Kio de la Plata nnif licuador there has been a falling olf. Must of the other States with which Franco carries on a cummercial intercourse, exhilited an lacreast which, if suall, augmented the general comaneres so much as to show
that the coun career of traffir

The tablea official docume and extent of periods. The is carried on by Belfort, Nantu Rouares, Montl

Brearlstntfis.
Conl.
Colton
Rgw stik.
Weol...
Iron...
Total.

Bresdstuffa .... Cotton menufactu Sllk mannfactures Wholen manufact Linen mennfactur Gloves aud hoster Gloves aud hoster. Toin.

ImPORT


Returna of the pal merchandise months of $185^{5} \mathrm{en}$ amount of $\mathbf{£ 5 , 0 2 7}$, they show an ang ceipts during the er $£ 40,383$ less th last year. The menthe of 1855 , E
The value of ex ef which $£ 54,520,0$ $\pm 20,520,000$ was imports fur home c £4,680,000, and th crease of $\mathbf{~} 5,200,00$
The following is with other conntrie
The corn, the 1 form such Importan of Europe to Engla to france. Their $t$ but the quantities building lo ao limlt queace. It woule progress of the rect rles imported from mure necessary to in the Amiteur on thmber, wood for en ness, rough caating may be imported $f$ daty. l'iteh, tar, a bnililing, may ho lat It can be proved the purposed whthin a ye port ate Iron, copper smsil scale. Tha rt in the sugar and cof Domingo, furninhed fully $£ 2,000,000$ ster and brundy, luxuries
that the country was entering upon a more active |fined to a few large towns, auch as Petersburg, Hamcareer of traffic.

The tables on the following page contain, from official documents, a comprehensiva view of the value and extent of the commerce of France at different periods. The trade between France and Switzerland is carrled on by land by Colmar, Strasbourg, St. Louis, Belfort, Nantoa, Sessbel, Morteau, Pontarlior, Lea Rousses, Montbeliard, etc.

Tmports of Fanner.

|  | 1851. | 1858. | 1853. |
| :---: | :---: | :---: | :---: |
| Breaistutis | E 20,000 | \$200,000 | 23,840,000 |
| Coal. | 1.480,000 | 1,620,000 | 1,680,000 |
| Cotum. | 4,160,000 | B. 120,000 | 5,820,000 |
| Raw stik. | $8,840,090$ | $5.860,000$ | 5,200,000 |
| Weol. | 1,680,000 | 2,600,000 | 1,7214,000 |
| tron. | 20,000 | 240,000 | 440,000 |
| Tutal | £ $10,960,000$ | tits,040,000 | £ $18,200,000$ |

Expoats of Fance,

|  | 1851. | 1859. | 1863. |
| :---: | :---: | :---: | :---: |
| Breadstufis | 23,810,000 | 28,860, 0 (6) | 21,160,000 |
| Cotion manufactures. | 6,600,000 | 6,000,000\% | 6,560,000 |
| 811k manufnetures. | $8.120,000$ | 9,040,000 | 11,520,000 |
| Weolen manufactures.. | \%,280,000 | 5,120,000 | 5,840,000 |
| Linen mannfactures. | 1,080,000 | 1,200,000 | 1.880,000 |
| Gloves atud hosior | $8 ; 200,000$ | 8,400,000 | 8,030,000 |
| Wines. | 1,480,900 | 1,480,000 | 1,800,000 |
| To | 220,560,090 | $\pm 28,600,000$ | 231,270,000 |

ingonts ar Coat. and Iton in 1852.

|  | From England. | From Belgium. |
| :---: | :---: | :---: |
| Coals. | $\begin{gathered} \text { Tinst } \\ 604,642 \end{gathered}$ | ${ }_{1,792,155}^{\text {Tond }}$ |
| Coke. | 2,732 | 169,808 |
| Iron, pig. | 15, $10 \times 2$ | 26,418 |
| fron, bar | 1,841 | $\cdots$ |
| Sted... | 270 |  |

Returns of the customs duties levied on the princlpal merchandise imported into France during the nine menths of 1855 onding on the 1st of October, give an amount of $£ 5,927,030$. Compared with those of 1854 , they show an angmentation of $£ 1,723,976$. The receipts during the month of September wero $£ 465,688$, or $£ 40,383$ less than in the corresponding month of last year. The ealt-tax pre luced during the nine menths of 1855, $£ 930,891$.
The value of exports in 1853 reached $£ 71,640,000$, of which $£ 54,520,000$ reprosented Fresch prosluce, and $£ 20,5 \pm 0,000$ was forelgn proxluce re-exported. The imports for home consumption showed an increase of \&4, 680,000 , and the exporta of French produce an In cresse of $£ 5,200,000$ nlove 1852 .
The following is a brief sketeh of the trade of France with other cometries :
The corn, the hemp, the finx, the tallow, whirh form such importint articlen of export from the worth of Farope to liagland, are comparntively unnecessary to France. Their timber and pitth are limported there, but the quantities required by a people where shipbuilding is so limited, are necossarly of little consequence. It would nppear, however, that in the progress of the recent war aguinst lissia, many nrticles imported from the north of Europe have hecone more neceasary to France, and by a decree puthlshed in the Moniterir on the whth Detober, 185s, buildingthmber, wool for cabinet-making, of a certaln thickness, rough castings, bar and shrit arom, hemp, etc., may be impurted for thrve years free from lmport duty. litch, tar, nid tallow, whom omployed in shipboliding, may to imported at a daty of 10 per cent. If it can toe proved they havo been ued bona file for the purpose within a year. The further articles of import are Iron, cepper, lent, anlt tish, all likewise on a small ncale. The returns from lirance are no longer in the sugar and coffee, which, before the lose of St. Domingo, furnluhed an anuual export to the north of fully $£ 2,(60,060$ aterling. They aro limited to wino and brandy, luxurles of which the consumption is cons-
burg, Lubec, Stockholm, and Dantzic.
With Germany the exchanges of France are now carried on by steam, canal, and land-carriage, and for lighter articles and articles de Paris by rallroad, and river navigation.
From Holland are Imported spirituous liquors, splces, butter, cheese. The returna from France consist chiefly of wine, silks, hrandy, and dried fruit. When the Netherlands were subject, to France, this intercourse was vety active.

From Italy, France lmports raw silk, corn, rice, otiva sill, and fruit, chiefly lemons, oranges, figs, and ralsins. The returns, various in kind, but small in quantity, vonsist of wine, brandy, cattle, woolens, linen, leather, hats, stockinga, jewelry, flass, hardware. From the Levant, the imports, though less than formerly, still consist of raw sllk, cotton, wool, corn, drled fruits ; the exports, manufactured silks, woolens, stockings, and, in a small degree, hardware, paper, liquors, linens, lace. With Spain the intercourse is more extensive; the exports from France consist of corn, flour, salt fish, wines, lirandy, alse woolens, cottons, eilke, leather, linen, lace, hats; all micles which have passed through some process of manufacture, and bear testimony to the industry of tho Frouch. The Spaniards, on the other hand, true to their charncter, make no returns except in produce and raw materials, viz.: wool, silk, frait, sweet wines, along with some iron and copper. During the years 1854 and 1855 there have been considerable exportations of Spanish wine into France for the use of the French troops serving in the Crimea. With Portugal the trade of France is not considerable, the ataple products, wine and brandy, being the sane in beth countries.

The intercourse between the French and Americans should be great, but the Americans require long credit, and to give credit exceeds the means $c$. the French. The cotton, tobacco, and rice of the United States are paid partly by wine and lorandy, but in a slight degres by man'facture 1 . This branch ot trade will increase with the population and wealth of the Unitel States. At present the intercourse with lingland is more conslderable than with almost any other country; but a reduction of the custom-house duties would extend greatly the mutual trade of the two countrics. Great liritain would supply France in frenter quantities with imports, consisting of cottons, hardware, eurthenware, copper, tin, iron, coals, etc.; while a correspondiag increase wanld take place in the French exports. it which the staple nrticles are wine and brandy, the smaller silks, wlive-oil, fruit, butter, poultry, corn, and butcher's meat.

The chicf commercial lusiness of Paris is necessnrily lnland; but it is the centre of exchange trunse actions for lirance, foreign as well ns inland; ns London is for Einghand, anil Amsterdam for llolland. Havre de Grace is the channel for the maritime intercourse of the enpital, the ontlet for its exports, and the medium through which it recelves colonial produco, raw materials, und foreign manifactures. Burdeanx is a sea-port of great netivity, ns well for tho exportation of wine and brandy, as for the importation of sugar, coffee, mad cotton. Marvelles, n harger but n less bustling city, continues the emporium for the trule with Italy and the levant. Nuntes lus suffered greatly ly the loss of ist. Domingo, as well ns by the abolition of the slave-trade, of which it was the centre. It still exports to Martinique and Gaulaloupe, limen, harlware, printed cottons; and, like Bordeanx, recelves in return augar, coffee, and raw cotton. Rouen, though necessible to ressels of burden, is, like Iyons and Lille, chicily remarkable for mannfactures.

The mercantile marho of France recently presented the following results, which aro remarkable while En-
gland and America are bullding vessels of such superior tonnage :

| Tonnage. | Fersella, | Tohnape. | Tonnage. | Versels. | Tomal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 700-800 | 1 | 717 | 100-800 | 1,865 | 197,947 |
| 600-700 | 8 | 1,881 | 60- 100 | 1,061 | 128,149 |
| 800-600 | 4 | 2,091 | $80-60$ | 1,301 | 08,740 |
| 400-500 | 83 | 14,099 | 80 and below | 10,647 | 81,681 |
| $800-400$ $200-301$ | 180 548 | 50,866 180.849 | Total... | 15,600 | 602,500 |

Manned, Including the men of the fisheries, by 83,000 men and boys.

The steam and aalling-vessols of France and the nations trading with her from 1848 to 1853 were as follows:
Navioation fon 1843 to 1853 inclusive-Farsen and Fonsion.

of Louls XIV. the French, by financial sacrifices, obtalned a numerical superlority, one great battle, that of La Hogue, in 1692, was sufficient to change the ascendaney. The war of 1741, however successful on the part of France by land, was, particularly toward its close, unfortunate to ber at sea. In the succeeding interval of peace, great efforts were made to reinstate the French navy ; but the war of 1756, though the French admiral, De la Galissonièr, boasted of a success over Byng, proved doubly disastrous, and at last swept it almest entirely from the ocean. A very different scenc opened in the war of 1778, when France, unembarrassed by a continental struggle, was enabled to direct all her dlaposable resources to her marine, an object of great care and eolicitude to Louis XVI. She was then enabled to keep in an effective state aloout 70 sall of the line, the crewe of which, adiled to those of the frigates and corvettes, formed a total of $60,000 \mathrm{sid}$ men. The injuries sustained by this force, toward the end of the war were repaired with great dillgence during the peace; and to prepare young ofliccrs for the sen in preference to the land service became a favorite object in several of the government schools. In 1791, an official report stated the effective French navy at 74 sail of the line, 62 frigates, and 29 corvettes; a state of preparation which accounta for the reslatance made by the revolutionary government under all the disadvantages of an unparalleled continental struggle.

Thade and Navioation of Faance witil Fohkion Nationa-Actual Valure.

| Nutions. | Yenrs. | Importa, Value. | Fiports. | Shipa. |  | Tonnage. |  | Crewn, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 13. | Out. | Einteriak. | Thiward. | tuwnrd. | Outwnti |
| Rassla. | 1354 | ${ }^{\text {Pr manes }}$ | $\begin{aligned} & \text { Franfli } \\ & 20,746.040 \end{aligned}$ | 180 | 11 | 19.24 | 8,2\% | 1,2\%6 |  |
|  | 154 | 34,453,979 | 3, 562,520 | 43 | 8 | 8,930 | 705 | 4.45 | 768 68 |
| Swedea. | 1850 | 6.540,097 | 1,265,168 | 29 | 5 | 8,985 | 857 | 19\% | 64 4 |
|  | 1534 | 7,707,154 | 9,578, 614 | 29 | 12 | 2.798 | 1,181 | 190 | ${ }_{81} 1$ |
| Norway. | 1850 | 18,826,600 | 2,184,180 | 15 | 8 | 1,590 | 202 | 102 | 19 |
|  | $1 \times 4$ | 19,214,914 | 1,930,281 | 48 | 1 | 4,147 | 191 | 234 | 7 |
| Deumark | $i \times 50$ | 77,709 | 1,299,077 | 6 | 8 | 412 | 651 | ${ }^{18}$ | 50 |
|  | 184 | 111,1819,023 | 8, 4, ${ }^{6} 5.140$ |  | $8{ }^{9}$ | ${ }^{825}$ | ${ }^{097}$ | 26 |  |
| England. | 1500 | 111,181,931 | $812,119,423$ | 2,878 | 8,211 | 228,218 | 210,140 | 21,990 | 23, 890 |
|  | $1 \times 3$ | 201,490,481 | 836,643,310 | 8,052 | 1,640 | 801,510 | 115,325 | 27,938 | 15,306 |
| German Associallon, | 14510 | 108,661,586 | 60, $0.83,890$ | 16 | $\begin{array}{r}19 \\ 8 \\ \hline\end{array}$ | 1,816 | 1,014 | 114 | 128 |
| Hanse Towns, | 1450 | 6,654,524 | 15,646,264 | 98 | 137 | 0,888 | 14,049 | 990 | 1,207 |
|  | 1851 | 7,10220,594 | 15.821,208 | 81 | 16 | 8,119 | 6,451 | 890 | 474 |
| Netherlanit. | 1400 | 23, 801.018 | 14.911,230 | 80 | 89 | 10,227 | 12,985 | 1,8:20 | 1,5:2 |
|  | 184 | 88,944,969 | 29.272,038 | 25 | 82 | 1,864 | 2, 595 | 16 | 242 |
| Belgiam | 1890 | 156,620,194 | 118.6910 .517 | 78 | 143 | 6,278 | 10,64 | 454 | 819 |
|  | 14.4 | 207,0401, 168 | 184.600,429 | 65 | 80 | 4,683 | 6,971 | 345 | 815 |
| Switzerland. | $\begin{aligned} & 1450 \\ & 1 \times 44 \end{aligned}$ |  | 98.047,246 | $\ldots$ | . | .... | .... | $\cdots$ | .... |
| Portaga | $1 \times 4$ $1 \times 50$ | $221,820,884$ $8,414,166$ | $124,438,76$ $8,98,643$ | ic | 13 | 6,216 | 1,975 | 418 | 170 |
|  | 1454 | 4,904, 297 | 9,469,058 | 135 | 43 | 17,326 | T,413 | 1,349 | 675 |
| Austris | 1850 | 6,9382,249 | 10,357, 105 | 17 | 20 | 8,048 | 2,118 | 189 | 141 |
|  | 1594 | 6,745,678 | 10,296,296 | 6 | 11 | $\mathrm{CH}^{2}$ | 1,841 | 43 | 95 |
| Spala | 1850 | 49, 861,839 | 86.629 .188 | 861 | 125 | 80,194 | 8.465 | 2,969 | 768 |
|  | 154 | 88,211,109 | 79,505,785 | 88.2 | 209 | ${ }^{68,225}$ | 91,24, | S, mis | 1,529 |
| Sardinia | 1530 | 91,255,071 | 71,781,977 | 806 | 609 | 86,018 | 85, 825 | 4, 238 | 8111 |
|  | 154 | 117,643,939 | 57.141,004 | 823 | 045 | 63,160 | 68.723 | 6.423 | 0,668 |
| Tuscany | 1850 | 12,2<1,181 | 24,589,550 | 238 | ${ }_{218}$ | 18,292 | 12,183 | 2.141 | 2.028 |
|  | 184 | 15,951,118 | 23,649,081 | 880 | 426 | 88.907 | 25,64 | 4,191 | 3,220 |
| Roman Slat | 1580 | 8,350, 214 | 5,468,172 | 88 | 97 | 4,141 | 1.978 | 821 | 169 |
| Two Sle:lles | ${ }_{1 \times 54}^{1 \times 5}$ | 9,601,005 $22,50.1,432$ | $6,612,661$ $17,197,099$ | 51 170 | 24 64 | 4,288 | 2.275 | $4{ }^{45}$ | 241 |
|  | 1454 | 24,289,543 | 20,691,260 | 189 | 88 | 25,034 | 7,122 | 9,408 | 1,221 |
| Grecee | 1650 | 1,1051,041 | $8,546,1896$ | 4 | 15 | 602 | 1,744 | 81 | 115 |
|  | $1 \times 54$ | 8.325 .181 | $4.000,061$ |  | + |  | 966 |  | 99 |
| Tu | 140 | 84,200,664 | 31,674,194 | 812 | 200 | 71,998 | 47,545 | 5,416 | 4,072 |
|  | 1454 | 60.140 .958 | 40,408,896 | 110 | 250 | 75.280 | 70,355 | 5.6.619 | 0, R293 |
| Egypt. | 1450 | 0,536,161 | 10,582,407 | 98 | 04 | 21,899 | 18,401 | 1,526 | ${ }^{935}$ |
|  | 1854 | 17,435,243 | $7,654,450$ | 1015 | 64 | $21.2 \geqslant 6$ | 18.955 | 1,513 | 1,112 |
| Bar | $1 \times 30$ | 21,508.451 | 4,937,036 | 209 | 121 | 22,274 | 14,021 | 1.911 | 1,359 |
|  | 1451 | 8.579 .124 | 4,992,767 | 95 | fit | 14.287 | 9,949 | 1,094 | 1,111 |
| Africa. Weat Conat | 1 NsO | 4.f022.514 | 2,124, 876 | 69 | 49 | 14,981 | 9,843 | c9t | 6, |
| Maurlik | 1454 | 9,4252.224 | 8,964,968 | 112 | 48 | 23,155 | 9,413 | 1,166 | 4*6 |
|  | 1454 | 0 Sx 2.968 | 6,062,509 | $\cdots{ }^{+\cdots}$ | i7 | 1,1i4 | \%,703 | $\cdots 40$ | 261 |
| Afriea, Eant Const. | 14x | 987, 9 ma | 698,619 |  | , |  | 627 |  | 24 |
|  | 1*54 | 2.154.847 | 3,519.424 | 6 | 8 | 9,255 | 2,368 | 9:3 | 111 |
|  | 1580 | 湤 3 \% 1,810 | 4,25i,4* | 72 | 14 | 23,215 | 5.718 | 991 | 21 |
| Sumatra, and Now Bouth Wales $\}$ | 154 | $82,460,749$ | 5,767,600 | $\left\{\begin{array}{l}98 \\ 81\end{array}\right.$ | 48 | 84,6193 | 17,608 8,648 | \} 819 | $\left\{\begin{array}{l}710 \\ 121\end{array}\right.$ |
| Duteh Fast Indies. | 1-50 | S,842,607 | 1.832,224 |  |  |  |  |  |  |
|  | 154 | 10,664,620 | 1,766,440 |  |  |  |  |  |  |
| Pbilpplaes | 1451) | 1,706,567 | 120,491 | 8 | ${ }^{3}$ | 679 | 792 | 42 | 12 |
|  | 1551 1800 | 1,168,517 | $\begin{aligned} & 890,746 \\ & 948 \times 67 \end{aligned}$ |  |  |  | .... |  | $\cdots$ |
| Chlau and Cochin-Clitas | 1480 | $\begin{aligned} & 1,655,970 \\ & 8,724,324 \end{aligned}$ | $\begin{array}{r} 348,467 \\ 3,46,897 \end{array}$ | 9 5 | $\cdots{ }^{\prime}$ | $\begin{array}{r} \operatorname{kig} \\ 2.205 \end{array}$ | ¢, ¢100 | $\begin{aligned} & 89 \\ & 49 \end{aligned}$ | 209 |

Mexico...
Unlted State
United Stat Gnstemila.
New Granad
Venczuela.
Brazll
Uruguay....
Blo de la Pist
Ecuador....
Pern. ........
Boltvis. . . . . .
Chill. .........
Haylf ........
Spsn. Amer. I
Eng. Posseas.
Dutch Possess
Danish Possess
Iste of Bourbo:
French Gulana
Martinique....
Gnadaloupe...
Alf.ers........
Senegal.
French iodia,..
St. Plerre and M
Mayette, etc., an

Total for Outwa 1850... \} Inwar

Total
The prond nav gressively at the the 1st Iune, 1:9 Aloukir ; so that 1 fonad tho French labored, however, nental peace, 1801 alite to his efforts. ia pquipment (i0) sa esrly dimiaution at Bearbons, on reco mare than hulf the the Revolution. If 1831 it amomited to corvettes, 57 hrigs, four guns, 12 stes armed transports, a 1854, aecoriling to sisted of
59 vessels-9 rary
$11=89$ or 88 k
88 frigatec $-12=5$
89 corvettes...
101 briss, sehoonere
39 corretles de ch 990

Thade and Navioation of Fianer witi Fomeign Nations-Aotual. Vazug-Oontinuad


The proud naval force, however, tisuppeared prorressively at the capture of Toulon, the vietery of the 1st dune, 179.1, and still more in the victory of Abookir ; so that Bonnjurte, on his aceession to power, found the French marine in a very reduced state. He labored, however, to reinstate it. The years of continental peace, $1801,1852,180 \mathrm{a}$, and 1804 , were fivorahle to his efforts; nut in 1805 he loasted of having in equipment bo sail of the line, a force destined to an early diminution at Trafalgar and St. Domingo. The Boarhons, on recovering their crown, found little more than half the force which existed prevlously to tha Revolution. It has since leen augmented, and in 1831 it amounted to 35 shipso of the line, 40 frigates, 23 corvettes, 57 lirigs, 29 galliota and cutcere of elght and four guns, 12 steambeats, 16 armed store-ships, 82 armed transports, and two yachts; total, 28.4 ; and in $1 \times 34$, nceording to the last authentio uccount, it connisted of

Steam Fteet.
8 pessels of the line,
20 frlgatos,
80 corvettes
64 other vessela,

## 407

(1855)

In the present year (1855) 14 ships of iron (nine being vessels of the line) have been launched, and 32 new vessels aro on the stocks.

On the 3at January, 1855, the officera of the French navy consisted of two amirals, 17 vice-amirals, 37 contre-nmirals, 108 capitnines, 238 capitaines de fregnte, 6 . 8 lieutenants, and 614 ensigns.

Fisheries.-The beunties puill for the cod-fisheries in 1852 absorbed between $6,000,000$ and $7,000,000$ of franes, which was double the sum paid on the avererage of the live years hetween 1820 and 1830 . The vessole equippod for the firheries of Newfoundland, St. l'ierre, Miquelon, etc., proceed from the ports of St. Malo, St. lirieue, and Granville. Ths vessels proceedlng to leeland sall from Dimkirk. The Fronch fish aro of very luferior quality to those caught by the Auericans, the lattor seiling at 17 franes 35 centimos per quinta?, whille the French eod-fish only brought 26 fruncs 95 centimes. With all thls oxpense, however, the French tisheries are not adequate to the sup-
piy of the coioulea, which recelve conslderable quantities of fish from foreiguers, as will be seen from the following table:

Fisieny and Expoat of Cod, froa 1949 to 1838.

| Yoars. | Shipa, | Men. | Expenesa of Sulpping. | Eaportation (h.minall pravid | Thalenpenses. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1848 | 354 | 11.49 | £13,981 | CW/p. | £118.840 |
| 1849 | 824 | 10,603 | 20,00N) | 888,789 | 128,20.4 |
| 1850 | 80 | 11.710 | 22,202 | 306,033 | 117,492 |
| 1651 | 190 | 12,649 | 24,140 | 408,8\%1 | 134,482 |
| 1032 | $\$ 19$ | 13,649 | 25,094 | 400, 254 | 145,174 |
| 1899 | 421 | 18,469 | 25,317 | 872,715 | 188.190 |

Statement of the whale-fishery from the French ports-llavre, 5 vessels, of 2045 tons and 127 men; return of product, $22,142 \mathrm{cwt}$. of oil of the whale; 30 cwt. of the cachalot; 1608 cwt. of whalebone.
Fgracil Cod-funety Thpoatations and tixpontations-


| Yrana | (id Fiehery: |  | Whale , whary. |
| :---: | :---: | :---: | :---: |
|  | lapported. | Expurtel. | וтиporied. |
| 1548. | $\begin{gathered} \text { Cwnt } \\ 419,43 t \end{gathered}$ | Cwre. <br> 12,204 | $\begin{aligned} & C w 10 \\ & 10,711 \end{aligned}$ |
| 1849. |  | 86.281 | 19,1)47 |
| 1850. | 37R182 | 02.560 | 20, 157 |
| 1451. | 408, 874 | (4, 510 | 17,477 |
| 1682. | 878.582 | $54.4(4)$ | 8 c |
| 1858. | 308,541 | 65, 317 | 12,081 |

The mean of the first five years is above 391,915 quintals. Vexsels of Frunce epplayed in the fishorles generally-1818, $815 ; 1819,685 ; 1 \times 50,838 ; 18.11$, $925 ; 1852,059 ; 1853,913$. The mean of five yearn in 851 vessels. The total amount of colfish exported in 1853 from all the ports of France anommted to $1,637,931$ kilogramases, or 55,307 quintals. See arricle Fisiterieg.

Whate-fishery.-The whale-fintery was eatalilished In France in 1884, loy mean of encouragetments held out ty Louls XVI., who ordered that no duty shouhl lie collected on the articles exported, and that the produce of the fisherien shoull pray no import iluty. He guarantied the adsenturers arginst loss, and nltimately pald, in adidtion to $£ 12,5 \%$, whish he ulvanced without interest, an additional sum of cifist, being the balance of loss on $1 \hat{i}$ vogages. Notwithstanding these enconragements, the whole project was abundened in 1767 . In 1816 the offer of imuntles attracted new adventurers into this branch of trade. The promium offered by the goverument was 60 franes (en) per man, and two thirils of the crews were allowed to be foreigners. In $1 \times 12$ 4) franes were allowed to forelgn vessels having a crew half firench, 50) franes when the captain and one thind of the crew ware French; tho fremium to be doubled if the vossel passed cupre Horn. In 1829 a new ordonnance granted 90 francs per ton on vessels wholly equipped by Frencism , to franes when ouly two thirds wero Frenchmen, a. 30 If the enptain was a forvigner. The premium was doubled If the vesmel passed C'ape JIorn. A supplementary premiom was allowed to versels fimhing to the southreast of the Caje of Giool Hope, and the donble premium was given to all sossela firhing at a higher northero latitude than $60^{\circ}$; and an the fishong las seldom or never prosecuted at a lower latitule, thity premium of 180 frames per tun ( $\mathrm{f}_{1}^{\prime}$ 44.) wan Invarlably palld. The law of $\mathbf{J}$ sas , whith regulates the whalefishery of France, entahilished a lananty of of framea per ton from Mareh 1802 to Mareh 1atiz, if the whole erew were l'rench; the lounty to be dimlnished four frances yearly till it reached 54 frames. If one thithl of the erew be earelgnera, the bounty to be 48 franes per ton, to diminkh two frame yourly till it reachosl 40 Ifanem per ton. A supplementary bounty to lie given of 50 franes purton if the erew bie Froncid, deareasing three franes jer annum perton; and 24 franes if ond thinl be foreigners, leceraving one frane per annum, to be paid to vesmels doubling Caje llorn, or reaching $02^{\circ}$ of month latitule, if returuing with leat than half
a eargo, or after an absence of $\mathbf{1 6}$ wonths: 500 tons to be the minlmun for a clagle whaler.

Wlth these extraordinary encouragements, capital was attructed to this now line of indastry; and in 1831 thres vessels cleared ont for the Green'and winalefishery, and 13 for the South Sea fizhery, wheh em ployed 6412 tons of shlpping, and were manned by 551 inen. Notwithstanding all the bonnties given to the whale-fishery, France has very few vessels engaged $1 /$ it. There were only 17 ships in the trade in 1844 and 7 ouly re-entered French ports. There were lut o vessels left Have in -853, of a tonnage of 20.15 tons, and with a erew of 127 men . The return of the product was 112, is $^{5}$ kilogrammen of the whale, 1689 of the caehalot, and 81,710 kilogrammes of whalebone.

It was estimnted iy the minister of commerce, in hi eqpori on the shtij to the Chamber of Deputies


$\qquad$ at t t:s, rate of $£ 7212 \mathrm{~s}$ 。 jer man, or $£ 6$ ontlı; () $2+2 \mathrm{l}_{10}$ hips of war ameunted to £l yer in (hat ance to the seamen employet in the firest land fielow is six times the ordinary allowance of seamen it the public: service. It is remarkable that liranco was grantiag these extravagant allowaness for the emouragement of the whale-finhery exactly at the time that Gireat Britain was withurawing the bounties by which she had furmerly endenv. ored to promote this liranch of trade as a nursery for seamen. Yet, in 1830 , the number of vessels that cleared out for the thabery in lingland was 123, conslatigy of 10,166 toms, navigated by 5014 seamen; being thas alout eight tines the canantity of the tonage employed by France. The government of Louis Pdilippe, aharmat at the large oatlay in bounty, endeavored to lessen it, and to reader it transitory and tempowary oniy. M. d'Argont, the minister of commerce, innisted that these bounties exhausted the reaoures of the State, and decreusing hounties were ufter a period adopted, brat M. Comin Gridahe, who was minister of commerce, relapsed linto the oll error ly introlucing supplemental hounties. The provisional goverament of 1849, liy one doeree anfrmentel the homaties, and hy a second extended the terin of the law to 3hat December 1851. On the 22d of 5 uly, 1851, the 入ational Assembly voted for the continuance of the bounties to 1861.

Shipging.-France scens destined, by the natural ad vantages whlch the possersen, to lerome a maritime power of the fient rank. Her mentemat axceets ia extent that of any other continental state. On the Atlantle whe has 130 leagaen of coask 104 on the Channel, and 90 on the Slediterranean ; while buer position betwen northern and sonthern Furope, unil her numerous ports and navirable rivers, are eminently forable to the extension of her navfigntion. Put in this as in all other branches of the lireach trade, the ferejulicial effects of the rastrictive aystem bave beenainudantly manifest. France, in forcing a trale with her motowies, cortaining lews than lalf a million of inhalit unts, has sucritheel her trade with other trephial somenties and their numerons jepulation, to the great injury of her shipying literest. A great increase has tiken place in the tonnage employed in the coasting trade of France, a fact which affords elear and consitting whdence of the extending resources of the country, whits would have cqually ocensloned an increase in the :hipping employed in the foreliga an well as the domentir trade, if this impurtuat lirameln of induatry had not heren stunted in its natural growth he the monpmelizing system. The navigation of liranoo no doubt suferel grievously during the last war, uader the maritime houtility of firpat Isritaln. Hut in the course of nearly 20 years it wobld have reoovared from this statio of d. pression, if the nat.aral energles of the country lad been allowed free seopem in thin line of imbustry.

Butcher
alter the to the trad same may not chang heads the
lo cmisue de estathlisheit, that the du and mot at tun had lon ricultural b France were Jaris marke These regui agrienltnd lis. the Na the product The commis engaged in it prevented it f of the report, that it was $t$ whould to libe loesl authorit be allowed to The committe doth, a inere that the police reference to someness of th was only retan laws of the 1-1t malre An. VII were of opinlon consumption of from the 1st $\mathrm{I}_{1}$ pallished the and the supply market which su recourse was hat cal sclence has ordumance upp 13th Octoler, is stance:
"On and aft hutcher's mient sh, thorities. The for every kind of at the Cininse de 1 certsined to have houses of Parla the shops establi, sold at 10 c . at 1 penny per pound)
This slecres, wh political economy; by the poerer class conplained of the orhitiant profits of dure the profits of oly, and to render
Revenure and tir eyatem of taxntion eypall and opprequis they were united their own peculiar 1 sunl in themaslues ests of the empire. forn certain inipos and comsequently in tributed a ecretiln which they ralsed $b$. anthorities. Tho e kystem of taxution the countey. The hlgher in atie provin

Butcher', Meat.--The Revolution of 1830 dil not alter the systen. provalling antecedently with respect to the trade In hutcher's meat, but modiffed it. The asme may he said of the Revol not change the syatem but nowificd under certah heads the practice of the trads. Th3 droits d'octroi et to crisse de Poisay were at fir "ppressed, then riestahlished, but with a radicil eli, cc In this respect, and levied hy torgh' of the cattle年别 so much per hesi, nit I fore. This niter twin had loug lreen ineffectually il manded ly the ng. ricultural breeters. Butchers rom ths iterior of Prance were also to provile sto and meat for the l'aris market oo well as their :r, thren of the eapital. These reguintiers and medif ations astisfied nelther agricultutioin ne: I utehers. in the menth ne Jannars, 145!, the National Assembly directed an inquiry into the production and consuinption of butcher's meat. The commisston charged with this inquiry seriously engaged in it, but the events of the od December, 185i, prevented it from finishing its tnsk. From the portion of the report, however, that has been printed, we know that it was the opinlon of the committee that there should be liberty of commerce in meat, and that the local authorities should, under no pretext whatsoe ver, be allowed to interfere with this cardinal principle. The committee considered meat, like spice, silk, or doth, a mercantile commodity, and were of opinion that the police should only interfere as to frauds in reference to quantity or quality, or as to the wholesomeness of the victual ne an artele of foor. This was only retaming to the principle professed in the taws of the 14th and 17th June, 1791, and the 18t Brumuire An. VII. On the question of the oftroi they were of opinion that it interfored with the price and ronsumption of foed, anil tha. it should the alolished from the 1st Junuary, 1860. Since this report was pullished the price of hutcher's ment has increased, and the supply hae dimbinished nt l'oissy, the great market which supplies Paris. In consequence of this, recourse was had to an expecient which sound politimal sclence has proved to be utterly ineffectual. An ondunance appeared in the Monifeir of the 11th and 12th Octoler, 1855, of which the following is the sul)stance:
"On anil after the 16 th of the present month, butcher's ment ehall le sold at prices taxed hy the authorities. The prices shall he fixed every fortnight for every kind of ment, accorling to the returus made at the Ciuisse de Poissy, and to the weight of meat ascertsined to have been rent from the pullic slaughterhosses of Paris during the preceding fortuight. In the shops established in the markets, meat shall be sold at 10c. at least, per kilogramme (alout a halfpenny per pound) hetow tho fixed price."
This deceee, which violates every sound principle of political economy; appears to have heen well received by the poorer classes of the population, who had long complained of the dearness of meat, and of the exorhitant profita of the lintelers. But the way to redave the profits of the hutcher is to destroy the monopoly, and to render tra? in meat frue.
Revenue and E:rperaliture - in Franer, the ancient evaten of taxation and finance was extremely unequal and oppressive. Her various provincess, thangh they were united huder one head, retained many of their ewn pectuliar laws and privilegea, which were abssurd in themselves, and opposed to the groneral intoresta of the emplire. Among these was an exemption from certain impests, to which some were sutjecten!, and consequently over-taxelt ; and others, again, contributed a certain quota of revenue to government, which they raised hy taxes imposed hy their own local suthorities. The consequence war, that no uniform aysten of taxution could be oxtablished throughout the comery; The taxea on many commolities were bigher in one province than in another; nad custom-
houses were accordingly estabilished on their respective frontlers, to prevent the importation of goods until they bad paid the duties. In this manner, owing th the Inequality of taxation, commoditiea could not froely nass from one din:rict of the country to unother ; and the jingdona "us thus brokea into eeparate divistons, to the frreat interrioption of trad?. The partial Ity $\mathrm{s}^{\prime}$,wn to tho privileged orders was another serlous grievance to the ancient system a. French taxation The taxes by wheh the publir zevenue was raised were, first, the taille, a tax on real property, or on income derived from cominer ea and industry. From this tax the lanils of the noilesse and elergy were exempt. "The tax was called taille," says Borel, "becuuse the peas: collectors, not knowing how to write, marked down what they hid received on a wooden tally." Secondly, the ringtizme was the tax of $1-20$ th on property, from which the clergy alone were exempted. This tax was established in 1750 , and was Ievied upon all property of whatevor description. In 1754, it was taken off the alsount of income arising from personal Industry. Thirdly, a poll tnx was levled on all classes indiscriminately. Many of the taxes were farmed by rich capitalists, called farmers-general, or fermiersgerseraux, who paid annually into the treasury a fixed sum, and collected the taxes from the people. These farmer-general held the monopoly of the manufacture and sale of totaseco and salt; and also the octroi, which wne a duty on nll articles entering Paris and other large towns. The power delegated to these contructors, was the source of grievous oppression tu the peoplle. The duties called aides were imposed on apirituous liquors and other articlea of consumption they also include duties on all nrticles worked $\ln$ gold or silver, on wrought iron, playing. cards, leather, paper, starch, ete. These duties levied by collectors for the lenctit of government were nbolishel by the National Assembly in 1790. 'The corve', which consisted in so many daya' laber annually, of men, horses, oxen, carriages, etc., was nominally applicable to the maintenance of roals. The tax was payatle either in money or in lator. The system of taxntion, so prejudicial to internal commerce, was, to a certnin oxtent, refermed hy Collert, the minister of Lonis XIV., who, though his views in regard to the principles of connmerce were narrow and illiteral, yet improved in many particulars the system of taxution, by rendering it more uniform, and thus breaking down the barriers which ohstructed the free intercourse hetween the different provinces. Under his administration the public reverute of France amounted in 1682 to $£ 5,000,000$.
The long and expensive wars of louis XIV. produced a great accumulation of delit (nearly $\{100$, $000,100 \mathrm{sterling}$ ), which, after his death, was lossened by an appeal to a singular privilege, of which advantage has often been taken in France, viz., that a new sovereign is not lround to pay the delts of his predecessor in full. During the 18th century, the revenue of France increased progressively, but more slowly than that of Fingland: the vicious system of farming the taxes still continued. Neeker, uppointel to office in 1731, endeavored to teach the French court the value of publicity in fuancial statements; and exhinited the rare example of a war conilnctod far several years without new taxes, the supplies lieing found hy loana, the interest of which was provided for by successive retrendruents in the pullic expenditure. Ilis successor, M. do Colonne, pursued n very different course, and was found altogether incapabile of the measure necessary to remedy an anmual deficiency of $£ 2,000,000$ The revenue of France was then uhout $\pm 22,000,000$ sterling. The aum required for payment of the interext of the pultic deht was nearly $10,000,000$ (Report of Camns to the Nationat Assembly In September, 17a0), leaving only $£ 12,000,000$ for the ariny, navy civil list, and other puthic expensen.
Such was the state of the lirench finances at the era
of the Revolution of 1789 , which was followed by invaafon on the frontier, and in the interior by all the confusion conseqreant on the relgn of terror. In thin era of conflacation and judicial murder, the national debt could hardly bo respected. It was not, however, openly canceled, but the interest wam iasued in asm aignate of no value except for purchanea of national property. At last, In 1798, on an approximation to regularity in the management of public buslness, there was passed a law declaring that one third of the old national delit should be aacred, and the interest on it payable in bons, or paper recelvable in discharge of taxes. This thind was called la tiera prorisgira, hut Ita price in the market continued very low until Ilonaparte aucceedel to power, and placel Guadin, afterwarl Duke of Gaeta, at the head of the treasury, when meane vere found to redeem the public funds from their depression, and to resume the phyment of the diviterds in cash. The amount of the revenue was greatly impaired ly the general confusion of the Revolution. In 1709 the expenditure exceeded the receipt by $£ 8,000,000$ sterling. (Gandin, Notire Ifistorique dea Finances de la france.) A partinl ceduction of expenditure, and improvements in the collection of the taxes, brought, in 1803 , the receipts to $\mathbf{£ 1 9 , 5 0 0 , 0 0 0 , \text { while }}$ the exjrenditure was $£: 20,000,000$. In sulsevfuent years loth receivel a progressive augmentation; and in 1813 the revenne derived from France, exclusive of conquered territory, was alrout $27,000,000$. On the restoration of the llourlons, in 1814, the public delt, funded and unfunded, did not exceed $123,000,000$ (thignon, Erpase Comparutif de fic F'rance) : its interent $\mathbf{x 7 , 9 0 0}$,000. France had thus a fair prospeet of financial prosperity, when the return of Bonapaite, and a second Invanion liy the allied troops, overthrew public credit, and produced a national loss and a general derangement of trade. It has been estimated that the returis of Napolen from Elba, which led to the second invasion of France liy the allied troopa occarioned a loss to the country of $4,000,000,000$ of francs. The direct losa, which Incluted the exprenses paith to the nilled powers, and those incurred hy the malntenamee of their armics, placed in cantonments throbghout France, may be estimate.t. but the indirect evils oceasinned lis the ravages inseparable front the invasion of a hostile army, by the confusion and derangement of all comanercial relations, and the impossibility of cols lecting the revenue in such a time of trouble, can not be summed up in monys. At the name time there are seancely any national diffrulties which may not tre overcone hy the enervica and joduatry of a free and intelligent people su*h as the French. With an inconaideralife aldition to het delt, France han defrayen all these heavy expenseg, the contritutions Imposel on her lyy the allied poweri, the expensen of the temporary maintemance of their aranies, and her own warlike expenses. For thit purpose, bawever, it hecame necessary in 1 nis to imporse mblitional tavem. Injelit a lome was required of ase, !a! , MiO francs; and in 1818, to defray the extraordinary contribution of $6: 5,807,1: 77$ francen, paid ln that year to the allies, the nimister had recourse to another fan of $220,510,71 \mathrm{x}$ francs; white, by the toxes which had been lmposed, the revenue of that year was carried to $\boldsymbol{e}^{5} 5,0,00,000$.
Mean levener or Faisee in tite Thn lipara hriwien t632 ano 14ta.

|  | $1-28$. | 1818. |
| :---: | :---: | :---: |
|  |  |  |
| Direct Tases. | $811.884,187$ |  |
| 1tegtstralion, stanjo |  |  |
| Foreat, ete | $27,180,0,175$ |  |
| Customs and salt | 8.92, ¢5, 930 | 141,9107, 410 |
| Indireet Taxes | 108,144,051 | 4 40,4m, |
| 1 'ont Omre |  | $47.1858 .54 \times 0$ |
| Atgerian liove | 9, ats, 914 | $4.889,462$ |
| I'rod. U'ulveruitule | (1) ${ }^{\text {a }}$ | 19,837,472 |
| (1rot, Evenruela, atc |  | 2,390,400 |
| Divers Mource | 14,018,509 | 19,5t9, 74 |
| Total | 954.105, 741 | 1.174.614,975 |

The expenditure of 1853 was at followa:

| Interest on Pubila Debt, ete | Franea |
| :---: | :---: |
| Iotationo-clvil List, eto.............. | 17,968, 680 |
| Expensea of variona Ministries-Justice, Forolgn Affairs, etc. | 787,588,516 |
| Expense of Collectiog and l'aying Taxes, |  |
|  | 151,005,385 |
| Drawbacke, Discoutia, Bonntiea, ote | 88,042,953 |
| To | ,412,27 |
| Travanx Extrorituatrea or Additional Works........................................ | 79,783,844 |
| Total |  |

Hesides the public revenue of the empire, the communes raised a revenue for their own local expenses. According to the lutest publishel accounts, this revenue arisea partly from octrois, which amount throughout France (there being 1436 octrois) to $95,176,602$ francs, and partly from other sources, the whele of which amounted to $230,633,209$ franca $\ln 1850$. The total of the ordinary waye and meana of France in the Buagt Prarieoire of 1855 amulunted to $1,528,110,288$ francs. During the administration of M. Videle the five per cents. in Frunce were converted into a three per cent. fund, at the rate of $133 \cdot 33$ cents. for every 100 of the fiva jer cent. stock; so that the whole live per cent. stocs, bearing an annual intereat of $30,57.4,116$ francs, was converted into a three per cent. fund, of which the capital was increased one third. The etlect of this traneaction was, in reality, to reduce the interest on the five jer cent. stork to four per cent., by which he raved anmual interest to the amount of $6,000,000$, though by a very uselese complexity in his operationa. The interest on the public delt of France, thus reduced, may be stated as follows: it mounted in 1855 to $418,370,42$ frases. Tho sinking fond, or caisse d'amorfissment, ceased altogether its operations on the 14th July, 184 N . In the 32 years of its operation the caisse damortimement liberated the country from lianilities to the a mount of $1,638,47,050$ francs, and placed nt the disposition of the treasury, from $1 \times 33$ te 1848, $1,014,69 \mathrm{a}, \mathrm{x} 5 \mathrm{f}$ franc:-
Taxation.-The mnelent syatem of taxation in Fraace was subverted ly the Natiomal Assembly in 1791, end new taxes were suhstituted in lieu of those formerly in force. These consisted of lirect and indirect taxes. The lirect taxes are, 1. Contribution fonciëre, or landtax; 2. Contribution permonelle ot mubiliere; 3. A tax on doors and windows ; 4. Droite de palente, or a license duty on pureicular trades and professions, and a duty on miner.
The contribution fonciere is saised equally on ali lunds and houses, in propartion to their nett revanue. There are no longer any exemptions in favor of the nebility aince the tirst Rovolution, in 17א9. The inn gerial domains and the property of the State arealone exempteit. The contribution permalle at mobitiere is divided into two parts. The tirst is a apecies of phal! tax, rated nt three diass' labor, calculated in money value to twe fron 11) to 30 sous per day, and levied on mill males above is years of age. The contribution mine bilitre is a house-tax, levied on rents from 200 to 3 3nto framen. For the constitusion peraomelle, the artroi, which is at customidaty on all grods enteringa town, is aubstituted in Pasis and other large citien. The tax on struet-Aloons, gatewuys, Hud winduws, varies in ןroo pertion to the nize of the town in which the house is sithated, armi alan in proportion to the wize abd value of the house, nfil the nmmber of windows. It is regufatent by a tariff, in which are two divising. The drotita di patentes, or license duty, is lavied on every per. son fullowing a profession, trade, or business ; aud is divlled into two heals-the proportional tax or the tixed tax, which lepend on the uxtent and population of the town where he exercises his prufussion, A merchunt prays from 40 to 5000 francs per annuo, aco cording to the population of the place where he resides, and an adilitional 10 pur cent. on the rent of his dwell.
ing-hous and ther ferior tn is in pro to their 1

The lat also deter required of finance municatea The sum lissement ilissement allotted to persons ap or asseasats taxable prof is, however some depart ment of the zation of the ital object in this view a y the landed $p$ was hegun in accurate as censitered as propriftes imp cording to the tivable land; 333 hectures nurseries, and 17,400 hectare of the land-ta: just complaint for a moro ac these have gen tery.
The Inillrect cipal kinds-op articies of cons dutics, dutles on on gold and sil tha monopoly pust office; the entering large imperial treasur expenses. The the French rev duties, are laid franes jer hectol rensored from on thes paya 10 fr cider, perry, and Ten per cent. of inoval from the w duty distinet frou of all wine or ap population of wh All communes wi 1000 are exempter heen established, 5000 inhabitants, $i$ of the department rate elasses-a ver uncertain standan duty e: wine and 1830 has theen red reduction of 3 per ers, and of 25 per retailethimself. 40 centimes, and hectolitre. lietaile tinct license, whic of the town, from pullic carriages ja pluce for passenger
ing-house. Bankera in all casee pay 510 francs a-year ; and there is in like manner a fixed rate for other inferior tradee and professiens. The daty on mines is in preportion to the extent of the surface, and also to their nett produce.
The law which fixes the amount of the direct taxes also determinc 1 the quota which each department in required to pay. This is annonnced by the minister of finance to the prefect of the department, who communicates it to his sous-prefect and to the mayora. The sum thus assigned by the prefect to each arrondisament is subdivided by the counciis of tha arrondissement and by the communes; and the amount allotted to ench is apportioned among the inhabitante by persons appointed for that purpose, ealled repartiteurs or assessors. These assensors regulate the amount of tixable property, and they fix tioe geale. The land-tax is, however, very unequally nseessed, amounting in some dopartments to eix per cent., while in the department of the Seine it la seventeen per cent. The equalizatien of the land-tux has always been accounted a capital ohject in the finnncial policy of France; and with this view a very minnte survey and meanurement of ail the landed property in France (termed the codastre) was hegua in 1808 , and finished $\ln 1847$. The cadastre, accurate as it generully in, can not, however, be considered as the expression of actual facts. The proprietls imposable, or taxable property, consists, according to the cadastre, of $25,581,658$ liectares of ralltivable land; $5,159,226$ hectares of meadows; 2,050,533 hectures of vincs; 628,235 hectares of orchards, nurscries, and gardens; 4,175 hectares of mines; and 17,400 hectares of lakes, ponds, etc. Tho lnequallty of the land-tax has long been a aubject of loud and just complaint; and vnrious plans have heea adopted for a more accurate classifiention of the land. But these have generally proved incfficient and unsatiafactory.
The indirect taxes consist ehiefly of fonrteen principal kinds-of the droits réunis or excise duties on articles of consumption, of atamp duties, registration duties, duties on carriages, on canals and ferry-honts, on goll and silver plate. A revenue is raised from the monepoly of tobaceo and gunpowder; (rom the post office; the octroi, or custom duty on all articles entering large towna, one tenth of which goes to the imperiai tresaury, the remalnder being applied to local expenses. The customs form an Important branch of the French roventos. The droits réunix, or exelse duties, ure laid on wioe brandy, etc., which pay $1 \frac{1}{2}$ francs per hectolitre of 120 linglish quarts, on being reasoed from one place to another. Wine in botties jays 10 francs per hectolitre on its removal; cider, jerry, and mead, pay 80 centlmea per heetoititre. Ten per cent. of the aloove duty is pald on their remeval from thie wholeanie warehouse. Irior to 1880 a daty distinct from the octroi was levied on the entry of all wine or apirituous liguors into communes the population of which amounted to 1500 an 1 upward . Afi communes whose populntion does not mmount to 4000 are exempted from this tax; and a new tarifl has been estnblished, rising progreasively from 4000 to 3000 inhabitants, in proportion to the eat imated wealti of the departutents, which are divided into four separate classes-a very vagne, na we ahouid suppowe, and uncertain standard of taxation. There is a further duty on wine and liquors sold by retali, which since 1830 has lieen reduced from 15 to 10 per cent. A reduction of 3 jer cent, on this duty is mado to dealers, uad of 25 per cent. if the wine le grown by the retaller himself. Strong beer pays a duty of 2 francs 40 centimes, and small heer in duty of 12 souf, per hectoitre. Retniaers of liquors must take out a distinct ifense, which varies, in proportion to the sizo of the town, from 6 to 20 france. Proprietors of public carriuges pay one tenth of the price of each piuce for passengers, a third being deducted for $\mathrm{va}_{\mathrm{a}}$ -
cant places, and one tenth of the price received for merchandise. Private carriages are anbjected to a moderate duty, according to their sise, of 40 france per annum for a carriage with $t$ wo wheele, and holling two persons; and of 150 franes per annum for a carriage with four wheels, and helding nine persons. The enregistrement, or regiatratlon duties, embraces a variety of transactions, where property is conveyed or given away by marriage-settlement or otherwise. There is a duty on gifts inter vivos, which increases with the distance of the relation between the parties. It was modified by an ordonnance of Louis Philippe in 1832. The duties payable on registry are either fixed or ad valorem; the fixed or certala dutieo apply to ecmmon certificaten, those of life or reaidence, accountbooks, bills of lading, appointments of arbltrations, valuationa of furniture, and the like. The ad valorem duty appliea to all bonds or obllgatione, dlacharges, judgments, deposits or releasea of sums of money, and for every transfer of property, etc. The atamp duty applies to receipts, blla of exchange, newspapers, handbills, playbills, admission cards to publio places, and upon paper uscal for civil and judicisl actes.

The total recoived frem the impot direet in 1854 was $411,273,000$ france. In 1853 the sum recolved was $420,064,000$ franes, which shows a defecit of nearly $9,000,000$ of francs in 1854 . The total receipts of the impôts indirects in 1854 were $817,260,000$ francs. The intpôt on rait produced in 1854 a sum of 33,270 ,131 frunce. The total of "droits" received in 1854 amounted to $149,337,510$ francs.

Land earriage or roulage $81,000,000$ of tons, the menn transport at 15 teagues, at tho wean prico of frano per ton., $465,000,000$
The publia valtures which travel 18 leagues per day, In place of the common earrlages of 8 or 10 leagues, yteld, per annum..
$60,000,000$
The daty on the publto conveyances ratarns $6,000,040$ fraties; three fourths are derived from thn passengers, aad one fourth from the goods they convey.
The share capital of the French railwaya in 1848 was $£ 49,044,000$ sterling. The total merchandise conveyed per transit in 1844 , was in value $229,820,795$ frnncs. In $1854=54,926,640$ franes official value. Value of wine, spirits, beer, and cider consumed in France, reckoned at $500,000,000$ france, give 811,000 ,000 francs wine, $54,000,000$ francs brandy, $59,000,000$ france beer, and $76,000,000$ francs eidor.

The duties levied on this branch of the French revenues produced $£ 5,483,765$ in 1852 and $£ 5,505,686$ in 1853. In France these duties are laid on in many cases more with a view to restriction and monepoly than to revenue. France aacrifices a large revenue for the encouragement of the colonial monopoly ; paying for the pruduce of the colonies an exorbitant price, and afterward, as in the case of augar, the stapie artlcle that is imported from the colonies, giving a grent portion of the luly as a bounty on its exportation to foreign countries, to indemnify the exporter for the loss that the would incur if he were selling the sugar nt its ordinary price in the markets of Europe. In 1830 the gross receipts from the sugar duty amounted to $£ 1,397,840$. of which one third, namely, $£ 420,903$, were paid back in bounties on the exportation of the surplus. Thus the nett duty only amounted to $£ 976$,437, while in 1822, though tho quantity of sugar consumed was ouly $1,086,596$ cwts., or $281,075 \mathrm{cwts}$. less than in 1830 , the bott amount of the luty was $£ 1,2: 4$, G0.:3. 'l'he consumption of sugar in France in 1847 only renched to about $2,570,000$ ewts. It is by means of heavy custom-dutios that the French legislators oudeavor to preserve the monojoly of the hoine market to their own manufacturers, hy which policy they compel the French community to iny at a high price the inferior articles of tineir own manufacture, rather than the better articles of the foreigner at a lower price. 'The

Increased numbers and nuperior vigilance of the ous-tom-houne officers have been utlll connteracted by the now expediente and persevering lagenulty of the emuggler.

The frontler of France it the scene of this persecntion againat commerce, where all the illegal, daring, and lingenious resourcen of the contraband traders are called Into activity. Ameng other expedients, they tralned packs of doga, uccording to Measra. Villiers and Hourtry, to carry prohlbited goods across the frontler. These doga being conducted to the frontier, are kept without food for many hours; they are then beaten and laden with goods, and are stisted on thelr travela when it begine to grow dark, and reach the aboies of their masters as soon as they can, where they are well tremted, and recelve a full meal. According to the accounts of the French custon-house, 40,278 of these doge were destroyed in the year 1830, on which account premiums were paid to the custom-house officers to the amount of 40,278 france. That the trade, though it may be obstructed, is not prevented, he evldent from the elrcumstance thut there are regular rutes of insurance on the conveyance of contraband goods into France, varying from 10 to 70 per cent. A revision, and If possible a reduction, of these hervy dutiea would be the true pollicy of France. Monopoly was never yet the eource of commercial greatness in any country.

National Income and Capital.- Population.-Of the official surveys of the French territory, by far the most minute and aceurate is the cadratre, a survey whleh became ladlspensable from the time it was determiaed to exchange the taxea on consumption fur taxem on prodace. A return of the rent of land, such as wus made under the property-tax act In England, would not have been practicable In France, where so many thousunds of petty lots are cullivated by thelr proprietors. At tiret the codkutre proceeded on the plan of an estimate par masses de culture, or continuous valuation of extennive tracts; but thla proving unsatisfactory, it ham been conducted since 1807 on a plan of auch minute detail, as to give the value of every separate parcelle or patch of land. The progress of thls milaute survey of the landed property in France has been retarded by many causen; and In 1830 not abore two thirds of the land had been surveyed. It was estimated in the report of one of the committees of the Chamber in 1832 , that it would atill require from that period about eight yeara, and an expense of above $£ 2,000,000$ sterling, to complete It . They had only surveyed $31,000,000$ of hectarea, or 68 , 000,000 of acres. The annual expense of the aurvey is $£ 120,000$.
The wages of mechanics are so fluctuating and various, that a satisfactory statement of them can scarcely be produced. It may, however, be assnmed that they are generally 20 or 30 per cent. lower than in England. The rate of wagen of the agricultural population was thus estimated in 1851 ;


Eirpense of Lieing.-A quarter of a century ago the difference in the expense of llving In France and In England was abont a third loss in favor of Eugland. As far as regards provision, this difference was somewhat greater; but it received a counturpoise In the greater cost of fuel. Paris is now as expensive compared to the rest of France, as London is compared to the rest of England. In 1855 pricen were generally on a par with pricea in London, and in house-rent and the prices of lodgings and fuel, Paris exceeda London.

In the end of the seventeenth centary, the territory of France, when very nearly equal to its present extent, appears, from the report of the intendants or provincial governors, to have contalned about 20,000 ."

000 of tnhabitants. Thle nutnber was found, by the cennus mude by order of the National Assembly, to have increased nearly a third in the course of a century 1 the mount, in 1701 , being $26,863,600$, a number which, by computation, made in 1817, had further inereased to above $99,000,000$. In the year $18: 0$ the population was $80,451,187$ : and, according to the urionnance of January 1832, it amounted to 32,601,678. Ily the ceneus of 1851 It appeare thut the population of France was 85,781,628. The marriages $\ln 1832$ and 1833 were annually about 236,996 , and the deatina bout 7R5,268, of which 895,250 were males, und 388 ,018 femalen. The blrtha were 967,583 , of which there were 498,707 boys and 468,826 giria. The number of Illegitimate childrea wae then $\mathbf{6 8}, 081$. In 1852 , $t$ wenty years nfter the periokl here spoken of, the total number of birtha was 965,080 , of whlch 805,236 were legitimate, and $69,84+$ liiegitimate. The number of children still-born In 1852 amounted to 37,901 , the number of deathn to 811,695 , and the number of marriages to 281,360 .
The eathmates of population In France, aubsequently to 1791, are formed, not by metual survey, but by adding for the period whleh has Intervened, the birthy, and dedueting the deaths, of which an accurate record is kept in the public offices.
Poevlation or Towas witu 18,000 Inhaditants and UPWABD IN 1588 AND IN 1851 .

| Towns. | 1892. | 1231. | Towne. | เ*สม. | 1854. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Parla. | 77 | 1,1039,284 | Reab | 29, $8 \times 1$ | 81,066 |
| Marsellie | 145,115 | 185,032 | Besanco | 29,187 | 85,344 |
| Lyons, | 184,715 | 154, 1 +19 | Versalilea | 28.477 | 29,975 |
| Bordeaux | 99,062 | 128,985 | Toulon....... | 25,419 | 45,510 |
| kouen. | 84.098 | 91,518 | Clermont-Fer. |  |  |
| Nante | 71,992 | 91,80:1 | rand. | 29,257 | 30.468 |
| Lille.". | 69,078 | 6\%,463 | Limeg | 27,020 | 87, ${ }^{\text {a }}$ (0 |
| Toulouse. | 69,630 | 85,554 | Nontaub | 25,460 | 29,814 |
| Strasbo | 49,712 | 63, 642 | Dunkirk | 24,987 | 9A,8* |
| Amiten | 46,001 | 49,189 | Grenoble | 24,588 | 26, 502 |
| Metz | 4,4,16 | 48,484 | Havre de |  |  |
| Nim | 41,266 | 49,484 | Grace. | 29,516 | 26,416 |
| Caen. | 80,140 | 40,569 | Tro | 23, 740 | 25,636 |
| Rhetms .... | 85,971 | 48,649 | Tonrs | 29,235 | - ${ }^{\text {a }}$ |
| Montpellier... | 85.820 | 41,242 | Poltiers...... | 24,12s | 22815 |
| Angers....... | 82,741 | 48,084 | Aix.......... | 22,575 | 24.235 |
| Avhga0日.. . . . | 29,469 | 81,812 | Bonlogne..... | 20,856 | 29, 5 ¢ |
| Brest. | 20,910 | 84,492 | At, Omer, ... | 19.844 | 19,826 |
| Nancy........ | 99,754 | 40,259 | L'Or | 18, $\mathrm{Hz}_{2}$ | 22,061 |

The ratio of the lucrease of popuiation in France is greatest in the luwer classes; the malddllug and upper ranks have seldom large families. In that country the population evidently Inereases fuster since the adoption of vaceine inoculation.

French Weights and Measures.-The welghts and Diensures of France were reduced, as is well known, to a very simple and uniform scale soon af. the first Revolution ; but there has been much difu, ity s. accuatoming the inhatitants, particularly in cosntry districta, to the mloption of the new system, which unluckily preserved none of the numes with which they were fauillar. In 1812 a kind of compromise took plaee-government sanctiouling the retention of the old namea, much as pounds, ounces, ells, and bashels; but requiring that their contents should be calculated thy a reference to the new standard. It la accorlingly on this footing thut business is now transacted in France. The new welghts and measures are in general larger by a fraction than the old, and the use of the latter is prohllited by law.

The fundamental standard adopted in Frunce for the metrical ay-stem of welghts and measurea, is a quadrant of tie meridian-that is to say, the distance from the equator to the north pole. This quairant is divided Into $10,000,000$ of equal parta, and one of these parts ot divislons is called a metre, which is udopted as the unit of length ; and from it, by decinal multiplication and division, all the otier measures are derlved.

The length of this quadrant was ascertained by MM. Delambre and Méchain, by measuring an are of the meridlan between the parallels of Dunkirk and

Barcel
French ber d|v| or $30 \cdot 3$ length In on lowing

For

For

It may fixes for LatIn ; th metre 1metres, at means 100 The metre of long mer
The are metres), is measure. very nearly
The ster anit of solit English, or
The lltre mental onit measures of inehes, or is imperial gall Lastly, th centimetre grestest con weights, and of an a voirdu

Values,

Millimetre
Centimetre Dechnetre
Meran
Decamotre
Hectometre
Killematre
N(riametra

Centiare
Declare
Ann
Mectare
Killiare
Mifiare

Centistere
Declstere
8 itere
Decastere

Centilitre $=$
Doellitro = Litrk
${ }_{3}$ Decalitre $=$
Pecalitre $=6 i$
Jectoltra $=611$
maituiltre $=0102$

Contigramme
Deelgramma
Granys
Decagramma
Hectograilumie
Kllograame
Mirlagramme

Barcelona, and has been found to contaln $\mathbf{5 , 1 8 0}, 710$ French tolses, or $82,808,992$ Eaglioh feet. This number divided by $\mathbf{1 0 , 0 0 0 , 0 0 0}$ gives $8 \cdot 2808992$ English feet, or 30-37070 Fingliah Inches very naarly, for the true length of the French metre.

In order to express the decimal proportions, the following vocabulary of names has been adopted:


It may asoist the memory to observe that the prefixes for multiplying are Greek, and those for dividing Latin; thus decametre means 10 metrea, and decimetre 1-10th of a metre; hectemetre means 100 metres, and centimetre $1-100 \mathrm{~h}$ of a metre; kilin atre menns 1000 metree, and millimetre 1-1000th of a metre. The metre (as before stated) is the element or prime unlt of long measure, and is equal to $39 \cdot 37079$ English inches.

The are, which is a square decametre (or 100 square metres), is the elemental unit of squsre or superticini measure. It is equal to $119 \cdot 6033$ square yards, or very nearly $2-81$ parts of an acre.

The stere, which is a cubic metre, is the elemental pnit of solld meseure, and equal to $35 \cdot 3166$ cubio feet English, or nearly $85+$ cubic feet.
The litre, which is the cubic decimetre, is the elemental anit of all liquid measures, and of all other measures of cas wity. It is equal to $61 \cdot 02705$ cuble inches, or is very nearly 11-50ths or 22-100ths of an imperial gallon.

Lastly, the gramme, which is the weight of a cubic centimetre of distllled water at its temperature of greatest condensation, is the elemental unit of all weights, and is equal to $15 \cdot 4325$ grains troy, or 18 -23ds of an avolrdupois dram nearly.
Tables of Fageol Weionts and Meaburge, witif theia
Values in tue kmolisit lmpesial Standards.
Lingat Meaguae.


The following are some nearer approximations. to the values of the weights and measures of most froquent occurrence:


One of the eld messures frequently used, the toise, fo equal to 2 yards 5 inches.

| Azr about..... | $1-40$ sorc. |
| :---: | :---: |
| Drcark....... | $1-4$ acre or 1 rood. |
| Hretarm........ | 2 1-9 acres. |
| Drelatrag..... | 81.2 cuble feet. |
| Strak | 1 2-8 cublo yards. |
| Decastama | 181.10 |
| litre sbeut. | 1.5 or $11-50$ gallon, |
| Drcalither. | 2 1-5 gallons. |
| Ifeotohtme... | 22 grilions or 2 8-4 buakels. |
| Myrialitar... | $81.2{ }^{\text {d }}$ quarlers. |
| Grammr....... | B-9 dram evolrd. |
| Droagramar.. | 1-8 8 zz |
| Ifmetogramms. | 81.2 " |
| Kiloguamme | 21.5 lbs . |
| Quixtal of 100 Kilogrammes | Ja $81-2 \mathrm{lbs}$ less than 2 cwt , |

French Money,-The French monetary unit of valuc is the franc, which, in the gold coinage of 20 and 40 franc pleces, is equal lu value to $0 \cdot 525$ pence aterling, and in the silver coinnge of francs and five-franc pieces, is equal to $9 \cdot 705$ perce; but the common rate of exchange is 25 france for 1 sovereign, whlch gives the value of a franc equal to $93-5$ pence sterling.
 Decime.............. $=0 \quad 0.96=0884=821-25$
franc............... $=096=88-6$
Five-trane pieee.... $=40$
$\left.\begin{array}{c}\text { Nepoleon or } 20-1 \\ \text { frane ptoce..... }\end{array}\right\}=180$
In reducing French money to English, from any number of francs sultract their fifth part, and the remainder will be their value in shillings. Or multiply the france by four, point off the two right hand figures of the product for decimals, and the result will be their value in pounds and decimale of a pound ater-ling,-E. B.

Commercial Relations of the United States with France. -Prior to the ratification of the tresty of the 6th of Feliruary, 1778, we have no reliable account of the value of our trade with France. The navigation acts and other regulations imposed upon the colonies by the mother country, strongly tended to fetter and embarrass their intercourse with other nations; but, in spite of them, irregular, illicit commerce was carried on te a considerable extent. By the treaty alluded to, the high contracting parties reciprocally bound themselves to grant to each other, in reapect to commorce, all the privileges and immunities which either of them might thereafter grant to the most favored nations; to charge ne more in imposts, port dutiee, or other customary burdens of trade, to the subjects or citizens of each, respectively, than should be charged to the suljects or citizens of other powers; and to protect the vessels of each other when within their reepective urisdictions. The subjecte or citizens of either were excluded from the fisheries of the other, and the Uníced States became bound not to disturb the subjects of the King of France when fishing at the Bunks of New foundland. The citizens of the United States were exempted from the droit d'aubaine, and were empowered to devise real and personal property; and their helrs were permitted to inherit without becoming naturalized in France; and corresponding privileges were secured to French subjects residing in this country. The doctrine thut "free ohips make free goods" was recognized, and the articles to be teemed contraband of war were enumerated. The remaining stipulations refor exclusively to contingencies of war, and need not be enumerated. On the 146 of November, 1788 , a convention was entored into snd ratifled, defining the powers and daties of the consuls of the high contracting parties. This convention was
intended the more effectually to secure the falthful observance of the tresty stipulations.

These arrangements were ratifled whlle the Contloental Congress had no authorlty to regulate forelgn commerce; and the ratification, therefore, only amounted to a pledge that the States would conform to its provialons, they having the sole power to levy imposts and port and tonnage datles. The arrangements centinued in force, however, and were observed for more than w. ears, and until annulled by the act of the 7th July, 198 , on the ground of repeated violntions of trenty stipulations by the fuccessive revolutlonary governments of France. Many of the fetters of trade were removed by this treaty; and, although Importations and exportations were, for a tlme, exposed to thu depredations of British crubsers, the enterprise of our neamen opened a conmerce of no Inconsiderable value. It who estimated that, during the three years Immedlately preceding the French Revolution, the average anaual value of our exports to Franee was $81,520,000$, and of our imports from thence, $\$ 380,000$; showing an excess of exports of the value of $81,140,000$. The imports and exports up to the date of the amulment of the treaty of 1778 , were as follows :

| Years. | lemporte. | Exprorts. | Excens of axports. |
| :---: | :---: | :---: | :---: |
| 1795........ | \% $3,671,98 \mathrm{t}$ | 17,698,638 | C4,027,853 |
| 1746......... | 1,825,1066 | 8,171.759 | 1,836,604 |
| 1797........ | 8, 045,780 | 8,425,231 | 779,435 |
| 1795......... | 1,871,727 | 1.4i6,584 | 104, >61 |

This statement indicates ${ }^{1} 1$ at, from 1705, there was a rapid decrease oc: import, and exports, and a docrease of the excess of our exports, sttributatile, no donbt, partly to the feebleness of federal anthorit y, but chlefly to the convulsed condition of the French nation, the contiouance of war in Furope, and the conse. quent disregard of treaty nthligations.

Previnus to the aumulnient of the cominercinl treaty, Congress passed an act "to suspenil the commercial intercourne between the thiteit istates and France, and the dependencien thereof," upproved lune 13, 1798. It was provoked tiy repeated gross violntlons of the treaty by the French government and lts citizens. The act provided that no vessel should clear from the porta of the United States for France or Its dependencies; that no French veamel should enter our porta withont a pasporert from the l'resident, unleas in dintress; that French vessels foand in our ports, and refusing to depart, shoold be seired nnd thetaireed ; and that the President might dissolve the prohibition of the act whenever he became atisfied that the Frunch government and sil under its authorlty isere, in good falth, endeavoring to prevent her citizens froni intermedhlling with our commerce. This art was continued in force until the end of the ensuing scasion of Congress, when It expired by Its own limitation. Two days stabequent to the annulment of the treaty, another act wa s spproved, "further to protect the commerce "f the Inited States." The Presilhsit was therel,y authorized to inatruct the commandera of the naval forces of the Vinited States to eajiture French armed veamela, which were, ly the uct, to be forfeited, sud to grant letterm of marfue anil repriwal to private citizens. Tiresn acta had the desiren effact. The French government was in no comition to assunce an attitule of open hantility.

On the 30th of Septemior, 1800, a convention was Nhaned lyy the plenipontentiarlen of the Voited Staton and leance, which was ratified in due thme, for the miljuatment of all diffosences, and the regulation of their future commerilul intercourne. Ify itw termas, it raa to continue in force fur elight yeara. In respect to commerce, it proviled that the eitizons of paeh conntry shauld enjoy in the ports of the other all the privileges and immunlties of the mont favorem nutions: that the citizens of either rasident in the other should
have the right to devise their property without being naturalized, and their heirs the right of inheritance; that dix monthe should be allowed for the removal of property In case of war 1 that debts ehould not be gequesterud or configented in consequence of war ; thst consule ard other agents should be appointed; that the traders of each might buy sud sell of the enemnles of the other, save in ports blockadel; that certain epecified artleles only were to be considered contraband; that free ships should make free goods, and the ships of elther might carry enomy's property, eave only contraband articles; that property of elthor found in enemy'e vessels should be confiseated; that ships under convoy shonld never be examined; and that variots minor provisions enumerated in the treaty, ms means for the executlon of its provisions, should be observed. This was followed by the treaty of the 30th of April, 1803, for the cession of Loulslana, by which the right of nuvigating the Misslaslppi and its trlbutaries was reserved to France for 12 years ; and another convention of the name date, providing for the payment by France of debts due our cltizens.

The ennvention of 1800 regulated our commercial Interconras with France until the 24th day of June, 182:2. A fow fuets will show how our trade with that nation progressed during that important period. It must be borne in mind, that, nearly all kumpe was combined for three fourthe of that space of timo in waging war upon the French empire and its nllies, und that, for a conalderabe period, the whole of France was deelared by Grat liritain to be in a state of bockade. It nust also he remembered, that in 1812 the Congress of the United States declared war ngainst Greut Ifritaln, und that this war was waged with grest vigor on both sides, until lorought to a trinnuphant close in 1815. The vast superiority of the naval force of England rendered intercourse of European mutions with their colonles very hazarious, if hostile to her. Theso nations were hence comprelled to rely upon neutrals to carry on thin branch of trade, For a time, the productions of the French, Spaish, aul Jutch colonies conld be carried to their mother countries only under a neutral fligg. Gur vicinity to the West Inilia Islands ennbled us to monopolize most of this enrrying trade; and, ere the war closed, such Was our increase of tomage, that we olitninel a eonsiderable portion of the carrying trade to aud from the liast Inoles. Some colonial productions were carried in American twottonis directly to Varope. The greater part, however, was brought into our porta; whenee, ufter receiving a drawhack, it was shipped to Europe in our own vesmels. The innnufactures of Vurope, as well as thome of Chinn and the East Indies, were also Imported, and agnin exinrted, In large quantities, to the West Indles and Sonth America. Fron 179a up to 1807 , the profits of these mivantages were enormous. The exigencien of the war, and the nataral jealotsies engeniered by auch n condition of things, Involved us In disputes Ioth with Framee and Enghand. The latter, therefore, issued her cotebrated Orders In Council; in retallation of whteh, the former, or rathor her emperor, issued his Iherlinand lliIan Decrees, which were no Injurions tu onr trade ais to provoke the aloption of the embargo, whieh wat folfowed by the non-inturcourse act, and uhimately hy the derlaration of war against Grea: Mritnin. This annilaihated our carrying trade. On the return of peace, we ugito enjoyed sonm of it, but to a mach more limitell extent than formerly.

The tables of expirts and import* fully ithatrate the operation of the rausen onumeratid. In lith our importa from France were of the value of $\frac{\Delta}{5} 401,018$. The valse of exports is not known. The following table exhilita our expmists to Firance from lay to 18.20. We have ro thata on which to estimate the ims-
 In I $8: 0,0$, and $\%: 1], 02: 1,000$, in the amount of our domes.
tic expo ldly gro

| Yeare. |
| :---: |
| 1304 |
| 1805 |
| 1806 |
| 1817 |
| 1508 |
| 1409 |
| 1810 |
| 1811 |
| 1812 |

lor th operatios in 1821, doniestle 8309,861 value; e foreign $p$ About act of the France $f$ The follo to that co

Yearn.
1801.
1502.
1808.
1504.
194.

180h.
$18077 .$.
1906.
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In $18: 21$ of sea inl value of $t$ in quantit the wars a with Gre: of cotton conupiled Commere

| Yenta. |
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| $1 \$ 22 .$. |

1923...
1984...
$1 \times 2 \pi$
$1926,$.
1527...

182\%...
Tohace try at the table exhi during the l.tions of eluchlated

Y
1/arfa.
1*0)...
$1822 \ldots$
$1 \times 23$
$183 .$.
164.
INH..
In $1 \times 0,5$
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in their ch
tary es ent
commence
Commerec
two power
declared in
Felimary:
cles, the
Untlet St
tic exporta to France, in flattering evidence of the rapIdly growing consumptlon of our principal staplee:

| Yeara. | Domeall, producs. | Foreign produce. | Years. | Domestla produce. | Fursign produce. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1804 | 88,210,112 | 5, 5 , 04,943 | 1818 | 1,780,291 | \$2,206,458 |
| 1805 | 8,070,869 | 9,885,602 | 1814 | 280,420 | , 80,018 |
| 1806 | 8,220,688 | 8,197,094 | 1815 | 5,088,084 | 1,888,849 |
| 1807 | 8,715,141 | 10,815,678 | 1816 | 7,852,676 | 8,229,660 |
| 1308 | 708,607 | 2,126,306 | 1817 | 7,114,585 | 1,805,289 |
| 15109 | No data. |  | 1818 | 8,719,445 | 6,848,977 |
| 1810 | 16,788 | 1,679 | 1819 | 6,612,409 | 2,729, 540 |
| 1811 | 678,708 | 1,119,902 | 1820 | 5,461,880 | 2,184,854 |
| 1812 | 402,808 | 2,485,218 |  |  |  |

For the remaining two years of the period of the operation of the conventlon of 1800 , the 1 mports were, in 1821, of the value of $\$ 4,989,940$; and the exports of domestic produce, $\$ 5,168,698$, and torelgn produce, 8359,861 . In 1822, the imports were $86,089,940$ in value; exports of domestic produce, $\$ 4,744,490$, and foreign produce, $81,280,870$.

About the yenr 1792, cotton 'ecame a staple product of the southern States. The quantity exported to Frauce from 1790 to 1806 , was $15,794,800$ pounds. The fallowing table exhibits the exports of the ataple to that country for the years onumerated :

| Years. | Po | Yeart | Pounds. |
| :---: | :---: | :---: | :---: |
| 1801. | 844,728 | 1809-10 | Vone direct. |
| 1302. | 1,907,849 | 1811. | do. |
| 1808. | 8,881,840 | 1812. | 018,438 |
| 1804. | $5,016,848$ | 1818. | 10,200,848 |
| 1915. | 4,504,829 | 1814. | 1,681,085 |
| 1806, | 7,032,118 | 1815. | 19,078,183 |
| $1317 \%$ | 6,114,358 | 1816. | 18,024,567 |
| 1818. | 2,087,450 | 1816-1 | No data ${ }^{\text {* }}$ |

- The imports of cotton into Franee from alt sountrles daring this perlod were: In 1817, 13,974, 39\% kllog.ammes (each 2-122 paunds); in 1sis, 16,074,159; In 1819, 17,010, 101 .

In $18: 1$ the exports of cotton wern 405,7:13 pounds of soa islnud, and $26,943,275$ pounda of upland, the value of the whole being $\$ 4,531,861$. The fluctuations in quantity during this period are plainly traceable to the wars and confusion in Europe, und to our last war with Great Ilritain. From 1822 to 1834, the exports of cotton to France were as follows (the fhgures aro compiled from the United States' Treasury Reports on Commerce nad Navigation):

| Yeara. | l'oania. | Yuars, | Pounis. |
| :---: | :---: | :---: | :---: |
| 1829. | 20,900,000 | 1829. | 50, 240,400 |
| 18.8 | 28, 211,200 | 14310. |  |
| 1994. | 84,647,800 | 1831. | (01, 111,600 |
| $1 \mathrm{~S}^{2} 5$ | 29,031, 4.13 | 1582. | 69,242,800 |
| 152\%, | 48,22t, 200 | 1838. | 09,401,800 |
| $1 \times 27$. | 48,183,000 | 1894. | 00,401,400 |
| 12 C | 47,007,000 |  |  |

Tobacco lecenme an timportant export of this ceuntry at the close of thn last century. The following table exhitits our exportations of this artlele to l'rance during the period we are now considering. 'I he regnlitfons of the two countries in respect to it will be eluchated ln another part of this digest.

| Years. | 1hagehomels. | Yyars. | 1 tagahenits. |
| :---: | :---: | :---: | :---: |
| 1/wno. | - 143 | 1307. | 2,970 |
| 100). | 6,0¢6 | 1 ARS . | 050 |
| 1402. | 16.216 | 1811. | 509 |
| 143. | 9, 815 | 1 1 14. | 118 |
| $1 \times 11$. | 14,023 | 1818. | 188 |
| 13.h. | 12,103 | 1415. | 2.81:1 |
| 1890. | 0,152 | 1810. | 4,176 |

In 1x0! nad 1810 there was no exportation. The same circminstance ofecurred in 181: If my was exportell, it was so lncousiderable at not to have been moticed hy statisthelans. Fiom 1817 to 1820 we hase na stallstiend data. In 1821, 3,48R hogsheads were exported to lirunce. These cotton and tobacen tables, like those of general luports nond experte, nee markeil In their character liy the course of palitical and milltary events. Another period of our trade with Franeo commences with the "Conventlor of Navigathom and Commerre", shaneml by the plenipolentharies of the two powers on the 24th of Janc, $18: 2$, anil ratified and dechared in operation by the IUlted States on the 1eth February. 1823. That eonvention provites thint articles, the growth, produce, or manufacture of the Unlted States, when exported to lrance In vessels of
the United Statea, ahall pay an additional duty, net exceeding 20 franca ( $\boldsymbol{4}_{3} 375$ ) per ton of merchandise, over and above the dutles pald on the like artieles exported to Frnnce In French vessela; that articles, the growth, proluce, or mmnufacture of France, Imported into the United States in French vessels, shall pay an additional duty not exceeding 8375 per ton of merchandise, over and above the dutles pald on like articles imported in veasela rif the United States; that no discriminating dutiea sh-ill he levled upon the productiona of France Imported in French bottoms into our ports for re-exportation; that a like advantage shall be given, and is given, to the United States; that the following quantities shalt be considered a ton for the articles specified, viz. 461 -gallon bogeheads, or 244 gullons of 231 culbe lnches of wine, American measure ; $24+$ gallons of brnndics and all other liquors; 50 culic fect of sllk, American measure, In the United States; and 42 cubic feet, Vrench measure, In Franco; 804 pounds avoirdupole of cotton; 1,600 pounds avolrdupola of tobnceo ; 2,240 pounds avoirdupois of pot and pearl-ashics ; 1,600 pounds avoirdupois of rice; and for all weighable nrticles not specified, 2,240 pounds avoirilupois; that the duties of tounuge, lightmoney, pilotugo, port-charges, brokerage, nnd all other duties on foreign shipping, over und above those paid hy the national shippuing in the two countries, other than thoso above ajeclied, shall not exceed, in France, for vessels of the United States, 5 francs ( 94 cents) per ton of the vessel's Anerican register, nor for veasels of Franes in the United States 9.1 cents per ton of the vessel'e French passport; that the convention shall remuin in force two yeurs from the lst of October, 1822, anil after that time until the conclusion of a definite treaty, or until one of the parties shall have declared Its intention to renounce it, whiel decInratlon shall precele the renunclation six months; and, finally, thut, in case this convention shnil not bo diseontinued hy either party, tho duties apecified, oxelusive of tonnage, light-money, pilotage, port-charges, etc., Intd upon arifies of the growth, proluce, or manu facture of either conntry, shall, at the expiration of I wo years, be reduced one fourth of the whole ninount, and afterwned by one fourth of sald amonnt, from year to year, so long as it is not renouncod ly either party.
Inpobts from, and Eixports to, Fbance, uy the U. S.

| Yeara. | Inaports. | Exports. |  |
| :---: | :---: | :---: | :---: |
|  |  | Damealic pruilur | Forelign produre. |
| 1-22........ | (7, $1 \times 49.046$ | 1, $7,74,490$ | 1,280,870 |
| 1484........ | 5,060,790 | 8,001,775 | 4, 6030, 804 |
| 1824. | 7,18x,567 | 7,551,689 | 1.818, 148 |
| 1525. | 10,40x, 3 , 6 | 7,523,985 | $8,862.447$ |
| 1826. | 8,5i9,820 | 9,848920 | 1,794, 5.55 |
| 1827. | 8, $527,2: 12$ | 9,187,859 | 8,880,915 |
| 1428. | $0,490.48$ | 7,498:37 | 8,875,238 |
| $1 \times 2 y$. | 4,238,9i8 | 8,514,04\% | $2,454,850$ |
| 18ik. | 7,722,110 | 9, M1, 141 | 1,094, 513 |
| 1491. | 14,008, 143 | 6,1135,424 | $8,820.878$ |
| 1 ¢24. | 12,175,754 | 9,042.576 | 2,877,147 |
| 1833........ | 18,431,678 | 11, 4ut,5ss | 2,945, 648 |
| 1834........ | 17,141,174 | 12,715,7\%4 | 2,708,224 |
| 1835. | 24,9t5,371 | 14,187,014 | 1.711.2:0 |
| 1496. | 46,410,417 | 11, 0108,484 | 1.830, 868 |
| 1 N 37. | 92, 1248,1114 | 17,3,01,014 | 2,8:19,664 |
| 1,38. | 17,711,797 | 15, 1515,451 | 1,2mm, 302 |
| $1 \times 49$ | 82, 501, 5\%1 | 15,963, 108 | 3,204, 811 |
| 18411 | 17,072, 510 | 15, 019.427 | 2,942,207 |
| 1411. | 28, 088, 412 | $15,414,8477$ | 8,354, 3448 |
| 1542. | 16,074,05. | 14, 11515.29 s | 1,100, 5128 |
| 1sis. | 7,657,6 6 | 11, $1.70,872$ | 825,279 |
| 1414. | 17,519,491 | 13, $\mathrm{MAK}_{6}^{912}$ | 9,372,1<8 |
| 1815. | 21, 80.185 | 19,840,171 | 8,174,2848 |
| 14.41. | 23, 0111 miz | 19,401, 850 | 1,024,925 |
| 14.47. | 24.0.0, 411 | 1-2,32, 2111 | [00, $0 \times 7$ |
| 1844 |  | $15,5,4.4 \times 8)$ | 4.414 .425 |
| 14.10 | $21,9401.788$ | 12,028, 708 | 2,8v6,424 |
| 14(N). | 27.04ly 0208 | 17,46s1,277 | 1,4N11,0711 |
| 14.1 | 111.715,438 | 25, 812,0185 | 2, 050,4181 |
| 3502 | 25, 4110,2061 | 22, 210,070 | 1,8641, 575 |
| 1 W, 2 S | 84.45 .919 | 25, 210,406 | 1,45u, 1 |
| 15\% | Mn, inlana | (1)1tix.252 | 1,179,789 |
| 1455. |  | 81,028,808 | 1,254,2331 |

The convention with Franee of July fth, 1831, 6.1y alighty modilles the enavention of 1 sige 'Ihe wines
of France, from the ratification of that convention until the pasange of the tariff act of 1846 , were imported at duties not exceeding the following rates by the gallon, United States' measure, viz.: For red wines, In casks, $f$ cents; for white wines, in casks, 10 cents; and for all kinds of wines, in bottles, 22 cents. This stipulation was li...ited to 10 years, and consequently expired on the 4th of July, 1841. Our trade has, therefore, been since regnlated by the convention of 1822, and guarded by the powera
and privileges secured to the consuls of each natlon by the consular convention of the 28th February, 1880. The results of the operation of the stipulatione of these conventions may be traced in the preceding and following tables of imports and exports.
The preceding table is made up from the annual Treasury Reports on Comnnerce and Nevigation of tbe United States. It will not prove uninteresting, however, to subjoin, for comparison, a almilar state-
ment put forth by the French government.



| rasts, |  |  | VALUE OF EATOHTY FIOM HANEE <br>  |  | rotal. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | General commere | peeial tommere. | Genernl commerc |  | Genural cominer | peecial coomberie. |
| 1891 | France. 61, 469000 | Francs. 47524,000 | $\begin{aligned} & \text { Franes } \\ & 134,798,1000 \end{aligned}$ | $\begin{gathered} \text { Franci } \\ 110,180,000 \end{gathered}$ | $\begin{aligned} & \text { Francs } \\ & 180.2 \times 8.000 \end{aligned}$ |  |
| 1882 | $89,361,000$ | 64,927,000 | 187,80 1,000 | 10, $\times \mathbf{5 8 , 0 0 0}$ | 176,991,000 | 123,486,000 |
| 18493 | 99,079,000 | 78, 85100000 | 14,905,000 | 107,984,000 | 234,044,000 | 181,870,006 |
| 18.4 | 97,186,000 | 76,564,000 | 113,094,000 | 78,186,000 | 210,450,007 | 15t,7(0),000 |
| 1585 | 89,482,000 | 71,545,000 | 196,042,060 | 145.251,000 | 285,524,000 | 216,796,000 |
| 1436 | 110.770,000 | 81,464,000 | 288,574,000 | 158.788, 1000 | 849,664,000 | 240,2012,000 |
| 1817 | 117,798,000 | $81.720,000$ | 98,615,000 | 58.611,060 | 216,353,000 | 145,881,000 |
| 1858 | 182,79¢,000 | 101,248,000 | 170,698,000 | 119,724,000 | 809,494,000 | 220,972,000 |
| 1839 | 99,206, 010 | 85,883,000 | 204,591,000 | 120,946,000 | 803,797,000 | 216,429,040 |
| 1541 | 175,829,000 | 17,974,006 | 188,120,000 | 80,760,000 | $811.949,000$ | 198, 310,000 |
| 1841 | 157,071,000 | 121,491,000 | 189,502,000 | 121,234,100 | $840,683,000$ | 242,925,000 |
| 1842 | 176,057,000 | 185,046,000 | $83,340,000$ | 48.106,000 | 298, 1158,000 | 159,152,000 |
| 1541 | 174,624,009 | 144,250,000 | 96,639,000 | 65,808,000 | $271,267,000$ | 210,067,000 |
| 1844 | $112.500,000$ | $188,6100,000$ | 161,400,000 | $102.0000,000$ | 808,900,000 | 238,6010000 |
| $1 \times 45$ | 172,000,000 | 140,700,000 | 148,0<0,000 | 96,500 , (100 | 875,000,000 | $237,2100,000$ |
| 1846 | $158,700,000$ | 141,200,000 | 150,100,000 | 100,400,000 | 808,800,000 | 241,800,000 |
| 1847 | 187, 005,000 | 110,484,000 | 1-5,644,000 | 112,414,000 | \$24,289,000 | 222, 514,000 |
| 1548 | 71,989,000 | S6,946,000 | 165, 749,009 | 90.480, 000 | 237,362,000 | 156,410,000 |
| 1859 | 127,100,060 | 105,779, 6140 | 292, 669,000 | 14, 564,000 | 859,769,000 | 254,343,000 |
| 1550 | 182, 175,0040 | 122, 105,000 | $2 \times 5.911,000$ | 193,511, 100 | 418,116,000 | 315,616,000 |
| 1451 | 116,463,407 | 109.83,000 | 242,62¢,000 | $14.584,000$ | 359,519,0060 | 254,437,000 |
| 1852 | 190,089,000 | 167,721,000 | 208,040,000 | 144,618,000 | 488,129,000 | 822,834,000 |
| 1568 | 179,386,400 | 157,921,040 | 325,992,000 | 200,195,100 | 508,775,000 | 8it,116,000 |

In these tables it is nut dificult to trace the effects of the controversy relative to the re-charter of the Bunk of the United States, the temporary expansion of the poper carrency, the necessary contraction following the restoration of the constitutionsl currency, and the addition to the goll circulation of the world made by the mines of California. All these historical factore of too recent occurrence to need comment in is work such as this. In like manaer may be trated the effects of the French revolution of 1830, the 18 years' policy of louis lhilippe, the convulsione of 184s, the temporary ascemilancy of reputbicun principlea, anil the re-estahbliment of the empirc. Causes like these, which affect commerce without a change of International obligations, would require more space for their clucidation in detail, than cun be accorded to them in this digest. They are, nowever, alluded to for the purpose of awakening suggestive trains of reasoning. From $18: 11$ to 1841 the general conmeres le$t$ ween the two countries increased $14,375,000$ frames, or ahout 83 per cent. This auginentation falls especially upon the products of the United States imported into France, the amount of which has tripled in this period. In the following yeurs the effect of the tuigh teriff of 1842 will be perceiven, capecially on the value of exports from France into the Unitel States. The article of cotton has, for a number of years, constitoted in value, upon an average, ithree quasiore of all our domestic exports to France. The average annual value of our exports of home products to l'rance from 1830 to 1833 , was $\$ 9,000,000$; and the experts of cotton for the same period, ef,000,000. The following tahle exhilits the quantilica of cotton exparted to France for the yesra enumerated, vir.. :

| Yeare. | Poturde. <br> 71, 110,0100 | $\begin{aligned} & \text { yeare. } \\ & \text { insti. } \end{aligned}$ | proade, $124,611, \cdot 00$ |
| :---: | :---: | :---: | :---: |
|  | ma, 000.4010 | 1446. | 121,517, (1010 |
| $15 \%$ | 80, 881,590 | 1547. |  |
| 1 NJN | 96, 16,000 | Ifils. | t67,437,400 |
| 1819.. | 76, 830.409 | 1819. | 177,1:12, 4 M |
| 1811. | 160,875,240 | 1400) | 1\%,4i9.806 |
| 1411. | 110,7 $7 \mathrm{mb}, 000$ | 151. | 118,918,426 |
| I142. | $115,180,410$ | 155. | 162,429,909 |
| 1448 | [22,497, (140) | 1483. | 174,649, 94.4 |
| 1844 | 119,345,600 | 1515. | 144, 424.1204 |

The tables from which we extract do not give the ralues of our cotton exprorts for the years statell above, but, as in some preceling years, we learn from other data, they have been equal to the value of three feurths of our exports of home prolucts. It may he added, that, with the excepition of 1854, the atove figures have heen compiled from French custom-house returns. They are considerally below those given in the annual reports prepared by the United States' 'Treasury Dcpartment, and are not so reliable. The following table, compiled from these anoual reports, will show the exports of cotton to France for six years, ending with June 30 th 1850, and the valse; as also the total value of domestic exports to France during the said years, respectively :

| Sears, | Pounds, | Value. | Total rulue dotirstie exporta |
| :---: | :---: | :---: | :---: |
| 1 500 | [25, 234,697 | -14,395,49 |  |
| 18\%1. | 183, 161,571 | 18,124,518 | 25,302, $1 \times 5$ |
| 15.2. | 180,21.3,270 | 16,484, 280 | 22, 192, 076 |
| 14:8. | 1-9,286,913 | $19,242,076$ | 25,120, 0.06 |
| 1454. | 144,424,864, | $1.1,582,712$ | 31,958, 212* |
| $10^{5} 5$. | $240,118,509$ | 19,005, 423 | 81,628,493 |

- The expurt of cold and nllver cola sud bullion was unusualty large this year, anlounting to 6,609, (Mon.

Tibneco.-Our other chief export to lirance is tobacco. In that collutry, the trade in this article is monopolised by the government. Information on this au'ject is derived from a recent publicution, from the pen of a gentleman who has analyzed and studied our Furopenn tobacco trale in the principal markets of the eantern continent. The exclusive right to purchase lmported and indigenoun tulateo is invested in than regif, or commission-an nasoriation under the supervision of the Minister of Finance. This ragie alone can ashorizo its manufacture, fix the prices at which it in to be noll to retailers, nul the prices at whin the latter shall sell for consumption. The capital of the reyif, comsisting of houses, oflices, machinery, anm tobacice in atore, is of the value of about 40, 000,000 . There in usually kept on hand a suply of tobacen suflicient to meet the temand for three years. This enublen the regie to manufucture it more
perfectly, the supply one but llcense, w fixed by the syster portation, individual duties equ sales. Ont is constant at a stand. under the the metho certain de There is 1 the concur
Up to 18 merchants municated The numb sud the pri The syate regie to ma ities and bacco. Sa mitted to $t$ and they $t$ certain pri sulnnitted 1 and when 1 ples of ther the model pends upon It requit system is molerate e wert admit mitted, we st the pre weuld, ther kept in vi many year governmen so importal of persons $t$ we can not sddition to this import cial dispate State, are Y
"Tobace department the most ri, other deparfour plants the tuhareo or produce cent. The 80,000 , are and are all to 12 per They arel Morluix, ' T llordeaux. hy, and 1. manufuctur which ther Switzerlan listhed is va The olject frontier fau the rate is lst, it is en worth only 8 frunce (f tho custon
perfectly, and to provide against accidental failures of the supply. No one can purchase at wholesale of any one but the regie; and ne one can retail without a license, which compels the purchaser to sell at prices fixed by that commisaion. Of late yeare, however, the system has been so far celaxed as to allow an importation, for personal use, of a certain quantity by individuals, upon the payment, by the importer, of duties equal to the profits reaped by the regie upon its sales. One fact lis encouraging: while the consumption is constantly increasing, the culture remains in France at a stand. It remuins at a stand, because it is alse under the supervision of the regie, which prescribes the methods of cultivation, and confines its produce to certain departments, and even to certat:- izdividuals. There is nothing to stimulate enterprise, or to secure the concurring energy of individunl interest.
Up to 1817 purchases were made upon the offers of merchants submitted to the director-general, and communicated by hlm to the Councll of Administration. The number of competitors created embarrassment, and the present system wan, after some years, adopted. The system is this: Proposals are published by the regie to make contracts for the supply of certain qualities and certuin quantities of specified kinds of tobsceo. Samplea of the kinds and qualities are submitted to the inspection of those who desire to contract, and they thereupon submit their offers to supply at certain prices within a time specified. The samples subnitted to the contractors are carefully preserved; and when the cargees arrive st the various ports, sam? ples of them are forwarded to Paris and compared with the model samples, and the acceptance or refusal depends upon this comparison.

It requires but little reflection to perceive that this system is seriously injurious to nur trade. It is a moderate estlmate to make, to suppose that, if tobacco were admilted into France ar other products are admitted, we should export ten times as much as we do st the present time. The nbolition of the system would, therefore, seem to be an object ennstuntly to be kept in view by our government. It has stood so many yenrs, however, and under so many forms of governinent, and is so protuctive to the revenues, and so important to the government itaelf, in the number of persona thus brought under its direct influence, that we can not hope to ree it aom materially changed. In sddition to the facte already detailed on the subject of this inportant staphe, the following extracts from ofticial dispatches, communicated to the Department of State, are presented as pertinent:
"Tohaceo is only permitted to he cultivated in six depurtments as a staple, and this cultivation is under the most rigid surreillance of the government. In the other departmente agriculturists are allowed to grow four planta for each tenement for medical uses. On the tobacee disposed of ly the regie, whether imported or proluced, the profit realized momis to 447 per ceat. The retail dealers in the article, anmbering about 30,000 , are under the control of the regie inspection, and are allowed a commission on their sales of from 10 to 12 per cent. There are only ton mannfactories. They nre loeatel at l'aris, Llavre, Lille, Strastourg, Morlaix, Tunneine, Lyens, Marseilles, Toulouse, and lordeaux. Bach has its circle of departmenta to aupply, and is restricted to transactlons, therein. The manufactured article is deprosited in magarines, of
 Switzerhuml, Germany, mal Helgium, the price entatlished is vastly below that whilh rales in the laterior. The object of this is to prevent smuggling. Whore froutler facilities are aflorded for illidt impurtailons, the mate is comparatively moderate, Where none exlist, it is enormous. Thus, it Straskourg a jound is Worth only 15 gous (cents), while at Orleans it is worth 8 francs ( 8106 ). Jaist year ( 1848 ) the recripts from tho customs only nuounto to ubout $1 \cdot 16,000,000$
francs- $86,000,000$ of which were derived from tobacco, nearly all grown in the United States-under the workings of the regie. Were this regie abielishes. and a moderate import duty aubstituted, instead of a market of 16.000 or 18,000 hagsheads of tebaceo per annum, France would take from us double that quantity Immediately thereafter."
At the present time, we export abont two fifths of all the tabacco consumed in Europe. Strict attention to its proper culture will enable us to furnish a much greater proportion. From 1827 to 1836, our exports to France amounted, annually, on an average, to $\overline{5}, 727,-$ 900 pounds. For many years we have exported from three fourths to four iffthe of the tobacco coneumed in France. From official reports of the French autherities, we gather the following statistice of our exports and sales to the regie in the years specified:

| Yeara, | Pounde. | Years. | Pounds. |
| :---: | :---: | :---: | :---: |
| 1887. | 10,622,104 | 1846. | 17.798,000 |
| 1838 | 11,649,710 | 1847. | 15,562,907 |
| 1899. | 18,089,036 | 1848. | 18.446,305 |
| 1840. | 17,840,618 | 1849. | 16,852,180 |
| 1841. | 21,040,924 | 1850. | 18,6t 2,628 |
| 1842. | 10.149,800 | 1851. | 12,058,876 |
| 1843. | 27,771,788 | 18\%2. | 82,805,240 |
| 1844. | 20,891,000 | 1858** | 9,741,000 |
| 1845. | 24,318,800 |  |  |

* Unlted States' Treasury reports give the quantlties o lobaceo exported to France for the fiscal years enting Juao 30,1854 and 1855 , respectively, as follows: 1854, 15,102,400 Its.; $1855,40,566,4091 b s$, hosides 2,905 cases, and 579 hales. Tho exeess of the lalter year was probably for tho army in tho Crimea. Tho Froneh fiscal year ends with that of the calendar.
No valucs are attached to these quantities, bat they may be estimated by the aid of other data. The cost of Anserican tobaccoes, on delivery at the factories of the regie, all expenses included, is given by a French legishative reprort as follows, on an average fo-several years: Maryland tohaceo, 95 cents per lb ; Vire inia, 8.2 cents ; Kentucky, 7.7 cents; Missouri, 8.5 cents. The following statement, also derived fron French authorities, shows the nett profits of the regie, which, after paying all expenses of purchase, transportation, manufacture, and sale of tobacco, it has paid over to the State treasury, annually, from the 1st of July, 1811 (commencement of the menopoly with the regie), to the 1st of January, 1853:

| Years. | Franch. | Years. | Frane |
| :---: | :---: | :---: | :---: |
| 1811. | 6,000, k ¢0 | 1889. |  |
| 1812 | $24,000,000$ | 1884 | 50, $3.48,14$ |
| 1813 | 29,355,612 | 1835. | 51,700,181 |
| $1 \times 14$ | 32,146, 000 | $1 \times 36$. | 05,629,340 |
| 1815 | 32,191,303 | 1887. | 69,026,912 |
| 1 sil . | 32,855,321 | 1888. | 61,652,425 |
| 1217 | 89,182,094 | 1839 | 66,001,841 |
| 1815 | 41,702,861 | $18 \pm 1$. | 70,111,157 |
| 1819 | .1,412,493 | 1941 | 71,089 095 |
| 120 | 42,210,404 | 1942 | 78.804,142 |
| 1,21 | 42,270,014 | 1843 | 77,365,735 |
| (vis) | 41,951,99\% | 184 | 79,400,379 |
| 1423 | 41.5S4,4-9 | 1455 | 82, $\times 344,401$ |
| 424 | 18,129,123 | 1546 | 85,961,080 |
| 1425 | 4, (3a), 45, ${ }^{\text {a }}$ | 1847. | 88,301,198 |
|  | 44, $9,12,1157$ | $1 \times 48$ | 55,271,054 |
| 27. | 43, $22 \times 183$ | 1849 | 85,186,106 |
| 1 a 2 N | 40,885,1893 | $1-50$ | 85, $015,1 \mathrm{MO}$ |
| 1529. | 45,642, 490 | 1851 | 92,233,729 |
| 18. | 40,742.4.8 | 1 | 95,344,462 |
| , | 4,120,034 |  |  |
| W22. | 4,731,507 |  |  |

French ontcial documents furnish the following ficts relative to our cotton trade with that empire. By the custom-house retu nes for 1855 , it appears that there were received fur that year, from all countries, $167,200,000 \mathrm{lbs}$; ngdust, for $18,51,157,520,000 \mathrm{lbs}$; 1853, 165,000, 000 lbs ; 1852, 158,400. 00 lbs.
The following tabe shows the quantilies of cottor imported lita llavre, from all countries for a period of four yeara, ending with 1835 :

| Yarars | Frofu the L'attel Staton | Fiomblinall. | From elew here. | Tutal. |
| :---: | :---: | :---: | :---: | :---: |
| 155) | $\begin{aligned} & \text { i3ules, } \\ & 4(11,61010 \end{aligned}$ | $\begin{aligned} & \text { ivales. } \\ & 2,51010 \end{aligned}$ | Dalea. 9.090 | $\begin{aligned} & \text { Haien. } \\ & 419,1160 \end{aligned}$ |
| 1854 | 411,0M3 | 8, (14) | 12,000) | 425,090 |
| 1*N | 874,060 | 2,406 | 12,200 | 389.510 |
| 1582 | 814,900 | 6,410 | 14,400 | 305,300 |

## FRA

Table ahowina tur Quantitibs of Comon meurivad at the otter Ports of franoe during the hama Ybara,

| Yexrs. | From the United Statea. | From Brasil. | From Esypt. | $\begin{aligned} & \text { From } \\ & \text { e:cowhere. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1855 | $\begin{aligned} & \text { Belon } \\ & 12,000 \end{aligned}$ | None. | Balea, $80,700$ | $\begin{aligned} & \text { Biglos. } \\ & \mathbf{2 , 8 0 0} \end{aligned}$ |
| 1854 | 10,800 |  | 91,400 | 4,800 |
| 1859 | 14,500 | ${ }^{\prime \prime}$ | 88.000 | 17,000 |
| 1559 | 17,800 | " | 80,700 | 12,500 |

The preceding tables exhibit a total importation of cotton into Frunce, viz. t

|  | Balea, |
| :---: | :---: |
| In 1855 | 469,600 |
| 41864. | 470.010 |
| $\cdots 1853$. | 454,000 |
| 1502. | 462,800 |

The doeument from which the preceding tublea are tranalated and condensed, adds: "We may further remark, that, while England imp ts from the East Indies annually 400,000 hales of cotton, and thus finds profitulle employment for her commercial marine, France is deprived of the advantages of this trade. The fault is found in the apathy of our cotton spinners and in our custom-house regulations. Cotton from the Indjes, Imported In the direct trade in French vessets, ought to be almitted free of doty; and the impest on cotton Introducel from the entrepots of Euroje should be extremely molerate."
The articles of domestic produce usually shlpped from the United States to France, beskles cotton and tobacco, are hope, fish, pot and pearl-athes, whale-oll and whalebone; and those of forejgn produce are principally sugar, coffee, teas, cocoa, pepper, and other spijecs. The principal srticles imported Into the United States from France are wines, brandies, silka, ollve-oil, jewelry of all kinds, and, latterly, some cotton gools. An examination of the detalls of the trade in these artletes could add nothing to the lnferences whlch the general tables, already presented, auggent.
In the year 1793 an art was passed by the National Assembly, Interlictlng direet commercisl iniercourse between fureign nations and the lirench republice. This act, although never formally repealed, has lueen prastically abrognted lig the Introduction of nnmerous modifications. Even forcelgn goods actually prohihited are aluitted to entrepot for re-exportation at the ports of Marselllen, Bayonne, Bordeanx, Nantes, Havre, and Dunkirk, on payment of apeeffied duties; und these goodx may lee cransferred froua one honded warehouse to another. Goskn nor prohlsited way le thun transferred ly Innd, on the terms of the tranisfer, free of duties. Airles, Vort Vendée, and Strashwurg are pointa where merchandlse not prohilited ia received in bond, and from which it can be exported by nea ouly. There is also, at Lyons, a sperial depoit to which all the ports of toonding dépits may transmit merchandise for consumptlon or expurtation.
Hy the terma of the convention of the 24th of June, 1822, the time for levging diseriminating duties has long since explred. The only charges upon comineree, In articlew of home produce, which ean tee made ley either country, are duties upon tonnuse; and they are specifically limited to 5 francs (or 94 enta) per ton on the vensel's measurement, which is to fio caleulated accorling to the American vessel's register, and the French vessel's passport. This tounage duty excreds the manount levied ly fromo oll every other country, and thus operates linjuse ly to Anerican internsts.

 pay. so cent"; gring in ballinst frowz un onther wis utry, nothing. Other trivial port ciburb" anch as light-



 is the case as regandx Ac tha, of 16 custertias ; agne, and aeveral other country w!in) the terms of
their trenties with the United States, are per:nitted to carry on an indirect trade. The veseels of these nations, being subjected to a lower duty than ours in France, and a lower duty than French vessels in our ports, are thus enabled to carry merchandis, to and from the United States cheaper than the veisels of oither country can do it. In this way they havin monopolized no lnconsiderable portion of the carr, ing trade between the two conatries.
The reciprocity stipulated in the conventlon of 1822 extends only to articles of the growth, produce, at manufacture of the respective countries. To admit a cargu from the United States to the advantiges secured by the treaty, it must be certified by the French consul at the port of elearance to be of the growth, produce, or manufacture of the United Stutes. The American ahip-master is subjected, in a French port, to many emall charges for the authentication of certificaten, etc., from which the French master is cxempt in our ports. Most of these are, probably; shecr abusea, without authority of law. They practically operate as an increase of duties, not warranted by the provisions of the treaty. There la a stipulation in the convention of 1822, by which the products of tho United States, carried in American vossels, after a ceitain period, are to become liable to no higber rate of duty tluin if imported in French vessels. This does not inelude tin, the products of the fisheries, or spermaceti, slmply pressed. Copper and lead* ure nlso excepted; but, in point of fact, are admitted to the advantages of this provision, if it be shown that they aro of Ámerican production.
The prosperss of future commerce with France de. peud nfon a variety of facts and contingencies. The facts, of n permanent claracter, whlch operate upan them, are the natural capabilitiea of the countries, the populations, and the sulxlivisions of thelr halwr; the contingencies chiefly arino from their relations to other conntries and their legislution. The facts bescing upont tho suljeet, in the United States, are to he found in its history sud its census, and are familiar to all. Those respecting the lirench empire, may be brielly summed up In a suggestive rather than an elatorste form. France proper, to which alone reference is nuw hal, lies het ween $42^{\circ} 49^{\prime}$ und $51^{\circ} b^{\prime}$ north latitule, and emilraces an areat of 204,305 squara miles, greatly variegated lye mountainn, streams, and plains. The soils and their proportions are as follows:

Ono half the area of trance in cultivalile; and of this, 9 purts arn meadow; 4t parts vineyarl; 15 parls woold and foreets; 15 downs, pastures, and heaths; all the remainiler consisting of roals, cities, canals, vegetalile gundens, ete. It presents every varicty of geoboglcal format ton, exhblited in almost every vaiciety of known relations. All the departments, , Ni in numLeer, contain mineral aulutances. 'ilhere are 36 coalfielis in 30 depmirtments. The mast Impuitant are those of the Loire, embiracing an arra of te, 100 acere, lying between the loire and the Rhone, down which their prolluits reach markets. Next to these conme those of Nord, Saene, Avignon, Garl, thalvalos. The remainder are mall. The amual produco of coul ex-
 only In the pronduction of imin. There nee twelve Iroit minom fin cuperation. 1ead, Hilver, untimony, capo per, weil ma;an ala are found, hut do not assume combmerctul lupare. dee. Salt in made In several localities, and has un tue a conslilerubie sourca of wealth. ?3n).-

000 persona a show an annt Tha popul The Increase $2,000,000$. lation of full are males. vote under th ployed as foll

Workling el Msaufactur taral
Learned p comes.
Pald oficicia
About the prevails. Sch teenth of the direet and ind revenue, from national debt $i$
The number $5,000,000$, givir vine and the of persons ́mo sud sale, to 2 pendx, as does demsnd; rarel ing below 10 ce mere or loss p tries, hos incre 100 to 175 per e
The followin wine in Frane were furnished token them, by
Account of tus
Derabtment, Dyparimenta.
Charente Infurlou Girroude.
Girotide.
Charente.
Charente.
Gers....
Garti...
Aude...
Aude....
Moune.
Tonne.
Dolret....
Dordogne
bordogn
Rhone...
Sano anc Löre.
Lat et Gatobne.
ludre et Iolre
Boaches da lhoone Ilante Garonne... Aulee ... Lolte inferfe...... Cate d'Or. Loite and Clur... Pay du lome. Ilaute Marne. Maltie and lootre.
 Selme of Marne.. las Bhio.. lias thio Mot.....
Mise.
Mrense.
Vlenthe.............. llasha I'y runess. Taniles
Marne.
flante Sante. . Irome..
Drone.............
lyyrucesorientales
Nia...................
The following parts uf wine frou sre the priacipat statistics exhibist the beilef of ma France over ten t what is more cur Cnited States fun limes as much as four thines as grea

000 persona are engaged in mining, and their operatlons show an annual value of $\$ 80,000,000$.

Tba population of France, $\ln$ 1851, was $85,781,628$. The increase in the preceding 10 year3 was nesrly $2,000,000$. A like increase would glve !n 1855 a population of fully $87,000,000$. A ittle less than one half are males. Those of them who were old enough to vote under the late republican constitution were employed as tollows:

> Working elass, or panpers i..............

> C,585,000
> Maonfaeturing, commarel tural eapitalists.
> Learned professinas, and tadepeadont in
> 827,000 comea Paid otticiala, army, aavz, aod penslons....

About the eane distribution of employments yet prevails. Schools are proviled for only nbout one aixteenth of the children. The revenues of France are direct and indirect. Tho averuge aggregate annusl revenue, from all sources, is about $\$ 300,000,000$. The national delt is over $\$ 1,100,000,000$.
The number of acres under vine cultivation exceeds $5,000,000$, giving employment, in the cultivation of the vine and the manofacture of wine, to about $2,000,000$ of persons (́mostly females), and in its transportation and sale, to 250,000 . The average home value depeads, as does all other produce, on the supply sud demand; rarely, however, exceeding 20 cents, or fulling below 10 conts per gallon. The vine disease, now more or leas prevailing in all wine-producing countries, has increased the average price of wine from 100 to 175 per cent.
The following statements, showlag the produce of wine in France, anal the exports in 1845 and 18.46 , were furnished to the E'conomist from which we have taken them, by the authorities in Bordeaux.
Accolnt of the Pbodece of Wine in Faance in facit Depautnent, is the Ohdeh of thrin Jmpoatanee.

| Dherarimenta. | Ifertolitres. |
| :---: | :---: |
| Herault. . . . . | 2,616,000 |
| Charente Inferleure | 2,994,000 |
| Gironde. | 2,4220,140 |
| Yar... | 1,13:3, 10 KW |
| Chare | 1,152, 1 MH |
| Gers. | 1,128,100H |
| Gard | 1,182,9mm |
| Aude. | 1, $011,(6 \mathrm{~m})$ |
| Micurthe | 912, (4G) |
| Yonne |  |
| Iolret. | $8 \mathrm{Ca}, \mathrm{BmO}$ |
| Dordourne......... | 720,100 |
| Hione., | $740,09 \mathrm{~kg}$ |
| same ant Loire | 64,1mb |
| lat et Gamonino. | cti, 1460 |
| ladre ct Loire. | 625.1400 |
| Bonches du Ithone | $6 \% 0.9 \mathrm{MJ}$ |
| liante (inronno. | 6) $4,14 \mathrm{~m})$ |
| Aulus. | 692, 120 |
| Lotro Inferlent | 868,000 |
| Cate d'Or. | 5:34,464 |
| Loire and Cher.... | \$27, $\mathrm{HMO}_{6}$ |
| Pay de thome. | (296, 1210 |
| llaute Marne...... | $81.8,1040$ |
| Malne and L.oire... | \$ 311,140 |
| Seine and 1 Hre. | 5 ¢4, 140 |
| Scine et Marne | 016,4(M) |
| Ras Ithia. | $0: 19,(k H)$ |
| lot. | 445, $\mathrm{WHO}^{\text {( }}$ |
| Meuse | 459,046) |
| Vienne | $4.50,(\mathrm{HCO}$ |
| Bastes l'y runces, | 82.50 ing |
| landes | 380, 1 Mm |
| Narnt |  |
| liaute taone | 843, ${ }^{\text {(12H) }}$ |
| Drome.. | 345, 1030 |
| Praneesorlentales | 8 11, (2H) |
| Ain. |  |


| Deparments. <br> Averron. | Hectolltren. $858,4{ }^{\prime \prime}$ |
| :---: | :---: |
| Jura. | 837, (14) |
| Fondeo. | 819,904 |
| Tarn and Garonne | 317, 1000 |
| 'Tart. | 344,000 |
| Hant Ihin.. | 874,1800 |
| deux sevros. | 270,0061 |
| Correze. | 258, 000 |
| Inntes l'yrenees. | $268,(46)$ |
| Indre | 213,4101 |
| Isere. | 242,*m |
| Lolte | 228,460 |
| Ariledi | 282,600 |
| Vaneluse | 9:18,019 |
| Vosges. | 212, 110 |
| Cher.. | 251,000 |
| Alsne | 928,000 |
| Momelle | 974,0M0 |
| Arriego | 166, MM |
| Aliler. | 105,000 |
| Doubs | 17\%,460 |
| Niovre | 17(0,90) |
| Ihases Alpes... . . | 114, 1 (h) |
| Neine............ | 107, 104) |
| Eure and Iolre. . . | 106, (Mm) |
| sarline. | $83,4 \mathrm{MMI}$ |
| Inutes Alpes . | $8 \mathrm{Cl}, 17 \mathrm{HC}$ |
| Hise.... | (62, $1 \times 1$ |
| Inate Lotre |  |
| Aricnmes | TH,16M1 |
| Hanto Vienne | 22,1103 |
| Euro.............. | 21, (1) ${ }^{\text {a }}$ |
| Induro | 14,010 |
| Morblhat | 8, (14H) |
| the and Vilat | 3,0017 |
| ('antal. . .......... | 2, Mh) |

The ports of win sro tho prlatipal consumers of French wine. These statsties exhibit some curbous farts, and opposite to the belief of most persons. Algerin importa from France over tea times as much wine as England, and, what is more curious, wine of a highor price. The l'uited States imports from France not quite three times as much as England, but in valuo moro than four thues as great.

AOOOUNT OF Tus Export OF F'rinof Wines ro ALh Countailss in 1840 AND 1846

| Coustries. | 1845. | 184. |
| :---: | :---: | :---: |
| Rusala. | $8,955,700$ | $\begin{aligned} & \text { Zitres. } \\ & 8,809,900 \end{aligned}$ |
| Sw8den | 6,8,900 |  |
| Norway.. | 621,040 | 272,700 |
| Denmark | 1,619,600 | 1,218,700 |
| Ianseatje Towas | 13,689,960 | 14,597,440 |
| Germande Zollvereln............ | 5,2:0,600 | 4,604,000 |
| Hanover and Mecklonburg Behwerin. | T46,000 | 887,600 |
| Netherlands...................... | 9,089,800 | 8,775,700 |
| Beldiam | 11,630,800 | 6,168,900 |
| England | 8,925,600 | 8,683,000 |
| Portugal. | 258,000 |  |
| 8pain. | 421,600 | 188, 200 |
| Gardinla . . . . . . . . . . . . . . . . . . . . | 7,810,700 | 5,499,200 |
| Naplea. . . . . . . . . . . . . . . . . . . . . |  | 119,099 |
| Papal State | 877,900 | 167,000 |
| Tuscany | 594,600 | 243,100 |
| Switzerlan | 18,529,100 | 15,180,600 |
| Graece. |  |  |
| Turkay | 172,800 | 251,700 |
| Egypt. | 250,100 | 268.300 |
| Barbary States. . . . . . . . . . . . . . . Algeria. | 84,579,500 | 42,589,500 |
| Weatern coast of Afriea....... | 74,600 | 47,500 |
| Maurltins ..................... | 5,098,410 | 5,238,600 |
| Other Afrlean countries........ |  |  |
| Indla. . . . . . . . . . . . . . . . . . . . . . | 480,740 | 189,140 |
| 1)nteh Indian Possesslons...... | 469,909 | 128,700 |
| Freneh Indian Possessions. . . . | 82,000 | 283,800 |
| Philppina Isinhds.............. | 147,200 | 9,100 |
| Chinn, Cochin-Chlna, aud I'aclfte lalands |  |  |
| Havti. . . . . . . . . . . . . . . . . . . | 818,640 | 481,000 |
| United Etates. | 8,489,600 | 10,894,000 |
| British Possessions in Anierica. | $100,8 \times 0$ | 117,800 |
| Apanish Possessions In America | 529,700 | 383,000 |
| Danjah Pobaessions in Ainerlea. | 624,160 | 292,400 |
| lirazill. . . . . . . . . . . . . . . . . . . . | 8,062,200 | 1,473,600 |
| Moxieo. . . . . . . . . . . . . . . . . . . . | 304,500 | 318,400 |
| Guatemala |  | 9,500 |
| Venezuela | 224,4100 | 118,300 |
| New Granada | 26,600 | 67,000 |
| Pern and Bollvia............... | 309,400 | 207,200 |
| Chill.......................... | 1,476, 510 | 1,423,900 |
| Ito die la Pinta. | $8665,6 \mathrm{~m}$ | 855,900 |
| Vruguny . . . . . . . . . . . . . . . . . | 1,128,600 | 667,000 |
| Texas and Equailor............. | 95,200 |  |
| Guaslalonpe.. | 2,575,300 | 2,889,0110 |
| Martinlque. | 8,864,300 | 2,4118,700 |
| Bourbon. | 8,025,611) | 3,473,800 |
| Senegnl................ . . . . . . . | 1,151,700 | 1,117,800 |
| Cayenno....................... | $5 \times 9,410$ | 8ti4,900 |
| Freneh Nowfoutland Fishery. | 878, fu10 | 853,700 |
| Total. | 147,183,100 | 133,548,139 |

In 18.19 there were produced in France, in round numbers, $925,000,000$ gallous of wine. This was nn increase over the quantity produced in 1889 of $115,-$ 000,000 gallons ; but there were half a million of acres more under cultivation. The quantity annually exportel averages about $15,000,000$ gallons.

| In 1849 there | ware exported. |  | Gallons. <br> 41.(M)W1, M0 |
| :---: | :---: | :---: | :---: |
| 10201 |  |  | 42,000,400 |
| 1551 | " | " |  |
| 1452 | " | " | 83,241,000 |
| 185 | " | " | 43,500,000 |

 tahed. Atwot $\leq 0,000,400$ a;allens are nanually distlled into hrandy, the exportation of which is under apeedal governmeut restrittion s. $131,000,000$ gullons of wine, in its various forms, ste amually exported to forelgn countries. The government derives a considerable portion of its internal revenue from the manufacture of wine. The exclse duty in $1 \times 53$ mounted to upward of ${ }^{2} 22,000$. Hesiles the $90,000,000$ gallens conrurted into brandy, it is estimated that $\$ 20,000,000$ pullons are manufactured into other kinds of spirits. If this osthate he correet, there will he left for home chasumption over $\mathbf{7 0 0 , 0 0 0 , 0 0 0}$ gallons, or about 21 gallons for each hihalitunt.

The lisease of the vinc, daring the past few years, han been vary destructivo in France, Spain, Mndeira, and other uld wine-producing countries, Shonld tho disuase unfortuately continue in these countrien which havo hitherto supplied the markets of tho world

With this beverage, the day may not be distant when the United Statea shall beeome the exporter Inateail of the importer of wine. The vine culture has already attracted attention in the western and eouthern States. The following table will exhibit the annual value of each of the chief products of France, all which enter Into or Influence ite commerce:

| Produeta, | Quaniliy. | Vatue. |
| :---: | :---: | :---: |
| Wheat. . . . . . . . . . . . . . . bashels | 10640000,000 |  |
| Nrye and mitxed corn. ..... | 85,000,000 | 70,004,000 |
| tluckwbeat. . . . . . . . . . . | 26, 00001 HK 9 | 18,000,000 |
| Ilarley.................... * | $88,000,000$ | 80, 10000000 |
| P'cas and Beans.......... * | 8,970, 410 | 7,500,000 |
| Potatoes. | \$8, $010 \mathrm{M}, \mathrm{MOO}$ | 11,510,900 |
| Oats. . . . . . . . . . . . . . . . | 80, $000,1 \mathrm{MO}$ | 54,000,000 |
| ithliac cern........ . . . . . ${ }^{\text {a }}$ | 12,0410,000 | 9,000,000 |
| Wino . . . . . . . . . . . . . . . . . gallons | $800,000,000$ | 100, 1000,100 |
| Hemp....... . . . . . . . . . . . . . . . | , | 6,000,000 |
| Ifaw silk | .... | 8,000,000 |
| Flar... | ... | 4,100),000 |
| Mailier. | . | 1,000,000 |
| Fuet and tinber. | .... | 25,100,900 |
| Ollveoll, rape-aecd, et | .... | 12,000,000 |
| Tobacco.... |  | 1,500,000 |
| Chestnuts. . . . . . . . . . . . . . . . . . | .... | 1,500,000 |
| Aggragnto ana'i val. of products' | . | 532, 5000,060 |

The wild animals are not numerous enough to have any material influence upon trade. It is not so with those domesticated. The annual value of the wool grown from aheep is nbout $18,000,000$. This branch of industry is very inadequately attended to. Thera aro 14 or 15 different species of beeves, and the total number of all kiuds is alout $\mathbf{1 2 , 0 0 0}, 000$. This branch of husbandry is also much neglected. In the southern departments oliveooil supersedes butter. The horse is not as well managed as in England, nor are there as many horses. llogs are abundant, and wo are domestic fowls. The latter are well attendel to.

Landed property is more minntelydivided in France than anywhere else in Europe, or even than in the I'nited States. In a fow departments may be found estates of 200 acres; hut they are rare, sud daily ecoming more m, ns the lnw divides the realty equally among the children. The greater portion of the farmis art now less than 20 acres. Inprovements in the methods of cultivation progress languidly, and the methods of manuriag; and rotation of crops, and of employing machinery, continue to be very defective.

Commerce and manufactures may be justly said to have commenced with Charlemagne. They were repressed during the feudal ages, when the barons enslavel the artisans and peasants. They were revived by the return of the erusalers, who breught a taste for the luxuries of the liast. Jonin XIV. well understood their importanes. The death of Colbert and the revocation of the Elict of Nantes again paralyzed then, and the indintry of France became subjected to monopolics. They continned enalaved, in a great measure, untlit the Revolution of 1889 unfettered them. Since that period, legisiation has favord them ly keeping them free, and fiving full seope to individual enterprise and geniun. They have only been retarded or dinturbed fyy the intervention of wara. Their jpogress has, of late years, been wonderfully accelerated by the progress of sciunce anil its application to machinery and the umeful and ormmental ares. Of selentitic sthumants, the moat important has been the application of steam-power. To wilence are also attributable metallurgy; the proceas of dyelog; the various preparations of nuimal substances; the weaving of clothe, cowhmeres, nul damanks; the making of puper, watches, and clockn, and of tine and common pottory; the mamafartures of nilknand tinsuea i mul namberlens other uneful and tanteful arts, which have apread whe the wing of conmmerce.

The average annual value of the exicorta of lirance, from 1825 to 1883 , was about ${ }^{2} 81,1 \mathrm{lis}, 164$, and of ita Imports $475,785,012$. The otlicial statement of the

Imports and exports, for the years 1844 to 1853, estlmated in franes, were as followe :


The following tahse, made up from materinla contained in "Annales du Commerce Extterieur," brings diwn this statement of the anount and charncter of th: foreign navigation statiatics of France to the year 18.3, the entrances and clearances being given in agg egate:
Navibation Tamle continueo to 1ses-the Entanzcea and Cleahanceb tenteg.

| Ye ins. | VHENCH VEASELS. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Tuonaks. | No. | Tuanage. |
| 1447.. | 9,701 | 1, 1147,1410 | 211,704 | 2,7ıx,000 |
| 1548... | 10,1117 | 1, 149,1001 | 18,821 | 1,626,400 |
| 1889. | 11,961 | 1,142, 190 | 14,768 | 1,721.009) |
| 50. | 11,518 | 1,102,000 | 16,492 | $2.1110,0 \mathrm{Na}$ |
| 51. | 11,668 | 1,202,1001 | 10.247 | 2.839,000 |
| 1522 | 11.216 | 1,100,060 | 19, 503 | $2.548,0$ ck |
| 1835. | 12,182 | 1,243, 060 | 21,425 | 2,i $73,0 \mathrm{~kg}$ |

In 1856 the arrivals and departures were thus distrihuted :

| Entered. | $\begin{aligned} & \text { Veseata. } \\ & .25, ? 45 \end{aligned}$ | $\begin{aligned} & \text { Tone, } \\ & (, 1175,160) \end{aligned}$ |
| :---: | :---: | :---: |
| Cleared. | 14,455 | 2,820, \%k 0 |
| Total. | 412,290 | 6,990,900 |

The great disparity between arrivala and departures is explained by the fact that tho larger purtion of imports consists of bulky and cumbrous merchandise, destined for our workshops and manufactures, while vessels leaving French ports are usually froighted with manufactured products, the value of which cousists in their skillful workmanshl! rather than in their specilic welght or the rpace which they occupy. This year (1856), especially, the importation of cereuls was necessurily heavy.

A comparison of the different thags engaged in this general movement forces us to repent the remark which we are connt rained to tnako whene ver we examine this sulject-nasaely, that the Freuch thag is lavariably behind that of ather nations in her own commerce. How stands nar tlag in 1856?

| Frenoh Flag. | Venerlas. <br> 16.820 | 2,591, ${ }_{\text {Tama }}$ |
| :---: | :---: | :---: |
| Forelgin Flagm | 83, ${ }^{\text {da }}$ | 9,485,010.0 |
| Tutal. | (10,217 |  |

These figures are of themsclien sufficient to show how necessary and urgent it is that the Freach merchant marine shonh be phaced in a hetter condition to comprote with the flage of forcign countries in her own ports.
The suecial* commerce of Frauce with furelgn countries in 185\%, was c'stributed as exhils.

[^17]Ited in the sourcea:

| Cntt |
| :---: |
| Unttert 8 |
| Belclum |
| Sarilit |
| Apain. |
| Zolve |
| swttzer |
| Runda. |
| Turkey |
| Brazti. |

The follow articles impor

## Artielex.

Cotton, raw..
Sllks, raw.
Cereata.
Silk tissues.
Cotton clethi..
Wiol, raw...
Wood, common Stone © anl.... oit seeds.

The manuft 17\%0, and has total number 300,000 . The France, nomual raplilly increas The commerc Inserted under designed to illn few years, se latest, and not interests of the lows foreign-lum take the Frencl payment of 10

This will cre mand for Athe expecially for st bay also lieen pr naval storen, Another extend October 9, 1×irl rersels wholly $l_{2}$ and if only parti tonarge duties $\boldsymbol{1}^{1}$ cargoes. A dect an old decree of all vessels enter exporting salt, i been suppressed.
Farly in 18.55 France, indicatin, introduction and Icansalted jrovis sale meates mivan \& per cent. Thi idntly arrested t arioles projects prevent if further the rates alrocaly import duty on fio 51023 to $\begin{gathered}1 \\ 50 n t\end{gathered}$ was resurted to 1 herfammag the To this end, the aively reduced $\$ 1 \mathrm{k} 6$; mud in th further lowened t pounda). The e

Ited in the following table, estimated from official sources :

| Countrlen. | Importo Into France. | porta froun Franee. |
| :---: | :---: | :---: |
| Great Britain. | Franes | $\begin{aligned} & \text { Frances. } \\ & 817,000,000 \end{aligned}$ |
| Untted Statos. | 158,000,000 | 217,000,000 |
| Belgium. | 140,000,000 | 128,000,000 |
| Sardinia. | 104,000,000 | 67,010,000 |
| Spsth. | 44,000,000 | 60,000,000 |
| Zalliverela | 88,000,000 | 45,000,000 |
| Switzerlan | $87,000,000$ | 54,000,000 |
| Rusala. | 68,000,000 | 11,000,000 |
| Turkey | 51,000,000 | 22,000,000 |
| Brazli... | 14,000,000 | 84,000,000 |

The following tables exhilits the values of the chlef articles imported and exported in 1853:

| Articles. | Ohiclal volue in france. | Aricles. | Actinal value in franes. |
| :---: | :---: | :---: | :---: |
| Cotton, 1 | 155,000,000 | Slik cloth | 41,900, 010 |
| Sjlks, raw. | 149,600,000, | Cotton cloth. | 14,400,000 |
| Cereals.. . | 140,610,000 | Woolen cloth. . . . . | 175,400,000 |
| Slik tissues. | 187,800,000 | Wines. .............. | 145,500,000 |
| Cotton eloth | 75, 100,000 | Toys \& other mann- |  |
| Wuol, raw | 68,200,000 | factures of wood. . | 76,300,000 |
| Wood, common. | 45,700,000 | Stikg. . . . . . . . . . . . . | $55,700,000$ |
| Stone cral...... | 44,700,000 | Cereals ............ | $63,800,000$ |
| Oil seetts...... | 40,700,000 | skjns, worked . . . . . . Glassware. | $\begin{aligned} & 68,100,000 \\ & 21,800,000 \end{aligned}$ |

The manufacture of cotton was first introduced in 1770, and has increased at an enormous rate. The total number of persons now employed in it is near 300,000 . The total value of all the manufactures of France, nunually, is $1,600,000,000$ france, and they nre rapidly Increasing.
The commercial legislation of France, which the tariff, inserted under its approprinte hend, ${ }^{*}$ is more especially desigmed to illustrute, has undergone, during the past few years, several important modifications. The fatest, and not the least divantageons to the tonnage interests of tho United Stater, is a decree which allows foreign-built vessels to he nuturalized, and to take the French flag with all its privileges, on the payment of 10 per cent. on their assessed value.

This will create a new market, and an active demand for Ameriean vessels of 500 to 960 tons, and especially for steamers of 1000 to 1200 tons. A decree has also been promulgated admitting lumber, timber, naval stores, etc., freo of duty for thres years, Ancther extends to December 31, 1856, the deeree of Octoher 9, 18i-4, exempting from tonnage duties all vessels wholly laden with hreadstuffs, fiour, rice, etc.; and if only partially hiden therewith, an exemption of tonnage duties proportionate to the quantities of such cargoes. A deereo has also been published, reviving an old decrec of 1816, excopting from tonunge duties all vessels entering French porta for the impose of exporting salt, on which article the export duty has been suppressed.
Early in 18.5 important movements were made in France, indicating an evilent disposition in favor of the introduction and more general consumption of Amerlean salted provisions. from 1850 to 185.4 the price of salt meats ndvanced at the extraorthary rate of $\mathbf{t 0}$ to 4. per cent. This state of the provision market immeuntryarrested the attention of the government, nomd arivis projects were adopted with a view, not only to prevent ifurther increase in prices, but also to raluce the rates already raised to so exurhitant a figuru. The impurt duty on forcign cattle was loweras, viz.: from S10 23 to It cents $\boldsymbol{p}^{4} \mathrm{r}$ hemd, on heef; nut every means wan rearorted to likely to encourage the use of sateed berfamong tho general matse of tho Fronch people. To this end, the duty on salted meats las leon surces.
 (4) 86; and In the month of soptember, 1 Non, it was forther loweral to ! 1 f cents per 100 kilogrammes ( 290 pounds). The effect of this reduction of duty has

- Purt $\mathrm{in}_{\mathrm{s}}$
been to open the markets of Frunce to Ameriean salted provisione; and the importation has increased, since that perlod, to such an extent as to render it not at all improbable that this article will, henceforth, become a leading staple of export from the United States to France.

England is now almost exclusively supplled with aalted meats by the United States and Ireland-the latter country exporting about an equal quantlty with the former. The supply from the United States could he made always to equal the demand; and if France should opon her ports to Ainerican aalted provislons, the consumption in that country would be alnnest exclusively supplled from the United States. The following brief summary of the trade in salted provisions in France during the past 20 yeurs wlll exblbit the development which thls article of Amerlcan produce has made in that country.

In 1834, tho importation into France of salted meats reached only. 3527 quintaux, equal to about $777,8.44 \cdot 58$ pounds. After a lapse of 21 years-that is to say, in January, 18a5, and during that single month-the importation reached as high as 3720 quintaux, exceeding the impertation of the whele year of 1852 by 203 quintaux, or 44,769 pounds. Prime pork is imported into France in barrels of $381 \frac{1}{2}$ pounds gross, in brine of gray salt, and ls usually sold at from $\$ 1480$ to $\$ 15$ 81 the barrel. For the English market such pork is exported from the United States in tierces of 304,320 , and $3: 6$ pounds, and in barrels of 200 pounds.

Amerienn mess pork is too fit for the French market, and seldom fints a purchaser; American sugarcured hams, however, always find a rendy market and a brisk competitlon nmong purchasers. Shoulders, well cured, and put $\mathrm{u}_{\mathrm{p}}$ in hoggheads of 994 'pounds, are equally in demand, and bring from $\$ 1860$ to $\$ 1953$ per 220 ths. A similar feeling is manitested in France In behalf of her colonies. By decree of 10th March, 18:5, the duty on salted meats has been reduced as follows: iuto Martinique, Gundaloupe, Guiana, and Licunion, snfted meats of whatever origin, or under whatever flag, pay $0 \frac{1}{8}$ cents per 220 pounds. This measure has attracted the attention of pork merchants of the United Stntes, and already heary frelghts of this urticle have heen forwardel to those islonds. Various other modifications have been derreed, but as they relato mostly to the tariff regulations, they are merely alluded to here for the purpose of noting the tendency to a more liberal commercial policy, which has, of late years been, observable in French legislation. Recent custom-house returns, puhlished in lirance, show that the revenue to the Stato during the first six months of 1855, upon 18 different artieles, the duties on which have been lowered, was $34,181,574$ franes, agninst $18,25 \mathrm{~N}, 808$ francs, derived from the same description of mer lundise during the corresponding six menths of 1854.

Such figures supply the hest argument in favor of free trade, especially in a conntry in which a problititivo and protective system has so tong prevailed. The annexed table will also ilhnstrate the wise policy ly which, it would appear, that the commercial legislition of France is henceforth to he shaped.

Acconding to the Juurnal des Economistes, during the tirst six months of the year $185 \%$, the commercial transactions of lrance exhibit a satisfactory condition; although tho receipts for customs, compared with those for the corresponding six months of last year, show 1 decided falling off; , mounting, for the entire perind, tu $1,36 \cdot, 886$ franes. lhis indieated a decrease in importations, which is to be regretted, but which, all thing being eomxidered, should ennse no disenietule. The novements in 18.55 cxhibited, in point of fict, results altogether excepitional : thas the first six months, compared with the corresponding period in 1851, shuwed an increase in inport duties of $21,000,000$


Natigation between France and Fogelon Countaips-1850, 1854, and 1853, compared.


The preceding statement. oxhibits the navigation exhilits the exports of prineppal manufactnred staples between France and forelgn natons in 1855, as com- in $180^{\circ} 5$ compared with 3854 : by which it may be seen pared with 1854 and 1853 . The fullowing statement; that there hat been an incrence in the 10 months of 1 sis:


| Arikles | Yranch and forplice duritug the Grat 10 mumilhe of 185 s . | Freweh and furpign durting the firat 10 murhs of 1464. | A-ticlis. | Fruach and for. pign during the first io monthe ol less. | Frearh and for -hom turlin the trat to mathy of 185.4. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Drinks | Gallines. | Gailons. | Cotton tissues: | Panads. |  |
| Whtue, ordinary.............. | 15,2\%6im0 | 27, 2806 , 50 | I'ribleacho! and white. | 9,393,840 | 7,062, (以W) |
| " de llitrear........... | 4 HL 000 | 184.100 | 1alnted and dyed..... | $6,9029 \mathrm{ha}$ | 6,644, 6100 |
| Brandy, purv aleohol........ | 2,102, 1 mm | $8,042,920$ | T'ulle.. | 128,04) | 156,840 |
| Spirits of wine, puro alcohol. | 144,100 | 154.160 | Others. | 4,774,000 | 4,6\% 5 , 6.010 |
| Machlnea it mechanical apparatus | Pound 5. $1,826,830,000$ | Porands, | Flox and hemp thasues: |  | 2990 |
| Nodes mittlnery, etc............ | 1,962,0M1,010 | 1,242, m0, 010 |  | 105,120) | 2,920,8(0) |
| Poncelithe the and conmionn. | 7.800,060 | 9,5 50,400 | (thers. . . . . . . . | 100,4,400 | 96,340 178.360 |
| soap "perfuned ascepted)........ | 18,000,000 | 10,799, (10) | Woolen tissues: | -5,010 | 170 |
| Sill: |  |  | Gloths, eavelmeres, © morlues | 5700320 | 4,991,700 |
|  | 90. 150 | 1,818,800 | ant Others. | 6,67C, 600 | 6.230.900 |
| Floss of all so | 441.000) | 866,000 | Glik tixates.... | $6,572,980$ 48,117800 | P, 185,260 |
| Aucar, rufined....... | :55, 875,000 | 46, 3628.000 | Glass and Crys | 48,117.800 |  |

In addition to tho nut orons tables already given, | general direet trade between tho United States and the following statement is submitted, exhibiting the Franco during a period of 11 successive jears.

 peom and departisu to each Coritity debinu the yeara deatonatkd.

| TEAEGA | V |  |  |  | - Natioation. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | valcs of exruing. |  |  | valte on smrumpe. | ateatray tosmasa, |  | Funatiox tursain. |  |
|  | Domeatia produes. | Yorejga padnem. | - $\mathbf{u}$. |  | Livered ithe L'sited Staten. | Cleared from the U, Btaten. | P. fitered then Mnitem strget. | Cieared fo m the $V$, Sieten |
| 145. | (19.830, 171 | 12171,284 | (18, 610 (1)4 | \$21, 095,425 | 180,417 | 141,039 | 14,104 | 10,691) |
| 1846. | 18,601.050 | 1,623,925 | 15,164 575 | 2:1,911, 1822 | 118,534 | 181,679 | $187!4$ | 12,116 |
| 1417. | 15092, 581 | Sut, 082 | 19,09, 615 | 24,900, 841 | 139,672 | 161,057 | 29,533 | 28,107 |
| 1544. | 15.714.65 | 4.444.425 | 19,819,810 | 24,004,081 | 156,326 | 182,346 | 24,437 | $28: 897$ |
| 149. | 12.628,759 | 2,9×6,924 | 15,5 178.883 | 24,889,743 | 102.017 | 127,849 | 83,917 | 980,348 |
| $15^{2} \times 1$. | 17,951,277 | 1,943,070 | 19,4353,847 | 27.5941025 | 114, $\mathrm{Ni} \mathrm{\%}$ | 128.747 | 12,592 | 26,892 |
| 1651. | 25840.055 | 2,050,061 | 2-,250, 146 | 31,715,359 | 142,448 | 164,707 | 11, 1\%4 | 97.160 |
| 1598. | 22,190, 060 | 1,500,875 | $201,9090,615$ | 25, 440,206 | 198,242 | 214,763 | 46,768 | 17, 102 |
| 1*iN. | $25,120,016$ | 1,451,972 | 96, $071,7 \times 1$ | 83, $4,4.9,942$ | 189.916 | 201.181 | 37,966 | 14,748 |
| 1844. | $801.962,25 y$ | 1.179.749 | 82.147.931 | 85,741.898 | 9324,148 | 230,054 | 11,934 | 1-1981 |
| $1 \times 15$. | 81,623,8\%s | 1,254,240 | $82,5 i \times 123$ | 81,669,181 | 199,695 | 266,823 | 25,605 | $16,14 \% 3$ |

This important brauch of French commerco comprises all the foreign merchandiso transported uver tito French territories to other countries. Its vast increase myy le jerceived from the following statement for three years:

| Years. | Mainkal geintera, ( 270.68 llm. ) | Keal Vidue, Frabes. ( 1 - + cente earh.) |
| :---: | :---: | :---: |
| 159. | 616,343 | (164, (1) ( $)$, (MW) |
| 1454 | 78:2,525 | 877, $1 \mathrm{MW1,96} \mathrm{\%}$ |
| 1454. | 764.488 | 8-2,0untmat |

The countries whleh supported this transit trade in 1855, were:

| Whenet. | Vranes. | Whither. | Franes. |
| :---: | :---: | :---: | :---: |
| 8 witzerland. | 148, 0000.0001 | Inited states. | $184,0010,000$ |
| Clyelgata.... | 102, (00), $010 \times 1$ | Haytanil..... | 98, $10 \mathrm{OH},(\mathrm{MM})$ |
| England.... | (4), (mb), 00\% | 8witzerlamal... | 71, m00, 1909 |
| 7oilvereln.... | 4. $, 0 \mathrm{ma}, 4 \mathrm{~mm}$ | Itrazll ........ | 11,1mb, (0) |
| United Etates | $16,060,000$ | Belylnm...... | $11,0000,0109$ |
| Bardiula..... | $6,0 \times 0,000$ | Nardiala....... | 11,400,000) |
|  |  | 7ollvercio .... | $10,000,090$ |
|  |  | 8paln, etc.... | 8,000, 060 |

Statemont showing the nabuat of precious metais, gohd and silver (ingots and specie), inported and exported to and from lirance, during a period of 96 yeare, from 18.30 to 1855 :


| Gold. | kilver. | Total. |
| :---: | :---: | :---: |
| Franctio | Yrabeso | Fran'o |
| \$8\%,000,000 | 2,220,000,000 | 3,045, |

Seo article Fuance, Eincy. Rint., 1×0̆7; Hlar's Merek. Mag., viii., 131, xiii., \$6, xvi., 476, 54i, xviii., 447, xxii., 254, xxiv., 284, v., 105 , vil., 301 ; dm . Anm. Rrg., v., vii., viii. (by Josts (2. Abams and W. C. Iliven); For. Quar., iil., 359 ; Dem. Ree., $\times \times$ ii., 545.

Commerce on
Yamra endten
Suph 30, 1841 $1 \times 20$.
$1 \times 28$. 1828.

$1+28$. $1 \times 45$ | $1 \times 28$. |
| :--- |
| $\substack{1587 \\ \hline \\ \hline}$ | 1827.

1828. 
1829. 1829. 
1. 

Tot
Sept 30, 1891.
1482.

자패
1894.
1435.
1836.
1838.
1839.
1840..

Tota
sipt 30, 1841
1842.

9 mos 1844.
1845.
$1846 . .$.
$1847 \ldots$
$1849 . .$.
$1849 \ldots$
$1850 . .$.
Total
Juna $30,1851 \ldots$
1852.
1448..
1854.

1556

Comprace of
liarsanding
Supt. $30,1 \times 2$

|  |
| :---: |
| $\begin{aligned} & i 929 . . . \\ & 1 \times 29 . \end{aligned}$ |
| 1 c 4 |
| 1525. |
| 1827... |
|  |  |
|  |
| 1830 |
| Total |

Sypt. 30, 1831.
${ }_{1}^{1} 832$.
$1483 .$.
$1 \times 11 .$.
1*35.
1841..

188\%..
143\%...
INTO.
40......

Spt 30, 1811...
Pinos. $14+1 .$.
Jtane $34,1 \times 44 .$.
1485.
1514.
1417.
148.
$1500 . . .$.

Jane 30, 18 s 1.



| Yoers ending | Fixporta． |  |  | Importa． | Whereof thers was in Dullion and 8pacle． |  | Tonnage Cleared． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domatio． | Forelga． | Total． | Total． | Expow： | Imporited， | American． | Foralsm． |
| Supto 80，1321 | 869，$\times 1$ | 110,851 | \＄80，706 | \％ 496,088 |  | \％247， 834 | 818 | 598 |
| （1） | 183，191 | 70，937 | 253，529 | 400，098 |  | 14，546 | 888 | 858 |
| $1 \sim 29$ | 828，981 | 1，171，999 | 1，495，759 | 501，457 | \＄988 | 102，448 | 10，267 | 831 |
| 14.4 | 205,415 | T50，431 | 1，010，246 | 450,454 | 6，760 | 47，975 | 8，457 |  |
| $1 \times 05$ | 187，242 | 726，499 | 918741 | 812.511 | 20，000 | 17.065 | 9，483 | －${ }^{\text {a }}$ |
| 1 ${ }^{2} 86$ | 978，675 | 488,677 | 757，85\％ | 89.182 | 1，600 | 85，088 | 10，960 |  |
| $1 \times 27$ | 475，647 | 781，076 | 1，256，6\％8 | 848,874 | 1，610 | 10， 179 | 12，064 | 889 |
| 7828. | 606， 698 | 279，417 | 838，045 | 044， 228 | 5，852 | 2，484 | 10，498 | $\ldots$ |
| 1889 | 886,143 717,252 | 74,777 450,889 | $1,684,489$ $1,148,140$ | 690，057 801,188 | 8,880 $\mathbf{5 , 0 0 0}$ | 14，482 | 18,848 18,907 | ，074 |
| 1 | \＄x，080，188 | 85，488，841 | －0，449，039 | \％ $6,782,63$ | 445，125 | \＄542，808 | 100， | 3，245 |
| Sept．30， 1881. | \＄071，867 | ＊800，626 | 8972，789 | \＄1，183，768 | 14，611 | 16，155 | 15，439 | 1，477 |
| 1598 | 914，091 | 1，140，876 | 2，054，465 | 1，248，775 | 12，000 | 14，888 | 16，486 | 8，688 |
| 1543. | 1，038，499 | 264826 | 1，805，724 | 1，080，052 | 800 | 18，414 | 14，976 | 8，982 |
| 1834. | 1，032．398 | 1，852，839 | 2，885，287 | 1，827，409 |  | 4，534 | 17，840 | 3，775 |
| $1 \times 85$ ． | 2，023， 819 | 654，192 | 2．57．9，021 | 1，463，998 | 74，000 | 2，253 | 15，200 | 2.911 |
| 1836 | 1，951，742 | 725，991 | 2，877，798 | 1，967，186 | 1，541 |  | 15，614 | 4，675 |
| $1 \times 187$. | 1，106．847 | 640，519 | 1，345，807 | 1，562，118 | 29，983 | 1，054 | 10，525 | 8，116 |
| 1839. | 1，438，765 | 288,185 | 1，716，900 | 943，645 | 9，820 | 75，229 | 17，945 | \＄， 8981 |
| 1839. | 1，046，260 | 178，186 | 1，922，446 | 1，612，871 | ．．．． | 6，505 | 9，256 | ：3，681 |
| 1840. | 1，173，483 | 224，208 | 1，408，035 | 879，587 |  | 179，258 | 10，805 |  |
| Total | 12，480，030 | ＊ $6,176,278$ | \＄18，682，808 | 118，279，958 | （140，510 | \＄207，245 | 148，012 | 81，456 |
| Sept 30， 1841. | \＄1，512，460 | 1140，024 | 81，452，484 | －1，221，580 | ＊1，500 | © 18， 144 | 15，927 | 2,875 |
| 1842. | 1，874，570 | 78，864 | 1，748，438 | 059，678 | ．．．． | 8，1221 | 21，944 | 2.147 |
| 9 nios 1843． | 1，186，294 | 83，701 | 1，269，995 | 609，149 |  | 13，483 | 18，167 | 418 |
| June 30， 1844. | 1，204，793 | 85，104 | 1，259，497 | 1，603，319 | 7，478 | 11，641 | 17，568 | 656 |
| 1845 | 979，789 | 197，950 | 1，17T，719 | 1，414，175 | 1，175 | 2，400 | 19，217 | 880 |
| 1846. | 893，673 | 191，443 | 1，090，126 | 1，302，743 | 14，600 | 2，683 | 14，950 | 740 |
| 1347 | 1，172，148 | 56，041 | 1，228，1s7 | 1，001，765 |  |  | 18，078 | 4，611 |
| 1848 | 1，215，64\％ | 168，266 | 1，881，983 | 1，036，317 | 75，202 | 8，532 | 16，444 | ${ }^{983}$ |
| 1849. | 877，147 | 162，52： | $1,045,668$ $1,178.641$ | $1,158,915$ $1,702,855$ | $\ldots$ |  | 18,883 14,168 | 8,227 8,676 |
| 1850. | 1，018，438 | 158，155 | 1，172，64t | 1，702，355 |  | 2，688 | 14，158 | 8，678 |
| Toto | －11，73B，400 | －1，821，108 | 12，057，505 | 12，004，435 | 600，905 | ＊ 22,407 | 105，546 | 24，438 |
| June 30， 1851 | ＊735，018 | ＊135，683 | \％ 570,411 | －1，926，429 | 48，921 |  | 16，614 | 10，627 |
| 1852. | 1，898，193 | 79，184 | 1，475，326 | 1，694，852 |  |  | 26，799 | 6，517 |
| 1883 | 852，514 | 70，831 | 023，845 | 2，801，893 | 1，074 |  | 16.234 | 0,761 |
| 1955 | $8,9.7694$ | 164.081 | 8，491．es | 2．590，738 | ．．．． |  | ${ }_{96}$ | 4189 |
| 1856．．．． | 8，098，432 | 185， 164 | 8，281．546 | $8,5+6,664$ | ．．． |  | $8 \times 152$ | 8，419 |



| Yearsendlng | Expors． |  |  | Imperts． | Whereof there was in fullion and sperte． |  | Tonnage Cleared． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dumeatc． | Forelgn． | Total． | Total． | Expurted． | finpurted． | American． | Furelga． |
|  | Fious 643 | ＋349．010 | \＄4，47， 058 | ＋4，493，917 | ＊ 12,160 | ＊617，261 | 79\％ | ［8，392 |
|  | 4，361，409 | 1，210，533 | 8，771，32 | 8，648，935 | 319，492 | 80，356 | 8，698 |  |
|  | 4，077， 014 | 2，527，656 | 7，205，570 | 8， 165,278 | 175，572 | 86，093 | 44， 101 | 8，548 |
|  | 7，055，515 | 1，095，612 | $8,641.427$ | 6，741，118 |  | T7，238 | 68，615 | 4，610 |
|  | 7，394，6383 | 2，625，914 | 9，964，161 | 10， 651,671 | 916，530 | 7.581 | 47，997 | 9，787 |
|  | 9，075，254 | 1，916，174 | 10，391，432 | T，687，368 | 2102，569 | 158，081 | 78，478 | 11，270 |
|  | 8，712，111 | 2，555， 869 | 11，247，M88 | T，053，854 | 1563,198 | 104．168 | 85，651 | 10，903 |
|  | 7，191，699 | 8，095， 920 | 10，107，525 | 8，456，427 | 2，406，699 | 60，559 | 65，085 | 8,708 |
|  | $8.1484,023$ | 2，10．5，578 | 10，114，498 | 8，248，921 | 1，620，420 | 27，570 | 78， 562 | 7，785 |
|  | 0，158， 94 | 661，925 | 0，545， 519 | 6， 881,016 | 18s，114 | 47，812 | 82，521 | 6，014 |
|  | ＋71，834，845 | 817，54， 150 |  | 871，178，898 | 81，042，500 | （1，214，212 | 538，446 | 93，957 |
| Septe 30， 1881 |  | \％ 8 ，228，4， 52 | －19，192，009 | \＄：2，476，077 | \＄2，000，669 | \＄47，949 | 4． 222 | 8，722 |
|  | 9．428， 44 | 1，544，771 | 10，5in5，256 | 11，081，9＊3 | 450，779 | 24，629 | 70,330 | 12，769 |
|  | 0，769， 51.4 | 2，110ヶい12 | 11，060，497 | 12，351，426 | 66， M （1） | 46，719 | 77，127 | 14，707 |
|  | $11,033,846$ | 1，410，831 | 13，123，64i | 15，413，778 | 70，274 | 1，844，418 | 78，820 | 14，6，82 |
|  | 16，618，155 | 1，160，438 | 17，178，228 | 21，411， 3 74 | S14，622 | 514，748 | 91，143 | 9，717 |
|  | 17，656，492 | （601，175 | 18，2H1，367 | $84.64 \times 2 \times 1$ | 113，092 | 4，41，004 | 96，526 | 12，369 |
|  | 16，184，517 | 1，690， 114 | 17．44．ind | 20， $2 \leq 1,4941$ | 1，020，6149 | 1，051，503 | 91，097 | 20,682 |
|  | 18，049，619 | 1776.9417 | 14，06til16 | 10，42412 | 417.445 | 2，163，083 | 108，050 | 16，108 |
|  | 14．919，${ }^{18}$ | $2.104 .644^{4} 5$ | 17，1494，508 | 80.915430 | 2．117，69 | 150，123 | 88，519 | 14，752 |
|  | 17，723， $4+3$ | 2，46－122） | 201， 481,564 | 16，69：3，249 | 2，100， 1018 | 946，091 | 182， 523 | 25，409 |
| Tola | \＄181，012，767 | ＊17， $1800,5.11$ | ＊ $148,6838,606$ | （19：1， 025,365 | 49，919，897 | 111，49，283 | 898，012 | 14，567 |
| Sept，30，1781 | 相16，597，90\％ | （18，210，364 | ＊ $212,114,271$ | ＊ $22,112,299$ | ＊ $4,0 \times 7,199$ | \＄207，649 | 121，534 | 15，704 |
| 14t2． | 15，841，729 | 1，1046，681 | 16，417， 112 | $16.418,940$ | 1，113，694 | 2312，447 | 130， 986 | 16，042 |
| 9 thos． June 30, | 10.391 .50 m | 111．578 | 10， 526.150 | 7．01501， 187 | 135，1014 | 2，641，057 | 110，171 | 44，171 |
|  | 11，$\times 61.419$ | 2，297，044 | 11，142，mas | 15，946， 106 | 2.0240165 | 683，192 | 109， 327 | 15，0＜9 |
|  | 11，850，432 | 2，972，239 | 14，222，65\％ | 20，（181，250） | 3，170．278 | 184，95 | 121， 15 | 10，036 |
|  | 12，712002 | 1， 1817.175 | 14， $0+1.419$ | 2eravigus | 1，140， 316 | 104， 7119 | 119，20 | 11，376 |
|  | 17．4：21，355 | 149，046 | 17， 369.431 | 24， 489.176 |  | 1，465，4i3 | 147，579 | 13，496 |
|  | 14，159，798 | 4，2\％－159 | 18，4i7，03i | 27，1050，74 | 4，726，176 | 277，2023 | 116，06i2 | 26，495 |
|  | 11，446，43：2 | 2， 215.5103 | 14，462，915 | 23，210，978 | $8,9 \times 8.124$ | 241，154 | 114，1035 | $2 \mathrm{C}, 161$ |
|  | 16，034．701 | 1，724．015 | 18，659， $1 \times 1$ | 25，835，170 | 2，152，992 | 72，251 | 114，54 | 17，616 |
|  | 418， 6 69， 682 | ［0， 2015 | \＄100，301，45 | （204，515，072 | 21， 500,001 | ＊ $0,017,007$ | 1，205，708 | 203，080 |
|  | ¢21，507，06\％ | －2，514，664 | \＄27，921，785 | ¢ $9.9,50,124$ | ＊7．471，241 | ＊：31， $\mathrm{SB3}$ | 147，093 | 10，683 |
|  | 20，783， 78 | 1，721，44 | 24，5 50,819 | 24，196，914 | 5，474，498 | 754．430 | 197，905 | 11，055 |
|  | 24， $2644,42^{2}$ | 1，801， 147 | 20，64 0838. | 314．301，54 | $4.2451,508$ | 231.8194 | 184，947 | 11.127 |
|  | 29，749466 | 974.355 | $80,727 . \times 21_{1}$ | 92， 8122,021 | $0.045,123$ | 20，501 | 812.324 | 14，925 |
|  | 24， 2 at 29.4 | 1，1091， 143 | 29，8 91.411 | 29， 0409,898 | $8,768,4100$ | 2，414 | 249，948 | 11．92．4 |
|  | 38，782， 013 | 497，844 | 89，249，876． | $45,500,883$ | 7，172，492 | 138，183 | 20x， 186 | 19，889 |

A A．

## FRA

Commeredal Deereen-Brandies-By a decree of the 92d of Sepiamber, 1864 , all fureign brandie are admultited into France, by paylug a duty of 15 francs per each hertolltre of pure alcohol.
Wimea.-By a decree of the bth of October, 184t, all winen, much us Madetra, Sherry, etc. ("vios de liquear"), In easka, laather botsiea, or bottles, are suhject to the limportation duty of 55 centimes per 100 litres.
Salted Neats.-By a decree of the Eth of October, J854, a duty la fixed upon matted meath, of to contlmen jer 100 killogrammes

Medicinal Leares-ny n derree of the 25 th of Octuber, 185, the importation duty on medician loaves in fixed at followa: Orange, Ivy, (stems and branches Included): beo tel; ciove; seans (leaven and follienas, whole or broken) and others not enumented: liy French shlph, from eomitries out of Earope, free: by French aliph, from entrepits, 10 fraren yer 100 kllegrammes: by forelgn ehlpa, at frazes per 100 kilogrammes.

The delay fixed by the decree of the 94th of June, 185x conensaling divers measores relative to allmentary producta, th put off till the 2lat of July next (lecroe zlat of October 185i), Theno tneabures aro as follown, vis : lst Muppression of navigation dues (airtarea) upon graln and four limported by forelgn wemede 2d. Lowerlng of the elliry duea upon thone produrta to the minimuta Axed by the lary of the 15 th of April. 1932. is . Redaction 8025 embimes for every 100 kllogramuses of the dutlee upon rice, dry vegetables, and ont-miral th. Prshilition of the expertation of potatosea and dry vegetables. Sth. Exumpilin of tounage dutles on Tou is, is when ther arrire ladet with graln, fiour, rlee, dry wigetables, oat-mienl, anil potatere, 6th. Facllity for the rame ailips to effeet the tranapurt of the same allmentary product by coasting from one Fruch port to anuther. 7th. Fuclitite for forelgm minjo to effect the tratuport of gralna,月our, rice, and dry vegetables, between Algeria nad F'rance. 3th. 1'rohiblitors of the cajortation of potatomand dry vegeLables from siberia to fordito destinatlom, and facility of expediting these prolucta from Jrance into Mgeria
Sporeign ahipe to bring grain.-Ily a dermee of the 19th September, the decrew of the \%isd Jume, allowing forelgu ahlpa te bring grada, la extended to the 31at December, isk nud the same in referonce to Alyerlne expmotathins. Ity the deeree of the 14th February. 18*5, the Importation dnty upon apermaceti from the whale and eachabot of forelgm fiaherlea Is provisionally extabllshed, as fullown: Raw: by l'rench ressels, from conuties astanted beyond cupe llorn and the Cape of (food Ilope, 5 france per low kllogrammes, liy French whisela, from elnewhere ont of Europe, 7, 80 Iranea ger 100 kllogrammes, Hy French veawha, from tho entrepita, 10 franca per 10) kllogrammana. lis forelgn vceanls, 15 franca per jini kllogrammeso Pressed, 20 francs per 100 kilo-

 Hahed, that from the lat of March next the rate of drawlhack nllowed on the exportation of soap shall be ae foilows: White or mottled sonp, composed of aikall and ollve oll, or of elengInowa seeda, or molxed with adinal fat ; lat. The oll entering by one half, at least, Ito the misture of greasy matter, 8.24 frances per 100 kilogrammes. 9 d . The oll entering for lexa than one hatif, 6 franes per 100 kliogramines Suap of anlmat fat: 84. Pure, 6 framea jer 100 kilogrammes. 4th. Xisul with romin. 6 fances per (in) kilogrammea. Soap of jubin or cocon ofl mixed with anlanal fist or rutin, 4 franes per 1 ma kllogramara

Cocon trensea or filtanenta.- Ily aministerinal deelision of the 22d of February, Inist, flamunta of corea in the shape of weaspo or twiath are assimilinted th the coarse trespen for mustting, and adsalted as such at the duty of 2 frames, and 2 frames 80 centimer, according to the mode of impertation.
tutien on trinen in the Prench rotouies. - ?y a decree of the 31at Jamuary, ls"5, "until otherwise ordalned," forelkn whes of all xinda lomprited from abiond into the collonlem of Martinlyue liuadatoupe fiviana. La flimalon, and Nenegal,
 times jurs heetolitre. Jly forelgn verwete. I francs per hectolifro.
 the iraco of Amerlean prane will in futare pay an entry daty aimilar to the ground and Tanimusua mat, elther $1,2,8$ francm, or 3 frames to centimes the ! $90 \mathrm{kllogrammes}$, , accord. lag to the enores from whence il comes and mode of ImpertaHos.

Sislied Mouts to the French rolonles.- Ily a decree of tho Jfith of March, JNes, "salted meats" of all sorta of forelgn origin, imported from any conntry whateoever, or by any flag. lito our colonlea of Martinique, fuadaloupe, Gulana, and La Kíuion, will pay on eutry a duty of 50 centimes per 100
kylogrammes. The importation of these name meata, on the payment of a duty of 50 ecutlmee per 100 kllogrammen, it also permitted lato St. Jonla (Senegnl), but by French veanela only, ellher direct from abroad or by extraction from the entrepot at Goree Those which arrive at Benegal under a foreign flag will continue aulyeet to the mame regulationa that exiat at present.
ligueurs from Fresch colonies.-By a decree of the 11 th of April, $180 \%$, the duty on "liqueurs" lmported from the French colonies is fixed ', '5 franes the hoctolitre of Iliquid. By a decree of the 1 b 'April, 1855, the Importation dntles on raw wool are an in an follow a, viz.: Imported direct, by Freach alilp, fro... wuntrion altuated beyond Cape Horn and the Clape of Good Ilope: From Australia and the Colony of the Cape, Inclading Cape Town, present duthens From elsewhere, in the grease, 10 centlmes per kllogramine. Cold-washed, la whole fleceen, $\mathbf{2 0}$ centime per kllogramme. Ofal or refuse, 10 centimea ger kllogramne. Hot-wanded, In whole flecees, 30 centlmen per khogramme. Offal or ref. nso, 15 centime per killogramme. From eleawhore, prevent dutlea.
Nitute of Sode and Putash.-By a decree of the 23d of April, 13W, the Importation duly on nitrate of ayla and of potash ls eatablished na followa: By French shlpa, from countries altuated beyond Cape llom and the Cape of ciood Hope, 1 franc per $\mathbf{3 0 0}$ kllogrammes, From other conntifa out of Enrope, 6 franes per 100 kilogrammes, Froun entre píts, 8 franca per 100 kllogrammes, By forelgu ahlya, II frames per 100 kilogrammes.
Drarback on Nitrate and Sulphwric Acila,-The pre. mlums allowed by the laws of Gih May, 1841, and Ith Juna, 1845, on exportation of nltric and anlphurle acha, are--For nitrle achl. © franes the lou kllogrammes net of achd. For sulphurlc acle, 20 centlmes the 10 kilogrammes bet of achi.
Cifric Arid.- lly a decree of the 23d of April, 1 sits, all duty in taken off eltrio aeld of all eorta from the French cologice. Furelign $\mathrm{J}^{\prime}$ rakels londing Sult exempe from Tonnage that, - Ity a decree dated May 10, 1855, the diapooitiona of the ordhances of 31at July, and 4 th, Decomber, 181 n , allowlogg foreign vensels to load asit In Freach ports when rening In ballast. free of tonnago dutlos, are extented to ressels coming to Framee with eargoes. The exemption from tonnage dutiea slall be in proportion to the quintity of walt es. ported.
 portation duty on locuat.treen in fixed as follow a: bly Frencti shling, 2s centimes the 100 kilogrammea. Hy futcign ships, 1 Prane the Illo kilogrammes.
 a decree of the Sth June, 1855, the expmptios of navigating dues accorded np to the 81at July, 18.th, on caphore of gruin, flour, rice, potatoes, and dry vegetribles, for cxtended to the 3ist theemher, Js:5.
Ity a derereo of the 1 th July, 136n, the iegulation for the admisuion of molasmen intended for diatilation in fixed an followa, untll lit shali be otherwise ordained: lis French veto mein, from French colonles, exempt. Ity Frenclivesmels, from the Jiast Indies, exempt. Ity French vesseln, from South America, exempt. Hy French vensels, from the What Iadice, exempt. Hy French remals, from elsewhere, 2 frunes the 1 (m) kllogrammera. Hy forelgo vessels, 3 france the 1 in killogrammes.
1ty a decree of the 3d Oetober, 1 S5I, the duty then exsistiog on the es, ritation of teechen, of bo centimes pur lime, was abolished : and on the oth, a duty of in centinus per yimp kilogrammes wan imposed on the Importation of nalted provisiona. On the 9th, a decree prolonged tho frie cutry of veksela laden with graln, flour, rice. potatorm, und drimi
 Another decree dated the 25 th, permitteit the importation of luaven of orangen, Ivy, clovieg, arid menna, intended for medielual purposes, fren of duty. In the "bth the dotilia-
 wan prolditted by an lmperlal decree, under that date; and en the bill Novimber, a similar derrey ullowed the frem ad. mhesion of quereltron burk, haported by French vismila frim cotintrles out of Europw, and reduced the cxisting duty of ti franer on that apticle, arriving by French wamels from the entrepota of Europe, to 20 frames; and from 60 francs to dil
 clat treaty with Irunce. On the IGth Novimber, butiow was commonlented liy elrcular, that, by a irenty comeluded te. twien Franee and lkigium, the former admitted gesgraphical and marlue charta, linen, printlog.luk, typen, thread and bemp yarn, atraw plalt, slate, atone, and other raw materlalk,
 a almillar priviluge on clarte, typen, printing-luk, clothes, pastoboard in alseets, paper of all descriptions cscept colured

## or moroceo,

 and Champa in caak.On the 5 t. tween the En by wheh the oil (not exceer ported by Fr to $n$ uniform versele of the dinin for pay winea Import In ask, belng and at 10 eent liy another de the French e ted freo; whe duty of 3 frar. per $\mathbf{j} 00 \mathrm{kllogr}$ is fixed at 18 fit On the 6th J publifithed ; on sheet copper I the country w otended for th origin muat be lta departure. bound to make ber and welgh breadth, and sscertalned the to cause a atam the exportation times for stamp for every sheet whole quantlity ported, or place may remain fron duty munt be p vhole shoetz), w enjoined to a assur equal l: quantly milted, aheet col place linving p such articles are the temporary In elign-bulit aleam! pairs, la also adi sufficient securlt within aix mont nhips' ume, to that pairk Jron 1 mp manufactured the having governme charged to see tha up in such way otherwlise.
The third deere Senegat to a almpl mulditional It per Guréc. A decree Tas prumulgated eztenso, wlith a tra to the Department dated isth Jhnuar lending, certaln ar which the duty lim seal by water frot cheir arrival at the
 Inportation of for lititended for dlatil French molnases soiely fur disisilatio der the survelliane at the place of dist ly another elren hal produced lo Con daffodlles, figm of the lip berries, nall all farloaceons (the dil articles mimes to modifies the duty on table-fralte, and eqt and figs of cactus.
or moroceo, elates, prepared plater, Bordeanx, Burgundy, and Champagne wines, and aleo thone of Toura and Bayonve, in cask.
On the btia December, a decieration was promulgaled between the Emperor of the Fropeh and the Prince of Monaco by which the former redueed the then exiating duty on ollve oll (bot exceedlog 180,000 kilogrammee in quantity), when imported by French veseels, or those of the Prince of Monseo, to a uniform duty of 15 france per 100 kllogrammen-the vessele of the principality being aeaimilated to those of Sar. dinin for payment of toanage dues-the duty on Freach wines Imperted Into the territory of the Prince of Monaco, in oask, belng fixed at 3 franes 30 centimee per hectolitre, and at 10 centimee in bettle not contalning more than a lltre, IIy nother decree, dated the 20th December, molasses from the French colonies, arriving by Freneb vessela in admitted free; when Imported from countries out of Europe, at a duty of 3 frap: and from the entrepote at a duty of 8 france per 100 kllogr .. wes. When Imperted by forelgn vessels, it is fixed at 18 france per 100 kllogrammes
Un the 6th January of the obrrent year, three decreee were pubiluhed। one permitting the teraporary importation of shect copper Into France by Freach vesseln, or direct from the conntry where it is produeed, free of duty; when it is intemied for the mannfacture of bollers or machinery. Its origin muat be certified by the French connul at the piace of Ite departure. Immediately on Ita arrival, the Importer ia bonnd to make a declaration at the cuatom-honse, of the num. ber and welght of the eheets, as well se of their length, brealth, and thickneas. The enatom-honso, after baving ascertalned the correctneas of such decharation, to enjoined to cause a stamp to be put on ench shect, in order to ansure the exportatlon of the same copper ; and a charge of 5 centhes for slamping, Including tho cost of the atamp, is made for erery sheet so atamped. Bond muat be given that the whole quantity of copper Imported ahall be neod, and re-exported, or placed in the publle atores (oxcepting such parts as may remaln from cutting or cornern of sheets, In which the duty muat be pald in the same proportlou as if they wero vhote shects), within six montha ; and the custom-honto is enjoined to a sbure ltself that the artlices mo mannafactored are equal in quantity, kiod, and quallit, so that, tomporarlly adsmilted, sheet eoppsr can only be exported from porta or phaces baring publie warchouses, or from pinces to which sach articles are allowed to be sent in trimait. By another, the temporary introductlon of old caat Iron belonging to for-elgn-bulit ateamboate, whieh may put into France for ropairs, la also admilted free of duty-the Importera fiving sufficient sccurlty for replacing in the entropits of France within six monthe, an equal quantity of Iron, proper for thipa' us, to that which may have been employed in such repair. Iron Imported under thle decree, and the article manufactured therofrom, can only the exported from piaces having government warehouses; and the cuatom-house is charged to see that the iron huportod and not used be brokon ap th euch way as to rendor it luppossitite of being used, otherwine.
The third deeree aubjecta forolgn vessels at the island of senegal to a rimple tax of $\mathbf{5 0}$ cenilmes per ton, without the alditional 10 per cent., but thla in limited to the port of Gurec. A decres relative to French nad forelgn pmigration was pronullgated on tho 15th of Jaunary, a copy of which, In eitenso, with a trauslation lato English, waa forwarded by me to the Dopartment on the 31at of that month. A eircular, dated 15 th danuary, exempte from tho tax of nombage, or leadimg, certain articles of French origin, or forelgn goods on wheh the duty lmposed by law has been palil, when they are sent by wuter from one part of the empire to another, procantions beligg taken to assare the ldentity of the goods on thedr arrival at the port of destlaation. Ity a circular, dated 16th Janoary, the decree of 20th December, prohibiting the suportation of forelgo moinaser, extomis to such oniy an la Intended for diatiliation; and the exemplion from duty on Franch molasses equally applien to such an is imported soidy fur distillation. Molsasen so lmported Is always under the aurvellance of the cuatems till after ite completion at the place of diatillation.
1ty another clrcular of the 27th of the mame munth, alcohoi froduced In Cornica, from the distillation of the bulbs of dstiodils, fige of the cactos (priekiy peara?), juniper and myrthe berrese, and atl other nubstancen, with the exception of fariancenta (the diatillstion from wheh substances the elrcalar continuea to prohilit), are milied to the number of aricles admitted free of duty. A decrec of the amme date modifies the daty on jualper nad myrtle berrles, and elso on table-frolta, and equalizes the duty ou the bulbes of daffodils aud fige of cactus, By a deeree of the 31at of January, forelga wlace of every description are admitied into the lslands
of Marinique, Guadaloupe, Guiana, La Róunion, and Benegal subject to a duty, when importod by French oblpas of 25 centlmes per hectolitre, and to that of 5 franne when ltaported by forelgn vescels. A circmiar of the lat of Felipuary exempta from nxamination, at the custom-houmes of France, the baggage of forelgners arriving from forelgn parts, to embark for places abroad ; and a decree of the 10th allowa the fres importalion of aall (foreign) Intended for the mackerel Anhery, whioh beretofore wat confined to that of France, from the 15th February of every year; and another decree of the 14th extende the poriod for Ite Introduction from the 1at of March to the 15th of June; previonsly to the date of that decree, It wan only admitted between the 10th of March and the 16th of June. A decree of the 14th of February Inaposee a duty on anerm or whale oll, Imported in French ohlps, fron conatrios beyond Capes Iforn and Good IIope, of 5 france per 100 kilogrammes on the grows welght f from othor countrles than Kurope, 7.50 frances, and by forelgn veamels, is franen per 100 kllogrammes. 11y zother decree of the samo date, fionr from Algeria la admitted free of duty into all parts of the empire.
On the 17 th of February a decree was lanued granting a drawback of 8.20 francs per 100 k lingrammen on white or mettled soap, composed of alkall and ollve oll, or from vegetable oil, entering for at least ono half in auch compoaltion, or for less than half if mixed with animal anbetances, On soap made wholly from animal subatanece, a drawback of 0 frane per 100 kllogrammen is allowed, and 4 franes per 100 xilogramiacs on sosp made from palm or cocos oil, mixed with ulmal subatancee or rosin. A circular of the 28 th of February speclftes the objecta which shall be conaldered as coming within the meanlig of the trealy concluded with Spain on the 16th November, 1853, which are beoks, dramatle and musical compositions, palntings, drewlogm, engravlogs, ithographs, sculptores, geographlcal mapa, and all other similar produc. tions, with the esception of worke of srt applieable to agri culture and induatrial manafacturea: prohibite the reproducthen of the works of either In the country of the other, and indicates the porta in France by which alone such works can be Iniroduced. A decres of the 10 th of March anthorizos the Introductlon into MartInlque, Guadelonpe, Gayenno, and 1a Réunlon, of salted provislons of every kind, from whetever country or under whatever flag they may be Imported, on the payment of an lnwaril duty of 50 centimos per 100 kilogrammes. The same provislots are allowod to be introdued Into Senegal (St. Luelas), at the same daty, if imported by French vesels, whether from forelgn countries or from the entrepot at Gorée. No change la made ln tho law actually hat exletence, wherpet to provinlone arriving at Senogal under a forelgm thag.

A decree of the 14th of April modiftes the inward duty on wools, arriving direct from countries situated beyond Capo Horn and the Capo of Good Hope, when Imported by French vensele, bot leaving the duty actually exlathg unchanged when insported from olher parts of the world. Another de cree of the same date repeals the export duty of 5 centimes per $100 \mathrm{kllog} r a z a m e a$ on lime: and thy another decree, under the samo late, the duty on Hipueurs imported from the French colonten is fixed at 16 francs por hectolitre of liquid.
On the 23 d of Aprit an allowance of five per cent. for logs In weight, whether from water or decay, was authorized by decree on refined salt, if imported by nea and ehipped in bulk at the place of production; asad a accond decree of the same date establishen the Inwarid doty on nitrates of soda nad potashes arriving by French vensels from countries altuated bevond Cape Horn and the Cape of Good Hope, at 1 franc per 100 kilogrammes; from placen in Einrope, 6 franca per 100 kllogratumes; frotu entreputas 8 framen per 100 kilogrammen.
Citrie uclide of all sorth imported from the colonles ot France, in French shipa, aro admlted free of duty: by forclgn vibsels, at a inty of 18 fanes por low kilogranmes.
A premlum or boanty of 5 rancs is allowed on the exportathon of every lth kilogranmes of net nitrice acil, and one of 20 eentimes on auphiuric acld. On the 2 ith of April a cirenlar was lsaud aulhorieing the temporary free admission into France of machinery, plass (for rectivering), bronzos, and other kimilar works, and books, when lmported separately, or in muall qumitites, for the purpose of belug repaired or finisherl, on condition of their belng re-exported within six months. lity a decreo of the 28 th of April, Iron work, in bars or sheela (withont distinctlon of origin) fit for the conatruction of elltiees or dwelltug.houses, ls allowed to be fmported Into Senegal by French vessele, free of duty, whether coming from the entrepita of the metropolis or that of Cioric. Another decree, of the same date, fixes the duty on oh worn-out type at 6 franes per $100 \mathrm{kllogrammes}$. May Sth orders the withlrawal from clrenation of all pold pieces of the value of 10 francs, bearing the ettigy of tho





Photographic Sciences


Corporation
precent emperor, to take plece en tha 15th of Oetober, 185\%. By erdennance of the Siet July and 4th December, 1814, all velmele arriving In Franee, in ballent, to take in mult, wers erempted from tomage dues. By a deeree of the 10th of May, 1805, forelgn vemele arriving with eargo enjoy the mamo privilege, but only in proportion to the guantity of aalt taken by tham; and by a circalar of the $\mathbf{2 4}$ of June the export dinty on mall is muppressed.
Alcohol distilled from daftodils in Aigiera in admitted into France free of duty, by decree of May 28d. Bya decree of tha 2d of June, the delay flxed for the introduction of provisions into Franco if prolonged to the OIat of December, 1858; by anothar of the 5th, the free admitaion of ahlpa fmporting grain, flour, rice, ote, is extended; and by a circular of the 11 th, the exportation of these artioles is prohibited during the aame period. A decree of the 28d of June socords the privilege of transporting grain and flom between Algaria and Franee to forelgn vessela, heving left their port of loading on or before the 81at Deomber, 1855. 'By another deeree of the same dato the exportation of oorn and barley from Algeria, to foreign conntries in prohisited, and by a thisd deeree, the importation of carol beans by Frepoh vesesles is admitted at $a$ duty of 26 centimes per 100 kilogrammen, and of 1 frane per foreign vesmels, A decree of the 7th July admite, free of duty, vanilla, imported by French vessels arriving direct from the French oolonies, Cayenne and Mayottel. A ciren. lar of 10th Jaly imposes a donble Abeime on the amount of all government tarea, to remain in force till the lat of Jan. nary, 1850 ; facrem the exine consmmption duty on hrandiles, eplicita, liquors, and brandy frulta, from 81 franes to 80 france per heotoiltre of alcohol, and from 60 franca to 66 francs, exclaalve of the double decime, the tax on theme articies on their admiation into Paris, and forther imposes a tax of 10 per oent, on the receipta of pascenger monoy by ralirond, and aloc ot the oonveyance of goods by fate or expreat frains. By a diearee of the 14thJuly, molasees imported for diatillation by French veseele from the colonies of France, India, gonth America, and the Weat Indies, is admitted free of duty, and from other porta at a duty of 8 frances per 100 kilogrammes. When imported hy forelgn vessela, tho duty in 3 francs per 100 kilogrammen.

A decree of the 16th July makes many changes and modincations in the tarifi of duties. They are too numerona to be imbodied in this rommunication. They will no donbt be published in one of the anpplements to the general tariff. Which aball be forwarded to the Department when published, with any othera which may have preceded it, or by which it may have boen follawed. The avowed object of theme modifications is to give additional enconragernent to its maritime commerce by the total repeal of duty on the raw material of certain artciet-the producs of distant conniries-when imported direet by French vessets, for the purpone of contributIng to the progroes of thelr own mannfacturom, and by totally repealligg the daty on cortain artielea of small productive revenue. Among the ment important of the modifcationa is the alteration of the duly on eaoutoheuc. The duty on thia artiole of 20 francs per 100 kilogrammen is continned when it is melted solely for artioies of manufacture. Untll the publication of this decree, when other anbetances were mixed with cautchone, or gatta percha, either for the purpone of giving oolor or adding atrength to the articie manufactinred, the daty wat 200 france per 100 kilogrammes. This tax is now reduced to 50 france. The duty of 200 franem will in future be payahle anly on articies composed af catoutchone ar gutta percha, wih whioh other mubatancen are combined, and when intended for other purposes than that of being melted. A deeree of the 31 st Auguat accorda the free admisulinn of game, pouitry, and ahell-flah (tortue); and one of the 88d September prulonga to the 81at December, 1858, the exemption from tonnage duty of all vesceln inden with grain. flour, rice, potatoes and dried vegetables
Tho inorease in the price of meats in France has been very great aince 184s; so munh so, that general complaint oxiate on the aubjeot. From 1858 te 1854 there has been an increase of price from 40 to 45 per cent. The attention of the governmeat of Frenoe having been cailed to thin fact, its effurts have been not only to prevent a further leorease, hut to affect a diminution from preaent pricea, To this end the tariffig have been revieed, and vory great reductions have been made upon the importailion of forelgn oalllo, to wif: from 1028 to 74 centa a head on beof, efo. Not only so, bat the dirent attention of the people of France hae been called to the une of salt meat, and the experiment of opening the market is belng made with muoh anceese. The duty npon this artiole has been acceessively rediced from 060 to 8879 , to 186 , and in the month of Ootober inst, to 01 canta the 291 poanda, or 100 kilogratamea. Under theese reduotions there

1854 the importation of mealn, freah and matt, resohed oniy 8697 quintaur, or T77,844 $58-100$, ponndet white in the fires month of the present year, the importation has reeohed 8780 . quintaux, boing mone than in the whole year of 1858 by 908 quintaux, or 41,769 62-100 pounds. I tranamit herewith an extract from the EBoho a'Agrioal, ahowing the natual mode of importing malt meats, with the rempeetive values of the feveral qualilies " Prime pork is the most common kind In brine of gray malt; barrele of 831+ibs. grom, or 198 90-100 lbe net: value from 81480 to $\$ 1581$ the barrel. Meem pork is $11 t 40$ imported and doem not find a sale, helag too fat. Prime maces, firat quallty, preeerved in brine with whito salt, from lean hoges, is from 1860 to $\$ 1963$ per barrel. Hams Ealted, sugared, and mooked, auntain a comparison with the bent we have in Europe, and find a ready male. Shoulderg, dry ealted, find a good deal of favor in Franes. They come In dry barrele, of $99440-100 \mathrm{Jbs}$ net; value from $\$ 1860$ to $\$ 19$ 53 the 221 ibe, or 100 killogrammen. Lard comes in barrels of $20520-100 \mathrm{ibs}$, or in frking of $4662-100 \mathrm{ibm}$ nel; value $\$ 18$ the $110+1 \mathrm{be}$, or or 50 kilogrammes." The foregeing extract whil indieate the kinds, manner of importation, and valnes, for the bemefit of importera. By a decree of the 10th of this month (March) the rates of dntion on malt meate into tha French coloniea have been reduced wa followe: Into Martiolque, Gaudaloupe, Gulana, and La Rénulon, malt meata of forelga make, from whatever conotry imported, and nuder Thateouver fiag, will pay a duty of 50 centime (9i cents) per kilogramme, or 221 lba. The eama duty fir required at St. Loula, Senegal, hat only when imported in French bottoma, elther direetly from abroad, or by extraotion from the entrep0t of Gorde. Thame menta imported into Senegnl, under a forelgn flag, are charged the duty in force before tha decree.

French Colonies.

\begin{tabular}{|c|c|c|}
\hline Frepoch Coionles. \& \multirow[t]{5}{*}{8q. milos.

245} \& Population. <br>
\hline \multirow[t]{4}{*}{ABIA.-Pondicherry, in tho Carnatio; Karikal in Tanjors t Mache on the Malabar coast; the fhotories of Yamaon and Chan-
dernagore in Bengal; etc..} \& \& <br>
\hline \& \& <br>
\hline \& \& <br>
\hline \& \& <br>
\hline Arriea.-Tho establishments on the \& 240 \& 107,700 <br>
\hline Benegal, with the Islands of St. Lonie and Garée \& \& 19,678 <br>
\hline  \& \& <br>
\hline Inhabitants, eto........... \& 64 \& 111,682 <br>
\hline peank, 18, 115; , natives, in 1843, 82,488 \& 6,000 \& 216,588 <br>
\hline bros.-Wont Indies--The lesser \& \& <br>
\hline Antilles, Martiniqne, 121,145; \& \& <br>
\hline Guadaloupe, St, Martin, Ma- \& \& <br>
\hline rif, Galante. Dosirada, and the group called the Selates, 184,544. \& 685 \& 255,688 <br>
\hline South Amorics-A part of Guians, with the 1sfand e \& \& <br>
\hline Cayanne. \& 518 \& 22,010 <br>
\hline Norih America-The Isla. of St. Pjerre and Miquelon, near Newfoundland......... \& $\%$ \& 1,838 <br>
\hline Padito Ocrane- \& \& <br>
\hline  \& 24 \& 20,200 <br>
\hline Now Caledonis. .do. in 1808. \& \& <br>
\hline Total... \& 6,488 \& 814,925 <br>
\hline
\end{tabular}

In Africs the French posesss Gorfe and some factories near the mouth of the Senegal. In the Fast they have the Isle of Bourbon, and Pondleherry, Chandernagore, and some smaller factories on the mainiand of Indla; and their veseels are, like the Americans, admitted to trade with Calcutta, Medras, and other British settlements, on payment of moderate dues. The retention of the Mauritlue hy England, at the peace of 1814, deprived them of the great receptacle for their privateere in the East; and on the continent of North Amorica, they retain nothing since the cession of Loulaians to the United States in 1808. Since 1841, when the eovereign of the island of Mnyoite placed himself under the protection of France, this Ieland, situated st the extremity of the Mozambique Channel, is to all Intents and purposes a Freach settlement. Mayotte Is capnble of foeding a population of 20,000 soula, and of regularly furnishing provisions to a squadron of ships, France also possesses an establishment in Aus-

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 33,297 Col quaterr prived and $b$ groes, lish W seems countr smbiti aloupe are, lif a cons
tralin, for since the 22 d of March 1854, Captain Dnbouzet has been commandant of the Marchesas and imperial commisaary at the Society Iolands and New Caledonia. There is also an unimportant Freach settlement at Madagascar, and an attompt at a ponal colony has been made at Guiania, where, to the diagrace of the French government, political prisoners have beer mixed with the refuse of the galleys. In the seas of Europe, Corsica is almost the only insular pooseseion of the French. They have no great maritime fortresses, like Gibraltsr or Malta, and no dependenoies of the nature of the Ionian Ialands.
Commerce, etc.--The commerce of France with her colonien is regulated by the same narrow maxims as the other branches of her foreign trade. :The colonies and the mother country aro mutually bound to trade exclusively with eaoh other. The staple produce of the French Wost India colonies, as woll as the Isle of Bourbon in the East, is augar ; and it appears that the price of this article in the European markets will not repay the expense of ita cultivation in those countries. The coloniste, therefore, insist that all other augars shall be excluded by heavy dutian from the markets of France ; that they hall have the exolusive privilege of aupplying these markets ; sand on a complaint that the duties imposed on foreign sugars were not high enough to give them the monopoly of the home market, an additional duty was, in 1822, on the suggestion of the director-general of the customs, imposed on all forelgn sugars. In retarn, France possessen the exclusive privilege of eupplying the colonies with all the manufsctures and other Europesn goods which they require. On this principle of miutual monopoly the trade is now conducted. The effect of this system is to levy a tax on the inhabitants of France, in order to indemnify the coloniste for the losees which they incur In carrying on an unprofitable trade. They can not furnish a supply of sugar to France at the ordinary rate of the European market; and the price must therefore be artificially raieed in that country, in order to enable them to oarty on the cultivation of their estates; while, on the other hend, they are not at liberty to buy the goods which they require in the cheapest market, but muit take them at whatever price they can be afforded by the mother country.
Another evil of this colonial monopoly is, that the colonies supply more sugar than France can consume. But it can not be sold in othor countrien at the price which is poid to the colonies by the mother country; and hence it becomen necessary to find out the means of forcing a sale of the surplus which can not be consumed at home. A bounty is accordingly granted on all sugar exported from France; and in 1831, while the duty on the importation of sugar produced $£ 1,686$,030, there was paid back for bountios $£ 488,951$, which was more than one fourth of the gross receipts. The loss which France has incurred since the peace of 1814 by this erroneous system is estimated in "Bowring and Villiers' Report," at $\mathbf{£ 4 0 , 0 0 0 , 0 0 0}$ sterling ; and in return for these grest sacrificea, the colonies afford but a limited demand for the manufuctures of the mather country ; in 1852, it amounted to $28,482,000$ kjlogrammes; in 1858, to $26,481,000$ kilogrammes; in 1854, to 83,297,000 kilogrammes.

Colonies,--The colonisl pessessions of France are quite unsuited to her greatness in other respects. The insurrection engendersd by the first Revolution deprived her of the weatern half of St. Domingo, n rich and beautiful territory, contuining formerly more negroes, and exporting more produce, than all the British Weat Indies together. The French government geems to have relinquished the hope of regaining this country, at leset. by milltary means, and to limit ite ambition to the remaining colonies, Martinique, Guadsloupe, Cayenne, in the West Indies. The firat two are, like most of our West Indis islands, cultivated to a considerable extent, but eapable of much improve-
mont. The petty island of Marie Galante is in a aimilar atate ; but Cayenne forms a part of a most extensive tract, of which one comer only is as yet rendered productive, and which may eventually become a great eettiement ; though on the score of health it is as unpromising as the adjacent coloniee of Demerara and Surinam. Before the lose of St. Domingo the annual import into France amounted to 70,000 hhds. of mascovado or brown sugar, 60,000 hhds. clayed, and nearly 20,000 of fine clayed, Of this very large aupply there were exported nearly 40,000 hhds. of brown, and above $60,000 \mathrm{hhds}$. of clayed, forming, exclusively of any duty, an annual value of between $\mathbf{~} \mathbf{2}, 000,000$ and $£ 8,000,000$ sterling, and affording a most acceptable exchange for a number of imported commodities. The augar thus imported from St. Domingo has long been lest to France, no sugar being now exported from that country.
Algiers,-Among the colontes of France is Algeria, which the government has retained since its conquest in 1830. Of this dependency Algiers is the capital, the seat of government, of a prefecture, and of a bishop's see cince 1888. Algiers also possesses a government printing-office, an academy of public instruction. a court of appeai, a tribunal of first inatance, a tribtrnal, and s chamber of commerce. A bank has been recently established. Several newspapers are published at Algiers. The Moniteur of Alglers is the offl cial paper. There is also the Akhbar, the Modacher, the official journal in Arable, the Atlas, etc.

The population of Algiara, according to the last returns, amonnted to 55,682 Europeans, of whom 23,147 were French, and 24,096 nativen, of whom 17,858 were Mussulmans, 1380 negroes, and 5758 Jews. A Protestant church was commenced In Algiers in 1848 and finished in 1845. There are at. Algiers four large mosques and aboat thirty lesser onses, two great and twelve lesser aynagogues. There are few manufactories in the capital unlese of silks, carpetings, woolen tissnes, fire-arms, saddlery, jewelry, leather, etc. From the last pubilebed official returns there entered Alglers within the year 2279 shipe, measuring 209,642 tons; of these 255 were government vessels, 1134 French commercial bottoms, and 120 native; the rem maining veseels were under foreign flage. There sailed outward from Algiera, in the lest year of which we have any official records, 2217 ships measuring 208,810 tons. Of these 249 were government ohips, 1148 French shipa, and 117 nstive. By a decree of the present Emperor of the French, a bonrae was created st Algiers on the 16th of April, 1852. For a more detsiled account, see Alaiers.

Grniral Tbade of Fankon witit its Colonies.

| Coloniea, | Year. | Importations. | Exporiationa. |
| :---: | :---: | :---: | :---: |
| Msrtinique.............. | 1859 | 5652,441 | c765,577 |
| Guadsioupe............. | 1858 | 428,655 | B70,494 |
| Bourbon. | 1853 | 851,647 | 634,946 |
| 8onegal................... | 1858 | 487,206 | 892,869 |
| Cayenne................ | 1858 | 56,838 | 184,044 |
| India. | 1853 | 669,788 | 21,384 |
| Algiers | 1858 | 1,182,804 | 8,695,986 |
| St. Pierre \& Miqualon, da | 1853 | 817,081 | 878,687 |
|  | 1888 | 8,627 | 86,584 |

The trade to Bourbon silate, Guiana, Martinique, and Guadaloupe, out and home, employed in 1848, 492 shipe ; in 1849, $541 ; 1850,480 ; 1851,602 ; 1852,677$; 1853, 683 . The insan of the first five years, 560 vessels.
The trade to Algiers, Senegrl, India, Madagasear, out and home, in 1848, 1843 veesels ; 1840, 1988; 1850, $1902 ; 1851,2194 ; 1852,2443 ; 1858,2177$; mean of the first flve years, 2004.
All along the north coast of France, the fisherien consist of cod, mackerel, herringe, end pilchards. On the Atlantic, and atill more on that of the Mediterranean, are osught great quantities of sardines, a fish
of passage, whlch appears periodically in shoale, like the herring. The fishery of sardines is asaid to give employment to 8000 semmen, and the sales resulting from the prodace amonnt to between $8,000,000$ and $4,000,000$ of francs. The tupny, a fish not known in northern latitudes, is found in the Mediterranean in the early part of snmmer. It varies in weight from 10 to 25 pounds, and io in like manner caught in shoals.

These home fisheries, little calcninted for forming seamen, have been left to their natural progress, while repested attempts have been made by government to extend the fiehery in America; a design favored by the early possession by France of Newfoundland and Cansia, as well as by the long peace that followed the treaty of Utrecht. Toward the middle of last century the French fisheries in Americs cmployed annually about 6000 seamen; but the unsuccessfui contest with England in 1756 redoced them greatly, and deprived them of their principal atation, Cape Breton. The peace of 1783 was concluded under better auspices. The islands of St. Pierre and Miquelon were ceded to France by the treaty of Verasilles, and the rights of fishing and of drying fish from the Cape St. John to Cape Ray. In the Gulf of St. Lawrence her rights were subsequently recoguized, by the treaties of 1802 and 1814, st 3 leagues' dietance from the consts belonging to Great Britain ; but within the gulf, at a distance of 15 leagues from Isle Roysle, and 30 lesgnes from Now Branswick.
forbion Conmerce of fuancr witit ifa Colomies and the Fisuixe Banke.

| Youn. | entered. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | сС. |  | ronsiow. |  | total. |  |
|  | Vemele. | Tonamg. | Veseels. | Tonuage. | Venels. | Tonnas |
| ${ }_{1}^{1533}$ | ${ }^{9,210}$ | 1,066688 | 11.569 | 1,650,011 | 20,779 | 2,750,699 |
| 1585 |  |  | 10,982 | , 1,600,487 2,057818 | - 288,018 | 8,804,765 |
|  |  |  |  |  |  |  |
|  |  |  |  | 1,0588815 |  |  |
| 1154 | 5,726 | 796,718 | 7,919 | 1,059,5402 | 13,845 | 1,556,805 |
| 155 | 5,7:6 | 134,598 | 8,054 | 1,100,057 | 18,810 | 2,034,655 |

For the
iragement of the French fisheries, enormous pectuatary ascrifices have been muile. By the law of the 2 ed of July 1851, bounties are granted to the fisheries tili 1861, st the rate of 120 francs the ton. A ship of 600 tons thas receives 72,000 francs bounty, which would be 2000 to 3000 franes per man. The only time they wers ever in a prosperous state uas, not when they were protected by the artificinl encourugement of the mother country, but when the French colonists, being in possession of a large tract of the American aeu-coast, were in consequence compelied to trunt to pradence and economy alone for the suceess of their adventuren. During the session 1833 of tho Chamber of Deputiea, a committee, appointed to incuire into this subject, made their rejort.

French Fisheries.-lligh honnties have, since the yeur 1767, been paid to those owning ships, ani to men emploved in the Frouch tisherics. In pursuance of ordmances dated the 24th of June, and 9th and 12th of July, 1851, the following bountles were granted for the encouragement of the French fisheries. They came into operation on the 1st January, 1852, and are to remain in force until the 80th June, 1861 :
"Cod-fishery.-Premiums for Chartering and Equipping l'easela,-For overy man engaged in the tisherlen, having drying or curing grounds, whether on the coasts of Newfoundland, Suint l'ierre or Mlqueion, or upon the great Newfonndand Bank, 50 frimes. For every man engageal in the flaheries, not having drylug or curing grouada, in the Icelandle Sens, 50 francs. For every man onguged in the fisherten, not having drytug or curing groundh, on the great New foundland bank, 80 francs. For every man engaged in the fisheries on the Dogger liank, 15 france.
"Bounties on the Produce of Fisheries.-On the Im-
portation Into the French colonien, whether in America or on the other side of the Cape of Good Hope, of every quintal of dried codfish, the produce of French fisheries on the coaets of Newfoundland, Saint Pierre, or Miquelon, or which may be taken from entrepôts in France, 20 francs. On the importstion into the above colonies, of every quintal of dried codfish, the produce of French fisheries, if the fish shall be exported from the French ports without having been there warehouted, 16 francs. On every quintal of dried codfish, the produce of the Franch fisheries, and innported direct from the same or from French entrepôts, into such foreign Mediterranean ports (except those of Sardinia and Algeria) in which a French consul may reside, 16 francs. On every quintal of dried codfish, the produce of the French fisheries, forwarded direct either from those fieheries or from French ports, and imported into Sardinian and Algerian ports, 12 france. For every quintal of coi-sounds that the fiahing-vessels may bring into Frunce, the produce of their fiehery, 20 francs."

Vessels departing for the fisheries with drying grounds, whether on the cosets of Newfoundiand, Saint Pierre, Miquelon, or the great Bank of Newfoundland, shall have a crew whose minimum is to be fixed by a royal ordinance.

Whale-fishery.-The bountiee granted in pursuance of the luwe of 24th June, and 9th snd 12th July, 1851, for the encouragement of the whale-fisheries, ohall be fixed as follows, to date from the 1st January, 1852, und to contlnue in force untll the 30th June, 1861:
"Bounties on the Departure of Vessels.-For every ton of shippling outwurd bound, with crews comjosed entirely of French ssilors, 70 francs $;$ and for vesseis with crews composed partly of French and foreign sailors, agreeably to the provision that the foreigners exceed not one third either of the officers or crew, 48 francs.
"Bounties on the Return of Vessels.-On esch ton of shipping where the crew is composed entireiy of French sailors, 50 france. On each ton of shipping with a mixel crew, 24.5 francs."

Under the conditions that the vosseis shali have fisied either beyond Cape IIorn, or to the east of the Cape of Good liope, as far as $62^{\circ}$ of latitude, and shall have been out at least 16 months. In addition to the above, thore ahall be allowed to vessols especially minned for the sperm-whale (cochalot) fishery; in the Pacific Ocean, after they have been at seu for the epace of at least 30 months, and during which time they may have reached as far as $28^{\circ}$ of north latltude, an additionai bounty of 15 frunce upon the eperm oil, etc., which they shall bring home. The bounty on the produce will only be accorded for an amount not exceeding 600 tons.

Colonial Tariffs.--The navigation betwcen France and her colontes is confined to French vessels measuring not less thun 40 tons, in which tho officers, and at least theee fourthe of the crew are Frenoh.

Frencis Guiana (Cayenne).-The tariff of this colony is estabished by lecrees of the local authority, sanctioned loy the metropolitan goverument.

Duties on Imports.--French merchandise (with the exception of tilat sulmitted free), imported direct from ports of Frunce or her colonies, in Frencis bottoms, pays 2 per cent. ad valorem. Foreign merchandisa (with the excepition of that admitted free) permitted to be imported, hoth under French and foreign linga, vkz.:
" 13eef, salted; butter; codfalh, green, dried, and salted; fish-oil ; wheat flour, rye flour, sud corn meal; lard; vegetables, fresh and dry; lime, slacked; malt pork ; rice; salt $\boldsymbol{j}_{\text {a }}$ ataves; atone cosl ${ }^{\text {tallow, and tal- }}$ low csudles ; tobacco, in leaves ; whalelone and whale-

- By a late decree, analted provtaiona under all flagn and from all countries pay 50 oentimes per 100 kiltogrammea
oll ; wood, and pitch-pine, pay 5 per cent. ad valorem. All articles not enumerated above, 10 per cent. ad valorem."

The following articles are prohibited importation for consumption, and are only admitted in entrepot (entrepôt fictif).*
"From French Colonies in French Vessels.-Cocoa, cinamon, clover, coffee; cotton, raw ; indigo, and propared roucon; all spirituous liquors, with the exception of brandy, French and Martinique cordials; Kirschenwasser and gin; natmegs, pepper; sugar, raw and whitened, and wool.
"From Foreign Countries and in Foreign Vessels.Clothes, ready made, comprising hats and all articles for the feet ; cotton, spun; gunpowder; sugar, reflned; tisgues of cotton, sllk, wool, and, hemp."
Tho following articles are admitted free of duty, without reference to their aonrce, under all flags:
"Animals, living; agrica"tural instruments imported for trial ; machines, and similar artlcles necessury for colonial industry; specimens of natural history; preciona metals in bullion and coin; quick-lime."
By French Vessels Arriving Direct from France.Utensils and implemants of husbandry, espectally shovels, hoes, hatchets, plows, pruning-hooks, and hurrows; salt beef; botlers for sugar factories; codfish and other salted fish; flour and all other farinacoous provisions ; vegetsbles, fresh and dry ; salt pork, red herrings.
Duties on Exports.-All products of the colony (except those which are free) exported to France or to French colonies, in French vessels, $\frac{1}{\text { p }}$ per cent. ad valorem. The aame exported to forelgn countries in Freach veseels, 2 per cent. ad valorem.
The following products of the colony are subject, on exportation, to the following additional duty, called (contribution foncière) "ground-tax :"

| Deomination of merchmullse. | $\begin{aligned} & \text { Number, wefo cut, or } \\ & \text { measare } \end{aligned}$ | In natlonal vessels. | TE furelgn veseals. |
| :---: | :---: | :---: | :---: |
| Annatto or roucou. | 100kllos or 220 lba. | 7055.8 | 80858 |
| Cocoa. | " | $8 \cdot 88$ | 88.88 |
| Cloves, flowers... | " | $43 \%$ | 90.7 |
| " atalks. | 4 | 8 | 7.5 |
| Coffee. | " | 468 | 102 |
| Cotton | $\cdots$ | 872 | 648 |
| Molasse | " ${ }^{\text {u }}$ | $9 \cdot 8$ | $9 \cdot 8$ |
| Ox-hidos | Each. | 1 | 4 |
| Taffis (roin) ..... | 1,009 litrea $=864 \mathrm{gal}$ | 98 | 98 |
| Sagar, rsw or whit | 220 pounds......... | 12-9 | 24 |

"Foreign prohibited goods having been aeized and re-exported, 2 per cent. nd valorem. Foreign prohibited merchandise on lenving the "entrepdt fictif," $\ddagger$ of 1 per cent. ad valorom."
The following articlea are exempt from all exportation duties, whether for France or foreign countries:
"Cinnamon; egge, fresh; ginger-root, Indigo, nutmegs, pepper, pimento, simarouba, specimens of natural history, turmeric, turtles, vanilla, and wood."
Charges for Nationalizing Foreign Vessels.-Fora vessel of 100 tons and under, 1123.5 ; 101 to 200 tons,
$\$ 1888 \cdot 8 ; 201$ to 800 tons, 816 B6.6; over 800 for each additlonal 100 tons, $\$ 280 \%$.

Clearance Duties.-For the long course (forel-2 voyage) per veasel, $\$ 3 \mathbf{7 0 . 3 3}$; for the great and small coasting trade, 280.8 ; inacription duty (registration free) for changing the proprietorship, $\$ 111 \cdot 6$.

Pilot Dues.-If the vessel anchors in the roads or in the harbor:-For a vesael under 50 tons, great and small coasting trade, $\$ 555 ; 50$ to 09 tone, 9740.7 ; 100 to 149 tona, $8980 ; 150$ to 199 tons, $81128.5 ; 200$ to 299 tons, 13 88; 300 to 399 tons, $\$ 1666 \cdot 6 ; 400$ tons and upward, for each additional 100 tons, $\$ 080 \%$. If the vessel casts anchor in the roads:-Pilots' services in the roads, on demand of the captain, when not retained for conducting the vesael into port, for one tide, \$1 86; charges of snchorage in the harbor of Cayenne, $\$ 11^{\circ} 6$; delay of pilot on board of a vessel, either on demand of the captain, or because of quarantine, independent of board, which is to be furnished to him at the expense of the ehip, for 24 hours, $\boldsymbol{\$ 1}_{1}$ 11.6 ; pilotage from the harbor of Cayenue to the Point of Moncouria, without respect to the tonnage of the veasel, $\$ 55^{5} \cdot 5$.

The pilot dues are the eame for clearing as for cntering the port.

Mayotte and Dependencies.-There are only pilot dues to be paid at Mayotte.
Senegal and Dependencies.-Foreign vessels pay in Senegal 4 francs, or $74 \cdot 4$ cente, and in Gorée only 50 centimes per ton. They can, however, neither export nor import (except through Gorée), as the whole trade is open only to French ehipping and French manufactures, and is prohibited to all other nations.

French Settlements in the Enst Indies.-The porta of these dependencies are free, and therefore open to all nations.-Navigation Act of September 21, 1793.

Tariff.-Pondicherry, Knrikal, and Mahé, tonnage duty, without distinction of flag, 4 cents per ton. (1847.) Pondicherry alone, light-house dues, witiout distinction of flag, 3 conts per ton. Pondicherry alone, ferriage dues, without distinction of flag, $88 \cdot 8$ cents for one vessel.

St. Pierre and Miquelon.-Before 1846, American vessels were allowed to import into these islanda only such goods as the French trade could not supply, and which were required by the necessities of the population. These restrictions were abolished by a decree of the governor, of May 7th, 1846. American ahips sailing direct from the United States for Miquslon and St. Pierre, either in bnllast or loaded, enjoy the same privileges as French vessels coming from the United States, and pay no more duty than the aaid French veasels, with the exception only of a compensation for the interpreter-which, however, $b \gamma$ another decree of June 26, 1847, has become entire. $;$ optional : that is, If the captain or any one else on boarl understanda the French language, lie la not obliged to take an interpreter. The duties for American veseels are, therefore, as followe:


Oceanie.-The ports of the French dependencies in to 300 tons, $\$ 44$; for each 100 tons additional, 81 the Precific Ocean are free ports.
Tonnage Duties.-For vensels over 10 tons, 28.0 cents per ton; for vessela under 10 tons, $13 \cdot 8$ cents per ton.
Duties for Nationalizing.-For vesabls under 100 tons, 8187 ; from 100 to 200 tons, 8888.8 ; from 200

[^20]$11 \cdot 6$.

Duties for Clearance.-Decked veasela, \$1 11.6; without deck, $\boldsymbol{q}^{2} 18.6$.

These aro duties both for American and French veasels coming or going direct from or to the United States, in virtue of the alove-mentloned decree. If, however, trading indirectly, they are aubjected to the same dutlea as all other shipe, for which, both French and foreign, the duty is as follows:


Tarify Detims on Importation or Spigits in Formon Vegsela, ay a Decref of Novemage 14, 1847.


The same articles pay, in French or Tahitian veasela, only one half of these datlea. (1853.)-Com. Rel. U. S.

French West Indies.-The French colonial possessions in the West Indies formerly comprised a domain of great extent and value, agriculturally and commercially. The war conaequent upon the great Revolntion In France terminated In an almost total destruction of her power in the New World. Hayti was then wrested from her. Her necessities compelled her to dispose of Lorislana. At the close of the war in 1815, the naval power of Great Britaln had onathled her to nelze every one of the French islands, and drive the fleet of France from the seas. By the treaty of peace conanmmated in 1814, and confirmed In 1815, England released to her some of the captured tslands. Her poseesaions in that quarter now conslst of Martinique, Guadaloupe and adjacent islands, and the north side of St. Martln.

The interconrse between the Unlted States and the French islands (San Dominge heing then included) was originally regulated by an arríte of the French government, dated the 30th of August, 17K4. AmerIcan veskels of at least 60 tons were admitted into certain ports in these talands, laden with lumber of all kinds, dye-woods, live atock, anlt lreef, salt fiah, rice, raw hidea, peltry, rosin, piteh, and tar, which they exchanged for rum and molasses, and gooda of French manufacture, paying thereon the local duties, and one per cent. ad valorem on all imports and exports. A further fiuty of three livres was laposed on ever hundred weight of sult heef and fish, to form a fund for premiums to be given for fish from the French fisheries. The colonial legishatures were anthorized, In times of scarcity, to suspend this law. Prior to the French Revolution, the policy of France was in contrast with that of England. That of Fingland was to monepolize the carriage of the articlea exchanged; that of France, to monopolize the articlea themaelves. The former was willing that the United States should have sugar and coffee, provirled they wore cartied In Iritish bottoms; the latter was willing that the United States chould aupply her sugar and coffee plantationa with certain articies she was unable to furnish herself, but would not allow them to receive in return, the most raluable productions of the colonies. They were reserved for conaumption in the mother country, and to augment the national wealth. Under these regulationa, the Innited Atates were prompt in availing themselves of the advantages of the carrying trade to and from the French islands.

In 17A6, our exporta, domeatic and forelgn, to the French Weat Indles, were of the value of $13,263,000$ livree; and our laports from thence of the value or

7,263,000 livres;* and the American vessels engaged in the trade had an aggregate of 5095 tons' burden. Upon the declaration of war agalnat Great Britain, in 1703, France opened a free trade with all her colonies. She offered the United States the monopoly of this trade, on condition of a guaranty of her poesessions, which was wisely declined. Our trade with the islands during the war was nevertheless much augmented. Our proximity enabled us to seize the advantages in advance of other countrics. The following table exhibits the imports from and exporta to the Freach West Indies for the years designated:

| Yemars. | Inyorts. | Exports, |
| :---: | :---: | :---: |
| 1795. | 15,761,758 | 4,9,54,952 |
| 1796 | 15,743,774 | 8,408,946 |
| 1797 | 14,080,887 | 8,565,053 |
| 1798. | 15,800,091 | 5,844,690 |
| 1799. | 2,022,929 | 2,776,694 |
| 18101. | 0,845,111 | 0,128,438 |
| 1801. | 18,608,255 | 7,147,974 |

Tho exports of our domestic produce duing the years $1804,1805,1806$, and 1807 , were of the average value of $\$ 2,800,000$, and of foreign produce between $\$ 3,000$, 000 nud $\$ 4,000,000$. Our linports during the sams period were of much greater value ; but the principal part of them were re-ahipped to France and other countries. About the latter part of the year 1807 the English had become possessed of nearly all the French Islands; and they were not restored to France until 1814, and then with the loss of the most important one-San Domingo. Its loss greatly reduced the amount of commerce of those islands with the l'nited States, as is exhibited by the aubjoined statement of imports and exporta from 1821 to 1833 :

| Yeare. | Importa. | F20 | Years. | Im | Fxporic. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1*21 | \%(90), 619 | 1-96,485 | 1828. | 1996,651 | 81,024, 71 |
| 1922. | 969,519 | 901,002 | 1899. | 777,902 | 1,012, 1017 |
| 1823. | 934,618 | 867,505 | 1840. | 518,687 | N15, 769 |
| 1824.. | 884,094 | 811,742 | 1881. | 671,442 | 717.57 |
| 1825. | 849,968 | 1,011,986 | 1882. | 67*897 | 624,975 |
| 1826. | 978,270 | 956,174 | 1888. | 8t1,242 | 613,119 |
| 1827.. | 921,330 | 1,(040, $8 \% 3$ |  |  |  |

The conditions of our commercial intercourso with the French West ludiea were again changed by a royal ordinance learing date the 5th February, 18:6, and an act of Congresa bearing dub the 9th May, 1828. By the former, it is ordained that, after the 1st July following, all vessels, either foreign or national, nay import into Guadalonpe and Martinique certain articles of merchandise, apecified in the tablo accompanying the ordinance, on paying the dutiea therein rejuired, without regard to their tlage. This ordinance also annuls all then exlating tarilf. The act of Congress ad. inits all l'rench veasels "coming directly from the islands of Martinique and Gualaloupe, and laden with articles the growth and manufacture cf either of naid islanils, and which ure permitted to be exported therefrom in Americun veskela," Into tho ports of the United States, on payment of no higher duty on tomnage or on cargoen than are impored on Ameriean versols, and on cargues imported In American vesaela. The French ordinance exempta foreign veasels also, importing the srticles thus authorized, from any other duties or tonnarge, or any port charges, but those to which the venscis of France are suljected. The lmportation of other ur-

- The Ilvre was n coln of France prior to 1707; 81 livren beIng equal to 80 franes.
ticlee thas veasels, It ported cas other by nuder the the year from the Inclusive,


On the 8 somewhat r but the equ eign vossel port charge increase of sessions, an tain it, will natural reso
The iglan $16^{\circ} 13^{\prime} 4.2 \mathrm{t}$ Its dependes Saintes, and area of the populatione daloupe is high. From watering the three emall Maris Galan miles broad. and is 14 mi is light, and hat, but mue inches of rui its surface i ment in mac powers. The and mules. The annual ages 25,000 , sugars, rum, woods, cotton go to France fish; flour, o wine, perfun equsls that o uring an agg during the $y t$
Martinique $14^{\circ} 52^{\prime}$ north average bread a population sloping into thiril of the ceads 1600 foe product is suig Guadaloupe. tic under 20,0 like valuo. are engaged i vided into ar legislative co was abolished since. The lar Com. Rel. U.
ticles than those specified by the ordinance, by foreign vessels, is prohlblted; and artlcles allowed to be imported can only be re-exported from one colony to another by Fronch vessels. The lmporta and exporta under the seregulations have already been glven, up to the year 1838. The following table exhibite them from the year 1844 up to the close of the year 1855, inclusive, embracling a period of 12 years :

| Yeate. | Imports from French Weat lidies. | Exports to French West Indies. |
| :---: | :---: | :---: |
| 1844.............. | -374,698 | 8617,546 |
| 1845.............. | 415,082 | 564,108 |
| 1846............... | 848,283 | 685,621 |
| 1847................ | 151,366 | 608,164 |
| 1848.. क¢.......... | 127,039 | 459,024 |
| 1849.............. | 71,469 | 104,998 |
| 1850................ | T5,694 | 287,608 |
| 1851............... | 22,909 | 810,281 |
| 1889............... | 46,287 | 455,444 |
| 1833............... | 52,804 | 898,259 |
| 1854................ | 161,085 | 612,027 |
| 1855............... | 44,484 | 400,701 |

On the 8th of December, 1849, the tariff of 1826 was somewhat modified by slightly enlarging the imports; but the equal conditions upon which nationsl and fureign vessels were placed in reapect to tonnage and port charges were not disturbed. The prospects of an increase of our trade with the French West India possessions, and the motives to impel us to strive to obtain it, will be found in a brief summary of their natural resources anc: she conditon of their population.

The island of Guadaloupe lies between $15^{\circ} 58^{\prime}$ and $10^{\circ} 13^{\prime}$ z. rth latltude, 20 miles north of Dominica. Its dependencies are Marie Galante, La Desirade, Les Ssintes, and a portion of St. Martin. The aggregate area of the whole of them is 309 square miles, and the populations of all $\mathbf{1 3 5}, \mathbf{0 0 0}$. The contral ridge of Guadaloupe ls a chain of volcanic mountains 3000 feet high. From its base a multitude of rivulets descend, watering the low lands to the sea. The Saintes are three small islands situated between Guadaloupe and Marie Galante; Desirade la 10 miles long und five miles broad. Marie Gulante approximates to a circle, and is 1.4 miles in diameter. The soil of Guadaloupe is light, and easy of tilloge. The climate is excessively hot, but much tempered by the sea-breeze. About 86 inches of rain falls during the year. About one half its surface is planted in sugar-cane. The improvement in machinery has added much to its productive powers. The live stock consists of black cattle, sheep, snd mules. Guinea-grass is the only forage grown. The annusl value of all the produce exported averages $25,000,000$ francs, and conslsts chiefly of raw sugars, rum, and inolasses, with some coffee, dyowoods, cotton, copper, etc. Nearly all theso exports go to France. The inports consist of salt meats and fish; flour, olive od, cotton, linen, and silk fubrica; wine, perfomery, etc.; the annual value of whieh equals that of the exports. Alout 500 vessels, measuring an aggregate of 50,000 tons, enter and depart during the year.
Martinique is situated between latltude $14^{\circ} 23^{\prime}$ and $14^{\circ} 52^{\prime}$ north. It is ubout 28 miles long, and 10 ln average breadth, with an area of 200 square miles, and a population of 15,000 . Mountains cecupy its centre, sloping into plains toward the sea-shore. About one third of the lslund is level lund, and cultivation asceods 1500 feet along the mountain-sides. The staple product is sugar; its other products are like those of Guadaloupe. The munual value of its exports ls a litthe umler $20,000,000$ frames, and the lmports are of a like valou. Alout 750 vessels, French and foreign, are engaged in the trade. Hoth these lslands aro diviied litu arrondissements, and have a governor nod legislative coancil, and judicial trlbunals. Slavery was abolished in all the French colonles sume years shece. The larger portion of their population is black.Com. Rel. U. S.

French vessels from the French islands of Martin. ique, Guadaloupe, St. Pierre, Mquelon, and Cayenne in French Gulana, wers exempted from tonnage duty under the special act of Congress of the 9th May, 1828, and, as to St. Pierre and Miquelon, by the proclamatlon of the President of the United States, dated the 20th of April, 1847, consequent on tho removal by France of the reatrictlons on vessels of the United States in sald islands.

A French vessel bringing fish from the banks of the British colony of Newfoundland, belng the product of the waters of that colony, is not exempt from tonnsge datles ; the act of the 8 d of March, 1845, exempts from such dutles only French vessels coming directly from the lslands of Miquelon and St. Plerre, elther in ballast or laden with artleles the growth or manufacture of either of asid islands, and there la no other provialon of law or treaty suthorizing an'exemptlon.

French Colonies.-Decree of September 29th, 1856.The Emperor Napoleon, has decreed as follows:

Anticle 1. The extension fixed by the decree of September 19th, 1856, for the operation of the modlficatlons in the tariff of custome in the colonies of Martlnique, Guadaloupe, the island of Reunten, and of Senegal, In all that relates to grains, breadstuffs, and drled pulse, is continued to December 81st, 1857.

Article 2. Our ministers, secretaries of state, etc., will see to the execution of this decree which will also be published in the "Bulletin des Lois." The United Statee' consul at Paris communicates to the State Department, under date November 10th, 1856, as fullowe: "I beg to point out to your notice a modification in the duties on wool, se published in the Moniteur of the 8th instent (which I herewith inclose), and of which the following is a translation: 'Viewing the law of the 27th July, 1856, which has modified the importation tariff on wool in bulk.' " Considering that it is necessary to place the duties eatablished on the importation of combed and dyed wool in unison with the exlsting dutles on wool in bulk, it is decreed:

Anticle 1. The custom-house dutles on the importatlon of combed wool and dyed wool are fixed as follows: Combed wool............By French vessels, per 100 kilo's ${ }^{7} \mathbf{7} 0$ Dyed wool of ail sorts...By Frenet vessels,
.. By forclgn vessels,
" 80

| " | 100 |
| :--- | :--- |
|  | 115 |

"St. Plerren January 22d, 1857.
"Since my last report there hue been a considerable change in the duty on tolacco imported from the United States. It has been raised from 20 france, or ahout $\$ 375$ per 220 lbs., to the enormous figure of 60 francs, or about $\$ 1125$ per 220 lbs., making an sugmentation of 200 per cent.
"Some slight ameliorations have been made with respect to the importation of pork and hams, which heretofore lisd to pass through a French port before admission, but which can now be importel direct froin the United States under a duty merely nomlnal.
"It is much to be dosired that the French government should oxtend this privilege to all articles indiscrininately that could be imported here from the United States.
"The importation of flour from the United States into this island has been much grester this year than doring previuus years. From the .30th June to the 31st December, 1856, upward of 10,000 barrole have been imported direct from the United States, and ubout an equal quantity of Unlted States' flour has been inported by way of French ports. Thls may be uccounted for by the duty having been ' mporurily reduced, and it is much to be regretted the measure is not a permanent one. The new duty (which expires to glve place to the oll one on tho 3lst December, 1857) is, on every 220 lbs of flour, 2 francs, or about $37 \frac{1}{4}$ cents. The old one is, on every 220 liss. of flour, 20 francs, or about 837 , a duty that of course rendered the Importation of flour impossible so loug as it
existed. You will observe from the returns, that this island exports almost nothing to the United Staten. The staple products are sugar, rum, coffee, and these are not allowed to be exported except to France. Some yeare ago there was a considerable exportation of molasess to the United States ; but thla branch of conimerce has completely dled out, owing to the great extension of dintllieries in the island and the consequent scareity of molasses.-Consular Returns.

In order to preaent an Engllsh view of the commerce and finances of France of late years, we add from Tooke's "Ilistory of Prices" (vol. vl., London, 1857) the following "Conelusions arising out of the Inquiry as to the Finances and Credit Institutions of France," contributed by William Newmaricir, Esq., to the new volumes of that work.
"That the revolution of February, 1848, ocenrred at a period when, ly the operation of numerous causes, the finances of the French government were already. eerlously embarrassed ; that among the most important of these causes were the lews of 1841 and 1842, nnder whleh the State had taken npon Itself the responsibilltles and the expenditure entailed by the construction throughout France of an extensive net-work of trunk lines of rallway ; the unproductive expenditure for a long series of yeara of large annual sums in Algeria; the unproductive expenditure of conslderable sums on public works, yielding no adequate retura either direct or indirect; and the maintenance for a long period of an excessive annual outlay on the army and marine; and that in inmediate aggravation of all these causes of financial disorder, there had ocenrred in France, in the closing months of 1846, and thronghout the - reater part of 1847, a commercial crisis (taking it' sin in the serious failure of the harvest of 1856) mure sovere and disastrous than had been experienceil in France for 20 or 30 years.

That the suspension of cash payments ly the Bank of France, adopted in March, 1848, and malntained for two years and a half, till August, 1850, was a measure whoily unavoidnble, in consequence of the prevalence in March, 1848, of extreme internal diseredit, which admitted of being met in no other form; that the prevalence, during these two and $n$ half years, of a very low price of corn in France; of a state of the external trade of France which estahlished a large yearly balnnce in favor of thot country; nnd of the absence of any political causes which rendered it necessary for the government to require excessive advances from the Bank of Frsnes, rendered the suspension practically unproductive of any depreciation or inconvenlence; and led to its removal in August, 1850, by the spontaneous accumulation in the Bank of France of an amount of treasure quite equal to the amount of notes in circulation.

That among the important circumstances which have contributed to atrengthen the position of the Bank of France eince $1 \mathrm{c} \cdot \mathrm{k}$, and to aill the government In its plans for fostering credit, has been the extension by $£ 12,000,060$ or $£ 14,000,000$ sterling of the dispowaile means of the Bank of France in consequence of the addition of that amount la the form of nmall notes to the former nverage circulation of the entabilishment.

That under the autocritic government, established in December, 18i1, there have lpen Introduced Into France a aet of financini princliples ; and there have been placed in course of trial a series of flnancial experiments, distlinguished by a novelty which finds no sanction in any successful precedent; hy a harlihood which set at naught almost every established canon of finance; and by a diaregarl of the future, which purchasen present popularity at any cont.
That the earlient purposes to which the new financial policy was devoted were the reduction, In March, 1852, of the intereat on the Frenels 5 per cent. deit ; the imposition on the llank of France of a new charter which compelled it at onee to lower the rate of dis-
count to 3 per cent. and to make large advances on stock-exchange securities; the conceeslons, on condltlons more or less onerous to the Stnte, of a large numbber of Ilnes of rallway; and the introdnction of neveral joint-atock companies, encouraged by every State appliance to foster the appllcation of credilt to pnrposes of apeculation.

That between thr early part of 1852 and the antumn of 1853 , the prosperity and progress whleh seemed to prevail in France were chlefly the resulta of the artifichal measures.
That the difficultles of various klads which have occurred in Frunce slnce the close of 1853 , and more especially the difficulties experienced by the liank of France in the antumns of 1855 and 1856, have arisen in a princlpal degree-allowing, of ceurse, for the war and the scarcity-from the embarrassmenta and disorders entalleel hy the policy whlch has forced upon France enterprises and speculationa dispreportionate to its resourees of available eapital.
That these embarrassments and dlaorders would have become altogether overwhelming if it hnd not been for the apringing up, aince 1849 , chlefly In the gold conntries, and in conssquence of the gold influx, of a demand for French manufactures and produce, so large and continuous that, during the 9 years 1848 - 56 , the balance of trade In favor of France has amounted to not mnch less than $\mathbf{~} 80,000,000$ nterling.

That nelther the apparent nucceas of the reduction of the French 5 per cents. In March, 1852, nor the apparent auccess for some time of the enforced maintelsance of a lov cate of disconnt; nor the setting up of popular discount and lonn hanks; nor the apparent alacrity with whel the subscriptlon lists of the war loans of $60,000,000$ were filled op; nor the maintenance for a long period of the schemes of selling bread at an artificially cheap price; nor the multiplieation of railway companies by means of guarantied dividends ; nor the apparent pronperity created by public worka and credit lustitutions, afford the smallest support, when examined minutely and fully, to the financinl principles and the financinl practices which have held the supreme place in France slnce Decenther, 1851.

That of the two great credit institntions called the Credit Foneler and the Crélit Mobiller, the former is directed to a useful and laudable objeet, hut is degraded and disfigured by the latrolnetlon of clements of gambling, empirical and pernielous ; and the latter, the Credit Motilier, seeklng to obtain large profits by exciting vlolent fits of stork-jobling, and to oltain large funds hy the lssue of obligntions practically not prasable in specie, approacher, in design and machinery, nearer than any institutlon of recent times, to the model afforled by Law's Bank of 1716, and the Conpagnie des Indes of the three following years.

That as the reault of the whole investigation concerning the financial polley of France aince 1847, there have been made npparent three principul facts, namely: 1st. That between 18.17 nad 1851, it was the abundant harvests and low price of food In Frunce, which contrihuted in the largent degree to preserve order, to restore cash paymente, und to re-eatablish an equililrium between the income nint expenditure. 2d. That hetween 1851 and 1857, it han been the $£ 100,000,000$ aterling, made avallahle to France ly the ceonomy of It metalle elreulatlon, and liy the demand for its siliks and wines in the gold countries, which has so far carried it throngh the perila of war, searcity, and extraw: agance; and, M1. That the reckless and socialistic fivancial poliey Introluced since December, 1xī1, has alrealy exposed France to fallures and perils quite ss formidnile an any that were threatened by the revolution of 1848, anid muless sulijected to early and severs restralnta, will assuredly prodnce the most diastroas consequencea." See Tookr's History of Prices, vol. vi., Lonton, 1857, ip. 130-134.

Frank, Aralis, ete. nated durin scendants o guished the Frankistan,
The Fran which is spe of communle itants of the it probably brought so m

Frankfo Maine), one eslled to dite Frankfort-on Furt) from tl ls supposed t fifth century.
From the connected w During the one corporatic vote In the p the German great number sovereignty al princes, depen various privll Theso disappe of the Revolu German empl Lubec were while Frankfo of the samie, the rule of the The overthrov stored these $t$ they were rece federation. T Lubee once b league which Its real object commerce; bu auch a way t town: it equit boring States. trenties with t friendship. T 1630, when the and from that men, and Lube llanse Towns. fonn the four fr These four freo Diet by one mi voice. Notwith ono of the four tive at the seat by Mir. Kirchen Lutbec ly Sons nier, senator an of the four citio the towns for $t$ likewise have for law enses, Lubee; and the arcised by one exists between tions. Their fo lic, the basis of $1848-50$ ) has, $n$ of an aristocrat Their interests a political friends
The chicf ma ail-cloth, cotton,

## FRA

Frank, the name hy whlch the Turks, Greeks, Aralıs, etc., dealgaate a Chriatian. It probably orlginated during the cruaadee, in whlch the French (descendants of the Gers an Franks) partlenlarly distinguished themselves. Europa Itself, too, was named Frankistan, or the conntry of the Franks.

The Frank language, Lingua Franca, is a jargon which is epoken in the Levant, as the common medinm of cominunication between Europeana and the Inhabitants of the East. Its chief lngredient is Italian, and it probably eriginated during the crusades, whlch brought so many different nations together.

Frankfort-on-the-Maine (Ger. Frankfurt Am Maine), one of the four free cltles of Germany, and so called to distlnguish it from the Prasalan town of Frankfort-on-the-Oder. It toek its name (Framken Furf) from the river belng fordable at this polnt; and Is supposed to have been fonaded by the Franks in the fifth century.

From the earlfest times Frankfort has been closely connected with the other free citiea of Germany. During the anclent empire the cities formed together one corporatlon at the Imperial Diet, and enjoyed one vote In the public affalrs. Up to the disselution of the German empiro, In the year 1804, there exieted a great number of free towns, whlch had preeerved their aovereignty and independence agalnst the surrounding princer, depending only on the emplre, and enjoying various privileges granted to them by the emperors. These diaappeared, for the greater part, with the events of the Revolutlon. Of those which had survived the German emplre the towne of Hamburg, Bremen, and Lubec were Incorporated with the lirench empire; while Frankfort became the seat of the Grand Duchy of the same, created by Napoleon, and piaced under the rule of the Prince Primat Archbishop of Ratisbon. The overthrow of the French conqueror in 1813 restored these towns to their former independence, and they were reccived as soverelgn members of the confederation. The towne of Hamburg, Bromen, and Lubec once belonged to the Ilansa, that celebrated league which was fermed In the thirteenth century. Its real object was the protection and extension of commerce; but its power and influence increased in auci a way that it at length Incladed eighty-five towns; it equipped fleets, and declared war on nelghboring States. Englund and other powers concluded treaties with the Hausa, and were glad to enjoy its friendship. This league, however, was dissolved in 1630, when the last of its diets was held at Lubec; and from that time the three clices of Hamburg, Bremeb, and Lubec remalned alone, as the properly-called liaese Towns. These, with Frankfort-on-the-Maine, form the four free cities of the German Confederation. These four free cities are represented in the German Diet by one minister, and have together one cominon voice. Notwithstanding this joint representation, each one of the four cities has its own particular representative at the seat of the Diet. Wumburg is represented by Mr. KIrchenfrauer, Irenien ly ISurgomastor Smidt, Labec hy Sonator Eilder, and Frankfort by DeHarnier, senator and cldest burgomaster. The joint vote of the four cities la altornately intrusted to each of the tuwns for the perlod of a year. The free cities likewise have in common a supreme court of appual for law cases, and political questions, too, sitting at Lubec; and the control over which is alternately exercised by one of the four cities. Hesides that, there exists between thein a similituile of pelitical lnatitutions. Their form of govermment is that of a republic, the basis of which (excepting the short period of 1848-'50) has, nevertheless, alwaya been rather more of an ariatocratical than of a demacratical character. Their interests are closely unitel; they have the ame political friends and opponents.
The chlef manufnctures are carpets, table-covers, oil-cioth, cotton, woolon, and allk fabrics, jowelry, to-
bacco, playlag-cards, otc. . Frankfort was made a free port in 1881, and is also one of the four great emporiuma for aupplying Germany with merchandise. The river Maine, which is navigable to Bamberg In Bavaria, where commences the Donan-Malne Canal leading to Kelhelm on the Danube, and the numerous rallways which centre In Frankfort, render it the Industrial and commercial centre of the south-west and weat parts of Germany. No German elty, with the exception of Berlin, la the centre of ao great a number of rallways. Four great linea, and eeven others of a mere local character, meet in the clty. The Maiae-Necker railway leails sonthward to the Grand Duchy of Baden, whence railways proceed to Swltzerland, Wurtemberg, and Bavaria. The Taunus railway leads weat and nerth-weat to Mayence, and to Wiesbaden. From Mayence a railway goes to Lndwigshafen, the harbor of the Bavarian Palutinate opposite Manheim, thence to Strasbourg, and therefrom to Paris as well as to Switzerlund, Another branch from Ludwigshafen meets the Strasbourg and Paris railway at Nancy. From Wlesbaden a line is now (1855) in conrse of construction to Coblentz. The Maln-Weser rallway passes through the greater part of the two Heases to Cassel, and cominunicates with Haaover, Bremen, Hamburg, etc. On the right its branchee lead to Berlin and Suxony, and on the left a line will soon be opened to Cologne. The Hanan railway connects Frankfort with IIanan and the chlef places on the Nains to Bamberg, from which southward with Nuremiserg, Augsburg, Munich and Austria, and in another direction with Leipsic, Dreaden, and Bohemia. There are aiso local linee to Offenbach, the chief manufacturing town of Hesse Darmstadt, to $S a r$ on, a much-frequented bathing-place, and to near l'omburg, oae of the fumous spas of Germany. Frankfirt, however, is chlefly indebted for its great wealth to being the seat of extensive banking, commission, and finding transactions. In proportion to its size, it is probably the richeat city in the world. There are about twenty flrst-class bunking houses; among these are the Rothschilds, Gruneliun, Metzter, and others, well known in the commercial world. The nunber of these in the stock and exchange business amonats to at least 200. A city bank, with a capital of $10,000,000$ florias, was estublished last anmmer, and hus just (1805) commenced business operations. The two fairs of Easter und Michaelmas are still much frequented. Goethe wus bern here in 1749 . Civil population (1852) 62,361, belng 47,100 Protestanta, 10,66I Catholics, and 4600 Jews; military, 5650_1717 being Austrians, 1713 Prussians, 1391 Bavarians, and 829 natives. The population of Frankfort is but slowly iacreasing, on account of the old illiberal laws still In force as to admission to citizenship. Only auch are admitted as can prove their ability to maintain a family; so no merchant can be admitted unless he prove that he possesses at least 5000 flerins, and generally persons possessing that sum, or oven mere, are not admitted unless they marry a citizen's daughter, in which case the law is mure fuvorable. The ancient law is also still in force, that nene shall mend a shoe or drive a nail ualeas he be a muster and member of one of the corporations, and he can not become a member unlesa he be the sen of a citizen, or marry a citizen's daughter. The reatrictions to which the Jews were long subject have now moatly been removed. They are entitled to vete at the electlons of nembers to the legislative assembly, and may return four of their own number; they are also admisallile to all offices not connected with the sennte, the permanent assembly of the citizens, luw, religion, or education. The Inhabitants of Suchsenhausen are mostly of Suxon descent, und distiaguished from their fellow-citizens in manners, drees, and language, as well as occupations, being inestly employed in gardening, fiahing, etc.

The city, with a small territory of thirty-eight
square mile lying immediatoly around it, constitutea the free atate of Franlfort. The government is veated in a senate, a legislative amembly, and a pertuanent committee of citizens. The senate, which exercisea the executive power, is composed of 44 nembern divided into three branches-juatices, menators, and counselors, and having two presidents, one chosen from each of the two first-mantioned benches. The legisiativa asembly is composed of 04 members, of whom 20 are senators, $z 0$ members of the permanent committee of oitisens, 45 choeen annually by the cititens collectively, and 9 depnties from the rural districta. The permanent committee consist of 60 members chomen from among the citizens of all ranks. The legislative assembly meets annually in the month of November, and sits for six weeks; and its anction is requisite to all new laws, the budget, eto. With the free cities of Labec, Bremen, and Hamburg, Frankfort occupies the seventeenth place it the Germanio Confederation. It eajoys one vote in the general asaembly (Plemum), and furnishea a contingent of 683 men to the federal anny. Population of the State (1852) 77,971.

Franlefort-on-the-Oder, a town of Prusais, province of Brandenburg, and capital of the government of Frankfort, stands on the left bunk of the Oder, fifty milles east by south of Berin, with which, since 1842, it has been connected by railway. The town is regularly built, and aurrounded by old walla with towers and ditches. It has three auburbs, one of which stands on the opposite bank of the river, and communicates with it by means of a wooden brijge. The university founded here in $\mathbf{1 5 0 6}$ was removed to Breslau in 1810. Frankfort has a Roman Catholio and aix Protestant churches, a aynagogue, gymna*ium, obstetric achool, orphan asyium, work-house, theatre, etc. Being the capital of a government, it is the seat of a superior and uther judicial tribunals, of boards of taxation, agricuiture, etc. Though inferior to Its namesuke on the Maine, it la a place of coneiderable eommerclal nctivity, being situated on the high road from Berlin to Silesia, and on a navigable river communicating by canals with the Vistula and the Elbe. It has three annual faira in the monthe of February, Juif, and November, attended by merchanta not only from Germany, but ulso from other parts of Europe. It has manufactures of woolen and silk goods, atockings, gloves, leather, tobacco, sugar, brandy, mustard, etc. Immediately beyond the bridge is a monument to Prince Leopold of Brunswlek, who was drowned here in 1785 while attempting to rescue an unfortunate family from an innndation of the Oder. At Kunnersdorf, in the vicinity, Frederic the Great was defented with great loss by the Austrians and Russians on 12th Augnet, 1759. Population (1849) 29,969.

E'reebooters (Fr. fibusiers), a name given to a class of piratical adventurers of all nations, but especially of France and Eagland, who have obtained a place in history by the courage and intrepidity they diaplayed in executing the most difficuit enterprises. The origin of their history is involved in obscurity, nor has the derivation of thelr usme been precisely deternined; but the klibustiers of the French historians correspond to the bucaneers of our own writers. (See Bucanezens.) The South American ixiandis formed the chlef theatre of their exploits ; and such was the relentless hoatility they exercised against the Spanfards, that during the latter half of the seventeenth century their conmmerce in thone seas was almost utterly ruined. At the commencement of the follow* ing century these daring adventurers sustained a ecries uf disasters which sensibly diminished their numleers ; and their name, which during poriod of 50 years had been so redoulitable and Ireaded, ceased to be formidable from that tine. The term freebooter has been applied in a general sense to robbers and other plunderers. See Bucanbers.
to se Imperial Citien.-This appellation was beswwed, under the German empire, on certain cities which acknowledged no head but the eunperor, and were governed by their own magistrates. Some uf these cities, as Worme and Cologne, aequired various privileges and immunlties at an early period, in consequence of the assistance they readered the emperors in repressing the arrogance of the noblee; and commerce and manufactures graduaily eontributed to their importance. In this manner the imperial cities originated in the middle of the twelfth century, it would appear, however, that there were free cities in Germany which had existed from the time of the Riomans, though posmesaing little in common with those of later times, and which in the beginning of the six. teenth ceutury loat their most valuable privileges, and even the name of free cities, through the ignorance and carelessness of their magistrates. As to the nature of these privileges it will be sufficient to remark that they were such as to conatitute theus nothIng less than independent republics. The cities of Lombardy, enriched by comineree and encouriged by the popea, often ventured to resist thelr masters the emperors; and their examille was followed by those of Germany. In the middle of the thirteenth century two important confederacies were established for conmon oliject--the Hanseutic League in 1241, anI that of the Rhenish cities in 1246. The powerfol Ilanseatic League lasted nearly 400 years, and its dissolution was effected by neveral causes in 1630 . The remasats of this league, with the former confederacy of cities whici had its representatives in the German Ihet, as well es the free cities of Ilamburg, Bremen, and Lubec, were incorporated with the French empire in 1810. As these cities co-operated vigorunsly in the recovery of German independence, they were acknowledged, together with Frinkfort, us freo cities by the congress of Vienua; and as sulh they joined the German confederacy, June 8th, 1815 , and oltained the right of a vote in the Dict. See alno Hanse Towns.

Free Trade. A nation, possessing ali necessury physical resources, but inperfectly deveiopen, like England a century ago, like the United States now, may do one of two things. It may resolve to produce for itself, or resolve to iet othere produce for it. If it rosolve to use its own producte, it must resolve not to use the products of other nations. Now, what is a protective tariff; which prevents the sale of foreign products, but this resolution expressed by leginlation? Two things are necessury : 1st. Not to use the products of others. 2d. To produce for one's self. Tho first is protection. Now it is true, that without industry at houe, protection from abroad will a vail nothing, for there is nothing to protect. And without resources, neither protection nor industry will avaii any thing. We admit the necessity, tlrot, of natural resources; second, of industry; we ciaim, third, the necessity of protection.

Protection, then, is the resolution of a nation not to use foreign products; this is the negative side of the policy of hotite industry. I resalution to produce for itself is the aftirmative sid, and is necessary to compieto it. Such a resoiution in a nation is like self-control in an intividual, and protection is no more untatural in the one than aelf-control in the other.
It is a domestic poiicy, designed to keep foreiga goods out of the home market. Now, a nation may say it will not huy of others. This is protection. It can not sy $y$ others shall buy of itself. This is beyond the power of protection; and lingland reached this point years ago, we think as early as the beginuing of the century. During the European war whe enjoyed the most effectual protection, for we alinit the ting of the free-traders, that protection is sort of war, thus far, that it involves mutual exclusion. Bighand's finets a wept the seas. conveying around the world her merchantmen that carried the raw materials to her fac-
tories, and of the eartl pretended favored by ture.

England What had a tection had cio; and ye when they some of the are teid she was $\varepsilon$ mistal
Grose Reving Drduotio justown YEAB, AN

| rean. |  |
| :---: | :---: |
| 1815 | $\underline{23}$ |
| 1816 | 19 |
| 1si7 | 28 |
| 1818 | 22 |
| 1859 | 21 |
| 1820 | 22 |
| 1821 | 22. |
| 1828 | 28 |
| 1824 | 24. |
| 1924 | 24 |
| 1885 | 24. |
| 1928 | 22, |
| 1827 | 23 |
| 1234 | 22. |
| 1539 | 29, |
| 1530 | 22, |
| 1531 | 21, |
| 1832 | 21 |
| 133: | 21, |
| 134 | 21, |
| 1835 | 22, |
| 1836 | 28, |
| 1597 | 29, |
| 1838 | 22, |
| 1819 | 28,1 |
| 1840 | 23, |
| 1841 | 23,6 |
| 1842 | 22, |
| 1843 | 22, |
| 184 | 24, |
| 1545 | 21,7 |
| 1546 | 22, 2 |
| 184 | 21,6 |
| 1843 | 22,5 |
| 149 | 22,2 |
| 150) | 22, |
| $1 \times 1$ | 22, |
| 1 N 2 | 21,7 |
| $18 \% 3$ | 22, 1 |
| 154 | 22,0 |
| 153 | 22,2 |

"We have population of to the extent coasumption; ply is by extre four fifths of sists in distrit this distributi, the whole judi products, or pr sis, of labor fo the ageney of and purchases um of exchan, what they nee sgency of mer merely a meas commodities or prices exjresse mainly govern regular moven the well-being iveness of labe
torien, and carried it back manufuctured to the ends of the earth. No other nation bat the United Statee pretended to share the carrying trade, and we then, favored by llke protection, first began to manufacture.

Fingland commanded the markets of the world. What had she to fear for the market at home? Protection had done lta perfect work-it wae functus ofpcio; and yet, when England, thlrty-five yaare after, when they hid become useleas, ventures to throw off some of the restrictions that ewathed her industry; we are told ahe had abandoned the priaciple, convinced it was a mistake.
 Implotion of Diawbacer, with Statamivt or Uu*town Dutios nepralmb, hadvogo, on sxpramd zach Yeah, anb thoar imposed, fhom 1815 to 1850 .

| VEAE. | cuitome, |  |  |
| :---: | :---: | :---: | :---: |
|  |  | Repenied. | Impozed. |
| 1815 | 283,488,000 | 2228,000 | 18124,000 |
| 1816 | 19,8+5,000 | 63,000 | 90,000 |
| 1st7 | 22,111,000 | 1,000 | 7,000 |
| 1818 | 92,860,000 |  |  |
| 1810 | 21,252,000 | 472,000 | 1,260,000 |
| 1520 | 28,104,000 |  | 6,000 |
| 1821 | 22,572,000 | 90,909 | .... |
| 1532 | 28,500,000 | 188,000 | - |
| 1883 | 84,441,000 | 211,000 | 1000 |
| 1924 | 24,711,000 | 1,418,000 | 46,000 |
| 1885 | 24,660,000 | 2,768,000 |  |
| 1926 | 22,855,000 | 778,000 | 13p,000 |
| 1887 | 28,202,000 | 2,060 | 21,000 |
| 1595 | 22,866,000 | 86,000 | 2,000 |
| 1920 | 22,620,000 | 126,000 |  |
| 1530 | 22,914,000 | 675,000 | 85,010 |
| 1831 | 21,612,000 | 1,068,000 | 626,000 |
| 1832 | $21.978,000$ | $2+8,009$ | 28,000 |
| 1483 | $21,253,000$ | 847,000 |  |
| 1484 | 21,584,000 | 806,000 8,000 | 17,000 |
| 1885 | $28,146,000$ 28,046000 | 88,000 |  |
| 1836 | $28,046,000$ $22,089,000$ | 148,000 | 1,000 |
| 1397 | $22,068,000$ $22,865,000$ | . . . | $\cdots$ |
| 1889 | $22,765,000$ $28,184,000$ | $\ddot{B}, 900$ | .... |
| 1840 | 981,842,000 |  | 1,000,000 |
| 1841 | 23,515,000 | 27,1000 $1,499,090$ |  |
| 1842 | $28,688,000$ $22,647,000$ | 1,499,000) | 161,000 |
| 1843 | $22,647,000$ $24,197,000$ | 171,009 $2 \times 6,000$ | .... |
| 154 | $24,197,000$ $21,706,000$ | 256,000 $8,608,600$ | . . . |
| 1516 | 22,978,000 | 785,000 | 2,000 |
| 1847 | 21,658,000 | 84,5,010 | . . . |
| 1543 | 22,594,000 | 886,009 | . $\cdot \cdot$ |
| 149 | $22,269,000$ $29,020,000$ | 889,000 894,000 | .... |
| 1**0 | $22,020,060$ $28,127,000$ | 834,000 801,000 | . $\cdot$ |
| 1902 | 21,791,000 | 81,000 98,000 | $\ldots$ |
| $1 \times 53$ | 22,102,000 | 1,500,000 | 16,000 |
| 154 | 22,017,000 | 053,000 | 440,060 |
| 18\%) | 22,227,000 | - | 2,226,000 |

"We have seen that, apart from forelgn trade, the population of every country supply their own wants to the extent of from 90 to 99 per cent. of their whole coasumption; that the business of furnishing this suppily is by extreme division of laber, apportioned among four fifths of a people; that thelr internal truile consists in distributing these products of industry ; that this distribution ls substantially an exchange anong the whole individuals of a population, of products for products, or products for services, or, in the last annlysis, of lator for labor ; that this exchange is made by the agency of morchants, and takes the shape of sales and parchases, that ls, leaving out of viow the medium of exchange, men pay with their own labor for what they neel of the labor of others; that all the agency of merchants, brokers, banks, and credit, is merely a moans of effecting this exchange, that the comuodities or lahor thus exchanged, are estimated at prices expressed in money of account, which prices are mainly governel by the price of 'sbor; that upon the regular mevement of this exchange, mainly depends the well-being and comfort, the energy and productiveness of labor; that if this arovement procecds rapldly and undisturbed, production and consumption will
go hand in hand, until individuale reach the frill power of both, and a greater ds ${ }_{6}$ o of general comfort and competency be enjoyed than has yet been known. We have seen that one of the great diaturbing causes of this system of domestlo distribution, of the comforts and neceasaries of life, was found in the occaslonal dorangement of the commercial agencies by which it is effected ; and wo have remarked apon the necensity of reformlag that agency with a view to the interente of humanity.
" We now proceed to conslder another disturbing cause. We remark first, however, that neither the labor nor the prodact of labor, nor the dietribntion, nor the means by which it is effected are the primary objects of consideration. The firot conalderatlon le the people, then, in their order, their labor, thelr products, and the detribution of them. The whole object of their lndastry is their well-being. An they can : nily purchase by their own labor what they need of the labor of others, it in absolutely necessary for all to work; whitever deprives men of the opportunity of labor, deprives them of bread, and of every other comfort and necessary of life. Nien consume freely and largely when they are fully pald for thelr labor; that 18, when they can purchase for their labor an equal quantity of the labor of others; In tois case, the nominal rate fs of little account, liecause it la labor for labor. If the $\mathbf{2 5 , 0 0 0 , 0 0 0}$ of people in the Uaited States, are consuming $\$ 10$ worth each of domestic woolen goods annually, upon the manufacture of which 250,000 of the people are dependent for their entire living, and if It be found that these same goods, which coat at home 83, can be purchased at $\$ 2$ per yard in Enrope, then, at first sight, it would aeem bnt reasonable, that the cheaper article should be imported from Europe. To Import $\$ 250,000,000$ worth is Imposslhle, because we can not pay for them, as we are constantly importing more than we can pay for, and that sum is the figure of our whole Imports. We import, then, say 10 per cent., or $\$ 25,000,000$ worth of woolen goods, and sell them in our great commercial marts, where prices are chiefly made, 33 per cent, cheaper than the domeatle article. Consumers fly to the cheaper article, and the domestic goods must come down to the same price. The annual domestic product must fall In price 38 per cent., und Instend of bringing ita manufactarers $\$ 250,000,000$, it will only bring them $\mathbf{a} 166,000,000$; their consumptlon of the products of others must be reduced one thlrd. The cffects of this reduction will extend until they are felt throughout a whole nation. The importation of $25,000,000$ of cheaper woolens, would thns inflict a direct loss by reduction of price upon the woolen manufacturers of $\$ 88,000,000$, and this loss is multiplied many times hy indirect results in the reductlon of consumption. The average consumption of cotton goods is about the same as that of woolens, and the same illustration is applienble. The introduction of cheaper goods, of a kind which our country must, after all, chiolly manufacture for itself, is introducing againat our own labor, the price of which is 81 per day, the lahor of other ceuntries, the price of which is less than 50 conts per day. This can not but inflict a serious blow upon the whole aystem of our internal hitustry, and If continued, must lead to the utter prostration of the domestic manufactine thus attacked, and the utter poverty and ruin of the hundreds of thousunds depending on it for a llving. The effect of this in the case of woolen goods, would be a reduction in the average consumption of woolens, of from $\$ 10$ to $\$ 5$, for the whole population, and a rise $\ln$ the prices above the original domestic rates. While, therefore, it may at first sight appear to be very plainly better to import certain goods which can be offered to consumers at lower prices than the corresponding domestic article, several questions must be asked before such a policy is adopted. As, Will the importation seriously injure any home manufacture? Will it throw many people out of cmploy-
ment if It is a great miatake to auppoen that such measares affect only employers in woolen and cotton manafactorlew, there are hundrede of men; women, and chlidren; depending apon every employer.' 'If we leesen our domentic production, will not our increased demand produoes peculation, and a higher foreign price for the article imported f if we reaolve upon Importing our whole supply of a necessary articin, are we sure that we can inervase our exports to a sufficlent axtent to pay for the additional Importation? Ara we aure that we ahall not, by this polley, deprive the poor of their supply of a needful iomastic product, anu convert it into a foreign product, chiefly aupplied for the consumption of the rich ? What moite can be adopted to secure anpply of these needful articles In time of war, or Inisrrupted commercial intercous se ? Alithese, and many more inquiries, ahould be made and faithfully atudied, before any braneh of domantic Induatry is broken up, nader the temptation of buying cheaper goods abroad. On the contrary, it should be well understood in every country, that many sacrifices may, with advantsge, be endured, to introiuce the manufacture of any artleio of general consumption, even though It can not be made as cheap as elsewhers. A manufacture can only grow and flouriah in an country where the people are willing to conaume its prolucta, and they can only consame them where their labor wlll purchase them. A people can consume largely of a domestic product even at high price, but may not be uble to consume even a smalt proportlon of a correaponding foreign article at a low price. Let any one think of the innumerable nrtieles which figure in our internal trade, and which go to pay for, as well as to make up our consamption of home commoditles, and he will ona the difference betwen purchasing abroad and at noure."-Latr's Pol. Ec., by S. Cotwertr.

Thone who wish to examine the literature of fivetrade, will find the principles fully diacussed in the following works: Honr's Mag., vol. iv., 227 (8. G. Arnold), 425 (H. Greft.fy), v., 168 (H. Gnkfift), vi., 220 (C. C. Havex), vili., 407 (… Woodnury), Ix., 161 (J. 11. Fisitra), x., 399, 622, xi., 227, xxiv., 63 (S. Brmax), 569 , xxili., 79, 110, xxil., 635 (Bacon), 406 (Sullex), xyv., 322 ; N. Am. Rev., xI., 122 (A. H. Everett) ; Am. Quar., x. 444; Dem. Rer., vii., 341, ix., 329, xiv., 391, 447, xxxili., 97 ; Dublin Univ., xxix.; 785, xxxv., 270 ; Eilinb. Ren. xxxili., 331, 1xxvili., 1, xc., 70; Am. Whig Ree., $\nabla ., 201$, xili., 238, 329, 443, xil., 818, 633; Ntirs' Reg., xxvill., 186, xxlx., 289, xli., 135, 156; Frasrn'm Mag., v., 577, viii., 103, 222, 604, ix., 356 , vi., 593 (Gazt), vil., 106 (Galit), xlili., 716; Quar. Ree., Ixxxvi., 80; For. Quar., Ix., 261, x., 68 ; x1., 140 ; IVestmingler Rev., xll., 138,
 xvil., 551, xix., 474, xxi., 1, xxiv., 370, xxril., 553 , xliv., 317, Iv., 259, 385, Ixvii., 04, 222, 447, 1xx., 106, 123, 448, 629, ixvili., 123.

Frelght, the sum pald liy the merchant or other person hiring a ship, or part of a shlp, for the nse of such ahip or part, during a specified voyage or for a specified time. The freight is most commoniy fixed by the charter-party, or thill of lading ; lut In the alsence of any formsi atipulations on the subject, it would be due cecording to the custom or usage of trade. In the case of a charter-party, if the stipninted payment be a gross aum for an entire ship, or an entire part of a ahip, for the whole voyage, the gross anm will be payable although the merchant has not fully laden the ship. And if a certain sum be stipulated for every ton, or other portion of the ohlp's eapacity, for the whole voyage, the payment must lie accoriling to the number of tons, etc., which the ahip Is proved eapable of coniaining, without regard to the quantity actually put on board by the merchant. On the other hand, if the merchant have etipulated to pay a certain sum per caak or bale of goods, the payment must be, in the firat place, according to the num-
ber of caska and baten thlpped and delivored in id if he have furthar covenanied to fur ish a complete lad. ing, or a specifo number of easka or bales, and failed to do ao, he mast make good the loen which the ownors have austalned by hia fillure. If an entire ahip be hired, and the burden thereof he expressed in the charter-party, and the merchant bind himeelf to pay a certain sum for every ton, etc., of goodla which he ohall lade on board, but does not bind himself to furniah a complete lading, the ownerw oan only demand payment for the quantity of goods actually shipped, But if the marchant agree to load a full and complete cargo, though the ship be described as of less burden than she really is, the merchant must load a full cargo, accoriling to the real burden of the ahlp, and he will be liable for freight according to what ought to be loaded.

The delivery of goods at the place of destination is In general necessary to entitle the owner to freight; but with respect to living anlmals, whether men or cattie, which may frequently dle during the vovage, without any fault or negleet of the persons belonging to the ship, it is ruled, that if there lie no express agreement whether the freiglit is to be pald for the lading, or for the transporting them, freight shall be pald as well for the dend as for the liviag: If the agreement be to pay freight for the lading, then death certainly can not deprive the owners of the frelght; but if the agreement be to pay freight for traneporting them, then no freght is due for those that die on the voyage, becanse as to them the contract is not performed. These distinctions bave been made in the clvil law, and have been adopted into the modern systems of msritime law. Freight is moas freqzently contracted to he pall either liy the whole voyage, or by the month, or other time. In the former case the owners take upon themselves the ehance of the voyage being leng or short : but in the latter the risk of the duration falls upon tise merchant; snd if no time be fixed for the commencement of the computation, it will begin from the day on which the ship breaks ground and commences her voyage, and will continue during the whole course of the voyage, and during all unavoidabie delays not occasioned by the act or neglect of the owners or master, or by auch circumstances as occasion a suspension of tho contract for a particular period. Thus, the frelght will be payable for the time consumed in necessary repairs during a voyage, proviled it do not appear that the ship was insufficient at the outset, of that there was any improper delay in repalring her.

In the absence of an express contruct to the contrary, the entire frelight is not earned until the whol cargo the ready for delivery, or has been dellvered to the conaignee according to the contract for its conveyance. If a consignee recelve goods in pursuance of the usual bill of lading, liy which it is expressed that ha is to pay the freight, he, by auch receipt, makes hinself delitor for the freight, and may be sued for it. But n person who is only an ngent for the conalgner, and whe is known to the mater to le acting in that character, does not make himself personsify answeralle for the freight by receiving the goods, although he aiso enters them in his own name at the cuatumhouse. In some casee freight is to be paid, or rather an equivaient recompense made to the owners, although the goods have not been dellvered at the place of destination, and though the contract for converance he not atrictly performed. Thus, if part of the cargo he thrown overtonad for the necesaary preservation of the ahip and the remainder of the goonls, and the ship afterward reach the place of deatination, the value of this part is to be answered to the merchant by way of generai average, and the value of the freight thereof allowed to the owner. So, if the mase ter in compelled by necessity to sell a part of tha eargo for victuals or repairs, the owners inust pay to
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When goods are deterlorated during a voyage, the merchant is ontitled to a compensation, provided the ileterioration has proceeded from the fault or neglect of the master or marinere 1 and of course he la not answerable for the froight, unless he nccept the goods, except by way of deduction from the amount of the compeneation. On the other hand, if the deteriorntion has proceeded from a principle of decay netarally juherent in the commodity itself, whether active in every situation, or in the conflnement and closeness of a ship, or from the perils of the sen, or the act of God, the merchant must bear the looe and pay the freight; for the master and owners are in no fault, nor doea their contract contain any inaurance or warrenty soainet such an event. In our West India trade, the freight of sugar and molasses is usualiy regulated by the weight of the casks at the pert of delivery here, which, in fact, la in every instance less than the weight at the time of the shipment : and, therefore, the loas of freight occasioned by the jeaksge neceasarily falls upon the owners of the ehip by the nature of the contract.

Different opiniona have been entertained by Valin, Pothier, and other great authoritiea as to martime law, with respect to the expediency of allowing the merchant to abandon his goois for freight in the event of their being damaged. Thia question has not been judicially decided in thit country. "The only point," says Lord Tenterden, "intended to be proposed hy me as doubtful, is the right to abandon for freight aloae at the port of destination ; and in point of practice, I have been informed that this right is never claimed in thie country."-Law of Shipping, part iii., c. 7. Freight being tho raturn made for the conveyance of goods or passengers to a particular destination, no ciaim ariaes for its payment in the event of a total loss; and it is lald ciown hy Lord Mansfield, that "in case of a total lose with salvage, the merchant may either take the part eaved, or abandon." $-A b b o t t$, part iii., c. 7. But after the merchant has made bis election, he must abide by it.

It often happens that a ship is hired by a charterparty to aail from one port to another, and thence back to the first ; as, for example, from London to Leghorn, and from Leghorn back to London, at a certain sum to be paid for every month or other period of the duratinn of the employment. Upon such a contract, if the whole be one entire voyage, nnd the ship sall in safety to Leghom, and there deliver the gooda of the merchant and take others on board to be brought to Louden, but happen to be lost in her return thither, nothing is due for freight, aithough the merchant has had the benefit of the voyage to Leghorn; but, if the outcard and homervard royages be distinct, freight will be due for the proportion of the time employed in the outward voyage. "If," said Lord Mansfield, in a caae of this sort, "there be one entire rayage out and in, end the ship be cast away on the homeward royage, no freight Is due, no wagea are due, because the whole proflt is lost ; and by express agreement the parties may make the outward and homeward voyage one. Nothing is more common than two voyages: wherever there are teo voyages and one is performed, and the ship is lost on the homeward voyage, freight ia due for the tirst."K. B., Trin. Term. 16 Geo. 3.

It frequentiy happens that the master or owner fails to cumplete his contract, either by not delivering the whole goods to the consignee or owner, or by delivering them at a place short of their original destination; in these cases, if the owner or consignee of the goods derive any benefit from their conveyance, he is liable to the payment of freight according to the proportion of
though contracte of this mature be frequently entire and Indivisible, and the master or owner of the ship can not, from their naturn, aue therwon, and recovar a ratable freight, or pro ratá ítineris ; jet he may do so upon a freeh implied contract, for as much as he deservea to have unless there be an express clause in the original charter-party or contract to the contrary; A freeh implied contract is inferred from the owner's or consignee's acceptance of the gooils. Many lifficulties have, indeed, arisen in deciding as to what shall amount to an acceptance: it is not, however, necessary actualiy to receive the gooda ; acceptance majy le made by the exprese or implied directions, and with the consent, of the owner or coneignee of the goods, hut not etherwiee.

It sometimes happens that the owner of the shlp, whe ia originaliy entitled to the freight, sella or otherwise diaposea of his interest in the ship: where a charteren shtp is sold before the voyage, the vendee, and net the vendor or party to whom he afterward assigns the charter-party, is entitled to the freight. But where a ship has been sold during the voyage. ".e. owner, with whom a covenant to pay freight bat in made, is entitled to the freight, and not the vendee. A mortgagee who does not take possegaion, is not entitled to the freight.
The time and manner of paying freight are frequently regulated by express atipulations in a charterparty, or other written contract ; and when that is the case, they must be respected; but if thern be ne expreas atipulation contrary to or inconsistent with the right of lien, the goods remain as aecurity till the freight is paid; for the mater is not bound to deliver them, or any part of them, without payment of the freight and other charges in reapect thereof. $P_{L^{\prime}}$ "the master can not detain the carge on board the vessel till these payments be made, as the merchunt wouid, in that case, have no opportunity of examining the condition of the goods. In England, the practice is, when the master la doubtful of payment, to send such gooda as are not required to lie landed at any particular wharf, to a public wharf, ordering the whartinger not to part with them till the freight and other charges are puid. No right of lien for freight can exist, unless the freight be earned. If the freighter, or a stranger, prevent the freight from becoming due, the ship owner or muster's remedy is by action of dumagee.

Fur further information and details with respect to thls aubjant see the article Charter-panty; Abbott (Lord Thestemden) on the Law of shipping, part iii., c. 7 ; Chitty's Commercial Law, vel. iii. c. 0, etc.

Freight is a common eubject of insurance. In common conversation, this word means sometimes the cargo carried, and sometimes the earnings of the abip by carrying the cargo. The latter is the meaning in mercantile law, and especially in the law of insurance. It includer the money to be paid to the owner of a ship hy the shipper of goods, and the carnings of an owner by carrying his own goods, and the amonnt to be paid to him by the hirer of his ship, and the profits of such hirer, either by carrying his own goods or by carrying for pay the goods of others.

An interest in freight begins as soon as the veyage Is determined upon and the ship is actually ready for sea, and goods are on board or reaty to be put on board, or are promised to be on board by a contract linding on the owner of the goods.

If a ship is insured on a voyage which is to consist of many passages, and sail without cargo, but a cargo is ready for her at the first port she is to reach and sail from, the owner has an insurable interest in the freight from the day in which he sails from his home port.

If one makes advances toward the freight, he is to pay, and this is to be re-paid to him by the shipowner; if the freight le not earned, the advancer has no insurable interest in what he advances; but if he
in to lose without repayment, if the ahlp be lost, or the freight not earned, he han an insurable intereat. --Parsonsin Mercantile Iaw; Boston: p. 418.

If the hirer takes the whole vessel, he may put the goods of other ahlj-owners on board (unless prevented hy expreas atipulation); but whether he fills the whole ahip or not, he pays for the whole ; and what he pays for mo much of the ship as is empty is sald te be paid for dead freight. This is calculated on the actual capacity of the ship, unless she ls agreed to be of specithed tounage. If elther party ls deceived or defrauded by any statement in the charter-party; be has, of course, his remedy agalnat the other party,-Page 358.

The freight is totally loat when the whip is totally lost or made unnavigabile, or is subjected to a detention of such a character as to lireak up the voyage. If there he a construtive total less of the shlp, the owner mny abandon the freight with the ship; but if the ship be netually lost, the freight may not be; for the mase ter has the right, and is under the duty, of transmitting the goods, if he can; and if he does, the owner of the ship is entitled to the whole of his freight, and the expeuse of the transmissiou ls all his loss. If the master might have done this, and falls to do it, the estimated expense of transmisslon is still all the loss for which the insurers are responsilhle.

So, ff the ship can be repaired, ned go on again and finish her voyage, the owner woull have the righi to holl on to the goods, and linally carry them, and earn his freight. And he has this right although the delay would be very long, and even if the goola are injured, and it would cost time nind money to put them in it condition of suffty fur the residue of the voyge. Still, the rhip-owner, by hila agent, may do nil thia, and then earn his frejght ; and, therefore, if it can be done, whether it is done or not, all the claim which the insured on freight can make on the insurers ls for the expense of doing it. The rule of 50 per cent. applles to frelght aloo. If, therefore, freight pro vata be puid, it will be a total loss by construction if less than half be pail. So If the whip he injured, and part of the cargo he lost, but the ship may be repnired and carry the remaining goods on, If thint part would pay more than half of the whole freight, it has been lield not to he tutal; mil otherwise, it is.
freight is fully earned if the gooda remuln aubatantially In qpecie, end are ao slellvered to the consignee, althongh there he a very great deterioration; but freight is lost, and the inaurers are reaponaible, if nothing is left of the goods but the mere prolucts of decomponition, an that they are lost in fact.

If, after some freight is earned, there is an abanionment of the ship, and, after the nbandonment, more freight is enrusi, the Americsn cases hold that the freight carned beiore the abanionment joes to the i. trers on frelght, while that earned after the aban--i. + I. it groes to the insurers of the shig. liut the $r^{*}$ a cib law is the reverse, nnd pursuen the rule in " 6 ne
lly the French law, an abandonment of the ship :3.: in the umilerw riters the benefte of the frelght seb. 1 k at the time of the loss. In the linited states it neems now to lie well nettled that the frelght earned prior to the loss goes to the underwriter on frelght, atel that earned sabsequent, to the underwriter on the ship. Thus it has been lecided in the Masamehuaetes Supreme Court ( 16 Minan, , 346): "Lintll the loss haprens, the property remalns in the assured, and the freight, or her earnings, lelong to bim till that thene, if he stands his own insurer for the freight; otherwise, to the inaurer on the freight; but after the lose has hapjened, the insurets, in virtue of the abnidomment, become the owners, and are lialle for the repalrs and expensen, atul entitled to the earnings of the ship."Jbid, 4ik.

Charter.-There are two kinds of contract for the carriage of goods. Firnt, The centract of affrcight-
ment by cho tter-party. Secoadly, the contract for the carriagr of gooda in a general ship. The first is whera the whole or the chief part of a ship in let out to hire. There is nothing to prevent this contruct from being verbal, but in practice it is alwaya roduced to writing, and the written instrument contalning the terma of it la called a charter-party. It may be under seal or not. If so, it takes effect from the day when it was sealed and delivered, unless it appear on the face of it to take effect from the day of date, when that is a different time. The construction of it la to be reasonable and so as to glve effect to the intentlon of the parties and also the usage of trade, both In general and of the particular department in question; and where terma are introduced relating to a utage, evidence of course may be given to prove whit that uage is. But this will not admit of a construction being introduced which ls not consistent with the plain and obvious meaning of the words. The partica to it are the ownere if present where the contract is made, and generally also the master, or the master alone if the owners are absent ; and the merchant whe hires the shlp, or his agent. If the charter-purty is by deed and executed ly an agent, he should be authorized by deed, or letter of attomey, to sign for his principal, and must sign in his nume. If the agent aigns in his own uame, actions on the charter-party will have to be brought by or against the agent. The merchunt hirinus is called the charterer or freighter. The letting la for one or more voyuges or some period of time: the money to be paid for the hire is called frelpht. This may consist of one sum for the wholo ship or part let, or so much for ench ton or cach piecs of merchandise, etc., the frelghter undertaking to find a full eargo.

If the payment is to be made by the ton there should be provision for payment at the same rate fur $a$ lesa quantity, Again, the puyment may be by a sum in gross for the whole time of the ship's employment, or at a certain rate per month or other perful of time, A month is understood to mean a calenilar month. The charter-party expresses the register tonnage of the ship more frequently by both the old and the new modes of measurement: nthe when the ship is chartered by the month the hire is 1 wid fer the number of tons, commonly old measurement, at which she is registered. When the freighter la to pay by the ton, freight is to he paid only for the actual tomage of the goods without any reference to the register tonnugo; trut the goods munt ine in suitable packnges, or otherwise the owner can claim for the lont room an deal freight. The worls, or thereabouts, ure generally understorl to mean ahout 5 toms; but in one case where a ship was described as of the burlen of 261 tons or thereabouts, and the frelghter undertook to tibul a full cargo, and no fraud was impitatile to the owiner, the reghter was held bound to tind an arthal full cargo, though the whlp carried 400 tons. Gools, however, may be packed accoriling to the constom of the loading port, and no undy form a full cargo although it may be prasible to puck them in lens compass. Thus stigar may he packed in hogshends if such is the curtom, though it would take less rom in theres.

A charter-party lecing an ngremment drawn up at tho discrition of the partien, thes may of course intronluce any terma they agree upon. The usual undertakings, however, as said by loon Tenterden, are on the part of the ow ners that the ship shall lie tight, and atrong, furmialed witth all necessurios for tho sopage, reuly ly a day upininted to recelve the carge, and wait a certaln number of days to take it on heand. Hint the obligation to remain the whise of the ruming days may be dispensed with by a distinct intimation from the merehant that no cargo will ine prowided, and that it las aseless to wait. That after lading she shall aet sail with the firnt fuir wind and opportunity, to the desthed port (the dangers of the ses excepted), wad
there delly in the sam and furthe ship shall b sufllcient $m$ owner's eur staunch, an be liable all so. The m in the tlme to pay the 1 duced relati hereafter.
often bound
the freighter undertaking: try, at least, the finilure of cover to the and in no cas could be reec give my dire er curgo,

If either pa the other may bring an aeti, chant nppeurs n cargo from been put on bu master. Thes are alipped as conveyimee. in respect of w therefore detai, he can not by er of tho clans because of tho n takings genernl pay denurrage can huve no liet erty over which wher, therefor parted with the canse the hirer not have the rig bourd his ablp. this conserquene session of their ypunvible person, one very collve remuneration. duced in the con either loe eutirel yond what is co lif the following hive $c$. : ted for snce due to him larling, though ment of a bill of rule of law, or th possession of the parties was that maln tirmly aml that loe nhould at Foyage nul rerv uphn the lading of llimage which the to in conserguence to he given for f power and authori until full paymen sges, and nrrears of charterer, nud whi
by to the true inte
The froighter me goods or rulet the ship has beon let
there deliver the goods to the merchant or his gssigns in the same condition ns they were received on board; and further, that during the course of the voyrage the ship shall he kept tlght, and staunch, and furnished with sutlicient men and other necessaries, to the best of the ewner's endeavors. If the ship prove not to be tight, stanuch, and sufficient, the owners wlil, nevertheless, be linite although they themselves believed her to be so. The merchant undertnkes to load or unload within the time appointed, or within a ressonable tlme, and to pay the freight. Provisions are also often introduced relative to demurrage, which will he explalned hereafter. The ship, and freight, and enrgo, are also eftem bound in a penalty by the owners or mater, and the freighter respectively, for the jerformance of their undertakings. But these clauses scem in thls country, at least, to be of no utility, for in an action for the failure of the undertaklug the plaintiff would recover to the nmeunt of the injuries he had onffered, and in no case, whatever pennity inight be introduced, couid he recover more. Neither could these clanses give any direct remedy as agninst the ship, or frelght, or cargo.

If either party be not ready by the time agreed on, the ether may seek a ship or cargo elsewhere, and also bring an netion for the insufficiency; or if the merchant nppears to be insolvent he may snfely mako up a cargo from other quarters. When the goods have been put on board, bills of lading are signed by the master. These are evidence that the particular goeds are shipped as the chnrter-party is of the contract for convey:ance. The ship owner has a lien upon grods in respect of which a payment is due to him, and muy therefore detain them till the pryment is maile. lhit he can not hy virtue either of the general law of lien, or of the elanses above nilnded to, detain the goods berause of the merchant's fallure to perform hif undertakings generally, as for instance his undertakings to pay demarrape ot port dues, ote. Moreover, n party can have no lien unless he has possession of the propcity over which he cinims to exercise it. An absolute uwner, therefore, of a ship who has so completely parted with the possession nid control of her as to cause the hirer to become the tempornry owner, will net have the right of lien over the goods conveyed on board his ship. Owners ought carefully to consider this consequence, becnuse if they part with the possession of their ship, and the liirer of it the not a requasible person, they will cease to have in their hands pse very convenient and direct means of seeuring remuration. Special terms of course may le introdued in the contl..ct ly which the ripht of lien muy either he entirely reteased, or it may be extended beyend what is conforrel by the general rule of law. If the following agreement the owner was held to hars $c_{a}$ - ted for himself $\mathbf{n}$ right of lien for the laiance due to him under the charte.amriy ins to all the lading, though purt hud been transfeired hy endorsement of a bill of inding indepenilently of the generni rule of law, or the question whether he remnined in possession of the ship. Tha ugreement hetween the parties was that ownership of the ship," shound remain trmiy nud be fully vested in the owner, and that he should at all times during tho said intended sogage and rervice, have $n$ fuit and complete lien upun the fading of the shij) as weli iss for all losses mul damage which the sald owner might sustain or be put $t o$ in eonsequence of nen-puyntent of uny of the lifis to be given for freight, etc., and shouid have full power sud nuthority to lowh and retuin the said goods until full puyment of ali much fosses, charges, dumages, and arrears of freight paid for on account of the charterer, mul which he of right onght to paty agreenHy to the trie intent of the charter-jarty."
Tho froighter may either till the ship with his own goods or rulet the whale or part to others. Where n ship hus been let to hire at so much a montis and the

13 $\mathrm{n}_{1}$
froighter lets at so much a ton, the owner has no right to detain the cargo for the amount the freighter has agreed to give him. The aciupl shippers are only liable for what they have agieed to give the freighter. The owner, therefore, may have no right to detain the goods of the actual shippers for the freight atated in the charter-party, hat he may for that whlch is montioned in the bill of lading. And he has a right to that in preference to the freighter. The bankruptcy of the charterer or any pledge or nssignment made ly him will not affect the owner's right of lien.

Sailing with the first wind, le held to mean ssiling without unnecessary delay. "Leave Ameterdnm," dees not necessarily mean to sall thence on the voynge. But "final sailing" means the final departure from port and being at sea, ready in all respects to proceed on the veynge. (See chapter on Marine Insurance.) If either party be not ready by the time agreed oll, the other may seek another ship or carge and bring action for the damages eausel by the delay. A devintion on the veyrage will not deprive the owner of his right to freight, though it may oubject him to netion if it ceases a loss of the Insurance to the freight-er.-Merranile and Maritime Guide, London, 1856.

Freight, in the common acceptation of the term (sceording to Kent's Commentaries-see vol. iil., chap. xlvii.), means the price for the actual transportation of goorls ly sea from one place to another, but in its moro extensive sense, it is applicd to all rowards or compensation prid for the use of shipa, including the transportntion of pasaengers. The personal obligntlon to pay frelghts rests either on the charter-party or on the bill of lading, by whieh the payment of frejghts is mule a condition of delivery ; and the general rule is, that the delivery of the gosids at the pince of destination, according' to the charter-party, la necessary to entitle the owner of the vessel to freight. The converance and dellvery of the cargo form a condition precedent, and must be fulfilled. A partini performunce is not sufticient; nor can a partinl payment or ratable freight be nilowed, exeejt in sjecial enses; and those cases are exceptione to the genernl rule, and malled for ly the principles of equity.

The amount of freight is usually fixed by agrecment hetween the parties; and if there be ne agrecment, the nmount is ascertained by the usage of the trale, and the reason of the cuse. If the hiring be of the whole ship, or fior min entire part of her, for the voyage, the murchant must pay the freight, though he does not fully load the ship) ; but if he agrees to pay in proportion to the mmount of goods put on bonrd, and does not agree to provide n fill enrgo, the owner can demand payment only for the cargo metually shipped. If the merchant gorges to furnish in return cargo, mui he furnlshes none, and lets the ship return in tullast, he must make compensation to the ninuunt of the freight; and this is sometimes terned dend freight, in contradistinction to freight due for the actual carriage of georls.

It is nupposed to be the doetrine of the case of Rell v. I'ullen, that the master woulil be entitied to frelght tor hringieg hark the out ward eargo, if it could not he disposed of, though the eharter-pharty was niiont an to the return enrge. It would stand upon the egaity of the claim to teml freight. The liench law, in surh n case, nliows freight fur bringing buck the enrgo because it rond not tre ald, or was not permitted to lie handed. Mr. Justice Stur:, in the case of the mbip Homper, United States' Circuit Court, Masaachusetts, May, 18:13, it Sumner, ble, had down tio general rule thut freight for the entire voynge rould only be earned by a due jerformane of the voyago; and that the only meknowledged exteption is whell titere is bo do. fanit of the carrier-ship to perform the voyage, and the ship-ownor is ready to forwarl them, but there is a default on the part of the owner of the cargo, or the waives a furtier prospection of the voyuge.

If part of the cargo be sold on the voyage from neceeaity, the owner, as we have meen, pays the value at the port of delivery, deducting the freight equally as If the goods had arrived. But If the goode be prohibited on entry by the government of the country, and auch prohibition taker place after the commencement of the voyage, and the cargo be brought back, the freight for the outward voyrage has been held to have been earned; and the case was distlnguished (though I think the ilstinction not very obvious) from that of a blockade of the port of destinatlon, and decided on the authority of the French ordinance of marine. "Nothing can be more just," observea Valin, "than that the outward freight ghould he allowed in such a case, slnce the interruption proceeds from an extraordinary cause, independent of the ordinary maring perils. The case of a blockade of, or Interdiction of, commerce with the port of discharge, after the commencement of the voyage, is held to be different; for, in that case, the voyage is held to he broken up, and the charter-party dissolved : and if the cargo, by reason of that obstncle, be brought back, no frelght is dne. Tha samo principle applies if the voyage be broken up nnd lopt by capture upon the passage, so as to cause a complete defeasence of the undertaking, notwithetanding thero was a subsequent recapture, na in the ease of the Iliram. On the other hand, an embargo detaining the vessel at the port of departure, or in the conree of the voyage, does not, of itself, work a dissolation of tho contract. It is only a temporary restraint, which suspende for a time Its performance, and leaves tho rights of the partiea in relution to each other untonched. If the ship be laden, and be captnred before she breaks gronnd, and afterward recaptured, but the voynge be broken up, the shipowners are not entitled to any freight, though, by the usages of the trade, the slif was laden at their expense.

It is requisite that the ahip break ground to give an inception to freight. It is the same thing with a hockade or hostile investment of the port of departure. Such an obstacle does not discharge the contract of freightment, because it is merely a temporary suspenaion of lits performance; and the ship-owner may detain the goods until he can prosecute the voyage with safety, or until the freighter tenilers him the full frelght. Thls was the decision in the case of Palmer v. Lorillard, in which the doctrine was extenaively examined; and it was shown, by a reference to the forelgn orlinances, and the sonndest classical writers on maritime lsw, that the manter, in the case of such an invincible obatade, of a temporary inture, to the prosecutlon of the voynge, ls entitled to wait for the removal of it, so that he mny earn his freight, unless the cargo conslsts of perishable erticles which can not enduro tho delay. Ile standa upon a principle nf equity which pervades the maritime law of liurope, if he refuses to surrender the cargo to the shipper without some equitable allowance in the shape of frelght for his Intermediate services.

When the goods lecome greatly deteriorated on the voyage, it has been a very litlgated question, whother the consignee was lound to take the goods, and pay the freight, or whether he might not abnndon the goods to the master in diarliarge of the freight. Valin and Pothier entertain different opiniona upon this question. The former insiata that the regulation of tho ordinance hulding the merchant liabie for frelgit on deteriorated goods, without the right to abandon them in diseharge of the freight, in too rigorons to be compatible with equity. lle says the cargo is the only proper fund and pledge for the freight, and that Casicregis wan of the same opinion. Pothier, on the other hand, was againes the right of tho ownei to abandon the deteriorated goods in discharge of the freight ; and this is the better opinion, and the me adopted in the case of Girisurold $v$. the Neto York Insurance Company. It is in accordanco with the ordinances of the marlne,
and of Rotterdam, and with the new commercial code of France ; and the latter puts an end to all further doubta and discnssion on the subject in France. The ship-owner performs his engagement when he carries and dellvers the goods. The right to his freight then becomes absolute, and the carrler is no more an insurer of the soundness of the cargo, as against the perile of the sea, or Its own intrinsic decay, than he is of the price in the market to which it le carried. If he has conducted himself with fidelity and vigilance in the course of the voyage, he has no concern with the diminntion of the value of the cargo. It may impair the remedy which his llen affords, but it does not affect his personal demand against the shipper.

If casks contain wine, rum, or other liquids, or sugar, and the contents be washed out, and wasted, and lost, by the perils of the sea, so that the cssks arrive empty, no freight is due for them; but the ehipowner would still be entitled to his freight, if the casks were well stowed, and their contents were essentially gone by leakage, or inherent waste, or imperfection of the caoks.

Should the cargo consist of live-stock, as is frequently the case in voyages from this country to the West Indies, and soms of the horses or cattle, for instance, should die in the course of the voyage, without any fault or negligence of the master or crew, and there be no express agreement reopecting the payment of frelight, the general rulo is, that the freight is to be paid for all that were put on board. Ilut if the agreement was to pay for the transpertation of them, then no freight is due for those that die on the voyage, as the contract is not, in that case, performed. The foreign marine haw allows freight paid in advance to be recovered back, if the goods be not carried, nor the voyage performed, by reason of any event not imputable to the shipper. Tho reason is, that the consideration for payment, which was the carriage of the goods, bas fuiled. lut the marine ordinances admit that tise proties may atijulate that the freight so previously advancel shall, at all ovents, be retained. In Whtson v. Duykinch, the rule of the msrine law was recognlzed, though it was not applied to tinst case, hecause the contract there appeared to be, that the frelght was paid for receiving the passenger and his goods on board; and, in such a case, the payment is to the retained, though tho vessel and cargo be lost on the voyage. The general principle of the marine law was adnsitted in the fullest latitudo in Girigys v. Anstin; and whether the price previonsly advancel is to he retained or returned becomes a question of intention in the construction of the contract. The French ordinunces require a special agreement to enable the finipowner to retaln the freight paid in edvance; and lulin alys that nany anthors on maritime jurisprudence, as Kuricke, Locceniun, and Stracehn, will not ailow oven ench a special agreement to bo valid. The linglish law la not so acrupulous, and does not require any anch oxpress stipulation, and allows the intention of the parties to retain the previounly alvanced freight to ise more easily inferred. In De silmule v. Kerdall, the Court of King's Benclı nulopted a direstly opposite principle, and observed, that if the ciarter-jarty was silent, the iaw would requiro a performance of the voynge before freight was due; but the parties uight stipulato that part of the frelglit be jaid in anticipatlon, and to male free from subsequent contingency of lons ly reason of lons of the subsequent voyare. If freigint be paid in advance, and there ho no יxpress atipulation that it shall ine rotured in the event of frelght not beling earned, the inference is that the parties did not intend that the paymont of tise part in ad. vance should lie antiject to tise riak of tite remainder of the voyage ; and without nome provision of that kind, a new lmpilied contract to that effect cuuld not be ralned. See Kent's Com., vol. ill. 1 J'altsons on C'mtratt, liort a; Merc. and Marit. Guide, Loudon, 180i*.

Frenco Painting, a method of painting with water-colors on fresh plaster while it ls still in a soft state, by which means the colors are incorporated with the plaster, and become as permanent as the material on which they are spread. The Italians, from whom we borrow the term, call it fresco (literally fresh), either hecanse it is executed upon fresh plaster, or because it is used on walls, alcoves, and other buildings in the open air. Vitruvius (vii. 4) calls it painting udo tectorio. Painting in freaco is a very ancient art. It was practiced by the eurly Greeks, and may be traced even to Egypt. It is generally executed on walls and vaulta, the plaster being laid on in successive portions, or so much only at one time as the painter can dispatch before it driea. The design is usually drawn previously en paper, to be chulked and transferred to the wall nbont half in hour after the plaster hus been laid. From the difficulty of making alterutions on the work when the colors are once absorbed, the design should be previeusly prepared with the greatest accuracy. When an alteration must be made, the part is usually cut entirely away, and relald with fresh pluster. The ancients painted on stucco; and we may remark in Vitruvius what infinite care they took in making the incrustation or plastering of thelr buildings, to render them beautiful and lusting; though the moderns find a plaster of lime and sand preferable for fresco paintint, both because it does not dry so hastily, and on account of its subdued and ogreeable tint. The plgments chiefly employed in this kind of paintiug are eartis, because their colors are not liable to be affected by the burning qualities of the lime. White is made of line alacked some time prevlously, or of white marhe dust; and the other substances used are red and yellow ochre, verditer, lapis-lazuli, black chalk, etc. These only require to be ground and mixed up with water. The bruahes and pencils should be long and soft, otherwise they are apt to rake and raise the surface. In order that the work may come out $\ln$ nll its beauty, the colors must be laid on quickly, while the plaster is still moist ; nor should they ever he retonched dry with colors mixed up with whito of ege, size, ot gum, as is sometimes done; becuuse such colors grow hackish, and soon tarnish.

Freshes, In sea lauguge, the increased current of an chbt tide by means of a flood of fresh water flowing out into the sen, by which its waters are often discolored for a greut distance from the coast.
Fresnel, Augustin Jean. The inventor of the light now generally used throughout Europe and in various parts of the United States, for light-houses. ile was distinguished for his practical application of opties to the useful arts with which inis name will ever be honorably nssociated. At least as carly as 1819 it necurred to him that lenses might be substituted for mirrors, for the purpose of clirecting paraliel rays of light from llght-houses, and thus preventing in a great measure the natural weakness, in consequence of its divergence, of light seen at a distanco. It further occurred to him that lenses of large size, and of moderate thickness, might lie buill up of segments of lenses. This dast ilea was not indeed new, for lluffon had proprosel to diminisi the weight aml thickness of lenses ly grinting them into zones whidh should have a conmon foeus; and Condorcet proposed to construct these zones of separate segments. Sir Davil Itrewster suggested, in 1811, a similar construction, umaware, it appears, of what Condorcet had written. Hut all of these writers described their contrivances as applicable to burning instruments for concentrating the solar riys. liresmel upears to have been unaware of what hif predecessors suggested, lut he has the far mreater merit of actunlly applying the suggestion to the impurtant perpose of lighit-house illumination. It was tirst carried intocffect in lirance, where polyzonal lenses were made by M. Soleil, and have gradually been intmbuced into other countries, first Into Hollnnd, and
then into Scotland. See article Light-Houszes. Not content with this great improvement, Fresnel exerted remarkable ingenulty in centriving further improvements in the mode of dlatributing light for the purposes of navigation under almest every concelvable circumatance; and he made copious use of the principle of the total reflection of light in glass, which had never before been applied to such purposes. In 1810 he was nominated upon the light-house commission; and in July, 1823, the Corduan Light-house, at the mouth of the Garonne, was completed upon the new plan.-E. B.

IIe was the nuthor of varieus works on the Diffraction of Light, on the Influence of Heat on Colors, on the Infuence of the Earth's Motion, on the Mutual Action of Polarized Light, etc. Through the instrumentality of Mesars. E. and G. W. Blunt, of New York, the Fresnel light was adopted in the United States in the year 1838, and is now in use generally in the light-houses of this country and of Europe.
Fresnel was berm May 10, 1788, at Broglie, in the department Ure, Nomaandy, and lied at Ville d'Avray, France, on the 14th July, 1827, aged 39 years.

Frigate (Fr. frégate (9); Lat. aphractus, a long undecked vessel); a ship of war, usually of two deck s , designed for swift sailing. Frigates mount from 20 to 44 guns, and sometimes more. The name was originally applied to.a long kind of vessel navigated in the Mediterranean with saila and oars. Frigatoon, a Venitian veasel with a square stern and withont a forenast, having only a main-mast, mizzen-mast, and bow-sprit.
Frith, or Firth (Lat. fretum, a narrow sea), is a term chiefly applied to a narrow and deep inlet of the sea upon a river, aa the Firth of Forth, In Scotland. This term corresponds to the fiord of the Danes and Norwegians, who, in all probability, borrowed it from the Engliah. Both Latin and Teutonic are derived not improbably from the same root, fahren, to pass over; whence ferry, ford, furt (Germ.), as in Frankfurt, Erfurt, etc.

Frobisher, Sir Martin, a celebrated English navigutor of the sixteenth century, was born (in whint yeur is not known), at Doncaster, in Yorkshire. He was the first Englishman that salled in quest of the north-west passage to China nud the Indies. "Heing thoroughly furnished of the knowledge of the sphere und nll other skilla pertaining to the art of navigation, and being persuaded of n new and nearer pasaage to Cutaya than by Cupo de Buona Sperança, which the Portugals yearly use, and knowing this to be the only thing of the world that was yet left undone, wherely, n notahle mind might be made famous and fortunate," l:3 applied to various English merchants to ussist him in his jrojected enterprise, but for 15 years without anccess. At the end of that period ho was enubled, through the assistance of Duiley, Earl of Warwiek, and others, persons of rank and fortune, to set out on the expretition. Jle sailed from Deptford, June 15th, 1576, with three small veasels, two of them, the Gaoriel and the Wichael, larks of 25 tons each, and the thirt $n$ small pinnace of 10 tons. As they passed Greenwich, the Queen, who lappened to be there with her court, "eommended them, and bade them farewell with slaking her hand ut them out of the whitow." After pussing the Sinethund Islands they eame in sight of "Freescland" (July 1Ith), where they were unable to land on account of the ice, and on the 28th of the same montis they reached that part of Greenland which Frohisher numed "Meta Incognita." On the 11th August they aniled through $n$ strait which Vrebisher called ly his own name. Pursuing their way they passed several islands, to which they gave nomes, and came on the 18th to Butcher's Island, where they lost n lont and part of their crew through the treachery of the nutives. After this they turned their prows homewurl, and reached England September 7th. Fro-
hisher had taken possesslon of the varioas places he touched at in the name of the Queen; and in token of thls he ordered his men to put on board ship whatever they first laid hands on. Among other things thus secured was a lump of black stone, which when Frobisher returned home, was accldentally discovered to contain gold. Thls discovery was soon nolsed abroad and in the following spring Froblsher readily found the means to fit out enother expedition, partly acientlfic and partly with a view to prosecuting the search for gold. The Queen lent him from the royal navy a ship of 200 tons, with which, and two smaller barks, he sailed from Harwich, May 31, 1577. On arriving at the scene of their former dlacoveries they found that little of the gold ore remained, but they opened forthwith communications with the natives for the purposes of traffic. One of these, "a man of large corporature and good proportion," they carried away with them neither in a very just nor handsome manner. They also caught an old womm, "whon they took for a devil or a witch," and stripped otf her basklng "to see if she were cloven-footed." After discovering and naming a good many places, and procuring a good deal of ore, he turned his prow southwand, August 234 , and reached home in the end of September. The ore when amelted was found to pay the expenses of the voyage and more; a thirl expedition wan fittel out in 1578 , which, however, through stress of weather and other cireumstancea, had no sooner reached the gold country than he was obliged to return from the lateness of the season. This was the last of Froblsher's polar voyages. It is not known how he was occupied during the next seven years, hut In 1585 he accompanied Sir Francis Drake on his expedition to the West Indies, and three years later did such good service against the Spanish armaila as to le rewarded with the honor of knighthood on loard his own ship by the lorl high admiral. In 1694, ufter various exploits against the Spanlards, he was sent to assiat IIenri IV. of France agalnst the Spaniurls, and the members of the lengue. The enemy had fortified themselves strongly In Croyzon, near Brest ; and in an attack on their position Frohisher was mortally wounded. He lived to take his fleet nafely home, and shortly after died at llymouth.-Bing. Brit.; Hakluyt's Collect. of I'oyages ; Stow's Anvales, etc., Pte.

Frobiaher Etrait, an nrm of the sea in 1ritish North America, letween Hudson Strait and Northumberland Inlet. It extends in a westerly direction from the entrance to Davis' Strait.

Fruit (Ger. Obst. F'rüchte; Du. Ooft ; Fr. Fruit ; It. Frutta, F'rutte; Sp. F'ruta; Rus. Owoschtsch; Lat. Fructum). This appellation is bestowed by contnercial men npon those apecies of fruit, such as oranges, lemona, almonds, raisins, currants, ajples, etc., which constitute articles of importution from foreign countriea. Gardening was undoubtedly among the flrat of the arts to which the attention of man was directed. If we would ascend into remote antlyuily, we can have recourse only to conjecture; for although, In the aacred writings, and in the earilest profane nuthors, allusions to gardens oceur, little is told us either of their productions or thelr culture. Judging, though, from the Itterature of the preaent dny, we shall searicly find uny art which receives more atiention.

Several varietien of frult are mentioned as having been Introxuced into Ituly, 70 nt . e., et aeq. Fxotic fruils and flowers of various klends, previonsly unknown In England, were lirought thither in the relgus of Henry VII, and Vill, and of Nary and Flizalseth, leet ween the years 1500 and 1588 . Sce Ciabrinnisu, Eincy. Brit. Among others of less note, wero muskmelons, plum-trees, and currant-plants of nundry sorts, the mask and damask rosen, tullin, ete. ; alse saffiron, woad, and other druge for dyeing, but these lant were attempted to lie cullivated without auccess. Haktuyt; Lobo Kames. The following are among
the fruits whose Introduction into England has bicen traced (Haydn):


The art of gardening becane well understooll in Enghand about A. D. 1500 ; hefore which time many of our vegetables were imported from IIrabunt. Thie ers of the urt was the relign of Elizubeih; but the modern mode of gardening wits introduced about 1700 . The following came from the countries respectively numed:

| foots and | anles. |
| :---: | :---: |
| Rico...............titiopla | Lentils,......... Frame ${ }_{\text {From }}$ |
| Buekwheat ........isla | Cherrili..........). ${ }_{\text {dialy }}$ |
| Horage............syria | Celery............Flauders |
| Cresses.......... Crete | 1'otatocs......... ${ }^{\text {Mrazll }}$ |
| Cautilower ......Cypras * | Tohaceo . . . . . . . . . Amerlea |
| Asparagus....... Asia | Cablbage......... Ifolland |
| bettuce......... ${ }^{\text {drablant }}$ | Ablse.............fapi |
| Arthehokes...... ${ }^{\text {Inolland }}$ | P'arshey. . . . . . . . . Bicypt |
| Garlle ...........The Einat | ('arrots . . . . . . . . Flanders |
| Nhallots.......... Niberla | Broeoll .......... t'spras $^{\text {a }}$ |
| Horse liarlsh.... Chlıa | Heans.............Grece |
| Khney Heans...E. Indles | I'eas..............sprain |
| tiourds . . . . . . . . Astrscan |  |

and Page the 49th States' Ex passed by many fine free from square mil nre surrous every ndva commercial for loçks, a times well, provided wit country, wb strait is 98 (entrance 8 may he sufel for the grea and ut times chorage is parts no bott ength of th north shore posed of cong kite there are among them a snug hurbo is an Inner at ous for large abruptly, and ranges, but w long, and 30 m
The Gulf o well alnpted raplitity of the the northern o on the main lat account of the dicular banks. Jann de Fuca, Canal, that can hya 74 gun sh bays are remary plices ת ship's s keel would toue crecks emptyln lurn mills. T flats nt their en heads and along 18 feet, those of ity for the const on all these sult healthy. The but of short dur are never ohstru, Fuel (from t forus, a henrtho sulistances while such as wood, per plied to the subst sueli as oil, mpirit ent article tho for ered; for inform: Lame, ete.
The abuedane has a great Intlu mancers of a natl longuish, and co mearcily of fucl is abrilges the hour Those thours in sle wouk have been catues persons $t$ Warmih in a way t Almuhance of fuel and a aystem of In forms the hasls of
nud Paget Sound, with the Archipelago of Arro up to the 49th parallel, were all surveyed by the United States' Exploring Expedition. The whole is unsurpassed by nny estuary in the world. They comprise many fine hariors and safe anchorages, are entirely fres from dangers, and cover in area of about 2000 square miles. The country by which these waters are surrounded is remarksbly salubrious, and offers every advantage for the accommodations of a vast commercial and military marine, with conveniences for docks, and many sites for towns and citles, at all times well supplled with water, and capable of being provided with all needful supplies from the surrounding country, which is well adapted for agriculture. This strait is 95 miles in length; average width 11 miles (entriunce 8 miles in width). No dangers exist, and it may be safely navigated throughout. The winds blow for the greater part of the year from the westward, and at times strongly. The shores are bold, and anchorage is to be found in but few places; at some parts no bottom is to be obtainel, even within a beat's length of the shore, with 60 fathoms of line. The north shore (Vancouver Island), is rocky, and composed of conglomernte and a reddish granite. On this side there are several inlets, in which are anchorages: ameng them Port San Juan and Vietoria. Victoria is a sung harbor and a most important position. There is an inner and an outer bnsin, sufficiently commodious for large ships of war. Vanconver Island rises abruptly, and is very much broken ly mour.tain ranges, but well covered with timber. It is 240 miles long, and 30 miles wide.

The Gulf of Georgia and Johnson Strait are not well alapted for nuvigation, in consequence of tho raphlity of the tides, and the many sunken roeks nt the northern outiet. The harbors within them, both on the main land nini Vancouver Island, nre useless on account of the groat depth of water and the perpendicular lanks. Not a shoal exists within the Strait of Juan le Fuca, Admirulty Inlet, Puget Sound, or IIood Canal, that can in any way interrupt their navigation by a 74 gun ship. The shores of all the inlets and hays are remarkably fold-so much so, that in many places a shlp'a side would strike the sthere before the keel would touch the ground. Some few of them have creeks emptying into them, with water sufficient to turn mills. Those sreeks all have extensive mudflats at their entrances, with fertile prairies at their heads and along their banks. The spring tides rise 18 feet, those of the nenp 12 feet, affording every fneility for the construction of dry-docks, etc. The country on alf these salt water inlets is suid to be romarkathy healthy. The winter is represented to bo mild and but of short duration, and the channels nul harbors are never ohstructell liy iee.
Fuel (from the Frenci fiu, tire, nkin to the Latin focus, a hearth or fire-jpluce), $n$ word npplied to certain substances which are used in tho generation of heat, stich as wool, peat, coul, ete., tund also sometimes npplied to tho substances employed in geneathig ligit, snch as oil, nipirits of wine, muphthn, etc. In the present articlo the former appilieation will ulone be considered; for information respecting the latter, see Gis, Lamp, ete.
The ubuedance and consequent cheapmess of fuel has a great: Inlluence on tho prosperlty, halits, and manners of n nation. Where fuel is searen, factories languish, and commerce deelines. in cold climates seareity of fuel is individually $n$ great mamity, for it abrilges the hours of lathor, eausing persons to speml those hars in sleep which under other cireumstances womlit have been turned to prolltnible neconnt ; it nlso causes persons to crowl together for the suke of warmiti In a wny that is injurions to healtin and morals. Abamaner of fuel, on the contrary, with good roals and a system of inland navigation for its distrlbuthom, forms the basis of national prosperity, not only minis-
tering to the useful arta, but enabling the occupier of every house to create an artificial climate suited to his wants and wlshes.

The most common and wldely-distributed deacription of fuel is vood, a term applied to the trunk, roots, and larger branches of trees. Recently-felled wood consists chiefly of woody flbre, oap, and water. The woody fibre is a compound of carbon, hydrogen, and oxygen, and forma the chief bulk of plants; hoth it and the sap are combustible-that la, are capable, at a high temperature, of combining rapidly with the oxygen of the atmosphere and forming gaseous componnds. It is $\ln$ the act of this for ation that heat is generated. The sap, which form, only a emall proportion of the bulk of wood, varies in different kinds of trees: the sap of the pine tribe contains resin; that of the oak, tannin; that of the beech and birch, extractive. The quantity of water in wood varies greatly with the kind of tree, and with the time' of year when it is felled, it heing least in winter. As the water is not combustible, but must be got rid of at the expense of the heat generated by the perte which are so, it is obviously desirable to store the wood in a dry and airy situation before using it as fuel. By this means 100 pounds' weight of wond have been known to lose 20 pounds' weight in 10 or 12 montis. Wood, as commonly used for fuel, contains about one thrd of its weight of water. Wood also contains earthy and alkaline salta in the proportion of 1-30th to 1-70th, and these remain as an incombustlble ash.

Wood is distinguished from all other fuel by the valuable property of reproduction, and also by the fuct that it often passes through the various stages of beauty and utility to man before it becomes converted into fuel. The henting power of wood is conslderable, in consequence of its excess of hydrogen, which, in burning and forming water, requires for equal waights three times as much oxygen as the carbon does in forming carbonic acid; and it gives out in burning nenrly four times more heat than the carbon. The lighter woods contann more hydrogen than the heavier, so that they hurn with flamo longer than they incandesce as cinnrcoal; they also burn more eusily and give ont their heat more quickly than the hard woods. During the combustion of wood its volatile parts undergo some complicated chemical changes. When wood is burnt ont of contact with the air, the carbon is preservell hit the form of churcoal (see Chaincoal), which is a very useful fuel whon an lncandeseent heat free from flame and smoke is required; but when some of the volatile products ure to be collected, the wood is placed in lron retorts, which aro gradually raisel to a red heat. The volatile products form carburetted ibydrogen, carbonic acid, carbonic oxyd, and other gases, und also certain vapors which condense into liquid or soild products. Some of the liquids are soluble in water, such as pyroxylic spirit, pyroligneous achl, ete.; the insoluble products form tar sad certain oily substances.

In most uountries deposits of peat occur of greater or less extent. In IIollam, the north of Germany, Irelami, etc., peat deposits are of immense extent. The origin of jeat has been neconnted for in those districts where clay oceurs near the surfnce by supposing muldy ponls to have formed, round the edges of whleh arputic plants have taken root and gradually extended themsel ves into the centre, thus forming a bod where mosses necumulate, nui new plants take growth, while the old are decaying and becoming compressed into a solial mass thelow. This process goes on uatll the pools ure filled up with vegetable matter, and the surblus water ls discharged over the neighboring lands, where the process is repeated until a peat hog is formed. Even in mountain clistriet ${ }^{\text {, }}$, where the soil is impervlous, clouds ant mists may supply molsture, and a tog be formed ly the growth of one generation of vegetalile matter on the ruins of its predoceasor. As
the plants which form the pent are in different atagea of decomposition at various deptha, the character of the peat varies greatly. Near the sarface it la lightcolored, spongy, and the vegetable character but little changed; lower dewn it is brown and dense; while at the base of some bogs, which may be as much as 40 feet in depth, the poat is black, almost as dense as coal, and resembling coal in chemical composltion.

On the banks of the Rhine, peat is cut by means of a spade into blocks, and exposed to the alr to dry, the upper layer being first separated from the lower and denser portion. In Holland the peat in scooped out by means of spades; or If a considerable quantity of water be present, an instrument is ased conslating of a sharp Iron ring attached to a handle, a net or cloth being fastened to the ring for dralning off the water. The mindy peat thus collected la trodilen out by the feet of men, raked, and the stones pleked out; it is then thrown Into shallow wooden boxes, strewed with hny to pravent the peat from adhering, and the remaining water is allowed to drain off. In the course of a few days, when the mass has attained a certnin consistence, women, with flat boarcls strupped to their feet, stamp down the peat until it has atteined such a conalistency as not to take an impression from a common tread. It in next stamped with benters, and the cake, which is eight or nine inches thlek, is dlviled by masas of long laths into squares of about four inches, which are removed a few at a time from each box. The cakes are then dried by placing the first taken out transversely on the necond, the third upon the fourth, reversing the order when the pleces are piled up in store.

The value of pent depends greatly uron its drynens, density and firmmess; if porous and brittle, it crumbles during carriage or aft 3 it is stacked, nnd thus becones nearly worthess. In many cnses the value of pent depeads on its capability of belng alternated with the substances to be heated. Porous and almont valuelen. peat has been renderel valaable by being passed through a press, in which case a lunp of peat may lose as muci as one fourth of its weight of water. Peat may be nearly valueless as a fuel from the quantity of ash which It ationis, consisting of vegetable salts and the earthy matter of pent, and amounting in some cases to one thirl of tha weight of the peat. Wheo this large quantity of akh ocenrs in peat it renders the fuel very dusty, nad in mmelting processes it is objectionable on scrount of its chemical nction. It is remarkable that the carlonates of the alkalies are not found lu this ssh, lait phosphates, sulphates, etr. In some large towiss, pent, or iurf, ins it is also called, is imitated liy employing the refose bark of the tan-varl, which is mate into flat cakes, and chiefly used an fuel by the poor.

In the sandy plains of the Fast, camels' dung is dried and $u_{1}$ +il as fnel ; it was from tho nas of wuch fuel in Fggyt that asl ammoniac originated, the salt subliming during combustion. Hakluyt, in his loyages, vel. 1., p. 348 , says, "Win were forcell to une for fewell the dung of horses and camels, which we bought desre of the panturing people." A nobstance in the form of long sticks, saill to the made of camels' dung, is sometimes imported from the linst uniler the mane of chutnef, and is occasionally used instead of the ondinary match for lighting pipes and segara. It lurns alowly without fiane, nud cives out an odor not unlike that of the burning cuttiogs of trees and shrubs. Other descriptions of exerement are also used as fuel. The Chinese have long been nceustomed to mix cow dung and other refose vegetable matter with moft clay and the dust of coal to form balls which when dried in the sun become a cheap and useful fuel, burning with very little nmoke. These balls are largely manufartured in the coal districts of China, and are distributed ovor the empire by means of the canals. It is a curious fact that Sir Hugh I'latt, In 1594, indicated a
mothod of making coal balls with loam, and that Ray, in 1668 , nbserved this kind of fuel at Liège (Journey through the Low Countries, etc., 1673, p. 58), where they were called hot shots, serving to slake the heat of a fire and keep the coals from burning out too fast. We are Informed that in some parts of Wales stone cosl culm is made into balls with clay, and is a common form of fael in Pembrokeshire. The combastion is slow, and a long steady heat la kept up, well adapted for lime burning. In $18 \mathbf{3}$ a patent was taken out in Eagland by M. Ducayla of Berieaux for the manufucture of fire-balls of auch materials as cinders or aahes, wood or lignite, anthracite coal, pit coal, animal black, calcareous earth or clay, mold, etc.

The fuel, in every respect the most interesting, and one of the ch: : sources of wealth and prosperity, is conl. The very abundance of this article causes it to be used in so lavish and extravagant a mimner, that any general nttempts to economize it, and to fix its value as a fuel, scarcely laterest the public. There are, however, particulur cases in which it is desirable to economize coal as far as possible, as in the case of a steamshlp of a thousand horse-power, a single journey of which may require upward of 2000 tons of coal, or more than 80,000 cubic feet. Hence it is obvious from the detaila given of the various deseriptions of coal in the article Coal, that some varieties of coal are better fitted for the purposes of eteam navigation than others. A few years ago, when the lbitish government was establishing a steam navy, Sir 11, de la Beche and Dr. Iyon Playfair were requested to exannine and report on the coal suited to the atenm navy. The inquiry was conducted with great ability, and has resulted in two reports published in 18.48 and 1849, which the reader Interested in the subject will do well to consult. We will, bowever, state a few of the chief points elicited by this inguiry.
llearing in mind the oljeet of the linquiry, the commissioners considered that the chief test of the value of any coal submitted to their examination was its power of converting water into atenm, so that if a given wright of coul in a certain time converted a larger proportion of water lato steam than the same weight of another coal in the amme time, the evaporative power of the one would be greater than that of the other. It was found, however, that the coal best adapted to steamships of war, should also combine other cualities ; for example, the fuel should buns jaickly, so that atenm may be raised in a short time; it should not le bituminous, lest its snoke should letray the position of the shij, when it might be desirsble to conceal it; it should havo such n whesive power as not to be broken into fragments by the rolling motion of the vessel ; it should have such a density and structure as to bear stowing away in a comparatively small apace (a condition which in conls of equal evaporative value was found to involve a diffirence of more than 20 per cent.) ; lustly, the coal should not contain a large proportion of sulplur, nor be subject to rapid decay, or it might in eithor case lead to spontaneous combustion. Hut it was not found possible to unite all thase conditions in the aame coal. Anthracite, for example, has high evaporative power, bot not igniting easily its action is not quick; it is not easily lroken by the motion of the ship, but not being a eaking coal, it would not cohere in the furnace, and woald escape through the grate-bars during the rolling of the sl pin a gule; it gives off no smoke, but from the lintensity of its combustion, it causes the irun of the grate-hars and of the boiler to oxydize ripidly ; hence, with many ndrantuges, anthracite has a few defeets sufficiently prominent to preclude its use under ordinary ciremmstances. It was thought that a patent fuel might be formed with some of the antiracites of Walps, which should combine the advantages and elude the defects above referred to; but it was fond that the cementing tar of the patent fucl burat so
much more that the latt, the draft, or
The comm distinguish p that it is diff. data furnsishe trast the actu oretieal value with no loss one pound of expressed by height of one the formina sents water, of pound of conl. that $\eta$ pounds efficient for the the number of $1^{\circ}$ Fahr. ; and on the mechan one pound of w to 789 pounda $r$ ing to the expel ish engines are pounds to the 1 coal consumed, actual force gen twelfth of the $t$ t evaporative pow give very dissim rated $\overline{7} \cdot 88$ pound of Newcastle co pounds; Wickst of water from 8 which is equal to experiments mad wss found, after pound of coal eve $212^{\circ}$; and aecor Comwall, at the found that $11 \cdot 42$ every pound of $w$ sition to that of M At ordinnry te combustion under mosphere, evolvin mable gases, and explosions. This the higher tempe presence of moistu phar or iron pyrite so intense as to igr is therefore impor possible, and such least liable to this coal is kept ln iron with sea-water, the bon or coal forming thas prontoting oxy In the preat ex Co., in the Frenc "small purified en produce of $\mathbf{n}$ syste France, limgland, plan appears to be sulphurous coal, or also where the coa seams, and can not with slaty and ston (hemin de Fier du $N$ the lomonotives ; b evil was for the mos ash was also great ploved for purifying the jighing-1maching after heing stamperl
much more rapidly in the furnace than the anthracite, that the latter accumulated on the bars and obstructed the draft, or escaped through the grate unburnt.
The commissioners found that the quallilea whlch distinguish particular kinds of fuel are very varied, so that it is difficult to deduce general results. But the data furnished by their experiments enables us to contrast the actual value of a particnar coal with its theoretical value, suppasing lts combustlon to le attended with ne loss of heat. The actual duty oltained by one pound of coal from the boiler employed, may be expressed by the number of pounds raised to the height of one feot, a result whleh may the obtained by the formula $W \eta+065 \cdot 7 \times 782=x$, in which $W$ represents water, of which $\eta$ pounds are evaporated by one ponth of conl. This formula is deduced from the fact that $\eta$ pounds of coal multiplied by $965 \cdot 7$, or the coefficient for the latent heat of steam at $212^{\circ}$, indicates tho number of pounds of water which wonld be ruised $1^{0}$ Filur. ; and the number 782 arises from experiment on the mechanical force denoted by the elevation of one pound of water $1^{\circ}$ Fuhr. ; that force being equal to 782 pounds raised to the height of one foot, accoriing to the experiments of Mr. Joule. The best Cornish engines are said to be capable of ralaing $1,000,000$ pounds to the height of one font for every pound of coal consumed, but this is only about one elghth of the actaal force generated, and only one eleventh or one twelfth of the theoretlcal force. Experimenta on the evaporative power of coal mnde by different observers give very disslmilar results. Smeaton, In 17ĩ2, evaponited 7.88 pounds of water from $219^{\circ}$ with one pound of Neweastle coal ; Wall, in 1788, evaporated $8 \cdot 62$ pounds; Wicksteed, in 18.10 , evaporated $9 \cdot 493$ pounds of water from $80^{\circ}$ with one pound of Merthyr coal, which is equal to 10.746 pounds from $212^{\circ}$. In some experiments made at the United Mines in Cornwall, it was found, after a trial of six months, that every pound of cenl evaporated 10.29 peunds of water from $212^{\circ}$; and according to seme experiments made in Comwall, at the request of the commissioners, it was found tint 11.42 peunds of water were evaporited by every pound of Welsh conl of similar chemical composition to that of Mynyld Newyid.
At ordinary temperatures coal undergnes a slow combustion under the action of the oxygen of the atmosphere, evolving cartonic acid, nitrogen, and inflammalle gases, and in some cases leading to dangerous explosions. This slow combustion is facilitated by the higher temperature of hot climates, and by the presence of moisture. If the conl contain much sulphar or iron pyrites the chomical action may become so intense as to ignite the coals. In stowing coals it is therefore important that they should be as dry as possible, and such a variety should the sclected as is least liable to this progressive decomposition. When coal is kept in iron bunkers, and is liable to be wetted with sea-water, the iron raplaly corrodes from the carton or coal forming a voltaic circuit with the iron, and thus promoting oxydation.
In the prent exhibition of 1851, Messrs. Berard \& Co., in the French department, No. 51, exhibited "small purified coals, und residue of the amme, the proluce of a system for purifying coals, patented in France, England, Belpium, nind Germany." This plan appears to be well adapted to the puritlention of suipharous coal, or conl containing much fron pyrites; also where the enal deposits are in numerons sinall seams, and can not lie got out without being mixed with shaty and stony matter. The coal nsed on the Chemin de fier du Norl was so sulphurous as to injure the loenmotives; thit by naing the purfied fonl, the evil was for the most part remedied; the quantly of ash was also greatly reluced. The apparatus employed for purifying the coal ls simblar in princlple to the jigging-machline used in dressing ores, which, after belng stamped, in order to separate atony mat-
ter, are agitated in water and allowed to rest, when the verious portlons become arranged in layers, according to th $\quad$ specific gravitles. Thla purified coal ylelds a very pure coke.

Mr. Grace Calvert, of Manchester, has taken ont $u$ patent for purifying coke from sulphur. It consists in mixing the coal, before coaking, with from $1 \&$ to 51 per cent. of common salt, the proportlon varylng with the quantity of sulphur. The coking is then conducted as usual. By this contrivance, coal, which was formerly unserviceuble in smelting operatlons, can now be used with effect.

The following table, by Dr. Ure, shows the quantity of water raised from $82^{\circ}$ to $212^{\circ}$ by one pound weight of the different combustibles enumerated in the first column; it also shows the number of pounds of bolling water, which the same weight of fuel will evaporate, end the quantity of atmospheric alr absolutely consumed dnring combustion. 'The quantity of alr, however, as given in the last column, is much less than wonld be necessary in practice, where much of the air passes the fuel without coming into contact with it so as to have its oxygen consumed. The heating power also, as represented ly this table, can seldom be practically attained.

| Combutilib. | $\begin{aligned} & \text { Pounds of water } \\ & \text { whileh o pound } \\ & \text { can ralne form } \\ & s y^{\circ} \text { to } \text { g18 } . \end{aligned}$ | Poonds or bolllag woter ovap. pound. | Weight of anmospherle alr al burn ooo pound. |
| :---: | :---: | :---: | :---: |
| Dry wood. | 85.00 | 6.36 | 5.96 |
| Common wood..... | 24.90 | 472 | 4.47 |
| Charcoat........... | 73.00 | 1327 | 11.46 |
| Plt enal. . . . . . . . . . | 80.40 | 1090 | 026 |
| Coke. | 65.00 | 11.81 | 1146 |
| Turf. | 30.60 | $5 \cdot 45$ | $4 \cdot 60$ |
| Coal gas. | 76.00 | 18.81 | 14.51 |
| Oll, we x , or tatlow.. | 78.00 | 14.18 | 15.60 |
| Aleohol. . . . . . . . . | 62.00 | 556 | 11.60 |

As various kinds of fuel afford different amounts of heat, and as heat can not be measured or weighed, and its quantity ascertained by direct experiment, the relative vaiues of fuels are ascertained by comparing them with each other under similar cheumatances. The heating power of a fuel is the quantity of effect produced by it in a certain time, and thia in conjunction with its market price gives its value os a fuel. One fuel may produce a certain greater or less effect than another fuel, and thus its reiative superiority or inferiority may be accurately ascertained, although the actnal amount of heat furnished by it may be entirely unknown. Laveisier and Laplace flxed these values ly making the substance nnder examination aet on lee, and the quantity of lee melted gave the value in ench case. Count Rumford measured the value of fuel by the increased temperature which it produced in a given quartity of water. Now, as the same quantity of heat which melts one pound of lee at $0^{\circ}$ Cent. is sutficient to raise the temperature of as much water $79^{\circ}$ Cent., or 0.79 lb . of water $100^{\circ}$ Cent., so also all gqual weight of aqueous vapor of any given temperature and elasticity is always formed from the same amount of heat, and always contains the same quantity of heat, and the quantity of heat whieh water at $100^{\circ}$ Cent. renders latent in order to become steam is $5 \cdot 5$ times sufficient to heat the same weight of water from $0^{\circ}$ to $100^{\circ}$ Cent., hence the water converted into vapor by tho heat required to melt one pound of iee is the forth part of the same pound, that is, it can convert into vapor $0 \cdot 154 \mathrm{lth}$. of water.

It was found by Despretz and Welter that the quantities of fuel which require equal amonnts of oxygen for combustion, glve out equal quantitles of heat; thus, 1 lb . of oxyen in emmbining respectively with hydrogen, churcoal, alcohol, etc., raised 29 lis. of water from $32^{\circ}$ to $2 \mathrm{I}^{\circ}$. A given weight of the diffirent combustibles haa its heating power represented i,y the number of pounds of water raised in tamperature, as in the following table. (Sce Journal

If the Franklin Institute, Philad., 1855-7 $\mathbf{7}_{1}$ also Sillizman's Journal of Science, New Haven, Conn., 1854-6.]

| the of water |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 Ib . of pare charcoal raised... |  | 75 |  |  |
| $\stackrel{ }{4}$ | baked wood........... | 86 | - | 4 |
| $\stackrel{ }{*}$ | wood hotilleg eo per |  |  |  |
| * | cent of water. . . . . . | 27 | * | " |
| ${ }^{6}$ | btuaituous coal. | 00 | ${ }^{\prime}$ | " |
| ${ }^{*}$ | turf. . . . . . . . . | -80 | $\omega$ | 4 |
| ${ }^{6}$ | aleohot. | 68 | * | ${ }^{\sim}$ |
| $\cdots$ | otl, was | 90 | 4 | ${ }^{4}$ |
| $\cdots$ | ether.. | 80 | $\omega$ | 4 |
| $\omega$ | hydrogen | 236 | 4 | ${ }^{*}$ |

More recent researchea have, however, cast considerable doubt upon the law that any given quantity of uxygen evolves the same quantity of heat with whatever combustible body it may combine. From a serles of tabulated results given in Gaflis's Humh-Book of Chemistry, vol. i., p. 292 (Cavendish Soeicty's translatlon), it woull ratiser appear that oxygen developa a larger quantity of heat the atronger ita affinity for the combuatible substance.

Such experimenta as the above tend to confirm the modern verz of combustion which regards oxygen as a combustiblo as much as the fuel with which it combines (see Cuemistisy, vol. v., En. Br); so that when oxygen burns by means of any fuel, the heat evolved Increasea with the quantity of oxygen consumed. It was on this view that Berthier based hls process for detecting the quantity of oxygen refuired for comhustion, and the heating power of the combustible in one experiment. Llis plan ls to heat to redness a known quantity of the combustible with a conslderalle excess of pure litharge until the combuatible is entirely consumed by the oxygen of the oxyd of lead. On welghing the lead reduced by this process the amount of oxygen consumed is ascertainel, and also the heating power of the fuel under examinstion. In calculations of this kind, It will be remembered that if parts, or 1 equivalent of carlon, require 16 parts, or 2 equivalents of oxygen, for combustion ; that 1 part of hydrogen requires 8 parts a oxygen; that by subtracting from the hydrogen an quantity corresponding to the exygen in the coal, the calculation can be made for the carion only. Now, 1 part of pure carion requirea for combustion 2 -6ff of oxygen, and is capable, according to Despretz, of heating $i 8 \cdot 15$ parts of water from freezing to boiling. By multiplying each part of lead ohtainel ly $2 \cdot 265$, the weight of water is obtained which is capable of being heated letween these temperatures ly a unit of the ceal used in reducing the litharge.
The heating power of a particular fuel is the same, however that fuel may lie burnt. It is true, that the power may be more or less economically applied; the power may he expended with greater or less rajidity, greater, for example, in a furnuce than in an open grate, but sa the fuel during combustion combines with equivalent portions of oxygen, the same amount of heat is liberated whether the combination be rapind or slow. The rapidity of combustion depend not only upon the mole of arranging the draught or supply of air to the fuel, bint alse on the state of division of the fuel itself. A given weight of woul in the state of shavings will, from the large extent of surfuce expoeed, burn repidly, und produce its full henting effect in a few minutea, while tho ame weight of wowl, in the form of a log, may keep up a monlerate temperature for some hours. The division of a fuel may, howover, be carried so far that the air necessary for its combustion can not penetrate it. Such is the case with naw-ilust, powilered charconl, or peat, slack coal, ete. If the powdered coal be of caking quality, it may be bunt into complact coke, and thas be more useful than a fuel which in tis tirst form is compact, Int which falls to powder on tieing heated in the furnace. Small fuel may sonetimes be milvantageonsly applied by covering the furuace-bara with pieces of
sand-stone or llme-stone for the purpose of preventing the fuel from falling through, and for dlatributing the aupply of air among it. in the roasting of copper ores in South Wales a flaming coal is necessary ln the raveriberatory furnace where the operation is carried on. Hut as the flsmeless anthracite '3 much more aluandant in thia district than the bituminous coal, it is turned to account: In an Ingenleus manner. When burnt under ordinary circumatances it crumblen to powder, as already noticed, and elther slips through the lars of the grate, or chokes thom up. But when anthracite is ralsed to a very high temperature it forms a vitreous scoria or clinker, which in the ordinary furnace combines with the iron of the bars and chokes up the grate. In the Welah furnaces, the clinkers thenselves are lageniously arranged so as to perform the office of grate-bars, namely, to support the fuel, and to limit tho supply of air from helow. The elinkers are supported on lron bars placed at a considerable distanco apart, and are arranged in a layer 12 or 16 inches in depth. Ahove this layer the fuel of the furnace is in full combustion ; this fuel consists of anthracite mixed with about one fourth of its weight of amall lituminous coal, and also forms a layer of a depth almut equal to that of the clinkers: it is in this the hottest part of the flre that freshi cliakers are being continually formed, and while forming they cako with the numorons fragroents of bituminous conl helped up above them. As fresh portions of the fuel come into operation the clinkers descend toward the bottom of the grate, where, mect. ing with the numerous jets of air which stream up through the botton, the vitrified mass splits and cracks in all divections, forming new channels for the ancent of the draught, but not large enough to allow the small coal to eseape. As tho calciner-man heaps up frewh fuel alou", he hooks out a few elinkers from the hottom to mak way for tho descent of others. Under this arrangencat the oxygen of the air traversing the multitude of channcls formed by the cracks in the clinkers, combines with a protion of the fuel and forms carlonic acid, which is unluflammahle, but before reaching the vault of the furnace it la deprivel of a portion of its oxygen, and becomes convertad into carbonic oxyd which is inflammalle. Hut in order that thin gas may undergo combustion, uir is admitted through ajerturen in the sides of the furnace just above the ore, and in this way the whole surface of the ore ocupying an area of nearly 23 feet square, is phayed upon by a thin shert of ilame, produced from fuel which gives scarcely my dame ut all.
Common coal gas is sometimes usel as fuel, in which cano it is calculated that 1 lb , or 24 culic feet thereof, in lurning, will raise if llas. of water froin the temperature of freezing to that of loiling. Extending this comparison to the other forms of fuel, it is stated that 1 Ib . of dry wood will similarly leat 35 lbs of water, but only " $26!6$. if the wood ve not dry, or contain moistare to the extent of from 20 to 25 per cent. One lh. of goxi dry charcoal will sithilarly heat allis. of water, but if exposed to the air it absurtis at least 10 per cent. of moisture, and in burning gives a lime of carbaretted hydrogen (or rather, probathy, a mixture of cartonie oxyd and hydrogen), arising from the decomposition of the moisture. One llo of gool pit coal is saill to ralse Go lbs. of water from freving to loiling, 1 ll , of coke 65 lbs , and 1 lb . of turf or peat from 25 to in lis.- I3. K. Sec Cosi.
fivels, artificial. - It is curioms to note how many new "patent artiticial fuels" there now are. As experimenters tell us that different kimbls of coal and other nutural fuel proseres diffirent qualities, in indurement is eflered for the exerciso of ingenuity in devising various imitative conpositions. The lyyitraulie press is brouglit into ningular requisition in this art. Thun, Azalay's hard shining hocks of artilicial fuel aro simply formed of conl-dust. subjected to in-

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 slzed bricke by mixing to the bricks a slowly, hut g Warlich's ge country fuel, -dififering ir amount of to Warlich's pat establishment borough. Tt artifcicial fuel mode of treat comilensed mi Williams's fur So of aumero peat, or two o other sulatanc ownel, howev even in place tions in Arts.Fuhchau, Cuow.
Fullers' $\boldsymbol{D}$ Fr. Terre à for de batan; llua. species of clay olive and oll gr is usually opaq need by fullers spply the soap. shire and Sur white, or gree water, appears : nanicutes a $m$ little sand wh renarkable det pends on the a fifth of the whol lest it become t Jameson's S/in Fulling, the ing cloths, stu stronger, closer, milling. Pliny son of Hermins, fulling; and it Sir G. Wheeler same Nicias was the lionans. T render the spinn difificult operatio ward convert it with a coating o ders the asperitic mil rubled an the less rough. Wh carried to the $f$ heary stanpora some fuller'i ea of cleansing it fr the oil, which it are washed a way brought to it by the cloth la not The alternate $p$ piece uf cloth oc is pretty far ads which is prosluce ter. 'The fibers threads, whether progressive nor thase of the thre whleh fullow; un both of tho warp The cloth, after
tenze compresslon. Warlich'a patent fuel, in largesized bricks weighing about 12 pennds each, is made by mixing together the dust of various kinds of coal ; the bricks are denae and well made; the fuel kindlea slowly, but gives off very little amoke while burning. Warlich's aeries comprises Welsh steam fuel, northcountry fuel, household fuel, and locomotive coke-fuel -differing in the kind of coal-duat used, anil In the amount of tar with whlch the duat la agglutinated. Warlich's patenta a:e worked by a company, who have establishmenta at Deptforl, Swansea, and Middlesborough. The Bideford Anthracite Company niakes artificlal fuel, in briek-form pieces, ly a particular mode of treating anthrucite. Oram's patent fuel is a condensed mixture of amall coal, bitumen, and sand. Williams's fuel la a mixture of dried peat and bitumen. So of numerous other kinds; amall coal, bitumen, or peat, or two out of the three, are mixed with various other substances to form a compost fuel. It must lie owned, however, that auch fuel is not yet much used, even in places where natural fuel is scarce.-Inventions in Arts.

Fuhohau, or Fou-tchow-foo. See Fou Cnow.
Fullers' Darth (Ger. Walkererde; Du. Johiarde; Fr. Terre a faulon; It. Terra da purgatori; Sp. Tierra de batın; Kus. Schiffernaia; Lat. Terra fullonum), a apecies of clay, of a greenish white, greenish gray, alive and oil green, and sometimes spotted color. It is usmally opaque, very aoft, and feels greasy. It is used by fullers to take grease out of cloth before they apply the soap. The best is found in Bucklughamshire and Surroy. When good, it has a greonish white, or greenish gray color, falls luto powiler in water, appears to meit on the tongue like butter, comsmanicates a milky bue to wator, and deposits very little sand when mixed with boiling water. The remarkable detersive property on woolen eloth depeuds on the alumina, which should be at lenst one fifth of the whole, but not much more than one fourth, lest it become too tenucious.-Tuosson's Chemistry; Jameson's Mineralogy.
Fulling, the art of cleansing, scouring, and pressing cloths, stuffs, and stoekings, to render them stronger, closer, and firmer. It is otherwise called milliny. Pliny (vii. 56) relutes that one Nicias, the son of llermias, was the first inventor of the urt of fulling; and it appears by an inseription, quoted by Sir G. Wheeler in his Travels through Greece, that this same Nleias was agovernor in Greece in the time of the liomans. The asperities upon the surfuce of wool render the spinning of it and the making it into cloth difficult operations. In onder to sjin wool, anml nfterward convert it into cloth, Its filtres must bo covered with a coating of oll, which, filling the cavities, renders the asperitiee less sensible; in tho same way that dil rubbed on the surface of a very tine tile renders it less rough. When the piece of cloth is tinlahed, it is carried to the fulling-nill, where it is beaten with heavy stampers in a trough full of water in which some fuller's earth has been nilixed, for the purpose of cleansing it from the oil. The elay combines with the oil, which it separates from the eloth, and both sre washed away together lyy tho fresh water which is brought to it by the machine. Dut the scouring of the eloth is not the only object in view in fulling it. The alternate pressura given ly the stampers to the piece of eloth ocensions (espeeinlly when the seouring is pretty far advanced), in effect analogous to that which is produced unon felt by the hands of the hatter. The fibers of wool which compose one of the threads, whether of the warp or the woof, essume a progressive movement, introlnce them telves among those of the threads nearest to them, then into those which follow; and thus, by degrees, wll tho threads, both of the warp and the woof, becoms felted together. The cloth, after having by thia means become short-
ened In all Ita dimenslons, partakes both of the nature of cloth and ot that of felt, and may be cut without being sulject to ravel. Lastly, the eloth has acquired a grenter degree of thickness, and forms a warmer elothing. Knit worsted also may thus be rendered less apit to run in case a atitch happen to drop.

The fulling of cloths and other stuffs is performed ly" a kind of water-mill, thence called a fuiling or sconring mill. These mills, excepting in what relates to the mill-stones and hopper, are much the aame with corn-mills; and there are even some which serve indifferently for both purposes. The prinelpal purts of the fulling-mill are the wheel, with its trundle, which gives motion to the tree or spiulle, whose teeth comimunleate it to the stampers, whlh are therehy raised and made to fall alternately, as its teeth eatch or quit a kind of lateh in the middle of each stamper. The stampers and troughs aro commonly of wood; but sometimes the stampers are mado of polished iron, and the eloth is expesed during the process to the action of steam; by which means the uppearance of tho cloth, when finished, is sadd to the greatly luproved. These improvements formed the sulject a patent in 1825. In the course of the operation the fuller sometimes makes use of urine, sametimes of fuller's earth, and sometimes of soul. To prepare the stufts to receive the first impressions of the atamper, they are usually laid in urine, then in fuller's eurth and water, and lastly in soap dissolved in hot water. Soup alone would do very well, lut it is expensive, and fuller's earth is acarcely inferior to it ; but then it must bo well eleared of all gritty particles, else it is upt to make holes in the stuff.

Method of fulling cloths and woolen stuffs with soap. -A colored cloth of about 45 ells is to he laid in the usual mannor in the trough of a fulling-mill, without tirst soaking it in wator, as is commonly practiced in many places. To full this trough of cloth, 15 pounds of soap are required, one half of which is to be inelted in two pails of river or spring water made as hot as the haml can well bear it. This sulution is to be poured by degrees upon the eloth, as it is laid in the trough; and thus it is to be fulled for at least two hours, after which it is to lie taken out and stretched. This done, the eloth is iminediately returned into the samo srough, without any new soap, and thero fullod two hours more. It is then taken out and well wrung, to express all the grease and dirt. After the second fulling, the remainder of the soap is dissolved as in the former, and cast four different times on the cloth, which is taken out every two hours to streteh it, and undo the plaits and wrinkles it has aecuired in the trough. When it is perceived to bo sutliciently fulled, it is well scoured in hot water. With regard to white eloths, these full more easily nad in less time thim colored ones, and thus require only a third part of the son].

Fulminating Compounds. - Fulminates are of several kinds, being detonating compounds of tho fulminic acid with various bases. Such are the fulminates of gold, mercury, silver, etc. The old fulminating jowder is a mixturo of nitre, sulphur, and potash. The fulminute of mereury is largely used us a priming to tho percussion-caps for gans. See Cuemistny, vi., p. 474.

Fulta, a large village of llindoostan, province of Hengal, on the east bank of the Ilooghly, 20 miles S.s.W. in a straight lino from Cnleutta, but mitel moro ly the windings of the river. It has safe anchorage for shijs, where they are protected from tho swell of the sea, and where the anchors holil fast, the bottom heing stitf clay. Iatio $22^{\prime} 18$., long. $88^{\circ} 10^{\prime}$.

Fulton, Robert, a distinguished American engineer und mechanician, nmong the tirst who successfully applied steam to the propulsion of vessels, was a native of the State of Pennsylvania. At a very early age he gave decided indientions of mechumical genius.

While still a mere youth he began life in the elty of Phllailelphia as a portralt and Inmilsenpe painter; and in his 22d year, with n view to Improving hlmself in art, he vialted Englind, where he remained for aeveral years under the roof of his countryman West. Ile states that $\ln 1793$ he had conceived the deslgn of propelling vessels liy ateam, but his numerous engagements prevented him from carrying it into effect it that time. Hia time was completely engrossed in devialng a plane of double incline that should supersede the locks on canals, for which be obtalned a patent from the Britlah government in 1704. In tho name year he ohtained patenth for finx-rpinning and rope-twisting machines, and varlons other mechanical Inventions, bearing chletly upon the construction of canals, on which latter subject he pubJlahed a treatise. In 1797 he removed to l'aris, nil remained for seven years in the house of Joel lharlow, the American ininiater at the court of Napoleon I., prosecnting his selentitic atudies. During that period he projected the first panoramn ever exhibited In Jaris, and made important experiments on anbmarine explesives. It was also at this time that he first ancccedel, ofter repeated trials, in propelling in boit through tho water by the ail of ${ }^{\prime}$ ateam. In 180f he returned to America, and repeated the experiment on $n$ larger acale and with more decided smecess. In 1809 he took out hin first patent, and acemed to be on the high way to wealth and prosperity, when his righta were dinputed, and he became Invelved in legal proceedings, which embittered the remainiler of him oxistence, and prevented him from renping the rioh barvent to which his industry and genins fulrly entitled him. Falton died Fehruary 2.1, 1815. A minnte nccount of his life and inventions is given in lils hiography by Culwalluler D. Colden. See Strab Naviostion.

Fulton has, perhaps, contributed more than any other man of the present century, to the progress of commerce throughont the worli, The impetus given by his genius to the adoption of atenm navigathon, has been equally extended (if not more so), to the increase of sailing vessels. At the preaent day the stock of mechanical and practical knowledige, handed down by tradition, or, preserved hy means of the press, has lecome so enor nena, that the most brilliant discovery in the useful arts beara bat a mmall proportion to the whole extelt of homan knowledge. In remote times, the aids, which modern inventors derive from the records of the reasonings, and combinations, anll even the abortive attenipts of others, were wholly wanting ; and if no one of the liventions of antiqulty, when taken by itself, can rank in apporent importance with some of molern date, the former were in many instances far more conspicuons as steps in the progress of human improvement. In the dawn of civilization, inventions were ususlly unexpected, an'l though oftun caiculated to supply thie most preselng waite, excited surprise, because the wants theinuelves had not been percelved. At the present day discoveries often appear as the slmost inevitihle result of previous improvement. The higheat degroe of merit ls to he awariled, in the present age, to those who, aware of the wants of the commanity, or of the world at large, set to themselves as a task the discovery of the means of sulplying these wants. If we consider Fulton as an inventor, it may le difficult to any in what exact particular his merits consint ; but if we contemplate him in the light of a civil engineer, confidently buidting a finished and solid structure upon the incomplete foubdation left by others, we must rank him, In the extent of his uspfuiness to mannind, as second to Whatt alone. See Life of ドultom, ly J. Rexwick.

Itobert Fulton was lorn at little liritain, in Lancaster county, l'ennsyivania, in the year 1765. IIls parents were respectable, though far from affuent; hls father a native of Ireland, his mother lescended from an Irish family. Fulton himself attached no laport-
ance to circumstances of blrth, and took prida in belng the maker of his own fortnue. Except so far as elementary education was concerned, he wan uader little ohllgation to hia progenitors; being left without patrimony at the death of hla father, when three years old. A ware that he was to truat to his own exertions, aven for meana of subaistence, he cultivated from an early age a tante for drawing, in the hope of qualifying hlmself for the profesaion of a painter. Frem a famillar acquaintonce with his performancea an an artint at a later date, when he applied to the easel merely aa a relaxatlon, it may he ntated that there is little doubt that had he devoted himself to the profession of painting, he must have become highly distinguished as in professor of that art. At the early age of 17 he went to Phlladelphin, for the purpore of prac. ticing as a painter of landscapes, and was so auccessful as not only to support hlmself, but to lay up sufficient funds to purchase a small farn in Washingtou county, l'ennsylvanin, and to ald hia widowed mother. II is patrons in Philadelphia were at first among the huinbler classes, hut afterward he formed ecquaintancen who were loth able to approciate hls promalse as an artist, and to facilitate his plans of Improving himrelf as a palnter. lly their nilvice the went to England, and through a faverable introduction to West, he was treated by that great artist with even more than his usual liberality, and became an Inmate of his house, and remainet his gisest and pupil for several years. After leaving the family of West, Fulton proceeded to Exeter, where he lived two years, during which titne his intelligence and shility gained hlm many useful aequaintances. Among there, the most important were the Duke of I Bridgewater and Earl Stanhope. It appesis to have been at the instance of the former that he alonndoned painting as a profeasion, and entered that of a civil engiueer. We find hims next residing in Hirminghsin, engaged in the construction of canals, though probably in a subordinste station. Fulton's residence in llirmingham brought him into communscation with Watt, who had just nucceeded in giving t) his steam-engine that perfect form which tits it for unlversal application as a prime mover. While in Hirmingham, Fulton lissued a number of patented inventions and seversl published works. In 1693 he took out a patent for the introduction of the inclined plane in inland navigation, and three yeats later emlexhied it, with other projecta of a similar nature, in a work on Inland Navigation. This work can be quoted as exhibiting a high dogree of originality, ingenuity, and talent, but as inupplicable to uny nseful purpose. To his instrument for destroying vessels of war, he gave the name of the Torpedo. It consisted of an oval copper case, charged with gunpowder. To this he proposel to attach a lock, regulated by clock-work, which, after uny required time, might cause the lock to spring and thus communicate tire to the charge. Hut Fulton met with so much opposition in hringing this into practice duriug the war with Great llritain, that the only proofs of its value we can cite, were the sleeplens nights and anxious days of many Uritish commanders, who felt that the vicmity of Fulton's operations was attended with danger which could only be prevented ly unremitting diligence and attention.

Ibefore proceeding to the more important suljects which attracted the attention of Fulton, we have to onent lon some other fruite of his ingenuity. In 1704 he took out putents for a mill for sawing marble; a method of spinning thax and making ropes; and of excavators for digging canala. The latter objert may still remain a desideratum in practical meelanies; the two former at least served as steps in the career of improvement, and have been guides ami landumrks to fubsequedt inventors. Fulton undertook the conatruction of a vessel which might meve either at or beneath the surfare of the water, anl made the passage over the estuary of the Linn with ease and sufety.

The art wil connected as t of nuvigation founded on $t$ engine, and ce hal recelved When the prop the public, ma Ainong others, Symington, wl and Clyde, in 1 were made by Stevens, of II which he engag the asenclate o Roosevelt ${ }_{1}$ to inventor of bl Thames tunnel. unsuecessful, ar of livingaton a came intimate $u$ with funds nece Introducing the experiment wert original Impresh wheel over any in the yerr 1803 in length aud 8 adapted, ants the tittle doubt of diately taken to scale in the Unl from England, fr varied from the sketches furnlahe spplicatlon mado an exclusive pris State by steain w dered from Watt gland, and directe was completed at the vessel was fir in August, 1807. made, and a fer most skepticn] nn ject was obtained. periment, a voyag This city is distan the river, nenrly stances the sloop. performel the pas time was four dit in 36 hours, and ing with the wishe ages until the en nor arrangements the fartlity of wo the machinery, we culties were remos until the boat sheu next winter of 180 rebuilding the ves: was given. Fulto passengers, as, in dor, hall never he transportation, T ality; for a deht y never purmitted thit converted inton fio: of passuges for the was a complete fail was not auitalile, replace it ly one p wood and copper, w soon after lenving pletely, on the ret a voyage prolonge

The art with whlch Fulton's name is Inseparably connected as the principal agent In its creation, is that of navigation by ateam. Ilis spplication of ateam was founded on the propertion of Watt's double-acting engine, and could not be used untll that Inatrument had recelved the last finlahing-touch of the Inventor. When the propertles of this engine became known to the publle, many hastened to apply it to navigatlon. Among others, were Miller, of Dalswinton, alded by Symington, who prit a boat in motion on the Forth and Clyde, In 1801. In the Unlted States, experimenta were made by Fitch and Rumsey; and in 1791, John Stevens, of Hoboket, commenced hils researches, whleh he engaged In for nine years, when he became the asaoclate of Chancelor Livingston and Nlcholas Roosevelt ; to thls assoclation was added Hrunel, the inventor of block machinery, and engineer of the Thames tunnel. The efforts of thls association were unsuecessful, and were broken up by the appolntment of Livingston as embassador to France, where he becane intlmate with Fulton, and offered to provide him with funds necessary for an ixperiment, and to sid In introduelng the methol In the United States, If the experiment were successfnl. Fulton had confirmed hls original lmpression of the auperiority of the padillewheel over any other means of propulsion, and, late in the year 1803 , commenced bullding a vessel 66 feet in length anal 8 in breadth. To this an engine was adapted, anca the experiment so ratlsfactory, ns to leave little douht of final snceess. Mensures were lmmediately taken to construct a steamboat on $n$ larger scale in the United States, An engine was ordered from England, from Watt \& IBolton, In 1803; its form varied from thoir naual models in conformity to sketches furnlahed ly Fulton. At the aame tlme, an application made to the legislnture of New York for an exclusive privllege of navigating the waters of that State ly stean was granted. Ilefore the engine ordered from Whtt was completed, Fulton visited England, and directed the construction of it in person. It was completed at lant, and rearhed New York in 1806; the vessel was finlshed and fitted with her machinery in August, 1807. An experimental excursion was made, and a fow minutes served to convince the nost skeptleal and doubiful that the long-lesired object was obtained. Within $n$ few days of the first experiment, a voyage was undertaken in it to Alhany. This eity is diatant from New York, by the channel of the river, nearly $\mathbf{1 5 0}$ miles. In a few remarkable instances the sloops which navigated the llhison hat performed the passage in 16 hours; bit the average time was four days. Fulton's stemmbont went up in 30 hours, and returned in 30 . Fulton, complying with the wishes of the puhlie, made regular voyages until the end of the season. Many of the minor arrangements for the convenience of phasengers, the facility of working, and wafety from accident of the machinery, were yet wanting; some of the difficulties were removed at the time, noll others remuined until the boat should be laid aside for the winter. The aext winter of 1807-8 was occupled ir remoteling and rebailling the vessel, to which the namo of Clermont was given. Fulton provided sach accommolations for passengers, as, in regard to convenience nud splendor, had never been npproached In other vessels of transportation. This was almost improvident likerslity; for a debt was contractel which new demands never permitted him to discharge. The Clermont, thus converted linto a tioating pnlace, commenced her course of passages for the month of April. The tirat voyuge was a complete failum; the hoiler, provided by Watt, was nut suitable, und Fulton had been persuaded to replace it ly one planned ly livingsten, composed of wood and copper, which emitted steam from the joints soon after leaving New York, and gave way contpletely, on the return passage, near that city, nfter a vegage prolonged for 56 hours. But a few weeks
sufficed to bulld a new boller, and In June, the Cleomont was again under way. In the hour of departure from New York or Albany the utmost regularIty was observed, whlch required no little perseverance and resolution at firat; but the benefit of this punctuality was soon perceptlble, and the same syatem was copled by other steamboat lines. At the end of the second aummer the boat became far too small for the passengers, who crowded to avail themselves of this new mode of transport, and Fuiton begun a second boat, called The Car of Neptune.

The most formldsble opposition made to the privllege of Fulton, for the exelasive navigation of the waters of New York, wan founded upon the discoverien of Fitch, who had constructed a boat which traveled between Trenton and Phlladelphla. Fulton, assalled In his exclusive privileges, took, for further protection, a patent from the general government in 1809, and another $\ln 1811$. Grs, were made to Fiteh by tho State of New Jorsey, and as a compromise could not be agreed upon by the two contendlng partles, the controversy, which often Interrupted the commaniestlon by atcam between Philadelphla and New York, was not adjasted until the grant, made to Fulton by the State of New York, was declared unconstitutional. A form of ferry-bnats, was soon after Invented by Fulton, which, with the substltution of a single hull for the twin bont, has in its arrangement and distribution unilergone little or no change. The steamboate on the Hudson were increused in number, before Fulton's death, to five. A sixth was built, under his direction, for the Sound, which plied for sone time on the IIurlson. In the construetion of this boat he had, in his opinion, exhausted the power of ateam in unvigationhaving given it a speed of nine miles an hour.

When death arrested Fulton in his great career, he was engaged in constructing an improved form of submarine vessel, but as he had made no one a confidant in his plans. at bis death no person was found willing or ahle to ui lertake the completion of the vessel. By exposure in is visits to the Navy Yard, in Brooklyn, he took a se ere cold, which his constitution, enfeebled by constant labors and anxieties, conld not resist. He died on the 2-fth of February, 1815. Rarely has it happened that the untural death of any citizen exeited so general monrning as that of Fulton. Cut off in the very height of hie usefuluess, und in the zenith of his reputation, his countrymen felt it as a loss almost Irreparable. See Life of Fulton, by James Renvick, L.1.I. ; Anol. Mag., v. 394. x. 177 ; Sranks's $A m$. Riog., x. is; Quar. Nev., , .. 347 ; I.ittell's Mus., xxxiii. 340 ; Nıles's Reg., xiii. 51, xxxiii. 15; IIunt's Mer. Mag., xv. 4is. A suitalle monument to the memory of Fulton has not yet been erected either by the United States, by any ono State, or by any association. It yet remuins for his native State (lennsylvanin), or for the State which fostered his early efforts (New York), to place in some great thoroughfure, an uppropriate column in memory of one who has so largely contributed to the growth of commerce throughout the civilized world.

Fumigation is the employment of fumes or vapors to purify artieles of apparel, and goods or apartments supposed to be imbued with some infections or contagious poison or funes. The vapors of vinegar, the fumes of hurning sulphur, and explosion of gunpowder, have long been preseribod and practiced; but they have, in all probubility, littlo or no cftiency. The diffusion of sueh powerful agents ne chlorin gas, muriatic acid gas, or nitric acid vapor, should alone bo trusted to for the destruction of morbitc eflluvin.

Funds. To the Venctians is ascribed the orign of the funding system, in A. D, 1171. Public funds were raised by the Medici family, at Florence, in 13-10. The English funding aystem, or the method of raising the supplies for the public serviee in Fingland, by anticips. tion of the publice revenues (the origin of tho national
delet), was Introduced at the Revolution, 1680.-Montimer'a Broher. The funding eystem is coeval with the cominencement of the Bank of Eingland.-Andimas. The three per cent. annuities were crented in $172 d$. The three per cent. consols were ereated In 1731; the three per cent, reduced, 1746 ; three per cent, annuities, payable at the South Sea House, 1751 ; three and a half per cent. annulties created 1758 ; long annuitles, 1761 ; four jer cent. consols, 1762 ; five per cent. annulties, 1797 and 1802 ; five per cents. reduced to four, 1822. See National Debt.

The following table has been calculated in order to show in which of the publie fund money may be Invented so as to yleld the greateat interest. is givea the prices, differing by one per cent, from 50 to 83 for three per cente., ete., at which they all must ine to yield the aione Intereat; wo that supporing the three per cents. to be at 80 , a sum invested in them, or in the 34 jer centu., will yleld tha same interest, proviled the latter loe at 984 ; if the $3 f$ per cent. be below this sum, it will, of course, be more advantageous in so liar at leart an intereat ia concerned, to invent in them than in the three per cents, ; while, if they be abore 934 , it wlll the leas advantageous.

To get the trwe ralue of the different funds at any partieular period, in order to compare them aceurately together, it is necessary to dednct from ench the amount of interest accruing now it from the pryment of the last dividend.
 ha at to peodichan equal finthast: ang aheothe
 vested at any ur those j'mices.

| a perceat prlee. | 3 1 - 3 per cent. price. | $t$ jur cem. prlen. | 5 per cont. prise. | luterual. |
| :---: | :---: | :---: | :---: | :---: |
| (t) |  | $\begin{array}{lll} \boldsymbol{c} & 19 & d . \end{array}$ |  | $\begin{array}{lll} A & 4 \\ 0 & 1 & d \end{array}$ |
| 81 | $\begin{array}{llll}54 & 6 & 8 \\ 50 & 11 & 0\end{array}$ |  |  |  |
| 51 | 59 10 0 | $\begin{array}{cc}68 & 0\end{array}$ | 500 | 517 |
| 69 | 60134 | 6988 | 84 184 | 5154 |
| 54 | 61168 | 71134 | ts 68 | 5182 |
|  | 6300 | 73 00 | 10000 | 5111 |
| E. | B4 84 | 7386 | 91184 | 590 |
| (m) | 65 6 | it 134 | 9368 | 571 |
| 57 | 64100 | 7600 | 0500 | 5 5 8 |
| 19 | 67184 | 7768 | Ot1 114 | 585 |
| 59 | 6s 16 b | is 134 | 9.368 | 518 |
| 64 | 70.0 | -11 00 | 1000 | 500 |
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| 62 | i2 6 | H2 13 4 | 1086 | 4169 |
| 18 | 7310 10 | (4)0 0 | $\begin{array}{llll}11.5 & 0 & 0\end{array}$ | 415 |
| 64 | 74184 | * 0 - | 106134 | 4188 |
| $6{ }^{6}$ | \% 5168 | 46184 | Itiv 0 ¢ | 4128 |
| 68 | 1700 | 450 | 1100 | 4 t0 10 |
| 67 | 7584 | -19 9 | 111184 | 496 |
| 63 | 7963 | (4) 134 | 1186 | 48 4 |
| 69 | 9110 il | 92110 | 1150 | 4611 |
| 70 | 81184 | 9368 | 11418.1 | $45 \%$ |
| 71 | 8216 | 94184 | 1150 | 446 |
| 72 | 64 00 | 960 | 12100 | 483 |
| 78 | क) 84 | 97868 | 111144 | 422 |
| 74 | * 6 | 94184 | 12868 | 410 |
| 75 | 1i 11 | 16t 011 | 1250 0 | 406 |
| 76 | 6s 1:3 4 | 10168 | 126184 | 81411 |
| -7 | 89 16 S | 102184 | 12968 | 81711 |
| 74 | 910 | 1440 | 18140 | 81611 |
| 79 | 9234 | 1056 | 181144 | 81511 |
| 80 | 9365 | 106 18 4 | 1836 | 3 I5 0 |
| 81 | $14+10$ | liis il 0 | 14600 | 8110 |
| 82 | 05184 | 10988 | 184184 | 3182 |
| * 3 | 9616 | 110184 | 1186 | 8128 |
| M4 | 98011 | 11200 | 14) 0 (1) | 8116 |
| 5 | 9484 | 11368 | 14183 | 811 ? |
| 81 | 1006 | 114184 | 14.48 | 899 |
| 87 | 101100 | 118180 | 1600 | 8411 |
| 84 | line 134 | 11768 | $1401: 1$ | $8 \quad 8 \quad 2$ |
| 69 | 103108 | 115184 | 14. 65 | 874 |
| (a) | 1450 | 19000 | 15000 | 3 B 1 |
| 91 | 194 84 | 12188 | 151184 | 3611 |
| In2 | 1076 | 19.2 184 | 1536 | 85 \% |
| 93 | 114810 11 | 12400 | 13019 | $\begin{array}{lll}3 & 4 & 6\end{array}$ |

The public debt of the C'nited States, which amounted, at the close of the last war with Iireat Britain, to . $158,713,049$, was entirely paid off in $18: 15$. This procceding, so honorable to the United States, naturally tended to raine the character of American securities in the English market, and emabled the government to contract the loans required to carry on the late war with Mexico on vey favorable terms. The
delot of the Union, exlating on the 20th November, 1851, amounted to $\$ 62,560,395$, and is at present ( 1850 ) about $45,000,000$.
Hut In addition to the debt of the U'nlon, must part of the States, and several, alao, of the principa citien, have contracted pecullar delta of a less or grenter amount. In moat casem these wesg lacurred to promote the execution of some publio undertaking, such as the zonstruction of cauala or ruilwaya, the excavation of doeks, the arection of buildinga, the extabilishment of banks or In*urnnce companies, and so forth. Some of the debts no contracted have been alvan. tageously lahd out; but a large portion horrowed in 1835 , and other periode of whld excltement, were contracted on very diladvantageous terme, and expended on projects some of which lave turned out extremely III. This, however, was the affalr of the States themselvea, and did not afford so much as the nhadow of an excuse for the conduct of those Statea which have declined to provide for the patyment of their delits. It was not, indeed, to be wondered at that in the divtrass Into which the Linion wan thrown try the crash of 18:17, and the depression following thereon, some of the States ahould have been compelled to suspend jayment of their debis; but a necessity of this sort could be temporary only. The indebted Staten are all rich, and eminently llourishing and prosperous communilles, and it might have been exjected that they wonlh have made every effort to reaume payment in full of their debts at the earliest porsible moment. Ilut this, weare sorry to say, has not been the case with some of them.
Fundy, Bay of, an inlet of tinc Atlantic, sets up letween Caje Sable, the mouth point of Nova Scotia, and Mount Desert Island, In Maine, a distance of 150 milea. From Fastport to St. John, N. II., is 60 miles. The bay la divbled, in its north-east part, into two branches, the north ralled Chignecto Bay, the head of which is 170 milea from Eastport. The moutheeast part is called the llawin of Mines, 150 miles from Vastport. Passamaquoddy Bay upens into it on the northwest, near its mouth. Gypsum is ohtnined on the llasin of Mines, and grindstones on Chigoecto llay. 'lhis bay is very jeculinr; its shores, on lusth wides, are rocky and alirupt, while near its head, the tide, presseml and cootined within diminished limits, rushes with much violence over extensive and wide-epremd mod Hats, and rises generally foo feet or mere. its fishries are valuable and extensive. (See Pemery's valuable report on its fisheries.) Thero are 16 light-housen on the coasts of the lay of Fundy, viz., eight on the New Hranswick side, and eight on the Nova Scotia side.

Furl, in navigation, to roll the wail up, and confine it closely to the yard: the wall leing gathered up by the men on the gard, the beech or edge is passed ahong the yard to the middle or bunt, where the lody of the sail, the fort and clews, are collected in this Way the mails of a mantof-war aro removed nearly ont of view iu an ahnont incredible short space of tinte.

Furlong, an linglish ineasure of length, containing the eightio fart of a mile.

Furs, in rommerce, the skins of different numals, covered, for the mont part, with thick, fine hair, the inuer side being converted, ly a pecular process, into a noit of leather. Furs, previonsly to thear undergo ing this procesn, are denominated jeltry.

Heaver fur, from its extensive use in the hat manufacture, is a very important commerciul article. That made use of in this country is almost entirely lironght from North America. It Is gradually becoming searcer and dearer, being now obtainable only in considenble quantities from the most northerly and inarcessible districte. The fur of the middle-aged er yotmy animul, called cuth-ieaver, is most esteemed. It is the finest, most glosoy, and takes the best dye. Fitch, or the fur of the titchet or polecat, is prindpally imported fron thermany; it is soft and warm, but the unleasant smell which alheres to It dejresses its value.

Marten and principally ! ada. The fu tive speelea from our pupply ua wht Nutra-skIna Ayrea. The etc., come pri
fiur Trade. merve that ha turous apirit, ngeous endur harishipk, tha vut its whole 1 accurately act continent of N tions of the fit of large gains known numer acquainted wit life, who other or forever, imi In barbarity. from the fur $t$ graphical know the extenalon ness. The all preeureer of th him to pursire security and ant

Whence Fure seems to have northern invade century the ak from the ahores vention of num consumer was ufter that time, en Earope. In subject of curio khan of Tartary ermines, which north, "from th century, howeve us a part of fashi alent In Englan manded that all prohilitited the us per annum.
Aretic Region. shores of the Arc animals of great settlement was : The auggeation w but as it was cool Enghlsh embusana cefore whom the entered into the vessel, which re then called Nem the name ltupert, tering there, wit they had anticipt vorable a report beuluarle, the Ear fonned themsels E10,500 for the furs, A charter Charles II. in $16 i$ pary full possess upen tho countri luys, lakes, river: atitude they shal the straits, comn are not already any of our aubje

Marten and mink, a diminutive species of otter, are principally Imported from the United Stater and Canada. The fur of the musquash, or muskrat, a diminutive species of beaver, is imported in vast quantitiea from our pessespions in North America, whleh alao supply us with conalierable quantities of otter-akine. Nutra-skins are principally hrought from Buenos Ayres. The more valuable furs, as ormine, sable, etc., come principally from Ruamla.
fiur Trude.-Thete 19, perhapa, no branch of commerce that has drawn forth a more daring and adventurolla spirit, or given rise to a more patlent and couragcous endurance of personal dangera, privations, and hatiahipa, than the fur trade, as is manlfest throughout its whole history. liy ita means we have become accurately acqualinted with nearly three fourtha of the continent of Nerth America. The indefatigabie exertions of the fur merchant, stimulated by the prospeet of large gains from his hazardeus pursuits, have made known numerous tribes of men and natlons partially acquainted with the arta and retinements of civilized llfe, who otherwise might have remained many agea, or fotever, immersed in heathen darkness, and annk in barbarity. Ner are the general advantages derived from the fur trade confined to a more accurate geographical knowledge of a vast range of country, and the extenaion of the arta of peace and soclal happiness. The adventurous fur trader has often been the precursor of the goapel misslonary, and has enabled bim to pursie his intpertant labors with comparative security and succesa.

Whence Fiurs were Introduced.-The use of furs scems to have heen introduced into Furope by the nerthern invaders of the Roman empire. In the alxth century the skins of sables were brought to liome from the ahores of the Aretic Ocean through the interveation of numerous parties, so that the cost to the consumer was very high. During нeveral centurien after that time, furs were not at all common in western Europe. In 1252, A.d., Marce l'olo mentions, as a subject of curiosity, that he found the tents of the khan of Tartary lined with the skins of anhles and ennines, which had been brought from countries far aorth, "from the land of darkness." In less than a century, however, from that time, the wearing of furs us a part of fashionable dress, had hecome rather prevalent in England, aince, In 1337, lidward 11I. commanded that all pernons among his sulijects should be prohibited the use of furs unless they could spend $\boldsymbol{£ 1 0 0}$ per annum.
Arctic Regions.-Farly in the 17th century the sheres of the Arctic seas were found tenanted by furred animals of great value; and the ilen of forming a settlement was suggested by Grosellez, a Frenchman. The suggestion was made first to his own government, but as it was coolly received, he olitainel, through the faglish embassader, an interview with l'rince Lapert, iefore whom he latd his plans. The prinee warmly entered into the project, and assisted lin fitting out a vessel, which reached, in September, 166 , the river then called Nemisco, to which the miventurers gave the name lupert, in honer of the princo. After winterimg there, with less difficulty and suffering than they hal anticipated, they returned, nod gave so favorable a report that lriuce liupert, the Duke of Albemarle, the Earl of Craven, lord Ashley, ame others, fonued themselves Into a Company, and subserihed fl0, 000 for the purpose of commencing a traflic in furs. A charter of incerporation was granted by Chatles 11. in 1670, giving to the lludson's lhay Company full possession of ${ }^{6}$ all the lands and territories upon the conntries, const, a.sl contines of the seas, base, lakes, rivers, creeks, and sounds, in whatsoever 'atitude they slall be, that lie within the entrance of the straits, commonly called Mudson's Straits, that sre not alrealy actually pessessed by or granted to say of our sulijecte, or possessed by the subjects of
any other Chriatian prince or atate." And the charter proceeds to grant further, that "the whole and entire trade and traffic to $p$ from all havens, hays, crisks, rivers, laken, anil an.5 into which they shall find en* trance by water or land out of the territorien, Ilmite, or places aforesalil ; and to and with all the natived and people inhabiting, or which shall inhabit within the territories, limits, and placen aforesnid ; and te and with all other natlona inhabiting any of the coasts adjacent to the sall territorlen, limita, and paces which are net alroady possessed as aforesald, or whereof the sole liberty or privilege of trade and traffic is not granted to any other of our suljects." On Kupert's River the Cempany immediately formed a nottlement; and in 1674 stations were settled on Moose River, and a few yeara later on the Albany, and soon after two more on the Nelson and the Severn.

F'rench Settlements and Seizures.--By these vigerous measurea the French court was awakened to a sense of It neglect, and Grossellez, already detached from the Einglish aervice, was sent out, In the year 1682, to found a factery on the River IIayes, which he accempllshed, and aiso surprised the Britlah factory on the Nelson. After this time hostilitles became frequent between the French and the Inglish eettlers; yet notwithstanding immense losses anstained ly the Company from 1682 to 1688 (amounting to $£ 118,014$ ), they were alle, in 1684, to pay to the sharehelders a dividend of 50 per. cent. Again, in 1688 , an equal dividend was made, and in 1689, one of 25 per cent. In 1690, without any call being made, the stock was trebled, while at the same time a dividend of 25 per cent. was paid on the increased or sawly-created stock. Hy other cuptures of their fuctories by the French in the years $1692,1694,1696$, and 1697 , the Company ouffered further loss to the amount of $\$ 97,500$. At the peace of Utrecht, in 1713, however, these captured factories wero restored to the Conipany; who, by 1720 , hal sgain trebled their capital, with a call of only 10 per cent. on the shareholdera. Now they strengthened the old forts and formed aeveral new ones in the interior; but in 17.19 a question arose in Parliament concerning the rights of the Company, which was deciled in their favor. Again, in 1i82, several of thelr factories were tuken by the French under La Perouse; still their traffic seems to have continued very lucrative until the invasion of their righte and territories by a strong rival assochation, designated the Nerthwest Company, whose fieree competition caused much animosity and bloodshed. This was not only very dentructive to the fur trade, but most injurious to the Indians.

Management.-The North-west Company consisted of 23 partners, comprising some of the most wealthy and enterprining settlers in Cauadn, and employed about 2,000 persons as clerks, interpreters, guides, and boatmen (voyageurs), whe were atationed over the vant regions of Canada ceded lu $\mathbf{1 7 6 3}$ by the French to the English. Shureholders who engaged actively in the trado were called agents, some of whom resided at the different prots established by the Company in the Indian territory, and others at Quebec and Montreal, cach attending to the affairs of the Company in his appointed district. Theso active partners met annually at Fort William, one of their stations on lake Superior, where they discussed mitters connected with the nffuirs of the association, and arranged future plans. The clerks of the North-west Company were mostly young Scotchmen, of rexpectable families, who were willing to underge the hardships attendant upon a residence of seme years in these inlospitable regions, in order that they might thus seeure tie alvantage of succeeding in turn to a share of the protits of the undertaking, the custom being to take from mong the clerks as partners those whe had acquired the $x$ perience necessary for the management of the business. The liunters of this Company crossed the lhocky

Mountaina about the year 1805, and eatablished atatlons on the northern hend-watere of the Columbla. In 1813 they purehased Astoria on this rlver, which was relinquished by Mr. Astor, ${ }^{*}$ of New York, and his partners, in conseçuence of the war between the United States and Great l3ritain. At length the Hudson's 13ny Company, belng roused by the activity of the North-west Association, exercised for the first thme its ehartered right to colonize, and sold, in 1812, a tract of Innd on Iake Winnipeg and the Red River, to Lord Selkirk, who Introduced a considerable number of persons from Sootland. The consequence was an open war between the partizans of the rival Companies. After a war of two years, the Red River settlement was destroyed by the masacre of the governor, Mr. Semble, and many of his assoclates, while the survivors were Iriven nway. Jut this melancholy and barbarous state of mattere was pat an end to by the union of the rival Comprnies in 1821 , since which the trade has been peacefully and auccessfully prosecuted. When the partnership of the North-west Company was ahont to expire in 1821, the three london reprementatives of the firm offered to merge their interests In those of the IIulson'a Bny Company. This was agreed to, and an act of Parliament was passed (let and 2d (ieo. IV., enp. 66), under which the crown grants to the liudson'a Hay Company and to the three representative partners of the North-west Company in Inndon and Montrend a license of exclusive trade for 21 yeurs in the "Indlan territories;" that is, over all those tructs that might not he included in the charter given hy Charles II., and ilso over those tracts whleh by mituil consent were open to the anhijects of Entgland and to those of the United States. The three North-went Compmay egents merged into the Jludson's liay Compnny; the exclusive truting license whs surrendered i ; ishs ; and, nfter careful investigation on the part of the government, the enown granted on the 30th of Mas, 1:36, another license for 21 yeare of excluaive trade over the Indian and neutral territories.
The affalrs of the IIndson's Bay Company are at present conducted by a governor, deputy-governor, and a committee of seven, elected by 249 proprietorm, representing a rapital of $\mathbf{E 4 0 0}, 000$. Of the $2: 19$ proprietors, 65 have more than two voten. $\mathbf{£ 9 0 0}$ of ntock must be held for six months hy each voter previous to voting, except such atock be acquired iny lequest or marriage, and each nember of the conmittee must hold not less than $£ 1,800$ stock. The mode of election, oaths to he administered, government, ete., are presiribed hy the charter of Charles II. alrendy i ferred to. AcconiIngly, the Company las estahlished at the Ited Hver settlement a governor, council, reconder, sheriff, coroner, ete., for the projer government of the affilis of the Assiniboin, or Jied Kiver Territory, and for the carefol and legal administrution of juatice thronghout Rupert's land. Though not enjoined hy the charter of 1bion, trial by jury was introbluced hiy sir George Simpson usuler the direstion of the Iludqon's Biay ailthorities in Fingland. l'rine is comparatively rare in Rupert'e Land; and juxtice is andininistered under the


Traffic.-The traftic of the (ompminy in furs and peltry" la regulated by a Ibed IPoll, dated March 2 ith 18:1, when the North-west ('ompany and it united; and by another Deed 1'oll, dated June bith, 18:H, "for accertaining the rlylts and prescribing the dutien of the chief factors and the clidef trulera, and for canducting the trale." The bushens of the company is superlitended hy the 23 chief factors nt the respective atathons: nnd under them the 28 cblef tradern carry on the traffie with the indlans. The clerks aerve under both the fartora and the traters; and the very himi-

* A most Intereating nccount of the North-west Far Com. pany fogiven by Wiahington Irviog In lila Aefonia.
bleat clerk, by good conduct, may rise to the chlef positions in the eervice of the Company. The sularies of the elerks range from $\mathbf{C 2 0}$ to $\mathbf{C 1 0 0}$ per annum. Three chief fuctors and two chief tradera are allowed to leave the country annually for one year.

Free Trade in F'urs.-The Iudson'e Bay Compsny have no monopoly, as some suppose, of the Importation of furs into England; they liave to compete with the furs of the Unlted States, of Russia, of Norway, ete.; and if othor traders can undersell the Company the public have, of course, the benefit. Beaver and other skins are now much lower In price than formerly, when so much used in the manufacture of hata; and the gradual reduction in price of forelgn furs has boen chlefty brought about by the stearly supply from Jludson's Ibay territories. Hence London is the most oxtensive for market in the world. The fall in the prices of all furs has beell very great; but as heaver constitutes the largest item in value, the reduction of profit to the Company will be seen by comparison with the prices and amount of sales. In 1839 a beaver skin was worth 27 a . fil. ; in 1846, 8s. [4l. The number of skins sold in 1839 was 55,486 for $\mathcal{E 7 6}, 712$; those aodd in $1846 \cdot 15,389$ for $£ 7856$. There is almo great varlety In the prices of articles of shuilar denomination; but the Company are olliged to pay the same price to the Indians for all sklus according to tariff; whether the skins are grood or bad, the Company must buy thens. Hence the profits of the ehareholders are not to be estimated by the difference in price betwoen the cost of a skin at ono of the Company's forts in the interior, and its anle jirice in london. The annual divilend is (18:5) alrout 6 per cent.

The lludson's Ihy Company have now about 140 estahlishments, hesides hunting expeditious and shipping, employing 25 chief fuctors, 28 chief traders, 152 clerks, 1240 regular servunts, hevidas employing in occasional labor, the services of a large number of the nativen; a steam vessel and five sailing vessels of from 100 to 800 tons, all armed. Their forts or stockaded positions extend from the coast of labrador to the Pueitic, and from the northern boundaries of Csaada to the chores of the Arctic Ocean. At every large trading establishment there is an "Indlan Jospital," from which the natives derive the greatest bentit; and neveral inedienl men are maintuined by the Company at different forts. Ministers of the pospel of every demomination nre encouraged and protected by the Company, and a bishop of the Church of Fingland now presides over the diocese of llupert's Land.

Thn fur trule is prosecuted in the north-westem territories of the United States by an association called the Nurth Americun Fur Company, of which the chief manapers revile nt New Xork. Its principul atation la Michilimackinac, to which are linnught nll the peltrles cullected at the other ports of the Nississippl, Mianouri, and Yellowstone Kivers, and bll over the vast range of country extenuling thence to the llocky Mountains. This tompany in matmirably organized and munaged: it employs steaminats for uscending the rivarn, which nlso penetrate with case to regions whil'h conld furmerly be explored only through the most painful chlorts in barges and keel-boats, of by anall jartles our fout or on horneback. A great many pucksges a? furx are now brought from that nection of the comitry, mid from what is called the lied liver of the morth, by way of St. l'nul in Minnesuta, and thene hy way of river to St . louin nad other cities. It has bren proposed to build a ruilroal from St. I'anł up the valley of the Saint Crole to the valley of the lied Rlver; nind for this parpose large gisats of land have been set amde muflciont to build this railroud. A road once bulit to this region worla make a wonderful and complete revolution in the fur trade.

Fiur Skins Importecl.-Ahout $5,000,000$ skinn of aninals mplicable as furs, are nunually improted into

Britaln. it Th exports of fu:

## Animala.

| Racoon. |
| :---: |
| Bearer |
| Chtuehilia. |
| Hear. |
| I'sher |
| Fox, Red |
| ${ }^{4}$ Cross |
| " Sllver |
| ${ }^{4}$ Wlilt |
| " Gray |
| Lybx. |
| Marton |
| Minx. |
| Mnsquas |
| Olter |
| Seni, Fa |
| Woif. |
| Marton, Sto |
| Bauin. |
| Squirr |
| Fitoh. |
| Kolink |
| Eruitne. |
| Ralibit, |
| Wolverin |
| gkunk. |
| Sea-(ttar. |

F'ur-skinned gions abound wl covered with fin lenutiful and $v$ snlmals that n Rnswian Sable, tifal skin has lor uable and usefu coantry. Alou Russian territori Imported into EA gray spots on the most highly val sold for f!), thou $£ 2$ or $£ 3$. Nntul sider the anlmal dilatinct specles. slan Sable, the S Itudson's Bay Sn dlfferences of foo silght variations however, the Kn from the length celor of the fur. aecessarily limite senreity. In th which sought to it classes, anil to dl tume, the uso of alove the rank of
Marten.-The 1 min).-The nalle si these imported hy no less than 120 , Ilritsin. As the lighter thau the pir many of them a dit are meurcely inferi or line Miarten ported uniler thiv The animal is fo the habitations mamer anlmals. Stone Marten hy parta of the skili a similar appeara Marten (3) watelas found in mountah quent visitor to generally dlatribu tries. The under

Britain. The subjolned table givea the imports and exports of fur-akins in the year 1851:

| Animals, | Total Imporied into Engiland. | Exposted. | Conatumed in Phyland. |
| :---: | :---: | :---: | :---: |
| JRacoon | 525,000 | 525,000 | Nonc. |
| Beaver | (t), 000 | 12,000 | 48,000 |
| Chinehilla. | - 85,000 | 80,400 | 55.900 |
| Hamr. | 0,500 | 8,000 | 1,000 |
| Flsher. | 11,000 | 11,000 | None. |
| Fox, Red. | \$0,000 | 50,000 | * |
| ${ }_{4} \mathbf{4}$ Cross. . . . . . ${ }^{\text {a }}$ | 4,000 | 4.500 | 4 |
| H Slver ....... | 1,000 | 1,000 | " |
| " Whito. | 1,600 | \$00 | 1,000 |
| $\stackrel{\square}{4}$ Gray | 20,000 | 18,000 | 2,000 |
| Iynx............. | \$5,000 | 60,000 | 5,000 |
| Marten . . . . . . . . . . | 120,000 | 15,000 | 105,000 |
| MInx.............. | 245,000 | 75,000 | 170, 1000 |
| Musquash.......... | 1,000,000 | 150,0100 | 850,000 |
| thter............. | 17,500 | 17,500 | None. |
| Aend, Fer | 15,010 | 12,000 | 9,800 |
| Wolf.... ${ }^{\text {a }}$. ${ }^{\text {ar..... }}$ | 15,000 | 10,000 | Notle. |
| Martun, Btone and BatII | 120,000 | - \$,000 | 115,000 |
| Squirrel. . . . . . . . . | S, 000,000 | 103,009 | 2,900,000 |
| Fitch. | 65.091 | 88,278 | 86,815 |
| Kollnksk | 83,410 | 200 | 83,210 |
| Erinlne............. | 187,104 | None. | 187,104 |
| Ralibit, | 120,000 | (10) | 120,000 |
| Wolverine | 1,200 | 1,20) | None. |
| Ykunk.... | 1,200 | 1,800 | 4 |
| Sea-(itter... | 100 | 100 | " |

F'ur-אkianed Animals.-The northern and aretic regigns abound with races of animals, which are thickly cevered with fine hair or fur, und whose akins ure very beautifui and valuable as articles of clothing. The animula that are captured for their fur, aro:-The Raswian Sable, Mrutela zibellina. Thia rieh and beattiful skin has long been eateemed one of the most valasbie and useful furs that have been brought to our coantry. About 25,000 are annually collected in the Russinn territeries, of which only a small number is imported Into England. The fur is brown, with some gray spots on the head. Tho darker varleties ure the most lighly valued, a single akin being frequently sold for 5 t, though the avernge value does not exceed $£ 2$ or £ii. Nnturallatis are not; agreed whether to consider the animal from which the skin is procured ss a distinct species. Some nre of opinlon that the Russian Sable, the Stone and Plne Martens, as well as the Iludsnn's Bay Sable, aro but one apecics, on which the differences of food and cllmate have produced some alight variations in form and color. To the furrier, hewever, the Ruasian Sable in carily distinguishabiln, from the length and fullness, as well an the darker color of the for. The une of this choice variety is necessarily limited to the wealthy, on account of Its acarcity. In the relgn of lienry Vill., by a law which sought to regulate the expeuses of the different classes, and to distinguish them liy peenliarity of costume, the use of the Suble was confined to the nobility shove the rank of viacomnt.

Marten.-The Hulson'a ilay Sable (MmatrluC'mailen-ais).-The ashle akins next in mpute to the liusshun are these imported by the Ifudson's lay Company, of which ne less than $\mathbf{1 2 0 , 0 0 0}$ are annually brought into Great flitain. An the natural color of the skins is much ilgiter than the provailhig taste, it is the practice to dye many of them a darker molor, and the firs thus treated are suruely inferior to the matural sable. The thum, or P'ine Marten (Mustrla abirtum).-The Sables innported undor this name aro the produce of liuropee. The mimul is fonnd in extensive forests remote from the habitatlons of man, nud preying on hirets and unalier nulumls. They arn distingulshed from tho Stone Marten lyy the yellow color of the thront ; other parts of the skin are brown. When dyed, thoy have a similar nppearance to the loent rable. The Stome Marten (Mustele ackorum).-Thila Marten is generally found in mountainous aml atoury places, though a froquent visltor to furm-yarls and homesteads. It is generaliy diantrlhuted through most Europenn countries. The under fur is a blulah-white, with the top
hairs a dark brown. The throat of this variety is usually of a pure white, by which character it ia generallv distinguiohed. The French manufacturers excel In dyoing thia fur, from whlch circumatance it is frequently called French Suble. It is also dyed in thla country, the excellent qualities of the akin adapting it to a great variety of purposea to which furs aro applied. The Fisher,-There are about 11,000 of these skins annually brought to this country from North Anserica; they are larger than the sables, and the fur is longer and fulier. The tail is long, round, and full, gradually tapering to a point, and quite black; a few years eince it formed the common ornament to a national eap worn by the Jew merehants of Poland, and at thit time was worth from 6s. to 0a., but its present value does not exceed Gul, to Orl.
Minc.-The Minx (Mustela rison).-Thero were 245,000 aklus of thia littie snlmal brought to thia :ountry in 1850 from the possessions of lludson's Hay Company and North America. The fur resembles the sable in color, but is considerably shorter and more glosay. It is a very durable and useful fur, und is exported in large quantities to the Continent. The Brmine (Alustela erminea).-'lhia snimal is aimilar in form and habit to the common weasel of this country; but in Sileria, Russia, and Norway, from whence the akins are imported, the little animul, during winter, becomes as white as the snowy regions it inlubits, and is esteemed as the whitest fur known, though its summer dress is a dingy brown. The tail of the skin, of which the lower half is jet black, is genernlly introduced as an oruament to the purely white fur. It is worn oll state occaslons, and in the relgn of Edward III. its use was restricted to the royal family. The Fitch or Iolecnt (Mustelu putorius).-These akina are produced throughout Europe, and in . phace of botter quality than in Great Itritain. The ground of the fur is a rich yeliow, while the top luir is a jet hack. Thie fur is at present very little used in Great llritain, but ia much worn in America. It is very durable, but the natural smell of the fur, which ls rather unpleasunt, is difficult to counteract. The North Americau Skunk (Mephitis Ansericana).-The skins known under thls nume are imported by the Hudson's Bay Company. The animal from which they aro taken is allied to the polecat of Jurope, and, from the fetor it emits when attacked, whleh has been known to affect persens with siekness at 100 yards' distance, ban recelved the goubriquet of "l'Enfan tu Disble." It has a aoft black fur, with two white strijes running from the head to the tail, which is ahort and bushy. The skins, though imported into Engiand in small numhers, ure usualiy re-exported to the continent of Europe. The Kolinkaki (A/ustele Siberica),-The Kolinkski or Thartur salite is of $n$ brighit yediow color, and is sometimes nsed for ladies' dress in its metural state, but it is more frequently dyed brown to imitnte other ablble, to which it bears a stroug rosemblance. It is remurkable for the uniformity of its color, having no spot or diflerence of shade In any purt of the berly. The tail, which is of the same color, is exclusively used for the heat artista' pencils.

Mushrat-Tha Musquash or Muskrat (riber ziboth-icus).--'ine mimal known under this name is found in great numbers in Norti America, freguenting swamps mul rivers, mul, fike the heaver, building its babitntions of muil with great ingenuity. Dr. Rlehardson staten, that it has three litters of young in the course of the summer, promucing from three to seven at a littor. The muinai has a peevilar smell, similar to that of musk; lut it must not be mistaken for the mimal from which the musk of commeree is prowned, which is a nutlve of '?hilet. About $1,060,000$ skius ure brought lnto lingiand sunuaily ; tha fur resembles that of the beaver, and is used liy hat manufneturers. The akliss are ulmo dyed by the furrier, and manufactured lito many cheaj; and ueful urticles.

Nutria.-The Nutria, or Coypou (Myopotamus coy-pus).-This rodent quadruped is an expert swimmer, and frequents the neighborhood of water, where it lives In burrows; it is amaller than the boaver, and considerably larger than the musquash, but has a resemblance to both these animals in Ita natural habita, and in the qualities of lts fur. Untll lately thla fur was very much used by hat manufacturers, and as many as 600,000 skins have been anuually imported from Iluenos Ayres and Chili, in which countries the animal abounds. Owing to the wars that continue to be carried on between the different States of Buenos Ayres, and the consequent withlrawal of tho trappere from thoir accustomed ocenpations, the importations have fallen to 3000 akins, which are dressed and dyed as a mubstltute for the coatly fur seal. The Hamster (Cricetus rulgaris).-About 100,000 of the skins of the hamster are annunlly collected in central Germany, where the animal abounds; it has a poor, short, niul coarse fur, and is almost exclusively used for cloak lisIngs by the Greeks; the color of the back la a redilisht brown, the belly black, with a few light spots The animal is nbout nine inchea in length, and lives under ground, forming severs] apartments for storing grain sepanta frem its own hybernaculum. It is so induatrious and provident, that when the peasants go " hamster nesting" in the winter, they possess themselves not only of the skin, l, ut of tho valunble atore of good grain, which is sald frequently to exceed two bushels. Tho l'erwitzky.-The skin of thls animal is leautifully marked like tortolse-shell, and is brought from the south-enstern territories of Asiatic Russin ; the fur is short, gixing little warmth, and is chietly made into cloak lininga nnil used by the Rusaians, Tho lleaver (Castor itmericanus).-- Heaver akins are imported liy the IJudson's Ibay Company In less quantlties than formerly; the use of the fur in our hat manufactories has greatly dimlnished sinee tho introduction of silk hats, and a conslderable depreelation has takion place in their value. This leautiful fur la sometimes used fur articles of dress. In order to prepare the skin for this ajpropriation the coarse hairs are removed, and the surface la very evenly cut by an ingenious machine, sonewnat similar to that used in ilressing eloth. The fur thus prepared has a beautiful apparance, not unliko the costly South Sen otter, and has the anvantage of lightness, with durability nul cheapness. The white wool from the under part of the beaver still olitains a high prive, and is lnrgely exported to France, where it is manufactured into lidies' bonnets. There is ne doultt that the beaver was formerly an libhbitant of the Iritish Islen, and Pennant remarks that two or three waters in the princlpality of Walea atill bear the name of Llyn yr afange, or the Beavars' Lake.

Otter.-The inter (I.utra evigaris, Intra f'analensis). -The large supply of otter skins used by the lussians and Chinewe is ilerised primeipally from North America, The quality of the fur is. in most respects, similar to the otter of the ltritish lales, of which there are about 500 whins collected annually. This nommal has frequently been tamed, and from its extreme apility in the water, has been rendered serviceable in eatching fish for the use of its owner. The Americun otter is much larger in size than the European, being about five fect from the nowe to the tip of the tall; a monaller variety niounds in the bast luthes, the fur of which is very short. 'The Sea otter ( Andhydro morina). The sen otter hav a very thick, moft, woolly fur, and is mont highly frizel ly the lusmians anil Chinese, to Whom most of the okins ara exported. In its hatilts it is allied to the seal, but has nover been met with in large numbers, It is fombl in the North laritie, from Kamscharka to the Yellow Sea on the Ariatle coasta, and from Alanka to California on the American coant, The annual produrtion is ahout 1000 skins, of which 100 are impurted Into Great Iritain by the Iludnon's Ihay Company.

Seal (Phoca).-There are nnmerous variaties of these animals, some of which are found on the western coasta of Scotland, Ireland, and Wsles. They frequent, In immense numbers, the consts of Nowfountland, Greenland, and Labredor, and the Importations into this country frequently exceed 500,000 in one season. Tho young seals of some speclea lncrease in alze with great rapldity, and It is asserted by the seal fishers that they double thelr bulk in elght days. The greater portion are tanned and enameled with black varnish for ladles' shoes; other descriptions aro well alapted for fur, ospecially the seal of the South Seas and the north-west coast of America, Before they can be nied ns a fur, it is necessary to remove the very coare hairs whlch cover a beautifnlly fine nud silky fur. The roots of these hairs are deeply seated in the substance of the thick pelt, while the fur is stronkly attached to the upper surface of the skin. Ify shaving the pelt to half lts natural substance the roots of the coarse hairs are cut through, anil they easily fall out ; but tho sams effect is produced by a nutural process of formentation, which ensues when the skina are properly prepared and allowed to remain together. The soft curly fur of the seal is now rarclyused in its natural state, hut is dyed a deep Vaidyke brown, and has the apparance of tho richest velvet.

The Fox.-Of foxes' akins brought into Finghand there are many varieties; the bhack and silver foxes (liulpes fuleus, var, argentatna) from tho arctic regions are the most valualile. Many of the skias when highly dressed nre worth from 10 to 10 gulneas. They are purchasel for the Ruseian market, being highly prized in that country. The cross und real foxes (inipes, fiulrus) are used by the Russians, Turks, and Greeks for cloak-linings and collars. The blue and white foxes aro uned In this and other countries for ladies' dresses. The white foxes (Vipes Ligopus) are reprosentes ly arctic voyagers an exceetingly numerous, and migreting in troope over the frozen seas at the approach of the rigorous season. They are easily caught, fifteen having been taken from one trap in four hours. The Wolverine (finlo luacws). $\rightarrow$ This animal, which is only met with in North Atnerien, Norway, and Swedon, is now generally considered by zoologists as identical with the glatton of old writers. It is extrensely mischlevous to the fur trader, and will follow the marten-hunter's path rouml a line of traps extending 10 or 50 n illen, morely to come at the bait. The fur is generally dark nut-irown, paswing, in the depth of winter, alnost linto black, and is clietly used in (ierinany and other northern countries for cloaklintur.

The Bear (Ursms).-There nro several descriptions of bear-nkins used by the furrier. Tho skin of the black lear of North America (l'vans Americmane) is used in thls country for milltary purposes, for rugs, and carriuge hummeriloths. In fussia it is frequently manufactured for sleigh coverings, and the skin of the cal, hear is highly valued for trimmings and coatlinings. 'I hat of the grizzly liear (Drbua firar) is applieal to similar uses. That of tho white jular bear, of which the supply is very limited, is frequently mate hato ruge, bririlered with the black and griazly bear akins. The fur of the brown or Isabotha bear ( Lrsus lsebollinus) has frequently been very fivhionahe in this country, when its value has been tenfull the present price. It in will consilerably used for various artlelos of ladies' druss.

The Ihare.-The wool ur under fur of the Eurenean gray hare (Ifpus timidus) is extensivoly usel for masufacturing felt hate, both in liurne and Amerina. I few of these are iressed for the purpuse of being worn us a protection to the chest. Tho white hare of Ras. shanil the polar regious (Ifpus glurialis) was furmerly much worn in its pure white atate as a lining for ladien' cloaks, and ua a nubatitute for the white foz,
but the skin purpose has frequently dy very durahle.
The Rabbit both in its plentiful onp dyed in imita fito a great $\boldsymbol{v}$ middle classes tured intor pe by far the gre hatters' purpos originally a bre attention was formed in vario variety are con where they are paratively high besutiful in the skin is ao fragi alight wesr, the drees. The wh that country ; ladles' cloake, al far for that pury aumbers. The tractive little an cially in Siberia the Russian don sapply of the sk ceeds in number mals. It is said tured in Russia, $3,000,000$ annual] there are saveral some of the ligh sable. The color s pearl-gray to a which are white, cloak-linings, rein are manufactured are also extensive pencils.
The Chinchilla chief varieties of c ica: those from Li in quality to those color is a silvery and best-colored sk sumal places it $h$ in lts natural abod and resembles the rowh. The extren ndapt it only for $l_{2}$ and frequently wor sively consumed In
The Racoon (I'r habitant of North into this conntry it with no demnnd fo merchants who pur They are used thr liniag shntes and er and morlerate in pri nsefill furs. The American Malger (. Eiuropean baikger, fr tenerally used for $t$ of shaving brushe North America hav them suitable for 11 furs are used.
The Cat.--In IIoll bred for its fur: it I until the fur nrrives
aumbers are also col
but the skin being exceedingly tender, its use for this purpose has heen discontinued. The white have is also frequeatly dyed $\overline{\text {. it looks exceedingly rich, but is not }}$ very durable.

The Rabbit (Lepus cunioulus).-The English rabbit, both in ita wild and domeatio atate, affords a very plentlful onpply of usefal fur. When dressed and dyed in imitation of other skins, it is manufactared into a great variety of cheap and useful articlea for the middle classes. The wool has recently been manufactured into a pecnliar cloth adapted if r ladies' use, but hy far the greater number of skins sre still used for hatters' purposes. The English sllver-gray rabblt was originally a breed pecular to Lincolnshire, where great attention was paid to $\mathrm{ft}_{!}$but warrens have since been formed in various parts of the country. Skins of this variety are continually exported to China and Russia, where they are much esteemed and command a comparatively high price. The Hudaon'a Bay rabbit is beautiful in the length and texture of its fur, but the skin is so fragile, and the fur so liable to fall off with slight wear, that it has little value as an article of dress. The white Pollsh rabbit is a breed peculiar to that country; its skin is often made into linings for ladles' cloaka, and baing the cheapest and most useful fur fer that purpose, the animal is exported in great numbers. The Squirrel (Sciurus vulgaris).-Thls attractive little animal abounds in mest countries, especially in Slleeria and the nerth of Europe. It is from the Russian dominiona that we derive our principal supply of the skins of this agile creature, which exceeds in number that of any of the fur-producing animals. It is said that $15,000,000$ are evory year captured in Russia, our supply from thence exceeding $3,000,000$ annually. The fur of the squirrel, of which there are several varieties, is light, warm, and durable; some of the lighter colors are dyed in imitation of sable. The color of the Siberian aquirrala varies from a pearl-gray to a dark blue-gray; the under parts, which are white, are frequently eut out and made into cionk-linings, remarkabie for their llghtness; the tails are manufactured Into boas for forsign markets; they are also extensively used in the manufseture of artists' penciis.

The Chinchilla (Chinchilla lanigera).--There are two difef varieties of chinchllia, the produce of South America: those from Lima are short in the fur, and inferlor in quality to those from Buenos Ayres and Arica; the coler is a silvery gray, Arica producing the darkest and best-colured skins. The general appearance of the animal places it between the squirrel and the rubbit: is its nutaral abodes it has the egility of the former, and resembles the rabbit in living in holes and burrows. The extreme softness and delleaey of the fur sdapt it eniy for ludies' use. Thongh much admired and frequently wern in this country, it is mere extensively consumed in Frunce, Germany, and Russia.

The Racoon (Irocyon lotor).-The racoon is an inhabitant of North America: the shins are imported into this country in Immense numbers; but merting with no demand for our heme trude, are exported by merchants who parchase them it the periodical sales. They are used throughont (iermuny and Russia for lining shabes and coats, and, being of a durable mature and moderate in price, are exteemed among the most usefui furs. The Common lladger (Heles rulgaris); American Badger (Meles Jabrudoria).-The skin of the Emropean badger, from the wiry mature of its hair, is tenerally used for the manufacturo of nuperior klods of shaving brushes; bat the skins expurted from North America luve a soft, fine fur, which remders them suitable for many purposes for whleh tho larger furs are used.

The Cat.--In Molland, the cat (Felis domesticus) is bred for its fur: it is fed on thah, and curefuliy tended until the fur arrives at lts grentest parfoction; large aumbers are also coliected In Eagland and many other
conntrias. The wild cat (Felis catus) is much larger and longer in its fur, and is met with in extensive foreate, particularly in Hungary ; the coler is brownishgray, mottled, aad epotted with black. The softness and durability of the fur render it very suitable for cloak-linings, and it is also made into wrappers for open carriages and railway traveling. The Canads Iynx (Felis Canadensis); Lynx Cat (Felis rufa).The fur of the lynx is long, soft, of a grayish color, and sometlmes, as in the Norway lynx, cevered with brown epote ; the belly is white, silky, and not unfrequently apotted with black. The change of fashion has for some time discarded it from this ceuntry; but it is dyed, prepared, and exported in considerable quantities for the Amarican market, where it is much valued and admired. It is generally used for cloaks, llnings, and facings, for which parposes it is very appropriate, being oxceedingly soft and light.

Preservation of Furs.-Tha fur of most animals is in its greatest perfection at the approach of winter, and before the animal has attained its greatest age. It is the ebjact of the furrier, by dyeing the inferior akins, to imitate the more perfect specimens. Some difficulty has attended this process, as the nature of the akin will admit of dyes being used only in a cold state ; but the method which has been practiced in Paris and London has been so far successful that the permanence of the color in the dyed sable is frequently found of equal durability to that of skius of the nutural color. Considerable excellence has been attained also in dyeIng rabbit and inferior furs of those colors which are more suitable to the prevailing taste.

The firet process of the fur-dresser is to prepare the skins from the raw state, and render them fit for ornamental dress. In this country, the usual pructics is to trample them in closed tubs with a littla salt butter, turning them over and over for several bours. By this means the skins are made into suft and plintle leather. The next process is to rub them on the flesh side over a blunt iron in order to remova loose piecea of integuments, and to reduce the substance, after which it is necessary to eleanse the for and skin completely from the grease. For this purpose it is again trampled with saw-dust-usually thut from mahogany, which bolng beaten out and repeated soveral times, conduces to render the fur glossy and clean, and to fit it for the cutter to fashion into any shape that may be necessary.

Furs are subject to injury by several species of moths, whose instincts lead them to deposit thair eggs at the roots of the fine hairs of animals. Linneus mentions five speeles that prey upon eloth and furs, of which Tin' p pellionella, T. testionella, and T. topetzella are the nost destructive. No sooner is the worm hatched than it eats its way through the fur, and continues increasingly destructlve until it arrives at its full growth, and forms itself a silken covering, from which in a short time it aguin emerges a perfect moth. A nother eunse of the clecay of furs is the molsture to which they are frequently exposed; the deliente structure of the fine under-fur call not be preserved when any dampness ls aliowed to remain in the akin. This fact is well known to the leather manufacturer, who, having wetted his skins, allows them to remain in a dampecellar for a few days for the purposo of removing the hair, which is pulled out whth the greatent facility ufter remalning only one week in a moist condition. It follows from these observations, that to preserve furs it Is necessary to keep them dry, and to protect them from meths ; if exposed to damp or rain, they must ho dried at a moderate distance from the fire ; and when put by for the summer shonld bo combed and benten with a smali eane, and very earefully secured in a dry brown puper or hox into whieh moths can nut enter. During the summer they should be examined once a month, to be again beaten und aired, if the situntion In which they have been placed be at ull damp. With
these precantions, the most valuable fars may be preserved uninjured for many yeara,

Monufacture of Furs for Felting Purposes.-In the manufacturing of fure for the making of hats, the principal kinds of skins used are the hare, rabbit, beaver, and nutria. All thene kinds of skins, in the northern parts of Eorope, as well as in America, are divid$s$ by furriers into two diatinct sorts, viz., the seasomed and unseasoned skins. The former are those which are taken off the animal in winter, when the fur is at Ita full growth, and in the highest state of perfection as to fineness; the latter are those obtained in apring, summer, and autumn. The for in the unseagoned skins is ahort, coarse, and hniry, and is generally not worth more than a third of the value of furs cut off the best-beasoned akins. The mode of manufuctaring both descriptions is, however, the same; of which we shall now endeavor to give a brief account.

Hare-skins.-The first mechanical operation performed on the hare-skin, is to open it wlth a knife down between the middle of the forelegs, taking great care that the skin be not tom; for there is a considerable waste of the fur If this precaution be not attended to. The skin must now be rubbed with what is calied a rake, which resembles in rommon dinner-knife, with teeth like a saw. This is used for the purpose clearing away all impurities and dried blood which may happen to be upon the skin. This clearing is of very great importance ; for the smallest particle of dirt or blood will greatly injure the fur for felting purposes. The operation requires to he carefully and judiciously performed for another reason. If the workiman be not attentive, be will tear up, along with the blooly and dirty parts, a considerable part of the good clean fur, and thus great loss will be incurred.

Hare-skina, after being thus opened and cleaned, must be damped on the pelt side with a little watur, and placed under a heavy weight, pelt to pelt, to press them, eo that all ridges and inequalities in the pelt may be removed. The skins are now fit for what is called shearing. Their antsides are all covered over with a kind of hair, which possesaes no felting properties whatever; and this must be taken off with hand shears. These are of two kinds; the one the common shears used for elipping the wool off sheep; the other kind resembles the cutting ahears of tailors, only the bowl is made equally large on heth siles for the mimission of all the fingers. Some furriers prefer one kind of shears, and some another. Those like tailors' shears make the nentest work when akillfulty usel; but the others require less time for their mansgement. The shearing of the akins forms a very important part of thelr manufacture; for if one cuts too far fown, he will serionsly destroy loth quality and quantity of the fur, as well as disfigure ita nppearance. On this nccount many furriers confine a part of their work-people to this branch of the buainess alone: for the greater part of the pirofits of a master depenid upen the munner in which the sheari ug process is performed.

After a hare-skin has been submitted to the proenss of ahearing, it presents an appearance aitogether different from what it did before. A novire would not know it to he the amme akin. Previously, it was of a unifurm lirown edor; now, it is down the whole of the luack of a most henutiful Jet black, which gradmaliy becomes fainter as it approches the silles of the skin. After it undergoee the prowess of rounding, which consists in taking off nil the irregular or nogular pieces of skin, and making the prit smowth aud even, it is then fit fur the cutting-iosami.
Tha cutting-boards of furriers are made of the wil-low-t ree, and are commenty ahout twornty inches wide, and from two to three feet broad. They ought to be mointened with water at short inturvais, when used, to make the wood soft, and prevent the edige of the cut-ting-knife from being taken off too scon. These kuives are rometimes nade of conmon sheet-lron, lut
more frequently of ateel, which are to be preferred to the formes, on account of keeping their edge longer and beiag much lighter for the hand. A fine edge wili not cut the fur off tha skins; it must be a rough edge, whioh is obtained from rubbing the knife about every two or three minutes upon a piece of common freestone, of not too fine a grain. These knives are from five to eix Inchise in, length and three in broudth, and resemble in some measure those knives used by grocers for the cutting up of cheeses. The skins are all, before cutting, split down the middle of the back into halves. The cutting then commences at the hesd or cheeks of the skin, and always in the line of direction in which the fur lies. The cutting-knife is run quickly backward and forward againgt the first joint of the finger across the skin: while at every two or three strokes the hand must be lifted up, to gather in the fur that has been cut, and preserve it in as ticecy a form as possible. Care must be taken against chopping the fur; because, when this takes place, the felting principle in all furs is considerably weakened, and in some entirely destroyed.

An important point in the getting up of furs for sale ia, to keep them in as unisroken or flecey consistency as possible. This, ahatractly consideren, is of no consequence to their felting power; but the practice of the trade as to this mutter has arisen from a desire to keep the different kinds of fur from heing mixed with one another, and therely in some degree to prevent adulteration. From this cause the above mode of cutting the hare-skin has been long since much improved by the use of instruments made of tin, ugainst which the cutting-knives run, and which are so contrived as to gather in the whole fur off the largest skin with as much ease as the fur of a calf skin could to gathered by the hand when the knife runs agrinat the fingers. This simple invention preserves all the most valuatile parts of the skin in one lump or fleece, and enables the workman to sort the fur with more ease and readiness than before.

Rabbit-skins.-The rablit-skin is cut in precisely the same manner as that of the hare, oniy there is a considerable difforence in the mede of dressing or preparing the former. The rablit-nkin is covered over on the peit side with large quintities of greasp or fat, from which the bare-skin is comparutively frec. This must he removed when the rabbit-skin is first opmed. The knife used in opening the skin must he pressed down upon that jart of the peit where the faty substance is , tiij it ifets beneath the cuticle on winch it rests, when the whule of the greasy matter may le removed, and a little whiteming rubbed on the sjot. if this operation lie not well attendied to, the grease wiii get mixed with tho fur, and damage it convidetably. The rablit, like the hare sikin, is cosered wer with huir upon the top of the fur; lut this hair can nut be taken off by shoaring, as in the cuse of the firmer, but must be removed by pulling it out. This is dome with a short knife abont three imbes fong, which is heh se as to grasp the hair hetween the thumb and it, which is sectured from injury by having a piece of lurkskin leather phaced over it. The hand of the workman ought to fail lightly upm the skin, otherwine the jair will be cat and the fur palled ent also, which will deteriorato its quality and diminish its punntity very cumsilerably.
hener-skins,--'the skin of the beaver is manuface tured in the same way as that of tho rabbit. The fat, howevar, in the furmer is much greater in inantity and morn tirmly imbedded in the juit than in the lattor; and of course grenter care and tromilio are toquired to remove it. Fuilers' enrth mixmi with whit. ening is used to imbine the fatty particles. The juiling the ontside hair off Is of great inuportance. The cutting of than heaver han lwen for sume years performed by muchines; the thirkness and regularity in the prett affording facilities for this unde of
operation, not. The fur different ki the skin b comparativ drab hath.
Nutria-sk only the he stronger the knife and g are full of fa pulling proc and boiling downward, a brush, till must then be is extracted made for the fare a atove o through the o Both the 1 used for hat of blowing. them of thone the fur after it machine consis the fur is place ated within it, by reason of $t$ boltom, and lea and rabhit furs for the nap or o Though the are the staple sre other furs conjunction wit otter, the seal, is fully as fine a: oljection hatter retain a good bl: shadc. The seal ishes dull upon much used at $p$ The mole is the , felting purposes cutting. Its fur withstanding its prevent its being facture.

Within the last made to apply ma ous kinds of fur, far, these nttemp snccessful. The chinery for cuttin the surface, and the peit in differe the fleshy part of injure it ; so mute than a pin's head circumstance has hringingrymithiner are, however, nt th in the cutting of but mutil they und sre tot likely, from to reaiza the expe by thase empleyi, labor, or in the au mannufactured.
Sany experimel with the usual prod of fur with knives to the preits, no ns make it lime the force. Lime has of
operation, which the generality of other skins do not.

The fur of the beaver is sorted into three or four different kinds ; but that which is cut off the cheek of the skin bears the highest price. White beaver is comparatively scarce, and is much esteemed for fine drab hats.

Nutria-skins.-These are dreseed like rabbit-skins, only the hair on the outside of the skins is much stronger than in the rabbit, and requlres a oharper knifo and greater strength to move it. Nutris-skins are full of fat; and before they are submitted to the puling process, they must be well washed with soap and boiling water. The skin is laid with the pelt downward, and well scrubbed on the fur side with a brush, till the grease Is entirely removed. They must then be well washed in cold spring water, whlch is extracted from among the fur by a piece of wood made for the purpose. After this they are placed before a stove or hot fire to try, and are then fit to go through the other manufacturing processes.

Both the beaver and nutria furs, before they are used for hat purposes, must go through the operation of blowing. This is done for the purpose of clearing them of those short black hairs which remain nmong the fur after it is separated from the pelt. A blowing machine consiats princlpally of a cylinder, into which the fur is placed; and by means of a fly-wheel, situated within It, the stuff is thrown up, and the hairs, by reason of their greator specific gravity, fall to the bottom, and leave all the fine fur upon the top. Hare and rabbit furs are also pnrtialiy used in a blown state for the nap or outside covering of hats.

Though the hare, rabbit, beaver, and nutrin furs are the staple articles of hat manufacture, yet there sre other furs occasionally used in their stend, or in coajunction with them. These are the furs of the otter, the seal, musquash, and the mole. The otter is fully as fine ns the benver itself; but the principal objection hatters have to ita nse is, that it does net retain a good black, but acquires a brown or coppery shade. The seal is not so tine ns the otter. It finishes dull upon a hat, and, in consequence, is not much used at present. Musquash is a useful fur. The mole is the only akin known to furriers which for felting purposes needs no preparatory dressing hefore cutting. Ita fur is alike tine throughout. But notwithstanding lts fineness, it is so very short as to prevent its being extensively used in the hat manufacture.

Within the last century many attempts have been made to apply machinory to the cutting of the various kinds of fur, but, with the exeeption of the beaver far, these attempts have hitherto been but partially snceessful. The great difficulties in the wny of nuichinery for cutting purposes are, the unevenness on the surfuce, and the Inequalitles in the thlekness of the peit in different skins. The smallest particles of the fledily purt of the akin getting among the fiur will injure it ; ao much so, that a plece of peit not larger than n pin's head will destrey the finest hat. 'This circumstance las greatly increased the difficuity of briming machinery to bear upon the fur trade. There are, however, it this moment some machines employed in the rutting of hare and rabhitoskins in Ponchand; hut until they undergo numerous inprovements, they are not likely, from the ohatacies atove ndverted to, to realiza the expertatlons of gain at first entertalned by those employing them, either in the saving of falor, or in the superior manner in which the fur is manufartured.

Many experiments have niso heen made to dlapense with the usuai processes of cutting the different kinis of fur with knives, by applying chemical aubstances to the peits, so as to loosen the roots of the fur, and make it leave the pelt upon a silight application of force. Lime has often been tried for this purpose, by
using it in the same manner as skinners do in the management of sheep-skins. Some furriers have also tried a partial state of putrefaction; but this, as well as the IIme proparation, has proved abortive. Tho fur obtalned off different kinde of skins by such means looks in every reapect as well to the eye as if it had been manufactured in the usual manner; but the felting principle is by all such meana entirely destroyed.

Carroted Fur.-Suiphuric acld has the property of increasing the felting power of most kinds of fur. When this is applled the fur is called carroted, from the color which the ncid gives it. The most common kind of fur submitted to this procoss is that helonging to the rabbit-skin; and it is generally employed in small quantities for the manufacture of all fine stuff hata. Carroted coney wool is made in the following manner:-Mix one part of sulphurio acid with two parts of pure spring water, in a dish of atone-ware; then take and wet the rabblt-akin with a brush all over, making the Ilquid penetrate as near to the bottom of the fur as posslble; care being used, in this process, net to tonch the skin with the fingers, lest they be burned, but with a piece of iren hoop doubled so us to resembie a pair of tongs. When the skins are thus wet, they must he placed over a very hot fire to dry; but they must not be placed too near, leat they take flre, which they are very apt to do from the application of the acid. Instead of drying them before the fire in thla manner, some run a hatter's finishing iron, heated to a certain degree, over the akins, and nilow them to dry gradually in the sun. This is feund to be a very gool plan. When the skins are dry they ought to be gently besten with a rod, and moistened on the peit aide with water, previous to their belng put under the pressing stone. They are then cut in the usunl manner. Skins prepared in thls woy attract a great quantity of moiature from the atmosphere; and carroted fur always feels to tho hand as if partindly wet.

The fur off the rahbit-akin improves in its felting capabilities by being kept a moderate length of time after being taken off the skin; but hare fur does not. Great attention ought to be pald by hat manufacturers, who keep conslderable stocks of fur on hand, as to the place in which they are deposited. If it he too damp, they whil rot; if too dry, they will diminish in weight ; therefore $n$ molerntely dry and cool place ought to be chosen. The great enemy to all fure is the common mith. Thls destroys the felting principie. Whenever the silghtest appearance in the fur Indicntes the aecure lodgment of this little creature, it ought immodintoly to the uaed; or, if this can not be done, it should be taken out of the paper hags, and lroken all over with a small switch rod, or, what will anawer the purpose still hetter, $n$ hitter's bow. The same rules apply to the keeplng of skins in good condition as to fur. The situation ought to be coul, dry, und well aired. They will seldom keep longer than tweive or eighteen months wlthout running great risk of suffering injury from the moth or hack beetle. Ton many ought not to he heaped together, and particulariy if they he rablit-skins, hecause the fat or greuse about these skins will get beated, run among the fur, and hecome of suld an aerld nature as to corrode the very pelt itself. It was formeriy the practice to kesp inare and rabhit skins a long time, under the itlen tiat the fur upon them will Inerense in length from the molature left in the pelt. Thls is an entirely erroncous epinion. Any one who will make the experiment vill thal that the umount of fur obtained off nny given quantity of skins is much greater in weight when manufactured immoliately nfter they ure taken off the animai, than aftor having been kept for six or tweive menths.

The qualities of ail kinis of furs dlfier very considerahly, from cilmato and other locai circumstanees. The best rubinit fur, used for the manufacture of the
finent London hato, is commonly coneldored an the produce of the east coaet of England, particularly from Lincolnahire to Berwick inclusively. The rabbit fur is always stronger in the felting principle when got off rabbits bred on the saa-coast, than in those found in inland places, however favorable in other respects these places may be for the rearing of the animals. The aking along the tract of coast alroady mentioned seem all of the same size and quality. North of Berwick the rablit-skin becones smaller, and the fur weaker and ahorter; and the further north, along the coast, the more inferior it is found. Hare fur in Great Britain is anperior, for hat purposes, to any in the world.

The skins and fura imported by or for our manufacturers are more varied and more numerous, perhaps, than would generally be supposed. When we consider, too, how many countries must be ransacked to produce this variety-the beaver, the bear, the ermine, the otter, the racoon, the chinchilla, the wolf, the fox, the musquash, the sable, the marten, the squirrel, the fitch, the mink, the scal, and others-it will be plain that the commerce in furs must be considerable. In 1850, the squirrel furs imported exceeded $2,000,000$; the musquash, $1,000,000$; the racoon, 500,000 ; while the rest made up the total number to nearly $5,000,000$ not hides for tanning, be it remembered, but skins imported for the sake of the fur. The beanty of a fur does, most unqueationably, in the eyes of a purchaser, depend largely on the price he pays for it; and this price deperids on the scarcity in the supply. Why else should a black-and-silver fox fur command a price of 30 or 40 guineas, or a sea-otter skin still more? It is true that fashion also tends to determine the price; and it seems that the different tastes of different countries curiously illustrate this. Thus, the black-sndsilver fox skins are mostly purchased for the Russians and Chinese: the red-fox skins are in demand in the Fast for cloak linings and dress trimmings; the otter skin is used in the same regions for caps and cellare; the beaver fur, now getting out of use for hats, is being made avaiiable as a beautiful kind of cloth for dresses; the lynx, now out of fashion in Eingland, is a favorite in America. The wolf yields a coarse fur, which the IRussians employ for cloaks and coats. The sable has long been a favorite in England, and when dark in color commands a high price; the $\min x$ (the choicest specimens) is said to be now in high favor in Paris; the musquanh is largely used In England, it being made to do duty for more costly furs by a little "doctoring ;" the fur of the black bear is chietily appropriated by military mea, fur caps, holsters, rugs, han-mer-clotha, etc.; the sea-otter fur ia a royal fur in China, and a noble fur in Kussia, and hence commands highi priees in those countries.

Dlost of the furs nanied in the above paragiaph are procured from North Anerica, through the medium of the Iludson's lhay Compsay ; but there are some Eurojean furs which command an extravagent prico. The Kussian sable, for instance, will sometimea sell for as much as 10 guineas a skin; and so many of these are employed to form a lining for a cloak, that such a lining has not unfrequently involved a cost of 1000 guineas. The corporation of Landon display their sable-furred gowis or roles on official occaniona. The fur called French abble is really that of the ntone marten, which the French whow inuch skifl io dyeing. The erwine or mine ver, from Hussis and Sveden, is one of the moat romarkuhle of furs, natural!y as well as aocially. Its beautiful and delicate white can only be insured loy killing the animal in winter, when all is white except the tip of the tail. In social dignities, the ermine, perhaps, takes the lead of al! furs; for, not onfy in many countries of the Continent, but in less despotic England, there is a aumptuary law or custom respecting the ermine; the sovereign, the royal family, the ocers, the peeresses, and the judges, s!i wear
ormine on etate occaelona ; and this ormine is 'pow. dered' (as the horalds term it) with small black spots or stripes of some other fur; the number and arrange. ment of the spots and stripes being Indicative of the rank of the wearer, and no devlation therefrom heing permitted. For the equirrel fur, which is used in larger quantities in England than sny other, we are chiefly indebted to Russia. It is chesper than any other equal to It in appearance; and some of ths white portlona are admired for their beauty. The fitch, with its strong and durable fibres, has latterly been passing out of favor. The lamb-skin, at a tender age, has all the beanty of fur; and some of the foreign opecimens command a high price. The cat-akin is now used largely in England as a fur, greatly to the danger of the domestic "puss" in general. Tho rabbit is also an extensively used fur; and tho whito varieties are made to do duty as substitutes for ermine. The little chinchilla yields a suft and delicate fur, much ased in England and France. Angora gont-skin was at ono time worn extensively as a fur; but it is now more customary to remove the hair or wool, and manufacture it into cloth. Seal-skins, when to be worn ss furs, have the long coarse hair removed, and the rich silky down which lies beneath it is dyed of a brownish color.
When these various furs are gathered together from every quarter of the globe, and conaigned tu the hands of the furriore, they undergo certain processes, which tranaform them from quadrupeds' attire into bipeds' attire. The "pelt," or under surface, of eacil fur has to be converted Into a kind of leather, by greasing, and pressing, snd scraping, and other processes; and the hairy or downy surfuce has to be dyed and prepared in various waya, to develop all the beauty which nuturally belongs to it, and somatimes to impart extraneous beanty to it.
When the light fiocculent down from birds is em. ployed as a fur, it requires much patient labor to adjust all the little fibres to their places, since there is no natural "pelt" or skin attached to the down when removed from the animal. As instances of this kind of work, wa nay adduce the Persian muff and bos lately made from the down of a bird called the egret : their valne was 160 guineas. There had been only three similar sets previously made-for the Empress of Russia, the Princess Adelaide and the Duchess de Berrie.
Actial Import into Lonton op Fiva and 8riss, proy
 tilz antire collection op tiag Ifudsun's Bay Conpantiand thit metige Coligetion froy Canadaand tha United Statre (excript Shiryrmts mada diazt from tild Uniten Statha to Grayant, and syall Lots case for lloya Coneumption, which can sot ys ancetitainge). Thege kntike Ixpogth werr bolis at auction in Lompon, in Januaay, Marca, and Sgртгмвеп, $\{\$ 51$.

| Description of skias. | Iludson's Bay Comprany. | Canads and United 8tates, chlefy thelted Sintes. | Totat. |
| :---: | :---: | :---: | :---: |
| Beaver | 49,635 | 1,294 | \$1,929 |
| Maskrat. | 194, in) | 894,200 | 1,054,702 |
| Itter. | 8,916 | 8,963 | 12,84 |
| $F$ Fher. | 6.297 | 5,016 | 11,818 |
| Marten. | 64,367 | 21,150 | 85,507 |
| Minx | 21.1 H | 210,180 | 231,260 |
| lynx. | 20.3448 | 8,248 | 25,051 |
| Sllver Fox. | 027 | 876 | 908 |
| (ross * | 1.980 | 1,681 | 8,641 |
| 1ted " | 5,531 | 84,661 | 40,222 |
| tray | none. | 18,4.9) | 18, 180 |
| White * | 899 | 577 | 1,470 |
| Kltt ${ }^{4}$ | 1,018 | nohe. | 1,403 |
| Hlack Bear. | 4,826 | 8,8022 | 8.859 |
| Hrown ${ }^{\text {c/ }}$ | 1,842 | 15 | 1,317 |
| Hacuen.... | 1,40418 | 651,246 | 553,154 |
| Wolf. .....t. . | 9,745 | 20 | 9,765 |
| Wolverine... | 1,423 | 8 | 1,481 |
| Whld cat........ | 840 | 10,007 | 10,347 |

The North American Fur Company, the leading directors of which reside in tha city of New York, have
long enjoye the great lo the except

Rasola.
Norway....
Denmark...
Hanseatic $\dddot{T}$
Holland.
Belglum....
France
Italy.
TurkishDo.....
Merocco.
British \&. Äri
Brit Ter. in E
Brtteh N . Am United Etates Rlo de la Plata Greenland
Davis's Stral Other parts...
$\qquad$
The Fur Tri the fur trade ladustrial inte years further but the sole bu Territory was ers and attach ance (a small $i$ of the Winneba dota, the seat o manse region oc trading-posts as and Jembina, try like a depen of the principal The profits of $t$ decline. The in upon the establi the increase of curring with the causes that lay graduslly but western fur tra weaken the effici tion in our T'erri maintain its expe was sufficient for ingly had no pra tion of the Siou traders received thousand dollara debts of some thi been carried on most uneng wh traders. Two ho son, and Messrs. at this time with organization of $t$ River, and the div by the perniciou diminlstied the pr linnesota River.
The trade is aln Pembina er Red waters of the Mi aluust entirely fr being restricted to and west of the Ia country hus fallen the whele recejpt amounting to mor include, however, consumption. Th
long enjoyed the principal part of the Indian trade of $\mid$ nimals are exterminated in the vicinity of the lakes. the great lakes and the upper Mississlppl. But, with The skins of racoons are of Jittle value; and the beaver the exception of the muskrat, most of the fur-clad is now scarce on this side of the Rocky Mountains.



| Countries. | Beaver. | Ermine. | FItch. | Gloat. | Kid. | Lamb, | $\begin{array}{\|c\|} \hline \text { Martinn } \\ \text { Martent } \\ \text { tills. } \end{array}$ | Minn. | Muequash. | Reoon, | Sonl. | Sheep. | Equirrel. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rnast | No. | $188,918$ | $\begin{gathered} \text { No. } \\ 11,570 \\ \hline \end{gathered}$ | No. .... |  | No. | No, | No. | No. | No. | $\begin{gathered} \text { No, } \\ 18,760 \end{gathered}$ |  | $\mathbf{0 . 6 2 8}$ |
| Norway |  |  |  | 14,148 | 481 |  | 88. |  |  |  | 0,888 | 80 |  |
| Denmark. |  |  |  |  |  | 450 |  |  |  | 2,005 | 89,801 | 15 |  |
| IIanseatie Towns. | 48 | 91,480 | 85,294 | 15,787 | 176 | 53,605 | 96,616 | 8,355 | 40,598 | 8,902 | 87,992 | 1,7181 | 729,654 |
| Holland........... |  | . | 8,784 | 161,878 | 508 | 500 |  |  | , | .... | 7,228 | 8,890 |  |
| Belgium |  |  | 7,988 | T,268 | 16,019 |  | 1,305 | *** |  | .... | 48 | 888 |  |
| Frane |  | - | 7,878 | 85,478 | 817,752 | \$4,888 | 16,805 | 141 | 18,865 | .... |  | 20,280 | $\checkmark 48$ |
| Italy . . . . . . . . . ${ }^{\text {a }}$ |  | .... | .... | 200 | 27,194 | ,292,868 |  | .... | - | .... | .... | 2,824 | .... |
| TarkishDominions Noroceo. | $\ldots{ }^{1}$ | ..... | .... | 88 7,850 | 9,197 | 138,214 | 2,040 | ... | .... | $\ldots$ | $\ldots$ | 18,048 18,938 | .... |
| British E. Africa |  | .... | . $\cdot$. | 118,650 |  |  | .... | . | .* |  | 4,488 | 226,577 |  |
| Brit Ter. in E.I. |  |  |  | 884,081 | 82,480 | 981 |  |  |  |  |  | 824,574 |  |
| Britsh N. Amer.. | 69,692 | 818 | $\ldots$ |  |  | 2 | 88,249 | 25,822 | 828,821 | 2,764 | 188,669 |  | 141 |
| Unitod Btates... | 184 | 18 | $\ldots$ | 69,259 |  |  | 7,496 | 160,4081 | 1,128,979 | 457,671 | 1,988 |  |  |
| Rlo de in Plata... Greenlend |  | .... |  |  |  | 65,474 |  |  | .... | , | 12,008 | 76,228 | .... |
| Davts'a Strsfts |  |  |  |  |  |  |  |  | **.' |  | 97,825 |  |  |
| Other parts....... | 3 | . $\cdot$. |  | 85,884 |  | 4,048 | 11 |  |  | 7 | 2,117 | 45,916 | 144 |
| Total... | 89,909 | 280,480 | 65,49 | 89,055 | 618,70 | 600,109 | 220,069 | 191,7491 | 1,541,268 | 465,840 | 769,758 | 786,204 | ,082,619 |

The Fur Trade in Minnesota.-Four or five years ago the fur trade was the parsmount commerclal and industrial interest of the Territory. Two or three years further back, and it was not only the paramount but the sole business interest. The population of the Territory was composed almost entirely of its employers and ottachés. St. Paul derived its whole Importance (a small importonce then) from being the dépôt of the Winnehago and Chippewa outfits; while Mendeta, the seat of the Sioux outfit, gave laws to the immense region occupled by the Dokotas and chains of trading-posts as fer as I,ac qui Parle on the Minnesota; and Pembina, on the Red River, held the whole country like a dependent ehlld at the feet of the magnetes of the principal agoncies of Pierra Choteau, Jr., \& Co. The profits of the fur trade even then had begun to decline. The infiux of a while population consequent upon the establishment of a Territerial governmentthe increase of competition in the Indian trade, co carring with the gradual decresse of its products, and causes that lay beyond these, and thet have been gradually but surely promoting the docline of the western fur trade in general-all contributed to weaken the efficiency of the Fur Company's organization in our Territory, und to render it undesirable to maintain its expensive establishments any longer than wse sufficient for settling its affairs. It bas accordbagly had no practicul existence slace the consummstion of the Sioux treaty in 1852, from which the traders received a parting token of eeveral hundred thousand dollars in payment of the accumulated buek debts of eome thirty yeurs. Since then twe trate has been carried on entirely by private individuals, foremost anning whom, however, are some of the old treders. Two houses alone, Messrs. Forlies \& Kittson, and Mesars. Culver \& Furrington, are connected at this time with the fur trude in this city. The disorganization of the Indian trale on the Minnesota River, and the diversion of the Iudians from hunting, by the pernicious system of annuities, has vastly diminished the productiveness of the fur trade on the Minnesata Kiver.
The trade is ulmost entirely limited at present to the Pembina or led River regions. alul around tho head waters of the Mississippi. The buffalo robus come almost entirely from this sourco, tho thiffalu runges being restricted to the region north of the Cheyenne, and west of the Itmen River. The Minnenota River country lus fallen off in luffaloes very considerablythe whele receipts for export from that reglon not smounting to more than 1200 robes. This does not laclude, however, the large numbers reserved for hune consumption. The table given below, for which we
are Indebted to N. W. Kittson, Esq., exhibits the total exports of furs from St. Psul for the present year: 64,292 rats, $\$ 11,57256 ; 8276 \mathrm{minx}, \$ 18,621$; 1428 marten, 83,$570 ; 1045$ fishers, $\$ 470250 ; 876$ red foxes, $\$ 1095$; 3400 coons, $\$ 2550$; 10 wolverines, $\$ 25$; 364 badgers, $991 ; 2,082$ wolves, $\$ 3048$; 405 otters, $\$ 141750 ; ~ 586$ beaver (ponnds), $4882 ; 2542$ kit foxes, $\$$ I27I; 610 bear-skins, $\$ 6700 ; 20$ cross fox, $\$ 100 ; 8$ silver fox, $\$ 400 ; 50$ lynx, $\$ 125 ; 7500$ robes, $\$ 41,200$. Total, $\$ 96,75050$. A notable feature of the fur trade fur the seversl years past, is the gradual but sure decline of its productiveness-corresponding with a growing demand in Europe and our own country for fure. Each of these causes has assisted the other to enhance the price of furs-and they have grown expensiveand all these causes concurred to advance prices lsst year to a sum they never before reached in the American market. Nevertheless it will not do to calculate too surely on last year's prices for the products of the present year, as the consumption of furs is, after all, entirely dependent on the evanescent caprices of fushion.

Before closing this artlele, we will devote a few lines to the charicter of the men engaged in the fur trade. The character of the hunters and trappers engaged in the fur trade throughont the extreme northwest is peculiar and original. The trade is not carried on now, as in former times, by means of batteaux and eanoes, which, under the old French and English systems, enlivened the rivers and lakes of our old Northwestern Territory. Tho fur-hearing animals hava been Uriven from a great portion of their borders by the advance of emigration, nnd their shores have become, to a great extent, the sites of substantial farm-houses and prosperous settlements. The canoe has given place to the steambost, the trading-post to the city. The great bulk of the trade has been transferred to the region of the mountains, whose wild recesses contain no lukes where they eun disport their canoes, no streams which ean float their furs to market. These traders and truppers trunsport their goods or furs upon packhorses, or curry them on their own backs to a navigatule stream. They move from place to plece on horselack, sumetimes conveylng their traps upon their shoulders through deep ravines, up steep precipices, insecessible to the lorse, in search of places which contain their favorite game. The life of tho trupper hecorres a reene of toil and privution, and yet of passionute excitement. Ilis vlews are exaggerated, his hubits unsettled, his sentiments, generally, noble and genorous, like those of a sallor, for tho cunses which net ujon him are slmilar in their character; and, lika the sailor, he is nowhere contented except when lead-
ing his life of danger and oxcitement. Such is the life and character of the active agents of the fur trade, the sturdy hunters and trappers of the north-weat. See IIurr's Mer. Mag., iil., 185 (J. H. Lanman), ili., 252 (II. Murray), xiv., 582 (W. Sturgis); Journal of Science, xxv., 311 ; Edin. Rev., 1., 142.
Fur-skin Dresaing. Fur-skine are nanally dressed by placing them in their dried state in tube, where they undergo a treading operation with men's feet, untll they are sufficiently soft and bend easily. The skins, if large, are sewn up, the fur being turned inward; but if small skins, such as ermine, are being dressed, they require no sewing. This sewing is preparatory to the greasing with hutter or lard, and is intended to protect the fur from the grease, and to promote the softening in the succeeding treading operation. The skins are next wetted, and their flesh is removed; or they are fleshed and then hung up to dry. They are aguin subjected to treading in tubs containing sawdust, and afterward in tulss containing plaster of Paria, or whitening, sprinkled between the skins. They are then beaten with a stick and combed: when the dressing is comploted. M. Picrre Thirion proposes, in his patent of June, $\mathbf{1 8 4 5}$, to soften the skins, not by treading, but by beating-stocka, of a conatruction like the falling-milli. They are next sewn up, and agaln fulled in a strong vessel, where they are forced upward by the beaters, turned over and over, and thus speedily softened. They are now fleshed, and then returned to the beating-stocks, and mahogany or other sawdast is sprinkled upon the fur, before the beating is renewed. They are next placed in a heated barrel, furnished within with radial pins for turning the goods over and over, in order that they may be acted upon by various dry sutstances, which are thrown into the barrel, and alosorb the fat from the sklns. Through the hollow shaft of the barrel, steam is introduced, which heats the skitss, softening the fat, which is then alsorbed by sand, flour, or any other desiecative powder. It is broper to take the akins out of the barrel from time to time to comb them. Such as have been suffliently acted upon may then le set saide. They are lastly freed from the dust by being subjected to a grated cylinder in a state of rotation, and then combed by hand.

Fusel Oil is the German name of tie offensive smelling oil which exists in alcohol, ae listilled from the fermented infusions of malt, and corn meal of all kinds, as also from the fermented wash of potatoes, nad of leets, etc. A like oil occurs in the alrohol distilled from the fermented must of grapes, nud the juices of many sweet fruits. This oil is not, however, identical from these several sources; as may indeed he inferred from the diversity in the flavors of the different liquors. Jut they all agree in being somewhat less volatiie thun water, and therefore make their apjearance chiefly in the spirits towarl the end of the distillation process. It is to tho presence of thls oil that the milkiness of the last, and also sometimes of the first, portions of tho spirit that come over, cailed feints, owe their opaleacence and their penetrating odor. When the milky fluid is redistililed, alcohol and water first pass over with very little oil, but if the heat of the still be molerate, the oii may the made a residuum, and oltained in a tolerably concentrated state.

Fustian (Ger, Barchent; Dt. F'ustein; Fr. Futaine; It Fumagno, Frustagno; Sp. F'ustan; Ras, Bumasea; l'ol. Burchan) is a sirecies of coarse, thick tweeled cotton, and is generally dyed of an olive, leaden, or other dark color. Hesides the common fusthan, which is known ly the name of plllow (probably pilaw), the cotton stuffs calied conluroy, velverett, velveteen, thicksett, used for men's wearing apparel, belong to the same fabric. The commonest klad is
merely a tweel of four, or sometimes five leaves, of a very close stout texture, and very narrow, seldom exceeding 17 or 18 inches in breadth. It is cut from the loom in half pleces, or ends, as they are usually termed, about 35 yards long, snd after undergoing the subsequent operations of dyeing, dressing, and folding, is ready for the market.

Of velvet, there are properly only two kinds, that with a plain, and that with a tweeled, or, as it is Lere called, is Genoa ground, or bnck. When the materlal is silk, it is called velvet; when cotton, velveteen; and this is the sole difference. In the sume way a common tweeled cleth, when composed of silk la called satin; when of cotton, fustian or jean ; of woolen, plaiding, serge, or kerseymere; and in the linen trade is diatingulahed by a variety of nantes according to the quality or fineness, or the piace where the artlele is mannfactured.

Fustio (Ger. Gelbholz, Fustic; Du. Geelhout; Fr. Rois juune de Bresil; 1t. Legno giallo de Brasilio; Sp. Palo del Rrasilamarillo), the wood of a species of mulberry (Morus tinctoria), growing in most parts of South America, in the United States, and the West India Islunda.

It is a large and handsome tree; and the timber, though, like most other dye-woods, brittle, or, at least, easiiy aplinteren, is hard and strong. It is very extenslvely uaed as an ingrellient in the dyeing of yellow, and is Iargely imported for that purpose. Of 10,800 tons of fustic imported into Great Britain in 1850, 3285 tons were bronght from New Granada, 2076 from the British West Indies, 1639 from Cuba, 945 from the United States, 750 from Mexico, and 669 from Mrazil. Fustic from Cuba fetches fuli 80 per cent, more in the Inndon market than that of Jamaica or Colonbia. At present the price of the former varies from $f 9$ to $£ 910 \mathrm{~s}$. a ton, while the latter varies from $\mathbf{4 5} 58$, to $£ 6$ a ton. The consumption amonnts to about 6,000 tons a year. The duty on fustic wis abolished in 1845.
Zante, or young fustle, is really a species of sumach (Rhws cotinus, Jin.), and is quite distinct from the Morus tinctoria, or old fustic; the latter being a large American tree, while the former is a small European shrub. I: grows in Italy and the south of France, but is principaliy exported from the Ionian lslanda and Patr as in the Moren. It imparts a beautiful tright yellow dye to cottons, etc., which, when proper mordants are used, is very permanent. It is conveniently atowed among a cargo of dry goods, as it may be cut into pieces of any length without injury. Only a small quantity of this apecies of sumach is imported. Its price fluctuates considerably.-Trees of $A$ merica,
There aie several kinds of fustic-trees which might be formed into a peculiar group, from their baccate seeds. The tree fustic of dyers (Morus tinctoria) is a large tree 60 feet in height, bearing sweet, edible fruit about the size of a nutmeg, and is a native of Central Ameriea, Yucatan, Cuba, Jamaica, cte. The whole plant abounds in a silghtly glutinous milk, of a sulphureous color. The wool is reliow, and is much used in dyeing, for which purpose it is chiefly imported into Furope anil the United States, under the nsme of fustic-scood. There is a variety of this speciea, called Bustarl Funtic, a troe smailer in stature, and less valuable as a dye, and is found from "ucutan to the southern parts of Fiorida and the Bp ma Ishands.Bnowne's T'rees of A merica, p. 460.

Futtocks, in a ship, the timbers raised over the keei, or the encompaasing timbers which form het breadth and capacity. F'uttock plates are iron plates crossing the sides of the top-rim perpendicularly. The dead eyes of the topmast rigging are fitted to their "pper ends, and the futtock shrouds to their lower elsds.-Dava's Seaman's Manual.

Gaff, In head of a f smali sail sot foot of the sa Gage, a p II. Gage, a glove, cap, challenger, an lenge. III. water a vesse in the water. windward of gage of such ers, a piece of adjust the din sorts of letters to strike a line Sliling-gnge, a a tool for meas term gaye, im forec, quantity to denote part gaze, tide-gage
Galacz, or left bank of th the Sereth nnd N.; long. $28^{\circ}$ these respects Population sup of the town is c but, within the other foreigner Though at a con the best position At present, how Moidnvia, Ibrai inland, being th importance of th dates only fron Previons to that labored under $t$ was principully of native produs by sea or land, duties on import tively moderate be that Galacz, called, "of the $\mathbf{S}$ period tecome a of Moldavia and ment has been boped that tiney paralyzing inllie intercourse ly m snd Galucz, and stantinople and deai, and wili ev of improvement neglected, count lower part of its river as a comme by those of any, development wo not merely to th commercial natio
Erperts and It" very jroductive and cattie. The and England, in stimulas to the The exports of mounted to no $f$

## G.

Gaff, In nantical language, a apar to whlch tha head of a fore-and-aft ball is bent. Guff-topacil, a small aall set over a gaff, which serves to opread the foot of the sall.

Cage, a pledge or pawn given by way of security. II. Gage, a challenje to combat; that is, a gauntlet, glove, cap, or the like, cast on the ground by the challenger, and taken up by the accepter of the challenge. III. Gage, in nautical language, the depth of water a vessel draws, i. $c_{\text {., the }}$ the nuber of feet ahe siaks In the water. In a different sense, when a shlp ls to windward of another, ahe la sald to have the weathergage of auch vessel. IV. Gage, among letter-founders, a plece of hard wood variously notched, uaed to adjust the dimenslons, slopes, etc., of the different sorts of letters. In joinery it denotes an instrument to strike a line parallel to the straight side of a board. Sliding-gage, among mathematical instrument-makers, a tool for measuring and setting off distrnces. $\mathbf{V}$. The term gage, lmplying measure, as of depth, height, force, quantity, atc., Is frequently used in composition to denote partlcular klnda of instruments; as, scagage, tide-gage, wlnd-gage, lain-gage, etc.

Galaoz, or Galatz, a town of Moldavia, on the left bank of the Danuhe, between the confluence of the Sereth and Pruth with that river. Lat. $45^{\circ} 25^{\prime}$ N.; long. $28^{\circ} \mathrm{l}$. It $:$, Ill-huilt and dirty, though in these respecta it has latterly been much improved. Population supposed to amount to 25,000 . The trade of the town is chlefly carried on by (ireek merchants; but, withln the last few years, various English and other forelgners have formed establlshments in it. Though at a considerable distance inland, Galacz ls in the best position for becoming the port of the Danube. At present, however, it ls little more than the port of Moldavia, Jbralla, or Brahilow, ahout 12 miles further inland, being the port of Wallachis. The commercial importance of these perts, and Indeed of the Danube, dates only from the treaty of Adrianople in 1829. Previous to thst epoch the trade of the princlpalities labored under the most oppressive reatrictions, and was principally carried on by land. luat all artleles of native produce may now be freely exported either by ses or land, on paying moderate duties; and the duties on imports are alse, for the most part, comparatively moderate. The probability, indeed, seems to be that Galacz, "the Alexandria," us it has been called, "of the Scythian Nile," will at no very distant period lecome a first-rate emporium. The rescuing of Moldarla and Wallachia from Turklah misgovernment has heen of signal advantage; and it is to lo hoped that they may never again be subjected to ita paralyzing Induence. The establishment of a regular intercourse by mesns of steam parkets between Vienna sad Galacz, and thence by the Bhack Sen, with Constantinople and Trebizend, has already done a great deal, and will every day to more, to introduce a spirit of improvement inte the vast and fertile, but long neglectel, countries traversed by the Danuhe in the lower part of its conrae. The capacities of this great river as a conmercial highway are certainly unequaled by those of any other European stream; and their full develepment wonld be of immensurable alvantage, not merely to tha countries on its banks, but to ull commercial nations.

Eirports and Imports.-Moldavla and Wallachia are very proluctive provlaces, being fruitful both of corn and cattle. Tha high prices of corn in France, Italy, and Eagland, in 1896 and 1847, gave an extraordinary stimulus to the export trade of Galacz and Ibralla, The exports of wheat from looth ports, in 1817, amounted to no fewer than 570,978 quarters, worth on
board ship, $£ 875,603$; the exporta of Indlan cern durIng the same years, were 937,720 quarters, worth £1,172,150; and among the other exports were about 820,000 quarters of barley, and $42,000 \mathrm{cwt}$. of tallow, with a variety of inferlor artlelea. The total value of the exports from the two porte during the above year, amounted to the very large aum of $£ 2,368,472$, of which about two thirds were from Ibralla. The quality of the wheat, which ls partly hard and partly aeft, was, a few yeara ago, very inferior, being generally damp, and having an earthy amell from ita being kept in pits dug in the ground. Latterly, however, it has been much improved; and the finer asmples now fetch, in Merseilles, Genoa, and Leghorn, within from 3 to 4 per cent. of the price of Odessa wheat. In 1852, we imported 80,140 quarters of Wallachian and Moldavian wheat, with no fewer than 626,714 do. Indiun corn. Both provinces fatten large herds of cuttle, particularly DIoldavia, which annuslly sends grest numbers to the Austrian States. Tallow may be had in large quantities, its annual produce, In Wallachla only, being estimated at about $\mathbf{3 , 0 0 0 , 0 0 0}$ okes, or $8,500,000$ pounds. Until within these few years, the tallow shipped at Galacz was burdened with a heary export duty, which checked its sale, and consequently, also, Its growth. LIappily, however, that duty is now ioduced to 3 per cent., and the exportation is rupidly increasing. The quality of the Danubiun tallow la excellent. Among the other articles of exporta are wool, tlmber, hiles, and skins, lard, butter, bristles, bones, jerked beef, linseed, barilla, yellow-berries, coarse cheese, etc. Timber of the finest quality may be had in any quantity; but as it can only be adventageonsly exported in large ahips, which can not when laden make their way over the bar, the trade in it has hitherto been confined within comparatively narrow limits. One, howaver, would be disposed to think that thla difficulty might be obviated by sending down the timber in rafta and laading outside the bar. Notwithatanding the recent period at which the navigation of tho Danube has been opened, and the barbarons state of the countrics in the lower part of its course, the value of the exports from Galacz and Ibrails probubly in 1853 exceeded $£ 1,800,000$ a year, of which from $£ 750,000$ to $£ 800,000 \mathrm{may}$ be from the former. But, considerable as this is, It is nothing to what it certainly would be were civilization to make any considerable progress ln the countries traversed by the Danube after it leaves the Austrian dominions, and still more were the river to become, as it naturally ls, the princlpal channel for the conveyance of products to and from Ilungary und Transylvania. The great articles of import are manufactured cotton goods, and cotton twist, principally from England, the demand for which is rupidly increasing; with sugar, coffee, and other colonial products; olives and ollveroll, iron and steel, hardware, ete,

Sintrance to Galacz--Of the three principal mouths of the river, the Soulineh (mlddle) month, in latitude $45^{\circ} 10^{\prime} 30^{\prime \prime} \mathrm{N}$. , leng. $29^{\circ} 41^{\prime} 20^{\prime \prime}$ E., is the only one accessible by vessels of considerable burden. The depth of water on the bar, at its entrance, half a mile from the shore, varies from 10 to 13 and 14 fect, according to the season of the year, and the direction of the wind. When the latter blows from the east, it is opposed liy the current of water flowing from the west, so that the bar is rapidly Increased by the depowit thereon of the mud brought down by the river; and when, on the contrary, the current and the wind colncide, the mud is carried out into the sea, and the depth of water on the bar ls progressively augmented. The assistance of a powcrful dredging-machine, or
machine fitted to stir up the mad, or other deponit forming the bar during the prevalence of westerly winds, would be of great importance; and it is belleved that with ita agency the channel might be very materially deepened. Great complaints have been made of the atate of the navigation of the Danube during the present year (1853). It appears to have been occaaloned partly by difficultles arising out of the disputes between Russia and Turkey, und partly by the prevalence of easterly winds. But it would be oasy, by erectlng a light-houss, to mark the entrance to the river, and omploying a dredging-machlue and steam-tugs, to obviate the physical obetructions to the navigation. From the bar to Galacz and Ibraila, there is nowiere less than 18 feat of water, and In many places from 60 to 70 . Veseels of 300 tons lie close to the quays at Galacz. The shores at the mouth of the river being low and bordered with reeds and shoala, vessele intending to enter the river generally make the small rocky iflet of Phidonlal, or Serpent's Isle, in lat. $45^{\circ} 15^{\prime} 15^{\prime \prime}$ N., long. $30^{\circ} 10^{\prime} 30^{\prime \prime}$ E., whence the Soulineh mouth hears west by south, distance 23 miles. According to Mr. Cunningham, the first objecte seen, on nearing the shore, are the masts of vessels in the river and tho houses in the town of Soulineh, which, however, are very low. Hagemeister says that there ls a wooden tower on the south shere at the entrance to the river; but though the contrary has been often affirmed, and Its positinn given in Arrowsmith's map, there ls certalnly no light-house. When a shlp appronches the entrance, a boat from the Russian captain of the port goes off, and by waving a red tag lodicates the course to he kept. Lightera are generally statloned without the har, Into which large ships discharge a part of their cargoes ; and pilote may generally be obtalned from them or other vessels. As the current is sometimes very atrong, and difficult to stem, a proper establishment of steam-tugs at the month of the river would be a great advantage. An E.S.E. wind carries a vessel from Soullieh to Galacz through all the different reaches of the river; bat otherwise the navigation is difficult, and towing is in parts necessary.
Frost usually sets in on the Danabe $\ln$ the monii of December, and continuea till the month of March; In 1833, however, there was no frost. Frelghts in the ports of the Danube are alwaye from 20 to 25 per cent. higher than in Odessa; premiums of insurance, on the contrary, are not hlgher than at the latter, except on such vessels as, on nccount of their size, are obliged to discharge outside the bar.

Money, Weights, and Measures.-Thess are mostly the aame as at Constantinople, which see. Accounts are kept in piastres and paras. 1 piastre $=40$ paras.
Galacz.-Ducat bianc $=$ pia. 44. Silver ruble $=15$ pia. Spanish dollar=19 pia. 32 paras. Turklsh yermelik, old coinage $=19$ pia. 32 paras ; Turkish yermelik, new colnage $=17$ pia. 15 paras. Austrian swanzikers $=3$ pla. 5 paras. It is to be observed that when exchanges are so high that it is requisite to remit $\ln$ specie, any of these colns may go to a premium, according as it suits better than othera for the remittance; and just now, owing to the want of blils to remit to Austria, the ducat blanc $=44$ pia. 20 paras.

Jbraila has two rates of currency; the one for charges, which is the same as in Galacz, and the other for the purchase of merchandise, as follows:-Ducat blanc=32 piat. ; Spanish dollar=141 pia.; Turklsh yermelik, old coinage $=11$ pia.; Turkish yermellk, new coinage $=12$ pia. 28 paras; twanziker $=2$ pia. 12 paras. Note. -The same as in Galacz, any of thees coins may go to a premium.
Galacz and Ibraila.-All duties are paid in both places, In the course of the Treasury, as follows:Ducat llanc $=s 31 \frac{1}{2}$ pif, $;$ silver rubleza 10 pia.; Spanish dollar $=14$ pia. ; Turkish yermelik, old $=14$ pia. swanziker $=2 \ddagger$ pis.

The ducat blane weigha 1 Turkish drachm.
Exchanges.-Bille can generally be soid on the following places, and the present (1842) rates ara as noted it must be observed, however, that these rates are very high; and when a great deal of paper is offering, they may go 4 per cent. lower.


Weights.-Galacz and Ibraila. 400 drams $=1$ oke. 44 okes $=1$ cantar.
Measures.-Galacz and Ibralla. 20 banalza $=1$ kilo. 8 kllo of Galacz $=2$ kilo of Ibralla.
Comabspondence or Wriouts and Mizaelare of Galacz WITII THose of voaziox Places.


Note.-These mpasures gencrally measure otit somewhat less.
Noth of Exponts yan Galacz ht Bea in 185t, ix EvGlish Whiohta and Meabugra, axy Value of tha bame in Stealinu Monet, feer on Board.


Destination of Vhagza departixo loatro yboh Galacz, and Caboums of aank ix 1851 .

| Denilnation. | No, of vesuala | Wheat. | Indian cern. | Rye. | Tallow. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Congtantinople. | 176 | $\begin{aligned} & \text { Qra. } \\ & 44,984 \end{aligned}$ | Qra. 20,407 | $\begin{aligned} & 9+\% \\ & 6,2 i 5 \end{aligned}$ | $\begin{aligned} & \text { C'wis. } \\ & 2,424 \end{aligned}$ |
| TriesteieVenice | 87 | 28,291 | 26,077 | 87,682 |  |
| Iontan Islanda. | 5 | 14 | 4,832 | .... | -... |
| Legborn, Genoa and Dlarsellies | 85 | 30,427 | 8,816 | 840 |  |
| Englanl....... | 296 | 85,868 | 995,200 | 15,664 | 1,025 |
| North of kurope | 14 |  | 1,850 | 10,068 | 1,0\% |
| Odessa... . . . . | 6 | -•... | $\cdots$ | .... |  |
| Total... | 614 | 134,174 | $8 \times 0,682$ | 71,024 | 4,891 |

Note of Expohts from labaila ut San in 1851, in Es. Ohanil Wrioitr ant Mxaatreg, oxd Valua of the


Port Charges.-In Galacz anchorage is 30 fis., and a guardian for 5 daya' observation, 5 pla. per day. In Jiraila anchorage is $17 \frac{1}{1}$ pia., and guardian fur 5 daya' observation, 5 pia. per day.
Quarantine.--Vessels generally remain in quarastine during thelr stay, as lltto or no advantage is geined by taklng pratique.

Vessels wishing to take pratique may obtain it in 14 to 21 daya according to the state of health in Tur-
key, by tak the eapenin passenger, b last year, ae and along th daya.
Debtination
Ax
Deytinat
Conatantinopl Trleste and $V$ Iontan Islands Leghorn, Gen Marsetlices England.,...

Total...
The total $n$ and Libralla tonnage of 3 an aggregate with an aggre


The port of Wallachia and amounted to graln, taliow, reach, annuali ican interests of the Danubt minions, may exhibiting the exported to Tu cludes, also, t Syria, Palestin Deseription of $m$ Peravian bar Cassia lignea
Coves....
Cochincal. .
Cofote
Coffe
Gloger.....
Indigo....
Jren...
Cotton mani
Logwood..
Nutmegs.
Oplum....
Pipper.
Plimento..
Quickstlver.
Rhnbarb. .
Rice.
TBfictice....
Spirits.
8pirits
Tea..
Tobacee.
Wine.
Wool
D.tties.-An on uil articles exported from, Wallachla. Go of prohibiting has to give a m hilhition.
Galacz is a fr commodities ma and consumed tine regulations previcusly to en Ismail and 1 Bessaralila, are but especially I
key, by taking a Health Ofioe guard on board; or the captaln alone may take pratique, the same as any passenger, by going tato the laaaaret. During the iast year, as tha heaith was good in Constantinople und along the Danube, the quarantipe was only seven daye.
Degtination or Vbeatha depastine loaded ghom Iazatha,
and Cazaots or the aimh in 1851.

| Degtionitua, | No. of Vamools. | 'Wheel. | Indian corn. | Barloy. |
| :---: | :---: | :---: | :---: | :---: |
| Comatantinople. . . . . . . | 490 | $108,144$ | $18 \mathrm{grs}$ | $104 \mathrm{ma}$ |
| Trieste and Vealce..... | 188 | 84,108 | 172,106 | 1,02s |
| Jonlan Islands........ | 16 | 18,278 | 1,897 | 1,023 |
| Leghorn, Marsellies......... $\}$ | 85 | 26,008 | -4,908 | 6... |
| Eagland................ | 820 | 100.598 | 286,882 | $\ldots$ |
| Total............. | 1,049 | 283,106 | 646,617 | 105,007 |

The total number of vessels departing from Galaez and Ibrails in 1851 was, 1,668 , with an aggregate tonnsge of 300,845 . Of these, 634 were Greek, with su aggregste tonnage of 112,438 ; 352 were Turkish, with an aggregste tonnage of 50,234 ; and 304 vessels

| veins. | COMmTantinoples, |  | THEतTE Ans vamice. |  |  |  | chatar mitalk. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of vesaela, | Quarters. | No, it vensela, \| | Quarlera. | No. of veareli. | Quariera. | No. of resuals. | Qumatiept. |
| 1843.... | 402 | 820,1224 | 187 | 175, 815 | 160 | 117,280 | 280 | 204,591 |
| 1549.... | 620 | 404,815 | 126 | 180,976 | 101 | 71,556 | 207 | 889,774 |
| 1430.... | 447 | 294,507 | 104 | 111,026 | 70 | 60,006 | 258 | 816,019 |
| 1851.... | 666 | 465,749 | 275 | 204,376 | 70 | 66,479 | 606 | 688,707 |

The port of Galacz is the outlet for the produce of Wallachia and Moldavia. And its imports in 1850 amounted to $\$ 2,175,000$, its exports, consisting of grain, tallow, preserved meat, wine, and linseed, reach, annually, about $\$ 3,877,660$. How far Americsn interests might he promoted in the foreign trade of the Danublan and other ports of the Turkish dominions, may be gathered from the following talle, exhititing tho articies of foreign and coiontal produce exported to Turkey in the year 1851. The table includes, siso, the importe lato Walischia, Moidavia, Syria, Palestine, and Eyypt :

| Imecription of merchandla | Quanititer. |
| :---: | :---: |
| Peravian bark | cwts. 50 |
| Cassla llignea. | pounds 17,020 |
| Cloves. | 80,108 |
| Cochlneal | .cwta 1,946 |
| Cocos. | pounds 2,908 |
| Coffec | 620,502 |
| Gloger. | .ewts. 97 |
| Gumt shellac. | 15 |
| Indign..... | 6,927 |
| Jron.. | 61 |
| Cotion manafactures | (value) \$4,210 |
| 1,oywood. | Ona 70 |
| Nutmegs. | pounds 8 8,621 |
| Oplum. | 8,406 |
| Pipper. | 473,504 |
| P'mimento. | .cwts 720 |
| Quleksliv | .ponnila 420 |
| Rhubarb | 1,236 |
| kilee. | cruts. 8,049 |
| Sllk. | punuls 1,246 |
| Tafferie | .pleces 6,978 |
| Eplrita. | gallons 66,961 |
| Sugar. | ...ewta. 5,301 |
| Tea... | pounds 197,485 |
| Tobace | 39,022 |
| Wlne | .gallons 8,7*5 |
| Wool. | pounds 4,511 |

D, aties.-An ad ralorem duty of 3 per cent. is levied on alf articies, except provisions, imported into, or exported from, the prinelpalities of Moldavia and Whifnchia. Government reserves to itseif the power of prohibiting the exportation of any article, hut it has tn give a month's previous notiee of eny such prohilition.

Galacz is a free port ; that is, a port at which nil commodities may be ianded, warehonsed, re-exported, sud consumed in the town, free of luty. Quarantine regulations are strictiy enforced, unless performed previousiy to entering the river.

Ismail snd Renl, portn of the Rusian prevince of Bessaralia, are situated on the Danube, and nre both, but especiaily Ismail, a good deal nearer its mouth
were Eagilsh, with an aggregate tonnage of 55,625 . There was one vesaal from Bueno Ayrea.

The export of grain conatitutep the leadion commercial movement of the port of Gai.an. T! \& folsow Ing table axhibita the grain export trade of tha porta of Galace and Ibraila, during three conseoutive years:

| Orias. | 1849. | 1850. | 1851. |
| :---: | :---: | :---: | :---: |
| From Galatz. | Quariors. | Quariers. | Quarten. |
| Whent........... | 178,797 | 140,652 | 184,474 |
| Indian corn....... | 258,768 | 122, 878 | 850,682 |
| Rye. | 60,617 | 62,776 | 71,024 |
| Tot | 498,177 | 818,808 | 659,180 |
| FROM IBRAILA. |  |  |  |
| Wheat. | 117,436 | 288,290 | 288, 106 |
| 1 Inilas cord | 835,532 | 149.788 | 646,617 |
| Ryc... | 72,096 | 44,694 | 105,697 |
| Total. | 525,904 | 577,016 | 1,085,820 |

The ports to which these vast quaritities of grsin are shippod, will be aeen from the following return of the export trade during the same years:
than Galacz; but they are much less considerable in point of commercial importance. Having little importation, their trade is confined almost entirely to the exportation of corn, and even in this respect they are very infertor to Galacz and Hrahiliow. They are aubject to the Russian duties and regulations. We have gleaned these particulars from a variety of worka, but principally from the valuable Report by Mr. Cunningham, now vececonsul at Brahilow, printed at Galacz in 1841 ; the work of IIagemeister, On the Commerce of the Black Sea, Eug. trans. pp. 83-95, ete. ; Purday's Sailing Directions to the Black Sea, p. 193, etc.
Account of the quantitims and Values of tur princi-
1'AL AITICL.FS IMPUKTED INTO AND EXPOATED FROM Varana in 1847 .

| Articlen. | Qeanilition. | Value lo $\mathcal{E}$ ataplog. |
| :---: | :---: | :---: |
| Almonds. imporita | 24 | $6{ }^{1}$ |
| Carobs..... . . . . . . . . . . . . . . . . . . , | 10,809 | 6,1000 |
| Coffee.... . . . . . . . . . . . . | 14,269 | 80,000 |
| Cotton twlat. . . . . . . . . packets | 184,000 | 82,000 |
| Cloths, woolen........... bales. | 200 | 10,000 |
| Cloths, eutton............. | 200 | 7.000 |
| Figs..................... evis | 8,000 | 2,400 |
| Iron......................tons | 600 | 7,000 |
| Ollve oll. .................owts | 2,107 | 8,057 |
| Ollves.................. ${ }^{\text {a }}$ | 8,000 | 2,400 |
| Pepper and other splces. pounds | 14,509 | 1,612 |
| Rsisins . . . . . . . . . . . . . . cwis | 10,085 | 6.822 |
| Sugat.................... * | 5,266 | 11,585 |
| Soap................... . | 1,875 | 4.125 |
| Salt....................... .tons | 988 | 1,800 |
| Tin (ln bars) . . . . . . . . . . bands' | 727 | 2,000 |
| gplrits . . . . . . . . . . . . .gallons: | 500,000 | 75,000 |
| MIscellanoous. . . . . . . . . . . . . . . | , | 10,000 |
| Total. | * ${ }^{\prime}$ | 5214.861 |
| Wheat. . . . . . . . . . . . . quarters | 877,500 | 8471,000 |
| llarley............... ${ }^{\text {a }}$ | 10,000 | 5,000 |
| Hhles. . . . . . . . . . . . . . . nnmber | 100,000 | 84,436 |
| Tallow. . . . . . . . . . . . . . . . . owts | 02,714 | 176,800 |
| Ilutter . . . . . . . . . . . . . . . ${ }^{\text {a }}$ | 9,482 | 21,816 |
| Cheess.... . . . . . . . . . . . . ${ }^{\text {* }}$ | 24,100 | 68,686 |
| Wulnuta. . . . . . . . . . . . . . bushels | 10,000 | 1,000 |
| Wool.... . . . . . . . . . . pounsls | 112,610 | 2,000 |
| Drlod boef or pasturma,..cwts. | 56,817 | 25,000 |
| Miscellancous, lacluilng ponitry and eggs. | .-.. | 85,600 |
| Tolrl. . . . . . . . . . . . . . . . . . | - $\cdot$ • | 2870,708 |

The port of Varne is sitnated on the W. coast of the lliack Sea, at the bottom of a rather amall bay, about 8 miles N.W. Cape (ialata, the latter being in lat. $43^{\circ}$
$10^{\circ}$ N., long. $27^{\circ}$ ges F. The ordinary anchorage lis to the S.E. of the town, in 7 or 8 fathoma, lottom sand and oase. It is $O_{0}, 4$ to all winda between E . and 8.8.E. Vessels ic $\mathcal{U}_{\text {. }}$ and unlond by means of lighters, It being dangeroun to appromeh within leas than one quarter of a mile of the shove. lloth hard and soft wheat are shipped from Varna, the value of the former being from 30 to $\mathbf{4 0}$ per cent. greater than that of the latter. An export duty la charged on wheat when exported, and being a fixed duty of about 2n. 8d. n quarter, it is high when priees are low, and low when they are high.

Steam to Gnlacz.-Stenm navigation was firat eatals lished on the Danube in 1830, aince which tha undertaking has gone on prospering, oo much so, that the communication between Vienna cind Conatantinople is now maintained by a line of 7 or 8 steam veasels, The Austrian Steam Company, which was the firat In the field, have extended their scheme by starting vessela bet ween Vienna and Linz, and a Bavarian Company commenced in 1838 running vessels 'jetween Ratisbon and Lhaz. At preaent (or very recently) steamboats ply on the Danube as long as the river is free from ice (usually from February or March to November), from Ratisbon to Lina, once a week; Llnz to Vienna, 10 hours, once a week; Vienna to Presturg a.d Peeth, twice; Pesth to Drencova, once a week; Gladova to Galacz, onca a week; Galacz tr 'onstantinople, once a fortnight. The voyage from Vienna to Conatantinople, including stoppages, is aeldom pertormed in less than If daye, and sometimes oceuples 17 ; in returning against the stream it takes at least a month, including 10 daye' quarantine at Ormova. The fare was lately, first place, 134 florins, ahout $\mathrm{C13}$; econd place, 94 florins.

The navigation of the Danube by ateamers is unfortunately Interrupted for about 50 miles, between Drencova and Gladova, by rocks ond raplids, the lowest and most considerable of which is a sort of entaract, called the "Irongate," about 3 miles below the liungarian frontier. It is worthy of remark that the most illustrious of the Itoman emperore, Trajan, allve to all the advantages to be derived from the easy navigation of the IVanube, had with equal industry and sagacity formed a road, or towing path, along the river's edge, for facilitating the operation of towing, of which the remains are still extant, with an inseription commemorative of the completion of the works, It has theen proposed to overcome the difficulties in the way of the navigation ty reaovating the old Koman road, and deepening the channel contiguous to it. Hut it rarely happens that attempts to Improve the navigation in the bed of a river, under any thing like gimilar circumstances, are oven tolerably auceessful. The better way undoubtedly would be, were it practicable, to construct a lateral canal, or rather a canal from tho mouth of the Bereska to Palanka, which wonll not only avoid the rapids, but also shorten the navigation by getting rid of the bend of the river by Orsova. lut the difficulties in the way of auch an undertaking, from the nature of the ground, are salil to the insuperable; and it is, therefore, probalile that the distance of 50 miles along the rapids will continue, if not always, at least for some consilerabile time, a portaye. The inconvenience, bowever, of this break in the navigation hus been diminished, as far as possible, by the construction of an admirable carriage road, at great expense, by the Hungarian diet, froni Molduva to Orsova. In the extent of excavations in the rock, and terraces of masonry, upon which it is carried, It is not inferior as a specimen of engineeriug to the finest roads over the Alpe. Several steamera have heen traneported down these rapids at the season of floods, small barges pans them at all times, and little troats, laden with wax and wool, are towed up by men and oxen. The paseengers and goods conveyed by the steamers are transforred from Moldova in row-
boats, to Cladova, below the Irongate, where they embark on another steamer.-Geog. Dict, art. Danube. A raliroad is completed from Brunn, the capitai of Moravia, to Vienna; another railroad diverges, from the Danuive at Ling, north to Bodwels in Bohemia, where it reaches the banka of the Maldan, nand through it communicates with the Ellbe.

Jumetion of the Danube and tha Rhine.-The long projected canal to unite the Danube and Nhine, the favorite scheme of Charlemagne, baving been undertaken by the llavarian government, was completed and opened in 18-16. It extenda from llamberg, by Frlangen and Nuremberg, to Neumark, joinleg the Danutie at Kellieim, a fow miles above Retisbon. The distance between the Maine near liamberg, and the Danuhe, fo about 112 miles; but the actual extent of canal is leas, the communication boing in part effected by the leggnita, a tributary of the Maive, and the Altmuhl, a tribatary of the Danube. There is now, consequently, an Internal commusiention by water throughout all the vast country, atretching from the shores of the Netherlands to the Black Sea; so that proluce shipped at Rotterdam or at Galacz may be conveyed from the one to the other In the same vesael.

Galangal (Ger. Gulgant; Du. and Fr. Gnlanyn; lkus. Kalgan ; Jat. Ginlanga; Arab. Kussthlk; Chin, Iauundon), the root of the galurga, brought from China and the East Indies in pieces alout an inch long, and hardly balf an Inch thick. A larger root of the sama kind (grater galangit), an Inch or more in thickness, ls to be rejected. It has an aromatic smell, not very grateful ; and an unpleasant, bitterish, extremely hot, biting taste. It should be chosen fult and plump, of a bright celor, very firm and sound. 12 cwt. are allowed to a ton.-Lkwis's Mat. Mefi. ; Meinurn'a Orient. Com.
Galapagos, ngroup of ialands in the Paelfic Ocean, oo called frou the Spunish galipago, a land tortoise, from their ahounding in that animal. They consist of six prinelpal and aeven amaller islands, lying hetween $1^{\circ} \mathrm{N}$. and $2^{\circ} \mathrm{S}$. lat., and between $89^{\circ}$ and $92^{\circ} \mathrm{W}$. long., about 700 nilea from the continent of South Anerica. The largeat, Albemarle luland, is 60 mifies In length, by about 15 in lreadth. The highest part is 4000 feet atove the nea. 'They are all of valeanic origin; and along their shores black dinmal-lookiag heaps of broken lava everywhera meet the eye. In many places the lava cliffs are very high, while close to them the water is oo deep that a ship can not anchor even in a calu. In the interior are some valleys and plains of moler"te extent and of great fertility. T: land tortoises, called the great elephant tortois:s, their feet belngit like those of a small elephant, are allmerous, and grow to a grent nias, frequently welghing several hundred pounils. A amall colony has been established on Charlea Island, in a plain about 1000 feet atove the sea. They cultivate bananas, sugarcanes, swect potatoes, and Indian corn, and supply with these articles the whalers who resort to the injand. The climate is henlthy, and the heat moderate, considering the geographical position of these inlands.

Galatz. Sea Galacz.
Galbanum (Fr. Galbnnum; (ier. Mutterharz; It. Gialbano; I.at. (iaibanum ; Arab. Aarzud), a species of gum resin olstained from a pereunial plant (allanum of: jicinale) ere int: in Africa, near the Cape of (iood liope, and ha Syria aad l'ersia. It is brought to this country from the levant in cases or chests containing from 100 to 30 lbs. each. The teat is in ductio masses, composed of distinet whitish tears agglutinated together by a pale lirown or yellowish aubatance. It is generally much mixed with stalka, seeds, and other imparitips. The acparate tears are conshlered as the best. When the color in dark brown or blackish, it is to be rejected. It has a atrong peculiar odor, and bitterish, warm, acrld taste.-Tuosson's Dispensatory.

Gale of atorm of win next a atron gale.
Cralena, miles northBean Il'ver, and the metr miles above $t$ to this place, steamboats: St. Louln, Ne other places ot amount of lea nuaily ls $\mathbf{4 2 , 0}$ employing abs ores of zine a zinc and aulph region. Thou face, and are ne it can not be pl there as Dry 13 is found in the Inches to sever Galona ( $\mathbf{F}$ metallie-looking crystalizeen in of eleavages pas gravity, 7-7502 pipe with exhn reduced to meta and then throws cipitate ; the so brilliant lamine finphur, 13; timed a minute $n$ ore of lead, and formation, in vei always aecompa salts of lead, he powder, called a course stonework
Galipot is a found on fir-tree poor in oil.
Galleons.
three or four de cating with Peru Galley (Fr. $\boldsymbol{g}$ sails and oara, e benches one aboy tiquity were all chiefly mentione. to have had 50 oa trieres (Lat. triven concerning the di has taken place. trizeme lad three but this is rendere Pliny making me even 50 banka of that so many coul each other. Son oars in the trirel but ohliquely ; in ber of banks of probably the heigl See Mribomius, De
Galleys were lik time nations of thr Their use in naval the 17 th century; the period of lis ex ber of war-galleys ther only, and all construction. The but unilt fur sea, a

Gale of Find. The sea term for a continued storm of wind 1 the loweet degree in the fresh gale, the naxt a strong gale, and the next a heavy or hard gale.

Galena, a city of Jo Daviess coanty, Illinois, 230 milen north-west of Snringfield, situated on Fever or Bean Il'ver, and on the Galena and Chiesgo Railroad, and the metropolis of the great lead region. It is aix miles above the month of the river, which is navigable to this place, at all stages of the water, for the largent steamboats.: It has an intercourse by stesmboat with St. Louia, New Orleans, Louisville, Cincinnati, and other places on the Minesalppl and Ohio Rivara. The amount of lean ehipped from Galena and viclnity annueily is $42,000,000$ of pounds, valued at $\mathbf{4} 1,780,000$, employing about 2000 peraona. The moat prodactive ores of zino and copper, sulphnret and cartonate of zinc and sulphuret of copper every where abound in this region. Thousands of tens of zine lie upon the surface, and are neglected, because, in the alssence of coal, it can not be profitably amelted. It is popularly known there as Dry Bones and Black Jack. Sui, inate of iron is found in sheets of larger extent, ranging from a few inches to neversl feet in thlckness.

Galena (Fr. Plomb sulfure; Ger, Rleiglanz), is a metaliic-looking substance of a iend-gray color, which crystullizes in the enbical aystem, nad is susceptible of clanages parallel to the faces of the cube; specific gravity, $7 \cdot \boldsymbol{7} 592$; can not be cut; fusibie at the blowplpe witit exhulation of solphurous vapors ; is earity redaced to metaliic lead. Nitric acld first dissolves it, and then throws down sulphate of lead in a white precipitate; the molution affording, with plates of aine, brilliant laminie of lead (arbor Saturni). It censista of sulphur, 13; lead, 85 ; with a little iron, and sometimen a minute quantity of siliver. This js the richest ore of leud, and it occura in almost cvery geological formation, in veins, in massee, or in beds. It is almost siway accompanied ly sulphuret of zinc, different salts of lead, heavy nier finur apar, etc. Galens in powder, called alquifoux, is employed as a glaze for coarse stonework.

Galipot is a name of a white seml-solid viscid resin found on fir-trees; or an inferior sort of turpentine, jwor in oil.
Galleone. Certain Spanish treasure-ships with three or four decks, formerly employed is communicatlag with Peru.
Galley (Fr. galere), a low-luilt veasel propelled by aqils and oars, either on a single tier, or on tiers of beaches one above the other. The war vessels of anltiquity were all galleys. Among the Greeks, those chiefly mentioned are the pentecontori, which appear to have had 60 oars disposed in a single tier; nud tho trieres (Iat. triremen), vessels with three bunks of oara, concerning the disposition of which mueh controversy has taken place. It is commonly supposed that a trireme had three banks of oars, one alwove the other; but this is rendered improbable hy the circumetance of Pliny making mention of galieys having 30,40 , and even 50 banks of oars; for it seems hurdiy credible that se many conld have been arranged directly above each other. Some have suggesterl that the rows of oars in the trireme were disposed, not herizontally, but obiliquely; in which case an increase in the number of banks of oars would nugment the length, and probably the height woald be increased in proportion. See Mribomius, De Fulrica veterrm Trieremium.
Galleys were likewise cblefly employed by the maritime nations of the middle ages in the Mediterranean. Their use in naval war hardly ceased until the end of the $\overline{7}$ th century; and the Venetian republie, down to the period of its extinction, always inalntained a number of war-galleys. The Venetian galleys had $a$ single ther only, and all modern galleye followed the sume conatruction. These were formidable vessels in a calm, but unilit for sea, and accordingly found chietly In the

Mediterranen. The Venetians had also a large highpooped aort of galley calied geleazza, whence the word galioass and gailiott in o.d Englinh writers.
The Deal galley tia a long nurrow boat used by the Deal boatmen, and managed, on the most hazardous 00 casions, in saving the cruws of stranded vemaels, with consuinmate skifi. It is also used ly smugglers, on accoant of ite velocity. The galley is also the kitchen of a ahip.

The puniehment of the gralleys, i. e., the employment of condemned eriminala in the toilsome employment of rowing them, ia said to have originated under the Greek empire, as well at the name I'a $\lambda$ eapot, or galley-slaves-in French, gateriens. It was used by all the nations bordering on the Mediterranean. In France, under the eld juriaprudence, the punishment of the galleys wan the severest after that of denth. About the end of the reign of Louie XIV., when galleys themselves began to be dinused, the galley-slaves were employed in hospitaln, publio worka, ete.; and the name of the punishment was changed by the Constituent Assembly (1789) to travaux forces, compulsory labor, whence the word fiorcat for a er sinal so condemned. Under the code of the empire, the punishment was accomprnied with forfeiture of property, infamy, and branding, Isy an alteration of the law, effected in 1832, the brand was abolished; and the crimiasla, who had hitherto been intermingled in the three penal fortresses (Toulon, Rochefort, and Hrest), were elassitied. Toulon is now appropriated to those condemned for 10 yeare and under, Brest to those from 10 to 20, Rochefort to the condemned for life. The name Bagne, which is applied in France to prisons in which those condemned to compulsery labor are confined, is derived from the famous Bagnio prison at Constantinople, so called on account of nome bathe aituated $t^{\circ}$ ere. The principal arimes now punished in this manner by the French law are-nome acts of violence against the government or public law, coining and forgery, assaulta, followed by death, on legal officers, murder, unless under such aggravated circumstances as are punished by death, cutting and maiming, rape, abduction, burglary, highway robbery, burning of jnsulated buiidings, threntening letters, perjury, etc.
Gallipoli, a seaport town of south ltaly, kingdom of Naplea, province Terra di Otranto, on the east shore of the Gulf of Taranto, on the rocky isjet at the west extremity of n narrow peninsula, to which it is joined by a liridge; lat. $40^{\circ} 3^{\prime}$ N., long. $17^{\circ} 88^{\prime} \mathrm{F}$. It is fortified, has a castle, and is well built. Population abont 7000 (6709 in 1843). It is the principal port of the Mediterranean for the shipment of olive oil, and has, in consequence, a considerable trade. It is indebted for this distinction partly to its being situated in a country where oll is produced in the greatest abnndance, but more, perhaps, to the circumstance of the cisterns cut in the limestone rock on which the tewn is built, being peculiarly well fitted for the preservation of the oil. They do not differ much In appearance from a common water-tank. They are usually under the houses of the inhabitants; are arched over, with the exception of a circular hole, into which the oil is poured, and through which it is again druwn up. It will keep in these cisterns for an indefinite period ; and is materially improved, not oniy in clearness, but also in flavor. When the oil is to be shipped, it is drawn off from the cisterns into uteri, or akins, which are carried on men's backs to the shore, where the casks, being tilied, are conveyed in lighters to the ships.

Gallipoli has no harbor, but a bay or roadstead north-east of tho town. The latter has from 10 to 12 fathoms water; but it shoals toward tho shore; and vesnels of considerable burden shouid not conse within less than a musket-shot of the land. Those that come nearest to the shore, moor with their heada to the northwest, with two cables out ahead and two astern, in

## GAL

from 16 to 20 feet of water. The only danger in antering or leaving the roads is a blind rock at thelr entrance, about 500 yards N.N.E. from the fort. It has only about from five to seven feet of water; and as it is not marked by any buoy, pllots should be employed by foreigmers. A tunny fiahery is carried on inside the bay; but the nets are easily avoided. Winds from the north and north-weat throw In a heavy sea. About $1 \frac{\text { miles west from the town is the low, fat laland of }}{}$ St. Andree. It is sald, in Nories's Sailing Directions for the Mediterraneas, that there is a light-honse on this island. But, though a light-house on it would be of great service to shlps making the port, and though it be laid down in some of the charts of thla sea, the truth ls that none auch really exists, nor la there even a tower on the ialand 1 There are some lesser lslands between St. Andrea and the main-land. There is deep water bet ween the former and the neareet islands, but not between the latter and the town. A dangerous shoal lles about balf a mlle south of St. Andrea.

Crallipoll Oil is a coarse ollve oll, containing more or less mucilage, imported from a ses-port, so named, of the province of Otranto, in the kingdom of Naples.

Galle, or Gall-Nuts (Fr. Galles Noix de Galle; Ger. Gallapfel, Gallus ; It. Galic, Galluze; Lat. Gale; Arab. Affs; Hind. Majouphal; l'er. Mazu), are excrescerces produced by the attacks of a small Insect, which deposits its eggs in the tender ehoots of a speclea of oak (Quercus infectoria linn.), abundant in Asia Minor, Syria, Persla, etc. Galle are inodurous, and have a nauseously bitter and astringent taste. They are nearly spherical, and vary in maguitude from the aize of a pea to that of a hazal-nut. When good, they are of a black or deep olive color; their surface is tabercular, and almont prickly; they are heavy, brittle, and break with a tlinty fractore. They are known in commerce by the numes of white, green, and Gwe. The white galls are those which have not been gathered till after the insect has eaten lts way out of the nldus and made its eacape. They are not so heavy an the others, and are of a lighter color, and do not fetch so high a price. The green and blue palls are gathered hefore the inseet has escaperl; they are heavier and darker than the former, and are said to afford about one third more of coloring matter.

Galls are of great lmportance in the arts, being very extensively uaed in dyelng, and in the manufactnre of lnk, of which they form one of the principal ingredienta. They am the most powerful of all the vegetalle aatringents ; and are frequently used with great effect In medicine. Galls conaist principally of three aubatances $/$ tannin or tannic ach; y yellow extractive; and galle ack. The decoction has a very astringent and unpleanant bittor taste. The ancienta reckoned the gall-nuts of Syria superior to every other, and they atlll retain their pre-eminence. They are principally exported from Aleppo, Tripoll, Sinyrna, and Sald; those brought from the first come chiefy from Moanl, on the wastern bank of the Tigris, about ten days' fourney from Aleppo. 'The real Mosui galls are unquestionably the beat of any; but all that are gathered in the surrounding country are sold under this name. Those fmon Caramania are of a very inferior quality. The gulle nuet with In India are cearried thither fron Perain by Arabian murchanta. It la not unusual to dye the whitinh gall-nuts Dloe, In order to increane their value. Ihe fraud if, however, decected by the deeper blue tlage that lis thus imparted to them ; and by thelr being perforated and lightor thas the genoine blue galls,-llanchort on Coders; Ainaliz's Mat. Indica, elc.
The Giallonul Oak (Quercus lifectoria), \& native of Persia, Asia Minor, Arabla, Haypt, Moroceo, and Algeria, in its natural habitat, fa an ovargreen ahruh, whth a erooked stem, and seliom attaina six feet in helght. From the circumstance of its growing neur I'aria, whers it bears the wluter quite woll in the open
nir, though looing lte leaves In the autumn, it donbtless would be adapted to the cllmate of our middle and southern States. On thls shrub, It may be unnecessary to etate, is found the well-known "gall-nuts" of commeree, which are extensively used lit the manufacture of writlng-ink, and In dyelng. Thess excrescences are the product of the gall-fly (Cynips scriptorum), a suall ineect of a pale-brown color, which may often be found Inclosed in the galls sold in the shops of the druggists, collectorl before the fly had mude lta appearunce.
Galvanised Iron, ls the name given to lron tinned by a peculia patent process, whereby It resists the ruating influence of damp alr, and even molature, much longer than ordinary tin-plate. The following is the preacribed process: Clean the surfuce of the iron perfectly by the joint action of dllute acd and friction, plunge it into a bath of melted alnc, covered with sal-ammoniac, and atir it about tlll it be alloyed ouperficially with this metal; when the metul thus prepared lis exposed to humbdity, the zine is suid to oxydise alowly by a galvanic, action, and to protect the Iron from ruating within it, whereby the outer surface remains for a long period perfectly white, in circumstances under which lron tinned in the usual way would have been supericlally browned and corroded with rust.

Gabanized Tinned Iron,--One of the moat remark. able advancements in the Iron munufacture in recent years has been the Introduction of galvanized tinned iron for an almost innumerable variety of purposes. This material consists of Iron plate coated with tin, not by the ordinary tin-plate process, but by galvanle deposition. It eerves as a aubatitute for plaia Iron, for tiu-plate, for zinc, and for load, under certain opecial circumstances. It is stronger and more duralile, for muny purposes, thun lead or zinc; it la better than plula iron where rust is to be avolied; it is superior to lead or zinc in warm elimates, inasinuch as it does not expand and contract to so great a degree. Whthinside a bouse and without, in vessels mind in utensils, in towns and in the country, in manufuctures and In tomeatie economy, we now find this eubstance employed. We have galvanized tinned iron corrupated plates for roofing, and for the sides and doors of hooses ; in another form there are plaln plites for the same purpose; roofs for sheds, roofs and sidea fur atore-houses, and many similar purposes. Then, beshles the aheet form, there are round and square bars, hoop-iron, wire, tuben, and pipen, nails, rivets, bolts, screws-all formed of iron thus protected by the gal-vano-tin process. There is this advantage also, which Is unattainulile by the ordinury tin-plate process, that articles can be tinned after they ure made in the proper form of lron, provided they are of enall dimensions. The plutea are really a combination of three metals ; for, in the firat place, a layer of tin is precipitated on the iron plates from a solution of chlorid of tha by the galvanic process; and then a layer of ainc is obtained by dipping the sheets into molten zinc.

Galveston, city, pert of entry, wil caplad, Gal. veaton conuty, 'lexas, 350 miles from the $S$. W. P'assage of the Miasisslppi River. Jast. $29^{\circ} 18^{\prime} 32^{\prime \prime}$ N., loug. $6^{\circ} 44^{\prime} 38^{\prime \prime} \mathrm{W}$. It is altuated on the east end of Galveston feland, and is the great commercial eluperium of Texas. It was settled in 1837. It containa a bank, capital $\$ 300,000$, a steam foundery, 4 printing-oflices lasulng 2 tri-werkly; 1 aemi-weekly, and 1 wookly newnjaper, 3 cotton-preases, 50 stones, ma.i pejulation, in 1856 , alwut 6000 . Tonnage in 1851,6183 toss.

The bar outelde Galveston harbor and bay, beween the northeant end of the islund and I'oint Bolivar on the malaland, has not wore than $\mathrm{I} \frac{1}{\frac{1}{9}}$ foet of water at the higheat aprings, and but 10 feet at ebb; hence the amaller clasa of veasale, or thone under 200 or 250 tons are most aulcuble for tha trude of the part, as well as fur that of almont all the other ports ou the north and east aldes of the gulf, the deticiency of water
bolng all $t$ houses of at a'disten feet of wa proach the ing-to and promptly a feet of wa shoals to making the in five or al excellent, $t$ cablea have on the look tempt cross board. In water. The north to sol west, hus no and is inter from five to Seversl very ures in the command of
The preso growth of au tion of the winter will $\mathbf{r}$ almost nothis duced sugar the growing seed sufficlen Toxas ougar dar years nam $Y$ Yent.
1880
1851.......
1851.
1833.

1883
1855
For the co the receipts hhds, for the molasses were the year last be requilred to figures
The follow ments of the ton for each c

Artiel
Cotton bates Augar hbda. Molasses, bbis Beef Catte. . Hiles......

Statenant of Antioliks Mantracti tif Ÿan

Artiet
Cattle.
Cottor
thiles.
Molasse....
Bugar, canc.
Total.. ....
The value port during th able contrast amount of ahi Yeary.
184
1845........

## Increase.

The value lase than that whan the valu
belng all but universal. Though the land be low, the $/$ and foreign, $\mathbf{8 7 6 , 2 4 0}$-total, $\mathbf{6 4}, 418,498-$, Texas has houses of Galveston may be seen from the mast-head at a'diatence of eaveral miles. Vessels drawing eight feet of water and upward nhould, however, not approach tho bar nearer than six fathoma, without heav-ing-to and making the signal for a pilot, which ia promptly attended to. Vessels drawing less than oight feet of water may approach the bar tili the water shoula to four fathoms before heaving-to. Veasels making the port in the night ahould invariably anchor In five or six fathome ; and the holding ground being excellent, those who are well found in anchors and cables have nothing to fear. Pilot-boats are conatantly on the look-out ; and shipe should on no account attempt croasing the bar tili thoy have got a pilot on bourd. In the harbor there ia from 18 to 30 feet of water. The bay, which atretches abour 35 miles from north to south, and from 12 to 18 miles from east to west, has not generally more than nine feet of water, and is intersected by a bar, on which there la only from tive to six feet of water.-Kennedy'a Texas, p. 20. Several very conaidarabie rivers have their embouchures in the bay, so that the town has a conaiderabio commund of Internal navigation.
The present year ( 1856 ), ciosea an epoch in the growth of sugar in Texas. The almost total destruction of the plant by the unprecedented cold of last winter will reduce the product of the coming year to almost nothing. Shouid all who have heretofore produced sugar deterinine to go on, It is doubtful whether the growing crop of cane wili afford much more than seed sufficient for a re-commencement. The receipts of Texas sugar und molasses, at thls port, for the calendar years named below, were as foliowa :

|  | Molasag, bbla, | ${ }^{\text {arf }}$ h had |
| :---: | :---: | :---: |
| 1851 | .... 2,48 | 1,086 |
| 1842 | . 8,578 | 1,829 |
| 1853 | . 8,086 | 4,076 |
| 185 | 0,398 | 4,754 |
| 185 | 6,728 | 4,781 |

For the commercial year ending August 31, 1855 , the receipts of sugar were $6: 175$ hihids, against 7570 hhds. for the year just cioned; and the recelpts of molasses were then 7504 bble against 8668 blis. for the year last past. We apprehend that two years will be required tu bring the production again up to thoso figurea
The following is a comparative statement of shipments of the lending articios of export from Galvestou fur ench calendar year aince 1853 :

| Artieles. | 1ess. | 1854. | 1858. |
| :---: | :---: | :---: | :---: |
| Cotton, bslen. | 60, 992 | 84.178 | 64.888 |
| Sugar, hbda. | 4,076 | 4.704 | 4.781 |
| Molasses, bbls | 0.086 | 6,998 | 6.728 |
| Beef Catil | 8,763 | 6, 0.57 | 4,881 |
| Ithes. | 14,146 | 13,284 | 20,517 |

Statenamt of the Quantity and katimatho Valife of AHtlolas oy Mrhuitanibise ur oomestio drowtit and


| Ariclen | Tolat. | A) rage pricos. | Veluatiou. |
| :---: | :---: | :---: | :---: |
| Catte............nnmber | 4,801 | 11600 | 689,776 |
| Cetton............. . . bales | 70,953 | 8500 | 2,698, 8 \% ${ }^{\text {a }}$ |
| Hides, . . . . . . . . number | 80,517 | 100 | 88,1068 |
| Molasses..........gallona | 9,945 | 25 | 91,246 |
| 8ugar, cane..... pounds | 1,984,710 | 7 | 1185,429 |
| Tolsl.e.................. |  |  | 43,001,86- |

The vaiue of domestic produco exported from thid port during the past two gears affords a highly favorable contrast in favor of the season just clused. The amount of shipmenta was, Augunt 81, aa follow's:


The vaine of the exporta, for the year just past, is lese than that of the year ending with August, 1854, whon the value of exporta, coastwise, was $83,037,205$,
not had a favorabie aesson for orops aince 1858; and 1856 wili add another to the years of ahort cropa, though an improvement over tha last two is anticipated.

The number of vessela which arrived at this port, from beyond the diatrict of Texas, during the year 1856, wan 269, viz. :

| Veasale. | Conalwing. | Forelan. | Total. | 1836. |
| :---: | :---: | :---: | :---: | :---: |
| 8teamshlps...... | 97 | 0 | 97 | 90 |
| Ships........... | 11 | 7 | 18 | 14 |
| Barks............... | 46 | 18 | 04 | 60 |
| Brigs.............. | 28 | 1 | 29 | 92 |
| Schoouers . . . . . . | 60 | 1 | 61 | 48 |
| Total........... | 248 | 87. | 260 | 888 |

Increase-Steamshipa, 7; whipe, i; barins, 5; brigs, 7 ; mehooners, 12. Total increase, 36.

Of vessela belonging to the port of Galveston the custom-house booka of the present year (1856), show that there are:


The amount of tonnage of vessels cleared at this port for the year juat ended was 106,670 tons against 94,118 the year prevlous. Tha number of peraons employed on board was 8467-of whom but two were boys-belng an increase of but two employed during the year.
There ls, we beliove, no article grown, for human consnmpition, In any State of the Uuion, which ia not alroady, or may not be produced in some portion of Texua, such is the variety of aoli, climate, and general clrcumstances. In the production of the great staples of wheat, corn, beef, cotton, and sugar, no State in the Union approaches it, ao great is the extent and productiveness of the soil adapted to these articies. It is eatimated that the augar region is capable of producing a crop of $3,000,000$ of hogeheada, or much more than is necessary to aupply the inhubitants of the whole Uulon. $60,000,000$ of ueree of the landa of the State are situated within the cotton-producing reglon, and one third of this number are believed to lie well miapted in point c. soil to the growth of that plant. Thero is no doulit of the capacity of the country to produce a much iorger crop than ia now yielded by the whole Sunth, wille the expenae of production is much lesa than the genurni average in other Statos. -Ciahreston Price Current and Census Peports.

Galway, the connty town, formeriy dealgnated the Liberties of Galway, und a county la itasif, having an exciusive local juriadiction, extending two milies on every sile except the south. It atands on the northern ahore of the liay of Galway, Ireland, on the eastern lank of the river of the aame name. It is auppos."' by aome to bo the Nngnatia of Ptolemy. it cortainly was considered .. position of much importance from the earlient period, as in tho divisions of tite isiami into north and south, ut first made by the descendants of lleremen, and afterward repeatad by Comn and logan, it was ilxod nipon as the easturn extremity of the line of clenurention, whilei proceeded eastward to Dublin. Galway la likely to become a pince of aome note, being tho proposed eastern terminus of the subnarine tolegraph communication between Burope anil the United States.

Gama, Vasco da, the tirst European who reachod India by doubling tho Cupe of Good Hope, was born int Sines, a small sua-port of Portugal. Of his eariy history so littio has been recurded, that even the date of hia birth ia unknown. On attalning manhood, he found that the auccess of Columbua had given a powerful impulse to the opirit of maritime adventure.

On the 4th of July, 1497; Vasco da Gama sailed from Lisbon with a squadren of three vessels manned by sixty sallors, bent on making hin way to Indla round the Cape of Good Hope, then known as the Cabo Tormentoso, or Stormy Cape. The hardships and dangers to be encountered were sppalling, and led to a mutiny, whleh was with difficalty quelled by the firmness and prudence of the commander. He doubled the Cape at length, and reached in sufety the small tuwn of Melinda, where he secured the services of an Indian pilot. In 23 days they reached Malabar, and on the 20th of May 1498 they came to anchor at Calicut. Guma wus well received by the zamarin; whom, though not without difficulty, he convinced of the advantsges that would acerue to his country by the establishment of a commercinl treaty with Portugal. Gama than turned his prows homewnrd; and, having touched at various points on the Asiatic and African coasts, he once more cast anchor in the Tagus in the September of 1499 , after an absence of 2 years and 2 months. Emmanuel received him with great honors, ennobled hlm, and gave him the title of sdiniral of the Indian, Persian, and Arabian seas. The effect of Gama's voyage was soon visible in the ruined trade of the Italian commerclal republics, which had hitherto monopolized the traffic of the East. In prosecution of Gama's discoveries, another fleet was sent out to India, under Cabral, who accidentally discovered the Brazils, and on reaching his destination established a factory at Calicut. The natives, instigated by tho Moorish merchants, who were jealous of the lortuguese, rose up in arms, and muriered all whom Catiral had left behind. To avenge this eruelty, the Portuguese fitted out a powerful armument, of which the command was given to Gamm. The almiral set sail, and devastated those parts of Africa and India whero he had formerly been recelved In a hostilo spirit. He exceuted especial vengeance upon Culicut, which he lombarded nud reduced to ashes, at the same thme hanging the ssilors of the vesuels in the harbor which had fallen Into his hands. Ile then sailed away to Cochin, where he established a fuctory, from which the power of Portugal ralliated nver India. In 1503 he returned home, und as before was welcomed with honors and titles, but was not limmedintely reappointed to the commanil in Indin. He remalned at home in inuction during nearly 20 years ; but in 152. (some years after the denth of the great Albuquerque, wholad been consolidating the Portupuese power in the East), Guma was appointed viceroy' of Portupuese Indi. Not long after arriving at Cochin, Gama lied, in 1525, and was buriel there; but 13 years later his bones were dininterred and conveyed to Dortugal by order of John III., king of that country.

Vasen da Gama was a man of great ability, courage, and enterprise; but he possessed none of these qualities In a higher degree than many others of his cotemporaries who have lonig since pased into obslivbun. lle owes no small portion of his fime to the fact of his being the hero of the national eple of Porturgh. The moment of him doubling the Cape of Gond llope, and secing in the clouds the Spirit of that atormy region, has been often seized by painters as a at riking subject for pictorial delineation. Ine of the most remarkable of these pirtures is that liy the late Davil Scott, of Elinhuris.-E:. If.

Gamboge (Fr. Gomme gutle; (ier, Gummigutt; It. Giommn gulls; Jat. (iummi gultre, C'umbogia; Arah. Oasirareirund; Slamese and C'malngan, Rom! $)$, a concrete vegetable juice, or gum reain, the produce of the Cirrinias Cambogin, a forest-tree of the genus which affind the mangostein, the most exgulate frult of the Fant. The dintrict which yield gamonge lie on the eant alde of the Gulf of Siam, hetween the latitules of $10^{\circ}$ and $12^{\circ}$ north, comprosing a portion of Sian nud the kingdon of Cambrija, whence Ita Engliwh nance. It is obtained by making inelstons In the bark
of the tree, from which it exudes, and is collected in vessels placed to recelve it. In these it assumes a firm consistence; and being formed into orbiculur masses, or more frequently cylindrical rolla, it is at once fit for the market. It is of a bright yellow color, opaque, brittle, breaks vitreous, has no emell, and very little taste. Specifle gravity 1.22. When taken Internally, it operntes as a inost violent cathartic. It forms a beautiful yellow pigment, for which purpose it is princlpally used. The Dutch began to import it sbout the middle of the seventeenth century. The greater part of the gamboge of commerce first finds its way to Bangkok, the Siamese capital, or to Suigon, the capital of lower Cochin China; from thence it is carried by Junks to SIngapore, whence it is shipped for Europe. Its price at Singapore variea, according to quality, from 30 to 80 dollars per picul. Dark-colored pieces should be rejected.-Cinaw ronsis Embascy to Siam, p. 425 ; Thomson's Chemistry.
Ganges, the principal river of Ilindoostan, through the north part of which it fiows from west to east, traversing the centre of the British presidencies, lienral sud Agra, almost in their entire length. It rives by two principal heads, Bhagirathi and Alakananda, in lat. $31^{\circ}$ N., and long. $7^{\circ}$ E., from sn immense mass of anow at an elevation of 13,000 feet ; flows at first S.W. to IIurdwar and thenceforward inostly E: S.E. to the Buy of Bengal, which it enters by numer. ous mouthe, its eastmost arm uniting with the Megna or Brahmaputra, and its west branch being the llooghly River. Total course estimated at 1500 miles. In Its course it reccives 11 affluents, sume of which sro equil to the Rhine, and none smaller than the Thames; the principal are the Jumna, Ramgunga, Goomty, Goggra, Sone, Gunduck, Koose, Mahanuddy, snd Teesta, which have courses varying from 300 te 660 miles in length. On its banks are numerous cities and towns. Between Ilurdwar and Allahabad it is usually from 1 mile to $1 \frac{1}{4}$ niles across; below which its breadth increases frequently to 3 miles, and at 560 nilles from the sen it is 30 feet in depth, and so continues to near its mouth, where, however, the quantity of deposit it brings down often forms bars and shoals. In tho annual overflow of the river, when it is at its helght in July nud August, the waters rise to 32 feet. The annunl deposit of mud at its delta is estimated at $6,(0) 0,000,000$ cubic fect. It is crossed by no bridges after it leaves the mountains. The (anges is the sacred river of the JIindoos, and is so called as Howing through Gang, the carth, to heaven.
Gangway, a narrow jlatform or range of planks lad horizontally along the upper part of a ship's side from the quarter deck to the forecastle, preculiar to $\left.{ }_{k}{ }^{2}\right]_{j}$ w that are waisted, for the convenience of walking
se expeditiously fore and aft than by descendin; into the waist. It is fenced on the ontside hyinn st mehions and ropes or rails, and in vessels of war with a netting in which part of the hammoeks are stowed. In merchant ahips it is called the ganglowari.
finmoray is also that part of a shiphen side, botio within and withont, by which persons enter nind de pirt. It is provided with a nuficient number of steps or cleats nailed upon the ship's side nearly as low as the surface of the water, and sometimes furnishel with a ralled nceommodathon ladder resembling a fifght of staits projecting from the ship's sido aud sceured by inon litaces.
(inngray is ulsu) used to nignify n narrow pasakge left in the lolil when a ship is laden, in order to entef any particular piace as occasion may require, whethe: tu examine the situation of the provisiona or cargo, , $^{\prime}$ discover and stop a leak, or to bring out uny article that is wantel. Jinally, gangway implies a thoroughfare or narrow pasmage of any kind.

Tu bring to the gnagray; a phraso algnifying to punish a semman by weizing him up and togging him with a cat-o'-nluetails.

Gant: glove), a small pla at all po tuken of the 13th Garne Granatste noi hamen garnet, th the first is from its poinegrane nid brown glistening, sometimes 4.35 . The shades of appear in $t$ nearly opac Thomson's Indis, and from Green garnets are but stones always in d p. 113.

Gas. T evolved fror Phil. Trans. mination wa wall, in 179 made at Boul on the occas Gus was pert snd candles Manchester, Gns-lights we lane, August Pall Mall, in in 1814. Th the strects th The gasopipe miles.-IIAyı
livery one of coal, when which burns quantity of 1 seems to hav 1:36-1739, to Illumination ; limited seale subject till n length, howe series of judic gis from con succeeded in provements ev that the gas $n$ conveyed by 1 , where it was slow combinst small orifices, discovery, whi among the lien into practice a applied to lige In 1800, it was Manchester, in and is now er theatres, and all the consld, most convilidera

Gas Ight i more tolts peed inteusity, than ing to Dr. Tho

Gantlet, or Gauntlet (Fr. gantelet, from gam, a we value the quantity of light given by $1 \mathbf{l b}$. of tallow glove), a kind of iron glove, with fingers covered with small plates; formerly worn by cavallers when armed at all points, and which used to be thrown down as token of challenge. Ganntlets were introduced about the 13th centary.
Garnet, Garnets (Fr. Grenats; Ger. Granaten, Granatstein; It. Granati; Lat. Granati; Rus. Granatnoi hamen; Sp. Granadas). There are two specles of garnet, the preclous, and the common. The color of the first is red; and hence the name of the mineral, from its supposed resemblance to the fiower of the ponegranate; passes from Columblne red, to cherry and brown red; commonly erystallized. External lustre glistening, internal shining, vitreous; transparent, sometimes only translucent; specific gravity 4.08 to 4.35. The color of the common garnet is of various shades of brown and green. Different colors often appear in the same mass: tranglucent; hluck varieties nearly opaque : specific gravity' from $3 \cdot 66$ to $3 \cdot 75$.Tuosson's Chemistry. The finest varieties come from India, and some good specimens have been received from Greenland. When large and free from flaws, garnets are worth from $£ 2$ to $£ 5$ or $\mathbf{£ 6}$, and even more; but stones of thls value are of rare ocqurrence, and always in demsnd.--Mawe on Diamonds, etc., 2 ed., p. 113.

Gas. This Intlammable seriform fiuid was first evolved from cosl by Dr. Clayton, in 1736-1739.Phil. Trans. 1te application to the purposes of illumination was first tried by Mr. Murdoch, in Cornwall, in 1792. The first diaplay of gas-lights was made at Boulton and Watt's foumilery, in Birmingham, on the occasion of the rejoicings for peace in 1802. Gns was permanently used to the exclusion of lampe and candles at the cotton mills of l'hillips and Lee, Manchester, where 1000 burners were lightel, 1805. Gns-lighte were flret latroduced in London, nt Goldenlane, Aurust 16, 1807. They were used in lighting Pall Mall, in 1809; and were general through London in 1814. They were first used in Duhlin in 1816, and the strects there generally lighted in Octoher, 1825. The gis-plyes in and round London extend to 1100 miles.-Hayms.

Every one must have remarked that most apecies of caul, when lgnited, give ont large quantities of gas, which burns with nuch brilliancy, ylelding a great quantity of light as well as of heat. Dr. Clayton scems to have heen the first who attemptel, about 1736-1739, to apply this gas to the purposes of artillicial illuminution; but his experiments were upon a very limited scule, and no further attention was paid to the sulject till more than half a century afterward. At length, however, Mr. Murdoch, of Soho, institutel a series of judkeous experiments on the extrication of gas from coal; and, by hils ingenuity and angacity succeeded in estahlishing one of the most capital inprovements ever made in the arta. Mr. Murdoch found that the gas might he collected in reservoirs, purifled, conveyed ly plipes to a great distenco from the furuace where it was generated; mol that it nifords, hy its slow combustion, when allowed tu escape through small oritces, a beautiful and steady light. 'This great diseovery, which places Mr. Murloch in the tlrst rank among the benefartors of mankind, was flrat hrought Into practice at Redruth, in Cornwall. In 1802, it was applied to light Mr. Murdoch's manufactory at Solor; in LNo5, it was adopted by Messrs. Phillips anil Lee, of Manchester, lio the lighting of their great cotton mill; and la now employ ed in the lighting of the atreets, theatres, and other pulilic buildings, factories, ete, of all the considerable towns of the empire, and also in most consillerabie tuwn of Einrope and America.

Gas llght is indehtel, for its rapld dlffusion, not more to lts peculiar suftness, clearness, and unvaryling intensity, than to its comparative cheapness. Accoriling to Dr. Thomson (Encyc. Brit., art. (ias Laures), if

In candles at 1s., an equal quantity of light from cosl gas will not cost more than 24 y ., being less than a fourth part of the cost of the former. Oll and other anbstances have been used in furnishing gas for the purpose of Illuminatlon, but none of them has answered so well as coal. Most of the oil gas eatablishments have been abandoned. The construction of gas works on a large scale, and the earrying of pipes through the atreets and into housea, etc., is very extensive, and requires a largo outlay of capltal. Hence most of the gas lights in the different towne are sapplied by jointstock companies. Many of them have turned out to bo very profiable concerns.
The first attempt to supply elties in the United States with gas was made at Baltimore in 1821, and at New York $\ln 1823$. Both of these attempts were unsuccessful. The New York Gas-Light Company, with a capital of $\$ 1,000,000$, was incorporated March 26th, 1823. It was reorganized in 1827, and then commenced a euccessful bueiness. The Manhattan GasLight Company was ineorporated with a capital of $\$ 2,000,000$, liebruary 26th, 1830. Upon these two Companles the city of New York is now entirely dependent for gas. The former Company aupplies all that portion of the city which is below Grand-street, and the latter Company all that portion which 10 hetween Grandetreet and Serenty-ninth street. The New York GasLlght Company has 130 miles of pipes laid through the streets of the city, rauging from 4 to 18 inches in dlameter. In 1855 this Company made $300,000,000$ cubic feet of gas, consuming about 45,000 tons of coal. It furnished gas to 3,200 street lamps, and to 9,000 private consumers.
The Manhattan Gas-Light Company has 200 miles of pipe laid through the strcets of the city, ranging from 3 to 20 inches in diameter. In 1850 this Company made $470,000,000$ eubic fect of gas. It lighted 7,148 atreet lamps, and furnished gas to 17,300 private consumers. These Companies jointly light and keep in order for the city about 10,150 street lamps, for which they are paid \$25 per aunom for each lamp. This payment nets the Companics, according to their estlmate, only $\$ 150$ per 1000 cubic feet of gas consumed in the lamps, which ta just one half the sum charged to their private customers for gas, but la doultess protitable even at that low rate. The gas is manufactured from rich bituminous coals, such as Cannol coal, Newcastle ronl, and the Albert coal of Novn Scotia. A chaldron of Noweastle conl, welghing 27 ewt ., will yiold:


A chaldron of Cannel coal will yield nn average of 12,000 culice fect of gat. The gits coul used in New York costs akout $\% 10$ per chaldron. The coke, or shell of the coal ufter the gas is extracted, is worth ahout \$4 per chaldrom, and makes a very pleasant fire in a grate. The bitumiuous coml is thrown in a hot iron eylinder, or returt, as it is culled, whose mouth is closed num sealed tight with solt clay. The vapor of the coal, disthling in the retort, passes thruugh a tulie, by which it escappes into a series of vessels e.tled the condenser, whero it cools and deposits all its tar and other combensible impurities. Thence it passes through nuother series of vessels called the purifler, contahing quicklime, of the consinten y y eream, which cleanses the vapor of its sulphurous intermixtures. liron the lime the purilied vapor of the coal, or, in other woris, the gas, now flowa into the gasometer, and is ready fur use. From the gasometer it Is driven, through main and service pipes, lato the consumera' hurners.
The machinery of all gas manufactories is the same in principle, anal seems now to be almoat perfect. The chief limprovements maile lately in the machinery consist in tho manner of applying to the gusometer the pressure which regulates the force of tho gas.
 tia Unitid Statea, biowino al o the Ybaf of inoomporation of tif Compant, Data whet Gae wab fibit tezd, Coat of 'oat. ando ordinary annual Conatymfion, ETO.

| 20 Place. | Qm Company incorpi'd. | Gas 6 nl ueed. | Copital of Company. | $\begin{array}{\|c\|} \hline \text { Price of Gas } \\ \text { per } 1000 \text { oub. } \\ \text { Foet, 1857. } \end{array}$ | Cont of Conl uned per Ton. | Annual Comnumplion of Gas. | Mulee uff. | , Deseription of Cont med. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Detroit, Mtoh........ | $\begin{aligned} & \text { Vear. } \\ & \text { 184y } \end{aligned}$ | $\begin{aligned} & \text { Yanr. } \\ & 1861 \end{aligned}$ | $224,000$ | $8 \mathrm{Cta}$ | $\begin{aligned} & 6 \text { Cta. } \\ & 525 \end{aligned}$ | $\begin{gathered} \text { Feef. } \\ 10,118,000 \end{gathered}$ | 18 | Mineral Ridge, Brier Hill, eta. |
| Wheellog, Va, ...... | 1849 | 1950 | 715,000 | 800 | 140 | 8,800,000 | 4.33 | Sof hituminoun cosl. |
| Ctncinnall, Ohlo.... | 1837 | 1843 | 800,000 | 280 | 425 | 08,000,000 | 43 | Yoaghtoglieny, or Httaburgh; coal. |
| Lonisvilie, Ky. . . . . . | 1888 | 1840 | 401,000 | 800 | 485 | 88,760,000 | 80 | Kanawha ceanel and Youghtogheny. |
| Cleveland, Ohlo...... | 1840 | 1819 | 100,000 | 300 | 450 | 20,000,000 | 1480 | 'Pittshurgh coal.' |
| Albany, N. Y. ...... | 1840 | 1845 | 800,000 | 800 | $\begin{gathered} 875 \\ 1120 \end{gathered}$ | 40,000,000 | 20 | Newcatile conl, \$8 75 Cannel, \$11 20. |
| Rochester, N. | 1848 | . 1843 | 150,000 | 815 | 588 | 27,000,000 | 17.25 | Anthracite conl. |
| 8t. Louls. Mo. ...... | 1839 | 18.4 | 600, 0100 | + 800 | 750 | 03,600, 000 | 45 | Plltwhurgh coal ooly. |
| t'htiadelphla, Penn... | 1535 | 1800 | 2,000,000 | - 213 | 650 | 434,000,000 | 214 | Mitahurgh and Virginta conis |
| Washington Ctty.... | 1846 | 1848 ${ }^{\text {. }}$ | 424,000 | 360 | 000 | 00,000,000 | 30 | Engltah cannel and Virginla Ctover Hill. |
| New York Gas Co. . . | 1823 | 1824 | 750,000 | 250 | $\begin{aligned} & 800 \\ & 1000 \end{aligned}$ | 430,000,000 | 125 | Engttish cannet and Nowcentle prinelpal. iy, oosting $\$ 3$ to $\$ 10$ per ton. |
| Manhattan Co., N, Y. | 1830 | 1635 | 2,770,000 | 250 | $\begin{gathered} 800 \\ 1000 \end{gathered}$ | 650,000,000 | 200 | English caonel and Newcaalle. |
| Boston, Mans. . . . . . . | 1526 | ".. | 1,000,000 | 250 | 000 to 900 ch. | 190,000,000 | 10 1 | Pletou conl, \$6. Fingllah eanncl, \$1650 per chaldron of 9000 pounds. |

A very careful and accurate analysis and photometric examination of wood gas have heen made by two eminent analytical chemiats (Dr. Woleott Gibbs, of New York, and Dr. F. A. Genth, of Pbiladelphla), whose report of their chemical results furnishes a highly antisfactory explanation of certain curious phenomena that accompany the combustion of this gas.

Thes examined two varicties of gas, one made from old fleld pine, the other from small second-growth oak, with the following resulta :


These gases were collected at tho Ninth Ward Works, and taken to New York for analysis. Their flluminating power was tested and found to be over / 26 candlea for a five-feet burner.

Mr. Murdoch in 1797 exhllited publicly the results of his more matured plana for the preparation of coal gas. The following year (being then connected with Messra. Houlton and Watt's enginoering werk-shop) he constructed an apparatus at the Soho founilery for lighting that estallishment, with suitable arrangements for the purification of the gas ; and these experiments, Dr. llenry states, "were continued with occasional interruptlons until the epoch of the peace of 1802 , when tha illumination of the Soho manufactory afforded an opportunity of making a public display of the new lighta; and they were made to constltute a principal feature in that exhibition."
In 180t-5 Mr. Murdoch had an opportunity of carrying his plans into effeet un a still larger scalv, by means of the apparatus erected under his superintencience in the extenaive cotton milla of Mesars. 1'hilips and Son of Mancheater.
It has been alleged that gas-lights were used in France before they were known in Fingland; but as the earlieat exhaltition of thead lighta, on which the claim of priority of discovery is founded, took place at Paris $\ln 1802$, it is cevldent, from the foregoing statemente, that the exhlbition alluded to was ten years nubsequent to the first experiment of Mr. Murdoch on the aubject.
The practicability of lighting by means of coal gas having been domonstrated lyy Mr. Murioch, a number
of aclentific men applled their talents to the further dovelopment of the art. Dr. Henry, the celetirated chemist, lectured on the sulject in 1804 and 1805, and furnished many hinta for the improvensent of the manufacturo. Mr. Clegg, an engineer in the ewployment of Boulton and Watt, was a worthy suecessor of Murdoch, and for many yeara was the moat eminent gas engineer of England. A good deal of the machinery of the gas-honse in ita present form was contrived by Mr. Clegg, and to hlm, also, we are indebted for the ingenious wet gas-meter. In 1813 Westminste: Bridge was first lighted with gas, and in the following year the atreeta of Westminster were thus lighted; and in 1816 gas became common in London. So rapld was the progress of this new mode of illumination, that la tho $\mathbf{c}$ : arae of a fow yeara after it was first Introduced, It was adopted by all the princlpal towns in the kingdom, for lighting strects as well as shops and public odifices. In private houscs it foond its way more slowly, partly from an apprelients, n, not e.atirely groundless, of the danger attending the use of it, and partly from the anoyance which was experienced in many cases through the carelesa and lomperfect manner In which the service-plpes were at first flted up. Thees inconveniences have been in a great measare, if not wholly, removeil by a more enlarged kuowledge of the management of gas; and at present there are few private houscs In large towns which are not cither partially or entirely lighted up by it. As the demand for gas increased, various improvements were from time to time Introducel, hoth lin the mechanical arrangementa and ln the chemical operationa of tho manufacture. The rapid Increase in the population of the metropolis, and of all large towns, has naturally led to an Increased consumption of gas; and the application of gas to the purposes of warming anil cooklug lias also further increased the demand for it. Hence it has been nat only necessary that new gas-works should be erected for the supply of new diatricts, but that the resources of old works should be enlarged. It is only a few years ago that a gas-holder capable of storing 250,000 cuble fect of gas was regarded as of enormous size; at the present time gaa-holders are mate of doulife that eapacity, and we oceasionally hear of them of the capacity of upiwaril of a million cubic foet. There Is one auch at Philadelphia; it is 140 feet in diameter and 70 feet in height. Nor will sucb dimensions ss these be regarded as superfluous when it is atated that some of the large metropolitan works send out each from a million to $\mathbf{a}$ million and a half enbic fect of gas it one uight in mld-winter.

Gaugir easks or ve of mensura unacquaint by certaln tho aliding of four rule united by b gether. TI waya, but a tion ; or, in bounds or er it is applied measuring t wind-gage, uring the de ceiver of an length of a a ing, to the ar Gage.
Gazette of divers con year 1620, an a small piece it. Others de pie, i. e. chatt in France in Nour. Dict. 1 Gauze. of auch exqui can only be Eativant, who scale of great remarkable m departinent of bruss gauze, ea the manufactir eral induatrial played a degre previous date; est of all. It be wrought to a as in this web square inch of in oue linear in stance, and the very carefully
Geelong, Austrailin, comp head of the wes weat of Melbou manication by has an increasi large vessels eur The liver Bark Southern Ocean Conaignees, 1 find the followin and duties of cos the proseedings merve. The mo Ly Mr. McKellar sulject of the brought under is tion of the law $r$ tained that it is as somu as the arr give nutice there groola on board ; bility by inmellia without piving the wharf is not they are landed sre destroyed upo fore the consignee them sway, the sh 'oss, but thut the

Gauging, the art of measuring the contents of easks or vessela of any form. Gauging forms a part of mensuratinn, but is frequently practiced by persona unscquainted with its theoreticnl principlea, who work by certain rules, with the ald of a ganging-rod, and by the sliding rule. The ordinary gauging-rod consists of four rules made of box-wood, each a foot long, and united by brass joints, so that it may be folded together. The term gauge or gage is applled in various ways, but always with reference to measure or proportion; or, in the literal sense of the word, to that which bounds or confines something else. Thus, in physics, it is applled to several instruments or apparatus for measuring the atate of a phenomenon; such as the wind-gage, raln-gage, the barometer-gage for measnring the degree of pressure of the air within the receiver of an air-pump, etc.; in architecture, to the length of a slate below the lap; in ruilway engineering, to the space between the rails, and the like. See Gage.
Gazette, a paper of publle intelligence and newa of divers countries, first printed at Venice about the yesr 1620, and so called (some say) because una gazetta, a suall piece of Venetlan coin was given to buy or read it. Othera derive the name from gaza, ltalian for magpie, i. e. chatterer.-Truslen. A gazette was printed in France in 1631; and one in Germany in 1715.Nour, Dict, Hist.

Gauze. Brass wire-gauze o. eloth is now mede of such exquisite fineness that the separate threads can only be detected by close inspection. Messrs. Estivant, who carry on the brass manufacture on a scale of great magnitude in France, produce wire of remarkable minuteness. There were in the French department of the late exhibition several specimens of brase gauze, each showing the lituit of fineness to which the nanufacturers had attained at the date of the sev: eral industrial expositions in France. Each date displayed a degree of flneness greater than that of any previous date; and the specimen for 1851 was the finest of all. It almost exceeds belief that metal could be wrought to such an exquisite degree of minuteness as in this web. There were 67,600 meshes in one square lnch of this lrass gauze, or 260 parallel threads ia one linear inch. The wire-drawing in the first instance, and the weaving afterward, must have been very carefully conducted.

Geelong, a township of Victorin colony, South Australia, comprising five contiguous villages, at the heal of the west arm of Port Philip, 40 miles south. west of Melbourne, with which it hins constant comnunication by steam. Population in 1846, 2,065. It has an inerensing trade in wool and grain, though large vessels can not upproach it within seven miles. The liver larwon flows past its west border to the Soathern Ocean.

Consiguecs, Masters, and Lightcrs at Geelong.-We find the following declaration on the respective rights and duties of consiguces, mnsters, und lightermen, In the proceedings of the Geclong Chantur of Commerce. The motion of which notice had been given by Mr. MeKellar, "thant the committee consider tho subject of the delvery of gools by lighters," was brought under discussion, and nfter careful examinntion of the law relating thereto, it whs clearly ascertained that It is the duty of the master of the vessel, as soon as the arrival of the ship has heen reported, to gire notice thereof to the owners or consignees of the gools on board; that he can not escape from his liability by immedintely landing goods at a pulhle wharf, without giving such notice, beenuse the wallvery at the wharf is not a dellvery to the consignee; that if they are landed wlthont such notice being given, and are destroyod upon the wharf by an aceldental fire before the conslgnee las had an opportuuity of taking them away, the alip-owners will be responsible for the 'ess, but that the lighternan or master of the vessel is

1) 1,
bound to keep the gooda on board or on the wharf at his own risk for a reasonable time, to enable the conaignea or his assigns to come and fetch them; and that the lighterman is not released from his responsibility untll he has obtained a receipt for the goods upon their delivery to the consignee.

Gelatine (Eng. and Fr.; Gallert, Leim, Germ.) is an nnimal product which is never found in the humors, but it may be obtained by boiling with water the soft and solid parts; as the musclea, the skin, the cartilages, bones, ligaments, tendons, and membranes. Isinglass consists almost entirely of gelatine. This substance is very soluble in boiling water; the solution forms a tremnlous mass of jelly when it cools. Cold water has little action upon gelatine. Alcohol and tannin (tannle acid, see Galifnuta) preclpitate gelatine from its aolution; the former by abatracting the water, the latter by combining with the substance itself into an insoluble compound, of the nature of leather. No other acid except the tannic, and no alkali, possesses the property of precipitating gelatine. But chlorine and certain salts render its solution more or less turbid; as the nitrate end liehloride of mercury, the proto-chloride of tin, and a few others. Sulphuric acid converts a solution of gelatine at a boiling heat into sugar. Gelatine consists of carbon, $47 \times 88$; hydrogen, $7 \cdot 91$; oxygen, $27 \cdot 21$.

Gelatine Casts.-The beautiful may often be created out of mere refuse ; an example of this is afforded by the articles now made of gelatine. The French show peculiar tact in procuring gelatine from the waste remnants of the skins, bones, tendons, ligaments, and other gelatinous tissues of animals. The well-ordered abattoirs of Paris and other large towns, afford facilities which we do not possess, for the economical application of all the waste parts of the slaughtered animals. M. Grenet has been the first to fabricate, on a largo scale, out of various residues of animal bodies, henutiful and diversified products which have hitherto been mado of the more costly material isinglass. He produces different kinds of gelatine, in thin sheets; pure and white films eut into threads for the uso of the confectioner; very thin, white, and transparent sheets, called "papier glace," or ice-paper, for copying drawings; dyed, gilt, und silvered gelatine shecta, adapted to the fabrication of artificial flowers and to the production of an almost endless variety of ornamented articles; and sheots embossed or stamped with elegant patterns. The gelatine is used, too, ns n material in the dressing of etuff gools, and ulso ns a refining ingredient in the clarification of wine.

Gem (Lat. gemma), in seulpture, a precious stone, used for the purpose of senlpture. The pructice of enrving gems is of remote nntiquity, though it is doutitful whether they were able to eut the tiamond or use the omerald and topaz for sculptural purposes. The stones usually selected are rock-crystal of different colors, jasper, chalcedony; onyx, cornellan, and blood-stone. Among the Greeks the art was carried to great perfection; but having fallen with the other arts into disuse, its revival was effected in Ituly in the 15th century, and modern masters lave more than rivaled some of the nucient productions.
Geneva (Du. Genever; lir. Genierve; Ger. Gaud, Genever; lt. Jequa di Ginepro; Lat. Junipera aqua; Sp. Agua de Encbro), n spirit olitained by distillation from grain, rectitied with the ndition of juniper herries. The latter gives to the spirit that peculiar flavor by which it I- dlatinguished, und are niso said to render it liuretic. Geneva is n corruption of gevierre, the Fromeh term for the juniper berry. By far the best geneva is made in Holland, where its manufacture is enrried on to a very grent extent. The distillerios of Schlerdam have long been famous, and are at present in a very prosperous condition. Schiedann geneva Is made solely of spirit obtained from rye and barloy; tlavored with juniper berries. It becomes milder, und
acquires, as it gets old, an oily flavor disiliked by Hollandery; hence nearly the whole of the "Schiedam" is exported, principally to the East Indles. There cre no fewer than 100 diatilleries in Schledam, 200 in other parts of Holland, and not more than 40 in Belginm. The entire annual produce of the distillery in Helland is astlmated at $2,000,000$ ankers, or $20,600,000$ wine gallons, of which about two thirda are exported.-Cloest, Description Géographique des Pays Bas, p. 82.

Crenoa, a maritlme elty of Italy; once the capital of the famous republle of that name, now of a province of the kingdem of Sardinia, at the bottom of the extensive gelf to whlch it givea its name; the lighthouse being $\ln$ lat. $44^{\circ} 24^{\prime} 18^{\prime \prime}$ N., long. $8^{\circ} 54^{\prime} 24^{\prime \prime}$ E. Population in $1848,100,382$. Genos is one of the fineat cities of Europe, and noted as the birth-place of Christopher Columbus, in the year 1441. In general, the atreets are Inconvenlently narrow; but some of the principal ones are moderataly wide, nud consist almost entirely of puhlic bulldinge and privato palaces orected during the period of her prosperity. Being built on a rising groind, in the form of an amphitheatre, the appearance of the town from the sea is most magnificent, and justifies the opithet given to her of " la superba."

Its ancient inhabitants were th ugueres, who aubmitted to the Romans, 115 n.c., and underwent the revolutions of the Roman empire tlll A.D. 950 . The Genceae revolt against their count, choose a doge and other magistrates from among their nolility, and became an ariatocratic republic, 1030 to 1034 . Several revolutions occurred up to 1528 , when the celebrated Andrew Dosia rescued his country from the dominion of forelgn powers. Bombardel by the French In 1684, and by the British in 1688 and 1745. Genor wias taken by the Imperialists, December 8th, 1746 ; but their oppression of the people was auch, that the lutter anddenly rose and expelled their conquerors, who again besieged the city the next year, August 17, without effect. Genoa lost Corsica, 1780. The celebrated bank failed 1750 . The city austained a miege by a British fleet und Austrian army, until literally atarved, and was evacuated by capitulation, May, 1800 ; but it was surrendered to the French soon after their victory at Marengo. The Ligurian republic was founded upon that of Genoa, in 1801, and the doge solemnly investeci, August 10, 1802. Genoa was annexed to the French empire, May 25, 1805. It aurrendered to the combined English and Sicilian army, April 18, 1814 ; and was transferred to the kling of Sardinia in 1816. Insurrection against Victor Einmanuel, April 1st ; nubulued, April 11, 18.19.

Port.-The harbor is semicircular, the diameter being about 1000 fathems. It is artitheinl, being formed by two gigantic moles having apposite directlons. That on the east shle, called the olid mole (molo wechio), projectis from the centre of the city west by south. It is alout 260 fathoms in leugth, and has a battery near its midille. The new mole (molo nuoro), on the opposite side of the port, adjolins the sonthern extremity of the auburb of St . Pietrod'A rena, projecting about $\mathbf{2} 10$ fathoms from the ahore in an K.S.E. direction. The mole healk hear from each other N.F. by F. and S.W. by W., the distance between them, forming the entraisee to the hartor, being about 350 futhoms. The llght-house is without the port, on the west aide, near the extramity of a proint if land, and contiguonn to the lottom of the new mole. It in a lofty aquare tower; and as it atands on a high rock, and in palnted white, it in visible fo clear weather at a great dastance. There is also a hacoor light at the extremity of the new mole. The.e is no dillienity in entering the harbor; the ground is cloun, and there is plenty of water, particularly on the shle next the new inole; eare, however, must be taken. in coming from the went, to glve the light-house joint il good offing.

Moderate-sized merchantmen commonly anchor inside the old mole contiguoua to the porto franco, or bonded. warehousea; having a hawser made fant to the mole, and an anohor ahead. Men-of-war, and the largeat class of merchantmen may anchor inside the new mole, but they must not come too near the shore, Shlps somatimes anchor witheut the harbor in from 10 to 25 fathoms, the light-house bearing N. $\frac{1}{3}$ W. 1 dlatant 2 or 3 miles. The aouth west-wind occasions a heavy awell, but the lottom is clay, and holds well. Withln the town are two rather shallow buains dealgned for galleys and amall trading-vesaels. There is also an arsenal.

Money,-Accounts ware formerly kept at Genoa in lire or 20 soldi, each soldo containing 12 denari, and money was divided into banco and fuori di bonco. But since the 1st of January, 1827, the anclent method of reckoning has ceased, and accounts are now kept in lire Itallane, divided into cents. The weight and fineness of the new coins ara precisely the same as those of France; so that the par of exchange $=25 \cdot 20$ lire per $£ 1$, if estimated in silver at be. 2d. an oz., and $25 \cdot 5 \cdot$, if estimated ln silver at 5s. un oz. 6 old lire di bat.co are equel to 5 new lire very nuarly,-Manuel de Nelken. brecher.

Weights and Measures.-Those formerly in use in Genos are described $\ln$ the old editions of M'Cuthocn's Dict. In 1847 the French system of weights and moasurea was introdured, the only difference being the substitution of Itallan for French names. Thus, the chilogramma (kilog.) $=2 \cdot 2$ Ibs. avoirn. ( $50{ }_{4}$ chilog. being very nearly equal to 112 lha.); the libbra (livre) or ponnd $=\frac{1}{3}$ chilog. $=1 \cdot 1 \mathrm{lb}$. avoird. ; the quintale centinajo, or cwt. $=220 \mathrm{lbs}$ avoird. ; and the ettolitro (hectolitre), llquid measure $=22 \mathrm{imp}$. galla. ; ditto, dry mensure $=24$ lmp. lush. ; the metro (metre) $=$ $89 \cdot 37$ inches, etc. A larrel of oil $=591$ chillog. $=144$ imp. galls. All tares of usage were abolished at the anme tine that the French metrical ayatem was intro. duced.
The Bank of Genoa, or of St. George, was one of the most ancient and celebrated banks of circulation and deposit In Europe. Until 1746, when the bank was pillaged by the Anstrlans, it was customary to make all bills of exchnage drawn upon Genon payable in banco; but slnce then they have generally been made payalile in money fuori di bonco. In 1800, when the French were besieged in Genon by the Austrians, they took the treanure of the bank to puy their troeps. The establishment han neser recovered from this blow; some warehouses, and a part of the town's revenue, were amsigned to it, but they yield a very poor dividend. It is no longer used as a place of deposit for money.

Trade, elc.-Genos is the entrepot of a large extent of country; and her conmerce, theugh inferior to what it once was, la very conslderable, and has latterly been lucreasing. She la a free port ; that is, a port where goods may lie warehoused and exported free of duty. The exporta consint juartly of the raw proincts of the noljacent country, auch as olive oil (sn article of great value and lmportance), rice, frnits, cheere, rags, ateel, argol, ete.; partly of the proulucts of her munufacturing Industry, such as silks, damasks, and velvets (for the produetion of which she bas been long fameus), thrown silk, prper, soap, works in marble, alabanter, eoral, etc ; the printed cottens of Switzerland, and the other products of that country and of the western parts of lomonrily, intendell for the south of Buroje and the levant ; and partly of the various forejgn products lirought hy rea, and placed in porto froneo, The importn prinelpally consist of cotton and woolen stitfis; cotton wool, moatly from Kikypi; corn from the llack Sea, Nicily; and liarbary; sugar, salted thah, splces, coffee, cochineal, indigo, hiles, iron, and naval stores from the Ihaltic $;$ hardware, and tit plates from Fingland ; wool, tobacco, lead (princlaslly
from Sp cotton, $\mathbf{r}$ the coun vant, etc. so great tha vario charyed o Sardlnlen enee on th the import lin, as wel produce.
docount
Grnoa,
IAN AN

Cheese, Part c.ltron, pree Cresm of Ta Essences: le berganet. orange... Galls: Tark thlue de a Anm Arsbic: inm arsbic: Hemp: Bolo 2d and Ist. cordage, ist Ferrara ${ }^{2 d}$ Pledmont, Ptedment, combed... aseed, 8icit Bardinia. BLack Sen. . Eygptlan... Liquortee past labria.... Stellian ... Manas, tn flake In sorts.... . Madder roete, is Opluin, Tharkey OLL Genos, sup Gaillpelt.. Tanls.
Sleily.
gardinia.
Paper,Floretta,
Paper-Al M 17 lbs.
Ouleksilver lags, linen, ist.. $4 \quad 4 \quad 34 .$.
kice, Itallan. .
Sulks, raw Genes thedment. . white snd ye $\underset{4}{ }$ Organzins 15 Tranal Ist....

91 and Sewing, black. assorted . . . Waste, Ist and Wools, viz: Moroceo, wash Tunls.. TangarockikOid Rusila mer half was mer Bethast...... Moroces unw Tunts........ Gralns, viz: Wheat. Polloh $R$ Gulaczand 13ra Barletta.
Romelia...... hard Tahparoe Marlanople. . Indian Com, (i)

* Frum the Clr Gentian (G Sp. Jenciana; $R$ of two alpine pl parea, found gro
from Spaln), wax, ete. Corn, harilla, Gallpoli oil, cotton, valonla, sponge, galls, and other producta of the countrles adjoining the Black Sea, Sleily, the Levant, ete., may in general be had here, though not in so great abundance ais at Leghorn. The abolition of the various dnties and custom-house fees formerly charged on the transit of goods through Genoe and the Surdinian territoriea, has had a very benefficial influence on the trade of this port, particularly as regards the importation of raw cotton for Switzerland and M1lian, as well as of the different descriptions of colonial prodnce.
Account of thr prinotpal Artioles of Expoet phon Grnon, with thaig Phiokg preg on Boarb, in Italian and Enolise Money, ota Junk, 1858.*

| Articlea, | Prices in Itallan money. | $\left\|\begin{array}{c}\text { Pricen in } \\ \text { Gaghish money }\end{array}\right\|$ | $\left.\begin{array}{\|c\|} \hline \text { Sugight } \\ \text { walghte } \\ \text { misustres. } \end{array} \right\rvert\,$ |
| :---: | :---: | :---: | :---: |
|  | $195^{\text {LIVres. }}-180$ |  | lb. |
| Chbese, Parmeang.. 00 kil. | 180 75 | $\begin{array}{lll} 0 & 1 & 0 \\ 0 & 0 & 6 \end{array}$ | lb. |
| Cresm of Tartar.... " | $80-0$ | $\begin{array}{lllll}0 & 0 & 7 & 44\end{array}$ | cwt, |
| Essences: lomon....t kil | $650-0$ | 058 | ]b. |
| bergainot......... | $850-0$ | 065 | $\stackrel{ }{*}$ |
| orsago........... ${ }^{\text {4 }}$ | $850-0$ | 045 | * |
| Galls: Tarkoy, blue <br> \& blue \& green. . 50 kll . | $170-0$ | 756 | ewt. |
| Gam Arable: ploked. +kl | $150-2$ | 811 | 4 |
| in sorts. $\qquad$ . 00 kll . | $75-0$ | $8{ }^{8} 40$ | ${ }^{6}$ |
| Hemp: Bologna. . 100 kll . | $106-108$ | 4612 | ton. |
| 2d and 1st....... " | $104-105$ | 45108 | 4 |
| cordage, 18t..... ${ }^{6}$ | $96-98$ | 41194 | 4 |
| " 2d..... " | $91-98$ | 881510 | ${ }^{\prime \prime}$ |
| Ferrara cordage. " | $76-88$ | $\begin{array}{llll}88 & 0 & 9\end{array}$ | ${ }^{\prime}$ |
| Piedmont, 18t... | $60-0$ | $\begin{array}{lll}28 & 6 & 0\end{array}$ | " |
| combed........ * | $180-140$ | 59190 | " |
| Linsesd, 8lcily and |  |  |  |
| Bardinla....... | 25 50- 29 | $\begin{array}{lll}2 & 4 & 8 \\ 1 & 19 & 8\end{array}$ | imp. qr. $^{\text {a }}$ |
| Back Sea. | $25-26$ | 1198 |  |
| Etyptlan........ " | $25-26$ | 1198 | $\cdots$ |
| Liquorice paste, Calabria........... 80 kll | $86-88$ | 315 | cwt. |
| Slcilsılı...... ${ }^{\text {u }}$ | $52-58$ | 256 | " |
| Uanna, in flakes.....it kll. | $750-0$ | 0 O 59 | lb. |
| In sorts.......... * | $8-0$ |  | " |
| Malder roote, Levant | $50-0$ | $2{ }^{2} 80$ | ewt. |
| Oplum, Turkey ..... " | $15-0$ | 0115 | ]b. |
| 0LL Genoa, super..... bar. | $15-0$ | Q8 8 | 252 gal. |
| Gallipoll.. . . . . . . . . . ${ }^{4}$ | $78-0$ | 55880 |  |
| Tanls.... . . . . . . . . . | $75-78$ | 58840 | " |
| Slily............. " | $78-0$ | 55189 | " |
| Sarlinla.....iio.. ${ }^{4}$ | 92-03 | 7140 | 6 |
| Paper, Florette, 14 lbs. p 10 | $44-47$ | 0811 | 5 ahts |
| Psper - A! Masso, p. lv | $86-88$ | 082 | " |
| If lbs, reams |  |  |  |
| Qulcksilver..........t kII | $72-74$ | $\begin{array}{lll}0 & 6 & 8\end{array}$ | ${ }^{4}$ |
| liags, linen, 18t... . . . 03 kll . | $425-0$ | 088 | 17. |
| $" 16$ 2d..... ${ }^{3}$ | 8t 90- 0 | $\begin{array}{llll}8 & 0 & 8 & 20\end{array}$ | $\stackrel{4}{4}$ |
| " " Bl. | $2625-0$ | $\begin{array}{llll}0 & 0 & 288\end{array}$ | " |
| , kice, Itnllan........ | 22 20-0 | 0 0 0 1 188 | ${ }^{4}$ |
| Silks, rsw Genoa and | 18-18 | 01511 | cwt. |
| Pledinont. . . . . . . . . t kll. white sad yellow | $83-84$ | 178 | ${ }^{\prime \prime}$ |
| Organzins 18-20.. " | $40-41$ | 1120 | * |
| " 21-22.. | $88-89$ | 1116 | * |
| $4220-26$. | $86-88$ | 1106 | " |
| Trama, 1st. | $33-84$ | 170 | " |
| ${ }^{4}$ gd and 3d. | $80-82$ | 1158 | * |
| Sowing, black | $28-0$ | 1010 | " |
| assorted........ | $27-0$ | 17 | " |
| Waste, Ist and 2d. " | $850-5$ | $\begin{array}{llll}0 & 4 & 1\end{array}$ | $\cdots$ |
| Wools, viz: |  |  |  |
| Moroeco, washod, 50 kll . | $100-110$ | $\begin{array}{lllll}0 & 0 & 10 & 10\end{array}$ | lb. |
| Tunls............ " | $127-181$ | 01000 | " |
| Tanzarockdodessa" | 85 -102 | $\begin{array}{lllll}0 & 0 & 9 & 88\end{array}$ | " |
| Rusela merinos |  |  |  |
| hall washed...." | 114 -125 | $\begin{array}{llllll}0 & 0 & 11 & 90\end{array}$ | " |
| Bengasl......... " | $64-71$ | 00627 | " |
| Moroceounw ashed " | $66-68$ | $\begin{array}{lllll}0 & 0 & 5 & 69\end{array}$ | 4 |
| Tunls............ " | $57-61$ | $\begin{array}{llllll}0 & 0 & 5 & 85\end{array}$ | " |
| Gratns, viz.: |  |  |  |
| Wheat, Ponlsh soft. .heet. | $16 \mathrm{n} 0-17$ | $204$ | limp. qr. |
| Ginlacz and liralla.. " | $15-15$ | 11610 | ${ }^{*}$ |
| Barletta.. | $1850 \sim 19$ | 202 | * |
| Romedin. | $1450-15$ | 1157 | " |
| hard Tangarock... | $17-17$ | 216 | " |
| Marianopile. ....... " | $16 \mathrm{MO}-0$ | 1102 | * |
| Ladlan Corn, (alaca " | $18-12$ | 197 | 4 |

* From the Clreular of Granta, Balfour \& Co., Leghorn.

Gentian (Ger. Linzian; Fr. Gentiane; It. Genziana; Sp. Jenciant; Rus. Enzian; Lat. Gentiama), tho roots of two alpine plants, Gentians lutea and Gentiana purpurea, fonnd growing in Switzerlund and Austria, the

Apennines, the Pyrenees, and in North America. Those brought to thls country come from Germany, Thoy are In pleces of various lengthe and thickneas, twisted, and wrinkled on the outside, and covered with a brownlah-gray cuticle. They have no partlcular odor; and the taste is inteasely hitter, without being nause-oиs.-Tномsом's Dispensatory.

Geodesy (Gr. $\gamma \eta$, and datw, I divide), literally slgnlfies the division of the earth, in which sense it is aynonymons with land-surveying; but it is usually employed ln a more general sense to denote that part of practical geometry which has for its object the determination of the magnitude and faste aither of the whole earth, or of sny given portion of its surface. In this sense it comprehends all the geometrical or trigonometrical operations that are necessary for constructing a msp of a country, measuring the lengths of degrees, etc. In order to construct an accurate map, or deter wine the form and dimenalons of a country, it is necesasry, in the first place, to determine the absolute distances between the several stations or polnts; secondly, to determine the avimuths of the lines thus maasured, that is, their situation with respect to the meridian; and thirdly, the differences of latitude and longitade of the etations. The operations necessnry for determining the absolute distances, comprehending the masurement of a base, the observation of angles, the computation of the sides of the triangles, and their reduction to the asme level, are called the geodesical or geodetical operationa ; while those which are requlred for determining the azimutha and latitudes are called the astronomical operations. The delermination of the figure and dimensiona of the earth is a problem of very great imporlance to astronomy and geography, and has accordingly at all times been a subject of much interest to mathematiclans; but it is only slnce toward the middle of the last century that operationa on an adequate scale for its aolution have heen undertaken in different parts of the world. For the resulte of the more important of these operations, see Degree.

Geography. The first correct record we have of geographicai knowledge ia from Homer. IIe describes the ehield of Achilles as representing the earth, surronnded by the sea.-Iliad. He accurately describes the coun'ries of Greece, Islands of the Archipelago, and site of Troy. The priests taught that the temple of Apollo at Delphos was the centre of the world. Annxinnnder of Miletus was the inventer of geographical maps, about 568 n. c. Hipparchus attempted to roduco gengraphy to mathematical bases about 185 n. C. It was first brought to Europe by the Moors of Barbary and Spain, about A. D. 1201.-LexgLET. The invention of the mariner's compass is the important connecting link between ancient and modern geography, The modern maps and charts were iutroduced ints England by Bastholomew Columbus to illustrate his hrother's theory respecting a weatern continent, A. D. 1.189.-Hayd. The term Geography, derived from two Greek words, $\gamma \varepsilon a$, the earth, and $\gamma \rho a \varphi \omega$, I urite, signities a description of the earth. The description to which this title is applied may be more or less freneral; either embracing such truths as only belong to the earth considered as one whole, or extending to particulars which belong to and distingulah the aeveral countries sprend over its surface. In whichsoever of theso two asperts the aubject be rogarded, a vast field opens to the vlew of the observer. In order to give a fuil and accurate description of the earth, it weald be requisite to consider it in reference to its metion, figure, and magnitude; in reference to its relation to the other bodies of the universe, and more especially to the planctary system of which it forms a part ; in reference to lts surfuce, as diversified by land and sen, mountuins and valleys, lakes nnd rivers; in reference to the materiuls which compose lta crust, and to its internal structure ; in reference to the constitution
of the atmosphere with which it is surrounded, and the effects arising from the variations in atmospherieal pressure, tamperature, and humidity. Nor would it be enough to consider the earth only as a mass of inort and unorganized matter; it would be necessary to regard it in its relations to vegetable and anlmal life; and to trace the phenomens which these, in their endless variety, present in its varions divisions and provinces. It would still further he necessary to vlew It as the abode of man himself, anil an modified by his existence; divided into states and klogdoms; sdorned with clties, and all the noble monuments of civilized life.

Such is an outline of the picture which geography, in the mont unllmited meanling of the term, should exhlbit of the globe. To fill up thla picture in all its parta, it would evidently he necesmary to call In the aid of the whole eircle of the aciences. But the descriptlon is usually of a less extended charncter, being confined chiefly to the more obvious and striking features of the various reglons and countries of the earth.

In the wide range which the subject presents, several diviaions and subdivisions are auggented by the different views in which the earth may be consirlered. The three following divisions are the most Important :

1. Mathematical Geography, which illustrates, on astronomical principles, the figure, magnitude, and motion of the earth; teaches how to determine the positions of places on its surface; explains the construction of globes, with their application to the alution of problems; and shows how the whole or any portion of the earth's surface may, on the principles of projection, be delineated on a map or chart.
2. Physical Geography, which treats of the mutual relations of the diversitied objects found on the surface of the earth, includiug the atmosphere by which it is surrounded; and explains the causec, whether of a chenical or mechanical description, that produce the modificatlons and changes which are continually taking place in them.
3. I'ditimal, or Ihistorical Geography, whirh descrives the earth as divided Into countries, occupied hy various nations, and improved by human art and industry. It tracea the circumstances nnd character of the different races and tribes of mankind, explaining their social institutions, and ascertaining the place which each occunies in the sente of civilization.

From this general arrangement of the subject, it is evident that geography depends for its rank ne a sclence on its intimate connection with various branches of knowledge, which, taking their rise from investigntions instituted in reference to the nature nod mutual relationn of the objects on the earth, or connected with it, furnish thone accurate viows which must be obtnined before any thing like a precise description can he given of the grobe we inhmbit, or of any portion of it. With regard to what belongs to l'hysicul fieogrupliy, we muat refer the reader to the articles l'iramea, Geonrapizy, Minehatooy, Meteonologr, etc., in the new edition of the Eiacyc. Brit. What lelonge to Iolitical or Ilistorical Geography will be found under the names of the respective countrien. The following srticle will be limited to a view of the progress of Gengraphleal Discovery.

I'ougress of Gicogrophical Discotery,-There are many circumstances in the coudition of man which connect him so closely with the glote which he inhabits, as to render absolutely necessary to his existence a knowledge of at least the nelghborhood of tho spot where his lot is cast. It is from the earth that he must derive the means of nulasistence and accommodation, the inaterials on which hin industry is to be exerted, and those oljects in the exchange of which commerce consists. In every atage of his progross, therefore, from barbarinan to civilization, he must employ eome attention and observation, in order to dlscover in what respects the objects with which he is
surrounded are qualified to contribute to the aupply of his wants, and to his comfort and convenience. Even while he roams the forest in the savage state, he must make himeelf acquainted with many circumstances, s knowledge of which is necessary either to give him success ln the chase, or to direct him in retracing hin ateps to the place where he bas fixed his dwelling. But it is not nutil men have united in society, and that neighboring communitiea have begun to hold mu. tual intercourse, that those feellngs and passions are effectually aroused which othmulate to the arduo $\cdot$ s pursuits of geographical discovery. Commerce and wur, with the apirit of adventure which usually accompany them, heve, without doubt, heen among the first causes of geographical research. In the train of these havo followed the workings of avarice and the alms of ambition. As the humsn mind has advanced in Its career of improvement, curioslty, with an enlargemert of views and desires, has been called into action; and voyeges have been undertaken for the ex. preas purpose of discovering new countries and exploring unknown seas.
In tracing the effects which these causes have produced in the grailual increase of geographicul knowledge, it will contribute to distinctness to keep in view a threefold division, which the sulject naturnlly assmmen, namely, ancient geography, extendlug from the earliest periol of history down to the time when, the Iloman empire having been overrun by larbarons nations from soveral quarters, Europe was overwhelmed in the darkness which preeeded tho revival of leaming; the geography of the middle ages, extending from the revival of letters to the fifteenth century, when the discoveries of the Portuguese begau to lay a wider foundation for the science ; und modern geography, which enbrncen the most recent discoveries, and is progreastvely improving by the accessions which it is recelving from the labors and science of modern travelers and nuvigators.
The Phoulicians are the eurliest comunercial people of whose illscoveries we have any correct accounts. This people seem first to have explored the const of the Mediterranean. Their navigntors at length extended their voyages through the Straits of Gades, now called the Straits of Gibraltar, eutered the Athantic Ocean, and vislted the western coasts of Spain und Africa. In many places to which they resorted they planted colonies; and songht, by inntructing the inhabitants, in some mensure, in their arts and improvements, to open $n$ wider sphere for their commerco. The learned lochart, led by the analogy between the Phenician tongue and the oriental languages, has endeavored to follow the tracks of the Phomicianas, both along the shores of the Mcditerranean and those of the Athantic. These analogies are not always sure guides; but there seema no reason to doubt that Cadiz was originaily a Phoenician colony, and lt is not likely that this was the only one formed by that enterprising people.

The Arablan Gulf, or Red Sea, offered to the Pheniclans another field of naval and conmercial exer. tlon, to the Improvement of which the distance of Tyre, the emporium of their tralo, was the only ebstacle. This indured them to make thomselves masters of Rhlnocrura or Ihinocolura, the port in the Mediterranesn nearest to the led Sea. Commodities pmrehnsed In Aralin, Fithiopia, and India, were landed at Elah, the safest harbor in tho led Sen toward the nortli ; thence they were conveyed overland to lhinocolura; and being thero reshipped, they were carried to Tyre, whence they were distributed over the world.

The wenlth and power which acerued to the Ihenicinns from their loing ln the sole possession of the lucrative trade of the Fast, incited the Jews, their neighbors, under the prosperons reigne of David and Solomon, to denire a participation in lta advantages. Their conquest of Idumen, which stretches along the Red Sea, put it in tho power of Solomon to fit out a fleet;
while hla him to ce conductln, of Maheln dian Ocea they trade three year: gaged in their inatl preserve th the develo monarcha y with the di mon, prov mercial peop the nutions of geograph to llx with e graphical res difficulty the out by the $n$ they traded. age, and the a few other the only par mination. Pheniclans ascertained homeward or consisted of peatcocks." been entertait country, the I situsted on th Sefala. Tot to point ; nad in the way, in region, and $t$ ndmit of belng of time requir naval skill, a the monarches
The regions most remote $w$ were acquainte and Dedan, th Without enteri what appear to regsed to the $p$ names wero al which two voyn made; one by ver, lead, and t the other by $t$ other productio ages, though at posed to he made by supposing th which monopol Spuin and Brita the commoditie that the name o tended to the w Isles are the wh ing elther of ro is the southern Arhila which b lies upon the opp Galf. These co in consequence were imported and into the la traficic cesried o caravans, and b uinn." The Riv Euphrates, Go, the hlgh fableola
while his allinnce with Hiram, king of Tyre, enabled him to command the akill of the Phenieians for the condueting of the voyage. Paseing through the Straits of Habelmandel, they carried on commerce in the Indian Ocean ; and so dietant were the countries to which they traded, that the voyage occupied no leas than three year. But though the Jews thns for a time engaged in the parsuits of trade, yet the tendency of their institutions, which were expresely deaigned to preserve them a separate people, was unfavorable to the development of the commercial apirit which their monarcha wished to foster among them. This, joined with the division of the kingdom on the death of Solomon, proved fatal to their rising greatness as a commerciai peopie, and excluded them from ranking among the nations who have contributed to the advancement of geographical knowledge. It is perhaps impossible to fix with certainty the limita which bounded the geographical researches of the Phoenicians, on aceountof the difficuity there is of assigning the precise places marked out by the names then given to the conntries to which they traded. The length of time ocenpied in the voyage, and the nature of the cargoes brought home, with a few other circumstances of the same vague kind, are the only particulars afforded to direct us in the determination. Thue, the conntry of Ophir, to which the Phenicians navigated the shipe of Solomen, must be ascertained by the faets that the voyage thither and honoward occupied three rears, and that the cargo coosisted of " gold, and wiliver, ivory, nnd apes, and pescocks." Among the varioun opinlona which have been entertained respecting the position of this distant country, the most probnble appears to be that it was situated on the eastern const of Afries, as far south as Scraia. To this quarter every indication seems ciearly to point; nnd whitever objeetions may appear to stand in the why, in consideration of the remoteness of the reginn, and the difficulties to be encountered, these admit of being answered ly a reference to the length of time required rie the voyage, and to the wealth, navai skili, and ample reaources, at the command of the nomarcha engaged in the traffic.
The regions aiways apoken of in Seripture as the most remete with which the lIebrews and Phencicians were acquainted, are Turshish, Ophir, the Inles Sheba and Dedan, the rivers Gog, Magog, end the North. Without entering into any discussion, we may give What appear to be the most probalie conclusiens with regard to the positions of the countriea to which these names were applied. Tarahish is a country from which two voyagen are apoken of in Seripture as being made; one by the Mediterrance 4 , bringing iron, silver, lead, and tin, the proluce of Spain and Britain; the other ly the Red Sea, bringing gold, ivory and other productions of tropleal Africa. These two voyages, though et first they nppear incongruous, if anppased to be nade to the same country, may be reconciled hy supposing that Tarshish is fundunentally Carthage, which monopolized aimost entireiy the commeree of Spain and Britain, and was the medium through which the commodities of the West were distributed; and that the nnme of this great African metropolis was exteaded to the whole of the continent of Africa. Tho trles are the whole sonthern consta of Varupe, consisting either of real islanda or peninaular tracts. Shebs is the sonthern portion of that part of the coast of Arabia which horilers on the Red Sea; white Dedan fies upon the opposite coust, that borders on the Persian Goif. These countries rose to commercial importance in consequence of the valuable commotities which were imported into the former from the African coant, and lato the latter from India. Thence arose the traffic carried on by "the companies of Stheib," or caravans, und by "tho traveling companies of Dednuins." The River was the name aiways applied to the Euphrates. Gog, Magog, and the North, appear to he the high table-land in the interior und nortis of Asia

Minor, Phrygia, Galatia, Cappadocis, and Paphlagoo nin, regions in which may be recognized the peculiarly rade and formidable aspect whith beionged to the countries to which in ancient times the names in question were epplied. See Eincyclopedia of Geography, by II. Morhay, Esq.

The Carthagivians, a Phcenician colony, retained in full vigor the commercial aplrit of the parent State. They did not, however, attempt to divide with Tyre the wealth and power which she derived from the monopoly of the trade carried on in the Arabian Guif. They directed their efforts to the opposite quarter, and asiling through the Straits of Gades, puehed their researches far beyond the bounds which had been reached by the mother country in this part of the globe. They visited not only all the coast of Spain, bnt likewise that of Gaul, and penetrated at length as far as the south-western coast of Britain, where they obtained tin from the mines of Cornwall or in traffic with the natives. Nor was it only toward the northward that they directed their efforts; they explored also the regions southward of the Straits, and aaling slong the western coast of Africa almost as far as the northern tropic, they planted colonies, as the Phoenicians of Tyre had formerly done, with a view to prepare the natives for carrying on commercial intercourse. The Atlantic Ocean was deatined to conceal for ages from the inhabitants of the old world the immense regions which lie beyond it. But the Carthaginians extended the boundary of navigation westward by the discovery of the Fortunute Islande, now known by the name of the Canaries.
The enlargement of views gradually generated by thia apirit of comanercial enterprise led at length to voyages of which discovery was the special object. The circumnavigation of Africa was one of the earliest attempts of this kind made by the ancients. The direction whioh the coast takes beyond the Mediterranean on the one hand, and the Red Sea on the other, suggested the idea of a peninsula which it might be possible to sail round. This voyage was tirst undertaken by the Egyptians; a people exeeedingly averse to engnge in naval affairs, hut who at this time were ruled over ty Neeho, a monarch whose active spirit prompted hin to engage some Phoenicians to descend the Arabian Gulf, and, coasting along Africa, to endeavor to return by the Struits of Gades. Herodotus narrates in a few words the resuit of this enterprise, which was undertaken sbout 604 years before the Chriatian era. Ile say-9, "the Phoenicians, setting sail from the Red Sea, made their way into the southern sen; and when autumn approached they drew their vessels to land, aowed a crop, and waited until it was grown ; when iney reaped it, and again put to sea. Ilaving spent two years in this manner, in the third year they reached the lillars of IIerculea, and returned to Eyypt, reporting what does not find belief with me, but may rerhaps with some other person; for they said that in passing Africa, they had the sun on their right hund. In this manner Libya was first known." This passuge has given rise to much controversy among the learned. But the voyage here so briefly descrihed does not seem to involve any impossibility, notwithstanding the then infant state of navigation; and the circumstances which the historian ohjeets to as incredible, is the very point, which, from its colncidence with wint we know should have happened, rendera the atory more worthy of belief.

Xerxes, ling of Porsia, sccording to Herodotue, gave a sinniar commisaion, about 480 years before the Christian era, to one of his satraps, named Sataspes, who, for a heinous offenso, had been condemncel to die. If auccessful in the accompliahment of this voyage, Sataspes was to eacape a cruol death. But the difliculties were too great to be surmounted by a navigator brought up amid the luxury and Induigence of the Persian court. Having
procured from Egypt a veasel and crew, he pansed through the Straits of Gadea, entered the Atlantic Ocean, and, bending his course toward the eouth, coasted the continent of Africt, nitil, after meveral monthe, he probably reached the coast of Sahara. The frightful and desolate shores along which he sailed, and the tempentuous ocean which beat againat them, combined to fill his mind with aiarm and to shake his resolution. He retraced his course to the Straits ; and hoping, perhaps, that the labors he had undergone in the partial accompilshment of the task imposed on him would be accepted by his royai master as a sufficient atonement for his offense, or that the offense itself inight in a great measure be forgotten he returned home and presented himseif before Xerxes The cause which be assigned for the failure of the ultimate object of his mission was, that he had encountered a sea so full of herbage that his pasaage was completely obstructed. This reason (the grounds of which have never been satisfuctorily explained, though it has been alleged that obatacles of thin description occur in that part of the sea which lies between the Cape Verd Islands, the Cansries, and the coast of Africa) appeared so ridiculous to Xerxes, that he ondered the sentence of death by crucifixion, which had been pronounced upon Sataspes, to be Immediateiy executed.

But the most ceiebrated voyage of antiquity undertaken for the purpose of diseovery was the expedition under Hanno, fitted out ty the authority of the Senate of Carthage, and at the public expense, and that with a view of attempting a complete survey of the western coast of Africa. Of all the voyages performed by the Phaeniclans and Carthaginians, this is the only ons of which we have an authentio narratine. Mercantile jeaiousy prevented these two great commercial atates from communicating to other nations the knowiedge which they acquired of the remote regions of the earth; and from this cause, when the maritime power of the former was annihilated by Alexander's conquest of Tyre, and the empire of the latter was overthrown by the Roman arms, all monuments of their great skill in navai affairs appear in a great meanure to have perinhed. Even the account of the voyage of IIanno (Periplus Hannonis) has been considered by its learned aditor, Mr. Dodweil, as a spurions work. But the arguments of M. de Miontesquieu and of M. de Ibougainvilie appear filiy to establish its authenticity, which the tearned worid now generaily admit.

Hanno set sail with a fleet of 60 vesmeis, so constructed that, according to the mode of aracient navigation, he could keep close in with the coast. We are told that, in tweive days after leaving the Straits of Gades, he reached the inland of Cerne; that proceering thence, and following the direction of the coant, he arrived, in 17 days, at a bay, which he called The Weat Horm. From this he advanced to anotiner bay, which he named The South Horn. The ebjects which are clescribed as having been ween by llanno in his progress belong to tropical Africa. But in attempting to ascertain the places which lee visited, or the utmost distance which he sailed southward, mueh difficuity and uncertainty are experienced. Bougainville supposea lianno to have reached the Gulf of Benin, and contends that this ilsoit, distant en it is, can not be regarded as beyond what may be conceived to have been accompilished by the moat okiliful navigator of satiquity. Major Rennell shortens the distance conaiderably by conceiving the voyage to have been extended no further eouthward than Sherbro Sound, a little beyond Sierra Leone. Iie thus olitaius the advantage of avoliling a difficuity luvoived in the hypothesin of M. de Bougainville, namely, the supposition of ancient ships having sailed upward of 70 geograph ical miles in a day. At the same time, the arguments which support the one bypothesia are equaily applicable to the other.

According to the views of M. Gosselin, however,
the voyage munt be confined to much narrower line ith southward than even those aseigned by Major Renneil. He aupposes it to have terminated about the River Nun-an opinlon which he supports by ai loging that, in such a voyage, the progress must neces. marily have been slow. J'ae Carthaginian navigator had to encounter ail the obstacles and dangera incident to a coarse held along a shore, and in a ses, which were equally unknown. He must bave found himseif impeded by tho requisite examination of every part of the coost, as well as by the many precautions which the safety of the fleet under his cominand must have rendered constantly necessary. With regaril to tho circumstances given In the narrative which appear to point to tropicai Africa, M. Gosaeilin supposes that the ame aspect of life and nature may, at that dise tant period, have helonged to Morocco, then thinly peopled by the rude native tribee, which is now spe. cially characteristic of the more southern regions.

Amid such diversity of opiniun among the learned, It is not easy to decide in reference to a sulject befet with so many difficulties. If we assume either of the more ramote distances assigned for the termination of the voyage, Cerne must be identified with the isie of Arguin; and, on Major Kenneil's hypothesis, the (iulfs of Biasago and Sherbro present those numerous islunda deacribed by Hanno, to which there are no ialands corresponding on any other part of the coast. Un the whole, however, the most ilmited distance seems preterabie, if we admit that part of M. Goseelin's hypothesis which assigna tu Morocco features of man and of nature that are usually held to be characteristic of tropical Africa.

The circumnavigation of Africa was an enterprise which in ancient times not oaly called forth the naral efforts of the most powerful maritine States, hut nhich also awakencd the ambition of private adventurers. Eudoxus, a native of Cyzieus, being aent on a mission to Alexandria, at that time the reat of naval enterprise and geographical knowledge, his ardent mind, naturally biased to these pursuits, was eroused to action hy the spirit which prevailed in that city. He began his career under the auspicea of 1'tolemy Euergetes, the reigning Egyptian monarch, who fitted out a tleet and placed it unter his command. According to the destination assigned him, Eudoxus descented the Arubian Guif, and proceeded probably as far as the southern shore of Arabia. Thence he appeurs to have returned after a prosperous voyage, with a valuabis cargo of aromatics and preclous stones. Ilut of this wealth he appears to have been deprived by luergetes, After the duath of this monurch, which in a short time wok piace, hia wilow Cleopatra sent Eudoxus en another voyage, in the course of wisich he was driven by unfavoruble winds on the coast of Ethiopia, where he was kindly received by the inhabitanta, and earried on with them an advantageous traffic. After other viclssitudes of fortune, he wan insluced by circumstances which oceurred in his adventurous life to leave the court of lifypt, and repair to the commercial tity of Cadiz, In Spain, and there to fit out an expredition for the purpose of African discovery. At Massilia (Marseilles), and other maritimo pisces which be passed on his way to Cudia, be took eare to make known lis views and hopen of success, und to javite all who were actuated liy any spirit of enterprise to acconpany him. He succeeded in fitting out a ship and two large boate, on board of which he carried not oniy goods and provisions, but artisans, medical men and even players on musieal instruments. Thas was no doubt proceeding on a nugnificent scalo; hut his erew was ill calculated to second his hold undertaking. To avoid the danger of atranding, Euloxus was unxious to keep the open sea. Ilis compunious, however, alarmed at the awell, furved hisn to adopt the unal mote then followed of sailing along the shore-a measuro which led to the disaster which ho had asici-
pated. With one vessel of a lighter construction, on board of which was put the more valuable part of the cargo, Eudoxue pursued his voyage until he reached a part of the coust lnhabited by a race of people that sppeared to him to speak the same language with those whom he had found on the opposite side of the continent. Judging from this circumatance that he had ascertnined the main objeet of his voyage, he raturned and endeavored to ohtain the assistance of Bocchus, king of Mauritania. Suspecting, lowever, treachery on the part of that monarch, he again had recourse to Spain. Ilere he was again successful in equipping another expedition, consisting of one large veesel fitted for the open sea, and another of emailer size for the exumination of the cosst. This was a judicions preparation for the accomplisiument of the object in view ; but with regard to the issue of the voyage no accounts of any authority have been preserved.

Such are the leading circumstunces connected with the voyages of Eudoxus, which are narrated by Strabo; and, notwithstanding the skepticism and sovere criticisme of that geographer, there is really nothing to which the candid reader can reasonably refuss his belief. Prejudices, founded, for the most part, on his own want of information, led Strabo to treat likewise as fahulons the relation of the only ancient voyage having Europe, and more particularly the British isles, for its object, of which we have any detaiied account.
Pytheas, a Massilian navigator, undertook an expedition about 320 years hefore the Christian ers. IIe steered northward; and after examining the cousts of Spain and Gaul, he sailed reund the island of Albion; and, stretching still further to the north, he discovered an ixland, the Ultima Thule of the ancients. What island this was, the learned are not agreed. It has been supposed to be tise modern Iceland; but this impiies too great an extent of open sea for an ancient navigator to traverse; and liesides, six days, the period during which he is said to have navigated to the northward of Albion before he made his discovery, is too short a time to admit of his reaching Iceland. Others, anong whom is Malte-Brun, have considered Jutland as Ultima Thule. But it should be kept in view that l'ytheas uniformly regarded Thule as British, a character which he could scarcely conceive to beiong to Jutiand, seeing he could have reached that peninsula only by a long course along the coasts of Germany, which must have impressed on his mind the idea that he had left far behind him every thing belonging to Britain. On the whole, Shetland seems best entitled to beconsidsred as the ancient Thule, und suits weli with the sppellation which Pytheas gives it, when he expresely calls it the "furthest of the Britains."

Strabo endeavors to throw discredit on the statements of Pytheas, ly starting objections long known to be of the most groundless description; and it is an advantage which the traveler aud navigator possess who describe faithfuily the grand features of mature, that, however prejudice may dim their reputation for a time, yet will their accuracy as well as veracity at length, in the progress of knowienge, apiear, and secure for them the respect and applause of mankind. At the same time, it must be admittel that, in describing what he aaw heyond his Uitims Thule, the statement given by l'ytheas, as reported by Strabo, assumes a somewhat fabulons character. Ho asserted, it seems, that beyond Thule there commenced what was neither earth, bea, nor air, but a confused Mending of sll the three. liut even here some ullowance is to be inade for the workings of imagination under very peculiar circumstances, and a readiness, not unnatural, to believe reports which represented him to have ratiched the extremity of the halitable globe. If his language is not too literuily interpreted, it wiil be found to convey atrongiy figurative, but not alto-
gether imperfect, description of the state of the sea and sky in those climes, wnich have heen so little favored by neture.
The conquests of Alexander the Great, by making known the East, enlarged the hounds of geographical knowledge. Though the course of his expedition was for the moat part by land, his mind was equaliy intent on commerce and maritime discovery. Checked as lis had so long been in the career of his victories hy the opposition and efforts of the republic of Tyre, he had an opportunity afforded him oi observing the vast resources of a maritios power, and at the same time of forming a judgment respecting the innmense wealth to be derived from comnerce, especialiy from that carried on with India, which he found to be wholly In the hande of the Tyrians. With a view to secure this commerce, as soon as he hat completed the conquesi of Egypt, he founded the city of Alexandria, and thus estabifished for it a atation preferable in many respects to Tyre. After his final victory over the Persians, his march in pursuit of Bessus, who had carried off Darius into Bactiana, often led him near to India, and among people accustomed to much intercourse with it, from whom he leurnse many thinge concerning the state of the country, that served so to confirm and inflame a desire which he liad long cherished, of extending his dominion over those regions, that he was induced to conduct his army from Bactria, for the purpose of invasion, across that ridge of mountains which form the nortinern barrier of India. After passing the Indus, Alexander directed his march to the Ganges, which, from the accounts he heard of it, and of the countries through which it flows, he was eager to reach. The route which he found it necessary to follow, in consequence of being successively engaged in hostilities with varions native princes, led inim through ons of the richest and best-peopled countrics in India, now called l'unjab. In his ultimate ohject, howevor, he tailed. His march being performed during the rainy season, his troops had already suffered so much, that, notwithstanding the high degree in which be possesmed all those qualities that secure an ascendancy over the minds of soldiers, he was unabie to perauade them to advance beyond the banks of the Hyphasis, the modern Beyah, which was accordingly the utmost limit of Alexandsr's progress in India.

By this expedition, Alexander first opened the knowledge of India to the peopie of Europe; and as he was accompanied, wherever he went, by skillfui surveyors, Diognstes and Baeton, who measured the length and determined the direction of every route taken by the army, he furuished a eurvey of an extensive district of it, more accurate than conld have been expected from the short time he remained in that country. The memoirs drawn up by his oticers likewise afforded to Europeans their first authentic information respecting the climste, the soii, the productions, snd the inhabitants of India.

Though Alexander did not penetrate to the Ganges, his expedition prepared the way to the knowledge of that magniticent strean. For soon after, So. ucus, one of his successors, sent Megasthenes as his embassalor to Pulibothra, the capital of a powerful nation on the hanks of the Ganges. The site of Palibothra was probably the same as that of the modorn city of Allahabad, at the junction of the River lumna with the Ganges. This embassy brought new and opulent provinces of India into viow, an acquaintance with which served to raise still higher the iden generally entertained of the value and importance of the country.

The island Tuprobane, so celebrated anong the ancients, which appears, notwith itanling some great mistakes with respect hoth to its extent and position, to he the modern Ceylon, seems not to have been known in Europe even by name before the age of Aiexander. In consequence, however, of the cnilightened and active
curiosity witic whlch he explored every country whleh he aubined or visited, noms knawledge of it was at length obtalned; and, after his time, it is mentioned by almost every auclent gengrapher. While Alexander wan attemptlig to penetraie Into India, a numerous fleet was assembled by officers whom he had left on the banks of the IIydsejees, the modern Behat or Chelnm, whth orders to bulld and eollect as many shilps an they condd. The destinntlon of thin fleet was to sall down the Indus to the ocean, and from Its mouth to proceed to the Perslan Gulf, with a vlew of opening in communleation between Indla and the centre of his dominions.

When Alexnnder reached the banks of the IIydaspes on hls return, he committed the conduct of this expedition to Nearchus. The voynge down the Indus derived splendor from the greatness and magnificence of the armament, which conslsted of an army of 120,000 men, and 200 elephanta, and of a fleet of nearly 2000 vessels. Alexander himself nccompanied Nearchus in his navigntion down the river, with one thirl of the troops on board; while the remainder, In two divlsions, ons on the right and the other on the left of the river, accompanied them In thelr progress. Having reached the ocean after the lapse of nine montlis, Alexnnder left Nearchus anin inis crew to pursue thelr voyage, and conducted his army back by land to Persin. A consting voynge of seven months brought Nearchus, with the fleet, in safety, up the Persian Gulf into the Eusphrates. It was at the mouth of the Indus that the (ireeks witnessed for the first time, nnd thit with astonishment and terror, the ebl) and flow of the sen; a phenomenon scarcely perceptible in the Mediterranean, to which their nuvigation had formerly been contined. In the progreas of the voysge they were niso struck with surprise on observing phenomena helonging to the midsummer of the tropica. At noon objects were observed to project no shajows, or to project amall shadows declining to the south. Their attention was atill further attracted by the new appearance of the aky. Stars which they had been sccustomed to nee high In the henvens were now seen near the horizon. Some stars to the north disappeared, while other atars formerly Invisible were seen in the south.

The opening of a communication lietween the Red Sea and the lersian Gulf was with Alexander another great object of ambition. But though with this vlew he seems to have aent expeditions dows troth seas, he fuited in his attempts to nccomplish this preject. Among the Romans, navigation and commerce, the handniaids of geographieal sclence, were never biade objects of pursuit, except in wo far as they were found to be necessary to forward their achemes of unlversal dominion. Their conquests opened indeed the West, as those of Alexander had made known the East ; and It might be truly anid of that great people, that as they were the conquerors, so they were tbe nurveyors of the world. Every new war produced a new survey and itinerary of the countries which were the scenes of action; so that the materials of geograjihy were accumulated by every adaitional conquent. Some fragments of the itincraries thus composed still remain. The most memorable is that which bears the nanse of Antoninus, and whleh may lie described as n mere akeleton road-trok, exhifiting nothing more than the nanses of placea, and their distancen from each other. The Jerusalem itinerary, which details minutely the route from Bordenux to thint holy city, is of the sume deacription.

A inore reniarkalile monument, however, in the Peut ngerian Table, which forme a map of the world, cons ructed on the mont aingnalar principles. The map is twenty feet long and only one focit broan, no thit we can easily conceive how incorrectly the proportion of the different parts is exhibited. Along the high road which traversea the Roman eimplie in the general direction of east and weat, objects are minutely and
accurately reprenented/ but of those objects whlch lia to the north and aouth of It, only wome general notlon is conveyad. The Peutlnigerian Table serves as a apecimen of what are called Itinera Pieta, the " palnted roads" of the nrcientn, intended for the clearar direction of the mareh of their armies.

While the Romans by thelr anrveys contributed much to increase the mase of materials out of which the at ructure of geographical acience was to the reared, they never nttempted themselves to combine these muterials Into one harmonious syatem. They Imbibed In no degres the commercial spirit of the grent maritime States of the anclent world, Carthage, Greace, and Ekypt, wideh thelr valor and diselpline obligged to sulimit to their doninion. Jut while the trade of the conquered countrien continued to be carried on through nearly the former channels after they were reducel to the form of Bonas provinces, the wealth accumulated In the capital of the world gave rise to a demand for Inxuries of every dencription. Thin, combined with the comparative pence and secarity which for a lang time prevalied after the complete establinhment of the Roman dominion, gave new vlgor to commercinl enterprise. Alexandria continued the grest centre of naval affairs. Obstacles which in the tine of Alexunder were deemed Insurmountable, were completely ovrrcome. Trade with Indin through Egypt aequired new energy, and was carried on to a greater axteat. Continued Intercourse with the shores of India at length made known to navigators the perlodical winds which prevail in the Indian Ocean; and taklag advantage of these, pilots were emboldened to abandon the slow and dungerous course along the coasts, and to make the open sea their highway. This course was from Geelis, at the mouth of the Aralian Gulf, to Nelkunda (Nelisuram), on the western shores of the Indian continent (the coast of Malabur), which seems to have been the utmost ilmit of the anclent navigntlon in that quarter of the glohe. Tho extenslve regiona which atretch beyond this to the east were very imperfectly known by the reports olitalned from a few adventurers who visited them by land.

If we now bring into one vlew the amount of information porsessed by the anclents reapecting the hablable giole, we shall find that it was extremely limited. It wan at those places on the earth where the human mind displayed greatest activity and enterprise that this knowledge was naturally accumulatei. I'roceedlng from these stationa, the boundary which separated the known from the unknown part of the wor-d was gradually enlarged; but the regions comprehended within It constituted stlll but a small portion of the whole. In Europe the extensive provinces in the eantern part of Gernany were lout little known, while the whole of thant vast territory which now forms the countries of Denmark, Sweden, Prusaia, l'oland, and Jfussla, wan buried In the deepest olscurity. The inhospitable and dreary elimes within the arctic circle were yet unexplored. In Africa, little wns known beyond the countrice atretching along the Mediterranean Sea, and those bordering on the western ahore of the Arahian Guif. In Anla, the rich and fertile countries beyond the (inngen, whence the conmerce of modern thes has drawn the most valuable commoditiea for the comfort and embellisiment of civilized aocicty, were known, if known at all, only by the most vague and uncertuin report. The immense regions on the north oceupled by the wandering trikes called lin aucient times by the general names of Sarmathns or Scythiana, and which aro now inhahited ly varions tribes of Tartars, and ty the Asintic subjects of ltassin, neem never to have lieen penetrated. Adil to this, that the fertle and poputoun regions withill the torrid zone were Imagined to be zninhabitable; and we have ample proof that the geography of the ancients wis very imperfect.

Having thus far given a succinct view of the pro-

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The detern shadow at the by observation as in ng the with astronom ceptions of th a simple trein Which the po north and sout weat is the onl absolute situat earth. It $\mathrm{mi}_{\mathrm{E}}$ than a reflectins the conception them to use. apprehension 0 aystem of geng daya of Thalea flourished In tl era, there appea provement of $g$ lishment of the andria. Pythe aystem of the w and giving the Iution; but this the age in which lost aight of.
Eratosthenes
gressive steps by which the earth's surface, considered merely ss trscts of territory inhabited hy men, gradually became known, it will be proper next to trace briefly the advances made toward arranging into a systomatic form the materials accumulated. Seience required that the relatlve ponitions of placea, with their distances from each other, should be ascertained in such a manner as to furnish fixed prinelples on which the whole, or any portion, of the surface of the earth might be represented or dellneated with due regard to its figure and dimenaions.

The first rude attempt made by the early geographers to determine the position of places appesrs to have depended on the division of the earth into climates, diatinguished by the specien of animals and plants produced in each. Thus the appearance of the negro, the rhinoceros, and the elephant, suggested to them the llne of division where the torrid zone begrun toward the north, and ended toward the sonth. Iut instead of thin very vague method, a nother was aoon adojited, which consisted in observing st places the length of the longest and shortest day. This was determined with some accuracy by means of a gnomon, a method of observation much nsed by the ancients. An upright pllar of a known height leing erected on a level pavement, by observing the lengths of the merldian shadows, they wero enabled to trace the progress of the aun from tropic to tropic. The most ancient observation with the gnomon which we meet with ie that of Pytheas, in the days of Alexander the Great. Pytheas observed at the summer aolstice at Marseilles, that the length of the meridian shadow was to the height of the gnomon as $218 t$ to 600 ; an observation which makes the meridian altitude of the sun at Marseilles on that day $70^{\circ} 27^{\prime}$. The merit of the iavention of the gnomon in Greece is ascribed to the astronomical school of Miletus, and particularly to Ansximander and Anaximenes. There is reason, however, to believe that this method of observation was originally invented by the Egyptlans; and that Thales, who travelei into Egypt, carried thence the knowledge of it into Greece. It has even been conjectured that the Fgyptian pyramils and abelisks were intended for the same purpose with the gnomon ; and, though it would be extravagant to imagine that this was their sole use, this opinion appears to be coontensnced by the fact of their being placed in the direction of the four cardinnl points.

The determination of the length of the meridian shadow st the solstices for different parts of the earth, by observitions made with the gromon, is important as 'h ng the first step toward connecting geography with astronomy ; and, when combined with just concefitions of the globular figure of the earth, leads, by a simple troin of thonght, to the motion of latitude by which the position of a place is fixed relatively to north and south. The position with regerd to east and west is the only other element necessary for fixing the sbsolute situation of the place on the surface of the earth. It might have been supl. ased not to be more than a reflecting mind could easily accomplish, to reach the conception of both these elements, and to apply them to use. Yet so elow was the progress toward the apprehension of the principles on which an accurate system of geography might be founded, that from the days of 'lhales and his immediate auccessors, who flourished in the sixth century beforo the Christian era, there appears to have been little done for the improvement of geography, ns a science, nntil the establishment of the famous astronomical school of Alexandiria. Pythagoras had indeed maintained the true aystem of the world, by placing the sun in the centre, and giving the osrth both a diurnai and aunmal revolution; but thin doctrine was so much in advance of the age in which he promulgated it, that it was soon lost sight of.
Eratosthenes was the first who reduced geography
to a regular system, and laid its foundations on clear and solld prinelples. Under the patronage of the Itolemien, he had access to the materinla collected by Alexander, his generals and nuccessors, sa we!l as to the immense mass of documents accumulated in the Alexandrian library. At an early period of the biatory of astronomical science, the vulgar opinion that the earth is a flat surface, with the heavens reating upon it as a canopy; was rujected; bnt it was not at once that distinct conceptions of its gin',alar figure were nequired. It was only as astronomical observations incronsed that the doctrine of its spherielty was fully estabilshed. This polnt had been gained when Eratosthenes began his labors; and what he endeavored to accomplish was to delineate, in atrict sonformity with this principle, the known parts of the earth's surface.

With this view, founding his system on the uee of the gnomon, he supposed a line to be traced through certain places, in ali of which the longest day was known to be exactly of the same length. This line would evidently lie a parallel to the equator. But though his method was correet in prinuple, the want of accurate observations rendered it uncertain in practice. The line was supposed to comprise all the leading positions which lay near it, though they did not nctually come within its range. Its western extremity was the Sacred Promontory of Iberia (Cape St. Vincent) ; thence it passed through the Straits of (Gades. lroceeding eastward, it passed through the Sicilian Sea, and near the southern extremity of the Peloponnesus, and was continued through the island of Rhodes, and the Bay of Issus; whence entering Cilicia, and crossing the Euphrates nnd the ligeris, it was extended to the mountains of India, and trominated at the remote city of Thine, situated on the Eastern Ocean. The parallel thus drawn was understood to pase through all those places where the longest day was $14 \frac{1}{2}$ hours. It stretched the whole length of what was supposed to be the habitablo word, and measured about 70,000 atadia; a distance corresponding, according to the estimate of Eratosthenes, to about 1.40 degrees, which is rather more than one thirl of the circuit of the globe.

This first parallel drawn throurh Rhodes was ever aftorward preferred as the basis of ancient maps; inasmuch as it was traced through the middle of the Mediterranean, along the coasts of which were situnted the principal nations of antiquity. Following ont the same happy thought which he had thus successfully made the groundwork of his system, Eratosthenes wae induced not only to trace other parrallels at certain intervals from the first, as one through Alexandrin, nnother through Syene, and a third through Meroe; but also to trace, at right angles to these, a meridian, passing through Rhodes and Alexandria southward to Syene and Meroe. As the progress which he thus made towird the completion of what he had so skillfully conceived, naturally tended to enlarge his ideas concerning geographical science, he attempted what soemed a still more diffieult undertaking, namely, to determine the circumference of the gloho by the actoal measurement of a segment of ono of its great circles. The method he parsued has been clearly pointed out in the article Astnonomy, Kincy. Prit. There is a difference among ancient authors respecting the rosult obtained by Eratosthenes. The great inajority, however, state it to he 252,000 stadia, which give exactly 700 stadia for a degree of the equator, antl 555 atudia for the degree of longitude upon the parallel drawn through Rhodes.

The knowledge of the circumference of the earth ie a necesnary element in the construction of mape; and hence the most eminent of the ancient astronomical geographers made repeated endeavors to determine it with nceuracy. Possidonias, by an nstronomical observation, determined the aro of the meridian between

Rhodes and Alexandria to be a forty-elghth part of the whole circumference. With regard to the distanc: letween these two places, 5000 stadia were the reputed distance; but Eratosthenes had made it only 3700 at alia upwaril of 170 years beiore, and betwixt these two l'ossorlonius hed to make choice. The former number gives 243,000 stalia fer the whule circumference, the latter 180,000 stnilia. Of this luat result, which gives 500 atadia for a degree of the equator, Possidonius is reported by Strato to have approved. For want of the knowledge of the true length of the stadimon, it is now h. ossible to judge of the actual quantity asslgned either by Eratosthenes or Pusvidoniun ms the measure of the earth'н circumference; bint the great uncertainty alout the sistance between the points of observation in the case of the determination of the latter astronomer renders his concluston of wo value.

Nutwithstanding the soundness of the principles which had now been luld down for the clelineation of the glabe, much remained to be done, in the way of ohsservation, before an acenrato representation of che whole, or a portion of the aarth's surface, could the given. Iboth the latitudes und longitudes of the anclents are erroneous; more expecially the latier. 'This is what might be expuected at that early period. Hat in se*ting out from the Sacreà l'romentory of Deria. the meridian of which the ancients mado their dirst meridian, the hours in longitndo accumulat, as we mivance east warl, with a regularity, as well as rapitity, which is very rorprising, The regularity of their increase induced I. Cinsselin to momelude that they were to be att ributell, not tis the imperfection of independent observations, but to mome general canse, whinh ho endeavorell to assign ly imagining that liratosthones had access to qome early map, fouml probahly by Alexanter or his generals in some conntry in the liant, where astronomy has been successfully cultivated; and that mbsapprehensions respecting the principle of delineation employed, which M. Gosselin aupposes to have been that on which the pitane chart is constructed, had lell him into a regulat system of errors. In the plane map the lenath of a degree of longitude is suppased to the the same at all ilistatwesa frem the equato. By taking for granted that Eratosthemes towk his ilis:ances from a map of this kind, on which the parts of the glole had been accurately lahd down, but that he divided the stadia expressing these distancen, not by 700, the number of stadia in a degree at the equator, as he ought tuhavedone, bailiy $\mathbf{b i s}$, the number curresponding to the prallel of lilurles, M. Cinsselin obtains results which have a womberful cwinchlence with the positions actually pition hy liratosthones, These results, however, are dedued from a bypothexis which is unamported by any evibence, execpit what may ine auppesed to arise from this colnchlence. I nore probable molution neeme tos the that lirasthenes detormined this lomgitades from the itinerary measures, which he roduced to degrees at the cate of 200 stalia to a dogree at the equator, and of asis to a degree at the parallel of Rhonles: and that the errors aro the conseyturese of the exagerated areomats whids merchants and travelers of that age wave of the distances over which they pessump; their exaggerations, of conrse, bearing some propartion to the length and hariships of the journeys undertakin.

Thu knowledige an yet possemped by gengruphera with rersith to the outline of the habitnthe glohe was far from lowng such as to whablo them to delineate it with any deprece of precinjon. This circumatance, conblaed with the whavoidable errorn in latitude and longituile, prodacesl verv :greet distortions lis the repres. ecitations given of the countries on the surface of the globe, linder the goldance of nound principles of sciance, huwever, it was now certain that these Injerfoctions would gradually ilisnjpmar.

The inprovements introluced linto geografiy by

Eratosthenes were perfected in princlple ly Hipparchus. This celebrated astrenomer, who flourished between 160 and 135 years befure the Christian era, was the first who undertook the nrduous task of forming a catalogue of the stars, and tixing their relative posithons. Ilis object was to transmit to posterity a knowledge of the state of tha heavens at the perioi of his observations. The extrenities of the inaginary axis round whleh the heavens perform their diurual revolution suggest $t$ wo fixed puats by which the pusition of the grent circte of the celestial sphere cilled the equator is cletermined. If a great circle be suppased to pass through these points and any war, the pasition of the star will be ancertained if we measure in tegrees mud parts of a degree the are of the meridian circle intercepted between the star nitl the equator, and alas the are of the equator interceptell hotween a given pelnt in it, and the meridian circte passing throug! the star. Upon this priwiple did Hipparchus arrange the stara aceurling to their places in the heavens, a work in which he appears, however, to have been in some moasare anticipated by Timocharis and Aristillus, who began to olserve atout 295 rears before the Chrintian era. The grent inprovement which he introflaced into geography comsistel in this, that he applied to the determiaing of the position of muy ;oint on the nurface of the earth the same artitiee which he had alrealy so happily fintroulnced in the arcangement of the constellations; and thus furminhed tise means of asedtaining the relativo situations of places with a precision which no itinerary measurements could possibly attain If we suppore the earth to the a gishe concentrie with the celestial sphere, and intersected by the plames of the celextial equatur and meridian, the principle on which the application of this artitice to the terrestrial sphero depends hecomes at once ubvious. Ilipparchus made a considerable nunilier of olservations of latitude, and pointed ont how tongitules might be detormbed by obsersing the eclipses of the sun und mown. Cireat as this lmprosement was, its impurtare seeme not to have heen duly estimated until the days of I'toleme; for none of the intermediate authore, such as Stralo, Vitruvius, and Iliny, have give" she leant hint of the latitule and longitule of any one place in clegreen and minutes, thongh all of them have given minately the gerographical positions of places aceording to the heogth and Nhalows of the gromon. St ralu, inded, even jnatities hila neglect of the astronomical parinciples introluced by llippardhas. "A geograjher," Rays he, "is to pay (1) attention to, what is out of the arth; nor will men enfure: in conducting the affitirs of that part of the carth which $i_{1}$ inhabited, deem the distinction ant divisions of Ilipparehus worthy of notice."
The true primelples of geography lowing painted out by the aplication of atitulo and longitule to places on. he carth, the way wats opened for the irapros cment of majn, which, with the single exception of the map drawn by Eratosthenes, hal hitherto been little mope than ruile suthines and topographieal whet hes of the diffrent conatries. Nomaps more ancient than those formed to illustrate l'tolomy's gemgraphy hava reduch modern times: but the eartient of whith there is any atecount are thone of Senontris, of whom it is sath, that having traveroma great part of the carth, he chand his marches to be recorded in mapa; and that he gate copples of these mape not unly to the ligy tians, tut to the sicythians, whove antonishment he thes greatly exeiteil.

Some have Inagined that the dews made a map of the Iloly land when they gave the dilleront purtinas to the nina trilus at shiloh. For on that oncasjon, as we are hformed liy the nvered historim, men wre sent "to watk through the land, and to cleserilue it ;" und when they but weomplished the objent of their mis. whon by deacritine: "it be cities into seven parta, in a book," they returned mito Joshua. What is hare rad,
however suration regularl map. I Anaxima conjectur known w same wit dexignath few partic llat nol early day, tagoris, $k$ ly Ilerode which wa showell to duce him t ace at Susa their nucie countries $t$ not interpr iterally, и whole circu ocean, und oi geograph cludel, that pression, the therefore the more partie midalle of $p$ Halys, the 1 otus mention dition in que line, calted tions or plae Susa, so thit The princi, map we have extent, it seen States of Giree of Aleximider marches of th idea respeetlu, had acyuired such a concep outline on a ct he was quito many, and Itri the coasts of the tries fowaril th Nistances of pla The distance o sents at 15,0140
It was not ur the improseme effectailiy appl: thenes hati sol: sixtell of geon' wrech thit mons science, in the re after the arenh. the Roman emphr the privinees hat The materials at of l'tolony for proportions of shadow, at the taken ly differen on the length of computer illstane the nurveys and of travolera and the distances of better foundintion these various par ${ }^{\text {a }}$ derahila differen lemy unlertook
hewever, does not fully determine whether their mensuration of the lamil was only recorded in numbers, or regularly projected and digested intn the form of a map. The ifrst tireclan map on recerd is that of Aunximander, mentioned by Strabo, which some have conjectured to have been a general map of the then known werld. It has further been imagined to be the saine with that referred to by alipparchus under the designatlen of The Ancient Mfap, and which in some few partlculnrs he preferred to that of Eratosthenes.
lut some lidea of the nature of the maps of those early days will be beat ohtained from the map of Arlstagoras, king of Miletua, whin is minutely described ly llerodotus. The histnrian telld us that this map, which was traced on brass or copper, Aristagoras showed to Cleomenes, kling of Spurta, in order to lnduce him to attapk the king of Persia, even in his palare at Suss, for the purpose of restoring the loniana to their anclent freedom. It contained the intermedinte conntries to be traversed in that march. We must not interpret, however, the wonds of llerolotins tio literally, when he describes it as containing "the whole circumference of the earth, the wholo sen or ocean, and all the rivers." Keoping in vlow the state oi geography at that period, it mיy justly be eoncladed, that netwithstanding "his pompous form of expression, the sen meant only the Mediterranean, and therefore the earth or land the coasts of that sea, and more partlcularly Asia Minor, extended toward the middle of l'ersia; by the rivers must be meant the Halys, the Euphrates, and the 'Ilgris, which Herodotus mentions as neeessary to be crossed in the expedition in queston. The map contained one stralight lioe, called the royal highucay, embraciog all the stations or places of encimpment between Sardia and Sasa, so that it was properly an itinerary.
The prinelple on whieh Eratosthenes constructed his map we have alrendy consilered. With regar $l$ to its exteat, it seems to have contained little more than the States of tirecee, and the dominions of the successors of Alexunder, dligested from the surveys of the marches of that great general. Ile had some faint idea respecting the westeru parts of Europe, which he had acquired from the voyage of I'ytheas; but not such a concepition an to emblile him to detineate thelr outline on a chart. Accorling to the report of Strabo, he was quite unacquanted with Spain, tianl, tiermany, und Iritain; he was equally hanorant of ltaly, the consts of the Adriatic, Pontus, and of ath the conntries toward the north. Ilis ermors with regard to the distances of phaces were in some linstances enormons. The distance of Carthage from Alexandriat he represents at $\mathbf{1 5 , 0 0 0}$ stalla, instemi of $\mathbf{1 0 0 0}$.

It was but unthl !'tolemy commencell his labors that the improsemenis pointed out hy llippurchus were effeciatily applied to perfect the gystem which Eratosthenes hal so linpily begun. P'tolemy composed his system of geos :aphy, which excaped nmid tha general wretk that romst, indil so many other anclent howks of science, iuthe reign of Antoninus l'ias, slout liso years after the opening of the Christian era. At this puriod the ibman empire had remehed its utmost extent, unl ull the provinces had heen surveyed, nul were well known. The miterials then in existence, and in the possession of J'miemy for completitig his great work, were the propurtions of the helpht of the gnomon und its shadow, at the time of the equinores and nolstices, taken ly ditlerent nstronomers ; ralculations finunded on the lemgth of the longest days; the mensures or computed distancea of the principal roads contation in the surveys and Itinerariea; and the varlous reporta of travolers and navigators, whose determbations of the distances of phaces often rested, hewerer, on no better foundation than hear ny and conjecture. Anom; these varlous partioulars, there evilontly exinten cons. shlerable ilfferences in point of uathority. Ilut I'to-
comparing and reducing into one syate 1 , which ahould possess the order and beauty of science, this apparently ineongrueus mass. Ie converted and translated the whole inte a new mathematicel language, expressing in degrees and minutes the latitude and Iongitude of euch phace, according to the principles ladd down by llipparchns, but which had been allowed by geographers to lie useless for upward of 250 years. It is in Ptolemy's work, which censists of eight books, that we find for the firat time the mathematical principles of the constructlon of maps, beth genernl and particular, as well as of soveral projections of thsphore.

Notwithstanding that the llght of accurate acience thus directed the steps of the tirst geographer of antiquity, he v is ur from reaching the precislon at which he aimed. This arose from the imperfection of the original materials upon which his work is bnaed in reference to its detalls. With regarl $\mathrm{t}_{0}$ the remoter boundaries of the then known world, in all its quarters, a wonderful udvancement in knowledge hnd been mule since the days of Eratosthenea and of Strabo. Ilut still that mblitional information was nou fitted to make up for the want of ustromomical observations, by which nlone nccuracy could be secured. Besides, in relation to places situated beyond the limits of tho loman empire, and therefore out of the range alike of astronamers and surveyors, it was almost impessible for I'tolemy not to commit mistakes. Thus his errors urose from the lynorance of the age; und are of auch a character as to admit of heing removed only as opportunities are afforded of oitsining the requisite data by the ntriet application of the principles derived from mathematical and astronomical seienco

I'tolemy adopted the measure of n degree at 500 stadia, according to the standurd of Possidonias, in steal of following the measurement of lirutosthenes, which gives 700 shadia to a degree. Hat M. Gusselin has necused him of un error of a more serious kind; lecause, if really committed, it would have ladicated a strange neg'ect of what a geographer ahould make his Arsi carc. This error conslists in assuming one measure for the degree of latitule (the measure of Eratosthenes, 700 ntadia) and another for the tegree of longitude at the equator. Such a hypothesls wonld evidently be inconsistent with the globular figure of the earth. It may reasonably be doubted, however, whether M. Gossolin's accusation is well founded; for, though it neems supported by the fuct, that while I'tolemy has changed materialiy all the longitudes of Fratosthenes, the lititudes along the great line remuin the same, and aro in general correct, this ciremmatance may be accounted for suthelen.ly from other cunses. Rhoies, and several other points of this areat line, were flxed with regurd to latitude by observations approximathing to the truth, while the elements for determining the longitudes wete derlved entirely from the itheraries. 'To the morth and sonth of the great central line, which alona was flxed upon mound data, errors in latitude necumulate an rapidly as those in longitude are fomed to do in proceding eastward.

One of tho most remarkuble errors th the geographisal work of l'tolomy is the great length nsuigned to tho Mediterramean. Reckoning from the straits of Gimles to the linttom of the Hay of lasias, where Aloxandretta, or Seamidroon now riands, be makes the difforemen of lompitulo no less than fis dogrees, which is upwaril of 20j depre os nbove the truth. 'This amataing error, which affert ad ali our maps more or less until the begimenup of $\therefore$ is last erentury, was produced in eonsequence of his having put tor much contldence in the supposed surveys of ilitiorent persons of reputation rocorded by Nitraho, and who mipeared to contirm the aceuray of each other's womputation. Aerording to their united testhmony, thu whald length of the Mediterrauman was bbut $\%$ (i,501 stalla, which, being con, verted into degrees of lengltudo accoriling to tho
method of Ptolemy, of allowing 400 stadia to a degree the measurement of mountains. He found the height of longituile on the parallel of Rhodes, give about $66^{\circ}$ 15'. This is $4^{\circ} 15^{\prime}$ more than what are given by Marinus, whom in thia particnar Ptolemy strictly follows.

Pliny quotea from Agripps a computation of the length of the Mediterranean, which makea it $\mathbf{a}, 4.10$ Roman miles; but in quoting it be adda a suspicion that there is an error in the numbers. When converted into degrees of longitude, the result of this computation gives $68^{\circ} 20^{\prime}$. As, however, the length given by Strabo amounted, as we have seen, to $66^{\circ}$ 15', Ptolemy seems to have chosen a middle path be$t$ ween these two erroneous computations, und to have adopted $62^{\circ}$ for the difference of longitude in question. But there, another nncient compitation quoted also by Illiny from Polyblus, according to which the length of the. Mediterranean is stated to be 2,440 Roman miles. IInd Ptolemy followed thla estimate, he would hare obtained for a result $41^{\circ} 4^{\prime}$, which is not far from the truth. Thus we see that the circumstances unde: which Ptolemy wrote, rendered it impossible for him to avold mistakes, and that he might we inisled even when more accurate results were within his reach.

The great obstacle with which the anclenth had to enntend, was the finding of the longitude with neenracy, a problem for the solution of which it was long before there was discovered any method aufficiently exact. This necounts for the erronenus longitudes of Ptolemy, and more especially for tho length of time, even many centuries, during which the remarkable error, with regard tos the length of the Mediterransan, remained undiscovered and uneorrected.

We huve now traced the history of geography from the earliest periot of which we have any information, to the time when it assmmes a s-ientific character. We shall conclude our aceount of onclent geography by shortly noticing the principal geographers of antiquity, some of whom have not yet lieen mentioned, whils others have only lieen quozed in tracing the rise and progress of the science.
The intimate connection between geography-nnd the aciuce of geometry and astronomy, rendered the former an object of atieution to many who nnciently cultivnted the latter. ive have alrealy mentioned Anaximander and Anaximenes, of the school of $\mathrm{Mi}_{\text {; }}$ letus. Democritus, Eudnxus of Cnidus, and Parmenldea, are also reported to have itmproved geography; and to the last is nttributed the division of the carth into zones. Thens were followed by Eirntoathenes, who lived about 240 years lefore the Christian ern; by llipparchus, about 80 years afterwarl ; by l'olybius, tieminus, and Possidoulus. Fratesthenes wrote three looks on geography, some passages of which Straho criticises, though he frequently defends him ngainat Ilipjarchus, who appenes to opposer his opinions with some degree of affertation. Polytime ulen wrote on geography ; an dill likewise timminus and Posniloniua, who are frequently quoted by Straioo. I'otyhius, accorling to Gominus, urgoed with consideration acuteneas for the ponalibilty of the torrid zome beinf inlatited; and he even addi,ced phanible argnmenta to prove that the countries under the equator enjoy a more temperato climate than the countrieg do that are nituated near the tropies.

We munt not hore omit ugeographer and geometer who lived alumet the time of Alexander the Great. This was flicearihus of Menalna, $\mathbf{n}$ diaciple of 'Theophroatus, who wrute a description of fireece in iomble verses, of which mone fras aenta yet ipmain. Wht what chietty render him remarkalilo in, that he menaHred geometrionlly neversl mountains, to which an excensive height had been hefore naslgneal. With Dicearchns we may notice nother geometer, Xrinagoras, a disciple of Ariatotle, mentionct hy Phitarele in his life of faulus similiam, whooceupled himeelf in
the measurement of mountains, He found the height
of Mount Olympus to be 15 stadia. In some of the latter perioda which preceded the Christian era, there were several writers on geography, as Artemilorus of Ephesus, who wrote a geographiceal work of eleven books, of which nothing remalns; Seymnus of Chio, author of a deacription of the earth in iambic verses, which remain in a very mutilated atate; Isidorue of Chnrnx, who gave a description of the Parthian empire ; and Scylax of Caryndes, author of a voyage round the Mediterranean, which is still extant.
Tho works of all these geographers are, however, but small in comparison with the geography of Strabo; a work in 17 books, which has come down to us entire. This is one of the most vnlualily worka of antiquity, hoth from the apirit of discussion which runs through it, and the number of curious particulare which the nuthor has collected from different geogiaphers and navigators who preceded him, and of whose works nothing remains except these extracts. Strabo tived in the reigns of Angustus end Tiberius, and was nearly cotemporary with Pomponius Meln. This latter gengrapher wrote a work De Situ Orbis, whlch, though little more than a bare summary, is valuable, as it gives us a sketch of what was known in his time respecting the state of the halitable globe. Besides Mels, Rome profluced, in the most fluurishing ers of its literature, another eminent geoprapher, Pliny. Ile devoted two books of his extenaiva work on natural history, to a system of geography. Ilis intimate connection with the irsocrial family, nnd with many of the most eminent commandern of the time, appears to have given him access to atl the military measurements, as well es to the general survey of the Roman empire. Thus fornished with a greater store of nuthentic materials tha: any former writer, he has introduced a great number of itinerary details, which are for the most part necurate and valuable. Julin. 3 Solenus has atso treated of geograplyy in his Polyhistor, a compilation sufficiently valuatie from the number of curions particulars which are there collected. Marinus of Tyre, was another geographer who ajpenrs to have teen distinguishel, though his works have perished. Jiven under the Loman empire Tyre continued to he the seat of an extensive commerco; indeed the commercial relations of her citizens mpear to lave extented over n willer portion of tho enrth's surface than ever. The enlarged muterinis furnisi ad by the lengthened journeys of his countrymen, which brought them even to tie confines of China, Marinus collected, and sought to apply t" theur the astronomiend principles of llipo parchus, an that he might give to geography a neve aul more aceurate form. l'tolemy, whom Marimes preceled by a short time, employs a grent part of his first look in liscumsing the means employed by the Tyrian geographer fur tixing; the rehative position of phaces; an? from the referenees and extracta it apo para that the system of Marinus purtook largoly of the imperfections of a first effort.

The enlarged and scientifio vewn of l'tolemy we have already comaidered. Some time after P'tiemy llved Donysina, commonly called the l'eriegrtic, from the titje of a work in verse composed by him, namely, his Jeriegrain, or Survey of the Worli. This work was translated into Jabin verse ly Priscianus, and afterwaril by Avienns. There in, hesidea, n description hy Avimus, of the maritime roats, In lambie versen, of which there remain about 700 . 'The difthenlty of proworing tho ambli and arattered pineen of mont of thone nuthors, with thos, of a few others not bere enmmerated, indieed the learned Hudson to culf lect them into one work, consisting of four volumen ortavo, which were publinhed in the years 1 159N, 1702, 1712, under the titio of Cirographie reteris Sirriptores Gireri minorrs. The orlginnla are nccompanied with Latin transintiona, and noter and diasertations on each by Doiwell. 'This ls a very valuable collection.

We now proeeed to consider the progress of geography during tho middle ages. From the days of Ptolemy until the revival of letters In Europe, little was done for ite eolld improvement. The calamities that are long overwhelmed the Roman empire, were followed by a general Intellectual darkness which eettled down on the world and extinguished even the imperfect knowledge pessessed by the ancient geographers. Whlie barbarotus nations poured in from eeveral quarters, art and science cessed to be cultivated. The union by which the Roman power had bound together mankind being now dlssolverl, Europe was divided into small and Independent, and, for the mosi part, hostile communities, which had but vague conceptions respecting the situation of each other, while no intercoursu subsisted between their members. With regard to remote reglone all knowledge was lost ; their situations, their commodities, and almost their names, were unk nown.

Amid this ignoranco there wore but few channels open through which knowledge could be obtained. One eircumstance, however, prevented commercial intercourso with foreign nations from being altogether suspended. The opulence and luxury of imperial Rome had long given life and energy to commerclal enterprise ; that stimulus was now withdrawn; but Constuntinoplo still remained, the last refuge of anclent arts, and taste, and elagance, when the rest of Europe was oversproad with barbarism. Fortunately that city bid escaped the destructive rage of the flerce inver: st there, under the cherishing finfuence of a ne: a, .at for foreign productions and lixxurles, commerce continued to flourish. Alexandria continued to be the emporium whenco were imported the commoditios of the liast Indies, until Egypt, falling under the power of the Arabimas, coased to be a province of the Roman empire. After this event the industry of the Greeks succeedod in discovering a now channel $\mathrm{by}^{*}$ which Constantinople might still be supplied with * productions of lindia. These were tirst conveyed : ' ne Indus as far as that river ls navigaWe, thence by land-carriago they were brought to the Oxus, and were carried down the river to tho Casplan Sea, lintering thero the Volga, they were conveyed up it, and thence were again transported by land until they reached the 'Tanals, down which they were convered to the liaxino Sea, where vessels from Constantinople awaited their arrival. ley this circuitous route was a channel of intorcourso kept open with tho most distant conntrios of the Bast ; and an extensive knowledge of romoto reglons was atill preserved In the capltal of the Groek empire, while the rest of Eurspe was sunk. In the grossest hanorance.

The missions seut for the conversion of the northern pagans to Christlanlty, served somewhat to fllustrate the geography of Europe; though there is mullecient proot that tho monks employed were, in many instaners, themselves grossly lignornant, some not even knowing the capital of their own ceuntry, or the cities nearest to their own. Something was ulso done ly the great sovereigns of Burope toward dispelling the presailing Ignorance of the age on matters commerted with geography: Nor did the piratical exploits of the Daner und Norweginas under their grat sea-kings fail to make them uequaluted with the seas mul maritime coasta where they carried on their devastations. lhot it was in the Bast that a gleath of light mul knowledge hegan now to appar, which was tho harbinger of the noon-day splendor of selenee that was destined to atweed the darknesm of ignorance whits had so long oppressed the human mind. Diader the influence of a fanatichem which prompted them to own no law hat the Koran and the sworl, the followers of Mohammed hal rushed from the heart of Arabia, and had carrhed their conquents over half the world. At lsagil, huwover, under a race of humana and pollshed prineres, laving contracted a rellah for the sclences of
the people whose empire they had contributed to overturn, they etood for some time distinguished as the most learned of nations. They translated into their own language the books of several of the Greek phllosophers. The valuable work of Ptolemy was one of the first; and hence the study of geography became an early object of their attention. But the advancement which the science made in their hands toward precision was slow; for they copled and retailed all Ptolemy's principal errors. Still, in all the countries that were under Mohammedan dominion numerous observations were made, whlch, though not always strictly correct, were entitled to be considered as a step beyond the calculations msde merely from the itineraries by the Alexandrisn geographers. In the beginning of the ninth century, undar thelr caliph Almamon, who may rank among the most distingulished patrons of sclence that evar filled a throne, they measured a degree of latitude on the plalus of Sinjar, or Shlnjar, near Babylon, with a view to determine the circumference of the earth. The tables of Aholfeda and Ulug Beg, and of Nazir Eddin, edited by Gravins, and republished by IIudson, furnish materials that are still of use in the construction of the maps of the interior of Asia.
The progress and success of the Moslem arms removed the ubscurity in which many countries hud until then been concealed, as well as the barbarism in which they had been sunk. And even boyond the limits of the Molammedan world they pushed their reseurches, by sending missions buth to the east and to the west, which they explored to their renotest llmits. At that time Europe remained Ignorant of the improvements made ly the Arablans, though she was destined in subsequent ages to perfect their discoveries.

At length the long period of barbarism which accompanied and followed the fall of the Roman empiro, during which the traces of whatever had emhellished society, or contribinted to the comfort and convenienca of life, wero almost entiroly effaced, drew to a close. Industry began again to thed its blessings on mankind; and Italy was the country where its lenign infiuences were first pereeptible. IIaving from the operatlon of varlous causes again obtained liberty and independence, the Italians soon began to feel the impulse of thoso passions which eerve most powerfully to arouse men to activity and enterprise. The reviving demand for the comforts and luxuries o: life led to the revival of forelign cemmerce. The valuable commodities of the last were at first ohtained at Constantinople. But the exorbitant price demanded at that mart, in consequence of the circuitous routo by which they wore conveyod thither, induced the Italians to resort to other jorts, us Aleppo and Tripoll, on tho Syrim const, and at length to Egypt itself. After the Soldans had revivet the comnerce with lndia in its uncient chamel by tho Arablan Gulf, Veaice, Genou, and IT, a, roso from inconsiderable towns to wealthy and populous eities. Their trade extended to all the ports ln the Mediterranoan, and even heyond the Strifits to the towns on the coasts of Spain, France, the Low Countrios, and Euphand; and from theso points they diffused through Europe a tasto for tho Juxuries and enjoyments of civilized life, which they at the same time furnk hed the menns of gratifying.

It was not long ere an event oreurred, tho most extraordinary, pert:aps, in the history of humbin soclety, which gave n new impulse to the buropean mind, and forcithly directesl its vlew oastwarl, to the regions of Asia. Vituler the intluenee of a high-wrought enthuslasm, the martial mitit of the liuropeans was aruased, und vast armins, composed of all the natlous of Christendom, marched toward Asha on the wild enterprise of delivering the lloly Land from the dominien of Infidels. The crusales, however blind the zeal from which they took their rise, lad a very favoralile intlit enco on tha intellecturl state of Europe, and prepured
it for receiving the light of science which was soen to dawn upon it. Interesting regions, known hitherto only by the acanty reports of ignorant and credulous pilgrims, were now made the oljject of nttention and research. Not only was the way opened for the Eurepean nations acquiring a correct knowledge of the Holy Iand, with the kingdoms of Jerusalem and Edessa, fonnded by the victorlous crusaders, but the extensive regions over which the Saracens and the Turks had extended their empire began to loe explorel. Seareh was now made in the writings of the ancient gengrophers; nor is it improbable that some light was derived even from the Arabian writers. Religious zenl, the hope of gain, combined with motives of mere cariosity, induced severnl persons to travel by land into remote regions of the East, far beyond the collutries to whieh the operatlons of the crusiders axtended. Prompted by superstitions venerntion for the law of Moses, and by a desire of visiting hia countrymen in the East, whom he hoped to find possessed of wealth and power, Benjamin, a Jew of Tudela, in the kingdom of Navarre, set out from Spain in the year 1160, and traveling ly land to Constantinople, proceeded throngh the countries to the north of the Enxine and Caspian Seas. He then journeyed towaril the south, and traversed various provinces of the further India, until, having rearhed the Jndian Ocenn, he embarked and vlsited aeveral of its islands; and at length, after 13 years, returned ly the way of Egypt to Enrope. In his progress he had acquirell much informntion respecting a large portion of the globe, until then altogether unknown to Europeans.

Various missions were sent by the pope and by Christian princes, for purposes which led them to traverse the remote provinces of Asia. Finther John de Plano Carpini, at the herd of a mission of Francisenn monks, and Father Ascolino, at the head of another mission of Doniticans, were, in the year 1246, sont by Innocent IV. to enjoin Knyuk Khan, the gramison of 7.ngis, who was then at the head of the Tartar empire, to embrace Christianity, and to cease from desolating the word by his arms. In fultilling the commands laid upon them hy the heal of the Christlan church, the mendieants liad an opportunity of visiting a grent part of Isia. Carpini, having taken his ronte through Poland and Russia, traveled through the northern provinces as far as the extremities of Thibet, while Ascolino, who appears to have lamed somewhere in syria, alvanced throngh the aouthern provinces into the interior parts of Persia,

Father William de Rnlirnopia, a Francisean monk, having heensent in the year $1 \mathbf{2 5 3}$ on a mission liy St. lonis of France, in search of an linaginary personige, a powerful khan of the Tartars, who was reported to lave eonlraped the Christian faith, made a cirenit through $t^{*}$ interior parts of Asin more extensive than
 lle has, it of heing the firnt modern traveler that $g^{\prime \prime}{ }^{z}{ }^{\circ} \quad$ account of the Caxplan, which had been corr. (descrilmel by the parly tireeks as un inland separa e sen; but n notion nfterwarl prevailed that it was comnerten! with the Northern theat: Ruhrmiguia nacertalnet that it land no connection with the wenn or any other aea. The account of his journey was an little rearl, however, that the old error was repeateal in lanks of geograpisy long ufter his time.

Whiln the republies of Italy, and, nime all, the State of Venice, wers enagaced in dintributing the jewds, the spicea, and the tine cioths of Indin over the wentern wotil. it was impessibte that motives of curlocity, as well as a desire of commercial atvantage, should not low awakened to such $n$ degrue ns to lmjed some to hrave ail the alwtacles and dancers to be encountered in wialting thome remote montries where these precions and protitable commodities were promducel. A consideratile number of persons aceordingly are recorted as having penetrated a greater or less
depth into the intarior of Asia. But the fame ef ell the other old travelers in eclipsed by that of Marco Polo, who has always ranked among the greatest discoverers of any age. This extraordinary man was a noble Venetian, whone family, according to the custom of his country, engaged in extensive commerce. Nocolo Polo, and Maffeo Poln, the father anil uncle of Marco, were merchants, who, in partnerahip, traded chiefly with the East ; and, in purnuit of thetr mercantile speculations, had already vlaited Tartary. The recital of their travels on their return fired the youthful Imagination of Marco, then between 17 and 18 years old. Having, when in the Fast, gained tise contidence of Kublai Khan, the rreat conqueror of China, at whose court they had resided for a long timn, they were sent laek hy him to Jtaly, accompunied by an officer of his court, that they might repair to Rome as his embassulors to the pope, of whom and the potentates of the western world, they had given him an ample account. After many lelays, they were now, alout the year 1265, to set out on their return to the court of Kublai, bearing the papal letters and henediction; and it was resolved that young Marco sheuld accompany them. After a journey that occupied no less than three and a half years, and in the progress of which they passed through the ehief cities in the more cultivated parta of Asia, they reached Yen-kligg near the spot where l'ekin now stands, where they wero honorably and graciously received hy the grand khan. Struck with tho appearance of young Marco, the khan condeseended to take him under his protection, and caused him immediately to be enrolled nmong his attendants of honor. By pridence and fidelity Mareo gained so high a place in the exteem and conlidence of his pratector, that for 17 years, during which he remained in his service, he was employed in contidential malsions tu every part of the emplre and its dependencies. Ile male more than one voynge on the Indian Ocenn, nnd traded with many of the isinnds. Lesides what he learned from his own observation, he coilected from others many things coneerning countries which he did not virit. Considering the very favorable circumstances in which he wns phaced for geographical researeh, as well as his pinssion for traveling, which seems to lanve inereasell with his opport unities of gratifying it, it is not surprising that, after the long period of his wanderings in Asia, he ahould have returned to Firope possessed of the knowleclge of many particutars, until his time unknown, rer pecting the rastern parts of the word. Marco, being afterwatl mude a prisoner hy the Genoese, was inducel, with a view to hegrule the tediousness of his continemint, to dintate a narrative of his travels. His informntion was so far in alvance of the age, that his veracity was expoxel to the most injurious suxplicions. Hut, if we make allowance for some tincture of credulity, clumacteristic of the times in which lee lived, hos narrative is supjorted in all its essentind pointe tom modern informa. tion.

While great accessions were thins male to the atock of :nowhedge possensed by the nations of Europe reepecting the hatiathe globe, there hieas were, at the same time, produally enharged; taml un adventurous spirit was generated, which prepared them fur attempting further disuovaries. Still their effirts were limited hy curtain trotinds, in conserflene of the imparfect atato of navigation. Whatever eomopitima a darlug nind might venture to form respecting the exintence of unhuown repions, separated from the known continmes hy the mights expmese of the Atianthe Ctrean. Hunkind hal not wet so chetained the deminfon of the neas as to beathe to hrimg suche conceptions to the test of experiment. It was not until the fortumate diseovery of the palarity of the magnotio neeHe, and the consequent comatruction of the marimers' compmes, that man was embled to visit every purt of the gluhe which be inhatits. The hupretant ilisens.
ery was town of about th this sur places, b navigato method mitted hit of the 15 have adv had reach Jut it wa growing creasing Europe fo ery, of wh the history Portuga path. He countrics a Notwithsta and the str the comentria ration, Cap of the Porte able burrier out for dised and reached which beeun navigation; years. Und ued to be pris presented by crable way i evercome. I out to sea tl tunately led sunto; when grel, being tir horizon ; and their voyages tomed to a douliderl. Th navigators gr ary of the ter solim time ar lut in eonseq of the anclent they haill hith their mints, th beat renterel it.hle. lixpe to trimph ove thent, littell oint of llenin and thre eytatior. ablet them $t_{0}$ parts of the co only had they reference to th the direction of the deqeripthon pect. They s:1 grudenally herea ward; no that ancient uccoun Afriva wore rea extemslve pirosi the finlingr of a southern extren ject. In the y terminaters that omew Dhaz; bu watd that it wa reached, by Vins
Mean while th to have heen knt
cry was made by Flavio Glola, a eitizen of Amalf, a alght of, had heen discovered in 1446 ; and soon aftertown of considerable trade in the kingriom of Naples, abont the year 1302. Encouraged by the possession of this sure guide, by whleh, at uil times and in all places, he could win ev vainty oteer his course, the navigater gradually abandoned the timid and sjow method of sailing aleng the shore, and boidly committed his bark to the open rea. At the commencement of the 15th century, however, navigation appears to have advanced very little heyond the state which it hat reached before the downfall of the Roman empire. But it was now destined to make rapld progress. The growing apirit of enterprise, combined with the increasing light of seience, had prepared the States of Larope for entering upon that great eareer of discovery, of which the detaile constitute the materials fer the history of modern geography.
Portugui took the lead in this new and brilliant path. ller first attempt wns to discover the unknown countries situnted along the western coast of Africa. Netwithstanding the vieinity of that great continent, and the strong Inducement afforded in the fertility of the conntries already known in it, to its further exploration, Cape Non had hitherto limited the resarches of the Portuguese, and had been regarded as an impassabie barrier. In the year 1412, however, ships sent out for diseovery doubied this formidable promontory, and reached Cape Ilojador, 160 miles to the southwari, which became in ite turn the houndary of Portuguese aavigation; and it continued to be ao for upward of 20 years. Under the coasting system, which atill continued to be practiced, it was not likely that the olistacles presented by its rocky eliffs, whieh streteh a considratie way into the Atlantic, would goon have heen overcome. But a sudden squall of wind having driven ont to rea the vessel next dispatehed, this event fortunately ied to the discovery of the small ishame Porto Santo; whence, in a littie time, Madeira was discoveref, being tirst mistaken for a small black cloud in the borizon; and at length, when the Portuguese, by their voyages thither, had gradnally become accuscomed to a loolder navigation, Cape Hojador was doulied. Thus, be repented efforts, the Portuguese navigators graduntly approached the northern bonadary of the torrid zone. llere their progress was for some time arrested, not by any physical difle lties, lut in consequence of the influence which the opinion of the ancient mathematicians and gengraphers whom they hall hitherto fillowed as their gnides, had apon their minls, ly leading them to believe that excessive beat rembered the mitalie regions of the earth undnhatitalle. Experience, however, at length enabied them tu trimphover ignoranco and projudice. A powerfni Hect, fittem ont in 1.181, aft' " diseoverimg the kinghoms of Benin and Congo, ndraneed about 1500 miles beyond the equator. 'Iheir Intercourse with the natives enabled them to obtain luformation comerning those part of the comatry whieh they had not vivited. Not only had they detected the error of the ancients in reference to the torrin zone, but they found also tint the direction of the eonst was very dillerent from what the description glven by I'toiemy hal led them to expect. They naw reason to conclade that the continent gradually became narrower as they proceederi sonth.wand; to that there was reon to holieve that the ancient accounts resperting the circumavigation of Africa were really fommed in truth. New ami more extenvive prospects were thas oudted to them; and the linding of a possage to India liy salling romed the sumbern extremity of Afrien hecame a fivorite pros ject, in the year 1.188 , the lofty promontory which terminates that continent was dieserien by barthonemew illaz; but it was not until about 10 years afterward that it was dondion, and the reast of Daiamor reached, by Viaseo de Gimba.

Bean while the Cape de Versi lsiands, which are waid to have been known to the ancients, but afterward iost
ward the Azores Isles. When we consider the diatances at which these two groups of islands lie from the land, the former being upward of 300 miles from the coast of Africa, and the latter distunt 900 miles from any continent, it $n_{4}$. $y$ be conciuded that the Portuguese, when they entered so boldly irte the open seas, had mude no ineonsiderable progresa in the art of navigation.

But hrilliant as is the lustre which these diseoveries shed around the Portugnese name, their glory would have been still more dazzling had they seconded the profound views of Christopher Columbus, which led him to the discovery of the New Werld. That Jllustrious man and sklliful navigater, hy revolving in his nind the principles on which the lortuguese had founded their schemes of discovery, and carried them into execution, was led to conceive that he could inprove on their plan, and aecomplish diacoveries which they had hitherto attempted in vain. From the time that they had doubled Cape de Verd, the great objeet at which the Portuguese almed was to find a passage by sea to the Last Indies. The direction in which their efforts were made implied necessarily a long and hazardous voyage, should they even be sitceessful in accomplishing their design. But as the Athantic Ocean stretches west ward to an unknown distance, was it not possible that it might reach the shores of those very countries to which it was thought so desirnble to find a naval route? This supposition was perfectiy consistent with the known globular figure of the earth ; and it was evident, on the same principie, that the further India stretches to the east, the nearer it must nppronch to the western shores of Vurone and Africa. Such was the idea anggested to the mind of Colunbus, hy the knowledge which he possessed of navigation and geography, both in theory end practice. While he found his vlews contirmed by a eareful comparison of the observations of modern pilots with the hints and conjectures of ancient authors, he beeame thoroughiy eonvinced that the mavigator who should have the boldness to cross the Atiantic Ocean would have hia toils rewarded by the most important discoveries.

These ideas had presented themselves to the mind of Columbus as carly us the year 1.74; but it was not until the year $14!2$, after several yenrs of fruitiess solicitation, and of discouragements and disappointments of the most rexations kind, that he olitained the patronage of Ferdinned and Iambela, who then governed tho united kingdoms of Castlie and Arragon, and was live them put in possession of tho means of carrying his sehemes of discovery into execution. With no more suitable an ammant for his great enterprlse than three amall vessels, having 90 men, mostiy snilors, on board, and victualed fer 12 months, he saited from the port of lalos in Andahusia on tho ial day of Augnst, and steered for tho Canaries. Taking then his departure from Gomera, one of the most westerly of these ishands, he stretched into unknown seas ; and holding his course due west, reached Guanahani, one of the ihahama iniamos, on the 12th day of Detobur. After employing some time in making further ilisooveries, he returned to Span to amonnee the success of his undertaking, the fame of which soon apread over $\mathfrak{l}$ arope, and excited general attentinn. It was mo pasv matter to determine what relation the newly- iscotcred eountries bore to the regions formery known. ('olmultus's own views on the suliject were in strict rmformity witi the lina which had taken so firm a hold of his mini, namely, that Indis might he ronched hy salling towari the west. Ife lmagined that the ishamds he had visited were some of those which were sulid to lie contighous to thas remote shores of dsia. In this opinion he was contirmed by the coincideneo which he thought he couk trave betwern certain names riven to phaces by the matives and the apperintions knowi to belong to countries sit-
uated in Indin. He thought he could recognize, in the answer given to his inquiries after the situation of the mines whleh yielded gold, the name Cipango, by which Marco Poto and other travelers in the East desIgnated the isiand dupan. Ignorant of their language, and unaccustomed to their pronunciation, he even suppesed that they spoke of the great khan; and hence concluded that the kingdom of Cathay or Chinn, described ly Marco lolo, was not far uff. The same erroneeus opinion was still further rlveted in his mind, ly what he suppesed an ldentity between the animsal and vegetable productions of the East Indlee and those of the countries which be had discovered.
llis second veyage led to the discovery of several more of the group of inlands now called the West Indies, a name glven them in conformity with the ortginal notions of the diseoverer. It was on his third voyage that he discovered the vast continent of America, Ifaving unexpectedly found the ishand of Trinldad, with the nelghboring land, he encountered, hefore he was aware of danger, the adverse currents and tumultueus waves occastoned by the resistance which the waters of the Orineco oppose to the tides in the ocean. His attention was thus forcibly catted to the Immense body of water which is here poured inte the Atlantic. This he was convinced was vastly too great to be supplied lyy nuy island; and henco be concladed that he hat now reached the continent which he had songlit through so many dungers.

The Aneriran cuntinent, in its northern portions, had been discovered in or before the eleventh century. Toward the cluse of the ninth century a Norwegian pirate, while attenpting to reneh the Faroe Islands, which had already heen visited hy the lrish, was driven by storms to the coast of leetand. This led to the tirst settlement of the Norwegians in Jceland in $87{ }^{5}$. From that time the liurve lshands and lceland may be regarded as intermediate stations and starting-points for attempts to reath the northern whores of America. Greenland was early seen; but it was not until 983 that it was peopled from lceland. Colonization was carried through Greentand in a south-western direction (1) the new continent, and for some length of time an inconsillerable intercourse was maintalned with the newly colonized erontries. Hut a strong lino of separation uast be drawn between this early discovery of tome parts of the high northern latitules of Amerlea, wall the diseovery of its tropinal regions ly Columbus in the close of the tifteenth centory. In consequance of the uncivilized condition of the people by whom the former discovery was male, as well as tho nature of the eomintries to which it was limited, it prodaced no important or permanent resulta in relation either to commerce or science; the latter, on the other hand, has beren attendel with events of the utmost importance to mankint, as it has proved the opening of a new source of wealth, glory, and hnowtedige. The discovery of the new continent in the west, like the original discovery of its northern regions, may le sadid to lee acedental, inasmuch as the object which Columbus had in view was to find a western passage to lidia. Int the expedition inder Columbus porsessel this distinguishing feature, that it manlfested the perfect charater of being the following ont of a phan sketched in accorlance with the principles of melence, and intelligently condocted to a sucesssful issuc.

The tenacity with which an lugenlous and enterprising mind allapses to a wheme which it las onco proposed to itself as an object of oursuit, was wtrikingly evlucel by tobumbus, whose thoughts atill dwelt with eagerness on him original ant favorite plan of opening a new patampo to hidin. It was not enough that he hat astonished mankind lig tinding a new continent; the conceived the iden that lreyond it there luight lie a mea extending to the coasts of Aria, and that lig diligent search some strait might be found
whlch would conduct hlm into this sea, or some narrow meck of land, by crossing which it might he reached. To determine this important point, though hltherto hls services had met with the most unworthy returns, though years crept apon hlm, though worn out by fatigue and broken with infirmities, he attll undertook with alnertty another voyage. By a lueky conjecture he directed his efforts toward the east of the Gulf of Darien; lut he searched in vain for a etralt ; and though he frequently went on shore and ndvanced into the country, he never penetrated so far as to enable him to descry the great Southern Ocean.

After the first ateps had been taken, the progress of discovery over the globe was astonlshingly raphd. No expense or danger leterred even private adventurers from fitting out fieets, crossing oceans, and encountering the rage of savage nations in the most distant parts of the earth. Before Columbuas had reached the continent at the mouth of the Orinoco, Newfoundland had been discovered by Cabot, a Yeue: thun by descent, but suiling under tho auspices of singland. He had also coasted along the present territory of the United States, perhaps as far as Virglnia. In the next two or three years, the Cortereals, a daring family of Portuguese navigntors, began the long and unavailing search of a passage round the northern extremity of America. They sailed along the coast of Iabrador, and entered the spacious inlet of Hudson's Bay. Two of them unfortunately perished in this enterprise. In the ycar 1501 Alvarez Cabral, a Portuguese navigator, destined for India, having stood out to sea in order to avoid the variable breezes and freguent calms which he was sure to meet with on the African const, to his surprise, came upon the shores of an unknown country, the const of Brazil, which he claimed for Portugal. Amerigo Vespucei, a Florentine gentleman, who hai already sailed along a great part of Terra Firma and Guiana, now made two extensive voyages along the brazilhan coast. Soon after lis return he drew up and transmitted to one of his combtrymen an account of his ndventures and discoveries, in which he insinnated that to him belonged the honor of huving tirat discovered the continent in the New Worhl. 1 lis performance, which was the first description published of the new-dlacovered comatries, circulated rajidly, was read with admiration, amille. came the menns of procuring for its author the high honor of giving his mane to the whole contiment. Not many years clapsid the fore the conjecture of co. lumbus respecting the existence of an orean beyond the continent which he had discovered was futud to be true; and bis favorite project of opentug a passage to India by stcering westward was actuatly accomplished. Ily crossing the narrow isthmas of pamama, Nunez llaboa reached tho fachile thean in the year 101:t; and in 152l Magellan discovered and saited through the famous straits which bear his name. After eto days owcupied in navigating this datugerons chanmel, be belaeld spread ant before him the lomms. tess expanse of the great Southern Ocemn. Wirecting his course to the N.W., he continued his voyage for nearly $\&$ munthe without diseovering land. From want of provisions and from sirkness, ho and his cres sutfered Jreadful distress. But when ahwit to sink under their sutferinge, they fell in with the ladrone Inlands, where they found refreshments in altundance. From these intes he promereded un his vogage, an! was not long in diswovering the Philigpines. Here, in an unfortunate guarrel with the natives, he was shaln, with several of his principal otherer. Hat his survis. Ing companions, pursuimg their voyage, and retarning to Eurozs hy the C'ape of Gionl Iloper, solved the great problem of the rircumnavigation of the earth.

Aftor the discovery of the l'acifie Ocoun by thathe, the investigation of the western cuasts of Amprica went apeedily forwarl. Expeditions were soon sent out both northward and southward; so that nearly a
full view wa which the $A$ Ocean, and breadth. Ot ern World wi the time that Cape of Goo those of easte been explore lacea and the existence of characteristle Empire that of Chias.
The scientit materials to ar whole. IIe ws lincation of tt together the ral sad should exhi tions of countri the astronomer of geography, have adhered, earth heing sur zoas. This the of Darkness," a the Atlantic ; wl Asia, as inspirin, ideas, was style Sueh notions coul man mind, thoug kind could be exp which were not 0 contraticted by mental principles as we have alread of Hipparchus, an Ptolemy: But thi or even of accura dem furnished, ani yet provided suita rond the resources thing like a just spheres. Tho Vene attempted as system regiens recently di ether, and to the m seesed. Int a neri the king's library; counteracted ly the to contend. Instea which separates the canst of America, $t$ either os meeting, strait, The vuyago Ocean had not show presentation of the graphers of the time of different dates are toward morlern time: racy in the represent fice. This is what should be consitlere there will always be sumething new to be
At the period of $t$ the latitudes and long universally recoived, checked, however, by found to siffer materi tules in many instun that of llyzanitiun., $f$
ly two degrees. by two legrees. found to exist In some cuwilling to renounce
full view was obtained of the immense range of coast which the American continent presents to the Pacific Ocean, and at the same time of its great interior breadth. On the other hend, discovery In the Rastcra World was no less rapld. Within 20 years from the time that Gama reached India by the way of the Cape of Good IIope, all the coasta of lilndoostan, those of eastern Africa, of Arabia, and Persia, had been explored. Navigators had penatrated to Malseea and the Spice Islands. They had learned the existence of Siam and Pegu; and It was only the eharucteristio jealousy of the ralera of the Colestial Empire that prevented them from entering the ports of China.

The seientific geographer hal now abundance of materials to arrange and digest into one systematic whole. He was now called upon to give auch a deliacation of the earth's surfuce as should connect together the ranges of eastorn and western discovery, and should exhibit the true outline and relative positious of countries, as these had been demonstrated by the astronomer and navigator. The ancient system of geography, to which the Arabs geem elosely to have alhered, was founded on the lidea of the whole earth being surrounded by an ocean es ly a great zone. This the Arabians characterized as the "Sea of Darkness," an appellation most usually given to the Athantic ; while the northern sea of Europe and Asis, us inspiring still more gloomy and mysterious ideas, was styled the "Sea of Pitchy Darkness." Such notions could not now keep possession of the hnman mind, though it was only ly degrees that mankind could be expected to be enlightened by doetrines which were not only new, but seemed likewise to be contrudicted by the avidence of sense. The fundamental principles of a systematic arrangeinent had, as we have alrealy seen, been known from the time of litpparehus, and had been reduced to praetice by Ptolemy. But the want of astronomical observations, or even of eccurate surveys, which navigators seldom furnished, and for whleh science had not indeed yet proviled suitable instruments, placed it still beyond the resourees of modern geography to give any thing like a just representation of the two hemispheres. 'The Venetian geographers were tho first who attempited a systematic arrangement of the immense regions rerently diszovered, atjusting them to ench other, and to the mass of information previously possesed. Hat a series of Venctian maps, preserved in the king's library, show how much their will was counteracted ly the dittheulties with which they had to contend. Instead of exinibiting the vast ocean which separates the eust coast of Asia from the west cuast of Ameriea, the two continents are represented either as meeting, or as separated only by a narrow strat. The voynge of Magellan actoss the Sonthern Ocen hal not shown with sullicient distinctness the presentation of the opposito consts, to emable the geographers of the time to avoid this error. When maps of different dates are compared, we tind, as we descend toward motem times, a gralnal jrogress toward arollracy in the representations given of the earth's surface. This is what might be expected; for all maps should lie considered as untlinshed works, in which there will n'ways be something to bo corrected, or something new to be insertel.
At the periol of tho revival of letters in Burope, the latitules and lougitules as given by l'tolemy were universally recelved with limplicit contidence. When checkel, however, by actual ohservation, they were foum to differ materially from the truth. The latitales in many instanees were found very orroncous; that of llyzantiun., for example, exceeded the truth by two degrees. As nearly the same excess was found to exist in some other cases, many geographers, unwilling to renounce the authority of P'tolemy, concluded that this difference had arisen from a change
jis is is
having taken place in the position of the earth's axir, in consequence of whleh the latitudes of all the places In Earope were increased. The progress of observation showed that tilis opinion ras untenable, and that before geography could rest on a stre basis, a general revision of ancient graduation was indispensably necessary. The only observations employed by the anclents for rietermining longitudes were those of the eclipsas of the moon; but It was found that the results deriveci from this source could not be depended on. In the year 1610, Galileo, having discovered three of Jupiter's satellites, pointed out the use which might be made of their eelipses for finding longitudes. But this method, which glves the greatest degree of accurucy, was turned to little account, untll 1668, when Cassint pablished his tathes of the revolutions and eclipses of these sateinites. Three years afterward, by means of simultaneous oiservations made by him and Pleard at Paris, and by Tycho-Brahe at Copenhagen, the differonce of longitude of these two important points, which had been long a matter of dispute, was finally determined. Since that time, other accurate methods of finding the longitude have been discovered; and the Instruments employed in observation have been brought to a high degree of perfection. The refinements and improvements of modern science have been brought to bear upon the great problem of determining tho figure of the earth, which, though nearly, is not exactly spherical. (See Figuie of the Eantif.) The labors of scientfic men to obtain aecurate results on this antject, bave contrihuted much to the imprevement of geography. The expeditiona aent out under Maupertuis to the arctic circle, and under Condamine to the equator, afforded an opportunity of making various observations of latitude and longitude in regions of which no delineation reating upen proper lata had hitherto heen given. Within the last 50 years, trigonometrical surveys of France and England have been exceuted, whleh have nearly completed the delineation of these countries.
Much advantage has accrued to geographical selence, in point of aceuracy and precision, from the application in modern times of a sumbl and judietous critleism to the immense mass of materials which had been accumulating for ages. The labors of M. d'Anville, in the 18th century, were employed with great suecess in this department. LIe undertook the revision of the whole aystem on which the delineation of the world, and of the countries into which it is ditiled, had hitherto been made; and by unhesitatingly rojecting evury particular that did not rest on positive autiority, he removed uany false or uncertain features, and clearly distinguished the known from the unknown parts of the ghole. Mnjor lennell has skillfully arranged and ilhustrnted the important materials collected respeeting lntis. Various authors have in modern tines cultivated another interesting field of inquiry, the comparison between ancient ani modern geography, and the tracing of the rise and progress of early discovery. These researehes were diligently pursued by Vossius, llochart, and other learned men of the 17 ths century, and with still more suecess by lennell, Vincent, and Mannert, who appear to have pashed them as far as they admit, though much darkness atill rests on some parts of the loquiry. Gosselin, notwithstanding that ho has applied to the subject a great extent of invertigation, as well as much skill and force of criticisu, has failed, on account of tho peeuliar views in which he indulged, to make any sold addition to the science.

The discoveries male hy the Spaniards and Portuguese ladd greatly inerensed the stock of geographical information. Still much remalned to be done. The lesire of Ilnding a short and convenient route to India continued to supply a sthmulus to exertion in the way of discovery. Tho English and Duteli mado extraordinary efforts, and encountered fearful dangers and:

ber, whence he steered through a channel called Prince of Wales's Stralt; whleh, ranning north-east, appearnd a most promising course for reaching the sea south of Melville Island. Near the northern extremity of this strait, the Investigator was frozen in from the 8th of October, and remained stationary during the winter. l'arties being aent out to explore, it was soon ascertained that the channel opened Into Barrow's Strait ; and thus was the existence of a north-vest passage established. On the 14th July, 1851, the Incestigator was again fairly afloat, the lce bsving opened without any prescure. The great object now to be gained was to pase through the strait ; but notwithatanding their utmost exertions, the oxpedition was completely arrested ly stroug north-east winds, Iriving great masses of lice to the southward. Thus baffled, Captain M'Clure resolved on running to the soathward of the island forming the western boundary of Prince of Wales's Strait, which he had named Baring Island, and then to sail northwaril along its western side. This navigation, in which he was subjected to many delays and encountered many formilable obstacles, he accomplished, and succeedel in reaching the north side of the island on the 24th of September. Had open water existed to the enst the rest of the passage might have been ensily perfer,ned in this way, for Barrow's Struit lny before them, the navigation of which, from their position to Lancaster Sound, was khown to be practicable. 'The hopes of this intrepid navigntor were destined ngain to be disappointed. On the night of the above-mentioned bay the Inesestigator was frozen up, and at this point, in latitude $74^{\circ} 6^{\prime}$ N., and longitude $117^{\circ} 54^{\prime}$ W., they had their winter quarters $\ln 1851,1852,1853$. In April, 1852, a pnrty erossed the lee to Melville Island, and defosited there a document giving an account of their proceedings, and of the position of the Investigator. This document was happily discovered by the officers of Captain Kellett, who luel been the last pers,n with whom Captain M'Clure held communication when he entered the ice on the west, and was now, singularly enough, th's preson to reseue him nt the expiration of three ;ears on the side of Melville Island on the east. Step were immediately taken to commanicate with the party in their ire-prison, Lieutenant Pim being appointed by Captain Kellett to the srrvice. Kventaslly it was found necessary that Captain Meture and his galtant companions should abandon their ship, however unwillingly; so that the navigation of the north-west passagu has not yet been accompished.

The discovery of n new continent freatly enlarged, as we have seen, the views of mankind respecting the constitution of the glole. I But imngination, no longer limited in its range by the notion of a circtmambient ocean that could not be passed, soon gave rise to the infief of a southern continent, which was suphesed necessary to balunce the lind in the nore hern regions of the earth. $T$, immense boily of water that was found to oremy so larom a portion of the known regions of :ics aputhern. dea isphere pave maplo room for suppooing this unknown antinent to be of vast dimensions. It was inngined that it might eqnal in extent, ns well as in wealt'?, the American continent. Nor was it considered nocessary to exclude it from the map of the world till its existence should be proved. It appears ball the early maps as an inmense mass of law "purrombling the south pole, ans: presenting to the ocean one untroken const. "he ith covery of certain great insular tracts in the south seas, whim, from ignorance or their tran mature, mavirators might matake lur continerital promontories or portions of const, no doabt at first gave some comintenance to the belief of the existence of antaretic !and. lint tho dre lasion was gradually dispelleed tefore the light afforiled fy further diservery. Tho l'ortuguese, in less than 20 yenrs after thele passago of the Cape of (iood llope,
prahed their researches to the most remote islands in the Indlan Ocean, Including Java and the Molncens. They appear also to have observed nome part of the coast of New Guinea. The Spaniards, during their early and adventurous carcer, put forth strenuous exertiona to explore the Southern Ocean, and eeveral of the groupe of lslanas cattered over its surface were discovered by their naviontors. In 1607, the Dutch having wrested Java andi the Sjice Islands from the. Portuguese, established in then the centre of their Indian dominion. A great maritime power being thus placed so near to the northern ehores of the largest portion of land on the globe that is regarded as an island, it became almost impossible that New Holland could long remain unknown. It was dizcovered early in the 17 th century, and was long supposed to form a part ef the great southern continent. Van Diemen, the Dutch governor of lndia, sent out several vessels successively to explore its coasts. Hertog, Carpenter, Nuytz, and Ulaming made very extensive observations on the northern and western shores, but found them so dreary nnd uninviting that no settlement was attempted. In the year litiz Abel Jansen Tasman was commissioned to proceed on a voyage to ascertaln its extent. On the 1 It August he sailed from Botavia, directing his courso first toward the lsle of lirance. He again set sail on the Bd October, and preceeding southward and eastwarl, beyond the limits reached by his predecessors, he discovered and doubled the southern extremity of Van Diemen's Land, to which he gave its name; but he failed to diacover that it is a sepnrate island. Pursuing nfterward his course eastwarl, having reachel about $42^{\circ} 10^{\prime} \mathrm{S}$. lat., and $170^{\circ}$ E. long., he found himself in view of $n$ high and mountainons country, which he named Staaten Land, but which is now known as Now Zealand. He sailed along the const towarl the north-east, nul aftor being detained by the variableness of the weather, he resumed his voyage and returned home by the Friendly lslands, discovering many islands in his progress. Ho arrived at lhatavia on loth June, 1643. Tasman's voyage provel that New llolland was no part of the southern continent, even if such a continent should be found to exist. Cook, who had been appointed in 1763 to conduct a vovage into the Soath Ineifie Ocean for astronomical noll geographical purposes, suiled southward in 1769 in quest of the unknown continent. lofty mountains wero seell on the 6th October, and it was supposed that the ohject of their aeareh was found. lut the land proved to he New Zealand. This land he circunmavigated, and found that it consisted of two large islands separated by a narrow channel. After six months employed in this manner, he directed his course west ward, and reached the eastorn side of New Holland early in 1770. Lhy his evcensive operations In that quarter-iaving run down the coast from latitude : $\mathrm{S}^{\circ}$ to its nurthern extremivy at Torres Straithe left little more to be done there in the way of diseovery. l'assing down New llolland nad New Guinen, ise continued his voyuge hy 'limor and the south coast of Java to latavia; whence, after repuirit ig the ship, le saited for lingland, and reached the Iowns on the 12th lune, 1751, with his crew weakened nnd reduced in number by the fatigue and dardshipis of their long vovage. By this voyage it was proved there was no such rontiment as that supposed to exist to the northward of $40^{\circ}$ south latitnde. Hut ns many ingenious and well-informed men still adherel to the opinion that there did exist a southern continent, fovernment determined to semd out a wreond experdition under ('ook, to hatak imeh me exploration of the l'acitic Ocean in the higher southern latitules as should tinally and satinfactorily settio this. uch agitated question.

Cook was instructed to circumnavigate the globe in high latitudes, prosecuting his researches as near to the suth polo as possilile, and to traverse every part of the Sonthern Ocan whero the supposed contizent
could ponsilily lie. The experition salled from Plymouth 13th July, 1772, and quitted the Cape of Good Hope 22d Novemtrer. Pursulng hils course enatwarl, Cook, during three yearn, omployed the aummer monthe in those reglons (correaponiling to our win. ter months), in navigating high latltudes towarl the Sonth pole, and the winter months in adding to hin discoveries in the South Pacific Ocean. Not withatanding, however, that he varled his course, anil traverved in every direction whleh he thought afforded the alightent likelihood of finding land, and actually got on far south as $71^{\circ} 10^{\prime}$ of latitude, he wan unsuccensful. Having thus acrupulously and completely accomplished the alject for which he was sent out, he directed his course homewari. He had encompnased the glole in hlgh latitudes, and was lerl to conelude that the southern pole is aurrounded only ly inles and firm fields of lee, so that the hypothesis of an auntrnl continent had no foundation. He reached the Cape of Good Ilope 2241 March, 1775, and anchored at Splthead on the 30th July, having, in the space of 3 years and 18 days, nalled 20,000 leagrues, mostly in finhos pitable climates and unknown seas. In the course of this and bls former voyage the same great navigator secured glory to his country and to himself ly likewise completing the survey of the great Paeitle Ocenn. Some of the interesting gronps of islunds seattered ovet its vast su-face had already lieen made known ty the previous voyages of Myron, Wallis, and Carteret. Cook fully traced the great chain of the Society [s]. ands and the Friendly Islanils. He deternined also the ferm and relations, not only of New Zealand, turt of New Caledonia and other lants and islands in that region of the glithe.
The extensive island est New Holland has recently hecome deully Interesting from the important relutions which now sulsist between it and Europre. In the year $1 ; 88$ the extablishment of a liritish culony on the east coast paved the way for in more complete survey. Hy the different expelifions undertaken from 1795 to 1799, chielly under the direction of Bass and Flinders, the east coast, together with Van Diemen's Land and Hase's Strait, which separaten that island from New Ilolland, were adeguately explored. In 1801 an expedition was sent out by the llritish government under the command of Captain Finders, for the purpose of surseying a large portion of the coast. "these aurvey were prospented with unremitting arior and perseverance. At the rame time that Captain Flinders was carrying on his survey, the French captain Baudin was employed on the same service, and in some parts the discoveries of these navigators intermingle. Some adilitional oiservations lave more recently leeen made; and ly these various expeditions the whole coast of New Holland and Van Jiemen's land has been accurately surveyel, the position of every puint bas been ascertained, and every Intet num thay has been traced to itn termination.

The atrong presmantion which the researches of Captain l'rok in the Southern Ocesn furnicheol of the non-existence of an austral continent. seemed to leave no roum to expect that any further doubt wonlin the entertainct on the subject. licutenant C. Wilkes, commander of the expedition fitted ont in lxak ty the government of the l'nitel States, for tho exploration of the antarctic reglone, has, however, claimed for him country and for himself the honor of ut length diswovering a enntinent within the antarctic circle. While this claim is pertinaciously adherrel to, we distinct and unequivecal prowf is prowlaced that the rontinene alleged to have been seen by the Afmerican expelition has a eulntantial existence. No centinent or island was landed on; and, on the other hand, it in supposed that the llitish expedition, under the cunmand of Sir James C. lloss, *ailow over the very pot in mouth latitude $66^{\circ}$, and east longitude $163^{\circ}-166^{\circ}$, where Lieutenant Wilkes supposed he aaw mountain-
ous land. This latter expedilion was fitted out hy the British government, for scientlio purposea, in 1839 , and arrived in Van Diemen's Land In August, 1840, The French government had likewlee sent an expellition Into the nouthern seas, under the command of Captaln Iumont dUrville, about the name time. To avoid huterferences with the French and American discoveries, Sir James lloss deternined on a more easterly meridlan-that of $170^{\circ} \mathrm{E}$. - In which to endeavor to penetrate to the sonth. The expedition sailed from Holart Town on 13th Novensher, 1840, and on 27th Decemiker encountered a chain of lecherga. On the 5th January, 18:41, they entered the pack-ice, through which having forced their way, the lee having at the same thme nomewhat elackened, they found themselves on the ith January again $\ln$ a clear sea. Soun ufter 2 oelock, A. M., of the 11th January, they diseovered land, which, us they advanced southwaril, was found to extend continuously from tho 70 th to the 79 th degree, with several adjacent islanils. This land they called Victoria land. It presented to their view ranges of mountuins whose lofty peaks, covered with eternal snow, rose to elevations fron $\mathbf{7}$ to 10 or even 12 thouanall feet alove the level of the ocean. The intervening valleys were filled with glaciers, which, deacending from near the monntains' summits, projectel In many places several miles into the sea, and terminated th perpendicular clifis. The rocka breaking through in a few places their covering, afforded the only indication that land formed the nuclens of this, to appearance, enormous iceberg. On the $2 x t h$ danuary, when they had nearly reached their highest latitucle, about is $8^{\circ}$ S., they found that what appeared when tirst seen at a distance to be a high istand, was a nountsin 12,387 feet in helght emitting tlames and smoke in great profusion. This volcano lies in latitude alout $\nabla_{i \frac{1}{3}}{ }^{\circ} \mathrm{S}$., and in longitule aloout $16^{-2} \sigma^{2} \mathrm{E}$. From the niost eastern point of land ut a cape not far from the foot of this mountain, an iey burrier was found to extenl eastward as far as the eye could dis. cern. This turrier was a perpendicular wall of ive from 150 to 201 feet in height, and streichell 250 miles ha one muliroken line, as was found on a secend visit to the same literesting tocality in February INt2; nor were they able to turn its extremity, so an to resch a higher latitude. At a point where the hright of the barrier diminished to nhout wn feet, they perceived from the mast-headn that it gradually rase to the sonth. warl, presenting the appearance of very lofty mountains preffertly covered with snow, hut with a varied and undulating surface. Anll hence Sir James loss, with nearly all his companions, felt assured that the presence of land there amounts nhmost to a cert:inty. Still, Sir lames is of opinion that the recent discoveries in the antarrtic regions made by the Firench aml Aumer. irain navigators, and thy himself, do not prove the existance of a great mouthern continent, but rather of a -hain of icanls.
In trani.g the hintory of geographical disevery, it can nut fail to be olserved that while discuvery by sea adonits of treing parsuel with great advantuge, on account of the rapidity of its progrems and the extent of its range, it din a not supersede the rlower and more contined operations of the discoverer lyy lamp, which are no less tercosary to make know the interiur fatures and circumatancen of the dilferent comtries.

The llitixh dominlon in India has led to much addi: tional infurmation respecting the interior of Asia- ' infuro mation which is, however, in many respects, only the revival of ancient kuowledge. The great mountainoms chain which forms the northern loundary of India, has treen traced and fund in many places to tower to suct heights na to exceed the Andes, long supposeel to te the highest monataina In the world. The solure of the Ganges, and that of the Indus, with the eariy courses of these great rivers, have been found to bi
situated qu to be their mountalnou blgh Interio plains of Me Information recently olt capitale, $\mathbf{l o c}$ still remalns The rontin the globe wh efferts of tho vast sandy de forests whleh remitting war well as the Mohammedan: stacles of the whose knowle perfect, except nean and the into the inland acquainted witl gether unknow tory, reports th who had theen to be found in Portuguese to a which they gave greatly exagger. dispatched emba olject of their sea to have reached t alued nt Ilenin so iuterior kingdom south-western Fiu west const of Afr were naturally pr nelghloring nation tion of the African sustainell efforts discovery in the connected with the long time fixed the osity of the nation of Tinabuctoo and Tinluctoon has beer porium of the centr has prevailed thron of disecevery and cet sire to vivit it, and t conse. The disco the Niger has now tien what it is hop ere luxteo as well nas
terest with whish terest with which, huwever, the Niger the remarkaitie nutur Hows, and still mor with the various and so long stironal, respe Hendotus is the earl applicabie to this sult into the interior of At monian youthy, who, ried to a groat city int on the lanks of a ri east. This strenm h source of the Nile, bug leave little doulit, tha hypotheriss was adopt
identifying the waters identifying the waters Itolemy, whose reside ample ineans of lufor ilea of any communic scribes the Niger as ten
situated quite differently from what had been aupposed to be their positlon by modern geographers. The mountalnous territorien of Cabul and Cashmere, the bigh interior tablie-land of Thibet, and the vast anndy plains of Meckran, have all been more or iess explored. Information of an authentic character has also been recently obtained respecting the formerly celebrated espitale, Bochara and Samarcand. But a wide fleld stili remalns for future researeh.

The continent of Africa, however, is the quarter of the globe which, more than any other, has baffled the efforts of those whe would expiore its interior. The vast sandy deserts, high mountains, and impenetrable forests which occur on its aurface, joined with the unremitting wars carrled on between the petty tribes, as well as the deeply-rooted antipathy of the African Mohammedans toward the Franke, hive presented obtacles of the most formidnble kind. 'The anclents, whose knowledge of the African coasts was very imperfect, except where they border on the Mediterranean and the Red Sea, were nccustomed to penetrate into the inland provinces, and are said to have been acquainted with many parts of it which are now nitogether unknewn. At an early period of modern history, reports that Prester John, the Christian I'rince, who had been sought for in vain in the Fast, was to be found in the interior of Afrien, induced the Portuguese to explore Ahysainia; but the nccounts which they gave of the extent of that country were greatly exnggerated. From the western coast they dispatched embassies inte the interlor in quest of the chjectef their search; and on one occasion they appear to have renched the city of 'limbucton, and to have ols ained at Benin some information concerning the great iutcrior kinglem of Ghana. The maritime nations of south-western Europe early formed settlements on the west coast of Africa, and, for commercinl purposes, were naturally prompted to seek a knowledge of the nelghoring nations. Ilut it wrs not until the formation of the Afriean Association in 1783 that any wellsustained etforts were madie in the irosecution of discovery in the interior. There were two ohjects connected with the interior of Africa which had for a long time fixed the attention und awakened the curiosity of the nations of Europe. These were the city of Timbuctoo and the grent central river, the Niger. Timbuctoo has been for many centuries the grand emporiun of the central trado of Africa, and hence there has prevailed throughout Europe, ever since the rise of discovery and commercinl enterprise, $a$ atrong desire to visit it, and to establish with it $n$ fricndly interconne. The discovery of the course and mouth of the Niger has now openci up to commerciai speculation what it is hoped will give a rendy necess to 'Timbuctoo as well as other piaces of tratlic. The interest with which, in n geographical point of view, however, the Niger has been regariled, luas arisen from the remarkahle nature of the regions through which it dows, and still more from onr ignorance, comhined with the varions and contralictory rumors which were so long alruad, respectiug its course and termination. liemotus is the enriiest author who utlords nuy ideas applicable to this sulject. lie mentions no expertition into the interior of Afrien, undertaken by some Nussamonian youths, who, being made prisoners, were earried to a great city inhabited hy negroes, und situated on the linnks of a river which Howed from west to east. This strenm he conjectures to the the remoto source of the Nile, but the partieulars given appear to feave fittle doutht that it was the Niger. A similar hypothesis was nodopted by Strabo, Meia, and Pliny, identifying the waters of these two great rivers. liut Ptoleny, whose residence in $\mathbf{A}$ :smandria atforded him ample means of information, rejects aitogether the idea of any commanication between them. He describes the Niger as terminated on the west by Mount Manorus (Mandingo), and as giving rise to several ex- journey from its nource, he returned to the Gumbia by
tendive lakes as it proceeds in its course. Hls statements do not, however, invelve any thing positive as to the direction in which it fows. The Saracens or Arabians are the next great source of information; for, it the course of the diseensions whlch took place among their dynastles in northern Africa, large bodies crossed the desert and founded kingdoms on the eastern part of the ehore of the Niger, of which the kingdon of Ghana was the most splendid. According to their testlmony, the Niger flows from east to west, and diacharges itself into the sea, by which they understood the Atlantic, or great circumnmbient ocean. With regard to its source, they generally regarded it as the aame with that of the Egyptian Nile, jdentifying the two rivers in the eurly part of their course. Some were of opinion that the waters of the Niger did not reach the sea; so that they must have supposed them to be discharged into a lake. The system adopted by modern Luropenns was derived from Leo Afriennus, who retnined the delinentions of the Niger as flowing from east to west, and failing into the ocean; but, instead of deriving it from the Nile, supposed it to rise from a lake lying deep In the interior of Africa. Following this hypothesis, all the carly European navigators, when they saw the two broad estuaries of the Senegsl and Gumbia, concluded that one or both gave egress to the waters of the Niger. In the begioning of the 17th century, the French and English, baving each formed a settiement, the one on the Senegal and the other on the Gunbia, were induced by the hope of gain to seek a route up these rivers to the city of Timbnctoo; and in this enterprise they proved the faisity of the opinion which bid been so long held. The atreame were traced so near to thelr source as to become little more than rivulets ; while the explorers were still far from the great central emporium of Africa, and from the great jlain through which the Niger was understood to flow. This result led the two great French Heographers, Delisle and D'Anville, to ecastruct maps in which the Niger, after the lapee of so many ages, was again represented as flowing to the eastward. Inatend of a single strenm pursuing a conrse across the whole brealth of Africa and falling inte the Alantic, 1'Anville distinguivhed three rivers-the Senegal, tlowing westward; the Niger, tlowing east ward into a lake in Wangrara; and another river still further east, and flowing In the opposite direction. The data on which this scheme resta were never fully made public.

Still new doutt was thrown around this suliject by the reports collected ty Mr. Lucas, whe traveled under the nuspices of the African Association, and who was assured at Tripoli, by a native merchant, that the river flowed with rapidity in a westerly direction. The time, however, at last arrived, when these conHicting opinions were to be silenced, and when new light was to he thrown on the subject, by the labors of our illustrious modern truveler, Mr. Mungo Park. In his tirst expedition, in 1795-96, he proceeded from the west const in the direction of the River Gambia, until at Medina he left it, and turned to the north. Javing passed through the kingloms of llondon, Kasson, tind Kaartit, he renched Sego, the canital of Hambarra, where he teheld "the long-sought majestic Niger gittering in the morning sun, as broad ns the thames at Windsor, und flowing slowly to the enstward," directing his course into the depths of the interior of Africa. 'This stream, he found, was called by the matives the Joliba, or Great Water. Purk ativancel heyoud titis point to another town called Silia on the same river, and acquirel niso somo valuable ir.formation respecting the further course of the stream which was the olject of his research, as weil es respecting the position of 'limbuctoo, which hr. was toll was not more than 200 miles from Silla. Following upwarl the course of the Joitha until he remened journey from its aource, he returned to the Gambia by
a more aoutherly tract. In 1805 thla adventarous traveler was nent out at the public expense on his necond expedition. After reaching Silla, he embarked at a pluce in its neighborhood on the Jolibs or Niger, with the determination of nalling down the stream until he ahould reach its mouti, whithersoever its course might conduet him. Ile in ascertalned to have passed successively the cities of Jenne, Timbuctoo, Yaour or Yaourl, and to have reached llousan, s whort distance further down, where be was kllled. No part of hia journal, however, after he embarked on the river, haa been recovered. In the menn time, s atrong and general interest being now excited in reference to African geography, Information flowed in from various sources reapecting the regions in the interior, ss well as some parts nearer the coast. Mnny particulsrs hecame known concerning the countries to tinc east of Timhuctoo, especially the kingdom of Hornou, then the most powerful State of contral Africa. The knowledge possessed of the people of the interior was also considerably increased. These circumistances prepared the way for a more nucceanful attempt than any hitherto made to explore the interior of Africa, when Major Denham asd Lientenant Clapperten were sent out in 1822. Netting out from Tripoli with a raravan of Aruh merchants, these truvelers crossed the desert, and reached the great inlund sen or lake called Trhad, whileh is the receptacle of immense volumes of water collected from the nost diatant recesses of inner Africa. Major Denham examined the coanta of this lake to then cast ant sonth; while lieutenant Clapperton directed his researchen westwarl, through the kingdom of Bornou and the country of the Feilatahs, until he arrived at Sackatoo, aituated on a stremm which prohably flows into the doliba. In the course of this journey, Clapperton olstained a great mass of information concerning those hitherto unvisited regions which lie eastwand of Timbuetoo; but with regaril to the course of the unexplored part of the liver Niger (or Quorra, as it was called at Sackatoo), he heard little that could be depended upon. Llaving returned to England, he was again sent out by the govermment in command of n new expedition, with hastructions that be should endeavor to pentrate to the niene of his former adventures from the const of Guinea. In the execution of thle plan of research the reached the Niger at lloussa, where l'ark perisined; and, after traversing some of the adjuiting regions on the further side of the river, as fur as the great commercial city of Kano, the capital of llousaa, where he had been in his former journey, he turned again to the went, and having reached sackatoo, there died. Ilis servant, Richard Iander, with a praiseworthy zeni, embarked on one of the branchea of the Niger for the purpose of finally determining. if possible, its terminution by sailing down the stream ; but he was atopped liy the nastlves, and compelied to turn hack. The city of Timbuctoo was in the mean while reached by Major laing, who succeeded, in August, $1 \mathrm{~N}: 6$, in making his way' thither across the desert from Tripoli. In this famouis city he spent some weeks, that he was maniered in the desert on his return; nor dill the rosults of his inquiriea and ohservatiens ever reach liurope. Such are the formidabte difficultien and dangura which have bitherto encompased the patis of diseovery in the interior of Africa. Still, ly renewell efforts, the olsject of researcli has been grained. Tho grand guestion of the termination of the Soliba, Quorra, or Niger, has at tength been fully reaslved-a dis.overy which is the resuit of the fortunate ant weil-ronducted enterprise on which Hichard lander and his brother were sent out in $\mathbf{j \times w}$. Having followed nearly the same route which had been takon by Clapperton in his sec. ond journey, these two travelers rearhesl lloussa on the 17th June. They first ascended tho river as far an Yaouri, and then retumed to Ibousas. After remain. ling there for some time, they embarked on the river to
follow the stream In its course downward, hoping that it would condret them to the sea. In this expectation they were not disappointed ; for they reached the llight of Benin by the larger branch, whleh la there called the IRlver Nirn. There in another great branch a little further to the south; snil by these two outlets, with several smaller channels, the river known in Jurope by the name of Niger discharges ita water into the Atlnntic.

The zeal for dineovery in Afrien, which has heen so active during the iast six years, has sent forth a suca cesaion of travelers (mianionaries and othera) to explam the southern regions of that vast continent. We can mention brietly only the most remarkable reaulta of their researehes.

It is now ( 1856 ) nbout six years sineo Intelighence was recelved in Europe of the diacovery of snowy monntains in eastern Africs. The discovery was in itself so remarkuble, that the report was not at first mineranlly credited. It was, however, subaequentiy confirmed. The mountains in question are Kiliman. juro, in about latitude $92^{\circ} \mathrm{N} .$, and longltude $37^{\circ} \mathrm{E}$. ; and Kenia, in nlont latitude $1^{\circ}$ S., and Iongitude $2 \times j^{\circ}$ F. They were discovered by the missionaries Repmann and Krupf, stationed near Momhus, Kilimanjaro is an isolnted and very conspicuous peak, probully connected on its wextern side with the table-land of inner Africa. The missionaries have become acquainted with its eastern, southorn, and northern aspectas ; lut Mount Kepia has been acen only from the south, at a distance of six days' journey, or about *0 geograpisical milea.

Anot' ar important discovery mada in the interior of Africa ${ }^{-}$ithin the same time is that of Iake $\mathbf{N}$ '(Gami, hy the misuionary the Rev. Dr. Bivingston, accompasnied by Mr. Onwell and Mr. Murruy. It sectas to be situsted almat $19^{\circ}$ south latitude-ahout Stion niles N.N.W. of Kololeng, the scene of Ir. Livingston's misaionary lalors, and the head-quarters of the Haquain tribe. These and other explorers have made as in nome measure acyuainted with an extenvive syatem of rivers, between $10^{\circ}$ und $22^{\circ} \mathrm{S}$. latitude, runaing eastwarl, which, when further research whall have mado them fully known, may be found cupatle of leing rendered subservient to commercial intercourse with the surromuling countries, and to their consequeut eivilization. Dr. Iivingston has lately returned from his explorations to the north of lake N'Gani.

An important expedition to eentral Africa, headed hy Mr. James Richardaon, left Tripoli in March, 1900. it was sent out under tha orders and at the expense if the ll ritish government. 'The olject of this mission was to survey lake 'ichad, and to explore the neighiroring count ries. The scientific interests of the expedition were intrusted to two German gentiemen, Dr. llarth and IVr. Overweg. Instand of traveling from Tripoli neross.the desert with the great caravan, the mission fommed a amall caravan of its own, amounting to about 100 jrersons, and as many camels. The jour. ney from Tripoli to Murzuk and thenco to that is less interesting than that from the latter place, where they entered on entirely new ground. Hut even in the fovmer part of the march many important discoveries were made, as the travelers nelected new routen not before explored, and thus rendered every part of the journey suliservient to the parposes of the mission. At Ghat their personal danger was increased to such n degree that they found it necessary to trust for protection to the friendship of the sultain of the Kolow, in whose country they were detaimed about three months, during which timie Ir. Harth made an interesting joumey to Agadez, while murit valuatile information was also collectes hy Mr. Riehardsun and ly in. Overweg, who had remained. At the close of ldion the party reached Zinder, where the three travelers sep. arated, each proceeting with his followers hy anathet route. Mr. Richardson took the direct way to Kuha,
not far fro of the emp apsin to $m$ disappointe tution, yet the fatigue he reached hls misalon, rosd to Trig Ungırutua ing the nig March, 1851 targe numbe the cause of

The two prospect of rations to al had explorei they were sul ernments ; a searches fron in a struight but from all south, in the practicahle.
contemplated, densely propi fertile, and al formithable ois like dispositlon
In the mean mediate object portunity of May, 1851, Dr kingiloin of Ac had rececived, h try of central on the 2?d June three days. If by the sultan parture was tr Four days' jour cross at the po rivers of Alnm ter being a trib describes as the which he luad an it half a mite br tance of the son it was maill to 1 cent river is in f which itself fall from its mouth identity of the Tchadia, has of heart of inner Af to become the blessings of com the surrounding inamense immort aind of the advan erue from it, sugg bost experlition $f$ Former uttempts the Quorra hald consequences. British ahores in was eminently at lost. It reached ginning of July, the stream to wlt of the Jenuel an proved that this tho capital of Adn

While Dr. Bar feilow-traveler wa Thls lake is descrl
not far from the ahores of Iake Tchad, and the capltal of the emplre of Bornou. At Kuka all the three hoped agsin to meet very soon afterward, but thla hope waa diappolnted. Mr. Hehardaon was of a weak conatltution, yet his health appeared to suffer little from the fatigue of croasing the desert; but he sunk before he reached Lake Tehad, whleh was the termination of hla misaion, and from which he was to return by direct road to Tripoh. He died In the country of Hornou at Ungurutua, a place six days' journey from Kuka, during the night intervening between the 31 and ith of March, 1851. Thus was added another name to the large number of thoas who have fullen a sacriflee to the cause of African discovery.

The two aurviving travelers, uninunted by the prospect of danger, proponed as the plan of their operations to approneh the Upper Nile, as soon ns they had exploret the vielnity of Lake Tehail, proviled they were supported by the Iritish and l'russian goveminents; and to be realy even to pursue their researches from Kuka to the Indlan Ocesn. The ronte In a straight line to Mombas lies neurly south-east; but from all they conlil learn, the route more to the south, In the lirection of Lake Nynsel, seensed more practicable. The gigantic journey which they thus contemplated, lay through mmy jowerful klngdoms, densely peopled, intersected by numerous rivers, very fertile, and abounding in forests, but where the most formidable obstacles were to be expected from the warlike dispositions of the surrounding natlons.

In the mesn the they prosecuted with zeal the hm meliate objects of the mitssion, embracing every opportunity of collecting information. On the 20th May, 18:11, 1)r. Barth started from Kuka to visit the kinghom of Allamana, which, from the accounts be hat received, he judgred to be the mont bentiful country of central Africa. Ite reached Yoh, the capital, on the did June, where he was permittell to reman only three diays. He was kinully received, however, both by the sultan and by the Inhahitants, nnd at his departure was treated with consideration and honor. four days' journey before reaching Yohn, he had to cross at the point of their junction the two principal rivers of Alamana, the llemeh nud the Faro, the latter being a tributary of the former. The Benueh he describes as the largest and most lmposing stream which he hud seen aince leaving Europe. Ife found it half a mile broad and about 10 feet deep. The distince of the rource from the point at which he erossed it was abill to be bine days' journey. This anguiticeot river is in fact the upper course of the Tehadda, which itself falls into the Quorra or Niger, not far from its mouth. The discovery thus male of the identity of the two atremns, the lenueh nnd the Thadin, has opened up a way of access to the very heart of inner Africa, which seems destinel eventually to becone the line from the west along which the hlessings of commerce and civilization are to flow to the surrounding nations. The consideration of the inmense impmetance of following up this discovery, and of the advantages which might be expected to accrue from it, auggested the idea of sending out a steamboat expedition from Englame to ascend the Tehadda. Former attempts to reach central Africa ly ascending the Qnorra had been attended with very disastrous consequences. llut the experlition which left the British shores in May, 185:, to aseend the Tehadda was eminently anccessful, while not a single life was lost. It reached the mouth of the Quorra In the begituing of July, and, entering the Tchadda, ascended the stream to within about 50 miles of the contluence of the Ilenueh and the Firo. Thus it has beeen full: proved that this lmportant river is naviguble to Yola, the capital of Allamana.
While Dr. Harth was prosecuting thla journey lis fellow-traveler was ensployed in surveying lake Tehail. This lake is deecribed as an lmuense marsh, the only
-artion fit for navigation beling a deep channel formed $y$ the River Shary, which pours into the lake a vaist volume of water. What Major Ileaham has deacribed as small islands, were found to be extensive meadowlands of much greater ourface than the lake litaelf, The explorations of 10r, Overweg led to resulta considernilly at variance with what had heen reported by Denham; but the diacrepancies are perhnps more apparent than real, and may find their explanation In the fact that the lake ls augmented during the rainy seeson to an Immense body of water; but during the season of crought la so much reduced by evaporation as to appear at times to be almost dried up.

In tha course of the summer of 1852, Dr. Barth, setting out from Kuka, made a journey in a southeasterly direction toward the Nile ; and so near did he approach to the eastern boundary of the basin of that grent river, that he was able to collect information likely to throw light on same Intricate questions connected with it. Ite succeeded also hin exploring a portion of Ilagirmi, a powerful kinglom letween Lake Tihad and the Upper Nile, which had never lefore been visitul by any Europenn. In uniting. Iy means of his itineraries, Hagirmi with Dar För, he has coinpleted a line of direct route aeross centril Africa from the Quorrra to the Nile ; and thus from the Gulf of Guines to the led Son and the Indian Ocean.
Dr. Overweg left Kuka at the aame time with I)r. Bartin, but took a south-westerly direction toward the Quorra. Hetween the end of March, the time of his setting out, and the enil of May when he returned, he suceesafully performed an important journey, which brought him within 150 English miles of Yacoba, the grent town of the Fellntalis. I)r. Iarth's journey oceupied a considerably longer thme; and it appears that Dr. Overweg's anxiety to await the return of his coinpanion, which was bot until the 20th August, induced him to remain at Kaka, notwithstanding the danger to be uppreheniled from too long exposure to the influence of the unhealthy senson. The consequence was, that his constitution becmme so seriously affocted that, though he set out immenliately after I)r. llarth's arrival, on an excursion to healthier regiona, yet the udvantage deriven proved only temporary. IIe died on the zith September, 1852, at Muduara, about ten miles east of Kukn, and near Lake Tehal.
As it was known that the travelers hail expected to be ready to sturt from Kuka townrd the Indian Ocean in August or September, 1853, it was intended by their friends in England, that before they left Kuka they should be joined by an additional follow-latorer to take n part in their arduons undertaking. Dr. Vogel, an astronomer and botanist, was accordingly sent out accompanied by two chosen volnnteers from the corps of the Nappers and Miners. Iby a singular coincidence, on the very morning on which 1)r. Vogel and his companions went on board the vessel which was to take them to Malta on their way to Tripoli, letters from Dr. Barth were receivel in London announcing the death of Dr. Overweg.

Though now left alone, as being the only surviving member of the mission, Dr. Harth continued to proseeute with zeal the work in which he was engaged. Up to the 231 November, $1: 32$, he was still at Kuka; but he had fixed on the 25th of the same month to leave that pluce, and to enter on his journey to Timbuctoo. All his journals and papors, arrunged and completed up to that date, he iutended to forward to I'ripolh, there to bo deposited with the linglish consul. By the heginntug of March, 1853, he had performed more thm one third part of his journey, and bad reached the capital of the territories of the Fellatahs, whose frieulship and assistance he hal secured. After belng suljected to the disuppointments nnd delays incident to the traveler in that part of the world, he reached at length the termination of his perilous journey. During his stay at Timbuctoo his life was exposed to
great danger, from the influence of unfavorable elimate, a.d mach more so from the hoatile disposition toward Christians of the most fanstical Mohammedan populasion of northern Africa. He thus describes his distressing situation during his sojoura in that magnifisent city-the "Queen of the Desert," as it is justly called by the natives:-" Like a helplesa vessel on the ocean waves, am I thrown about on a sea of uncertainty, between the power and passion of contending parties. Every day brings aomething now-now of a satisfactory kind, thon again of the reverse. Death, captivity, safe return home, are my visions by turns, and it is yet impossible to say which shall be my fate." To have left Timbuctoo without sufficient protection, would hava been to expose limself to certain death. Hence his atay in this place of danger was nnavoidably protracted to nearly a year, when he wae at last succorod by Anab, the chief of a Tuarick tribe inhabiting the reglons east of Timbuctoo, along the Quorra, who came with an eacort of a hundrel horsemen, and condacted him in safety through his dominions, on his way back to Sackatoo.
The news of Dr. Vogel's having been dispatched frEurope to join him had reached Timbuctoo hefore 1.q. Barth left that place. On the let December, loot, he had the inexpressible pleasure of meeting him at Bundl, a small town situated at about 200 geographicai miles due west of Kuka. Once more he lonked upon the face of a European-his countryman-and grasped the hand of a friend in whom he could place implicit confidence. Exactly six years had elapse. 1 since he left Europe, in company with Mrr. Richardson and Dr. Ovarweg. Since tire decease of the latter he had been isolated from civilized soclety, and had lieen left to contend single-haniled with manifold hardships and dangers. To revisit Europe he now considered indispensable for the preservation of life and health; and accordingly he moved on to Kuka, whence he intended to proceed homawarl without further deiay. We are happy to say that he arrived at Marseliles early in September, 1855.

The limits of the great unexplored rerion of Africa may be roughly indicated as extending between the parallele of $10^{\circ}$ north and aouth of the equator, and from Adamana in the west to the Somauli country in the east. Thia extensive region has just been touched by the routes of recent travelers. But in all parts of the habitabie globe the epirit of research, which has already done so much, is still active; nor is it directed only to the determining of the onlines of continents and countrien, or to the marking of the leadiug feat ures of mountains, rivers, and cities, with their relative prsitions and diatances. These are regarded thy the geographical inquirer merely as afforiling a proper hasis on which to rest the dee $\mathrm{H}_{\mathrm{i}}$ tiun of the earth evonillened an the hahitation of mau, and as afforling him amply the means of improvement and hajpiness. The picture can be completed only by the continued habors of the ecientifle obecrver, who makes the earth, with its various productions, whether natural or artitiviai, the treasures hid in its losom, the animala found upon its surfuce, and, abwve all, the human beings who people its different regions (and these in ali their mutund bearings and velations), she otyects of attentive examination and atuly.-E. 11. See Coast Schyfy-Lat-itede-Langitubg-Tur Eartit.

Georgetown (formerly Stabriek), the cajital of British (iuiana, is situated on the east lank of tire Demerara, at ita mouth, which is there alout three niles wide, in north iat. $6^{\circ} 49^{\prime} 30^{\prime \prime}$, weat iong. $58^{\circ} 11^{\prime} 30^{\prime \prime}$. Thn town itself is ine of the prettiest in the Went Indies i and Its streets are wide and atraight, intersecting each other at right angles. The hotuses are of wood, with open verandahs in frout, and neally jainted in cool and quiet culors; they are mhaded and almost hidden liy trees and shrube, and look more like a collestion of vilian than town. The street along the
river side-where all the stores and shops are situated, and where business is chiefly transacted-furms, howover, an exception; there every thing ia plain, bare, and business-like. The ships lie alongside the wharfs or at a short distance in the stream, which is also crowded with numerous smaller vessels engaged in the island trade, or in brirging produce from the more divkant estates. The hall of the legislative ebuncil, courts of justice, custom-house, treasury, and all the other public offices, are in one building of considorable extent and architectural beauty, with ehady porticos, and marble-paved galleries or verandahs supported en cast-iron columns. The chief of the other public edifices are the cathedral and churches, several liberally maintained hoapitals, barracks, market-place, and icehouse. Below the town is the "Fort," as it is called, but which looks more like a green flokd, with a few guns pointing towand the sea, and a house or two for a single officer and a dozen artillerymen. Population, (1851,) $25,508$.

Georgia, lies betwron $30^{\circ} 30^{\prime}$ and $85^{\circ}$ north lat., and between $80^{\circ} 60^{\prime}$ ead $86^{\circ} 6^{\prime}$ west iong. from Greenwich, and between $3^{\circ} 52^{\circ}$ and $8^{\circ} 47^{\prime}$ west ng. from Washiagton, It is $\mathbf{3 0 0}$ milez long from north to soisth, and 240 brosd, containing 58,000 square miles. Population in 1790, was 82,584; in 1800, 162,686; In 1810, 262,433; in 1820, 348,989; in 1830, 516,667 ; in 18-10, 691,392 ; and in 1850, 909, ct4. The State in 1850 was divided into 95 counties.
Early History of Georgia.-Uutil the year 1732, the territory of the State of Georgis wam included in the names of Carolann and Carolina. For promoting its settlement, King George II. separated from Carolina the ter ritory between the Ilivers Savanuah ani' Altamasha, and erected this territory; by a charter of the 9th of June, 1732, inte an independeat and separate government, which was called in honor of that king, the province of "Georgia." It was probably from thi beginning, the intention that thia colony shouid go as far down as the St. Mary's River ; for the patent says "it chould go so far south as the southernnost branch of tie Altamaha River." And on the maps of that time we cee that it was then beliered that Altamaha River had a sol thern branch which condueted into St. Mary's River, and the mouth of this river was therefore considerer! also to be the mouth of the Altamaha. The bourdaries were, $h$.wever, in later times actually conducted so far south. With this exceptien the limits of th:c province of Georgia suffured no changes on the coant, though in the interior the chauges were great. These interiur changes have, however, no relation wilh our hyilrographical re-searches.-Koul.

Froin the ocean. for a distance of seven mijes, there is a chain of isianda intersected by river, crecka, and Inlets comanuniceting with each other, and forming sa Inland navigetion for vassels of 100 tons' bunienalong the whole coast. These islands cousist of ealt marsh and land of a gray theh soil, which produces sea-island cotton of a sujerior quality. Thr coast on the main land for four or five iniles is a salt marah. Hark of this there is a narrow margin of lenil, nearly resembling that of the islands these are partially or wholy overilowed at the return of the tide, anil constitute the rice plantations. Then commence the piun barrens, which reach from 60 to 90 miles from the coast. Heyoad this is the country of sand hilis, 30 or 40 miles wide, intermpersed with fortile tracta, nud extending to the lower falls of the riverx, Biack walnut nad mullerry. trees grow abundantly in thin soll. The forests proluce oak, pine, hiekory, and cedar. Deposits of iron ore are widely diffused throughout the State; gold is frund in the northern : art i granite, marbie, liatestone, are quarrind in inany placea.

Tbare were It tixa State itt 1850, 6,878,470 acres of land improved, and 16,412,900 of unimprovel land ia farma ; cash value of farms, $\boldsymbol{*}^{255}, 763,445$, and the value
of Implen to the offi Livo St mules, 5 ? 73,286 ; 2,168,617 tered gnin Agricul els ; rye, 8 044 ; harle $1,1 \cdot 4,011$; 428 ; rice, the orchal \$76,500; 46,970 ; au molasses, 514 pound: $499,091 \mathrm{ba}$ heps, 261 p 449 ; clove flax-sechl, 6 wine. Valu
The rive ing the Stat miles to Sa bouts 250 n navigatie forated by gee, nnd is former to $D$ chee 200 mil




[^21]






of implements and machlary, $\$ 5,894,150$, sccording to the official report of the Census, U. S.

Live Stock, If:rses, etc.-Horses, 151,331 ; asees and muies, 57,879 ; mllch cows, 394,228 ; working oxen, 73,286 ; other cattle, 690,019 ; ahoep, 660,135 ; ewlne, 2,168,617; value of llive atock, $\$ 25,728,416$; of slaughtered paimals, $86,839,762$.
Agricultural Products, etc.-Wheat, 1,088,534 bushols ; rye, 53,730 ; Indian corn, 30,080,0:10; oata, 8,820,041 ; barley; 11,501 ; buck wheat, 250 ; peas and beans, 1,112,011; potatoes, 227,879 ; sweet potatoes, 6,986,428 ; rice, $88,950,691$ pounds ; value of the products of the orchard, $\$ 92,776$; produce of market gardens, \$76,500; pounds of butter made, $4,640,550$; of cheese, 46,976; sugar, hogsheads, 1642 ; maple sngar, 50 lbs ; nolasses, 216,150 gallons; beeswax and honey, 732 ,514 pounds; wool, pounds produced, 990,019 ; cotton, 499,091 bales ; fiax, 5,887 pounds ; silk cocoons, 818 ; hops, 261 pounds ; tobaeco, 423,924 ; hay, tous of, 23 ,449 ; clover-seed, 132 busheis; other grasm seeds, 428 ; flax-seed, 622 bashels ; and were made 796 gallone of wine. Value of home-mado manufactures, $\$ 1,838,968$.
The rivers are the Suvannih, 600 miles long, bounding the State on the north-east, navigable for ships 17 milies to Savannah, and a part of the year for steamboats 250 miles to Auguats ; the Altamina, which is navigable for large vessels 12 miles to Darien, la formed by the junction of the Cconee and the Ocmulgee, and la navigable for sloops of 80 tons by the former to Dublia 300 miles from the ocean; the Ogeechoe 200 miles long, and naviguble for sloops 40 miles.

Fint River, which rises in the north-west part of the State, and after a course of more than 200 miles, joins the Chattahoochee, forming the Apalachicola. eThe Chatchoochee, on the west border of the State; whlch is navigable $3(0)$ miles by eteamboat to Columbus; the St. Mary's River is in the south-west part of the State.

Georgia, in 1856, hai 1013 miles of railroad built, and about 800 in construction, being in advance of all the southern Statee except Virginia.

Manufacereres, efc.--There wers in the State in 1850, 85 cotton factories, with a capital inveated of $\$ 1,736$,156, employing 873 males and 1,899 remales, and producing $7,209,202$ yards of oheetings, and $4,198,851$ pornds of yara, valued at $\boldsymbol{\%} 2,185, \mathrm{C} 4 ; 3$ woolen facto. ries with a capital of $\$ 68,000$, employing 40 males and 38 females, manufacturing 840,680 yands of cioth, valued at 888,$750 ; 8$ establishments making pig iron, with a capital of $\$ 26,000$, employing 188 persons, producing 900 tons of pig iron, etc., valued at $\$ 57,300 ; 4$ establishmeats, with a capital of $\$ 35,000$, employing 39 persons, and making 415 tons of cattings, vaiued at 846,$200 ; 3$ establishmente, with a capital of 89,200 , emprisying 27 persons, and mannfactnring 90 tons of wrought iron, valued at $\$ 15,884 ; 830$ flouring and grist-mills, 389 saw-mills, 49 pinting-offices ; 5 daily, 3 tri and semi-weekly, 37 weekly newspapers, and 6 monthly publications. Capital lavested in manufactures, $\$ 5,375,490$; value of manufactured articles, $\$ 7,084,585$. On the 1st of January, 1854, there were 15 railroads, 884 miles of which were completed and in operation, and 440 miles in course of construction.

Foreion Connerge of the State of Georoia, from Octoeea 1, 1820, to July 1, 1856.

| Years endiling. | Exporta. |  |  | Imports. | Tonnagu Cleared. |  | Dhatricl Tonnage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domealio. | Foreign. | Toinl. | Total. | Ausican, | Foreign. | noghtered. | Earolled and Lkenaed. |
| Bept 80, 1521........ | \% 8.0799 .995 | \% 11.315 | \$0,011,810 | \% 1,002, (14) | 41.468 | 14,466 | 8,285 | 6,046 |
| Dep 1824.1 | 5,448,219 | 1,650 | 5,484,869 | 989,50t | 88, 40 | 9,745 | 8,280 |  |
| 1823......... | 4,270.585 | 18,781 | 4,298,660 | 670,715 | 86,434 | 11,072 |  |  |
| 1 $\$ 24$. | 4,619,753 | 4,229 | 4,623,992 | 81, 818 | 86,797 | 12,064 | $\cdots$ | ... |
| 182\%. | 4220,989 | 1,894 | 4,222,, 88 | 849,366 | 28,928 | 0,547 |  |  |
| 1884. | 4,866,630 | 1,854 | $4,882,004$ | 331,903 | 87,905 | 8,063 | .... |  |
| 1507. | 4,200, 834 | 601 | 4,201,585 | $812.60{ }^{2}$ | 41,519 | 10.446 |  | .... |
| $1583 . \ldots$ | 3,104,425 |  | $8,104,425$ | 808.569 | 25.514 | 9.582 | .... | $\therefore$ |
| 1829........ | 4,980, 042 | 74 | $4,931,876$ $8,386,620$ | \% $\mathbf{2 0 2 , 4 , 2 9 3}$ | 47,468 60,394 | 9,944 |  | ... |
| Toint. .... | -46,632,978 | \$54,163 | - $76,689,146$ | (15,174,294 | 874,087 | 101,164 | .... | ...' |
| Bept. 30, 1431......... | \$8,957,945 | +2,808 | \$8,989,818 | \$39,940 | 48,426 | 29,045 | 4,802 | 2,153 |
| 1832........ | B,514,681 | 1,202 | 5,515,883 | 258,417 | 42,7>0 | 21,567 |  |  |
| 18*3. | 8,270,040 | ,, | 6,270,040 | 818,900 | 40,022 | 28,232 | .... | $\ldots$ |
| 1834. | 7,007,927 | .... | 7.507, 827 | 640,802 | 40,910 | 21,760 | .... | .... |
| 1835. | 8,900, 6 \% 4 | aio | 8,990,674 | 899,040 | 83,109 | 25,276 | $\ldots$ | .... |
| 1830. | 10,721,700 | 500 | 10,722,200 | 879,223 | 48,578 | 24.029 | .... |  |
| 1437. | 8,885,041 | .... | $8,985,041$ | 774.849 | 41,125 | 92,859 | .... | .... |
| 1383. | 2,518,849 | .... | $8,809,639$ | 776,069 | 26,501 | 20,705 | ...' | .... |
| $1 \times 10$. | $8,970,463$ | ... | 5,970,443 | 413,987 | 81, 146 | 19,408 | .... | ... |
| 1540 | 3,882,959 |  | 6,808,950 | 491,429 | 44,076 | 48,065 |  |  |
| Total. | 878,408,494 | -4,270 | 878,495,219 | ( $4,041,252$ | 892,017 | 256,935 | $\cdots$ |  |
| Bept. 80, 18:1....... | \$3,096,017 | +490 | \% 8,606,518 | -40,007 | 20,190 | 84,080 | 9,809 | 6,888 |
| 144d....... | 4,298,151 | 1,106 | 4,400,257 | 141,74 | 81,450 | 80,409 | $\ldots$ |  |
| 9 mos. 1843 y ....... | 4,822,40t | $\ldots$ | 4, 022.40 t | 207,432 | 48,055 | 42,033 | .... | .... |
| June \%9, fill ....... | 4,283, 815 |  | $4.2 \times 8,805$ | 8055.684 | 29,874 | 88,901 1 |  | .... |
| $1848 . . . . . .$. $1810 . . . . .$. | 4,507,485 | .... | 4,657,485 | 200,301 | 40,410 | 85, 450 |  | .... |
| 1577. | 2,712,149 | ...'. | 2,112,149 | 207, 180 | 1 $\times 151$ | 87.41 cht | ..... | . $\cdot$. |
| 1814. | $8,670,415$ | .... | 8,070,415 | 217,114 | 17,581 | 81,921 | …', | , |
| 180......... | 6,877, 806 | .... | 6,457,806 | 371,424 | 81,100 | 88,718 | .... |  |
| 1550........ | 7,051,048 | .... | T, 5 51,943 | Ofa, 1044 | 21,188 | 8t,594 | .... |  |
| Total. | 44,850,128 | * 1,6urz | -44,460,727 | 43,147,915 | 2800,895 | 402,840 | $\cdots$ |  |
| June 3n, 181........ | \%n,458,979 | -1,110 | \%0,158,999 | - 21.647 | 81,063 | 84, ${ }^{14}$ | 12,302 | 11,828 |
| 18ta........ | 4,498,015 | i5 | 4,999,090 |  | ${ }^{2} 40.488$ | 40.012 | $\ldots$ | .... |
| 1254........ | 7.871, $\mathrm{N} \times \mathrm{H}$ |  | 7, 171, 8188 | M0s,201 $386.08 t$ | 88,04 | 43,443 | .... | .... |
| 154......... | 4,417,675 |  | $4,804,875$ $7,514,510$ | 348,98t | 25, 8.826 | 40,454 80,228 | , | $\ldots$ |
| 1858.......... | $8,091,089$ | . | 8,1991,689 | B74,240 | 69,421 | 88,310 |  |  |

- Nine months to Juno 80, and tho fiseal year from this timu begins July 1.

Principal Ports of Georgia,-Brunswick, eity, and $\mid$ tons. It is proposed to niske this a naval atation, and port of entry, lat. $81^{\circ} 10^{\prime}$ north, long. $81^{\circ} 83^{\prime}$ west. It has a apacious and commollone harior, having 18 feet if water on the bar at the lowest tides, It is altuated on Turtie River, 14 miles alove the bar. The commerce of the port ls amall, in 1856 being ouly 754
to construct a rallroad from thile city to Penascola.

Savannalh, city, and port of entry, altuated on the right bank of the Savannah River, 17 miles from its month, lat. $32^{\circ} 4^{\prime} 66^{\prime \prime}$ north, lomg. $81^{\circ} 8^{\prime} 18^{\prime \prime}$ west. The harbor in good. Vesaels drawing 14 fect whier
come $n p$ to the elty, ard larger vessele anchor at Five Fathom Hole, four miles below the clty. The commerce of the place ranks next to Mobile, and is the most important port, except Charieston, from Baltimore to Moblle. The grester part of the trade of Georgla centers at Savannah, the prineipal articles of which are cotton, rice, and lumber. The Savannsh River affiorda great facilitiea fer internal eommetce; and thls river is connected with the Ogeechae River by a canal 16 milea long, which terminatea at Savannsh. The tonnage of the port, in 1856, was 81,686 tons. See Strivens's Hist. Geo. ; Dellow's Rev., vili., 39, x. 65, 243, 375 ; No. Am. Rev., xxili. 211 (by An Dhew Noxtox), xxiv. 466 (J. Spanks) ; lxvil. 291 (by C. W. Upham) ; Bo. Quar. Rev., xiil. 470, xviil. 24, 才ii. 40 ; Ch. Exam., xxix. 113.
Crermany.-This name was given by the Romans to a country inhabited by various tribea of different names, but nearly alike in manners, customs, language, and religion. But they comprehended under it net only the country now calted Germany, but also Denmark, Norway, Sweden, Hinland, Livonia, and Hrussia. The modern Inhabitanta call themselves Deufseh; and their conntry Deufschland; but, as to the origin, meaning, and primary application of both names (German and Deutsch), German antiquaries are far from being agreed, thongh most of them seem to the of opinion that Geronan is a genuine Deutsch werd, compounded of ger, or gerra, a spear, and man, and consequently meauing spearman, or warrior. Deutsch seems to have been knewn to the Carlovinglans, and it first occurs in a document of the year 813 ; but it is only aince the time of the Emperor Otto I. (A.D. 936-73) that it has been ln use as the general name of the German nation.

The Rhine on the west, and the Viatula on the east, seem to have been generally considered as the foundaries of Germany; while on the north it extended along the ocean and the Baltic Sea, and on the south was terminated by the Kiver Danube. Hut such boundariea were by no meaus definite; for many German tribes inhabited the southern banks of the Rhine as far as the Schelut.

Situction and boundaries.--Germany may be cunsidered la two points of view, either politically, as the country included within the limits of the Germanie Confederation; or ethnologically, as the country inhahited by the people who speak the vatious branchea and dialects of the Deutsch or German language. In the latter reapect, the Deutsch or German nationa are found to extend in a compact masa along the whores of the German Ocean and the Haltic or Fiast Sea, from a point between Calals and Gravelines, sear the Stralts of Dover to the Guif of Kiga, and from that leng line of boundery southward, with dinnensiona continually narrowing to the Alpa and the Alriatic Sea. l'olitically considered, Germany la altuate thetween $45^{\circ}$ and $64^{\prime} 50^{\prime \prime}$ N. lat, and $5^{\circ} 43^{\prime}$ and $20^{\circ}$ $60^{\prime}$ E. long., bounded nerth by the German Oeean, Denmark, and the Ihaltic Sea; east by Weat I'russla, Posen, I'oland, Gallicia, llungary, and Crostia; aonth by the Gulf of Venice, Italy, and Switzerland; weat by France, Ikelglum, and Holland. Its whole extent, inelnding rivers and lakes, is alout 246,750 aquare Finglish miles, which la about the 1tith part of Europe, the 215th part of the whole dry land, and the e00th part of the whole surfice of the globe.
face of the coworry.-The annthern and the central parts of (iermany are oceupied by numerous raygea of hilis and mountains, sometimes sepritated only by narrow valley, and elsewhere forminy; large elevated plaina or table-ands, while the northern portion of the country sinks lato a wide sandy mooriah jlain, but little raised ahove the level of the sea, The Tyrol and the south-eastern provinces of Austria are oceupted by liranehes of the $A l$ ins, which preaent long marrow valleys, diomal precipleea, catarsets, and gho-
ciers; and the northern berder of this alpine region nry be defined by the towna of Bregenz, Southofen, Fuesesn, Traunsteln, Salzburg, Gmnnden, Steier, St. Polten, and Maden. Immediately to the northward lea the valley of the Danube, which stretches alnost across the breadth of Germany, declining from' an elevation of about 2200 feet, nesr the source of the river, to about 350, on the borders of Hungary. In passing through Bavaria the valley expands luto a plain of considerable extent, which, at Ratiohon on it eastern border, hat an elevation of about 1000 teet, and gr. sually rises as it approaches the mountains that surround it. Further north the middle region of Germsny is occupled by varieus rangea of hilla, terminating northward In a line drawn through the towns of Aachen, Duren, Krefeld, Dortmund, Soest, Paderborn, Bielefeld, Teklenbarg, Benthelm, Furntenau, Rehburg, IIanover, Brannachwelg, Magdeburg, Dessau, Halle, Weleaenfels, Wurzen, Meissen, Bautzen, Goerlitz, Liegnitz, Brealau, Kamslau, and Rosenberg. These hills form a series of elevated valleys and table-lands, the most remarkahle of which is the valley of Bohemia, which hae all the appearence of havir.g been a lake before it was drained hy the bursting of its mountaln barriurs. This region is much diversif ${ }^{1}$ ed hy pleturesque seenery, and abounds in verdant und well-wooded valleys, watered by clear atreama. The banks of the Meyn, the Fulda, and the Mosells, are remarkable for their varied scenery, and the valley of the Rhlne unites the grandeur of a fine lundscape with the appearance of a highly fertile conntry. Te the northward again of the hilly regien, the country sinks into plains, which fall very gradually from an elevation of about 300 feet at the foot of the hllls to the level of the sea. These plains extend through Lower Silesia, Lasatia, IIrandenlurg, Pomerania, Meeklenhurg, Holatein, IIsnover, and the lower part of Weatplailla. To the west of the Elbe the flat country ia alnost entirely destitute of trees, and presents only a succeskion of lievel tracts, covered with heath and junijer, and of moora conaistling chietly of deep beda of turf Interseeted by sivers which flow in depresslons from 100 to 200 feet below the general level of the plains. To the east of the Elthe the country fa more sandy, but the sandy trsets are corered with pinea, and interspersed with fertile spaces of sometimes conalderable extent. The bedo of the rivers also are generully wider and less deep than in the western part of the plain. 'Ihrough the northern part of this plain a higher triet may the traced from west to cast, from Oldealo In Molstein to Sehweit on the Oder, shout 70 miles from the sea. Eastwarl of the Olar it continuea for some distance due east, then gradually approaches the aea, terminuting on the tanks of the Niemen nesr Grodno, It stents to have formed at one time the shore of the sea, and it is on itn northern sldes that are found those numerons erratic hloeks or boulders that have attracted mo much of the attention of geologinfs. Theugh it does not rise into liils, it forms the water-shed between a numlier of small atreams that run direet to the Buttic, and ethers that run aonthward to the lilbe, the Gder, and the Vlatuia. To the Alpine region belong the teriteries of Diechitenstefn, Tyrol, nouthern Mavarla, Styrin, Salzhurg, (arinthia, and Ilyria; to the middia region, Jaden, Wurtemberg. Hohenzollern, the greater part of Pavarla, the n, pei ern portions of Anstria, including Hobetnia and sioravia, llessen, Nasam, J.uxembirg, Sehwartzhurg, leusn, Saxony, aud Aahalt ; ta the low country, Hanover, Ohlenburg, lirauns-liwelg, Lippe, Ilolsiein, Necklenburg, and nearly the whole of Truasis.
The conl meanurea are widely distributed in many parta of Cermany, an Hohemia, Naxony, Silenis, Rlienish Iavaria, and Rhenish Pruasia, from the last of which Ifolland is aupplied with coala.
No part of Kurope yteida a greater varisty or abund-
ance of are the econom. rock ery chalced Boheml and alal salt and of the ea the eoa coal ta f sumed; of the $p$ have ope pletely e the exte cured, th in Salzbu Sitosia. mlaes of tin, lead, arsenic, less ralsed eral subat would be study of r Freyburg, acience to

Soil.--1
la the nort uature has the horder harvests a rountains but the bes rival in fer of the nort north is ht most adepte best soil is the sandy Saxony, an is much gre Rivers.pass throut about 500 gi igable, eith provement. Elthe, Oder, will be foun Lakes.-1 See, or Lak land. (See the valieys arable dime Grundel, $\mathrm{H}_{2}$ and Kamme shores of the laker, which erable neries and Finlani ground than Some of the of Schwerin Fast l'rusela oal limits of liarts are th Susso Seen), of the Wese tba Steinhuel a amailer lak

Climath. In raspeet of In lts differe ence of $9^{\circ}$ of ern burders,
snce of mineral productions, and in no pari of the world are the mines worked with so much skill or so much economy. Precions stones are discovered in many parts; rock crystal, amethysts, topszes, are found in Davarla; chalcedony, agate, petchstein, and porcelain-jasper, in Bohemia; barytes in many parts; marbles, gypsum, cand alababter, in Bohemia; alum, near Toplitz ; rocksalt and Glauber salts in varlous parts ; and abundance of the eartha calculated for making eartien ware, firm the eom ent description to the fingst porcelain. Fossil coal is fu and in many districts, and much of it is consumed; but the cheapnese of wood, and the prejudices of the people against the use of it in their houses, have operated to provent the mines from being completely explored or worked to any thing approaching the extent of which they are capable. Gold is pron cored, though in vory amall quantities, ly washing, in Salzburg, in Bohemia, in the Rammelsberg, and in Silesia. Silver and cinnabar are ralaed from the mines of the Erzgebirge in Saxony. 1ron, copper, tin, lead, calaunine, bismuth, cobalt, nickel, titanium, arsenic, and almost every other mineral, is moro or less raised from the mines. Tiie abuudance of $\mathbf{m i n}$ eral substances everywhere scattered, and which it would be difficult to enumerate, has promoted the study of mineralogy, and given birth to the school of Freyburg, whence the pupils of Werner carried the acience to evory part of the world.
Soil.--The soil is generally productive. The plains in the north have indeed much arid sandy land; but usture has provided somo rich and fruitful soils along the horders of the rivers, where the most abundant harvests are gathered. The south has also on its rountainṣ much barren or slightly productive land; but the beautiful valleys and plains among the hills rival in fertility the best alluvial lands on the banks of the northern ri":rs. In general the soil in tho north is heavy, and in the south, light ; the former most sdapited for corn, and the latter for wines. The best eoil is in the middle, between the mountains and the sandy plains. In Bohemia, Silesla, Fruconia, Suxony, and on the Rhine, the proportion of good aoil is much greater than in the north or the sonth.
Rivers.-Germany has seven large rivers which pass through it to the sea, and in their course receive about 500 smalior streame, alout 60 of which are nnvigable, either naturaliy or by means of artificial inprovement. These sre the Danuie, Rhine, Weser, Elbe, Oder, Etsch or Alige, and Ems, some of which will be found described under their own names.
Lakes.-The chief of the Germsn lakes is the Roden See, or Lake of Constance, on the borders of Switzerland. (See Fincy, Brit.) To the eastwarl, among the valleys of the Alph, are soveral lakes of linconsiderable dimensions, as the Walchen, Kochel, Anmer, Wurm or Starenberger, Tegern, Schleier, Chiern, Grundel, Mallstadter, Trium or Guanden See, Mond, and Kammer or Alter, lakes. Aloug the southern sheres of the Baltic or Eunt Sea there is a number of lakee, which form the western portion of an innumerable eeries, extending through Prussin Into llussia and Finlund, and ocenpying comparatively higher ground than the adjoining plains and river channels. Some of these are of considerable extent, ns the lake of Schwerin in Mecklenburg and the Splrd'ne See in Past l'rusia, the latter, however, heyond the politleal limits of Germany. At the ensturn base of the Harta are the salt and the sweet lakes (Salzige and Sasse Seen), and to the north of Minden, to the east of the Weeer, in a considerable sheet of water called the Steinhuder Afeer; and to the west of tha Weser is a smailer lake euiled the Dummer See.

Climate.-The climute of Germany is vory uniform In respect of the degrees of cold or heat experienced In its differsut regions; for though thero is a difference nf $9^{\circ}$ of latitude between Its southern and northern bordera, that difierence la compensated by tho
different elevations of the country, the northern part being lowland on the sea, while the midland and southern regions rise to a considerable elevation. Thls is indicated by the following table of places from north to outh.

| Places. | Laltudee. | Elevation above the res in feet. | (Fwhenhell.) <br> Menn temperniure of the ellmata. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Year, | Winter. | Sumamer. |
| Stralsu $\cdot$ d | $54^{\circ} 19^{\prime}$ | 51 | $47^{\circ}$ | $80^{\circ}$ | ${ }^{68} 8^{\circ}$ |
| derita.. | 5230 | 140 | 48 | 81 | 64 |
| Goths.. | 5057 | 1,010 | 46 | 89 | 60 |
| Baireuth. | 4957 | 1,119 | 48 | 29 | $\cdots 81$ |
| Rattehno | 491 | 1,260 | 43 | 81 | 64 |
| Muntch. | 4810 | 1,783 | 43 | 84 | 65 |
| Inasbruck | 4716 | 1,905 | 60 | 29 | 04 |

$i n_{n}$. intelligent practice of agriculture some of the - anns are not behind the most advanced of the ot. 4 y : suntrics of Europe. Meeklenburg, in particular, and Holstein are distinguished for their excellent husbandry ; and in Hanover, Ilrunswick, Bohemia, Saxony, and some parte of Pruspia and Austria, it is scarcely inferior. Generally speaking, agriculture is the rrincipal occupation of the Germans, particularly in Buvaria, Wurtemberg, Baden, Hesse, Nassan, Hanever, Brunswick, Oldenburg, Prussia, Alhalt, Holstsin, and Mecklenburg; while in the Saxon duchies, Scliwartzburg. and Reuss, somo diatricte of Prussia, Bohemis, and the kingdom of Saxony, manufactures employ at least an equal, and in eome casea even a grenter, number of the people. The greatest contrast in respect of agricultare is to be seen in Mecklenburg and Wurtemberg. In the former, farming is conducted on a large sealo; in the latter, as woll as in other provinces, the land is divided into small parcels, cultivated by small preprietors or tenants, whr follow ancestral usages, and are unprovided with means to make any improvoments, by druining or otherwise. In the former the Schlagvirthschaft prevails, according to which one immense field is covored with whest, while another is covered with oats, a third with clover, a fourth is being plowed and inrrowed, nnd a fifth is feeding herds of cattle, the common size of farms being so much as 600,000 equare ruthe, or almost 2000 acres; in the lattur, every thing is grown checkerwise, in small patches, more like gariening than farming, the usual size of Wurtemberg farms being only from 5 to 20 square ruthe, or from 1-40th to 1-10th of an acre.
There are three systems of husbandry at present practiced in Germany. In the first, called the threelield husbandry, whito ono field is sown with winter corn, and another with summer corn, a third lies fallow; but sometimes, instead of a fallow the third field is sown with green crops, peas, potatoes, ete. In the secoud system, called the four-field husbandry, the principle le that the same tleld shall not be occupied two years together with corn, without at least one fullow intervening; ns, for example, one year, rye; second, clover; third, onts, or barley; fourth, potatoes; fifth, again winter corn. This is also called the rotntion system ( 1 'ruchtirechselvoirthschaft). Tho ihird system, called the Sehlag or Koppelvirthschaft, uracticed in Holstein and Mecklenburg, divides a farm into an number of large parcols of equal slizo (atuche, kn, pelin, or schlige), which, uftor aneveral years' continuous bearing of grall or otimer produce, are allowed for soveral years more (3 to 7 ) to lie fallow, or in grass for nummer pasture. For these two countries this system is fouml very suitable, for the population there is comparatively thin.
In the different provinces of Germany different kinds of corn olitalu the preference, and are most cultivated, as in the following list, where the different articles follow each other in the order in which they are numell. Ravaria-Rye, oats, barley, spelt, whent. Wurtembery and Brden-Spelt, oatn, barley, rye, wheat, maizo. Messe-Rye, harloy, outs, wheat, apelt,
maize. Mecklenburg-Wheat, barley, rye, oats. Bruns-wick-Barley, rye, wheat, oats.
In Germany generally, and in Mecklenburg in particular, the prodactlon of grain is greater than the consumption. Assaming the productiveness of the kingdom of Saxony as a standard, Germany could malatain about $54,000,000$ of tahabitants, or $12,000,000$ more than at present. The cultivation of the potato is now largely extended, partlcalarly in I'russia. In the north-east of Germany, buckwheat is also cuitivated; but the cultivation of oil plants, pens, beans, turnips, and other roots, flax, hemp, and hops, is net large enough to dispense wlth the importation of these articles. About three fourthe of the Germans are employed in agricultare ; and many parte of the country are crowit 1 with small proprietors or tenants, who necessarily live in a state lower than that of hired laborers. Of the great bulk of the people the food is of the pocrest kind-rye-bread or potatces; and it is chlefly owing to this general misery that Germany ean export corn in most years. In bad aeasons the listress la sometlmes dreadful; the agricultural populistion baving no meane of procuring foreign suppliesnothing to give in exchange for bread.
Naturally; In accordance with climate and other phyeical circumatances, the production of wine and fruits (Obst-und-Weinbau) la greater in the south and west than in the north and east. The districts on the Khine, the Lower Maine, and the Neckar, are the beat ; hut, even la the south of Germany, there are districts, as in Old Baveria, between the Inn and the Leech, that are less proinctive of fruit than even Mecklenhurg and Brandenburg. In both quantity and quality, however, the south excels the north, where the best kiads of fruit oaly ripen with difficulty. The princlpal places for the production of wine have been already noticed. The quantity is eatimated at about $3,000,000$ of eimerf, worth about $18,000,000$ of thater $=a t r o n t$ $\mathbf{~} 8,000,000$ aterling yearly. The cultivation of Preat trees is now more scientifcally practiced in Germany than In any other country, wad the care of the government is now directed to the restoration of the forests, which, till recently, were completely neglected and left exposed to ever; klud of destructive agency. In all the States likewise, inatitations for the $j$ romotion of agriculture, in all Its brancher, have been or neo being formed. The relative proportions of ground occupied in agriculture and other natural productions is the different Statea is shown in the following table:

| State. | $\begin{aligned} & \text { Agrleul } \\ & \text { fure. } \end{aligned}$ | 以7n | liarden log. | 3 Pa. - พะ | , | $\left\|\begin{array}{c} \text { Wixul } \\ \text { and } \\ \text { Woresta. } \end{array}\right\|$ | Wente |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anstria. | 840 | 14 | 17 | b-1 | 15.5 | 2 Liv | -5:5 |
| I'rassia. | 450 | O-\% | 10 | 6\% | 110 | 240 | 80 |
| 'Havarla | 410 | $0 \cdot 4$ | 10 | 140 | 50 | 896 | 70 |
| Wartemberg. | 890 | 12 | $8 \%$ | 1:3 | 52 | $3{ }^{3} \mathrm{O}$ | 8 |
| Jarlon....... | 380 | 1.6 | 24 | $8 \cdot 7$ | 6.4 | $82 \cdot 0$ | 11.7 |
| 11.sae....... | 509 | $1-2$ | 0.2 | 110 | 1.2 | 83.6 | 81 |
| Meeklenbnrg. | 750 | ... | $0 \cdot 2$ | 9.0 | $2 \cdot 4$ | 80 | 98 |
| Hrutawlek.. | 850 | \% | 40 | 60 | 80 | 820 | 80 |
| Niasau. | 894 | 40 | $1 \cdot 4$ | 90 | $5 \cdot 0$ | 400 | $2 \cdot 6$ |
| Saxony. |  |  | 710 |  |  | 264 | 4.0 |
| \|lianovec..... |  |  | 40 |  |  | 154 | 45.0 |

Gt rmany is suitable for the cultivation of all the kinds of useful plants that belong to the temperate zomes ; and, owing to the equality of the climate, they are spread over ail the country. The highlanda of the midlie reginn, an well an the northern lowlunds, grow the different species of cereais ; and in the eantert part of the lattor region there are tracte of land which will besr comparison with those that are cailed the granary of Europe. Wheat, rye, barley, and oata are the cereals most generally cultivated; but in soine districta to these are alded spelt, buck whent, millet, ommer (Triticum dicocrum), einkorn (z'riticum momou coccum), and maize. The potato is largely cultivated, not marely for food, but for the purpose of diatillation mto brandy.

The following table shows the absolute quantities (In English acres) of the ground so occupled:

| 8 tate. | grieultare. | Mendows. | Gandenland. | Winetand. | Woods and Forests. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A | , ${ }^{\text {a }}$ | 5,217,102 | 862 |  |  |
|  | 13,887,681 | 8,074,151 | 498,058 | 88,421 | 382 |
|  | $8,326,641$ | 2, 899,024 | 218,809 | 79,487 | 5,622,17 |
| Wurtemberg. | 8,045,879 | 684,969 | 94,088 | 64,847 | 1,498, St 2 |
| Haden | 1,444,629 | 891,129 | 84,090 | 88,807 | 1,227,641 |
| Eleet İes | 876,228 | 268,757 | 447,016 | 789 | 949,159 |
| C. D. Hess | 976,561 | c66,851 | 865,895 | 28,841 | (185, 107 |
| Nase | 488,396 | 121,123 | 4,415 | 8.462 |  |
| Saxony | 1,888,938 | 412,578 | 104,090 | 4,415 | 1,181,121 |
| Welmar | 494,944 | 81,890 | 18,294 | 478 | 225, 214 |
| Coburg | 278,837 | 84,486 | 7,570 |  | 140,044 |
| Altenbur | 912,897 | 28,972 | 10,724 |  | 66,2:9 |
| Meinloge | 249,187 | 43,488 | 18,247 . |  | 240,4i6 |
| 1lanover. | 2,752,418 | 1,016,154 | 163,489 |  | 1,902,082 |
| Branswtel | $8+31040$ | 74.440 | 15,711 |  | 240, 6 \% ${ }^{\text {a }}$ |
| Ohileuburg | 464,989 | 135,190 | 87,126 |  | 232,05\% |
| Mecklenb'g ${ }^{\text {Schwerlig }}$ ( | 2,942,261 | 287 | 40,374 |  | 4 |
| Meck. Strelitz | 425, 526 | 48,52* | 1.070 |  | 138, $6 \times 33$ |
| Luxembarg. | 241,860 | 61,828 | 10,098 | 1,766 | 199,294 |
| Limiurg.... | 152, 066 | 164,024 | 8,201 |  | 82, 514 |
| Ilolsteln. | 1,409,708 | 316,659 | 25,284 |  | 165, 317 |
| Iauenburg... | 179,484 | 29,659 | 4,418 |  | 29,650, |
| Other Statea. | 1,186,036 | 287,201 | 85,827 | 1,198 | \$98.727 |
| Total . . . $100,851,61816.174,4542,518,944642,787$, $41,841,483$ |  |  |  |  |  |

Great atteution has been paid for the last 30 or 40 years to the breeding and rearing of all zorts of useful animals, and every encouragenent and facility have been given by the governments to the improvements of the breeds. The following table, from WixbenLicit's Deutschland, shows the number of the principal kinds of stock in the German States, In or about 1848:

| Sintis. | 1 1traes. | Catte, | Sherp. | Swine. |
| :---: | :---: | :---: | :---: | :---: |
| Tustria | 672,400 | 8,951,210 | 4,774,360 | 1,205,200 |
| Prussin...... | 9019,700 | 8,549,400 | 11,856,4100 | 1,2it, (1010 |
| Other States. | 1,242,500 | $8,450,404$, | 9,032,900 | 8, $13+4,40$ |
| Total. | 2,726, 010 | 15,975,000 | $25.163,000$ | ( $8,(101,000$ |

Metals and Minerals.-The whole Austrian territory produces yearly about 7000 miarks of gold, whereof tlve sixths in Hungary and Transylvania; silver, 180,e20 marks, whereof three afths in IIungary and Transylvania; copper, $\mathbf{1 5 , 0 0 0}$ centners, whereof fout fifths in IIungury and I'ransyivania; Iron, 2,040,(00) centuers, whereof only one seventh in Ilungary aad Transylvania; quicksilver, 6000 centners; load, 110, 000 ; clunabar, 1000 ; zinc, 12,000 ; tin, 9 : 0 : conl, $7,600,000$; salt, $5,500,000$; cohalt and nlickel, 20,000 ; arsenic: 1800; aulplinr, 18,000; alum and vitriol, 160,000 ; sraphite, $\$ 0,000$; and about an much sulphuric achl. Of the German provincer, Hehemis produces silver, thi, Iron, vitriol, and coal, the last equal to three fiftlis of the proclucts of the whole empire; Austria and Styrin produce half of the whole quantity of Iron; Itlyria, the quicksilver ant movt of the sent ; and Gallicia, mont of the salt.
I'rassia.-No rold; 2a,000 marka silver; 40,000 centhere of lead; 36,000 of copper ; 230,000 uf zinc; T(10) of smalt ; 3360 of arsenic; 35,000 of vitriol; $4,500,000$ of iron ; $4 t, 000,000$ of stone-coal ; $11,000,000$ of hrown coul; $1,750,000$ of salt ; and stene quarries to the value of $1,600,000$ thalers, $=\mathcal{C 2} 40,0100$. Silesia producen zinc, iron, coal, arsenic, vitriol, anl nulphar; Saxony, "ilver, copper, Irua, etc.; the lhine provinces Iron and coai; Wentphalia, coal, and some untal and sait. Nearly $8,000,000$ tons of coal are extracted yearly from the coal-field on the hanka of the liuhir; and 4 miles above llonn are the iarge brown mal mines and alun works of Frieaderf. 'The produce of the other States amounta to about 60 marks of gold, ani 125,150 marks of silver; $1,200,000$ centners of iron; and the varisus other articles above mentioned in comparatively manall quantities.

Manufuctures.-In many branclies of manufacturing induatry the Germana have reached a high degree of excelience. Geruan linen is known to the whola
world; ticular Of late and the greatly formerl and the With th the last made gri mereiy e of Engla manufact Meravia, which it cetton ma extending the silk Vienua, 1 and other and stcel, quantitles phalia, and Rhenish I and silver Pettery an of perfectle Meissen, is the fincnes, elegance of It to be met facture of le Prassia; of places. P'a and of late Sugar-refinin dam, and oth tent in Hava a still greater the connecte German indu of mathemati struments ; tl being Munich clocks and wo and other mot of the world. have made in chiefly the re part of the $\mathbf{G}$ industrial sche and in alt the tutions fur ins

An Accotent ent
States aesi

## States.

Prussia.
Linxembirg. . . .
Maparia.
Soxony
Wurlemberg...
Paden.
Hesse-Cassel Ifesee-I larmstnilt. Thuringlan Ntates Ifunswlek Vismanter
Frankfort
Total.

- Complled from

4 The thater Is
\& Frankfort is res
A speolal paym
world; and the linens of Bielefield and Silesis in pirticular are equally valued in America as in Enrope. Of late years, however, tha introduction of cotton, and the high pricea obtained for corn, have tended greatly to lessen the cultivation of flax, which was formerly a principal stapla of agricnltural indastry, and the linen manufacture has anffered in consequence. With the improvement of the breeda of aheep within the last hali century, the woolen manufacture has made great progress, the German cloth being now not mereiy equal but even superior in quality to the cloths of England and Belgium. The chief aeats of the cloth manufacture are in: Brandenburg, Saxony, Bohemia, Moruvla, and the Prusaian IRhenish provinces, from which it is exported to all parts of the world. The cotton manufacture has been eatablished and is rapidly extending in Saxony, Austria, and along the Rhine; the silk manufacture is carried on succesafully in Vienna, Roveredo, Gorz, Berlin, Elberfald, Erefeld, and other places. Works in meta!, especially iron and steel, are produced in great perfection, and large quantities in Styria, Austriu, Rhenish Prussia, Westphaifi, and the district of the Hartz ; brase work, in Rhenish Prassla, Bavaria, and Brandenburg; gold and siiver work in Augaburg, Vienna, and Beriin. Pottery end glass-making have reached a high degree of perfectlon; the porcelain of Vienna; Beriln, and Meissen, is much in request, on account not only of the fineness of its material, but also for the tasteful eiegance of its forms and ornaments. Bohemian glass is to be met with in all parts of the world. The manafacture of leather ja particularly extensive in Rhenish Prassia; of aoap, tallow wares, and wax, in many places. l'aper-making is carried on to a great extent, and of late has been very much improved in quality. Sugar-refining is carried on in Hamhurg, Berlin, Potsdam, and other places; brewing of heer, to a grent extent in Bavaria; and ardent apirits (Branntwein), to a atili greater extent in the north. Ship-huilding and the conuected trades are of little importance; but Gernan industry is much distinguished in the making of mathematical, physical, surgical, and musical iristrumente; the chief seats of these brinches of trade being Munich, Vienna, Berlin, and Cassel. German ciocks and wooden articles, manufuctured in the Tyrol ade ethar mountain provinces, are exported to all parts of the world. The great progreas whici the Germans have made in manufacturing industry aince 1815 is chiefly the result of extraordinary exertions on the part of tho German governments. In every district, ladustrial schoois have been established or extended; and in all the chief towns there are schools and institutions for instruetion in tho higher branches of art,
where pupils are trained in both theory and practice at the expense of the government. Numarous eocieties also have been formied for the promotion of art and industry.

Commerce.-The commerce of Germany has always been extensive; but the abolition of the innumerahle State custom-housea and tolls, and the long-continued peace, have given an immense impulsa to ita activity. Germany exporta corn and timber to England and the Netherlands ; linen to Spain, Portugul, Poland, Rusaia, America, and Africa; woolen cloth to weatern Asia, and even to China; iron wares to every part of Europe; and lead to France. The exportation of fat cattle to England ia also becoming a great trade. The other prirelpal articles of export ars horsea, glase wares of all kinds, vobalt, galmei (siliceo-carbonate of zinc), potash, porcelain, bidea and skins, honey, wax, lime, gypanm, copper, horns, bones, rags, mill-stones, turnip aced, swina's hristles, vitriol, tin, and spirits. The chicf articles of import are sugar, coffee, tea, cacao, rice, vanilla, rum, and other colonial produce, spices, drugs, dried fish, cheese, tobacco, olive oil, and southern fruits, Frencl, Spanish, and Portugueae wines and liquors, cotton, raw silk, cotton and silk stuffa, leather, truin oil, and many smaller articlea. ide intarcourso within Germany is much facilitated by oxcellent carriage roads; and all the chief towns are now connected by railways. The principal rivera are also made available for the transport of bulky commodities, and were conmected by govaral canala before the introduction of the far auperior metlod of locomotion by rallwaya.

The priscipal aeata of the inlund trade wre Vienna, Prague, Reiehenberg, Brunn, Olmütz, Troppau, Linz, Steyer, Salzburg, Grïtz, Botzen, Roveredo, and others, in the Austrinn provincea; Berlin, Breslau, Cologne, Magdeburg, Frankfort-on-the-Oder, Naumburg, Poaen, Traustadt, Aachen, Cohlentz, Ellserfeld, Erfurt, Munster, Minden, and others, in the Prussian territory; Leipzig, in Saxony; Munieh, Augsburg, and Awrnberg, in Bavaria; Frankfort-on-the-Maine, Caasel, Brunswick, llanover, Mentz, etc. But of all these places four hold the first rani: ; Vienna for the south east ; Augshurg for the south-west ; Frunkfort-on-theMaine for the north-west ; and Leipzig for the northeast. Large faira are held twise or thrice a year in Lejpzig, the two Frankfo:to, Brunswick, and other phaces; but it is only in those named that these fuirs are of much importance. Those of Leipzig are celebrated for the aale and exchange of hooks. Great wool-markets are likewise hell in Berlin, Brealau, Dresden, Magdeburg, Prague, Stettin, etc. See Fains.
 Atates mespectivaly, is the Year 1651 , and the Digtehiction thenrop according to Popllation.*

| Stales. | Pepriation. | Ampunt of comitimangrosa recelpts. | limport dotien. Amount nf common nell receipte for dintrlbution. | Amount pay . alite to earth State necurding to its pepaiation | Ksport and Iranail dutiea nayabla to each Stath aceording (a) lis popilation | Bopport, export, and transit duties payable to emch Stnte, acerreding to ite population. | Malanes dua to or from the nonomon fund whleh each Stato has had |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | To pay. | To recelva. |
| Prussia. | 16,609, 153 | $\begin{aligned} & \text { Thislom. } \\ & 15,572.129 \end{aligned}$ | Thatare. $14,347,476$ | Thatera, 1.2,211.894 | Tisalera. 244, 些 | Thatera. $11,455,586$ | $\begin{aligned} & \text { Thulersi } \\ & 8,111,161 \end{aligned}$ | Thaters. |
| Luxemburg....... | 159,78i | 14, 77,114 | $14,41,4 \%$ 11,445 | 127,645 | 8,241 | 11,429,886 |  | 130,0if |
| Bavarla............ | 4, $6.64,680$ | 1,210,389 | 904, 001 | 8,044,516 | 83,463 | 8,008,019 |  | 2,166,021 |
| Savony............ | 1,844,4,41 | 2,119,447 | 1,905,287 | 1,274,161 | 29,786 | 1, 6403,897 | 780,761 |  |
| Wurtemberg . . . . | 1, 9150.818 | 345,527 | 830,2:37 | 1,214,347 | 21,825 | 1,235,712 |  | 809.766 |
| Maden............ | 1,3160,099 | (1)2e, 4225 | $8 \% 8,4 \times 2$ | 915,115 | 16,470 | 081,183 | .... | 684,1)69 |
| Iteste-Cassel...... | 781,544 | $4 \mathrm{Et5}, 040$ | 342, 254 | 402.051 | 8,641 | 60, 012 ln |  | 157,434 |
| Ileste-Jarmatnit. | 8182.917 | 41640 | 402,501 | 680, $8 \times 3$ | 10,102 | 590.075 | $\cdots$ | 191,871 |
| Thuringlan States. | 1,044,9\%4 | 8191,79: | 801.783 | 882, 0441 | 10,981 | 898, 671 | (009 | 806,489 |
| \|lrunswlek........ | 247, 17\% | 814, 14:3 | 229,523 | 163,175 | 8, 034 | 169**19 | 03,299 |  |
| Yasaukfort. ......... | 425,03) | 74829 801,404 | 71,810 $6: 315,84$ | $290,3+19$ | 5,023 | 291,849 | 649,541 | 219,501 |
| Total......... | 29,428,34 | 22,54, 657 | $\begin{array}{r} 20,004,210 \\ \text { 工 Less } 10,445 \% \\ \hline \end{array}$ | 10,901,705 | 410,364 | $20,405,109$ | 4,610,752 | 4,6t0,758 |
|  |  |  | 10,994,705 |  |  |  |  |  |

"Complied from the otticlal "Centralblatt der Abgaben," ete., Berila, 1359. By J. G. Fltigel, U. A. Conaul, Lelpzig.
\$The thaler ts very nearly worth 701 cents of our money; thore exactly, it is equal to 70.09 ounts.
\& Frankfort is regulated by a apectic arrancement, ant not by populatton.
a speolal paymeat by Prusala, on acoount of the Unton.

The prinoipal commerchal sea-ports are Hamburg, Bremen, and Embden, on the North Sea; Lubec, Rostock, Stettin, Dantzlg, Königsberg, and Memel, on the East Sea; and Trleste on the Adriatlc. Hambarg le one of the princlpal commercial towne of Europe, and with ita neighbors Altons (in Holstein), Bremen, and Embden and the Baltio porte, connecta Germany with the countriee of the north and west, and with Aimerica, India, etc. Trieste forma the communlcation with the south of Europe and the Levant.

Commerce was not a little impeded by the different money ayetems of different parts of Germany; but, on the other hand, it was much facilitated by the eatablishment of banks and exchanges in the principal towns. Of late years also the postal system has been vuiy grently improved, but the German governments have not yet eeen their way to the adoption of the British penny postage. They can not indeed expeet, in the circumstances of their country, that enormous lncrear of the number of letters that would compensate the diminution of rates.

The internal trade of Germany has been greatly faellitated thy the formation of the customs unions and eommercial treatles, of which an aceount has been given in the articles Furope and Il ' maeatic Leagde.

The preceding table shows the proportions of revenue drawn by the different Stater.
Pelitical State.-As settled by the treaty of Vienna, In 1815, Germany was divided into 40 sovereign States, or portions of States; but the number is now reduced to 35 , ns atated in the following table:

Tanle of tha Timett-Five Sovirriov States.

| Names. | Arpa in English eq. milles. | Popalatlon In 185y. | Tisle of Soverelign. |
| :---: | :---: | :---: | :---: |
| Austrian provinees. | 75,979 | 12.919,300 | Kalser. |
| Mrusslan provinces. | 71,967 | 12,287,215 | Klog. |
| Bavaria. | 81,892 | 4,530,452 | $\pm$ |
| Itanover | 14,788 | 1, 519,2543 | 4 |
| Wartember | 7.682 | 1,783,269 | 4 |
| Gaxony | 6,7\% | 1,987, $\times 32$ | * |
| Hesse-Cassel | 4.489 | 7 605,430 | Elector. |
| 13aden....... | 3.01s | 1,856,243 | Grand-Luko |
| Necklenburg-Scliwerin.... | 4,815 | 512.769 90.750 | " |
| Hesse-Darmstadt.... | 767 8,761 | 90.750 $\times 94.814$ | " |
| Oidenburiz | 2,421 | 245,226 | 1 |
| I.uxemburg | 2, 3 c. 8 | 894,962 | 4 |
| Saxe-Welmar-Elvena | 1,410 | 972,624 | ${ }^{4}$ |
| ${ }^{4}$ Cohnry-Gothat...... | 790 | $1.51,451$ | 1uke. |
| 4 Melningon-1liliburghatusen | 859 | 166,964 | " |
| * Altenhurg | 810 | 182. 549 | " |
| Holstein and lanea | 8.719 | 591), (mm) | * |
| Naerau. | 1.757 | 529.060) | " |
| Brunswlek. | 1,807 | 967,177 | " |
| A ohatlt Ilesan-Cotben. . . | 664 | 111.769 | Prince. |
| W Bernbnrg . . . . . . | 840 | 02, 641 | " |
| Walileck. . . . . . . . . . . . . . . | 461 | 68,097 | " |
| Lippe-Jetmold. . . . . . . . . | 487 | 106,615 | 4 |
| Schwarzburg- Kudotstailt. . | 410 | 69 (18)4 | " |
| * Sondersbausen | 869 | 74,906 | " |
| Henst, elder................ | 145 | 84.916 | 4 |
| " younger............. | 445 | 74, 284 | ${ }^{\boldsymbol{u}}$ |
| Nchaumburs İppe. . . . . . . | 2146 | 49,004) | ${ }^{4}$ |
| IJeelitu natcin.............. | 78 | 7.000 | ${ }^{6}$ |
|  | 164 | 94,941 | I-aldgrave. |
| 11smbur ${ }^{\text {a }}$. | 151 | 211.201 | ('ity. |
| Intree. | 112 | 45,425 | * |
| Ifremen. | 109 | 48, (MM) | ${ }^{*}$ |
| Frank fort . . . . . . . . . . . . . . . . | 91 | 78, 180 | " |
| Total. | 24,2431 | $48,4 \sim 6,116$ |  |

The Saxun princedom of Gotha beeane extinct in 1826 ly the decunse of the inst grand duke, and his territories were divided by compact among the collaternl reiativen, the princes of Coburg, Meiningen, and Hidburghawsen, the last of whom cc.led Ilidilurgliausen to Meningen, and assumed lastend the additional titie of Altenturg, from the chief town of that portion of the Gotha territory that fell to bia mare. The prince of Coburg-Haalfeld likew ise ectedi Saalfeld to Meiningen, and received Gotha in its stead. In 1846, the iordistip of Knipinusen wus aborbed in

Oldenburg; in 1847, Anhalt-Cothen became ennexed to Anhalt-Dessan; and in 1849, the two princes of Ilohenzollern abdicated the government of their States in favor of their kinsman, the king of Prussia.

Confederation.-These States exhlbit every form of government from absolute autocracy to demoeracy; but even in those that are conetitutlonal the authority of the aovereign is but feebly limited by lise States. They are all united into a bund, or confederation, the olject of whieh is the maintenance of the external and internal security of Germany, and the independence and inviolability of the several States. The Confederation is represented by the Diet, whieli in composed of the plenipotentiaries of all the States, and is the constitutional organ of its will and action; but the DJet has no power of eelf-actlon, the plenipotentiaries that compose it acting only aecording to the special instructions of their respective soverelgns; and there is no central executive government to carry its reso lutions into effect. In fact, it has been found that there is no power of insuring the combined action of the members for any object or purpose whatever, either civil or military; though, baving many interests in common, and the territories of the smaller States, in multifarious parcels, being so interningled thnt with must of them separate action wouid be limpossibie, they naturaily follow the same conrse of policy, modified by the influenee of the powerful ueighbors at whose mercy they would seem to lie. The management of the ordinnry business of the bund is intrusted to an ordinary and permanent Diet, et which the plenipo tentiary of Austria presides ; but there are only 17 votes to be divided nmong the 85 States, Austria, Prussia, and the larger States having one each, and only six being aliotted to the smaller States and cities. When fundamental laws are to be made or changed, when measures are to be taken that relate to the federal act itseif, when changes of organic institutions or other arrangemente of genernl interest are to be niopted, when war or peace is to lie made, or when a new member is to be admittenl, the Iliet hecones a general assembly, a plenum, In wisich 70 votes were orginally distributed among the members in ciasses, Austria, I'russia, Ilavarin, Saxony, Ilanover, snd Wurtemberg, having each 4 ; live others having each 3 ; three having each 2 ; and tho sinaller States each 1 vote. The IViet holls its aittings at Frankfort-on-tieMaine, and has ostensibly at its disposai, in terms of the federal aet, a numerous army, of whose constitution and efficiency we have aiready given an account in the articio Eivnores.

Thas Linnopaische staaten System, ete., Von Dr. Heinmeit linhainave; vol, iv. of his Allgemeine Sander und lolkerkunde; Jas Jeutsche lamh nud acine Bewoher, Von Cani, Winibeulacu, i.eipzig, 1852 ; Deutachland und das ubrige E:umpa, Yon Irr
 baden, 1851; Unirersal Jexiton, etc., Von ii. A. Pighki, Vikiten liand, Altenbirg, 1850, artieles Deutscin.ani, ete.-W. I. \& J. L_-iE. See llunt's Mag., ix., 199, xi., 491, xiv., 103, 227, xч,, 225 ; Weatm. Rev., iv., 277 ; Eidinb. Rel., ixxix., bf Living Age, xxx., 283; For. Qutr., xxii., 800; Rr, and For. Rer., iv., 169 ; N. Am. Rev., ii. (i:. livenetr), 1, viii., 65.

German Bilver, sometimes ealled white copper, or pakfong, is an uiloy composed genernily of copper, zine, and nickel. the projortion varying accordiag to circumstunces. When they are intended as a suhatitute for siiver, they are: coiper, 50 parts; nickel, 25 ; and zine, 25 in the 100 . Ilut the proportions in the genuino (German sifver nre as foliows: cojper, 40.4; nirkei, 31.6 ; rine, 25.4 ; iron, 2.15 .

Geropiga, or Jorupiga, a factitious liquor imported from l'ortugal, nind used in tho ndulteration of wine. A pije (about 105 gallons) of this compound is said liy Mr. Cousul Jolinston to contaln abont 35 gal .
lons of stituent unfermi its and enter in a very, ent sam sald to being $m$ sulistitu United compoun as wlae, 33 per e be mixel wine in $t$ ns lrand. the iatter This ficer iljected perhaps, in Portug adulterat! ennugh w It is diffle lys this in the comm in Portag quantity e the latter ever, that for Engial See Parlia

Ghee,
India. It (geseraily hour or m curilied mii ist ion. W m.ss is $n$ ? adisisi, aud half an ino eney to hed until ali th orated, and leaf, and e this way
Ghee is an
ance $\ln \mathrm{ma}$
smeli and fil
peans. So
Ghent Gent), a city and Lys, i town forme other as to are connect number of $t$ pieasing fe markulbie extending town is we most liurof of houses of the city, agreeablo.
The colto Ghent, emp ing upward alout 1,000 Sugar-retini other inpor linens, Han isee, threud mathemutic ware, bronz blue, etarel
lons of brandy at 25 degrees over proof, the other con- trade are in corn, oil, seed, Flemish linens, and wine. stituents being coloring and sweetening matters and unfermented grape-juice. But the proportion of spirits and the description of the other ingredients whlch enter Into its composition, and which are sometimes of a very noxlons character, vary very widely in iliffereot samples. Generally, however, geropiga may be said to be strong, sweet, and high-eolored. Besides being mixed with port, sherry, and other wines, it is sulistituted in varlous bevirages, eapecially in the United States, for splrits and sugar. This villainous compound ls allowed to be imported at the same duty ss wine, provided the proof spirits in it do not exceed 33 per cent. of its quantity. It ls also permitted to be mixed in the bonded warehouses in the docks witi wine in the same proportions relatively to its strength as brandy; that is, when it is oniy balf the atrength of the jatter, douhle the quantity may be used, and so en. This license has been much, and, as we think, justly, objected to. There can, of course, bo no cheek, and, perhaps, no good oljection, to the compounding of wines in Portugal ; but ona sh muld think that the facilities for adulteration in the shops of the dealers are here quite enoagh without legitimating the practice in the docks. It is difficult, Indeed, to see what purpose can be served hy this indulgence, unless it be to execute and facllitate the commission of fraud. Gerepiga being confonnded in l'ortugal with brandy and here with wine, the quantity exported from the former and imported into the latter is not easily ascertained. It appears, however, that $\ln 1848,481$ pipes were shipped from Oporto for England, and 1063 pipes for the United States. See Parliamentary paper, No. 314, Session 1855, ete.

Ghee, a kind of butter much used by the natives of India. It is prepared by boiling fresh-drawn milk (geaerally that of buffiloes) in earthen pota for an hour or more, und adding, after it has cooled, a little cardled milk ealled tyre, in ord- to promete its coaguiation. When this process ls completed, the curdled mass is ab:enad for half ant hour, gome hot water is adived, and the operation of churning continued for half nus inour longer, when the butter forms. Its tendcacy to become rancid may be obviated by bollieg it until all the water that may be mixed with it is evaporited, and then adding some tyre and salt, or betelleaf, and excluding it from the air in closed jars. In this way it may bo preserved for many months. Ghee is an article of considerable commercial inportance in many parts of India, though from its strong ameli and flavor it is considered unpalatable by Europeans. See Butter.

Ghent (Lat. Ganda; Fr. Gand; Flem. Gend; Ger. Gent), a city of Belgium, standing on the Rivers Scheldt aad Lys, whose numerous branches traversing the town form canals in sil directions, and so intersect each other as to partition the town into 26 islands, which are conneeted by 42 largo and 40 small bridges. The number of fine promenades forms another striking and pleasing feature of Ghent. Of these the most remarkable is the Ceupure, formed by rows of trees extending along the Bruges Camal. In generul, tho town is well built, and occupies a larger area tian most liuropean towns, in proportion to the number of houses and the population. Tho general aspect of the city, without being highly pictarestue, is very agreeable.

The cotton manufacture ls exteusively carried on in Ghent, employing atout $£ 1,800,000$ of capital, engaging upward of 20,000 persons, and annualiy produeing about $1,000,000$ pieces of plain nad printed calicees. Sugar-retiniog is also extensively enrried pu. 'The other important manufactures are common and tuble linens, tlannels, serges, woolen cloths, silks, ribhons, iaco, thread, hosiery, wux-eloth, oll, chemicals, armor, mathemutical, physical, nnd sumpical instrument, hurdware, bronze, and crystal, carriuges, paper, tobacco, blue, starch, delft, etc. The importunt branches of

About 20,000 pieces of linen are exposed for sule every Friday ; and the annual fairs are very numerously fre. quented, besides the horse-falrs held in mid-lent and on 23d July. The great general fair is held in Auguat. The governor of the province resides in Ghent, which is also the sent of a tribunal of first resort, as well as of a court of appeal, which has jurisdiction over all the province of Flanders. Ghent also gives title to a bishop, and is the hesd-quarters of the first of the four divislons of the army of Belgium. From 1792 to the overthrow of the power of Napoleon, Ghent was the capital of the department of the Seheldt. In 1814 Flanders became part of the klngdom of the Netherlands; and the same year the treaty of peace was signed here between Great Britain and the IJnlted States, which put an end to the war of 1812-'15. In 1815, on the return of Napoleon from Elbs, Louis XVIII. took refugo in Ghent; and in the revolution of 1830 , this city, with the rest of Flisnders was comprised in the new kingdom of Belgium. The city seems now as prosperous as ever, and is inereasing in population as well as in all the elements of wealth and power. Ghent is in lat. $51^{\circ} 3^{\prime} 12^{\prime \prime}$ N., long. $3^{\circ} 43^{\prime} 51^{\prime \prime}$ F.., at the intersection of tie railways connecting Lille with Antwerp, and Ostend with Malines, from which towns it is respectively distant $42,32,38$, and 33 miles. The population in 1851 was 106,704 .

Gibraltar, $n$ fumons fortress near the southernmost extremity of Spain, and contiguts to the narrowest part of the Strait, to which it gives its name, joining the Atluntie and Mediterranean. Lat. $36^{\circ}$ $6^{\prime} 30^{\prime \prime}$ N., long. $b^{\circ} 21^{\prime} 12^{\prime \prime} \mathrm{W}$. It is situated on the west side of a rocky mountain or promontory, the Jfons Calpe of the ancients, projecting into the sea, in a sontherly direction, about three miles, being from one lalf to tiree quarters of a mile in width. The southernmost extremity of the rock is called Europa Point. Its northern side, fronting the isthmus which conneets it with Spain, is almost perpendicular, and wholly inaccessible; the east and south sides are 80 rugged and precipitous as to render any attack upon them, oven if they were not fortlied, next to inpossible; so that it is only on the west side, fronting the bay, where the rock declines to tho sea, and the town is built, that it can be attacked with the least ehance of success. Here, however, the strength of the fortificatlons, and the magnituie of the batteries, are such, that the fortress scems to he impregnable, even though attacked by an enemy having the command of the sea. It was taken ly the English in 1704, but the fortifications were then very inferior to what they aro at present. Towerd the end of the American war, it was attacked by a mest formidable armament, fitted out jointly by Spain and France; but the strength of the place, and the bravery of tho garrison, defeated all the efforts of the combined powers. Population ubout 16,000, exclusive of the treops, which usinally amount, in time of peace, to about 3,000 .

Trade.-Giliraltar is of eonsiderable consequenco as n commercinl station. Being il freo port, subject to no iluties, and few restrictions, she is a convenient entrepot for the English and other forelgn goods destined for the supply, principally through illegitimato channels, of the contiguous Spanish provinces. Its lmportanco, in this respect, inereased rajidly during the 10 years ending witil 18.10 ; 80 much so, that while the declared value of the various articles of British produce and manufacture exported to Giliraltar in 1833 amount ed to only $£ 385,460$, they amountod to $£ 1,111,176$ in
 eral system began to be introduced into Sjaln, the ex ports of British products to Githraltar have declined. In 1851 they wero valued ut $£ 481,286$. Vingland also sends to Gibraltar considerable quantities of foreign and cionial merehandise, most part of which are des tined for the supply of Spain.



 and the direction of the currenta are marked in the chert. Variation in the stratth, $\$ \mathrm{~s}^{\prime} 31^{\prime}$.

The Bay of Gilbraltar is spacious; and, being protected from all the more dangerons winds, affords a conveaient atntion for ships, Two moles have been constructed, at a vast expense, for the protection of the shipping. The old mole jrojects from the north end of the town. N.W. by N. 11 wet finto the ax: ; the new mole is $1 \frac{1}{2}$ milea more to the south, extend $;$ outward about 7e0 feet ; it has ani elbow formed by the shore, and in winter large vessels anchor inside; the furthest out in from five to mix fathoma. The plan glven a better lidea of the paskion of Cllbraltar, as well as of the Straits, than comla be derived from any doecrijtlon, It lataken from Captaln Smyth's chart of the Meliterranean.

Gibraltar is of great Importance to Great IIritain in a military and naval point of view, heing, in fact, the key of the Mediterraneau, und affording a convenient and secure station for the outfit, refrembent, repmir, and accommodation of nany shlps of war and merchantmen. The revenue collectod in the town amonats to
 defray the public clvil expenditure of the place. The expense anumally incorred is (ireat Britain on accomet of the garrison, in time of peace, amounts to about $\mathcal{C} 200,000$-a sinall sum compared with the lmportant polltical and commercial advantages it is the means of securing.

Money.-The effectivo or hard dollar $=0105$; the current dollar heing estmater as of hatd dollars $=70$ cents. Iivals and quarters of both haril and current dollars are the mane, being, the formor, $=441$., and the latter 1 1-12l.

Accounta are kept in current dollars (pesos), divided into 8 reals of 16 puartos each; 12 reals rurreacy make a colv or hard dollnr, liy which goods are bonght and sold; and 3 of these reals are considered equal to 3 Spanish reals vellon.

Gibraliar draws on london in effetive dullars of 12 renla, and London on Gibraltar harent dollars of $x$ reals. The exchange of Gibraltar und tiodag, sad other cities of Sipain, is lu hard dollars at a per rentage, whled varies considerably, and nootly in favor of (iibraltar.

Weights ond Measures are those of Fingland, exiepting the arroba, $=25 \mathrm{l}$ bs, Enklish. Graillis sull by the fanega, 5 of which make 1 Winchenter quarter. Wine is sold hy the gallon, 100 of whilhare equal to 109.4 Fuglish wine gallons.

The commucrial relations between the E'nited States and Gibraltar are regulated liy ensctinent of the inperial I'arliment, and are lurilened with but few reatrictlons, heyond the usual jort charges, harhor and pollce regulations, quarantine laws, and a tarit? of dutles which compreliond nut more than five or alx ar
tides of : : and comme owing mni Levant ma) wants from indian and from the $p$ irrt the Is constituted produce des for the marl luve also ec cline in the former years depended la Spain and P gave briak greet utube and nugmen largely beyou sumptions or become too ha that the coms ited to the act demands of a coast of Barl tonuage and $n$ arriving ut a years 1852,18

| $1 \$ 2$. <br> $18 \% 9$. <br> $18 \%$ <br> Total. |
| :---: |
|  |  |
|  |  |
|  |  |

The value o the Luited Sta will be seen fro

> Yean $188 .$. 1 sha
$1544 . .$.
Total.
It will be pe exports in 1 sía ceding year. ' demand for arti ture, to keep ut Gibraltar, chie eastirn and we The merchandi our exports to $($ of the United S ready udverted t withatandiag th and the great those of $1 \times 53$, the a recent dispute that "Gibraltar to the merchant out of produce, than other murk late yrare a very littlo encouragen

Aurigation an ressels entered 18in, either for was B91i, with ar In 1853, this in vels, with an agis ing a decrease fo Compared with Spain, Moroceo, cany; and the di more notably w The increase in
ticles of frot set．Of late years，the general navigation and commerer of Gll ralte：have gradually decreased， owing mainly to the fact that the Mediterranean and Levant markets，which heretofore cbiefly supplied their wants from Gibraltar importatiens of East and West Indian and United States＇produc，now import direct from the places of growth；thu diverting from that y rt the large importatlons $\mathrm{wt}^{-1}$ ．in former years， constituted Gibraltar the grens i：it for all foreign produce deatined not only for the ma．kets but also for the markets of Spain and Pcitr sal．ucher causes Lave also contriouted to oring abr it thls general de－ cline in the trade and commetre of Gibralear．In funner years，the comnierclal pros，＂rity of the fortreas depended largely on the auce toti smuggling into Spain and Portural－a business wheh for many years
 giest aumber of smull vessels under 100 tobu＇bardaa， and augmented the amount of foreign importation largely beyona the ordinary demands for home cor．－ sumptions or legitimate commerce．This trade having lecome too hazardons，is now altogethe＂＂ubandoned，so thas the conmerce of Gibraltar may be said to he lim－ ited to the actual ruanil wants of the fortress，and the deasalls of an unimpoctant trade with the adjacent coast of Barbary．The following ta le exhlibis the tannage and number of vessels from the United States， arriving at and clearing from Gilbaltar during the years 1852，1853，and 1854 ：

| realls． | INWABD， |  | outwand mumet mos THE VNITKD 日TAPは． |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Fivaulf， | Tonnage． | Vesmels | Tonnakr． |
| 1592. | 99 | 7.32 t | 67 | 19767 |
| 18830. | 25 | 5，242 | Nonc． | None． |
| 1834. | 55 | 12，189 | 1 | 197 |
| Total． | t10 | 24.752 | 68 | 10.964 |

The value of the exports ar－Imports from and to the United States and Gibraltar，during two yeare， will be seen from the following table：

| Yens． | Exporta ta Gibralinp． | Importo from cilbraltar． |
| :---: | :---: | :---: |
| 1853．．． | ．． 236.014 | \＄61，74 |
| 15\％4．．． | 627．772 | 59，678 |
| To | 763，756 | 121，457 |

It will he perceived from the alove tublea that our exports in 1554 more than doubled thone of the pre－ ceding year．This ia accounted for by the iner asing demand for articles of American produce and manufac－ ture，to keep up the supplies for the coasting trade of Gibraltar，chielly with the llarhary States and the eastorn and western coasts of Spain and Portugal． The merchandise which constitutes the great Lulk of out exports to Gibrulta：is of the grow th and produce of the United States，and，with tho few exceptions al－ realy alvertell to，is almitted free of luty＂．Yet，not－ withstanting this exemption from all import duties， and the great increase of our exports in 1851 over thuse of 1853 ，the United States＇consul at Gibraltar，in a recent dispatel，informed the Department of State that＂Giibraltar does not offer any greater advantages to the merchants of the Cinted States in the sending out of produce，merchanulise，ar articles of any kind， thain other markets of liarope；indeed it has bren of late years a very insignificant market，and offers very little encouragement for any extensive operations．＂
Narigation and Commerce．－The number of sailing vessels entered and clearel at the port of Ciliraltar in 185\％，either for commercial operations or for supplies， Was 3917，with an aggregate tomage of 698，713 tons．
In 1853 ，this general movement comprised 4399 ves． sels，with an aggregate tonnage of 801,975 tons，show－ ing a decrense for 1854 of 492 vessels und 103,26 tons． Conpared with 1853，the increase was chielly with Spaln，Morocco，Sardinia，the United States，and Tus－ cany；and the diminution with all other countries，but more notahly with England，llusin，and Turkey． Tho increase in the movements between Ghraltar，

Spain，and rortugal was owing to the fact that many vessela belrg unable，hy reason of political difficulties， to prospute their voyage to the Black Sea，entered the prorta of these two kingdoma freighted only with salt．Besiles，the exportation of grain from the ports of $\mathrm{S}_{1}$ ，in was la＇ger than in former years．The in－ crease with Morcrce was attributed to the privilege then granted of asporting graln fiom that regency． The decrease with England，Kussia，and Tarker，is es－ plaines by the interruption which the var occasioned to the general commerce of the Blac Sea．Vessels of the United States，as well as th se of all other na－ tions，are exempt from tonnage duties or taxes in the port of Glibraltar．They ais subjeet only to a small impost，called＂light duties，＂of 50 cents each vessel， for supnnt of the light－house erected on Europa Point， nd -1 ．，to the following rates of anchorage dues． ［Vessels of war of all netions are exempt from all port charges］．

> Square-rigged vessel, with three masts...cech $\$ 1000$ Brig-rigged vessel.
> 800 Hchooner, sleop, etc.
> $\begin{array}{r}500 \\ 400\end{array}$
> Small coastlig'vessel

A particular description of the merchandise import－ ed from the United Statea，with a corresponding table of duties，will be found annexed．Kum，whisky， spiriis，ctc．，in casks，whether in bottles or etherwise， if the full contents of the casks shall exceed 10 gal － lons：

| Botos |  | 50 |
| :---: | :---: | :---: |
| 号e or |  |  |
| ${ }^{1} 1 \mathrm{pe}$ ，or but，or puncheon |  | 13 |
| flogshead． |  | ${ }^{211}$ |
| Therce． | ＂ | 1.4 |
| Quarter－ca | ＂ | $10\}$ |
| Cask less than a quart |  |  |

Tobaceo，in hogsheads or kegs，as vommonly im－ ported from the United States of America，or in rolls， as imported from Brazil，viz．


Kegs exceeding 2 cwt ，and rolls exceeding 5 cwt ．， to pay＇wharfage each as half a hogshead；and，in esse of disputes，the tobacco is to be welghed at the expense of the merchant．

Gibraltur，Buy of，or as it is sometine called，Alge－ ciras Buy，ls bounded ly the rock of Gibraltar on the one side，and the head－land of Cabrita on the other． Its greatest length is ahout elght miles from north to aouth，its greatest width about five miles from east to west，and its circuit nearly 40 miles．Its depth in the centre is about 110 fathoms．In spring tides the wa－ ter rises in the bay about four feet．Algeciras，from whose mame the bay is sometines called，is a fortified Spanish town on the west side of the bay，over against Gibraltar．Near it is the leautiful little island called Isla Verde，Green Isle．
Gibraltar，Straits of，the narrow clannel which sep． arates the south of Spain from the north of Africa． Tho width at the narrowest part，between Cabrits Point and the opposite shore，is 13 mites．We have an excellent chart of the Straits by Don Vincento Telino te San Sliguel，：．．．h the additional observations of Captain II．W．Sinyth，II．N．，from which it appears that there is a continual current flowing from the ocean in the midile of the Straits，which has a velocity varying from three to six miles per hour，and is $\overline{\mathrm{s}}$ d miles in breadth．There are two lateral currents， whels have a mean breadth each of $2 \frac{1}{2}$ miles；but they change their direction with the ehanges of the tide． At the the of ebb these lateral curcents have a voloc－ ity equal to that of the central one．The depth of the Strait，in the meriflian of Cape St．Vincent，is 100 fath－ ons；but，lin passing upward，the channel regularly and rupilly deepens，until，epposite to Europa Point at Gibraltar，the tlepth of water is 1000 fathoma．It is
remarkable, that though the cceamo current at the equal to maintain it at the aame level, notwithatandStralta, and that of the Bonphorus at the Dardanolles, continually posir their waters into the Mediterranean, ita level is not raised. But Dr. Halley, long ago, showed that the evaporation from Its aurface was fully
lag those additions, and that of the rivers it recelved. The current is aufficiently atrong to be dangerous to vessels sailing into the Athantic, and can only bo overcome by a brisk wind from the Levant.

Commiach of the Unitwd Stater with Gibaalitat, yhow October 1, 1820, to July 1, 1856.

| Years ending | -Exporta. |  |  | Imports. | Whereof there was ita Dillion and apecle. |  | Tounage Clearod. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dumeste. | Yorelgu, | Total. | Total. | Exported. | Imported. | Amertean. | Forelga. |
| Dept. 80, 1521 | \$938.111 | 518 | \$1,489,746 | 81,234,268 | (88,190) | 608,880 | 20,954 |  |
| -pher 1322. | ${ }^{6} 24.708$ | 625074 | 1,150,788 | 490,878 | 5,000 | 68,661 | 15,847 |  |
| 1383......... | 875,604 | 1,024,279 | 1,908,878 | 477,709 | 8,804 | 181,695 | 92,985 |  |
| 1984......... | 934102 861783 | 984,445 | 1,808,847 | 698,844 | 2,110 146297 | 811,871 | 27,265 20888 | 1,102 |
| ${ }_{1026}^{1825 . . . . . . . . . . . ~}$ | 861,783 692,998 | 1,051,981 | $1,808,714$ $1,747,921$ | 748,846 677,896 | 146,297 10,500 | 101,704 94.688 | 20,888 24,148 | 681 921 |
| 1827 | 1,040,909 | 864,987 | 1,9R5,886 | 829,938 | 8,000 | 89,278 | 28,790 | 68 |
| 1529. | 809,411 | 808,119 | 1,408,180 | 668,678 | 86,000 | 87,891 | 20,446 | 91 |
| 1829 | 301,188 | 180,129 | 481,282 | 247,471 | 10,572 | 68,793 | 8,701 |  |
| 1580. | 818,248 | 870,150 | 888,898 | 00,028 | 50,880 | 7,860 | 18,450 |  |
| Total | 7,600,744 | \%7,000,318 | 14,601,068 | 88,155,036 | 8800,343 | \$1,539,846 | 210,469 | 2,760 |
| Sept. 80, 1881 | -429,087 | \$165,786 | \$594,878 | 150,817 | \$20,000 | 18,600 | 11,708 |  |
| Sept 18.1888 | 428,689 | 184,074 | 818,907 | 270.558 | 88,510 | 8820 | 14,049 | 481 |
| 1533 | 578,076 | 164,570 | 797,448 | 182,508 | 800 | 8,400 | 18.811 | 1,970 |
| 1894 | 5080703 | 248,785 | 790,483 | 900,691 |  | 24,947 | 12.998 | 690 |
| 1885. | 853,682 | 265,000 | 818.682 | 160,200 | 74.989 | 4,460 | 15,194 | 400 |
| 1830. | 688.199 | 225, 177 | 880,875 | 245078 | 6,597 |  | 14,522 | 1,120 |
| 1589 | 881,081 | 208.657 | 864,901 | 207,178 | 17,034 | 888 | 10,887 | 1,471 |
| 1888. | 6012,819 | 152,371 | 762,189 | 25,0¢4 | 0,608 |  | 11,496 | 1,911 |
| 1589 | 8 Sta 248 | 148,387 | 1,050,604 | 90,1*8 | 9,856 |  | 18,484 | 2,164 |
| 1540 | 643,84 | 257,110 | 900,454 | 82,517 |  | 100 | 11,812 | $8 i$ |
| Total. | W,642,919 | 82,051,180 | 87,694,049 | 61,584,244 | 7171,484 | 849,575 | 184,771 | 10,786 |
| Sept. 80, 1411. | \$1,n20,931 | *98,959 | 11,119,920 | 朿1,079 |  |  | 17,668 | 394 |
| (1342. | 466,987 | 115,961 | -082,598 | 12,263 | \%15,2is |  | 12,115 | 1,758 |
| 9 mon 1543. | 214,251 | 88.197 | $256,44 y$ | 28,915 |  |  | 6,941 | 1,568 |
| Jane 80, 1844. | 502,462 | 77,421 | 579,888 | 44,274 | 8,460 | 18,471 | 18.878 | 2,418 |
| 1845. | 426,107 488,241 |  | K39,671 $\mathbf{6 9 2 , 8 9 2}$ | 92.118 27,016 | 47,900 | 12,222 | 11,691 | 1,097 |
| 1 H | 865, 860 | \% 6,026 | 420,886 | 26,969 | 2,720 | .... | 8,219 | 1,718 |
| 1448 | 810,410 | 61,545 | 871,945 | 4,445 | 16,920 |  | 9,526 | 779 |
| 1849 | 728,819 | 78,467 | 802,296 | 1,103 | 18,885 |  | 18,139 | 1,540 |
| 1550. | 186,807 | $80,4 \times 2$ | 940,759 | 44,269 | 42,085 |  | 7,650 | 006 |
| Total | 4,038, 815 | (5979,803 | (5,568,113 | - 2128,336 | 196,030 | 646,571 | 101,022 | 12,461 |
| June 50,1851 | 8177,904 | -52,529 | \%! 130,483 | \%78.604 | \%3,580 |  | 8,000 | 1,962 |
| 1452 | 829,802 | 49,157 | 470,789 | 105, 818 | 16,490 | .... | 7,578 | 1,812 |
| 1298 | 169,444 <br> 46,445 | 66,350 | 288,014 627,784 | \$1,784 | 44.060 | ..... | 14,242 | 1,3930 |
| 1855 | 225, 865 | 128,879 | 34,74 | 68,041 |  |  | 8,063 | 1,942 |
| $18 \% 6$. | 872,623 | 56,493 | 429,016 | 89,126 | 26.400 | 1,876 | 10,340 | 115 |

Gild, or Guild, a conipany of merchant" or mnnufacturers, whence the balls of such companies are denominated Gill or Guild Halls. See Guind.
Gilding. First practiced at Rome, about 145 B. c. The capitol was the firet bullding on which this enrichment was bestow'ed.-Iling. Of gold leaf for gilding, the Romans made but 750 leaves, 4 ingers square, out of a whole ounce.-Pliny. It consequently was mose like our plating.-Trusler. A single grain of gold may now the stretched oult under the hammer into a leaf that will cover a house.- Dr. Hafky. Gilding with leaf gold on bale ammoniac was first introduced by Margaritone, in 127:3. The art of gilding ont wood, previounly known, was improved in 1680.-Haydn.

Gilding ia the application of a superfictal cont of gold on wood, netal, and ot ber miterials. The bearuty and durabilty of gold render it the most valuable of ail ornamental substarices; but, on account of its welght and high price, ita use in these respects would be exceedingly limited, were it not the most extensiHe and divisible form of matter, so that it may le made to cover a larger surfaca than an equal quantity of any other loody. Metals are usually covered with gold by the process of rezter gilding. It consists in perfectly eleaning their surfuce, and then, in the case of silver, for Instance, rubbing it over with a solution of gold in mercury, called amalynm of gold: the veesel is then heated over a clear chareonl fire, by which the mercury is driven off, and tho gold left adbering to tho siliver surface, upon which it is afterwand burnished. The surface of enpper or brase is usually prepared ly cleaning and rutbing it over with a molution of nitrate of merctury, which amalganates
the surface, and enables tho gold amalgam, when subsequently applied, to arthere ; heating and burnishlag are then remorted to as before. Brass and copper hot. tons are gilt in this way; and the requisite quantity of gold is so small that twelve dozen buttons of one tneh diameter may be completely gilt upon looth sorfaces hy five grains of gold. Other kinds of gilling are performed by goll leaf, which, if intended for outs dour work, is laid on ly the help of gold size, which is elrying oil nixed with calcined red oehre; or, if for pictare and looking-glase frames, they are prepared by a size made by bolling parehment clippings to a atiff jelly, and mixed with fine Paris-plaster or yellow ochre. The leaves of books are gilt upon the edges by brushing them over, while in the binder's press, with a composltion of four parta of Armenian bole and one of powdered sugar candy mixed np with white of efg; this roating, when rearly dry, Is amouthed by the burnisher, then slightly moistened, and the guli leaf applied and burnished. To impross gllt figures on book covers, tho leather is dustel over with finely. powdered mastic : the lron toel by which the figure is made is then moderately heated and pressed upona piece of leaf-gold, which slightly alheres to it ; being then immediately applied to the leather with a certain force, the tool nakes an Impression, an!', seftening the inastic, transfers and fixos the gold. In pilding glass and proelain, powdered gold is blended with gun-water and a little horax, and applied ly a camel. hair penell; the artlele is then put into an oven or rurnace; the gum burns off, and the horax, by vitrifylag, cements the gold to the surfach, upon which it may afterward be polished by the burnisher. Wiltin the lant few years nearly all the gitt articles manufice
tared at Birmingham, such as buttons, neck-chains, ear-rings, and so forth, have been gilt by a procese in which, after the articles havo been properly cleaneed by a weak acid, they are iminersed in a hot solution of nitro-muriate of gold, to which a considerable excess of bicarbonste of petash has been added; in the course of a fow reconds they thus recelve a beautiful anid permanen ${ }^{*}$ coat of gold.
Gllead-tree, the Baleam of (Amyris gileadensis), is a native of Arabia, and growe spontaneously in the mountains of Yemen. Aithough not indigenous to Judea, it was cultivated with great perfeetion many years before Christ, in the gardens of Jericho, on the banks of the Jerdan; and it is from Gilead, in that country, whence the merchants brought the resinous product to Egypt, that is derived the appeliation of "Balsam- of Gilead." This shrub, or tree, which seldom exceeds $1:$ foot in height, has a trunk 8 or 10 incles in diameter, with many spreading, crooked, purplish branchea, having protuberant buds, leaded with aromatic resin. The great value set upon this drug in the East is traced to the earlicst ages. When Alexander the Great was in Judea, a spoonful of the bolsam was all that could be coilected on a summer's day; and, in the most plentiful year, the great royal park for these trees yielied only six gallons. It was consequently 80 dear that it sold for double its weight la silver. That of the best quality is said to exude naturally, but the inferior kinds of the present day are extracted by boiling the branchos. It is at first turbid and white, of a strong, pungent, agreeable, aromatic odor, and of a slightiy bitter, acid taste; upon being kept, it becomes thin, limpid, of a greenish hue, then of a golden yellow, and at length of the consistency of honey. This balsam is highly prized among eastern nations, particularly by the Turks and Arubs, both as a medicine and sn odoriferous unguent and cosmetic. It has been highly extelled as a powerful anti-septic, vulnerary, and preventivo of the plague. Its great acarcity, however, has prevented it from coming into use among Europesn and American practitloners. It is extremeiy liable to adulteration, and, from its high price, and difficulky to be obtained, it is believed that not a single ounce of the genuine article can be found In this country, nor even in Europe.-J. J. Browne's Report, U. S. Patent Office, 1805.

Gill, a measure of capacity. See Wercurs and Measures.

Gimbals (Lat. gemellus, twin), the two brass rings or boops within which a ship's compass is suspended in its lox, in order to counteract the effect of the ship's motion and keep the card horizontal. Tinese rings move eno within the other, euch perpendicularly to its plane, sbout two sxes placed at right angles to esch ether. By this contrivance the compass, having a free motion in two directions at right angles to each other, maintainn a vertical position, and oonsequently the card is herizontal. Gimbals are also applied to other instruments, such as the portablo or mountuin barometer, etc.

Gimleting the anohor. Turning it by the stock round its shank as an axis, like a gimlet.

Glmp. Silk twist, interiaced with lirass or other wire.

Gin. (Fr. geniëvre, juniper.) Ardent apirit fiavored by the essential oil of juniper. It was originaliy made by the Dutch, and is hence distinguished in this cquntry by tho name of Hullands. The liquor bearing the above name in this country is of British manufacture, and in frequently flavored by oil of turpentine, and readered biting upon the palate by caustic potash. In IIollund, the flinest gin bears the name of Schiedam, the principal place of its manufacture, and where there are many distilieries.

The English act for laying an excise upon gin passed July, 14th, 1730 ; it had beon found, in the
preceding year, that in London only, 7,044 honses sold gin by retail ; and it was so cheap that the poor could intoxicate themselves, and be disabled from labor for one penny. The heavy exciee of 5 shillings per gallon, and obllging all retailers to take out a license, in a great measure put a stop to this depopulating evil.-Sulmon. About 1,700 of these houses were suppressed in London in 1750.-Clarke.

The Dutch have been long famous for their manufacture of an ardent spirit flavored with juniper, and known by the names of Mollands, Schiedam, Gin, and Geneva; the last being derived from the word "genievre," the juniper berry, and the word gin being a contraction thereof. The distillers at Schicdam seem for the last 60 years at least to have followed very mueh the same practice in the manufacture of this spirit, most of the accounts published during that period hy Individuals who have gone over to study the manufucture, agreelng in the details. Generally 112 lbs. of malt of big, weighing about 87 lbs . per bushel. and 228 lba . of best unmalted rye from Riga, weighing about 54 lbs. per bushel, are mashed in about 100 gallons of water of the temperature of $162^{\circ}$. The tun is then carefully covered and left undisturbed for about 2 hours. The contents are then well stirred up, when the clearest part of the spent wash of a previeus distillation, and as much cold water as will reduce the strength of the wort to about 33 of Dicas's hydrometer, and lower the temperature to about $80^{\circ}$ are added. About half a gallon of good yeast is then added ; active fermentation is thus excited, the temperature rises to $90^{\circ}$, and the whele is over in two days. The whole wort (grains and all) is then transferred to the still, and the distillation is ecutinued till spirit ceases to come ever. A ver weak spirit is thus obtalned, as used to be the case in this country with the old form of still. This, or the lowo wines as it is termed, is sulijected to a second distillation after having mixed with it soms juniper berries and hops. Old juniper berries are preferred for this purpose, and they are added in the proportion of 2 lbs , of berries to the 100 gallons of low wines; a quarter pound of salt, and a handful of hops, are often also added. These ingredients give the spirit that peculiar flaver which has led it to be styled genlèvre-geneva-gin. The quantity of spirit oltained varies from 18 to 21 gallone por quarter of grain, a quantity fully as great as is ylelded by the brest conducted distilleries in this country.

According to recent exsminations and experiments to detact the adulteration of liquors, gin appears to be generally diluted for the purpose of lowering the price, and various decoctions are subsequently introduced to supply the peculiar properties supposed to beleng to the puro spirit. Many of these articles, however, although "possessing very terrifying names, as oil of vitriol, or sulphuric acid, can not in the proportions in which they are used, be looket upon as poisons." It is, for instance, believed that pure gin-that is, alcohol fiavored with juniper-herry, is net to be met with, inasmuch as all rectifiers appear to use "gin-flavorings," made from various aromatic and carminative substances, such as orange peel, coriander, etc., which please the palate of the consamer hetter than pure gin, of which, indeed, the public scarcely know the tasto. If a retailer "never sold any thing but absolute alcohol, it could not be drank by the public without their being greatly injured. The publican would then have to dilute it with such a quantity of water as would render it suitable as a beverage." The pubilican does not profess to sell absolute alcohol, and the public knowing nething of the natare of the manufuctu e of gia, are centent with what is usually sold under that denomination; the term gin being merely conventional, and applying equally to the mixture sold by the publicnn as to the spirit sent out by the distiller, and is, in fact, more
genorally anderstood to represent the mixtare. For the aame reason the revenue does not austain loss, because no man could drink proof apirits, and if the publican did not dilate the spirit, ha " mast fall back upon the wholesale deaier and have it made up to the atrongth he requiren, sweatened and ail."-Report to House of Commong, July, 1850. See Laone Levi'a Ifmals of Brisiah Legislation, Part ix., Dec., 1856.

Gin, in Mechanies, a contrivance for raising hesvy weighte, driving piles, etc., which consists of three apars set up in a pyramidal form, and furnished at top w.th a tackle which is worked hy a windlase beneath. Tha name gin is also appiled to a machine with which the fibres of cotton are disentangled, by means of a aeries of revolving apikes. This operation is termed ginaing. See Cotton Maxupactube.

Ginger (Ger. Inseer; Du. Gember; Fr. Gengembre; It. Zenzero; Sp. Jenjibre; Agengibre; Rus. Inbir ; Jat. Zingiber; Pors. Zungeoel; Arab. Zingibeel), the roots of a plant (Amommm Zingiber), a native of the Fast indies and China, but which whs early carried to and sncceeds very well in the West Indies. After the roots are dug, the best are selected, scraped, washed, and dried in the ann with great care. This is called white ginger; while the inforior roots, which are scaided in boiling water before being dried, are denominated black ginger. Preserved ginger is made by acaiding the green roots, or the roots taken up when they are young and fuil of sap, till they are tender; then peeling them in cold water, and putting them into a thin syrop, from which they are shifted Into the jars in which they come to us, and a rich syrup poured over them. Dried ginger has a pungent, aromatic odor, and a hot, biting taste. It is imported in bags, each contalning about a cwi. The white brings the highest price, being more pungent and better favered. The external characters of goorlness in both sorts of dried ginger are, soundiness, or the being free from worm holen, hesviness, and firmnesa ; the plecen that are smali, light, and soft, or very friable and fibrous, should be rejected. The best preserved ginger is nearly translucent ; it should be chosen of a bright yellow color; rejecting that which is dark-colored, fibrous, or otringy. - Marburx's Orient. Commerce; Tiomson's Digpensatory. The ginger plant could without doubt be grown to advantage in many of the southern States. The amonnt of ginger annualiy imported Into the United States is valued at upwarl of $\$ 60,000$.
Chnseng (Du. Ginseng, Ginsem; Fr. Ginseng; Ger. Krafticerzel, Ginseng; It. Ginseng; Sp. Jinseng; Chin. Lansam; Tart. Orhota), the root of a small plant (Panax quinquefolium Lin.), growing in China, Tartary, and reveral parts of North America. The latter la what we generally see in England, snd is an articie of trade to China, which is its only market. Large quantities were formerly exported from this country; but it is now carried direct to China iy the Americans. It is sometimes exported crude, and sometimes cured or clarified. Within these few years, is has been discovered $\ln$ the Ilimalays mountaina, and small quantitiea have been thence sent to Canton; but the apeculation has not ancceeried. It is only about 40 years since it began to be sent from America to China. Previously to the preaent century, the Chinese drew their aupplies from the widds of Tartary, and the root brought an exorbitant price. Crude ginseng now sells in the Canton market at from 60 to 70 dollare per pical, and prepared at from 70 to 80 dollars. In 1452, there were sent from the United States to China, $158,455 \mathrm{lbs}$, ginseng, vaiued at 102,073 dol-lars.-Papers laid befure Congress, January 1st, 1853.

Claoler, a name given to masses of lice which descend from anowy mountains into the adjacent valleys, where they obtain a lovel often far below the upper limit of the surrounding vegetation. The following are the avnenyms for a glacier in some different lan-
guages and dialecta: In French, glacier; German, gletacher; Itallan, ghiacciqja; Tyrolese, fern; in Cab rinthia, kdee; In the Vallais, biegne; In part of Italy, vodretto; In Piedment, ruise; in the l'yrenees, sermeillo; In Norway; iusbre or iisbrede; in Lapiand, geilina or jegna; In Iceland, jokull or full-jokull. The characteristio appearance of alacier can be nowhere better studied thair In Swltzerland and Savoy. The loy mass of the glacler of llossons at Chamenn-which descends linmedintely from the highest part of Mont Blanc, but lles, aummer and winter, in the valley at a helght of ne mere than 3500 Engliah feet (the height of perpetual snow being about 9000 feet), where it is emboamod emong luzwriant wood, and is alnost In contact with corn-fields-exhib. its a spectacle which mone who have once aeen it can forget, and which attracte more interest and curioaity the more carefully it is considered. The lower glacier of Grindelwald, descending to 8400 feet, is another familiar example of the same phenomenon. In the aretle regions true giuciers also exist, whlch, deseend. ing the valieya (often of great width and iittle inclina. tion), enter the sea, and, breaking off, supply the floating ice-islanids or icebergs, which frequently drift into consparatively low latitudas. These glaciers do not essentialiy differ from those of Alplne ceuntrics.

The diminution of temperature as wa ascend the slopen of mountains, is indicated by snccessive tones of vegetation, and finally by the occurrence of perpetual snow. Thus in the high mountains of the Andes and Himalaya, letween the tropics, the commencement of perpetual snow is found at from 15,000 to 18,000 , or even 19,000 feet, accorling tn circumatances; while in routhern Europe, the level is from 8000 to 9000 feet, and in Norway from 5500 to 8000 feet, according to the latitude and the distunce from tho sea. It was first ahown by Haron Ilemboldt and Von Huch that the linit of perpetual anow depends principally on the temperature of the summer, and not upon that of the whole yenr. It has been already explained that an sccumulation of snow, even frozen snow, does not constitute prcperiy a glacier. A glacier is a mass of ice, having its origin ln the hollows of mountains where perpetnal nnow accnmulatea, but which makes its way down toward the luwer valleys, where if gradualiy melts, and it terminates exactiy where the melting, due to the contact of the warmar air, earth, and rain of the valley, compensates for the bodily descent of the ice from the snow reservoirs of the higher mountains. From this it is evident, without any formai measurements, that A olacten is ICE in моtio:.

Geographical Distribution of Glaciers.-Glaciers are not peculiar to any country or region of the asrit. It may be that there are extensive snow; :" sutains wholly devoid of them, as is suppesed to the the case In tropical South Ainerica; but even this exception requires confirmation. There are peculiarities in the forin of mountaina, and atil] more in climate, which, as we shall see, favor the formation of glaciera, or may even totally prevent it.
Glaggow, a great commercial and manufacturing city of Lanarkshire, in Scetland, situated on the nortiern bank of the Hiver Clyde. According to the determination of Dr. Wilson, the latitude and longitude of the Macfarlane Observatory, in the college garden of Glasgow, are $55^{\circ} 51^{\prime} 32^{\prime \prime} \mathrm{N}$. , and $4^{2} 17^{\prime} 54^{\prime \prime} \mathrm{W}$. Glasgow ia therefore nearly elght miles further sonth, and $1^{\circ} 1^{\prime}$ further west. The difference between the clocks in Edinburg and Glasgow is $4^{\circ} 27^{\prime} 4^{\prime \prime}$.

Glasgow owes its present greatness to its advantageous situstion on a fine river, in one of the richest coal and mineral districte of the empire. Originally, however, the Clydu was much incumbered by forls and shadlows, and for a iengthened period it served rather to excite anil disappoint expectation, than to confer any real commercial advantage on the city.

In 1662, magistrat which Po stands, $w$ dock, the considerati and lits ne by land ca new and $t$ quay woas as 1775 no Glasgow, a plan, pro Chester, fo thes, wes nee of num to 18 feet 0 tained. Ir shipa drawi came safely steam vesse was launch below Glasg her machine ening the r drediging ms employment city, is very line--the slc constructed tion for shijp also very gr acres of wat in length, ar cranes, ete., being directl Terminus Lil in the city. ing the river side of the he struct extens basin on the

The total e cluding work 1854, was abo has been ralt improvement has been mos ber of sailing gow than to a constantly cr coasting veac belonging to and Belfast, in the empire the 81st Dece burden of 192
The Clyde sted, ls one of its rise amons ties of Dum tream, from sea, is about beantified by lishments of sbodes of ing site of Glasg though at th Influx into $t$ able way abo and means 0 reses to eve Clyde, Gry

The first cotton-spinal till the begin siderable qua

In 1662, after sevwral othor achentes had falled, the magistrates of Glaygow purchaned the groand on which Port Glasgow ( 16 miles down the river) now stands, where they formed a harbor and a graving dock, the first work of ito kind in seotland. For a consideruble period the intercourue between Glasgow and its newly-acquired port wat principally carried on by land carriage ; but from 1665 attempts were every now and then made to deepen the river. In 1688 a quay was formed at the Broomidaw; but even so late as 1775 no vessel drawing six feet of water coald reach Glasgow, except at spring tides. At length, however, a plan, proposed in 1769 by Mr. Goibarn, engineer of Chester, for deepening the rivar to seven feat at neap tides, was adopted, since which time, by the continned ane of numerous dredging machines a depth of from 10 to 18 feet of water at high water neaps has been obtained. In the year onding the 80th June, 1854, 25 shipe drawing 18 feet of water, and 4 drawing 19 feet, came safely to the Broomielaw, while the largest steam vessel afloat, the Persia, of 8,600 tons' br:i 'en, was launched in 1855 into the river, about one mile below Glasgow, and came np to the harbor to receive her machinery. The work of deepening and straightening the river is still vigorously prosecuted. Six dredging machines and two diving bells are in constant employment. The river, for seven milas below the city, is very much widenad, and forms neariy a straight line-the sloping banks, formed of whinatone, being constructed in imitation of ashlar. The accommodation for shipping at the Broomiclaw, or harbor, is now slso very greatly extended. It comprises about 48 acres of water. The quays extend about two miles in length, are amply furnished with sheds for goods, cranee, etc., and have the important advantage of being directly connected, by means of the General Terminus Line, with the various raliways that centre in the city. The parliamentary trustees for managing the river have, slso, aequired ground on the north side of the harbor, on which they have power to construct exteneive docks. Thay may, alao, construct a basin on the sonth side.

The total expenditure on the river and harbor, including works, purchasea of ground, etc., down to 1854 , was above $£ 2,000,000$, of which about $£ 1,500,000$ has been raised as revenue. The influence of theas improvements on the shlpping and trade of Glaggow has been most striking. At present, a greater namber of sailing veassis and of steamers belong to Glasgow than to any other Scotch port, and the harbor is constantly crowded with ships from forelign ports, coasting vessels and steamers. The steam-packets belonging to the Ciyde that ply to Liverpool, Dublin, and Belfast, are among tho finest veasels of their class in the empire. In all, there belonged to Glusgow, on the 81st December, 1854, 601 vessels of the aggregate burden of 192,895 tons.

The Clyde, npon which the city of Glasgow is situated, is one of the prineipal rivera in Scotlund, and has its rise among the mountains that saparate the counties of Dumfries and Lanark. The langth of this - iream, from its source to its junction with the western sea, is about 100 miles. Along its wholo courso it ia beantified by magnificent natural scenery and embelilshmenta of art. Its banks are crowded with the abodes of industry and a thriving population. The site of Glasgow occupies both sides of the river; and though at the distance of above 30 miles from the influx into the saa, the tide, which fiows a conslderable way above the town, gives it a command of trada and means of ready conveyance for commercial purrobes to evory quarter of the globe. See articies Clyde, Great Bittain, and Scotland.
The first ateam-engine in Giasgow connected with cotton-apinning wha arected in 1792 ; but it was not till the begianing of the preasut century that any considerable quantity of yarn was spun in Scotland. In

1850 the number of upindles employed in cotton-spinning, connected with or dependent on Glaggow, amounted to $1,683,003$, and the cotton consumed amaunted to about $45,000,000$ pounds, or 120,000 bales. At present (1850) the consumption does not appear to have increased. The power-loom wan firat introduced Into Glasgow in 1798 by Mr. Jumes Robertson, who brought two from the IIulks in the Thames. In the following year 40 looma were fitted up at Milton, and in 1801 Mr. John Monteith had 200 looms at work at Pollockshawa, near Glasgow. In 1831 the powerlooms in or dependent on Glasgow had increased to 15,187 ; in 1850 they amounted to $\mathbf{2 3 , 5 6 4}$, and produced the daily average of 625,000 yards of cloth; at present (1856) thare are abont 26,000 or 27,000 power-looms, and consequently the daily produce is not only greater from thls cause, but also from an increase in speed. The number of parsons employed in the cotton factories throughout Scotland, and which may be said to be all connected with or dependent on Glasgow, in 1850 was 8797 males, and 27,528 females, total 80,825 ; whils the motive power was, steam, 71,005 horse-power; water, 2812. In addition to the cotton epun for weaving, there sre several very large manufactories of sawing thread; and to that of power-loom weaving there must be added all the beautiful fabrics that are still made by tho hand-loom, and which amploy a vast number of persons and a large capital. Thase conalat of muslins, plain and fancy harness-curtains, jaconets, cambrics, ginghams, checks, and colored tiasues of all kinds; while, of late years, mixed fabrics, consiating of cotton and silk, cotton and linen, and cotton and wool, have all been manufactured to a great extent. To the many thousand hand-loom weavers that atill reaida in Glasgow, must be added those who reside in all the villages for many miles round, and oven in some of the more distant towns in Scotland and north of Ireland, to form any adequate idea of the extensive and wide-apread textile manufacturing interests of Glasgow. See articles Embroideny, Clyde, and Steam Navigation.

The next great branches of induatry, of which Glasgow is the central mart, are lta coal and iron trades. Although coal, from a pretty remote period, has been wrought round the city chiefly for domestic uses, it has only been since the introduction of the steam-engine, and atill more since the discovery of the economical mode of smelting iron by the hot blast, that the vast and closely-packed minaral wealth of its nelghboring districts has bean at all fully developed and turnad to profit.
Steamship-building.-Of all the branches of industry belonging to Glaggow and its harbor, there is none of modarn date which has made auch rapid progress as that of steamboat-building, and marine engine-making. From the first start of the little Comet, in 1812, till 1820, thers were at the most only one or two river steamars launched yearly, and of a tonnage so amall as to be scarcaly worth notice. Abont that period this manufacture received a new impulao, and began at once fairly to dovelop itself. From 1821 to 1830 there ware 38 steamara built, with a tonnage of 4,200 ; from 1831 in 1840 thare ware 94 steamars, with a tounage of 17,6 w from 1841 to 1850 thare were 167 steamars, with a tonnage of 81,447 ; while ciuring the three years from 1851 to 1853 there were 206 steamers, with a tonnage of 111,718 . The present magnitude of this industry may, however, bo best appraciated from tha fact that during the yoars 1853 and 1854 , the then 82 ship-builders on the Clyde had constructed or contracted for no fewer than 266 vassals, including both staain and sailing, having an aggregate tonnage of 168,000 , for which also marine enginas were constructed or in progress, of 29,000 horas-power; the avorage of these veasels being 630 tons, and involving the enormous cost of nearly $£ 5,000,000$ sterling.

The whola number and tonnage arriving at tha har-
bor of Glasgow daring the yeara 1828－1854，were an follows：

| Years． | －Allimg rumele， |  | TFEAM VMaskia |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Na． | Tounare． | No． | Tonnagr． |
| 1888 | 4，406 | 914，816 | 7，100 | 491，946 |
| 1840 | 5,887 | 971，949 | 11，149 | 894，387 |
| 1850 | 5，857 | 891，088 | 0，105 | 878，109 |
| 1854 | 6，84\％ | 604，008 | 11，880 | 1，000， $80 \pm$ |

The progress and present condition of the river and harbor，howeve：－Te probably best exhililted by the following abstrac：of the revenue of the trust at six different periods ：


Abetaact Accotet op tha total Numank of Arbivala
 IIambon of Glagaor，Formion and Coabtwise，in tun ÍEan gndtwo Jenh 20tif，1854，

| Yemela＊ teanage． | Sollion vescela． | Steam visaele． | Vesselat tonsage． | Aalling ventele． | Sterm vessels． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Undor 40 | 9，841 | 2，726 | 800－ 835 | 61 | 65 |
| $410-60$ | 1，469 | 469 | $850-460$ | 86 | 876 |
| 60－50 | 6049 | 9， 888 | 4115 | 83 | 76 |
| 80－100 | 318 | 8，402 | 450－5610 | 86 | 0 |
| 100－1．0 | 2085 | 1，645 | $5(00-609$ | 48 | 1 |
| 150－－200 | 289 | $2 \times 3$ | （6） $0^{(100}$ | 24 | 6 |
| 500）－250 | 10 | 98 | T00 dupwd． | 84 | 9 |
| $250-800$ | 89 | 361 | Tutal．．．．． | 6，8．4 | 11，1850 |

Port Chargea，Harbor，or Quray Duea．－On all vea－ sels arriving at the harloor of Glasgow，21．per reginter ton；except on steam－vessels trading on the River Clyde within the Cumbraer，or navigathg the Crinan Cunal，which are charged lif．per regiater ton．On all vessels remalning in the harior for nny period ex－ ceeding 24 linwful day，1d．per ton per week．

Weighing－dues．－Fach curt，wagon，or other carriage－ load，or welght，not exceeding 12 cwt ．，11．each；ex－ ceeding 12 ext．，81．cach．N．B．Welghlog－dues，not exigilile when the corrert weight of the goods la fur－ nished．
Crane Dues．－Each hist not exceeding 12 wwt．， 3 d ； from 12 to 15 cwt ．， 4 d ；；from 15 to 20 cwt ．，Gd．Fach ton of machinery，and other artieles exceeding 1 ton， 1s．；hemp per ton，fot．；marhle ilo．，1s．；timber do．， Gd．Taking out and putting In machinery，etc．，of ateamboats，from $c 22 \mathrm{~s}$ ．to $\mathrm{cs} \mathrm{Se}_{8}$ ，according to the number of hoists and trouble．Crancsmen＇n time per hour，or part of an hour，Gd．Charges for water nup－ plied liy the Clyide Truatens to vensela in the harbor， viz．：Vessels under 25 tons register，Gd．each； 2.5 tons and under $50,1 \mathrm{~s}$ ．each ； 50 tuns anil under 100，1a．ad． each： 100 tons and under 150，3月．eneh； 150 tons and ander $200,5 \mathrm{sanck}$ ； 2001 tons and uniler 300 ， 8 s. each；300 tons ami under $4(0)$ ， 15 ．each； 400 tons and ирwarl， 10 ．
N．II．Steam－vessela regularly supplied oftener thnn once $n$ week，to he charged half the alove ratea．Mas－ ters of vessela rempiring water，will obtain orden，on application，at the weighing－loxes on the quaya． Planke und slages．o－For loading or dlacharging ves． self，24．earh plank or atzge per week．Whones．－Ono penny for each wagon of coal loaded，with 1f．extra on earh cargo for removing the rhonn to and from the veasel．Ballart，－The Clyde Truateen remove hallas： from vesuels on either sile the harior，at a rate not ex－ ceeding 1s．per ton，and aspply clean stone ballatit at 1s．per tom．Tho River Clyde la diviled into thrue etagen，any the following are the tonnage dues exigitile upon vach，viz．：The Arit atage extendg from Stock well－ street Ilridgs to the Oid Ferry at llenfrew，lieing athut tho yardh to the rast of the present ferry，and the dhen on gookld carried or conveyed theremn，are two thimp of the tonagge dues exlgille liv the trusters．The second stage extend from the Old Ferry nt Renfrew $\omega$ the manth of Dalnuir llurn；and the dues exigilise thereon are one alxth of the tonnage dues anil the third stage extends from Dalmuir lium to Newark

Castle；and the dues exigible thereon are one alxth part of the tonnage duas．

The nbove is the whole charge upon the ahip for the voyage in and out if a ship sail in ballast，If she loads an outward cargo，the tonnage dues thereon will be charged accurding to the rates specitied above．The charges for lights are as follows，vin．：northern lights， 8 di，pur register ton；Cambrae lights，1d．per register ton．The charge for unloading and taking $\ln$ n cargo is per agreement with llcensed jumpers or porters who ply on the quay for hire．There aro no fixed rates， but the following charges may be considered pretty near the mark：unloading cotton，15s．per 100 bales， or about 9 d ．per ton，and for taking in iron， 9 d ．per ton．The other itema of charge of a public kind affertlug the ship are，towing up and down the river， planks and stages for discharging and loading the ear－
goes，sopplying the shlp with water and the rentuval goea，sopplying the shlp with water and the renuval oi ballast，if any＇on bonrd，and shlps louded with cot－ ton uaually have luallast．T＇be following is a pro forma account of the charges on a ship of 500 tons arriving with cotton，remaining in the harbor for a month，loading iron，and leaving ：
Anehorage or harbor dues，B00 tong，at 21．por ton E4 84 Etver or tonnage duva inward，asy 800 tona cotion，

$$
\text { at 1s. } 4 \mathrm{~d} \text {. per ton. }
$$

Shed dues on to．at 1id．per ton．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 20 o 0 lumper＇a charge for valoading eargo，io．ot $9 . . . .$. River or tenage dnee ontwaril，say ou 700 tons iron at 7d．
 Lumper＇s eharge for loailing，ot $0 \mathrm{~d}, \ldots, \ldots, \ldots, \ldots,{ }^{8}$ in 11 Northern Ifsta In and out，on ship 300 tong，at a
 Cowing ship up and down river，oi，nach way，at
1s ，d．．．．．．．．．．．．．．．．．．．．．．．．．．it louding，．．．．．．．．． Planks and stages，thecharglng ant loading，ayy．．．．i 10
Supply ing ship with wator in harbor．．．．．．．．．．．． Supplying shlp with wator in harbor ．．．．．．．．．．．．．．．．．
Discharglug and remuving ballast．．．．．． $\begin{array}{lll}1 & 10 \\ 0 & 0 \\ 8 & 0 & 0\end{array}$

Total．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．1st 19 y
On all ships arriving at the liroomlelaw，bither from foreign ports or coastwles，2d．per register ton is paya－ ble to the River Trusteos in name of harbor or quay duty，over and above the river or tomnage rutes on the cargo．
Sintrance to the River．－As a guide to mariners，it may be mantioned that vessels of 19 feet draft of wa－ ter can arrlve at the barisor of Glaagow，and that ves－ sela drawlng 17 feet aro considered rugular traders． Vesaels drawing 15 to 16 feet may always arrive and depart witheut tonching the bottom．At the entrance to the viver，vessels are placed uuiler the charge of pilots，who are well acipualuted with the channel， which is well marked with beacons and buoys．it may be conaldered that the river in deepening at the rate ol one foot in evory five years．A ahip on reach． Ing the mouth of tho ：iver had leest commence as－ cending at half－tide．There are no particular usages comnocted with the harbor of Glasgow beyond those adopsed on most other rivers und harbors．Lights are permilted in the $b=$ bor from 0 A．M．to $10 \mathrm{I}, \mathrm{M}$ ．

Glangow may tur sald to be cosmopolitus in her com－ nerce and mannfa turen，uniting within herself the bus－ nesses and trades of almost every other town and eity in the linited Kingriom．It hence followa that while oae branch of nimnufacture or trade thay be dull，anc ber nay be prosperous，and accorilingly Glangow thes not feel any of those depressions whilis so frequently oc－ cur la places which have only one or two branches of manufacture or commerce．The great limlastrlat oc－ copatione of Glangow are its cotton－spiming and weaving：its collieries and irun manufacturen；its Iron shippolsulliling and machine－naking，and its chem－ ieal manufactures．Accomling to Dr．Strmug，the eon－ mimption of raw cottor in Glangow in 1804 was alove 1,400 bulen per week，of from $4: 10$ tol 440 pounds each， and the number of jower－lomis dequendent un Glas： gow wan from 40,000 to 27,000 ，producing dally alout 700,000 zards of cloth．In the west of Seviland，of
whleh $1854,6,4$ which 2 ， ture of into mal In conne 926，421 yond the faciurlng distriet 2 countles 717，600 to to forelgn from the the Clyde by railwa malleable foundery Ule iren dt ertent of ： and iron oned at a pald in wn
The che consisting acids and sodn．soap， leanl，lodin potash，naI cream of $t$ sltuate in perhaps th worli．Th above 1000 tons of com ducing of a sonp，ete．，$n$ St．Roliox of them bei luse，and 1 manafuctur and onward their mighit pronf of thl first net for and that，in firat model Irpulation of tho ndvar facturing el popalation more appary

| Years． |
| :---: |
| 1801．．．． |
| 1sil． |
| 1821 |
| 1891. |
| 1845. |
| 150t．．．．． |

In 18：35 tl suburis was pled In 50 y
Cchtome Ity
brat and
lobatin

## Yeare eniling 1 ．

1796. 
1797. 

バリ．
1812．．
1820．．．
1א25．．．
1 SNO 1.
18215.
1824.
1840.
1840.
185.

1815．
1850．
Glangow
which Giasgow is the central mart; there were, in 18:4, $6,448,000$ tons of coal drawn from the plts, of which $2,152,800$ tons were consumed in the manufacture of pig Iron. 667,200 in the conversion of plg jron Into malleable lion, making in all, 2,520,000 tona uaed in connection with the manufacture of imon, while 926,221 tons were shippea, and 148,812 tons sent beyend the boundaries by railways, leaving for the manufaciuring consumption and domestic use of the Glasgow district $2,853,427$ tona. The produce of pig Iron in the counties of Lanark and Ayr, in 1854, amounted to 717,600 tons, 122,684 tons of which were shlpped direct to forelgn countries, 294,194 tons were sent coastwise from the Clyde, Port Dundes and the western ports of the Clyde estuary, while 22,865 tons were aent nway iy railways, and $17 \mathrm{I}, 360$ tona were coaverted into malieable lron, lenving the remnining 106,497 tona for foumdery and other proposes of the district. Mulleabie iran during the same year was manufactured to the ertent of 122,400 tons. The value of the whole coal and irm business to the diat rict $i n 1854$ may be reckonel at about $£ 1,872,000$, of which $£ 1,973,000$ was pald in wages to 31,900 persons.

Tins chemical products of Glasgow are multifarions, consisting of sulphuric, muriatic, nitric, and acetic achls and their varions saits; blenching-powder, soda, soap, cudbear, bichromato of potash, sugar of lead, ledine, salts of ammonla, nlum, pruseiate of potash, naptha, pitch, oll, animal charconl, bone tar, cream of tartar, etc., otc. The works of St. Rollox, situate in the north-east quarter of Glasgow, constitute perhaps the largest chemical catabllehment in the world. They cover about 12 acres of ground, employ alove 1000 inen, consuming annunlly about 20,000 tons of common salt, and 80,000 tons of coal, and producing of soda, bleaching-powiler, sulphuric acid, and sonp, etc., about 25,000 tons. The lofty chimneys of St. Rollox nre among the curiosities of the city, one of them bring 450 feet high, 50 feet ilametor at the hase, and 14 feet at the top. While conmerce and manufactures had thus given the city a stlmulating and ouward progress, science and art had also added their mighty aid in effecting limprovoment. As a proof of this it may too be montloned that in 1759 the iirst act for deepening the River Clyde was ohtalued; and that, in 1764 , Jamos Watt made in Glaggow his fitst model of a steam-engine.

Irpulation.--If the foregoing tahies give some ldoa of the advance of Glnsgow as a cominercial and manufacturing clty, the following taile of its progressive population during the present century will render this more apparent:

| Years. | Manas. | Fenumen. | Tuat. |
| :---: | :---: | :---: | :---: |
| 1801.. | $\ldots$ | . | 88,769 |
| 1811.... | citio | 78.94 | 110,469 |
| 1831.... | 68, 19 | 78,084 | 147,048 |
| 1831.... | 98.784 | 10270w | 202,428 |
|  | 188,818 | 147,209 18,270 |  |
| 1531. | 163,781 | 183,270 | 347,001 |

In 1855 the eatimatell population of Hasgow and its suburbs was about $\mathbf{4 0 0 , 0 0 0}$, having beon nearly quintupled in 50 yenrs!
Cemtone Duties collgctrd at Glabiow, ahd the Nom-
 foat in tha undranenthosad ÿ:arg.

| Years eniline Jam. 6. | Dutles. | No, of alipar. | Tomnage. |
| :---: | :---: | :---: | :---: |
| 1794.......... | 8125 |  | .... |
| 18116. . . . . . . . | 1,829 |  |  |
| 1812.......... | 8,194 | 85 | 2,020 |
| 1815........... | 8,8900 | 69 | 4,929 |
| 1820.......... | 11,400 | 85 | 6,644 |
| 1825.......... | 40,104 | 111 | 14,024 |
| 1830........... | 50,013 | 238 | 40,974 |
| 18:58.......... | 270,887 | ${ }^{94} 1$ | 14,835 |
| 1810.......... | 418,974 | 851 | 71,478 |
| 1815 $180 . . . . . . .$. | Mi, ${ }^{\text {S }}$ | 479 | 11,480 |
| 18\$0........... | 640,5es 664.818 | ${ }_{601}^{007}$ | 187,009 192,990 |

Glangow nuw ranka as the fourth exporting part in
the empire, being in this respect aurpassed only by Jiverpool, London, and Inall.
Aconunt of tine decqargi Valites or tita Paodion and Manepacteass or Thi Unitso Kimodom Exponted Faon Glasgow, Poat Glabeow, and Gazenocei in 1852, 1853, AND 1854, RESPAOTIVELY; ENOWINO ALSO TIE Amount or Curroms Dutipa collected at each or tilsba Poais in tilk above Yraps.

| Porte on the Clydn. | Augregato value of exports of Brttish and Irlah prodice and mb afteloret. |  |  |
| :---: | :---: | :---: | :---: |
|  | 1859. | 1868. | 3864. |
| Glasgow...... | 23,570,875 | 74,968,630 | 94,906,067 |
| Oort Glasgow. | 78,621 | 107,295 | 05,439 |
| Greoneck. . . . | 418,697 | 487,528 | S54,608 |
| Total..... | 24,062,098 | 20,5,518,447 | 20,600,408 |
| Forts ofl the Clydo. | A mount of eustoma dutina coilested on tmpurted ariteles. |  |  |
|  | 1858. | 1858. | 2854. |
| Olasgow...... | 2062,005 | \$687,974 | 2660, 18 |
| 1'ort Glasgow. | 82,411 | 104,954 | 90,898 |
| Grectiock..... | 429,808 | 426,180 | \$47,784 |
| Tetal | 81,164,884 | £1,219,078 | 21,805,468 |

Glass (Ger. and Du. Glas; Fr. Vitre, Verre; It. Vetro; Sp. Vidrio; Rus. Stello; Lat. Vitrum), a transpurent, brittle, factitious body. It is formed by mixing together some sort of siliceons carth, as fine sund, or pounded flint with an alkali,' such as suda, pot-aeh, or pearl-ash, and aubjecting them to a strong hent. 13y this meuns they are melted into a transpareut, soft, tenacious mase, that may, when lot, ie formed into thin plates, bent and shaped in every possible way. When cool it becomee brittle, and ls denominated ghas. Litharge, minlum, borax, tho black oxyd of manganeae, etc., are rometimes used in the manufncture of glass, accorling to the purposes to which it is to be applied.
The kinds of glass, and their ingredients, are stated by Dr. Ure as follows:
"Thero are flve distinct kindn of glass at present manofactured : 1. Filint glass, or giana of lead ; 2. Plate glase, or glass of pure noda; 3. Crown glaes, the beat window glasa; 4. Bread glass, a coarae window glase; 5 . Hottle, or coarse green glase.
"1. Flint Glass, eo named becauso the siliceous ingredicat wae originally employed ta the form of ground fints. It is now alade of the follewing componition:

> Purifled Lynn savil............................................... $100{ }_{60}^{\text {Torta. }}$
> Litharge or red tead.
> lurittod Poarl-ash.

- Tucorrect the green color derived from cembuatble ma ter, or exyd of tron, a littie black exyd of mangances is addod, aud mometimea uitre and arnenle. The fuilon ta accomplished ueualiy in about 80 hours.

14. Plate Glaws.-Goed carbonate of soda, procnced by decompoaing common alt with praci-anh, is empleycd as the Hux. The jroportion of the materiala is,

$$
\begin{aligned}
& \text { Pare mand. } \\
& 48.0 \\
& \text { Dry subsarbonste of bodis.................. 2t } \\
& \text { P'ure quick liture. } \\
& 4.0
\end{aligned}
$$

About 70 parta of good plate giass may be run off from these materiala.
" a . Crown, or Ane Window Glase.-This la made of aand vitrified liy tho lmpure barilia manufactured by inciueration of aea-weed on the scoteh and Iriah ahores. The most approved conquanition its,

## Fine and purifled

$\qquad$ By measure. By we'ghz.
best kelp grexni ............. 11 B50
"4. Broad clase.-This in mado of a mixture of coapboilera' wante, kelp, and sand. The first thgredient consiste of limo used for rendering the aikall of I'es soap-boller canstic, the lualuble matter of thia kelp or barilia, and a quan. tity of salt and water, all in a party atate. The proportiona areemarily vary. Twe of the wate, oue of kelp, und one of manl, form a pretly good hread glake. They are mixed together, dried, nill fritted.
"b. Bottle Glasa la the coarmat kind. It in mado of map. era' waste nud rivor catud, In proportione whilh practice mutas determine according to the quantity of the waste; coine mosp-bolfera extrueting more sallue ruator, and others lean, from their kolpa. Coumon sand and thing, wlth a fltte common elay anil sea malt, form n eheapmixture for buttle glag-"

Historical Notices teith respect to Glass.-The manufacture of glase is one of the very highest beauty and utility. It is most probable that we are indebted for this wonderful art, as we are for the gift of letters, to the Phcenicians. According to Pliny. (Ilis, Nat., lib, xxxvi., c. 26), glass had been made for many sges, of sand found near the mouth of the amall River Bejus in Phconicia. "The report," asye he, " $\mathrm{f}_{\mathrm{s} \text {, that the crew of a mer- }}$ chant abip laden with nitre (foesil alkali) having used some pieces of it to support the kettles placed on the fires they had made on the sand, were surprised to see pieces formed of a translucent aubstance, or glans. This was a sufficient hint for the manufacture. Ingenuity (astuta et ingeniose solertia) was Immediately at work, to improve the process thus happily suggested. Hence tho magneticai stone came to be added, from an idea that it contained not only iron, but glass. They also ased clear pebbles, shells, and fossil sand. Inclian glass is said to be formed of native crystal, and is on that account superior to every other. Phoenician glass is prepared with light dry wood, to which copper and nitre are added, the last behig principally brought from Ophir. It is occasionslly tinged with different colors. Sometines it is brought to the desired shape by being blown, sometimes by being ground on a lathe, and sometimes it is embossed like silver." Sidon, he adds, is fanous for this manafacture. It was there that mirrors were first invented. In Pliny's time, giaan was made in Italy of fine sand on the shore between Cums and the Lucrine Bay. If this be a correct description of the glass of Indin in the age of Pliny, it has since fallen off very much; Indian glass being now about the very worst that is made. At present, the Hindoos manufacture it of fragments of broken glass, quartz, and impure soda, an article fonad native in many parta of India, particulariy in tho south. The furnsces are so bad that they can not melt our common bottie glass.-Hamilion's Mysore, vol. ili., p. 870. The glass of Chine is much better than that of India, though atill very inferior to that of Europe.

The general term glaes is empioged by chemists to denote all mineral substances which, on the appllication of heat, pass through a state of fusion into hard and brittle massea, and which, though not aiways transparent, exhibit a lustrous frasture when broken. The glass of commerce, however, to which our remarkn are rentricted, or the transparent and artificial substance which is usualiy distinguished by the generic naine, is produced by the igneous fusion of siliceous earth with certain alkaline earths or salts, or with metallic oxyds. The etymology of the word has been much disputed. It is derived by somo from the Latin glacies, ice, its resemblanco to which is thought to have suggested the titic. (ithers have remarked, that the common latin designation of this nubatance is sitrum ; and as thi l lomans applied this term in common with the word glastum, to the plant which we call woal, they have dednced it from the latter of these, either tecsuse the ashes of this plant were used in the mannfacture of glass, or liecanse it exhihited nomething of the bluish color which is procured from woad. Gluasum, the name given to ainber by the anclent Gauls aisil Itritons, has ulso heen ass! gned as the origin of the worl. But none of theme etymans appenr very natiafactory. The most plussible theory in that which derives the term from the Siaxan verh glis-mian, or the the German gleissen, pplendere, which are proinably contractions of the Anglo-Saxon ge-liran, to shine, tu be bright. This view is in a great degree confirmed by the mense in w!ich the term glase and its derivatives are inupoun y our ofider writers, who freguently apply it io ahining or glittering anintancen, without reference to esior or tranajarency.

In the mont remote agen the art of hioning glass into bottief, making it into vases, coloring it to imi tate prucious atones, melting it into enoimous massen
to make pillars, rolling and poliahing it into mirrors, and tinting it into parts, were all perfectly woll knowr. For its origin we must look to Egypt, the parent of so many colinteral arts. The atory of the Ianelites having net fire to a forest, and the heat beconing so intense that it madu the nitre and send molt and flow along the mountain aide, and that they afcerward did artificially what bad been the reault of sccident, may be set down as equally fabulous with the atory of the pirates, who are eaid to have landed on the sen beach, and wishing to make their cacldron boil, piled up some vitreous stones and placed on them a quantity of seaweed and blocks of wood, cansing so strong a heat that the stones were softened and ran down on the asand, which, meiting and mixing with the alkaji, became a diaphanous and giassy mass. The fictitious character of both these atories is proved by the simple fact that it requires the most intense furnace heat to inaure the combination of the sand with the nitres

Ender these circumetances wo are justified in believing that glasn-making bad its origin at the same time with the baking of bricks and pottery. The smelting of ores, too, required a furnsce sufficiently intense to fase the silicates analogous to glass, and hence it may be anfely inforred, that in the age when meiting and working metal was known, the art of making glass was also practiced. In the look of Joh the most precious thinge are compared to wisdorn, but still more precious are gold and glass. The llebrews must have becoms acquainted with ginss while in Egypt, and in consequence of their proximity ta the Phonicians; and it is now generaliy believed that these two nations had the merit of originating and establishing its manufacture. The Athonian embassadors, in order to give an idea of the magnificence displayed at the court of the great king of Jersin, said, that they drank in cupe of glase and gold. Some writers affirm that the Egyptians in some instances sealed up their dead in a coating of glase, and glasshouses are anid not to lave been uncommon in that wonderful country. Some anthers ascribe, with vary plausibie reason, the discovery of glass-making to the priests of Vulcan at Thetres and Memphis, the greatest chemists in tha ancient world. The Egyptians smo niso known to have made enamels of divera colers which they applied on pottery, magnificent specimens of which are atill extant, and are cailed Fgyptian porcelain. These are chiefly covered with beautiful hife or green, and group* of thowers or designs are traced in black. (ilass heads and other ornaments made of that aulatance, akilifuliy manafactured and heautifuliy cohsed, have heen found udorning mummies, which are known to be ujward of 3000 yenrs old. It is certain that Tyre, Silon, and Alexinilria, were long celebrated for their glass, and furnished the greater proportion of that used at lome. Inder the Roman empire the Jisyptians stil] preserved their superiority in the nrt of glasm-making, and it ia suid that Aurelian cansed them to jay their tribute in that msnufacture. Adrian mentions that ho had received drinking-glasses of varioua colura from $n$ priest of a famous temple in Fify it, and gives instructions that they are net to be naed hut on the greatest oceasions, nid on the most solemn feast days. To theso places the art was ex. clusvely confined for some centuries, and was an article of luxury, being chicfiy in tho form of urns or drink-ing-eups of the moat elaborate workmanshij, and exquinitely embeltished with raised, chasel, or ornamented ilguren. The liarberini or Jortland vuse, eompased of deep blue giass, with figuren of a dejiente white ofacue substance raised in relief, is a splenilid spacimen, and was found in the tomb of Alexander Severus, who died A. 11.285 .
Tha art of gian-makia; neems to have been introduced into Italy hy the Romana after their condments in Asia in the time of Cicero, nad the firnt giass-works there wert said to have been near the Flaminian Cir-
cus. It is imported in to have jnc for we find Christian low and val only drink manufactur post was la in the decot were combl
Glase wa cles of con that Nero the ordinary each havin have been o manship; fo ing vessela, is which to and lib. Iv.,
From the ulets having country, it h the art of $n$ ita invasion be believed advances in entirely una frunc not o glass, a com should excel of are of ext ored in imita There seems Britons proe Syrians, who South Seas, in toys and for skins or means, howe it is certain principally ${ }^{1}$ Roman inva muli of n m particular, or them,

Glain Nei alout half thicker, las superstition duced lyy anu ing, when a round the he to hiss, hlew mediately ha thought to nt find one of $t$ beads of gla name of cha usually of a and others $v$ and white.

Glass utet which city Vesuviun in giass also fou as to its uses name of vilr in a manner ing for thei glass was us

Jion Cas. account of $t$ ly a celebra restoration t ons side, his
cus. It is highly probabla that thene workmen were imported from Egypt. The use of glass seema rapidly to have Increased, and to have become very common, for we find an emperor in the third century of the Christian ers saying, that he wes diagnsted with so low and vulgar an object as glass, and that he would only drink from vessels of gold. By this time the manufacture of glass was so considerable that an impost was laid on it, and it was extenslvely emplojed in the decorations of buildinga, while in glass mosaics were comblned the most brillisnt colors.
Glass was manufretured at Rome into various articies of convenience and ornament. Pliny mentions that Nero gave 6000 eesterces ( $£ 50,000$ recording to the ordinary method of reckoning), for two glase cups, each having two handles! These, however, must have been of an immense size and of exquisite workmanship; for glass was then in common uüe hur drinking vessels, and was used even in the form of bottles In which to keep wine.-Mart., Epig., lib. ii., 22, 40, snd lit. iv., 86.
From the circumstance of colored glase beads and amnlets having been found among Druidical remains in this country, it has heen argued by Pennant and others that tha art of making glass was known in Britain before its invasion by the Komans. It can hardly, however, be beliaved that a people whe had made very trifling advances in civilization, and who, it is known, were entirely unacquainted with any other art, should be founc not only conversant with the manufacturo of glass, a complicated and highly ingenious process, but should excel in it ; for tise beads and annulets apoken of are of exquisite workmanship, and beautifulty colored in imitation of the rarest and most precious atones. There seems little doubt, therefore, that the sncient Britons procured these in the course of traflic with the Syrians, whe visited the island as we do those in the South Seas, to drive a trade with their sa vage inhabitants in toys and trinkets, giving them these in exchange for skins or other natural proluctions. By whatover means, however, these ornamunts came into Britain, it is certain that thay were in extensive use, though principally for religious purposes, long prior to the Roman invasion, ss they are found in barrows or tumali of a much older date. One at Stonehenge, in particular, on beiag opened wus found to be filled with them.
Glain Neidyr, or Druidical glass rings, genarally sbout half as wido ss our finger-rings, but nuch thicker, have frequently been found. The vulgar superstition regarding these was, that thoy were produced by anakes joining their heads together and hissfige, when a kind of bubble like a ring was formed remnd the head of them, which tho others, continuing to hiss, blew on till it came off at the tail, when it immediately hardened into a glass ring. Success was thought to attend sny one who was fortinate enough to find ons of those anake-stones. They were evidently beads of glass employed by the Druids, under the name of charms, to decelve the vulgar. They are usually of a green color, fut some of them are blue, snd others varicgated with wavy streaks of blue, red, and whilte.
Glass utensils have been found in Iferculaneami, which city was destroyed by an eruption of Mount Vesurius in the reign of 'Titus (A. 1. 79). A plate of glass also found there has occasioned much speculation as to its uses. Similar plates, to which l'ling gave tho aame of ritrew eamerve, stem to have been employel, in a manner not very well understood by us, ns paneling for their rooms. It is illsputed whether or not glass was ustd in Ilerculaneun for windows.

Dion Cassius and Petronius Arbiter coneur in thair account of the diseovery of malicable or ductile glass by a celebrated Roman architect, whose auccoss in the reatoration to its position of a partico which leaned to one side, had roased tite envy and joalonsy of Ti-
berius, and occasioned his baniahment from Rome. Thinking that his discovery would disarm the omperor's wrath, the artist appeared before him bearing a glass veesel, which he dashed upon the ground. Notwithstanding the violence of the blow, it was maraly dimpled, as if it had been brass. Taking a hammer from his breast, he then beat it out into its originsl shape; but inst ad of giving him the reward which he had expected, the emperor ordered the unfortunato. artisan to be beheaded, remarking, that if his discovery were known, gold would soon be held of as little value as conmon clay. This is probsbly snother version of the story told by Pliny, of an artificer who made the eame discovery, and whose workshop was demolished by those who had an intereat in preventing the introduction of an article which would lower the valua of gold, silver, and brass. Althengh it might not be juntiiisbie to givo unqualified diabelief to these stories, yet the knowledge we at present poseess would restrict the possibility of such a discovery within the narrowest limits. The union of the properties of malleability and vitrification sceins to be incompatible. Some metallic subatanoee, by the application of intense heat, are reduced to the state of glass, but at tho same time lose their malleatility; which fact would seem to imply that it is impossible to communicate the latter property to glass. The axtraordinary stories aloove inentioned have, however, been rationally enough explained by modern chemists. It has been observed by Kunckel, that a composition having a glassy appoarnnce, and sufficiently pliant to be wrought by the hammer, may be formed; and by Neumann, that, in the fusion of muriate of eilver, a kind of glass is formed, which may be shapad or baaten into diffarent figures, and may be pronounced in some degree ductife. Biancourt in his L'Art de la l'errerie, mentions an artist who presented a bust of ductile giass to the Cardinal Richelieu, minister of Louis XIII. Fut he does not seam to have been wore fortunate then $t$ is predecessors; for he wae deomed to iuprisonment for iife, for "the politic reasone," as Blancourt with much simplicity observes (we quote from the translation pubisished in 1699), "which, it is believed, tho cardinul entertained from the consideration of the consequences of that secret," which no doubt led him to fear lest the established intereate of French glass manufacturers might be injured by the discovery. From expressions used by Blancourt in othar parts of hia work, we think, that by malleablo glass, such as was produced by this artist, he understood some composition similar to those which Kuncke? and Neumann diacoverel, and was not very exact in limiting the term to that vitroous substance which we now generally understand when we speak of glass.

The precise period at which the making of window flass came into practice is not now certainly known. The Roman windows were filled with a semi-transparent substance called lopis specularis, a fossil of the class of miea, which readily splite into thin smoeth lamina or plates. This sulistance is found in masses of 10 or 12 fuches in breadth, and three in thickness; and, when sliced, very inuef resembles horn, instuad of which it is to this day often employed by fanternmakers. The liomans wero chiefly supplied with this article from the ibland of Cyprus, where it ahounds. So good a substituto for glase it is said to have been, that, besides being euployed for the ndmission of light into the lioman houses, it was ulso used in the construction of hot-houses, for raising und protecting delicate plants; so that, by using it, the Emperor Tïberlus had cucumbers at his table throughout the whole yeur. It is still much employed In Russia instead of glass for vindows.

There is no positiva mention of the use of glass for windows befure the time of Lactantius, at the close of the third century. llut the pasaage in that writer which recorda the fact (De Opyf. Dei, cap. 8), also
ahows that the lapia specularis atill retained lts place. Glasa windows are diatinctly mentioned by St. Jorome, as being used in his time (A. 1. 422). After this period we meet with frequent mention of them. Joannes Phllipalnne (A, D, 630) states that glass was fastened into the windwa with plaster.

The Venerable Bede asserts that glass windows were first Introduced Into England in the year 674, by the Abbot Renedict, who brought over artificara skillsd in the art of making window glass, to glaze the church and monaste: $y$ of Wearmouth. The use of window giase, however, was then, and for many centuriea afterwars, confined entirely to huildings nppropriated to religlous parposes; but in the 14th century it wat 80 much In demand, though stlll confined to sacred edifices and ornamental purposes, that glazing had become a regular trade. This appears from a coutract entered Into by the cluurch authorities of York Cathedral, in 1338, with a glnzier, $t$ glaze the weat windowa of that structure; a piece of work which he undertook to perform at the rate of sixpence per foot for white glass, and one shilling per foot for colored. Glass windows, however, did not become common in Engiand till the close of the 12th eentury. Until thia period they were rarely to be found in private houses, and were deemed a great luxury, and a token of great magnificence. The windowe of the housea were till then filled with olled paper, or wooden lattices. In cathedrale, there aud sheets of linen supplled the place of glass till the sth ecntury ; in meaner edifices lattices continued in use till the 18th.

The glass of the Venetians was superior to any made elsowhere, and for many years commanded the market of nearly all Lurope. Their most extensive glasaworks were established at Murano, $n$ small village in the neightorhood of Venice; but tho produce was always recognized by the name of Venction glas6. Baron von Lowhen, in his Analysis of Nobility in its Origin, etates that, "so useful were the glass-makers at one period in Venice, and so great the revenue aceruing to the repulbic from their manufacture, that, to encourage the men engaged in it to remain in Murano, the senate made them all burgesses of Veniec, and allowed nobles to marry their danghters; whereas, if a nobleman married the daughter of any other tradesman, the isnue were not reputed noble."
The skill of the Venetians in glass-making was especially remarkable in the excellence of their mirrors. Beeknan, who has minutely investigated the subject, is of opinion that the manufacture of glasa mirrora certainly wan attempted, but not with complete suecens, In Slion, at a very eariy period; but that they fell into disuse, and were almost forgotten until the 13th century. Previously to this period, plates of poliahed metal were used at the toilette: and in the rudeness of the firit ideas which suggested the substitution of giass, the pilates were made of a deep black color to imitate them. Hlack foll even, was laid lehind them to increass their opacity. The metal mirrurs, however, renualned in use long after the introduction of their fragile rivals, bit at length they wholly dinappeared; a result effecteal chietly by the akill of the Venetians, who imgroved their manufactare to such a degree that they squedily ncyuired a celebrity whleca secured an Inmense sale for them throughont all Europe.

Italy.-From Italy the art of glans-making found its way into France, where in tempt was made, lis tha year 1634, to rival the ' + . whe in th manafacture of
 other, made in lofio, under tho fis ge ot t'se celo brated Culliert, in wheh Frenct whet'nen whu hat acquired a knowledge of th a art at murano were em-


 mandy, was also threate, , rin irj is whery
or rather improvement in the art of glass-waking, effected by one Abraham Thezart. Thla improvemant conaisted in casting glase of much larger dhevenaions than it had hitherto been deemed possible to do, Thevart's first plates were cast at Paris, and aston'shed every artlst by their magnitude. They were 84 inches long and 50 inches wide, whereas none previcusly made exceeded 45 or 50 laches in length. Thevart was bound by his patent to make all hla plates at lea ot 60 Inches in length and 40 in breadth. In 1605 the two companles, Thevalis and that at Tourlaville, united thelr intereat, but were so unancceasful, that, in 1701 , they were nnable to pay their delits, and were, in consequence, compelled to discharge moat of their workmen, and abandon aeveral of their furnaces. Next year, however, a company was formed under the management of Antoine d'Agincourt, who re-engiaged the discharged workmen; and the works reslized conaiderable profits to tha proprietors, a clreumstance which is attributed wholly to the prudent manogement of IVAgincuurt.

France.- Varly in the 14th century, the French government made a concession in favor of glass. making, by deerecing that not only should no derogation from nobility follow the practice of the art, but that none aave gentlemen, or the sons of nohlemen abould venture to engage In any of its branches, even as working artisans, This limitation was accompanied by a grant of a royal charter of incorporation, conveying impostant privileges, under which the occupation became eventually a eouree of great wealth to several families of distincthon.
England.-1t has been said that the manufacture of window glass was first introduced Into lingland in the year 155\%. liui a contract, quoted by llorace Wal. pole in his Aneclotes of Painting, proves that this artcle was made in England npward of a century hefore that period. This curious document is dated in 1439 and bears to be $n$ contract between the Countess of Warwiek and John Prudde of Westminster, glazier, whom she employed with other tralesmen, to erect and embellish a wagnigicent tomb for the carl, her hus. band. Johin Prudde is thereby bound to use "no glass of England, but glaxs frum beyond seas ;" a stipulation which, lesides showing that the art of making window glass was known and pructiced in England in the 15th eontury, neems also to indicate that it was inferior to what could be obtained from abroad. The finer sort of window ghase was made at Crutched libiurs, London, in 15:7. In the year 1635, Sir lobert Maxwell introluced the use of coal fuel Instead of wuol, and procured workmen from V'enice; hut many ycars elapsed before the linglish minufuctorien aqualed the Venetian and French in the quality of these articles. The first flint glass made in England was manufactured at the Savoy Ilouse, in the Strand; and the first plate glase, for looking-glabses, coach-wiaduws, and aimilar purposes, was made ut hambeth by Venetian workmen, hrought over in $10 \% 0$ by the Duke of llack. inghamr. From that period the Englinh giass mannfactories, sided hy the liberal bountien granted them in cash whon giase sold for export, liecame powerful and successfal rivalo uf the Venetian and l'rench manufactories. The bounty on giasa experted, which the povernment palal to tho manufacturer, was not derived from any tax by linpont, or exciso. previounly iaid; for sil sueh were returued to the manufacturer together with the hounty, theroby iesscning the actual coat of tho articlo from $25^{\circ}$ to 50 per cent., and coniliug the linglish exporter to compete successfuity in fureign market 4. Thif lounty provision was annutied durig the premierahip of Slr Rohert l'eel, together with all the exclise daty on loome consumption.

Secolamd.- T's art of glass-making was lintrodured finto ficotloni the reign of James Vi. An exclawive right it manufarture it within the king iom for | the npace of 31 yeara, wan granted by that monatd to

Lord Geor lordship tra Thomas R again dlapo vice-admira $g^{\text {lasa }}$ in 8 s tablished a afterwards Dumbarton. Warrington Newtown, I Leeds, and cellent qual provementa ture of crov made in Eng other nation. Colored $G$ Romans com mosaics ; an saics gave th windows in $\mathbf{t}$ early specim design are t century, the windows ly sostom and colors;" and ceives object windows gar early basilice and the early effect produc tixth century structures, a is truly regal. cansed the va has cloticed it day may repe. dows is placed meallows deel scription on S bailt by the glass, which p the sixth cen also received praises highly be born under glowing deacr ghass w. 18 ath glass, howeve It rapidly npp sisth centary lien do llrion dows; nnd th Dame of Par light falling though the 1 thats of the mo for sulpposing with the art the arì was $k$ We theve alr of precious atc known to hav frequent men ship of consu we 3 placed. furnish some formation of of varions $h$ with the utm into $\boldsymbol{a}$ solin] colnrs so as ticel, la com specimens of olining of dif

Lord George Hay, in the year 1610. This right hls lordship transferred in 1627, for a conslderable sum, to Thumas Robinson, merchant-tailor In London, who again disposed of it for $£ 250$, to Sir Robert Maneell, vice-admiral of Eagland. The first manufactory of glaes in Scotland, an extremely rude one, was established at Wemysa in Fife. Regular works were afterwards commenced at Prestonpana, Leith, and Dumbarton. Cruwn glaes is now manufactured at Warrington, St. Helens, Eccleston, Old Swan, and Newtown, Lancashire ; at Birmingham, IIunslet near Leeds, and Bristol. It is aiso menufactured of excellent quality on the Tyne and Wear. Grest improvements have recently been made in the mannfacture of crown glass; and we belleve this article, as made in England, is superior In quality to that of any ather nation.-E. $\mathbf{I}$.

Colored Glass.-It has already been stated thist the Romans combined the most brilliant colors in their mosaics; and there can be little doubt that these mosalcs gave the first ldea of painted or stained glass for winulows in the early Christian churches. In all the eariy specimens of Norman glass, similar coloring and design are to lee traced. Starting from the fourth century, there is frequent mention of colored glase windows by Greek' and Latin outhors. St. John Chrysustom and St. Jerome talk of "wind'ows of divers colors;" and Lactantius says, "that the soul perceives oljects through our bodily eyes as through windows garnished with transparent glase." The early basilicas were all adorned with colored glass, and the early Christian poets sung in ecatacies of the effect produced by the windows at sunrise. In the sixth century, Prudentla, speaking of one of theso structures, saye:-"The magnlficence of this temple is truly regal. The pious prince who consecrated it has cansed the vaults to be painted at great expense, and has clotied it with golden walls, so that the light of day may repent the fire of the morning. In the windows is placed glass of various colors, which shine like meadows decked in the fiowers of spring." An inseription on Sta. Agnese states, that that basilica, rebailt by the Emperor llonorius, wue decorated with glass, whieh produced the most magnificent effect. In the sixth contury, Santa Sophia, ot Constantinople, also received painted windows, which I'aul the Silent praises highly, Procoplus says, that day suemed to be bern under the vaults of the temple; and after such glowing descriptions it can not be doobted that the glass w.1e stained, not colorless. The use of colored glass, however, was not contineil to Greece and Italy. It rapidly nppeared la Gaul. Gregory of Tours, in the sixth centary, also tells us that the church of St. Julien de lirionde, in that town, had colored glass windows ; and the lishop of Poletiers, describing Nótre Dame of Paris, admired the effeet prolucell hy the light falling upon the vaults and walls after pussing though the painted glass, and compures it to the first tints of the morning sun. There are many good reasons for supposing that the art of coloring glass is coeval with the art of glses-making itself. It is certaln that the ard was known in Egypt at least 3000 years ago. We have already mentioned the beautiful initations of precious stones, found adorning mumunies which are known to have existed for that time. We meet with frequent mention of apecimens of eastern workmanship of consummate beauty, upon which great value ws 3 placed. The works of Caytus and Winkelmann furaish some striking instances of ancient skill in the formation of pletures by means of delicate glans fibres of various hues, which, after leilug fitted together with the utmost nicety, were conglothated hy fusion into a solid mass. The art of combining tho varicus colors so as to produce pictures, such as is now practiced, la comparatively of recent date. The carliest specimens of this kind of werk discover a tictitions oining of diffarent pieces of glass, differently tinged,
and arranged so as, by a species of mosalc wrirk, to procicice the figure or figurea wanted. The rarioua pleces are held together generally by a vein cf lead, run upon the back of the pletare, precisely at their junction. Bee article Glass, En. Brit.; Uee's Dict.
Painted Glass.-In England, St. Wilfred, who lired early in the 8 th contury, is said to have been the first to Introdnce painted glasa windows, and for that purpose hed workmen brought from France or Italy. The first painted glass exeented in England was in the time of King John; previously to this, ali stained or palnted glass was imported from Italy. The next notice of it occars in the reign of Henry III. The treasurer of that monarch orders that there be palnted on three glass windows in the chspel of St. John, a little Virgin Mary holding the child, and the Trinity, and St. John the Apostle. Some time after, he lesues another mandate for two painted windows in the ball. Even at thls early period, however, England boasted of eminent native artlats in glass painting, among the first of whom was John Thornton, glazier, of Coventry. This person was employed in the time of Henry IV., by the dean and chapter of York cathedral, to palnt the eastern window of that aplendid edifice; and for the beautiful and masterly workmanship which he exhibited in this specimen of his skill, he recelved four shiilings yer week of regular wages. IIe was bound to finish the work In less than thiree years, and to rsceivo, over and above tho weekly allowance, 100 s . for each year; and if the work was done to the satlafaction of his employers, he was to receive, on lts completion, a forther sum of $\mathbf{x 1 0}$. From this period downward there have been many skillful native artists, although the Reformation greatly impeded the progress of the art, by banishing the ungodly ostentation of ornsmented windows from charches; indeed, so serious was this interruption, that the art had nearly altogether disappeareil in the timo of Elizabeth. Among the most eminent glass painters who first sppeared upon the revival of the art, were Isaac Oliver, born In 1616, and Willian Price, who lived about the close of the seventeenth century. This artist was suceeeded by a person at Birmingham, who, in 1757, fitted up a window for Lord Lyttleton, in the church of Hagley. To hlm succeeded ona Pecket of York, who attained cousiderable notoriety, but who was entirely ignorant of the true principles of the art.

During all this time, however, and Indeed until s comparatively recent date, palnted glass was regurded as too costly and too magniticent an article to bootherwise employed than in decorsting religlous edifices or the palnces of nobles; and even in the latter case it was but sparingly used. Wodern impmovement has placed this beautiful ornament within the reach of very ordinary circumstances; ant the art of atalaing glass is now prscticed with great auccess, and is extensively used ln lecorating our domestic as well as our palatial and eccleaiastical urchitcetare. The colore of modern artists, wo venture to allege, not withstanding what is often urged to tise contrary, equal in variety and richnoss those ci tho ancients, and, with tho superlor knowledge which we now possess of the principles of drawing, and of bringing several colors together on a single sheet, encouragement alono is Wanting to nttract artists of talent and in ventive genius to the pursuit of the art, and to carry it to a greater helght of excellence than it has ever reached In the hands of their predecessors.

United States.-Tho manufacture of glass was introduced into the American Stntes in 1700 by Robert Hlewes, a citizen of lioston, who erectel a factory in the then forest of New liampahire. Tho chief alm of Mr. liewes was to aupply winlow glasa, bot he did not succeel. Another attempt was made in 1800, when a factory was built in Iloston for making crown whatow glass; but this was also unsuccessful, till a German hamed Ilint. In $1 \mathrm{N003}$, took charge of the works, and
the State of Massachusetts agreed to pay the proprieters a bounty on every table of wiadow glass they made; after which the manufacture wes carried on successfully, the glase steadily improving in quality, and becoming famed through all the States as Boston windew glass. The same Company, in the year 1822, erected new and more extensive works at Boston. The mystery attached to the art of glass-making, followed it into America. The glass-blower was considered a magician, and inyriads visited the newly-erected works, looking on the man who-could transmute earthy and opaque matter into a transparent end brilliant eabstance, as an alchemist who could transmute base metal into gold.

Since the manufacture of flint glass was introduced into tho eastern States, there have been above 40 companies formed from time to time, nearly 30 of which have proved fallures. There are now 10 in operation, two of which are at East Cambridge, three at South Boston, ons at Sandwich, three near New York city, and one at Philadelphia. 48,000 tons of coal, 6500 tons of silex, 2500 tona ach, nitre, etc., and 3800 tons of lead are annnally consumed in the manufacture of flint glass. In the viclaity of Pittslurg, in the weatern States, are niae manufactorier of flint glass and 10 of window glasn, and in the river towns are 15 window giasa factories, The following sinte ment of the imports of glass is from official sources.


| Whence Inported. | Sllveres. | Palating poreelain, eolored. | Pollahed plate. |  | Cliesa ware. |  | Watch eryatals. |  | Dutilo |  | Deniljobas. |  | WIndow glase. <br> Broad, erown, and <br> a ilinser. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Cut. | Plasa. |  |  |  |  |  |  |  |  |
| Daolsh W. Indies | Dolliars. | Dellare. | Diliara. | Ithiliara. 36 |  | Dollara. |  |  |  |  |  | ars. | $54.0$ | Plame |
| ambarg | 29,647 | 15,190 |  | 8,293 | 17.917 | 12,017 |  |  |  |  |  |  | 189,284 | 20 |
| reme | 260,940 | 88.580 | 40,515 | 20,110 | 9.847 | 9,007 | 225 | 720 | 4,238 | 1,692 | 4,910 | 10,882 | 61,819 | 350 |
| Belgtut | 25,907 | 200 | 87,871 | 1 1,044 | 38,487 | 22,799 |  |  | 19 | 1,682 |  |  | 18,207, 50n |  |
| Englan | 8, 3 87 | 29,06t | 130,316 | 89,746 | 4,181 | 11,490 | 15,042 | 26,939 | 1,881 | 6,778 |  |  | 1.403,852 | 55 |
| Scollan | ... | , |  | 824 |  | 40 |  |  | 051 | 2,442 |  |  |  |  |
| Canacla |  | .... | $\ldots$ | 499 | 61 |  |  |  | 15 | 120 | 1 | $\frac{1}{8}$ |  |  |
| Britsh N. A. Voss | 15 | $\ldots$ | ... |  |  | $\ldots$ | . ${ }^{\text {. }}$. $\cdot$ | .... |  | $\cdots$ |  |  |  |  |
| Uritish Fionduras. |  | $\ldots$ |  |  |  |  |  |  |  |  |  |  |  |  |
| France on Atlantle | 16,292 | 1,193 | 214,905 | 29,1*3 | 16,78, | 15,789 | t 17 | 2,360 | 11,652 | 69,393 | 32,927 | 6,581 | 643,128 | 20,174 |
| Franceoa Medit. |  | .... |  | \% ${ }^{4}$ |  |  | ... | .... | 615 | 1,976 |  |  |  |  |
| Philippine Isis. | .... | .... |  | b 8 |  |  | ... |  |  | $\cdots$ | $\ldots$ | $\cdots$ |  |  |
| Caba. <br> Porto | … | $\ldots$ | $\ldots$ | 132 | 15 |  |  |  |  |  | $\cdots$ | $\ldots$ | 12,630 | 301 |
| Portagal. |  | $\ldots$ |  |  |  |  |  |  | $\cdots$ | - 426 |  |  |  |  |
| Tuscany |  |  |  |  | 40 |  |  |  | 42 | 405 |  | $\cdots$ | 8 |  |
| Austrla. |  |  |  | 4.296 |  |  | , |  |  | .... | .... | .... |  |  |
| Turkey ta Asla |  |  |  | 185 |  |  |  |  |  | $\cdots$ | .... |  | .... |  |
| Maytic |  |  |  |  |  | . |  | $\cdots$ |  |  |  |  |  |  |
| New Gr | .... | $\cdots$ |  | is |  | 100 | 10 |  |  |  |  |  |  |  |
| Vener |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chilit. |  |  |  |  |  |  |  |  |  | ... | 1,850 |  |  |  |
| Chlna. | 54 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tota | (30,72) | 43,573 | 483, | 8,4t6 |  |  | 104 | 30.0 | 18,9142 | 95,429 | 9 | 19,4 | 15,46\%,914 |  |

Gloves (Ger. Handschuhe; F'r. Gontz; It. Giuamti; Sp. Guontes; Rus. Jukauriai, I'ertschatki, Golizii), well known articles of tress used for covering the hands, insualiy maile of leather, but frequently also of cotton, wool, silk, etc. The lenther used in the manufacture of gloves is not, properiy speaking, tanued, but prepared by a peculiar process thint renilers it soft and yuliable. Some sorts of leather gloves almit of being washed, and ithers not. It is, however, impossible to ohtain any truat worthy accounts of the numbers produced. Gloves are sometimes aewed by machinery; but this is done only to improve the work by rendering the stitches more correetly eduidiatant, as it is not cheaper than mannal inloor. I,lmerick used to lie famous for the manufacture of a nort of ladies' gloves, called chicken gloves. Large quantities of cotton gioves are made at Nottingham and Leliceater.
The use of gloven is of hish antiquity. There la reason to helieve the ancient l'ensians wore them, since it is meationed in the Cymperia of Xenophon that on one occasion Cyrus went without his gioves; anll we know they were usel by the Greeks and Homans in certain kiuls of manmal labor. Suring the misille nges, gloves were worn by eccleaiastical dignitaries and whers an a mark of diatinction; hut as civUization alvanced they grabinally licemme common to all classea of the eonamuuity. The glove manufacture has long liern an important branch of industry. The materiais enjoloyed are very various, inclating the akin of the chamoin, khi, Jumb, beaver, doe, elk, and other snimals, lesidea cotton, worl, silk, linen
 skins with alum, which reniers thens soft and pliable.

The kid gloves of France continue to maintain their auperiority over the kid gloves of LIritish make, and are very iargely inported into this country. This also hoids true of the ordinery French lenther, the durability of which, combined with superinrity of style and fitting, has uccasioned the French lowts and shoes to be preferred to those of Britlsh manufacture. Machinery is sometimes employed in ae wing und pointing leather gleves, though only on a very fimited scale In this comutry, slinost the whole being mode by the hand, and for the most part ly females; hut in I'aris it is much used, and is said to have had the effect of reducing the price of gloves 30 per cent. below thein furmer wholesale prices.

Glue, insplasatel nuimal jelly, much usel as a ceo ment, espeelally for weord. it in made from tarions animai substancea, according to the uses for which it is designed. C'ommon glue is prepared from the parings of hides, hoofs, and other offal, which are litst digested in limewater to free them from grease and all extraneous matter, then washird in water, and afterward boiled. The viscid solution tham ohasined is first etrained through a wicker banket, anil then gently evuporated to a proper consistence. The heat is gencrally so regulated as to keep, the higuid noar the Priling jevint, withont entering into ebullition. The liquid give is poured into flat molis; and when it has become firm, it is cot up into miuare piecen, and placod on a coarse net to dry. (ifus improwes ly ago, und thast is connidereci an the hest whirh, If at"epert in cold water for 11 or 4 dnys, awelin withont metting, and resumen ita former dimenainas after being driei. The clear pala brown plase is the hent, though the darker and less pure is often ighorantiy priferrei. A tuanso
parent and parings of See also Gr A propare faclity witt use, is made spirit, or of be kept in a use may rea hot water. giue. Indian Glt melted with into amall fl cake is moist poited. It i pases as mcna Jeffery's $\lambda$ been successt seams of dec timbers for $n$ caoutchous dl (previously di portions is af masts secure resisted sepal service.
Liquid Glue cement consis tha.-EL. B.

## Gluten, a

 which exists in that afford fa esculent roget but more parti alia appears t greatest amour its abounding $i$ ily obtained fis spaste, and th below a atream solubie matter mains in a pure a strong resem deed, it is fou lerga portion o cred as the mos Glycerin. vegetable origis as the stearic, 1 glycerin.fact, be represe are capable of elements like soap-making, a potash or sodn the stearic, ma set free. If fo treated with ca the pods, and fo in is liberated. posed hy meany making diachy boiling a mixtu cipicated nxyl or vit, the lead a sulid compou rrater. The se of lead, which etted hydrogen is then evapore the evaporation of sulphurle aci
The uncrysta has a sweet tas who discovored or glycerin, fron
parent and beantiful glue ie made of the slireds and parings of vellum, fine white leather, or of isinglasa. See also Grlatine.
A proparation of glue, convenlent on account of the facility with which it is rendered fit for immediate use, is made by adding a amall portion of any good spirit, or of wood naphtha, to meited glue. It is to be kept ln a well-corked bottle, and when rcquired for use may readily be liquefied by placing the bottle in hot water. It answers all the purposes of ordinary glue.
Indian Glue, as it is called, consists of common glue melted with a little augar, and molded for convenience into sinall flat cakes. When uaed, the edge of the cake in moistened, and rubbed upon the aurfaces to be united. It is a slight cement, used only for auch purposcs as mending printe, etc.
Jeffery's Marinc Glue.-This powerful cement bas been successfully used as a substitute for pitch in the seams of decks, as weli as for strengthening large timbers for naval purposes. It is said to consist of caoutchouc dissolved in coal naphtha, to which shailuo (provieusly dissolved in wood naphtha ?') in proper proportiens is afterward added. The joinings of built masts secured with this cement are asid to have resisted separation $b_{j}$ the wedge after ten years' service.
Liquid Glue.-Under this name is frequently sold a comsnt consisting of shellso dissolved in wool naph-tha.-EE. B.
Gluten, a viscld, elastic, grayish-colored substance which exists in greater or less quantity in most plants that afford farina, as well as in the leaves of many esculent vegetables (such aa the csbbage for instance), but inore particulariy in whest, which of all the cerealia appears to contain, in proportion to its bulk, the grestest nmount of nutriment, a property derived from jits abounding in this substance. Gluten may be readily obtained from wheaten flour by making it into apaste, and then working the muss with the hands belew a stream of water, when the sturch and other soluble matter are carried away, and the gluten remains in a pure state. In its properties, gluten bears a strong resemblance to aninul substances; and, ? deed, it is found by chemleal analysis to contain a large portion of nitrogen. Hence it may be considcrell as the mest animalized of vegetable products.
Glycerin. Oils and fata, whether of animal or vegetable origin, are compounds of certsin acids, such as the stearic, margaric, and olele, with a base named glycerin. (See Ort.) Fatty substances may, in fact, be represented as saits of glycerin, and as such are capable of being resolved into their proximate elements like other salts. Thus, in the process of soap-making, a fat or an oil is sapooified by meana of potash or soda ; that is, the caustic alkall unitea with the stearic, margaric, or oielc acid, and glycerin is set free. If for example, the stearate of glycerin he treated with caustic sods, the stearic acid unites with the seda, and forms stearate of soda, while the glycerin is liberated. A fatty body mayy also be decounposed by means of oxyd of leas, ns in the process for making diachylon plaster (Einplustrum plumbi). liy boiling a matare of tincly pulverized or newly preriphisted oxyd of lead in water with any ordinary fat or oil, the lead unites with the fatty neids, and forms a soliti compound, while the plycerin lissolves in the water. The solution contains a considerable portion of leal, which may be separated by passing suiphuretted hydrogen through it, and fiterimg; the solution is then evaporated to the consistence of syrup, and the evaporation is compieted in vacuo, in tho presence of anlphuric acid, untii it ceases to lose weight.

The uncrystaliizabie inolorous syrup thens obtained has a aweet taste, and was hence termed by Scheelo, who discevered it in 1789, the acect principle of oixs, or glycerin, from $\gamma^{\lambda 1 v}$ res, sweet ; but it was not un til

Chevreul undertook the inveatigation of fatty oubatances in general that the true chemical relstions of thin body were underatuod.-E. B.
Gobelin Tapestry. Tapeatry, wo called from a noted house in Paris, in the subuŕb of St. Marcel; formerly possessed by famous wool-dyers, whereof the chief, called Gilea Gobelin, who lived in the reign of Francis I., la said to have found the secret of dyeing scarlet, which waa from him called the scarlet of the Gobelins; the house and river that runs by it alao took the same name. This house was purehased by Louis XIV., for a manufactory of all manner of curious works for adorning the royal palaces, under the direction of Monsleur Colbert, aspeclally tapestry ; designs for which were drawn by the celebrated Le Brun, by appointment of the king, A. D. 1666.-Du Fresnoy.
Gold (Ger. Gold; Du. Goud; Da. and Sw, Guld; Fr. Or; It. and Sp. Oro; Port. Oiro, Ouro; Rus. Soloto; Yol. Zloto; Lat. Alurum; Arab. Tibr and Zeheb; Sans. Suarna; Malay Mdes), the most precious of all the metals, aeems te have been known from the earlicst antiquity. It is of an orange red, or reddiah yellow color, and has no perceptlble taste or amell. It lustre is considerable, yielding only to that of platinum, steel, silver, and mercury. It is rather softer than silver. Its specific gravity is $19 \cdot 3$. No other aubstance is equal to it in ductility and malleability. It may be beaten out inte leaves so thin that one grain of gold will cover $56 \frac{8}{3}$ square inches. These leaves are only $1-282000$ of an inch thick. But the gold leaf with which silver wire is covered has only 1-12th of that thickness. An ounce of gold upon silver is capable of being extended more than 1300 miles in length. Its tenacity is considerable, though in thla respect it yields to iron, copper, plathum, and silver. From the experiments of Seckingen, it appeers that a gold wire 0.078 inch in diameter is capable of aupporting a weight of 150.07 lbs , avoirdupois without breaking. It melts at $32^{\circ}$ of Wedgwood's pyrometer. When melted, it assumes a bright bluish green color. It expauds in the act of fusion, and consequently contracta while beceming solid more than most metals; a circumstance which renders it less proper for casting in molds.-Tromson's Chemistry.
Gold is, next to iron, the mest widely-diffused metal on the fuce of the earth. It occurs in granite, tha oldest rock known to us, and in all the rocks derived from it; it is also found in the vein-stones which traverse other geological formations. From other metala it is readily distinguished by its reddish-yellew color, and from metallic compounds of a similar tint by its high specific gravity, which varies from $10 \cdot 2$ when it is fused, to $19 \cdot 1 /$ or 19.5 when it is hammered. Its chemical equivaient on the hydrogen scale is generally taken as 98.5 , but some prefer to double this and make its utomic weight 197. Its symbol is $\boldsymbol{A} u$, from the Latin Aurum. Uulike the great majority of the metals, it ders not rust, i. e., oxydize in the nir, neither does it, if pure, tarnish hy exposure. In this respect, it contrasts strikingly with silver, whicl, though indifferent to the rusting action of oxygen, is rapidly blackened by the sulpharetted hydrogen of the atmosphere. Exposed gilding tarnishes, but only because it is alloyed with silver and copper, on which this prejudicia! gas can act.
Gold is readily crystallizable, and always nssumea one or other of the symmetricai shapes, such as the cule, or regular octahedron, which charscterizes the simplest crystullographic system. It is softer than silver, and nearly us soft as lead, so that in tenacity it is inferior to copper, silver, iron, and platinum, and a wire 1-10th of an inch in diameter will support, without breaking, only 191 lbs. On the other hand, it is the mest ductile and malleable of the metals. One grain can be hammered Into leaves aufficient to cover 504 squaro inches, and the thickness of the gold-leaf
will not then exceed $\mathbf{1 - 2 8 2 0 0 0}$ of an inch. When of this temper it fa transparent, and transmits a faint but beautiful huiah-green light. Gold melts at a high whito leat, and remalns unchanged in the hottest furnaces. In the focus of a lens, however, it is vaporized by the sun's rays; and the nxyhydrogen blow-plpe or a large voltale battory can also develop heat aufficient to volatillze it. It contuacis in the eat of solidifying from a state of fusion, and can not, In consequence, be made to receive sharp impresslozs by casting it in molds. Colns, arcordingly, and plate are atamped or embossed, and afterward ebased and carved, is necessary, by cutting toola.

Ciold dees not dinsolve in nny of the ordinary acids, such as the nitric, aulphuric, hydrochloric, or neetle, but a rare acid, the seleple, can dissolve it. Its beat soivent is a mixture of hydrochlorio acid, with some oxydizing agent like nitric acid or oxyd of raanganene, which causea the liydrochloric achl to part with lts chlorine. If the gold be in leaf, chlorine at once unites with lt, and the resulting chlorid is readily soluble In water. Hromine nets in the same wry on the metal; and it may also be dissolved hy botling it with sulphur, potash, and water. The nider chenists speculated on the possilility of Moses having dissolved the golden calf of the Israelites In this way. Gold is also soluble in mercury, and advantage is largely taken of thin property of quicksilver to dissolve the precious metal from lts ores. The golitanalgam resulting from the union of the metals is also axtensively employed in gilding. The most important chemical compounds of gold are the following, In referring to which the equivalent of gold la taken as $98 \cdot 5$.

The chlorids are two in number. The sesquichloril. Au $\mathrm{Cl}_{3}$, la prepared in the mode nbove men-tion.-: : forma orange-red crystals, but in nqueous ohli.. wrs yellow. It is very easily decomposed lig heat, light, orpanic suhst inces, and ali deoxydizing or reducing agents. fintion of thin salt in aufphuric ether is ametime, sed for gilling steel. The aquevus solution is employed in photography, and from lt nearly all the other useful preparations of gold are made. When this salt is lieated cantionaly to ahout $392^{\circ}$ Fahr., It loses two thirds of its chlorine, and becomes the aulb-chlorid $\mathrm{Au}_{2} \mathrm{Ct}$.

The oxyds correspond to the chlorids, and are obtained from them. Tho only inportant, is is the sesquioxyd $\mathrm{Au}_{2} \mathrm{O}_{3}$, preparel ly precipitating, f*ic corresponding chlorid hy magnesia, and waylisg the precipitate with nitric acid and water. Thin osyel is of a yellow or lrown color, and ly solution in potash, in cyanlde of potasslum, or sulplite of sola, turms a liginid which in used in gilding. A solution of the oxyd in byposulphite of soda is employed to protect and make more visible dajnerreotype portraits on wilver. The sulphurets of golld are not linportant.

Gold is readily ldentified ly' chemical teats. Whim Its color and aperlfic gravity ean not he appealed to as neans of identiflcation, its behavior with the ntronger liquor re-agents is hidi recourse to. It resints the solvent action of the most powerful acids or alkalien taken aingly, but at once dinsolven in nqua regia (a mixture of nitric and hyilrochloric acids), or $\ln$ any aimilar liquill contahuing free chlorine. The reanttlng solution is teated-1. 1ty adding to it a aolution of protomuljhate of iron. This causea the gold to separate in the condition of a very fine powiter, which res mains fur loours suspenilel in the liquid, although it is more than nincteen timen heavler than watar. The fincly-diviled metal appears brown by reflectend, and hifish-green lyy transmitted light, and if dried ant rulined loy any month molinl, acciuiren the characteristie color anil lustre of the metal in nuass. 2. 11y ueutrallaling the solution with carbonate of poitaxa or aoda, and bobling with excesn of oxalic achl, when the goll aejp arates in highly characteristic splencent flakes. 8. By adding to the solution diluted, a few drops of solution
of protochlorid of tin, when a rloh purple preclpltats falls. Very winute traces of gold may be discovered In thls way. The precipitate, which has gone for centuriea ly the name of Purple of Casolus, appears to bo a compound of oxyd of gold and oxyd of $\operatorname{tln}\left(\mathrm{Au}_{8} \mathrm{O}\right.$, $\mathrm{Sn}_{3} \mathrm{O}_{4}$ ). It is used to atain glaas ruby-red, and to give to porcelair and enamel a rose-pink, crimson, and purple color.

Gold is found only in the metallie state, sometimea crystallized in the cube, and ita derivative forma. It occurs also in threads of varione sizes, twisted and interlaced into a chain of minute octahedral cryatals ; as niso in spangles or roundish grains, which, when of a certain magnitade, are called pepitas. The small graing are not tragmenta brokien from a greater mass; but they show, by their flattoned ovoid shape and their rounded outlines, that this la their original atate. Tha apecitlc gravity of native gold varies ff m 13.3 to 17.7 . Humboldt states that the largeat pej ita known was one found in Perv weigbing about 12 kilogrammes (261 lha, avoirdupois); but masses have been quoted In the province of Quite which welghed nearly four tlmes as much. Anothor ore of gold is the alloy with silver, or argental gold, the elvetrum of Pliny, so called from ita amber shatle. It secias to to a definite compound, contain'ing in 190 parts, 64 of gold and 36 of ailver. The mincrat formations in which this metal occurs are the cryatalline j ,imitive rocks, the compact transition rockw, the trachytic aud trap rocks, and al. luvial grounds. It never predonninates to such a degree as to constitute veina lby ltself. It is either dis. seminated, and as it wero impasted in suiny masses, or spread out In thin platos, or grains on the surface; or lastly, planted in their eavities. uates the shape of tilamenta or erystallized twigs. The minerals com. posing the veins are either quartz, calc. sjuar, or sulphate of haryta. The orea that accompany the gold in these veins are chiefly iron pyrites, copper pyrites, galena, blende, and mispickel (araenienl pyritea).

In the oren called auriferous pyrites, this metal occura either in a visible or invisible form; and though invisible in the freah pyrites, beconea visible by its decomposition ; as the hydrated oxyl of lron allows tho native gold particles to shine forth on their reddishbrown ground, oven when the precious metal may constitute only the five milllonth part of its weight, as at Rammelsherg, In the llartz. In that state it has been extracted with profit; most freplisently by amalganntion with mercury, proving that the gold was in the native state, and not in that of a sulphuret.

Gold exists anong the primitive atrata, dissemirated in small grains, spanglea, and crystala. Ilrazil sffords a remarkable example of this apecies of gold nine. Beda of granular quartz, or mleaceona apecalar irou, In the Slerra of Cocien, $1:$ lengues beyond Villa Mica, which form a portion of a inica-slate district, include a great quantity of nutive golid is spangles, which in this ferriginous rock rephaco miea. (iobl has never been olserved in any secondary fommation, but pretty abundantly in ita true nul primary locality among the traprovks of igneous origin; implanted on the aides of the fiswures, or dismeminated in the velus.

Thes auriferous ores of 11 ungary and Transylvania, composed of tellurium, silver pyriten, or sulphuret of ailver, and native sulll, lie in masaes or powerful veins In a ruck of trachyte, or in a decomposed felispar sulb ordinate to it. Such is the lovality of the gold ore of
 kay, in Ilungary, and prohably that of the pold ores of Kapnick, Melsobanya, etc., in Tranyylvanha; on arrangement nearly the same with what occurs in equa. torial Anierica. The auriferuus veins of Guanswato. of Real del Monte, and of Villaipando, are ainilar to thome of Shemnitz, in llungary, as to magnitude, relative position, the nature of the orea they inchuce, and of the rocke they travenve. Thewe districts have impreased all mineralogista with the oridence of the
action of vo described the the crater of trachytes, rocks Includ garded as o seem, howev not in these greenstone p and Tranegll for gold ham Euganesn M tin, of those upongranite

Finally; if of gold in the ample, and a this metal in Gold is, ho vial grounds rocks just de the form of a! ferruginons as in their ro-ent and after stor supposed that beea torn out tives rocks, searched, but streams, for The gold in washed by the ion, suggested born, Guettar just observatl frequently, at spangles of go of the aurifer gold after stor other circuma that gold is fot very circumact their sunds cen come from the shudantly ne known that $t$ the l'ont to It: forls go'd on sequently, far traversing a 1 into which w monutains mt gives more though the la The sands of gold, while th that in, from to Efferding plains below. the eands of $t$ among the m from its entra bouchure in $t$ and are even
The greate Aria, Afrien, aequently fers the geologica atpposes that due to the de auriferous an in the neighls, rifled wood, e depth of 55 y near Abraban presume that erous alluvis
action of volcanio fire. Breislak and Hacquet have described the gold mines of Tramsylvania as altuated in the crater of an ancient volcano. It la certahn that the trachyten, wheh form the principal pertions of the roeks inclading gold, are now almeost universally ri garded as of igncons or voleanic origin. It would seetin, however, that the primary source of the gold la not in these roekn, but rather in the sieuites and greenstone porphyries below them, which in Hungary and Transylvanha are rich in great auriferous deposits ; for gold has never been found in the trachyte of the Euramean Mountains, of the mountains of the Vicentin, of those of Auvergne; all of which are superpoeed apon granite roeks, barren in metal.
Finally ; If it be true that the ancients worked mines of gold in the island of Ischia, it would be another examplo, and a very remarkahle one, of the presence of this metal in trachytes of un origin evidently volcanic.
Gold is, however, mueh more common in the alluvial grounds than among the primitive and pyrogenoun rocks just llescribed. It is found dissominated under the form of kpangles, in the silicious, argillsceons, and ferruginons aands of certain phains and rivers, especiatly in their re-entering angles, at the season of low water, and after storms and temporary floods. It has been supposed that the gold found in the beds of rivers had beea torn out by the waters from the veine and prinitives rocks, which they traverse. Some have even searched, but in valn, at the soures of auriferous streams, for the native bed of this precious metal. The gold in them belonga, howover, to the grouads washed by the waters as they glide along. This opinjon, suggeated at first by Delius, and supprorted by Debom, Guettard, Robitant, Bulbo, etc., is founiled upon just observations. 1. The sell of these plains contains frequently, at a certain depth, and in seversl spots, spangles of gold separable by washing. 2. The beds of the nuriferous rivers and atreamleta contuin moro gold after storms of rain upon the pluins thun in any other circumatances. 3. It happens almost aisuys that gold is found among the sands of rivers only in a very eircumscribed space; on ascending these rivers, their sands cease to afford gold ; though, did this metal conie from the rocks ahove, it shonld be found more shundantly near the source of the rivers. Thus it is knowa that tho Oreo contsins no gold, except from the Pont to its junction with the Po. The Ticino affords goid only below the Lago Maggiore, and, consequently, far from the primitivs mountains, after traversing a lake, where its course is slackened, and into which whatscevar it carried down from these monutains must have been deposited. The Rhine gives more gold near Strashurg than near Basle, though the latter be mueh eloser to the mountains. The sunds of the Danube do not contain a grain of pold, whie thla river runa in a mountainous region; that is, from the frontiers of the bishopric of Равнаи to Ufferding; but its sanids becoms auriferous in the plains below. The same thing is true of the lims; the sands of the upper portion of this river, as it flows amung the mountaina of Styria, Include no gold; but from its entrance into the plain at Steyer till ita emboachure in the Danube its annds become auriferous, and are even rich enough to toe washed with profit.
The greater part of the auriferous sands in Europe, Asia, Africa, and Amerien, are black or red, and consequently ferruginous; a remarkablo circumstance in the geological prosition of alluvial gold. M. Najoine anjuposes that the gind of these ferruginous grounds is due to the decompusition of auriferous pyriten. The auriferous and occurring in Hungary aimost al ways in the neighlorhood of the heds of ligmites, and the pet. rified wood, covered with gold graina, found buried at a depth of 55 yurds in clay, in the mine of Vorospatak, near Alrabanya, in Transylvania, might lend us to presumo that the epoch of the formation of the nuriferous alluvia is not remote from that of the lignites.

The same association of gold ore and fossil wood occure in South America, at Moco. Near the village of Lhoro have :'een discovered, at the depth of 20 feet, large trunks of petrified trees, surrounded with fragmenta of trap-rocks, interspersed with apangies of gold and platinum. But the allavial soil afforis likowiss all the charact of the basaltic rocks; thus, in France, the Ceza and the Gardon, auriferous rivers, where they afford most gold, flow over ground apparently derived from the destruction of the trap rocks, which oceur in situ higher up the country. This fact had atruck Reaumur ; and this celebrated observer had remarked that tho sand which more immediately accompanies the gold spangles in most rivers, and particularly in the Rhone and the Khine, is composed, like that of Ceylon and Expally, of hack protoxyd of iron and smali grains of rubies, corindon, hyacinith etc. Titanium has been observed more recently. It has, lastly, been remarkei that the gold of alluvial formations is purer than thit extracted from rocks.

Principal Gold Mines.-: jpain anciently posseased mines of gold in regular veins, especially in the province of Asturias ; but the richness of the Anserican mines had made them to be neglected. The Tagus, and some other streams of that country, were baid to roll over golden sands. France contains no workable gold mines; but it presents in several of its rivers auriforous sands. There are some gold mines in Piedmont; particularly the veins of anriferous pyrites of Maeugnagna, at the foot of Monte Rosn, lying in a monntuin of gnoiss; and although they do not con$\operatorname{tain} 10$ or 11 grains of gold in a cwt., they have long defrayed the expense of working them. On the southern slope of the Pennine Alpa, from the Simplon and Monte Rosa to the Valley of Aoste, several anriforous districts and rivers occur. Such are the terrent Evenson, which has afforded much gold by washiag; the Oreo, in its passage from tho Pont to the Po; the reddish grounds over whleh this little river runs for several miles, and the hilis in the neighborhood of Chivasso, contain gold spangles in considerable quantity.

Ireland.-In the county of Wicklow, in Ireland, a quartzose and ferruginous sand was discovered not long ago, containing many particles of gold, with pepitas or solid pieces, one of which weighed 22 ounces. No less than 1000 ounces of gold were collected.

Stvitzerland.-There are auriferous sunds in some rivers of Switzerland, as the Reuss and che Aar. In Germany no mine of gold is worked, oxcept in the territory of Salzburg, emid the chain of mountaina which separates the 'Tymal and Carinthia.

Hungary.-The mines of Hungary and Transyivania are the oniy gold mines of any importance in Europe; they, are remarkable for their position, the peouliar metals that accompany them, and the produet, estinated nt ahout 1,430 unds avoirdupois anmually. The principal ones are In Mungary. 1. Thoso of Könlguterg. The native gold is disseminated in ores of sulphuret of silver, whieh oceur in smali masses and in veino in a decomposing foldspar rowk, nmid conglomerate of pumice, constituting a portion of the irachytic formation. 2. Those of Borsom, Schmeitz. And, 3. Of Felsobany; ores also of auriferous sulphuret of silver, ocour in veins of sienite and greenstone porphyry. 4. Those of Telkebanya, to the south of Kaschau, are in a deposit of auriferous pyrites nmid trap rocks of the most recent formation. In Transylvnnia the gold mines occur in veias often of great magnitude, aix, eight, and somsetimes forty yards thick. These veins have no side piates or wall stones, but abut without intermediate gangues at the primitive rock. They consist of carious quartz, ferriferous limestone, houvy spar, ther spar, and sulphuret of silver. 'The mine of Kapnik deserves notice, where the gold is associated with: orpinent, and that of Voroapatak in granite rocks; those of Offenbanya,

Zalneng, and Nagy-Ag, where it is ansoelated with tellurium. The last in in a sienitlo rock on the Ilmits of the trichyte.

Northeri Europe, -In Sweden, the mine of lidelfors in Smoland, may he mentloned, where the golid oceurs native and in anriferous pyritea; the veins are a hewn quastz, in a monntaln of foliated homstone. In Siberla, native gold occurs in a hornitone at Behlangetitery or Zmoof, and at Zemeino-garak in the Altal Monntahis, accompanied with many other orea.

Fivesia.-The gold mine of Berezet in the Oural Mourtatins has been long known, conainting of partially decompond asrifrowa pyrites, disseminated ln a vein of greasy quartz. About 1820, a very rich deposlt of natle guld was discovered on the eastern slde of the Onral Mountulns, Alsseminated at sonse yurda* depth in an arglllaceons loam, and accompanied with the debris of rockn whleh usually cempose the auriforons alluvial moilh, as greenstone, serpentine, protoxyd of iron, corandem, ete. The rivera of this district possuss aurifemita annda, The product of the gold mines of the Oaral, in 1845, wan 11,803 pounde avolrdupols, and in $1846,11,827$ prounds; that of Siberia, in $1845,37,57 \mathrm{C}$ pounds, and lis $1846,48,863$ pounds. In these accounts the pood has been reckoned at 36 lus. It is belleved that in 1847 and 1849 the yielid was atill larger, hat it mast shee have naterinlly fallen off, as
 will not exceed 20,000 pennids troy.

In Asis, and erpecially in its anathem districts, there aro many minea, treama, rivers, and wastes, which contain this metal. The Pactolus, a small river of Lydila, rolled over such gohlen sands that it was supposed to contain the origin of the wealth of Crosus. But these deponits are now poor and forEntten. Jippan, Furmosa, Ceylon, Java, Sumatra, lorneo, the lhilippines, and some of the islands of the Iadlan Archipelago, are rich in gold miner. Thone of Thmeo are werked by the Chinese in an alluvial soil on the western coast, et the foot of a chain of voleanle inotintalns. Jitth or no pold comes into Earrope from Asia, lecause its acrvile inhabitants place their furtune in treasure, and love to hoarl up that precions metal. Numerons golil mines ocenr on the two slopes of the chain of the Callas Mountains in the Oundes, a prosince of Little Thllest. The gold Hes in quartz veins whilch traverse a very crumbling, reddish granite.

Africa Was, with Spain, the source of the greater portion of gold possessod hy the anciente. The gold Which Africa still trings into the market is alwaya in dust, showing that the metalis oltalned by washing the allavial soils. None of it is collected in the north of that continent ; three or four districts only ato remarkable for the quantitv of gold they produce. The first mines are thowe of Kordofan, letween Dnrfour and Abysainia. The negroes transport the gold in quills of the ostrich or vulture. These minen seum to have been known to the ancionts, who ionsidered Ethiopla to afomil in goid. Herodotes relates that the king of that conntry exhiblted to th.e ambassalors of Cambysea all their prisoners lound with golden chains. The second and chief exploitat'on of goll dust is to the sonth of the great desert of Sahara, in the wentern part of Africa, from the mouth of the Senegal to the Cape of Palms. The gold occars in spangles, chiefly near the surface of the earth, in the bed of rivalet, and always in a ferruginous earth. In some places the regroes dig wells in the soll to a depth of about 40 feet, unaupported by any props. They do not follow any rein ; nor do they conatruct a paliery. By repeated wablings they soparato the golll from the eathy mattern. The sanue district furnishes also the gleatec part of what is carried to Monocro, fes, and Alyiers, by the caravans whleh go from Tlmbuctoo on the Niger, ncross the great desert of Sahara. The goll which arrives by Sennanr at Cairo and Alexandria
cones from thin same quarter. From Mungo Park' description, it appears that the gold apangles are found usually in a ferrugineun amall gravel, burisd under rolled pebbles. . The thlnd spint in Africa where gold la collected is on the south-asat coast, between the 35th and the 22d degree of aouth latitude, opposite to Madngascar, in the country of Sofala. Some per. ann think that thilg was the kingdom of Ophir whence Sulomon obtained his gold.
There is little gold i". ie northern part of America. In 1810, a mana of all .vico vold, voighlng 28 pounda, was found in the gravia : of the aroeks of Rockhole, district of Lohanou, in North Cerolina.

South A merica,-Previously to the important dien coveries in Califoraia, Brasil, Choco, and Chill, ware the regions which farnished moat gold. The only contributor of Chilian olfects to the great exhibition was one whe forwarded a lump of gold ore weighing 8 cwt., which was brought up from a deep mine on the back of a miner, from a depth of 45 yands heneath the aurface.

The gold of Mexico is la a great measure contained in the argentiferous veina, 80 numeroua in that country, whose princlpal localitles are mentioned under ths artiele Silver. The allver of the argentiferous ares of Guanaxuato contains one 360th of Its weight ef gold; the annual product of the minea being valued at from 2,640 to 3,300 liss. avoirdupois.

- Oaxaco contsing the only auriferous veina exploited as gold mines in Mexico ; they traverse the rocks of gneiss and mica siate.

Ail the sivers of the province of Caracas, to tea degrees north of the line, flow over golden sands.

Pera is not rich in gold ores. It the provinces of IIuailas and Patar, thla metal is mined in veins of greasy ¿uartz, varlegatod with red, ferruginous spots, which traveree primitive rocks. The uines called pacos de oro, conslat of ores of iron and copper oxyds, containing a great quantity of gold.
All the gold furniahed by New Grenada (New CoInmhia) in the product of washinge established in allu. vial grounds. The gold exists in apangles and in gralns, disseminated among fraginents of greenstone and porphyry. At Choco, aleng with the goh and platinum, hygeinths, sircona, and titanium occur. There has been found, as already atated, in the aurif. erous localitios, large trunka of petritied trees. The goid of Antioquia is 20 carats fine, shat of Choco, 21 ; and the largest lump or pepita of gold weighed slout $27 \frac{1}{2}$ pounds avoirdupola. The geid of Chlli also occurs in alluvial formations. Brazil does not contain any gold mine, properly so called; for the veins containing the metal are selidon worked. It is in the sands of the Mandi, a branch of the Rio Dolce, at Cntapreta, that the auriferous ferruginens sands were first diseorered in 1682. Since then they bave been found almost eve "where at the foot of the immerse chain of mountains, which runs nearly parallel with the coast, from the 5 th degree south to the 30 th. It is particularly near Villa Rlea, in the epvirons of the village Cocics, that the numerous washings for gold are establlshed. The pepitas occur in different forms, often adhering to micaceous rpecular iron. But in the province of Minas Gerales, the gold oecurs also in veinh, in beds, and in grains, disaeminated anong the alluvial loams. It has been eatimated in annual proinet, by several author, at alout 2800 pounils avairdupois of fine metal. Wo thus ree that alnost all the gold brought into the uarket comes from alluvial lands, and is extracted by washing. The gold roin of the ancients was male ehlefly out of alluvial goll. for In those early times tho metallurgle arts were not sufficiently advanced to enable them to purify it. The golid dust from Bambouk, in Africa, is of $22 t$ earats the, and some from Morocco is even 28. The goid of Giron, in New Grenada, is of 23 earats-being the purost from Anerica. "For those whe traflic in goid,"
asys IIumbo the metsl he Ixportations INTO THE $80 \mathrm{TII}, 185$


Productio

| Years. | Ounces T |
| :---: | :---: |
| 1501 | 134,10 |
| 18.72 | (1)28,06 |
| 1588 | 1,51) 0,10 |
| $15 \% 4$ | 220,14 |
| 1*5 | 89, 14 |
| $1 \times 56$ | 29,04 |
| Total | 1,979, 9 |

Paode

| ars. | Ounces Tr |
| :---: | :---: |
| 149 | 46114 |
| 1540 | 1,4in 1 |
| 1231 | 2337.4 |
| 1552 | 8,343, |
| 1233 | 3,571, |
| 18.4 | 4.029, |
| 1455 | 3,8811, |
| 1596 | 4,001), 1 |
| Total | 23,020, 11 |

Totala- ('a

| Years. | Ounces T |
| :---: | :---: |
| 15.5-9 | $4(4)$ |
| 150 | 1,431,14 |
| $1 \mathrm{N5}$ t | 2,617, |
| [S5\% | (3,123,40 |
| 1559 | 6,545, |
| $18 i 1$ | 6,617, |
| 15\%5 | 7,119,4 |
| 1456 | 7, 542.11 |
| Total | 8v, ixis, |

Of the genera in tho productio History of Price.
"(I.) That fr fold uni powerf the countries of econouical chan in $a n$ infinitude trebled or quadr

## GOL

say's IIumboldt, it is aufficient to know the place where the metal has been collected, to know its title."
Infontatione or Manctactures of Gold and Silvea into the Unitud 8tatre, yoa tha Yeas emdine Junz $80 \mathrm{tI}, 3850$.

|  | xanvictuaza ny eols AsD Milite. |  |  | sama. |  | $\left.\begin{array}{\|c\|} \text { Mann- } \\ \text { factorran } \\ \text { of, noi } \\ \text { specl- } \\ \text { fled. } \end{array} \right\rvert\,$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Gold } \\ & \text { sind } \\ & \text { allever } \\ & \text { loaff. } \end{aligned}$ |  | 8 st . | $\begin{aligned} & \text { Oher } \\ & \text { wies. } \end{aligned}$ |  |
|  | $\left[\begin{array}{c} \text { Dollofer } \\ 1,208 \end{array}\right.$ | $\begin{gathered} \text { Sollars } \\ 232 \end{gathered}$ | Doiloer | Dollara. | Dollario |  |
| Bremen | 18,075 | 10,897 | 30,140 | 14 | 50,483 | 4,260 |
| Ifilland. | .... |  | 228 | .... | 28 | 41 |
| Belglum | 22,186 | 624 |  | 2,988 |  | 80 47,988 |
| Scotiand |  | 02 | 231,240 |  |  | 25 |
| Canada |  |  | 02 |  |  | 0 |
| France on | 18,820 | 4,945 | 193,490 | 2,151 | 2,211 | 21,020 |
| France on Sardinia.. | … | … | ${ }_{109}^{29}$ |  |  |  |
| Tascany |  |  | 1,711 | 60 | 1,854 | 367 |
| Anstria |  |  | .... | 78 | 2,571 |  |
| Hayth |  |  |  |  |  | 14 |
| Now |  |  | 1,756 | 1,007 | 488 | $\begin{array}{r}729 \\ \mathbf{2} 188 \\ \hline\end{array}$ |
| Total | 54,784 | 16,402 | 478,685 | 7,26 | 368,965 | 77,74 |

Nbw Gold-Nine Ybabs 1840-1856. Production in Califohia, Viotogia, and Naw Soutil Walgs. Production or Gold in Victosia.

| Yearb | Ounces Troy. | Aseartained Experts. | Marglanal addition of te per cent. | Valne of Total Produce. |
| :---: | :---: | :---: | :---: | :---: |
| 1vi | 120,0100 | 5440, $1(1)$ | E44, (10) | 5484,040 |
| 1592 | 1,7\%0, 000 | 6,183, 010 | 613,(00) | 6,748,000 |
| 1833 | $2.453,100$ | 8,664,000 | 866,000 | 9,530, 000 |
| 1654 | 2,360,160 | 4,255, 000 | 825,000 | 9,096,000 |
| (154) | 3,2:30, 0100 | $11,308,090$ | 1,130,060 | 12,438,000 |
| 1356 | 8,618,000 | 12,648,010) | 1,264,000 | 18,907,000 |
| Total | 18,854,000 | 47,440,060 | 4,742,000 | 52,182,000 |

Phoduction of Gold in New South Wales.

| Yearst | Onacen Troy. | Azectaloed Eiportm. | $\begin{aligned} & \text { Margtant } \\ & \text { mdilichot of } 10 \\ & \text { per cont. } \end{aligned}$ | $\left\|\begin{array}{c} \text { Value of } \\ \text { Total Iroduce. } \end{array}\right\|$ |
| :---: | :---: | :---: | :---: | :---: |
| 18.1 | 134,1000 | (468, 100 | $\pm 17,000$ | E\$15,1/4M |
| 18゙2 | 028,000 | $8,6100,(10)$ | 961),010 | 8,900,400 |
| 1859 | 1,510,960 | 1,78t,100 | 175,010 | 1,959, (1) 0 |
| 1534 | 220,1600 | 778.400) | 77,04h | 850,0100 |
| 1-55 | 80,100 | 210,000 | 21,006 | 231,000 |
| 1556 | 29,000 | 100, 000 | 110,00) | 110, (104) |
| Total | 1,979,1090 | 26,932,000 | £603,960 | \$7,825, 1900 |

Phoduction of Gold in Califohnia.

| Years, | Onnces Troy. | Asearteined kisportn. | Marginal addition of 10 per cent. | Value of Total I'rodoee. |
| :---: | :---: | :---: | :---: | :---: |
| 1549 | 484, (kM | £ 1,812, (hm) | £161, (MN) | £1,773,000 |
| 1*50 | 1,430,000 | 5,006, (hm) | $80 \mathrm{O}, 1 \mathrm{MKG}$ | 5,500, 0 (00 |
| $1 \times 1$ | 2,357,0100 | $8,250.1000$ | 825,1000 | 0,075,000 |
| 15\%2 | 3,843, 1 mm 0 | 11,700, 1 mo | 1,170,000 | 12.570,000 |
| 1533 | 8,571,000 | 12,800, 110 M | 1,2501, 000 | 18,750,000 |
| 15i4 | 4.029, 0100 | 14,100, 000 | 1,410,000 | 15,510,006 |
| 150 | 8,831,400) | 18,400,060 | 1,840,060 | 14,740,060) |
| 1856 | 4,000,, 1000 | 14,000,1600 | 1,403,400 | 15, 190,000 |
| Totat | 23,020, (kn) | £80,502, (Mm) | Cs.05\%, MOO | Sise, 618,009 |

Torals-Califoania and Avathalia commingd.

| Years, | Ouncer Trey. | Aseertalned Eipurts. | Margitual addiliton of to per cent. | Value of Tutn Produce. |
| :---: | :---: | :---: | :---: | :---: |
| 1518-9 | 4(\%), (0x0) | 21,612, 190 | £ $£ 61,16.91$ | £ $1.788,1000$ |
| 1500 | 1,431,460 |  | ( $110,10 \times W$ | $5,500,1000$ |
| $145!$ | 2,617, $\mathrm{K}=0$ | 9,15>, (1)N | 916,490) | 10, 1774,000 |
| 155\% | (1,128, 10 MO | 21,4 $35,0 \mathrm{~mm}$ | $2,148,1009$ | 23,578, 1000 |
| 1853 | 6, 255,049 | 22, (1) $55,4 \mathrm{hat}$ | 8,294,400 | 25,289, 0190 |
| 1831 | 6,607,000 | 28,128, 1 m 00 | 2,812,010 | 25,440,000 |
| (3)4 | 7,119, (6) | 24.018,000 | 2,491,1000 | 27,414,1000 |
| 1566 | 7, 812,0000 | 26,748,600) | 2,674,010 | 29,417, 010 |
| Total |  | (4)4,984,000) | £ $83,491,14 \mathrm{H})$ | (20), (HA) |

Of the general results arising from the large increase in the praduction of gold since 1849, Mr. Jooke, In his Hisfory of Jrices (1857), says:
"(1.) That from first to last the whole of the manifold and powerful effects produced by the new gold in the countries of lts production, resolve themselves into cconnuical changes apringing in rupid succession, and in an infinitude of forms, from tho expenditure of trebled or quadrupled lneomes obtained by the labor-
ers. And (2.) That hitherto the whole of the compllcated proceases by which the new gold has become distributed-In the first Inslance, smong the population of the gold regiens, and in the second instance, over considerable pertions of the commerclal world-are to be explained hy the application of one simple princlple, viz. : That the diatribution has taken place in the precles proportion ln which the extended demand for commodities, originally proceeding from the earllest laborers who picked up the gold, has gradually get in motion increased numbers of laborers and increased mounts of capltal, to supply the requirements, not merely of the population of the gold countries, but also more or lese of the population of all the countries produclag raw materiale or manufactured goods upon which incomes are at present expended.
"Springing up around these two general resulta, there are a multitude of subsidiary, whlch, if we conld thoroughly pursue them to the end of their course, we should discever to be tributaries and effishoots of the two greater princlples.
"Foremost In thls eecond category are the proofs and illustrations which meet us evorywhere, that the changes flowing from the gold discoveries are princlpally indebted for the rapidity of their effects to the single circumstance, that of all known aubstances (silver in aome respects excepted) gold ls the only commodity which admits of being extracted from the soil in a perfectly marketable state; in large quantities, and by tho rudest labor; and of being at once employed as a universal hastrument of purchase of intrinsle value. A suddenly-Increased supply of no other commodity would produce effects so decided and rapid, for the simple roason that (say) a tenfold quantity of no other commodity could find an instantancous and impatient market. The Burra-Burra copper mine in South Australia, for example, might have become ten times as productlve as it had been previously, without producing any effects more violent or rapid than, first, an increase of dividend to the shareholders; and, gradually, a full in the price of the kinds of machinery and bardware in which copper is the principal metal.
" In the next place the rise of two or threo hundred per cent., which occurred at once in the gold countries in the prices of all kinds of forelgn commodities, was speedily corrected by the impulse imparted, almost in a singlo day, to the resources avallable for ineressed production in those foreign countries. And, after the first excitement had abated, tho incressed production has continued year by year, because the effective demanl, in the form of new gold, has continued in the gold countries, year by year. But there has been this most inportant collateral offect, via., that, year by year, the circle within which the demand for cominodities goes on increasing, is a circle of rapldly-expanding nrea. Originally; but for a short time only; it included merely the gold countrics; it thon embraced those particular districts-Lancashire and Birmingham for examplo-liest able to meet the most urgent demands for special articles; it then hecame exteniled to the districts which supplied the raw matertuls of thoso articles; and pursuing the same order of progression, the area of the lacreased domand for commolities, or what is a better term, tho area within which incrensed incomes are expeniled, is necessarily whler in each succeeding month. Tho same genoral reusoning applics to the process by which the wages of labor lave been reduced in the gold countries by means of lmmigration.
"The liscovery of the new goll was, in its immediate region, the samo thing, practically, us rendering labor four times as effective as it had been in the production of those commoditics not meroly possessing intrinsic value, but instantly exchangeablo all over the world for all other commoditics possessing intrinaic value. Tho immigrants drawn to the gold coun-


## IMAGE EVALUATION TEST TARGET (MT-3)



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tries by the prospects of high wages and sudden fortune, transferred, in some specifio proportion, the benefits of this increased officacy of labor to the countries from whence they atarted; and in two modes, namely: in the first place, by establlshing at once, as was sean in this country in 1852-1853, a prodigionslyincreabed prica for amigrant vessels, and therefore for the services of all persons cennected with ehtp-buildIng; and, in the second place, by leaving behind them vacancles which could only be supplied by the absorption of labor previously a burden in some form to the commnnity, as was also seen in 1852 and 1853 by the diminution in the number of destitute persone relieved under the Poor Law.
" We seem to arrive, then, at a furtber generalization, namely: (1.) That within the gold countries the effects of the diecoveries have been to create, rapidiy and largely, accumnlations of real wealth and real resources. Tha adult population of these countries bas been increased three or four fold within as many years. The erection of housee, the cultivation of the soil, the reclamations of waste lands, the construction of railways, the embelishment of towns, the provision of harbors and decks, the foundation of schools and universitles, and, more conspicuous than all, tha ostablishment almost at a single stride of an enormous forelgn trsde-in a few words, the vigorous prosecntion of every enterprise, and the awift advancement of every art which can render a country opuient and powerful-are results which have been nearly all accomplished in the gold conntries, by the exportation to otber coantries, year hy year, of the aupplies of new gold. (2.) That within these other countries to which the gold has been rent in exchange for commodities, the continuous effective demand for commodities has produced the same effects, but in a limited degree, which have taken place in Australla and Californie. In the United Kingdom, for example, the continuance, year by year, of an effective demand for commodities, has ind to improvements and extensions in the means of production; bas led to accumulations of capital as ravings out of the larger incomes of capitalist and laborers; and has diminished within the country the pressure of unemployed and destituto persons.
"It is manifest, then, that the influx of the $\mathbf{~} 174,000,000$ of gold since 1848, has accomplished something very different from, and something very much beyond, the barren addition of a considorable percentage to the previonsly-existing amount of metallic circulation in this and other couatries, and has also accomplished changes far more important than any barren increase (merely hy reason of enlarged qusntity) In the prices of commodities. It is, moreover, manifest, unless all the previous facts and reasouings are erroneous, that the real and vital changes which have taken place, are additions to the real wealth of the world, ly means of greater production and more active enterprise ; and that the elements of circulation and price hava so far not been ultimate results, but inferior and Intermediate agencies employed." See Tooke's Ilistory of Prices (london, 1857); nee, also, Colna and Precious Metals, pozt; Rankers' Mag., 1851-1857.

Cold-beating. The art of gold-beating is of great antiquity, being referred to hy llomer; and lliny atates that one ounce of gold was extended to 750 leaves, each leaf being four fingers square, whieh is three times the thlckness of the ordinary leaf gold of the present time. The ancient Peruvians made very thin abeets of gold, and nailed them together on the walls of their temples of worship; on the coffins of the Theban mummies, specimens of original leafgilding are met with where the gold in in so thin a state that it resembles modern gilding. The art seams to have been practleed in Indla, judging from the rude specimens of gllding at Tippo Saib's palscest Bengalore. In modern times it has been practleed in the
capitale of the principal commercial countries of Europe. In England it was confined to. Loadon until within the present century. It has been introduced into Scotland and the United States of America within that period. It is now practiced in several towna in England, and to a amall axtent in Ireland, at Dublin ouly. The manufacture being attendent upon an advanced state of the arts, it is only found in old estallished countrics, and is not yet practiced in any of tho British colonles. From the existence here of eome now obsoleta toole, similar to these at present ln nes at Paris, it would appear to have traveled to England from that quarter. "The art has nowhere been se perfected as in London; but of late years, from intercourse with English gold-beaters, efforta have been made on the continent, with the aid of Engllsh goldbeaters' skin, to rival the extremo fineness of the English product.

The ordinary size of a leaf of gold is 3 it inches, for the production of 2000 leaves of which from 18 to 19 dwts. of gold wore allowed to the workmen fifty years since in London, but now, owing to the improvement in the quality of the skin, and superier skill on the part of the workmen, not mora than an average of 16 dwts . are required, and with very akillful workmen it is sometimes accomplished with 14 dwts. This, howover, is not to be taken as any test of the extrome malleability of gold; it is only the point to which it is desirable to attuin for commercial purposes.

Experiments have been made to ascertuin to what degree of thinness gold and, silver could be reduced: it was found that one grain of gold was spre ad to the extent of 75 square inches, and the same wuight of silver to the still more extraordinary dimensions of 98 square inches. Tuking one cubie lnch of gold at 4900 grains, it will be found that the gold was the 367,650th part of an inch in thickness, or abont 1200 tlmes thinner than ordinary printing paper. Thus, If this nuaiber of leaves of gold were placed on one another, they would constltute a pile an inch high; the same number of leavea of paper would form a pile half the height of the Monumont of London. Tho silver, though spread over a much larger suface, was thickest, owing to the difference in its specific gravity; but, calculated iy welght, silver is the most malleable metal with which wo are acquainted, considorably exceeding that of gold. This experiment does not, howaver, determine the extent of the malleability of either metal, as the means employed to test it were found to fall hafore there was any eppoarance of the malleability of the metals loeing exbausted.

The gold used by the gold-beator is varionsly alloyed according to the varicty of color required. Fingegold is commonly supposed to be incapable of being reducel to thin leaves. This is an error. It is objectionable for commorcial purposes on account of its greater cost. It also adherea on one part of a leaf touching another thus causing a waste of labor by the leaves being epolled; but for work exposed to the weather it is mach preforablo, as it is more durablo, and does not tarnish or change color. The opecimens of goll leaf exhibited by Mr. F. S. Marshall, gold-beater of London, at the great exhibition of 1851 , and for which the prize medul was awarded to him, were twelvo in num. ber, and embraced a regular gradation in color from red down to nearly white, viz., red, paln red, extra deop, deep, orange, lemon, doop pale, pale, paie-pale, deep party, party, and fine gold. The decjeer calors were alloyed with from 12 to 10 grs . of copper per oz., lut without any silver, as any alloy of silver with this quantity of copper would considerably linpuir the nal. leablity. The middle colors contalied from 12 to 20 grs. of silver, and from 6 to 8 grs , of copier to the ounce; the paler golds contuined from 2 to 20 dwts of silver to tha ounce, lut no copper, for the banio reabon that the silver was omitted in the red golds.
 eaves
Eacl betwee of the $f$ thlek; process of the $w$ of gold allowed
Thls cal leaves, without beaten alout th first time In pure rivs are silver, th in all abo when the ness for $t$ out of the slips of th strument leathern c prepared 25 leaves e nehre to pr used for gil ous other on
The dryy matter of e pressed eve be used dail quire from t weather, wh $a$ ilfficulty lianey of th slowly under cutel or sho Whech is teet is, it is plere holes; and in whit becomer dition ls more
fine gold. It
should be ru

The process of gold-beating is thins conducted. The gold having been alloyed according to the color desired, it is melted in a crucible, at a higher temperature than is shaply necessary to fuse. It, as ita malleabllity is improved by exposure to a greater hest; sudden cooling does not interfere with itis malleable properties, differing in this property from aome other metnls. It is then cest into an ingot, sad flattened into a ribbon of $1 \frac{1}{2}$ inch wide sad 10 feet in length to the onnce. After being fiattencd it is annesled and cut into small pieces of about 6 grs. each, sad placed between the leaves of a cutch, which is about half an inch thick and $3 \geq$ inches square, contalning abotit 160 leaves of a tough paper manufactured in France. 'Formerly fine veilum was used for this purpose. The cutch is beaten on for slout 20 minutes with a 17 -ponnd hammer, which rebounds by the elasticlty of the skin, and saves the labor of lifting, by which the gold is spresid to the size of the cutch; each lenf is then taken out, and cut into four pieces, and put between the skins of a shoder $4 \frac{1}{2}$ iaches square nnd $\frac{8}{4}$ ths of an inch thick, containing ebout 700 skins, which have been worn out in the finishing process. The shoder requires abont two hourg' besting upon with a 9 -pound hammer. As the geld will spread unequally, the shoder is beaten upon ofter the larger leaves bave reached tho edges. The effect of this is, that the larger leaves come ont of the edges in a state of dust. .Thia allows time for the smaller lesves to resch the fuli size of the shoder, thus producing a genecal evenness of size in the leaves.

Each leaf is again cat into four pieces, and placed between the lases of a mold composed of ahout 900 of the finest skins, 5 incbes square and hths of an inch thick; this is' the last and most difficult stage of the process; and on the fineness of the skin und judgment of the workman the perfection and thinness of the leaf of gold depend. During the first honr the hammer is allowed te fall principally upon the centre of the mold. This causes gaping cracks upon the odges of the leaves, the sides of which rendily coalesce and unite withent leaving any trace of the nion after being beaten upon. At the second hour, when the gold is about the 150,000 th of an inch in thickness, it for the first time permite the transmission of the rays of light. In pure geld, or gold but slightly alloyed, the green rays are transmitted; nnd in gold highly slloyed with silver, the paie violet raye pass. The mold requires in ail about fonr hoars' benting with a 7-1b. hammer, when the gold will have nerived at the ordinary thinness for the goid-leaf of commerce. It is then taken out of the mold, and the rough edjes are cut off by slips of the rattan fixed in parallel grooves of an instrament cailed a wagon, the leaf being laid upon a leathern cushion for that purpose. The lenves thus prepared are placed into a book capabio of holding 25 leaves each, which have heen rubbed over with red ochre to prevent the gold clinging to the paper, and is used for gilding picture-frames, books, and for numerous other ornamental purposes.
The dryness of the cutch, sheder, and mold, is a matter of extreme delicacy. They require to be hotpressed every time they are used, altiough they may be ased daily, to romove the molsture which they acquire from the atmosphere, except in extremely frosty weather, when they acquire se little moisture that then a difficulty arises from their over-dryness; the brilllancy of the gold is diminished, and it spreads very slowiy under the hammer. On the contrnry, if the cutch or shoder be damp, the gold will hecome that which is technically termed hollew or sieve-like; that is, it is plerced with innumerabie amnll microscopical hoies; and in the molda in its more attenuated state it witl become reduced to a pulverulent atate. This coniltion is more ensily produced in alloyed golds than in fine goll. It ia necessary that each skin of the mold should be rubbed over with calcined gypaum (the
frinated variety) each time the mold may he used, in order to prevent the adhesion of the gold to the aurface of the akin in the process of beating.

Dentist Gold is gold leaf carried no further in the process than that of the cutch; and should be perfectly pure gold. By the above proceas ailver is beaten, bht not 80 thin, the inferiot value of the metal not rendering it commercially desirable to beatow so much labor apor it: Copper, tin, zinc, palladium, lead, cadminm, platinum; and slumininm can be beaten into thin leaves, but not to the extent of gold or silver.
Shell Gold, used in painting and illaminating, is made by grinding gold leaves with heney, and afterward separating the honey from the powdered gold by means of water. When the honey is washed away, the gold may be pat on paper or kept in shells. When used, it is commonly diluted with gam water. The German gold powder, prepared in this msnner from the Dutch gold lest, is generally used; and when it is well secured with varnilh, it snswers the end in japanners' gilding tolerably well.

Gold Size, for burnished gilding, is prepared of $1 \frac{1}{3}$ pounds of pipe clay, $\frac{1}{3}$ an ounce of red chalk, $\frac{1}{2}$ of an ounce of black lead, 40 drops of sweet oil, and 3 drams of pure tallow.... The clay, chalk, and blaok lead are to be ground very fine, separately, in water, then mixed together; the oil and tallow are next added; and the mixture is ground to a due consistence.

Gold Thread is formed of flattened gold wire wrapped closely over a thread of yellow eilk, by means of a wheel nud iron bobbins.
Gold Wire is made by taking a oylindrical ingot of silver which has been superficially costed with gold, and drnwing it successively through a series of holes In a hardened steel plate, each of which is a degree amslier than the preceding hole, and proceeding thns until the requisite degree of fineness is attained. It mny be observed that in this process, however fine be the wire, its gilded surfaee exhibits no flaw even when viewed by the microscope. Flattened gold wire is the same wire after it has been passed between rollers of polished steel.

Gold Coast, cosst of Africa. The whole coast has been arbitrarily divided into five parts: 1. The Sierra Leone district, from Cape Verga to Cape Mesursdo. 2. Malagueta, Pepper or Grain Const, from Cape Mesurado to Cape Palmas. 8. The Ivory Const, from Cape Palmas to Cape Three Points. 4. The Gold Coast, from Cape Three Points to the River Volta. 5. The Slave Coast, or Benin district, from the River Volta to the Cameroons.
Geld Ceast, a country of Guinea, west Africs, extending along the Atlantic Ocean, from the River Volta on the east, to Cape Lahu on the west, and hounded north by Ashantee. It was discoverod by the Portuguese, who founded an establishment at Fort Eimina in 1482. The Fingilsh first settled here in 1664. The country is fertile; deer are plenty in the interior, and fish nlong the coast. Legisiature of the Iritish settlements composed of $n$ governor and a legislative council of four members. Salary of lieu-tenant-governor, $£ 800$. The principal European establishments are Cape Coast Castie, Accra, Axim, Dixeove, Elmina, and the establishments lately ceded by lenmark to Great Britnin.
The following returns to Parliament (as published by the London Shipping and Mercantile Gazette), show the increase of exports to the West Coast of Africa, and of importations from the saine coast :

| Years. | Kxports. | Imports. | Tiluni. |
| :---: | :---: | :---: | :---: |
| 1850. | £(199,420 | 2005,958 | E1,240,887 |
| $1 \times 81$ | 654,543 | 794,810 | 1,440,388 |
| 1852 | 683,725 | 707,1024 | 1,240,749 |
| $1 \mathrm{1s3} 3$. | 031,402 | 740,878 | 1,050,775 |
| 184. | 058,800 | 900,684 | 1,864,448 |

This is Independent of the British colonies of Sierra Leone, the trade of which ameuntod in 1854 to 1,421 ,865, and of the British possessions on the Gold Coast and the River Gambia, amennting to $\begin{gathered}61,547,285 \\ \text { more ; }\end{gathered}$ and of those at the Cape of Good Hope and in sonth Africa, ewelling the amount $88,883,090$ more; making in all an aggregata of over $\mathbf{\$ 2 8 , 0 0 0 , 0 0 0}$ in $\mathbf{1 8 5 4}$, for the western const of Africa entire.

It has of late been arged that a line of steamere should be established between the United States and the western cosst of Africs, to afford greater fecilities for commercial interconrse ; and the planting of aettlements In the interior, as now proposed, remote from the malarious influence of the coast, furnish additional reasons for persevering in this landable design.

Gold Discovery in California. In September, 1847, one Captain Suter or Sutter was a bold, prosperous, enterprising, intelligent settler in Upper California. He was a Swiss by birth; he had served Charles X. as one of the Swiss Guard at the Tuilleries; he emigrated to Missouri after the Bourbon revolution of 1830; he removed thence to the Oregon territory in 1836; he made a further advance, in 1839, to California, where he built a fort named New Helvetia on the River Sacramento; he gradually accumulated around him 4000 exen, 1500 horses and mules, 2000 sheep, a vast acreage of land under grain crops, and two trading vessels In the river; he had his fort supplied with 12 pleces of artillery, and defended by a garrison of 70 men; and he was thas, in all probability, the wealthiest and most inftuential man beyond the Rocky Mountains. The month above named was an important one to this bold captain, and to the world at large. IIe contracted with a Mr. Marshall to construct a eaw mill near a pine forest. The supply of water to this mill was so altusted as to wasli down much mud and gravel from the higher course of the stream; and Mr. Marshall, watching the progress of his works one day; saw some gllttering particles in this mud. Ile formed his own conclusions of the nature of these ahining morsels; and having shown some of them to the cap' in, it was agreed to keep the matter a secret for a

Such secrets, however, do not keep; they will
keep; It was soon noined sbrosd that soln had been discovered at the American fork of the Sacramento, and a gold fever thereupon sprang up. A few laborers collected nome of the gold-dust, and took it for rale to San Francisco, at which town the Sacramento enters the Pacific; hundreds flocked up the river; Indlans were hired, soldiers and sailors denerted, shop-keepers closed their shops, and San Francisco became alnost abandoned.

Galden Fleece, in $\mathbf{N} /$ ythology, the fieece of the ram upon which Phrixus and IIelie crossed the sea to Colehin, and whileh, being sacrificed to Jupiter, was lung ujon a tree in the grove of Mars, guarded by two brazen-hoofed liulls, and a monatrons dragon that never nlept. The fleece was earried otf by Jason and the Argonauts. Many authora have enleavored to show that this fable is an allegorical representation of some rest history; while others explain it by the profit of the wool trale to Colehis, or the gold which was gathered in the rivers of that country by means of fieeces.
Gold-Lace. Gold-laee is a thin covering of gold applied to a surface of silver, which again has a foundation of silk. The ailken threads for making this material are wound round with gold wire, no thlekly as to conceal the silk; and the making of this gold wire is one of the most singular meehanical operations imaginable. In the tirnt place, the rether prepares a solid rod of allver, alout un inch in thickness; he heats this rod, applien upon the narface a coathig of gold-leaf, burnlahes this down, applies another contlug, burnishes thin down, and so on, until the gold is alout one hundredth part the thickness of the nilver. Then the rod is subjected to a train of processes which bring it
down to the state of a fine wire; it is passed through holes in a steel plate, lessening etep by step in diameter. The gold never dsserts the silver, hut adheres closely to it, and shares all its mutations; it was one hundredth part the thickness of the sllver at the beginning, and It maintains the same ratio to the end.
Aa to the thinness to which the gold-coated rod of silver can be brought, the limit depends on the dolicacy of human skill; but the most wondrous example ever known wae brought forward by the late Dr. Wollaston, a man of extraordinary tact in minute experiments. This was an example of a solid geld wire, without any silver. IIe procured a small rod of silver, bored a hole through it from end te end, and inserted in this hole the smallest gold wire he could procure; he subjected the silver to the usual wire-drawing process, until he had brought it to the flnest attalusble atate; It was, in fact, a silver wire as fine as a buir, with a gold wiro in its centre. How te Jeolate this gold whe was the next point: he suljected it to warm nitrous acid, by which the silver was dissolved, leaving a gold wire one thirty-thousandth of an inch in thickness-perhaps the thinneat round wire that the hand of man has yet produced. But this wire, though beyond all comparison finer than any employed in manufacturee, does not approteh in thinness the fllm of gold on the surface of the silver in gold-lace. It has been calculated that the gold on the very finest silver wire for gold-lace is not more than one third of one millionth part of an inch In thicianess; that is, not above one tenth the thickneas of orlinary leaf-gold !
Gold-Leaf is an extromely thin cissue uf gold, prepared by heating the gold motal until the requisite degree of fineness has been oltained. It is found that a ninuto percentage of silver and copper la necessary to give the grold for gold-leaf a proper malleable qual-Ity-a percentage of perhaps one in 70 or 80 . The refiner manages this alloy, and bringe the costly proluct to a certain stage of completion; he melts the gold and the cheaper alloys in a black-lead crucible; Le pours the molten metal into an ingot mold, six or elght inches long; he removes the solidified anil cooled ingot from its mold, and passes $3 t$ repeatedly between two stcel rollors until it asaumes the thickness of a ribbon; and this ribloon, sbout one eight hundredth of an inch in thickness, and presenting a surface of ahout 500 square inches to an ounce, pasees next into the hands of the gold-heater.
The working-tools, the process, and the products of a goll-heater, are all remarkable. That pu\%zing naterial, "gold-heaters' skin," is an indispensable aid to him; it is a membrane of extreme thinuess and lelicary, but yet tough and strong, procured from the Intestides of the ox; 800 piecos of this skit, four Inches rquare, constitute a packet with which the goldbenter labors ; and thue le proceeds: 150 lits of rib-bon-gold an inch square, are interleaved with as many vellum leaves four inches square ; they aro beaten for a long time with a ponderous hammer on a smooth marble slah, until the gold has thinned and expanded to the aize of the vellum. IIow the workman maages so as to heat all the pieces equally, und yet beat nome into holes, he alone run answer ; it la one of the mysteries of his craft. Tho gold is Ilberated from its sellun prison, and each plece cut into four ; the 150 have thus become 600, and these are interleaved with tion pleces of geld-beaters' skin, which are then packel Into a compact mass. Another heating then takes place $\rightarrow$ more carcful, more delicate, more precise than the former-until the gold, expunded like the silk-worm, as far us its envelop, will ulmit, requires to be again released. 'I'ho leaves aro ugain divided lito four, by whith the 600 becomo 2.400 ; these are divided lato three purcels of 800 each, and cuch parcel in suljected to a third beating. lleuvy as the hammers ure, there are yet degrees of heaviness: first, a slxteen-pounder gives its weighty thamps, then a twelve-poundor, and

In this last operation a hammer of ten pounds is employed. See '̛old Beatina.

Cold-woighing Machine. Mr. Cotton's machine seems, hy general consent, to be deemed the most delleate evei jrat constructed for weighing gold coin. Its precision is indeed most exquisite. In the transactions between the Bank of England and the pabllc, the weighing of gold coin his been a most anxlous and tedious process. As between the bank and the mint, the labor is not so minute; for 200 sovereigns being first accurately weighed, all the rest are weighed in groups of 200 . The mint officers are allowed a deviation of 12 grains in about 50 sovereigns; but they generally work to within half of thls amount of error; and if the groups of sovereigns are correct within the prescribed limits no closer weighing is adopted. In the transactions between the ba'sk and the publie, however, matters must be trented in more detail. Each customer demands that his sovereign should be of pioper weight. Hence arises an important part of the daily routine at the bank. Sovereigns which were issued from one counter at the bank as being of full welght, were refused at another counter as heing light. The scsies mny not have been equally delicate, or the linbility to error on the part of the weighers may not have been exactly equal. An expert weigher could weigh about 700 sovercigns in an hoar by the old balance; but the agitation of the air by the sudden opening of a door, the breathing of persons nenr the apparatus, the fatigued state of the hand and eye of the weigher-all led to minute crrors.

The machine is a pretty, delicate, light affair. There is, in the first place, a small vertical tube, in which a pile of 20 or 30 sovereigns is placed, in singla column. The lowermost sovereign rests upon a movalie plate; when a bandle is turned by the nttendant, the plate moves sideways, and the sovercign is brought upon an exquisitely gensitive balance; if the weight is correct, a littl- rever, arm, or pusher, gives the edge of the sovereign a smart impuise and drives it off into a box; but if the weight be deficient even in the most minute degree, nnother pusher attacks the sovereign on a different side, and drives it into another box. As the handie is continned in motion, 2 or 3 sovereigns may be in different stages of the welghing process at one time.
As the Bank of England does not take cognizance of gold coins which are too heavy, this machine merely separates sovereigns into two groups, the full and the light ; and it does not indicate by how much the light sovereign is deficient. It is therefore only by actunl trial that the delicucy of the machine bas been tested; If $n$ difference of even a bundredth of a grain existed lretween 2 sovercigns it is said that this mnchise would detect it. On a rough average, 30,000 soverelgns pass over the bank counter every day; ench machine can weigh 10,000 soverelgns in 6 hours; and there are 6 machines; so that the bank can weigh all its issues of gold by these means, nill have reserve power to spare. One of the machines is adjusted for half soverelgns. Between 18.44 and 1848 there were $48,000,000$ gold coins weighed by these machines nt the hank; and bankers and private persons place undouliting rellance on the correctness of the process. Farh machine requires an hour's cleanlng once $n$ week; the machines cost abont $£ 200$ each, and are said to lee peculinrly free from liability to disarrangement. llesides antisfying the bank, the bankers, and the public, these machines save $£ 1000$ a year to the hank in welighers' wages.
Gomuti, or Djoo, a species of pulm (Rorassus Gomuths), growing in the Indian islands. A valunhite prolluct ls olitained from this pulm, resembing black horse hair; it is found between the trunk and branches, at the insertion of the latter, in a nutted form, interspersed with long, inrd, woody twigs of the same color. When freed from the latter, it is
manufactured by the natives Into cordage. Its flises are stronger and more durable, but leas plisnt, than those of the cocos nut, or coir (see Coir); and is, therefore, fitter for cables and atanding rigging, but less fit for running rigging. The nstive shipping of the eastern islands of all kiads are chiefly equipped with cordage of the gromuti; and the largest European shipping in the Indies use cables of it. It undergoes no preparation but that of spinning and twisting ; no material similar to our tar and pitch, indiapensable to the preservation of hempen cordage, being necessary with a substance that, in a remarkable degree, possesses the quality of resisting alternatlons of heat and moisture. The gomuti of Amboyna, and the other Spice ielands, is the best. That of Java hae a coarse ligneous fibre. Gomati ls generally sold In twisted ehreds or yarns, often as low as 1 dollar a picul, and aeldom more than 2. Were European ingenuity applied to the improvement of this material, there seems littie doubt that it might be rendered more extensively useful.-Cnawfond's East. Archip., vel. iii., p. 425 .

Gondola, a kind of barge used chiefly on the canals of Venice, where gondolas supply the place of carriages. The gondolu is flat-bottomed, very long and narrow (nveraging about 30 feet hy 4 ), and its two sharply-pointed e tremities are curved upward to the full height of a man. It is also provided with a amall chamber piaced near its centre, and elevated to a convenient height above the line of the gunwaie. It is propelled by ours or a pole, by the gondolier, who stands at the stern. The word gondola is derived by Du Cange from the modern Greek кovvтє $\lambda_{\text {as, }}$ a bark or little ship; Lancelot again deduces it from $\gamma_{0} v \delta v$, a term in Athenæus for a sort of vase. The gondoliers of Venice were formerly an interesting part of the popuiation, and were noted for the practice of whiling away time by singing alternately stanzas of poems, particularly of Tasso's Jerusalem Delicered, though with great changes from the original ; but this castom has become almost entirely obsolete.

Gong, a Chinese musical instrument of percussion, formed entirely of inetal, which sields a very loud and peculiarly harsh sound when struck with force. It is made of an alioy of tin and copper, and in form it nearly resembles the common tambourine. Gongs are much used in China for making loud sonorons eignals, particularly on the canals, as well as for adding to the clanger of martial instruments.

Good Elope, Cape of. Strictly speaking, a small promontory, nearly the most sonthern point of Afrien, but It gives its name to the large tract of country which forms the most southern part of that continent, and is now a colony of Great Britain. It lies for the most pu $t$ between S. lat. $29^{\circ}$ and $34 \frac{y^{\prime}}{}$, and $\mathbf{F}$. long. $18^{\circ}$ nnd $28^{\circ}$. It is bounded on the north by the Orange and the Gariep Rivers, on the east by the River Kelsknmma and Kafrarin, on the oouth by the Suuthern Oceun, and on the west by the Atiantic. Its extreme breadth is from north to south nbout 450 miles, and its length from east to west abont 600 miles, its area contaialng ahout 250,000 square miles. The country rises from the sea by a series of terraces, of which the supporting walls are nearly paralied chains of rugged and barren mountains intersected by deep ravines, the beds of streams, feeble or dry in the etuminer, tuit rushing down in torrents in the winter. Tho first of these mountain ranges of which Drackenstoin, liottentots' Holiand, and Lange Kloof form a part, rans from the north-west round the colony toward the enst, where it terminates in tie promontory of Cape St. Francis. lietween It and the sea, on the west coast, the country is sandy and sterile, but on the sonth mid east coast it possesses some good soli, and is clothed with vegetation. The second great chain, containing the Karroo llerg, Oilphant's Iliver, Cold Bukkeveld, and Zuurbergen

Slountaine, runs parallel to tho. first and tarminates near the mouth of tha Groen Fish River. if Its ayarage height is about 4000 feet, and its, greatest about 6500 . Between this chain and the first the surface is varied, some parts consieting of arid plains and hilis, othors of good arable aoil with a large portion of exoellent grasing land. The third great range also runs nearly parallel to the others, and includes the Kammies Borgen, Roggeveld Borgen, Niouwveld, and SneeuwBergen Mountains. This is the highest part-of the colony, and from it the lapd gradually deacenda to the Orauge River. Between this range and the encond is the vast desolate plain called the Great Karroo, nearly 300 milea in length aast and weat, and about 00 in brealth nerth and south. Its soil: to a sand mixed with clay, and particles of jron: all soil of a aimilar character in other parts of the colony is called karioo ground. These mountain chains are montly composed of sandstone resting upon a base of granite, which are the provailing rocks, the next in abondance being clay slato, grauwacke, quartz rook, and dolerite. in some parts the ironatone is traversed by vains of red tron ore. Depotite of coal are sald to have been digcovered in Kafiriand and Victoria division, and coppor ore has been found in seme abundance In Namaqua land.
The Rivers, with exception of the Orange River, are mall; thoy all more or less partake of the oharacter of mountain streams, having numerous falls, and being low and feelle in the dry season, but awollon and rapid in the rainy weather. They are of course not anvigable, and their moutha are mostly barred with asnd. The Knyena, the Cowe, and the Briede are howevor accessihle, for a ahert distance from their entrance, to small vessels. Tho chief rivers, are, on the weat coast, the Orange, the Elephant, and Great Berg Rivers ; on the nouth coast, the Brieie Knysua, Sundey, Cantoos, Great Fish, and Keiskamma. The ouly one of them deserving epecial notice is the Orange River, which, rises in Kathlamiva or Drackenberg Mountains, flowa for nearly 1200 miles generally in a westarly direction, and dischargea iteelf into the Atlantic, forming the northern boundary of the col ony. It is on the whole a nolde stream, and in seme parts its banks are shaded by huge willows.
The Soil.-It is considered that about two fifthe of the colony consist of arid mountain ridgee and sandy plaina, unfit either for agriculture or pasture. The remainder is not generally fit for agricultural purposes, although it containg some vory fertile spots; a large portion of lt, however, aspecialiy in the eastern part, affords excellent pasturage for cattle end sheop.
The cosat la indented by various beya and inlets; few of than, however, efford convenient hariors. Saldanha Bay, on the west coast, is one of the most extensive snd secure havens in this part of the world, but it is rendered comparatively uneless by the want of a aufticient quantity of fresh water near it for the supply of shlpping. Slmen's Bay, near the botiom of Palise Bay, is a good harbor, and is used as a atation for the royal navy. Table Bay, though somewhat protected by Roblen Isiand, is little better than an open roadstasd. It afforls ahelter, however, to shipe during the aummer months, but in the winter, from May to September, it ie very unaafe. Algoa Bay is an open mondstead, but it is the ohief port of the enstern province, and is much froquented by shipa, which in certain winds can lie in It aafely. Monsel Bay and the Cowie are also resorted to liy amall veseals, hut they are little hetter than open roadsteails.

Tho cllmate is generally milder and drier than that of Eingland. December, January, and February are the aummer montha ; June, July, and August the winter. In the western part the summer is dry and ciear, but $\ln$ the east it is wet arid stormy. In the vicinity of Cape Town, the highest temperature is about $84^{\circ}$, the lowest about $40^{\circ}$, and the mean of the
year about $65^{\circ}$. In the mpuntainous diatricts and elevated plains, the heat of summer and stie cold of winter are greater.
The vegetation of the colony is remartably rich and varied. Some of the finest botanical apecimens that new adorn the gardens of Europo havo been derived from this region. In no ether place do bulboue plants and heaths exhibit $s 0$ many besutiful varietiea. Besides, a number of other ornamental tribes, there are some plants which might be used in medicine and dyeing. The aloe, however is the only one which has been made an artioie of export. The mot remarkable trees are, the silver-tree, which only grows in the vicinity of Table Monntain; the Protea; and in the eastern province, the Eupherbia There is on the whole, a scarcity of indigenous timber, thuugh there are in some parta extensive forests. Some of the native woods furnish materials for furniture and the wood-work of houses. The oak, fir, and other Europoan foreat trees, ksve, however, been long since Introdnced, and thriven very well; some of them have attained a great size, and their wood is extensively used. There are few indigenous fruits, but most of the fruits both in the north and south, of Europe, such as grapes, figa, oranges, mulberries, apples, pears, peaches, nectarines, and, others, are, grown in abundance ; but strawberries rarely come to perfection, and the gooseberry can not be raised.

- In regard to the zoology of the Cape, thare is little to distinguish It from the rest of Africa, under the head of which will be found aufficient information on this aubject; we may, however, notice the dounestic animals of the celons. Sheep, cattle, and doga, of an inferior breed, wore all possessod by the natives on the discovery of the country. Ilorses, asses, mules, goata, and loferior breeds of cattle and sheep, have been introduced, and thrive well. The Merino eheep, in particular, has proved a valuable acquisition to the colony... Among the game birds are the busturd, called by the Dutch the pcuw, and a amaller kind called the coran, wild duck, teal, snipe, and partridge. - Listory.-Thls Cape was discovared by Bartholomew Diaz, the Portuguose navigstor, in 1493, who first landed at Algoa Bay, having, after exploring the west coast, been driven out to sea by a storm, and thus accidentally donlling the Cape which be saw on his way back, giving it the name of the Cape of Storms (Cebo Tormentoso). The King of Portugal, however, gave it' the nore suspiclous name it atill bears, as ita discovery afforded a hope of a new and easier way of reaching India, the great object of all the maritime expeditions of that age.
The great navigator Vasco de Gama doubled the Cape in 1497, ai:d carried the Portuguese flag into the Indian seas. . Ilis countrymen, however, attructed by the richos of the East, made no permanent settlement at the Cape, although they frequently touched there on the voyage to India., But the Dutch, who, on the decline of the Portuguene power, established themselves in the East, early saw the Importance of the place as a station where their vesseis might take in water and provisions. They did not, howerer, colonize it tili 1650, when the Dutch East India Company directed Jan Van Riebecek, with a amall party of colonists, to form a settlement thero. The couutry wus at that time Inhabited by a people called Quniqua, but to whom the Dutch aeem to have given the name of Hottentots. The Riebeeck settlers had at first great difif. culties and hardships to endure, and their territory did not extend beyonil e few miles round the site of the prosent Cape Town, where they first fixed their abode. They graduslly, however, extended thelr limitn, by driving the native luack or redireing them to serfdom. These coloniats, although under Dutch authority, were not wholly of that nation, but consisted partly of persons of varlous nutions, especialify Germans and Fleminga, with a few loles und lortu-
guese. They ware for the mont part people of low station or indifferent. charncter; there. was, however, a small number of a higher class, from whom was seiected a council to assist the governor - About the year 1686 the European popplation was increamed by a namber of the French refugeea who left their country on the revocation of the edict of Nantes. ., Our limita forbld our attempting to trace the history of the Cape Colony during the lengthened period it remained under the Dutch government. .. We may, however, mention some of ite prominent incidents, the effecte of which are visible in the colony to this hour.
1st. The Dutch, partiy by so-called contructs, partly by force, gradually deprived the Hottentote of their country. 2d. They reduced to slavery a largo part of that unfortunate people whom they did not destroy. 3d. They introduced a nnmber of Malays and negroes as blavee. Ath. They established that narrow and tyranulcal ayntem of policy which they have adopted in other colonles, prescribing to the farmers the natare of the crope they were to grow, demanding from them a large part of their produce, and harassing them with other exactions tending to discourage lndustry and enterprise, We are of opinion that to this miechievous pollay is due the origin of those unsettled habits, that dislike to orderly government, and that desire to escape from its control, which characterize a considersi ? e part of the so-called Dutch boers of the present day, qualitiea so utterly at variance with the character of the Dutch in thelr native country, but. which were atrongly manifested at the Cape long before they came under British rule, and under those influences to which eome exclusively attribute the insubordination of those men. The attempts of the boers to escape from the Dutch power, and so form an independent government beyond the bordera of the colony, especially in the district since called Graaff-Reinet, are strikingly similar to their proceedings at a later date under the British govermment. 5th. The Gamtoos River formed the boundary between the Hotteatot and Kair races, and was early adopted by the Dutch as their eastern limit; but about the year 1740 they began to pass this river, and came into collision with the Kafirs, and in 1780 extended thelr frontier to the Grest Fish River.

In 1795 the coloniste, having imbibed the revolutionary principles then prevailing in Europe, attempted to throw off the yoke of the Dntch, upon which the Britiah sent a fleet to support the anthority of the Prince of Oraigge, and took possession of the country in his name. As, howsver, it was evident that Holland would not be abie to hold it, and that at a general peace it would be made over to England, it was ruled by British governors till the year 1802, when, at the peace of Amlens, it was again restored to IIolland. In 1806, on renewal of the war, it was again taken by the British undor Sir David Baird, and has since remained in their possession, having been finally ceded by the King of the Netheriands at the pence of $1810^{\circ}$.

Population.--The total population of the colony is stated in the returns as 217,921 , of which 118,088 are persoas of color. The latter conslst of Hottentots (so called) Malayy, Negroes, aud Kafira. The white population is chiefly composed of colonial Dutch and British.

The aborigines of the conary had originally the generio name of Quaeques, and received the name of Hottentote from the Dutch. Owing to intermarriages with Malaye, negroes, and others, and illicit intercourse with whites, tho race has lost much of its distinctive character. Indeed, a pure Hottentot is scarcely to be found in the colony, although the poople, in whom the blood of that race proponderatee, are still known by that name. There is no return of their number, but we do not think it can exceed 25,000 . The Maluys were introduced by the Dutch as slaves; their descendants still retain the Mohammedan reilg-
fon, and most of the distinctive habits and oustoms of their race. We have no means of ascertaining their number, but it can not be large. They reside for the most part in the Cape divislon. The negroea are montly from the eastern coasts of Africa. The Kafirs residing within the colony aro chiefly composed of the section of them called Fingoes, who originally came from Natal and its vicinity, whence they were driven by Chaka, king of the Zulus, and took refuge with Kafirs on the frontier of the Cape colony, by whom they were reduced to serfdom, from which they were liberated by Sir Benjamin D'Urban, and have, up to this time, remained faithful allies of the Britiah. Their number may be about 25,000 .
The exact proportion which the white population of Dutch descent bears to the Britioh is not known ; bnt there is no donbt that it still greatily preponderatos. We have called the people Dutch for sake of convenience, as they speak that language, but many of them sre descended from Europeans of other countries-a oonsiderable number' from the Frunch refugees. The latter have lost the language, but still retain the namea of their forefathere, such as Du Pleasis, De Villiers, Marais, and :others. The British and their descendants require no special remark.

Traule.-The following table, giving the amount of imports and exports in eeveral years, taken at intervals, exhibits the progress of the commerce of the colony:

| Years. | Imports. | Exports. | stipplog. |
| :---: | :---: | :---: | :---: |
| 1886 | £541,038 | ¢882,230 | ${ }_{184}^{\text {Tonst }}$ |
| 1840 | 782,494, | 775,000 | 184,442 |
| 1849. | 944,585 | 594,940 | 204,049 |
| 1880. | 1,277,101 | 687,2092 | 224,126 |
| 1858 | 1,651,697 | 1,049,884 | 823,884 |

These exports do not entirely consist of colonial produce, but partly of goods re-exported. The value of colonlal produce alone exported during 1853 was $\boldsymbol{£ 7 3 2 , 2 4 5}$, of which $£ 297,346$ was from Cape Town, and $£ 435,899$ from Port Elizabeth. The amount of tonnage, however, of vessela entering Table Bay is much grester than that entering Port Elizabeth, on account of the larger number of Indiamen and other vessels calling at the former for provisions; but the actual trade of the latter is much greater, as shown by the exports.

The following is a table of the chief articles of colonial produce and manufactures exported during 1853, from Cape Town and Port Elizabeth reapectively:

|  | $\left\lvert\, \begin{aligned} & \mathbf{P}, \mathbf{E N I L I L}_{2}^{2} \\ & \text { abeth. } \end{aligned}\right.$ | $\begin{aligned} & \text { Cape } \\ & \text { Town. } \\ & \hline \end{aligned}$ |  | Port | Cnpe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aloes. | 11,280 | \$1,546 | Hides. | ¢9,180 | £7,804 |
| Argol........... |  | 1,161 | Horns.......... | 1,022 | 1,988 |
| Beef and pork. | 2,809 | 8,709 | Horses, ........ |  | 8,414 |
| Butter... | 1,860 | 642 | 1vory.......... | 12,148 | 6 |
| Copper orc... |  | 8,468 | Mules........ |  | 894 |
| mea <br> Bariey |  | 1,061 | Oll. | 20 |  |
| Beana de peas | 79 | 1,577 | Beal skina..... |  | 626 |
| Bran |  | 2,865 | gheep sklas. | 2,327 |  |
| Flour |  | 29,788 | splirts, brandy |  | 8,85 |
| Onta... |  | 18,709 | Tallow ....... | 1,887 |  |
| Wenthers | 1,519 | 8,800 | Wlae,Conatan |  |  |
| Flsh (enrod). | ${ }^{1} 898$ | 9,976 | Ordiasry |  | 26,799 |
| Fruits (dried). |  | 20,274 | W001 ... | 890,687 | 110,498 |

The most important export le wool, and the foilowing table shows the progress of the export of this article:

| 1888. | Port Ellzaheth. 89,758 lbe. | Cape Town. 78.824 lbs |
| :---: | :---: | :---: |
| 1849. | 1,220,830 | 684,877 |
| 1353. | 8,160,916 | 1,708,002 |

There were imported into London from the Cape territorles 22,700 bales of wool in 1853; 22,602 in 1854 ; and 28,087 in 1855.

By the summary of an official table in the Cape Govermment Gazetto, the custon-house returns of groods
imported for the first aix monthe of 1854 and 1855 give the following results：For the first six months of 1854，goods irpported，$£ 879,788$ ；for the same monthe of 1855，£622，218，making for those 12 monthe，£1，－ 602，006．Goode entered for consumption for the first eix monthe of 1854， $\mathbf{x 8 2 7 , 7 0 2 \text { ；for the same months of }}$ $1855, £ 643,485-$ for thoes 12 monthe，$£ 1,471,187$ ．The exports of articles the prodace of the colony for the first eix monthe of 1854 were valued at $£ 315,579$ ；for the eame monthe of 1855，at $£ 440,816$－for those 12 months， $\mathbf{E} 756,395$ ．The excess of importa for con－ aumption over the estimated value of colonial produce exported during the 12 monthe referred to is thus shown to be $£ 714,792$ ．
In these returns we have the amount of custome dutlee collected only for the first six monthe of 1855. They amounted to $£ 31,770$ for the first quarter ；and to $£ 35,106$ for the eecond；total for alx months，$£ 68$ ，－ 878．The two chief articles of export are wool and wine．On both，the increase has been very great． The wool exported during the first aix months of 1854 was valued at $£ 221,865$ ．In the same monthe in 1855，at $£ 297,885$ ．The wine for the eame months re－ spectively was valued at $£ 13,425$ and $£ 33,169$ ．WIne was once the etaple export，emounting in seven years to between $£ 80,000$ and $£ 100,000$ ．The quantity pro－ daced ls supposed to be as great as ever it was，but it has found a more profitable market within the colony．
Comesere of the United States wita the Cape of Good
THE Cape OF Good
OOTOAEE 1,1820,

| Years endlay | Exports． |  |  | 1 Imparts． | Whereof there whe lo Bullion and Speele． |  | Tonnage Cleared． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domwate． | Forelgn． | Total． | Total． | Exporied． | Imported． | Amerlean． | Forelga． |
| Sept．80，1821．．．．．．．． | \％150 | $\ldots$ | 6，150 | 688875 | ．$\cdot \cdots$ | 8，900 | 188 | ． |
| 1828．．．．．．．．． | 6，100 | ．$\cdot$ ． | 0，100 | 108，875 | ． | 8，000 | 188 | ．$\cdot$ |
| 1828．．．．．．．．． | ．．．． | ．．．．． | ．．．． | ．$\cdot$ | ． | ．．． | 800 | ＊＊ |
| 1825．．．．．．．．．．． |  | $\cdots$ | ． 0 | ．$\cdot \ldots$ | $\ldots$ | ．．．． | ．．．． | ．．．． |
| 1828．．．．．．．．． | 21，104 | －6，498 | 97\％687 | 480099 | $\ldots$ | ．．．． | ＋482 | ．．．． |
| 1827．．．．．．．． | ， |  |  | 5，186 | ． | ＊．．． | 425 | ．$\cdot$ ． |
| 1888．．．．．．．． | ＊．． | ．．．． | ．．．． | ．．． | ． | ＊．． | ＊＊＊＊ | ．$\cdot$ |
| 1889．．．．．．．．． | $\ldots$ | ＋．．． | ．$\cdot$ ． | $\ldots$ | － | ＊．$*$ | ＋．．．． | ． |
| Total．．． | 827，804 | \％6，483 | 483，787 | \＄115，620 | －••• | \＄8，500 | 1，845 | ＊＊＊ |
| Sept．80，1881．．．．．．．． | －．．． | ．．．． | ．．．． | ．．．． | ．．＊ | ＊．．． | ＊ | ．$\cdot$ |
| 1882．．．．．．． |  | ．．．． |  |  | ．$\cdot$ ． | ＊．．． | － 907 | ．．． |
| 1883．．．．．．．． | \％7，562 |  | \％ 7,568 | 818，700 | ．．．． | ．．．． | 207 | ＊＊ |
| 1884．．．．．．． | 60805 | 3，591 | 2,581 0.565 | 41780 | ．．．． | ． | 1.500 710 | ． |
| 1883．．．．．．． | 60,060 86,218 | 4，9i7 | 90，485 | 41，60 | ．．． | ．．． | 1,716 1,560 | 139 |
| 1887．．．．．．．． | 28，899 | ．．．． | 28，898 | 98，749 | ．．． | ． ． | 455 | ．．． |
| 1888．．．．．．．． | 29，718 | $\cdots$ | 22，718 | 12，084 |  | ．$\cdot$ ． | 1，064 | ．．． |
| 1839．． | 88，879 | 5，020 | 98，899 | 48，009 | \＄5，020 | $\cdots$ | 2，278 | $\cdots$ |
| 1840．． | 85，816 | 197 | 86，018 | 82，824 | ．．．． | 8756 | 659 | 180 |
| Total．．． | \％ 380,156 | （12，205 | 484，411 | －265，401 | ＋5，020 | 4786 | 6，420 | 2495 |
| Sept．80，1841．．．．．．．． | \＄51，824 | ＊．． | （5）1，824 | 817，165 | ．．．． |  | 048 | 152 |
| －1842．．．．．．．． | 800゙5 | ．．．． | 900\％5 | 28，815 | ．．．． | ¢919 | $\cdots{ }^{*}$ | ． |
| 9 mos $1448 . . . .$. | 80,045 | ．．．． | 80，035 | 81,199 | ．．．． | ．$\cdot$ ． | 406 | ．．．． |
| June 20，1544．．．．．．． | 89.835 | ．．．． | 82，933 | 89,166 |  | － | 1，349 | ．．．． |
| 1885. | 89.748 | ． ． | 89,748 | 26，489 | 4，400 | ．．．． | 498 | ．．．． |
| 1846. | 28，718 | ．．．． | 23，718 | 81.686 | ．．．． | ．．． | 2.996 | ．．．． |
| 1847. | 106，178 |  | 106， 178 | 36，041 |  | ． | 2，247 | ．．．． |
| 1848．．．．．．．． | 100，839 | ＋19，089 | 180，27\％ | 60，481 | 15，6is | ．．．． | 1，670 | ．．．． |
| 1849．．．．．．．． | 94.422 | ．．．． | 94．422 | 71，298 | ．．．． | ．．．． | 8，748 | ．．．． |
| 1850．．．．．．．． | 148，219 | ．．．． | 143，219 | 72.206 |  |  | 1，918 |  |
| Total．．．． | 665，924 | 119，989 | 4655，888 | \＄49，429 | 819.589 | 019 | 14，444 | 152 |
| June 80，1851．．．．．．．．． | （161，491 |  | 161．091 | －128．228 | ．．． | （1，800 | 9，501 | 827 |
| 152．．．．．．．． | 224，286 | ＋1，718 | 225，954 | 190，790 | ．．．． |  | 4.848 | 612 |
| 1853．．．．．．．． | 867，281 | 8，141 | 870.878 | 802，3413 | ．．．． | 87,100 | 4.705 | 9）3 |
| 1854．．．．．．．．． | 999，684 | 7．830 | 299，984 | 44，904 | ．．．． | －• | 8.809 | क） |
| 1陶．．．．．．．． | 448，475 | 8,487 | 452，812 | 418，838 | ．．．． |  | 5,656 | 844 |
| 1856．．．．．．．． | 896,780 | 21，471 | 418.251 | 458，394 | ．．．． | 11，8181 | 7．06x | 212 |

The conmercial relations of the United States with the Caje of Gool Hope colony are now dependent on the regulations of a iegislative council and a house of assemiliy．Those loulies assembleci，for the first time， during the past year（185．），ander the name of the Colonisl Parllament of the Cape of Gool IIope．Fx－ ports from this coiony conslat priacipally of aloes，ar－ gol，hides，horns，whaln oil，goat and sheep akins， wine，and wool．Chief imports from the linited Statea are spirits，soap，stationery and books，sugar，

The wool of the eastern and middie districta is indi－ rectly exchanged for the wines，dried frnits，and flour of the weetern diviaien．

Copper ore is a new articie of export．For the first six monthe of 1854 this export was valued at $£ 4,720_{1}$ in 1855，at $£ 14,179$ ．
Thi revenue of the colony is derived chiefly from the customa duties，stamp and auction dutles，and a direct tsx called tranefer duee，at the rate of 4 per cent．on the purchase money of all landed property sold，whether by ouction or privatoly．The expendi－ ture is for payment of salaries of the officiale snd other disbursements incldental to the support of the clvi］ government．The military expenditure is at present borne ly the Imperial treasury．The suljoined table shows the progrees of the revenue and expenditure：

The construction of gool roade of late years，by the jadicioue employment of the cenvicte，the establish－ ment of road hoards，and other measurea for the amme object ly the late able Colonial Secretary，Mr．Mon－ tagn，have tended greatly to develop the resources of the colony，and to increase its commerce and revenue． －E．B．

timher，wine，tobaceo，hardware and iromongery， sundrics．

Number of American vessels entered the ports of the Cape of Gooil IIape in 1853：Vessels，45；tonnage， 16，278．Number of American vessels cleared from the same ports in 1853：Vessele，24；tomnage， $2,186$.
Port Rrgulations，Duties，etc．－－Fintrance or clearance of a vessei， 1144 ；lundlug or shipping cargo of s vessel， 8360 ；clearance of a coaster，$£ 036$ ；manifest of export cargo，\＆ 36 ；permit to laud or silp met．
chandise nnder valne of $886, \$ 018$; above \$36, 036. A wharfsge duty is also charged on all goods, wares, or $n$, rchandise landed.
An export duty is charged on all staples shipped from any of the ports of the Cape; but the exporter of any qusntity of good Cape wine shall be entitled to enter, duty free, one gallon imperisl measnre of spirits of the strength of Skye's hydrometer, in respect of every ten gallons imperial messare of wine ao exported. For the accommodation of shipping, tankboats are slways in readiness with force-pumps and hose, carrying from 20 to 40 tons of water. A protective duty in favor of British produce and manufactures exists at the Cape porte ; and the ad valorem of 12 per cent. on all goods to which no specific duty is assigned, is reduced to 5 per cent. In favor of Great Britain.-Com. Digest U.S. See Cape or Good Hope.

Goodwin Sands, a range of sand-banks lying about four or five miles off the east coast of Kent, between the North and Sonth Forelands. They are about ten miles in length from north to south, and vary in breadth from one and a half to three miles. They are divided into two portions by a narrow chnnnel, navigable by small boats. They are in many places dry at low water, and from their shifting and loose nature are very dangerous for shipping. Beteen them and the mainland is the roadstead termed the Downs. These sands are said to have at one time formed part of the Kentish land, and to have been submerged sbout the end of the reign of William Rufus, or the beginning of that of Ifenry I. Sevoral lightvessels are fixed hero as beacons; and during foggy weather gongs are sounded every ten minutes.

Gonaives, s sea-port of linyti. There entered this port in 1849 and 1850,182 vessels, measuring in the aggregate 29,801 tons; and there cleared 187, with an aggregate of 30,196 tons. The former prosperity of this port resulted from the immense quantitities of ehinisterre (cabinet-maker's wood) and dyewoods, which accumalated at the mouth of the Artibonite from every point of its course, prior to the independence of Dominica; but such is the change that has taken place, that, to-dsy, it exhibits scarcely the shadow of its former commerce. Its exports, with their average quantities and valuce, are classified as follows:


Formerly large quantities of wax, pitre, and cocoa, were exported from Gonaives; but this trade has of late yeurs greatly declined. The exports at present consist of ccreals and coffice, not oniy from the neighhoring communes, but from the whole arrondissement of St. Mare, which is a closed port. Tise coffeo of this port is of the very best quality, and commands the highest price. Ifence it is, that vessels which can not make up their cargoes of coffee at Port-au-Prince, tonch nt this port for such quantities as they can obtain. The imports in 1850 reached a value of about $8,000,000$ francs. Of this, the United States supilied provisions, lumber, and cotton goods to n value of neariy $1,500,000$ frines ( 8279,000 ), or one half of the whole. England, France, and the German States figure chicfiy in the other half-the trade of the two latter seeming rather on the declinc. There are at Gonaives 2.1 foreign merchunts; and of the commercinl houses, nine are French and four Engligh, while but one is American. The following summary of the trade between the United States and the port of Gonaives during the first six months of 1855 is mude up from officind retarns: Number of vessels (American) entered and cleared, 00, with an aggregate of 4,317 tons. Value of cargoes inward, not given in official returns; value of eargnes
ontward, $\$ 2,038,429$ 95, Haytien currency-aboat 18 Haytien dollars being equal to 1 American. Cargoes inward consisted of provisions and lumber. Several vessels touched at the port, isden in part, to complete cargoes. Outward cargoes consisted of coffee, mahogany, and logwood.

Gordonia. (Gordonia Lasianthus), A tree known in France as Gordonia d feuilles glabres, in Germany as Iangstielige Gordonie, and in the United States as Loblolly Bay. The Gordonis Lasianthus, in its native conntry, is a beautiful aub-evergreen tree, growing to the height of 50 or 00 feet, with a diameter of 18 or 20 inches. This tree appesrs to be confined to the maritime parts of the United Statea, from Virginis to lower Louisiann. According to Michaux, tracts of 50 or 100 acres are met with in the pine-barrens, which, being ${ }^{1}$ ower than the adjacent ground, are kept constantly moist by the waters collected in them after great rains. These apote are entirely covered with this species, and are called bay-sicamps.

The wood of the Gordonia Lasianthes is extremely light, a cubic foot of which, when dry, does not weigh more than 20 pounds. In trunks of these trees which exceed more than 15 inches in diameter, four fifthis of the wood is heart ; it is of a rosy, or mahogany hue, and of a fine silky texture, which render it very proper for the inside of furniture, though the cypress is generally preferred. When seasoned it is exceedingly brittle, and rapidly decays when exposed to the alternations of moisture and dryness. The bark may be taken off this tree during three montha of the yonr, which shows that the sap is in vigorous motion e much longer period than it 's in most other trees. The value of the bark in tannin ${ }_{k}$, compensates, in some measure, for the uselessness of the wood, for which purpose it has been employed in times past, throughout the maritime ports of the southern States and Florida. A1though this branch of industry wss never so extensively practiced in the southern as in the northern parts of the United States-the regions where this tree abounds do not afford a sufficient quantity of bark proper for tanning, to supply the wants of the inhabitants. IIence, nearly all the leather and articles manufuctured therefrom, consumed in the southern States, are carried from the north. A bark suitable for the purpose of tanning, is more valusble in the United States than ut first sight might be snpposed. Although there are a great variety of oaks, and many of the species profusely multiplied, yet there are but a very fow of them that are sufficiently rich in tannin to he worth using.-Broune's Trees of A merica.

Gosport, a fortified sea-port and market town of England, county of IIsnts, on the western side of Portsmouth harbor, neur its month, directly opposite and sbout a mile from Portamouth, with which it $i_{3}$ connected by a floating bridgo moved by a steamengine working on two fixed chsins. It forms no part of the borougit of Portsmouth, but is governed by trustees under an old act of Parliament. It is fortified on the land side by a line of bastions extending from Weovil to Alverstoke, and laving the appearance of being a segment of the fortificstions of Portsmouth. Witbin the fortifications is the Royal St. Clurence Victualing-yard, with brewery, cooperage, powder-magazines, biscuit-baking estnblisliment, nnd store-houses for various kinds of provisions for the royal navy. To tho south is the magnificent IIaslar Naval Hospital, capable of containing 2000 patients. Gosport has also an extensive establishment for the manufucture of anchors and chain cables. It communieates with Lanion by the South-western Rniliwny. The coasting-trade is considerable. Population (1851) 7,414.

Gossamer, a fine, filmy substance, like a cobweb, observed floating in the air, especially in autumn. It is often seen in stubble-flelds, and upon furze amd other low bushes, and ls probably produced by a specios of spider.

Gothe Canal. The fullowing Information rstative to the Gotha Cenal lo extracted from Macernaon'u Comnercial Tariffa and Regulatione of Nomeay and Swedew:-"The inlets, Lakea, and rivert of Sweden heve always afforded great facillities for the tranaportation of the produce of her foresta and mines, A canal, to avoid the long and tortious navigation of the Sonnd and Sound dues, was projected at an early period. by Sweden, . ' The Maaler, a deep Inlet, enters Sweden at Stockholm from the Bultic, and branchee north to Upsala, and weat $\mathbf{7 0}$ miles among a multitude of islands, to within a few milen of the lake Ilielmar. The Ar boga Canal, opened during the latter end of the last century, la navigable between the Masler and that lake| and it was then considered that it might be continued from the Hielmar to the Wettern Lake, but the project was found inpructicable; the distance between the Macler and Sodree Barker, near the confines of Dalecarlia and the mining districta, was opened at the same jeriol by means of the Stroemsholm Canal and the Lake Fredra, and rivers. The Goths River, which runs from Lake Wezern (s) largest in Europe except the I andoga) into the sea of Gothenburg, though in many parts deep and navigable, was interrupted by falls and islands. These were finally surmounterl, after extraordinary diffieulties (the whole of the gigautic works having been once swept off by the impetuosity of the water), by the execution of the Trollhatta Canal In 1800. It is three miles long, and has eight sluices to ascend and desceud 112 feet. At one place it was cut 70 feet deep through the rocks. The whole expense was about $\mathbf{8 8 0 , 0 0 0}$. The Lake Weneru was afterwand joined hy a canal to the Lake Wettern, and finally the canslization of the whole distance to Soderkoping and the Batic was completed in 1832."

Riegulations for Ships passing through the Gotha Cumal. --Sec. 1. Ships and cargoee from all countries, and coming from or golng to whatever place or places, are permitted, without ohstruction, in pase through the canal, unlese the nation or nations to which the ships or cargoes belong are known to be in open bontility with Sweden; and the canal transit dues, both on veswels and cargues, shall be equal for all nations. 2. The canal dues on all shipping are to be paid according to their tonnage, making no difference whatever whether luden or empty. 3. The canal lues on vessels are to be pail at the rate of 12 skillings Swedinh banco per last, equivalent to 10 skillings Swedish banco per commercial lant of 2 linglish tons. In this charge is not included pilotage on the lakes, nor payment for the trailiug lyy oxen or horses on the Gotha Canal, which charges are opecially fixed lig the directors.
4. In calculating the tonnage of vessels paasing through the canal, and also the quantity of merchandise, it is to he observed, with regarl to the first naured, that such vessele as are provided with Swedish measure-hills will pay the dues accorling to the burden stated in raid bille; but such as are without, will le charged pursuant to a table reduced, conformably to usual practice, from the forcign laste, tons, otc. to Swealish lasts; and, further, as relates to goods, that the weights and measures stated in the tariff of pounds, ship-poands, barrels, etc., are meant Swedish pounds, and ship-pounh comnaercial or vietuals' weight (excepting iron, and other metals, by which are meant Swedish atople welghts), and Swedish barrela containing 32 kappes molid measure ; and further, that such forelgn pounds, ship-pounde, barrels, last.s, ote., as may be inserted into iten hills of lading and sbip" pupers, are to be reduced to S wedinh weighte and measures, in conformity to a fixed table to be nuede out for that purpone. 6. With regeas: to tare, or the welght of the case or outer covering, no chargo will be made. The canal daes are to be pail, accordiug to the tariff, only on the quantity in welght or measure as inerrted in the bill
of lading or shlp's papers, whether apecified in groam or net. A barrel of grain, salt, etc., shipped in bulk, or barrels or bagn, are charged alike $\{$ plpe-clay, coala, ete., in bulk or packed in caske, the same $\mid$ as also winea and other liquids, whether in larger or amaller canks 1 and only in such cases where the last-named are in bottles, then the additional duty must be paid for tho bottlea, accoriling to the tariff, the same ain if they were ahipped empty, for themselvea.
6. If any veasel, entered st the inward customhouses at Gothenlurg or Sollerkoping, only to pase through the canal from sea to sea, should discharge any part of her cargo without the most pressing necessity; either In tha River Gotha-Elf, or any of the lakes, or on the canal, such vessel to be forfeited, and the maater aubjected to the penalty of the law for the unlawful importation of goods; and further, to be fined, accorlling to the clrcumatances, In the sam of 100 rixdalera to 500 rixdalers bunco. The mame law will le put into executio against all vessels receiving other cargoes or more gools on board, during the passage to and from one or other of the ports of Gothenhurg and Soderkeping. Ships' huebands, or owners of goods, convictel of knowlag, abetting, and aldiog in the illegal loading or nnlouding of goods, as aforesaid, will he suljected to the same penalties. The value of the confiscated vessel, which shall be determined by sale by publio auction, will be responsible for the full phyment of all tlues which the vessel and cargo would huve been suhjected to, accorling to the tariff, for the whole pasagge from sea to sea $;$ and the aurplus of the proceeds then remaining to be divided, two tifths in equal shares to the informer and those who prove the Illegnl fact, and three fifths to the canal pension fund and the board of customs, also in equal shares.

There are other regulations, exemptions, and privileges applicalile to tessels passing through the Gotha Canal, between the Baltic and the North Sea, which, as they are glven in full in the "Digeat of the Existing Commercial Regulotions of Foreign Countries," trusmitted to Congreso from the Treasury Department in 1833, and hava been modifed hut alightly, if at all, since, are not inserted in this volumg. They may the found in that work, under the caption "Sweden."

The whole length of this canul is thus estimated:

Tegether. ...................... 837
Cottenburg, or, more properly, Gothaborg, on the south-west coast of Sweden, at the head of a fiord near the $C$, egat, which receives the Rivor Gotha, lat. $57^{\circ} 42^{\prime} 4^{\prime \prime} \mathrm{N} .$, long. $11^{\circ} 57^{\prime} 46^{\prime \prime}$ E. Population 39,000, and increasing. Vessels do not come clase to the eity, but lis in the rivor or hartor, at a elurt distance from the shore, goonls being conveyed from and to them liy lightera that navigate the canals by which the lower part of the town is intersected. The depth of water in the port is 17 feet, and there is no tide, bar, or shallow. A vessel entering the Götha must take a pilot on board, whose duty it is to meet her half a leugue west of Wingo beacon. After Stockholu, Gottenburg has the most oxtensive commerce of any tow $n$ in Sweden. Iron and steel, the former excellent, but the latter inferior to that madu in limgland, form the principal articles of export. They are brought from the rioh mines of Wermeland, distant alout 200 miles; being conveyed partly liy the lake Wenern

partis'by the Trollheetta Canal (see Canala), and partiy hy the River Gothe. The exporte of iron in 1847 amounted in all to 27,447 tone. The original cout of lron is ampposed to be increased about five per cent. by the expense of ite conveyance to Gottenburgi and the shippling charges, inclualve of the export duty, are about 10 per cent, additional. The next great article of export is timber, particularly dealn, which are also furnished by Wermland. Of these, the exporta in 1847 were 227,000 dozen, but this is abeve the average. The other articles of export are, linen, asil-cloth, tar, copper, alum, glass, cobalt, manganese, linseed, oak bark, bones, juniper-berries, eranberries, rock-mosa for dyeing, etc. Grain is somotimes imported, and sometimes exported. The principal articles of import are sugar, coffee, tobaceo, cotton yarn and twist, salt, Indigo, and dye-wooda, South Sea oll, rice, herriags, wine, splcea, ete. There belonged to the pert in 1847, exelusive of river craft, 126 vensels of the aggregate burien of 13,254 Swedish lasts, or aboat 30,000 English tons; and ship-building has siace been going on briskly. The opening of the Gotha Canal, by whioh Gottenburg comn. ieaten with a large portion of the interior of Sweden, has exercised a powerful and beneficial influence over hor commerce. She carriss on an extensive trade with England, and English is genorally understood. Stpraners run once a week between Gottenburg and Hnil for eight months of the year ; but in winter the finte"-ourse with Eingland is kept up by the tedious route of Lubec and Hainburg. The openiag of the Gotha Canal has greatly beaetited its commerce, by bringing it into conmunication with a large portion of the interior of Sweden. In 1849, 718 vesvels entered, nad 1402 cleared in the coasting trode; and 1018 vessels entered and 1011 left for forelign ports, exelusive of steamers, of which the number that entered and cleared out at the port were 88. Soe Gotir. Canal.

Herring Fishery,_Gottenburg used, at no distant period, to be one of the princlpal seats of the herring fishery ; but at preseat this branch of industry is quite oxtinct, snd it has always been very capricious. From 1556 to 1088 grest quantities of horrings were taken; from 1588 to 1660 , they left the coast; during the next 15 years they were again abundaat; but from 1675 to 1747 they entirely disappeared. From 1747 to 1770 they were abundant, 186,614 barrels being taken in 1763, and 101,483 in 1768 . From 1786 to 1799 the fisbery was very good, from 110,000 to 190 ,000 barrels beiag anuually exported. In 1804 the export was 79,512 barrels. In 1808 and 1809 fish were very scarce; and in 1812 they ontirely disappearet, and have not hitherto returned; so that Gottenburg, instead of exporting, at present lmports considerable supplies of herrings.
lioth iron and timber pay clutios on exportation, but they are not heavy.

Custom-house Hegulations and Port Chargra,--On arriving in port, no person is allowed to board or to leave a vessel till she the in custody of tho oflicers; who, having laspected the manifest and papers, send them to the custom-house. An officer is appointed to superintend the unloading, and also the loading. The public charges of all sorts on a Swedish ehip and on a foreign ship not privileged, each of 300 tons' burden, unloaring and loading mixed cargoes at Gottenburg, would be, on the former, $\mathcal{C} 24 \mathrm{bs}$. $\mathbf{7 d}$.; on the latter, £49 be. 7d. On a privileged foreign ship the charges are the anme as on a Swedish ship.

Warchousing System.-Goods inay be bonded for any length of time, on puying one half per cent. ad valorem for the tirst two years, and one haif per cent. nnnually thereafter.

Commission, Credit, etc.-The nsual rate of commission is 2 por cent. Goods are commonly sold on credit. Kaw rugar at 9 months' with 8 months' interost to the solior. Other goods at 3,4 , and 6 months.

Das "ing, eto-There are no publico or privato baakJag esuablishments at Gottenburg for the issue of notes I but the national bank bas two offices. here which advance limited sums of money, at five per ceat., on seeurity of goods, and in discount of bilis. Some of the kinglish lasurance companies have agente here, who do a goud deal of husiness.

Sea Stores, Water, etc.-These may be had here of excellent quallity, and cheap. Beef, $1 \frac{1}{1} d$. per lb., best rye bread, 2 fd , per lb ., and butter, 6 d per Ib .
Money, Weights, Measures, eto., bune aa at Stockhelm, which see.
In eomplling this article, we bave made use of Consulur Returne, Coxe's Travels in the North of Europe, vol. iv., pp. 267-275, and aome valaable private communications.

Grace, Daya of, in commercial law are certain daye allowed by the custom of merchants to bo added to the time requisite for presentment of a bill. Thus, If an instrument drawn in this country be payable "a certain time after date," three days of grace are added: a blil drawn on the 27th of August, payable "two monthe aftor date," is therefore due on the 30th of October. So if a forelgn bill be drawn at one, two, or more " usances," the days of grace are added to the usance. The usance between Loadon and Paris is one calendar month. A bill drawn in Loadon on Paris "at ons usance," on the 2d January, is consequently due on the 5 th February. The number of days of grace variea in different countries. In France none are ullowed. See Days of Grace.

Grain, the name of the smallest weight in common use It ls the 24th part of a pennywaight troy, and the 20th part of che scruple in apothecariea' welght

Grain Markets. There were receivel at Baltimore during the past year (1856) 3,440,000 bushels of wheat, $4,081,000$ bushels of corn, 847,800 bushels of oats, 228,200 bushels of rye. 025,000 harrels of thour wero received.
At Buffalo, N. Y., the receipts of flour were 1,143,085 barrels ; of wheat, $8,843,117$ bushels, and of corn, 9,845,790 bushels.

At Oswego, N, Y., 114,143 barrels of flour, $8,437,027$ bushels wheat, $3,548,521$ bushals of com.

At Chicsgo the receipts of grain of all kinds were $24,000,000$ bushels, and the shipments about $20,000,000$ bushels.

We give below a table showing the c nparative inportance of tho princlpal dépôts of the world; from which it will be seen that Chieago and Buffalo rank nearly equal, allowing for the increase of one year in the former place. Enough is shown to make evident the greater importance of some of our new prairie cities over the old established grain dépóte of Europe. Chicago, in 1828, was deacribed by Major Long, in his "Expedition to St. Peters," as n " villige presonting no choering prospect," and ons not promising unch in commercial importance.

|  | Wheat. | Indian Corn. | Oats,rye, and barley. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| 1854. | Bushels. | Buahole. | Bushela. | Buehels. |
| Odessa... | 5,000,000 |  | 1,4t0,000 | 7,040,000 |
| Galacz \& Bralla | 2,400, 0100 | 5,000,000 | 820,040 | 8,820,000 |
| Onntzle........ | 3,080,1000 | , | 1,828,000 | 4,408,000 |
| Sr. I'etersburg. | , | .... | , | 7.200, 000 |
| Archangel. . . . |  |  | ... | 9,528, 010 |
| R1ga.... |  |  |  | 4,000,000 |
| Chicara . . . ${ }^{\text {Cug }}$ | 8,644.461 | 6,497,899 | 3,419,551 | 12,902,310 |
| Chteago . . 1855 | 7,115,250 | 7,517,025 | 2,000,883 | 16,684, 418 |
| Baltimore..1856 | 8,440,000 | 4,081,1400 | 1,075,500 | 8.596,510 |
| Buthala.... " | 8,413,117 | 0,45, 090 |  | $18,6 \times 8,907$ |
| Oswego.... | $8,488,000$ | 8,543,520 | -_...\| | $11,981,520$ |

Grains of Paradise, bot, acrid, aromatic seeds, produced on the coast of Guinea, and supposed to be derived from two distinct species of plants, viz., the Amomum Grana-paradisi of Linnens, and tho A. Meleguetta of Roscoe ; porhaps, also, froln others. Thoy
are of a gloses dark-bresm color, are longer and rounder than the aeeds of the true cardamom, and have a allght flavor of camphor. Thene needn are much esteemed as a aplce among the APrieana, but are chlefly employed to give a fletitious ítrength to beer and aplrits. Ancien's Eioonomic Rotany.

Cranada, a town of Central America, State of Nlearagua, on the north-weat lank of the Lake of Nlearagua. By mesns of the Lake and the Klver San Juan, it communleater with the Carlbisean Ses, and thus carries on a conslderable trade. Population about 12,000 .

Granary, a hullding to store corn in. Granarica are generally bullt of brick, with quarters of timber wrought In the inalde, to which the boarde, with which the Inalde of the granary inast be lined, or nalled so close to the bricks that there may be no apace left for vermin to harbor in. There in an udvantage in having many atories, because the shallower the corn lies the letter and more earily it ls turned.

The two great requisites in the erecting of granariea are-to make them auficiently atrong, and to give them an exposure to the mont drying winds. In many parts of Fingland, particularly in Kent, cern is trented In the following manner: To separate it from duat and other impurties after it is threshed, it ls tossenl with ahovels from one and to the other of a foug and large room; the lighter substances fall down in the middle of the room, and the corn only in carried from side to side, or from end to end of it. After thls, the corn is acreened; and heing then brought into the granary, It is apread about haif a foot thiek, and turned from time to time, about twice a week; the sercening of it Is also repested once week. Thin nort of management is continued atrout two months, after whieh it is lald in foot thiek for two monthe more ; and during this tlme it is turned once a week, or twlee if the season the damp, and now and then acreened. After abont five or alx monthe, it is risired to two feet thickneas in the heapa, and then turned once or twice in a month, and sereened from thme time. After syear, it is laid two and a half or three feet deep, and turned once In three weeks or a month, and screened proportionally. When It has Jain two years or more, It is turned once In two months, und sereened once a quarter; and however long it the kept, the oftener the turning and sereening are repeated the better will the grain be preserved. It is proper to leave an area of a yard wide on every shle of the heap of corn, and other enpity apaces Into which the corn may be turned and tonsed as often an required. In Kent, two aquare holes are mule ut each end of the floor, and a round one in the middle, by means of whieh the cors is thrown ont of the upper lnto the lower rooms, and no upagain, that it may be the better turned and alred. The sereens are mule with two partitions, to separate the luat from the corn, which falls into a log; and when aufficiently full, this is thruwn away, while the pure antl gool corn remains lehind. Corn has by these means been kept 30 years; noll it has been observed, that the louger it is kept the more flour it yields, In proportion to the com, and the purer and whiter the bread $1 s$, the superfluous humbIty ulone evaporating in the keeping. At Zurich, in Swhzerland, corn has treen kept 80 years, or longer, by methods of sianilar descrijtion.

The jublic granaries at Dantzie are seven, elght, or nine torien in helght, and have s funuel in the mhlst of each floor, to let dewn the corn from one to another. They are buitt so securely, that though evory way surrounded by water, the corn contracts no demp, and the veasels have the convenience of coming up to the walls to he loaded. The linasians and others prenerve their corn In bubterranean granarion of the figure of a augar-loaf, wide below and narrow at tol, the sldes being well plastered, and the top covered with stones. They are careful to have the corn well dried before it is Lald Into these store-housex, and often dry it by means
of ovena, eapeclally where the aunim dry weather is too ahort to effeet thla anficiently. 'fhis method of atoring arsin has been practiced in many countries from remote antiquity ; and In Slelly, in particular, at the present day, many of the granaries are simply exeavatlons In the caleareous rock.

Some recommend that the roofs of granarios should be composed of tiles, lrecause in the worst neasons, when the regular apertures can not be opened with eafety, there will olway loe a conslderalile inlet for freah air at their jolnings, and also an lanue for the exhalations given out by the grain; whlle others prefer a very close roof, as of lead or ainc, for the perfect excluslon of Insects and vermin. If there happen to be any windowa to the aouth, care must be taken to shut them In molat weather, and in the time of the hot southern winds. There mast be no cellar or othar damp place under a granary, nor ahould it ever be built over stables; for In elther of these casen the corn will certsinly suffer by the oxhalatlons-be rendered ilamp in the one, and II-tasted in the other.
M. Duhamel and 1)r. Hatlea have recommended varionn contrivances for ventilsting or hlowing fresh alr through com laid up In granaries or shipe, In ordar to preserve it sweet and dry, and to prevent its being attaeked liy weevils or other Inseets. Thls may be done by nnilling wooden bars or laths on the floor of the granary, about an Inch diatant from each other, when they are covered wlth halr-cloth only; or at the dintance of two or three inches, when cosme wlre-work, or basket-work of owlers, Is laid under the hair-cloth, or when an Iron plate full of holen le lald upon them. Theae laths may leo laid across other laths, nalled at the diatance of 15 hichen, and two or more Inches deep, that there may be a free passage for tha alr under them. The under lutha munt come alout six laches short of the wull of the granary at one end, on which a boadd Is to be ret edgewlse, sloping agalnat the wall ; for by thin dinponition a large alr-plpe is formed, whlch havIng an open communication with all the intersticea between nud under the barn, will admit the pasaage of alr below forcilily through $s$ hole at the extremity, and consequently carry of the molst exhsiatlons of the corn. The ventllators for supplying fresh air may he flxed against the wall, on the Innide or outaide of the granary, or under the floor, or In the ceiling; but wheraver they are fixed, the hanile of the lever that worke them must be out of the gransry, otherwise the person who works them would be in danger of suffocation when the corn is funigated with burning brinatone, an in nometimes done for destroylng weevile. Small movable ventilntors will answer the purpose for ventilating corn in large tins in granarlea, and may casily to moved from one bin to another. If the Lranury or corn-shlp le very long, the main sir-pipe may pass lengthwise along the middle of it, and convey air on both sides under the corn. In large granaries, deuble ventilators, Jaid upon each other, may be thed at the middle, and near the top of the granary, that they may be worked by a windmill fixed on the roof of the bullding, or by water-mill. The air in conveyed from the ventilators throngh a large trunk or trunks, renching down through the several doors to the bottem of the granary, with branching trunks to each floor, ly means of which it may be made to pass Into a large trunk along the adjoining cross-walls; and from thene trunks severul lesser trunks, about four Inches wide, branch off at the dintance of three or four feet from one unother, and reach through the whole length of the granary, thelr further ends belng clored. Seatis of one tenth or one twelfth of an inch should slwo the left open at the four joininge of the hoard, where they are nailed together, that the alr may pass through them into the corn. In sono of these lesser trunks there may bo alliling ahutters, to wtep the passage of the air through those trunks which are not covered with Iron, or to ventilato one jart of the gran-
ary more hriskly than othara, is there may be orcaalon. There should also be wooden' shatters, hung on hinges at their upper part, ro as to shut eloee of themaelven; and these ahould be fixed to openinge in the walls of the granary on their outside; by which meana they will readlly open to give a free pasaage for the ventliating air, which ascends through the corn, but will instantly shut when the ventllation ceasea, and therehy prevent the admlsaion of damp from the external air. The ventilation ahould be unde onily in the muldile of dry days, unless the corn, when first put in, be cold and damp.

Gianite, a compound rock, constituting the loweat of the geological formations, according to older geologiata; but it has lately been found resting even on secundary fornsations in the Aips. It (easentially) censlata of quartz, feldspar, and miea. Its great durability as a masterial for luilding la attested by many of the ancient Egyptian monumenta, in which the atone exhibita no appearance of decay even after a lapse of 3000 years. There are aome granites, however, which shake and crumble down in a very few yeara, particularly those in which feldspar predominates. This rook becomes refractory to work after it has been some time quarried; and it is usual to keep it for some time under water before it is wrouglit into ornamental objects.

Granulation of metals, an operation aimply performed by alowly pouring the melted mass through an iron cullender into water, which is kept in agitation by means of a bundle of twigs. By this method metals may be reduced to minute grains.

Granville, the ancient Grannonum, a fortified seuport town of France, department of La Manche, at the foot of a steep, rocky promontory projecting into the English Channel, 80 miles south-west of St. Li. It is surrounded by atrong wulls, and the streets are narrow und steep. The only renurkable building is the pariah church, a venerable Gothic edifice. The harhor is spaciuus and secure, but dry it low water. Works, however, are now in progress for the improvement of the harbor generally, and for the construction of wet donks. The Inhabitants are chiefly engaged in the coasting trade, or in the cod end oyster fisheriea. Shipbuiding is also carried on. It has a tribunal of commerce, is hospital, public baths, and a naval sehool. Granville was bombarded and burned by the English in 1695 , and partiy destroyed by the Vendean troops in 1793. Population, 834.

Grape-shot, in Artillery, consists of a quantity of shat piled round an iron spike which is placed in a strong canvas bug, the whole being firmly cord Itogether so as to form a cylinder adapted to the culibre of the cannon. It differs from canister or case-shot in that the iatter kind is composed of bails packed into a tin canister with a woolen lottom.

Grapes (Ger, Trunben; Fr. Raisins; It. Grappoli, Grappi; Sp. Ubas, Racimos ; Iat. Uree), n well-known fruit produced from the vine. France, Spain, Portugall, and Italy, as well as some parts of Germany and Ifungary, produce grapes which yield wines of various qualities and thaver, many of them excellent. We import green grapea from Lision, and other parts of Portugal, Malaga, etc. They are bronght packed in jurs, and secured from damage by means of suwlust, plentifully strewed between the layers of fruit. The grapes grown in Great Britain in the upen air are much smaller, and by no meuns so fuscivus, as these of forelgn countries; but these ruised in hot-liouses are quite equal, if not superior, to the latter. Grapes are imported not only in their natural state, but dried and preserved, in which latter state they are denominated reising. [Sice llaisins.] 'ihe most valuable grupes grown in the United States are from the Cutawba and Isabella vines, which are natives of Anerica. These grapes are of a purple color, und have as luscious a taste as the best grapes of Europe. A amuller grape also abounds, culled the fox grape, which, although
not as pleasant to the taste, is very much used in a dried atate, and is also premerved in large quantitioa. See Wine.

Graphite ( $\gamma \rho a ́ \phi \omega$, I write), oihervise called plumbago, and often impwoperly black lead, is a mineral carbon with a alight admixture of lron. It may be made artificially hy exposing iron with. excess of carion to a violent heat for a considerable length of time, when a real carburet of lron will be formed; whereas in the native apecimens the iron and charcoal are only mochanically combined. The tineat graphite occurs at Borrodale In Cumberiand, and is appropriated exclualvely to the manufacture of penclis. The coarser varietles are used for making cruclblea and portalile furnaces, for which purposes thls suhatance ls peculiarly fitted from ita infuslbility; avd it is aleo much used for giving a gloss to tho surface of cast-iron goods, as well as to diminlah friction between rubhing surfaces of metal or wood in machinery.

Grapnel, or Grapling, a kind of amall anchor with fuur or five flukes or claws, chlefly used to secure small boats.

Grass Cloth. The folloring er ract from the Roport of Mr. Nathaniel Wilson, e' ter of the Iletanical Gardens at Hath, in Jumaica, G. scribes the auccessful introduction into that island of the Chins grassecloth plant (the Rhee of Assam), and the propriety of tursing to profitable account their numerous indigenous fibrous-ylelding plants, which are at present quite neglected: "I have now the happiness of recording my entire success in the cultivation of the Cibina grasscloth plant (Boehmeria nivet), introduced in 1854, and a more valuable introduction could not have been made. I find the plant thrives here with a luxuriance equal to any of our native plants, and probably with more vigor than it does in ita native elime. This plant (as is now well known), produces che best filire for textile purpeses witn which we are acquainted, and, according to nndonbted anthority, is worth in the London market from $£ 80$ to $\mathbf{£ 1 2 0}$ per ton; which is surely sufficient to render the plant worthy of all the attention we can beatow on it, if new staples for general and profitable caltivation be desirable. I have no hesitation in saying, that, by its spontancous and luxuriant growth, a more desirable and appropriate plunt for tropical culture has never before been submitted to the notice of the public. I have 36 of these plants ready for distribution, and could, by a small expenditure, fincrease the number to any reasonable extent.

Gravesend, a municipal borough, river-port, town, and parish of England, county of Kent, on the right bunk of the Thumes, 20 miles E.S.E. of Iondon. Area of borough, Including Milton parish, 1541 acres. Population of Gravesend and Mititon, 16,633. The older part of the town, near the river, has narrow streets, the upper town is more open, and has many tasteful rows of houses and detached villas; the sumnit of hilli, on which it is built, is crowned by prospecttowers, commanding views of the Thames, and is a favorite holiday resort. Former trade consisted in supplying ships with stores, vessels from London being obliged, intil lately, to clear out here. Its more recent, and still rapidly increasing prosperity dates from the establishment of steamboats, which run to London in two hours, and during summer, especially on Sundays, bring innmense crowds of visitors. Many also of the woulthier class of trailespeople reside here. A ruilroad, to unite with the London and Greenwich line, is in course of formation, and will unite with one which passes through a tunnel, upward of two miles in length, und connects the town with Rochester, distant about seven miles. There is a ferry across the 'Thames to Tilbury Fort. Murket, Wednesday and Naturday. The borough is a polling-place for West Kent. The town was burnt by the French in the time of liehard II. On its weat side ure the garden and suburb of Lioshervile.

Great Britain, the most consiferable of all the Enompenn islande', fs altantexl between 50 and bal dogrees of north latitude. It is bounded on the north hy the North Sen, on the enst by the German Ocein, on the anuth iy the English Channel, and on the weat by St. George'n Channel and the Atlantlo Ocean." From north to south It extends about 880 milies in length; ity greatent hreadth, from the North Forelanilin Kent, to the Land's End in' Cornwall,' is about 870 'mhes; and its asperfictal area is computed at 87,500 aquare miles. The figure of this island is trregular; somewhat resembling that of a wedge, to which fardeed it was compared thy the anclents, from its gradually narrowing towanl lis northern extrenity; and its whole Hine of coast is deeply Indented liy bays, creekn, and estuarles, whlch, not withrtandlug its boldneas 'sind raggedness in many parta, afford afe and commodious harhors. From its geographical position, therefore, no less than from its natural adivantages, this island seems to have been deatined by nature to beconte the seat of a great and powerful nation.
Its eastern coast forms a waving, contintous, and rarely-broken llne, but the western coast lis extremely irregular, nnd deeply Indented with many baye and arms of the sela, interspersed with numerous islands. The south-east part of Britain in a level, alluvial surface; the centre, undulating and hilly; the western and north-westem," mountalnoiss and irregular. In the north'and west, primary atrata and granito rocks prevail ; in the nifdde diatricts, coal, line, anlt, and Ironstone are ahundant; and these are ancceeded in England, on its enst and south-enst vallera,') hy oolite chalk and the newer geological formatlons. Amountain range, mere or less elevated, extenis from *outh to north of the tiland, maning through Cornwalt, Devonshire, Somersetahlre, and thence through Wales, varying in elevation from 1500 to 8500 feet. Another branch extends from the Cotswold hills, Gloncestershire, and runs through Derhyshire, Staffordshire, Yorkshire, Cumberland, Westmoreland, and Northnomberiand, with elevarions from 2000 to 8000 feet. Succeeding these are the Chaviots, the Lammermoors, and the great Gramplan range, which inteviect Sentland, and whose extreme altitudo is meanured by Ben Nevis on the weat, and Ben Maclhul on the northenat, looth attaining an elevation of upward of 4300 feet. The most considerathe rivere aro the Severn, Medway, Dee, Mersey, Clyde, na the weat comast, and the Thanes, Trent, Humiver, Tyne, Forth, Tay, and

Apey, on the enst conat. The primolpal lakes are those of Oumberinnd and Weatmorelaind in Englund, :and Locha Lomund, Tay; Maree, ete. in Scotland.:"The princlpal baye and entuaries are the Bristel Channel, Ganilgan Bay, Laneaater Bay, the Solway Firth, Mirth of Clyde on the weat, and the Thaniee mouth, the Waah, the Humber, the Firthe of Finth, Tay, Marray, and Cromarty on the east, while on the sonth there are Palmouth, Plymouth, Portsmoath, and other important haye and harbors.

The Britioh Ielands Inclade Ireland, the Isles of Wight, Anglesea, Man, the Scilly Iaiands, Bute, Arman, the "Hebrides; Orkney; and Shetland Islende. The elimate of Iritain is greasly modifiad by Its insuInr aftaation, the extremen both of summer and winter temperatare being wiuch less than that of correspondlug latitudes on a continental surface. The mean annual temperature le ehont $49^{\circ}$ Fahrenheit. The extreme nummer heat aeldom exceeds $80^{\circ}$. Fahr., and the winter cold, with rare exceptions, doen not extend beyoud $25^{\circ}$ to $32^{\circ}$. WThe annual fall of rain averages about 32 inches. Meat raln fulla on the weat slide of the island (from 88 to 40 Inchers), the east const being comparativaly dry ( 25 Inches), but a cold north-enat and eant wind prevalla more on the enat ecoast, while a warm west and wouth weent blows on the west ; from this reamon, foined to the nature of the abil and eleva. tion of the nurface, the enatern half of the infand is move an agricultural, whlle the went is move a graxing country. Though variable; the climate of Britain is found, in in taliles of longevitry, to the one of the mowt salubrious in the word, while the very geneml fultivation and dralnage of the have removed those malailies that originate in marsh effluvia. Within the last century the nverage longevity of the jopulution has teen greatly increased. In 1800 the average mortality in Fagland was 1 in 82, in 1847 i $\ln 45$. The area of Uritain in 90,088 square miles 1 inelading Ireland, the total area la 122,550 square milen, or $78,482,048$ neres. In 1710 the population of Eingland and Sootland amountell to $6,16,337$; in 1801 to 10,942,646; ir 1821 the population of the Inited
 $24,410,429$; in 1811, $27,019,658$; and In 1851, 27,675,324.

The following table shows the population of tirest Britain and Ireland, the area in statite acres and equare milen, also the number of acres to a permon, and the numbler of persons to each mquare mille:

|  | Malee. | Ferualea, | Toinl. | Arom. |  | Aeres io a preon. | Pereonn to 4 \#y. nule. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | It elature | lanex.tar |  |  |
| Fingland. | (xyw 78.78 | 6,641,154 | 11,921.848 | 32,0911.429 | 54,982 | 1.9 | 842 |
| Gcoiland. | 1,375, 479 | 1,518,2619 | 2, $5 \times 1742$ | 20,047, 4f2 | 8t, $2 \times 3$ | $6 \cdot 9$ | 12 |
| Walen . . . . . . . . . . . . . . . . . . . | 409,49t | M09\%230 | 1,060,7y1 | 4,784.486 | 7,892 | 47 | 185 |
| Inlandi ta the Britah Reta......... | R4, NH 4 | 14.478 | 143.120 | 2502,000 | 884 | 14 | 884 |
| Afinp, mavy, mad mereliant neamen | $16 \mathrm{y}, 494$ $10.82914,014$ | 10,785919 | 162,4917 | 57, $624.97 \%$ | (19),039 | 2.7 |  |
| Prelanil. | 8,176, 27 | $10,869,19$ $8,80,067$ | 6, $0.68,85 \%$ | 20,906, 271 | 09,012 | $8 \cdot 8$ | 218 |
| Total Grat Britaln and Irelan-l | 13, 82,775 | 18,974,946 | 27.175 .824 | $88.182,44 \times$ | 122, 5041 |  |  |

The litith population is apread e - agreat mulritude of lelands which rise bet ween the Atlantic Ocean ard the North Sea, the large Islanit of Gerat Britain being the ehlef of the group. This Iuland is aurrounded thy the Inle of Man, Anglesea, the Rellly Iflauds, the Isle of Wight, the sutlaying Channel Iflands, the Shetland Inlamis, the Orkieys, and the Mebrides, 300 inlanda have leen nombered, liut InhabItants were only found on owe hundred and seecenty-fire islands in the day of the censun in 1wis. The Mritish Isles extend over 11 degrees of latitude an! 10 degrees of Iongituife: consemuently, In the mont aortherly of the Shetlanils, the night in the aummer molatice is three houns shorter than In lersey; and the sun rines and seta on the east coast of lingland 47 minutea before it risen and sets on the wext coast of Ireland.

In the esrilent period of our written listnry, theme Islands were peopled ly Celts ; Britaln wan their holy
[nland, and the seat of their schools und most sacred grover. The indes of Anglesea and Man, hoth knowa nuder the name of Munn to the Inmane, wero the meats of the I)ruldic hierarchy and worshlp. Luna, or Ieolmakil, a amall inhand in the lietridien, now emitain. Ing fiel Inhahistants, is celebirated as an early weat of Christianity. It wam the ati:tion of St. Coluuatha, who founded an orier of missinnaries them, and thus contributed to the diffusion of Christlanity over Hritain. The celebrated ruins on the intand consint of a catheIral, a nunnery, and St. Oran's ehapel, together with many anctivnt tomblom and crosses. This Ishand in often visited ly tourist a th the wentorn llighlanis, and is only 10 milles from the far-famed Staffi.
The population of the Ixland of fireat Mrituin in
 baliteanta; Anglesea, the noxt mont populout In the group, hall $6 \overline{6}, 318$ Inhabitants; Jersey, 57,020 ; the

Iole of Man, 52,844 ; the Isle of Wight, 80,324 ; Guernsey, 29,757; Lewla, 22,918; Skye, 21,528; Shetlind, 20,936; Orkney, 19,668; Inlay, 12,834; Bate, 9851 ; Mull, 7485 ; and Arran, 5857 ; 17 islands contained a population ranging from 4006 to 1061; 52 had a population ranging from 947 to 105 ; and the rumaining 92 Inhabited lelands ranged from a population of 92 downward, until at last we come to an isiand inhabited ty one solitary man.
Divisions,-The shlre is an importat sub-division of the kingdem; each has a lord-lieutenant, who is also keeper of the arohiven; a sheriff, an under-sheriff, and jastices of the pence, all appolnted by the crown; each shire hae aiso a county treasurer and a clerk of the peace, each appointed by the lord-lientenant; and a county coroner, elected ly the frechodlors. The revenue of the shires is chiefly derived from rates struck by the justines of the peace in connties at quarter sesslone, and la for the most part appriprinted in maintaining bisilges, lunatic asylums, jails, priaonera, and police. The terms "hundreds" and "tythings" had their origin in a syatem of numeration, but whether thoy represented persons, fumillies, or holdings, is difficult to deterninu. In process of time, what wis once a number hecame a name, und for a lorg period the terms have ceased to messure either arda or population, as is evidonced by the fact that the handreds in the sarvey after the Conquest, und the handrets atlll remaining, differ widely in both elements, and, thoreover, the present hondred is different in extent in the varlous counties; for instance, in Gioucestershire, tho hundred contains on an average 29.090 acres ; in Herefordshiro, 49,000 ; and in Shropshire, 63,000 . The hide was the lot or share of the first ettler.
The sessional divisions existing in all the counties of Englund and Wuies, for the purposes of special and petty sessions, are in genoral insed on tho hundreds and other ancient county sub-divisions. Tho justices have power to alter these divisions for the convenience o' holding sessions, but they have no anthority to alter the ancient huadreds. There are t60) semsional divisions in Eingland and Wales, and for the parpose of assize and jail delivery, eight circuits, bonide tho jurisdiction of the central criminal court. 1 Saxon burgh, or borough, was a hundred, or an ussemblage of handrells, sarrounded by a moat or wall. As ancient boroughs fell into decay, new onos spirung njp, and many tow us not formerly horoughs, have heen created boroughs for purpoaes not very intelligilide. The affairs of mumicipul boroughs are administered by a mayor, aidermen, and othar functionaries.
'The 196 reformed toroughs in Eughand and Wales co., tain a tutal pojulation of $4,355,269$ inhabitnntes; the popalution of $6: 1$ range under $5000 ; 43$ from 5000 to 10,000 ; Ge from $10,0(4)$ to 50,000 ; 14 from 50,000 to 100,000 , Ifrom 100,000 to 200,000 ; and 3 nheve $2(0), 000$. The rity of iondon la still unrefirmei, and therefore not inclidelel in tiese. Seothand cuntains 83 rayui and manfeipal hurghe, having a total iopulation of 752,377 inhalitants ; bis huve a popuintion under 5000 ; 11 from 5000 to 10,000 ; 11 from 10,000 to 70,010; null 1, 148,000.
The suinor sulbdivisions of townshiph, parishen, and manurs, were re-distrihuted hy Williun the Comqueror, after the hattle of Hastings, und apportioned among the chieftains in his army. The ceelesiasticai llistricts and dioceses wore demigned exilusively for spiritual purpoens; tieir themudiaries are quite ignored by tho general public, und rarely known hy any kecular otherrs, whillo, in many casea, even the clergy tiomselves, unprovided with mapes or phans, are uncertain as to the limits of thoir respective cures. Tho division of the conutry, ecelesiasticaliy, in Dieceses, Archlinacomries, and Deaneries, took place at a very early period. Moat of tho present binhoprica were fimmichl in Saxon thes. The dincesen, on their tirst formation,
had their linits co-oxtensive with the boundaries of the kinglom of the sovereigns who formed them; but sub-divisions were soon discovored to be uecessary, and various princes subeequently made repeated ulterations, until at length the whole arrangement settiod into ita existing ahape.
The indigenous vagetation of Britain partakes of the charactor of that of the contiguous parts of Europe. All the graing and grasses, and the common European fruits, grow in almost all districts and situations, not too elevated, and hoth agricuiture and horticulture have been brought to a great degrec of perfectlon. The broeds of horses, cattle, sheep, and other usoful animals, are ulso of the best description. Of wild unimals, the fox, budger, will cat, stoat, martin, otter, squirrel, hedgebog, dormouso, mole, mouse, hare, and rablit, are the principal. The wolf, bear, beaver, and wild ox have hecome extinct for several centuries. The stag and fullow deor are stili abundant in eeveral localities. The great bustarl and capercallzie are the only birds known to have becone oxtinct in Britain. The bittern, eaglo, and ether birds of proy are becomIng dxily more raro. Grent Britain is the most favored ceuntry in the world for the development of mineral industry. Fuel, the indispensable agent in the trentment of metalliferous ores, and the most powerful element in the proluction of motive forec, is cistributed unequally threughout England, Scetland, and Ireland. The coal fermation in these three divisions of the Britlsh empire, occupies rich and widely-spread basias, several of which, eapecially those of Newcastlo-onTyne, Scotland and Wales, being near the sea, are enabled to export the conl to those places whero the metalliferous ores exist in abundance, but where, as in Cornwall, the absence of fuel renders their heing werked heth costly and diffeult. The ores of iron, abundantly distributed in severul of the conl bnains, udd greatly to the yalue of these. Kach one so circumstunced has become the centre of a metnliferous district, whero numerous works produce iron at a price so modorate as almost to defy competition. The insular position of Great llritain, which facilitates the shipment of coul to the phaees where it is required, is elually important in transporting tho iron ly sea to any of the eea-ports of tho wurli. These highly-favornble causes have given great development to the operations of coal-mining and the manufacture of iron, und especially since the application of cast iron for tho purposes of constructing riiiroads. The quantity of cast ison produced in 18000 was $2,250,000$ tons. Tho quantity of 'oal raised was estimated at $84,750,000$ tons. These sources of woulth in cond and iron, which are alone sulticient to place a country at the hend of mineral industry, are net the mily ones possessed by Britain. Nature has given it mines of cupper, tiu, und of leal, of preat riciness. The annual production of copper is $1 \geq, 000$ tons; of tin ore, 11,000 tons; nad of lead, 68,001 tons. The coai-heds of kingland, contained in the cartoniferous system, ure fouml in Northumberland and Durham, South Yorkshire, Nottingham and Derhy, South L,ancashire, Statlorlshire, Warwickwhire, Anglesea, Finint, Sulop, Worcestorshire, Gioucestorsinire, and tho northern jart of Somerset, South Wales, and near Whitehaven in Cumberimad. Iron in found in inexhustihle quantitien in ali the formations. Lead is found chietly in the mountuin iimeatone; copper in tho grunite and older prinury stratilied rocks; tin in Cornwall aud bevon. Sait gipringe, ybiding large quantities of salt, are found in Chealiro and Woreastersilire. As to mineral trenaures, the enstern counties of England, to the south of Yerkshirc, are remarkble for coutaluing no mines, elther of conl or metal. Theae valuable dejosits are found in the more uneven districts of the north and west.

The following table presents at one view turritury helonging to Cirent liritain, its area in square miles, and the hast census ha every portion attahatho:

GRE
Terbitony belonging to Ghait Baitade.

| States, provinces, or eolonies. | $\left\lvert\, \begin{array}{\|c\|c\|} \text { Aren } \ln \text { Eng. } \\ \text { sq. min } \end{array}\right.$ | Date of | Pup by tho |
| :---: | :---: | :---: | :---: |
| I.-Ehuropean Possestons. |  |  |  |
| England. | 80,022 | 1851 | 16,921,883 |
| Wales. | 7,898 | 1851 | 1,005,721 |
| Scotland | 81,894 | 1851 | 2,888,749 |
| Islands in British s | 804 | 1851 | 143,188 |
| The army, nary, and Britlsh seamen. |  | 1851 | 162,480 |
| Irciand. | 82,445 | 1861 | 6,586,857 |
| Ileligolan | 5 |  | 8.280 |
| Clibraltar | 11 | 1844 | 18,008 |
| Malt | 259 | 147 | 108,140 |
| Gozo | 27 |  | 15,180 |
| Total Enropean possessions | 5122,6117 | .... | 27,798,822 |
| II.-African Posessions. |  |  |  |
| Slerra Leon | 875 |  | 45,478 |
| Gold Const | 6,000 | .... | 275,000 |
| rernando Po | 400 |  |  |
| Setticments o | 12 | $\ldots$ | 4,857 |
| 8t. Heleda | T6 | , | T,000 |
| Asconsl | 44 |  | 6,957 |
| Cape of Good Ho | 110,256 | .... | 261.430 |
| Natal. | 15,000 |  | 280,000 |
| The Seyclielie | 768 | 1849 | 179,581 |
| The Seycliclies......... | 80 | $\ldots$ | S, (1)0 |
| Total African possessi | 183,451 |  | 1,036,301 |
| 111.-Asiatio Posecgaions. |  |  |  |
| Ceylon | 24,448 | .. | 1,421,631 |
| Hong-Kiong (treaty in 1842)... Inda. | 80 | .... | 28,572 |
| Beugal and Agra prealdencles. | 306,000 | .... | 71,758,869 |
| B. rar , cedel to Bengal, 1838.. | 76,492 |  | 4.650, 000 |
| Madras presidency | 144, 889 |  | 16,839,426 |
| Boinhay presideney | 196, 165 | ... | 10,484,017 |
| Pupjab.............. | 78,44 | .... | 4,100,983 |
| slingapore, etc. <br> India, | 1,575 |  | 202,340 |
| States depeudent on Bengal... | 477,054 |  | 89,655,476 |
| " ${ }^{\text {" }}$ " Mairas... | 80,637 |  | 4,691,280 |
| Latuan...................... | 56, 380 | ... | 4,613,020 |
| Atlen... | 8 |  | 40,000 |
| Total Aslatle posseaslona $\}$ 1, and depentiencles...... | 56,510 |  | 159,012,078 |
| IV.-American Poskession. |  |  |  |
| ITadson's Bay Terr | ,400,000 |  | 180,000 |
| Canala East... | 291,989 | 1958 | 890,261 |
| Oanala W | 14i,832 | 1s52 | 952,504 |
| New Bruaswlek | 27,700 | 1. 51 | 108,410 |
| N. Scotla, Inclad. Capo Breton | 18,746 | 1351 | 276.117 |
| Prince Eilward's laland. | 2,134 | 1548 | 02,07\% |
| Vewriundinnt.......... | 34013 | 1501 | 101,606 |
| Labrador (attached to Newfoumdland) | 5,000 |  | 100,000 |
| $V \mathrm{ancouver's} \mathrm{island}$. | , 000 |  | 2,000 |
|  |  |  |  |
| llonduras. | 62,700 | 14.4 | 11,046 |
| Berinuila | 47 | 16il | 11,092 |
| Inmalea | 6, (4) | 1249 | 870.690 |
| The Ilaham | 8,5169 | 1- 51 | 25,593 |
| Barbatoes | 166 | 14.51 | 185,9831 |
| irenala. | 169 | $1 \times 4$ | \%,927 |
| it. Vincen | 181 | \| 51 | 97,445 |
| t. Lnela | 295 | 1403 | 24, ixs |
| Tubaro. | 150 | 14.4 | 18,127 |
| Antigua | 104 | 150) | 30,190 |
| lontserr | 47 | (450) | 7,4(4) |
| Barbuda | 11 |  | 1,000) |
| laminira | 275 | 14* | 23,2(3) |
| t. Uliristop | 70 | 1200 | 28, 133 |
| Sevis. | 21 | 1581 | 11t,200 |
| The Virutn Isls | 90 | $18+4$ | B6,049 |
| Turk's Inlands | 434 | 141 | 6,122 |
| ilnilas] | 2,020 | 1430 | 59,514 |
| May Islands | 2914) | .... | 419 |
| British clutan | 90.0000 |  | 127,69\% |
| Faltaland Inla | (in) | ... | 2,640 |
| Total Amerleain posseaslons. 2, | 2,903,156 | ... | 8,463,877 |
| V.-Auatrulian Prosessions. 1 |  |  |  |
| Now South Walea. | 81, 810 | $1 \times 1$ | 107,164 |
| Ietoria. |  | 15,52 | 200,000 |
| Western Australia. | 100, that | 150 | \%,1100 |
| outhern Anstralis. | 8(M1, $1 \times 31$ | 1484) | 84, $\times$ 8: |
| an Itimen Land.. | 2t, (141) | 1301 | 70,164 |
| Lew Zealand. | -6,190 | 1 SiO | 22,410 |
| Auckiant Islanda | .... | .... |  |
| Vorfolk |  | ... |  |
| Total Australlan posaemsions B4s,bint Grand Total............... 4, 18 f , ik 3 |  | $\ldots$ | 641,760 |
|  |  | 1 | 194,997,941 |


 Januart, 1850,1851 , and 1852.

| Britah eolonies and dependuneles. | Deelared Valoe of Exportu. |  |  |
| :---: | :---: | :---: | :---: |
|  | 1850. | 1861. | 1868. |
|  | ${ }_{8} 85$ | ${ }_{250}$ | 428 |
| Channel Isjan | 634,108 | 506,415 | 618,724 |
| Glbraltar | 588,481 | 888,141 | 481,286 |
| Malia nnil | 857,744 | 814.886 | 801,448 |
| tonlan Islands. | 185,805 | 185,912 | 223,006 |
| Europe | 1,721,680 | 1,845,104 | 1,619,787 |
| Possesslons on 1P. Gambla. | 85,770 | 48,700 | 47,197 |
| Slerra Leene. | 60,290 | 70,290 | 94,456 |
| Gold Const... | 184,691 | 87,871 | 107,058 |
| Fernado P | 8,197 | 8,668 | 81,505 |
| Poseenalons in South Africa | 580,961 | 798,600 | 752,893 |
| Aseension | 4,997 | 3,868 | 7,207 |
| 8t. Helena | 18,815 | 26,605 | 23,244 |
| Mauritlus | 234,022 | 868,726 | 282,92\% |
| Africa | 1,012,148 | 1,400,868 | 1,296,434 |
| Alen. | 14,564 | 18,711 | 17,184 |
| Territories In the E. Indles | 6,149,042 | 7,242,194 | 7,022,296 |
| Slingapore | 494,080 | 862,189 | 608,856 |
| Ceylon. | 159.852 | 218,382 | 175,414 |
| Hong-Kon | 651,989 | 593,191 | 682,989 |
| Asla | 7,469,807 | 8,684,507 | 8,466,179 |
| Weot Australla. | $12,018$ | 86,981 | 84,726 |
| South Aostralia | 810,043 | $417,809$ | 975,085 |
| New Sonth Wa | 1,880,847 | 1,005,432 | 1,201,261 |
| Vfetorla |  | 589.889 | 604,403 |
| Van ylemen | 815,021 | 4410,668 | 490,922 |
| Now Zealand | 106,434 | 112,188 | 171,009 |
| Australla | 2,050,468 | 2,602,258 | 2,807,466 |
| Gett. of Itudson's Hay Co.. | 61,795 | 102.295 | 72,927 |
| Nowfoundland | 297,850 | 348,120 | 834,780 |
| Canada. | 1,342,081 | 1,998,511 | 2,451,084 |
| New Brunswlek. | 279,250 | 411,151 | 442,193 |
| Prinee Edward's laland... | 41,421 | 56, 867 | 87, 009 |
| Nova 8cutia | 276,106 | 328,177 | 456,819 |
| Antlgua | 70.194 | 65,787 | 99,709 |
| Barbadoes | 810,60s | 381,594 | 419,479 |
| Dominlea | 22,484 | 26,474 | 83,595 |
| Grenada | 28.849 | 88,796 | 45,163 |
| Jamaica. | 020,035 | 701,674 | 700,290 |
| Montserra | 402 | ${ }^{88}$ | 178 |
| Nevis. | 1,098 | 1,64! | 2,205 |
| Nt. Christop | 45,44s | 48,667 | 6x,6et |
| St. Incla. | 14,672 | 15,000 | 22.974 |
| st. Vincen | 64,269 | 67,370 | 78,291 |
| Tolvato | 14,887 | 18,641 | 18,420 |
| Tortola | 46 | 221 |  |
| Trinlidal | 248,213 | 241,930 | 275, 6 \% |
| Bahamas | 24.709 | 83,105 | 32, (3) |
| Bermudns | 47,183 | 39,527 | 32, 43 |
| demerara | 279,012 | 802, 074 | 804,19 |
| Berblee. | 17.819 | 21,014 | 24,896 |
| Loniluras Britis | 208,24 | 183,352 | 232.639 |
| Falkiand Isanits | 6,174 | 1,145 | 2, 41 |
| Amerle | 4,318,716 | 5,49,77i | 6,251,213 |
| Aggregate valuc of Hitt, and Irish produce antl mannufactures exported to the BrltIt eolonles and thepemiencles. | 16,697,714 | 10,432,450 | 20,430,369 |





|  | Pounds ate | Pollar. |
| :---: | :---: | :---: |
| Creat Britein. |  |  |
| New atmuilles. . . . . 2 \% per cent | 1,815,12:1 | $0.0 .75,815$ |
| Ody sea annuittes .... 8 " | 2,746,677 | 32,73285 |
| 1ebt due H'k of King. ${ }^{\text {S }}$ - | 11,015,1mi | [nitama |
| Consolilaterl aidiults, 8 | 367, 460, 152 | 1.880, $3 \times 3.260$ |
| lieduced anouttes... 3 - | 14, $5 \times 56$ | 5, $6.683,2 \%$ |
|  | 714,86(1),54 | 3, $21.401,240$ |
| Irelind. |  |  |
| New rnnuitles...... 21 per cent. | 5,240 | 40.150 |
| Consolliated annuits. $3^{3}$ | 6,040,866 | $80,447,1313$ |
| Heduced annultes...s " " | 114.72s | $5 \times 16$ |
|  | 81,728,424 | 158,617.180 |
| Debt due lik of Irel. \% " | 9,640,769 | 11,9:3, ${ }^{\text {c }}$ |
| New annultlen......ss * | 2,106 | 14,400 |
| Total Irel | 41,032,41 | 202,602,75 |
| Total Unltel Kinglom, | 754,5109490) | 8,774,455,00 |

Th ed to war amou Nert Kı

The natlonal debe at the Revolution in 1688 amounted to $\mathbf{£ 6 6 4 , 2 6 8 ;}$ at the commencement of the American war in 1775, it amonnted to $\mathbf{£ 1 2 8 , 0 0 0 , 0 0 0}$. In 1817 it amounted to $£ 840,000,000$.
Nett Publio Inooma and. Expekditurit of tina Uxititd Kinodox fue tire Yalr endid ótu JANUART, 1858.

| Cu | 20 |
| :---: | :---: |
| Excls | 15,791,785 |
| Stamp | 6,921,298 |
| Taxel | 8,659,697 |
| Property | 8,642,770 |
| Yoat outice | 2,442,887 |
| Crown Lands . . . . . . . . . . . . . . . . . . . . . . | 858,265 |
| Bmali branchse of hereditary revenue... | 14,851 |
| Sarplus fees of regulatod offices. | 110,097 |
| Money received from the East India Company, and impress moneys, etc. | 158,776 |
| Other sonrcel. | 613,704 |
| Total | £57,755,570 |
| Pabllo debt..................... | 227,934,888 |
| Clvil liat. |  |
| Diplomatio servico | 151,658 |
| Coarts of jnstioe.......................... | 1,089,878 |
| Navy. .i. ............................... | 6,620,944 |
| Army | 7,018,165 |
| Orinance. | 2,491,709 |
| Anniftles and penions | 858,709 |
| Balaries and penslons. | 279,408 |
| Civil services. | 8,797,818 |
| Miscellanoous | 281,014 |
| Kaflir War | 870,000 |
| Charges of Collections. . . . . . . . . . . . . . . . | 4,436,860 |
| Total | 5,220,866 |
| Excess of income. | 2,528,204 |
|  | $75$ |

The revenue for the year ending 1854 amounted to £51,784,118.
Great Britalu is less fertile in grain than France, hat affords beiter pasturage, possesses an extensive
line of aea-cost, with numerous harbors, a natural and weil-defined frontier, which no invading army can pase on foot, a good commercial position, and the largeat fields of coai in Europe ; but all these advantages have contributed less to her aggrandizement than the excellence of her laws and poittical constitution. , The progress of Britain within the last hundred yeara, and especiaily within the last half century, has been wonderfully great. Tho British isles contain about 76,000,000 of ecres, of which about two thirds are in cultivation, and more than one third waste or nucultivated. Abont haif of the waste land is in Scotiand, where the cultivsted soil forms little more than a fourth part of the total area of the country, while in England it forms about 67 per cent., and in Ireiand 70 per cent. of the surface. So great, however, has been the progress of agriculturai improvement, that, though the population has doubied itaelf within the iast fifty years, the production of food has fully kept pace with it. The progress of Britain in manufacturing industry has been atill more rapid and more remarkable than even in agriculture; and in this respect her natural advantagee are more exclusive. She has a good supply within herself of the raw material of her staple manufactures of wooien cloths, iron, and linen; and her means of procuring siik and cotton are equal at least to those of her neighbors. In enterprise and commercial activity, her merchants take the lead among the natione of Europe; and the removal of all restrictions, and the full introduction of the principles of free trade have given such a stimuius to their exertions as transcends ali former exampie. The number of ships empioyed in her foreign and colonial trade in 1853 was 35,303 , with a burden of $7,797,530$ tons ; and the number of registered British seamen was 253,896 .
 1552-58; tha atrbaor Rate of Produck peg Acke; the total Pronuck; the Anoukt of Serd; the Produor under Drduction of greo; and the total Value of aucit Produck.


Manufactures,-In the orier of their importance, we whole exports, is remarkabio. The raw materiai is of begin with cotton. The history of this manufacture, vegetable orfgin, and is olitained from the intornal coatwhich now employs more hands than any ether within Britain, and furnishes above one thind in value of the 11 II
and others as an annual herbeceous plant．It is from the latter that the far greater part of the sapply is ob－ tained；and for this anpply Britain is entircly dopendent on othor countries．Cotion grows in India，and would undoubtedly thrive well in many of the colonios；but the prosent enpply is derived from the United States of America．In so far，therefore，as regards the raw material，Britain has no advantage in the market



 mach or thr yive oneat Divibions of the Globe．
over other competitors ；bat her superiority heretofore has been in the admirable perfection of the machinery employed．The inventions of Arkwright，Hargreavea， Compton，snd Cartwright，have given adventages to a country possesaing，like Britain，exhanatieas flelds of coal，vast accumulations of capital，and a dense and industrioua population．．For extended lnformation in regard to theae inventions see Corton and Woor．

| Couatrimes． | 1847. | 1848. | 1840. | 1850． | 1851. | 1859. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ewrope． | E | $\pm$ | 2 | $\pm$ | $\pm$ | $\pm$ | $\pm$ |
| Rnssla．．．．．．．．．． | 1，844，548 | 1，925，298 | 1，566，175 | 1，454，771 | 1，289，704 | 1，099，917 | 1，580，056 |
| 8 wode | 178,367 | 162.818 | 1850.077 | 151，090 | 18981819 | 184，784 | 175，883 |
| Norwa | 168，149 | 150，117 | 182， 8986 | 211.817 | 257,814 | 254，978 | 204，269 |
| Denma | 268，701 | 296，468 | 858.599 | 454，804 | 445,510 | 459，486 | 876，001 |
|  | 9293217 | 4859775 | 5489.96 | 7038，116 | 7190786 | 7808，789 | 489，709 |
| Holl | 8，017，428 | 2，828，259 | 8，499，087 | 8，542，699 | 8，042，078 | 4，109，976 | 8，422，650 |
| Bolgiom | 1，059，456 | 828，068 | 1，457，584 | 1，188．287 | 984， 001 | 1，076，409 | 1，089，708 |
| France | 2，504．983 | 1，044，591 | 1，961，269 | 2，401，956 | 2，028，468 | 2，781，286 | 2，115，296 |
| Portagal prop | 859.918 | 1，175，748 | 979，807 | 1，029，204 | 1，044，858 | 1，104，918 | 1，087，839 |
| Ano | 42，980 | 85，360 | 68，406 | 47，607 | 69，685 | 68，479 | 04，378 |
| Masin and the Bale | 88.85 | 40，822 | 95，009 | 41，578 | 41，941 | 41，825 | 89，171 |
| Spaln and the Bale | 770，729 | －16，878 | 628，188 | 884.997 | 1，015，408 | 1，258，957 | 857，592 |
| Canary Lelands． | 80，080 | 45，883 | 52878 | 61，754 | 49，827 | 89，641 | 47，684 |
| Glbratar． | 468，845 | －750，25\％ | 583，481 | 888,141 | 481，288 | 810，899 | 821，617 |
| Inaly and th | 2，844，707 | 2，706，882 | 8，494，849 | 8，400，691 | 8，921，025 | 8，902，286 | 8，210， 40 |
| Malta | 195，886 | 879，467 | 887，74 | 814，886 | 801，448 | 256，867 | 806，00\％ |
| Ionlan Eslands．．．．．．．．．．．．．．．．．．．．． | 1414，486 | 178，819 | 165，810 | 185，912 | 228，098 | 135，648 | 164，2＜5 |
| Turkey，Greeee and Greok，Iala | 2，810，902 | 8，143，918 | 2，881，003 | 8，012，6\％3 | 2，441，951 | 2，501，978 | 2，705，697 |
| and Man． | 542，191 | 109，588 | 034，125 | 500，411 | 618，724 | 564，408 | 576，748 |
| Total． | 24，194，179 | 22，162，957 | 25，120，262 | 26，618，781 | 26，630，048 | 27，667，955 | 25，900，195 |
| ANa， |  |  |  |  |  |  |  |
| 8 yrla and Palestine | 415，292 | 288，156 | 838366 | 803，254 | 859，871 | 611，096 | 304，944 |
| Arabia and Persla， | 19，417 | 19，658 | 17，182 | 13，711 | 17，184 | 20，688 | 16708 |
| E．India Company＇s Territ．\＆Ceylon | 5，470，105 | 5，077，247 | 6，808，274 | $8,024,411$ | 7，807，039 | 7，852，917 | 6，754，841 |
|  | 1，509．969 | 1，445．959 | 1，537，109 | 1，674，145 | 8，161．268 | 2，509，509 | 1，787，675 |
| Somatra and J | 808，177 | 837，ns5 | 888,112 | 817，489 | 759，699 | 819，185 | 494，249 |
| Phllipplae islen | 104，486 | 148， 987 | 80，997 | 193，269 | 202，900 | 115.620 | 140，195 |
| Total． | 7，54，448 | 7，252，580 | 9，158，990 | 10，616，939 | 11，807，900 | 11，128，093 | 9，529，05］ |
| Arica． |  |  |  |  |  |  |  |
| Exypt．．．．．．．．． | 6， $8_{1} 8088$ | 809，876 | 688， 411 | 648，801 | 968,729 | 855，701 |  |
| Trpoh，Barbary，and M | 80，M00 | 81，130 | 80， 400 | 81，090 | 80，249 | 120，209 | 61，712 |
| Western Const of Africa | 818.480 | 871，022 | 620，871 | 641，975 | 658,984 | barfess | 591，150 |
| Cape of Good Hope． | 68.208 | 645，719 | 820， 896 | 796，600 | 702， 888 | 1，064，288 | 74，689 |
| Eastern Coast of Afrlea． | 18，751 |  | 8.489 |  | 224 | 8，542 | 4.168 |
| African ports on the lied se | 605 | 8903 | 1．270 | 1，723 | 788 | 1，188 | 1，（0）7 |
| Cape de Verd lalands．．．．． | 4，14．5 | 8，894 | 1.174 | 8,242 | 11，094 | 0，561 | S，428 |
| R．Helena and Ascena | 81.378 | 81.784 | 29，812 | 80，0104 | 80.505 | 81,780 | 29，709 |
| Mantilus． | 223，563 | 169，3414 | 2：4，022 | 865，720 | 292，085 | 299，698 | 242,045 |
| Total | 2，049，057 | 1，962，696 | 2，128，445 | 2，84，131 | 2，710，921 | 4，954，485 | 2，391，083 |
| America． |  |  |  |  |  |  |  |
| Britioh Worth American | 3，289，014 | 1．900，588 | 9，280，896 | $8,283,081$ | 8，818，707 | 8，065， 304 | 2．936，938 |
| Britlsh West 1n | 2，2781，524 | 1，840， 929 | 2，027，890 | 2，218，681 | 2，488，665 | 2，031，36\％ | 2，1147，74 |
| Mavtl． | 192，059 | 88.067 | 1199．806 | 274，919 | 289，146 | 251，409 | 198，499 |
| Ouha and other forelgu Weat lndies： | 1，817，647 | 910，018 | 1，448，008 | 1，5222．596 | 1，852，440 | 1，687，178 | 1，447，270 |
| United shates of Ame | 16，974，161 | 9，564，909 | 11，971．023 | 14，691，961 | 14，862，976 | 16，5617，737 | 19，＜thes 46 |
| Mexico | 100，654 | 945，937 | 779，009 | 451.820 | 577，902 | 860，023 | 6986.94 |
| Ouatemal | $8 \mathrm{R}, \mathrm{MS}$ | 75，146 | 117，048 | 2511.178 | 819，814 | 281，009 | 18，220 |
| Columb | 827，845 | 818.076 | 819，709 | 665，198 | 783， 6 HP | 770，029 |  |
| 13razll． | \％，365，444 | 2，067，422 | 2，44，715 | 2，54，4， $\mathrm{N} \mathrm{\prime} / 7$ | 3，515，684 | 8，464，304 | 2，76，129 |
| States of La Plata a | 491，504 | 605，953 | 1，899，375 | 9049，280 | 676，417 | 1，452， 416 | 902．44 |
| Chlll | K（A）， 325 | 067，8408 | 1，098，914 | 1，156，266 | 1，8011，037 | 1，167．494 | 1，164，478 |
| Pert | 684,149 | 858,129 | 878.251 | \＄45，649 | 1，208，254 | 1，024，407 | 906，412 |
| Falkland 1 | 2，063 | 717 | 6.178 | 1，145 | 2，441 | 7．702 | 8,46 |
| North West Cinast of Amertem | K， 198 | 8，458 | 7.119 | 10，026 | 241 | 125 | 4，966 |
| Total Pounds Sterilug | 2x，065，184 | 19，929，480 | 25，078，650 | 24，974，248 | 80，981，642 | 82，075，872 | $20,618,098$ |
| Auatrulia |  |  |  |  |  |  |  |
| N．B Wales，Van INomen Land， <br> Bwan Itiver，and New／acaland\} gouth Sea lalands． | $\begin{array}{r} 1,64,1,120 \\ 25,915 \\ \hline \end{array}$ | $\begin{array}{r} 1,468,931 \\ 47,4111 \end{array}$ | $\begin{array}{r} 2,080,8 \mathrm{nH} \\ 29,814 \end{array}$ | $\begin{array}{r} 2,002,903 \\ 18,143 \end{array}$ | $\begin{array}{r} 8,407,889 \\ 60,795 \end{array}$ | $\begin{array}{r} 4,222,205 \\ 83,744 \end{array}$ | $\begin{aligned} & 2,470,046 \\ & 8,5,401 \end{aligned}$ |
| Total． | 1，860，489 | 1，511，${ }^{\text {d }}$ ： 2 | 2，100，6：3 | 2，620，810 | 2，56， 151 | 4，255，9＊9 | 2， $0_{6}^{6}$ |

ilecaiftulation．

| Europ | 21．194．17\％ | 22，162，957 | 25，126，264 | 26，618，741 | 26，ARO，048 | 27，667，055 | 25，899，180 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Asta | 7．04．446 | 7，202．530 | 9，150，900 | 10，618，2k9 | 11，507，969 | 11，124，093 | 9，50．914 |
| AM | 2，049， 087 | 1．962．696 | 2，199，445 | 2．543，181 | 2．710，921 | 2．954，245 | 2， 2991.10 N |
| Americs | 23，004，184 | 19，220，980 | 25，074，650 | 2＊，974，28s | 31，041，64y | 32， 1175.872 | 26，652，636 |
| Austra | 1.6011 .888 | 1，811，889 | 2，169，678 | 2，620， 896 | 2，508，151 | 4，2＊＊，949 | 2，504，847 |
| Orand Totel i＇ounds \＄t | 60，84，877 | 52，48，445 | 68，096，020 | 71，867，865 | 74，44，792 | $76,076,84$ | $66,530,219$ |

Woolems.-This is the most ancient, and was for centuriea the great ataple manufacture: The flocke of Britain furniahed wool of peculiar excellence, and in abundance for home demand, and a lerge surplus for exportation. Though the manufactare can not boast of an extension like that of cotton, it holds the next place to It ; and besides working up the greater part of the wool grown In Britain, draws largely on other countries for additional auppliea. In the finer broadcloths, Britain has formldable competitore in the Belgisns, from whose forefathers the Britons may be suid to have learned this branch, and alao in the Saxons; but in other branches of the woolen manufacture the British superiority is decided. The chief aeata of the woolen manufacture in England are Yorkshire, Lancashire, Gloucestershire, and Wiltshire, the latter being the most distinguished for, broadeloths; Norfolk for worated atuffs; Leicestershire snd Nottinghamshire for woolen hosiery; blankets and fasnnels have numerous localities; but for the finer qualities the weat of England and aeveral of the Welsh counties are most celebrated. Carpets of every quality and pattern are extenaively made at Kidderminster, Clrencester, Worcester, etc., but those of Wilton and Axminster are so superior as to euffer little by comparison with the celebrated fabrics of Turkey and Persla, snd the matchless Gobelin Tapestry of France. A particular specles of woolen manufucture, in which the resources of modern ingennity are signally displayed, is that of shoddy. Its ruw material is weolen rags, which, after various purifying procesaes, are reduced to their original wool, then re-spun, re-dyed and remanufactured. Formerly the article produced was so coarr , as to be fit only for padding and similar purposes; but now, either alone or with a partial mixture of raw wool, shoddy is made into flushings, drugget, pilot and uther great coats, carpets and table coverssome of the last of great beanty. The principal seat of the shoddy trade is Dewsbury, sbout eight miles from Leeds. The woolen manufacture of Ireland is on a very limited acale, heing confined to $a$ few brosdcloth factorlea near Dublin und Cork, and a few blankets and flannels, the former in Kilkenny and the latter at Wicklow. Scotland has made much more progress. The chief seats of the Scotch woolens sre, Aberdeen for cloths, chiefly coarse, and the spinning of worsted; Kilmarnock for carpets, bonnets, and shawis; Stirling and its neighborhood for carpets and tartans; Galashiels, Jedburg, and also a number of small towns along the foot of the Ochils, for narrow cioths of several varieties, tartans, shawls, plaida, etc.; Inverness for Turtans; and Ifawick for hoslery.
linen.-In England the spiming of flax is carried on to a great extent, but its manufacture into eloth is comparatively limited. A considerable quantity of damask and diaper is made at Barnsley. Linen ls the great staple of Ireland, and was long, in regard to textile fabrice, the staplo aiso of Scotland. In the former, extraondinary means were employed to foster it. It early fixed its seat in tho north, particularly near Belfast, and there the great chunges which have taken place in the mode of manufacture, by the substitution of spinning-inills und factories for the domestic wieel and loom, appear only to have fixed it more permanentiy. Alınost the only form into which flax is manufactured in lreland is plain linen, chiefiy shirtings. In Scotiand the manufarture assumes greater variety. llesldes plain linen, it has nanufactures of Osnaburghs, sheetings, saii+cloth, sacking, etc., principaily at Dundes; and of diaper and damask at Dumfermine. The stapjes of both towns are by far the most important of tieeir kind in ifritain.

Silk:-llere the raw material is, like cotton, entirely of furelign production. This is a great branch of manufacture, lu which, at least In liner fubrics, Britain must yield the palin of superiority to the Frouch und Beigians. The number of silk-nills is conaiderabie,
and confined chiefy to England. : Paislay is almost the only town in Scetland whare it is carried on to a great pxtent, and even there the shawls of unrivaled excellence are generally a mixed fabric of silk and wool. The chief seats of the uilk trade in England are, the district of Spitalafield in London, Manchester, and Coventry.

Beaides the manufactnres already mentioned, there is a great number which, though aoparately of leas Importance, absorb Immanse sums of espitsl, exhibit many of the most wonderful apecimens of haman ingenuity, and give aubsiatence to millions of the population. We can do ${ }^{14}$ tile more than name the most prominant. Of iro', the first process fs converting ores finto metals; and thence the additional atep of converting it from its first smelted atate into mulleablo iron, whence, by undergoing a new process, ateel is produced. Vast processea remain behind, and coustitute numerous branches of manufacture under the general name of hardware. Several of the articles produced are of great bulk and magnitude, and many of them are ao small as to be almost microscopic. To the former class belong iron bridges-no longer suspension only, but tubular-one of the structures of this kind now spans the Menai Strait ; immense steam ongines, and machinery of every kind, adapted to all the improvements of the age. Of the minor artlcles of hardware, the artlsans of Sheffiela and Birminglism produce a grest variety ; and of the precious metals, plate, jewelry, and watches are made extensively, but nowhere more perfect than in London. Porcelaln, clasaic in shapes, gorgeons in colors, and exquisite in designa; and the potteries of Stafford are far-famed. The manufacturea of glass, too, wrought into nnmerous forms of beauty and utility in the establishments at Newcastle and South Shields, excite the admiration. Another manufacture is that of paper, of vast extent, snd its processes exhibit some of the highes triumphs which human ingenulty has yet attained. In connection with it are various manufactures of whict it may bo considered as directly or indirectly the source-type-founding, printing books, etc. The mannfacture of lenther, including ita various subdivisions of tanning, currying, shoe, giove, and harnessmaking, with numerous minor branches in whlch leather is employed.
The value of the produco and mannfactures of
the United Kingdom exportod from Great
Britaln and 1 reland to forolyn parta, according
to the real or declared value, amounted in
1882 to............................................ In $185 t$ they had risen to.
£ $24,251,502$
 To the various British dependeneles.. $\quad$ 19,514,060 To Brazil and South American States. $\quad 8,220,628$
"From which It appears that the United States of Americs consume nearly one fifth of our exported produce and manufactures, and that the countriea culonized by Great Iritain, and those dependent on lier, are her customers for neariy half of all the produce and manufactures which sine sells to tive world. There is every reason to expect that, under the wise and liberal constitution granted to the British colonies, increasingly popuious and prosperous nstione will extend over the present unexplored wildernesses; and as the United States of America are repidly enlarging their loundarics to the west and the south, and as their increasing population has been uniformly attended with a proportionate increase of trade, it is obvious thst the prosperity of llritain is especlally bound up with the prosperity of her colonies and with that of the United States. Britain is not less interested in the increasing wealth and prosperity of the other countries of the world; for the richer and more prosperous they ure, the inetter customers will they be for our goods, and the more wlll they be able to contribute to our comfort nud enjoyment by the produce which they will be able to export to our shores."-Ency. Brit.
 of Valuation, fon tie Yeaig minivo Eti Jaktait, 0858-1804
 of the Brlti. 000 ; the e: £7,271,000, or the same the British ع72,049,367 179,736. T f109,345,40 were, in 185 pelled by ot 243,512 men authorized 1851, amoun
The total
Britain and
7774 mlles ;
£263,636,320
stantaneous
also been es
Ireland. Of
the Investme
as compan
26,000,000.
the year end the cost of m nue, $£ 1,118$ 851 was 36
 of Valuation, for thin Yaars midive gtif January, -Condimwod

| Apeelos of Imports. | anmar min |  | IEKLAND. |  | Uxition Kimodou. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1853. | - ${ }^{\text {BLE. }}$ | iskes. | 181. | 1368. | 1656. |
| Continued |  |  |  |  |  |  |
| Besian. 8 hama | $\begin{gathered} 24.971 \\ \hline 2045 \end{gathered}$ | $14,850$ | ioir | 10\% | 24,971 | 14,650 |
| Slik, raw and wanto | 2,720,843 | 8,203,717 |  | 6,444 | 2,529,848 | 8,214,161 |
| ${ }_{4}$ thrown, | 650,817 | 1,054,850 |  |  | 650,817 | 1,054890 |
| " mannfature of Indis and Cbina.... | 829,866 | 8250,128 | 808 |  | 880,174 | 840,198 |
| 4 ". of Europe, elo. ... ... | 1,808,489 | 1,908,041 | 82 | 14 | 1,898,591 | 1,902,055 |
| Skias and furs. | 848,986 | 860,099 | .... | 80 | 848,886 | - 8001179 |
| Spelter . . . . . . . . , , . . . . . . . . . . . . . . . . . | 925,983 | 1,170,928 |  |  | 985,268 | 1,170,293 |
| Splitit, brandy............................. | 684,005 | 600,851 | 8,149 | 6,741 | 689,14T | 671,098 |
| ${ }^{4}$ G Gene | 14,014 | 24,619 | 75 | 284 | 18,889 | 94,888 |
| " rum | 470,241 | 8855008 1089878 |  |  | 10470,788 | ${ }^{858,058}$ |
| Sugar, raw and re | $\begin{array}{r} 9,789,427 \\ 863,879 \end{array}$ | 10,829,872 618.418 | 782,991 | 720,469 | $\begin{array}{r} 10,468,918 \\ \quad 860,416 \end{array}$ | $\begin{array}{r} 11,042,841 \\ \therefore 619,481 \end{array}$ |
| Tallow. | 1,070,668 | 1,299,218 | 45,564 | 14,189 | 1,116,289 | 1,250,849 |
| Tar | 199,404 | 144,216 | 8,246 | 4,882 | 182,650 | 148608 |
| Tea. | 6,500,188 | 7,118,482 | \%6,870 | 89 | 6,686,008 | 7,118,514 |
| Tceth, elephianta | 64,896 | 50,709 |  |  | 44,806 | 60,709 |
| Term Japonioa and cute | 118,099 | 00,8:7 | ..... | 1,887 | - 115069 | 92,164 |
| TYn., | 287,815 | 248,7016 |  |  | 987,215 | 948,709 |
| Tobseco and | 450,039 | 688,816 | $\theta$ | 106 | 450,048 | 689,018 |
| Tarpentia | 240,788 | 196,824 |  | 160 | 240,788 | 199,484 |
| Valonia. | 66,646 | 92,122 | 19,292 | 13,787 | 65,988 | 111,009 |
| Watches | 148.970 | 109,729 |  | 169 | 146,970 | 189,808 |
| War, bees'. | 68,694 | ${ }^{85,661}$ | .... | .... | 68,604 | 50,661 |
| Whale-fins. .... | 54,205 702,502 | 79,507 $1,178,589$ |  |  | 64,905 749,860 | 79,507 $1,245,908$ |
|  | 702,502 | 1,178,589 | 46,864 | 87,814 | 749,860 | 1,245,903 |
| Deals, otc.j Eawn.. | 248.512 | 805,708 | 40,863 | 47,520 | 287,874 | 858,298 |
| Timber, not sown. . . . . . . . . . . . . . | 900,115 | 1,142,296 | 146,885 | 155,185 | 1,048,500 | 1,997,481 |
| Wool, sheep's. | 30,8159,144 | 28,111,709 | 14.488 8898 | 2,859 | 8,463,488 | 28,889,817 |
| Woolen manufactures. | 719,726 | 1,210,678 |  | 86 | T19,777 | 1,910,708 |
| Yara, woolen or silk. . . . . . . . . . . . . . . . . . | 61,423 4654 | 128,898 $0.840,466$ |  |  | 61,488 480.740 | 108,836 |
| All cther artiolea. . . . | 4,654,187 | 6,840,486 | 76,553 | 110,4KT | 4780.740 | 6,460,928 |
| Total official vaine of inports from forelgn parts. | £108,408,805 | 2117,281,764 | 25,987,014 | 25,905,071 | S109,845,409 | £123,186,885 |

Ax Accoent of the Valua of tha Imports into, and of the Expoats fron, Garat Baitais and Iarland, difing each of tif thage Yearb endina the btil of Janeaby, 1859.

| 5 | GREAT BRITAIN, |  |  |  | IRELAND. |  |  |  | UNITED KINGDOM. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value of Imports isto Greal Britala. | VAUE GE EXPORTE EBOM oukat mitaik. |  |  | Value of Imports Into <br> Ireland. | VALUE OF ETPOETG EROM 1RELAMD |  |  | $\begin{gathered} \text { Value of } \\ \text { Importa Inlo } \\ \text { tree Unitud } \\ \text { Kingdom. } \end{gathered}$ | valut or Expoats thom thit UKITEO RIMODOM. |  |  |
|  |  | Produce and mannfactures of ihe United Kingdula. | Forelign and colonia! merchinndise. | Total exporta |  | Prodace and mana- fecturea of the United KImpdom. | Furelgn snd eoloolal merehan- dise. | Total enporta. |  | Produet and mannfacture: of the United Kiagdom. | Poralga and colonina merchandise. | otal maports |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1852 102,579,582$1858108,408,895$ |  | $100,407,47628,726,972214,189,448$ <br> $195,865,686,23,820,954,210,186,590$ |  |  | 7,099,543 | 250, 888 | 6,881 | 257, 169 | 110,679,125 | 190,658, 814 | 28,782,708 | 914,801,017 |
|  |  | 850,074 | 8,185 | 859,109 |  | 109,845,400 | 196,216,610, | 88,899,089 | 10,645,699 |

Erports, Imports, etc.-In 1800 the annual exports of the British and Irieh produce amounted to $£ 35,903,-$ 000 ; the exports of foreign and colonial produce to $£ 7,271,000$, being a totnl of $£\{3,174,000$. The imports for the samie year amounted to $£ 24,066,000$. In 1852, the British and Irish exports to forcign countries were £ $72,049,367$; to the colonies, $£ 20,430,369$; total, $£ 92,-$ 479,736. The Imports for the same year amonnted to $\varepsilon 109,355,409$. The total number of vesseln, their tonaage, and number of persons navigating the same, were, in $1852,34,402$ vessels, 1,225 of which were propelled by steam; tonnage, 4,424,302; navigated by 243,512 men and boys. The total length of railrouds authorized loy Parliament up to the 31st Decenner, 1851, amounted to 11,962 miles; capital, $£ 368,428,000$. The total length of railroads completed in Great Britain and Ireland at the end of the yesr 1853 was 7774 miles; cost of construction, up to July, 1853, £263,636,320, equal to $\$ 1,315,000,000$. An almost inatantaneous communication by electric telegraph has also been estahlished throughout great Britain and Ireland. Of other associated industrial companles,
 gas companies, $£ 6,415,295$; insurance companies, ©6,000,000. The gross revenue of the post office for the year ending January 5th, 1852, was $£ 2,422,168$; the cost of management was $£ 1,30 t, 163$; the uet revenue, $£ 1,118,004$. The total numher of letters in 1851 was $360,647,187$, of which $86,512,640$ were in scotland, and 85,982,782 in Ireland. The payment
made to the various railroad companies for the convayance of mails for work done within the yenr, was $\mathbf{£ 1 5 5 , 5 7 5}$, and $\mathbf{£ 8 7 , 2 7 2}$ for work done in previous years. The total number of money ordera issued in the year 1851 was $4,661,025$; the amount, $£ 8,880,420$. In 1851, the persons employed were, in England and Walea, 13,012; in Ireland, 1927; in Scotland, 2190, and in the colonies, 939 . The total amount paid to these persons was $\mathcal{C 7 2 7 , 1 2 0}$.

British Erports in 1855.-A return has juat been issued by the Boarrl of Trade of the declared values of British and Irish produce and manufacturas exported from the United Kingdom in the year 1855, apecifying the amount to eaclo country and colony. From this document the following list has been compiled, showing the order in which the various communities of the world runk as her customers. The total is $£ 95,688$, 085 , against $£ 97,298,900$ in 1854, and $\mathbf{£ 9 8 , 9 3 3 , 7 8 1}$ in 1853. Owing to the revulsion from over-speculation in the Anstralian and Canadian trades, the proportion taken by her own possessions, amounting in the two precering years to alout a third of the whols, presents a falling off of $57,000,000$, although Indis, which, from the prosperity conseguent on the demand for subatitutes for Russian produce and the outlay for railways, exhibited in 1854 an increase of $\mathrm{fi}, 800,000$, figures agniu for an increase of $£ 900,000$. With regard to foreign countries, the effects of the chronic pressure which has continued to prevsil in the New York money market have again been shown in a diminution of the



exports to the United States. In 1854 there was a
 \&4,092,2H3 is now observalile. The amoant to Germany has been awollen by the overland trade to Rinasla, the augmentation being $£ 1,222,776$. France exblbits the extraordinary increase of $\mathbf{\Sigma 2 , 8 3 5}, 368$-equal to 90 per cent.- a result due partly to the purchase of war materiala in thle coantry, and partly to modifieationa in her tariff. To Turkey, an might have been expected, the exports have more thinn doubled. Hussis is of conrse entirely out of the list, but the con-

8 ignments to ILiaklava and the other ports in her ewn possession amounted to nenrly $\mathbf{£ 5 0 0 , 0 0 0}$. Anomg the countries which ahow an indprovement are Sweden and Norway, Irazil, and Now Liranada, the differease in each of these cases belng large, The trade with Syria and Paleatine, in consequence of the war, has experienced a great development. The exports direct to the Danubian Irinclpalitlea, which declined frem $\mathbf{£ 1 7 9 , 8 1 0} \ln 1853$ to $£ 16,402$ in $185 \cdot 1$, utand in the prosent return at $\mathbf{4 5 , 3 3 7 \text { . Belgium, Greoce, lialy, Mex- }}$ ice, Peru, Venezueln, and China, are all on the favor.
39. Hayth.
31. Moroceo
2. Wallachla
8. French 8
4. Other cou

The com this year (18 the promine laws of Eng morce." TI laws of Eng thereby rem contmercial rence in the nuerce and $n$ and the repi and business terminue of fore, to the 3 between the eration."
pings of the an evident w tions, the $\mathrm{Un}_{\mathrm{n}}$ to shipwreeks Britaln deprl property save except under lingland does suls in such c
able side. Spain shows a falling off. The River Plate trade experienced a heavy reaction, Buenos Ayres and Uruguay both presenting a great decline. Portugal and Denmark have been stationary :

1. British Poseessions:

|  |  |
| :---: | :---: |
| Australia | 6,278,066 |
| Britioh Amer | 2,895,981 |
| Weot Indiea | 1,979,958 |
| Otbraltar | 829,854 |
| South Afrio | 791,818 |
| Malta | 625,828 |
| Ports of occupation In Crimea | 493,898 |
| Chanoel Islands. | 468.078 |
| llong-Kong | 889,965 |
| Storra Leone | 806,094 |
| Mauritiua | 808,178 |
| Iontan lilands | 211,886 |
| Other possesstons | 62,544 |

9. United 8tates, ioclading Calforola .. 8. Germany :

10. France
11. Turkey
12. Italland
13. Brazl!

1taly
Napluand Blofly . ............ $\quad 921,220$
Sardinia ....................... 888,918
Lombardy, cte. .... ........ $\quad$ T17,718
Papal Territorles 14701
9. Belcinm
10. Portugal, includlog £121,922 to tho Azorea and Madelra.

1. Erypt
2. Chill
3. Peru
4. Spain, toctuding $x 110,015$ to tho Canary isls.
5. Caba.
6. Bweden and Norway
7. Brria and Palestine
8. Chlna
9. Western Coast of Ärlica.
10. Denmark.
11. Buenos Ayres,
2.2. New Gravada
12. Merico.
13. 8t. Themas
14. Java.
15. Philippine Ialanda.
16. Vonezaela.
17. Uruguay

29 Oruguay
30 Hreece
8i. Moroce
Wallachla and Moldavia
83. French Benerambla
84. Other countries

> Total.
.....

Progress of the Britioh Mercantile Marine aince 1842.-The atatisticsl abetract of the Jnited Kingdom for the last fifteen years, whlch has just been lasued by the Board of Trade, contain a series of tablea of considerable fintorest to ship-owners, as showing the progress of the mercantile marine during a period in which has occurred the adoption of free trade snd the repeal of the navigation laws. In 1842 the total tonnage of veasels entered with cargoes and in ballast at British ports was $4,500,028$ tons, and with cargoes only 8,655 ,280 tons ; the former amount comprised 8,204,725 tons of British and 1,205,803 tons of foreign shlpping, In 1856 the totel entries with cargoes and In ballast represented $10,558,134$ tons of shipping, and with cargoes only $8,241,604$ tons. In fifteen years, therefore, the tonnage had more than doubled, but the increase in British and foreign shipping was not at the same rate. The entries with cargoes and in baliast comprised $6,800,715$ tons of British and 4,162 tona of foreign shlpping. While, therefore, the British tonnage had nearly doubled, the foreign had been inultiplled by almost 81. Down to : 0 ' 5 the rate of increase was nesrly equal, but slightl, in favor of the Ibritish flag; in 1849, the British tonnage had increased one half, while the foreign entries show an increase to two thirds. In 1850, the foreign tonnage which entered British ports had doubled, and the entries under the national flag declined, continuing to do so, as compared with 1847, down to 1853 . Since the last named date British tonnage has again advanced, though not ao rapidly as foreign, which tripled in fourteen years, the entries in 1855 having been $3,680,447$ tons. The British entries in the same year amounted to $5,270,795$ tnas, whereas, if the lincrease had been at tho same rate as forelgn shipping, it would have been more than 9,880 , 000 tons. The return of the number and tonnage of registered vessels, and the number of men employed therein, prepared by the register-general of stamen, commences with 1846 , the statistics of previous years not being procuruble. The total increase of vessels during the eight years was 1049 , of tonnage $1,059,735$ tons, and of men 21,307, exclusive of masters. This includes Channel Island vessels, but not those belonging to British possessions abread. This table is so classified as to show the proportionate increase in each branch of the shipping trade, sailing vessels being distinguished from steamers, and the home trade from the foreign. The whole trade includes the coasts of the United Kingdom, and continental ports between Brest and the Elbo; and the foreign trade all perts beyond those limita. There are many vessels, bowever, which are engaged partly in the forelgn trade, and these are classed separately. In 1849 the number of salling vessels was 17,807 , and of steam vessels 414 ; in 1856 the former numbered 18,419 , and the latter 851. While sailing vessels, therefore, had increased little more than a thirtieth, steam vessels had more than doubled. In 1849 there were 9298 suiling vessels enguged in the home trade, 6612 in the foreign trade, and 1897 partly in one trade and partly in the other. In 1856 the home trade employed 9390 sailing vessels, the foreign trade 8059, whilo those engaged partly in one trade and partly in the other numbered but 970 . This gives an increase of 92 in the first class, and of 1447 in the second, while in the mixed class there was a decrease of 927 , or nearly half. The statistics of the steam trade give results very different. In 1849 the home trado employed 312 steamers (exclusive of rivor vessels), the foreign trade 82, and of those enfaged in part in both trades there were 20 . In 1856 the numbers wore respectively 317,422 , and 42 , showing that while the home steum trade had increased scarcely 2 per cent., the mixed class had doubled, and the for eign-going steamers had been multiplied by six. There renisins for notice the table giving the number and tonnage of the sailing and steam vessels built and registered in the United Kingdom during the fifteen





| Couatries, | INWARD. |  |  |  | OUTWARI. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | antriag. |  | vosutax, |  | WEITIEN. |  | 017n*un. |  |
|  | Shipe. | Tounape. | Ships. | Tonnage. | Nhiju. | 'Tennage. | Sbipm. | Tontoge. |
|  | 97 | 17,489 |  |  | $1{ }^{24}$ | 12, 2828 | 1 |  |
| Shamin............................ $\left\{\begin{array}{l}\text { Salling. } \\ \text { 8teman. }\end{array}\right.$ | 1,790 88 | 897,778 11,883 | 1,881 | 877,784 | 1,403 36 | 905,087 10,872 | 1,069 | $\$ 00,010$ |
|  | 88 | 11.883 |  |  | 36 164 | 10,472 81,216 | 88 | *ir |
|  | 18 | 8,145 |  |  | 16 | 8.820 |  | 0,817 |
| Nurwsy . . . . . . . . . . . . . . . . . . . . . $\{$ Salling. | 110 | 18,624 | 1,765 | 9espos | 128 | 198300 | 1,849 | 290,764 |
| Ientnark . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Steam. } \\ \text { Nalimi }\end{array}\right.$ | 101 | 44.188 | 19 | 4.799 | 29 | 11,893 |  | 8,814 |
| Deamark . . . . . . . . . . . . . . . . . . . , dalling. | 44 | 7,986 | 2,189 | 157,789 | 404 | 76,179 | 0,084 | B29,05\% |
| Pratis. . . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Steatm. } \\ \text { Salling. }\end{array}\right.$ | 988 | 45 | 9.878 | 8,649 416,104 | 17 |  | 10 | 9,840 |
| Germany $\quad\left\{\begin{array}{l}\text { Saling.*. } \\ \text { Steam. } \\ \text { Sill }\end{array}\right.$ | 908 462 | 164,895 | 2,078 184 | 416,194 | 817 419 | 180,254 | 1,708 | ON, 785 |
| Germany . . . . . . . . . . . . . . . . . . . , Walling | 1,146 | 802,124 | 1,783 | 164,180 | 1,146 | 204,794 | 1.984 | 81, 194 198,488 |
| Holland . . . . . . . . . . . . . . . . . . . . $\{$ Stearil. . | 825 | 249,027 | 184 | 83,004 | 605 | 176,1056 | 185 | 84,434 |
| Hohand . . . . . . . . . . . . . . . . . . . . . , 8ailing. . | 988 | 189,305 | 1,146 | 925, 598 | 918 | 118,070 | 618 | 47,741 |
| Belglam . . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Stuam. } \\ \text { Stin }\end{array}\right.$ | 290 | 89,518 | 186 | 99,918 | 298 | 85,779 | 121 | 97,418 |
| Belgiann... . . . . . . . . . . . . . . . . . \{ Salling. . | 845 | 40,441 | 480 | 70,087 | 274 | 18,254 | 900 | 28,60: |
| Channel 7slands . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Steam. } \\ \text { Salling }\end{array}\right.$ | 888 | 81,590 | \% | gies | (34) | 58.418 | .... | .... |
| Tramat $\left\{\begin{array}{l}\text { Salling } \\ \text { Steam }\end{array}\right.$ | 1,526 | 121,608 | 88 | 8,698 | 1,166 1,491 | - 74.728 | is |  |
| Framed . . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { gteam } \\ \text { gatin }\end{array}\right.$ | 1,026 | 802,449 | 4.387 | 420,180 | 9,051 | 901,701 | 4,081 |  |
| Steam | 29 | 0,856 |  |  | 23 | 8,481 |  |  |
| Salling. | 607 | 62,88 | 179 | 22,644 | 626 | 68,785 | 848 | 04,1099 |
| pain and Canarles. . . . . . . . . . . . $\left\{\begin{array}{l}\text { 8leam. } \\ \text { 8aling }\end{array}\right.$ | 1 | 408 | 14 | 8.510 | 1 | \$00 | 11 | 8,279 |
|  | 616 | 56,450 | 252 | 82,108 | 1,014 | 174,401 | $68: 1$ | I16,421 |
| Gibraltar. . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Steath } \\ \text { Stilin }\end{array}\right.$ | 86 | 14.247 |  | 9io | 87 | 15,278 | 9 | $8 \mathrm{t})$ |
| Cricatar . . . . . . . . . . . . . . . . . . S Sailing. . | 94 | 8,766 | 8 | 210 | 174 | 21,798 | 67 | 11,905 |
| Italian Staten. . . . . . . . . . . . . . . . \{ itrgin | 82 | 14.912 | 987 |  | 708 | 14,877 | 87 | 150 120.498 |
|  | 404 | 64,087 | 287 | B7, 265 | 708 | 180, 5883 | 878 | 130,229 |
| Malte . . . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { 8tentin.. } \\ \text { Salling. }\end{array}\right.$ | -89 | 0888 | j6 | 8,490 | 170 | 41,6000 | - 178 | 44,937 |
| Ionian Ialands... . . . . . . . . . . . . . Saling. | 49 | 5,778 | 5 | 1,212 | 40 | 4,1489 | 81 | 8,646 |
| Greece. . . . . . . . . . . . . . . . . . . . . Salling. | 65 | 10,263 | 23 | 4,857 | 81 | 8.740 | 65 | 17,06\% |
| Tarkey. . . . . . . . . . . . . . . . . . . . . \{ Steam.. | B1 | 80,074 |  |  | 61 | 80,408 | 41 |  |
| Tarkry . . . . . . . . . . . . . . . . . . . . S $_{\text {alila }}$ | 872 | 56, 185 | 277 | 68,964 | 245 | 83,454 | 841 | 138,934 |
| Wallechls and Molderia........ Sailing.- | 248 | 42,100 | 815 | 05,600 | 78 | 12,469 | 50 | 0,058 |
| Byrin. . . . . . . . . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { Steath. } \\ \text { Qating }\end{array}\right.$ | 888888 | 988 5.878 |  |  | 8 | 1.756 7.444 |  |  |
|  | 28 | 5.877 84.410 | 14 | 8,146 | 86 | 7.844 | 10 | 1,907 |
| Afrlea. . . . . . . . . . . . . . . . . . . . . . . $\{$ Sailin | 868 | 158488 | 291 | 81,098 | 251 | 178,109 | 260 | 6i,981 |
| Steam | 16 | 24,172 |  |  | 41 | 28,863 |  |  |
| Anis.. +......... . . . . . . . . . . . . . . S Salliog. $^{\text {S }}$ | 834 | 476,988 | 68 | 44,890 | 1,815 | 789,492 | 408 | 814,497 |
| Americe: |  |  |  |  |  |  |  |  |
| Brtish Northern Colonles. . \{ Stoam.. |  | 1,791 77546 | 448 |  | 1829 | 887.767 | 92 |  |
|  | 1,8.7 | 77546 821 | 448 | 245,708 | 1,829 | 687,767 821 | 82 | 29,348 |
| Brilish Weak Indles. . . . . . . . $\left\{\begin{array}{l}\text { Stcailin } \\ \text { Salin }\end{array}\right.$ | 600 | 184.027 | 42 | 10.008 | 612 | 108,748 | 44 |  |
| Forelgn Weal indies........ ${ }^{\text {Stuam }}$, | 25 | 88,527 | 1 | 250 | 26 | 44,8,4 |  |  |
| Forelgn Weet ndies........ ${ }^{\text {Salling. }}$ | 150 | 48,224 | 299 | 60,926 | 204 | 56,949 | 842 | 90,229 |
| d Statug. . . . . . . . . . . . $\left\{\begin{array}{l}\text { Stenia.. }\end{array}\right.$ | 79 | 86,854 | 27 | 87,890 | 88 | (6x, 428 | 86 | 49, \%9T |
| United Statu. . . . . . . . . . . . . , Sailing . | 441 | 266,408 | 850 | 697,1557 | 861) | 470,448 | 1,*:0 | 982,408 |
| Ceatral and Sovthern Btates. $\left\{\begin{array}{l}\text { Steam. } \\ \text { 8ailing }\end{array}\right.$ | 16 098 | 14,781 | 171 |  | 16 890 | 17.884 |  |  |
| Falkland Ialands................ ${ }_{\text {galing }}$ | 698 | 2\%9,8i99 | 171 | 87, \$30 | 890 | 159.292 1.3722 | 266 | 62.910 116 |
| Arctie Regiona. . . . . . . . . . . . . . Nalling. |  |  |  |  | 2 | 574 |  |  |
| Whaln Vtsherles . . . . . . . . . . . . . . Saling. . | 68 | 16,118 | 1 | 118 | 67 | 16,982 | .... | $\cdots$ |
| Total | 21,025 | 5,464,848 | 21,245 | $8,657.768$ | 21,475 | 0,212,960 | 44,801 | 4,244,124 |

years since 1842. In that year 914 veseele, having an quadrnpled, while the increase of sailing vessels was aggregate tonnage of 129,929 tonn, were built: in 1856 the number was 1160 , and the tennage 244,578 tone. In 1842 the sailing ressels numbered 956 , and the teamers 58 ; in 1854 the formes were 921 , and the latter $\mathbf{z : 2 9}$. Steamers, therefure, have been nearly only aloat 7 per cent.

The following returns embrace vessels belonging to the Channel Islands, but not veesels regintered in the llritish plantations. The marked increuse in steam veasela should clahin the attention of our shiphuilders.

 Galling fresels hiox ditamers.

| Fens. | Falling Veseels. |  |  | Stam Voung. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Viessele. | Tontage. | Number of Mea entiloyed. | Namber of Veasela, | Tonamge. | Nusuter of Mé euployed. |
| 1-49. | 9,29 | 665,726 | 40,208 | 91\% | 54,010 | 4,412 |
| 14.50. | 8,510 | 666,957 | 84,527 | 320 | 64,196 | 4.491 |
| 1451 ... | 8, 198 | $6 \cdot 5,641$ | 86,906 | 364 | 7 8,820 | 6,848 |
| 142\%. | 6,776 | 71) , 808 | 85,798 | 898 | 64,616 | 4,142 |
| 1885... | 6, 477 | 659,348 | 46,401 | 874 | 85,471 | 8.659 |





| Yeart. | Kalling Veveets. |  |  | Ateam ticesels. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sumber of Vecsels. | Tophage. | Number of Mon naploy ed. | Number of Veendi. | Tonnsge. | Number of Mes euployed. |
| 1849. | 1.19\% | 251,951 | 32.718 | 90 | 5, 039 | 968 |
| 1409............. | 1,487 | 982,841 | - 10,291 | 21 | 8,298 | 896 |
| 1581............ | 1,449 | 948,65 | 8,570 | 18 | 4,226 | yng |
| 1K\%8............. | 7,069 | 147.467 | 6, 178 | 48 | 15,944 | 94 |
| 1858.............. | 970 | 156,500 | 7,184 | 88 | 7,250 | 860 |

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| Yeura |
| :--- |
| 1851 |
| 1554 |
| 1853 |
|  |
| Yaunc. |
| 1851 |
| 1552 |
| 1533 |

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$1815 \ldots$
1853.

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the resl 0 has given It has bee merce is point of be drawn official $v$ fixed as ceased to of the act fluctuation this defec of Mr. Pl of the rea declaratlo that her that the f ports slne
exported

 Vnagis raom stankera.

| Yearts | Baliling Veacels. |  |  | Ateam Veasale, |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number ef Vereels. | Tensage. | Namber of Men employ*d. | Number of Vestels. | Tannage. | Namber uf Men enoplonyed. |
| 1849,.......... | 6,618 | 2,040,844 | 01,449 | 88 | 48,608 | 8,742 |
| 1850............. | 7,149 | 2,148,2:3 | 08,918 | 86 | 45,186 | 8,918 |
| 1851.............. | 7,977 | 8,247,847 | H5,80t | 184 | 60,905 | 4.880 |
| 1852............. | 7,431 | 2,885,095 | 108,618 | 149 | 83.860 | 7,15t |
| 1858.............. | 0,120 | 2,685,685 | 111, 121 | 887 | 180,539 | 10,970 |


 tuaiz Tomiagand Numare of Mrn,


* Biver stemmera are not included in this return.

 mespretivelt.

|  | Year ending 6ith January, 1 A5t. |  | Year ending sth Janusry, 1859. |  | Year endiog 3th Jevuary, 1853. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yenapla. 623 | Tonnage. 101,686 | Venatls. 021 | Tomnage. $1(0,811$ | Vesceli. 856 | $\begin{aligned} & \text { Tonpare. } \\ & 183,082 \end{aligned}$ |
| Scotland. | 188 | 80,100 | 188 | 88,858 | 181 | 41,950 |
| Irelanil. | 25 | 1,929 | 18 | 909 | 25 | 2,450 |
| Ioles of Guernsey, Jersey, mid Man....... | 88 | 0,835 | 80 | 2,026 | 80 | 2,988 |
| Brtush Mlentallons. . . . . . . . . . . . . . . . . . . . | 714 | 124,958 | 680 | 141,116 | 1836 | 114,804 |
| Tcisl. . . . . . . . . . . . . . . . . . . . . | 1,430 | 862,483 | 1,892 | 298,679 | 1,278 | 234,728 |


 Foprign Pakts, dubine kacil of the thrif Ybabs knping 5til Januart, 1853 ,

SIITPPING ENTERED INWARD IN THE UNITED KINODOM, FROM FOREION PARTS.

| Yeara, | griat meitain. |  |  |  | $1 \mathrm{meland}$. |  |  |  | UnITSID MINADOM. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Brilah and Iriah pemseta, |  | Foreign funsels. |  | Brilish \& Irah v ensels |  | Forrign vessels. |  | British and Itrin voasele, |  | Varelign reasele. |  |
|  | Veasale. | Tons. | Vusself. <br> 14,259 | Tonp. 2,248,864 | Vessels. 1.884 | Tons, 846,192 | Vexselt. 866 | Ton*. 166,417 | Veprelo. 22.709 | Tons. $4,700,199$ | Vessela. 15,145 | Tonn. <br> 9,400977 |
| 1451 1853 | 21.871 81,499 | $4,454,007$ $4,689,878$ | 14,259 15,056 | $2,268,864$ $2,664,574$ | $\begin{aligned} & 1,884 \\ & 1,609 \end{aligned}$ | $\begin{aligned} & 846,192 \\ & 846,018 \end{aligned}$ | $\left.\begin{array}{r} 866 \\ 1,290 \end{array} \right\rvert\,$ | $\begin{aligned} & 166,417 \\ & 269,194 \end{aligned}$ | $\begin{aligned} & 22,709 \\ & 22,902 \end{aligned}$ | $4,700,199$ $4,048,886$ | $\begin{aligned} & 15,145 \\ & 18286 \end{aligned}$ | $\begin{aligned} & 8,400,277 \\ & 8,998,708 \end{aligned}$ |
| 1858 | 21,297 80,887 | $4,608,818$ $4,648,165$ | 15,450 | $2,604,014$ $2,771,855$ | 1,897 | ${ }^{2}$ '6,708 | 1,280 828 | 151,249 | 22,92 $\mathbf{2 1 , 7 6 4}$ | 4,034,868 | 16,287 | $2,952,584$ |

SHIPPINO CLEARED OUTWARD FRON THE UNITED KINGDOM, TO FOREIGN PARTS.

| Years. | esatr beitain. |  |  |  | InELAMD. |  |  |  | United singinom. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hrtush and | rish vesuele. | Forelign veseels. |  | Britinh \& Itish venseln. 1 Foreign qewaels. |  |  |  | British and İrish venselay |  | Woreign ressela. |  |
|  | vemenls. | Ton. | Venate. | Ton. | Vemaola. | Tuna. | Venaete. | Tons. | Venmels. | Tons. | Versels, | Tons. |
| 1051 | 91,803 | 4,577,822 | 16,139 | 2, 515,578 | 681 | 165,128 | 761 | 146,670 | 21,389 | 4,742,845 | 16,900 | 2,682,943 |
| 1509 | 40,955 | 4,609,508 | 16,682 | 091,443 | 818 | 218,942 | 1,025 | 239,731 | 21,793 | 4,8 82,490 | 17,707 | 8,225,614 |
| 1553 | 20,830 | 4,822,151 | 17,154 | 8, 086,224 | 650 | 168,955 | 677 | 165,872 | 21,590 | 5,051,106 | 17,89t | 8,191,596 |

An Aocolint of phe Valite of tif Imforts into, and of the Fixports feon, tur Unitrd Kingdom, duking each
 OF Tusse.

| Yeara unding Jall. 6. | Importe Into the United Kliogdom, ealculaied at the ofticlel rates. | Exporis calcnleted at the nfilct tes of valuatiou. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Prodnee and inanufacturea of the Unlled Kiogdom. | Forelana anal Coluatal merchandist, | Total expurts. |  |
| 1815.. | 482,620,77 | 2 $232,200,580$ | $\mathbf{x} 19,157,818$ | ¢61,858,498 | 4243, 447,378 |
| 1859......... | 109,845,409 | 198,178,601 | 24,829,049 | 219,506,4911 | 78,076,894 |
| 1851.......... | 128,186,845 | 214,860,489 | 27,767,738 | $2+2,128,222$ | 98,988,781 |

Declir vin the real value of the exports.-The great in- the fall in their real value shows that alie is selling crease In the official, and the comparative decline in the real or declared value of the experts, since 1815, lass given rise to a great deal of irrelevant discushien. It bas been looked uron as a proof that Fingliah commerce is daily hecoming less prospereus, whereas, in point of fact, s precisely opposite concluslen should be drawn from it. The rates according to which the effichal values ef tho exports are determined were fixed as far back as $1696 ;$ so that they have long ceased to be of importance as affording any criterion of the actusl value, their only use being to show the fluctuations in the quantifies exported. Te remedy this defect, a plas was furmed during the early part of Mr. Pitt's administratlon, for keeping an account of the real valne of the experts, as ancertained by the declarations of the experters. Those who contend that her trade is getting into a bad condition, argue that the great increase in the official value of the exports alnce 1815 shows that the quantity of the arthelee exported has been proportionally augmented, whlle
this larger quantity for a smaller price, a result which, they affirm, is most injurious. Ilut the circumstance of a manufacturer er a merchant selling a large or a suall quantity of protuce at tho same price, affords no critorion by which to judge as to the advant:ige or disadvantage of the eale; for, if, in censequence of improvements in the arts or otherwise, a particular article may now be produced for half the expense that its production cost 10 or 20 years ago, it is obvious that double the quantity of it may be afforded at the same price without injury to the producers. Now this is the case with some of the most important artlcles which are exported from England. Cottons and cotton-twlet form a full thind or more of her entire exports; and nince 1814 there has been an extriordinary fall in the price of these articles, occasioned partly by cotten wool haviug fallen from about 1s. 6 d . per lb, to abont bel. per lb., but more thy improvements in the manuiacture. Hence, while the official value of the exports of cotton goods and twist has in-
croceed from about $\mathcal{L 1 8 , 0 0 0 , 0 0 0}$ in 1814, to about $\mathcal{L 1 0 0 , -}$ 000,000 In 1853, their declarod value has rison only $\mathrm{m} u m$ sbout $£ 20,000,000$ at the former period to abont C $83,000,000$ at the latter. Surely, however, this in, If any thing can be, a proof of incroasing prosperity it shows that ohe ean now oxport and eell with a pmali (for unless such were the case, doed any one Imagime the exportation wonld continne?) nearly four tin. the quantity of cotton goods and yarn which she exported in 1814 for about tha same price. See Cortos Manupactirk.

The commercial interesta of Enaland long auffered from the Inextricable confuaion of her martitime lawe. From the Revolution down to 1788 some hundreds of acta were paesed, each enacting some uddition, diminution, or change of the duties, drawbacka, bounties, and regulations previonaly existing in the customs. Mr. Pitt has the mertt of having first introdnced something like order into this chaoe. Under his auspices all the soparate custom-dutien exinting in 1787 were reponied, and simple and intelligible onea sabstituted in their atead

In the report of the Lords' Committee on Foreign Trade in 1820, it in atated that the laws under which the commerce of the country was regulated amounted to upward of 2000 , of which 1600 were in force in 181b. After this report was printed, Mr. Huskeyson introduced great reforms into the laws affecting shipping and uavigation. And since his time the repeal of a vast numier of custom-duties and the many important and beneficisl changes effected by Sir lobert Peel, have vastly simpilfied the commercial leginlatlon of Eagiand. Variona improvenients have also been introduced by the iate chancellor of the exchequer, Mr. Giadstone ; and the Custom: Consolidation Act of $\mathbf{1 8 5 3}$ has brought the various laws relating to the customs into a concise and simplie form. It comprises the whole law renpecting the importation, exportation, warehousing, smuggling, etc., of goods, with the regulationa to be observed in the coasting and colonial trades, etc., and is at once brief, comprebensive, and so clear as to be level to the compretension of those least acquainted with such matters. Healdes condensing and simplifying the varions lawa reapecting the custome, this act has also introdnced some moot important changes. The menchant is 70w no longer obliged, when auccessful in a auit, to pay his own expenses, as was formerty the case; nor are goods in dispute now detained till the point loe inquired into and deelded, but are given up on the amount claimed teing deposited. If the claim is found to have been unjust, the sum overcharged is returned, with interest at the rate of 5 per ceut., and the expensee of the suit. The merchant may also, if be consider himself aggrieved by the decision of the board, have the case lrought into open court before a commissioner, where he may meet the officer, and leara by examination the real facts of the case. The evidence so taken is reprorted to tho board, who may thereapon confirm or modify their decislon; it being optional with the merchant elther to abide hy it, or to carry the case lefore a competent tribunsl. If the duty or penalty claimed be under $\mathbf{5 1 0 0}$, or the case be of a simple kind, it may be tried before magistrates, connty courts, or other inferior tribunals.

Shipping. - In order to promote the shippling interest in Britain the navigation laws were passed, which were long considered the anfeguarids of British commerce. By these lawa certain enumerated articles, which in fact comprehended every thing that was of impertance in commerce, could be brought to her ehores onjy in British shipe, or in the shipe of the country of which the goods were the produce, or in ships of the country from which the gools were to be brought. Experience provel that these restrictione which were intended for the benefit of British commerce, operated oaly as fetters upon trade. By the act passed in 1849,
the restrictive provisions of the old acts wore repealed trom and after the 1st of January, 1R' $\mathbf{0}$. Great alarm Was ervated among the shiphulldera ind othera, by the change, which, as they approhended, was fraught with ruin to the trade and comuleree of th.s country; but juntead of that, the trade licreased more rapilly than before. The emount of tonnage built in 1849 wan 121,266, in 1861 It was 140,600 , snd in 1853 it was 203,171.

The increase has been more remarkalile in ateam than in alling vesseis: in 1850 the number of steamvessels buift was 36, and their tonnage a885; in 1853 the number of steam vessels built was 153, and their tonnage 45,218. Another circumatance which is romarkabie, is the recent extraordinary sabistitution of Iron for wood in the conatruction of steam veesels. Of the 158 built in 1853 , no less than 117 were iron. Dr. Strang, in a communication made to the British Association in 1852, atates, that during the last 7 years there have been constructed, or were constructing, in Glasgow and neighborhood, 123 vessels, 122 of which were iron. At Greenock and Port Glasgow, during the same period, there were constructed cf steam vessela, 13 of which were of wood and 53 of iron.

The " merchant shipping act, 1854," which came into operation May 1st, 1855, contains some lmportant changes in commercial regulationa. Sections 20,21,22, 23, and 24, lnstitute new modes of messuring ohips; and as all American shlps hereafter to te ineasured in that country muat be measured according to one or other of its provilions, and pay dues on the tonnage thus ascertained, it is a change Jargely affecting our vessels. As far as the present short experience of it denotes, the effect, as a general rule, will be favorable to auch as are sharp or with fine lines, and unfavorulile to such as are full built; but it may reamonaidy be anpposed that most new vessele will belong to the former ciass, and it will be seen (sectlon 27) that the measurement of ships already measured is not compulsory; but may he made on application therefor. By tife 29th section, the commissioner of customs, with the eanction of the Treasury, may alter or molify the modes of measurement. Section 102 requires fiom every master, clearing outward, a declaration of the nation to which the vessel claima to belong, and authorizes the detention of the vessel until it is made. Section 329 containa important proviaions reapecting the shipment and carriage of dangerous goods. Section 353 renders the employment of duly qualified piluts compulsory ; but, under section 332, any pllotage autherity, by ly-law, made with the consent of her majeaty in councii, may exemit the master of any ahips, or clanses of ships, from being compelled to employ qualified pilots. Part 8 remodels the law relating to wrecks and salvare, and contains some importnnt provisiona, particuiarly as regards forejgn vesnels, and salvage services by government vessels. The remainder of the act is composed of laws, or parts of laws previously in furce, the object being " not so much a change of laws as bringing existing laws into a consolidated shape." The last of the series of acts wnich completely changed the commercial system of this country was paseed March 23d, 1454, and opened the coasting trade to foreign veasela; and England has obtained ly treaty the concession of the coasting trade of Tuncany and Sardinia. By a minute of the Lords of the Treasury, in September, 1856, it was announced that the trunser should then take place of the control of the Cummisioners of the Customs to that of the Lords of the Admiralty. Since that period the control has vested in tha Admiralty.-U. S. Consular Returns.
The subjoined tahles give a complete view of the shlpping belonging to the different ports of the Britlah empire, and of the navigation with foreign countries, in 1852 and 1853.




| Porva. | -atuma vomilas |  |  |  | gitol vimele |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 50 tone. |  | Above fo lona, |  | Under lo tone. |  | Alove E / lome |  |
|  | Veseele. | Tounama. | Vesseit. | Tunange. | Vowela. | Tomane. | Vacools. | Tensagy. |
|  | 4 | 028 |  |  |  |  |  |  |
|  | 11 | 970 | 14 | 1,746 | .... | $\ldots$ |  | .... |
|  | 7 | 888 | 44 | 6,839 |  |  |  |  |
|  | 60 | 1,747 | 49 | 7,84 | .... | . | 8 | 171 |
| Bydney................. | 150 | 8.805 | 141 | 24.821 | 6 | $19 t$ |  |  |
| Molbourne.. | 65 | 1,584 | 55 | 7,847 | 1 | 4 | 8 | 1.400 |
| 1lobart Towa | 108 | 2,788 | 921 | 2t,0es | 2 | 09 | 1 | 02 |
| Lannoeston. | 38 | 884 | 89 | 6844 | $\ldots$ | -•• | ... | .... |
| Naw Zealand. | 117 | 2,400 | 89 | 1,918 | .... | - | .... | ... |
| Amerlea. <br> (Britinh Northarn Cblonies.) |  |  |  |  |  |  |  |  |
| Newfonndland.................... | 448 | 18,774 | 490 | 48,790 | 9 | 40 | 1 | ${ }^{908}$ |
| Cavoula........... | 267 | 8,028 10.588 | 437 | 78,181 | 92 10 | 789 858 | 14 | 8,684 |
| Now Branswlek. | 428 | 10,068 | 875 | 102,099 | 10 | 858 | 14 | 1,688 |
| Nova Beotla and Cape Mroton.... | 1,167 | 59,008 | 1,778 | 185,989 | 8 | 08 |  |  |
|  | 218 | 0,002 | 182 | 19,881 | ...* | .... | 1 | 67 |
| Britioh Weot Indice. |  |  |  |  |  |  |  |  |
| Aatigua.......................... | 80 | 1,10t | 4 | 41 t | . $\cdot$. | ... | .... | . |
| Barbadoca. . . . . . . . . . . . . . . . . . . | 26 | 698 | 4 | 789 | -* | . | . | $\cdots$ |
| Dominica........................ | 16 | 898 | 4 | 248 | , | , | , | .... |
| trenmia.......................... | 78 | 1,798 | 9 |  | $\ldots$ | . | $\cdots$ | .... |
| Mamatse.............................. | 1 | 1,198 | 1 | 1,089 | .... | .... | ... | $\ldots$ |
| Neris............................. | 11 | 197 | ... | ..... | .... | .... |  |  |
| 8t. Chrlatopher. . . . . . . . . . . . . . . | 18 | 245 | ' | .... | ... |  |  |  |
| 8t. Lucla . . . . . . . . . . . . . . . . . . . | 12 | 889 |  | 885 | .... | .... | .... |  |
| 8. Vincent | 85 | 628 | 7 | 656 | .... | .... | .... | .... |
| Tobago... | 8 | 223 | 1 | 182 | . | . | .... | .... |
| Trinldad. . . . . . . . . . . . . . . . . . . . . . . . . . . | 61 | 896 | 4 | 805 | $\cdots{ }^{\prime} 1$ | is | $\ldots$ |  |
| Bahamas, . . . . . . . . . . . . . . . . . . | 185 | 9,9\% | 81 | 2,615 | $\ldots$ | ...' | ... | .... |
| Bermada. | 14 | 421 | 80 | 2,754 | .... | .... | , |  |
| Demerara. . . . . . . . . . . . . . . . . . | 88 | 868 | 9 | 670 188 | $\ldots$ | .... |  | 39 |
| Berblce........................... | 17 | 978 | 9 | 188 | $\ldots$ | .... | , .... | ... |

an Accouxt of tifk Numbri of Vbbrla, witir tha Amount of thrir Tonnagr, and tite Nembra of Man akd Boy vedalit teploykd is mayioating the bame, that nelonoed to the beybial Pogte of the Baitibif Ey-


|  | On the 3tat December, 2851. |  |  | On the alat Deeember, 1859. |  |  | On the 81st Docember, 186s. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vounale. | Tonname. | Men. | Vematis. | Tonname. | Мец. | Vereeto. | Tounare. | Mon, |
|  | 19,44 | 2,808,052 | 146,229 | 19,600 | 2,907,909 | 147,258 | 20,078 | 8,150,653 | 152,184 |
| Scolland | 8,587 | 686,268 | 29,587 | 8,450 | 535,008 | 29,512 | 8,451 | 859,141 | 29,568 |
| Irelaad...................... | 2,203 | 962.411 | 14.155 | 2,178 | 254,907 | 18,902 | 2.219 | 259,84 | 14.088 |
| islen of Gnernsoy, Jersey, \&t Man | 849 | 60,815 | 8,793 | 858 | 61,274 | 8,978 | 860 | 61,046 | 0,701 |
| British Plantatlo | 8,201 | 669,74t | 44.168 | 8,818 | 665,114 | 46,863 | 8.701 | 784,218 | 59,865 |
| Total | 84,244 | 4,882,085 | 240,928 | 84,402 | 4,424,992 | 243,512 | 85,809 | 4,764,422 | 253,806 |

A Retuen of tar Nompen of Vembela, with tieis Ton-
 that wran Built and Rrolstaged in the United
 in the Imar 1858.

|  | TıMEst. |  | 180x. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Veasels. | Tunnage. | Vemepla, | Totnage. |
| Galling vessels......... | 685 | 146,890 | 10 | 8,576 |
| Stemas yesselo. . . . . . . . | 30 | 8,805 | 117 | 44,910 |
| Tutal............. | 671 | 149,685 | 127 | 0,4,486 |

The following table is an abstract of the number of vessels and tonnage entered inward and cleared outward al each of the 12 principal ports of the United Kingdom daring the year 1854 , and also a retarn of the declared value of British and Irish produce and manufactures exported from the respective porta to foreign countries and British possessions during the same year.

| Ports. |  |  | outwand. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Venme. | Tonrage | Vesselc. 1 | Tonbegro. |
| Ion | 10,948 | 2,6a7,823 | 8,174 | 2,187,419 |
| Liverp | 4,498 | 2,105,404 | 4,551 | 2,161,265 |
| 11all. | 2,769 | 0:14,849 | 1,894 | 874,859 |
| Bristol. | 694 | 162,698 | 296 | 101,278 |
| Newcastlo | 8,048 | 441,198 | 6,071 | 1,129,126 |
| Southamplo | 878 | 962,276 | 801 | 279,068 |
| Ialtb...... | 2,088 | 180,586 | 898 | 71.45 |
| Glango | 514 | 125,482 | 814 | 256.519 |
| Greanoc | 877 | 144,159 | 179 | 71,579 |
| Dublin. | 887 | 71,602 | 148 | 4,789 |
| Cork. | 401 | 87,423 | 825 | 89,671 |
| Boluas | 204 | 68,88: | 128 | 84,988 |
| Total | 25,814 | 6,816,564 | 24,524 | 8,697,688 |

An malysis of the calculations upon which these tables are bnsed would doubtlesa show that the real difference between Liverpool and London is much less than it appeara above, a large proportion of tho trade of London being carried on by coasting vessels making ahort tripa. The export returns are thus stated:

| ondon | ,880,279 | Clasgov | 24,906,557 |
| :---: | :---: | :---: | :---: |
| Liverpoo | 46,719,177 | Oreenock. | 554,508 |
| Itull | 10,008,122 | Dabl | 41,478 |
| Bristol | 751,718 | Cork | 148,096 |
| Nowcastle. | 1,521,552 | Belfa | 29,755 |
| Southampton | 2,884,141 |  |  |
| Lelth. ...... . | BET,607 | Total. | c89,806,07\% |

Showing that considerably more than one half the entire foreign trade of the 12 principal ports of Great Britain goes from Liverpool.

From the atatistics of Glasgow, publiahed by Dr. Strang in 1855, we loarn that the tonnage of steamboats built on the Clyde during 30 yoars, from 1820 to 1850, amounted to 103,270, while in the 3 jeara 1851, 1852, 1853, it amounted to 141,718 in 200 vessels, which were almost entirely of iron. And to show the magnitude of this great department of Scottish industry, he adds that, during a period of 12 montha, embracing the greater part of 1853 , the tonnage of all vessels built in the ports of the Clyde was 64,114 tons, whereas the total tonnage of vessels built in London In 1853 was only 62,745, and In Liverpool, 45.' 32 . In the years 1853-4, there were no lez than 266 vossels bnilt at Glasgow, including both atoam and salling veseels, with an aggregate of 168,000 tons.


 THMIR TONMAOE.



Commere United Ntat the Cinited only one k mercial $\operatorname{lnt}$ navlgation occean, shal jeets of (ir States. It course hetw atipulations between the of Amerian, Iritain in It praviles by the ship, phorts of the vessels or $y$ other or hig on the impe tee, or man payabilo on of the grow foriblt coun on the expor from the to whtch shall the British of improsing on ish purts in which shall of America, comntrrvail
impnrtation purted intot? essels." 'TI
 and Izeland, including tix Ible or Man and the Chamkel Islanda; distinouishino thoge vmdxr afd thean
 tisin TonNage.-Continued.

| Ports. | -atimat vinuila, |  |  |  | utray vemera. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Uudar 50 catis. |  | Above 80 cone. |  | Under 50 tons. |  | Above 60 Tous. |  |
|  | Vorsele. | Tonnare. | Vreseli. | Tonnage. | Veseric. | Tonnagr. | Vueselor | Tunnare. |
| Brought forward. ......... <br> Clasguw | 73 | 2,744 | 882 | 158,528 |  |  | 91 | 98.988 |
| Oraogenmenth. . . . . . . . . . . . . . . . . . . . . . . | 8 | 2,297 | 888 88 | 102,025 7,050 | 14 | 810 | 81 | 20,068 |
| Oreenock..... | 820 | 6,2119 | 184 | ${ }^{65} 678$ | 2 | 47 | 18 | 1,905 |
| Invorness. | 169 | 4,195 | 79 | 6,036 |  | .... | 2 | 585 |
| \|rvine.............................. | 41 | 1,194 | 77 | 17,714 | .... | $\ldots$ | 8 | 476 |
| Kirkealily. | 68 | 2,020 | 86 | 7,090 | . . . | .... | 1 | 63 |
| Kirkwalf.. | 29 | 560 | 21 | 1,025 |  |  |  |  |
| Lellh......... . . . . . . . . . . . . . . . | 79 | 2,350 | 109 | 22,007 | . 18 | 274 | is | 8,078 |
| larw\|ck... . . . . . . . . . . . . . . . . . . . . | 64 | 2,481 | 8 | 755 | -• | . . . |  |  |
| Nentrose...... . . . . . . . . . . . . . . . . . | 10 | 487 | 83 | 14,858 | . |  | 1 | 76 |
| Purth. . | 10 | 818 | 4 | 4,269 | 1 | 10 | 2 | 116 |
| Prterhead........................... | 8 | 946 | 40 | 9,485 | * . ${ }^{\text {c }}$ | $\cdots$ | -*. |  |
| l'ert dlakgow . . . . . . . . . . . . . . . . . | 83 | 1,442 | 16 | 4,827 | 1 | 14 | 12 | 2,181 |
| Stornoway. . . . . . . . . . . . . . . . . . . | 42 | 1,181 | 14 | 1,477 | ** | ** | - | -••* |
| Nirantser. . . . . . . . . . . . . . . . . . . | 5 | 644 | 18 | 858 | .... | . $\cdot$ | ** | ...* |
| Whek. | 23 | 646 | 16 | 1,281 | .... | .... |  |  |
| Wigtown | 86 | 1,234 | 16 | 1,543 | .... | . . . | 1 | 816 |
| Total, Bcetlead. . . . . . . . . . | 1,107 | 86,418 | 2,048 | 478,981 | 43 | 1,205 | 104 | 42,548 |
| ItiFILAND. |  |  |  |  |  |  |  |  |
| Balltna. . . . . . . . . . . . . . . . . . . . . . . | 2 | 86 | 1 | 215 |  |  |  |  |
| Invtfast, . . . . . . . . . . . . . . . . . . . . . . | 159 | 5,488 | 822 | 75,536 | 2 | 99 | 10 | 2,186 |
| Coleralne. . . . . . . . . . . . . . . . . . . . | 11 | 478 |  |  |  |  |  |  |
| tirsk........... . . . . . . . . . . . . . . . | 158 | 8,696 | 224 | 41,826 | 7 | 214 | 18 | 4,827 |
| Drogheds. . . . . . . . . . . . . . . . . . . . | 7 | 108 | 41 | 6,108 | . | - | 5 | 1.787 |
| tuablin............................ | 201 | 8,407 | 127 | 21,039 | 8 | 119 | 411 | 11,858 |
| Dnndalk . . . . . . . . . . . . . . . . . . . . . | 6 | 181 | 1. | 1,43t | 1 | 24 | 2 | 844 |
| Galwny ............. . . . . . . . . . . | 12 | 859 | 3 | 802 | .... | . $\cdot$ | . |  |
| LImerick.......................... | 59 | 1.761 | 40 | 10,815 |  | .... | 1 | 800 |
| loodonderry. . . . . . . . . . . . . . . . . | 10 | 256 | 14 | 4,17t | 8 | 125 | 4 | 1,849 |
| Newry. . . . . . . . . . . . . . . . . . . . . | 78 | 2,401 | 89 | 5,298 | .... | ... | 8 | 878 |
| Ifoss.... . . . . . . . . . . . . . . . . . . . . . | 9 | 8.69 | 16 | 8,758 | . . . | - | .... | .... |
| Skibburren....... . . . . . . . . . . . . . | 94 | 2,255 | 8 | 202 | . $*$ | ... | . ${ }^{\text {c }}$ | .... |
| Sllıu......... . . . . . . . . . . . . . . . . | 18 | 411 | 19 | 8,789 | $t$ | 44 | 1 | 67 |
| 8trangford............. . . . . . . . . | 83 | 1,053 | 81 | 2,406 | . | ..* | $\cdots$ | $\cdots$ |
| Tralev............. . . . . . . . . . . . . | 12 | . 806 | 4 | 729 | .... | . . . | 10 | $\cdots$ |
| Waterforil . . . . . . . . . . . . . . . . . | 61 | 1,524 | 04 | 12,904 | . ... | . . . | 10 | 6,701 |
| Westgork..... . . . . . . . . . . . . . . . . | 4 | 87 | 1 | 190 | . $\cdot$. | . . . | $\cdots$ | .... |
| Wexforil. . . . . . . . . . . . . . . . . . . . | 28 | 1,1006 | 70 | 7,660 | ... | $\cdots$ | . | $\ldots$ |
| Total, Irviant. . . . . . . . . . . | 1,037 | 20,721 | 1,1161 | 199,410 | 17 | 854 | 104 | 20,670 |
| Iste of Man......... . . . . . . . . . . | 818 | 7,422 | 89 | 2.947 |  |  | 5 | 1,197 |
| Channel lslatids................... | 807 | 5,445 | 246 | 43,743 | 1 | 21 | 4 | 271 |

Commercial Intercourse betieven Grvat Britain and the United Stnies.-The dethite treaty of peace between the linited Statea and Great llritaln, in 1783, contalus enly one stlpulation it any manner relating to commercial intercourse. Article vili. proviles that the navigation of the Miasissipyl, from lts agurce to the ocean, shall forever remain frce and open to the subjects of Great lritnin and the citizens of the United States. It was not until $1 \mathbf{1 0 9}$ that eommercial intercourse between the twa mations was defned by trenty atipulations. The treaty of that year regulates traie between the high contracthig parties, on the continent of Amerla, In the bast Indies, the territorien of Great Iritain in Enrope and In those of the United States. It provides that no other or higher dhaties shall he pail by the ahips or merchandise of tho one party in tha ports of the other, than suels as aro paid hy tho like vesacts or merchamilise of all other mations; that no ether or higher duty alall the lmposed in one comentry on the importation of any articles, the growth, promiuee, or manuficture of the other, than are or shall be payahle on the limportation of tho like artieles heing of the growth, prombec, or mamfaturn of any other forelga country; nor whall any prohibition in imposed on the exportation or Importation of any articles to or from the turritories of the two partien respertively, which ahall not equally extend to all other mations; the Iritish government reaerving to itmelf tha right of imposing on American vessels entering into the Iritish parts in Vinrope "a tomage duty equal to that whinh shall he payable by British vessels in the ports of Amerina, und also such duty as may be adequate to countervail tha difference of duty now payable on tha importation of European and Asiatic goods when imported into tho United States In IIritishor In Americans vessels." The other stipulations respecting commerce
relate chietly to the trude with the West Indles. The duration of this treaty, so far as it regalates the commorce between the United Statos and the Vuropean possesslous of Grent Britaln, is limited to 12 yeara. During the literval which elapsed from the treaty of peace in $178: 1$ to the ratillention of the treaty of anity, conmeree, and navigatlon, in 1791, the commercial relatlons between Great Britain and the Unitel States wero regalated hy the separate and distinet leglslation of the several States on the one side, and hy general orilers in council on the other. See articlea Corosn . 4 and Uniten States.

The navigntion laws of Groat Iritain, Immediately after the proclamation of peace, were enforced against the ressels and commorco of the United States. The Itrst in the series of thege laws was tho art of 1651. It provided that no geoda of commorities whatever, tho growth, production, or manufacture of $\mathbf{A s i a}, \mathbf{A}$ frica, of Amerlea, shoukl bo imported elther into linglatel or Ircland, or any of the glantations, except in Einglishbullt ships, and telonging either to Empland or to Einglisls plantation subjects, and of whblh the master and threo fourths of the crow were also linglish; and that no giods of the growth, production, or manaficture of nuy country in birope should bo importad into Greai liritaln, Ireland, or the plantations, except in Ifritish shijs, or in auch khips as wero the real property of the people of the country or phace in which the goods woro produced, and from which they rould only Le, or were usually exported. 'This uct was nover eniforced, nor intensiud to bo enforced, in the 13ritish North A merican colondes. It was expecially aimed at the Dutch, who wero at this jerlot tho great earrlers of the werlic. llaving but few ataples of their own to export to foreign eomintries, thelr merchant ships were found in every port, and were even employed in briug-

Ing home the products of the British colonies to the mother country.

After the Restoration, the navigatien act was reenacted; with such amendments, however, as seemed still necessary to give more effective protection to British interests, and curh the Dutch yet further. Amoug the provislons of the naw act of 1660, It was declared that no "sugar, tobacce, cotton, wool, Indigo, ginger, fustle, or other dyeing woods of the growth or manufacture of our Asian, African, or American colonies, shall be shipped from the said colonles to any place but England, or to some other of his majesty's sald plantations." Whatever relaxations were permitted in the operation of these navigation laws in the North American colonies, the United Statea became sabjected to them in all their rigor Immediately on assuming an Independent existence. In the language of Lord Liverpool, "The connaction whielı had so long subsisted bet ween Great Britain and the count riea now forming the United States of Ameriea was finally dissolved by the acknowledgment of their independence in the year 1783 ; the anclent commercial system arising out of that connection of course ended with it; and the laws by which the traile of these countries, considerd as colonies, had hitherto been regulated ceased to have etfect." The king, by and with the advice and consent of his privy council, was, however, vested with authority to regulate the future commerce between Great Jritain and the United States, The first onder in council issued ufter the independence of the United States had heen acknowledged by fireat Jritain, estathlished the following regulations:
Fiust. That any goods, the importation of which into this kingdom is not prohibited by law, being the growth or production of any of the territorles of tho United States of America, imay be imported directly from thence into any of the ports of the kinglem, not only In Mritish ships, owned by IIritish nuhjocts, and navigated eccording to law, but, also, in ships built in the conntries lelonging to the United Staten of Ainerlea, and owned by the sulijects of the said States, and whereof the inaster and threo fourtha of the marines, ut least, are subjects of the United States. Secondly. Tha: any goobls, being unmanufactured (except tish-oil, blubber, whale-fins, and spermaceti), and also any pig-iron, har-iron, piteh, tur, turpentine, rocin, putash, jeari-ash, indigo, manta, yards, nud bowaprits, being the growth or produrtion of any of the territories of the linited States of America, may the inported directly from thince into any of the ports of Great Ilritaln, upon payment of the same duties as the like sort of goods are, or may be subjected to, if imported from any British island or plantathon in Amerlea; and that the excepted articlea, an well an all others not enumeruted, the growth, production, or manufacture of the said Cnited States, shall be mimitteal on the payment of the same duties as are levied on simflar articles when imported from the must favoren nation, except such nations only with which treation of reciprocity have treen established, Thirdly. It was ordered that gompand merchundine, heing the growth, proluction, or manafactume of the territories of the I'nited states, though inaported In abips liclonging to the muljerts of the raid stated, Nhoubl be exempted from the alien's duty, fonrthly. It was jermitted to The imported into the other American nad Went ladian jorsexsions, from the jorts of the linited Stater, in Brifich shipa only, sucharticles of the growth, jrualuction, or manufacture of any of the said staten (excepte aalted frevinions and the prombee of the limheriem ), as might by law, hefore the independence of the L'niteal states, have been imported from the maid staten: hat prohibiting all intercourse between the Linited Staten and the asid Americun and Weat Indian posserssions in ahips belongligg to ritizens of the C'nited States.

The first three orders, it will the perceived, nuspend, In faver of the Cnited States, that provision of the
navigation lawa of Great Britain which enacts "that no goods or commedities whatsoever, of the growth, production, or manufucture of any part of Amerles, are to he lmported into any of his majesty's European dominions in any other ship or vensel than such aa do truly belong to his majesty's suljects, and navigated aceording to law, in the manner thareln dascribed, under the penalty of forfeiting sil such gooks and tha ship or vessel In which they are broaght.". The commerce of the United States, with reapeet to certain articlas enumerated (and it la admitted that theso articles formed a principal pertion of the Amarican export trade at that period), was also allowed the same preference as was granted to the romalning American possessions of Great Britain. The privileges conferred on American commerce by this order are shown in the following tathe:

| Merchandise. | Dutiog, If imported from |  |
| :---: | :---: | :---: |
|  | the United | other foroign |
| Potash. .......... per cwt. | States. <br> Free. | countries. <br> 80) 54 |
| Pearl-ash. | Free. | (1) 54 |
| Iron, bar.......... " | Free. | 1844 |
| t'iteb, . . . . . . . . . .per last. | ${ }^{2} 264$ | 298 |
| Tar............... | 264 | 297 |
| Skin』, beaver........each | 002 | 0167 |
| Tobaceo........per ponnt | 030 | 084 |

The last regulation opernted to exelude United States, vessels from the ports of IIritish possessions in America, including the West Indien, und to restrict the importation of the products or mannfactures of the said States in such possessioas to British ships only, navigated accorling to law. The order was dictuted by a spirit of ililberality and seltishness, universally condenned both in Eugland sud the United States; nnd furnished a prolitie suhject of diplomatic discussion between the two govermments, until the question was delinitely and satisfactorily settled towanl the close of the year 18:10, The following summary exhibits a brief almatract of the separate acts of the different State legislaturuffecting liritish commerce, passed between 1is83 and 1789: Hy laws pasued In New Hampshire, Massachaketts, and thode island, vessels owned, in whole or in part, by the subjects of Great Ilritain, were prohibited from taking on board, in these provinces, any goods or merchandise of the growth or manufacture of these States, or of any other of the Unitel St ates; and such vessels, soloaded, were, together with thir cargoes, made subject to seizure and condennation. The legislature of lemosylvania verted in Cengress a [ower to prohilhit for 15 years tho importatitin or ex. portation of all merchandise in vessela belonging to or navigated by the subjects of any nations with which Congress aluall not have formed treation of commerte.

Hy laws pareed in Massachosetts and Ithode Ishad, (congress was empowered to ;rolitit the impartation of Iritinh West India prodice in Hritish vesvels. Another law was enartel, In Jennsylvania, imposing a duty of As. Gid. (currency) per ton on the vevols of every nation wihb which Congress ham not made treaties of commerce. In Maryland, a duty of Is, perton was innowed on all formign shipping except Ilritish, and on Irritish in duty of GN. per ton. In 1 iss Virginia powed a law himposing a tuty of tis. per ton on Iriti-h vessels, and half that amonat on all other forejgn wosils, In North Carolima the dincrimination whs still greater; tho duties on liritinh vesisels entering the purts of that State being fis, per ton, while that on all ither foreign vemels was only Is, jer tum.

The inuport iluties of the dilferent states on Hritinh cargoes were equally characterizal by a similar pinit of retahatlen. New IJamplise, Massachusetts, Nilowe I hand, Virginia, Maryland, South Carslina, and
 tol 100 per ernt. on liritinh cargoes over those hevied on similar merchandine imported in other foreiga vessuls.

The effert of thene countervaifing ann relaliatory measurve cun be traced in the following taliles:

Value of Iritish exports into the L'nited States,
upon

## pender

ending
the wa
tha $\mathbf{U n}$
of aix with 17 indepen wer, $\$ 4$ A clo ing thit the artic quantity annually pounds, in rice was 250 ,
decrease nuge em ahove dos We are thoritles $t$ in the trat -of three independe Numbet from Greal of the $y$ eas ber and to ports from 91,510; to British ves on an avere 55,785 . N sels clearin average, 15 vexsels clea ports, annue and 1789, United Stat for Mritish 26,564; total ing the perid Thus, in t astrous effec in the spirit which they in tha genera the object as council relat and this coun alyze the effi to compete fo
had, long an
land, and no
own, can not
liverponl), i
1792, remark.
is to he aserit
to appear fror
it the the tray conntries wer of their proht our West Int a share in the lireat IIritain Statos, mince plantations, a unile shijss, wi trade from wh over enjoy a a the produce ot
The comune the very infin courage recipr nutions willin
npon an average of six years before the war of independence, ending with $1774, \$ 13,118,778$; of six years ending with $1789, \$ 11,201,486$; annual decrease since the war, $81,912,287$. Annual value of exports from the Unlted States to Great Britaln, upon an average of six years before the war of independence, ending with $1774, \$ 8,410,281$; of six years since the war of independence, $\$ 4,361,452$; annual decrease since the war, $4,048,829$.

A close analyals of the officlal returns of trade during this poriod will show that tobacco and rice were the articles upon whit this decrease chlefly fell. The quantity of tobscco exported to England decreased annually, upon an average of six years, 44,774,458 pounds, valued at $\$ 2,798,390$; and the anoual decrease in rice exported to England from the United States was $259,035 \mathrm{cwt}$., valued at $\$ 913,326$; making a total decrease in tobacco and rice of $\$ 3,741,716$. The tonnuge employed in the trade during the two periods ahove designated can not be ascertalned with accurucy. We are enabled, however, to supply from British authorities the number and tonnage of vessels employed in the trade bet ween tho two comntries for two periods -of three years befure, and subsequent to, the ;var of independence:

Number and tonnage of vessels annually clearing from Great Brituln fur the United States, on an average of the years 1770,1771 , and $1772,628-81,951$. Number and tonnage of vosaela annually entering Britial ports from the United States, on a like sverage, 69991,510 ; tutal, $1327-173,491$. Number and tonnage of liritish vessels clearing from British ports, annually, on an sverage of the years 1787, 1788, and 1789, 27255,785 . Number and tonnage of United States' vessels clearing, annually, from British ports, on like average, $157-25,725$. Number and tonnage of 13ritish vessels clearing from the United States for llitish ports, annually, on an average of the years 1787, 1788, and $1789,261-52,595$. Number and tonnage of United States' vessels elearing from the United States for British ports, annually; on a like average, 163 26,564 ; total, $853-160,669$. Showing a decrease, during the periods comparel, of $471-12,822$.

Thus, in the very infancy of our commerce, the disastrous effects of restrictions, and of the retallatory measures which they provoked, were exhibited as well in the spirit of commercial illiberality and untagonism which they engendered between the two countries, as in the general decreaso of navigation and trade. That the olject as well as the effect of the varions orders in council relative to the trade betwoen (ireat Britain and this connty, lesued from 1783 to 1794 , was to paralyze the efforts even then made in the United States to compete for a portion of that trade which bingland had, long anterior to this perioi, wrested from llotland, and now seemed to regard ns legitimately her own, can not be doubtel. A Iritish statesman (Lord liverposil), in in work on this subject, pulbished in 1792, remarks:-"That thls lucrease In our shipping is to be ascribed to our narigation sysfom may be made to appear from recent experience in the npplication of it to the trade of the United States. When those countries were part of our plantations, a great portion of their produce was transhipued to Great Iritain and our West Indin Islands in A mericon bottoms ; they had a sharo in the freight of sugars from those infands to Great Britain. Hat since the independenco of those Status, since their chips have heen exchnded from one pitantations, and that trade is wholly confined to BritishUnite ships, we have gained that share of our carrying trade from which they aro nou exchuded, and we noreover enjoy a ronsiderable proportion in tho carriage of the produce of the United States."

The conmercial policy of the Vnited States, from the very infaney of tha govermment, has been to encourage reciprocity, and frechlom of commerco with all nations willing to adopt a simiar principie. In tho
report from the Treasury Department on the subject of commerce, submitted to Congress In 1791, the basis of a commercial system was suggested, in which the Secretary arguod that duties imposed upon imports would te disadvantageous in bullding up, trade. "Instead," the report adds, " of embarrassing commerce under piles of regulating laws, dutles, and prohibitions, it should be relleved from all its shackles, In all parts of the world. Would even a slagle nation begin with the United States this systam of free commerce, it would be advisable to begin it with that nation." In the spirit of thls suggestion, the United States, soon after the peace of 1783 , proposed to enter into treaties of commerce, not only with Great Britain, hut also with France, Spaili, and Portugal. Every overture, however, to that end, was, under various pretexts, rejected; and it was not untll five years after the adoption of our present Constitution that Great Britain could be induced to listen to any propositions on the part of the United States, having in view the equalization or reciprocity of commercial relations between the two nations,-SEynert's Statistical A nnals, page 58. Under the operation of their navigation laws, the productions of Asia, Africa, and America, could only be imported direct from the places of their growth in British vessels. As respects the United States, this restriction was suspended, as already ohserved, by orilers in council, and proclamations issued in pursuance thereof, intil the treaty already cited was ratified.

The following tables exhibit tive letails of the inport and export trade between Great llritaln and the United States from 1795 to 1807 , and from the latter year to 1815 , when a convention of reciprocity was entered into and ratified thetween the two governments:

| Yeara. | Esporta from Great Aritain to the U. S. | Imporis into Grent aritain from the U.S. | Years. | Esporta from Greal Britaln to the U.S. | Importa lato Grent Britain from thaU. 8 . |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1705 | *26,270,590 | \$0,769,690 | 1801 | \$37,087,650 | \$13,532,590 |
| 1796 | 30,270,160 | 10,404,850 | 1 s 02 | 26,647,450 | 9,617,520 |
| 1797 | 25,233,995 | 5,877,560 | 1803 | 26,964,055 | 9,570,490 |
| 1798 | 27,901, 845 | $8,913,600$ | 1804 | 31,992,130 | 8,257,935 |
| 1799 | 35,2*2,790 | 9,094,005 | 1805 | 82,733,845 | 8.882,780 |
| 1800 | 30,427,970 | 11,789,615 | 1806 | 43,065,010 | 9,999,420 |

The preceding table is derived from 13ritish authoritles; und though it exhilits a variance in almost every instance, more or less, from the United States' onicial reports, it is believed to epproximate the netual value of the imports and exports in the linglish market. From 1803, when the stipulations of the treaty of 1791 , relative to conmerce, expired, there was no treaty regnlating the commercial intercourse between the two countries until 1815 . It is true a trenty was ngreed to, December 31, 1806, between Messrs. Monroe and l'inckney und the commissioners appolnted liy Great Ilritain for that purpose; but so restrictive were some of its stipulations, erpecially as respecting American commerce with the East Indies, that it was rejected by the l'resident, withont having been aubmitted to the Sonate, notwithstanding it contained a stipulation for an equalization of tonnare and other duties in tho intercourso between the linited States and the dominions of Great llitain in linrope. This principle was recognized and admitted in tho commercial convention of duly 31,1815 , entered into between the two countries, with the limitation, however, on the part of lingland, to her dominions in liurope. l'rior to the adopition of thi crenty, the United States pussed nut att repealing all the diseriminating duties of import and tomage in regard to the vessels of such nations as whould extend similar fivors to the shipping and proluce of the United States; thus carrying into pracetical working, und reoommending by legislative exmmple, the suggestlon of Mr. Jeflerson already quoted, that if "even a single nation would begin with the United States tho syntem at freo commerce, it would be advisable to begin it with that nation." We reeur, bowever, beforo proceeding to trace the operation of
this convention In the anbsequent retnras of trade, to the tables, resuming at the year 1806 :

| Years. | Syports from Ormat Britaita to the U. 8. | Imperts lato Greme Britala from the U,s. | Yames. | Kaporta from Oreal Brinsla to the U. S. | Imperts lato Oromal Bricala from thaU.8. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1806 | (48,046, 610 | 19,909,420 | 1811 | \%,159,145 | 11,547,075 |
| 1807 | 89,605,600 | 14,287,610 | 1818 | 20,677,960 | 6,470,760 |
| 1908 | 10,960,295 | 4,181,710 | 1818 | Avenrin dyatr | ayed by 8 mra |
| 1809 | 25,948,065 | 11,026,65\% | 1814 | 80,515 | 118,106 |
| 1810 | 38,006,085 | 18,672,025 | 1815 | 59,682,005 | 11,81t,440 |

In Seybert's Statistical Annals we find a minute analysle of the trade between the United States and Great Britaln during the years designated in the prevlous tables.

In the year 1793, exporte from the United Statee to Great Britain were eatimated, in a report of the Secretary of the Treasury, under date December 23, 1793, at $\$ 9,363,416$, and the Imports Inte the United States from Great Britain at $\$ 15,285,428$, leaving a balance in faver of Great Britain of $\mathbf{8 5}, 922,012$. From 1793 to 1800 , the amonat of manufactures imported into the United States from Great Britaln exceeded in value the amonnt of similar exports to all the nations in Europe, as will be seen from the following table, taken from British returns:

Amount of reanufacturex exported from Greal Brltain to

| Years. | Britain |  |  |
| :---: | :---: | :---: | :---: |
|  | Nationa in Earope, |  | The t'nired Sister. |
| 1793. | 17,650,280 | ...... | 116,968,625 |
| 1794. | 22, 291,915 | . .... | 17,94,445 |
| 1795. | 21,113,910 | . | 24,462, 060 |
| 1796. | 21,488,415 | ...... | 29,178,200 |
| 1797. | 18,68, 150 | ...... | $24,854,6)^{0}$ |
| 1798. | 19,904,250 |  | 25,665,84) |
| 1799. | 92, 768,040 |  | $88,481,105$ |
| 1800.. | 87,550,615 |  | 82,985,885 |

The annual value of merchandise exported from the United Stater to the European Jominions of Great Britain, on an average of the years 1802, 1803, and 1804, mounted to $\$ 18,665,975$; and on a similar average, the annual value of the merchandise Imported inte the United States from Great Iritain amonnted to (335,737,030; showhig an annual balance of 817,071 ,253 agalnst the United States. The annual value of British produce and manufactures, and of foreign and colonial merchandise, tistinguishet in separate columns, exported from Great Mritaln to the United States, and to all parts of the world, during the years designated, will be seen in the following tables:

Valeg ey the Expohts phom Gaeat Bhitain.

| Year. | Brtioh mananGactures and emodece. | Yorelga nid colocial merchandise. | Britelot cannufaclaree and produef. | Foregil and colonial nerchandisen. |
| :---: | :---: | :---: | :---: | :---: |
| 1805 | (20) 00 ) 7,045 | 12,177,650 | (200, $3+4,710$ | - $60.210,945$ |
| 1806 | 61,987,440 | 2,840,815 | 216, $21(4,4 / 0$ | 44, 988,505 |
| 1507 | 59, 2321,565 | 1,257,145 | 902,899,825 | 51,0t8,941 |
| 1 1\%15 | 26,205,685 | 815,615 | 204.408,305 | 45,440,975 |
| 1499 | 86, 292,500 | 1,01t,840 | 251,218,415 | 78, 84.785 |
| 19t0 | 54,608,76) | 1,444,665 | 248,478, 170 | 68,638,4i5 |
| 1011 | 9,206,265 | 169,820 | $178,546,405$ | 45,111,695 |

The aggregate valne of Itritish manufactures and produce export to to the L'nited States during the seven years denlgnuted above, was $\$ 302,088,2 \%$, making an anmual average of $\$ 43,296,896$; the aggregate value of British produce and manufactures exported to all parts of the werld, indudling the Vnited Staten, during the same perionl, was $61,504,041,650$, making an ansnual average of $\$ 214,863,043$. The sggregate value of foreign and colonial merchandise exported from tireat liritaln to the United States thring tho same perient was $48,782,070$, making mun mual averagn of © $1,254,852$; the aggregate value of similar exports to all parts of the world, Including the Inited statea, was $3 \boldsymbol{3} 2,204,150$ ). The preceding figures exhithit many lateresting facts relative to the trade luetween the two countries, cluriug the period which intervened teetween 1793 and $1 \times 16$. The exports of forejgn and colonial merehandme from Great liritain to the Inited Staten show that Fingland enjoyed but a small share of
our carrying trade; while a comparisen between the totale of domsatio manufactures exported to the United States, and to sll other parts of the world, will exhibit the importance to Great Britain of nnreatrieted commerclail Intercourse with the United Statea.

The effect of the restrictive and retaliatory measures which were, at this period, adopted. by hoth countries, Is even mere fully illustrated in the tonnage employed In thia trade by each, respoctively, from 1790 to 1816. The number of British vessele which enterad and cleared between the United States and Great Britain amounted to 1715, with an aggregate tonnage of 382 , 502 tons. The number of American vessels which entered and cleared in the same trade, during the same period, was 8245 vessels, with an aggregate tonnage of 516,702 tons. In 1790,557 British vessels were employed in the cominerce between the two countries; in 1800 this number was reduced to 139. In 1790 the American veasels employed in this trado amounted only to 464; in 1800 this number reached as high as 1057. In 1789, 253 British vessels engaged in this trade entered British ports from the United States, whila 358 vessels cleared in the aume trade. In a period of 10 years, up to 1799, the number that entered from the United States was reduced to 42 vessels, while the number that eleared fell to 57 . In $1806,56 i$ vessels employed in the trade with the United States entered British ports ; of these only 56 were under the British flag; and of the 5.5 vessels that cleared frum British ports in the same trade, only 39 were 13ritish.

These statistics, which are ehiefly compiled from Soybert, show an augmentation of tonagge $\ln$ the United Sitates, and a diminution in the tonnage of Great liritaia engrged in the trade between the two countries, well calculated to excite alarm among the ship-owners in England, and even to arrest the attention of the British government. And when it is considered that it was at that period-if it has not always Ireen-the policy of Great Britain to aacrifice, If necessary, the interests even of commerce and trade to the great object of strengthening her naval power, it will not be a subject of rurprise that orders in council and acts of l'arliament were issued, in quick auccession, avowedly designed to check this rapld progress of American uavlgation, nud drive American ships from the carrying trate, even as respected the exportation of the products of the United States to other countries. "Trade," suit the report of the privy council, to whom the sulject was, at this time, referred by his nujesty's orders, "was considered prinelpally as the means of promoting the employment of sbips, sml was encouraged chletly as it conduced to the one great national object-the naval strength of the ceuntry:"

It was the universal prevalence throughout lingland of this sentiment, exhibited upwarl of a century in her navigation laws, in her prohibitions and restric. tions, in her differential duties, and, above all, in her colonial system, that emboldened the frivy council to recommend to his majeaty "that, notwithitanding their (the L'nitel States') extreme anxlety for an arrangemont on the princlple of reciprocity, if Congress should jropose (as they certainly will) that the principle of equality should be extended to the ports of our colonies, anil that the ships of the Uniter! States should be there treated as Britiali ahiga, it whonld be answered, that this demami can not be admitted even as a subject of negotiation." Hence, but little could be experted from the truaty of 1794 , in which thin prinejple was earrled out to the fulleat extent of rigoroms restricton; anil hence, also, the serien of regulating orders, nity, and counter-acta, which were made the inatruments of eommerelal warfare between the twa countries for upward of a quarter of a century. It would to a tedlons task to present even a aynopsis of the different restrictive and retallatory measuec adopted by the two governments during this long period. Were it even otherwise, it woulil he super
finous $t$
both go effects sucelnet] this Dep It will trade and tlon that ures, and prohibitio cial indus nation. ployed in the navig commereia which she 15 , vol. il. whether th gation law even as a lieneficial in prosperity aldherence cited, that shackles in the enlighte Great lirita remoto perio tion amd supl men, Mr. Pit fallacies upo has demonst years, that E chant-marlue every port in nlal, for the s an unrestricte A liberal ta prime necessit even should ries, is all th present comm The present d cent. alove pr of 1815 , betwe was llmited to treaty provide and tonnuge in ports of the 13 spect to import articles being of the respectio the Ceited St American colon ions of the con in complete po such intercours canvention, the front the praym duties, only wht nry of the grow Rritish dominlo Innited States, $i$ ish ports on ter purt duties, whe cargoes consiat or manufacture this convention, "pon the shippil no excepition to
upon roummerce upun commerce they are linposed In the practic as was stated by delluered in liur? lan to another $p$ serving, appeare
fluous to go into minute details, as the legislation of both governments during thls period, as well ss its effects upon the commerce of the two conntries, are suecinctly set forth in the former reports issued from this Department.
It will, therefore, suffico to refer to the tables of trade and tonnage alresdy given, as the best illustration that can he offered of the operation of these messures, and of the total inadequacy of restrictions and prohilitions as a necessary means of fostering commerclal industry, or of augmenting the naval power of a nation. The ahlest peris in England have been employed In demonstrating that it is to other canses than the navigntion laws that Grent Britain owes her vast commercial graatness, and that naval ascendaney which she has so long mnintalned (Mcfinegon, Part 15, vol. ii., p. 1370) oud it ls a question still unsettled whether the adoption by the United States of the navigution laws and the restrictlve policy of Great Britain, even as a means of protection or self-defense, was as teneficial In its ultimato rosults npon the commercial prosperity of the country, as would have been a strict adherence to the maxim of Mr. Jefferson, already cited, thut "coinmerce should ho relleved from nll its shackles in all purts of the world." Be thls ns it many, the enlightened policy which now rules the counclls of Great Britain-a poliey which, nt thls distant and remote period in liritish history, received the co-operntion aud support of two of lingłand's greatest stntesmei, Mr. Pitt nod SIr Rohert Peel-has dlasipated the fallacies upon which past legislation wns hased, and has demonstruted already, in the brief period of five years, that Eugland can best compete with the mer-chant-marine of the world by placing the trade of cerery port in her vast douinlons, European and colonial, for the shlips of all countries, upon the footing of an unrestrieted constlng-trade.
A liheral tariff of duties, especially npon articles of prime necessity among the great masses of her people, even should they be classed in the categery of luxuries, is all that seems now wanting to perfect the present commerciul code of this powerful klnghlom. The present duty on raw tolineco ls, at least, 1000 per cent. above prime cost. The commercial convention of 1815 , between Great Britaln and the United States, was limited to four years. The second article of this treaty proviles for an equality of duties on imports and tennage in the ports of the United States nud the ports of the Britlsh territories in Europe. With respect to imports, thls equality of dnties npplles only to stticles heing the growth, produce, and manufacture of the respective countries. The intercourse hetween the L'aited Stutes and tho British West Indies and Auerican colonles is not to be affected hy nny provis. ions of the convention; "but each party is to remnin in complete possession of its rights with respect to such intercourse," Under the stipulations of this conventinn, the vessels of Grent Britain are exempted from the payment of the ertra tonnago and luport dutics, only when they arrive from, mal their cargoes arn of the growth, produce, or manufacture of, the Iritish domlnions in Europe; nad the vessels of the I'nited States, in like manner, are admitted into British ports on terms of equality as to tomagen and linport duties, with liritish vessels, only when their cargoes conslist of merchandse the growth, prodice, or mumufacture of the linited States. The effect of this convention, enpecially of its restrictive clanses, apon the shipping laterests of Great Britain, formed now exception to the general rule, that all shackies upon commerce ultimately. reruil upon those hy whom they are huposed.
In the practical consequences of this arrangoment, as was stated ly the celelirated lluskigson, in a speech delivered in Parliament, the ntherenco of Great Hritian to another part of her mavigation laws, instend of serving appeured to that statesmun to have shackled
the shlpping intereste of that country. And he thus Mlustrates his position: "An American vessel, on her voyage to England, is freighted with a cargo wholly produced in the United States. For her return to America, she may losd in British ports, with a cargo partly the produce or manufacture of any other conntry. This a l3ritlah ehlp can not do; for if a British shlp were to bring to the United States a single cask of brandy, or a pipe of wine, she wonld be liable to seizure and forfeltnre." And yet, at this very period, and up to the year 1830, the representatives of the American government were pressing upon the cablnet of England the justice as well as the policy of unrestricted commercial interconrse bet ween all the ports of the two countries, but withont anceess.

In 1818 another convention was ratifled hetween the two governments, by the 4th artlcle of which that of 1815 was continuell in force for the term of 10 years from that date; and in 1827 it was indefintely extended and contluned, either party being at liberty, on glving 12 months' notice to the other, to annul and terminate the said convention. No terms, however, would be acceded to by the British government reapecting the trade with her American colonies. A recapltutation of the various acts of Parliament and orders in council, ns well as the general history of the commerclal antngonism and reciprocal exclusion which marked thls period, leelangs more properly to the digest of our commercinl relations with the English colonial prossessions. It is true, it would not be dificult to trace the influence of thls controveray in the commercial legisintion, more particularly in relation to the tarriff regulations of theth countries, during the entire perind of its contlnuance. Still, the general subject belongs to a review of our trade with the colonles uf Girent Britnin, and to that portion of this digest reference is made.
It has been nlrendy stated that, in the convention of 1827 , it was agreed that the provisions of the convention of 1815 should the indefinitely extended and continued; but that it should be competent, nevertheless, to either of the partles, on givlng 12 montha' notice, to annul and abrogate the eald convention. No such notice has heen given hy either party, and, consequently, the convention stili remains in force. Slace that perion, however, the commercial policy of Great Itritain has tetally changed. The vast plld of navigatlon luwa which eontributed to build up her naval power, and extend her commerce to every corner of the globe, has been swept away by the reforming hand of a more llberal legislation; the whole framework of her tarlif policy has been demolished; the heavy duties on the various classea of raw material have been removed; and, with the exception of a few articles on which, for revenue parposes only, heavy dutlea are still retained, the raw produce of the world is brought to the stere-honses of her manufueturers, unineumbered with those custom-house charges whleh, lefore this perion, niserbed so large a share of the protits of thelr industry and skill.

The act of 12 and 13 Victoria, chapter 29 , passed on the 2tith June, 18.19, introduced this new era in the commercial history of Great liritain. The lending proviskins of this net, ns well as of the yarious acts, orters ln conncil, proclamations, nte., which it superseded, will is found at length in a report from the Department of State in 1853, entitled " Ex. Doe. No. 52, Senate," pages 9-16. Section 21 of this act declnres that it shall eome into operation on tho 1st duy of hanuary, 18io. Thus, it length, the ibuls of British conmerce were sreed from the pintions by which it was fetterel for upward of two centuries. The visions of Mr. Pitt were realized in the liheral policy of sir Robert l'eel's enlurged and enlightened stateamanship. This net extublishes the couprehensive principle of aimitting into tho ports of Grent Britain, or into any British possessions, gools of any sort, in a shlp of
any country, from any part of the world. Such prohlhitions and restrictions, however, as were, before the passage of this act, deemed necessary elther for the safety or for the protection of revenue and mercantile Interests, still remain in force. The following is a brief aummary of auch prohlbitions and restrictions, $s o$ fur as they affect the commercial relations of the United Statas with Great Brltaln:

Books, wherein the copyright ohall be first subsisting, first composed, or written or printed in the United Kingdom, and printed or reprinted in any other country, as to which the proprietor of such copyright or his agent shall have given to the commissleners of customs a notice In writing that such copyright subsists, such notice also stating when copyright shall explre.

Coln, viz.: False money or counterfeit sterling; sllver coin of the renin, or any money purporting to be anch, not being of the established standard in weight or fineness; extracts, essences, or other concentrations of coffee, chicory, tea, or tobacco, or any admixtures of the same; malt. Prints, indecent, or obscene ; paintings, books, carils, Jithographic or other engravings, or any other lndecent or olsscene nrticles. Snuff-work: tobacco-stalks stripped from the leaf, whether manufuctured or not ; tobacco-atalk fluur.

The following goods prohibited to be limported except in transit, und suliject to such regulations and restrictions as the Commissioners of the 'Treasury mny direct, and duly reported as groods in transit: I. Articles of foreign manufacture, and any packages of such articles lrearing any nnmes, brasula, or marks, being, or purporting to lee, the names, brands, or marks of manufacturers resident in the United Kingdoin. II. Parts of articles, viz. : Any distinct or separate part of any article not accompanied hy the other part or all the other parts of such articles so as to be complete and perfect, if such articles lie subject to duty necorling to the value thereof.

The following goods prohibited to be imported, except subject to restrictions on importation (arms, ammanltion, gunpowder, or any other foods, may be prohibited by proclamation or orler in council): I. Sill:-Manufactures of silk, being the manufactures of Europo, unless into London, Liverpool, If ull, Southampton, Leith, Duhlin, or perts appointed by the comsmisaloners, or into Dover or Folkestone, dlrect from Calais or Boulogne, and unless in ships of tot tons' burden or upwand. II. Spirits, not being perfuased or medicinal spirits, unless in ships of 50 tons' burilen at least, and in casks or other veswels, each of such canks or other vessels being of the contents of 20 galloms at least, and duly reported, or in glass inttles, or stone bottles, not exceeding the size of three-pint bottles, and being part of the cargo of the importing shlp, and July reported. III. Tobacco, innuff, Segrrs, Cigaril. Los or Cigarettos,-minleas in shipe of not less than I 20 tons' burden, and into ports approved liy the C'ommis sioners of the Customs. IV. Tolasces, segars, or snuff, unless in packages each containing not less than 80 pronnds' net weight. Tobacco and muff for private nee, in packages under the legal size, may tre adait. ted hy speelal leave of the Boarl, provided it he for the use of the person to whom it is consigned, and he inserted in the manifent and report, the application and proor being inade ly, auch permon. V, thanillos or el;garetton, unless in packages each cuntaining not less than 75 pronnts' net weight. VI. If any goods Je imported contrary to the foregoing probibitions and restrictions, the same to be furfeited.

The following are the only ports Into which tobaceo and snuff can be imported, viz. :

Eingland.-Iondon, Liverpool, Southampton, Fal. mouth, Lancaster, Whitehaven, Plymouth, Newcas. tle, Swansea, Mull, Preaton, Cowes, Bristol,

Scolland,--Glasgow, l'ert Glasgow, Aberdeen, Lelth, Greenock.

Ireland,-Dublin, Belfast, Cork, Galway, I.lmerick, Londonderry, Newry; Sllgo, Waterford, Wexford, Drogheda.

The 43 d section of 16 and 17 Victoria provides that no goods shall be deemed to be imported from any particular place, unless imported direct from such place, and shall have leen there laden on board the lomporting ship, either us the first shipment of such gools, or after the same shall have been actually landed at such place.

Section 41 (chapter 107) of 16 and 17 Victoria declares that it shall be lawful to import Into the Cnited Kingdom any goods not prohibited, and to warehouso such as are subject to duties of customs, in duly nip. proved warehouses, without payment of duty on their tlrat entering; but the duties on the fullowing goorls, and such other gools as the Commissioners of the Treasury may, from time to time, direct, shall be puid on the first importation thereof, viz. : corn, frain, meal, and tlour, and wool goods from liritish poosesssions. No goods except diamonds, bullion, lotsters, and fresh tish of British taking, nod imported in lifitIsh ships, which may be landed without repurt or entry, shall bo unshipped or he landed on Sundiys or holidays, nor on any other days except hetween 8 o'clock in the morning und foclock in the afternoon from the 1st of March until the 1st of Novemher; and hetween $90^{\circ}$ clock in the morning and $40^{\circ}$ slock in the afternoon from the 1at of November until the 1st of Murch, or during such other hours as may be appointed ly the commissloners; nor shall any gools the unshipped or landed, unless in the presence or with the authority of a customs officer; nor shall they he landed, except at some legal 'quay; wharf, or ither duly-appuinted place; nor shall any goods, after having been transhippell, le removed Into any other craft, without permission of such officer, under the penalty of forfeiture; nad if any goods shull be unshipped for the prrpose of belng landed after due entry thereof, they shall be forthwith removed to and landed nt the place at which the same are intended to be landed ; and lu default thereof, sach goorls shall lio furfeited, together with the barge or other vessel unployed.
'the master of every ship, whether laden or in ballast, shall, within $2 \cdot \frac{1}{}$ hours after arrival froms ports leyond the seas, and hefore bulk be broken, make due report of nuch ship in the form following,* or to the same effect, embracing the several particular indicated therein ; and if the cargo of such ship shall havo hecu laden at soverad places, he shall state the names of those places, in the orler of time in which the same were Inden, oppors te to the particulars of the groods so laden ; and failius so to do, or if any of the particulark containedi in such report be false, the master shall fur. feit $\boldsymbol{C 1 0 0}\left(\frac{1}{5} 500\right)$. The master of every ship arriving from ports beyond the aeas, at the time of making report, if required, shatl deliver to the collector of comptroller the bill of larliug, or a copy thereof, for any part of the cargo laden on board, and shall answer all such questions relating to the ship, "argo, "rew, nod rogage, as he shall put to him ; and in case of fail-

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ter, and bona fide lailling have be hnve bee where th if after $t$ the coant nny alter to facllit, any part or any par ter shinll f
A perfer by the linp and intend the partict report, and conferring the value o entry, the same at the provisions 57, for the which nppe case, they al party enterl as estimnted person, or tr in the entry seven days mine elther them for the they shall en gether with 5 paill, to be pai isfaction for a mit such pers
Sections 66 that, with eac delivered, in $y$ pressed in flge le such as th Importers or these regulatio tered liy them, be valid unless hy the denemit cumstances ace with duty, or $n$ to be warehous or other things or packel to de in pursuance of contents shall entered shall warehouse, the It is provide quired in respe be Innded, exan ars may direct ; lie found concen ing, the same sh articles of tho merchandise, no for private tuse, vtores, although merchandise. A

[^22]ure or refasal, or to answer truly, or to produce such bili of lading or copy ; or if the same be false ; or if any bill of lading be uttered or produced by any master, and the goods npecified therein shall not have been bona fide shipped on board such ship; or if any bill of iading uttered or produced by eny master shall not have been signed by him, or any such copy shall not have been received previously to his leaving the place where the goods expressed therein were shipped; or, If after the arrival of any ship within four leagues of the coast of the United KIngdom, bnlk be broken, or any alteration made in the stuwage of the cargo so as to facilitate the unlading of any part thereof; or if any part be staved, destroyed, or thrown overboard, or any package be opened, in every such case the master shali forfeit $£ 100(\$ 500)$.
A perfect entry shall be made before unshipnent, by the importer or his agent, of all goods liable to duty and intended for home use on the landing thereof, and the particulars thereof shall egree with those of the report, and any certificate of origin or other document conferring a henefit by the distinction; and whenever the value of any goods is required to loe stated in the entry, the importer or his agent shall declare to the same at the foot thereof. It is competent, under the provisions of 16 and 17 Victoria, ehapter 107, section 57, for the officers of the customs to detain goods which appear to them to le undervalued; in which case, they shall forthwith give notice in writing to the party entering the aame, and stating the value theroof as estimated by them; either delivering such notice in person, or trsnamitting it by post to the address stated in the entry; ; and the commisaioners shall, within seven days after the detention of auch goo'- determiae elther to deliver them on the entry or retain them for the use of the crown; in which latter case, they shall cause the value, as atated in the entry, together with 5 per cent. additional, anil the duty already paid, to be paid to the party entering them, in full satisfaction for sueh goods ; or, on application, may permit such person to amend his entry at such value.

Sections 66 to 73 of the act already eited require that, with each entry, two or more dnplicates shall be delivered, in which all sums or numbess may be expressed in figures, and tho number of duplicates shall be such as the collector or comptroller may require. Importers or agents willfully fasiling to comply with these regulations, so far as applicable to the goods entered by them, shall pay $£ 20(\$ 100)$. No entry shall be valid unless the goods are properly lescribed there in by the denominations, and with the character and circumstances according to which such goods are charged with duty, or may be linported either for home use, or to be warehaused for exportation only. If nny goods or other things shall be found concealed in any way, or packed to deceive the officrers, in any packnge landed in jursuance of any entry, such packnge and its entire contents shall be forfoited; and if ony goods not daly entered whall be taken or delivered from any ship or warehomse, the same shall be forfelted.

It is proviled, however, that no entry sluall be required in respect of pussengers' buggage, which may he landed, examined, and deliverod as the commissionors may direct ; bit if prohibited or uncustomed goorls he found concealed therein, bither hefore or ufter land. ing, the same shall he forfeited, tugether with the other atticles of the package. Surplus stores, not buing merchandise, nor deemed excessive, may be entered for privato use, or warehonsed for future use as ship stores, although they ran not be legally imported ns merchandise. At perts where agents for the clearance

[^23]of ships, goods, or baggage shall be required to be licensed, any person not so liceased, or duly appointed a clerk to a person licensed, acting as such agent or clerk, or, whether licensed or not, making entry of any goods without the authority of the prapristor or consignee, shatl for such offense forfeit $£ 20(\$ 100)$; but no such penalty shall extend to persons acting for dock companies, or otherwise authorized by law to pass entries, or to any merchant, importer, or consignee of goods, acting himself in respect thereof; or any clerk or servant exclusively employed by him, or by any such person in copartnership, Officers of customs may require of persons applying to transact busibess on account of othere a written authority, and, in default of its production, refuse to transact such business. Officers of customs may take samples of goods fur examination, for ascertaining the duties payable thereen, or for auch other purpose as the commissionere may deem necessary, and dispose of the asme in the manner they nay direct.

If within fourteen days after the arrival of the ship (exclusive of Sundays and holidays), the importer shall not make entry of his goods, or, having entered, shall not within that time, or within such further period as the commissioners shall direct, lnnil the same, the officers may convey the same goods to the queen's warehouse ; and whenever the cargo of any slip shall have been discharged within fourteen days, excepting only a small quantity, the officers of customs may forthwith convey such remaining goods to the queen's warehouse ; and, also, at any time after arrival, may convey any small parcels or packages of goods to the queen's warehouse, there to remain during the remainder of such fourtcen days, for due ontry; and if the duties ou goods so conveyed to the queen's warehouse be not paid within three months afterward, or within snch further period as the commissioners may direct, together with all charges of removal and warehouse rent, such goods may be sold, and the proceeds thereof be applied, first, to the payment of freight and charges, next, of duties, end the overplus, if any, shall be paid to the proprietor on his application for the same; but if such groods be of a perishable natare, the commissiouers may forthwith direct their sale, and apply the proceeds thercof : provided, always, that, if, 48 hours, or any earlier period after the report, is apecified ill the bills of lading for the discharge of cargo, the importer, etc., neglect to enter and land the same within such 48 hours, the master or owner of such ship may then himself enter and land such goods. Whenever goods shall remain on bourd ship beyond the period of 14 days after arrival, or beyond any farther periul the commissioners may allow, such ship shall be detained by the proper officer until all expenses be paid for watching and guarding such goods beyond the preseribed period, nut excecting bs. (\$1 20) per diem, nind for removal to the queen's warchouse, provided they he removed.

If goorls be removed from any ship, quay, wharf, or other place, previons to the examination thereof by the proper oficer of the customs, unless under the care or anthority of such officer; or if goods entered to be wurehoused, or re-warehoused, shall be carried into the warehonse, unless with the authority or under the care of the proper oflicer, and in such manner, by such persons, within such time, nul hysuch roads or whys as the oflicer siall direct, such goods shall be forfeited. All goorls warehoused shall be deprosited in the packuges in which they shall have been imported, excejt auch goots as are permitted to de shipped* on tho quay, or bulked, sorted, lotted, pucked, or ro-pucked in the warehouse after the landing thereof, in which case they shall lie deposited in the puckages in which they shail he when the account thereof is taken by the

* The temporary transfer of goods from oue packagu tc anether.
proper officer; and if anch goode are not so deposited, or if any alteration shall afterward be made In them, or in the packing thoreof in the warehonae, or if they thall be removed withont the preance or aanction of the proper officer, except for delivering nnder the proper warrant, order, or authorlty for that parpose, they ahall be forfelted.

All goode deposited In warehousen shall he clenred, elther for heme nee or exportation, at the explration of five years from the date of warehousing, or within such further period and in auch cases as the Commlasloners of the Treasury shall direct, unless the owner or proprictor of auch goods be desirous of re-warehouking them; In which eare they whall be examined by the proper offeers, and the duties due on any teficlencies or difference between the quantity nacertained on landing and the quantity then foynd to exist, subject to such allowances as are by law permitted in respect thereof, together vilth the neccesary expense attendant thereon, shall the mid down, and the quantity so found shall be re-warehoused In the name of the thed owner or proprietor thereof, in the name manner as on first importation.

If nny warehoused goods shall not the duly ciearel, exported, or re-warehoused, and the duties due on the deficiencles shall not he paid dow a at the expiration of five years from the previous entry and warehonsing, or within such further perlod as whall be direeted, the rame, if worth the duty, after one month's untice to the warehonse-keeper, shall, with all concenient speed, be aold eltier for home use or exportation, with or without the consent of the varehouse-keeper, and the proceeds thereof be applied to the payment of the dutles, warehouse rent, and chargen, anil the surplas, if any, be paid to the owneror proprietor, If known; but If he can not be found, the surplus ahall be carriell to the crown's acconnt, to abide the claim of anchi party on his appearing and making it good; and if such goois he not worth the daty, then, after one month's netice, the same may be exported or destroyed, with or wlthout the concurrence of the awner thereof, or the proprietor of the warehouse, at the commlasioners shall see fit : and the duties due ujan any deticiencies not nllowed by law shall be paid hy the proprietor of the warebouse.

The commisuloners of enstoms may pernitt any goods to be taken out of the warehonse without payment of daty, for auch purpose or for guch prerioil as to them shail appear expedient, and in such juantitles, and unter anch regulations and reatrictions, and with such secirity, by fond, for the due return thereof or the payment of the ducles, as they may dir rat. No warehoused goods nhall be taken or delivered from the warehouse. except upon due entry for exportation, under the care of the proper otlicers, or upand due entry and payment of the full duties for home use, exeept gools delivered lnto the charge of the searchers to be shippel as storem, in such quantities an the collector or comptroller shall allow, snibject to the regulations of the comminslomers.

Eion the entry of gookle to he cleared from the warehoume for home ase, the $I^{n}$ raon antering the anme slanll deliver a bill of entry und duplicates thereof, in like manncr and form, and containing the wame partieulars, an are herein infore required on the putry of goods to be delivernd for home une on the landing thereof, an far as the name may be applicatile, and shall pay down to the propar ofticer of the customs the full dutles thereon, not bring legs in amonnt than according to the accomit of the $\mathrm{q}^{\text {a aintity taken by the }}$ proper allicer on the firat entry, except an to the following goods, viz, : tobacco, wine, spirits, flgn, eurranta, raisins, and augar; the daties whereon, when cleared from the warehouse for home use, whall be charged upon the quantity ameranined liy weight, measure, or strength, at tho time of actual delivery thereof, unfess there is reasomable gronnd to auppose
that any portlon of the deficiency between the weight ascertained on landing and first examination, and that aecertained at the time of actual dellvory; has been caused by illegal or improper meane in whioh cese, the proper officer of customs shail make auch allow. ances only for losa as he may conalder fairly to have arisen from natural evaporation or other legitimate cause. When any deficiency ocoure in goods chargeable to pay duty according to value, the value thereof shall be eatimated, as nearly an conveniently may le, by the officers of costoma, according to the market price of the like mort of goods. No duty shall he charged in respect of any leficiency In goods entered and cleared from the warehonse for exportation, unless the officers of customa have reasonable groand to suppose that such ilefleiency or part thereof hats arisen from illegal abatraction.

No ontry for home consumption, from and after the passing of this act (customn consolidation act, 16 and 17 V'et., chap. 107), shall be received for any tiniber or wood goods in bond, for a less quantity, at any one time, than 5 loads, unless such wood goods shall be delivered by tale, in which case the entry may be passed for any quantity not less than 240 pieces; and no less quantity ahall ise delivered in virtue of any such entry, at any one time, than 1 load of such timber or wool gools, or than 90 pieces, If delivered liy tale. No pack or parcel of playing-enris iniported hite the United Kingdom shall be sold or kept for sole. without being separately inclosed in a wrapper provided by the t'ommiseioners of Inland Revenue, with wuch device thereun as they may illreet, and securely fastened, ao that such wrapper can not be opened without heing destroyed ; and persons belling or offering for aale any pack or parcel of playing-cards not separately Inclosed, etc., shall te liahle to a penaity of flo ( $\% 60$ ), and the groods to neizure.

The first and Immediate effect of these itheral re. forms, latroduced by the nets and regulations just cited, and briefiy condensed so far an they relate to forelgn commerce, is, that in largo balk nf our trade with France In now casried on by means of tramsit through Engliah poria. This branch of trate $\ln 1851$ increased the eonnmerce and ablpping of England to the extent of $011,413,195(E 2,282,639)$, and in $1 \times 52$ to the extent of $\$ 12,422,145$ ( $£ 2,564,429$ ), ${ }^{*}$ The in. creasc in liritish tonnuge in 4 years after the passage of the act ( 12 and 13 Victorin, chap. 20), was as high as $\boldsymbol{z} 60,000$ toms, and the number of mailore was augmented to the amonnt of at least 20,000 . Thus Grest Iritain heraclf derived the tirat fruita of a policy sa comprehensive and liferal. The only rentriction-if we except her turiff datien which bear with xpectal rigor upon one of our lending staples $\dagger$-which the ait of 1 isia ham left untouched, was that which related to the coasting trade of (ireat Ilrituin and her colonial dominions.

In INinI (March 16), Iond Stanley Introluced in the Ilonse of lands his bill for the repeal of the regulations which thengoverned the coasting trade of Great Itritaln. Dle was of npinion that it would he a narpon: and foollwh course of reasoning to mikk the commeme of tircat lbritain in any way depentent on the fears on inexperience of other mations. "We shoula," he remarked, " ょ" on fearle 'y and independently in our course of luproveme: ., mal thow our condibuce in the principles we adrocated by tho siberity and energy with which we cuforced them. Ily the repeal of the lawn of this country with reference to our coasting trade, there was no doult that America would, in thme, soe that it was ta bers alvantage to hohd eut to us the same lenefitn we extended to her, and the countrica woull do the same. With regard to the

- Mpesch detivered by Mr. Curdweli in the House of Cominons, Februnry 31, is54.
$\dagger$ See Comparative Tariff, Great Itritaia, articie Tubame.
bill, b contri! ond a pendes
bill, he had no doubt lt would eventually be found to contribute, in must important respecta, to the benofit and advantage of all classen connected with, or dependeat in any way on, the shlpping interests."

The preceding extract is given for the purpose of exhlbiting the motives and viaws of Britlah atatesmen in admitting fereign vessels to the coasting trade of European ports of Great Britain. The blll met with but little serious opposition; and by the uct entitled 17 Victoria, chapter 5, foreign ahlpa sre admitted to the coasting trade, aubject, as to ntorea for the use of thoir crews, to the same lawa and regulationa as British shlpa. The regulatens for this trade are prescribed in sections 1, 2, 3 , and 4 of the act. The first wection empowers her majesty to exercise In respect of ships and merchandise empleyed and conveyed in the coasting trade, like pewers as ure conferred in respect of forelgn ahlps and merchandise employed and conveyed in the over-sen trade. Section eecond aubjects forelgn ahips engaged in the ceusting trade, in respect of atores and as te other custom-house ragulatlene, to the aame laws te which British ehips, when so employed, are now sutiject. Section third equalizes foreign with British ships as to all ducs, duties, and charges whatever, the employment of pilots, and as to all restrictlons or extra charges whatever of private persons or bodies corporate. Section fourth subjects foreign stearn-vessela, carrying passengers in the coasting trade, to the previsions of the stcam-navigation act. The following is a aummary of the rales applicable te British vessels engaged in the coasting trade, 'Ad, by virtue of the act above cited, also to foreign vessels which may avall themselves of the privileges granted by the act :
"All trade by sea from one part of the kingdom to any other part thereof shall the deemed to be a coasting trade and all shipa employed therein shall le deemed coastiag ships; and if doubt shall at any time arise as to what or to or from what parts of the coast shall be decmed a passage by sea, the Commissioners of the Treasury may determine in what cases the traile by water from one place to another in the United Kingdom shall or shatl not be deemed a trate by sea."

Coasting ships confined to coasting roynge.-No goods shali be laden on hoard any ship in the United Kingdom, to be carried coastwise until nll goods bronght in such ship from parts lieyoud the seas shall have been unladen; and if any goods shall he taken into or put out of any coasting ship nt sen or over the soa, or any auch ship deviato from her voynge unless forced . unavoidable circumstances, and in either case, if the master shall not declare the same in writIng, under his hand, to the collector or cemptroller at the port where auch ship shall aftorward first arrive, he shall forfeit $\mathbf{2 1 0 0}(\mathbf{*} 500)$.

Times and places for lunding nud shipping.-If goods whall be unshipped from any ship arriving coastwise, or be shipped or water-lorne to be shipped on Sundays or holldays to he carried constwise, or unless in the presence or with the authority of the proper offlcer of the costoms, or unless at the times and places appointed, the name shall be forfeited, mud the master of the ship shall forfeit $£ 50(\$ 250)$.

Wuster to ketp a cargo-book, nud pennlties for fulse entries.-The master of every cousting ship, ahall keep a cargo-book, stating the names of the ship, the master, the port to which she helongs, and, on each vorage, of the port to which sho is tound ; and at every port of luding, an account of all goods taken on beard, stathg the descriptions of the packnges, the quantltles and descriptions of the goods, whether packed or stowed loose, the names of the shippers and consignees, so far as aneh particulars are known, and at every port of discharge elall note the daya on which any are delivered, and the times of departure; and minch master shali produce such took on demaud of any offleer of customs, who may make any remark
therein ; and If, npon examination, any package entered in the cargo-book as containing torelgn gooda whall be found not to contain auch gooda, that package, with its contenta, shall be forfeited; or If any package ahall be found to contain foreign goods not entered in auch book, such goods shall be forfeited; and If the master shall fail to keep such cargo-book, or to produce it, or if at any time there be found on board gooda net entered in auch book as laden, or any goods not noted as dellvered, be not on board, the master shall forfelt $£ 20$ ( $\$ 100$ ).

Account previous to departure to be delivered to col lector, and commiasioners may grant general transires.Befere any ceasting shlp shall depart from the port of lading, an account, in duplicate, signed by the master, shall be delivered to the collector or comptroller, and he shall retain the duplicate, and return the original, dated and aigned by him, and auch account shall be the clearance of the ship for the voyage, and the transive (pass) for the goods expressed therein ; and if any such account be false, the master slall forfelt $£ 20$ ( ${ }^{(1000)}$.

Provided that the Commissieners of Customs, whenever it shall appear expedient, may permit general transires to be given for the lading and clearance, and for the entry sad unlading of any coasting ship and goods.

Notice of arrital, excise goods and forfeiture.-WithIn 24 heurs after the arrival of any ceasting ahlp at the port of discharge, and befere any gooda be unladen, the tramsire, with tho name of the place where the lading is to be discharged neted thereon, ahall be delivered to the collector or comptroller, who shall note thereon the dste of dellivery; and if any goods on board be aubject to any duty of excise, the same shall not be unladen without the authority or permission of the proper officer of exciso; If any goods ohall be haden or unladen contrary to any net relating to the customs, such goods shall he forfeited.

Officers may go on board and examine any coasting ship.-Any officer of customs may go on board and search any coastiag shlip, and examine ali goods on bourl, and all goods then lading or unladiag, and demand all documents which ought to be on beard such ship; and the collector or comptroller may require that such documents shall be brought to him for ln spection; and the master refusing to produce auch documents on demand, or to bring the asme to the collector or comptroller when required, shall forfeit $£ 20$ ( 100 ).

Eremptions from coasting regulations.-Steam vessels and muiling vessels employed in the conveyance of passengers and their haggage ceast wise, are to be placed precisely on the smine footing, and in neither case are the baggage and effocts of passengers to be suljected to conat regulations, or the veasels to tonuage duty ; and all articles of apparel and heusebeld forniture, tiquors, and provlsiens, taken by passengers for their privute use, or small quantitles of shop gools taken by tradesmen, passengers on board such vessels, are to be considered as baggage, and exempt from const reguiations; as are ulso exempt packages, live fish, chippings of granite, cobble stones, whin stones, kelp, Kontish rag stones, flints picked off land, pebbles, gravel, and chalk, faggots or bavins for bakers' use, hay, straw, fresh meat, soap, ashes for manure, conl-ashes, iron-stone, and all stone quarried ln the country; benes for manure, bricks and British tiles, slates, antive timber, and wood for plt-props and sleepers, also china clay. It is net known positively how many nations have se far reciprocaced the coasting trade privileges thus granted by Great Britain to forelgn nations. On the 6th day of February, 1855, Tuscany entered into a convention with Great lbritain for that purpose. The tirst article of thia treaty stipulates that the sulyjects and ships of each of tho high contracting partlea shall enjoy in the dominions

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and territories of the other the aame rights with reapect to the coanting trade, and shall be treated in ovary case with regerd to that trade in the aame manner as native subjecte and nutional vessels. A simHar treaty was negotiated with Sarilinla, March 22d, 1855. So long, however, an the reatrictiona with respect to the colonial coasting trade continue in force, it in very doubtful whether any of the great commerclal nations of the world will be diaposed to abolish or relax their present cousting trade regulations. As respecta the Unlted States, there would be no equivalent whatever.

The effect of the aet of 1854, opening the consting trade of Great Britain to foreign vessels.--During the month ending July Eth, 1852, the tonnage entered inward (in all Britioh European ports), in the consting trale was $1,044,862$ tons. For the aame month in 1853, it reached $1,097,472$ tons, and in the correspond1 gig month of 1854 , it was $1,069,384$ tons. The ciearascea outward (in the aame trade), for July, 1852, were 1,131,561 tons; for July, 1853, 1,196,188; nnd for the same month In $1854,1,189,513$. With but one or two exceptions, the whole of the tounage given abeve was Britlsh; a fact which a comparison of the figures representing this trade during the mame month in 3 consecative yenrs, as given in the Ilritish official returns of trade, will at once exhihit.

The following condensed sumnary will explain the regulations whleh must be complied with hy every veasel, from the period of arrival in port until her diseharge is completed; and with respect to exportations, the necessary proceedingn from the entry ontward until the vessel'a final clearance, will also be Indicated. They are presented somewhat at length, кo that a comparison between them and the Vnited Staten' custom-house regulations and laws may be the more easily made.

Importation, as legally defined, taken piace lmmediately the importing ship comes within the limilts of the port, and the "time of a ahip's arrival" in that at which the report thereof shall or ought to have been made. Exportation ia, In like manner, determined to be the time at which goodn ahall be shipped on lroard an export vensel; and tinal ciearance, the time of her departure. The master of every $n$ chant vessel, within $2 t$ hours of entering the port of arrival, is bound, under a penalty of $£ 100$ ( $\& 000$ ), to repurt his carge to the chlef ufficer of eustoms. The chief ofticer of any ship in commission from her majesty or any foreign State, having foreign goonls on bonril, is required, in like manner, to deliver an account in writing ander hia hand, and to the best of his knowledge, of the description and particulars of such gooda. Hefure, however, the master is allowed to report, he must declare before nome person duly authorized lis the postmaster-general, that he has delivered at the pestoffice all letters that were on !waril his whip. And, likewise he must, under a penalty of $£ 20$ ( $\mathbf{~} \mathbf{*} 100$ ), anil tho further sum of $\mathbf{\Sigma 1 0}$ for each alien mot inciudonl in the declaration, truiy decian to the number of adiens on hoard, or landel from his ship. At the time of making his reqort, the master is to deliver, if required, to the collector or eomptrolier, the bill of lading, or a copy thereof, for every part of the cargo. and to answer such questions as shall lee put to him, as to the abip, cargo, erew, and voynge, The manter, officer, erew, or passengers retalining letters after the delivery of the mhip's letters at the just-oftice, shall forfeit 85 ( 625 ) for each letter; and for detaining letters after ilemand by the officer of customs or person authorized by the jewtmaster-general, $£ 10$ (*50) each.

So noon as a vessel has reported, the importers, agenta, or consigmeen of the cargo, having beeen ndvised by recelpt of billa of lading, or other iotimation may each enter their several goods. A intitude of 14 daya is allowed by law for this purpore; but, In order
to clear the vessel more apeedily, olght ontries are permitted to the master or owner of any ship lying alongalde tha legal quaya, or nufferance wharvsn, seuth of the Thamea froin London bridge eatward to Duck-head-the regulations and legal provisions given in the summary are these that are followed at the port of London, hut the general regulations are the same at other ports-under auch general deacription as in contained in the report, for any goods that shall not have been entered by the owners thereof withlu forty-elght hours from the day of the report (or earlier, if a briefer limit of time be set forth in the bill of lading), upon condition that perfect entry bee made by the proprietor within one month from the date of landing. Goode so circumatanced are only labie to seizure from inacearacy of entry after the lapae of a month. When a value is required to be stutcl, the luporter or his agent Is to subaeribe a declaration verifying such value; and false dectarations render the party making them lialife to n penalty of $£ 100(\$ 600)$.

The following tuhuiar etatement exhibits the port chargen at the principal ports of England, scotiand, and Ireland, condensed from official at..noritiea :

Lhoht Dues.

| Namen and number of Highte. | Conaters. | Britiah and forelgn prirllyped venselo over sea. |
| :---: | :---: | :---: |
| Nelliy | * 24 per vesse | 0001 per ton. |
| Wildya | 0 4* | 001 " |
| Milfurd........... 2 | 0 14 | 001 |
| I'orthnul. . . . . . . . . 2 | 024 | 001 |
| At. lbecs.......... 1 |  | 004 "y'rly.* |
| P'onlmess.......... 1 | $0 \mathrm{OH}+\mathrm{per}$ ton..... | 0 Ont " |
| Caskets. . . . . . . . . 8 | 0 tz por vessel... | 001 |
| Nort . . . . . . . . . . 1 | 021 per towtens. to | to 24 per 100 tns |
| Well . ............ | 0 (sid per ton. | 0) owy puer ton. |
| Flatholm . . . . . . . . | 024 per vessel. | 0 0is ${ }^{\text {a }}$ |
| S.\|zard. . . . . . . . . . | 045 | 0014 |
| Needles e llurst.. 8 | 021 | 001 |
| , Owers ........... 1 | 1124 | 001 |
| Ifalsliro'.......... ${ }^{8}$ | 0 wh per ton. | 0 01\% |
| Hevilwin . . . . . . . | 0 2t per vensel.... | 001 |
| sunk............. | ${ }^{1}$ t 001 per ton..... | 001 |
| r'ambri'.......... I | 0 004 " | 0) 001 |
| South Stack....... 1 | 0001 | 004 |
| Fern . . . . . . . . . . . . 2 | 0014 | 0011 |
| Iturnham......... 1 | 0 i2 per vessel, nt Hrldzewatert.. | 1 In per resel, at Brhiguwater. ? |
| Lowestuft........ 4 | 0001 perton..... | 00015 per tin. |
| $\text { Airy } . . . . . . . . . .\}$ | $\begin{array}{lll} 004 & \cdots \end{array}$ | 0 os all vesack entering the port of C'hester. |
| fanmly............. 1 | 00014 | 0 00] Inertoa. |
| Spurn . . . . . . . . . 1 | $0 \mathrm{0Ny}$ " | 0004 |
| BIdeford Shar. . | 024 jer voyage on llmestone vessula: | 008 |
| Itarisey ........... | 0 601 per ton.... | 0 ond |
| I'sk............. | 0 6! ${ }^{\text {a }}$ | 0 00) |
| f,ynn Well. . . . . . | () 12 | 1) 02 |
| dhashy Ilead..... I\| | 0 2t per vessel... | 0 (u) |
| Caldy . . . . . . . . . . . . | 0 02 per ton. | (3) its |
| Nash............. | $0001{ }^{4}$ | 001 |
| $\text { Ifalsbro }{ }^{\text {North ond.......... }}$ | \}000] 4 | 0001 |
| south Nand. ...... 1 Ilead | $f^{0} 000 \mathrm{n} \quad . . .$ | 003 |
| Farclanis. . . . . . . . 8 | $0 \mathrm{~mm} \mathrm{O}^{4}$ | 11 OH |
| F'ajmonti harbor.. I: | 40 013 " | 011 |

SInen the ist of danuary. 183. a reduetton of 25 per cuat In the light dnea of the Colted KIngdom has been allowed. * Vessels entarlug the harbors of Whitchaven, l'arton, aad Workington, and tone other.

+ llit nut eliaracable on any excess above sen tons.
thit Mristol, t\% cents per vesumi,
f At Hratas, under find tons, 72 eents per veseel; 100 tone and under 250 tons, 3120 per vesel ; $2: \omega$ tens and upward, - 1 se per vessel. I And bueys to the lifver bee
lhesides the preceding list of light-houser, all of which are under the juriandiction of the 'lrinity House, there are others, under the control of private imlividuals, who have generalfy ohtsined a lease of tho same from the crown for a definite number of years, with athority to charge certain fees on shipping. These fees, however, are the name oll Almerican ha on blritish veanels.

The Scoteh, or northern lights, are under the matuagement of a board of pariamentary cemansioner

The act
that, fro
forolign shall pas fit theref of prasin
/rish each ligh chargeab they are vessels, h for each 1 on every warrant," The char authorized from Brit entered in the govert pensation place $\ln t$ corporatior right to an liam IV. fo after.

## rilotage.

 the kingde statutes. Trinity Ito the pilots commonly Trinity Hol for the regu was establis law provide is to pay fo vessel to pa coasting ves den of 100 to is to refne $n$ to pay full pl Harbor an George III., northward of the North Cu Sea, and inc Alderney, un cents per tonAll jerta the whole of the eastward to the southw iterranean, N Canaries, W cents per ton. Alit ports West Indies, northward of the west coas of the Cupe Iediterranen and Archipela isluntls of St. INlamis, 30 ce

All ports i la liata, in $t$ to the eastwa per ton.

For more ed charges, etc., nee nrticlen un
Anchoragefrom Kiny Ch three, 24 cent cents. Yesee only, The pre by giving a ${ }^{\prime \prime}$

The act of 6 and 7 WIlliam IV., chapter 79, enacts that, from the first of January, 1837, all British and forelgn privileged veasels, not wholly in ballast, whlch shall pass any Seotch light-house, or derive any benefit therefrom, shall pay one cent per ton for each time of passing.

Jrish Lights.-Forelgn vessels, one cent per ton for each light passed, except harbor lights, which are only chargeable to veseels entering the ports within which they are sltuated. Iritlsh and Irish, and equalized vesaels, half a cent per ton (quarter cent If in ballast) for each light, except as above, with a duty of 24 cents on every "entry, cockot (a duplicute ehipping bill), or warrsnt," when from forelgn ports, but not otherwiee. The charters of most of these private light-houses suthorized the levying of higher fees from foreign than from Uritish shipplng. When England, thorefore, entered into reclprocal treatles with forelgn powers, the government had to make these light-houses compensation for the dininution that consequently took place $\ln$ the charges on foreign shlps. The 'rinity corporation, however, has long since surrendered its right to such compensation, and tho act 6 and 7 Wi lian IV, forbids auch compensation being made thereafter.
rilotage.-Pilots are established, in various parts of the kingdom, by ancicnt charters or by particular statutes. The most lmportant of these are those of Trinity Ilouso of Deptford St rand; the fellowship of the pilots of Dover, Deal, and the Isle of Thanet, commonly ealled the Cinque I'urts pilots; and the Trinity Ilouse of Hull and Neweastlo. A corporation for the regulation and licensing of pilots in Liverpool was estalifished by 5 George IV., chapter 73. The law provlden, also, that no veseel in the coasting trade is to pay for less than elght feet of water, nor any vessel to pay for odd lnches under half a foot. No coasting vessel, inward or outwarl bound, of the burden of 100 tons and upward (unless she he in balhast), is to refuse a phlat, at option, as the master or ownor is to pay foll pilotuge if one be offered.

Ilarbor and Dock Dues-Foreign Trade. (Peract 51 George III., chapter 5.)-All parts of Europe to the northward of Cape Finisterre and to the west ward of the North Cape, and without the Cattegat and Baltic Sea, nud including the ishunds of Guerusey, Jersey, Aderney, and Sark, the l'aro Isles, and Jceland, is cents per ton.

All ports within tho Cattegat and Bnitie, ineluding the whole of Sweden, the Whito Sen, und al' ports to the eastward of the North Cnpe; all ports in Europe to the southward of Cape Finisterre, without the MedIterranean, Newfoundland, Greenland, Davin's Straits, Cumaries, Western Islands, Madelra, and Azores, 24 cents per ton.

All ports on the east const of North America, the West Indies, the east cuast of South Americn, to the northward of lio do la Plata, huclusive; all parts of the west coast of Africa, and islunds to the northward of the Cape of Good llope; nnd all ports within the Mediterranean, including the Adriatie and Illack Seas and Archipelago, the isfands on the Archipelago, tho islands of St. Melena, Aseension, and the Cape Verd lafamds, 36 cents per toll.

All ports in South America to tho south of Jio de In Plata, in tho Paeille Ocenn, in Africa and Abia, to the eastward of the Cape of Good llope, 36 cents perton.

For more complete information respecting the port charges, etc., of the various count ries alove montioned, see articles under the hoads of these countries.

Anchoraga-Manicipal Corporation Girant by I'urchase from King Charles the First.-On elnnses one, two, and three, 24 cents per veasel. Classes four to seven, 30 cents. Vesecls wind-hound, exempt from dock-dues only. The preceding tallo will be better comprehended by glving a yro forma statement of port charges for a
veasel of 500 tona,
port of Liverpool:
Inwatid.
Pllotage, 17 foet, at 9n..............
Low-bvat hire in the -iver ani warping tnto dook. .
Lights, S/d. per ton...
Dock dues, 1s. 4/d. per ton
Dlaeharglog cargo, about..
Total. $\qquad$
27 18s.0d. 8678 Ourward. carry 750 tons (from Ifd. to 1 c . per ton, say 1s, per ton........ Isphts, 5 d. per ton. .................
1'lotage, 17 foot at 4s, per foot.... Clearaneo.

Total. $\qquad$ ${ }_{11}^{2} 19$ 10s. Hl . $\qquad$ 18000
5750 Clearance. ....................... llam IV, chaptor trading eoastwise between the port of London and any place In Great Britaln, Iroland, the Orkneys, Shetland, or tho Western Islands of Scotland, for every voyage both in and out of the sald port, one cent per ton.

For every vessel entering inward, or cloaring outward, in the said port, from or to Denmark, Norway, Lapland (on this side of the North Capo), or from Ilolstein, Llamburg, Hremen, or any other port of Germany borlering on or noar the Germanic Ocean, or from or to Molland, or any other of the United l'rovinees, or Brabsnt, Flanders, Antwerp, or other ports of the Netherlande, or from or to Frunce (wlthin Ushant), Guernsoy, Jersey, Alderney, Sark, or the Isle of Man, for every voyago, both In and out of the eaid port, ono cent per ton.

For every veasel entering Inward, or clearing outward, in the said port, from or to France (between Ushant and Spain), Portugal, Spain (without the Mediterranean), or any of the Azores, Mndelra, or Canary lahnda, or any of the United Statea of America, or of the British provinces or colonies in North America, or Florida, thero shall be paid for every voyage fu and out of the sald port one cent and a half per ton.

For evory vessel entering Inward, or clearing outward, in the said port, from or to Greenland, Gibraltar. France, or Spain (within the Mediterranean), or any country, island, port, or place within or bordoring on the Mediterraneun or Adriatic Seas, or from the West Indies, Louislana, Mexico, South America, Africa, East Indies, China, or any other country, island, or place within or bordering on or near the Pacilse Ocean, or from any other country, ialand, or place whatsoever, to the southward of 25 degrees of north latitude, for every voyage, both in and out of the said port, one cont and a laulf per ton.

Among other exomptions, this charge does not apply to vessels goligg in or out of the port of Londen when in lullast.

Tonnage Dues charged by the London Dock Company. First class.-Vessela from any port in the United Kingdom, Isle of Man, Jersey, Guernsey, Alderaey, Sark, or other European porta outside the Baltic, between the North Cape and Ushant (Ilamburg, Iromen, and Emblea excepted-seo second class), with liberty to relond for any port, 12 cents.

Secoud class--Vessols from Hanbarg, Uremen, and limbden, with liberty to reload for any port, 12 cents.

Thirl class.- Vessols from any port in the Mediterranoan, with liberty to reload for any port, 18 cents.

Fourth class.-Vessels from all other ports or places whatsoever (with the exceptions after mentioncd); with liberty to reload for any port, 18 cents.

Versels loailing for any ports or places in the third or fourth classen, not having discharged their catgoes In tho docks, 18 cents.

ORE


## GRE



Thereare other inconsiderable charges tovied at thts port for bucyage and beanonage, whteh are mo tmoliznilicant in atuounti, and aro equally lovied upos British us upon forelgo vesuls, that they are omittod.

## sCOTLAND.

## pilot bues.

Qhasiow and Gaminock. - Froin any placo between the Camhray lyight and the Clochet ligith, or from anehoravo at Fandte Itoads, Koothesay Ray, or
Quarantine Nitation. Holy lock or Creenoek livanta Fromi moorinks, and ghor Glasgow, per ton I.fith.-Vesaels 7 fuet and under, per foot

## IHHILAND.

Towant.
Drains. - Tug Starmer - There being no fixel ratem, the manter inakes the beat terinm he cali, aceorithag to the atato of the weather, eta, as followa: Frour
 the entrance of the river to quay, of 16 to $\$ 2{ }^{2}$, and in pripmertion for efiorter distanees.

## milutatif.


 From Inside banika over bar $\qquad$
Froml bay over har.....
From J'oulbeg to basid.
Chutward
Visacia in hallast, and versels ander on tona reciater, are exempted. There are other charges and diten payable to the corforation for preserving and limponing tho fort; but as they are small in amount, and equally appileable to British they are smailin amount,
vesedi, they are omited.
pllot brea.
('ons.-From April 1 to Octuber 1,-Vesseln nuder
ailtons.
Vessels fronise io i20 ions.
$\begin{array}{lll}120 & 7 & 16 \\ 100 & " 1 & 220\end{array}$

The larkest vernets niay get to lasage: veacels draw. Ing il feet may get up to Black ltock or t'o of apring lidest vemale drawing it to 12 feet get into Grows 4. willin the entranco of Cork Jiavon.
Larger verseln must remaln at Cork or )'assage for plintage, to which pointa ithe same rates are levied cn Americas as on 3ritish remeln.
rinut birs.
 Whilehoume kimpla, or tied vorroch-
Vessels uncles 100 tons,
Fisecte of jout ton and under


Tr veracls trom firel
Coastw lse.
Beatden the foresolng, there are sundry wharf and other minor port charges, which are equally levied ou Brikish as on forelign priviluged vesocis.

The preceding tables give the principal charges on British and privileged vessels entering at or departing from the ports designated. For minor detalls, reference
to mado reapectis Ing the vensels, gross am was 42 13itioh 7 anme per (86,5:10). lowing fa Imports to and fre Exportas to and Ire Inpurts to Exjerts fro forelga Exports fror doinestl Exports fron ither pr epeetona

## Tota

The large countries w 590 ( 8148,9 174,635) ; fr Russin, $\mathbf{e p}$, 731,172 (3 ( $417,972,505$ eign countri 127,631 (\%10 only such ar Klngdom, ex The like ext (615, 876,450$)$ to llanse-to CO, $891,8 \cdot 10$ (* 706,555) ; to 360) ; to Sontl to the Eanst principal impe wood, timber, tallow. The cotton yarn, millinery und cotlery, Iron, and pottory, ed vessels enterea 1853 was: $13 r$ $1,933,741$ tons; 2,903,018 tons. of landon $30: 3$ 361,342 tons ; $910,50 \pm t \mathrm{tans}$. 1524 vensels, n 1682 vessels, wi number of vesse at purts in Scot 18ti3, with an 2503 vessels, m nunbler of ves. during the yea $234, \times 52$ tonis: $n$ tonnage of $\mathbf{2} 37$, Mra and the Chis same year: in t fate tonnage, ! 3H4; in the lat gregute tonnage an aggregate ton stemill-vossels t Kingdomsluring an aggregate of with an aggroga steumevessela th United Kingiom aggregate of 1,

Is made to the conaular retarna from the different ports reapectivaly. Tha furelgn trade of Great Jivitaln, cluring the year ending Janaary 5, 1864, employed 30,308 veasela, with an aggregata of $7,707,650$ tons. The grons amount of enatom dutien recolvel the same year wan $£ 22,410,308$ ( $\$ 112,096,540$ ). Thn experta of British and Irish produce and manufactures during the
 $\mathbf{7 8 6}, 5: 10$ ). The ofliolal returns for $\mathbf{1 8 5} 4$ exisibit the fot lowing faets:
Imports to and from Arent Britaln and Ireland in 1 \$SA...........
exports to and from itreat Britain
 mports 10 and from the U. A. In 1854 and 1855. . 2061,409520 xports from the Ualted Staten of pureliga goods. Exports frotn the United States of domentle hanuficturo Exports from the Uuited States of other produco.

026,159,988
$30,427,187$
162,328,048
spors fom the Innted states of
sheclo and buillon.
50,247,948
Total.
4275,156,946
The largest amounta wi British Imports from forelgm comutries were from the United Statea, viz., $\mathbf{t}^{2} 2!, 795,-$
 $173,635)$; from Chha, $£ 9,125,040(\$ 45,625,200)$; from
 $\mathbf{7 3 3}, 172$ ( $(33,665,560)$; and from Spain, $£ 3,591,501$ ( $417,972,505$ ). The largest mounts exported to forcign countries were to the United States, via, : $\mathbf{x} 21,-$ 127,632 ( $4105,638,105$ ). In this amount are included onty such articlea as are the proluce of the United Kingdom, exclusive of colonhal and forclign products. The like experts to France amounted to $£: 1,175,290$ ( $\% 15,876,450$ ) ; to Ilolland, $£ 4,573,084$ ( $\frac{6}{6} 22,865,170$ ) ; to llanse-towns, $\mathbf{C 7}, 418,715$ ( $837,008,575)$; to Ilrazil, $£ 2,891,840(\$ 14,459,200)$; to Victoria, $£ 5,7.11,315(4,28,-$

 to the liant Indlen, $\pm 9,127,656$ ( $4 \cdot 15,637,780$ ). The princial limports were graln and tleur, cotton, wool, wood, timber, deals, and staves; wine, butter, tea, and tallow. The principal exports were cotton goods, cottun yarn, woolen gools, linen, silk, woolen yarn, millinery und haberdashery, apparel, hardware and catlery; iron, unwrought and wrought, earthenware and pittery, caals and coke, and tin. The number of vesseis entercd at ports in Fingland during the year 1853 was: British, 10,345 , with an aggregate of $1,933,-11$ tone ; foreign, 16,509 , with an aggregate of $2,953,018$ tons. Of the alove, there entered the port of Lomlon 30:33 British, mensuring an aggregate of 361,342 tons ; and 5058 foreign, with an aggregate of $910,55^{2}:$ tons. The entries at Liverponl were: tritish, 1524 vensels, measuring 488,405 tons; and forelgn, J682 vessels, with an agregate of 787,10011 tons. The number of vessels engaged in the forelgn trade entered st ports in Scotland during the year $1 \times 53$ was: I Iritlsh, 1863 , with an aggregate of $\mathbf{4 0 2 , 8 7 2}$ tons; farelgn, 2503 vessels, measurlig in all 289,752 tons. The total number of vessels that entered the ports of Irvland durimg the year $1 \times 53$ was: Iritish, 1159, measuring 24,842 tous; and fureign, 1195 , with an aggregate tonnage of 237,409 tons. In the ports of the Ide of Man and the Chanuel islands, there entered during the sanse year: in the former, British vearels, 7 I aggregate tonnage, 952 ; foreign, 31 ; aggregate tonnage, 3404 ; in the latter, Brilish ressels, $100^{-2}$, with an argregate tonnaye of 48,141 ; foreign vessels, 213 , with an aggregate tonnage of 14,852 . The total nunlier of stenu-vessels that entered the ports of the United Kiugdom dariug the yenr 1803 was: Ilritish, 396 ow , with an aggregate of $1,171,911$ tons ; foreign vessels, 821 , with an aggregate of 158,812 tons. The number of steum-vessels that cleared from all the ports of the United Kinglom in 1853 was: British, 3594, with an aggregate of $1,067,381$ tons; foreigu vessels, 507 ,
measuring in all $\mathbf{1 6 8 , 1 8 4}$ tons. In 1864; the official value of Imports Into the United Kingdom vas $£ 124$, 888,478 ( $6821,692,390$ ) ; and of exports from the United Kingdom $£ 29,821,656(140,108,280)$.

A new nystem has been introduced Into Great Britain of elving in the nnnual returns of tratie, the "reul" inatead of the "officlul" value of lmports and exporta. The standard of the latter having olitained, without any change or alteration, for a period of more than 200 yearr, could be of but ilttle lenefit in comprating the value of the furelign trade of Great Britaln, and has been allisered to so long nolely for the purpose of nupplying data for general comparisen. The real value of the imports and exports above given la thus
 A115, 833,704 ( $1520,10 \mathrm{~B}, 520$ ).

In the preceding pages, the lawa, regulations, and customs of a permanent character, which constitute the commercial legislation of Great Iritain as reapects her Intercourse with the United States, have been succhactly stated. Vurious modifications in tariff duties, navligation laws, etc., have necessarily resulted from auch changes commercial legialation as ars invariably incldent to a atate of war. These have, In aubstance, been noticed elsewhere, so far an they have come to the knowledge of the Department. They are, however, gencrally limited in their duration, and are designed either for financlal or protectlve parposes during the conthuance of the present difliculties with Kussia. It is not deemed necessnry, therefore, to lengthen this digest by any detailed enumeration of sueli modilications, for the reason that it is to he unticlpated* that all such temporary modifications, demanded ly the exigencles of whr, will ere long hava Ifeen superseded liy the permanent commercial legislatlon of the United KIngilom.

In 1787 there were imported into Great Iritain $22,600,000$ pounds of cotton, oltained from the followIng sonrces:

From tha United Sintos. $\qquad$
The following tables have been complied from the official reports of the United States' Treasury Department, and are entmitted for the purpose of illustrating the commerce between the United States and Great Britain, especially with reference to our lending staplas, during a period of 26 years.

The first table exhibits the quantities and value of cotton exprorted from the Linited States to Great Britain during the periol indicated. Generally speakligg, the imports of cotton inte Great Britain are concentrated at tho prot of liverpol. This is shown by the nnnexed table, oxhiliting the imports of cotton into Great IBritain in $1 \times 5 \mathrm{~s}$ :

| 3nto | Bales. | Tons. |
| :---: | :---: | :---: |
| Liverpoul. | 2,205.738 | 365,000 |
| Isandon. | 43,700 | N,000 |
| 110 ll and liristol. | 27,200 | 8,140 |
| scotland. | 75,700 | 18,40) |
| Total. | 2,937,8ik | 891,006 |

The imports into liverpol of raw cotton during a period of 10 years, ending with 18,5 , were as follows:

| Yrate. | Hales. | Tons, | Years. | Hates. | Tous. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1543 | 1,56\%,597 | 260,040 | 147 | 1,546,000 | 202,000 |
| 154 | 1,400,954 | 218,000 | 1-19 | 1,782,7(4) | $25 \times 1006$ |
| 1355 | 1, 9 \%2, 781 | 276,010 | 1*50 | 1,578,100 | 963,000 |
| 1846 | 1,184,194 | 159,000 | 1851 | 1,748,046 | 291,000 |
| 1347 | 1,057,063 | 1,2,000 | 1.52 | 2,205,743 | 863,000 |

The countries from which the cotton was imported in 1852 are given in the following table, which will also sorve to show the relative importance of liverpool

- Thia has been realised alnce the above was written.
ts compared with other British ports, as the great em porium of the cotion trade: !

| Smporied from | Calies of cotmon. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Luvorpool. | Londom. | fotio | Inte | Total: |
| United states.. | 1,518,118 | 1,800 | 11,700 | 60,600 | 3,789,218 |
| East Indles.... | 149,018 | 46,200 | 14,600 | 11,000 | 221,418 |
| Morlterraneun. | 1890345 |  |  | 8,000 | 189,985 |
| Prasil , oto..... | 144,107 | 120 |  |  | 144,197 |
| Went Indler | 10,890 | 600 | 000 | 0 | 12,680 |
| Total... | 2,204,788 | \$ 6,700 | 87,200 | 75.700 | 2,851,888, |

Before giving the general table of exports of this staple to Great Britain, the following summary, condensed from a treatise on the cotton crop of the United States, etc., recently puhlised, will prove interesting. Provious to 1791, Great Britain obtained her anpplios of cotton from the West Indles, South America, and the countries around the eastern parts of the Mediterranean. In 1784, there were 71 lags shipped frum
the United States to Great Britain, and there seized, on the ground that Americe could not produce 50 much. See Cortor.
. In 1853, Greut Britain exported upward of 147,000, 000 pounds ; of this upward of $82,000,000$ were derived from the United States, end over $59,000,000$ frm Indis.

The returus of trade for 1855 show that notwithatanding the war, the consumption of cotton in Great Britain from 1st January to 81st August was $1,449,980$ bales, against $1,289,300$ for the anme period in 1854, g ving the large increase of 160,780 bales. The stock in Liverpool on 31st August, 1855, was 269,820 bales less thai in the 31at August, 1854.

From the East Indies, Great Britain imported-


 1858, 1859, A MD 1851.

|  | at maitaik. |  |  |  |  | Livaspoos. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thent. | Ancorcasa. | Baral. |  |  | Total. | Americab. | Surat. |
| Btock, Dea $81,1856 . . . . . .$. Import In 1858,......... |  | $\begin{aligned} & \text { Beloe } \\ & 1860770 \\ & 1,888,549 \end{aligned}$ | $\begin{aligned} & \text { Bace. } \\ & 188,910 \\ & 484,527 \end{aligned}$ |  |  | $\begin{aligned} & \text { Binken } \\ & 8,810,810 \\ & 9,028,824 \end{aligned}$ | $\begin{gathered} \text { Moled } \\ 9884,820 \\ 1,461,186 \end{gathered}$ | $\begin{aligned} & \text { Holien } \\ & 89,570 \\ & 824,777 \end{aligned}$ |
| Expert In 1858. | $\begin{array}{r} 8,029,281 \\ \hline 49,000 \\ \hline \end{array}$ | $\begin{array}{r} 1,89,812 \\ 179000 \\ \hline \end{array}$ | $\begin{aligned} & 618,797 \\ & 151,560 \end{aligned}$ |  |  | $\begin{aligned} & 2,619,684 \\ & , 209,600 \end{aligned}$ | $\begin{array}{r} 1,799,956 \\ 172,100 \\ \hline \end{array}$ | $\begin{aligned} & 44,348 \\ & 65,5010 \end{aligned}$ |
| Stoek, Dea. 81, 1853. | $\begin{array}{r} 2,512,681 \\ 717,650 \end{array}$ | $\begin{array}{r} 1,718319 \\ 80 \times 870 \\ \hline \end{array}$ | $\begin{aligned} & 467,47 \\ & 970,650 \end{aligned}$ |  |  | $\begin{array}{r} 2,847,094 \\ \hline 697,600 \\ \hline \end{array}$ | $\begin{array}{r} 1,697,856 \\ 996,170 \\ \hline \end{array}$ | $\begin{aligned} & 688,847 \\ & 176,870 \end{aligned}$ |
| Ehuwing the delliperles for home conas mption from the ports of Gt. Britaln to have been, In 1853... | 1,855,051 | 1,409,449 | 196,587 | And from Live | nool. . ..... | 1,740,654 | 1,441,886 | 162,477 |
| Or, per week la 1889...... |  |  |  | Or, per week in |  |  |  | 8,149 |
|  | $\begin{aligned} & 88770 \\ & 89 \end{aligned}$ | $99,030$ | $2000$ |  | $1853 . . . . .$ | 88,100 80,140 | 81,080 88,880 | 2,620 8,040 |
| " $\quad 4 \quad 181 \ldots \ldots$ | $\begin{aligned} & 81.970 \\ & 99.140 \end{aligned}$ | $\begin{aligned} & 24.460 \\ & 20.810 \end{aligned}$ | 8,740 8,410 | $\stackrel{ }{*}$ | $\begin{aligned} & \text { 1881....... } \\ & 1860 . . . . . \end{aligned}$ | 80.140 24.670 | 28,880 10,180 | 8,040 2,490 |
| * 41849. | 20,320 | 24,610 | 2,420 | * | 1849....... | 28840 | 29,950 | 1,440 |

Tarle rimiatine the Quantitiva amb Value of lhaw

mitain ann imaland, yeom 1530 to 1855, rotu
Yades ixclidaive

| Yeare. | Quantily. | Talue. | rears. | Qusatliy. | Yalues |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1680 | $809,880,481$ | $90,678,688$ | 184 | $594,843,604$ |  |
| 1881 | 829,818846 | 20, 117,850, | 1844 | 481,749,228 | (me1) |
| 1589 | 879,0017,978 | 88.489040 | 1845 | 6, $5,144, \% 46$ | 85,674, 589 |
| 1688 | 288,941,740 | 24,23,970 | 1846 | 844,158,667 | 27,707,717 |
| 184 | 844.782, | 88,007,94 | 1847 | 851,268790 | 8h, 841,205 |
| 1 1295 | 270, 04.409 | 48,701,411 | 1849 | 872,003, 187 | 41,893, 414 |
| 1888 | 902, 518.707 |  | 1849 | $789,844,905$ | 47,444,890 |
| 1837 | 821 | 44,857,118 | 1500 | 481,291,091 | 48,844,453, |
| 1898 | 441,47798 | 44,787,097 | 151 151 | $670,645,180$ | 49,720, ,80 |
| 1889 | 810,784.960 | 46,074, 019 | 1802 | 702,574,780 |  |
| 1840 | $49 C p 14000$ | 41,945, \%54 | 1N88 | 16*593,49w | 14,049,210 |
| 1841 | 349,04, 248 | 85,634Ma | 1854 | 00, 247,047 | 64,783,401 |
| 1848 | 87 4841,649 | $80,102,417$ | 1855 | 678,498,240, | 67,016,740 |

Tobacco Trode betreen the I'nited States and Great Britain.-It is ascertained, by liritish statinticians that the yearly consumption of tolsaceo in Great Britain and Ireland amounta to 26,000 tons, about one half of which it in supposed is anuggled, owing to the excessive dutlea (upward of 1000 per cent.) levied on the sticle under the tariff syutem of that kingdom. The quantity of segars and anuff imported does not exceed two or three hundred weight per annum. The foilowing table, compiled from parliamentary returns, shows the importa of tolnacco into the United Kingdom, and the quantities entered at each port, during the year 18in):

| Porta, | Inat. | Manufarif'd and ovgars. | Tutal. |
| :---: | :---: | :---: | :---: |
| landor. | $\begin{aligned} & \text { Tome } \\ & 7.688 \end{aligned}$ | $\begin{aligned} & \text { Tuate: } \\ & \text { int } \end{aligned}$ | T.es.条180 |
| Bipatpuob. | 68980 | 146 | T, t 16 |
| Bristol... | 445 |  | 495) |
| Glayzow | 414 | 1 | 421 |
| Ielth.. | 809 |  | 200 |
| Bouthan.pton. | 149 | 65 | 19\% |
| Other places. | 8 | 4 | 7 |
| Total | 10,701 | 694 | 1684 |

The following return, transmitted to the llouse of Common, for the year ending January 5,1853 , show:
the unnual consumption of tobacce in the United Kingdom, and duty lovied on thn same:

| Torta, | lensto | Meavifa tured and cogars. | Total. | Daty. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tan* | Tons, | Tons, | Tounda | Ih. 11 |
| Lonrlon. . . . . . . . | 4,782 | 69 | 4.891 | 1,752,988 | 8764,910 |
| Liverpool. .... . . . | 2,750 | 8 | 2,763 | (60,632 | 4904160 |
| Brintol. . . . . . . . . . | 780 |  | 7 (1) $^{\text {a }}$ | 275,485 | 1,877,425 |
| Glasgow | 681. | 1 | 689 | $2 \pm 8761$ | 1,118, 84 |
| Dublin............. | 644 | 8 | 017 | 215,56 | 1,07, \% ${ }^{\text {a }}$ |
| Belinst. . . . . . . . | 877 | $\ldots$ | 877 | 128, 111 | 645, $2 \times$ |
| Noweastic. | 841 | .... | 841 | 180,444 | 60\% 240 |
| Cork. . . . . . . . . . | 270 | $\ldots$... | 270 | 951882 | 414810 |
| Limerlek... . . . . . | 248 | ; | 954 | 91,004 | 455,030 |
| Ielth............ | 2R8 | 1 | 289 | 84, 514 | 422.570 |
| Preston. . . . . . . . . | 179 | $\ldots$ | 170 | 69,812 | 816.660 |
| Cbester........... | 154 | .... | 16e | 85,904 | 279,540 |
| Ehields. | 147 | .... | 147 | 82.024 | 9thitis) |
| Wintarmid........ | 188 | .... | 182 | 44,670 | 20x, ${ }^{\text {a }}$ |
| Irondoederty. . . . | 116 | * | 118 | 40,992 | \$40,900 |
| Soulhemptoll.... | 8 | 8 | 18. | 8,196 | 40,975 |
| Other places, loss than 100 tons each | 904 | 8 | 901 | 820,771 | 1,608,854 |
| Tolal. . | 14,660 | 00 | 18,750, | 4, 5 M1, $3^{2} 14$ | 22, 2 (1) 710 |

The following table, exhibiting the exports of tobacco frum Great Britain for 1852, will show the quantities and deatination of liat article supplied by Fingland to foreign countrien, relatively to the quanilifes imported. Total quanity is portexl, 15,700 lons, or 35 , 168,000 poand.

Total Quantity Expoeteb.

| W. coust of Africa. | , |
| :---: | :---: |
| Helland. | \% |
| Malts. | 184 |
| Ean Bebaslan. | 11 |
| Alexindria | m |
| Habla. | 81 |
| Ablw |  |
| Rlo de Jit |  |
| Cilbraliar | \% |
| 11ramana |  |

The foregoing talile slinws that in 1Rin2 there were exported from Great Britain about, 2,002,006 Ilm, (allowing $\mathbf{1 0 0 0}$ Jbes. to the hhil.) out of the $35,168,000$ the. Importel, ahowing the amount ratalned for consumption to the $82,560,000 \mathrm{lh}$.

# GRE 

## GRE




| Yraft. | Flour. | Value. | Bouf. | Tallow. | 1 Ildes. | Value. | Tap, prech, Fonlay | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1890. | Karris. | $\begin{aligned} & \text { Dollaret. } \\ & 1,544,194 \end{aligned}$ | Harrels. 900 | Pounds. B. 787 | $\begin{aligned} & \text { Numbir. } \\ & 98,627 \end{aligned}$ | Dollara 140,406 | $\begin{aligned} & \text { Barrole. } \\ & \text { 128,185 } \end{aligned}$ | Dollar: 851.726 |
| 1881. | 870,480 | 4,981,901 | 28 | 8,84 | 288,158 | 140408 40,760 | 109,190 | 818,964 |
| 1882.... ....... | 05,058 | 470,881 | 117 |  | 18,480 | 05,080 | 172,062 | 400,054 |
| 1883......... | 23,207 | 121,169 | 608 |  | 88,000 | 161,488 | 171,883 | 408,250 |
| 1884............. | 19,637 | 96,884 | , | 86,108 | 82,084 | 189,086 | 181,921 | 454,650 |
| 1835.............. | 5,870 | 25,841 | 24 | , | 12,781 | 66,856 | 161,407 | 480,811 |
| 1886. | 161 | 1,184 | .... | $\ldots$ | 17,075 | 90,505 | 197,894 | 781,288 |
| 1887........... |  |  | .... |  | 50,748 | 189,048 | 218,180 | 788,881 |
| 1838............. | 8,205 | 62,510 | .... | ... | 28,059 | 78,444 | 210.794 | 679,076 |
| 1899.............. | 167,585 | 1,898,627 | ... | $\cdots$ | 5,616 | 18,696 | 176,781 | 006,215 |
| 1840............ | 890,919 | 1,887,844 |  | 29,890 | 8,817 | 17.924 | 191,448 | 470,450 |
| 1841............ | 208,984 | 1,008,465 | 8,610 | 25,289 | 4.288 | 88,007 | 201,789 | 4*2,870 |
| 1812............ | 208,0\%4 | 1,949,787 | 8,001 | 1,716,820 | 6,181 | 108, 087 | 018,548 | 578, 074 |
| 1843............ | 19,426 | 84,815 | 6.888 | 8,649,614 | 8,882 | 881,769 | 145,006 | 871,626 |
| 1844. | 167,298 | 745,488 | 43,717 | 4,057,200 | 88,107 | - 777,908 | 970.817 | 64,124 |
| 1845. | 85,405 | 152.882 | 41,188 | 8,289,440 | 41,179 | 804954 | 280,208 | 680,864 |
| 1846............. | 1,915,244 | \$,186, 677 | 80,880 | 6,125,462 | 67,008 | 1,884,8is | 805,294 | 958,275 |
| 1847. | 2,407,078 | 15,104,674 | 06,478 | 8,924,156 | 24.481 | 1,269,918 | 245,770 | 632,810 |
| 1449. | 958,74 | 6,110,476 | 47,061 | 8,899,469 | 7,008 | 800,304 | 298,026 | 589780 |
| 1849. | 009815 | 6,077,980 | 19.850 | 8,898,297 | 1,039 | 1,83n,687 | 817,417 | 724,680 |
| 1N00............ | 869,777 | 1,779,859 | 60,090 | 2,254,618 | 851 | 823,780 | 866,980 | 911,281 |
| 1851............. | 1,004,788 | 4,678,009 | 54,750 | 4,195,866 |  | 905,788 | 288,785 | 761,408 |
| 1852.............. | 1,081,984 | 6,308,878 | 81.429 | 9,421,489 |  | 764,848 | 945,417 | 941,294 |
| 1858.............. | 1,878,0615 | 6,798,818 | 80.570 | 1,481,876 |  | 1,848,686 | 841,618 | 1,099,082 |
| 1884.............. | 8,026,101 | 18,715,111 | 78.097 | 6,890,288 | 888 | 1,644,425 | 461,088 | 1, 5665,688 |
| 1855............. | 189,712 | 1,083,089 | 8,78\% ${ }^{7}$ | 7,612,629 | 10,807 | 2,900,907 | 421,118 | 1,189,863 |




| Years. | linports from tha United 8 taten. | Rxporte to the United States. | Yearl. | Tinporte Irom the Ualted States. | Esporta to tha United Stales. | Yearn. | Iuports from tha United Btates, | Exporta to sba Uaited Slates. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W. 10 | 1,408,720 | 707,705 | W. 1789 | (4,757,390 | \%8,479,845 | W. 1780. | 98,815 | 4,145, 310 |
| P. 1698. | 1,180,975 | -,290,455 | W. 1740.... | 9,692,080 | 4,006,910 | W. 1781.... | 489.895 | 4,278,505 |
| P. 1699. | 1,278,085 | 2,019,505 | W. 1741.... | 4,061,015 | 4,427,460 | W. 1782... | 188,900 | 1,888,660 |
| I. 1700. | 1,975,106 | 1,721,705 | W. 1742 | 8,406,140 | 4,100,235 | W. 1788. | 851,206 | 5,015,600 |
| P. 17101. | 1,545,675 | 1,710,185 | W. 1743.... | $8,404,084$ | 4,148,025 | P. 1784. | 8,746,645 | 18,897,860 |
| W, 1702. | 1,618,940 | 984,080 | W. 1744... | 8,837,691 | 8,204,410 | P. 1785. | 4,46\%,980 | 11,841,115 |
| W. 1708. | 1,021,430 | 1,481,050 | W. 1745 | 9,772,155 | 9,676,285 | P. 1788. | 4,915,595 | 8,017,880 |
| W. 1704. | 1,609,870 | 8S0,445 | W. 1746 | 2,797,505 | 8,774.885 | $P .1797$. | 4,468,190 | 10,070, in 0 |
| W. 1705. | 754,880 | 1,468,818 | W. 174\% | 2,808,570 | 8,683,860 | P. 1788. | \$,118,945 | 8,480,710 |
| W. 170 B . | 085875 | 808,455 | W. 1749 | 8,889,180 | 4,151, 870 | P. 1790. | 5,260,990 | 19,628,500 |
| W. 170\%.. | 1,423,095 | 9,066, 235 | P. 1749 | 8,817,820 | 6,152,880 | P. 1790. | 0,925,800 | 17,158,500 |
| W. 1708. | 1,492,175 | 1,200,925 | P. 1760. | 4,078,845 | 8,565,420 | P. 1791. | $8.971,100$ | 91,187,295 |
| W, 1709. | 1,628,680 | 1.847,985 | P. 1781. | 4,178,960 | 8,165,940 | P. 1799. | 5,108,685 | 91,847,090 |
| W. 1710. | 1,249,080 | 1,408,800 | P. 1752. | 5,020,915 | 6,740,345 | W. 1794. | 4,970,200 | 17,578,406 |
| W. 1711 | 1,623,490 | 1,488,185 | P. 1753. | 4,868,760 | 7,204,780 | W. 1794. | 8,108,065 | 19.299,855 |
| W. 1719. | 1,820,865 | 1,849,455 | P. 1754. | $5,088,810$ | 6,851,400 | W. 179\%. | 6,760,680 | 86,970,690 |
| P. 1718. | 1,516,110 | 1,489,745 | 1. 17 ¢ 5. | 4,697,770 | 5,564,090 | W. 1796. | 111,404,850 | 80,970.160 |
| P. 1714.... | 1,978,875 | 1,667,420 | W. 1756. | 8,296,785 | 6,760,890 | W. 176t. | 8,877,560 | 28,288,085 |
| 1. 1715. | 1,486,285 | 9,256,840 | W. 175\% | 3,068,420 | 8,141,750 | W. 1798 | 8,918,600 | 27,901,845 |
| P. 1716. | $2.18{ }^{2} 45$ | 2,010,225 | W. 1758 | 8,858,600 | 8,564,445 | W. 1700. | 0,094,705 | 85,282,700 |
| 1'. 1717. | 9,184, 4 ¢0 | 2,693,885 | W. 1759 | 8.109 .845 | 11,727,970 | W. 1800. | 11,789,615 | 89.427 .070 |
| W. 1218. | 9,281,85\% | \&,126,675 | W. 1760 | 4,159,725 | 18,064,785 | W. 1901 | 18,639,600 | 87, 647,650 |
| W. 1719 | 2,815,976 | 1,965,010 | W. 1761. | 4,475,158 | 8,409,485 | P. 1502.... | 9,617,590 | 26,647,450 |
| W, 1720. | 2,840,840 | 1,098,625 | W. 1782... | 4589.070 | 6,985,09 ${ }^{-}$ | W. 1808.... | 0,570,490 | 20,864,065 |
| W, 1121. | 2,469,845 | 1,649,625 | P. 1768. | 50,785, 645 | 8,994,74 | W. 1804.... | 8,257,885 | 81,002,130 |
| P. 1729. | 2,188,480 | 2,128,625 | 1. 1784. | 5,639,255 | 11,835,095 | W. 1806.... | 8,882,780 | 85,7i8,825 |
| P. 1728, | 2,809,410 | 9,057,065 | 13. 1765. | 5,801,495 | 0,462,565 | W. 1806.... | $0,090,490$ | 48,065,610 |
| P. 1724. | 2,818,4)5 | 2,807,980 | 1p. 1766. | 8,234,045 | 9,218,915 | W. 1807.... | 14,487,610 | $89,806,600$ |
| P. 1725. | 2079,250 | 2,748,465 | 1. 1767.... | 5,470, 890 | 9,748,990 | W. 180 | 4,781,710 | 19,900,996 |
| P. 1786 | 2,641, 525 | 9,764,610 | 1, - 17tis.... | 6,864,205 | 10,990,090 | W. 1569 | 11,024,655 | 95, 989.965 |
| P. 1727. | 8,188,025 | 9,514,635 | ${ }^{3}, 1760 . .$. | 5,862, 420 | 6,964,985 | W. 1810 | 13,072,025 | 89,1066,085 |
| 13. 1728. | 8,026,645 | 2,540,815 | 19. 1771.... | 5,477,425 | 9,774,875 | W. 1811.... | 11,047,075 | $7.159,145$ |
| 1. 1799. | 8,026,480 | 9,144,705 | P. 1771.... | $6,742,109$ | 21,0007,875 | W. 1919.... | 6,470,700 | 20,677,060 |
| P. 17:10. | 2,964,940 | 9,047,305 | 11.179. | 8,826,585 | 15, 453,000 | W. 1818. | Reenrda dratr | yed by tre. |
| p. $1 \% 1$. | 8,254,815 | $2,044,845$ | P. 1778. | 8,871,605 | 0,987,205 | W, 1814.... | 118,105 | 86,015 |
| P. 1784. | 2,005 1,4 | 2,656,270 | ${ }^{1}$ W. 1774.... | 6, 012,185 | 12,1793,880 | W. 1815.... | 11,851,440 | 60.682,503 |
| l'. 1789. | 8,84, 175 | 9,744.450 | W. 1778.... | 9,767,004 | 085,400 | P 1810 | 11,931,120 | 48909,785 |
| P. 17M. | 8,056,749 | 2,781,875 | W. 1771. | 528,215 | 4*2, 150 | 1'. 1817 | 15,985,000 | 81,865,140 |
| i 1785.... | 8,991,698 | 8.842, 810 | W. 1777.... | 68,100 | 2001,905 | P. 1818 | 17,184,160 | 41.917,180 |
| 1P. is8.... | $8,490,880$ | 9,744,810 | W. 1778.... | 89,977 | 187,820 | P. 1819 | 18,440,890 | 21,502,475 |
| P. 1737. | $8,876,915$ $8,101,800$ | P 19,180 $8,168,850$ | W. 1779.... | $15^{-785}$ | 1,753,000 | 182 | 18,256,710 | 19.601,310 |



FEOS ANO DEAPARTING TO EACA COUNTET, DUR
COMME'JICK

| veant | ODMMEIICK |  |  |  | Navigation. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | VALUE O\% Expoatho |  |  | Vatue ov Impiate. | Ambatican tumnaim. |  | minatun tunntar. |  |
|  | Druneatio pronture, | Forelgn prodace, | Tutal. |  | Fintared the Usited Biatecio | ©fearod from tha U, Aisles. | Kntered the Unilid Miotes, | Clearod frum Itha U, Rtaten, |
| 1845 | 744,284, ${ }^{\text {279 }}$ | (4,822, 90 | 149.086,459 | 845,600, 408 | 880,069 | 800,904 | 249,761 | 824,719 |
| 1846. | 44,881, 514 | 1,898, ${ }^{\text {a }}$, ${ }^{\text {d }}$ | $40.215,41$ | 43,987,740 | 888,827 | 301,120 | 226,053 | 1月1, 261 |
| 1847. | 86.906 .035 | $1.028,429$ | $87.905,857$ | 67,597,648 | 487.278 | 607,818 | 44,890 | 417,251 |
| 1848. | 67,749,741 | 8,944,019 | 76.720,783 | $61,945,119$ | 480,808 | 604, $1 / 83$ | 875,295 | 810,085 |
| 1849. | 74,44,294 | 1,981,876 | 78,800,170 | 61,164,638 | 600,769 | 600,051 | 805,689 | 491,104 |
| 18\%0. | 63,788,780 | 4,438,644 | 74,178,878 | 78, 159,424 | 618,700 | 46\%,963 | 654, 1048 | 800,826 |
| 1851. | 109,081,619 | $8,414,408$ | 117,946,015 | $88,447,846$ | 6188909 | 642, 218 | 6,1,84t | 808888 |
| 1852. | 110,503,055 | 4,764,020 | 115,689,975 | 90, 629.389 | 778.971 | 601,460 | 8.4.144 | 497.7ax |
| 184. | 117,879,898 | $8,427,775$ | 191,808,471 | 184,467,841 | 850,041 | 69\%, 108 | 50.4087 | 474.148 |
| 1854............ | 189,416, ${ }^{\text {a }}$, | 6,840,463 | 1460030,490 | 141,439087 | 860,906 | 890.109 | 80. 044 | 474681 |
| 1840,........... | 182,992,881 | 6,600,01s | $109,042,860$ | $100,4+8,180$ | 900,70s | 868,065 | 878,006 | 802,610 |




| Years. | ropacco. |  | IMOLAM | cons. | POBK. | Hame a Bacys. | LAMEI. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quanily. | Vntue. | Quantily. | Value | Quanilig. | Quanticy. | Quanticy. | Value. |
| 1880 | Hogshemeds. 80,291 | $\begin{aligned} & \text { Deillarn } \\ & 1, .088,971 \end{aligned}$ | $\begin{aligned} & \text { Buhely } \\ & 51,416 \end{aligned}$ | $\begin{aligned} & \text { Dullars } \\ & 20,425 \end{aligned}$ | Marrela. 2,2100 | Pounds. 1,646 | lounde. | $\begin{gathered} \text { Doliors. } \\ 90,882 \end{gathered}$ |
| 1881. | 26,785 | 1,882,836 | 190,088 | 188,447 | 180 | 2,565 | .... | 1,838 |
| 1888. | 86,998 | 2,845,450 | 828 | 150 | 2,705 | 608 | 0 | 29.878 |
| 1888. | 28, 84 | 2,259,19t | 8,240 | 2,174 | 921 | 7,480 | 000 | 10,987 |
| 1884. | 40, 058 | 2,987,020 |  | -08 |  | 4,994 |  | 498 |
| 1885. | 27,583 | $8,400,649$ | 858 | 980 | 12 | 1,N16 | .... | 845 |
| 1836. | 88.405 | 4,538,449 |  |  | .... | 11,461 | . $\cdot$. | 1,298 |
| 1887. | 21,789 | 1,879,568 | 12 | 15 | ... | \$10 | ... | 12 |
| 1838. | 25,788 | 2,557,208 | 185 | 110 |  | 667 | .... | 88 |
| 1889. | 80,840 | 8,404,967 | 519 | 467 | 10 | 150 | . . . | 241 |
| 1840. | 27,189 | 3,227,450 | 104.841 | 61,669 |  | 1,061 |  | 115 |
| 1841 | 48,181 | 6,114,830 | 12,543 | 7,130 | 4,769 | 26,894 | 444,805 | 80,879 |
| 1842. | 86,999 | 8,912,207 | 123,665 | \%5,901 | 6,900 | 160,274 | 3,430,782 | 287,028 |
| 1849. | 21,050 | 1,262,616 |  |  | 8,230 | 600,898 | 4.869,44 | 805,298 |
| 1844. | 89,182 | 8,900,126 | - 89, 078 | 48,898 | 111,280 | 300,189 | 8,976, 815 | 648705 |
| 1345. | 96,169 | 1,985,187 | 135,1183 | 67, 59 | 14,146 | 96,407 | 5,687,675 | 497,066 |
| 1846. | 27.943 | 2,428,228 | 1,192.630 | 797.170 | 18,(M)1 | S81, 023 | 8,211,849 | 768.226 |
| 1847. | 29,745 | 8, 543,775 | 15, 026,523 | 18,761,310 | 78.940 | 14,867, 105 | 17,798,770 | 8,471,507 |
| 1848. | 29,801 | 8,460,987 | 5,0642,220 | 8,807,414 | 87.760 | 29,218,462 | 97,753,841 | 0,288,259 |
| 1849. | 21.857 | 1,7T1,124 | 12,391,248 | \%490,676 | 111,845 | 88.150,40 | 91,848,265 | 6,4:2,194 |
| 1850. | 80,926 | 8.925, $5 \times 5$ | 6,947,49 | 8,544,816 | 44,091 | 87,877, 69 | 81,692,591 | 4,881,939 |
| 1501. | 28,693 | 8,458,885 | 2,i80,729 | 1, 274,480 | 9,254 | 14,7士1, 169 | 6,628,788 | 1,087,851 |
| $18 \% 2$. | 17.696 | 2,512,225 | 1,894,700 | 1,111,62z | 1,642 | 8,207,993 | 8,976,124 | 1,075,299 |
| 1858. | 82.2416 | 8,438,423 | 1,654,640 | 943,690 | 17,156 | 18,297, 779 | 9,725,188 | 2,240,094 |
| 184. | 17.664 | 2,144,943 | 5,965, 830 | 4,679,187 | 48,604 | 88, 1900787 | $26,715,141$ | 6.198,894 |
| 1455. | 94,203 | 8, 107760 | 5,935,254 | 5,492,420 | 54,663* | 80,240,101 | 15,349,922 | $5,915,120$ |

$$
\text { * 5,679 tlerces were also expurted In } 1555 \text {. }
$$

 the Vniten Kingion or fiaeat likitain and lagLAND, YROX 1801 TO ISBS, INCLTHIVK, DKSIONED TO AHOW ting oenghal Fombigs Trade of that Kinodom wede inu tie Pigion ngeionated.


Jaurs and Itrguhatims Rehtrier to I'ussengers' Dagyage in England ond the C'nited States, Exphawed and Cem-pared.-The laws and Treasury onders regulating the admienton of laggage, personal effectr, ete., Into the ports of Great liritain and of the United Staten, reapectively, aro based upon principlen so totally disnimillar, that a comparative vlew of toth can only to presented by extibiting a aynopsis of each. The pol-
icy of Great Britnin would seem to be to restrict the privilege of free entry to such articles of vearing apparel as have been worn, and not made up for the purpose of being iutroduced into the country, free of duty; while the reguintions in foree at the different ports of the United States exhiblt a spirit of the utmost liherality in that regard, enabling passedgers, whose "bagrage and personal effecte" have leen lionestly made up, and faithfuliy manifested, to proceed to their destination, without delay or coest, or leing subfected to the many thouaand vexatious annoyances which a leas liberai poliey, in regard to "pmasengers' bnggage, personal effecta," etc., must inevitabiy produce. The American poliey on thia subjeet is, beesilies, bighly benelicent to the large classes of emigrants whe seek an asylum on our shores, literaliy carrying with them their "hed and baggago," their weasing. loons, apinuing-wheola, and other articies and impie. ments of handicraft, all of which are admittel, under the tariff act of 184t, free of duty.
In the United Stater, the nimiankon of personal lag. gage, etc., is regulated by schedule one, Tariff Act of 1841, and of various decinjons of the Treasury Depart. ment aubaeqeuntly ianued. The several provisions of the alove-named schedule, and of the Trensury decis. lons, may be classified as foliows: 1. Household ef feets, old and in use, of personn or famiiies arriving from forelgn countries, if used alroad by them, and not Intended for any other person or persons, or for sale, free. 2. Wearing appurel, in actual uso, and other personal effects, not merchandize ; professional Leown, lmplements, instruments and tools of trade, ocenjution, or employment of persona arriving in the l'uited Statea (provided that thits exemption shail not extend to or include machinery or other articles ins. portell for use in any manufacturing eatahlisiment, or for sale), free, 3. l'ersonal and household effects (not merctiandise) of citizens of the Vnifed Statey dying aliond, free. Tho exempition from duty cont ennpiated hy law iu the linst clause, alove cited, muat he conflined to such artictes as are generally used ta howekeeping, andi $x$ hich had actualiy been in une ing the indio vidual or funiiy while Iving alrond, and wini impurted for nale, barter, or trafic. Tha exomption srom duty of wearing aiquarel, and other personal elliects, provided fur in tho recond elaune yuoted, must bo contince to such articles as are penerally used on or alwut the person, and nat connidered as merchandise; the articles admitted under this clause to the limited to an ex. tent aot exceeding in number, quantity, or value whal Ia usaal for a traveler, or uther gresson, to wear, keep,

## or car

books, cupatio olanse, what th for the oceupat: plement to be col ticle to 1 Regule fects, ete the diffor March to o'cloek $\mathbf{P}$. ary; from After a sengers $h$ have then will then rotation, a [раяanenger property in apparel, af ered, provi rorn, and duced into duty. All gers' hagga amination, deposited w therized to passing tho baggage is it ularly report law strietly upon being $q$ deny that he or her possess covered, they ger to a penat Foreign ne gers, if bount mannfactnred they are slut: parties return mpon declarati A pair of pis piece, brought be delivered same is for pri Daty is not a pint of ort atrength ; or curiial water, liquears, impor are not frequer gnge, entitied namufactured pound. On h the whole weigl ever, from tho enter any quinnt not exceeding sat sieal inatrument All packnges when not cleare lion, at which ti working dn $\because \cdot \mathrm{s}$, warchouse for may be unwillin thagigage as may the saine, or th house for six me an upportunity of
of finty of inty.-likepp
or carry with him for hle own use. The professionsl books, lmplements, lnetrumente, and toole of trade, oce eupation, or employmont, enomierated ln the same clanse, are limited in number, quality, and value to what the colleotor may conaldor reasonable and proper for the person to whom they belong, in his profession, occupation, trade, or employment ; but the term " implements and tools of trade," under no clrcumstanice to be considered ae comprehending any machine or article to be worked by other that manual power.
Regulations as to Passengers' Baggage, Personal biffects, etc., in Great Britain.- $H$ Honrs of attendance st the difforent baggage warehonses ns followe: From 1st March to 31st October, from 8 o'elock A. M., antil 7 o'clock P. M. ; and from 1st November to 28th Fobruary, from $9 \mathrm{~A} . \mathrm{M}$. untll 5 sim .
After all baggage shall have been landed, those passengers having only single packages will be entitled to have them first examined ; the remaining passengers will then be ealled into the examination-room in rotation, according to the list furnished by the captain [paspengers thomaelves mist ese that their names are properly inserted in the captain's list]. All wearlug apparel, after exsminntlon, will be Immediately delivered, provided it appears thint the apparel has been zorn, and not made up for the purpose of being Introduced into the United Kingdom without payment of duty. All dutiable articles forming a part of paesengers' baggage will be delivered inimedintely efter exsmination, on the smount of dutlee duo thereon belng dejosited with sach accredited person as may be nutherized to recelve the asme, and slao a emall aum for passing the entry, All merchandise lrought with baggage is liable to seizure. Such goodn mist be ragulsriy reported and entered, and the regulatione of the law strietly complied with. If any passenger ahall, upon being questioned by the proper officer of customs, deny that he or she has any goods llable to duty in his or her possession, and euch gools loe subsequently tllscoverel, they will lee lable to seizure, and the passenger to a penslty of treble the value thereof.

Fereign newspapers found in tho bagigage of passengers, if bound, are to be charged with duty as "goods manufnetured," 10 per cont. ad ralmem; if unbound, they are duty free. Fowling-pleces, the property of parties retarning to Englund, may te delivered free, upon deelsration thut they are of Jritish munufuctare. A pair of platols, a oingle rlfle, or a aingle fowliugpiece, brought by a pussenger with his baggage, may be dellvered duty free, upon a declaratlon that the same is for private use ouly.

Duty is not to be charged on any quantity lean than a pint of onlmary drinkable aplrits, of whatever strength; or half a pint of eall de Cologne, or other conlial water, or any medlicated or perfimed aplrits ar ligururs, luported for private use. Passengera who ate not frequent vistora, may inelude with their binggage, entliled to free cutry, an mmonnt of segars or manufactured tobaceo under the weight of half a pound. On half a pound nud upward the dity on the whole weight in to be charged. l'ussengers, however, from the West Indies or other long voyages may enter muy quantity of seggars or manufuctured tobnceo not exceeding eovan pounds' welight. Ilooks nud musical instruments, though for private ine, nre dutialile.

All packages of lagggage landed by "snffarance," when not eleared from the examining floor of the atation, at whieh they may linve heen landed, within rix working dn*s, are to be forwarded to the queen's warchonas for security of thatles. l'assengers who may be unwllinge or unable to clear auch artieles of baggage as may be lialile to duty, cun either abandon the same, or they may be left in tha queen's whrehouse for eix months, In erder ta give thelr propirietors an opportunlty of taking them lonek without payment of duty.-llekdell's British Tariff; 18b4-'5, pp. 82 to 87.

Regulations relative to the Entry of Vessela into the Ports of Great Britain and of the United States com-pared.--Vessols entering any ports in Great Britain are subject to the following regulations, vls. : So soon as a vossel has reported, the importers, agents, or conslgnees of the cargo, having been sdvised by recelpt of bille of lading, or other Intimation, may each enter their several goods. A lstitude of 14 days is allowed by law for this purpose; but, in order to clear vessels more opeedily, sight entries are permitted to the master or owner of any ship lying alongside the legsl quays, or sufferance wharves, soath of the Thames from London Brldge enstward to Dockhead, under such general description as is contulned in the report, for any goods that ehall not have been entered by the awners thereof within 48 hours from the day of report, upon condition thst perfect entry be made by the proprietor withln one month from the date of landing. Goods so circumstanced are only liable to seirure for inaccuracy of entry after the lapso of a month, or after the proprietor's perfect entry has leen passed. If perfect entry be not made at the end of a month, or a delivery order obtained, the goorls may then be sent to the queen's warehouse, and dealt with as if landed by "bill of sight."-I3. M., 1st June, 1850.

The master of every merchant-vessel, within 24 hours of entering the pet of arrival, is bound, under a penalty of $\$ 500$, to report his eargo to the ohlef officer of customs. Before, however, the master is allowod to report, ho must deolsre, before some person duly authorized by the postmaster-general, that he has deliverad at the post-office all lettere that were on bsard his ship. And likewise, he must, under a penalty of $\$ 100$, and the further sum of $\% 50$ for each alien not included in the deciaration, truly declare to the number of alions on board ar lsnded from his shlp. Gools generally are liable to seizurs for heing landed without entry; and packages uncleared from tho queen's warehouso are sold after the expiration of the tollowing perlods, via. : Merchandise, 3 months ; passengers' bagguge, 6 monthe ; and ships' surplus storea, 12 monthe. 1f, after the arrival of any shlp within four leagues of the coast of the Unitelk Kingriom, bulk shall be broken, or any alterution made in the stowage of the cargo of such shlp so as to facilitute the unlading of noy part of such cargo ; or if 'any part be staveil, destroyed, or thrown overboard, or any package be opened, unless accounted for to the aatiafaction of the commissioners of customs, in every such case wueh master slall forfeit tho sum of $\$ 500$. For willfully muking a false report, or if the particulars, or uny of them, of anch report be false, the mastor aliall forfeit the sum of $\$ 500$. ( 16 and 17 Vetorin, chap. 107.)
lly the act of Congrese of March 2, 1199, masters of vessels are required to proluce n munifest of cargo on loord, on the arrival withln four leagues of the coast of the United Staten, to sueh oflicer of a revenuecutter, or othor oflieor of the enstoms, us shall first come on board sach vessel, fur his inspection. The law requires that the manifent whall be in writing, slgned by the master of nuch vessel, and shall contalin the name, descriptlon, Imild, and true tonnage of such vessel, the place to which ahe belongn, with the names of the owner or owners, the name of the master, the mumos of the places where the goorls ahall have heen taken on boarl, and the places wlthin the linited States to which they ure respectivoly consigned, partienlariy noting the poods dentined for cach place respectively; und a just and particular necount of all the gools so luden on boari, whether in packngee or ntowed loose, of any klal whatever. The uamen of the passengers on boari, npecifying the umbler and tescriptlon of prekages belonging to each, together with the remalnIng sea-storen, if any, are to bo truly stated. If any goods be imported in any auch vessel without laveIng a manifest on lsoard, ngreable to the foregoing directlons, or which shall not be included thorein, or
shall not agree therewith, the maater of auch vesael shall forfeit and pay a aum of meney equal to the value of the gooda not in luded therein; and all auch merchandise not included in the manifeat, belonging or consigned to the master, mate, officers, or crew of anch vessel, shall be forfeited. No addition, orasaro, substitution, or aiteration whatsover, can be made in the manifest of the cargo of any anch vensel after her arrival within four leagues of the coast of the United States, without suhjecting the master of auch vessel to the penalty of the law. On any veasel arriving from a foreign port, the master ia to report to the collector within 24 hours after his arrival; and within 24 hours thereafter further to report, in form, all the particulars required to be inserted in his manifest, and shall declare to the truth of auch manifest. No vessels permitted to enter until the master ahall have delivered all letters directed to persons within the United Statea, Merchandise unladen without permit from the proper officers of the customs to be forfeited; and the master and mate, each, forfeit $\$ 1000$. Before departure for a foreign port, the master of every vesael munt deliver to the collector a manifest of the whole cargo and the value thereof, and obtain a clearance, rnder the penalty of $\$ 500$.

Colowial Posecssions of Great Britain.-As a necessary preliminary to a clear exposition of tho laws and regulations which govern the existing commercial relations letween the United Statea and the colonial possessions of Great Britain, it will be necessary to take a brief retrospective glance at the rise and progress of American commerce, from the earliest nettlement of the colonies down to the present perior. Aithough these preliminary remarks will be more especiaily adilressed to the commercial intercourse between the United States and the colonial possessions of Gireat. Brituin in North America, the: will equally apply to ail the other porsessions of that power throughout the worid, by reason of the general appulication of that liberal and enlightened wyntem of commercial policy adopted by the British l'arliament in 1849, and inaugurater as the future commercial law of that kingriom on the 1st day of January, 1850.

From the earlient settloment of the different cc'onies on the North American continent by the governments of the Old Worid, a myatem of colonial legislation, similar in effect, and oppressive in operation, was commenced lyy each, reapectively, prohibiting all commercial intercourse with any other than the mother country, and reudering the infant colonien drpesident on her alone for the supplies neceasary for their sulssistence and conifort. The effects of such a policy were son exhibited in the anomalous and destitute conditon to which the earlier colonista were reduced. Carrying with them, as they did, into the newly discovered widernesa of the western coutinent, that adventurms and enterprising mirit which had led them to forsake the homes of their chijibooni, nid to brave the periis of a voyage acroan the Atiantic, it may easily be imagined, that they didi not quictiy nubmit to an ilibieral and short-nighted poilicy, which reducerl them to a condition of Induntrial and commercial vassalage that had well-nigh crushed overy effort to develon the abundant treasures which naturn had wo lavishly wpread before them, and which, under a different system, would noen have brought within their reach the rich exclanges of an extensive commerce. They were, in the language of one well maquainted with our earlier colonial history; "preventel from manufacturing for themselves, or from engaging largely in whip-buiding or commerce; isolating them from the reat of the worid, leaving them ne trade exeept to the mosher country."

The selfish ami monopolizing mpirit which governed the liritiah leginlature in the enactment, as well as in the rigoroan enforcement, of these restrictions on the colonies which ahe had pianted in North America, may
be understood from a remark elicited from Iord Chatham by a remonatrance against this oppreasive policy, to wit: that "the British imorican colonies had no right to make even a nail for a horse-shoe." "In and out of Parliament," enys the Treasury report of 1832, "as a political right and an national privilege, an ahsolute monopoly was demanded for supplying the coloniea with every article of consumpton, and of tranaporting the whole of their produce to Europe."

In the charter of Virginia there was an expresa stipulation empowering the colonists to carry on a direct intercourse with foreign states. This privilege naturally drew their attention to the cultivation of the soil, and to the prodiction of auch articles as would be most likely to tind a foreign market, and yield them such returns as were most suitable to their condition and their necessities. Accordingly we find them, at a very early period, successfully ongaged in the cultivation of tobacco. This article found a ready demand in the markets of Holland, and warchouses were soou establinhed for its reception at several of the principal ports of that republic. This privilege, however, was not long jernittel; the British merchants, stimulated by an unworthy spirit of cupidity, soon perceived the advantages which this direct trade bet ween the colonies and llolland conferred upon their commercial rival, and at once adopted active measurea $h$ suppreas it.

The interesta and power of the British government were appenled to, until, with a total disregard to the necessities and claims of the colonista, and in palpabile violation of the rights and privileges guarantied to thera by nolemn compact, they were forbidilen to carry their produce to Ifoliand or to any other foreign country, and were compelled to shiji direct to liritish ports, and commit their commercini operntions exclusively to the management and contrel of liritisin merchants.

Seversl acter of Pariannent follucied, prohibiting sli foreign trade with the colonics, and rostricting them to a direct interconne with the mother country. The first act which indicated the future policy of Great Britain toward her colonien, and bore with much severity upon their industry and enterprise, was that of 1650 , rentricting their trade to Iritish or coloniai-built ships. This was the commencement of the system begun by Oliver tromwell, and continued with aa. abated rigor down to the period of the lievolution.
The act of $16 \mathbf{o b l l}^{\prime}$ was followed by another passed during the reign of Charien 11. (1660), prohibiting the exportation to any foroign country, of certain enamerated articles, the prodace of the colonies, and requiring that vesmeis laden with anch artleles shenh proceed direct from the colonies to a British port. Non-enu. merated articles, including lish, salted provivions, grain, flonr, atc., could, for a period, be carried direct to any port in the world-a privilege, however, which was aulisequently materialiy abridged; but, lest the diejendence of the colonies upon the mother country whould be in any degree relaxed, the return cargoes were, with the excejtion of malt, to be relanded in England for reshipment to the colonies.

The policy which dictated thia restrictive measara was renderedi still more oppresslve by an art jussed in 1663, proviling that " no commodity of the growth. profluction, or manufacture of Europe whall be im ported into the ibritints plantations, but such as are laden and put on boani in lingland, Wales, or llerwick. upon-Tweed, and in liuglisi-built shipping, whereof the master and thrue fourtine of the crew are linglish,"

Under the haneful intiuence of thin aystem of un. wise, unjust, and apipressive iegislation, it nusy seem aimost Incredilie that the colomies should have been able to maintalin any mivaucentent in commerer, population, or wealth; get, If we follow them in their ntrugulen and privations from the commencemeat of thla biliberal and unjust policy, during the Comenonwealth under Cromwell, down to the perion of the

Revolution, we shall find them steadily, thongh slowly, increasing in all these elements of a nation's prosperity. This was mainly attributable to the privileges of cemmercial intercourse between the colonies themselves, continentai and insular, which was permitted to thein as a part of the Britieh dominions. To this unfettered and profitsble trade the American colonies were chiefly indebted fo: whatever commercial progress they had made prior ts the Revelution. The following table exhlblts the extent and value of this trade in 1769 : Imports, $\$ 18,000,000$; exporte, $\$ 12,000,000$; total, $\$ 25,000,000$. Of this aggregate of trade, that with the West Indles atood thus: Exports, $83,700,000$; imports, $97,950,000$; tetal, $\$ 11,650,000$.

At the commencement of the revolutionary war, the colonies enjoyed the privilege of trading with England, the liritish West Indles, and that part of Europe sonth of Cape Finisterre; and though oppressed by anjust exactions, and burdened by lliheral reatrictions, they unt only contributed to the wealth and material prosperity of the mother country, but gave every promise of thriving, and achieving n name of thoir own.-Dre Bow's Review.

During the revelutlonary war, all commercial operations were auspended, nnd the peace of 1783 found the trade of the new thirteen independent soverelgnties in a most feeble and langaiahing condition. Their independence made them a foreign conntry to the North American and West Indin colonles; and by a rigorous syatem of colonial non-intercoure, they were cat off from ali trade wita those who were their natural commercial neightors, and, prior to the Revolution, their most profitable customers.
The exhausted condition to which the severnl States were now reduced rendered the first few years after the ciose of the war n peried of the most intense solicitude. The confederated States were fully sensible of the absoiute necessity of opening a foreign trade, and especiaily of recovering their lost intercourse with the Iritish West Indies; but every proposition to that end, urged through their accreatited ministers, was met by a decided refusal.

As early as 1783, Mr. Pitt, then Chancellor of the Exchequer, proposed a bili in the British Parlinment based upon the liberal principlo of "almitting to nil the ports of the lritish doninions American vessels loaded with gools, the growth or produce of these [the United] States, on the same terms as liritish vessels and goods," but the prepesition at once startied the fears of the Iritish merchnuth, who, with the aid of Lori North, Mr. Fox, and Lord Sheftield, succeeded in trinsferring the whole subject to the discretion of the king anl his conncii. The consequence wns, that an order was immediately issued, not only excluding American vessels from ail participation in the colonial trade, hut prohithiting the exportation from the United States of provisions and fish, even in Uritish bottoma.
Two years after Mr. Pitt's unsuccesaful motion for reciprocal trade bet ween the deminions of Great Britain nud the United Staten, John Alams, American minister nt the court of St. Jnmes, was instructed to renew the proposition; but it met with no more favorabile recpption than it did in 1783, lard Liverpool decharing "that lt ceulii not be ndmitted even as a subject of negotiation."
In 1789 , another effort was made by the United Stater to negotiate with (ireat IIritain a commercial treaty, partionlarly with reference to the coloninl trude, hined nipon principles of a more liberal reciprucity.
Mr. Morria, then in Janion, wan especially instructel to efiect, if ponaible, a negotiation admitting American productiona, in s-merican bottona, into liritish Nurth American possessions, and bringing, in return, the prodnctiona of thone celonies to our own ports nnd markets. 'The result of these renewed efforts was communicated to the geverninent of the

United States by Mr. Morris, in his dispstch of Sep. tember 18, 1790, and was, in effect, that no arrangement by tresty could be made.

From this period down to the year 1822, the ports of the Britlah American colenies were virtually closed against the commerce of the United States, some olight relaxations haviag been granted, abating, however, to no perceptible extent, the atringency of the measures adopted by the British Parliament, with a view to confine, within the very narron st limits, the commercial enterprise of a country ln which, even at that early period, she descried a future rival for maritime supremacy. Thess relaxstions permitted a direct trale with the British West India Islands in certain specified articles, and under certaln restrictions, but were not accepted by the United States.

During the period which elapeed between the years 1790 and 1822, several efforts were made to place our trade with the British American colonles upon a bssis of equality; these efforts proving fruitless, the United Statee determined to submit no loager to a policy so detrimental to her commercial prosperity, so obstinately persisted in, and hitherto resisted only by the unavailing force of diplomatic remenstrance.

Before resorting, however, to any extreme messurea for the proper vindication of our commercial rights, the government of the United States, still anxious to avert, by means of concilistory legislation, a total suspension of trate and commerce with Great Britain and her American colonies, announced, by aet of March 3, 1815, the principlos npon which she was desirous of maintaining commercial relations with all foreign nations.

This net repealed all discriminating duties of impost and tonnage on foreign vessels in regard to all conntries which should adopt a similar policy in favor of the United States. This fair and liberal proposition was followed by a convention between Great Britain and the Unitad States, in wihich the provisions of the act referred to were adopted, so far as they wore applicable to the trude bet.veen the United Stutes and the dominions of that power in Europe, but refusing to place her colonial trade on the same basis. A more extended notice of tise provisions of this convention, more properiy came under the preilminary remarks on the commercial relations of the United States with Great Brituin. It wiil suffice to olserve, in this piace, that the restriction respecting colonial trude wss made the subject of a special stipulation, in the following words, viz.: "The Intercourse between the Unitod States and his llritannic majesty's possessions in the West Indies, and on the continent of North America, shall not be atfected by any of the provisions of this article [article 2], but each purty shall remain in possession of its rights with respect to that intercourse."

The act of April 18, 1818, was the commencement of the mensures of retaiation by which the government of the Cuited States had now determined to force Great Britain luto a more just and iiberal syatem of commercial legishation, by excluding :rom American ports all ships belonging to that mation coming foom any colonies to which vessels of the United States were not admitted.

The second section of this act required bonds to be given in tha ease of all iritish vesssis departing from ports in the United Statea, conditioned that the carsoes should not be landed in such coionies. This was foliowed by a similar act, passeci in $\pm 820$, proilibiting the purts of tho United States to British vesseis coming by sen, from nily perts or places in nll the American possessions of tireat llitian; and providing further, that no produce sibould be brought into the United States from such colonies, unless imperted diroet from the place of production.

The effect of these severnl retailatory enactments upon the commercial interests of Great Iritain led some of her utost sagacious statesmen to hestow upon
the whole subject thelr serious attentlon, and repeated efforta were made In the British Parliarnent to renuve the reatrictions upon coloninl trade; of whleh the American guvernment eo justly complained; and so sacceseful were these effortn, that the United States guvernment was informally advised that the plan proposed by Lord Goderich, for a more liberal colonial pollicy, would he carried out by the British Parllament. To renove all difficulty on the part of the govermment of the United States, In glving effect to ony plan bared upon princlples of equality, and, at the same time, to show that the retaliatory measures adopted In 1818 and 1820 wers purely defensive, and resorted to only after overy means of negotiation had falled, the net of May 2, 1822, was pasmed, anthorlaing the Presldent to declare the porta of the United Seater open to British veasels trading to and from the coloniea, "on recelving satisfactory evldence that the ports of the lelauds or colonles of Great Britain hnve been opened to the vessels of the United States."
This was followed soon after by an aet of Parlia. ment fully meeting the contingency provided for in the act of Congress above reforred to; and, in August following, the President's prociamation was lssined, declaring, in the language of the net of Congress, "the porta of the United Stnten open to British voasels truding to and from the colonies." This act of Parllament, howeve. $\quad \ln$ ngrent menaure rendered mugatory by the insertion of a clause restrleting American vessels to a direct trade with the colonies, and by the tetimn of the Treanury circular of 24th September following, nubjecting llrithali versels coming from the colonies to heavy discrimimating duties. This anorse was justitled ly the government of the lnited Stutem, on the ground that it became necessary, na a menna of countervailing the discriminating duties to which American produce was subjectell when imported into the colonien, or from the colonien to tireat Iritaln, In British bottoms. In a sulsequent part of these remarks, It will be seen that, In effert, this equality, with some few exceptions, has prevailed rine the atm olition of imperial dutien on colonial importations: but the prineljle which it involves, that of formign $\ln$ terfererce with the colonlal tariffs of Great Britain, was never adnitted by that government, nor was it ever pressed hy the United States. Indeed, the correctuens of the vewn expressed on thle auliject by the Earl of Aleedeen, In a dispateh to Mr. Barbour, six rears suliwequently to this periol, has nover been questioned hy the government of the United States; and their application has been eontinued to this day, In the discriminating dutien jast nlluded to as exceptions, withost any objection or remonstrance on the part of the Amerian government. As the policy of these countervalling duties involven a funclamental priacipie of commerclal law, the langunge of the liarl of Abenleen in reference to it is not deemed inapprogriate in this pince:
" It never could be intended to agree that, under no cirrumstances, should the vessels of the one [the mother conntry] have no advantage over those of the other; and the underslgned is not aware of any instance in which one rountry has remonstrated with anuther country, having colonies, upon the terms on which it has regulated lte own intercomene with thome colonies. * *
"The intercourae letwean a conntry and her colonien is as abolutely out of the meope of ntipulation, negotiation, or remonstrance, as is the intercourse between one laland or purt of the mother conntry and another."

The olfject of "reat Ilritain, durimig thim grotrseted controversy wit. ate government of the linited statee, for commercial eynality in colonial trade, wan avowediy to secure to liritinh navigatom all the advantagen derivable from an exclacive trade with lier cololonies, even in the productions and manufactures of
the United Statea-an object easilly promoted, if not virtually aocomplished, by the nataralization of Amerlean productions imported Into the colonles, and their exportation thence in British vessela, at the low dutles ascignahle to goods, wares, and morchandise, the produce of the culonies.
It was a part of a syatem chiefly designed to enconrage British navigution, and, Incidentally, to quote agaln from the Bari of Aberdeea, "for extending the commercial transactions of Britlah colonists, giving them the advantages of a trade of doposit, and lucilities for colleeting a revenue."

Notwithatanding these restrictlons, equally lajurious to the commerce of both countries, the United States atill maintaiued an netive and profitable trade In supplying the Wert India colonies with her stapl. productlons through the noutral and other oolvuies with which she was permitted to carry on a direct iatercourse. The 1British interdict of 1826 closed the ports of all the British American possewsions, with the exception of the northorn colonies, Including the Bermuds Iflands, to Amerlcan vessels; still, the statistlcal returns of that period exhibit a atendy and vigorous Indirect trade carried on through the circuitous ruutes just ladicated.

The following tables, compiled from oflicial returns, whow the vnlue of our exporta and imports to and from the British American colonial posseasions, from 1821 to 1830, during which period the restrictlve and countervailing measures of troth governinents were, to some extent, relaxed, and our tride with these posspesions was relieved from the onerons inposts of indirect and circuitons chamels. During a portion of this period, as will lee seen by glancing over the folluwing tables, and nuting the disparity in the amonnts during the vears desiguated, American trade was barely able to struggle through the reatristions and burdens which pressed apka it. The romarkn already submitted with reference to the legialation of that period, buth in Grent Ibritain and the Linited States, will sufficiently explain the discrepancles.

Statryent eximbitind ther Vatile of Tmionta and Ext ROKTM TO ANDVROM THE UNIVEO NTATFB AND JH\& likitse


| \%2A\%s, | Ehriaut wat twhiks. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Imyumis. | Espuortso | Impots. | Kismors |
| 1221. | Cr67, 546 | (2065, 1028 | -491.70t | 32, (N) 9 , 791 |
| 1422 | 80, 0,437 | 442,141 | 526, 217 | $1,49 \div 62$ |
| 1428. | 1.444.181 | 1.027,967 | 464,779 | $1,4+2.263$ |
| 1 Nr 4. | y, 75x, 0687 | 1,771,004 | 714,144 | 1,7*2.06\% |
| 1925. | ${ }_{4}^{4}, 460,122$ | 1,667,146 | $619,4 \times 4$ | 2,506,1039 |
| 1826.. | 2,201, 412 | $2,110,802$ | $6 \times 3,964$ 483,118 | \%, 618.995 |
| 1-27. | 845,207 | 690.577 | 44,118 | 9.250 .744 |

The foregoing tables will exhibit, at a glance, ties injurious eflects consequent upon the differeut acts of retaliatory leginlation resurted to and enforced by both mations during this prolonged and uayiolding contest. Othor tables will be introduced in the proper place, showing the value and extent of traile between the United states and the Ibritislt colonial porsessions subs sequently to the yoar 1830, when a policy, bused apon the just princlples of reciprocal benetit and generons competition, nucceeded the illiberal and unwise measurea by which the commorvial intercourne of both countriea luml, for nearly lanlf a century, been diverted from its naturnl channela.

It will be reoollected thint loy the act of Congress of 18:3, passed an soon us coull be after the 'lreasury cirenlar of St, rember 14, 1822 , alrouly referred to, had Ineen insued, the claim to an equality witls Gireat Britain as to duties on importations lito the colonies was reasserted, and the terms of the I'resiclent's proc. lamation of Auguxt of the mame year were athimed. Great IIritnin coold not lee induced to jield this point: ber object being to emable her to "protect the stsples of her own aubjects, by levying diseriminating dutiea on the like productions of forelga countries." With-
ont such imposts, the British government contended "that the productions of her North American colonies would be totally excluded from the markets of the Weat India Iasands, as they could not poasibly compote with Bimilar productions of the United States."

This determination, and thesn discriminating duties, led to the refual by Cangress to accopt the terms on which the ports of the Britiah colonies were opened to American trade by the act of 1825.
The conditions on which this trade was offered were not deemed admissible, inasmuch as they demanded that the commerce and navigation of Great Britain, and her ponsessions abroad; with the United States, should be placed on the footing of the most favored nation ! while discriminstions existed in such colonial possessions, not only unequal as respected Great Britain, but exclusively applicable to the commerce of the United States.

These different acts are recurred to for the purpose of elucidating more clearly the illiberal policy and narrow jealoustes which preceded the new ora in tae commercial policy of both countries, upon which they at langth entered.
In 1829, Mr. McLane, the American minister at London, in pursuance of instructions to thet effect, proposed to the British cabinet "a restoration of the trade between the United States and Grent Britniln, with special reference to her American possessions, opon a tuais of reciprocal concession, and announced the willingness of his government to accede to the terms prescríhed by the act of Parlisment of 1825."
In opening this negotiation, Mr. McLane introduced the proposition which he was authorized to submit, by referring to "the misunderstandinge and jeslousies which had hitherto characterized the commercisi relations of both countries," observing, "that it was the interest of both governments to extinguish these causes of mutual bitterness; to correct the errors which may have interrupted the harmony of their past intercourse; to discard from their commercial regulations messures of hostile monopoly; and to adopt instead a generous system of frank and amicaile conipetition." Such, in Mr. McLane's judgment, would be the happy resuit of the proposition he was irssiacted by his govemment to submit, namely, " that the government of the United States would now comply with the conditions of the act of Parliament of Jily 5, 1825, by an express law opening their ports for the admias on of British veszela, and by aliowing their entry with the same kind of British colonial produce as might be imported in American bottoms, the vessels of both countries paying the same charges; suspeuding the alien duties on British veaseln and cargoes, and abolishing the restrictions defined in the act of Congress of 1823, on the intercourse between the United States and the liritish coionies; and that auch a law shonld be immedistely foilowed by a revocation of the British orier in councif of the $\mathbf{2 7}$ th July, 1826, the aboition or suspension of all discriminating duties on American vessels in the Britiah coionial ports, and the enjoyment by the United States of the advantages of the act of Parliament of Sti July, 1825."
In submitting this proposition, Mr. McIane distinetiy declared that, "whatever mas be the dispoaition which his majesty's government may now be pleased to make of this subject, it must necessarily be final ${ }^{\prime \prime}$ " a declaration which, doubtiess, contributed momewhat to the satiofactory and liberal arrungement which soon foilowed.
In anticijation of a final and satisfactory adjustment of this queation, and, at the same time, to manifent the liberal apirit which animuted the government of the United States in its solicitude and wilingness at all timen to terminate a conteat equaliy detrimental to the cominerce of both nations, on act was passed in May, 1830, clothing the President with power, on receiving satiafuctory evidence of the willingneas of the

British government to accede to the proposition aubmitted by Mr. McLane, to lssue his prociamation ratifying the terms of that proposition, and tendering to British vessels engaged in the colonlal trade the advantages which it secured.
$\because$ On the 17th of August following; Mr. McLane was officially notified by the Earl of Aberdeen; that his government was prepared to accept the terms on which it was proposed to relax their colonial syatem, and permit a direct trade between the United States and the North American possessions, and only awaited the neceasary action on the part of that government to promulge the requiaite ordere to that end. Accordingly, on the 5th day of October following, the Preasideat, by virtue of sine authority conferred on him by the above-mentioned act, lasaed his proclamation, declaring that the act "concerning navigation," passed on the 18th day of April, 1818, the act supplementary thereto, passed on the 15th day of May; 1820, and the act entitled "An' act to regulate the commercial intercourse between the United States and certain British portn," passed on the lat day of March, 1823, were absolutely repealed ; and that the ports of the United Staten were, from the date of the proclamation, open to Britiah veesels and their cargues, from the islands, provincea, and colonies of Great Britsin, on or near the North American continent, and north-east of the United States.

These aeveral acts, it will be borne in mind, constituted the whole aystem of retaliatory measures adopted by the government of the United States, daring the continuance of the commercial controversy now brought to a closo. Corresponding orders in council were also promulged by the British government, giving full validity to the arrangement, and placing the United States on an equal footing, with respect to colonial trade, with the other nations that had complied with the act of 1825.

The commercial intercourse between the United States and the American colonial possessions was now established on a hasis, in some respects, it is true; restrictive, but still sufficiently liberal and broad to inspire with renewed energy the commercial interests of the nation, and direct them in the more equal competition on which thoy vere permitted to enter.

Nearly 50 years before this period, the policy to which Great liritain now gave her assent was auggested and urged with great earnestness by Mr. Pitt, then Chancellor of the British Exchequer. His proposition, already noticed, was to the effect that American vessels loaded with goods, the growth or produce of the United States, should be admitted to all the ports of the British dominions. Every administration, from the formstion of this govornment down to the Jear 1830, directed its best cnergies to effect a negotiation with the British government, recognizing this princiciplo; but whether from a real desire to protect and foster its own navigation and commeree, as was avowed, or to repress the spirit of commercial activity which, from the very earliest period, had characterized the United States, overy obstacle that diplomacy could create, and every sophistry that ingenuity could supply, neemed interposed whenever the question was prossed upon the attention of the British cabinet.

How disastrous this restrictive policy proved to the commorcial interests of both countries, and especially to those of the West India colonies, which naturaliy looked to the United States for the necessary supplies of subsistence, may the gathered from the tables already given. The increase of the total trade of the United States from this period may be shown as follows:

Commerea of the Unitre States.

|  | Exporis. | 1 m |
| :---: | :---: | :---: |
| 330 | 178,843,508 | \% $70,876,920$ |
| 1845. | 121,693,57T | 149,505,743 |
| 1840. | 182,085,046 | 107,141,619 |

The progreas and almest incredible augmontation of tinie trade under the new arrangement may
be seen from the following comparative atatement of imports and exports:
Orfional Value of Impozta and Expoats or taz Unitan Btatwa to and prom the Britibi Nobti Amirioan akd Wrat Impla Posarasions yor 1880 and 1840, araphetivelv; showino, also, the rronease of Tonmaor pumine that Prriod.

| colowns. | marumis. |  | mxponse, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1830. | 1240. | 1830. | 140. |
| Brit. N. Amer. posessatong. | \} 8650,808 | 1,007,767 | 4,756, 878 | *6,083,250 |
| Brit. W. Indies. | 168,579 | 1,048,165 | 1,001 | 2,965,684 |

From the foregoing table it will be seen that the aggregate trade with the British American colonies lr. creased during the period designated from $\$ 4,436,676$ to $\$ 8,601,917$, or nearly 100 per cent. ; and the incrense in the trade with the Britlah West Indies in the same period was equal to 2400 per cent.

This vart increase in the value of the trade necessarily supposes a corresponding augmentation in the amonnt of tonaage. As illustrative of the elastic and enterprising spirit of American commerce when freed from the shackles of illlberal restrictlons, and permitted a fair competition, on equal terms, in addition to the preceding table, the following statements, exhibiting the augmentation in tonnage under the new arrangement of 1830 , will prove interesting.
The average tonnage which entered in the United States from tha Britigh, Swellish, and Danish West Indies during the years speclfied was as follows:

| Is 1828. 1599, and 1880. . | Tone. <br> M8,688 |
| :---: | :---: |
| In 1832. | 114.651 |

Increase..................................... 26,018
The average tonnage which departed from the United Stater for the British, Danish, and Swedish West Indies, in the same ybars, was as follows:

| In 1889, 1839, and 1880. | 9t, 4 tis |
| :---: | :---: |
| In 1882. | 184,996 |
| Increasc. |  |

During the first period, viz., $18: 2 \kappa,{ }^{\prime} 29$, ' 30 , the principal trade to the Hritish West Indies was Indirect and circuitous; during the latter (I832), under the new arrangement, it was direct. Similar results followed the liberal polley of $1 \times 10$, in the trade of the United States with the North American colonies; and, as we are now spproaehing a new era in the commercial intercourse between the United States anil these colonies, the advent of which was announced by the repeal of the Britlsh navigation laws in IMI9, the following tables are introluced for the purpose not only of exhibiting the augmentation in that trade during the two periods, but also of indicating its probable future increase under the beneficent effect of the late reciprocity treaty.

The a verage tonnage entered into the United States from the North Anerican colonies during the years specified, is as follows:

| In 1928, 1929, and 1593. | $\begin{aligned} & \text { Tone } \\ & \text { ph. } 4.4 \end{aligned}$ |
| :---: | :---: |
| In 1**). | 182,672 |
| Increase | 66,368 |

The average tonnage departing from the Unitel States to North American possessions, the amme yeary, was as follows:


The following ls a summary of the foregolig tatilea:
Iserease of toanage entered in issy from the W. Iod. Tons. $26.0 \mathrm{t}_{\mathrm{n}}$ Inereme of tonvage from North American tossesslons ve.sibs

Increase of tonnage doparted to the Weat Indies. Tone Inerease of toanage departed to tho N. Ainer, pos... 107,978

## Total.

151,529
It will have already been percelved, from the foregolng tables, thit so soon as American commerce was llberated from the thrulldom of opprasive and prohibItory reatrictions, It at once challenged a competlition with the flags of all nations in supplying the markets of the British West India and North Amerlcan possessions, and in maintaining with thom a profitable and an extenaive trarle.

Indeed the benefits reaulting from the measures adopted In 1830, not only to the United Statea and Greut Britaln, but te the West India and other American possesslona, beenne so manifest, in the vast increase of capital, tonnage, and the value of trade, and the commercial relations between the two nations had become, year by year, so closely united in the bonds of mutual Interest and of a more enlightened policy, that it is not surprising that the Britiah nation recelved with much favor the first advance, taken by Sir Robert Peel, toward the system of free trade, whileh now conatitutes the busis of Ifritish commereial legislation, and, In lts results upon the general proaperity and wealth of that nution, fully vindicates the wladom and foresight of its distinguished author.
l'rior to 1847, American exports to the Hritish colonies were burdened with double duties-those Imposed by the British l'arliament, styled Imperial duties, and those prescribed by the local legislatures of the different colonies. The revenue derived from the former was, at all timea, Inadequute to meet the expensea of the colonial system; and, in consequence, the British civil llst was annually Increased by large appropriations for colonial purposes. The enbarrassed condition of the British finances at this period co-operated very opportunely with Sir lohert l'eel'n predilections in favor of free-trade policy, in inclining the British gov. ernment to recoive favorably hls proposition to mbandon all control over colonial tarlfis, and throw their foreign possessions on their own resources. This neasure was at once udopted; and in the season uext succeeding, the Canadian Legislature abolished the discriminating and prohibitory duties on imports inland, thua placing the mother country in the same relative position as foreign nations. The abolition of the Britiah corn-laws next succeeted in this liberal jolicy ; and, lin 1849, the crowning act of Sir llobert treel's life-the ropeal of the Lritish navigntion lawsconsumnated the aystem of ineasures introduced by that ntatesman, ao far at least as that system affected the intercourse of foreign nations with British colonies throughout the worll.

By these several acta of imperial legislation, the comprehensive princ.jple was establisherl of adimitting into Great Ilriuin, or into nuy Iritish possession, gods of any sort, lil a ship of any country, from any part of the world, subject only to nuch prohibitions and restrictions as wers deemel neceasary, either for the safety of the State, or for the protection of revenue and mercantile interests.
Uniler the class of abmolute probibitions, the fuliow. ing articles are inclinded, vla.: gunpowder, suma. nition, arms, or utensils of war, except frous the Luited Kinglom or any llritish possession, and base or counterfeit eoin. These are probilited to be imported into the Iritish jossessions in Anerica or the Mandius. Other prohibitions and restrictions will the found es juerially set forth in l'art 11., Com. Rel. U. S., 1837.

The only imports to which the commerce of the Unitel States with the colonies of Great Iritain is now sulject, are the colonial duties imposed by the lueal leg. isiatures of the respectlve colonies ; and these appo? with sume few exceptions, which aro nothed in their proper place, equally to Britlah importations and lintish bottoms. These duties are generally very under.
ate, designed solely to meet the neceassry expenses of thr colonies, snd are st least one third leas than the duties levied in the United States, on simllar descriptions of merchsndise, by the tsriff set of 1846.

We have noticed the wonderful progress and atesdy increase in the value and tonnage of American commerce with her colonial neighbors which followed the nagotiation of 1830 , and the subsequent acta and regulations of the British government. Each auccessive year brings its tribute of augmented returns snd expanding eommerce to lilustrate the wisdom and the far-seelng sagacity of those atatesmen, in both conntries, who originated this Ilberal syatem.

The commercial intercourse of the United Statea with the Weat Indies and the eastern posaesslens of Great Britain remains nnchanged since 1850 . Although this intercourse is still dependent on the regulations of the mothor conntry, as a genersl rule, the impost dutles are eqnal on all bottoms, but alight discriminatlons exiating even in favor of Britiah vessels. With the North American provinces, however-that is, with "Canada, Nowfoundiand, New Brunswlek, Nova Scotia, Prince Edward's Island, and the several ishands thereunto adjacent"-a aystem of the most llberal and unrestricted charueter has been adopted, which, to a grest extent, places commercial intercourse between the United States and those posseasions, respectively; on the footing of an unfetedred coasting trads. The Reciprocity Trenty of 1854 eatablished a fres trade between the colonies sbove named and the United States, in the principal raw staples of both countries, snd concedes to the citizens of the latter among other privileges, "the right to navigate the River St. Lawrence, and the canals in Canada, used as a mesns of communicsting between the grest lakes and the Atlantic Ocean," as well ss of "taking, curing, and drying flah of every kind on the sea-coast and shoals, and in the bays, harbors, and creeks of Canada, New Brunsv:ck, Novs Scotia, Prince Fdward's Island, and of the seversl islands thereunto adjacent, without heing restricted to any distance from the shore, with permisaion to land upon the cousts and shores of those colonles and the islands thereof, and siso upon the Msgdulen Islands, for the purpuse of drying their nets and curing their fish."
'The thirl article of this treaty provides that the articles cnumerated in tho following sehedule, belng the growth und produce of the aforesaid British colonies or of the United States, shall be admitted into each culuntry, respectively, free of duty:

Scheclute,-Grain, flour, and brenulstuffs of all kinds; onimals of all kinils; fresh, amoked, and salted meats; cotton, wool, seeds, and vegetables; undried fruits, dried fruits; fishof all kinds ; products of fish, and of all other creatures living in the water; poultry, eggs; hitles, furs, 6 kins , or tails, undressed; atone or marlle in its crude or unwrought atste; slate; butter, cheese, tallow; lard, horns, manure; ores of metals of all kinils; coal ; pitch, tur, turpentine, ushes; timber and lumber of ail kinds, round, hewed, and aswed, unmanriactured, in whole, or in part ; fire-wood; plants, sirubls, and trees; pelts, wool ; flsh-oil ; rice, broom-corn, and bark; gypsum, ground or unground; hewn or wrought or unwrought burr or grindstones; dyestuffs ; flax, hemp, and tow, unmanufactured; unmanufacturel tobiseco; rags.

Articies of manufacture, it will be perceived, are not einbraced in the shovo schedule; indeed, these possessions, being abandoned by the Itritish Treasury, by the act of 1847, already referred to, are nnw vompelled to support themselves; and their tariff rin manufactured articles is the principal sonree of reveaue on which they must depend to meet their heavy loans and support their reepective governments.

The same tonnage duties are payable upon ships or boats of the United States of America importing goods into Upper or Lower Canada, as are or may be payable
at the same time In the United Statea of America on British crsft entering the harbors of the State from which such goods ahisll have been imported. (17 and 18 Viet., chap. exxil., sec. 178.)

The following comparative tables exhlbit the value of trade between the United States and British Nurth American possessions during the years 1851, '62, '58, '64, '55. A reference to tables slresdy given will show how lsrgely the totals since 1850 exceed those prior to that pariod. The figures sre taken from the United States' Treasury reports on "Commerce and Navigation."
Exports from Canada In 1851.
87,029,140
Exports to other British American pos.
sesslon. . . . . . . . . . . . . . . . . . . . . ......., 4,086,783
Totai. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Imports from Canada in 186 ..........
Imports from other British American
14,956,471
possesslona.
1,736,651
Total.
6,009,122
Balance of trade in favor of the Uni-

Total trade between the United States and Brit. Jah North Amcrican possessions In 1851........

18,708,045
Exports to Canada in 1852........... 88,717,000
Exports to other 13ritish North Amer-
tean colonley. ......................... 8,791,968

## Total.

..........
Importa from Canada in $1852 \ldots . . . .$. . $4,689,969$ Imports from other North American
possessions.......................... . $\mathbf{1 , 5 2 0 , 3 8 0}$

Total.
$10,500,016$

Balanee of trade In fuvor of tho Ual-
ted States in 1852................. $84,398,717$
Total trado between the Uuited Statea and BritIath North American possessions in $1852 . . . .$. Exporta to Canada in 1853. .......... 87,829,099 Exports to other Britlsh North Amer5,311,543

Total.


Imports from Canada In 1853........ $\frac{85,278,116}{}$ Itnports from other British American
colionies.............................. 2,272,802

## Total.

Bniance of trade In favor of the Unl-
ted States in 1853................... $5,589,024$
Total trade between the United Btates and Brittah North American possesulons tn 1853........
Exports to Canada in 1854........... $817,300,700$ Fxports to other Britiah American
colonica............................... 7,266,154
Total........................................
Importa from Canada in $1854 \ldots \ldots$. $\$ 0,721,039$
Importa from other Britiuh American
colonies.
2,206,021
Total.
$\mathbf{3 , 9 3 7 , 5 0 0}$
Balanee of trade in favor of the Unl-
ted States in $1854 . . . . . . . . . . . . . . .$. . $15,639,900$
Total trade between the Linited Statea and British North Americas possessions in 1854......
Exporta to Canada in $185 \ldots \ldots \ldots .$. Fxporta to othar Britidi Americad cotonies.............................. $9,085,076$

## Totnl.

Imports from Canada in $18 \%$........ $12,182,314$
Itoporta from odier lritish North
Amerjcan posвевsіопа. . . . . . ......... 2,954,420

> Totai.

15,136,734
Balance of trade in favor of the UnI-
ted States in 1555................... . 12,669,286
Total trade hutween the United Btates and Britlish North American possesslous in $1855 .$.
Total trade in 1851.
(12,942,754
in iso ......................................
Ivcrease in total trade from 1851 to 1855.
18,708,045
42,942,754

General Remarlis on the Commervial Relations of the Urited States wilh the Brifish Coloniesi-Camada,-The following atatement exhibits the coudition of trade between the United Statem and Canada; the deseripslon, amonnt, and vilue of the principal imports and axporto, the balance in favor of elther conntry, etd., during the yoars 1851, 1852, and 1853, together with oertain eommercial regulations in force at the different ports in the province of Canade. The figuren are taken from the Canadian official reports on "Trade and Navigation." The fuet that the firesal yaar in these reports ends in December, whlle that in the United States' Treasury reporte onds in June, will account for the apparent digeropaney between thin statemant and the general one which has immediately preceded.

Imponse fage Canada in 1851.

Tanned leather, ofl, papef, ment-pork, rice, candies, eotton and leashor manufactures, manufuctores of India-rubber, froce and hardwara, machtnery, and wool...
Broom-corn, burr-atonca, coale, bidien, tailo.......... other
sooticles, cotion-wo......................................... ratua, eetllers' gooda, wheat (and inclusding \$5s7,000 is bullion)

Total.
Total exports.
Total imperts
Balance in favor of the linited states.
Total of importa into Canade from Great Britain ia 1851, ia round numbers.

4,108,040
645,590
1,384,028
$\frac{89,363,751}{88,363,75!}$
4,071,534
24,292,917 The mame from the United Statee.
$12,000,000$
Dfference agalnat the United statea...... $\overline{8,000,000}$
Imports into Claneda from all countrien in 1851 , in round numbers.
$91,000,000$
Difference between the ralne of imports Into Can-
ada from the Untled States, and from ell other eountrien.
From the foregoing it wlll le porceived that ports into Canada from the United States, in 1851, were only ona third leas than those from Great Britain, and neariy two fifths of the whole imports from all other countries.

Produee of the mines.
42,150
10, 289
Produce of the eeas.
Anlmalo, and their produce
Vegetable food.
$F$ thx, and other meed.
Mannfietursis
Other articles

## Exposti in 1592.

Principal Articles.-Coffee, sugar, molassea, tea, tobaceo (manufictured and unmanufactured), Thlaky, wine, and nalt.
Frulte and apiece.
22,225,112
91,372
49,732
 ports, riee, candiem, manufaotures of coiton, Wether, Iron, wood, sill, Indie.rubber, Iron and hardware, wood articleः (unenumerated), and madries.

4,413,509

Broom-cora, burretrosem, ecale, soltw-gara, fiaz, Booka, cotton-wool, Indtan corn, settiors. poods,

1789,216 Bookg cotton-wool, In

804,090
, Total .......................................... 8 8,418,602
tof - Total exporta. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8, 418,609
Total lwherte. .... . . . . . . . . . . . . . . . . . . . . . . . ....... . 8,284,512
-) min balauce in fiver of the Usited 8tates...... \$2,180,180
Total value of Imports tuto Canedé from Great Britain in 1809 , in roubd sumbers.............. $10,000,000$
The amme from the United states................. $8,000,000$
Difference betiveen tha vilue of Importa from Great Britailu and from the Uaited Btatali.....
Imports into Canada from sll natioua in 1809, in
round aumbers . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $820,000,000$ of which from the United States.................... 8, 8,600,000
Difterence belween the value of Importa into Can-
ada, from the Uulted Btatee, and from all other
conntries. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11,800,000
Thn preceding tahlos will ghow, that in 1852 the United States almost uqnaled Great Britain in har cr. ports to Canada, and fumished more than two fiftha of the whole imports into that province.

Iyronts in 1858.

| Pro | 75,596 |
| :---: | :---: |
| Produce of the sea | 78,44 |
| Produce of tha fore | 2,610,170 |
| Anlunals and produe | 1,046,852 |
| Vegetabla fond | 4,879,444 |
| Other aprleuitural | 98,786 |
| Manafactures. | 107,8*2 |
| 0 | 49,820 |
| Total. | 8,986,890 |

Exports in 1859.
Description of merchandise the samo as for 1851 and 1802 -total value.

111,782,148
Tutal oxporta............................. $11,782,149$
Halance in fivor of the U. Staten in 1859... $82,845,788$
Total valua of imports into Canaidn from Great
Britaln, in 1858
18,489,190
Eame from the United States..................................... 11,782,148

## Difference.

Imports into Canaia, from all nations, in 1858, In round numbert 82,000,000 Of whlch, from the Ünited siates....................... 11,is\&,48

## Difference.

480,217,859
Importa into Canada, in 1853, were unusually heavy, exceading those of the preceding year $\$ 12,000,000$. Tha talien will shuw that Great Britain supplied nore than one half of the whole; while the exports from tha United Stutes, though exceediug those of the preceding year upward of $\$ 3,000,000$, did not maintaln, with reapect to Great Britain, the ratio of 18 jiz .
I mports from Canada up to soth June, 1854 (ac-
coriling to the Unlted States' Treasury report).
10,721,539 Exports to same dato.

17,800,706
Exhlbiling a balance in faver of the U. States of. . $10,574,167$
Before closing these remarks, it in proper to olserve that the preceding tables and calculations have beea prepared with much care, with a view to furnish accurate data in eatimating the benofits aeoured to Ainerican commaree by the Reciprocity Treaty of 1854, Tha atatement oxhibiting the value of imports from, and exports to Canada, for 1855, when compared with these tablex, will demonstrate the wisdon aud policy of that measure. - U. S. Com, Kelations.

Summary of the Regulutions in Force at the Different Ports in Cumada.-Marchandise ahall not be unladen, except after due entry, at places designated for that purpose, under penality of forfeiture.

Merchandise ahall not be brought or imported into the province, whether by sea, land, coantwise, or by inlaud navigation, whether dutiable or not, except into nome port or place at which a custom-honse is, or may
nel und that sur as zecur applies, province Other frontier the office no gener omitted.

Mnat
favor of
Сомивас

Sept. 80
9 mos
June 30,

June 80,

British cated by United St not withat © $6,000,00$ aggregate followa, $f$

Domentio
the Gant
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Domestia
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Total
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Provinc
The to
years, ar
sel and gonds, if under the value of $\$ 1000$; If above ombraced in the third articie (" sechedule") of the Rethat som, then tha vestel and goods ahall be retained as accurity for the payment of that amount. This appliet, mutatis mutandis, to goude brought inte the province, by land, in carriages or other vehiclen.
Other regulations have reference, principaily, to frontier amaggling, and to the duties and powers of the offlcers charged with its provention. They convey no general commercial information, and are, therefore, omitted.
Most of the articlen on which a diecrimination in favor of importations fiom Great Britain exists, ars
 1856; imoldpina Canada to Jume so, 1848

| Yoan onding | Keportm, |  |  | Importa, | Whersof there was In Bulition und Spoele. |  | Tonmage Claarwi. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestle, | Forelgn. | Total. | Total. | Exported. | Imported. | Asmerlean. | Porelya. |
| Bept. 80, 1821......... | 62,421,449 | 12819 | 3,024,261 | 6491,628 |  | 189,417 | 118,097 |  |
| Deptum 1829 | 1,881,278 | 16,286 | 1,877,549 | 626,817 |  | 159,225 | 00,97t |  |
| 182s......... | 1,818,118 | 8,847 | 1,821,4m0 | 468,874 |  | 919,745 | 52,776 | 12083 |
| 1894........ | 1,778,107 | 8,817 | 1,775,724 | 708,031 |  | 298,840 | 88,961 | 9,180 |
| 1825......... | 9,688,224. | 1,740 | 2,0899,964 | 610,788 |  | 818,896 | 61,520 | 10,189 |
| 1826. | 2,584, 165 | 24,884 | 2,688, 549 | 650,815 | \% 462,250 | 221,904 | 70,191 | 10,106 |
| 1897. | 2,797,014 | 88,660 | 2,890,074 | 445,118 | 1,081,291 | 184,607 | 60878 | 11,145. |
| 1898. | 1,618,288 | 06,886 | 1,674, 674 | 447,660 | 126,77\% | 179,944 | 68801 | - 10,658 |
| 1899......... | 2,724,104 | 40,805 | $2,784,909$ | 577,542 | 626,253 | 241,287 | $88,645$ | $\begin{aligned} & 10.609 \\ & 14.467 \end{aligned}$ |
| 1880......... | 8,650,081 | 186,842 | 8,788,873 | 650,308 | 128,821 | 252,279 | 117,171 | 14,267 |
| Tate | 888,885,768 | 8818,879 | $\sqrt{32,704,147}$ | (5,469,485 | \$2,364,887 | 2,085,088 | 789,607 | 88,089 |
| Scpt. 80, 1881........ | 4,028,892 | (88,448 | 4,4,01,888 | 8804,909 | -25,900 | \%277,197 | 79,864 | $94776$ |
| 1882......... | 8,469,902 | 4.4,083 | 8,614,885 | 1,229,526 | 16,981 | 042,745 | 65,056 | $146,292$ |
| 1888. | 4,890,081 | 61,009 | 4,471.084 | 1,708,898 | 14,704 | 817.880 | 210.418 | 945,779 |
| 1884......... | 8,477,709 | 87,067 | 8,585,276 | 1,048,788 | 400,600. | 652,258 | 195,989 | $888,1 e 0$ |
| 1885........ | 8,000,545 | 147,848 | 4,047,888 | 1,485,108 | 688788 | : 197,400 | 868.689 | 115,406 |
| 1836. | 2,454,415 | 104,851 | 2,651,266 | 9,427,571 | 82,238 | 046,474 | 291,981 | 492191 |
| 1897 | 2,929,474 | 296,512 | 8,218,986 | 2,859,268 | 160,000 | 44,602 | 888,284 | 440,009 |
| 1888......... | 2,484,987 | 288,604 | 2,728,491 | 1,005.570 | 420,209 | 450,712 | 251,280 | 888,150 |
| 1899......... | 3,418,770 | 144,684 | 8,568,454 | 2,155,146 | 18,800 | 491,788 | 885,506 | 878.778 |
| 1840........ | 5,889,215 | 904,035 | 6,098,250 | 9,007,767 | 11,500 | 780,171 | 857,078 | 401,405 |
|  | 86,080,890 | 61,445,028 | 187,980,918 | (17,877,046 | 1,746,144 | (6,145,216 | 2,601,874 | 8,288,290 |
| Sept. 80, 1841........ | 16,992,990 | 884,278 | 16,656,568 | -1,963,187 | 108, | -478,891 | 2 | 44.986 |
| 1848........ | 6,960,148 | 240,108 | 6,190,809 | 1,762,001 | 89,076 | 763,099 | 898,815 | 417,409 |
| 9 mns 1848. | 9,017,005 | 107.417 | 2,724,482 | 857.096 | 86,884 | 409, 545 | 202,607 | 288,092 |
| June 30, 1844......... | 8,861,186 | 1,854,717 | 6,715,903 | 1,465,715 | 711,244 | 445,095 | 6966,865 | 816,281 |
| 1815........ | 4,944,968 | 1,209,260 | 6,054,226 | 2,020,065 | 489,095 | 914,461 | 677,985 | 012,004 |
| 1846. | 6,042,666 | 1,368,767 | 7,406,498 | 1,987,717 | 251,900 | 628,048 | 868,568 | 578,678 |
| 1847. | 5,819,667 | 2,165,876 | 7,065,543 | 2,848,927 | 480,275 | 868,431 | 657,605 | 628,815 |
| 1848. | 6,890,959 | 1,052,696 | 8,882,085 | 8,040,487 | 555,900 | 960,149 | 809,791 | 881,971 |
| 1849......... | 8,611,788 | 257.760 | $8,969,548$ | 1,845,798 |  | 47,090 | 122,041 | 409,877 |
| 1850........ | 8,116,840 | 601,874 | 8,618,214 | 1,958,532 | 88,044 | 88,698 | 75,208 | 021,112 |
| Tosal | +50,056,505 | 6, 5,47,806 | 60,608,811 | -18,706,565 | 4, $2,864,968$ | 75,040,726 | 4,584,077 | 4,980,690 |
| June 80, 1851 | 18,294,858 | 1801,280 | 44,085,783 | 1,786,801 | 180 | 44677. | 108.895 | 892,607 |
| 1852......... | 2,650,184 | 1,181,822 | 8,791,956 | 1.520.880 | 112.688 | \$8885 | 128,809 | 644,518 |
| 1858........ | 8,898,575 | 1,912,968 | 5,811,548 | 2,272,002 | 200, 221 | 88,940 | 266,481 | 688,465 |
| 1854. | 4,698,771 | 2,578,893 | 7,206,154 | 2,906,021 | 48,976 | 68,148 | 295,781 | 687,809 |
| 1850. ....... | 8,850,878 | 8,229,798 | $0,005,676$ | 9,934,480 | 64,219 | 18,418 | 276683 | 409,893 |
| 1850......... | 7.510,900 | 626,190 | 8,146,108 | 8,622,224 | 4,000 | 83,807 | 826,64T | 471,871 |

British Provinces,-Under the impetus communieated by the Treaty of Reciprocity, the trade of the United States with the Canadas has greatly increased, notwithstanding the formidable diminution of nearly $8,000,000$ in our exportation of foreign goods. The aggregates for the laet two years we have arranged as followe, for purposea of comparison :

|  | 1885. | 1858. |
| :---: | :---: | :---: |
| Dornestle produce exported to $\}$ the Canades. | 10,950,764 | -15,104,783 |
| Forelgn goods............... | 8,709,580 | 5,688,453 |
| Domestlo proluce exported to $\}$ the Tower Provinces | 5,805,878 | 7,019,909 |
| Porelgn guods ...................... | 8,999,799 | 626,199 |
| Imports from tho Canad | 12,182,814 | 17,488,187 |
| Imports from the Lower Pravínces | 2,011,420 | 3,822,224 |
| Total trale. | (12,989,754 | (30,839,730 |
| Total trade with the Canailas..... | 630,909,658 | 638,871,438 |
| Total trade wilh the Lower Pravinces. | 819,087,009 | 811,908,832 |

The total aggregates of trade dering the last five yeary, are as follows:


The chief articles of export and their values were for 1855 and 1856:

|  | 1885. | 1856. |
| :---: | :---: | :---: |
| O11, soap, and candlos. | \%217,000 | 8880.000 |
| Flsh | 20,000 | 44,000 |
| Manufaotures of wood. | 800,000 | 230,000 |
| Naval etoree............... | 100,000 | 167,000 |
| $\left.\begin{array}{r}\text { Beef, pork, bacon, lard, tallow } \\ \text { and hides.,.............. }\end{array}\right\}$ | 857,000 | 4,528,000 |
| Ilorses., | 48,000 | 108,000 |
| Wheat, flour, and cors | 1,568,000 | 1,769,000 |
| Rlce. | 45,000 | 52,000 |
| Tobacoo and st | 423,000 | F19,000 |
| Whisky. | 187,010 | 290,000: |
| Molassce | 87,000 | 140,000 |
| Fornitu | 182,000 | 823,000 |
| Hats. | 100,000 | 116,000 |
| Shoes and leathe | 289,000 | 804,000 |
| Glase | 65,000 | 114,000 |
| Books and paper | 94,000 | 148,000 |
| Salt. . | 159,000 | 808,000 |
| Manufactaren of cotto | 470,000 | 914,000 |
| Coal. | 960,000 820,000 | $1,517,000$ 408,000 |

The most netable increase, it will be observed, hae taken place in animal products. For more axtended information about Great Britain, see Enoland, Ireland, ard Scotland. Also Coloniks, Cotton, and Fiahknies.

Creat Cirole Bailinc; the manner of conduct lig a ship In, or rather pretty near, the are of a great circle that passes through the senith of the two places, via.: from whonce she carae, and to which she is bound.

Creeoe. The continent of Greece, Including Albanis and Macedonla, ls nearly shnt in on the north by a cbaln of mountalna known anclently by the namea of Rhodope, Scomius, and Orbelus; it ls bounded on the west hy the Adriatle and Ionlan Seas, on the sonth by the Mediterranean, and on the eaet by th Cigean Sea, or Archlpelago. It extende from $86^{\circ} 10^{\prime}$ to $42^{\circ}$ $40^{\prime}$ of north latitude ? and from $19^{\circ} 45^{\prime}$ to $24^{\circ} 40^{\prime}$ of east longitude from london. Its length, from Cape Matapan to Mount Orbelus, or Argentaro, la 460 English milles Its greatest breadth from Durazzo to Cavale, at the foot of Mount Pangeus (a branch of Rhodope), $\mathbf{2 3 5}$ mlles ; and it embraces an area of 57 ,750 square mlles, exclusive of all lts islande except Bubcea. But, as our fleas of the extent of the country have always a reference to those ancient Stated which comprised but very minute portions of its surface, it is necessary that its dimensions should be deseribed more in detail.
The country recognised as Greece before the rise of the Macedonian power, comprehended the Norea or Pelononnesus, Attica, Eubrea, Beotia, Phocis, Doria, Aitolia, Acarnania, Theasaly, and Magneala; and oven teveral of the Statea Included within these limitn had little or no share in those aplendid actions which have shed so much glory over the country. The surface of Peloponnesus, which Included seven different Stutes, is about 9000 English square miles; that of the countries just named, without the peninsula, including Fubes, is 14,800 ; and heth together smount to 23,800 aquare miles-an extent of surface not exceeding two fifthe of England, or one fifth of the IritIsh Isles. If to this we add 16,000 square miles for Albania or Epiris (including the basin of the Irino), 18,000 for Macedonla, and 1000 for the Cyclades, the whole surface of Greece and its lslands will be 58,800 square miles, which is almost exactly the area of England. Whlle Greece preserved Its Independence, however, all these territoriea were never united lnto one lody politle, nor was their confederated force ever appliad to the prosecution of any common enterprise. The communlties whose warlike achievementa and brilliant career In arts and philusophy raised the Grecian name so high, occupied but very minute portiona of the country ; as the following table dcduced from measuremente will show:

Fing. *q. miles.
Attiea tacladiag Megaris and Salamls, bat not Eubura. 1,190 Bientis.
Laconis (without Messenta)
Achala (the twelve cttes with thetr territorice. $\qquad$ many colonies in the Cuclades 'Thrice, and ather parta ; and Sparta helil Sessenia long in suljection; bnt, In great strugglen, these colonies and deprendenclen often shook off their allegiance, and the parent State was olliged to rely on its own resonrces. Such was the energy of these small communitiex, that Attica, which scarcely upports, at present, a pupulation of 50,000 souls, sent out sometimes colonies of $\mathbf{1 0 , 0 0 0}$ men at once (Diod. Sic., lib. II.); and Sparta furnished $\mathbf{8 0 , 0 0 0}$ soldiers to fight the l'ersians at llatiea. The territorics of Corinth, when whe farmed a separate State were much smaller than any of these; her wealth and power depending chiefly on commeren.

Greece forms a long and rather narrow peninsula, aingularly iodented on three sides ly arms of the sea, and having a greater jroportion of its surface oceupied by mountalas than any other country in Juroje of equal extent, except Switzeriand. It has been justly obeerved, that those phyaical features which distingaish Europe from the uther quarters of the world belong, in a peculiar manuer, to Greece, and distin-
guish It In the same proportion from the other parts of Europe. Of these urms of the sea, the most conniderable are the Gulfs of Contessa, Salonica, Volo, Eigina, and Nauplin, on the east ; those of Kolokythis and Coron on the South; and those of Lepanto and Arta on the west. Of the mountalns, the first in orier are those which pass along the northern frantior. Mount Argentaro, the ancient Orbelus, placed at the northern extremity of Greece, near the 4 Sd degree of latitude, may be considered as the centre of the whole aystem of mountains In Europenn Turkey.
-Money.-The drachm, which ls the unit of the currency, is about 8 id. English money. It is divided into 100 equal parts culled lepta. There are copper colins of $10,5,2$, and 1 lepta, the only (ireek money thut circulates in the country. The nilver coins of 80 and 25 lepta have been multed down or exported. These of 1 drachm are very rare. Those of 5 trachins are now only to be found in Turkey. The gold pieces of 20 drachms, called othos, alao have ilsappeared.

Weighte and Measures.-A very complete scale of welghts and measures was established by the government in 1836 ; but the people adhere for measire of length to the plque $=27$ inches. Then for welghtthe principal one known, even in the capital, is the oke, a Turkish welght equal to $2 \mathrm{lbs}, 12$ oz., which is divided Into 100 drania 18 Eng. dranus, The cantaar or quintal la generally 4.1 okes $=121 \mathrm{Jbs}$. The kllo or quilot of corn is 22 okes, or 60 lbs . The land measure le the strema equal to about one fourth of an English acre.

Cultieated Iamel.-It appears that not half the aurface is susceptible of cultivation; and at least two thinls of the cultivated, and four fiftha of the uncultivnted soil helong to the State. One great dismdvantage to agriculture la the scanty supply of runuing water; but the peasants arovery dexterous at taklng advantage of the smallent rill to lrrigate their tillage. Money rent is little known; the lands being farmed on the metuyer system, accorling to which the landlord receives a certain proportion of the net produce-usually a third. Ile has frequently to furnlsh the seed, and sometlmes the oxen for tillage, the cost of which, with high interest, ia deducted from the profits lefore nny division is made. On this system, there is little inducement for the proprietor to expenil cupital on improvemeuts ; atill less is there for the metayer, who has no interest in the land beyond the season. Consetuently, inclosure and drainaje are scarcely thought of; and the stones having never been remozel, lie so thick together that in nome places it ls scarcely eredible that they can have nccumulated naturally. The dwelings of the peasants are extremely poor, conslating of atonen und fragments of tile and pottery beld togetier l,y mud. Glass casements are rare even in provincial towns; and in the country cottagea the liglit is most frequently admitted only by the door-way.

Productions.-The arable soil of Greece ls devoted chiefly to the cultivation of corn, vines, mulberrytrees, and fruit trees. Wheat, rye, harley, anil maize, succed pretty well in the stony districts where the moll is but a few inches doep. Oats render but a middling crop, and the potato is quite unsultable. Itut the legumina krow well, and rice might he raised on the wet mils. In many parts of the country cakes of malae flour form the staple article of food. (See Eary. Brit.) At the head of all the agricultural proluctions for exportation are the Corinth grapes, which we corruptiy call currants, and whlch are cultivated from the isthmus to Arcadia, alongy wlmost all the northern und western shores of the Morea. This frult is ot a violet color, and hangs in long loose bunches. They are gathered at the aame time nu ather grapes, dried in the aun, und packed. Very few of then are uaed in tircece, few anywhere except in Eingland. The cunnequence of this ls , that the effect of raising a large crop ls merely to luwer the price in the London mar.
ket;
plum-
Greece
haustll succees of San The Ill port $f 2$ fermen and un and ver rosin ls firat ex natives and Sp it whith
Next mulberr every m affords branch ally, and for it, at in purt spawno. and the plied wit The coc the worm resided is workmen the morle advanced firm and and incre ries have cess. ( F Moniteur pays a $h$ silk in th prize.

The oli the trees and scem fruit. G many pe oliven, int tracted in run into c of it in th and a gre but still t Cotton su the plain an impor consumpt well in $t$ to be of in It la culti

The cu branch of generuted pomegran
First a tioned va Agilopss, the oeigh also in At acorn isa ing, and if aly. Anot monly ca Taygetus the proce ance of a which, if upon it a
ket; whereas, If France, Amerlea, and Russla, nsed plum-puddings to the eame extent as the Eaglish, Greece would have had in thls one article an Inexhaustible sonrce of revenue. All kinds of grapes succeed weil, and the best vintage is that of the laland of Santorin, where above 60 varieties are reckonel. The Rusalans are very fond of Sentorin wine, and import $£ 20,000$ worth yearly. The art of expressing and fermenting the juice of the grape is quite in Its infancy ; and unfortunately the (ireeks have no wine-eellara, and very few easks. The wine is kept in sklng, and rosin is put into it to keep it from epoiling. It is at first exceedingly dleagreeable to the taste; but the nativea prefer It to the cholcest heverages of France and Spain; and even foreignera become reconciled to it with nse.

Next to the vineyards as a sonirce of revenue are the muiberry plantations. There is demand for silk in every market in the world, and the climate of Greere affords facilitiea for an unlimiterl extension of this branch of Industry. The south of the Morea generally, and all the lslands of the Figean Sea, are adapted for it, and here the house of almost every peasant is in part glven up to the rearing of the worm. The spawn or eggs are nestled in the bosoms of the women; and the worms hatched in spring are abunilantly supplied with the yofing mulberry leaves then shooting. The cocoons are placed in the sun, and the heat kills the worms. In 1836 some Greek merchante, who had resided in the silk districts of Italy, Introduced Italisn workmen with their families into the Mores, to improve the mode of winding ; and a fow years have greatly sivnnced this braveh of industry and placed it on a firm and extensive hasis, giving pronise of a lucratlve and increasing trade. Two silk-throwing manufactories have been established at Ather. 3 with great success. (For Purther particulars see Vincy. Brit.) The Moniteur of Parls of 16 th and 17 th October, 1855, pays a high compllment to the quality of the Greek silk In the Paris Exhibition, which gainel the first prize.

The olive next elaims attention. Being luligenous, the trees are found in a wild state in every direction, and seen only to require grafting to yield excellent fruit. Grafted olive-trees are very namerons; and many people live all the year round on little but olives, indifferently pickied in torine. The oil ts extracted in the rudest manner, after which it is either run into cisterns or jars. There is a large cousumption of it in the country, nothing else being used for light, and a great deal belng consumed in food and cookery; but still there remalns a good quantity for exportation. Cotton succeeds well wherever it is sown, eapecially in the plain of Argos, and in the islands. It doee not form an important Item in the exports, owing to the large consumption of it in the country. Maduter thrives well in the northern districts. Greek tobacco is suld to be of good quality, and to have a delicious perfune. It is cultivated at little expense.

The cultivation of fruit trees might be a profitable branch of industry. The figs of Attica have not degenerated since the olden time; the apricote, the pomegranates, oranges, and lemons are delicioas.

First anung its natural productions may be mentioned valonia, the cup of the acorn of the Quercus Eigilopa, an oak, of which considerable forests axiat in the neightorhood of Marathonisi, Cape Papa, Arcadia; also in Attica, the island of Zéa snd other places. The acorn is a powerful astringent, used in tanning und dyeing, und for this purpose is shipped for Englandand Italy. Another species of oak-the Quercus coccifera, commonly called galls-grows in great quantities on Mount Taygetus, and breeds the insect known as kermes. In the process of drying the insect 'assumes the appearance of a amall brittle berry partly filled with powder, which, from time immemorial, has cansed some to look upon it as the berry of the plant, while others consid-
ered it to be a awelling caused by the puncture of a partlcular kind of fly. It is used in dyeing the red Tunla cape both of the Grveks and Turks, and a good deal is exported to Tunis and Alexandria. The dried leavea of the lentisk, also, under the name of Z Xotvó фuryov, are used by the tanners la Greeee and the Levant. Turpentine la obtalned in large quantitlea from the pine foreate of Mount Clthwron and other districts.

Notwithstanding the immense clearances made by the ravagea of war and other causes, Greece containg $2,800,000$ aeres of forest, filled with timber treea of the best quality' yet wood is bought abroad for house and ship-building, as for want of roads these forests can not be worked. The shepherds make a practice of setting fire to the coppice woods, in order that their fiocks may find aome tender aprouts to crop in spring. It is not unuausl in the neighborhood of Athens to find large black patches covering half a square leagua; and if an explanation be required, the answer is, "Only a shepherd who has been making pasturage for his sheep."

The principal places of trade are Syra, Patras, Plreus, Kalumnta, and Nauplia. The trade of Patras is chiefly Import; Ilydra, Spezzia, and Gulaxidl, come more properly under the denomination of ship-owning ports. The exports a.d chiefly the artleles we have enumerated, with others of minor Importance; the imports are chiefiy iron-ware and woven fabrics ; besidea coffee, sugar, and spices.

The carrying trade is very considerable, especially anong the islands. Some of the Greek vessels are hetween 600 and $\mathbf{0 0 0}$ tons register, and a good many from 300 to 400 tons; but the great majority of them are boats of six or seven tons, having a large hatch in mid-ships. (See Ency. Brit.) It is customary for a ship-owner to bargain with a captain and crew, taking up a certain sum at interest, generally secured on bottomry lond; with this money a carge is purchased on the ship's accomit, and the prolit is divided between the vessel and the crew, the latter sharing among themselves according to their special agreements. In this way the Girecks carry on exteasive speculations In corn whenever bad harvests or other circumstances present openings in the ports of Turkey, Italy, Spain, or France. Hesides this, they export tha various productions of Turkey, Greece, Ebypt, Persia, and soathern Rusaia, to London, Marseilles, end Trieste. The great advantage which the Greeks have over foreigners in jrosecuting this trade is that of having relations and connections in the interior on whom they can rely for the collection of small parcels; and thus they avold the impositions of agents and the profits of middlemen. The Greek trader desplses nothing, and wilt gaticer $n$ few bags of rags, or a ton or two of bones and horns, while he is chartering 50 vessels to load with corn and tallow. Then the same vessels supply Turkey, Persia, and Greece with the manufactures of England and Germany. The extenslve Greek establishments at Manchester for purchasing, examining, and packing goods, attest the importance of this branch of commerce. They have almost quite superseded the English traders here, chlefly from their thorongh knowlerge of the countries to be supplied, and their readincss to execute the smallest as well us the largest conmissions for the shopkeepers of the East. The Greek traler slips in everywhere, neglects no business, distains no expedient, and changes his flag as often ns he inds it his interest to do so.

The Greek goverament does notling for maritime trade. There is but one light-house on the coasts ; and, not withstanding the shipwrecks that are recorded every whater, the ministers turn a deaf ear to the appeals of the mariners. A slmillar neglect is shown concerning the means of internal communication. There are only seven roads, amounting in all to a length of 30 leagues, and thia is in a country where
thu State owns more than halr the land, where ovicslons are easily effected, and whore the peamants are willing to lend thelr hands for works of publio utility. There it no highway from Athena to Sparta, or to Coriuth, or to Patrus, which, owing to the trade in currants, is becoming the commerelal capital.
The banking and exchange operationa form perhaps the moat remarkable part of the commercial ayatem. The national bank was founded at Athens in 1842, the capital being in the first instance fixed at $5,000,000$ drachms. Branchen have alnce been opened at Syra and Patras. The exchange operation throughout the country are ruled ehlefly by the transactions at Athens, where bills a Londun, Paria, Maneilles, Trieste, etc., are negotinted with fuclilty. The most sarious hinderance to the progress of indastry in Greece is the high rate of interest. The legal rate is 10 per cent. for onilnary loans, and 12 per cent. in commerelal business. High as this 1 s , most of the loans are effeeted at atlll higher rates; and the governinent can not suppress the naury. From a atstement inserted in the Spectateur de COrier ' of Athens, it appears that the bank has paid interest to the sharebolders, from 1849-64, at $8 \frac{1}{4}$ to 91 per cent. per annum ; that Its capttal amounts now to $6,000,000$ drachms, and a reserve fund of 400,000 druchms to provide againat emersen-cies.-F. B.
The manufactures of Greece are few and slinple, tue value of the raw material theing little enhanced by the lator; yet the peasantry are entirely clothed in cotton and woolen fabiries of thelr owi. manufacture. The papotes, not only of the fireeks, but of the whole inaritlme population of the Mediterranean, are made of a wolien atoff, the peculifr manufacture of the Wallachs ; and Kalamata is fnmous for a sllk ganee, bighly prized in the Fast for bed-curtains. Eintroilery in gold, ailver, silk, and cotton, is brought to great perfection ; and marble-rutting and aenipturing have made great progrens. At the great loudon Exhlbition of 1851, the emtiroldered dresses in red and gold, and in blue and silvor, were highly praised. The san.ples of marbles were not in a condition of manufacture to da mand moch notice as apeciajens of industry. Commendntory mention is made, in the report, of lithographic stonen from Measina, , amples of ateatite (the French chalk of commeice), of a fine natural cen ent of puzacolan, of varieties of flexilile apouge, and some other objectr. In the Iondon Ext.llition of 185!, only four mednls were given for varions productions of art and manafacture irom tireece.

The following statistice show that the prugress which the tireek nation has made is lifghly creditable, thugh at the ame thine showling that the productire powers of Greece are not fully develnjed.


## t'atthe

| Sheep and grota. . . $0,610.90$ | Mules. | 3) (600) |
| :---: | :---: | :---: |
| Oxam.............. 101, \%hw | Aases. | 7,0(0) |
| Buttaloes . . . . . . . 2.160 |  |  |
| Tiorses. . . . . . . . . . . $\boldsymbol{\$ 0 , 0 0 0}$ | Potal. | 4,899,000 |
| Proptres. |  |  |
|  | $0 \\| I .$ | Otes. <br> 1.8101000 |
| Barley ....... .... 1,284, wn \| | Wine. | 14,200,000 |
| Indisa carn. . . . . . 2, \%th, 060 | Silk. |  |
| Maize. . . . 251,900 | Currants |  |
| Oets is other kinds | Vslomix | 14,907 |
|  | Woel | 1, $3 \times 14,0 \times 0$ |
| Tetal. . . . . . . . . 4,262,000 | Total.... | 79,844, 000 |




Thia proves not only an lacrease of production, hut also an inuprovement in the quality; for, though the quantlty has neari's doubied siace 1851, instead of reducing the prlce, Gre $3 k$ silks are 50 per cent. dearer.

| 8,-Commrn ctal Navy of Gramer. . |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Venole. | Tava | Veacher | Tan |
| $1891 .$. | ${ }^{440}$ | 61,449 | 1844. 8, 816 | 146,703 |
| 1894. | 2.891 |  | 1845.. 8,884 | 161,108 |
| 1835. | 8,820 |  | 1448. . 8,938 | 255,883 |
| 1838.. | 8,289 | 88,512 | 1850). 4,016 | 966,201 |
| 1839.. | 8,345 | 89,642 | 1851.. 4.827 | 257,088 |
| 1840.. | 8,884 | 111,690 | 1\$52.. 4,230 | 247,661 |
| 1843.. | 8,400 | 187,055 | 1658.. 4,148 | 247,991 |

We have no accounts of 1854; but there in no doubt It will show an Increase on 1853, in consequence of the permission of the czar for the Greek Hag to enter the Danube.
4.-Poriliation.

8.-furonta and Expomte or Gnkeok.


The minister of finance states that the great ducrease in exports for the last three yeary is owing principally to the failure in the currant crops, the result of the disease in the vine.
Of the 13,995,195 dra. exported In 1861, 8,359,196 drs. were of Corinthian curranta alone. In 18022 the expors of curranta were $2,844,058$ drs, only, or neurly $6,000,000$ less than 1851 ; in 1853 there is no account of the currants exported inserted; and in 18.51 only the small amount of 9046 dra. aro included in the ainouut of $6,799,21 \mathrm{drs}$.

Conntares Thabina witt tusker.


It will be meen from this exhibit, that Euglund has the largert commerce with Greece of the counulits enmneratea. Turkey, however, ranking tirst in amount of import.
The commercial relations of the United States with fireece are regulated by treaty of Decentier 10, 14.37. This treaty is smanel upon principles of entire reciprocefy in navigation and commeree between the two condrien. It prinelpat atipulationn are, that the vesnels of exch nation, whether lauen or in ballast, from whatever place they come, shall to trentect, in the porte of the other, on their entrance, during their stay, and at their departure, upon the name fincting as national veasels coming from the same place, with reapect to the dution of tomnage, Hyht-hounen, pliotage, and port charges, an weil an tu the perquisiten of pullic officent, and all other dutlea ar chargea levied in the name or to the proft of the government, the local als. thoritien, or of any' private entailinhmient whintever. Whatever trerchandise may he lawfully imported inco elther natlon by lt, own veanela, may alno be inuported in the vessels of the other, from whatever place they
may cor chargen the nam authorit sels. S exports. nation : other, un products ilegea of allowed common
$\qquad$ vels of to tions the manifest posts, or come eha pnid at th uniado pa the vessel other, pro officer tha port when subjected necessary where suc sels sluall their carg havo oceur tions relat continue respertlng

Notwith
trenty, of tade thetw inconsidera dlrect voya principal entered fro of 1853.
that port 42, 159 tons 30,148 ton agigregate under the the latter entered an trian steau of 27,000 from 'I'riest
The valt
was 8924,4
In 1852 th
tons ; and
long a total
fif 89,174
Torkish, l:
In the oride
'The in! *024,420, dearnase in
The im grains, s!
iron and flah, wines
The con
trade of th
Turkery
Auntria
France
E:nianu
Thaswan
Other p

Though
alove aha
may come, withont paying other or higher duties or charges, of whateve kind or denominatlon, lovied in the name or to the profit of the government, the local patheritlos, etc:, than when imported in national vessels. Similar equality is stlpulated with renpect to exports. No prohlbitions to be eatablished in elther nation upon the products of the soil or industry of the ather, unless such prohibltions shall also apply to aimilar products, the growth of any other countr:-. All privilegea of transit, and all bountles and drawbarks aliowed in elther ration, shall immediately become common to the other.

Dutios in each conntry, on cargocs imported in vesrels of the othor, shall be charged only on such portions thereof as may be landed, and eraned from the manifest of the $\mathrm{ir}_{\mathrm{a}}$ porting vessel ; int all iluties, lm posta, or chargee whatanever, which are or may hecome chargeable upon the vessels themselven, must he pald at the tirst port where thoy shall break bulk, or unlado part of their cargoes. It is also stlpulated that the vessels of each nation arriving in the ports of the other, provided with a hill of health; granted by an officer having competent power to that effect, nt the port whence such vesaels shall have sailed, shall be subjected to no other quarantine than such as may be necessary for the vlait of the health-offleer of the port where such vesseis shall arrive; after which, suld vessels shall be allowed immediately to enter and unload their eargoes, whject only to such casualtles na may havn occurred during the voyage. The other stlpulations relate to consular priviliges, etc. The tieaty to continne in force 10 years, with the usual stipulation respecting lts duration after that period.

Notwithatanding the llieral stipulations of the treaty, of whlch the preceding is a summary, the trade between the United States and Greece is very inconaldernble-few Anerican vessels over making the direct royage to any port In that country. At the principal port of Greece (Pirmus), no Amerienn vessel entered from the commencement of 1851 to the close of 1853. During tite yeur first named, there entered that port from all countries, $355^{\circ}$ vessels, mensuring 42,159 tons ; and thero cleared 254 vessols, aggregating 30,148 tons; making a total of 609 vessels, with an sggregate of 72,307 tons. These vessels were mostly uniler the Greek, Turkish, Engl:, 'h, or Frenti tiagsthe latter two numbering, together. only 122 vensels entered and cleared. During the nawe ycar, 120 Ause trian steam-veasela measuring an aggrogate tonnago of 27,000 toma, entered the port of litaus, viz., 72 from 'Trleste, and 48 from Turkey.

The value of Imports at the port of lirmus $\ln 1851$ was 8924,420 ; that of exports a little over $\$ 80,000$. In 1852 there entered 822 vesseis, measuring 41,1 itis tons; anil cleared, 287 vesseje, of $45,00 \mathrm{~d}$ tona 1 making a total of 609 vessels, with an aggregate tounage of $x!174$ tons. These vessels were undel the (ireek, Tarkish, Einglish, or French thags, ranking in number In the orker, respectively, to which they are numed,

The imports if all kinde into Mreus in Inŏt were \$924,42t1, and in the year 1852, $, 757,020$; showing a decruase in 1852 of $\$ 167,400$.

The importa into tirese through this port, are, grains, angar, coffee, yam of cotton and wool, silkn, iron anil other metala, timber, cod and other anited thah, wines and apirita, paper, ete.
'The conntries uanaily partichpating in the foreign trade of the port of lirwus, are-


Though Anstria lolda but the recond rank in the ahove sabio, the uatasliy enjoys the largest share of
the forelgn commerce of thls port. An average nalculation for a series of 6 or 10 years would give the following result, without much variatlou $:$


The next port of importance In Greere, after the port of Athens, la Syra: This port ls situnted nmong the Cycladen, on the eastern shore of the Grecian archlpelago. Ite commerce is rapidly increasing, owing, in a great measure, to it belag a princlpal statlon of the Mediterranean steamers golng to and from Constantinople. The imports average annually about $\$ 3,500,000$, end the exports about $\$ 1,500,000$. The flags participating in the forelgn trade of thia port are Greek, Finglish, Austrlan, 'urkish, and French, in the orler, us to rank, in which they are usmed. The chilef articlen of import are, cottons, woc ens, manufactures of Iron, grains, cotton yara, coffee, timber, sugar, hides and skius, provisions. Lxports of domestic produce are incondiderahle, though an extensive trade is carried on in re-exporting to other ports of the archlpelago the imports of foreign nutions. The numher of vessels entering end clearing at this port annually, is about 6775 measuring 879,000 tons. The mercluat mine of Greece in i853, was $\$ 320$ vessels, measuring an aggregate of 247,016 tons. Of these there were-

| Under | Vesaris. $9,855$ | Tuns. 10,006 |
| :---: | :---: | :---: |
| 80 tone and over, of whiteh Soto | 1,335 | 227,065 |
| werofrom |  |  |
| Total as above. | 4,280 | 247,661 |

Port Charges.-Tn the prorts of Syra, Nauplin, Pirmus, Marathonensin, Pylos, Calamatu, Navarino, and l'atits-

On vessule under $\$$ tons. ....... Free.

In the ather ports:



For all other charges, port regulations, eto., sees Consular Return, "Athens, fireece, February bth, 1N55."-Com. Relntinns, U. N.
The average price at which currants are solil is $\$ 12250$ per 1006 pounds ; and the nverage returns, of ratiner gross receipts, aro onnusily siont $\$ 700,000$. The exportation of ollive-oil is another leading source of revenue to the fonian Isiantis. The following aummary gives a fair average exhibit of exports mmually :


The average nonual price la 5950 per barrel, which would raise tho amount derived from ollve-oll, If the whole mmount were moll, to en, in5, 000 per nummm. Great efforts have heon made to promote the cultivntinn of tolineco lin these imlamis, int with very doubtful success, owing to the want of soil adatided to the plant. Corfu, Cephalonia, and Sabta Maura are the only lalanils on which it ean lo ralsed ; but the quality is inferior, and even the guantity in ao inconslderable that eargoes of tohmeen are reguiarly imported © a supply the consumptlon of the inlanis. Among the articles of Import, sugar and coffee are those in which Anmerican bottons coulat, were the navigation dues equal, sue. cessfilly compete with the Europeon flags. In 1855

Holland alone Imported 900 tons of augar inte the isl-
ands. The coffee is usually Imported direct from Brazil. In 1855 the quantity imported reached $1,200,000$ pounds.

The usual exports of the United States, which reach the Ionian republic, are coffee, rosin, segars, tobacco, and mannfactured articles, auch as furniture, cottons, etc., the annual value of which can not be accurately ascertained. In 1852, the value of coffee, roaln, segars, and furalture, exported from the United States to one of the Ionisn ports (Zante), was $\boldsymbol{s}^{5}, 499$ 32, on which the Ionian treasury received, in dutles, $\$ 76684$.

The exports from the same port to the United States were:

|  |  | Yat | Exporiduty |
| :---: | :---: | :---: | :---: |
| 153t.. Curranta. | 870,412 | -29,196 | 8. |
| 1859.. | 471,746 | 16,076 | 9,7\%1 |

Under a system of commomial equality with privileged nations, the Unitect States' flag could successfully compete with the fags of all other nations in the importation of wheat, flour, Indian corn, rice, sea-bread, aalted meat, and salted fish, tobscco, sugar, ceffee, and timber. As regards the quantities of these ataples, re nectively, which might find a market in the Ionian pa s, there are no data accessible upon which to base any calculation. These staples, however, are ulways in demand in the different ports of the Ionian repubIlc; and on approximate estimate as to the quantitles which mizht, with aafet: be annually exported from the United States to these markets may be formed from an oflicial return from one port (Jante), in the possession of the Department. This return gives the aggregate value of these ataples annually consumed in that consular district at $\$ 1,539,528$. Wheat, Indian corn, cured fish, coffee, rice, and timber occupy the tirst rank in these stapnes.

In 1853, there enterell at the different ports of the Ionian Islea 1380 vessela, measuring, in the aggregate, 153,652 tons; and cleared 138.1 veasela, with an aggregate of 152,768 tons; making a total movement of 2763 vessels, and 306,320 tona. An analysis of the trade in $1 \times 53$, as compared with that of the preceding year, will alㄱw e decrease of, entered, 160 vesneld, measuring an aggregate of 25,979 tons; and of cleared, 101 rensels, with an aggregate of 22,700 tons. The number of veancia under the IIritish, Austrian, and Greek dags diminished; the latter ahowing the greatest dirutution.

The value of inports in IN53 was as fillow:

| For ennsumption. | Franes. $17,070,804)$ 6,242,620 |
| :---: | :---: |
| Total. | 23,889,200 |
| Value of exporta : |  |
| Iomestle producta. | $\begin{aligned} & \text { Trimhes. } \\ & \text { R } \\ & \hline \end{aligned}$ |
| Forelign ** | 2,564,970 |

Compared with the trate of 18052 , the imperts of this year ahow an incronme of $3,70.500$ francs, anl the exports an Increase of $\$, 2 \times 6,600$ francs; or a total increase of $5,064,560$ fraties, Of thin incream, cervals, augars, and tisaues of cotton and wool, ail from Enghand, bure the principal part. In exparta, the increase frll almost exclusivety on olivenild and curranta, if we except $1,695,300$ francm, the value of various kinde of tinnum re-exported from the different porta of the inhanis. The value of mon and wine, also products of the inianle, alow an increase of 356,000 frases. In remarking upon the chief provlucts of the loulan Isiands, it in atated, in reference to the moap manufactured at Zante and 'orfu, that, for some time past, they have used in it. preparatlou a hind of chaik imported from England in the tassels of that kingden. The use of this earth in the manufacture of map deteriorates its quality, and will reault, unquentionaliy,

In throwing it allogether out of the forelga market. The trade of 1854 glvea the total zumber of vessels entered and cleared at 2,778, measuring an aggregate of 309,387 cons. Compared with 1853 , theae figures show an increase of, entered and cleared, 15 vessels, with an aggregate Increase of 8,067 tons. These all entered, with the exception of 1 vessel of 1,781 tens. In 2854, the value of trade was:

| Imponts.-For consumption.... Warehoused........ | Fmancs. <br> $19,524,400$ $9,346,000$ |
| :---: | :---: |
| Total. | 25,834,900 |
| Exponts.-- Domestio products. | Frnies. $0,239,175$ 8,529,2 225 |
| Total.............. | 17,868,400 |

The total trade of 1854 was thus $46,703,300$ francs. In comparing this wish the figures for 1853, an increase is shown in imports of $5,471,700$ francs, und of exports, 2,186,100 franes; making a total increase of $7,657,-$ 800 francs. In imports, about :nree fifthe of the increase in value fell upon grains, though la quantity there was a decrease of 35,000 hectolitrea* compared with 1853 . This was occasioned by the high price of grain of all sorts. The remaining two fifthsof the increase fell apon cattie, coffec, sugar, tissues of cotton, and miscellaneous articles. The nations that supplied the ishands in 1854 were, chiefly, Englani, Germany, Greece, Turkey, und Russia. lirance sent crystalo, hides, augar, tissucs, wines, and oundries, to an amount, in value, of alout $2,000,000$ francs. The sugars were shipveu from the refineries of Morseilles, and were bor:te under the Greek flag to Corfo. In exporta, olive-oil, soap, wine, and some uther necondary products of the soil and industry of the islands, wero the chief articles which exhibited an increase over the returns of 18533 . Notwithrtanding the had yjeld of currants In 1851, over 6,000 hertolitres ol wine wero exported to Trieste, Venice, and Malta. See Ionian Isbanirs.

The value of the commerce of Great Britain with these islands is thus g.ven:

|  | ${ }_{\substack{\text { Vranss. } \\ \text { 1823. }}}$ | Franes, 1ast, |
| :---: | :---: | :---: |
| lmports. | 2,508,000 | 2,23s1,(44) |
| Exports, tiritish. | $2.914,000$ | 3,2! ! (\%) |
| foretign acolonlal. | 669, 0100 | 4ti, 1 H0 |
| Total. | 6,470,000 | 6,212 |

The reader is referred to the subject Tunkry for the comparative statement of the commerce of the United States with 'I'urkey, Levant, etc., exhibiting the value of exporta to and iniporta from each country, and the tonnage of American and forelgn vessels arriving from and departing to ewh conntry, during the perion from 1821 to 1 Aist ; and embracing, in the uggregate, ull returns given in the T'reasury reporta for the years designated umiler the various heads, in different yearo, of Turkey; Turksy, Levant, etc. : Turkey; Levant, and Eigyit ; Turkey in liurope and Turkey in Ania; and alao of ligypt, Greece, lonian Islanils, and la alan republic. The reader la alno referred to the artide Thes. KEY for an account of the consular relations of the linited Staten with countries un the Medisuranean. Seg almo Consion and l'viten Sratea.

Green Bay, a large arm or bay on the wext side of Iake Michigan, forming a part of the loouthary he. tween Wiscensin and the upper proniusula of Michigun. It is aloove 100 milem long, and from 15 to 35 broad. 'The epithet " (ireen" has been unplised to it vis acconnt of the molor of the water, which ia nall to exemed 160 feet In depth. At the head of the bay, on the risht inank of the Neenah, or Fox Liver, is a thriving toma of the same bame. The bay ami river hflionl a jure fectly necure harlor, and tim inrgowt bteamern of lake Mhelugan atop luere, making it the primeipal phee of deposit and trannit for the imperts and expurts of northern Wisconsin. Iopulation (Iksit) abmut 2inki.

- tach about dy bushela

Greenland, or Groenland, a very largo leland, of, probably, assemblage of islands, lying to the northeast of North America, and for the mest part comprehended withln the Arctic Circle. In early times it was supposed to form a part of the Anserican continent ; but the discoveries of modern navigators have proved, whit Indeed the very Idea of a north-west passage from the Atlantle oo the Pacific Ocean supposed, its insularity. And the latest discoveries have, moreover, ehown, or all hut proved, the entire separation of the lands on the west side of Baffin's Bay, or rather, what we would now venture to designate Baffin's Sea, from those of the opposite shores, so as to linit Greenland to ths country on the eastern side of that great channel. From Cape Farewell, in lat. $50^{\circ} 49^{\prime}$ N ., it stratches on the west side in a north-north. westerly direction through Smith's Sound, and then more easterly into a high northern latitude. On the other side, the Greenland coast runs first north-north-easterly; then north-exsterly, and finally (so far as yet traced), In a northerly direction, bending eastward in the 75th and 76th paraliels of Intitude. It expands from Cape irnewell, the southern peint, up to latitude $70^{\circ}$, where it attains a width of aboust 600 miles, which is pretty evenly maintained to the ne rthern extent of our rescarches on the eastern side. This side of Greenland has been dcnominated liast or Old Greenlanl, the other Weat Greenland.
In general, the discoveriea which have been effected In this quarter of the glohe have resulted from attempts made to diseover a north-west passuge to Indin through the Aretic Soa. The existence of such a communicatien is a suliject which from time to time has occupied the attention of the British government for the last three centuries; nnd although much valuable information had been olstained by menns of theas voynges, the great problem remained unsolved until the very recent researches after the fate of the lamented voyager Sir Iohn Franklin, when Captain M'Clure, in his researchen, vid Behring's Strait, eastward, detormined the fact of a sea communication between the Pacific and Atlantic Oceans. This he effected by sailing till within sight of Cnptain I'arry's diseoveries at Mclville lsland, and thence completing the personn! transit by ice-traveling and voyaging to the shores whence he had departel. Hut heyond the determination ef the geographical fact, it was found, as luad been conlidently predicted, that no practical use could be made of a channel so thickly encumbered with impenetrable, or all but impenetrable, ices.

Greenland was first discovered by an Icelander named Gunbiorn, who was driven ly storm upon this const, about the leginning of the ioth century, and carried thek intelligenee of its exintenco to Iceland. Toward the end of the same contury-nucorillng to some writers in 980 -an Jeclandic chief nsmed Jirie Raude, or liric the Red, having killed another powerfal chief, and being obliged to quit the country, determined to follow up, Gunbiorn's diseovery. After having spent two or three years in exploring the country, he returned to leeland, giving an exaggerated account of the fresliness and verlure of the country, which the ealled (ireenland. In reasequenco of this, a fleet of 25 aail was equipped and ment oat, laden with persons of both sexes, cattle, nod other necessaries for forming a settlement. Only alsout the hoif of the vessela reached their deatination! hut other adventurers setting out, not only from leeland, lut from Norway, the Orkney, and other ishumds, in a few years a consideratle culony was formed, mal a regular traile estabilished. The real josition of these eariy adventures has been a sulject of much learned inventigatlon nad no littie controversy. Ilut it seems highiy probable that the eriginal colony of (Ireenland begain about the southern promontory, near Capee Fiurewell, and gradually extmined itself along the coast in a north-westerly directiou. Beyond this first settlement
another proceeded farther to the west. The former was called GEstre Bygd, or the eastern settlement, and the latter Vestre Bygd, or the western aettlement. Christianity having been introduced about the beginning of the 11th century, nunerous churches and convents were built, and the country was divided intu regulur parishes, to which monks and other spiritual instructors were attached. The colonists, although compolled to lead a life of aevire privation and hardshlp, continued to increase, and te extend to the north. The zeal with which the early Scandinavians pushed their settlements to the northernmpst parts of Greenland is strikingly attested by a eurious monument which was discovered in 1824. It consists of a stone carved with Runic characters, which was found etanding erect in the ground on the island of Kingliktorsoak, under the parallel of $73^{\circ}$.

For some senturies the commercial intercourse betweon ( about the beginning of the 15th century all intercourse ceased, and the unfortunate colonists were cut off from the rest of mankind. The Esquimaux, the nutives of the country, whom in derision the Norwegians called Scrallings, or Dwarfs, on account of their diminutive stature, uttackod the western colony, which was compelled to seek assistance from that which lay to the south-oast. There can be little doubt that the scunty population was reduced by theso savage invaders; but it was more effectually thinned by that dreadful pestilence called the blurk death, which desolated Europe frum the year 1.102 to 1404, and which extended its ravages even to Greenland. Those who escaped the plague probably soon fell victhas to the Esquinuux ; at least, nothing is known of them after the commencement of the 10th century. The terms eastern and western being used in reference to the original settlements, naturally led to the belief that the eastern as well as the western side of Greenland had been colonized; and a notion very generally prevaijed for a long time that the western settlement only had perished, the eastern one having escaped the culanity, but, from the vast accunulation of ice, had heen secluded from all communication with the rest of the world. During the last century the court of Denmark regeatediy dispatched ships to ascertain if any settlers still remalned on that part of the coast which is now ealled East or Old Greenland, but withnut success. A moro recent hoating oxpedition in 1829-30, under Captsin W. A. Granh, of the Danish Royal Navy, has, however, in extent of research on the castern side of C'upe Furewell, yieided by far the most astinfactory information. IlJ examined the coast as far nerth is $65^{\circ} 45^{\prime}$, but found nothing to indicute that this const had over been colonized; and we are thus led to the conclusion that the notion of any of the Norwegians haviag gettied on the easterin mores must be a mistake; a mistake arising from a misapprehension of the words east and west. In 1721 llans ligede, a clergymun from Vangen, in Norway, accompanied by his wife anil family, left his native country to settle $r^{n}$ a misnionary in (ireonland. He landed at thals iliver in N. lat. $61^{\circ}$, mal called the place Goaltlazab, or Good Iiope. Since that time the Danes lave extablished unmerous settlements upon the western const of Greonland, lying hetween $60^{\circ}$ and $\overline{i n} \mathrm{~N}$. lat. The whale If heries have greatly contributed to the allvancenent of the colonien; and from the intimate intereourso which is now kept up with buropeans, their condition Is at present more llourishing than at any former period. The aeal tishery is nlso of great importance to firoenland-the ficah of the seal forming their common food; and from their akin is made their boats and olething. See artlden Fishifimes and Seals.

There are, at present, 13 Danishe lonies in GreonInnd, besides some smaller establishments termed factorien, For alministrative purposes, they ary formed into two inppectorships, called respectively North and

Sonth Greenland. South Greonland lise sonth of N. lat. $67^{\circ}$, and corsprises six colonies as followa $:$ or lars

| Jist fershai Colonica. | Tounded. | Pop. 134. | Or whom |
| :---: | :---: | :---: | :---: |
| Jnilanehab, orJullante Hope. . . | 1775 | 2,888 | 4150 |
| Prederfosianh, or Mredorloia Hope | 1749 | ${ }^{650}$ | 10 |
| Flakenmest, or Wiah Polnt....... | 1754 | 485 | 90 |
| Godthanh, or Good IIope........ | 1791 | 804 | 25 |
| Lukkertoppen ..................... | 1775 | 640 | 18 |
| Holatelaborg . . . . . . . . . . . . . . . . . . | 1750 | 744 | 10 |
| , Total.e....ene. . . . . . . . . . | $\because$ | 6,006 | 124 |

Julianehaab is the most southern as well as the most important of these. Its district extends to the most southern point of Greenland, Statenhuk, and beyoud it for some distance along the east side. At Piskenzeset the Danes carry on an extensive seal fighery by means of nets, etc. In its vleinity is the Moravian station of Lichtensels, founded in 1758 . Godthath is the residence of the inapector of South Groenland; and in the vicinity is the Moravian gettlement of New IIerrnhut. Lukkertoppen takes its name from three pointed hills in the vicinity, resembling sugar loavea, and has one of the beat and safest harbors in the country. North Greenland liea north of N. lat. $67^{\circ}$, and comprises seven colonies as follows:

| Colonies, | Founded. | Pop. 1845. | W when |
| :---: | :---: | :---: | :---: |
| Egedesminde, or Eredois Memory | 1789 | 767 | 15 |
| Christianthanb,orCliristian's Ifope | 1784 | 480 | 14 |
| Jacobshavo, or Jacob's IIsven... | 1741 | 975 | 14 |
| Rittenbenk.. | 1725 | 485 | 11 |
| Godhava, or Good llaven......... |  | 249 | 17 |
| Omenak.......................... | 1758 | 829 | 21 |
| Upernivik.. . . . . . . . . . . . . . . . . . . | . | 405 | 19 |
| Total. |  | 8,069 | 110 |

Egedeaminde, in Disco Bay, was founded by Captain Egede, and named in memory of bia father, Hans $F_{\text {sede }}$. It somprises a number of large and small islands, but the proper settlement is on the island of Anslet. Bet ween this and Fox Island (Revoe) there is a very necure harbor. A great many seals are caught lere, expecially in neta; but the collecting of eider-down forms the most important branch of industry. Gedhaven, or (iood Haven, In the southern extremity of the laland of Disco, N. lat. $69^{\circ} 12^{\prime}$, is the seat of the Inspector of North Greenland, and has a coal mine, which suppllen the other settements on Disco Bay with that artlele. Omenak is noted for lta extensive seal fishery, which is carried on liy the Gremnlanders In their kaljaks or small boata, ani upon the ice, and by the Danes with nets which arn let down the openinge between the lce. There are here enal inines which supply the colony. If pernivik is the mont northem of there enlonien, lveing in about $N$. lat. $73^{\circ}$, and thongh of recent formation, it is already one of the most Important in North fireenland. The population of Greenland on the sist of Decemier, IM4's,


e Danes. 'This includen only thore subject to the awiah erown; of thowe that may be seattered over the country, no eunjecture ean be formed.

We shall now give a hrief nutline of the jusovery of the various apetin of the conatn of Greenland, with occasional referencen to researches atwout proximate lands with whieh thowe on Greenland were mowe or less mixed up. This will leal us again to notice the enterprisen of the 16 th centary in seareli of a paapage by the north-weat from the Atlantic Into the l'aclific Ocenn.

Huring the reign of Queen Filiasheth, Frohluher, a diminguinhed English navigator, made several royagea to this quarter of the globe. In 1577 he dincovered the aralta which have lieen catied after hing. In the year 16as, inavia, another able meaman, came in olght of high land, whleh he calied Mount Lialelgh, supposed to lie aomewhere on the weet of the atraitn lrear-

Ing the discoverer'a nama. In 1610 Hudson discovered the straits and the bay which are called after him, in which he experienced a disastrons termination to his useful carear. To certain rocky Islands, lying about the 64th parallel, he gave the name of Isles of God'e Mercy. He also discovered two capes, one of whioh was called Digge'a Cape, and the other Willoaghby Cape. In 1616 Baffin, one of the most distinguished of onr English navigators, discovered the large expanse northward of the Strait of Davis, now kuown as Baffin's Bay. Sailing in a little vescel of only abont 65 tons' burthen, he effected one of the most extraordl. nary voyages on record. Under the Imperfect appllances of the age for navigation, Baffin, with one small veasel, clrcumnavigated to Smith's Sound, on the north of that bay or sea whlch, northward of " Hope Sanderton, the furthest land Master Davis reached, lying between 72 and 78 degreen," was an utterly un. known region; thua adding some 1,100 miles of discoveries, reckoned by the mere coastinguline, to the knowledge of these ice-encumbered ehores. His exploratlon nort hward reached, it would appear frem the brief but graphically-told atory of hls voyage, as given among the Pilgrimages of Purchas, in high as abont $77^{\circ} 47^{\prime}$ of latitude, where he obtained a clear view into Sir Thomas Smlth's Sound, which he deacribes as ranning " to the north of $78^{\circ}$, and belng the greatest and largest In all the bay."

For 200 yeara from the tlme of Baffin, the knowledge of this great inlet (excepting some llmited and unpublished Informntion oltained thy occasional enterprizea of the whalers) had not been idvanced. In the year 1818, however, in consequence of information, we believe, coinmunicated thy Captaln Scoresby to Sir Joseph llanks, the admirelty fitterl out two expeditiona; one of which, under the command of Captaln Ross, was deatined for the discovery of the nurth-west passage; and the other, nt the head of which was Captain Huehan, had for its object to attempt a voyage across the pole. On the western side of Greenland, the first-mamed navigator lincovered a high mountainona region to the north of Upernivik, to whleh, from national predilections, he gave the name of the Aretie Highlands. It lo little else than a mass of rockn, itsterningled witt Immense blockn of ice. Ife then proceeder toward the northarn extremity of lhaffin's Hay, which he explored as far ns the ice would permit, looking from a diatance Into Smith's Sound. He nurvoyed the coast generally, ascertuined the positions and the appearance of the land, the aituation of the islanda, and the general configuration of the great inlet, from the 78th down to the 6isth parallel. The discoveries of Baffin, wish sume had disputed, were thua signally confirned; firr while the form of the bay, aa given mainly from conjectural applieations of liaf. fin's ifescriptions, was found to be thonoughly erroneous, the several deep inlets and other remarkable features of the comat-line, wa noted by this ulmirable royager, were not only easily recognized, but the latitudes and more otriking particularities were found to be characterist ically correct.

Hat the limited period of a mere aummer'a voyaga having left several polints in liosa'a course defective and inconcluaive, eaprecially as to the aupposed clowing up of Lancaster sound ly eontinuous fand, another expedition wan sent out the year following nider (laptain I'arry, who succeeded nut only in paning through this famous inlet of lhofing, but in liscovering a navigable channel among iniande oxtending far weatward, which was anceanfuliy purninal for about the degrees of longitnde legamil luas'a furthest. Ihut an these remearcher, with the general boly of the discoverien since then made, fall beyond the limits of our present article, wa muit reier, for an abstract of them, to the general account of the Auctio teckas. The ehief alditious to our kmowledge of weatern (iremilaad which remain to be woticed, consist of certain corree-
tlons of th orly explo matlon of boyond, re the summe interestling nader Dr.
Cap.,alt Franklin, $h$ power, mad of about 50 $78^{\circ} 28^{\prime} \mathrm{N}$. pandling ag The expl Arctio Oces east, and Be by tho seco Kane, comp ery on the and intellig the brig A Sound in t! along shore but filled th (about $78^{\circ} 4$ wintering at peana. In in Septemleer ing sammer, occasion her ence to her o
From this (farthared fo quimaux dog ed by resul geography, $h$ of Greenland Sound, was oxploratlon $u$ rast extent, height abutti eries were pus lande as high The ianda on to be connect at the tinie entirely free were dashing the face of $t$ ? 3000 square t commencense an open $u n / r w$ ever, whieh srticlo on the cautlonarlly, Captain Scor descrifer in and navigate ning about I tho latitules from $I 5,000)_{1}$ times the ext apparently op glacial een! perature in I) ineatn, ever ol sufficient evle maining open

It does not cle to dwello procemses of $t$ cepte to notice a region furtl with. Agree characteristle found to hav and modea of
tions of the conat-line incidentally made by the weot erly exploring expeditlons, and more accurate information of Smith's Sound and the conbts immediately beyond, resulting from Captain Inglefield's voyage in the summer of 1852, and from the very snceeseful and intereating American explorstion, atill further north, nuder Dr. Kane, in 1858-b.

Capuair aglaf $\sim$. ${ }^{2}$, In the Isabel, fitted ont by Lady Franklin, having the advantage of an auxiliary steam power, made an advance northward of Baffin's furthest of sbout $\overline{B 0}$ miles, reaching within Smith's Seund to $78^{\circ} 28^{\prime} \mathrm{N}$. lat., and obtainlng the view of a sea oxpanding again conslderably beyond.

The expleratlon of this new expanse into the maln Arctio Ocean (with whlch the Greenland Sea in the east, and Behring's Strait in the west; communicated), by the second American search-expedition under Dr. Kane, completes our aketch of the progress of discovery on the western slde of Greenland. Thla herdy and intelligent adventurer, in a little solltary vessel, the brig ddvance, pushed hla way through Smith'a Sound in the month of August, 1853, and crawled along ehore within a cram of dangerous icea which all but filled the passage, to a position higher in latitude (abaut $78^{\circ} 40^{\prime}$ ) than had ever before been taken as a wintering station in these western regions ly Europeass. In this position the $\mathrm{br}^{\prime} ;$ was frozen in, early in September, and so remained throughout the ancceeding sammer, and with so little prospect of release as to occaslon her abandonment, after a protracted adherence to her of above 20 montlis,

From thle hlgh position in latltude, explorations (furthared for a the by the effectlve ald of their Esquimaux dogs) were perseveringly made, and rewarded by resulta of the most interesting nature in geography, hydrography, and glaciology. The coast of Greenland, forming the eastern boundary of Smith's Sound, was traced northerly and easterly, untll the expleration was diverted by a stupendous glacler of a vast extent, with a preclpitous face about 500 feet in height abutting the aea. The geographical discoveries were pushed atill further toward the pole, and new lands as high in latitude as $82^{\circ} 30^{\prime}$ acded to our charts. The lands on the twe aldes of this channel were found to be connected by apparently perpetual lecs, having, at the time of the examination, an open sea beyond entirely free from valble encumbrance, whese wavea were dashing with sublime action and force againat the face of the icy barrier. Fere an area of about 3000 square miles was seen entirely free from ice, the commencement and margin, as has been inferred, of an open unfreezing polar ses. On this question, however, which cones in more fitly for discussion in our article on the Polanll lhoions, we here only remark, cautionarily, against a premature conclusion, that Captain Scoresby, in his account of tha aretie regions, descriter in open ses, which he himaelf ence observed and navigated, to the northward of Spltzbergen, running ahout E.N.E. and W. S.W. fur 309 miles within the latitudes of $80^{\circ}$ and $81^{\circ} 30^{\prime}$, and having an aren of from $15,0,40$ to 20,000 stuare miles, or from the to six times the extent of that traced hy Dr. Kane; yet this apparently upen polar ocean was found to be but a mitsglacial sea! Besiles, the extreme lowness of the temperature In Dr. Kane's caat-being the lowest, lit the mean, ever observed on the face of tho globe-afforded sufleient evldence that there could be no sucli sea remaining open to the pole, beyond an luchtental lake.

It does not comu within the seope of our present urtide to dwell on the particular faets, and lnei' nts, anil processes of this admirable researeh by itr. Ánne, except to notice the falling in with lisquimuox living in "region further north than nny they had before met with. Agreeing, as these natives in their general characteristics do, with other Greenlandens, they were tound to have Ineldental pecullarities in their habits and moden of living. They mupluy dog-sledgea of
great efficlency and apeed, but hava no boata or kaijaks; Thay surround themeelves in winter with walls of mess, and, at that season, live mainly npon raw. walrus flesh -habits of life which, for the seasen, Dr. Kane and his party found it expedient, and, after a little exper rionce, not unpleasant, to imltsta and adopt. Under this new dletary, education, raw walrus flesh soon became palatable; and even tallow candles, when they could be spared for such s purpose, were pronounced by the chlei of tiae expedition to be very good! Useful and friendly as these natives wers in their intereourse with Dr. Kane and his party, they nnfortunately possesed the lufirmity (ehall we call it?) too characteriatic of the Esquitnaux, of an Insatiable habit of aelf-appropriation-stealing unscrupulously whatever they could manage to seccrete, equally regardless of the damage to the owners, or of any possible use of the articles to themselves.

We may add that Dr. Kane, in the Advance, started on his expedition from New York on the 31et May, 1853, baving along with him, in crew and associates, seventeen men. Three of this number, the cook, the carpenter, and a seaman, died in the arctic regions, and the remainder returned safe to port on the 11 th of October, 1855. The party left their.veesel still fast in the lee on the 20th of May, and traveled over the lee to the navigable watere of Baffin's Sea, whence by mesns of their boats they proceeded to th. settlement of Upernivik. They there to $k$ pasaage in a Danish trader; and when, in the progress southward, they reached Lievely, in Disco Island, they met with the expedition of lieutenst H. J. Hartstein, which had been sent out by Congress in search of them.

As to the eastern side of Greenland, all our accurate knowledge, except a few purtlculars referring to the coast near Cape Farewell, is of recent attainment. A cousi-line, indeed, of the more southern parallels was to be found in our charts of the arctic regions, and In maps by Egede and Crantz, traced to a considerable exteat, withan eluborateness of flexure that weuld indicate real and careful exumination; but subsequent researches ha ye by no means verified the supposed configurutions.

Nerthward of the 70th parallel of iutitude, all the geographical information we had of that coast previous to the voyage of Captain Scoresby (now the Rev. Dr. Scoresby) in 1822, consisted of the nut very dellnite notilication of certalin points of land discovered by the adventurous lludson in 1607, with a few touches on the coast, and notices of land being seen by whalers, chietly Dutch, in 1654, 1605, and 1670. In 1822, however, Captain Sceresby, while engaged in the Greenland whale tishery, and successfully pursuing the commercial olject of his voyage, penetrated the ice westward, as he had previouly provided for attempting, to the coast of eastern Greenland. But the posithen of the coast, and its line of direction, were found to he widely different from thosu ascribed to them in the charts, whether English or Dutch; for the real place of the land in latitude $74^{\circ}$ was found to be from $8^{\circ}$ to $15^{\circ}$ of longitude further west, and the line of direction from $69^{\circ}$ to $74^{\circ} 80^{\prime}$ N. by E., Instead of N.E., or E.N.E.E, its formerly laid down.

The tirst land seen by Captain Scoresby, stretehing from N.W. liy N. to N., extended to about $7 t^{\circ} 30^{\prime}$ N., the nearest headland being estimated at 50 miles' dis tance. This was on the fth of June, und so carly in the scason as to prevent any near uppromeh to the comst, from the intervention of a chain of heavy tield ice northward of $73^{\circ}$. Hut after tracing a proximate ontlino of tha more northern part of the coast, Captain Storeshy was gradually enabled to upproach the shore as, with the advance of the season, he proceeded southwart ; and, In the course of the exploration, succeeded in landing on four or tive different positions letween the 70th and 7 idd parallels. The const from $74^{\circ} 30^{\prime}$ to $69^{\circ} 10^{\prime}$ was generally surveyed, and names were given to tha more particular lieadlands, islands, and inlets.

Two very remarkable Inlets were observed and partlally examined, one in latitude $72^{\circ}$, which was named Dary's Sound, and the other in $70^{\circ} 15^{\prime}$, which recelved the name of Scoresby's Sound, on account of the first examination of It ever known to have been made baving just been accomplished by the navigator's father. In thls way, slogle-handed and withont cost to the country, some 600 miles of new coast line (reckoning its various flexures and inlets) were added to our Greenland charts ; and mneh novel Information on the geography, hydrography, and natural hiatory of those regions was communlcated to the pulilic in the Journal of the Foyage, which appeared In the succeedlng spring. One circumatance of geographleal intereat it may be proper more particularly to notlee, vlz., the convletion conveyed to the mind of Captain Scoreaby by hls observatlons on the current aytting Into Davy's Sound and Scoresby's Sound, that these fine expanses of water, which, In certaln westerly directlons, were clear of lee or land to the utment extent of vision, were actual channels of communleation between the Sea of Greenland on the east, and that of Baffin's on the weat. Hence the great prohability of the supposition already noticed, that Greenland conslats of an assemblage of Islands.

In the year 1823, Captain Clavering, In command of the Griper sloop-of-war, under adminalty onders for pendulum experimenta, advanced on the same coast as that first approached by Captain Scoreaby ; and, belng ahout a month later In the season, was enablel to get close In shore, and to enter a considerahle bay In lat. $74^{\circ}$, aupposed to be that originally discovered liy Gael Habkes, a Dutch navigator, in 1654. The line of the more northerly part of the coast, as laid down by Scoresby, vas now corrected, and new coast lines, including Shannon Island, with dottinga of headlands resching from $74^{\circ} 30^{\prime}$ to $76^{\circ}$, ndiled to our charts. Southward of Gael IIamkes'a Bay the coast was traced pretty close along to Cape P'arry of Seoreshy, nad then finally left. The general contiguration of the coast, excepiting some 10 or 15 leagues in the furthest borth, seen by Captain Scoreshy only in the distant horizon, was singularly verified tiy Captain Clavering'н inshore researchen, For though the first exploner was not able to approach the land het ween $71^{\circ} 30^{\prime}$ and $7.1^{\circ} 30^{\prime}$ N., nearer than from 40 to 45 geographical milea, the positions ascritbed by the two navigators to the headlands of Gael Ilamkea's Hay, and other leading points (withitackson's Island, which had treen first laid down at atrout 30 miles' distance), proved to be all but ilentical.
This coast presenta many remarkable and interestIny features. On the liverpeol coast of Scoreshy there is a mountainous chain of 300 mi to 4000 feet in hel,ght, forming precipitous clifs, which terminate In nimerous paaks, cones, pyramils, or series of perpendieular perinted pointa. In the interior were geen peaks supposed to be almoet twice the rlevation of the lofty coast. The coal formation of Jampan's IJJand, In Scoreshy's Sound, was amonj; the mont interesting of the gengraphical particulare ohserved.

The final rewarchea, which terminate our iearrige tion of the eatern coast of Gircendand, were those mado hy Captsin Cirath in the years 1803 nnd 18:0, bererder of the kIng of thenmark. The lealing ohipet was to search for the loat coloniem, and trace the coast, If practicable, in bouta, from Cape Forewell up, to latitude $00^{\circ} \mathrm{N}$., the nonthernmost poine dlacovered by Captain Scorexby. The expelition consisted of two momen's buits of the cointry", rowed liy women, earrying the banen of the party (t'mptain Viranh nutd three othera), and attendell hov five men in their kaligks. From the nouthern ioand, Cape Farrwell, up to latitude $65^{\circ}$, the coant was found to tronel atmout N.N.E., : and from thence, for to to the miles (ay far as they were able to trace it), the line was about N.E. The highest point on Captain Grash's chart wxtends to $65^{\circ}$
$45^{\circ}$, leavigis the luterval of alout 310 milea (in a north.
easterly direction) yet uncertified and unknown. The presalng of the lee in close contact upon the land prevented the further navigation of these eastern shorea,

Greenock, a sea-port town of Renfrewshlre, Scotland, on the south bank of the Firth of Clyde, 22 miles below Glasgow, In N. lat. $55^{\circ} 67^{\prime} 2^{\prime \prime}$, W. long. $4^{\circ} 45^{\prime} 30^{\prime \prime}$. In front of the town there is a fine and extenalve bay, formerly known by the naine of the Bay of St. Lawrence, from a religlous heuao that anciently atood there. Behind the town the land riees into a pleturesque ridge of hilla, alvout 800 feet high, between which and the bay Greenock atretches for upward of 24 milles along the shore, bat its breadth is inconalderable. Its name is aupposed to be derived from the compound Gaellc word Grianaig-Girian signifying aun, and dig port or bay-the bay being direetly oppoaite to the rising aun.
Various acts of Parlisment having reference to successive enlargemente and alterations of the harbora were from tlme to time procured, at the increase of trade rendered such necessary, so that now of the original erections scarcely a vestlge remains. In 1785 a dry dock was built In the western rivision of the old harhor, the expense of which was defrayed by subseriptlon; and in 1818 tho magistrates and conncil contracted for and built another, and greatly larger, entering from what is now known aa the Eist India Harbor, and whleh was finlshed in 1824 at an expense of $£ 20,000$. On the 29 th day of May, 1805, was lald the foundation-stone of the Eant Indla Ilarior; and alinost cotemporaneously with thls large addition to the dock accommolation of Greenock, a general ins. provement and renovation of the quays and breasts of the older portions of the harbor were undertaken. These works, which were very extensive, and involved an expenditure of upward of $£ 120,600$, wers not conipleted till September, 1810.

The steadily increasing trade of the port rembered a further extension of dock accommodation absolutely necessary; and in 1810 an act was procired for the construction of an entirely now harbor and dock. Six years autsequently the work was commenced on a site directly east of the Fast India llarlor, and on the lith Octotur, 18.00 , the new dock was formally epened under the denignation of Vietoria ilarbor. It consista. of a tilal basin, covering an area of shout 6 arres, and exceeding to teet in depth. The east and west wally are earh btas feet long; and the outer guay wall, dividell by the entrance, 150 feet wide, is $17 i j$ feet long on the west, and tio on the east side. The avirage width of the quays on the enst, west, and wouth, is upward of 85 feet, anul on the north, towarel the riser, it is $\mathbf{7 0}$. The depth of water within the husin is ?f feet at high tide, anil it feet at low water. The whole work, which is of the most substantinl character, cost upward of fl llo, tou ; mul, as a tidal harloor, has not, in reaject of ita size and depth, its equal in the world. Un the east side a masmive crane, capabla of lifting from 70 to su tons, has been erected; and here many of those gigantic atean veasels, fur which the Clyde has liecome miversally fanous, are litted with their engines. A crane has also theen crected at the East Indin llarlmor capablo of lifting to tens.

The old graving ducks having become aitogether in adeguate, the harbor trusteea loave recintly purchased,
 in:z Albert Unay, and liere fo in in contemplation to construct thew harlor, with the requisite dack aco commodation for repmiring the targest vessils. The following measurementa show the extent of the existing dee'k and quas mevombolation:

| Albert quay and mild. | 9010 | lineulf |
| :---: | :---: | :---: |
| Went lartore and quay | 8,944 | feet, girthed |
| Eintratice to hatbur | 181 | wite. |
| Custurn house quay.. | (19\%) | * 6 |
| Hast loilta hartrar and y may | H:360 | pirthed |
| Sintracee to harbot | 170 | whe. |
| Victoria harbor and yuay | 2,20] | girtbed. |
| Eatrance to harbor | 1.50 | " white. |

The and it averagel was als first br the con menced of any Amorica Greenoc with th: speedily the shipl the prin Indies, land and ornble qu trado is p Account OF Ga Yrabe 1723..
$1770 .$.
1 S 12.
$1824 .$.
The at! ascribed I improvem which ena unload her account o lonoint
1923.
$1823 . . .$.
$1844 . .$.
1855...

Of these tons, were : account or in vast

| ks. |  |
| :---: | :---: |
|  |  |
| Ti04 | 165 |
| 18.1 | 188 |
| 148.1 | 277 |
| 1203 | 274 |

In 1830, vessels, of In 185:3, 57 stenm vease vessels of 8 tona cleared nopoly of tt merchants

Greenv is a rogal ff William un lieved, witl of Octolier, the old pas from very bilward Il much at (i) manor of to the youn again to th Bilwarl IV larged it at inliabieth. llenry VII sided much to render tl lle called t many great

The earllest trade seems to have been in herrings, and It is still continued, the amount oured annually averuping about 19,000 barrels. Trading in tobaceo was also carried on at a very early period. It was first brought from the colonles, and then exported to the conthent. The Greenland whate-fishing commenced as far back as 1752, but it never rose to be of any importance, ant la now discontinued. The American war greatly interrupted the progress of Greenock, as the princlpal trade of the port was then with that country; but after the peace in 1783 it specdily revived, and within the seven following years the shipping trade was tripled in amount. At present the principal intercourse is with the East and Wett Indies, Australla, and North America. Newfoundland and South America have also employed a considernble quantity of shlpping. The gradual increase of trade is shown by the following tables:
account of the onons Rreript of Cuatoma at the Port of Grernock durino 1t28, ano vamiots bubsequint Mearb.


The stationary state of the duties of late years is ascribed partly to their reduction, and partly to the improvements effected $\ln$ the navigation of the Clyde, which caable vessels that formerly hail to load and unloud here or I'ort Glasgow, to ascend te Glasgow.
Account of tik Numaer of Rmobteged Vesaris bislonoing te the port of Gukeneck dubino thir Yeans 1525, 1834, 1845, and 1838.

|  | No. | Tons. |
| :---: | :---: | :---: |
| 1923. | 241 | 29,054 |
| 1534. | 367 | 40,733 |
| 1355 | 423 | 82,74 |
| 1533. | 418 | 73,893 |

Of these last, 14 vessels, with an aggregnte of 2012 tons, were steamers.
accolint uy tur Numirb and Tonnaor of Vrrgels tifat enterrd and clrared fhom and to Foreien Perts in vasotots Yeabs gince list.

| yrama | Brilsb. |  | Foreign. |  | Brilish. |  | Forelgn. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1784 | Nu. 68 | Tons. 6,569 | $\mathrm{No}_{4}$ | Tons. 5130 | $\begin{aligned} & \mathrm{NO}_{0} \\ & 83 \end{aligned}$ | $7,297$ | $\mathrm{NO}_{\mathrm{a}}$ | $\begin{aligned} & \text { Tunat } \\ & 620 \end{aligned}$ |
| 1204 | tish | 80,402 | 25 | 5,120 | 155 | 81,490 | 20 | 5,965 |
| 1824 | 188 | 46,162 | 11 | 8,054 | 188 | 46,857 | 9 | 2,690 |
| 1884 | 217 | 64,843 | 10 | 2,073 | 294 | 71,698 | 8 | 2,140 |
| 150.1 | 274 | 94,575 | 44 | 13,764 | 158 | S3, (464) | 45 | 11.975 |

In 1830, 68.1 vessels, of $67,88+$ tons, entered, and 796 vessels, of 81,988 tons, cleared coastwise at the po:t. In $1853,57.4$ salling versels, of 38,328 tons, and 214 steam vessels, of $: 0,611$ tons, enterel, and 162 sailing vessels of 8662 tons, and 102 stean vessels of 10,752 tons cleared at tho port. The opposition to the monopoly of the last India Company orighnatel wtih the merchants of Greenock in 1812.-F. 13 .

Greenwich Exospital, tireenwich, Englnnd, is a royal foundation, erected by the mnniticence of William and Mary (originating, as is generally telieved, with the queen), hy letters patent of the 2ith of Octolier, 1691. The hospital occupies the site of the eld palace, called Creenurich House, whilh was from very early times a residence of our sovereigus. Bdward III. hat a pulace there, Henry IV. resiled much at direenwich, and his will ls dated from his manor of tireenwich. It was grantel lyy Ilenry V. to the youngest son of Johm of (inunt, and reverted again to the crown on his death (sith lienry Vl.). Bilwarl IV. took great lelight in the palace, nomenlarged it at much cost. He granted it to his queen, Blizabeth. It afterward camo into the possession of Itenry VIJ., who enlarged and latatitied th, and resided much there, llenry VIII. whan at great expense to render the palace worthy of i.is sumptuous court. Ile called thls his manor of pleasaunce, and held there many great bauquets and royal ceremunies. Queen

Elizaheth made many additlons to the bullding, and realded much there. James I. laid the foundation of the House of Delight, which afterward became the resIdence of the governor of the hospital. Charles I. realded frequently at the palace; and his queen furnlshed, with extraordinary magnificence, the building begun by his predecessor. At hls death lt was taken possession of by the officers of the Commonwealth who excepted it, for their own use, from the general ordinance passed July $16 \mathrm{th}, 1649$, for the sale of the crown lands; but upon their subsequent necessitles for the support of the nayy, lt was ordered by the House of Commons, November 27th, 1:52, to be immediately sold for ready money. Preparatlons to give effect to this order were made, and some snacall part of the out-balddings was sold. The palace and park were, however (with other of the royal palaces), assigned by the Huuse of Commons for the accommodation of the Lord Protector, and happily reverted to the crown on the restoration of Charles II., by whom the west wing of the present hoapital buildlings was added, as part of an extensive design. (Hasted's IIistory of Kent.) The pelace remained in the unfinished stute in which Charles II. left it, when it was assigned by the patent of William and Mary to certain of the great officers of the state, as commlsaionera for its conversion into a hespital for seamen. This was followed in the succeeding year by a patent, dated September 10th, 1695 , which recited that the object of the institution was to make some competent provision that seamen who, by age, wounds, or other aceldonts, should become disabled for further service at sea, and should not be in a condition to malntain themselves comfortatily, might not fall under hardships and miseries, but might be supported at the public charge; and that chil.1ren of such disubled seamen, and the widows and children of such seamen as should happen to he slain in the king's service, might, in some reasenable manner, be provided for and educated. The patent oppointed l'rince George of Dennark, several of the great officers of state, noblity, blshops; und others, to be commissioners for these purposes; and retuired them to consider how they might be best carried out, and the palace best converted for the charitable object to which it was assigned, and also to frume for his majesty's upproval a charter of foundution. The government of the hospital has been continued in sintilar commlssions in subsequent reigns, and the mest distinguished persons havo been appointed commlssioners. George 111., by his charter of December ith, 1775 , incorporated the commissioners, vesting the goods and revenues of the hospital in them, and gave to them and their sincessors a perpetual succession.

The revenues of the hospit.ll have been derived from several sonrces. William III., contributed by grant f2000 a year towarl perfecting the work, and authorized the cummissioners to receive voluntary gifts and subscriptions in aid. Above $\mathbf{L 5 0 , 0 0 0}$ had been expended, on Queen Anne's nccession, upon the build ings, which though still very incomplete, were so far in a state of realiness that, in December, 1705, 100 disabled seamen were tnken into the hospitul. On the lat of inly, 170 x , the numiver amomited to $\mathbf{3 5 0}$, and the income was estimatel nt $£ 12,000$ a year ; half of which was applied to the maintenance of the seamen, and the other half to the completien of the buildinga.

The revonuo of the hospital in 1849 (for whlth year the latest accomints are printed), was-
Vett proulte or
thents in (iroenwleft ............................................. Interest on Inversteid property. ........................... £29.219 consoldater mad, in lieu of merchant-seamen's ilypences... 2,031 men's sivpences ........................................ ther smail enitingent rucelpts, theduding sule of


8,786

Tutal. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 148,388

and at a cost as destroyed, - same site ns and more the Queen, in
of different adles or axles, es of velocity, ve an edge to not in conhanales ; but lished arciclea ad, large mumbuildings apor blade milia, xles, the movThe stone at is calied a ser-grained acare destined. England in at m, where they for home use c world. Bu a mostly qua. ey are classed rting to their
ise is foand by ether. Thus, a aking together ches cach fomt. are made, when ions ; many are ove sizes; some 14 or 15 inches able foot weighyeloper dia; BasGrinding is an ent. For sme plve with an exs them oecaniou$t$ annovance to his Inhaling the 1 and ateel, that - In the promess have leean sugh onvenience; bat heness noto the them have sucand Steel, Land-
atrma, in the hich trends in a n directesn, was ion, in sespela of 1850) of this fith explorema la call: it "dibert the American Fix.
ifised still mone to iable olservation intly we sre not flich is till of the or charnel. Teranotiser in regu-
lar succession. They follow the curve-like sweep of the Indentatlons. Estimated by oye, the height of the uppermost la about 40 feet above the water line; but I was of course unable at that diatance to compare the levels of the succeasive leiges with those oluerved between Cupes Spencer and Innes on the opposite sido. About tea-time, we saw a set of hill-tops to the north by west, apparently of tha same configuration with the hilla around us. The evast of Cemwallis Island now receded to the west ward, and an Intermedlate apace, either of water or of very low beach, separates it from the naw land to the north and east of us. Whether this be a cape from a northern Terra Incognita, or a new bend of the opposite shores of North Devon, I am not prepared to say. We took gextant bearings. From this date we may claim the diseovery of that land, which we were able afterward to deline satisfactorily. "Grinnell Land," as it was afterward named by our commnnder, was thns discovered nearly 8 months before it was delineated and named by Captain I'enny in May, 1851.

September 22,-This day of reat (Sunday), which opened with elear, cold serenity, gave us an opportnnity of seelng the unvisited shores of Wellington Channel. Our latitude by artificial horizon was now $75^{\circ} 25^{\prime}$, ol about 60 miles north of Cape IIotham. Cape Bowden on the eastern side hud disappeared, and on the west a dark projecting cape from which we took onr aextnnt anples, was been bearing to the west of south. To the northward and westward low land was see $\boldsymbol{y}$ having the appearance of an Islund, although it may have been connected with the shoro by an unseen atrip. Its eastern termination was more elevuted. The hend of the westerm shore Kus now clearly to the westward. It was rolling with the terraced shingle benohes before observed, and ended or apparently ended, abruptiy. After and befond these to the north, without risible land intervenIng, were the mountain tops which turminated our view. These were two in number, one higher than the other. A third summit, more distant thun the others, was seen by me from tho mast-head, but the bases of all these, as is often the case with distant mountains, coull not be traced to the horizon. Without the nid cf a known height, and in an atmosphere so deceptive, 1 could not venture to give their distance In miles. Lieutennat De llaven eatimated the middle peak the noarest and most conspicnous, nt 50 miles."
llere Dr. Kane is direct und positive ILe is not compelled to resort to "a divlsion of opinions," nor a "lirst idea," nor an "if." Ile la plain nund outright. He says-" Gunnet.f. Lanu, as it was afterward named by our commander, was thas discovered nearly 8 months before it was delineated and named by Caj)tain l'enny in May, 1851."
lieutenant Griffin, commander of the Reseue, In his narratise of De llaven's voyage, is as clear and pesitive as De liaven and Kane, as to the discovery: $\mathbf{A}$ succession of southeriy gales ocenrring, we were drisen, with all the lee in sight, up Wellington Channel, cutil we reached the latitude $75^{\circ}$ 20'. From that position much new land was seen. A range of high monntains very josily recelved the name of (irinnelf. is wha: nel lealing to the north-weat was mamel after the distinguished gentleman at the head of tho Nationul Oingervatory, Mr. Maury. Capes and lalots never before seen, unless by tho misalng navigatore, wete named. lly gazing on that which was entirely new to man, the spirit of cuterprise hecume animated -we felt disposed even then to lome the slodige, und ail slowly in the direction of the mountain range, Captrin l'erny, t? e foliowing sjringe, without knowledge of our having hers ahead of him, gave Eughish names to the above land, calling Grimneli Land, A1hert Iand; Maury Channel, Vietoria Channel, ete, The mistake, as soon as it is explained, 1 suppose widl be corrected on the Einglisk charts.
I. I. 1.

Liautenant Griffin erred in his anpposition. The "mistaks" was eufficiently explained zfore Penny'a, or Arrowsmith's, or any other chart or the Arctic Discoveries in 1850, was publisined. The Lords of the Admiralty recelved officially an explanation of the " miatake," more than two months prior to the date of the Admiralty chirt, of Ap-1l 8th, 1852. Thelr " mistake" has not yet been corrected, They atill adhere to the name of "Albert" land.-Colonel. Force's Pammilet on Grinnoll Land.

Grise. The fore part of a shlp. To gripe, the tenden of a ship to bring her head up to the wind when carrying sall on the wind.

Groat, an old English silver coin, equal to fourpence. Other nationa, as the Dutch, Poles, Saxons, Bohemians, and French, have likewise their groats, groots, groachen, gros, and the like. In England in the Saxon thmea, no eilver coin larger than a penny was struck, nor after the Conquest till the reign of Edward II .., who about the year 1351, coined grosses or great pleces, which went for fourpence each; and so the matter stool till the relgn of Heary VIII., who, in 1504, first coined shillings.

Groats, outs deprived of the huska
Grosen, tho number of 12 dozen.
Groses Weight, in commerce, the weight of merchandise and goods with the duat and dross, as also of the bag, task, chest, etc., in which they are contained; and out of this gross welght allowance is to be made for tare and tret.

Guadaloupe, or Guadeloupe, one of the leoward greup of islands in the West Indies, and one of the moat important colonlea of France, and situated in north lat. $16^{\circ} 20^{\prime}$, west long. $62^{\circ}$. It consista properly of two islands separated from each other by a narrow channel, about five miles in length, by from 30 to 100 yards wide, and with depth sufficient for veasels of 60 tons. This channel, called La Rivierre Salée, or Salt River, runs nearly norti nud south, and has a large bay at each end, that on the north being ealled the Grand C'ul-de-Sac, that on the south the Petit Cul-de-Sac. The western or larger island, called Guadaloupe proper, or Basse Terre, is 27 miles in length, by 15 in breudth; the eastern, or Grande Terrs is nearly 30 miles long, by from 10 to 12 broad. Guadaloupe proper is of volcanic formation, and is traversed from north to south by a rluge of hills having a medium height of 2296 feet. Its principal peaks nre Ia Souffriere, an active volcano 6108 feet high, and GrosseMontagne, Deux Mamelles, and Piton de Bouillante, extinct volcanoes. It is copiously witered by numerous small streams, twe of which, the Goyade and the Lezarde, are navigable for sinall craft. The soil is fertile, and the surface ls agreeably diversified by hill and dale, wood and garden. Tho products, mitural and cultivated, are those of the West Indies generally. The principal town, Basse Terre, stands on the south-west coast. It is the resiclence of the governor, and hus some tine public huildings, fountains, and gardens, and ha', about dou0 inhabitants. Girande Terre, unlike Gundaloupe proper, is marshy, sterile, and that, now here rising: more tian 115 feet above tho sea. Its chicf town, st. Sonis, or Point a Pitre, the former capital of the island, is at the south entrance to the Salt liver, uad has an ex ellent harhor. It formerly contained atout 15,000 inhaintunts, but was almost entirely destroyed by an earthquake on 8 th February, 18.43, on which ocension 4000 of its inhabitants perished. The clinato is humid, and hurricanes and enrthuakes are frequont. 'The rainy season lasts from the middle of July to the middle of (ictober. 'The chief exports aro sugar, molasses, sum, cotton, mffee, tyo-woods, and copiper. The sugar crop amounta to about 60,000 hogsheads unmually. A consilerable quantity of fish is taken in the neighhoring seas. The government consista of a governor, W. a a privy council of 6 , and a colonial council of 80
members. The government of Guadalonpe comprisea benlden that island, those of Marie-Galante, Deaivade, Les Saintes, and the northern portion of St. Martin. Marie-Galante lies 14 miles south sonth-eant of Guadalonpe, and la about 12 miles in length by 8 in breath. It is traversed from north to south by a range of hills running parallel to the east coast, where it preenents a front of high nnd precipltous rocks. The west and north aldes of the island are level; and paraliel with the former ia a narrow lagoon, 7 or 8 miles in length, separated from the sea hy a low narrow tract of land. The liland abounds in woods, particularly the wild cinnamon-troe. Ita principal town, Grandboury, or Busse Terre, stands near the sonth-went point. Dessirade, or Deseadn, lles about 4 miles east from the south-ent extremity of Grand Terre, and in nbout 8 miles long by 8 wide. It rises from the sea with a ateep ascent, and then extends in a table-land, wheh conslats of limestone rocks, in whieh many caverns oceur, but it is without water. The soil in some places is of a deep black mold, and fertile; in othere it is sandy and unproductive. The only anchorage is at the Anse-Galet, on the east nlde of the island. Let Saintes sre a group of rocky intets 6 or 7 miles south of Guadsloupe, and connint of lofty and steep peakx, some of which are united by flat ground and ridges of inferior elevation. The two largeat are called Terre d'en Hrut and Tegre d'en Bras, St. Martin is a mmall island immediately south of the Britinh jalinnd of Anguilia, in notith lat. $18^{\circ} 5^{\prime}$, and west long, $69^{\circ} 6^{\prime}$. Its form is nearly that of an equilateral triangle, each side being ahout 7 miles in length, and comprising an area of about 33 squire milen, It in deeply indented with bays and lagoons, some of which affori good anchorage. The surface is generally hilly, the highent poirt being 1361 feet alove the sea. It was colonized hy the Freneh and Dutch in 1638, but thene were expelled hy the Spanianin, who themsel ven ahandoned the island in 1750, and the original nettlera renumed possession. The southern protion of the island belonged to the Dutch. Gualuloupe wan discovered by Columbus in 1493 . In 1635, the French entablished a settlement upun the island, and retainel posaession of It till 1759, when it wan taken by the Einglish. It wax aubsequently, on neveral occasiona, taken and retaken by these nations, and war finally ceded to France in 1814. Population ( 1854 ) 132, 810. Slavery was alolJahed here br a decree of the French heapublic in 1848, at which time alout 100,001 persons were emanejpated.
Guafacum or Lignum Vitee ( Fr . fiayac, Bein Soint; Ger. Iorkha/n; It. Givmjan; lat. Givoiacum, Ligmum ritice; $\mathbf{S p}$. (Gugyacn), the wood of a tree, a na tive of Jamalca, Haytl, and the warmer parts of AmerJea. It is a dark-looking evergreen, growing to fomm 40 to 50 feet in height, and from 14 to 18 ir.chen in diameter. The bark in hard, anooth, and liritte ; the wood is externally rellowish, and internally of a blackish-hrown color. Lignum vite is the waichtient timber with which we are actuaintel, its ape ie gravity being 1.3x3. It is exceedingly hard and dirfcult to work. It can harily be oplit, but breake into pieces like a stone, or crystalized metal. It in full of a resinons jujee (guriar), which prevents oil or water from working into it, and renders it proof ngaiust decay. Its weight and hardnesa make it the very bext timber for stampera nend mallets ; and it is ndmirabily sitapited for the sheaves or pulleys of blocks. and for friction roliers or castons. It is exteanively unet by turners. The graiar; of guin, piontaneously exudes from the tree, and concresen in very pure teara. it in Imported in cankn or mats; the former contalining from one to four hundred weight, the latter generally less than one hondred weight each. Its color differs considerably, being partly brownish, partly reddish, and partly greenith: and it altrays wecomes green when left exposed to the light in the
open air. It has a certaln degree of tranapareacy; nad breaks with a vitreoun fracture. When pounded, it emits a pleasant balramio smell, but hae scarcely any taste, although when swallowed it exeltes a burning zenaation in the throat. When heated, It melts, diffueing, at the same time, a pretty atrong fragrunt odor. Its speelflo gravity is 1.229 . See Vegt. Sub., Lib. of Eintert. Knondedge; Tuomaon's Chemistry, etc,
Guano or Hianso (the Peruvian term for manuro), a auhatance used as a manure, found on certain small imlands off the coast of Peru and Bolivia, and on parts of the shore of the maln land. It is friaile, and easilly reduced to powder. Ita color varies from a dull red to a dirty white, and it has a strong smeil aud a fat, unctuous feel. At an average, it may weigh froma 00 to 60 Jbs, a bushel. Humioldt was either the first, or one of the first, by whom this important subatance was brought to Europe; but it was described at a much earlier date by Ulloa (Voyage au Perou, i. 481); and has been used as a manure by the Peruvians froin the age of the lacas downward. Very different opintons have been enturtained an to its nature and origin. Many have aupposed that is was a peculiar mineral or earth. Ulloa, however, was elearly of oplnion that it consisted of the excremeats of the sea-birds which are found in prodiglous awarns all ulung the Pernvian and Bollvian shorea; and there is no longer any doubt that such is the ease. The localitien where the depasit in priacipally=net with being within a rainleas region, it is aecomulated with a rapidity of which we have no idea. Guano is of very different qualities: some authorltles give the preference to the whitish varieties, which are believed to be more recent, while others prefer the red. According to Klaproth, a quantity of guano represented hy 100 contained, urate of ammonia, 16 parts; phosphate of lime, 10 do. ; oxalute of lime, $12 \boldsymbol{q}$ do. ; sillea, 4 du. ; commen salt, $\frac{1}{}$ du. ; sand, 28 do, and water, organle and cumbuntible matter, $2 \times \frac{1}{d} \mathrm{don}_{\text {; }}$ but lts composition is found to differ very materiaily,' The best is that which containe the greatest proportien of ammoniacal salts.
Guano has not been long lotrolaced; and there is a good deal of discrepancy in the stutements that have been put furthas to its operation. There cant, however, ir no doult that it is a most efficient manure, and that akout 2 to $2 \frac{1}{2} \mathrm{ewt}$. per acre of average guano, mixed with about two thirde the anuual quantity of farin-yard manure (which is required to keep the soil loose), will prok!ere, when applied to land thit is well drained, nearly double the ordiuary quantity of putstoes. In turiip husbandry, splendid crops are produced by the agency of gumo only; but in this case from 4 to 3 cwt. per acre should be applied. It has ulso a jowerful intuence in lmproving erops of corn und the pauture following such crops. The effect of guato Is very materially increased by ite being covcred up to some considerahle depth as soon as it is laid on the ovil; and top-dressing in certainly the most wasteful way in which it can be applied,- - (I'rinate infurmation.) It is, $\ln$ fact, the mont valuable of manures; and under such circumstances it becomes of lupartance to leara the probabio aupply of the deposit, and the price at which it may be imported and midl in Eiur.pe

Cafortunately, however, uir Information oa both these pointa is less complete thun might the desired. Since it hegan to be largely exported to this and other fureign evuntries, an apjirehension began tu kin gromad in l'eru that tho dejemity would in no very long time be whelly exhansted; and an this would of caxion the ruin of those extaten along the comast of l'ert, and the department of Arequipa, in which guans bas long been ext msively used as a manure, govermment has been called urou to avert this catastroghe ify prohibiting its export. We are, however, well convined that thin apprehension is entirely groundiess, und that the deposity are in fact all but inexhauntible, At present, guano is principully obtained from the Chincba

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There car ment would guana open we do not would te n ayriculture aplan. Per of the sort ano islands the latter al sale, or to question of pasits, and $\mathrm{pr} \cdot \mathrm{on}$ in puldic atter probalily be the exclual very questi, at all they Loton de joint of the for a govert wortly of $t$ Heet, to pre the dung of great a ilista No guano Peru. And worth comp niteal snlte, either partla Guno is pigeons, bat in the Eante to the rall,

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Islands, opposite to Pisco, in Lower Peru, in nbont lat. $18^{\circ} 65^{\prime} \mathrm{S}$., and long. $76^{\circ} 90^{\prime} \mathrm{W}$., and the Lobos Islands, opposite to Lambayeque, in Upper Peru, in iat. $6^{\circ}$ to $7^{\circ} \mathrm{S}$.. and long. $81^{\circ} \mathrm{W}$. It has heen stated by Sir B. H. Wileon, late Engllsh consul at l'eru, that though mbout 800 tona a year are appposed to have Lieen carried for centuries from Chincha, the principal islund of the group to which it gives lts name, to the opposite coast, there ls still upon it the enormons quantity of $17,000,000$ tons ; and, supposing this eatiwate to be tolerathly accurate, we may safely renkon the entire mase of guano in this group at from 20 to 25 millions of tons! The atock of guano on the Lobos falands, though not eo extenaive as that on the Chincha Islands, is yet very large. And, exclusive of these, there are other islands whence guano is sh!pped for Arequipa, ote. Deposits have alao been discovered on the coast of the maln land, especially nuar La Mar or Colija; so that, making every allowance for exaggeration, the supply of guano may, for all practicsl purposes, be regarded as inexhaustible.
The lalands where the gunno ls found being unlnhalited except by those employed in its ahlpment, it would, but for the interference of government, cost nething save the expense of putting $i t$ on board and the freight home. But the governinents of Peru and Bolivia were elther so little awnre of the value of the article, and of their duty to their constituenta, or ao corrupt, that they eoli, Ir 1839, to private partles (Messrs. Qulros, Allier, \& Co. of Limu), for a mere trifle ( 860,000 ), the aole right to shlp guano for the term of nino years; so that these partles had it in their power to exnet any price they ; ilensed for the article. Thls contract was, however, too ralnous to be allowed to continue, and was canceled by the $\mathrm{Pe}-$ ruvian government in 1841, on the ground of enormoas public lesion, and of lgnorance of the value of the privilege that had been conceded. For some time after this the trade wis comparatively free, and large quantities of guano were imported in 1844 and 1845 ; hut the monopoly system hus been agaln revived.
There ran not he a doult that the l'eruvian government would gain largely thy throwing the trade $\ln$ guano open under the condition suggested above. And we de not know that any thing could be devised that would be more likely to prove advantageoas to our ayriculture nnd ahlpplng than the carrylng out of auch s plan. Perhaps the best way to effect an arrangement of the sort would be to purchise one or more of the gaano islands from the Peruvian government. And if the latter sheuld perversely decline to agree to such a sale, or to mollify the present monopoly aystem, the question of her right to approprinte such valuable deposits, and to deprive others of any equitable participr' 'on in thelr advantages, will force itself on the pullic attentlon. Should such the the cuse, it will probally the found that the claim of the Perurlans to the exclusive possesion of the gunno islands is of a very questionable description; and that In grasping n.t nill they may not limprolnuly lese all.

Loton de Afucra ls fully 50 miles from the nearest peint of the main land. And it seems rather too much for a government like that of Peru, without any thing worthy of the nsme either of a merenntile or warlike fleet, to pretend to hiniler nthers from earrying away the dung of wild hirds from un unoreupied roek nt so great a Ilstance from its territules.

No grano has ever been imported equal to that from l'eris. And unless it come from a rainless region it ia werth comparatively little; for otherwise the ammoniacal aalts, which nre a most valuable portion, are either partlally or wholly washod away by the rains.
Guano is fonnd In the caves frequented by swallaws, pigcons, bats, etc., in Java, Suinatra, nnd other pincea in the Eastern Archipelago. And not being exposed to the raln, It may very probably be of good quality.

The reader will, perhaps, be aurprised to learn that
lurge quantlites of guano have, of late years, been lmported into Spain. It ls principally omployed in manuring the huertas, or low rich grounds of Murcia and Velencia. Iltherto it has been mostly sent at secondhand from Fingland. But very recently the Peruvians have begun to export it on their own eccount to Allcant, Valencla, etc., and have established agents in these towns for its sale.

Legation of the United States, Lima, April, 18, 1856.
Sin: In reply to diapateh No. 45, dated the 18th nitimo, I have the honor to inform you that neither the governments of 3paniah America nor their citlzens have the privilege of purchasing guano from the Chinchas, or any other is lands belonging to Peru, at a certalu stlpulated price, by treaty, through municipal regulations or sufferance. All the guano exported from Peru is shipped for accoant of the government and gold in forelgn marketa, under a pecial contracts, by agents, who receive a commlssion for chartering vessels, and on the sale of the article. No exception is made in favor of any forelgn natlon, or lte citizens. Peruvian citizens are permitted to take from the Chincha Islands and " l'abellon Pica" wlthout charge a aufficient quantity for the agriculture of tho country; but the government is very careful to prevent any portion of it being exported. The followlng is a transiation of the provialons of the "commerclal regulations" of Peru in relation to this subject. See Dispatch No. 98, April 18, 1852 :

Chapter 1, Article 14th. "It Ia not permitted to anchor $\ln$ any of the anchorages at the islands, the property of the Republic, without a written llcense from the government."

Art. 15. "Vessels which load with guano for abroad will do so only at the Islunds of Chincha. Those leading it for the agriculture of the country will take 1. from ' I'abellon Plca' or from the said islands."

Chup. 14. "Exportation."
Art. 114. "Guano can only be exported in vessels chartersil by the gevernment or its agents."

Chaf. 23. "Confiscations, fines, and other penalties."

Art. 213. "Vessels anchoring at the anchorages of the isliands the property of the Republle, shall be confiscated; und if leaidea guano should be found on boarl, their captains and crew shall be delivered over to justice, to be tried as gullty of robbery."

See also the decree of Don Manuel Menendez, actIng I'resilent of Peru, of the 21st of March, 1842, for the stringent formalitiea to le observed iny Peruvlan vessels going to the Chinchas or "Pateellon Pica" to load with guano for the agriculture of the country.Documents to dispatch No. 114, dated October 25, 1852. I reference to my dispatches, Nos. 159, 164, $172,187,218,210$, and 255 , will show still further that no favors are granted In the exportation of guano from I'eru to other nations not enjoyerl by the United States. You will perceive, therefore, that the representation made to the Department mentioned In dispateh No. 15 is eutirely erronenus, and must have originated in inere rumor.

I inclose a copy of a letter from a gentleman in Arequipa to a friend in lima, showing the manner of uging guano in the agriculture of that district.

1 licve the honor to he, sir,
Your obedient servant,
J. Raninompi Clay.

To IIon. Wm. L. Mancy, Seeretary of State.
Ancquipa, March 20, 1856.
Dear Silu: We here reply to your note of the 13th lustant, akking for informution relative to the mauner of using gmano in this district.
Guano brought from the Chincha Ialands to Islay is there sold to the chncreros (furmers) round Arequipa at from four to slx rerid tho fanega: the fauega
weighe five arrobas, or about 125 lbe. The price varies from four to alx reals; at present the latter price is anked. This wonld make the Finglich ton worth about 18, or eay $\mathcal{E 2}$ 10s. In Islay.

It is applled to two crops oniy, males (Indian corn) and potatoes, carefully by the hand. The majae, when the plant is about two montha old and about three fourtha vara high, one half a handful is applisd neur each root. A larger quantity is sald to be prejudiclal, by "burning the plant." The guano is thea covered with earth, and a amali quantity of water (liy irrigation) is appiied "to fix the guano." If the state of the soil does not absolutely require it, no more water is applied uutil after aix or eight days.

The quantlty required for each "topo" of 5000 varas (about if acre) is four fanegas, or say 500 lha. For potatoes the quantity required is the same and is applied mnch in the same manner as rugurds the age of the plant, and a amall quantily of water "to il $x$ the guane." The atalk of the potato is then about one fourth vare in holght, and the earth heaped up in ridges the same as in Britain. A person insertu a spade in the top of the ridge beside each plant, while the woman followa peuring about half a handful of guano into the hote thus made, and covering it with earth, so that the ridge remalna the same as trefore the application of the guano.

To wheat the application of guano is not approved, principally, we believe, on account of the rankness it produces in the stalk, thereby delaying the ripening of the grain-a point of great limportance in landa where they count on obtaining two crops a year.

Titoman lieuncy.
The New Gmano Islands.-The foilowing gives the resulta of an analyais of guano from one of the ialands of the American Guano Company:

I have analyzed four samples of guano for the AmerIcan Guano Company, taken by myself from four parcels in a box opened in the presence of the Company. They yield as followa:

No. 1-Top Parcel.
Sniphate of lima..... 69.51 Phosphate of lime... 800 Orbante matter yleld.

Ing ammont yield
Ing ammonia. Chlorlil nf sodlum.... Oxyd of Iron. Whiter with loas....

## Total.

Phosphate of Ilve Pieees. Bulphiate of Ilme. Chlorit of lime.. Osyd of sontlum. Orgunio umatter ylelidthg anintonta. Fater..............

## Total............ 100 .00

Na, 8-Dark Sample. Phosphate of llme.... $46 \cdot 10$ Sulphiste of lisne....... 19.42 Chlorld of sodlasm.... $2 \cdot 19$ Carbonate of llme Organje matter ylelia-
lng ammenla..... Stliea and alumina Water with loes.

## Total..

Vo. 4-Lenoest sulphate of lime..... 6t-9: 1'thosphate of Ime..... $5-20$ Carbonate of IIme. Organle muater yleliIng ammonla... Chlorkl of sodlum. Nillea and nlumtna Water with leas.
only appear st the broeding neason. The policans do not appear to produce much guano, as thay al most always inhabit the cllffs, and their excroment falls into the ocean. The same may be aald of the specles of Carbo. The apecies of Sula contribute more to the daposit, their numbers being greater, and their habita tions beling more in the interlor of the islands. The specles of I'lotus and Khyncops are very rare; those of Larus more numerous. The Sternas only viait the ialanda to lay their eggs; but their numbers are so very great that they muat contribute In a great meas. ure to the formation of guano. The Spheniscus abounds in the southern island, which is inhahited. These birda, not belng able to fly, bollow out habled. tiona for themselves in the guano. The birda which proluce the largest quantity of guano are the l'ufl. narlas: their number Is incalculable.- Year Hook of Facts, 1857, p. 221.-Lidinb. Jhil. Juur.

The vast deposits of guano (c.lled huano-a term of Indian origin-by tite I'oruvians) on the Chincha Inl. ands, alluded to in the commencemunt of his article, furm the chlef basla of the forelgn trade of Peru, eqpeclally with the United States. It has been deement not inappropriate, therefore, to append, in detail, sneh official and other reliable information on this subject as is in the possession of the Goverament. According to a roport made by a commission eapecially deputed by the I'eruvian government in 1858 to survey the Chincha Islands, the quantity of guano in the deposits at these islands was $12,376,100$ Peruvlan tons, equal to 11 . 050,0t8 tons Eaglish; the northera island containing $4,189,477$ tona, the middio island $2,505,948$ tons, and the southern isiand $5,680,675$ tuns. This estimate, if correct, would, at the jresent rate of exportation-say about 300,000 tons jeer annum-afford to the markets of the worid a aupply of guano from the Chinchas for about forty years; after which period recourve might be had to the Lobos and other lalanis. In view of the fact now geuerally conceded, that land which has been once manured with Peruvian gunno, will alwaya require that atimulant, it may be intereating to ascertuin what prospect there would be of procuring a permaneat supply, sufticient to meet tho agricultural wants of the worid, at other deposits, or in other countries, suppos. ing that the efforts of science may not succeed in dis. covering a substitute for that popular fertilizer. The facts bearing upon this inquiry are copied or coniensed from official reports of the l'eruvian government, of from official communteationa to the Department of State of the United States, and may, therefore, be viewed as generally correct.

Guano has been found along the coasts of leru, Bolivia, and Chili; but the principal deponits are upon, the three islanda of Chiucha, near l'isen, and the lobos Ialands, between Lambayeque and l'aila, in l'ern. The aupply of guano at the Chincha Isiande, slone from whence only the exportation is permitted, can not be exhansted during the present century at leanl. The quantity exiating at the loolos is estimated, from a recent survey maile by un Americar angineer, to be not less than $2,000,000$ of tons, and $o^{\prime}$ quality ejual to that of tho Chincha Inianda. (Guano is also fund in many spots along tho coast of Bhiivia, l'açuica, In the desert of Alacama, is the primipal lolivian port for shipping it. The guatho is, however, so mixed with sand, or so buried and inaccessible, as to be nearly valuelens, it la fike mining to get it from uniler the sand, and costs from 到11 to *12 per ton to put it on board. The first cargnes sent from there cost about $\frac{87}{7}$ per ton; and only 21,794 tons have keu shipled during the lant tive yeary, of which 5,915 tons was the quantity exported in 1817. It is hecomiag daily moro scarce and expensive, and may be set down on of little injortunce, and not likely to interfere with the guano of Peru. The present Ifritish eontracturs with the I'eruvian goverumeut have also an unexpired contract wlth Bolivia, umler which they hold an ex-
cluaive 10,000 complet ian gov loan on terms; article moment it may quantity the bort hausted.

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 posits of nearly th 21st deg Rlver Io leposita abundanc formation is accumn of granite The guan thick, and they are phenomen duces the subterrane the deposi posits, the from 2 to 3 marine ahe posed guar that they at partlai cata since exper part, covere though, oces by naturalls No experin this aubstan tains n gres timately con manure la fo the caliche I . of grano.from white mediate sha the last of lion, and is cific gravity with its colo dish are the sacert:in ex of different having been milned to as! vara of guan guano deposi grand section the troundar, prising thoae the northern, and Paita.
Siouthern this name is Alsta of a tal the level of varas, liy 18 of $46,767 \mathrm{syv}$ giish Inchea.

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clurive privilege for the further shipment of about 10,000 tons. They pratend that, if the centract were enmpleted, there would be none left. The late Boliv. ian government, however, endeavored o obtain a amal] loan on its guano, but no offer was made, upon any terms ; thns showing the little esteem in which the articie is held, and how little danger there is, for the moment, of competition with that of Peru. Guano, it may be suid, does nnt exist in Chili; the amali quantity of inferior quality that was found there, on the borders of the desert of Atacama, being exhausted.

Ceneerning the situation and character of the deposits of goano (huaneras) in the republic of Icru: neariy the whole coast of Peru, from the 6th to the 21st degree of mouth latitude-the point at which the River foa emptles its waters into the Paciffe-affords deposits of guane of excellent quality, in prodigious abundance, and promising Immense revenue. The formation of the jalnnden and ellffs on which the guano is sceumalated is generally primitive rockn, composed of granite, bornbiende, gnelas, quartz, and feldepar. The guano fa found in layers or strata, more or leas thick, anil in a horizontal direction, though sometimes they are so inelined as to hecome neariy vertical-a phenomenon which, as in the undulating luyers, induces the heilef that the ioundation has undergene subterranean' changes subsequent to the formation of the deposits. As it is observable in some of the deposits, that the gunno lies under masaes of alluvia from 2 to 3 yards in depth, containing impressions of marine shella, which, in their turn, are bencatin superpored guano, siso envered with aand, it is probatile that they are of a date anterior to the deluge, or to the partiai cataciyams and commotions that the giohe has since experiencel. The deposits are, for the most part, covered with a top-erust from 4 to 6 lnches thick, though, occasionally, it is even 8 or 4 feet deep-cailed by naturalists "enliche," composed of salt and sand. No experimenta have been made to try the effect of this substance upon vegetation, hut it probably contains a great proportion of ammonia, and is so intimateiy connected with the guano, that, nithough this manure is found in the deposits without the crust, yet the calishe is invariabiy an indication of the existence of guano. The color of gunno in the deposits varies from white to liright red, passing through the intermediate sbades of light gray, dark gray, ond brown; the last of which is mixell with excrement of the seafion, and is of ilttie use to the agricuiturist. The specific gravity of guano seems to be in direct proportion with its color and quantity, an the dark gray nad retldish are the heaviest. For this reason, it is difficuit to ascertain exactly the weight of a cuble varn of gunno of different colora. The variation in the experiments having been from 1200 to 1600 pounds, it was determined to assign the welght of half a ton to the cubie vara of guano. To facilitate the examination of the guane deponits, it is proper to divide them into three grand sectiona; the seuthern, embracing the const from the loundary of Bolivin to Arica; the central, comprising those hetween Arica and Callno; and, finaliy, the northern, including the remainder between Cailao and Paita.
southern Deposit.-Chipana.-The deposit bearing this name is situnted in $21^{\circ} 22^{\prime} \mathrm{S}$. lut., und consleta of a table rock between 25 and 80 varas above the level of the sea. its greatest length is 357 varan, by 181 varas in breadth, making u muperficies
 glish inches.
Huanillas.-This deposit lies in $21^{\circ} 18^{\prime}$ S. lat. It contains four valieys, or quebroulas, in which the guane is acenmulated; the superticies is 138,242 square varan, or $3,825,010$ culic varas of guano.
fluma de Iobos.-A salient point in iat. $21^{\circ} 6^{\prime} \mathrm{S}$, is called by this name. It in composed of miea nad
granite. The guano lies in the valleys, or quebradus, in layern, whose mean height is from 15 to 20 varas. The length of the deposit is abont 1500 feet. The anperficies is equal to 188,579 square varas, or 2,921 , 680 cuble varas of guano.

Pabellom de Pica.-The tent-shaped appearance and proximity of thia hill to the village of lica have given it this name. It in situated in lat. $20^{\circ} 57^{\prime} \mathrm{S}$. The guano of thin deposit is found in crevices of different deptha, the superficies being 240,801 square varas, or $5,050,000$ cubic varas.

Puerto Jngles (Finglish Port) is at a little upward of a quarter of a mile from the Pabellon, on a amall peninsuia, the form of which indientes that it was an island in remote ages. The guano in this deposit forms an eminence upward of 500 varas long, by 250 to 300 varas in breadth, giving a superficies of 159,251 varan. Taking these data together, with the mean height of the benk, the quantity may be estimated at 2,585,020 cuble varas of gusno.

Islands of Iquique and Patillos.-To the north of the Pabelion and Puerto Ingléa, in lat. $20^{\circ} 46^{\prime}$ gouth, lio the Inlands of Patillos and Iquique-the iatter in the bay of that name. Botil were important deposita in bygone ages, but they are now exhausted, and, ns they contain only the small quantity dally ieft by the birds, it is all new. Notwithstanding the scarelty of tise necumuiation, the farmers of the neighborhood take all the guano away perlodically; and, as the regeneratlon of the deposite, which, for more than two centuries, supplied the wants of a great part of the country, is thus prevented, it would be well to prohibit ail acceas to these isianda, and otiver islets aimilarly sltuated on the coant, so that the birds may resort to them without disturbance, and reserves of manure be created for tinie of need.

Punfa Grande.-The promontery situated in latitude $20^{\circ} 23^{\prime}$ south, at four leagues' distance from Iquique, is called "Punta Grande," and the ganno in this deposit is found in several valleys facing the sen. The nucieus of the locality is composed of quartz, intersected by veins of feldspnr, more or less compact, with a calcaerous auperficies. Punta Granite, being in proximity to the Morro of Tarapach, whleh is a kind of anndy mountain, the guano in the deposit is covered with heavy layers of sand, so that it would require considerable excavations to obtain it. For this reason, these are cuiled "subterranean deposits;" and it is difficult, on that account, to estimate the quantity they contain. Nevertheless, in the opinion of experienced persons, the amount must be immense. There are many reasons, also, for believing that these deposita were ased in the time of the Incas; and, not withatanding the extensive excavations made up to the present time, there are many deposits still untouched. The quality of this guano is very fair, the dominant colora being reddish and ashy.

Other Deposits.- Besiden those already deseribed, there are smalier deposits of white, fresh guano, upon different rocks and points between Iquique and Punta Graude; and at Piangua, a arnali landing-plnce to the north of the Punta, from which the manure is taken for the use of the coast. There are, also, localities helonging to individuais; but the quantity in them is so laconsiderable as not to merit purtieular mention. 'The totn' quantity of guano Sn the southern deposits, or huaneras, mentioned above, may be estimated at $15,819,811$ cubie varus, or $7,921,407$ tons of guano, as exhltited is the following talle:

| Deposits. | Cuble varas. | Tuns. |
| :---: | :---: | :---: |
| Chtpana. | 861,204 | 9:30, (in)2 |
| Ifuantilas | 3,825,010 | 1,912,505 |
| Punta le Lobos | 0,921,580 | 1,480,7019 |
| Pabeiton do I'tea | 5.950,1000 | 2,975,000 |
| Puerto Ingles | 2,085,020 | 1,298,510 |
| Total. | 15,842, 514 | 1,922,407 |

Central Deposit.-Tho three magnificent deposits
formed on the islanda of Chincha, at $12^{\circ} 32^{\prime}$ south iatitude-that is to say, at the distance of 12 miles from Pisco-constitute In themselves the middle hy aneras; for, although some manure is foond on the clifts of Correlas and Viejos, and on the amail Isiand of Ballesta, it is fund npon rulnts visibly inacces silile, and the entire quantity doen not monount to 30,000 tous' weight. As no one is ignerant that the ialands of Chiacha form the richen of Peru, nnd that the guano sent to foreign markets in extracted from them, and that the quantity accumulated there is greater thin in all the hwaseras collectively, it is deemed admlssilite to enlarge somewhat upon the produce of these inlands.
The Chiucha Islands, when compared one with another, differ very little in their general charncter They rise gradually from the sea to a point or ridge which is about 100 varas (or 800 feet) above the level of the ocean. Their geologieal atructure eonsiats of well characterized granito, and the guano is found deponited in parallei layers or strata, varyjos at times to undulating. The predominant colors ar. wark gray; light gray, ash colored, dirty white, and reddiah brown. The color, however, does not vear to be indicative of the quality of the guanc
he same fecundating principle exists, whaterer any be the colur of the coating. Nevertboleare, the lighter-col ored guano contsins the greater quantity of ammonia. Pure ammonia has been fuund at the Chinchaa, which substance is uearly white.
Notwithstanding thut noarly all the huaneras are covered with a mechanical crust called "coliche" (ealrulus), those at the Cbinchas are an exception to the general rule, as the guano is pure, even at the iupertices ; and the thousands of birds whileh prodncedtiese veins of wealth built their neates in excavations mate by them in the deponits. The dejosits in question were measured in 1842, by Jon José Villa, and also by Sefior klvem futur yeans later. The former calculated the quantity at $50,000,000$ tons ; the latter reduced this estimate by twn thirits; aml to explain the cause of the enormous ilfference between their calculations, he says: "The mean helght of , he salient poinsts of the island in 10 varas, and of the parta at the greatest distanco from the shore, 20 varan ; aud it is only in the ceutral jarta that the dopnh of the guano is 40 varas. Sefier Vilia beiteved that the amount uf the successive cuttings, up to the prineipal one, was -10 varas, whereas it slid not exceed 15 ; and to this he added 40 more, for the princital cuttings. A grand mistake; for, mimittiog it as a probable term on whish to base a calcuintion, it were required that this centen cutting should extend in a uniform tarer to the very sbore, prementing a depth of 80 varas. And, not emitent with this hypertwie, he added that there were pointa still higher, where, accorving to hip opinion, the guano muet be 104 varas depp, or more, when the iniande theluneiven are scarcely as high above the level of the urean!"

After making these ubservationa, and adding that he had excavated at the bottom of the deeprest cutting only three varus hefore coming tu the rock, Mr, ỉivero gives the following as an apposimate extimate of the quantity of guano contained in the three inlands of Chincha:

|  | Oble raras |  | To |
| :---: | :---: | :---: | :---: |
| Northern toland. | 14,906,000 | Of | 7.amp, min |
| Mulde |  | $\cdots$ | 6,480, 8 MO |
| southern | A,400, (1as) | , | 4. $\mathbf{1}$ (1), 0100 |
| Total. | 84,500,000 | $\stackrel{ }{*}$ | [8.850, (0x) |

This atatement, therefure, nhows that the faland af Chincha contain, ujon a reasonable adowenurement, at lezst $18,2: 5,001$ tonn of ganno.

Northery leposils.-These are, without loult, inferior to those already demeriled, an they are, for the mont part, ujon amall islands, very low, and conatantly loeaten by the winde from every quarter; and the lagers of guano are usually not very deep, and are
frequently mixad with sand. In their present state the Northern Deposits would yield berely sufficlent guano to aupply the foreign domand for a very fow yeara; but the qualley it goud and they have become the resort of tie innumerable clouds of birds which, Aightened from the south and centro by the increased commeree along the coast, have taken refuge In those aolitary places, This part of the coast is destined to renew the spurces of public wealth, when the springs whleb are used to-day shall be dried up and exhausted. The islands to the north may be divided into four heads, and the Iolos de Sierra are first in importance.
'The Iobo de Sierra lie 25 milles nouth-weet of Lambayeque, in latitode $5^{\circ} 6^{\prime} 30^{\prime \prime}$ south. The group consists of one large island, and three (rocky) smuli islots adjacent to it . The principal isiand is an lm mense oval, narrowing toward the centre and nerth. The rocks are only partiully and vory unequally covered with guino; the deporits being interrupted by points of rock and ravinee. Fistimating together all the manure found in different parts of the island, on the point called "Punta Corcobacir," and the point opposite t.. inlet "Feilx Genzales," the quantity is about 150,700 cubie varas, cr 75,450 tons. A hish promontory, upon the island is called the "I'unta Curcobada," fron. its pecullar shape. The supertices is extremely irregular, and contalns a large quantity of whitish guano, apparently of recent formation; the stratum is not deep, but in of very fine qualiey. The structure of this locality is very fuvorable for the accumulation of guano; and as, in addition to this, it is protocted from the winds, and as, moreover, the biada congregate to it in greater numbers than to any other place in the section now being described, there is every reason to hope that it will become, in time, a vein of rreat limportance. The auperfielai extent of the l'unta Corcobada is 113,940 aquare varas. or 244,760 culic varas, equal to about 112,380 tons of gaano.

Island of Bermejn.-At the diatance of 100 yanls to the weet of the main islant, and connected by reafs of rocks which are under water at high thie, lies the islet of Ilermeja, in the form of a spatula. Its length is 495 varan ; breadth, 220 ; height, 30 to 35 varas. It is cevered with an abundant deposit of guano, of excellent quality, and han the crust of saitpetre, so comanon in tae southern hwonerns. The area of the Bermeja la $5 \Sigma, 926$ aquara varas ; ita areatent depth, 36 feet, and the quantity of guano found therela is athout 317,056 cubje varan ; equal to 158,778 tons.

The Isiet af F'elix Gionzales is one mile distsnt from the I'unta Corrobuila, to the mouth-west. It is 90 varsa long, $\mathbf{7 0}$ broad, and 15 yaras abova the level of the ocean. The guano found on it is of the very best quality, from 4 to 5 varas in depth. The area is 6550 square varas, or $\mathbf{2 6 , 3 0 0}$ cubic varas, equal to 18 , mo tons of guano.

Coderado /siet.-This islet is situated to the south. east of the main lsiand, and ts 316 G varas long, $1 \times 0$ broal, and 85 to 30 varum above the lovel of the orean. The rock is entircly covered with guano, tc the dejuth of 39 fect. The color of the ginno, as the name ti the inland Indicates, is reddish; but tuwaril the centre of is the layers are gray and ashocelored, with a strongotor of ammonia. Inmense flocks of hirds congregate at the island, to buitd their nesta in the grano and in the caverus. The supwrticial measure of the guano is 31,510 muare varas, or 236,300 cubic varam, equal to $118,11 \%$ toms.

The rezult of the adavaanrement of the prinepal island, and the rocky isiets iyiug near it, gives the foflowing as the quantity of guano at the Lobon de Sierra:

|  | Cublo varas. |  | T |
| :---: | :---: | :---: | :---: |
| Prenelpal talands. | 151,900 | or | 15,4iv |
| Tunta Coreebada | 24, 70, | " | (12.840) |
| fala liarmeja | $817,0 m 4$ | " | tiski74 |
| Pellx f muales | 25,904 | 4 | 18, (10) |
| Indet Colormio. | $236,801)$ | $\ldots$ | 114,150 |
| Total | 05S, 116 |  | 4it,48 |

$\underset{\text { latitu }}{\text { Lo }}$
They mare south irreg appea (lobios birds north could his es varas, cuble

Lobos de Fuera.-TTwo iolands, lying in $7^{0} 8^{\prime}$ aouth latitude, are known by the name of Lobon de Fuera. They are soparated from each other by a channel not more than 180 feet in breadth, zanning north-east and south-west. The furcuation is slate; supericies very irregular. There in an nbundance of guano, to all appearance toixed, w'th the excrement of sea-llons, (lobos), which are vary numerous. Inmense flocks of birds (chiefly divers) frequent these islands. As the northern is not easily accessible, the public engineer could only survey the southern one. According to his estimute, the latter has an area of 202,380 square varas, and the body of guano it contains is $531 . / 36$ cuble varee, or 265,743 tone.
Islands of Guañape,-These two islands are altucted in $8^{\circ} 36^{\prime}$ south latitude, at about tive miles from the coast. They are of granito, and rise out of the ocean to the height of 500 feet. The northern laland contains guano; but being pyramidal in form, great quantities are blowa off hy the winds. Notwithatanding the periodtcal loss, there are atill about 159,600 cubla varas of guano remaining, or an estimated quantity of 79,800 tons.
Islamd oy' Santa.-The lisland of Santa lies in $9^{\circ} 11^{\prime}$ $5^{\prime \prime}$ south, and contains only a few tons of guaro of recent formation. Although it may not bo iutereating at present, it is probably destined to becomo of great importunce. Accoriling to the reports madid by the fishermen who visit this ialand, the superficies of the island was a bare rock, unfrequented by birds some 15 or 20 years ago. The aspect in different at present. The guano begins to accumulate; clouds of birds resort to the island; and its vast area, not long since silent and deserted, wiii, without doult, become the centre of new deposits, prepared ly Providence for future gonerations.
Island of Ferrol: situatal :E. istitudo $9^{\circ} 7^{\prime}$ south, of a triangular form, and containe an area of $\mathbf{6 1 , 4 0 0}$ cubic varus.
In aldition to the deposits above enumerated, guano is also found in small yuantitios on the istand of Malalurigo, in latitude $7^{\circ} 49^{\prime}$ south, San Martin, or Donia Naria, $11^{\circ} 4^{\prime} ;$ Mazrogur, $11^{\circ} 25^{\prime} ; 1^{\prime}$ escadoren, $11^{\circ}$ $46^{\circ}$; Las Hormigas, $11^{\circ} 56^{\prime}$; El Peiado, $11^{\circ} 35^{\prime}$.
The quantities of guano contained in the notihorn deposits is shown by the futlowing tuhle:

| Deporits. | Cuble vnras. | Tons. |
| :---: | :---: | :---: |
| Lobus de Tterra............... | 905,716 | 478.488 |
| Labus de Fuera, or do Afuera. | 891,486 | 264,743 |
|  | 159,600 | 70,800 |
| Ferrol. | 61,4190 | 80,700 |
| Total. . . . . . . . . . . . . . . | 1,708,202 | 806,101 |

It may be added to the foregoing, that, according to the report of a new commission appolinted to examine, aurvey, and report upon tho guano doposits, it appears that there were not more than $8,000,000$ tons of guane renaining at the Chinchas in 1851 . [This estimate, it has been stated, was underratod designcdly.] The Poruvian government has not yet off1cially publishod this :ipert, hut the informution has treen given in the I eruvian wewspapers. if the statement le correct, the quantity accumulated at those islands would be only suftcient to sujply tho demands
of the markets of the United States and England for about 20 yeary, at the present rate of exportation.

Grrefial Thale of the Depoame or Guavo.

| Seetlona. | Deposits. | Tone. |
| :---: | :---: | :---: |
|  | Chlpana. | 281, 004 |
|  | Iluantllas. | 1,912,006 |
| Bouthern.......... | Punta de Lobos. | 1,400,790 |
|  | Pabelton do Plea.... | 8,075,000 |
|  | Puerto Ingliv........ | 1,292,510 |
| Ceintral............ | North Island | $1,600,000$ $6,450,000$ |
|  | Boath 4 . ${ }^{\text {g }}$ | 4,200,000 |
|  | Lobos do Tierra..... | 477,888 |
| Northern.. ........ | lobos de Fueia..... | 265, 748 |
|  | Guainpe............. | $\begin{aligned} & 79,800 \\ & \mathbf{8 0 , 7 0 0} \end{aligned}$ |
| Tot |  | 27,028, 018 |

The following possage, translated from an article in the "Mensagero," a newspuper published in Lima, affords interesting information on the subject of guano deposits, of later duto:
"Mr. Rivero exumined, scientificaliy, the principal deposits of guano known on the coast at that time; and hls statement in other resestcies in which he has been engaged having proved correct, reltance may be placed on his report. Since then, other deposits of guano have been discovored, especially in 'Independence Bay;' beyond Iisco, where the quantity is said to equal that of the Clincha Islands. No regular ourvey has been mado of this deposit, and it is surprising that the government shnuld be so dilatory in obtainIng minute information in a matter of such vital importanco to its credit and-it may be sain-to its very existence. Making allowance for any exaggorations in tho reports, It can be safely asserted that the quantity of guann existing in the deposits on the coasts of Peru is sufficient to supply the demands of furelgn markets for a coutury to come, partieulariy as It is probable that the day is not far distant when the researcher of science may discover in other substances a fructifying principto, which will serve as a substitute for this singular product."
The guano from the lelands of Lobos has been recently analyzed by Mr. Raymondl, an Italian chemist employed by the Peruvian goverument for the purpose. Annexel is $n$ statement showing ite compusition as compared with that from the islands of Chin cha, from latagonia, and from Saldanha Bay. The etrength und value of guano are eatimated by the proportion of ammonia end phosphates it contains. That from the Lobos Ialanis, therefore, according to the anatysis of the three anmplus, is more valuabite for agricultural purposes than that of Patagonia or that from Suldhana Bay. It is the policy of the l'oruvian government to diacredit the lolos guano, ao that it may be kejut out of the market until the dopoaits on thes Chincha Inlands ahatl havo been exbausted. The samples employed for the analysis were, consequently, taken from near the top of the Lobos deposits, and are not a falr apecimen of the product of the iniands. The lower luyers are, undouhtedly, of better quality; and althongh, drabitiens, interior to the beat from the laiands of Chincha, it is still more valuable than any other manure that can bo furniaied at the sume price:

Anabyera of Gitano.

| nexumits | vomentan | chincwas. | mios tinil Lemis.$\text { By Ray aendl. } \uparrow$ |  |  | Patanioma, | $\begin{aligned} & \text { DROM RALDAT. } \\ & \text { MA BAY. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hy Anderaob** | lly Kanelngwa lahbirntorina. |  |  |  | By Andurwob. | By Kensingion |
| Water a . . . . . . . . . . . . . . $^{\text {a }}$ | 1878 | 4-60) | 1200 | 1650 | 18.35 | 8436 | 14.47 |
| Organle matter and ammontacal salts. | 89.16 | D7-80 | 9200 | 28.50 | $88 \cdot 6$ | 18.86 | 785 |
| 51mosphates..................... | 911.43 | 2:105 | 80.20 | 41.28 | 11.76 | 4187 | 99.84 |
| Alkaline salts................ | 747 | V.014 | 12.5 | 10.27 | 88.74 | 9.70 | 88.67 |
| Hand. . . . . . . . . . . . . . . . . . . . . | $1 \cdot 66$ | 0.75 | 12.85 | 2.00 | 1.50 | 766 | 14.47 |
| Lime . . . . . . . . . . . . . . . . . . | .... | . $\cdot$ | * $\cdot$. | *** | -••* | $2 \cdot 94$ | $\cdots$ |
| Sutphurlo meld . .............. | $17 \% 0$ | 18.47\% | -3\% | - 485 | (0.42 | 9.81 8.69 | $\cdots$ |

- Chemist of the Ruyal Agriozitural Boctety of Beotland.
$\dagger$ Chemiat of Lima

The following table exhibite the number of tons of Peruvian guano exported to and sold in the United States and Great Britain during the yeare 1851 and 1852, together with the expenses of agency, freight, etc., and the net proceeds to the Peruvian treasury:
Salme of Pragvian Guano durino the Yaame 1851 and 1858.

|  | Tons. |  | Expenses. | N |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Untted Btates Great BrItala | $\begin{aligned} & 29,093 \\ & 88,868 \end{aligned}$ | $\left\lvert\, \begin{gathered} 3,015,486 \\ 8,074,600 \end{gathered}\right.$ | $\begin{array}{r} 8772,018 \\ 8,186,085 \end{array}$ |  |
| Total | 110,891 | -4,900,075 | 6,508,704 | 88,30 |
|  |  |  |  |  |
| Great Britala.. | 141,568 | 6,815,185 | 8,889,998 | 9,976.140 |
| Tota | 189,405 | 8,468,096 | 84,285, | 4, 680.188 |

The total impertation of guano, into the United States during the elght years ending June 30, 1855, was 495,047 tons. The largest Importatlons were frum Feru, and the emallest from Africa. In 1854, the importations of guano nearly quadrupied those of any preceding year, and exceeded those of 1855 by 1888 tons. The number of American vessils and their tonnage dlapatcined from the Chincha Islands each month in 1853, and each of the first six monthe of 1854, is stated as followa:

| Mouthe. | No. of veseels. | Tonnage. |
| :---: | :---: | :---: |
| January, 1858. | 5 | 2,965 |
| Februsty.... | 4 | 2,005 |
| March.... | 8 | 4,040 |
| Aprli.. | 18 | 10,878 |
| May... | 16 | 11,144 |
| June.* | 18 | 10,850 |
| Total In six months. | 69 | $4 i, 1 \leqslant 2$ |
| \$uly, 1888........................ | 19 | 14.424 |
| Angust.. . . . . . . . . . . . . . . . . . . | 17 | 10,506 |
| Septernber | 19 | 12,525 |
| Oetober. . | 80 | 22,6N1 |
| November. . . . . . . . . . . . . . . . . . | 28 | 18,474 |
| December . . . . . . . . . . . . . . . . . | 36 | 19,983 |
| Total In als montha . . . . . . . . | 189 | 95,928 |
| Total for the year........... | 905 | 187,185 |
| January, 1854................... | 29 | 15,987 |
| Febrasry . . . . . . . . . . . . . . . . . | 29 | 16,156 |
| March. . . . . . . . . . . . . . . . . . . | 11 | 60.471 |
| Aprli. . . . . . . . . . . . . . . . . . . . . . | 11 | 10,904 |
| Mny............................ | 10 | 7,864 |
| June............................ | 9 | 4,532 |
| Totsl in sly mofths......... | 91 | 120,718 |

The number and tonnage of forelgn vessela from the Chincha Islands to the Unlted States daring the same periots, and the countries to which tisey lielonged, is given an follow:

| Counirles, | No. of | Tobnay | Cosntrices. | veserlo. | Tronage. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Retish | 2 | 12.9 | $\begin{aligned} & \operatorname{lns} \mathrm{A} \\ & \text { British. } \end{aligned}$ | 0 | 416 |
| 1)uteh | 4 | 1.018 | 8 wedish | 1 | 268 |
| Thils | 2 | 1,003 | Norweg | 1 | 879 |
| Hmedfs | 1 | 845 | (1) eruvi | 8 | $40^{\circ}$ |
| Ifmmbars | 1 | 400 | Datel | 1 | d45 |
| Iotal for year | 88 | 15,805 | Total 6 mo'a. | 11 | D. 443 |

Sale, erportation, etc., of guane.-An the nystem of exportation and male of guano is complicated, and not generally underntwod in the United States, it has heen thought proper to condense, from reliable mources, chiefly oflicial, all the facta relating to the auliject which are in posseasion of the State Department.

The expense of loading guano at the Chincha inlands is alout 2 doliars per ton, lacluding the cont of bage for a ground tier in every vessel ; but this cost may increase to a maximum of 3 dollarn, perhapa, an the distanee from the piace of deposit to the vensel increases. The freightw have been as high as $\mathbf{3 0}$ dollars per ton; lut the increased navigation in the l'aelfic, consequent upon the aequiaition of California ly the United States, has reduced shia sum to 20 and 15 dollars, and even to as low as 12 dullars.

The exportation of the article to England first commensed in 1826, hut was tried merely as an experiment. It was not until more than 18 years subaequently that guano was considered an article of commerce; Indeed, it would seem, that even at that period the great Importance and value of this fertllIeer were not well understood by the Peruvian goveroment; for it appears that the Chincha Islande, and all the guano fonnd upon them, were then sold for the sum of $\$ 60,000-$ sale whieh, had it not been subsequently annulled by fudicial proceedlngs, wouid have placed the agriculturists of the world at the many of an irresponsible monopoly of individual stock-jobbera. The first guano contract was then made with the Peruvian gevernment by the same parties whose purchase of the islands had just been canceled; and in less than a year this contract was merged in another made in February, 1842, providing for a loan of $\$ 525,000$, in conalderation of the excinsive privilege of shipplug 126,000 tons within 5 years. In July, 1847 (after the oxplration of the first contract), a nother was made by the same partles, provid. ing for a loan of $\$ 600,000$ in eash and $\$ 100,000$ in scrip (equal to $\$ 615,000 \mathrm{ln}$ cash)--in all, $\$ 700,000$ good money - In consideration of the privilege of exporting only to Europe 40,000 tons within six monthe.

In December, of the ame year, a thlrd contract was entered luto with the aame parties who had negotiated the two former, by which, In consideration of the privilege of shipping 100,000 tons of guano, a new loan was effected of $\$ 850,000$. The prinelpal stipulations of this contract were as follows: The loan was to lie pali- 400,000 in cash, and the beiance in monthly payments of 50,000 , the contractors were to enjoy the exclusive privilege of exporting to any or ail parts of the world 100,000 tons, register meas-urement-equal to nearly 140,000 actual neasurement. The time aliowed for the ahipment of the 100,060 tons was limited to 18 monthe from June, 1848, allowing an extension of the time (without exciusive privilege), in case a suffelent ncmber of vessels could not be chartered to convey the whole quantity within that periol. Thu guano was to he consigned directly to the coutractors in Fingiand, or to their agents elsewhere. The guano was to be sold for account of tie l'eruvian government, the contractors being authorized to charge the usual comulission and guaranty (about. 4 per cent. on gross males), and an interest of 5 per cent. upon all expenses, laciuding freights allvanced in England or elsewhere. The payment of the loan of $\$ 850,000$ (tise pound sterling being computed at $\mathbf{j})$, with intereat at the rate of 1 per cent. per month, is provided for: first, from the balances of account exiating ln favor of the Pernvisu governinent on the books of the contractors (that in, balances arialng from the former eontracts) ; ind second, from the net proceeds of the eales of guano shipped under the contract; one fourth part of the nat moreeds to be accounted for in the serip of the government, at par value, with the lnterest added. This scrip, with the accruing interest added, cont the contractors, It is stated, about 10 centa to the dollar.

How much the contructorn reallzed from this contract of December, 1847, can not well he known. The following estimate, however, has been mado:
tiross sales of 180,000 tons of gusno, at 860 per ton
( $\$ 6,500,0(0)$ ), on which the cotamission, it 4 por ecut., was. .

2260,000
Eatimated net procerne, ai per ton, of whioh one fourth part a wheounted for to the gevermunent In in ow is serif, costiag then contract. ora (with literest alded) nbout 10 centa per dollar, leartigg a profit of 90 per cent. on tha toliar, learing a pront of 90 per eent. on tha robable gratn in evelisnge lat $\$ 5$ per pound sterligat at least 10 por cont. on total not proseeds

- аыу ол \$2,000,000. . . . . . . . . . . . . . . . . . . . . . . . . . .

585,900
200,000
1,105,000 Total entimated pront....................... 1 , 105,000
appears, then. that the total loans on guano, and
the nu
1848, w
Fobru
Jaly, 1
Decem

Subs another
glano
Europe
1851, ws later con ister in antying consignn and the
France
ceraber
were ma
gregate,
000 being
the last were ma vian bon interost, ment of sold ther guano in rope is es
The fil was mad vian gove steamer, to the pay \& Co., of that the parts o. to Wis the t shipped t (Decembe act of Ja to contrac the anles ister of $\mathbf{F i}$ immediate undoubted posed the at the Ch ped withit 000 at 6 regulating tering ves the Poruv contracts ( 15 net), made so f. ence of Et vanced hy Interest, to Great lirit,
There h nation (I) cember 22, United St and others. time, grant this firm agents, to The Peruv into any n at the Ialan United Sta supply sho trien to whi virtue of States, Gre
the number of tone contracted for, np to the year 1848, were:


Subsequently to the contract of December, 1147, another was made, by which the consignment o: all guano shipped to England and the continent of Liunope from December 18, 1849, to Decembur 18, 1851, was conceded to the samo parties, and a atill iaser contract was antered into by the Peruvian minister in England, on behalf of his govemment, guarantying to the London house of Gibles \& Co. the consignments of all guano shipped to Great Britain and the continent of Europe, with thas except:-n of France and Spain, from December 10, $48 / 3 i$ Decomber 18, 1805. By these latter cantr'. . , loans were made, at different times, amount'ing, th wine aggregate, to about $\$ 2,000,000$; the last coan of $\$ 1,200,-$ 000 being at a reduced interest of 5 per cent. In beth the last contracts, the London house of Gihbs and Co. were made the agents for the payment of the Peruvian bonde held in England, amounting in 1850, back interest, etc., to about $\$ 20,000,000$. For the payment of this delt, one haif the proceeds of the guano eold there ls now appropriated. The consumption of guano in Great Britain and on the continent of Europe is estimated at about 90,000 tons ennually.

The first shipment of guano to the United States was made, it is atated, in 1845. In 1846, the Peruvisn government contracted for the building of a war steamer, and appropriated the proceeds of 5,000 tons to the payment thareof. In the contract with Gibbs \& Co., of December 22, 1847, it will be remembered that the exclusive privilege of shipping guano to ail parte on? the worid was conceded to that firm. This $W_{i s}$ the first contract by virtue of which guano was shipped to the United States. Upon its expiration (December 18, 1849), the Peruvian Congress, by an act of January 25, 1850, authorized the Executive to contract for a loan of $\$ 384,000$, to be paid from the salies made in the United Statea, and the Minister of Finance advertised for proposals. Bids were immediately sent in from five American houses of undeubted responsibility. One of these bids proposed the purclase of 50,000 ragister tons of guano at the Ohincha Islands, at $\$ 20$ per ton, to be shlpped within 5 years; aivanciug the loan of 8384 ,000 at 6 per cent. Interest, with the naunl articies regulating the commissions, exclusive privilege, chartering vessels, etc. This proposal, guarantying to tise leruvian government $\mathbf{8 2 0}$ per ton (all previous contracts not yleiding to the governinent more than ( 15 net), was tire most advinntageous that had been made so far; yet it was rejected, throngh the influence of European competiters, and the loan was nilvanced by the house of Gitilis \& Co., at 6 per cent. interest, to be repaid out of the proceeds of saies in Great isritain.
Thare hat heen no formal cesaion, sinve the termination (December 18, 1849), of the contruct of Deceinlier 22, 1847, of the right of the market in the United States, until the contract made with Barreda and others. Special iicensea have been, from time to time, granted by the Execu ive to Cibin \& Co. ; and this firm hava therafore continued, through their agenta, to control the consignments an much as ever. The l'eruvian government seems unwilling to enter into any arrangements either to seii at a fixed price at the ialands, or that the article should be nold in the United states at a fixed price, and that a suflicient supply shoulil be alwaya in the market. The countriea to which guano is oxported from the islandy, by virtue of thene several contracto, are: the Unitei States, Great Britain, Framee, Spain, the Mauritius,

China, the West Indies, and Venezuela. Ia tha United States, the agents are Barreda \& Brotber in Baltimore, and J. W. Riley in New York; Great Britsin, Messrs. Giblus \& Co., who also have the agency in Beigium and Sardinia; for the Mauritius, Kondall \& Co. ; for Spain, Marrieta \& Co. of London; for China, Sevilla \& Co., of Lima. The agency of the West Insies is intrusted to Barreda \& Brother; and that of Venezuela, under a recent contract, to Don Leocadio Gurman, the envoy of that republic in Lima. All these agents are paid commissions, varying from 6 to 71 per cent., for aelling guanj, Areighting vessels, etc. Thay are siso allowed interest, at the rate of 6 per cent., upon all sums of money adranced to the govermment.
These contracts claim a general Interest in the United States, as throwing light upon the complicated syeteu which regulates the exportation and sale of guano; hut the contract for aupplying the United States themsclves, possesses more immediate interest to the consumers in this country, and demands a brief additional notice-the facts and statements being copied or condensed from reliable sources.
The contract batween the Peruvian government and Mesars. Barreda \& Brothere, for the exclusive axport and sale of gunno in the United States during 5 years, was concluded on the 22d of August, 1851. According to its stipulations, the agents are entitied to charge $6 \frac{1}{4}$ per cent. commiasion upon the grose product of the saies, in fuil for ail their services as ngents in seliing the aubstance, chartering vessels, guaranties, etc. They are allowed six months to render an account of the different aales made by them; which term is absolute, unless good cause can be shown for dalay. They are also authorized to charge 6 per cent. upon all money advanced to the gevernment.

The consumers in the United Statee have complained that the enormous profits which acerne to tiose interested in the contracts with the Peruvian governmant for the asle of guano, have combined with other causes in keeping up the high price of the articie. The chief ground of these complaints geems to be, that large profits beyond those legitimately incident to these contracts are realized in tie shape of interest, premiums, etc., which are puid in the flrst Instance by the l'eruvian government, but finally fall upon the consumer of ganno. These extra commissions amount annualiy to a heavy charge upon Amerlcan shipping, and must necessarily tend to keep up the cost of guano to the consumer. In 1853, for instance, the amount of Peruvian guano exported to the United Statea, as stated from I'eruvian returns* Was 137,135 tons register, or about 161,562 tons' weight. The freight on thin, nt $\$ 17$ per ton, amounted to $\$ 2,-$ $797,55 \mathrm{H}$. Five per cent. on this would lee $\$ 139,87770$. This added to nbout $\$ 16,000$ commissions, or port ugency in l'eru, wouid make a tutal of 155,88770 levied as extra commissions, not authorized by the contract, as is complained.

These facts bear inaterialiy upon the consumption and sale of this useful fertilizer in the United Statea. The intereat felt upon the subjuc has been evinced, as is weil known, by large ani respectable conventions of citizens concerned in ngriculture, which have been held in variouts sections of the country, and by propositions introciuced into (Congrese, baving for their oibject auch legisiation an would lend to apectal negotiations with the government of Peru respecting the mode of exportation and nule of her groat staple. $\dagger$

- The Uptted Staten' Treanary Report on Commerce and Navigation for 1843 , given onty 25,852 toan; but for 1854 , onken tha number of tone 163,062 .
- An one of the reeutte of these movementa, way be named an act of Congress, approved August 18th, 1850, "to authorize protection to be given to ettizena of the Uuited $8 \mathrm{t}^{\circ}$. who may discover depoaita of glanio."
$\therefore$ No deposits of guano; which will at all compare with those of Perv, seem as yet to have been discovered, alticugh most extenalve explorations have been prosecnted; nor does sclence seem yet to have succeeded, though Inventive skill has been tasked to the utmost, in manufacturing a anbstitute which would supersede the nse or lower the price of the Peruvian fertilizer. - Indeed, the very latest reports exhltit rather an appreciation in its price, and a large Increase in its comanmption,-Com. Hel., U. S.

Guaranty, in law, an obligation undertaken by one party that another shall pay or perform that for which he is or may become liable to a third party. In mercantile transactions in Scotland It may be conttituted in any way by which the consent of the guaranty obligant is truly and freely given; but it can only be proved by his oath or writing. The evidence of witnesses is inadmissible, unless the obligstion was undertaken as an integral part of a transaction relative to moveables, provible by witnesses, or that simething followed on the falth of lt, with the knowledge of the guaranty obligant, by which the rights of parties were materially affected. In England it is enseted by statate, that "No action shall bo lirought whereby to charge the defendant upon any apecial promise to answer for the debt, etc., of another person, unless the agreement on which auch action shall be brought, or note thereof, shall be in writing, and signed by the party to be charged therewith, or aome other person thereunto hy him lawfully authorizet." The construction of all such obligations is never extended beyond their obvious meaning, and tiey are only understood to apply to future, unless they er; ressly Includa past transactions. All their conditions and limitutions must be carefully regaried, otherwise they become void. If so expressed or Intended, however, such obligatlons may le of the most unyualified character; thay may be unimited in amount, and indetinito as to time. When the guarisnty obligant is compellerl to pay, he hats an action of rellef against the prinelpal debtor; but that party, hel, , firimarily liable, tnust first be sued by the creditur; and whatever he does toward tise extinction of the cisim of the creditor, or whatever the creditior recover from hlin or his estate, goes so far to relleve the guaranty wbllgant, who can also plead against the creditor any defense whlch could ine competent? plesded by the principal delitor. Where more persons than one are boond together in a guaranty obligation, any of them seoking relief from the others of a share of his loas must communicuts to them a rhare of any security which he may hold or the estate of tive principal debter, of of any ibotrinent bis may have olitalned from the creditor. A geararty oblipation may be exsingaished by the extreme neylect of the ereditor; as, for example, by his falling to take advantage of a security $\ln$ his poirer, omitting to negotiote a bill, Inadvertently giving $u_{i}$, funds of the princlial debtor over which he had a right of lien or reteation, o: ranouncing auy security over lis eatate. In like manner, If lie compound with, or discharge the princspal debtor, without the concurrence of the guaranty obllgant, the guaranty iw at an ead; excepting under a commisuion of Dankruptey In Fingland, oz a sequectration in Scotiand, where the rreditor may, by aequisacence, allow the jrincipal delitor to be diacharged. and may accept a conipowition, withnut diweharging the guaranty, provided the guaranty obligant has prevsonsly been duly warned and called on to antiafy the debt.

Cruatimala, or Gautemala, one of the republies of Contral America, occuples most of the talle-iand of Cautimals, with the mountalnous dietrict lietween it and the Gulf of lionduras, Besiden a portion of the table-land of Yucatan. Ita extreme latitudes are $13^{\circ}$ $29^{\prime}$ and $18^{\circ} 12^{\prime} \mathrm{N}$. , and longitudes $88^{\circ} 10^{\prime}$ and $93^{\circ}$ $22^{\prime}$ W. It in bounded on the noth by the Mexican

State of Yucatan, on the weat by Chiapa, on the aouth by the Paclfic Ocean, sonth-east by the republic of Salvador, east by Henduras, and north-east by the Gulf of Honduras, and the British IIonduras, or Jelize. The tetal area of Gautimala is ahout 49,000 square miles. It is divlded into 17 Departments, and contained, according to the returns of 1852, a population of 872,000 , diatributed as follows :

| Dopartmema. |  |
| :---: | :---: |
| Guatimala. | . 80,500 |
| Chimalte | 86,400 |
| Banmarco | 89,100 |
| Suchiltepe | 86,800 |
| Escaintia. | 15,800 |
| Amatitian | 88,000 |
| ganta Rosm | 88,000 |
| Mita | 12,800 |
| Bolola. | 84,20 |


| Departmanta, | Pupulatione, |
| :---: | :---: |
| Totonlcapda. . | 84,700 |
| Greguetorango | 64,800 |
| Quesaltenango. | 66,800 |
| Chiqutranla.... | 78,000 |
| Vera Paz...... | 6,200 |
| Salamá. | 109,900 |
| leabel. | 0,000 |
| Total...... | 972,000 |

The surface of Guatimala is wholly mountuinous, the main chain of the continustion of the Andes traversing it from south-east to north-west at an incunslderable distance from the Pacific shore, and branchIng off in various ramifications toward the Atlantic; forming many valleys, but inclosing few jifains, Along the main chnia oceur numerous volcanocs, all near the Paclfic. The culninating point of the surface is in N. lat. $15^{\circ} 30^{\prime}$, betwoen the towns of Totonlcapana and Gueguetenango. The eastern border of the plateau deacending to the Gulf of Honduras is cut by deep valleys, which extend to a great distance, and in some places advance to the very shores. The country lying to the weat and the north-west of the Golfo Duice is a low plain, while all between tho platean and the Ilay of Ionduras is a succession of ridges and valleys. In masay places the shore is rocky, with rocky barriers lying off it.

Numerous streama drain this State. The most im. portant ate, the Lacantun, forming part of the Mexican boundary ; the Motagua and the I'olochic, which fall through the Duice into tie Bay of llonduras. The most important lakea are, the Dulce, odvantageous for forelgn truling vessels; the Amatitlian, is miles south-east of Guatinula, is 9 mlles by 3 , of great depth, and is muci resorted to as a bathing-place by the inhsbitunts of Guatimala, from February till April; near it these are several mineral and hot apringa ; the Atithan, 80 milea north-west of the city $0^{f}$ Guatimala, la ghont 20 miles long thy 9 iroad, surrounded by lofty heights, including the voleano of Atitlan, and in rouarkable for its very great depth, and being without outlet, though neveral small rivers enter It ; the l'uten, near the frontlers with Yucatan, about 30 aniles long, sud 9 broad.

The climate of the table-lund is that of perennial apring, the thermometer scarcely varying throughout the year, and it resembles very much the climute of Valencia in Spain in almost every particular. In the northern part of the Stste, in what is called Ioss Alfos, the highlands, the average la lower than any other part of the country. Stow sometimes falls in the vicinity of Queaaltenango, the caprital of this Department, but noon disalprears, the thermoneter sellon remaluing at the freezing point for any comsiderable thene. In tife vieinity of the city of Guatimala, the range of the thermometer is from $65^{\circ}$ to $80^{\circ}$, averasIny aiout $72^{\circ}$ of Fisin. Vers 1'az, the uortheeasterin I:epartment of Ciuatimala, and embracing the cuart below Ineatan to the Gulf of Dulee, is nesriy 10 degreen warmer. Thia coast froni lielize downward to Iabal and Ban Tome is hot and unhealthy. Frum May till Ocfober is the rainy sesson. Thunder jrevalls in Jine, and turfife atorms from the aouth-west aweep along the I'acillo count In Auguat and Seprember. Earthquaken are very frequent.

The roil is genetally very fortile, producing excellint rice, and all the cereala in great varity and abundance. Agriculture, however, is in a very barkward atate from the want of enterprise and the igno-
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rance of the people, as well as from the want of roads. As articles of commerce, the mort important products are cochineal and indigo. Cotto.: cacao, augar, vanilla, tobacco, and coffse, are grown In conaiderable quantities. The table-land is almont destltute of trees and even bushes, oxcept on the deelivities of the hilly ranges which so extensively traverse it. Trees of very lurge size form extenslve foreste on the lower lanils along the Pacific. These are a source of great natural wealth. Among tha trees the most valuable are the cedsr, mahogany, Brazll, Sants Marin, pimento, guuiacum, etc.; and abundance of medicinal plants are also found and turned to some account. The vegetation is luxurious and vigorous along the low tract by the Buy of Honduras. Sheep are reared in considerable numbers, especially over the northern districts, and their wool is used for native manufactures. The horse is small, hardy, and handsome, and mules are numerous, being the chicf beasts of bur' den. Pigs and $\psi^{\text {oultry }}$ are very abundant, and of excellent quality.

Salt is manufactured along the coast of the Pacific. Jasper, marble, and trimstone, are obtahued in considerable itmantity in the veinlty of some of the volcanoes. Lead is worked by the Indians In Tetonlcapán. The manufactures are mostly limited to thase for domestic use. The cotton mannfucture, once extensive, is now confined to the Departmente of Guutimala and Sucatepec. Coarse woolen cloth is now more manilfucturel, especially gerga, which is made into a peenliur black called poncho, in which much taste is displayed,-E. B.
Siuse 1847, Guatimala has been an Independent ropublic, und in 1851 a new constitution was adopted, by virtue of which the President is elected every four years; to whon, in conjunction with an Assembly Geperal, compused of 59 members, the powers of the government are confided. It is divided ioto 17 Departments, and its capital is Nueva Guatimala. 'Tho great commerclal staple of the republic is cochinenl, of which upward of 20,000 bales are annually produced. In addition to theso articles, consideruble attention has been given of late to the cultivation of tobacero, sugar, coftec, cotton, vanilla, and indigo. Gold, silver, and other minerals have been found in several sections of the State. The exports consist of cochineal, indigo, segars, sarsaparilla, mahogany, coson, hilies, dyewoods, and some silver. Tho total vulue of exports amounts, annually, to about $\$ 1,880,000$, and the inports to about $\$ 2,000,000$.
The cominercial relations hetween tho United States and (inatimaln are regulated by the treaty of March 3, 1849, and by the local legrislation of that republic. The trenty is ono of peace, amity, conmerce and navigation, and atipulates for perfect equality and entire reciprocity of commerve and muvigation. Fach natlon extends the anme privlleges to the vessels of the other that uro appileable to its own. The right of residence, commerce, and trade is extended to citizens of each in the territories of the other, with the same rights, privileges, exemptions, und restrictions, which apply to native eitizens-the coastiag trale excepted, which la reservel to the partles, respectively, according to their own separate lawn. 'ithe high contracting partlen moreover molopt, with respect to each other, the principle that free nhips inake free goods. The treaty ls to eantinue in fore during 12 years, and contains the usual provision of one year'a notice after the explration of that period. The local regulations of tiuatimala are altered from thme to time by decrea, nunctioned by the executive officers, and promulgated under anthority of the l'reaident of the republle. The latest decree of thls charmeter, of which our Government is in possesalon, nuollifes the taritf of 18:37, so fur as it relates to tonnago duties. It bears date May 6, 1852, and auljolned is a translation of its provisions:

Artlele 1. Every vessel which shall anchor in the porta of the repubilic, no matter whence It may come, shall pay a tonnage duty of two reals ( 25 cents) for each ton of messurement. This measurement shall be ascertained from the register, the certificate of nationality, the patent or clearance under whlch it anils.

Article 2. Shall be free of tonnage duty-1st. Small vessels engaged in transporting merchandise from one port to another of the republic; 2 d . Vessels whlch anchor in ballast to take in water, provisions, or fruits of the country; provided they discharge no cargocs; 3d. Veasels of war, and regular mail or stesm-packets, provided they do not discharge merchandise over 20 tons; 4th. Merchant vessels which, exceeding 1000 tons of reglscerad measurement, discharge not exceeding 20 tons of merchandise; 5th. Vessels which receive on board, for exportation, produce of the country, excepting cochineal, ss provided for in decree of March 31, 1849.

Article 8. This decree shall take effect from and after the first day of July, enauing.

Guatimala, la Antigua, a city" of Central America, in the republican State of Guatlusala, and about 27 miles W.S.W. from Guatimala la Nueva. It stands in a wide and fertile valley, at an elevation of 5820 feet above the aea-level. The place was abandoned after the earthquake of 1773 , which partly destroyed it ; but it now contains a population of nearly 20,000 . There is collected here a considerable quantity of cochineal ; and there are some insignlficunt manufactories. The city is regularly laid out, but a great part of it is atill In ruins. Prior to the earthquake the population amounted to about 60,000 .

Guatimala la Nueva, the capital of the republic of Guatimala, in Central America. Its situation is in N. lat. $14^{\circ} 36^{\prime}$, und W. $\operatorname{lng} \mathrm{g} .90^{\circ} 30^{\prime}$, at the extremity of a pluin 22 miles $i_{11}$ length by 7 in breadth, with a deep ravine on three siles, and elevatol above the sen 4970 feet. The form of the town ls quadrangular ; and the streets are wide, straight, and clean. On account of the frequency of enrthquakes the houses are only one story in height. The l'laza or Great Square menaures nhout 150 yards on ach side, and is surrounded on three sldes thy colonnades. Were are the principal touillings in the town-the eathedral, the archblshop's palace, the old royal palace, the Collegs ales Infantes, and the variuus government offices. In the centre atunda a large and elegant fountain. The town is well supplied with water brought by pipes from the mountains upward of two leagues distant. llesirt she eathedral, there are 26 other churches and chapels; and, beside the l'laza, several other squares, each with a fountain in the centre. At the south side of the city there has recently been erected a fort mounting 20 guns. There aro several private achools in Guatimala; and seversl printing establishments, whence two weokly newspapers are issued.

Thompson, in his Officinl Visit to Guatimaln, states that "the nemn heat" of the city of Guatimala "during the day, from the first of , lanuary to the first of July, is $75^{\circ}$ of Fuhr. ; at night, $63^{\circ}$. In the summer months the average may be taken ut 10 degrees hlgher." Fruits, vegetables, provisions, and all articles of ordinary consumption are abmulant, at moderate jrices, while many descriptions of Iritish manufacture are as cheap as $\ln$ Iiritaln. The manafactures are muslins, gauze, cottons, eurthenware, porcelain, jewelry, begars, ete.

I'he lnhabitants are courteons and hoapitable to atraugers, but live very much apart from ench other, their only recroation belng their incessant religious procesalous. The suburis are occupied mostly by latinos (mulattoes) and Indians. The huildiugs of this city were liegun in 1776, three years after the fearful earthquake of 1733, which completely destroyed Ohl Guatimala, the former capital. 'lhe population is variously estiunted from $\mathbf{3 5 , 0 0 0}$ to $\mathbf{5 0 , 0 0 0}$.

Guava, tho fruit of the Pisidium pyifferum and $P$. pomiferum, nat. ord. Myrtacess, the palp of which la made Into a jolly of a peculiarly dellciens flavor. This aweetment is imported in cousiderable quantlties from tho West Indies.

Guayaquil, a clty and port of Columbla, on the weatern coast of South Amerika, lat. $2^{\circ} 11^{\prime} 21^{\prime \prime}$ south, long. $79^{\circ} 43^{\prime}$ west. Pupulation 20,000 . The town $i_{8}$ situated on the banks of the river of the same name, abont alx or seven leagues from the Isla Verde, or nine leagues from the Isla Pufia, In the Gulf of Guajaquil, opposite to the mouth of the river. Shlpe bound for Guayaquil generally call at the Isla Puna, where expert pllots may be had, who carry them up to the town by night or by day, according to the state of the tldes. The town is old; but as the hounes are of
wood, and it has frequently suffered from fros, mach of it is comparatlvoly modern, and has a good appearance. There is a dry dock on the south bauk of the river, where several shlps of a auperior censtruction have been ballt. Tho datrict in whleh Guayaquil is altuated has for a conslderable period formod a part of the republic of Ecusdor or Aqquator. 'Like the other South American States, it has been suljected to per-petually-recurring revolutions; but Guayaqull has, not withatanding, continued to enjoy conalderable commerce. Its princlpal artlcle of export is cocoa, of whleh large quantities are shipped ; and next to It are straw hata, timber, tebacco, hiden, hark, etc. The princlpal artleles of import are manufactured cottona and hardware, sllks, wine, flour, etc. The following tables show the commerce and navigation of Guayaquil:
 1849, 1850, ANO 1551.

| Articles. | 1848. |  | 1850. |  | 1818. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantilien | Values. | Quantilea. | $\checkmark$ alnes. | Quantilies. | Valups. |
| Cocas ....................tbs | 14,020,446 | E189,40S | 11,171,818 | E111,71\% | 9,567,049 | 2100,000 |
| Straw hats. ........... . dodn. | 21,101 | 78,854 | 211,886 | 95,800 | 85,884 | 107,700 |
| Tanned hlues.... . . . . . . . .shles | 92,367 | 5,871 | 26,400 | 8,400 | 17,118 | 5,100 |
| Tobaoco. . . . . . . . . . . quintale | 8,183 | 9,489 | 1522 | 8,300 | 2,808 | 12,400 |
| Timber. . . . . . . . . . . . . . . logn | 8,248 | 1,418 | 7,571 | 8,510 | 16,944 | 16890 |
| Manglea. . . . . . . . . . . . . . polos | 1,419 | 69 868 | 8.458 | 8,010 | 10,027 | 700 |
| Frebilia.........................inintis | 17,106 706 | 868 1.285 | 7.608 1.240 | 900 8,100 | 860 1.188 | ${ }^{50} 5$ |
| Orchilfa. . . . . . . . . . . . . . | 706 180 | 1,285 $\mathbf{8 2 9}$ | 1,240 176 | 8,100 | 1,188 867 | 2,000 |
| Bark . . . . . . . . . . . . $*$ | 314 | 1,499 | 1,048 | 6,600 | 2.648 | 14,004 |
| Total value | -*. | 22844,020 |  | 2478,6\% | . $\cdot$. | 2287,900 |

 ano ci,fated ar tur Puat of GUaraquis, in 1801,

| Frams, | kniskan |  |  |  |  | Clishen |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yeamin. | Tona. | Crews. | $V$ Value afeatacy | Veseris. | Tons. | Grewa. | Value ofer gurs |
| Jritish. | 7 | 2,026 | 107 | E3S,006 | 7 | 2,026 | 107 | E 11.06 |
| Ficuaderean. | 61 | 2,060 | 850 | 84,100 | 51 | 2,1060 | 850 | 26,06\%) |
| Peruvian | 8 | 8,700 | 880 | 90,000) | 84 | 1,700 | 350 | 22,004) |
| Chillian.......... . . . . . . | 8 | 1,265 | 70 | 28,100 | 8 | 1,2k5 | 70 | 19,060 |
| New Granadisn. . . . . . . . | 8 | 140 | 11 | 1.200 | 4 | 140 | 11 | 6,209 |
| Mexlcan. | 8 | 350 | 94 | 2.0010 | 8 | 850 | 28 | 8,216 |
| Epankix. . . . . . . . . . . . . . . | 10 | 8,100 | 170 | 65,000 | 10 | 8,100 | 170 | 62,0(h) |
| Amerlean................. | 9 | 1,800 | 80 | 86,800 | 9 | 1,800 | 80 | 41, 14 310 |
| French. | 4 | 900 | 66 | 20,001) | 4 | 900 | 68 | 18,100 |
| Ilanseatie. | 9 | 3151 | 94 | 16,003 | 8 | 880 | 24 | 17,090 |
| Danteb.. | 8 | 8 CO | 25 | 18,000 | 9 | 860 | 25 | 18,000 |
| Total. | 181 | 16,051 | 1.811 | 8274,700 | 181 | 16,051 | 1,81t | \$25\% $7, \times 10$ |

The Guayaquil River is the principal in weatern Fecuador. It is formed by the union of numerour at reams from the Andes, and becomes navligable for commerclal purposes at Baybahoyo or Caracol, 70 or 80 miles from Its mouth-river boats ascending to one or other of these julaces according to the season. Below Guayaquil the channel is Impeded by numerous rocks and emall islands, while at its mouth is the larger island of l'ana. Where the river falla into the Pacific it ls known an the Giulf of Guayaquil, the extreme polnts of whlch are 70 miles apart.

Guaymas, a rea-port town of Mexlco. See Mirxtco.

Cuayra, Ios, the principul sea-port town of the republic of Venezuela, province of, and 11 miles nurth north-weat of Caracas. It is an unhealthy aituation, and in closely surrounded by high mountains and rocks. The chain of mountaliss which mejarates it from the hlgh valley of Caracas descends almost directly Into the ses; and the houses of the town are backed ly a wall of nteep rockn, leaving searcely 100 or 140 fathoms' breadth of flat gromnd letween this wall and the sea. The town is joorly bullt, and contains no editice worthy of notice. The port is unwheltered, but has good anchorage in from aix to thirty fathoms, and in well defended by land batteries. It chlef exports are coffee, cocoa, ladigo, and hilles, with some cotton and sugar. I'opulatita alout 8000.

Cuiana, Guyana, or Guayana, sn extensive territory In the north-eastern part of South America, comprehending in Its widest accepration all that extent of country IyIng between the Iliven Amazen and Ori-
noco, between lat. $3^{\circ} 30^{\prime}$ mouth, and $8^{\circ} 10^{\prime}$ north, and long. $60^{\circ} 22^{\prime}$ and $68^{\circ} 10^{\prime}$ weat. It is bounded on the north ly the Orinoco and the Atlantie, east ly the Atlantle, amath by the Amazon and the Itio Negro, and west liy the Orinoco and the Cassiguiare. its greatent length from east to weat is alonut 1200 miles, and Its greatest breadth about 850 miles; eathated area $\mathbf{7 0 0 , 0 0 0}$ rquare millen. This vast territory is divjded Into Brasilian (formerly Iortuguene) (iulana, Veneznelan (formerly Spanish) Giniana, and Colonial Guiana. The two former, comprising alout five sixths of the entire region, are now included within the linits of their rengective conntries ; whlle Colonial tiuiana is that to which the general term of Guluna is now commonly applied. it la aubdivided into liritish, Dutch, and P'rench (iniana.
fininna, frilish, the most weaterly of the three colonies, is bounded on the north and north-eant by the Atlantic, ennt ly Imteh Guiana, from which it is neparated by the Itiver Corentyn, south ly IIrazil, and west by Venezuela. It lies between north lat. $0^{\circ} 10^{\circ}$ and $88^{\circ} 40^{\circ}$, and weve long. $67^{\circ}$ and $61^{\circ}$, amd has an estimatell area of 76,000 square milis: ; hut the jnisses. sion of much of this has been disputen ly firazil and Venezuela. It ts divinded into three counties, Jemerara, Fssequilso, and Berhice, so named from the three principal rivers whlef drain them. Demerara, nituated lutween the other two, oceupies the centre of tha seabnaril for neariy 90 milen. T'e the north-wert the county of Essequibo etretches along the conat towand the wwaupm and forents of the western frontier; and to the mouth-eant lien the county of lierbice.

The entire coast of British Guiana is low, and genorally bordered with e andy flat extending far out to sea, au that vessels drawing more than 12 feet of water can not approach withln three or four miles of land. The rivers, too, lepoalt at their mouths large quantities of mud, and sand, and are thus insecesslble to vessels of large size. Extending from low-water mark to a distance of five or six miles luland, is a tract of rich alluvlal soli, of recent formation. This is succeeded by a flat narrow reef of eand running exactly purallel whth the present line of coast., Here remsina of stranded vessels and anchors eaten through with rust have been found, Indlcating that withln a comparatively recent perlod it had been washed by the waves of the Atlantic. . Running parullel to this reef, at Irregular diatancea, varying from 10 to 20 miles, ls a second and higher range, composed of coarae white sand; and which, st a period more remote, probably formed the zes limit. In the wet seasons the Intermediate tract between these two reefs becomes the bed of extensive aavaunahs; for the ereeks being then unable to carry off the torrents of ruin which fall, overflow their level banks, and inundate the surrounding country to the depth of five or six feet. On the return of dry weather the waters gradually subside, leaving behind them a thick layor of decayed grasses and uquatic plants whlch had floated und flourished on their surface, and these in time produce a vegctable nold of considerable thickness. Beyond the second reaf are swampy plsins, Interaected by asid-reefs, and extending to the mountainous regions of the interior. The high land does not rise immediutely from the plain to a great elevation, but begins with a range of sand hills of from 50 to 200 fect above the plain. Behind these the high land stretches out in level or undulating pluins, rlsing here and there hito eminences. About north lat. $5^{\circ}$, a mountain chain, an offset of the Orineco Mountsins, and composed of granite, gneiss, and other prinitive roeks, runs from west to east through thls territory, forming large cataracts where it is crossed by the rivera, and rising frequently to the height of 1000 feet above the sea. About a degree further aouth is the Pacaruina chain, which, in like manner, runs from west to east, and is of primitive formation. Its highest point, called by the natives Roraima, in north lat. $5^{\circ} 9^{\prime} 30^{\prime \prime}$, west long. $60^{\circ} 47^{\prime}$, is $\overline{5000}$ foet nbovo the level of the sen. The plains aonth of this range are in general level, and form extensivesavanmahs, covered with grassea and plants. The Sierra Acarai ls a densely wooded chaln of mountains forming the aonthern boundary of Guianu, and the water-slied between the basins of the Amazon and the Essequlto. This chain rises to the helpht of 4000 feet. The Conocou, or Cannucu Vountains, running south-east and north-west, connee', the l'ucaraima with the Slerra Acarai.

The principal river of Brit، wh Guiana is the Fssequilo, which rises in the Siarra Acarai, and nfter a course of at least 600 miles discharges itself into the ocean by an estunry 20 miles in width, in north lat. $77^{\circ}$, west long. $58^{\circ} 40^{\prime}$. In the estuary of the Essequibo are a group of beuutiful islands partially cultivated, the principat of which are Varken, or Ilog Island about 21 miles in lengti by 3 in brealth, Wakenamin and Leguan, each about 12 miles by 3, and Tliger Island, about half that size. The entraneo is difficult and dangerous, even for vessels of small size, on account of the bunks of mus and sand. Its course lies thronerh forests of the most gipantic vegetutlon. In north lat. $3^{\circ} 14^{\prime} 35^{\prime \prime}$, it forms a great eataract, nanned by Schomburgk, King William's Cataract. In north lat. $3^{\circ} 57^{\prime} 30^{\prime \prime}$, and west long. $68^{\circ} 33^{\prime}$, it reccives the IRupunoony, which has a course of about 220 niles. At various points ot its course it forms rapids and cataracts which impede its navigution. About 60 miles from lts mouth oceur the last of these, the Falls of Etabally, after which it pursues its cuurse
through the low alluvial plain. In this part of its course ic receives the united waters of the Cuyual and the Massaroony. The Demerara, or Demerary rises probably near north lat. $B^{\circ}$, and after a northward course nearly parallel with the Essequibo, of more tham 200 miles, It enters the Atlantle near north lat. $6^{\circ} 80^{\prime}$, west long. $588^{\circ} 20^{\prime}$. It is navigable for 85 milea, and at ita mouth at Georgetown It is more than a mille and s half acrosa. Further east runa the Berbice, whose source ls probably about north lat. $3^{\circ} 40^{\prime}$. It joinn the Atlantlo by an eatuary five milea in wldth, 10 millos narth of New Amsterdam, and in north lat. $6^{\circ}$ 21', west long. $87012^{\prime}$. It la navigable for 165 miles from the aea, by veasels drawing seven feet water. The Corentyn whlch forins the eastern houndary of Britlah Gulana, and probably has its source In the Sierra Acaral, flows generally northward and fulla Into the Atlantle in north lat. $\}$, weat long. $57^{\circ}$. It is navigable for boats for 150 miles. The mineral productions of Guiana are necessarily but imperfectly known. Clays of varlous kinds, including excellent plpe-clay, sre fonnd near the coast. The chief rocks are granite, porphyry, gnelss, clay-slate, andstone, etc. Traces of iron are found in various parts; and gold has been recently (in 1852) discovered in considerable quantities on the upper Essequito.
The climate of Guiana ia more healthy than that of inost places in the West Indies. Its salubrity has been much increased sinco the oceupation of the couutry by Europeans, the gradual clearing and cultivation of the aurface having done much to mitlgate those dlseases so fatal in 16 low, marehy, and hot region. The hurricanes so dentructive In the West Indiea are unknown here, and gales are unfrequent. Thunderatorms oceur only during the ralny seasona; but, like the few occasional shocks of esrthquakes, are not attended with danger. The year is divided into two wet and two dry seasons. The long rainy seasu a sets in about the middle of Aprid, when light showers begin to fall. The raln increases till the middle of June, when it fulla in torrents; In the beginning of July these hesvy rains begin to decrease, and in Auguat the long dry seuson begins, and continues till November. December and January constitute the short rainy season, and Februsry and March the short dry season. The winds during the rains are generally westerly; in the dry season they blow mostly from the ocean, loaded with moisture, and thus reader the heat less oppressive than lt would otherwlse be. The thermometer seldom rises sbove $90^{\circ}$, and rarely fulls below $75^{\circ}$ Fah. The mean annual temperature at Gcorgetown is $81^{\circ} 2^{\prime}$; the totul annual full of rain averages alout 100 inches.

The regetation of Gulana is most laxuriant. The interlor is thickly wooded with vulusble tlmber, with the exceptlon of the swamps of llerbice and the eavanwahe. The trees are of great size, and many of them are valuable for their timber, or their fruits, or as dyewoods. Medicinal plants, Including quassia, gentian, the castor-oll plant, and many others, are atundant. Arnolto, so extensively used lin the coloring of cheese, grows wild in profusion on the bonks of the upper Corentyi. The lurgent of the water-lilies, the Victoria Regia, was first discovered here by Mr. Sclomburgk on the banks of the lertice. The hai-arry, an indigenous plant deserving of notice, is a papilinacesus vine, the root of which contains a powerful narcotle, and is commonly used by the Indians in poisoning the waters to take the fish, which are not thereby leteriorated. The domestio unimais nre the same as those in lingland, and the wild animals ure those common tu tropical South Anerica generally. Llack cattle here attuin a largar sizo than in liurope, but their tlesh is not so tender nor so the flavored. The wool of the sheep is converted into lalir. Gaine, chieily deer, range the upper savannahs. Tigers, little inferior in aize to those of Asia, but different in character, being
rarsly known to attack man, abound ; an do also jaguar, which prey upon the herda of wild cattle and horses that graze on the extensive plaina among the monntains. Among the other animals ere the tapir, armadilis, agoath, ant-bear, eluth, and a great variety of monkeys, lizards, anakes, and allgators are numerons. There are beveral kinds of parrots, macaws, and hamaling-biria; alao the Ap mingo, muscory duck, toucan, spoonlill, and vampire bat. Tsuuble some insects are numerous, as milght be expected from the swampy nature of the coast districts. The rivere ant coast abound with a great variety of fieh.

The cultivated partion of IIritish Guiana is merely a narrow strip along the sea-coast, and for a few milen up the rivers, inclivdlag a portion of the islands of fissequibo. The whole aurface of the coast landn being on a level with hlgh-water mark, when these lands are dralued and enltivatell they consolidnte and become fully a foot below it, so that the estatea require to be protected from inundation by dams and alw os. Jach estat : va, theretore, a atrong clam or ent ${ }^{\text {ivex }}+$ ment in inuar ; whilc a slmitar erecel ra a che bes: inland boundury, as wetl an on each dite, ia reub to keep of the immense toxly of water accumul ${ }^{\text {ed }}$, the savannahs durisg the wet seasons, and w: h, ts not repelled, would rush down to the sea carrying every thing before it. The etate of his dams, therefore, requires the planter's unremitting attention: not the alighteas hole or latakge is allowed to exist in them, and by law their williul injary is conshlered felony. One inundation desiroys a aligar estate for eighteen montha, and a coffen one for alx years, "The original cost of damming and cultirating is fully prid lyy the first cnop, and the duration of the crops is from 30 to 50 rears : mis that thongh great eapital is required for the first outlav, the or marative expense of eultivacion is a mere trilie rempared wh that of the Weat Inilia Islands, notwithetanding that the expense of workn, buildings, and machinery; may be treble or unadruple, teing buitc on an achogunto seale for half a century of certain promiction."-(imog. Jokr., vol. iv., 393. Inside, and at the foot of these dams, are trenches I: to is fect wise, and 5 feet derp, romning round the whole plantation, and luto these, smaller trewhes and
open Iralus couvey tbe water that fills upon the land. These large trenchen discharge thelr contenus into the aea throluch one or inore sluices, which are cpened at the tide ehbs, and sliut agalast the returning flool.

The staple productlone of the colony are sugar, coffee, and cotton. From in official table of the exports of British Guiana from 1826 to 1851, we find thut in 1827, 15,904 bslee of cotton were exported, but from that period this caltivation gradually gave place to sugar, ard In 1844 ceasea to eppear in the table as an article of export. Sinco 1851, however, V, seems to have recelved more attention, for among i, he exports from Britlsh Gulana Into the United King lom in 1854 we find 1093 cwt. 0 : cotton. Coffee, from upward of $\mathbf{9 , 5 0 0 , 0 9 C}$ the in 18.30, gradually fell off to only 3198 lise, in 1851. As to sugar, making a due allowance for the sifference of seasons, the quantity exported remaisid pretty ateady from 1826 to 1837 , the year preceling the , rmlnation of apprenticeships-averaging about $\mathrm{S}_{4}, \mathfrak{j u}$, hads.; but in the year following that
 t. $16, n$, aly 88,270 bids. In 184t, it had sunk as 29 2id hers., owlngs in a great measure to a prought through a great part of that season.
WHy hhls. were exported. In proportion to angar chty the quantity of molusses is large, owisy par the dofecta of the conmon process of preparation. but iniefly to the fact that the soil is so rich an alluviua, and so abandant in alkaline and earthy saline matter. Little of the molasses is loiled down into sugar in the colony; it ix chiefly made into run, or sold to the retiners, hy whon it is mueh prized. In 1851 the quantity of nolases exported was 9530 puncheons. Although the rum priduced in this colony doen not equal in character that of Jamaica, it yet occupies a reapectalalo place In the market. The quan. tity exported in $1 \times$ and was 15,818 puncheons. With respect to the caltivation of the sugar cane, hy reason of the lownes of the land and the plan of lrainage in use-nameiy, that known as the open-lrain and roundbed metion-the system of cuitivation remains exuetly as In the timen of siavery, every part of the operations of culture being performed by mantul lahor. The follow. ligg atstistics have been compiled from official nources:


Ar export duty is charged in the parts of thene col- crease. In 18int the IValted statea laperted from liononies on their staple pinatuesions. Hoth In Horduras and Itritish Guiamn, American vessels mujoy all the privileges extended to tho vensels of the most fivored astlon: anil, as the following tables for 1854 and 1853 will alow, Amorican conmerce is generally on the in-

 blat pepper, f100\% A tatal of $\$ 137,710$, or nearly one half of the untiee imports from this colony fur that ycar. From Hriisel Guinna, the leabling linjorts in

1854 were old and gerap iron, copper, brasa, hides, sugat, ad $\boldsymbol{A}^{A}$ rum, amounting to nearly $\$ 40,000$, of whic'1 copper alone reached 15,615 . Demersra contalns a pripulation of 74,922 wifites and free blacics. Ber'ice contains a population of 21,080 , of $*$ hom 21,000 are íree blackg.
The following comparative statement exhiblt the trade between the United States and the two colonies, Demerara and Jurbice, of which British Guisns is composed :

|  | 1818. | 1864. | 1665, |
| :---: | :---: | :---: | :---: |
| Tuporis frout the sistet | 0487,74 | \%719,249 | 6824.938 |
| Exjorts to th. U. B. Ses... | 84,533 | -47,499 | 107,180 |
| $\left.\begin{array}{c} \text { Balance in faver } 0^{\prime} \text { the } \\ \text { Untted Statu-....... } \end{array}\right\}$ | - 778,171 | 8671,760 | *717,752 |
| Total trade betw "." the <br> U. B, ©E Brit.f' 4 ni ) | \$90, 28\% | 7760,788 | *382,112 |

The fillowiriz table will show the eompara't. a imul. ance of tie trale of the three Cismas in th the United States during the year endiug June 30, 1856 :


Dutch Guiana.-I Iutch, or Surinam, lies between British and French Gulsna, leing separsted from the former on the weat by the River Corentyn, and from the tatter on the east by the Maroni; on the north it has the Atlantic, and on the south Brazll. It lies between istitade $1^{\circ} 80^{\prime}$ and $6^{\circ}$ north, end longitude $53^{\circ} 30^{\prime}$ and $57^{\circ} 30^{\prime}$ west, being alyout 300 miles in length, from north to south, snd 260 in extreme breadth. Area, about 38,500 square miles. In physfeal geography, climnte, productions, etc., it differs but littie from British Gulana. The principsl river is the Surinam, which flows northward through the centre of the territory, $f$ d falis into the Athantic after a course of nearly 300 sailes. It is navigable for large ships for about four leagues from its mouth. Aiong the coast, and on the banks of the river, are many settlements and plautations; and the higher parts of the country are occupied chiefly ly the Maroona, the desceudants of runaway negroes. In the last century they wero very troublesome to the colonists, but they
have now adopted more settled habits. Slapery hae been recently abolished lere by the Datch government, bnt in lleu of compensation, the slaves reinain apprenticed, and work withont wages to their proprietors for 12 yeara.' The colony is ruled lyy a goverrior appointed by the crown, and a council elected by the freehoiders. Justice is administered by a supreme c'urt, courts of minor jurisdiction, and a court of inheritanct, and orphans. The receipts in 1850 amonnted to : 39,485 ; the expe nditure to $£ 85,564$. On 278 plantations, consisting of $36^{r}, 548$ acres, 48,815 acros wero under cultivation. The chiet productions are sugar, rum, molasses, cof.․ tacau, and cotton. Its chief trade is with It ${ }^{\prime}$ les.d. Imports, in 1851, $£ 171,395$; exporta, $£ 286,162$. At the close of 1850 , the colony numbered e 1,080 Inhnbitante- of whom $\mathbf{3 2 , 4 0 1}$ were Europeinas and creoies, 8000 bush negroes, 1000 Indisias, and 39,679 slaves. Of the roligious sects, the Moravians amounted to 17,933 , and the Jews to about 680. The live stock conslsted of 168 horees, 59 mules, 5564 cattle, 8155 sheep, 454 goats, and 4664 hogs. The army consists of 610 men of all arms ; and the navy of 11 vessels, chlefly small. Paramarilo, the capital, is situated on the right bank of tho Surinum, abont 10 miles from its month. It is buile in the Dutch style, with whle and straight streets, planted with orange-trees; and the houses are generally two stories in height, and built of wood. Population about 20,000 . A little north of the town is the fort of Zeelandia, where the governor resides, and where are also most of the government establishnients.

Surinam whs declared a free port by proclanation dated May 1, 1848. Accounts ars kept in doilars of 8 reala, or 50 stivers ( 100 cents), and in pounds sterling. Exchange on London, s480 to 8485 per pound sterling. Aves island, one of the leeward group of the West Indies, het ween $15^{\circ}$ and $16^{\circ}$ nort! hatitude bolongs to the Duteh government. In the year $18 \mathrm{i}^{\circ}$ extensive deposits of guano were diacovered on the island of Aves, by two American ship captains, but wo do not as yet learn that any shipments have been made from it. Cuffee, the product of a possession of the Netherlands direct from cueh possessions, or from the Netherlands, Imported into the United States In a vessel of the Netherlands, is admitted free of duty, undor the treaty of August $26,1852$.


| Years ending |  | Exports, |  | Imports. | Whervor there was in Aultion and Speciv. |  | Tunnage Clesred. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sumectic. | Forelgn. | Trasi. | Toul. | Exporuct. | Imported. | Amseriemn. | Fareikn. |
| Eupt, 30, 1433........ | 51920 | $\cdots$ | \$1.22, 515 |  |  | \$1,74 |  |  |
| 1834........ | 27,928 | .... | 27,228 | $67,579$ | $\ldots$ | 1,236 |  | . |
| 1883........ | \%0,415 | -2960 | 80,205 61,675 | 81,480 88,471 | ..... | .... | 8,324 10,108 | $\cdots$ |
| 1887. | 84,513 | 1,065 | [6,118 | 44,976 | $\ldots$ | ... | 6,378 | $\ddot{q} 1 i \tau$ |
| 1833...... | 68775 | 2,173 | 70,443 | 84,854 | .... | 200 | 4.718 | 76 |
| 1899........ | $8 \times 103$ | 2,308 | 01.6186 | 49.018 | .... |  | 6,6,37 |  |
| 1840. | 62.114 |  | 52.118 | 87,768 | ... | ... | 5,729 | .... |
| Total. | - 48.1047 | 13,481 | 4,52,36\% | *:167,940 | $\ldots$ | \% 3,180 | 41,902 | 2,458 |
| Sept 80, 3441....... | 835,900 | $\ldots$ | *37,960 | - 88.793 |  | $3+107$ | 5.496 | 117 |
| - $1442 . . .1$. | 101,055 | .... | 101,0\%5 | 74,764 | $\ldots$ | 2,573 | 6,444 | .... |
| 9 mms . $1843 . . . . .$. | 24,480 |  | 24,6*0 | 42, $0 \times 38$ | $\ldots$. | 275 | 8,066 | $\ldots$ |
| Jane 30, 184......... | 66.940 | 14,792 | 71,772 | 49,1+4 | .... | .... | 7,883 | $\ldots$ |
| 184.7....... | 47,787 | 1,973 | 49,619 | 41, 47 | .... | .... | 6,840 | .... |
| 1866 1847. | 60.64 49,504 | 1,189 88 | 67,984 44,224 | 83,674 | $\ldots$ | .... | 4,810 | ..... |
| 1845. | 115,501 | 1,517 | 117,119 | 81,296 | .... | $\ldots$ | 5,904 | 817 |
| 1549........ | 114018 | 52 | 104,0¢5 | 58,201 | .... | 410 | S,369 | 1,000 |
| 1300........ | 82,014 | 6,425 | 102.459 | 71,048 | $\ldots$ | 2,418 | 4,932 | 864 |
| Total. | -714, 016 | (15,15 | (720, 700 | * 5017.281 | . $\cdot$. | \$6,087 | 61,269 | 1,794 |
| Jane 80, 1651........ | 158,491 | 35,582 | *91,073 | 5 89,678 | .... | $\ldots$ | 4,927 | 885 |
| 1)32........ | 84,052 | 7,990 | 91,24 | 88.712 | .... | .... | 6.262 | 911 |
| 1*53.. | 108989 | $17,09.1$ | 126,083 | 180,081 | .... |  | 6,214 | 404 |
| $1 \times 5$. | 88,745 | 7,675 | 61.483 | 101024 |  | \%18,096 | 2,927 | 130 |
| $1555 . . .$. | 947,1063 | 10,64.4 | 24, 4, 106 | 200,6\%4 |  | 22,145 | 8,114 |  |
| 1856......... | 818,601 | 7, $8 \times 5$ | 324,516 | 252,783 | 12,000 | 8,162 | K. 1810 | 865 |

This colonial territory of Holland comprises an urea If 10,4100 square miles, and contains a popalation of nearly 60,000 souls. Its chief prolucts are sugar,
coffee, cotton, cocoa, rice, capara, fino woods, gums, drags, timber, nud molasses; the hart ranks next to sugar in value as an export. The quantity of sugar
ennually exported is atated at about $25,000,000$ pronnds, and of coffee at about $4,000,000$ pounds.

The annual average production of the leading ataplee of thia colony are thes given: Sugar, 28,012,163 Ils. $;$ coffee, 1,355,8i6 lbs, ; cocoa, 151, 250 lba.; cotton, 765,823 Ibn.; rum, $92,183 \mathrm{gala}$; $\mathbf{~ d r a m}$ ( a kind of irandy; 227,965 gals. ; molasses, $1,210,463 \mathrm{gals}$. Ansual average value of lealling staples, $\$ 1,500,000$.

The valoe of importa into Dutch Guiana in 1853 antonnted to 4816,474 , showing an lncrease over the im po'ts of the preceding year of 871,473 . Of the total amount, there were from the Netherlanai, 400,482 ; from the United States, 179,236 ; ${ }^{\prime}$ and from other countriee, $\$ 176,750$. The exports amounted to 1,812 ,118 ; ahowing 101,253 increase over the exporte for 1852. Of this sum, $\ddagger 844,103$ were sont to the Netherlands, 201,794 to the United Staten, and 266,221 to other countries. The principal articles imported Into Surinam from the United States are aalted fish, amounting, in 1853, to $⿻$ (58,892; salted and amoked nient, about $\$ 50,(000$ per anaum. The imports into tho Uuited States from Surinam are sugar ( $\$ 131,052$ in amount in 1852), molasses ( $\$ 58,833$ ), and cocoa ( $\$ 32,026$ in 1853). In 1853, there arrived 201 vessels, masuring 36,858 tons. Of theee, 66 , of 18,960 tons, were under the Dutch fla 1 and 21, of 8196 tons, American. In the same year there cleared 190 veasele, measuring in the aggregate, 86,858 tons; of which 55 , of $17,8: 7$ tons, were I)utch; 31, of 15,150 tons, American ; and the othera under the English and other fagg. A.n analysis of the trade of 1)utch Guiana show that tho United States has about one fourth of the whole comraerce of the colony.
Fromen Guiana is the smaliest and noont eastorn of the three colonies, known as English Guiana, Dutch Guinna, and French Gniana. It lies between $2^{\circ}$ nnd $6^{\circ}$ N. lat,, nnd $51^{\circ} 30^{\prime}$ and $54^{\circ} 80^{\circ} \mathrm{W}$. long., being bonnded on the north and northeast by the Atlantle, east and sorth by Brazil, and west by Dutch Galans. It is sbout $\mathbf{2 5 0}$ miles in length, from worth to south, and varies In breadth from 100 to 150 miles. Aroa, 27.560 square miles. It has a coast line of 200 miles, extending from the Maroni to the Oynpoc. The low alluvial tract along the coast is of great fertil!ty: The mountain chains run east and weat, and are alinost whoily of granite, but do not attuin a great elevation. The country is nbundantly waterel, anu the coast-fandel appear to be less unhealliy than in Iritish Guiana. The vagetation of Guiana is very luxuriant, and the interior is thickiy
wooded with trees valuable for their timber, fruits, and dye-woods. Medicinal plants, including quasela, gentlan, the castor-oil plant, and arnotto, used in coloring cheese, are all abundant.

This island of Cayenne, at the mouth of the Oyak, is about 30 miles in circumference, and is aeparuted from the contiaent by a narrow ehannel. The roalatead at the mouth of the Oyak, thongh amall, ia the best on the ooast, having every where from 12 to 13 feet of water. The capital, Cayenne, is situated va thn northern aide of this isinnd, and contains $5,220 \mathrm{in}$ habitauts. The new town ie well bulit, and has gool atreets; the government house is in the old town. The larbor is protected by a fort and several batteriss. The colony is divided into two diatricta, Cayenna and Sinnamary, and 14 communce. The government is vested In a governor, a privy council, and a colonial council, composed of 16 members, clected by tie coloniats. The cultivated landa are eatinated to be alout one ejghtieth of the whole territory. Beaides the ktaples of British and Dutch Guiana, its productions compriso pepper (including Cayenne, which is so calied from the inlanil of that name), cloves, cinnamon, and nutmegy. Trude is chiefly with France and its colonlea. In 1854, the afficial value of the importe into France from Freuch Guiana was $£ 20,000$; exports, E192,000. The French firat mettled in Cayenne in 1604 ; the British and Portuguese capturel the colonyin 1809, but restorel it to the French in 1814, In whose possession it atill remains. It has recently been madia a place of banishment for French political offenders; and, in 1852, 2,500 of these were aent out. l'opulation nhout 22,000 , of whom about 15,000 are emancipated alaves.

Cayenne, sea-port, town, and capital of French Guina, on the north-weat extremity of the isiand of that name, in let. $4^{\circ} 50^{\prime} \mathrm{N}$., long. $62^{\circ} 15^{\prime} \mathrm{W}$. It contains about 500 houses, moetly of wood, and is divided Into the old and new towns, the lattor clean and well built. It is the seat of a court of assize, and has s handsome church, Jesuit coliege, governnient honse, and sevaral large warehonses. The harbor is shallisw, has two quayer, and is protected by a fort and several batterics. Population about 6,000 .

Freneh vessels from Carenne in French Guiana are admitted into the ports of the United States on equal terms, as to duty and tonnage, with veasels belonging to the Enited States, when direct from Guiana, either in ballast or with articlea the growth or manufacture of that couritry.


| reatereximb | Exporia. |  |  | Imporis. | Hibereuf there wal la Buition and 8 prerle. |  | Tonnage Clearal. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dorwale. | Fioraly. | Totul. | Toinl. | Eximeri. | Iapuert. | A umarices. | Yorrikn. |
| Sept m, 1683. | * 6.683 | . | 8 HCO | $\ldots$ | -.... | .... | .... |  |
| (3)1934. | 2,4s\% | .... | 2,430 | $\ldots$ | .... | .... | .... | $\ldots$ |
| 1898. | 1i,4is | .... | 3,488 | $\ldots$ | $\cdots$ | $\ldots$ | 8,29 | $\cdots$ |
| 1817. |  | .... |  | . $\cdot$ | ..... |  | 2;(th) | ..... |
| 14.18. | . | .. |  | [5,3ind | . | 9938 | 1,966 | ..... |
| 1898. 18.1 | 1,613 |  | 1.6.4 |  | .... | .... | 2,3005 | $\ldots$ |
| Tolal | \%14, 1007 | * 100 | 12,40\% | 6, 51.2 | -•• | 1188 | 11,867 | .... |
| N.pt. 89, 1841 | -4i,90,s | *:1e | \% 66.998 | \$0,416 | $\ldots$ | +28,022 | 1,667 |  |
| 1892. | 4,0063 | 1,10:30 | 48,093 | 50,172 | .... | 18,797 | 1,312 | 259 |
| 9 mas tials. | 4, 41.364 | 1803 |  | 44.111 | ... | 8,7100 8.167 | 787 | .... |
| Taneso ists. | 87,0\%s | 414 | 3i,496 | 80 ¢) 6 | $\ldots$ | 6. 210 | 1454 | ..... |
| 1546. | 81.270 | 2,131 | 41,40! | 76.736 | .... | 8000 | 1,890 |  |
| 1445 | $5 \times 2.85$ | 1.900 | cosestit | 4,iit5 | $\ldots$ | 7.460 | 1,404 | ..... |
| $1{ }^{1} 8$ | 44.75 | 1,54 | 80,421 | 63,954 | .... | 29,741 | 1,717 |  |
| 189. | 411,161 |  | 46,101 | 28.48 | .... | 8,720 | 1.461 | 89 |
| 1830. | 41,400 | 1,393 | 46,74 | 12,051 | .... |  | 1.884 | 98. |
| Total | 6 6 S 4,813 | 110,431 | 8494.317 | -162,565 | * ${ }^{\prime}$ | 102,517 | 15,465 | 390 |
| June 80, 18.1 | \% 17.699 | 8615 | 1494.4 |  |  | 211.000 |  |  |
| ${ }_{1854}^{1854 . . .}$ | 16.8187 64.1515 | 1,278 1,104 | 08,123 65,403 | 824,428 | .. | 7,4185 7,100 | 1,729 | .. |
| 1854... | 644336 | 1,104 | 60,469 100893 | 17.177 49.619 | . | T,100 | 1,275 2,234 | - $\cdot \cdot$ |
| 185. | 75 \% 6 | 1,966 | 80,618 | 8.816 | .... | 2.560 | 2.15 |  |
| 1838. | 1.19,033 | ... | 148,003 | 27,747 | .... | 16,101 | 2,101 |  |

A decree of the Fronch government, isened In 1822, und continued by a decree of the govsmer of the colony, dated the 28d of Decamber, 1883, givea an advantage to Froneh goods shlpped directly from French ports in Fronch vessela, and to French goods and products of French colonios brought in French vessola, over the foreign trade, in the rate of duties they impose. The prodncts of the colony carriad to France, in Frensh vessels, have also an advantage over pro'acts carried to other countrien In foreign vessels. The only duties pald by French or forelgn veasels remaining. In port over's2 hours, wlthout putting ont or taking in any cargo, are pilotage and fees to the custom-house guards.
Cuyenne ls the mont eusterly of the three colonles. It extends along the coast from the Hiver Maronl to the Ozapoh, the boundary of Brazil. It lles between $2^{\circ}$ and $6^{\circ} \mathrm{N}$. lat. Its length, from north to sonth, ls 250 miles, and the breadth varien from 100 to 190 miles, comprising an ares of 27,560 square miles, and containiag a populatlon of 5,056 whites, and 10,592 blacks. The coast is an alluvial tract of great fertility, and the uplands are also very fertile. There are upward of twenty rivers of tolerable size, whlch sre navigable, from 80 to 60 miles, for small craft. Ahout one eighth part of the surface is occupied; the remainder is left to Indians and willd beasts. The articles cultivated are the sugar-cane, eoffce, cotton, cocoa, cloves, onnatto, pepper, clanamon, nutmegs, oorn, etc. There are about 40 large establishments for the manufacture of sugar, and about 60 augarmills, most of which are worked by team. The imports are chiefly from France, being; sbeut $2,675,000$ france in value. The imports from other countries smoant to about 550,000 francs. The exports aro of the valae of $3,128,000$ francs, and are nearly all shlppad to France. Abont 40 French vessels, of the aggregate burien of 7000 tona, usually enter, and about the same number clear from Gulama every year. Some 20 or 30 foreign veasels enter and depart each year. These statistics are not exact, hut probably approximate nearly enough for practical legislation in reference to them.

Guild (from the Saxon guildan, to pay), signifies a fraternity or company, because every one was gildare, that is, had to pay something toward the charge and support of the company. As to the origin of guilds or companies in Britain, it was $e$. law among the Saxons that every freeman of fourteen years of age should find suraties to keep the peace, or be comnittel. This led to the formstion, smong neighbors, of associations, each consiating of ten families, which becane hound for one another, either to proiuce him who committed an offense, or to make satisfaction to the injured party; and that they might the better do this, they raised a sum of money among themselvea, which they put lnto a common stuck, and when one of their pledges had committed an offense, and fied, then the other nine made eatisfaction out of this stock, by payment of money, according to the offense. Becasuse this association conslsted of ton families, it was called u decenary; and hence arose other kinds of fril ternities. Ilut as to the precise time when these guilds had their origin In England there is nothing certain to he found; since they were in use long before suy formal license was granted to them for such meetings. It seems to have been about the close of tho 11th century, according to Anderson (History of Commerce, vol. i., p. 70), that merchant-guilda, or fruternitles, which were afterward etyled corporations, came firat luto general uss in many parts of Furope. Madox (Firma Burgi, chap. l., sect. 9) thinks they were hardly known to our Saxon progenitors, and that they might probably have been brought Into Eingland by the Normans, although they do not seem to have been very numerous in those days. The French and Normans might perhaps have borrowed them from the free clties
of Italy, where trade and manufactures flourished at a much earller period, and where auch nommunitles appear to have been flrst in use. These guilda are now companies or associatlons haviag laws and orders made by themselves, in virtue of authority from the prince to that effect. See Gild.

Guild in the royal burghs of Scotland, is still used for a company of merchants, who are free ven of the burgh. Every royal burgh has a dean of build, who is the noxt magistrate below the provest.

Guild, Gild, or Geld, is also nsed by anclent writers to signify a compensation or mulct for an offense.

Guinea, a gold coin formerly struok and current in Britain, and so denominated because the gold of whlch the first specimens were atruck (temp. Car. II.) was brought from the coast of Guinea; and for a like reason It orlginally bore the impression of an elephant. The value of the guines varied greatly at dlfferent pariods, but latterly it was worth 21 shillings. Its weight was 5 dwts. $9 \cdot 4125 \mathrm{grs}$. On the introduction of the sovereign-first coined In 1817-the old guinea coinage was gradually superseded.

Guinea, the name asalgned to a large tract of country on the west cosst of Africa, commencing at Capa Verga, In about $10^{\circ} \mathrm{N}$. lat., and terainating with the Cameroon Mountains in the Gulf of Biafra. These are the limits more commonly given to what is called Guinea; by some they are greatly extended, so as to comprise the whole of the Portuguese settlements south of the equator, under the name of Sonthern Gainea, while the coust north of the equator is called Northern Gninea.
The term Guinea is not of African origin, or at least not among those to whom It is applied. Thero is, according to Barbot, s district of country north of the Senegal known by the nume of Genahoa, the inhabliants of which were the tirst blacks that the Portuguese encountered In their explorations along the coast in the 15th century; and they applled this name indiacriminately afterward to all the black nations which they found further south. In the $t$ roo succeeding centuries it was applied in a more restricted sense to that pertion of the coast which is now better known as the Gold and Slave Coasts ; owing to the faet, perhaps, that this region for a time offered a larger number of slaves for the forsign market than any other part of the country. The natives here acknowledge this term as applied to themselves, but it was undoubtedly borrowed in the first Instance from the Portaguese.

Tho physical aspect of the country, as might be inferred froin the large extent we have under conslderation, is very variatile, but is charscterized overywhere by excessive richness of natural scenery. In the regiou of Sierra Leone, Cape Mount, and Cape Mraurado, the eye rests on bold headlands and high promontories covered with the richest tropical verdure. In the vicinity of Cape Palmas thero are extended plains, slightly undulating, and covered with slimost every variety of the palm and palmetto. On the const of Drewiss the country rises into table-lands of vast extent, and apparently of great fertility. The Gold Coast presents every variety of hill and dale; and as we nipproach the equstorisl region we are saluted by mountain sconery of unrivaled beanty and surpassing magniticence.

The inhabitants consist chiefly of the following tribes:-The Vais, tho Manou or Kru, the Kovakeras or Avekroom, the Inta, the Dahomey, Ashanti, and the Benin. There are no large or extended political organizations, with the exception, perhaps, of the kingdoms of Aahantl and Dahomey, and neithor of theso has a larger population or greater oxtent of territory than the maller kingdema of Europe. For the most part, the people live together in Independent communities, of not more than 8 or 10 villages, and with an aggregate population of from 2000 to 25,000

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er 80,000 . In these difierent commanitioe they have so writton forme of law, but are governed for the moet part by certain trailtlonal usages that have been handed dawn from generation to generation. Nomiaally, monarchy is the only form of government acknowledged among them ; bat, when closely scrutlnised, their systems ahow much more of the popular and patriarchal than of the monarchical element. They are easentlally a pagni people; but in thelr reIlgious notlons and Idolatroun worahip they Giffor very much from each other. There are many decided tracee of the Jewlsh origin. Among these may be apecifled the rite of cireumeialion, which, with the exception of the Kru or Manou family, is, wa believe, miveraal ; the divislon of the tribes into familles, and In some cases Into the number of 12 ; bloody sacrifices, with the sprinkling of blood upon their altars and door-posts; the observance of new moons; a formal and apecitied time for mourning for the dead, during which period they whave their head and wear tattered clothes; demoniscal possessionn, purificatlonn, and various other uasges of probable Jawish origin.

Respecting the natural producta and trading eapabilities of the country, the articles exported consist chietly of giager, gum, mendobl (Gainen graina, a apecies of seed), palin-oll, some ivory, a wood used for dyeing, calleil camwood, and which le worth In Eingland about $£ 15$ sterling a ton. Vessels visiting that coant take on boarl-at Sierra Leone, or on the conat of Malagueta, between Cape Mesurado and Cape Pal-mas-sone black sailors, called krumen, who are of great use in doing the heavy work on board, and for boat service; thus saving the European seamen from expeaing themselves too much to the sun's ravs, etc. The services of these krumen are recompened with two or three pieces of cotton cloth per month each. Their chief food is rice, which may be purchased at a very cheap rate on the const of Malagueta; the price of a "kru" (a mensure of capacity welghing about 80 lbs.), being a fathom and a half of cotton cloth, or any other article of proportionate value.

On the coast of Malaguets (Grain Coant), the artlcles received principally in barter are rice and millet; also ivory, paim-oll, and camwood, especially at Monrovia, the capital of Liberia. At Slerra leone, the pepper-tree (called malagueta), is cultivated on an extensive scale, and its fruit-Guinea pepper-after being dried, in purchased In large quantitiea by the Americans, and inportel Into the United States.

English muskets, gunpowder, ram, and tobacoo, are the prineipal articlee of traffic on the whole of the coast as far as Unim at the bottom of the Ilight of Ilenin.

At Jaque Lahoo and Jaque Jaque, two considerahle towns, situated at the extremity of the bight formed by Cape l'almas and Cape Three Pointa, commences the trade in goldduat ; here also a conalierable quantity of palm-oil and some lvory are found. After painsing these towns, the Furopean settlements commence. The first are Great lassam and Aanine, helonging to France, and situated at the moutha of the riven of the same names. Five leagues to the west of C'ape Three Points, in the mmall l)utch fort of Axem; and on the other side of the same cape is the English port of Dick', Cove. From Cape Lahoo to Acora, and to all the Earopean settlementa on the coast, the monesary atandard is the "ake" (ackie) of gold-iust, which weigh half a dram Finglish, and is worth nearly 5 s. The kru on thin part of the coast is almost double that asalgned to it on the coant of Mala-gueta-averaging \&50, more or leas.

Hetween Ihick' Cove and the cantle of St. George of the Mine ( $N$. Jorge da Mina), are altuated the mall forte of Serunde. Sance, and Commendo; after which we come to the firet large Furopean eettlement, viz., the cantle of St. George of the Mine, ivelonging to Holland. The castle is a Portuguese structare, and
wan formerly the mont Important of tha Portnguene colonies on this coast. Next to it is Cape Coast Castle, belonging to Fingland, and situated In sight of the former. The next place is Annamaboo, \& small En. glish fort, formerly abaudoned, but where for some years past trade has been again in some degree devel. oped. To this fort succeed othera in rulng, as Winebah and Assam. Millet is found in abundance at thesa places, as well as palm-oil and gold-duat. lroceed. Ing along the coast, we come to tha grast English set. tlement of Acora, where there ane at present two fortressea. The firat, that of St. Jamen, was bullt by them many yesra alace; the second, that of Chrinthanhurg, was purchased from I?snmark, tegether with all its poesesaions on that const, In the year 1850 . Then follow the mall settlementa of Ningo; after pasaing whleh, Cape St. Peul, a Ittle to the east of Hio da Volta ("Return Kiver"), ba doubled.

From Cape St. Panl to Onim or Lagos, many negro towns or villages are met with stationed along the coast. These communicate with each other by meuns of the lake situated at no great distance inland from the leach ; and then the ford converges to the prinelpal pointa, which are Quita, Popo-pequeño, Ajuils, 1'orto Novo, and Onim. The trade which formerly flourished at all these places was that In alaves; fint for some years past that in palm-oll, or den-den, has greatly developed itself, the quantity produced amounting annualiy to more than 7000 tons, which aro shipped to Fingland, America, and France. On this section of the coast there are no Europeen establishments, properly no called; but at Ajuda, Porto Novo, and Onim, there are factories ; and Europeans are also resident in the country, and traffic with vessels, as they do at those establishments. The trade of the Ilenin, Brasa, Bonny, Calabar, and Cameroon Rivera, is all in palin-oil, and carried on exclusively by the Engliah.

Gulf of Guinea. The Gulf of Guinea forms a caldron snd a furnuce, and apreads out over the South Atlantic an air-chamber for heating up in winter and keeping warm the extra-tropleal reglons of south America, Fvery traveler has remarked upon the mild climate of I'atagonia and the Falkiand Islunds. "Temperature in high southern latitnden," suys it very close ohserver, who is co-operating with me in collecting materiala, "differa greatly from the temperature in northern. In southeru latitudies there seem to be no extremes of heat and cold, an at the north. New. port, Khosle lsland, for Instance, latitule $41^{\circ}$ north, longitude $71^{\circ}$ west, and Kio Negro, latitule $41^{\circ}$ suuth, and iongitude $6 a^{\circ}$ west, an a comparison: in the former, cattle have to be stabled and fell during the wis. ter, not being able to get a living in the tiphls on account of nnow and ice. .the latter, the cuttle feed in the fields all winter, thi FC 'ring pienty of vegetation and no use of hay. On the Falklani Islands (latitude 51-52 ${ }^{\circ}$ south), thonsands of Imillocks, sheep, and horsea are running wild over the country, gathering a living all through the winter." The water in the equatorial caldron of Guinen can not escaje nurth -the shore-line will not permit it, it must, therefore, overflow to the south, as that of St. Wiugue does to the north, carrying to l'atagonia and the Fulkland Islands, bevoond $5 n^{\circ}$ south, the winter climate of Charleston, South Carolina, on our side of the Yorth Atlantic, or of the "Emerald Inland" on the other.Maviry's /hys: Geog.
Gulf of Mexdco, a large indentation on the past coast of North America, wamhing the shoris of the United Staten and Mexico, mearuring about lyomiles from east to west, and 800 miles from north to south; estimaterl area, 800,000 aquare miles. it is partly formed by the projection toward each other of the peninsulas of Florids and Yucatan, nearly in a line lectween which lles the Inland of Cuba, leaving a communication on It, north with the Atlantic, through the flor.

GTI.F. STYKLLM AND DRIFT bV LIECT. MAORY U.A.N.



ida Channel and on its south with tho Caribhean Sea, through the Channel of Yucatan. The Gulf is free from banks, and contains only a few amnll rocky lslands on the coast of Yucatan, with the Florida Reef near its eastern extremity. The shores are low, and generally lined with flat sandy islanda, not far from tho land, and numerous legoons. There are few harbors ; and the rivers which fall into it are obstructed by bers at their mouth, which render them all, except the Misaissippi, nearly inaccessible for vessels of large draight. A current of water entering the Gulf from the Caribbean Sea is soon divided into two portions, the one running east along the coast of Cuba, the other west, in a curved line through the middle of the Gulf, round toward the Florids Channel, where it meets the other curreni, and the two united form the Gulf Stream (see Atlantic). The temperature of the Gulf of Mexico is $86^{\circ}$ in summer, and $6^{\circ}$ higher than that of the ocean in the aame parallel. At high tide, the Pscific rises aeveral feet alove the levol of the Guif, and at low water it falis as far below it.
The depth of the marine basin which holds the waters of the Gulf of Mexico is, in the deepest part, nthout three quarters of a mile. The officers of the United States' ship Albany ran at line of deep sea-soundings from west to east across the Gulf; the greatest depth they reported was about - $\mathbf{7 0}$ feet. Subsequent expcriments, however, indu e the belief that the depth is nut quite so great. We should therefore have, by stopping up the chaumels between the Gulf and the Atlantic, not a sea-level in the Gulf, but we should havo a menn level between evaporation and precipitation. If the former were in necess, the lovel of the Gulf waters would sink down until the surface exposel to the air would be just aufficient to return to the atmosphere, as vapor, the amount of water discharged by tho rivers-the Mississippi nnd others-into the Gulf. As the waters were lowered, the extent of evaporating surface would grow less and less, until Nature should estabiish the proper ratio between the ability of the air to take up and the capacity of the clonds to let down. Thus we might have a sea whose level wonld be much further below the water-level of the ocean than is the Dead Sea.-Mavny's Phys. Geog.
Gulf Stream. There is a river in the ocean. In the severest droughts it never fails, and in the mightlest floode it never overflows. Its bunks and its bottom are of cold water, whie its current is of warm. The Gulf of Mexico is its fountain, and its mouth is in the Arctic Seas. It is the Gulf Strenm. There is in the world no such majestic flow of waters. Its current is more rapid than the Mississippi or tho Amazon.
Its waters, as fur out from the Gulf as the Carollua coasts, are of an indigo-blue. They are so distinctly marked that their line of junction witi the common sea-water may be traced by the eje. Often one linlf of the vessel may he perceived floating in Gulf Stream water, while the otier half is in the common water of the sea; so sharij is the line, and such the writ of affinity letween those waters, and the reluctanco on the part of the Gulf Stream to mingle with the common water of the sea.-Mauny's Phya. Geogrophy.
Various causes of the Gulf Stream havo been assigned. At ono period, tho Mississippi River; but this hypothesis was soon exploded, for it is estimated that it wonld take 1000 such rivers, us tite velocities of the river and Gulf Strenm are nbout equal. The most phansilde hypothesis yet nilvanced, nad the one which seems to ho entertalned now ns true, is, that tio motive power is due to the difference of teuperaturo between tite equaturina and northern parts of the ocean. This differeace would give a cause commensurate with such an cffect as the Guif Streau, and is tho only one yet advaneed where the cause and effect approach equalty. It is probablo, however, that this is but one of tie many fortes brought to boar. Tho forces varying from the potent one mentioned, to nthers
"llght as the zephyr." And, in many cases, forces produced by the Gulf Stream react upon it; as, from the difference of temperature of the north and south, aided by the Gulf Stream in some cases, are produced the trade winds, 80 these trade winds have no alight effect upon the Gulp Stream.

To form some idea of the magnitude of the stream, we can take a crose section at Cape Hatteras; approximately, it may be given as 75 milos wide and 700 feet in depth, with a velocity of three knots en hour. The stream becomes smailer in its progress north, yielding portions of its heat on its way, and so allowing portions of the stream to assimilate with the rest of the ocesa.
Ae the Gulf Stream is but a current of water of high temperature from the sonth to the north, it would be natural to suppose its course would be from south to north. This would be the case were it not for the rotation of the earth to the east, for a current starting from the equator, having a velocity of 1000 miles an hour eastward in common with the earth, when its current reaches latitude $60^{\circ}$, where the velocity of the earth is only 250 miles an hour, it will be so many degrees of longitude east as the diference of velocities would force it, minus the retarda:ions. This would be aufficient to explain why the rourse should be northeast, independent of the effect of the contour of the continent.
The course and dimensions of the Gulf Stream may be readily seen from the accompanying chart of Manry's. (See Plate II.)
The amonnt of water forming the Gulf Stream, and going north, must be returued into the fountsin-head, the seas near the equator-and so we have streams or oceanic currents going south equally as important in their effect, and givin; as interesting phenomena, but not as readily observad, because they ars under-currents, and not as appreciated becnuse they most affect other parts of the world. The water from the north flows to the south in many comparatively s mall under currents, and rises to the surface st various points, tnking for their general course tho African shore, and making a circle uniting with the Gulf Stream in the Caribbean Sea. For the snme reason that the course of the Gulf Stream is north-east the returning currents are south-west

One large returning current crosses the Gulf Stream nour the Banks of Newfoundiand, bringing icebe'gs which melt in contact with the warm stream. The deposits have formed, and are forming, the Banka of Newfoundland.
The influence of the Gulf Stream, like tho distance of the Axed stars, san be conjectured, but we fall as much short in one cenjecture as in the othor.
Our complaints of a varable climate would not be without foundation were it not for the beneficial influence of streams of water from the tropics. giving us warmth and moisture; mnking the climate of New York in winter equal to a place in a latitude $10^{\circ}$ bouth, and in summer giving the henlth of a place as many degrees north. Maury suys:
'No part of the world affurts a more diffcult or dangerous navigation than the approxches of our northern coasts in winter. Before the warmth of the Gulf Stream wns known, a voyage nt this season from Eumopo to New Engiand, New York, and even to the capes of the Deinware, or Chepapeake, was many timos more trying. difficult, and dangerous than it is now. In making this part of the const, vesseis are frequently met ly snow-starms and gales which mock the seaman's strength, and set at naught his skill. In a little while his bark becomes n mass of ice, with her crew frosted and holpless; she remains obedient to her helm, and is kept away for the Gulf Strean. Atter a few hours' run, she reaches the elge, and almost at the next hound passes from the midist of wiater into summer hent. Now the ice disappears from her; the
sailor bathes his stiffened limbs in tepid watery; feeling bimself invigorated and refreshed with the genial warmth about him, be realize out there at sea the fable of Antæus and his mother Earth. He rises up and attempts to make his port again." And though be may fail again, he always has the same resource. Nor is this all ; it afforde an excellent water "landmal s," an outside shore of the country, against which no ship in lost; but giving definite longitude to the storm-tossed mariner, and warning him that land ia near, saves him often. Commerce iteelf, defining it as the interchange of commoditles, is but an Imitation of the Gnil Stream. The Golf Stream, taking the heat of the tropics to the shivering northmen, and the icebergs of the north to the feverish nstive of the torrid zone-giving h to to some, food to othera, and in some way affecting ali.

Gums, Resins, Gum-resins. In commerce, the term gum is not only applied to gums properly so called, but also to resins, and gum-resins. But though these aubatancea have many properties in common, they are yet sufficiently distinct.
I. Gum is a thick, transparent Iaid, that issues spontaneously from certain opecies of plents, particularly such as produce stone-fruit, as plom and cherry-trees. It is very adhesive, and gradually hardens by exposnre to the atmosphers. It is usually obtained in emsli pieces, like tears, moderately hard and ac mewhat lrittle while cold; so that it can be reduced by pounding to s fine powder. When pure, it is colorless; but it has cominonly a yellowish tinge; it is not destitute of lustre; It has no smell ; its taste is insipid; its spocific gravity variea from $1 \cdot 3161$ to $1 \cdot 4817$; lt readily dissolves in water, but is lasoluble in alcohol. Gum is extensively used in the arts, particularly ln calicoprinting, to give consistence to the colors, and to hinder them from spreading. It is also used in painting, In the manufacture of ink, In medicine, etc.

The only important gums in a commercial point of view, are gum Arabic and gum Senegal; but lac is popularly, though improperly, ranked among the gums.

1. Gum Arabic (Fr. Gomme Arabique; It. Gomma Arabica; Ger. Arabische gummi; Arab. Tolh), the jrodace of the Acacia vera, a tree growing in Arabia, and in many parts of Africa. The gum exudes naturally from the trunk and lranches, and harclens by expose ure to the air. "The more siekly the tree appears, the hore gum it yieids; and the hotter the weather the more prolific it is. A wet winter and a cool or mild summer are unfavorable to gum. "-Jackaon's Moroceo, p. 84. It is in Irregularly-shsped pieces, hard, brittle, and semi-transparent. When pure it is aimost colorless, or of a pale, vollowish hue; being insipid, inodorouil, and diasolving completely in the montl. Speclfic gravity 1.31 to 1.43 . It is often mixed with gum Senegal. East India gum Arahic is, though a useful, a spurious article, not being the produce of the acacia vera, but of other apecies of plints. The best gum is either imported direct from Alexandria, Smyrra, Tripoli, Mogadore, Tanglers, ete., or at second-hand from them through Gibraltar, Malta, and other Italian ports. The price depends principally on its whiteness and molnbility, increasing and diminish-
 4. Th lan m e or lans of these qualities.-T'momson's


The tosis a Gum 1, whic tree (Acucia vera) which afforla to an ate t gum Arabic of commerce, is a native of tle sandy ungerts of Arabia, Figypt, und the went-



1. ${ }^{7}$ juruse', Hurbery, whas the tree

 thasa, th. "t'me of the branches is of a yeliowish-

there are two opposita anl-shaped spines, growing noarly erect, and having a slight, glandnlar swelling below. The wood is hard, and takes a good polish. Its aeeds, which grow in a hard coriaceous pod, resemble those of the lupine, yitd a reddish dye, snd are used by tamners in the prepar stion uf leather.
The gum exudes spontaneously from the bark of the trunk and branches of the tree, in a soft or nearly fluid state, and hardens ly exposure to the air, or to the heat of the sun. The more sickly the tree, the more gum it yields ; and the hotter the weather, the more prolific it is. A wet winter and a cool or mild summer are unfavorable to the crop. It legins to flow in De. cember, immediately after the rainy season, near the tine of the flowering of the tree. Afterward, as the weather becomes hotter, incisions are made through the bark, to assist the exudation of the juice. The gum, when new, emits a faint smell, and when stowed in the warehouse, it may be heard to crack spontuneouriy for several weoks; and this cracking is the surest criterion of new gum, as it never docs so when old. Several kinds of gum, yielded by different trees, are occasionally to be met with, but that which is commouly substituted tor it is brought from the Island of Senegal, on the coast of Africa, and is called "Gum Senegal."

The Mrastic tree (Pistacia lentiscus), is a native of the south of Europe, the Levant, and the west of Asin, and probubiy could be cultivated with suecess in California, and perhaps in some parts of the South. This tree, which selilom exeects 12 feet in height, with a trunk 10 inches in diameter, is covered with a smooth, irownish bark, and produces the resin knewn in commerce under the name of "mastic." It is cultivated in various parts of continental Europe, particularly in Italy and Portugal.
2. Gum British.-An excellent artificial gum is now largely made for the use of calico-printers and others, and is sold under the name of British Gnm, or dextrine. It is made by roasting starch, and the manufacture is very skillfully conducted; stsreh has hence risea in manufacturing importance, whilo gum Arabic (a much more expensive article) has been to some extent superseled. Not only has starch become thus applied to new purposes, but the starch itself is olitained from a grenter variety of sources than heretofore. The oid customary mode has been to obtain stareh from wheat or other grain, by a process of fermentation, which is not applicalie to rice; but excellent starch is now obtained from rice and from sago, by improvel chemical methods, ant the atarch is bleached to a degree of great purity.
3. Gum Senegal, principally brought from the inland of that name on the coast of Africa, is ottaned from various trees, hut chiefly from two, one calied lereck; which yields a white gum; the other enlied $\mathrm{S}_{\mathrm{t}} \mathrm{b} u=l$, which yieids a red gum; varieties of the acucir gummifera. Gum Aralice is very often mixed with grm scnegal. The latter is neariy as pure as the former, lat it is usmally in larger masses, of a darker color, and more elaminy and tenacions. It is the sort of fum principally employed by calico-priuters.-Tumson's Chemistry, Titomson's Dispensutory, Aisstie's Materia Indica, etc. The trate in gum Senegal is principaliy in the hands of the lirench.
11. Resina, for the most purt, exude spontaneously from trees, though they are often ohtained byartifclai wounds, and are not unconmoniy, at first, comhined with rolutiic oii, from which they are separated by distillation. They are solid substames, naturally brittie; have a certuin degree of transparency, and s color most commonly inclining to yellow. Their taste is nore or less nerid, and not unifice that of volatile oils; but thoy have no zomell, unless they happen to contain somo foreign botiy. They are all heavier than water, their specific gravity vurying from 1.0182 1.1062. Thuy differ from gams in beling instlubie in
water, whecher cold or hot; while they are, with a few excoptions, soluble in alcohol, eapecially when assisted by heat. When heated, they malt ; and if the heat be increased, they take fire, burning with a strong yellow fiame, and enitting a vast quantity of amoke. Common resin furnishes a very perfect example of a resin, and it is from this aubstance that the whole genus have derived their name. Rosin is, indeed, frequently denominated resin. The principal resins are Animi, Elemi, Copal, Lac, Labdanum, Mrastic, Rosin, Sandarach, Tacamahac, etc.; which see, nuder their respective names.-Tiomson's Chemistry.
III. Gum-resins, a clasa of vegetable substances consisting of gum and resin. They differ from resias in this, that they never exade apontaneously from the plant, being obtained either by bruising the parta containing them, and expressing the juice, which is always in a etate of emulsion, generally white, but sometimes of a different color, or by making ineisions in the plant, from which the juice flows. The juice, being exposed to the action of the sun, is condensed and inspissated, till it forms the gum resin of commerce. Gum-resins are usually npaqne, or, at lenst, their transparency is inferior to that of resins. They are always solid, and most commonly brittie, and have, sometimes, a fatty appearance. When heated, they do not melt as resias do, nelther are they so combnstible. Heat, however, commonly boftens them, and causes them to awell. They burn with a flame. They have almost always a atrong smell, which, in several instances, is allinceous. Their taste, also, is often acrid, and always much stronger than that of resins. They are usually heavier than resins. They are partially soluhle in wator, but the solution is always opaque, and usually milky. Aleohol purtally dissolves them, the solution being transparent.
The most common gum-resins are, Aloes, Ammonia, Euphorbium, Galbanum, Gamboge, Myrrh, Olibanum, Sagapenum, Scammony, etc. ; whicis sec, under their respective names.-Lovdos's Ency. of Agriculture; Tuomron's Chemistry.
Gum-tree (Nyssa biflora), or Twin-flowered Nyssa -known aiso as the Tupelo-tree, yellow gum-tree, sour gum-tree, Peperidge-tree, wild pear-tree-in an uncultivated stato, seldom rises above 40 or 50 feet, with a trunk 15 or 20 inches in diameter. The Nyssa bifora begins to appear in the lower part of New Hampshire, where the elimate is tempered by the ocean; and, in progressing southward, it is found most abundantly in the easterly parts of New York, New Jersey, and Pennsylvania. But in Virginia and Carolina, it is more sparingly preduced, and, as in the north, it always occurs in moist ground or in watery places.

The Nyssa biflora holds a middle rank between soft and hard-wooded trees. When perfectiy seasoned, the sap-wood is of a slight reddish thit, and the heart-wood is of a deep brown. Of trees exceding 15 or 18 inches in diameter, frequently more than half of the truak is holiow. The ligueous fibres whiel compose the body of most other trees are closely united, and usually ascend in a perpendicular direction. But, on the contrary, the trees of this genus exhibit a constant peculiarity of organization-the fibres being united in hundles, and are interweven like a braided eord. This property gives it a decided superiority for certain uses. In the parts of the country where it nbounds, it is employed for the naves of wheels destined for heavy inurlens. It is also empioyed for the heads of the shafts of wind-mills; and, sawn into boards, it is used for lining carta. Wooden bowla are mado of it, which are henvier than those made of the tulip-tree (Lirib(dendron), and are less lialle to split. From the irregularity of the fibre, the "gum-tree" is not admitted as evidence in the courts of Pennsyivania, in cstablishing boundaries to lands, etc., from the number of years which have elapsed since the trees have been blazed.

As fuel, this word burna slowiy, and diffuses a grest heat.-Browne's Trees of America.
Cun-cotton. Cotton is rne of the numerons forms of lignine, a compound of carbon, oxygen, and hydrogen; but when it is subjected to the action of nitrio acid, nitregen, which exista in moat exploaive bodies, enters into its composition. The action of nitric acid on lignine had long attracted the attention of chemists; but the nearest appreach to the formation of gan-cotton' was made by Pelouze, who, in 1838, writes in the Comptes Rendus of the preperties of a subatance named Xyloidine, from $\xi v \lambda o v$, wood, discovered by Braconnet in 1883: "It is very combustible, taking fire at $356^{\circ}$ Fahr., burning with great rapidity, and almost witheut residue. This property has led me to an experiment, which I think susceptible of seme application, especially in artillery. By plunging paper in nitric acid of $\mathrm{sp} . \mathrm{gr} .1 \cdot 5$, leaving it there the requisite time 'or the acid to permeste tho paper, which ia usually accomplished in two or three minutes, then withdrawing it, and lastly, washing it in water, we obtain a kind of parchment impermesble to meisture, and extremely combustible. "In 1846, Schōnbein exhibited to the British Association at Southampten specimens of cetton, which appeared to be as explosive as gunpowder; but it was not till April, 1847, on the enrolment of the patent, that the methed of preparing this cotton was known, although, in the interval, Otto of Brunswick, Morel of Paris, and Böttger of Frankfort, published recipes for making explosive cotton. Schönbein's method consisted in mixing three parts of sulphuric acid, sp. gr. $1 \cdot 85$, with one part of nitric acid, sp. gr. 1.45 to $1 \cdot 50$; and when the mixture had cooled down to between $50^{\circ}$ and $60^{\circ}$ Fahr., clean rough cotton, in as open a state as possihle, was immersed in the acid; when well soaked, the excess of acid was drawn or poured off, and the cotton pressed lightly in order to separate the principal portion of the acid. The cotton was then covered over and left for half an hour, when it was presaed an: thoroughly washed in running water to get rid of all free acid. After being partially dried by pressure, it was washed in an alkaline solution nume by dissolving one ounce of carbonate of potash in a gallon of water. The free aeid leing thua got rid of, it was put into a press, the excess of alkaline solution was expelled, and the cotton left nearly dry. It was then washed in a solution of pure nitrate of potash, one ounce to the gallon, and being agais pressed, was dried at a temperature of from $150^{\circ}$ to $170^{\circ}$. It was stated, that three parts of the gun-cotton thus prepared were equal in force to eight parts of Tower-proef gunpowder.

Gun-cotton has also been employed in blasting, especially on the Manchester and Huddersfleld railway in Standedige tunnel, and on the works in the Stour Valley, near Birmingham. It has been stated that gun-catton produces a much greater effect, weight for weight, than gunpowder, in the proportion of five to one. This seems an exaggeration; but the disruptive effect really seems to be greater from gun-cotton; and as it gives no amoke, in confined situations the worimen are enabled sooner to resume thoir werk.

Cotton gains considerably in welght by the above treatment, but is scarcely changed in color or in general appearance, if the process has been carefully conducted ; it is, however, harsh to the touch, and gives a crepitating Bound when pressed by the hand. It diffore from common entton by its electric excitability, the slightest degree of friction causing it to be powerfally attracted anil repelled by other bodies ; and also by its action on a ray of polarized light, which it dees not depolarize like ordinary cetton. It exploinen ta a temperature of from $850^{\circ}$ to $400^{\circ}$, with euch r : onsty as to interfere with iss practical application, i. $r$, if applied to the purposes of artillery, it may burat the gun before it has tinie to move the shot, and some of
the products of its combustion make it also objectlonable for fire-arms. Among these products water may be mentioned, and, should not the cotton heva been well waahed, nitrous acid. Anether great impediment to the use of gan-cotton is its hygrometric condition, for if exposed to a damp atinosphere, it wll! $\ln$ an hour or two absorb a considerable portion of moisture. Many attempts have been made to apply it to mining purposes on account of its enormoua force, and the amall quantity of smoke which it produces; but the objections to its use are numoroua, the most fatal objection being its liablity to apontancoua lgnition.

Nevertheless, gun-cotton continues to be an object of great interest, on account of ita application to the beantiful art of photography. When the cotton la propared ln such a way as to burn slowly, it is not liable to apontaneous ignition, and in this atate it is perfectly soluble in sulphurio ether, whleh the more explosive cotton ia not. If the etherial solution called collodion, be poured on the gurface of cold water, a paper is produced which is prepared for the use of the photographer. Thls paper ls a very active electric, and is perfectly soluble in ether. Collodion has also been made use of in eurgery, by applying the ethereal solution to a wound, when a thin delicate artiticial skin is formed ly it, which perfectly excludes the air.

In the preparation of gun-cetton, nitric acid is the active agent in the formation of xylo dine; the sulphuric acid has no direct action on the h nine, ita use being to retain the water abstracted froil the cotton, and prevent the solution of the compound which takes place to a greater or less extent in nitric ecid alone. The purity und exact strength of the aeids a re matters of great importance. Mr. Halow found thit the lest mixture for prodacing collodion wool is obisinod by mixing 89 parts ly weight of nitrio acid, sp. gr. $1 \cdot 424$, with 104 parts by weight of aulphuric , cid, sp. gr. 1.833.

On trying the effecta of variona $r$, ents on guncotton, Dir. Iladow foriad that sowd be perfectly restored to the original cotton, without loss of forns, by means of an alcoholic solution of hydro-sulphuret of putassium. On this, and other points connected with the chemistry of gun-cotton, we must refer to Mr. Liadow's paper, published in the Transactions of the Chemical Society.-E. 13.

Gunpowder (Ger. Puleer, Schiesspulver; Du. Bushruid; Da. Krull, I'ulecr; Sw. Krut; Fr. I'oudre; It. Polvere; Spi and l'ort. Polvora; Rus. I'oroch; Pol. I'roch; Lat. I'ulris pyrius). This well-known inflammable powder is composed of nitre, sulphur, and charcoal, reduced to powder, and mixed intimately with each other. The proportion of the ingredients varies very considerably; but gool gonpowder may be composed of the following proportions; viz., 76 parts of nitre, 15 of charcoal, and 9 of sulphur. These ingredients are first rednced to a fine powder soparately, then mixed intimately, and formed ioto a thick paste with water. Aftor thly has dried a little, it is placed upon a kind of sieve full of holed, through which it is forced. By this process it is divided into gruins, the size of which depends upon the size of the holes through which they have been squeezed. The powder, when dry, is put into barrels, which are made to turn ronnd on their axis. Ity this motion the grains of gunpowder rub against each other, their asperitics are worn off, and their surfaces ure mule smooth. The powder is then said to be glazed. -Tinosison's Chemistry.

Itr. Thomsoa, whose learning is equal to his science, las the following remurks with respect to the introduction of ganpowder tato warlike operations: "The discoverer of this compound, and the person who first thought of upplying it to the purjoses of war, are unknown. It is certuia, howover, that it was used la the fourteenth century. From cortain archives quotcia hy Wleglel, it appenra that camiona were employed in Germany before the year 1372. No tracee of it can be
found in any European auther prevloualy to the thirteenth century; but it seema to havo been knewn to the Chinese long before that period. There le rer son to believc that cannons were used in the battls of Cressey, which was fought in 1846. They seem sven to have been used three years earlier, at the aie ge of Algesira3; but before this time they muat have been known in Germany, as there ia a plece of ordnacice at Amberg, on which la inscribed the year 1303. Ruger Bacen, who died in 1292, knew the propertles of gunpowder; but it does not follow that he was acquainted with its appllcation to fire-arma."-Thoмaоv's Chemistry.

The invention of ganpowler is by semc. ascribed to Bertholdus or Michael Schwartz, a Cordolier monk of Goslar, south of Rrunswiok, in Germany, about A.d. 1320. But many writers maintain that it was known much earlier in varion parts of the world. Some say that the Chineas possessed the art a number of centuries before. Its composition, moreover, is expressly mentloned by our own famous Roger Bacen, in his treatise De Nullitate Magice, whimis was published ut Oxford in 1216.-Ilayd.

Composition of Gunpouder.--The present composition of the Chinese gunpowder corresponds so nearly with our own that the difference is nearly insensible; but whether it hud errived at thut degree of perfection in their anclent periods, we have no means of knowith. Neither can we judge of its nature and power as known to the Arabs. But in our own country it was late in arriving at its present atate of perfection; nor do the various proportions given by one of the eurliest English writers on the aubject, argue muclt in favor of their chemical knowledge. Peter Whitehorne, who wrote in 1573, gives numerous proportions, without secalaing to be well aware of their respective values; and, respecting some of them, it is easy to see that they were scurcely fit for squibs, much less for the purpose of proiecting shot. Such is nitre, eulphur, charcoal, equal parts; while, in the very opposite extreme, we huve nitre 12 parts, sulphur and charcoal, of each 3 parts; and, still worse, nitre 27 to 3 of the other two ingredients; or nitre 48 parts, with 7 of sulphur and 3 of charooal. Here, such as these compositions nre, want of experience can acarcely be pleaded, as they ure not better than thore given by Nye in 1380. In France, ulso, the composition, ut no very remote period, was-nitre 50 , sulphur 16 , charcoal 3 ; from which it varied to, nitre 67, aulphur 13, chareval 20 ; nnd to nitre 84, sulphur 8, charcoul 8; these dif. furences being anjposed to be necessary for the lurger cannon, and the smaller progressively, the last being their musket powder.
l3ut as we can not afford space to describe the gradual progress of limprovement in the cempesition of guopowder, we will state the proportions at present in use in different nations. They do not materially differ from euch other, although it is unquestionabile that they are not oll of equal power.

|  | Nitre. | Sulphar, Clarceual. |  |
| :---: | :---: | :---: | :---: |
| Royal Millw at W altham Abhey | 7 | 10 | 15 |
| Frince, Natlonal kistabluliment. | 75 | 12.5 | 12\% |
| French, for sporthtuea. | 769 | 96 | 1:\% |
| Froneh, for mining. | 8.2 | 20 | 1 |
| Tinted States of Americio | 75 | 128 | $12 \cdot 5$ |
| Praswia. | 78 | 11\% | 1*5 |
| Ruaska | 78 Is | 15 \% | 130 |
| Austria cuask | 8 | 19 |  |
| Apain.. | 76.67 | 12:70 | 10:2 |
| A weden. | 76 | $\theta$ | 15 |
| Awitzuriand, round powder | 76 | 10 | 14 |
| Chineso.... | 75:7 | 9.9 | 1.4 |

Whthout any knowlodge of the law of defnite prow portions, hal eren iefore that law was known to ex. ist, each mation had experimentally hit upon nearly the hest propartions of the three ingredients, namely; I equivalent of n'tre, 1 of sulphnr, pad 3 of charmal, ot 75 per cent. of nitre, 11.77 of sulphur, und $13: 23$ of
charcoal. In practice the proportions used for the mannfacture of 100 lbs of gunpowder are-saltpetre 77 t lbs., sulphur $10 \frac{1}{4} \mathrm{lbs}$. , charcoal $16 \mathrm{lbs} .=104 \mathrm{lbs} .$, the extra 4 lba. being allowed for waste.

The plsportions in the commercial gunpowder vary Indeflintely, nocording to the views of the manufacturer respecting the markets, the price, and other matters. Cheapneas beling the leadlog object where it is only made for sale, and the nitre beling the only expensive article, the proportion of this is diminished, and those of the other two ingredients increased. We have never met with any apecimen in which there was less than 62 of nitre; but we have reason to believe that some of the inferior kinds do not contaln more than 50. For the nse of miners it is also made with a low proportion of nitre, producing advantages in mining not intended by the makers, whosconly object is to manufacture a cheap article. Bat the proportions of all the commercial powders are very inconstant, even when furnished bond fide to the government.E. B.

Gunny (Hind. Tat; Ben. Güni), a stong coarse sackcloth manufactured in Bengal for makiag into bags, sacks, and packing generally, answering at once the two purposes for which canvas and bast are used in Europe. The material from which this artlele is manufactured is the fithre of two plants of the genus Corchorus; viz., Corchorus olitorius, and Corchorus capsularis (Bengall pat); both, but partlenlarly the first, extensively cultivated throughout Lower Ilengal. Hesides a large domestic consumption of gunny, the whole rice, puidy, whent, pulses, sugar, and saltpetre of the country, as well as the pepper, coffee, and other foreign produce exported from Calcutta, ara packed in bsgs or sacks made of this article. There is also a considerahle exportation of manufnctured bags, esch commonly capable of containing $t$ wo maunds, or about 160 lbs. weight, to Prince of Wates Island, Malacea, Siagapore, Java, and Bombay. In 1841-42 there were exported from Calcutta $5,350,899$ gunny bags, of the value of 499,426 rupees ( $£ 49,942$ ), and 95,412 pieces of gunny eloth, worth 433,321 rupees ( $£ 43,332$ ).-W WL ncir, Roxburg; Review of the External Commerce of Bengal for 1841-42.

Guns and Fowling-pieces, Three European nations are distinguished for their production of these arms--the English, Belgians, and French. Small arms for war and for the chase are mannfacturel at Birmingham, the one with due selidity, the other with refinement of workmanship. In respect to Belgium, Liege is the lirmingham of that country, and manufactures guns on a very large scale. The Belgians, on account of cheapness combined with good execution, sell a great quantity of small arms to other nations, particularly to Russia. France, for the manufucture of smail arms for war, is now perhaps more ad vanced thm any other mation. St. Etionne is the town principally easployed in the manufacture of muskets; but Paris proluces the most finished weapons, combining all the perfection that can be requirol for precision of firiag and beauty of ormament. Sharpe's rifles are manufactured in the United States in large numbers, ulso a variety of small arnis.

Gunter, Bdmund, an Ingenlous English mathematichan and machinist, was born in Hertforlshirg about the year 1581. He was educated at Westminster, and afterward at Christ Church College, Oxforl, whero he graduated. Though he took holy orders in 1614, mathematics, which hat been his favorite stinly from his youth, continued to engross his attention, and la 1619 he was chesen to the chair of astronomy In Gresham College, where he remained till his deuth In 1626. Of Gunter's written works the chief are his C'anon Triangulorum, s table of logarithmic sines and tangents, exteadnd triseven decimal places, and forming a sort of complament to the logurithms of nstural numbers by his colleague Brigg.

Gunter's Line, s logarithmic line, usually laid down upon scales, sectors, etc. It is also called the line of lines and live of numbers; beling only the logarithms graduated upon a rulor, which therefore serves to solve problems lastrumentally in the same manner as logarithme do srithmetleally.

Gumter's Quadrant, an lastrament made of wood, brass, or other substance, contaiaing a kind of stereographle projection of the sphere, on the plane of the equinoctial; the eye beling supposed to be placed in one of the poles; so that the trople, ecliptic, and horizon, form the arcs of circles; but the hour-circles are other curves, drawn by means of several altitudes of the sun for some particular latitude every year. This Instrument is used to find the hour of the day, the sun's azimuth, etc., and other problems of the globe; as also to take the altitude of an object in degrees.

Guiter's Scale (generally called by seamen the Gunter), ia a large plane seale, usually 2 feet long by about $1 \frac{1}{4}$ laches broad, and engraved with various lines of numbers. On one side are placed the natural lines (as the line of chords, the line of sines, tangents, rhumbs, etc.), snd on the other side the corresponding artificial or logarithmic ones. By means of this lastrument, questions in navigation, trigonometry, otc., are solved, with the aid of a pair of compasses.

Gunwale (pronounced gunnel), the uppermost wale of a bhip or boat, or that plece of timber which finishes the upper part of the hull. The raised werk above this is called the bulvark.

Gutenberg, or Guttemberg, Johann (whose real nams was Gensfelsch), was born at Sorgenloch, near Mertz, in 1397. It is now generally admitted that to him is due almost the entire credit of isventing the art of printing by movable types. The respective clains of Fust, Gutenbere and Schoeffer, are fully discuased under Fust.-F 1

Gutenberg, after a life of much , hitivitis and hardship, died at Mentz in 1468, in great Posterity has done him the justice denied uin by his cotemporaries. The statue by Thorwaldsen, erected In his honor at Mentz in 1837, furnished un example which has since leen followed by nuny towns in Germsny. The Gutenberg Society keeps his name in memory by an annual festival. No books are extent that aro known for certsin to have been printed by Gutenberg. 'The fumoua Mazarin Bible, Donatus' Grammar, and the Catholicon of Janua, are believed to have issued from his press. See Printing.

Gutta Peroha. This veluable substance has only been known within the last few years. It is the concrete juice of a large tree (fsonandra gutta), growing in certain parts of the Malayan Archipelagohitherto chlefly obtained from Singapore. The first specimen of the inspissated juice which appeared in England was presented to the Society of Arts in 1843, but two or three years elapsed befure a just sense of the importance of the substance began to gain ground. In 1845 the importation of gutta percha into England amounted to only $20,600 \mathrm{lbs}$; in 1848 it had reached $3,000,000 \mathrm{lbs}$; in 1852 it amounted to $30,580,480 \mathrm{HIs}$. -a rate of increase which gives serious cause to doubt whether the supply will long be adequate to meet the demand; for it is unfortanately the case that the trees which yield gutta perchas are not only limited in their growth to certain districts, and less abundant in quastity than indin-rubber trees, but they have heen eubjected for several years to the barbarous and wasteful mode of cutting down the trees for the sake of the sap. Whatever European Industry may be able to do in checking this destractive system, and extending the cultivation of the gutta perchu tres, there is yet reason to doult whether this slow-growing tree can be reared in sufficient quantities to counterbalance the havoc alrealy made. The Isonandra gutta helongs to the natural order Sapotacea, and is the only tree which yields gutta percha. It rises to the height of 60 or 70
feet, and the trunk is 8 or 4 feet in dlameter. The tree flourishes in allovial aolls, at the foot of hills, and sonetimes forms the chief part of the jungle in such altuations. The foliage is of a pale green on the upper part, and covered with reddish-brown hairs benenth. The wood is soft, fibrous, sponyy, pale in color, and traversed by longitudinal receptactes or reservoirs flled with the gum, forming ebony-black lines. This gum has unany of the propertles of indis-rubber, but it has also sperial properties of lits own wblch allmit of its being applied to uses for which caoutchouc is net adapted. It posseases the same indestructibility ly chemical agents whict makes Ir.lia-rubber so valuable, and It has also the peculiarity of becoming soft and plastic on beiag planged into boiling water. In this at ite it can be molided into any desired form, which form it permanently retaina on cooling. The great convenience and utility of such a aubatance could not fail to strike the natives of the countries in which it is produced; and accordingly, we find that, long before gitta percha became known to Europeans, it had been fabricated by the Malnys Into whips, basina, jugs, shoes, etc., thus at length exciting the attention of travelers, and lealing to the introduction of some of these articles into Europe under the nanse of india-rubber, or, earlier still, of mazer-roond.

The bonor of having drawn attention to ity real nature and usea is due to Drs. D'Almeida and W. Mentgomeric. The latter, writing from llengal, remarked on the ordinary name of the piant thus:-"The word is a pure Malayan one-gutta meaning the pam or concrete juice of a plant, and percha the particular tres from which this is procured. The ch is not pronounced hard like $k$; but like the oh in the English word perit." In $18.13 \mathrm{13r}$. Wm. Montgomerie, of the Indian Medical Service, observing certaln Malay knife avi kris hantles, inquired the nature of the material fr. . ich they were male; and from the crule natlve unooufacture inferred at once the extensive uses to which the gutta percha might be put in the arts of Europe. He purchased a quantity of the raw material, sending from Singapore part of it to Hengal, and part to Europe, and augresting some of the uses to which he thonght it might be applied. The quantity sent to Eingland secured ( ) him at once, as the discoverer, the gold medal oi che Soclety of Arts. The gurgical uses of gutta perch. were carly discoverad hy Dr. Oxley of Singapore, vito declared it to be "the hest and enaiest substance ever discovered for the managenent of fractures, combining case and comfort to the putient, and very much lessening the trouble of the surgeon."

Gutta percha arrives in lumps or blockn of several pounds' weight, but these often contain impurities, such as stoues, earth, etc., introduced by the Malays for the sake of increasing the wright. 'Ibe poriticatien and preparation of this substance on a large scale are conducted as follows:-The lumps of gutta are subjected to the action of a vertical wheel, on the face of which are fixed three knives which, as the wheel revolves at the rate of 300 revolutions per minite, cut the lumps into thin slices. These are then aoftened in het water, and thrown into a notating machino, where they are further reduced by the action of jugged teeth. From this machine they again fall into water, and are further cleansed. They are then kneaded into a paste in hot water, and rolled letween lieated cylinders. The masa has now become uniform in texture, and is either rolled out into sheets between steel rollers, or ls passed in the maxs through heated iron cyllinders; after which it is ready for use. Inutta percha is scarcely attected by boiling alcuhel, but it disselves nearly completely in benzine and in spirit of turpentine with the aid of heat, and almo in naphtha, coal-tar, sulphuret of carbon, and in chloroform. Its solution in aulphuret of carbon or in chloroform may he almost entirely deprived of color by filtering, the process
being conducted under a glans jar, in order to rrevent lose by evaporation. If this aolntion be exposed in a flat dish to the air, the nolvent will evaporato, leaving a solid cake of white gutta percha, which retains sil the properties of the common gutta; sind it may be melted by a gradual increase of temperature without acquirlng any perceptible eclor.

The parposea to which gutte percha is applied are too numerous for recapitulation. Only a fow of the more important uses can be liere mentloned. It realsts the actlon of water, and is at the asme time a bad conductor of electricity; it is therefove employed for Inclosing the metalle wires used in the electrie telegraph. The efficiency of the submarine telegraphly largely due to this valuable subatance.

Various other maritime uses have been found for it In the construetion of boys, life-boat apparatus, ete, Manufacturers and agricultnrlats have applied gutta percha to use in bands and straps for machincry, tubea, buckets, etc. Arcbitects have accepted its aid in the interlor ornamental work of houses, such as cornices, centres foi ceillngs, etc. Sclentifie men are alded in tidef electrical experlments by ita high insu. lating power. Miners, rallway officiala, and others, find the value of apeaking-tubes made of this substance; deaf persons are also greatly benefited by its power of conducting sound. Stereotype plates have been made is guita percha. A nuld is taken by pressure of a page of trpe with woodcurs in gutta pertha; from this mold a cast is obtained on a cylinder of gutta percha, and from thals last the printing is carried on. The dentiat einpleya puta percha in fixing or stopping tecth. The chemist ls indel:ted to it in the preservation and conveyance of aclds which corrode g!ass or metallic vessels. It in also nxtensively used In the manufacture of waterproof clothing, waterproof shoes, etc.

Within the last few years a substlute for guta percha has been discovered In tbo juice of the mudhar (Aselepias gigantea), n common plant in Indin, which also afforls a valuable kind of hemp. Care is required in the collection of che milky juice, on account of its exceedingly acrid nature; but when exposel to the air it hardens into a substance closely resenbling gutta percha, and having many of its valuable properties. It la, howcver, unfitted for electrical purposes, for it is found to conduct electricity at frecly as a piece of untanned hide.-F 13.

Gutta Trap, a substance evldently allied to gutta perchn and caoutchouc, enioloyed at Singapore in the manufacture of birl-line. It is the inspisasted juico of an artocarpus; andit in highly probable that there are several similar vegetable pnductions, such as the mangegatu (F'icus inlica), from Visagapatam, which mlght advantageonaly bo introduced into commerce, and employed in the arts for purposes aimilar to those for which caoutchouc and gutta percha are now ro pxtensivel; employed.

Guy, a mpe used to stendy any weighty horly while it is being hoisted or lowered; also, "t tickle to contine a boom forward to prevent the sail from subing. (ity likewise denoter a largo rope extending from the head of the main-mast to that of the fore. mast, to sustain the tackle used for loading and unloading a ship.

Gybing, the shifting of the boom of a forc-notaft sail from one side of the mast to the other, either to slter the courne of the veasel aulidenly, or to atcommodate the sall to a change of wind.

Gypsum, or Euiphate of Lime, is fount in varinue parts of the tontinent, In Derbyshire and Notthighamshire, and in Nova Scotia, whence it is lurpdy exported. When reluced to a powder, and furmed into il paste with water, it is termul plaster of Perin, and la much used for forming eants, etc. It is also used for laying floors, and has been advantagceusly employed aa a manure.

## H.

Hackney Carriages are carriages staticued in the strects or other publle placen, and bound to carry such personn as require thelr services, for certain rates of hire according to the diatsnces traveled. They have generally been licensed by autherity, and suljected to certain regulations, intended to excmpt strangers, and othera using them, from fraud and imposition. It may be doubted, however, whether these regulntions have had any good effect; and whether the public would not be as well accommodated, it least in all large towns, by thzowing the business open, and trustling to competition to rectlfy abuses. Hackney coaches are of French origin. In France, a strong klad of cobhorse (haquende) was let out in hlre for ahort journeys: these were latterly harnensed (to accommednte several wayfarers at once) to a plain vehicle called roche-d. haquené: henco the name. The legend that traces their origin to Hackney, near London, is a vulgar error. They were first licensed $\ln 1662$, and subjected to regulatlons, 6 Wliliam and Mary, 1694.-Surrey of London. The number plying in Iondon fixed at 1000 , and their fare raised, 1771. The cabriolets are of Parisian orlgin ; but the aristncratic taste of Englishmen suggested the propriety of obliging the drlver to be sested on the outside of the vehicle.-ILAypn.
Hainan, a large island In the Chinese Sea, lying south of the province of Canton, to which it is annexed, and separatling the Gulf of Tonquin from the Chiness Sea. It is separnted from the southern extremity of the province of Caiten by the Strait of Luichan, 15 or 16 miles wide, and lles between N. lat. $18^{\circ} 10^{\prime}$ and $20^{\circ} 54^{\prime}$, and E. long. $108^{\circ} 25^{\prime}$ and $111^{\circ}$. It is about 150 miles in length hy 100 in lireadth, and has an aren of ahovs, 12,000 square miles. The $\ln$ terior of the island is mountainous; some parts of it rise alove the onow line, and it is Inhabited by ahoriginal tribes. The Chinese inhabitants are mostly deacendnnta of emigrants from Foklen, and are ngticultaral, trading, or piratical in their vocation, ncenrding to circumstances. The soil is mostly sandy, hat some of the plalne, particnlarly on the west coast, nre of great fertility. Timber constitutes its most valunble product, the sides of the mountalns being covered with extensive forests of sandal, rose, braziletto, ebony, and other trees. Its other products are chiefiy rice, augar, tobsecn, indlgo, conton, sweet potatoes, and various fruits. Wax also forms an important erticle of export; it is proluced by an insect called the pelatchang, or white wax insect, when laying its egg. Hainsn ia divided into 13 dlstricts. The capital, Kiungehanfu, Is a very populous town, it the mouth of the Limn River, on the lalchan, and has an excellent harbor. Several of the other towns are very populous. The Island is said to contain about $1,500,000$ inhabitants.
Hair, Human (Ger. Jaare, Menschen-haar; Du. Hair; Fr. Cheecun; It. Cnpelliumani ; Sp. Cabellos; Lat. Capilli). "Hummn hair makea a very considerable article in commerce, especially since the mode of perruques has oltainel. IIair of the growth of the northern countries, an England, etc., is valued much beyond that of the more eouthern ones, as Italy, Spain, the southern parts of France, etc. Good hair is well fed, and neither too coarae nor too slender ; the blgness rendering it less susceptihle of the artificial curl, and disposing it rather to frizzle; and the smaliness making its curl of too short duration. Its length should be about 25 inches ; the more it falls short of this, the less value it hears."-M.

Hair of Beasts (Ger. Haare, Huhuare; Dn. Innir; Fr. Poil; It. and Sp. Pelo; Lat. Pelles).-The hair of horess is extenalvely used in the manufacture of chairs,
sofas, saddles, etc. 1 whlle the halr or wool of ber vers, hares, rabbits, etc., is much employed in the mannfactare of hats, etc. Halr, in it. mechanical nature, msy he regarded as a cendensed form of cuticle. The feathers of hirds may be consldered as analogous to hair; whle the only two classes of animals that are wholly devald of any kind of hair are the fishes and reptiles. The variety in the conformation of halr is very great, ranging from the finest wool to the quills of the percupine, or the horn of the rhtnoeeros, which last is nothing more than an assemblage of many hairs in one compnet mass.
Huir Manufactures.-The various nses to which hair is applied ara famillar to every one. The most valuable kind is human hair. It is procured chlefly from the north of France, Belgium, and Germany. The Hghter colored halr, which bears the hlghest value, is the production of Germany; the darker shades are imported from Frince, where a peasant girl will sell the halr off her head withont any sense of degradatlon; whereas in England thls traffic is resorted to only by females of the lowest class. Indeed so common is the practice ln France, that agents are employed to traverse certaln districts annually at a particolar sesson for the purpoese of collectling the crops of human hair which are asslduonsly cultivated for the sake of the purchase-mnney, or its equivalent in gewgaws. A head of halr, such as is bought of the peasant girls in the districts alove named, welgha from $1 \frac{1}{2}$ to $1 \frac{18}{4}$ pounds.
The hair used for weaving consists of the long hnir from horses' talls. It is procured principnlly from South America and from Russln. All the black and gray hair is dyed for the mannfacture of black haircloth for covering furniture. The white is reserved for dyeing of the brighter hues, such as green, elnret, crimson, etc. The quality of the cloth, as well as the brilliancy and permanency of the colors, depend in a great degree on the nature of the warp, which may be either of cotton, linen, or worsted. In the manufucture of halr-cloch, elther plaln or damasked, the weaver uses a sort of hook-shuttle, which he passes between the threads of the warp, or shed, toward his left hand; the asslstant, or "aerver," places a single hair over the end of the hook, and the weaver draws it through the wnrp. The placing of the hairs one by one renders thls a tedious operation, and one that does not admit of the applicat $n$ of machinery, which is so advantageously einploycai In fabrics where the shot or weft consles of a contlinuous thread.
Hair Pencils, or Brushes, for painting. Two oorta are made; thoso with coarse huir, as that of the awine, the wild boar, the dog, etc., which are attached usaally to shoort wooden rods as handles; these are commonly enlled brushes; and halr pencils, properly so called, which are composed of very fine hairs, as of the minever, the marten, the badger, the polecat, etc. These are mounted in a quill when they are small or of moderate size, hut when larger than a quill, they are mounted in white Iron tubes.
Hair Powder (Ger. Puder; Fr. Poudve is poudrer; It. Polvere di cipri; Sp. Polros de peluca) is used ns an ornmment for the hair, and genernlly made from starch pulverized, and eometimea perfumed.

Hake, a klnd of fish, the Gadus merlucrius, common in the Atlantio geas and the Mediterranean, and often prepared as stock-fish. See Fisilenies.

Halifax, a city and sea-port, capltal of colony and province of Nova Scotia, founded in the year 1749. Situated on a declivity near the const, and the centre of the peninaula, and on the west alde of a deep Inlet of the sea, called Halifax harbor, which extende eev-
ernl milea inland；lat． $44^{\circ} 39^{\prime} 42^{\prime \prime}$ north，long． $63^{\circ}$ $83^{\prime} 30^{\prime \prime}$ west．Including Its aubnrina it in 2 4 milee long， and alout one half mile wide．Population 1852，26，000； $18: 5,30,000$.

The best mark In aalling for Halifax is Sambro light－honse，on a mmall lalayd ofl⿱宀八 the cape of the sams anane，on the weat side of the entrance to the harlor， In lut． $44^{\circ} 30^{\circ}$ ，longg． $63^{\circ} 32^{\prime}$ ．The light，which is fixed，is 210 feet ubove the level of the sea；and a de－ tarhment of artiliery，with two 24 －pounders，lis upon duty at the Ight－honse，firing at regular intervals dur－ ing the continuance of the dense fogs with which this past of the coast is very much infented．－Cowlier，Ta－ bles des Princijules Positions（iemgraphiques，p．78．The course into the hartor for lavge ships，after passing Sambrn llght，is between the muin lanil on the weat， and McNab＇s island on the east．On a apit project－ lng from the latter，a light－house has lieen conat ructed； and when this is seen，sbips may run in the harbor without fear．The harbor is devended by several pretty strong forts．Ships usually anchor abreast oi the towo，where the harbor is rather more than a mile in width．ister gradunlly narrowing to alwout one quarter of that width，it auddenly expands lnto a no－ ble shect of water，called Iledford Basin，completely land－loeked，with deep water throughont，and capmile of accommorlating the whole suavy of Cireat llritaln． I had harbor is accessible at all timen，and is rarely lm－ peded liy ico．There lanan extenaje royal dockyand at II alifax；which，during war，is an important naval station，being particularly well catculated for the shel－ ter，repair，and outfit of flects crulaing on the Amer－ lean cosat and in the Wiest Indles．Mr．M＇Giregor has severely，nal，we bediove，justly censured the project for the removal of the dockyard from IIalifix to Ber－ mulat－Con，Dirt， 1856 ．

Tradt，etc．，yf llaligar and Nora Scotia．－IIalifax is the seat of a consideratile fishery；but the Ibritish col－ onists seem to le，for what reason it la not ensy to say， less enterprising and aucceanful tishers than the New Englauders．The principal trade of the town and province is with the Went Indies，Great Iritain，and the United States．To the former they export dried and pickled tish，Jumber，coals，grindstones，cattle， flour，botter，cheese，outs，potatoes，etc．They export the manie articlea to the southern porta of the United states，and gypam to the easten ports of New En－ gland．Tu Great Iritain they send tinsher，deals， whale，cod，and seal oil ；furs，etc．The principal ex－ ports of timber nre from l＇ictou on the St．Lawrence． The imports consist principally of colonial produce from the Wess，Indies；all sorts of manufactared gools from（ireat Britain；and of flour，provisions，etc．， from the United Statea，in part for exportation to the West Indies．In IN26 a company was formed for mak－ ing a canal aerose the country from llalifax to the Hasin of Ilinas，which unites with the botton of the Bay of Fundy．The navigation will be formed，for the most part，by Shûbenacadie Lake and River．The legislature gave $\pm: i 5,000$ to this undertaking．The excavated part of the canal in 60 feet wide at top， 36 fect at lootcom，and will admit vessels drawing 8 feet water．It neeme very questionable whether thin eanal， if constructed，will be profitable to the shareholdars； I，ut it will alli to the trade of llalifax．There are twol chartered banking companles at Haltfax．Ac－ counts are kept in pounds，shillings，and jence．The pound being equai io＊4 linited States＇carrency；the shitliug， 20 cents；and tho welghts and meanures are shoo the wame as in Fingland．Atrout 120 large square－ rigged vesmels，and alout the same number of large sehoonere，with sereral smaller craft belong to IIal－ Ifax．The ateamshlps conveying the maiis to Iritish North America，ply between this port and llonton （Mass．），semi－monthly，and Liverposl．The fare to Halifax or Iloston from liverpool，Including provisions and steward＇s fee（but excluding winea and liquors），

140 dollars．On arriving at Halifax，pansongers were formerly conveyed ly coaches acroas the penitusula to Picton，whence they were carried by ateamers to（Quelsee and Nontreal．The only commercial changea in the province of Nova Scotia，during the year ending 3otli September， 1855 ，were those cauned by the acceptunce of the＂reclprocity act，＂or treaty，made between the United States and Great Britain，and agreed to hy the provincial legislature In December，1854，whereby ma＇${ }^{\prime}$ nrolucta of the United States are now adnitted In tav orovince from the United States free of duty． d．See lbacon and Poink trade．
Eamburg，a free Ilanseatio clty，on the north bank of the Kiver Flle，about 70 milea from its mouth， Jat． $53^{\circ} 32^{\prime} 51^{\prime \prime}$ north，long． $9^{\circ} 68^{\prime} 37^{\prime \prime}$ erst．Populd tion in 1830，Including the suburbs of St．George and St．Paul，but excluding the territory attached to the elty， $14 \times, 753$ ．Hambnrg is the greatest commercial city of Cermany，and，perlapa，of the Contluent．The Elibe，which may be navigated by $\mathrm{Il}_{\text {phters }}$ as far as Meluik，in Bohemia，rendors her the entrepuit of a vast estent of tountry．Advantage，too，has been taken of natural facilitien that extend atill further her Inter－ nal navigation；a water communleation having been established，ly means of the Spree and of artiticial cuts and sluices，between the Elbe and the Oder，and between the lattor and the Vistula；so that a consid－ erable part of the produce of Silesia dentined for for－ eign markets，and aome even of that of Holend，is con－ veyed to llamlurg．See Canals．There ls，also，a coinmanieation ly means of the Steknitz Canal，with the Trave，and，consequently，with Lubec and the 1haltic．And she has been connected by means of rail－ ways with llerlin，Ilanover，Brunswiek，Kiel，ete． Fessels Jrawing 14 feet water conte up to the town at all times；and vessels drawlag 18 feet may come safely up with the spring tidea．＇The largest vessels sone－ timea load from and unload into lighters at Cuxhaven． The trale of Hamburg embraces every article that Germany either sells to or bayg from foreigners．The imports consist principally of cotton，wool，stulls，and yarn ；wool，woolon，and worsted goods ；collee，which is the farorite article for speculative purchases；sugar， silk，and silk goods ；tobacco，hides，iron，anc．hard－ ware，indigo，wine，brandy，rum，dyewoods，tea，pep－ per，ete．；very large quantities of coal are imported from the Linital Kingdon．Peing brouglat from many different placek，there is a great varicty of quality in the grain findad at Ilamburg；hat a large propsrtion of the whoat in inferior．Some of the barloy is very good，and fit for malting．The oats are feed of vari－ ous qualitics．With the exception of coal，the exporis consist of the samo articles as the inuports，Ilaniburg not being a centre of consumption，but of distribution． In addition to colonial produce，llritiah manufactured goods and grain of all worts，thay include wool，clover－ seed，bark，spelter，cattle，butter，anlted provisions，raga， woolen clocks，and tove，linens，and all sorts of German manufactured goods，Khenish wines，ote．Mast worts of laltic articlea，suelh as grain，Ilax，Iron，ןitch，and tar，wax，etc．，may generally be lought an chrap at Ilansburg，allowing for difference of freight，as in the ports whence they were originally brought．It will lee afterward neen that the total annual value of the import＇and export trade of the port（including that of Altons，the merchants of which conduet their businens on the llamburg exchange），may be estimated at above $\boldsymbol{\mathcal { L }} 0,000,0(0)$ sterling asyear，or npwe al；and，as the largeat portion of this immense trade ．．in the hands of the Euglish，it will be necessary that we shonld be a littlo fuller than ordinary in our details in regard to this great emporium．

Ilainhurg was visited loy a most dentructive fire in May．18．12．Hut，notwithstanding the heavy lorses that wore in consequence incurred，and the paralysis it occasioned in trade and Induatry；the shock was less severe than might have been anticipated．The syotem

## HAM

of mutual insurance having been generally adopted, the proprietors of houses, and other property were subjected to a tax, to dafray the Intereat of a loan of $32,000,000$ marcs-banco raised to inilemalify the aufferers, and to enable them to rebuild their houses. And we are glad to bave to atate that all traces of the devastation have nearly disappeared; and that here, as In most other places exposed to a sinilar calunity, it has led to a great improvement of the town, which is now better bullt, and more commodiously lakd out than formerly.

Hamburg owes its commerclal distinction princlpally to Its situation. Indeed, the resources of Hamburg, as well as the other Hanse-towns, so far as they are dependent on their territorlal limits, are of but little consequence. Their trade is, as it were, passive, depending entirely for its maintenance and activity upon the conmercial movementa of other conntries. The eity of IIamhurg has but a very limited territory surrounding It , comprising the adjolning district, the towns of l Sergdorf and Ritzebuttle, the districts of Vierlanden (the soveraignty of which is alared by Lubec), Cuxhaven, some islunds In the Elbe, and some detached portions of the territory enclosed by the Dunlsh anil Hunoverlan dominions. These, together, constitute the republic of Ilamburg. The aren is about 137 square milles, and the population 188,054 s unls; of whom 115,866 live In the clty ; 16,731 In St. George; 16,157 in the faubourg of St. Paul; and 39,300 in the country around.-Com. Rel. U. s.

The River Elbe is the chicf commerclal artery which gives life and energy to the trade of Germany. It rises in liohemia, near the Carpathlan Mountains, and, flowing through that country, receives the Moldau and its tributaries, and the Eger. Leaving Hohemia, thls noble river flowa by Dresden and Magleburg, recelving In its course the Mulle, Elster, and Haval; all of which rivers, branching off into different streams, unito their waters with the Elbe immediately below IIsinhurg. The depth of water admits the largest ships; anil, about 75 miles below Hamburg, the Elbo merges into tha waters of the ocean. In respect to the navigation of the Elbe, the Stade duties lovied by Hanover, at the castle of Irunshausen, were Justly complained of, not only as arbitrary, but onerous and oppressive upon the commerce of the world. The principle, says McCulloch, was diatinctly laid down by the Congreas of Vionna in 1815, that the navigation of the Rhine, the Elbe, and the Weser, etc., should be quite froe along their whole course. But, no general tarlft of duties belng then established, this declaration has, until lately, had no practical effect. On passing Stade every eaptain or master was obliged to send his papers, including the manlfest, bills of lading, and cockets, on shore, that the amount of tho duties coald be calculated, and certified. These duties were paid at IIamburg, where tho IIanoverian governmeot had an agent to recelve them; and, until tho receipt was proluced, the vessel could not proceed to unload. See Elie Riven.

Stade Dues.-An intelligent correspondent of tha State Department at Hamburg, who has given much attention to the subject, has furnished the fellowing information concerning the Stade Dues:
"About twenty-five miles below Hamburg, at a narrow place in the Elie, the Schrominge, a small river, empties itsclf, on the lmuks of which, back a few miles from Its mouth, is situated the town of Stade. At this place a 'toll,' under the name of Brinshausen, or State Dues, is levied on all vessels coming from the sea, except on those of IIamburg.
"These 'dues' owe their origin to a grant from Conrud II., Enperor of Germany, who in the year A. 15. 1038, granted permission to the Arclibishopric of Ilamburg to establish a fair or market at Stade; and he appropriated the duties which wero to be leviel thereon, to the henofit of the church at IFamburg, which
had been sacked and destroyed by the Pagans, as all outeiders were callod in those days. Nothling beyond a market toll, a daty to be levied on goods brought to the murket of Stude, was contemplated in thla grant. But the Archbishops, particularly after the trangfer of the aee to Irramen, were not alaw in converting, by an arbltrary and unjust Interpretation, the Stade market privilege, with the trifling daty attached to it, into a zource of lucrative revenue for their treasary, and in place of a slmple right of holding a market at Stade, they feigned a privilege of compulaory market, viz., that no vessel salling upward from the sea had a right to pass, but should lay to and pay a aort of trnusit, or rather passage duty, for the purpose, as it were, of buy Ing off the right of sale pretended to have been granted ut Stade-a right which could be easily enforced, from the circumstance that vessels, as alrealy mentioned, were obliged to sail close by the Stale river, Schwinge. On ao groundless a fiction rests the origin of tho Stade dues. In the year A. D. 1189 the German Emperor, the great Frederic Barbarosa, granted to Hambarg the privilege which bears his name, besides other privileges and immunities in favor of the trade af Hamburg. Tho emperor, by this privilege, granted to her citizens, for their shlps and merchandise, a free navigation from the sea to the clty, wlth an entire exemption from all dues. At the peace of Westphalia, the territories of the Archbishop of Bremen were ceded to the crown of Sweden; which government, in consequence, clahned the right to levy the ducs, as a customary right. In A. D. 1691 a trenty between Ilamburg and Sweden was formed, wherein the rights of the former wore acknowledged in the broalest sense; and a tariff was formed by Sweden for the rest of the world, and fixed the rate at alrout one sixteonth per cent. Soon efter this treaty was fermed, Stade, with the Duchies of Bremen and Verdun, was accucupled by the Danes, and finally ceded by them in A. D. 1710 , to the electorate of Itanover; which cession was brought about by the cabinet of Georgo I., of England, who, at that time, was Elector of Hanover, and for which, the British government paid Denmark $£ 150,000$ storling. These tolls or dues have ever since been collected by Hunover, except tor some four or five years during the elder Ronaparte's wars, when IIanover was in possesslon of the French, none were collected, but the lower Elbe was left as free as any part of the North Sea.
"For a correct understanding of this question it is proper to premise that the Lower Elbe, as it is called, (that is, from Manuburg to the North Sea), is, strictly sjeuking, a part of the sea, an arm of the sea, and has ever bo been considered by all the European nations in their official acts and intercourse. Even at the great Congress of A. D. 1815 , when the commerce of all the German rivers was regulated, tho Lower Elbe and Stude dues were especially omitted for the roason ns-signed-that they wero neutral ecaters, and the 'dues' were sea tolis. IIenco, in my opinion, it rests alone upon the same foundation which the Danish Sound ducs do, or which the ald Tripolitan tribute did, and no other ; and if the former is, and the latter was, illegal and unjust, so are the Stade dnes. It should be borne in mind that Denmark has tho territory on the right bank of the Elbe below Hamburg, and Hunever on the left bank, except at Ouxhafen, where IIamburg owns some territory. Neither Hanover nor Denmark has evor contributed one dollar to the fimprovement of the navigation of the Lower Elbe; but, on the contrary, have ever declined to do so, while Hanburg has ever borne the whole burden of making such Improvements, and keeps them up at her owit expense. In this respect Denmark has decidedly the advantage over Hanover, for she has done something to add to the aafety of the navigation of the Sound."

A British writer, of great commercial experience,


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eays, in reference to this Bibe toll, "In equity, the drties levied at Stade should be, hereafter, is: umount, only equal to the expenses of light-horises, buoys, and pilotage for maintaining the asfe navigation of the Elbe, and thould only be imposed for that purpose on the connage of vessels, insterd of, as at present, on morchandise, and paid into the Hanoverian treasury." This policy, we are glad to aay, has been recognized; and the following notification appeared in May; 1855: "With the view of encouraging the shipping interesta of Hamburg, Hanover has abolished the Stade dues on the Elbe for all shipe and goods entering Harburg sean ward." The manufacturing induatry of Hamburgi, especially ite augar rofineries, iron works, and various works in metals and other materisle, rope-wsiks, distilleries, and brewerien, give employment to a large portion of its popuistion. Its grest importance and wealth, however, are owing to its advantageous position as the chief emporium of the trade of Germsny. The principal articles exported from Hamburg to the United Statee are silk, woolen; and cotton manufac tures, including piece 'goods and hosiery, and the produce and manufactores of the German States generally. The principal articies exported from the United States to Hamburg are cotton, tobscco, rice, coffee, esaves and other articies of wood, naval stores, whale and other fish oil, and whalebone.
Raw Cotton inpobted into Haybego durino Ten Yeabs,


8tathment exmeiting the values of Goode inpontad
into Hambero deaine the Yraks 1868 and 1854 ,

| Whare prom. | 1863. | 1864. |
| :---: | :---: | :---: |
|  | Matcerimico. | Mamet bance. |
| U. Stales, Inclading Br. N. Amer. | 9,044870 | 11,029,680 |
|  | 1,189,200 | 1,868,590 |
| Austra | 802,450 | 6,654,060 |
| Afta. | 22.172,710 | 91,414,229 |
| South Ame | 0.512480 | 12,720,970 |
| Weat Indles. | 9,044,870 | 11,029,690 |
| Northern part of Europ | 18,478,120 | 17,278,110 |
| Great Britaln.... | 142,561,990 | 149,160,760 |
| Sonthern part of Ent | 18,015,630 | 18,0ine 180 |
| From and via Altona | 49,664,480 | 52,420,270 |
| By land rontew and rivera | 184,545,110 | 245,015,980 |
| Total | 448832,360 | \$41,006,420 |
| Imports from the UT. 8, solely | 3,764,500 | 10,449,950 |

Btatemint exhinittine twr Valume of Mrachanotge exPonted by Sna, by Rivgre, and Land Houtre, from
IIAmburg, derino the Yates 1553 and 1854 .

| Where to. | 1583. | 1634. |
| :---: | :---: | :---: |
| U. States, Including Br, N. Amer. | Mence-hanien. 15.481789 | Marte batico. 18099970 |
| Anatralin., . . . . . . . . . . . . . . . . . . . | 6,284,780 | 5,024,710 |
| Asfa. | 2,257,460 | 8,181,790 |
| Africa............................. | 082,580 | 729,590 |
| Sonth Amorica . . . . . . . . . . . . . . . | 25.011 .940 | 47,545,470 |
| Went indlet..................... | 7,298,800 | 7,679,840 |
| Northerm part of Europe. . . . . . . . | :9,168,410 | 25,814,930 |
| Grent Britaln................... | 02, 080.490 | 82,828,010 |
| Gouthern part of Eiarope. . . . . . . . | 8,874.100 | 7,071,790 |
| Provimlomi for veasela. . . . . . . . . . . . | 700,000 | 047,500 |
| To and vin Altona. ............... | 45,894,700 | 64,588,760 |
| Land and frer routes. . . . . . . . . . | 224,607,800 | $255,651,840$ |
| Total. . . . . ................... | 421,678,490 | 488,029.840 |
| Eisports to the U. S. solely.... | $10,090,700$ | 12,081,870 |

The following is the officisl matement of the importa and exports of Hamilurg (Germany), from 1850 to 1855 ;

|  |  | Eipor |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { Yearn, } \\ & 1 \times 00 \text {, } \end{aligned}$ | Mares-banco. $858.18 \mathrm{~B}, 070$ | Marea-beneon $18,820,250$ |
| 1851 | 898.477, ${ }^{\text {a }}$ (1) | 888,168, ${ }^{\text {a }}$ |
| 1859 | 892008,820 | 872,405,400 |
| 14.93. | 44,679,8:13 | 421,678,490 |
| 1894 | 650,684,050 | 408, 120,840 |
| 1865 | 80, 85, 180 | 807,421,600 |

Hamburg recelves supplies of raw cotton not only from the United States, Mravil, and other countries of South America, in the illrect trade, but also from Enclioh ports, and other entrepita of Earope. A con-
siderable diminution is perceived in the importation of English twists (apun cotton) at Hamburg. This is attribntsble to the fact that the manufacturers of Prussia and Saxony have, of Iate yeary, ordered their supplies direct from Great Britain.
Hamburg-Impobtations and Exportations in 186g, w Marce-banco.

| (r, ,, Countrea. | - 1 Imporia | Exporta. |
| :---: | :---: | :---: |
|  | Maree-basiob. | Matesbanco. |
| China. | 1,850,090 | 488,840 555,860 |
| Msailia Pbilippise | 128,170 |  |
| Blagaporo. .... | 807,120 | 1,808,680 |
| Java. | 074,100 | 817,850 |
| Britioh East Ind | 2,056,890 | 522,450 |
| Eastorn Coast | 490,820 | 118,990 |
| Oape Town. | - 8,616 | 800,820 |
| Western Conatio | + 884710 | 168,650 |
| Madelra, Tonerifte, and Azorca. | 117,980 | 9,300 |
| Western Const of America | 8,078,790 | -,859,550 |
|  |  | 950,570 |
| - Buenes Ayres and Montevjdeo. | 1,014,890 | 8,892,960 |
| Branli.... | 16,044,810 | 7,519,900 |
| Dutch Gnlana, | 884,450 $3.497,140$ | 129,580 |
| Dutoh Weal Indina | 40,190 | 192,000 |
| English Weas Indle |  |  |
| 8., Thomas and Por | 1,299,760 | ,086,180 |
| Hayt. | 8,611,770 | 418,280 |
| Ouba | T,097,840 | 8,288,050 |
| Honduras. | 15 15,550 | 15,170 |
| Enstern Coast | 494,150 | 235,470 |
| Unlted Staten. | 8,818,890 | 6,089,130 |
| Greenland | 2,080 |  |
| British Nort | .... ${ }^{\text {P }}$ | 1,714,460 |
| 8 Bea Storos | .... | 1,009,400 |
| Island |  | 81,920 |
| 8wedon ${ }^{\text {a }}$ | 1,979,500 | 11,299,870 |
| Presola | 278,280 | 8,581,910 |
| Necklonburg | 8,770 | 24,030 |
| abeo. |  |  |
| Dontunrk, Sehleswig \& Holsteln | 888,190 | 1,002,110 |
| Helluoland and Caxhaver. | 80,260 | 62,060 |
| Bremen and the Weser. | 8,188,230 | 1,782,190 |
| Oldenburg and East Friesland. | 505,850 | 694,320 |
| Holland., | $8,105,960$ | T.798.9\% |
| Bolgium......... | 2,754,610 | 748,890 |
| Great Britajn and Iralund. | 160,494,560 | 67,049,620 |
| France. | 4,097,520 | 4,581,450 |
| Portng | 1,496,490 | A96,129 |
| Spain. | 9,884,960 | 402.850 |
| Glbraltar | 52,500 | 413570 |
| Qardinta | 619,690 | 312,50 |
| Tuscany | 090,810 | 449,989 |
| Papal istates. |  | 57,640 |
| Naples and the Two siclles | 1,524,720 | 6,250 |
| Tricate and Venleo. | 535, 830 | 593,80 |
| Greeco and Ionian ! | 297,090 |  |
| Turkey nad Levant | 286,980 $50,829,310$ |  |
| Rallroai, Behleswig \& İolatein | 5,644,670 | 10,422,170 |
| Lahoc (by wagons) | 1,020 | 1.221,270 |
| " Steeknltz. | 808,880 | 359.420 |
| " Ikallrom | 8,288,150 | 19,162,470 |
| Rallrom, llerlln to Hamburg. . . | 80,911,600 | 185,483,900 |
| Elbo, superior. | 21,862,780 | 30,477, 810 |
| " in | 5,098,770 | 4,197,120 |
| Luneburg. | 989,600 | 696, 504 |
| Harburg. | $28,108,000$ | 25,124,2020 |
| Post roads, | 72,109,890 | 73,299,080 |
| Total | 522,553,140 | 607,221,600 |
| Grand t | 1.095 | 779790 |

* From the Almanac do Gotha, 185 t.

Commerce is 1855.

| Condnenta, | Entered. |  |  | Clieared. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $V$ noesole | $\begin{array}{\|c\|} \hline \text { Tonbagye } \\ \text { lath. } \end{array}$ | Crow. | Veneels | $\left\|\begin{array}{c} \text { Tunawe } \\ \text { lanta: } \end{array}\right\|$ |  |
| Kurop | 4,188 | 858,490 | 85,470 | 4,179 | $25 ¢, 119$ | 84,54 |
|  | 407 | 46,489 | 4,001 | 870 | 40,348 | 4.446 |
| Asl | 43 | 6,124 | ${ }^{628}$ | 81 | 4,46t | 469 |
| Afrl | 10 | 809 | 108 | 17 | 1,510 | ${ }^{156}$ |
| Anstralla |  |  | .... | 25 | 4,831 | 499 |
| Total | 4,803 | 109,0,092 | 40, 1 m | 4, M6 | 9010,981 | 41,113 |
| Iomided. | 8,970 | $2 \mathrm{~m}, 54$ | 80,718 | 2,540 | 149,058 | 26.86 |
| In ballast | 028 | 2h,418 | 8,890 | 1,889 | 120, 826 | 19, 18 |

Foreign Navigation of Inambury.-1. The most im. portant class of fismburg packet-silps are those which sail; st atated periods, for Adelalle, Mellourne, and Sydney in Auatralla, Valparaiso In Clifl, and San litancisco in California. They conalat of 23 large class ships.
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## Yeara

2. Fourteen, large-sized vessels ply regularly betwean Hamburg, Now York, New Orleana, Galveston, and Indianola.
3. Five large three-masted ahips, owned by a private company, are engaged in the direct trade between Hamburg and New York.
.4. Two three-masted ahlps, also owned by a private company, ply between Hamburg and the ports of North and South America, as thay find a market.




BTATEMENT \&xhimitino Tim Natioation of IIambute put. INO Saventeen Yzars, ENDING WITL $1802 \%$

| Years. | Vestole entered. | Tonnage. | Years, | Vemela ontpred. | Tonnage. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1880 | - 0,597 | 881,814 | 1845 | 8,990 | 684,424 |
| 1887 | 2,601 | 849,003 | 1846 , | 8.779 | 058,061 . |
| 1838 | 2,700 | 879,872 | 1847 | 4,178 | 681,890 |
| 1889 | 2,089 | 418,898 | 1848 | 8,304 | 598,064 |
| 1840 | 2,087 | 448,868 | 189 | 8,459 | ..."' |
| 1841 | 8,694 | 485,788 | . 1850 | 1 4,094 | 780,569 |
| 1842 | 8,880 | 520,764 | 1851. | 4,169 | 744,587 |
| 1843 | 8,588 | 588,949 | 1852 | 4,440 | 840,109 |
| 1844 | 8,260 | 484,299 |  |  |  |

The following statement exhibits, in continuation, the number and tonnage of American vessela arriving at and departing from the port of Hamburg during the six months ending with June 80, 1855. The letter sccompanying the er nsular return contains the following pasarges: "The direct imports to this port from the United States will ahow a great falling off from last season; most of our vessels brought cargoes (chiefly augar) from Cuha, deatined, via Prussia, for Russia. The exports have also been much less than last year. But few of our ships left for American ports direct; most of them left in ballast for English ports, to load coal or iron ; seversl took, at low rates, long chartere for South Ameriean ports. The number of emigrants for the United States from this port will hardly reach half as high as last year. There belng no American shipping-houses at Hamburg, It will always be difficult for our flag, as the regular Hambarg passenger lines must tirst be filled, to participate fairiy in this trade. In the article of saltpetre, destined for Russia, our flag had the preforence when coming from our ports; but, generally, the Hamburg flag and property being exempted from the Stade toll dues, this can not ba the case." Number of vessels, barks, 13 ; tonnage, 5,143 . Ships, 4 ; tonnage, 2,167 . Total number of vessels, 17, and total tonnage, $\mathbf{7 , 3 1 0}$. Cargoes consiated principally of,-

Inward,-Arrack, seeds, cassia, dye-wood, Indiarubber, rice, suger, tamarinds, pot-pshes, household goods, cotton, honey, ginger, whalebene, tobacco, clocks, segars, preserves, tortoise-shells, gums, rosins, hops, oll, machinery, raislns, shoes, coffee, turpentino, furs, earsaparilla, plano-fortes, and genoral merchusdise.

Outword.-Passengers, pig-lead, plates of speltor, willow, succory flower, cinnabar, glne, gypsuin, rags, tow, worsted yarn, woolens, wormaead, hair cloth, glass-ware, china, hardware, Iron-ware, sheet-zinc, musical lnatruments, bristlea, shates, drugs, earthenware, straw goods, and general morchandise.
Statemint bilowing tife Numbri or Emioranta, with



| Years. | No, of venela. | No, of emlgranto. | Yeara. | No, of veaselc. | Ne, of onilgrenta. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1847 | 81 | 8.439 | 1881 | 57 | 8,093 |
| 1848 | 48 | 4.741 | 1859 | 89 | 19,886 |
| 1849 | 84 | 8,777 | 1868 | 75 | 13,898 |
| 1850 | 43 | 8,000 | 1854 | 100 | 20,885 |

Belonging to tha port, Dec. 81, 1855, 184, Tonnate ovition is that of Dacember 29, 1851. Monies, 1 marc-banco $=16$ ahillings $=\$ 0 \cdot 85$ United Statea' currency. Dutics on Imports.-These duties amonnt to not more than $\frac{1}{3}$ or 1 ; per cant. ad valorem ; and the duties on exports to not more than one eighth of 1 por cent. ad valorem. The following articles are exempt both from import and export duties : apparel of travelers, brought in by the respective partien, or by a special permit of the Director of Oustoms, bark unground, barley, bonea, bronze metal, buckwheat, copper for sheathing shlpa, brass, old, also in plates or sheets, coal, stone, gold and silver bullion or coin, open samples of goods under 70 pounds' weight, exported and then re-imported, through the same gate, linens, with or without eotton mixture, linen bagging; malt, oats, oil cakee, potatoes, printed matter, musical and scientific maps, rags, woolen or cotton, rape-aeed, rye, wool, sheep'a and lamb's raw, wheat, zinc, crude. The following articles are free of import duties only : articles not exceeding 5 marcs-banco ( $\$ 175$ ) in value; those also subjected to excise duties not over 20 marcsbanco in value; timber, staves, fire-wood, and turf. Those free of export duties are, all articles under 20 marcs-banco (\$7) In value, regardless of quantity ; all manufactures of the city of Hamburg; all provisions for the immediate use of vessels lying in the harbor; articles not exceeding 100 pounds in weight, and not of greatar value than 100 marcs-banco. Transit Du-ties.-All goods re-exported within three months from the date of arrival, are free of any transit duty, if yet in the hands of original importers.-U. S. Commercial ingest.

Money is generally reckoned in Hamburg in marce, 16s., each of 12 pfennings ; and is of two aorts, banco, and current. The former consists of the sums inscribed in the books of the bank, opposite to the names of those who have deposited specie or bullion in the bank, or get it transferred to them at the rate of 278 marcs-banco to the Cologne mare of fine silver. The value of the marc-banco, taking silver at 58 . an 0 . ., is, consequently, 1s. 5 dd., which makes the par of exchange 13 mares $10 \frac{1}{2} \mathrm{e}$. bancu per $£ 1$ sterling. Banco is worth about 231 per cent. more than currency ; the aglo varying from 120 to 125 s. Speaking generally, the value of the current marc may be taken at $1 \mathrm{~s}, 24 \mathrm{~d}$. or 18. 2d. sterling. The ailver coins current in Hamburg are, epecie dollars (of which $9 \%$ are equal to a marcCologne, fine silver) ; Prusslan current dollar (14 dollars to the mare fine); new 2s. 3d pieces (18 to the mare fine) ; Danish grob. current, and Hamburg current (34 to the maro, fine). The gold coins comprise ducats=9s. 4d. sterling, Louis and Frederic dollars. The ugios of these different coina, with hanco, constantly vary. Kamburg has for many yeare ceesed to cain monies, with the exception of ducats and the smaller coina.

Measures and Weights.-A new regulation of these was effected by an act passed on the 16th January, 1843. There are in Hamburg three different sorts of pound weights. 1. The bank or ailver weight (foruerly the Cologne weight). 2. The commercial weight. 3. The apothecary welght. One pound bank, or silver welght, ls $=2$ mares; 1 marc (Cologne) is $233 \cdot 85489 \mathrm{grains}$, or $4865^{\circ} 57$ Duteh As $=100$ mares $=62 \cdot 6554$ English troy pounds. The old relation between the coumerclal weight and bank weight, by which the commercial pound is equal to $335-32 \mathrm{oz}$. bank weight, has been confirmed by the late act. 1 centner $=112$ com. pounds; 1 pound $=32 \mathrm{oz}$; $10 \mathrm{oz} .=$ 4 drachms; 1 drachm $=4$ pfennings. By the United States' Commercial Digest the centner ls made equal to $119 \cdot 504$ avolrdupols. 100 commercial pounds $=106.838$ English pounds avoirdupois; $48 \cdot 4609$ kilugrammes; 86.5355 pounds Vienna; 96.9219 pounds German cus-
toms union. One "achiffpfund," in commercesw21 centners, ot 20 " liespfund" of 14 potnds each, or 280 pounds; 1 pfund $=1.067$ pounds avoirdupola. One "schitrpfund" by land-carriage has 20 "llespfund," each of 16 pfund; ls, therefore, $=820$ pounds. A plpe of oil la 820 pounds; 1 barrel of butter (amall wlllow and hoops) is taken at 224 pounds; but with common hoope, at 280 pounds nett.

Long Measure.-The Tamburg foot, divided Into 12 Inches of 8 parts each $=0.28657$ metres $=127.056$ Parisian IIneser11'289 Engliah inches.: Hence, 100 Hamburg feet $=94 \cdot 021$ English feet; $\mathbf{2 8} \mathbf{8 6 5 7}$ French metres ; 91 -807 Prussian or Rhenish feet; 90.664 VLenna feet. The IIsmburg ell (shorti ell)=2 Hamburg teet. $05 \cdot 7814$ metres $=254 \cdot 072$ Paris lines. 100 Ham burg ellsen $62 \cdot 681$ English yards. The Brabant ell (or long ell) most commonly used in Hamburg, in measurement of plece-goods $=27 \cdot 585$ English Inches.

Liquid Sfeasure, -1 fuder $=6$ anms, 14 aum $=1$ ankers or 5 elmers; 1 anker $=5$ viertels; 1 viertel $=2$ stabchens; 1 etubchen $=2$ kannens ; 1 kannen $=2$ quarters of Oessel; 1 oimer $=4$ viertels; 1 hogshead $=1 \frac{1}{1}$ aums, or 6 ankers, or 30 viertels, each of 8 quartiers or bottles. The atolichen contains 266 IIamhurg cuble Inehes $=3 \cdot 62$ litres. 100 Hamburg vietrels $=159 \cdot 89$ Engliah Imperial gallons; 724-18 French Iltres ; 632-45 Prusslan qnarters; $611-88$ Vlenna maass. The full beer barrel contains 48 stobehens, or 192 quartiers ; the small barrel only 32 stotichens, or 128 quartiers. The vinegar barrel contains 30 stabchens, or 120 quartiers. The whale and fish-oil harrel contains 82 stabchens, or 128 quartiera; 2 whale-oll barrels $=1$ quarteel.

Grain Mearnre.-One lass=60 fass; 1 fass $=2 \mathrm{hlmp}-$ ten; 1 himpten $=4$ spint. The wispel of wheat, rye, and pens is 20 fass; but of oats and barley, 80 frss. The scheffel of wheat, rye, and peas, is 2 fass ; of barley and oats, 8 fass. The fuss contains $8,8,2$ IIamburg cubic Inches $=52.734$ litrea, and $2658 \cdot 45$ Parislan cuble inches ; and 100 IIamburg fass $=18 \cdot 185$ imperial quarters; $\mathbf{6 2 . 7 3 4}$ bectolitres; $95 \cdot 947$ Prusalan echeffels; 85.765 Austrian hetzen. 10 Mamburg lastg $=108.81$ imperial quarters. The mode of measuring grnin has hitherto been by the metres throwing or pitching it
the fass, and striking off the surplua with a in unien roller pressed lightly atong the upper edge; but an alteration is expected on a new corn law, now projected, coming into operatlon; there will probably bea new fass measnre (of 4085 llamburg cubic jnches), equal to the l'russian scheffel. In practice, 1 Jamburg last is taken at 11 imperial quarters, 31 liectolitren, 57 Prusalan scheffels, 25 Danish barreln, and 161 Russian chetwerts. The coal barrel contains (when the 1458 Hamburg cubic inches of head or heaped measure is added) 16,438 culbic inches. The IIsmburg ship last, or last of conumerce, really welgha 6000 pounds, or 8 tons (not 4000 pounils, $s_{8}$ is generally stated).

Narigntion of the Elbe, Pilotage, etc.-The month of the Eibe is covered with manil-hanks. The channel leading to Cuxhaven ls bounded on the north by the Vogel Sands and North Grour 'A, and on the sout!. by the Schanrhom Sands and Neuwerk Island. On the latter there are two light-heuses and two beacons, and on the Scharhorn is another beacon. The light-houses on Neuwerk Island are abont 700 yards apart; the most southerly; which la also the most slevated, belng in lat. $53^{\circ} 54^{\prime} 67^{\prime \prime}$ N., long. $8^{\circ} 29^{\prime} 40^{\prime \prime} \mathrm{F}$. It 18124 feet high, being twice the helgit of the other. The channel i , in ame places, harilly three quarters of a mile wide. The onter red buoy in the middie of the channel, at its mouth, heara firm lieligoland southeast by mouth, distant nearly $2^{\circ}$ miles. But the beat mark in entering the Fllie la the flonting light, or alignal shlp, moored two miles north-west by north of the red luoy, In 11 fathoms at low water. This vessel never leavea her atation, unless compelled by too in the winter season. lly ulght ahe exhbita a lantern-light,

88 feot above deck, and in foggy weather rings a bell every quarter of an hour. $\mathbf{A}$ second slgnal ship is etatloned $8 \frac{1}{2}$ miles south-east by east from the first, at the woatornmost point of a sandi-bank dividing the fair way of the river. She is rigged like a galliot, to distinguish her by day from the firat algnal ship; and during the night she exhlbita two lights, one 18 feet above the other. The diatance from the outer red huoy to Cuxhaven is about 16 milea ; thence to Glackstadt the course is east, 28 miles; from tha latter to Stade the course is south-easterly, 9 miles ; and then easterly to IIamburg, 18 milea. The channel throughout is marked with black and white buoye, whick are numbered and specified in the charte. The black ones sre to be left, in pasaing up the river, on the starboard or right-hand oide, and the white on the larboard sids.
Every vessel coming from sea into the Elbe, and drawing four feet water, is directed to take a pilot on board, and must pay pilotage, though she do not take one. However well the algnals, lights, beacoua, and bnoys, may be arranged, an experienced pilot is very neoeasary, in case of a fog in the night, or of a storm. To take in a pilot, a versel must heave to ly the pilot galliot, which lles, in good weather, near the red buoy, and In bad weather N.E.N. from Neuwerk, and is known by having at the flagstaff an admiral's fiag, and a long streamer flying at the top. If the pilot boat have no pllot on board, or if the weather be so bad that the pilot can not leave her, she lowers lier flag, and then the veasel coming in must sail, with the sigual for a pilot hoisted, to Cuxhaven, and hesve to there, where she is certain of getting one. See Elink.

There are no docks or quays at llambnrg ; and it is slngular, conaidering the great trade of the port, that none have been constructed. Vessels moor in the river outaide of piles driven into the ground a short distance from shore; and in this situation they are not exposed to any danger unleas the piles give way, which rarely happens. There is a sort of inner harbor formed by an arm of the Elbe which runs inta the city, where small craft lie and discharge their cargoes. Larger vosseis load and unload from their moorings, by means of lightors. Thene carry the goods from and to the warehouses which front the various small arms and channels of the river, and the canala carried from it into different parts of the city. The charges on account of fighterage are extremely moderate.

Port Ciarges.-The chsrges of a publle nature parable by vessels entering the port of llamburg, ualoadling and loading, are pilotage and laatage. The separate itema of which are given in the following tables:

Pilotage Eimed.-The pilotage fees ase earned if vessels are lrought as far an Freyburgh or Glackstsidt, and when from streas of wind or weather, which seldom happena, the Hamburg pilots take the vessel to Wittenberg or Neumubien, they are to pas, without distiuction,

Pilotage oll the way,--For pilntage the while way from Cuxhaven to llamburg there is no talle of rates, for, generally speaking, the Hamburg pilots do not take vessels up beyond boesche.

Pilotage and Instage.-The Ilamburp pilots, gen. erally spenking, take charge of vessela only from the lied linoy to Freyburgh or Ginumatadt.

Jolf lilotage only.-In came the llauburg pilats enter a veasel only within the first buoy beyonil tho liosshacken, Strangfly, or Cuxhaven, fialf the above-menthoned pilotage is pald. Also half pilotage mast be paid at all events, whether the vessel has taken a pilot from the pillet gallut or not.

From llocsche to llambitg,-Vessela are generally plloted from looesch to Iambarg ty l)anlsh or ilanoverian pilota, to whom it is customenry to pay three mares,

## HAN

Lantage and Custom-house Charges.-British and other foreign vessels pay the same as Hamburg vessels. For clearing in and clearing out, no separste charg 38 ate made; visiting the port is considered as one voyage, and the charges on vessels are pald as follows : For vesaels arrived with cargoes from the nndermentioned places, viz. :

| Plases. | Late of $5,000 \mathrm{lba}$. |  |
| :---: | :---: | :---: |
| The | $\begin{aligned} & \text { Mancos. } \\ & 80 \end{aligned}$ | (1). |
| West Indies, North and Bonth America. |  | 08 |
| Pertugal, Epain, and the Mediterranean. |  | 02 |
| The rest of the Earopena por | 18 | 01 |
| lioliand, Fast F'riesfand, the Weser, Egder sad Jutland. | 012 | 0101 |
| For vessels nader 20 commercial lasts without distinetion. |  | 0 0 81 |
| Vessels arriving and depariog in baliast, of upward of 80 commeroial lasts. |  |  |

It is difficalt to determine the exact ratio of a last to a ton; but it may be taken at about 3 oc $2 \frac{4}{4}$ to 1 . But in llamburg all vessels are measured hy the harbor mastor; and it is upon his repert that the lastage is calculated.

For all vessels laden with coals, wood, or turf, no lastage is pald, provided they do not take return cargoes. Vessele arriving in ballast and daparting with a cargo pay half the above lastage, accoriling to their destination. Exclusive of the above dues, which are all remarkably moderate, vessels coming to the port of Ilamburg are obliged to pay certain dues to Hanover, called Stade or Brunshausen dues. See post.

Custom-house Regulations.-On a vessel's arrival at IIamburg the broker reports her to the enstom-house, and gives his guaranty for payment of the dutles, and delivers her papers; and, upon a recelpt being producel for the Stade duties by the IIanoverian authoritics at Ilamburg, the vessel is allowed to unload. On clearing, a manlfest of the outward cargo, together with the consul's certificate of the regularity of the ship's papers, must be produced at the custom-honse by the broker, whe obtains in retnm a clearance certificato, authorizing the vessel to go to ses.

Quarantine.-Ships are visited at Cuxhaven, a IIambarg possession at the mouth of the Elbe. Suspected vessels are generally sent to a station on the Norwegian coast ; but veasels which have undergone quarantine in an English port, or come from beyond the Cape of Good llope or Cape llorn, or direct from the Biver Plate, are permitted to come directly to Hamburg.

Credit, Brokerage, efc.-Almost all goods are solld for realy money, with an allowance of one per cent. for discount. Sometimes, but not frequently, sales are maile at two or three montha' credit ; and in auch eases ligher price is obtalned than for cash. Sometimes, sugar is sold to the sugar-baker at this credit.

Brokers are positively forbidden to act as merchanta or factors. They are licensed by the Senate, and must conform to the established regulations.
Banking, Insurance, efc.-For an account of the Bank of llamburg, aee Hanks. All sorts of insursncee are effected at Hamburg. A municlpal regulation compels the insurance of all houses within the city, the rate varying according to the number of firea and the amonnt of loss. Marine lnsurance is principally effected by joint stock companies, of which there are several; heir competition has reduced the preniums to the lowest level, and the busineas is not understood to be profitable. The high daties on policles of insurance in this country has led to the insuring of a good many linglish shlja at llamburg. Life insurance is not prosecuted in Germuny to any considerable extent ; but some of the English companies have agenta here, who are suld not to be very gerupulous.

Homkruptcy.-Conaldering the vast number of merchants and tradespeople at Mamiburg, bankraptey toes not seom to be of frequent occurrence. Nuch of the
business transacted at Hamburg being on commisaion and for account of houses abroad, the fallure of foreign merchants is a prevalent source of bankruptcy. . Another source of bankruptcy is losess on goods imported or exported on speculation, prid occaslonally lossas in the funds, in which a good deal of gambling goen on here. Expensive living is not nearly so provalent a source of bankruptcy here as in London and other pisces. See Com. Rel. U. S.; Hunt's Mer. Mag., xxili., 177, xv., 177 ; Westm. Rev., xxxviii., 437.

Elammook or Eiamac, (Span. hamáca-a word of Indian origin), a kind of hanging bed, whleh is auspended between trees or poste, or two hooks. The true Indian hammock is a long narrow net made of atrong cord, and terminated at each ond hy amall ropes for suapending it. The hammock used on board ship consista of a plece of stout canvas, about six feet long snd three broad, gathered at the ends and auspended by cords. The sailor's hammock is an oblong plece of hempen cloth; at each end are fastened several amall linea, meeting in a grummet or iron ring: these form the clews. The whole, having mattresses, plllows, etc., placed in it, is hoisted up into its place by small ropes called laniards, between two battens or screws in the besms of the deck over head, about nine feet distant asnnder. The hamnock is a very agrese able bed, especially in cold weather; but some little practlee is requisite at first in getting in and out anccessfully. During tl. day, the hammocks, lashed up tight in the form of caterpillars, are stowed in the nettinge along the upper edge of the bulwark.

Eampton Roads, Va., a branch of Chesapeake Bay, off the mouth of James River, between Old Point Comfort on the north and Willoughby Polnt on the soath. It is aufficiently deep for the largest ships of war, and la an important naval rendezvous. On Old Point Comfort, there have been caded to the United States 250 acres; $-a$ fortification called Fort Monroe luas been erected, which mounts 335 guns, generally 32 and 48 -pounders, 130 of which are under bomb-proof covers. On the opposite point, one mile distant, is Fort Calhoun. The foundation is made by throwing in stones, and it covers about seven acres. This fort is designed to mount 265 guns, 24 's and 82 's, and nearly all under cover. These completely commsnd the entrance to Hampton Rosds. On the north side of the entrance is Old Poin Comfort Light, lat. $37^{\circ} 6^{\prime}$, long. $79^{\circ} 18^{\prime}$ W., showing a fixed light on a white tower, and elevated 40 feet above the surfaca of the sea. On the soutli side of the entranca the W'illoughby Spit Light Vessel showa fixed lighta, elevated, the one 32 and the other 41 feet above the sea-level; and here is a fog-bell also. The channel leading from the Capes of Virginia to llampton Roads is reducel at Old roint Comfort to a narrow width. The shoal water, under the action of ' $1 e$ sea and the reaction of the bar, Is kept in an unremitting ripple; which circumstance has given to this place the name of the Rip Raps.

Eandkerohiefs. Handkerchiefn, wronght and edged with gold, used to be worn in England by gentlemen in thelr lute, as favors from young ladies, the value of them being from tive to 12 penco for each, in the relgn of Elizatieth, 1558.-Stow's Chron. 1landkerchies were of early manufacture, and are mentioned in onr oldest works. Handkerciefa of the celebrated Puisley manufacture wero first made in that town in 1748.

EIandspike is a stong wooden bar, used as a lever to move the windlass and capstan in heaving up the anehor, or raising any beavy weights on board a ship. The handle is sinooth, round, and somewhat taper; the other end is aquare, to fit the holes in the head of the cnpstan, or barrel of the windlasa.

Hang-Chau-Fou, on important city of China, eapital of the province of Che-kiang, on a phin near the River Trientang, about 40 miles from its mouth, and 140 miles sonth-east of Nanking. It is surmunded

Hy high and etrong walle, alid to be nimo mileo in circumforence; and edjoining. It are very extontive anburbs. The Governor-Gemeral of Che-kiang and Eukion resider in thin eity, and aleo the governor of the provinue, which, with their courte and troope, in addition to lts great trade, render this one of the mont important and richent citien in the empire. A portion of the space within the walls is divided off for the accommodation of a garrison of 7000 troope. . The Grand Canal has ite moutherm cormination here, in a large irregular basin. The atreete are well paved, and: the shopa and warehouses are large, and well atored with goode. There are numerous rich temples and elegant publio buildings ; and altogother, this city presants the appearance of great waalth and splendor. It is noted for its ailk manufactnrea, which omploy a large portion of its inhabitinta. The population is said to be about $1,000,000$.
ERanover, a kingdom in Germany, formed out of the duchies which formeriy belonged to aeveral famllies of the junior brapch of the house of Brunswick. In the course of the revolutionary war, under the.influence of France, the dukedams of Bavaria, of Sazony, and of Wirtembrarg had been raised to the rank of kingdoma; and when the overthrow of Bonaparte was accomplished, the dukedoms which hal composed the electorate of Hanover were tbought by the allied powers of aufficient consequence to be elevated to the same dignity, 29 , with the additiona then made to them, they were neariy equal in extent and population to the other portions of Germany whose rulers had received that rank. lt accordingly assumed thit grade in 1814, noder George III., and was acknow]. edged as anch by all the powors of lurope.

The kingdom of Hanover lies between lat. $51^{\circ} 18^{\prime}$ and $58^{\circ} 52^{\prime}$ N., and long. $6^{\circ} 43^{\prime}$ and $11^{\circ} 45^{\prime}$ E.; and is bonnded on the north by the German Ocesn, northeast by the Fibe, which separates it from Denmark, Hamburg, and Mecklonburg, enst end south-east by Prassin and Brunswick, nouth-west hy Hesse-Cassel and Prussia, and weat by Holiand. The boundaries inclnde the duchy of Oidenburg, which ainost completeiy eeparates Hanover into two large portions, the connection being maintained by a narrow atripof land, not more than six miles in width, wouth of the duchy. A smail portion in the south is eoparated from Ilanover proper by the interjection of part of Burnswick. The entire area amounts to about $9,464,446$ scres, or 14,788 square miles, as fotlown:

| Provinces. | Eriem th Eaglish acres. | Population to Dee. 1859. | $\begin{aligned} & \text { Nomber of } \\ & \text { id welligg-hones } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| llanove | 1,484,695 | 849,053 | 45,445 |
| Ititdeshelti | 1,102,099 | 867,083 | 62,049 |
| Iunebarg. | 2,769,508 | 898, 764 | 43,835 |
| Gtaile.... | 1.674,848 | 279,844 | 44,081 |
| Ositbluck | 1,040, 649 | 261,905 | 41,027 |
| Aurleh., | 787,969 | 185,199 | 80,024 |
| Clausthal | 156,112 | 83,720 | 8,898 |
| Total | 0,464,446 | 2,919.258 | 262.798 |

The whole of the kingdom of llanover dipa towarl the north, and the courses of ali the rivery are in that direction. These are, first, the Elbe, which borders a large part of the dominion, and receives into it the Ohre, which risea in the province of I aneburg; the Aland and Jeetze, which come out of I'russia, and are navigable hefore they terminate in the Elbe; the IImeneau, which becomes navigable at Juneburg; the Este, which is navigable to Buxtchude; the I.uhe, navigable to LIornburg; the Schwinge, by which vesaels reach Stade; the Oste, which passes IIarburg, and is navigable to Kirchosters ; and the Medem, which runs through the Indeln-land, and admita large vessels as high as Otterndorf; second, the Weser, which enters the dominion of Hanover at Manden, being there formed by the junction of the Fuldes and the Werra. It is navigable for bargee from the apot at which ita name cominences; and it receives in its coure the llamel, the Aller, the Oertze, the Leine,
the Bohme, the Eyther, the Wumme, which, In the iower part of its course, takes the namo of Losum, the Geeste, and the Hunte; all of which are Hanoverin rivers, and continue their urited course till they ars loet in the German Ocean, near Bremen ; third, the Ems, a river riaing in the Pruscian province of Wesi phalia. After entering IIanover, it receives the waters of the As, the Hase, the Else, and the Leda. Before reeching the sea, it fallis into the Dollart, near Emden, which is the principal sea-port in the kingdom. It is navigable for flat-bottomed vessela from Rheina downward, and for sen-going ships from Halte and Weener. About $1,200,000$ thalers $(\$ 87,000)$ have been expended in improving the navigation, and it has become in consequence a very important channel for the inland trade of the country. Fourth, the Vecht, a river of short course, sising in the Prusian province of Westphalis, and terminating in the Zayder Zee. Its princlpal importance is derived from a nevigable canal, which commences at the city of Manster, and is the channel of some trade through the Vecht to Amsterdam.

Though Hanover is generally a aandy soil, it has some smali fresh-water laken. The Dummersee, in Diepholtz, is alvout 12 miles in circuit. The Stelnhu. dermeer, in the province uf Kalenburg, is about four miles long and two broad; and the Dollart, at the mouth of the Ems, which is rather an estuary than a Lake, is 12 miles acrose. The canals are all of short course. The Aurich Canal, between Aurich and Enden, is 15 miles long ; the Bromen Canal, between the Oste and the Sch winge, servea both for draining and for transport; the Papinhurg Canal, between Pspinburg and the Ems, is unimportant.

Manufucturing industry prevails less in Hanover than in the other States of Germany. Linen yarm and cloth are the principal liranches. Wooien cloths ase made to a considerable extent in the southern part of the kingdom; and this branch of trade has lately beea increasing. In the west stockings and gloves are made. Cotton-spinning has also increased, but is still insignificant, and the same may be said of silk. Potteries, tile-works, and tobacco-pipe works are numerous. There are nine glass-houses, and 52 paper. mills, which produce yenrly about 20,000 bsles of paper. Wax is bleached to a considerable amount, and there are numerous tohacco factories, tanneries, breweries, vinegar works, and brandy distilleries, the produce of which last has of late very much increased. East Friesland produces gin. The most thriving branch of industry however is that of metal wares. The whole population of the llartz lives hy the miniog and furging of metals, excavating conl, and manufacturing wooden articles. Founderics and forges, and works of Iron, copper, lrass, wire, silver, and lead, vitriul and enflhur, are in the utmost activity. These mines and associated works support about 35,000 persons. About 20,000 workmen were very recentiy employed in the Ilartz, and the yearly value of the produce was $5,000,000$ thalere ( $\mathbf{f 7 5 0 , 0 0 0}$ sterling). The latest retarus give the following quantity for one year, for lisnover and 13runswick together: gold, 82 cuc. ; silver, $375,833 \mathrm{oz}$.; iron, 377,812 cwt. ; copper, 540 ; vitriol, 5400 ; guicksilver, 510 ; coal, $2,160,000$; salt, 842,000 .
As may be supposed from the smali quantity of surplus production, the trade of Ilanover is not extensive. The principal jort, Emden, has some export and import trade; but from the state of the roads between that placn and the more popuious parts of the kingdom, more of its trade jasses through liamburg and Bremen than through that elty. Besides the more conaideralle articles made from flax, Its honey, wax, foathers, and large quantities of timber, are sent to llamburg and lirenien. Wool, horses, and cattle, wheat and uther grain, lutter and cheese, tolncco and mineral productions, are among the chief exports. Hops, rape-seed, oil-cake, fruit, hamas, and sausages,
form also articles of export of amall amount. The imports consist principally of Englioh manufactures, colonial produce, fruite, wines, jowelry, and silks. As the roads to the great fairs of Lelpsic and Frankfort pass through Hanover, the transit of goods for theee used to create a pretty large commiasion trade, and give employment to many wagons, horses, and men, as well as to the barge owners. These, however, are now in aome degree auperseded by rallways, the clty of llanover having become a central station, from which these diverge in different directions to IIamburg, Brunswick, Hildeaheim, Bremen, and Minden. Hanover has jolned the Zollvereim or General Customs Union from ist January, 1864,

The commerce between the other States of the German Customs Union and the United States la not of much importance. The linens of Hanover always find a ready market; and, ware interposing import dutles in both countries modified or altogether abollshed, the linens, raw wool, lead, rapeseed, homp, and flax of thls klagdom would be much more extenaively exchanged for American rice, sugar, tobacco, and simllar produce. The direct exports from the United States to Hanover in 1852 were, beaides staves and flour (In value $\$ 115$ ), 186 hhde. of tobacco, valued at $\$ 5,791$. The value of exports from Hanover, via Hamburg and Bremen, in 1853, was $\$ 15,841$, and the exports from the United States direct to Hanover were 143 hhde. tobacco, valued at $\$ 6,290$. All other A -rican exports found their way to the markets of Hanover through the ports of Bremen and Hamburg. The value of exports from Hanover in 1855 was $44,-$ 277, of which there reached the United States via Bremen $\$ 43,409$, and via Belglum \$868. The tobacen onnually produced in the kingdom of Itanover is valued at alout $\$ 50,000$, from which about $2,500,0001 \mathrm{bs}$. of amoking tobacco is annuslly manufactured. Were the Zollverein duty on tobacco abolished, as it has been on raw cotton, the cultivation of the inferior quality produced in Hanover would not only cease altogether, but her tobacco munufactories (346 in 1843), would be multiplled, und the manufacturling industry of the kingdom more profitably developed. The principal sea-ports of Ilanover sro Emben, IIarburg, and some minor ports or shlpping places on the Weser, in the diatrict of Aurich, or that part of llanover west of Oldenburg. The Hanoverian trade from the Elbe centres at Ilamburg, that of the Weser at Bremen.
The commerce of the port of Harburg, on the libe, has, within a few years, assunied conslderable importance. In 1849 the number of vessels srriving at this port was only 49. The following exhibits the results of threc yeurs, ending with 1854: See Elue River.

| Years. | Vesela entered. | Veautio eleared. |
| :---: | :---: | :---: |
| 1852. | 691 |  |
| 1858 | 884 | 869 |
| 1854 | 1,038 | 1,027 |

The preceding summary indicates the rapidiy increasing commerce of thils port. The vessela chiefly come from the coantries of northern Europe, but some even from the Mediterranean. Thus, in 1854, thore proceeded from the Mediterranean ports 580 vessels under the IIanoverian flag, 152 under the lsritislı flag, 135 under the Danish, 81 under the Dutch, and 3 under the French flag. Of these, 265 entered, and 679 clenred in ballast, or with par*'al frelghts. The remaining vessels were laden chiefly with wood, stone, oll-cakes, and sundries. The marine service nf IIarlurg consists of 1 three-master, 6 barks, 3 brigs, 2 brigantines, 1 schooner, and 0 smaller craft; making in all 19 sail, excluslve of one bark on the stocks.
The rlver (Elhe) arrivals, during the anme poriod, were:


Notwithstanding this rapidly increasing prosperity of the port of Harburg, and the commercial facilities which it reoeives from the Hanoverian goverament, Hamhurg, on the opposite side of the river, is the princlpal centre of Hanoverian trade. Wlthin the past ten years the number of vessels belonging to Hanover has tripled in this port. In each of the years 1852 and 1858 , there arrived 1,100 vessela under the Hanoverian flag, measuring, in the aggregate, s tonnege of about 15,000 commercial lasts, of 6,000 pounds each, or an aggregate of 44,000 tons. In the navigation of Hamburg, Hanover holds the third rank as reapecta tonnage-the tonnage of the port liself rankIng first, and that of England second. The freights in 1853, in Hanoverian bottoms, exceeded thnse of the preceding year 100 por cent., and many years the freights are threefold greater than those given for the years immediately preceding.

The Hanoverian flag particljatea proportionally in the general forelgn trade, and enjoys a conslderable share in the movemente with trans-Atlantic constries. In 1854 the number of Hanoverian voseels in the port of Hamburg largely exceeded that of any former year. It reached as high as 1,830 veseels, moasuring an aggregate of 20,836 lssts, or nearly 60,000 tons, entered, and 1,817 vessels cleared. The amaller craft, exclusively engaged in the river trade, are not comprised in these totals. The commercial movements at the port of Emden in 1854 present the following resulta :


8,785,469 thslers equal to. . . . . . . . . . . . . . . . . $2,065,806$
The thaler (gold), or Bremen thaler, equals 78 get cents. The import trado employs 5,895 veasela, and 4,107 vehicles for the land trade. The imports consist chlefly of cereals, butter, and cheese ; and the exports are mostly of the same character. These latter employ, for the home trade of the port of Emden, 391 vessels. Fingland, Hollsnd, and Belgium are the principal countries to which the exports from this port nre destined. The mercantile houses of Emden engaged in the direct trade between that port and the Russian ports of the White Sea, the Baltic and the Black Seas, own about 8,000 tons of the marine service employed in that ccinmerce. The cultivation and manufacture of flax, hemp, etc., yielded, in the export trade of LIanover, in 1853, 8,500,000 francs, or nearly $\$ 1,700,000$. This sum exceeded the value of slmilar exports In 1852, namely: of flax exported, $\mathbf{7 2 4 , 0 0 0}$ francs; and of tlsaues, $1,070,000$ francs.

The tissues nf Ilanover are in high repute in foreign markets; and at the German Industrial Exposition, held at Munich in 180̈4, they were favorably noticed. As the cultivation and manufacture of flax and hemp constitute the chief agricultural and industrial wealth of the kingrlom of lianover, the annexed table, showing the quantities of tiseues manufactured, and their values, from 1840 to 1853-a period of 14 years-is compiled from the official returns of that government :


## HAN

The ell of 2 feet $=22.01$ English inches ; 12 pfenning $=1$ groaehen; 24 groschen $=1$ thaler $=73$ cent.
The tissuen and yarns of Hanover ara exported directly from Ilanoverian ports for Priesland and the countries below the Elbe, Sweden and Norway, Mecklenburg, Holland, and the Statea of the Zollvereln.

From Bremen, for New York, Baltimore, Havana, St. Domingo, Porto Rlco, Porto Cabello, Laguayra, Veneauela, Mexico, and the Canary Islen.

From Hamburg, for the citles and countries above deslgnated, and also for Brazil, New Orleans, Cuba, and the Weat Indles.

Effective merchant marins of Hanover in 1855.-Sailing vessela : total, 701; aggragate tonnage, a4,741 tons. Coasting and river craft; total, $1, \mathrm{~s}: 9 \cdot \mathrm{mggro-}$ gate tonnage, 88,121 tons. Steam vessels: total, 8 ; aggregate tonnage, 551 tons.

Effective merchant marine of Harburg in 1855...Sailing vessels: total, 18 ; aggregate tonnage, 6,102 tons. Steam vessels : total, 2 ; aggregate tonnage, 810 tons.

Adjacent to the town of Stade, on the Elbe, atanda the caatle of Brunshausen, near which a vessel is stationed to recelve toll on all vessela pasaing up the river. American vessels passing ap to Hansburg are subjected to vexatious and onerous duties at this point, seriously, and in violation of the treaty of June 10 , 1846, with Hanover, affecting American commerce with that port. Hambury property and the Ilamburg flag are exempt from any duty at lirunshausen.

| Commencrin in 15\%4. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Arrondisvemetite. | Vassels, | Capmeily. | Cussting vesmels. | Capacily. |
| Iuneburg.... | 12 | 1,072 | 124 | 510 |
| Stade. | 98 | 4.772 | 923 | 10.442 |
| West E'rlesinnd. | 567 | 26,257 | 818 | 0,82t |
| Total. | 677 | 82.101 | 1,665 | 16.414 |

The 3d section, article 1, of the treaty of 1846 , is in these words: "And further, it is egreed, that uo higher or other toll shall lie levied or collected ut Brunshausen or Stade, on the River Elbe, upon the tonnage or cargoen of vessels of the linited States, than is levied or collected upon the tonnage and eargoes of vessels of the kingdom of Hanover." Article 7 is In the following words: "The high contracting parties engage, mutually, not to grant any particular favor to other natlons, in respect of navigation and duties of customs, which shall not immediately becone conmon to the other party; who shall enjoy the snme freely, if the concession were freely made, or on allowing a compensation, as near as posaible, if the concesslon was conditional." It is proper, however, to adll, that it is clained that the concession ls conditional, viz: services rendered to the IIanoverian custom-house in the compatation and collection of duties, etc., by the officials of Ilamburg. If the flag and property of Hamburgians pass Stade exempt from any tell or duty, the imposition of either on American vensela is clearly in vlolation of treaty stlpulations.

The duchy of Oldenburg is nearly inclused within Hanover, having, however, a sea frontier of from $\$ 0$ to 50 miles, and the Weser bounding it on the west. The duchy liea in the basin of the North Sea, and is entirely flat, and in many places marshy, though in several jarts it possesses excellent pasturage, ou which horses, cattle, and sheep are extensively raised. The soil is not well adapted for agricultural purposes ; and, hence, the agricultural jroductions are not sufficient for the consumption of the inhabitants. Its commerce with the United States is small. In 1852 , Oidenlsurg sent, via France and England, to the United States, merchandise amounting to 478 . This ducliy entered the Zollverein league, January 1, 1854.—Com. Rel., $\boldsymbol{U} . \boldsymbol{B}$.

Eianseatio League, an association of the principal cltles in the north of Germany, Prussia, ete., for the better carrying on of commerce, and for their onutual safety and defense. This confeleracy, so cele-
brated in the early hlstory of modern Enrope, contributed in no ordinary degree to introduce the blassings of civilization and good goverament lato the north. The oxtenalon and protection of commerce was, however, Ite main object $;$ and hence a ahort acconnt of it may not be deemed miaplaced in a worls of thle descriptina.
Origin and Progress of the Hanseatic League.-Hemhurg, founded by Charlemagne in the ninth, rad Lubec, founded about the middle of the 12th century, were the earliest mombere of the League. The distance between thom not being very conslderable, and being alika interested in the repression of thone disorders to which most parts of Europe, and particularly the coast of the Baltle, were a prey in the 12th, 13th, and 14th centuries, they early formed an intimate political union, partly in the view of maintuining a asfe intercourse by land with each other, and partly for the protection of navigation from the attacks of the pirates, with which every sea was at that time infeated. There Is no very distinct avidence as to the period when this alliance was conaummated; some ascribe lta origin to the year 1159, othera to the year 1200 , and others to the year 1241. But the most probable opinion seems to be, that it would grow up by alow degrees, and be perfected according as the advantage derivable from it became more obvious. Such was the origin of the Hanseatlc League, so called from the old Teutonic word hansa, signifying an association or confederncy.

The Hanse-Towns (so called from the old Teutonic word hansa, signlfying an masoclation or confenlerncy), or the free JIanseatic republics of Lubee, Bremen, snd llamburg, are all that now remaln of the once powerful confederation which conatltuted the Hanseatic league. Formed, it is supposed, about the year 1164, partly for mutual protection and safe intereourse by lani, and partly for the protection of navigation from the piraten who infested the Baltic and the coasts of the North Sea, thls League haa become justly celebrated In the early history of the elvilization and governments of modern Europe. The first and principal members of this Confederacy piere Hamhurg, founded hy Charlemagne toward the close of the $8 t h$, and Luhec, founded about the middle of the 12 th century. "The wild, enthuslastlo expeditions of the Cruanders, in the 11th and subsequent centuries, the introduction of the diatillery into Europe in the 12th century, and the conquest of the Teutonic Knigints of the Cross in Irussia and Livonla, were," says the authur of "lex Mercatoria," "annong the causes whici originally brought forwaril the navigation and trade of northern and weatern liurope, and combined in forming this celelirated asmociation.'

The disorters to which most parts of Europe, and particularly the coant of the Baltic, were a prey, luring the 12th and followiog centuries, first invited the cities of Labec, Hamburg, and Bremen, to unlte in this Confederacy. Soon, however, they were joined by most of the trading towns of Europe. The cities which were eatablished aleng the coast of the lbaltic, and in the interior of the countries bordering upon it, eaperly sought admisaion into a league which guarautied them ample protection against the robler-princes and barbarians by whom they were aurrounded. londos Rouen, Hordeaux, St. Malo, Hayonne, Marseilles, lbarcelona, Seville, Cadis, Jishon, Antwerp, Dort, Ansterlam, Brugen, Rotterlain, Ostend, Junkirk, Ieghorn, Messina, and Naples; Hergen in Norway, Novgorod in Russia; all the towns on the lille and Weser; Emden, Cologne, and other eities, sucerssively united with this formidalse association, until it was able, In a war against one of the northern powers, In the 14th century, to call Into netive service 40 kbj s of war and 12,900 troops, exclusive of seamen. It thia period, neveral of the European fowers, expecially the kings of France and of southeril Burope, becoming alarmed at the extraordinury and formidable pregres
of an aseociation, whoae merchanta, traders, and emiasaries were found in every port, city, and village throughout Earope, and -whose decreea were pro$\dot{C i}$ imed as the eupreme law in their reapective dominiona, withdrew their towns and their merchants from a League which threstened to annihilate their severeignty and give lawe to the world.

It has been urged, and with much ferce, that the decline of the Hanse-tewns was owing mainly to their having beceme warlike, instead of remaining altogether commercial. There can be no doubt that this was, ut least, one of the causes, and, perhapa, the predominating cause, of their decline." Every where they clatned apecial concessiona and special privileges. They demanded and obtained the entire custodianship of Bishopegate, one of the principal entrances to Londen; and when certain privileges were attempted to be withdrawn from them, they boldly deciared wp against England, and immediately drove her vessela from the Baltic, until Edward IV. restered them all their privileges, and even exempted them, in maritime cases, from the authority of the admiralty court. Referring to the treaty cencluded with the Hanseatic League, at this period, McCulloch remarks: "The privileges of the merchante of the Hanse-towns were renswed, and the King assigned to them, in absolute property, a large apace of ground with the huildings upon it, in Thsmes-streat, denominated the Steelyard, whence the Hanse merchants have been commenly denominated the Aasociation of the Steolyard. It waa further agreed that the particular privilegea awarded to the Hanse merchants ahould he published, as often as the intter judged proper, in all the sea-port towns of England, and such Englishmen as Infringed them should be punished. In return for these concessions, the Englioh acquired the liberty of freely trading in the Bultic, and especially in the port of Dantzic, and in Prussia. This treaty," he adda, "settled the diffculties with the Hanse-towns on terms which were any thing but henorable to the English." In 1641, oven when the power of these cities had declined, and their organization had become comparatively dismemhered, we again find them converting their merchant vessels into ships of war, and disputing with Denmark her pretensions to tax the cominerce of the world at the castle of Cronberg. Indeed, it may be remarked, in passing, that the Hanseatic Leaguo never quietly submitted to the protensions of Denmark in the imposition of the Sound tax upon the commerce of the Baltic.

Prior to the treaty with Sweden in the 14th century, the collection of thia toll was succesafully reaisted by the league. Being then in the meridian of its greatness, it obtained, on its own terms, a free passage for its ahips and cargoes through the Sound-a privilege enjoyed until Denmark, perceiving that the Ilansestic League held her authority in utter contempt, deemed it judicious to invite other nations to engage in the trade of the Baltic, permitting the vessels of England and Holland to pass through the Sound on the payment of mere nominai tolls. This was intended to strengthen the arms of Dennark in any conflict in which her abrogation of the privileges enjoyed hy the League might involve her. Lubec, in the name of the other IIsnae-towns, ineffectually protested against this eneroachment upon their long undisputed sovereignty of the Baltic, and demanded the inmediate oxclusion of the Dutch from that ses. Their power, however, was now declining ; their demand was refused, and we find them, in 1500, submitting to a convention with Denmark for the adjuatment of the question of the Sound dues, reaulting in the tresty of the Odeusee between "tite king of Denmark and his suljects on the one part, and the right honoruble Ianseatic cities and the merchants thereof on the other part." So rapid was their decline from this period, that when Denmark, three years after the conclusion of this
treaty, made her war with Sweden a pretext for increasing the Sound duea against the Hanse-towna, in violation of the stipulations of that treaty, the latter. being now shorn of their former power, were cempelled to aubmit. Toward the close of the 17th century, the IIanseatic League may be cousidered as having ceased to exiat in a federal capacity. But, about that period, individual citiea which formed the league, ospecially Hamburg, not only regalued their former cemmercial aplendor, but, aince that time, have gradually risen in wealth and prosperity.
Notwithatanding, however, the warlike attitude in which the Hanaeatic League so frequently appeared, whether in aaserting new, or in maintaining old privilegea and conceasions, other causea, no leas fatal to their aupremacy, and more certain in reault, combiued to bring about their dissolution. The progress of civilization in Europe-the diacoveries of the pasaage to India by the Cape of Good IIope, and of America-the riae of IIolland, and the consequent rapid cemmercial progress of the Dutch-these causes combined, opened new and hitherto unknown channe's for navigation and commerce, and created changea in the cemmercial world for which ancient trading establishments were neither adapted nor prepared. Thus we aee that the decline of this once powerful Lesgue was mainly brought about by that very progreas of imprevement which it had contributed no inueh to promote. Its disaolutien was hut the natural consequence of the improved civilization, and of the development of the commercial spirit which it had fostered and spread throughout the different nstions of Europe. The cities of Lubec, Hamburg, and Bromen, were all that continted to acknowledge the au hority of the League, and all that now remain to rep.resent its ancient aplendor and power. The freeder. of these cities was gaarantied by the Cengreas of Viennn, in 1815 ; and aince that period navigation and trade have advanced and prospered, especially the trade of Hamburg and Bremen, without any interruption, until the disastrous fire of 1842, which destroyed so large a portion of the city and property of limmburg ; from which calamity, however, it has now almost entirely recovered. This conflagration commenced on the 5th of May, 1842, and burned 61 streets and 120 passages and courts, and left heuseless 19,955 of the population. Since that period a great pertion has been rebuilt according to a regular pian.
Tie Ifanse-towns, especially Hemburg and Bremen, have eatathished in every part of the world, possessing any commercial importince, numerous mercantile houses, under the management of merchants of great intelligence and energy. These establishments centribute largely to the prosperity and augmentation of the foreign commerce of the Hanse-towns. Of the 343 henses and comptoirs which represent the commerce of Germany in forelgn countries, 227, or two thirds, belong to Mamburg and Bremen. In the United States alone, in 1846, there are atated to have been $\mathbf{7 6}$ commereial houses of this description, namely : At New Yoik, 35; Philsdelphia, 7; Baltimore, 14; New Orlesns, 7 ; Louisvile, 2 ; St. Louis, 5 ; Texas, 3; Cincinnati, 3. These were exclusive of 61 other Cerman houses in the United States. Since 1846 the increase of commercial houses in the United States, from the llanse-towns, has been very great.

There are 37 Iianseatic commercial houses in Mexico, of which there are in the city of Mexico, 11; Vera Cruz, 11; Tampico, 4; Mazatinn, 5 ; other places, 6. In Guatemala, 1 ; Cuba, 14 ; Porto Rico, 3; Ilayti, 6 ; St. Thomas, 4; the other Antilles, 6; Venezuela, 23 ; l'era, 5 ; Chiii, 8 ; Brazil, 29 ; ether German houses in South Amerien, 21. In the ports of the La PlatsHanse honses, 2; other Gerinan houses, 8. In Fcui-dor-German heuses, 2. In China and Chinese IndiaHause houses, 7; other German houses, 7. In Africun ports-Hanse houses, 9 ; ether German houses, 2.

Statimant axhinitine tua Numuan op Ifanat Veasela that faned tha sound in 1805.

| Fiago. | Whence and whther. | No , of vascelo. | Daties pald at the south. |
| :---: | :---: | :---: | :---: |
| Lubac........ | From the North Sea | 63 | Firanes. 84.876 |
|  | Baltio. | 69 | 19,670 |
| IIamburg. . $\{$ | From the North Sea | 88 | 18,844 |
|  | 4 Hialtlo.... | 48 | 18,258 |
| Bremen..... | rom the North Sea | 19 | 24,709 |
|  | Batt | 15 | 6,800 |
| Foralga . . . . $*$ | To Labee. . | 86 | . . |
|  | From IIambur | 86 | . $*$ |
|  | To Hambarg | 17 |  |
|  | From Bremen. . . . . | 89 | . $\cdot$. |
|  | To Bremen.... | 100 | . . |

From 1819 to 1851, 445 vessels, under the IIanse flag, passed the Sound, and pald 196,170 francs for the privilege of saluting the caatle of Cronberg. The number of Hanse vessels which passed the Sound in the years 1852, 1853, and 1854, is stated as follows:

|  | 185s. | 1558. | 1854. |
| :---: | :---: | :---: | :---: |
| Ilsmburg. | 65 | 81 | 49 |
| Bremen.................. | 7 | 87 | 24 |
| Labee . . . . . . . . . . . . . . . . . | 100 | 186 | 185 |
| Total. . . . . . . . . . . . . | 181 | 458 | 908 |

The aggregate amount of Sound dues paid by the Hanse-towni from 1846 to 1851, both inculsive, waa: francs, $471,354=89,557$; annual average, franca, $78,650=14,926$.

In connection with thls subject, it la proper to add, that arrangements are now being actively brought towurd consummation, which will exercise a marked influence on the foreign commercial movements through the ports of the Hanse-towns. These lave for their object the opening of a route between the North Sea and the Haltic: 1st. Across Schleswig, by the conatruction of a railroad bet ween Tonningen and Husum, on the one aide (the wast of Schleswig), and on the other, through Filensbury (on the eastern oide); and 2. Acrosa aouthern Sweden, by ateam navigation on the Gotha Canal.

It need not be addel that either route will aupersede the passagge of the Sound and the impost which ia there lavied-ylelding to Lenmark so larye n portion of her Sound-dues revenue-mand must necesaarily, to a great extent at least, divert from the latter route the transitage thruugh the llanse-towns destined for the Sesudinavian countriea and those bordering on the Baltic. The steam navigatiou of the Gotha Cunal has been granted to an English company, denominated "Navigation Company between Hull and St. I'eterso burg." This company commenced the construction of four ateamers in 1853, at the shipyards of Motala, two of which were completed towaril the end of that year, and the other two in 1854. These atcamera are even now insufficent for the heavy freights offered for trunsit, and it is understool that others will soon he adiled to the line. The railroad referred to has also been granted to an English cominny, which has long since commenced operations. When completed, it will place Iondon within $\mathbf{3 0}$ houra' distance of Flensburg.

The commercial relations bet ween the Lnited States and the Hanae-towns are regulated by the treaty of December 20, 1827. This treaty stipulates entire recijrocity of traide and perfect freedom of conmerce between the two high contracting parties, no matter from what country or jort the veaseia and cargoes may come. The sixth article stipuiates that it shall be wholiy free for all merchants, commander of shipa, and other citizers of both partien, to manare, themselves, the:- مnn bushess, in all the ports and phaces aubject to the jurisdiction of each other, as well with respect to the conaignment and aule of their goorls and merchandise by wholesaie or retaii, as with respect to the londing, undoading, and sending off thelr ships;
aubmitting themeeives to the lawn, decreas, and usagea there setablished, to which native oitizens are subjected; "they, in all cases, to be treated as citizens of the republie in which they reside, or, at least, to le pleced on a footing with the citizens or aubjects of the most favored nations ;" and all favors granted hy elther party to other natlons, to become common to the other party on equal conditions.
The pollicy of allowing to the Hanseotowns, by treaty atipulation, the priviloges of their flag to all Yeasels owned instead of build wlthin their dominions, as in the treaty been the Ilanse-towns and Great Britain, has been a question of conslierable doubt aung eminent merchants of the United States. By virtue of thia stipulation, the Ilanse-towns bring to the United Stuten the productions of the ilfferent States of Germany, and carry back, in return, the cotton, rice, and tobacco, with which the atore-bouses of these towns, espechally Bremen, are $p^{\prime}$ waya supplied. The effect of this privilege has, undontutedly, been to throw almost the entire carrying trade, from the Ualted States for German markets, Into the hands of Hanse ship-ownera. This is more particularly true with reapect te the port of Broman, as appears from the followlog aummury of the navigation returns of that port. The vessels engaged In the trade between the United Stutes and Iremen were:

The Cotton Trade.-Cetton and toliacco are the leading imports of the Hanse-towna from the Cnited States. The value of the former inportad during the 12 months ending June 30,1853 , was nearly $83,000,000$; of the latter, more than $\$ 2,500,000$; while the value of all other donestic produce imported into llrenien and llamburg from the United States was upward of $\$ 9,000,000$. The export of cetton from the United States to the countries of nerthern Europe commenced some 60 yearsago. In the yoar 1800 , Ilvolland, including the territory now known as the kingdom of Belgium, received 79,604 lis. ; in 1855 the aggregate quantity exjorted to the two countries was $17,160,967 \mathrm{lbs}$. In 1803 Norway and Denmark first imported American cotton, amounting that year to $18.1,193 \mathrm{lbs}$. in 1855 the aggregate quantity exported to these two countries, Including Sweden, was sonce 7,000,000 liss. I'russia and Sweden legan importing cotton from the United States in 180.1. Itussia, in 1809, received cotton from the ITnited States, for the first time, and to the amount of $500,000 \mathrm{ibs}$; while In 1853, the year jrlor to the commencement of the late war, the ex. portation to that country ameunted to more than $21,000,000$ llis. The Ilanse-towns received cotton from the United States jurior to the year 1800 ; and the progress of the trade with these cities, which is exhihited in the aulijoined statement, strikingly cx-emplifir- in connection with the remarks whill have precedea, and the general statement which fullows it, the rapid nad powerful advancement of the king: staple, not of the United States only, but of the commerelal work. The following statement shows the quantities of cotton exported from the V'nited States to the llanse-towns every 10 ycars, for a period of 51 years, from 1805, to 1855:


Tobacco is borne in direct veyage from the L'nited States; not so, however, with cotton, in the carry-

- The Ifanse-towns are given for this and the following periods; Bremen and IIamburg being untted under the offhat tiata, under that deskigation. liremen, however, averages moro than three fourtios of the aavigation betweea the Cntted States and the Ilansertowns.


## HAN

ing trade of which Great Britain has been for many yeare un active competitor. Entering the ports of the United Kingdom free of duty, her merchant fag can reallize a proftable trade in ith re-exportation to the varions ports of continental Europe. Thus the Itnneo-towns receive their aupplies of raw cotion not only from the United States, in the direct trade, hut also in the indirect trade, from English porta and other entrepots of Europe. The annual average quantity of cotton exported from the United States to the lianno-towns, inclading Prussia, during the four years from 1851 to 1854, both inclusive, was $24,811,626$ lba. whlle the annual average exported from Great Britain during the four years ending December 31, 1854, was $36,563,906 \mathrm{lbs}$.

The annual average quantities of cotton exported from the same countriea, renpectively, during the same porioda, to other nations of nordern Europe, exhiblt similar resulta. Those facts are cilustrated by the subjolned atatement, and suggest a strong argument for the serinus corsideration, hy the navigation Interesta of the United Statos of such measures as would be likes, to promote tha direct exportation
of out weat ataple from our own ports, in our own veasels, to those of the countries by which it is connumed.
Comparative Gtatrment hhowina tili Quantitima of CorTON ExEOATRD TO CHRTAM COUETRIEA OP NORTKREM Sufora Fhom tilk Unitad States anu (hakat Baitaik
 1852 to 1854 , BOTII INOLUAV F.

| From the U, Biates to | $185 \%$. | 1883. | 1854. |
| :---: | :---: | :---: | :---: |
| Ifanse-towns atidPrusta........... |  |  |  |
|  | 28,188,929 | 92,67 1.788 | 87,710,922 |
| Belgiam | 27,167,8\%0 | 15,494,418 | 18,980,460 |
| Rughla | 10,475,168 | 91,286,568 | 9,914,064 |
| Holland. | 10,259,042 | 7,083,904 | 6,048,165 |
| Swaden \& Notway | 8,989,025 | 0,099, 017 | 8,212,710 |
| Total. | 70,960,858 | 72,591,298 | 69,876,911 |


| Yrom Greal B.itala to | 1859. | 1868. | 1856. |
| :---: | :---: | :---: | :---: |
| Hanse-townd and |  |  |  |
| Prussla | 29,146,250 | 84,560,786 | 09,499,889 |
| Belgiam | 18,657,080 | 18,446,672 | 14,040,768 |
| Rugala. | 45,006,844 | 48,087,992 | 209, 544 |
| Holland.............. | 15,884,224 | 98,676,592 | 26, 284,544 |
| Sweden \& Norway.. | 8,591,840 | 4,414,86s | 6,866,560 |
| Total | 100,685,840 | 185,055,760 | 108,650,804 |

Tabular comparative Btatement, howino the apranon Quantities op Cotron Paoneckd, Congumed, and
 Quantities of Forkion Cotton importid into and hapontro phox tik Unitrid gtatea; toonther witil the



| Ia tha yeare | Produced. | Consamed. | Exported. |  | Foreign. |  | Pricen In |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quantules, | Values. | Imporied. | Esported. | Unlted Bintes. | $\begin{aligned} & \text { Groat } \\ & \text { Britalu. } \end{aligned}$ |
| tst period... 1792, 1798, 170 | $\begin{array}{r} \text { Poumpo } \\ 6,8000,000 \end{array}$ | $\begin{aligned} & \text { Pound s. } \\ & \mathrm{D}, \mathrm{B00}, \mathrm{9} 00 \end{aligned}$ | $\begin{aligned} & \text { Pounds. } \\ & 748,000 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Dollimes } \\ & 288,000 \end{aligned}$ | $\begin{aligned} & \text { Pound } \phi_{0} \\ & 1,900,000 \end{aligned}$ | $\begin{aligned} & \text { Puund } 8 . \\ & 4,000,000 \end{aligned}$ | $\begin{aligned} & \text { Conta } \\ & 811.8 \end{aligned}$ | $\begin{aligned} & \text { Pones. } \\ & 101.6 \end{aligned}$ |
| 2d pertod... 1802, 1818, 1804 | 80,000, 0100 | 10,5010,000 | 85,600,000 | $0,960,000$ | 8,400,000 | 2,800,000 | 19 1-8 | 168.8 |
| 8d perlod.. 1812, 1818, 1814 | 73,800,000 | 80, 0000000 | 22,610,000 | 2,700,000 | 800,000 | 200,000 | 121.2 | $301-8$ |
| 4th perlod... 1822, 1823, 1824 | 203,300,000 | 85,000,1000 | 138,500,000 | 22,100,000 | 1,000,00rs | 270,600 | 14.6 | 81.8 |
| 5th period.. . 1882, 1898, 1884 | 481,610,000 | $85,000,000$ | 844,000,000 | $88.500,000$ | 1,560,000 | 450,000 | 11.28 | 71.2 |
| 6th perlod... 1842, 1843, 1844 | 907,100,000 | 14, 6100000 | 680,200,000 | 50,700,000 | $8,000,000$ | 7,600, 100 | 746 |  |
| 7th pertod... 155\%, 1858, 1854 | $1,227,400,000$ | 270,800,400 | 1,064,200,000 | 97,000,000 | 500,000 | 14,600 | 912 | 61.7 |

This statement, made up with care and labor, from'fore, be viewed as embracing a period of 70 years, sources officinl and unofficial, and often conflicting, although not, perhaps, statistically exact, is yet, probably, enough ao for those purposes of gencral comparison for which it is submitted. For obvious reasens, the aggregate of the exportation and consamption of cotton can not be expected to bnlance the production In any single year, Independently of stocks on hand from preceding years. An average, yenr with year, of some $70,000,000 \mathrm{lbs}$, consumed for houschold and other naes, and of somo $3,000,000 \mathrm{lba}$. lost or dostroyed, and of some $500,000 \mathrm{lts}$, of imported cotton consumed, are, also, items to be considered in striking this balance; es well, morcovor, as the fact that the sums nte in round numbers, and that the only figures In the statement which can be viewed as at all statistical, are those giving the amounts and values of exportation; those for the consumption being derived from the unofficial declarations of mnnufncturers, and those for the production being estimated from all the other items put together. The aggregates, however, of consumption and exportation, for the whole period of 63 yeare, lalance the production and importation within some $6,000,000 \mathrm{lhs}$. The data for quantities, values, and prices derived from the Treasury Reports, do not, it will be perceivel, niways afforl results entirely consistent. Prior to 1802, forelign cotton was united with domestic in official accounts of exports. The capacity of the bale is computed, agrceably to uagge, at 400 lbs., In changing bales into pounds, for this statement, although an nverage of 450 lbs , to the bale would, prohably, be more exact. The unusunlly large triennial average of cotton imported in 1842, 1843, and 1844 , is to be ettributed to the fact, that, during those years, Texas was an independent repuhlic. Foreign cocton, from January', 1791, to 1812, paid a duty of three cents per pound; from July, 1812, to April, 1816, slx centa; and from April, 1816, to July 30, 1840, thiree cents, when it was made free. The $\mathbf{7}$ th decade terminates in 1801. The statement may, there-

## from 1792 to 1861 inclusive.

Tariff Regulations.-Bremen.-The tariff is that of December 23, 1850.

Moneys.-One rixdoliar $=72$ grotes $=78$ 年 cents $;$ 1 grote $=11.10$ cent.

Weights and Measures. One centner $=100 \mathrm{lhs} .=$ 109.8 Ibs. nvoirdupois; 1 lisprand equals 14 lba. United States' welght 11 atone of wool equala 10 lbs do. ; 1 stone of flax equals 20 lbs. do. 11 scheffel equals 2 buahels United States' measure; 1 last quals 80 bushels do. ; 1 Bremen foot equala 11.38 inches do.

Inport Duties.-These duties consist of $t$ wo thirds of 1 per cent. ad valorem on the valuation given in the invoices, including at the same time freight und ineurance.

Export duties conslst of one third of 1 per cert. ad valorem, according to invoices.

Transit Duties.-All merchantlise which has been entered at the custom-house as transit goods, is subject to a duty of one groat ( $1 \mathbf{1 - 1 0}$ cent.) per centner (or 109.8 lbs . avoirdupois), if re-exported wlthin three months from the date of the entrance. From this, howevor, the following articles are excepted, and pay only one half grote per centner : Alum, asphalt, empty batrels, coul, bomb-shells, bexes, cunnons, cheese, copper (crudo), earth for coloring, gypsum, hair (cow), herrings, iron in sheets, castings, hars, rods, and bulls, juniper berries, llme, linseed, mangnncse, marble (unmanufactured), metnlic enrths, mortars, oak-bark (ground or not), whre, clay pipes, pitch, raga, rnilroad materials, as rails, wheels, and axles, gutters (roof), rosin, salts, кcraps of paper, sea-grass, succory (or chicory), tnr, vitrjol, wnate paper, wrapping material cominon inanufactures of wood, slac (in blocks).

The following pay one quarter grote per centuer: Ashes (ley), birdis, bones, bone-black, sugar-lox botrrls, dye-woods, fresh fruits, grass, hay, Iron (old or crude), lead ore, oil cakes, ores, potatoes, slates and pencils, sulphuric earth, timber (hewn), woed, ebony, mahogany, and timber for earjenters.



The following pay one slxth grote per centner: Athes (not ley), birch, brooms, blood, bottle cases, bricks, cement, chalt clay (brown or stone), earth (eommon), earthenware (cominon), fayence (common), glass (broken), slue, leather, affal of tanneries, gravel, guano, marl, mill-stones, oyster-yhells, potters' earth, shall-lime, atones (hewn or not), sugsr-bakers' clay, ougar seum, tiles, winb-utonen, treea for planting, turf, fire-wood, houps, shingles, maceriala for banket-makers, and posts for fences. Gools not exprorted after three months, by paying 25 per cent. of the tranait duty, may have a further prolongation of three monthe.

Hambury.-The tariff is that of Decemier 29th, 1851.

Soneys. -1 marc-inanco $=16$ shlllings $=35$ cents.
Wëights and .1frasures. -1 centner $=119.504 \mathrm{lbs} ; 1$ $\mathrm{pfund}=1.067 \mathrm{liss}$. avolrdupois.

Iluties on Imports.-These duties amount to not more than $\frac{1}{2}$ of 1 jer cent. ad valorem; and the duties on exports to not more than $t$ of 1 per cent. ad valorem.

The following articlea are exempt loth from lmport and export duties: spparel of travelera, brought In by ths respective parties, or by a special permit of the director of customs ; lark, ungreund; barley; bones ; bronze metal ; buck wheat ; copper for sheathing ahlpe I bruss, old, also in plate or sheets; coal ${ }_{1}$ stone; gold and silver bullion or coin; open samplen of geode under il llas. Weight, exported and then re-imported through the same gate ; linens, with or withuut cotton mixture; linen bagging; malt ; oats; oil cakea; potatoes; printed matter; musical and scientilie maps ; raga, woolen or cottun ; raje-sced; rye; woul, sheep's and lamb's, raw ; wheat ; ginc, crude.

The following articles are free of import duties only: articles not exceeding 5 marcm-baneo ( 1175 ) in value; those also aubjected to excise duties not over 20 marcs laneo in vajue; limber, nlaves, tire-wood aud turf.

Those free of export dutien are: all articles under

20 marcs-banco (4) in value, regardless of quantity ; all manufactures of the city of IJamburg; all provis. lons for the immedate nse of vensels lying in harhor: artleles not exceeding 100 l bs . In weight, and not of greater value than 100 mares-banco.

Transit duties.-All goods re-exported within three months from the date of arrival, are free of ang* transit duty, if yet In the hands of original importers.
I.ubec.-The tariff le that of December Sth, 1851.

Ifoneyn. -1 mare $=\mathbf{1 6}$ кehillings Lubee courant $=$ 28.79 rents.

Weighta and Meosures, -1 whlp-pound $=23$ cwt. of 112 lbs. Finglish, each=280 $\mathrm{lba}, 1$ hispound $=14 \mathrm{lbs}$,

Duties on $/ m p o r f$ n.-All goods, whether of foreigu or home production, pay one half of one per cent. ad valorem, as given in the lnvolees, except the fulluwing articles, which are free of import duties:

Transil goods re-exported within three months after entry ; effects of travelers ; bousehold furnilure used; wool brought for the Lubee fair, and delivered at the wool warehouse ; goods on board vessels not consigned to Lnbee; wares on board ships entering the port of Travemnnde in distresa.

Goola where the value ean not be ascertained from the invoices, will the estimated at the lubec market prices. Articles of wood, as timber, boardn, shingles. plauks, mants and spars, staves, aud fire-wood, pay, alway, one half of one per cent. on the lubec market prices. Articles which pay an ad valorem duly, if their value does not amount to 25 mares ( 47 ), are free; from 25 to 75 mares ( ${ }^{7} 7$ to 21 ), the duty in levied on 50 mares ( $\% 14$ ); from 75 to 125 mares ( $\$ 21$ to $\$ 305$ ), the duty is levied on 100 mares (28), and so on. None but citizens, or their agente, have the privilege of clearing goods in the custom-house. Anuerican vedsels, however, are exempted from this regulation. $-U$. S., Com. Relations; M'Ccllocu's Commercial Dictionary; aee, also, Foreign Commerce United Statid, snd Quarterly Review, vol. vil., p. 130.

EIarbor, EIaver, or Port, a plece of water comb munlentlag with the sea, er w'th a navigable rirsr or lake, having depth sufficient to float shipa of conalderable burden, where there is convenient anchorage, and where ahips may lie, load, and unlead, ecreened from the winds, and without the rench of the tide.

Qualities of a good IIarbor.-There ls every variety in thin form and quality of harbors. They are elther natural or artificial ; but, however formed, a good haphor should have alfficient depth of water to admit the largest ships at all times of the tide; it ahould be eany of acceas without having too wide an entrance; the bottom should be elean sad good; and shipe ahould be able to lie close alongeide quayn or piers, that the expense and Inconveniance of louding and unlouling by meana of lighters may be avoided. Shipa lying in a harbot that is land-locked, and surrounded by high grounda or bulldings, are, at onee, without the reach of storms, tidee, and cyrrents, and may, in most casea, be essily protected from hestile attacks. Har harbors are thuse that have bare or banka at their entrances, and do not, therefore, admilt of the ingress or egress of large shlps except at high water. These are mest commonly river harbersmethe and and mud breught down by the stream, and driven back by the waves, naturally forming a bar or bank at their mouths.
The designing of hurbors censtituten confessedly one of the most diffleult branches ef civil engineering. In making such designs, the engineer, in order to avail himself of the advantage which is to be derived from past experience, must endeavor to the best of his power to institute a comparison between the given locslity and some other, which he supposes to be in pari casu. Perfect Identity, however, in the physical pecullarities of different stations, seldom, if ever, exists, and all that can be doue ls to select an existing harbor, which appears to be as nearly as possible simIlarly circumatanced to the proposed work.

In censilering the subject of the construction of harbors in exposed situations, the first and most linportant subject deserving eur attention is the thestructive nction of the element with which we have to deal - what are its energies when exclted by storms, and what the direction of its furces on the barriers which have been raised to control it ?

Smesten, in his history of the Bddystore, when speaking of the objection that might be ralsed agalast the necessity fer using joggles in the inasonfy of that building, says, "When we have to do with, and to endenvor to control those powers of nuture that are subject to no calculation, I trust it will be deemed pr adent not to omit in such a case any thing that can without difficulty the applied, and that would be likely to add to the necurity." This etatement of our greatest mariae engineer, ladleates the propriety of carefully collecting any facts that may help us to a mere accurate estimation of those forces which he regurded as being "suiject to no calculatiou." We shall therefore state a few facts which have been $B$ recorded of the destructivo powers ef the waves in intand lakes, and in the open есени.
At Port Sonnchan, In England, where the fetch is under 14 miles, a stone, weighing a quarter of a ton, was torn out of the masonry of the landing-slip and overturned. Mr. D. Stevenson, in his Enginetring of North Americu, descriling the harbors in Iake Frie, mentions having seen one stene, weighing upward of half a ton, which had been taken out of its thed in the pier at Buffalo, moved several feet and overturned. The Comte de Marsill, in his Histoire Physique de ia Mer, published at Amsterdum in 1725, states thut the highest wave observed by him

Dec.
on the ahores of Languecice in the Medicerranean wat, where the breadth is about 600 millea, wan 14 feet 10 Inches, At the mouth of a harbor on the German Ocean, with a fetch of about 000 milem, the writer had obmerved for him the height of the wavein duriag ecuth-easterly galen, and on one occusion the result was 131 feet from the crest of the wave to the trough of the aea. In deeper water, and with a north-emsterly gale, there in no doubt that the waven of the German Ocean will attala a height considerably greater than thin. In November, 1817, the waves of the German Ocean overturned, juat after it had been finished, a column of freestone 06 feet high and 17 feet buse. The diameter at the place of fraeture was abont 11 fest. In the Atlantic Ocean, Dr. Scorealyy stated, in a communicution to the British Association In 1850, that daring several hurd gales he had measured many wavea of about 30 feat, but the highest was 45 feet from the hollow to the crest. Waves of such magnitude could acarcely, however, reach our artiflefai iarbors, from the shallewness of the water near the shore. To these facts it may be added, thut of a block of 50 tons' weight being moved by the sos at Barrahead, on 1 of the IIebrides ; and what is far more extruordin. .y, blocks of nine tons' weight have been quar 1 , or broken out of their beds in situ, on the toju wa the Bound Skerry of Whalsey, in Zetlund, which ls elevated 85 feet above the level of the sea. The lound Skerry and neighboring recks, which are in the German Ocean, certainly furnish by far the mest wonderfui proof that has yet been discovered, of the great force whlch is developed by the billows of the ocean when auddenly checked by opposing rocks.

It has been stated (in the Trams. Roy. Sec. Edinburg) that, from elbservatiens which were made with the marine dynamometer (a self-ragistering linstrument dewigned by him for the purpose), the force of the waves of the Germun Ocean, during hard gales, had been found to be $1 \frac{1}{2}$ lons per superficial foot st the Hell llock; and of the Atluntic Ocesn to be 3 tona per auperficial foot at the Skerry vore Light-heuse. But these resulta may still be far short of the maxima. As the marine dynamemeter has been often found useful in indicating the force of the waves in situations where harbors were to be built, it muy be proper to give such a description of it as will enuble any one to have it made.

DE F D is a cast-lron cylinder, which is firmly belted at the protecting flanger $G$, to the rock where the experiments are to be made. This cylinder has a circular flange at D. I. la a door which is to be opened when the observation is to be read off. $A$ is a circular dlec on which the waves lmpinge. Fastened to the disc ars four guide-rods 13, which pass through a circular plate $C$, which ls screwed down to the flange

$\left.\begin{array}{lllllllllllll}0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12\end{array}\right)$ nches.
$\square$ $1+1+1-1+1+1$

Fig. 1.

D, and also throngh the holes in the bottom EF. Within tho cylinder there is attached to the plate $\mathbf{C}$ a powerful steel spring, to the other or free end of which la fastened the small circular plate K , which egain is secured to the guide-rods $\mathbf{B}$. There are also rings of leather, 'I, whlch slide on the guide-rods, and serve as Indices for replatoring how far the rods have been pushed through the holes in the bottom, or, lin other words, how far the spring has heen drawn out by the action of the waves against the dise $\mathbf{A}$.

In comparing an existing harbor with a proposed one, in order to ascertain the dimensiona which are necessary to inaure stability, perhaps the most obvious element is whet may be termed the line of marimum exposure, or, in other words, the line of greatest fefch ur reach of open sea, whleh can to easily measured from a chart. Hut though ponsessed of this information, the engineer still does not know in what ratho the helght of the wave lncreases in relation to any given increase in the line of exposure.

As this inquiry is ono of great moment in the practice of marine ongineering, and has not lieen in nny way Investlgated, the writer has for rome time lack been making ocemsional oloservatons on the subject, when favorahlo dircumstances occurred. Theso observations have heen but limited in extent, and can not be regarded as deserving of confidence unless in cases where the two harhors aro not far different in their lines of exposure. So far an these experiments have gone, the waves sems to increase in hetght most nearly in the matio of the square root of their distances from the arimetrond shore.

It does not follow, however, that the line of maxlmum exposure is in every case the line of maximum effective force of the waves; for this must depend nut only on the length of reach, but also on the angle of incldence of the wates on the walls of the harlor. What may he termel the line of maximum effertive ex. poanre is that which, after being corrected for obliguity of impact of the waves, produces the maxinum result, and this can only the taken from the chart after successive trials. Let $x=$ the greatest force that can askail a pler, $h=$ height of waves which produco (after being corrected for obliquity) the maximum effect, and which are due to the line of maximum effective exposure. Sin $a_{\text {- }}$ - ine of azhmuthal angle formed between directions of pler and line of maximmo effertive exposure, radius helug noity. Then $x \times h \sin ^{2}$ a when the force in resolved normal to the line of the pler; hut if the force is resolved again in the direc. tion of the waves themselves, the expression heromes $\boldsymbol{r} \propto h \sin ^{3}$ a.*

It shoull nut the forgotten, in conncetion with this subject, that there are variona qualifying elements to which succial uttention reguires in some cases to the given. The waves, for eximple, may often the nuticel, when approaching the layd obliguely, to alter their dirertion when they pet close to 're shore (ln conserucuse of the depth changine", as to atrike it more nearly at right angles to ti... general line of the heach. In this way a swell from the ocean may enter a loay which is not directly exposed to it. it ahould also be ohserved, that the lines of expmanure can not te directly compared if the depthe of the water through which they bass are materially different.

The tiden, tio, exert lin many phaces a very deeded effect on thu nature uf the billows, in amo places canslog waves of un unusually dangeroun character, while ut others they are funm to run duwn the vea. If a marime work is xituated in a more or rapld thlom way, such, for example, as those called "roosta" in tirkney and shothand the masonry whll be expesm to the ation of a very trying and dangerous higherresting sea. An ant exumple of this, we may refer to I'ort-l'atrick in Wigtonshire, where the violenwo of

[^24]the waves is, we have no doubt, much due to the rapldity of the tides. If, on the other hand, the race or roost runa in such a direction as to be entirely uutside of the harbor, and at somo distance off, It will have a decided tendency to shelter the works, and to act an a breakwater. Thus it appears, from observations at Sumhurg Iland Light-house in Shetland during a southwosterly storm, that no long as tho Sumburg roost (one of the most formidable in those seas), was cresting and breaking heavily, one could have caslly landed in a small boat at a croek or bay called the West Voe; but no sooner did the roost disappear toward high water than there camo in towerlog billows that totally submerged eliffs of very consiterable helght. The study of the modifying and intensifying effeets of tidecurrents on the waves of the sea soems to have been entirely neglected in the late disenssione regarding the merits of vertical and sloping walls, which will be reforred to in another section of thia artlele.

From careful inquiries, as well as from hetual personal experience, of such formidable breaklag waters as the lloar of luncanstay, and the Merry Men of Mey in the l'ontland lirth, and sevoral othorn, we are of opinion that the true cause is the smell of the sea encountering a tilal current running in a direction more or less opposed to that of the waves. While it is obvious that two rapill tides may meet eneh other without any dangerous effects, it la also quite true that when two tides meet each other in a rough sea, as In coming round such lwhands na Stroma or Swona in the Pentlanil Firth, the eifect of their unbon being to lncrease the current nt that place, there will be produced a highly dangerous sean; lut the fact of their meoting, though ealeuInted to aggravate, Is not, we think, the primary cause. The races which occur in open seae, as, for lnstance, off heallamels and turning-points of the coast, are certhin prortions of those sens in which the wavea break to n greater or less extent, although the water may he very deep, and there may be no wind at the time. At nll such places it will be found that there are rapid tides. The roosta on the weat comat of Orkney ur uf the l'ent'iad Firth, for exumple, are wrarst with thh tides and resterly awolls, because the Athantic swell amd current of ebh are opposed. Thone again on the east coast are wornt with fhood tides and cas'erly swella from " similar cause. Thus at the east eal of the l'mit. lamil Firth tho lioar of lluncansbay is well knowis to rage with easterly swella and a tlood tide; whereas, at the west end of the amme firth, tho Merry Men of Shy are equally well known to be wont with (bh) tide and a weaterly awell, at which tlme no boat conld vinter thent without the risk of leing overturned. The danperous surf which exiats at the monthe of some risers is, we believe, not soldy dhe to the want of depthat the dar, hut also to the meeting of the outward current with the waves of the sea.

When a swell encounters a rapid opposing current, the ouward motion of the wases aeems to lowatrested, and their width leeomes vinibly decreased. They git hlgher and stepjer, creat, and at last break, som times rery partially, und at other times almost as they would on it shelving heach. It uppears to us poossible that several waves may ultimately combine in such dis. turbed waters bito one monitainous billow; for the wave that has parthally broken may have its onward mothon so much chenked as to allow the wave behind to overtake it, amblaving than coalesced, they mas, as one large wave, acquire a muperior velueity, मo an to over. tahe elume in front and te further angun nted ly the uniint of other waves wheh have retlected from the shore.
It is to thin canse wh are laclined to refer surh womJerful ethents as that tow which wo have ulrealy aliuaded, where blocks of 9 tuns' welght were guarried ont of the wolld rock at an elevation of Xis feet uhove the sem. Were auch volent action eommon to nll the whores of the tierman Oceam, instead of being restristed to ono or two shailar phacen, lulf of the eastern Bea-port
town Into furth premt when toler and time found Englt: At Pe the re seawa of Jan crowal high $v$ vessels carried abovo years.
moved wavea "fier his taken tl again sy the tlept I6 peopl bor to at ugain, an the exce: mouth. dearly $t$ attemptet at sumbl migitt ag of tho sil bors of re even in th oscillatory waves wil waves of Ahlution Another e marine wo yreat mon the Atlant lower wate such peecul to. It bee ascertain t of water.
Mr. Siot be callent th such great gated in in the waves face of the the thettom on liares). secins dont Eing., p. 1:1 luaticed an wa water, nors wior iso foet waves apper presimied th fusel of the purtunitlew a *ulyjert is ve in front of a tuent which has tor resiant, sure-wo sha own knowle vily serin a wayes of fri rront, in fron

## HAR

towne in Englend wonld, without any donht, be weshed Into the sea during the first stormy winter. As a further proof of the great effect of the tldes in exaspernting the waves, we may mention that the time when moat damage is dene to aca-works whlch are in tolarably deep water, is from one to two hours beforo uni after high water, which nearly corresponds to the time when the tide runs atrongest outalde. We have found thia to hold true at many different parts of the Pinglish coast, and rofer to one well-marked Instance. It l'eterhead harbor, which projects prominently into the sea on an lsthmuf, the thles, nt hit a ahort ilistance seawarl of the harbor, run very rapilly. On the 10th of January; 1819, there was a very heavy sea, and a crowd of people were down, nbout tiro hours before high wrter, helping to secure the whalers and other vessels in the harbor, when three successive waves curried nway 315 feet of a bulwark, foumeled $9 \frac{1}{2}$ feet above high-waier springs, which had atood for many years. One piece of this wall, welghing 13 tons, was noved 50 feet. After this outbreak of the nea the waves became more moderate, until ahout tro hours "ffer high ocnter, by which time the large whaters had taken the ground, when other three enormous waves again swept over the harbor, subuerging the qua; a to the depth of from 6 to 7 feet of solid wnter, hy which 16 people were drowned. These waves filled the harhor to such a depth as to set all the whalers afloat again, and they continued so for several minutes, until the excess of water had run out through the harbor month. These gigantle waves were, in our opinion, clearly the result of some such netion as has heen attempted to bo describel. We should mot have dwelt at such length on this suliject were it not that we wigit again refer to the faets when wo come to treat of the sulbect of vertieal and slophig walls for harbors of refuge, where it is of importance to show that even in the deeprent water, the waves are not purely oseillatory, but thint wherever there la a tihe-way the waves will more or less partuke of the gualities of waves of translation.

Relution beturen height of wates ant depth of water. Anether circumstance affecting the exposure of my marine work is the depth of water In front of it. Tho great mountainous billews so commonly met with in the Ailantis: Heean can not he generated lu tho slatlower waters of the therman Ocean, unless perhaps in surh preullar circumstunces as have just been miverted to. It becomes, therefore, of great consequence to asertain the maximun possible wave la a given depth of water.
Sr. Scott luasell, whose oliservatlons on what may he called the marine branch of hyalrodymames are of such groat value, has atated that if waves be propatfated in ot channel whose depth diminishes unlfurmily, the waves will break when their helght above the surfare of the level huid becomen equal to the depth at the hottom helow the surface ( 10.125 Mith. Aseme. Rep. on Wares). 'This rtatement, the menning of which seems doubtful, Mr. Ruswell elsewhere (Instif. I'ib. Ang., p. 1ibi), deflines thus: "The nuthor has never noticod a wave so much us 10 feet high in 10 feet of water, nor so muelh nis 20 feet high in 20 feet water, nur 3 be feet high in 6 fathoms water; but ho has seen "aves "pproach very nearly to these limits." It is presumed that the ditum here referred to is the mean lowet of the surface of tho sem. W'o have had too opfurtunitien of verifying these ohservations: hut as the sulijoct is very important-lacame the depth of water in front of a work may be sald to the the rullig plemont which determines the amount of fore which it has to resist, whatever the the line af maximmen expo-sure-we slull simply state what has eome within our "wn hawledge and oharvition. Wo have repentedly seen at altionent prarts of the count lirenking waices of from Ito 5 fuet, messuring from hollow to crowt, in from 7 feet 8 lnehes to 10 or 11 fret of whter,
measuring from the hottoin $n \mu$ to the mean level; and on one ocension we were toll of waves which were estimated at $9 \frac{1}{2}$ feet $\ln 13$ feet water. It must, however, be berne in mind thint these olservationa, and we conceive alno those of Mr. Russell, apply only to common waves of the sen, or those short, steep, and snperfielal waves whieh are due to an exlating wind, nud not to the ground awells which are almost constantly to be found in the open ocean, and whleh may be the result of former gales, or are tho telegrnjh, as Mr. Russell terms them, of those which are yet to come.

From what has heen atated, it woull appear that in mest cases the heaviest waves whould assull any tidework at high water. Thls, however, ns mentioned in the last sectlon, is not always the ease, the greatest damage behig often fount to oceur at the tlme when the thide rana atrongest. Mr. Jeslle found that the Arbronth IIarbor-works were In genernl less severely tried by the very henviest waves than by n elass of waves somewhat smaller than these, owing to the outlylug rocks, which, from the small depth over them, lud the effect of tripping up the heavier seas, and thus destroying them before they renched the lurbor, while the depth was sullielent to allow the smaller waves to pass ofer the slimals unlroken. In some cases of acvare exposure the waves miflit to some axtent he reduced by dropping very largo siones ontside of tho hurhor, so as, by forming an urtificinl shonl, to canse them to crest and lireak. One great diflenity connected with the suliject of the generation of wises still remalns unsolved, via, - What are the minimum lite of exposure and area of sen whlle are compatlhle with the existence of a ground swell? This question, we fear, ean not the answered in the present state of our knowledge.
Deep: I'uter Harbors-- Warhors of refuge are distinguished from tidal harbora mainly lyy the superior depth of water which they possess, bud the larger area which they inelose. The requisltes are shelter during storms, mid easy aceess for shipping at any time of tide. There has been much disenssion its to whether piers for harbors of refuge should he rertical or shoping. tol. Jones, R. Fi., has espechally monated the superior merits of the vertical watl; and the discussions on his plan at the Institution of ('ivil Engineers, und the able protest hy Sir Iloward Houghes, will ho fomme, from their interest and importane, to merit a eareful perumal.
The principle which is asserted is, that ocomic wavea in deep water are purely osellatory, und weuld oceasion no lumate agatinst vertical harriers, whilh would lie the mont eligible, as they would anly luve to encounter the simple hydrostatic pressure diue to the height of the apronching hillow, and would rethort the waves without cansing them to braks. Were it even admitted that the waves were purely oscillatory, and were rollected by a vertical harrior, would no fores, it may he anked, he expended when the motion of the particles was reversed? The rellection of a wave is equivalent to the nearly instantaneous creation of a wave in the oplosito direction, fur which a very considerable force mast surely he required.

We beliove, lowever, that from the etbont of tile eurrents, to which we have alroady referred, and perhaps from other catwes whose artion seems to have been overlowked by the mlvocates of the upright wall, any form of thrifor, In whatever depith it may have been erected, mist be ocrasionally smbjeeted to heavy impart. We comedve that the possibillty of waves of transhation belng generated in the deepest water has lewn already estalisished, if wo sucereded lin sutisfylug the reader of the truth of the following nsser-thons:-Hirst, That waves break In deep water during calm weather: "finet which is appurent to the eyo, and fanillar fis all sailors: and, sroondly, and negatively, That to leewaril of thone races or porthons of' broken water, whish ecrtainly do not reflect the inceming
waves, there is comparatively amooth water both at sos and on the adjoining shores, until anch time as the strength of the tide is exhauated, and the roost has disappeared, whon violent action is again fully manifested.
If It may be argued that theae are extreme casea, and that augh high velooitios in the current of the tide are soldiom met with. $\lambda$. This objection has, no doubt, truth in it ; but atill the tendency is shown, and though the velocities may be less in other quarters, there may yet be quite enough to destroy the condition of atagnar tion which the oscillatory theory assumes. The bresking of waves at sea, and the existence of races, seem to prove boyond question that waves of translation are possible in the deepent water. Is it not also a probable case that waves which have been reflected by a vertical wall, and have (irrespective of the queation of tide currents) combined with the advancing waves may then become waves of translation, possessing all the elementa which endanger the stability of a sea-work? Or, again, how much more damage would reault to a vertical wall than to a slope of loose etones, from the alnking of the foundations, or from their getting underwashed by the reaction of the wavee? It therefore appears that the method generally resorted to of fotming deep water harbors of masses of rubble stone with long slopes, so as to form an artificial beach for the waves to spend on, is, in most circumatances, the best and cheapest kind of conatruction. We inclino, however, to the adoption of an npright wall, founded on the rubble as a basis (aimilar to that at Cherbourg, about to be described), in preference to long paved slopes, as there is ulway's experienced a great difficulty in founding the toe of such tulus walle among the loose rubble. When pitehed slopes are adopted, great benefit will be found to accrue from leaving at the bottom or toe of the slope a wide foreshore. Much, however, depends on local peculiaritios in selecting the best deaign for any work ; and the nature of the iottom is all-important. Where the lottom is soft, e vertical wall can hardly, if ever, be attempted.

In making these remarkn, we mukt not be understood as condemning the adoption vertical walls in cases where the foundation is good. All that we assert is the opision, that waves of translation do exist in deep water, and, therefore, that hariora of refuge will prove failnres unless they aro built in such a manner as to reaist the impact of those waves of trunslation. The Cherbourg breakwater has leen often referred to as a succesaful instance of the appileation of a vertical wall, and has been contrasted with the Plymouth breakwater, which has a loug alope. Ilut tints appeal is quite fullacious, as the profiie of that work is, as alreaiy hinted, of a composite cimaracter, consisting of a talua wall sloping at the rate of 10 horicontal to one perpendicular, aumnounted by a plamb wali ; so that whatever merit may be suppomed to belong to the vertical prefte is entirely nuliified at Cherbourg by the atrong talus wall in front, on which the violence of the waves is mueh liroken. Moreover, the heaviest waves at Cherbourg come from the north-weat, and do not sasail the break water at rightangles te its direction, but come more nearly end on to the work, so as to a great extent to run along the outer wall. The north-west waves are propagated from the Atlantic, winile the waves which are most trying to the work come from the north, in whicis direction the line of exposure is oniy about 21 leaguea. These facta we obtained during a recent vialt to Cherhourg, undertaken for the special purpose of ascertaining the physical characteristics of the place. 'I'he attempt to make out a paralleliam bet ween Plymouth, which faees the Athantio directly, and Cherbonrg, which is comperatively land-locked, can not, in our opinion, stand the test of a candid inq̧uiry.

Other comparisons may be referred to which have been advanced on equally untenable grounds. Thus,
the old pier of Dunleary, which ia vertical, and has stood well, has been compared with the talus walls of Kingstown harber, which new protect Dunleary; and which have often recelved much damage. The allimportant element of depth of water has been in this instance entirely overlooked; for at Kingatown there la a depth of 27 feet, while Dunleary la all but dry. An able writer on the same questio vexata, in comparing different sea walla in the Firth of Forth, has, in like manner, not sufficiently adverted to the great differences in the depths opposite the works to which he rofers.
An important advantage of the sloping wall la the small resistanco which it offere to the impinging wave, but it should also be borne in mind that the weight resting on the face stones in a talus wall is decreased in proportion to the aine of the angle of the slope. If we suppose the waves which assail a sloping wall to act in the horizontal plane, their direct impulae, when resol ved into the force acting at right angles to the sloping surface of the talus wall, will be propurtionul to the aine of the angle of Incidence. The effective force when eatimated in the horizental plane, will be proportional to the square of the sine of the angle of incidence. But if we assume the motion of the impinging perticles to be horisontal, the number of thom which will be intercepted by the sloping surface will be also reduced in the ratio of the aine of the angle of incidence, or of elevation of the talus wall. Hence the teadency of the waves to produce horizental diaplacement of the wall, on the assumption that the direction of the impinging particles is horizontal, will be proportional to the cube of the sine of angle of elevation of the wall.
If it further happens that there is obllquity of action in the azimuthal as well as in the vertical plune arising from the relative direction of the pier and of the waves, there will the another aimilar reduction in the retio of the squares or cubes of the angle of incidence according as the force is resolved into that at right angles to the line of the pier, or to that of the direction of the waves.

Iet $\phi=$ vertical angle of incldence or angle of elevation of wall ;
$\phi^{\prime}=\approx$ azimuthal angle of incidence ;
$f=$ horizoatal force exerted on unit of surface at right angles to the line of harbor wall; $h=$ height of gresteat assalling waves; $f \propto h\left(\sin \phi \sin \phi^{\prime}\right)^{3}$.
The above expression assigns, we think, to great a reduction, as the motion of the particles may not be horizontal, and no account is taken of the effects of frietion agalast the rougis surfuee of the masonry. Experiments are therefore wanting to dutermine the constant for correcting the theoretical reaulte due to this expresaion.
Parabolic I'mfile.-Mr. Scott Russell recommends the parabolic curve as that best suited for the protile $v$ here the oliject is to break the waves, and not to reflect them, as is the cane in sloping breakwaters. This curve posmesnes, according to Mr. Mussell, the advantagen of zuperior strongth, of economy in the naterials, of breading the wave carly, and of concinuing an uniform action over the iongest perion of time. When the tide is low, the toe of the slope, which springs out of the foreshore and forms the vertex of the parahola, wouid, we fear, be found rather weak, and perhape diffleuit to form. Ou the whole, wa rather incline in such cases simply to throw in the materials, and to allow the sen to form is own siope.
According to Sir Join Hennie (A ccount of I'lymonth Bnalionter), rubbio breakwaters with slopes formel at the angle of repose, were adopted by the Greeks in the moles of Tyre and Carthage, and by the Romans at Athens and Haliournusaus. The same denign was also followed at Venice, Genon, IRochelle, IJarceiona, and other places, In this kingilom tho first exampie on a large seale which we find is at liowth. Kiagstown, Holyheal, and the noble breakwater at Piymonth, were afterward enrried out on the aame princi-

## ple,

 Renn prese Rend simils Burgo aro $m$ For consid regard waves ention deep w many wsters all as conside which turn to range of for a lln or altog The is may be The dire or earry masonry pitching, densing occupies cases in want of with insuf were obse wail was feet 4 incl 2d. The v projeeting downward the wave from the w upon the p The back-d wall to pld mine the suction to from the al carefnlly at ity of masc which, if $\mathbf{n}$ direction, le and 8d. Th construction tended to, bituationa to without protWe aliall remsiks are Such a anpil eatitions arls coteria parib for preferring of preference upon the $k j$ Should tho surh as to wi best deseript the most eco it is not onl bloekn, hut ti erabla harin emary in sele and especiall for the same tones which fuence shoul In the upper
ple, and chiefly under the direction of the late.Mr. Rennie. The great nationul harbiors of refuge at present in progress in Great Britain, according to Mr. Rendel's designs, at Holyhend and Portland;'are on a similse principle'; while those under Mesaris. Walker, Bargeas, and Cooper, at Dover, Alderney, and Jerieay, are more nearly vertical.

Forms of Walle for Tidal Harbors.-Having now considered the few facte of which wo are in possesaion, regarding the disputed astare of the impulse of the waves In deep watere; we shall direct the reader's inttention to their effects in ohallow water. : These in deep water were chiefly whole waves, and regarded by many as being purely oscillatory, whillo those in shoal waters are breaking waves, and therefore regarded by all as waves of trenslation. Wo have hitherto been considering breakwaters erected In deep water, and which were conatantly exposed to the waves; we now tarn to plers und sen-walis which are placed within the range of the surf, and which are exposed to its force for a limited period only, being sometimes left nearly, or altogether dry by the receding tide.
The impulse of the waves agsinst a sea-wall or pier may be resolved practically into four directions:-1st. The direct horizontal force which tends to shake loose, or carry before it, the blocks of which the opposing mseonry consista. This force may slso blow up the pitching, or overturn the inner or qnay-wali by condensing the nir, or preseing upon the water which occapies the interstices of the rubble. We know two csses in the German Ocesn where, in consequence of want of width in the pler, coupled, in one inatance, with insufficlent workmanship, the inner orquas-walls were observed first to bulge and fall, before the neawall was injured. One of these piers messured 26 feet 4 inches, and the other 24 feet, on the rosdway. 2 d . The vertical upward force which may act on any projecting atone or protuberance. Bd. The vertical downward force of the water which results either from the wave breaking upon the toe of a talus wall, or from the wave passing over the parapet, and falling upon the pitching behind, so as to plow it up. 4th. The back-draught, which tends by reaction from the wail to plow up the soft bottom, and thus to undermine the lower courste of the work, or perhaps by suction to pull ont the face-work. We may conclude from the above, that the pointe which require to be carefully sttended to are-1st. The contour and quality of masoary of the wall itself; 2d. The parapet, which, if not of suffieient height, or built in a proper direction, leade to damage in the pitehing behind it; and 8 d . The foindation-ceurees, in the design and coastruction of whiok, if similar precantions be not attended to, underwashing of the hottom may in some situationa take place, so as to leave the lowest courses without protection.
We shall in the first place consider how far thone rensirks are applieable where the bottom is solid rock. Sueh s anpposition will render unnecesmary any precautions arisling from the wasting of the inttom, and, ceteris paribua, there does not seam to be my reason for preferring a talus to a vertical wall. The question of preference in such a case will in the main depend upon the kind of material which ean the oltained. Should the atone be searco or costly, and the quality surh as to warmant the introduction of masonry of tho best description, the vertical wall may be found to be the most economical. Where freestone is to be uned, it is not only desirable that it should be got in large blocke, but that the face stones sheuld nossens cousiderable hardners. This precnution ls particulariy necensary in selncting the stones, for the lower courses, and especialiy where the beach consists of hnrd gravol. For tie same reason, it is highly imiortant that all stones which are subject to decay from atnospheric influence thould be either entirely rejected or assembled in the upper conrses of the parapet.
(1.Where the materials are abundant, but of an nn: worksble nature, a long talus wall will generally be found most economical. For such walls the rate of slope must depend very much upon the exposure of the place, and upon the plentifulness of rubble-stone hearting. The easily-dressed and naturally flat-bedded materials, which the stratifled rocke of the secondary formation very often furnish, are especially applicable for the constraotion of vertical walls; while the uncouth blucke of the primary and igneous formatione are better mited for talus walle. * Such mocks as gneiss, the sohists, basalts, greenstones, amygdaloids, and the teugher kinds' of granite; are beat fitted for this purpose. With some of those rocka the angularity of the pieces, and the oxcessive difficulty of dressing, render it necessary to assemble them without slmost any alteration of their ohape, by an adaptation of their saliont and re-entrant angles; so as to make a kind of random rubble face-work. In this kind of work, mortar is very seldom omployed. The parapet generally consiste of squared masonry, eurmounted by a heavy cope, and it should in every case be eet in good lime mortar,
Where the materials are light and of emall sizes it is desirable to equalize the action of the sea over the whole work, and not to concentrate it against any particular piace. Mr. Ruseell states that the cycloidal form was recommended for this purpose by Franz Gerstner, of Bohemia. The only instance with which we are acqualated of the adoption of this curve was ist a sea-wall erected at Trinity, near Edinburg, by the late Mr. Robert Stevenson, in 1822. It has been already stated that irrespective of the quality of the masonry, the two points in the structure which are weak or dangerous are the top and bottom of the wall. With a mocky bottom the risk of failure at the foundations la removed; on the other hand, where the shore consists of rotten rock, moving shingle, or sand, it is obvious that provision must be made for both those sources of ovil. In fact, if we consult the history of our harbors, we shall find that by far the most frequent cause of damage is the renction of the sea againet the shore.
The genersl slope of a fragmentury beach must depend upon the size and nature of the particles and the force of the sea. The dissimilarity between the slopes of a beach near the levels of high and low water, srises from a decrease in the force of the waves, owing to their being broken before they reach the high-water zaark. The great object, therefore, is to design the profile of our wall so as to alter as little as possible the symmetry of the beach. Where isoluted rocks or large boulders are eeen projecting above the surface of a aandy heach, there will generally be formed around them hollowa, corresponding in depth to the kind of obetruction wbish the rocks present. The principal point in the dosign, therefore, must be to avoid great and suddea obstructions to the movement of the witer. The best form whioh could be adopted ln any situation would of course be the same ns the cross section of the bench itself, but this would answer no possibie purpose ; and, as the wall is to consist of heavy blovks of stone instead of minute particles of sanil, it is clenr that a muel steeper slope may be adoptell than the profile of conserrancy of the coast, provited the lowor part of the slope be finttened out so as to smons the sand at a low angle. The sction of - tuiwark is to arrest the waves before they reach the general high-water mark, and to change the horlzontal motion of the fluid particies to the vertienl plane, or to compel the waves to destroy tibentselves on an artificial beach consieting of heavy stoues. To prevent underwashing, the two following requisites should therefore be as far as possible secured:-1st. The foundation courses or bottom of the wall should riee $n t$ a very amnil angle with the beach, so that their top surfaces may be coincident with the profle of conservation of that portion of the
beach out of whlch the wall springs; 2d. The outline of the wall ahonid be such is to allow the wave to pass oeward without any audien check till it shall have reachod the strongest part of the wall, which ohould be as far from the foundation as porsihle.
Those two requinites show clearly how Inappllcable a vertlcal wall must in most cases be for $n$ sandy beach. Instead of altering the direction of the wave at a dls tance from its foundation, the whole charge is produced at that very point; and nnless the wall be founded at a great depth, its destraction is all but certaln. Where the materials are costly, but admit of being easily drossed, we are disposed to think that a herizental, or nearly herizontal, wall, connected with a vertical one by a quadrant of a eircle, may be found auitable. Such a form will prevent, to a considerable extent the danger of reaction, by causing an alteration in the ferm of the wave at that part where the wall is atrong' est and at the greatest distance from the toe or curb course. Where the materials are abundant and of a rougher nature, a cycloidal wall, with vertical and horizontal tangents, somewhat similar to that erected at Trinity, to which we have already referred, may be adopted with nivantage.
A special caution may not be out of place regarding clayey bottoms. Many are apt to suppose that there can be no better foundation than clay; and it is indeed true that aome kinds of hard ciny form a satisfactory subsoil. But there are others of a softer kind, and permeated by sandy beds, which are extremely treacherous. If there be the slightest dip seaward, there is niways a risk of any jifer that may be bnilt on auch a base rlipping, loodily into the sea. This holds especially true of ininnd locks, where the siden very often nlope suddenly. In one instance, the particulars of which we got on the apot shortly after the accident, a pier built on a clayey bench, sloping below water at the rate of one in 12s, auddenly begen to move, and after two honrs it had slipped reaward 150 feet, and had by that time descended bodily a height of 34 feet, the top of the pier being then no less than 23 feet leelow low-water apring tides.

Construction of Ifarbors,-Our $n$ nace will not admit of our going much further into the subject of the construction of harbors than the few remarks we have already made. A knowledge of such mattera may, to some extent, be acquired by n careful perusal of the published historien of marine works; lut, nfter all, it must be confersed that the only valuabie tencher in this wide practical fleld is experience. It In, In truth, impossible to lay down any general rules of guidsnee as to matters of this kind. Ali thut can the done withIn our apace in to notice very briefly some of the more important methois of working. And first, with regand to that invaluable piece of apparasus, the diving-bell we would refer to the article on the sulsject in thin werk, and to Smeatox's Arrount of Ramagate IIarbor, published in 1721, where it was firat applied hy him to inrior workp. The diving-helenet is a most useful and convenient modlifation of the diving-liell, and is now very generally employed.
(If late years, the use of beton as a subwtitute for backiniz has been introducel. This artificial moncrete in sometimen uned in enormous masses. We have seen at Cherbourg blocks of 50 tons prepared in loxen, whose nides and tops are removed sfter the concrete han aet, in order to the again aimilarly employed. The projortions used at Cherhouriz by M. Rebelle were two of and or fine gravel to one of Portiand cement.

We may also mention that the method of aasembling stones on their edger, instemi of on their beds, which formerly wan in twe in mome old Scottish hashors and men-walli, as at St. Ardrews, I'restonpans, etc., dezerves to the more generally known sind adopted from its muperior strength.

The proposal of Mr. IIremner, of Wiek, for putting it the foundations of low-water piers nlen merits no-
tice. Mr. Bromner proposes to construct, in some adjoining place of shelter, enormeus pontoons of timber on which the ander parts of the work are hailt, und afterward fleated to the deaired apot in favorable weather, and carefully grounded. Sach a plan might, we have no doubt, bs found economical and nseful in some situations.

Mr. Rendel'a Mfethod.-Mr. Rendel has introduced an improved method of assembling the pierres per dues or rubble used in the cenatruction of large break. waters; this method he employed at Millbay Pier, near Plymouth, in 1838, in a depth of 88 feat; and he is at present carrying out the amme principle on a still larger scale, in the construction of the hreakwaters at Holyhead and Portland. The improvement consists in depositing the rough materials from stagings elevated a considerable height above high water. The stonea are brought on the staging in wagonn, through the bottoms of which they are discharged into the aea. The principle on which the stagings are designed is that of offering the smaliest posaitle reaistance to the sea, the under-atructure consisting of nothing neere than single upright piles, there being only one fine of piles for each road way.

Harbors of Refuge.-Mr. Rendel statea: "I use no timber braces of any kind, as these offer more resist. ance to the aea than strength to the staging. At Portland, England, where any accident would be a serious evil, owing to our employing cenvicts in the quarrics, we stay the piles with iron gays, fixed to Mitehel's crew moorings, and aiso truss the outer piles in each row with iron rods. We also fix the piles in the ground with a screw. At Holyhead, however, we only attach to each pile bexes filled with small stoncs, for the purpose of getting them into a vertical position, and use no stays or guys of any kind. The superstructure conaists simply of balks of timber, with rails laid on them to carry the wagons. The pules are placed In rows 30 feet apart; and the ease ond certainty with which the staging is constructed is auch that is length of 80 feet, including the serewing in of the piles, the laying down of the roadways, nad ail minor works necessary to make them fit to carry the wagons, never occupies anore than one working day and a half, and eften less. The lengti of the piles tinat we are now using varies from 84 to 90 fect, the depth of water at both Holyhead and Portland being about 11 fathoms.
" Of the atrength of the stage you may judge from its earrying on each roadwny as much as three wagons, weighing in the gross 12 tons each. The alvantages of the staging ara obvions. It contributes greatly to the consolidation of the stone, It makes a greater length of breakwnter to the under construction at the same time, and it enables the deposits to be earried on without interruption almost in the heaviest weather. As an lisatance of thin, imny remark that my resident at Portland informs the that the wagons and lecomotives were engrued yesterday at $\boldsymbol{n}$ time when such a sea was running that large bodies of spray were thown bis fect above the water-level. As a proof of the farilities which the atags afford for rapidity of construction, I whould state that we have deponited this year at liolyhead, where free lator is entployed, nearly 1,000, , in toun of atonea. The losen from arcildent to the stage is comparatively amall on ita tirst ceast, and when spread over the coat of the whold work it is a mere tritie. I fud the sen-alepes nre, in the ilecp water and exprised parta, from five and a half or six to one hetwern six feet above high.water, and froin 12 to 15 befow fowwater, from which point they rapldly becone alsout one to one. The inside alopea are never more than one and a quarter to one, and seddom more tian one to one. The mnterialn are excelient for our purpose."
Aiderney, Jersey, Ihower, uwd I'lymouth.-Mr. Walker has also contributed poms fuets connected with the construetion of the great works now going ont at Jer-
sey, Al very ex water, is In from done by ite, hack and Port with aton la backed The mill proflle is pet. Jen pell-mell vertical w nearly ver bottom, wi work was his Accoun the bottom we find th Here the being neut o low-wat hree or fou tides and hi greatest, the at less than stands gener The above in works show, difficult it is construction each work m Ifiscellaneo col tructing aves, to pre er whteh ia is variously p and depends $n$ trance, and ol shape of the direction of its exposure.

The only for the writer in 1853), which poucer, or is, in pressing how n reduced after results obtaine correct, this wi merely to obtini pie, in compar other. When inner area from the width of et with the wilth are vertical, and let

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$x=I I$
This forinula h cons at several h were registered. represent the red tions where the l at an oblique an cuuse. We have
sey, Aldarney, and Dover. At Alderney, which is a very exposed place, the base, up to 12 feet below lowwater, Is formed by atones thrown, or rather dropped, Iu from barges. Up to low-water, the work is all done by diving-halmets. The wall ls faced wlth granIte, backed with blocks of beton made of sand, shingla, and Portland eement. Above low-water it la faced with stone of the lsland, a kind of millstone-grit, and is backed with bloeks of rubble set in Roman cement. The millstone-grit Is raised in very large blocks. The profile is to consist of a quay, an esplande, and a parapet. Jersay is much the came as Alderney, but the pell-mell work la carrled to low-water, having nearly vertlcal walle of conglomerate built above. Dover has nearly vertleal walls, faced with granite from the very bottom, which is now 45 feet below low-water. This work was done with diving-lells. Sir J. Rennie, in his Account of the Plymouth Breaknoater, says: "From the bottom to within elght feet of low-water springs, we find that the slope is two and a half or three to one. IIere the effect of the waves Is comparatively emall, being neutralized hy the mass of water. From thence to low-water of spring-tldes the slope Incraases from three or four to one, but between low-water of springtides and hlgh-water, when the effect of the waves la greatest, there wo found that the rubble would not lie at less than five to one, while on the Inside, the slope stands generally at from one and a half or two to one." The above interesting details regarding these national works show, from tho varlety which they exhiblt, how diffieult it is to lay down any general rales for the conatruction of harbors, and confirm the prlaciple that each wark must be judged of per se.

Miscellaneous Observations.--The nltlinste object of cot trneting harbors is, by lowering the height of the waves, to preserve the tranquillity of the area of water whieh is inclosed by the piers; and this property is varlously possessed by harbors of different forms, and depends much upon the relutivo wilths of the entrance, and of the Interior, the depth of water, the shape of the entrance, and the relation between tho direction of lts opening and that of the line of maximum exposure.

The only formula of which we are nware is that by the writer In this article (Edin. New Phil. Journal, 1853), which gives an approxination to the reductive poser, or is, In other words, a numerical form of expressing how much a wave of given height becomes reduced after it has entered a harbor. 'lhough the results oltained by the formula may not bo absolutely correct, this will bo no objection where the object is merely to oltuin a comparativa value; as, for example, In comparing one design for a harbor with another. When the piers are high enough to screen the ianer area from the wind, where the depth is unifurm, the width of entrance not very great in comparison with the width of the wave, and when the guay walls are vertical, and the distance not less than 50 fectlet

II $=$ height in feet of waves in the open sen.
$x=$ reducel helght of wayes in feet int place of obrervation in the interior of the harbor.
$b=$ breadth of entrance to harbor in fect.
$B=$ breadth of harbor at place of ohservation in feet.
$\mathrm{D}=$ distance from mouth of harior to place of observation lin feet.


This furmula has been found to give good approximatloas at several harbors where the hoights of tho wavea were registered. When $I I$ is assumed as unity, $x$ will represent the reductive poter of the larbor. In situations where the highest waves cross the hurbor mouth st an ohlique angle, a further reduction is ilue to this cause. Wo tuave been nabla to find any observations
that have been made on this eubject by others, and for want of better, we shall give three obsorvatlons made under our directlons at Latheronwheel herbor:


Thase must however be ragarded as but approximations. It is obvlous that as the wave may be deflected through more than $860^{\circ}$, the eurve representing the reduction must be spiral ; but more observations are wanted to determine of what kind.

Booms are loga *timber placed across the mouth of a harbor, or thi entrance to an innor basin or dock, having thelr ends secured by projecting lato groovas cut in the masonry on each slde of the entranee. The booma are droppad into the grooves to the number of from 10 to 20 , or as many more as will insure closa contact of the lowest one with a sill-piece placed in the bottom of the harbor, without which precaution the awall is found to anter the harbor from below the booms. By this contrivance, which forms a temporary wall, the waves are completely checked and prevented from apreading Into the Interior basin. The longeat booms we have seen are ahout 45 feet; and in some places, as at Hartlepool and Seaham, in Durhamshire, thoy are taken out and in I•V steam-power. Though perfectly successful In their tranquillizing effect (provided they are kopt in contact with the sill-plece at the bottom), booms are not suited for the mouths of harbors whare there is much traffic, as the shlpping and unshipping of so many logs of timber can hardly take less than a quarter of an hour-a delay whieh might In may cases be attended with serious consequences.

It is very desirable, and In some cases essential, that thare be either a considerable internal area, or else a separate busin opposite the entrance for the wavea to destroy or spend themselves. Such a basin should, if possible, be nude so as to preserve a portion of the original shore for the waves to break upon; and when eir.umstanees rendered this inpossible, there should at least be a tlat talus of two or three to one. Talus walls of ono to one, or steeper, will not allow the waves to break fully, but will reflect them in auch a manner as might in some cases make the entrance diffleult, or even dangerous, of aceess, and the berthage within unsafe. There are many inatances of harbors being materially injured by the ercetion of a quay-wall across a beach where the waves were formerly allowed to expend their force. It may be observed that when there is an inuer harbor or stilling-basin, the elliptleal form seems to be the most promising. Let one focus be supposed to be on the middla line of tho entrance, and to coincilo with the point from which the waves in oxpandiag into the interior radiate as from a centre (whilch they do approximately); and If the other focus is situated inland of high-water mark, the waves will tend to renssemble at the landward foens, and on their way will be deatroyed by breaking on the beach. This appears from the well-known property of the ellipse, that if two radii vectores be drawn from tho two fori to any point in the curve they will make equal angles with the tangent at that point; and us the angles of incidence and rofloctlon of a wave from any obstacle aro practically equal, each wave will be nearly concentrated at the focus opposite to that from which It emanated.

Indiscriminate Derpening.-Another cause of disturbance in harbors, which la often not sufliciently conshlered, is the indiscriminute deppening of the entranee without it proportionate enlargoment of the internal area, or the exeeution of other works for counteracting the effect. As the depth of the water is more and more incraased, waves of greater height become possible at the entrance, so that larger waves gain admisaion to the interior. The writer has had repeated
proofe of this ln the course of his practles. At the pert of Sunderland Mr. D. Stevenson recommended the removal of nearly the whole of the sonth etona pler, and the substitution of works of open frame-work in order to tranquillise the interior. These works, which have been quite successful, were rendered necessary by the frequent dredging of the channel at and near the ontrance.

Artificial Scourisg.-The preservation of the depth of harbors where there is a tendency to deposit is often attended with great difficulty and expenst. Where the deposit of sllt is confined to the apace betweon high and low water marki, the scouring by means of salt or fresh water is in genoral comparatively easy, but where there is a bar outelde of the entrance the case becomes most materially changed. The efficacy of the scour, so long as it is not impeded by encountering stagnant water, la kept up for great distances, but soon comes to an end on its meeting the sem. Probably the only way in which this diffienlty might to some extent be obviated would be by conducting the water in iron pipes to the ber, a plan which the author proposed in 1843 for Ilynish harbor, but the expense was considerable and the success doubtful. When the volume of water llberated is great compared with the alreus or channel through which it has to pass, the objection based on the stagnancy of the water originally occupying the channel does not hold to thi same extent as when the scouring is to be produced by a enddun fiate momentum. In the one case the scouring power depends simply on the quantity liberated in a given space of time, while in the other it depends on the propelling head and the direction in which the water leaves the slnice. Mr. Rendel's scheme for Birkenhead was on the former principle. The first example of artificial scouring in this country seems to be due to Smeaton, who used it effectually at Ramsgate in 1779.
At Bute Docks, Cardiff, Wales, deal ${ }_{\text {or }}$ ded by SIr W. Cubitt, the aceess to the outer basin is kept open most succesafully by means of artificlal scouring on a glgantio scale. The entrance was cut through mul tanks for a distance of ebout three fourths of a mille senward of high-water mark. The luitial discharge when the reservoir is full, is stated to be 2500 tons per minute. The writer has known even so limited a dlacharge for an hour or two an one ton a minuto, produce very useful effects in keeping a small tidal harbor clear of saud.

Floating Brealwaters.-Many proposals have from tlme to time been made for mooring In the open sen flontlig frameworks of timber with the view of elieltering the epace inclosed by them. The oljections to tlouting breakwaters are so great and obvious that there seens little chance of their ever being much used. From what was stated on the aubject of booms, it will be recollected that it is a requisite that they should fit closely to a sill piece at the bottom, otherwise the run is found to extend inte the harbor. From what will te afterward stated regarding the liabllity of timber to speedy destruction from the marine worm, and to iron liy cheuical action, it is obvioue that floating etructures of wood, connected by iron and noored ly Iron chains, can not possibly be of long duration. If to all theme sources of evil we add the risk of their being broken by the sea, we think the case may be almoxt regarded as hopeless. No doubt green-heart mighit le employed so as to renist the ravages of the worm, but ita high specific gravity and its great e::pense would prove bars to lts employment.

Surpension Pierf.--In some situations where thero is a long shallow beach, a harhor or pier of thinter or masonry may be made at or noar the low-water mark, which may be connected with the ehore by means of a surpencion bridge. The inducements to adopt the suspension prineiple are lth eronomy, and the free passage it afforde to the currente which in thle way are prevented from forming accumulations of sand, silt, or
gravel. These advantagen are, however, much reduced by the great wear and tear consequent apon the perishable nature of the atructure. The late Sir Samuel Brown erected two chain plere, the one at Brighton, and the othar at Nowhsven, near Edinburg, both of whleh are atill in exiatence.

Advantages of twe Entrances to a Harbor.-In every situatlon where it is eailly practicable to make two entrancen to a harbor, it will be found well worth the extra expence, provided they can be 80 placed that the one shall be available when tise other bas beoome difficult of access. In harbore whlch have but one mouth, vessels are often detained for a great langth of time by the continuance of the wind in the direction which throws a heavy sea into the ontrance. Whereas if thore are two entrances altuated as we have supposed, vessels are et once nbls to take their departure by the sheltered sile. At the port of Peterhead, the north and south harbars were some years ago united by a canal, according to the writer's plans, and there the advantage has been of the most marked description. Vessels can now clear out at soon as loaded, either by the north or south mouth, according to the state of the ses. Some caution is necessary, however, as the run is apt to extend from the one harbor to the other unless there be conolderable area.
IIarbor Repuirs.-There is generally much prudence required in the alteration or repairs of existing marine works. The riak of having the whole structure destroyed by a gale coming suddenly on while there is an open breach in the worke, must be obvious; and in one Instance, whero the expoaure of the place was great, end the evil was a hilden one, the writer could not recommend the facework being disturbed. The cause of failure In this instance was supposed $t$ be the decay of the backing, which having deprived the face-stones of support allowed them to be driven inwand by the force of the waves. Instead of removing the face-work, the only recommendation that conld be given was to inject the whole pler with fluid cement, so as, if possible, to render the mass monolithic. An alternative of this kind is obviously of very doubtful auccess, and can be regarded as nothing short of a last resort, for there is but a small chance of getting the injected fluid to permeate the whole nuss of the pier. The nyatem of permeating the masonry with fluid matter could, however, be employed with more chance of success in the formation of a pier, while each course lies open to view. In 1844, at a harbor that had stood for very many yeara, two or three faulty stomes had been incautiously taken out of the facework by a masou who intended to replace them by others, when a oudden gale came on, and nearly the whole of the work was leveled with the beach.

As an exumple of the snddenness with which the eastern conet of England ls visited by gales, and as indicating graphically the relative ellgibility of the summer and winter montha for carrying on harbor worka, we give the accompanying dlagram of the heights of waves, as observed for the writer, by Mr. William Mhdllemise, resident engineer at Lybater harbor. (See next page.)

Timber Piera.-In landlocked baye, where a deepwater landing-place is all that la required, und where the bottom is sandy or soft, timber nuy be employed with great advantage. liven in exposed situations, timber can ulso le used, but the futal disudvantage uttending its enployment in most phaces where there is no uhinixture of fresh water, is the rapid destruction oceasioned by murine worms. The danage occasioned tu hariors in this way la noticed by Semple in his trestiae On Juilding in H'ater, in 1776, and very probably by much eariler writers. Indeed, the ravages of the Teredo navalis are very ludicrously descrited by Hector lloece in his Croniklis of Scotland, printed at Filinbarg circa 1530. In the Atluntle Ocean the Teredo wavalis, aul at many places in the German

Ocean are four exposed rapidly ahove lo is singul bottom observat ley's at I alternate which w stone is of anether m

The lat ments on Bell Rock pleces of getting re experimen and bulletteak stood The kyanla tried, but In additlon than 25 diff tried, inclu though sepe where they where they ungalvanize much the s resisted ox the chemle ethers.
Green-he In places $w$ pears to ha Liverpool, и of Civil Eing ascertalneil siderably gre timbers gen piles of pier: posed to abre planking at worm. Cop often and $s$, plles in exp the wood, an ulso forms a

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Ocean the Limnoria terebrans, are the anlmals whlch | ed to a force which it can only resist by its own lnertla, sre found to deetroy ariy atructure or timber which is exposed to the water. They are found to eat most rapidly between the bottom and low-water mark, but above low-water the damage is not so great ; and what is slngular, they do not appear to exist at all below the bottom where the pile is covered with sand. These observations do not, however, quadrate with Mr. Hartley's at Liverpool, for he found the parts which were aiternately wet and dry to decay faster than the parts which were constantly linmersed. Even solld limestone is often destroyed by the persevering efforts of another marine animal called the Pholas.
The late Mr. R. Stevenson made several experiments on the ravages of the Limnoria terebruns at the Bell Rock, in 1814, 1821, 1837, and 1843, by fixing pieces of different kinds of timber to the rock, and getting regular reports on their decay. From those experiments it appeared that green-heart, beef-wood, and bullet-tree, were not attacked by the worms, while teak stood remarkahly well, although suffering at lust. The kyanizing fiuld and other preparations have heen tried, but were not found to be of permanent service. In addition to these experiments on timber, no fewer than 25 different kinds and combinations of iron were tried, including specimens of galvanized irons. Although separate specimens of each were tried in places where they were always under water, and also in places where they were alternately wet and dry, yet all the ungal vanized specimens were found to oxydize with much the same readiness. The galvanized apecimens resisted oxydation for three or four years, after which the chemical action went on as quickly as $\ln$ the others.

Green-heart timber is now generally had recourse to in places where the worms are destructive. It appears to have been first used by Mr. J. Iartley of Liverpool, who published In the Minutes of Institution of Ciril Engineers an account of its virtues in 1840, as ascertnined at the Lherpool Docks. Its cost is considerally greater than memel or than most of the other timbers generally used. Memel logs for the inner piles of piers might, perhaps, from their not being oxposed to abrasion from ships, he clad with green-heart planking at those parts which are exposed to the worm. Copper shenthing and scupper nailing are often and auccessfully employed as protections for plies in exposed situations. Areaming or scorching the wooi, and nfterward saturating it with traln oil, also forms a partial protection.

It is much to be regretted that timber is so expensive in Great Iritain, and that some simple and cconomical specific against the worn has not been discovered for protecting memel and the cheaper kinds of pins. The grand desideratum in the harbor works, which is the rount of continuity in the structure, would then te supplicd. It follows, from the known haws of flidis, that each individual stene in a pier which is eqnally exposel throughout its whole length, is sulijected to a force which it can only resist by its own laertla,
and the friction due to its contact with the adjoining atones. The stability of a whole hydraulio work may therefore be periled by the use of amall stones in one part of the fabric, while it is in no way increased by the introduction of heavier stones into other parts. By the use of long logs of tlmber carefully boited together a new element of atrength is obvlously obtained. A pier could be erected almost free of saa risk if constructed of rectangular or other shaped priems, consisting of logs of timber treenailed and bolted together, so as to form boxes, say 10 feet square and 80 or 40 feet long. The interior of the boxes would be filled with rubble or beton. The first layer would be arranged across the pier, so as to fit the irregularities of the bottom, and above that, they might be arranged lengthwise of the pier, so as to form its outer and inner walls, the space between being filled with common rubble or beton.
In many ports the original depth has been decressed by the deposit of silt, sand, and gravel. This 1s, indeed, a great evil, and one which unfortunately is most difficult of cure. So olscure and apparently capricious are the canses which lead to the formation of shoals, that in the present state of our knowledge it would be little sliort of quackery to lay down any general rules for the guidance of the engineer. In fixing on the site for a harbor, all existing obstructions ehould be examined to ascertain whether there be a tendency to deposit, and the works should be kept as far as possible from places where the tendency is most strongly developed. The agents which occaslon bars at the mouths of harbors are the waves, the tide currents, and land streams, where thay exist. Rivers are often moro pernicieus than beneficial in their effects, especially where they intersect a gravelly soil ; hut in some cases the descending gravel may be sum cessfuliy intersected by the erection of weirs from which the accumulntlons must be from time to time removed. We agree with Sir H. De la Beche in believing that the bars at the mouths of rivers are most generally formod by the constant tendency of the waves to preserve the continuity of the beach profite. it is, therefore, not to be wondered at, that heavy galpa should distort nud fill up the narrow trench which the back waters cut in gravelly or sandy lieaches. The grection of broakwaters on each side has undoubtedly a good effect in protectlng the channel, but stili a bar is very apt to form ontsicie of the broak waters. In some cases the depth of the track might probally he maintained by driving, on each side of the mid-channel, dwarf piles to which contiguous wallings should be attached so as to confine the current at low water. The timber frame-work should not project more than a foot or two alove the bottom, which in snme cases might be planked. This, however, is but a hint, and has, so far as the author is aware, never been trled. The principle on which the proposal is based is that of contracting the low-water
channel to a amaller width than that of the high-water channel, and thus by fixing the low-water track, to provent a tortueus channel. The aume priaciple was adopted by the writer with success in controlling and fixing the meanderings of a gravelly siver, which is sulject to very sudden and heavy freshets.
TuE followino Tabliz gaows tun dirfanikt Eixde or Wood when wiran made the bubject or Exprainkst at tile brll itock in 1814, 1821, 1s97, AND 1849, witu turin mblative durabilitiks.

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| Treenall of locust. |  | 180 50 | 8*0 |
| Beef:wood... |  |  | 180 |
| Treenatl of Bullet-wood |  |  | 50 |
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|  | $\begin{array}{ll}1 & 1 \\ 8 & 4\end{array}$ | $\begin{array}{ll}8 & 1 \\ 4 & 1\end{array}$ | -* |
| British | 16 | 50 | . $\cdot$. |
| Engliah "kyanized. | 47 | 100 |  |
| Amerlean Oak... | 211 | 47 | .... |
|  | $\begin{array}{lll}1 & 6 \\ 4 & 81\end{array}$ | 50 | .... |
| Itallan | 11 | 86 |  |
| Dantzic | 11 | 86 | .... |
| Acoteh | 9 4, |  |  |
| Baltio | 14 | 48 | . $\cdot$ |
| Plane-tree.. . . . . . . . . . . . . . . . . . | $211 t$ |  | $\cdots$ |
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| Tritish Ash | 80 | 50 | . |
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| Anmerlcan " | 19 | 81 | . |
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| Cedar of Leban ${ }^{\text {an }}$ | 11 | $\underline{2}$ " | ..... |
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| A merican Yellow l'ine.......... | 24 | 37 | ... |
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| 4 Wed I'rne.... | 4 | 81 |  |
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* Affeeted in one corner.
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Nearly mound it yeara after beinig lald down.
- Decayiog but slowly 5 yenrs nud 7 montlis after befog ald down.
e Much deesyed when first observed.
i Deeaying but slowly 5 yeare shd 7 months after bolng lald down.
E Nearly sound 84 years after beling ladd down. Washed away 6 months later.
oh A little holed at one end undernenth.
- A good desl decayed when lirat observed.
$j$ Going fast whea first observed.
A good deal grono is monthanter belng lald alown. Swept way by the nea 7 montha afterward.
$t \boldsymbol{\lambda}$ goonl teal decayed wheo firxt observod.
$m$ fioling fast whoo first observed.
The want of suflicient funds oecasions a great national loss in the construction of Einglish harbors. The history of a iarge majority of thome ports which have been erected by private or local enterprise, presents but a record of the building of piers at one period when the funda were small, and of taking them down nt
another when the trade had Incroased and more room and accommodation were required. Want of fundr often prevents the original works from being earried within deep water, and in consequence the most expenalve part of the protecting break water is often put down juat in the very plact which bae afterward to be converted, at great expense, lito a deep water accesa or berthage. Sometimes, indeed, a whole line of pler ie, from motives of economy, placed in such a manner as to interfere moat materially with what might have been by far the best and safent berths for shipping, eo that in the further extenelon of the works a great part. of the old harbor has to be demolished. Want of a proper marine survey has aleo often led to very serious errora $\ln$ the position of the piers. To auch an oxtent has thla syatem provailed, that were an engineer called on to value many of the works in tisey exist at present, his eatimate, however falily and fully made out, would fall tementably short of the actual cost. This eatimate would proceed on a measurement of what he sees, while the actual cost would inciude the building of piers and jettiea which had long nince ceased to exist. For these reasons we conceive there could hardly be a more advisable expenditure of the public money than by a aystem of grants for supplementing the local funds on a lileral seale. With sucb aid the authorities on the spot would be enabled to protect and improve the existing physical advantages whlch the shores possese, by preventing the construction of proposed improvementa on too usrrow a scale. But a comparatively alight incresee of the means would, in lastances of which the writer is aware, have inclosed a great extra area, and necured a deeper access with superior lnternel tranquillity, the want of which new cripples the trade, and is the subject of lasting re. gret to all frequenting the harbors.
For this article we are indelited to the pen of Thomas tevenson, Esq., Civil Engineer, written for the Ency. Brit., 8th ed., 1857. Seo vol. xl.
For other aubjects conneeted with harbors ride articlea on Docks and Ports. Reference may be made to Brit. Asaoc. Rep., 1850, Sconkshy ; Min Inst. Civ. Eng., 1848, Rankine; do.,.1847, Scott Rus.
 pussim. ; Rep. Com. on Vares by Bril. A ssoc., J. S. Ressklat, Londul, 1848: Reeearches on Hydrodynamies, J. S. Russkll; Trans. Roy. Soc. Edin., vol. xiv., 1837; Account of Erperiments on Force of Wares of Atlantic and German Oceans, Thomas Stevenson; Trans. Roy. Soc. Edin., vol. xvi., 18.15; On Rednctive of Height of Wares ofter passing into Harbors, T. Stevensos; Edin. New Thil. Journ., 1852; Acrount of the I'lymonth Breakwater, hy Sir J. Rexnie, London, 1848; Beliwon's Architecture Ilydranlique, Paris; Semite's Truotise on Building in Hater, Dublin, 17i6; Royal Tidal Harbor Commiasions' Reports, Captain Wasmingion, London, '445-6; the article on Tides ond Wares in the Eincyclopedia Metropolitana, by G. B. Aisey, Aatronomer lioyal; Report by Commissioners of Harbors of Refuge, with the Protest, by S.r llowand Dovghas.
Good harlore aro of essential importance to a maritime nation; and immenso sumb have been expended in ail countries ambitious of naval or commercial greatuess in their improvement and formation. British Harbors,-l'urtamonth, Milforil Laven, and the Cove of Cork, are :he linest harkers in the Hritish isslands, being surpassed by very few, if say, in the world. Of these, l'ortmonth in entitled to the pre-cminence. This adinirable harlor is alout as wide at its mouth as the Thames at Wentminster Bridge, expanding within into a nohe baxin, almost auflicient to contain the whole navy of Great liritalin. Its entrance is unobatructed by any bar or ahaliow ; and it has, throughout, water adequite to float the largent men of war at the lowest tiden. The anchorage ground is excellent, and it in entirely free from sunken rocks, sand-banks,


## or any

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or any similar obstructions. The western side of the hasibior is formed by the islanil of Portnes; and on its south-wentern extremity, at the entrance to the harbor, is aituated the town of Portamouth, and its large and important anburh Portses. 'Here are docks and other establishments for the building, repalr, and outfit of ahips of war, constructed upon a very large scale, and furnished with every convenience. The fortifications that protect this grest naval dépot are supetior, foth at reapects' strength and extent, to any other in the kingdom. "Thus," to nse the words of Dr. Cump-" bell, "it appears that Portsmonth derives from nature all the prerogatives the most fertlle wits and most intelifgent judges conld devise or derire ; and that these have been well seconded ly art, without considerntion of expense, which, in national improvements, is little to le regarded. Add to all thin the striking excelience of its situation, which is such as if Providence had exgressly determined it for that une to which we see it applied, the bridlling the power of France, and, if I may so speak, the pecaliar reeidence of Neptune." portamouth harbor hai the additional and important sdvantage of opening into the celebrated road of Spithead, between the Hampshire const and the Isle of Wight, forming a safe and convenient retreat for the largest fleets. Miliford Haven deeply Indents the southern part of Pembrokeshire. It is of great extent, and has many subordinate bayn, creeks, and roads. The water is deep, and the anchorage ground excellent; and being completely land-locked, ships lie as safoly as If they were in dock. Cork barbor has a striking resemblance to that of Portsmonth, but is of larger extent; it has, like It, a narrow entrance, leading into a capnelous basin, affording a recure unylum for any number of ships. Plymouth, which, after Portsmouth, is the principal naval dépòt of England, bas an admirable douise harbor. The rondstead in liymuuth Sound has recently been much improved by the construction, at a vast expense, of a stupendous lireakwater more than 1,700 yards in length. This artificial bulwark protects the ship lying inside from the effects of the heary awell thrown into the Sound ly southerly snd south-easteriy winds.
London stands at the head of the river ports of Great Britain. Considering the limited course of the Thames, there is, probaily, no river that is navigable for large ships to so great a distance from sea, or whase mouth is less obstructed liy banks. Iondon is mainly indebted for her untivaled magnitude to her favorable situntion on this nohle river; which not muly gives her all the advantages of an excellent port, accessible at all times to the largest nhips, but renders her the emporium of the extensive, rich, snd populons country coulprised in the basin of the Thamos. The Mersey, now the hirst commercial river in the empire, is more incommoded by banks than the Thimes; and is in all respects inferior, as a ehannel of navigation to the latter. Stili, however, it gives to Liverpool very great advantages; and the channels boing well huwyed und marked, the largest ships have littie difficulty in reaching the port. The priacipal channels are huid down in the map of Liverpool and its environs attached to the article Docks, Ency. Mrit.
Bristol and Hull are both river ports. Owing to the extraundinary rise of the tile in the Bristol Channel, the former is accessithe to the largost shipg. The Hamber is a gool deal hmpeded by hanks; but it also ${ }^{5}$ navigable us far as linll, by large vessels. The Tyne admits vessels of very conaiderable bumlen an far as Nowenatie. Sunderland, at tho mouth of the Weir, is the principal ship-building port in the United Kingdom and has, after Liverpool und London, the greatest amount of shipping. The shallowness of the Clyde from Greenock up to Glangow has been a serious drawbuek upon the conmmercinl progress of the lntter. Largo sums have heen expended in attempts to contract the course and to deepen the bed of the river;
and they have been so far succesuful, that ships drawing 19 and oven 20 feet have coms up to the city at high water. In 1852; 74 veseels druwing 17 feet of water, and 18 drawing 18 feet, ar.ived at, Glasgow, which is now one of the principal commercial ports in the empire. Generaliy apeaking, the harbors on the enat cosats, both of Grest Britain and Ireland, are, with the axception of the Thames, vary inferior to those on their seuth and weet coast. Several harbora on the shores of Sussex, Kent, Lincoln, etc., that once admitted pretty large ships, are now completely choked up by annd. Large sums have been expended upon the ports of Yarmouth, Boeton, Sunderland, Loith, Dundea, Aberdeen, etc. Dublin harbor boing naturaliy bad, and obatructed by a bar, a now harbor has heen formed, st a great expense, at Kingstown, without the bar, in deep water.-mee Tidea.
Ports.-Tbe reader will find the principal commerclal harbore deecribed in this work at considerable length under their reapective tities. The principal French ports for the accommodation of men-of-war are Brest, Toulen, and Cherbourg. The latter has been very greatly Jmproved ly the conatruction of a gigantio breakwater, and i excavation of immense bssins. Besides Cadiz, the priucipal ports for the Spaniah navy are Ferml and Carthagena. Cronstadt is the principal rendezvous of the Russian navy; Landscrona, of that oi Swodon ; and the Helder, of that of IIoliand.
Number of llarsorg in the miprekent states on thi Coaf:, and tue paineipal oxes on livers to the lieal or Tioe.

| States. No. of harbora. | States. No. of harbent |
| :---: | :---: |
| Matne .............. bt | North Carolins. |
| New Hlampehire..... 8 | South Caroltaa....... 91 |
| Masenchusetts........ 51 | Georgia.............. 15 |
| Rbode Island. ........ 7 | Florlds. . . . . . . . . . . . 66 |
| Connectlent.......... 88 | Alabaina............. ${ }^{4}$ |
| New York........... 27 | Mlesissippi. . . . . . . . . 10 |
| New Jersey........... 14 | Loulstana. . . . . . . . . . 88 |
| Pennsylvaila......... 8 | Texas............... 12 |
| 189 | 248 |
| Delaware............. 8 |  |
| Marylma................ 22 | Total. |

Table Showino the Shoar Line of Statks on the Atlantic Coast and Gelf of Mexioo.

| Stales, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Maine. | $\begin{array}{r} \text { Milien. } \\ 427 \end{array}$ | $\begin{aligned} & 81110 \% \\ & 1,589 \end{aligned}$ | $\begin{aligned} & \text { Miles. } \\ & 427 \end{aligned}$ | $\begin{aligned} & \text { Milles. } \\ & 8,026 \end{aligned}$ | Miter. 2,4,53 |
| Now IImpabitre. | 13 | -87 | 24 | 8,00 | 2,74 7 |
| Nussachusutts.... | 209 | 865 | 838 | 1,074 | 1,906 |
| Rhoile Isiand. | 65 | 153 | 288 | 208 | 440 |
| Conneetleut. | 14 | 239 | 1,074 | 258 | 1,827 |
| Naw York....... | 114 | 886 | 1.057 | 1,000 | 2,057 |
| New Jersgy...... | 113 | 702 | 151 | 820 | 971 |
| Pentisylvana.... |  |  | 106 |  | 106 |
| Delaware........ | 20 | 186 | 606 | 165 | 671 |
| Maryland | 41 | 1,008 | 8,401 | 1,052 | 4,453 |
| Virginla. | 148 | 735 | 1,690 | 883 | 2,573 |
| North Carollna.. | 299 | 1,549 | 932 | 1,849 | 2,780 |
| South Carollna. | 192 | 856 | 709 | 548 | 1,256 |
| Georgta. | 76 | 410 | 468 | 486 | 954 |
| Florida........... | 1,020 | 3,1005 | 880 | 4,025 | 4,888 |
| Alubama. | 183 | 234 | 818 | 317 | 680 |
| Missisalppi. . . . . . | 42 | 206 | 187 | 248 | 885 |
| Louislana........ | 616 | 1,595 | 986 | 2,211 | 8.147 |
| 'Texas.. | 358 | 1,284 | 438 | 1.687 | 2,069 |
| Total |  |  | 14,256 | 18,451 | 88,187 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 88,187 |  |  |  |  |  |

For full description of the various harbore in the United Stntes showing depth of water, accessibility; shoais, lights, etc., the reader is referred to the cities described separately in this work. See article Const Sthrey : sce, also, Hunt's Mer. Mag., ix., vol. il., 300 ; South. Lit. Mess., xx., p. 25, vol. xi.

According to an act of Congress, 1813, tho President
of the United States, with the consent of the State anthorities, is acthorised, for the defense or necurity of any of the porta or harbora of the United Stutes In time of war, to aink hulka and other impediments at the month of anch harbors, to prevent the Ingress of the enemy. Dumlas's Digeat, p. 500.

Hiarburg, a sea-port town of Hanover, province of Luneburg, on the left bank of the southern branch of the Elbe, opposite Humburg, whieh etands on the right hank of the northern branch of that river. The diatance between Harburg and Hamburg in about 43 miles, and regular ateam communleation la maintalned bet ween them at least alx or elght times a dag. Harburg communleatea also with Hanover by a rallway, and carries on a conalderable trade, chiefly tranalt, between Humhurg and the countrien aouth of the Filbe. It has mannfactures of linen, hosiery, soap, atarch, refined wax, leather, etc. It is a place of some strength, being surrounded by walla, and defended liy a citadel. Population, 6500.
Hardnems, that property in beolien by which they realst abrasion from the impreation of any other substance. The methot pursued in constructing tablea of the hardness of different substancea is by observing the order in whlch the artielea tried are eapalle of cutting or seratehing one another. The following table, extracted from Magellinn's edition of Caoxatrot's Mineralogy, was taken from Quist, Bergman, and Kirwan:

| Hiand. | spen. |  | Hand |
| :---: | :---: | :---: | :---: |
| Diamend, Ormus. . 20 | ${ }_{87}$ |  | 12 9 |
| Plink dlamoad..... 19 | 8.4 | Ocel ameth | 118 |
| Blutsh do........ 19 | 88 | Crystal | $112 \cdot$ |
| Yellowlah do...... 19 | 38 | tornella | $1{ }^{2} \mathrm{~L}$ |
| Cuble do.......... is | 82 | 1treen jas | 112 |
| Itaby............. 17 | 42 | Red. Yel | 26 |
| I'ale Ituby, 1razil. 16 | 3.5 | Sehourl | 1086 |
| linby mpacli. . . . 18 | 8.4 | Tourmal | 10 |
| D'p blue supphiro. 16 | 8.8 | Quartz. | 10 |
| 11ito puler........ 17 | 88 | tipal. | 1112 |
| Topaz............ 15 | 42 | Chrys | 19 |
| Whitish to....... 14 | 85 | Zublite | , |
| Mohemilan do...... 11 | $8 \cdot 9$ | Fluo | 8. |
| Emerahi......... 12 | 2.9 | Calcarcous | 2 |
| Garnet ........... 12 | 4.4 | Gypam. |  |
| Agate............ 12 | 2.6 | Chalk. | $8 \quad 27$ |
| Odyx........ ... 12 | 2.6 |  |  |

A similar tut shorter table in now generally used, in which dinmond is rated at 10 .
Hardwase (Ger. Kurze wharen: Du. Yeeriramery: IH. Isenkramrarer; Sw. Jimkram: Fr. Clinquaillerie, Quincailerie; It. Chincaglin: Sp. Quinquilleria; Port. Quincalharia: Rus. Mjelntzchnne toncarii) Includes every kind of goods manufactured from metals, comprising imon, brass, steel, and copper urticles of all descriptions. Hiriningham nad Shetlield are the principal seats of the liritish bardware manufartures : and from these, immense quantities of knives, razors, acissors, filt and plated warr, flire-srms, etc., are supplich, as well for exportation to mont parts of the word, an for home consumption. The hariware mannfacture in one of the most important carried on in fireat Britain, and from the abundance of Iron, tin, sud copper ores in the country, and the ineshamstibie coal miner, it is one which seems to be motatilished on a very secure foundation. The late Mr. Stevenson, in his elatorate and excellent article un the statistices of England, in the Edinderg Encychpurdix, publidhed in 1 kla , estimated the value of all the articlen mate of irm in Great Britain, at $£ 10,(N),(0) 9$, and the jersons employed lut the trade at 200,040 . Mr. Stevenwon entimated the value of all the articles made of lraxs and copper at $\mathrm{Ea},(\mathrm{KNO},(\mathrm{KM})$, and the presoms emphoyed at 50,006: and he further eatimated the value of steel, platel, and hardware artieles, including toys, at Ef:ono,OMO, and the jersons empleyed at $\mathbf{0} 0,000$. So that, assoming these eatimates to be nearly correct, the total value of the goods produced from different worts of metals in England and Walem, in 1815, must save amounted to the sum of $\angle 17,060,000$, and the
persona employed to 820,000 . There is reason to believe that this estimate, in so fur, at least, as respects the value of the cadnufacture, was at the time decidedly too high; but at this momant it ls noat probably within the mark. There has been a very extraordipary augmentation of the quantity of bar and pis Iron produced withln the last 15 years; and the rapld increase of Birmingham and Sheffield, as well as of the smaller seata of the hardware manufacture, shown that it has been Increased in a correspending proportion. We have been assured, by those well acquulinted with most departmenta of the trade, that If to the Iron and other hurdware manufucturen of Englund be adaue those of Scotlani, their total aggregate value can not now be reckoned at leas than $£ 17,500,000$ a year, affording direet employment, in the various departments of the trade, far at least 360,000 persens.
Fill of P'ricea.-Owing partly to the reducell cost of Iron, , but incomparably more to linprovements in manufacturing, a very extraordinary fall has t.ken place in the price of most harlware artleles during the last 15 or 18 yeara. In some articles the fall excects 80 per cent. ; and there are but few $\ln$ which it dees net exceed 30 per cent. In eonnequence, the pourest individuala are now atile to aupply themselvea with an infinite variety of commodluus and useful articles, which, half a century ago, were either wholly miknowu, or were too dear to be purchased by any hut the richer classes. And those who reflect in the importance of the prevalence of halits of cleunliness and neat jess, will readily agree with us in thinking that the substitutien of the convenient and beantiful hardware und earthenware hounehold articlen, that are now everywhere to be met with, fur the wooden and hurn articles used by our ancestura, has been in no ordinary degree advantageons. Hat it ls not in this respect only that the cheapnesa and improvement of haritware in essential. Many of the most powerfil and indispensabie toola and instrumente used by the lit trorer come under this description; and every one is aware how important it in that they sinoulh lie at once cheap and eflicient. See Cutheny and Inon.
Dr. Friedenberg in hia Germau translation of Bubbuge: Econsmy of Machinery and Munyfactures gives some curious information concernin- the Herlin casting. Such are the fineneas and celicacy of the separate arahesques, rosettex, medallivns, etc., of whicb the larger ormaments are composel, that it sometimes requires nearly $10,0,01$ of them to make a pound weight. The gray iron from which they are made may he taken as leing worth abont biv. per ent.; and the following talle drawn uip from the price-list of a Hertin manfacturer, a few years ago, will show to what an alount ineredible height this valuo per cwt. is increased :

| Aritelm. | Vumberin <br> lent. |  | $\begin{aligned} & \text { Price } \\ & \text { frofe } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Bue | 2,649 | $4{ }^{4} 8$ | $\frac{\varepsilon}{36}$ |
| Neck-chaius, is Juches long by 1 broal. in to places... | 2,810 | 6 | 698 |
| Bracelcte, 7 Itheles long by 2 broal, $\ln$ iz pleees $\qquad$ palrs | 2.050 |  | -111 |
| Hallemes if foelues high by bif hroas. | 1,106 | 166 | 97 |
| Sculghe polnts, ti luenes lone by It hroad. | 0,020 |  | 2,029 |
| sevighe ear-rimea, 3 inchos long ly throal, in 24 phecen.. .... psiry | 111,4\% |  | 8,i+1 |
| shirt buttons. . . . . . . . . . . . . . . . . | S¢, 40 |  | 2,94, |

We here tind that iron in the form of shint hathan commanded a market at a price nearly 10,000 times as great as that which it sold for an gray iron! And about the year 1820, when the fughion was at its heighth, the vulue was still greater ; for these iron ornaments then soll for nearly their welght in gold. The graat saleable value of these productions has led to a result similar to that which to many other brancien of industry exhibit; obsenre manufacturers make modds from tha casta which others hul been at the expeniso
of dealgn cheap sp canting ${ }^{3}$ a: thome always e traordinai Curiositie.

Earm a number dlo, and edgee. been the 1 a table, al less water pasaning a improved Franklin, Their tone timbre, wh some perso sical drink matische w by G. P. was called keys like direct cont was lavent barg. An Mazzucsh! to prosiuce monica ws Steln, sn douhle str sort of apin effecte are
Harp. played on 1 lyre of the Romane he very few st this instru strung wit ancient hat
Harpa
Irons whic: gligg of an were used milght he
Harpis compass it stem, heln in order to snstains $t$ intu the se
Harpo
nsed for
неарои u.
a gun ins
formed en
it, to whi
Irctic Red
harpion it
Hats
Capelli;
the heall
varitus f
ever, be
of fur, wo
former be
by wome
huet, a ed
castor, fri
beaver.
duction
promatiik
Reman
that it w
of dealgning and modeling, and prodace inferior and cheap spacimena from theae molda. The real Berlin casting worthy of the name (auch we may presume E: those which graced the Great Exhlbltion), must alwaya cemmand a high price if eold at all, from the extraordinary eare required in their production.-DoDn's Curiosities of Induatry, Iondon, 1856.

Earmonica, a masical inatrument, conalsting of a number of glase cupe fixed npon a revolving spindlo, and made to vilirate by friction applied to thei: edgee. Mr. Puckeridge, an Irishman, ia sald to have been the firat to uae a set of drinking-glasaen, fixed on a table, and tuned to form a sealo by putting more or leas water into each. They were made to sound by passing a wet finger round their edges. These were iuproved by Mr. Delaval, and atill further by Dr. franklin, and were called "the musical glassea." Their tone is aweet and melunchely, and of a peenliar timbre, which produces a painful effect on the nervee of sume persons. It appears, however, that the use of musical drinking-craases was described in n work (Mathematische und Philonophische Eirquickistunden), publlkhed by G. P. Haradorfer, at Nuremberg ln 16i7. What was called a harpaichord-harmonica, in which finger keys like those of a piano-forto were used instead of direct contact of the fingera with the revolving glasses, was invented ly Rolling at Vienna, and Klein at I'res. hurg. Another harmonlea was Invented by the Abste Mazzucall, who employed the friction of a hair-how to produce the seunds of the glases. A stringed harmonica was invented at Augusta, in 1788, by John Stein, an eminent ergan-builder. It consisted of a doulle stringed (wirt 1 ) plano-forte, cembined with a zort of apinnet, to he used together or separately. Its effects are sald to have been remarkable.

Harp. It is traced to the earliest nations. David played on the harp hefere Sasl.-1 Sam. xvi. 23. The lyre of the Greeks is the barp of the monlerns. The Romans had their harp; so had the Jews, hut it had very few strings. The Cimbri or Englinh Sax us had this instrument. The celebrated Welsh lit $p$ was strung with gut ; and the Irish harp, like tis mere ancient harps, with wire.

Earpagines (i, $i \pi \dot{\gamma} \gamma \eta$ ), in Autiquity, grapplingirons whlth were flung with violence against the rigging of an enemy's ahip, and, when entingled there, were used to drag the ship within reach, so that it might be boarded to mere advantage, or destroyed.

Harpings, the fore part of the wales which encompuss the bow of a ship, nud are fastened to the sten, heing thicker than the after-part of the wales, in order to atrengthen the ship in this place, where she sastains the greutent shock of resiatance In plunging into the sea, or dividingit, under a great pressure of sall.

Harpoon, or Harping-Iron, a spear or javelin used for striking whales, ete. The $g^{\text {on}}$-horyoon is a weapon used for the same purpose, but it is lired from a gan instead of heing thrown hy the hand. It is formed entirely of metal, nod has a chain attuched to it, to which the line ls fatened. Sce Sconesur's Arctic Reyions. Harpooner, the man that throws the harpoon in fishing for whales.

Eats (Ger, Hitue; I)u. Hoeden; Fr. Chapeaur ; It. Capelli; Sp. Sombreros; Rus. Schlopü), coverings for the head in very generat use. They are made of very varlous forms and sorts of material. They may, however, be divided inte two great classes, viz, those made of fur, wool, silk, etc., and theae made of straw; the former being prinelpally wern by men, and the later by women. Itat is a term of Saxon derivation, from huet, $n$ cover for the liead. It is sometimes called custor, from its being made of the fur of the castor or beaver. As a piece of drese, the period of its introduction is net certain, although it may with great probalitity be referred to the early distinctions of Reman Catholic dignitaries. Frolsant ehronicles, that it was "suide to the cardynala, Sirs, advyso you

If ye delyvere ns a Pope Romayne, we be content, or els we woll malke your heddes reeder than your hattes be:" from which, and from many othor documents, it appara that at thin period, as well as for mome centuries after, hats were generally of a acarlet or red color, and made of "a fine kinde of haire matted thegither." A "hatte of blever," about the middlo of the 12th century, was worn by some one of the "nobela of the lande, mett at Clarendem;" and Frois asrt deaeribes hats und plames which were worn at Edward'a court in 1340, when the Garter order whs institnted. In the dlary of Henry's secretary, there is "ane scarlet beever hatte" presented on New Year's day, 1443. Even at this early period hats were of various ahapes, both In the crowns and the brimsthe latter bsing chiefly broad, sometimes narrowing toward the back, and a little bent up and scooped la front. In IIenry's privy purse expenses, during his congress with Fruncla I. in 1520 or 1521, there is "pell for "atte and plume for the king, In Boleyn, $\mathrm{xv}^{\text {.. ;" }}$ and in Wolsey's Inventery, taken on hila resigniug the great seal to Sir Thomas More, there are ne fewer than five mentioned. The fashion of this article was then much more diversely capricious than oven now, as will appear from an extract from Srnsn's Anatomie of Abusen, published alout 1585: "Sometimea they use them sharpe on the crowne, pearking up like tho spire or aliaft of a steeple, standing a quarter of a yard above the crowne of theire heads; some more, soms lease, us please the fantasige of their inconstant, minclea. Othersome be fiat, and broade on the crowne, like the battlements of a house. Anether sorte have rounde crownes, selnetimes with one kind of hande, semetimen with anether; now black, new white, now russed, now redde, now grene, now yellow ; now this, now that; never cortent with one colour or fashiou two dales to an end. And as the fashions lee rare anil strunge, so is the stuffe whereof their hattes be madis divers also; fer seme are silk, some of velvet, some ot taffetie, some ef sarsnet, seme of wool, and which is more curions, some of a certalne kinde of tine hairo; these they eall lever hattea, of $\mathbf{x x}$. $\times x \times$. or xl. shillings price, fetched from beyonde the seas, from whence grent sorte of other vanities doe ceme besides; and so common a thing it is, that every servyng man, countreiman, and other, even all indifferontly, doe werre of these hattes." Abeut the beginning of 1700 , the crowns of lats were mostly round, much lawer than before, and lind very brond brims, resembling what are now occusienally called Quakers' bata, the protusive incumbrance of which soon suggested the cons, ience ef their leing turned up in frent; fashion dictuted the uphending of anether side or flap, sad ultimately a third, so that by this progress, in 1704, the regular three-eocked hat hecame the order of tho day, when feathers ceased to be uaually worn. Near the middle of the 18th century, a round-edged but flattopped and full-brimmed hut got into very general use, and the flat and other cocked hats now dwindle nlmost into a mere distinction of real or assumed rank. 25 years after this, u very near approsck to that of thes present times heeane fashionable, and, within 10 years, altogether superseded the ordinary use of tho cumbrous nud antique cock.

Phmes, jewels, silk loops, rosettes, badges, gold and silver bunds and loops, have at various periody ornamented this article of dress; metal bands and loops being now extecmed preper only to naval und military "men of honor," nad the humble liveried attendants on state, rank, and official dignity. The opera or enft-folding hat is the only relic ut present in general use of the hats worn by our grandfathers, althongh it is not improbable that the mutations of fashion may re-introduce the elegat Spmish hat a4 the precursor, perhaps, of various other styles, ns well as the eocked hat, which are not yet entirely discarderl.

In the Great Exhibition of 1851 several very novel
atylen of hat were Introduced by oxhbitors. It is remarked in the Jury Report renpecting them that "in an article of mashion and of nuech conotant nae as hata, It doea not appear to be easy to change the hablta and tanten of the wearere, or to induce them to adopt a new contume."

Uneli recent tires hats were chlefly prodoced by the art of felting, an art which some personn si pose to have been practiced by the nations of antiquity. It is thought that lama coneta, used for soldien' cloakn and for lacedemoniun hats, was felted wool, but others atate that It wat only knitted wool. In Roman Cutholle countries, $8 t$. Clement ic the reputed inventor of felt. This personage ls said to have put carded wool Into his mandala to protect hie feet daring a pilgrimage, and that the offert of the moistnre, warmth, and friction converted the wool into a folted eloth. The hatters' annual featival is on the 2 d Novemier, 85. Clement'e day.
llat-making embracen two dietinet kinds of mannfacture, vis.; of felled and comered hatn-the covering of the latter being generally pluah. Felfed hats comprehend two classen, difrering chleffy In the materials used in making-the processee being nourly identleal. The lower claten lis marked by inferior ingredients, uninixed with benver, and embrace: wool, photed and ahort nap hatn. Wool hatn are maie entirely of coarse native wool and halr ntiffened with glue. Before the emenelpation nct thene bats were largely exported for negroes' wear; but the manufacture in now almont oxtinet. Ihatea have anap or pile rather finer than their borly, anil are sometimea senterprowf stiffened. Short mapu are illetinguiahed from pates by additional kinds of wool, viz., hare'n back, seal, netuter or nutria, musquash (Muscory eat), and are all waterproof netiffened.
The aecond clans may be said to comprehend two orders, called atuff and bewerer hatn. The first incloden mottled and stuff bodiea. The latter term in not nsed generaly, wa all amffo are understond to the of this sort when mottled is not expressel. Motted bodiea are made chiefly of fine Spaninh wool, and Inferior rablit down or coney wool. Stuff bodies consiast of the best hare, Saxony, and redi wools, mixed with Caahmere buir and ailiks. Stuff hata are napped, that in, covered with pile of mixed neal, neuter, hare'm back, inferior beaver, and musquash. Bearer hath are, or ought to be, napped with beaver only; the lowerpriced qualities with broen mama taken from the back; the mnre valuable kinda with cheek and whice wooma, euch befing the finent parts of the fur found on the beliy and cheekn of the beaver.
The manufacture of a benver hat involven a namber of curioun and interesting procenees, the mont important of which !a felting, or the art of combining animal fibrea in anch a way na to form, withoat weaving, a thick compact eloth. The felting property of animal fibres dependa on their peculiar atracture, which, an revealed by the microscope, appears to be notched or jugged at the edges, with teeth directed fmm the root toward the extremity. Wool in the yolk, or with the natural grease adhering to it, does not readily felt, the Jagged portions being anoothed over or filied up with the oll ; but when the filmen of elean wool or halr are made to undergo a gentle friction ander the influence of moisture and beat, they rendily feit tngesther.
Several of the furs mentioned above are used for hats. The beaver has ineen no assiduounly hunteri during many years that it is now becoming a rarity, and the fur of other animala is sutestituted fir it. The coyty furnizhes nutrin akin; the musplankh or muakmat, the hare, and the rabtit, yield fur for the naj) of the hat, while the trody is inade of lambis wool, or of the woclly hair of the llamn or vicuna. A beaver hat, properly mo called, has a looly or foundation of rabibits' fur, with a beaver nap, althnugh the leaver, for the reason above stated, is often mixed witt a more com.
mon far. Sueh a hat has a ploceant softnese and plaselelty, and readlly molda ltself to the ahape of ths hoad, presenting a marked contruu to the hapd, horny; allk hat, whloh han nearly aupwrew ded it. Still, howaver, them miant alwaya be certagr perione whe, not objeeting to the price, whl continuo to keep alivn this, the mout Interestlag branch of the bat manufacture. See Fer Tradm.



| Wruber argeried, |  | tilk and manumetures of allk. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | or Legtiora, or arase, eff. | or dilt | plate of. |  |
| Deninh Weot ladios. |  | 0008 | 19,036 | $\cdots$ |
| Dutch Went Sndies.: | 180 | 250 |  |  |
| Bely | 90 |  |  |  |
| Evgl | 2.184 |  | 7.678 |  |
| Canada. | 7,678 | ${ }^{110} 408$ | 2,969 | 14,117 |
| Wher Bri. N. A. Poe. |  | -29,70 | 645 | -1,17 |
| Britah Weat ladies. |  | 1.814 | 1,Tins | .... |
| Britab londuraa... |  | 1,187 | 80 |  |
| Britioh Guians... |  | Ons | 880 |  |
| Hritalh Australla. | 4044 | 1,110 |  |  |
| France on the At | 9,879 | .... | . |  |
| France on the Mod | 160 |  |  | . |
| Cr, Nor. |  |  |  |  |
| Porto Ek |  | - | 10.087 |  |
| Portugal. |  |  | 120 |  |
| Maleira |  |  | 189 |  |
| Oape do Verd If |  | 47 | 1,040 |  |
| Prerio Io Africa. | .... |  | 8,784 |  |
| Hiayt.. |  | 1,484 | 1,479 |  |
| San lom |  |  | 27 |  |
| Mexleo | 498 | 1,456 | 001 | 120 |
| Chentral Rep | 700 | 099 | 2.866 |  |
| New Gra | 2464 | 1,005 | 1,185 |  |
| Venezue |  |  | 1,429 |  |
| Hrazll. |  | 1,048 | 0,619 |  |
| Uruguny | 700 |  | 870 |  |
| Hsenos | ${ }_{9} 8808$ | 89\% |  |  |
| Pern. | \% | 250 | $1 * 0$ |  |
| pandwieh | ลั่ง่ |  |  |  |
| Chine | -30\% | 2,853 | 40 |  |
| Whale Fistierles | 485 |  |  |  |
| Total. | \$60. 175 |  |  | 14,237 |
| Frosu wareheusc..... Not from warehonse. | $\begin{aligned} & 3 y 7,947 \\ & 32,34,3 \end{aligned}$ |  |  | $614,117$ |

Not from whrehonse
Statament huowinu the, Foamon Imposit oy llath INTU THE UNITED STATKA FOA TAE YEAR ENDING, JUNE SitH, 185 .

| W'bence imported, | Stk and manufneturen of allk. |  |
| :---: | :---: | :---: |
|  | linta and bonmeta. | Hanc, capo, and Donsiets, flats, bralde platis. ete., of Leg . hora, Altaw, ehlp, or grins, etc. |
| Maninh Weat Indies. |  | 116,634 |
| Ifmmburg. | 428 |  |
| Premen. | 2,8*1 | 51,448 |
| Ilolland. | .... | 87 |
| 1)uteh Went Indies. | . . | 101.849 |
| Dutch Guians | - | 2,244 |
| lkelyium. . . . . . . . . . . . . . . . . . . . . | 404 | 6,46\% |
| (Vntland. | 16, 129 | 881,92x |
| Mcotland. | 275 | 1.427 |
| 1)ibraltar. | .... | 8,846 |
| Canada. | .... | 5,262 |
| Other Brtt. N. Anmet. Vos. . . . . . | .... | 44 |
| British West Indlus........ ... | .... | 16,965 |
| Rratish East ladies..... |  | 285 |
| Franse on the Atlantlc........ . . . | 79,987 | 364,799 |
| Franee on the Medterrancan.. ... | 23y | 616 |
| Spaln on the Atantie............. | . $\cdot$. | 149 |
| Epain on the Mediterraneau...... | $\cdots$ | 45,411 |
| 1'ilitppine Isiands. . . . . . . . . . . . . | . | 8 |
| Portugad... |  | 82 |
| Tuseany.......................... | 21 | 51 |
| Other purts In Afrlea ............ |  | 27 |
| Mexteo........................... | 967 | .... ${ }^{\text {a }}$ |
| Ceniral lieppubile. . . . . . . . . . . . . |  | 81 |
| Now 6 ranala . . . . . . . . . . . . . . . . - | 2,058 | 18469 |
| Chlna...... | $\cdots$ | 184,469 |
| Total....................... | (1122, 27 | -221,05 |

Strave llata. - It in moxt prohable that the inea of phaiting straws was first anggeated by the making of baskets of oziers and willow, alluded to by Virgil, in his

Pactomito, populatios when the Importane Conyatis delicato at wouen in having at therefore, arrived at sinces but Eagland f the remem straw dibet ters of the own bonan as a manu women of atively mor and pinnory ludjes of qu colw'u M/a
Hatoh, search of or earthen dar that lisuee ranning in properly the ship'n deck, or cover of is somotines but this is p Hatohv deck of ag from oue dea to the passaj house. In I the mainma
n. Coprear : duatrrathor e Gruat Drat
The Soanat
Tarala, equa

Patorila, as ons of the puranits of the agricultural |hatchway is a little abaft the foremant, ar at the hreak population of Italy. . We ara ignorant of the period when the manufacture of straw plaft first became of iniportance in thut country; but it sppears from Corxat's Crudities, pesbllahed in 1611, that "the mont delicate etrawan hata" were worn ly both inen and women in many piaces of Piedmont, "many of them having at least an hundred coames.". It lo ovident, therefore, that the art of atraw plaiting muat have arrived at great perfection upward of two centurioa sinee; but it doee not appear to have boen foilowed in England for more than 70 or 80 years, as it is within the remembrance of some of the old inhabitants of the straw distriets, now allive, that the wivos and daughters of the farmers ased to plait straw for makiog their own bonnata, before atraw-plalting became eatablished as a manufaeture. In fact, the cuatom, amsong the women of Engiand, of weating bonnets, is comparatively modarn. It is acarcely 100 years aince "hoode and pinaera", were generally worn, and it was only the ladies of quality who wore emali silk hata. See Malcolm's Manneri and Customs.
Hatoh, in mining, an opening into a mine, or in search of one. The term hatches is also applied to the earthen dams used in Cornwall to prevent the water that issues from the atreum-worka and tin-washee from running into the freah rivera. Hatch, or hatches, properiy the grate or frame of croma-bars laid over a ship's deck, now denominated "hatch-bars." The Ild or cover of a hetohway is also called hatchen. Hatch is sonvotines appiied to the opening in the ship'a deck; but this is properiy called the hatchway.
Fatohway, a square or oblong opening in the deck of a ahip, affording a pasaage into the hold, or from one deck to another. Hatcliway is also applied to the pasage through a falling door in the top of a house. In ahipe, tha main-hatehwuy la placed before the mainmast, and is the largeat in tha ahlp; the fore-
of the forecastle; and the after-hatchray between the mainmant and the miason.

EV ' $\downarrow$, the sen term for puling unon a rope direotly. To $A$ :w the wind, to bring a ahlp to sall clowe, by the wind after runolug in some other direction.

EIavana, or Eiavannah, on the Dorth coast of the noble island of Cuba, of which it if the ecpital, the Moro castio being according to Hymbolde, in lat. $28^{\circ}$ $8^{\prime} 15^{\prime \prime}$ N., long. $82^{\circ} 22^{\prime} 45^{\prime \prime}$ W. Whe pepulation of the city and suburbs is sadd to be (1851), Ittele short of 200,000 . In 1827, the resident population amounted to 94,023 ; via., 40,621 whites, 8,215 free colored, 15,847 free blacks, 1,010 colored slaves, and 22,830 black slaves, The port of Havana is the finent in the Weat Indiea, or, perhspa, in the isorld. The entrance is narrow, but the water is deep, without, bar or obstruction of any sort, and within it expands into a magnifcent bay, capable of accommodating $\mathbf{1 0 0 0}$ large shipe ; veasela of the greateat draught of weter coming ciose to the quays. The oity lies along the antrance to, and on the west alde of, the bay.

From it poaition, which commanda both iniete to the Gulf of Mexico, its great strength, and excellent harbor, Ilavana is, in a palitical point of viow, by far the most important maritime atation In the Weat Indies. As a commercial city, it aiso ranks in the firat class; being, in this respect, second to none in the New World, New York only exceptod. For á long period, Havana engroased almest the whole forelgn trade of Cuba; but aince the relaxation of the old colonial aybtem, varioua ports, auch, for instance, os Mutanzas, that were hardly known 30 years ago, have become place of sreat commercial importance. The rapid extension of the commerce of Ifavens is, therafore, entirely to be ascribed to the freedom it now enjoys, and to the great increase of wealth and population in the city, and gezarally throughout the island.


The suburb Regla is on the opposite alde. The Moro and Punta castles, the former on the east, and the latter on the wert alde of the entrance of the harbor, are etrongly fertified, as is the entire eity; the citadel ja also a place of great strength; the fortiflentions have been erected on such of the neighboring heights as command the eity or port. The arsenal and dockyand lie toward the western angle of the bay, to the south of the city. In the city, the strects are narrow, inconvenient, and filthy; but in the aul)urbs, now as extenaive as the city, they are wider and hetter laid ont. Latterly, too, the pollee and cleanliness of all parts of the town have been materially improved.

The advance of Cuha, during the last half century, has leen very great; though not more, perhaps, than might have licen expected, from its natural advantages, at least since it a ports were freely opened to forelgners in 1800. It is at once the largest ant the best situated of the Went India Islands. It is about 605 miles in leagth; but its breaith from north to south nowhere exceeds 117 miles, and is in many places much less. Its total aren, exeluslve of that of the numerous keys and Isiands attached to it, is about 33,000 square miles. The climnte is, generally apenking, delightful ; the refreshing sea-breezes jreventlig the heat from becoming excessive, and titting it for the growth of a vast variety of products. Ifurricanes, which are so destructive in Jamaica and the Carihinee Islunds, are here conparatively rate; and, when they do occur, far lese violent. The soil la of very varions qualities: there is a considernble extent of awnmpy marshes and rocks untit for any sort of cultivation; but there ls much soil that is very superior, and capnWe of affording the most luxuriant crops of sugar, coffee, maize, etc. The ancient policy of restricting trade to two or three prorts, caused all the population to congregate in their vicinity, neglecting the rest of the inland, and allowing some of the finest land and best situations for planting to remain moceupied. Ihit since a different and more liberal policy has been followed, poppulation has begun to extend ftaelf over ald the most fertile districts, wherever they are to be mot witn. Stili, however, only a very small proportion of the thest land of the iwhand is under cultivation, and its products and population might bo douhled or trehied with the ntmost facility. The flrat regular census of l'uba was tuken in 1755, when the whole resident popubation amounted to 170,370 souls. Since this period the increase has been as follows: $1791,272,140 ; 1817$, 551,998 ; and 1827, 704, 8477; exclusise of strmugers. We aubjoin a
Claseification of the popitation of Cuma accobino to the (enatxes or $1 / 75$ and 1 Hz .


Another cenaga was taken in 1812, accoriling to which the population is sala to amount to $1,007,620$, vi\%. : whites, 418,221 ; free colored, $1022, x i s$; and slaves, $4: 66,491$. Jut it is alleged that loth the mave and white population, expecially the former, in underrated in this census, and that the population ks, int prosent (14.il), little, if at all, whort of $1,430,000$ or $\cdot 1,4)_{1,1,40}$ ).
 paily to la ascribed to the continued importation of ninves fron. Africa. In mone years, since the peace of 18.5, as many as 40, (x) biacks are leelieved to lave been imported into Colm in a singlo year. Siain had indeed mgreed by treaty in $\mathbf{x}: 0$ to abolinth the tratio; but this treaty was liftie better than a devad letter, and it in onty since 1458 , when a more eflicieut treaty
with Spain was entered into that the trade has sus. tained any considerable dlminutlon. But though it he no longer unter the Spanish flag, it is continued, though to a much less extent, under other fligg. At present, hewever, not more than from 2000 to 3000 negroes are aupposed to be annually imported. llut though it were to be wished, as well for the interests of the island us of humanity, that the further importation of alaves should be put a atop to, we nre not of the number of those who think that it would be gool poliey rashly to agitate the queatlon of the emaneipation of slaves in Cuba. Their treatment in thst lalnad, as in all the other colonien of Spain, has alwiys been aingularly humane ; and the reaults of their emancipatien in Haytl and the llitiah islands have not been such ns to offer much inducement to the autiorities in Cuba to take up this difficult question. It may, no doubt, bo forced on their consideration; and the emancipation of so mnny slaves in their immedlate vicinity will materially increase the difficulty of majntaining the existing order of things. Under these circumstances, good polky would seem to suggest that timely provixion should the made for the gralual bringing alosut of that emancipation which is, perhaps, inevituble, coupling it, If that lo practienhle, with soms scheme for insuring the supply of some sort of compulsory lator.

Whatever opinion may be formed of slavery in the ubstract, we hellieve it would not be difficult to shew that it has contrlbuted, in ne orilinary degree, to the rapid advancement of Cuba. Induatry will always he proportioned to the strength of the motives by which it is occasioned; and in countries like Culn, of great natural fertility and under a tropical sun, where a hatf or more of the articles indispensable In Europ, vonll he useless, it were absurd to innagine that the inhabitnuts, supposing them to the free, should exhihlt the persevering industry of free Inborers in the temperate zone. 'The doles fur niente is in surh countries the summum borsm; and we helieve it will be found that the extensive cultivation of augar, and of most other commercinl puadnets within the tropics, depends on the maintename of slavery, or of compuisory labor of one kind or other. The preople of Engind may ho thet little ntiected, at least directly, tiy these censiderations, and may, therefore, on the principle of firt justitia, ruat colum, think themselves warranted in using their influence to enforce the abolition of alavery wherever it exists. Hut to the Cubans, Bramilians, the inhatitants of the southern States of dmerias, and a host of others, this question is of the last intportance. Were the slaves cmancipatet, not in liaw merely, but practically and in fact, the protahility is that neither Cubn ner llrazil would, in a dezen years, export a single ewt. of sugur. Why whow they do no any more than Ilaytif Tho blacks, were the really emancipated, would be mble to suppret themselves in that state in which they wish to live, without engaging in any thing like tho severe labor of sugar planting ; and under surla circumstances it wonlal be a contradiction to suphose they should engage in it. But it might be difficuit, perlaps, to ahow what fowl ronsequences would result from such a change, it isat all events clear that the commerec of the worh and the comforts of ald civilized nations would the serimuly impnired; mal it is by no means clear that the condjtion of the blacks would le sensibly, or at all, imsproved, Deniden shavea, the phanters employ lino lalarern, montiy of ais Indian mixod breed, who work for moderatu wages. These, however, ure little ungonged in the fieids, but in other branchers of labor, and jarticulariy in bringing mugar from the intoriar to tha shippiag poits. The articies principaily exported irom t'mban ure, sugar of the linest guailty, collen, cipper ore, tohnceo, leeswax, honey, molasmes, etc. Of these, the ilrst is deedediy the mowt important.

Hut, exclusive of the exporta from Llavama und Matanzar, considerable quantities sugar is shijaed from

## Cienfuegoe

 ports ; and puyment of per cent. to referred to 403,200,000 duction has porta may above 335,0 supposed to preduce masNext to table produ for a while there were 1 there were 7 2,067 , of at portation tro mmounted t averaged ar amounted to other ports umounted, i tetai export the subsequ
Statement

Countrie
Tinted States Sbain. Other Count Total., . .

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tulted Status South Ainerí

Thlted States Itritish I'revi

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| Nationatily. |
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The tulle Amprican, with the jer tire commer

| Years. | Ans |
| :---: | :---: |
| $1 \times 16$ | 12 |
| 1817 | 151 |
| 1,43 | 171 |
| 1-14 | $\underline{2}(4)$ |
| 140) | 214 |
| 15,1 | 811 |
| 14.5 | (i) |
| $1 \times 3$ | 804 |
| [054 | 8 |
| 158 | 8 |

I'his tuthe ploved in tr luring the tlvo to the both tire Sp ishest in rel ameunt of 1 has falien o uation whic trade is Fr

Clenfuegos, Nuevitas, Holguin, Manzanilla, and other ports; and a good deal la also shipped without entry or payment of duty. We may, therefore, asfely add 10 per cent. to the other quantitles for the omisslons now referred to ; which will make the total exporte in 1840, $408,200,000$ lbs, or 180,000 tons. Since then the production has conslderably increased ; and the total exports may at present (1856) be safely estimated at above 335,000 tons. The consumption of the island is suppoad to amount to about 20,000 , 80 that its total produce may be taken at from 350,000 to 360,000 tons.
Next to sugar, coffee was the most valuable vegetable production of Cubs. Its cultlvation incrensed, for a while, with unprecedented rapldity. In 1800, there were but 80 plantationa in the Island; in 1817, there were 779 ; and in 1827 , there were no fower than 2,067 , of at least 40,000 trees each I In 1804, the exportation from Ilavana was $1,250,000 \mathrm{Jbs}$; in 1809, it smounted to $8,000,000$ lus.; from 1815 to 1820 , it averaged annually $18,186,200 \mathrm{lls}$ s ; and in 1827 it amounted to $\mathbf{3 5}, 837,175 \mathrm{lls} .1$ The exports from the other ports increased with equal rapidity: They amounted, in 1827, to $14,202,406$ lbs.; making the total exportation for that year $00,039,581 \mathrm{lbs}$. llut the subsequent low prices, or rather, perhaps, the
greater attention pald to the culture of sugar, not only checked the further increase of the coffee plantntions, but made several of them be abandoned. More recently, however, the incroaso in the price of coffee and the low price of sugur has occasloned a reaction, and the culture of coffee is aguln extending. The exports of it in 1848 amounted to $17,354,425 \mathrm{ll} \mathrm{s}$. , to which 10 per cent. may be adiled for deficient entries.

Tobnceo differs much in quality: but the segars of Cuba are esteenod the finest in the world. (Sce Tobacco). Formerly, the culturg and sale of this important plant were monopolized by gevernment; but slnce 1821 , this munopoly has been wholly relinquished, there being no longer any restrictions either on the grewth or sale of the article. The cultivator pays a duty, which, however, is to a great extont evaded, of 1 per eent. al valorem upon his crop. In consequence of the freedom thas given to the business, the culture and exportation of tobacco ure both rapilly exteniling; so much so, that the vulue of the produce of tobaceo in 18.19 was estimated at ubove $5,000,000$ dollars, being considerably more than double the value of the cotice produced, Molusses, rum (talia), wax, and honey, are also largoly produced and form important articles of trade. Sce Cuna.



| Countrien. |  | 1855. | 1854. | 1853. |  | $1 \times 15$. | 1554. | 1853. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inited States....... Spain. . . . . . . . . Other Countrles. . | $\left.\begin{array}{l}\text { Fwouk, } \\ \text { Burrels. }\end{array}\right\}$ | 864 109,434 | $\begin{array}{r} 9,5118 \\ 117,010 \end{array}$ | $\begin{array}{r} 17 \% \\ 120,852 \end{array}$ | Rice. Quintals. $\{$ | $\begin{aligned} & 77,905 \\ & 99,1) .45 \\ & 49,741 \end{aligned}$ | $\begin{aligned} & 9.3695 \\ & 28,420 \\ & 1,474 \end{aligned}$ | $\begin{gathered} 60,099 \\ 25,458 \\ 7,092 \end{gathered}$ |
| Tolal. |  | 110,204 | 1240,327 | 121,927 |  | 201,596 | 123,592 | 115,439 |
| Vinfted Status. . . . . | Lumben. | 9,634 | 10,004 | 8.015 | Cobrisil, | $\begin{gathered} 19,24 t \\ 20,185 \end{gathered}$ | 18,199 | 21.249 |
| Ifritish I'rovinces.... | Sifert. | 1,273 | 859 | 109 | Quintals, | $\begin{aligned} & 29.185 \\ & 11.737 \end{aligned}$ | 24,171 9,259 | 24,981) |
| Europran........... |  |  |  |  | Qulntais. | 11.737 | 9,259 |  |
| Tutal. |  | 11,904 | 10,312 | 8,124 |  | 40,163 | 00,629 | 56,510 |
| I'nited Sintes....... south America. | $\begin{aligned} & \text { Lanti. } \\ & \text { Quintals. } \end{aligned}$ | 61,47\% | 65,530 | 15,69t) | Jenkfi nerg. \{ Quintsla. | 158,789 | 120,477 | 148,477 |
| Inited Stater........ | Ind, syookr. | 57,816 | 46,024 | 49,054 | llow shooks | 662,495 | 355,7.10 | $3 \times 1,192$ |
| Dritish Provinces.,.. | Number. |  |  |  | Number. | 30, 25.57 | 12,755 | 20,044 |
| Total |  | 57,319 | +40,026i | 4!, 05-1 |  | 607, ${ }^{2022}$ | 308,105 | - Hefi, $5 \times 4$ |
| Spalu.......... | Ori., Jars. . . . . | 865,429 | 177.798 | 190,90:3 | Wintr, PIpes... | 26,574 | 28,294 | 16,408 |

nimheh and tonnatie of baskes hileh rntehed the


| Nothitality. | $\left\lvert\, \begin{gathered} \text { No. of } \\ \text { vessel lo. } \end{gathered}\right.$ | ronnage | Nationally. |  | Ton |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Atueri | 7 Na | 299,127 |  | 12 | 3, (4,4) |
| spantsh | 848 | -7,207 | Breamen. | 14 | 4.499 |
| Ibitis | 92 | 80,4i8 | Jlanburg | 4 | 6tio |
| Frene | 111 | 29,067 | Other mation: | 42 | 9,819 |
| thelglan...... | 13 | 5,216 | Total. | 1,400 | 4*2, 687 |
| Dutch....... | 111 | 2,812 |  | , 200 | +2, |

The tulle which we mulijoln gives the amount of Ataerican, Spanish and linglish tomage employed, with the per centage which each comprises of the entire commere of the port :

| Years. | Aluerimal. | Pwret. | Staniah, | Mr 81 | lirinob. | Pri. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \times 15$ | 125, 514 | 88 | 16,0453 | 49 | (6,20t | 21 |
| 1417 | 151,174 | 40 | 19n) 468 | 27 | 72.255 | 19 |
| 1.49 | 170,817 | 41 | 107,7117 | 28 | in. 214 | 17 |
| $1-19$ | 2(k), 1019 | $41)$ | 110, 133 | 26 | 05, 274 | 10 |
| 150 | 2P5, 249 | St | 107, 2:10 | 20 | (th, 123 | 12 |
| 1*31 | 814, 116 | 60 | 114,21] | 24 | 52,3194 | 10 |
| 145\% ${ }^{1}$ | 102, 121) | 89 | 114.388 | 22 | 85, 127 | 11 |
| (14.3) | 810,184 | 67 | 111029 | 21 | :15,424 | 11 |
| 14.15 | 834, 894 | 60 | 111,823 | 20 | \$0, 506 | 11 |
| 145\% | 479,827 | 112 | 120,581 | 26 | 49,9043 | 11. |

Thin table shown that the American tonnage emploved in the liavana trime, las incremased threefold daring the last ten years, mid that its amount, relative to the entire tomuge, has nearly dombled, while buth the Spanish and linglish proportions lave diminished in relative lmportance, and even the ulisolute anount of liritish tonnage employed in this buanesa, has fallen off more than 25 per eent. 'The only other mation which onjoys any considerable share of this trade ls Franee. The Frendi tomuago in 18:16 was

7,213 or 225 per cent. of the whole, und in $1 \times 505,33$, 522 or $5 \frac{1}{2}$ per cent. It would appear from these facts, that the Caitel States are rapidly advancing toward a comparative monopoly of the currying trado from Havama.

The rates of freights for the list ten years have been subjeet to great thuetuation, rates to Now York varying from 4 rials in September 18.19, and August $1800^{\circ}$, to 19 rials in March $185 \cdot 1$. Murch a $\mid \Lambda_{p r i l}$ seem to lave been the most favorable mondis for American freights, und Fehruary and March for Linropena. Tho yearly avorages of freight show that While 1850 naw the rates at their highest point, 1855 fomm them depressed almost to the lowest. F m March 185.5, when the rate to Cowes and a market was Lis l2s. tid, nud to Now York 19 rinls, there was a regwhar and rapid fall, hardly thecked oven by the mpring monthas, until in Angint $\mathbf{1 8 5 5}$, tho rato to Cowes was ©1 15 s., thel to New lork, 4 rials, Aqthis point rates began to recover.
lhe price of sugar hans llactuated from 3 3-5 rials in August 18.8 , to 9 rials in Vecember 18505 . From March of last year when the price of brown sugar was $53-8$ rinas, there was a stendy rise to the emil of the year, be that the average price for the year, ti.6i5 riala, was higher tham for any of the previous years, itie lowest yearly average being 4.50 rials fur 18.18.

Moneya-One dollar $=8$ reals plate $=20$ reale vellin. Une dubhoon $=17$ dollars. The merchants reckon H4 dollars $=\mathbf{E 1 0 0}$, or 1 dollar $=4 \mathrm{~s}$, 6d, very mearly. There is an export duty of $1 \frac{1}{6}$ per cent. on gold, ani 24 per cent. on silver. It is a curious fact that no deactiption of puper money has ovor circulated in Cuba.

Weights and Measures.--One qnintal $=100$ lbs., or 4 arrohas of 25 ths.; 100 lba . Spanish $=101$ s the. Fnglish, or 46 kllogrammes. 108 varas $=100$ yards; 140 varas $=100$ French ells or aunes ; 81 varas $=100$ Brabant ells; 108 varas $=160$ Hamburg ells. 1 funegs $=3$ bushels nearly, or 100 lbs. Spanish. An arroba of wine or apirits $=4 \cdot 1$ Engliah wine gallona nearly. A hogshead of sugar $=1300$ ths. ; a bag of coffee $=$ 150 lbs. ; a hogshead of molasses = 110 gallons; a plpe of tafis or rum $=120$ gallons; and a bale of tobacco $=$ 100 liss.

The usual commission charged liy merchants on the sale of goods ia 5 per cent., with a del credere of $2 \frac{1}{2}$ per cent. If the sales are on credit and guarantied, and a further commission of $2 \frac{1}{2}$ per cent. for the returns, whether ln bills or produce. On purchases the commission la $2 \frac{1}{3}$ per cent., and a further $2 \frac{1}{j}$ per cent. if drawn for $\ln$ bills of exchange. For procuring frelght 5 per cent. is charged, and $2 \frac{1}{2}$ for insuring the amount. For advoncea of money the rute is 5 per cent. when no other commission is chargeable. Hili businesa is done at varioua rates, from 1 to 24 per cent. according to its magnitude. These are the rates of the foreign houses; those of the Spanish and Creole merchants are generally higher. There is no olistacle whatever to the establlshment of forelgners as merchants in the island. The law says that those who are naturalized in Spain may freely carry on trade with the same rights and obligationa as the natives of the kloglom, and that those whe have not been naturalized, or have a legal domiciie, may atill carry on traie under the regulations stipulated in the treaties In forre between the respective governments ; and in default of such conventional regulations, the same privileges are to be conceded as those enjoyed by Spaniarils carrying on trade in the country of which anch foreigners are natives. In practice, this inat condition is not much attended to; as forelgners aro allowed to estabilish themselves as merchants without any inguiry as to the rights and privileges enjoyed by Spaniards in the country they come from. As to manufucturers and mechanics, the only difficulty that can arise regards their religios. On entering the island every stranger is required to find security ln the following terma: "I ain responsiblo and become aucurity in every ease for the peraon and conduct of A. B., arrived from (C, In the shij: D., binding myself to present hlm if called on hy the government, and to conduct him at my expense to any place that may he designated." This security is easily obtained, ani, in fact, encouragement la given to mechanles, and white peoplo of all classes to mettie In the island. After ianding it is only necessary to ajply for a letter of tomicile, nul to present a certficate that the applicant is of a respectabie character, and profexses the loman Catholis religion. Free colored people, however, by a royal order of the 12th March, 1837, are prohibited fromi landing under any pretense whatever ; and so rigorousiy is this omler enforced, that such persons, though arting as seamen, are, on their arrivai, taken out of the vessel In which they have come, and are kept in eustomy until her departure, when they are compelied to proceed again on boarl and leave the inland. Tise bushess of a broker is oxerised uniter a royal license, and no foreigner is eligible to the oflice unleas naturaliged in the firm pre. scribed by law. In every commerehai town a rertaln number only in ailowed, corresponding with the jeprilation and trade of the place. In the great citles, the busineas of merchant is often combined with that of planter; and sometines, also, the importing merchant keeps a shup or atore, where he selin bis goods liy retail. The foreign merchants are generaily regarled as transient visitors, who go there for the jurpone of accunulating such a fortune as may enable them to live with some degree of comfort in their own country. As a clasa they are not conslidered wealthy, but they are almost all in the fuii enjoyment of credit. The
mercantlle capital, as well as the proprietary wealth of the idland, may be anid to be concentrated in the hands of the Creoles. When the emigrents from the Peninaula make fortunes in the island, they seldom think of returning to Europe. See Cuba.

Exaven. (Germ. hafen.) The mame an harbor. See article Harbor.

Eavre, or Eavre de Grace, a commercial and strongly-fortified sea-port town of Frence, on the English Cisannel, near the mouth of the Seine, on its northern bank, lat. $49^{\circ} 20^{\prime} 14^{\prime \prime}$ N., long. $0^{\circ} 66^{\prime} 38^{\prime \prime}$ E. Populatlon, in $1851,28,984$, to which may be added 5,000 or 6,000 more for the crewa of the shipping constantly in the port. It was a aaying of Na poleon that "Paria, Rouen, Le IIavre, ne forment qu'une aeule ville, dont la Seine est la grande rue." Havre boing, In fact, the sea-port of Paris, most of the colonlal and foreign products destined for its consumption are imported thither. Nearly double the quantity of goods, estimnted by welght, is annually Imported at Marseillen; but the total value of the imports at Havre amounts very nearly to that of those at the former port. The principal tmports are cotton, sugar, coffee, Ulnen threal and linen gools, rice, indigo, tobacco, hiden, dyewools, spices, drugs, timber, iron, tin, dried tish, etc. : grain and flour are nometimes imported and sometimes exporteal. The priacipal exprorts are silka, woolen and cotton atuffs, lace, gloves, and shoes, trinkets, perfumery, champagne and other wines, brandy, glase, furniture, books, etc.

The Harbor, which is the best and most accessible on this part of the French coast, consints of $\mathbf{3}$ thasing separated from each other and from the outer port ly 4 locks, and capable of accommodating about 450 shipis. A large body of water being retained by a sluice, and discharged at elbo tide, clears the entrance to the harbor and prevents the accumulation of tifth, sand "te. Caje de la lleve, forming the northern extremity of the Seine, lies N.N.W. from Havre, dlstant about $2 \frac{1}{3}$ miles. It is elevated 390 fect above the level of the sea, and is aurmounted by 2 light-houses 50 feet high. These, which are 325 feet apart, exhibit powerful fixel iights. There is also a brilliant harbor light at the entrance to the port, on the extremity of the western jetty. Ilavre has 2 roadsteals. 'The greater or out road is about a league from the port, and rather more thas $\frac{1}{2}$ leagho W.S.W. from Cape do la lleve; the little or inmer road is about $\frac{1}{2}$ league from the port, and ahout \& of mile S.S.E. from Cape de la Ieve. They sre scparated by the aand bank calied leclat; between which and the bank called Les Hautes de la Rade is the north-west pasage to the port. The Hoc, or sonthern passage, lies between the last mentioned bauk and that of Amfar. In the great road there is from 6 to 71 fatioms water at ebls; and in the littie, from 3 to 37 . Jarge ships always lie in the former. The rise of the tide is from 22 to 27 feet : and by taking advuntage of it, the largest class of merchantmen enter the port. Tho water in the inarbor does not liegin perceptilly to subside till about 3 hours after high water-a peculiarity ascribed to the current down the Seine across the entrance to the harbor being suaticiently powerful to dam up for a whilio the water in the latter. Large tlecta, takime advantage of this circunstance, are abie to leave the port in a sinkle tide, and get to sea, even though the wind shoud be unfavorable, See Han af harre, pubilished by Laurie; Annunire du Commerce Naritime; Coulier sur lis Jhares, p. 69, etc. The Chamber of Cummerie of IIavre have recentiy pubilisied the following information and instructions for the use of vessels frequenting the port :
chive buoya have been moored in the ahailows Ruvin, under the dexignation of the Bauc du i'rechat, and Ilauten de in Hade.
"'Thene buoys are similar in form, lut of ditlerent colors, viz.: The tinst to the northward lis white; the
second, whit the fourth is "Vessels of at least il buoys, whleh one hour and after ebl; a tance of five an from the r shallowest p may at all ho passage, com two northern
"All vesse bound into th for the white ing it a little then atand to never to come lose sight of house on Cape western pler jight-houses o ship may be $t$
" Ibesides $t$ lesser dimens the inner roud W. of the no dranght of wa the roul, shou ons cable's len
Most part of tined for the coasting trade as is proved 1 soaps, and othe instead of leei conting vesse ers and partly are tuwed by ly horsea to $P$ aise very exte about 800 shlip sailing packet New York, Ne y means of Southampton, busins are too largest steame main in the ou winds. Indee the proper ace trule of which have been un belonged to th atiling vessels and 32 steame custems dutie franes, had in The lifineys, the same as $t$ see artheles Jho AxbMe.saunt

Pilutage,-1 lat 100 tons: the pilot to be the port the from 9 to :10 fr
lont Chary in dove ; 37t 50 centimes if bor. Salvage Tomuage do. $6 t$ for lights, buof Ballaat teli imea per ton The ton of el
second, white with a blisek top; the third is black; the fourth ls black with a white top; the fifth is red.
"Veasela must always come to anchor at a distance of at least Ilve cables' length outside the line of these buoys, which they may not pass without dunger before one hour and a half prior to high water, or four hours after ebb; and they must at all times pass at a distance of five cables' length from the black as well as from the red buoy, both of whleh are moored on the shallowest parts of these banks. Nevertheless ships may at all hours of the tide frequent the north-western passage, comprised wetween Cape La Heve and the two northernmost buoys.
"All vessels usiag the north-western pasange, and bound into the inner roadstead (Petit Rade), must steer for the white buoy, the furthest north, and after leaving it a little distance on the starboard hand, should then stand toward the second white buoy, taking care never to come ao close to the shore as altogether to lose sight of the lantern of the northernmost lighthouse on Cape La lleve. When the light of the northwestern pier head hears by compass S.E., and the light-houses on the Ileve bear by compass N.N.E., the ship may be broaght to an anchor.
"Besides the five buoys herein described, one of lesser dianensions has been moored on the shallows of the inner roadstead, at about five cables' length W.N. W. of the north-west pier head. Vessels of light drabght of water coming to an anchor in that part of the road, should give this buoy an othing of ut least one calle's length."

Most part of the goods imported into Inavre are destined for the intermal consumption of Frunce. 'The coasting trade has increased very largely of late years, as is proved ty the great increase of French wines, soaps, and other produce imported at laris from llavre, instead of being sent to the cupital by land. The coasting vessels transfer their cargoes partly to steamers and partly to large barges, called ehalimels, which are towed by stean tugs as far as Rouen, and thence by horsea to Paris. The foreign trade of the port is also very extensive. There annually enter the port sbout 800 ships from ports out of Europe. Llnes of sailing packets are established between Hayre and New York, New Orlenns, etc. A regular intercourse by means of stean packets is kept up with London, Southampton, and other ports. The entrances to the basias are too narrow to almit the passage of the largest steamers, which have, in consequence, to remain in the outer port imperfectly sheltered from the winds. Indeed the port ls ut present inadequate to the proper accommodation of the great and growing trude of which it is the centre, and extensive works have leen undertaken for its improvement. There belonged to the port, on the 31 st Decentier, 1851, 368 sailing vessels of the aggregato burden of 71,363 tons, and 32 stemuors, Hggregate burilen 4,259 tons. The custems duties which in 1837 produced $18,123,993$ franes, had increasod in 1851 to $26,164,000$ fruncs. The Moneys, Weights, and Mensurvs of llavre are the same as these of the rest of Frame; for which, secartleles llonneavi, Coins, Funce, and Weigirts and Measules.
pilutage.-From the outer roadstead 28 fruncs per 1st 100 tona; 25 frumes $2 d$ do.; 24 frumes idd do. ; and the pilat to be fed. If the vessel be boarded nearer the port tho charge is lessened necordingly. Bonts, from 9 to 30 francs according to the dintance.

Piert Charges.-With coals, 75 per cent. per ton in doek; 371 do. in harbor. General carpo, 2 frunes 50 centimes if in lock; 1 frune 15 centimes if in harbor. Salvage dues, 5 centimes, and 10 pur eront. Tomage do. 66 centimes and 10 per cent. No charge for lights, buoys, or heacons.

Rallast delivered nlongaide.-Clem, 1 franc 95 centimes per ton; common do. 1 franc 14 centimes do. The ton of clean ballast may be estimated to weigh
sbout 15 or 16 cwt . The ton' of common ballast, about 20 cwt.; a cart marked $\frac{1}{2}$ metre ls one ton; a cart marked 1 metre is two tons. Cost of removal of ballast landed frem ship, 64 centimes per ten, without distinction of quality.

Harbor Rules.-1. It ls forbidden to have fire, or lighted candle, or to amoke on board ships in the harbor.
2. Vessels coming into and lying in the docks must have the lower and topyards topped up, jib-booms and martingales rigged In, and anchors taken in. The wharf alongside the vessel must be swept every evening.
3. No gunpewder (whatever may be the quantity), is allowed to remain on beard, and muat be deposited in the gunpowder warehouse.
4. All foreign sailors found away from their ships after 100 'clock at night, from the 1st of April to the 1st of October, and after 9 o'elock from the 1st of October to the 1st of April, shull be conveyed to prison and fined. Suilors are forbidden to wear sheathing knives ashore.
5. The manifest of the cargo, signed by the captain, must be exhibited to and signed by the custom-house officers before being taken ashore. The vessel must be reported at the custom-house within 24 hours after urrival.
6. Tobucco, snuff, segars loose or in boxes, belonging to the captain, oflicers, and mariners, to be declared as exactly as possible. All the tobaceo, snuff, and segars declared or not declared, to be exlibited to the custom-heuse officers, when they come and make the visit on board. After such exhibition, if any quantlty of tobacco and segars be found on hoard, it shall be seized, the captain shall be condemned to pay a tine which may be as high as 500 franes, und the ship shall be contiscated.

## Poat Chargra.

Plotage la......... 28 fr . for the 1 st hundred tons.
.......... 25 fr . for the 2 d hundred tons,
Boats of help in..... 24 per cont for the hrad pilot.
Boats of help in..... 24 fr. outstle the banks.
12 fr . outside the piers.
9 fr. in the harbor.
Welghting anchors. . ${ }_{2}^{2} 80$ per onch cwt.
Welghing chatins... 050 and one thitrd more if there be no huoy ropes.
Itsulers. ............. 080 per man, besides i fr. 50 c . for the hawsers.
Brliges. . . . . . . . . . 8 6i for each brtigo.
Bellast mishipped.. 064 per half inctre.
shippeth.... 1 lit " " for mand.
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Beard of health..... \& 50 for a vassel of 50 tons'
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Enrope. measurument innhove.
Tonnage dues....... 0601 per ton and 10 for vessels with our cont conals only and por ton harbar $\begin{aligned} & \text { dues. }\end{aligned} \begin{aligned} & \text { 1-2uth of their } \\ & \text { cargoes with }\end{aligned}$ dues.
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 WITII THR ANNUAL SALES THEBROF，AND BTOOK ON



| Yearn． | limports． | Sulen， | Stock． |
| :---: | :---: | :---: | :---: |
| 1854 | 89，879，805 | 80，164， 570 | 8，781，775 |
| 1551 | 20，571，840 | 26， 940,940 | 8，500，050 |
| 1880 | 94，401，980 | 26，165，270 | 3，860， 500 |
| 1849 | 25，1214，190 | $25,825,680$ | 5，628，840 |
| 1848 | 20，685，010 | 19，652，210 | 5，135，300 |
| 1817 | 26，880，900 | 24，528，500 | 4，002，000 |
| 1846 | 17，000，000 | 18，800，000 | 2，200，010 |
| 1845 | 18，850，000 | 18，830，000 | $8,000,000$ |
| 1844 | 28，600，090 | 22，100，000 | 8，600，000 |
| 1848 | 16，800，000 | 1I，100，000 | 8， 000,000 |
| 1N42 | 19，250，090 | 20，500，000 | $8,800,000$ |
| 1841 | 17，650，000 | 15，200，000 | $4,5514,001$ |
| 1840 | 28， 000,000 | 28，250，000 | 2，100，000 |
| 1839 | 14，600，000 | 15，550，000 | 1，750，000 |
| 1838 | 19，720，000 | 20，044，000 | 2，700，000 |
| 1887. | 18．889，000 | 20，410，809 | 8，024，000 |
| 1896 | 17，726，545 | 15，171，545 | $4,875,000$ |
| 1835 | 15，440，106 | 16，920，000 | 2，820，000 |
| 1884 | 15，500， 000 | 18，980，000 | 8，700，000 |
| 1839 | 14，800， Mm | $15,3 \% 0,000$ | 4，000，000 |
| 1882 | 16，（8） $1,9 \mathrm{MM})$ | 18， $65010,4 \mathrm{MO}$ | $5,000,000$ |
| 1881 | 8，000， 0100 | 9，0100， 000 | 1，810，000 |
| $15 \% 3$ | 18，300， 1000 | 13．001，09\％ | 2，800，000 |
| 1929 | 18，60，900 | 13.980000 | 2，500，000 |
| 18\％ | 16， 600,010 | 18，800，000 | 8，800，000 |

Accuunt of the Annual．imports of Cotton into llavar， With the AnNUAb．SAlDe tigneof，AND thr．Stocke on IIann on tue 81at Drcevieg in eact Yeab frox


| Ypara． 1 Importa． |  | Eales，I Sterk．｜Ypara． |  |  | Importa． 1 | Salos． | Stosk． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Imates． |  |  |  |  |  | Bales． |
| 1852 | 898，001 | 998，71 | 24，840 | 1888 | 295，246 | 292，746 | 35， 5001 |
| 1851 | 301，975 | 228，7\％ | 22，600 | 1837 | 248， 549 | 261．830 | 83，000 |
| 1850 | 812，827 | 308，427 | 42，400 | 1836 | 262，086 | 283，546 | 45，400 |
| 1849 | 307．17 | 848，17\％ | 88,000 | 1885 | 214,500 | 217．749 | 18，900 |
| 1848 | 237，985 | 260,485 | 19，040 | 1834 | 201，419， | 218.419 | 22，006） |
| 1847 | 267， 5 M ${ }^{\text {a }}$ | 2）1，8m | 41，500 | 1833 | 210，593 | 198，503 | 84，010 |
| 1846 | 825，985 | 850，435 | 25，000． | 1882 | 184，228 | 145，22 | 17，009 |
| 1845 | 881，287 | 384，25I | $0 \times 000$ | 1481 | 157，501 | 164,501 | 18，400 |
| 1844 | 279，6is 1 | 826，651 | 53，000 | 1－30 | 119,156 | 165，646 | 45，000） |
| 1548 | 825,965 | 838，96\％ | 1100,000 | 1829 | 175，980 | 155，430 | 17，500 |
| 1842 | 870，427 | 304， 327 | 108，000 | 1425 | 114.785 | 101，2435 | 27，（m6） |
| 1441 | 857， 127 | 844，027 | 96，3m0 | 1827 | 109，274 | 168.274 | 40，506） |
| 1840 | 876156 | 806，150 | 77，010 | 1826 | 214，045 | 153，435 | 41，600 |
| ： 589 | 265，243 | 242，043 | 57，001） |  |  |  |  |

Account of tha AnNuAL．Imports of Atoab into llavara Witil the AnNeal ©alips tukakoy，anis the Ntocks CN IIANB on tif 8lat Drekmaca in gacia ligak FHOM 1052 Tit 1525 ，But I INOLEMIVF，

| Vesrs． | Inporta． | Salpa． | Sales． | Yeara， | Jmpurts． | Salea． | Stuct． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 117d |  |  |  |  |  |
| $1 \times 52$ | 85，187 | 24.127 | 12，400 | 1889 | 46.380 | 51， 800 | 1.5100 |
| 1851 | 25.808 | 27，1094 | 1，409 | 1894 | 83，894 | 47,240 | 7，（140） |
| 10，${ }^{\text {a }}$ | 21，740 | 27，130 | 2490 | 188I | 81，7is ${ }^{\text {a }}$ | 42，451 | Not |
| 1549 | 86.420 | 41，720） | 5,710 | 1831 | 45，293 | 42， 5 T | 11，P4W |
| 14.48 | 38，06\％ | 29．14i\％ | 11，000） | 153\％ | 80， 049 | 64．549 | 9,640 |
| 147 | 67，450 | 64.3501 | 7，14ค） | 1824 | 60.484 | 76，4 30 | 32，4M， 0 |
| 1846 | 88，000 | 88， 50 | 2，6mor | 1483 | 81,800 | 51，8101 | 8,1606 |
| 1845 | 66．590 | 6x，5ino | 8.010 | 1882 | 46， 16 CW$)$ | 57.1010 | 4．000） |
| 1844 | 49，600 | 88,600 | 5，000 | 1841 | 54.450 | 36， $4^{(N 1}$ | 14，0 0 H |
| 1548 | \＄4，200 | 54.900 | 14,000 | 1880 | 49.820 | 44．221） | 12．6m\％ |
|  | 64，0mm |  | 14，100 | 1829 | 60，560 | 04，5040 | 7， $1 \times 41$ |
| 1841 | 64，760 | $5: .860$ | 14.460 | 1824 | 60，760 | 62，2\％0 | 10，040 |
| 1840 | 81，900） | 46.901 | 0，500 |  |  |  |  |

Prices of Commoditics，Ihty paid and in Bonl，Itu－ ties，Tares，Commerciul Allorances，etc．－These impert－ ant particulars may lie learned liy the inmpection of the suhjoined price current for the 25 th of Mny，185．3．The duties on some of the artleles metitioned in it will， mont probalily，at no very distant perion，be varied． Hut the other particulara embodied in it will slwayn render it an important document．

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Duty on gross weight 1 yellow，by French vessela from Eu－ opean portg，of centw ：from alsowhere， $42-5$ cent 8 Nate $A$ ．

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Fr， $\mathrm{Cl}_{1} \mathrm{Fr}_{0}$ 0 0－0 0
$425-50$ black，ditto．．．．．．．．．．．．．． 0 0－ 0 0 4 75－ $5 \%$ Duty on nett welght ：by Freash vessels from places out of Europs， 27 t cent．：from elsawhere， 85 cent．Jly forefgn vessels， 821 cent．See Nate $A$ ．
Cuatom－house tare：in casks， 12 per cent， In seroons， 2 per cent．
Cemmerclal tare：real．
Cocon Caraceas，per kil． $\qquad$ $\begin{array}{llll}0 & 0 & 0 & 0\end{array}$
8t．Donilngo
and jar
$\begin{array}{lll}0-0 & 0 \\ 0-8 & 0\end{array}$
0 90－12
Maranbsm an

Duty en nett welght：by French vesaels fram the French colonien， 22 cent．；fcons conntrica weat af Cupe IIorn， 27 t cent．；from Europenn perts， 52$\}$ eent；from elsewhere， $30 \%$
 Note $A$ ．
Custom－heune lare：en casks， 12 per cent．；on haga， 3 per cent．
Commerclal tare：on easks，real ；on bags， 2 per cent． Cuffee，per $\$ k l l$ ．

| St．Domlugo，from ordl－$\}$ nary to 0ne． $\qquad$ | 0 0－0 0 | 0 b 3 |
| :---: | :---: | :---: |
| 1torto lico．．．．．．．．．．．．．．．．．． | $0-00$ | \％ |
| Ilavann，frem | 0 0－0 0 | 0 55－ 0 On |
| Laguyra nnd Port Ca | 0 0－0 0 | $0 \times 5 \mathrm{CO}$ |
| Ho，erdlna | $0-10$ | 0 50－ 070 |
|  | 2－115 | 0 0－0 |
| teylon， | $12-17$ | 0 0－ |
| Do．plantatio | $112-120$ | 0 O |
| Prandg | I－112 | 0 0－0 |
| Mocha | $120-135$ | 0 0－0 |

Duty on nett welght：by French vessels from tho Enst In． dien． 529.10 cent，frem European perta，bit cent：from clse where， $58 \%$ cent．liy formign vessela from sny port what－ ever，$b \pi$ cent． 8 ce Note $\Lambda$ ．

Custom－hause tara：on canks， 12 per cent．；on bags， 8 per cent．
Vommercial tare：on casks，real；an baga， 2 per cent．；ou Mocha coffeo the tare runa from $4+$ to $12+\mathrm{kil}$ ．upon baleg of T5 19200 klls

Duty an grona welght t by French vestels from Ei．ropean ports，I 1.10 cent．，from elsewhere， $11-20$ eent．Isy foritm rexsely fronı any port whatever， $1 \mathbf{1 3 - 2 0}$ centa．Sce Excepp－ lions at Nute：$A$
tommerclal tare：real．
Cutton，we $\$ \mathrm{kil}$ ．


1）uty on neft welght：on long or ahort staple，liy Fremeh renull from the French colonlea， $2 f$ cent．：from Furopean porin（Turkey exceptevl），16t cent．：from the Faat Indlew and comitries beyond chape Ilorn，of cent．；from other conntries， 11 cent．Jy forejgn vensels（excepl from Turkey）， $19 t$ conit． Ily Freneh vesmela from Turkey， 5 e cent．；by foreigu veso Mels fron Turkey， 13 3－5 cent．See Note A．
Custom－honse tare：on United States＇cotion， 6 per cont．； Ifrarll cotton， 4 per eeni．；on At．Itomingo，In balos， 5 per ernt．：on Cumann and f＇arawan， 7 kll，per meroon above fo kll．，nad 0 kil ．jwr mereoth，at \＄1）kll．and under．

 kli．，and If kil，upon pales under to kil．





llity uns senegal，gross welght：by firench veasein frons thenegal，of cent．；frim Europeran portr， 191 cent．；frutu elnewhere， 11 cent．Ity forefgn vuasela from any port what－ erer，llb cent．Sen Nisto $A$

Commercial taro；un caska，real：on bags，o per cent．
Jhity on eopal，groun welght per bo kili，t by French vesseds
 foreign vistein from any port whatever， 16 franch 60 rent． Nee Note A．

Commerclal tare：real，
Duty on ahall－lac，sett weight i by Fronch vesels fross the

Enat

## HAV

East Ind.es, 27.100 cent. ; from elsewhere, 84 cent. By forlgn veasels from any port whatevar, 8 \& cent. See Note $\mathbf{A}$. Commercial tare: real.

Hides, per kil.
Fr, Duty Patd.

Pernambuco a
dry-salted and Rahin, do Janalra
Grithamens and Caraco..
Carthagens and Caracesa.,
yew Orleane wit anlted.... 0
vensels frons Europen porth, $5 \ddagger$ cent. ; from clscwhere 2$\}$ cent. By forelgn vessels from any port whatever, 8 f cent. 800 Note $A$

Five bull hidea areadmltted among 100 hides without allowance, and 1 kll . Is allowed for every bull hldo above that number to the extent of 12 ; whon more than 12 the allowance is condlitonal.
11ops, American, 1851.......... 262 60- 0 0 0 0 0 - 0
Iuty on nelt welght: by Fronch veshels from any port whitever, 38 franes per 50 kll . By forelgn veasels, 36 francs $2 \frac{1}{5}$ cent. Seo Noto A.

Commerclal tare: on bales, 2 per cont.
IIorse-jair per + kll.
lhenos Ayres, mixed..... $090-0115$ 0 0 0- 0 0 Itussia. . . . . . . ................ 0 ....... 0 0 0 0- 0
Duty on grosa welght : by Freneh vessels, 55-100 eent. By furcign vessels, 27 cent. Soo Noto A.

Commerclal taro: real.
Iodigo, per $\$ \mathbf{k l l}$.

| Bengal . . . . . . . . . . . . . . . . 0 0- 0 | 0 0- |
| :---: | :---: |
| auperfing vlolet and hlue.11 25-11 50 | 0 0- |
| mup'tine vlolet and purp. $1025-1050$ | 0 0- |
| fine vlolet and purple..... 9 75-10 0 | 0 (r- |
| frod vlolet.. . . . . . . . . . . . 3 25-9 50 | 0 O- |
| middlo volet. . . . . . . . . . . 7 75-8 8 | 0 O- |
| fine red................... 8 70- 0 | 0 0- |
| grood red................. 7 7 0-7 7 95 | 0 0- |
| good to finc copper ....... 625 - 075 | 0 0- |
| ordlnary to low copper... $580-025$ | 0 0- |
| Java . . . . . . . . . . . . . . . . . . . 7 7-11 75 | 0 O- |
| Kurpah . . . . . . . . . . . . . . . . . 0 . 80 | 0 |
| Madras ................... 4 50-6 75 | 0 0- |
| Manilla. . . . . . . . . . . . . . . . . 4 0- 6 n | 00 |
| Caricras. . . . . . . . . . . . . . . 4 4 0-7 0 | 0 O- |
| Gusteniala fores. . . . . . . . . . 6 75-7 $\mathbf{7 \%}_{5}$ | 0 0- |
| sohre sallente. . . . . . . . . . . . 6 25-0 0 50 | 0 0- |
| corieg. . . . . . . . . . . . . . 5 0- 575 | 0 O- |
| loary and low. . . . . . . . 45 - 45 |  | ordloary and low. . . . . . . . . . 4 25- 475

welght: by French vessela from pean porta, 1 franc 65 centw; from Manilla direet, 22 cent; from elsewhero, 1 franc 10 cent. lly forelgn vessele from any port whatever, 2 frumes 20 cent. See Excoptlons as Note $A$.

Custom-houre tare: on chents, casks, and seroons, renl, or st the opilion of the importer, 12 per cent. on chests or caska, athl 9 jer cent, on beroons.

Commercial lare: on caaks or cleata, real; on seroons of 100 to $1111 \mathrm{kll} ., 11 \mathrm{kll}$; on do. of 85 to $90 \mathrm{kll}, 10 \mathrm{kll}$ : on do. of 70 to $\mathrm{At} \mathrm{kll} ., 9 \mathrm{kil}$; on do. of 50 to $69 \mathrm{kll}, 7 \mathrm{kll}$. Allow. ance, 1 kil. per elost.
Lac-dye, per \& kll.
$30-810 \quad 0 \quad 0-0 \quad 0$
Huty on nelt woighl: by French vesacls from the Fart Indles, $13 /$ cond. ; from elaewhers, 414 cent. By forcign vessela from any pert whatever, 55 cent. Seo Exceptione at Note A. Commerchal and custom-house tare: real.
Lead, Amerlean, per 50 ktl. ..... . ......
$00-0 \quad 0$
Spanish and Itrilsh. .......25 0-08 0 0 0 0- 0 0 0
Duty on grons welght: by Frouch veruely from any port whatever, 2 franca ${ }^{5} 5$ eent. $13 y$ forelgn vessela, 8 francs 85 cent. See Note $A$.
1epper, Ilyht, per $\frac{1}{2}$ kli. $\qquad$ $072-07500000$ haif heave. ................ 0 78- th 80 o 0-0
Duty on netz welght: by Frenelt vessela from the Eas Indles, and from counties wont of ('ape liorn, 22 rent. : from elmewhore, if rents. Dy forelgn vensels from any port whatever, 5 T? cent. See Note $A$.

Custom-house lare: on bags, 5 per cent
Commercial taro: on alugle hage, 2 jeer cent.
1rmento, per \& kll.
Thinnica $\qquad$ $\begin{array}{llll}0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 5\end{array}$
$07 \%-075$ 0 54 00
Dity: by French vosens from the Eat Inullan, and from coantrles wewt of Cape llorn, 2.1$\}$ cent. ; from cisewisere, 491 cent. By forcign verrels, $03 \frac{1}{2}$ cons.

Tarea: ns fur pepper.
Quercliron, per tiok kil.
I'hlladelphla, lat sort........ $1180-1460 \quad 0 \quad 0-0 \quad 0$
Italtimore. . . . . . . . . . . . . . . . . . . in bonn 11 0 0
Duty on grose wolght : by Fronch veasols from Europesn
porta, 8 franes es cent. ifrom other countries, 8 franer 20 cent, By forelgn veatels from any port whatever, 4 franc 05 cent. Seo Noto A.

Cominorelal tare : 12 per cont, on casks; 2 per eent. on hags.

Duty on gross welght: by French vaseols from any port whatever, 11 cent; by forsign vessels, $121-10$ crats, See Ex ceptlone at Note A.
Commerclal tare: real.
Hee, Carollna, 1833, per $50 \mathrm{kIl} .23 \mathrm{50}-39 \mathrm{50} \quad 0 \quad 0-0$ Bengal, white. . . . . . . . . . . . .15 0 0-16 25 0 0 0- 0 Duty on groas welght: from Indla, by French vossele, cent. ; by forelgn vessels, 4 francs 05 cent. ; from elsewhere out of Europe, 1 franc $87+$ cent. ; from European ports, 3 fanca 50 cent.
Commerclal tare: 12 per cent. on casks, and 2 per cent. on bagen.
galtpotre, E. I., per 50 kll . $\qquad$ $\begin{array}{lllllll}0 & 0 & 0 & 0 & 30 & 0-87 & 0\end{array}$ Nitrate of roda $\qquad$ $0 \quad 0-0 \quad 0.2355-20 \quad 0$ Duty on gross waight: hy French vessely from Esat Indles or the South Soss, 55 vent.; from Enropesn ports, 11 cent. Ily forolgis veasels from any port whatever, 13 franes 76 cent. by forelgn vessels from countrles out of Europe, 4 franca 121 cent.

Commercial taro: 6 kll . per douhle bale of the cutomary form, for saltpałre. For nitrate of soda, 2 per centw, and 2 per cent. allowance for dampnesm of bsgs.
Skins, deer, dach................. 0 0- 0 0 0 0-10 0
Duty per 50 kil . on grose wolght: by French veasels from noy port whatever, 55 ceut. By foreign vessele, $00 t$ cent. Soe Nole $A$.
Speller, por 50 kil. . . . . . . . . . . . . 18 0-19 0
Duty on grose wolght : $5 \frac{1}{5}$ cents. per 00 kll .
Sugar, per 50 kil.

|  | $0-60$ | 84 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| IIavana, whlto............. 0 | $0-0$ | 83 | $0-34$ |  |
| yellow.... . . . . . . . . . . . . . 0 | 0-0 | 29 | 0-32 |  |
| brown. . . . . . . . . . . . . . . . . 0 | 0-0 | 23 | 0-28 |  |
| Porlo Itleo | 0-0 | 28 | $0-0$ |  |
| Brazll, white . . . . . . . . . . . 0 . | 0-0 | 29 | 0-31 |  |
| hrown and yellow . . . . . . . 0 | $0-0$ | 22 | $0 \rightarrow 28$ |  |
| Manilla.................... 0 | 0-0 | 23 | $0-28$ |  |

Duiy on nett welght: foreign eugara by French vesacls from the Esse Indies above type, 31 franca 35 cent.; at and under lype, 29 franes 70 cent.; from European poria, 8 france 30 cent. moro; from elsewhare, ahove the type, 88 francs ; at and under type, 81 francs 25 cent. per 50 kll .100. Included. Hy forelgn vessela above type, 41 francs 25 cent. : at and tuder type, 39 francs 6 cent. ; from everywhere, per 50 kil., 100 Included.

Custom-house tare: on chesls, 12 per cont.; on single bags, 2 per cent, ; on double bage, 4 per cent.
Commerclal tare: Havans and 8t. Yago choats, 13 per cent. ; liracll, 15 per cent. ; on casks, 15 per cent.; tlerces, 8 por cont. ; barrela, 10 per cent. $; 2$ per cent, on Brazil, and 8 per cent, on Manilla bage.
Tollow, Rneslan, per $30 \mathrm{kll} . . .$. . 00 0-04 0 0 0 0- 0

Duty on gross welght: by Fronch vessels from any port whatever, 11 francs, ily forelgn vassela, 14 franes 30 cent. See Note A .

Commercial tare: 12 por eent.
Terru Juponica, por 50 kil .
 Duly onl gross welght : by Fronch vessels from East Indies, bi cent. : from Europiean ports, 19 franca 80 eent. ; from eisewhero, 12 1-10. Isy foreign vessels, $27 \frac{1}{1}$ cent. Seu Note $A$.

Comnerclal tare: real.
Teas, I mperlal, per $\$$ kll.
.. 0
(inmpowilor
Yysunt.......
11 yaonkkln.
11yaonsklt
Sonchonig.
Pouchong $\qquad$ $00-00$

Hity on welt welght: by French vesseln from the East Indles, $82 t$ cent. ; from Chlna, 66 cent. from elsewhere, 2 franca 76 cent. Hy other vessela frotu any port whatever, 8 frunea 30 cent, seo Nolo $d$.

Custotn-house and comuerelni tare: renl.
Tin, siralt, und bance, p. 50 kll. 110 0-122 60
$00=00$
Britlah .............115 $0-100$
Suuth Amurlean. . . . . . . . . . . . 100 0- 110 o
Duty on gross woighl: by French vessoin from the Hust

Indiea, 64 cent. ; from elsewhere, 1 frane 10 cent. By frrelgn vemele frem any port whatever, 2 franes 20 cent. per. 30 kll , See Exceptionn at Note A.
Comnerelal tare 1 on caske, real.
Duty Pald.
Whalebonc, per \& kit.

Duty on gross welght : by French vessels from any port Whatever, 104 cent. $1 t y$ forcign vesselp, $10 f$ cent.
Commerclal tare: real. Atlerrance, 2 per cent. on niaba, Woods, per 50 kil.


Duty on gross weight: Braili, by Fronch vesmele from Earopean ports, 4 fraves 96 cent, from elsowhere, 2 france 75 cent. By foreign veswele, 6 franes 60 cent. Other dye-woora by French vestels from the Fredeh colonies, 44 cent.: frem Hurepenn ports, 2 franes 75 cent. ; trem elmewhero, 821 cent. Hy forelgn vesauls, 8 francs 30 cenl. See Note A. Allowance, 1 to 2 per cent.
fixtlanatoby Rewanks.--The above duties inchude the aurtax of 10 per centa ; the eustom-houso adnatia the real tare whenever the Importer denires it.

Note A.-The treatiea of rectprocity entered Into wilh the ocontries herenfter mentioned, Introduce the following deviations from the above rales of duty :

United States - The product of the United States, except that of the fieheries, direct from the United Btates In United Statef vessels, paya the same duty as if ímpurted hy Frenoh vessela from the l'ulted Stale:
Brazits and Mexico. -The produce of the Brarifa and Mexlco, Imported direct in national vesseda, enjoys atso the above privilege.

England.-The preduce of Africa, Asla, or Anerica, imported from any country whatever in British venseis, or from any port of the British domioioon in Eiurope ettiter in French or forelgn reseele can only be admitted in bond for re-espertstlon.

The mame reguiation is applicalite to all European produce (except that of Great Itritalu and ite peresessioen in Fiuropes) imported by Britala wessels from other ports than thowe of Great Britain or Ita ponensious in Europe.

The weikht of 50 kllogrammee is expal to $110+$ ponnde Fingilish, or 103 pounda English are equal to 55 bt-iOw kilogrammes, and the Cw . equal to $5070 \cdot \mathrm{j} 00$ kilogrammee.

Credit.-Four and a half noonthe, exception coffee, phmento, peppers, quicksilver, and clayed nugarg, which are sold at $3_{f}$ monthes, and wheal at $2_{1}$ montis.

China, and places bepond the Sumda Ialanda.-All naturai produce, augar ezcepted, imported direct, by French veswela, from countries altuated beyond the Straits and the Suoda Isiande, elther to the north of the 3d degree of northern latitule, or to the east of the lolith degree of eastern longitule, in admitted at four fifths of the lowent rates of duty of the tarif, the French oolonial duty ulone excepted.

Hawkers and Peddlerm. It la nut very easy to ilistinguish letween howkers and pedllers. Hoti are a mort of itinerant relall sealers, who carry about their warea from place to place; but the former are supposed to carry on buniness on a larger scale than the latter.

Hawse. The jurt of the lown elose to the cubles. The cables pass through the harar-holes, which are made In the timbers, and in the harse-pirce outnide. When the shigs has two anchors down, and the cohber diverge from each other, the hawm is mill to lae elear: when cossed by the whip turnitg half round, there is a eross in the hawse. Another cross makes ant ellowe; then a mund furn: In the laxt two cases the lawse in nuid to he fiowl. The procens of disengaging the eable is called rlearing haver. The danger of a fonl liawse is, that if it rames on to blow tho cubter can not be veered from their friction againat earlh other. Thls term also denotes any sinall distanee a-head of $n$ ship, or between her head and the anchors, employed to ride her; as, a vessel mails athwart the hawse, or anchuns in the hawse of another vesael.

Freshening hawee is veering out a Ilttle cable to expose n new surface to the friction in the hawse-hole, or across the cutwater.

Athwart hawse implies across the bews of a vessel at anehor.

Hawse-holes, the holes in the bows of a shlp on each alde of the stens, throngh which the cables piss.

Eawser, a large rope, intermediate hetween the cable und tow-line of the ship to which it helongs, It is used for various purposes, as warping for a mpring, etc.

Hay (Ger, Hew; Du. Hovi; Er, Foin; It, Fieno; Sp, Heno; Lat. Fannon), any kind of graya, cut and irled for the food of eattle. The great olijact i.l preparing grass for hay 3 to preserve the green color of the grass as much us porsible, and to have it juicy, fresh, anil free from all sorts of mastlners. The hay and fodiler erops, including the dried Whies, khacks, and tops of Indian corn, as well as of the sueculent corn plante and other green forage, eultivated solely for soiting, or for drying into folder, chopped witraw, the hunlm of heans, pens, potatues, etc., which are hy no means ineonsliderable, are far the mont valuable of any in the United States. The culture of hay is at present principally confined to the eastern, mildle, and western States, from which the southern markets are mainly supplied in the form of pressed packages or bules. In the earlier settlement of the Atlantic States north of Virginia, the cattle of the Inhabitants were chiefly dependent upon the wild, indlgenous grassessuch ua the white clover, herd's griass (red top), wire grans, Indian grass (andropegan), and the coarser lierloage of salt marshes, beaver meadows, and wher swampy grounds. In the middle and suthern colnulew they foraged upon tho wild heringe of the eomintry, in the same manner as the existing cattle for on the huffaly grase of Loulsiann, Texar, New Mexion, etc., us well as on the laver loughs, and fruit of trees. The prinelpal indigenous grassea which have been sticcessfully cultivated in the United States are-the kirntueky blue grass, the red top (herd's grass of l'enisylvania), the white clover, und the fowl meadow (or bird graan), the latter of whieh formerly grew in abundance around Massachusetis liay, and was much relished by the cows, horses, hogs, and goats of the early settlers, und upon which they thrlved.

I'uodection of liay in the Uniten states.


Among the forvign cultivated grasses In this come try, the 'Timothy (herd's grass of New lingland),
ranks name land, M and is parts of vatlon, commor is dillge cise peri authorit John $B$ Kevolut
ton, it w ter conir and 180 indizeno cult la ported se been onl which hn chard gre afforls a t sward for lany it is preceding the hay tons; of 1 $3,590,4701$
Hayti, one of the Islands, e miles, and between la $6 x^{\circ}$ Itiphlande with which The countr larils, who the lirench. these two 1 the l'ederna ling directlo The countr French, whi part of the country was tivision beit breadth, of of mountain tility to the capable of extremely 1 trated by the miles in ler nearly of the A great pr dangerous, in overtaken in the southers which lie ex autumat ma orly thought shallow to at however, thex the lhays of furmer Hows of 'se tons' ocean divide nually chan navigation nient waterli into it. 'Th gradually wi thls bay is On the sout whict, in poi important on

## HAY

ranks pre-eminent. It is aaid to have recelved the name of 7imothy from Its first introducer into Mary. land, Mr. Timothy Funson. It is a native of England, and la caltivated as a favorite in Nwerlen and other parts of northern Europe. 'The next in extent of enltivation, among our forige erope of ferelgn origla, is the common red clover, whleh is widely naturalized, and is dillgently cultivated ly all good farmers, The precise perial of its introduction is not known $\mid$ but, on the authorlty of Watson, in his "Annalf of Philiadelphia," John Bartram had tlelda of it prlor to the American Revolution ; and, according to Ir. William Darliagten, it was introduced into general cultivation in Chester county, Pennsylvania, lietween the years 1790 and 1800 . Ita congener, the creeping white elover, indigenous or naturalized in Furope, is extensively cultivated in the middle and northern Statea from Imperted seed. The other Eumpen grasses, which have been only partially introduced into thls country, and which have met with favor, are the cock's-foot, or orchard grass, and the perennlal ray grass. The latter efforis a toleralily good pasture, and makes a handaome sward for a yurd or lawn; but as a meadow grass for hay it is regarded as inferior in value to nny of the preceding. According to the census returns of 1840 , the hay crep of the United States was $10,248,108$ tons; of $1850,13,838,579$ tums, showing an Incresse of 3,590,470 tons.
Hayti, Haiti, Ban Domingo, or Eispaniola, one of the largest and most fertlle of the West Indla Islauls, extending in length from east to weat 390 miles, and in breadth from 60 to 150 miles, is situated between lat. $17^{\circ} 37^{\prime}$ and $20^{\circ} 0^{\prime} \mathrm{N}$., and between long. $68^{\circ} 20^{\prime}$ and $74^{\circ} 28^{\prime} \mathrm{W}$. It is called llayth, or the llifhland country, by the natives, from the mountains with which it abounds, expecially in the northern part. The country was formerly divided teetween the Spanlarls, who were the earlieat Furopean colonists, and the French. The line of demurcation which aeparated these two divisions commenced on the south slde from the l'edernales or Flint liver, and extended in a waving directlon to the River Massacre on the north slde. The conntry to the weat of this line belonged to the French, while that on the east s! : tormed the Spanlsh part of the island. Ily far the greatest portion of the country was in the pessession of the Spanlards; their division treing reckoned 220 miles in length by 120 in brealth, of which, though a considerable part conalsts of mountains, these are sail to be little inferior in fertility to the champagne comintry, and to be equally capatile of cultivation. The French divislon is of an extremely Irregular tizare. The land is deeply penetrated by the Gulf of Gonalve, und is in some parts 170 miltes in length, while in others it is not 80 . It is nearly of the amme breadeh ins the Spanish division.

A great part of the const of this island is rocky and dangerons, uffording but an imperfect sholter to vessels overtaken by storms. Nany of the shipping-places on the southern shore are uothing more thum open hays, which lie exposed to the atorms and hurricanes of the autumual months. The lurtor of San Domingo, formerly thought so commolious and secure, has beeone too shallow to admit vessels of large bunlen. There are, howevor, bestles rondsteads and several small harbors, the lhay of Neyba and Ocos on this const. Into the furmer tlows the River Neyba, which recelves vessels of 30 tous' burilen: its strean before entering the ocean divides itself into various channels, which, unnually changing, confound the pilot, and render the navigation difficult. Ocoa lhay is a large and convenient watering-phaee, whth several small rivers fulling Into it. The entrunee is two leagnes across, and it gradually widens to nearly six. On the east sifle of thls bay is the safe and eapreions port of Calidera. On the south-east coast is the grent Bay of Samana, which, in point of size and situation, is one of the most important on the island. From Cage Ratiael, which
forms the southern point of entrance into the Bay of Sumana, to the opposite side of the island or peninaula of Samana, the distance is 18 miles, whlch is closed in by bulwarks of rocks and sand, the entrance only beIng left clear, with a onfe and deep channel between the shore of Samana and several detached islands. This bay is ahout 60 miles long, and is sarrounded on every alde by a fertlle country, suited to all the parposea of trade. Withia the compass of this bay whole fleets might ride at anchor in perfect security. The River Yuna, after heing joined by the Cambu, and meandering through the rich plains of La Vega Real, falls into the Bay of Samana after a course of nearly 100 miles. Bahia Ecossaise, or Scotch Bay, which ia situnted on the north side of the peninsula of Samena, is a dangerous rocky place. Thence to Puerto Plata the coast extends about 60 mlles in a north-westerly direction, and in thls space standa Balsama Bey, which has only 14 feet depth of water, and la of difficult navigation. The harbor of Puerto Plata was first discovered by Columbus; the entrance is narrow, but anfe, and the neighborhood is rich in every species of timbertrees. There are several other amall harbors and baya on this side of the island, but the coast la in general rocky and dangerous.

Soit and Surface.-A country of such magnitude as Ilayti, containing mountains of great height, with velleys of corresponding extent, necessarily comprises great varicty of soil. In general, however, it is fertile in the highest degree, being every where drained ly copious streams, and yielding in abundance every species of vegetable produce which can minister either to the luxury or comfort of man. The coil consists principally of a rich clay, semetlines mixed with gravel, lying on a substratum of rock. That part of the island formerly occupied by the French is mountainoua, but fertile and well wooded, and containing mines both of silver and irou. The Spanish part of the island is monntainous in many parts; while in other parts the country is spread out into extensive plains. These are generally in a state of nature, covered with herbage, or with woods of immense growth and the most luxuriant foliage. The mountains intersect the island in two principal chains from east to west. From these secondary and purtial ridges diverge irregularly in different directions, forming beautlful and fertile valleys, with numerons st reams. The highest mountains of the interior, particularly those of C'ibao, riss to the height of $\mathbf{7} 200$ feet above the level of the sea. To the north of the capital is the valley called Vega Real, or Royal Plaln, which is by far the largest and finest in the island. Westward it extends to the old French line of temarcation, and in this purt it is drained by the River Yacki ; to the east, where the Rlver Yuna flowg for the space of 50 iniles, It projects to the hatd of the llay of Samuna, and is Iralned by numerous smaller streams, which cross it in various directions. This valley may be said to extend in length about 140 miles, and in breadth from 20 to 30 . Other plains elso, of less extent, but of equal fertility, and of ensy access, are everywhere found interspersed among the mountainous tracts. Weatward from San Domingo, ulong the southern coast, is the valley of the River lanis, extending from Nisao to thon. llere the pastare is good; lint the country is not so well watered as In the ether parts of the island; an incovenience which is sensibly felt by the cattle thring the dry months. Further to the westward and to tho north other valleys are found; but where the land, as in this islimi, is everywhere interspeted ly ranges of mountains, it is impossible, in :uny general nketch, to describe purticularly that eontinual succession of hill and dale whirh diversitles the face of the country. Eastward from the eapital are those immense pluins called Los Lhanos, which stretch out to a vant extent on a dead level. They are covered with therbage, and the eye winders unobstructed over tho
wide expance of waving grase, which ia occaslonally diveralted by natural elumps of shrubs. These plalns occury almost one sixth part of the island, extending nealy to itn enstern coast, heing a distance of more than 90 miles, by about 30 wlde. They form an fm mense natural niealow, covered with pasture for vast herds of cattle which belong to more than 100 different owners.

Climate.-San Iomingo has a hot moist climate, lnt the hent is mitigated by the regularity of the seabreeze, and by the contlguity of the mountains. In the plains the thermemeter rises to $96^{\circ}$, sometlines to $99^{\circ}$, but $\ln$ the mountuinous tracts it seldenn rises above $78^{\circ}$. In the most elevated part in lire la frequently necespary. In those situations mat may be kept for neveral days, and in the morning hoar-frost is frequent. The seasonn, as in tropieal countries, are divided into the wet and the dry. The ralns are perlodical, and are heaviest In May and Iune, when the river, which at other then searcely supply water for a contioned stream, overflow their banks, and, with nn impetuons torrent, sweep over the neighboring plaias. The elimate of San Domingo is unhealthy to Furopeans, owing to the violent heata and heavy rains : and hence all metals, however bright their original polish, soon contract a tarniwhel appearance. This is more observable on the sea-coast, which is also more unhealthy than the Interior of the island. Hurricanes are net frequent, but in the sonthern parts of the ishand violent gales of wind, generally preceded by it closeness and sultriness in the atmosphere, frequently occur. These however re not nttended with nuch fatal effeets as the hurricanex in the Windward Inlands.

Ricers.- The island of Hayti abounds in rivera and smaller streams, which flow from the mountains in the interior, in different directlons, to the sea. Of these the principal are the Ilaina, the Nigua, the Nizao, the Ozama, the Neyba, the Geoa, the Yane, und the Santhgo or Rlver of Monte Cliristi. Near the south part of the French line of demareation is the beautiful lake of Heariquillo, which is about 60 miles in circumference : and though it is alout 25 miles from the nea, lts water is perfectly salt, and of the same apecitic gravit in as that of the ocean. The same fishes are also found $n$ it. such as the shark, seal, porpoise, ete.

I'egetable Productions.- The fortile aoil of Ifevti is distinguished ly the variety of ita vegetable productions, many of whel are rare and valuable. The ma-hogany-tree grows to a great size, and is of very fine quality. The manchined-t ree affords n lieautiful species of wool, sichly veined like marble, and suscep,tthe of the thaest polish. Several apectes of dye-vorls are produced in the forests. There is a trece called the jagua, the fruit of which is arcounted a deliency ly the natives; and of winch the julce, an clear as water, makes a stain on linen which is inclelible. Hifferent kimle of guadacum are fommi, ss also of apeveral other womals with the same properties, which grow unnuticed and nameloss In thove thexplored forest o. The sideroxylon or iron-woml, remarkahle fur hardures, as its name implies, fatumdant; and the rak ulan, which diflera in appearance from the Furopean oak, frequent I. formishes lieams of frum 60 to $\boldsymbol{i} l$ feat in length. On the north xide of the ixhand are extensive farests of pine, which is nurlo ased for the purgoses of nhipr building ; and Brazil-wood is fouod on many parts of the coast. The natin-woml of this island is heaviar than that of the Fanct Indien, and it takes son time a pal1.h that it does not require to be varnished. The cot-ton-tree is tho largent of all the vegetable prombithons, and in formed into the lighteat athl most capacious canoes. Every varicty of the phan-tree is foum in the woods, of which they form a prlaelpal onament. The palmetto or monntain-cablage is an erect ann] noble tree, which grows to the height of fil feet, with esculent leaves at the $t$ op. In the eongenial soil of this fertile island the sugar-cane, cotton, and coffee-plants,
grow In the greateat luxuriance. There ls also the calabanh, the frult of which eerves as a substltute for earthenware; the plantaln, the ataff of lifo In the Weat Indlea; vanilla, which is fonnd Indigenous in the unfrequented woods; quakaia or simaroubs, which is a tull and atately plant, waving gracefully in the wind; sarnnparlla, indlgo, tobaeco, turmeric, glnger, and riceplants. The fruits and nutritlve roots of San Domingo are nearly the snme as those of Jamaica; but they are more abundnat, and extremely fine. Of these may le enumerated the choux earaib, or Indian kale, with a variety of other vegetables that coas under the same denominatlon; the avocate or vegetatile marrow, the melon, sapadillo, guava, pine-apple, lread, and jack-fruit, mango, nuts, rose-apple, plums, rte., of many different species. Flowers in endless variety and nplendor adorn the wild scenery of the woorls, and exhale their fragrance In the deaert air.

Little is known of the geolegienl structure of the IAland, hut a llmestone containing vestiges of marine shells is the prevailing formation. Mineral springs exist in several parts. The most noted in che eastern part of the island are these of Ilanica, Yaye, and Paryatal; and in the west, the chalybeate of St. Rose, the saline of bean Rabel, and the alkaline soljhur waters of Ialinarie. The mineral products are various and rich, and inelude gold, platinn, allver, quiek silver, copper, Iron, tin, aulphur, banganese, antimony, rocknalt, bitumen, jasper, marlhe, opal, lazulite, chalcedony, etc. The rold nines of the Chitoon Memntains, which, in the lith century, were very proluctive, have leen abandonetl, and it the present diny rold is ohtained only from the washings in the northern rivers. None of the mines, Indeed, are snceessfully worked, and hence these sources of wealth are reserved fir the industry of future generations.

I nimals.-The indigenons quadrupeds of thes island were contined to four apecies, which the Indians called Ilutia, Quemi, Mohny, and Cory. Of these, ull are helievel to be extioet except the first. Horned cattle, hogs, shecp, goats, horsen, nules, and asser, have been introduced frem Eurupe, and have multiplied prodigiously in the wild and exteasive pastures of the interior. Whl fowl are ahundant, consinting of various *recies of ducks, pligeons, the flamingo, the wild preacock, the mimie thrush or mocking-bird, the hamana birl, the Guinea fowl, the ortolan, num parrits of variwus species. The rivers abound with lish, some of which are very delicate. Turtle of all kinds aro taken, and the land-erab is muth entremod. Tho rerpents are not Ireaded; but the eentipedes, which are frepuent in old huildings, are large and damgerous. The morpion is rarely seen' ; but the venomots crabspinder, which is equilly dangerous, is sumutimes met with.
Hintary,-This island was discovered by Columbus in 1 fln , and was som filled with adventurers, who crowded frum liarope to the new worlid for nudiden wealth. The natives were reduced to slavery by these acttlers, whongrem themelves aver the ishand, and hy their indnstry the colony incrased rapindly in wealtis and fromperity. But as it was didefly ? $\because$ the desire of gold that settlers ware attracted to this distunt shore, San bumiogo was in its turn abandonsal fir other conatrien of reater reputed wealth; and the cotatry gradually a red, and, instoul of yichling a revenue, became a horden on the mother comatr: About the midde of the lith century the iname of st. (Christopher was take'n jossession of by a minet colony of 'rench and English, who luing attachet by the Spaniards, were forced to tly to the larren inte of tortuga, whare they extablished themselves, ant grew formidatile, under the well-known nupalation of buccancers. They at last oltained a frm footing in Sin bomingo, into which they had made only riedatory incursions: and by the treaty of liyswick, that part of the iyhand of which they had ohtained $1^{\text {wimecsion }}$
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island, at the fourded in 1 been the eap of tho entir harior heing at a little dia is low and nouths bein ingly unhea woord, and se entrance to the southern ahout is feet It 'a customa in entering th out. Ships yands from s boats.

The Iomin whole at tha dividod into 17,501) scjuarr entirely an t sonthern the furests. is the chief o trious part is A dexethat. T 'Yearat Muceoval
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was ceded to the King of France, who acknowledged these adventurous colonlats as his suljects. The French colony languished for a while under the galling restrictlons imposed on Its trade by the mother country; but these belng removod about the year 1722, It soon attuined a high degree of prosperity, and was in a very flourishing state when the French Revolution cemmenced in 1789.

The revenue of Haytl arises chlefly from customs and port-dues, territorial Impoats, sale of lands, etc. In 1850 the customs' recelpts amounted to $£ 170,000$; and in the same year the expenditura amounted to £216,856. Tho estabilahed rellgion is Roman Cutholic; hut other forms of worshlp are not prohibited. Church affeirs are superintended by a vlcar-general. In 1854 there were in the State 62 schools and 4 collegea, having in all about 9,000 or $\mathbf{1 0 , 0 0 0}$ pupils.

Commerce.-The forelgn commerce of llay'tl is $\ln$ the hands of forcign merchants, who are permitted to reside only at certaln ports, under irksome and injurious restrictlons. The foreign commerce loes not now exceed $£ 1,000,000$ of annual value. The exports are chiofly malingany and other timber, dyewoods, coffee, tolacco, und cotton. The imports ure British cotton and woolen gools, hardware, entlery, fire-arms, gunpowder, glass, garthonware, etc. From France aro imported brandy, wines, sllk, and fancy gools. The pepulation of Ilayti is estimated at about 740,000 .

The emperor has constituted Cape llaytien, formerly Cape Français, the eapital and seat of govermment of the empire. It stands on the north coast, in N. lat. $1^{\circ 2} 46^{\prime}$, and W. long. $72^{\circ} 10^{\prime}$, and contains about $1 \cdot 1,000$ inhabitants.

Port-an-l'rince, the capital of Nayti, or St. Domingo, in lat. $18^{\circ} 33^{\prime} 42^{\prime \prime}$ N., long. $72^{\circ} 27^{\prime} 11^{\prime \prime} \mathrm{W}$. Iopulation variously estimated-probably from 18,000 to 20,000 . It is situated on the west coast of the island, at the hottom of a large and deep gult. It was fountel in 1749, sinco when, with few intervals, it has heen the enpital of Fronch St. Dominge, as it is now of the entire island. It is partially fortilied-the harbor being protected by a battery on in smail islami, at a little distance from the shore. The comntry ronnd is low and marshy; and the hent in the sammer months being excessive, the climate is then exceedingly unhealthy. The huidings are principally of wood, and seldom exceed two stories lin height. The entrance to the harior is between White inland and the southern shore. The lepth of water varies from about 18 feet at ebb tide to abont 21 fect at full tide. If to customary, bit not compulsory, to employ a pilot in cutering the harbor. They are always on the lookout. Ships moor head and stern, at from 100 to 500 yaris from shore, loading and molonding be means of iroats.

The Dominican repmblic clams for its territory the whole of the Spanish portion of the inland. "It is divided into the provinces, and has an area of about If, 5 hon sphare miles. The bominicans are ahmost entirely un agricultural penple. The staples of the southern provinces consint chietly of the prodacts of the forests. In soybo, however, the raising of cattle is the chief occupation. Ihat by far the mont imdustrions part is the northern, generally called the Cibao;
where the ataple article is an excellent quality of tobacco. The artleles of export are mahogany, satinwood, lignum-vita, and brazll-wood, tohacco, hides, otc. The lmports are chlefly flour and provisions from the United Statee, and general merchandise from Europe. The constitution of the republic is based on that of Venezuela. The Congress, which assembles annually, censlats of 15 deputles-three from each province-who form the Tribunado or Lower Chamher, and five senatora-one from each province-constltuting the Coneejo Coneervador or Upper Chamber. The executive power is vested in a Presilent, who la elected for four years, and who must be a Dominican by birth, and at least 35 years of age. The jndlelary ls evercised by a supreme court and various Inferior and local courts, and the French code has heen adopted in legal proceedings. In 1852 the revenue amomnted to 576,853 , emd the ordinary expendltures amount annually to about $£ 51,300$. No foreign debt is owing; but there exists a large home deht, on which the currency is hased, and which is of low and thetuating value. The army umounts to 12,000 men, and may he ralsel to 16,000 . The nuvy consists of three corvettes and flve schooners equipped as war vessels, end mounted with $4 t$ guns. The prevailing religion is Roman Catholie, but other denominations are tolerated. Population about 130,500 .

The chief seats of commeree are San Domingo city nod Samana, a small town on a peninsula of the same mme. The city of San Domingo is situnted at the mouth of the Ozamu, on the southern coast, in N. lat. $181^{\circ}$, and W. long. $70^{\circ}$, and is the oldest Luropean settlemont in the New World, having been built by Columbus in 1504. The popalation is about 14,000 , and the town is defended lyy substantial fortifications. The cathedral is nore than three centuries ohl. The harbor is capacious, but owing to a bar at its mouth, vessels drawing above 13 fett of water are obliget to anchor in the open roadstanal.

Prpulation.-In 1789, the French part of Hayti was by far the most valuable and tlourishing colony in the West Indies, The propilation was estimated at $5: 4,000$; of which $: 11,000$ wero white, 27,500 peoplo of color, and 465,560 slaves. The Spanish part of the inland was much less densely peopled-the number in 1785 heing estinated at 152,640 , of which 122,640 were free peopie of all colors, mostly mulattoes, and the rest slaves. The population of the entire island, in $18 \cdot 2$, was estimated hy Hlumbolit at $8: 0,010$, of whom 30,000 were whites; lut thero are good grounds for thinking that that estimate was exiggerated, and that the present propulation loes not exceed b00,000 or 700,000 .

Esports.-There has been an extraordinary decline in the quantity and value of the articles expurted from Hayti shece 1789. Sugar, for example, has fallen off from 141,000, th0 pounds to almost nothing; coffee from ahout $77,000,000$ pounds ta fittle more than $2 \pi, 000,000$ pounts ; cotton from $7,000,000$ pounds to perhaps tis0,000 pounds; indigo from $-58, t h 10$ pounts to nothing, ete.! Mahugany is almost the only article the exparts of which have increased of late yeats. The following talle illustrates what has now been stated:


| Yen-4. | Hucovadus sumar | Cufter | Cutura. | Cacas. | Dye-woudt. | Torbace, | Mahozany. | Segatu. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1789 | $\begin{array}{r} 1, \ldots 1 \alpha_{1}, \\ 94,578.800 \end{array}$ | Juhumb. iti,435, 19 | $\begin{aligned} & 1 \text { tound } \\ & 7,0 m 4,27 t \end{aligned}$ | Tounda. | P'onitas. | I'eund\%. | Feet. |  |
| जब\|| | 14,5ts, 5\% | 43, (20, 210 | 2,440, 2 (1) | 64, ${ }^{\text {cis }}$ | 6, 1 (6, 64 | .... | '8,217 | $\ldots$ |
| \| 14 | 5,441,5017 | 461, 1135 | 47.418 | 434.364 | $0,319,3(0)$ | 13,110 | 120,962 | ... |
| 1414 | 8,790,14:1 | $49,210,911$ | 219,143 | 3 311, 4:39 | 3, 109.4. 449 | 899,605 | 141,977 | ... |
| I*ํl\| | 2,514,012 | 85, 187,769 | 843, $2: 39$ | 80.36421 | 1,919,749 | 97,042 | 129,549 | . . |
| 1421 | 4tm,934 | 24, 925.951 |  | 24.4 .812 | 8,124,186 | 76,414) | 50, 615 |  |
| 1-22 | 2014 | 24, 2.5 , 378 | 642, 3 \% | 4154, 15.5 | $5,205,1156$ |  | 2,622,277 | 2\%9,040 |
| 1681 | 14,921) | 83, 212,487 |  | $8 \mathrm{R} 4,519$ | 6, 6412,319 | 857,0t4 | 2,319, 0.47 | 303,4(M) |
| 1424 | \$.1166 | 44,200, 48 | 1, 1225.1015 | 461,694 |  | 718,679 | 2,1\$1,7.47 | 175,000 |
| 1295 | 2,1020 | 86,4334,800 | *15.697 | 83.9 .937 | 3,96, 196 | O13, 42\% | 2.9646 .469 |  |
| 1226 | 32, 816 | 32,149,ist | 620.972 | 453,50, | $5,367,745$ | 3111.585 | 9,136,9,4 | 179,600 |

Gum Qealacum, In 1822, 7,338 pounds-1843, 18,006 peunds-1s24, 63,692 pounds.

Imports.-The princlpal articles of Import are provislons: much as flour, rice, mess and cargo beef, fish, etc., and timber from the United States; cotton gooda of all sorts, Iriah and Sotch Inens, carthenware, cutlery, ammunltion, etc., from England; winea, gatina, Ilqueurs, jewelty, toys, habordaahery, etc., from France, and llnens, canvas, gin, ete., from IIolland and Germany.

The deatructlon caused by the excesees which accompanied the revolution explalna a part of this extruordinary falling off; but the grenter part is to be accounted for ly the change in the condition of the inhalitants. The blacks, being no longer compelled to labor, and regarding with abhorrenco the culture of sugar and the other occapations in which they had treen princlpally engaged, sunk into a atate of Idleness and apathy. The conilition of all the great branches of Industry that were formerly carried on became, in consequence, nust deplorable, and the commerce of the Island wan reducel within the narrowest limita. Ita anccessive rulers have endeavorel, thoogh with little success, to bring about a revival of indostry. The Code Rumel, enacted for thls purpose ly Boyer, 1826, is exceedIngly atringent, Ita principal provialons being in fact copled from the regulations an to alaves embodied in the C'ode Noir. But even thls corle had little influence; aud as n proof of the low atate of Industry in the island, we need only state that sugnr han whollydisappeared from the list of exports, and that the exports of coffee and mont ot her articles neem to be ntatlonary or dimlnlshing. And this reanlt is, after all, only what shonld have been antlelpated. To exject that half-civilized Africans, under n borning son, and without the wants or deslres of Eumpeans, whould he equally industrious, is to expeet what la contradletery, and all hot absurt.

Commerce with the United States.-There being nn traty hetween the Inited States and Mayti, the conimerce letween the two countrien is governell ly such local laws and regulations as may from time to the be enacted. These are always nuiject to changen and alterations, sometimes no autden-decrees of to-lay superseding the laws in force but yeateriay-that conimercial interests, esjecially the of the linited States, have been, in many inatances, most seriotaly. affected. The l'nited States' commercial agent, in a dispatch to the Ibepartment of State, written in He comber, 18.49 , thas refers to this rulnous uncertainty of Ifaytien commercial leglalation: "There is one sulject to which I beg for a moment to draw your attention; that 1 , the sudden changee in the laws affecting commercinl Interests. 1. Within the luat six montlis we have had the elosing of the ports of Aquire, St. Marc, Mragoane, l'ort de l'alx, and l'Aused Habianlt. 2. An adilitional duty of five per cent. on coffee, and of seven per cent. on logwood ; and, lastly, we have hall those modiflcations in the monopoly law. * * Almost all these measites were enforced on the day of their pulilication, merchants only being apprized of the intentions of the government by n vague rimer. With such hasty legislation, the mont carcful mind diareet are rotrajpeed, and thins all calcuJaffon dreated, and frequently heary loss entailed."

Advies mare revently receised reprosent hat little amelioration iu this unetiled stato of romumereial legivation. It is true, American commerie has heme phaced on a much hetter fonting than it enjowed at that jertoul. I'p to June 25, $3 \times 50$, a law was in force suln jaeting the vembels of all nutions that hat not ack now ledsed the independeme of Ilayti to an additlonal duty of 10 gier cent. The independence of the rimpire not having bernformally recognized ly the tinited staton, dmerken vessels wore brought within the operation of this law, and could not, in consegnence, comprete with the vesmels of such uations an had autistied its requirements, oven in exporting to llayti our own staples. In January, 1850, the State Department was officially

Informed that this reciprocity duty of $\mathbf{1 0}$ per cent. additional, was, by a law then Intely published, appiled to Amerienn merchandise lroaght in vessels of any other nation whatever. Thls was an alvuntage to our nhip-awners, as one or two vessels, under forelgn flage, were then running an packets from the United Statan to Haytl, and almo from the adjacent lilands, bringing Amerlean goods ubiler the preference of 10 per cent. over Amerioun bettoms. It placed the Amerfean flag on an equality with that of other nations in the carrying trade of our ataples exportel to Haytl; and an Increased American tonnage engaged in the trade, and so general activity in the commerilal move. ments between the two countrien were immediately percelved.

Still, American commerce In this quarter had to encounter a difticulty no leas, if not even mure, formidiHe than the discrimination juat aloolished. This was a deeree and accompanying tariff, which took effect Janaary 1, 1850, the $\mathbf{3 l}$ article of which was in those words: "The articlea designated in the tariff, annexed to the present decrees can not be so' "above the prices tixed by atid taritf." Articles 1, 6, and 8 run thus: "I'here shall be eatablished In each of the ports of lort-atu-l'rince, Aux Cayes, Chpe IIaytien, Jacmel, Gomalven, and Jeremie, warehousen, into which shali be put In dépoit, after having regularly pa.sed through the cuntom-honses, wuch articles of merchandisn as are desiguated in the tarlff annexed to the prescont deeree."
"Coffee shall only be divided amons ltuporters of articles included in the tarill; which division shall he male pro rata, acconling to the atquired rights of ench." " * "The government reserves to ltself the right of retalning, out of the quantity of coffee declared for division, a certain portion, to be disposed of according to the necessitios of the moment ; such portion shall not, however, excerd one tfth of the existing quantity." The low tariff prices tixed upon most American goods, and those to the Haytlens of the firat necesslty, when contrasted with the more liberal prices ankigued to the merchandise of other nations, almont parulyzed for a time American trade. A dispateh from Aux Cayes, written at that period to the bepartment of state, suys: "Whlle the citizens of Fruse are scarcely afferted in their importutions to 1]aytl, the Amerlcans here import, mad our merchants at home export, ncarcely my article that :s frue." Still, in the face of these annoy. ances, and dexpite the embarrassments which they muat have wemslonem, one half, at least, of the formign trade of Ilayti is in the hands of American merchants. Naturally indolent, and unhappily depriwed of all leplalative stimulus to industry and lamor, the matives have lost that epirit of emblation amd arricultural enterprise which condueted them to a comparatively high state of prosperity muler the alministration of earlier rulers. The degree of this prosurerity, thus attainel, may be inferred from the following tatement, exhihiting the quantitios and values of the produce exported from to. Bomingo to Frince, from January 1 to December 81, 1790. The figures and other diats are derived from a rare ratistical chart, jublished in France, by the government, that yar,
 partip F'ruupoiss de St. Domingue."

The free population of this pertlon of the inland in 1700 was :-whites, $3 \times, 360$; blacks, 8:374. The numbber of negroes employed in lahur was $455,0 \mathrm{~m}=$. The unsigatinn returns show the number of vessels entered to have been 763 , with an aggregate mensurement of 65, alk tens ; and the mumber cleared $22 l$, monsuring 53, 12 1 tous. The total value of agrieultural property; Inclucling: negroes, rtock, ete., in the French distion, in 1750 , is atated at about $8208,297,400$. The number of coffee plantations was $2 \times 10$; of cotton, 705 ; of indigo, 30:57 ; and of cocoa, 69. inclusive:

| Tama | Coif |
| :---: | :---: |
| 1855. |  |
| 1436. |  |
| 1517. | 84,84 |
| 184 | 49,426 |
| 1599. | 87,R49 |
| (411)... | 46,126 |
| tsil. | 34,114 |
| 14it... | 44,000 |
| 144. | 45.894 |
| (sb). | 4t,062, |
| 1sth... | 88,518, |
| [-17... | 48,964, |
| 194... | 37,690, |
| $1 \mathrm{H} 9 .$. | 30,460, |
| Total. . | (6,6093, |

The total gut any-exported $18,1 \cdot 13,2: 2 \mathrm{lbs}$. alves, which fur ajpears to have ensuing years, h 844 lbs . In 183 hides; 31,192 II 8769 lls of ging year, the figure 14,8:11, 275, and great fluctuation: was subject.
A glanco at th a great change portation from 1ix9 and 18 J 9. were staples of peared from tho $t$ fiee and corea ha nearly statlonars hat vastly angmi dimini-bed. Thy imported from II fire vears ending $12,040 \mathrm{lls}$. ; $185^{2}$ 150.5, $1 \times 2,211$; ex and att average,

The quantity $15,000,040 \mathrm{llis}$. . Jow, ; amd in le, reached $516,00,00$ claimed lyy the $H$ Jbs, As regardse the island, lits culd the Deminicans.

Quavtitite ant Valueg of Phontice xxpontw feon St DONINGO (EIIRFLTY YRON THW IORTION NOW OOMPRIBRD


| Produets. | Quanilites. | Val |
| :---: | :---: | :---: |
| ar, white. . . . . . . . . . . . poends | 713,227,703 | 01,01, 101 |
| .0 brown............. | 98,177, 18 | 40,041,507 |
| colfee. | 08,181,180 | \$1,840,748 |
| latton | 6,286, 126 | 17,572,252 |
| Indige | 980,016 | 10,875,120 |
| ('ocda. | 1/9,1000 | 1211,000 |
| *irup. . . . . . . . . . . . . . . . . . . . Jars | 90, 3122 | 1,947,182 |
| Thafla. . . . . . . . . . . . . . . . . . . . kegs | 808 | 21,816 |
| Ifiles, tanneit. . . . . . . . . . . .sldes | 7,487 | 78,870 |
| " raw .f... . . . . . . . . number | 5,186 | 98,848 |
| Tortolse-mhell . . . . . . . . . . pounds | 5,000 | 00,0091 |
| Salogaty and Campecho * | 1, 1000,000 | 40,100 |
| Value in colonial eur. (Ifvres) |  | 150,401,684 |
| Value la İritish money...... |  | (5), $86.5,810$ |
| Falue in dollars. | . | \%27,N28,000 |

In 1789 Hayti was a colonial possession of France ; in 1801 It was under the gevernment of Tonssuint; in $1 \times 18$ and 1810 it was unior that of Chrintophe; and during the residue of the yearn designuted in the statement, it was under that of Preshitent Boyer.

The following statement exhihits the quantities of ceffee, cotton, cocon, logworal, and tobaceo exported from liayti from 1835 to 18.19 (1842 excepted), both inclusive:

|  |  | Coltun. | Coens. | Wond. | Topece. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | - | Pon | Paunis. | 101 |  |
| 1*14. | 48,852,971 | 1,649,717 | 897,821 | 18,203,737 | 2,1280,406 |
| \|with. | 87,622,674 | 1, 672, ${ }^{\text {a }}$, 018, | 600,484 | 6,707,912 | 1,222,118 |
| 1 sin . | 81, 84, $\mathbf{S}^{(100}$ | 1,018,17] | 216, 024 | 6, 0331,2984 | -90,5ff |
|  | 49,420,241 | 1,170,175 | 458,418 | 7,8×7,1888 | 1,495, 040 |
| 1599. | $87,889,002$ | 1,6350,420 | 477,414 | 25,948,064 | 2,142,201 |
| titi. | 46,180,27\% | 1, 2222,575 | 442,9365 | 30,2384.215 | 1,72, 349 |
| 1:11... | 34,114,117 | 1,591,404 | 610,01 ${ }^{\text {d }}$ | 65,07],391 | 8,219,600 |
| 1413... | 44,000,554 | 448,492 | 708, 527 | 28,588,004 | 1,715,816 |
| 9+11. | 45,444,908 | 914.838 | 518,448 | 47,415, (2) | 171,08\% |
| 1s65.. |  | 057,440 | 848,004 | 68,181, 2883 | S, $1 \times 19$ |
| \$161i... | 84,518,179 | 570,061 | 683, 1142 | 50, 0843,488 | 576 |
| $1 \times 17$. | 48,948,409 | 525,0881 | 1,171,620 | 82,705,670 |  |
| 1.48... | 87,6310,435 | 411.488 | 905, 898 | 86,840,172 |  |
| $1 \times 19$. | 80,608,843 | \$4,4,126 | 664,516 | 86,232,241 |  |
|  |  |  |  |  |  |

The tetal quantity of acajou-a species of mallog-any-expmrtet during 11 of the years devignated was 18, $113,2,2 \mathrm{i} 2 \mathrm{lbs}$. The exportation of pitre-a specifes of aloes, which furnishes a substitute for hemp nad llaxappears to have commenced in 184ti, ami, in the four ensuing years, had amounted to an nggregate of $112,-$ 8 it ths. In 1835, 8500 cigars ; 1097 lhes. sugar ; 31,951 hiles: 31,192 lbe, of rags ; 10,903 liss. of wax; mud $8: 69 \mathrm{H} / \mathrm{s}$. of ginger were exported; while the ensuing year, the figures were, respectively, $3: 1,000, \mathrm{If}, 8: 11$, if $, 801,275$, and 15,509 -suffichently ludicative of the freat fluctuations to which the forcign trate of Hayti was sulject.
A ghare at the statemente presented will shew that 8 great change took place in the character of the exprotation from Hayti during the tio pars Latweren tix9 and 1819. Sugar, indigo, mud tubace, which were staples of export in 1789, hand mutirely diaspprared from the tatije in 1849; the exportatiof of coffie and cocon had (if we ex. apt two years) remainen narty statomary, while the expurtation of hogwoml hai vastly augmented, and that of cothon ham greatly diminished. The quantities of the article fast maned, imported from Hayti into the i'nitesl states durine the


 and an average, each year, of $1: 2$, ,62 in .
The quatity of ciffere expurted in 18 on was ahout $15,000,410$ thes, white in $18: 31$ it excented $50,000,000$ los. ; mit in 18.52 the quantity produced must have reachel sib, 00,000 pounds, as the fifth part thereof, claimed ly the guvermment, amotated to $11,200,900$ ibs. As regurds tobaceo, since the political division of the tsland, tis cultare and its trade are in the hands of the Deminicans. There is, however, consiterable
traffic in this article at sume of the ports of Haytl ; but it is imported by the cossters from the ports of the republic. In view of the statistice of Hayti, thus pregented, it is ovidel. that the $r$ vement of the country has been vastly petrograde since it was a possession of France. In 1789 it exported, as we have seen, 150,000,000 liss. of sugar, and nearly $1,000,000 \mathrm{lbs}$. of indigo; in 18.9 it exported none ; in the former year it exported $77,000,000 \mathrm{lhs}$. of coffee, and more than 7,000 , 000 ils. of cotton; in 1849 the exportation of the former amounted to less than $31,000,000 \mathrm{lbs}$. , and of the latter, to ilttle mure than $500,000 \mathrm{lbs}$; while the total vnlue of exportations from Huyti, whieh, in 1789, are given at $205,000,000$ franes, 40 years later were but $3,500,000$ francs I A foreign resident at the capital of Hayti, In view of these fucts, writes as follows, unier recent diste:-" This country has made, since its emanelpntion, no progress whatever. The ropula thon partisily live : tpon the produce of the grown-wild coffee plantations, remaants of the French dominion. I'roperly apeaking, plantations nfter the model of the English in Jnmalea, or the Spmish in Cuba, do not exist here. Slaytl is the mest theautiful and the most fertile of the Antiifes. It has more mountains than Cutia, anil more epace than Jamaica. Nowhere the coffee-tree could better thrivo than hete, as it eapecially likes a mountainous soli. But the indolence of the negroes has lirought the onee splendid plantations ti decny. They now gather the roffee only from the Hrown-wild trees. The eultivation of the sugar-cane has entirely disnppeared; nud the island that once supplied one half of Europe with sugar, now supples its own wants from Jumaica and the United Scates."
The following statement exhilits the general navigation and trade of the port of Cape Haytien during the year 1841, and the sharo thereof assigned to the Initel States:

| Nations. | $\left\|\begin{array}{l} \text { No, of } \\ \text { Venam } \end{array}\right\|$ | alue of en <br> a 'nwar | Na, if reasel. | value of ear. Koed ontward |
| :---: | :---: | :---: | :---: | :---: |
| Vnlted States | 40 |  | 42 | (2y] 1,620 |
| J3ettish. | 19 | 145,4m0 | 16 | 161,985 |
| Jnytien | 3 | 5,145 | 1 | 1,120 |
| Freneh................. | 11 | 185,410 | 9 | 152,780 |
| German. | 11 | 112,54.6 | 10 | 258,885 |
| Total | 51 | \% 62.2650 | 78 | 818,5m |

The trude of the port of Gonaives, during the same year, is given ns follows:

| Nathone. | No. ot vestela. | Volue of car gues Inward | No, uf Value of corvesselt, goes outwari |  |
| :---: | :---: | :---: | :---: | :---: |
| British. | 18 | +6,905 | 12 | - 81,765 |
| French. | 11) | 17,52\% | 10 | 73,270 |
| Ditilsto. | 1 | Bailast. | 1 | 48,420 |
| Mamhiry | 1 | 1.491 | 2 | 18,905 |
| Cutted states. | 80 | 49.45 | 27 | 161,983) |
| Total | 6.5 | *5.740 | 52 | (1194, $8 \times 11$ |

The British vessels enforgh in this trade came from I'urk's Island, Nassam, St. Thomas, Trinidad, Itarha does, ami lemerara, and were freightel with dry-gomes. hardware, erockery, heer, bricks, and provisions; but, at these islands are supplied chletly with the artichos las nomed from the United States, it is er ident that, mifess, under positivo prohibitions, or umber restrictions equir. alent thereto, the Enited States can at all times contrul the forcign trade of ilayti in this species of merehandise, which the natural indulene or genemal aversint fo uricultural labor of the Ifastions necessitates them to seck from other nations, ami romiers us :mpisponsahile to their contorts, if not to their very existence, in 18 品, as in 1811.

The following table exhibits the foreign navigation of Hayti fur a perinh of six years, from 18.47 to 180. ' heth inclusive:

| Yertrs. | Vamela, |  | Tan |
| :---: | :---: | :---: | :---: |
| 1475 | 2819 |  | 1510,478 |
| IWN. | $6{ }^{6}$ |  | 94,374. |
| 1-19. | 1,065 | . . ........ | 155,224 |
| 1500. | 1,160 |  | 162,284 |
| 15.31. | 897 |  | 117,817 |
| 1552. | 995 |  | 189,920 |

Table rximitiva fua Nations to wutch azionomp tha Veazil Eyployed in tur TaAba oy 1810 and 1400.

| Natic: : | 1840. |  | 6860, |  |
| :---: | :---: | :---: | :---: | :---: |
| Usited States. | Yesepla, 486 | Tane. | Voseete. 610 | Trame |
| Reiflum....... | 10 | 4,843 | 18 | 4,478 |
| l)eninark. | 144 | 29,707 | 16y | 91.400 |
| Franen......... | 114 | \$8,59t | 84 | 15,797 |
| Great ltritutio.. | 259 | d1,746 | 904 | 80,706 |
| Itoiland. | 111 | 80 | 87 | 1,684 |
| Itanse-townk... | 84 | 5,086 | 81 | 6.829 |
| ( th her countries. | 11 | 1,644 | 18 | 9,7\%4 |
| Total....... | 1, (16s) | 151, 2220 | 1,160 | 164,248 |

The navigation of 1881 , empared with that given above for 1850 , shows a falling of $\ln$ number of vessels of 260 , meawuring 44,421 tona; and the returns for 1852 show a line lecrease over thone of 1850 of 165 vessels, of 22,409 tons, but an lacrease over those of 1851 of 98 vessels and 22,012 tons.

General Remark. -The trade between the United States and Haytl in becoming, overy year, more important and necessary to buth countriee. Heretofore, the imports into the empire from the U'nited States consiated alnost exelusively, of provinions, for which were exchanged coffee, logwood, mahogany, etc. Articlea of apparel, cetton manufactures, and fawhionable goods were supplied chiefly from France, Fingland, Gerinany, etc. Under the flacriminating, or, rather, the rec'procity duty-nam . , 10 per cent. aclditional duty upon the cargoes of reasels belonging to nations that have not recognized the independence of Hayti -Unitel States' merchants offered no aerious competition to those of the privileged nationa, except in regard to auch merchundise as was indispenaable to the natural wants of the Haytiens, and in respect to which our undisputed monopoly of the trade enabled our merchants to ceuntervail the discrimination, and atill maintain a briak and profitable trade. In cotton and other manufartures, and generai cargoes, the Isritish and French hẹld the firat rank in the llaytien markets. With the aloolition of the reciprocity duty, the United States' thag entered the liaytien porta on terms of perfect equality with those of other nationn; and our merchants, at onee, disputed the pre-eminence hitherto held ly other nations In the generat trade of IIayti. American cotton and other manufactures flled the warehonses at the different ports ; and, from the superiority of thelr quality; and the lower priee at which they could be soid. were soon generally preferred and aought after ly Haytien purchasers. Inatend of oceacupying, as heretofore, the third or fourth rank among foreign nations traaing with this country, the United States now elain fully one half of its entire forelgn commerce.

The French authority which has alrealy been quoted In thin IHgest, says: "Favored ly thelr proximity to Hayti, the Anericans are determined on reducling the price of their asalt provisions, their flour, moap, etc., to so low a figure, that European competition is out of the queation. They export from their warchonses at New York,* at low prices, wines, hardwares, hats, caps, French silke, Finglish manufacturea, etce. They also furnish the llaytiens with the oils and pastes of Italy, and monowolize the sale of candles, tapers, cheese, and timber for building. They maintain the ame superiority in the export trade. They take three fourths of the different woods eut in IIayti, two thirds of all the coffee exported, and are the exclusive exportere of pitre, fustic, and nearly a of tor-toite-shell. In finc, the commercial superiority of the United Statea extenis over every part of the empire, and, in its raphd progrese, bhin fair to exclude aitogether the veascls, as woll as the merchants of Europe. * *

[^25]"Ameng the countries with which the United States have commerelal intercouree, Haytl holds the ninth rank as reapects tonnage. All the States are tnore or leas interested in the Haytien trade. The north-epust. orn States find a market there for their finh nnd other merehandise ; lennaylvania, northern Virginia, Maryland, Ohio, Indlana, Kentucky, Illinols, and Missonri, for their salted pork; Vermont, New York, Manssehusetta, Illinola, and Ohlo, for thelr anlted theef; Philadelphla and lloaton, North and South Carolioa, Vircinis and Kentueky, for their household furniture, their rice, and tobacce. The manufucturers of New England, Now York, and Pennsylvania, have alrealy secured an extensive market $\operatorname{sn}$ Liayti for ticir cheap cotton textilea, and succeasfully compete with Euiopean manufactures.'

The extent and value of the commerce of the Uniteil States with the inland of San Domingo, in tha year ending 30th June, 1850, was as followa:
Imports Into the Vinted States...
Exports from the Untted Btatex.

Iomentic produce and manufactare
Forelgn produce and manufacture
$81,962,523$
$26 ; 661$

"The official returns of the United States show that Mexico, with a pojulation of $8,000,000$, impurtel from the different porte of the Union, in 1851, leas ly wiali,507 than IIaytl.* The trade of the United States wlth the latter country in, therefure, more profitubic than that with Mexice; Indeed, American vessels genorally return in ballast from Mexican ports, or go to other States in reareh of freight ; while in IIayti they nlwaya find cargoes, if nut of coffee, at least of arajou, compeche, and jitre, which are alwaye In alumilance. In 1851, the United States exported to llayti cetton goods valued at $\$ 296,000$, while the value of similar merchandiso exported to Cubn reached only *2t,000. The moap exportel from the United States to the former country exceeded $1,928,682$ hoves; to the latter, only 345,744 . 1hayti receiven from the United Stutes three times as much Hour as Cuha, and six times as much salted pork."

Whth the exception of the errore alrealy noted, and a fow cthers of the press, the artcle in the Freach statiatical work, of which the preceding summary gives the aubstance, jresents a generally accurate revew of the commerce of the United States with Ilayti. Notwithatamling the United Staten has not yet reeg. nized the independence of llayti, nor entered into any treaty with ita governinent, the restrictions and petty annoyances to which our mercha - -nd citians in that country have heretofore been suturcted are now removed, sud the fruits of this mo. e literal and frimatly feeling ure witnessed in our annaally increasing com. nerce, and the preponderance of, anil preference for, American merchandise in the market of Ifayti. This liberal state of things may, however, at any moment, change. In the aboence of any commercial treaty between the two countries, our relations with ilayti are dependent on the will or cuprice of the emperor. In this reapect, France and lingiand are on a sufer footing than the Inited States.

It In stated, on the authority of private letters from lort-all- Prince, that the emperor has recently published an edict prohibiting the further cutting of mahogany, und also the transportation to the seatobard of what worl is now ent in the lnteriar. The ream assigned for this messure bat that his majesty wives to turn the attention of his peoplo more to the culica-

[^26]tion of thei the quantit cient for the
The impo of mahogan minishing it 18:3, $-105,8$

Yeara the
Sept. 80,1821
182
182
$1 \times 2$
$1 \times 22$
1822
1422
1829
1827
1827
1828
$1 \times 29$
1480
Sept. 80, 18si
1881
1892
1889
1884
1848
1886.
1887.
1889.
189.
18410.
7
8ept, 80. 1841.
9 mas
Jane so ist.
ane 80,154
$184 .$.
184.
1817.
184.0
1849.

1550 ..

June 80,1851 1452.
183.
181.
$1855 .$.

P'ort Charge eign ship of 300 Tonnage duty Ailministrator Commandan Commisuaire Drectur of ca . interperter.. Treasurer... Joctor.
Stamps for ent Fenntaln tax. Pltotage.....

Tot
C'ustom-housen of the vensel pro interpreter, wher disecharges the his invoicen are the presence of and store thetu. pays the duties o a receipt at the commandante de sign a certilicate
ii"urehousing.tem is establisher baildings approt hoods. Until vo be bonded undur late order has, 1 The rate is 1 p
made for waste 0
tion of their felds and the production of provisions, the quantity of which grown in the empire is insufficient for the supply of the Inhabitants.
The importation into the United States from liayti, of mahogany and other cablaet-makers' wood, la dimiluishing in value. In 1850, it reached $\mathbf{q} 65,381$; in 3853, 105,322 ; and in 1855, it fell to 04,507 . In

1856 the amount was larger, and reached $80,679 .-\boldsymbol{U}$. S. Cum. Digest.

The commercial statietics of the emplre and repubIle, an suppliad by the Ileglater of the United Stater' Treasury, are not separated, and hence the commerce of the Inland with the United States muat be considerell in the aggregate.

Commbece of the Unitzo Statre witil IIayti, hrom Octonan 1, 1890, te Juliy 1, 1856.

f'ort Charges,-The rharges on a native and a for- vessel they arrive $\ln$, pay, if landed, $\frac{1}{3}$ per cent. and eign ship of :H0 toms ure the same, und as followe:

| de daty. | (0) |
| :---: | :---: |
| Administrator | 1200 |
| Commandante fe plac | 1200 |
| Commisaire de sicrre | 1200 |
| Commandante te port. | 12 mb |
| Itrector of customs. | 1200 |
| Interpreter | 1209 |
| Iressurer. | 12 41 |
| 1 pector. | 1200 |
| Stamps for entry and cl | 1080 |
| Fonitaln tsx. | 2000 |
| Pllotage | 200 |

## Total, currency. . . . . . . . . . . . . . . . . 431 to

C'ustom-house Regulations.-1)n arrival, the master of the ressel proceeds to the custom-housen with the interpreter, where he makes his declarntion whether he discharges the cargo in the port. If he diseharge, his invoices are translated, and the goods verified in the presence of the consignee, who is allowed to land and ntore them. On clearing out ward, the merchant pays the daties on the cargoes loth ways, and exhibits a receipt at the oflice of the commissaire te guerre, commandante de phare, and commandante do port, who sign a certilicate that the vorsel may depmit.

I'arehossing.-The warehousing and bonding system in established by law, lint there are at prosumt no baildings appropriated to the reception of tonded poods. Lutil very recently, goods ware permitted to be londed under this law in the merchants' stores; a late order has, bowever, suspended that indulfente. The rate is 1 per cent. per year, and no allowance made for waste or loss. Goods exported in the same
wharfage fees.

Moury.-The weight of the dollar is 216 grains; the $\frac{1}{f}$ and $t$ dellar being in proportion. But nearly $\frac{1}{\frac{1}{2} \text { the }}$ weight of the coin consists of tin or other alloy; so that the valne of the dellar does net exceed 1s. Gal. sterling.

Weights in Ilayti are lividel as in avoirdupois and apothecurles' welght; lut they are about 8 per cent. heavier than British welghts.

Measures,-Same as these used in France.
Regulations as to Trade.-It is enacted, that all persons exercising any trale or profession, excepting that of eu!tivating the soil, must he provided with a patent or license to carry on such trade or profession; that all witrangers admitted as merchants into the repulilic must, in the first place, procure the permissien of the president to take out a patent, which, when obtained, only autherizes them, under howy pemaltes, to carry on a wholesale business, not with each other, but with the lhaytians, in the open ports, which are Port-anI'rince, Conaives, Cape IIaytien, Port-à-Phate, Sunto lomingo, Jamel, Les Cayes, and dóremie. The mininum quantities of goods that may he sold are fixed by the samu law. The llaytian consignee may be also a retailer, on taking out a corresponding patent.
A charge of 2000 dollars is male for each patent to forigner traling to I'ort-an-l'rince; $\$ 1800$ for Les Cayes, Cape IItytlen, and Jacmel ; and $\$ 1600$ for each of the remalning ports.

Intics. - The duties on all imported commoditios consigned to foreign merchunts are $17 \frac{1}{8}$ per cent. on
an established tariff, whether they be brought in native or foreign ahips, with the exception of those from the United Statea, which pay an additional 10 per cent. on the amount of the duties. Goods consigned to native merchanta pay only $16 \frac{1}{2}$ per cent.

The following artleles are duty free In all bottoms: Shot of all sizes, grenates, howitzers, bomb-shells, and other projectilen of artillery; Iron and bronze cannon, mortars, muakets and bayoueta, carbinen, pistols, and cavalry sabres, briquets, or short aworda for infantry; machines and instruments for simplifying and facilitating the cultivation of the soil, and the preparation of its products ; horses and cattle, mules, asses ; gold and silver cein; classical and elementary works, sewed in boardn, or boond in parchment, for the ln struction of yonth.
The following is a list of articles alsolutely prohihited, without reference to their place of gr wth :

Mahogany, logwood, lignum vitw, fuatic, coffee, cotton, wool, cacao, raw and clayed sugar, rum, tafla, syrup, molasses ; canes, whips, and umbrellaa, containing awords, atilettoea, or othor arms ; books and other works opposed to good morala.

Bealdes the export, there is aloo a torritorial duty levied equally on the produee of the soll, whether ex ported in natlonal or foreign abips.
The export of the following articles is atrictly prohibited : Gold and silver coin, side and fire-arms, munitions, and other articles of war ; old or new iron, copper; horses, brood mares,-mules, asses, and wood for lip-bullding.
The coasting trade is entirely coafined to Haytian citizens.
The following tabular statement exhibita the forcign trade, import, and export, of Cape Haytien for the year endlog December 81, 1852 :



Cape Haytien.-This port has not yet entinely recovered from the effects of the enthquake of 1842, nor has its general commerce regained the high rank which it held prior to that period. Stiii, its uavigntion ia not unlmportant. In 1850 there entered and cleared 65 vessels, with an aggregate of 8509 ions more than in 1849. In 1829 the imports at this port amounted to $2,500,000$ france, and in 1850 to $3,243,16 \mathrm{cs}$ francs. The large bulk of this trate in in the hands of American merchanth. A French statistieal work, referring to this fact, offers two explanations of the great preponderance of American trade, not only at thin port, but in liaytl generaliy, an follows: "The United States conduct atwout one half of the forvign navigation of Hayti. In 1850 their progress wan accelerated beyond alt precelent, showing an augmentation over 1849 of 124 venseis, with an aggregate of 15,000 tonn. The theility with which they open with their paigblors a credit which in often refused them in Europe, together with the effirts of their propagandints of difforent mests acattered over the isiand, is eminently favorable to the inereame of American influence." If there were even any plausibility in thin auggention, it would prove, perhava, inore than the author intended; for, ambitious as France confessedly
in, and has ever heen, to extend her commerce, and foster her mercantile inleresta, even by resirictions and discriminatious, which are now aluost universally iliscardel, the assertion of her atatistician, ahove quoted, would imply that thin source of American commercisi preponderance in liayti was not available to her ; hut some other cause munt be looked for, in viaw of the fuct, that, while Amsrican merchants do sonetionesnay, very frequently-" give credil" to their consignees and purchasers in Ifayti, they Invariality pay wash, or its equivalent, for all their exports. For such articles as are monopolized by the government, the llaytian law is peremptory as to that modo of payment.

The other expianation ankigned is moro reasonalile. It is in these worde: "Always on the look-ont for new sourcea of trade, the Americana jurchase ni C'ape Haytion red-peppers, and orange and lemon peci. 'This new branch of trade, as weli as the purchave of raka, has nucceoded beyond expectation. Nany houses at New York receive fuil cargoen of thane dencriptions of merchandine, actually pricelesa in llayti, on which they realize large profits." This ia, at least, a more commercial explanation; and, taking it to be true, as there is no evilience to the enntrary, it ahows that our
merchants relations w in exchang harlware, $\mathbf{t}$ and haberds terial for the any one of rualy ale a

## Flag.

Amerlean.
English. ..

French. ...
linytien....
Olamburg.
Tanish..
Innover.
Eaglish.....
Prussian...
Drusish,....
Relerina..
Relurinn..
Boglish...
lastlen....
English.
Janish.
Hsytlon..
Totat.....
Head. I aily menns ure. By the depressed in the sells and
Headlan noxymous wit
Heath, 0 term heath is valluag plant: species of be garis, Ssl. ' piant covers of Scotland, Continent. 3 or 4 feet; a leamens, and tender topa if land cottagea drind atate 1 where the gra lato in the ap
Heave, if great velght anchoi hy the ship, or puil ' to harare tuugh or chain appl
Hebride Scotland, between $\mathbf{N}$. and $7^{\prime} 52^{\prime \prime}$ tibulie, and printor's err venerahite lise returns it apt insands in th of 116,367 ; during the southern of Clyde-as B inchmarnoci isiands Inclu and limeston both to the E
merchants are determined to maintaln their present relations with IIayti, even If they mus: take in part, in exchange for their proviaiona, their lumber, their hardware, their cotton gooda, and their French wines and haberdashery, such ralueless goode as the raw man torial for the conaumptlon of their 750 paper-millis, at any one of which their rage will alwaya command a realy male at four cents per pound, and raw material
for the manufacture of bergamot and varieua useful and coatiy ensences. Thene $\mathbf{7 5 0}$ mills, the number In the Unlted States In 1852, manufactura 270,000,000 pounds of paper annually, valued at $\$ 27,000,000$, and consume euch year $405,000,000$ pounds of rags, for which our seamen have to eall to every quarter of the globe. See article on Italian States; aee, alao, article on Papra.

Statement of Expoats from Capx Hattinn, paom Jantaby 1, to Degomama 81, 1852.

| Flag. | Wbere for. | $\frac{6}{3}$ | $\begin{aligned} & \frac{1}{4} \\ & \text { 呙 } \end{aligned}$ | $$ | $\begin{aligned} & \frac{1}{2} \\ & \frac{3}{6} \end{aligned}$ | Total. |  | Logwood. | Cofibe. | Cocom. | Mebog- | Tobeceo. | Dutles pold, Haytlen ourrency. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | No, of vensela. | Toanage. |  |  |  |  |  |  |
| Amerlcan... | United States.... | $\because$ | $\begin{array}{r} 18 \\ 8 \end{array}$ | 241 | $\because$ | 87 | $\begin{aligned} & 4,499 \\ & 0,05 \\ & \hline \end{aligned}$ | $\begin{gathered} L 2 b a, 650 \\ 4,481,600 \\ 812,800 \end{gathered}$ | $\begin{gathered} \text { Libo } \\ 2,616,602 \\ 171,084 \end{gathered}$ | $\begin{array}{\|} 119,191 \\ 1,6,620 \end{array}$ | $\begin{array}{r} \text { Foet. } \\ 18,846 \\ 7,572 \end{array}$ | Lbat. | Dolla |
|  |  |  |  |  |  | 41 | 4,084 | 5,245,950 | 2,788,486 | 122,811 | 88.418 |  | \$252,620 42 |
| French..... | France.......... | 141 | 5 | $\because$ | $\cdots$ | 19 | 4.022 | \} $6,847,550$ | 1,780,782 | 56,047 | 29 | 140 | 164,630 21 |
| Hrayllen...... |  |  | $\begin{aligned} & \mathrm{i} \\ & \mathbf{2} \end{aligned}$ |  |  | 8 | 751 | 890,500 | 898,630 |  | 82,837 | 15,680 | 09,812 64 |
| Ollanburg | Hambur | i |  | $\stackrel{1}{1}$ | $\because$ |  | 575270 | 80,00 |  | 22,886 |  |  |  |
| Ihanfsi...... |  | .. | 1 |  |  | 9 |  | 526,550 | CS8,890 | 16,184 | 81,808 | 08,027 | 48,618 07 |
| Hanover | Ltverpo | $\cdots$ | ${ }_{1}^{2}$ | 1 |  | 1 2 |  |  |  |  |  |  |  |
| Eagit | Falioouth |  |  |  |  | 1 | 186 | 2,00 |  |  |  |  |  |
| Prusslis | Nor order | 1 | 亿11 |  | $\because$ | 1 | 257 862 | 408,800 | 682,870 | 17,041 | 8,080 | 17,720 | 82,701 06 |
| Panish, Belyian. | " | $\ldots$ |  | $\cdots$ | $\cdots$ | 1 | 862 141 |  |  |  |  | 17, |  |
| Einglish. | Nassau \& Inacue | $\because$ | $\because$ | $\cdots$ |  | 4 | 833 | 4,000 | 0,382 | .... | ... | $\cdots$ | 74746 |
| Haylien. | St. 7 Thomas.. | $\because$ | $\cdots$ | 2 | 1 | 8 | 141 | 170,000 | 80,874 | $\ldots$ | 828 | $\ldots$ | 7,789 03 |
| barlsh. |  |  | $\ldots$ | . | 1 | 9 | 4 |  |  | 108 |  | $\ldots$ |  |
| Maytien. |  |  |  |  |  |  | 49 |  |  |  |  |  |  |
| Total....................... |  | 18 | 80 | 85 | $6$ | 89 | $12,470$ | $18,714,8507,242,006$ |  | $298,572,90,18$ |  | 102,420 | 694,881 88 |

Head. The fore extremilty of a ship. It genersliy meana the cutwnter, which is adorned with a figure. By the head, implies that tho ship's head ia depressed in the water. Head sails, head yards, are the sails and yards in the fore part of the ship.
Headiand. In Geography, a term noarly aynonymous with cape, mull, or promontory; which ace.

Heath, or Ereather. In $n$ general sonse the term heath is applled to waste land in which the prerailing plants consiat of one or moro of the common species of heath-Culluna and Firica. (Calluna rulgaris, Ssl. The kirica communia of Linneus.) This plant covers many hundreds of acres in the Highlands of Scotland, in. .eland, and in similar climates on the Coatisent. It attains, in many places, the belght of 3 or 4 feet; and is used for thatehing houses, making besome, sull for a varisty of other purposes. The tender tups form a substitute for mattresses in IIlighland cottages ; and they are also eaten green and in $n$ dried state by horses, cattle, and sheep, in countries where the grasses and clovers do not begin to grow till late in the apring.

Heave, in nautical phrase, to employ force to move great weights ly the lever, etc.; us to heare up the anchoi by the capstan or windlass; to hence dover the ship, or pull ' c over on one aide to get at a leak; also to heare taught (tight), or turn the capstan till the rope or chain applied to it becomes thight.

Hebrides, The, or Western Islands of Scotland, consist o: about 200 islands or istets, ${ }^{\text {l- }}$ ing between N . Int. $55^{\circ}$ and $58^{\prime} 51^{\prime \prime}$, nuil W. long. $55^{\circ}$ and $7^{\prime}$ 52', Their anciont name uris Mrbudar or Hibula, ned the alteration was ainply the result of a printer's error in un early edition of the works of the renerabie bede, pulilahed in l'aris. l'rom the censua returns it appesers that in 1851 the number of inhabited islands in the Hebrides wan 70, having a population of 116,367 ; from 20 to 30 mot 2 are partially inhabited daring the summer and grazing season. The mont gonthern of the group are situated on the Firth of Clyde-as Bute, Arran, the Cumbrayn, Lamlanh, and fuchmarnoch. The geologienl formation of thene blands includes granite, gneias, alate, trap, sandatone, sad linestone. Arran is jeculiarly rich in attractions both to the geologist and boianist, and posaesses inigh-
ly picturesque scenery. The ether ialands are usually divided into the Outer Hebrides, or Long Islend, nad the Inver Hebrides. Tho former consists of tho Lewis, IIarris, North and South Uist, Benbecula, llurra, and a number of smaller islands-the whole length from Barra-IIead to the Butt of Lewis being about 180 miles. The Immer Icbrides include Islay, Skye, Mull, Jura, Coll, Colonsay, Rum, Tiree, Ulva, Llnamors, etc.

Heel. The after extremity of the ship's keel; also the foot of a mast. To heel over, to incline to one alde.

Helena, St., an island In the South Atinntic, inclonging, to liritain; S. lat. $15^{\circ} 55^{\prime} 26^{\prime \prime} ;$ W. long. $5^{\circ}$ $42^{\prime} 30^{\prime \prime}$. It is about midway letween Africs and Sonth America, 1800 miles from the Cape of Good Hope, and 600 milies from the island of Ascension. Its extrel. breadth is 7 milea; and lts greateat length 11 miles; Its area is 30,300 Eriglish acrea. The geology of St. Helena is Interesting. The island may be considered as the highest peak of a range of mountains traversing tho South Atlantic, and ia most probailly and extinet tertinry voleano. Geologista bave been unable to fix with exnctnesa ita chronological position. The voleanie forces which have proxluced the complicatod tisturbances eo conspicuous throughout the island, must have ceased at a very remote perion, as it has evidently retained for agas its existing conformation.

The climato of St. Helenn, though within the troples, is tem, orate and healthy, nad not unfavorabie oven to Furopesn constitutions. In Jamea 'lown ( 600 feet atove nea-level), the thermometer neldom rises above $80^{\circ}$; lunt in calm weather the heat reflected from the sides of the valley is often oppresaive. In the open country the temperature is more uniform and mild, acareely ao hot and never aceold as in Fingland. During some soasons the highest polnt of the therr.ometer during the aummer has been only $72^{\circ}$ in the interior; and the ondinary range during wiuter from $55^{\circ}$ to $50^{\circ}$.

The soil of St. Ifelens is elsyey, and in many placea of consilerable depth, Vegetation is very luxurintit in the laland, which is alundantiy amplled with water froul 160 excellent welis. In some parts of the island
fron ore has been found, but the scarcity of fuel prevents it from belng smelted. Gold and copper have been observed in small quautitles. Concrete limestone is excellent in quality and abundant. The hills are covered with furze and various Indigenous slirubs and trees. Of the latter the most abundant is the gumwood, of which there are three kinds, the common, the bastard, and the dwarf gum-tree. Other native trees are stringwood, dogwood, redwood or ebony, and the cablhage-tree, of which the last two are very duralle as building timber. Oaka, cypress, and plnaster, have been introduced into the plantations, and thrive well. The ferns of St. Itelena are numerous, and the myrtle grows to the belght of 30 feet. The cotton plant ulso thrives very well. Fruits ripen beat in the valleys near the const, hut overy farm produces in abnadance the common fruits and vegetnbles both of the tropical and temperate zones. The attempts to grow cereals have not succeeded. Of the 756 apecies of plants now found in the island only 52 are natives. The eattle, sheep, and goats on the island are of English origin.
St. Jelena was diacovered by the Portuguese in 1501. They succeederl in concealing the position of St. IIelena from other European untions till 1588 , when It was descried and visited by Captain Cavendish on lits way home from a voyage round the world. Soon after this it becaine well known to the buteh and Spaniards. In course of time it was abandened by the Portuguese, and taken possession of liy the Dutch, who in turn abandoned it on the extablishment of their colony at the Cape of Gooll Hope in 1651. On their departure the English East India Company formed a rettlement upon St. Ilelena, and about ten years afterward obtained from Charles JI, a charter for its posression. In 1665 the Dutch successfully attacked the inland, but in a few months were driven out of it hy the Euglish. Agaln, in 1672, the Datch recaptured it, through the treachery of the planters; hut it was almost immediately recovered hy an English squadron, under Captain Munden, and agnin restored to the East India Company. As the trule of the East India Company fucreased, the importance of the island became daily more apparent.
But the chief historical interest of St. Helena centres in Longwood House, the revidence of the exiled Emperor Napoleon from 1kis till his death, May b, 1821. The house in which the emperor lived han been allowed to fall gradually into deeay ever slace hits hocly was rembed to France in 1841 .- Hnoose's History of the Ishum of St. Hetena; Jonssons's Acconent of St, Iftemi; Bigatsos's Tructs relutive to the Iadaul of si, Melena, etc. In 1N0J, the lmpulation was 3078 ; in 182:3, 4381 (composed of 1201 whites, 911 in the civll and military establishments, $10 \overline{4} 4$ slaver, $7,2,4$ free colored, 442 Chinese, and 24 Iaset i; In 18:19, 4205; in 1849, the watal military force amomited to alout 1500 regular triopss, bexides four volunteer companies of white and black militia. Solliers are sonethes placed at St. Helena to undergo a seasoning previous to lielug sent to Judia; ant thin island and the Cape of tional Hope aro the principal stations to which eaptured slaves are brought, and employed in publle workn.
Holl Gate, Holle Gatt, or Hurl-Gate, formerly a dangeroan pass in the stralt called the East River, hetween (ireat Barn Island and Long Inland, near the elty of New lork. It in "ormed by projecting rocks, which confine the water to a narrow and crooked channel, occanioning atrong eddy currents, dangerous to vesseln at certain timea of the tide. The channel has leen deepened by blasting the rockn, wo that there is now 21 feet of wate; at low tide throughout it.
Helm, implien the mechanian of the stecrage, especially the tiller: an, to put the helun a-starberad, is to put tho tiller over to the right sile; aport, to the
left side; up, to the weather aldo; down, to the lce side.
Helmuman. The man who steers. A goos helmaman oppeses In time the tendency of the aliip to devlate from her course by a small motion, which ho relaxes as soon as the effect is felt, and thus disturbs her salling as little as possible. A bad helmismun glves her too nulnch helm, and keeps her perpetually: yawing from one side to tho other. The steerage, therefore, is of the utmost consequence $\ln$ ehase.

Hemlock, tho Conium maculatum of botanists, is an umbelliferous plant possessing narcotic and powerful poisonous properties. It may readily be distinguished from most other umbelliferous plants by the numerous dark purple spots which cover ite smosth stem and leaf stocks, and by the strong heavy oder, resembling that of mice, which it exhales. The poisonous properties reside in every part of the plant, and are owing to the presesice of a peeuliar volatile oleaginous alkalohd, ealled conia or coneine, capable of forming salts with acids, which aro equally energetic as the conia itself.

Hemp (Ger. Hanf; Du. Hemnig, Kennip; Da. Hamp; Sw. Hampa; Jr. Chaurre; It. Canape; Sp. Canamo; Ras. Konopli, Kouopel; POl. K onope), a valuable plant (the Connabis sutixa of Limneus), supposed to be a native of India, but long sinee naturalized and extensively cultivated in Italy, and many countries of Earopo, particularly Russia and Poland, where it forms an articlo of primury commercial importance. It is also cultivated in different parts of Auerica, though not in such quantities ns to supersede its in. portation. It is stronger and coarser in the fibre than thax; but lts uses, culture, and management are pretty much the same. When grown for seed, it is a very exhausting erop; but when pulled green, it is considered as a cleaner of the ground. In Great Britain its caltivation is not deemed prolitable $;$ so that, notwithstanding the encouragement it has received from government, and the excellent quality of English hemp. it ix but little grown, except in some few districts of Suffolk and Lincolnshire. The quantity raised in Ireland is also inconsiderible.-Louvon's Eincyc. of Agricult.

Flax was first planted in England, when it was directed to be sown for fishing-nets, A.D. 153.1. Buallthes were paill to encourage ita cultivation in $18 \times 3$; and every exertion should be made hy the government and legivlaturo to acconplish such a national gend. In 1785 there were huported from Russia in Jritish slips, 17,695 tuns of hemp ond thax.-Sir John Siurlair. The annual limportations of these articles now amount to ulvout 100,000 tons. More than 180,0100 lis. of rough hemp, are used in the cordage of a first-rate man-of-war, including rigging and mails. See Flax. -Ihaydn.

Exceedingly goow huckaback is made from hemp, for towels and common tablecloths. Low-priced helupen cloths are a general wear for hoshanduen, servants, nud laloring manufacturess; the letter sorty for work. ing farmers and tradesmen in the country, and the finer ones, 务 wide, are preferrel hy somu gentlemen for strength and warmeth. They powsess this advantake over Irish and other linens-that there colur innproves in wearlug, while that of linen deteriorates. Bat the great consumption of hemp, is in the manufacture of mailcloth ard conlahe, for whid purguses it is peculisaly Iltted by the strength of its tibre. Einglish hemp, when properly prepared, is said to he stronker than that of every other comastry, liassia nut excepted: and would, therefore, make the hest cordage. It is, huwever, but little used in that way, or in the making of saileloth; belng princlpally made linto cloth for the uses already atated.
Hemp has been cultivated in Hengal from the remotest antiquity, but nut, as In Europe, for the purpose of being manufactured into cloth and cordage.

In the III malt ; a fi belnt prod which it is : merce, etc.
Tho price war of 181 way of its from 1808 stance that and the ext contributed and Imports Irices, 2d el We lorro to the hem Mr. llorriso Hemp form Petershurg, sortel, acco firsts; out-sh thirds; and are annual! greatest part brought to $\mathbf{r}$ cow, by wate the conntry from Karats duced in ISel ferior to the down in tho it is selected beimg perfort binders appo muld it is a great impartl hemp weighs to 55 ditto; d $=36 \mathrm{lts}$, avoi at the rate of for out-shot, ar bundle ; one half by the their agents. copecks per I for every sort attached a tic ef, and owner has also affix side with the with the sort lected. The lusing of an but its good fibre, which sort should is out-shot is les greater porth qualities and As a perfe and flax can tion, agents In this husine ting grow of t of giving suti though the ha owing to the which it must diffirencess in way sosnewh parisent of the or picked out it is generall Which ament large bundens. Purticular car In fine dry we

In the Hindoo economy it serves as a substitute for malt; a faverite intoxieating liquor, called banga, being produced from it! This, also, is the use to which it is applied in Egypt.-Milnurv's Orient. Commerce, etc.
The price of hemp flucrnated very much during the war of 1812. In consequence of difficultles in the way of its importation, it etood at a very high level from 1808 to 1814 . This was the principal clrcumstance that origiunlly brought iron cables into use; and the extent to which they are now introduced, has contributed materially to diminish the consumption and importation of hemp.-Tooks on lligh and Low Prices, 2d ed., p. 3-5.

We horrow the following particulars, with respect to the hemp trade of Petersburg, from the work of Mir. Borrisow on the commerce of that clty:

Hemp forms a very important articie of export from Petersburg, and deserves particular notice. It is assorted, nccorling to its quality, Into clean hemp, or firsts; out-shot hemp, or seconds; half-clean hemp, or thirds; and hemp codilla. Of the first 3 sorts there are annually exported nbout $2,000,000$ poods, the greatest part in English nid American bottoms. It is brought to Petershurg, from the interior beyond Moscow, by water; and its quality depends very mueh on the conntry in which it is produced. That brought from Karatshev is the best; next to this, that produced in Ilelev; hemp from Gishatsk is considered inferior to the latter. As soon as the hemp is brought down in the spring, or in the course of the summer, it is selected and made up in bundles; buth operations being jerformed by sworn selectors (brackers), and binders appointed by government for this purpoce; and it is a well-known fact, that this is done with great impartinlity and exnctness. A lundle of clean hemp weighs from 55 to 65 poods; ditto out-shot, 48 te 55 ditto; ditto half-clean, 40 to 45 ditto. ( 1 pood $=36 \mathrm{lbs}$ avoirdupois.) Blading of hemp ls paid for at the rate of 2 roublea 50 copeeks for elean, 2 roubles for out-shot, and 1 rouble 60 copecks for half-rlean, per bundle; oue luif is paid by the seller, and the other half by the purchaser, and is eharged aecordingly by their igents. 'The expense of selecting hemp is 50 copecks per hereevitz (or 10 poods), and is tho same for every eort. To every bundle of nasorted hemp is attached a tleket with the names of the selector, hinder, and owner, and the date and year. Erery bundle has also affixed to it a picee of lend, stamped on one side with the mane of tho selector, and on the other with the sort of hemp and the time when it was selected. The external marks of good hemp are, its being of an equal green color and free from splits; but its good quaity is proved by the strength of the fibre, which should be fine, thin, and long. The first sort shoukd the quite clean and free from spills; the out-shot is less so; aut the hutf-clean contnins a still greater portion of spllis, and is moreover of mixed qualities und colors.
As u perfect knowledge of the qualities of hemp and thax tan only he acquired hy experience and attention, agents usually employ men constantly oceupied in this husiness, by which means they are sure of getting geol of the best quality, noll have the best chance of giving antlafaction to their prinepals; because, although the hemp is selected hy aworn selectors, yct, owing to the quantity of binsiness nud the apeed with which it must he executed, etco., them are often grout differences in the same sorts. The charges are in this way somewhat lncrensed; but thin is tritling in comparison of tho alvantuge gained. The part separated, or jucked out in cleaning hemp, is called hemp condilla; it is generally made up fin small bundles of 1 proi, which are ngaln, when shlpped, bound together in large tundien, ench consisting of about 30 small ones. Purticular care muat be taken to ship hempand flax in fine dry weather; if It get wet, it heats num is to-
tally spoiled. For this reason every vessel taking in hemp or flax is furnished with mats to prevent its getting damp. Memp, being light and bulky, ls, when stowed, forced into the hold by means of winches, whleh renders the operation of loading rather siow. It may be taken as a general rule, that the prices of hemp are highest in the months of May, June, July, and the early part of August; the demand for this article being then greatest, and the exportation to North America being principaliy effected at this eeason. Again, the prices of hemp are lowest in the month of September; the reason of whleh is, that the less opulent hemp-merchants return at the end of this month to their own country in order to make new purchnses for the ensuing year; and rather than be detained, sell the remainder of their stock some roubles below the market price. This causes a general decline; although an unusual demmat for the article linppening at the anme time, or political events or rumors, ocensionally produce a contrary effect. Two lnrge warehonsea, calied ambares, are buitt in Petersburg for the special purpose of housing hemp, where the greatest oriler is olserved.
/femp (Mfanilla) commonly called Manilla white rope. Mr. Crawford gives the following account of thia nrticle: "Of the wild bmana, one kind (lfusa textilis) grows in vast abundance in some of the most northeriy of the spice islnnds. In the great island of Mindanao, in the Philippines, it fills extensive forests. From the tibrous hark or epidernis is mnnufactured a kind of cloth, in frequent use among the natives. It also affords the material of the most valunble cordage which the indigenons products of the Archipelage yield. This is known to our readers and navigators under the name of Manilla rope, and is equally applieable to enbles, nid to standing or running rigging."-Hist. of Archipelago, vol. i., ]. 412.

ITemp (Indian), or Sunn and Jute.-Sunn conslsts of the fibre of the crotolaria jumeea, $n$ totally different filant from the cannnhis sativa, which, as already stated, is never used by the Ilindoos for cloth or coriage. Sunn is grown in varions places of Hindoostan. The strongest, whitest, and most durable species is produced at Comercolly. During those periods of the late war when the intercourse with the Ihaltic was interrupted, and hemp bore an enormous price, large quantities of sunn were imported; but after the intercourse with the Continent was renewed. the importation of sunn ceased for several years. But within the lnet dozen years it has heen again imported to a considerable extent. It is, however, deficient in toughness.

Jute conslats of the fibres of two plants, called the chonch and isbund (Corchorus olitorius and Corchorus capsularis), extensively cultivated in Bengal, and forming, in fact, the material of whieh gunny bags und gunny doth are made. It fetehes neurly though not quite as high a price as sumn. It comes into competition with llax, tow, and cadilin, in the manufacture of stalr nod other earpets, lugging for cotton und other roots, and wach like fabrics, being extensively used for these purposes in lhondee. Lut it is masuitable for cerdage ant other articles into which hemp is mnnufuctured, from its snupping when twisted, and rotting in water. The quantities imported, and the prices, have thuctmoted very freatly during the last diozen years ; but from fic to exs a ton appears to be a fair averuge price. When tirat introduced into this country, in 1815 , the price of jute varied from $£ 35$ to f. 10 a tom. It was then, however, very little used, and did not, in fact, liegin to come lnto any thing like general use as lagging till 1827 or 1828 .

Chisa-gross.-The attention of practleal men has bong been directed to the remarkabio qualities of the thinn-grass, very similar to the Calooe hemp or Rhea thire of Indin. 'I'his grase is very strong and benatiful in the flbre; and a simple but efleaclous mode of
proparing it has lately been devised. Thia metk ul depends chlefy on the solvent powers of a hot solustion of carbonate of sodn, and is so aatisfactory that mixel fabrics are now made with China-grass as one of the component fitires; and there seems scarcely any Ilmit to the probable aupply of the grass from India.

Culture in Russia.-Next to the eulture of cereala and the rearing of domentic animals, the cultare of fiax and hemp, both as textile planta and as oleaghous graing, is the most linportant branch of Russian husbandry. The gross value of these products amounts, at a very modernte estinate, to about $55,500,000$ of silver roubles ( $\$ 43,500,000$ ) ; and both soil and climute are exceedingly favorable to their culture throughout a great part of the empire. As their production greatly exceeds the wants of the home manufacture, the extension of their culturo cssentially depenils on the facility with which they find an ontlet in the forelgn market. Flax and hemp have always formed two of the principal exporta; and, if to these we add oleaginona grains, which consist principally of the seeda of hemp and flax, we ehall find that the export of these three articles, taken as a whole, exceeds in value that of any other product. In the conrse of 29 years, from 1824 to 1850 , inclusive, there were but four, namely, $1830,1831,1846$, and 1847 , in which the value of exported cereala was greater than that of theas.

From the custom-houae returne, we find that, during the period in question, the total value of exports for Earopean commerce amounted to $\% 1,427,586,225$, ahout $124-5$ por cent. of which was in flax, $101-5$ per cent. in hemp, and $83-5$ per cent. in oleaginous seeds. These figurea forcibly show the luportance of the culture of these textiles to the foreign commeree of Russia, as well as for her domeatic manufactures. In this braneh of agrieulture, she has not hitherto met with serious competition, as the other countries of continental Europe, in which these articles are prodnced, not having mueh land to spare fur that purpose, and finding it, from their greater relative population, more profitable to eultivate other eropa, do not raise enongh for any considerable exportation; for, nowhere in Furope can they lee cultivated in anch abundance as in Russia. Of other countriea, it in the Fast Indies and the l'illippine Islanda that furmiah Fngland the largest supplies, say, from 10,000 to $12,(500$ tons per annuin, and the United States, which export at present not over 5000 tona. Fingland, moreover, imports from Egypt and other parts of Africa about 200 tons of llax and hemp, an amount comparatively inslgniticant.

Notwithotanding the heary blows continnonsly dealt out to it, ly the linereasing use of cotton goods, the linen manufacture atill maintaina the foremont rank in Russia, in point of extent and importanee. It is not, like the cotton manufacture in Great Iritaln, the I'nited States, and other conntries, concentrated in large establiahments, which atrike the eye ly their size, their machinery, and the numbers of workmen collected on the premises; liut, conducted within the morest wulla of the peasants' cottages, it is iliffused over the whole length and lirealth of the lnnd. There is searcely a sillage withln the whle limits of the entpire, where the wheel, the distaff, and the lown are not to the found. With regaril to the extent of chia specion of Industry, It is averral that lisen forms onn of those articles of prlme necessity which no limilividual in Rusala, rieh nor porr, con entirely dinpense with. ISeckoning only 10 yands, $2 x$ inches in whith, for sach inhablitant, jer annom, it wonll! refuire for the popuslation of fri, 500,000 (ineludlog l'oland), in consumption of $605,0001,000$ yarda. The culture of tlax fur evilimerce ls moxt extenslvely carried un in the governments of Wologila, Whatka, Saroslaw, Wladamir, Novgorol, l'gkow, Livobla, Courland, Smolensk, Wilna, and Witetws, and that of hemp in the guvernmente of Tachernigow, Koursk, Orel, Toula, and Tainlxow. Thin limportant branch of rural economy has
attracted the special attention of the Russian government.

Culture in the United States.-During the last half century grost efforts have been made in Europe, and, to soms extent, of late, in the United States, to increase and improve the production and manufactore of flax and hemp. Formerly they were considered as indispensable crops among our planters and farmers, but their use has been sapersented in a measure by the cotton of the South. Common tinx is a native of Iritain, where it his been cultivated from time inmemerial, and froin lts hardihood and allaptation to a wide runge of temperature, it has been grown in almost every country on the eastorn continent, from Egypt to the polar circle, and in North America, from Texas to Newfoundland. Iemp, which is supposed to be a native of India, but long slace acclimatized and extensively cultivated in Spain, Italy, and several other countries in Europe, particularly in l'oland and lisssia, as well as in different parta of Americu, also forms an article of primary importance in commerce, and is of extensive utility. Hoth of these products were in. troduced Into the North American colonies swon aft ?r their settjement by the English. They are mentioned na growing in New knghnd prior to 1632; and homnties were offered for thelr cultlvation in Virginia as early as 1751. Captain Matthews sowed yearly boda henp anil flax, which he cauaed to be span and woven, prior to the year 16:18. In 1662 an edict was passed requiring each poll in Virginia to raise nnnually and minofncture six pounda of linen thread; but, from the ehange of the laws and the cessation of the bounties, the culture declined.

In the late Exhibition at Iondon, of the Works of Industry of All Nations, Loth of these materials held a conspicuous rank. Flax was exhibited, the growth of Great Iritain, Ireland, Ilolland, Belgimm, France, Spuin, lortugal, Italy, l'rassla, Germany, l'ohand, IRassia, Turkey, Epypt, Indi., Van Dicman's Iand, Canaln, and the Unlted States, and hemp from all of these countries, except Ilritain, Ireland, Canala, and Van Dieman's Land. The fibre of flax and hemp has never been proluced in this country in sufficient almulance to form much of an article of forcign connmerse, but finx-seed was formerly shipped to lurope in larce Iuantities. There were exported from New dersey in 1751, 14,000 lbs. of hemp; from Sivannah, in 17:0, 1860 lbs.; from the Juited States in 1850- 51 , 4itio cwt. The amount of flax-seed exported from Phila-
 bushela ; in 1771, 110, (ti2 bushels; from New Virk in 1755, 12,5:2 hhds. ; from the liritish North American colonles, in 1770, 312,612 luskels; from the l'nited
 els; in $1810,240,579$ bushels; in $1 \times 20-21, ~: 661,310$ bushels; in 1si10-'11, 120,702 luashels; in $18.10^{\prime} \cdot 11$, 32,243 busliels ; in $1850-51,9185$ bushels.

Aceorting to the census roturns of 18.60 , there were ralsed in the Vnited States $95,251 t$ tons of thax and bemp; of $1 \times 50,35,003$ tons of hemp und $7,715,961$ hlas. of thax. The correctness of the returng as to hemp, in the seventh evosus, has not yet hern fully writiel. There has been mome donht whether, in a mumbe of instancea, the marshals have not writuen toms where they meant lbs. If, however, the returns aro all allowed to stand withont reduction, it would appar that the cultivation of hemp or thax has materially chamged since 1810 . In the returns of that year, as atated alove, both of these articlen were included mutar the same head. In 1840, thowe of Virgmia mave $2 .$, ,ill tons of liemp, and lax together. In 1800, anly 1.11 tons of hemp and bow tons of bax were returied. Such a falling eif wonld amount to almont an aboudunment of the calture of homp lin that State, which there is no reason to suppose has taken phace.

The discovery of new mothonds for wiparating the Abrous from the woorly parts of the llax plaththas
doubtless gi in the Unite lirst attract Theugh cons dreed in for for the seed, The want of the textile fr sioned a va country. Sh male to app duetion of th creat import only alone, b as it appears other ifbres.
Native-gro ally. Mr. W struction, Na tary of the N detail of calti hemp, which, found to be $v$ time, make th cisil murket t puses. Mr. G of the United port of his views, conclu hemp, may, a equal if not to

Kentucky a States; the fo ter system of
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lin.
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Hemp-se 1t. Comipueci opljanoe sienja seed is that wi rubived. It is vil, or as fookl lowied with a reduced to 1 . pealed.

Herat or espital of Shat of Afghunistin milles north of tile valluy. miles went of' earthen mound ditch. Vrom upward of 10 mirth cml of 1 a ditch amel ma is the liuge m further the go Reza. As the
doubtloss given a vigoreus atimulant to its cultivation in the United States. The process of Chevalier Clansen lirst attracted general nttention among us in 1850. Though conshlerable quantities of flax have been produced in former years, it has been raised principally for the seed, which commanded a remunerating price. The want of a cheap and speedy process for separating the textile from the refuse parts of the atalk has oecasioned a vast annual loss of useful material to the country. Should the ittempts which have lately been made to apply Clausen's invention succeed, the production of tlax in the United States may become of great importance, and be advantageously used, not only alone, but in the manufacture of mixed fabries, as it appears capable of belug span with wool, silk, and other tibres.

Native-grown hemp is coming Into use very generatly. Mr. W. 13. Shubrick, Chief of the Bureau of Constraction, Nary Department, in a report to the Seeretary of the Navy, recomments greater attention to the detail of cultivation, euring, and packing native-grown hemp, which, in the opinion of the burenu, would be found to be very beneficial in effect, and, in course of time, make the navy altogether independent of a foreifa market for a materiai so important for maval purposes. Mr. Gardiner, Superintenilent of the Rope-walk of the United States' Navy Yaril at Memphis, in a report of his depurtment, further substantiates theoe views, concluding, that with proper care, "American hemp may, as experiment has ;roved, be mude to equal if not to ex cel, any forelga Importation."

Kentucky unt Missouri nre our alef hemp-growing States; the former producing superior hemp as a better system of prepuration prevails.
Production of Ifrup in the Uniten States in 1550 .


Expoht of Itrmp from the United States frem 1854 to t 56 , incuusive.

| ap. | 1854. |  | 1885. |  | 1856. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw. | Manufac. | Raw. | Manufac. | Raw. | Manufac. |
|  | 2tila | Itillarsi | T. 1 llara | Domars | Dodlars. | Whila |
| Domestle. | 93,699 | 70,717 | 121,820 | 84, 3118 | 29,608 | 20,238 |
| Forelgn.. | 42,614 | 45,6826 | 25\%,44t | 23,718 | \$4,249 | 83,816 |
| Total. | 146,813 | 125,843 | 970,761 | 60,268 | 82, 417 | 108,544 |


| tsk3. | * $1.920,913$ | Cwts, 464.070 |
| :---: | :---: | :---: |
| 124. | 2,209,718 | 1092,174 |
| 15 S \% | 2,16\%, 1111 | 240.438 |
| $15 \% 6$. | 2,345,000 | 252, 733 |

Hemp-seed (Vr, Chenevis, Chenemi; GerMamfant ; 1t. Canumucria; Lat. Semen cannabinum; lius. Kanopljanoe Nenja), the seed of hemp. Tho hest hempseed is that which is brightest, and will not break when rubbed. It is used either as seed, or for crushing for oil, or as food for fowls. Previously to $1 \times 39$, it was loaded with a duty of eg per quarter, which wis then reduced to is. pur ditto, and in 1815 was wholly rem pealet.
Herat or Herant (nnciently Arid or Artucomn), eapitul of Shah Mahmori's State, on the west frontior of Afthanistan, eron feet above the sea-level, three miles north of the llary liver, In a beautiful nud fertile valhy, lat. $31^{\circ} 22^{\prime}$ N., long. $62^{\circ} 9 \prime \mathrm{~F}$, ; $166^{\circ}$ miles west of C'atrol. It is entirely surroumed by an earthen mound, 50 fect high, hy two trenches, nod a ditch. Firom the momil rises a wall 25 feet high, und upwand of 100 hastons on unburnt brick. At the north end of the town in a strong eitudel, defendel hy a ditch und massive towers, To the north of the town is the luge mound raised by Nadir Shah, mind a little further the gergeons ruins of the Moosuliah of Immin Heza, As there is nu drainage, the town is oxtremely
filthy, althongh in the 15 th and 16th centuries it was one of the finest citles in the world. Commercially, the position of Merat is important. It receives shawle, iniligo, sugar, splees, chiutzes, muslins, brocades, scarfs, leather, and hiles from Afghaniatan; tea, sugar, porcelain, glass, silk, cetton, cloth, woolens, carpets, and hardware from Persia, Russia, and Turkey. The Ilerat carpets are fumous. The annual revenue of Herat is estimated at, perhaps, $£ 100,000$. It was unsucceasfully besieged by the Persians in 1838. Population lesa than 45,000 .

Ferrings, and Herring Fishery. The horring (Clupea harengus of Linnæus) is a fish too well known to require any description. It is everywhere in high esteem, both when fresh and when salted.
"Herrings are found from the highest northern latitudes yet known, as low as the nerthern ceasts of France. They are met with in vast shoals on the coast of America as low as Carolina. In Chesepreake Bay is an annual inundation of those fish which cover the shore. We find them again in the seas of Kamschatka; and proliably they reach Japan. The great winter rendezvous of the herring is within the Arctic Circle : there they continue for muny months, in order to recruit themselves after the fatigue of spuwning; the seas within that space swarming with insect food in a far greater degree than those of our warmer latitudes. This mighty army begins to put itself in motion in spring. They begin to appear off the Shetland Isles in April and May, These are only the forerunners of the grand shoal, which cones in June; and their appearance is marked by certain signs, such ns the numbers of birds, like gannets and others, which follow to prey on them; but when the main hody approaches, jts breadth and depth is such as to alter the uppearance of the very ocean. It is divided inte disthact columns of five or six miles in length, and three or four in breadth; they drive the water bofore them, with a kind of rippling. Sometimes they sink for the space of 10 or 15 minutes, and then rise again to the surface; and in line weather reflect a variety of splendidl colors, like a field of the most precious gems. The first cheek this army meets in its march southward, is from the Shetland Isles, which divides it into two parts; one wing takes to the east, the other to the western shores of Great Britain, and tlll every bay and creek with their numbers; the former proceed toward Yarmouth, the great and ancient mart of herrings; they then pass through the liritish Channel, and after that in a manner disappear. These which take towarl the west, after offering themselves to the Hebrides, where the great stationary fishery is, proceed to the morth of Ireland, where they meet with a second intorruption, and are obliged to make a second division: the one takes to the western sile, und is scarcely perceived, being soon lust in the immensity of the Athantic ; but the other, that passes into the Irish Sen, rejoiees ant feeds the inhabitants of most of the coasts that horder on it. These hrigades, as we may call them, which are thus sep rated irom the grentor columms, are often eapricious in their motions, and do not show an invariable nttachment to their hunts. 'This instinct of migration was given to the herriugs, that they might deposit their sjuwn in warmer seas, that would mature and vivify it more assuredly than those of the frozen zone. It is not from defect of foul that they set themselves in motion; for they come to us full of tat, and on their return ure almost universally observed to be lean anst miserablo. What their food is near the pole, we ure not jet informed; lut in our seas thoy teed much on the oniscus matinne, a erustaceous insect, and sometimes on their own fry. They are full of roe in the end of Juse, and continue in perfection till the beginning of wintor when thoy deposit their spinwn. The young herrings hefin to approach the shores in, July and August, and ure thon from one half an inch to twolnches long. Though
we have no particular authorlty fhr it, yet, as very few young herrings are found in our aens during winter, it seems most certaln that they must return to their parental haunts lienenth the kee. Soma of the old herrings continue on our ceast the whole year."-l'p.rnant's British Zoology.
The herring was unknown to the ancients, belug rarely, if ever, found withln the Mediterranenn. The Dutch are said to have engeged in the finhery in 1164. The Invention of pickling or aalting herrings is ascribed to one lienkels, or llenkelson, of Hiervllet. near Sluyk, who died In 1397. The emperor, Charles V., vislted his grave, and ordered a magnifieent tomb to be erected to his memory. Since this early period, the Dutch have uniformly maintained their aacendency In the herring fishery; bot, owlog to the Keformation, and the relaxed oliservance of Lent in Cathollc countries, the demand for herring* upon the Cortinent is now far less than in the 14 th and 15 th centuries.

It is shown by a parlinmentary return of $18 \ln _{6} 6$, that the tntal quantity of herring cured in Grent Britain, during $\mathbf{1 8 0 5}$, wan 766,609 harreln ; the quantity branded, 280,581 barrels ; and the quantity exported, 442,264 harrels--heing an increase over tho preceding year of 130,141 bnrrels cured, $68,73{ }^{\circ}$ branded, and 80,567 exported. The quantity caught, lut not eared, amounted in 1855 tn 830,759 barrels, leling an increase of 26,970 bartels over 1804 . The tntal produce of the herring Ilsheries in 1855 a sted to 897,463 burreln, being 157,111 more than 1.1854 . Of cod and ling, during $1855,113,561 \mathrm{cwt}$. was cured dried, anil 6316 barrels cured in plekle ; total quantity exported being 29,151 cwt, of the former, and 25 barrels of the latter. This was an increare as compared with 1854 of 9507 cwt . cured, nul 25 barrels exported. The total gluantity canght, but not cured, amonnted to bin, $6: 9$ ewt., being an increase over the preceding year of 5197 cwt ., and when added to the quanlity cured, makes the produce of the col und ling fisheries for $18525,177,100 \mathrm{ewt}$. and 691t barrels, helng an increase over 1854 of $9: 173 \mathrm{cwt}$. and 160 harrels. In $1855,11,747$ hoats, manned by 41,402 thenermen and loys were employed In the shovecuring department; and the total number of persons engaged in the lisheriea was 94,105 , being an tucrease over the preceding year of 856 boats, 12.43 fishormen and $\mathbf{1 6 , 3 2 1}$ persmes in the total namier employed. The value of hoats, nets, and linew amounted in $1 \times 5 \mathrm{~s}$ to $\mathcal{E}[18,48.3$, being an incrense, as compared with 1851 ,


Elidage (Hidagium) was an extrantinary tax pay. nhle to the kings of Englant for every hide of land. This tax was levled in money, provision, nrmor, and other articles; and when the I anes Innded in Sandwheh in 994, King lithelred taxed all hils landes by bides, so that every 810 hbles furnished one juck ninj one anddle, to arm for the defense of the kinglom. Sometimes the word hidage was used to signify exemption from that tax; and this immunity was also called hidegild, and Interpreted, from the Saxon, a price or ransom pald to save one's skin or hide from beating.

Eides (Ger. Halte; Du. IVuiden; Fr. Peaur; It. Cuoja; Sp. Pellejos, Pieles; Kus. Koshi), signlfy, get. erally, the skins of hessts, but the term la more particniarly applled to those of large cattle, such as bullocks, cowa, horses, elc. llides are raw or green; that ia, in the state In which they are taken off ine carease, or dressed with ealt, alnm, and nalt [etre, to provent them from putrefying; or they are enred or tanned. The hides of South Anerica are ln the highest repute, and vast quantities of them are inported.

Jhuring the year 1856 the lmports of hite inte various ports of the United Statea were greater than in previous yenrs, ns fullows:
Imperts Into Now Z̈ork. $\qquad$ *1,511,012 762,741 340,578
Total, 18:8.

Genfrai. Htatrubnt of the Foreion Impolits of Ithes intu the United Siates foa the Yaar ending June $30 \mathrm{TH}, 1 \mathrm{~s}^{\circ} \mathrm{t}$.
Whence tupmotid.
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fulth We.... inde. Iutel Gulana.... IJutch Eont thities. Findand. 'anada. Hher is. N. A Pos British West Ind.. Brtinh Ilonduras.. Brilish Cialana... Ir. Pos. In Africa. Brifish East Indico Francoon the Med.
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| Raw hava |  | Rxw hides |
| :---: | :---: | :---: |
| $\begin{gathered} \text { athl } \begin{array}{c} n k \text { ins. } \\ 109 \end{array} \end{gathered}$ | frorto lifeo.... | aind nkina, |
| 0.323 | Portugal. | 6,0 |
| 9,454 | Cape ile Yiril Isls. | 11.190 |
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| 246,324 | Hayli. | 25,990 |
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| 1,71\% | Mexico. | 331,it |
| 317,035 | (entral liepuble.. | 78, 31 |
| * | New Granala. | 264,417 |
| $8,9 \times 8$ | Venezuch | 2.159 .591 |
| - 21.848 | Irazil. | 1.431,223 |
| 26,079 | Trugnay | 313,201 |
| 5,761 | Bramos A | 1, f (in) $\mathrm{S}_{\text {I }}$ |
| 276,055 | Chill | 41.934 |
| bes. 219 | Peru | 15.940 |
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| 15, ${ }^{\text {a }}$, 1 | Tetalo | 3,2 |




| Canactiea from whleh litipurted. | Ildea not tanned, lamed, curried, or in any way dreased |  |  |  |  | Ifdes fanmed, tawed, eurried, or dressed. |  |  |  |  |
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|  | 1 Nat . | 1man。 | 149. | insu. | insi. | Insi. | 184\%. | 154. | to. | 1451. |
|  |  | 1 |  |  |  |  |  |  |  |  |
| Itas | 0,174 | 5,119 | 11,967 | 18,74! | $8.522$ | $184+141$ | $81,980$ | $12,183$ | $44,990$ | $56,6 \Omega 3$ |
| Jenin | 2 ck | 7(t) | 720 | 1.434 | 8,792 |  | 56 | 4, MS ${ }^{\text {a }}$ | 8.7 mb | 3,649 |
| Trusala | 8.178 | 1,6*31 | 1.622 | 8,1008 | 4,021 | 4,471 |  |  |  |  |
| Hansearle | 6,1v2 | 6,5\% | 8,492 | 10,415 | 9.231 | 49,421, | 45,4909 | 3) 21219 | 40,24 | 56,il1 |
| Hoilan | 1.087 | 4, 4 , 6 | 2.157 | 5,422 | $8.7 \pm 9$ | 104,104 | 104.815 | 187.240 | 118.844 | 197,i64 |
| Belsium. | 3,192 |  | 264 | 654 | 5,840 | 18,451 | 17,419 | 93,4×1 | 2x.713 | 19, 5434 |
| thanmel | 840 | $77 \pm$ | 214 | 289 | 618 | 16,526, | 4.745 | 8,100 | 19,891 | H4, 1332 |
| Franee | 9 | 838 | 12 | 1,161 | 10,047 | 350,060 | 436,065 | 715,964 | \$19,841) |  |
| Murerso | 522 | 364 | $8: 11$ | 1.409 | 585 |  |  |  | 2, \%in |  |
| Itritimla boulh | 82, 5 20 | 9,764 | 9,763 | 10,048 | 12,2499 |  |  | 148 | 2117 | 7 T 1 |
| Hrlish Fiant Itulle | 04.794 | 64.949 | 71,017 | 101,193 | 187,2017 | 20, 1462 | 14,304 | 240,4tit | *) ${ }^{\text {a }}$ | 291,616 |
| French jos. In ln | 1.421 | 8,090 | 784 | 1,25i | 419 | 9\%1 | .... | .... |  |  |
| Java... | 4,623 | 1.963 | 1,425 | 6:3 | 1,407 |  |  |  |  |  |
| Philippine I slan | 9.24 | 9,361 |  | 4,9it | 6,159 |  |  |  |  | 1,079 |
| Pritisli Anstralla...... | (w, MY2 | 21.183 | 91,244 | 20,44] | 21, $0 \times 2$ | 109,7! 1 | 810,864 | 840,-21 | 647, 0 H1 | 231, 6 (in) |
| Ilrtish North Annerica. | 1,351 | 1.844 | 624 | 1.213 | 661 | 1.872 |  |  | 11 | 20 |
| Itr. W Indlese ac tialana | 7.115 | 7,182 | 4, 60 () | 8,690 | 8,065 | 941 |  |  |  | 17 |
| Trited Nisten Sinerias | 10,7*1 | 85.2 | 8,899 | 182 | 1 | 366,000 | 4-4,115 | 746 | 5,746: | 033,903 |
| Mexico. | 644 | 41 | 2:5 | 214 | , | .... | ..... | ... | .... 1 |  |
| Ceniral A morlea. | 1,750 | 186 | $4 \times 0$ | 1,906 | 170 |  | $\cdots$ | 406 |  |  |
| New Granad | 901 | 1.261 | 700 | 418 | 278 |  |  |  |  | 112 |
| Yenazu | 1.218 | 290 | 110 | 29 |  |  |  |  |  |  |
| Irazil | 215,9015 | 179.611 | 207,193 | 167.049 | 101,04\% | 958,504 | 48,048 | 45,984 | 87,182 | 72, 397 |
| Uragtay | 168,509 | 111,857 | 1,014 | H,162 | 16,246 |  |  | .... | .... |  |
| Haplua Ayres. | 4,775 | $111.17 \%$ | 320,947 | 232, 340 | 401,6\%3 |  | . $\cdot$. |  |  |  |
| Chill | 74 | 401 | 4,0.92 | 2.250 | 978 | $112$ |  |  |  |  |
| Perin. | 1.999 | 2,304 | 1044 | R,291 | 2,014 | 8,485 |  | -. ${ }^{\text {che }}$ |  |  |
| Other parts | 4.025 | 1,604 | 1.645 | 4.507 | 8,692 | 6i3s | 1,046 | 890 |  | 9.986 |
| Toial. | 601,351 : | 11.2 - 1 | 6389.4 | 801, 281 | 072.161 | . $\$ 12,208$ | 971,462: | .7N4,442 | 46,79? | 31,901 |

Statmment ghowixe the Numbra and Value of Himps expolted fnom the United States yoa the Yeab endina June boti, 1456

| Whilher s* vorted. | Domeatie. |  | Forelgn, |
| :---: | :---: | :---: | :---: |
|  | Number. | Valne. | Jhollare. |
| Hambur | 848 | 1,305 | 1,270 |
| Bremen.* | 1,101 | 4,879 | .... |
| IIfiland. | 20 | 100) |  |
| Belgiatn | 1,267 | 6,550) |  |
| England. | 8,781 | 20,082 | 631 |
| sootland. | 852 | 610 |  |
| Malta.. |  |  | 430 |
| Crnada.................. | 25,296 | 48,720 | 74,824 |
| Other Br. North Am. Pos. | 1,486 | 2,880 | 898 |
| British Wast Indies. ....... | b19 | 588 | ... |
| France ott tio Atlantic..... | 4,757 | 18,256 |  |
| France on the Moditer..... | , | . | 1,000 |
| French North Amor. Pos... | - $*$ | ...is | 4,692 |
| Cuba. | 60 | 140 |  |
|  |  |  | 18,175 |
| Anstrian I'os, in Italy....... | $1,(0) 0$ 426 | 2,000 |  |
| 1Jayt1. . . . . . . . . . . . . . . . . | 426 | 555 | - |
| Tota | 40,184 | (1)1,174 | 1101,924 |

High Seas. The high seas mean the water of the ocean without the boundary of any conntry, ann they are within the exclusive jurisoliction of the adniralty up to high water mork, when the tide ls full. The open ocean which washes the sen-coast is used In contradistinction to arms of the sea inclosed within the fances terra, or narrow headlands or promontorien; and under this head is included rivers, hurbors, creeks, hasins, hays, etc., where the tide ebbs and fiows. Ther are within the admiralty and maritime jurisoliction of the United States; but if they are within the boly of a county of any particular State, the State jurisuliction attaches.

The extent of the jurlsdiction of the district courts of the United States, as courts of admirulty and maritime jurisdletion, was very fully examiner, and with great ability and rescarch, by the Circult Court of the Unitel States for Massachusetts, in the insurance case of De Lovio r. Boit. It was maintainel, that in very early periods the admiralty jurisdiction, in civil cases, extended to all maritime causes and contracts, and, in criminal cases, to all torts and offenses, as well in ports and havens within the ebb and flow of the tide, as upon the high seas; and that the English adnimalty was formed upon the same common model, and was co-extensive, in point of ;urisdiction, with the maritine courts of the other commercial powers of Europe. It was shown, hy an exposition of the ancient cases, that lord Coke was mistaken in his attempt to contine the ancient jurisdiction of the admiralty to the high seas, and to excluile it from the narrow tide-waters, and from ports and havens. The court agreed with the aiminalty civilians, that the statutes of 13 lR . II., and 15 K . 1 I ., and 2 II . IV., dild not curtail this ancient and uriginal jurisdiction of the admiralty, and that, consistently with those statutes, the almiralty might excreise jurisdiction over torts and injuries upon the high seas, and in ports within the ebl, and flow of the tide, and in great streams lielow the first fridges; and alsu over all marltime contracts, as well as over all matters of prize and its incidents. It appeared, from a hastorical review of the progress of the controversy for jurisdiction, which lasted for two centuries, between the admiralty and the courts of common law, that the latter, by a sllent and stealy mareh, gained ground, snd extended their linits, until they acquired coneurront juriadiction over all maritime canses, except prize causes, within the cognizance of the admiralty. The common law ductrino was, that the sea, ex ri termini, was without the boty of uny country; but that all ports and havens, and all navigable tide waters, where one might see from one land to the other what was dolng, were within the boty of the county, and under the exclusive juriadictlon of the common law courts. On the ses ahore or coast, ligh and low water mark determined what was parcel of the sen, and what was the line of division between
the almiralty and the courts of law; and it was held, that it ought to be so considered by parity of reason, where the tide ebles and flowe, in ports and havens; end that the admiralty jurisdiction extends to ull tide waters in ports and havens, and rivers lienesth the lirst bridges. It was admitted, however, that the common law originally had jurisdictlon on the high seas, concurrent with the admiralty; and that in cases manifestly within the admiralty jurisdictlon, loth civil and criminal, the common law now claimed concurrent jurladiction.-Keat's Com., vol. i., pp. 399, 400.

Crimes on the bigh seas, such as piracy and robbery, are, by the laws of the United Statee, punished with death. Persons charged with such crimes must he tried at the port where they first arrive or are brought. Acreinaries shall also suffer leath. Concoaling a pirate, or larborling property taken by a pirate, is punished by imprisomment not over three years, and fine not over $\$ 500$. For revolt on shiphoard, or abetting a revolt, seamen will be imprisoned not over three years, and fined not over $\$ 1000$.-DunLar's Digest; pp. 7ó, 76.

Highway. In the civil law, the banks of public rivers and the sea shore were held to be public. Ripurtm publicus usus est; littorum quoque usus publicus est jure gentium, The law of nations was here used for natural right, and not international law, in the nodern sense of it; and it is stated in the Institutes of Justinian, that all persons have the same liberty to bring their vessels to land, and to fasten ropes to the banks of the river, as they have to navifate the river itself. These liberal doctrines of the lloman law have been introduced into the jurisprudence of those nations of Europe which have fullowed the civil, and made it essentially their municipal, law. Thus, in Spain, the ses shore is common to the public; and any one may fish, and erect a cottage for shelter. The banks of navigable rivers may also bo used to assist navigation. In the French law, navigable or floatahlo rivers, as they are termed, have always been regarded as dependencies of the public domain, and the lands on each side subject to the servitude or burden of towing paths for the benefit of the public. Sir Matthew IIale, in his De Jure Maris, concludes that individuals had a right to a tow-path for towing vessels up and down rivers, on makiag a reasonable compensation to the owner of the land for damage. In the year 1789 it wus decided in Enyland, 3 Term Rep., 253 that there was not, and never had been, any right, at common law, for the public to tow on the banks of mavigable rivers. It was admitted, that on many navigable rivers, there was $s$ custom to tow on the hanks; but the privilege in that case rested on the special custom, and not on any common law right. The statutes which lave given a right of towing on parts of the Severn, 'Trent, and Thames, are evidence that no such general right hefore existed. In New York it hass been alljudged, nfter a very ablo and thorough oxamination of the question, that the public have not the right to use and occupy the soil of an indivitual adjoining navigable waters, as a public landing and place of deposit of property in its transit, against the will of the owner, although such user had been continued upward of 20 years, with the knowledge of the owner. On the other hand, it is held in Missouri, that navigutors and fishermen are entitled to the temporary nse of the banks of asvigalle rivers in that State, though owned by private individuals, for the purpose of landing and repuiring their vossels, and exposing their sails and merchandise. But this use ie for trunsient purposes only, and under restrictions.

It is a settled princlple in the English law, that the rlght of aoil of owners of land bounded by the sea, or on navigable water, where the tide eblis and flows, extends to high-water mark; and the shore below common, but not extraordinary, higlowater mark,
bolongs to the State as trustee for the public; and in England the crown, anil In this country the people, have the absolute propriotary intereat in the same, though it may, by grant or proseription, become privite jroperty. The public have, at common law, a right to navigate over every part of a common nav. lgable river, and on the large lakea, The public, in cases where the rlver is navigable for hoats and rafts, have an easement therein, or rlght of pasaage, sulject to the juz publicum, on a publle highway.-Kent's Com., vol. Hil., pp. 52t-526.

Each proprietor is entitled to a larger or amaller proportion of the alluvlal formation and ahare line, according to the extent of his original line on the shore of the river. In the case of rivers not nave lyable, it belongs to the owners of the adjoining land. This princlple of the common law is recognizal and prevaila In the States of Mahe, Now Ilampshire, Massachasetts, Connectheut, Nuw York, New lersey, Marylani, Ohlo, Virginla, North Carolina, Lonialana. -Ibid., $5 \approx 7$.

Eimalaya, a Sanserit worl, compounded oi "hima," coldl or anorr, and " alnya," place of (Wllson'a Sanscrit Dictimary), is the nane given to the rangea of monntains which lound India on the north, from the lend of the Indus on the west to that of the IIrahmaputra on the east. (In the sonth they are bounded ly the phains of Indin, and on the north by the Tibetan courses of the alovenamed rivers. $i$ traverse section of the Ilhmalaya nowhero presents tho appearance of a slimple range, that of severil more or leas parallel chaina, neparated ly valleys of very great depth and steepness; this is becanse the secondury ranges that ramify north and sonth from it are of great iength, breadth, and complexity, and from bending to the east or to the west, often run for many miles parallel to one mnother and to the main range, liesilles rising luto eminences loftier than any on the latter, for which they are sometimes mistaken. The axis of the Ilimalaya is, moreove, not marked ont ly any contimous rilge or succeasion of peaka, lint la often broad, ojen, and low, compared with the nelphbaring isolated cuinences. Hence the line of watershed trecomes the only geographically determinable axls; and this, as In all mountain chains of any extent, follows an extronely sinnons course. No doulit this line, which throws the waters in two opposite directions throughout the wholo extent of the range ( 1.1 .60 miles), is also that of greatest elevation, or that along whlch the land is uninterrajtedly the most lofty.

Hetore, however, the real nature and geographical limits of the Ilimalaya, an atove defined, can the rightly understoknl, it is nesessary to consider this range in its relation to the little known mountain systemw of Ceatral Asia, of which it jerhaps forms a lesa important part than is usually supposed. On reference to the maj of Aria, the watershed of that continent will be found to follow a tortuous line, running diagonally from the peninsula of 'iujerat to Dehring' Strait. Across the phains of India this line is for the mont part indicated liy the Arewali chain, north of which it erosses the llimalaya olsliguely in a north-enst direction to the soarcen of the Indua and liralimapntra, whence it trends westerly to the source of the ()xus, and then again north-ensterly along the Altal to the south of lake Baikal, till it becomen the lablonol Mountains, and finally terminates in the prolongation of that range which traverace the conntry of the Telonktchi. Iate and Interestimg information reaperating these plains ean le fund in Ilve's 7rorels, 1 s.in.

All the great rivers of Asia rive in this watershed; those from its western aluge flow north intu the I'ular Ses, west into the Casminn or Aral, and south-wist into the Aralian sa; those from Its eantern mlope fluw east and south-esnt into the l'acitio, and sonth into the Indlay Ocean. Enornous mountain chains brauch off to the east and west of this main mxis, incloning
the valleya of the rivers; and of these chaina the sonthermmost is the IIimalaya.

In thelr Tibetan courses the Indus and Brahmaputra occtupy valleys of great elovation, and the opposite directions taken by them indleates the division of tha IIlmalaya Into two portions, the eastern of which stretehes from their sonrces at the peak of Kallas to the bend of the lrahunaputra, and the western termbnates at the bend of the Indus. These limits are more natural than is usunlly anpposed, since the prev. Alent lilea that the lirahmajuira enters Assam through a defile cunsed by a break in the chain is errumeous; on the contrary, the Himulaya gradually declines in elevation in liast liontan; uni the nppe : valley of the Ithong (as the IIrahmaputra at Its liond is called), is, accoriling to the best information hitherto procured, broad, open, and hot-riee being cultivated there on the very confines of eastern Tibet. So also tho Indus at the western extremity of the chain is unually desuribed as flowing throngh a defile; but though ita valley to the west of Kashmir is contracted and rugged, and overhung by atupendous mountains, it dives not in thia reapect differ materially, if at all, from the remainiler of its Titsetan course; nor is the fall of its bed between Jskario and the plains of tho ['unjal, greater in jroportion to the length of lts course than it is alove that town.

The branches or secondary ranges of the western Ilinalaya are so long und lofty, that aome diflurence of opinion exists as to which of them should be most "ppropriately considered as the continuation of the chain letween the peak of Kalhas and Kahhmir; and we have consideral the line of watershed hetween the tributaries of tho Inlus to the north, and the rivers that flow to the plains of India to the south, to tee the axis of the chain, since it both indicates the lhe of mean greatest elovation, and is the only deliaable axis in a geographical point of view. Of the scconilary chains we shall speak at length in connection with the rivers they inclose. Their direction is often prependicular to the main clain, lut they are so often oblique, and even parallel to the main chain, especially at their upper parts, that where very lofty and heavily showed, they are freqently taken by local ohservers for the axis of the llimalaya Itself; an error to which may be traced that miaconception regariling the relative amount and duration of the snow on the northern ant southern slopes of the Himalaya, whieh has led to so mush fruitless controversy in India and liurope.
'l'he general direction of this Iilmalaya throughout its length of 1440 miles, is east and west, but it trends northwarl from the centre towarl its westem extremit $y$, its extremes liehig respectlvely in N. lat. $2 x^{\circ}, \mathrm{F}$. long. $05^{\circ}$, and N. lat. $35^{\circ}$, JL. long. $73^{\circ}$. Its lireadth varies in different jarts, but has been acrunately ase rertained in the western portion only, where it deviatea hut littlo from 190 milies.

It has been atated that the mountain rauges of the Ilimalaya and the Koueulnn have no spectal existence as ehains aplart from the general elovated mass of Tibet, and that that rugged country forms the summit of a great or rainy, interior or intermediato, and Tilietan or arid llimalaya. The tropical lelt extends from the 'lerai to $6(M)$, and even 7000 feet in the humill central provinces ; and to 3000 to d000 in the extreme western. It conists of a lixuriant forest of Malayan and insular types of treen in the eastern provinces, which to a great extent disappear to the westwarl, where they nre partially replaced by l'erwian, lipyptian and Afghanistan types-among these trees the palms, plantains, tree-ferns, wal (whorea mbusti), wissoo (Italbergia sissoo), toon (C'adryla Tunon), and wome oaks, are the most conapleuous, and comumercially the nuost fimportant, eapecially to the east ward.

The temprerate belt extends from binn feet tome upper limit of furest, which varien from 12,000 to 13 ,000 feet, according to the dryness of the climate. It
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Bruno
The region abuen planta jurup the we are al the te ber of probab tion in and ev and la also bu anil va 8,000 a millet. 6000 f clienop and sug

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use of
shounda in European, Levuntine, and Chinese genera anil even speciea, with but few Malayan mountaln ones; of theas the European are moat abundant in the western provinces, and the Chinese and Japanese in the eastern, where are aiso a few American genera, and aome belonging to the Maiayan and insular moontain flera. Among the most consplcueus planta of this region are oaks, birch, maple, apple, hornbeam, pojilar, ash, cherry, aider, ceitis, pine, juniper, yew, willow, and pinea (Abies, Webbiana and Brumoniana), which abound throughsut the range ; beaides which, there are to the westward of Nepal, deodar, Pinus Gerardiana, hawthern, cypresa, horse-chestnut, ollve, myrtle, evergreen oak, sloe, black poplar, and many other European genera and aven apecles; while to the eastward, luarel, magnolia, rhododendren, larch, Abies Brunoniana, and chestnut, more especialiy prevuil

The alpine belt, which commences above the forest region, ascends in extreme cases to $\mathbf{1 0 , 0 0 0}$ feet; it abounds In Sitherian, l'olar, and Earopean aiploe jlunts throughout the whole extent of the chain, the Furopean speciea and genera being moat prevalent to the west. Saveral hundzed common Engllah plants are also natives of the Jilmalaya, and eapecinily of the temperate and alpine zones; and the total numher of tlowering plants inhabiting the whole range probably amounts to 5000 or 7000 specios. Cultivation in the Illmalaya la carried on as high as 14,000 , and even 15,000 feet, where summer crops of whent and barley exist in Tlbet, but quite exceptionally; also buckwheat, turnips, radishes, mustard, potatoes, and various pulses, are grown abundantly between 8,000 and 12,000 feet, as summer crops. Rice, maize, millet, and other tropical cereals, are grown helow 6000 feet, with buckwheat, and variens species of chenopodiam, yams, capsicum, egg-apple, legumes, and sugar-cane.

The IIlmalayan fruits cultivated by the natives in the eastern and ceutral provinces are plantains, oranyes, pine-apples, walnuts, indifferent peaches and apples; in the western, excellent apples, pears, apricots, paches, cherries, mulberries, grapes, and walnuts. The cultivation of tea is now successfully carried on. on a large scale in the weatern Ilimalaya, at elevationa of 2000 to 5000 feet, and might probably be pursued with more or less success in ull parts of the cluin.

The timber trees of the llimalaya are extremely numerous, bat few of them are of great value, and some of the best inhabit inaccessitble rerpiens. The sal (Shoren robusta), is decldedly the most valuable; and, from growing at the foot of the hills, close to water-carriage, is the only one much felied for export. The tion (Cedrala Toown), and sissoo (Dalbergia Sissoo), are aiso exported from the same regions; and the deodar and other conifers from the north-western provinces. The other pines, the walnut, aaks, and the chestnuts, meatly produce indifferent timber; but, though there are exceptiens, the use of these $i$ is principally contined to the nelghlorhoon where they grow. Of ornamental woods, few are known, and none are in ceneral use. lamboos prevail everywisere, and rat-tan-canes to the castward. Owing, probably, to the humid elimate, the woods of buropean generia are, almost without uxception, inferior to those of their western ullies. Teak is unknown in the llimalaya; and the other woxds of eastern liengal and of both the indian peninsulas are either contined to the malarious forests of Assam, or are altogether ubsent. The vegetalife cconomic products are also very few and un-importani-such as splees, gums, resins, oils, waxes, fibrea, and other textile materials. Of Irugs, the baneful aconite and hemp are the best inown; inferior rhubart, and a few bitters of secondary importance in the pharmacoporia, are also collected for export. Attempts have been made to cultivate drugs for the use of the Indian medical cstablishments, but hitherto
with very limited success. Wild madder is extensively collected and exjorted, as are bamboon, canes, and a few other products: and latterly potatoes in Sikkim. There is no doubt that the vegetable riches of these exter.sive regions are bat very little known, and are capabie of immense extension; but hitherto the efforts have been limited. On the nerthem or Tibetan parts of the range the trees are extremely few and amall, and confined to willows, poplars, junipers, elneagnus, and tamarisk; and of bushes, the wellknown dama or furze, that supplies fuel, is the most familiar to travelers,-F. 13. See Quar. Rev., xvil., xxil., xxiv. ; Westm. Rev., xxxvii., 29t; Monthly Rev., xcv., $225,409$.

In mineral products the lilmalaya is remarkablypoor, so far as is at present known. There ia nothing which can compare in abundunce or value with the mines of the Ural, Andes, or European Alps. Red hamatite is worked with profit in Knmoin, and copper exista in Nepal and the Sikkr.- nillis. Iron (disseminated), oceurs in various $p^{\prime}$ sces, and graphite is common. Salt, berax, and ioda are procared in ubundance in the dry elimate of Tibet, where they are articles of commerce; there also gold-washing is carried on upon a most limited acale. Geld is known to be extremely abundant in many parts of eastern Tibet, where, however, the jenlousy of the Chinese government preventa lts being worked. Slates, lime, gypsum, lead, sulphur, and mugnesia, are also 11lmalayan producis. There la a surprising and almost total absence of gems, or minerals of rarity or beauty in the Ilimalaya; garnets, actinelites, and tourmalins, are perhajs the only exceptions of frequent occurrence, and these are of the coarsest description.

Hot aprings abound, chiefly at elevations of 10,000 to 18,000 feet ; they usually emit sulphuretted hyirogen gas, and maintain temperatures of $100^{\circ}$ to $130^{\circ}$. There is no active velcano anywhere in the range, nor any traces of extinct ones. Some of the districts, especially toward the north-west, have been visited by violent earthquakes, but these do not appear to be connected with any endemic phenomena; they have generally commenced far south of the Himalaya, and have been propagnted across the range. Remarkable local subsidences and clevatione have occurred in tho valley of the Jhelun in Kashmir, which have been clescribed by IVr. Thomson.

Hobart Town, situated in the southern part of the island of Van 1)ieman's Iand, on the west side of the liver Dennert, near its junction with Storms Bay, in lat. $42^{\circ} 4 \cdot 4^{\prime}$ S., and long. $147^{\circ} 28 \mathrm{E}$. The water is deep, and the anchorage is good; and a jetty has been constructed accessible to the largest ships.

Hogs. The prevailing breeds of swine in the middle, nerthem, and western States, are the Berkshire, the Leicestershire, the Suffolk, the ISsex, the Neapolitan, and the Chinese. From these and other varietics various crosses have been produced, the more important of which are the Byfield, the Woburn, the Iledford, tho Grass, and the Mackay. The Neapelituns are partirulariy well adapted for a southern climate. See De low's Rev., xii., ti; ; IIunt's Mag., xiv., 371 . See Uniten States-live Stock ore.

We give some statistics showing the number of hogs packed in the West in 1800-51, also anether tatile comparing the number packed in 1855-56 and 1856-57:

| Where paeked. | 1851-52. | 1850-81. |
| :---: | :---: | :---: |
| Oilo. | 461,065 | 4 43,418 |
| Indiana | 859,761 | 84,754 |
| Ithinols. | 174,671 | 257,3.36 |
| lowa. | 27,006 | 70,500 |
| Mtissourl. | B8, 168 | 107.274 |
| Kentueky. | 199,800 | 205,914 |
| Green and Cumbertand Kivers | $8,50 \%$, | 24,000 |
| Total. . . . . . . . . . . . . 1,2es,975 |  | 1,457,496 |
|  |  | 1,2-4,975 |
| Total deflelency, 15st-52........ |  | 182,021 |

Cumpatison of tha nimarea or loos pageg in 1850-6

| Where Packed. | 2856-66. | 1888-57. |
| :---: | :---: | :---: |
| Othlo. | 688,697 | 488,048 |
| Kentucky | 4\% 8 84 | 849,21] |
| 1ailana. | 42,2,381 | 816,029 |
| ititnels | 481,284 | 808,208 |
| Missoni | 189,904 | 148,244 |
| lowa. | 172,878 | 308,482 |
| Tennesme | 69,441 | 42,811 |
| Wisconsl | 89,000 | 15,000 |
| Grand totals. | 2459.512 <br> , 818,468 | 1,818,463 |

Total defieteuey, 1556-87.... 671, 0 84
This deficieney, compared with last neason, ls equal to about 27 jer cent.

As regards the filling off In welght, having examInel the retonis recelved with reference to this point very carefully, the following lo the result.
We ohtalned the comparative welghts from 121 places, and find that the aggregates of almilar number of hoge jacked at these places, each senson, aro as follows:


Assuming this to be a fair indication of the comparatlve weight of the whole number packed, according to the returns, we place the falling off in wolght at 7 per cent., which is slightly less than the atove figurea Indirate. Alding this to the falling off in number, the total deficlency in awelled to 34 jer cent., as compared with the busineas of the season of $1853-66$.

The crop, then, as compared with a few previous spasons, stands as follows: See Ponk Thadpe.

$$
\begin{aligned}
& 84 \text { per cent tess than that ef. . } \\
& \text { 1455-6 } \\
& 154-5 \\
& \begin{array}{l}
1 \times 23-1 \\
1452-8
\end{array}
\end{aligned}
$$

The following figures show the averags weight of the hogs packed in Cincinnati during $1850^{\circ}-57$ as compared with late:

$$
\begin{aligned}
& \begin{array}{l}
1855-4 \\
1550-7 \\
\text { sverage weight }
\end{array} \\
& \begin{array}{l}
\text { Pounds. } \\
204 \\
\hline
\end{array} \\
& \text { 1550-7 }
\end{aligned}
$$

The following table ahows the whole numier of hogs packed in Cincinnati each season since 1 N3:3, being 21 years:

| Vears.. | No | Yenrs. | No |
| :---: | :---: | :---: | :---: |
| 1,93.. | 65,100 | 1446... | S90, 1000 |
| 134. | 128.000 | 1547. | 25A,(MM) |
| 1485 | 182,0m | 1849. | 475.00 MI |
| 1 s 36 | 1221,0100 | 1819. | 411,000 |
| 1837 |  | 1850). | 892,000 |
| 1693 | 162,460 | 151. | 844,0k\% |
| 1599 | 190,0ma | 1852. | 872,0,0) |
| 140. | 95,000 | 1543. | 881,000 |
| 1411. | 160,000 | $1 \times 4$. | 421, (140) |
| 1842 |  | 1235. | 853,7* |
| 1 CH | 250.000 | 1543. | 4t5,808 |
| 1-44. | 841,100 | 18.7. | 844,5ts |
| 1563. | 196, 100 |  |  |

Hogshead, measure of eapacity, containing 5et gallona. A hoguliead la equal to $\frac{1}{2}$ a pijpe. See Weigints avis Measi:hen.

Holidays are undervtond to lne thome daya, exclusive of Sundaya, on which no regular pulilic business In transacted at jarticular public offices. They are vither fixed or variable. Hanks and pntblic oftices are only closed on tixed holidays. In Fingland, the holidays otmerved senerally are, tiond f'riday, tueen's Ilirthilay; ('oronation Ihay' (June 'ax), I'rince of Wales' Ifirth-day (Nuvemiker 9), 1 'hristmas. In the Linited States, the holidays are, Fourth of July, Thankegiving fay (Noveminer), thrintmas. At New lork and some other cities New Years day in alno otservel, and at New Orfeana, January Wth.

Eogue, or EIague, Cape de la, a lold headiand of France, forming the north-wext extremity of the Iepartinent of Manche, 16 mileo nurth ly weat of Cherioarg. Of this polat the combined English and Ihteh fleets defeated the Firunch sed May, 1692.

Exold (Sax, hsaldan), the inside of the bottom of the shlp. It is divided into compartments by bulk. beada acrons ! and contalna the ballast, water, coal, and wood, provisions, and cargo.

EIolland Is a European kingdom, formed in part of Islanis, but chlefly of that part of the Continent where the mouths of the Rhine are divided into several branchea befese it enters the German Ocean. This distrlct ls ealif to have owed the ancient name of Ihatavia, by which it was known to the lkomans, to ane Bato; but at what jerlod he flourished ls unknown; and the name ls now searcely uned exceptiog nuong the poets of the dintrict. By acconnts collected trum
the works of Cresar and Tacleus, we learn that the an the works of Cresar and Tacleus, we learn that the anclent trlises who inhatited thls jortion of Europer had been able to maintain their independence $\ln$ apite of the attenupts made to sutrilue them by the Teutones, the Clinbri, and other natlons, who hal conquered the reat of what wus then called Gaul. The liatavians, anys the last of these historians, excelled all the other people on the Rhine ln military apirit. When subdued by the Romann, they palif thelr tritute in soldiers; and from them was formed a cavalry, which composed the mont efticient part of the Roman armies. They astoninhed the Ducians by the dexterity and bravery with whlch, completely armed, they swam their horsea across the I anabie to attack these joople; and for a long periol they formed the guard of the Roman emperors. A body of latavians accompuntiel Agricola on hix expedition Into Britain, and were of great assistanee in securlng hia conquests in the island.

William 1I. dying in 1819, was succeeded thy the present sovereign, Willlam III., horn 19th Fetiruary, 1817. Ile was married on tho 18th Iune, 1839, to the l'rincess Sophia Frederiker Mathllda of Wurtemberg. They have two nons, Wllliam Nicolaq, l'rince of trange, born 4th September, 1840, and Willianu Alexander, born 25th August, 1851.
The kingrom of the Netherlanila comprises the territory of the ancient republic of the Seven Unitel I'rovinces, with nome portions of Jlmburg. It does not include that portion of luxemburg which the King of the Netherlanda posasoses, with the title of Cirand luke, as a part of tho tierman Confederation. It is situated loetween N. Int. $50^{\circ} 41^{\prime}$ and $53^{\circ}: H^{\prime}$, and $E$, long. $1^{\circ}: \mathrm{NO}^{\prime}$ and $\boldsymbol{7}^{\circ} 10^{\prime}$. It ls bounded on the east by Germiny, from which it la not separated by any nstural barriers, on the north and weat by the German Ocean or North Sen. and on the south by Belgium.

The greater part of this country has been formed of mul deposited lyy rivers in the same msnner as the Figyptian lbelta in formed by the Nile. Hy tracing the course of these rivers wa oltain an ifiea of its conformation. The Rhine enters Holland at : colith, a little below Emmerich, where it is $23(1)$ fect troald; and then divides Into two branchen, the mothern recelving the name of the Waal. At Weatervoort, the northern lormeh is again divided, and there lta right arm in called the New Yeael. Then the teft branth, taking a wexterly direction, is agalu separated at Why Into two, and the left branch is called the ladk. The right branch thows on to Itrecht, and being there divided for the fourth tinue, receives fur its right arm the name of Voelt; while the left, which atill retains the name of old IStine, taking a westerly direction ly Waerden and Leyden, tinally makes its way st Kaiwyk to the North Sea.
'The Mense entars the Netherlanis' territory alove liysuden in limhorg, und Howing northwatl, unites with the Waal, near loeventeirt then divides near Itort, forming the ixland isselmonde. the right branch at Krimper ia joinel by the lek, then flowing weatward hy lotterdam, divides near Flardingen into two liranchen, and so forms the laland Rosenburg. These liranches uniting near lifielle, reach the sea at Oont vourn.

The S lunds at islande of The left right lira North Bra the bslant north of 1 North 11r channeis, the left and finall.
To esta hhabitant preweritied numeroba to nerve rountry iz the one en whit wou truak, well of the wor is nowhere placer is es more won defenses a ture, canti count ; but place is sul course of ag from Norw trees, reare stretch for those whic refuisite al every kind LBOKt,000,0 try a most let they They are bo the domini of one of t scribes the quasite for A destract Ibis. The barst throu part of Gel ince of Sou ger. The tive places had not ex North liral slaulion th for themse The neigh verted inte taking thet greatest di which hap, while it ec which the the peculi Immediatel and took country; di possible as for the suti tions reach diately dier habitationoff the ren repair the had disapp this the 11 accomplis)

The Bie

The Scheldt touches the kingdom of the Notherlanis at Fort-Bath, where it divides, forming the lslanils of South and North Bevsland, and Walcheren. The left branch reaches the sas at Vllssingen. The right branch flows northward between Zeeland and Nurth Brabant ; dividing near Bergen-op-Zoom, it forma the Island Tholen, anil the left arm reaches the sea north of Walcheren. The right branch atill meparating North Brabant from Zecland, divides into numerous channels, by which ita waters, mingled with those of the left branch of the Meuse, farm numerous lslanda, and tinally reach the sea.

To establish a firm footing amid ao many rivars, the iuhubitants have kept them as far as posslble within prescribed ehannels hy cmbankments, and have formed numerous canals to recelve the superfluous waters, and to serve as means of internal communicaton. The cunntry is thus a net-work of rivers and canals from the one ond to the other. The aystem of irainage, of what wonld otherwlse have heen oll immense mudbank, well leservea to be ranked among the wonders of the world. The land thius rescued from the rivers is nowhere much elevated above the sea, and in many places is even below the aea-level, so as to require still more wonderful defenses agninst the ocean. Theso detenses are in part supplied by the operation of nature, casting up sand-hilla along grent part of the coast; but where these havo not been formed, their place is supplied by dykes of vast extent, built in the course of ages, partly of huge blocks of granite brought from Norway, and partly of bundles formed of young trees, reared expressly for the purpose. These dykes stretch for hundreds of miles along the coust, and with those which line the rivera nud camals, and with the requisite slnices, drawbridgea, and hydraulle works of overy kind, are estimated to have cost not less than $\ddagger 300,000,000$ aterling. They form in ao small a country a most astonishing monument of human industry. Yet they are not greater than the gituation refuires. They ure barely aulleient to preserve the country from the dominion of the waters. The motto on the arms of one of the provinces, "Inctor-et-Emergo," still describes the struggles of the Invincible Hollanders, requisite for maintaining the ground they stand upon. A destructive inundation ocecurred so lately as March, 1855. The rivers, augnented by the anows of winter, burst through the dykea in several provincea. A fourth part of Gelderland was abbmerged. The whole province of South Ilolland was in the most imminent danger. The embankment of the Rhine having burst in five places in Gelderland, admitted the llood, where it had not extended during 150 years. In Utrecht and Sorth llrabant, the people of many communes had to abandon their property to the waters, and sought refuge for thenselves on the roofa of housea and on trees. The neighborhood of Zatphen was very apeedily converted inte a vast lake, and the villagera hastily betaking themselves to bonts and rafts, reached with the greatest ditheuity the ramparta of the city. The tlood which happily subsided ater somo days, exhibited, while it continued, the promptitude anil energy with which the ILollanders have alwaya contended against the peculiar difieulties of their situation. The king immeliately repaired in person to the seene of danger, and took his station in the centre of the inundated country, lirecting all the operations, and giving every possible assistance. A colloction orderod by tho king for the sufferers produced $\pm: 11,667$, and private collertions reacheil un equal amomit. 'This sum was humediately diveributed anong the distressed families, whose habitatlons and lands hal leen laid waste. To drain off the remainder of the tloor, to rebnill the dykes, to repalr the lihiae railway, a conslderavle part of which had disappeared, could not be so quickly done, l,at all this the patriotisin of the llollanders has completely aceomplished.

The Biesbosch, in the nelghliorhood of Dort, was
formed $\ln 1491$, burying 72 villages under water, and drowning 100,000 persona. Of these villagen, 31 have been rebuilt, as the progress of drainago permitted. The Duteh method of dralning la highly ingenlous. A marah or lake is 'aclosed with a dyke to prevent any water from flowing linte it. Wind-mills are then erected on the elge of the dyke, each of which worka an Archimedean acrew, and the water thua ralsed is discharged lnto a canal, whleh convey it to the aea. The Lase of Haarlem was the most eelelirated of these oceasloned by the overflowing of rivers; and its drainage by the application of ateamis a great improvement on the old method of draining by whd-mills. See Ilasklem, Ency. Brit. Besidea these Inundations from the rivera, IDolland has experlenced many others from the sea, which have left large tracta of country aummerged, of which the Dollart and the Zuyder-Zee are the moat extenslve.

The Dollart between Groningen and Faat Friesland originuted in 1277, and was greatly extended in the three following years. One town, 35 vlllages, and several hamlets were overwhelned. It has froni time to time been nuch reduced by trainage. The ZayderZee was formerly only a lake, known by the name of Flevo, communicating by two ehannels with the North Sea. Subsequently the sea covered the lowhands, and the channels of communication were multiplied. Now the expanse of water is 80 miles long, and from 20 to 40 miles broad. Proposals for its drainage have heen nuile to the government, and are under serious consideratlon. As means of communication between Amsterdam and the North Sea, the Zuyder-Zee has long been unsatisfactory, on secount of the Pampus bank and numerous shallows. Sometlmes, in consequenco of long-continued northerly und easterly winda, its bed is almost dry, and vessels nre everywhere lying on the sanils. A substltute has accordingly been provided for it in the great North IIolland Canal, one of the most atupendous works of the kind in existence. It was begun in 1819 , and linished in 1825 , at a cost of about $£ 1,000$, 000 sterling. It is about 00 English miles in length. Its breadth, ut the surface, is $124 \frac{1}{2}$ linglish feet, at the bottom 36. The depth la 20 feet 9 inches. 1ta level is that of the high tides of the sea, from which it receives lts supply of water.

While the country poasesaes abundant means of communication by rivera and canals, it eldo has excellent roads. The highways in the central provinces wre anong the hest in Europe. They run for miles in a straight line aloug the sumnits of the dykes, and are thus at once elry and elevated, commanding extenslve views. Between the large cities they are broad, and usually paved with a kind of small hard brieks, called klinkers, mate of sand, mixed with the clayey mud obtained in cleaning the canuls. They are fitted so exactly to each othor when laid down that acarcely a erevice is to be seen; and being well covered with sea-sand, they sustain little injury from carriages. Railways have also been made, or are in progress in ull directions. Those hetween liotterdam and Amsterdam, and between thu latter city and Arnheim, have been in operation for several years. Rotterdam is also in eonmunication by railway with Utrecht via Gonda, and with Antwerp. There is $n$ branch bet ween Antwerp and Hroda. Maestricht. in Limbarg, is also in connmunieation with Alx-la-Chapelle.

The genetal aspect of thia country is different from that of any other in Europe. The roads and canals aro usually lined with willuws and other trees, which atlurd an ugreeable shale and relievo the uniformity of the laudscape. Innumerable villas are seen deco rated with the uthost nicety of art. Spires, chureh towers, villages almiruble for neatness and cleanliness, large and well-built cities, rapidly succeeding one enother; meadowa in vernal groen, varied by sheets of water, cattle in large herds, barges towed by horses, or spreadiug a sail to catch a favoring breeze-
every thing and avery place in the higheat order and | I abundance, and In ronpuet of whleh it has no parperfectlon; atuch are the shghte which Ilolland supplien ablel in any other part of the worle,


| Provinepe. | Popalation. | Hlousen. | Aerse of enitirated lend. | Aeroce of romed and waters. | Aeres of mneul. Ilvaird land. | Acres uf tetal efiem. | Projmelon namentilvatod. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| North IIrulunt | 410, 525 | 8,2116 | 714, 1341 | H7,2>1 | 468,874 | 1,26以,116 | 1: 2\% ${ }^{\text {\% }}$ |
| (iolitertanil. . . | 841,488 | 2, 088 | 7S4, 311 | \$1,942 | 419,718 | 1, P6titict | 1 : 2 -1709 |
| Gouth Itoiland | 891,408 | 8,0077 | OM, 405 | 104,492 | 8y,246 | 700,171 | 1 : 21040 |
| North Fiolmad | 314.768 | 2. $010 \times 2$ | 421.41t | 61,9015 | 186,924 | 616,4\%-4 | $1: 45$ |
| Zueland... | 165,075 | 1,724 | 8904, 212 c | 8,1726 | 41,968 | $419.4 \times 1$ | $1: 981$ |
| Tirechit. | 185,824 | 1.193 | 271,647 | 21,464 | 48,888 | 881.111 | 1: 7*2 |
| Frientant. | 259,614 | 3,144 | Ofy, 189 | 64,471 | 103,249 | 907, 448 | 1: i-62 |
| tiverysael. . . . . . . . . . . . . . . . | 227,8*3 | 1.089 | 45048 | 2010,2es | 879,459 | 884,401 | 1: 2.14 |
| troninges | 197,111! | 1,8(4) | 44,147 | 25,428 | 160,699 | 57x,235 | $1: 5 \cdot 7$ |
| Irrenthe.. | 88.044 | (1088 | 818.669 | 0.210 | 437, 120 | 654.494 | 1: 1\% |
| Limburg . . . . . . . . . . . . . . . . . . | 211,40t | 1,000 | 854,250 | 4.048 | 182,468 | 6-45,006 | 1: 8\% 4 |
| Tutal | 8,2083,288 | 81.078 | 6,2t8,414 | 410,649 | 2,818,845 | $8,043,174$ | 1:8.14 |

The colonies in Asla-Java, Amboyan, Banila, Ternate. Macassar, with mettlements in Ximalra and lhornco, also Iheolina In Japan, ace atatod to have a popplation of. .... .............................
The colonfes in Amerlea-Anrimani and the lalamis
The colonlisa in Afriea-Rimitua, on the cosist of Gulnea.

Populat on of Jlolland $\qquad$ 16,462, T18 3,2゙14,2:2 2

The population has lucreased by 60 per cent. In 57 yeara at the followlng rates:

| Vear | 3ropulation. |  |
| :---: | :---: | :---: |
| 1706-1515. | 168,422, or munualty, | R.7(t) |
| 1315-1/40. | H00, 821 | 2., 345 |
| 1830-1211. | 286,425 | 28.659 |
| 1940-15id. | 137, 847 | 14, Ind |
| 1746-159. | 1,111,963 | 19,\%22 |

The number of the inhalitanta of 80 cities in 18.53 was $1,16 i 1,509$, and of the country $2,036,673$. The population of the prinecipal citles at the mane period was the following:

| C |  | THte | loon. |
| :---: | :---: | :---: | :---: |
| Amater | 847.tis | Haarlem | 97, 7 |
| Rotierila | 90,4xa | Mamat | 26.819 |
| The Ilagu | 75,3if | 1atumarden | 24, 4 dt |
| l'treeht. | 50, ${ }^{\text {a }}$ (1) | Slmennes. | 2L, ${ }^{(6)}$ |
| Leyden | 37.196 | for | 21,205 |
| Groning | 35,124 | Slola-le-duc | 21,4 |

Climate.-In respect of climate, It llatad lators muler many disadvantages. In winter it is much coller than Fingland, and the waters are frequently fozacin for three months. Even the \%uyder-\%ee is sometimes frozen over. The temperatore lias heen sometimes as low as $23^{\circ}$ below zero of Falis, and sometimes as ligh as 102 ${ }^{\circ}$. In summer, cold nights often succeed to dayes of intenae lieat. The climate generally is varintic. The atmophere, especially in the western provinces, Is loaded whth mokisture, and there ngues, dropsien, plearisies, and rhemmatisma, are frequent. Cielderland is the healthiest province, lint all the easteru side of the country is eomparatively salubrious. Holland 1s frequently sulbect to violent gales of wind, which, when they flow from the wext or north-west, are apt to canse inumbations of the sea.
Agricultur,--This remarkahle country largely rewarla the akill and latar of the agriculturist. The south and central provinces are the most fertle. As has leep shown aluye in one of the tables, there ore still extensive tracta of mucultivated land, although much haw been reclaimed of hate vears. The firms in the hest farts of \%eeland vary in extent from 16if to 330 acrea each. In South Holland the propmortion of pasture to aralije land is alsut 2 to 1 . In Friesand the quantity of pavture is more than eight timen that of arable land. In lieflerland there are larpe plantathona of apisle, pear, and cherry-trees. Tullpa anl hyacinths are extenxively cultivated in the neighturheord of Haarlemin fielda of several acrew earli. P'ulse and garden vegetables are everywhere raisel in great alupdance, also wond and madder. Flax is largely cultivated in the month, and experially in the nelghloorhood of burt. Utrecht and Gelderland produce
conaiderable quantitiea of tolacco. The fullowing are the statinthes of the harvent of 145il:

|  | Colfluated land in aeres. | Brodumen in quariers. |
| :---: | :---: | :---: |
| Wheat | 177, 13+15 | W29, 217 |
| Ityt. | 445.048 | - $\times 1.188$ |
| Jarley | 109816 | $4 \mathrm{TH}, \mathrm{V13}$ |
| gats.. | 911.218 | $9 \times 15$ |
| Iluckwhest | 187,483 | 478.1106 |
| I'abbage sueds. . . . . . . . . . . . . . . | 83,012 | 114.15 |
| 1reas...... . . . . . . . . . . . . . . . . . | 25, 6851 | 74.71 |
| Rrans. . | 82,444 | 840,16: |
| J'otaloes. . . . . . . . . . . . . . . . . . . | \$16, 174 | 2,804, $90 \cdot 1$ |
| Carruts . . . . . . . . . . . . . . . . . . . . | 2,017 | 2, |
| Flax. . . . . . . . . . . . . . . . . . . . . . | 51.872 | $\cdots$ |
| Tobacero.......... . . . . . . . . . . . | 8,8w |  |

The rearing of live atock, however, and dairy hinslanulry, are much more important aources of mational wealth than tlllage. The lean cattle brought from Jenmark and Giermany futten with great rapiditr in the Duteh polilers. Large herds of benutiful cows yield great abundance of the richest milk. Ifutter and cheese of the lest quality are larely exported, and Iring great wealth to the peasantry. The i)utch horves are gool, and well adapted for draught ; the hest are those of Friesland. The breeda of aheep, nowever, are not partlenlariy gomed.

The atatistice of 1853 , December 31, give the follow ing numbers for the whole kingriom:

In North and South IIolland, Groningen, ami Itrecht, there are inade $115,000,0001$ lbse of checse annuilly, the lomo consumption of which loes not ex. ceet one twentleth. This large tuantity at its average price promeces $\& 1, \mathbf{N} 0(1,000$ aterling unnually. The value of the butter la about $\pm 2,010,000$ aterliner more of wheb their own consumption amounts to onc tenth.

Hutter and eloeese thgure anomg the grant articles of the inluatry and the commerce of ! Iollanl. It aljurire from one of the puilished talles, that from lxis; to 1450 the export of butter has constantly increasel, sat as to have been quadrupled In half a century. From $: 337$ toms in $1 \times 0: 1$ lt arrived at $11,9,1 /$ tons in $1 \times 5 \%$. The expert of cheese was 0 onzil tons at the begioning of the ceatury. In $1 \times 52$ it was $1!1,646$ tonc. For 1with, instead of a general statement wuch as the nhove, we have funnd indicutions regarding particular come moditles, the trade in whels wan very netive. The importation of raw sugar in $3 \times 54$ was 10 , i-16 tuns. ngalunt 102,101 In 1853. The export of raw sugar rome ts oib, $^{2}$ bit tons, being 4420 tons more than in $1 \times 0^{\circ} 3$. The importation of coffee from dava, on the other hamd.

 1N04, only 928,200 thaga. The trado in indko, however, whe progreasalug. 'The fingerts in 1854 were $11,1: 30$ chenta, against 10,200 In $1 \times 3: 1$, wian in $1 \times, 0_{2}$, and $650 \ln 1851$. The importation of cowhineal was equally lncreasing: 1535 cheats In $1 \times 51$ against wis in 1801. I'olacco held also a principal place in the inporta of $185^{5}-$ There were recelved 13,550 barruls
from Mary Banca Port revived, an portance. In IR50 it h quadrupled The ace an fivorahle rect traile enterprise Its agricult: In $1 \times 54$, the 13,261 $\ln 1$ being 982 m head of oxe $204,14 \mathrm{R}$ shee
Nhipping. shipoing:
1850.....
151......
1522.....

The Nethe $f_{0}{ }^{\text {llowing }}$ pro

Flays.
Netherlan F'uralga..
To have a must not only also by the Tables have arrived, and 1854 . There from Amster tons from the oleaginous gr crease. The marknble incr ers per annant of grain aent was 15,600 ton
The vessela $1 \times 33$ :

Laulen In ballast., with 127 wood
The propor lands was:
ofladen v
The remain Prussia, and, Nassiat, Ilesme

In the 31st flolland coun burden. The barks $=93,041$ ers $=13,136$ l $=7259$ lasts. the Netherian of 2.200 horse-1 nith 118 engi those of the that, Inidupend were employe tween formign less than 2268 The lituth co of thls enume first time. In the gold-tlelds were freighted tant country d
To these de
from Maryland, and 8110 from Virginia. Tin from Banea fnrniahed 182,864 blocke. The trade in wool revived, and that in cotton ansinmed considerable im . portance. The trade in flax was 1611 tons in 1881 , in 1850 it had not reached 344 tons; Thus it had been quadrupled in five yearn.
The accoint of exports ia net, for the amme period, sin favorable. It given, Indeed; the firat notice of direct trade with Auntralia; htot the reault of thin new enterprise was not enconreging. Helland exported it a agricultural produce, however, in great quantity. In 1854, the export of butter was 14,244 tons againat 13,261 in 1853. That of cheese was nearly 25,840 , being 982 more than in 1853 . That of cattle, 77,108 head of oxen. In 1853 there were 83,074 oxen and 204,149 aheep.
Shipping.-The following account is given of the shipoing :

| , | Cleared lawnel. |  | Climamed outward. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | ahips. | Tumna | Thi | Tiunn |
| 18 | Q,91 | 1,000, 6 Ti | 7,031 | 1,183,464 |
| 1*51 |  | 1,160,140 | 7.177 | 1,216,654 |
| 12\%. | 7,457 | 1,249,723 | 7,712 | 1,917,425 |
| 188. | 0,883 | 1.151,298 | 7,068 | 1,215,960 |

The Netherlands' and forelgn ships were, 1858, in the following projortion:


To have a full vlew of the trade of Ilulland, we must not oniy learn ite atate as carried on hy sea, but; also by the rivers. which carry a great amount of it. Tables have been published of tie merchnudine which arrived, and was forwarded by way of the lhine, in 1854. There was an increase above 1853 of 7260 tons from Amsterdam to placea on the Rline, and of 12,328 tons from the Khine to that city. Coffee, rice, and the oleaginous grains are foremoat in this progreusive increase. The export of rice to Germany has had a remarkable incresee. In $1842-52$ it was ouly 8606 quarters per annum. In 1853 it was 46,459 . The quantity of grain seut from Amsterdam to the Hhine in 1834 was 15,100 tons.

The vessels engaged in the river navigation were in 1833 :

|  | Cleared laward. |  | Clearod out ward. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Yousic. | Tonn | Vreselt. | Tunnake. |
| Laulen. | 15,973 | 1,134,74 | 9,84 | 797,145 |
| In ballast | 2,218 | 142,680 | R,197 | 821,975 |

with 127 wood-rufte, mensuring $24,3: 8$ culse ells.
The proportion of these belonging to the Netherlands was:

Of laden vessels $8,679 \quad$ Tonnage 811,879 Inward
The remainiler belonged prineipally to lielginm nad Prussia, and, in amaller propertions, to Hanover, llailen, Niasiu, Ilesne, Invaria, Frankfort, and Wurtemberg.

On the 31st Iecember, 1853, the merchant fleet of Holland counted in all 2037 vessels $=239,601$ lasta burien. There were 142 frigates $=56,142$ last $* ; 33$ harks $=93.001$ lastn $; 66$ hrigs $=\$ 489$ lasta; 168 schooners $=13,1166$ lasts ; $783 \mathrm{koffs}=46,465$ lasts: 260 tjalkn $=i 259$ lasts. The number of ateamers belonging to the Netherlands ai 1 s:if was only 30 with bs enginea of $t: 20$ horse-power. In 1859 there were 100 steansers, with 118 enginea of 6911 horse-power, not lncluding thase of the royal navy. It ta atated in the tablea that, inilprenilently of the Netherlands' trule, there were employed during 1833 in the carrying traile beIfeen foreign parts, Netherlands' ahips which made no lews than 2:26 voyages, with 207,204 lasts of lading. The Duteh consuls at forelgn ports furnished the thata of this enumeration, which was made in 18\%:3 for the first time. In connertion with the great emigration to the gold-tields of Australla, more than 50 Duteh ahips were freighted in different British ports for that distant country during the flist aix monthe of 1854.
To these details, gathered from the statiatical publl-
entions of the Dutch government, by which it has been attempted to cosvey an idea of the present atate of the traile of Hiallami, we will only add one remark, that with the oxception of the oll East India Company's mnneproly above mentloned, tha commerolal poilicy of Ilolland for a lengthened parlod wea more literal than that of any uther nation. I'the same onlightened pollcy, if partially departed from during recent years, has beon again corilaily entered into after the recent example of (Ireat Iritain. A law enacted on 1at Septem1854 abolished the import dutlen on a great number of articles of merchandise ; and the Netherlands' tariff, thus modified, equaln, if it does not even aurpass, in Iherallty all other tarlfif is oxistence. It has ovidently been In consequence of this enlightened policy, having for many generutions been generally underatood and practicel by the Dutch government, that a country not more extenaive than Wales, and naturally not more fertile, recovered, indeed, in a great meaaure from the waters, and kept from being ogain auhmerged, by constant watchfulness, and a heavy expenditure; accumalated a population of more than $3,000,000$; maintuined war of unexampled duration with the mont powerful monarchlea; and bendea laying out immense atma In works of utility and ormament at home, lent hundreds of a lliuns to foreigners, Not withatanding their want of native timber and iron, they are abundantly supplled with all the materials of carpentry, bip-huifding, and manufacturea. And though their commerce, not withatanding its revival in later years, is much diminished from ita earlier preeminence, the Dutch, even at thil moment, are the richest and nunt comfortable people of Europe.
The following in a budget of receipta and expenditures of the national rovenue for 1856:

Ravanur.
Diroct taxes (land tax, provinclal taxes, patents).. $£ 1,597,878$ Exclese. ................................................ 1,895,87 Stamps, registrations iypothec successions......... , 95N,525 limport, export, and havigation dutlea................ 852,664 Duty on pawned golid and sliver wares.............. 19,158 Demains................................................ 102,975 Pust-olltec. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 120,88 Lottery. 120,839
 Duty on mines....................................................... 98 (Diversa revemines. 102,475 Intereat of national debit entributed by Belgtum... 83,889 therest at the eharge of the colonleniato at home or, Dorived from sale of the outionsl domans......... 77,864

Total revenae, 1856................................ $£ 4,000,255$ Exirendituag.


Total oxpenditure, 1856. £6,119,670
The following table gives the receifits and expenditure of the different provincial governments for 1855 , and of the communes for 1854 :

|  | Ifrovimilal, 1858. |  | Communes, 185. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Recripts. | Expwiditare. | Receipls. | Expenditore. |
| North lirabu | 560,425 | 4 40,363 | \$96.824 | ¢ 87,589 |
| Gelderiand. | 11,258 | 11,2088 | 119,070 | 121,698 |
| South llolfand. | 19,924 | 19,92\% | 866,725 | 804, 831 |
| North ITolland | 90.524 | 20,025 | 421,02.5 | 424, 220 |
| Zevelami | 9,848 | 0, 42 | 75,9×1 | 75,987 |
| Ttreeht | 5,604 | S,604 | 59,718 | 3 50,687 |
| Friesland. | 28,757. | $2 \times .77$ | 184.461 | 181,456 |
| tveryssul. . . . . . . | 16.129 | 16,429 | 92, 304 | 1 20,424 |
| Groningen . . . . . . | 36,727 | 26,721 | 109,684 | 1 104,097 |
| Drenthe.. . . . . . . . | 4,681 | 4,061. | 19,864 | 1 19,846 |
| Limburit. . . . . . . . . | 6,889 | 4,869 | 51,171 | 1 40,979 |
| Total. | 11,00 | 10. | S3 30,2 | £1,524,806 |

In consequence of the provincial and communal councile having a right to levy taxea na well an the general government, it la necessary to aum up all the thiree budgets in onder to olitain the whola amount of the publle revenue and expenditure. Thla can, however, only le done for 1854, we the communal budgets for 1856 and 1855 , and the provinclal for 1856, are not giren in the latest statiatical publlcatlons:

|  | tareme. | Fippenditare. |
| :---: | :---: | :---: |
| Nattonal. | 20, 050.056 | 26,938, 48 |
| Provfnclal | 176,845 | 176,645 |
| Commmat.. | 1,536,225 | 1,684,806 |
| Tetal. | 88,369,626 | 58,083,818 |

On the 27th Angust, 1751, William IV., I'rince of Orange, presented to the States Genernl of IIolland n remarkable memoir on the state of that republic, which Is atill preserved in a work entitled "Ia Richesse de la Hollancle" published in Iondon In 17世8. That prince requested the opinions of several leading merchants, and others of large mercantile experience, on the following questions, viz. : 1st. What is the actual state of conmerce? and if the same should to found to he diminished and fallen to decay, then to incuire: $2 d$. What arrangements nnd means may support it, nud, if possible, restore it to its former prosperity and grandcur? These questlons elicited a statement, or, more properly, in elaborato and lengthy report, on the enuses lyy which the trade and navigation of the I'nited l'rovinces rose and flourished. This report is dle vided into three hends, viz.: 1st. The natural and jhysical causes; 2d. The moral canses, and, 3 d . The accklental, adventitious, or external causes.
l'nder the first head are classed the ulvantageons aituation of the country, near the rea, and as the mout ha of large navigabie rivers; its central situation, which rendered it the general market to which thi merihants of northers and southern Europe were accustomed to liring their merchandise, nud exehange the same for such goods as they wanted. The sterilIty of the country, and the consequent want, it is represented, have contributed in nnmating the spirit, real, industry, and genius of the people to acek in fiteign counirien those things which they most need at lome : and this could only he effected by meana of trade. This they were enalled to for by the great ubundanee of this in the nelghthoring sea, which furnished an equivalent for the exchamge of theae thinge which the has renness of their own comitry, and their lisited patent of nrathe lands, denied then at home. Amonif the mornl cansea, the report cited al sinvariahte maxim and tundaniental lnw of the Stute, which jermite tho frue exercise af all religlons, and regards toteration In this respect as the mont effoctual means of uttracting foreigners from niljacent count cies, atd, the that means, to augment the population of these provinces. The constant puliey, it is remarked, of thia reputhe has been to make this country a safe anylum for peracerted and oppressed forcigners ; and nu allanere, ro treaty, no molicitation of any potentate in the world has ever heen capathe of dextruying the protertion and recurity arcoriked to thase who have songht its refuge. Thin fundanurit maxim of the repulilie has caused many penple to flee from the mpression* and jerseentions exerclapd in wther countries, and to seek rofupe, ne well as employment, hringing with ihem not waly their momey and their valuable effects, lut alam their inluntry. They have established many tradea, manufarturien, and arte, uetwithatanding the firat materials for the suil mannfature were almest wholly wathig in the Netherlands, and only to be fromend, at great expeane, from uther countrien,
The eonatitution and the form of government, and the civil liberty thin exteniled, furnike nomother emuse to which the growth of trmbe anil the prowicrity of commeare are attrilutivi. The wimiom and pridemee of the alministration, the courage anil ilmonean of the conncita, the filelity with whith eontracts and ensigro
menta were wont to be fulfilled, are also classed among the moral causea under which their conmerce had reached so high a degree of prosperity and spleudor. Among the accidental or external canses are cnumerated the clvil wars in France, and afterward in Germany, England, and other countrias, which contributed largely to tha encouragement of the manufacturing industry of IIolland; while the religlous peraecutlon in Spain, Brabunt, Flanders, and other statea und empires, also contributed to the advancement of its cominerce. After dv elling at. length on theas three heads, this celebrated report then diaewases the actual ntute of the trade of the country, and shown that the tirst two-the natural and inoral causes-still remuin un. changed; while the third-the accidental ano external causes-had almost entirely dianppeared. Persecutions in other countries had ceased ; indolence and contempt for trade had given place to Industry and commerial enterprise; their own example had been imitated hy England, which for a century had been straining legislation to ettract tho trude no long enjoyed ly the republlc, and which now prohilited the exportation of the wool which formerly fed the fuctories of IIolland; while many other countrien had successfully introducel those bmanches of induntry which in forner dnyes had flumrinhed In the Nutherlands alone.
The great numier of chops which had heen elosed in the principal towras, especially in Ansterdum; the difficulty of procuring reamen to man the whips; the fourishing commerce of Inmburg and uther towns, which now anpply (iermany with all kimbs of colomial prodice, of which Amstenlam was formerly the reat emporimm ; the extinction of Duteh conumercial houses in Spain, and of lutch trade in the levant : all of these were elted an proofs of the present decline of the trade and commerce of IJolland. This report, of which a trief sketeh has thus been given, closer with a revoniriendation to permit all raw materials to be entered free of duty, as well as all forelgn goonls plased in entrepit, or for tranait ; baning thia recommendation upon the maxim, that the lighter the lurdens were, the greater would he the trade. Nearly 200 years jrior to the date of this revort, the revolt of the Netherliands apainst Spain eomuienced. The Duke of Alva, then the Spanish gevernor of the Netherlands, was defeatelt ; all the Spanish whips on the const of the Netherlamis wero destroyed; several Spanish toun. were taken, and Spanish troops were expelted from the cities mad towne of Holland, Zealand, and West Fíeslami, whome citizens johned in the revolt, mid swore allegiance to the l'rinee of ( range.
In 157!, the famons umion of the States of Inotlanes l'riesland, Zealimi, and l'trecht was formed at the latter piace, and a molemm compact enterd into to mate no one confederation, mal, as such. to adsise of pence, war, mod taxter, and to baintain prosonal and religinus liborty. Wrorysel and limmingen soms af. ter folined the binion: and, in a fow years, lisere wesen I nited I'rovinces lacame the most powerfal repobidic which the world had seen since the decline of anvient fione. Fromithis perion intil the treaty of Wiesphis lin was migned (lits), we thad the Inteli growing rato inly in [awer, commeree, asd wealth; semdin? their whipe to every quarter of $t$ a glober ; successfulty resinting the Naninh and l'ortughene tlages, on whativer seat

 hoge extatilishmeats in the lersian liali, and thate along the cousts and ixlen of Imilis to dapan, und es. perclafly at t'eylon, dava, hud the Nohucas. In oble
 whole thert of Spanish galleoma, bringiog homb, as the prize of victory, precioun uretals to the vaiur if $10,(040)$, tas guthers. It he vessels and mamen employed in these aral adratures were under the mathament of the Iutch Vars loutia Company, which frequently realizat from the rich captures and roxtly rargoen-
spices, clńn as high as A West the year 10 Portuguese l'eru, in wh East India Spanlsh flee consts of C the islands they still ret
'The first, pute ${ }^{4}$ domin rienced, was Parlisment, ward legaliz period, enjoy England and was proviled Africa, or An in any but E glish master, whem should from or impo English takin wns, expecte Ilolland and carried on wit After several Duteh were d peace. A tre inting terms 1 that "of atrik sails, wheneve ships of war of loh seas." Se Dutch and En and the lingli close of the w ities were agai Itritain, on the of France were the Amerienn A discovery, a following year independence o In $17 \pi 8$, betwee inflamed the $n$ Rgainst the D, linmetiately de hustilitien the 1 and, during the tion. in which erate with the persescion phas

In 1814, the and Delgium a dom. In the Dutch colonies tion of the Cul Denerara, liss vitained tho e its therenclench sewsions of the dured to the i (for which they sar, Colehes, it possess neveral Wirst Inties, 1 St. Martin; an nam, or Dutch in 1 Nite resulted kingiom, after of Delgium from de;endent kin, terruptedly pu induatry, and
splees, cinnamon, ans other Sast India productlonsas high as 621 per cent. on the capital ateck invested.

A West Indla Company was also organized about the year 1621, orginally for the purpose of driving the Portuguese out of Brazil, and the Spaniards out of leru, in whleh they were not so successful as in their East India adventures. They captured, however, the Spanish fleet $\ln$ those reas; acoured and plundered the coasts of Cuba; took possession of Pernambuco and the lslands of Curacoa, St. Eustace, and others, whlch they still retain.

Tho first check to this extenalive and almost nudlsputer dominion of the nea, which the Dutch experienced, was the celebrated navigation act of the Rump Parliament, enforcel by Cromwell, and 10 years afterward legallzed by Charles II. The Dutch, at this period, enjoyed a profituble carrying trade between England and her American colonies. By thls aet, it was provided that no merchandlae, the produce of Asia, Africa, or Amerlen, should be imported Into England in any but Einglish-built shlps, commanded by an En$g^{\text {lish }}$ master, snd navigated by a erew three fourths of whom should be Englishmen; nor any fish exported from or Imported into Fingland or Jreland, except of English takling. As might have been, and confessedly was, expected, a war soon after broke out between Holtand and England, exclusively naval, which was carried on with the utnosi desperation on both sidea. After several is see and boody engagements, the Dutch were defented, and were compelled to sue for pence. A treaty followed, imposing the most humilhiting terms upon the harily republic; among others, that "of striking their flag, and lowering their toprails, whenever the Jutek ships should meet nny of the ahins of war of the Engllsh commonwealth in the IIrit lah seas." Several other wars occurred het ween the Duteh and Einglish, ami, in 1672, between the former and the English and French combined. Toward the clese of the war of the Amerlenn Revolution, hostilities were again declared agalnst Ifolhand by Great Britain, on the pretense that the dock yards and arsenals of France were furnished with munitions of war, and the Amerlean troops with supplies, hy louteh vessels. A discovery, accilentally male by the lritish in the following year, that a secret treaty, recognizing the independence of the I'nited States, ind treen negotinted in liars, het ween Ilolland and the Ame:iemn Congress, inflamed the nirealy excited naimosity of England against the Dutels, to mo high a pitch, that war was linmediately dechared. Huring the existence of these hostilities the Butel lost their Wext India persessions; snd, during the subseguent wars of the l'rench Revolntion in whleh the Netherlands were forced to co-opeate with the l'rench, the whole of their East India passession mased into the hands of the lritish.
In 181.1, the independence of IIbland was restorm, and lelgimm and llolland were erected into whe klisidam. In the ronventom of 1015 , Java and all the Dutch colenies were ceded to Ilolland, with the excepre tion of the Cape of Good lloper, and the settlements of Demerara, Basequibo, and lerbice. The Itritish, also, witaind the cessason of the rettlement of Corhin and its alpmulenctes, on the const of Malabur. The porssessions of the Dutch In the least Indies nere now reduced to the island of Javi, the Molucons, Sumatrin (for which they gave Fort Molncea in return), Macasmir, t'ulebes, Itamda, Amioynn, and Tornate. They possess several forts on the coast of tiunca: in the West Indies, Curnyoa, Sit. Wustace, Suha, and part of St. Martin; and in south Amerien, $n$ portlon of Nurlnan, or Gutch Gulann. The revolution in lielgitum in 1 N:0 0 resulted, as alrealy atated in the article on that kingtom, after a fuw days contest, in the sepaisiton of 'lelgium from Holland, and lits erection intor an linde;endent kinglom. Since T830, Holhand has uninterruptelly pursued the arta of peacolinl commerce, fidustry, and trade. Her navigution is ammull!
oxtending ; and her great cemmercial marts, Amsterdam and Rotterdam, bid fair to regaln their former prosperity.

The United States.-In their commerclal relations with the United States, the Netherlands have always manifeated a spirit of liberality. Several treaties of amity, navigation, and commerce have been entered Into between the two countries-the last bearing date August 26, 1852. This treaty of 1852 is based upen the prinelple of entire reeiprocity and perfect freedom of comneree, and applies, with all its privilegea, to the Intercourse lietween the United States and the colonies sad dominions of Ilolisnd beyond seas. It reserves to llolland the right to levy disciminating dutiea of import and export in favor of her direct trade with such celonies and dominior but should American vessels enguge in such direct trade, they are to enjoy perfect equality with the national fiag. The Unipgl States is alse at liberty to continue to levy the alsc. Imimating doty imposed by the tariff of 18.16 on tea and coffee, in favor of the direst importation of these articles from the places of their growth, but also withont discriminating between the flags of the two countrles. This treaty is to contlnue $\ln$ force two yenrs, commencing six weeks after its ratitication, with the usual 12 months' 'otice by either narty wishing to terminnte its action. Before the date of this last treaty, the reciprocity and freedun of commerce between the Netherlands and the Unlted States applied only to the direct trade between the two countries. All restrictions, not ouly as regards entire reciprocity and perfect equality in tho direct trude between the two nations and their flags, respectively, but, as it respects our trade with the Dutch colonies, were by this treaty ubolished, and tho two flags were nssimilatel (the consting trade and fisheries excepted), on overy sea, und in every port.

Numigation Lans.-The laws umending the Netherlumds legishation with respect to muvigation were prepared in 18.18, luat not proclaimed as ia operution tutil the year 1850, when the abolition of the British navbration acts rendered nee $\quad$ asary the immediate adoption of that step. The new aystem agreed to by both the Climmbers of the States Gieneral is contained in a collection of rules embolying the legal dispositions and schelules. These are too numerous und tengthy here to be inserted; but the following summary will convey ngeneral blen of their purport, and show how benelicially the liberal spirit, which has of hate years guided Hritish commercial leglslation, enters into and molds the commercinl systems of nelghboring countries. Whatever faror the system of "free trade" may hereafter meet with among the commercial nations of the earth, there can lie little doubt that the apirit of free navigation has entered upen its beneflcent mission, and ulready shapes the legialation of those nations which lave thriven and hourished most ly commerce. Tho countries of Furope which still retaln their metieval commercial policy-and, inileed, those on our own continent which have lnherited from their luropean propernitors shmilar aysteus of commercial litercourse with foreign nations-must either alandon their restrictivo pricy, and adogt, in its widest seuse, and with all its privileges and rights, the common-law defisitions of mare liberum, or find themselves lsolated from the rext of the commercinl world. When this spitit has alrendy hurst through the barriors which, from n time "to whlel the memory of man rimneth mot to the contrary," blosed China and Japan arainst every appronch of civilized commeree, it cin not be drabided that its inthume will soon or late be felt and mekno-lelged by thoso nations which would erect munchal lurricades aeross the highway of mations, r.nd linterdict the importation of lread to feed, and fubries to clothe, their destitute subjects. The present mavigation has of England are but the commencement of a now era in the commerchal legrislation of

Europe．The example of Holland，of Belgium，of the Hanse－towns，and the Zollvereln（though，as regards the latter，there is still much to be done），can not hut hasten this liberal reformation $\ln$ tho navigatlon lawe of neighloring governments．The leading features of the new navigntion laws of the Netherlands may he gathered from tho following summary．It embraces the chlef hases upon whlch they rest：
1．Unconditional repenl of discriminating favors granted to the Dutch flag，by suppression of the rules allowing to this flag preforence above foreign flegs． 2．Conditional ainillarity of flag in the nevigation to and from the Netherlands colonles．3．Stipulations by law concerning the trado and navigation in the colonies of the realm，carried on by other nations of the world．4．Repeal of the interdiction to grant Netherlands registers to forelgn－luilt vessels，by ad－ mittance for registry（naturalization）of such veasels at a duty of four per cent．of thelr value．5．Diminish－ lag of import duties or．principal miterinks for ship－ building．6．Suspensinn of the shipping dutirs on the Rhlne and Yssel．7．Total atolition of tranalt duties，
The principal olyect of all these measurea is to pro－ mote trade，hy relleving navigation，as much as poa－ sible，of the impodimente against its development which reaultel from past legislation．The general system comprehends a plan of establishing，in ne general law，lastead of by complientel trentios of com－ merce with the different nations，the principlo of mm － mediate and uncoultional＂free navigation，＂and， consequently，the general and nuconditionnl nesimila－ tion of flaga，by granting to the vessels of all nations the privileges enjoyed ly thosn of the Netuerlanda； reserving，however，the right of retaliation，shuuld cir－ cunatances rente：its exercise necessary，which，in most cases that can happen，will he linited to an ang－ meatation of shipping taxes，or of import duties ；und saving，aiso，certain rextrictions and conditions relative to importationa from Netherlands colonies．In tine， the navigation laws of Holland are framed so an to open，as far an possible，all Netherlands ports for ships of all nations；＂to prochaim，＂ns annonnced in the offichle expuation，＂a reacwel adherence to the liberal commercial poliey which the Netherlands was the firat nation to adopt，in orier to stimulate other sations to abandon all nystems of protections and prohinitions； to aloulsh all exclusive protections of the Netherhuda flag，so that nur（their）marigation may，with goom ancress．kepl pace with that of ct＇ier nations，and our （their）commerce may unt remaln behind th the newly－ opened compatition resulting from the repeal of the navigation lawe of Einglanul．＂Under the regulations condensed above，as well as under the treaty with the I＇nited Staten of 1802 ，the Ameriman flag in ansimillated to that of the Netherlanda in the colonial trale．Ia－ deed，in all respucts，whthout nuy condition or qualiti－ cation whatever，the thass of hoth nathon enfer entire and perfert equality．（in the 5th of August． 1811 ，the then Secretary of the Tremasury addrensel to coll tors and naval utieern circular fnatrystiome，In which the following puragrapha oceurrol：

[^27]that coffee imported in the vessela of the Netherisnds，frox thelr ports in Europe，is exempt from duty．Therefere，auch dutleus as have been so levied apon eoffee，no as aforedald tm－ ported，In vesmels of the Netheriands，from their ports in Europe，mast be rofunded；and，in future，colfice so imported must be admilted free of duty．＂

From these instructions it necessarily followed in practice，that while the coffee of Java，imported in vessels of the Nethorlands，from ports of the Nether－ lands，has been exempted from duty on its arrival in the Unitod States，the aame article，when imported in Amerlcun vessels，from the same ports In the Nether－ lands，has been suhjected，under the provisions of the 10th section of the tariff act of 30th of August，18．42， to tho payment of a duty of 20 per cent．ad valoren， as a non－enumerated articlo．On the 11th of Septem－ ber， 1845 ，thas：instructions were countermandel，ly Treasury circular of that date，as not warranted by the provinions of the treaty of 1839 ；the word＂ 80 ，＂ which qualilied tho imporration or exportation，having been overluoked in preparing the circnlar first referred to．A different construction would give to the ressels of Ilolland an advantage over American versels en－ gaged in the same trade，as already Intimated，of 20 per cent．－an advantago which could hardly have heen lnteaded to he given by uny treaty with a foreign power．All anbiguity or doult on this suliject is removed hy the tariff art of 1846 ．Under the provis－ ions of that act，however，the Netherlands thig still enjoya an advantage over that of the United States in the coffee carrying trade．This， 9 hedula 1 of the act provides，that＂colfee，the growth or prodection of the possessions of the Netherlands，imported fromi tho Netherlands in Ameriean vessela，or in fureign vessels entitled hy reciprocal treaties to be exempt from discriminating duties，tonnage，nud other charges，＂shall be free．The export duty on eoffee at Java，is 12 per cent．，lmiff of which is rembtted in favor of direct importation to the Netherlands in national ur equalized boltoms．Consequently，a Intid vessel，carrying lava coffee fimm llolland into the Vnited States，can undersell the American importer who bringe it lutu pert direct from Java，the amonat of the differential export duty；or six per cent．win the value of his eargo．

Comnercr．－Tie priacipal articles imported into Ilolland in 1853，and their proportion to the tutal amount of importations，were as follows：

| perennt． | Pralua ter epnt． |
| :---: | :---: |
| Tissmes of all kfuds $12 \cdot 61$ | Gralma．．．．．．．．．．．． 6.411 |
|  | lion．．．．．．．．．．．．．．组的 |
| Varna．．．．．．．．．．．$\theta(\mu)$ | Ruw（liton．．．．．． $3 \cdot 19$ |
| Cottee．．．．．．．．． 5 － 47 |  |

The principal exports，and their proportion to the total amount of expertations，were：

| Wurn falirlen． | $\begin{gathered} \text { rer cemt. } \\ \therefore \quad 808 \end{gathered}$ | Grains． | $\begin{gathered} \text { Mr rem. } \\ \text { fict } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| It－tined shisar． | 724 | ltaw alumr | 4.4 |
| Yartis． | 715 | I．tve arimuls． | 419 |
| torlieo | 650 | Ifutter． | ． 8.98 |

The tutal general commeron of ilolland in $1 \times, \mathrm{s}, \mathrm{t}$
 alowing a dimimiton，when compared with the pre－ reding year，of $\because 50,006$ ．

The diminution in exports foll principally upon ali． mentary probluts of the lirst necesity，and was cansert by the general bad ropm of the year．The ahare anigned in the rommerce of thin year amonted
 to the forelgn thag，E12，61：b，1：1：－agiving to the buten
 furaign thag lifit per＂ant．In the export trade，the

 61 par cent．

The total lmperta，of the Netherlands in 1854，as mppearm from the Nfatiatim！l＇eur Mook of Iholland，fir
 bat，toon；showing an increano over the haports of

1353 of $\$ 14$ \＄18，505，000． given by the florins，or 81 exports of 18 1852 of $\$ 14,5$

Import
Countries
Great Britata France．．．．． Zollvereln．． Hanso－towas． Unitod 8tates

The value the United ： States＇Trenn Is $84,138,636$ Datch official
The chlef tn Ilolland nt The leading $\mathbf{i}$ land are spir spices，pictur entered in 188 6：32 vessels， number $70, \mathrm{~m}$ United States sailed direct $f$

Yenre enaling

Supt． 80,1421 ． 1422.
1820. 1524. 1825. $1 \times 27$. $1 \times 28$. 1530.

Sept．30， 1841.
INise．
Inalis．
18：2．
1）355．
$1648 .$.
$1647 .$.
1838．
1．430．
140．．

Sopt．30，1411． is18．．
9 mon
Juas \＄0，
$0, \begin{gathered}1+44 . \\ 1 \rightarrow 15 .\end{gathered}$ $1416 .$.
147
$147 .$.
$1415 .$. $\substack{143 . \\ \text { isint．}}$ Isint．

Juac 80， 1 फht In部。 I $588 .$.
 1850.

The general nidering Its co spectarle of co wothl．in 185： 823，nud itn exp smotunted to 41 6fit．Thls ent which the Net？ when lleawea
$13 \% 3$ of $\$ 14,173,000$, and over the imports of 1852 of $\$ 13,505,000$. The total exports the esme year, as given by the seme anthority, smounted to $308,780,000$ flerins, or $\$ 128,512,000$; showing an increase over the experts of 1853 of $\$ 14,391,654$, and over the exports of 1852 of $\$ 14,518,000$.

Imports and Experte or IIolland por 1854.

| Countrles. | Imports. | Esports. | Total. |
| :---: | :---: | :---: | :---: |
| Oreat Britala | \$80,904, 000 | \$80,077,000 | -69,988,000 |
| Franee . . . . . . . . . . | 4,868,000 | 5,229,009 | 1,098,000 |
| Zollvereln........... | 27,827,000 | 46,574,000 | 74,101,000 |
| lanse-tuwns........ | 8,20-4,000 | 4,245,000 | 7,450,000 |
| United States........ | 8,018,000 | 2,054,000 | 5,072,000 |

The value of the total trade between Holland and the United States for $\mathbf{1 8 5 4}$, as glven in the United Slates' Treasury Report on Commeree and Navigation, is $84,138,636$, or $\$ 934,150$ less than that given by the Datch official report.,
The chief articles exportal from the United Statee to Ilolland are cotton tobaceo, rice, breadstuffs, etc. The leading imports into the United States frota Holland are spirits (principally gin), coffee, mateler, spices, pictures, paintings, negars, tin, etc. There entered in 1853, in Dutch ports, from foreign connt'ies, 6302 vessels, meusuring $1,064,243$ tons; of which number 70 , measuring 26,765 tons, bore the flag of the United States; and 18 vissels, under the Dutch flag, sailed direct from our ports with American produce.

During the same year, there cleared from the Nctherlands to forelgn countries, 4,413 shlps, messuring 776,889 tons; of which there were under the American flag, for United States' ports, 22 vessela, measurin11,383 tons; and for the same deatination, 27 vessels belonging to other nations.

In 1853 there entered at the ifferent ports of Hol. land 1006 steam vessels, laden, measuring in the aggregate, 304,329 tons; 105 steam vessels in ballatt, measuring in the aggregate, 72,800 tons; in all, 1201 vessele, tonnage, 377,129.

The vessels in ballast were ell under the English flag; thoee freighted were distribnted as follows:

| Under the | flay | Veanelt. | Tona, |
| :---: | :---: | :---: | :---: |
| ${ }^{\prime}$ | English flag |  | 89,641 |
| " | Ereneliflay. | 18 |  |
| " | Swedish tlag | 1 | 90 |
|  | Total. | 1,006 | 804,829 |

Since the new navigation laws of Holland came into operation (August 8, 1850), the maritime commerce of that kingdom has been distributed as shown by the following table:

Impoatations ny Sea.

1849.

Exportations oy Sea.
 49

Conmeack of the United States with Ilohland, fhom October 1, 1820 , to July $1,1850$.


The general navigation and trade of Hollanil, conbheriag its comparalively limited area, preaents a spectimle of commerilal greatness unejualed in the werh!. In 1852 , la generil imports reached $\$ 129,087$, 828, anil its exports $4108,093,8 \% 4$. In 1853 the impurts amminted to $428,420,6!9$, and the exports to 4109,120 ,66f. I'hls commercial pronperity nearly equals that Whifh the Netherlands altained in ita palmient dayn, when Heawea said of it in his l.ex Mercatorin: "it
promuces harilly any thing, und yet has wherewith to furnish other people all they can have need of. It is without forests, and aimost without wood. There ure no mines or metals, and yet there is "onnd as matheh gold ur sllver as in Now Spuin or leru; as much iron as in France; as much tin as in Fingland; und as much copper as in Sweden. The wheat and other grains that are there nowed harilly suffice for nourishment to a part of the inhabitunta; and it is, notwithstunding,

## HOL

from hence that the greateat part of its nelghbors $\mid$ or that strangers come to load in ite ports, that there receive them, either for thelr subsiatence or trade. In is not a day, and it may be said a moment, that ships fine, it seema as If the aplees grew there; that the olls were gathered there; that it nourished the preclous insects which apin the sllk, and that all sorts of drugs, for medleine or dyeing, were in the number of its prodnets and of its growth. Its warehouses aro so full, and its merchants seem to carry so much to strangers, do not come in or go out, and frequently entire fleets Such was the plcture drawn of the Netherlande in 1670. Its present commerclal condition, though different in every other respect from the Netherlunds of that period, is quito as prosporous, and rests uncin a basis more solid and secure.
Table exaiaitino the Valug of the Commeace of tue Niturblands with Fobeien Nationa in 1858, in Floains [Floain vallen at Fohty Cents Uwited Statns' Curakney].

| Countrie. | ımpoata. |  | expoute. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | General imports. | Importa fur ensump ${ }^{-}$ tlon. | Gieneral isports. | Of sperial eommierce. | Tranail. |
| Australia |  |  | 694,648 | 468,96t | 281.507 |
| Bolglum. | 25,164,698 | 20,594,254 | 24,112,814 | 19,698,723 | 4,410,091 |
| Brazll ... | 4,878,593 | 2,149,148 | 40,366 | -28,785 | 18,58) |
| Brenten... . . . . . . . . . . . . . . . . . . . . . | 1,18<,542 | 760,466 | 958,639 | 706,996 | 216,958 |
| Californla. . . . . . . . . . . . . . . . . . . . . |  |  | 189,840 | 109,085 | 26,405 |
| Cbina . . . . . . . . . . . . . . . . . . . . . . . . . | 1.411.107 | s0x 191 | 2,008 | 15,904 | 598 |
| Cuba. | 2,817,549 | 2,017,542 | 159,780 | 159,209 | 4131 |
| Curacoa. | 127.641 | 86,408 | 322,030 | 269,815 | 52,725 |
| Denmark | $1,968,455$ | 2,024,602 | 1,407,851 | 796,035 | 211,816 |
| Frasce.... | 12,281,116 | 9,185,864 | 11,687,590 | 4,754,005 | 6,988,585 |
|  | 88,617 $87.896,841$ | 86,617 $44,809,621$ | $78,968,6411$ | 48,403,078 | 27,4\%'578 |
| Great Britaia Ilamburg... | 87 $4,919,6 \times 7$ | 4, $1,977,981$ | 7,814,011 | 4, $6,174.854$ | $27,46,578$ $1,189,157$ |
| llanover and Oldenburg. | 4.125, 05.5 | 8,687, 118 | 2,389,084 | 1,625,361 | 764,628 |
| Java, etc............... | 63,729,272 | $52,614,164$ | 21, 800.704 | 18,452,184 | 8,325,575 |
| Canaries, C. of G. If., E. Indies, Asia | 5, 9500.426 | 2,991,993 | 159,724 | 157,813 | 2,411 |
| Roman States.......... . . . . . . . . . . | 19,3142 | 18.492 | 271,066 | 260,248 | 2,719 |
| Coasl of tiulnea | 413,945 | 418,495 | 250, 898 | 60,430 | 15\%,462 |
| Lubec. | 79.618 | 28,030 | 40,007 | 17,084 | 24.978 |
| Mecklonburx....... . . . . . . . . . . . . . | 112,771 | 215,831 | 132,905 | 107,184 | 25,781 |
| The Two Sicilles. . . . . . . . . . . . . . . | 1,16-4,146 | 427,964 | 2,400,024 | 2,728,181 | 77,809 |
| Intted States. | 6,746,581 | 4, 24,610 | 5,877,239 | 8,810,546 | 1,557, 693 |
| Norway... | 4,595,908 | 3, 01.225 | 681,441 | 523,020 | 152,515 |
| Austria............................. | 1,220,521 | 6821.940 | 4,478, 060 | 4,254,094 | 185,066 |
| l'hilipplne Isles. . . . . . . . . . . . . . . . . . | 251.210 | 73, 75 |  |  |  |
| Porlugal. . . . . . . . . . . . . . . . . . . . . . |  | 407,549 | 837, 876 | 220.027 | 117.649 |
| Russla.. | 15,226, 3 +41 | 14,428,969 | $8,484,248$ | 2,170,266 | 1,267,942 |
| Itussla (lilack Sea | 2,648,548 | 2,T74, 589 | 276,895 | 274.678 | 1,197] |
| Narilinia. . | 184.451 | 91,504 | 1,800,957 | 1,716.980 | 921,177 |
| Americn. | (3)6,040 | 204,6931 | 573,612 | 404.704 |  |
| Burinam. | 4,439,065 | 2,724,145 | 1,262,520 | 97\%,579 | 24.741 |
| The Zoltverel | 64,180,562 | 27,6*2,881 | 100, $146,8: 38$ | 81,660, 095 | 69,496,2\%8 |
| Tuscany . . . . . . . . . . . . . . . . . . . . . | 472,1066 | P102, 815 | 1,698,393 | 1,546,657 | 1.66 .736 |
| Turkey, Greece, etd. . . . . . . . . . . . . . | 1,716,438 | 1,564,296 | 3,419,046 | 8,879,278 | 89,763 |
| Nweden, . . . . . . . . . . . . . . . . . . . . . | 422.075 | 306, 159 | 877,669 | 229,342 | 18.4817 |
| Kpain. . . . . . . . . . . . . . . . . . . . . . . . . | 653,344 | 2012,527 | 65\%,08\% | 251,087 | 8:5,417 |
| Not known. . . . . . . . . . . . . . . . . . . . |  | 8. 810 | .... | -... | ..... |
| Wrecked. | 34, 31 | 82,649 | - ... |  |  |
| Total florins. | 821.1451.729 | 2404,945,146 | 272,401,666 | 154,648,161 | 115,15x,mmi |
| Or in dollsrs... . . . . . . . . . . . . | 184.420 .69100 | $5 t, 978,103+40$ | 1109,120,661) 40 | 61,457,264 061 | $47.2645,40240$ |

The cultivation of tobacco in tho Netherlands is autject to no rentrictions, with the excoption of tho excise duty, to which, lika all other products, it in liable. From 1800 to 1900 morgens (equal to from 2600 to $3 k 00$ neres) are annnally devoted to tobacco. The tobncco land is situated in the provinces of Guiderland, Overyssel, Utrecht, and Zealand. The average quantity of tobaceo produced on each morgen is alwut 4500 this. The total erop in estimated at from $8,00 \kappa, 000$ to 9,000, , omo lbs. per annum. The quantity reserved for home consumption is alrout $2,000,0$ (\%) llos ., of which

| Amoklag tobsoro, about. | Pandino |
| :---: | :---: |
| Nnnff. | 710.040) |
| Covers for mepars | 409,006 |

Hesides the alove, the Netherlands expurt to forsign countrien about $6,000,000$ llis, of tohacco-in the leaf, $5,000,040$ Jis., and mannfactured, $1,000,000$ lbes.

The following table alowa the annas tobacen export trade of Holland:

| The limenish provi | $\begin{aligned} & \text { Kilampamanes. } \\ & \therefore \text { Ov),0.00 } \end{aligned}$ |
| :---: | :---: |
| luanla and tirwat lirtiata. | - 40) $5,(40)$ |
| Bardinta. | 850, 510 m |
| Normay and lenmark |  |
| Naples. | SO, (mm) |
| Ituman States. | SH14090 |
| Spuin ant l'ortustal | 201,(1) 10 |

The total quantity of tolacco grown in the Netherlands in disiributer an followa:
For the manufacture of snuff and chew(ng tobaceo. $1,4 \pi 5 .(4 \times 1)$ For segarn and segar covers. . . . . . . . . . . . . . . . . . . . . . 1,765,400

Average price of the former, from 14 to 32 florins
for common ; 30 to 90 fiorins for the best, per 100 kilogrammes. Average price of the latter, from 11 to 32 florins for common; 180 to 90 tlorins for the best, per 100 kilogrammes. The planters of Armhem, and some other dintricte, have, luring the past few years, applied themselves to the raining of a very light, clear, yellow tobacco, for acgar covering, for whith they ohtain a very high price. For this purpose they eniplay a very netive fertilizer, with a view to the large and rapid growth of the plant, which they dry hy the sun with great skill and managenent. The average quantity of foreign tobaceo annually inuorted is from 22, 000,000 to $25,000,000$ lbs., chietly from the following places:


A thirel part of the tolacco inported from forelgn countrien is consumed In the Notherlands, the other two thirds are exported. tiermany and lielgiam re. celve the larger prortion, which cousists altogether of Virginla, Narylame, Keutucky, and mome Java tobacco. Hesiden tho lmports nlove lesignated, llamJurg nupplies Ilolland anumally with latge phatities of tobacco of American growth. The tolaceo manufactorien in Ilolland, of the firat class, are numerous. They are chkely located nt lRotterdam and Amatetdam, though nany slmilar factories are seatered
throug employ consun gramt kilogrn whole ket for aluria Belgiu statry for
What

HOL
throughont the provinces. The first-class factories employ upward of $1,000,000$ operatlves. The average consumption of tobacco In Holland is about two kilogrammes ( 4.408 lbs .) for each individusl, or $6,000,000$ kilogrammes, or upward of $13,000,000$ lbs. for the whole popnlation, Germany offers the princlpal market for the Dutch tobacco traile, though considerable ;urritics gre exported to the Levant, Jtaly; Austria, Belgium, Deumark, Surinam, etc.-Com. Rel. U. A.
Etathinet exmeitino the leadino Staplipg of the Uniteo States, and tieit hesphotive Values, fxportal to llolland in the Years shrelpied.

| Articles. | 1854. | 1865. |
| :---: | :---: | :---: |
| Whateoth. | 18,944 | \$4, 326 |
| Whalobone | 6,571 | 1,505 |
| Woot, lumber, aod timber..... | 24,476 | 77,463 |
| Naval stores . . . . . . . . . . . . . . . | 45,101 | 80,988 |
| Pot and yeari mshes, . . . . . . . . . | 15,259 | 84,064 |
| Ileef. . . . . . . . . . . . . . . . . . . . . | 4,635 | 1.800 |
| Itatas, bacon, and lard......... | 16,642 | 29,033 |
| Wheat. . . . . . . . . . . . . . . . . . . | 47,441 |  |
| Flour. . . . . . . . . . . . . . . . . . . . . . | 52,289 | 9,662 |
| Pye and otter gratas. . . . . . . . . | 50,276 | 38,789 |
| Nifee................ . . . . . . . . . . | 22,299 $\times 27$ | 24,780 |
| (tstton. . . . . . . . . . . . . . . . . . . . | 5617,482 | 414,438 |
| Tobacee . . . . . . . . . . . . . . . . . . | 1,350,886 | 1,068,782 |
| . manufuctared........ . | 7,816 | 4,329 |
| Wax. . . . .................... | 4,959 | 3,278 |
| spirts of turpentine. . . . . . . . . . | 25.819 | 71,219 |

The following compars ${ }^{+i v e}$ statement exhibits the effective merchant marine of the Netherlands on the 31st December, 1852 and 1853, respectively :

The following summary shows the classification of the vessels given in the preceding comparative statement :

|  | $155 \%$. |  | 1883. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Versela. | Tuns. | Vunmela. | Tons. |
| Ships. | 141 | 111,176 | 142 | 112,244 |
| Marks......... . . | 296 | 164,210 | $8: 34$ | 140,182 |
| Brligs. . . . . . . . . . | 51 | 14,412 | 06 | 16,973 |
| Brlgantines. . . . . | 2 | 488 | 9 | 489 |
| Schooners. . . . . . | 184 | 21,854 | 168 | 26,472 |
| Other ressels.... | 1,829 | 188, $1 \times 4$ | 1,310 | 182,043 |
| Steamboats.. . . . . | 13 | 3,950 | 15 | 4,452 |
| Total. | 1,971 | 44.594 | 2,087 | 4i9.202 |

U. S. Foreign Com.

Holly-tree. Geography and History,-1'he Hex aquifolium, or luropean holly, is indigenous to most parts of the middle and south of liurope, and it is said to be foand in China and Japan. It does not appear to be a native either of Amprica or of India, unless the llex opaci of the United States, and the Ilex dipyrena in the Ilimalayas, should prove, by cultivation, to be varieties of it. According to Pallas, it sareely oceurs within the ancient limits of the Russian empire, thongh frequent on the southern side of Chucsasus, where it forms a low, brinching shrub, about 10 feet hifh. In liance it is abundant, more particularly in Hrittany. In tiermany, it abounds in many forests, especially th the southern and middle States; where, when sholtered by lofty trees, it rttains the height of 20 fect ; but in exposed situations, it doos not excred a height of 6 or 8 feet. This tree "ppears to attain a larger size in lingland than in uny other part of the globe. It abounds in that country, more or less, in the remains of all aboriginal foresta, and perhaps, at present, it prevails nowhere to a greater extent than In Needwood Forest, in Stalforlshire. In Scotiand it is fouml in most natural woods, as an madergrowth to the ouk, the ash, and the pine. In Irelund, the lolly is nut very common; but about the lakes of Killarnoy if attuins a large size.

The wool of the holly is almost of 83 wory whiteness, except near tho centre of very old tranks, where it is of a brownish liue It is very hard and empmet, with a tine grain, and suseeptible of a high degree of polish, whieh renders it well milapted for muny purposes in the arts. When dry, it weighs 47 it pounds to a cubie foot, and is very retentive of its sap, in conse-
quence of which it is liable to warp, unless it is well drled and seasoned before being used. It readily takes a durable color of almost any shade, and hence it is much used by cabinet-makers In forming what are technically called "strings and borders," in ornamental works. When properly stained black, its color and Iustre are little inferior to those of ebony. It may be applied to a great number of purposes by jolners, cabinet-makers, turners, engineers, matheinatical instrument-makers, and, next to the box and pear-tree, It is the best wood for engraving upon, as it is compact, and stands the tool well. Amc $f$ its principal uses in Eagland at present, ls, when dyed black, to be substituted for ebony, in the handles of metallic teapots, etc. In France, the young shoots and the branches are given to sheep and deer during winter; and the stronger straight shoots, deprived of their bark, are made into whip-handles and walking-canes. The bark of the holly contains an abundance of viacid matter ; and, when mascerated in water, fermented, and then separated from the tibres, it forms bird-lime. Medicinally, the bark of thls tree is mucilaginous, emollient, and solvent, and is said to possess strong febrifagal powers. The berries are purgative, and 6 or 8 of them when swallowed, will cause violent vooniting; though they aro considered as poisonous to men, they form the fool of some hirds, more especially of the thrushes.

The wood of the American holly resembles that of the European species, except that it is rather browner at the heart. It is compact, heavy, of a fine grain, and is susceptible of a brilliant pelish. Its principal use is for inlaying mahogany furniture, and for turning into small boxes for druggists, and for small screws. When perfectly seasoned, it is very hard and unyielding, which renders it well adapted for pulleys used in ships. It may be dyed of various colors, so as to resemble many foreign woods. The back may be umployed for making bird-lime, in a similar manner as that of the preceding species. Medicinally it is emetic nud cathartic. The berries, taken to the number of 15 or 20 , will excite vomiting, and will also act as a purgative.

The emetie holly is found in moist, shaty places, from Virginia to the Floridas, and was introduced into liritain in 1770. It was cultivated by Niller in the plysic garden at Chelsea, and in several other collections in the neighborhood of London, till the severe winter of 1789 , when most of the plants were destroyed. Other plants were afterward raised from seeds in that country, and lave ever since resisted the cold of ordibary winters without protection. The leaves and young shcats of the cassens are inodorous, the tasto sul-nromatic and fervid, being aseful in stomach fevers, diahetes, small-pox, etc., as a mild emetic; but the " black lrink" of the ladians is a strong decoction and a violeut, though harmless vomitive. At a certatin season of the year they often travel a distance of some hundred milos, from parts whero this tree does not grow, to procure a supply of the leaves. They make a lire on the ground, and putting a kettio of water on it, filled with leaves, place themselves around it, and with a wooden vessel holding about a pint, conmence by taking large draughts, which, in a short time, eause then to vomit freely. Thus they continne drimking and vomiting for two or three days, intli they are sufliclently purilled, when they return with large quantitics of tho leares and boughs, to their homes. The leaves and young shoots of the llex cassema und dahoon, and of many other shrubs, appear to bo substituted indincriminately by the ludians for making their "black driak." In North Carolina, it is suli, the inhabituuis of the sea-side swamps, having no gool water to drink, diaguise its taste by hoiling in it a littlo cassenn, or other plants of a similar natare, and use it constantly warm, as the Chinese do their daily tea. This circumstance gavo rise to the opinion
that this apecies was the Ilex Paraguariensla, and was erroneoualy called "Paraguay Tea."-Bnownn's Tr. of America.
Elolm. (Sax. and Danieh.) An island, or fonny place anrrounded by water. Two well-knewn islands In the Bristol Channel are called the Steep Holm and Flat Holm.
Ely Alliance, The, a lengue formed by the principal sovereigns of Earope anter the defeat of Napolem at Waterioo. The bails of thls alliance was drawn up' by Aloxander of Russla (September 26, 1815), and recelved the signatures of Pranels of Austrin nnd Frederic William of Pruselia. ${ }^{4}$, Ite name, which waa dictated in accordance with the popular rellglous enthusiasm of the time, was fitly exprenalre of the vague principles of religiens charity and peace on wbich it professed to th based. It gained atrength by the accession of England and France, but theneeforward became an alliance simply for the establishment of exlating dynasties in Europe, as may be seen from the declaration of November, 1819, and from the restila of the Congreases of Troppan;, Layhach, and Verona. Atter the aoceasion of England and France the boly allance becime practically obsolete. See North Amer. Rer., xvll.; For! Quar., vili.; Ed. Rer., xxxvill., xxxix ., x1.;'Westminster Rec., $1 ., 18$; Nil.sa' Reg., $\mathbf{x x} .$, , 318, $\mathbf{x x i v . ,} 805$.

Eolyhead (Welah, Caer Gybi, i. e., fort of Gybl), a sea-port, and market-town of North Wales, on an Inland at the western extremity of the county of Anglesea. "It la connected with the main pait of the county hy a vast embankment, $\frac{t}{4}$ of a mile in length, asd of an average height of 16 feet, with a bridge near the centre through whieh the tide rushes with amazing velocity and force. The town, formerty a emall fahing village, has acquited importance in consequence of ta being the nenrest and most convenient place of embarkation for Ireland. It is the point of termination of the great parliamentary ronds from London and Chester, and of the Cheater and Holyhead railway, in connection with which steam-packets !aave the harior several times a day for Kingston near Dutrlln . The vast amount of labor and money expeaded on public works connected with the barbor has materially contriluted to attract and snpport an active and thriving mpulation. Holyhead has heen aelected by the llitilh government for a harbor of refnge. The works, when completed, will Inclose an area of abont 816 ncres, with a depth of at least 61 fathoms water. The pier extends nearly 1000 feet, and apon it is an arch of iiona marble commemorative of the vialt of George IV. in 1821. At the extremity of the pier is a light-house, exhibiting a white Ught 80 feet above sea-level. ${ }^{\text {th }}$ On Bouth Steck an isolated mek 8 milea west, Is amother light-honne ponnected with the har hor, and of easential servico in faclltating the access. The light, which is 212 feet Ainve high-water mark, is produced by 21 lamps whth powerfol refectors. The inhabltante are chlefly engaged in the coasting trade and in abipbuilling. The coast is extremely wild and rugged, preeenting numeroas wave-worn cavarnh, which form the haunt of innumentile aen-binds,-E. B.
Eoly-wtone, a large ntone used for cleaning shipa' deckn. It receives its name from the unwillingnean of salion to submit to the drudgery of using it.

Home, in naval langusge, is said of ary thing that is close in its place; it in applied to the shereta of the sails, the shot and cartridge in a gun, and nny articie of stowage.
Eomer, or Omer, the largest dry mensure among the Helirewa. It was In later timea replaced by the Cor, and is estimated at $7,898,000$ l'aris grains.
Eonduras, British, Relise, or Bolize, a 11 ritimh mettiement on the eant conat of Central America, between N. Int. $15^{\circ} 14^{\prime}$ and $18^{\circ} 80^{\circ}$, and W. long. $88^{\circ}$ and $89^{\prime} 80^{\prime \prime}$. It is bounited on the north by Yucatan, west and sonth by Guatemala, and east by the

Bay of Honduras. It has a coast line of about 200 miles between the moutbs of the Honde and Saratan, and is about 100 milen is breedith. This coast was discovered by Columbus in the year 1502, bat little that can be rollod upon is known of ita early aettloment. The aboundance and fine quallty of the wood, particularly mahogany and logwood, weem firat to have drawn attention to it ; and at a pretty early period it wan occablonally resorted to by wood-eattors.. But the first permanent eatablishment of British woodcuttera was mada at Cape Catoche by, aome adventurera from Jamalea, whose numbers increasing. theyoxtended as far sonth as the Rivur Belize, and as far weat as the neighborhood of Campeachy. The Spanjands, however, did not quietly aubmit to this uaurpatlon of their torritorial dominion. Several expeditions were fitted out agalant the settlera, but they were nilformly uneaccesaful; and on two occasiona, in 1659 and 1678, so complete was their discomfiture, that the town of Campeachy itaelf was taken by the logwoodcuttera, with only the assigtance of the seamen. engaged in the trade. This last repuhe oceurred eight years after a treaty had been coneluded with Spain, by which the territorial right of Britain to the occupancy of IIonduras was generally, although not specifically, embraced. The auccesser of the settiers aroused the jealousy of the Spaniards, and led to a renewed dincussion of their right to the territory which they occupied. This would appear to have been again generally admilted; but the Spaniarda finally succeeded in driving the woodmen from the Campeachy shore, and confining them to the limite of the present settlement. An attempt was again macie in 1618 to diapossecs the British of the territory on tho River Leelize; but the firmness of the wood-cutters deterred the Castillans from effecting any thlug, oxcopt the erection of a fortificatlon, which in a few years they abandoned. In 1754 an expedition was undertaken to externinate the colony; but by a treaty of peace concluded in the year 1763, the Spaniards were compelled to admit the right of occupaney to the british coloniats, which, however, they sulbequently attempted to annul. In 1779 the Spuniardy ngain attacked the nettlement, and after deatroying property to a considerable amount, they took a number of the colonista priaoners, and marched them off in irons to Merila, whence they were ehipped to the llavanaah, and there confined till 1782. In 1784 Britaln obtained from Spain a epecific grant of "the lands allotted far the cutting of logwood;" and in 1790 an aet of Prarliament conferied on Eislize all the privileges of a British collony. The last attack on the rettlement was made during the war in 1799, but the expedition, which conaisted of 3000 men, was gallantly repulsed; and ainee that period the colony has remained undirturted by forelgn aggression.
The coant of the llay of Itonduras is low, and the shore is atudded with a number of low lalands or keys, which, however, are verdunt. As we recede from the const, the land risen into a wold and lofty countrr, Interspersed with rivers and lagoona, and coverei with kigantic foresta. The lagoona or sheets of water, and the fally and rapids of the rivers, constitute subilme and beautiful featares in the general aspect of the country. The llonde Itiver, which forms the northern houndary; is a the atream, A few miles ssuth if it ts the New lifiver, which has ita source in an extenalve lagoon. The ifelize has a uertheast ly east course of alove 200 miles, and discharges liself into the Bay of Nonduras by two mouths aiout 暗 miles apart, the mouthern branch dividing the lown of Belize into twa parts. The river and lagoon of Manatee, which is situated 10 leagues south of Beilize, Is considerei as ex. tremely grand. At about a milo from the mouth of the river is the lagoon, a magulticent sheet of water, extending fur sevaral leagues in a northeriy direction. In many placos lofty hills ancend from its margin,

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overtopping large valloys and woed rangen of great extent, where the faguar, capybara, armadillo, farge wearel, oposanm, racoon, and several species of deer, abound. "Among the fenthered triben there are numbe:s of quails, plovere, plgeoni, pheasante, and willd turkeys. The deficiency of Etresms among the monntain ridges la snpplied by thie presence of large marshy spots or shallow ponds, the basks of which are froquented by almost every species of water gamo. Fish abound during a great part of the year in these ponda, but the latter dry up in the season'of drought, and then vast flocks of sea-fowl "congrogate around them to proy upon the fish which have been left dry by the evaporation of the waters.' 'The alligator is also a foquent visitor; and, to pertake of this repast thus yearly provlied for him, he has been known to traverse trackless wilda, and make long journeys into the interior. The rapids of the Manatee commence about 8 or 10 milea from the Ingoor, and the high mecky banks of the river assime a romintic and beauilful appearance. Further on there is a rapld of abolit a quarter of a mile in length, and of considerabie acellv: ity. A cluster of beautiful caves, through which the river wlads its way, and beneath which the triaveler must pass, la next reached. They have been described as equally singular and grand. "These magnificent natural excavations of the mountains are semicircular at the entrance, and abont five yards in diameter. Within the cave the arch rises to the height of 100 fect, and leads to another low arch, which being passed; a second cavern of large size opens; teyond which is a third with a circular orifice, 'throngh which the river entiors. During the floode the mouthe of the caverns are illed with water, which boile up with prodigione fury, and this detalns travelers many days before they ean pass through the caves or tunnels. In the rainy season, se the water increases on the uppor or inland sides of the mountaina, the river forces its passage throngh the interstices and openings in Its sides with tremendous noise. forming an Indescribably grand cascade of from 40 to 50 feet high, lasuing from a hunired orifices." Of the other rivers of Honduras little is known.

Productions.-The country is technically divided into tho Pine and the Cahoun ridges. The soll of the former has a substratum of loose reddish sand, and its indigenous producta consiat of these varieties of vegetation the assinillative powere of which are strong and pereunial. Extensive pralries expand over this noll, and the pine, frum which it derives its name, is oxtromely abundant. The soll of the Cahoun ridge consiats of a decp ioam, capable of growing every apecies of European as well as of tropical allment. It ferthity oceaslons the growth of much brushwood, and it is covered with the wild cotton-tree and other giante of the forest. Fruits, spontaneously produced, are exceedIngly abundant, and consiat of orangen of excellent quality, shaddocks, limes; mangoes, melons, pineapples, water-melons, avocato pears, cathew, cocosnuta, and many others.' Thoy are all found in the neighlorhood of Belize, but are sometimes brought In large quantitles fromi more elevated plantations. The mahogany and logwood-trees are at present the staples of Honduras. The former is found beet in elevated situations; and growing generally solitary, it is discernible at a great distance, from the yollow hue of ita folinge. It is cut down at about is feet from the ground, and when folled the logs are dragged to the banks of tho atreams and fioated down ln rafts. The boughe and limbe are alad to afferd the finest wood, hut it is the size that is principally looked to in commerce. The logwood is found in low swampy grounds, growing contlguons to fresh-water reeeka and lakes, on the edgen of which the :ote, the most valnable part of the wood, ramify. They are felled during the dry season, and carried off when the wet season has ladd the groand under water. There is another valu-
able tree called the Pinus accidentalia, whlch growa tu the height of 60 foet, and covers many thcusand acres of country. The pine-weod contains an immense quantity of tar and turpentime, and is consequently highly inflammable. In thle respect it is very valuable to the poor, who make, torohes of it. It likewise powerfully resists decay, and is in consequance muoh used by buildors. The cahonm or cohoon-tree yielde a vulaable oil, which, when unadulterated, is almost colorless, destitute of any disagreeable taste, and when burned as a lamp ofl it emits a beautiful palish flamo without smoke or amell, There are various othor kinds of wood of beantifal vein and cluse toxture, such as Iron-wood, clay-wood, roee-wood, palmaletta, and the like. Among minerels, strata of fine marble and formations of alabastor are known to exist. Several valuable specimene of eryatala have been found, and gold has ocearionally been detected in some of the atreama. Laboring Creek, which Has on the Belize, about 100 milee inland, is remarkable for the petrifying properties posseused by its waters. They have also a powerful cathartic effiet on htrangers, and when applied externally to an olcer hdo a healing property. The country abousde with all kinds of animuls fit for the food of man. Except in very rough weather, the sapply of salt-water fiah of excelient quality is abundant. The common gruen turtle, when in a healthy condition, is a staple commodity in the market. "The hawkebill turtle le often five feet long, and weighs from 200 to 250 lbs.
Belize, the capital of the settlement, standa on as low fist shere immediately open to the sea, and guarded by numeroua omall ielande, densely covered with treen and shraba, and 60 similar as to render the navlgation exiremely difficult. It in further divided into two parts by the river, which is croased by a substantial wooden bridge of 220 feet apan and 20 feet in length. The part of the town which is aituated upon the south or right bank of the river, along the eastern elge of a point of land, is completely insulated by a canal on its western side, which runs across from a small arm of the sea, and bounds the town on lts south sido. The houses are about 500 in number, and are in general well built, spaclonn, and even elegant. They are for the meat part conatructed of wood, and raised 10 reet from the ground on pillars of mahogany. The streets are regular, and cross each other at right angles. The main one runs in a north-aasterly direction to the bridge from the government-honse, which ls situasted on the south-east point or angle of the ialand on the right bank of the river, and bounded on the south and east by the ses. Behind the governmenthouse is the church, on the east slde of the main atreet. The whole town is embowered in groves and avenues of the cocoa-nut and tamarind-trees. Fort George is situated about half a mile from the river, on a amall low islet. In the neigbborhood of Belize the natural heat of the climate la tempered by the sea breezee that prevail during nino months in tbe year, so that, even in the hottest season, the thermometer seldom rises above $83^{\circ}$ Fahr., and during the wet season it sinks to $60^{\circ}$. In June, July, August, and September, heavy and frequent rains fall, and thees are the most unhealthy menths of the year, from the decomposition of animal and vegetable matter in the adjacent lowlands and owamps.

There are various classes of society in the settlement, including Europeans, colored people, Indians, and Mosquito men. The blacks of Ilonduras are distinct from the aborigines of the country, boing of African descent. In general they are incliaed to indulge those low propensitios which are exhlbited in a state of barbarism. Having been derived from various regions, they still retaln all their national peculiarities, and keep themselves dlatinct from avery other tribe. The blacka, an a boly, have upon the whole littie intelligence, and their dulluess of comprehension is

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remarkable. It is asserted, however, that some of them exhibit an or!ginality of talent and a degree of mental activity Ilttie Inferior to their Firropean brethren. They are much attached to their country, and with a native of his own land a Honduras black will ahare hin last plantain. The colored popniation has resulted from the Intercourse of Europerns with Africans or Indians. They of course, morally apeaking, assume a medinm atatus, and partake more or lese of the qualities of black and white, according to their distance from either. The Mospuito Indians abound in the colony. They are remarkable for a fine mascular formntion of body, but in their countenances they oxhibit an utter deatitution of intelligence, and their habits are most barbarone. They acknowledge the existence of a good and evil apirit; and the little power of thought which they possesa la diaplayed in their conduct toward their deities. The good spirit is neglected, because, say they, his goodness is so great that notbing is to be feared from his wrath, while on the other hand, the evil spirit is propitiated, in order to deprecate his malevolence. The whole wealth of a Mo quis." man consistr it his canoe, paddle, and harpoon. With these he satisfies the cravings of natnre, and his groveling nature s.sks tor no more. The $/ n-$ dians, the real aborigines of the place, are a thinid, inoffensive race, apparently more under the infuence of instinct than of reasun. They perfo:m the most astonishing journeys through woude, as trackless as the sea, and impervious to all ins thamselves with infallible correctness of direction and amazing rapidity. Although freo from vindictive or malleions pripensities, they are addieted to drunkenneas to an excensive degree. The population of the colony is estimatel at about 12,000 .

Ifonduras has an Increase of $\mathbf{3 9 , 6 0 0}$ square miles, and Its population In 1855 was eatimateed at 350 , $(\boldsymbol{n} \mathbf{v}$, exclusive of the Indian tribes. It la divided into seven departments as followa:

| Deparimenta. | Entmated pop. fa 1845. | Deparmenia. | Eatimated pop. In 1Mss. |
| :---: | :---: | :---: | :---: |
| Cobiayagan. | .. 70,009 | Graclas....... | . 53.000 |
| Teguciralpa. | . . 60,000 | Yoro... | 20,000 |
| Cholutera. | ... 50,000 | Olancho... | 45,000 |
| Santa Barba | ... 50,000 | Total. | 800 U00 |

The rivers of liondu"as wre numerons, and some of them of great size. The primelpal are the Chamelicon, Ulua, Aguan or Roman, Tinto or Black River, Patuca, and Wanks or Segovia, flowing ints the AtInntic; and the Cholnteca, Nacaotne, and Gonseoran, flowing into the llay of Fonseca.

The llay of Fonseca, the greater portion of which belonges to Honduran, in apwaril of 50 milles in length, by about 30 averuge breadth, with an entrance 18 miles wille, between the volcanoes of Conchagua ( $3 \times 00$ feet in helgbt) und Coseguina ( 3000 feet in helght). $-\mathrm{F}_{\text {. }} \mathrm{II}$.

The const alluvions of Honduras are geserally densely wooded, the devated valleys of the aterior sprear out in broal savannahs, and the mountain plateaux are covered with foreste of acattered pines, relieved by cecasional clungs of onk. Upon the northern coast, in the broal plain through which the Uina and (hamelicon flow, the country is so low as to be occavionally overtlowed for conalderable distancen. liere grow inmense torests of cedar, mahogany, caiha, In-dia-rubber, and wither large and valuable treem, thickly Interspersed with pulins. Further to the eantwand ofl the same coast the beavy firesta are contined chiefly to the river valleyn, and give place at inlont dintances inland to sandy asvananhs, sovered with course grass and clompa of pituen an? neacian. The alluvions of the l'achic coast are alro densei; wonled, bue not extensive. At short distances inland they give jlece to nomerous mavannalis, studded with clumps of acacias, and covered with grasi ; lut she pine does not appear bere except upon the singee oi the hiile, at ar altitude of alout 1200 feet. The valleva of the rivers on botil
coasta are thlckly wooded; but as thoy ascond toward the interior, vegetation diminiahes, and is reduced to a narrow fringe of trees and bushea upon their Immediate banks. These valleys in the high interior country often expand into broad and beautiful plains-half asavanalis and half woodland-whore the palm and the plne flourish alde by side. The mountains which rise around these valloy are ascended by terraces crowned with forests of pines and oaka, and covered with grase. The aummits of the mountains sometimes riae in peaks, bnt generally conatitute bread table-lands, more or less undulating, end often spreuding out in savannaha, traversed with long ridges of verdure and green belts of traes.

Woods,-Of the vegetable productions of II onduras the mahogany-tres stands fizat in linportance, and from its vast aize and magnificent follage, is deservediy entitled "king of the forest." It if to be found in nearly all parts of IIonduras in the valleys of the various atraams. It is, however, most abunilant upon the lower valleys of the rivers flowing into the Bay of Honduras, where the cortes (cutting) are chiefly curried on by the Spaniarda. A fixed anm is paid to the government for each tree cut down. Rosewood is cor mun ox the northern coat, where it is begrnai is to form en artlele of commer: . Lignam vitue abounds in the valley of the Ulua, on the river benke in the plain of Comayagun, and In other parta. Among the namerons dyewoods for which Honduras is celebratel, nay be mentioned fustic, Brazil wood, yellow sanders, dragon's-blood-tree, Nlearangua wood (a variety of Urazil woud), end the anotce. Among the gum and medicinal trees, ara the gum-arabic-tree, copuiba-ifee copal-trea, 1 1! 1 id ander, castor oil, ipecacuanha, nnd the Herea clustici. Among the more common of the others anc tbs iung-leevid or pitch-pine, cedar, ceiba or silk-cotton-tree, live oak, mangrove, iron-wood, calabash, varlous kinda of onk and pulm, lime, lemon, orange, cveoa, pimento, eltron, tamarind, and guava. Sarssparilla id obtained in great abundance and of superior quality. The augar-cane grows iuxuriuntiy on the plains and among the mountains, at elevati nis of 3000 to 4000 feet. Coffee, indigo, tubacco, maize, wheit, rice, and potatoet are also grown.

The IIouluras Inter-oceanic Railway,-At a recent meeting of the Liverpool Chamiser of Comnere, Mr, William Irown, a meaber of Parlianent, gave many interesting particulars in relation to the llonduras Inter-aceavic Railway, The distance letween Naw York and Sun Franciaco, vhia lanamia, is stated to he 0224 milen, whereas the distance viâ llonduras is only 4121 miles. Difference 1103 milen. Tho distance from Liverpool to San Francisco via I'anama, touching at Kiugnton (Jamaica, la 7712 ulles; via llonduras, 6k81 miles ; saving of 11 onduras over lanama, 831 miles. The distance from Liverpool to Syiney, viś Honduras, has loeen calculated with care, and found to be $11,8: 20$ miles. At an averagu rato of steaming of 12 milea per hour, und allowing three days t. . coaling and trans-shipmovt, the voyage could be performed in exactiy 43 days $u \cdot d 12$ houra. We subjoin a table vi diatances:

|  | a liles . | Irrom | $\begin{aligned} & \text { roun } \\ & \text { v. fork, } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| versoot | ${ }^{1009} 9$ |  |  |
| Hajal ts 'th. Thomas. | 1, 1.40 |  |  |
| St. Thua s to l'uerto C'sballos. | 1,420 |  |  |
| Puerto (mball us to Bay of Forseen. | 160 | 4,661 |  |
| Ba; or Fonseca to Hani Franelato.. | 2.229 | 6,4,4 | 4, 61 |
|  | 8,960 | 8.621 | 5,361 |
| Sandwlen Islatads to Caston. | 4,930 | 18,8+1 | 10.41 |
| " "\% Nhangh | 4,500 | 18,181 | 10,84it |
| " 4 " Jeido. | 2.86 | 11.2 | 8, 621 |
| Aay of Fonseca to Melbourt | 7,647 | 12,841 | - |
| $\stackrel{4}{4}{ }_{4}{ }_{4} \mathrm{Ag}$ dney | 7.159 | 11,820 | 9,960 |
| " "Atuck! | 6,1926 | 10, 沓尔 | 7,960 |
| " " Malla | 2.349 | 7,020 | 4,2(1) |
| " " "Velpap | 8,679 | 5,831 | 5,3il |
| New "ork io Raj of Fonseca by rallns y aud stemater. . | \$,001 |  |  |

## ascend towaril

 is reduced to in their immea Interior councul plains-half the pain and ountaina which ed by terraces cs, and covered ountains somemastitute bread ad often spreadlong ridges ofns of Monduras aportance, and, ze, is deservedly to be found in valleys of the $t$ abundant upen ; inte the Bay of are chietly curm is paid to the kosewood is it is beginul us um vitee abounds or banks in the ts. Among the ras is colebrated, , jellow sanders, dd (a variety ef ng the gum and ree, copuiba-tice, ipecacuanlia, and - common of this pine, cedar, cciba e, iron-woed, calalm, lime, lenton, rind, ent gnava. dance and of suws luxuriantiv on IB , at elevati. .ns of cco, maize, wheat,
ay.-At a recent of Comanere, Mr. nent, gave many to the Ilundaras ce letween New ma, is stated to be iJonduras is only The distance Punama, touching ; ; via Ilonduras, ver Punama, 831 ul to Sydues, via care, and feund to to of steaming of days lo. coaling d be performed in subjoil a table oi


Ths time between New Yerk and San Francisco, vid Honduras, is estinated at 13 days and 4 hours. This cnlculation is based on an assumption of 20 miles per hour by rall, and 12 miles per hour by steamer.
Captain Fitzroy, in an official report, alludes to the Ave distinet lines that have heen proposed, and thus proceeds to refer to that by wsy of Honduran:
"Looking especially to European commanication, it may be ohserved, that a main or trunk line of stenmers, calling at Jamaica, in traveraing the West India Archipelago, would find a auitahle terminus at l'ort Caballos, in Honduras Bay, where the north end of the railwny will he; and that Fonseca Gulf, at the other end, is in the region of steady winds, and well situated for a direct track across the Paclfic Ocean, either to China or Australssia. The climato, productions, and popalation of Honduras, are more in favor of such a work, as a ruilway from sea to sea, than those of any other part of the great Isthmus, without exception ; but, as the length and elevation are grest, these difficulties should be well considered.
"1. As to length. This is a question of 160 miles against 40 (other things being equsl, which, however, they are not), involving first cont, constant expense, and comparative lucal advantages. The continual
outlay on the Panama Railwsy, consuquent on the nature of the locality, and many pile-supported atructures, is great ; whilo in Honduras, there will be comparative durability of works. Fucl muat be carried to Panams from distant perts, but it abounds near Fonseen Gulf. Rain prevalia in the eastern part of the Isthmus of Panama, much more than it does in Honduras, where the climate is auch that European trees sui fruit thrive on the higher grounds.
" $i$, With regurd to the elevation, which eeemn at firas aight rather deterring, it should be borne in mind that the greatest incline or gradient proposed is 1 in 88, and only for a short interval, in a county where ice or snow is unknown; the general gradients leing remarkably uasy. Also, that aa the country lies favorably, thu line running along valley's, near rivers, and without crossings of any consequence, it is likely to be an economical line in this respect. All requisite materials, as well as native labor, ure on the spot ; and the Honduras woed-cutters are well known."

A company has been fully organized in England with reference to this great enterpriso, and among the directore are some of the most prominent citizens of Liverpool and London. For a comparison of the advantages of the different transit routes, sce Transit Routes.

Commpace of the United Statks with Honouras, Campeachy, fto., fhom Octobes 1, 1820, to Jithy 1, 1 Rso.

| Years ending | Rxports, |  |  | Importa. | Whereof there was in Billion and Specie. |  | Tornage Clearod. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domertic. | Foroign. | Total. | Total. | Export. | Import. | Foraigh, | American. |
| sept. 30,1821 | 899,695 | \$100,830 | 8206,725 | \% 216,075 | $\ldots$ | ${ }^{\text {C }} 80,590$ | 6,009 | 308 |
| 1522.. | 128,115 | 127,948 | 251,003 |  |  | 187,064 | 5,44T | 479 |
| 1823. | 211,388 | 100, 0522 | 811,445 | 281,895 |  | 86,109 | 7,070 | 687 |
| 1824. | 157,060 | 194,885 | 851,425 | 217,097 | 6,000 | 81,047 | 6,290 | 1,280 |
| 1845........ | 67,246 | 23,548 | 80,329 | 2489446 | 8,560 | 27,31 | 1,201 | .... |
| 1526........ | 12,201 | 1,579 | 14,834 | 88,183 | -.... | 17,429 | $\ldots$ | $\ldots$ |
| 1325. | 5,060 | 2,371 | 8,321 | 1,760 | . | 600 | $\ldots$ |  |
| 1829 | 12,698 | 8,229 | 20,938 | 64,347 | .... | 48,117 | $\cdots$ |  |
| 1830. | 25,182 | 5,432 | 30,564 | .... | .... | 1,472 | 1,042 |  |
| Total. | -700,773 | 450,383 | \$1,226,113 | 61,181,140 | \$11,560 | (154,698 | 26,559 | 2,649 |
| 8ept. 30, 1831........ | *46,289 | \$18,782 | \% 59,965 | 844.463 | $\cdots$ | - 20,508 | 1.449 | 223 |
| 1832......... | 15,459 | 17,997 | 82, 856 | 84.168 |  | 115,101 | 2,077 | 97 |
| 1833. | 70,522 | 93,724 | 99,246 | 101,615 | $\cdots$ | 58,318 | 1,5\%\% |  |
| 1834. | 56,072 | 89.876 | 98.448 | 149,599 |  | 48.529 | 4,0+1 | 817 |
| 1835. | 134,703 | 87.501 | 172,264 | 174,960 |  | 71,780 | 11,007 | 665 |
| 1486. | 109,823] | 30,015 | 145,898 | 215,892 | $\ldots$ | 89,707 | 4,236 | 1,818 |
| 1887. | 09,694 | 12,153 | 111,952 | 202,624 | $\ldots$ | 79,137 | 5,085 | 2,158 |
| 1838. | 89,996 | 19,300 | 1199.196 | 901,418 |  | 114,908 | 2,406 | 1,505 |
| 1819. | 181,961 | 29,839 | 211,910 | 164,027 | ..... | 78,491 | 6,494 | 2.651 |
| 1540. | 182,095 | 88,371 | 100,466 | 159,858 | $\ldots$ | 111,114 | 5,049 | 1,703 |
| Total. | \$986,350 | *291,978 | 61,278,881 | \$1,416,0613 |  | *680,096 | 43,910 | 11,547 |
| Scpt, 30, 1841........ | \$141,984 | 851,839 | -198.246 | \$239,244 |  | \$187,783 | 6,409 | 1,010 |
| 1848........ | 127,839 | 88,648 | 163,987 | 212.8868 | 1,660 | 98,607 | 0,673 |  |
| 9 mus. | 92,278 | 16,304 | 108,589 | 188,688 |  | $\begin{array}{r}74,608 \\ \hline 10.189\end{array}$ | 7,425 | 708 307 |
| June 80, 1841........ | 197,405 | 41,524 | 238,019 | 248,948 | 11,920 | 10.189 | 7,01-4 | ${ }_{668} 307$ |
| 185........ | 148,494 | 81,421 | 209,915 | 204,819 | 7,699 | 74,817 | 8,869 8,620 | ${ }_{607}^{668}$ |
| 1846........ | 325,494 261,399 | 64,189 40,519 | 890,082 801,917 | 207,997 197,282 | 2,072 $1 . .$. | 81,438 | 8,020 | ${ }_{507}^{607}$ |
| 1848......... | 249.618 | 44,181 | 293,529 | 188, 044 |  | 105,429 | 8,456 | 1,838 |
| 1849........ | 191,847 | 84,820 | 225,967 | 262,417 |  | 109,005 | 8,215 | 898 |
| 1850,....... | 171,08. | 16,551 | 188,535 | 178,000 | 0,000 | 40,74 | 4,225 | 1,952 |
| Total.... | \$1,048,841 | * 697,685 | 2,2,355,029 | *2,456,981 | 828,191 | \$922,777 | 61,783 | 8,490 |
| Jans 80, 2891....... | - 1211,806 | 829,89\% | \%287,163 | \$174,526 | 15,8111 | 115,692 | 8.983 | 6,125 |
| 1552,.... . | 292,818 | 60,259 | 862,073 | 261,646 | 17,437 | 88,294 | 8,020 | 2,44) |
| 1803,....... | 818,385 | 03, 015 | 891,960 | 268,298 | 8,000 | 22,387 | 8,111 | 8,320 |
| 1484.... .. | 2489.918 | 68729 | 869,641 | 2R9,954 | 17,000 | 48,220 | $4,1 \times 9$ | 8.587 |
| 1 120 | 471.433 | 51,520 | [22,959 | 889,97t | 4995 |  | 5,89\% | +.568 |
| 15566........ | 850,1040 | 88,749 | 852,739 | 898,117 | 2,400 | 111,883 | 4,933 | 2,786 |

Principal Ports.-The princlpal ports of Honduras |tected from the N.N.E. and N.W. winds, which aro on the Allaretic are Puerto Caheito, Omon, and Truxillo. Puetto Cabello, the firat port established by the Spsniarils on tho northern cosst, is in lat. $15^{\circ} 49^{\prime}$ no:th. Cortez, in his expedition into Hondurns, founded a settlement here for tha purpose ot making it the grand entrepot of New Spain. For upward of two centuries it was the prineipal establishunent on the const ; but, during the time of the biccaneers it was removed in Omoa, because of the large size of the bay, which could not he properly' defended. This bay is not lass than nine miles in circnaference, of ample depth-two thiris of it being from 6 to 12 fathomsand has secure holding-ground. It is perfectly pro-
those that prevaic on this eoast. The port of Omoa, is amall but secure, and is defended by a atronge fort. The anchorage is good, in from two to six fathoms. Truxilio is situated on the western shore of a noble bay, in lat. $15^{\circ} 55^{\prime}$ north. Population in 1842, 2500 ; 1000 whites and Ladinos, and 1600 Caribs.

The chief exports of British Honduras to the United States are mahngany and varions descriptions of dyewoods. Copjer, scrap-iron, and other old metals. The following statement exhibits the value of the trade 3tween the United Stater and Ilonduras during the yeara 1853, 1854, and 1855, np to June 30th of each year:

Companative Tantr of tur Paonver of Bremwax and
 United States Cenaug.
This trade, although small and lrregular, and apparently from this exhibit not Increasing in -alue, in very favorable to the United States, as la shown by the exceas of exporta to over the imports from Honduras.
Hone or Elone-mlate. These are various slatystonen wrought into the form of atraight slais, nod used for whetting or sharpening the edges of tools after they have been ground. They conslat chlefly of the following: 1. Norway rag-stone, the coarseat variety of the hone-sintea 1 it gives a finur edge than the sandstones. 2. Charnley forest stose, which is ueed as a eabetitute for Turkey eil-stone. 3. Ayr stone, Senteh stone, or alate atone, used for polishing marble ans copper plates, but the havder kinds for whetstones. 4. Jdecall or Hielsh oildstone, nned for small articles of eutlery. 5. Deconshire oiletone, for sharpening thin-eilged broal tools. 6. Cutlera' green-stone, from Snowdon, which is very hatd and close, and is uned for giving the last edge to lancets, ete. 7. German razor-home, ned almost entirely for razors. It is obtained from the slate mountaing near liatisbon, where it forms a yellow veln in the blue slate. It is anwn into thin slala, and cenented to a slab of slate, which norvea as a support. 8. Blue poliahing stone, a dark niate of uniform texture, used by workers in nilver and somo ©ther metals, for polishing of the work. 9. Gray poliching zt:one, somewhat coarser than the biue. 10. Welsh clearing atone, a soft variety of hone-slate used by curriers for giving a fine edge to their broud kniven. 11. Perucian hone, for sharpening large tools. 12. Arkansas atone, from North America. 13. Bohemian stoncs, used by jowelers.
I urkey ci-dome is superior to every other sulantance as a whetstone: it will alirade the lurdest ateel, and is aufficiently compact to reniat the pressure required for sharpening a graver. The lhack variety is somewhat hanler than the white. Theso stones are imported from Turkey in irregular masses, seldom exceeding three inehes sauare, and ten inches tong, nond are cut up hy meana of the lapidary's plitting-mill and din-mond-jowder, then rubled smeoth with sand or omery on an iron plate, inlsld in wood, and secured by ginzier's putty. Sperm or neats'-feot oil, or nome oil which doea not readly thicken, thonld be used with them. Oii-stone powder is used fo: grinding together the lirass or gun-metal fittiogs of mathemutical inetruments, and alao instead of pumice-stone for polishiug superior lirasa-work.
The following analysea throw an interesting light on the nature of prolishing-stones:

|  | Alsandua. | Silicat | Lime. | Irun. | Weter. | Mampeo C. 4. | Carbun. te acid. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 'ollsh slate. | 40 | 835 | 8.5 | 13 | 90 |  |  |
| \% | 10 | 60.5 | 185 | $2 \cdot 5$ | $19 \%$ | 1\% | . |
| Foheinianst. | 10 | 790 | 10 | 40 | 140 |  |  |
| Tarkey hone | 838 | 790 | 18* ${ }^{\text {c }}$ |  |  | . | 10-68 |

Eoney (Du. Honig, Moming; Fr. Mid; Ger. Homig; It. Mele; Lat. Mel; Itus. Mril; Sp. Miel), a vegetahle juiee collected by bees. "It suries according to the nature of the flowers from which it is zollected. Thas, the heneys of Minora, Narionne, anil England are known by their flavorn; and the heney prepared in different parts even of the mame couptry differs. It is seperated from the comb hy dripping and by expression: the first method afforde tho pnrest sort; the second separates a lesa pure honey; and a ntill inferior kind is olitained by heating the comb before it is pressed. When oltalned from young hires, which have not swarmed, It is denominated virgin honey. It is sometimes adniterated with fiour, which is detected by mixing it with tepid water: the honey dissolves, while the flour remains nearly unaltered.' - Tnoxgox's Dirpensatory.


Honfleur, a nen-port town of France, Department of Calvadon, and arrondissement of Port l'Eveque, on the southern shore of the entuary of the Seine, eight mlles south-east of Havre, with which it has regular steam communication. The town is old and ill built. The harlor is accessible only at hikh water, and is chiefly frequented by fishing or small coasting craft. The herring, mackerel, and whiting fisheries are actively prosecuted; nnd numerous vessels sail amailly for the cod, whale, and seal fisherien. Hunfeur sends weekly to Fiagland alout 7000 dozen of eggs, besides butter, .ruit, etc. Its commesca, formerly couriderable, has boen almost entirely abisorhed by liwre. The chief manufactures are hosiery, lace, chemieal proluets, and hantware. There are ulso ship-luilding: ynals, rope-walks, and saw-mills. The chapel of Notre Dame de Grace, on the hill alove the town, is mueh frequented hy sailora, and filled with their votivo offerings. Population 9380 .

Hong Kong, a minall island, now a British culony, lying off the const of China, at the mouth of the Canton River, about 40 miles enat of Macao, in lat. $22^{\circ}$ $16^{\prime} 30^{\prime \prime}$ N., long. $114^{\circ} 14^{\prime} 45^{\prime} \mathrm{E}$. It is alout nino miles In length by eight In liceadth, and is spparated from the main land thy a narrow atrait, varying from less than a mile to four or five miles in wilth. The a ${ }_{j}$ pearazce of the istiand is barten and unprepossessing. It consist, for the most part nf ram.es of rocky hills, rising sometimen to the height of 1700 or 1800 fect alove the eca. The highest peak is $1 \times 25$ feet in height. There are no trees of any size on the island, and few valleys of any extent. The rocks of IIong Koug conaist of granite intermixed with gnartz, mics, and felspar, affording excellent materials for buiding. Among the vegetable productions of the island are mango, llehee, longan, orange, pear, rice, aweet potatoea, and yams. A small quantity of tiax in grown and prepured for houselold uses by the villagers. Since the occupntion of the island hy the English, the potato of Europe and the fruits of Canten and Macno have been latrolluced, and, lately, many European seeds have been sent out. The land-tortoise, a few small deer, and armadillos, and several kinds of snakes, are found on the island. The elimate of liong

Kong, 1 though fi and $18+8$ quent $y \mathrm{e}$ is no mo other ea lirst cede the treat ment is ecutlve mandor council, ment offl exhlbits t inclusive

| Yuars. |
| :--- | :--- |
| 190 |
| 1849 |
| 1849 |
| 1850 |
| 1851 |
| 1859 |
| 1859 |

With $\mathbf{r}$ marks, " a parliame to 88500 ( penditure that the $n$ the port ha nag is ne like manne years. In that were gettiement East India made to pa the govern Mer. Mug.
A parlian has lately interest, as pects attali ing out of $t$ John Bowr report made progress of benefited uc during the rebellion in consequent ter of the Cl growing in The increas 1uanifested and the ge stimulated Chins, both Hong Kong developurent rapid extens Califorina, the opening of Grent int among the The popuiat ed, at the hic happy fact are no meal imports and rapilly-inere were corrobo as 36 jer cea stance is par needy ondlit givernmentof $£ 15,000$, a

Kong, like that of Mscao, is not generally unhealthy, though from the numerous deatha that occurred in 1842 snd 1843 , this was supposed to be the case. Subsequent years, inowever, have shown that the climate here is no more prejudicial to health than that of various other eastern tropleal posesestions. Hong Koug' was lirst coded to Britain in January, 1841, and again by the treaty of Nankin, in August, 1842. The goverament is administered by a governor, sided by an executive council of three members, Ineluding the communier of the troops. There is also a legleiative council, prealded over by the governor. The government offlces are at Vletoria. The following talle exhibits the progress of Hong Kong from 1848 to 1358, tnclusive:

| Y ante. | Populalion, ex. eluatre of troepo | Revenue. | $\|\underset{\text { grahi. }}{\substack{\text { Parliantant }}}\|$ | Espomillure.' |
| :---: | :---: | :---: | :---: | :---: |
| 1848 | 21,614 | £25,091 | \$20,0(0) | 2622,659 |
| 1849 | 29,007 | 93,617 | 25,000 | 88,286 |
| 1880 | 88,298 | 29,595 | 20,000 | 84,814 |
| 185 t | 82,983 | 28,721 | 15,500 | 84,115 |
| 1859 | 87,058 | 21,381 | 12,000 | 84.765 |
| 1843 | 89,017 | 24,700 | 9,200 | 84,418 |

With referenca to these six years, the governor romarks," that the call on the home goverminent for a partiamentary grant has been reduced from $£ 25,000$ to $£ 8500(£ 9200)$ ) for the currrent year ; that the expenditure has been reduced from $\mathbf{L}^{\prime} \mathbf{C 2} 2,658$ to $£ 36,418$; that the number of square-rigged vessele frequenting the poirt has lucreased from 700 to 1103 , while the tonnage is neariy double; snd that the population has in like manner alvanced 82 per cent. drring the part six years. In conclusion, I have no suaitation in maylog, that were this colony taxed in the same way ns are the settiements in the Stralts, under the government of the East india Company, it coald in a year or two be made to pay its own expenses without the efficiency of the government being impaired."-E. B. See IIunt's Mer. Mag., x., 459.

A parliamentary document relating to IIong Kong has lately been printed, which posseases considerabte interest, as it describes the exact position and prospects attained by the colony ahortly before the breaking out of the war. It conslsts of a dispatch from Sir John Bowring, Inciosing a copy of the last annual report minde to him loy the Colonial Secretary on the progress of the island. It appears that the place has benefited not only by the increase of the Chinese trade during the past few years, lut by the effects of the rebeltion in promoting emigration from Canton. A censequent improvement was observable in the character of the Chincse popuiation; and many of the natives, growing in weulth, had also grown in respectalility. The lncreasing disposition to settle on the laland was Lannifested especiaily among the better class of traders; and the generat tendency to prosperity was further stimulated by many of the chief commerchal houses in China, both British and Angerican, having lately mule Joag Kong their central point of estahlishment. "The development of steam navigation," it is said, "the rapid extension of trading relatlons with Australia and Califorina, the increase of trade on the coasts of Chinn, the oprening of Slam, and tho security which the flag of Great Irituin offers against piraticai uttacks, nee among the causea which hive led to these results." The popuintion, which in 18.18 \%as oniy 24,000 , amounted, at the beginning of 1856 , to 72,600 . Owing to the happy fact of the absence of any' castom-house, there are no means of furnishing statistical detnlla of the imports and exports, but the signs of nn active and rapitty-increasing trade were everywhere visibite, and were corroborated by the rate of interest heing as high as 36 per cent. per anmam; although the latter circumstance is partly to be attributed to the comparatively needy ondition of the smull Chinese tralers. The goverument-house has just been completed, ut a cost of $£ 15,000$, and many other public Improvements wore
in progress. Althongh the exlating jall buildiags are pronounced totally inadequate, it was only because lar. cenies and petty offenses had incressed with the influx of popalation, crime of the more serious kind belng rare. The impression as to the unhealthiness of the oolony seems to be disappearing| and notwithstanding the large lncrease in the number of inhabltants ln the year 1855 , the town of Vlctoria was found very favorable for forelgners. The Chinese constder the place not unore inimical to heaith than the towns on the main land. Many improvements remain to be effected, which would doubtless add much to its afety; but the revenue, even at its recent rate of increase, would admit only of moderate undertakings. To meet all requirements, the Colonial Secretary revlved a suggestion for the finjosition " of a differential duty of, say, 1d. jer lb. on teas ahipped for Erggland from Hong Kong." Sir John Bowring, bowever, In harmony with the views now universaliy established among comuncrial men, declined to support the recommendation.
Eoniton, a munleipal and parifamentary borough and market-town of England, county of Devon, near the left bank of the Otter, 16 miles north-east of Exeter. It consiats of one wide and well-paved strect, along which runa a small atroam, supplying the town with water. 'The houscs have generally a neat and respectable appearance, having been mostly built since the destructive flres of 1745 and 1765 . The parish church, about half a mite from the town, was built by Courtney, Blshop of Exeter, alout 1482, and is remarkable for a curiousiy earved sereen. A modern Gothic church stands in the centre of the town. It has a free grammar school, nutlonal achool, hoopital, and several charitles. The serge manafacture was formeriy extensively carried on herc, bat now its chief manufuccure is IIouiton luce. IIoniton is governed by a portreeve, and returis two members so Parifunent. Population in 1851, 8427.
Honolulu, or Honoruru, the principal town of the Sandwich Islands, and the residence of the king, is situated on the aouth side of the island of Wouhoo, in iat. $21^{\circ} 18^{\prime} 1 x^{\prime \prime} \mathrm{N}$., tong. $157^{\circ} 55^{\prime} \mathrm{W}$. It forms an entrepot for Kuropaan and Indian goods, whence they are reshipped to America. It is also a general rendezvous of wheling veskels; and sometimes 80 sail of them, each from 300 to 500 tons, are at anchor here together. In 1851, 446 merchant ships arrived at the port ; in 18i22, 235 ; and in 1853, 194. The inports in $1 \times 53$ anounted to $\$ 1,240,976$, and the exports to क27: 2,588 . Popuiation alout 7000 . See Sandwici Islanisg.

Eooghly, an extenalve district In the provinco of Bengat formerly calted Santgong, situated principally between the $22 d$ and $23 d$ degrees of north latitude, and extending a cousiderable distance along the right bank of the River llooghly, It is bounded on the worth lyy the district of thiriwan, on the south by the district of Hidjelee, on the east lyy the River IIooghiy, and on the weat by Midnapoor. This district conslats of low flat land, very fertile; but that part whleh is nearest to the sen la very thinly inhatited; it is called the Sunderbund, is swampy, covered with wool, and renurkably unhenlthy. The right of the East India Company to the diatrict originated in the treaty concluded with Meer Cosin in 1760.

Houghly, an anclent, and formerly a large town in the province of Ilengai, situnted on the western bank of the lionghiy, nearly 26 miles above Cuicutta, and supposed to have been founded hy the lortuguese about the year 1538. During the Mogul govermment, it was a town of great consequence, being the port of the western arm of the Ganges, where the duties on merchandise were coltected. It very soon drew away all the trade from Saatgong, whlch had been before the governusent port of Bental. During the provalence of the l'ortuguese dominion hu India, IIooghiy wus for-
tifed, and continned to fouriah till the year 1632, when It was atfacked by order of the emperor Shah Juhan, and, after a siege of three monthe and a half, wan taken by the Mogul troops, 1000 of the Portugueee belng killed, and 4400 men, women, and children, taken prinosers. From thin period Hooghly became the imperial port. After thla perfod every encouragement was given to commeree ; and Hooghly, whleh wat called Bukhshy Bunder, become a great commerclal emporium between Europe, Pereia, Arabia, and India. In 1686 hostilitien commanced between the Finglish and the Nawaub. An actlon enaued, in which the Nawanh's tmope were defeated! and at the mame time the town of Hooghly was cannonaded, and 500 houses hurbed. In 1700 the Eant India Company's factory was tranaferred from Hooghly to Caleutta. The popnlation of Hooghiy is now estlinated at 12,000 . The town is situate on the line of railroad recently constructed from Calcutta to Burdwan. E. long. $88^{\circ}$ $22^{\prime}$, N. lat. $22^{\circ} 54^{\prime}$.

Hooghly River, properly the Bhagirutty, a river of Bengal, formed by the junction of the two westernmoat branchea of the Gangea, the Cosalmbazar, and the Jellinghy. Thla is the port of Calcutta, being the only branch of the Ganges that la navigated by large vessels; yet the entrance to the river in renilered extremely dangerous and dificult, by reason of numerous sandbaaks in It, which are frequently shifting. There is indeed a rumor sfloat that the river is gradually sliting up, and must oventually ceane to be navigable. This would prove a fearful lifow to the trade of Caleutta, and the proposed reinedy is to connect the Itiver Mutwal with the capital by railway or ship canal. During the prevalence of the nouth-west nionsoon, when a atrong current seta in from the lhay of Bengal, the extruordinary phenomenon, terined ly Furr pans the "liore," occasionally presents Itself. It rises in waves 12 or 15 feet high, and rushea in at the rate of 20 miles an hour. It commences at llooghly I'oint, where the river first contracts itself, and is perceptille above llooghly town; and though the distance is above 70 miles, it traverses this space in about four hours, running along the opposite bank to the Calcutta side, whence it crosses at Chitpoor, about four miles atrove Fort William, and rushes with great vilolence past Barnagore, Duckingsore, etc., frequently oversetting boata and driving shlpa from their anchorage. At Calcutta it sometimes occaslons an instantancous rise of five feet: The tide does not rise more than 30 miles alove Calcutta; and during the rainy season its influence is chacked by the large borly of water that comes down the river. The liooghlycontains several kinda of good fish, particularly Cipriwes Anjant, the mango fish, or Polynemuz paradorwa, and prawns ; and it abounifs also in crocodiles and sharks. It is about three quarters of a mile broal at Culcutta, and 8 or 10 miles whide at the mouth. It is only mavigable for ships as high as the tide reachen, and the upper part of it is nearly dry during the hot aeason; yet there are few rivers that can hoant of a more extennive commerce, its banke beiag studded with numerous towns and villages. It is esteemed hy the Jlimiloos to be the nost nacred liranch of the Ganges, and it is on this account that those who can not afford to bury their deal throw them into the Hooghly.-LF. H. See ('ascutra.
Hookah, an oriental plpe used chietly in Turkey, by which the smoke of the tobacco is made to pass through water in order to cool it and render it more grateful to the mouth.

Hoorn, a fortified mea-port town of Helland, province of North llolland, on the Zuyder-Zee, 20 miles north by east of Amstemam. It carries on a considerable trade, though in this respect it is mach inferior to what It once wan. The exports are chlefly butter, cheese, cattle, herrings, and other kinila of provisions. The manufactures compriee woolen clotha, carpets, etc. Ship-bullding and the herring fishery are exten-
aively carried on. It has a naval collage. Hoorn was the birth-place of Schonten, who in 1616 discovered Cape IIorn, and named it after hia native town and of Tasman, the diecovarer of Van Dleman'e Land and New Zealand. Population about 9000 .
Eope (Ger. Hopfen; Du. IIoppe; Fr. Houblon; It. Isappoli, Bruscandoli; Sp. Oblon; Rus. Chmel; Lat. Humudus Lupulua). The hop in a perennlal rooted plant, of which there are several varietles. It has an annual twiolng atem, whlch, when aupported on polea, or trees, wlll reach tha helght of from 12 to 20 feet or more. It la a native of Britain, and moat parts of Furope. When the hop was first used for preaerving and inproving beer, or cultivated for that purpose, is not known; hut lts culture was introduced into Eingland from Flanders In the relgn of Merry VIII. Jiope are first mentloned In the Statute Book in 1552, Filward VI. I and It would appear from an act passed in 1603 that hops were at that time extensively cultivated In England. Walter Bithe, in hls Improver Ime proved, published in 1649, has a chapter upon linprovement by plantations of hops, in which there is this striking passage. Ife observes, that "hops were then grown to be a nutional commodity; but that it was not many yeara slnce the famous city of London petitioned the l'arilament of England against two nuisances; and these were, Newcastle coals, in regaril to their atench, etc., and hops, in regard they would njoyl the taste of drink, and endanger the people; and hal the l'arliament been no wiser than they, we had been in a measure pined, and in a great measure starved; which is just answerable to the principles of those men who ery down all devices, or ingentous discoveries, as projects, and thereby atifle and choke inprovement." After the hops have leen picked and dried, the lirightest and finest are put into the pockets or tine bagging, and the brown into coarse or heavy bugging. The former are chietly used la the brewing of tine ales, and the latter by the porter brewers. A pocket of hops, if they be good In quality, well cured and tight troblden, will weigh about 11 ewt. ; and a bag of hops will, unier the anme conditions, weigh alwout 2f cut. If the weight of either exceeds or falls much short of this medium, there la reason to suspect that the hops are of an Inferior quality, or have bern thadly manufactured. The brigliter the color of the hops, the greater is the estimation in which they are helid. Furnbam hops are reckoned best. The expense of forming hop plantations in Great llritain is very great, amounting In some instancen to from C70 to 4100 an acre; and the produce is very uncertain, the erop being frequently laqufficieut to defray the exprenses of cultivation.

Accorling to Anderson's Anmala of Comamerre, hops were intronluced from the Netherlunds inte lingland A.II. 1021, and were used in brewing; but the physicians having represented that they were unwholesome, J'arliament was petitioned againat them as leing a wicked weed, and their use was prohilited in 1508. At prenent there are between 50,060 and 60,000 acres, on an average, annually under the cult e of hops in England. They are grown chlefly in I' eforl, Kent, and Worcestershire.-Mavins.

Hops produced in the L'nited States.-A gratifying Increase has taken place in the culture of this useful article. The gain has been nearly 206 per cent. At. most the whole of the increment, however, has treen In the State of New York, which, from less than half a million of pounds in 1810 , now produces more than two and a half millions, which exceeds tive sevenths of the whole crop of the Linited Staten. In connertion with this circumstance, it may be mentioned that New York also stands foremost in the production of ale, beer, and purter, in the manufacture of which the larger part of the hops ralsed is consumed. The breweries of this State produced 615,000 harrels of ale, etc., in 1850 , belng more than a third of the quantity
ald to Office $R$ artlelen
asid to be prodnced in the whole Union. See Patent Office Rep. U. A.; Hunt's Mag., xiv., 395. See aiso articies Ale and Bern Brewing.

| 81 stes and Terrilorier, | tope, pounds. |  |
| :---: | :---: | :---: |
|  | 1860. | tsso. |
| Alabsma.. | 476 | 625 |
| Arkanzas | 157 |  |
| Columbla, Inlstriet of | 15 | 98 |
| Connectient. | 604 | 4,578 |
| Jelaware... | 848 | 746 |
| tieorgla. | 261 | 778 |
| titiaols. | 8,851 | 17,74\% |
| Indtana. | 02798 | 85,501 |
| Iown. | 8848 | 88 |
| Kentueky....... | 4,809 | 79 |
| Lomistana....... | 123 | 115 |
| Maloe ......... | 40.120 | 30,940 |
| Maryland........... | 1,870 | 2,857 |
| Massachusetts. . . . . | 121,595 | 204.795 |
| Mielitxan. | 10,669 | 11,891 |
| Misslulypl. | 478 | 154 |
| Missoari... | 4,190 | 780 |
| Now tlampobire... | 257, 174 | 248,425 |
| Now dersey. . . . . . . . . | 2,188 |  |
| New York............ | 2,588,999 | 447,250 |
| North Carolina. . . . . . . | 9.246 | 1,068 |
| Obto.......... | 68,78t | 69,195 |
| fennsylvanta . . . . . | 22,188 |  |
| Ehoide tsland.... | 277 | 118 |
| Soath Carollan. | 26 | 98 |
| Tennesses. | 1,038 | 8810 |
| Vermont. | 288,023 | 48,187 |
| Virglula. | 11,506 | 10,507 |
| Wheonsia | 15,934) | 183 |
| Tutal.. | 8,406,960 | 1,238,562 |

Horizon ( $\delta \rho \iota \zeta \omega, I$ bound), the plane of a great eircuit which diviles the upper or visible from the lower or luvisibie hemisphere. See Geoonapity.
Horn (Du. Hoorn; Fr. Corne; Gor. Ilom; Lat. Cornu), a substance well known to manufacturers. Horns are of very considerable importance in the arts, being applied to a great varioty of useful purposes. They are very extensively used in the manufacture of handies for knives, anil in that of aponss, combs, ianterna, anuff-boxes, etc. When divided into thin phates, horns are toleralily transparent, and were formcriy used inatead of glass in windows. Glue is sometimes made out of the refuse of horn.
The projecting weapons on the head of the ox, the sheep, the anteiope, and the rhinoceros, consiat of a sheath of horn on a core of bone. Horn is composed chiefly of coaguiated nibumen, gelatine, and a amall portion of phosphate of iime. It is ossentialiy distinct from bone and ivory; the antiers of the atag, atthough sonnetimes ealied horns, consist entirely of bone. Moditications of horns may be noticed in the scaies of the armadiiio, the piate armor of the tortoise, the spines of the porcupine and hedge-hog, the quilis of birds, and the hoofs, claws, and nails, of animals. For manufacturing purposes, the horns and hoofs of the buil and cow are in request, and there in a large import of these from South America, southern Afriea, and from Russia. The horns of the tison and buffilio, the chamois and the antelope, are used for the better kinds of work.
The manufacturer firat detaehes the horn from the bony core, by macerating the horn in water for a month or six weeks, when the membrane ly whien the horn is sttached to tho core putrifles and allows the two to be separated. The ash of the cores makes excelient cupels for the assay of goid and silver. The solid tips of the horn are sawn off, and nre used for handies for knives, for buttons, ete.; the other portion of the horn is cut into short lengthe, or souked whole in boiling water, or heated at a fre, the effect of which is to soften it, and aliow it to to spread out necriy tat. The fluts are next pressed between warm and greased iron piates, the pressure varying according to circumstances. If intended for lanterns, the pressure is continued until the hom separntes into distinct plates; these are placed on a board eovered with hide, and seraped with a knite having a wire edge. Some of the
ahavings which come off are nomotimes dyod and cus into various forma, and are so eensitive at to ourl up by the warmth of the hand. They are sold at toyehops under the name of "apnaitive leavea." After the seraping, the sheete of horn are polished with a woolen cloth dipped in charcoal dust and waler, next with rotten-atone, and lastiy with horn ohavings.
The effect of heat and pressure on Ilght-colored horn is to render it transparent; but most of the articles made of horn are coiored artiftciaily by boiling the horn in infusions of coloring matter. If the horn be intended for combs, the pressure mast be moderated, or the teeth will be brittie; if intended for drinking cups, the horn is cut into lengths, ecaided, roasted, and motded in a cone of wood, and a wooden plug ia driven into it for pressing the horn Into the required shape. After this, the cup is turnod and polished at the fathe, and a groove is cut to receive the bottom; this cut out of a flat piece of horn by means of a crown saw, and the bettom of the cup having heen eoftened at the fire, the disk is forced into the groove, and the horn contracting in cooiing makes a water-tight joint. For knife-handle and simiiar warka, the horn is cut neariy to the required form, and is moided in dies with the assistance of heat and a powerfui acrew-press. The work is finished lyy scraping and buffing with Trent sand and oil, or rotten-stone and oil. Horn is sometimes used ав в vehicle for applying polishing powders to the flat works of the watchmaker. In the Great Exhilhition of 1851, there were sundry small artieles of chamois horn, consisting of brooches, shirt-buttons, rings, and watch-keys, by a Swiss exhititor; there were also some transparent horn psintings from Hamburg, and a pair of poliahed ex-horns from Port Natal, with the head complete, masauring from tip to tip 8 ft .4 in ., and 21 in . circumference. The best coliection of artielea in horn-work was, however, from Turkey.-E. B.
Horn Manufacturen. Horn is employed for all the purposes of tortoise-sheil ; and its much greater chenpness gives it a more extended application. Knife-handies, buttona, umbrelia-handies, whip-tops, beli-puiss, driwer-knobs, sides of ianterns, and comlis, are among the numerous articles made of horn. For the larger huik of these manufacturas in England, oxhnrns are chiefly used; but those of the ram, the antelope, the buffalo, the deer, ete., are employed for special purposes. To ahow how enormoua the conaumption nust he, it is aufficient to dtste that Liverpool imported, in 1850, no less than 120 tons of buffulo tips, 200 tons of buffilo horns, 280 tons of deer horns, and 700 tona of ox and cow horns. Horn is brought into manufactured forms by processes bearing some analogy to those employed in the gutta-percha mannfacture, by heat and mnisture; a higher temperature being, howover, required for the horn.

Horn, or Hoorn, Cape, commoniy considered the southern extremity of America, is not a part of that continent, but the moat southeriy point of a small ixfand of the Tierra dej Fuego group. S. Iat, $56^{\circ} 58^{\prime}$ $40^{\prime \prime}$, W. long. $67^{\circ} 16^{\prime}$. It consists of a lofty, precipitous, bare black rock, running far out into the sean; and was formerly considerod dangerous to pass on account of the strong westerly galos that prevail in its neighborhood during aummer, bat as those are reatricted to the vicinity of the eape, vessels avoid the difficilty ly saiiing in a higher latitude. It was discovered in 1616 by tho Dutch navigator Schouten, who named it after his native town, lfooru. Seo Care houn.

Horse-ohestnut. The horse-chestnut is a tree of the fargest size, with an erect trunk, and a pyramidal head, sometimes attaining a height of 90 or 100 feet. Tho leaves are large, of a deep green, and singularly interesting and beautiful, when first developed. When inclosed in tho lind, they are covered with a puboscence, that fulls off, as they bocome expanded, which
occurs sooner or later, accordlug to the dryness or molstness of the season.

Geography and History,-Tlis nstlve country of the common horse-chestnut, Mr. Royle observea, "is yet unknowa, thongh stated in some works, to be the north of Inda." He says that he never met with It, though often visiting the moיntains of that country, where, if anywhere, It was likely to $b-$ found, and where the Indian horse-chestnut was fuund in abundance.
According to M. Hon do Saint-IIlaire, the hersechestuut passed from the mountains of Thibet to England in 1550, and thence to Viennn, by Cluslus, and afterward to Paris, by Bachelier. It is also stated by Clusius, In his " Rariorum Plantarum IIistoria," that there was a plant of this species at Vienna, In 1588 , which had been brought there 12 years before, lut which had not then toweres. It has also been auld that this tree was first raised in Franoe, from seeds procured from the Levant, in the year 1515 , by one Bachelier. Iarkiuson, in 1629, says, "Our Christlan world had first a knowledge of it from Constantinople." The same author placed it in h!. wehard, as a fruit-tree, between the walnut and the mulberries. We afterward find it mentioned in $\mathrm{J}^{3}$ ' on's edition of Gerard's "Herbal," in 1633, as thes or , "ng in Mr. Tradencant's garden, at South Lambetit. From this period till the time of Millet, it appears to have attracted great attention, and uequired a high reputation as an omamental tree, as he represents it in 1731, as being very common in Fingland, and extensively empleyed in the fermation of avenues and public walks.
The wool of the horse-chestnut is white und very soft, and according to Louden, when dry, welghs from 35 to $\mathbf{i z}$ ponnds to a cubie foot. It is untit for use where much strength and durability in the open air are requircd; nevertheless, there are muny purpeses for which it is apllicable, when sawn lnto bourde; such as for tlooring, lining to carts, packlng-cases, etc. In France, salots, or wooden shoes, are made from it ; and it is said to be uned by carvers, turners, ete. Houtcher says, that it is suitable for wister-pipes that are to be kept constantly under gromnd; and it is also recommended for this purpose by Du lis utal. The chareosl made of this species may ine nsed f:: the manufacture of ginpowder ; aml the ashes of every $p^{\text {phrt of }}$ the plant, more especially of the fruid, afforil pat-aslı in considerable quantity. The bark, which is rery litter, is employed for taming, and also for dyeing yellow ; and it has been used mediejnally as a subsstitute for lesult's lark. In Turkey, the nute nre ground, sud mased with horse-fonk, espechally when the animals ara broken-whoded; and in their crude state, they am raten hy goats, sheep, deer, and hogs. They are used in Ireland to whiten linen, and for thas purpose are rasped Into water, in which they are allowed to macerate for some tloe. The sapronacous juice whid they contsin is very useful, not onl:" In beaching, but in washing linens and other atiffs. The nute must be peeled and gromal, and the tiour of twenty of them in sullicient for ten puarta of wator; and either linens or woolena may be waslied with the infuxion, withent nus soalp, as it effectually wralicates whots of sll kinds. Tho clothos, howeser, should afterward the rinmel lin clean water. The nuts, when gronnd into thor, and mixed in the propurtion of an thir I with the flone of wheat, are aid to and to the strength of luaktimimer's pante; and when atereped In loot water, and mixal with an equal proportion of bran, it maker n antritions fored for filpa and peulery. M. Vergand han proposed to change the ntarch contahad in the flens, futo angar, and ufterward emplay it in dietillathen.-lhaw xe:'s Tress of damerion.

Horme (lier. lyord; lu. jurard; Da. Hest; Sw. Must; Fr. Cheral; 1t. C'arallo; Sp. C'uballo; liua. Rosehoul; lol. Kon; lat. Kiguts; tir. 'Itros), a domeatic: quadruped of the highest utility, being by far
the moat valuable acquieltiou made by man among the lower animals. The people of Theasaly were excellent equestrians, and probably were the first, nmong the Greeks at least, who rade upon horses, and broke them in for service in war; whence arose the fable that Thessaly was originally Inlinhited by centaurs. And Suloman had 40,000 stalls of horses for hls ehariots, and 12,000 horsemen.-1 Kings, iv. 26. The power of the horse is equal to that of five men.-Smk. ToN. A horse can perform the work of alx men.llosauft. The Greeks and Romans had some covering to secure thelr horses' hoofs from lijury. In the 9th century, horses were only shod in the time of frost. The practice of shoeing was introduced into Fingland by Wlliam I., 106t. In England there are $2,000,000$ draft and pleasure horses, and $100,000 \mathrm{ug}$ rleultural horses, which consume the proluce of 7,000 ,000 arres. The horse-tax was imposed $\ln 1784$, and was then levied on all samille and coach horses in England. The existhg duty upon " horses for riding" only, in England, amonnts to nhout $\mathbf{E 3 5 0 , 0 0 0}$ per year. -llaxinn. It may be fairly estimated that there ure in Great IBritaln from $1,400,000$ to $1,400,600$ horses employen for various purposes of pleasuro and utility. They mar, prolably, he wortis at an average from f 10 to $£ 12$, raking their total value from $£ 13,000,000$ to $E 16,800,000$ sterling, exclusive of the young !omses.

In the United States, there were, in the year $1 \times 50$, $4,355,358$ horses, the largest numbier ( $(1661,001)$ being in the State of Ohio. Sce Censtes llfport $C$. S. Sice alno, Unimed Statis, live Stuch of; Living Agr, x., 305 , xxi., 411 ; Quar. Ree., xxviii., 26. The most reliable und valualile work on the horse, is by liank Fohestin, 8vo., New York, 1857.

The first animals brouglit to America from Fiurope were inported liy Columbus, in his second voyage, in 1.193. Tle left Spuin sa admiral of 17 ships, iringing a coliection of European trees, plants, and seeds of various k!nds, a number of horses, a bull, and sever.l cows. The first lurses brought into nny part of the territory at present embraced in the United States, were lumed at Florida, ly Cabeça de Vaca, in 15: 7 , 12 In number, all of which perished or were otherwise killed. The next lmportation was slso brou.ght to Florila, by De Soto, In 1539; whieh consisted of a Inrge number of horses and swine, among which wers 13 suwn, the progeny of the latter soon increasing to several hundred. Tho principal breeds of horses, adaj ed for spectic purposes, in the middle, northern, and wentern stater, are the Norman, the Camadian, the Morgan, the Conestoga or l'ennsylvanian, the Virdmina, and the Kentuckian. For carriages of heavy dranght the Comestogas are regarided ly mamy an the best. For the saddle, Iranglit, and wether uncful purposes, the Morgans are highly prizen, poperially In New York. For roadsters, the Nomann and t'anadimns wre frequently sought. For Howl, the Virginhus and Kentueklans generally take the dead.

Horse Latitudes. On the pilar sinde of the zomes of colus, bordering the north-east trale-winds on the north, and loonlering the south-east trate-winds on the solth, there is a broad hand extendiag ip into the polar regions, the prevailing winds within which are the opposites of the traile-winde, viz., sumbli.west in the nurthern und north-west in the menthern hemiaphere. The equatorlal edge of thene calne helts is near the tropiea, and their average be mith is $10^{\circ}$ or $12^{\circ}$. "th one shle of these belts the whuls blow pro petunlly towar! the equater; on the other, their pres valling diration ba toward the prome. They are called the " horse latitudes" by seanen. "!use calin zunes vibrate upand dewn with the trade.wind zones, partaklog of their motlons, nud following the declination of thin sun. Aloing the polar lurilers of these two calm lielts (\$ 190) we have another region of precigitation, thougn generaly the ralna here are nut so cunat int as they are in the equatorial rallus. The
preelpltat sufficient calm zon sun, leav parsllel,
IIence w the south Thys. Geo.
Exorse Watt to e to send to horses wi ascertaine averagio fo cient to $r$ thus, nn e equal to th foot high I mating ant and by the of work w by the du can effect 1 evident th gine, but steam, the creased-il speed of th strokes $m$ werk done it is diffien from the large enom water, and ing pressul reckened as depends ne in modern rather to t] exertel, ane changes ; may inplys foot high pe taining the instrument small cylin down by a rises against eylinder of oi pounds the number der, and by the pisten pe duct is: large the remain divided by 3
Hospita shelter for equivalent (ireeks, the of the loma small erecti house. In publie servi provisions, storde hims. present hos aged women and thowe erected near sons comings simllar instit Another nil Titer at loo be healel. porchen, was were broug!
preclpitstion near the tropical calms is nevertheless sufficient to mark the seasons ; for whenever these calm zenes, as they go from nerth to sonth with the sun, leavo a given pirallel, the ralny season of that parallel, If it be in winter, is sald to commence. ilence we may explain the rainy season in Chill at the south, and In Culfornia at the north.-Maury's Phys. Geog.

Eorse-pnwer, n unit of force introduced by Watt to enable him to determine what size of engine to send to his customers to supersede the number of horses which the new power was to replace. Watt ascertained at one of the London breweries tha: the average furce exerted by the strongest horse was anfficient to ralse $33,000 \mathrm{lbs}$. one foot high in a minute thus, un engine of 200 horse-power would be a force equal to that of 200 horses, each lifting $83,200 \mathrm{lbs}$, ons foot high per mhate. Wstt had two methods of eatlmating and comparing his engines-viz., by the pover, and ly the duty. By the power is mesnt the quantity of work which an engine cen effect in a given time ; ly the duty is meant the quantlity of work which it can effect by a given expenditure of fuel. Now, it is evident that whout any change in the size of an engine, but simply ty increasing the pressure of the steam, the power of an engine may be greatly in-creased-that is, the lond remaining constant, the speed of the plston may be increased, the munber of strokes may bo luereased, and, consequently, the work done per minute will be increased niso. Hence it is difficult to apply a limit the power obtninable from the sma!lest cylinder, provided the boiler be large enough to evaporate the Increased quantity of wster, and strong ennugh to resist the increased thrsting pressure, in fact, no size of cylinder can be reckened as having a particular yower, since the power depends not on size bit ois strength. Nevertheless in modern enginearing the term horse-porer refers mather to the elae of the eylinder than to the power everted, and the value of the unit has undergone many changes; so that in n modern engine, a horse-power may inply $52,000 \mathrm{lbs}$., or $60,000 \mathrm{lbs}$, or $66,000 \mathrm{It}$. , one fort high per minute. The plan now adopted for ascertaining the performances of different engines $t=\frac{b}{}$ an instrument ealled an irdicator. This consists of a small eylinder fitted with a piston, which is pressed down by a apring. By the height to which this piston rises against the spriag the steim pressure within the cylinder of the engine is indicated ; and the number of puands pressure on the square ineh muitiphled inta the number of square inches In the uren of the cyllnter, and by tho number of fect traveled through by the piston per minute, gives the impelling power ; deduct in large engines about one tenth for friction, and the remalnder is the effecient moving power, which, divided hy $: 33,000$, gives the actund horse-power.- I. Is.

Hospltal, Hospitale, in cloisters, the place of shelter for strangers, whether rich or peor; thus equivalent to our hetel, the Xenowlocheion of the Cirreks, the Hoapitium of the Romans. The horpitalia of the lomans correnomi vith our inus. They were small erections on the right and left of the main bonse. In Greefe, "persin who bad dume any great public serviec might he rewarlod with money and provisions, hit be required tu look afier a jutare of atoole himself. Dearing some resemblituce to our present hospitala were the publie bulldings for the aged women of Delos, buitt on the lsland calleal khone ; and thore huiltings which, at n later perion, were erected near the templo of Nisellapius, for slek persons coming in mearch of lowalth. It was possibly a similar Institution which Antonius huilt at lipidaurus, Another appears to have existed on the island of the Tiler nt llome, to which sick slavea were brought to be healeal. Rethesin (house of mercy), with flve porchen, was a place lit Jernsalem to which the slek were brought to await the moving of the waters.

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Also the Taberna .Meritorum at Rome appears to have been a hospital for linvalids. Hospitals for the poor and slek are prominently characteristle of ChristianIty. So sarly as the Counell of Nice, A. D. 325, they' are spoken of as commonly known. The first celebrated hospital was that of Cessarea, A. D. 370-880, rlchly endowed by the Emperor Valens. It was of immense dimensions, After it followed the hospits! of Chrysestom, at Constantinople. In the ninth century theie were 24 hospltale in Rome alone. A foundling hespital was first established at Mitan, A. D. 787 ; a lazaretto about the same time in Constantinople; and an orphan hospital in the same eity, A. 1, 1090, by Alexluy I. LIespitals are now unlvereally established in all parts oi Christendom, and appropriatel for nll elasses of the community, snd for all kinds of diseases. See Ghemenicit Moarital. See Living Age, xviil., 174; F'raser's Mag., xxxvii., 539 ; Dublin Unir., vil., 222.

By the laws of tho United States, foreign seamen arriving in the Unlted States pay each 20 cents per month to the collector of the port, as hospital money, snd pay 25 conts per day when in hospitals under medical treatment. Marine hospitals are crected by the United States at New York, New Orleans, Boston, aud other ports, for the accommodation of disabled and sick senmen, under the supervision of the Treasury Department. For disabled raval officers and seamen, navy hospitals have been erected at Philadelphia, Ilrooklyn, N. Y., Norfolk, and other sea-ports, supported by grauts by Congress, and from contributions of one ration per day from each inmate,-Duniap's Digest Lates U. S., 320,441 , 822.

Houssa is the name of an extensive portion of Central Africa, which, along with Bornou, bears the general name of Soudan, or Land of tho South. It conslists of varions petty kingiloms or states, which oceupy territory stretching enst and west from the upper course of the Yeon nearly to the Niger, the boundaries of which on the south, and notth, and west have now for the first time heen determined by Dr. Barth, This region nppears iu sevoral respects to he superior to the countries on either side of it. It is less sultry; an mbantage which it probably owes to its higher clevation. The faco of the country bears marks of greater enltivation, the fiolds being covered with large crops of several kinds of Indian corn, two of which are nnnually produced; and, to prevent the grain from teing destroyed by iusects, it is secured in granaries ralsed on poles. 'The soll is well watered by the Rivers Sokoto, Marindi, Zyrmle, Bugga, Zoma, uni others, which, with several tributaries, flows west ward to join the Niger. On its eastern quarter it is traversed by the Yeon, and on its southern by the Benueh or Chadia. llesides these natural supplies of water, artificlal irrigation is diligently practipal.

The dominant people in lloussa nre the Fellatas, this country forming, in fact, a considerable portlon of the empire of Sokoto, which again comprises the eastern part of the Fen'ata dominlons.

In the western tanets of lloussa thers are few towns of any importance: some were visited, and lave leen described hy C'uptain Clapperton.

Kano, the capital of a province of the same name, and the principnl commerclal elty of lloussa, is situnted in N. lut. $12^{\circ} 0^{\prime} 19^{\prime \prime}$, and E. long. $8^{\circ} 30^{\prime}$. It may contalu teetween 30,000 and 10,000 inhathitants, of whom a great proportion are whaes. Thin number ls exchasivet of strangers, who crowd thither during the dry monthe from all parts of Afrien. Tho city is of an Irregular oval shape, ahout 15 miles in eircumferenee, and surrounded by a elay wall 30 feet in helght, having a dry ditelt on hoth shles of it . There are 14 gates made of wood, and covered with ahect lron, and theso are regularly opeued nud slut at sunrise and sunset A platforn Inside, with two guard-houses below It , serves to defend each entrance. The houses

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within the walle to not occupy more than one fourth of tho ground inclosed, the remaining space belng laid out in tlelds and gardens. The city la alnowst divided into two parts by a large morass, which stretches from east to west. This swamp is crossed by a small neek of land, which is overflowed during the rainy season, but in the dry geason the market is held upen it.

The great market is leld upon the neck of land which intersects the morass. Ilero atreets consisting of aheds or stalls of bambeo are regularly arranged, different places being allotled to those who traffic in different commodities. The latter consist of cattle, vegetables, fruits, the fine cotton fabrics of the sountry, gora or kolla nuts, which are called African coffee, and crude antimony, with which every eyebrow in IIonssa is dyed. The Arabs also dispose of sunilry commodities, such as various dresses. Tho slaves, who constitute the staple article of trade, have a spesclal market appropriated to them, consisting of two long ranges of sheds, one for males and the other for females. Here these poor creatures, drawn up in regniar array, and dressed in attractive attire, are linspeeted and serutluized by purchasers, in much the name manner es horses are in the cattle-markets of this country. The market of Kano is under the superintendence of a sheik, who regulates the pollce, and is said ulso to possess the exorbitant power of fixing the prices. The merlium of exchange consists of the small shells called cowries, 480 of which make a shilling, so that paying a large sum is here rather a tedlous precess. Kano is celebrated all over Central Africa for the dyeing of cluth, for which process there are numerous establishments. Some ingeluity is displayed in the manufurture of leathern jars, which are faghioned upon a clay mold out of the raw hille. The luhabitants are also acpuainted with the art of tanning. The negroes here are very polite and ceremonlous, espectally to those mbanced in yeare. A part of the city is aypropriaterl to the use of these who are afflicted with blinduess, which is a prevalent disease.

By the most correct accounts, it would appear that the Fallatas sre an off-shoot from the l'orlalis of western Africa, and may be lilentitlen with them. They are a mixture of Dloors, Arabs, Berbers, and protalily other races of men, and are gralually extending thelr authority over central Africa. They are much superlor to the native negrues, nith whom they very rarely mix their blood. Captain Lyon, npraking of the ledlatas, observes, "thelr complexluns being of a much llghter hue than that of the other tribes, they call themselves white; their color resembles that of our gy posies in Eugland. Many female slaves are trought to Mourzouk from their nation, and are very handsome woaten." Other obsorvers describe their complexion ar being very dark, uni of a made intermedlate Letween that of the decpest Aifican and the Moors. The fact neems to le, that their color varies in a very remarkable manner, from being nearly white to nenrly black. Uuth men and women pay consideratile uttenthon to their drens, which mong the wealthy linhastants is rather whowy. In their domenti: liblist they are regular, urderly, and cleanly, and the maves arn generally well treatel. 'ilhe Mohamoredan is the predominant religion, and conshbrable attention beprill to iceeping upan uppearance of it. l'rayers are rogularly suid tive !lmes n day in the Aratio language, which both the male nod female whiliren of the teetter sort of Fellatan are taught to real antl write. Thelr marriages are celebrated without any jomp or nobse, and anch contracts are of a lews artitrary nature than weflind them to lie abomg the lnferior racen of mankind. Captain Clapperton makes the following retharks regarding llousan:-" The goverument of the Fellatas in soudun is in its infancy. Tha governure of tha different provincen are appohtiol luring* deasure; and all their ןryerty, on their doath or to.
moval, falls to the sultan. The appolatment to a vacancy is sold to the highest bldder, who is generally a near relation, provided that his property la sufficient to enable him to bld up to the mark, All the inferlor officee in the towns are sold in like manner by the govornors, who also succeed to the property of those petty oflicers at their death or removal. A great deal of marketable property is claimed by the governer, such us two thlrds of the produce of all the date-trees and other fruit-trees, the proprietor being allowed only the remalning third. A small duty is also levied on every article sold in the market ; or, In liau thereof, a certain rent is paid for the stall or shed. A duty ls also tlxed on every tobe that is dyed blue, and sold. (1n grain there is no duty. Kano produces the greatest revenue that the sultan recelves; it is paid menthly, in horses, eloth, and cowries. Adamown pays yearly in slaves; Yacols in slaves and lead ore; Zegzeg in Naves and cowries; Zamfra the same; IIadeja and Katugum in herses, bullocks, and slaves; Casha in slaves, cowrica, and cloth; Ader, or Tadela, in thallocks, shecp, camels, and a coarse lind of cotton cloth, like what is callel by us a counterpane." Of the number of negroes and Fellatas who inhalit the camntry of Honssa no correct idea can be formed Much additional and more precise Information on these countries may be expected from the pen of Dr. Barth, that energetic traveler, who has so thoroughly explored these regions.

The exporta are principally civet and blue chock tobes ealled sharie, which are manufactured by the slaves from Ny fit, of whom the men are considered as the most expert weavera in Soudan, and the women as the best spinners. The common limports are brought from the borders of Ashantl ; and coarse calico and woolen cloth, in small quantities, with trass and pewter dishes, and some fow spices, from Nyff. The Arabs, from Tripoll and Ghadamis, bring unwrought silk, ottar of roses, splices, and beads. Slaves are both exported and imported. A great quantity of Guine: corn is taken every year by the Tuarieks, in exchange for sult. The market is extremoly well supplied, and is hehl daily from sunrise to sunset. On the north ride of Sonoto there is a low marsh, with some stagnant pools of water, between the city and the river; this, ferhaps, may be the cause of the great prevslence of ague, as the city atands in a fine airy situation."

Sokoto is described by Dr. Barth as forming nearly a regular nquare, and having 8 gates, hit 12 , as formerly supposed. Sokofo bas a mixed population, the Zoromana forming the chicf portlon of the inhahitants, They are, unlike the tribes of pure lullo or Fellion urigin, very intustrious, and are excellent workmen in leather, iron, and gehhegu or cotton-stripes. Tho nrticles of Iron made at Sokoto are the best in all Sousdan; und Ir. Hirth purchased some npectmens if beautiful workmanship. The Zaremana are the principal luhabitants of the town, while the Sylletman, is very interesting tribe, ditferent from, but unitem with the Follatas from time immemorial, inhalit the villages round the tuwn.-F.. II.

Fouston, a city of T'rxas, I'nited States of North Amerlab, capital of IDarris county, aml the secoml commervinl city in the state. It is situated on linffalb llayou, at the hoal of its steamenat navigation, and 45 ulles above its mouth in (ialvexton liag. It is the prine" ..." whiping port for the cotton, sugar, and muke, of t!, mijacent countien. l'og. (1853) estimated at thoo.

Huallaga, a river of liori, rises ln the Antes, near lat. $11^{\circ}$. $10^{\prime}$ mouth, und at 13,200 feet above the nea, flows montly northward, and joins the Amazom, near lat. $5^{\circ}$ mouth, and long. $70^{\circ} .10^{\prime}$ west, ufter a total course extimuted at 500 milles. From 1 hasuta, 50 leaghes alove its entrance Into the Amazon, and 3000 miles above the month of the Inmon, there is water

## enough

 monthe Hud navigat quite un till the of rich sage to In that beyond the follo and, coa Waygat: that direing his chants si
ing a nc progross, sailed a great riv month of provision reached ( 1610 ), h the nerth ors muti great dif bsy now that he h an many showed snd as su himself e with a m visions. temper at heart-bur Bivouac. the crew ship, they as remain a scanty the hoat heard of given at Foyages. Huds ered in 1 nr , and incorpor: Company
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Bay wer the poss vious to Ottawa lishment ent of 1. municat ages to distance distant west lor measure tho cone purty lu the Sus was visi Islo-n-ll trado ha 1000 m the lire liy the
pany of

## HUL

enough to fleat the largest vessels, for more than six monthe In the year. See Amazon Riven.

Eudson, Henry, a distingutshed and ill-fated navigator of the 17 th century. Ilis early history is quite unknown, and he dld not emerge from obscurity till the year 1607, when he was sent ont by a company of rich London merchants $\ln$ quest of a shorter passage to Chinn, than that loy the Cape of Good Hope. In that year lis penetrated as far as the 82d 13gree, beyend which bls passage was barred by the lce. In the following year, he nltered his course, mastward, and, consting along Spitzbergen, react ed the Stralta of Waygatz. Unable to force his way any further, in that direction, he again returned home without effecting his purpose. In 1609 a company of Gut h merchants supplied him with the means of again attempting a north-east passage. Again the ice stopped his
 sailed away to America, where he 1 N :cred the great river which now bears his na: ${ }^{\prime \prime}$, and at the mooth of whleh New York is situated. Scarcity of provisions drove him once mere to Iingland, which he reached on the 7 thl November. In the following yoar (1610), he salled from London on the forlorn quest of the north-west pasange. In the end of May his sailors mutiaied, and the revolt was only quelled with great difficulty. In June he entered the atrait and bay now called by his name, and was in high hopes that he hasl at last solved the mystery that had lonffied so many inquirers. Stricter investigation, however, showed him that he had been caught in a cul-de-sac, and as summer was now drawing to a close, he found himself compelled to winter on those inlospitable shores with a mutinous crew, and a very scanty stoek of provisious. Commander and sailors were alike out of temper at the bad success of the whole expedltion, and heart-buruinge and dissensions embittered the winter thonac. On the way home in the bummer of 1611 , the crew again mutinied, and taking posseasion of the ship, they turned arlrift IUdson and such of the crew as remained faithful to him in ans open boat, and with a scanty supply of provlsions. What was the fate of the boat and her crew is unknown; nothing was ever heard of them. The details of IIudson's progress are given at length in P'unchas's Pilyrim, and in Ilamuses logages. See Sparks's Am. Biog., vol. x.

Hudson's Bay, a large sea of North America, lying between 51 und 60 degrees of north lat., discovered la 1610 by Menry IIudson. See IItubon, Ilenny, and Polan Regions. A charter for a eompany, incerporated under the name of the Mudson's Bay Company, was obtained in the year 1670 . See Fur Thade.

Hudson's Bay Territory. The first internal explorers of the vast region surrombling Iluison's Bay were traders from Canada while it was yet lu the possession of l'rance. Cunadian traders had, previous to the conquest, ascended the St. Lawrence und Ottawa Rivers to their sources, and had formed estallishments on the great lakes. From the north-western end of lake Superior, they threaled the intricate communication which leads by lakes, streams, und pertages to Lake Whnipeg, and thence penetrated some distance up the Saskntchewan River, where their most distant establishment was situated, in north lat. $53^{\circ}$, west long. $103^{\circ}$. These enterprises were, in a great measure, suspended iow the strugigles which ended in the conquest of Canadn liy Grent Iritaln. In 1767 a party hemed by a llritikh suliject, bigaln penetrated tos the Saskatchownn. The Misshipl, or Churchill River, was visited by Mr. Joseph lirohisher in 1735, and Lake 1slean-In-Crosse, in 1776. In the year 1781, the fur tride had reached the Imits of Lake Athubnea, nearly 1000 miles beyond the most distant point attained by the French. These explorations wers greatly extended by tho establishnent, $\mathrm{In}_{1} 17 \mathrm{Bil}$, of the North-West Company of Montreal-an assochation formed of the learl-
lag individuals engaged in this traffic-who, in the energetic pursuit of the fur trade, exteaded their establishments to the Arctic Circle and the Pacific Ocean. The chsitar of the IIndson's Bay Compaiay, conferring the exclusive right of trade with the Indiana, having been granted without the sanction of Purliament, has generally been held lnvalld; and it was prebably the dread, owing to this defect, of attracting public observation to their proceedings that induced the Company for many years to confine their trading stations olmost entirely to the coast. In 1769, a century after the date of their charter, their fartheat advance was about 400 miles inland. In that year, however, being $\approx=$ sirous of oltaining information regarding some mines of copper described by the natives as existing near a river flowing into the aea to the northward, called the Coppermine River, they directed Mr. Haarne, a gentleman in their service, to proceed overland for that river which he had orders to survey, if pessible, down to its embouchure-an enterprise in which, after two unsuccessful attempts, he succeeded, reaching the sea at the month of the Coppermine River on the 13th July, 1771 , having been thus the first to establish the existence of a great Northern Ocean, washing the shores of North America. Mr. IIearne'a Jeurnals and charts were, however, withheld from the public for nearly 20 years after the date of his journey. On the capture of Fort Churchill by the French these documents fell into the hands of La Perouse, who commanded the French squadron, and were restored to the Company only on condition of their being publiahed. It was doubtless owing to this circumstance that Ilearne's claims to this important discovery were for many years discredited; although the existence of a Northern Ocean was confirmed by Sir Alexaader M'Kenzie, who, in 1789, descended the river issuing from Great Slave Lake, which bears his name, it was not until the overland expeditions of Franklin and Richardson in 1820 and 1825, that Hearne's merits as a discoverer were fully recognized. To the expeditions last named we owe the first accurate geographical delineation of this extensive region, from the shores of IIudson's Bay as far as M'Kenzie's River. Of the country west of this stream, and extending as fiar as Russlan America, a careful survey has been more recently executed by Professor A. K. Isbister of Londen, and published in the journal of the Royral Geographical Society, for 1846. To this gentleman we ewe also an elaborate geological map of the entire region, published in 1856 by the Geological Society of London.

The new association, which retained the name of the Ilulson's Bay Compnay, obtained ia 1821 a license of exclaslve trate fer 21 yenrs, renewed in 1842 for a similar period, over the territeriea wost of the Rocky Mountuins-the country on the enst sldo being consitered suthciently protected from rival traders, by the establishments of the two Companies already formed there, and such vague rights as might be claimed under the charter of $16 i 0$. Grave doubta existing as to the validity of this charter, and numerous complaints having arisen from the arbitrary exercise of the powers chamed inder it by the Company, un address to the erown has heen recintly moved by the llouse of Commons, for an inuuiry (which bs now pendlage) into the legality of the very wide and anomalous powers at pressint oxurelsed by the Company.

The territory emi raced withla the present operations of the lludson's Bay Company may the roughly estimuted at noarly $4,000,000$ of 8 quas miles, or somewhat groater than the entire extent of Europe. Thls vast uren, which is covered by a net-work of ahout 100 traling-posts, senttored at distances of nbout 300 or 400 milea apart, is dlvidod into four large departments -1 st. The Montreal department, rhich includes all the establishments situated hetween the Rivor St. lawrence and the great lakes of Canada, phd along
the north shore of the Gulf of St. Lawrence and the coast of Labrador 1 2d. The Southorn dopartment, which includes the country along the north shores of Lake Superior and the soathern shores of Hudson's Bay; 8d. The Northern departmont, which comprehends all the establishments porth of this as far as the ahores of the Polar Sea ; and 1th. The Columbla dopartmont, Inoluding the, territory watered by the Cofambia and other rivert west of the Rocky Monntains, The departmente are divided inte a number of districte, each under the direction of a superior officer ; and these again are sinbdivided into numerons factories, forts, poots, and outposts.
-In a googriphical view the Hudeon's Bay territoriea may be divided into four great nataral regions-1. The Columbia or Oregon Territory, a county of varied features, oxtending from the Rocky Mountains to the Pacific; 2. The wooded region, occupying the country from Canada northward along the shores of Hudeon's Bay, and extending along the veller of the M•Kenzie and Peace Rivere nearly to the Arctic Ocean ; 8. The prairio region, situated betwoen the forementioned divisions, and occupying the valley of Saskatchewan and Red Rivers, and the upper waters of the Miseonri and Missinsippl; 4. Tho strip of sterilo conntry along the northern shores of Hudson's Bay and the coast of the Poiar Sea, tamiliarly known as the Barren Grounds. Of these divislone the wooded region is the most extensive and the most valuahlo for tho purposea of the fur trade; all the finer ekins $\mathrm{w}^{2}$ ich find their way to tho Jondon market, being obtained from it. It has, in conseqrence, been long occupied and thoroughly worked by the trading-posts and agencies of the Company. The Indiane inhablting it are in genoral a mild, inoffensive race. Iong famillarity with the whites, and the habits of trade, have produced a friendly feeling anoong them toward Europeans; and their denire to supply them witt the commodities of trade rendran them by far the moat valuable and industrious cicas of the population of the IIndson's Bay torritories. The relation of the Company toward them is an extremely simple one: the Indiaps bunt and trap for the furs whleh the Company receive, giving in exchange such articles sa nre auited to the simple wante and tastes of the nativen. Trade is carriel on by means of a standari valuation, based on the market price of a leaver-akin, and hence denominated a made bearer. This la to chviate the neressity of circulating money, which is q. ce unknown in any part of the Indian count ${ }^{-}$. A heaver-sking is considered, in the Indian trade, equivalent to two, hree, or more skins of Inferior vilue. The rates at which the akins can be obtained under the complete misnopoly enjoyed by the Compapy reader the :ar trude probably one of the mont lucrative species of truffic in the worid.

It in difficuit to form an estimats appronching to accaracy of the population of the IIudsen's Bay teriterien. From 40 to 50 different tribes, speaking diatinrt diaiects, have been enumerated; but the discordaict eatimates oven of the oldest and mont experienced reaicients in the Indian country forbid ali idea of arriving at any acenrate estimate of their numbers. They probably do not exceed 150,000 . Their numiers are, by the mert truntworthy accounts, rapialy diminishing. Through the benevoient exertions of the Church Mispionary and other Societien, misaions and schools have betn estallished in various parts of the country east of cie Rocky Mountains. These miwsions, supported entirsly from the funds of benavolent bodien in England and Canaila, afford the only means of edueation hitherto available to the inhabitants of those remote regions.
The climate and soll of the Hudson's Bay territoriea, oxcept in the extreme northern dintricts, differ littie from those of Canada, and are equally adapted for coionization. On the banks of the Red River, flowing into Iake Winnipeg, a smali setticment has been formed, consisting ehiefly of retired servante of the Company;
with thair familliea. The colony now numbers a population of about 10,000 : eouls; but from its icolated position, the liulky nature of auch exports as could be furnished, and the long and dangeroua navigation to Hadson's Bay, there is but littlo probability of its rising to commorcial importance.
The neconalty for creating a new penal colony for England has caused attention to be directed to the advantages which nome portions of Hadeon's Bay poseess for such a purpose; and at the same time it is urged that these sectiona of country would be thereby brought within the circle of civilization, and the resources of the whole region oponed out for man'e enterprine; while it would be the means of subverting that exclusive monopoly of the Hudson's Bay Com-
 interest, and is antagonistic to the spirit of the age in which we live.

At this moment it is unnocessary to pronounce Whother such a colony, located in some northern portion of Indson's Bay, would be prejudicial to the intereste of Canads.
It is urged by the Cenadiane that, under the charter, the Hadson's Bay Company originally only claimed around Hudson's hay;, and did not extend their claims beyond ite limite until about 100 years after the date of their charter, which was made in 1670, between that year and 1690. The Company discovered that the chartor was illegal und unconstitational. and petitioned the imperial Legislature for the confirmation of that charter. An act of Parimment was passed, conforring it for a period of seven years, and no longer. In 1697 the charter had ceased to exist, and has never agrain been renewed. Nevertheleus, under color of that charter, about the year 1800, they set up a clain to the poessession of all that country lying this side of the Rocky Mountaine. L.et our readera choose the opithet which will most truly charucterize the monatmous imponition, which bas the nudacity now to claim possession of a country which the very words of the charter itself exaiuded from the operation of the aupposed grant--and which only professed to give such " lands, territoriea, oto., as were not possensed by the anbject of any Christian prince or Slate. 34 years prior to the date of this charter, Louis XIII. of France granted a charter to a company called the Company of New France, granting them the oxclusive trade over that very country which the IIudson's Bay Company now asaume to ciaim under the illegul and invelid charter of Chariea the Second, and the French possensed, enjoyed, and traded throughout that conntry, which was always recogniaed as within the doninion of France until 1768, when Caneda was ceried to the liritish crown; and it was not until about 40 years after, that the Hudeon's Bay Company had the presumption to set up a claim to that country which had been won by British blood. Canada maintains that the whole country is a portion of Canada, anil as such ahould be thrown open to her peojle. See Blackrood, 1xili., 869 ; Monthly Her., Ixxxvil., 66 ; Dem. Ser., xii., 345; Living Age, xxill., 588.
Eiudson, a river of the State of New York, though less in its length and in the amount of water which it dincharges than many others, is one of the moat important in the United States. The Hudson, proper, rines by two brnnches in the Adirondack moantains. The eastern branch from the north passen tirrugh Schroon lake, and is sometimes callell Schroon liranch; and the western has a circnitous course from the nerth-weet, and is considered as the main branch or iladmon. Alont 40 milea from the source of each, they unite in Warren county. After a course of 15 mifies south, the Hudion rocelioss the Sacandiaga, on the line between Montgomery and Saratoga counties. The Secandaga rines in Ilamilton county, sod first rune south-eart and then nortlı-west and went to its junction below Jessup'a Falis. The IIudson then runs
to the east of south, 15 iniles to Hadiey Falls; it then tuins to the north-east 20 miles to Glen's Falls. Its direction is then nearly south to its entrance into New York Bsy: 40 miles below Glen's Falls it recelves from the weet the Mohawk, it greatest tributary. From the junction of the Muhawk to its mouth, is sbout 170 miles. Tho length of the Hudson, from its entrance into New York Bay, is a little over 800 miles. So straight is this river between Albany und Now York, that the distance is less by water than by land. The tide flows to a little above Albany. It is navigabie for the largest shipe 118 miles, to Hudson, and for sloops and large steamboate, 145 miles above New York to Albeny. Small sloops also proceed to Troy, and throagh the dam and lock to Waterronit; about 8 miles farther. Through a considerable pani of lts courso the banks are elevated, and In some parts high, rocky, and precipitous; particularly in its passage through the Highlands, 53 miles above the city of New York. The scenery on the banks of the Hadson is highiy picturesque. The clty of New York owes uuch of its prosperity, and its pre-eminent advantages, to this noble river, connected as it is by the Erie Canal with the great lakes, and by the Champlain Caasl with the St. Lawrence River. By no other route can an equally favorable water communication be had with the great West. There are many large and flourlahing towns on the Hudson. The principal on the east side are Troy, Hudson, and Poughkeepeie; and on the west alde Albany, Catskill, and Newburg; besides many others on both sides. Its waters were tha theatre of the firat successful attempt to apply steam to the propelling of vessels by Fulton and Livingston, in 1807-1808. As a navigable medium of commerce this river is unrivaled. During the year 1850 there passed from the interior through its channel, or by railroad conveyance along its basin, products of the forest valned at $\$ 10,000,000$; agriculture, $\$ 38,000,000$; menufactures, $\$ 4,000,000$; merchandise $\$ 563,000$; and various other articles, $\quad 2,300,000$; showing a grand total of about $\$ 54,000,000$. The total value of the various kinds of property sent from the seaboard, via the Hudson River, in $\mathbf{1 8 5 0}$, smounted to $\$ 74,000,000$, and in 1851, to $\$ 80,000,000$, while that of the year 1856 is retimated at $\$ 150,000,000$. See I ake Trade.

Ifudson River Naerigation.-Table showing the opening and cloaing of the IIudson Rlver in each of the past 15 years :


Hulk, the name given to an old ship laid up as unfit for further mervice.
Eull, tha body of a ship, exclusive of the masts, rigging, etc.
IIull down, axprecses that the hull of the ship is concealed by the convexity of the sea.

Eiull, or Kingston-upou-EXuli, one of the prinespal commercial towns of England, is situated on the nerth bank of the Humber, at the mouth of the Rlver IIull, 85 miles south-east of York. It is a mnnielpal and parilamentary borough, and though locally in the East Alding of Yorkshire, is a county in itaelf. The ancient name of this town was Wyke, or Wyke-uponHull. For more than a century previous to 1269 it was a place of considerable mercantile impritance,
and possessed from the Abbotiof Meanx, who was lond of the manor, the privilege of holding a weekly market, and a yearly fair. The town of Hull la admirably situated for trade. Vessels of the largest size can come up to the town; while the Hull, Ouse, and Trent, affluents of the Humber, with their tributary atreams and canals, afford facilitios for trade with a large extent of country. It is also connected by rallways with all parts of the kingdom. These advantages have been improved by the activity of the inhabitants, so that Hull ranks as the third port in the kingdom, the value of lte exports being inferior only to these from Liverpool and London. The sita of the old fortifications is occupied by docks, and thua the old town is surrounded with water from the Hull to the Hamber. The old harbor was that part of the River Hull which faced the old town; but, as it was found to be inconvenient for the shipping, an act was passec. In 1774 for forming a dock, now called the old dock, which has its entrance at the upper end of the old harbor. It is 1703 feet in length, 254 in breadth, and 24 in depth. Betwaen 1805 and 1809 another dock was erected, called the Humber dock.... It communicates with the Humber bv a lock, and is 914 feet in leugth, 842 in breadth, and 81 in depth. The accommodation becoming iasufficat for the increasing trade, another dock was constructed between 1828 snd 1829, called the Junction dock, from being formed on the land that intervened between the old and the Humber docks, and thus forming a connection between them. It is 914 feet in length, 342 in breadth, and 81 in depth. The locks are 120 feet long, 86 broad, and 25 deep. The two bricres acrose the locks are of cast iron, and 24 feet wide. The rallway dock, near the terminus of the Hull and Selby railway, and the Victoria, to the east of the citadel, are of recent construction. The following taole exhibits ?ice area and cost of the different docks:

| Doek. | Arem | Cost. |
| :---: | :---: | :---: |
| Old dock. | ${ }_{10}{ }^{\text {a }} \mathrm{i}$ Pi | [78,830 |
| Humber doc | 9824 | 288,086 |
| Junction dock | 805 | 165,038 |
| Rallway dock | 239 | 115,000 |
| Vletorla dock | 2018 | 470,000 |
| Tohal. | 49118 | 1,056,449 |

A considerable quantity of ohipping is also accommodated within the old harbor, which may be computed at 10 acree of tidal water. A timber pond of 9 acres wes constructed in 1853. The quays around the docks are spacions, and are entirely surrounded with warehouses and deal yarde. Hull has of late years become a principal steam-packet station. Steamers asil regularly to and from London, Leith, Aberdeen, Nowcastle, Yarmonth, Hamburg, Rotterdam, Copenhigen, Antwerp, etc. Hull is the princlpal entrepot of the Baltic timber trade on the east coast of Britain. The etaple imports are timber, deals, grain, and seeds, sheep'e wool, tallow, hemp, flax, hides, iron bars, green fruit, bonea, madder, bark, turpentine, cattle, supgar, etc. The chief articles of export sre coton stuffe and twist ; woolen goods and woolen yarn ; iron and hardware; linens and linen yarn; earthenware; machinery and mill-work; coal, salt, and more recently raw cotton, lrought from Liverpool and Manohester. The whaie fiahery was formerly extenaively carried on. In 1819 it employed 64 vessels, hut from that period it rapidly declined to 1837, and in thst and the seven subsequent years employed only one vessel annually. More recently, however, a reaction has taken jilace, and from 1846 to 1852, incluslve, from 12 to 14 veseels have annually aet out for this fishery. The number and tonnage of veasele registered at the port on 81st Deoember, 1854, were as follows: Sailing vessels-under 56 tons, 238 , tonnage, 8822 ; above 50 tons, 105, tonnage, 42,861. Steum vesaels-under 50 tons, 10, tonnsge, 824 ; above 50 tons, 36 , tonaage, 9924. The following table gives the sinipa and ton-
nage (including both sailing and steam vessels), employed in the colonial und foreiga trade, for 1854, and the three preceding years :

|  | (NWAR), |  | OUTWARD. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| rank |  | yoisinf. |  | riah. |  | 8150, |
| $1 \cdot$ | 80.1pe. Tounege. | \%h/ Ps, Tomiage. | Whis |  | Shiper. | Tornam |
| $185 t$ | 1,156 296,850 | 1,488, 219,709 | 848 | 235,781 | 1,031 | 17 |
| 1859 | 1,087. 285,057 | 1,920, 175,750 | 758 | 228,260 | 050 | 189,198 |
| 1853 | 1,107, 285, $44 t$ | 1,758 269,212 | 776 | 217,411 | 1,285 | 190,691 |
| 1854 | 1044805791 | 1747947827 | 105 | 10780 |  | 7.000 |

The number and tonnage of vessels that entered and cleared coastwise during 1854, were: Entered, sailing veasela, 716, tonnage, 52,414 ; steani vesself, 424 , tohnage, 76,406 ; cleared, aalling vessele, 1162 , tonnage, 117,279 ; steam veesels, 468 , tonnage, 84,072 . In 1852 the amount of dock dutien pald was $£ 34,961$; the amount of customs revenue, $£ 324,819$; and the value of British manufactured goods exported, $£ 9,915,414$. The staple articles of import being subject to low duties, or altogether free, the customs revenue is smaller than that of less jmpertant ports. The port charges of llull have been reduced in the aggregnte about $\mathbf{~} 18,000$ per annum. Tho industrial establishments of Ilull are chlefly conrected with th. butlding and equipment of ships, comprising shlp-building yards, rope-walks, and manufactories of canvas, chains, chain cailes, and stean. machinery. Population in 1851, 84,690.-E. B.

Humber, a large river or rather eatuary of England, formed by the junctien of the Ouse and Trent, and eeqarating Yorkshire from Lincoinshire. It fows first east fer about 18 miles to 11 ull, and then southeast for 22 miles to its meutis between the Spurn-head on the north, and the opponite coast of Linculn on the south. Ita a verage breadth is from two to three miles, but near its mouth it widens to six or aeven. 1ly means of its numerous tributaries it drains sbont 10,000 square miles, comprising some of the most fertile and jupulous districts of Eingland. Veasels of considerabie burden can ascend to its head, and those of the largest size to Holl.

Eungary. The kinglom of llungary eonsists of Ilungary Proper, Sclavenia, Croatia, Ilungarian Dalmatia on the sea-coast, Trausylvania, and the Military Frontier. It is situated between $46^{\circ}$ and $80^{\circ} \mathrm{N}$. int., and between $15^{\circ}$ and $25^{\circ} \mathrm{E}$. long. It is bounded on the north by Galiela, on the enat by the Danutian I'rincipalities, on the south by Servia, Bosnia, and tise Adriatic, and on the west by Styria, Lower Austria, Nor". via, and Silesia. The north-eastern frontlers are formed by the Carpathiana, which jut out in different franches toward the banks of the Dannise, and inclose Transylvania in the form of a double crescent. A no less natural boundary la the Danube, separating southern llungary from the Turklah provinces. The leant marked frontier is the western, neparating llungary from lawer Austria: it is In part formed by the smali March River. The \#xact extent of llungary and ita dependercien has not yet been precisely ancertained. Acconiling to the Austrian official statintica, published by Caösnis, the auperficial area amounta to 125,087 Finglisin mpare miles; more recent Austrian tablen refuce that number, whereas the Hungarian statist, Alexius Feuyen, reckons the superfichal area at $\mathbf{1 : 0 0 , 9 1 0}$ Finglish square miles, of which Transyivania orcupien nhout one sixth, or upwand of 20,000 miles. The Ilangarian kingdom is thua larger than fireat Iritain and Ireland by about 10,000 , and than l'russia by 20,000 square miles. The physieal aspect of limgary Iroper is sharply marked by the centrant between the northern Carpathians, forming large piateaus, and the vast ievel land Intersected by the Dannbe, Theisa, and Maroth; while in 'Transylvania, whare the Alpine character predominaten, the wudilen diminution of the mountains, allowa only of undulating table-land, alternating whith narrow valleys. The greatent part of Croatia, and part of Sclavonia, likewise conslst of
mountalnous land, formed by the outlines of the Alpa, the level land in the latter lylng to the north.
Rivert.-Turning to the bydrographle survey of the country, the Danube, the largest European river next to the Volga, first elaims notice. Reaching the lIungarian territory at Preaburg, where the Carpathians begin to rife on Its left bank, the Danube puraues a south-easterly courso, dividing Into three branches, which receive the waters of the Layta, Raab, and the Waag, embrecing, moreover, the two Schütt lslands about Comorn, and then the St. Andrew Island nt Waitzen, after whleh its directlon becomes more southerly, and, after leaving Buda and the Osepel Island, It rolls along the IIungarlan plaln and the Banat, its right banks reaching the Turkish territory at Semlin. There, where its course becomes retarded by the Servien Mountains, it recelves the waters of the Save, leaving the kingdom at Orbova, after forcing its impetuous waves through the Iron Gate. The breadth of the Denube varies in different parts, being, about l'resburg, 900 feet; at Foldvar, 1800 feet; between the former and Vanek, 4000 fcet; at Petervardeln, 3500 feet ; at Belgrade, 508 feet, and at the Iron Gate between 158 and 80 feet. The depth varies between $20,40,60$, and 120 feet. The greatest tributary of the Danube, the Theise (Tibiscum), rises from a double source in the county of Marmaroa, near Galicia, reaches the level land at Nagy Szoles, end winds its course through the large plain as far as Titel, where it tlows into the bed of the Danube. The chicf tribataries of the Theiss, remarkable for richness in fish, are the LIernad, Sajo, Bodrog, Szamos, Körös, and tho Miarosh, which is the chief river in Transylvanla. The Drave, which rises in the Tyrol, flows through Styrin into Croatia, and, divlding it from liungary, fallo into the Danube near Essek. The Save, rising in Carinola, winds its course through Crostia, is fed by tho Unna, and Kulpa, forms purt of the frontior tuward Bosnia and Servia, and falla Into the Danube at Belgrade. The Morosh, which ranke next to the Theise, falle into the latter at Szegedin, after having received the Aranyos, fumeus for its gold washings, and the Kokel or Kükulö. The Alt or Aluta rises likewise in the Transylvanian Mountains, entering Wallachia through the lied-Tower l'ass. All the Hungarian rivers flow into the Black Sea, with the exception of the I'opard, "hieli rises in the Zips from the Kongsberg, and flows into the Vistula.

Lates.-Among the lakes the largest is the Ilattennee or Balaton, situated hetween the countries of Zala and Schmmeg. Its length ia about $\$ 0$ miles, and its lreadth between eight und nine miles; and with the surrounding marshes, it oceupies about $\mathbf{0 0 0}$ square milea. Its principal feeter is the Zala, and its only outiet is the March Sio. Tine Neusiedler-see, in liungarian Ferto, between the counties of Wieselburg nad Gedenhurg, fed by tho Vulka, is 70 miles long and 10 miles bread; its ahallow waters are impregnated with nalt, and exhibit un eld and dow, hs yet unexplained. The l'alver-see is, properly speaking, a marsh, resimbling many which aro formed lyy the Thish ani Lower Danuile. The Star-ret, in lihar, the Fesecier, in Szathonar, tho Feketels, in the llanat, are the Inrgest marshes. Tho marshes cevared with aquatic plants, such as lieseder, are generally ilistinguished fiv the name lap. The omly canal of importance is that in the county of Ince, called the lirancis tamal, cut from Monowter to Foldvar, and uniting the Danube with the Thelss. It is abont ti0 miles long, and shortens the pansage by about 200) milen. The Ifega ('anal, near Temenvar, is rather a river than a canal. The Alriatle touches only the sunth-western extremity of the Hlungarian kingdom, the nea-coast being varionsly called Hungarian Dalnatia or Illyris, the principal gorts belng Fiume, a flonrishing town inhabited chichy by Italians, I uecari, Port-re-Zungg St. (icorge, Talslonz, and Carlopage, The whole const is mountain-
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ous, and in some parts steep, and exposed to violent south winds.

The climate of Hungary varies greatly. "In the counties of Arva, Liptau, Zips, and Marmaros, winter continues for fully bix monthe, whereas in southern Ilungary the trees blossom as early as March, and in June the heat becomes burdensome, reaching its culminating point in July, From the partial meteorological observations that have been made, it appeara that the highest temperature in Buda is $30^{\circ .6} \mathrm{R}$., and in Klauseaburg, in Trensylvania, $32^{\circ} \cdot 6$; and the mean is, in Bula $15^{\circ} \cdot 19$, and $\ln$ Klausenbarg $53^{\circ}$. This, however, is fur from giving an idea of the climate in the different parts of the conntry, and especially in the level land in the aouth, or the lurger plain, where, at midday, the heat is at times almost African; and yet in thoee very parts, as a geographer observes, even quicksilver was frozen in the unusually sovere winter of 1816. The heat of the smaller or western plain is much tempered by the Bakonywood. The first half of January marks the minimum, and the second half of July the maximum of the temperature; while April and the first part of October colncide with the mean temperature. Blasts a.d the falling of hail happen moat frequently nmong the Carpathians.

At the end of the great war in the beginning of tho present century, the population of IIungary, Transylvavia included, was $12,000,000$; and according to the last censua, before the late war of 1848 , it amounted to about $14,500,000$. Of this number, $2,200,000$ belong to Transylvania, and 490,267 to Croatia; the population of the military frontier being estimnted at more than $1,000,000$. With regard to the different races, the proportion is as follows:

| Macyars........... $5,418,778$ <br> Slovaks............ $1,722,008$ |  | Rusniaks.......... 450, 50 |
| :---: | :---: | :---: |
|  |  | Wallachisns...... $2,686,498$ |
| Rasclans . . . . . . . . . 1,298990 Germans . . . . . . . . . 1,278,077 |  |  |
| Oroats. | 948,905 |  |
| Minor Nationalities. |  |  |
| Jows. | 244,000 | Greeks. . . . . . . . . . . . . . . $\mathbf{5 0 0 0}^{\text {a }}$ |
| Wends | 40,000 | Armenlans. . . . . . . . . . 3 3,000 |
| Bulgart | ... 18,000 | Montenegrlus......... 2,0000 |
| French | 6,000 | Clemeotines . . . . . . . . 1,400 |

The number of the Gypsies is variously estimated at 40,000 and 60,000 . The different confessions are represented in the following approximnte numbers:
Romsa Cathnlics.. 6,500,000 || Calvintsts......... 1,700,000
 Nun-United Greeks 1,800,000

Is Thansylvania.
Roman Catbolles. ... 222,400 || Caivinists............ 858,800 Greck Catholles. . . . 60. 600, , , 0 ) Lutherans. . . . . . . . . . 220,400 Non-C'nited Grecks. 725,700
The character of the races i, as different as their origin. The Magyars, both nobles and peasants, nre marked hy their Oriental ride and nobleness; by their love of liberty, hospit sble customs, conviviality, and warlike ppirit. Clinglag with filial love to his superiors, the peasant-a genticman in languago and bearing-is, at the same time, alive to the sense of his own worth. In the fiedd of lutor and horsemanship, the Magyars surpass all the rest. The Selavonians of north-western IInngary are mild, fragal, nud industrious. The southern Sclavonian or Raitzen are, In character, very much like the Greeks, being, moreover, merry, warlike, and of a therce disposition. The Croats partake more of the character of the Raitzen than of that of the north-western Sclavoninns ; nnd, as to the Germans, they preserve their nsual traits of industry and peaccableness. The most neglected race is, perhape, the Wallachians. Strongly resembling in physiognomy the Italians, a fact clearly verifying their intermixture with the Romana, they, like the Sciavonlans, are bony, and of tall stature, und aro considered na one of the least active races. The town population is estimated to form one eighth of tho inhabitants, a circumstance sufficiently proving the backwarl state of the country. The total number of towns in llungary and Transylvania is 146 ; of hosoughs, $6 \cdot 12$; end of
villages, 16,450. The population in the principal towns and boroughs was, In 1851, as follows: Pesth
Bodn (rivited to Pesth
by auspenaion bridge).............. $\$ 0,127$ Prebbnrg............ 00,906 Presbarg ............. 48,178 Sregedin. . . . . . . . . . . . 80,244 $\begin{array}{ll}\text { Wasarbely............ } & 88,090 \\ \text { Kesskemet.......... } & 88,808\end{array}$ $\begin{array}{ccc}\text { Keesk amet . . . . . . . . . . } & 88,808 \\ \text { Csoba .............. } & 889\end{array}$

| Kronstadt * (Transyl- |  |
| :---: | :---: |
| vinla)....6........ | 94,401 |
| Maka................. | 29,611 |
| Tumeswar............ | 91,881 |
| Grosswardein. . . . . . . | 91,981 |
| Arad.............. | 19,664 |
| Klaneonburg (la Traa. |  |
| sylvania) | 10,846 |
| Komorn. | 19,118 |

The fertility of the Hungarian soil, and the variety of its produce are universally known. Beside the different species or corn and malze, raised in great quantities, Hungary produces hemp and flax, varions kinds of delicious apples, pears, and plums ; two sorts of melons, rich crops of tohacco, and lastly a great variety of winea; while the vast pastures and oak wooda afford ample sustenance to herds of horned cattle, sheep, and swine. It is nssumed, that with the ald of modern improvements in agricultore, and a little more industry, it could abundantly bustain a popnlation twice as large as it actually possesses. "The badness of the roads, the neglected state of the rivers, which, besides being closed to navigntion, entail great lossea by annual inundations, no less than the fendal institutions, and prohibitive system of Austria, all contribute to keep agriculture in a backward state, so that the vast produce may be said to come from the hand of nuture alone. The home of the wheat la the Bnnat, and the counties of Baes, Baranya, Simla, Arad, and Borsod. Rye is ralsed chlefly in the north among the Slovaks ; barley, oats, and maize, In different parts. The list occupies an important place in the Ilungarian harvest. With some of the Sclavonian population, such aa the Croats and Rascians, and the Wallachs, maize bread is a great favorite. Melona are ralsed in gordens and the open field, occupying sometimea continuous tracts of land of 100 acres. Of tho water-melons the most famons are those of Heves, of more than two feet in diameter. The yellow or sugar melons are generally of a much smaller size. Tobnceo grows almost every where, and greatly varies in flavor; the Csetneker of tho county of Gömor, the Verpeleter nud Debrocr of Hevea being the most highly prized. The annual erop is upward of $650,000 \mathrm{cwts}$. Potntoes form but a secoudary article in Hungarian economy.

Wines.-Among the vine-hills and gardens, cultivated since the thirteenth century, and which occupy no inconsiderable part of the Ilungarian soil, the most valuable is the IIegy-aljn, or southern promontory of the Carpathians, and which comprehends the Tokny mountnins situated round the town of that name. The whole promontory occupies above 50 Engllsh square miles, of which only one third is under cultivation. The Tokay wine is of a crystalline yellow, and sometimes greenish color, and is known under two naunes, the Ausbruch, the atronger, containing more of the essence, and the Maslas. The whole nanual produce is 180,000 gallons. Next in rank to the Tokay is the Menes, a red wine of the comnty of Arad; and inferior to it, though by no means inferior to llurgundy, ure the red wines of Erlan, Szekanrl, Villnuy, and lhda. Among the yellow tahle-wines, particuiar mention may he made of the Nesmeler, Somloer, lladacsoner, and limeleker. The connty of Simin is, moreover, particularly famous for its red winee, the most known of which is found on the Fruska Gora mountain. No less famous are some of the Crontian wines, marked by a apirituous flavor, as ns well as the wines of Transylvania. The total proluce of wine, Transyivania not included, is estiinated nt $328,748,000$ galions.
The animal kingdom exhibits no less abundance. The llungarian oxen are the largost breed in Europe. They have a grayish whitu skin and long straight horns. The largest lierds graze on the wide pastures

## IIUN

situated between the Theisa and tho Danabe. The original Ilungarian horse, marked by its middle alze, broad neek, and compact buili, is now only to be foond in some parts of Transylvania. The introductlon of English full-blood stallions by several of the magnates, has of late years eanobled the hreed, and the genaral Improvement has beel. hastened by the ruyal studa at Mezo-hegyea and Babolna. Of latú years $\boldsymbol{w}$ veh progrese has been made in the breeding of sheep, though the first step dates from the relgn of Maria Theresa, when the Merino was, for the firnt time, imported into 11 ungary. The oak-woods pasturage large herds of awine, part of which arrlve annually from Servia, Bosnia, and the Danublan Princlpalities, for the purpose of being fattened, and thereafter exported to Austria. Mulea, asses, baffaloee, and goats, are only to be found in very small numbers. As the war of 18.8 made a great havoc in the animal kingdom the census of 1850 can not afferd a $f$ : sentatio. the cernabilities of thematry. Bits ainalt therefore five here the atutiaties of the ye... i which stood as follows: Horses, 1,000,000:
 In Transylvania, the nombere were these: ilor 397,888 ; horned cattle, 800,000 ; eheep, $2,000,00 \mathrm{~h}$ hogs, $350,(000$. To thils abundance must be added $n$ great sumber of domesticated fuwl, especially geese and turkeys, and a variety of game, such as ducks, partridges, pheasants, etc: Tho rivers abouad in carp, pike, athd eturgeon-the Theiss being reckoned the richest ; the pecullar liungarian tish called fogos, is only found in the lialaton Jake, or llatton-see. Some of the watery yield trout, and largo quantities of leerhen.

The approxinate mount of the productive aoil, both In llangary and Tranayliania, in the latter of which the forests form more than one half, in, according to the Austrtan official tablea, 40,200,000 joch, or $57,201,600$ kinglish acrea, of which $10,431,-60$ belong to Trasaylvania. The relative division is as follows, in Fingliss acres:


Soft ander thlage. za, A.s11.499 Vlocyards....... 1,65,9,962
alca...... dita
In the above numbera is not included the military frontior, the productive aoil of which occupies abont $6,000,000$ acres; the forest forming one third. The produce In corn fs- Hungary, $281,000.000$ boshels ; Transylvaaia, $80,000,000$; military frostiers, 12,000, 000 ; total, $822,000,000$ English bushels. The value of the natural product is estimated at $£ 25,000,000$, while the value of the crope in Eingland and Wales is estimated by M'Culioch to be only ER3,656,074.
Mineruls.-The mountaine, which are partly worked by the government and partly by privato enterprise, coatsin aretale of alavat every $\mathrm{kin}^{2}$ viz., foll, silver, Iron, copper, lead, antimony, zinc, alums oriphment, tellurium, and many other mineraln, besides coal and salt. In the neglected ntate in which the gold mines are kept, the produce is only alout 2400 marks. The ailver mines yield 65,000 marks. Of great importance are the copper minea in the llanat ; the richeat vein, however, is at Sthmolnitz. Those in Transylvania, at Damokos and Jeva, yield 1200 cwts . The oroduce of leall Is entimated at $26,000 \mathrm{cwts}$. The Iron minen are found chlefy In the connties of diomor, Suhl, Vng, and Kips ; the aveiage produce of the former being $250,000 \mathrm{cwts}$. The richest rock-salt mines ate In the connty of Marmorom, and the total produce amounts to upward of $800,000 \mathrm{cwta}$, a quantity which, however great, is fur from sumicient for the wants of the conntry. Soveral places yicld alpo soda, raltpetre, alum, and potash. Fit eckaln, shleh, till very lately, and before the intruluction of railways, had been entirely neglacted, lle deep in formations almoet unwrought. The total produce is $1,000,000$
cwts. The value of the mineral proluce in Huagary is $£ 872,000$, that of Trinsylvonla, $£ 169,000$; the mill. tary fros.tiers yield almost nothing in this respect. It must be added that IIungary possesses also precious stones and marhle of various descriptions.

Afanyfactures.-Thz chief articles of manufacture are cloth, Ilnen, and silk stuffs, carpets, leather, Iron waroo, and chemical products, Including alum, aatpetre, and jotash manufactures. All there are as yet in an inclpient atate, eapecially cloth menufacture, if it be considered that in wool Hungary is the richest country In Europe. Linens are chiefly manufactured in the north. No county of Zlps produces about 6, 00 ', tid yards. The largeat allk manufacture is at Peth, givlag employment to between 400 and 500 $\mathrm{m} * \mathrm{~m}$. Of greater extent are the leather manufacturee ; but even of this article much is imported. The moet prsiuctive iron-works are In the colinty of $f \cdot \cdots$ is in ag which are particularly distinglu : "'it. tories of l'olorela, and "nroske, belongwht to t : ince of Saxe-Cobourg. The whole inon * of li:mgary is catimated at 500,000 ewts. per half of which belengs to Gömör. Iu several , whthe ct.re are potteries and glass-works, some of Which, fi" Debreczin and Papa, produce 20,000 buwle woul: Soap la chiefly manufactured in Szege. din, Kecusomed and Debreczin, the last of which produces 7000 ewis, annually. The distillerica are mostly in tho north among the Sclavonle population ; and the breweries, 300 in number, aro situated round the large towns of mixed population, beer is no favorite drink with the Magyara. Sugar refineries have also of late risen in several parta of the country; but this artic lo also requires importation. The segar manufactories, introduced within a very recent periol, had imparted a new impetus to the cultivation of tobece; fut the introduction of the tobacco monopoly at the end of the late war, at once extinguished this branch of industry.

Trade. - The inferiority of the roads, only compenmated to some extent by two railvay Ines, and steam navlgation on the Danube and Theiss, but enpecially the restrictive conmercial syatem of Austria, sufficiently accounts for the insignificanco of Ilungarian commerce, lwoth forelgn and internal. The centre of comunerce is the eapital, Pesth, situated on the banks of the in!ghty artery of the kin, dom, the Janube. The chicf feature of interm:? trade is thie exchange of problucts between the arthern and southern districts ; the formor azading to tho mouth minerals ond timber, and the batter carrying to the north grain and cattle, an intercourse ficcilitated by the great number of riverw uavigable to vessela and hroate of small frelight. The annual faire held at l'cesh mark the culminating points of commercial uctivity, the chlef marketable article being wool, of which, according to Fenyes, upward of $120,0(0) \mathrm{cmta}$ are sold amually. 'lle other towns of commercial linportunce are-in the south, llecse, exporting to Austria; Fiume, the IIangarian Jittorale, and Semlin, communiceting with the Tarkish provincos; in the weat, Waitzen and Presbarg; in the north, Koshua and Eperies.

The following details, collected by Fenyes, will glve a general liea of the extent and progress of the foreign comanerce during the five yeara muncdintely preceling the late war:

| 号 | Exponte. |  |
| :---: | :---: | :---: |
|  | 184s, (1) ta. | $\stackrel{104 s}{C n t a}$ |
| Wheat. | 1818,620 | 2, 00.616 |
| 1tye. | 150.771 | 942.018 |
| Bartey | -01.194 | \$ $74.4,514$ |
| Cata. | 489.689 | $7 \mathrm{~F} 2, ⿹ 14$ |
| Weol. | 287, 140 | 214.416 |
| Totacco | 88.5 | \%11,685 |

The number of oxported enttle in 1445 was $106,2 \mathrm{al} 0$, that of hoga, $30,4 \cdot 10$. The total value of exports that year was petimatod ut $71,735,68: 3$ forins, which, at the


Imp and ot flor'ns adied, the re Since tween how fa of the politica quisite it be $t$ penditu on mon ua prece the peri ple datn d. 1 exp sontces tax, wa mains, sources and the 400,000 , than su quence where th but nom item in introduce perial edi inay cult specifyin owner be governine opoly in which it braneh of have in $c$ dispensin
For con 191 (Cas. of Hungra Eiram., xl

## Hurol

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Lake Ont is so irreg mine its e south is 24 to west, in the north 1100 mile Bhy, exte immediate south-east is about 1 ate sheet continugu: by the gr l'oint do T gan. Ma cf the groi sheet of $w$ 20 bread. and Canai ron 225 m mond Isla and curve tho entrar the surfa ocean is 5 $\$ 3$ feet,

Import .-The value of importa, both from Austria and other countries, was, in the same year, 68,514, 487 flor'ns, oif $£ 6,851,443$. Forelgn countries, it mupi be added, enter only for one fourth of thile latercourse, the reat belongs catirely to the Austrlan dominiens. Since the end of the lato war the custem-dutien between Hungery ind Austria have been abolished. In how far this ebs 're 'as hitherto affected the commerce of the former, in hd, in consequence of $i t$ abnormal political state, 1 , ifficult to declpher, even if the rim quisite data had, m ousde publle. As diffic at would it be to for a to re estumate of the revelane and expenditure of Huw ;ary since the late war, as both rest on momentar:' a bitrary m"nsurea undertaken either us precautions s. "nat revoution or in consequence of the periodical naess of the Austrian finances. Ample data, hown er, are extant as to the puhlic ravenue didexpenditure of II ungary hefors y: 8 . ? ochief sonrees of revenue up to chat date were-the housetax, war-tax, the toll duties, the crown and fireal domains, and salt revenues, which, with the minor sources of inceme, such as the lottery, the post-office, and the minea, yleided, according to Fenyea, £ 8 ,400,000, s sum leas than that of Iowbardy, but more than sufficient to cover public expenses, In consequence or the internal organlzation of the counties, where the salaries of the constitutienal officiuls were but neminal. In the now rigime a not nnimpertant item in the public revenue is the tobacco monopoly introduced luto the IIangarian dominions by an imperial edict of November, 1850. By this ediet no one may cuitivate tohacco, except by previous permissien, specifying the place and mode of cultivation, each owner being obliged to deliver up his produce to the government, which determines its value. The monopoly in itself, no less than the domiciliary visits to which it gave rise, greatly injured this thriving branch of 11 agarisn industry. A great many, indeed, have in consequence of this given up its cultivation, dispensing even with its use.-m. B.
For commerce of Ilungary, see Huxt's Mug., xxi., 191 (Cassart); Dre Bow's Review, xiii., 43ä; Rares of Hungary; Nor. Am. Ree., Ixx., and Ixxii. ; Ch. Eram., xlvili., 44.

Huron, Lake, one of the five great lakes of North America, lies between Lake Superior on the northwest, Lake Michigen on the west, and Lake Frie and Lake Ontario on the sonth and south-east. Its shape is so irregular that it is difficult accurately to determine its exact dimensions. Its length from north to mouth is 260 milies, and 160 miles in breadth from east to west, in its widest part, but exclusive of the bay on the north-east, it is only 90, and its circumference 1100 miles. Its principal indentations are Saginaw Bay, extending lito Mehigan, and two others; one imniedjately north of Manitou Islands, and the other south-east of them. The latter, called Georgian lhy, is about 170 miles long, by 70 hrond; almost a separate sheet of water, divided fro:n Huron by a nearly continuous series of islands which are elosely connected by the great penineula of Cubot's Ilead, and with loint de Tour, the easternment cape of northem Michlgan. Manitou (or Great Spirit) Island is the largest of the group, and Drumowond Jsland reparates another sheet $0^{\circ}$ water from thie main lake, 80 miles long and 20 hroad. The boundary hetween the United States and Canada passes along the midille of the main Huron 225 miles, and between Lesser Manitou and Drummond Islands, by what is called the Nidile Passage, and curves round to the north and west $\$ 5$ miles, to the entrance of St. Mary's river. The elevation of the surface of Lake Huron alove the surface of the ocean is 574 feet, or less than that of Lake Superior by 63 feet, or than that of Jake Michigen by 4 feet.

The greatest depth toward its west shore is at least 1000 feet, and its mean depth 900 feet, or about 300 feet below the level of the Atlantic. See Lakes,
Hurioaje (Sp. Ifuracan), a violent storm, generally accompanied by thunder and lightning, and distinguished from every other kind of tex pest by the "ehemence of the wind, and the suiden changes to which is is aubject. Hurricanes prevail chiefly in the $\dot{x}$. st and West. Inlies, the Isle of France, and in seme parts of China. The following graphic description of the usual phenomena attoniling the West Indian Lurricanes, from the ${ }^{\prime \prime}$ of Eamund Burke, may be interestiag to the rcader; "It is in the rainy season, prineipally in the month of Augast, more rarely in July and E'ptem'ser, that they are assaulted by hurricanes, the most terrible calamity to which they are subject from the climate. This destroye at one stroke the labor of many years, and frastratee tine most exalted hopes of the planter, and often just at the mo ment when he thinks bimself out of the reach of fortune. It is a sudden and violent storm of wind, rain, thunder, and lightning, attended with a furious swelling of the sea, and semetimes with sn earthquake; in short, with every circumstance which the elements can osseuble that is terrible and destructive. First they see, as a prelude to the ensuing havoc, whole fields of sugar-canes whirled into the air, and scattered over the face of the country. The strongest trees of the forest are torn up by the roots and driven about like stubhle. Their wind-mills are swept awsy in a moment. Their works, their fixtures, the ponderous copper boilers and stills of several hundred weight, ar: wrenched from the ground and battered to pieces Their houses are ne protection; the roofs are torn of at one blast, while the rain, which in an hour risus feet, rushes in upon them with an irresistible violes There are gigns which the Iadians of these isla taught our planters, by which they can prognostica. the approsch of a hurricane. It comes on ejehes ir. the quarters, or at the full or chunge of the moon. If it will come en at the fuil moon, you being at the chasge, observe there signs. That day you will see the sky very turbulent. You will observe the sky more red than at other times. You will perceive s dead culm, and the hills clear of all those clouds and mists which usualiy hover alout them. In the elefts of the earth, und in the wells, you will hear a hollow, rumbling sound, like the rushing of a great wind. At night the stars scem much larger than usual, and surrounded with a sort of burs. The north-west sky has a sort of menacing look, and the sea emits a strong amell, and rises inte vast waves, often without any wind. The wind itself now forsakes its usually steady easterly stream, and shifts about to the weet, from whence is sometines blows with intermissions violently and irregularly for ahout two hours at a time. You have the same signs at the full of the moon. The moon itself is surrounded with a great bur, and sometimes the sun hus the name appearnnce."

Hydrographical Charts or Maps, usuully called sea-charts, are projections of some part of the sea or coast for the use of navigation. In these, are laid down all the rhumbs or points of the compass, the meridians, paraliels, etc., with the cousta, cupes, tslands, rocks, shoals, shallows, ete., in their proper places and proportions.

Hydrography, the art of measnring and describing the sea, rivers, canals, lakes and the like. With regard to the sea, it gives an account of its tides, cemntertides, soundings, bays, gulfs, ereeks, and also of the rocks, shelves, sands, shallows, pioniontories, and harbors; the distance and bearing of oue port trom another, with every thing that is remarkable, whethor out at sea or on the coast.

Ice. The eale of lee and anow preaerved in the civerne of Vesuyhus and on the more elevated parts ot' Atna, has long been a considerable branch of trade in Naples, Citanla, and the adjoining towns: but it was reserved for the Anericans to carry the trado In lee to an extent which could net previousiy have been anticipated. The extreme heat of the summer in the Now Fingland Etates occasions a natural demand for jee, which tho extreme cold of the winter glven the means of supplying. The fresh water lukes adjoining Hoston and other iarge towns lieing deeply frozen in winter, large Ice-houses are tilled with the lce taken from them, which is retailed in summer at a low price. The practice had not, howevor, lieen long estabilished till it occurred to anme lingenlous apeculators to attempt to realize a profit by shlpping ice to the aouthern parts of the Union and the Weat Indies: and the speculation having succeeded, tho "trate was subsequently extended to the Spai "sh Maln and South America, and more recently to kurope, India, and China! The bosinews las, in fact, beeome of the firat Importance; nomerous companies and a very large amount of $t$ mnage being now engaged in the lco trade from Boaton. And owing to the greater skill and economy with which the businers is at prement conducted, the ice which usell a few years ago to cost 6 cents per 1 h . in New Orieans and llavana, may now he hat for 1 cent ; and there has lieen a like fall in its priee in fublia and other more distant placer. An Innmense warehouse has recontly lieen constructed ut Cajentta for the reception of the lee brought ly the ships, whence it la auppliest in the quantities required for the pubicic accommodatlon. This singular fabrie has tripie walla, five distinct roofs, incloses alwout thrue forthe of an sere, aull is fitted to hold npwarl of 30,000 tons of iee? It is said that a similar dijot in about to hie formed at Canton.

The Ire Truile of the U'nifell States.--The ice trade of the United States was commenced by Mr. Frederic Tuder, of lboston, in 1805. This gentionan, having provjousi, zant agents to the Weat Indies to procure Infurmation, determined to make his first experiment In that region. Fhading no one willing to receive so strange an article on rhiploand, he wns compelled tu punhase a vessei, the tirik ramorife, of ubout 130 tons, whicl he loadeil with fee from a poni in Suugus, Mapmachusetts, belonging to his father, und aent to st, IPlefre, Martinlyue. This flont enterprise resulted in a leses of ahout ofboo, lint was, nevertlieless, followed up untii the aminurg and war put an and to the forelgn trade, at which perical it haid gielded 110 profit to lex projector. Its operations had tseen contined to Martinique and Janmicas. After the close of the war with England in $1 \times 15$, Mr. Tudor recommencel his operations by shipmentr to llavana under a contract with the govirnment of Clabm, which enabied him to jursue fis undertaking; without loss, and extend it, in 1417, to Clasrlentori, Sonth Garolina; In the following year to Savantah, fieworgia; and in $1 \mathrm{x}: \mathbf{0} 0$, to Now Grleans. in the mean time it had teen tried agaln (by other parthen) at Martininge and sto. Thoman, and filled, and by Mr, Tuifor at st. Japo du Cuha, where it also failed, after a trial of three yeam.

On the 1xth May, ix:is, the first shipment of lue was made to the Fiant julieen by Mr. Tudor in the ship Tuecony, for Caicutta, and nimes that perion he has ex. tended his operutions to Mulras and Iboniay. Previondy to 1 N 32 the trale hal heen chiefly confined to the operations of the original prifector, although several enterprises had lueen undertakion hy other jurnons, ami abandoned. The increase of mijuments to this period had been mmald, the whole amounting, in $1 \times 32$,
to 4,852 tons, which was taken ontisely from Fresh Pond, In Camliridge, and shipped by Mr. Tudor, who was then alono in the traile. Up to this time the ice bualinose was of a very complicated nature, Shipownern oljected to receive It on freight, fearing its effect on the durability of their vessels and the safoty of voyages l lee-houses at home and abrond were required, and the proper mode of constructing them yas to be ancortmined. The bent modes ot preparing ships to receive cargoes were the subject of expenaive and almost endless experimenta. The machines to cut and prepars lec for shlpping and stoxing, and to perform the operations of holsting it into store-hounes and luw. ering it into thio holds of vesseis, wese all to he invented, Invoiving much oxpense and vexation. Many of these difficuities have now beon overcome, and since 1832 the trade has Increased much, and appears destined to a still more rapid increase for some years. It has also been divided among many partles, and its methods have heen further impruved, and a knowledse of them more widely diffused.

The lce has been chlefly taken from Fresh and Spy Jouds, and since 1841 muiniy tramsported on the Chariestown Iranch lailroad, which was eonstructed for that purpose. Quito recently, lee estatilisliments have licen mude st mont of the ponds near lloston, and ii in probable that in a few years the products of all theso waters may be reyoired to eupply the trade. In the year 1839 the great quantity of lee cut at Fresh fond, and the consequent ditticalties which had arisen imung the proprietera, as to where each should take lee, influcad them to agree to listinet boundary fines wifich were aettied by three commissienars, viz., Simon Cireenleaf, Lavl farwell, hnd S. N. Feiton, espuipes, on the prinijple of giving to each the asme propurtion of contiguou. surface of the lake, as the length of his whore-line was to its whole lorder. This sutticment was male by partition teed, executed by all the owners, and recorded in the regintry of deeds of Mildlesex county. l'ublished maps wers also pinced in public institutions and private hands. These napes show the direction and length of the boundary lincs of esch owner, and the area. This arrangement has been of great alvantage to the parties, and enubled them to necure mine jee than could otherwise lie tuken from is poni of equal extent.

The shipments of ice from loston caastwise for the year eniling December 31 nt, 1817 , mounted to 51,887 tons. 'The ice shippeid to forelgn ports during the same proriod amounted to 22,591 tobn, and was sent to the following places, vir.; Havana, Mat.anas, Trinidad, St. Jago. Culta, Martinlque, St. Thomas, St. John'a, Mayasuez, Porto Rice, Guadaloupe, Barbadoen, Trinidad, Autigua, it. Vincent, Nassau, Jamaica, Pernambuco, Demerara, Ionduras, Vera Crua, lio de Janeiro, Mauritius, Isie of ISourbon, Manilla, Calenata, Madraf, Jombay, Ceylon, Hong Kong, it hamjos, Jlatavla, and I iverpool.

The freight paid during, this yenr is supposed to luve averaged as high as \$8:2 60 grr ton, at which rate it wonlis amount, (111 the id, fis tons shipyerd abroad
 in the cost of mecuring ice and stowing it on board vesucls, caused by winters favorahle or otherwise for securing it, anl by the greater or it an expense of the ilttings requirel for vogages of differnent duration, or by difference of season when the Nhumunte are made. Taking all these contingencies into convideration, the cost of ice when atowed on toari may bee entimated to averuge 蒌2 per ton, which woull give tor the quantity shipperi $\sin ^{148,9513 \text {. There were in } 1 k 47 \text { upwarl of } 29}$ cargoes of jrovisions, fruits, and vagetables shipged in
ice to ports where otherwine such artlelea conlil not be sent-ay to Harbaloen, Trinidad, Demerara, Antigua, St. Vincent, Guadnloupe, St. Thomar, IIonduraa, and Calcutti-the Invoicerl cont of which nt lBoston would average nbout $\$ 2500$ each, $\mathbf{9 7 2 , 5 0 0}$. To thene liems may be added the profitn of the trude to those engaged in it, 9100,000 . Total returns,
The lee trade hiss been without deubt one of the main stays which preserved the Calentta trade almost exclusively to Ihoston, and it would do no for China if that country were in a more quiet condition. The freights pail to India by Mr. 'Tudor for ice amount to from 10 to 15 per cent. of the earnings for the whole run of the ship out sud heme, and it la earned without coat or deluction to the churterer or ship-owner.
It is probable that the cemmereial marine of the United Stater has been materinlly increased by the operation of the ice trade. A large portion of the vessels form aly engaged in the frelghting trute frem Boston asiled in ballast, depending for remunerntion on frelghts of cetton, rice, iobacco, sugar, otc., to he obtained in more aouthern latitudes, ofton competing with the versels of other natlens which coull earn a freight out and home. Now a amall outward frelght from loston can usunliy be oltained for the trunsportation of ice to those places where freighting vessels ordinarily obtain cargeos. The lec traile has generally been unsuccessful to places where preflitale return freights can not be obtained, becmuso to nuch places n heavy freight nust be puid on the ice, which it can not benr; and also bocause souther: places which do not produce valuable exports, are usually unable to contume expensive luxurles.

The methods and materials for preparing vessels for the transportation of lee havo been various. lormerly their bulds were realed up at the siden, bottom, and top, with boards nailed to jolst ribs secured to the skin of the vesmei, and with double buikheads forward and aft. The spuces thus formed were thlel with refuse tan, rice-hults, meadew-hay, atrnw, weol-shavings, or like materials. These npacen were made of a thickness propertionate to the length of the voynge, and with reference to the sonson. The immediate surface of the ice was covered with the anme mnterinls, excepting tan. At the present tins amw-tlust is used almost exclusively for voyages of considerable length. It is placed iumediately between the ice and the skin of the vessel. This materinl is ottuned from the Stute of Maine, and before its use for this purpose was entirely wanted at the water-nills, nul, fulling into the strams, occnsioned seriens obstructions. During the year 1847, 4600 cordn were brought to Bonton, at an average value of $\$ 250$ per cond, delivered. The lumber is also wholly from the State of Mnino. The value of it is, however, mmall, in the prenont mode of fitting vessels. Almost the whole vulue of the returus of the ice trade, inclualling freight, is a gain to this country. The ice itself, the laber expended on it, the materials for its preservation, and the means of its transportation, would tho worthless if the trade did not exist. The prices at which ice selis in places where there Is compotition vary constantly. In llavana, where it is ramonoly, it is sold at fif rents per pound. and thore the trade has nut incrensed since $1 \mathrm{NiP}^{2}$, when the shipments were 1112 tons, while at New Orlenns, whore it has ticen sold at from hulf a cent to three centa por pound, it has increased during the same pertod from 2310 tons to upward of 28 , (om). At Cralcutta the trade commencod, in 18:3t, with $n$ shipmont for that yeur of 201 tons, nut the price has never been atove 6 cents per pound, and is now about $2 \frac{1}{2}$ conts. The export to that place had incrensed in 18.17 to 3100 tons, but proinalily less than one fifth of that quantity is actually sold, owing to the great length of the voyuge.
lee being shipped arid used at nil acnsons, large storehouses are required to presorve it. Exclusivo of ice-honses on the wharves at liast Charlostown and

Eant Boaton, in which lee is stored for short periods, there had been erected in 1847, and previoualy:
At Fresh Pond, in Cambridge, Ice-henses capablo of contatning.
Tona. At $\mathrm{Bpy}^{\text {Pond, in West Carnbriage }}$
At Littie Pond
86,732
" ..................... 2,400
At Wenham lond...................................... 18,000
At Medforit Ponil............................ ........ 4,0 , $0_{0}$



Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 141,888
The lee-housen now in use are built above ground. In senthorn countrios, where ice is most valuable, they nre constructed at great expense, unually of trick or atone, and the protection to the lce consists in air spacen, or in dry, light vegetable aubstances inclosed hetween two walls. In this vicinity, on the borders of the laken, where lee la least valuable, they are usually buitt of wood, in which case they are of two walla, formed hy placing two ranges of joists upright, framed into pintes at the top, and placed in the gronad nt the bottom, or framed into sills; these $t$ wo ranges are celled with boards secured to that slde of each runge which ls nonrest the other, and the apace between the two bonrilings filled with refuse tan wet from the yards. This wet tan la frozen during the winter, and until it is thawed In the apring and aummer, little wasto occurs; nfterward tho waste is more rapid, but, as a large portion of the lice is nhipped or otherwise used before this takes place, tho lose in quantity is amnil, andl, occurring before the expenses of transportation have been pald, is of lees pecuniary moment.

In one instance, brick $h_{t}, s$ been used in the conatruction of an ice-house which covers $\mathbf{3 6 , 0 9 0}$ feet of land, anil the vauits of this lce-house are 40 feet in depth, and its whlis are four feet thick from outside to inside, inclosing two sets of air-spaces. Such a construction is more costly, but has the advantage of durablity and safety from fire, to which ice-honses are much exposed from the frequent juxtaposition of railrond-engines, and the light, dry materin! uned ubout then to cover and otherwise preserve ice. At first, the implemente of husbandry only were used in securing ice, but as the trade became more important, other machines and different nethoda were ndopted, and abnndened when better wero lorought forwarl, or when the increasod magnitude of the business required greater facilities. Wore lca is now secured in one favaruble day than would have supplied the whole trade in 1832 . Ordinarily, before there has been colli enough to form ice of auitable thickness, snow falls on its surface. If this occurs when the ice is four or more inches in thickness, nud the snow not heavy enough to sink the ice, it can he removel by using lorses nttached to the " snow-scrajer :" and under such citcumstances this is tho method in common use. Hut if snow falls so heavy as to bring the water above the surface of the ice, it is removed, nfter it has congealed into snowice, with the "ice-plane," which takes off about two inches decp and 22 inches wide of its surfaco. This machine is drawn by two torses, and is guided by innerting its "guldes" into grooves previously made with the "ice-cutter." The chips made by it are seraped off in the same manner as dry anow, These preliminary expenses are often very arent; frequently, after much expense has heen incurred to remove a body of nnow or snow-ice, the weather becomes warm nud spoils the ice on which so much has heen expenicd. And, on the other hund, if it is not done und the cold continues, there will be little or no increase of thickness to the leo, which is equnily a lisaster.

When ice ins been formed of aufficient thicknoss, and freed from snow nud snow-ice, it is reduced to bloekn of uniform size, ordinarily 22 inches nquare, by the "ice eutter." 'This machine ls eimilur to a car-
penter'a plow, except that it has a series of outtingchisels, one aucceeding another, and deepening the gmove. It in drawn by a horne, and cats at one pasaage about two inches deep, and If the lee requiren to be planed to remove anow-lce, the guiden of the "nnowplane" are uned in groovea of thim depth, lut when grooven are required to apllt from, the "lee-cutter" ahould he drawn two or three tlmes through each. Thene grooven ahould the parallel to each other, and to make them so, the " lee-cutter" has a gulde, whirh is placed in the last groove made. When the grooven in one direction have been made, others at right anules with them are produced in the aame manner. After thic hat been dene, one groove at the end is opened, and also the two outaile grooved ; a wedging bar is then etrirken inte the groove next the end one, and at several places along its length, which detachea It easily from the mans; then the same bar is forced, with a allght blow, into the transverse grooven, which reduces the lee to very uniform square blocks. The blocks of ice thus formed are lorought to the receivinkdoors of the ice-houses (which are built on the inmediate bonders of the ponds), elther by placing them on slerla, or footing In canals cat through the ice. Varioun modee of elevating the lee are in use; the endless chain, in comblnation with the inclined plane, has been successfully uaed, and also tho common plledriving ateam-engine; but nt present herse-power is more used than any other. The lce in placed in the housea in regular coursen, every block exactly coverIng the next below it. When a vault has leeen fllled, it is inmediutely covered with wood-shavings and the recelving-doors fitted up, to prevent waste, until the contente are required for shipment aliroal or use at home. The weight of lee for shipment in usually te termined at the wharven, immedlately before being put on ahipboard, on scales which have leen constructed for the parpose; and this single operation mettles the weight to be pald for by the party fir whose aceount the ice In shipped; the amount due for freight on ahipboard, for transportation on the raliroad, and that which is to be recelved ly the owner of the lee.Americun Almanac, year 1849.

The aggregnte of freighta paid for ice shipped In Boston in 1856, was $2 \mathbf{2} 50$ the ton, clean and clear to the ahip-ownee; therefore he received from this trade last year $\$ 365,000$ (a large Interest), and probally more protit than any other intereat whatever in the bualness. Hallroads and wagons were paid $\& 100,000$; laborem, $\$ 160,000 ;$ towns, fur taxee of lee privilegen and ice in atore, 1500 ; and wharves $\$ 20,000$ to 25,000 . There are 93 wagons and alout 150 horsen employed in diatributing lee in Boston and vicinity ; 60,000 tons are thua retailed, aupplying 18,000 fanilies, hoteln, stores, and factoriea.

The tons of lee prepared for market, its value, capltal inventeri, and number of persons employeal in thla husiness in Maraachunette, in the year Ix55, are shown In the annexed aumnary :

| Coundes, | $\begin{aligned} & \text { Toas jue } \\ & \text { Mared for } \\ & \text { masik ref. } \end{aligned}$ | Valun anmerelly. | (inpltal Invested. | llants employed. |
| :---: | :---: | :---: | :---: | :---: |
| Hiristal. | 16,80\| | 10,900 | 16.1900 | 10 |
| Fincx. | 18, 900 $0^{\text {a }}$ | 76,30) ${ }^{\text {a }}$ | 25,1011 | 65 |
| Mhillearex | 366, 21: | 550,400 | 600,760 | 818 |
| l'lymouth. | 515 | 2,5090 | 5, 1010 | - |
| Tutal. | 895100 | 6 639,101 | 1704, 6 ( 3 | 4 |

The annual itomentic conauniption of ice in the chief citien of the U'ultex Itates in entlinated an followa:

|  | Tvipen | Cinarleston. |
| :---: | :---: | :---: |
| New Yuth | 30,0,00 | Muhlle |
| Phitatelphia | 2monem | New Orle |
| Ballimore. | 45,060 | St. 1 amia |
| Wasbingto | 20, (130) | (tnelnnal |

In the minaller towna, especially in those where water is intmoluced by reservoirs, the conaumption of ice is about two thirds as grvat in proportion to their population as in the larger cities.

Now York, up to thin Hime, has exported but littis lee, bolng chiefly engaged In procuring an amount aufflelent for ita domeatio aupply. New York city and vicluity is, for the moat part, aupplied with ice by four or five joint-stock companies. The amount of ice placed in storage for the winter of 1856-7, by these varlous companies, la entimated as followa:


The Knickerbocker Coinpanj; which engrosses a large proportion of the businese, is a conmolitiation of three neparate concerna into one company, with a capital of $\mathbf{8 0 0 , 0 0 0}$. Ita anpply of ice is derived from Rockland and Highland laken. The New York and Ilrooklyn Company obtains its supply from the Hudeon Hiver at Athons; the Independent from tho same place; the l'mple's from the sume river at Catskill; and the laasaic from the reservoir at Jersey Clty

Eirport Trade.-The export of lee during the vear 1856, from llosto:4, has been as follows:

|  |  |  | Tons. |
| :---: | :---: | :---: | :---: |
| East Indies. |  | . | Ti4 |
| Peru | 1,194 | Pernambuco........ | 23 |
| Caltao | 6,744 | Martiulque. | 211 |
| Melbourne, Australla. | 596 | Sonth America. ..... | H515 |
| syiney, N. 8. W..... | 820 | tuba............... | 314 |
| $V$ alparalso | 614 | Bahla. . . . . . . . . . . . | 318 |
| Guyaqull. ........... | 1,428 | Porto julico. . . . . . . . . | 181 |
| teylon............... | 467 | Mansanilla . . . . . . . . | 57 |
| 1 tio Ja | 1,762 | Nassall, N. P........ | $1 \times 0$ |
| Ilavana. | 8, mot | Itemedios............ | 10 |
| [bemerara. | 1,101 | Hepinada | 41 |
| Monterideo. | 898 | Rfo liache. . . . . . . . . | 10 |
| Kıngston, Ja. . . . . . . . | 1,594 | 8outhern ports...... | 81,390 |
| Asplnwall........... | 63 |  |  |
| Cardenas | $4{ }^{2}$ | Total, 1856. | 1285,514 |
| St. Thomas | 783 | 1855. | 9x,uso |
| Buenos Ayrea........ | 850 | 1 N 4. | 115,818 |
| Brazil...... | 47 | $\because 1858$. |  |
| Ilarbad | 47 | " 1502 . | 913,448 |
| At. Jago | 445 |  | 94, $\times$ \% 7 |
| Matarizas | 614 | 0 150. | 89,693 |
| New Granada | 890 | 149 | 66,818 |
| lagulra | 218 | " 1548. | 57,507 |
| I'orto Cabel | 80 | $1 \times 1$ | -4,6\% |

The total capital inverteci in the lee business is en 00,000 , and the total quantity gathered 307,000 tons, nlout one thirl only of which is exported.
kixponty of Icr phom tha I'mitro Atate, por eaca
 Countion.

Danich Weat Indlea.
Iruteh East Indles.
Englanil.
Bhbraltar.... Go.....
Britsha Fast Ini
Irittah West Indics
Australia
French Wind Indies Apain on the Medler... Manille. Cuth. Cuhniai wo............
puaninh Weat inato
Portagal
Central itepubile.
New Granada
Yenezuela...
Brazll.
Peru.
chloan.
Afrtea.
Brlush Anor coloule...
France.....
Prarto 1 tieo.
Cape de Verd Ialands.
liuteros Ayrea. . . . . . . .
Eevador...

| 18sat. | $1 \mathrm{nss}$. | IMss. |  |
| :---: | :---: | :---: | :---: |
| Volue. | Value | Tame. | vaiue. |
| \$2,050 | +4,099 | 1,324 | 13,43 |
| 7,70\% |  | 2,1831 | 6,474 |
| 4,506 | 6,5 | 781 | 8.000 |
| 6\%0 |  |  |  |
| 62,044 | 10, 819 | 9,044 | 90, 828 |
| 63. | 643 | 927 | 2.250 |
| 22.1039 | 12.286 | 3, 40 | 14,471 |
| 1,191 | <44,9 | 48 | 1,606 |
| 8,416 | 1, 38 | 424 | 1,010 |
| 960 | 809 | 241 | 910 |
| 8,189 | 1,510 | 997 | 8.200 |
| 38,442 | 25,278 | 7,645 | 21,161 |
| 2,022 | 916 |  |  |
| 848 | (\%) | 240 | 378 |
| 1,055 | 2.450 | 36 | 170 |
| 445 | .... | 20 | \%20\% |
| 4, bial | 4,i64 | (9) | 470 |
| 64 | 184 |  |  |
| 8.59.1 | $1 \mathrm{t}, 071$ | 8.109 | 9,274 |
| 14,146 | 16,2>6 | 5,801 | 17.4491 |
| 2,982 | 4, me5 | 1,int | 6, 4 , |
|  | $8{ }^{3}$ | .... | ... |
| 2,065 |  |  | $\ldots$ |
| $\ldots$ | $6$ | Sing | 1,5\%0 |
| , | . | 4 | 17\% |
|  | .... | 197 | 885 |
| .... | ...' | 6th | 2.010) |
|  | ... | 234 | (iv) |
| . |  | N0k | 2.424 |

Total. $\qquad$ 175.1066 202, 118

From thin atatement it would appear that the llit ish Fant Indies absorb the largent quantity of ice from this region. Cuba next, and l'eru the third in import
ance. as fank al maten, it permane ahipment Cafrey'm I/ag., v . 130, xly 4 m. Bele
Ioebe tionn of of ice cul these gls away ; b the sen as these ma recpiving of the wat as ly the ralu. Th upward of from a fer times 150 of the whe are often
come exce
from each than $40^{\circ}$ met with llope. M preaent th upon near the debria mountain This deloris gneisa, gra floating $\mathbf{m}$ length, the these appro to be betwe pieces. Th tum, urges tilted upi on goes to ince duced on $t$ tionary, an ialand befor
Ice-boa and which with incred affect the bs ling gooda a Boats of di npon a 21 each end ar skates. Ul enils serve whence rope mast in the through a $b$ made some downwarl, and serves a onabling the
Ioe Iela quantity of floating abo cles, The the current leagues lon majestically the power hnrizon tha blink. The a most aing the term a aquare), out
ance. At prement the aggregate is very triaing, but an fint as the article becomes known In southern cli. mates, it will be more appreciated, and will become a permanent artlele of export from Boston, where the shipmenta are principalty made. For Iee-houses, see Caner'a Mus., xll., 175. Ice Trade, etc., aee Hunt's , Vag., v., 444, xl., 877; Jowr. of Sei., Ill., 179, Ix., 136, xivi., 179, xlvili., 873 ; Fankern' Mag., lii., 406 ; A m. Kelec., Ill., 307, b12 (Lovis Aanesiz), Iv. I.

Iooberge. The accumulation upon elevated situations of frozen snow, produces those moving mseses of ice called glaciers. In the Alps, and In Norway, these glaciers coming down to a mild region melt away; but In the aretle reglons, they often flow into the sea and produce lceberga. While floating about, these masses may increase indefinitely ln size, from receiving fresh acceasions of anow, or by the freezing of the water continnally splaehed against them, as well as by the sudden freealng of the water which falln ne rail. They are of all sigen, from mere fragmenta to upward of half a mille in diamer' $c$, and of all welghts, from s few pounds to $\mathbf{1 0 0 , 0 0 0}$ tons. They rise sometimes 150 feet above the water, and this is but an eighth of the whole mass. They flont about In hundreds, and are often driven by winds far into the ocean, and bocome exceedingly dangeronn to navigation. Jceberga from anch pole have spproached nearer the equater than $40^{\circ}$ north and south latitude; they bave been met with In the nelghborhood of the Cape of Good Hope. Many of these leebergs originating on land, present the eame phenomena as glaciers. Hence, upon near Inspection, they are found to be loaded with the debrls which, an glaclers, tiney soraped off the mountain alden, past which they flowed to the sea. This dehris contains masses of greenstone, clay-elate, gneiss, granite, etc. In the polar circle, where the flosting masses reach to many hunireds of miles in length, they are called ice inlands, When two of these approach each other, sny veasel which happens to be between them in almost certain to be crushed to pieces. The larger of the two, by its grenter momentam, urges itself beneath the smaller, whlch is thun tilted up on the shoulder, of the lsgger, whose mass it gnes to increuse. The iceblink is an apperance produced on the horizon by these loo islands when atationary, and which indicates the existence of an leeiniand before it is itself viaible.

Ice-bonts, hoats so constructed as to sall upon lce, and which are very common in liolland. They go with incredible swiftness, sometimes so quickly as to affect the breath, and are found vary useful In conveyIng goods and passengers across lakes nud great rivers. Hoats of different glzes are placed in a traverse form apon a 21 or 3 Inch deal board. At the extremity of ench end are fixed lrons, which turn up In the form of skates. Upon this plank the boat rests, and the two ends serve ss outriggers to prevent oversetting, whence ropes are fastened that lead to the head of the mast in the nature of shrouds, and others passed through a block geross the bowsprit. The rudider is made somewhat like s hatchet with the head placed downward, which being pressed down, cuts the ice, and serves all the purposes of a rudder in the master, by enabling the helmaman to atecr.

Ioe Islande, a name given by allors to a great quently of ice collected Into one huge solld mass, and floating about the ness near or within the polar elreles, The motlon of the lesser pleces is as rapld as the currents; the greater, which are somethes 200 leagues long, and 60 or 80 broad, move slowly and majestically ; often fix by the thls, Immovable by the power of the ocean, and then produce near the horizon that bright white appearance called the iceblink. The approximation of two great fields produces a mont oingulur phenomenon; it forces the leaser (if the term can be applled to pieces of neveral acres square), out of the water, and adda it to the surface:
a aecond and often a thind aucceeds, 20 that the whole forms an aggregate of a tremendous walght. Thace float in the nea like so many rugged monntains, and are sometimes 600 or $\mathbf{6 0 0}$ yards thlek; but the far greater part ls concealed beneath the water. Theee ara continually Increased in height by the freeaing of the spray of the sea, or the melting of the anow whioh falls on them. Those which remain In this frosen elfmate recelva continual additions; others are gradually wafted by the northern winda into southern letituden, and melt by degrees by the heat of the sun, till they waste away; or disappear in the boundless olement.

Ioeland, one of the largest lalanda In Eurupe (beIng Ittele Inferior, In point of auperficial extent, to Ireland), fa situated in the north purt of the Atlantlo Ocean, between N. lat. $63^{\circ} 23^{\prime} 90^{\prime \prime}$, and $66^{\circ} 32^{\prime}$; and W. long. $13^{\circ} 32^{\prime} 14^{\prime \prime}$, and $24^{\circ} 34^{\prime} 14^{\prime \prime}$; the north polnt belng thus vory near to the arctic circle, hut not passing beyond It, as all maps but a recent suthoritatlve one have represented It. Ite extreme length from east to weat Is about 280 miles, and lts breadth from north to south varies from 180 to 200 miles.

The preclse period at which thle ialand was diecovered and first colonized ts unknown; but from the Landnamabok, an anclens Icelandic chronlele, and a work generally relied upon as authentle, we learn that the Norwegisns were the first settlers upon lts coasta. Naddodr, a famous pirate of that adventurous nation, was, on his return to the Faroe Islands from a predatory excursion, sbout the year 860, driven by a tempest upon the coast of Iceland. Ile ascended to the gutumit of a mountain, bu't observing around him neither the vestige of a human residence, nor aught else than vast and trackleas fields of snow, he lmmediately abandoned it. Probahly aware of this dlscovery, Gardar Svarfarson, a Swede, fellowed the same track a few years afterward, and succeeding in circumnavigating the country, discovered if to be sn leland. He there spent the winter; but finding littio inducement to make it a permanent resldence, he, in the following spring, returned to Norway. The third adventurer on this coast was one Floki, another celebrsted Norweglan plrate, who, during the two seasgns, explored a considerable portion of the southern and western coaste. His attempt at forming a permanent settlement proved, however, like that of his predecessors, a failure; his cattle died, his expected crops were rulned, and, after experlencing Innumerable distreasea and hardships from the inclemency of the weather, he determined to repair to a warmer reglon, and gave to the islund at his departure the name by which it has ever alnce been known. That this name, and the report which he spread on his return of the fuhospitable nature of the island, wero principally the effect of prejudice and disappointmoat, is evident from the contradietory account given of It by his companions, ono of whom thought he could only convey an udequate idea of its richness and fertlity by decluring that butter dropped from every plant.

The unclent Icelanders possessed, as is atill the case with their posterity, few of the luxuries or refinements of life ; and were occasionally exposed to severe privations, from the nature of their eoil, and the climate under which they lived. There is reason, however, to belleve, though the fact can not with perfect accuracy the ascertained, that the climate of Iceland was once less anstere than it now Is; and that not only trees and shrubs, but even corn, were grown upon the island. Of the ancient existence of the former, the trunks occaslonally discovered In the bogs afford pretty satisfuctory evilence. Grain of any description is not now a native of this island; and a few birches, not rising much more thas a yard in height, affori the only approach toward tlmber. Like the present inhabltants, the ancient Icelanders were much dispersed over the country, thelr habitations heing seldom
grouped together, but placed wherever the situation and nuture of the soil appenred suitable, Their oceupations and modes of life appear alsu to have borne mubh similitude, The produco of the farm, and the capture of fish, afforded them, as they to the present inhabitants, the princlpal mieans of abisistence; and their tratie with forejgn eountries made a valuable ad dithon to their demestle ermforts.

I'e, lation.-The population of Icelnud has undergone a walleruble vieissitudes through the operation of epillemies. At $50,44^{\prime}$ in 1703, It ham sunk, in 1760, to 46,241, nor did it rise mueh alove this point thronghout the remainder of the eentury. In 18,50 it was 69,157. This is small for mishanil whose surface is to that of Ireland as four to llve; but that surface, both from lis own nature, amil the character of the climate, is perhaps as unfivorable as any which exists between the limits of the two arctic cirules. Deducting the areas of the numerous fiorids atth which it is interaected, the aquare contents of the fand may ho caleulated at $37,36 \%$ statute miles: Lut as the eentre of the island consiats entirely of snowy and uninhalited mountains, the peoplet portion oun not be conalitered more than 25,060 aquam milen ; and the pojulation therefore will not much exped two permous to each square mile. At present the population must be increasing with great rapiolity, if we may juige from the proportion of births to leatha, the respective nambers in $1 \times 52$ being 2.135 (of which ild wemollongitimate) and 1417 . The whote population is employed either in farming, which ocenpies about three fourths of the men, or in tishing. Other emphoyments do not exist, ner is there anyother chans of poople or towramen, save the small Ammber of merthants in Reikiavik nod the other traling establishments. livery branch of inelustry is thereforo domestic, aul contimed shietly to articles of clothing, surh as coarse clath, gloves, inittens, and stowkings. The peasantry are genornlly ingenlous, und manufacture such simple pieces of firmlture ns their cottages require: mome also aspire to make trinkets of silver, aml articles irm the walras' tunks. The trade of Ievianl tan never, till the pres. ent time, been mannged in what modern sctenere points unt as the most advantareous way. The Danish goyemment long had a munoply of the lusiness of this remote dependency. For many years, while this was abolished, Danisa merchants hal a preveronce to trad. ing. by virtue of higher duties exneted from those of other vountries. It was not untii lasil that the foreign morehant was encouraged to come to Iechand hy a perfect equality of terms. The mily place in the island entitled to be consindered as a port is lieikiavik: only a few trading atations exist ela. where. There in an annual export of from 1,000, ton $:, 1,200,000$ prounds of raw woot, besides ahmit 200,060 pais of knlted storkinga, and $\mathbf{3}$ un, 000 mittens, or glowes without tingers. The loeland whepp have remarkably the theces of woml, which the farmers, in the spring of the year, take nef whole; their weight Jeing unally frem four to tive ponals. 'The wher principal brameh of indnstre in tcelaad is fishing, which must be consilered as in a thriving state. The fixhing-lanks around the imand alound in "enl ami uther aper?es, and the nombier
 3006 , being an advanon of nowrly bit per rent. in 20 years. Fishberil, whale-hiubier, wims, eider-rlowin, feathers, nad the Lichen Salondiows, for wediehai purporses, may alme la fucluleal amoning their line of ex.
 merthams in oxthange for roffer, shaper, folbaceo, enutf, a mall quentity of brandy, rate and rye-hromi,
 articlen an are In constant use firr clomestic purposes. These wher van afloral it, purchash a mupply of ilinems and rottens, which of tate rears have lecome of' hups common une, sul which mint tomit greatiy to eloandinesm, and the prevention of thone liseases whim word-
en clothing wom next the skin tends to engender. The truffic thus occuaioned taked place in the early' part of stmmer, and while It lasts creates a kind of fair with no littlo burtie and husiness in the capitad. Aif the artieles lirought from the interior for sade it the gea-ports, and all those taken buck for winter consumption, are trinsported on pack-horses. There is not, in fact, in all lcelnnd such a machine as at whelcarriage; befure any such can be used, thare must he rouds, of which, up to the present time, none exhst. The lines of transit along the country are mere tracks, eut deep by une where the ground is soft, and encumbered by blocks where it is haril. Yet full as these puths are of difficulties, it is surprising at what a purce the small, hardy, sure-footell horses of the country will proceed. For foot traveling they are in general impractlcable.

The revenue of the island, urising; from crown proporty, commercial chargen, a emali tas on tramaference
of property, etcon mounted in the sear coding 31 st March, 1854 , to 29,949 rix-dollars (E:1119), while the expenditure for ofleers' asalaries, ellucating the clergy, and other items, was 56,743 rix-dullars, or more than domble the income, the excess leling suppilied by the central guvernment. The income, however, appears to be increasing in proportion.

The manty produce of the land is, however, to a great degree comjensated fur by the abundance of tine fish which occurs on the const. In several pantes of the island, jarticularly on the north und uorth-west, the whark dinh ry is it regular oceupation. Stron; hooks faxtene? to chains are laited and anchored a litthe way ont to sea, and the fish when canght are thas towed to shore. Of the skin, shoes are male; a comsiderable quantity of oil is extracter, nal some parts of the lienh are oceasionally smoked and used ly the natives for food 'The coll is very plentiful ; the huldork grows to a large size; ling, skite, Hounders, und hadibut, are liknwise very common; the herring, too, frequentes the thoris in vast shoals, fut this bramet: of the fishery has hitherto been ditt te attember to. The sadmon in the rivers are said to lio very fibe, and mit country in the wonld prombee them ingreater quatity. Shals are particularly numpernes un the shares of the 1 brelle-flord and the western comast. See Eil. Lerro, iji.,
 xix., 2!1, vii., f! (lt. Sucturv) ; Ifistm. Kiv., lii.,
 For. Quar., ix., 11.

Illinois, one of the lyited states, is bumbled north by Wixemsin, east ly Lake Michigan and ladiana, from which it is meparated for a thind uf its longth by the Wabash Giver, routh hy the Ohin, which sulp arates it frow Kentucky, and wext by the Misnisijpis. It lies insween N. dat. $30^{\circ}$ and $12^{\circ}: 10^{\prime}$, and hetwern

 average lireadth, 140 miden. its area is extimatel at 55, t09 whare miles, being only about 3000 spare milen lene than that of lingland and Wialen, Acording to the comans of 1 Ris, little mure than a sis th part uf the Sitate wan umber coltivation.
llimuis is ong of the mont levid stater in the linion. With the exception of a range if low hills in the sonth, and a gerid deal of loroken daml in the morth. west, as well an a few elevathons mear the illinoin, and aone dofty binfis nong the Misalssippi, the State may bet repariled as an oxtemade table-lami, gently in lin. ing towarif the soulh-went. At the month of the thie
 Ginlf of Wexto, and the highent elevalion in the whote
 its nurfuce boccupied hamont vitirely by protions whide are pmpalarly distinguinhed hy the manto "wet" and "Iry," "aliuviai" and "rolting." Tho
 heen murasses. Thoso of an allualad nature are dry,
with a rl are cove to ma eno lug" prah and about The pralt for cattle. [sluins, the thus renc Prairie, w is probnht sippli and i dackson, county, an miles. Al ctanist of into sovera woil runn and sever borider, wh pritiries, ge timber, wo groups of Mueh of th winter bur deast two t prairies ug greatest va every hue. llinois is with rivers. formed by it has Lak Missiswippi, Ohin, which merchal nere The Wubash on the east murv than tl the Illinois, mavigable at to la Salle, by the little connectitg $t$ cipal tributa ly the junet are the Fox and hat a co nois; the Ve the smulh-eat Nackinaw fr from the nort for comsidera he fur 140 burrass, whi navigable for which risen Nippi, ifter a for some dist rapids.

The rlimat apare at 5! varleof. 'The the northern creasel, by th and intursect tion. Every mers hut and frequent and of the State enervating: $t$ breesaes frem a consideralid monthe: und the same len; only " few it "phents.
with a rich black loam, and exceedingly fertle. They are covered with a conrse klnd of grass, whloh grows to an enormous slac. The soll of the high and "rolling" pralrles is, in general, only of seconil-rate quality, nud abounils In aprings. Gripe-vines are abundant. The prairios furnisis an Inexhaustible summer ronge fir cattle. From the exceeding flatnese of aome of the plalns, the rains that fall ore nllowed to stagnate, and thus render the situation unhealthy, The Grumd Prairie, which is the largest tract of this deseription, is probably the highest table-lnin het ween the Misslssippl and the Wabash. It extends from the county of dackson, in a morth-enst ilrection, to the Iropuols county, anil varies In breadth from 1 to upward of 12 nilos, Athough passing under one name, if dous not custist of one single tract of land, but is broken up into several reaches of yralrio ground, with atrips of wood running hetween them. It is rich anil fertile, and reveral mettlements have been located on its heriler, which is everywhere skirted with wood. The praities, genera'!'y, are net plentifully supplied with timber, most of them heing only interspersed with groulps of trees, or skirted with strijs of forest. Much of tha young wool is destroyed by the unnual wieter hurning of the conrse grass, which revers at leant two thirds of the prairle land. In spring the prairies ugain hecomo profisely slecked with the greatest variety of beantiful and delieate flewers of every hue.

Himois is distant from the rea, but is well provided with rivers. Nearly three fourtho of its heundary is formed ly navlgalide rivers; and on the morth-cast it has Lake Michigam for upwarl of go miles. Ithe Mississidpi, which forms its entire western, and the Ohin, which forms the routhern bommary, give commarcind access to those valley's which hear their names. The Wahash, a nohle stream which hombla the State on the east for more than 100 miles, is mavigable for more than that sistance. For internal communk ation, thu Illinois, which belongs entirely to this State, is mavigable at all seasons for stemmbats for 260 niles, to la Salle, where navigation is atopped oreasionally: by the little raphls, and where a ranal bramehes off, comecting the river with Jake Michigan. The prlacipal tributaries of the Illimols, whinh is it self furmen by the junction of the Kankakre and the Dee I lianes, are the Fox River, which rises in llurun 'Waritury, and hat a course of 200 miles lnefore it joins the llifnois: the Vermillom River, whinh falls into it from the south-eust ; the Sangmon from the east, the Sickinaw from the northorast, and the Spoon liver from the north-west. 'These aro almost all mavi able for comsiderable distances. The Sangamon is navigaHe for $1: 16$ milea. The little Wabash mat the limburrass, which flow inte tho Wathash, are likewiso navigable for upwarl of 150 milon. The liock liver, which rises in Wisconsin, nul falls into the Misslssippi, after a comese of ahout 300 miles, is navispable for soute distance, but its niper course is impeded by rapils.

The climate of Ithinoin, extemitig us it hees over a space of 5! clegrops of latitude, munt neressarity be varied. The matural diffrenco of temperature between the northern ant the mathern parts is, however, inereased, hy the mumeronand harge rivers which fomim! and int risect the country, had ly fis state of coitivation. livery whare tive winters are acvere, the summers low uni long, and the temperature suligocet to frequent and wuditul changes, In tho sonthern parts. of the Atate the sumuner heat is rery oppressive and anersating ; and is only occasionally relievol hy fresh breezes frem the prairies, In wiuter the smow falis to a comelderable depth, and lies oreasionally for threw montha ; and mang of the rivers remain frozen for the name lamith of there. In sume parts of the State only a few linches of snow falls, and it quickly dis. appears.

Illinnls possesses as vast extent of arable land. The soil, although varled, is generally highly productive, and for agriculture, it has been consldored as unsurpassed by any State in the American confederacy. The Boll In "the bottems," or along the rlver valleys, such as those of the Rock Rlver, the Sangamon, und Kaskaskla, consists chiefly of rieh alluvial deposits, and is so productive as frequently to yleld 40 bushels of wheat or 100 lnshels of Indian cern te the acre. Nearly all the tracts adjacont to the rlvers ore of thls charscter. "The American llottom," as it ls culled, is the richest river alluvlum, and has heen oropped without deterioration for a century. It extends along the Mississippi for 90 miles; but In consequence of its linbllity to inundation, much of it is uncultivated. The pruirles, although lesa prialuctive, are still vary fertle, and on avcoant of thelr greater sulubrity are preferred for farb.s, wherever wood is to he ohtained. In 1850, there were $76,60 \mathrm{f}$ farms in Illinois, centalning 5,039 ,0.55 acres of improved gromul.

Important and valuable minerals abound in this State. Bituminous coal orcurs in ulmost every county; anl in some instances may he ohtained without exenvation. Vast heds are foimel on the blaffr adjacent to the " American llottom;" and it has been reporten thert. anthracite wol has been founil in the comnty of darkson. Lhat the great roal region is an extensive tratt which extemils quite neross the State from Mlsw souri to ludiana, and from Jowa to Kentucky, Iron has heen fombl in the southern part of the state, and Is said to be plentiful in the northern. The great lead region is shared letween tllinols, lewa, end Wisconsin. Galena in the north-west is nearly supported by this minoral. Silver has also leen iound in the west purt of tho St:te, and ropper is obtalned In reveral phaces. The other minerals found here are, zinc, gypsum, quartz, erystals, ete.

Manufuctures, ctc.-There were in the State in 1850, 16 woolen fuctories, with a caplal invested of $\% 154,500$, employing 124 mates and 5.1 females, manutacturing $: 306,995$ yards of rloth, nud $1: 17,000$ ponnds of yarn valuelif at with 4 capital of (is, 0000, employing 150 persons, prolacing 2,700 toms of ping iron, ete., valuel at $\geqslant 70,200$; $2!1$ estahlishuruts with a eapital of $\$ 260,400$, empleying atis prosoms, and making 4,160 tous of casthgs, etc., valuet at *.1 11,185 ; 280 thouring and grist mills, |N7 naw mills; 0.1 printing othees, 10 dhily, 4 triweokly, of weokly, 2 semf-monthly, 7 monthly, snd 1 quarters publicathos. 'Total value of manufactured urticles, $\$ 5,2(0), 001$. There were in January 1*5t, 2,215 miles of railrond In operation, and 1,045 miles in course of eonstrustion.

The intermal trude of this State is heconing considerathe, and increasing in proportion to the means of Listermal comammination. Its direct forejgn commere is small, and is chiefly with direat Uritain.
Connerce of tile, sare of lainous, from Octomen I,


|  | m1704ts, |  | swrorm. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tastreatic. | Tital. | Total. | Auvitean. | Firreiku. |
| 1417 | - 12.11 Ml | \$52.164 |  | 1.2hrt | 1350 |
| 1815 | 11, 4 \% 5 | 41,435 | 1.304 | 817 |  |
| (S)! | 28, 112 | S*, 117 | 9,764 | 91.1 | 4,796 |
| (*゙N0) | 17,409 | 17,4169 | 15, 710 |  |  |
| \| 5 ) $\mid$ | 114, ${ }^{\text {a }}$, | 114. 214 | 4, tik | 2,1691 | 2 t |
| 14*2 | 51,425 | ? 3.425 | 4,53:2 | 8,4193 | 218 |
| 18.4 | 79,1:3 | 70, 130 | 7,6i9 | 2,209 |  |
| 1*51 | 2!m, 6413 | 20, 010 | 74, 311 | 8,1114 | 718 |
| (*) ${ }^{(1)}$ | 847,00:1 | 647, 10 H | ¢1, \%en | \$11.414 | 9.114 |
| 1251 | 1,36, 22: | 1,845,224 | 276.414 | 7 11,1020 | 10,611 |

Illimofes comise of 100 comaties, which rontain a mumber of thriving towns, many of which are increasing very fast in population. thirago is mueh the largest, and has comitected with it the grenter part of the trathe of the State. Fopulation in $1 \times .00,24,962 \mathrm{~s}$. In lanit it in anill to have increased to upward of 60,0i0. In 1806 they sumphation was estimated at 100,0100 . The capital of the sitate is springtiedd.

The following table ahowa the decennial increase of the population in the State alnce 1810:

| Ypart. | Whites. | Free colared. | Slaven. | Tota, |
| :---: | :---: | :---: | :---: | :---: |
| 1810 | 11,501 | 618 | 168 | 12,282 |
| $18 \% 0$ | 68,783 | 508 | 017 | 80,211 |
| 1880 | 305,061 | 1,687 | 747 | 357,445 |
| 1840 | 472,254 | 8,589 | 331 | 476,183 |
| 1850 | 846,104 | 6,366 | None. | 851,470 |

The astonishing growth of the State of Illinois and ite promiaing condition, in 1855, may be seen from the following returns tranamitted to the Auditor of the State:

| Horaca Artelea. | Nunther. | Valac. |
| :---: | :---: | :---: |
| Horse | 95,692 | 880,364, 812 |
| Neat cal | 1,175,833 | 14,619,529 |
| Moles and asses | 19,523 | 1,106,094 |
| Shee p | 811,827 | 1,044,181 |
| 1 logh . | 1,689,637 | 2.512,815 |
| Carrlages and wagon | 188,654 | 4,706,459 |
| Clocks and watches | 124,494 | 743,244 |
| Pianos. | 1,247 | 156,159 |
| Merchandise. |  | 8,429,819 |
| Bankers' property |  | 2,515,534 |
| 3sanufartured artlel |  | 834,95t |
| Money and ereilits. |  | 14,871,340 |
| Bonda, atocks, etc. |  | (000,940 |
| Unenumerated proper |  | 22,906, 937 |
| Deductions. |  | 8,755,896 |
| Personal property |  | 05,927.285 |
| Town lots |  | 82,810,905 |
| Lands. |  | 202,194,178 |

The progress which the Stste has made, even within a slagle year, may le seen from the following comparisens of totals for the lant two years :

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| 1853. | .. $8.95 .927,235$ | *202,194,170 | \% $334.96,425$ |
| 1834. | 79.545,953 | 121,451,384 | 252,556,5tis |
| Incres | - | 379,42,44 |  |

Its internal improvementa for nome years past hase been very great. Canals have been formed to compensate fur the natural harriere to navigation in souse of ita river, and recently its grent canal from Chicago to Peru, on the llinois River, has heen completed, uniting the waters of Lake Michigan with the Missin. sippi; thus opening direct communicstion bet ween the whole of the Lake district in the north, nud the river navigation on the aouth. The aystem of railroadn, profected on a grand scale upward of 20 years ago, and which had been temporarily auspended, has beea reaumed some yeara sgo on a still groater scale, and ind being earried on with vigor. Chicago, its principal commercial city, is connected with liurhford, St. Charles, Aurora, l'eru, and many othec places within the State, and beyond it, either directly or indirectly, with Detroit, Cincinnati, New York, Philadelphia, and Boaton. Beaiden these there were railroals uniting Springfield with Jackrouville, and Naples, Alton, ard Quincy, with Columbus. When its railsoada under construction are fininhed, Illinons will the aurpassed for its railroad commmication by hut few States in the Linion.

Immigration. I'rogress and Artent of Immigration to the lnited sitates.-We will review the progreas and extent of immigration the the litad States of America prior to IN19, the year In which the present officlai listory acgins. As, on this point, no anthentic inismation exista, it mast he aletermined by much evidence as atatistichan of that pertor poscessed, and liy the relations then existing berween the Uniterl States and the rountries from whilh persoms mingrated. The current of emigration commenced fia thow from England, Ireland, wall Seot. Land, and from (iermany though she Firench and JiritCh ports. It was nubject to msing fluctuations durimg a part of this timer, but comtinued with conaiderables unisformity, if is belleved untif Inoti. Mr. Samuel lloolget, a atatiatician of more than ordinary reaearch sud aceuracy, wrote in 1 M06, while avery fact in regaril to lmmigration wan frexh in the rinals of the people, that from "the beat recorda and eat'maten int jreacnt attainabie"
the immigrants arriviag in the United Statea did net average, for the 10 years from 1784 to 1794, more than 4000 per annum. During 1794, 10,000 persona were eatimated to have arrived in the Unlted Statea from foreign countries. In 1818, Dr. Adam Seybert, member of the House of Representativea from Pennsylvania, in his exceedingly valuable "Statistical Annald" of the United States, wrots to the following effect : "Theugh we admit that 10,000 foreigners may have srrived in the United States in 1794, we can not allow that they did so, in an equal number, in any preceding or subsequent year until 1817 ;" and he assumes that 6000 persons arrived in the United States from foreign countries in each year from 1790 to 1810; to blim, and to the authorities he consulted, this average scemed a generous one.--Seydent's Anvals, pp. 28, 29.

During the 10 years from 1806 to 1816, axtensive Imaigration to the United States was precluded by the unfriendly relatiens at that time existing between Great Britain, France, and the United States. England maintained the doctrine, and, for s while enforced it with aucceas, that "s man once a subject, was alwaya a subject." This deterred many from pmigrating to the Un:ted States from tho British empire. Numbers had previously come for the purpose of entering the merchant-service, and numbers might atill have come whom the fear of llitish imprensment friglitened from carrying out their design. Auother influence retarded immigration : in 1806 Great llritain issued a decree declaring the coasts of France in a atnie of blockade. A retaliatory decrec was, in No. vember of the same year, issued by France decharing the British lslen in a state of blockade. To these restrictions on commerce, sad, consequently, on the unobstructed passuge from Enropes, succeerled the British orders in council, and the Milan decree of Napoleon. In March, 1809, the linitel states' law was passed prohiliting, for one year, intercourse with tireat Jritain or France. In 1810, the Najoleonic decrees wero annulled, and the commerce of the I'nited States hal, in Ix11, fairly commenced with Frasce, tut ouly to have their vesaela fall iate the hands of the Itritish. I'reparations were now making for active hostilities, aml, on the 18th of June, Ix12, war was formally declared ly the United States to exist with tireat flritail.

The (iermun emigration sensibly felt this unfavorable condition of affairs, inasmuch as the Germans emoarked principally at the ports of liverpool and Havre; facilitios for migrationg thence to this conntry being more munerous, aud the expronse of the voyuge lews onerous. Thus, from 180t, was the strean of emigration pent up at its fontatain. In February, 1815, peace was concluded tatween the Inited Etates and Great lBritain; and after several months repuisite to restore tranguillity, and to secure the conlidance of thone deairing to leave the ohd World, tho tide roturned to its thow, and, with a xpeed kreatly accelerated; as, trom authentic information, collected principally it the aevaral chatom-houses, it иpparn that, during the year 1817 , not less than 20, ?ft persuns arrived at parts of the l"nited Statev from forvign countries. Thiv number inchaded American citizeus returning from abroad. -SEynent" dnals, 11. 29. In wo year previons th that hat one ha. If so many forcifin panempers reached our shores. Many sutioriugs were incident to a vogage moross the AtI:antic in a crowiled emigrant vesvel; and there were no dawn of the I'nited States aither limiting the numler of persons which a passenges nhip or vessel shookt lie entitled to carry, or providing any measures for the henlth of accommodation of the pasmensere. The auliject acemed to daserve the fimmediato attention of Congress. In lsis (March 10), Mr. I.onis M'Lane, of Jelaware, reported to the Iloune of lieprementatises a bill "regulating pansenger nhipe and vensels," which was read twice and referred to a committee for inves-
tigntion subject wa Newton, 0 its pasaag the House the Senate proved Ma ment of reported q numiser of tricts, by age, and o try in whic Iny that same act, Secretary these repor compiled. tion is, don 930 persons to have bee of the 1,31 "Great Brl States, 1,00 thus makin Sce Euign Tural Nom

September

Dee. 31 ( 8 n

1

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Dec. 31 / 3 in

Legurl Rig States.-. Ilii Concirresw, a the Irited and to the the single p tha allice of taen native. the tilue of Congressa cal of their rel speech. Th pryers, and reizares, is
tigatlon into the subject．In December，1818，the sulject was brought before Congress by Mr．Thomas Newton，of Virginin，who explalned the necessity of its passage．It was read a third time and passed by the House．After recelving amendments from both the Senate and House，it wan finally passed and ap－ proved March 2，1819．In complance with a require－ ment of this act，collectors of the customs have reported quarter－yearly to the Secretary of State the number of passengers arriving in thelr coilection dis－ tricts，by sea from forelgn countries；also，the sex， age，and occupation of such passengers，and the coun－ try in which they were born．Annual reports embrac－ lag that Information，have，in cenformity with the same act，been communlcated to Congress by the Secretary of State；and，as before indicated，from these reports chlefly，tiiiz inistorical sketch has been compiled．The country having the largest emigra－ tion is，donbtless，Ireland ；for，In addition to the 747，－ 030 persons arriving from the Unlted Kingilom，known to have been born in Ireland，it is safe to assume that of the $1,348,682$ others，born as Indefinitely stated in ＂Great Britaln and Ireland，＂arriviag in the United States， $1,000,000$ at least，were born in Ireland alone； thus making $1,747,930$ os the tetal Irish emigration． See Emionition．

Next in numerical order comes Germany；Ergland thirl；and France，fourth．The emigration of Chinese te this country，was very inconsiderable until 1854 ； previous to which year，the aggregate number known to have arrivell was only 88．In that year，however， 13,100 came to the United States；end in 1855， 3526 ； all of whom，with the exceptlon of a single passenger， landed at the port of San Franclsco；15，950 were meles，ond were designated in the returns of the col－ lector as＂laborers．＂
As regards passengers from Britlsh America，the fact may be deemed worthy of mention，that many of them，especially of these arrivirg during the last four years are known to have come with the intention of returning，and not of residing in the Unlted States． The number of such can not，however，be determined． Finally，to the $4,212,624$ passengers of forelgn birth arriving in the United States since September 30, 1819，may be added 250,000 as the number of immi－ grants who arrived prior to that date；making the total foreign arrivals from the close of the Revolution－ ary War te December 31，1855，4，462，624．－Bnom－ wela＇s History of Inimigration．New York ：1856．To this large number may be added，as variously poti－ materl，from 500,000 to $1,000,000$ ，who emigrated to the western States through Canada．



| Yeart ending |  | totals． |  |  |  | O\％Whiom were aliens． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Malen． | Females． | Ses not stated． | Total． | Males． | Females． | Ser mot Almted． | Total． |
| September 30， | 1920．．．．．． | 6， 147 | 2，690 | 1，184 | 10，811 | 4，571 | 2，988 | 1.121 | 8，8．5 |
|  | 1521．．．．．． | 6，466 | 1，9：3 | 2.811 | 11，4i4 | 4,651 | 1，636 | 2，840 | 9，127 |
|  | 1492．．．．．． | 8,818 | 1，144 | 2，002 | 8，549 | 8，810 | 1，018 | 2，082 | 6，911 |
|  | 1823．．．．．． | 5，318 | 1，014 | 1，964 | 8.2 （h） | 8，599 | 848 | 1，808 | 6，854 |
|  | 1524．．．．．． | 6，263 | 1，561 | 1，018 | 9.627 | 4,700 | 1.993 | 1，819 | 7.912 |
|  | 182\％．．．．．． | 9.206 | 8，329 | 82 | 12．839 | 6，997 | 2.950 | 828 | 10，199 |
|  | 1826，．．．．． | 10，218 | 8，623 | 67 | 13.9015 | 7，it2 | 8.618 | 67 | 10，487 |
|  | 1827，．．．．． | 14，163 | 6，47！ | 1，123 | 21.777 | 11，944 | 5， 8.89 | 1，183 | 18，75 |
|  | 1428．．．．． | 19,46 | 11，477 | ${ }_{61}$ | 30,181 | 17，261 | 10， 60 | 61 | 27.852 |
|  | 1429．．．．．． | 12.983 | 5.4711 | 6， 105 | 24，51\％ | 11，8118 | 5，112 | 6，105 | 22，500 |
|  | 19．10．．．．． | 7，514 | 8.875 | 18，743 | 24，437 | 14，4：39 | 3，1935 | 1：3，749 | 23，822 |
|  | 1481．．．．．． | 15.917 | 5， 10.763 | ．．．．． | 23,5013 | 14.909 | 7．724 | ．．．． | 22，6033 |
|  | 1542．．．．． | 25，899 | 15，7524 | ion | 54,351 | 34， 596 | 18，5＊3 | 100 | 53，${ }^{179}$ |
| Dec． 31 （3 mos．）， | 183，．．．．． | 4， 4.5611 | 2，512 | 100 | 7．3013 | 4.691 | 2，512 | 100 | 7,308 $\times 8640$ |
|  | 1883．．．．． | 42.848 | 17,877 $68,1 \times 10$ |  | 59.025 | 41.546 | 17，094 |  | 7＜， 840 |
|  | 1834．．．．．． | 41，730 | 28， 170 | 4，038 | 67，944 | 34，741 | 22，511） | 4，1229 | 65，365 |
|  | 1835．．．．．． | 30，788 | 17，791 | 17！ | 45,716 | 25，196； | 17，027 | 151 | 45，374 |
|  | 1，26．．．．．． | 61，4．0 | 29．069 | 52911 | 80,972 | 47.463 | 27．553 | R24 | $76,2,2$ 798 |
| － | 187．．．．． | （3）， 418 | 24.176 | 2，Sin | 84，909 | 48.837 | 27，658 | 2.450 | 79.36 |
|  | 1548．．．．．． | 94，504 | 14．946） | 1，70\％ | 45，169 | 28，474 | 1：1，685 | 1，75\％ | 38，914 |
|  | $1849 \ldots$. | $4 \times, 2 \mathrm{~cm}$ | 26.454 | 12 | 74.668 | 42.932 | 25，125 | 14 | 65.039 |
|  | 1810．．．． | 54，998 | 8.154 | b1 | 92，207 | 52.833 | 81，132 | 81 186 | 84,086 80,289 |
|  | 141t．．．．． | 58,415 67,124 | 81,14 43,478 | $\mathrm{l}_{8} \mathrm{Cl}$ | 87,915 110,950 | 48,1988 62,277 | 82,081 41,1217 | 176 | （10，289 |
| Sepl 30 （9 mos．）， | 1，43．．．．． | 83，172 | 23，454 | 3 | $50,5 \times 4$ | 80,069 | 22，42－4 | 8 | 52，496 |
|  | 1 $214 . \ldots$ | 4，5，${ }^{2}$ | 85， 8177 |  | 84，761 | 41,431 | 34，181 | $\cdots$ | 78,015 |
|  | 1945．．．．．． | 69，179 | 49，311 | 1，1916 | 131， 0 9 | 6.9 .015 | ＋1，115 | 1，241 | 114，871 |
|  | 1843．．．．．． | 10，974 | 6A，77\％ | 897 | 15.019 | 87，777 | 65，742 | 497 | 154，416 |
|  | 1447．．．．．． | 189， 1177 | 90， 325 | 99 M | 265，4n 2 | $13 \mathrm{~L}, 0 \times 6$ | 97， $191 \%$ | 9f\％ | 234，06s |
|  | 184i．．．．．． | 181，188 | 12\％ $2 \times 3$ | $4{ }^{42}$ | $2.29,4 \times 3$ | 1：39，9466 | 9．2，149 | 472 | 226，527 |
|  | 1\＆19．．．．． | 179，2511 | 189，915 | 512 | 990.648 | 177，242 | 1114，290 | 612 | 297，024 |
|  | 1410．．．．． | 2th， 1014 | 118，8628 | 1，1084 | 315.381 | 106.884 | 114.685 | 1，4038 | 810.004 |
| Dec． 31 （3 mos．）， | 1，\％14．．．．．． | 88.242 | 27，107 | 121 | 6i， 5 It | 82，9！${ }^{\text {a }}$ | 24，40， | $1 \times 1$ | 69，971 |
|  | 1＊5t．．．．．． | 245．017 | 103，765 | ， 616 | 4いこいて3 | 217， $1 \times 1$ | 16\％ 214 | til3 | 879,4618 |
|  | 14＊2．．．．． | 20，is | 181417 18178 | 1，4．4 | 397．311］ | 918， 46 | inh， 693 | 1， 4.4 | 871,408 808154 |
|  | 1854．．．．．． | $2 \times 4,887$ | 175，547 | I2 | － 140,474 | 2501.975 | ifl，then |  | 487， 413 |
|  | $1 \times 55$. | $1 \mathrm{H1,151}$ | 90，2～3 | 12 | $2 \mathrm{LHO}_{171}$ | 115，3147 | ＊i， 568 | 3 | 4，10，, 77 |
|  | 1 5 Sth． | 185，304 | 49.155 |  | $22+494$ | 115， 216 | $81,50 \cdot 1$ |  | 2110,486 |
| Tolal， | ．． | ， 114.238 | 1， 210151393 | 43，711 |  | $2,409,420$ | 1，763， 220 | 42.418 | 1， 113,1681 |

Legat Rights of Naturalized Citisons in the loitcl iterl the purchase and occupation of hands owaed by Staters－Aliens naturalizel abreeably to the acts of the govermment．The tonstitatime of the severai （ongres，are not probihitai hy the fonstitution of States cone ede to those naturaized citizeus，who take the Unitef States，the onjugusent of the same rights，$u_{j}$ their residence within the States，in general tine mame and th the same oxtent as naturai－horn eitizens，with riplis as are ajoyed by persons horn therein．Among the sinfle proviso that ae proson shat he eligithe to these rights may be mestioned that of voling and of




 sperth．The right of security in their persons，honses，man emigration，sce No．im，Rem，ii．， 1 （hy Euwant
 reizures，is not denied to them；nor are they prohit－to the I＇nlted States，see Dedlow＇s Reriew，v．，243，
xiil., 455, Hunt's Mer. Mug., vili., 167, xiv., 293; Erazinh, xvi., 562, 683, xxvili., 426; Edin. Rev., vil. 185, xiv., 49, xlvili, 204 , xcil., 258 , xxxix., 815 ; Westminster Ree., lii., 449, vi., 342, xxxv., 131, x1., 58 , 101, Quar. Rev., liv., 216, xxxvii., 539, xxiil., 873 ; Blackwood, xv., 483, $\times x ., 470$, xxl., 377, xxiii., 191, 615, v., 523, vi., 78; Knick., xvi., 889.

Importation and Exportation, the bringing of conmodities from and sending them to other countries. $\therefore$ very large portion of the revenue of a commercial country is derived from customs duties, or from dutiea on commolities imported from almond; and drawbacks being given on many, and hounties on a few, articles exported; the buainess of importation and exportation is sulbjected to various regulations which must be carefully observed by those who would avoid incurring penalties, and sulsjacting their property to contiscation. See articles Taniffand Unithen States for the imports and exports of this country.
Impressment, the forcible taking away of seamen from their ordinary employment, and compeling them to serve, againat their will, in national ships. Sen Lid. Rer., xli., 154 ; Westm. Rer., xx., 489 ; Blacktocord, xx., $\mathbf{7 4}$.

Indemnity, is where one persons secures another from responsilility against any jarticular avent ; thus a policy of insurance is a contract of indemnity against any particular loss. Where one person also becomes lisil for anther, a bond of indemnity is frequently executed; and where a bond or bill of exchange has leen loat or mislaid, the acceptor or obligee would nos: act pradently in paying it, without being secured by a boud of indemnity.

India, or Bindoostan, has from the earliest ages been celebrated as one of the most highly-favored conntrien on the globe, and as abounding in the choicest preductions both of nature and art. In ancient times, this dintant region was very imperfectly known to the Greeks and other nations of the west; lut they innportel ity most valuable prodnce, its diamonds, its aromatics, its nilks, and its costly manufactures. The country which alounded in those expensive luxuries was naturally reputed to lo the arat of immense riehen, und every romantic tale of its feliefty and glory was readily believed. In the mildle nges an extensive commerce with India was stiil muntalned theongh the yorts of Figyt and the led Sea; and its precious proluce, imported into Europe ly the merchants of Fonice, contrmed the popular opinion of its high rofinement and its vant wealth. After the diseovery of a passage to ludia by the Cape of Gooll Hope, tho same isleas still prevailed; and the maritime at ates of Einrope contended with their tiects and armies for the dominion of the Asiatic seas, and for the commerce of the coantry: The lortuguese, and afterward the I)uteln, made importan, conluestr, and esrried on an extensive trade. In ater times, Great Hritain and France a!peated on the fiell an competitors for the prize of lmian commerce and dominion, and ware allowed to estallinh factories on the coasts for the seception and the store of goods. Theme were gralually converted into military posts, defended hy soldiers and camon; and in dia tine those two powers ware ranged on opmosite miles in nil. the wars and politios of India. This rontest torminated in the trlumph of the Britiah arma. "rance lont lier preombinese on the continent of In", wat lipr great rival, entat ring her powern on

 Laya Monntain. is a peet'on.an the thia vant extension of the ltritinh; ".pur in the liamt luss mened the way finto the ${ }^{\prime}$, terit $=00^{\prime}$ 'mina, It has temilel greatly to


 ety anc. rater, hlan a at in so netil of industry, of

barbarism, the scene of many eventful revolutions, from the Mohammed invasion $t^{2} l l$ its conquest by the armies of Britain, and inhallted by a people of peciliar manners, laws, institutions, and religion, still presents a wide field for interesting iaquiry and speculation. In the following account of tivia interesting country, we propose to describe-1. Its geography and natural features; its produce, its animala, its manufactures, and commerce; the numerous races ly whicit it is inhalsited, with their manners, religion, anc nolicy ; and the wars and political revolutions which have terminated in eatablishing the sway of Great Britain over nearly the whole continent of India.
I. The ancient geographers hall no precise ideas of the extent of Hindoostan or India, terms which we mean to use aynonymously in the following artiele; and they accordingly exteniled its frontier westward as fur us 1'ersia, und eastward to China. In after ages ita limits often flucturted with the events of war, and served only to mark out the course of conquest, with little or no attention to geegraphical accuracy. Yet in no part of the earth lias nature pointed ont, in the great features of the country, more diatinct and mugniticent houodaries. On the north it is separated fromthe elevated table-land of Thibet by the precipitons wall of the Ilmalaya Mountains, the highest land of the Asiatic continent ; on the west the Suliman range, a continuation of the Sufeid Koh Mountains, separates it from Afghanistan and Heloochistan ; its east bound. ary is formed hy parallel offishoots from the opposite extremity of the Ilimalayas, and by the contimuns runges of forest-covered hills, which, skirting the liengal district of Chittagong, Atreteh southward to the recentiy-acquired , rovince of l'egu, and separate the liritish dominons from the territory of lhumah. The Indus und the Ganges discharge themselves intu the ocean on the westorn and eastern couasts of liindoostan, in about morth latitude $24^{\circ}$ and $22^{\circ}$; und to the south the country is eontracted into an irregular triangle, projecting into the hadian Ocean to within eight de. groes of the equator, or about 1000 miles, and un all sides inciosed ly the sea. 'The extensive region situatel within these limita is noarly comprohended lietween the 8th and 35th degrees of north inticute, and between tlie iongitudes $1 ; 5^{\circ}$ and $99^{\circ}$ past; and its length from the northern harrier of the Ilimalaya Mountains to t'ape Comorin is about J!00, while in breadth it may lee entimated at 1800 miles, thongh, owing to the irregularity of its tigure, it dues nut ex. ceed $1,484,367$ English square milen.

Ilindoostan is of an extremely diversified aypect, and comprehemda within it thonds all the sarietipe of climate, of aoli, and of natural acenery, froth the inare and nakul rock, and lofty mountain barimi umber eter. oal nows, to the low and fertile plain, woupched ly the trupical sun, und the reat or luxuriant vegetation. This diversity in the aspert of the country has piven rise to the fullowing territorial divinions, mamely: 1 . Northern llimesostan, whilh comprehemis the limalaya Nomatalas on the nucth, with their lower rampes of hilln stretching sonthwarif to the plainn of the Indun and the Gianges, and extending from l'eahaw and Cashmere on the west, to Hootan mand Assam on the east. 2. Ilimionstan 1'criper which extemin nouthward as far as the Nurlmalah Biser, where the becran rommenere, and which includen the hower prove inces of ildagai, the north-westorn phovinces, tugether with, Oule, Malwa, or Contral India, the ['mujal, Guze etat, siade, and C'utch. A. The Jecean, houmdeel on the north liy the Serhondah Yiver, ami on the sonth by thos Rivery Krishma mal 'lommbuita, compronemls the latger portion of the presideney of Ihomata, to gether with Grima, the Nizam'n dominions, and the torritory of Nagpore. 4. Inti.s gonth of the ('rishma lives, comizrehending the territories under the administrathon of the govermment of Mosiras, togather with the native states of Cochin, Travancore, and the Mysore.

The II great riv Ilindoost are the c the lighe those stre rushing d rew chanr were betw and foam able glons waters, all ers, namel and the d smoothnes plaine. II aleng with entire shec ered upon and re-ech leudest th rule bridg pedient by countries. the passag across frol wider, a br ple of the by one of panied $\mathbf{F r}$ Gaages unf water. He its junction "when his monent, no framing car large rocks him aiong

## Northern

aspect with ranges of in level of per tures of alpi mountain, $t$ springing 1 mass; and with the fon laxuriant fif lower hills; often seen ; ing the mot and unvary level the col its the mon valiey is cl with the ma trees, the op lovely or od riant alpine the head wa the Sutlicj, $t$ Alkananda, riced anll 811 The valiey harren moun cur of lofty throurg wh dark chasms with forts, with trues $t$ of the lumn will, aro wo the hills fer somrce, the still mit nea ruttee, The rugged, and

The Ilimnlaya Mountaina contain the sonrces of the great rivera whlch flow through the burning plains of llindoost:mn. The deep valleys between the mountalns are the chanuela through which the waters flow from the higher grounds; and, by the melting of the snow, those streams, sudderly swollen Into torrents, and rushlng down the declivity, work out a doep and narrow channel among the rocks, where, imprisoned as it were between steep and perpenclicular rocks, they roas and foam amid precipices, or in dark and unfathomablo glons, exhibiting, in the conflict of their troubled waters, all the great phenomena which belong to rivers, namely, the cataract, the ranld, the boiling eddy, snd the dangerous whirlpool, and only subside into smoothness when they break ont and spread over the plains. Huge rocks were seen by Dr. Gerard whirled along with frightful velocity; nothing visible but an entire shect of fomm and spray, thrown up and showered upon the surrounding rocks with loud concusslon, and re-echoed from hank to bank with the noise of the feudest thunder. Across these streams are thrown rude bridges mate of ropes or of wood, the usual expedieot by which rivers are crossed in all mountain ceuntrics. Where the breadth of the river is small, the passage is effected by one or two fir spurs laid acwoss from rock to rock; lut where the space is wiler, a bridge of ropes is constructed, on the principle of the chain-brhige. In attempting the passnge by one of these ruile bridges, a carrier who necompanied Fraser in his journey to tho sources of the Ganges unfortunately lost his footing and fell inte the water. Ile was instantly swept down the stream to its junction with the Bhagirnttee, ahout 50 yards, "when his head," says the truveler, "appeared for a moment, and his lual floatiag lieside lim; hat the faming current of the Baghiruttee here tumbling over large rocks with a mighty' roar, seized him and hurricd him along with its tremendous torrent."
Northern Ilindoostan varies in its climate and in its aspect with the height of the grounl. The lower ranges of mountains, though they searcely reach the level ef perpetual snows, still retain the sublime features of alpine scenery; namely, the rugged and bure mountain, tho criggy rock, white, gray, red, or brown, sprioging up in fantastic forms above the general mass; and the deep and suddeuly descending chasm, with the foul torrent foaning over jts rocky hed. The luxurinat foliage is wanting which embellishes the lower hills; the rich and smiliag valley is not so often seen; while the forests of dark lirown fir fringing the monntains and the hollowa impart a sombire and unvarying appearance to the scene At a lower level the country improves; and thongh it still exhibits the mountain and the precipice, the intervening valtey is clothed with verdure, and the lower hills with the most magnificent forests of large und lofty trees, the upen country with roses, jasmines, and other lovely or edoriferens shrubs, and with the mont luxuriant apine plants. The vallegs through which flow the head waters of the Indus and the Ginuges, mamely, the Sullej, the Pabur, the Jumma, the Baghiruttee, the Alkananda, with their tributaries, exhibit all the varied and sublime scenery of this romantic conntry, The valley of the sutlej is hemmed in hy brown ani harren mountalis, steep and rocky, without the gramdcur of lofty precipices or friaging woml. The hollows throbgh which it receives its tributary streans are dark chasms, without cuitivation ; the heights erowned with forts, but without any neat villages surmouled with trees to reieve the a djacent desert. The banks of the dman:, on the other hand, though rouky amil wini, are wooled and green, and the blophing faees of the hilis fertile and well cultivutod; and even at its source, the country, however wild mul pirturesque, is stili not neariy so dreary ns the valley of the Ihaghrutteo. The fentures of the landsempe are here lofty, ragged, und inaccosalble, with loas of the heantiful
than of the sublime and terrible. A pleasing contrast to this wlld scenery is presented by the smiling valley through which the Pabur meanders, checkered as it is with pacture and cropa, and the banks and the hilla clothed with cultivation, illlagea, and vood. Such is the usual aspect of the lower vallev of northern Hindoostan, the height of which is for the most part from 3000 to $\mathbf{6 0 0 0}$ feet above the plaina. The difference between the northern and southern exposures of this mountainous country is remarkable, not only in the formation and structure of the billa and rock- but in the vege atlon. The country on its southern face is of a brown and dusky color ; the grass short and parched; the hills rough and lumpy, with rocks atanding through the ground; the lower parts bsre of wood; and above, the Weymouth pine, with a few stunted larches surinkled among the rocks; while the higher parts are sprosil over with oak, holly, and alder, their leaves of brownish green, harmoniving with the burned appearance of the hills, and giving a sombre hue to the whole scene. On the northern exposure a rich color of dark green is diffused over the whole landscape; the rocky sides of the glens are bolder and grander; and they are clothed with noble forests of larch, siiver and spruce firs, which shrould from tie view the highest and steepest cliffs. "All," says Fraser, "was rich and dark; and here and there a glade opened, or a high slope extended from the base of the rock, or projected between $t$ wo streams, of a bright beautiful green shining through the sombre forest." This difference between the northern and southem exposures is strongly marked all over the hills.

That strip of flat country, about 20 miles in breadth, which lics at the base of the great H1malaya ragge, dividing it from the plain of the Ganges, is called Terrue or Terrecana. It is covered with thick forests and low swanps, and, though fertile, it is so unheslthy that it is little cultivated. Hishop Heber graphically describes it as a long, back, level line, extending nt the foot of the lowest hills; "so black and level," he adds, "that it might seem to have heen drawn' with ink and a ruler." This that does not extend further north-west thun through a portion of Rohilcund, where the heulthy cultivated country reaches to the foot of the hills, which rise abruptly from the asandy that beneath. These low hills are watered by streams from the higher mountains, that rise to the level of 1500 or 5000 feet, from whieh the lower range is frequently sepurated by fine valleys of some length, which are called doon by the nstives, answering to tho scottish name of st "ath. The hills which rise beyond this lower range, to the height of about 5000 to 7000 foet, are lofty anil majestic, and broken into numorous ridges, divided by deep shaggy dells. This appearance lraser ascribes to the quality of the rock of which they are composed, which consists of a strongly indurated chay, with a mixture of siliceous matter, forming a rock exceedingly hari, though easily destructiblo hy exposura to the nir, and splitting into variouslyaized fruments leaving hard marbly musses staring through the acanty soil. it may be timally remarked of this singuiar and interesting country, that though it uppars rom the plains to be divided into distinct raluges of terraces, it is really a vast collection of mountains heaped in masses one nlove another, without nuy order or phan that can be discoverol, uatil the height of land is reaticed at the great Himalaya rilge which extemis from beyond the sources of the Inthas in a continuous chan fir into Chima.

The following are the chief rivers of 1 lindoostim, with the length of their respective conses to the sea: Indus, 1700 mides; Brahmapootra, 1900; (hamges, 1,00; Jumat (to its junction with the (ianges, $\overline{8} 80$ ). 1500; Sutiege (to the Indus, 90M), 1-190; (ihylum (t) the ludus, 750 ), 1250; (iunduek (to the Ginges 150), 980. In the Deccan, and south of India, the Godavery;

850 ; Kiatna, 700; Nerbuddah, 700 ; Mahanuddy, 650 ; Tuptee, 460 ; Cavery, 400. There are few coasts of ouch extent so destitute of islanda and harbors as that of Ilindoostsn. With the exception of emerged sea-banks and mere rocks, Ceyion is the only island near its shores ; and on the eastern coast, Masulipatam, which admita vessels of 300 tons burden, is the only harbor for large vessels between Trincomalee, in the iniand of Ceylon, and the Ganges, which is free from raging surf. To this Inconvenience Mairas, though an important British settiement, is peculiarly liable. On the western coast, the only harbors capable of ailnitting large vessels are Bombay and $\mathcal{K}^{-1}$ arachee, in Scinde; Mangalore admits no vessels drawing more than 10 feet.
Mindoostan comprehends within its bounds the opposite extremes of heat and cold. The phains are bnmt up with intense heat ; while winter, with every intermediate variety of temperature, prevails in the mountains. Philosophers have in vain endeavored to fix the point of perpetual congelation under different degrees of Intituile. They have, indeed, frumed a graduated scale of the respectlve heights at which, according to ealenlation, this point should begin at corresponding distances from the equator; but theory is here at variance with actual observation. The clinate ef motntalnous tracts tepends so much on localities, and the marticular course of the winds, as to ba, Healigencral speculation. Hence, on the llinalaya Mountains harvests of graln are fonnil, where, accordin; to hypothesis, the ground should he buried und ir tleep snow; and trees are seen to flourish in the reg ons of perpetual winter. Captain Webls, in ascemili or the llimalayn range, saw around him, at the height of 11, 630 feet alove the level of C'alcutta, rich fores's of oak, pine, fud rhododendra, the ground eoveres! vith vegetation as high as the knee, strawherry-ieat In full thower, and currant-bushes in hossom: and in 1818, at the Niti Pass, Jti, \& I f feet in height ; ilosophy was apain at fault, as the found wo ceco. of snow, thoukh aloove the line of jerpetuai comgelation, anil many guatrupeds were feeling on the grassy banks of the statege. It was remarkel by lor. tieraril that vegetation att:ined a higher level on the northern than on the southern face of the llimainy rilge, where the extreme height of cultivation is 10,000 feet; the limit of the forest, $11,80 \%$ thet, and 12,000 fert that of bushes. In the northern side eultivation risen to the height of 11, lion feet ; in other places to 13,600 feat : birch-trees to 14,060 feet ; and tama-huwhes, which form exrellent fuel, to the helght of about $17,0 \%$ feet. In northern llindoostan. great and sadilen changes of $t$ emperature occur, which is the cause of pulmonary affections. Iluring summer, the thermometer, which is often lin the morning at $32^{\circ}$ or under it, rises to $\mathrm{a}_{1} 1^{\circ}$. $75^{\circ}$, and $80^{\circ}$, or upward, durhig the day; the winters are, however, unifomly severe. In this also, us in other hilly countries, the traveler may be fainting today under a tropleal sun, and shivering thmorrow amid the rigor of perpetinal snows. From the hanks of the Sutege, where the tharmometer frequently ntands at 104\% and 10RO, three days climbing will carry hin intothergions of winter.

In the plains of Ilimbeostan, the heat during the greater part of the rear is unintermitting and intense, excent where it :s nowlitied live the ranges of mountains, or the tabie-lands towanl the wext. The seasone here are commenly divided into the hit, cold, and rainy. The apring and the slry measom throuphont the valley of the lianges lant abenit fiour ment ha, the heat grailu. ally increasing with the seanes, untii, in May and Tune, the thermoneter riaps to $10.1^{\circ}$ and frequentiy, in the interior, to $10 x^{\circ}$ and $110^{\circ}$, when it in almost intolerabie even to the nativen, and still more so to lillmopeanm, who remort to varioun moxlea of alleviation, wuch as the cuscus fatty, which in a frame of wood intermenen with twiga, lectwern which is dixtributed a
layer of a partlcular kind of sweet-scented grass. Thls being hung before an open window, in the quar. ter of the prevalling wind, and constantly moister ad on the outside by a water-carrier, diffuses a refresning coolneas.

Vegetable produce.-IIindoostan comprehends all tha known varietles of the vegetable tribes. The maunt. ainous tructe of northern Hindoostan produce all the Alpine plants, and the varioue specles of luropent grain, frults, and flowers. Deep wools cover those lower sanges of mountains, in which are found the pine-tree of various species, "the tallest, straightent, and moat magnificent," alya l'razer (l'raser'e Journal of a Tour throngh the llimalaya Mountains p. (3it), he ever heheld, the larch, the silver, aud the spruce-tir, from the bark and twigs of which resin exudes in abundance; the yew-tree, several species of oak, holly, nider, Nyemmore, nad birch, with $r$-ulherry und chestnut-trees, İere is ulso found the minosa-t ree, from which is made the eatechu or In.lin-rubber: the resinous part of this tir, cut into slipn, unswers the commo uses of the lamp. These nohle foreata extend over inisamese tracts, and would affurd inexhanstille supplies os simber if they cunll le transported to the proper market. Fruits in great variety ure also proluced in this elevated resion, such as apricats, peaches, and grapes, apples, pears, curtants, raspberries, blackberries, anil ntrawherries; roots, anch as turnips, earrots, garilic, and onions; thowers and plants, as roses, both red and white, lilies of the vailey, jesmines, butter-cups, yellow, bltte, and white, cowslips, and aweet-!riar, with numerous other beautiful and fragrant plants. The vallegs exhihit, according to their altitude nini temperature, the jroductions of Eumpe or of the tropical countries. It the height of cono fret appear the oak und the pine; at that of $\mathbf{f 1 0 0}$ feet matans and bamboos of enormons dimensions; in some parts the pine-spple, the oringe, and the sugar-cune, frow to maturity ; in others, barley, millef, and similar grains are produced. The luwer part of these hills is the seat of the situl foreses. The lower valleys vield rice, sown bromberast, maize, wheat, barley, pulse of various kidds, sugarecane, cotton, Imilian malifer, a large species of carilamum, hesinlen other prodnctions. The pastomi tribics of morthern llimhostan feed comsiderable tlocks on the lower hills und valleys ; in summer they clion the $H_{\text {pine }}$ conntry, and browse on the herbage adjacent to the region of jerpetuai frost.

Bice is the great staple of agritulture thromghout IVindoostan, in the phain of the tranger no well as in southern lodia. It is sown at the approach of the rains, and it is gathered during the rainy seasom, about the end of Augast ; the last "rop is sumn luring the same neason, uni is gathered in the hefinuing of 1hacember. It is esteemed the bent, mot being fipmally linhle with the other to decay. The diversity of somil and climate, and the several apanons of coltivation. have given rise to latinite varieties in thia sper'mes uf' grain. When the raina Gail throbghent limberstan. which oremionally hapmene the ricte erpos are att to In defliciont to a degree altogether maknown in the well-regulated agriculture of Europe, where the swerest searcity hanlly ever risen the price of conn mume than thres times its uanal rate. lat the fominev ol llindenstan leave thousabla without miloniotetues, and fill the laml with sormes of misery and death. In the
 the peagile perished ; the uir was molnfecten by the nos-
 tor atir abromil without perceivine it, and without hasping also the fratile cries of the vimims of famine, whe were seon in every stagen of sullering and death; ubole familime exjired, und villages wero desolated; and when the new erop eane torwarl hagne it hal no owners. ilengal has leern tess hialule to fimines since thim ju: riom, hat they bave frequentiy ocmernd in other parts of Indla. linee thrives well in the iuuudated
track of ti peciaily ol the Gange vated, niso of nouther ed, such a andi coarse vetches, ar raised in $t$ India is th poorer clas vation, as thrive eve produce of moniy cult let and oth rapidly, in firmer the ot' cultivati where culti cultivator ; jectell in th duty, there nay compel nies, but th nilla. Tho has been pi and was th hats lieen int dies, und Ar sll the vall southern In of Eurepear It thrives n in particular liar and sta is also exter parts of Ilin ing alternate liquor extrac ules, and i* formed into tenth toone in Halar an India Comp: traband artic to certain di to cultivate In Malwati a rulers and el ed to that co to the Com which is two exrited by th lesire of the $1 \times 20$; nud $t$ now free in India, excel Malwah is es a large reve on Malwah tion (1) Chin ani is brous opiam in ni Chima (see 1 Compriny ${ }^{\text {н }}$ time bumen llimhostan, to the Llima gively throu ineces, unt the and its seruth gal, anl int where it is cultivated in the sonth of uct of India
track of the Ganges, and in southern IItndoostan, especinlly on the low linds of the sea-coast; higher np the Ganges, whent and barley are moro generally cultivated, niso in the high grounds and elevated talle-lands of southern Indln. Other kinds of graln are cultivated, such as Indian $\mathbf{c}$ )rn; and great varieties of pulse unil coarse gralns, such as pasa, beans, chiches, gram, votches, ond raggy, whicis is the most important crop raised in the dry fleld, and in some parts of southern India is the subsistence of all classes, in others of the poorer clasges. These ore important articles of cultlvation, as they have each thelr particular season, and thrive even on poorer acils. Maize ls the general proluce of poor soita in hilly countries, and la commonly cultivated in the moro western provinces. Millet and other grains are also cultivnted, and vegetating rapilly, in every soason they fill up protitably for the farmer tho short intervals between the other modes of cultivation in lower lindoostan. Sugnr la everywhere cultivated, and at little expense by the IIindoo cultivator; and as the augar of India is ne longer subjected in the United Kingdom to an unequal import daty, there is reason to hope that the produce of India may competo net only with the sugars of Ilritish colonies, but these also of Cuba, Ilrazil, Siam, nnd Manilla. Theugh formerly unknown in Eurepe, sugar has been produced in Indin from the remotest times, and was thence tramsplanted into Arnbia, whence It has been introduced into liurope, Africa, the West Indies, and America. It grews luxurinntly thronghout all the valleys of the Ganges, and in the plains of southern india, and could be produced, with the help of Earopean akill and capital, to meet any demand. It thrives more especially in Ihahar and lienares, and in particutar districts of liengal. Opium is the peculiar and stnple prodnce of the province of Bahar, and is also extensively cultivated in Malwah, and in other parts of Ilindoostin. It is a precarious crop, producing alternately high prolits and henvy losses. The liguor extracted from the poppy la collected ns it exudes, and is then placed in pots, where it is dried nnd formed into lumps, in which process it loses from one tenth to one eighth of its weight. The opium produced in lahar and llengal heing monopolized by the Enst India Compnny, and bought at a fixed price, is a contrabanil article of trade, and its cultivation is confined to certain districts. Within Rengal no one is allowed to cultivate the poppy, except for the government. In Malwah a treaty was entered into with the different rulers and chiafs, by which the monopoly was extendel to that country, and all that was proluced delivered to the Company, at the rate of three rupees a seer, which is two prounds. But so great was the discontent excited by this extension of the monepoly, that, at the devire of the chief, the treaties were rescinded $\ln 1 \times 19$, 1820 ; and the trade in opiun and its cultivation is nuw free in that province, and everywhere throughout India, except in the Compuny'n dominions; but as Malwah is completely surrounded by Ilritish territory, a large revenue is derirod from the high duty levied on Dlalwah eplum, in transit to llonbaty for exportntion to Chima. Nalwah opiam equals that ef Bonga, and is bronght into competition with the Company's opinu in all the foreign markets, and especially in China (see appentix to the report on the Fiant India Company*s allairs, p. f5). The cotton phant has from time inmemorial been enc of the staple products of llimltestan, and is indigeneus from Ceylon in the south to the Ilimalaya Mountains. It is cultivnted extensively throughont lengal, and In the interior provimes, on the tranks of the Jumana; also in the Decean, and in suthern India, whence it is imported into llengal, and into Mirzapoor, and the district of lhmares, where it is manufactured. Flax and hemp nere also cultivated in several districts both in the north and in the muth of lidia. Silh was long the exclusive prislnet of ladia and China, Silk-sorms are now reared
princlpally in the dletrict of Burdwan, and In the vlelnity of the Ihagirati and the Ganges, and for about 100 miles down their streams. Four crops of mulberryleavea are obtained in the year, the last in December. A considerable quantity of sllk, of a coarse kind, is obtalned from wild silk-worms, which do not feed on the mulberry, and are found in the foresta of Sllhet, Agsam, and the Decean. Indigo was originally a product of India; and the plant was afterward carried to South America, whence Europe was for a long time supplied with this dye. The manufacture, on which the quality of the indige depends, waa very nnskillfully conducted until the year 1783. Since this period it luas been so much improzed by the skill and capital of Europeans that it is now a staple article of commerce; and in Jlengal the value of the produce in $\mathbf{1 8 5 4}+$ emennted to $\mathbf{8 1 , 7 0 1 , 2 0 6}$. Indigo is produced generally throughout the plain of the Ganges, and in southern India, bnt chiefly in Bengal. Tobacco, formerly unknown in Indin, and Introduced from Anerica probably about the beginning of the 17 th century, is now extensively cultivated in every part, chlefly however in the northern provinces, and mere rarely in the south. The tobacco grown in the Mahrntta territories is most esteemed, particularly that which is produced near Bilsea, a town in Malwah. Hengal does not yield good tobaceo; but the Company's territories in Guzerat, being principally of a rich hlack soil, are considered as peculiarly suitable to its cultivation (sae letter of the secretary to the Court of 1Hrectors, to the Secretary of the India Bonrd, 5 th September, 1828). The Hindoos having been already in the habit of inhaling the smoke of hemp-leaves and other intoxicating drugs, reatily ndopted tobacco as n moro agreeable subatitute, and it soon came into general use. Their recent knowledge of it appears from their having no name for it which is not a corruption of some European term. l'epper, though of inferior consequence, is a $-\cdots$ ?mble product of southera ladin, especially of Mas itare it is produced from a species of vine, which s 1um te t? twinc around the jack-tree. It bears fruit a. 1 , \& thiri or fourth year, amounting to from three to seven pounds' welght, and yiekls two crops in the year. The areca-nut and betel-leaf, universally chowed by the natlves, thrive in the low grounds, where water is abundant; and cardamoms, a spice in great repute. The universal and vast consumption of vegetable oils in Ilindoostan, for food, or unguents, or for the lamp, is supplied ly the extensive enltivation of mustardseed, linseed, sesanum, palma, christi, besides what is procured trom tho cocoa-nut. The tirst ripen in the cold season, the sosamum during the raina, or soon afterward.

The forests in the low plaina of llindoostun, of southern fulia, and those which cover the western range of the Chauts, and mere sparingly the eastern Ghauts, blound in the most valuable trees, applicable to many important ness. The extensive woods in southern India supply tho teak-tree, valuahle for shipInilding: und in Malubar, oxtensive tracts of waste lanil have within the last few yenrs been converted into teak plantutions by the government. Saul, ainsoo, tom, and bambor-trees abound; the last of which vield n nedicine much used by tho native doctors, and whirh sells for its weight in silver. There are many species of the puilm-tree, with its luxurimat and apreading leaves, of which the produce is extromely useful. The cocea-nut-tree is, in some provinces, an importnnt article of culture. Tho kernel is used for food live the richer matives, elther in the raw state, or iressed after various fashions; nod it yields by far the finest oil in India, if the nut he fresh, nat the oil quickly used. lixtensive tracta, many miles in length, are planted with the cocon-nut and betel-nut palnis. Many other sjecies of timber are found in the deep recesses of the woods, of which Dr. Huchnnan, in his acceunt of Mysore, glves a particular description, with the botan-
leal numea of the different trees, and to his work we refer; observing, generally, that the wood conalat of avery dencriptlon oí timber, black, benvy, and atrong, and adapted for the beams, and poata of houses; other kinds are white, hard, and durable, and adapted to all the purposes for whilch strong materinls are required; some are beastifully gralned, and take a fine polish, and are well sulted for furniture, or exnde resins and gums of a sweet sesnt, that are used $\ln$ temples for In cense; the wood of some kindlea readily Into a clear light, and la used for torches (see Journey from Madras, through Mysore, Canara, and Malabar, vol. I., p. 25). Other kinda of woed are employed for dyoing. The sandal-wood le valunile for its perfume, and for the essential oll which it ylelda. It regulres a atrong soll, and it is 12 years before it attains the proper size for being cut. The blllets of wool are prepared by belng buried In the dry gronnd for two months, when the ants eat up all the onter wood, leaving the heart, which la the sandit. The deeper the color, the higher the perfume. The best sandal-wood of Hindonstan is ncw in poesession of the rajah of Myaore, who succeeded to a sunall portion of Tippoo'a domisinns.

Animals,-IIndoostan, from the great extent and inequality of its surface; Its atupendona and anow-clad monntains, and lts vast and wooded plains, lylng under a hurning oun, comprehends all the moat intereat. Ing forms of animal life, more especially those anlmala of the tropieal regions remarkaile for ferocity or size, which have been the subjecta of acientific research an well as of popular corlosity in all agea, and which find ample cover in the deep woods and junglemovered wastee of those tracts of the country which have been desolated by t-ranny or war.

Hlowever rauch the following etatistice of the financlai concerns of the Britinh Fastern empire may be at variap $=-$ th the exaggerated ideas entertained reapecting well ly a large proportion of the people of Fingland as by foreigners, It will excite no surprise in the mind of any one who has ever reflected on the aubject. It is dre, indeen, to the directors, to state, that though they have occasionally actod on erroneous principles, they have always exerted themselves to enforco economy In every bronch of their expenditure, and to impoas and collect tin $r$ revanues in the best and chespeat menner. But ilough thoy have succeoded In repressing many abusea, it would be idle to anppose that they ahould ever es cirely sueceed in ronting them out. Huw can it be imaginel, that etrangers sent to India, conscious that they are armed with all the atrength of government, placed under no real responsitsility, exempted from the salutary Influence of publle opinion, fearing no effectual exposure through the medium of the press, and anxious only to accumulate mortune, should not occaslonally abuse their authority ? or that they ahould manage the compllcated and difficult affairs of a vast empire, inhahited by a race of people of whose language, manners, and bubita they are almoat wholly lgnorant, with that prudenee, economy, and vigilance, without which it were idle to expect that any great surplus revenue shonld ever lie realized?

India Company, the East.-The firat commercial intercourms of the Finglish with the Fant Indles, was a private alventure with three shlps fittel out in 1591; only one of them reached India, and after a voyage of three years, the commander, Captain Lancmater, was brought home in another ship, the sallors having seized on his own; but his Information gave rise to a cupital mercantile voyage, and the Company's first charter, in Jecember, 1600 . Their atock then consinted of $\mathbf{£ 7 2 , 0 0 0}$, and they fitted ont four uhips, and meeting with anccess, have continuel tol trade ever since. India stock sold at $\mathbf{C 5 0 0}$ for a share of $£ 100$, in 1683 . A new Company was furmed in 169 R ; and both were united in 1702. The Iudis Ifuuse wan built in 1720,
and enlarged in 1799. Roard of Control instituted IiR. See Eabt India Company.
Sailroads in India.-There are several railroads gohy forward in diferent parts of Indla, whleh promisa th be productive of a great increase in the trule of that country, though it la more questionable whether for aume years to come they will afford a very unple inscome to the proprietors, for the heavy cost of the eonatructlon. One of the lines firat undertaken is the East Indian, extending from n noylgable part of the Ganges towarl Delhi. This road is already partially opened, and the report of its operations for the first six months of the year 1856, contalned a return of $43:, 521$ passengers transported, and 38,010 tons of freight. The work irom Alinhabad to Cawnpore was going forwarl successfully at the date of this report, but it hat been since retardell hevond the expectatinest that had been entertuined, by the difficulty in carrylng forward the materials. The earth-work was nearly completed at that tione. Allahabad le near the Junction of the Jumam With the Ganges, 600 or 700 miles above Calcutta. The wrik was to be extended from Cawnpore to lelhi under the officers of tha Company, without contractors. We hnco lately seen on account of tho total loss of a contly loconotive, destined for this road, by being sunk in the Gaages, A portion of the Gireat Indlan Ier insular road, beginninus at Bombay, hus also been opened, and a locatlon for the extension of the line has been racently made, from Nagioro to Juhbulpore, where it will unite wlth the Bast Indian, thereby forming an entire line uf i.iland comununieation follow. ing, in part, the courso of the Ganges, trom llomhay to Caleutta.

The Scinde Kailway, another important work dealgned for opening the trade of the greut valley of the Indlus, has alrandy made considerable progress. It will extend from Ilyderalad tri the port of Kurrachee, a diatance of 110 milep, it being rendered necessary on account of the difficult navigation of the motitis of that river. As an appendage to this work, a more ex. teulve one called the Punjaub, Ruilway has been lately projected, and a prospectus of It is now advertised in the Iondon papers, It is to bog 230 miles in leugth, loginning at Moolten on the Indus 470 miles above Myderabail, and running thence to lahore and Unritsir, through a country of remarkable equality of surface. It Is to form, in connection with tho Scinde Ilailroad, and en Improved aystem of steam navigation on the intermedlate jx.rtion of tho Nlver Scinde or indus, between Ilyderabud and Mooltrn; a connected line of communication from Kurrachee, whleh is destined to be the princlpal port for western India, to lahore the capital of the Punjaub. Siron Lahere it will te further extended 86 miles to Umritair, the comuerclal capital of a very large and productive trading district, making in all, liy railrond and steam navigis tion, x]0 miles. For tho Panjauls rallroad nlono it is proposed to raise a enpital of $\mathbf{\Sigma 2 , 5 0 0 , 0 0 0 \text { , of which }}$ two tifthe of the ware are reserved to the shareholdern in the Scinile Company, in the propartion of two shares of the former to one held of tho laticr. The pruspectus advertised in the London papers contains the following deacription of the reghon of country through which this line of communication will pass, extending nearly the wholo length of the valley of the Indus:
"A railway from Monltan to lahore nnd Imsitsir will not ouly ufford an outlet to tho imperied traffic of 1'unjaub ani nelghboring territories, but would of necesaity greatly enhance the importance and value of the line from Kurracliee to llyderatad Scinde and the Junjaul, (iucluding the States under control) cover an area of 130,000 equare miles, with " population of nearly $\mathbf{2 5 , 0 0 0 , 0 0 0}$. The tlower of the Furopeas and native aray occuplen these provinces, and numbers 70,000 men, more than 15,000 of whon are Europeans."

The fin comutry, "Iahn the Punja The town ternal ira the large attached the Punja superior, tervening of ntyy niz is maintni thronged wheeled v sengers ; town than si far npa commerce ainons reg fruita, and nnd other mountainot of the whol are isere en military sta after its cor coming in ing link to Inilln, or $r$ situnted at Intn prospe probatly an being auper The dlat direct line it the indirect ninsular linn lgation or $t$ ly following route ls elly selecting th railrond, ta ovenness of population o will not be 1 sinuosities 0 estimnted ul is already ns of an excell law cost is railway ront no comparis lessaess of between the directions, t habitable, a alnost bid In one case, tries nilready affording vn jects of a pirn contributing every part o country to 1 projected rou afforling ev constructed ure incapathl, for its coust locomotives, employed ln

The great in a greater East, will be rapid strldes accomplished

The following further deseription of this region of country, is from the Culcutta Englishman :
" Lahore, situated on the Ravee, ia the capital of the Pungauh and the seat of its political administration. The town is very extensive, and carries on u briak internal trade. The civil atntion of Anarkullee, and tho large military station of Meean Meer, are likewiso attached to it. Umritair, the commercial capital of the Panjauh, elistant 36 miles, is at least eqnal, if not superior, to Delhi in popnlation and wealth. The interveniag country' fa level, and withont even a nullah of any size, and an intercourso of so grent an extent is maintained between them, that the road is literalls thronged day and night with every description of wheelet vehicles, horses, camels, etc., and foot passengers; in short, more resembling the street of a town than a mere communication lietween two cities so far apart. Umritsir is the grand entrepot for the commerce of the cis-Sutlej States-the rich and mountainons reginns enstward to Kote Kinngra-the horses, fruits, and wooleng of Cabnl and Bokhara, the shawla and other produce of Cashmere, Yarthand, and the mountainous conntry towarl the north-east-in fact, of the whole Pnnjauh and the countries encircling it, are here concentrated. Mooltan is a large town and military atation on the Sutlej or Gharra, so termed after its conjunction with tho Beas. It is quickly becoming in important emporium, for it is the connecting fink to the trado of northern with south-western India, or rather Bombay and Europe. Knrrachee, situated nt the month of the Indus, is fast advancing into prosperity and into notice as a sea-port; it will probality soon bo known as the first in the empire, being superior to Calcutta, Madras, or even Bombay."

The distance between Calcuttn and Homhay in a direct line is a little more than a thousand miles. By the indirect ronte which innst be pursned by the Peninsular line, to find one adapted elther to steam navigation or to the construction of a railirond-that is, by following the course of the Ganges, so fur ns the routo is eligithe, and from the point thus reached, tiy selecting the line best adnpted to the construction of a railroad, taking into consideration the comparative evenness of surfaco, and the production, resources and popalation of the country to be traversed, the distance will not be less than 1600 miles, exclusive of the minor sinuosities of the route, which can not be accurately estimated antil the line is definitively laid down. It is already ascertained that easterly from Nagpore, coal of an excellent quality for the making of coke at a low cost is found in ahundance. Extensive as these railway routes are, it will he perceived that they bear no comparison, in point of extravagance, snd hopelessness of execution, with the vast routes projected tetween the Mississippi and the Pacifte in various directions, traversing regions uninhabited and uninhabitable, and passing over mountain ranges, whieh almost bid defiance to the power of the locomotive. In ono ease, the projected routes pass through countries aiready covered by an inmenss population, and affording valuable products ndapted to become the objects of a profitable trade, and consequently capable of contributing to the support of the line throughont every part of it. In the other case, nearly the whole country to be trnversed, ly the most favored of the projected routes, is destituto not only of the means of affording even a partial support to the route when constructed and put in operation, but in a great measure incapable of furnishing even the timber necessary for its construction and repairs, the fuel necessary for locomotiver, or provisions for the men who must be eniployed in running tirem.
The great lever, however, by whilch Englanil will, in a greater ratio than ever, incrense her power in the East, will be the railmad system. And in this pollicy rapid strides and important resuita have ieen alrendy aceomplished. As earlv as August, 1k65, it was atated
in the House of Commons that the East India Company had sanctioned the construction of one road 690 miles in length, to be completed in the year 1856, with a guaranty of $\bar{b}$ per cent. dividend by the Company. In other words, private capitalists having anbscribed this required capital, the Company therefore gave a guaranty of 5 per cent. income, upon a capital of (21),000,000. Other roada have been projected, and are now in course of construction, with on dggregate line of over $\mathbf{6 0 0 0}$ miles. From one extremity of British India to the other, the magnetle telegraph is in full operation. The intelligence carried from England to Bombay, was, as far back as April, 1855, transmitted to Calcutta by telegraph. The three grand trunk railroads are:


4000 miles of telegraph wire are now set ip in India, and in constant use. In the construction of this immenke line of wire, 70 large rivers were crossed. In one cuse the cable over a river measures 15,840 feet, and in another aver two miles in length.
In order to carry out the views of the British government and of the Dast India Company especinlly, a standing army of 289,000 men (European and native), is maintained. It requires little foresight to show that it ia in India (at present) and in Chins (hervater) that the British power will for many yeass be developed to an extraordinary degree. With the gill of capital, now abundant in Indis, and with the further ald of railroads, manufacturing machinery, steamships and stenmbonts, the magnetic telegraph, and cheap labor, the commeroial and politicnl power of Great Britain will soon overshadow all others. ' 'he autject furnishes points of inquiry and consideration, which should be duly weighed by the statesman, the merchant, and the philanthropiat.

We have all looked with astonishment upon the vast commercial chungea that have transpired in the world within the past 20 or 30 years. Science, genius, enterprise, and capital are yet at work transforming, modifying, creating. America has witnessed grent transformations within that period. It would seem that Asia is likely to undergo equally important changes, through the menns of the British government and its thousand agents. There is no resson why the United States, availing themselves of the newly-enlarged field of operutions in the East, ahonld not find a profitable market for their manufactures, and further employment for their shipping.

Mefals.-From the wilt a. 4 inaccessible nature of the couniry in many parts of IIindoostan, its metallic producta are but iupperfectly known. It is found to produce all the metnilic ores, as well as diamonds and precious stonea, and other mineral substances. Gold is generally found in the sands of the mountain streams, and is extracted hy washing. The head atreams of the Ganges liring along with them particles of gold, which in Rohilcund are collected by a particular caste of people. It is found in various parts of Mysore, particularly nine miles enst of Boodicotta, where the conntry is impregnuted with it ; alao in the Niolgherry Mountains; and in great quantities in a?l that tract of country that liea west; and in the adjoining Koondanad and Ghaut Mountains. This whole tract, including tho mountains, and comprising a apace of 2000 milea, contains gold. Unrefined gold is regularly exchanged hy many of the mountain tribes of the north for the produce of the plains. It is estimated that ahout 1000 men are continually employed in colleeting this precions metal. Copper is produced in the province of Delhi, which the natives collect cither on the surfuce or with very slight excavations; also in the Rajpoot prineipality of Jeypoor in the province of Ajncer,
and in other parts of the same province, there are copper minea, und in the Carnatic, about $\mathbf{4 0}$ miles north-east from Cuddapuh. The metal is found in layers about two inches, and occasionally two feet thick; they are conted with ochre, ald are in general fast, as if they had undergone compreasion. The ore exista in nearty a metallic ntate, without any admixture of sulphur, arsenic, or any other substince that requiren acparation. The best ores yield 34, and the worst 6 per ceut, of pare metal. The granitic monntalne of Nepaul and northern Llindoostan contain much Iron, lead, and copper, with a little goid in the rivor cuurnes. The copper uninen are quite muperficial, the ore lieing dug from trenchen entirely open above, so that the work is laid ashle in the rainy seanon. Iron ore is found in many parts of Ilindoostan. There are mines of Iron in lahore and in Ajmeer. In Orissa many of the antives are iron ameltera, and mont of the irom sent from Balasere to Caleutta is proluced in this district. In Bejupor the working of iron fumiahes emphoyment to many of the inhsbitanta, who extraet it ly a very rude process. At Forto Novo, in the Iritiah distriet of South Areot, in the presidency of Madras, extensive iron-works have heen erected by a jointstock asociation called the Lant Inilia Iron Company; to whon also belonig the iron fuundery works at liey:pror, in Malabar, ou the opposite corast of the peninin. '?he ore pmeltud at these eatalilishments is found In great abuadauce and of exceltent quality in their respective vicimitien. The Mysore country nisounds in iron. There are also forges for manufacturing steel, which are minutely described by Dr. Buchanan in his account of the Mysore country,* In Cohmbeture and in Malatur the iron mines give employment to a consideratile number of persons. The process anil machinery fur extracting the iron are vory imperfect. Iron inines were formerly worked in the dintrict of Boglipoor, luat they have been long neglected. Nich iron ores are abugdant in Cutch. The ore is gathered in laskets from the surface of the earth, anil yields 22 per cent. of iren; und the ateel which in nade from this ore is the tinest in the word. Lead is prodnced in various parts ; also antimuny, blumbmgo, sulphur, aluns: and there are Inexhaustibis supplies of coal, though the mines are not worked with any effect. Coal is raisel in Burfiwan in conniderable quantitien sul of a the quality. Saltpetre is produced in Ilengai and lahar, though its manufacture does not go leyond the eastern limits of the latter province. it might, however, be attended with succeas in Hengat, where the tendency of the aoil to its prodnction in very great ; and there might le manufactories of sait in almont every part of the country, but they sre restricted by the Company monopoly. In the Mysore plains the welin are salt, amil the gronnil in frequently covered with a saline effloremcence. A range of hills, extending from the Indur to the ilydasp'o, yielda the famons rock-anit of Lahore, of which they are almost eutirely composerl. $\phi$ Many quarries nre found in the hilly dintrieqs, which proluce fine atone, that is ent by the inbabiltants into pillars, thage, statuef, and used for other ormamental purposen. Dr. Ijnchanan asw neveral the-grained apecimens of granite, also a black stone used in the conatruction of IIrder's monument, and a heautitul green atone which takes on a marlile pollish. The hilis of Guzerat contain marbies exhibiting many eolons and qualities; nud martiles are seen in the various tombs and monuments of ancient art still rentaining in the country, find! ground and of different colorn, white and yeliow with rad veins, nad green clouded with yrilow and Hack, of which the çuarries have never been discovered.
P. Juurney from Madrus, vol. L, pp. 170, 1 tiv: mol. th,

* Sin the observations of Lleuteunnt Bornes oa the commercial relation of the Punjaub.

Diamonila are no longer found in the eelelirated mines of Golconda, but they are atill gathered in the beds of the Krishna, and in the province of Gundwana. Near the confluence of the Hebe and the Mshanuddy, 18 miles beyond the town of Sumblulpoor, after the raius, the nativea find diamonds in the red earth washed down from the mountalna. The matrix containing them ls a clay which has a red appeariance like burned bricks. There are diamond mines in the south of Indis, bout 7 millea north-east of Cuilhnpah, on both $b$ is of the Pennar Kiver. These mines have been $w$. or neveral hundred years, and occasio!. ulty yisld iarge diamonds, which are either found is the alluvial moil, or are recognized hy their markling among the gravel after it is washed and apreal out, or In rocks of the latest formation. The grounds are loasel on behalf of the guverument te private speculatora at a moierate rent. In Bundelcund, ulmo, the table-iand which surrounds Pannah, wherever thin ground is of a gravelly nature, producen diainonds. Th soil is from two to eighte cubita deep, and diamonits are found intermixed with simall pelibles, though not ndheriug to them. A very few diamonds in the courve of a year repay the labors of the workmen. The diamonds found are moatly under the value of 500 rupees, or $\mathbf{t} 50$, though aome reachs the value of from 500 ta tho0 rupees. They aro weighed and nold to the merchants residing at l'unnal, and are by them carried to all parts of the comntry. The workmen are allowed three fuurtea, two thirds, or a lialf the diameonds they find, accorling to their size, and any man in at liberty to dig: but the business is less prosperoun than furmerly, and the workmen are peor. The dimend grommes are atrictly guaried againat the contraband trader, and the leant delimulucy draws down the prompl and burbarous vepgennce of the rajah. These nre supponed to be the diamond mines mentioned by Tholemy. Their annual proluce was estimated, in the reign of dehar, ut elght lacs of rupees. In licio it had fallen otf to one haif; the amount, comparatively indigniticant, is divided between the rajalis of Dennah. Banda, nud Chirkaren.

The other varietien of precious stones found in India are the ruby from the tuble-fand of Aysore, the lieryl, the tupaz, the chry nolite, gamet, cat's eyo, cte. There are cornelinu mines in the province of fiuzerat, in the wildest parts of the jnngle. They consint of numerous whaft* workel down jerpendicuiarly, about four feet wide, and soverul of them to the depth of lifty fect. Sone of them extend at the bottom in a horizontal direction, though not to any Jiatance; the heavy rains cause the lanks to fall in, no that now openings are alwaya made at the end of the rainy season. The nolutes weigh from a fow ouncen to two or even three pounds, mud lie close to each other in abundance, not in dintinct atrata, but seattered about. They are of various colors when they are found-of n hackish olive, like common lark thinte; others of a lighur bue, with a slight milky tinge: though it is guite uncertain what appearance they will nasume after the process of turning. They nre earried to Cambay, wher, they ure cut, pollshed, ind formed into the fine omament for which that ctty is so bighly celelirated. Heautiful jaspers and agsites are also found in this district, and in other parts of India.
Manufirturss.-In every country the nature and quality of the manufactures must depend on the condition of the consumers, and annong the denin"tic States of Asia these naturally consist of two chassen. Ist, of the great and powerful, in whose hands the propertyof the country is accumbinted, and who are comparatherely few ; and, 2ifly, of the mass of the people, op pressed under native rule, nul sunk in poverty. Such, acconlingly, has been from time immemarial the state of Miniloortan; and its manufactures, which are necesnarily sdapted to the use of these two claswes, have alwaya consisted of exquisitely tine faliries of cotton,
for the $u$ princes o mon peot that the wonderf the prod workman ory, or frc material stagea of plementa by patien duces an its inimit durability these tine touch, ani chiedly fa nated, wec texture ; denominut sort of m province southern of the most mure closel of Hengal in every d turiums, ha Ilindoontan thwered mi ful fabries silks which of hue that Indian ma Rearfs, whic dian manufa rival, either manafuctur equal those made, whici khas,ahs, wh the Ganges made near western fro Allahabad, are manuiac of Midnapor nomination Benares; w ered, in the brocades, an gauzes for a gal; ant at in the distr: cotton. Sa in many pla fir the clots inte canvas anti other p mon use. msteriain is factured in Gangen. F manent and province of worhood of $($ urigin in Imi degree neve varions kin l'atna, Tumd In ly yor iuto different men, women ban jieces. figured, and wrougith in
for the une of the limperial court or of the rajahs and princes of the country, or of coarse ntuffs for the common people ; and to such perfection have they attained, that the modern art of Europe, with all the aid of ita wonderful machinery, has never yet rivaled in beauty the product of the Indian loom. Yet the Hindoo workmun hus no advantage from capital, from muchinery, or from the division of labor; he preparea the raw material with his own skillful hand, in aii the varlous stages of ite manufacture; his loom and ali hia implements are of the rudent construction; and yet, by patience, perseverance, and unusual akilt, he produces an article which is prized all over the world for its inimitable richness and beauty, as weil as for its durability. The native artiasan distinguishes at once these tine fabrtes from ali counterfelts, by the eye, the touch, and the smell. In the district of Dacea are chietty fabricated plain musiins, varlously denominuted, nccording to the closeness or tineness of the texture; also flowered, striped, or checkered muslins, denominated from their patterns; and the thinnest sort of muslins, for the munufacture of whieh the province is much celebrated, as is Coromandel in southern india for its callcoes and other piece-goods, of the most brilliant and durubie colora. Other kinds more closely woven are faliricated in the western parts of llengal ; and another sort, of a more rigid texture, in every district. Coarse muslins, in the shnpe of turhans, handkerehiefs, etc., nre made in ati parts of llinicostan; and in its northern provinees, plain and fluwered musiins, but of inferior quality to the theautifut fabrics of Dacea. In Moutan are manufactured silks which possens astrongth of texture and brilliancy of hue that have gecured for them a preference in the Indian market. They are woven into shawla and searfs, which are in great demand, and which the Indian manufacturer in other parta has never been able to rival, either in color or clurability. Carpets nre niso manufactured in this province, thuugh they do not equal these of Persia. Varlous articles of calice nre made, which stili retain their Indian denuminations, ns khas, hs, which are manufactured north aul east of the Gugges; cioths of nearly the same quaity aro made near Tanda in Oude. Near Lackijsor, on the western frontier of Benares, in the ucighhorhood of Aliahabad, and aiso in the province of Bahar baftaes are manntactured ; samaes in Urissa, and in the district of Milinapoor' ; and a similar choth under the sume denomination in the eastern purts of the province of Benares ; woven siik nud taffeta, both plain and fowered, in the neighborhood of Moorshedabad; tinsues, brocades, and ornamented gauzes, at liennres; piain ganzes for domestic nae in the west and south of bengal ; and at Mouida, Boligpoor, and at severat towns in the district of Burdwan, mixed goodn of silk and cotton. Suckeloth is manufactured from puekthread in many phaces, especialiy in the northern provinces, for the clothing of the mountaheers. Cetton is made into canvas in the neighborhood of Chittagong, Patna, and other places; and blankets every where for common uso. A coarse cotton eloth dyed red with cheap materiain is very generally used, ond is chietly manufactured in the country botween the Jumna and tho Gangen. Fine and coarse calicees are dyed with permasent sud fugitive colors for common use in the province of Benares, the eity of Patna, and the neighlorrhond of Caleutta. This art appeary to have had its origin in India, and to have been there perferted to a degree never surpussed by Europeans. Dimitien of various kinds, and damask tinen, are mate at $\mathrm{J}_{\text {atcia }}$, Patha, Tanda, sidl various other places.
In Mysore, heur Bangulore, siik is manufactured into different urticles of drees, intos strong clotiss, which uen, women, or boys wrap ronnd them, and into turman jieces. These cloths are of a rich fabric, variously figured, and the pattern, if ordered, is elegantiy wrought in gold tiroad. Turbans are made of cotton
and silk. Thin white muslins with allk borders ornamented with geld and silver, and phain green muslins, with silk borders, are manufuctured for female dresses ; ulso striped and checkered muslins; cloth like the khasahs of lenyal, for wrupping round the shoulders of men, sometines with striped or silver loorders. Ilandkerchiefn with red lorders, a coarae thick white cotton cloth with red horders, and turbans ormanented with silver and gold thread at the ends, are also made in this distriet ; and the dyeing of cetton eloth, cutton thread, and silk, is earried on by a get of people who net ns tailors, cloth-printern, and dyers. Tanneries are extalilinhed, and manufactories of oil. At Chennapattana there are manufactories of glass-ware and of glass ringe, universally worn as bracelets by the women of the Ieccan. Steel wire is atso made here for the stringe of musleal instruments. At Vizigaputain, in the northern Circars, the inhabitants are very exwert in carring curious tittle boxes of ivory and bone. Throughout southern India manufactories of cotton silk are generaliy established. In the northern Circars the principal purt of the East India Company's investment of piece-gools was formeriy provided. This country, extending about 500 miles along the coast of Coromandel, from the liver Kistnah to the borders of Cuttack, has from very early times been the seat of an important and extensive manufacture of cotton piecegoods, of which the description of caticoes known as Madras loug cloths and salempores nre the chief, and, with Masuliputam dyed handkerchiefs, and other kinds of goods for the African and West India trapo, have, until fately, been in great demand. Masulipatam goods have, however, for some yeurs been entirely superveded by the manufactures of Manchester and Glasgow ; and in ull appoarance the northern Circars will at no distant period of time be deprived of the manufactures of white calicoes also. A great change has indeed heen brought about in the munnfactures of India by the introduction of British gools, which, in many branches, have supplanted those of the country; the peor Ilindoo, notwithastanding the low rate ut which be works, is thas undersold in his own market by the manufacturers of Manchester und Glasgow; und this competition of British goods neurly ruined the native manufacturers of Indin, deprived the workmen of empioyment, und reduced them to freat distress ; No that the directors remark concerning the Indian trate, that "it exhibits the picture of a commercial revolution, productive of inuch present suifering to numerous classes in India, and hardly to be paralleled in the histery of commerce."

Commerce.-Llindoostan, from its grent extent, and the diversity of its noil and climate, supplies the materials of an extensive commerce. Its internal trade is wreat, while its rare and precious products are exported to the remetest regions of the world. An extensive commerce takes place between Bengat and the other maritime districts, und the western provinces of Ifindoostan, consisting in the exportation of grain from the corn districts, in exchange for sait, in great stapie; for letel-nut, sugar, raw silk, silk and piecs goods. From the native States of central ludia Malwalh opium is sent down to l3ombay for exportation to China. In Bengat the culture nad manufacture of opium are conducted under a State monopoly, and the profuce is transmitted to Culeutta, where it is disjoned of by public sate. The Loly eity of Benares is a great mart of trade, in which are exchanged the shawls of the north for the diamonds of the sonth, and for the huslins of $\mathrm{D}_{\text {icea }}$ and the castern provinces: and it has hesides, very considerable silk, cotton, and fine woolen manufactures of its own, the produce of which is exchanged for other commodities. Through the northern provinees of Delhi and Lahere n great trade is carried on between the bill countries and the plains. The inconsiderable town of Ifurdwar or llardiwara, being a celebrated place of Hindoo piigrimage, is a



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great commercial emporium, to which multitudes resort for the purposes of trade, as well as f.om plety. This great annual concourse takes place $\mathrm{l}_{\mathrm{a}}$ the opring, when the produce of the northern and western conntries is exchanged for the manufuctures of the lower provinces. The principal articles brought here for sale from Cabul, Candahar, Moultan, and the Punjaub, are horses, mules, camels; some of these from Balk, Bokhara, and the countries on the northern side of the Ilindoo Coosh Mountaina; a particular speciea of tobacco, antimony, assafoetlda, dried fruits, auch as apricots, fgs, prunes, ralsius, almonds, platachio nuts, and pomegranates ; from Cashmero and Amritsir, shawls, dootas, and pattoos; spotted tnrbans, looking-glasses, toys, with various manufactures in lrasa and ivory from Jeypoor ; shiolds from Rohilcund, Lucknow, and Silhet ; bown and arrows from Moultan and the Doab; rock-salt from Lahore; baftas and piece-goods from Rahn, a large city In the Punjaub. The country of Marwar nlso supplies many camels, and a species of flannel called loo. In exchange are brought from the British provinces Kharwa muslins, mushroo or sarsnet, and woolen cloths, the coarsost of which only find a market. In this fair, Dutch and Venetian colns are current; and some toya of European manufactare were acen exposed to sale by Mr. Wobb. The northern merchants by whom it is frequented assemble at Amritsir in caravans about the end of February, and pursue their route in an easterly direction through the territorics of the protected Seikh powers. Still further to the north and west the provinces of Lahore and Moultan export to the countries to the west of the Indus, sugar, rice, indigo, wheat, and white cotton cloths, hides, ctc. The imports are swords, horses, fruit, lead, and spices; and into all these countries European goods are imported from the lower provinces. The southern provinces export to Bengal, pepper, betel-nut, sandal-wood, and cardamums, teak timber, etc.; while they recelve in return salt and rlee, cotton cloths, and articles of Europesn manufacture.

A very conalderable coasting trade is earried on between the ilfferent parts of Hindoostan. Bengal exports to Madras und the coast of Coromandel, grains of different descriptions, sugar, saltpetre, molassea, ginger, long pepper, oil, silk wrought and unwrought, muslins, spirits, and provisions. The returns are sait, red wood, fine long cloth, izarees, and chintzes. From the Malabar coast the imports are sandal-wood, colr rope, pepper, cardamums; and the returns are generally in the annual supplies which Bombay recelves from Bengal. From Bombay are broughs teak timber, elephant's tecth, lac, ete.

From the reputed wealth and precious produce of India forelgn nations were slways desirous to participate in its trade. Prior to Alexander's expedition to the East it was scarcoly known to the Greeks, nor la it certain thut they had ever seen its productions. But we know that these were brought to Rome, especlally silk, which so allured the vanity of the Roman ladies that it sold for its welght in gold. Other valunile commodities of Indla, such as callcoes, muslins, aromatics, Ivory, diamonds, pearla, and other gems, preclous aromaties, the pepper of Mulabar, turtle ahell, etc., and sone dry sugar and Indigo, were also Importerl into Alexandrla, the chjef emporitum of eastorn commerce, and were naturally attracted to the great metropolls of the ancient worid. This trade was carried on from Myon IIormos, the chief prort on the IRed Sea, whence, after the conutuest of Eigypt by the Romans, the annual fieets, sometimes of 120 vensels, set sail, and, under the propitious influence of the southwest monsoon, hollly stretched across tho Indiun Ocean for the western coast of IIindoostan, which they reached In aiout 40 daya; end afterward extended thelr voyruge ruund Cape Comorin to the coast of Coromandel and the mouths of the Ganges. Tha hlgh
price recelved for these esstern luxariea ln Rome encouraiged the merchants to provide larger vessels, and a band of archers to defend them against the plrates, Who then, and antil very lately that they were extirpated by British shlph of war, infested the western Shores of India. The commodities of the East being Innded at ' Myos Hormos, were carried on camels to Coptos, the seat of a flourishing trade, and therice by sea to the Nile, whence they reached Alexandria by water carriage, and were re-shipped to the different ports on the Mediterranean. The produce of Indis was also brought to Europe by other routes-namely, by the way of Palmyra, then a flourlahing city, and thence to Rome and other western countries, through the ports of Syria : or across the Himaluya Mountains to the Oxns, thence to the Casplan, and afterward to the Black Sea, and finally to itt ulterior markets In Furope. Bnt though there was a demand in Europe for the produce of Indla, there was 'no'demand in India for the proluce of Europe ; and bullion was the only article that could be seut out in exchange. The annual drain of gold from' Rome and its provinees for Indian goods was estimated by Pllny at $\overline{500}$ eestertia, equal to abiout $\mathbf{£ 4 0 0 , 0 0 0}$. In the convalsions which followed the decline of the Roman empire, the trade of the Fast was successively engrossed by the Persians and Arabians. The latter, in the year 686, built the elty' of Bussora; which soon grew into a great commercial mart ; and to this place, and to Ormus, long celebrated for its vast richea and its trade, the spliceries and merchandise of India were brought, and distributed through the various ports of the Mfediterranean. After the expulsion of the crusaders from Syria and Egypt, Alexandria again became the chie? entrepôt of eastern produce, whence it was carried to italy by the Venetians and others, and distributed throngbout Eu rope. But the diacovery of a passage to India in 1495 by the Cape of Good Hope changed the course of this trade, which now entirely left the Itslians, and was engrossed by the Portuguese for nearly a century without any molestation from European rivals. At length the Dutch and the English became their competitors, and eatablished joint-stock companies, with the exclusive privilege of the eastorn trude. But their anticipations of profit were not reallzed. The great distance of Europe from India, and tho want of an equivalent for its produce, precluded any extensive intercourse; the trade accordingly bore a very smali proportion to the trade of the coantry; and being besides cramped by monopolles, it never attained it nutural growth. In 1773 the average exports of Britain to Indin amounted to about $£ 489,000$ a year; in 1793, on a like average, to about a million a year; and it doen not appenr that a greater trade was carried on with India from any other part of Europe. Tho commerce of untions is limited to the surplus produce which they can mutually exchange; and, from the grest distance hetween India nnd Europe, this aurplus produce was long confined to those fow articles which, coutaining a grent valut in small bulk, could bear the expense of a long voyage. The demand was alao altogether on the alde of Europe, and lts trade with India consisted merely in tho purchase, with bullion, of a amall quantity of precious articles for tho consumption of the rich. The progreasive improvment of indastry in Europe, togother with the entire opening of the traile to Indla and China ainee the year 1834, has oc. casloned not only a greator exportation of Iritish goods, but a change alao in the minture of the trade. It is not so much the produce of the labor as of the climate and soli of Indle, which no Jugenuity can supply, that is in demand in IIritain ; and, necorilingly, while the import of Indian manufactures has fallen off, that of the raw material, and many varletles of vegetable produce, has increased. This the importation of cottun pisce-goods-namely, white callicoes and muslingwhich amounted in 1814 to $\mathbf{1 , 2 0 0 , 6 0 8}$ pieces had de-
creased in 1858 to 428,294 piecea; whilo within the same period the importation of cotton wool. had increased from 2,850,818 lbs, to $181,869,904$ lbe., and the exportation of cotton manufactures in a similar ratio. Even the inoomparable muslins of Dacca are in less demand since the introduction of British goods. Thue, in the progress of the trade hetween India and Europe, the former country, notwithstanding ita boasted wealth and auperior industry, has taken the loweat place, exporting her rude produce for the manufactures of the richer country: This ts the natare of the trade carried on between Britain and America and the countries in the north of Europe, and is a sure index to the respoctlve progrees of the two countries in wealth and improvement. Those countries which can not mannfacture their own rude produce send it to Britain, which ubounds in capital, and atill more in art and industry ; and both countries are benefited, the poorer country exchanging its surplus produce for a supply of manufactures of which it is in want, and the richer country the produce of its overflowing capital for a supply of tho raw material which its own soil does not afford. This is now the relative condition of Great Britain and Indla. The former having outstripped the latter country in industry and wealth, sends out a supply of cheaper goods than the native workman can furnish; and so prodigious have been the improvements in machinery, that the raw material of cotton is imported from India, and being manufactured in

Britain, is re-exported and sold at a cheaper rate than it can be made at home, though loaded with the oxpense of a double voyage across half the globe; and thus it has become an important staple in the trade of Great Britain with the East." A notion was long and/ anccessfuliy propagated by the' advocates of the monopoly, that the Hindoos, from their poverty and thair simple habits, would never become extensive conanmere of European goods, and that the demand waa amply aupplied by the exports of the East India Company. Evidence to this effect was given before the committen of the Hoase of Commons in 1810 by Sir Thomas Munro and other eminent servants of the Company. But such statements have been completely refuted by the rapidly increasing exportation of British goods to India since the complete opening of the trade in 1834. This will appear from the following table, showing the exports from Hindooatan for a period of 18 yeara :
Value of Exponts fhox Garat Baitain to Iindoobtan, exolueive of Bullhon.

| Y |  |  |  |
| :---: | :---: | :---: | :---: |
| 1838. | 8,185,410 | 184 | 7,982,179 |
| 1886 | 8,830,504 | 184 | 6,477,148 |
| 1897 | 8,210,863 | 184 | 6,420,404 |
| 188 | 8,605,980 | 184 | 6,790,288 |
| 1889. | 4,289,489 | 1848 | 5,512,110 |
| 1840 | 6,014,889 | 1849 | 7,578,930 |
| 1841 | 5,489,604 | 1850 | 8,327,992 |
| 1842 | 5,854,901 | 1851 | 9,226,729 |
| 1843. | 6,847,849 | 1852 | 7,285,078 |

Imponts or himpoostax.

| ranre. | MERCHANDISE. |  |  |  |  |  | treasure. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bengni. | Madras. | Bonibay. | tutat. |  | Total merchandles. | Diengal. | Madras. | Bombay, | Total. |
|  |  |  |  | $\begin{aligned} & \text { United } \\ & \text { Kingiom. } \end{aligned}$ | $\begin{gathered} \text { Other } \\ \text { countries. } \end{gathered}$ |  |  |  |  |  |
| 1834-85 | $\underset{1,999,180}{\mathbf{E}}$ | 503,290 | $\underset{1,758,6 \mathrm{E} 5}{\boldsymbol{\varepsilon}}$ | $\frac{ \pm}{2,682,281}$ | $1,578,884$ | $\frac{£}{4,201,106}$ | $\frac{f}{646,224}$ | $158,115$ | $\frac{f}{1,198,689}$ | ${ }_{1,893,023}$ |
| 1889-40 | 8,341,691 | 683,807 | 1,806,837 | 4,239,439 | 1,541,747 | 5,831,289 | 1,226,786 | 112,408 | 6006,071 | 1,048,264 |
| 1844-45 | 8,939,990 | 1,046,894 | 8,778,181 | 7,952,179 | 2,801,888 | 10,754,065 | 1,551,865 | 188,501 | 1,982,545 | 8,752,471 |
| 1849-50 | 8,288, 170 | 008,004 | 4,110,718 | 7,578,950 | 2,720,907 | 10,999,88s | 1,214,865 | 181,487 | 2,060,505 | 8,896,807 |
| 1850-51 | 8,116,201 | 897,823 | 4,545,764 | 8,927,992 | 8,280,795 | 11,558,788 | 1,189,434 | 260,110 | 2,862,214 | 8,811,808 |
| 1851-52 | 7,087,408 | 906,495 | 4,246,647 | 8,228,729 | 8,018,780 | 19,240,490 | 2,808,470 | 297,888 | 9,448,190 | 5,052,1059 |
| 1852-58 | 4,908,074 | 840,581 | 4,236,655 | 7,285,078 | 2,895,783 | 10,070,861 | 3,808,937 | 876,854 | 2,860,586 | 6,881,877 |

Exports of IImpoobtan.

| reara. | merchandtac. |  |  |  |  |  | treasure. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bengal. | Madras. | Bonibay. | total |  | Total marchandise. | Bengal. | Madras. | Dombay. | Total. |
|  |  |  |  | Unlied Kingrdont. | $\begin{aligned} & \text { Other } \\ & \text { countries. } \end{aligned}$ |  |  |  |  |  |
| 183-35 | $\frac{\mathbf{x}}{4,092,048}$ | $\stackrel{t^{\prime}}{88,107}$ | $\frac{\mathfrak{e}}{8,015,263}$ | $\frac{£}{8,058,978}$ | $4.986,447$ | $\stackrel{£}{7,998.420}$ | $68,564$ | $10 \mathrm{~g}_{877}^{2}$ | 21,809 | ${ }_{104,740}^{£}$ |
| $1889-40$ | 6,800,925 | 1,229,467 | 2, 858,952 | 8,969,951 | 4,892,798 | 10,869,745 | 200,017 | 127,446 | 143,059 | 470,523 |
| -1844-45 | 9,822.197 | 1,641,402 | 8,126, 512 | 7.240,819 | 9.849,582 | 16,590,212 | -696,543 | 65,053 | 645,248 | 1,106,840 |
| 1849-50 | 10,14s,08s | 1,272,834 | 6,891,370 | 7,026,470 | 10,238,828 | 17,912,299 | 854,205 | 72,687 | 544,400 | 971,244 |
| 1850-31 | 9,997,527 | 1,566,078 | 0,099,845 | 8,104,016 | 14,060,188 | 18,164,149 | 276,829 | 104,140 | 180,818 | 541,289 |
| 1851-52 | 10,428,970, | 1,658,909 | 7,798,474 | 7,188,883 | 12,740,517 | 19,879,238 | 250,588 | 215,768 | 452,732 | 010,0s8 |
| 1852-54 | 10,783,654 | 2,121,018 | 7,604,464 | 8,428,295 | 12,096,888 | 20,484,638 | 476,876 | 86,882 | 542,472 | 1,055,229 |

The goods exported, as they are enumerated by Mr. Rickards in hils valuable work on India, consist of ali the staple manufactures of Britain. "Woolens and cottons," he mentions, " of every varlety and value; manufactured silks; hardware of all descriptlons; iron, coppor, lead, tla, and spelta, in largo quantities; marine and milltary atores; machinery for varlous uses; glass-wam of the metal speclmens, down to articles of the conmonest use; china-ware or porcelain, the same; jewelry of all sorts; gold und silver plate anil ornaments; elocks, watches, furniture, curriages, harness, haberdashery, hosiery, stationery, books; in short, every article of luxury, comfort, or convenience, which Britlsh Industry can produce." According aiso to all the most correct observers of Indian manners, the taste for Furopean fashfous, luxuries, and comforts, ls rapidly extending among the IIindoos. Bishop IIeher, in his interestling journal of a tour through India, strongly confirme thls fact. "The wealthy natives," Lhe observes, " now all affect to have their houses decorated witli Corlnthian pillars, and filled with English furniture; they drive the best horses and the most dashlng carrlagea in Calcutta. Many of them apeak linglish fluently, and are toler-
ahly read in English literature; and the children of one of our friende I saw one day dressed in jackets and trowsers, with round hats, ahoes, and stockings." At Benares he found "Engllah hardware, awords, shields, and spears, from Lucknow and Monghyr; and those European luxurles and elegancies, which are dally becouing more popular in India, circulate from hence through Bundelcund, Gorruekpoor, Nepaul, and other tructs which are removed from the main artery of the Ganges." At Nusseerabad, in the province of Berar, the same traveler mentlons that "English cotton cloths, loth whito and printed, are to be met with commonly in wear among the people of the country, nud may, I learn to my surpriee, be hought best and cheapest, as well as ali klnds of hardware, crockery, writing deaks, etc., at Pallee, a large town and celebrated mart in Marwar, on the edge of the desert, several daye' journey west of Joudpoor, where, till very lately, no European was ever known to have penetrated." In short, it appeare that Britlsh and other European manufactures, from thelr quallty and choapness, are everywhere in demand. They penetrate lato the remotest distrlets of Asla; und now that the termination of the East Inda Company'a
monopoly, whioh took place in 1884, has laid open Hindoostan to the capital and enterprise of Britain, experience proves that an equal damand for them may be anticipated in that country. The preoeding tables contaln a view of the extent and value of the trade of India to all parts of the world. The axcess of exports over imports arisea from the necesaity of making annual remittancen to Grent Britain t'defray the interest of debt, and to meet the expenditure of the home government.
Account of the paincipal Imponte minto Griat Battate phox Iadla in Tnask YaAne, raom 1801-54 to 1802-58,

| Articles. | Quantilee. |  | Value in tierling. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1851-9. | 1858 | 1851 |  |
|  |  |  |  |  |
|  | 81,104,2 | 81,960,90 | 171 |  |
| raln | 024,187 | 1,167,985 | 105, 8 | 177,459 |
| adjgo....... . . . . ibn | 8,198,298 | 6,778,160 | 1,444,7 | 1,188,8 |
| Ivory...........ewt. | 8,149 | ¢,975 | 85,949 | 81,078 |
| Lac. . . . . . . . . . ${ }^{\text {a }}$ | 80,448 | 02,548 | 64,041 | 104,043 |
| Pepper, .........lbs. | 1,918,978 | 1,208,945 | 16,885 | 10.479 |
| Plece-gooda |  |  |  |  |
| Cotton......plec | 208,7 | 428,550 | 71,071 | 180,622 |
| Stlk | 408.80 | 0028.041 | 224, 834 | 267, 855 |
|  |  | 11,211 | 118,848 | 179,414 |
| Ruin......... gallous | 924,463 | 171,094 | 111,814 | 844 |
| Sllk, raw.........lbs. | 1,477, 898 | 1,891,208 | ${ }^{6810,1877}$ | 604,434 |
| Salt | 254,670 | 880,44 | 190,848 | 268787 |
|  | 1,508,051 | ,856,680 | 1,689.1 |  |
| Wool. | 7,056,718 | 12,001,090 | 100,60 | 171,169 |
| Miscell |  | , | 1,111,108 | 1,0711,069 |
| Total m |  |  |  | 2 |
|  |  |  | 7,0 | 128, |
| Grand tota |  |  | \%, |  |

Aocount of tha Quantitiks and dholahid Valua of tir paincipal Abticlise rxpogitid paom Gbrat Brit
 Articles

| Artioles. | Qumatities. |  | Value In tierling. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 14661-62. | 1859-68. | 1858-68. | 1853-637. |
|  |  | $\therefore .$. | 250, 981 |  |
| Books, atationery, etc. |  |  | 118,712 | 118,601 |
|  |  |  | 1,878,949 | 1,112,610 |
| Frales. |  |  | $\begin{aligned} & 1,682,081 \\ & \hline \end{aligned}$ | 8,578,949 |
| Fralts... <br> Jewelry |  |  | $\begin{array}{r} 048 \\ 56,984 \end{array}$ | 121 |
| Malt liquo |  |  | 146,947 | 151,570 |
| Machlnery. |  |  | 11.54 | 28,126 |
| Metala, manufactored.. |  |  | q30,105 | $182,9+4$ |
| " Copper . ...ewt. | $\begin{aligned} & 44,004 \\ & 088,722 \end{aligned}$ |  | 218,842 207,482 | 114,681 |
| " Leall ......" |  |  | -27,329 | 140,092 |
| " 8pelter.... " | 58,758 | 0,070 | 68,738 | 8,748 |
| Salt. |  | 837.946 | 5 | 1,608 |
| Silken goo |  |  | 81,405 | 38,504 |
| Splees,................ | 96,863 | 68,520 |  |  |
| Tell. |  |  |  |  |
| Tobaceo, Reg | $\ldots$ |  | 918 |  |
| Timbisr |  |  | 1,086 | 1,2\% |
| Woolen goods. . . . . . . . |  |  | 200,435 | 114,294 |
| Wines..........gallons | 255,125 | 175,101 | 2016.658 | 141,761 |
| Miscellaneous. | .... |  | 764,204 | 781,817 |
| Total merchandlse... treasare. | .... | ... | 9,220,729 <br> 1,041,016 | $\begin{aligned} & 7,23,1,178 \\ & 2,810,044 \pi \end{aligned}$ |
| Grand total. |  |  | 10,267, 7 | 9 976425 |

The following table shows the several territories which have been annexed, or have been proposed to tie annexed, to tho Indian possessions of Great Britain since the year 1848 :

| Territorles annesad. | $\begin{aligned} & \text { Date of onpesan } \\ & \text { Hon. } \end{aligned}$ | \| , Resaose | Area. | Populalion, | Gross Revenue. | Nell Revenue. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jeltpore (Bundelcund) | 1549 | Fallure of helrs......... | Squaro ievile 1 165 | 16,000 | $\begin{gathered} \text { Tuipees. } \\ 64,130 \end{gathered}$ | Ther <br> Not known |
| Sumbulpors (s0uth-west front- ler liengal). ............... | ) 1849 | Fallure of helrs......... | 4,693 | 274,000 | 98,000 | Not known. |
| Bughat (Cls-Sutley iili States) | 1850 | Fallare of heirs. . ....... Insult to the lirilish Gov-? | $80$ | 8,420 | 7,000 | Not knowa. |
| Part of Slkkin (north-eastern India)........................... | \} 1550 | Insult to the liritish Govornuent in selzing the person of Its representallvc.. | 1,070 | 01,766 | 32,037 |  |
| Oollypore(south-west frontler of (hengal). | \} 1852 | Fallure of heirs........ | 2,300 | 188,000 | 16,480 | Not known |
| Pegu | 1852 | Conqueren from the Burmese turing the lant war | $\} 20,000$ | 1,000,000 | Not known. | Not known |
| Territory resnmed from Meer All Morad, one of the Ameors of Selnde..................... | $\} 1559$ | Forgery of a treaty whereby ho acquired certaln dlastrlets whleds helonged to the llritish Government. | 5,412 | Not known. | 483,058 | 261,043 |
| Connty of Tularam Sonapatter in northern Cachar. | \} 1578 | Mlsconduet and breach of engasement with the Brithsh Government... | 2,160 | 5,015 | 1,20S | 1,017 |
| Nagpore Territory (liansl)... | $185$ | Fallure of heite. | $80,000$ |  |  |  |
| Iluadeleund................. | 1454 1845 | Fallure of helrs......... Fallure of helrs........ | $2,512$ | $\begin{array}{r} 210,000 \\ 010 \end{array}$ | $\begin{array}{r} 018,850 \\ 2.727 \end{array}$ | Not known, Not known |

The cases in which annexation haa been proposed LEvt, July, 1856; Sivcy. Brit., elghth cdition; Com. by the government in Inilin, are-Kerowles (Rajpootana), in $1 \times 52,1800$ square miles, haviag a revento of 511,402 rupees; Aily ghur (Bunilelcund), in 1855, 340 aquare miles, $43,00_{0}$ inhabitanta, and a revenno of $\mathbf{1 7 5 , 0 0 0}$ rupees ; Inchulkırunjle (Colapore), In 1856, 800 square miles, 43,547 int abitants, with a 1 venue of 15,000 rupees ; Tanjore Fort and ground adjacent in

Rel. U. S., $1856-7$.
Recenues of Rritish India 1819-1855,-In alstract statement of the revenues and charges of India, in-
cluding the charges dishursed in Fugiam, for the yenfs $1840-70$ to $1854-55$ (the tast yeur partly eatimated), showing the surplus or deficit in each year converted into aterling monoy, at the estalisished rate 1856. Sec Anunis of British Legislatiom, ly Leone of two ahilings tho sicen rupee :

| Yearb. | firose Revence. | Allowamoes fa aceurdance: wilh Ireatlen. | Nel Rematies. | Charew of erilletion. |  | Toral charges in India. | Charges dif barredt is Pingland. | Tolal eharges. | Surpins. | Testef. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1819-8) | $\frac{\mathbf{f}}{25,094,046}$ | $\frac{2,310,217}{}$ | $20.884,840$ | $8.242,296$ | 17, ${ }^{2}$ | $\frac{\mathbf{x}}{80,298,535}$ | $\frac{£}{9.750,987}$ | 28,081,572 | $\stackrel{t}{854.887}$ | ${ }^{\prime}$ |
| 1830, | 25,488, 150 | 2, 0 , 2,1149 | 29, mil 01007 | 8,940,415 |  | 20,188,015 | 2,717,146 | 22,445,201 | 415, 486 | . |
| 1531-32 | 26, Mratis | y. 47 , Bats | \$4, 645,164 | $8,817,657$ | $18,7 \times 9,534$ | 20,607, 511 | 2,504,877 | 29,118,482 | 681,205 | ... |
| 1852-543 | 20,421,014 | 9, 310, flos | 21.455,435 | 4,114,156 | 17,949,504 | 21,1341, 690 | 2,697,483 | 24,081,178 | 421, 207 |  |
| 1498-54 | 24.575,197) | 4,424,181 | 28,049,096 | 4,248,926 | 18,448,978 | 92,730,804 | 8,262,249 | 25, 098, $1 \times 14$ | ....) | 2,044,117 |
| 1654-65 | 26,651,071 | 2,412, 008 | 24,241,47\% | 4,007,406 | 19,20 8,476 | $23,766,841$ | 8,018,47 | 2n, 785. 184 | .... | $2.542,610$ |

The British prowsessions in Inilia are intermixed with the iluminions of vartous native governmenta, with which political relations, varying in nature and degree, are maintalned. The following table exhiblts the rel-
ative area and population of the presidencies of Bengal, Madras, and Bominy, and those aiso of the native Staten of Ifindoostan, and alao giving the area and population of the separate provinces of the presidencies.

Area and Population of the Batitim Pegsidenoles and the Native states of India.


Abetract of the Fondooino.


Notwithstanding the ravages committed by incessant wars and revolutions, as well ns by famine and pestilence, their usual concomitants, India has from the earlicst times theen a densely-peopled country. In different states of aoclety, tha lnw of the increnee of mankind will vary according to their relative circumstances and position; and the eame, or nearly the smine, principle will be found to apply to those classes who are placed in the opposite extromities of the senle. Among the people who are possessed of affluence, or the moans of commanding tho necessaries and comforts of life, the exercles of mornl restraint is unneceenary; among those who are reluced to a mere phyaical subelstence, withont the possibility, and consequently withont the dealre, of improving their condition, it wlll he disregarded; and henco the sams
results will follow from causes in their own nature diamotrically opposite. But in Indin the great mass of the popuiation have for ages been placed in a situation which excludes all idsa of improvemept ; and.religion has lent its powerfal eld to obstruct the operation of those natural causes which, in other countries, have served to ameliorate the condition of the people. It may, however, be permitted to hope, that though India always has been; it will not alwaya be, what it now fa; that the extension of commerce, under the protection of a vigorous and impartinl government, will awaken new ideas in the minds of the people ; that security to person and property will give a atrong stimulus to industry ; that the habitual contact with a higher and more rational form of civilization will aerve to mitigate their prejudices, and, in time, to deatroy the influence of a dehasing saperatition; and that, in proportion as their wants are multiplied, thair efforte to amsliorate their condition will be increaeed.

Calcutta is the principal eity of the province of Bengal, the capital of the Britlsh dominions in India, and, with the exception, perhapa, of Canioa, the greatest emporium to the enstward of the Cane of Good Hope. Its citadel is in latitude $22^{\circ} 34^{\prime} 49^{\prime \prime} \mathrm{N}$., longitude $88^{\circ}$ $27^{\prime} 16^{\prime \prime} \mathrm{E}$. It is about 100 miles from the sea, being situated on the eastern bank of the western branch of the Ganges, denominated by Europeans the Hooghly River, which is the only arm of the Ganges navigable to any coneiderable distanco ly large ships. At high water, the river pposite to the town is about a mile In breadth; but, during tue ebb, the side opposite to Calcutta, exposes a long range of dry sand-banks. Owing to the length and intricacy of the navigation from the sea, it can not be undertakon witbout a pilot; ao that, even if it did not exceed our limits, it would be useleas to attempt any description of it in this place. The principal merchants and traders consist of British and other Europeans, Portuguese, born in India, Armenians, Jewa, Porsians, from the coast of the Persian Gulf, commonly called Parsess, Moguls, Mohammedans of Iliadoostan, and IIindoos; the lutter uaually either of the Brahminical or mercantila castes, and natives of Bengal. The native Portugusse and Armenian inerchants have of late greatly declined in wsalth and importance. On the other hand, the Pereian merchants have increased in numbers and wealth, several of them being worth $£ 250,000$ sterling. The large fortunse of the Hindoo merchants have been much broken down of late years by litigation in the conrts, and naturally through the luw of equal coparcenary among brothers. To counterbalance this, there has been, since the opening of the free trade in 1814, a vast augmentation of the number of inferior merchanta, worth from $£ 20,000$ to $£ 50,000$ sterling. There are but few Hindoo merchants at present whose wealth exceeda $£ 200,000$ aterling. See Calcutta.

The aale of opium the last five years at Calcutta alone stand thus:

|  | Cheate moid. | Proceede realized by enle. Hupees. |
| :---: | :---: | :---: |
| 1549-50.. | 85,883 | 35,432,079 |
| 180 | . 84,400 | 82,250,839 |
| 1859 | . 88,561 | 87,245,185 |
| 1853 | . 89,468 | 88,848,083 |
| 1554 | . 48,319 | 36,727,584 |

The price paid to the cultivator is about 240 ru pees a chest, the rupee being worth 46 to 50 cents.
This revenue from opium amounts to one seventh o? the total income of the emplre. Of the $£ 4,000,06 \mathrm{\omega}$ which it representa, $£ 1,000,000$ in round numbers is proluced ty a duty levied in Bombay, and $£ 3,000,000$ ty the monthly eale of oplum in Calcutta. For some years past the average production in Bengal has been 36,000 chests, and the averago price of each chest 1050 rupeen, or 300 per cent. advance. Two or three yeara ago, however, the government removed certuln rastrictions on cultivation. Any body might grow it, to any oxtent he plaased, though he must atill sell it at a
fixed price, settled beforehand, and never altered to the opium agent. The profit on this price is so great that the peasants will oultivate it wherever it will grow. The result was an increase of production, whioh increased the eales to abont 56,000 chests.

Opium fall: the cheata which had bronght 1050 rupees sold for 600 rupeee, and the difference in quantity no longer compensates for the difference In price. Tha taste of oplnm, like the tasta of tobacco, naver leaves Its votarien.

Amateagt Vinw op the mxtramal Commeries of Bengal.

| * © Ooumirios | 1mPOLT, 185]-59. |  |  | Trpontrs 1851-63. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Marchandise, | Treasure. | Total. | Merchandlse. | Treasures.' | Total. |
| Great Britain | $\begin{aligned} & \text { Hupees } \\ & 5,189,78,289 \end{aligned}$ | $\begin{aligned} & \text { Rupepf } \\ & 91,54,044 \end{aligned}$ | $\begin{gathered} k u p n e n \\ 0,51,48,826 \end{gathered}$ | $\begin{aligned} & \text { Hupeas } \\ & 4,78,20,145 \end{aligned}$ | Ropeea. 78,053 | Hupess. 4,78,98,199 |
| France... | 9,88,081 | 4,25,850 | 18,68,881 | 48,07,481 |  | 4,78,98,198 |
| North America | 9,09,683 | 2,94,090 | 12,21,748 | 76,84,224 |  | 76,44,224 |
| Mairas Const. | 0,24,838 | 18,08,063 | 27,82,891 | 12,58,090 | 1,47,924 | 14,00,814 |
| Ceylon.. . . . . . . . . . . . . . . . . | 80.681 | 1,80,825 | 1,60,908 | 1,50,240 | B7,100 | 2,07,849 |
| Maldives nad Litceadives. . . . . | 1,86,997 |  | 1,96,902 | 61,689 | , | 60,639 |
| Maiabar Comet. . . . . . . . . . . . . . | 17,75,800 | 8,47,830 | 21,29,180 | 99,71,601 | .... | 29,71,50t |
| Arabian and 1'ersian Gulfs . ... | 7,29,205 | 1,80,722 | $9,09,927$ $84,94,409$ | 12,61,597 |  | 12,51,507 |
|  | 14,69,481 | 16,25,091 | 81,94,462 | 44,04,187 | \$40 | 44,04,676 |
| Ponang and Malacea.......... | 0,12,029 | 1,84,881 | 1,47,260 | 5,44,759 | 7,149 | 8,51,907 |
| Chtra. . . . . . . . . . . . . . . . . . . | 16,00,843 | 89,12,898 | 1,05,18,244 | 8,24,17,277 | . $\cdot$. | 3,22,17,277 |
| New Ifolland................ | 12,66,954 | 16,408 | 12,88,707 | 8,16,644 | .... | 8,16,544 |
| Java end Snmatr | 87,15y | 2,407 | 89,649 886098 | 68,971 |  | 68,971 |
| Pegu..... | 5,84,968 | $8,81,068$ | 8,86,028 | 14,48,888 | 15,96,174 | 30,40, 0.57 |
| Mauritias. | 97, 2083 | 8,81,998 | 8,84816 | 15,05,297 | ©6,870 | 16,51,667 |
| lourbon. ........... | 20,058 | 7,88,905 | 7, 88,963 | 6,06,860 |  | 6, 06,868 |
| Cape and St. Ilelona. | 85,675 1.49014 | 85,850 | T1,025 | 9,63,585 | 2,500 | 2,71,083 |
| İsmbnrg. . . . . . . . . . | 1,49,014 | .... | 1,49,014 | 2,27,960 | . $\cdot$ | 2, 27.300 |
|  | 1,18,996 | *** | 1,18,908 | .... | .... |  |
| Amsterdata. | 1,668 | .... | 1,568 |  | - |  |
| Grieste. | $8{ }^{9}, 0^{\circ} 6$ | 1 $\cdot \cdots$ | 85,956 | 23,048 $4,21,548$ | .... | 83,068 |
| Other places . . . . . . . . . . . . . . . | 05,608 |  | 96,602 | 2,64,278 | . | $4,21,638$ $2,68,27 \%$ |
| Total, Company's rupees | 0,75,14,750 | 8,49,68,184 | 0,24,77,884 | 10,84,68,507 | 10,45,809 | 11.04,00.706 |

The other principal ports are-Bombay, a sea-port on the western comst of Iritish India, lat $18^{\circ} 56^{\prime} \mathrm{N}$., long. $72^{\circ} 57^{\prime}$ E. It is situated at the south-eastoriy extremity of a small island of same nume, separated from the main land by an arm of the sea, forming, with the contiguous islands of Colabah, Salsette, Ifutehers' and Curaigah, one of the best narbors in India. The entrance ls nearly three miles wide, and has a depth of from 36 to 40 feet.

Madras in the second Britiwh Indian presidency, and principal port on the western coast of the Bay of Bengal. It is without port or harbor, lying close to an open roadatead, and the shore having a constant surf. A rapld current runs along the coast, and typhoons are common. Jarge whipa nuchor alont two miles from shore, In the roads, in from 40 to 60 feet of water, and lighters are nsed to load and unload freight.
Ningapore, a British settleinent on an island of tha same name, at the eastern extremity of Malacca, lat. $1^{\circ} 17^{\prime} 22^{\prime \prime}$ N., loag. $103^{\circ} 51^{\prime} 45^{\prime \prime} \mathrm{E}$.

United States ond the Eant Indies.-The commercial intercourse of the United States with tha territories of the Fant India Company is reguisted by tha different local governments thereof, under the supreme control and approval of the Govarnor-General of India in council. The regulations prescribed by these authorities are not of a permanent character, being liable to modificationa and changes whenever, in their opinion, such lecome necessary. To present, however, the true hasis upon which this intercourse reatn, it will be necesnary to refer brietly to the treaty stipulations subsisting leetween the governmenta of the United States and Great Britain ; premising, that prior to the convention of London, signeal on the id of July, 1815 , between the IInited States and Great Mritain, the commercial intercourse of the former with the rimst Indim possessious was regulated, as was that of other forelgn nations, ly a general elause in tho Company's charter, provilling that "vessels of countries in amity with (ireat Hritain may import into, and export from, the Iritish poasessions in Iudia, nuch goods and commodities as may be spectifed in rules to be jreacribed by the Fast India Company; provided that nuch rules shal! not be incoasistent with any treaty now (then) made, or which may be mude between Great Iritain and any foreign State in amity with her, or with any act of Parifament for regulating the affairs of Inclia." liy the convention abova referred to, and the aubsequent
convention of October, 1818, continuing the former, it was etipulated:

1st. That vessele of the United States shall he admitted and hospitably received at the principsl settlements of the liritish dominions In the Eat Indies, viz. : Cnlcutta, Madras, llombay, and I'rince of Walea' Isiand; snd the citizens of the United States may freely trade between the said settlements and the United States, in ail articles of which the importation and exportation, respectively, to and from the aid territorien, shall not be entirely prohibited; and, $2 d$, it was provided, that the citizens of the United States shall pay for their vessels, when admitted, no higher or other duty or charges than shall be payable on the vessels of the most favored Furopean nation. And they shall pay no higher or other duties or charges on the importution or exportation of the cargoes of said vessels than shall he payable on the rame article when imported or exported in the veasels of the mest favored nation ; and, 3d, It was expresely agrued, that the veasels of the United States shall not carry any article from the suid settiements to any port or phace except to some jort or phace in the United States of America, whore the ne me shall be undaden.

This convention is at:! in force, and repriates the commercial Intercourse of the United States with the binst India possessions, except ne to paragrapta 3, which has been susperseded by the repenl of the liritish nuvigation laws in 18.19; the effect of which has been to ofpen the ports of Great Ibritain, and of ail her culonial possessions abroad, to "goods of any sort, in a ship of any conutry, from uny purt of the world.' By an net of the Imperiai Parliament, entitled 13 Victuria, chap. xxix., secs. 3, 4, 5, 6, the Governor-Generst of the laast India possessions was clothed with full puwers to admit, whenever he should doon it alvisabie su to do, to the coasting trade in the East ludiee, the vessels of all forcign nations. This privilege is now cthjoyed by every liag. With theso two exceptions, tho convention of 18 I is atill in full force, and constitutes the only guaranty which the C'nited States gossesses of equal priviloges with the most fuvored nation in its intercourse and commerce with the last India poossessions. Notwithatanding the express etiputations contained in the treaty above referred to, that the East India Company should preacribe no regulations "inconsistent with any treaty now mude, or which may be made, by Great Britain, with any mation in amity
with has represen cers of th by the e United whieh th "the spe paramou the Unite prosented

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172. At I
with her," It has, on more than one occasion, been represented to the Department of State that the officers of this Company do not consider themselves bound by the commercial treatiss which exist between the United States and England." The diapatch from which the foregoligg extract is taken further aays, that " the speedy sattlement of thia quastion is deemed of paramount importance to the commercial interests of the United Statea." No case, however, having been presented to the Department, beyond the naked asser-
tion of the quasi independent movereignty by the offlcars of the East India Company, the necesenity has not yet arisen for an examination of the grounds upon which this claim is based. As the question may, however, hereafter ambarrass the commercial relations of the United States with this portion of her Britannic majesty'a possessions, it has been deemed proper to present the facts in relation to 1 t, whleh have come to the knowledge of the Department. See Commercial Relations U. A.

Coymeboh of the Unithd Statis wifit tai Britiaif East Indizs, from Octoegr 1, 1820, to Jult 1, 1856.

| Yearn ending | Exporta. |  |  | Importe. | Whereof there was in Biollion and Speele. |  | Tonnage Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeallo, | Forelgris | Total. | Total. | Esport, | Import. | Amerienn. | Forejgm, |
| Bept. 30, 1821 | 689,080 | 61,984,190 | \$1,966,979 | \$1,080,790 | \$1,884,949 |  | 8,027 |  |
| BepL ${ }^{\text {a }} 1829$ | 67,979 | 1,963,805 | 2,036,844 | 8.279,217 | 1,980,376 | -** | 8,847 | *... |
| 1823........ | 10,042 | 307,799 | 818,380 | 3,265,061 | 983,059 | . | 895 | .... |
| 1824........ | 84,354 | 927,710 | 902,070 | 441,867 | 782,398 | . | 8,820 | . |
| 1825. | 206,4N0 | 784,629 | 901,079 | 1,756,484 | 665,529 |  | 4,1:24 | . |
| 1828. | 24,226 | 418,048 | 448,268 | 8,510,606 | 859,407 | .... | 2,030 | . |
| 1887. | 32,717 54,199 | 1,018,788 | 1,051,450 | 569,056 | 872,188 |  | 2,430 | . . |
| 1828. | 54,199 89,070 | 795,682 477,629 | 849,881 $\mathbf{5 4 , 6 9 0}$ | $1,049,786$ $1,229,660$ | 650,080 997,801 | .... | 8,441 8,050 | . . . |
| 1880. | 98,781 | 068,126 | 646,857 | 1,371,297 | 160,641 | \$500 | 4,029 | *** |
| Total | * 625,457 | \%,185,850 | 69,811,807 | \%17,482,692 | 1,881,013 | 1500 | 29,908 | . $\cdot$. |
| Sept. 80, 1881. | \%189,443 | 1675,890 | - 807,888 | 61,244,278 | 6486,027 | 888 | 6,481 |  |
| 1832. | 189,218 | 839,285 | 688,453 | 2,638,988 | 218,886 | 11,000 | 5,916 | . $\cdot$. |
| 1888. | 189,156 | 183,848 | 824,999 | 1,882, 069 | 80,910 | 2,700 | 6,785 | .... |
| 1834. | 199,602 | 206,941 | 400,548 | 2,298,012 | 147,825 | 872 | 5,655 | .... |
| 1935. | 864,417 | 330,641 | 754,088 | 1,097,898 | 529,128 | * | 10,389 | ... |
| 1836.. | 239,815 120,501 | 488,481 | 724,776 | 8,954,476 | 851,025 |  | 10,520 | - |
| 1837. | 120,501 | 82,907 | 908,658 | 8,041,849 | 18,850 | 1,200 | 8,487 | ... |
| 1883. | 890,805 | 258,402 | 578,907 | 675,581 | 279,921 | .... | 8,884 | ... |
| 1839. | 240,845 | 887,507 | 594,442 | 2,185,152 | 301,725 |  | 10,057 | ... |
| 184n..... | 280,404 | 851,791 | 682,105 | 1,952,461 | 815.007 | 1,697 | 5,742 |  |
| Total. | ¢2,279,495 | 8,266,263 | 65,545,763 | -20,605, 087 | \%2,758,699 | \$17,041 | 78,816 | -* |
| Bept, 80. 184L........ | *538,834 | \%430,867 | -968,201 | 81,284,64L | \$378,850 | 40 | 12,647 |  |
| 8ept. 80. 1842......... | 380,970 | 248,825 | 068,804 | 1,580,804 | 202,560 | 2,051 | 9,0)79 | 1,129 |
| 9 nos 1849........ | 237,576 | 140,186 | 877,712 | 689,777 | 87,889 | $\cdots$ | 5,415 |  |
| Juine 80, 1844........ | 838,418 | 887,063 | 678,966 | 888,792 | 274,107 | 50 | 10,479 | *... |
| 1845....... | 897,881 8767000 | 184,087 | 481,898 870879 | 1,276,684 | 76,168 73020 | 1.49 | 10,814 | 706 |
| 1846. | 270,600 297,789 | -89,762 | 870,878 873,297 | $1,761,845$ $1,640,457$ | 73,029 100,132 | 1,49 2,800 | 10,979 12.294 | 706 |
| 1849. | 510,294 | 156,715 | 868,999 | 2,069,622 | 56,298 |  | 15,904 | 842 |
| 1849........ | 882,983 | 76,169 | 409,624 | 8,086,284 | 249 |  | 21,020 | 827 |
| 1851).. | 502,613 | 150,446 | 659,459 | 2,685,016 | 85,400 | *** | 29,380 | 2,188 |
| Total | *8,659,575 | 1,951,797 | 5,611,672 | \$15,414,812 | 1,235,888 | \$6,820 | 186,970 | 4,948 |
| Jano 30, 1851......... | * 512,906 | -175,484 | -689,390 | 68,836,883 | \$90,571 | ... | 49,216 | 2,964 |
| Jano 1659......... | 565,188 | - 89,880 | 604,498 | 4,295, 041 | \$550 | ... | 52,788 | 7,780 |
| 1858. | 508,456 | 64,048 | 667,998 | 8,581,780 | 45,727 | - | 50,401 | 6,809 |
| 1504. | 567,193 | 69,219 | 686,412 | $5,378,321$ | 29.721 | .... | 45, 812 | 585 |
| 1855. | 714,110 | 199,144 | 912,263 | 5,457,878 | 65,424 | ... | 80,729 | 4,742 |
| 1856. | 691,993 | 75,091 | 767.629 | 7,005,911 | 30,700 |  | 68,285 | 0,483 |

The whole number of arrivals in the United States from the East Indiea during the year 1856 were 226. In 1855, 168. At Boston, 133 ; New York, 82 ; Salem, 7; Philadelphia, 2; Providence, 1; Savannah, 1.
At Boston, in 1856, 183. In 1855, 100. From Cnicutta, 77 ; Manilla, 22 ; Cape Town, 9 ; Singapore, 4 ; Padang, 4; Peneng, 2 ; Batuvia, 2; Maurilius va London, 1; Foo Chow Fow, 2; Whampoa, 1: Hong Kong via New York, 1; Padang viî New York, 1 ; Singapore viâ Rotterdam, 1 ; Canton, 1; Canton viî London, 1 ; Sumatra, 1; Shanghae vî̂ New York, 1 ; Calcutta viA London, 1.

At New York, in 1806, 82 (of which 50 belonged to Boston and ports east of New York). In 1855, 59. From Manilla, 15; Shanghae, 14 ; Singapore, 12; Foo Chow Fow, 9 ; Calcntta, 9 ; llong Kong, 6 ; Whampoa, 3 ; Penang, 5 ; Canton, 4; Calcutta viâ Loudon, 1 ; Foo Chow Fow via Havama, 1 ; Swatow via IIf vana, 1.

At Salem, in 1856, 7. In 1805, 6. From Zanzibar, 5 ; l'enang, 1; Manilia, 1.
At Philimelphin, in 1856, 2. In 1855, 4. From Calcutta, 1 ; Calcutta vlit London, 1.

At Provideuce, 1 from Zanzibar.
At Savanuah, 1 from Calcutta vî̀̀ Lilverpool.
Clearances.-The whole number of clearances in the United States for the Fast Indles were 161. In 1855, 172. At Boston, 96 ; New York, 40 ; Salam, 8 ; New

Orleans, 6; Providence, 8; Philadelphia, 2; Baltimore, 2; Mobile, $\%$; Portland, 1 ; Nowburyport, 1.

At Boston, in 1856, 96 . In 1855, 75. For Calcutta, 28 ; Batavia, 10 ; Cape Town, 14; Manilla, 6; Bombay, 5 ; Hong Kong, 4 ; Calcutta vià Buenoa Ayres; Б; Madras and Calcutta, 3; Akyalb, 3; Madras, 8 Sumatra, 2 ; Singapore, 4 ; Cuicutta via Loddon, 2, Calcutta viâ Llverpool, 1 ; Zanzibar viâ Providence, 1; Pedung, 1; Columbo, 1; Whampoa, 1.

At Now York, in 1856, 40 (of which 24 traded from Boston and ports east of New York). In 1855, 50. For liong Kong, 9 ; Calcutta, 5 ; Shanghae, 4 ; Cape Town, 8 ; Cauton, 8 ; 13atavia, 2 ; Calcutta, vià Bue nos Ayres, 8 ; Sumatra, 2 ; Bombay, 2 ; Mauritiua, 1 ; Singapore, 1 ; Anjier, 1 ; Akyab, 1 ; Siam, 1 ; Padang, 1.

At Salem, in 1856, 9 . In 1855, 8. For Zanzibar, 7 ; Batavia, 1 ; Penang, 1.

At Now Orleans, 6. Last year, 24. For Calcutta viâ Livorpool, 5 ; Hombay vià Liverpool, 1.

At Providence, 3 for Zancibar. Last year, 1.
At Philadelphia, 2. Last year, 4. For Calcutta, 1; Manilin, 1.

At Baltimoro, 2 for Capo Town. Last year, 3.
At Mobile, 2 for Calcutta. Last year, 0.
At Newburyport, 1 for Calcutta. Last year, 0.
At Portland, 1 for Calcutta viâ Buenes Ayres. Last year, 1: See Amuls Brit. Leg., July, 180̄6, p. 25, " Territorias Annexed."

The Britlah East India posnessions ombrace an almost boundless extent of territory, extending from the Himalaya range of mountalas on the north to the ocean, ineluding nearly the whole of the peninaula of Hindoostan, the laland of Coylon, and that portion of Burmah lying between $20^{\circ}$ of north latitude and the llay of Bengal. These vast poseesalons are supposed to contaln a pepulation of $152,000,000$ of aouls. The Fant Indls Company's posmeseions comprise the several presldencies of, 1st, the Bengal presidency; 2d, the Hlombay presidency; 3d, the Madras presldency; dth, the Agra presldency; and the meveral dependencles of each of these presidenclea.
Bengal.-The commerce of the Unlted Statea with the East Indiea ia principally confined to the presldencles of Bengal unil Bombry, and to $a$ fow of their dependencles. The leading exporta from the East India possessions to the United States are wool, oll-seeda, bldes, modicinal drags, aandal-woods, gams, spices, homs, Indigo, ivory, coir, saltpetre. The princlpal exports from the United States to the East Indies are, tobucco, naval stores, provlsions, ice, and miscellaneous merchandise, copper, plteh, tar, rualn, pine-loards, and apurs. Namber of American vessels antered the port of Calcutta in 1852, 65 ; tonnage, 34,849 . Number of reasels cleared from Calcuttu in the eame year, 101 ; tonnage, $\mathbf{5 9 , 3 4 0}$. In 1853, 109 vessela from the United States entered this port. See Calcutta, Bheoaly, and Gueat Bnitain.

Imports from Calcutta, 1851-1853, 89,676,072; value of exports during the same period, $61,490,899$; apparent balance against the United Statea, $88,185,673$. This heavy balance apparently against the Un. $\mathcal{d}$ States la accounted for by the large diacriminating datlea on all its manufnetures, in favor of similar merchandise importel from the nother country. American vessela usually euter the ports of Caleutta and Bengal in ballast, for the parpose of taking in a homeward cargo.

Bombay.-Exports from Thombay the aune ns from Calcutta. The same description of merchanilise ls imported from the United States. The following market prices at Bombay will show that the articles specified might enter advantageonsly into American exports, not only to that port, but to the other ports in the Fast ludica: Copper sheathing selia at $\mathbf{5 5}$ rupees, or 52745 per cwt. ; duty, 10 per cent ; aanual imports, $\$ 10$ tuns. Copper bolts sell at 50 rupees, or $\$ 25$ per cwt., duty, 10 per cent. ; annual lnports, 700 tons. l'itels, 4 rupees $=\$ 140$ per barrel; annnal importa, 1000 berrela; duty 10 per cent. Tar, 4 rupees $=\mathbf{z} 2$ per harrel ; annual imports, 620 barrels ; daty, 10 per cent. Tonnage duty in lombaty, 1-16 rupee, or nearly 8 cents per ton. Light-iouss dues on shipe from 15 20 rupens $=$ from $\& 750$ to 10 , according to the nature of the carge and time of the year. The rupee le valued by Pope at 46 cents: consular returns from Bombay value it at 50 cents.
l'ilotage la regulated by the season, and is aa follows:

| in | Fronn Sept, to Junm. | From Jwae to Mrint. |
| :---: | :---: | :---: |
| Tonk, Tuan | Eupeane Imoltars. | Rapes. Dillare, |
| 100-800. | 50.2500 | $75=8725$ |
| $800-4109$ | $55=2725$ | $\mathrm{NO}=40 \mathrm{mb}$ |
| $4190-809$. | $61=800$ | $85=4285$ |
| SWO- TON. | $65=8225$ | $90=450$ |
| (ib)- 7101. | $70=3500$ | $95=4725$ |
| 700-800. | $75=3725$ | $104=5000$ |
| 8(M)- 900. | $80=4000$ | $105=5225$ |
| $9 \times 1.10(0)$. | $45=428$ | $110=80 \mathrm{~m}$ |
| 1,100-1,100...... | 180 | $145=7245$ |
|  | 1300060 | $105=7725$ |
| 1.200-1.869...... | $140=7040$ | $105=5225$ |
| 1,800-1,460..... | $150=750$ | $175=6725$ |
| 1,400-1.510...... | $100=80$ ( 0 | $145=9245$ |
| $1,5000-1,600 . \ldots .$. | $170=850$ | $105=9725$ |

The above rates are regulated by the local government of the Company'a ponsessions, and the ptlote are regulariy licensed. See articles Bomnir and East India Company.

The following tabla exhibita the trade of the United States with the East Indien generally:

|  | $\begin{gathered} \mathbf{1 8 5 4} . \\ \substack{567,198 \\ 69,219} \end{gathered}$ |
| :---: | :---: |
|  | $\begin{array}{r} 680,412 \\ 6,878,821 \end{array}$ |
| Exeess of inports ever exports. $8, \overline{014,823}$ | 4,741,909 |

For Commarce, ete., of East India, sen Ed. Her., xlvili., 812, 386, $1 \times x$ ll., 181, 1xx., 157 (Afacadlay); xxix., 885; Chr. Exam., xlvili. (E. Peanody); Weatm. Rev., il. 326 , F'or. Quar., xxill., 93 ("Britlah Usurpatlon' ${ }^{\prime \prime}$, $\mathrm{xxxv}_{4}, 382, \mathrm{xxxvl}_{0}, 306$.

Indian Ocean, Indicum Mare, a v.sst oceania basin, separated from the Pacific on the east by the Aslatic Archipelagonnd Australla, bounded on the south by a line drawn from the Cape of Good Ilope to liass' Strait, divided from the Atiantle by Africa on the west, and inclosed by the countries of Asia on the north. It communleates with the Chinese Sen by the Strait of Malacea, Sundin Stmalt, and the Strait of Flores. I'rincipal Inleta, the Iay of Ilengul, the Sea of Oman, the Persian Gulf, and the Red Sea. Chief straits, the Channe' of Mozamblque, and Palk's Strait. The mest louportant falands are Madagascar, Mauritias, lkonrhon, the Comoro Islands, Seychelles, and Sucotra, belonising to Africa; the Laccadives, Maldives, Ceyton, thin Andaman and Nleobar Islands, to Asia. Its principal aflluents are, in Asia, the Salnen, Irrawsdi, IIrahnasputra, Ganges, Godnvery, Klatna, Nerbudda, Inilus, and the Shat-el-Arab, formed by the junction of the Thgris and Euphrates; in Africa, the Zanbeze. The chief aea-porta are, Calcutta and Iombáy in India; Malaecs, in the Aslatic Archipelago; Aden, Mocha, and Mnscat, In Aralla; Zanzibar, ete., in Africa. Steam-packeta are established between the principal ports. The monsoons, or periodical winds, prevnil in the north part of the ocean, blowing from the sonthweat letween April and October, and southeenst from Octolser to April. Tempests are genems at the periois of change, and between lat. $5^{\circ}$ and $40^{\circ} \mathrm{S}$. vielent hurrieanea frequently occur.
Indiana, one of the United States of North AmerICA, is bounded cast by the State of Ohio, south by the Kiver Ohio, which separates it from Kentucky, west by Illinols, from which it is partly separated by the Watushli Miver, and north by Michigan nud Lake Michigan. It lies between $37^{\circ} 51^{\prime}$ and $40^{\circ} 46^{\prime} \mathrm{N}$. lat., and $85^{\circ} 49^{\prime}$ and $88^{\circ} 2^{\prime}$ W. loug. Extreme length from north to south, 276 miles; grentest breaith, 175 nules, Area, 33,809 aquare miles.
Indiana may le generally charucterized as a great plain, inclining toward the south-west. A range of hilis extends along the Oblo from the mouth of the Great Mianl to Blue River, anil the shore of lake Michlyan is lined by large sundy hills, which rise to a helght of 200 feet. In some othor parts are to be fonnd "knobs," but these are sehlom of great extent or clevation. The surface of the conntry naturally divides itself into several extensive river valleys. 'I he valley of the Ohio, comprising an aren of nhout 5500 square miles, is a linestone tract, and was originally covered with forests. About one third of it is ruggeel and Groken, so an to be untlt fir cultivation. The White Kiver Valley, extemling through the centre of the State, from the Wabash to the Ohin, contains ahout 9010 en unre milles. This ilistrict is almost unifurmly level, and richly wooded, exeept in the west, where there are some ranges of low rugged hills, and several patches of prairie grount. The asi! is of the richent kind. The Whbash Valley ia much larger than the others, and contains upward of 12,000 equare miles. The eastern portion equaie the White iliver Valley in fertility, but the other parta are not no productive. The northern part of the state, watered hy tho St. Joseph and the Kanknkee Hivern, is somewhat inore
awampy the comprising ered only w The Stat streams and and Wabast is the largee the State, as fourtha of tl Ohlo, and $f$ then southwhich it fol till It falls is 800 mlles ; fi boats at hig southern bou rivers of Ind White RIver by the West about 300 an miles above Misms is form aorth-east, a Joseph, with em counties,
Indiane re of the Ohio than those on sudden chang northern parte cept in the ne the climate is ing of the geol "it posessses tllity." The where it is $\mathbf{v}$ most producti whieh run par extensive vall scription. Bel out, forming country, and river valleys, these is not so the expense of parts of the St vation. India Union in the It also produce Irish potatoes, productiona cor
The number in 1850 compris proved land $7,746,879$ acres $\$ 135,000,000$.
$\$ 322,000$, and $r$
The chief m marble, freeato is by far the $m$ that the coal be and are eapah square mille. county, and ex Vermilion upwa

The manufa amounted to 87 etc., consumed products were, Juns 1, 1850, 432 annually to the 2 were cotten works, and 358

Indiana has a considerable on ties of agricultu ala communicat
swampy than the Wabach Valley 1 and a large tract, comprising the sand-hills on Lake Michigan, is covered only with stunted plaes and burr oake.

The State is well watered by nnmerous beantlful str"ams and rivers, but with the exception of the Ohlo and Wabash, fow of them are navigable. The Wabash is the largest river that has its course mainly within the State, and, together with its branchea, drains three fourth.s of the entlre surface. It rises in the west of Ohio, and flows first in a north-west direction, and then south-west tili It meets the boundary of Illinois, which it followf southward for more then 100 miles, till it falls Into the Ohlo, after a coarse of upward of 800 miles ; for $\mathbf{4 0 0}$ of which it is navigable for ateamboats at bigh water. The Ohlo forms the entire southern boundary of the State. The other principal rivers of Indlana sre tributaries of the Wabash. The White River, the most important of thees, is formed by the West and East Forks-iwo rivers, respectively about 300 and 200 miles long-whlch unite about 100 miles above its conflaence with the Wabash. The Miami is formed by the St. Joseph and St. Mary in the north-east, and falis into the Ohio. The Upper St. Joseph, with Its tribataries, passes throngh the northcrn countiea, and falla into Lake Michigsn,
Indisna resembles the other western Staten north of the Ohio in climate. They are generally milder than those on the Atlantic coasts, but very subject to sadden changes. The winter is very severe in the nortiern parts, but more genial in the southern. Except in the neighborhood of wet pralries and ewremps, the climate is averywhere healthy. Dr. Owen, speaking of the geological position of Indians, remarks, that "it posessses all the elements of extraordlnary fertility." The richest soll is that of the river bottoms, where it is very deep and exceedingly fertlle. The most prodactive are those inclosed by the river hills, which run parailel to the Ohlo and other rivers. The extensive valley of the Wabash is a tract of this description. Behind the river hllls, a table-land spreads out, forming what may be called the interior of the country, and here, instead of the bottom-lands, or river valieys, there are vast prairies. The soil of these is not so luxurisnt, but Is such as smply to repay the expense of culture. Even the wet and marshy parts of the State admit of being brought ander cultivation. Indiana ranks fourth of the States of the Union in the absolute amonnt of Indian com ralset. It also produces large quantitles of wheat, oats, and Irish potatoes, as well as a falr proportion of the other productions common to the western States.

The number of farms in Indiana noder cultivation in 1850 comprised 93,896 aeres, and the extent of improved land was $5,046,548$ scres ; of unimproved, $7,766,879$ acres. The value of the farms retnrned was $8135,050,000$. The orchard produce was estlmated at 8322,000, and market-garden producte, $\% 71,000$.
The chief minerals of Indiana are coal, iron, Itme, marble, freestone, and tome copper. Of these the first is by far the most important. It has been estimated that the coal beds of Indiana cover 7700 square miles, and are capable of yielding $50,000,000$ bushels to the square milie. One coal deposit commences in Perry county, and exiends north-west into the county of Vermilion upward of $\mathbf{1 5 0}$ miles.
The manufactrring capital of Indians in 1850 amounted to $87,941,602$. The value of raw material, etc., consumed in the yenr had been $910,214,837$. The products were valued at $1818,922,651$. There were on June 1, 1850, 4326 industrial establishments, prodncing anaually to the value of 8500 and upward. Of these, 2 were cotton factories, 23 woolen factories, 19 iron werks, and 858 tannerles.

Indiann has no direct forsign commerce, but it has s considerabie transit trade, and exports large quantithes of agricuitaral produce. The facilities for Interasl communication are great, and rapidly increseing.

The principal canals are the Wabash and Erle Canal between Evansville, on the Ohio, and Toledo, on Lake Erie, 467 miles, of which 879 milee are in Indiana; and the White Water Canal, 68 miles long, uniting Lawrenceburg, on the Ohfo, Vith Hagerstown. In 1858 the State had 755 miles of railroad completed, and 979 in conrse of construction. The princlpal rallroads centre in Indlanapolis, and radiate from thst clty In all directiona. See Dr Bow's Rev., 1., 512, vil., 246; Bankers' Mag., ill., 164; Hunt's Mfer. Mag. xxi., 147.

Indian Ink. A species of ink used in Europe for the lines and ehadows of drawings. It is principally manufactured in China, and there nsed for writing. From the experiments of Dr. Lewis, it appears to be a compound of fine lampbisck and animal glue. See INK.
India-rubber. Also called caoutchonc, frot brought to Europe from South America. Several plants produce various kinds of elastic gum; but that in commerce is chiefiy the juice of the Siphonia Elastica, or syringe-tree. Incisions in the bark of this tree give vent to a liquid whlch forma India-rubber. No substance is yet known which is so pliable, snd at the same time ao exceedingly elaatic ; it cozes ont undor the form of a vegetable milk, from inclsions made In the tree, and is gathered chiefly in the time of rain, because it flows then most abundantiy,-M. Macguer.
The most satonishing and useful discovery of the 19th centary, after the practlcal application of steam and electricity, is the employment of Indla-rubber for manufacturing purposes. The first knowledge of it is due to La Condsmine, a French philosopher, who in 1780 was sent by hie government to Peru to measure an arc of the meridian. The tree which yroduces rubber or caoutchouc (as it is called by the natives of South America), is found in the troplca of both hemlepheres. It rises to the height of 50 or 60 feet, without branches, and is crowned or tufted with rich foliage. The leaves are a deep green, thick and glosay, six or seven inchea in length; the bark ia amooth, and the fruit conaists of white almonds, of an agreeable flavor, much liked by the natives. In order to obtain this substance, the natives of the valley of the Amszon make a longitudinal gash in the bark of the tree with a narrow hatchet; a thick, white and oily liqnid (a sort of vegetable milk) flows out, a wedge of wood is inserted to keep the gash open, and a small clay cup is stack to the tree beneath the gash. In four or five houra the milk ceases to ran, and each wound has yielded from three to five table-spoonfuls. The "seringero," or rubber gatherer, then empties the contents of the cups into an oartian vessel and commences the operation of forming it into shapes and smoking it. This must be done at once as the milk soon cosgulates. A flre is made on the ground, of nute of the waason paim tree, over which is placed, inverted, an earthen pot with a hole in the bottom whence lssues a jet of pungent smoke. Molds are made either of clay or wood, whlch are dipped into the milk, snd then passed slowly through the hot smoke. When the required thickness is obtained, the molds are cut or washed out. Snoking changes the color of the rubber very little, but hy exposure to the sun snd atmosphere it beconies brown, and in thme biack. The superiority of the rubber 1 ir ported from the valley of the Amazon is sald to be owing to the pectuliar properties of the smoke of this nut, no other sunoke producing a similar effect upon the gum. A belt of forest trees extends 10 degrees each side of the equator, which yield Indiarubler of various kinds; so the aupply is literally inexhauatible. The gum from India snd the Pacifie coast of Sonth Americs is ohtained by allowing the sap to flow down the side of the tree, and is then gathered with the loose bark and dirt into ceroons or bandles for ahipment. For a loug time this substenco was valued simply as an object of curiosity, to be preserved

In collections of natural hiotory, anc. irst practical application was an an oracer of pencil marks.
 tge Unitid Stated ron fin Yan midige jufa dotu, 1850.
 T18R

| Whences irmported. | Mannfinetured. | Unmanufactured. |
| :---: | :---: | :---: |
| Dantsh Weat Indles | Dullara. | Dellars. |
| Hambarg. | 88 | 2,548 |
| Bremen.. | 922 |  |
| Holland. |  | 9,047 |
| Inteh West Indies | .... |  |
| Datch East Indies. |  | 41,90\% |
| Englant. ... . . . . . . . . . . . . . . . . . . . . . . . | 82,982 | 87,409 |
|  | 1,690 |  |
| Other British North American pos... | 1 | 781 |
| British West Indless...... . . . . . . . . . . . | .... | 1,174 |
| British Honduras. . . . . . . . | . . | 128 |
| British pusseaslons in Africa . . . . . . . | .... | 8,753 |
| British Exast Indles...... . . . . . . . . . . . |  | 80.494 |
| France on the Aliantic................ | 12,104 | 461 |
| Other ports in Arrics. | .... | 5,878 |
| IInyth.............. | -*** | 844 |
| Mextco. | . $\cdot$. | 771 |
| Central Republe. | . | 289 |
| New Granada. | - | 70,274 |
| Venezuela. |  | 11 |
| Brazil. | . | 711,826 |
| Chill. | , | 10,045 |
| Peru. . . . . . . . . . . . . . . . . . . . . . . . . . . . | - | 47 |
| Total. | 97,796 | 1,045,576 |

Alout the year 1821, Charles Macintosh of England. having learued how to dissolve the gum in spirits of turpentiue, commeaced manufacturing the goods which now bear his name, by spreading the gum no dissolved between two layers of cloth. The rude overshoes made by the nativea in South America from the natural gum, were beginning to he worn, and in 1823, 500 pairs of shoes were imported into Boston. At a later date gum-elastic became the sntjject of seientitic investigation and :oany persons commenoed experimenting with it. in 1832, the considerable mannfacture of it was commenced in Massachusett, by John Haskina and Edwia M. Chaffee, who, in connection with oth-
ors, otarted the colebratel Roxbory Inderrubber Company, whioh was shortly after tacorporated with a capital of 400,000 . For thia Company Mr. Chaffes Invented the famous mammoth machins for apreading rubber withcut a aolvont-the machina itself costing nearly $\$ 30,000$. Similar machises are now required by all manufaeturore of raluber goods. . The apparent proaperity of this Company induced the atarting of factoriea In Boaton, Chelaba, Woborn and Framing. ham, Maes., Naw York city, Staten Island, and Troy N. Y., with capitala of from $\$ 50,000$ to $\$ 500,000$. These Companiea made their goods by diasolving the rubber in camphene or other molventa, then mixing lamphlack with It, and while in the forin of pasto aprosding it on cloth from which coata, ete., are made. The goods were then dried in the sun or in a warni room until the solvent avaporuted, leaving a coating of rubber. 300 Gutta Percha.

Indies, Dutoh See Java.
Indigo (Fr. Ir ligo; Gor. Indigo ; Sans. Nili; Arab. Neel; Malay, Taroom), the drug which yields tho beautiful blue dyo known by that name. It is obtained by the maceration in water of certain tropical plants ; but the indigo of commerce is almost entirely obtained from leguminous plante of the genus Indigo fera; that cultivated in India being the Indigojera tinctoria; and that in America the Imdigofera anil. The Indian plant has pinnate leaves and a alender lig neous atem ; and when auccessfully cultivnted, risea to the height of three, five, and oven six feet. Before the American colonies were entablished, nll the Indigo used in Europe came from the Eant Indies ; and until the discovery of a passage ronnd the Cape of Good Hope, it was conveyed, like other Indian products. partly throngh the Persian Gulf, and partly ly land to Babylon, or through Arabia and up the led Ses to Fgypt. The rual nature of indigo was so little known in Europe, that it was classed among the minerals, as appears by letters-patent for ereeting works to obtain it from mines in the principality of Halberstadt, dited December 23,1705 ; yet what Vitruvius and Pliny cali indicum is supposed to have been our indigo.- Beckmans. The first mention of indigo occura in English statuten in 1581. The first brought to Europe was procured from Mexico. Its cultivation was begun in Carolina, in 1747. It appears pretty certain that the cuiture of the indigo plant, and the preparation of the drug have been practiced ln India from a very remote epoch. It has been questioned, indeed, whether the indicum men. tloned by Pliny (Hiat. Nat. lib., xxxv., e. 6), was indiko, but, as it would seem, without any good reason. Pling states that it was brought from India; that when diluted it produced an admirable mixture of blue and purple color (in diluendo misturam purpure caruleique mirabilem reddit); and he gives tests ly which the genuine drug might be uiscriminated with sufficient precision. It is true that l'liny is egregionsly mistaken as to the mode in which the drug was produced; but there are many exampies in modern as well as ancient times, to prove that the posesssion of an tielo brought from a distanco implies no oceurate kno.ntedge of its nature, or of the processea followed in its manufucture. Beckmann (Hist. of Inerntions, vol. iv., art. Indico), and Dr. Baucroft ('ermanent Colora, vol. i., pp. 241, 252), have eaci investigated this subject with great learning and sagacity; and agree in the conclusion that the indicum of Pliny was real indigo, and not, as has been scpposed, a irug prepared from the isatia or woad. At ail events, there can be no question that indligo was imported into moderu Lurope, by way of Alexandria, previonsly to the discovery of the ronte to Iudia by the Cape of Good Hope. When first introduced, it was customary to mix a little of it with woad to heighten nnd impruve the color of the latter ; but, by degrees, the quantity of indigo was increased ; and woall was, it last, entirely auperseded. It is worth while, however, to
remark, uas with growere prohibit odict wa indigo, o be taken cause," dyod arti couatry! ther, and oath once continued urgent re the solicit was prohil 1737, that dye with pleased.who may h graph, smil tato nomine aition is ma importation reasona tha the importa Indigo is inces subjec 20th to the ince of Tint Java; in Lt unds ; and $h$ America.

Btataman

| Great Britaln France....... Arablan and 1 Rombay. 8 weden. Elsewhero... |
| :---: |

It deserves of the trade, selves to the method, and whole annual ture of indigo respects the but also as r drug which th In the same as 41,000 chests, cheata; and maands, while than 172,249 increased for quantity. In from Calentta though the qua vailue rose to 1 was no corresp on tho contrar bo accounted placed on the of colonial nrti consequent diff lia, and an und article of India
remark, that indigo did not make Its way into genaral $\mid$ digos and tha quantity produced in the other placea is use without encountering mincl, oppoition, The grocere of reoad prevailed on meveral govermmenta to prohlbit the use of indigo ! In Germany, an imperiul edict was published in 1654, prohibiting the use of indigo, or "devir's dye," and directing great care to be taken to prevent ite clandeatine importation, "because," anys the edict, "the trade in woed is leseened, dyed articles injured, and money carried out of the country !" The magintraten of Nuremberg went further, and compelled the dyers of that city to take an oath once a year not to use indigo; which practice wha continued down to a late period. In 1898, upon an urgent representation of the States of Languedoc, at the aolieltation of the woad growert, the use of indigo was prohibited in that province; and lt was not till 1787, that the dyera of France were left at liberty to dya with such articies, and in such a way, as they plessed.-Beckmann, vol. iv., p. 142. Let not those who may happen to throw their eyes 0 is this paragraph, amile at the ignorance of their ancesterb-Mutato nomine, de te fabula narratur. How much opposition is made $f$ - most countriea at this moment to the importation of, any important articles, for no better reasona than wero allegod in the 16 th century against the impertation of indigo !

Indigo is produced in Bengal, and the other provinces subject to the presidency of that name, from the 20th to the 80th degree of north latitude; in the proviace of Tinnevelly, unuer the Madras government ; in Java; in Lucenia, the principal of the Philippine Islunds ; and In Guatemala, and the Caraccas, in Central America. Bengal is, however, the great msit for in-
comi: tively linconsiderathle.

Raynal was of opinion that the culture of indigo had been introduced Into Americ. by the Spaniards: bnt thie is nudoubtedly an error. Several speciea of indigefera belong to the Naw World; and the Spanlards used it as a anbetitute for ink, very soon after the conquest. (Homnourt, Nouvelle EEpagne.) For the first 20 years after the Einglish became masters of Bengal, the cultnre and manufactare of indige, nrw of such importance, was unknown as a branch of Bricish industry ; and the exporta were but trifing. The European markets were, at this period, principally suppliad Prom Americn. In 1788, however, the attention of the English began to be directed to this business $;$ and thangh the procensen pursued by them be nearly the same with thess foliowed by the natives, their greater akill, intelligence, and capital give tham immosae advantages. In their hands, the growth and preparation of indigo has become the most important employment, at least in a commercial point of view, which can be freely carried on in the conntry, the culture and preparation of opium being a monopoly. The indige made by the natives suppliee the internal demand; but a portion of that which is raised by them, with all that is raised by Europeans, is exported. In the Delta of the Gangen, where the beat and largent quantity of indigo ls produced, the plant laats only for s aingle aeason, being destroyed by the periodical innndation; but in the dry central and western provinces, one or two rattoon cropa are obtalned; and owing to this circamatance, the latter are enabied to furnish a large supply of reed to tbe former.


| Countries. | 1830-s1. |  | 1840-41. |  | 1851-59. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quamity. | Value. | Quantity. | Value. | Qoandity. | Value. |
| Great Britaln. | Fy.manda $85,741$ | $\begin{aligned} & \text { Banece; } \\ & 85,74,100 \end{aligned}$ | $\begin{aligned} & \text { Fy. mannds } \\ & 84.205 \end{aligned}$ | Hapens. <br> 1,65,81,074 | Ind, minnmis. | Enjper. 27,18. 127 |
| Franoe........ | 28,151 | 24,15,100 | 20,260 | 40,56,266 | 24,791 | 1,89,64,102 |
| North America, | 8,599 | B,80,900 | 4,522 | 0,45,868 | 8,751 | 5,97,297 |
| Arablan and Perslan Quifo..... | 10,089 | 10,98,900 | 5,069 | 9,64,414 | 8,887 | 6,81,194 |
| Hombay...................... | B50 | B5,000 | 687 | 1,27,409 | 2074 | 22,795 |
| 8 wreden | 248 | 24,800 |  |  | $\ldots$ |  |
| Bremen... Elew hero. | 83 | 8,800 | $\begin{array}{r} 2061 \\ 781 \\ \hline \end{array}$ | $\begin{aligned} & 41,256 \\ & 15,775 \end{aligned}$ | 1,687\% | 2, $\ddot{7}, 961$ |
| Total. | 1,23,508 | 1,86,55,600 | 1,15,269 | 2,27,11,802 | 1,17,004] | 1,82,10,636 |
| Botng in pounds.. | 9,444,241! | .... | 8,601,557] | .... | 0,083,871 |  |
| "tons. |  |  |  |  | $\begin{aligned} & \text { Tonene crit. } 1 \text { ce } \\ & 4,80012 \quad 27 \end{aligned}$ |  |
| shipped for Britatu only. | 2,556 8 8 861 | $\cdots$ | 2,805 5888 | *... | 2,905 8 95 | .... |

It deserves to be remarked, that since tho opening of the trade, Indian capitalists have betaken themselves to the manufacture of indigo on the Earopenn method, and that at present a considerablo part of the whole annual produce la preparod by them. The calture of indigo is very procarious, not only in ao far as respects the growtil of the plant from year to year, but also as regards the quantity and quality of the drug which the same amount of plant will afford even in the same sessen. Thus the produce or $1825-26$ was 41,000 chests, while thst of $1826-7$ was but 25,000 chests; and in 1842 the produce was only 79,000 mannds, while that of the following year was no less than 172,249 mannda! The price of Indigo in India, increased for a whila, in a far greater ratio than the quantity. In 1813-14, the real value of that exported from Calcutta waa $11,461,000$; but in 1827-28, although the quantity bad increased lout 20 per cent., the vaiue roes to $£ 2,920,000$, or was about doubled. There was no corresponding rise in the price in Europe, but, on the contrary, a decline; and the circumatance is to be accounted for by the restraints that were then placed on the Investment of capital in the production of colonial articles sulted to the European market, the conseqnent difficulty of making remittances from India, and an unnutural flow of capital to the only great article of Indian produce and export that was aupposed
capable of bearing its application. The consumption of indigo has varied but little in England during the last 10 years, having been, at an sverage of that period, about $2,000,000 \mathrm{lbs}$. a year. This staticnary demand, notwithstanding the fall in the price of the drug and the increase of popalation, is principally to be ascribed to the decreasing nse of bius cloth, in the dyeing of which it is principally made use of. Ita consumption In France is sbout as great as in Britain. Besides the experts to Great Britoin, France, and the United States, a good deal of Bengal indigo is exported to the perts on the Persian Gulf, whence it finds its way to southern Russia. It is singular that it is not used by the Chinese, with whom blue is a favorite color. The indigo of Bengal is divided into two classea, called, in commercial language, Bengal and Oude; the first being the prodice of the southern provinces of Bengal snd Bahar, and the last that of their northern provinces and of Benares. The first is, in point of quality, much superior to tha other. This arose at one time, in a considerable degree, from the practice which prevailed in the northern provinces, of the Europesn planter purchasing the wet fecula from the Ryet or native manufncturer, nnd completing the processes of curing and drying the drug. This is at present in a groat measure diacontinued; and the Oudo indigo has, in consequence, considerably improved In quality. Its

Inforlority is probalily more the result of soll and ellmate, than of any difference in the aklli with which the inanufacture is condacted.

|  | 184. | 1843. | tis4. | 1845, | 146. | 1417. | 124.3 | 1849. | 1880. | 158. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mnepa. | Mament. | Tousis | Mannde. | 3Funde. | Mauade. | Waumbs. | Mauarla. | Meunds | Maunds, |  |
| Pengal | 48,170 | 104989 | 87.040 | 84,696 | 68,077 | 78,010 | 88,480 | 82.8279 | 70,500 | 74,1000 | maumis. |
| Ttrhoot | 12,010 | 41,470 | 98,492 | 81.816 | 11,418 | 18.800 | 97,419 | 24,009 | 81,060 | 81,010 | 90,183 |
| Benares. | 18,900 | 12,878 | 12800 | 14.718 | 18,789 | 11.040 | 10,118 | \$,800 | 19,000 | 11,000 | 18,775 |
| Onde. | 4800 | 9,608 | 4,800 | 98800 | 7,805 | T,460 | . 6,690 | 6, 600 | 8,018 | 9.000 | 7,525 |
| Total. | 79,000 | 172, 940 | 148,907 | 187, 067 | 101.885 | 110,000 | 140805 | 181,970 | 112,522 | 128,000 | 121,809 |

In addition to the exports from India, indigo is exported from Java, the Pblifppine Ialande, Ceutral Amoriea, ond other pleces. In 1 it is the exports froni Batavta amounted to $1,653,869$ libe., and, we belleve, they have varied but little in the intarval. In 1850 the exports from Manilla ware estimated at about 450,000 lbe. According to Humt jut, $1,800,000$ lise of Indigo were exported from Guatemala in 1825. Hut if so, its production must huve fallen off greatly in the interval. It doen not now probably exceed 500,000 lbs. in all Central America. Indigo is also produced in some of the West Indla Ialands, but in small quantitios. Good ladigo is known by its lightness or small specific gravIty, indicatling the abeence of earthy impurities; by the mase not readly parting with its coloring matter when tested by drawing a atreak with it over a white surface: but above all, by the purity of the color itself. The first quality, entimated by this last test, is calld, in commercial language, fine bue; then follow ordinary Bue, five purple, purpis and violet, ordinary purple and violet, dull Bue, inferior purple and violet, strong copper, and ordinary copper. These distinctions refer to the Kengal luiligo oniy, the Oude being distinguished only into fine and orvi,uary. The indigo of Madras, which is superior to shat of Manilia, is abont equal to ordinary Bengai Indigo. The Indigo of Java is superior to these.

We subjoin an account of the prices of Bengal indigo of medium quality, at the quarteriy sales in London, from 1847 to 1801, both inclualve:

| Veam. | February. | May. | July. | Orioter. |
| :---: | :---: | :---: | :---: | :---: |
| 151 |  | ${ }_{6}{ }^{1}$ | $410$ | $4{ }_{4}^{4}$ |
| 1550. | 48 | 46 | 49 | 56 |
| 1549 | 89 | 40 | 40 | 10 |
| 1948 | 41 | 87 |  |  |
| 134 | 18 |  |  | 58 |

For further information as to indigo, nee Colknhooke's Ilusbandry of Rengal, p. 154; Minnurn's Orient. Com.; Wiskisson's Commerce of Bengal; Wrlann's Reriew of do. ; evidence of Giliian Maclaine, Feq., Fant India Committee, 1830-31, etc. The fixed capital required in the manufacture of indigo consists of a fow vits of common masonry for steeping the plant, and precijftating the coloring matter ; a twiling and drying-house; and a dwelling-house for the planter. These, for a factory of 10 pair of vatn, capathe of producing, at an average, $12,500 \mathrm{ibs}$. of indigo, wrorth on the spot about $£ 2500$, will not cost alove $£ 1500$ sterling. The buidings and machinery necesmary to produce an equal value in augar and ram, would probally cost about $\mathbf{£ 4 0 0 0}$. This fact, therefore, without any reference to municipal regutations, affords a ready answer to the question which has been frequently put, why the planters in India have selfoln engaged in the manuficture of augar in preference to that of indigo.

Cultiration of A merican Indigo.-At the present moment, and for the past two years, the supply of the first quality indigo has not been equal to the deniand for it, and that demand is constantiy increasing. Some very excellent indigo, well adapted for anaking chymic, used to be obtained from Guatemala, bat the kind most esteemed is the first quality of Bengal, for which we are dependent on a colony of Great Britain. About 12 years ago the best Bengal indigo could easily be obtained, but at present it in almont unknown in the
market. A spurious article, however, much resembiling it, ls abundant, but it does not possess one half the coloring matter of the genuine, and yet it is solch at a retail price varying from 6a. to 14n. per pound. Our object is to direct the attention of our southern plantera to the cultivation of the Indigo plant, and the manufacture of the bee kinds of indigo, for the inferior kinds are by far too plenty. Abont 60 vears ago and wlthin that period, some very fine qualities of is. digo used to be cultivated In South Carolina; its char acter was much hlgher than the finest Guatenula or the beat Bengal, but it is now unknown in the arta, to the great regret of calico-printers, dyers. and leatherdreasers. In the fermentation of the lad'go-piant no much oxygen ls absorbed, that lts manufecture was found to be very injurious to the health of the negroes on the plantations. This wan one reason for giving up its culture ; and another, and perhaps the strongent was the higher profits derlved from the cultivation of cotton. It appeare to us now, however, that with exercise of auflicient care, the health of the negroes may be maintained as well as in the rice culture: olso that the price which could now he obtained for it would be very remunerative. There are hundreds of persons in our conntry who would rather pay 82 per pound for the best kind of indigo-that quality wlich was manufactured at one time in South Carolinn, or the kind that was sold for the best Bengal 12 yeurs ago-than that which is now sold for 75 cents per pound. We think these considerations ought to induce some of our planters to engage in the cultivation of the tinest quailties of indigo. See Ilunr's Mer. Mrag., xiii., $227^{\text {; }}$ Jour. of Sci., x viii., 237 ; Bincy. Ilrit.

Statenent raowine the Exports of Indioo prov til


| Whather esporied. | Pounde. | Vinue, |
| :---: | :---: | :---: |
| 1Janish West Indles.............. | 234 | (1)124 |
| \|lamburg. . . . . . . . . . . . . . . . . . . . | 28,239 | 21.24 |
| \|fremen .... . . . . . . . . . . . . . . . . . | 84,660 | 21,461 |
| England. | 14,47t | 1-,171 |
| ( Ibrallsr.. . . . . . . . . . . . . . . . . . . . | 764 | 814 |
| Canain..................... | 796 | atos |
| Other British North Ainer. pus.. | 8 | 10 |
| British West Indles. . . . . . . . . . . | 5,843 | 1,919 |
| Canary Islanda. . . . . . . . . . . . . . . | gu1) | 219 |
| Cuba. . . . . . . . . . . . . . . . . . . . . . | 8.505 | 2,443 |
| Turkey in Eiaropw . . . . . . . . . . . . . | 1,1037 | 0,1 |
| Hayt1.. . . . . . . . . . . . . . . . . . . . . . | 1,141 | 85 |
| San Domingo.. . . . . . . . . . . . . . . . . | 105 | 74 |
| Mexico. . . . . . . . . . . . . . . . . . . . . | 564 | 661 |
| Uruguny. . . . . . . . . . . . . . . . . . . . . | 1,1817 | 1.0.51 |
| Total. | 92,529 | -70,460 |
| From warehouse. . . . . . . . . . . . . . . Not from warehouse | $\begin{aligned} & 43,824 \\ & 49,215 \end{aligned}$ | -10,042 (5) $x_{2} 84$ |

BTATKMEXT SHOXINO THE IMPORTH OF INDIO INTO TH


| Whence irpported. | Poundr. | Volue. |
| :---: | :---: | :---: |
| Moltand. | \% 26 | 1104 |
| Bagland | 508.198 | 365.973 |
| Canala. | 540 | 813) |
| Other British North Amur. pos... | 224 | 134 |
| Brittsh Ifonduras. | 42,689 | 82,211 |
| Britixh East Indles | 622.108 | 416,122 |
| thillppine talsuds. . . . . . . . . . . . . . | 467,899 | 123, 221 |
| Cuba. . . . . . . . . . . . . . . . . . . . . . | 468 | +62 |
| Mexico. | 1,060 | 1,122 |
| Central Republtc. . . . . . . . . . . . . . | 1,928 | 1.44 |
| New fradsda.. . . . . . . . . . . . . . . | 5,810 | 4,417 |
| Venuauela | 146,870 | 115,199 |
| Cbiba. | 175 | -10 |
| Total. | 1,782,290 | 1,1089,743 |

## Indorm

Righta and payable to ject to Indor the back of and are som ble bill or may indorse ber of person pay to the p an order to $p$ ine is then to the payee or able element indorse, and indorser, by 1 he orders the snd next, he not pay, ho w gotiable note dorsement by Upon the who reason and aut as it may, be dorser whonev over it, it shall sence of evider payee no claln iadorser can ha ond may haves is receivable to the note for th becoming respo If he indorse t? payee, the cons and he may be or as a maker. ter it was made other holder, he and the connider is bonnd only by consideration. gotable can be second indorser, before his own bill may be held guarantor or aure indicate or requi tion or a new one a legal obligation
It the words " accldentaily and terward inserted and whether a hil to be a question and notes which a and foily transfer dorsement may be the name of the p :ndorsee-with $n$ blank, and a bian! transferable by tl had originally bee ment consista not shove the name, to son, then it is an 1 be paid to no one fully transferred, indorsee; sud he fail. If the Indo equivaiont words, it over.

Any bolder for hisak, whether he it has come throug name indorsel an o and this makes it a

Indormement.-The Jaw of Fudoratment, and the Rights and Dutiee of an Indorasp,-Only a note $6:$ bill payable to a payee or order, is, atricdly speaking, subfact to Indorsement. Thn :e who write their namem on the back of any note or blll, are indorsers in ons sense, and are sometimes called so. The payee of a negotiable bill or note-whather he be also maker or notmay indorse It , and afterward any person, or any number of pernons may indorse it. The maker promisen to pay to the payee or hin order; and the Indorsement is als order to pay to the Indornee, and the maker's prome. ise is then to him. But if the original promise was to the payae or order, this "or order," whloh is a negotbable eiement, passea over to the indornee, and he may indonse, and so may his indorsee, indefinitely. Each indorser, by his indorsement, doen two thinge; first, he orders the antecedent parties to pey to his indorsee; and next, he engages with his indorsee that if they do net pay, ha wili. What effect an indorsoment of a negotiable note or bili, by one not payee, before the ln dorsement by payee, ehould have, is not quite certain. U'pon the whole, however, we should hold, with some reason and authority, that where auch a name sppears, sa it may, be made to have the place of a second indorser whenever the payee chooses to write hls name over it, it ahall be held to be so Intended, in the absence of evidence; and then, of conrse, it gives the payee no claim against sach a party, becanse a first fadorser can have none agoinst a second, but the second may have a claim againat the first. Bnt evidence is receivable to prove that the party put his name on the note for the purpose of adding to its secarity, by becoming responsible for it to the payee. And then, If he indorse the note before It was received by the payee, the consideration of the note attaches to him, and he may be held either as surety for consideration or as a maker. If he wrote his name on the note after it was made, and, at the request of the payee or other holder, ho is bound only as a guarantor or surety, and the consideration of the note belng exhausted, he is bound only by showing some new and Independent conalderation. No one who thus Indorses a note not negotisblo can be treated or considered precisoly as a second judorser, whatever be the names on the paper before his own; but any indorser of auch s note or bill may be hold to be a new makor or drareer, or a guarantor or surcty, as the circumstances of the case indicate or require ; but elther the original conaideration or a new one must attach to him to affect him with a lagal obligation.
if the words " to order," or " to hearer," are o .itted accidentally and by mistake, it seems they may be afterward inserted withont injury to the bill or note: and whether a bill or note is negotiable or not, is held to be a question of law. By the law-merchant, bills and noten which are payablo to order can be effectually and fully transforred only by indorsement. This indersement may be in blank or in full. The writing of the name of the payee-cither the ariginal payee or an indorsee-with nothing more, is an indorsement in blank, and a biank indorsement makes the bill or note transferable by the delivery, in like manner as if It had originally been paid to bearer. If the indorsemeat consists not only of the name, but of an order above the name, to pay the note to some specified person, then it is an indorsement in full, and the note can be paid to no one eise; nor can the property In it be fuliy tranaferred, except by the indorsement of such indorseo; and he may again indorse it in blank or in fall. If the indorsement is paid to A 11 only, or its equivalent words, A II is indorsee, but can not indorse it over.
Any holder for valne of a bill or note Indorsed In bank, whether he be the first indorsee or one to whom it has come through many hands, may write over any same indorsed an order to pay the contents to himself, and this makes it a special indorsement, or an indorse-
ment in full. This is oftion done for mecnrity, that as to guard againat the lons Cf the note by aceldent or theft. For the rule of the law le, that negotiable paper, transferable by delivery (whether payable to bearer or indorsed In blank), Lis, Ike money, the property of whoever recelves it in good faith. The same rile has been extended, in England, to exchequer billa, to publio bonds payable to bearer, and to East India bonds ; and we think it wonld extend hare to our rallroad and other corporation bonds ; and, perhapa, to all such inetruments as are payable to bearer, whether nealed or not, and whatever they may be called. If one has such an instrument, and It be atclen, and the thief passes it for consideration to a bond fule holder, thie holder sequires a legal right to it, bucause the property and possesaion go together. But $I f$ the bill or note be apecially indoraed, no person can acquire any property In it, excejic by the indcrsement of the apecial indorsee. It lasald, however, that this precaution protects only the party who has thus mane himself a speclal indorsee, and that the former parties remain liable in the same way as If the indorsement continued blank.

At one time this acquirement of rroperty in negotiablc paper was defeasible by wr of proof or care; that is, if a holder lost hla nc sud a thiof or finder passed it off to a bona fule holuer, the property did not pass, if the clrcumstances ware such as to show negligence on the part of the purchaser, or a want of due inquiry. But this question of negligence scems inw to be at an end, and nothing less than fraud defeats the title of the purchaser.

The written transfer of negotiable paper is called an indorsement, because it is nimost always written on the back of the note; but it has its full legal effect if written on the face. Joint payees of a bill or note, who are not partners, must sll ídorse. An Indorser may always prevent his own romsibility by writing "without recourse," or other equivalent words, over his indossement; snd any bargain between the indorser and indorsee, written or oral, that the indorser sball not be sued, ls available againat that Indorsee, but not against subsequent indorsees, without notice. A bill or note may be Indorsed conditionally, and an acceptor of a bill so indorsed, who paid it before such condition is satisfled or complied with, has been held to pay it agaln after the condition is performed.

Every indorsement and acceptance admits conclusively the signature of every party who has put his name upon the bill previously in fact, and is also previous in order. Thus an acceptance admita the aignature of the inswer, but not the stgnature of one who actually indoraes before acceptance, because acceptance is in its nature prior to indorsement. If a holder strike out an indorsement by mistake, he may restore it ; if on purpose, the indorser is permanently discharged. If the plaintiff, in his declaration, derives his title through all the previous indorsemente, all must be there, and proved. But a holder may bring his action against any prior indorser, and fill any blank indorsement, specially to himself, and sue accordingly; but then he invalidates subsequent indorsements. The reason is, that he takes from them all right to ladorse; thus, for example, if A makes a note to B, snd B, C, D, E, and F, indorse it in blank, and $G$, the holder, writes over C's name, "pay to $G$," it is as if $C$ had written this himself, and then $G$ only, could indorse, and, of course, D, E, and F could not, as they wero mere atrangers. And a holder precluden himself from taking advantage of the title of sny party whose indorsement is thus voided. Nor can he strike out the nsme of any indorser prior to that one whom he makes dofendant; for, by so doing, he deprives the defendant of his right to look to the party whose nane is stricken out, and this discharges the defondant.

One may make a noto or bill payablo to his own order, and indorse it In blank; and this is now rery
common in our commercial cities, bocaune the holder of such a blll or noto oan tranefor it by delivery, and it needs not hir mdorsement to make it negotiable further.

A tranafor by delivery, withous indorioment; of a bill or note payable to bearer, or indorsed in blank, does not generaily make the tranufarrer responaible to the transferree, for the peymont of the instrument. Nor has the tranofesrete a right to fall back, in case of non-payment, upon the trinaforrer, for the original censideration of the transfor; if the bill were transforred in good falth, in exoharge for money or goods; for such tranafor would be heid to be a sale of the bill or note, and the purchater takes it with all risks. ${ }^{\text {c }}$ But it acems not to be so where such a note is delivered elther in payment or by way of security fos a proslously exioting debt. Then if the traneferrer has lost nothing by the reception of the note by the trans-forree-because if he had continued to bold the note, be would have. lost lt-there seems to be no reason why the tranaferree sheuld lose it. We have no doubt that such a tranoforrer may make himeelf liable, without indorsement, by express contract ; and that circumstances might warrant and require the implication that the bili or note no traniferred remained, by the agreement and understanding of both parties, at the risk of the transterrer. And every such transferrer warrants that the bill or note (or bank-note) is not forged or fctitious.
An indorseme at may be made on the paper before the till or note is drawn; and auch indorsement, saye Lord Mariafield, "is a letter of eredit for an Indefinite aum, and it will not lie in the Indorser's month to say that the indorcemente were not regular." The same rule applice to an acceptance on blank paper. ' 80 , an indorsement may bo made after or before acceptance. If made after a refusal of acceptance, which is known to the indorsee, he takes only the title of the indoreor, and is subject to all defenses available againat him. A bill or note once pald at or after maturity ceases to be negotiable, in reference to all who could be prejudiced ly ite tranafer. So, where a bill drawn payable to a third person, by whem it is incorsed, is dishonored and taken up by the drawer, it ceames to be a negotiable instroment; for the drawer has no title to indorse it. But if onc draw a bill payable to his oren order, and indorse it over, and, opon the bill being distonorel, take it up, he may indorse it ngain, and this latt indorsee can recover against the acceptor. And if a bill or note is paid before it is due, it is valid in the hands of a aubeequent bond fide indorseo.
A portion of a negotiable bill or noto can not be tranaferred so as to give the transferree a right of action fur that portion in his own name. Rut if the bill or note be partly pald, it may be indorsed over for the balance. If an aculon be brought on a blil or note, no transfor during the pendency of such action gives to the traneferree a sight of aro" $d$, unlesa he was ignorant of the action; "' ane transfer is valid. After a holder'a death his pernonal reprementotive ahould tranafer, But is, seemn that if a note neeaing indorsement was indorsed by the holder, bat net delivered, the executor can not complote the tranifer lyy delivery. The husland who acquires a right to a bill or note given to the wife, either bofore or after marriage, may indorse. One who may claim payment of a bill or note, and of whom payment may also to demanded, or one vie is liable to contribate for the paymont of a note, can net aue upon it. Hut if only the technical rule-that the same party can net be plaintiff and defondant-provente the action, in may be avolded by indornement over to another before maturity.Pansoxa' ELemente of Mercantils Lav; eh. ix. See articles Bulas of Exchaxas; Stoay on Billo; Xext'a Commewaries on American Iaso ; Danber's Mag., vole. V., vi., vili; En. Bril., artlele Excharge; Barcue on Bill ; Manmal for Noteries Public.

Indus. This great river of Asla has lits rise in Thitbet, at the aorth of the Kailas mountalin, regarded In Hindoo mythology as the mansion of the gods, in about lat. $82^{\circ}$, long. $81^{\circ} 80^{\prime}$, It frot takea a northweaberily direction for ahout 460 miles, whot it in jotned by the river of Dras, whleh, rising in the mountains of Cashmere, and roculving evveral atreams both from the east and west, diseharges a eonsiderable volume of wator at lts conflaonce. At Mekpon-i-Shageron, in lat. $85^{\circ} 48^{\prime}$, long. $74^{\circ} 80^{\prime}$, the Indas emerges from the mountainous region, and turning eouth (a course Which it thenceforth continues to the soas), takes its way through the country north of Attock. Close above this last-mentioned town, and at the distance of 870 miles from ite eource, the Indus recelves on the western aide the great river of Cabool. Hoth rivery have a large volume of water, and as they meet amid numorous rocka, the confluence is tarbalont; and attended with great nproar. The town of Attock is aitunte about 1000 feet above the sea-level, and sbont 17,000 foet bolow the source of the Indus, which falla, therefore, 16,000 feet in 870 milee, or at the average rate of alout 19 foet per mile. The length of its channel from Attock to the seas is 942 millea, and, consequently, In thet lower part of its course, It falis little more than 1 foot per millo. For about 10 miles below At. tock, the river, though in general rolling batween high cliffs of slato rock, has a calm, deep and rapld ourrent ; but for 100 milles further down to Kalubagh, it becones an enormous torrent. Lientenant Wood, descriling this section of Ita coarse, observes, "It here rashes down a valley, varying from 100 to 400 yards wide, between precipitous banks from 70 to 700 feet high." From Kalabagh southward, to Mittunkote, distant alont 850 miles, the banke, either right or leff, are is several places so low, that the first rise of the river covers the conntry ronnd with water, extending, as the inundation advances, as fur as the oye can reach. On entering the plain, the water loees ito clearness, and becomes lomded with mud. Two or three milies below Mititunkote, and about 490 miles from the ses, the Inciss receives the waters of the Punjand, the channel which conveys the cellected atream of the Puajoub. Above the confluence, the breadth of the Indus is iess than that of the other river, but in consequence of the greater depth and velocity, the former bas the greater volume of water. Wood found that the Indna, near the cenfluence, had a breadth of 608 yards, a velocity of about five milea an hour; a depth of 12 or 16 feet, and discharged 01,719 eubic feet per becond. The I'unjnul had a breadth $\mathbf{x} 1766$ yarda, a velocity of about two milea an hour, a depth of 12 or 15 feet, and discharged 68,955 cubic feet per second. Beiow the Juactien, the Indua in its lowest state in 2000 yards vide. Ite aspect in this part in weli described by Major Bolleau. He вayw, "At the plaes where we crossed the Indus, aimoot immediately below its janction with the Punjoud, ite atrean is 2047 yanis, or nearly a mile and a quarter in breadth, at a piace where ite width is unbroken, either by ixlazds or sand. banks. The banks are very lew, and the water very mudly, having juast began to rise from the melting saow at ita sources, nor is the streain of very great depth, except in the main channel; but with ail thene drawbacks, it in a magnificent aheet of water, a very prince of rivers." Below Mittunkote, the river passes in euccession the towns of Sukkur, Bukkur, Sehwan, Ityderabad, and Triecal. The last mentioned of these towna is altuate in lat. $25^{\circ} 9^{\prime}$, longe, $68^{\circ} 21^{\prime}$, and here the delta commences; all the country below it, and contained between the Fulailee hranch on tire enst, and the extreme wentern branch of the river, being, with little exception, alluvial, and obviously deposited by the atream. At about five milea below Tatta, and 60 milen from the aea, the Indas divaricates into two great branohee, the lloggnar, whloh flows westward, and the Sate, which maintains the previous course of
the In uation interse tion, 1 from dry pa mainde awamp inflaen than 6 the dIff high an at the greatly derabad breadth, The riv the mel until th estaries Nouth, ing creel the follo warree, Sata), H Pitty; at The leng ses to A to be 945 miles, mi 1800 mile from the 19 feet ; tance of al to Mittun) inchee, an appears d commencio
Ingot, cast in an York is p port.
Ink (1) Inchioutro Tinta; Sw writing or link. Com of black link; 2. 1r dian lak is for paintin manufactur ment as fr ore made of the additio sential to it flame of al over it, mi purchment ink equal Dlack paint of a firm b tude to adh molature.

## The anel

 Ivory black. black; but goid, silver, of vermillio is hrought if the people of the artilicial antiquily. quadranguld animal give Black JnThe
the Indus sonth ward, and 15 , in atrictness, the continuation of that river. The lower part of the delts is Intersected by rivers and creeks in almost overy direction, like the delta of the Gangea; hut it $\mathbf{n}$ far differs from the latter, that it has ne trees on lte aurface, the dry parts being covered with brashwood, and the remainder, hy much the largest part, being noisome owampe or muddy lakee. It is remarkable that the inflaence of the tides is not falt at a greater distance than 60 or 68 miles from the eon. At the mouths of the differeat lranches, the rueh or influy of the tide is high and dangerous, ranning, as has been eatimated, at the rate of fonr milee in honr, though varying greatly at different places. From the een up to Hy derabad, the Indus is in general about a mile in breadth, varying in depth from two to five fathome. The river begins to awell in the middle of July, from the molting of the snow, and contlanes to increase until the end of August. The most eastern of the estuaries cennected with the Indus is the Koree Moath, from which, proceeding westward, the romaining creake or eatuariea moet worthy of notice, occur in the following order: The Seer, Mull, Kaha, Kcokewarree, Kodywarree (discharging the watern of the Sata), Hujarareo, Jooa, Durbar, Pitteeanee, Ccondee, Pitty, and Gisree. The apring-tide rises nine feet. The length of the nevigable part of the river from the sea to Attook, has been ascertained by measurement to be 942 miles, that of the upper part is about 870 miles, making s total length in round numbers of 1800 miles. The average declivity of the water-course from the locality of the source to Attock is, per mile, 19 feet ; from Attock downward to Kalabagh, a dlstance of ubout 110 miles, it is 20 inches; from this placs to Mittunkote, a distance of about 850 milies, it is eight inches, and thence to the ess eix inchen. The Indus sppears destined to become an important channel of commercial communication.-EE. T.

Ingot, a mass of gold or ailver molted down and cast in a mold, but not coined or wrought. A large portion of the gold received from Callfornia at New York is put into this shape for more convenient export.
Ink (Du. Ink, Inkt; Fr. Eivcre; Ger. Dinte; It. Inchioatro; Lat. Atramentum; Ruc. Tochernilo; 8p. Tinta; Sw, Blak). Every llquor or pigment used for writing or printing is distinguished by the name of jak. Common pructice knows only black and red. Of black thers are three principal kinds: 1. Indian ink; 2. Printers' ink; and 8. Writing ink. The Indian ink is used in China for writing with a bruah, and for painting upon the soft fiexible paper of Chinese manufacture. It is ascertained, as well from experimeot an from information, that the cakes of this ink are made of lampliack and sizo, or animal glue, with the addition of perfumen or other substances not esseatial to its quality as an ink. The fine soot from the flame of a lamp or candite received by holding a plate over it, mlxed with clean sise from the shredi of prochment or giove-ieather not diyed, will make an lak equal to that imported. Good printers' ink is a biack paint, amooth, and uniform in itg composition, of a firm biack color, and possessee as singuiar aptitude to adhere to pajer thoroughly impregnated with moisture.
The ancient black inkn were composed of anot and ivory black, aad Vitruvlus and IHiny mention lampbleck; but they hud likewlee various coiors, as red, gold, silver, and purple. Ked lak was made by tiem of vermilion and various kinda of gum. Iadian ink is brought from China, and muat have been in tse by the people of the East from the earlinat agea, moat of the artiticial Chinees productions boing of very great antiquity. It is usnally brought to Europe in amall quadrangular oaken, aud is eompoeed of a fine black soimal glue.-BпскмАкм.

Black Jak,-Nutgalla, sulphate of Iron, and gum,
are the only substances truly useful in the preparation of ordinary ink; the other things often added morely modify the ohade, and considerably diminish the coos to the manufacturer upen the great scale. 1 Mary of thess inks contain littlo galle acid, or tannin, and are therefore of inferior quality. To make 12 gallons of Ink, we may take 12 lbs. of nutgalls, $B$ lhs, of green oulphate of iron, 5 lbs , of gam senegal, and 12 gallons of water.

The bruised nutgalls are to be put into e cylindrical copper, of a depth equal to its diameter, and bolled, during three hours, with three fourths of the above quantity of water, taking care to add fresh water to replace what is lost by evaporation. The decoction is to be omptied into a tuh, allowed to settie, and the clear liquor being drawn off, the lees are to be drained. Some recommend the addition of a littio bullock's blood or white of egg, to remove a part of the tannin. But this abetrection tends to leasen the product, and will seldom be practiced by the manufacturer intent upon a large return for his oapital. The gam is to be dissolved in a small quantity of hot water, and the mucilage thus formed, being filtered, is added to the ciear decoction. The suiphate of iron must likewise be separately dissolved, and well mixed with the ubove. The color darkens by degrees, in consequance of the peroxydizement of the iron on exposing the ink to the action of the air. But ink affords a more durable writing when used in the pale state, hecause its particles are then finer, and penetrate the paper more intimately. When ink consists chiefly of tennate of peroxyd of iron, however black, it is merely superficind, and is easily orased or effaced. Therefore, whenever the liquid made by the above prescription has acquired a moderatoly deep tint, it ohouid be drawn off clear into botties, and well cerked up. Some ink-makers ailow it to mold a little in the caaks before bottling, and snppose that it will therehy be not so ilisble to become moldy in the bottlee. A few brulsed cloves, or other aromatic perfume, added to ink, is aaid to prevent the formation of moldiness, which is produced by the ova of infusuria animalcules. I prefer digesting the galls to boilling them.

The operation may be abritged, by peroxydiaing the copperas beforehand, by moderate calcination in an open vessel ; but, for the reanens above assigned, luk made with such a suiphate of iron, however agreeable to the ignorant, when made to ghine with gam and ougar, under the name of japan ink, is neither the most durable nor the nost pleasant to write with. From the comparatively high price of gall-nnte, sumach, logwood, and even oak bark, are too frequently snbstituted, to a considerable degree, In the manufscture of ink. The ink made by the preacription given above, is much more rich and powerful than many of the inks commoniy sold. To bring it to their atandard, a half more water may safely be added, or even 20 gallona of tclerublo Ink may bo made from that weight of materiais. Sumach and logwood admit of only about one half of the copperas that gelle will take to bring out the maxinnm smonnt of black dye. Chaptal gives a prescription in his Chimie appliqtie aux arts, which, like many other things in that book, are publiehed with very little knowledge and discrimination. IIe uses logwood and sulphats of copper, in addition to the galis and sulphate of iron; a perniclous combination, productive of a epurious fugitive black, and a liquor corrosive of pens. It is, in fact, a modification of the vile dye of the hattera. Lewis, who made exsct e:sperimente on inks, asaigned the proportion of 8 parts of galis to 1 of sulphate of Iron, whioh, with average gaila, will anawer very well; but good galla will admit of more copperas.

Gold Ink is made by griuding upon a porphyry slab, with a muller, gold leaven along with white honey, till they be reduced to the finest poeslible division. The paste ia then collected upon the edge of a knife or
spatula, put into a large glass, and diffused through water. The gold by gravity soon falls to the botto: while the honey dissolves in the water, which must be decanted off. The sediment is to be repeatedly washed till entirely freed from the boney. The powder, when dried, ia very brilliant, and when to be used as an ink, may be mixed up with a little gum water. After the writing becomes dry, it should be burnished with a wolf's tooth.

Silver Ink in prepared in the same manner.
Indelible Ink.-A very good Ink, capable of resisting chlorine, oxalic acid, and ablution with a hair pencil or sponge, may be made by mixing some of the ink made by the preceding prescriptlon, with a little genuine Cbina ink. It writes well. Many other formula have been given for indelible inka, but they are all inferior in simplicity and usefniness to the one now prescribed. Solution of nitrate of silver thickened with gum, and written with upon linen or cotton cloth, prevlously imbued with a solution of soda, and dried, is the ordinary permanent ink of the shope. Before the cloths are washed, the writIng should be exposed to the sunbeams, or to bright daylight, which blackens and fixes the oxyd of silver. It is easlly discharged by chlorin and ammonia. A good permanent ink may be made by mixing a atrong solution of chlorid of platinum with a little potash sugar, and gum to thicken. The writing made therewith should be passed over with a hot amoothing iron to fix it.

By decompoeing vanadate of ammonia with lnfusion of galls, a liquid la obtained of a perfectly black hue, which flows freely from the pen, is rendered blue by acids, is insoluble in dilute alkalis, and resists the action of chlorin. Whenever the metal vanadium ahall become more abundant, as it probably may ere long, we ahall possess the means of making an ink, at a moderate price, much superior to the tannate and gallate of iron. To prepare the above vanadic ealt cheaply, the cinder or hammerschlag obtained from the Iron made at Ekeraholm, In Sweden, or other Iron which contains vanadium, being reduced to a fine powder, is to be mixed with two thirds of its weight of nitre, and one third of effloresced mola. The mixture is to le ignited in a crucible; sooled and lixiviated, whereby aolutions of the vansdates of potash and soda sre obtained, not pure, indeed, but sufficiently so for being decomposed, by merus of asl ammoniac, into a vanadate of ammonia. This being rendered nearly neutral with any acid, constitutes an excellent Indellble ink.

Iodelible Ind may be propared by a dding lamplanck and indigo to a solution of the giuten of wheat in acetic acid. This ink is of a beautiful black color, at the sanis time cheap, and can not le removed by water, chlorin, or dilute acids. M. Ilerberger gives the fullowing directlons for its preparation: Wheat-gluten is carefuily freed from the atareh, and then dissolved in it little weak acetic acid; the liquid is now mixed with so much rain water that the solution has about the strength of wine vinegar, i. e., neutrulizes 1-16 of its weight of carbonate of solla. 10 gra of the best lampblack and 2 grs , of indlgo are mixed with 4 oza , of the solntion of gluten, and a little oil of clovea added. This ink may ine einployed for marking linen, as it does not resint mechanleal force.

Ink, indelible, of Dr. Traill, ia easentlally the same an the above. French indelible ink connints of Indian Ink diffused through dilute muriatic acid, for writing with quills, and through weak potanh lye for writing with steel pens.

Red Imk.-This lnk may be made by infusing, for three or four daye in weak vinegar, llrazil wood chipped into small pleces ; the infusion may be then boiled upon the wood for an hour, atrained, and thickened ilightiy with gutu arabic and sugar. A little alum improves the color. A decoctlon of cochineal with a lituls water of ammonia, forms a more beantiful red
ink, bnt It is fugitive. An extemporaneona red ink of the aame kind may be made by dissolving carmine in weak water of ammonia, and adding a little mu. cilage.

Green Ink.-According to Klaproth, a fine Ink of this color may be prepared by boiling a mixture of two parts of verdigris in eight parts of water, with one of cream of tartar, till the total hulk be reduced one half. The solntion must be then passed through a oloth, cooled, and bottled for use.
Yellow Imk is made by dissolving 8 parts of alum in 100 of water, adding 25 parts of Persian or Avignon berries bruised, boiling the mixture for an hour, straining the liquor, and dissolving It in 4 parts of gnm arable. A oolution of gamboge ln water forms a convenient yellow Ink.
By examining the different dye-stuffs, and considering the processes used In dyeing with them, a vuriety of colored luks may be made.
China Ink,-Proust says, that lampblack purified hy potash ley, when mixed with s solution of giue, and dried, formed an ink which was preferred by artists to that of Cbina. Mr. Merimé, in his interesting treatise, entitied De la peinture d l'huile, says, that the Chinese do not use glue in the fabrication of their Ink, but that they add vegetable juices, which render it more brilliant and mors indelible upon paper. When the best lampblack is levigated with the purest gelatine or solution of glue, it ferme, no doubt, an ink of a good color, but wants the ahining fracture, and is not so permanent on paper as good China ink; and it stiffens in cold weather into a tremulous jelly. Ciue may be deprived of the gelatinizing property by boiling it for a long time, or antijecting it to a high heat in Papin's digester; but as ammonia is apt to be generated in this way, M. Merimée recommends starcii gum made by sulphuric acid (British gam) to be used in preference to glue. He glves, however, the fullowing directiona for preparing this lak with glue. Into a solution of glue he poura a concentrated solution of gall-nuta, which occanions an elastic resinous-lookiog precipitate. IIe washos this matter with hot water, and diesolves it in a apara solution of clarificd glue. He filters anew, and concentrates it to the proper degree for being incorporated with the purified lmmpblack. The astringent principle in vegetables dees net preoipilate gelatin when ite acid is saturated, as Is done ly boiling the nut-galla with lime-water or magnesia. The first mode of making the ink is to Le preferred. The lamplack is asid to be mands in China, by collecting the smoke of the oil of sesimue. A little camphor (about 2 per cent.) has been itetected in the ink of China, and is supposed to inprovo it. Infualon of galls renders the ink permanent ou paper.

Sympathetic Ink.-The best is a solution of muriats of cobalt.
I'rinters' Ink. See Uns's Iict. for full details.
Blue Ind.-Mr. Stepheus's patent blue ink is made by dissolving Yrussian blue in a solution of oxatic acill. The thue should be washed In dilutc untiatic acid. M. Mornung has given the following as the lest formula for blue ink: Mix 4 parts of perchiorid of iron, in solution, with $7 \cdot 50$ parts of water, titen adil 4 inarta of cyanid of potassiun dissolved in a little water; collect the precipitate formed; wash it with sevoral alditiona of water; allow it to draln until it weighs absut 200 parts ; add to thin 1 part of oxaile acid, and promote the solution of the cyanid by silaking the bottie containing the mlxture. The adiition of gum and augar is uselees, and even appears to exercise a jrejudieial effect on the beauty of the ink. It may be kept withont any addition for a long tine.--Uns's Dietionary of Manyfactures. Bee Indian ink.

Inlele, a sort of brood linen tajee, principally manufactured at Manchester and some other towns in Lancachire.

Inladd kluds of inla of matorial. furnitnre of grest variety atc. The $B 1$ tion, wherein or tortoise-sh of ebony, are woods and mo the pleces inl quisite boxea the marvelou of London in inlaid flowerir in the bolder colora being nevel and bea niture with merely panne flowers and on kind of art caz cultivation in plied most of pistra dura, wl decorstive furn
Insolveno solvent Act in was of limited extenslive oper and particularl benefit of the a was taken in $\mathbf{F}$ time of its passi 13 years. Sinc have been sever ars, or, being tr may petition th composition, ane cess against the Act amended, 8

Bankruptey. trader who secre tending to defra to defraul is not s bankrupt; wh or a person who fraud his creditor
Insotveney.--In Great Britai of persons, while trulers. In forsig denomination. 1 any degree of cri England is consol In America, vario enactment for all act of Congreas on pealed in 1843. which an alostrac the bankrupt law 41. The French modlied the Corde permits declaratlo his decease. The ir tration of estates o permitted in Portu ruptey is institutes bankrupt. In ge Lord Ordinary. given to. the tribu committed $\ln$ ling male provinus to a f they are entered contracting party. made within 10 das colvency, are void

Inlatd vorory. There are many pretty and varied kinds of inlaid work mannfactured from small fragments of material. There ia the Marquetric or inlaid cabinetfurniture of France, consisting in inlaying woods of a grest variety of tinta, In the form of flowers, ornaments, etc. The Buhl, or Boul-work, is also of French invention, wherein metala are inlaid npon a ground of ebony or tortoise-shell. The elaborate German cabinets, made of ebony, are inlajd with precious atones and various woods and metals. There is the Mosaic inlay, in which the piecen inlaid are extremely amall, and of which exquisite boxea are made by the Hindoos; witnese, too, the marvelous Spanish table at the Great Exhibitlon of London in $8,000,000$ of pieces. The Parquetrie, or inlaid flowering, which differs from Marquetrie chiefly in the bolder acale of the designs; woods of different colors being cut to pattern, and inlaid. There is the novel and beantiful process of inlaying articles of furniture with porcelain; the inlaid portions are not merely pannels and pilasters, but paintad porcelaln flowera and other ornaments. The Pietra Dura is a kind of art carried to great perfection in Tuscany: its cultivation in that country has for a long period suppied most of the palaces of Europe with works in pietta dura, which rank among the finest examples of decorstive furniture.

Insolvency and Bankruptoy. The first Insolvent Act in England was passed in 1649, bnt it was of limited oparation; a number of acts of more extensive operation were passed at varione periods, and particularly in the reign of George III. The benefit of the act known as the Great Ineolvent Act wss taken in Englsnd by 50,783 insolvents from the time of ite passing, in 1814, to March, 1827, a period of 13 years. Since then, the acte relating to insolvency have been several times amended. Porsons not traders, or, being traders, whose debts are less than $\mathbf{£ 3 0 0}$, may petition the Court of Bankruptcy, and propose composition, and have pro tem. protection from all process againat their persons and property, 6 Vict., 1842. Act amended, 8 Vict., Augast, 1844.--1IAydn.

Bankruptcy,-Blackstone detines a bankrapt-"A traicr who secretes himself, or does certain other scte tending to defraud his creditors." But an intention to defraul ie not now hold to be essential to constitute a bankrupt; who may be either aimply an insolvent, or a person who is guilty of certain acts tending to defraud his creditors.
Insolvemer.-A nalysis of the Laws of Bamkruptcy. -In Great Britain, insolvency is applied to every class of persons, while bankruptcy in excluaively applied to traders. In forsign countries, insolvency is the general denomination. Laskruptoy ls declared when there la any degree of crimiaulity. The law of bankruptcy of England is consolidated in the 12 and 13 Vict., c. 106. in America, various attempts were made for a general ensctment for all the Statea, but with no success. The act of Congreas on the subject, passed in 1841, was ropesled in 1848. Special insolvency laws exist, of which an abatract ie given hereafter. In Scotiand, the bankrupt law is ineluded in the 2 and 8 Vict., chap. 41. The French law of the 28th of May, 1838, has modified the Code of Commerce of 1807. Article 437 permits declaration of the insolvency of a trader after his decease. Tie law of Scotiand authorizes the seqnestration of estates of a deceased debtor. The same is permitted in Portugal. In Eagland a Court of Bankruptey is instituted, which may adjudge the creditor a bankrupt. In Scotland the eame is placod with the Lord Ordinary. In France the same authority is given to the tribunal. Acts of bankiuptoy may be committed in lingland in varions ways. Ail acts male previous to adjuilication of liankruptcy are valid, if they are eatered into bond sule on the part of the contracting party. In France, the following acts, made within 10 days preceding the opening of the incolvency, are void: lat. Acts transferriog property'
gratuitousky ; 2d. Payment of debte not due, and of those due aettled otherwise than with commercial offects; 8d. All mortgagen, antlchrese, or security, consented to for anterior debts ; and, lastly, all acts whatever made by the debtor with a third party who was cognizant of his having atopped payment. Articlea 58 to 54 of the Prussian code oontain also aimilar inetructions. The Spanish code fixee 30 daya; the Portuguese code, 40 days; the Dutch code, two months previous to the insolvency as the time during which the insolvent could not alienate his property gratuitously, or endow his children, or transfer or mortgage his real eatate.

The Dutch code declares void the donations made by the insolvent at any time where he knew his affairs embarrassed, although the donatee was boná fide. The Ruseian code prohibits the wife and children of the insolvent to reclaim the donations made to them. By Article 1451, the property engaged by the insolvent, and not yet sold, may be redeemed, and form portions of the assets. As to the administration of the insolvency in England, assignees are chosen by the creditors, under the aupervision of the Court. In Scotland, creditors are to elect an interim factor and a trustee, and also three commiseioners. In France, the agente created by the code 1807 have been auppreseed, and at present there are no more than provisionary assignees, who continne their functions till the confirmation of the settlement, or till the formation of the contract of union. The Tribunal of Commerce of Paris has formert a fixed number of assignees, to whom is confided the management of all bankruptcies.
In Spain, the tribunal designates a commissioner, nominates a trustee for the property of the insolvent, and calls the creditors, who choose some assignees, who are to be taken from among the creditors, or their attorneys. In England, the commissioners of bankruptcy are judges, elected by the Lord Chancellor, one for each district. All legislation provides for the remuneration of the assignees, trustees, or administrators: these remunerations sre fixed by Art. 1078, Spanish code, Portuguese code, Rusbian code, etc., etc., either upon a determined share, or the receipts which they have realized, or by remuneration, valued by the tribunal. Tho Spanieh code prohibte an attorney from representing more than one creditor; and the Jortnguese code prohilita a creditor from representiug another creditor at the meetings.

In order thast an insolvent may obtain a settlement, there need be, in France and in Russia, a majority of the creditors and three fourths of the dehts. In Scotland, a majority and three fifths of the debts. In Spain, one more than the half of creditors and three fifthe of the debts. The wife of the insolvent has no deliberative voice there in the resolutlons relative to the settloment. In Holland, in Portugal, in Wurtemburg, and accurding to the orlinance of Bilboa, the two thirds of ordinary creditors and three fourths of debte, or the tiree fourths of the creditors and two thirds of the debta must be added together. The Prusoian code, which divides the creditors into six classes, exacta the majority on eum and classes; in case of division of clnsses, tho settlement mny be adopted by the one anil rejected by another; but if the division is impracticable, tie declaration of division shall he equivalent then to a refusal. With respect to the contirmation, looth in France and in "pain, it ean only ie pronnunced eight daya after the eottlement has ioen obtained. The diseenting croditors, according to the Spanish code, can not form opposition to it, unless on account of defects in the forme of calling the meetings, on acconnt of collusion, or of want of legitimste rights in the parties voting, or of frandulent exaggeration of their debts; and in Holland, when the assots exceed the sum entered in the settlement. The Dutch code and the Frenoh law render the contirmation obligatory upon all the creditors both absent and
present, and even upon those who have not been callod.
The righta of forelgn creditore are genorally regulated by treaties, Prussla, or by the right of reolproce lity, Anstria. By the French code of civll procedure, two months are granted to ereditors realding in England to prove thelr debts. By the Sardinian code, guch delay is three months.-Com. Lavo of the World, by Leone Levi. London, 1856. 2 vols.

United Stater.-There is not any bankrupt system in existence under the governiment of the United States. An act of Congrees was passed on the anibject in 1841, but it was repealed in 1843. The several States are left free to Institute thelr own bankrupt aystem Insolvent laws prevall throughout the Union. In the Statea of Maine, Now Hampehire; Massachusetts, Virginia, and Kentucky, they are confined to the relief of debtore charged in execution. In New Jersey, Delaware, Maryland, Tenneasee, North and South Carollna, Georgla, Alabama, Misaissippl, and Illinois, the insolvent laws extend to debtors in prison on mesne or final process. In New York, Connecticut, Rhode Island, Pennaylvania, Ohio, Indiana, Missoari, and Louisiana, they are still more extenalve, and reach the debtor whether in or out of prison. The following is an abstract of the lawa of the eeveral States in reference to summary attachment against insolvents:
I. Alabama.-Original attachments, foreign and domestic, are issued by judges of the circuit or county coarts, or justices of the peace. An attachment may lssue, although the debt or demand of the plaintiff be not due ; and shall be a lien on the property attached, untii the debt or demand becomes due, when judgment shall be rendered and execution lasued. A non-resident plaintiff may have an attachment againat the property of a non-resldent defendant; provided he gives good and sufficient resident seenrity in the required bond; making oath that the defendant has not eufficlent property within the State of defendant's residence to satisfy the debt or demand.
II. Arkansas. - An attachment may be lssued against the property of a non-resident; and also against a resident of the State when the latter is about to remove ont of the State; or ls about to remove his goods or effects; or about to secrete himself so that the ordinany process of law can not be served on hím.
111. California.-1. Creditors may proceed by attachment when the defendant has absconder, or is about to alscond from the State; or is concealed therein to the Injury of hia creditors. 2. When the defendant has removed, or ls about to remove, any of his property out of the State, with intent to defraud his creditors. 3. When the defendant frandulently centracted the deist, or incurred the obligation, respeeting which the suit lo brought, 4. When the defendant is a non-resident. 5. When he has fraudulentiy conveyed, disposed of, or concealed his property, or a part of it; or iatends to convey the same to defraud his creditors. In California the real estate shall be bound, and the attachment shali tie a lien thereon, although the delt or demand due the plaintiff the not due-In case the defendant is about to remove himself or his property from the State. The law of attachment applies in California, when the contrnet hus been made in that State, or wehem made payable in that State.
IV. Connecticut.-Attaehment may be granted againat the goods and chattels and land of the defendant; and likewise against his person when not exempted from imprisonment on the execution in the auit. The plaintiff to give tonds to prosecute his clain to effect.
V. Delamare.-A writ of domestio attachment iosues againut an inhabitait of Jelaware when the defendant cas not be found; or han abseconded with intent to dafraud his creditors; and a writ of foreign sttachment When the defendent is not an inhabitent of this State.

This attachment is dissolved by the defendaat's appearing and putting in apecial bail at any time before fudgment.
VI. Florida. -An attachment issues when the amount is actually due, and the defendant is actually removilag out of the State, or absconds or conceals himself.
VII. Gsorgia. - A judge of the superior court, or a juatice of the inferior court, or a justice of the peace, may grant an attachment against a detitor whether the debt be matured or not, when the latter la removing without the llmits of the State, or any county, or conceals himself. The remedy by nt tachment may be rearted to by non-resident as weil as by reuldent creditora. The neceasary affidavit mas be made before any commissioner appolnted by the State to take affidavita. Indorsers of notes, obligations, and all other instruments in writing, are entitied to the same remedy as provided for securities. In all cases the attachment first served shall be firat satisfied. No lien shall be created hy the levylng of an attachment, to the exclusion of any judgment obtained by any creditor, before judgenent ls obtained by the attaching creditor.
VIII. Illinois,-Attschments are lssued by the clerka of the circuit court, when affidavit is filed thet the defendant has deperted, or ls about to depart, out of the State, or conceals himsalf, so that process can not be served upon him.
IX. Indiana.-The property of an lnhabitant of the State mey be attached, whenever he is secretly leaving the State, or shall have left the State with intent to defrand his creditors. The property of a nenresident is liable to attachment as in other States.
X. Jowa.-The plaintiff may cause any property of the defendant, which is not subject to execution, to be attached at the commencement, or during the progress, of the proceedings, whether the claim be matured or not; provided an affidavit is filed to the effect that the defendant la a foroign corporation, or acting as such, or that he is a non-resident of the Stute, or (if a resident) that he is in some manner about to dispose of or remove his property ont of the Stnte.

XI, Kentucly.-1. The plaintiff may have an attaciment agrainat the property of the defendant when the iatter ia a forelgn corporation, or a non-resident of this State; or, 2, who has been absent therefrom four monthe ; ur, 3, has departed from tho State with intent to defraud his creditora; or, 4 , has left the county of hls residence to avoid the service of a summons, or conceals himaelf that a aummons can not reach him; or, 6 , is about to remove his property, or a material part thereof. out of the State; or, 6 , has sold or conveyed bis property with the Intent to defraud his creditors, or is abrout so to sell or convey. Such attachusent is binding upon the defendant'a property in the county from the time of the dulivery of the order to the aheriff.
XII. Lowisiana.-A creditor may obtuin an nttachment against the property of his delitor upon afthlavit: 1, when the iatter is about leaving permanently the State before oltaining or executing judgment against him; 2, when the debtor resides out of the State; 3, when he conceals himeelf to avoid being cited to anawer to a suit, and provided the tern of payment have arrived. In the abacnce of the creditor, the oath may be made hy his agent or attorney, to best of his knowiedge and belief.

Xlil. Maine.-In thls State, an original writ may be framed either to attach the grods or estate of the defendant, or for want thereuf to take his budy. Ali goods and chattela may be attached lyy the reveditor and held as sacurity pending any suit against the delitor. Sach a writ will authurize en attachanent of graxla and eatate of the principal defendant, in his own hands, as well as in the handa of trustees. Real eatate, limble to be taken in exocution, may be attached.
XIV. Mary mont, whethe against hio de and not residil being indebte ally run away from hle place ment of his jus againat him. due the defend or passed by al condemnation $t$ due the defend
XV. Massacl either to attach or for want the an uriginal suir to attach thie go and chattels th may be attache in which any d may be held as the plaintiff ma XVI. Michige State are, 1, tha about to abscond has assigned, or property with a leatiy contracted abont which the resident of the : months immedia defendant is a for
XVII. Mississ cate, including etc., of $a$ debtor moved, or la abo Stute, or privatel lies agninst the It may bo olitain issucs, when the the debtor will State, or has rem XVIII. Missor here when the de or, if a resident, ceals himself; or fatudulently conv his creditors; or, of the State, and effects into this S
XiX. Nevo IIa taciment may be personal actlon; erty, shares of sto and the franchise seive tolis, until time of rendering XX. New Jerse lastance of a credi or attorney), agai the lutter is about a resident of the $s$
XXI. New I'or, $\$ 25$ may compel debtors imprisone more than 60 :ear smined, and to ali. committed to elose der an account in he will not be ent officer having jurf make the aenignme the effect of the the dutien of the d ons, are oasentially logs with the nesen
XIV. Maryland.-A creditor may obtain an attachment, whether he be a citizen of Maryland or not, sgsinst his debtor, who is not a citizen of this State, and not residing therein. If any citizen of the Stste, being indebted to another citizen thoreof, shall actually run awsy or abscond, or secretly remove himself from his place of abode, with intent to evade the pasment of his just debts, an attachment may be obtained against him. An attachment may be laid upon debts due the defendant apon judgments or decrees rendered or passed by any court of this Stste, and judgment of condemnstion thereof may be had, as upon other dehts due the defendant.
XV. Massachusetts.-Original writs may be framed, either to attach the goods or estste of the defendant, or for want thereof to take his body; or, there may be an original summons, elther with or without sn order to attach the goods or estate. All real estate, or goods and chattels that are liable to be taken in execution, msy be attached upon the original writ, in any action in which any delit or damages are recoverable, and may be hoid as security to satisfy such judgment as the pinintiff may reeover.
XVI. Michigan.-The grounds of attachment in this State are, 1, that the defendant has absconded, or is about to abscond, or has concealed himself; 2, that he has nssigned, or concealed, or is about to remove, his property with a view to defraud; 3 , that he fraudnlently contracted the debt, or incurred the obligation, about which the suit is brought; 4 , that he is not a resident of the State, or has not resided there three montiss immodiately preceding the suit; 5 , that the defendant is a foreign corporation.
XVII. Mississippi.-An attachmeqt sgainst the eslite, inciuding real estate, slaves, goods, chattels, etc., of a debtor, when it ls shown that he has renoved, or is about removing or absconding from the State, or privately conceals himself. Attachment also lies against the property of nou-reaident decedents. It may be obtained before the debt is due for which it issucs, when the creditor has ground to believe that the deltor wili removo with his offects out of the State, or has romoved.
XVIII. Missouri.-An attachment may be jesued here when the debtor is not a resident of the State; or, if a resident, when he absconds, absents, or conceals himself; or is about to romove his property, or faudulently convey it, with a view to hinder or delay his creditors; or, 2 , where the debt was contracted out of the State, and the deitor has eecretly removed his effects into this State with intent to defraud.
XIX. New Hampshire.-In this State a writ of attaciment may be issued upon the institution of any personal action; and wilt hold real and personai property, shares of stoek in corporations, pews in churches, sad the franchise of any corporation authorized to receive tolls, until the period of thirty days from the time of rendering the judgment.
XX. New Jersey.-An attachment may issue at the instance of a creditor (or in his absence, of his agent of attorney), agalnst the property of a debtor when the latter is about to abscond from the State, or is not a pesident of the State, or is a forcign corporation.
XXI, New York.-Any ereditor to the amount of \& 23 may compel the nssigumont of their estates hy debtors imprisonod on execution in civil eauses for more than 60 vearn. If the dehtor refuses to he examined, and to disclose his affairs, he is liable to he committed to close continement. If he refuses to render an account inventory, and make an assignment, be will not be entitled to his diseharge ; though the officer having jurisdiction in the case is authorized to make the assignment for him. The proceedinga, and the effect of the discharge, when duly obtained, and the duties of the delitor, aud the rights of the credit. ora, are eabentially the bame as in the case of procoenlings with the aesent of two thinds of the creditors.
2. Every insolvent debtor may also petian the proper officere for leave voluntarily to assign his estate for the benefit of his creditors; and the same proceedlags and checks are substantially prescribed as in other casos of Insolvency. His discharge, obtained in auch a case, exempts him from imprisonment, as to debts due at the time of the assignment, or previously contracted; and as to liabilities incurred by making or Indorsing any promissory note or bill of exchange. But the discharge does not affeet or Impair any debt, demand, payment, or decree against the insolvent; and they remain good againat his property acquired after the execntion of the assignment; and the lien of judgment and der- 3 is sot affected by the discharge.
8. The creditic at whose suit the debtor is imprisoned, may require him, after the expiration of three months, to make the assignment, and his refusal will forever bar him from his discharge under this provision.
4. Corporations being creditors, may petition by a director, or other officer, acting onder the corporate seal ; and such director or officer, may mske the reqnisite affidavits. So one joint partner may act as a creditor for the firm; and provision is mada for the accommodation of non-resident ereditors.
5. Delts parchased below the nominal amount entitle the creditor to set to the amount of the sum actnally and boní fide paid; nor is a creditor having a security permitted to bect mo a petitioner unless he relinquishes his security for the common benefit of the creditors. The assignments and discharges in these insolvent cases are to be recorded by the clerk of the county in which they were executed. No debt or duty to the United States is affocted by any such discharge, not even as to the remedy by imprisonment; but debte und duties to the Stato, except taxes, are placed upon the same footing as debts to individuals.
6. The assignment of the insolvent passes all his interest, legal and equitable, existing at the time of exccuting the assigninent in any estate, real or personsl ; but no contingent interest passes unless it shall become vested within three years nfter making the asotgnment, and then it passes. Probabilities coupled with an tuterest are assignable ; hut not bare possibilities, such as the expectancy of an heir. The sasignment does not affect property leeld by the debtor in trust; nor does the assignment by the insolvent husband affiect the property settled to the separate use of the wife free and clear of her husband.
7. The insolvent discharges apply only to debts exiating when the petition, inventury, and schedule of delts are presented, and not so as to cover debts contracted between that time and the time of the discharge.
8. The property assignod is distributed ratabiy anong all the creditors, sulject, nevertheless, to existing legai lians and priorities existing before the asaigminent ; and under the New York insolvent laws, a creditor can not become a petitioning creditor in respect to uny debt secured by a legal lien, unless he previously reiinquishes that licn for the general benefit of the creditors.
9. The attachment-law of New York is a legal mode, by which, a title to property may be aequired by operation of law. When the debtor, who is an inhabitant of New York, absconds, or is concesled, a creditor to whom he owes 100 , or any two, to whom he owes $\$ 150$, or any three, to whom he owes $\$ 300$, may, on npplication to a juilgo or commissioner, and on due proof of the deht, and of the departure or concealment, procure his real and personal estate to bo sttnehed; and on due public notice of the proceeding, If the delitor does not within threo months return and ratisfy the creditor, or appear and offer to contest the fact of having absconded, or offer to appear and contest the validity of the demsnd and give the requisite security, then trustees are to be appeinted who becoma vested with the debtor'a estate ; and they are to eol-
loct and sell it, and settle controveroies, and make dividende among all his creditora, in the mode prescribed.
10. From the time of the notice, all salen and asalgamenta by the debtor are declared to be void. If the debtor resides out of the State, and is indebted on a contract made within the State, or to a creditor residing within the State, although upon a contract made olaawhere, his property is llable to be attached and sold in like masner; but the trustees are not to bo appointed until nine months after public notice of the proceedings.
11. Perishable goods, other than vessels, when ottached under the Absconding Debtor Act, may be immediately sold and converted into money; and if the sheriff, under the attachment, eeizea property claimed by third persona, he is to summon a jury and to ta's their inquiaition as to the title to the property claimed.
12. If any American vessel belonging to the debtor be attached under these proceedinge, it may bo released on the clalmant of the vessel glving seeurity to pay the amount of the valuation of the vessel to the trustees, or to the deltor, as the case may be ; and if it be a foreign vessel claimed by a third person, the attaching creditor must give security to prosecute the attachment, and to pay the damages if it should appear that the vessel belonged to the claimant.
13. A creditor, having an unliquidated demand reeting on contrect, is a creditor within the Absconding Debtor Act, and competent to apply for the attachment. Any creditor may proceed against an absconding or concesled debtor, being an iuhabitant of the Stats, or against any non-resident ifeitor, if the contract was made in Now York; but if the contract was made elsewhere, then the creditor must the a resident of the State.
14. Attachment-lawe ngainst the property, real and personal, of absconding and non-resident debtore prevail throughout the several United States, but those statute laws are not uniform on th' 1 polint.
XXII. North Carolina.-An att chment may isaue on the complaint of a creditor, his agent, attorney or factor, against the property of a debtor when he has removed, or is about to removo, privately from the State, so that the ordinary process of law will not reach him.
XXIII. Ohin,-1. A creditor may procure, before or after the matarity of the cluim, nn intachment against the property of a debtor, where the latter is a foreign corporation or a non-resident ; or, if a resident, when he has absconded, or left the county of his residence, or conceals himself; or is about to remove or convert his property, with a view to defraud his creditors. 2. When the delitor fraudulently contracted the debt, or incurred the obligation.
XXIV. Pemngyleania.-In thin State the writ of domestic attachment issues against any dolitor, being an inhabitant of the Stete, if he has absconded from his usual place of abode ; or shall have remnined absent from the State, or shall have contined himelf in his own houne, or cone9aled himself elsewhere, to defraud his creditors. No second attachment will be issued agrinst the same property, unlean the first be not executed, or be dissolved by the court. A writ of attwehment may be alno isnued agningt the property of a foreiga corporation or a non-resident. In the latter case, the attachment inures to the benefit of the attaching ereditor only. In the former case, it is for the lenefit of creditors at large.
XXV. Rhode Jshand.-In this Sente a writ of attachment is first levied against the body of the defendant ; and if he can not be found, then agninst his goods and chattels. The property of foreign corporations and debtors in also liable to attachment, at the wit of a creditor.
XXVI. Bouth Cardina.-A writ of attachment will issue, at the instance of a creditor wherever residing, againet a debeor when he is a non resident-or
against a citisen who has been absent more than a year and a day; or when he absconds or is removing out of the county; or conceale himself so that tho ordinary procenc of law can not reach him.
XXVII. Tennessec.-When a debtor has removed, or is about to remove out of the cotnty privately, or absconds or conceals himself, an attachment may be obtained against bis property, at the sult of a creditor, or his agent, attoraey, or factor. In the case of nonresident debtors, having any foal or personal property in the State, it is reouired, in order to obtain en at tachment, to file a bili in chancery.
XXVIII. Texas.-Original attachments are :asued against the property of a debtor when he is not to be found in the county; and the property attrehed shall remain $\ln$ custody until final judgment. Attachment will also lie when the defendant is a non-resident ; or When a resident ie about to remove out of the State; and whether the debt be matured or not.
XXIX. Vermont.-Write of attachment may issue against the goods, chattele, or estate of the defendant, or for want thereof, against hls body, before or after the maturity of a claim. Actlons against non-residenta, or when the defendant bas absconded from the State, may be commenced by trustee procoss.
XXX. Viginia. - The property of the defendant, If a non-resident, or a resident who is about to remove himself or effects from the State, is liable to attachment. An attachment in euch cases will hold before the claim is due and payable.
XXXI. IVisconsin.-An attachment will hold against the property of a debtor when he has absconded, or is about to alscond, from tho State; or has fraudulently assigned, disposed of, or concealed his effects; or reinoved his property from the State; or wher the defendant is a non-resident or a foreign corporation.
XXXII. Minneaota.-A warrant of attachment may be issued against the property of a dofendant whan a foreign corporation; or, when not a resideut of tilis Territory; or, 3, has left the Territory with intent to defraud his creditors.
Thus it will be seen that In ell the States the property of non-residenta and forelgn corporations is itiable to attachments at the sult of creditors, before judgmont is rendered; likewise against dumestic debtors when they have absconded from the State, or have fraudulently conveyed, or are ahout to convey, seil, as. sign, or secrete their effects. In nome fow States, however, even this condition is not essential before a writ of attachment will issue.
In the States of Alabnma, Mnssachusetts, Cunner. ticut, Maline, New IIampehire, Vermont, and lhote Island, the creditor may have a writ ef attachment against the property of the debtor at the first institution of a suit ; and without any ground of fraud or frandulent intent-such property being held by the attachment until the termination of the suit, or until judgmer:: ; the phaintiff in such cases giving hond or security to indemnify the defendant for nay loss or damage sustained, should the case ine decided in faror of the latter. Generally, the property is iliatise only when actually levied upon; but in the State of Kentucky only, the property is llabie from the moment of the delivery of the order to the sheriff.
The reater will find the American law on this sabject fally illustrated in "A Trenties on the Law of Suits by Attachnent in the United States. Hy Cuas. 1). Duike, of the St. Louls Mar." Rvo. l'ublished by Mensss. Little \& Brown, lloston; to which work we nre indel, ted for the present alstract. On tie sultjects of insoivency and bankrapt laws, see Mryt's Mer. Mag., v., 360, iv., 22 , vi., $419, ~$ ili., 261,352 , vili., 294, xxi., 518, xail., 64, 105, 811; N. Y. Rer., vil., 440; Am. Reg., ili., 7t; IFeatminster Rel., xlvi., 5000 , 1ii., 419; Deen. Rer., xlli., 286; No. Am. Rer., vii., 25 ; Nulss'a Register, xix., 403, xxi., 243, 382 (Jours Smromant), 407 (Ahdetev Stbyengox).

Inmuranoe party engages, agalast a risk takes upon him or Underworiter ance is called tl called the Pren the contract of $i$ Insurance on conjectures thal A.D. 43. Insu in 1194, and in icies were first lsw relating to sace of houses This wan the $y$ London. An off and buildings, one of the first in of London. Th was the Ilamd-in insurances of 18 duty was Increan since. The dat United States ha
This article 1 leads of: I. Ins Insuriance (Mar Insarance (Life).
I. Insurance the duty of gover power, the efforts erty. Losses do cumstancee, but crimes and misco no means so effec arise from this so ant aystem of poli the law as may be injured a ready an practicable redreen the punishment that may be done vigilance on the always be exposed shipwreck and oth the importance o lesses, when they jurieus. The los cotton-mill, is a even on the riches ameng several ind tionaliy less ; and whom it was dist would harily oect any one in particu hiaing to lessen th destraction of prop nisk of loss over a forms the emplioym
Thongh it to in which occasion the termed aceidental, obey certain laws. and deaths ; the p legitimate to illegit the lionses hurned accidental events, braces a sufficiout equal in equal peri servations made up an individual shoul erty from risk, or t at his death. It mu that no confidence less they are dedu Suppose, for exam

Inøuranoe, a contract of Indemnity, by which one party engages, for a stlpulated sum, to insure another against a risk to which he is exposed. The party who takes apon him the risk, is called the Insurer, Asourer, er Underuoriter ; and the party protected by the inal ance is called the Inoured, or Assured; the eum paid is called the Promium; and the instrument containing the contract of indemnlty ls called the Policy.
Insurance on Shipe and Merchandise,-Suetonius conjecturee that Claudims was the firat contriver of it, A.D. 43. Inaurance was In general use in Italy in 1194, and in England in 1560 . Insurance policies were first used in Florence in 1523. The first lsw relating to insurance was enacted in 1601. Insursace of houses and goods In London began in 1667. This was the year following that of the great fire of Loudon. An office was then set up for ineuring houses and buildings, princlpally contrived by Dr. Barton, one of the first and mont extensive bullders of the city of London. The first regular office eet ap ln London was the Hand-in-Hand, in 1606. A duty was lald on iasurances of 1 s .6 d . per $\mathbf{£ 1 0 0}$ iusured, in 1782: this duty was Increased in 1797, and was variously altered sluce. The date of the first insurance office In the Lnited States has not been ascertalned.-IIAypN.
This article has been divided under the general heads of: I. Insurance (General Principles of). II. Insurance (Marine). III. Ineurance (Fire). IV. lasurance (Llfe).

1. Ingunance (General Principles of).--It is the duty of government to assist, by every means in its power, the efforts of Indlividuals to protect thelr property. Losses do not always arise from accidental circumstances, but are frequently occasioned by the crimes and misconduct of individuals; and there are no means so effectual for thelr prevention, when they arise from this soarce, as the establlshment of a vigilant system of police, and of such an administration of the law as may be calculated to afford those who are injured a ready and cheap methol of olstaining every practicable redress ; and, as far as possible, of lnsuring the punishment of culprite. But, in lespite of all that may be done by government, and of the utmost rigilance on the part of indlviduals, property must always ine exposed to a varicty of casuslties from fire, shipwreck and other anforeseen disasters. And hence the importance of inquiring how such unavoillable losses, when thoy do occur, may be renderod least injurious. The loss of a ship, or the conflagration of a cetton-mill, is a calamity that would press heavlly even on the richest Individual. But were It distribnted smong several individuals, each would feel it proportionally less ; and provided the number of those among whom it was distributed were very considerable, it would hardly occusion any sensible inconvenience to any ene in particular. Hence the advantage of combining to lessen the injury arising from the accidental deatruction of property: and It ls the diffusion of the risk of loss over a wide surface, and its valuation, that forms the employment of those engaged in insurance.

Thongh it be impossible to trace the elrcumatances which occaslon those events that are, on that account, termed accidental, they are, not withstanding, found to obey certain laws. The number of births, marriages, and leaths; the proportions of male to female, and of legitimate to illegithate births; the ships eust away ; the houses burned; and a vast variety of apparently accidental events, are yet, when our experience embraces a sufficiently wide field, found to be nearly equal in equal poriols of time ; and it la easy; from observations mate nion them, to estimate the sum which an individual should pay, either to guaranty his property from risk, or to secure a certaln aum for his heirs at his deatl. It must, however, ie carefully observed, that no confidence can be placed In sueh estimates, unless they are deduced from a very wide Induction. Suppose, for exarnple, It happens that during the pree-
ont year one house is accidentally bnrned, in a town contalning 1,000 houses; thla would afford very little. ground for presuming that the average probability of fire in that town was 1 to 1,000 . For it might be fonnd that not a single house had been burned during the prevlous 10 yeara, or that 10 were burned daring each of these years. But aupposing it were akcertained, that, at an average of 10 years, 1 house had been annually burned, the presumption that 1 to 1000 was the real ratlo of the probability of fire, would be very much strengthened; and if it were found to obtain for 20 or 80 years togethar, it might be held, for all practical purposes at least, as indicating the precise degree of probability.

Besides its belng necessary, in order to obtain the trne measure of the probability of any event, that the series of events, of whlch it is one, ohonld be obeerved for a rather lengthened period, it is necessary, also, that the events ehould be numerous, or of pretty frequent occurrence. Suppose it were found, by observing the birthe snd deaths of $1,000,000$ individusls, taken Indiscriminately from among the whole populatlon, that the mean duration of human life was 40 years; we should have but very slender grounds for concluding that this ratlo would hold in the case of the next 10, 20, or 30 individuals that are bori. Sneh a number is so small as hardly to sdmit of the operation of what is called the law of average. When a large number of lives is taken, those that exceed the medlum term are balanced by those that fall short of it; but when the number is small, there ls comparatively little room for the prinelple of compensation, and the result can not, therefore, be depended upon. It is found, by the experience of all countries in which censases of the population have been taken with considerable accuracy, that the number of male children born la to that of female children in the proportlon nearly of 22 to 21. But unlees the observations be made on a very large scale, this result will not be obtalned. If we look at particular families, they sometimes conaist wholly of boys, and sometimes wholly of girls; and It is not posalble that the boys can be to the girls of a single family in the ratio of 22 to 21 . But when, instead of confining ou: observations to particular families, or even parishes, we extend them e0 as to embrace population of 500,000 , these discrepanciee disappear, and wo find that there is invariably a small excess in the number of msles born ovar the fomales.

The false luferences that have been drawn from the doctrine of chances, have unlformly, almost, procoeded from generalizing too rapidly, or from deducing a rate of probability from such a number of instances as do not givo a fair average. But when the instances on which we found our conclusions sre sufficiently numerous, It is seen that the most snomalous events, such as sulcidus, deaths by accldente, the number of letters put into the post-office without any address, etc., form pretty regular series, and consequently admit of being estimated a priori. The business of insuranco is founded upon the principles thus briefly stated. Suppose it has been remarked that of forty ships, of the ordinary degree of sea-worthiness, employed in a given trade, one is annually cast ayray, the probability of loss will plainly be equal to one fortieth. And if an individual wish to insure a ship, or the cargo on board a ship, engaged in this trade, he ought to pay a promium equal to the 1-40th part of the sum he insures, exclusive of such an aulditional sum as may be required to indemnify the insurer for his trouble, and to leuve him a fair profit. If the preminu exceed this sum, the iusurer is overpald; and If it fall below it, he is underpaid.
Insurances are effected sometimes by societies, and sometimes by individuals, the rlsk being in either case cliffused anong a number of persons. Companies formed for carrying on tho husiness havo generally a large aubecribed capltal, or such a number of propri-
cort, as anablen them to raice, mithout dificulty whatever sums may at any time be required to make good loeses." Socletles of thin sort do not limit their risks to small sums; that is, they do not often refuse to insure a large sum npon a ship, a house, a lifo, ate. The magnitude of their eapitele affords them the means of easily defraying a heavy loss; and their premiami being proportioned to their risks, their prufit is, at an average, independent of auch contingencies.

Individuals, it is plain, could not act in this way unlens they were possensed of very large capitals; and bealdes, the taking of large risks would render the business so havardous, that few would be dlsposed to engage in It. Instead, therefore, of Insuring a large anm, as 20,000 , upon a slngle ship, a private underwriter or insurer may not, probably, in ordinary cases, take a greater riak than $\$ 200$ or $\$ 500$; to that, though his engacements may, when odded together, amount to 820,000 , they will be diffuned over from 40 to 100 ahips; and aupposing one or two ships to be loat, the loss would not impair his capital, and would only lessen his profits. Hence it in, that while nue transaction only may be required in getting a ship insured br a company, 10 or 20 separate tranactions may be required in getting the same thing done at Iloyd's, or by private individuals. When conducted in this cantious manner, the business of inaurance is as safe a line of specuiation as any in which indlviduale can ongage. To establish a policy of insurance on a fair foundation, or in such a way that the premiums paid by the insured shall exactly balance the risks incurred by the insurers, and the varions necessary expenses to which they are put, including, of course, their profit, it is necessary, as previously remarked, that the experience of the rishs should be pretty extensive. It. is not, however, st all necessary, that either party should inquire into the circumstances that lead to those events that are moat commonly made the auhject of inr irance. Such a reaearch would, indeed, be entir ty fruitless: we are, and must necessarlly continge to ve, wholiy ignorant of the causes of thelr occurrence.

It appe , from the accounts glven hy Mr. Scoresby, in hils valuable work on the Aretic Regions, that of 886 ships which sailed from the varions ports of Great Britain for the northern whale fishery, dnring the four years ending with 1817, eight were lost (vol. if., p. 131), being at the rate of one ship out of every 73 of those employed. Now, supposing this to be about the averuge loss, it follows that the premiom required to insure against it should the $1 \cdot 70$ per cent., exclusive, as already olmerved, of the expenses and profits of the insurer. Both the insurer and the insured would galn ly easteriag into n transaction founded on thia fair principle. When the oferntions of the insurer are extensive, and his riaks apread over a considerable number of ships, his profit does not depend upon chance, tuit is as steady, and may be as fairly calculated upon, as that of a manufacturer or a merchant; while, on the other hand, the individuals who have insured their property have exempted It from any chance of loss, and placed it, as it were, in a state of atsonolute security.

It is casy, from the brief sitatement now made, to perceive the immense advantagea reaulting to navigation nnil commerce from the practice of marine insurance. Without the nid that it affords, comparatively few inulividuals would be found disposed to expose their property to the risk of long and hazandoun voyagen; lut lo its means insecurity is changed for aecurity, and the cajital of the morchant, whose ships are dispersed over every sea, and exposed to all the perils of the ocean, in as accure as that of the agrieul. turist. Ne can combine his measures and arrange his plans as If they could no longer be affected by accilent. The chances of shipw reck, or of loss by unforeseen occurrences, enter not into his calculations. 1le has purchased an exemption from the effocts of such
casuaities; and applies himself to the pronecntion of his businese with that confidence and onergy which nothing but a feeling of aecrity can inapire.. "I Lea chances da la navigation entravaient la commerce. Io syateme des assurancea a paru; il a consuite les saisone; il a ports ses regards sur la meri il a interrogo ca terriblo élóment; il on a jugé l'inconstance; il en a preasenti les oragee: il a épié la politique: il a reconnn los ports at lea côtes doa denx mondes; il a tout soumis i dea calcula savans, à des théories approximatives; et il a dit au commercant habile, an navigateur intrópids: certes, il y a des désastres sur leaquels l'humanité ne peut que gómir; mals quant $\$$ votro fortune, aliez franchissez les mera, déployez votre activité et votre Indastrie; jo me charge de voa risquee. Alors, Mes. sieurs, s'll est permis de le dire, les quatre parties du monde se sont rapprochees."-Code de Commerce, Eixposd des Motift, liv., Il.
Besides insuring against the perils of the sea, and losses arising from accidents saused by the operation of natural causea, it is common to insure agaiast enemies, pirstes, thieves, and oven the fraud, or, as it is technically termed, barratry, of the master. The risk arising from these sources of casnalty being ext remely fiuctuating and various, it is not easy to estimate it with any considerabla degree of aecuracy; and nothing more than a rough average can, in most cases, be looked for. In time of war, the flactuation in the rates of insurance is particularly great ; and the intelligence that an enemy's squadron, or even a single privateer, is cruising in the conrse which the ships tound to or returning from any given port usually follow, causes an instantaneous rise in the premium. The appointment of convoys for the protection of trade during war, necessarily tonds, by lessening the chance of enpture, to lessen the premium on insurance. Stilf, however, the risk in such periods is, in mpat cases, very considerable; and as it is linble to change, very suddenly, great caution is required on the part of the underwriters.

Provision may also be made, ly means of insurance, ngainst loss hy fire, and nlmost all the casualtics to which property on land la sulject. But, notwithstanding what has now been stated, it must be udmitted that the advantages derived from the practice of insuring agaiast looses by sea and land are not nltogether unmixed with evil. The security which it affords teads to relax that vigilent attention to the protection of property which the fear of its loss is sure otherwise t. excite. This, however, is not its worst effect. The reconds of our courts, and the experience of all who are largely engaged in the business of insurance, too clearly prove that ships have been repeatedly sunk, and houses burned, in orier to defraud the insurers. In despite, however, of the temptation to inattention and fraud which is thus afforded, there can the no doult that, on the whole, the [ractice in, in a pultic as weli as private point of view, decidedly beneficin!. The frauds that are occasionally committed raise, in some degree, the rate of insurance. Still it is exceedingly moderate ; and it is nost probable that the precautions adopted ty the insurunce offices for the prevention of fire, especially in grent towns, where it is most ilestructive, outweigh the chance of increased conthagration arising from the greater tendency to carclessness and crinie.

The business of lifo insurance has been carried to a far groater extent in Great Britain than in any other country, and has been jrobluctive of the must beneficial effects. Life insurances are of various kinds. Individuals without any very near connertions, and possessing only a limited fortnne, are sometimes desirous, or are sometimes, from the necessity of thair situation, obliged annually to eneroach on their capitals. But should the life of such jersons be extended bryond the ordinary term of existence, tioy might he tutaliy unprovided for in old age; and to secure themselves
against this a company the w dition of its gu certain annait amount of tho they buy the al able to individ surances of thl reslly advantag fto obvions ten cumnlation ; to capitals during caring about t such a practico ductive of the $n$ The interest wi their familles strong security ient. There ca seifish practice means ; such, fo ment loans in th more objectiona axtrissic stimul not seem to be that the sele of ; socintions can m muiation.
Luckily, howe ferred to is bat which has aceum al persong, or th as lawyers, phy cierks in public must of coarsa te others, who are net dispose of th be deslious of pt for the comfortal avent of their de or lawyer, withot or $\% 2000$ a-year marries and has the sverage dur late such a fortu support of his far sume to say that not be one of the -And suppose ti grave, his family it is against such arrance is intend possessed of an in to pay a certain : and this office bi death, a sum eqni e* of managemen Whot these sanua pound interest, w sared to reach the life. Though he ance has been efl providel for as it mulations were $h$ all cases, indeer, taining the avera even in those case beyond the oriln then merely pay $f$ wise have becu wi the time when the time when they a life, they are prot out lonving their sad tive sum whic mean term is not for the security t
agsinst this contingenoy, they pay to an insurance company the whole or a part of their capital, on conditlon of its guarantying them, as long as they liva, a certain annnity, propertioned partly, of course, to the amonnt of the sum paid, and partly to their age when they buy the annuity. But thongh sometimes earvicesble to individuals, it may be questioned whethar insurances of this sort ars, in a publio point of view, really advantageous. So far as their influence extends, its obvious tendency is to weaken the principle of ace cumulation; to atimulate individuals to consume their cspitals during their own life, without thinking or caring about the interest of their anccessors. Were such a practice to become general, it would be productive of the most extensively ruinous conseqnencen. The interest which most men take in the welfars of their fsmilies and friends affords, indead, a pretts atrong eecurity against its becoming injuriously pravalent. There can, howuver, be little doult that this selfish practice may be strengthened hy adventitious means; such, for example, as the opening of government losns in the shape of life annuities, or in the atill more objectlonable form of tontines. But when no extrinsic stimulus of this sort is given to lt, there do not seem to he any very good grounds for thinking that the sale of annaities by private individuals or associstions can materially weaken the principle of aocumulation.

Luckily, however, the specles of insurance now referred to is bat inconsideruble compared with that which has accumulation for its object. All professional persons, or those living on salarios or wages, such sa lawyers, physicians, militsry and naval officers, clerks in public or private offices, otc., whose incomes must of coarse terminate with their lives, and a hoat of others, who are either not posesssed of capital or can not dlspose of their capital at pleasure, most nsturally be desirous of providing, so far as they msy be able, for the comfortable subeistence of their families in the event of their death. Take, for example, a physicion or iawyer, withont fortune, but making, perhaps, $\$ 1000$ or $\$ 2000$ a-year by hia business; and suppose that he marries and has a family ; if this individual attain to the average duration of human life, he may accumulate such a fortune as will provide for the adequata support of his family at his deuth. But who can presume to say that such will be the case ?-that he wiil not be ene of the many exceptions to the general rule? -And suppose that he were hurried into an untimely grave, his family would necessarily be destitute. Now, it is against such calamitous contingencies that life insurance is intended chjeily to provido. An individual possessed of an income terminuting at his death, aцrees to pay a certain sum annually to an lnsurance office; and this office binds itself to pay to his fumily at his death, a sum equivalent, after deduction of the expensef of managoment und the profits of the insurors, to what these annual contributions, accumulated at compound interest, would swount to, supposing the insured to reach the common and average term of human life. Though he were to die the day after the insurance has been effected, his family would be as aniply provided for as it is likely they would be by lis aecumulations wore his life of the ordinary duration. In all cases, indeed, in which those lnsured die before attaining the average age, their gain is obvious. liut even in those cases in which their lives are prolonged beyond the orlinary term, they are not losers-they then merely pay for a security which they must otherwise have been without. During the whole period, from the time when they effect their jnsurances, down to the time when they arrive at the mean duration of human life, they are protectel against the risk of dying without leaving their familien sufficiently provided for; and the stan which they pny after having passed this maan term is nothing inore than a fair compensation for the security they previously onjoyed. Of thoso

Who insure honce against fire, a very small proportion only have occasion to claim an indemnity for losses actually sustained; bat the possesaiop of a necurity aggainst loss, in the event of accident, is sufficient motive to inducs overy prudent individual to insure his property. The case of life inaurance is in this respect difforent. When established on a proper footing, the extra suma which those pay whose Hives exceed the eatimsted duration is but the value of the previous security. In order to adjust the terms of an insurance that the party insuring may neither pay too much nor too little, it is necessary that the probability of his life falling in each subsequent year should be determined with as much accuracy as posslble.

To ascertain this probability, various observations have been made in different countries and periods, showing, out of a given number of pertons born in 2 particular country or place, how msny complete each subsequent year, and how many die in it, till the whole he extinct. The result of such observations, when collected and arranged in a tabular form, are called Tables of Mortality; beling entitled, of course, to more or less confdence, sccording to the number and specles of lives obsery ; the period when, and the care with which, the ohservations were made, etc. But supposing these tables to be formed with sufficient accuracy, the expectation of life at any age, or its mean duration after such age, may be readily learned from them; and hence also the value of an annuity; or the assurance on a life of any age. Thus, in the table of mortallty for Carlisle, framed by Mr. Minne, of the Sun Life Office, and which is believed to represent the average law of mortality in Fagland with very considerable accuracy, out of 10,000 persons, born together, 4000 complete their 56 th year ; and it further appeare, that the number of such persons who die in their 66th year is 124 ; 80 that the probability that a life now 56 yenre of age will terminate in the 10th year hence is 124-4000. Bnt reckoning intorest at 4 per cent., it appears (Tables Ivterest and Anvilies), that the present value of $\$ 100$ to be received 10 years hence is \$67.556; consequently if its receipt be made to depend upon tho probabllity that a life now $\delta 6$ years of age will fuil in the 66th year, its present value will be reduced by that contingency to $\frac{194 \times 497 \cdot 866}{4000}=\$ 2.094$. The present value of $\$ 100$, recelvable upon the life of a party now 56 years of age, terminating in the 57th or any eubsequent year of his life, up to its extreme lim. it (which, according to the Carlisle table, is the 105th year), being calculated in this way, the sum of tho whole will be the present value of $\$ 100$, receivablo whenever the life may fail ; that is, of $\$ 100$ insured upon it, supposing no additions were made to it for the profits and expenses of the insurers.

More compendlous processes are resorted to for calculating tables of insurances at all nges; but tho above statement sufficiently illustrates the principle on which they all depend. In practice, a life insursnce is soldom made by the payment of a single sum when it is effected, but almost always by tho payment of an annual premium during its continuanec, the first being paid down at the commencement of the insurance.* ${ }^{*}$ If the Table of Mortality adopted by the insurers fairly reprosent the law of mortality provniling among the insured, it follows that when a party insured does not attain to the avernge age according to the table, the insurers will either lose by him, or realize less than their ordinary prolit ; and when, on the other hand, the life of an insured party is prolonged beyond the tabular average, the profits of the insurers are proportionally increased. But if their business he so extensive as to eanble the law of avorage fully to npply, whit they lose by premature death will be balanced by the payments received from those who lives aro

- Fer the mothod of calculating theme annual premluma ece Inteabest and Anndities.
prolonged beyond the mean duration of IIfe for the agee at which they were reapectively inoured 100 that the proitte of the society will be whelly independent of chancen.

The rellef from anxiety aftorded by IIf Insnrance very frequently contributes to prolong the life of the Inoured, at the same time that it materially augmenta the comfort and well-boing of thone dopendent on him.' It has also an obvious tendency to atrengthen habits of aceumulatipn. An Individual who has insured a yum on his life, would furfolt all the advantagen of the insurance were he not to contiuue regularly to make his annual paymenta. It is not, therefore, optlonal with him to save a eum from his ordinary expenditure adequate for thla purpose. He la compelled, uniler a heavy penalty, to do 20 ; and having thus leen led to contract a habit of anving to a certaln extent, it is most probable that the hablt will acjulre additlonal strength, and that he will elther insure an additional sum or privately accumulate.
The practice of marine inaurance, ne deubt from the extraordinary hazard to which property at eea ls exposed, seems to have long precedec lasurances against fire and upon llves. We are ignorant of the preclse period when it began to be Introduced; but it appears most probalile that it datas from the end of the 14th or the beginning of the 15th century. It has, however, been contended by Loccenius (De Jure Maritimo, lib., Ii., c. 1), Puffondorff (Droit de la Nature et des Gens, lib. $v_{0}$, c. 9 ), and others, that the practlee of marine insurance is of mach higher antiquify, and that traces of It may be found In the history of the Punic wara. Livy mentions, that dnring the second of these contests, the contractore employed by the Romans to tranaport ammunition and provislona to Spaln, atjpulated that government ahould indemnify them against such lowses as might be occasioned by the enemy, or by tempests, in the course of the voyage.-Impetratum fuit, ut quas navibus imponerentur ad exercitum Miepaniensen deferenda, ab hostixm sempestatioque vi, publico periculo essent.-Ilat., lib. xxili., c. 49. Malynes (Lex Mercatoria, 8 d ed., p. 105), foundling on a passage In Suetonius, ascribes the first introduction of insurance to the emperor Clandlus, who, in a period of acarcity at liome, to encourage the importation of corn, took upor himeelf all the loes or damge that It might sustain Ir, the voyage thither by atorms and tempesta. -Negotiatoribue cortn lucre propnanit, amerepta in as damno, ai gui quid per tempestatea accidisset, et navey mercature comel, fabricantious, magna commoda conoti-twit.-c. 18. It la cusious to ohserve that this stipnlation gave occasion to the commission of acta of fraud, similar to those so frequent In modern times. Shipwrecks were pretended to have happened, that never took place: old ahattered voamela, frelghted with artlcles of little value, were porposely sunk, and the crew saved in boats; large aums being then demanded as a recompense for the loss. Some years after, the fraud wan discovared, and some of the contractore were prosecuted and punished.-Lib. xxv., c. 3. But none of these paseggen, nor a aimilar one, in Cicero's Ietters (Ad Fam., llb. Il., c. 17), warrant the inferences that Loceenias, Malynes, and others have attempted to draw from theni. Insurance is a contract bet ween two parties ; one of whom, on recelving a certain premium (pretinm periculi), agreen to take upon himaelf the risk of any loss that may happen to the property of the other. In ancient, no less than in modern tlmes. every one must have lieen dealrous to be exonerated from the chance of loss ariang from the exposure of property to the perila of the saa. Jint though, in the caaes referred to, the carriers were exempted from this chance, they were not exempted by a contract propler acersionem periculi, or by an Insurance; but hy their empioyera taking the riak upon themselves. And It lis abundantly obvious that the ohject of the latter in doing thin wan not to proft, llke an insurer,
oy dnaling in riaks, but to induce individuals the more readily to andertake the performance of an urgent publie duty.
But wha the exception of the instances now mertioned, nothing bearing the remotent resemblance to an inaurance la to be mot with till a comparativaly recont poriod. If we might roly on a pasage ln ons of the Flamiah chroniolert, quoted by the loarned M. Pardenswo-see his oxcollent work, Collection des Loix Maritimes, tome 1., p. 868 -we ahonld be warranted in coneluding that Inaturance hal been effected at Brugea so early an the ond of the 13ih oentury ; for the chronlelor state" that, In 1811, tho Barl of Flanderg consented, on a requinitlom from the inhailitento, to astabllah a chamber of insurance at Bruges. M. Pardesat. la not, however, Inclined to think that thla atatement should be regariled as decisive. It lis evident from the manner In which the unbject is mentioned, that the chronioler was not a cotemporary ; and no trace can be found, elther in the archives of Brages, or in any authentic publlcation, of any thing like the clreumatance ulluded to. The earlient extant Flomish law as to insurance, is dated $\ln 1527$; and none of the early maritime codes of the North so much as alludes to thia Intereating aubject.

Heckmann seems to have thought that the practice of Insurance originated in Italy, In the latter part of the 15th, or early part of the 16th century,-IIist. of Invent., vol. l., art. Ingurance. But the learned Spanish antlquary, Don Antonio de Capmany, has glven, In his very valuable pablication on the History and Commerce of Barcelona (Memorias Hiatoricas sobre la Marina, etc., de Barcelona, tomo ii., p. 383), an ordinance relative to Insurance, isaued by the magistrates of that elty in 1435 ; wheresa, the earlleat Italian lsw on the subject is nearly a century later, being dated in 1523. It la, however, exceedingly nnlikely, had insurance heen as carly practleed in Italy as in Catalonla, that the former should have been ao much liehind the latter in subjecting it to any fixed rules; and it is still more unlikely that the practice should have escaped, as is the case, all montion by any previous Itallan writer. We, therefore, agree ontirely in Capmany's opinlons, that, nntll some suthentic evidence to the contrary be producod, Barcelona aheuld be segarded as the birth-place of this moet useful and beantiful application of the doctrine of chances.Tom. I., p. 237.

A knowledge of the principles and practice of insur ance was early brought Into England. According to Malynes (Lex Mercat., p. 105), it was first practiced among us by the Lombards, who were eatablished it London from a very remote opoch. It la prabalile it was introduced some tlme about the beginning of the 16th century; for It is mentioned in the statute 43 Fillz., c. 12, in which Ita ntility ls very clearly set forth, that it had been an immemorial usage among merchants, both Finglish and foreign, when they made any great adventure, to procure Insurance to be smade on the ships or goods allventured. From thla it may reasonally be supposed that Ineurance had been in use in England for at least a century previoua. It appears from tho same statute, that it had originally been usual to refer sll disputes that 'aroae with respect to lnsurances to the decision of "grave and discreet" merchants appolnted by the Iord Mayor. Hut abusea having grown out of thia practlee, the atatute authorizel the Iond Chanceller to appoint a commisalon for the trial of insurance cases ; and in the relgn of Charles 11. the powers of the commisslonert wers onlarged. liut this court soon after fell into diause; and, what is singular, no trace can now be discovered of eny of its proceed-Ings.-Marsitalic on Insumance, Prelim. Dinc., p. 26,
F'ew questious us to insurance seem to have cams Lefore the courts at Weatminster till after the middla of last centory. The deelsions of Lord Manatield msy, fadeed, be sald to have fixed, and in a consider-
ablo dagn judgmente the manle great prir whlch had experience ecquired b and the w by carefull 1681, the law of wh Hence the lordrhip's commande of Inauran other part public law, erit alia lex ned et onsme el immorta magister ef do Republie

It Jutane later origin The farmer amang ua, tury and a upon lives, in 1706 ; th Crmpanies relgr of Ge tablished in ance, and t1 be conducte practice eat footing amo Jig the jud career of pro example of atively Ilttlo deed, expre 1681 (liv. Il inaurance I it is deubte with the 3 It be now es lacllaed to $t$ any positive of the little nent.
11. Insut who are no life insuran individuals tolerably on without. companies tha knowle the nature whlch thes is a subjec nerchants refer to th have occas capital and fill some o indifference ject. The ance are t ance, it wil toples as ar Individuc cumstance quirer into country, is made at th themselves
able degree formed, the law apon thls anbjeci: H ts judgments were not bottomed on narrow vlewa, or on the manicipal regulatlona of England; but on those great prineiples of publio justlce and convenlence which had been sanctioned and approved by unlvereal experience. His deep and extenalve information was ecquired by conanalting the most intelligent merchants, and the workn of distinguished foreiga jarista; and by carefully atudying the famons French ordinance of 1681, the most sidmirably digeated bedy of maritime law of which any country hat evor had to boast. Hence the comprohensiveneen and excellence of his loriahip's deolsions, and the respeot they have juatly commanded in all coantrien. In his handa the law of insarance became, in a far greater degree than any other part of Englieh law, a branch of that national or public law, of which Cicero has baantifully aaid, "Non erit alia lex Roma, alia Athenis, alia nunc, alia posthac, sed et omnes gentes et ommi tempore una lex et sempiterna, at immortalis continebia, unusque erit communis quasi magister et imperator omaium Deus."-Fragm., lib. Hil., do Republied.
It jurance againgt fire and upon lives lo of mach later origin than inenrance againat perils of the sea. The formar, however, has been known and carried on among as, to mome extent, at least, for nearly a centary and is half. The Amienble Society, for insurance opon lives, was eatablished by charter of Queen Anne, in 1706; the Royal Exchange and Iondon Aesurance Crmpanies began to make ingurances upon lives, in the relgr of George I.; and the Eqnitable Society was established in 1762. But the advantages of life inenrance, and the principles on which the business should be conducted, were then very ill anderatood, and the practice can hardly be asid to have obtained any firm footing among na, till the Equitable Society, by adopting the jadicioun auggestions of Dr. Price, began its carcer of prosperity about 1775. Notwithstanding the example of England, life inaurance hae made comparatively little progreas on the Continent. It was, indeed, expressly forbidden by the French o linance of 1681 (ilv. iij., tit. 6, art. 10) ; by the regul ions as to Insurance tssued at Amsterdam in 1612 (ari.. 24); and it it doubtful whether the practice be not inconsistent with the 334th art. of the Code de Commerce, though it be now extenaively carried on in France. But we are inclined to think that the want of eecurity, more than any positive regulations, has hoen the principal cause of the little progress of life insurance on the Continent.
II. inguancer (Marine).-There are few pergons who are not acquainted, in some degres, with fire and life insmances. The eecurity which they afford to Individuals and families is a luxury which nobody, in tolerahly comfortable elrcumstances, is willing to be without. Hence the grent increase, in our daya, of companies professing to afford thla security; and hances the knowledge, on the part of the public generaliy, of the nature and principles of the engagemente into which these companies enter. But marine insurance is a subject which is of immediate interest onily to merchants and ship owners; unless, indeed, we should refer to that amail portion of the community who have occasion to transport themseives heyond seas with capital and offects for purposes of colonization, or to fill some official situation. Henee the compurative indifference, on the part of the public, as to this subject. The gencrai principles, howaver, of ull insurance are the sama; and in treating of marine insurance, it will be necassary to notice iftele boyond such topics as are peculiar to that branch of the business.

Individual Insurers, or Underveriters.-The firat citcumstance that can not fall to atrike the general inquirer into the practice of marine insurance in this country, is that, while all fire and life insurances aro made at the risk of companies, which include within themselves the denirable requisites of accurity, wealth,

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and numbera, a large proportion of marine Insurances la made at the risk of Individuale.
Prnhibition of Companies.-Till 1824, in Groat Britaln, all firma and companien, with the exception of the two chartored companiea, the Royal Exchange and London, were prohilited by law from taking marine Inaurances. Toward the latter end of that year, the prohibition was removed, and the busineas of marlne insurance was placed on the same legal footing as other descriptlons of bualness. While the restriction lasted, the two chartered compenies did ao littlo buosness that marine insuranee might in fact, be sald to be wholly in the hande of individuals. These companies were so mach higher in their promiums, and so much more axclusive In the riska they were willing to undertake; than their Individual competitors, that even thoas morchants and ahip owners, who would cheerfully have pald some trifling conelderation to obtain the greater aecurlty of a company, were obliged to evort to Individuals. And it was oniy when the ropeal of this absurd restriction was proposed, that the companies showed, by defending it, that they set any value upon their privilege. The underwriters at Lloyd's joined them In this opposition; and pamphlets were written and apeeches made, to demonatrate how much merchants and shlp owners would anffer, were the law to allow them the free use of their diecration In inauring their property; and how much more conducive to their interests It was, that they should be forced up to Lloyd'e, to pay premiume to Individuals rather than companies. But these pamphlets and apeechas are forgotten; and we should be sorry to wound the feelings of their authors, or to trespase on the patience of our readera, by referring to them more particularly.
Mode of conducting Buainess.-We shall now give an account of the arrangement in England for conducting the busineas of marine inaurance, as well by individuals as the companiee.
Lloyd's. -The indlvidual underwriters meet in a subseription room at Lloyd's. The joint affairs of the aubecribers to thase rooms are managed by a committee chosen by the subscribara. Agents (who are commonly styled Lloyd's agents) are appolnted in all the principal ports of the world, who forward, regularly, to Lloyd's, accounts of the departurea from and arrivala at their ports, as well as of lossea and other casuaities ; and, in genoral, all such information as may be aupposed of importance toward guiding the judgment of the underwriters. These accounts are regularly filed, and are acceasible to all the anbecribers. The p :- cipal arrivala and losses are, besides, posted In two looks, placed in two conspicuous parts of the room; and also in another book, which le placed in an adjoining room, for the use of the public at large. The rooms are open from 10 o'elock in the morning till 5 o'elock in the afternoon, but the most considerable part of the business is tranacted batween 1 and 4. Those merciants and ship owners who manage their own insuranco business, procure blank policias at the government oflice, or of their stationers, which they fill up bo as to meet the particular object in view, and aubmit them to those underwritera with whom they are connected; by whom they are subecri'ted or rejected. Each policy is handed about in this way until the nmount required is complete. The form of the policy and of a subscription is subjoined to this article. The premium is not jaid to the underwriter in roady monoy, but is passed to account. Nor doss the underwriter debit the account of the person to whom he subscrites a policy with the whole amount of the premiun, but with the premium less 5 per cent. Whenaver losses occur which more than absorb the premiums on uny one account, the underwaiter is called upon to pay the balance. But should the underwriter's account be what is called good, that is, should the premiunts exceed tho claims, he sends round, during
the spring and summer, to colleot from his variona dehtors eithar the balance of hia lant year'a account, or monay on account, according to his judgraent; but upon what he receives, he maket an allowance of 12 per cent. An underwriter, If prudent, therefors, before he concents to recelve, will not ouly look to the goodness of hls sceount, hut to the probability of its continuing so.

Imownance Brokers.-Many merchanta ond ahip ownore do not transact thelr own Inaurance basiness. They give their odera for inamance to others, who andertake it for them, and are responsiole for its proper management. These latter persone are called inaurance brokers ; and "ome of them manage the buminese of nnmber of principals. To them, likewise, are transmitted the orders for insurance from the outports and manufactnring tewns. They charge the whole premium to their principals, and their profte conalac in 5 per cent. opon the promium, 12 per cent. upon the money that they pay to the underwriters, and $\frac{1}{3}$ per cent. that they deduct from all the ciaims whlch they recover from the anderwriters. It le proper to remark that thls to the eatabllahed or regular profit ; hot compettion has oceasioned numerous deviatlons from It by the brokers, many of whom consent to divlde this profit with the principals who employ them. The Insurance limkers are not anfrequently anderwriters also; and as some insurances are consldered far moro luerative than others to nnderwriters, and an the brokern have particular facilitles, in some reapects, of judging of the goodness of their own riske, so likewise have they an intucement to play Into one another's hands, and they duso accondingly. See Brow eas.

Payment of losses.-Lonses are paid at all the offices promptly, and without deduction. In Fingland, a month's credit is allowed to the unilerwriters; and another month, and anmetlmes two montha, are glven to the broker, to collect from the underwritere, and pay over to hic principals.

Clubs. - Beaides the individual underwriters and companles above noticed, there are cluba or associations formed by ship ownern, who agree, each entering his ohlpe for a certain amount, to dlvide among themselves one another's lossen. These clubs are institntions of long atanding; but, aince the alteration of the iaw in 182t, appear to he on the decline. Their formatlon originated ln a twofold reason: first, that the underwriters charged premlums more than commensurate with the risk; and secondly, that they did not afford adequate protection. To avoid the first of these two evils, instead of paying a fixel premium, they pay among themselvea the actual lossea of thelr several members as they occur; and to avoid the second, they lay down certain principles of settlement in accordance with their viows of lniemnity. Fach member of one of these clubs gives his power of attorney to the selected manager; and thla manager lssues a pollcy for each ship, which poticy is subscrilied by him as attomey for all the members, the premitm inserted in the policy being understood to be nominal. These clubs are open to the leading objections that apply to individual underwriters; for the members are not collectively, but only indivilually, lable to those of their number who happen to sustain a loss; and the delay of settlement is such, that mory than 12 months have been known to elapse hefore the payment of a losa has been obtained from all the members.

Rate of Premikm.- But little neeil he arill upon the circumatances that influence the rate of premium demanded hy the lnsurera. It must be self-evident that premiums will vary acconllng to the reasons, the quality of the verad, the known character of the eaptaln, the nature of the commodity, and the ntate of our polltical relations. All these, of course, are matters upon which each individual munt exercise his own discretion, partiy from general experience, and partly
from particular information ! exaggeration of rink, and consequent exorbilaney of prominin for any length of time, belng out of the quertion, where so meny indlvidual underwriters, in ad ittion to the companies, are in competition with one as other, and where the mer. chants have the meane at hand of effecting their Insurances abroad. We have slready taken notlce of the Intalilgenee. of which Lloyd'n is the focus, In additlon to thia there is a aubseription register book for shipplog malntained by the principel merchante, shipowners, and underwiters. Thls book profeasea to give an account of the tonnage, bulid, age, repairx, and qualilty of alment aid the vessela that frequent our ports ; and, although exceedingly defective In many respects, is a material asmiatance to the traurers, who have no means of ascertainfag hy thelr own observa. tion the partleulars of one in, hundred of the ships they are called upon to insure.

Contract of Insurance.-Ilaving thus given a general outline of the mode of tranasting buainesa between the insurers and insured, and the means userl to enable both partien to come, as near as possible, to a due eatlmate of the risk to be insured agalnat, our next etep wIII be to explain the nature of the contract, and the bearing of its more important clauses.

It is onvecessary to ntate that the object of those who are engaged in commerce, or in moving articie of merchandise from one part of the world to another, is to bry at such a price that, after paying all the expensen of tranaport, the sale price may leave then a surplus in the shape of profit. If there were no such contrivance ae lasurance, merchante would l, obliged to calcuiate upon the probability of the occasional loss of their property, ant to regulate their transactions accordingly ; but it must be obvious that enterprise, under auch elrcumstances, wouid be very much crip pled. Now, insurance, in as far as it approaches perfectlon in guarantylng the merehant against all losa, except that of the market, substitutea a fixed charge for uncertain and contingent less, and enables him to confine his attention exclusively to price and quality, and to charges of transport ; in which latter, of course, the premium of Insurance is Included. As, however, In practice, insurance is by no means a perfect jrotectlon, either to the merchant or shlp owner, against ali fons that may occur in trassitn, there ls, evc., after inanrance, some contingencies remaining to be taken into conslderation; and we do not know that we can do better, by way of explaining the contract of insurance, than state, as briefly and succinctly as possible, whac are tho losses againat which tho merchant and ship owner are not protected by an insurance effected In this country.

1. Acts of our orn Government,-All losses arising from the acts of our own government. Thus, if an embargo were ludd on vessols about to sail for a particular quarter, and the merchant obliged to unlomd his gowis ; or if his goods wore condemned to be destroyed in quarantine; or purposely destruyed at sea ly some of our cruisers; no part of his logs would be made grow by the Insurer. The insurer it this country, although liable for the acts of foreign powers, is not liable for anch acts directei against the property of their own sulijects. Thus, if French property, in. sured in thls country, were configated by the lrench goverament, the owner would havo no remedy against his lnaurer.
2. Braches of the Revenue Laws.-All lossea arising from $n$ breach of the revenue laws. It may be observed, that If the owner of the chip, by his act, exjuas the goods of the merchant to loss, the merchant so injured, aithough he can not recover from his insurera, may claim from him. It may also be observed, that if the eaptain of the vessel, by his nct, to which neither the owner of the ship nor the merchint is a party, expose the ship and cargo to loss, the insurers, In such ease, are bound to nake good the loss ; the
insurers be gete of the the ahip no saptain an withent the ratry" in ti 8. Hreac ing from port is dee of hiockade our goveras tiffeation, al in the attem It will ofter that the pro flance of th break it, ant minm to 'nat an olject art when effect hower. The writers, to pl ing $\ln$ this et
3. Conseqo to any devla If a merchan Indies to Ior the Ist of Al be lost, the in iasture from
Harre and is It will be un hip is liable truct on his for the barrat of the marte owner, and ec red harratry to describe ac to be lnsured, twa negligen
There is a it will here b part owner of mit an act of are not, in 81 would othery doctrine, as $f$ himself, can calt to under on board auch ted to insure, illegal acts. sionally been chants againa that our court clause. Inde every party; power of inat acts of the cal offices which and the hand distinction in on the lives propriety of s
b. Unseauen worthiness. rious ways, want of prov sufficiency of petency of th slght that ins ity 'akn it re possille for when It is con is thrown upd the courts is
iasurere being liable for all damage arising from illegal acta of the oaptaln and crew, suppoaing the owner of the ship not to be necessory. The illegal acts of the saptain and crew, contrary to the introctions and wlthont the consent of the owners, are termed "bas patry" in the policy. See Banmativ.
4. Hreaches of the Lave of Natione.-All lossen arise lag from a breach of the lav of nations. Thae, if any port la deciared by a fereign power to be In a atate of blockede, and such blockade Is acknowledged by onr government; and If a oblp, in defiance of that notificatlon, attempt to break the blockade, and is taken in the attempt; the inaurer is not liable for the loss. It will often happen, when a port la ander blockade, that the profte la so great upon goodr Introduced In defance of the blockade, as to tempt adventarera to break it, and to enable them to afford a very bigh preminm to Insure against the risk. But as policies for such an olject are not acknowledged In our conrta of law when effected, they are naderstood to be policien of homor. The same kind of policy is adopted by underwriters, to protect forelgn merchants who prefer insuring in this country agaiest capture by our veasels.
5. Comsequences of Deviation.-All losses aubsequent to any deviation from the terms of the policy. Thus, if a merchant, in a policy on produce from the Weat Indies to london, warrant the ship to sail on or before the 1st of August, and the ship sail after that day and he lont, the insurer is exonerated. Or, if a merchant inaure from london to Lision, and the ship call at Havre and is afterward loat, the insurer is not liable. it will be uederstood, of conree, that the ewner of the ship is liable to the merchant for any breach of contract on hie part, as well as that the hudurer is liable for the barratry of the master; a deviation on the part of the master, not intended for the benefit of the owner, and contiary to his instructions, being considesed harratry. Should the owner of the goods neglect to describe accurately the voyage for which te wlahes to be insured, the loss would be a consequence of his owa negligence.

There is a doctrine connected with barratry which It will here be proper to notice. A captain, owner or part oweet of the shlp in which be asils, can not commit an act of barratry. In other worls, the insurers sre not, in auch a case, llable for an act of his which would otherwise be barratrous. The equity of this doctrine, as far as regards the interests of the captain himself, can not be calied in question; but it is difficalt to understand why the merchant who ships goods on board such a captain's vessel should not be permitted to insure, among other riaks, against the captaln's illegal acts. We have heard that a clanse has occasionally been introduced into policies to protect merchants against captain-owners, and we do not auppose that our courts of law wonld refuse to enforee such a clanse. Indeed, we can not discover any reason why every party, saving the captain, should not have the power of insuring against the consequences of illegal acts of the captain. We belleve, that among the life offices which protect themselves from loss by sulcide and the hands of jastice, there are some which make a distinction in favor of those who merely hold policies on the lives of others as a collateral security. The propriety of such a distinction must strike every body.
b. Unsenworthiness.-All losses arising from unsenworthiness. Unseaworthiness may be callsed in varous ways, such as want of repair, want of stores, want of provisions, want of nautical instrunsents, insufficlency of hands to navigate the veasel, or incompetency of the master. It might be supposed, nt first sight that Insurance affords a much less perfect sceurity fann it really does, seeing on how many pleas it is possible for the insurer to dispute his liability ; but when it is considered that the proof of unseasworthiness is thrown upon the defendant, and that the leaning of the courts is almost alwayr in favor of the Insurod, it
will be easy to mppose shat no respectable Insurera would over plead unceaworthinens unlent they eould make out a ouse of more than ordinary atrength and clearnene. The dogree of utueasinees felt by merchante and ship owners at their liabllity to be involved in lose by crases of unseaworthiness, may be gueseed from the fact that althoegh the Indemaity Iasurance Come pany at one time precluded themselv ea from pleading unseawrorthinese by a special clatue in thelr pulloy, not only did they obtain no additional promiom in consequence thereof, but they did not oven obtain a preferonce over other companies and individuals at the anme promiums. At leant, thil fact must be elther admitted as a proof of the absence of uneasiness on this head, or of that inveteracy of bablt which seem: to lead the great bulk of mankiad alwaye, If posaible, to continue undeviatingly in thove coursen to which they are accuatomed, even whare the benefits to be derived from a deviation are nadeniable.
6. Protraction of the Voyage.-All loss arining from unusual protraction of the voyage. Thus, if a ship meet with an accident in the Baltic, and the repaira detain the vessel till the close of the season, when the passage home la rendered impracticable by the ice till the opening of the ensuing season, no payment is made to the merchant, in mitigation of his losa from interest of money, lowa of market (if the market fall), or deterioration in the quality of his goods (unless arising from actual aea damage); nor to the ship owner, in mitigation of his lose from the extra wages and maintenance of his crew. In most foreign conntriea the ship owner is remunerated by the insurers for the wages and maintensnce of his crew while his ship is detained in consequence of any loss for the making good of which they are liable.
7. Liabivity for doing Damage in other Vessels.-All loss to which the ship owner is liable when his vessel does daruage to others. According to our lawt, the owner of every ship not in charge of a pllot, that doen damage, by neglligence of the master and crew, to any deacription of craft or vessel, is llable to make good the same to the extent of the value of his own ship and freight : for beyond this he is net liable. The common policy in nse among the underwriters at Lloyd's and the companies does not protect the ship owner from this loss. But the clubs or associations before mentloned almost universally take this riak. Indsed, this is one of the purposes which gave rise to their formation. But even they limit their liability to the amount of the policy ; so that If a ship insured with them were to run down another, and to sink herself in the concussion, the owner would only recelve the value of his own vessel from the club, and atill be liable to the owner of the other vessel. The Indemnity and Marine Companies, hy a clause In their policies, make themselves liable for three fourths of the loss which the owner of the vessel jasured with them may sustain from damage dono by his vessel to those of others. If such a case as the one just supposed should oceur under their poliey, the insured wauld receive the value of his own vessel and three fourths of the loss to be made good by him to the owner of the other vessel. The policies of these companies approach in this respect the nearest of any to perfect protection to the ship owner. But the loss from rus ning down other vessels, although serions, nay som. tines ruinous, seidom occurs; and many ship owners trust eo confidently that it will never fall npon them, that they are as well satisfied to be withont as with this protection. The Supreme Court of the United States has confirmed a decision, to the effect, that where a collision takes place without fault in a port where the local law divides the whole lose (thereby opposing the general maritime law), the insurers ware liable for it. This is opposed to the English decisions.
8. Leerage Clause.-Tt. next descripion of loss of which we shall treut, against which the ingured are
not proteoted; is deseribed in the following chanse of the polley: "Corn, fiah, salt, seod, thawr, and frult, art warranted iroe from average, balese general, or the ahp be tranded ; angar, tobaceo, homp, flax, hides, and akina are warranted free from average under 5 per cent., mnleas general, or the ship be stranded; and all other goods, alco the ahip and freight, are warranted tree from avarage under 8 per cent., anlaes general, or the ship be etrandedi" The language employed in this clanse, being technical, requiree explanation to rendor it intelligible to the general reeder. Average is a name applied to certain descriptions of loss, to which the merchant and ablp ownar are liable. There aro two kinds U'average, general and particular. Gemeral A verage comprehends all loss arlsing ont of a volantary sacrifice of a part of either vessel or cargo, made by the captain for the benefit of the whole. Thus, if a captain throw part of his cargo overboard, cut from an anchor and cabio, or cnt avay his masta; the looe to austained, being voluntarily aubmitted to for the $r$ anefit of the whole, is dintributed over the valne of the whole ahip and cargo, and it called'"general average."

Parvicular Average comprehends all lose occasioned to ahip, freigbt, and cargo, which is not of so serious a nature as to debar them from reaching their port of deetination, and when the damage to the ship is not so extenaive as to render her unworthy of repaif. Losacs where the goods are naved, out in such a state as to be unfit to forward to their port of destination, and where the ship is sendered unfit to repair, are called "partial or sulwage loes." The landing diatinction, between particular average and salvage loos is, that, in the firet, the property insured remains the property of the assured-the damage sustained, or part thereof, as the caw may be, and as will hereafter be explained, being made good by the insurer; and in the second, the property insured is abandoned to the insurer, and the value insured cluined from him, he retalning the propurty so abmendoned, or les valne.

Particular Average on Goods:-A fow casen illuetrative of the method of etating a claim for particular average will best explain the nature of this descripalon of loss, and will at the eame time show she reader what the practical distinetion is between particular average and aalvage losa.

The property insured we ahall suppose to be a ton of hemp, the cost of which at Petersburg is 160 , for which aum it is insnred from Now York to London, and that the duty; freight, and charges to which the merchant is subject on landing at london are $¢ 50$. We shali likewise suppose that the hemp, on its arrival, is so danuged as not to be worth more than half what it would have fetehed had it been sound. The hnaurer would then be calied upon to make good to the insural 875 , or 50 per cent., upon the sim insured. But it does not follow that this payment of 675 would indemnify the merchant, or that it would not more than indemnify him, for the ioas austained.

> If the hemp upon arrival in that country would hove fetebed In a sound atate.... 825000 Lese duty, frelght, and charges........ $\mathbf{0 0} 00$

> But in its damaged atate Is only worth... 12500
> Laes duty, froight, and charges........ 0000

30000

The unerchant's loms by the damese is.............. 18500 Whereas he only reoelves from tha lnaurer Fios $^{\circ}$. Upon the principle of a aslvage loss he would also recelve $\$ 75$.

If the hemp would hava fetched In a cound
tate....................................... . 10000
Less daty, frolght, and chargea......... 0000
But in the danaged etate it only worth... 0000
Lase daty, frelfht, and oliarges. ...... 6000
The marchant's loas by the damage is . . . . . . . . . . . $\$ 0000$ W aspeas he recetvea frota the lusurer \$7S, Upon tha prinefple of a malvaga lose the wanld receive \$150.
 Itace dady, frolgbi, and obiarges............. 8000
Bat in tre damered atato is only worth.... Ts © 100 m Jone duty, frolyhth and oharge.b..... 6000
The merchant's lose by the damage ts............ 7500 And be receivee from tha inanrer ats. Upoa the prinetple of a malrage losk he would recelve $\$ 125$,
It wilt be observed that the merchant's loes by the damage of his goods variee with the state of the market. It may also be obeerved, that in general the menchant will not receive from the inaurer the whole amomnt of the loss that he enataing. Whenever his market is a profitabie one (and that it myint uaually he $s 0$ will be obvious to every body), whenever, indeed, his market is not a deciderliy losing one, his policy doee not afford him a complete protection.
The argument in favor of thia mode of eettling claima for particular average-and it ohould be obsarved that the auhject has been discussed, and the prinoiple saknowledged in the conrta of iaw-it, that the insurer's liability is to be guided by the amount apon which he had received s preminm or consideration; that he ts not to be afferted hy the rise or foll of markets ; but that the grass market price of the sound, and the gross market prios of the damaged goods, are to be the teat by which the rate of damage upon the amount insured is to be adjasted; the insurer being liable, besides, for all the extra charges srising out of the damage.

In the first case stated, the merchant's loss by damage is 825 upon 440 , or $62 \frac{1}{2}$ per cent. ; in the second, 810 upon $\$ 10$, or 100 per cent. ; in th. . hird, 818 upon 20, or 75 per eent. If the duty, freight, and charges were diminished in proportion to the diminished value of the goods, the loss in each case would be 50 per cent. upon the uett price, as it is 50 per cent. npon the gross price. As far as the duty is coneerned, govornment, npon many articles, reduces it in proportion to the diminution in the value of the goods; and If the freight were reduced in a similar manner, the merchant would always be indemnified for his loss hy the insurer. But the practice with regard to freight in this country admits of no such arrangement; freight being paid according to the quantity delivered.

To make the prineiple upon which elajms for particular average are adjuated, and its bearing, still clearer, we shall iflustrate it by s few more enses. Suppose two packages to be insured at cost price-a cask of rice and a cask of augar-oneh welghing 10 cwt ; the cost of each at the port of shipment $\% 50$, the freight of each 250 cents per cwt. at the port of delivery, both articles free from duty, and to arrive at a market vhere no more than the cost prieo is realized; assuining that both packages are damaged 50 per cent.-the rice by losa of quality, the sugar hy loss of weightthe statement will be ss follows:
10 cwt of reee, had it arrived sound, wanh
have produeed........................... 75 on
Lass frelght on 10 ewt....................... 25.
But belny damaged did only prodace.....
Less frelght on 10 owt. at 250 c . percwt.
Q5
$\$ 50$ on

Merchant'a loss. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $888_{8}^{80}$
10 ewt of sugar, If suund, would have pro-
dueed.
less frelght on 10 ewt at 50 o. per ewt. 175
950
The barrel, belng damaged, did only welgh
5 owt. and produec........................

## 8780

Leas frelglit on $\overline{5}$ owt. at 250 e e. per cwt. 1250
$\$ 5000$

Merchant's loss. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
$\frac{85}{8250}$
In each case the merchunt is entitted to recover from his insurer 25 , or 60 per cent., upon $\$ 50$, the aum insured, which, although an indemnity to him for
his loss upon the shape $h$ to redae in the $\mathbf{w i}$ complete side, pro tion of of quan didverted lished pi year con jected fr are taker equitable we subjo taken at 10 ewt . of daced. aced.

Belug tota
The $n$
Makin
He recel
10 ewt. of
daced.
Lose in
The barrel
The 1
His 10 :
Whteh $h$
It will b
It will
When
erable va
which pr
onder a
Thus, if
4 10,000 ,
merchant
foree, wos
not acwou
elause, by
ciause, is
upon esol
and 10 ba
package
of wrol
Sueb ciau
mutual c
or considd
teeting el
insurers,
and they
protectio
piates, a
average,
bacco, it
selves lia
as excee merclisnt

I'artic
as it affer
Particula
coniling
and who
ceut. or
from his
the ship
the good
owner o
goods ahr
the voya
he has in
his colla
neu, bia

Mis loss on the nagari, ia fary from being eo for his loses apon the rice. It the merehant woald contrive so to shape hite contract with the ship ownor for froight as to reduce the freight in proportion to the depreciation in the valne of the damagel commonity. he would be completely protected. The ship ownor might, on his side, protect himself by insurance from loses by reduction of quality, as he now doen from loss by reduction of quantity: Bat wo have already more than once adverted to the dififioulty of breaking in npon estabHisbed practices. The merchants go on from year to year complaining of the lossea to which they are eubjected from this awkward contrivance, while no stepe are taken to improve it. .To show thet the principle la equitable as between the merchant and his ineurer, we subjoin one more statement, where the dumage is taken at 100 per cent.
10 owt. of rice, if sound, weuld have pro-
dueed.................................... 7500
*
85000
Befog totally apoolled did prodace nothlag.
The merchant being still liable for the freight. .
2500
Making his loss.
He recetres of oniy from tho tosurer.
10 owt. of sugar, if sonud, would have pro-

37500

The barrel boing wnshed out produces nothing. The marchaint, bowever, not belog llabile to pay frelght

His loss is only.
Whileh he recorers fiom the ingure.
It wifl be obsorved, that la each case the Insurer paya aso or the full sum upon which be receives the premfum.
When whole cargoes, or parceis of goods of considerable value, are inoured, the ciause in the policy which protects the insurer from particular average under s certain percentage is often partially set aside. Thus, if a cargo of 500 hogsheads of sugar, valued at $\$ 20,000$, were damaged to the extent of $\$ 460$, the merchant, supposing the protecting clause to remain in foree, would recover nothing from the insurer, the loss aot amounting to 5 per cent. The additionsl written clause, by which it is the practice to modify the printed clsuse, is as foliown: "Particular average, payable upon esch 10 hhds, sugar, 10 casks and 60 luggs coffee, sad 10 bags cotton, following numbers, and apon each package of manufactured goods, chest of indigo, bag of wool or silk, the same as if separately insured." Sach clauses may be, and are, introduced ad libitum by mutual consent of insurer and insured, the premlum or consideration belag arranged accordingly. The protecting clause is considered, on the other hand, by the insurers, axceedingly unsatiafactory in some reapects ; and they, as occasion requires, insist upon additional protection. Thus, saltpetre, hides, cocoa, and tin plates, are generally warranted free from particular average, unless the ship be stranded; and upon tobaceo, it is customary for the insurers to make them. seives lishie ouly to such part of the particular average as exceeds 5 per cont., throwing 5 per cent. upon the merchant.
l'articular Average on Freight.-The clause, as far as it affects "freight," calls for no particular comment. Particular average upon freight can only urise, acconling to provailing practice, from loss of weight ; and whenover the loss of weight amounts to 3 per cent. or upward, the ship owner is entitied to recover from his insurer. The ship owner, upou the arrival of tile ship at its port of destination, is entitied to hold the goods as security until the freight is paid. If the owner of the goods should prove insolvent, and the goods should be entirely spoited by sea damage during the voysge, and the ship owner thus lose his froight, he has no clain upon the insurer; because, although his collateral security la destroyed hy peril of the aell, bia right to receive freight remains unimpaired,
and it is againat the loma or impairing of thio, right that the inaurer protects him.
Partioular dverage on ships.-Partioular Average upon ihipe is a subject somewhat more beset with difficultios. There is ecarcely a ship that makoe a voyage of any longth that doon not austenin some damage. Tha olause in the polioy warranting the ship free from particular ararage under 8 per cent., nnless. stricided, protects the insurer.from the constant recurrence of potty claims; but in addition to this, it is the practice to clase the damage that a ahip suatains in the: prosecution of her voyago under two beada; ordinary damage, or wear and tear ; and extraordinary damage, or particular average. The spitting of, aails, the breaking of anchors and cables, the upsetting of wind. lasees, are losses that come under the first head. The carrying away of masts and bulwarks, damage to the copper sheathing and hull from striking on rocks, come nnder the second. When a ship sustains damage, If she be on her first royage, the whole axpense of the repairs is made good by the lasurers. But if she be not on her firat voyage, it is the established cuetom that the insurer pays no more than two thirds of the repairs, the owner of the vessel having, as it is thought, an equivalent for the one third which falla upon him, in the substitution of new work for old. Where the nature of the damsge ls such as to requirs that the copper should be stripped off the ship's bottom, the insurer paye the difference between the price of the old and the new copper on the weight of the old copper stripped off; the excess in weight of the new over the old copper is pald for by the ship owner; and the labor of stripping and replacing the copper is paid for on the principle already mentioned. In any general rule of thls kind, it must be obvious that the shlp owner will sometimes gain and anmetimes lose by an accident. As soon as the shlp owner, or his carn*in, learns that his vessel hus mot with an seciden., as scon after as possible, he summons regular surveyora to examine his vessel and report all defects, discriminsting between those defects that have arisen from perils of the sea and those from wear and tear. The first only are made good by the insurer, together with all charges, such as survayors' fees, dock dues, etc., caused by the necessity of undergoing repair. It has been already observed, thst when a shlp is obliged, in the progress of her voyage, to put into port for the purpose of repair, although the ownor of the ship be subjocted to great expense for the wages and maintenance of his crew during the detention, he can recover no part of this expense from the insurer; the doctrine being, that the owner of the ship is bound to navigate his vessel, and that the insurer toes not undertake to guaranty that the voyage si...tl be completed within any specific time. Such is the doctrine, at least, in thie country, and the practice is founded upon It; but in all other countries the doctrine and practice are the reverse. For in them allovance is made to the ship owner for the wages and maluienance of the crev during the whole period that the ahlp je under repair. Where a vessel sustains damage and undergoes repair in the progress of her voyage, and is subsequently lost, the insurer is liable both for the partlcular average and a total loss. Or the owner of the ship may, if he please, insure the amount expended in repair ; and then, in the event of subsequent loss, the inaurer is liabie fur the total loss only; but in the event of subsequent safe arrival, the average ia augmented by the chargs of Insurance. The operation of the elause warranting the ship free from average under 3 per cent., noless general, or the ship be stranded, may now be clearly scen. If a ship be innured and valued at $\$ 50,000$, and the repalra of the versel do not, after all the deductions above referred to, amount to 8 per cent., there is no clalm upon the insurer, unlose the vessel shali have been strandel. See Avrbage.
${ }^{5}$ Strawding.-The term stranded is not well chosen, admitting of more than one construction and the clause of which it forms a part is imperfectly eoncelved. And in settiements of accounts, when differencer arise, the parties whe discuse them are mors apt to strive for that interpretatlen of terms and clanses which is favorable to their interests, than for that which is beet adapted for general purposes. It is commonly anderatood that meroly striking the ground and coming off is not a strandling; it beling necessary, in order to fall within that term, that the ship should remain on the ground or rock, as it may happen, and that efforts should be made to float her. Striking on an ancher and leaking dangerously is not a stranding. We shall only adduce two illustrations, for the purpose of showing how ill adapted this clause in as a means to an end. Corn and other succh articles are warranted free from particular average, inless the ship be stranded, because the insurera, considering these articles to be peculiarly eusceptible of damage, will not consent to take that risk, except on some extraordinary occasion. A ship laden with corn, makes a very stormy pasaage from the Baltic to London, and damages the whole of her cargo. Upon arrival off the coast she le stranded, but got off without straining or sustainlng say damage. The insurer is held to be liable for the damage to the corn, under the clause of the policy. On another occasion, after a very favorable passage to the coast, a ship strikes upon a shonl, but is not stranded, sustaining, however, so much damage that ahe arrives at London with 6 feet of water in her hold, and her cargo almoet wholly spoiled. The insurer is held not to be liahle under the clause of the policy.

General Average.-The Insurer is bound to make good all general average without exception, however trifing the amount. General average is trested as though altogether unconnected with particular average; and damage to the goods not amounting to 3 per cent. is not payable by the insurer, altheugh there may be also a general average, and the general and particular average together may amount to more than 3 or 5 per cent. General average is a charge which must in paid by the merchant and ship owner, oven if uninsured; although when insured, he transfers, as it were, in virtus of his insurance, the charge from himself to his insurer. All the elements that can by possibility enter into general average may be classed under four heads:-1. Sacrifice of part of the ship and stores; 2. Sacrifice of part of the cargo and freight; 3. Kemuneration of services required for genoral preservation; 4. Eapense of raising money to replace what has been sacrificed, and to remunerats services.

1. When any part of the ship is sacrificed for the general benefit, the owner in entitled to receive (deducting, of course, his alare of contribution), the amount of his outlay in the replacing of such sacrifice; allowance leing made, on the principle stated mbove, where old warks and materials are replaced with new. The deduction of one third, however, does not invariably apply, For instance, one sixth only is taken of the price of an iron cable that is elipped from for the general henefit, because iron cables are calculated to last for a great number of years ; and no reduction is ever made from the price of anchors. The charge of replacing the loss may amount to considerably mere than the value loet, computing the value at the place where the ship was originally ftted. Thus, the coat of replacing an anchor and cable slipped from in the Dowus, is frequently donble the value of the unchor and cable at Londen. Hut whatevar the chargo may be, such charge for me the basia of settlenent.
2. Sacrifice of the cargo and freight takes place in jetticon, or where part of the cargo in fung overboard to llghten the vessel. Uppon arrival in port, after such jettinon, the owner of the gooda jettisoneal is entitled
to receive (deducting his ahara of contribution), what the goods would have produced nett to him, supposing them to have arrived sound; and the owner of the ship is ontitled to recelve (deducting his share of contribution), the freight to which he would have been entitled upon the same delivery of the goods.
3. Romuneration of sorvices and other charges. When a ohip loses har anchors and cables, very large sums are frequently awarded to boatnien who venture off to her with new ones at the imminent hazard of their lives, A ship disabled at sea is towed into port by another, and remuneration for such service is awsrded accerding to the value saved, the detention occasioned, and the loss sustained. The ship rendering the service may be laden with fish or fruit, that may be totally apoiled by the detention, or may be in ballast. A ship captured by the eneiny may be recaptured by a man of war or armed marchant vessol; here, again, allvage is awarded according to the circumatances of the caes. All these charges are general sverage; that is to say, must be distributed over ship, freight, and cargo. When a ship, with her cargo, is driven on ahore, the expense of attempting to get her off is general average. If she can not be got off without discharging, the expense of dischargiog is general average ; but the expense of getting the ship off after the cargo has heen taken ont falls oxelnsively upon the ship. The warelousing of the cargo, and other expenses incurred for its preservation, are elarges exclusively upon the cargo. The expense of reloading is borne by the freight. When a ship puts into port in distress, the pilotage inward is gencral average ; the pilotage outward lia a charge upon the freight. This distribution of charges has settled into a tolerably well established practice; and upon this principle claims are aettled at the oflices.
4. The money required to meet the alove charges is sometimes attainabis withont expense. If the accident happen near home, and the ship owner ba respectsble, he adrances the meney and recovers from the various parties concerned so soon as the accounts can be made up; or if the accident happen in a foreign port. where the owner of the ship is well known, tho captain's bill upon him will somatimes be received in payment of the charges incnrred. But where such facilities do not exist, tha captain is ampowered to ${ }^{1}$ iledge his ship, freight, and cargo, as eecurity to any ons te may prevaii upon to supply the nacessary funds. This pledge is termed a bottumry bond. By it the captain admits the receipt of the meney; consents to tha payment of a premium (which varies with the distance of the port of deatination, the risk of the voyage, the respectability of the owner, and the necessities of the cuptain); and aasigne the ship, freight, and cargo, as security for the repayment of the nown'y sdvanced and the stipulated premilum. Should the captahn consider the bottonry premium demanded of him exorhitant, or should. he deem it preferable in other respects, he may sell a portion of the cargo for the purpose of raising such money as he may stand in need of towarl the prosecution of his voyuge. The expense of raising the requisite funds, whether by commission, by loottonry premium, or by hoss on the sule of the eargo, is charged to those parties far wiluse interest the money is requirei. Thus, if a ship, havIng struck upon a rock, puts into port in dias ress, and is obiiged to unload to repuir ; supposing the particalar average upon the ship to nnount tu $\$ 501$; ; the general uverage, consinting of ansintance into port and expense of unloading, $\$ 200$; marticuiar charges on freight, consintlug of expense of relauiling and pilutage outwari, *100; and perticular charges on cargo, consisting of warehouse rent and repair of prokages, 4200; and the expense of raising money thonid he 20 per cent.;-these sams would be severaily increased by this addition, and would the raised to wione, fi40, \$120, and 430. See Iotromay, Restonientia.

It still the genera ers of the Almost all port of de cargo are attual atat what is act tain ond er in proporti altogether and should then the $f$ of jettison, ficed for thi same princi what his pr it to have same value contribation average is o if a ship, o from an anc general ave principally adjust it on expenae are at the port tribution. average, do liability; a owner, or $h$ expended in insurer agal the is not abs age funds ar them takes and charges non-arrival such an ocea inearer from custems by sat countrie lishle for th The mercha sign port, port. He genersi ave from his ins can he a gai cover from paid to the many incon posed, whic! be hoped wi the commer
Proof of strument ur claim iaden cialiy exce suatained $n$ the vessel n and crew to the chaim a the space og menths wer vessel havit ity ; andil, new insura essential pr general pra the fact of bilil of isdit the carge w freight.
Fulued
010,000 be

It still remains to be $\operatorname{lnquired} \ln$ what proportion the general average is to be pald by the different owners of the cargo, and the owner of shlp and freight. Almost all general averages are adjusted at the ship's port of destlnation, and the values of the ahip and cargo are taken at what they would produce in thair actual state upon arrival, and the frelght, according to what is actually receivable, leas the wages of the captaln and crew ; the general average being distributed in proportion to these values. Should the cargo be altogether worthless, it can not be made to contrlbute ; and should thi wages of the erew exceed the frelght, then the frelght is not llable to contribute. In case of jettison, the party whose property has been sacrificed for the general benefit recelves indemnlty on the eame principle; the value to which he is entitled being what his property would have produced nett, supposing it to have been sold on the arrival of the vessel-the some value serving for the basla of his propiortion of contribution. Some few cases occur where the general avarage is adjusted at the port of departure. Thus, if a sbip, outward bound to the Britlsh colonies, cut from an anchor and eable in the Downs, or lncur other general average on onr own coast, the insurances being principally effected in this country, it is the custom to adjust it on the spot, by which menns both delay and expense are avolded. On these occasions, the valuee st the port of shlpment are taken as the basis of contribution. A total loss, subsequently to a general average, does not exonerate the inaurer from his prlor liability; and slthough it ls customary with the ship owner, or his agent, specifically to insure the money expended in average, for the purpose of protecting the insurer agalnst any greater llability than 100 per cent. he is not absolutely obliged to do so. When the average fonds are raised hy bottomry, the party advancing them takes the ship, frelght, and cargo, as security, and charges a premlam to cover the risk of the ahip's nen-arrival at her port of destinetlon. And thus, on such an occaslon, a aubsequent total loss relleves the insurer from all liability to average. The law and customs by whleh averages are adjusted vary in different countries ; but the insurer in this country is only lisble for the averages adjusted according to our laws. The merchant, however, whose goods arrive at a forsign port, is obliged to submit to the laws of that port. Ile may thus be a considerable loser; paylng general average according to one law, and recelving from his Insurer according to another. And he never can be a gainer, because, before he is entitled to recover from hls insurer, he must prove that he has paid to the owner of the ship. This is one of the many inconvenlences to which mercantile inen are exposed, which can not be removed without, what it may be hoped will gradually take place, an asshnilation of tha commercial laws of different countries.
Proof of Loss.-The policy of insurance is the instrument under which the merchant and ship owner claim indemnitheation for all lossea that aro not 日pecially excepted. The proof that the less has been sastained must also be exhibited ; such as the title to the veskel and cargo, and the evidence of the captain and crew to establish the circumstances out of which the cham arises. If $\mathbf{A}$ were to insure his vessel for the space of 12 months, and at the explration of 0 months were to sell hls shlp to 13 : A's interest in the vessel having ceased, so also iloen his insurer's liability; and IB, if he wish to be protected, must make n new lmwurance. Proof of ownership, therofore, is an essential preliminary to the recovery of a clalun. In general practice, no difficulty arises from this, because the fact of ownership is sufficiently notorious. The bill of lading is, In most cases, satiafactory proof that the cargo was on board, as well as of the amount of freight.

Ialued and open Policies.-If an Insurance for $\$ 10,000$ be effected upon 100 hhda , of sugar, valued at
$\$ 100$ per hhd., the bill of lading, showing that the ves sel had 100 hhds. on board, establlishes the interest at $\$ 10,000$, and the policy is termed a valued pollcy. But If an insurance for $\$ 10,000$ be effected on 100 hh ds. of sugar, and nothing be expressed as to value, the bill of ladlng only establishes that 100 hhds, are on board, without establishling the amount of interest. The production of the involce, showing the cost of the goods, is necessary to that ond, the pollicy heing termed an open one.
Return of Premium for short Intereat.-In a valned policy, when the whole of the property insured does not appear to have been shipped, the difference between the quantity lnsared and the quantity shipped is termed short interest. Thus, if $\$ 10,000$ be insured npon 100 hhds. of augar, valued at $\$ 100$ per hhd., and 80 hhds. only be shipped; as the insurer's liability does not extend beyond $\$ 8,000$, so hu is obliged to return the premlum upon $\$ 2,000$ to which no risk attaches. Thls return of premium is calied a return for short interest.

For Over-Insurance.--In an open policy, where the value shipped is not equal to the value insured, the difference is termed over-lnsurance. If a merchant insures in London for $£ 5,000$ upon goods, without apecifying any value, from Calcutta to-London, the premium being $£ 3$ and the stamp duty 6 s. per cent., the amount of interest that attaches to the policy is so fixed, that he is neither to gain nor lose by the transaction in the event of the vessel's loss, supposing his insurance to be sufficient. To entitle him to recover a profit, the profit to be insured must be stipulated in the policy. The expense of insurance upon £100 being $\mathbf{8 . 2 5}$, it is clear that every $\boldsymbol{£ 1 0 0}$ insurance covers 96.75 original cost, that is to say, protects the merchant from less to that extent in case of the loss of the vessel. If then, we assume the inveice of the goods shipped to be 40,000 rupees, or, at the exchange of .10 c. per rupee, $£ 4,000$, the Interest attaching to the policy is eacertained as followss :-If 96.75 ,cost ls insured by $£ 100$ insurance, what will $£ 4,000$ cost be Insured by? Answer, £4,135. Under such circumstances, although a policy exists for $\mathbf{£ 5 , 0 0 0}$, the insured is not able to prove interest for more than $\mathbf{£ 4 , 1 3 5}$; and consequently, the insured being entitled to recover no more than that sum in case of loss, the insurer is called upon to make a return of premium for over-insurance upon $£ 865$.

Although we have treated separately of returns for short interest and over-insurance, we should observe that these terms in practice are used indiscriminataly ; and, indeed, we can not say that we perceive much advantage in making the distinction, or preserving the distinctive appellations. It semetimes happens that the property expected In a vessel is not all insured at one time or in one policy. But this makes no difference iu the principle of settlement accordiag to our law : although, according to the laws of most other conntrles, the policies take precedence of one another nccording to their dates, the whole short interest fulling upon the prolicy or policies last effected. The foreign law, in this instance, appears to us the more equitable and reasonable of the two ; and that our reason for thinking oo may be intelliglble, und thus gain asseut or mect with refotation, we shall state a case of short interest upon a number of policies, such as not unfmquently appears. A merchant, $A$, orders lils correspondent at Calcutta to ship for his account a quantity of sugar, not exceeding 1,000 tons, at a price not exceeding $£ 200$ per ton. In due time he recelves a letter from his correspondent ucknowledging the recelpt of his order, and expressing confident hopes of belng able to purchase the quantity, or the greater part of it, at the limits prescribed, and promising to advlse na he procoeds. A, on recelpt of this letter, say on the Ist of Junuary, makes a provisional insurance for $£ 50,000$ upon sugar valued at $£ 200$ per ton.

Continning without further adivices, and fearing lest his correspondent'a letter shonld have miscarried, and that he might have property afiont unineured, on the lat of February, 1at of March, and 1at of April, he offerts similar lnsurances, thus covering the whole 1,000 tons. He subaeqnantly recelven advica that his correspondent had not been able to purchase more than half the cquantity ordered, at his limit, and recovere from his insurers half the premium upon each poilcy. Now, it was not at all improbable that he might have recelved advice from his correspondent, as he expected much sooner. And if he had received advice in the middle of Fobruary, of the shlpment of 500 tona, and chat the slilp which contained them was totally lost in the river IIooghly, the inanrers upon the two firat pollcies would have been liable for a total loss. And it appears to us a defective arrangement, by which a party, who is at one time exposed to a total loss, should at another be compelled to return half his premlum. It is true that the merchant may, if he please, insert in hia policies a clauso by which the polleles shall be made to succeed one another; but we should say that the law, in insurance cases, as in the disposal of the property of deceased persons, onght to be the best general disposition, leaving to individuals the right of modification accerding to particular clrcumstances.

Return for Double Insurance.-Besldes returns for short interest and over-insurance, there are returns for double insurance. They are, in fact, to all intonts and parposes, the same thing. Double insurance exists where the party, throngh forgetfulness, makes an Insmrance upon his property twlee over; or where the shippers and conslgnees of grods, when uncertain of one another's intentions, effect each an insurance upon them; or where the captain of a vesael in foreign parts, fearing leat his advices should not reach hla owner, effecte an insurance upon it, and the owner at the same time, acting with equal caution, effects one also. The observations already made upon raturns for short interest, and upon the difference between our laws and those of other countries, apply with equal force here.

We have now gone over all the prinelpal topics connected with marine assurance. Those who pernse this article with orlinary attentlon will, we hope, gain a tolerably clear insight into the principles and practice of tho business. But a perfoctly familiar acquaintance with it can only he acquired by those who are dally converagnt with its detail.,

A nalysis of the Geweral Law of Inatrance.-The invention of maritime insurance is due to Italy, and it came into ure at the close of the 12 th or the beginning of the 13th century. The term "police" in terlved from the Italian Polizza, which signities any note or memorandum in writing, creating an evidence of a legal obligation. At that time the Italians were the carriers of Europe, and by their means insurance wua introduced into other countries. A colony of Lombarda $\mathbf{v . s}$ settled in London in the 13th century, and conducted for a long time almost exclusively the foreign trade of the kingilom; and it is to them that the tradition of Fingland attributes the introluction of Insurance. In the reign of Elizabeth a court was constituted to treat of caunes relative to policies of insurance in a summary way. The court was formed of the jucige of admiralty, the recorder of London, two doctors of civil law, two commont lawyers, and eight merchants, empowering any five of them to hear and determine all such causes arising in Iamdon. Ilut the court, on aceount of its reatricted character and uther causes, fell into dinuse, and cases of insurance are 1.0 w decided by trial in the cuorta of common law. The contract of insurance is essentially a contract of indemnity against the perile of the sea. The various codea differ in the objects prohibited to be lusured. Thus the French cola, ordinance of Bilboa, Spunlah
coda, Danish, Two Slcilies, Roman States, Ionier. Ielands, Lombardo-Venato, Sardinia, Hayti, and Greece, prohiblt insurance on freight of goods on board, excepted profits, wages of seamen, and maritime laterest on loans on bottomry. While Great Britain, Holland, Portugal, Pruasia, Malta, United SLates, and LIambarg, permit them. Reoinsurance is probibited in Great Britain. In Great Britaln marinars are forbidden to insure their wages ; but a captain of a ship can insure his wages, or any interest as part owner. An insurance on money lont to the captain, payable out of the freight, is illegal. So are wager policies; and it is the same in Massachusetto.

Articie 835 of the French code authorizes the assurance on the whole or on a part of the objects which may be insured; but in Spain and Denmark the goods can not be insured for more than nine tenths of their value, and in Spain, no more than four fifths can be insured on the value of a ship; at Malta the insurance can not exceed seven eighths; in Prussia it may be mada far the cost price, or for the value of the ship but in Molland and in Portugal the entire value may be insured after the vessel has set sail. In Grent Britain no pollcy can be made for a longer time than for 12 calendar inonting.
The duration of risks for a ship continues in Great Britain until 24 hours after sho has moored at anchor in safety. The same in the United States and at Malte.

According to the Prussian code, payinent onght to be effected within two months after the notica of the lamages; after thls time intereet commences to run. The law of Great Britain beling mostly similar to that of America, it has been thought necessary to vary the mode of treating the various eubjects; so illegal insurance, rights of agents, concealment, and reprenentations have been enlarged on in the law of America, while for these, we well as for all others, the reader is partlcularly refarred to the lsw of Great Ilritain. The general spirit of the law of Insurance is beautifully illustrated in the following language of the French jurists at the close of their report to the council of State on the title of insurance in the code of commerce, and rendared by Duer in his work on insurance: "Marine insurunce may justly be deemed ons of the noblest creations of human geulus. From a lofty height it surveye and protocts the commerce of the world. It scans the heavens; it consults the seasons; it interrogates the ocean ; and, regardless of its terrora or caprice, defines its perila and circumscribea its storms. It extends ita carea to every part of the habitable globe; studies the usuge of every nation; explores every coast, sounds every harbor. To the sciance of politics it directs a sleepless attention; it enters the council of monarchs-watches the deliberations of statesmen-welghs their motives, and penetrates their designs. Founding on theso vast materials its akillful calculations, secure of the result, it then auldresses the hesitating merchant : 'Dismiss your anx. lety and fears; these are misfortunes that humanity may deplore, but can not prevent or alleviate. Such are not the diasasters you dread to encountic. 'Trust In me and they shall not reach you. Summon all your resources, put forth all your skill, and, with unfaltering ecurage, pursue your adventures. Suc-coed-ynur riches are enlarged; fuil-thay shandi not be diminished. My wealth shall supply your loss. Rely on mo, and, for your sake, at my bliding, the arm of your enemies shall he paralyzed, and the dangers of the ocean cease to exint.' 'The merchant listens, obeys, and is rewurdel. Thousands, tempted by his auccess, follow his example. Those whem it had long separated, the ocean now unites. The quarters of the world approz ch each other, and are bound by the permanent ties of mutual interest and mutual bencfits."-Levi's Com. Jaw of the World.

We extract from Duer's Marine Insurance the fole lowing Law of Insurance In the United States:
"1. It зu* the perils of the partlee b insurance is pald ; 8d, the bth, the risk period of tim inue in force The anlform considered as ten contract. tlal part of different Stat New York th ent subjects b. The subsc When the in pany, the exe the officers de or by its laws ecuted, and $n$ the assured, completlon of individual or allowed to re been given ; policy for the liver it at his policy then be complete ren plication for rate of premin signed by the surance, and it to the assured the premium, insarer the ex validity of an the correspond both to nll the quivocal. 9 . valid undertah in due seaso although the $\mathbf{i}$ during the in e inferred th ircumatances 10. The polics tutes the sole nor, subject t ters or comm written applic control its int to say other document or flly as if th policy. 12. may not only ies, but is su th terms that alteration is $\mathbf{n}$ ured, withou change the se of the contrac 13. The clate policy. The not conclusly 1.1. Wager p le illeigal.
(If the Coms tlon of a polic parole eviden detorminatlon court. As a policy is to be ception from strictly again
"1. Itu3urance is a contraot of indemnity against the perils of the sea, 2. A pollcy must specify, lat, the partles between whom, and on whose accoant, the Insurance ls made; 2d, the conelderation or premium paid; $8 d$, the subject insured $; 4$ th, the amount insured ; bth, the risk insured against ; and, lastly, the voyage or period of time during waich the Insurance is to continus in force. 8. Form and execution of the contract. The anlform and general practlce of merchants may be consldered as evidence of the legal necessity of a written contract. A apeolfication of the risks is an essential part of the contract. 4. The policies uasd in the different States of the Unlon differ materially; and In New York the forms of the pollcy ln use for the different subjects of insurance are distinct und eeparate. j. The subscription of the Insurer ls alone sunficient. When the insurance is mads by sn lncorporsted company, the execution of the policy must be attested by the officers designatsd for that purpose by its charters or by lts lawe. 6. When a policy has in fact beon execnteit, and notlce of its execntion has been given to the assured, its actual delivery is not essential to the completion of the contract. 7. The Insurer, whether an Individual or an incorporated company, would not be Hlowed to retract a consent thus confessed to have been given; but would be considered as holding the policy for the benefit of the assured, and bound to deliver it at his request. Should a loss occur, and the policy then be withheld from the assured, he would have s comptete remedy In an action at law. 8. When an applleation for insurance is accepted by the insurer, the rate of premlum and the date inserted, and the writing signed by the partles, it constitutes In equity a valid insurunce, and in law a valid sgreement to insure: it gives to the assured an immediate right, upon the tender of the preminm, or premlum note, to demand from the insarer the executlon and dellivery of the policy. The validity of an agreament to insure may he proved by the correspondence, but the evidence of the assent of both to all tho terms proposed must be clsar and unequivocal. 9. An offer to insure made by letter is a valid undertaking that the party wiil be bound by it, if in due season a fsvorable answer be returned. But although the insured is necessarlly bound by his offer during the lnterval that has been stated, it must not be inferred that the applicant has the right, under all circumstances, to accept the offer when be recelves it. 10. The policy, from the cime of Its execution, constitutes the sole evidence of the agreement of the parties; nor, subject to soms exceptions, can any provious letters or communlcations between them, nor even the written application or agreement, be used to vary or control its Interpretation. 11. When a policy refers to any other docuinent or paper, the contents of the document or paper become a part of the contract as folly as if they were reclted or incorporated in the policy. 12. A policy of insurance, when executed, may not only be cancelled by the consent of the parties, but is subject to any change or modification of its terms that they may choose to adopt. When an slteration is made In the body of the policy ly the assured, without the ussent of the underwriters, if it change the sense, or affect in any degree the sutsatince of the contract, it renders the whole instrunent void. 18. The date is one of the principal requisites in the policy. The date, however, is only presumptive, not conclusive, crifence of the facts that it attents. H. Wager polieics are established and ndmitted to be illegal.

Of the Construction of the Policy. -15 . The constructlon of a policy, wlth the exception of cases in which parole evidence is admitted, is a question of law, the determination of which belongs exelusively to the court. As a contract of indemnity to the assuret, the policy is to be liberaliy construed in hls fuvor. An exception from the risks of the polley ls to be construed atrictly agsinst the iasurer. 16. When a diacrepancy,
apparent or real, is found to exist between a written and a printed clause of the policy, It is the writing that controls the interpretation. 17. Extrinsic proof, by the teatlmony of witnessas or otherwise, is received to control or ald the interpretation, in order, let, to fix the application of general or indetermlnate words; 2 d , to correct an error of description, by showing the identity of the subject to which it relates; 8d, to remove a latent amblgulty ; and, lastly, to explaln the meaning of foreign or technical words. 18. Parole evidence shall never be received to show that the intention of the parties was directly opposite to that which thelr language expresses, or aubstantially differgnt from any maaning that the words they have nsed, upon any construction, will admit or convey. Parole evidence may be admitted to ehow that particular words, upon the construction of which a controversy turns, have acquired, by the known usages of trade, a peculiar mesning, wholly distinct from thelr ordinary and popular sense. 19. When the interpretation of words, or the construction of a clanse in the policy, that may be understood in a sanse more or leas extensive, has not been fixed hy judicial declaions, parole evidence may be admitted to show whether they have obtained, hy use and practice between the assurers and the aesured, any, and what, known and deflite import. The usage, if preved, will govern the construction. 20. If by a general practice, the voyage or trade to which the insurance relates has been pursued in a certain course or manner that the terms of the policy, in their ordinary interpretation, would not embrace parole, evidence may be admitted to prove the existence of the usage. 21. A usage that can alone be allowed to control the interpretation of the policy, or vary the legal rights of the parties, must be general, uniform, notor ions, reasonable, and consistent with the terms of the policy, and, to a certain extent, with the rules of law.
Of Illegal Insurances.-Breach of Municipal Laws.22. The invalidity of an insurance, as an implied violution of the laws of trade, may arise from the character of the goods exported or imported, the nature of the trade, or the breach of some statutory provision relative to the navigation of the ship or conduct of the voyage. 23. When the exportatation or importation of the goods shipped is prohlbited, the Illegality affects not only the policy upon the goods themselves, but equally those upon the shlp and frelght, since the voluntary reception of the goods by the master is as much a violation of law as their shipment by the owner. When the prohiblted act renders the subsequent voyage or trade illegal, it vacates the policy. 24. The illegallty of a voyage, arising from the transportation of prohilited goods, is nsver permitted to affect a distinct policy upon the lawful goods of a different owner. 25. Where the goods insured by one policy are all of them lawful, tho insurance is valld, oven when the assured, as ownor or otherwise, is interested or concerned in the transportation of unlawful goods hy the same vessel, but otherwise when Included in an entire policy. 26. The contract is entire wien the goots insured (whotler the insurance be penerai or specifio) are Included in one gross valuation; but where an insurance is speclifo upon different kinda of goots, and a separate value is affixed to each denomination, the contract is distinct. So where the policy is open upon different kinds of goods. 27. An iusuranco in one policy for the owners of a ship is not devisable; lout the Illugal act of one without the knowledge or privity of the others, has the sume effect in voiding the entire oontract as if all had concurred. But the contract will not be regarded as entire when the insurance is male by a common agent on recount of several persons whoso interests are severul and distlact. 28. When an ontlre voyuge is illegal ut lta inceptlon, the illegality runs throngh and infects every purt of it. 29. When a particular trade is prohibited ly the express terms of a treaty to
which the State within whose Jurisdiction the pollicy is effected is a party, the effect of the prohibition, whether general se to trade or limited to particular commodities, is preciaely the same as if it were by a municipal law, an act of Pariliament, or of Congreas. Every voyage in contravention of the treaty is iliegal, and every inaurance upon auch a voyage, whatever be the subject or terme of the policy, is necesaarily void. 80. The defeat of the voyage by an embarge after the policy has attached, is not considered as a diesolution of the contract, but as a loss by peril inaured againat, entitling the inanred, upon an sbandonment, to a recovery of the whole sum insared. 81. The contingent expectation of the partiea that an existing law will be repealed Interdicting a veyage or trade meant to be covered by the pollicy, la not sufficient to render the insurance valid when the expectation is not reulized, and the voyage is undertaken and prosecuted in defiance of the provisions of the law.

Section II. Einemy's Property.-32. Every insurance upon property liable to confiacation as prize of war by the gevernment of the country to which the insurance belongs, is of decessity invalid. An insurance made in a belligerent country upon the property of the aulijects of an opposite belligerent, is void. 83. Goods in the course of transportation from a nentral country to a belligerent, if they are to be delivered to, and become the property of, a belligerent immediately on their arrival, are considered as his goods during the voyage (in itivere), and as auch are subject to capture and confiecation.

Section III. Linemy's Property-Domicile.-34. A merchant is a political member of the country into which, by his residence and business, be is incorporated; he is a aubject of the government that protects him in his parsuits, that his industry contributes to support, and of whose natural resources his own maans are a constituent part. 85. When the property of a foreiguer whe, at the time of its shipment was living In a hostile country, is seized as that of an enemy, the captors are not bound to prove in the first instance that his piace of residence was his actual domicile. The presumption of iaw is in their favor. The animus manendi, the intention to remain, the law imputes to him, and to redeem his property from the noxious 1 m putation, he must give such evidence of his intention and plane as shall be effectual to destroy it. 86. The national character of persous who reside in a foreign country, in a public or representative capacity, is not changed or affected by their residence, whatever may the its duration, or by whatever circamstances indicative of the intent to reader it permanent it may bo accompanied. Hut if a foreign consul engage in commerce, he is inmedintely stamped, with respect to that commerce, with the national character of the country in which he resides, and from which his trade is conducted. Llis character of consul affords no protection to his mercantile adventures. 37. A native suiject can not ncquire a foreign domicile by an emigration from bis own country luring the existence of hostlilities (flagrante bello) so as to protect his trade during the war, either againat the beiligerent claims of his own country or against those of a hostite power. Ills native character is wholly unchanged by bis change of residence. 38. The nature of the traflic or business in which un individual is engaged, may stamp upon him a national character wholly independent of that which his phace of residence would alone impose.

Section iV. Trade with the Kinemy.-i19. The proporty of a subject is in all cases liable to confireation in a court of price when it is found engaged in an unitaw. ful trade or intercourse with the ports, torritories, or suljects of the publie enemy; and the property of a qulject of a State allied in the war is liable under the like circumstances to the amme foumalty. 40. To render the importation of goods from an enemy's jort an lliegai trading, it ia not requisite that they should he
the fruits of any purchase, barter, centract, or negotiation in the onemy's country, after hostility had commenced. The sailing of the vessel with the goods on board after the party had knowledge of the war, completes the offense, stamps the cargo with as illegal character, and aubjecta it, during its transportation, to a rightful seizure. 41. To render a trade with the enemy unlawful, it is not necessary that the communication with the enemy's conntry ahould be immediate and direct. A circuitoue trade is liable to the eame ebuses, and involvea the same political dangers as a direct one, and therefore equally falls within the interdiction and penalty of the law. 42. If an American vessel, during a war, even when destined to o neutral port, presecutes her voyage under a licensc, from the government of the enemy; both ship and carge, while they remain under the protection of the license, are liable te capture, and If captured, are lawful aubjecta of confiscation. 43. A license granted ly the sovereign power is not aubject to transfer or assignment, but its legitimate uae is confined to those for whose beneflt it was originally granted. A license to an alien enemy, whether by name or general words, removea all his peraonal disabilities. 44. The goods for which the protection of a license is claimed, must correapond with those that the license enumerates or deacribes. When a license suthorizes the importation of goods from an enomy's country in an enemy's ship, the protection intended to be granted, although confined in terms to the gooda, by the juat construction of the law is extended to the veasel. The natlonal character of the ship, as described in the license, $i_{N}$, in most cases, a condition necessary to be fulfilled to secure the protection that is desired.

Section V. Breach of Neutrality.-40. The duties of a aubject or citizen of the neutral State are, 1. To sbstain from every act that tends to the asaistance of either of the belligerents in the prosecution of the war. 2. To abstain from every act that tenda directly to relieve one of the belligerents from the pressure und effect of the opposite hostilitien. 3. To offer no resistance to the full exercise of the belligerents' rights of visitation and rearch, and to resort to no means for eluding and defrauding the righta of capture. 46. From the moment that a ship, with contrahand articles on board, quits her port on a hostile destination, as a general rule the offeuse is complete and the capture legal. Te justify the capture, it is enough that the imnediate object of the voyage is to supply the encury, and that the contraband is certsingy destined to hia immediate use. 47. Articlea of contraliand are all the munitions nud instruments of war; all munufuctured articles that in their actual state ary fitted for military and maval use, and more especlatly for the building and equipping of ships of war. l'itch, zar, and hempare contrahand; liut they enjoy exemptions if directed to a mercantile port. I'rovisions are not contratand, but they may le reudored no by their special destination and intended use. 48. An insurance upen goods liable to confiscation as contrabsend of war-it made in the belligerent comitry whose rightes are $y$ :olated--is wholly void. 49. A blowkade is a uavai circumvallation intended to prevent und cut off all communica. tion with the port that it incluses, und to canse an entire suspension of its commerce. The lireach of a blockade subjects all the property so empleved to contiscation by the belligerent power whose rights are violated.

Of the I'arties to the C'outract-i)f the Legal Competency of the Parties.-50. Alt persons of full wge and otherwise cupable of contracting, have the right to inwure and the insured. 51. In order to render a party capabie of insuring, it is not necessary that he should have any interest in the property insured at the times the insurance is effected, uniess the risks as described in the policy have already commenced. When the contract is jerspective, it is valid and effectual if the
intereat meal attaches, W riaks have c time in the may be eo fra that had in $f$ quired by ins An agent em himself becon

Of the Des The names of that is, of the enme the rial ance, muat $b$ the insurance assured may even agenel effecting the in the policy. ance describe person, the inurea oniy t named as the policy in his who is name words, an act loss may be $n$ in that of the agent is a nsh and no intere tected, he will his own nam mencement of countermande ner has a rigl the name or $c$ arance is $\theta$ ? must be limi ahare. Wher arately insuri can have no $m$ a partnership party in whom authority from contract is alt the termes of $b$ on his accoun his interest $w$ an insuperable tien of every previeus instr tion of the pr the intention the construct scribing the interpretation the insurance property meat owners, durin come in turn

Of the Assis the Assignee.its usual form the assignee in his awn nay and vests in $t$ in its extent assignment is assignee of a not in a cour which he ciai refuse to pay, remedy in a aurer. 62. 1 insurance doe except es aga by an actaal
interest meant to be covered exists waen the poliey attaches. When a party effects an insurance after the rlsks have commenced, if he has an interest at the time in the subject-matter of the policy, the contract may be 00 framed as to entitle hlm to recover for a lose that had in fact occurred before hlo own title was acquired by inauring the goods " loat or not lost." 52. An agent employed to procure an insurance can not himself become the lnsurer.

Of the Description of the Parties in the Policy,--53. The names of the immediate parties to the contract, that is, of the individual or company agreeing to assnme the risks, and of the person effecting the insurance, must be mentioned in the policy. 54. When the insurance is made by an agent, the parties really assured may be described by general words; nor is even a general description necessary, if the party effecting the lnsurance describes hlmsslf as "agent" in the policy. Where the person effectlng the insurance describes himself as the agent of a particular person, the policy, by ite necessary constructlon, inures only to protact an interest of the party thus named as the principal. 55. When an agent effecte a policy in his own neme on account of a third pereon, who is named, or describing the assured by general words, an action on the pollcy for the recovery of a loss may be maintalned in the name of the agent, or In that of the party really interested. But where the agent is a naked trustee, having no llen in the policy, and no interest of his own that was meant to be protected, he will not be allewed to maintaln the action in his own name, if it appear that previeus to the cemmencement of the suit his authority as agent had been countermanded or revoked. 56. Although each partner has a right to insure the partazrship property in the name or on account of the firm, yet where the insurance ls expressed to be on his sole sccount, it must be limited in its appllcation to his indivldual share. When the separate interest of a partner, separatsly lnsuring, is equal to the amount insured, he can have no motlve for averring or attempting to prove a partnership property. 57. When the interest of the party in whom the interest is averred is proved, and an suthority from hin to insure, or hls sdoption of the contract la also proved, it to an inference of law from the terms of his policy that the insurance was effected on his account. But when the proof establishes that his interest was not intended te be covered, it furms an insuperable bar to a recovery. 58. The interpretation of every policy that is effected by an agent under previous instructions, must be controlled by the intention of the principal in every case where evidence of the intention can properly be recelved to determine the construction. The general words of a policy describing the assured, have always received a liberal Interpretation. 59. The policy may be so framed that the insurance hall be inseparably attached to the property meant to be covered, so that the successive owners, during the continuance of the risks, shall becoms in turn the parties really assured.
Of the Assignment of the Folicy and of the Rights of the Assignee.-60. Altheugh a pollcy of insurance in its usual form is not assigasble ln law so as to enable the assignee to maintain un sction npon the contract in his own name, it is in all cases asslgnable in equity, and vests in the assignee a beneficial interest, varying in its extent according to the purjose for which the assignusent is made. 61. Although the rights of tho sasignee of a pollicy are equitablo in their nature, it is not in a court of equity, when a less has occurred to which he claims to be entitled, and the underwriters refuse to pay, that he must seek relief. IIe has a full remedy in an actlen at law, in the nsine of the ussurer. 62. The assignment in writing of a polley of insurance does not vest in the asbignee a perfect title, except as against the sseigner, unless it le accompanled In an actual deiivery of the instrument Iteeif. The
policies in use in Boaton contain apecial clauses restricting their assignment.

Of Insurance effected by an Agent.-Of the Authority of an Agent to Insure.- 63 . The neccasity of proving either the orlginal authority of the agent, or the aubsequent adoption of his contract, is expressly affirmed, or necesparily implled, in every case in whlch a question as to the authority of the agent has arisen. A prior authorlty conferring on the agent the right to insure, is elther express or implied. An express anthority may be written or verbal. 64. The suthority of a single partner, and of each partner, to insure the partnership property in the name or by general words on account of the firm, or to direct euch an assurance to be made, is established and nadeubted. 65. The right of a part owner to insure is limited to hle own indivldual share. C6. The master of a shlp has ne general autherity, but bss an implied authority in special cases, 67. When a conelgnee has an interest, he may insure the entire property consigned to him ; but a censignee who has no interest, and. no lien whatever, upon the goods consigned to hlm for sale, has no right to insure them on behalf of the consigner, unlese specially instructed. 68. A general agent may insure on behalf of his princlpal, unless restricted in hls discretion ly the express instruction of hls princlpal. The authority of the agent, exprese or implied, may be revoked by the principal at any tlme before the terme of the insurance havo been settled by en agreement with the underwriters. 69. In the United States a usage prevaile to cover all shlpments by a general standing time polioy on geods, so as to embrace not only all outward and home shipments made on thelr own acconnt, but all shlpments made to them from foreign ports, upon which they are directed to effect insurance. When there is a subsiating policy in the abova form, a direction to insure, once given, is in its nature irrevocable. 70. When an agent accepts an order to inaure, or omple to give notice of hls refusal, he is of course beund to its executlon. When the principal has funds or effects in the hands of his correspondent, the application of which rests in his own discretion, he is justified that they will be applied by his correspondent to procure the insurance that he directs. 71. When the agent has no funds or effecte of hls principal on hand, but, by an astablished course of dealing, has been in the habit of executing the orders of his principal to effect Insurance, and of advanclng the premiam, he is bound to execute all similar orders that he may recelve from him, until he has given him notice that this course of dealing must be discontinued. 72. When a consignee receives a bill of luding, with an order to insure its contents, if he accepte the consignment, he must execute the order. The law regards the transactlon as entire, and the acceptance of the benefit as a tacit promise to discharge the duty. 73. These rules ure subject to exceptions. The agent ean never be bound to effect an insurance that, from circumstances that could not have been known or anticipated when the order was given, instead of securing an indemnity to his principal, would tend to his certaln prejudice and loss. When the ugent, when he receives the order, knows, or has just grounds for believing that his correspondent is insoivent, or is threatened with insolvency, the acceptance of tie trust rests in his own discretion. Yet, should his apprehension prove to be groundless, he should be called to juatify his conduct, by jroving that the information on which he has ucted was credible and trustworthy. The obligation to insure that arises from a prevleus course of dealing, csn only npply to insursnces elmilar to those that the agent had been in the habit of effecting. 74. The contidence reposed in an agent is atrictly persanal ; and ite can not delegate to a third person an authority that, lys the intention of his jrincipal, was meant to be cxecuted by himseif alonc.

8xorton III.-Of Inouranees by voluntary Agents, and their Adoption.-75. Although the adoption of a voluntary inaurance is necessary to render the contract valid againat the principal, and proof of lta adoption to warrant the recovery of a lose againat the insurer, we are not to infer that the agent who effects the policy is at llberty to reacind his own contract, upon proof either of his want of a previous authority, or of the refusal of his intended principals to ratify his act. 76. There are, however, two cases in which, as exceptions from the general rule, the voluntary agent, when hia Inaurance has been rejected, may juatly claim to recover back the premium he has paid: 1st. When he diaclones to the underwritera that the insurance is made without authority, and they agres that it shall be cancelied, if not edopted; and 2dly: Where the insurance is rejected for reasons that would have rendored the contract valid, if ndopted. 77. The contract of the voluntary agent may be ratified and appropriated by the principal, even with knowledge of a loss, unless the power to adopt the insurance under these circumatances, is excluded by the expreas provisions of the pollcy. When an abandonment of the property inaured is necessary to justify a claim for a total losa, an adoption of the contract, with the right to enforce the cla:m, is of necessity limited to the period within which, either by the proviaions of the policy or by the general rule of Inw, the abandonment must be made to render it valid; and a clnim for partial loas is just as liable to be barred hy the lajse of time, an if it erosa under a policy duly anthorized. The party for whom the insorance was intended can have no right to adopt and enforce a contract that would not have been valid if made by his express direction. 78. When the agotit merely excceds a given anthority, the principal is concluded if he fall to give notice of his dianent within a reasonable time after receiving the information.

Of the Duties of Agents in their Relations trith their Principals, and with the Insurers.-79. Every agent who is entitled to receive a compencation for his services, is bound to exercise not oniy the same care and diligence that he ia acenatomed to emplor in tia own private affairs, but all the care, and diligence, nnd sklli that the transaccion of the particniar business with which he is intrusted, accoriling to if nature, may he reasonably construed to require. 80. A person who undertakea to effect an insurance for snother, should make proper inquiries as to the circumstances and standing of the innurers to whom he wiahes to apply, and to be careful to select thone whoae credit is eatablished and undiaputed; int when he acts in good faith in making the nelection, and haa exerciaed the necenpary caution, he is not, generally npeakiag, renponsible for the ultimate molvency of those who antiacribe that policy, unless he receives a del credere comnission. From this rule the voluntary agent is not exempted. 81. When the agent employs a broker to effect the pollicy, an he is alwayn justified in doing, when auch is the asage of the place where the contract is made, it is to the diacretion of the broker that the choice of the insurern is intrusted; and for his fraud or neglect in the exeention of this trust, the agent is not reaponaible where no want of good faikh, or of proper diligence, is justiy imputable to him. 82. An agent who has efferterd in pollicy in conformity to the orders of his principal, han the power when the first insurer becomen insoivent, even of rescinding the contract when the interests of his principal plainly demand the measure, so long us the policy remains in his hands. Hut the agent ought never to cancel a aubsisting policy when the partial security that it affords in preferabie to a return of the premium, uniess with the certainty that he will the abie to pay a new contract fully, to protect the intereat of his principai. The sulsisting polioy being reacinded, if the orier wan special and limited, he will atill be boun'l to follow ita
provisions and obaerve its limits ; but If within its limita, and according to its terms, it in the duty of the agent to effect a aecond lnaurance. 88. Where an inereased premium is demanded, the execution of the order can no longer be regerded as a positive duty, hut will reat in the sound discrotion of the agent. Where, from the lapse of time, or othar circumatances, the alteration of the risk in so material tiset the premium demanded la much larger than the principal when be gave the order to inaure could have contemplated as necessary to be paid, the agent may be partly excused who declines to exercise his authority $\mid$ and, on the other hand, whatever may be the ohange in the riak, and the increase of the premitum, if there are reasonablo grounds to believe that a second insurance will tend to the advantege of the principal, the ugent, proceeding in good faith to effect it, wiil he protected. 84. It ia the duty of every agent to conmunicate to the nnderwritera all the fucts and circumstances of which he has any knowledge or information; to represent truly ail the facta he discloses, and to answer truly all the proper inquiries of the insurer; for the concealment or misrepresentation of the ngent, whether intentional or undeaigned, has the same effect on the validity of the contract as that of the party really assured. 85. Aithough an agent to whom no fraud or neglect is Imputable, is not reaponsible for the conceslment snd misrepresentation of the aub-agent whom he is authorized to employ, yet when he employa a broker to effect the poliey, he la bound to give his all the necessary instructions and all material information that he himself possesses, and this duty attaches even on an agent who acts gratuitously, who may be rendered liable for the damages resuiting from his onisnions. 86. When the omission or act of the agent that vitiates the contract can be justly imputed to hia fraud or his neglect, he is personaily liable for the resuiting dimage ; but where it proceeda from his want of the requisite akill, there aro casea in which equity demands some distinctions. 87. A mercantile agent who was neither authorized to insure nor has effected an insurance, may yet render himself liablo as an insurer, by a false representation, not to the underwriter, but to his principal, if the naturo of the misrepresentation is such as to invalidate a policy founted on it, effected by the primeipal, or on hia hehalf. The most important and responsibie duty of every agent in effecting an insurntice, is to take care that the poicy shall be so framed as effectunliy to cover the property and riaks, which he is directed to iosure, or which, when not acting under a previous order, he believes and represents limself to have insured. 88. When an agent acts under clear and positive instructions, and violates them in the term and form of the insurance that he effects, his negiigence, it is manifest, is still more culpabie and renilers the agent personaliy liable. llut when the order is plain, tho good faith of the agent wili not protect him. 89. Even when an agent acts gratuitousiy, without the hope or expectation of a reward, yet, if ha enters on the execution of an order to insure, he must follow its ternis, and by his omission to cover all the property or risks that he is directed to insure, wili becone responsibie for a $l$ that the insurance of property effected would l, sembraced. The mistake of tife agent where the practice is unsettled and the law uncertain, affords no evidence of the want of reasonalife skiil and ordinary diligence, for whici, alone, he is responoible. 90. The agent is not responsibile if his mistake nrose not from hia want of requisite difigence and akili, but from the imperfect and confused manner in which tha inatructions of hia principal were expressed. 91. All prior verbal communications are superseded by the written inatructions waich constitute the proper and sole ovilence of the intentions of the party ulrecting the lasurancea. 92. If the agent
finda it impr to the terma immedlate $n$ an agent he vorage, and aeveral pere elect to cov he mast be secure to an vity to whic property and onder to ina and when p order la dise or not to ins cretion of the determinea n good falth. it deacribes $t$ rection as to limitation as general the d his obtaining pollcy at the 94. When the restriction us it is the duty events withon iting himself t ance, he is lia where the fan pernit him to would be excy exactly follow rected to inanr cure an insura anm required ; order as far as void when the he was limited. its terms exce if the excess m 97. As a genera ed, may be oons solely to the pls atances may do a duty that th Where an age posaersion with cy is continued ights and prot matters arising or total, has on subnit the $n$ amounts, dems onder to sustair loss, an absudo hehalf of his p eriy expressed mast be careful all his transact sponsililo of the collect, receive cur and full dit gence in the o incur a heavy 1 pay all losses, $t$ have been reco to the agent to actual payment of a credit. $\quad 10$ authorized to re credit in lieu of derwriter in auc the trust that is itor of the asen him a lien on th
finds it impracticsble to effect an Insurunce secording to the terms of his Instructions It is his duty to give immediate notlce of his fallure to kile prineipal. When an sgent has separate orders to Insure on the same vojage, and agalnst the same riske, the property of several persons whose intereats are several, should he elect to cover the whole property in one policy, he must be careful so to frame the contrect as to secure to each of his constitrente the same indemalty to which he would bave been entitled had his property and interest alone heen covered. 08. An order to Insare is either diseretlonary or positive, and when positive, is elther genoral or llmited. The order is diseretionsry when the election to Insure or not to Insure, le committed absolntely to the discretlon of the agent $;$ and In such a case If the agent determines not to insure he is responsible oniy for hls good falth. The order when positive is general when It deacribes the property and voyage, but gives no direction as to the rlsks to be covered and imposes no Ilmitation as to the premlum: When the order Is thus general the duty of the agent is fully discharged by his obtsining an Insurance In the usual form of the policy at the place where the insurance is made. 94. When the order to irsure contains no direction or restriction us to the amount of the premlum to be paid, it is the duty of the agent to effect the insurance at all evenis wlthent regard to the premilum; and if by limleing himself to a smaller premium he defeats an insmrance, he is llable, with the exception, however, that where the funds he has or he is to advance should not permilt him to enhance the premlum sufficiently, he would be excised. 95. Special instruetions must be exactly followed by the agent. When an agent is directed to lasure a certain amount, It is hla duty to procure en insurance, if possible, to the full extent of the sam required; but if he can not, he must execute the order as far ss he can. 96. An insurance is not wholly void when the agent exceeds the premium to which he was limited. A contract made by an agent who in its terms exceeds his authority, ls never wholly vold If the excess may be readily ascertained and separated. 97. As a general rule the order unless otherwise expressed, may be construed as intended to refor In its execution solely to the plece of the agent's residence; but circumstances may doubtless create an exception and lmpose s duty that the order does not In terms require. 98. Where an agent who has offected a pollcy retains Its possession with the consent of his princlpal, hls agency is continued. His general duty is to enforce the tights and protect the interests of his princlpal in all matters arising out of the contract. If a loss, partial or total, bas occurred he mast collect, srrange, and submit the necessary proofs, adjust and settle its amounts, demand and recsive Its payment. If in order to sustain the claim of the assured for a total loss, an abandonment is necessary, he must take it on behalf of his principal, must take care that it is properly expressed and is dellivered in due season, and he mast be careful to preserve the requisite evidence of all his transactions. 99. The most important and responsible of the subsequent duties of the agent is to collect, reccive, and pay over the losses that may occur and fall due under the policy, und by his negllgence in the discharge of his duty he may readily incur s heavy liability slace he ls necessarily bound to pay all losses, that but for his neglect and delay might have been recovered from the underwriters. Payment to the agent to discharge the underwriters must be an actual payment made in good faith, not the uliuwunces of a credit. 100. An insurance agent or broker who is suthorized to recelve a loss, has no authority to accept u credit in lieu of a payment In money, nor can the underwriter In such a case allege hla own lignorunce of the trust that is vlolated. When the agent is a creditor of the nasured and the nature of hils deht gives limn a lien on the policy, that lien will attach on all
moneys that he may receive from the underwriter nuder the policy, and he has a perfect right to retain such moneya to hla own use so far as may be necesaary to aatisfy his claima, by giving due credit to the asaured for the amount. The credit glven by the agent extingulehes the debt to the assured, and discharges the insursr. 101. A settlement on account between the underwriter and the agent le conclusive on the agent himself. 102. The agent should transmit to his prinelpal, full and just accounte of all hls transactlons on his hehalf, keep him advised of all ocenrrences connected with the insurance by whleh his interests may be affected, and dellver over to hla princlpal, on request, the poliey effected on his behalf, provided bis own clalms, If euch as give hlm a llen on instrument, are first attlsfied. The polloy is $\ln$ all cases the property. of the party really assured. He may maintaln an action of trover for lts recovery, not only agalnat his agents, but against every person into whose hande it may have passed, and by whom in vlolation of his righta it may be withheld. 103. In the United States it ia not unusual to Insert a provision in the policy by which sll lossea are made payable only to the person in whose name the insurance is effected. 104. If the agent intends by the insertion of the apecial clause to extend hia lien so as to cover advances or a balance of accounts, to which the privilege is not annexed by law, the extension, if not anthorized by the principal, is a fraud upon his rights; and where no such intention existe a provision limiting the payment of a loss to the agent alone may operate to embarrass or delay the remedy of the assured, and should therefore, without his consent, never be Inserted.

Of the Rights of the Agent. -105 . An agent has a lien on the policy; and moreover, has authority to maintain an action in his own name for the recovery of a loss under the polley. 106. An insurance broker has a lien on the policy against his Immediate employer, not only for his commissions and premiums, but fur the general balunce of his insurance atcount If the broker, when he effected the policy knew, or had reusonable ground to believe, that the insurance was on the account of a third person, his lien as against tho party really assured, will be confined to the premilum and lis commlssion in the particular trausaction. 107. A broker who has received moneys under a pollcy that he effected in Ignorance that his employor was an agent, is liable to the party really assured. 108. A mercantile agent has a lien on the policy thut he is directed to effect, not only to the premlum and his commassion in the particular transaction, or extended only to advances male by hlm on account of the property assured, but ilso to the general balunce due to him, or becoming due while the policy is in his hands in his account with his princlpal. The privllege of lien ombrueing claims arising from other dis tinet transactions does not extend to the necessury, the voluntary or the grutuitous agent. A general lien is not limited to moneys actually paid by tho agent or then due to him, but embraces all his outstanding lialilities on behalf of his priucipsl arising out of his agency. 109. But a general lien, unless by u special ugreement, dues not einbrace all the existing demunds and liabilities of the ugent aga.nst his principal, but only such as relate to the business or employment in which the agent is engaged, and have grown out of the relation in that employment between him and his principal. 110. The obligation of the lien attaches ecually on all moneys recelved by him under the policy. The agent waives his lien when he vuluntarily delivers the prolicy to his princlpal or to his order, or when he parts with the possession wrungfully, as by pledging the policy us his own property. So he may waive his lien by an express or implied agreement. When the policy comes aguin into his possession, his lien is revived in ull its original extent. The lien of a mercantile agent attaches on the policy in the possession of the broker
whom he has employed to effect the fasurance. 111. The Revised Statuten of New York Ilmit the right of set-off to a defendant to whom tha demand proposed to be aet off in due in his own right, elther st the origiaal creditor and payee or as the asaignee and owner, and the provialon, If Ilterally and atrictly construed, would oxclude a aet-off by an agent in any case whatever. The courts, however, may adopt as a reasonable conetruetion, that an agent who in hls own name in a party to the contract, and has a lien on the policy and its proceeds, is to be conaldered an an original creditor, er, in judgnient of law, as the ansignee ard owner of the demand. So long as the pro-mlum-nete remaina in the hand of the underwriter, a retnrn premlum on the same policy is Ita neceasary appendage; where the return is entire, it extingulahen the nete; where it is partlal, it operatea protanto as a antlsfaction.
Of the Errtent of the Viability of the Agent.-112. The Hlability of the agent is simply to make good to hls prinelpal the actual damage that the apeclfie breach of duty with which he is charged has directly ocensloned. The llabllity of an agent arising from the inselvency of an underwriter from whom a lose wns due that he might have collected, is probably of the same nature as that of an agent under a del credere commlasion not Immedlate, but secondnry. 113. The first remedy of the principal is againat the eatate of the bankrupt, and the agent is anawerabie enly for the sum that the estate may be deficient to antlafy. And when an agent has recelved the amonnt of a losa, he is not permitted to diapute the title of his principal, his doty is to pay over the monoys he receiven. 114. Te fix the liability of the agent an netnal damage resulting to his principal, mast be proved. Where an agent, from his neglect to lisure, has rendered himself liable as an insurer, he is entitled to avail himself of every defense whleh, had the necensary Insurance been made, inight have been urged by the underwriters themselves, 115. The liability of the agent is not in all cases determined, even where it appears that the princlpai had parted with all his Interest in the subject to be insured prevlons to the happening of the loss. The Ilability of an agent is not in nill cases in lie limited to the amin that his prinelpal would have s.sen entltled to claim as an ludemnity from the underwriters had an insurance heen properly effected. Where the prinelpal has heen defeated in mn action againat the underwriters on the policy, owing to the breach of duty of the agent, the costs and expensen are chargeahle to the agent. 116. An agent acting under a tel credere commission is ilable only as a surety for the ultimate soiveney of the party with whom he contracts for his pritucipal. A del credere agent has no immediate remedy agninst the tinderwriter. When the pollicy ls effected in the name of the del crolere agent, the may maintain an action In his own name on the poliey itself, but not when hla own name is not on the fuce of the policy. A dei eredere commission in not within the statite of frauds. See Drl Chesprar.

Of Insuraaces by an Agent of the Underuriters.117. The anthority of the agent to sign a polidy may be proved by his lubit of snbscribing policies on lie. half of the defendant, although sueh proof is incomplete unless it embraces some jositive act of the defendant amounting to a recognition of the anthority. Whem the agent subserlbes the policy In his own name and omits that of his princlpal, he lireonnes responsible. 118. An agent whose original anthority to sign the policy as auch has been proved or admitted, has an implied authority to perform every sulwequent act on behalf of his princlpal ; and this implied nuthority extends to the alljutment of a loss, the acceptance of an abandomment, and the payment of a loss. An Insurance broker is not the ngent of the underwriter to admit or to bay a losa; and if such a payment is made by him, it is regarded as purely voluntary.
119. Agents of insurance companioe in the United States are rasually intrusted with an authority nut merely to tranamlt appilcetions, but, under certain reatrictlons, to perfoct insurances in the namu and on the behalf of their constituenta. If the restrictions to which the agent is aubject in the oxercise of his authority are private and confidential in tholr nature, their exiatence as between the prinelpal and his agent is not permitted to be alleged. So far as the rights of third persona are concernad, unlesa diselosed, they are inoperative and vold. The ontenaibie or apparent anthority of a general agent is his real autherity ln reapect to all who deal with him in ignoranee and yood faith. It is the custom of the underwriters at Lloyd's and of the principal insurance companies in the United States, to appoint agents in nearly all the ports of the world, but the powers of these agents are circumacribed by very nartow simits. Thay can not bind their employers by any positive net so as to create a llability to the ansured that would not otherwlae exiat, nor are the acta which they are authorized to perform of auch a nature $a^{*}$ to milalead the pulilic as to the real extent of their authority. When a queation arises as to the valldity of their scts, it is aolely by a reference to their written instructions that It must be determined.

Of Concealment,-120. Each is lound to communicate to the other all fucts within his pereonal knowledge that tend to show the true character and value of the risks that are meant to be covered, and each, in hle own communication to the other, le lound to atate the exact and the whole truth in relation to the facts that he represents, or, upon inquiry, diseloses. A mis representation or conceaiment of material facts, whether it resulted from deaign or from ignorance, mlstake or inadvertence, vitlates that mutual consent essentlal to its validity. 121. The materlality of facts cencealed or misrepresented is not to be determined by the ovent, but reaults solely from their probsbio liffuence on the estimated value of the risks at the time thay were assured. The question is not whether the loss that is clalmed is attributable in any degree to the risks that were concealed, but whether, had the facts been known, the underwriter woulh have subscribed the pollicy or would have Ilmited himself to the premium that he received. The obligation of a frank and full discloaure attaches equally upon both the partien, the underwriter ne well as the assured.

Facts that the Assured is bound to disclose.-122. It is the duty of the assured to communicate all fucts that are material te the risks, and which are not known, or presumed to be known, to the underwriter. The assured is bonnd to disclose all the intelligence that ha has received, and all the information that he possesser, that relate to facts whieh are material to the risks, although the information may be of a doultful charucter, nnd may ultmately prove to be untruc. 123. So if the Intelligence received by the assured relates not to a fact, but to mere expectation or helief of the person from whom it was received, if the expectation refors to an event that, had it orcured, weafd the material to the risks, it must be communicated; nor will the aupression he excused by evidence that the expectation, although entertained and expressed in good faith, was not renlized in the event. When it is certain, however, that the assured acted with an entire gool faith, circumstances not disclosed by him axe not to be deemed material simply on the ground that if communieated they might have excited a muspicion of danger in the mind of the insurer. 124. The assured will not he allowed to protect himself against the charge of an unitue concealment by avidence that he had dischosed to the underwriter, in general teras, the information that he possessed. Where his own information is specille, it must be commanicatel in the terms in which it was received. The information possessed by the assured may not be material in itself.
separately co that it would part of the a quiry wonld must he com friudulent or 125. When tl slot to disclos lese the conce facts. The whether the will not be a of a concealm came effect a the assured et it is hls duty facts that are of the prinelt Ity of the age ment of a losa inteligence, $\mathbf{v}$ which the con ment by the pr when the polt 127. Where an by a re-ageura only all the rep subscribed tha formation he ha and in the Un surce, or of his established, in The informatio be distributed u The atate and suret. 2. The insured; and, ls from extreme e or will probabl bound, it the fi tion as to the co ment of the ris Although not 1 judgment of the shall be seawort plled stipolation assured, that th founded. Henc worthy, and the the assuced, is frand. The anar sured if any fact lfy a reasonable ter. As the wa to the condition the risks that sured has recei and condition of the voyage Insu 130. Condition laquiry is made bound to disclos when shipued, generally, is he the particular that are meant are not at the ri were insured in protected unless is stated in the ing is s.metione which the under laden, or to be a diselusure is : when the insurn ing voyage to $s$ at the diacretion
separately considered, yet may be of such a character that it would probably lead to further inquiries on the part of the underwriter 1 and if the reauit of the inquiry would ahow the information to be material, it must be commanicated. Ite conceaiment, whether fraudulent or innocent, will vitiate the insurance. 125. When the Insarance la " on ahip or ehips," omisfion to disclose the name will not aveld the policy unless the concealment was rendered material by other facts. The voluntary ignorance of the assured, whether the result of fraud or of grose negligence, will not be allowed to excuse him, but as evidence of a concealment vitlating the policy, will have the same effect as his actual knowledge. 126. Where the assured employs an agent to effect the policy, it is his duty to communicate through him all the facts that are requisite to be disclosed. The duty of the principal to the same whether the authorlty of the agent be general or special. The concealment of a loas by an agent who is bound to give the intelligence, violates the implied understanding on which the contract is fonnded, as a similar concealment by the principal. Concealment of material facts when the pollicy is altered, renders the pelicy void. 127. Where an underwriter aeeks to protect himself bj a re-assurance, he is bound to communicate not only all the representations made to himself when he auliscribed the pelicy, but ali the knowledge and information he had subsequently acquired. In England and in the United States the knowlelge of the asaured, or of his agent, is never presumed, but mast be estabilshed, in all ceses, by positive evidence. 128. The information usually necessary to be given, may be distributed under the following general heads: 1 . The atate and condition of the ship or property insured. 2. The nature and extent of the interest insured; and, lastly, the extraordinary perilg arising from extrome causes to which the property has been or will probably be exposed. The assured is not bound, in the first instance, to make any representation as to the condition of the ship at the commencement of the risks to which the poilicy relates. 120. Aithough not by the terms of the contract, yet in julgment of the law, stipulates that the vensel was or ahali be seaworthy, and it is on the truth of this inplied atipulation, and not of any representation of the assured, that the underwriter relies, nul the policy is founded. Hence, a policy, where the ship is unseawortly, and the fact is known to, and suppressed by the assared, is conclusive evidence of a meditated fraul. The same disclosures must be male by the s. sured if any fatis are known to him which would justifys reasonable suspicion of the honesty of the naster. As the warranty of senworthiness relates solely to tiecendition of the ship at the commencement of the risks that are covered by the pelicy, if the assured has receivel any advlces relating to the state and condition of the ship since the commencement of the royage insured, he is bound to communieate them. 130. Condition ahl quality of the gools. When no inquiry is made by tin underwriter, the assured is not bound to disciose the state and condition of the goods when shipped, nor where the insurance is on goods generaliy;, is he hound to digelose, in the first instance, the particular character and description of the goods that are meant to be covered. (Goods lushed on deck are not at the risk of the underwriter. Whether they were insured in special or general terms, they are not protected uoiess the fact that they are thus transported is stated in the pelicy, or unless the mole of transportfing is sanctioned by a usage of trade, the existence of which the underwriter is bound to know. When goods iaden, or to be laden, are insured in a time poliey, such a discosure is not necessary to he made. The same when the insurance is on successive cargees on a traling voyage to successive ports, the choice of the jurt at the discretion of the assured.

Tite or Intereat of tho Asoured.-131. The assared If not bound to commnnicate to the underwriters the partienfar mature of his intereat in the property insured ; but in neme cases, as when the insurance is on froight, botton. $\mathbf{y}$, respondentla, etc., the nature of his intereet mast be apecifled in the poiicy, and in others, Ite discloaure to the underwriter io necessary, in order that the torms of the policy may be construed to emhrace it. The deeisions on this subject in the American courts are very conflicting. 182. When lettermarques are intended to be used, altheugh for the limited purpose of ohasing and eapturing vessels that may be met in the coarse of the voyage, it must be disclosed. 183. Information of the fact, or of the day of sailing, although known to the asaured, is not in all cases to be given to the insurer. When the ship is known te have performed a part of the voyage innured, ohe may not be out of time when the policy is effected in reference to the whole voyage, yet may be $s 0$ in reference to the accomplished portion; and, in such a case, it is the duty of the assared to communicate not merely the original time of saillng, but all the information he had received relative to the course and progress of the voyage. 134. However matertai may be the facta known to the assured, it is plainly unnecessary to communicste them to the insurer, if they are in fact already known to him. Proof, therefore, of the actual knowledge of the unterwriter is in all cases a complete answer to a charge of concealment. The assured ia not bound to make any communication in the first Instance respecting facts which the underwriter ought to know, and of which, for this reasen, the law imputes to him the actual knowledge. The presumption of law in the cases comprehended in this rule, is conclusive and absolute. The insurer is bound to know all the general causes that are open to his inquiry, that may by their operation affect either the political or natural perils that are intended to be covered by the policy. 135. The political peris usually covered ty the policy, are the risks of capture, seizure, anll detention; therefore the assurer is bound to know the general and publio facts upon which a loss arising from such risks may occur. 136. The natural perils of a policy are such as wholly anise from physical canses, and in a limited, but not in an unusual sense of the words, are aptly deueminated "perils of the sea," or "sea risks." The underwriter is bound to know all the general causes by which they may be occusioned, increased, or varied. The nsages of trade are equally presumed to be known to the underwriter. In all these casea the presumption of knowledge attaches equally upon both parties. 137. To fix the presumption of knowled ge upon the underwriters, it is the duty of the assured to communicate all the circumstances within his personal knowledge that are necessary to be known to enable the underwriter to apply the presumption to the particnlar riska that are meant to he covered. The assured is not bound to communicate material facts if the underwriter espressly or implicdly waives the information. 138, Where, from the facts communicated to the underwriter, he is bound to infer the existence of other facts not disclosed, his omission to make the inquiry is an implied waiver of a more explicit disclosure. The underwriter, by the nature und terms of the contract, may waive nll spe"lat information as to the actual and probable existence of the particuiar risk that he agrees to assume. When he thas consents to assime the risk in its most aggravated form, he can not justly complain that facts showing that such was its real extent were not disclosed to him. 139. The assured is not bound in the Hirst instance to communicate any facts that are covered hy a warranty express or implied. Ife is not bound in the first inatance to communicate thets that are ouly material. as slowing the existence of a risk which is excepted from the policy. He is not bound to communicato fucts that tend to diminish the risks
as they would atherwise be anderstood by the insurer. 140. The insurer has the right, apon inquiry, to the inf med of all facta within the kaowledgs of the act is .i, that in the exercise of hin own judgment ha may deem material to the risks, or important to be known, an a guide to hin own discretion. ti Where the ineurer is not to be charged with un equal knowiedge, the assured, oither without, or upon inquiry, is bound to communieata all the facta, that his knowledge or information ombraces, that are materiai to the riskn, or may be deened material hy the inonrer, but he is not bound to communicate his own conclusions from the facta that he muat diaclose. 141. The following are casen in which the effect of a concealment is not to vitiate the entlre contract, but merely to exonorate the insurer from a loss resulting from the risk concealed: 1st. National character of the Inaured. 26. Liability of the property insured to capture and detention. 8d. Liability to selaure from breach of foreigr lawa of trade. 4th. Want of neccmary documents. 5th and lastly, the use of false or inmulated pepers.

National Character of ihs Asoured-142. Where the insurance is made in a noutral country, a full dieclonure of the national character of the assured in the firat instance is necesaary, not to give validity to the contract, but to cover the rink, so as to charge the underwriter with a resulting loss. The assured may be the subject of a nentral State, and legal owner of the pi-perty insured, yet, wat equitabie intorent, rendering the property liable to hontile eaptare, may be vested in a belligerent aubject. As ouch an interest creates a risk not contemplated by the parties, it must be disclosed. 143. Even when the policy contalns a warranty of noutrality, and describes the assured by general words, facts not disproving the warranty, yet showing that the property is liable to seizure as enemy'm property, are necessary to be diaclosed. 144. Linbility of property to captare or detention: The voyage or trade to which the Insurance relates may be interilicted by the law of nations, by the apecial provisions of a treaty, or by an najast orilnance or decree of the belligerent power, or by arbitrary rules or decisions that prevail in the courts of prize. 140. Where tho voyage or trade on which the insurance rolates, is prohibited by the municipal laws of the foreign country to which the ship is destined, or where the risks are to conmence, a concealnent of such an oxtraordinary risk discharges the insurer from a consequent loss, without affecting in other respects the validity of the contract. 14 t i. The rules that determine the validity of an insurance, embracing the risks of an illicit trade, or trade in violation of the municinal lawa of a foreign country, are sulestantially the same as in respect to an insurance on goods contrabend of war.

Of Representations, - 147. A representation is $n$ statement of facts, circumstancer, or information tendIng to increase or diminish the risks, an they would otherwise be considered made, prir F to the execution of the policy by the assured or his agent, to the in surer, in order to guide his judgment in forming a junt estimate of the risks he is desired to assumo. It is unually made by parole, or by a writing not inserted in the policy: but when the intention as to the conatruction is anfficiently declared, may be expressed in the policy. 14s. liepresentations relate either, Jat, to facts; 2d, to the information ; or, lastly, to the intentions, expectations, or beliefs of the assured. A reprementation of facts is a positive representation, which is divided into affirmative and prominsory : when affirmative, they assert the jast or present exiatence of the facts to which they relate; when promissory, that the specilled event will happen, or act be performed. 149. The evidence of a posltive reprementation of facta, may properiy be recelved in all canes. The rules of ovidence in respect to the almiesibility of a representaLion, are substantially the same as in respect to a
usage i and, in many casoa, the representation, when proved, becomea, llke the usaçe, a part of the contract. The words of the representation are to be atrictiy and literally construed, but are to be underatood in their plain and obvious meaning, in that whieh It in meat probeble they were suggested to the mind of the inaurer. It will be construed to embrace all the facts the existence of which, from the tetms used, wouli remeonably and probably be lnforred. 150. When a representation is soambiguoun in Ita terms, that it may be understood with equal propriety in two different sensea, it is the duty of the insurer to seek an explunation; and when auch a repreaentation is understovd ly him in a mense different from that intended by the assured if he had omitted to inquire, he will not be permitted to aver its falsity. A representation of future facta, although positive in its terms, may in some cases be justly interpreted, not as an undertaking for the truth of the facta, but as referring solely to the expectation or bellef of the party. When a represent ation of future facts is incensistent with the terms of the policy, it lis not to be rejocted. The policy remains the sole evldence of the agreement; but the repre aentation may be operative, by construlng it to refer to the intentions of the assured at the time of making it. 151. The words of a representation must be constrined in reference to the usages of trado, of in their technical and commercial sense. A representation may supersede a unage and an implied warranty. Where there are aevoral underwriters on the amme policy, a repreaentation to the first is conatrued to extend to all so that each, when it provea to be false, may avai himself of the defense. This rule Is strictly confined to the cases in which the reprementation is made to the unlerwriter whose name stande first on the policy, The terms of the rule are restricted to underwriters on the same policy, and it is confined to cases in which the representation to the first underwriter was favoralle to the risk, and to auch cases the rule exclusively applies. 152. Where the subscription of the first underwriter is obtained under a secret agreeinent that it is not to be binding, and for the sole purpose of decoying others to insure, the exhibition of the policy thus sutacribed is the assertion of a falsebool, and the contract ls void. A representation once made is blinding on the party; unless it la altered or withlrawn liefore the insurance is effected. The completion of the policy is therefure the time to which the representation is construed to refer. 153. A representation, to be binding, must bo material, sui, to discharge the insurer, must be false whelly or partially, and, according to the character of the representation, false in far or in the event. It is not necessary that the facts ref. sianted should be material to the risk, that is, shruld affect or change the value of the risk, considered in themselves. the materiality required is not alosolute, but relative, and its test is the actual or probable influence of the facts represeuted on the unind of the insurer. In julgment of law a representation is false whell it fails to corre apond with the facts that it aflimas or stipulates; and bence its falsity is either intentional or ascidental. 154. When the representation, whether aflirmative or promissory, la made with an intent to deceive, the fraud in all cases vitiates the contract; nor to produce this effect is it repuisite that the falsity meuld be catire: partial falsity, when intentional, is equally a frand ; and an insuiry into the materiality of the charge, as affecting the character and value of the riskn, would never bo allowed. 155. When the falsity of the representation is accidental, its effect upon the contract will depend, ilrat, upon the nature and extent, and next upon the period of time to which it is to be reforred. The falsity of the representation, when cutire, in all cases discharges the insurer; but such is nut its necessary consequence when it is only literal or partial. The substantial falsity of a representation, in cases exempt from fruad, does not always render the con-
tract wholly when made, or Is the necess tached, and th quent event, force, render t the assured ho tesires to repr by a positive a ation by a.klin of others, ur ma tent to the ins furmation in e dile for the act embruces, nor. clasions that t be different if $t$ the assured wl 137. The assur dicel by a false the asaured, or intenis to pur acts favoratile change the inte ation is mude fraul vitiatea ing the insuran of his prinelpal, ing of a fact or juks, the effeet on its just inter resentation of a the character of ject, that such

Of the Right a Section I.-Of A the meaning of total destruction cally remains, by the or no value. age be eutirely 1 and the project structive total lo ling in fact, is los In such cases the in the subject Ins the Insurer, and loss. 159. In ca in pisce of the self, with all the A valid atmandon does of itsolf, an fer the right of of the insurance made and accept proceed and mal owner would rea is informed of th reasenable time purpose), to dete will tut abasdon en events. If 1 a reasonable time surer of his deter to have walved 1 tled to recover be in fact absolut in specie, and the an abondonment doctrines respect carporated into t insert them at 1 rightfully made the parties, and vested rights, ant events. The righ tual facts at the
tract wholly vold. When the reprementation is false when made, or at the commencement of the riaks, auch is the necessary effect, but when tha policy has attached, and the representation is falslfied by a oubanquent event, the hreach does not, by a retro-active force, reuder the pelley voil in its origin. 156. When the assured has no personal knowlenge of the facts he desires to reprenent, and is unwilling to bind himaelf by a poaitive statement, he may qualify the representation by abling, that it lis made from the information of others, or may nubmit the information in ite whole extent to the insurer. When the assured submitn the informution In extense to the insurers, he is not answershle for the actual or eventual truth of the fuets that it enbraces, nor, in any case, for the accuracy of the conclasions that the insurers may iraw frein it. It would be different if the information proceeds from an agent of the assured whose duty it is to give the intelligence. 137. The assured is responsible when the pollcy in indsced by a false representation of his own agent. Where the assured, or his aggent in his name, dectares that he latends to pursue a certain course, or perform certwin acte favorabie ti: the rlaks, be has entire liberty to change the intentions'so declared ; bat if the representation is made with an actual lntent to decejve, the fraud vitiates the contract. Where the party eeekiag the Inaurance declares hls own expectation, or that of his principal, in regard to the existeuce or happeniag of a fact or event that, if true, would diminish the risks, the effect of the representation must depend upon ite just interpretation. The aane will be tor a representation of a belief of a material fact. It is from the character of the party, and his relation to the subject, that such representation acquiren ntrength.
Of the Right and Duties of the Insured in cate of Loss. Section I.-Of Abandonment,-158. A total lose, within the meaning of the policy, may arise either ly the total dentruction of the thing insured, or, If it specitically remains, by such damage to it as renders it of littha or no value. A loss is anid to be total if the voyage be entirely lost or defeated, or not worth pursuing, and the projected adventure frustratel. It is a conatructive total lows if the thing insured, thongh existing in fact, is lost for any useful purpose to the owner. In such cases the insured may abandon all his interest in the subject insured, and all hla hopes of recovery to the insurer, and call upon him to pay ns for a total loss. 159. In eases of abandonment the insurer stands in place of the insured, and takes the sulyject to hinself, with all the chances of recovery and indemnity. A valid abandonment hua is retrospective effect, and does of itself, and without any deed of cession, transfer the right of property to the insurer, to the extent of the insurance ; and if, after an abandonment duly male and accepted, the ship should be recovered and proceed and make a prosperous voyage, the insurer as owner would reap the protit. 160 . As soon as the insured is informed of the loss be ought (after being allowed a reasonable time to inspect the cargo, and for no other parpose), to determine promptly whether he will or will not abandon; and he can not lie hy and speculate on events. If he elects to abandon, he must to it in a reasonable the, and give notice promptly to the insurer of his determination, otherwise he will he deemed to have waived his right to atoanion, and will be entithed to recover only for a partial loss, unless the loss be in fact absolutely total. If the thing jusured exist in specie, and the insured wishes to go for a total loss, an abandonment is indispensable. The maln general doctrines respecting abandonment being entirely incorporated into the English law, it would be useless to insert them at leagth. 161. An abondonment once rightfully male is bluding and conclusive between the partles, and the rights flowing from it become vested rights, and are not to be divested by subsequent events. The right to abandon is to be tested by the actual facts ut the time of the abondonment, and not up-
on the atate of the information recelved. Upon a valld ahaadonment, the master becomes the agent of the insurer, and the Insured is net bound by hils nubsequent acts, unless he adopts them. 162. It is the same thing with the asaignee of the carge. On an accepted abanilenment of the ahip, the freight eamed previous to the disaster is to be retained by the owner or his representative, the Insarer of the freight, and apportioned pro rata itineria, and the frojght subsequently to be earned goes to the insurer on the shlp.
Section II. Of the Adjustment of Partial Losses.163. In an open polley, the actual or market value of the aubject Insured is to be estimated at the time of the commencement of the riak. 164. There are two kinds of indemnity that may lawfully be obtained under a contruet of insurance. The tirst is to pay what the goode would have sold for if they had reached the place of their destination; and the value there consist of the prime cost and expenses of the outfit, the freight and expenses at the port of delivery, and the proft or loss arising from the state of the market. This puts the insured in the same situntion as if ne loss had happened. The other kind of indemnity is t ay only the first cost of the goods and the expenses incurred; and this places the insured in the sltuation he wan before he undertook the adventure. 163. The actual or market value at the port of departure may frequently be different from the invoice price or prine cost, and when that happens, or can be necertained, it is to be preferred. 166. If goots arrive damaged at the place of destination, the way to ascertain the quantity of damage, either in open or valued policies, is to compare the market price or grose amount at which the same goodn would have sold if sound. There is a material difference between the adjuatment of a partial loss and of a general average, since the former is adjusted according to the value at the time and place of departure of the vessel, and the latter accoriling to the value at the forejgn port. 167. In settling losses under the memoranlum in the policy which declares articles free of average under, say 4 per ceat., if a partial lose to an article be found on survey and sale to have been 5 per eent., the insurer pays the damages and the expenses. If under 5 per cent., he pays nothing, and the insurer bears the expenses. The expenses are like coats of suit, and fall upon the losing party. The expensea are not taken to make up the 5 per cent. 168. With respect to leakage, the rule in canes free from special stlpulations is, that the insurer is not liable for waste occasioned by ordinary leakuge, and only for leakage beyond the orlinary waste and produced by eome extraordinary accident. The practice is to ascertain in each case what amount of leakege is to be attributed to orlinary cases, or the fault of the insured, or bad stowage, and what to the perils of the sea; and, in pursuing his inquiry, the season of the year, the uature of the articles, the ileseription of the vessel, the leagth of the voyage, and the stowage, are all to be considered. 169. An aljustment of a loes ean not be cet aside or opened except on the ground of fruut or mistake of facts not known. In making the adjustment in the case of a partial loss, the rule is to apply the old materials toward the puyment of the new, and a deduction of one third new for old is made whether the vessel be new or old. 170. The insurer is liable for all the labor and expenses attendant upon an accident which forces the vessel into port to be repaired; and in consequence of the general permission in the policy for the insured to labor for the recovery of the property, the insurer may be rendered liathe for the expenses Incurred in the attempt to recover the lost property in addition to the payment of a total loss.
tff the Return of Premium.-171. The preninm paid by the insured is in consideration of the risk which the insurer assumes, and if the contract of insurance be void ab iuitio, or the risk has not been comurnecd,
the insured is entitled te a return of premium，If the Inaurance be maile without any interest whateoever in the thing lisured，and this proceeds through mistake， mialnformation，or any other innocent cuuse，the pre－ mium la to be returned．So if the insurance be made with shert interest，or for mere than the real inter 3 st， there is to be a ratable return of preminm，If the risk has not been rur the premium must be returnod． 172．If the interest hus not heen run，whether it be owing to the fuult，plensure，or will of the insured，or to any other eause，the premium most be return＇for the consideratlon for which it was given faila．173．If the versel never sailed on the voyage insured，or thr poliey became veid hy a failure of the warranty，and without frand，the policy never attaches；but if the risk has once commenced，though the voyago bo ins－ medtately thereafter abandoned，there is no return or apportionment of premium．17．4．Anil if the premiom is to be returned，the insurer retains $\frac{1}{\frac{1}{2}}$ per eent．by way of Indemnity for his trouble and concem in the transuction．175．The Insurer retains the premium in all cases of ectual fraud on the part of the insured or his agent．So if the trade be in ony respoet illegal， the premium can nut be reelaimed．If the voyago be divisible，there may be min apportionment of the pre－ mium，but not unless the risk were divisible and dis－ tinct in the poliey．If the roynge and preminm be entire，there can be no apportionnent．It is requisite that the roynge，liy the usage of trule or the agreo－ ment of the parties，be divisible into distinct risks ； and，in that case，if no risk has heen run as to one part，there may be an spportionment of preminm．－ See Duen on Sifarine lisurance．

Losses of the Boston Stoch Insurance Companies．－ According to the annual report of the heurance com－ missioners，the following were the issues of the verious stock insurance companies of Boaton for the year end－ ing November 1， $1 \times 5 \mathbf{0}$ ：

| Companies． | Fire． | Marine． | Tutal |
| :---: | :---: | :---: | :---: |
| Amertan． | 15，066 us | 187， 17970 | 1 $1+2.250$ is |
| Boston． |  | 192，64－5 31 | 197．624 80 |
| Boylaton． | 40444 | 828,44606 | ＋41．44494 |
| Clty． | 17，9－3 04 |  | 16，0N303 |
| Eitot | 15．15：4 45 |  | 14，9：4 4.5 |
| Tremunt． | 82．474 48 |  | 82， 472 85 |
| Franklto． | 9，844 07 | 24，544 25 | 80， $9(4) 82$ |
| flope．． |  | 1－6， $111.3+4$ | 14.018 |
| Manufacthrers＇ | 27.5908 | $(m), x+1) \leq 7$ | 117,4080 |
| Mercisants＊ | 17，451 63 | 18－24191 | 158,09387 |
| Murclsants＇Martne |  | 188，7ts 06 | 123，718 86 |
| Nattonal． | 17，718 89 | 181，21，24 | 14,98166 |
| Septure．．．．．．．．．．． | 12，253 03 | 48.410591 | 4ti，6h\％ 97 |
| Shwe \＆L．Dealers＊． | 10782 | 8,902981 | 4.08712 |
| Suffolk．． | 411 int | 113．this 84 | 114.671 84 |
| luitel Nta | kan mi | 74， 4 H2 68 | 74．324 62 |
| Warten | 69838 | 101，209 91 | $1111.9+3.7$ |
| Washington．．．．．．．．． | 1，29？（17 | 2065． W in 105 | 237．291 11 |

As the cor unissioners olserve，the past yenr or two have been unusually dianatrous to the marme insurance companies，who，in moat cases，pay a jortion of their loses from the reserved fund of more favoralile years． The North Americun Company reporis no lussee，either fire or marine．The nninal report of the looton Board of Trate represents the following losses，ote．， for the year isin：

| （Tane of dianters． | $\frac{8}{6}$ | 茺 | \％ | \％ | \％ | 3 | 边 | $\frac{5}{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minating vesacks． | $t$ | 2 | 1 | ${ }^{6}$ | ． | 10 | 8 | 7 |
| Aband or courld． | ＋ | 5 | 11 | 14 | $\because$ | H11 | 14 | 22 |
| Meturbed la dist＇s | 10 | 7 | 6 | 4 | 1 | 28 | 20 | H |
| Arrtvmi hamaytil． | 9 | 17 | 11 | 7 | 1 | 45 | 28 | 22 |
| Mirsonted．．．．．．．． | 26 | 14 | 25 | 4 |  | 119 | 46 | 72 |
| Collisions | 6 | 111 | $\stackrel{1}{6}$ | 24 | 8 | 68 | 19 | \％ |
| Pit in leaky ．．．． | 24 | 81 | 87 | 39 | ． | 124 | Gf | 64 |
| Dismantled．．．．．． | 1 | \％ | 1 | \％ | $\cdots$ | 10 | 6 | 4 |
| Munk by lee． | ， | 2 |  | 1 | $\cdots$ | 4 | ， | ．． |
| Burned or injured | 1 | 1 |  |  | ．． | 8 | 8 | $\ldots$ |
| gtruck by Hghtnig | 1 | $y$ | 1 | 1 | ．． | 5 | 6 |  |
| Total | ＊ | 94 | 101 | 146 | 5 | 435 | 902 | 238 |

Ratg of Jngulance in the Uniteu States． | Jortas： |
| :--- |
| Atlautio ports，from，to ports In Furope，not in |
| tho Northern Sers．． | in tha Northern Swa．

Afrtea，to or from，get
out and home．
Apelachicola，to enid from．
Berminda，to or from．
Buenon Ayrea，dilment．
＂
Bahannas，to or froth．．
Batavia，or any ond bome
＂anton，direst．
ont ani hoove．
Cuba any onv port．
Csinutta，mit．．．．．．．．．．
Cattz．
out nod bome
Charleston
Dehmark
Demerara or Surimain，out or home
France，to or froni．．．
out and bonne
Great Brttatn or Ircland，to any port，out or lowne north of the Thames．
nod back to tho Unfted States． Dry poods，home．
Hardware，home．
Gibraltar．
llallfax to or fromi．．
Ilondiras to or from．
1 yuayra
Ifinon，to or from．
Mastrits and Wintorn
Cafe do Verd Islande．
out nud fiome
Malaga．
．．．．．．．．．．．．．．
Trteste．
nad back to tho Untted States．
Manlla，ont and homes．
Mobile．
Mobtle or
Mobtle or Now Orlegns，fiotn elther
o borts in Furope not
In the Nurth Sca．
9）racock Bar（over）．
［＇orto C＇abello
Río dunelro．．
fernambnco．
IRnskia，iltferent me⿻a一sona
at．I Oomingo，out or home
Asil Frabento．
smyrna or tonstantounde
Apanish Mala，any one port，or lietweon tho
Orftome und the Satifne．
sumatro，port or gorts in，to or from．
Nt．＇rolx and At．Thoness，to or from
Turke Jalanil and hach．
Falparalso，out or houre

Vura Cruz
Tampile
Whantugton， $\mathbf{N}$ ．
To the coast of liatagonla，．．．
To the Partfr，voyagar rundi．．．．．．．．．．．．．．．．．．．．
North of thunyayili，and nut north of Eranciser
fo tho Itrazill
fo tho Itrazill Innks，
W＇Intwaril Islands．
out nad homo
callibrna
ont nat ．．．．．．．．．．．
oregon．
Coastwisk liska．
To of from any［brt．．．．Malne，not rast of Portlatal uast of lourtasiot

11．F＇ire hasmance．－It is impansi＇le to entmate to bighly the value and importance of insurance，and the bencites confersed on manklud by the invention， whether it te considerenl in lts original charater as a protection th the murchant who adventured his preps erty on the bosom of the treacherous dery－apainst its many perils－or in its more moblern applicutions，ats a guarunty against loss liy fire，inte its further intorest－ figg alapitation to the asmuring of life．Considering that maritime insurance was well known，anl insur－ ance on life underntumd and juraticod，to a certain ex－ tent，in averal meriuntile comntries by the midille of the 16 th century，it appears＂xtriordinary，when wo call to remembrance thu dovastatious and distress oc
casioned by should not render anch tieularly wh formed the was ouggest In that $y$ Gunther vo finanee，he e agalust fire， nimilly，neeor gain so temp Count to ad company wa others＇house ＂honorably， without tem censure of nel and digulty，＂ preserved and house of Old with him thr from ilestrueti been again th the eity of L．o

In consequ
izens began t sity，of ereeti susceptible of recrular syatem as well as of the ary protectlon accordingly sul cil of the eity the mutual rel destroyed by which was by Sewbohl．lint time that elaps their report to whopting of the serions difflemeti erh that＂dela between the tir pasills to the 1 committee，to 1 Court of Comm assoriated then groul citizens of from fire，＂mul en alvertisemen hared sile of the brick houses ng： for tirlieponee lis．per reat，for for timber．

Suhsequnntly of＇＇ont ，on Cous take $y^{n}$ insurin tres from fire， con，＂and there sufficient fund， her of Loudom，$i$ performanco the ing and mivertis the alvoratos of terestol＂in the of the loyal lix The jourmals $16 x)$ ， $16 \times 2$, and clea，amil buar a dener of the thro $i$ the henefits of ling the atagon pretitors．

As the fruit a cubject was brot
casioned by fire in Great Britain, that some means should not have been adopted at an earlier period to render such cnlamities less rulnoas to individuals, particularly whon a plan, which appears oventally to have formed the basls of the present insurance companles, was suggested so carly aa 1609.

In that yenr, a person proposed to Count Antheny Guuther von Oldenhirg, that, as n new species of finance, he sheuld Insure the houses of all his subjects ugainst fire, on their paylng so much per cent. annually, according to their value; but the prospect of gain so tempting to most persons, couli not indtuce the Connt to ndept the plan. He thought it goed if n company was formed of indivituats to insure each others' houses, hot he doubted that it could by him he "honorably, justly, and irreproachfully instituted without tempting Provldence-without incurring; the censure of nelghborf, and without disgracing one's name sul diguity," mhling that "Gol had withont such means proserved and blessed, for many centuries, tho ancient house of Oldenburg, and tie would still be present with him through his nercy, and protect his suhjects from destructive fires." This plan appears not to have bean sgain thought of until the the of 1666 had laid the city of London in ushes.

In consequence of this calamitous event, the citizens began to see tho importance, and indeel necessity, of erecting their buildings of a material less susceptible of fire than hitherto; also of ndopting a regular system of precmation against future necilenta, as woll as of devising some scheme for mutual pecuniary protection and relief. Varlous proposials were accordingly submitted te the Court of Common Council of the elty of Lendon, hetween 1669 and 1680 , for the mutul relief of such as might lave their houses destrovel by tire-the most notatble mad acceptatile of which was by one of their own lualy, Mr. Beputy liewbold. llint if we may julge fron the length of time that elapsed are the worshipful committee mule their report to the eourt, wo whould concluile the adopting of the propoan to lave been attembel with serions diffirulties, and in veritiention of the old proveth that "delays ure dangerous," during the period between the trist presentation of Mr. Newboli's proposals to the lord Mayor, nud the tinal repurt of the committee, to whom the matter was refirred by the Court of Common Council, several private indiviluals assucinted themselves together, and suhmitted to the ghal citizens of Lombon in "leslgn for lusuring houses from liro," and on the Itilh Septeminer, 16isi, a notive of adrertisement was issued from their "other, on the back side of the Royal Eirchatgr," offering to lusure hrick houses agninst tire for sidpenfe, and timber houses for terverpence in the punnd-beling at the rate of 52 lis. preme for the brick houses, anil of Lis per cent. for timber.

Suhserpnitly, on the Iith thetober, 16 N 1 , the Court of Com won Councll did " urrea and resolve to umbertake $y^{e}$ iusuring ull honses within this rity and hibertyes from fire, and exorute yer wan with all exporticom," aul therenfter "resolvel forthwith to elliage a sultivint fumb, ond undoubted seourity by the chamber of lomdow, in lands and gionl gromid rents, tor the performance thereof." Much amosing pamplitetering and advertiving in the riazefte took phato betwern the alroastes of the corperation selieme, unt the "interested" in die sate insurame oflle on tha back site of the loyal Exchemge.

The juurnals of the court of Common tomucil in lisk, 16w, amd 16x:t, pocont the signing of many poticles, and heme amming ovidence of the reat abil pros dence of the tiro insuranco committees in proumigating the benefits of tho vorporation acheme, and combating the untagenistic punphlets lasued by their computitors.

It the frult of this pmiphleteering agitation, the sulgect was brought under tho most acrieus considera-
tion of the court on the 13th November, 1682, as appears by a mhute of that date; when the court evinced a much greuter anxiety to relhnquish than they hat to undertake the design, and directed the discharge of existing contracts, with the prepayment of the woney which hul been advanced.

Notwithstanding this resolutlen, hewever, centaincd in the foregoing minute, we tind several policies subsequently passed the commouseal, on the Gth March and 3d May, 1688.
After this, the city discontinued issuing policies, and having had a quo varranto brought ngainst their clarter, every oxertion was used te olituin as surrender of the existing policies, and thus relense the city lands from the licumbrances thereon.

The last mutter taken into consideration, was the petition of Mr. Newbold, tho author of the design which turned out so unsaccessful for remunerution, for the time, trouble, and expense he had been at, which was referred to a committee whor reported on tho 13th Octoher, 1696, and on the 8th Decembor following it was "resolved to give lim the benefit of making two persons free of this citie by redemp.con, paying to Mr. Chamberl, in to the citie's use of forticsix shillings eight pence a-piece, tho suid persons to bo tirst presented and allowed of lyy this court." This was the fate of' the "City's Dosign and Undertaking for the insuring of Houses from the ovil of Fire." The " interensed" in the rival oflice became, of course, greatly elnted, and their success led to tho formation of several othor companies ar mutual insurance societies, for protection against fire.

In 1696, the Hurul-in-Hand Fire Office was established lyy ubout 100 persons, who ufterwurds formed " deed of settlement, enrolled in Chancery humary $2.1,1698$. This ollico is remarkabio at the present dhy for its afe, and is tho only surviring one of those of that period.

Up to the year 1706, tho protection afforded by fire insurance secicties was limited entirely to houses (buildings), hat in that year the Sun Fire Office was prujected by one Charles l'ovey, for insuring merchamthese and honsehold goods (as well as houses) from tire, and was tho tirst oflice to extend the beneflts of insurance beyond the contines of London. This office has for very many years stood first on the list in amount of binsiness.
'There is also a stamp duty of $1 N_{,}$on each policy.
Ity ar the preater number of the above are jointstock compunies, who hasure at their own risk and for their own protit, and are represented by agents in all the principal towne of the kingilom; the remuinder aro johnt-contribution, or mutuni insurance societiea, in which every insurer purticipates in the profit or loss of the concorn.- $\mathbf{E}, \mathbf{B}$.

Proctice of Pire lustrunce.-The advantages of fire insurance aro too well knowin to require any very elaborato leseription. A manufacturer or privato indivitlwal can, by the payment of an manal sum (premiam) piroportioned to the risk, secure himself agninst loss in the ovent of his manufactery or dwelling-house, or their co .ents, lieimg destroyed by tire.

The latw of Fire Insurance in the C'mited Statest? the usual sulject and firm of this insurumot.-Wo have seen that tire is one of tho perils insured against by tho common marino policies. It is usunl, however, (t) insure building und pramal property which is not to bo whter berne, agninst lire mone ; mid this ls what is comamonly cuthel fire insurunce. The general purproses and principhos of thas kial of insurance are the same an those of the marine insurance; and the law in renpert to it differs only in thoae renpects and in that dogree in which the ditherenco ia mado necessary by the subject-mutter of the contract. It will be proper, themfore, to contine ourselves in this chapter, mainly the the statement of these ilifiorences amil to consider those general principles which have already
been dlscussed，only so far as this may be necessary for the comprebension or illustration of the pecullari－ tles which belong to fire insurance．This kind of in－ surance is sometimes mado to indemnify ngainst loas by tire，of ahipa in port；more often of warehouses， and mercantile property stored in them，still more fre－ quently of personal chattels in stores or factories，in dwelling－houses or barns，as merehandise，furniture， looks，und plate，or pictures，or llve stock．But by far the most common application of thls mode of insur－ ance is to dwellhg－houses．Like marine inourance，it may be effected by any indlividual who is capnilie of making a legal contract．In fact，however，it $f:$ al－ ways or nearly nlways in this country，and we sup－ pose clsewhere，made by companles．There aro stack companies，In which certaln persons own the capitni， and take all the profits ly way of dvidends．Or mu－ tual in which every one who is lnsured，becomes thereby a member，and the nett profts，or a certain proportion of them，are divided among all the meln－ bers in such a manner as the charter or by－laws of the company may direct．Or loth united，in which ease there is a cupital stock provided，as n permanent guar－ anty fund，over and above the premium received，and n certain part or proportion of the nett profits is paid by way of dvidend upon the fund，and the reviduo diviled among the insured．Pansoss on Contracts．
Of late years tho number of mutual fire Insurance compunies has grently ficreased in this country，and prohably hy far the largest monount of insurance ngalnst fire is effected ly them．The principal reason for this is undoubtedly their chenpnoss；the premiums required by them being in general，very much less in fact than In the etock offices．For example，if the in－ surance is effectel for seven years，which js a common period－un amount or percentage is elarged ulout the same as，or a littie more than is charged as the stock conplanies．Only a small part of this is taken in cash；for the rest a premium mate or lowd is given， promising to pay whatever part of the amount may the uceded for logses，which shall occur during the jeriod for which the note is given．More than this， therefore，the insured can not he lxuund to phy，and it frequently happens that no assessment whatever is demanded；and sometimes where the eompany is well estallished，and does a large hasiness upon aound prin－ ciples，a part of the money paid ly him is refunded when the insurance expires，or credited to hime on the renewal of the policy if such be his winh．The dis－ advantage of these mutual companies is，that the pre－ mfums paici，and premium notex，constitute the whole capital or fund，out of which losses are to the paid firs． To make this more secure it is proviled by the charter of sume companien，that they shomld have a lien 川⿲亻丨⿱⿰㇒一乂口灬 the land itself on which any insured buildnges stams to the amomnt of the preminin．Llut sile this adds very minch to the trustworthiness on the promiam notes，and so to the avallability of the enpital，it is， with some persons，an oblection，that their land is thus subjected to a lien ir incumbrance．－ 1 hiorl．
There is another point of difference whish recom－ memuln the ateck rather than the mutual company．It is that the utork company will generally insure very nearly the full value of the property lesured，while the muthal companies are gaperally restrainen hy their charters from insuring more than a moderate jirupor－ tion，wamely，from one half to thrie fourths of the ansessed value of the proverty It would fullaw， therefore，that one insured ly a nutnal compuny can nut lie fubly lademnified agninst lows ly fire：nom may not ine quite so ecrtain of getting the intemulty he largaine for，ay if he were insured ly a stork company． But this last ramen is，pract＇ally，of very little hm－ pwitance，and the lownews of the firemiuns effertmally overcomes the other．The methen and cperation of fire finurance have become quite unlform throughout the couniry，and any company may appeal to the
usage of other companies to anawer questions which have arisen under ite own polley；only，however，with－ in certain rules，and under some well－detined restric－ tiona．In the tirst place，usage may be resorted to fur the purpose of explaining that which needs explana－ tion，but never to contradict that which is clearly expressed in tho contract．And no usage can be ad－ mitted，even to explain a contract，unleas the usage be so well established and so well known，that it may reasonably be supposed that the parties cntered into the contract with reference to it．Thus if under a policy against fire on a vessel in one part of this coun－ try，an inquiry is raised as to the local usage，the policy is not to be affectod by proof of usage upor any particular matter In other parts of the world，or even of the United States．Anil not only the terms of the contract must be duly regarded，bint thoas of the char－ ter；thus if this proviloos that＂all pollcies and other iustruments made and algned lyy the preaident or other ollicer of the company，shall bind the company，＂an agrcement to cancel the policy should be signed：al though it can not be doubted thent a party insured might otherwise give up hls policy，or renounce all clam under it，and that $n$ valid agreement to that effect hetween him and the company vould not be set aside for lis benetit，on the ground of a nercly furmal defect．－Ibid．
In regard to the execution of a fire policy，and what is necessary to constitute such execution－as，for ex－ ample，whether delivery is necessary or a signed mom－ orandum be smbicient，or indeed un oral bargain only， and whether this insurance may be effected toy eorre－ pondence，and if when the proposition and assent ${ }^{2}$（onn－ plete the contract－we are not aware of any material ditierence on any of these points，letween the law of fire insurance and that which has already been pre－ sented as applicable to marine．It has been heli in an uction on a fire pelicy，as doubtless it would le ou a marine poliey，that a memorandum made on the ap－ plication hook of the company by the president，and sigued liy him，was not binding，when the party to he insured wished the policy to be delayed unth a ditfer－ ent aljustment of the terms could be settled，and after wome delay，was notilied by the company to call and settle tho busluens，or the company would not he bound，and he did not call；becune there was here no convummated agreoment．So，tov，a subsequent adop－ tion or ratilleation is equivalent，either in a tire or marine policy，to the making originally of the con－ tract ；with this limitation，however，that mo party can by his adoption，securu to himself tha benetit of a polley，if it had not been litemded that his interest shoolil le embraced withlu it．It is quite commun to desuritue the insured in marine jolicies，by general ex－ pressionsmas，＂for whom it may concern，＂or，＂lor owners＂or the like；but such himghage is selhom if ever used in tire policien，the insured being apectically： named in them，－llid．

It may lee remarked，that the effecting of a tire in－ surance is not so often done through the apurys of a broker，as that of marine insurance；nor in it mo usiall to pay nothing down，lut to ghe a note for the whole preminn．If，howerer，the insurance rompany has an express mile to that effect，it may be waisel；and this walver may lee expresa or implied，from the condurt if oflicers of the company who have the right to at for it ；and their nimisnlons bind the company，－thed．

On the Interest of the Insured．－As to what interest in the hasured is anticient to support an insurance，the principle is the same in lire as in marine insurance． Any logal interest is sulficient；and if it he mpitalle in the mense that in court of equity will recugnize and frotect it，that lasufficient ；but a merely moral or ex． pectant listerest is not enough．Hence，one who has only made an oral hargain with another to purchase his house，can not insure it；but if there be a valid contract ln law，or if by writing，or by part perform－
snce，it is insure．So the breach o terms，If the and enforce property to in it antil th sold．This property wou the assignor； where thia wo there had be nud n new tri Ibid．
Of Reinsur fire policies a governed by insurance，not merely inleal erty originall an insurable with no othe used instead o force．If，for requires n cort circumstances， insured．But the party first transmit the ea that is enough liminary proof， insurer who olt cate（in ndditio one asking insu cerning the chn and a materlal the poliey－Il of thouble In sometimes confo different．By comes again ins insurer is insur iosuret has no ley．If，by n d tect himself ov many Indemnjtl mitted，not only ciples of insura fraud，and make viated in two $n$ fnsurance as ope the property insi then，as soon as the lirst or by a ance has no effi the second insur then only as mu insurances，as o videnl ratably an are considered as： fore，any une ins tion，may claims liahle．－I lid．
in this eonutr and exact proy somewhat ；lut， insurance must on the perlicy ； ollice shall，in th of a less：and it shrance be not shall not recover that Nuch a conti 4 jirior linsurane if subliciont notic Hat lt has been h to the ugent of
ance, it is enforceable in eqnity, the purchsser may insure. So he may, although there the a stipulation, the braach of which has made the contract void by its terms, if the other party might waive the condition nud enforce the contracts. So if a debter assign his property to pay his debts, he has an insurable interest in it until the debts are paid, or until the property be sold. This wns se held where it appeared that the property would pay the delits, and lenve a surplus for the assigner; but wo should expect the same ruling where this was not the ease, although, in this instance, there hat been proviously $n$ verdict for the plaintiff, and a new trial for want of evidence of such surplus.Ibid.
t)f Reinsurance.-Reinsurance is equally lawful in fire policies na in marine polielea, and in general is geverned by the same rules. The reinsurance is an insurance, not of the risk of the insured, for that is n merely ideal thing, but it is an insurance of the property originally insured, in which the first insurers have an insurable interest. If a commen policy be used, with ne other chango than the word reinsurance used instead of insurance, all its requirements are in force. If, for examjle, In ense of loss, this prejerty requires a certifleate from a magistrate, ns to character, citcumstances, etc., that must be furnished by the reinsured. But if a suitable certificate were given by the party first insured to the original insurer, and he transmit the same forthwith to these who insure him, that is enongh; and 80 it would ba with notice, preliminary proof, and all similar requirements. Aud an insurer who obtsins reinsurance, is bound to conmmunicate (in addition to whatever else shomld be stuted by ene naking insurance), all the information he has concerning the character of the party originally insured; and a matcrial concealment on this point would avoid the policy.-Ilid., page 516 .
(ff louble Insurance.-Double insurance, although sometimes confounded with reinsurunce, is essentially different. By this, the party originally lusured becemes agnin insured; but by reinsurnnce, tho original insurer is insured, and, as we have seen, the original insurer has no interest in, and no lien upon, this policy. If, ly a double insurance, the insured ceuld proteet himsclf over and over again, he might recover many indemalties fur ons loss. This can not be permitted, not only becanse it is ojposed to the lirst princifles of insurance, but because it would tempt to fraul, and make it rery ensy. This effect may be obvhated in twe ways: one, by considering the sccond insurance as operating only on so much of the value of the property insured, as is not covered hy the lirat ; and then, as soon as the whole value is covered, whether ing the tirst or by subsequent policies, any further insurance has no effert. A second way is, by considering the second lusurance as maile jointly with the tirst; then only ad much would be paid on any less, on many insurances, as on one muly; hut this payment is divided ratably among all the insurers. All the policies are considered ns making but one policy; and therefore, my one insurer who pays more than his projortion, myy ciaim a contribution from others who were liable,-1bid.

In this comutry tire policies usually contain express and exnct provisions on this nulyect. 'They vary somewinat ; but, generally, they requiro that any other inutance must be atated iy the insured, und indorsed on the pulicy ; und it la a frequent condition, that each ofitee shall, In that cane, pay only a ratable proportion of a lows; and it is often adhed that, if nuch otioer inssufance be not so atated nud indorsed, the insured siall not recover on the poliey; and it has been held that such a condition upplien to a subsequent as weil as a jrior iusurance. Nor will a court of equity relieve If sulliciont notice and indorsmment inave locen male. Hut it has been held that a valid notico might be given to the agent of the company, who whs authorized to
receive applications and survay property proposed for insurance.-Ibid.

Of the Risk incurred by the Insurers.-At the time of the iusurance the property must be in existence, and not on fire, and not at that moment oxposed to a dangerous fire in the immediate neighborhood, because the insurance assumes that no unusual risks exist at that time,-Ibid.

The U. S. Insurance Gazette for March contains the raport of the insurance commissioners, appointed by the comptroller to inquire into the affairs of the fire insurance companies of New York and Brookiyn. The leading features of the report sre contained in the annexed table. The examinations were made from March to December:

| Name af Company. | Value of thoudn and martgagen, | Value of loana un hlock. | Amount of $\underset{\substack{\text { annual } \\ \text { iremluma. }}}{ }$ | Amount of ru-Insurance sal dividend. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Dolisra. 8,20000 | Dollara. 50,07150 |  |
|  | 248,500 00 | 17,550 00 | 87,152 11 |  |
| Atlantle | 155,2010 00 | 26,266 46 | 78,810 88 | 87,19206 |
|  | 202,100 00 | 17,250 00 | 86,530 39 | 24,00000 |
| Broad | 178,414 00 | 10,000 00 | 50,806 87 | 42,045 00 |
| Ileekma | 209, 28300 | 20,740 00 | 68,88081 | 27,404 00 |
| Broeklyn ( Br | 93,497 20 | 4,300 00 | 02,186 00 |  |
| Contlocatal. | 508,25000 | 127,500 00 | 188,370 63 | 105,518 41 |
| Corn Exchs | 194, 55000 | 41,700 00 | 148,617 20 | 48,177 17 |
| Commonwealt | 249,4i0) 00 | 20,010 00 | 72,104 06 | 25,485 12 |
| Clinton. | 257,4100 $00^{\prime}$ | 24,34000 | 48,540 97 | 19,234 18 |
| Clty | 251,350 00 | 11,00000 | 84,009 17 | 101,789 |
| Comme | 218.55100 | 17,800 00 | 77,278 72 | 88,160 17 |
| Colunb | 105,500 00 | 380,900000 | 40,718 05 | 17,608 69 |
| Cltiz | 214.45512 | 9.50000 | 81,455 | 104, |
| Emplr | 109,500 00 | 26,250 00 | 48,178 17 | 40,051 13 |
| East R | 122.75000 | 89,450 00 | 27,265 81 | 14,874 80 |
| E | 216,506 00 | 2,250 00 | 90,671 91 | 28,670 65 |
| Eag | 238,410 64 | 58,550 00 | 74,120 17 | 96,773 65 |
| Felt | 158,602 00 | 15,041 00 | 82,56751 | 24,164 54 |
|  | 223,102 00 | 80,000 | 90,035 37 | 54,800 |
| Groeers | 209,456 00 | 80,000 00 | 42,885 91 | 26,107 26 |
| Greonw | 211,851 00 |  | 87,240 09 | 81,972 82 |
| fiom | 470,06000 | 194,840 0t | 383,202 | 204,006 |
| Larmon | 150,986 00 | 19,350 00 | 70,594 85 | 26,508 53 |
| 1 | 182,800 00 | 22,700 0 OH | 41,80100 | 24,911 07 |
| IIoward. ....... | 240,400 001 | 80,900 00 | 174,800 00 | 97,400 00 |
| Ismilton . . . . . | 118,104 00, |  | 58,978 85 |  |
| Irving | 200,650) 00 | 48,5000 10 | 52,597 03 | 82,250 85 |
| Indeminlt | 185,050 00 | 6,000 00 |  |  |
| Jettersen | 297,000 00 | 11,00600 |  | 100,302 06 |
| Knfoker ${ }^{\text {d }}$ | 220,129 50, | 7,000 (0) | 58,001843 | 47,600 00 |
| Lorllard | 210,650 00. | 28,8140 00 | 71,440 86 | 40,209 02 |
| La Far | 97,633 25 | 2,075 00 | 86,60277 |  |
| Lenox | 182,240 00 | 28,587 87 | 81,423 001 |  |
| L. Islani | 204,865 00 | 82,150 ${ }^{10} 0$ | 70,80876 | $\begin{array}{ll}100,1000 & 87\end{array}$ |
| Merebant | 214.14400 | 20,70000 | 80,154 00] | 84.35000 |
| Mark | 208,90\% 01 | 39,900 00 | 89,467 | 40.010 |
| Met | 308,437 58 | 19,800 005 | $77^{1}, 24818$ | 28,9199 44 |
| Muehani | 211,420 00 | 25,050 00 | 54,725 111 | 49,355 24 |
| Man | 20x,555 (0) | 41, 10000 | 108,543 87 | 60,50816 |
| Mercan | $20 \times 91667$ | 25,400 09 | 34,657 | 40,429 68 |
| S laga | 212,900 00 | 88,740 75 | 78.324 | 64, 58811 |
| NewAmsterdam | 211,600 (0) | 24,40000 | 74,500 98 | 37,971 41 |
| Nusall | t49,201100 | 25,61000 | 4204681 | 40,265 78 |
| North | 875.5040 | 10,70000 | 64,980 79 | 54, 4458 |
| North Ame | 2th, 74811 | 18,000 00 | 84,78681 | 82.62421 |
| Natjunal. | 251.72000 | 20,10000 | 70,052 67 | 106,01400 |
| N. Y. Jower | 816, mia te | 65.460 la | 69,004 27 | 148,0610 100 |
| N. Y. E.pulab | ${ }^{2} 2^{2} 4,10000$ | 85.25000 | 102,694 86 | 81,4it 29 |
|  | 1916,180 00 | 11.2950 | 77,996 111 | 80,01000 |
| Par | 1106.93400 | 15,490100 | 64,481 | 7,400 60 |
| Paetho | 10t, 087 cob | 41,4ino (0) | 90,281 40 | 26, 14 00 |
| People | 187.12500 |  | 49,595 59 | 84,07276 |
| Peter Coop | 144,48100 | 21,25000 | 20,24691 | 20,16743 |
| I'lentr. | 2(1), 901 (0) | 45,00000 | TR,181) (4) | 67,249 90 |
| Liepubit | $174 . \times 81000$ | 14,506) tol | 57,920 ${ }^{\text {a }}$ | 80.451 |
| tratser | 172,510 00 | 2.2001100 | 66,159 71 | 81,20188 |
| Selliof | 181,20000 | 83,533 00 | \$1,740 0 | 21,500 00 |
| st. Niel | 114.4100 00 | 12,007 (x) | 67,043 80 |  |
| St. Mark' | 170, 31100 | P(x) 00 | 50,996 16 | 25,000 00 |
| stuy vesa | 100.410 til | 18,411 60 | 47,207 63 | 30,060 57 |
| Scearlty. | 201,90000 | 10,460 to |  |  |
| Calted St | 2 ta 7.80000 | 10,600 $0_{0}$ | 51.416 | 40,092 00 |
| Washington | 218,051 07 | 86,2R0 Ol | 88,038 78 | 48.22082 |
| Willainsb, clty. | 160,300 260 | 24,2(9) | 66,810 | 40,727 09 |

Of idjustment and Loss.-Insurers against firo are not hell to pry for loss of profits, galns of husiness, or other indirect and remote consequences of a lows by tire; we du not know, however, why profits muy not Le njuecilleally innured ugalust tire, where it is nnt forbidden by, or inconsistent with, the charter of the in-
surers. There is one wide difference between the principle o adjustment of a marine polley, and of a fire polley. In the former, if a proportion only of the value is lnsured, the Insured is considered as his own losurer for the resldue, and only an equal proportion of the loss is pald. Thus, If on a shlp valued at $\$ 10,000$, $\$ 5000$ be insured, there is a loss of one half, the insurers pay only one luilf of the sum they insure, just as if some other party had insured other $\$ 5000$. But in a tire policy, the insurers pay in nll easea the whole amount whlch is loat by the fire, provided only that it does not exceed the smount which they insure. It is said tbat general average clauses or provistons are Inserted In fire policles lu England, but are not known here. Still, in one ense, the princlple of generul nvernge was applied. Blankets were used ly the assured, with the consent of the insurers, to protect the buildlng from a near fire; they did this effectually, but were themselves ninde worthless, and an action hy the insured against the insurers, for this loss, was sustained by the court.-Ibid., p. $\mathbf{0} 37$.

Life Asamance.-It is curious to olserve that life assurance, which has so favorable a bearing on our social and moral welfare, may be sald to have originaded from the study of the laws of chance, as ohserved in the experience of the gamiler. It will he remarked, howover, that the one is the very antithesis of the other. In life assurance, the individual is freed from risk by union for mutual protection with his fellowmen. The gambler takes the single riak upen himself, and his average, if he obtain it, can only arise from the duration of his play. In fart, tho man who hus the apportunlty of assuring his life, und does not do it, ls the gambler, taking the single risk upon himself.
That the one practice took its origin, however, from tho ohservation of the other, there can lo no doubt; the earliest mathematical publicatlon on probabilitles, being a little tract of Christian Huygens, written In Dutch, but afterwand trunslated Into latin, and appearing under the title "De Ratiocinlis in Lulo Alea," in the Exercitationes Geometrice of Frameis Schooten, printed at Leyden, 16:37. Two other mithematiciams, however, who preceded II uygens, rally laid the foundation of the science, although be wrute the tirst systematic treatise on the suliject. We refer to the famous Pascal, and Fermat his friend, a magistrate of the Parliament of Toulouse. llut as the hidory of the general doctrines of probabilities is given under that head, we must confine ollr remarks to the hintory of that doctrine as applied to the duratlon of life, and the progress of life computations.

It has been usual to commence the history of life contingencles with the little velume of "John Graunt, citizen of Loulon," who published observations on the hills of mortality in 1602 ; but Mr. Hendriks has given the means of more remote speculation on the subject.
The practice in the days of Herodutus was to reckon three generations equivalent to a century, and the censns of Vespaslan, as noticed In Illiny, listinguished cases of extreme longevity. Nut we do not find any thing like an observation on the suliject untll we come to the calculatlons of the Prietorian priefect, Uppianus, one of the most eminent commentators on the Justinian Code, who gave a tahle of the extimatel present worth of life annuities, with reference to the requirements of the Falcidian law, which renlered it necessary to put a value on life-rents and other similar provisions. Dlphanus, however, took no account of Interent, wo that his calculations are mora expectations of life than life annulties, and in that view Mr. Ilendriks says, "The ohd Roman jurlapridence gave far more correct views of the comparative value of life at different ages than the mocolerns pusuessed, In a pripular way, until nearly the close of the 1ith century." Ulpianus's calculations (Pandect, 35-2•68), compared with
certain Swedish observations given by Dr. Prlce, are as follows:

| Ages. | Stockholm Ife. Ir, Pitce. |  | Agea. | ExpevtationsAlale nudfemate.Roman lire.Upplat: |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Exp } \\ \text { Malee } \end{gathered}$ | jon of Femalen. |  |  |
| Birth. | $14+25$ | 18.16 | 13irth-20. | 80 |
| 5 | 81.05 | 37.12 | 20-25....... | 29 |
| 10 | 8040 | 38.59 | 25-30....... | 25 |
| 15 | 26.74 | $38 \cdot 43$ | $80-85 . .$. | 22 |
| 20 | 93\% 5 | 8001 | 85-40...... | 20 |
| 25 | 21.40 | 26.30 | 41)-1t...... | 10 |
| 89 | $19 \cdot 42$ | 23.99 | 41-12....... | 12 |
| 85 | $17 \cdot 58$ | 21.68 | 44-43........ | 17 |
| 40 | $15 \cdot 61$ | $10-25$ | 43-44....... | 46 |
| 45 | 18.78 | $17 \cdot 17$ | 44-40....... | 1.5 |
| 50 | 11.15 | $15 \cdot 12$ | 45-16...... | 14 |
| 65 | 10.80 | 18.89 | 46-47...... | 18 |
| 69 | $8 \cdot 69$ | $10 \cdot 45$ | 47-48....... | 12 |
| 65 | 739 | 83: | 48-19....... | 11 |
| 70 | 881 | $6 \cdot 16$ | 40-in....... | $11)$ |
| 75 | 4409 | 489 | $80-55 . .$. | 9 |
|  |  |  | 85-00...... | 7 |
|  |  |  | 60 and upward. | 5 |

It seems abundontly evident that Ulpianus's estimate must have licen based on actual observations in some form, hut the Romans mast have had a misarable chance of life in old nge.

From that period we bave nothing to attract attention till the 1tith century, when Dr. (or Sir) Thomas Wilson, who died in 1581, pullished hils Discourse upan Usurie, whelh contains illustrations of endowment transactions on the llves of children, but the lifo contingency portion seems merely incidentally introduced with reference to questions as to ustury.

In 1661, M. Cleirne, the author of Les us et Com. tums de la Mer, notices the Guilon, "a French production, formerly complled for the benefit of the merchants tradlng in the nolle city of Rouen." This work is nearly 300 years oll, Its author's name is unknown, hut it is n most curious document, in consequence of the reference It makes to nssurance matters. From Mr. Jendriks we give tho following translation, omitting Cleirac's notes:
" ]. In other countries, where the bodies of people may le eaptured and reduced to bondage, there are various usages for the Insurance of the body and life of men, whether they he of free condition, or slaves, which customs will not be mentioned here, lecause in France, men of whatsoever nation aro of frank mul free condition.
"2. Notice ouly will he taken of what is practicell in thls country liy those who undertake distant woy. nges, ns to the coast of Italy, Constantinople, Alexandrin, or other like voyages in the Mediterranamand Athantic sens, on accoint of the fear which they have of the galleyk, fuztes, and frigates of the army of the Turk, or Corsairs, who make a traffir of the sale of Cliristlans, whom they capture as well on sea as on land; which creates occasion for the masters and captulng of this country, when they antertake such voynges, to stipulato with their marchant freighters, is others, for the restitution of their persons, in case they nre cantured; and thls they can do nven for the peuple of their crew.
"3. In such a case, the master must, In the prilicy, extimate his ransom, and that of his companions, at so muel pur heal; declare the name of the ship, the stay or touchlugs which it will make, the duration of cath stay, and to whon the ransom is payable. The insurer is hound to pay the sum insured for the ramsum 15 daya nfter veritication and certlication of the captivIty, without waithig for the usual two monthe delay; and without other formality of sceing frelghtage, biif of lading, or charter party, It will suffice to proture the attestation of capture and prolicy.
"4. Pilgrims golng to the Ifoly Sepuldire of Jeruwalem, or on other distant voyages, may edibet insurance for their redemption, valued at a given amunt. Deacriptlon shall benlles be made of their pressuns, , names, surnames, country, abole, nge, nul raik; aul,
moreover, lim they undertak the longest $p$ tion whatsoev without admit who undertak periol, or a pa insure for thein
"5. Anothe tions upon the their royage, to itors. Credito debtor remore can be done by case of their de sion or rent as $n$ ulations forhid toms, from whic whence they in prohibit tho sai ited and forbidn
The most rem conlemmation of of assurime in was it assumed Netherlands' ori stitutes of Gem that "securities without the ?!eer pupe, nur ulon t life of kings, ca upen the lifo of dignities, ecelesia be made upon th ships, governme cities, lamls, or I aetion having th or wager (eadimo understoul and a Amsterdam ordin life of any person, or frivolons pur of 1604 and 163 10th article (Tittr namee of Louig the making of an the 11th article f and gurantees th upen the persons perish by uther me thin the 1ith ce ance was regarde there remained a whase work on quarto pagex, de assuramee, and th tacking the eyster
Hut we muist a riod, when wo are clatims of great 1 tion and pratical tiex, as derived fr or problablility.
doln de Wit, th mitted to the State tise on the vuluatic that doclument, it for the pmirjose , Ilenuriks characte of any age treatin tion of life manui much intelited to ment, which was Statev of Mollamd and which haul ren In the preparat no cloubt mided $h$
morcover, limit shall be made as to within what time they undertake to make and accomplish the voyage: the longest period shall be of three years inclusive, tion whatsoevor. In imitation of the preceding, those without uduitting excuse of illness, or other dotenwho undertake journeys or vows for a lengthened period, or a passige from ono country to anether, may insure for their ransom.
" 5 . Another kind of insurance is made by other nations upon the lift of men, in case of their decease upon their royage, to pay certain sums to their heirs or creditors. Crediters even may insure their debts, if their debtor remote from one country to another; the same can be done by those having rents or peusions, so as in case of their drease, to continue to their heirs such pension or rent as may be clue to them. Which are all stipulations forbidden, as against geod morals and customs, from which cndless abuses and decepticns arose, whence they have been constrained to abolish and prohibit the stid usages; which is also to be prohibited and forbldlen in this country."
The most remarkable feature of these times was the condemnation of, and legislation against, the practice of assurance in many conatries. Not only in France was it assumed unrecegnizable by law, but in the Nethertands' orlinance of Philip II., and in the civil statutes of Genon (1588), in which last it is declared that "serurities, bonds, or wagers may not be made, without the !:cense of the Sinate, upon the life of the pope, nor nison the life of the emperor, ner upen the life of kings, cardinals, dukes, princes, bishops, nor upen the lifo of other lords or persons, in constituted dignities, ecclesiastical or secular. Neither may they be made upon the aequisition, loss, or change of lordships, governments, hingdome, provinces, duchies, cities, lames, or places $\qquad$ - nor upon any other transaction having the species or form of a bend, security, or wager (vadimonii seeurifutis, seu partit); but all are understood and are forbidden." The 24th article of tho Amsterdam ordinance of 1508 prohitits insurance of the life of any person, and likewise wagers upen any voyage or frivolons purpose; and the Rotteriam orlinances of $160 \cdot 1$ and 1635 repeat the latter injunctions. The IOtin article (Titre 6), of the great French marine ordinance of Louis XIV., dated 16s1, says, "We forbid the making of any insurance on the life of men ;" but the 1 tharticle excepts those who redeem captives, and gurantees the price of the redemption assured upon the persons, if the redcemed on his way back perish by whar means than watural death. "Even later than the 17th century," udds Ilendriks, "life insurance was regarded in lrance as ohnoxious. In 1783, there remained a spirit of opfosition to it. Fmerigon, whose work on assurance comprises more than 1300 quarto pages, devotes one page to the sulject of life assutance, and that short space to the purpose of attacking the system."
lat we minst now pass on to n more literesting petiod, when wo are called on to consider the conflicting chaims of great mames, with reference to the origination and practieal applieation of the doctrine of anmaithes, as derived from the study of the lawe of chance or probahility:
dohn ile Wit, the grand pensionary of Hohand, sutbmitteit to the States-General of ILollanl, in 1671, a treatise on the valuation of iffernnities, and on the linsis of that doemment, it was resolved to grant life annuities for the purpose of raising funds. Thls treatise Mr. Headriks characterizes ns "the first known production of my ape treating in $p$ formal manner of the v-luation of life annuities, ami the scientithe world are mach inubtited to hat for the restoration of this docinment, which was liserted in the resolutions of the Statea of Ilolland and West Frienhand of the year 10it, and wheh had remained as grond as lost for 180 years.

In the preparation of this docmment be Wit was no doutht nided by the preceding labors of l'uscal,

Fermat, and Huygens, and he had no doubt the advantage of observations on the duration of life among persons to whom the States of Holland had previeusly granted annuitles; but, indepenclently of the orlglnality of the design, we must sive limn the entire eredit of having discovered a correct principle on which the value of a life annuity might be calculated.

De Wit's treatise is heac. d, "Value of Llfe Annuities in Proportion to Redeemable Annuities." He commences with pointing out the difference between a " redeemable annuity," as he terms It, nt 4 per cent. that is a perpetuity at 25 years' purchnse, or perpetual investment at 4 per cent., and a life annulty; estimating the value of the latter in the most favorable circumstances us "really, not below, but certalnly above 10 years' purchase." He then glves some preliminary observations on the doctrine of ehances, and afterward applies the principle to the calculation of an nnnuity value at a particular age. Hts calculations are shmplified and explalned as follows by Mr. IIendriks:
"First, Ont of 128 lives, aged say 3 years, 1 is snpposed to die in every half year of the first 100 half years, or 2 per annum for 50 years, leaving 28 nlive, aged $\overline{0} 3$ years, at the end of the term; out of when 1 lies in every 9 months, being 0.66 per half year during the next 20 half years, or 1.33 per annum for 10 years, leaving $15 \cdot 66$ alive, aged 63 years, at the end of the second term; of whem 1 dies in every year tor 10 years, belng 0.5 per half year during the next 20 half years, leaving $5 \cdot 66$ alive, aged 73 years, at the end of the thirl term; of whom 1 dies in every year and a half for 7 yeart, being $0 \cdot 38$ per half year during the next 14 half years, leaving 1 nlive, aged 80 , at the end of the fourth term; which surviver does not live over another half year. Secondly, Out of the 128 lives, those who die in the respective half years between the agee of 3 and 80 , will receive an annuity certain in half-yearly instalments, for a term equal in continuance to the number of completed half years elapsed between age 3 and the date of their death; therefore, the sum of the present values of half-yearly unnuities certain, for the corresponding terms multipljed in the numbers dying within such respective terms, gives the present worth of all the annulties which will be enjoyed by the 128 lives, 1-128 of which represents the present value of the single life annuity at age of, say 3 years."

We have dwolt at some length on the discovery of De Wit, as it has not been available nreviously in any account given of the progress of lifa calculations, our best writers in this country, from the absence of any procise knowledge in regard to lt, having passed it over with a slight notice. On the continent, however, the labors of De Wit have been more highly uppreciated. The Marquls of Condoreet, In his Discours Preliminaire, gave him the credit of being "the first mathematicion who thought of upllying enleulation to pulitical questlons." "It was he rho first essayed to fix the rute of life annuitics according to the mobabilitica of life given by the tables of mortality. Upon politics, upon the true interests of nations, upon the freedom of trade, the hal very superlor ideas to those of his age; and wo may say that bis premature death was a misfortune to Europe as well na tohis country."
We can not condule our notlee of De Wit withent mentloning the name of hls fellow-laberer, If wo may so term him, the Eurgomaster Ifulle. Wo had at one time rather a painfu! lmpression left on our miad, arising ont of the terms of lludde's certitleate to the report of Do Wit to the States-General, and other obsurvatioas by Mr. Hemlriks, but we are glad to flad, from the correspondence subsequently trought forwarl, that they were fellow-lnberers in the same field, and that Iludde limself was a mun of science.

We have now to mention the first publlshed work in whleh an attempt is made to iorm tables of mortality. We allude to the work of John Graunt, whose name has been already mentioned. It was published $\ln 1662$, and is the first hook on the sulbject of life ohservations, as a distinet treatise. It Is entitled, Notural and Political Observations, mentioned in a follouring imlex, and made upon the Billa of Mortolity, by Join Graunt, citizen of Iombon (afterward deseribed in the fifth editien as "Captain John Grannt, F.R.S"). A century previous to the publicution of thls little volume, viz., on 1st Junuary, 1562, the first regiater of hurials was commenced in Iondon, the necessity for the ingulry arising from the great mortulity occasioned ly the plague ot that time. From that time the bills of mortality were kept at irregulur intervals, according tu the appearance and disappearance of the nlagne, but from 1603 the records were continued uninterruptedly. Graunt puid particular attention to these weekly returns, and, with a eagacions appreciation of their value, reduced the results into tables, "in order to the noore ready comparing of one year, season, parish, or other division of the city:". Ile analyzes the blls themselves, and drawa certain conclnsions with great adroltness, giving the first semblance of a table of mortality in the arrangement of deatlis la decades. The work pussed through five editions, the last under the superinten'
of his relative Sir William Petty, who himself pas.. some attention to the sulyjeet, having publlshed Essays on Political A rithmetic concerning the People, Housings, etc., of Iowdon and Paris; Essay concerving the Jfultiplicution of Maukind, and the Grorth of the city of J.ondon; Observations on the Dublin Bills of Mortality, itc.; and Discourse on Duplicate I'roportion, read befure the Royal Societ y, 16: 4.

From this time til: 1693, when the celebrated Ir. Fialley's investigations and calculations appeared, there is little to attract attention. A set of tables was published during this interval, entitled, Tables for Renewing and I'urchasing of the Ieases of Cathedral Churches and Collryes, etc.; ulso Tables fir Renewing and Purchasing of Lires, ete., learing the imposing title of "Sir Isuac Verton's Tables;" but we learn from Mr. Fdwin James I'arren's historical Fsoyy on the Rise and Early Piogress of the Dictrine of life Contingencies in Einglund, that Sir Isaace Newton being then at Cambridge (Lacasian Professor rice lharrow), it uppears to have been thuaght politic to obtain his sancthon or imprimatur as to the correctness of the tables, and "his original cognizance of the work uppears to have lieen to merely confirm the (Q.E.D.) correctness of a single table relatlve tu the established nsage of renewing college leases."

In No. 146 of the Philosophicul Transactions, 169\%, Dr. Halley published the result of his investigations uniler the following title: "An Estimate of the leegrees of Mortality of Mankind, drawn from curious Tables of the llirths and Funerals at the city of Ilreslau, with an attempt to ascertain the prlce of Annuitiea upon lives, hy E. Ilalley, R.S.S."-l:. 11.

Addibional information will also be fund in the Actuarial Tables of W. T. Thomson, F.IR.S.E., 18 sish, and in the very valnuble Tables and Formula for the Computation of life Contingencits, of Mr. Peter Gray, publixhed in 1819 . In conclusion, the mames of Eiswerd Sang, I'cter Ilardy, Samuel Ilrown, Charles Jelliooe, William Woni, William Orelaril, and IB. 11. Todd, may be melected for special notice from the long list of caleulators who have advanced various lejartments of the science dinch valuable hiformation on the nubject will also lie found In the dsaurumee Ifagusine; the lighorts of the Registrur-dientral; and in the E'ridence. . on before the Huste of Commons, in 18.1S, on Joint Stock Companies, and in 1853 , on Assurance $\boldsymbol{A}_{\text {s- }}$ socintions. The evilence on Friendly Socicties will also tee found interenting.-J. D3. See Intehent atyl Anneitige,

The followlig summary of the plan of operation and condition of the Mutual LIfe Insurance Company of Now York, in given to show the state of life insurance In the United States. Thls Company is the largest and one of the lest managed In the country; und its condltion may, therefore, he taken as a fair exponent of the others, and shows clearly to the lusurars the safety of their policlos.

Alutual Life Insurance Co., N. Y.-It will be percelved by the statement following that there have heen issued in the past year (1856) $2,0.11$ policies, anounting to $65,878,457$, being a net incrense in policles of 1,016 , and ln amount of Insured of $\mathbf{\$ 3 , 1 1 9 , 9 0 2 \text { , The cash }}$ recelpts have been $\$ 1,045,23517$; the inerense $11^{\circ} \mathrm{in}$ vestnents on bonds and mort gages lus lison $\$ 505,562$ 1.I, and the entire net Increase $\$ 610,7 \cdot 1994$, irresper tive of the ltems of interest accrued, and deferca premiums, which are not eatluated. Total assets, ©1, $\mathbf{i x}, 94576$, The loans are at 7 per cent. interest. Aggregato amount of loana, May 1, 1856, 83,187,85s 36.

Securities.--Value of lands mortgaged, $\$ 5,009$, , 415 ; value of improvements thercen, $83,513,650$; aggregate value of mortgnged property, $48,521,065$.

Collaterals.-Policies of fire Insurance, assigued or made payaule, In case of coss, to the Company, © $1,702,-$ ( $6368 \mathrm{Sa}^{\text {; personal guaranties to a considerable amont, }}$ say $\$ 200,000$. Total amount of securities, $\$ 10,425,701$, It will thus he seen that the value of the mortgaged property is more than twlee and a half the amount of the loans they are intended to secure. These seeurities are fortified by collateral polleies of fire lusurance to the ninonnt of $\$ 1,70 \pm, 036$. The following schedule of the predteted losses by the tubles, und the actual lossen for the pust 14 years, has heen prepared by the Actuary:
a Comparatifr Table of the pmomable ani diteal
Numieb or Deathis and Lonses, accolbino tio the
i,fre Taber ur the Mutial layg linbubance Co. of Nsw Youk.

| Year. | Probalile No of deaths. | Probable ampians of losmes. | Number of deaths. | Actual ambunt uf lomes. |
| :---: | :---: | :---: | :---: | :---: |
| If14... | 8.96 | -11,46t |  |  |
| 1844.... | 7.78 | \%\%.713 | 5 | *18.04n |
| 1455.... | 1505 | 64, 330 | 7 | 15.1100 |
| 1846.... | 2496 | 81.445 | 23 | 694.610 |
| 1547... | 8367 | 107.017 | 23 | 71,1:31) |
| 1S4*... | 4487 | 141,485 | 27 | 91930) |
| 1*19.... | $8 \mathrm{H} / \mathrm{s} 1$ | 174,615 | 64 | 175,493 |
| 150.10. | $67 \cdot 51$ | 2419,487 | 71 | 154.640 |
| 151. | 72.48 | 2168301 | (4) |  |
| 1*2.... | 7456 | 220,723 | 68 | 2ution |
|  | 4803 | 25, 043 | 71 | 2010.200 |
| 104.... | 92.44 | 299,92t | 85 | 2, 1.480 |
| 1*5.... | 1714.75 | 817 \%5t | 818 | 2biven |
| 1560.... | 11838 | 362, 639 | 75 | 26.1 .35 |
| Total | 79818 | 12,471,899 | 6.5 | *1.891915 |

In the above tatile the second colnnin shows the protrable number of deaths, according to the mortality tahes now ured in the I'nited States. The thirl column reprisents the monunt of such losses, whereas the finurth and fifth columns show tho actual results in a husiness of 14 years, la none of these ycars las the Company lost the full amount called for in its tahles.

Hut it must be lorne in mind that life he: urance is only in its lufaney in this country, mul hat full 30 years must elapse before we can calculate rosult, with any degree of certainty.
Fodategetit Anmial ntatingent gor tha Yeah bidsa 81GT JANVABy, 1NOT. HECEITR
For preminms and taterest...................... $11.44^{5}, 235 \% 17$ mandibaments.

 Net assets 81 at dunuary, INOB..........

Tutal net assets 31st Jannary, 145\%........ (3, in. 915 in Number of poltelus tasued during the year.....
 Nunter of potteles in foree ist of Fubraary, 18 si $\quad 9,94$

The following ls the divlsion of the country into classen, showing the rates chargerl:

1. In the United States, north of the southern lines
of Virginla a the Missiaslpp and $46^{\circ}$ nort olina, frov: $h_{1}$ miles of the ? America. Al gitade west fri
2. Adiltione the Mlasissippi and $40^{\circ}$ north sonth of the sc and north of $t$ on the Mlasiss of west longitn acclimated per
3. The Unit nerth latitude tule), from 1st persinn, 2 per c plete when the
4. Upier Cal in mining), Aus Philippine Isla dence, 1 per cel East Indies, an tioned, rates wi ing with the ris)
5. Voyages Oregon, 1 per Other voyages 8 Master mariners of premhum gra trade in whleh tions as to voya of peace only, an of war, if the ris)

Nilititry and gaged in actual setual service, a consider stial tlont der of thelr poli same value there sons eugaged in under militury c eign invasion.
Persons passim insured, who $p$ samaller to one office, and puy th ing from a class is less, will com when the next re the extru premi bealth and consti residence, the ex All reductions of be made at the of
Accimation fe tained, 1. II $\cdot$ birt where insurance sumber residene where epidemic a having had the at ity. f. Acrlimmt ered complete uns thaed since to re
Rates for Inst Company have 1 , servations which at the slifierent $p$ that these rates any attempt to do ence in lifo insur: recklessuess of $r$ Compuny which the contilence of ence and principl
of Virginia and Kentucky (except witbin 10 mlies of the Misslssippt and Mlesouri Rlvers, between $36^{\circ} 30^{\prime}$ and $40^{\circ}$ north Jatitude); In the interior of North Carolina, fron: he coast ; in Tenneseee, except within 50 miles of the Missieslppi River; and in British North America. All to be east of the 100 th moridian of longitude west from Greenwich.
2. Additional Rates,--Residences withla 10 miles of the Mlssissippl and Missourl Rivers, hetween $36^{\circ} 30^{\circ}$ and $40^{\circ}$ north latitude, $\frac{1}{}$ per cent. The United States, sollth of the southerly line of Virglnia and Kentucky, and north of the 321 degree of north latitude, except on the Missisilppl River (east of the 100th meridlan of west longitude), from 1st July to 1st November, for acclimated persone, $\frac{1}{2}$ per cent.
3. The United States, south of the 32 d degree of north latitude (east of the 100th meridlan west longitulte), from 1st July to 1at November, for ncelimated persons, 2 per cent. Acellmatlon is only deemod complete when the party has had tho yellow fever.
4. Upier California, Oregon (excopt those engnged in mining), Australia (with similar restriction) China, Phllipinine Iaiands, and Sundwich Ielands, for residence, 1 per cent. For South America, West Indics, East lalice, and other purts of the world not mex.tionel, rates will be namell at the office corresponding with the risks, except in places prohiblted.
6. Voyages aud trips to and from California and Oregon, 1 per cent.; round the world, 2 per cent. other voyages subject to special contract at this offiee. Mater mariners and sea-faring men are taken at rates of premimm gradunted to the risk of the particular trude in which they may lee engaged. The conditions as to voyages in auch class are applicalie to time of peace only, un adilitional rate being charged in time of war, if the rlek of war should be taken ly the Co.
Military and naval men are not protected when engaged in nctual warfare; but if regularly called into actual service, and ilying therely, the Company will consider sald denth, under such circumstances, as a tender of their pollcy to the Company, and will pay the sane value therefor as if aurrendered by sale. Persons engaged in military corps aro not held to come under military conditions, except in the event of foreign invasion.
Persoms passing from one class to another.--Persons insured, who pass from a class where the risk is snuller to ene which is greater, must apply at the ofice, und pay the enhanced premilum. Sersons coming from a class where the risk is greater, to where it is less, will commence to pay the reduced premimn when the next renewal preinium hecomos due, should the extria premium he taken off: But where the health aud constitution have hecome impaired by suid residence, the extra premilum will not he taken off. All reductions of the extra premiums charged, must bo made at the ollice.
Acclimation for the 1 mrnose of life lisurance is obtained, 1. By birth and continued residence in the place where insurauce is sought. 2, By long continued sunmer residence, and during the seaan when and where epidemic and endemic diseases prevail. 3. 1ly havin, hal the disease incident to the climute or locality. 4. Acelimation againat yellew fever is not considered complete unless the party das had it, und has continuel since to reside in places where it is epidemic.
Rates for Insurance.-The rates adopted by this Company have been formed on the most correct observations which uow exist, as to the duration of life at the dillerent places where we Insure. We believe that these rates can not he safely reducel, and that any attempt to do lt , with the present limited experience in life insurance in this country, would evince a recklessucse of resulte which would justly cost any Compny wheh should attempt it, the withdrawal of the condidunce of ull who are conversant with the science and principles upon which this business is based.

Tuk Ratbs of Absitrance of Onk Thovgand Dohiars on a Singid Life, foh tite whole continuanoe tiekror,

| Ago. | Quarterly <br> payntents for life. | $\left\|\begin{array}{c} \text { seani-ann, } \\ \text { Paymenla } \\ \text { for Hfo. } \end{array}\right\|$ | Ananal paymenta for life. | $\left\lvert\, \begin{gathered} \text { Aunual } \\ \text { faymenta } \\ \text { for } 10 \text { y } \end{gathered}\right.$ | $\left\|\begin{array}{c} \text { Aluwal } \\ \text { paymente } \\ \text { fors years } \end{array}\right\|$ | In ona pajment. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 877 | 748 | 1471 | 3849 | 5768 | 25459 |
| 15 | 889 | 768 | 1511 | 8418 | BS 86 | 25089 |
| 16 | 898 | 789 | 1554 | 8489 | 60 泼 | 26488 |
| 17 | 409 | 811 | 1594 | 8562 | 6197 | 27016 |
| 13 | 420 | 883 | 1888 | 8885 | 6251 | 275188 |
| 19 | 482 | 856 | 1688 | 8711 | 6978 | 23099 |
| 20 | 44 | 980 | 1780 | 8787 | $60^{4} 47$ | 29656 |
| 21 | 456 | 905 | 17 78 | $8 \times 86$ | 6688 | 20228 |
| 22 | 469 | 980 | 1823 | 8945 | 648 | 29800 |
| 83 | 482 | 9.66 | 1880 | 40.97 | 6908 | 814888 |
| 24 | 490 | 984 | 1884 | 4110 | 7048 | 84987 |
| 25 | 510 | 1012 | 1989 | 4195 | 7189 | 31507 |
| 26 | 525 | 1041 | 2047 | 4288 | 788 | 82220 |
| 27 | 641 | 1072 | 2107 | 4371 | 7483 | 82955 |
| 28 | 557 | 1104 | 2170 | 4462 | 7684 | 835) 48 |
| 29 | 578 | 1187 | 2235 | 4585 | 7783 | 84164 |
| 80 | 501 | 1171 | 2302 | 4681 | 7046 | 34838 |
| 81 | 809 | 1207 | 2378 | 4748 | 8107 | 355 26 |
| 84 | 823 | 1245 | 2447 | 4848 | 8278 | 86240 |
| 83 | 647 | 1284 | 25.28 | 4080 | 8441 | 86046 |
| 84 | 6 6s | 1824 | 2603 | 5085 | 8019 | 87878 |
| 85 | 880 | 1867 | 2687 | 8102 | 87 40 | 88426 |
| 86 | 712 | 1412 | 2775 | 5272 | 8370 | 89190 |
| 87 | 786 | 1459 | 24 67 | 5383 | 918 | 89971 |
| 35 | 761 | 1508 | 2964 | 3502 | 0844 | 40770 |
| 89 | $7 \mathrm{s7}$ | 1560 | 3066 | 5621 | 9588 | 41587 |
| 49 | 814 | 1614 | 8178 | 5745 | 9787 | 42483 |
| 41 | 848 | 1672 | 82811 | 5872 | 9941 | 48270 |
| 42 | 874 | 1732 | 3405 | 61188 | 10151 | 44154 |
| 43 | 906 | 1790 | 35 80 | 6138 | 10266 | 45149 |
| 44 | 940 | 1364 | 8688 | 6278 | 10587 | 45960 |
| 45 | 1) 76 | 1985 | 8344 | 8424 | 10815 | 401903 |
| 46 | 1014 | 2011 | 3918 | 6574 | 11049 | 47862 |
| 47 | 10.55 | 2012 | 4111 | 4781 | 11291 | 48941 |
| 42 | 1098 | 2177 | 4273 | 6492 | 11539 | 40387 |
| 49 | 1148 | 2266 | 4465 | 70.51 | 11792 | 50849 |
| 50 | 1191 | 2361 | 4642 | 7281 | 12151 | 51875 |
| 81 | 1242 | 9462 | 4) 39 | 7108 | 12815 | 52015 |
| 62 | 1295 | 2569 | 5049 | 7591 | 12.58 | 54968 |
| B3 | 1852 | 26 sz | 5271 | 77 81 | $12 \times 61$ | \$50 88 |
| 54 | 1418 | 2302 | 5507 | 79 is | 18144 | 56117 |
| 55 | 1477 | 2929 | 5758 | 814 | 13484 | 57212 |
| 56 | 1546 | $80 \quad 65$ | 6025 | 8908 | 13782 | 58318 |

Tin Rates of Absifance of One Tuoveano Dollabs on a Sinule Lift, roa A Tphm of Ifath

| Age. | On a policy for 7 yearn, |  |  | $\left.\frac{\text { مor } 5 \text { yr'a }}{\text { Antinal }} \begin{aligned} & \text { payments } \end{aligned} \right\rvert\,$ | For 2 y'ru, For 1 year, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quarterl? phymonts. |  | $\begin{gathered} \text { Anmial } \\ \text { pryments } \end{gathered}$ |  | $\begin{gathered} \text { Aunual } \\ \text { maymente. } \end{gathered}$ | $\begin{gathered} \text { Avmunl } \\ \text { laymunta } \end{gathered}$ |
| 11 | 200 | 897 | 780 | 760 | 723 | 718 |
| 15 | 2116 | 419 | 803 | 782 | 751 | 789 |
| 16 | 212 | 421 | 827 | 805 | 778 | 761 |
| 17 | 218 | 488 | 851 | 824 | 705 | 788 |
| 18 | 225 | 445 | 875 | 858 | 818 | 8108 |
| 19 | 281 | 458 | 0 OH | 877 | 841 | 830 |
| 80 | 284 | 471 | 028 | 0172 | S 63 | 8.53 |
| 21 | 244 | 48.5 | 9 34 | 923 | S 91 | 879 |
| 22 | 281 | 499 | 9 80 | 95 | 917 | 905 |
| 28 | 250 | 518 | $11) 08$ | 982 | 948 | 981 |
| 24 | 286 | 527 | 118 | 10 10 | $9 \%$ | 957 |
| 2.5 | 274 | 5 4 | 1166 | 1038 | 907 | 983 |
| 96 | 2 S 2 | 5 \% | 11107 | 10 bs | 1025 | 1011 |
| 27 | 293 | 5 \% 4 | 1129 | 1099 | 10 5 5 | 1040 |
| 24 | 894 | $5!1$ | 11 62 | 1131 | 10 *5 | 1070 |
| 29 | 807 | 608 | 11 \% | 11 t4 | 1117 | 1101 |
| 89 | 316 | 626 | 1281 | 11 98 | 1149 | 1183 |
| 81 | 325 | 645 | 12 Ot | $123: 1$ | 1184 | $11 \mathrm{ti5}$ |
| 82 | 8 ห\% | 684 | 1314 | $12 \mathrm{B4}$ | 1218 | 1201 |
| 88 | 345 | 13 -3 | $1: 143$ | 1307 | 1283 | 1230 |
| 8.4 | 965 | 7 64 | 18 Ns | 12 413 | 1290 | 1271 |
| 85 | 846 | 725 | 14.25 | 1988 | 1828 | 1319 |
| 84 | 87 | 747 | 14 69 | 1425 | 1:3 68 | 1848 |
| 87 | 389 | 78 | 1514 | 1471 | 1409 | 1358 |
| 83 | 401 | 715 | $151 \%$ | 1517 | 1481 | 1480 |
| 80 | 414 | -80 | 1618 | 1565 | 1496 | 1478 |
| 41 | 424 | 84. | 16 66 | 16 15 | 15 4t | 1510 |
| 41 | 443 | 877 | 1725 | 1669 | 1592 | 1567 |
| 42 | 459 | 0111 | 1789 | 1796 | 1643 | 1618 |
| 43 | 4 iT | 946 | 1959 | 17 S! | 1199 | 1671 |
| 44 | 417 | 95 | 19 \%1 | 1585 | 1757 | 1728 |
| 45 | \%15 | 1028 | 2021 | 1936 | 1821 | 1788 |
| 46 | 5.42 | 1075 | 2113 | (31) 22 | 1481 | 1855 |
| 47 | 5 64 | 1127 | 2: 15 | 2117 | 1179 | 11. 36 |
| 43 | 596 | 1188 | 2324 | 2280 | 9071 | 2024 |
| $4!$ | 626 | 1242 | 2442 | 23811 | 2171 | 21.21 |
| 50 | 659 | 18 17 | 2567 | $24 \pm 4$ | 2279 | 2. 25 |
| 51 | 694 | 1975 | 2718 | 25. 74 | 2303 | 9837 |
| 52 | 781 | 14 \% | 2500 | 2710 | 2515 | 2451 |
| 51 | 772 | 1581 | 3010 | 25.56 | 2446 | 2581 |
| 54 | $\checkmark 17$ | 1620 | 8181 | (11) 111 | 2786 | 2715 |
| 85 | 866 | 17 18 | 3, 78 | 8100 | 2934 | 2868 |
| 86 | 080 | 1895 | 85) 87 | 23433 | 3166 | 3021 |

Life insurance in the Unlted States is as yet in its infancy, as fur as regarda the science, but tho practlee is raptally gaining favor with all classes of the communlty, and the number avalling themaelves of its benotits In this country are daily inereasing* Statiso thes of life and mortalty are the foundation upon which the seience of life insurnnce ls erected, and reliable informatlon regarding the relative value of life in different climates and at each age is of the greatest importance to a life company, in order to prosecute its business anccessfully. In Great Britain this information is obtained from two sources, viz., the experience obtaining each year among the eompunles themselves; and, secondly, from the reperts of the regiatrar-general which are annually made te Parliament. From the comparatbely amall area of the Ilritish lsles, and the excellent system of appointments ly the government of its scientilic men, great advantage is derived. The decennial census of Great Britain la taken in one day, which nt unce eliminates one of the most frultful sources of errur ; and by having a regintrar and corps of assistants in his office regularly educnted nuel trained, a perfeet oystem is adopted; und thus we have in their reports a mass of reliable, interesting, nod valunble infurmation which can nowhere else be obtalned. Unfortumately, in the Vnited Stutes it is ditferent. Froms the immense area of territory, embrabing every variety of soil, climate, and physical contignration, it would the alosost impossible, even if we bat ns perfect a system of registration as they have in lingland, to complete the enumeration of the census in a day, or even a few days.

For the talbies of mortality upon whidh to determine the rates of premiam to be charged for assurances upon lives, the American companies are entirely dependent upen Furopean observations; and it is found hy the experience of companies in this country, that the rate of mortality in Great 13ritaln will very fairly represent that iutho Now England and Middlo States. Ibut luthe Southern States and California it is very diffrent. We have as yet no suflicient data for the determination of the relatlve mortality among residents of the different States in the Union; consequent1 l , when a life company is colled upon to insure the life of a permon resiling in the South or Calitornin, a sum is charged, in ndation to the regular premium, for the increased risk in those climntes, which is entirely arbltary. Yet it has heen shown in the report hy the actuary of the experience of the Mutual Life Insurance Company of New York for ten Years ending February 1, 1853. that the nononl mertaity mong every 10,000 persons insured was as follows:


The experience of the company hat also been computed since 1853 , and will he publishted in 188 s , which will include a period of fifteen gears in the history of that company.

The following table is taken from the report of 1)r. F. Iharton, of New Orleans, to the president of the alove conusiny, on the relative mortality from yellow fever of persons from varions parts of the world who emigrate to New Orlenus. The table ty nn answer to the question, 1 ihat is the relative mortality between nittices and strangras, A me rican and Eumpuems?

Rerly.-The a..swer to this most necensarily le twofold, vil..: 1st, in relation to the accimated, and, $2 d$, the unacclimated. Of the first, the following table, with preche details of each nation and people, foreign and domentic, ant from different latitodes, was made from the data furnishend during the diantrous epinlemic of $1 \times 53$, thim haviug been the most extensive and mailguant yellow fever that ever occorred in Sicw Or-
leans. This table was mest carefully and laboriously compiled by myself, and is, I bellove, the only one annde that can furnish any reply to this most importame question, and should be deemed a fair exponent of the general liabilities, as the greater should embrace the less.
Taing biowino tim Lifk Coby or Acelimation of liahilitieg to tellow Feyka ab bebived yron ob influexili in Nativity, ifr 1000 of the popleation.
Clana. Nuw Oricans aud the State of Doutiana Por 1000 . Southern Shave Slates.

## 3. Arkansar, Minimsijpil, Alubama, Georgla, and Sonth Carollan .................. Northern Stave States.

4. VTrgida, Maryland, Tennessee, Kentueky; abd of thia clana of Staten, the largest mortailiy ex-
isted among thoee coming from Tennessec and isted among
Kentucky..

Northern' States.
5. New Vork, Vernont, Marazchuaetty, Maine,
lihode Island, 'onnectlent, New Jersey, l'enaaylvania, and delaware..

## Northicestern States.

A. Ohlo, Indinda, Illinole, and Miseouri. 4423 7. British Amurica ................ $541 \cdot 4$ 29.11 8. West Indles, Fonth Americh, and Mexieo........ f. f. 11. (irent hrltaln................................... $62 \cdot 19$
$204+37$ North of Europe.
11. Demmark, Swedea, aird Rusih.................. 16390 Midelle Europe.
19. Russia and Germany................

Louver Wettern Europe.
13. Holland and Melghum ........................... 22s. 94
Mountainous Eurove.

## Mountainous Swlizerland.

18. Auatrin 4819
19. Spanee nnd italy $22-115$
146
lieneral average from Europern countrics... i46 th
The total liabilities, in passing through the acclimating processive population $60 \cdot 56$.

From this table it will appear, 1st, that linbilities to yellow fover exist (In relation to America) pretty much in proportion to inerease of latitude; and, 2dly, hy their cold moisture, so diametrically opposite in its ef. fects on the constitution to sarm noisture; and, above all, their personal habits of crowding into cheap and tilthy dwellings, nnd the immigrants being of a low class, and the predominanco of intemperance. The comparatively anull mortality occurring in those from Great llritain arises from the fact of these immigrants treing of a higher class of subjects.

From these remarks it will be seen that life insur. ance companies in thila country must depend in a great measure upon the results of their own experience.

Something, however, has been ndded to vital statisLics by individual States, particulnrly Masmachnsetts, New York, Maryland, and Kentucky; and there is no reason why these individual States, us well as the Inited States, shoula not havo as complete a syrtetu of registrathon of births, marringes, and denths, as they now have in (ireat Iritain, and thereby tive full and necurate statistics of the life and mortality of the country.

The reports of the six life insurnnce cumpanies of New York, for the year 1857, show that the large sum of 8798,010 has been pald to the representatives of policy holdera, and that their aggregate premiums, loss. es, and assets were aeverally as follow:

|  | rrem. and Inte 1 m 1 |  | Anels. |
| :---: | :---: | :---: | :---: |
| Mutual fiff In | \$1,146,(m0) | \$313,100 | \$ $\$ 4.445,0 \mathrm{Mm}$ |
| Mitual lumefil | 609,140 | 207, (104) | 2.743,000) |
| S. V. lifu lan. 1 | 474,000 | 351, 1061 | 1.442, $10 \times 1$ |
| Manlation Life lis. | 818.000 | (6, $0 \times 0$ |  |
| 1:. S. 1.1fo Tus. Co. | 14, 6100 | Ex, $\mathrm{m}^{(0 x)}$ | 4i30, |
| Knick rloor | 41,(00) | $8,(10 \times 1$ |  |
| Tuta | 2,84,001 | 99,0 | 43,669, 404 |

-See Bunkers' M/agazine, $1856^{\prime}$ '57; also Junes on life dnunities; Laone It:vis Com. Law of the liorld.

Intereat is the lorrower of the lender for 1 preté; ou bien, ices productifs q ii., p. 480, ed. 4 n viously to the $m$ event of all legis of interest being would wholly de sbundance of mo tise as money $\mathbf{t}$ more plentiful. controverted, fir tished in 1750, e Causes of the Ra ter effeet in Hum has been shown communlties is the currency, bu from the emplay frequently hnppe but this is of no substautial diffe 100 bushels of co at the expiratio of 10 O or 105 bu much money, at the corn ar cloth crowds of passe by the snme enr serve to negotin leads to $\mathrm{X} \$ 1000$ sa equivalent an nouse fer the ma produce to $\mathrm{C}, \mathbf{W l}$ is plain that $X$, ties or produce they might have as the noney el Accordieg as th the business it 1 give a greater notes or assigna It is not, howev srticles being $h$ profit which the possession, that paid to the lent may; perhapla, be and jewelers, tl money is increas of their husines not ulwars the e in any degree af ever sent to the graded or deprec weight, or reiati plain that the in of interest for to work up into on the supply o derived from lts wholiy unconne cuin.
It therefore rate of interest $\delta$ by employing e not on the price siste. The latt value of money afficeted by the: proluctiveness protit is unifort of interest. M in the United fland; but the

Intereat is the annual sum or rate per cent. which the borrower of a capltal agrees, or is bound, to pay to the lender for its use. "Interêt; loyer d'un capital preté; ou bien, en termea plus exacts, nehat des services productlfs que pent rendre un capital" (Say, tom. ili, n .480 , ed. 4 me ). It was generally supposed, previously to the middle of the last century, that, in the event of all legislative enactmenta regulating the rate of interest being repealed, its increase or diminution would wholly depend on the comparative acarcity or abundance of money ; or, in other words, that it would rise as money becanie scarce, and fall as it became mere plentlful. But this opinion has been suceesefully controverted, first by Mr. Joseph Massie, in a tract published in 1750, entitled "An Easay on the Governing Causes of the Rate of Interest ;" and, second, with better effect in Hume's Essay on Interest, in 1752. And It has heen shown that the rate of lnterest in alvanced communitles is not determined by tho abundance of the currency, but by the average rate of protit derived from tho employment of eapital. No donbt it most frequently happens that loens are made in currency; bat this is of no consequence. Thero is obviously no substantinl difference between A furnlshing 13 wlth 100 bushels of corn, or 100 yards of eloth, to be repairl at the expiration of a specified period by the delivery of 101 or 105 bushels, or 104 or 105 yards, or with as much money, at $1 /$ or 5 per cent., as would purchase the cern or eloth. And it is engy to perceive that, as crowds of passengers may be successively conveyed by the same enrriage, so the same sum of money may serve to negotiate an infinity of loans. Suppose $\dot{\boldsymbol{A}}$ leads to $X \$ 1000$, with which the latter huys from J sn equivalent amount of commolities; that 13 , laving ne use for the money, lends it to $Y$, who pays it away for produce to $C$, who again lends it to $Z$, and so on. It is plain that $X, Y, Z$ have received lonns of commodities or produce from $\mathbf{A}, \mathbf{B}, \mathbf{C}$ worth three times (and they might have been worth 30 or 300 tlmes) as much as the money employed in settling the transnetions. Accordis:g as the supply of currency, compared with the business it has to perform, is $g$ reater or less, we give a greater or leas number of guineas or livres, netes or assignats, for the article we wish to ohtain. It is not, however, by the fact of the, rice of such articles being high or low, but by the advantage or protit which the borrowers expeet to lerive from their possession, that the interest or compensation to be paid to the lenders for their use is determined. It msy, perhaps, be supposed, in the case o' goldsmiths and jewelers, that when the quantity of metallie meney is incraasel, they will obtain the raw material of their husiness with greater facility. But this is not alwars the case; and though it were, it would not in any degree affect the rato of interest. No coins are ever sent to the melting-pot unless the currency he degraded or depreciated ; that is, unless it le teticient in weight, or relatively redundant in quantly. And it is plain that the inducement to offer a high or a low rate of interest for louns of money, which it is intended to wark up into plate or other articles, wlu not depend on the supply of such money, but on the profit to be derived from its conversion into goods-a cireunstance whilly unconnected with the seareity or abundance of cuin.

It therefore appoars that, apenking generally, the rate of interest depends on the profit that may be male by employing capilal in industrious undertakings, and not on the prive paid for the articles of which it consiats. The latter are affected hy every change in the value of mnney, whereas the formor is iittle, if nt all, affected ly these clianges, and is detern: ined by the prodactiveness of industry. A low or a high rate of profit is uniformly accompunied by a hlgh or low rate of interest. Aloney, as every one knows, is cheaper in the United States and in Australla than in linbland; but the ordinary rate of profit being higher, in-
terest, despite the lower value of money, is also higher. Fxtraordinary as it may seem, it is nevertheless true, that during the half dozen years ending with 1856, the current rate of interest in San Francisco, where bulllon is so very abundant as to be almost a drug, has varied from $1 \frac{1}{1}$ to 2 and 3 per cent. a month, or from 18 to 24 and 36 per cent. per annum. And theugh it were allowed that from a third to a half of thls rate should be viewed as a premium to compensate the insecurity prevalent in Callfornla, still the residue would amount to three, four, or flve tlmes the ordlanary rnte of interest in Eugland. In further corroboration of these statements we may mention, that the low rate of interest in 1Iolland during the greater part of the 17 th and whole of the 18th century, was not owing to any pecullar abundance or cheapness of money, but to the hlgh rate of taxation, and the difficulty of investing capitnl with profit. And to this latter circumstance we owe the low rate of interest in this country toward the middle of last century, and at soveral later periods. It is not, In short, liy the amonnt or value of the currencies of different countries, but by the means which they respectively enjoy for the profitable employment of capital or stock, that their profit and intorest are governed.

That a rise or fall in the value of money can have no direct influence over interest is plain from the fact of the interest being itself paid in the money that has risen or fallen. But, nt the same time, a sualden increase in the supply of money may undoubtedly have a temporary effect in depressing interest. Importers of bullion may not be able to lay it out advantageously in purchases, and may, in consequence, be risposed to have it coined and lent, though at a low rate. We incline, however, to think that the infiuence of cons:derations of this sort is but lnconsiderable. Lenders will not tike less for loans than the borrowers are willing to offer, and the offers of the latter inust be determined not merely hy the amount of money seeking investments, but partly also, and in a still greater degree, by the protit that may he made hy its employment. When there is a rapid intlux of money, loms for short periods are nsually obtainable at low rates. This, however, is not generally the case with loans for lengthened periods. The lenders are willing to accept a reduced interest for a short term, till they can look about for some more protitable means of Investment. But tho interest on loans on mortgages, or for lengchened periods, is always proportioned to tho rate of profit at the time; and, supposing the security to lie unexceptionable, is but little affectell hy any thing else.

The protits made in industrious undertakings are, for the most purt, distributed into gross anil nett profits. Thus, if from the total returns, whether annual or otherwise, obtained in any business or employment, we deduct all sorts of outlays necessarily incurred in earrying it on, including the wages or remuneration the to the undertakers for their skill and trouble in superintending tho business, und a sum to compensate the risks provided against by insurance, the residue is the nett protit of, or return to, the capital employed. And it is on this latter portion that interest lepends, or rather with which it is usually identical. lenders having nothing to do with the employment of capital, nre not entitled to any peenlar advantage that may arise from it. But they are entitled to all that ean fairly he considered as the return to tho capital they have lent, after the risks, salaries, and necessary emoluments of those who undertake its employment are deducted; and this mueh, speaking geurrully, they will get, and no more. Whatever else mus ice realizell hy the eruployment of capital ite inclustrial pursuits belongs to the borrowers, and forms the fund out of whleh they are remunerated. In coming to this conclusion, we are supported hy the anthority of Mr, Tooke. "The rate of lnterest," says he, "is the
measure of the nett profit on capital. All returns beyond this ea the employment of capital are resolvable into compensations, under distinct heads, for rieke, troubles, or akill, or for alvantages of aituation or connection." (Conalderations on the State of the Curreney, p. 12.) Whatever, therefore, may at any time oceasion a audden glut of money or capital may lower the rate of nett protit and interest. But that very circumstance, by increasing the demand for capital, will eventualiy raise the rute to its proper level; and the glut baving disappeared, profita on Interest will depend on the productivenesa of industry.

Besides such variations as are proportioned to variations in the ordinary rate of protit, and which equally affect all loana, the rute of interest varies aecording to the security for the repayment of the principal and the duration of the loan. Hence the powerfal intluence which the character of the borrower, the purpose for which he borrows, and the nature of the business in which he is engaged, have over interest. Careful, skilful, and intelligent purties always borrow, certeris paribus, on lower terms than those of an opposite description. The spendthrift, the idle, and the unskiilful, can with diffleulty obtain loans on any terms; and those who deal with them, and stipulate for a high rate of interest to cever their risk, frequently tind that their guaranty is inadequate, and that they would have better cousulted their own advantage by lending to reapectable parties on the usual terms. The nature of the employment in which borrowers are engaged has ulso, as now stated, a powerful effect in determining the rate of interest. Wherever there is risk, it must be compensated. A sum lent on mortgage over a valualle estate is not exposed to any risk. Hut a anm lent to a manufacturer or a merchant engaged in a hazarduus busineas, is exposed to $n$ high degreo of risk; and the interest payable on the latter, inammach as it must include a premiun to compensate this extra risk, may be twice or three times as much as that paid on the mortgage.

We slould mistake, however, if we aupposed that this circumstance places those who carry on purticuiariy hazardous lusinesses in a comparatively disadrantageous sitution. Competition will not jermit, taking every thing into acceunt, a greater or a leas amount of nett proft to be peramnently obtained in one branch of industry than in another. The produce realized by those who engage in employments of more than orilinary hazurd is generally soll at price that yiell the orilinary rate of profit, with a surplus sufficient to guaranty their stock agaiast the extra risk to which it is exprosed. Were it otherwise, every body would decline placing their property in a state of comparative danger, and undertakings of a hazarious nature woull not be entered into. Ilut it very frefuently happens, that the manager of a bazardous liranch of Induatry, paying from 11 to 12 per cent. for ioans, realizes larger bett jrofits than the purchaser of an extate with money torrowed at 3 or 4 per cent.
Supposing the security to be equai, capital lent for a fixed und considerable perion always fetches a higiser rate of interest than that which in lent for short periods, or which may be delaanded at the pleasure of the lender. There are but frw modes of afely emJloying loans of wisich the duration is so uncertain, so that they are frequently worth very iittle ; and hence the rate of interest is, in the majority of cases, in part at least, letermined by the length of the loan; for, when that is considerable, it may le proxfuctively employed in a variety of lusinesses, in which it would not otherwise be jrudent to inveat it, at the same time that the horrower has time to prepare fur ita repayment. Hat this princiju has only a slight intuence over leans for terms leyond three, or, at nont, five years: for a loan for cither of thece terms, but exjecially the latter, inay be enployed in a great variety of ways, and would bring nenriy as much interest as it
would do ware it for 10 or 12 years. It is further to be observed, that large classes of borrowers prefer the less interest which they get for advances at short dates to tise higber rate which thoy might get were they fer longer terms. Most people wish to have the full command of their eapitnl. Merehants and mannfactarers who lent on mortgage would inso far deprive themsolves of the means of extending their husiness,
and of speculating. And thongh sometimes, perinps, this might be for their sdvantage, yet the thattering opinion which most people entertain of their own sagacity and good fertene, would but seldom permit them to doubt that it was a very aerious disadvintage. Hence the low rates at which banking companes who pay the sums deposited with them on demand, and govornmenta overwhelmed with deht aro able to horrow. A stockholder's mortgage, or claim on the revenve of a country, may be immediately converted inte cashat the current prices. And, however nuch the majority of the ereditors of a deeply indebted country may bs impressed with a conviction of its lobbility to dis. churge the various clains upon it, eacl. individual, confident in his own good fortune and foresight, flatters himself that he, at ali events, will foresee !the coming tempent, and be able to seli out befure a pulific bankroptcy.

It is evklent, from those stataments, that in adition to the security for loans and their churation, the rate of interest will, to a consideralile extent, depend on the facilities atforded for enforcing or carrying out the atipulations in contracts. And hence a milin cause of its reduction as aociety is more and more improved. Generaliy, it may he said that a speedy, cheap, and effectual jrocess for securing the payment of tedts, has a powerful tendency to lower-and a slow, costly, and ineffectual procoss, to raise-the rate of interest In most countrice, extraordinary means are tiken to compel payment of bilis; and this is a principal canse of the low rute at whieh they are commonly discounted. The easy enforcement of contracts constitutes, in truth, an inaportant jortion of the securityfor a deht. By a good security, is not meant a goaranty that a loan will uitimateiy bo made gooi, but that it wiil be punctually paid when due; or, if the loan be of a kind that a littio delay in its payment is usually given, that that delay will not he excerded, and that it will he paid within the custumary teru. A security which should insure the final pryment of a delit, but which shoull not insure its payment when due, or shortly thereafter, is not a good, but a bad sccurity. It is indinjensable to the transacting of lusiness sufely, cheaply, and expeditiously, that thero should the as little doubt us possibio either in regard to the puyment of loms or the term when thary are to he paid. If either of these points toe civabtfui, the lender will insist on an indemnity for the consequint risk. And it thercfore appears that the aummary procedjugs taken to enforce payouent of bills, nid such like dehts, are in truti and reality more for tiee advsutsge of the horrowers than of the lenders. They reduce the rate of interest ; and the hardship, such as it is, which they oceasionally intliet on tho horrouer, fuev not oceur in one case out of tive hundred ; while their powerful intiuence in depressing interest teils in every ciase.
fircect.-in Greece the rate of interest was not regulated by law ; aud it cousequentily varied with all the causes of variation alove aliuded to. Gencraily, however, it was what we should reckon very high, anounting, in most cases, to from 10 to 18 per cent., and upward. This high rate of interest was not eccasioned by a high rate of profit, but by the uncertainty of the laws, and the faciities which they nfforded to framduIent debturs to defeat the just ciaime of their creditors. The finterest on money lent on boftomry, or on the security of the shiji or cargo, or both, was rated at sa much per voynge. It therefore dejended on the place to which the ship was to sail, the season of tike year,
the chance of Usually it wes 60 or 60 per ce Athens, thougl or allens, appes trust worthy, a Hut they were and for no bett of the midille a a writer an lhoe the vulgur pre they drew upon clakses." He s the covetousnes istered ly intere and driving par the banking bus exurhitant usu times. IInd eo probability ts th Greeco as In En Athens, vol. i.,

Altempta to lin Instead, howeve adjusted by the principles thus reduce it by facil mest govermmen prohithit the tak which might be over them was ander the sevore these enactments were the only' spe quite peculiar. stindards by wh ent articles, and were most frequ factitions imperta the vulgar, hut of The fact, that to ene commodity ft cont, or cloth, or and rice versa, 4 tion was graduall! to the money itse individuals was n dissosible pronluc articles with whic precious metula, 1 metala actually ether reasons, mo chandise par excel be surprised at th of such exaggera or that vigorous tect those who w instrument from nate neighbors. their corn, enttle, the demand for m the lenders, unie ruin the harrower the country.
Another cause for interest grew crmuiation, It I saring of inconse ; indicative of a so tively hurtfti. and perhaps still palitic. llefore $t$ were properly und net be increused that whatever ad must oceasion an ancestors did not
the chance of meeting pirates or enemies' sh!ps, etc. |omy, accumulate atock, add to their own wealth, withUsually it was extremely great, varying from 30 to 50 or 60 per cent. The bankers and money-londers of Athens, though of low origin, belng mostly freedmen or allens, appear to have been considered as eminently trustworthy, and entitled to the publte conficience. llut they were, notwithstanding, quite as unpopular, and for no better reanons, as the dews and Lamlards of the miditite agea. We are surprisel that so learnod a writer as Boeckh should have beell ao imbued with the vulgar prejudice ngulnst them as to stnte that they drew upon themselves "the merlted hatred of all classes." He should have known that it has not been the covetousness of benkers, but that bad laws admin istered by interested juilges, hy making lonne lusecure, and driving parties of the highest rospectability from the lauking business, have been alone to blame for the exorlitant usury of anclent as well as of molern times. Ilad contracts been properly enforced, the protability is that Interest would have been as low in Greece as $\ln$ England.- llokckit's Public Ecomomy of Athens, vol. i., pp. 164-191.

Attempts to limit the rate of interest have raised it.Insteaid, however, of leaving the rate of interest to be adjusted by the free competition of the parties, on the principles thus briefly explained, or endeavoring to redure it ly fucilltating the enforcement of contracts, most governments have Interfered, either entirely to prohibit the taklog of intere:t, or to fix certain ratea which might be legally exactel, while any excess over them was declared to be usury, and prohitited ander the severest peanlties. In tho ages in which these enactments had their origin, the precions metal were the only species of money, and were considered quite peculiar. Being used in a double capacity-as standarls by which to ascertuin the values of different articles, and as the equivalents for which they were most frequently exchanged-thoy acquired a factitions importance in tie estinuation, not merely of the vulgar, bint of persons of the greatest discernment. The fact, that to buy and to sell is merely to barter one commolity for another, to exchange a quantity of corn, or cloth, or beef, for n quantity of gold or silver, and rice rersa, was entirely overlooked. The attention was gralually transferred from the inoney's worth to the money itself. And the wealth of states nad of indiviluals was not moasured ty the ameunt of their disposable produce, or by the quantity or vaiue of the articles with which they could afforl to purchase the precious metala, hut by the quantity or value of these metals actually in their possession. For theso and ether reasons, money has been considered as a merchaydise par excellence. And we need not, therefore, be surprised st the measures to which the prevalence nf such exaggorated opinions ulmost necessarily led; or that vigorous efforts should havo been made to protect those who were unprovided with so powerful an instrument from becoming a prey to their more fortunate neightors. Individuals might treely dispose of their corn, cattle, land, etc. llut it was suppesed that the demand for money might te so great, as to enuble the fenders, unless restrained $\ln$ their exnctions, to ruin the horrowers, and engress the whole property of the country.
Another cause of the prejudice agninst stipulating for interest grew out of the dislike entertained to accamulation. It is a consequence of cennomy, or of a saving of income; and this, in rude agos, is considered adicative of a sordid disposition, and as being positively hurtful. Prolignals and spendthrifts were long and periaps still continue to the, the favorites of the puibic. Before the naturo and ?:anctions of capital were properly understood, it was believed that it could not be increased without injury to individuals, nad that whatever advantage it might give to one party must occasion an equal diaadrantage to others. Our ancestors did not know that those who, liy their econ-
out diminishing that of any one else; nor did thoy know that, when expended, as is aimost alwaye the case, in the support of productive industry, thls atock afferds the means of producing an Increasod income. But reckoning, ns they did, that the savings of indlviduals were su much withirawn frou Income in which the publle would otherwise have participated, it wae natural enough that they should endeavor to limit the advantage derivable from their employment.
Much, also, of the prejudico agaiast bargaining for Intereat, prevalent in tho middle ager, may be truced to the authority of certain texte of Scripture, which were understooi to prohilit its exaction. It is deubtful, however, whether, they will really bear that In terpretation. And supposing that they did, nothing could be more irrationsl than to regard the munkipal regulation of a people placed in such peculiar circumstances as the Jews, as geueral and fixed principles, applieablo in all ages and countries. (Micinablis on the Laves of Moses, vol. ii., 336. Engllah trunslation.) It is a remarkable fact that the famous reformer Calvin was one of the lirst te cmancipate himself from the prejudices formerly so prevalent, especialiy among religious people, uguinst taking interest. Ile comments as follows on the stutement of Aristotle, that as money did not proluce money, no return couid be enuitably elaimed by the lender:-" Pecunla non parit pecunlam. Quil mure? quid lomus, ox cujus locatione pensionem porcipio? An ex tectis et parietibus argentum proprle nascitur? Sed et terra producit, et marl advehitur quod pecuniam deindè producat, et habltatlonis commoditas cum certa peclunia parari commuturive solet. Quod sl igitur nius ex negotiatione lucri perelin possit, yluam ex fundl cujusvis proventu: an feretur qul fundem sterilen fortasse colono locaverit ex quo mercedem vel proventum recipiat sibi, qui ex pecunlà fructum aliquem perecperit, non feretur? et qui jecunia fundum acquirit, annon pecunía illa generat alteram annuan pecuniam? Unde vero mercatores lucrum? Ex lpsius, Inquies, diligentîa atque industrià. Quis dubitet pecuniam vacuam inutilem omnino esse? neque qui id me mutuam rogat, vacuam apud ac habere à me acceptam cogitat. Non erga ex pecunlat illa lucrum accedit, sed ex proventu. Illa igitur rationes subtiles quicem sunt, et epreciem quandam hubent, sed ubi propius expenduntur, seipsa conelitunt. Nunc igitur concludo judicnudum do usuris esse, non ex particulari aliquo Scriptura loco, sed tantum ex equititis regula." Quoted by Dugald Stewurt in his Notes to his I'reliminary Dissertation to the Enyyelopedia Britannica.
But, whatever may have led to the efforts so generally made to limit or suppress interest, it is abundantly certaln that, instead of aucceeding in their object, they hal an opposite effect. If a borrower consider it for his sdvantuge to offer 6, 7, or 8 per cent. for a loan (and etherwise he would not make the offer), why should the legishature prohiblt him from offering, and the lenter from receiviag, more than 3, 4, or 5 per cent.? An interference of this sort, besides belag uncalled for ond unnecessary, is in a high degree prejudicial. Restrictivo laws, instead of reducing, uniformly raise the rate of int "est. They can not he so framed as to prevent borrow iry from engaging undorhand, to pay n higher rate of interest than is tixed by statute. And if the lenders had implicit confidence in the secrecy and solvency of the lorrowers, they might accomnodate then with the sums wanted, without requiring any additional interest, because of the illegality of the trunaction. But cases of this sort are extremely rare. Gratitude, and a senso of henefits received, are but slender securitles for honorable couduct. Numberless unforeseen events occur to weaken and dissolve the best cemented friendships; and a traasaction of this kind would afford an additional aource of jealousics and divisions. In such
nsatters, indeed, men are more than unually sharp- f few in number, aud mostly Jewa and Italians, the obeighted, and are little disposed to trist to noral gnerantees for the security of their property. Hat though neither the threateninge of the law, nor the laducements which it held out to dinhonent deitors to recede from the stipulations inte which they had entered, were able to prevent, or even greatly to leamen, what are termed umrious bargaina, they rendered them more oppreasive. They othiged the lenders to demand, and the lorrowers to andertake to pay a rate of linterest anfllelent to yletd the current rase of nett protit at the time, with a further sum to balance the risk of entering into what the law made an illegal tranation. This latter sum heing, of course, propertloned to the greater or less magnituite of the rink to be provided agalast, it increased or diminishied accordhug an the laws for the prevention of usury were cuiforeed or relaxed. Whenever, under the ofld system, the market rate of interest ruse alowe the statutory rate, the free trannfer of capital wan obstructed. Parties conld no longer look nerely to their own advantage. And lunns which might have been obtained for 6,7 , or 8 per cent., had there been no hazard from anti-usurioua ratutes, were raised, on fits aceount, to $\mathrm{B}, \mathbf{1 0}$, und 12 per tent. It in, therefore, plaia that if the meann taken to put down usury were not wholly respmalble for its existence, they, at all oveuts, added lurgely to its amount.
These conclusions do not reat on theory only, but are supprorted by a wide and uniform experience. In Rome, durlng the reputilic, the ordinary rate of interust was excessively high. The debtors, or pletelana, were every now and then threatening to deprive thair creditors, who were generally of the patrician order, not unly of the interest, but of the principal itself. Rapeated instances necurred to show that these were not mero eapty threats; and the patrichans indemnitied themselven, hy a curresponiling preminm, for the dangers to which they were exposed. "Des continuels changements," says Montesquien, "soit par Jes foix, soit par des plebisciten, naturaliserent a lhome l'usure; car les créanciers, voyant de peuphe leur débiteur, leur luginateur, et Jeur juge, n'eurent pins de conthane dans les contrats. Le jeuple, comme un détitenr decrólitć, ne tentoit à lai préter que par dea gron protits; d'antant phus que, ni les loix ne venoient que de tempres in temps, les paintes du peuple étoient continuelies, ent hatimiderient toujourn les créanciers. Cela ilt que tous lea moyens honnites de priter et d'emprunter furent abolis ì Jome, et qu'une usuro affreuse toujours foudroyce, et toujours renaissante, s'y ctablit. Le mas venoient de ce fue les choses n'avolent pas été ménagés. Leen loix extrimes dana de lien font naitre le mal extréme: il fallut payer pour le prett de l'argent, ot pour le danger des peines do la loi."-Sisprit dea Loiz, liv, xxii., c 21.
In Mohammedan conntries, notwithstandin; the prohilition in the Koran, the orlinary rate of interest is at least three or four times as great as its ordinary rate in Europe. "l'usure augmente dans leo pays Mabometans à proportion de la sévéritú de la defense: le pricteur sändemise du péril de la contravention." Ibid., liv. $x \times$ i., e. 19. Darlag the midale ages, when laterent was excesslvely high, the rate of profit was probalidy littie, if at ali higher thun at preesent. Hut it Nomuld the otmerved that a very great majurity of the lons of these agen were but little inlluenced by its amount. They were not made to bo inverted, bint to be apent. The great larons mad other landed proprictore were the principal tworrowern. Anl in 19 out of every 20 instances, the sums which tbey borrowed were expended in the maintenance of crowids of hate retainers, ill warfare, or in prodigalition of some sort or other. And while the barrowera belonged generally to what we should now call the spendthrift chass, and there were no efficient means of compelling them to abide by their engagements, the lenders were but
jeets of the most unreasonable prejudices. Under such cireumstances, it would be fully to suppose thnt the rate of interest should depend in may conslderabic degree on the zate of profit. The numbers, pusition and eharacter of the borrowere, compared with the fewness, position, und character of the lenders, mind the risk to which the litter were exposed in entering into such tranouctiona, oceasioned the exceenively high rate of intereat. Of the 50 und even 100 per cent. which loorrowers then frequently engaged to pay as interent, not more than 10 or 12 per cent. caa preperiy be suld to have been given for the productive kervices of louns. The rent must be considered as occaniment partly by the extreme acareity of disposable capital and the carelessnean of the borrowers, and partly, and principully, na a bonus to compensate the lenders for the laminent hazand of looing the privelpal.
kingland.-in lingland, as in most other countries, Christlans were, after the Concjuest, aboolutely prehilited, both by the civil and the eeclesiastical law, from bargaining for interest. Hut as Jews, according to the Mosaic law (Deuteronomy, chap. xxili., v. 20), were allowed to lend at an interent to a atranger, its exartion hy them was flrst connived at, and subsequently nuthorized ly law. And the name privilege was afterward extembed to the Italian or Latmbaril merehants. In consequence of this exemption, many Jews early eettied in Engaand, and engrossed a large whare of the trade of the kingulom. Ilat despite their industry und general good conduct, the projudice againat them, and againat the business in which they were mostly engaged, were so very strong that they and their families were regarded as slaves of the crown, by whom they were pluadered, to an extent and un. der pretenses which would now appeur incredible To nuch an extreme, indeed, were these opprewive practices carried, that a particriar otiice, called the eschequer of the Jews, was established, for receiving the sums extorted from them in lines, cuatoms, tailagen, forfuitures, etc. They were, in conhequence, obilged to charge an enormons rate of interest, or, as Madox expresses 1t, "to lleece the suljects of time realun as the king Heeced them." (Manox's history of the Exchequer, vol. 1., pp. 221-261, 4to, litio.) And lunce, while only from 7 to 10 and 12 per cent. interest was paid in conntries where eounder principles prevailed, the rate charged in Eugland was 3, 4, as:d even 5 times as great. At Veroma, in 1228, the interest of money was fixed be law at 123 per cent. Towaril the end of the 14th century, the repmblic of thensa paid only from 7 to 10 per cent to her crediturs; and the average disconnt on gool billa at Barceiona, in 1 tisi, In atated to havo been about 10 per cent. Hat while interest in Italy and Catalonia, where a considetable degree of freedom was allowed to the parties hargainlog for a loan, was thus comparatively molerate, it was, despite Its total prohibition, Incompsably higher In France and Eugland. Nathew Parls meations that, in the reign of lleary III., the dettor paid 10 per cent. every two months. And this, though halioswible as a general practice, may not have been very far from the average interest charged on the few luans that were then contracted for. (1l.aLas:'s. Midule Agres, vei. iii., p. 402.)

Hot in the end the disorders occasioned by this rina ons system hecame no chvious, that, not withstanding the deeply-rexted jrujudices to the contrary, a atatute was pansed In 10.46 (3i lien. VIll., cap. 7), legalizing interest to the extent of 10 per cent. per annum ; thecause, as is recited in the words of the act, the otatuten "prohibiting interest altogether have so liftie force, that little or no punishment hath "nowed to the offenders." In the reign of EIfward VI., the hertor against interest aeems to have revived in full force; for, in 1552, the taking of any was agaln prohilited, " as a vice most odious and detestable," and "contrary
to the word of tion, the rate lumedintely m this rate untll, сар. 8 ), repeali log the net of terest. In the the pruhilitiong so much groed " vice of asury ha to the utter unc occupiera, and o the comoronwea posel, even by t with all the viol Jutul Wismon, a for the extent of Conimonh, of wi not the amount the crime ; but t1 so littie, was wic darmablle deed ta this vice any quiet the consele geftel, declaring Giod, and tu be in ctatute was limi " forasmuch as it to ho very necess wealth oi' this re perpetual (199th
In the 21at of was reluced to seven years only the succeeling re Conmonwealth, to 6 per cent., a firmed hy the $12 t$ Queen Anne, a sta reducing the rate stovel tifi 18:ag. I stated that, "wh from thence to 8 , from time to time ficial to the advan of lands, it is lee the ligh rate of i portion to the in states." It was bargains or contr interest than 5 pe "that all ${ }^{2}$ rersons by meals of an cherizance, or int other thing wha means, or by any ance for the furbe one whole year, f the sum of $£ 5$ fou every such offens other things so le
Scothum arul Ir Refurmation no But that greut ov religious prejudi prohitition of in liberal opiaions neat of the stat j2), which legall cent. In 1633 , cent., and in 1661 reducing the rat to buth kingdoms ing of interest in when the statute stipuiate for any 100t this rate w
to the word of God." But, in spite of this dewunclation, the rate of interest, instend of being reduced, iunuediately rone to 14 per cent., and continued at this rate untif, in 1571, an act was parsed (13th Eliz., cap. 8), repeailing the net of Edward VI., and reviving the uct of Ilenry VIII., ailowing 10 per cent. interest. In the preamble to thia nct it is atated, "That the prohiliting act of King bilward VI. had not done so utuch good as was hoped for; but that rather the vice of usury hath much more exceedingly abounded, to tho utter undoing of many gentiemen, merchunts, occupiers, and others, and to the impertable hurt of the commonwealth." This salutary statute was opposed, even hy those who should have known better, with all the vielence of superstitious fanaticism. Dr. Jolin Wifon, a man fumous in his day, and celelirated for the extent of his learniog, informed the llouse of Cummons, of which he was a member, that "it was not the amount of the interess taken that constituted the crime; but that all lending for noy gain, be it ever sotittle, was wickedneas before God and mann, nad u dammatile deed in itself, and that there was no mesn in this vice any more than in murder or theft." To quiet the consciences of the bishops, a clanase was inserted, deciaring usury to be forbidden ly the law of Goul, and to be in its nature sin, and detestabie. This statute was limited to $n$ perlod of five years; but, "forasmuch as it was, by proof and experienee, found to be very uecessary and proftable for the commonwealth oi this realm," It was, in the same reign, made perpetual (39th Eilz., eap. 18).
In the 21st of Jumes I., the legal rato of interest was reduced to 8 per cent., by an net to ccntinue for seven years only, but which was mude perpetual in the succeding reign (ik Car. I., cup. 4). During the Commonweaith, the legal rate of interent was reduced to 6 per cent., a reduction which was afterward confirmed by the $12 t h$ Car. II. And, finally, in the reign of Queen Anne, a statute (J\%th Anne, eup. 16) was framed, reducing the rate of interest to 5 per cent., ut which it stwoid tiil 1830. In the preambite to this statute, it is stated that, " whureas, the reducing interent to 10 , and from thence to 8 , and thence to 6 , in the hundred, hath from the to time, by experience, been found very beneficial to the advancement of trade und the improvement of hands, it is beceme absolutely neces ary to reduce the high rate of interest of 6 per ce: b. to a nearer proportion to the intereat nilowed for money in forcign States." it was for these reasons enacted, that all largains or contracts stijulatiog for a hipher rate of interest than 5 per cent, should the utterly void. Aud "that ail persene who should after that time receive, by means of any corrapt barguin, loun, exchange, chevizance, or intereat, of any wares, merchandise, or other thing whatever, or by any deceitful way or means, or ly any covin, engine, or deceitful conveyance for the forbearing or giving day of payment, for one whole year, for their money or other thing, uibove the sum of $£ 5$ for $£ 100$ for a year, should fortitit, for every such offense, the freble value of the moneys or other things no lent, lurgained," ete.

Scolhand and Ireland.-In Scotland previous to the Reformation no interest conld be legally charged. But that great event, by weakening the force of those religious prejudices which had chietly dictaled the probibition of interest, led to tize adoption of more liberai opinions on the subject, und to the enactmeat of the statute of 1587 (IIth Prarl., Jac. VI. cap. $0^{2}$ ), which legalized interest to the extent of 10 per cent. In lia3 the legal rate was reduced to 8 par cent., and in 1661 to 6 per cent. The statute of Anne, reducing the rate of linterest to 5 per cent., extended to buth kingloms. The statutes prohibiting the taking of interest in Irelund wero not repealed until $t 635$, when the statute 10 ti Car. 1., cap. 22 , gave fiberty to stipulate for any rate not exceeding 10 per cent. In liot this rate was reduced to 8 per cent.; in 1722 it
was reduced to $\mathbf{7}$ per cent. ; and in $\mathbf{1 7 3 2}$ it was further reduced to 6 per reat.

France.-In Firance the rate of interest was fixed nt 5 per cent. wo carly ta 1665 ; and this, a fuw short intervals oniy excepted, continued to be the legal rate till the llevolution. Laverdy, in 1;66, reduced it from 5 to 4 per cent. Instead, hewever, of the market rate being proportionally reduced, it wua ruised from 5 to 6 per cent. Prevloualy to the promulgation of the edict, foans might have been obtalned un geod security at 5 per cent.; but an additional per cent, wan afterwurd required to cover the illegailty. Thin caused the npeedy abendonment of the nieasure.* 'The same thing happened In Livonia in 1786, when the Einiress Catherine reduced intesent from 6 to 5 per cent. Ilitherto, suys Storch (in loco cifato), these who had good security to effer were able to berrow at 6 per cent.; but thencaforth they hud to pay 7 per cent. or upward. And such wiil be found to be invurhably the case, when the legal is lese thun the market rate of interest.

It has been observed by Adam Sinith, that the statutory regulations, reducing Interest in England, were mude witil great propricty. Instend of precediuf, they foilowed the fail which was gradually taking place in the market rate of intereat, and, therefore, did not contribute, as they would otherwise have dune, to raise that which th. $y$ were intended to reduce. Sir Josiah Chilid, whose treutise, recomnending a reduction of interest to $t$ per cent., was originaily poblished in 1668, $\dagger$ states, that the goldsmiths of London, who then acted as hunkera, conid obtuin us mueh money us they pleused, upon their servants' notes only, ut If per cent. The supposed insecurity of the revolutionary estahitishent, and the novelty of the practice of funding, occasioned the payment of a high rate of interest for a large portion of the sums borrowad by the public in the reigns of William III, und Anne. But private persons, of andoubted credit, could then borrow at less thin s per cent. During the reign of George I1. the market rute of interent thuctuated irom 3 to 4 and $4 \frac{1}{2}$ per cent. $\ddagger$ Smith mentions that the inereased means of protitably investing capital nequired during the war, terminated iy tho peace of Puris in 17ti3, raised the market rate of interest to u level with the statutory rate, or perhajs higher. Ilut it was not until the subsequent European war that uny very material or feneral inconvenience was fund to result from the linitation of interest to 5 per cent.

It is neccasary, however, to observe, that this remark applies exclusively to loans negotiated by indiviluals who could offer unexceptionable security; for, since the act of 171.t, persons enguged in employments of more than ordinary hazard, or whose character for pradence and punctuality did not stand high, or who could ouly offer inferior security, were amble to borrow at 5 per cent., and were consequentiy compelled to resurt to a variety of schemes for defeating or evading the enuctments in the statute. The most common device was the sale of an anuuity. Thus, supposing an individual whose personal credit was indittirent, and who had only the liferent of un estate to give in necurity, wished to borrow, he sold an manaity to the lemder sufficient to pay the interent stipulated for, which, because of the risks and odium attending auch transactions, was always higher than the market rate, and aiso to piay the promitm necessary to insure payment of the principal at the death of the borrower. It is earious to ohserve, that though the salo of un ir-

- Storeh, Traite d'Economie Iolitique, tom. ili., p. 187.
$\dagger$ A second edition, very greatly entarged, was pubtished ts 1690.
$\ddagger$ On the 18th December, 1752, the 3 per cents. brought the highest priee they have littherto reached, namely, 1063 per cent. On the 201 h of Septeniber, 1797, the day on whilh the fallure of Lord Malmeabory'n altempt to negothate with the Freach repabilic transpired, consols fell to 47 , belag the loweat price at which they have ever beea sotd.
rodeemable life unnulty, at a rate exceoding legal interest, was not reckoned fraudulent or usarions, yet, so late as 1743, Lord Hardwicke held that, in their leas oxceptlonable form, or when they were redeemable, their sale could be looked upon in no other light than as an Invasion of the statute of usury, and a loan of money:* But the extreme fnexpediency of this distinction soon became obvions, and the law was changed. The grent extenolon of the tratio in annuitles; and the advantagn of giving as muoh puhlicity as posslble to auch transactions, led to variour inquiries and regulations reapecting them in the early part of the roign of George III. In coneequence, the sale of irredeemable annuities became nearly unknown ; and it was raled, that the sale of a redeemable annulty conld not be impeached, though it appeared on the face of the deeds that the lender had eecured the principal by offecting an assurance of the borrower's life.
During the greater part of the Frenoh revolationary war, the usury laws operated to the prejudice of all classes of borrowers. The greater extent and high interes "of the public loane, the facility of aelling out of the funds, tha regularity with which the dividends were pald, and the tomptations to speculation arising from the fuctuationa in the price of funted property, diverted so large a portion of the floatlag capital of the country into the coffers of the treasury, thit it was next to imposeible for private individnals to borrow at the legal rate of interest, except from the trustees of pablic companier, or through the influence of circuinstances of a very peculinr nature. . Hence, the proprietors of unencumbered freeholl estates, of which they had the absolnte disposal, were very genorally ohilged, when they had occasion for lonns, to rasort to those dextructive expedient, whleh had formurly been the resource only of opendthrifts and persons in desporate circumatances.

Committre on Uamry Sames.-The evidence annexed to the "Report of the Commlttee of the House of Commons, in 1818, on the Usury Laws," sets their Impolley and pernicioun Inficence in a clear light. Mr. Sugden, now Iord St. Leonarl, stated that when the market rute of Interent was atrove the legsl rate, the landed proprietor was compelled to resort to some shift to evade the usury lawn. He had "known annuitles granted for three liven, nt 10 wer eent., upon fee-s²:ajule estates, nnencumbered, and of great annual value, in a register couity. He had mlso known annuities granted for four lives; and more would have been dided, but for the danger of equity setting aside the transaction on acconnt of the inauequacy of the consideratlon. Jatierly, many ahnuities were granted for a term of yeurs certaln, not depending upon liven." On leing askel whether, were there not lawa limiting the rate of interest, better terms could or conld not have been obtained, he answered, "I am decidedly of opinion that better terma could have heen obtalned : for there in a atigua which nttuches to men who lend money upon annuities, that drive all respectable mien out of the market. Some leading men did latterly embark In such transactions, but $\bar{z}$ never knew a man of reputation in my own profession lend money in anch a mannef, atthough we have the bent meana of ancertainiag the safest mecurities, and of olstaining the bent terms."
"The laws againut noury," nayn Mr. Ifolland, of the honse of Menera. Haring Brotheim and Company, "drive men in distress, or in want uf money, to much more fisastrous modes of raising it than they would adopt if no nsury laws exinted. The man in trade, in want of momay for ma unexpected demand, or dilsupvolnted in his returns, mut fulfill tis engagements, or forfeit his credit. Ile might have borrowed money at © per cent., bint the law aliowe no one to lend it to

[^28]himi and he must sell some of the conumodity he holds, at a reduced prico, In order to meet his engago mente. For example, he holds sugar which is worth 800. ; but he is compelled to sell it immediately for 703. to the man who will give him cash for it, and thu actually borrowe money at 121 per cent., whioh, had the law allowed hlm, ho might have lorrowed from a money dealer at 6 per cent. It is known to every mexhant that cases of this kind are common occur. ennoes in every commercial town, and more especinlly In the i retropolis. ${ }^{l}$ A man in diatress for money paye more Inturest, owing to the voury laws, than he woild If no euch laws existed; because now he is obllged to go to some of the disrepratable money-lendern to bor. row, as he knows the respectable money-lender will not break the laws of his conntry: The disreputalle moner-lender knows that he has the ordinary risk of his dabtor to incur in lending his money, and he has further to encounter the penalty of the law, for toth of which riaks the borrower must pay. "If no usary Iaws existed; in common cases, and where a person is respectable, he might obtain a loan from the mespects. ble money-iender, who would then only have to calculate his ordinary risk, and the compensation for the use of his money."

The committee admitted the force of this evidence by ayreeing to the following resolutions: " lst. That it is the opinion of this committee, that the lawe regolating or reatraining the rate of intereat have been extenoively evadert, and have failed of the effect of impoaling a maximum on such rate; and that, of late yeary, from the constant exce日s of the market rate of interent above the rate limited by law, they hava adisd to the expenne incurred by borrowers on real security, and that auch bormwers have been compeiled to resort to the mode of granting annulties on lives; s morle which has been made a cover for obtaining a higher rate of interest than the rate limited ly low, and has further subjected the borrowers to enormons chargen, or forced them to make very disarivantageons salles cf their eatates. 2d. That it is the oplaion of this committee, that the conntruction of such laws, as npplicable to the traneactions of commerce ns at pres. ent carried on, have been attended with much uncertainty as to the logality of many tranasctions of frequent occurrence, and consequently been product. ive of much emlsarmasment and litigation. 3i. That it is the opinion of this committee, that the present periol, whon the inarket rate of intorest is below the legal rate, affords an opportnnity peculiarly favorabie for the repeal of the sald laws."
In aplte, however, of the recommendistien of the committee, and the cogent evidence on which it was founded, the popular prejudice continued so strong, that it was not till 1839 that a atatute wes pasgel, the 2 di aud 3 Virt., cap. 37, which exempted all hills of exchange and promiseury notes, not having more than twelve montis to run, and all contracta for sums shove $\mathbf{\ell 1 0}$ from the opzration of the uanry laws. It was onpponed, or at all oventa argued, that the repeal of the usury laws would tempt such Individunla as had money to lend, to indulgo in those mean and diseriditable practices which charucterize the lowest class of monevaienlery But it was more reanomully contenied, that in the event of the rate of intarat being left to le adjuatel by the free emppetition of the parties, there woull be little employment for inferior dealers. Kxcept when the market rate of interest was bolow the legal rate, the usary laws prevgnted ali persons, whone crodit was not extremely gooi, from ub taining loans from eapitalists of the highest character and forced them to have recourse to those who were less scrupulous. Supposing the market rate of interest to be 6 or 7 per cent., an indivkitual in ordinarily good eredit may, now that the unury lawe are abol lished, eaplly olvenia a loan at that rute. Hut when the law declared that no more than 5 per cent. ahould be
taken, those le and mo the mar of an in mlum fo tlon, re in such c to attemy position of transe desirable means. they wer ing, they vated the remove.
Nothlm againat $\mathbf{n}$ comparati spendthrif check that the securit nearly equ Itallst wh fermer, cel vents those porting us wealth, :
pursuits.
But perh object of th to force eap terms as prodlgai an maklig any given rate solieitade a Why fetter would turn It chance to squander it the of suffle of the legisl terdict: for to restrict high intere whose chare through thei that so long pay, he can than the min content to g rate of inter proxitgals to largest supp 100 per cent. hilhited thet money at mo any service, the prodigal. to a market action of the could ecarcel
The outer tallists for tal trious individ that which is of the proild to their chal meeting theid anmed otate capitaliat t vidnais, is, in refuses to len cireumstance th $y$ in good
taken, and, crusequently, affixed a species of stigma to those lenders who bargained for a higher rate, the rich and mere respectabie capitalista boing excluded from the market, borrowers were ebliged to resort to these of an inferior character, whe, in additien to the premium for the risk of eutering into an lllegal transaction, received an indemnification for the odium which, in auch cames, always attachen to the lender. It is idle to attempt to aecure individuals againat the riak of im position in pecuniary more than in any other speoles of transactiess. And, although the object had been dosirable, it could not be obtained by auch inadequate means. The usury laws generatod the very mischief they were intended to auppress. Instead of diminishing, they mrltiplied nsurious transactions, and aggravated the evila they were deaigned to mitigate or remove.

Nething can be more unressonable than the clamor agsinst meney-lenders, because of their exacting ? comparatively high rate of interest from prodigans and spendthrifts. Thia is the most proper and efficient check that can be put upon extravagance. Supposing the security of a prodigal and an industrions man to be nearly equal, and this is but seldem the case, the capitalist who lends to the latter in preference to the former, confere a service on the conmunity. He prevents those funds which ought to be employed in eupporting uasful labor, and in adding to the public weaith, ${ }^{\sim} \mathrm{m}$ being wasted in frivolens or pernicious parsuits.

But perhaps it will be anid that this is mistaking the object of the usury lnws; that they were net intended to fores capitalists to lend to spendthrifts on the same terms as to industrious persons, but to protect the prodigal and unwary from the extortion of uaurers, by making any stipulation between them for more than a given rate of interest null and void. But why nil this solicitude about the least valuabie class of seciety ? Why fetter the circulntion of capital among those who would turn it to the beat account, lest any pertion of it chance to fall into the hands of these whe would eqosnder it away? If the prevention of prodigality be of sufficient importance to justify the interference of the legislature, prodigals should he put under an intendict; for this is the only way in which it is possible to reatrict them. it is not hy horrowing meney at high interest, but iy centrastiaz delits to deaiers, on whose charge thore is no check, that spendthrifts run through their fortunes. Bentham has jnstly observed, that so long as a man is looked upon as one who will pay, he can much more easily get the goouls he wanta than the money to buy them with, though he were content to give for it twice or three times the ordinary rate of irterest. How contradictory, then, to permit provigals to borrow (for it was really borrowing) the iargest supplies of food, clothes, ctc., r $\$, 20,30$, or eveu 100 per cent. Interest, at the same tine that we prohibited them, and every one else, from borrowing money at more than 5 per cent.? Instead of being of any service, this restriction was evidently injurious to the prodignal. It narrewed his choice, and drove him to a market where no diagrace is attached to the exaction of the most exorbitant interest, and where he could searcely escape being ruined.

The cutcry which is sometimes raised against capltalists for taking advantage of the neceasities of indisstrious individuale, in seldom much better founded tisan that which is raised againat them for taking advantage of the prodigal or simple. Partien borrow accorling to their character for sobricty, and punctuality in meeting their ongagemente, and according to the p'esamed etate of their affairs at the time. To may that a capitailist takes advantage of the necessicise of .adividuaie, ie, in most csses, equivalent to saying that he refuses to lend to persons in suapicious or necessitous circumstances or the same terms he would do wero th $y$ in good credit, or were there no doubt of thelr
tolvency. And were he to act otherwise, would he be coneidered fit to be intrusted with the management of his nffaire?

But, as already eegn, whatever may be the extortion of lenders, the usu. y laws did not check'it. On the contrary; they compelled the borrower to pay, over and above the conimon rate of interest, is premium to indemnify the lenders for the risks incurred in breaking them. They attempter to remedy what was not an ovil, and what, consequenily, should not have been interfered with; and in dcing this, they necesearlly croated a real grievance. The wisdom of an nct of Parliament which should compel the underwriter, to insaro a ganpowder magezine and $c$ salt warehouse on the aame terms, would not be very evident. Yet it would not be more absuri than $C$ jnact that the eame rate of intereat shall be charged on capital leat on good, on indifferent, and on bad securities. "It is in vain, therefore," to use the werds of Locke, "to go about effectualiy to reduce the price of interest by law, ond you may aa rationally iope to set a fixed rate upon the hire of houses or ships, as of money. He that wants a vessel rather than lose his market, will not atick to have it at the market rate, and find mear s to do it with security to the owner, though the in ce were limited by lis ; and he that wants moray, ruther than loes his voyage or his trade, wili pay the naturel interest for it, und aubmit to auch whys of conveyance as ahall keep the lender out of reach of the iaw." ("Considerations of the lowering of interest and raising the value of money, 1691," works, vol. il., p. 7, Ito, 1777.) The case of Heliand furnishos a striking proof of the correctness of the theory we have been endeavoring to establish. The rate of intorest has been, tor a very long period, lower in Holinnd then anywhere else in Europe; and yet it is the only country in which usury iaws have been nitogether ur:known, where capitalists are alfowed to demand, and borrowers te pay, any rate of intereat. Strictiy spealing, this appilies only to the staie of Holland previously to the rovoiution in 1795. The enactmenta of the Code Napoleon were se beequently introduced; but it appenra, from the report of the Parliamontary Committee on the usury laws, that they havo net been acted upon. Not withatanding all the violent changes of the government, and the extraordinary disturbance of her financial concerns since 1790 , the rate of intereat in Iolland has continued comparatively steady. Inaring the whole of that period, persona who could offer unexceptionalile security have been able to borrow at from 2 to $5 \frac{1}{2}$ per cent. ; nor has the avorage rate of interest charged on oapitnl advanced on the worst apecies of security ever exceeded 6 or 7 per cent., exoupt when the government was negotiating a forced ioan. But, in this country, where the law declared that no mere than ${ }^{5}$ jer cent. shouid be taken, the rate of interest for money advanced on the beat landed security varied, in the same period, from 5 to 16 or 17 per cent., or above five times as much as in Holland.
In France the usury laws were abolished at tho Revolution; and it is stated that their abolition was not attended by any rise of interest.-STonch, Economie Politipue, tom. ill, pi 187. According to tho Code Napoleon, only 6 per cont. is aliowed to he charged on commercini loans, and 5 per cent. on those made on the security of real property. 'There is, however, no diflicuity in uvading the law. This is usually done by giving a bonus before completing the transaction, or, which is the aame thing, by framing the ohllgation for the debt for a larger sum than is reaily alwanoed by the lender. None of the parties ; artionlarly Interested can be called to pwear to the fact of such bonua being given; so that the transaction is unimpeachable, unless a third party, privy to the aettloment of the affuir, be produced as a witness.-E.B. The reader is referred to M'Collocu's Essay on Interest and Fixchange, pub. in Bankers' Mag., Now York.

TABLES OF INTERE8T AND ANNUITLRS．


| Years． | 3 per cont． | 4 per cent． | $41-2$ per cent． | － 5 per canl． | 0 per cent． | 1 per cont． | 8 per cent | 0 per cont． | 10 por cent． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1030009 | 1040000 | 1045009 | 1050000 | 1080000 | 1.070000 | 1080000 | $1 \cdot 690000$ | $1 \cdot 100000$ |
| 8 | 1.080900 | 1081600 | 1.092025 | 1.102500 | 1.128600 | $1 \cdot 144900$ | $1 \cdot 160400$ | $1 \cdot 188100$ | 12100011 |
| 8 | 1.092797 | $1 \cdot 124864$ | 1－141168 | 1－157625 | $1 \cdot 191016$ | 1.228048 | 1－259719 | 1295029 | 1.881000 |
| 4 | $1 \cdot 125008$ | 1－160858 | $1 \cdot 192518$ | 1－215506 | 1202478 | 1810796 | 1.860488 | 1.411081 | 1－464100 |
| 0 | $1 \cdot 158274$ | 1216658 | 1.248181 | 1－970281 | 1888225 | 1402551 | $1 \cdot 409928$ | 1.685623 | 1.610510 |
| 6 | $1 \cdot 194838$ | 1265819 | 1．80\％ 260 | 1840005 | 1.418519 | 1.501780 | $1 \cdot 689874$ | 1.677100 | 1.771561 |
| 7 | $1828 \times 78$ | 1816981 | $1 \cdot 8610361$ | $1 \cdot 407100$ | 1．604630 | $1 \cdot 605781$ | 1718824 | 1.828089 | 1948717 |
| 8 | 1266770 | 1868560 | 1－422109 | $1 \cdot 477455$ | 1.598848 | 1788186 | 1.800980 | 1292582 | $2 \cdot 143583$ |
| 9 | 1－804778 | 1.428911 | $1 \cdot 480095$ | 1－551828 | 1680478 | 1.888450 | 1.999004 | $2 \cdot 171898$ | 8857047 |
| 10 | 1848910 | 1．430244 | 1．052069 | $1 \cdot 628894$ | 1790847 | 1．967102 | $9 \cdot 158925$ | 2．807848 | 2.508742 |
| 11 | 1884888 | 1.539454 | 1.642358 | 1－710339 | 1.598999 | $2 \cdot 104851$ | 3.881689 | $2 \cdot 880426$ | 9．853116 |
| 19 | 1.425780 | $1 \cdot 601032$ | 1 －695881 | 1.795856 | 9.012196 | 2 －259191 | 2.818170 | 98818044 | $8 \cdot 189428$ |
| 18 | 1－4635＊8 | $1 \cdot 605078$ | 1.772196 | 1.885649 | 9．182929 | Q 400845 | 9．719628 | 8.045304 | $8 \cdot 452271$ |
| 14 | 1.612580 | 1781678 | $1 \sim 51044$ | 1988981 | $9 \times 260908$ | 2.578584 | 8.987198 | $8 \cdot 341727$ | 8.707493 |
| 15 | 1．857967 | 1.84094 | 1.085292 | 9－075024 | 97806558 | 2759091 | $8 \cdot 172169$ | 8.042482 | $4 \cdot 171248$ |
| 10 | 1－604：46 | 1.878981 | 9.022870 | $2 \cdot 152374$ | 9.540851 | 9.952168 | 8.425948 | 8－970805 | 4.304972 |
| 17 | 1．652847 | 1947900 | 8． 118876 | 9－292018 | 9.692772 | $8 \cdot 108810$ | 8700018 | 4.827688 | 5054470 |
| 18 | 1.702488 | 8.026816 | 9208179 | 9－406819 | 9－854389 | 8879932 | 8996019 | 4717120 | 5.509917 |
| 19 | 1.7503506 | $9 \cdot 106449$ | 28407860 | 9.520050 | 8.025509 | 8.616527 | 4818701 | $0 \cdot 141601$ | 6.115909 |
| 20 | $1 \cdot 806111$ | 9•191128 | 9＇411714 | 9•653297 | $8 \cdot 207185$ | 8．809684 | ＋660957 | 0.604410 | 6.727499 |
| 11 | 1－860994 | 9278768 | 9．88：241 | 2．785968 | $8 \cdot 909563$ | $4 \cdot 140562$ | 50888888 | $6 \cdot 108897$ | $7 \cdot 400249$ |
| 2980 | 1.916108 | 8.829918 | 9.6388654 | 8.925260 | $8 \cdot 603537$ | $4 \cdot 480401$ | $8 \cdot 436540$ | $6 \cdot 659600$ | $8 \cdot 141274$ |
| 88 | 1078586 | 9．465715 | 9.752100 | 8.071523 | $8 \cdot 818749$ | $4 \cdot 740529$ | 6.871468 | 7257874 | 8954302 |
| 24 | 9089794 | 9．563s ${ }^{\text {a }}$ | 9.876018 | 8 －220609 | 4048984 | 6．072996 | 6.841150 | 7.011088 | 9.319782 |
| 25 | 9.998777 | $9 \cdot 665886$ | 8.100543 | 8.386854 | 4291970 | 0．477492 | 6.848475 | 8.623080 | 10.884705 |
| 96 | g．156691 | 8.774400 | 8.140670 | 3 5853674 | 4.40388 | 5.807852 | 7306383 | 9889157 | 11.918176 |
| 27 | $2 \cdot 221239$ | 98383868 | $8{ }^{28821009}$ | 8.788456 | 4.828845 | 67218567 | $7 \cdot 888081$ | 10．245082 | 18.109304 |
| 88 | 228379，7 | 9998708 | $8 \cdot 429699$ | 8920129 | $5 \cdot 111686$ | 6.648888 | 8.627106 | $11 \cdot 167189$ | 14.42099 .3 |
| 29 | 2859565 | $8 \cdot 118651$ | $85 \mathrm{SH046}$ | $4 \cdot 116185$ | $5 \cdot 48887$ | 7114257 | 9817274 | $12 \cdot 172182$ | $15 \times 830095$ |
| 80 | $2 \cdot 497262$ | 8－248907 | 8.748818 | 4821042 | $5 \cdot 743491$ | 7 ＇12255 | 10.062056 | 18－267678 | 17.449402 |
| 81 | 2－500000 | 8878188 | 9018897 | 4\％98039 | 6．088106 | 8.145112 | 10.867669 | 14.481769 | $19 \cdot 194848$ |
| 88 | 9．575069 | $8 \cdot 008058$ | 41189881 | $4 \cdot 764941$ | 6.458836 | 8.715270 | 11787088 | $15 \cdot 763882$ | 21.11876 |
| 88 | 2．6524885 | $8 \cdot 648481$ | 197408 | 5008188 | 0－4th6s | $0 \cdot 824889$ | 12.676049 | $17 \cdot 162028$ | 2.142515 |
| 84 | 2－781905 | 8704316 | $4 \cdot 468481$ | 5.233447 | 7451025 | 0．975118 | 18.690188 | 18.728410 | 25.047665 |
| 85 | 8.818809 | $3.9460 \times 3$ | 4.60747 | 5019015 | 7.85601068 | 10．676581 | 14.783344 | $80 \cdot 418967$ | 28.1124886 |
| 86 | $2 \cdot 845178$ | $4 \cdot 109888$ | 4.677878 | 8.791816 | 8.147239 | 11.429042 | 15988171 | 92.251225 | 80.912680 |
| 87 | 8.983226 | $4 \sim 68089$ | 51996560 | 6.0814106 | $8 \cdot 6380 \times 7$ | $12-224615$ | $17-2.45623$ | 24258985 | 84.008945 |
| 88 | 8044788 | 4.488318 | 8.326219 | 6.85177 | $0 \cdot 154220$ | 18.07047 | 18.625 .275 | 98.486680 | 87．40＋843 |
| 89 | $8 \cdot 185026$ | $4 \cdot 616885$ | $5.065 \times 19$ | 6.704781 | \％ 7085017 | $18.99 \pm 820$ | $20 \cdot 115247$ | 28.815981 | 11．14477 |
| 40 | 8262097 | $4 \cdot 891020$ | 0．816894 | 7639893 | 10285717 | $1+97+457$ | 21.744521 | 81.409420 | 40.209225 |
| 41 | 8830：98 | 4.998061 | 6078100 | 7891959 | 10.902561 | ： 9422669 | $28 \cdot 4.6453$ | 84－236267 | $7 \times 181$ |
| 42 | $8 \cdot 406093$ | 0．1927N3 | 6851615 | 7.761597 | 11：557032 | $17 \cdot 144256$ | 25.399481 | 87.817931 | $6.7636 y 9$ |
| 43 | 8.564516 | $0 \cdot 400495$ | 6.637448 | $8 \cdot 140666$ | 12.250454 | 1584485 | 87866640 | 40.676109 | $60.24 \times 695$ |
| 44 | 8.671459 | 0.618516 | 61936189 | $8 \cdot 154150$ | 12.185481 | 19.624459 | 36.505971 | 44.886959 | 660264010 |
| 45 | $\bigcirc 781505$ | 6.81175 | 7245448 |  | 18.764610 | 21002451 | 81.02449 | $45: 327250$ | $72.49104 \times 3$ |
| 46 | 8.895448 | $607488{ }^{2}$ | 787419 | 9.434259 | $145904 \times 7$ | 22.472629 | 84.474035 | 52.876741 |  |
| 47 | 4015595 | $6817 \times 15$ | 7915063 | 0903971 | 15.465916 | 24046707 | 87.242012 | 57.417648 | 68．197445 |
| 44 | $4 \cdot 192251$ | 6.570029 | 8.271459 | 10．401269 | 16.898871 | 25.789906 | 40－210578 | 62.585737 | 97.017243 |
| 49 | 4356819 | 6.835949 | $6 \cdot 643871$ | 16921835 | 17：377504 | 27.528920 | 43.427415 | $6 \times 21790 x$ | lici 71508 |
| 20 | 4．85is908 | $7 \cdot 106638$ | 0.042630 | 10．467392 | 18．420154 | 20.457025 | 48.901612 | 74．857520 | 11789050 |
| 51 | 4.515428 | 7 7899950 | 9.489104 | 18.040769 | 19．525308 | 81818016 | 80．658741 | 81.049606 | 129－129938 |
| 82 | $4 \cdot 651845$ | 70.3688 | $9-56346$ | 19.812048 | 20.690855 | 88.725847 | 54.70640 | 88.84169 | 14：2442981 |
| 83 | 4 indiz | 7734032 | 10－197789 | 18.27944 | 21.083608 | 36096122 | 64／6⿺辶2584 | 96－29：14 | 1：6．247245 |
| 84 | 4934124 | 6．813814 | 10．77Live | 18983694 | 9：14．4．120 | 84.612150 | 68－809186 | 104261707 | 171．451947 |
| 85 | $5 \cdot 082144$ | 8.618966 | 11＋250344 | 14683639 | 24650681 | 41.815001 | 68.918556 | 114．414261 | 1594－69912 |
| 36 | ， 2234618 | 8998521 | 11．76248 | 15．367419 | 46．189340 | 44.207051 | 7．424904 | 124．700 015 | 204tatiostis |
| 57 | \＄891651 | 9851910 | 18－242163 | 16180iN8 | 27.697101 | 47 \％ 301045 | 8 r 381121 | $185 \cdot 1225.155$ | 224061502 |
| 88 | 6\％\％3410 | 0.720980 | 12.84017 | $16942 \mathrm{7} / \mathrm{d}$ | 29 3989827 | 80.092853 | 86.811611 | 148.162016 | 2.16897719 |
| 50 | 5.7201003 | $10 \cdot 115026$ | 18.4233505 | 17.759710 | 81.124648 | 861506130 | 98．750540 | 161．798isom | $270 \cdot 00 t+94$ |
| 60 | － 591608 | 10：819627 | 14027407 | 18.67 V 185 | 82.457690 | 57.946426 | 101－257063 | 176－ 181291 | 804.481639 |
| 61 | 00068351 | 10\％40418 | 18.65804 | 19.618145 | 81.940095 | 62.003676 | 109．8．77624 | 101．874109 | 831．9209093 |
| 62 | $6-251441$ | 113ivert | 15．818260 | $29.59: 1402$ | 87.04069 | 6631284 | 118．105284 | y0\％ 142777 | $804.424 \mathrm{c}^{3}$ |
| 68 | 6.43791 .8 | $11 \times 2{ }^{150}$ | 16 nofigaz | 21.693492 | $98.288,67$ | 71.94094 | 127．54i83 |  |  |
| 64 | 6.681401 | 12.816476 | 16．727044 | 22 714687 | 41.64198 | 759504045 | 187＊75017 | 248.452534 | tht 7915 |
| 6.5 | 8.829992 | 18．79733 | $17 \cdot 4 \times 1762$ | 28．889610 | 41.14971 | 61972401 | 148774846 | 270．545atis | $406370{ }^{2} 25$ |
| 66 | 7 0issat | 18．81u684 | 14．267894 | 25081595 | 46.793649 | 86961941 | $180 \cdot 682284$ | $5965 \times 2009$ | 880－ 017797 |
| 67 | 7.249923 | 18.543118 | 19.00846 | 20 7203410 | 49.605900 | 910049293 | 179.086818 | 881.79248 | 688．84 $357 \%$ |
| 88 | 7.408946 | $14 \% 96438$ | 19948485 | 27.697664 | 52.577367 | 92．514i49 | 187416758 | 850 \％\％assfo |  |
| 69 | 7 fisiz05 | 1＋874709 | 20， 4 ding | 2s9773s |  | 100682162 | 912， 418384 | $8 \pm 2$ 821179 | \％179817i4 |
| 70 | $7417 \times 21$ | 16571618 | 21.75485 | $80 \cdot 128185$ |  | 11.3783502 | $218 \cdot 606405$ | 416.780040 | －69．74930 |
| 31 | 8.15059 | 16191449 | 22764121 | 3101776 | 69\％20045 | 12196049 | 296.694918 | 454285793 | 64－721652 |
| 74 | 8.400017 | 16.412 .219 |  | 88．06134 | 96．377715 | 180.50655 | $20498 \times 511$ | 445117015 |  |
| 78 | 5656017 | 17.515952 | 24.40817 |  | 70－1645\％ | 189611908 | 275851118 |  | 1，051－159199， |
| 74 | 8911578 |  | 25－yi7u＊ | 86258510 | 74.6820 MI | $149.410 \times 10$ | 297.411601 | 64 $24.452 \%$ | 1，15R＂tixil9 |
| 75 | －175925 | 15445254 | 47．148996 | $8 \times 482055$ | 70 W5\％\％ | 159.976019 | 821 $12045 \% 2$ | 641．1903 ${ }^{\text {a }}$ | 1.87100631 |
| 76 | 4.454298 | 19．7034 64 | 94＊3－611 | 40.775320 | 33.5103434 | 171.062840 | 8 HL M0682 | $048.89>1678$ |  |
| 77 | －737432 | 24．491157 | 20 645194 | $42 \times 14066$ | $5 \times 42 \times 4 \times 6$ | 1480421084 | 874652908 | 761.705900 | 1，634－49899 |
| 78 |  | $81-210484$ | 4，1974283 | 44.948048 | 94，10． 4057 | 195－4．4909 | 4（1）46252m | 840 Simes 1 | $1,093 \times 426819$ |
| 79 | 10783961 | 2\％161268 | 82378298 | 479181879 | $99 \sim 07541$ | 2 mas bisuly | 436045216 |  | 1，842．15\％ 013 |
| 91 | 10.640596 | 83040708 | 85.280408 | 4y．5614 1 | 105－795by | 824246 ter | $47105+584$ | $9 \times 0.51818$ | 2，045 60024 |
| 81 | 1096：17 | 48971791 | 25－85：404） | 02049518 | 112.148783 | 230 989794 | （606） 711821 | 1，045841818 | 2，259．2＋1296 |
| 88 | $11.2 \times \times y 90$ | 24938062 | 38043811 | 34． 414 149 | 118．478378 | 2505720050 | DSA1 $4 \times 4118$ | 1，172 12 22016 |  |
| 8 | 11.687098 | $98.827 \times 48$ | 8\％ 6076 | 57894008 | 196047\％ | $874 \cdot 694766$ | St2097103 | 1，277618020 | 4．780－23065 |
| M | 11.976416 | 96，90504 4 | 4184\％${ }^{19}$ | （6） 242241 |  | $29852 \times 540$ | 642.099341 | 1，302．505192 | $2,999 \cdot 042754$ |
| 85 | 18325700 | $2504: 100.5$ | 42．15445 | 63．254is！ | 141.578904 | $814.603^{2} 25$ | 608．426488 | 1，517．988029 | R，209069429 |

> 29140

TABLES OF INTEREST AND ANNUITUES,
 onino Compound Interest, at 8, 4, 4t, 8, 6, 7, 8, 8, and 10 peb Cent.

| Yeast. | 8 per cont. | 4 par cent. | 41.2 per cont. | Sper cont. | 8 per cent. | 7 per cont. | 9 per cont. | 9 per cent. | 10 per cent. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 670878 | 961888 | -956987 | -952880 | 948896 | .984579 | . 925825 | $917481{ }^{\circ}$ | 909090 |
| $g$ | -942505 | 924is58 | 915749 | -907029 | -889996 | -878489 | ${ }^{-85} 588$ | -841679 | . 826446 |
| 8 | -910141 | 885996 | -878296 | 868387 | -889619 | -818297 | 753838 | T79188 | .751814 |
| 4 | -838487 | -854304 | -888561 | -822709 | 792098 | 762895 | 785029 | -708485 | -683018 |
| 5 | -862608 | -821927 | '802451 | 788596 | 747258 | 712986 | -650688 | -649981. | -620921 |
| 6 | -887484 | -790814 | 767895 | 746215 | 704960 | -666842 | -680169 | -598287. | 564478 |
| 7 | 818001 | -759917 | 784828 | 710881 | . 665087 | -029749 | -688490 | - 347084 | -618168 |
| 8 | -789409 | -780600 | 708185 | 676889 | -627418 | - 82009 | -540268 | -501868 | 468507 |
| 9 | 766418 | 702588 | -672904 | . 644608 | -601898 | -543988 | -500248 | $\cdot 460427$ | -424097 |
| 10 | . 744098 | . 67554 | $\cdot 648927$ | - 818818 | -568894 | -508849 | -468198 | - 422410 | -885048 |
| 11 | . 728481 | -649580 | 618198 | 584679 | 528787 | -475002 | -428882 | .887598 | -850498 |
| 19 | -701879 | -824597 | - 889683 | \$56387 | -496969 | -444011 | 897118 | 855584 | . 818630 |
| 18 | -680951 | $\cdot 600574$ | 584271 | 580321 | -408889 | - 114964 | -867097 | -826178 | 289664 |
| 14 | 661117 | 577476 | \$889972 | 605067 | -442800 | -887817 | $\cdot 840461$ | -299246 | 268381 |
| 15 | -641861 | -555264 | 516720 | $\cdot 481017$ | 417265 | -868446 | . 815241 | 274588 | -289899 |
| 18 | $\cdot 623168$ | -589908 | $\cdot 494469$ | -458111 | 898646 | -885784 | 291890 | -251869 | -217829 |
| 17 | -605016 | 515878 | -478176 | -488298 | -871864 | -816574 | -270268 | -281078 | - 197844 |
| 18 | -587894 | -498628 - | - 452800 | -415520 | -850848 | -295863 | $-250249$ | -211998 | -179858 |
| 19 | - 670286 | -474642 | -483801 | 905788 | -880518 | -276508 | 281712 | -194489 | -168507 |
| 20 | \%53676 | -450388 | '414842 | -876889 | -811804 | -253419 | -214548 | -178430 | '148848 |
| 21 | -837549 | -438888 | 898787 | \% 6.68942 | . 294155 | 241518 | -185655 | -163698 | -185180 |
| 82 | - 221892 | 421955 | -879700 | -8.1849 | 277505 | -225718 | -188940 | . 150181 | -122345 |
| 88 | 006691 | '405726 | 368950 | 885571 | 281797 | 210946 | -170816 | -187781 | 111678 |
| 24 | -491988 | -390121 | 847708 | -210067 | -246978 | -197146 | -157698 | -126404 | -101525 |
| 25 | -477605 | -875116 | -882780 | -295302 | -282998 | -184249 | -146017 | -115987 | -092296 |
| 26 | -403694 | -860689 | 818402 | -281240 | 219810 | -172195 | 185201 | -106392 | 0888005 |
| 27 | -450189 | 846816 | -304691 | -267848 | 207307 | -160980 | -125186 | .097607 | . 076277 |
| 48 | $\cdot 437076$ | -889477 | +291570 | -255098 | -195680 | -150402 | -115918 | . 089548 | . 069848 |
| 29 | - 42.4346 | -820851 | 279015 | -242948 | -184566 | -140568 | $\cdot 307827$ | . 082154 | -068039 |
| 30 | 411936 | 808818 | 207000 | 2818\%\% | -174110 | -182867 | 099877 | . 075871 | -057808 |
| 81 | 389987 | -296460 | 2505509 | 220959 | -164254 | -122778 | 002016 | -069147 | -052098 |
| 88 | .898837 | -285057 | -244499 | -209306 | -154957 | -114741 | 085200 | .068438 | -047869 |
| 83 | 877026 | -274094 | -238971 | -199872 | -148186 | -107934 | -078888 | $\cdot 058200$ | V48056 |
| 84 | 366044 | -263558 | -223895 | -100854 | -187911 | -100219 | 073045 | . 038894 | 089148 |
| 85 | 855938 | 269415 | 214254 | -181290 | -180165 | -093668 | -067634 | 048986 | -085584 |
| 86 | -945083 | 248668 | -205028 | -1726.37 | -122740 | -087835 | -062624 | 044941 | -082849 |
| 87 | -884982 | 284898 | -196109 | -184435 | - 115798 | -091808 | 257955 | 041230 | . 029408 |
| 83 | -825226 | 225235 | '287750 | -156605 | -109238 | . 076456 | -063690 | -087826 | 028784 |
| 89 | '815783 | -218820 | '179606 | -149147 | 108055 | . 071455 | -049718 | -034702 | 024804 |
| 40 | -306556 | 208289 | '171928 | -142045 | -097222 | . 066780 | -046030) | -031887 | -022094 |
| 41 | -297028 | 200277 | -164525 | -185982 | -091719 | 062411 | -042021 | 029208 | . 020086 |
| 48 | 285959 | -192574 | 157440 | - 228839 | -086527 | .058828 | -089444 | -028797 | . 018260 |
| 43 | 250549 | -185168 | -150860 | - 222704 | -081629 | 05.518 | -086540 | 024534 | -016600 |
| 4 | -272371 | -178046 | 144178 | - 216301 | -077009 | -054946 | 0839834 | . 022554 | -015191 |
| 45 | -264488 | -171198 | -187004 | -111296 | $\cdot 078650$ | -047013 | -031327 | - 020698 | . 018118 |
| 46 | . 296786 | -164818 | -182028 | -105996 | 463537 | $\cdot 044498$ | -029007 | -018988 | -012479 |
| 47 | 249258 | -108288 | 126898 | -100948 | -064658 | . 041507 | -026858 | -017416 | .011838 |
| 48 | 241998 | - 152194 | -120897 | -090142 | -060998 | -083866 | -024869 | . 015978 | -010807 |
| 49 | -234050 | -146341 | - 115601 | -001563 | -057545 | -086il94 | -028026 | $\bigcirc 014658$ | -009870 |
| 50 | -285107 | $\cdot 140718$ | '110709 | -087208 | .05<288 | -083947 | -021821 | -018448 | -008518 |
| 81 | -291403 | -183800 | -105942 | -083051 | -051215 | 091726 | -019741 | 012838 | 007744 |
| 82 | . 215018 | -130096 | -101850 | -079096 | . 048816 | 029651 | -018379 | -011819 | 00.7040 |
| 88 | 208780 | -125098 | -097014 | 076842 | 045881 | 427711 | -016925 | 010384 | 0004400 |
| 84 | -202470 | -180281 | $002 \sim 88$ | $\cdot 071742$ | 044001 | $\cdot 028818$ | 015671 | -009527 | 0008818 |
| 85 | -196707 | -115655 | 0683.39 | 064826 | .040667 | 024214 | 014510 | 008740 | 0005288 |
| 56 | -191036 | -111207 | -0s5018 | -065078 | $08 \times 271$ | 0224820 | -018435 | 008018 | 004308 |
| 57 | -18'471 | -100980 | -081858 | 061974 | . 080104 | 021140 | 012440 | $\cdot 007856$ | 004871 |
| 53 | -180069 | -102817 | $\bigcirc 077848$ | -059024 | 0034061 | 019757 | -011519 | 0006749 | -00:1978 |
| 69 | -174~98 | -008869 | $\bigcirc 074497$ | -056218 | 032188 | 018465 | -010665 | -000192 | -008812 |
| 60 | -169788 | -095060 | -071289 | 059385 | -080St4 | v17207 | 009875 | -005680 | 008254 |
| 61 | -161789 | -091404 | -002219 | -050980 | -025998 | 076129 | 000144 | 005211 | 002995 |
| 62 | -159989 | . 087888 | 000 csi | 048868 | 026970 | 015078 | -008460 | 004281 | $\cdot 002714$ |
| 69 | -1859899 | 084508 | -062473 | 046218 | -029458 | 014087 | 007830 | -004388 | $0^{00} 407$ |
| 64 | -150305 | 081258 | -059780 | $9+4048$ | 024011 | 018168 | 407259 | 004024 | -0122248 |
| 65 | . 146818 | 078189 | 057205 | . 041988 | . 0242902 | -012304 | f06721 | 0033698 | .002038 |
| 68 | -142148 | -075127 | -0,4742 | -019949 | 021870 | 011498 | 006228 | 014897 | 001858 |
| 67 | -188008 | . 072288 | -062845 | -088046 | -020160 | 010746 | -005708 | -008117 | 001685 |
| 6s | -183983 | 009459 | U50129 | -0뇌0244 | 019019 | -010048 | 0015935 | 002851 | 001582 |
| 09 | -180486 | $0667 \times 3$ | -047970 | -034519 | -017948 | -009394 | 004940 | 002015 | -001892 |
| 70 | -120297 | -064219 | . 045904 | -032800 | 016927 | -009778 | $\cdot 004574$ | 002390 | 001206 |
| 71 | -122018 | 001749 | 04.4928 | 081801 | -015909 | -00si198 | - 004235 | 002801 | 001151 |
| 72 | -119047 | 059874 | 042036 | 020810 | . 0150965 | '007602 | (1)249221 | 002010 | 001046 |
| 78 | $\cdot 118579$ | 167090 | -040220 | 024391 | .014212 | (107141 | -003681 | -001852 | - 000951 |
| 74 | - 112818 | 054895 | 038404 | 0270389 | 018418 | (1060312 | -0038362 | -001699 | -000464 |
| 78 | -108945 | 059788 | 0338236 | -025751 | 012049 | 00625 | 008118 | 001559 | -001786 |
| 76 | -100779 | -000768 | 0358250 | (124525 | . 0111888 | 0005515 | -002s42 | 001430 | - 000714 |
| 77 | -102601 | 044801 | -038788 | 023937 | -011257 | 000588 | 002609 | 901818 | -004649 |
| 78 | 049700 | 046924 | -049279 | 22\%245 | -010420 | 0085106 | -024471 | 011404 | -000510) |
| 79 | 0096748 | -045119 | 080*s9 | 021185 | -016019 | 400471 | -0,2298 | 001104 | n00487 |
| 80 | -093977 | 048834 | - 21450 | -020170 | . 009454 | -004459 | ,002118 | 4)01018 | - 304485 |
| 81 | -091289 | -041715 | -029288 | 010216 | '008917 | -001167 | -001901 | -000929 | . 000448 |
| 82 | 4888468 | (040111 | 027068 | 018301 | 000418 | 008395 | -001818 | -000858 | (0)0408 |
| 88 | -086002 | 298463 | 025902 | -017429 | 007986 | 008640 | v011488 | 000782 | 000306 |
| 84 | 0088497 | 047085 | 024797 | 016509 | .007438 | -018342 | n01357 | 100713 | 000389 |
| 85 | 081045 | 133068 | 428720 | 015800 | 007088 | 008179 | 001419 | 000658 | -000808 |

TABLES OF INTEREST AND ANNUITIES．
 6， $6,7,8,9$ ，and 10 per Cent．，at the end of elou Yhar fhom 1 to 80.

| Yana． | 3 per esent． | 4 per cent． | $41-2$ por cent． | 8 por cont． | 6 per eont． | 1 per eent． | 8 por censt． | 8 per cont． | 10 por cent． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1000000 | 1000000 | 1.000000 | 1.00 |  | 1000 | 1000000 | $1-000000$ | 1.1 （1）\％ |
| 8 | $9 \times 90000$ | 9.04000 | 8.045000 | 2.000000 | 8100000 | 8.070000 | 8.080000 | 9．090000 | 2100000 |
| 8 | 8.090940 | 8.191600 | 8.187025 | $8 \cdot 162500$ | 8.188600 | 8.214900 | 8.246400 | 8.978100 | 8810000 |
| 1 | $4 \cdot 188697$ | 4246464 | 4.278191 | 4810125 | 4．674616 | 44389.48 | 4506118 | 4578120 | $4 \cdot 641000$ |
| 5 | 5.309188 | 6．416843 | $8 \cdot 470710$ | 5.525081 | $5 \cdot 637098$ | $8 \cdot 750789$ | 8.866601 | 5.994712 | $6 \cdot 105100$ |
| 6 | 6.468410 | 6882978 | 6．716992 | 6.801918 | 6875819 | 7－158291 | 7885929 | \％－523885 | T．715610 |
| 7 | J．662469 | $7 \cdot 898294$ | 8.019159 | 8.142009 | 8.898888 | $8 \cdot 654021$ | 8.928808 | 9.200498 | $0 \cdot 478171$ |
| 8 | 8.892835 | 9214226 | $9 \cdot 280014$ | 9.849109 | 9.597468 | 10－259808 | 10.686028 | $11+128474$ | $11 \cdot 485893$ |
| 9 | $10 \cdot 150108$ | 10－58279 | 10．802114 | 11.02654 | $11 \cdot 491816$ | 11.977989 | 19.487558 | 18.121036 | 18.579477 |
| 10 | 11．468379 | 18.006107 | 12－238209 | 18.577898 | 18.180798 | $18 \cdot 816448$ | 14.486568 | 15.192080 | 15.987425 |
| 11 | 12.807796 | 18.486951 | 18.341179 | 1 4206737 | 14.971648 | 15.788599 | 10.645487 | 17．560293 | 18\％31187 |
| 12 | $18 \cdot 192090$ | 15.025805 | 15.464182 | 15.917127 | $16 \cdot 869941$ | 17889451 | 18.977126 | $20 \cdot 140780$ | 21.384484 |
| 18 | 15.617700 | 16.696838 | 17.159918 | 17．712938 | 18．832183 | $20 \cdot 140648$ | 81.405297 | 22.983385 | 24，522712 |
| 14 | 17.086394 | 18－291911 | 18.982109 | 19.593638 | 21.1015066 | 28.550488 | 24.214920 | 26.019189 | 27．97493： |
| 15 | 18.598914 | 20．028583 | 20.784054 | 21.678564 | 28.278970 | 25.129022 | $97 \cdot 152114$ | 29.860916 | 81.762492 |
| 16 | 20．156881 | 21.824531 | 22.719387 | 23．657499 | 25.672529 | 27.883004 | 80.824888 | 88.008499 | 85.949730 |
| 17 | 21.761548 | 23.697512 | 24.741707 | 25840966 | 29－212880 | 89.840217 | 88.750226 | 86.973705 | 40.544743 |
| 18 | 28.14445 | 25.645118 | 96.85804 | 28.182885 | 80.905658 | 83.909088 | 87.450244 | 41.801888 | 45899173 |
| 19 | 25.116863 | $27 \cdot 671229$ | 29．033569 | 80.838044 | 88.759900 | 87.878005 | 41.40268 | $46^{\circ} 018458$ | 51.169040 |
| 20 | 26.870874 | $29.7780 \div 9$ | 81－871428 | 88.065954 | 86.785591 | 40905493 | $45 \cdot 761984$ | $51 \cdot 160120$ | 87－274999 |
| 81 | 28 | 81.96 | 88.788 | 85.719259 | 89.992727 | 44865177 | 50.422921 | 58.76 |  |
| 29 | 80.536780 | 84.247970 | 96．803978 | 88.603214 | 43.892290 | 49.900789 | 65．456755 | $62 \cdot 878336$ | 71.412748 |
| 88 | $82 \cdot 452884$ | 80.617899 | $83-987080$ | $41 \cdot 480475$ | 46903823 | 68.438141 | 60－898296 | 69.681939 | 79\％43024 |
| 24 | $84 \cdot 426470$ | 89.092604 | 41.639196 | 44.501999 | B0． 315077 | 69.176671 | 66.764759 | 76.789818 | $89 \cdot 40782 \%$ |
| 25 | 86.4592 CM | 41.645908 | 44.565810 | $47 \cdot 727099$ | 54.864512 | 69.240988 | 78.105940 | $84 \cdot 700896$ | 98.8471059 |
| 24 | $88 \cdot 553048$ | 44811745 | 47570845 | $51 \cdot 11845$ | 89．158388 | 6＊－674470 | 79954415 | 98.323977 | $109 \cdot 181765$ |
| 97 | 40.709684 | 47.034214 | 50.711824 | $6+669128$ | 63.705766 | 74．489828 | 87850763 | 102．124185 | －11099942 |
| 43 | 42.930923 | 49967588 | 58.998383 | 5， 4128.583 | 6 S 548112 | 80.097091 | 95.838830 | 112065217 | $184-209856$ |
| 29 | $45 \sim 15850$ | 52．9662＊6 | 57.428083 | 62．822212 | 78.639798 | 57．84（35）29 | 103905986 | $12+133856$ | 145.630983 |
| 80 | $47 \cdot 578416$ | 56081938 | 61.007070 | 66.434348 | 79058188 | 94．460756 | $118.2 \times 3211$ | 186．307589 | $16+49+423$ |
| 31 | 80.00267 | 59.823835 | 0.782838 | 70．760790 | $8 \cdot 9016$ | 102.07 | 123.345863 | 149．575217 | 181．943125 |
| 89 | 52.802759 | 69.707469 | 6 6866245 | $75 \times 98829$ | 90.889775 | 11021815 | $134-218597$ | 164.086987 | 201．187\％67 |
| 33 | 85077841 | 66.209527 | 72．750220 | 80.063771 | 07848165 | 118．0329425 | 145.0501620 | 179＇8100815 | 222.251544 |
| 34 | 57－280177 | $80 \cdot 857919$ | 771390236 | 85066959 | 104．189755 | 124－258765 | 169－826670 | 198.932944 | 24546699 |
| 85 | 80.462052 | $78 \cdot 652225$ | 81.496618 | $90 \% 20337$ | 111 4i4iso | 185.286578 | 172\％10404 | 915．71075 | $271.02436-$ |
| 86 | 69.276944 | 77.598314 | 86.163968 | 95＊＊36428 | 1：9－121）517 | 148.918460 | $197 \cdot 102148$ | $238 \cdot 124729$ | 299 126845 |
| 87 | 66.174228 | \＄1．702246 | 91041844 | 101 fext89 | 127－218119 | $160 \cdot 887402$ | 208.070320 | 258．87594 | 830（1899＋4 |
| 88 | $69 \cdot 150440$ | S5－970336 | 96－188205 | 107.709546 | 185904846 | 178.561020 | 220815945 | 259.029783 | 864.04344 |
| 89 | 72－234238 | D0，409150 | 101.46424 | $14.005+28$ | $145 \cdot 04858$ | 1556412292 | 938994181 | 809 （666468 | $401 \cdot 4477$ |
| 40 | 75．401260 | 05025516 | 107.030358 | 120．790754 | 154•761900 | 198－635112 | 259－056519 | $897.8 \times 2445$ | 442．542530 |
| 41 | 78.6 | 90－82693 | 118－346638 | 127 ¢59769 | 165．147694 | 2148109570 | 280.781040 | 369－291805 | 457 ．981511 |
| 42 | 84.023196 | 104－519503 | 118－124259 | 1285231351 | $17505+545$ | 230.632440 | 8042485283 | 403．523189 | 837 |
| 43 | 65.438382 | 110.012332 | 125.270414 | 142．9983919 | 187．507537 | 247.776496 | 329.583005 | 40.845665 | 92 fine 69 |
| 44 | 89.04849 | 115．412－37 | 181.91842 | 151.1481016 | $199.75 * 1382$ | $266 \cdot 120451$ | $856-949646$ | 431.521775 | 6 T 2 6 40761 |
| 45 | 92.719561 | 191 trese9 | $188.54900{ }^{5}$ | 159．7601．56 | 212－74 514 | 955.740311 | 888 \％15 817 | 625 $558 \times 94$ | 718964837 |
| 46 | 96.601457 | 120－870403 | 146109874 | 163．655164 |  | 300．751768 | $418 \cdot 426007$ | 574.1861221 | 791.70 ¢02 1 |
| 47 | 100.390501 | 182－945300 | 153－472133 | 174－119422 | 241195612 | 8290 244386 | 452.900152 | $626 \cdot 862762$ | $871.974{ }^{\text {a }}$ ， |
| 48 | 104.4158198 | 189－26s216 | 161.5579012 | 158025\％93 | 256.664529 | 988－770988 | $490 \cdot 182164$ | 684240411 | 964 17283 |
| 49 | $109 \cdot 44648$ | 145 $83 ; 7784$ | 169 －500：57 | 198． 226643 | 272\％ 51401 | 875.999000 | 893042737 | 746－865644 | 1057．14352 |
| 30 | 112：79646？ | 152.667054 | 175 503302 | 209：37993 | $200 \% 35905$ | $408 \cdot 5206129$ | 578.770158 | 815083556 | 11634059\％ |
| 81 | 117．180778 | 159.773707 | 197.535665 | $2 \cdot 31315195$ | 308．7501059 | 435 －95935 | 020.671769 | 889.441076 | 1251－299392 |
| 52 | 121.896197 | 187－101718 | 196974iti9 | 282.460165 | 82－251422 | 467：304971 | 671825510 | 970.491778 | $1410 \cdot 429320$ |
| 53 | 126．37032 | 174．851：316 | 206.588184 | 245 49， 974 | $84 \times 9$ ¢ки） | $501-284819$ | 7261031551 | 1058834948 | 10．52 ${ }^{2} 722352$ |
| 54 | 181．137495 | 192 545\％59 | 21714 （0）78 | $25 \times 733024$ | 370917106 | 137.31642 | $735 \cdot 114075$ | 1155.130108 | 170471947 |
| 5 | 186．0736\％0 | $191 \cdot 159173$ | 227.917059 | 972．712615 | 898－1721227 | 5：5．1225948 | $84892 \times 201$ | $12830-001796$ | 148） 391425 |
| 56 | 141／138768 | 199.45540 | 299174268 | 295848240 | $418 \cdot 5222348$ | $61: \sim 2+304$ | 917 －871158 |  | 2thes dinowit |
| 57 | 146838381 | 205797769 | 2501882110 | 342.715802 | 414－951649 | $001 \cdot 4.50846$ | $992 \cdot 264122$ | $1490-205088$ | 277761564 |
| ${ }^{68}$ | 151.740088 | 218.149072 | 964－2292＞0 | $818 \times 3145$ | 472.645790 | $708 \cdot 752101$ | $1072 \cdot 645144$ | 16：5．133518 |  |
| 59 | 15783844 | \＄27－3t5659 | 276074597 | 235794117 |  | $759 \cdot 36454$ | 1159 4 46675 | 1759－24．583 | 275＊014905 |
| 60 | 189.058187 | 237.993645 | 24949 Cl 5 |  | 5391ら141 | 818．5903 ${ }^{\text {a }}$ | 1258－218490 | 194．7921＊ | 8024－516493 |
| 61 | $180 \cdot 245040$ | 248510818 | 913：32\％362 | 372－262004 | $506 \cdot 11.5472$ | 571．400410 | 1354 470360 | 2120－523425 | 8838.298128 |
| 02 | 175 013491 | 2.9746073 | 815 tistuns | $891-38449$ | $4110 \mathrm{~W} 2 \times 24$ | $933 \cdot 66947$ | 1468．227035 | 2412．0975 ${ }^{\text {a }}$ | 867425 |
| 63 | 1512681798 | 271）．428754 | 9：33－50245：1 | $412.499 \times 51$ | 695147803 | 993－512351 | 158t－984247 | 2521 814811 | 60423m4\％ |
| 64 | 197601／07 | 292.661104 | $349509 \times 5$ | 4340034， | $677-186661$ | $1170 \cdot 700: 16$ | 1709.402983 | 2749 ¢1059：19 | 4147．91565 |
| 65 | 194832758 | 294－96以 ${ }^{\text {a }}$ | 8002037531 | 456．79w）11 | 719032＊01 | 11．46－755161 | 147\％ 244 ms | $29082 \mathrm{CH}=4$ |  |
| 66 | $201 \cdot 162741$ | 307.767116 | 843714548 | tsurgit912 | 76382 L －82 |  | 109622tira | 8249134 Har |  |
| 07 | $2 \mathrm{C} \cdot 197628$ |  |  | 505．669407 | 8161415152 | 1814．94．9988 | 2150.710163 | 3561．8393835 | 59234 4776 |
| 68 | 21544251 | 884024918 | 4210.75241 | 5919.35294 | \＄89．624\％92 | 1405109298 | 2330246977 | $8546.14 \times 621$ | 6516－4384 |
| 60 | 222900645 | 8491117549 | 411023617 | 159：54004 | 912＊201係 | 1017.602135 | 4517 666735 | ＋236．912000 | 7169：517ก 5 |
| 10 | $289 \cdot * 2404$ | 304－490． 49 | 461 ＇6696s0 | 588.585511 | 967 293 170 | 1011－131\％4 | 2isuosmit | $4619 \times 2231 \times 1$ | 9364 |
| 71 | 228.511886 | 879862077 | $459+68515$ | $01 \sim 954988$ | 1027 00x 100 | 1724－12356 | 2089 690480 | 5085.9898986 | S677．216mis |
| 72 | 246 657418 | 896.15650 | 506.415287 | 850 \％oxhti | $1109564 \times 3 \times 8$ | 1600492216 | 3174．781598 | 59191.1 （901841 | 9345：93－174 |
| 78 | $2 \times 506720$ | 412 －60x＋z | （380）207647 | 644．447， 17 | $11561 \mathrm{mPC} \times 1$ | 10：54－595071 | 3429．764010 | 59xs 806075 | 14501（5x1938 |
| 14 | 204.712376 | $430 \cdot 614776$ | 8551068975 | 7190702105 | 1226＂166079 | 212024575 |  | 6524．943822 | 15520 6xit9 |
| 75 | 2796406 | $44 \cdot 631367$ | 551044368 | 756 chast18 | 18909.943 | 2203 tis7 119 |  | 7118.24214 | 12705953711 |
| 76 | 251\％408781 | $467 \cdot 576021$ | 608．1914is | 705.48644 | 18＊）Whabil | 2429：04488 | 4528．261151 | 7756425441 | 139 mis \＄9045 |
| 77 | 291284775 | 457－279686 | C36550969 | －36986ates | 1463800983 | 2040）．601779 | 56\％0．652447 | 9453921115 | 15879－983991 |
| \％ | 801 001997 | 507.770474 | 6862005168 | 879078761 | 1552 63428 | 2753.642898 | 5015815011 | 02151201015 | 1691s．9278901 |
| T9 | 815188465 | 529.051708 | 697.144401 |  | 1646．792：30 | 2979－407＞31 | S 54944 （r） 11 | 10045－$=1517$ | 14611：801483 |
| 90 | 381 30：3019 | 851241976 | T29：307699 | $961-229421$ | 1748．590＜91 | $8159.0026 \times 0$ | 89860303－124 | 10550 574050 | 204740 214 |
| 81 | 8329003909 | 8：4\％34766 | 769\％85705 | 1026790262 | 1859－998v93 | 41829t06t | 6348.890268 | 11887 125754 | 29392 412860 |
| 42 | 81896.0026 | $598 \% 61566$ | $795 \cdot 741248$ | 1075－629775 | 1904：39933 |  | 6868 coltst | 13012.467077 | $24770 \cdot 64296$ |
| 88 | 354252947 | 023197250 | 535.643557 | 1127．47124 | 2093 412016 | 8009－1588312 | T 419.049008 | $141 \times 48011$. | 27251－406＊56 |
| 4 | 365 －8＊15136 | 049125119 | 874 2ws 817 | 1193－414＊y | $2200 \cdot 416787$ | 4184．R40579 | 8018.016770 | 15462，202134 | 29941627342 |
| 45 | 377 K56M52 | 676 （W）191 | 914 642336 | 1815087009 | 2342981741 | 478＊76120 | 8655.706118 | 10354800\％20 | $82079 \times 69293$ |

tV．－Table Years． 8 p



## TABLES OF INTEREST AND ANNUITIES.

IV.-Table binowing tir Presert Value of an Annoity of fl pee AnNum, to continue foz any given Nuyber of Yearg, from 1 to 85 , geceoning Compound Interest, At $8,4,4,6,6,7,8,9, A N D 10$ per Cent,

| Years. | 8 per cent. | 4 par cent. | 4 1-9 per cent. | 5 per cont. | ${ }^{5}$ per ceat. | $\boldsymbol{7}$ per cont. | 8 per cent. | 9 per cent. | 10 per cost. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Y70374 | 961538 | -956088 | -052881 | 943896 | 984579 | -259926 | 917481 | 909091 |
|  | 19.8470 | 1886005 | 1-872668 | $1 \cdot 850410$ | $1-898898$ | $1 \cdot 808018$ | 1.788865 | 1759111 | 1785087 |
| 8 | $2 \mathrm{4} \cdot 11$ | 2.775091 | 2748964 | 8.728248 | 8-678018 | 2.624816 | 9.577097 | $2 \cdot 681295$ | 2-486858 |
| 4 | 8717098 | 8624895 | 8.687526 | $8 \cdot 545851$ | $8 \cdot 4 c^{2} 106$ | 8887211 | 8.812127 | 8289720 | $8 \cdot 189865$ |
| 5 | 4379707 | $4 \cdot 481889$ | 4889977 | $4 \times 829477$ | 4212844 | $4 \cdot 100197$ | 8.992710 | 8.889651 | 8.790787 |
| 6 | 6.417191 | 8.242187 | ${ }^{5} 187872$ | 8.075699 | 4.917824 | 4.766540 | 4622880 | 4.485919 | 4855261 |
| 7 | 6290288 | 6002085 | $5 \cdot 892701$ | $8 \cdot 786978$ | 5-582881 | 5889289 | 8208870 | 6.082988 | $4 \cdot 868419$ |
| 8 | 7819892 | 6.782745 | 6-090386 | 6-468918 | ${ }^{6} 209704$ | 5-971299 | - 746689 | $5 \cdot 684819$ | 5.334926 |
| 9 | 7.780109 | 7.485889 | T-268790 | 7-107828 | $6 \cdot 801692$ | 6.618232 | 6946888 | 5-995247 | 5.759024 |
| 10 | 8.580208 | $8 \cdot 110898$ | 7.912718 | T.721785 | 7-860087 | 7.020 582 | 6.710081 | 6-417658 | $6 \cdot 144605$ |
| 11 | 8.252624 | $8 \cdot 760417$ | 9-528917 | 8808414 | 7.886875 | 7.498674 | $7 \cdot 188964$ | 6.805191 | 6.495061 |
| 12 | 0.054004 | 9885074 | $0 \cdot 118581$ | $8 \cdot 863252$ | 8.888844 | 7.942686 | 7.636078 | 7-160725 | 6.818692 |
| 18 | $10 \cdot 614955$ | $9 \cdot 985848$ | 9.682S52 | $9-898578$ | 8.852688 | 8.857051 | T.908776 | 7488904 | $7 \cdot 108858$ |
| 14 | 11-296078 | 10568128 | 10-222825 | 9-805641 | 9-294984 | 8.745468 | 8.244297 | 7.786150 | 7806687 |
| 15 | 11.987985 | 11.118887 | 10.789546 | 10.879658 | 9.718249 | $9 \cdot 107914$ | $8 \cdot 559479$ | 8.060688 | T. 606080 |
| 18 | 12.561102 | $11 \cdot 652296$ | 11-284015 | 10.887770 | 10.105895 | $9 \cdot 446649$ | 8.651809 | 8.812568 | T-823709 |
| 17 | $18 \cdot 186118$ | 18.165669 | 11.707191 | 11274086 | $10 \cdot 477260$ | $9 \cdot 763228$ | 9-121638 | $8 \cdot 548681$ | 8.021558 |
| 18 | 18.753818 | $12 \cdot 659297$ | 12-159998 | 11.659887 | 10.897608 | 10.059087 | 9871887 | 8.755625 | $8 \cdot 211412$ |
| 19 | 14.828799 | $18 \cdot 183989$ | 12.598294 | 12085321 | $11 \cdot 108116$ | 108883595 | $9 \cdot 608599$ | 8.050118 | 8.864920 |
| 20 | 14.877476 | 18*500826 | 18*007888 | 124/2210 | 11.469921 | 10594014 | $0 \cdot 818147$ | $9 \cdot 128546$ | 8.518504 |
| 21 | 15-415024 | 14029160 | 18.404724 | 19.821153 | 11.764077 | 10.885527 | 10.016908 | 9892244 | 8.649694 |
| 28 | 15.986917 | 14.4\%1115 | 18.784425 | $18 \cdot 163003$ | 12.041588 | 11.961241 | 10200744 | 9.442445 | 8.771540 |
| 28 | $16 \cdot 443608$ | 14.866449 | 14.147776 | 18.488574 | 12.803879 | $11 \cdot 272187$ | 10-871059 | 9.880207 | $8 \cdot 888218$ |
| 24 | 16.985542 | $15 \cdot 246968$ | 14.495478 | 18.793642 | 12.550358 | $11 \cdot 469834$ | 10.528758 | $9 \cdot 708812$ | 8084744 |
| 28 | 17418148 | $15.6222^{30}$ | 14828209 | 14.008945 | 12.788986 | $11 \cdot 653888$ | $10 \cdot 674776$ | 9.822580 | 9.077040 |
| 20 | 17.876848 | 18.982i69 | 15.14i611 | 14.878185 | 18.008166 | 11.825779 | 10.809978 | ¢ 9288974 | $0 \cdot 160945$ |
| 27 | 18.827031 | 168829586 | $15 \cdot 451803$ | 14.648084 | 18.210584 | 11.886709 | 10.985165 | 10.026580 | 9.287228 |
| 28 | 18.764108 | 18.863083 | $15 \cdot 742874$ | 14'508127 | 18406164 | 12.187111 | 11.051078 | 10-116128 | $9 \cdot 806587$ |
| 29 | $19 \cdot 183455$ | 16.958715 | 18.021889 | $15 \cdot 141074$ | 18.500791 | 12-277674 | 11-158406 | $10 \cdot 198288$ | 9869606 |
| 80 | 19.600441 | 17-298058 | 10-288889 | 15.372451 | 18764891 | 12•409041 | 11257783 | 10-278654 | $0 \cdot 426014$ |
| 81 | 20.000428 | 17.588494 | 16\% 644891 | 15.592811 | 18.929086 | 12.681814 | 11.848709 | 10.842502 | 18 |
| 82 | 20.385788 | 17.873552 | 16.788891 | $15 \cdot 502677$ | 14.084048 | 12.646505 | 11.484999 | $10 \cdot 406240$ | 9.626876 |
| 83 | $20 \% 65792$ | $18 \cdot 147646$ | 17.422862 | 16-002549 | 14'230230 | 12.758790 | 11.518888 | 10*464441 | $9 \cdot 669489$ |
| 84 | 21.181887 | 18.411198 | 17.246788 | 16.192904 | 14.368141 | $12 \cdot 854409$ | 11.556984 | 10.517835 | $9 \cdot 608575$ |
| 85 | $21 \cdot 487220$ | $18 \cdot 664613$ | $17 \cdot 461012$ | 16.874194 | 14.498246 | 12.947872 | 11.654568 | 10.086821 | $9 \cdot 644159$ |
| 86 | 21.832252 | $18.905^{\prime \prime} 282$ | $17 \cdot 606041$ | 16-546832 | 14.620987 | 18.035203 | 11.717198 | 10.611768 | $9 \cdot 676503$ |
| 87 | 29.167285 | $19 \cdot 142579$ | 17.862940 | 16.711297 | 14.786780 | 18.117017 | 11.778179 | 10.652998 | $0 \cdot 705917$ |
| 88 | 22:492462 | 19.807864 | 18.049990 | 16.867598 | 14.846019 | 18.198478 | 11.82886G | 10690520 | 9.782651 |
| 89 | 22.808215 | 19.654485 | $18-229650$ | $17 \cdot 017041$ | 14-949475 | 18.264028 | 11.878582 | $10 \cdot 725528$ | 9.756958 |
| 40 | $28 \cdot 114772$ | 10:792774 | $18 \cdot 40$ t634 | $17 \cdot 169086$ | $15 \cdot 040297$ | 18.331709 | 11.924813 | 10.757860 | 9.779051 |
| 41 | 23.412400 | $19 \cdot 998059$ | $18 \cdot 566109$ | 17.294368 | 15-188016 | 18:894180 | 11.067295 | 10.786509 | 9.799187 |
| 42 | 28.701859 | $20 \cdot 183627$ | $18 \cdot 728350$ | $17 \cdot 428208$ | 15.224543 | 18.4524 .49 | 12.006699 | 10.813366 | $9 \cdot 817397$ |
| 43 | 23.981902 | 20.870795 | 18.874210 | 17.545012 | 15.306178 | 13.506962 | 12.048240 | $10 \cdot 887051$ | 9. 833098 |
| 44 | 24.254274 | 24.548841 | 19.018989 | $17 \cdot 662778$ | 154883192 | 18*557908 | 12.077074 | $10 \mathrm{S60505}$ | 9.849188 |
| 45 | $24 \cdot 518718$ | 20.780040 | $19 \cdot 156847$ | 17.774070 | 15-456883 | $13 \cdot 145022$ | $12 \cdot 108412$ | 10.881197 | $9 \cdot 562808$ |
| 46 | $24 \cdot 775449$ | 20.884654 | 19-288371 | 17.884067 | 15.5244370 | 18.650020 | 12187400 | 10.900181 | 9.675280 |
| 47 | 25.024708 | 21042836 | 19.414709 | 17.081016 | 15.589028 | 13.691608 | $12 \cdot 164267$ | $10 \cdot 917597$ | $0 \cdot 856618$ |
| 43 | $25 \cdot 266707$ | 21-195181 | 10.5956607 | 18.077158 | 15660027 | 18.780474 | $12 \cdot 189186$ | $10 \cdot 088575$ | $0 \cdot 898926$ |
| 49 | 25.501857 | 21.341472 | $19 \cdot 651298$ | $18 \cdot 168728$ | $15 \cdot 707578$ | 13.760799 | 12212168 | 10.948284 | 9806296 |
| 50 | 25.729764 | $21 \cdot 45815$ | 10.762008 | 15"250925 | 15.701501 | 18:800746 | 12.283455 | 10.961683 | 9814814 |
| \$1 | 25051227 | 21.617105 | 19-867950 | 18.385077 | 15.818076 | 18.892478 | 12.258227 | 10.974021 | $0-922550$ |
| 52 | $28 \cdot 160240$ | $21 \cdot 747532$ | 19.9698881 | 18.418078 | 16.561898 | 18.562124 | 12.271506 | ${ }^{10.986840}$ | 0.920599 |
| 53 | 26.874990 | 21.872675 | 90.0163845 | 18.488403 | 15.906974 | 18.689 86 | 12.288482 | 10.005725 | 0.985999 |
| 4 | 26.577060 | 21092957 | $20 \cdot 180151$ | 18.565140 | 15.049076 | 18.915735 | $12 \cdot 304108$ | 11005252 | 9.91817 |
| 85 | 26.77428 | $28 \cdot 105612$ | 20.218021 | 18.688472 | 15.900548 | $18 \cdot 980939$ | 12318614 | 11.013998 | 9.947107 |
| 86 | 26.965464 | 24210810 | 20.883034 | $18 \cdot 6985+5$ | $16 \cdot 028814$ | 18.9625450 | 12:8820 0 | 11.022018 | $0-881915$ |
| 57 | 27150936 | 228826749 | 20.414387 | 18760519 | 16064919 | 18.983701 | 12.844491 | 11.029848 | 94562256 |
| 58 | $27 \times 811605$ | 22.429567 | $20 \cdot 492250$ | 18519042 | 18.095080 | $14.003-59$ | 12.356010 | 11.084118 | 0.960260 |
| 59 | $27 \cdot 005481$ | $22 \cdot 825430$ | 20.5667788 | 18.875754 | $16 \cdot 181113$ | 14.021924 | 12366676 | 11.042810 | 9069878 |
| 60 | 2767504 | $22 \cdot 628490$ | 20.638022 | 18.929990 | 16.101428 | 14.089181 | 12.876552 | 11.047981 | 9.967157 |
| 61 | 27.840358 | 22.714894 | $2070624 t$ | 18980276 | 16.190026 | 14068309 | 12387493 | 11.053203 | 9.970148 |
| 68 | 28.00084 | $22 \cdot 502788$ | 20.771523 | 19.258884 | 10-217006 | $14 \cdot 070823$ | $12 \cdot 89+169$ | 11.057084 | $9-972857$ |
| 68 | $25^{\circ} 155678$ | 22.587291 | 20.839998 | $19 \cdot 075080$ | 10242458 | 14.094470 | 12.402008 | 11.862871 | 9.978825 |
| 64 | 28.804478 | $22 \cdot 98-849$ | 2. 8883778 | $19 \cdot 119124$ | 16206470 | 14.497635 | $12 \cdot 409264$ | 11.0 His95 | 0.977568 |
| 65 | 28.452491 | 28046682 | 20.0441979 | $10 \cdot 161070$ | 16289123 | $14 \cdot 169940$ | 12.415083 | 11.070487 | 9.979607 |
| 66 | 28.593040 | 29.121810 | 21.005722 | $19 \cdot 201019$ | 16.310498 | 14.121439 | 12.42207 | 11.07475 | 9.981461 |
| 67 | 28.794049 | 28.194018 | 21.058107 | 10.289660 | 16.830654 | 14.192186 | 12.427969 | 11.076582 | 9.988147 |
| 4 | 24.867038 | 288268307 | $21 \cdot 104288$ | $10 \cdot 275801$ | 168490678 | 14.142230 | 12.435:105 | 11.679488 | 9084679 |
| 69 | 28-997128 | 98.880296 | $21 \cdot 158207$ | 19309810 | $16 \cdot 367617$ | $14 \cdot 151617$ | 12.438\% 45 | 11.082049 | 9.986071 |
| 70 | $29 \cdot 124421$ | 28.894515 | 21202114 | 19:342077 | 16.38454 | 14.1608s9 | 12.442520 | 11.081440 | 0.887883 |
| 71 | 29.246040 | 28.450204 | 21-246440 | 19.873973 | 16.400518 | 14.164888 | 12.447055 | 11086650 | 0.988430 |
| 72 | 29865037 | 28.815889 | 21.288077 | 19.4143784 | 16.415.78 | $14 \cdot 176261$ | $12 \cdot 450977$ | 11488670 | 0.969595 |
| ${ }_{6}$ | 24.496667 | 28.572780 | 218488803 | 10.482179 | 16.420791 | 14.163412 | 12. 451648 | 11.890528 | 9.990487 |
| 74 | 29.99281 | 23.627625 | 81.806797 | 19 459218 | 18.443109 | 14.190104 | $12 \cdot 457971$ | 11.092228 | 9.991351 |
| 75 | 99701828 | 28.640408 | 21.403684 | 19.481970 | $16.4 \times 6848$ | 14.196859 | 12.461084 | 11.093788 | 9-909188 |
| 76 | 29.807598 | 28.781162 | 21.438634 | 19-549495 | $10 \cdot 487781$ | 14.202205 | $12 \cdot 463967$ | 11.098218 | 0.992468 |
| 77 | 29910290 | 98.770008 | 21.472018 | 18.5324583 | 16.479039 | 14.207608 | $12 \cdot 464636$ | 11.096588 | 9.983502 |
| 78 | $30+109990$ | 29.826888 | 21.50 .580 | 10.5554998 | 10480659 | 14.212774 | 12/469107 | 11.097780 | 0.904198 |
| 79 | 3i-100756 | 29.572008 | 21.585755 | 19.576284 | 16.490679 | $14 * 17516$ | 12.471896 | 11 +998585 | 0.984030 |
| 80 | 80200768 | 89-915492 | 91.565315 | 19.596460 | 16.509181 | 14.222006 | 18.473514 | 11.099519 | 9.995118 |
| 61 | 80.292003 | 28057108 | 21.508682 | 19.615677 | 10.51804 | 14228178 | 12.475176 | 11-1007ts | 9009*562 |
| 82 | 30.394580 | 23997219 | 21.020700 | 19.683978 | 18.623400 | 14.4230169 | 19.477208 | $11 \cdot 101682$ | 94995965 |
| 63 | $80 \cdot 466583$ | 24.085787 | 21.646608 | 10.651407 | 16.584996 | 14.288709 | 12.47N975 | $11 \cdot 102414$ | 9.998882 |
| 84 | 80.650086 | 24.072578 | 21.671890 | 18.66 W007 | 10.541884 | 14287111 | 12.4s0588 | 11.108182 | 0.996606 |
| 85 | 80.681151 | 24-108481 | 21.603110 | $19 \cdot 0 \times 1 \times 16$ | 10.548947 | $14 * 240291$ | $12 \cdot 481974$ | $11 \cdot 103791$ | 0.996969 |

In Hamburg the rate of luterest is quite unreatrict－ ed ；or，if there be a written law restraining it，it has become obsolete．The rate，therefore，varies accord－ ing to circumstances．Oceaslonally it has been at 7， 8 ，and even 10 per cent．；and $\ln 1799$ ，a period of great mercantile ombarrassmont and insecurity，it was as high as 14 per cent．Generally，hewever，the rate of disceant on good bills does not exceed 8 or 4 per cent．－Report ow Usury Lawn，p． 40.

In Russia the legal rate of intereat is 6 per cent． But as Ruseis is a conntry capsble of mach Improve－ ment，and where there are very grent facilities for the advantageous employment of capital，the market rate of interest is invariably higher than the statute rate， and the law is constantly and easily evaded．－Report on Usury Lawe，p． 46 ；and Storchi，tom．iito，p． 207.

The previous statements apply only to the cases of Interest arising out of leans made by one party to unother．But there are cases in which interest may become due without being stipulated for，by unneces－ sary or unjustifisble delays in the payment of delts， or by truatees，agents，or other partien coming into posseasion of property belonging tc others，etc．，and in these it is necessary to obviate litigation，that the in－ tereat to be charged should be fixed by law．This legel rate had better be somewhat below the orlinary market rete，and may be adjuited from time to tlme us circumstances may require．Bat，except in cases of this sort，there is no more reason for interfering to regulate the rate of interest，than there is for inter－ fering to regulate premiums of insurance．

Distinction of Simple and Compound Inderest．－When a loan is made，it is usual to stipulate that the interest upon it should be regularly paid at the end of every year，half year，etc．A loan of this sert is said to be at simple interest．It is of the essence of such loan that no part of the interest accruing upon it should be added to the princlpal to form a new principal ；and tbough payment of the interest were not made when it becomes due，the lender would not be entitied to charge interest upon such unpaid interest．Thus，sup－ pose 6100 were lent at simple interest at 5 per cent．， payable at the end of each year；the lender would，at the end of three or four years，supposing him to have received no previous payments，be entitled to $\$ 15$ or 820 ，and no more．

Compound Interest．－Sometimes，however，money or capital is in reated so that the intorest is not puid at the periods when it becones due，but is progressively added to the principal；so that at every term a new priacipal is formed，consisting of the original princi－ pal and the successive aceumulations of intereat upon interest．Money invested in this wsy is asid to be placed at compound interest．It appears only reasona－ ble，when a borrower does not pay the interast he has contracted for at the period when it is due，that he should pay interest upon such Interest．This，how－ ever，is not allowed ly the law of Eagland；nor is it allowed to make a loan at compound interest．But this rule is easily evaded by taking a new ohligation fur the priuctpal with the interest Included，when the latter becomes due．Investments at compound inter－ ent are also very fretileat．Thus，if an individual buy into the funds，and regolarly buy fresh atock with the divilends，the eapital will increase at compound Intercat ；and no in any similar case．

Calculation of Interest．－Interest is estimated at so much per cent．por annum，or by dividing the princi－ pal into 100 equal parta，and specifying how many of these parta are psid yearly for its use．Thus 5 per cent．，or 5 parts out of 100 ，means that \＄5 are puill for the use of $\$ 100$ for a year， 10 for the nie of $\$ 200$ ． 4250 for the use of 450 for the same period，and so on．

Many attempts havo inen made to contrive expedi－ tions processes for calculating interest．The folluw－ ing ls one of the bent：Suppose it were requirell to find the intereat upon 172 for 107 days at 5 per cent．

This forms what in called in arithmeticel books a double rule of chree question，and would be stated as follows：
$\boldsymbol{L}_{0}$ Dayw， $\boldsymbol{L}_{2} \quad \boldsymbol{L}_{\boldsymbol{c}}$ Daya
$100 \times 365: 5:: 172 \times 107=$ the interest required． Hence to find the intareat of any sum for any number of duys at any rate per cent．，multiply the sum by the number of duys，and the product by the rate，and di－ vide by $36,500(365 \times 100)$ ；the quotient is the inter－ ost required．When the rate is 5 per cent．，or 1－20th of the principal，all that is required is te divide the product of the sum multiplled by the day＇s hy 7300 （365，the days in a year，multiplied by 20 ）．Five per cent．interest being found by this extremely simple process，it is usual in practice to calculate 4 per cent． laterest hy deducting 1－5th； 8 per cent．by deducting 2－5ths； 21 per cent．by dividing by $2 ; 2$ per cent．by taking the half of 4 ，and so on．

In calculating interest upon accounts current，it is requisite to state the number of days between each re． celpt or payment，and the date（commonly the 31st of December）to which the acoount current is made np． Thus，$\$ 172$ pald on the 15 th of September，bearing in－ terest to the 31st of December， 107 days．The amonnt of such interest may，then，be calculated as above ex－ plained，or by the aid of tables．
The 30th of June is，after the 31at of December，the most usual dute to which sccounts current are made up ，and interest calculated．It is desirable，in culcu－ lating interest on accounts current，to be able readily to find the number of days from one day in any month to any day in any other month．This may be dono with the greatest ease by means of the following table：
Table mon abcertaining the Nugber or Dayb from any ong Day in tue Year to any othea Day．

| 5 | E | 娄 | 家 | \％ | ${ }_{\square}^{8}$ | － | 童要 | $\begin{aligned} & \frac{1}{2} \\ & \vdots \\ & \end{aligned}$ | 8 | \％ | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 82 | 60 | 91 | 121 | 152 | 152 | 218 | 24 | 274 | 805 | 95 |
| 2 | 88 | 01 | 92 | 122 | 158 | 183 | 214 | 245 | 275 | 306 | 330 |
| 3 | 84 | 62 | 88 | 128 | 154 | 154 | 215 | 246 | 270 | 807 | 37 |
| 4 | 85 | 63 | 04 | 124 | 155 | 155 | 210 | 247 | 277 | 805 | 838 |
| 5 | 86 | 64 | 05 | 125 | 156 | 186 | 217 | 243 | 278 | 309 | 3is9 |
| 6 | 87 | 65 | 00 | 128 | 157 | 187 | 219 | 249 | 279 | 310 | 840 |
| 7 | 83 | 66 | 97 | 127 | 153 | 183 | 219 | 250 | 230 | 811 | 31 |
| 3 | 89 | 67 | 98 | 188 | 159 | 189 | 220 | 231 | 251 | $\overline{812}$ | 842 |
| 9 | 40 | 68 | 09 | 129 | 160 | 190 | 221 | 25. | 298 | 813 |  |
| 10 | 41 | 69 | 100 | 180 | 161 | $19 t$ | 222 | 2 LH | 258 | 314 | $3{ }^{3}$ |
| 1 t | 42 | 70 | 101 | 181 | 188 | 192 | 223 | 254 | 2 St | 315 | 45 |
| 18 | 48 | 71 | 102 | 182 | 168 | 198 | 224 | 235 | 255 | 816 | 31 |
| 18 | 44 | 72 | 103 | 188 | 164 | 198 | 825 | 256 | 236 | 1317 | 34 |
| 14 | 45 | 78 | 104 | 184 | 165 | 195 | 220 | 257 | 25 | 815 | 34 |
| 15 | 46 | 14 | 105 | 185 | 166 | 196 | 227 | 259 | $2 \times 8$ | 819 | 849 |
| 10 | 47 | 75 | 106 | 180 | 167 | 197 | 829 | 259 | 299 | 320 | 850 |
| 17 | 48 | 76 | 107 | 187 | 168 | 103 | 229 | 280 | 290 | 821 | $85 t$ |
| 18 | 49 | 78 | 108 | 188 | 169 | 199 | 480 | 261 | 291 | 822 | 352 |
| 19 | 50 | 15 | 119 | 189 | 170 | 210 | 281 | 262 | 292 | 823 | 828 |
| 00 | Dt | 70 | 110 | 140 | 171 | 205 | 888 | 28.1 | 293 | 824 | 85 |
| 2 t | 52 | 8） | 112 | 141 | 172 | 202 | 283 | 264 | 894 | 825 |  |
| 22 | 53 | 81 | 112 | 172 | 178 | 203 | 284 | 265 | 25 | 326 | 356 |
| 23 | 5 | 8.1 | 118 | 143 | 174 | 94 | 235 | 266 | 298 | 827 |  |
| 24 | 55 | －3 | 114 | 14 | 175 | 805 | 286 | 267 | 297 | 82 |  |
| 25 | 66 | 84 | 115 | 15 | 176 | $\overline{206}$ | 287 | 263 | 294 | 829 | 519 |
| 26 | 07 | 8 | 116 | 140 | 177 | 207 | 238 | 269 | 249 | 83 |  |
| $27^{-}$ | 58 | 36 | 117 | 147 | 178 | 208 | 289 | 270 | 810 | 881 | 861 |
| 85 | 89 | 87 | 118 | 143 | 179 | 209 | 240 | 271 | 801 | $8: 8$ | 2 |
| 29 | ． | 83 | 119 | 149 | 180 | 210 | 24 | 272 | 302 | 848 | 863 |
| 80 | － | 80 | 120 | 150 | 181 | 211 | 248 |  | 118 | 894 | － |
| 81 |  | 90 | $\cdots$ | 151 |  | 914 | 948 |  | 304 |  | 865 |

lly thin tabie may be readily ascertained the number of days from any given day in the year to another． For instance，from the 1st of Janaary to the 1th of Angust（ifret and lant daye included），thero are 226 day＇s．To fiad the number，look down the column headed January，to No．14，and then look along＇in a
parallel 1
220 ，the days betw are both
site the that oppo ber of day Angust，d opposite tc posite to 1 is the num years，one of Februar

When it the first $y$ being adde cipal upon second yes interest be apon whicl year or ter But when process bec and to facil are subjoln
The first 0 of $\$ 1$ secum np to 10 per dollars and we wish to saven yerr： per cent．，a which show compound and，conseq the same rat For the san present valu not exceedt pound inter The use of above．Let present wor compound i and under 4 $\$ 1$ due st th by $\$ 500$ ，th required．
erest，Discu
4to．，Londor places，and snd on the The orlginal
Anvutie money is to years，it is c met with ar are called $a$ long as one thence called
By the 8 m meant the si it to have be est during t！
The prese ried，is the ments of tha
See Jont
Ency．Brit．， vili．，New ly says on Erch surance 1 Ifag Parliament tique，iil．； 1 erations on $t$ ， Fisay on In the Rate of
parallel line to the column headed Angust, you find 226, the number reqnired. To find the number of days between any other two given days, when thoy sre both after the first of January, the number oppogite the first day must, of course, be deducted from that opposite to the second. Thus, to find the number of days between the 18th of March and the 19th of August, deduct from 281-the number in the table opposits to 19 and ander August-72, the number opposite to 18 and under March, and the remainder, 159, is the number required, last day included. In leap yeurs, one must be added to the number after the 28th of February.
Whea interest, instesd of being simple, is compound, the first year's or term's interest must be found, and being added to the original principal, makes the principal upon which interest is to be caiculsted for the second year or term ; and the second year's or term's interest being added to this last principal, makes that apon which interest is to be calcuiated for tie third jear or term; and no on for any number of years. But when the number of years is conalderable, this process becomes exceedingly cumbersome and tedious, and to faclitate it tables have been constructed, which gre sulijoined to this article.
The first of these tables ( p .1074 ) represents the amount of $\$ 1$ accumulating at compound interest, at 3, 31, 4, 43, np to 10 per cent. evory year, from 1 year to 85 years, in dollars and decimals of a dollar. Now, suppose that we wish to know how much $\$ 500$ will amount to in saven years at 4 per cent. In the column marked 4 pe: cent., and opposite to 7 years, we find $\$ 1 \cdot 31.5931$, which shows that $\$ 1$ will, if invested at 4 per cent., cempound interest, nmonnt to $\% 1.81 .5931$ in 7 years; snd, consequently, $\$ 500$ will, in the same time, and at the same rate, amount to $\$ 500 \times 1 \cdot 31.5931$, or $\$ 657 \cdot 96.6$. For the same purpose of facilitating calculstion, the prasent value of $\$ 1$ due any number of years hence, net exceeding 85 , at $3,34,4,4$, up to 10 per cent., compound interest, is given in the talles, pp. 1074-1077. The use of these tables is precisely similar to the one above. Let it, for exampie, be required to find the present worth of 8500 due 7 years hence, reckoning compound interest at 4 per cent. ; opposite to 7 yenra, and under 4 per cent., $75 \cdot 291781$, the present worih of el due at the end of 7 years; and multiplying this sum by $\$ 500$, the product being $\$ 379 \cdot 95.89$, is the answar required. These talles are in part from Tables of Interest, Discount, and Annuities, by Joun Smant, Gent., 4to., London, 1726. They are carried to eight decimal places, and enjoy the highest charaeter in England and on the Continent, for accuracy and completeness. The original work is now becone scarc.
Ansurties. 1. Annuities certain.-When a sum of money is to be paid yearly for a certain number of years, it is calied an annuity. The annuities usualiy' met with are either for a given number of years, which are calied annuities certain; or they are to he paid so long as one or more individusif shall iive, and are thence called contingent annuities.
By the amount of an annuity at any given time, is meant the sum to whech it will theu amount, supposing it to have leen reguinriy improved at corapound interest during the intervening period.
The present value of an annuity for any given period, is the sum of the present values of ail the payments of that anauity.
Seo Jonks on Aunuities, London, 2 vols., 8 vo; Ency. Brit., 8th ed.; Bankens' Mag., vols. v., vi., vii., New York, 1854-1857; J. R. McCulloch, Essays on Erchange, Interest, cte., New York, 1857; Assurance Magazine, London, 1854-1857; Report to British Parliament on Unury Laves $\operatorname{Srorch}$, Economie Politique, iii.; Madox, ILivisry of the Erchequer; Considerutions on the State of the English Currency; Heme's Easay on Interest; Lssay on the Gorerning Causes of the Rate of Ituterest.

The nees of these tablea are numerous, and they are escily applied. Sappose, for example, it were required to tell the amount of an annuity of 850 a year for 17 years, at 4 per cent., compound interest.
Opposite to 17 (Table, p. 1074) in the column of years, and under 4 per cent., la $23 \cdot 69751,239$, being the amount of an annuity of \$1 for the given time at the given rate per cent. ; and this multiplied by 50 givea \$1184.87.56195, the amount required.
Suppose, now, that it is required what sum onu must pay down to receive an annuity of $\$ 50$, to continue for 17 years, compound luterest at 4 per cent. ?

Opposite to 17 years (Table, p. 1076) and onder 4 per cent., is $12 \cdot 16566,886$, the present value of an annuity of $\$ 1$ for the given time and at the given rste por cent. ; and this multiplied by 50 , gives $\$ 608 \cdot 28.3443$, the present value required.

When it is required to find the time which must elapse, in order that a glven sum, improved at a specified rate of compound interest, may increase to some other given sum, divide the istter sum by the former, and look for the quotient, or the number nesrest to it, in tabie No: I., under the given rate per cent., and the years opposite to tt are the unswer: thns,
In what time will $\$ 523$ amount to $\$ 1087 \cdot 27.94$, at 5 per cent., compound interest ?
Divide 1087.27.94, etc., by 523, and the quotient will be 2.0789 , etc., which under 5 per cent. in table $I$., is opposits to 15 years, the time required.
If it had been required to find the time in which a given annuity, improved at a certsin rate of compound interest, would have increased to some given sum, the question would have been answered by dividing, as above, the given sum by the annulty, and looking for the quotient (not in table No. I., but) in table No. III., under the given rate per cent., it would be found on a line with the time requlred; thus,
A owes $\% 1000$, and resolves to appropriate 10 a year of his income to its discharge ; in what time will the debt be extinguished, reckoning compound interest at 4 per cent.?
1000 divided hy 10 gives 100 , the number in tsble No. III. under 4 per cent, and nearest to this quotient is 00.8265 , etc., opposite to 41 years, the required time. IIad the rate of interest been 5 per cent., the debt would have been discharged in somewhat less than 87 years. This example is given by Dr. Price ( $A n n u$ ities, 6th ed., vol. ii., p. 289); and on this principie the whole fabric of the sinking fund was constructed. Of the abstract truth of the principle there can not, indeed, the $n$ doubt. But every thing depends on the increasing sums annualiy produced being immedintely invested on the same terms; and this, when the sum is large, and the period long, is altogether impracticable.
Let it next be required to find an annuity which, being increased at a given rate of compound interest during a given time, will nmount to a speelliced sum: in this care we divide the specified sum by the anount of $\$ 1$ for the time and rate given, as found in the Table III., and the quotient is the answer.-Thus, What annuity will amount to $\$ 1,087,27,94$ in 15 years nt 5 per cent. compound interest? Opposite to 15 years in Tahle 11I., and under 5 per cent., is 21.5785 , etc., the amount of $\$ 1$ for the given time and rate; and dividing $1087 \cdot 2794$, etc., by this sum, the quotient $50 \cdot 387$, etc., is the annuity required. Deferred annuities are those which do not commence till after a certain number of years; and reversiovary anvuities, such as depend upon the occurrence of some uncertain event, as the denth of an individual, etc. The present value of a deferred annuity is found by deducting, from the value of an annuity for tho whole period, the value of an annuity to the term nt which the reverslonary annuity is to commenee.-Thus, What is the present value of an annuity of $\$ 50$ to continue for $\mathbf{2 5}$ years, commencing at 7 years from the present timo,

Intereat at 4 per cent. ? According to ': able No. IV. the value of an annuity of 61 for 25 y sars at 4 per cent. is $15 \cdot 62207,995$, and that of 81 for 7 years is $0 \cdot 00205,467$, whici being deducted from the other, leaves $9 \cdot 62002,528$, whlch multiplled by 00 gives 8481 , the answer required. Supposing the annuity, Inatead of being for 25 years, had been a perpetuity, it would have been worth $\$ 1,200$, from which deducting $\$ 300$ 10c., the value of an annulty for 7 years at 4 per cent., there remains $\$ 949 \cdot 90$, the value of the reversion. For a selection of problems that may be solved by Table of annuities certain, see 8mant's Tables, pp. 20-109.
2. Lifo Annuitics.-After what has been otated in the article on Ineunance (Geneaai, Principles of), respecting tables of mortality, it will be easy to eee how the value of a life annuity lo calculated. Sup-posing-to revert to the example given before Insurance, that it were required to find the present value of $\$ 1$, the receipt of which is deperdent on the contingency of a person, now 56 years of age, being alive 10 years hence, taking the Carlisle table of mortality, and interest at 4 per cent. Now, according to that taile, of 10,000 perssis horn together, 4000 attain to 56 , and 2894 to 66 years of age. Th.s probabiiity that a person, now 56 yeurs, will bs alive 10 yeasw henre, is, consequently, $2894-4030$; and the present value of el, to be received celtan 10 years hence being \%0.075064, it followa, that. it its receint be mate to depend on $c$ llfe 56 years ot a a ${ }^{\prime}$ e, uttaining to 66 years, Its value wiii be rednced by tlat contingency to $2884 \times \div 0.675564-i 00 \mathrm{~K}=80.43877$. If, then, we had to flod the present value of an annuity of a 1 , sec ured on the life of a person now $\mathbf{b} 6$, we should calculate in this way the present value of each of the 48 payments, which, aceording to the Carlisle table, he might receive, and their sum would, of course, the the present value of the annuity.

This statement is eneugh to show the principle on which all calculations of annuities depend; and this also was, in fact, the raethod aceording to which they were calculated, till Mr. Simpson and M. Ealer invented a shorter and eanier process, deriving form the value of an annuity st any age, that of an annuity at the nex t younger age. There is a considerable discrepancy in the gums af whick different authors, and different insurance offices, estimate the present vilue of life annuities payable to persons of the name age. 'fhis does not arise from any difference in the mode of calculating the annuities, but from differences in the tables of mortality employed. These can only be accurate when they are deduced from multiplied and careful observations made, during a long series of years, on a large body of persons; or when the average numbers of the whole population, and of the deaths at eviry age, for a lengthened period, have been determined with the necensary eare. It is to be regretted, that governments who alone have the neans of ascertaining the rate of mertality by olservitiona made on a sufficlentiy large scale, have been singularly fuattentive to thelr daty in this respect. And until a very fow yeara since, when Mr. Finlayson was employed to calcolata tables of the value of annuitien from the ages of the nominees in putile tontinen, and of individuals on whose livea government had granted anmities, all that had been done in this country to lay a molid fourdation on whifh to construct the vast fabicic of life insurance, had been the work of a few frivate persons, whin had, of cuaree, but a limited namier of obeervations to work upen,

The celebrated mathematicisn, Dr. italiey, was the first whe calcuintad a table of mortality, whieb he dedaced from obmervationz made at Breslau, in Silesia. In 1724 M . de Molvere published the first edition of his tract on Annitiea on liers. Ia order $\div n$ fucilitate the calculation of their vifuew, M. de Moivrs asamed th, asinual decremente of life to be equal ; that is, ha su poded that out of 86 (the utmest limit of life ca his hy.
pothesis) persons bern together one would die every year till the whole were extinct. This assumptien agreed pretty well with the true values between 30 and 70 years of age, as given In Dr. Halley's table; but wan very remote frcm the truth in the earlier and later periodi. Mr. Thomas Slmpson, in his work on Annuities and Reversions, originally published in 1742, gave a table of mortallty deduced from the Lomdan bills, and tables founded upon It of the values of annu. lties, But at the period when this tahle was calculated, the mortality in London was so much higher than in the reat of the country, that the velues of the annuities given in it were far too small for general use. In 1746 M . Deparcieux published, is his Lisai sur les Probabilites de la Durfe de la Vie Humaine-a work distlaguinhed by its persplcuity and neatness-tables of mortality deduced from observationn made on the mortuary registers of several religious houses, and on lists of the nominess in several tontinos. In this work, separate tables were first construeted for malea and females, and the greater longevity of the latter rendered apparent. M. Deparcleux's tables were a very great acquisition to the science, and are decidedly superior to some that are atill extensivaly used. Dr. Drice's fa, none work on Annuities, the first edition of which was published in 1770 , contributcis powerfuliy' to tlirect the public attention to inquiries of this sort, and was, in this reapect, of very great utility. Of the more recent works, the beat are those of Mr. Baily and Mr. Milne, which, indeed, are both excellent. Tha latter, beaides all thut was previously known as to the history, theory, or practice of the science, contaias much new ond viluable watter; and to it we heg to refer such of outr randurs an wish to enter fully into the sulject.

The tailte on whinh Dr. Price laid the greatest stress was calco fated from the burial registers kept in the prisli of All Suinis, in Northampton, containing little inare than half the population of the town. There can lie no doubt, however, as well from original defeets in the construction of the table, as from the improveuent that has since taken place in the healthiness of the public, that the mortality reprosented in the Northamptan table is, and has long been, decidedly above the average rate of mortality in England. Mr. Morgran, i.sdeed, the lato learned actuary of the Equitable Society, rontended chat this is not the case, nnd that the society's expericnee shows that the Northampiton table is still remarkably aceurate. Hut the facts Mr. Morgan discloaed in his "Views of the lise and I'regresa of the Equitable Society," p. 42, jublished in 1828, are quite at variance with this opinion; for he there ratase, that the deaths of persons insured in the Eyitalile Society, from 50 to 60 years of age, luring the 12 years previously to 1808 , were 339 ; whereas, according to the Northampton table, they shotht have been 5-15! And Mr. Milne has endeavored to show (Art. Annuities, new ed. of Eincy. Brit.) that the diserepancy is really much greater.

The ouly other talin used to any atent in Engiand for the calculation of lifs ennuities, is that framed by Mr. Aling, from observations made by Dr. II Py sham on the rate c. mortality at Carlisle. It gives a decidedis lower rite of antality than the Northampton 'rible; anf? there are gool yreuads for ihinking that zhe no. tality which it reprencats is not very different from the actual rate throughout most parts of Finglami; bugh it can not be supjowed that a table fonided on so narrow a basin rhould give a parfectly fair view of the average mortality of the entire kingiom.

In life insurcmee, $t^{t_{1}}$ fizot annual promium is at. ways paid at the comswencement of the assurance, and the others at the lieginging of each year, so long as the party annnred arvives. Ifence, at the !eginuing of the asuurcies, the wnole of tho annual peremiuns payphle for it a:cceed the value of au equal annuity ou lifiv ty one yonio purehase. And, therefore, when the valuc of an assurance in present meney is given,
to find the wh ber of increas life of Carlisl require to thrit lifa jos chase, chase,
che $16.14 \times 1$ be deri the life value ol auties,
"In or of life a this and of the $p$ been obs together till the Swaiden, ities. I in this $\mathrm{t}_{\mathrm{s}}$ the rates from the parcieux nees of 1 late from given ag only to higher al to decide st the gi chance. tabla, Mr mortality ing to $t$ among th annuities femates. hibits is tablo; bu pepulatio The nemi the healt consiles t however, periority
Tables $V$ cording t Carlisle Milne. Secoml $R$. on Frieni results of ity, in rel of liff, th between bie and render th the reade admit, w value of ard at 3 , aupton a of the va thu liven cent., He dem, the sort to : the gucst gard to in which tables.
to find the equivalont unnual preminm during the life, the whole present value must be divided by the aumber of years' pnrchase an annuity on the life ia worth, increased by 1. Thus, for all assurance of $\mathbf{\$ 1 0 0}$ on a life of 40 years of age, an office, calculating by the Carlisle table of mortality; and at 4 per cent. Interent, requirss $\$ 53-446$ in present money. Now, according to that table and rate of intereat, an annuity on a llfe just 40 years of age is worth 10.074 years' purchase, so that the equivalent annual premlum is $\frac{05 s^{\prime} \cdot 46}{13014 \mathrm{I}}=13 \cdot 325$. The annual premium may, however, be derived directly from the value of an sanuity on the life, without first caleulatling the total present value of the assurance. She Mr. Milnes Treat. on Annuities, or art. A mnuitiea, in new editlon of Ency. Brit.
"In order to exhlbit the foundation upon which tablea of life annultles and insurance have been founded In this and ether courtries, we have given, In a portion of the preceding tables, the rate of mortallty that has been observed to take place among 1000 children born together, or the numbers allve at the end of each year, tiil the whole becomo extlact, In England, Frince, Sweden, ete., sccording to the most celebrated authoriities. The rate of mortality at Carliale, represented In this table, is less than that observel anywhere else: the ratea which approach nearest to it are those deduced from the obervations already referred to, of M. Deparclenx, and those of in. Kerssebwom, on the nominees of life annuitles in Holland. In order to enlen. late from this tahle the chances whlch a person of any given age has of attalning to any higher age, we have only to divide the number of persons alive st such higher age, given in the column of the table selected 10 decide the question, by the number of persons olive at the glven age, snd the fraction resulting is the chance. We have added, by way of aupplement to thia table, Mr. Finlayson's tablo (No. VI.) of the rate of mortality among 1000 chlldren born together, according to the decrement of lifo observed to take place among the nomlnees in government tontines and llfe annuities in thls country, diatlingulshing mules from females. The rate of mortality which this talle exlibits is decidedly less than that given in the Carlisle table; but the lives $\ln$ the latter are the average of the pepulation, while those in the former are all picked. The uominesa in tontines are uniformly chosen among the healthlest Individuals; and none but those who consider their llvea as good ever luy an annuity. Still, however, the table is very carlons; and it sets the superiority of female llfe in a very striking point of view. Tables VII. und VIII. give the expectation of life, according to the mortality olsserved nt Nortlumpton anil Carlisle; the former by Dr. Price, and the lutter by Mr. Sline. The next table, No. IX., extracted from the Secoml Report of the Comnittee of the Ifouse of Commons on Friendly Societies, gives a comparative vlow of the results of some of the most celebrated tables of inortality, in relation to the rate of mortality, the expectation of life, the value of an annuity, etc. The coincidence between the results doduced from M. Deparcieus's table und that for Carlisle, la very atriking. And to render the information on theas eubjects laid before the reuder ns complete as the nature of thla work will admilt, we have given tables (Nos. X.-XV.) of the value of mis annulty of c1 on a singe lifo, at every age, and at $3,4,5,6,7$ and 8 per cent., accordlug tot he Northanpton und Carlisle tables ; we havo also given tables of the vilue of su annulty of $\pm 1$ on 2 equal livea, and thu lives differing by five years, at $3,:, 5$, and 6 mr cent., according to the same tables. It is but aeldom, therefore, that our renders will require to re. sort to any other work for the menns of soiving the 'questions that usually ocour in pructice with rogard to annuitles; and thore are not many works In which they will find ac good a collection $o^{s}$ the tables. We sulyjoin one or two examples of the mode
of uaing the tables of life annnities. Suppose it wero required, what ought a person aged 45 , to give to seoure an annuity of 850 a year for life, interent at 4 per esnt., according to the Carlisle tuble ? In Tablo No. XI., under 4 per cent., and opposite 45 , is $14 \cdot 104$, the value of an annuity of $\$ 1$, which belng multiplled by 50 givea $705 \cdot 20$, or the value required. According to the Northampton table, the annulty would only have been worth 8614 15. The valne of an annuity on two llves of the same age, or on two lives different by five yeara, vy be found in precisely the sanue way. Some quest.ons in reversionary life annnitles admit of an equally easy solntlon. Thus, suppoee It is required to find the present value of A's intereat in an eatate worth $\$ 100$ a year, falling to hlan at the death of B, aged 40 , Intereat 4 per coni., according to the Carlisle table? The value of the perpetuity of $\$ 100$ a year, interest 4 per cent., is $\$ 2500$; and the value of an annuity of $\$ 100$ on a person aged 40 , interest 4 per cent., is $\$ 1507413$, whlch, deducted from $\$ 2500$, leaves $\$ 99260$, the present value required. A person aged 30 wishes to purchase an annulty of $\$ 50$ for hia wlfe, $2 g e d ~ 25$, provided she survivee him; what ought he to pay for it, interest at 4 per cont, according to the Carlisle table? The value of an annuity of $\$ 1$ on a life aged 30 is 416.852 ; from whieh aubtractling the value of an annuity of $\$ 1$ on two jolnt llvee of 25 and $30,14 \cdot 339$, the difference, $2 \cdot 513 \times 60=125 \cdot 650$, the aum required. Fc: the solution of the more complex casce of survivorship, which do not often occur In practice, recourse mny be had to the directions in Mr. Milne's Treatise on Annuities, and other works of that description. To attempt explainIng them hers would lead us Into details quite Inconsistent with the olject of this work." See Com. Dict.; art. Intehest, by J. R. H'Culloci; Bankers' Mfag., N. Y., 1853-6; the Interest Tsbles now in uee in New York city, are ly Lalisser, Six and Seven per Cent. 4 to 4 ; Phice, 8vo; Oates, 8vo.

Invoice, an account of gools or merchandiae sent by merchants to thair correspondents at home or sbroad, in which the peculiar marks of each package, with other particulars, are set forth.

The revenue laws of the United States require two consular certificates ouly to invoices of foreign merchandise imported into this country (the owners of which reside abroad)-one authenticsting the invoice, the other as to the ralue in Spaniah or American dollars of the currency ${ }^{\prime}$ In which the involee is made out. Where conaular certificutes to involces of goods destined for the United States aro required, they are to be granted only by the consulur offeer within whose consular jurisdletion anch grods have been mannfactured or prepared for expartntion. A practice, it is understood, has extensively prevailed of transmitting invoices to a consular officer at the port of shipment for the usual consular certificates, whose certificate must often nocessarily be given without due knowledge of thoir accuracy or detnils. Thus, invoices of gooda manufactured or prepared for shipment in Switzerlaril have sumetimes heretofore been sworn to at Havre; invoices from Iyons have been verified at Marselles; and those from the Prussian provinces of the Rhine, st the ports of LIolland and Belgium. It is manifest tuut great abuses must opring from such a practice, the meaniag and intent of the law being to require thos's who lisve an accurate knowledgo of the contents of invoices, and the prices of goods comprislng the same, personally to depose to their valuation. All consular oflicers of the United States are strictly enjoineti to conform to this rule, and report to the Treasury Department any violution of it which may come within their knowledge. Under the provisions of the act of Congress of 1st March, 1823, the invoices of nll imported goods subject to ad valoren duty leelonging to yermons not residing in the linited States, unust be sworn to and verified by consular certiticates; the oatl nust be taken by the ewner or manufacturer
of the goods, or a member of the firm owning or manufacturing them, and not by a clork or other anbordinate. In all casea where the oaths to invoices are not taken before the United Statea' conaul, but before some pablle oflicer daly authorized to administer oathy in the country where the goods shall have been purchased, the official certificate of anch officer muat be authenticated by a consalar officer of the United Staten. If there be no consular officar of the United States in the coantry from which the merchandise shall have been imported, the authentication must be executed by a consul of a nation at the time in amity with the Ünited States, If there be any such residing there. If there be no auch consul, the authentication must be mado by two respectable merchants, if any auch there be, residing at the port from which the merchandise shall have been imported.

It ia proper that the oath taken by foreigners should be administered to them, not only in their own language, 80 that they may fully understand the nature and import of it, but also in the form practiced in their own country, which would probably be considered by tham as more solemn and of a more blnding nature than if administered in a form to which they have not been accustomed. The attention of consular officers In alao directed to the 8th and 11th sections of the act of Congress of the 1st March, 1823, in which it will be seen that a consular certificate is required in all cases of involcea of goods exported by the manufacturers thereof, in whole or in part for their account, notwithstanding another ownor in part may reside itt the United States. This provision of the law of 1828, there is ieason to believe, has been hitherto overlooked in many instances. If a conaular officer ascertains and has reliable evidence of the falsity of an oath, administered either by hinself or by a local magistrate whose certificate he has authenticated, he should notify the Treasury Department, which will transmit to him the original invoice and oath, to be used, if deomed expedient, in a prosecution for perjnry.
It is to be remarked that, by the act of $3 d$ March, 1801, invoices of all goods imported into the luited States subjected to a duty ad valorem are required to the " mace out in the currency of the place or country from whence the importation shall be made; and shall contain a true statement of the actual cost of such gooas in such forelgn rurrenoy or currencies, without any respect to the value of the coins of the United States, or foreign coius which now are, or shall be, by law, macie current within the United Statea in wuch forelgn place or country." Ifence, invoicea of free goods are not required to le made out in the currency of the country from whence the coods may be importod; but whenever invoices of auch goodi may be made out in the currency of the country, and said curroncy is depreciated, and ita value not fixed by any law of the Cnited States, a conaular certiltcate of the value of auch currency niust, as before intimated, accompany the same.

There is nothing in the law or instructir ne of the Treanury Department to prohibit invoiot, of free goods from treing made out in the curreccy of the United Staten, or that of any uther country where its value is fixed by our laws. Invoices of ad vaiorem or free gookis, when made out in a foreign depreciated currency, or a currency tha value of which is not fixed by the laws of the United States, whether the inaporter or owner resides in this country or abroud, must in each case lo accompanied by a consular certificate, showing the value of such currency in $S_{j}$ anish or United Statem sijver dollars. Applications are frequentiy muda to the Treasury Department for permilasion to enter merchandise where the invoices are not accompanied by the needifal consular certificates in the casea where auch certificates are by law required. That Department has heretofore acted with great lenteney and indulgence in auch cases, but oxperience has
shown the necessity for a more rigid course in future; and, in all cases whorn such consular certificates should accompany the in voices, any penalty which may be inourred for want of them will be ragularly enferced.
Consuls abroad, by due attention and vigflance, can do much toward checking and preventing the uumerous frauds which are uadoultedly practiced upon the revonue, if they will report to the collectors of the customs of the United States all those invoices where, in their opinions, uniervaluations hava been made, and by otherwise keeping the collectors or this Department generally and fully adrised on this subject ; and they are earneatly requested to do so, and to consider it nne of tha most important carvices which they cuit render in connection with the faithfol collection of the revenue. An erroneous impression exists with many foreign shippers of goods to the United Statee, that the consuls hefore whom the oath to invoices is either taken or verified hove no power to examine the details of such invoices, but eimply to verify the fuct of auch oath being taken before them, or by an officer in authority hnown to them as such. This is not the fact; and consular officers are expected before verifying invoices to satiafy themselves of their correctness.
For the purpose of carrying out a particular syrstem or revenue duties, the govarnment of the United Statea requires that the accuracy of certain invoices should be ascertained and verificd; and a reasonable time for cenauls to accompliah that object, liy an examinatiun of such invoicea, can not be justly denied to them. Consular officers are not aupposed to be practically ucquainted with the market prices or value of all merchandise within their district, or of the precise weights, tares, measures, bounties, etc., included therein ; but inquiry and experience will soon enalule them to render efficient aid to the revenue officers of the United States, ly abcertaining errors or frauda, and promptly informing the Treasury Department, as well as the collector of the port to which tha goods may be destined, of evory inatance where an exporter persists in refuaing to correct his invoice, when apprised of its defects, and that it will be subject to revision at the custom houses of the United States.

CERTIFICATE TO INVOIGE.
Poreign Owner's oath, where goods, vares, or merchandise, have been istually purchused.
I, $\qquad$ do solemily and troly. goods, wares, or merchandise deand troly swoar, that the prodacent and tor merchandise described in the lavolee now my account, oc for aceount of wy wedf actually purchased for prrehane: and that sald lavoles contalue a true and faithful acconnt of the aotual cont thereof, and of all charges thereon; and that no dincounts, bountles, or drawbacke, nre contalned In the mald Involee but auch as have been actuatly allowed on the manc.

Sworn to and aubscribed beforeme, at -_, the -.. day of 1 A. 1., 19-, end of the ladependence of the United Statea the - and I do forther certify, that I am antia. fled that ——, who aubecribes the foregoing oath, is the pernon he represente himself to be: that he is a crediste permon: and that the atatements made by hlas uader aad oath (or affirmation, an the case may be) are tru:

## [Len.]

U. S. Consul.

CEITIFICATE TO INVOICE.
Fonelgn manufacturer or oroner's oath, in cases where goode, searea, or merchandise, hare not been acfually purchised. $t$, The lovolee of mond do solemoly and truly awear, that the lovolee now produced, and hereunto anoceed, contains a true and faithful sceonut of the goods, wares, or merchanilise therela described at thele market value at ---;, at the thene the same were (procured oc mauofactured, as the case may be), and of all chnrgen thereon: and that the rald tavolee routatna no discounts, bounthes, or drawberkn, bat such sa have been actually allowed.

Sworn and mibacribed before me, at -of $\longrightarrow$ A.D. 18-, and of the Indepmadence of the Cotited Btatea of America the 1 and I further certify, that I am matisfed that $\qquad$ , who anbmeribes tac feregolag
onth, is the pe aredible pormo uald path (or a
[2. 8.]
Consu
$\mathrm{I}_{1}-\cdots$ do horehy eer
the $\longrightarrow$ of of merchandto American or 8

Ionian I Corfu, Paxo, Cerlgo, and tion of Cerig extremity of along the we most nertherl N., and the $n$ on which the 35"' N. Kal $30^{\prime \prime}$ N., iong. the different $i$

Corfu....... Cephalonta.
Zante......
Manta Maar Ithjes gnd $\mathbf{C}$ Cerigo stad l'axo and $\mathbf{A}$ Total., .
*This is equs the degree.

Soil and Cl is the most fru tensive plain, having an alr climate is com subject to ear more rugged former, from Epirus, and t Sount Enos in winter to g tare ; the fros the oranges a Santa Maura. ceedingly nns arising from $t$ north-east. to continued $g$ waters to renne
These isian Corfu, the an for its naval pe Its mother stat in the Pelope Ulysses; Ce from the num thus; Santa name of Lcue ontory, surme Sappho preci rigo, or Cythe to Venus ;-bus nown.

For upwari sulhject to Ven By the treat tween Englan Ionian Isiand organization, power, which missiuner ; the should be acl pendent State
 aredible parmon ; and that the statementa made by him under sald oath (or affrmation, as the cate may be) are true.

## 〔2. 5. 1 !

U. 8. Conoul.

Conoular Certifleate of the value of currency.
1, -_, consul of the United Blates of Amerion, do hereby eertify; that the true valae of the corrency of the $\longrightarrow$ of in which enerrency the mnnexed tavolice of merchandice to made out, is ....centh, esthuated in American or Spaniah ailver dollara.

Ionian Islands, the name given to the Islunds of Corfu, Paxo, Santa Manra, Ithaca, Cephalonia, Zante, Cerigo, and their dependont islets. With the exception of Cerigo, which lies opposite to the south-easiern extremity of the Morea, the reat lie pretty contiguoue, slong the weatern comata of Epirus end Greece; the most northerly point of Corfu being in lat. $39^{\circ} 48^{\prime} 15^{\prime \prime}$ N., snd the moat antherly point of Zante (Cape Kieri, on which there is a light-house) being in lat. $87^{\circ} 88^{\prime}$ $85^{\prime \prime} \mathrm{N}$. Kapsali, the port of Cerigo, is in lat. $30^{\circ} 7^{\prime}$ $30^{\prime \prime}$ N., long. $28^{\circ} \mathrm{E}$. The area and population of the different islands may be eatimated as follows:

| Pelands, | Areain eg. milea 18 to a degree. | Population In 1859. |
| :---: | :---: | :---: |
| Corfu | 10.76 | 79,581 |
| Cephalonta. . . . . . . . . . . . . . . . | 1620 | 70,870 |
| Zunte............................ | 8.60 | 41,098 |
| ganta Maura.. | 425 | 18,980 |
| Ithiea sind Calsmos......... . . . | $8 \cdot 32$ | 11,284 |
| Cortigo and Cerigotto........... | $4 \cdot 50$ | 12,886 |
| Paxo end Antipaxo... | 190 | 6,111 |
| Tetal. | 47.124 | 2.40,680 |

- This is equal to $1001 \cdot 8$ English square milios of $60 \cdot 15$ to the degree.

Soil and Climate.-These are very various. Zante is tha most fruitful. It consists principally of an exteasive plain, occupied by plantations of currants, and having an air of luxuriant fertility and richness. Its climate is comparatively equal and fine, but it is very subject to earthquakes. Corfu and Cephalonia are more rugged and less fruitful than Zante; and the former, from its vleinity to the snowy mountains of Epirus, and the latter from the Black Monntaln (the Mount Wnos of antiquity) In ita interior, are exposed in winter to great and sudden variations of temperature; the frost sometimes damaging to a grent extent the oranges and vines of these islands anil those of Santa Maura. The latter is, in the hot season, exceedingly unhealthy-a consequence of the vapors arising from the marshes and the shallow seas to tho north-east. Cerigo is rocky and sterile; it is subject to continued gales, and the current seldom permit its waters to remain unruffled.

These islands have unlorgone many vicissitudes. Corfu, the aneient Corcyra, was famous in antiquity for its naval power, and for the contest between it and Its mother state Corinth, whirh eventually terminuted in the Peloponnesian war. Ithaca, the kingdom of Ulyses; Cephalonin, sometimes called Dulichiun, from the name of one of its eitics; Zante, or Zacynthus; Santa Maura, known to the ancients by the name of leucas or Lencalia, colelisated for its promontory; surmounted ly a temple of Apollo, whenee Sappho precipitated lerself into the ocean; and Corigo, or Cythera, the birth-pluce of llelen, and sacred to Venus;-have all nequired an immortality of renown.

For upward of 400 years those islands remained stuject to Venice, constituting the Venetian Levant. By the treaty of l'aris, 5 th Novomber, 1815, between Englani and Russia, it was agreed that the Ionian Islands should regulate their own internal organization, with the approbation of the proterting power, which should be represented by a lard high commissioner; that the merchant flag of the now States should lee acknowledged as that of a free and independent State; and that Austris should enjoy equal
commercial privileges with Great Britain in ita commerce with the republle. Thls treaty was acceded to by all the representatives of the allied powers, then nogotlating at Paris, and by the Grand Sultan and the King of the Two Slcilies. The ports of the lalands are Corfu, Cephaloni, Zante, Santa Maura, Ithaca, Cerlgo, and Paxo. These are free ports, at which all kinds of merchandise may be stored in designated warehouses, free of any duties or charges, except rent, portage, and other minor expenaea, which are regolated by apecial tariffs. There is no traaty between the United States and the Ionian republle, and the commerclal intercourse between the two conntries ls aubject to the various reatrictions which apply to nonequaliaed veasels. The reatrictions are higher tonnage duties, llght dutiee, port charges, etc.
The following ltems will illustrate these discrininations: Charges for clearance, Inclading hill of health, muster-roll, anchorage, and light dutiea, on an Ionian or equalized voasel of from 250 to 800 tons, $\$ 810$; charges, etc., including as above, for a non-equalized vessel of from 250 to 800 tons, $\$ 1084$.

Other restrictions and discriminations exiat in favor of equalized flags, eapecially in the transhipment of merchandise from one port to another, which confer such advantages on vessels coming under this category, as to preclude all competition on the part of those belonglog to the other class. Merchandise transhipped, as above, in the former, is exempt from every extra charge ; in the latter, three fourtha of the original duty is exseted on all merchandise paying specific dutles, and five per cent. on such as pay ad valorem dutles. These discriminating duties amonnt, in the uggregate, to about 14 per cent. against non-privileged vessels. There entered, in the year 1851, into all the Ionian ports, 1435 vessels, measuring 169,144 tons; and there cleared 1401 vessels, measuring 164,780 tons; making, in all, 2836 vessels, measuring 333,924 tons.

The flags of these vescels represented 14 different nations, smong which the United States is not included. Indeed, it is but seldom that a United States' vessel is found in any of the Ionlar ports, nor can we look for any direet trade between the two countries so long as tho present restrictions exist. Their removal can be effected by treaty or convention only ; and negotiations to this end, under the constitution of the Ionlan ropublic, must originate at London, as all diplomntic questions and cunventions between these islands and foreign States must be conducted by the government of the protecting power.

Manufactures, etc.-These islands possess few manufactures properly an termed. The wives of the villani, or peasants, spin and weave a coarse kind of woolen cloth, sufficient in great part for the use ef their families. A little soap is mado at Corfu and Zante. The lattor manufnetures a conaiderable quantity of silk gros-de-Naples and handkerchiefs; the art of dyeing is, however, ton little atudied, and the eatablishments are on too small a scule. The peasantry, in general, are lazy, vain, delighting in display, and very superstitious. Those of Zante and Cephalonia are more Industrious than the Corfiotes; in tho first, partieularly, their superior condition is probably to be aseribed, in part at least, to the nobles residing more on their estates in the country, and contrihuting, by their example, to stimulate industry. In Corfu, the taste for the city life, which prevailed in the time of the Venetian governnent, atill operntes to a great degree. The Coriote proprietor reshles but little in hia villa; his lund is neglected, while he continues in the practice of his forefathers, who preferred watching opportunities ut the seat of a corrupt government, to improving thoir fortunes by the more legitimate means of honorable exerticn and attention to their patrimony. In this respect, however, a material change for the better has taken place during the last 20 years.

Iurpurts of Grain, etc.-Grent part of tho land is
held under short tennares, on the melayer ayatem, tha tenant paying half the produce to the landlord. Owing to the natnre of the soil; and the superiar attention given to the culture of olives and currants, the ataple products of the islands, moot part of the grain and cattie required for their consumption is imported. The hard wheat of Odessa is preforred, and Inrgo sums are annually sent to the Black Sea in payment. The ParIlianient, in March, 1883, repeated the duties on the introduction of corn; and the grain monopoly of Corfu, which had been establiahed in favor of government, in order to provide againat the posaibility of a general or partial scarcity, was then alao anffered to expire. These two sourees of revenue, while they exieted, did not probably produce less than $\mathbf{2 2 0 , 0 0 2}$ annually. They are similariy lependent npon Greece and Turkay for supplies of butcher' meat ; a omall namber only of sheep and goats being bred in the islands. Oxen, whether for agricultare or thie slaughter-honse, are principally brought from Turkey. The beeves eaten by the troops are six weeks or two months walking down from the Danube, and the provincea thet akirt ft, to the shores of Fipirus, where they remain in pasture until fit for the table.

Ergorta.-The ataple exports from these ialands are oil, currants, wine, soap, salt, and Valonia. The flrst is produced in great abundance in Corfu and Paxo, and in a leas quantity in Zante, Santa Maura, and Cephaionia. Corfu has, in fact, the appearance of a continuous oilve wood; a consequence, partly, of the extraorlinary encouregement formerly given to the culture of the plant by the Venetians. Although there is a harvest evary year, the great crop in properly biennial; the tree gencrally reposing for a year after its effort. (In France and Pierm wit the period of inactivity is two and three years.) laring five or six month, from October till April, the country, particularly in Corfu, presents an animated appearance, persons of all ages being bualiy employed in picking up the frult. The average price may be abont $\mathcal{E 1} 11 \mathrm{a}$. per barrel. Under the old Venctian syatem, the oil could only be carried to Trieste. It is charged with an ad ealorem duty of 18 per cent., payable on the export. The quality might he much improved by a little more care in the mannfacture, the trees being generally finer than in any other country. Currantr, originally introduced from the Moran, are grown in 7ante, Cephalonia, and Ithaca, hut principaliy in the firat. The plant is a vine of small size and delicate nature, the culti zation of which requires much care. Six or seven years elapse after a plantation has been made before it yields a crop. In the beginning of October, the earth abont the ronts of the plants is loosened, and gathered up in amsll heape, away from the vine, which is pruned in March; after which the ground is again laid down monoth around; the blight called the " brina," and rainy weather in harvest produce great iniechief. The currants are gathered toward Septemier, and after being carefully picked, are thrown aingly upon a stone floor, exposed to the ann in the open air. The drying process may occupy a furtulght or longer, If the weather be not favoralile. A heavy shower or thunder-storm (no unfrequent ocenrrence at that season), not only interrupts it, but sometimes causes fermentation. The fruit is then only fit to be given to animals. Should it escape these risks, it is deposited in magazines called "scraglie," ontil a purchaser casts up.

The exports of theme islands are raisins, olives, ollveoil, honey, soap, silk, and wine ; and the imports are coffee, sugar, wines, brandy, grain, curvd fish, manilfactures of wood, wool, eottion, iron, ete. Curranta and raising constitute the heavient articles of export from these inlands, the annual produce of currants amountIng to some 12,000,000 yritinds; but of late years the producers have had to contend with diseases called "t the bight," for which sulphur has proved to the the
onily efficient remedy. Notwithntanding the partial failure of the crops from this cause, for four consect. tive years, the exports of currants in 1855 ehow an ac tive and remunerating trade. The foliowing oummary for this year will give some idee of the extent of the currant trade of the republio:


Salt may be obtained in conailerable quantities in Corfu, 7ante, and Santa Maura, for exportati:n; the latter ialand alone prodacel it until the iate act of Jarliament, which provided that government should fet the aalt-pans in all the islands to thoae bidders who should offer, by aealed rendera, to supply it at the lowest rate to the consumer, paying at then same time the highest price to government. No export duty is charged upon it. These atatements ahow that heavy duties are levied upon the exportation of the staple producte of the islands-an objectionabie aystem, and one which, if it is to be excused at all, can onily be so by the peculiar circumatances under which tiog are placed. There ia no land-tax or impost on property in the Ionian Ialands, anch ae exists in many other rade countries; and, supposing it were desirable to futroduce auch a tax, the complicated state of property in them, the fendal tenures under which it is held, and the variety of usages with respect to it, oppose alt but invincible obstaclea to its imposition on fair and equal principles. At the same time, too, a large amount of revenue ia required to maet the expensea of the general and local governmenta, to maintain an efficient jolice, and to prevent amuggling and piracy. Ilowever, we can not holp thinking that some very uiateriul retrenchments might be made from the expenditure ; and it is to this source, more, perhaps, than to any other, that the iababitants muat look for any real or offectual relief from tiseir burden.

The Duties on Eirports from the Ionian Irlands are regulated by act dated 8 th June, 1835,25 th $A$ pril, 1837, and 20ti May, 1847. Oil and currants pay 18 per cent. ad rulorem. Wine (oxcepting that of the Cepinalonia Wine Company), 6 per cent. ad valorem. Soap, 8 per cent. ad ralorem. Valunia, 6 jer cent. od valorem. All other articies free. N. I3.-Oil shipped in vessele under Ionima colors for the purpose of being conveyed from one imand to anothor of the States must pay only 7 per cent. ad malorem.
Account of the lequncta of the Ionian Islands in tist
 A MoENT OF Rach,

| Dutke. | Bevenue la thsl. | Hevenice In Mst. |
| :---: | :---: | :---: |
| Customs. | E30,040 | £22,113* |
| Export duty- |  |  |
| On ollve oll. | 90,785 | 11,416** |
| " ${ }^{\text {cherrant }}$ | 84,491 | 13,06\% |
| (inport dnty - |  | 6.0 |
| On forelgh when and apifite... | 1,872 | 1,120 |
| ${ }^{4}$ tobacco. | 2,009 | 2, 14 |
| ${ }^{*}$ graith....................... | 28.504 | 22,141 |
| Stamp duties . . . . . . . . . . . . . . . . | 12,43t | 10,840 |
| Sale of gunpowder (monopoly)... | 725 | 879 |
| Necelpts for tariff duesHeath Otice. | 4,749 |  |
| Post Office. | 2,205 | 2,248 |
| Executlve l'olice. | 2,6*9 | 2,24 |
| Juilicial. | 1,076 | 511 |
| Free port warchouma rents | 1.218 | 1,25:3 |
| Meatimage and repivirallon dues.. | 507 | $89 \%$ |
| l'rintling ollice receipis..... | 348 | 268 |
| Frelghts of gov't steam packets., | 2,250 | 1,421 |
| Recelpts for publle tastructon... | 1,549 | 1.351 |
| Miscelleapous. | 811 | Bis |
| Total. | $\pm 144,146$ | ¢99,03131 |

- The diminution of the datlen was wholly owling to tho fallure in the crope of oll and eurrents.

A000ENT of IN. 1851 4 ND тia

Hoede
Nilitary proh
Loril If. Coin Leglatatire A Clvill antublisl Judtelal estab Wducation... Rents of pnbl Publto work. Paeket aervie Collection of : paper for st thealth oftice light-housee post offleos. Execultre pol courts of juat Conthagent ex eral and loen

Total. .
Acconer of $T$ PAL ABT
in 1858.
$\qquad$
Dilive oll...... Currants.

| Wine. |
| :--- |
| Splitts. |

salt..
IIdes...........
Casts of onrran Barrels for oll. soanp.
Allothor artici Forelía manof

Total....
Marchandise in
a very bac mount to 25,000

Account of thi ABticles tmpu

Prodnce, auga
Coffee. .
Drugs, gums Manufactures
Raw silk... Raw colton.. Wool. . Ilemp and fia Staves for larg Iloops
Iron...
Ttmber. ....
Firewood.
Wheat...
Jmifan corn. .
Mulian corn. .
Barley and oat
Beans sud oth
Potatoes......
Potatoce
Mifaccaroni.. .
Maccaronf.
Flour.....
Cberse.
Cherse.
Bntter..
8all theat...
Stock fish snd Bottarga and $C$ Gardintas and a Onlens and gar Drled frufts. Poultry. WInes, forelgn Wlhes, forelg
Splrlts...... Spirlts Horned caitle. Horses, inules, 8beop, goate, at Tobacco. Ryo... All othor artle Total..... Falue of merch

Ports.-The are Corfu and $Z$ and Argostoli it Corfu lie on the
 IN. 1801 and 1809, apmolytime tha Diprsinat ITGMe, AND THI ANOURT OF EAOE,

| tioede of erpenditure. | 181. | 1869. |
| :---: | :---: | :---: |
| Misitary protection (pald by king.) | \$25, 000 | (250,000 |
| Lord If. Coinmisaloner' civil list. | 14,448 | 18,000 |
| Inglalative Astembly . . . . . . . . . . . | 811 | 4,190 |
| Clvil satablishment. .............. | 42,618 | 40,460 |
| Judicial entabltahmon | 18,029 | 15,766 |
| Ehlucatlon... | 11,894 | 11,499 |
| Rents of public ofilces. . . . . . . . . | 1,803 | 1,664 |
| Publle worke . . . . . . . . . . . . . . . . . | 2,851 | 792 |
| Packat servlce, coals, repalrs, ate. | 4,080 | 2,048 |
| Collectton of revenue, Including paper for atampa. | 1,889 | 432 |
| Ifeafth office, Iazarettos and Ight-houses. | 1,892 | 1,880 |
| Podt offices. . . . . . . . . . . . . . . . . . . | 887 | 889 |
| Pxecatlve polles................... | 1,480 | 1,049 |
| Courts of justjes. . . . . . . . . . . . . $i$ | 1,800 | 2,049 |
| Contingent expeaditure of general and loeal governments... \} | 26,028 | 14,434 |
| Total. . . . . . . | E145,596 | 2136,119 |

account of the Quantities and Valuea or the peinclpal AEtteles exportag fhom tur lonian Ialanda IN 1802.

| Artleles exported. | Quanililes. | Value. |
| :---: | :---: | :---: |
| Olive oll. . . . . . bar, of 16 Jmp . git | 27,178 | 261,652 |
| Currants.. . . . . . . . . . . . . . . . . . . bs $^{\text {a }}$ | 7,888,9)8* | T5,014 |
| WIne...................... . barrels | 80,062 | 9,512 |
| gplrits. . . . . . . . . . . . . . . . . or $^{4}$ | 781 | 054 |
| gilt. . . . . . . . . . . . . . . . . . . bushais | 109,797 | 1,145 |
| Ifteles. . . . . . . . . . . . . . . nuinber | 6,087 | 1,784 |
| Casks of onrranth. . . . . . . ${ }^{\text {a }}$ | 8,779 | 2,842 |
| Barrels for ofl. .........tace bntte | 1,891,409 | 9838 |
| Yoap. ............ . . . . . . . . . . .lba. | 1,291,687 | 16,099 |
| All othor artlcles................. | 18,877 | 8.1589 |
| Forelgn inamafmetares. . . . . . . . . . | .... | 8,717 |
| Total. | .... | 1*2,872 |
| Merchandise In translt. . . . . . . . . . | * . | 228,454 |

* A very bad season. In favorable years the exports mount to $15,090,000$ or $16,000,000 \mathrm{lbs}$.
accuunt of the Quantitiza and Vakuea of the vagiout Aaticles impugted into tig Ionian lalande in 1452.

| Ariclua, | Q wanlitios. | Value. |
| :---: | :---: | :---: |
| Prodnce, sugar. . . . . . . . . . . . Iba. | 1,885,807 | 230,789 |
| Coffee. ................... ${ }^{\text {4 }}$ | 005,883 | 15,617 |
| Driga, gums, etc. . . . . . . . . . . it $^{\text {c }}$ | .... | 10,2~6 |
| Manufactares. . . . . . . . . . . . . $\mathbf{\Sigma}^{\mathbf{2}}$ | . . . | 114,464 |
| Kaw silk........... . . . . . . .lls. | 05 | 88 |
| Kaw eotton................ " | 50,565 | 1,256 |
| Wool...................... ${ }^{4}$ | 23.824 | 280 |
| Hemp and flax. ............ | 52,488 | 1,143 |
| Staves for large casks. . . . . . . No | 308,578 | \} 5,705 |
|  | 848,070 | $\}$ 2,180 |
| Iron.... ........................... . . | 290,880 | 2,410 |
| Tlmber. . . . . . . . . . . . . . . . . . . 4 |  | 17,251 |
| Flrewood................ passt. | 9,841 | 8,768 |
| Wheat. . . . . . . . . . . . . . . kllogs. | 928, 782 | 201, 6, 40 |
| Indlan corn. ............ * | 167,823 | 28,159 |
| Barley and oats. ........ | 78,654 | 6,751 |
| Beans and other palso... | 18,644 | 8,244 |
| Potatoes. . . . . . . . . . . . . . . . . . . lbs . | 1,191,034 | 4,837 |
| Rlce. . . . . . . . . . . . . . . . . . . ${ }^{\text {4 }}$ | 891.787 | 9,219 |
| Maccaroal. . . . . . . . . . . . . . . . ${ }^{\text {" }}$ | 211,54 | 2,548 |
| Flonr......................... ${ }^{\text {a }}$ | 872,417 | 8.252 |
| 113scutts. . . . . . . . . . . . . . . . . . ${ }^{6}$ | 81.928 | 818 |
| Cherse. . . . . . . . . . . . . . . . . ${ }^{\text {" }}$ | 4T4.452 | 5,254 |
| Bntter........ . . . . . . . . . . . . ${ }^{\text {* }}$ | 71.767 | 2.845 |
| Salt ineat. . . . . . . . . . . . . . . " | 28.745 | 829 |
| Btock Ash suil baccals...... " | 1,0235,519 | 9,199 |
| Buttarga snd Cavlare. . . . . . | 150,013 | 4+230 |
| Sarilinias and anchovles..... ${ }^{\text {H }}$ | 1,244,826 | 16.964 |
| Onlons and garlte..........mill. | 9,614 | 2,559 |
| Drted frutts. . . . . . . . . . . . . . . e $^{\text {c }}$ |  | 4,462 |
| Ponltry. . . . . . . . . . . . . . No. | 17,107 |  |
| Wines forelga. . . . . . . . . barrels | 682 | 4.299 |
| Spirlts. . . . . . . . . . . . . ${ }^{\text {ut }}$ | 1,154 | 8,200 |
| Horned cattle. . . . . . . . . . . . No. | B,046 | 82,141 |
| Ilorses, muleg, and asses...." | 2,029 | 2,67\% |
| Sheop. gosts, and ptgs. . . . . " | 816 | 2,117 |
| Tabaccu. . . . . . . . . . . . . . . .lbs. | 80,142 | b,894 |
| Rye.....................kllogs. | 290, 221 | 6,82\% |
| All other artlcles. . . . . . . . . . . $\mathbf{i}^{\text {d }}$ | - | 12,878 |
| Total. | - . $\cdot$ | 585,293 |
| Falue of merchandiso in translt | $\ldots$ | 194.124 |

Ports.-The principal ports in the Ionian republic sre Cerfu and Zante, in the islands of the same names, and Argostoii in Cephalenia. The city and pert of Corfu lie on the east aide of the island, on the cnnal
or channel between tt and the opposite centinent, which is here about five milee wide. The eltadel, which projects into the rea, le furniahed with a lighthouse, 240 feet high; the latter beling in lat. $30^{\circ} 37^{\prime}$ N., long. $19^{\circ} 56^{\prime} \mathrm{E}$. The town la but indifferently built. Populatien about 18,000, excluaive of the milltary. The fortificationa are vory etreng, both toward the sea and the land. The canal has deep water throughout ; lie navigation, which ia a little diticult, has been much facilitated by the erection of a lighthoase on the rock of Tignoso in the nerthern entrunce, where the channel to leas than a mile in width; and by the mooring of a floating light eff Polnt Leschine, in the nouthern entrance. Shipa anchor between the small but well-fertified island of Vide and the city, in from 12 te 17 fathoms water. The port, or rather gulf, of Argostoll in Cephalonia, lies on the south-west side of the isiand. Cape Aji, ferming Itr aouth-weatern extrenity, is in lat. $38^{\circ} 8^{\prime} 40^{\prime \prime} \mathrm{N}$., long. $20^{\circ} 93^{\prime} 30^{\prime \prime}$ E. Cape San Nicolo, forming the ether extremity, ia about $4 \frac{1}{4}$ milee from Cape Aji; and between them, within ahout $1 \&$ mile of the latter, is the amall inlet of Guardiani, on which is a light-house. From thie island the gulf stretches N. $\frac{1}{3}$ W., from seven te eight miles inland. The town of Argostoii lies on the weet side of a haven on the east side of the gulf formed by Peint Statura. The situation is lew and rather unhealthy. Population about 8000 . Its appearanee and police, particularly the latter, have been much improved since its occupation by the English. There is deep water and geod anchorage ground in mest parte of the gulf. The best entrance is between Cupe San Nicole and Guardiani, keeping rather more than a mile to the eastward of the jatter, on account of a reef that extends N. E. ond S. W. from it nearly thut distance. The port and city of Zante are situated on the eastern side of the taiand, in lat. $37^{\circ} 27$ N., long. $20^{\circ} 54^{\prime}$ $42^{\prime \prime}$ E. The city, the largest in the Ienian Islands, extends along the shere for nearly $1 \frac{1}{2}$ mile, but it is nowhere aiove 200 yards in breadth, except where it ascends the hill on which the citadel is erected. The stylo of bullding is chiefly Italian ; and the interior of the city displays every where great neatness, and even a certain degree of magnillcence. P'opulation estimated hy Dr. Burgess at about 20,000 . It has a mele or jetty of considerable utility, at the extremity of which a lighthouse is erected; and a lazaretto, situated a little to the south-west. The harbor is capacieus. Ships ant cher opposite the town at from 530 te 1000 yards' distance, in from 12 to 15 futhems, availing themselves of the protection of the mole when the wind is from the north-eust. When the troeps took possession of Zante, in 1810, the fertificatiens were fuund to be in very bad ropair; but immense sums have since been expended upon their imprevement and extensien.
In 1853566,817 tons of shipping entered the ports of the Ionian Islands, of which $27,01 \mathrm{f}$ were English. The others were Ienian, Greek, Turkish, etc.

Money.-Accounts are kept in sterling meney, or in Spanish doliars and oboli, 100 oboli leing $=1$ doll. $=$ 4s. 4d.; a doubloon $=1$ dollar.-l'Ate's Cambist.

Weights.-Engliah weights and measures are sometimes made use of, theugh with Italian denominations; but the following are nost generaily used: The pound peso grosso, or great weight of $12 \mathrm{ez} .=7384$ grains Troy; $948 \mathrm{lbs},=100 \mathrm{lbs}$. avoirlupois. The pound peso sottile, or small weight used fer precious metals and dirugs, is 1-3d lighter than the foregoing; 1292. pese sottile corresponding to $8 \mathbf{o z}$. pese grosso.
The eke, used in the southern islands, weighs about 18,900 grains Troy, er $27 \cdot 10$ llss. avourdupois. The Levant cantar, or quintal, sheuld contain 4t okes. The migliajo ( 1000 lls .), for currants in Zante, is 1 per cent. lighter than fur other articles.

Mensures of Length.-The Venetian foot is 12 onut $=134$ inches English. Passo $=5$ Venctian feet. Braccie, for clotha, etc., $=\mathbf{2 7} \mathbf{3} \cdot 16$ inches English.

Do. for allk, $=208.18$. Land $i z$ measured by the minura or 1.8 of a moggio, or bacile, 400 aquare parai being 1 miaura, or baclio, abont $8-10$ of an acre English. Vineyards are measured by the sappade; 8 zappede (a compnted day'e work) boing 1 miaura. Firewood is measured by the equare passo, usually, however, only 2 feot thick, ilais dopending on the quality of the wood. Stone is measured by the pasao cubo.

Measures of Copacity.-Corn.-Corfu and Paxo: meggio of 8 misure, about $\$$ Winchestur tushela. Cephalonia : bacile ahould contain 80 lbs , peso groaso, best quality wheat. Benta Maura : cado of 8 orivelli, $4=a$ 8 mog.; 1 cado ${ }^{3}$ 3 luahels Engliah. Ithaca: 5 becile $=1$ mogglo. Cerigo: chil6, the measure of Cnastantinople, $=1$ bushel English.

Wine.-Corfu and Paxo ; 82 quartucel $=1$ jar, and 4 jars $=1$ barrel $=118$ Englloh Wine gallons. Cephalonia nod Ithaca: 2 quartucei $=1$ boccale $\&$ boccall $=1$ aecchio ; 6 secchio $m=1$ bartel $=18$ Englioh grallons. Zante: $181 \cdot 8$ quartacel $=1$ lim ; 40 quartucel $=1$ jar; 8 jars $=1$ harrel $=17$ 5.8 English wine gallons. Santa Miaura : 92 quartncai $=1$ stamno $; 6$ atamni $=1$ barrel ver 18 English wine gallons. Cerigo: 2 agosten $=1$ boccia; 90 boccio $=1$ barrel = 18 English wine gallons.
 miltrimel jar ; 4 jare $=1$ inarrel $=18$ English wine gallons. Cephalonia: 9 pagliazal $=1$ barrel $=18$ Kinglish wina gallons. Zante: ? lire, or 3 jars of 46 quartuect each $=1$ berrel $5-8$ Faglish wine gallons. Santa Maura : 7 stamnl $=1$ tarrel $=18$ English wine gallons. Ithaca: 13 pagliazzi $=1$ barrel $=18$ Eugliah wine galloue. Serigo: 24 bozae 1 barrel $=$ 140.5 English wine gallons. Salt.-Centinajo, atrout 4000 lbs. Venetian peso grosso. Lime, - Corfu, measure of 4 English cubic feet.

In compiling this article, we have consulterl, lesides the works referred tu above, the loyage Histarique Pitcoreaque, etc., by Saint Savveur-a diffuse but valuable work. The account of Zante, in the last voluine (tome ill., pp. 101-278), is particulariy good. We have also looked into the Voyage en Grice of ScnoFaxt, 3 tomes, Paris, 1801 ; the Archires du Commerce ; the Pupera laid before the Britiah I'mance Commuttee, cte. See W'estm. Rer., xxxvlii., 41s; Monthly Rev., 1xxxiil., 225, cil, 188 ; Quar. Rec., xxiz., 86 ; Ctrie. Ree., xiv., 625 ; Coms. Reh. U. S., vol. I., 457, vol. iu., 171.

Iovra, onse of the United Stater of North America, lies between north lat. $40^{\circ} 40^{\circ}$ and $43^{\circ} 30^{\prime}$, and weat long. $90^{\circ} 12^{\prime}$ and $96^{\circ} 63^{\circ}$. It is bounded north by Minnesots Territory, east hy the Mississippi 1 II er, which separates it from the States of Illinols and Wisconsin, sonth ly Missouri, snci Fest by the Missouri and the great Slonx Rivers, the former of which separates it from the Indian Territory, and the later from Mi:nesotn. Greatest length from east to west, 207 miles ; greatest lireadth, 196 tuilees area, $\mathbf{6 0 , 9 1 4}$ sppare miles.

The surface of Jowa is somewhat elevated and generally undulating. It las no mountains, nor even hils, of any great beight. Tsble Moand, a conical elevation with a flat aummit, siaree or four miles from Duluque, la perhaps 500 feet ligh. On the lorders of the rivers there are frequent "bluffs" which are geserally from 40 to 180 feet high. ihas highest ground in the State in platean in the north-west, called Cotean dea Prairies, which enters it from Miunewota. The southern part of the State abounils with grasy lawns aud vemlant plaina, intersected by numeroun rivers, the ehlef of which wre the lhes Moines. the Skunk, the Iowa, and the zled Cedar (a lumanch of Iowa) Ilivers which flow in a south-east direction into the Missianippi. The hanks of clmost all of thase rivens are alinted with belts of wood. The distinguishIng featnre, howe ?er, of lowa is tes unique und a luirably diversifled prairien, ecmetiuses oprcading ow :..iw
vast plainc. The entire State is mamed "a rolling pralrie" by the settiors, from the reeomblance its surface bears to the rolling awell of the ocean. From the absence of wood, the acenery becomas wearisome and teme.

The soll of Iows io in goneral fertile. Nesr the confines of the Cotean dee Pralries the country is hilly and desolate ; the high lands being covered with gravel aurport hat a ecanty vegetation, while the low grounds are marehy. It appears, however, from the surveys which have been minde, that no State in the Union has a omaller proportion of inferior land. Dr, Owen, In hia geologleal report, remarks that "she soil of lows Is generally excellent, and of easy cultivation. The valleyz-especially of the Red Cedar, Iowa, and Des Moines Hivers-present a body of arable land, which, taken as a whole, for richneas in organle elements, for amount of saline matter, and due admixture of earthy ailicates, nitionds a comblnation which belonge oniy to the most fertile upland plains." The climate is gen. erally more bealthful than most of the new States. The openness of the country renders it lesp liable than is usual to the influence of malaria, the air on the urland prairiee is buogant, and rendered fiee from all pernicious infuences by the refreshing breezes that olow periodically over them. The rapid tlow of its rivers alse carrles off in the valieys those mismatio influences which otherwise tend to the production of disease. The winter is occasionally severe, but the eeverity is not oo great as lo unual in the same latitudes. The oummer, also, le less oppressively hot.

Iowa is etrictly an asricultural country. Its fine prairiea and rich natural pantures afford peculiar facil. itles for rearing cattio and sheep. Wool-growing has aceoritiagly become one of the staple employments of the settiers. The raisinf; of hogs is an occupation equally common and preftable. The value of live stock in 1857 was estimated at $\$ 3,660,000$, and slaughtered animals at $\$ 810,000$. The ameunt of wool produced was 373,898 pounils. Considerable progres has recently been made in agriculture, as shown by the increase of various pruductions of the State. For Instence, In 1840 there were only 154,693 bushel of uhent grown ; in 1850, there were 1,50,58I; in 1810 , 216.885 bushels onts; in 1850, 1,524,345; in 1840, $1,406,241$ buahela maize ; in $1850,8,656,709$. All the other prodactious common to similar latitudes are grown in lown, and have increased in an equal or grenter jryortion.
Manufuctures have, until recentiy made little progreas in the State. Ilaving only existed for little more than 10 years as an intependent State, time has not been afforjed to develop its manufacturing rosources. l'ossessing within itself abundance of the two grand elemente for manufacturers-cod and water power-there can be no donbt that lowa wil yet te distinguished as a manufacturing State. In 1850 the number of manufacturing estahlishments, producing each to the value of $\mathbf{Q} 500$ annually and upward, wan 48 :. Of theae there wore three for the manuficture of enst iren, $1+$ tanueries, and one woolen factory. The others we chiefly employed in the manufbeture of articles for ordinary and domestis purposes and agricultural inplements. The home-male manufactures In the rear ending lat June 1850 , were valued at (220,000.

The minerala of lowa are nut of grest variety. The vast bituminous coal-field of tho State occupies mont of its centeal and southern portions. For upwards of 200 miles the Itiver Des Mojnes passes through this great leprosit, the aren of which has heen extimated at alout 20,000 equare mileq embracing a country equal In extent to mory thas one half of the State of Iudjana. The beds of coal, which are 100 fect in thick0 sm , liu near the aurface, and may be worked at small expense. The leal miner of Jowa are a contincation of those of Lllinvis and Wisconeln. The workings are
oid and the nor oldest town of Geolyic produce except unboum tric cela lend. 'I in a stal Copper recently abláa qua but as ye verted h State abo and capa miners m aries. It trade witl Guif ls The expe ducts. T sideraible. internal $t$ ant, and b railroad os tween Dul and Keok trade. Ke glso shortl rior. Ilesi State in $\mathbf{v}$ proposed $t$ Council Bl the great Franciseo, a bnanch e roads cont ments of M pleted, both state will given 1,800 Moines Riv made navis there were proposed, fo sted $4,340,0$ River conta as half the a perity may improveme execution 0 Molnes rise weat of Minn eral in a nou nearly equa falis into th the State, al many other rious-sume Skink is m through a fe miles in a Moines. Tl name, has, and after a e itself in the the sides of navigable by 80 iulles fron much furthe (lowa), Is na the Makoqu courses vary are asvigabl
old and have been very productlve. Thay occur in the north-east part of the State, Dabuque, one of the oldest sottloments in North America, boling the ohief town of the laad-mining district.'. Dr. Owen, in his Geol-gical Survey, remarks that the lead-mines of Iowa produce as muoh of that metal as the whole of Europe, oxcept Great Britain, und that their capabllities are unhounded. Zino is found chiefly in the furm of electric calamine, In cellular manses in connection with the lend. This mineral occurs in some "dlgginge" also, in a state of carbuaste, and in others, as a aulphuret. Copper is found in the same localitios as sinc. It has recently been discovered in Cedar connty 'as considerall!s quantities: Iren-ore is abundantly distributed, but as yet, only a small quantity of it has twoen converted luto metal. In the geological eurvey of the State above referred to, it is affirme's that its resources and capabililities are sach that 10,000 laborers and miners might be profitably employed within lts boundarien. Iowa has no direct foreign commerce, but its traide with the ports of the Atlantic and the Mexican Guif is very conalderable, and rapialy incrensing. The exports consiat of agricultural and miaing products. The home traffic of this State la also very considerwile. The facilities which it possesses, both for intemal trade and foreign commerce are very abundant, and in a short time will be greatly incrensed. A railroad of $\mathbf{1 8 0}$ miles in length has beeat projected hetween Dubuque, the capital of the lead-mining elistrict, and Keokuk, the chief port of the State for forelgn traid. Keokuk, Davenpert, Lyons, and Duhuque will aiso shortly be connected by railroads with the interior. Jlesides thene, which will radiate through the State in various directions, the grand trunk line is proposed to be carriod from this city westwarl to Council Blutis on the Mispouri, and will form a part of the groat Pacific 1hiow which ls to terminate at San Prancisco, in Callformia. Through Iowa will also pans a bnuch of the great chain of north and sonth rallroads conrecting St. Louid with the extreme settlementa of Minnepota Territory. When these are completed, woth the home and foreign commerce of the state whil be indefinitoly increased. Congress has given $1,300,000$ acres for the improvement of the Des Moines River, as far an Des Moine City-to bo made navigable for large steantooats. In July, 1856, shere were 108 miles of railrond finlahed, and 1110 proposed, for which Congrees, in May, 1856, appropristed $4,320,000$ acres. The valloy of the Des Moluen River contaits, at present half the population, es weil as haif the agricultural wealth of the State, mud ita prosperity may for some time depend bs much upon the improvement of navigation on thas river, as upon the execution of these projected railroadn. The Des Holace rises in the Cotean des Prairies, in the senthwent of Minnesota, and flowing through the Stato in general in a south southeast direction, divides it into two nearly equal sectinns, nud after a course of 400 miles, falls into the Mississippi at the avuth-east uxtremity of the State, alout fuur miles below Keokuk. lowa has many other inst nur tivers which aro navigable for va-rious-some of them for considerabile-distancen. The Skunk is more than 200 miles in length, and Hows through a fertile country. it parsues a course of 150 miles in a south-east direction nearly parallel to bes Moines. The lowa, from which the State taken it, name, has, in general, a south nonth-east direction, and ster a eourse of upwards of 300 millea, discharges itself in the Misviasippi by two months, forming a dolta, the sides of which are about six milea long. It is navigable by ateamboate nt all seasona, to lown City, 80 miles from its mnuth, and for iwats of light ilranght mach further up. The Ked Cedar (a branch of the lowa), is naviguise for 60 milces. The Wapsipinicon, the Makoquete, Tnrkey, and Upper Iowa Rivers have rourses varying in length from 100 to 200 miles, and are navigatile for distancea of $\mathbf{2 0}$ to 60 milies. They
flow in an east or conth-east direction into the Mitaikalppl. The Great Sioux, an Important tributary of the Missouri, forms the north-west boundary of the State; tts length is eatimated at 800 mlles . The tributaries of the Mliesouri in this State are of minor Importance. The Miseisalippi berdors the State for its whole length on the east, and la navigable in time of bigh water for steamboats, to the mouth of the St. Peters, in Minnosota.
Ipecaouanha (Fr. Ipecacumha; Gor. Americanische brechourzel; It. Ipecoacanna; Port. Cipo de camaras, Ipecacuanha; Sp. Ipecacuana, Raiz ds oro), the root of a parennial piant (Cephallis ipecacuanha), growing in Brazil and other parts of South America. It is from its color usually denominated white, gray, or ash-colored, and brow. Littls of the first variety is found in the shope. The gray and brown varietics are brought to this country in balos from Rio Janeiro. Both are in short, wrinkled, variously bent, and contorted pleces, which break with a resinous fracture. The gray is about the thickness of a small quill, full of knots and doep cirgular fissares, that nearly reach down to a white, woody, vascular cord thet runs through the heart of each piece; the extornal part is coupact, trittle, and looks smooth; the brown is sinaller, more wrinkled, of a blackish-lorown color on the outeide, and whitlah within: the white is woody; and has no wrinklen. The entire root ls inodorous; bat the powder has a faint disagreeable odor. The taste is bitter, sub-acrid, and extremely nazseous: - In choosing ipecacoanha, tho larger roots, whith are compact anil break with a resinous fracture, having a whitish gray, somewhat semi-transparent appearance in the outside cortical part, with a pale straw-colored meduilary fibre, aro to be preferred. When pounded, lpecacuanhs forms the mitidest and safest emetic in the whole materia medica. Though probably employed In Americs from time immemorial, it was not introduced into Europe till the time of Lonis XIV., when one Grenier, a French merchant, biought 180 pounds of it from Spain, with which trials were made at the Hôtel Dieu. Holvetius frest made known its uee in dysentery, for which Louis XIV. muniflcently rewarded him by a douceur of 25,000 francs.-Thomson's Diopensatory ; Tronsos's Chenistry.
Ireland, one of the largest of the Eumpoan islands, Is situsted to the west of Great Britain, from which it la separated by a narrow charnel called the Irish Sea and St. George's Chanael on the enst, and is bounded on Its other sidea by the Atinntic Ocean, through which it can maintain a direct communication with the continents of Europe, Africa, and Amorica. The advantageous position, the fertility of the soil, and the salubrity of the climato, have conforred upon Ireland commercial facilities which aro eapable of being greatly increased. How far these natural advantages have been male nvailable toward the intornal improvoment of the island itaelf, and the general benefit of the empire of which it forins an limportant part, may the thent ascertained from the following details of its history an a statistics.

I reland is riomioidal in shape, and placed at tho eastern extrenity of the Atlantic Ocean, which washes itn northern, western, and southern shores, while its eastern coast is separated from the adjacent island of Great liritain by the Northern Channel, which at one point is only 131 milen wide, the Irish Soa, ahout 130 mifes in width, and St. Georgo's Chanuel, which is 69 miles wife hetween Dubtin and Holyhead, and: somewhat loes at its aoothern extremity. Its goograjiacal position is thet woon N. lat. $51^{\circ} 26^{\prime}$ and $55^{\circ} 21^{\prime}$, and W. Jong. $5^{\circ} 20^{\prime}$ and $10^{\circ} 20^{\prime}$, comprising, therefure, $8^{\circ} 55^{\prime}$ of lat., and $5^{\circ} 6^{\prime}$ of long. $\rightarrow$ the degrees of latituide being the same ns those under which are situated the diselinilar climates of Borlin, Hambarg, Rotterdhom, Leipzig, Warssw, part of liudson's May, the Straita of lielielsle, and l'etropaulowski, in Kumts-
chatke, which latter is nearly under the same parallel of latitude as Wieklow. The largest diagonal line that can be drawn vithin the island, vie., from Tor Head, in Antrim, to Mizen Head, in Cork, measurea 302 miles ; and the ahorter, from Carnsere, in Wexford, to Erris Head, in Mayo, is 210 miles in length. The breadth of the conntry, from Dundalk to Ballyshannon is 85 miles ; from Dublin to the head of Gal-
way Bay, 110 milea; and the indentationa of the coast by harbors, arms of the sea, and mouthe of rivers are so numerous, that scarcely an acre of land in the country is more than 50 miles from the sea or good navigation. The territorial divislons, and the acrealile extent of Ireland, which, next to Great Britain, is the largest island in Europe, appear in the following table :

| Tarritorial Dividione. |  |  | Aecording to the ordmance sarvay aind Ceboun Raport. |  |  |  |  |  | Annanlof Grimbun$V$ Valiastion. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Proviseas. | No. of Liaronies, | $\begin{aligned} & \text { No, of } \\ & \text { Parlaben, } \end{aligned}$ | Of arablo land. | Of meuldiv. sted land. | Of planta. | for towns and villagen. | Of water. | Tutal ares. |  |
| Letnister | 124 | 1,008 | 8, ${ }^{\text {nfl, } 188}$ | 781,886 | 118,9+4 | 15,569 | 81,694 | 4878.211 | ¢A,805,418 |
| Monster | 75 | 894 | $8.414,618$ | 1,898,477 |  | 14,698 | 151,88t | 8,044,579 | 8,247,177 |
| Ulster. | 70 | 891 | 8,407,589 | 1,764,870 | 79,788 | 88700 | 914,056 | 6,475,488 | 2,588,265 |
| Connanght | 47 | 809 | 2,220,960 | 1,906,008 | 48,340 | 8.877 | 219,864 | 4,892,048 | 1,853,720 |
| Total. | 816 | 2,538 | 18,464,800 | 6,205,785 | 874,489 | 42,823 | 680,825 | 90,808,961 | 11,489,555 |

Several coal-flelds exist in Ireland, reeting on a limestone hasis. In Ulater, the district of Coal Island, in the connty of Tyrone, produces coal of good quality, extensively used in the neighborhood; the small coalfield at Ballycabtle in Antrim, is of no economical importance. The province of Connaught affords beds of coal in Leitrim, Roscommon, and Sligo, but rarely exceeding three or four inches in thickness. The Munster coal-fields are in the countios of Cork, Kerry, and Limerick. The ehlof coaldilstrict, however, is that of Leinster, In Carlow, Kllkenny, anv. the Qucen's County. This coal, as well as that of the Munater district, is anthracitous; that of Connaght is bituminons. The native coal is only used in the districts where it is raised, and neither the quantity nor the quallty has been found such as to interfere with the importation of coal from Great Britain, which probably exceeds $1,000,000$ of tons annually.

More notalile in Ireland are the unstratified igneous rocks, of which many varietics are found. Trap-rocks exist in varions parts of the country, lut more eapeclally in Antrim, where they are found in great variety. The basaltie columns of Fairhead and the Giant's Causewuy form one of the most interesting geological districts in the Hritish empire. The trap-rocks often repose on the indurated chalk of Antrim, enjecialiy in Rathlin Island and at Cushendole. At the latter place leds of trap and the chalk alternate. Of quarta rock, the chief deveiopment In Ireland is In Mayo and Donegal; it appeara, also, in the peninsula of Howth and Dublin, the suinmits of the Sugar-Loaf Mountains, and Bray IIead, in Wicklow, and in the district of Forth, in Wexfurd. No tertiary formation has bcen discovend in lreland, except the clays containing lignite or wood-coal on the southern shore of Lough Neagh.

The elevation of the arrface of ireland in atated in the following table from the Land Tenure Commissionr rs' map:

|  | Square milles, |
| :---: | :---: |
| Betweon ace-ievel and $\mathbf{2 5 0}$ feet in holght.... 18, 4 |  |
| " 2.50 and B00 feet | 11,787 |
| $\cdots \quad 000 \times 1000$ | 8,797 |
| 1000 " 2000 | 1,589 |
| Abeve 2000 feet in helght | $82 \%$ |
| Total | 82,5091 |

The higheat jeaks in the chief mountain groups are:


If the posmeasion of numerous fine bays and hariora male a country great as a commercial and maritime power, Irelar. 1 would besecond to none in Europe. I're-eminent even in Ireland is the magnificent harbor of Cork, secarely Land-locked, protected by strong batteries, and used as the only naval station on the Irish conet. Ialtimore IIartor, Sknli, Cape Ciear, Cruokhaven, Dunmanus and Bantry Bay, are all of sufficient
depth and capacity for large vesaels. On the western coast are Berehaven, Kenmare River, Valentia, Ventry, Smerwick, Brandon Bay, the estuary of tho Shannon, Galway Bay, Roundstone Bay, Ardhear or Clifden, Ballynakill and Killery LIarbors, Clew, Blackrod, and Killala Bays, with many others of less importance. On the northern coast are Milroy Ilarbor, and the fine gulfs of Lough Swilly and Lough Foyle. . The eastern coast has been lese favored by nature, and furnishes only one bay, with sufficient depth of water for the largeat vessels, that of Strangford. The Bay of Dublin, which is much exposed, contains the fine artitleial Harbor of Kingstown. Belfast, Newry, Drogheda, Wicklow, Arklow, and Wexford, have all ineen converted into ports, but are naturally deficient in the requisites for good harbors. Between Wexford and Cork is the fine Estuary of Waterford, formed hy the confluence of the Rivers Suir, Nore, and Harrow. Attogether, Ireland possesaes 14 harbors for the li rgesi ships, 17 for frigntes, from 30 to 40 for merchant ves sels, with many good summer roadsteads, and an infinity of small inarbors for fishing-boats. The islands off the coast of Ireland are numerous, but generally of small size; the largest are Rathlin and Tory in the north ; Achill, Clare, the South Arran Iolands, and Valentia, in the west; and Whiddy and Cape Clear iu the south.

Lakes.-The lakes in ireland are numerous, Lough Neagh, in Ulster, is the largest inland lako in the United Kingdom, and is only exceeded in Furope by Lake Ladoga in Rassia, Lake Vener In Sweden, and the Lake of Geneva. According to the Ordnance Survey it covers 98,255 statute acres. The River Bann, passing through it, affords the means of lowering its surface, which is 48 feot alove the eea at low water; but as its deepest part is leneath the level of low water, total drainage would be Impracticable. Tradition atates that it was once dry lend, and that the tops of huildings may at times ine seon in ithen legent which has been made use of by Moore in one of his melulies, Lough Neagh contains lunt one islet, Ram island, remarkable only for a round tower, and as contributing to break the satneness of the surface of the lake, which, being surrouniled by shores almost as level as itself, and generaliy- bare of wood, has little or none of the picturempue beauty whleh rendera Lough Eine and Killarney so clelightful. Its vicinity to the five counties of Ulster, Antrim, Down, Armagh, Tyrone, and Londonderry, each of which its waters tourh, presents breat advantages for internal trade by inland navigut'~. $^{\prime \prime}$; steain versela have been jlaced upou the lake, and, in conjunction with Coal Island, Newry, Litster, and Lagan Canals, lough Neagh, with its 100 miles of coast, promises to increase in importance as a centre of Internal traffic. Lough Erne, the next in size, lies wholly within the county of Fermanagh. Its tutal length is upward of 40 miles, but its greatest breadti in not more than 8. Strictly mpeaking, it consists of two lakes, about 5 miles epart ; the more inlund meas. vring about 14 miles in length, and that nearer the
sea, 25. fino river lower or n division a of the tow covers 92 snds; the 000 statute studded wi ty. Lougl Connaught mas not mo lakes cover 22,219. It a short but town of Ga of the sea, connect the great lakes water comm ther north, a now lake of of Kiliarney their picture pared with th covers 5001 a upper lake on of Donegal, i islet in it, ca been resorted penance by pil This lake is ne Dearg lying o tains 20,570 nc lin to the nor Cavan, aro ale ties. There a most parts of I van, Westmeat Ireland conts the largest rive non, whir', risi Fermasorfh ane and mence in cunnaught froz it turns westwa letween tho Cal miles wide. It erick, and for $\mathbf{v}$ miles of its aour measures 2.10 mi amount of its fia current is very ing its pussago pands into the 1 sad Lough Dea with numerous Charleville, and itself into the $\mathbf{A}$ honadary het wee llefween the litt estuary of the S which have thei the central range after diverging s portion of the pro agnin near the , in the mauntains St. George's Chu mons for its hlat natural ad vantag rated plain of Le falls into the Iris in the Mourne N
Lough Neagh, ar
sea, 25. They are connected with each other by a fine river flowing from the upper or southern, into the lower or northern lake. On tho island formed by the division of this river Into two branches, the cbief part of the town of Enniskiller is built. The upper lake covers 9278 statute acres, and contains abont 90 islanis; the lower and larger lake contains nearly 28,000 statute acres and numerous delets. Itp consta ire studded with numerous seats and villas of nuch beauty. Lough Corrib and Lough Mask, in the west of Comnaught, are separated from each other by an isthmus not more than 8 miles hroad. The formar of these jakes covers an area of 43,484 acres, and the Intter, 29,219. It discharges its watera into Galw's Bay by a short but broad and rapid river, winich skirts the town of Galway. Its level is but 14 fect above that of the sea, and works have long been in progress to connect the navigntion of the bsy witl " of the two great lakes above lt. Means of cons: ang them by water communication has not yet be z . Sected. Further north, and about 8 miles from Ballina, is the narmw lake of Lough Conn, 12 miles long. The lakes of Killarney, in Kerry, have long been celobrated for their picturesque acenery. They are amall as compared with the larger lakes of Ireland; the lower lake covers 5001 acrea, the middle lake 680 acres, and the upper lake only 430 acres. Lough Derg, in the south of Donegal, is amall, but of grent celebrity from an isjet in it, called St. Patrick's Purgatory, which has been resorted to from time innmemorial as a place of penance by pilgrims of the Roman Catholic persuasion. This lake is not to be confounded with the great Lough Dearg lying on the course of the Shannon, which contains 29,570 neres. Lough Gill, in Sligo, Iough Shellia to the north of Menth, and Lough Oughter, in Cavan, are also worthy of notice for their scentc heauties. There are many other lakes of small size in must parts of Ireland, but chiefly in the courties of Cnvan, Westmeath, and Longford.
Irelanil contains not only the largest lake, but alao the largest river in the United Kingdnu-the Shannon, whir', rising in the mountaing on tho conflnes of Ferme:t.gh and Leitrim, flows through Lough Allen, and sence in a south-western dircetion, separating iunnaught from Leinnter, till, arriving at Limerick, it tums westward, and discharges itself into the Atlastic, through a fine estnary; which, at its entrance het ween the Capes of Loophend and Kerrybead, is 8 miles wide. It is navigable for large vessels to Lisnerick, and for vessele of smaller tomnage to within 5 miles of its sonrce in Lough Allen, Its centro length measures 210 miles, and in consequence of the small amount of its fall, which does not exceed 150 feet, its carrent in very slow and often lmperceptible. During its passage from Iough Allen to Linneriek it expands into the largo lakes of Lough Reagh, 15 miles, and Lough Dearg, 21 miles In length, and atudiled with numerous islets. Tho Blackwater rises near Charleville, nnd, flowing south-eantward, discharges itself into the Atlantic at loughal, after forming the houndary between the counties of Cork and Waterford. Between the latter connty and that of Wexford is the estuary of the Suir, the Nore, and the ltarrow, all of which have theit sources not far from each other in the central range of the Slievehloom Mountains; and, after diverging so that their utresme enrich a great portion of the province $n$ of Leinster and Munster, unite again near tho elty of Waterforl. The Slaney rises ia the mnuntalus of Wicklow, and empties itgelf Into St, Genge's Channel at Wexforl. The Boyne, fimous for lts historiend rocoliectiona as well an for its natural advantages, han itn sources in the central elerated pinin of Lelnster, and, flowing north-east ward, falls Into the Irish Sea at Drogheda. The Bann risea in the Mourne Mountains, flows northward throagh Lough Neagh, and, after eeparating the countles of Londenderry and Antrim, flows into the Atlantio at

Coleraine. The Foyle la formed by the union of the streams of the Poe, the Mourne, the Finu, and the Derg, which, flowing from different yarto of the interior of Uister, discharge their comblned waters into lough Foyle near Londonderry. The Erne, which flows from Lough Erne, has a short but rapld course to the Atlantlo westward, and dischargea its great body of watera into Donegal Bay, over a ledge of rocks rising 10 feet abcve the level of the ordinary tides. The other rivers, though numerons, amounting nearly to 100, are small, and mostly confined to the counties that give them blrth. The Liffey, which rises ia the mountain-land of Wlcklow, and, after a circultous course through Kildare, discharges itself into the Irish Sea, is remarkable for nothing except that the metropoliten city of Dublin is seated on its banks.

The extent of country forming the basin from whence esch of the principal rivers derivea its aupply, is as follows:
 Barrow, Nore, and Angtr $8 \times 400$ Galway, inclnd. Longhs
Corrtb and Mask.... 1 1874
Erne...................... $1 \cdot{ }^{1 \cdot 45}$
Feyle................ $1 \cdot 475$
Feyle.................
1445
Bann and Maine......
1,266 Blackwater S.......... 12219 Boyne and Blackwater 10086 Moy...............................815
8laney.............

|  | .... 785 |
| :---: | :---: |
| Liffey | - 50 |
| Blackwa | ... 526 |
| Malne an | . 511 |
| Feale and | ${ }^{479}$ |
| Ronghty.. | 475 |
| Oroca | 31 |
| Banden. | 228 |
| Lagan. |  |
| Avonmor |  |

Ireland was once so thickly covered with timber as to receive the name of the Island of the Woods. DurIng the early periode of its connection with England, its extenslve and impenetrable forests formed a main ohatacle to the progress of the English troops. Weatminster Hall is eald to be roofed with oak cut in the woods of Shillelagh. Numerous trunks of large trees are constantly found in the bogs. Even in mountain tracts, devoted for a long auccesaion of yeare to the pasturage of sheep, timber trees shoot up spontaneously wherever the land is secured from the intrusions of cattle. Many places, where the vestige of a plantation is not to be seen, retain names of which the word "wood" forms a component part; and in localities where the most attentive culture will not suffice to keep any tree or ahrub alive on account of the western llasts, large trees are found imbedded in the bogs. The different kinds of timber found in the bogn of IreIand are confined to oak, fir, yew, holly, pailow, and birch. Two centuries ago, when Ireland was covered with fincests, there were numerous small iron-works, in which wood charcoal was employed, and vast quantitles of wood used until the country was gradually atripped of its eupply, and the working of iron was consequently abandoned. The extension of agricultural improvement, and nore especially the timber act, which gives the tenant at the expiration of his lease, a pecuniary interest in tho trees he has planted, are gralually removing this defect, the consequence of uges of disturbance and desoiation; but trees in large quantities are generally found in Ireland only in the vicinity of tho residences of the gentry, except in some favored spots, which are well wooded.

Minerals.-I reland is reputet to contain much lead, copper, and iron, but notwichstanding many attempt. to work the metallic mines discovered In the country, few have heen found suffleiontly proluctive to repay the necessary outlay of nerital. Toward the close of the last century, gold was diacovered, accidentally, In the streams flowing from the Mouritain of Crophan Kinscla, on the contines of Wicklow and Wexforl. The metal was found In limpos and small pleces down to the minutest araln. Many of the peasants having ruined themselvea by leaving their proper occupations to join the nearch, th: government, to put an end to the fruitlens quest, took up the enterprise, and oniy relinquished it after satiafying the seekers of its worthlessness. "The gold is associated with magnetio ironstone, nometimes in massee of half a hundrod weight ;
also iron pyrites, brown and red hemattte, wolfram, manganese, and fragmants of tinatone in crystals, together with quarts: From the nature of these attendant minerals; of which mont are known to occur In the quartz velns of the adjacent monntain, it was hoped that by tracing ap the rivulete to their sources, and laying bare In various directlons the underlying rock, the tnctalliferous velns might be dlecovered, from the disintegration of which the sand and soil of tho bed of the streatas had been produced. All buch trials proved useless, and the question as to the source from Whence the gold in those streams in Wickldw has been derived, remaina atill unanswered."-Sir R. Kank'e Industrial Resources of Ireland. Copper ores ure distribnted througbont the clay-slate distrlcta in a great number of localities more or less abundanfly. The principal mines are those of Ballynurtagh, Conoree, Cronebane and TIgroney, and Ballygahan, in Wicklow county ; the Knockinahon, Kilduane, Bonmahoa, and Balinasisla, in the Waterford district ; Allihies or Berehaven, Audley, and Coaheen, and Skull, in the gouth-western dintrict; and the mines of Hollyford and Lackamor, in the western distrlct.
The total quantity and value of copper ore from Ireland, sold in Swansea, where it is smelted, were, in

| Tears. | Tons. | Val | Veara, | Tons. | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1886. | 21.819 | s108,865 | 1847.. | 14,857 | C06,330 |
| 1840. | 19,530 | 1:7,911 | 1848. | 12,808 | 82,039 |
| 1849. | 17,509 | 117,625 | 1849. | 10,424 | 68,794 |
| 1844 | 18,50\% | 77,622 | 1850. | 10,121 | 69,094 |
| 1845. | 18,490 | 97.192 | 1851. | 10,577 | 77,718 |
| 1846. | 17,471 | 106,078 | 1852. | 12,171 | 104,822 |

I ead in more extenslvely ditt used through Ireland than copper. The granitle district of Wleklow contains numerous veins; the principal are those of Glendalough, Glenimalur, Glendasane or Luganure, and Ballycorus. The clay-slate districts also yleld numerons indications of this metal, but sew of the mines have proved profitable. Those still worked are at Clonligis, Newtownards, and Rathmulle $\leqslant 5$, in Down county; Bead and Nevry, In Armagh connty ; Castleblayney, In Mon--ghan county; Kenmare, In Kerry ceunty; Kllbricken and Ballyhlekey, In Clare conuty; Shallee, In LimerIck connty ; and IJantry, in Cork ounty'. A vein at Clontarf, near Dublin, was worked until the mine was filled with water bo. the lngress of the sea. At Ilallycorus, where the lead ores from the mines of the Mining Company of Ireiand are manelted, the quantities of ore worked up b: 1851 from Iaganure mines was 674 tons, which froduced 160 tons of lead, equal to nearly 69 per c.at. The proportions of silver to $n$ ton of lead ap genirally found 50 be, from the mine of lagnonure, 8 oz ; Caine 12 oz., Ballyblekey, 15 or. ; Shallee, 25 oz .; Kilbricken, 1.0 oz ; Tollyratty, near Strangford, 10 oz . The ave: ige of sllver extracted from the lead ore raise, by the Miaing Company of Ireland In 1851, was 7 oz . to the ton of lead ; the total quantity 3860 oz. ; producing $£ 102968.8 \mathrm{i}^{\circ}$.

Native silver was found in a lised of lron ochre In

Cronebane, but the, deposit has been long since exhausted. Sulphuret of silver was found in the lead ore at Ballycorus some years sipce, and the Minlng Company of Ireland have rosumed operations to prove this valuable dlacoyery, Tinetone has been found in the auriferoas sell of, Wicklow, but no veins or workabla doposits have been discovered. Other minerals, useful in manufactures and the arts, and found iu quantltes in various parts of the country, are manganese, antimony, sino, nickel, iron pyrites, alunclays of various kinds, building sfone, marble, flags, and roofing slatos, Nineral springs, chaefly, chaly: beate, are numerous ln many parts of the country. Those of chlef note for their medicinal qualitles are ut Mallow, ln Cork, resembling the hot walls of Bristol; Bullynahlnch, In Down; \$wanlinbar, in Cavan; Cas tleconnel, near Limerick ; aud Lucan, near Dublin.

The following is tho result of the differeni estimates and ceasus ingulrics into the nomber of the populatlon of Ireland at various periods :

| Youri 1692 Sir Wulilam Petty | 850,000 |
| :---: | :---: |
| 1679 | 1.820,000 |
| 1605 Captain Soat | 1,094,102 |
| 1712 Thopras Dob | 2,099,094 |
| 1718 | 2,169,04 |
| 1728 1726 | 2,917,374 |
| 1781 Establlshed Clier | 2,809,00 $2,010,211$ |
| 1754 Tux Colloetors | 2,372,683 |
| 1760 Du Burgho, Hiber | 2,817,354 |
| 1767 Tax Collectors | 2,54,276 |
| 1777 | 2,890, $\mathbf{N}_{1} 6$ |
| 1755 | 2,845,932 |
| 1785 Gervals P. Bush | 4,014,000 |
| 1791 Tax Collector | 4,506,612 |
| 1799 Irr. Beaufort. | 4,048,226 |
| 1805 Thomas Nswenha | 8,495,458 |
| 1911 Parliamentary retur | 8,987,858 |
| 1891 | R,8n1,527 |
| 1831 | 7,767,401 |
| 1884 Oommlasloners of P | 7,948,940 |
| 1541 Parlamentary relu | 8,175,124 |
| 1851 | 6,552,880 |

Hew countries in the world have incrensed in popuIntion so rapidly na Ireland during the first 40 years of the present, and the conclualon of the last century. Arthur Young, In hls Tour through Ireland, in 1766, obscrved that it every where evinces the marks of a rapid lnerease of population. It is generally supposed that the number of tho people increases in the ratho of food and comiforts, und that in Increase of population is a convincing proof of the advancing prosplerity of a nation. The effect of the fallure of the potito crop In depopulating the country would show that the populatlon of Ireland lind outstripped the ;rogress of wealth, and the increase of Industry, and had reduced their wants to the lowest jolnt without procuring an addltion to the comforts of life correaponding to the Increase of the popilation.

The following taible exhlblts the population of each portion of the country, according to the census of 1821, 1831, 1841, and 1851, together with the louse aceommodstion at the latter period:

| Previnees. | 1821. | 1831. | 1841. | \$651. |  |  | Famillet. | Houseat in 1mbl. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Malas. | Famalisa. | Total. |  | Inheulted. | Unimbs ated. |  | Total, |
|  |  |  |  |  |  |  |  |  | Holit. | Hulld. ling. |  |
| lefrster | 1,757,492 | 1.904,71\% | 1,973,731 | 1814,462 | N09,129, | 1.074.591 | 821.991 | $258.1 \times 12$ | 17,406 | 092 | 26, 616 |
| Munster..... | 1,9i5, 612 | 2,227,152 | 4,996,161 | 904.057 | 942,705 | 1, M, 7, 412 | 820.250 | 267,114 | 19,8m | 473 | 240,019 |
| , Ifster.... | 1,903,404 | 2,256,622 | 2,788 378 | 976,283 | 1,035,474 | $2,611.756$ | 880.781 | 891, 878 | 20,047 | \%8. $\downarrow$ | 87\%,064 |
| Connaugith. | 1,110,220 | 1,84.3,914 | 1,418,489 | 496,100 | 514,106 | 1,010,211 | 184,0340 | 169,808 | 7, $0 \cdot 65$ | 25 | [17, 183 |
| Total...... | 6,401,227 | 7,767,411 | -14,176,184 | 2,196,507 | 8,861,463 | 0,881, 670 | 1,2017,002 | 1,046,294 | 65,178 | 1,854 | 1,118,246 |

The chief imperliment to improvement in the condition of the people of Ireland during the prenent cen. tury han been the relandancy of the population. In a country almoat wholly dependent on the cultivation of the soll, there were in 1841 an innny as 385 persens to each equare milh of arsble land. Yerhape, with the exception of Chins there was no other coantry In the world so densely peopled, and certainly none where the gopulation was no Illuproportioned to the
meana of employment. 'This great density of population was necesaarily accorpanied by min extreme competition for land and employment, with the ubsence of all inducements to the acquirement of skili, and in consequence of the low rate of remunoration for labor, and high rents, the impossibitity of any accumulation of cajpltal In the hands of the eultivators of the aoil. The foliowing table shows the deusity of the population in 1841, and its semarkahie decrease in 1891:

Workers

## Miscellant

Traders. .

## Tot

Ministering to

Toto
Unclassfled:
Milalsterlo
Miscellane
Tota
Gond
Ireland is pastoral coun ment of the 1 troduce an att Primate Bou pressed stront sity of cufore pose proposed till five acres exelusive of tensints to the against tillugg loch observes Empire, that and the heav most wretche



|  <br> Provinev. 17. | A Rural popalation. <br>  |  | of porsoast eo the equare mifle. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | , ..n, Of arabla land. |  |  | Or the antire rural dintrict. |  |  | Of the entire aren (inciuding tha teve popalation). |  |  |
|  | 1041." | 1851. | 1841. | 1881. | Dearea betwe 1841- | 163). | 1851. | Deereace between 1841-81 |  | 1851. | Deervere between 1841-81. |
| Leinater. 1........... | 1,581,106 | 1,191,684 | 247 | 189 | 58 | 202 | 187 | 45 | 259 | 220 | 89 |
| Manster. . . . . . . . . | 2,009,299 | 1,466,099 | 882 | 218 | 114 | 212 | 155 | 67 | 958 | 190 | 67 |
| Ulater .............. | 8,180,698 | 1,749,797 | 460 | 230 | 126 | 258 | 205 | 48 | 279 | 285 | 44 |
| Connsught.,....... | 1,888,685 | 920,280 | 888 | 241 | 145 | 195 | 185 | 60 | 207 | 147 | 00 |
| Total. . | 7,089,659 | 5,888,709 | 885 | 236 | 89 | 217 | 164 | 88 | 251 | 208 | 49 |

Noxbar of Parbosa hy Occupations in 1841 and 1851, fertillty of the soil. Strong retentive clay soils, sandy clabbifird accoldino as Phoduorms, Makufaoturers, ano Tradras

Producurs......
. $1,854,14:$
$1,854,19:$
18,905

Total $\qquad$ 85,985 ........


Ireland is naturally, toth from soil and elimate, $r$ : pastoral country, and it was not untii the commencement of the inst century that efforts were made to introduce an attention to tillage on an extended acnlo. Primate Iloulter, when ond of the Lords Justices, pressed strongly on the British government the necese sity of enforcing a tillage system; and for this purpose proposed a law, in 1727, to compel landlords to tili five acres out of every hundred in their possession, exclusive of meadows and hoge; and also to relase temants to the same extent from the pewal covenants against tillage, inserted in their leases Mr. M'Calloch observes, In his Statistical Account of the British Empire, that the luxuriance of the pastures in Ireland and the heavy crops of oats raised, even with the most wretched cultivation, attest the extraordinary
fertillty of the soil. Strong retentive clay soils, sandy solls, chalky and gravelly soils, and several other descriptions of soil common in England, are seldom or never met with in Ireland, which sffords no great diversity as compared with Great Britain. Mr. Wakefield descrities the soils of Ireland as follows :-" A great portion of the soll of Irelsnd throws out a luxurisnt herbage, springing from s calcareous subsoil without any considerable depth. This is one species of the rich soil or Ireland, and is found throughout Roscommon, in some parts of Galway, Clare, and other districts. Some places exhibit the richest loam I ever asw turned up with a plow; this is the case throughout Meath in particular. Where such soil occurs, its fertility is so conspicuous, that it appesrs as if nature had detormia $: 5$ counteract the bad effects produced by the clumsy system of its cultivators. On the banks of the Fergus and Shannon, the land is of a different kind, but equally productive, though the surface presents the sppearance of marsh. These districts are called caucasses: the substratum is a blue silt deposited by the sea, which seems to partake of tho qualities of the upper stratum, for this land can be injured by no deptis if plowing."

The prevslent soil is a fertile loam, reating on a rocky subatratum, chiefly of imestone. The depth, though in general not great, is in some parts such as to sdmit of a fresh vegetable mold being repestedly thrown up by successive plowings to a greater depth. This occurrence is most striking in Meath, and ln the district of the counties $i=$ Tipperary and Limerick, long distinguished by the name of the Golden Vale, from its extraordinary fertility. In some parts, particule rly in Galway, the rock shows itgelf shove the surface in ridses like waves, the interstices being filled with rich moll, which produces a thick, close sward, extremely grateful to sheep. Large tracts of grazing land aimilar to the Downs in England are unusual; the only tract of sny extent of such description is the Curragh of Kildare, which has been need, time intmeinorial, for s sheep walk. The mountains are capaHe of tillage to a considerable height; and their summits, with the exception of a few of the very highest, aro fit for pasturage in summer.

The quantity of arable land in 1841, acoording to the return of the Censua Commissioners, was 13,464,300 acres, and in 1851, 14,202,581 acres; and the proportion per cent. of cultivated and uncultivated surface, etc., at those two periods was as followe:

| Proviocos. | Total arca in matinte neres. | Divition of aurface. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Arable laod. Fropmerion per cent. |  | Uneultivated. Proporion pur cent. |  | Plantatione. <br> Propurtion par coni. |  | Towns. |  | Water. |  |
|  |  |  |  | I'ruportion pret cent. | Proportlon per cent. |  |
|  |  | 1841. | 1861. |  |  | 1841. | 1nsi. | 1841. | 1851. | 1441. | IA85. | 1841. | 1851. |
| Lelnaler... | 4, 76,211 | 81223 | S2\%0 | t50t | 18.67 |  |  | 288 | 409 | $0 \cdot 32$ | 0.88 | 106 | 106 |
| Ulster..... | 8,004,5i9 | $63 \times 9$ | 71.08 | 8142 | 84.48 | $2 \cdot 14$ | 1.71 | 0.24 | 0.28 | $2 \cdot 59$ | 2.50 |
| Manstir... | 5,475,4i3 | 02.21 | 72.05 | 3222 | 91.99 | $1 \cdot 46$ | 1.07 | 016 | $0 \cdot 16$ | 8.98 | 8.88 |
| Conumught. | 4,812,948 | 50.57 | 66.01 | $48 \cdot 189$ | 84.12 | $1 \cdot 10$ | $0 \cdot 98$ | 0.09 | 0.09 | $4 \cdot 85$ | 4.85 |
| Total. | 20,408,271 | AF7t | 7114 | $310 \cdot 25$ | 24.14 | 190 | $1 \cdot 47$ | 081 | 02\% 2 | 8.08 | 808 |

The luws which prodibited the exportation of Irish $\mid$ the asme act, England relaxed her monopoly ao far a woolens to foreign countries, and to tho llritish colonies, were rejresled in 1779. By the Act of Union, the duties on woolens imported into either islanis were confined to thone called "old and new draperies;" ant the high dutiea of Ciarles II. were roduced to $8 / \mathrm{dd}$. per yand on the old, and 2fd. on the now draperies. 1ly to permit the export of wool and woolon ysrn duty freo to Incland. I'revieus to the Union, when the import of English wool was prohibited, the manufacture of Ireland was confined to the coarsent description of grods, for which alone the Irish wool was suited. I'revious to the introduction of carding muchinery the
manufacture of woolens was inconsiderable, but im. mediately after the Union, machinery worked by water power became general, and the trade incroased, but the combinatlons of workmen and protecting dutles rendered the Irish manufacturers unable to compete with these of Great Britain, and the trade contlnued
Tala anowise taze Extent of Land undra Caors poa raon County and Paovinon in Iraland, in 1854 ana 1850 AND the Numaka of Aoaks under bain bpecigs or Caop.

| Provinees. | Whenes | Oata. | $\left\|\begin{array}{c} \text { Barlay, bero, } \\ \text { rya, } \\ \text { and pensen } \end{array}\right\|$ | Potaloes. | Turalpe. | Ohar groen eropı. | Flax. | Mandow and Cloper. | Total axiem coder cropa, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lelinator. $\qquad$ $\left\{\begin{array}{l}1854 \\ 1850\end{array}\right.$ <br> Inerease or deorease In Letuster. $\square$ | $\begin{gathered} \text { Acroniq } \\ 189,920,698 \\ \text { Ine. } \\ 18,878 \end{gathered}$ | Aeres. 508,556 © 03.077 Dee. 479 | 127resi 115,588 Dve. 11,756 | Acres. 204,820 903,005 Inc. 8,185 | Aeren. 90,745 100,780 Ine. 9,04.5 | Aores. <br> 81,868 <br> 80,848 <br> Ine. <br> 520 | Acres. 8,820 <br> 2,149 <br> Dee. <br> 678 | Acrefe 49,69 802,044 Inc. 22,915 | $\begin{gathered} \text { Acrea. } \\ 1,605,599 \\ 1,705,684 \\ \text { Total toc. } \\ 40,055 \end{gathered}$ |
| Manster ........ $\left\{\begin{array}{l}\text { 1854 } \\ \text { 1850 }\end{array}\right.$ | $\begin{gathered} 151570 \\ 157,768 \\ \text { foe. } \\ 6,196 \end{gathered}$ | $\begin{gathered} 864,479 \\ 880,946 \\ 1 \mathrm{se} . \\ 15,767 \end{gathered}$ | $\begin{gathered} 101,699 \\ 98,857 \\ D_{0 e 0} \\ 7,842 \end{gathered}$ | $\begin{gathered} 256,449 \\ 254,944 \\ \text { Dve. } \\ 1,505 \end{gathered}$ | $\begin{gathered} 114,962 \\ 124,948 \\ \text { lace. } \\ 10,086 \end{gathered}$ | $\begin{gathered} 95,425 \\ 25,5 \% \\ \text { Ine. } \\ \mathbf{1 7 0} \end{gathered}$ | $\begin{aligned} & \hline, 458 \\ & 4,294 \\ & D_{0 c} . \\ & 1,168 \end{aligned}$ | $\begin{gathered} 860,088 \\ 855,77 \mathrm{i} \\ \text { Ine. } \\ 95,788 \end{gathered}$ | $\begin{array}{r} 1,979,1021 \\ 1,420,921 \\ \text { Total lne. } \\ 47,897 \end{array}$ |
| $\begin{aligned} & \text { Vister.......... }\left\{\begin{array}{l} 1854 \\ 1850 \end{array}\right. \\ & \left.\begin{array}{c} \text { Inerease or decresse } \\ \text { in Ulister. ......... } \end{array}\right\} \end{aligned}$ | $\begin{aligned} & 88,802 \\ & 74,127 \\ & \text { Ine. } \\ & 4,585 \end{aligned}$ | $\begin{aligned} & \hline 8 \mathrm{8t,878} \\ & 890,171 \\ & \text { foe. } \\ & 48,799 \end{aligned}$ | $\begin{gathered} 80,908 \\ 89,425 \\ \text { Doe. } \\ \text { 878 } \end{gathered}$ | $\begin{gathered} 880,896 \\ 818,167 \\ \text { Dee. } \\ 12,729 \end{gathered}$ | $\begin{gathered} 84,984 \\ 100,872 \\ \text { Inc. } \\ 15,088 \end{gathered}$ | $\begin{aligned} & 25,371 \\ & \text { \&4,974 } \\ & \text { Dee. } \\ & 1,007 \end{aligned}$ | $\begin{gathered} 139,402 \\ 87,904 \\ \text { Dee. } \\ 51,498 \end{gathered}$ | $\begin{gathered} 289,726 \\ 284,964 \\ 166 . \\ 1,298 \end{gathered}$ | 1,81,496 1,815,414 Total foce. 8,903 |
| $\left.\begin{array}{c} \text { Connaught..... }\left\{\begin{array}{l} 1854 \\ 1>55 \\ \text { Inere of or decrease } \\ \text { in Connagght..... } \end{array}\right\} \end{array}\right\}$ | $\begin{aligned} & 24.97 \\ & 89,918 \\ & \text { lne. } \\ & 8,121 \end{aligned}$ | $\begin{gathered} 989.891 \\ 894,461 \\ \mathrm{Irc.} \\ 8,570 \end{gathered}$ | $\begin{gathered} 19,811 \\ 19,108 \\ \text { Dec, } \\ 118 \end{gathered}$ | $\begin{gathered} 197,495 \\ 200,418 \\ \text { Inc. } \\ 2,918 \end{gathered}$ | $\begin{gathered} 82,179 \\ 85,1957 \\ \text { Ine. } \\ \mathbf{8 , 2 0 8} \end{gathered}$ | $\begin{gathered} 16,618 \\ 14,882 \\ \text { Dee. } \\ 2,238 \end{gathered}$ | $\begin{gathered} 8,789 \\ 2,768 \\ \text { Dec. } \\ 908 \end{gathered}$ | $\begin{gathered} 184,471 \\ 180,458 \\ \text { 1oe. } \\ 3,987 \end{gathered}$ | $\begin{aligned} & 74,491 \\ & 784,959 \end{aligned}$ Total lac. $20,492$ |
| Total $\qquad$ $\left\{\begin{array}{l}1854 \\ 1505\end{array}\right.$ <br> Increase or decrease In Ireland. $\qquad$ | $\begin{gathered} 411,94 \\ 446,509 \\ \text { tac. } \\ 84,225 \end{gathered}$ | $\begin{gathered} \hline 8,04,998 \\ 8,111,960 \\ \text { Ine. } \\ 72,687 \end{gathered}$ | $\begin{gathered} 287,154 \\ 267,508 \\ \text { Dee. } \\ 19,589 \end{gathered}$ | $\begin{gathered} 9 \times 9,061 \\ 981,529 \\ D=e . \\ 8,181 \end{gathered}$ | $\begin{gathered} 829,170 \\ 366,497 \\ \text { loc. } \\ 87,827 \end{gathered}$ | $\begin{aligned} & 05,004 \\ & \text { Dec. } \\ & \mathbf{3 , 6 8 3} \end{aligned}$ | $\begin{gathered} 151,403 \\ 97,106 \\ \text { Doe. } \\ 84,297 \end{gathered}$ | $1,877,864$ $1,811,787$ $1 n c_{4}$ 59,873 | $\begin{gathered} 5,571,610 \\ 5,68,962 \\ \text { Total lis. } \\ 112,852 \end{gathered}$ |

Liven.-The same legislative measure which was intended to discourage the woolen manufacturer otated, that "If the Irish turned thelr Industry and akill to the settliag and improving of the linen manufacture, they should recelve all the coantenance, favor, and protection for its encouragement, and promotion to all the adventage and profit they might be capable of deriving froin It." Thls declaration should not lead to the inference that the manufacture had been prevlozsly uaknown or disregarded in Ireland. On the contrary, the use of linen was so prevalent among the higher order, that sumptuary laws wore enacted to check its excesslve use. The unfortunate Farl of Strufford neema also to have anticipated the view's of the British manufacturers on the aulject. Inotead of extingulahing the woolen trude by exclusive duties, he labored to fonter that of linen. He inposted flax seed In large quantitles from Holland, and held out premlums to induce Flemings and Dutchmen acquainted with the manufacture to aettle in Ireland. On these landable objects he spent upward of $\mathbf{~} 30,000$ of his private fortune; and his example was followed by the Duke of Ormond. Stlll, however, the woolen manufacture prevalled, particularly in the south and west, where the climate and extenaive pasturage for sheep insured a copieus and cheap supply of the raw material. In the same oplrit, an act was passed by the English Parliament in 1696, to encourage foreign linen manafacturers to settle in Ireland; and with that view all articlen made of tiax or hemp in this country wers admitted into England duty- free-a privilege which is estlmated to have given that brauch of trade an advantage of 25 per cent. over other nations in the Eigglinh market. The Irish Parllament reaponding to the sentiments and wishes of that of Fingland, proinised that "It would heartily endeavor to entablish the linen and hempen manufacture, so as to render it useful to looth kingdoma;" adding, that "It hoped to tind such a tempercinent in reapect to the woolen trade here, that the same may not be Injurious to Eingland." The "temperament" here announced was evincel mont affectually by laying prohibitory dutlea un the export of Its own woolena, thun accepting the compact on the part of Ireland, and giving the country an la-
controvertible clalm upon England for a perpet ual encouragement of that hranch which was to be nurtured in lieu of tho natural staple of the country. In fir therance of the measures mutnally agreed on between both kingdems, $a$ board of trastees for the encouragement of the linen manufactare was established in 1710, consisting of a number of individuals of :afluence in each province. Under its control a rode of regulations was devised and maintained, which ex. tended to the most inlaute particulars of the processes, and had the effect for many years of securing the fabric a decided preference both in the homo and foreign market. A large oum was anuually grantel to this board for premlums and the supply of wheels and other implements, which was continued till the year 1830, when the grants were discontinued, and the board ceased to act. The flax aced is chicfly inported. Little ls grown in the conntry, as, notwithstanding all the exertions mado ly the grower, the plant raised from it is considered ef inferior quality.

Flas.--The firat fiax-spiming machinery erected in Ireland was at Cork in 1805. About 18:5, English and Scoteh yarns were first inuported into Ireland, and undersold the opun article. The use of machinery gradually lacreased, and the linen manafacture soon became extinguished in the sonth and west, and concentrated in the nortl. In $18: 21$ tho yarns were all made by hand. With one or two trifling exceptions, not a apinuing factory was to be soen. In 1819 there were upward of 70. In 1819, with the existence of bounties on the export of linens, and heary duties on the admission of foreign flax and linen fabries, unly 40 millions of yarua were exported from Ireland. In 1849 those exports had increased to 75 millions. The 'fuestion becaine not as to whether the empleynent of linen-weavers by exteusive manufacturers, anl confining thom to the mere procesy of weaving, was of was not more advantageous than the olif system, where the producer of the raw material, the weaver of the cloth, and the merchant who disposed of it, were the same individual; but whether it would be more protitable to alter the system or luse the trado.

The following tables show the valcu of the brown or unbleached linen bold in the several linen markets

In Irele by the the L ln stated $\mathbf{i}$ paid to the valu siderabl? other tr Total of

| Yearn. |
| :---: |
| 1892 |
| 11823 |
| 1824 |
| 1825 |
| Tvta!. 1, |

Since 18 of yards 0

| Yenr. |
| :---: |
| $1800 .$. |
| 1801... |
| 1809.. |
| 1818. |
| 1517. |
| te2t. |
| 1595. |
| 183. |

The appa laad is now sll is sent 1 and Scotch countries. Britain and 000,000 yar table shows a of the yarns interval of te

1840
1850.........

The cotton and became a meat, which home market The first cott the county of 1784. Frons consequence o eign competiti the then exle yesrs, after wl by eight annu: the year 1816 ralorem. The very slow as The alteration ed the home grest auperiorit much to secure foreign market imported was 1,197,294 lbs. lis. of cotton cent. for waste, silh and Lace, into Ireland in vocation of the of Dublin, wher tecting duties. country parts f was eo lately a for the purpose in the south of and thus having the labor of pro pease had been

In Ireland during a period of four yeara, as furnished and the planting of mulberry-troes, the scheme was reby the returna of the seal-masters and inspectors of the Linen Board to Parliament in 1825. The suma stated in the former of these tablea are the first cost paid to the manufacturer by the country porchaser ; the value of most of the linen sold ia afterward considerably increased by the process of hleaching and other treatment.
Total of Baown on Unalmaertid Linan bold in Iarland

| Years. | Lelnatar. | Olater. | Mancter. | Connanght. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1822 | $\frac{\dot{x}}{255,854}$ | $8,068,122$ | $\frac{2}{2,870}$ |  | $2,588,010$ |
| 1583 | 893, 698 | 2,127,529 | 82,202 | 180,914 | 2,677,843 |
| 1894 | 207,688 | 1,968,180 | 05,105 | 140,856 | 2,41i,868 |
| 1835 | 192,888 | 2,109,809 | 110,420 | 168,090 | 2,080,707 |
| Tota! | ,022,578 | 8,271,140 | 356,687 | 857,524 | 10,207,929 |

Sinca 1825 no returna have been kept. The number of yards of linen exported from Ireland was:

| Year. | To Greal Brtato. | Ta lorelgn paris. | Total. |
| :---: | :---: | :---: | :---: |
| TSino. | No separ | te returns. | 85,676,908 |
| 18121. | 34,622,898 | 3,288,704 | 87,911,602 |
| 1899. | 88,018,854 | 4,447,515 | 87,166,899 |
| 1818. | 85,018,884 | 8,926,781 | 88,945, 815 |
| 1517. | 50,290,821 | 3,940,254 | 56,280,575 |
| 1221 | 45,519,609 | 4, $\mathrm{Ct1,630}$ | 49,531,189 |
| 159. | 52,560,926 | 2,558,538 | 65,114,515 |
| 1845. | .... |  | 60,916,502 |

The apparent amount of exports of linen from Ireland is now small, arising from the fact, that nearly all is sent by cross-channel steamers to the English and Scotch ports, whence it is transhipped to forelgn countries. The entire export from Ireland to Grent Britain and all foreign countries reaches about 106 ,000,000 yards; value, $£ 4,400,000$. The following table showa a comparison of the production snd value of the yarns made, and amount of wages paid, in an interval of ten years:


The cotton manufacture was introduced in 1777, and became an object, of attention to the Irish Parliameat, which endeavored to secure a monopoly of the home market by high import dutiea and bounties. The first cotton mills were erected at Prosperons, in the county of Kildare, and in Belfast, about the year 1884. From that period till the Union, it throve, in consequence of the measures adoptad to prevent foreign competition. At the Union it was arranged that the then existing dutles shonld continue for eight yesra, after which they were to be gradually lowered, by eight annual reductions, in such manner that, after the year 1816 , they should atand at 10 per cent. ad ralorem. The progress of the manofacture has been very slow as conipared with that of Great Britsin. The alteration of the acale of dutiea materially affected the home demanil, and he lmmense capital and great superiority of the Brit, sh artist have contributed much to secure to hls mantifacture a preference in the foreign market. In 1822 he quantity of cotton wool imported was $3,755,024 \mathrm{lbs}$., and of cotton yarn, $1,197,294$ liss.; leaving a total quantity of $4,576,816$ liss, of cotton yarn consumed, nfter allowing 10 per cent. for waste, etc., on the cotton imported.
Silk and lace.-The silk manufactnre was introduced into ireland in 1693, by French emigrants after the revocation of the Elict of Nantes. Ita reat war the city of Dublin, where lt was maintained by the aid of protecting duties. Some feeble attempts to fix It in the country parts falled completely. The last of these was so lately as 1825, when a company was formed for the purpose of fixing the trade on a secure basis in the south of I reland, hy earing the silk-worm there, and thus having the bencit of the raw material for the labor of producing it; but after considerable expense had been incurred for the purchapes of ground
linquiahed as hopeleas. One branch of the manufac ture, a fabric of mlxed worated and silk, known by the name of tabblnet, or Irish poplin, is in considerable demand, beth at home and elaewhere, for the richness and beanty of the texture. It ia almost the only branch now flonrishing. The general trade has been nearly annihilated by the removal of the protecting dutles in 1821, after which, in consequence of the combination of the workmen to keep np the rate of wages, the Iriah manufacturer became unable to compete anccessfully with the English trade. The manufacture of lace is carried on to some extent in Llmerick, and of late years a great source of employment for females has been introduced in the working of patterns on maslin with the needle.
Metals.-Manufactures, in metal exlst only to a small extent; and the making of glass, which was once carried on largely, has declined.

Provisions.-The provision trade, together wlth the exportation of the agricultural prodace of the country, has always been, and will probably long remain, the principal commercial husiness carried on in Ireland. This export trade is mainly with Great Britain, to Liverpool, Bristol, and Glasgow, from Belfast, Dundaik, Drogheds, Newry, Waterford, Limerick, and more particularly from Cork and Dublin. In 1825, 181,276 barrels of beef and pork, 362,278 cwt. of bacon and hams, $474,161 \mathrm{cwt}$. of butter, and $35,279 \mathrm{cwt}$. of lard, were exported. Since that period the provision trade has vastly increased; but in consequence of the cessation of the du.ties on the cross-channel trade, there are no means of accurately sscertaining the present extent of the trade.

The following table shows the number of gallons of irish spirits brought to charge since 1840, and the amount of duty :


The principle of extractlng the largest pasalble anount of revenue from the duty on spirits having been adopted, the rate was raised in 1855 to 6 s. 2d. per gallon, when tbe number of gallons brought to charge declined to $6,228,856$, and the maximum rate of duty productive to the rovenue appears to have been attalned, if not oxceeded. There are breweries in most of the large towns in Ireland, the produce of which has superseded tie use of beer imported from Great Britain, and also furnishes a quantity sufficient for a large export trade, whilch has of late yeara much increased.
Tho external trade of Ireland branches out into two great divisions, the cross-channel trade with Great Britain, and the commerce with foreign nations. The reiative importance of each port, as respects its cominercial character, will sppear from the first and second tablea following, which contain a apecification of the number sud tonnage of vessels that entered and cleared out coantwise, from nnd to the British colonles and forelgn countriea in 1853, In each of tho ports of Ireland; while the progress of domeatic navigation will appear from the third and fourth tables, containing a summary, in triennial periods, of the tounage of ahlpe belonging to and registered at the different ports in Ireland, a:d of the number and tonnage of tiose employed in the cross-channel trade.
 hace or tha poats in lgeland is tile Yzall 1643 .
a tax, by
lat $\pm 5000$. smpureanic tees were Ellizabeth sภnum, w 61. In. In < 600,000 Cecil affir 000 In tets the custon, dinse of 1 feudal righ which tho To defra) onets wis. in additi : dand $\mathrm{f}=\mathrm{el}$ The lrish $\mathbf{P}$ of $2 \mathrm{~s}, 8 \mathrm{~d}$. in valae, and 4 an act of li pleased, that Irish subjec kingdoms." the customs tha same reig
tax. Thurl tlons that the amounted to £1/2,509. Restoratlon, $\mathbf{i}$ the king, hls for maintalnin nage and pou of 28 . each on which were th liform lon $\mathbf{r}$
tional statistic
Recenue. $\rightarrow$ - 3 oform the arrival of the Englisld, the revenues of Ireland ware paid in cattle; and even after that periol the custom prevailed for geveral centaries in the parta less subject to forelgn intlicenco. Traces of it have been met with so late as the relgn of Kliza beth. The new government, under the F inglish, in. trodueed the methin of raising money by sabsidies. Jolin exacted + subeidy from the Irish elergr, nud establishes she court of exchequer for the general mannagement of the revenua. The mame sinethad was continued during the reigns of Lleary 111., and the firet Fiwards; but the income thus extracted from the papple proved so inalequate to meet the expenditure, that recourne wis had to the legalized extortion of coygne and livery, which was the levylng of man's meat and horse's meat for the soldiery in time of sers: ice. The amount of the regular revenae, in the reign si" Edwarl 11I., is stated ly Walsingham and Ioling. shed to have been $£ 30,000$; but Sir John Davis, who collectell his infermation from the piprevols, and other authentic sources, reduces it to $\mathbf{8 1 0 , 0 0 0}$. The most remarkalile financlal neeasure of Hichard II, was a tir upon alsenters. In I/33, the elaventh of lienry Vil. the revenue wae roluced to $£ 2,33918 \mathrm{~s}$. Gu., while the expenses of the government were $\mathcal{C 2}, 8 \cdot 48,16 s$. IUd. thos exreeding the income by E18, 17\%, bith. At the latter ead of the same reign, the Duke of Votk, when sent over as lord-liputenant mith exiraordinary powert, not only ottained the whole revenue, but stipuInted for an addit onal aupply from Enyland of 4,900 markn for the Arst year, and $£ 2,000$ for every year thereafter. Fdward IV, raised noney ly tho ingonsition of daties on all merchandise sold in Ireland ex. cept blies. In the 15th year of Henry VII. a daty of one biblling in the pound was laid on sll merchab. dise inported and exported, except wint and ofl; and
trade, no separate returns have been made out at the custom-house of the quantity and value of the exports and imports.

Fisheries.-The consts of Ireland abound with fish; and Sir William Temnle oliserved, "that the fishery of Ireland, if improved, woild prove a mine under wa. ter, as rich as any under ground." Arthur Young arso remarke, "that there is searcely a part of Irelund bat what is well situated for some fishery of consequence ; and that her consts, of innumerable creeks ant river mouths, are the resort of vast shonls of herrings, cull, mouths, are the resort of
ling, hake, and mackerel.

Yoarn

| 1440... |
| :---: |
| $1541 .$. |
| 1512. |
| 1863. |
| 1914. |
| 1855. |
|  |
|  |  |
|  |
| 1550. . |
|  |  |
|  |
| isw. |

Mitt Reyenue

| Yens. | C |
| :---: | :---: |
| 1840. | S2, |
| Intl. | 1,94 |
| 1212. | 1,94 |
| 1543. | 1,94 |
| 114. | 2,12 |
| 191. | 2,09 |
|  | 2,25 |
| 1 NT . | 2,020 |
| 1.45 | 2,06 |
| 1419. | 1,94 |
| 1330. | 1,89 |
| 15 St . | 1,40 |
| ${ }_{1}^{102} 2$ | 1,85 |
|  | 1,02 |

The circulatin sabject to a grea tering into the d
a tax, by way of subaldy, of 183. 4d. on every hlde of The revenue; from the landing of Schomberg in 1689 lar A. During thin religh the revenue aeldom exceeded L5000. Henry VIII. increased the revente by the arpuremaion of monasteries. The lawe agal ast alisentees were also enforced. During the flrce 15 yeara of Eilzabeth, the revenue was $£ 120,000$, or $£ 8000$ per snnum, while the expensea amounted to $£ 490 ; 779,7 \mathrm{~A}$. $6 \frac{1}{4}$. In 1590, at the close of Ty.one's reber'ion, $\mathbf{8} 600,000$ trese apent In Alx months ; and Slr Robert Cecif affic:a it that freland had cost the queen $\varepsilon 3,40 \%$, 000 in tei. urs' time. In the pacific relgn of James
 done of tais cign ts $£ 9700$. The wridships and other faulal right produced ahout $\sum^{\prime} \cdot 3,000$, notwithstanding which thi" "eome was insdequate to the expenditure. To defra die expols. of the army, an order of baronets $W$. tablished by which $£ 98,500$ ware raised, in additi ${ }^{\circ}$ to whleh $£ 247,433$ were remitted from Eneland to clear off the debts hourrol y Elizabeth. The Irish Pasliament sranteit the samo king a subsidy of $29.8 d$ in $£ 1$ on every personal estate of $£ 3$ annual valae, and 4d. in £1 on every real eatate of £1 value; an act of lilierality with whieh James was no much pleased, that he declared "he would hereafter hold his Irish suljects in equal favor with those of his other kingdoms." In the aucceoding relgn Stratford ralsed the customs to four times their prevlous ninount. In the rame reign the first inention is made of an excise tax. Thurloe, howover, in his state papers, mentions that the revenue for two years ending in 1657, amounted to $£ 137,558$, while the expenditure was $£ 142,509$. When tho Irish Parilament met after the Restoration, it granted, first, an hereditary revenue to the king, his helrs, and successors ; second, an excise for maintalning the army; third, the subsidy of tonmage and poundago for the navy; and, fourth, a tax of 2 e, each on hearths, in litu of the feudal burdens, which were then abollshed. After the lievolution, the inforr ion respecting this important element of national axatistics becomes more precise and satisfactory.
till the ond of the relgn of William, was as follows, the total on the previous milltary expendliture of the war with James having amounted to $£ 3,851,655$ :

| ar. | R | Year. | Revanue. |
| :---: | :---: | :---: | :---: |
| 1R39. | 28,884- | 1696. | 84 |
| 1890 | 98,910 | 1697 | 648,967 |
| 1491. | 274,919 | 1698 | 601,846 |
| 1892 | 899,026 | 1699 | 701,982 |
| 1693. | 44.183 | 1700 | 766,629 |
| 1695 | 4314.534 | 1701. | 697,055 |
| 1695 | 489,804 | 1702 | 5S1,296 |

During the aarlier part of Anne's raign the income exceeded h $s^{\dagger}$ a million, but in her latter days it was less prodrctive. In the reign of George I. the state of the revenue continned nearly as in the preceding reigr. In that of George II. there was a surplas, which was applled, not always judiciously, to public works. The national deht of Ireland, incurred by an excess of expenditure beyond the income of the country, increaaed with great rapidity toward the close of the last century and till the year 1817, when it ceased to form a separate Item in the puhlle accounts, in consequence of the consolidation of the British and Irish exchequors. Its progressive iacrease since the RevoIution is exhibited in the followirg talle:

> Publio Debt of 1akland.

| 1718. | £18,106 | 1770. | £628,883 |
| :---: | :---: | :---: | :---: |
| 1720 | 87,511 | 1730. | 1,067,565 |
| 1780. | 221,790 | 1740. | 1,588,067 |
| 1740 | 296,968 | 1809. | 22,245,196 |
| 1750 | 205,117 | 1810. | 75,240,78. |
| 1762. | 229,438 | 1517. | 134,602,7t |

The following tablo gives an account of th revenue levied in Ireland, in each year from 54.9 1853 ; distinguishing the expenses of collerti. $n \mathrm{r}$ the other payments out of the revenne in :s: way to the oxchequer; also an account of the ar int of repayments intc the exchequer on account of $:$ for public works, employment of tho poor, cazires, etc., in Ireland, for the like period.




| Yens. | Costemu. | Expict. | Stampl. | $\begin{array}{\|c\|c\|c\|c\|c\|c\|c\|} \hline \text { Pevme } 1 \text { and } \end{array}$ | Pual Colleo. | Mlisentls. neguะ. | Impreat and wher Moneyn. | Repaymente of Advancen for Publle Worke. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1496 | S.2,030,159 | \$1,177,407 | 1420,28 |  | 20,004 | £6,929 | 25,581 | £853,638 | 14,018,100 |
| 1-11. | 1,999,85\% | 1,097.918 | 425,771 |  |  | 7,411 | $5 \times 35$ | 483,441 | 8,909,688 |
| 14. | 1,949, 314 | 1,110,842 | 491,*51 | .... | 8,000 | 5,218 | 2,216 | 871.878 | 3,984,869 |
| 1433. | 1,9401,498 | 1,044,728 | 021,9<1 | . | 8,1010 | 8,059 | 1,077 | 844,794 | 8,950,781 |
| 114. | 2,120,119 | 1,177,9.90 | 545493 | .... | 10,000 | 6,590 | 2,688 | 420,470 | 4,805,730 |
| 14. | 2, 091.851 | 1,419,471 | 589869 |  | 22,000 | 6.847 | 9,818 | 891.038 | 4,478,703 |
| 1i4t. | 2.988.04\% | 1,467, 6 (100 | 878,767 | $\cdots$ | \$9,000 | 6,048 | 5,888 | 852.642 | 4, 0982,469 |
| 1072. | 2,0109, 183 | 1,152,989 | 667,09\% | .... | 59,1000 | 8,693 | 46,160 | 484.934 | 4,825,8.4 |
| 154. | 2,000,778 | 1,831,915 | 682,921 | .... | 89,000 | 4 | 8,000 | 804.927 | $4,275,875$ 4888.469 |
| 149. 1230. | $1,911,122$ $1,897,289$ | 1,841,449 | 602, 473 | .... | 26,000 | 6,648 | 8,928 8,068 | 621,156 | 4,388,469 $4.118,982$ |
| 151. | 1,544,268 | 1,84n,911 | 41.514 |  | 8,000 | 9,400 | 4.476 | 327,409 | 4,000,682 |
| 158.2 | 1,856, 160 | 1,478,932 | 474,374 |  |  | 7.732 | 3,429 | 464,329 | 4,286,515 |
| 1 k 3. | 1,924.511 | 1,708,621 | 474,489 | 27,976 |  | 7,203 | $8,8{ }^{\text {e }}$ | 475,445 | 4,621, 870 |
| 1 N 4. | 1,852,109 | 2,408,580 | 453,512 | 549,011 | 10,940 | 8,203 | 4,812 | 351,231 | 8,484,807 |

The cirenlating medium in Ireland was, until lately, miat in Iroland established by the Ostemen or Danes, wahject to a great variety of alteratlons. Without en- the inst eertain account of a mint there fa that estabterlag into the disputed question of the existence of a lished in 1210, by King John, who caused peanies,
halpennies, and farthings to be coined and made onrrent by proclamation. Further colnages were made by Ilerry III. and hy Eiward I., who added the title of Domende Hibenvie to that of Rex Anglif on his Irish colnage. It consieted of groats, halfpence, and furthinge. The first important alteration as to value was in the latter part of the reign of Edwand III. Who caused the ounce of silver to be cut into 26 deniers or pennies, instead of 20 , as befure, which caused the depreciation of 81 per cent. in the Irish, as conupared with the British currency, whlch exiated until the final assimilation of the two currenclen in 1825. Henry VI., or rather the Dake of York, his cieutenant in Ireland, had mints in Dubiln and Trim, in which both silver and copper money were coined.
In the beginning of the subsequent relgn of Edward IV. the valne of silver colns was raised to double their previoue amount. The consequence was an enermous incresse of price in all the necessaries of life; to renedy which, the Irish Parliament enacted, that the master of the mint should atrike, In the Castles of Dublin and Trim, and In the town of Drogheria, five kinda of sllver colns; the gross (or groat), the deml-proes, the denier (or penny), the demi-denier, and quadrant (or farthing); eleven groata to weligh an onnce troy, and each, unelipped, to pasa for fourpence. A few years afterward, the prlce of a lver was again raised so excessively, that the differerce between the Irish and English groat was 50 per cent. in a pound of builion. In the reign of IIenty VII. the difference between the two colnages was one thiri. Soon after the accession of Ilenry VIII. the coin in Ir. Iand was so clipped, defaced, and acarce, that the Earl of Surrey, then lord-lientenant, sued for his recall, in consequence of the want of money to carry on the war against the Iribh. Elizabeth ordered the ounce of allver to be cut inte 60 pernies, so that the coin of that name was reduced in weight from the 20th to the 60th part of an ounce. The cotal value of the meney colned in Ireland by that princess, is said to have beell $\mathbf{C} 94,5 i 7103.6 d$. English, which, at the rate of 16 d. Irish, for a shilling English, amounts to E118,202 8 s . 4 d . Irish. The Irisis olilling, or harp, as it was called, from the impression on its reverse, was worth ninepence English. Hy a proclamation issued in the fifth year of James I. the same proportion of values wad continued. In 1718 linglish money was current int Ireland at an increased valus; the English five-shiliing; crown-plece passing for six shillings and elghtpence, and the other colns in proportion. The exchange lietween Dublin and London was 21s. Itigh for 16 s . Engiath, with 6d. or \&d. per found extra, payable in london. By a proclamation in 1637, the name of Irish money was orderell to be abolished, aml all payments were reduced to English aterling money. Abuut 1672, amsil change was mo scarce in Ireland, that tewns and private dealers wete obliged to issue copper tokens. Jame II., on his artival In Dublin in 1688 , inaued a proclamatien, by which the Faglish guinea was to pass current at El da., the crown-piece at be. Ekl., and ail lesser colns in the sand proportion. In 1690, he depreciated atill further the value of the coln, lyy the insue of pieces of base metal, which were te pass at a neminai value far above their intrinic worth; so that the colnn issued of the nominal value of 4965,3$)^{5}$ necoriling to morne, lut, according to others, of A:1,59t,799, were remlly wurth no more than $\mathbf{C 6 4 9 5}$, estimating the metai at 41. per pound. On the accession of Witliam, this coinage was cried down. In 1725 , the aew gold coin of Portogal was made current in Ireland, the larigest coin, or Portugal piece, being rated at $\mathcal{A 4}$. About the sams tine, in consequence of the ucarvity of anall chasge, Wood obtained his patent for the issue of a copper currency, which was prevented ly the literary oxartions of Dean $S$ wift in his celebrated jubilcations calles the Drapier's Ietters. In 17i00, the acts of Parliamont prohibitiag the carrying of gold or silver into

Ireland were repealed. At that time the value of precieus metais in circulation as apecie, or hoarded, was astimated at $£ 3,000,000$ lrish. No further legieIstive change took place until the assimilation of the Irish and English ourrency in 1825, praviously to which, howaver, the want of a metallic circulation was so severely felt, particularly during some periods of the French war, that pifate bankera and traders is aued noten or tickets for amall sums, from 5a. dewn to twopence-halfpenny ; and alsu copper tekens. The evils of this combined presaure of the acarcity ef legal and the shundanre of cuunterfeit coin, was ultimately remedled by the lasue of stumped dollars estimated at Ga., and by aliver tokena of 10d. and bd., by the bank of Irelaud, which circulated freely until they were teplaced by the lasue of a pure standard coinge of silver from the rayal mint.

The amount of subscriptiens raised in England for the relief of aufferera hy the famine of $182 \%$ having exceeded the expenditure, the surplus was intrusted to a committee in l.ondon, and was retained under the name of the Irish Reproductive Losn Funcl, as a permanent fund for organizing loan societias, yitimately originated the present loan fund system, under which small sums are atvanced to industrious individu: is of the working classes, to be repaid by instalments, with intereat, and which was placed uniler the control of a commission in 1836 by the Act 6th and 7 th Will. IV., chap. 55. The rate of disconat on loans, mate chargeable by it at id. In the pound, has been reluced to $4 d$. In the pound by the Act of Gth and 7th Vict., c. 91, which placed the general control over all charitahle loan societles and charitalle pawn or deposit offices under the saperiatendence of the "Loan Fund Buard." The number of funds, with their capital and circala. tion sines the commencement of the system, has ben

| Years. | No. of funde. | Capltal. | Cirestation. |
| :---: | :---: | :---: | :---: |
| 1818........ | 80 | .... |  |
| 1889........ | 824 | .... | 816,173 |
| 1840........ | 215 | 93\% | 1.104, 14.46 |
| 1841........ | 264 | 20370,00\% | 1.838.59\% |
| 1842......... | 3 Mr | 124,920 | 1,691, Mit |
| 1843........ | 914 | 408.843 | 1,6601.963 |
| 1844........ | 259 | 417.084 | 1,762,918 |
| 1845........ | 20\% | 444,427 | 1, 457,457 |
| 1846........ | 950 | 408,848 | 1,70,897 |
| 1847........ | 223 | 2711,618 | - 863, 417 |
| 1818........ | 177 | 217,119 | 717,46) |
| 1849......... | 160 | 189,187 | 649.084 |
| 1450).. | 122 | 192,501 | 6 tz 294 |
| 1851. | 123 | 186.240 | -12,079 |
| 185.9. | 118 | 188,27! | 7190,050 |
| 18.8. | 112 | 212,838 | 812,913 |
| 154. | 115 | 214.785 | 870,024 |

Pawn olficen, ou thin plan and under the name of the Freach Mouts de Piéti, wore opened in several towne of Irelaad in 1811, with the object of ailvancing money" on fiediges at rates more molente than those of the licensed pcwabrokera; but ali have aince been discontinued. Ily ineans of navigalle rivers mad canals, Irelanil possesses extensive inland navgation. For the detaily of the various canals, see Canals. The railway from Dublin to Kingstowa, whiph was opened at the latter end of 1834, was the first, and for several vears the only raliway ia Ireland.
Banks.-The entire banking business of Ireland, until 1583, was in the hands of private inilividuals, who often issued notes to an amount not only far beyond their rewpective capitals, lut exceeding, in a great desree, what the wanta of the country required, orits credil could support. To remedy the evil effects of a system no pernirious, a national bank was eatablished in that year, with similar privileges to those of the lhak ef Engiand in reaject to the restriction of more than six partners in a private bank. The injury that lreiaud has sustained from thre repeated failure of lanks may be nainly attribnted to this injuclicious regulation. The loss that the country has suffered by the fililure of banks may be deacribed in a fow worla. On the ex-
piry of tho continued til 1840., sin new Bankin to the fullow banker of g sequent yea bank. The

Bank of Ire * lliberalan Provinctal Nerthern B Belfast Ban Natlonal 13 Hflter Bank Clonmel Na Carrick-onlagal Bank,
: 148

| Years. |
| :---: |
| 1846. |
| 1847. |
| 154 N. |
| 1840. |
| 1840. |
| 1851. |
| 1842. |
| 1549.. |
| 1854... |

C

Years eadl

| Sept, 30, | 1821 |
| ---: | ---: |
| 1883 |  |
|  | 1823 |
|  | 1824 |
|  | 1825 |
|  | 1826 |
|  | 1827 |
|  | 1828 |
|  | 1829 |
|  | 1830. |

Sept 80, 1881.
1892.
1889.
1888.
1894.
1885.
$1586 .$.
$1886 .$.
1838.
$1840 .$.

Sept. 80. 1841.
1848.

9 mos 1844..

Jare 80, 184
1846.
1846.
1847.
1849.
1840..
$1850 .$.
Tot
June 80, 1851.
1852.
1858.
$1644 .$.
1854.

Savings-bank The greatest am to the years of d the finctuntions in the annexed

[^29]piry of tho Bank of Ireland's charter in 1888, It wae |under the name rule which has been applled by Parcontinued by act of Parliament from year to year until 1845, since which time it has been regulated by the new Banking Act, 8th and 0th Viet., c. 37, accorling to the following prinelples:-The bank to contlaue the banker of government, which is to pay for the 10 aubsequent years $8 \frac{1}{\text { per cent. on the debt it owen to the }}$ bank. The proceelinge of the eatablishment to be liament to other banking inatitutiona, and to muke weekly returna, alnilar to those of the Bank of England under the new act, containing a full development of Its affairs, the amount of its bullinn, and the variationa in the quantity. The joint-atock banks now doing bueinesa are as followa. Thone marked ( ${ }^{\circ}$ ) do not isaue thelr own notes :

| Stune. | Instituted. | No. af branches. | Capital. | Caplital peld ap. | Puld op per shere, | Pecerved fund. | Fised lasue. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Inank of Irelnad. ........................ | 1788 | 88 | 29,000,000 | 88,000,010 | $\mathbf{\$ 1 0 0}$ | $\mathbf{£ 1 , 1 4 4 , 0 0 0}$ | 28,788,428 |
| * Iliberalan Joint-8tock Co., Dublin... | 1824 | 9 | 1,000,000 | 250,000 | 85 | -63,000 |  |
| Provinctal Bank of Iroland ................ | 1825 | 88 | 9,000,000 | 540,000 | 85 | 162,213 | 927.867 |
| Northern Banking Co., Belhat. . . . . . . . . . | 1825 | 11 | 500,000 | 150,000 | 80 | 59,778 | 243,440 |
| Belfast llanking Oompany . . . . . . . . . . . . . . | 1897 | 82 | 600,000 | 125,000 | 25 |  | 281,t11 |
| Natlonal Bank............ | 1896 | 45 | 1,000,000 | 450,000 |  | 40,826 | 781,757 |
| Itster Banking Compuny, Belfast. . . . . . . . | 1896 | 18 | 1,000,000 | 187,000 | 91 | .... | 811.079 |
| Clonmel Natlonal Bank. ................ | 1846 | 2 | 86,1100 40000 | 16,235 | 9 | - | 81,428 94.084 |
| Carrick-on-Enit Nallonal Bank - Royal Bank, Dublit... .... | 1886 1886 | $\cdots$ | 40,000 $1,044,250$ | 4,869 209,175 | ${ }_{10}{ }^{4}$ | 60,000 | 24,084 |



| Years. | Cerilifed lashe of all the banke. | Notec of $\overline{\mathrm{B}}$ and upwerd. | Notes under 15. | Totimpare of all the banks. | Gold held. | silear held. | Tutal apeele hutd by all ithe benks. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1846.......... | 24,854,494 | 28, 191,209 | [ $4,144.481$ | (57,265,721 | 29,106,004 | 2934,253 | 2,440,266 |
| 1847.......... | 0,194,494 | 2,844,049 | 9,986,875 | 5,830,425 | 1,269,517 | 491,403 | 1,765,475 |
| 184*.......... | 6,854,494 | 2,489,191 | 8,889,863 | 4,828,992 | 1,088,919 | 602,975 | 1,686,898 |
| 1840.......... | 6,854,494 | 2,204,474 | 2,105,802 | 4,816,243 | 1,089,476 | 528,783 | 1,041,094 |
| 1850.......... | 6,854,494 | 9,197,117 | 2,815,401 | 4,512,443 | 1,017,036 | 875,829 | 1,815,489 |
| 15\$1........... | 6,854,494 | 9,118,077 | 9,849,870 | 4,462,909 | 987,40S | 818,574 | 1,256,955 |
| 1832........... | 6,854,484 | 2,215,503 | 2,602,985 | 4,818,238 | 994,049 | 249,028 | 1,243,576 |
| 1883.......... | 6,854,494 | 2,517,570 | 8,132,888 | 8,650,455 | 1,898,807 | 192,729 | 1,576,460 |
| 184.......... | 6,804,404 | 9,874,007 | 8,423,507 | 8,295,697 | 1,745,849 | 218,711 | 1,958,043 |

Commrbog of the Unitko States with 1relann, from October 1, 1820, to July 1, 1856.

| Years endiog | Esporte. |  |  | Importa, | Whereof there was in Bullion and Eperie. |  | Toonage Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentif | Forelgn. | Total. | Toinl, | Export. | Import. | American. | Forelgn. |
| Bept, 50, 1821......... | \% 889.077 | \%4,069 | -998,648 | \% 686,154 | 198 | 18, 883 | 12,814 | 2,201 |
| -¢pk, 1882........ | 170,176 |  | 770,176 | 808,024 |  | 5,978 | 18,153 | 2,047 |
| 1883......... | 714,037 | 97,644 | 751,681 | 547,788 | 1,125 | - | 12,984 | 2,479 |
| 1824......... | 918,582 | 8,873 | 922,205 | 431,875 |  | 238 | 26,541 | 1,761 |
| 1825........ | 1,247,050 | 20,889 | 1,268,219 | 612,272 | .... | .... | 19,483 | 1,821 |
| 1826......... | 7.5,187 | 6,684 | 781,821 | 679,994 | .... | - | 14,488 | 1,859 |
| 182 T | 687,120 | .... | 687, 120 | B50,129 | . | *** | 8,247 | 1,889 |
| 1898......... | 994,450 | 810 | 895,260 | 711,041 | .... | . | 8,026 | 8,780 |
| 1849........ | 827,728 | 886 | 829,094 | 869,811 | .... | .... | 4,838 | 2.5012 |
| 1830..... | 901,637 | .... | 961,887 | 881,883 | .... | .... | 4,594 | 2,570 |
| Totel. | 66,980,904 | 78,915 | \% $7,000,909$ | 5,762,071 | \%4,818 | (8,809 | 117,657 | 81.868 |
| Sept. 80, 1831........ | \$889,941 |  | \%599,941 | \$201,464 | ... |  | 7,838 | 2,306 |
| 1832........ | 152,918 | 4,115 | 157,028 | 491,891 | . ${ }^{\circ}$ | ** | 1,791 |  |
| 1888....... | 120.469 180.914 | - 189 | 120,489 | 102,250 | ... | .... | 1,400 | 1,843 |
| 1834........ | 189.914 | 189 | 190, 103 | 274,719 | , | ... | 9,620 | 245 |
| 1885....... | 408,0144 |  | 401,604 | 512.890 | . $\cdot$ | . | 4,978 | 760 |
| 1898........ | 849,845 | 8,554 | 847.699 | 508,936 | ... | .... | 2,885 | 240 |
| 1887........ | 8,8,998 | .... | 9,898 | 181,776 | ... | ... | 851 479 | 184 |
| 1888. | 84, 515 | . . . | 88,535 | 75,182 | . | . | 1472 | 106 |
| 1883........ | 8417,762 217, | $\ldots$ | 821,719 917,782 | 100,689 98,849 | . $\cdot$. | ..... | 1,882 | 851 |
| Total. . | \%2,807,608 | 4,158 | \$2,405,768 | 64,687,669 | - | . $\cdot$. | 25,929 | 3,927 |
| Bept, 80, 1841........ | 180,879 | . $\cdot$. | -60,879 | -81,921 | $\ldots$ | .... | 1,891 |  |
| 1449........ | 49,968 |  | 49,968 | 102,700 | .... | .... | 681 | 864 |
| $9 \mathrm{mos} 1848 . . . . .$. | 208,512 | 1,180 | 209,683 | 43,435 | .... | .... | 482 | 2,197 |
| Jone 80, 184........ | 42,581 | .... | 42,591 | 88,084 | .... | .... | 191 | 786 |
| 1845........ | 108,471 |  | 108,471 | 104,857 | , | .... | 1,419 | 887 |
| 1846........ | 1,077,003 | 5,468 | 1,082,471 | 85,774 | . ${ }^{\circ}$ | cioifl | 14,743 | 6,894 |
| $1847 . . . .$. | 12,397,888 | 81.488 | $12,429,188$ $9,340,594$ | 590,240 | .... | 116, ${ }^{\text {c/ }}$ | 124,600 17,410 | 101.067 84,779 |
| 1849. | $2,879,812$ $8,916,842$ | 1,818 89,520 | $2,380,094$ $8,984,869$ | 410,923 876,708 | ... | 116,9.45 | 17,410 68,901 | 84,179 46,105 |
| 1850. | 1,025,081 | 42,899 | 1,067,724 | 298,7¢8 | . . . | **. | 10,014 | 22,973 |
| Total | 721,260,774 | \$101,6\%8 | \% $21,865,427$ | \%2,168,010 | . $\cdot$. | *109,110 | 225,280 | 216,687 |
| Jone 80, 1851........ | \% 598,688 | 1,260 | \% 599,589 | \%235,983 |  |  | 8,142 | 12,613 |
| 18n2........ | 578,250 | 100 | 5783350 | 152,839 |  | .... | 4.118 | 0,460 |
| 1833......- | 618,818 | 80,272 | 628,084 | 158,118 | .... | .... | 8,482 | 14,955 |
| 1654....... | 1,006,017 | 86,455 | 1,092,512 | 929,895 | .... | . . . | 9,120 | 14.482 |
| 1855........ | 1,209,688 | 352. 81 | 1,043,484 | 152,298 | .... | ... | 12,927 | 85,568 |
| 1856........ | 4,800,021 | 74,700 | 4,874,780 | 80,082 |  |  | 85.785 | 19,059 |

Savings-banka were introduced into Ireland in 1810. The greatest amount deposited was in 1845 , previous to the years of diatress consequent on the famine; and the fuctuations which have since taken place appear in the annexed table:


The internal traffio of the country is carried on ehbefly by wheel-carriage roads. Their condition, both as to llnes of direction and mote of construction, ia excellent. Materlals for the construction and repairs of roada are very generally distributed throughout the whole island, either in quarries, ridgen, and masses of gravel, or in the beds or channels of rivers and streams. The limestone, which is the general substratum of the greater part of the country, is the hest material for their formation; and the system known
nnder the name of mareatamiaing was long and auce cenafully practiced on many of the leading lines of road In Ireland before it wan thought of in Great Britain. ".

The progrese and condition of the Irlah rallway system from 1838 to 1854, Incinalve, may the seen in the following tables; compled from the Board of Trade Returns:

| Teara eading Fith Juнe. | Milen ofen on the 1 f dastutryingeach yewpo | No. of panacngers. | Recelpts. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Frum pas- } \\ & \text { sengern. } \end{aligned}$ | Erambe goole. | Total. |
| 1536 (15 mos.) | 6 | 1,287, 910 | 284, 816 | 2105 | 206, 211 |
| 1*37........ | 6 | 1,184,488 | 81,901 | 4 | 81,945 |
| 1854. | 6 | 1,24x,978 | 818,8t8 | 270 | 88,508 |
| 18189 | 6 | 1,41,268 | 8,409 | 807 | 14.716 |
| 18t0......... | 184 | 1,944,761 | 86,171 | 414 | 84,690 |
| 1841. | $18 \%$ | 1,829,1924 | 41.000 | 463 | 4t.484 |
| 1548. | 184 | 2,04i,904 | 84.810 | 2,020 | 64,789 |
| 149. | 815 | 2,074,444 | 54,548 | 6,902 | $6{ }^{6} 880$ |
| 1841. | 814 | 2,548, 086 | 62,60] | 8,286 | T1,4184 |
| 1545 | A | 8,491,707 | 104,769 | 14.086 | 118,483 |
| 1843. | 65 | 8,011, 6106 | 105,409 | 1*274 | 124, $2+3$ |
| 1447 | 120) | 8 8,864,894 | 140,54t | 85,000 | 14,581 |
| 1844 | 2091 | 4,574,749 | 2t 1,008 | (11),915 | 971,504 |
| 1849. | 424 | 6,050, 947 | 290,004 | 197,402 | 418,063 |
| 1850. | 095 | $0,496,796$ | 889,474 | 174,959 | 514,045 |
| 18.51. | 340 | 5,609, 6103 | 8065,618 | 10x,459 | \$61.062 |
| ts\%y. | (14) | 6,186,197 | 435,010 | 244, 800 | 679,5t9 |
| 1859. | 771 | 7,074,475 | 687,209 | 249,816 | 841, 569 |
| 1254.......... | 816 | 6,711,170 | 891,871 | 839,80) 6 | 874.477 |

Iris, or Orris-Root Plant (iris gureatia), a perennial, native of Carmloh, and common in the gandens of Europe, the root of which is remarkable for communlcating an odor like that of violete, and proinces the orris of the shops. The thowers, which put forth in opring, are noted for the graceful carve of their petals, as well as for the brilliancy of thelr hnen. It has n thick, tuberous, ereeping stem, nsually ealled its root, which, externally, is lyown and yellowish, if white within, nnd sends out numerous flbres-the true roots -frotn the lower part. When theso are pared off, the stem appiears full of round rpota. Independent of the value which would he derived from the roots of thim plant, it would be highly deslralle to cultivate it for the purpobes of oruanent, In all jarts of the country where it would thrive.
Iron (1)an. Jern; Du. Mzer ; Fr. Fer; Ger. Eiaen; It. Ferro; Lat. Ferrum, Mars; l'ol. Zelaza; Por. Ferro; Kus. Scheleso; Sp. Hierro ; Sw. Jern; Gir. Xidnpos; Sans. Lohit Arah. Ilederd; Pers. Ahun), the most abundant and most useful of all the metals. It is of buish-white color, and when polished has a great deal of lirillaney. It has a styptic taste, and emita n smell when rubijed. Ita hariness exceeds that of most other metals; and it may lee rendered hariler than most bouties liy helng converted Into ateel. Its epectic gravity varien from $7 \cdot 6$ to $\mathbf{7} \cdot 8$. It is attracted by the magnet or loadstone, and in itself the substance which constlutes the loadstone. Itut when Iron is perfectly pure, it retains the magnetic virtue for a very abort time. It is malleatble in every temperature, and its malleability lncreases in proprortion as the temperature angments; but it can not he hamnsered out nearly as thin as goll or silver, or even copper. Its ductility, is, howover, more perfect; for it may te drawn out futo wire as fine at least as a human halr. Its tenacity is кuch, that an iron wire 0.078 of an ineh In diameter is capathle of supporting $540 \cdot 25 \mathrm{lbs}$ avoirdupols withont breaking. Historienl Natice.-Iron, though the most rommon, in the most difilcult of all the metals to obtaln In a state fit for nee; and the discovery of the methol of working it seems to have been praterior to the use of gold, sllver, and copper. We are wholly lgnorant of the ateps by which men wero lead to practlce the process required to fuse it and render It malleable. It is certain, however, that It was prepared In anelent Fsypt, and moine other countries, at a very remote epoch; hut it was very little maed in Greece elll after the Trojmu war. (See the admirable work of M. Goguet on the origin of lawa, Arts, etc.) Iron was fund on Mount Ida by Ihetyles,
owing to the foreste of the mount having heing burnt by lightning; 1432 n. 0.-Arwolelian Mrathles. The (ireeks aserlibe the discovery of Iron to thenselves and referred glass to tha Phoeniviana but Moses reInten that Iron was wrought by Tubal. Cain. Iren farnaces ansong tha Roman\# were unprovided with bellows, bat were placed on eminencei with the grate in the direction of the provalling winde.' Swedish Iron is very celebrated, and Daunemora in the greatest mine of Sweden. British Iron was cast by Ralph Page and Peter Bands, In Sussex, In 1543.-Reymer's Fodern. Iron-milla were first uned for slitting lren inte bara for siniths by Goilfrey Rochs, in 1590. Tluning of Iron was first Introduced from Bohemia In 1681. There are upward of 800,000 toma of Iron procluced annually in Fingland.-Huydn. There are many varietles of Iron, which artists distinguials by particular names; hut all of them may lee reduced under one or other of the three following clanses; caat or pig irvn, ecronght or soft iron, and ateel. 1. Cast or ply Iren is the name given to this metal when tirat extracted from lis ores. The ores from which lron ls usually obtained are cemposed of oxyd of Iron and clay. The objeet of the manufacturer is to reduce the oxyd to the metallic stato, and to reparate all the clay with which it is comhined. This is effected by a pecullar process; and the Iron, belnge exposed to atrong heat in furnaces, and molted, runs out into molds prepared for Its reception, and olituina the name of cast or pilg iron. The cast Iron thun obtained ls distingulahed hy maneufacturers into dlfferent varieties, from Ith color and other qualitles. Of these the following are the most ramarkable:

Whice cast iron, which is extremely hand and brittle, and appenrs to le composed of a congerien of small crystals. It can neither be filen, bored, nor bent, and is very apt to break when auddenfy heated or coolcl.

Gray or mottled east lron, wo called from the inequality of Its color. Its texture is granulated. It is much softer und leas lirittle than tho last variety, ond may the cut, bored, and turned on the lathe. Cannons are made of it.

Black east Iron la the most unequal in its texture, the most finsible, and least colsealve, of the three.

Wrought or soft lron is prepared from cast lron by a process termed a retisement or finery. The wrought Iron manufactured in Sweden is reckoned the finest in the world.

Steel consints of pieces of wrought Iron hardened by a peculiar process. The Swediah lron imported into this conntry is mostly used in the manufacture of steel. ~-Tuomaos'a Chemiatry.

Cavs of lron.-To enumerate the various uses of iton would require a lengthened dissertation. No one whe reflects for a monent on the sulject can doubt that its discovery and a wloyment in the shape of tools and engines has bev, of the utmost importance to man; and has done more, p:rhaps, than any thing else to accelerate lits advance in the career of improvement. Locke has the following striking observatons on this rulject: "Of what consequence the discovery of une natural body and its properties may be to human life, the whole great contlnent of Aluerica is a couvincing instance: whose lgnorance in useful arts, and want of the greatest part of the conveniences of life, in a country that abounda with all sorts of natural plenty, I think tmay the attrlbuted to their ignorance of what was to he found in a very ordinary deapicable atone-1 mean the minerul of iron. And whatever wa think of our parts or improvementes in this part of the world, where knowledge and plenty aeem to vie with each other, yet to any one that will seriously retlect upon It, I suppose it will appear past doubt, that, were the use of Iron lost among us, we should in a few ages be unavoidably reduced to the wants and lignerance of the anclent savage Americana, whose natural endownents and provisione came no way short of those of the most flourishing and polite nations; so that he who first
mode use truly etyle Essay on Iron, on fties, and valuable of pable of be drawn into being exten every dilve softened at oar wants al equally ser ricaltare; al sword, the 1 the needle, carrlage, tho paes, the can mach virtue, frame." In with the ear found in varic formation, an mals and vegi History,-1 known from: and great supe monly used, c tion, caused it dlffienlty of we ployed, greatly antices In IIOTI and forging iro an imperfectly from the ores in Greeks olitalne alcians from the conls. It wonl adrances whileh iron, from its di into the circun changes In the which those che the differences I ensued, and to on the extent as knowledge of th imperfect, and sbly its early pr employed for an those now called simple conical a for the admisgion escape of the p erected on high assist combustlon layens of ore and the heat regulate below.
The process of oxydation of the by long continu never rise suffei product wrould ti iron, mised wit would then be hr ioned into a rule be freed from the ities. By such a worked the Iron refuse of ancient 1 In some eases Ider dent remains of slded over iron. thls kind used lys modificatlona, it $]$ the coasta of the
made une of that one contemptible mineral, may be truly atyled the father of arts and anthor of plenty."Bhay on the Umelerstanding, book Iv., c. 12.
Iron; on'hecount of its'abundance, working qualities, and tenacley; is probably the moat usefo! and valuable of metals. "According to Dr. Ure; "It is capable of beirg cast Into molds of any form, of being drawn intb wire of any desired length of flnenens, of being extencled into plates or wheets, of belng bent in every direction, of being sharpened, or hardiened, or softened at pleannre. Iron accommodates itself to all oar wants and dealren, and even to our capricen. It is equally serviceabie to the arts, the sciences, to agriealture, and war. The same ore fumishes the aword, the plowshare, the acythe, the pruning-hook, the needle, the graver, the apring of a watch or of a carriage, the chisel, the chain; the anchor, the compaen, the cannon, and the bemb. It is a medicine of nuch virtae, and the only metal Miendly to the human frame.". In its primitive position it is commingled with the earth's atrata it pountiful' profusion ; it is found In varions combinations and conditions in every formation, and it is a conetituent element of both animals and vegetubles.

History.-Mallealsle Iron appears to have been known from a remote antiquity. Its olivious utillty and grent superiority over the softer metals, then commenly used, combined with the expense of its reduction, eaused it to be highly prized, though the extreme diffientty of werking it by the rude methods then employed, grently restricted its application. Thero are notices in Homer and Hesiod of the arts of redncing and forging iron; but east-iron waa then unknownan Imperfectly malleable Iron treing produced at once from the ores in the furnace. It is probable that the Greeks obtained mont of their fron through the Phoenleisns from the shores of the tllack Sea, and from laconia. It would be interesting to trace the gradinal advences which have been made in the rednction of iron, from its discovery to the present time; to inquite into the circumstances which led to the successive changes in the processes, and into the principle on which those changen were fonniled; to examine into tbe differences in the products which from time to time ensued, and to notice the influence of these conditions on the extent and progreas of the mnnufacture. Our knowiedge of these changes, however, is scanty and imperfect, and we can only conjecture what wat probably its early progress. The furnaces which were first employed for ameltiug iron were probably aimilar to those now called air-bloomeries. They were probably simple conical ítructures, with amail openings below for the admiasion of air, and a large one nbove for the escape of the prodacts of combustion, and would be erected on high grounds in order that the wind mitght assist combustion. The fire being kindled, successive layers of oro and charceal would be placed in it, and the heat regulated by opeuing or closing the apertures below.
The process of reduction would consist of the deoxydation of the ore and the cementation of the metal by long continued heat. The temperatare would never rise suffientily high to fuse ore, and the product would therefore be an imperfer cly malleable iron, mixed with scorise and unreduced oxyd. It wond then te brought under the hammer, and fashioned into a rude bloom, during which process it would be freed from the greater portion of the earthy impurities. By such a process as this the Romans prohably worked the tron ores of oar own island; scoria, the refuse of ancient bioomeries, occar in varions localities, ia some cases identified with that people by the coincident remains of nitars dedicated to the god who preslded ever tron. Mungo Park aaw a ruile furnace of this kind used by the Africans, and, indeed, with some modifications, It is atill retained In Spain, and along the coasts of the Mediterranean, where rich specular
orea are worked. The advantages of an artifiofal blast wenid soon becotes manifest; and a pair of bellewa, or a cylindar and piston would soon lie applied to the construction mentioned above. Homer represents Hephostus as throwing the materials from which the ahieid of Achillee waa to be forged into a furnace urged by 20 pairs of bellows ( $\phi \tilde{v} \sigma a i$ ). The inhabitante of Madagascar amelt iron In much the same way, theiz blowing apparatus, however, consiating of hollow trunke of trees, with loosely-fitting pistons.

The fin nace corresponds to the blar-bloomery, and has, by anccessive improvements, developed into the blast furnaee, now almest universalily used, and into tha Catalan forge, atlll employed in some distriets. The applleation of the blast would offer conaiderable advantagea; it would obviate the necessity of an elevated aite, place the temperaturo more inmediately under the direction of the smelter, and render the whole procese more regular and certain. The method of reduction remained the same as before, but the product would differ consideraily; for whenever the blast was sufficiently powerful, the Iren would be fused, a partial carburation woald take place, and the resulting metal would be a apecies of steel, utterly useless te the workmen of these days ; hence, it seems necessary to infer, that a rude procoss of refining was invented, the metal being again heated with charcoal, and the blast directed over ita surface, the carbon would be burnt out, and the iron become teagh and maileable. The processes might perhaps form two saccessive stages of one operation, as at present practiced with the Cotalan forge.

The increasing' demand for irm, and the progress of internal communication, would lead the smetter to increase the size and height of his bloomery; and this, probably, would lead to a very unoxpected result. The greater length throngh which the ore had te loscend, would prolong its contact with the charconi, and a higher state of carbaration would enxue, the product being cast-iron-a compound till then perhaps unknown.

From the time that cast-iron became the product of the smelting farnace, the retiaing would be made a separate process, requiring a separate fornace and naehinery. It would soon le found alse that, as the furnace increased in height, the pressure of the superincumbent mass would render the materials so dense as to retard the aseent of the thast, and thus canse it to become seft and inefficient; hence the internal buttresses csited boshes were tirst introluced to support the weight of the charge, relleving the central parts from the pressure, and permitting the free ascent of the blast. While the good quality of the iren and the regularity of the process were thus insured, increase of quantity was the result of improvements in the blowing apparatus, which was now enlarged and worked by water-power. With these moditications, the furnace was the same essentlally as the blast-furnnce now empleyed, though not so large; indeed antil the introduction of coke at a much later period, the Blast-furnace seldom exceeded 15 feet in height by 6 at the widest diameter. The more perfect operation of the blast-furnace allowed the reduction of the heaps of scoria, which had been gradually eccuminiating during the period that the blast-bloomeries had been in operation, and which contained 30 to 40 per cent. of iron. A new species of property was thus created; extensive proprictorshijs of Danish and Koman cinders were formed; large deposits of seoris, which for ages had hin concealed beneath foresta of decayed oak, were dug up, and in Dean Forest it is computol that 20 farnaces, for a periol of upward of 800 years, were supplied chletly with the bloomery cinders as a substitate for iron ore.

At what period the oomplete transformation of the Blast-bloomery into the blast furnace was effected, it is impossible to say. It was probably in the early part
of the 16th century, as we find that In the 17th the art of caating had arrived at a conslderable degree of perfection, and in the relign of Elizabeth thore waa a considerable export trade of cant-iron ordoance to the Continent. In the forest of IDean are the remains of two blast furnaces, which formerly belonged to the kings of England, hut they have been out of blest since the commencement of the atruggle lietween Charles I, and his Parliament. Calculating from the quantly of seoris accumulated In their immediate neighborhood, which appoar to have lain undisturbed for the last two centuries, Mr. Mushet bas attempted to deduce the period of their erectiun, which he conceives to have been about the year 1050, in the time of Edward VI. Lp to this period wood charcoal was the only materlal emploved in amelting oporations, but the wante of a constantly increasing population, not leas than the great consumption of the blast furnaces themsplyes, created a scarcity of this essential material, and gave a check to the manmfacture. To such an extent had the wood iseen destroyed, that the cutting dowa of timber for the use of the iron-works was prohibited by speciul enactments ; and the forests of Sussex ulone appear to have leen exempt from the general terree of conservation. The number of furnaces in blast decreased three fourtha, and the annual production, which but a short tinse hefore is said to have heen $180,0^{\prime} k$ ) tone, was in 1740 redued to vily 10,3*) tons.
Janes I. granted patents to iron-masters in varions parts of the kingrom for using pit-coal in the mannfacture of iron. The obstacles to its introduction, bowever, were nuoserons, and not easily overcome. The conparatively incombustibie nature of coke, and its feehler chemical affinities, readered a more powerful blast und a longer subjection to the heat indispennable to Its successful adoption. Ignorance of the causes of failure operated long and seriounly, but all ditheulties were st length surmounted. An enlargement of the height of the furnace prolonged the contact of the ore and coke, and at last the employment of the steam-engiryand improved blowing apparatus renterel the blast much more powerful and regular, and gave that impetus to the manufacture which has cansed fireat liritain to take the tiret rank in this branch of industry.

The lirst great improve.sent in the blowing apparatus was the abostitution of large eylinders, with closely titting pistons, for the bellows. The earlient of any magnitude were probully those erected ly Smenton at the Carmin lron-Works, in 1760 . In 1783-1. Mr. Cort, of tiosport, introduced the processes of puddling and rolling, two of the most important inrentions connceted with the prolncion of iron since the employment of the $b$ 'st furnace. (See A.!denda, A.) Atrout this time the steam-engine of James Watt came into nae, und along with it commenced a new era in the hiatory of the imu trado and every other liranch of induatry. Its fmuense power, economy, and conrenience of application, brought it at ance into general emphoment. It was soon applisal to puruping, blowing, and wolling; it enabled the mines to be aunk to a greater depth; refractory ores to be reduced with facility, ant the processen of rolling, forging, etc., to the effected with a rapidity previonsly unknown. Uf late years Scontand has matle mondider. able progress in the iron uannfacture. The intrombetion of rallany communication, and the invertion of the hot-llant, have given a stimulna to the trato which las raimed Glasgow into importance as an irou district, and few towns pomaens greater facilities fur tho mule of their produce, than thin eentral dépót of the mineral trensures of the country by which it la nurrultitien.
'The hot-blant procoss, for which a patent was taken out by Mr. Noleon in 182d, ham ellected an entire revolution in the iron induntry of fireat Britain, and
forms the laat era in the history of this material. This simple hut effectlve invention hae given such facilities for the reduction of refractory ores, that between three and four thmes the quantity of Iron can be produced weekly, with an expenditure of little more than one thind the fuel; and, moreover, the coal dees not require to be ooked, or the ores to be calcined. In conclusion, we may add that there appear to have been five distinct epochs in the hiatery of the iron trade.

The firat dating from the empluyment of an artiliciol blast to accolerate combuation. The second marked by the employment of ceke for reduction, about the year 1750. The third datlig from the Introduction of the stean-engine, and on account of the facilitics which that inventlon has glven for raising the ores, pumping the mines, aupplying the furnace with a copions and regular blast, and moving the powerful forge and rollIng muchinery, we may safely attrihute this era to the genius of James Watt. The fourth epoch is indicated by the introduction of the ayatem of puddling and rolling, very soon nfter the employment of the steanengine. The $f i f t h$, and last-nthough net the least important epoch in the history of this manufacture-is marked by the application of the hot-blast-an invention which has Inereaded the production of iron fuurfold, and has enabled the iron-master to amelt otherwise useless and unreducible ores; it has abolished the processes of coking and roastling, and has given ficilities tor a large and rapid production, fur heyond the mont sanguine anticipations of its inventoc: Manufact urers taking advantage of 80 powertul an ugent, ha' e not hesitated to roduce improper materials, nuch as cinder-henps and impure ores, and by umduly hastening the process, and attending to quantity more than to guality, have proluced an inferior doseription of lron, that has brought the invention into unmerite? oblority.

The ores.-The ores of iron are found in profnse ahmodanco in every latitude, embedded in or stratitiod with every formation. They oceur both erystallized, mussive, and arensecons, lying deep in strati of vast extent, filling veins and fanlte in other rucks, and scattered over the surfuce of the grouncl. Sometimes, but rarely, found native; usually as oxyis, wulphurets, or carbonates, more or less mingled with other wilstances. tif thene ores there are perhaps twenty varieties, many of which ore, howerer, rare; others are combined with substances which untit them for the manufacture of iron, so that the remainaler may be classed under the following general heads; their cenposition, however, varies grestly :

1. The maynetic oxyds, in which the inn accurs, an $\mathrm{Fe}_{3} \mathrm{O}_{4}$ or $\mathrm{Fe}_{3} \mathrm{O}_{3}+\mathrm{Fe} \mathrm{O}$. This is the purest ore which is worked: the hest Swedish metal is manufactured from it. 14 is found in primitive rucks, and is widely diffused over the globe. 2. Specular iron ore, peroxyd of iron, Fog tos. This is rich and valuable, and thas luen workel from a remote antiquity in Elioa and Spain. It is fonmet ehietly in primary ame transjtion rowk. 3. lied and lrown hamatites, hyilrated peroxyd of tron. Thene ores oceur in lo y roidal radiat lng maseen, in Cumberlant, Ireland, America, and other places. 4. Carknato of Iron. 'lhis ore orrurs mixed with large quartities of argillareons, carbonaceous, and silicious substances, forming the large depanits of clay-fron-whone and blackbauls, from which most of tho iron of this country is obtainel. These strata ure generally found in close pmoximity th the canl measuren. All the nbove oren are more or less inixed with milica, alumina, oxyd of manganese, ete., amil it may not be uninteresting to glane at their geographical dintribution in Finrugg and Anmerien.

The Linited Kingrlem. - (ireat Britain prossestes pechllar un! remarkahle advantagen ior the manufacture of Iron. The ores are found in exhuastions abundince, usually interstratifled with the coal for their reduction,
and in rlose proximity to the muntain limestoue,
which la $v$ three easen so near tog a large and pally emplo of blackban the coal fiel Sonth Wale: ness in diffe the amount with which $t$ position of tl thire is given

Protoxyd of ir carboale seld. slica..
Aluaing.
Litme...
Mazaesia.
Peroxyd of iro Hetuminovs ina salphar oxyd of iugiga Moisture amido Total.....

The carboni combinel with ss with the p sceording to the English ar ures:

Lans by igntion. insolublo residuu Peroxyd of Iron. Lime.

Calculating metallic iron in have:

Carbonato of Iron. Metallic Iron ....

The richness o 33 per cent. of ir cent. of the ore $i$ the following ass ore, as under:

Protexyd of Cron. . Peroxyd of iron.
Oxyd of mangnios Magnesla.
Maznesia.
Lime
Potanh
Socla....
Phosphorle ge.....
Phosphoric asfld.
Imrbonic actid..
Tarbon
Sillea.
Carbonaccous matt Lanes.

Total
In North inina hawutite orea are quantities are year stone, etr., to Sta land, for mixing hackband ores. no less than $[46,90$ purposes, and the these districts. 25,000 to 30,000 tol cleator, in the ing proluces a strong a
which is used as a flux. In few countries do these three essential materials occur in auch abundance, or so near together as to give the necesary facilities for a large and profitable productlon. The ores prinelpally employed are the clay-ironstones and carbonates of blackhands, which are found loterstratitied with the coal fiolds of Ayrshire, Lanarkshire, Shropshire, South Wales, and other parta, and these vary in richness in different localities, according to position and the amount of silica, elay and other foreign matter with which they are associated. Tha chomieal cemposition of three varieties of the ore need in I.anarkshire is given by Colquhoun, as foliowe:

|  | No. 1. | No. 2. | No. 3. |
| :---: | :---: | :---: | :---: |
| Protoxyd of tron.... | 88.08 | $47 \times 8$ | 85.24 |
| Carbonte acld....... | 85.37 | 88.10 | 32.53 |
| slica.... . . . . . . . . . | I. 40 | $6 \cdot 69$ | $0 \cdot 58$ |
| Alumina............ | $0 \cdot 68$ | 480 | 5.84 |
| It trne............... | 888 | 2.00 | $8 \cdot 62$ |
| Magnesta. . . . . . . . . | 177 | $2-20$ | $5 \cdot 15$ |
| Praxyd of iron..... | 028 | $0 \cdot 88$ | $\bigcirc 16$ |
| Bituminovs inatter. . | $8 \cdot 08$ | $1 \cdot 70$ | $2 \cdot 18$ |
| Sulphur . . . . . . . . . | 000 | $0-22$ | $0 \cdot 62$ |
| Oxyd of manganeac. | $0{ }^{\circ} 00$ | $0 \cdot 18$ | $0 \cdot 00$ |
| Melsture and loss.. | 1.41 | $2 \cdot 26$ | $0 \cdot 00$ |
| Total...........i | 11000 | $100 \cdot 60$ | 100.87 |

Tho carbonic achl in the above ores may be part! y combined with tho time as carbonate of lime, as well ${ }_{9 s}$ with the protoxyd of iron. M, Herthier gives, according to Dr. Ure, tho following analysis of the English and Welsh Ironstones of the coal moasures:

|  | Rteh Walsh Ore. | Poor Welph ( rr . | Thailey Itich Ore or cuabla |
| :---: | :---: | :---: | :---: |
| Lak by ignitton.... | 30.40 | 27.00 | 81760 |
| Insolublo restduum. . | $8 \cdot 40$ | 2204 | 7.06 |
| Perosyd of trod..... | $60 \% 10$ | $42 \cdot 68$ | $58+38$ |
| Litme ............... | $0 \% 0$ | 6.60 | $2 \cdot 66$ |
| Totat........... | 08.4) | 07.69 | 93.65 |

Calculacing the amount of carbonato of iron and metalic iron indieated by the afove analyses, we have:

| Carbunato of Iron... | 8577 |  |  |
| :---: | :---: | :---: | :---: |
| Metalle fron $\ldots . . .$. | 42.15 | $65 \cdot 19$ | $85 \cdot 21$ |

The richness of the abovo ironstones would be about 3: per cent. of iron. In the process of roasting, 28 per cent. of the ore is dissipated. Mr. Mitehel gives aiso the following assays of clay-lronstone and blackband ore, as under:

|  | Clay Ironatorna toltidm, Irviand. | 7harch hand Carbenste (Ira. |
| :---: | :---: | :---: |
| Protesyd of tron............. | Ot 6 \% 4 | 20.944 |
| Peroxyd of tron. . . . . . . . . . . | $8 \cdot 74$ | -74t |
| Oxyd of mangan cse . . . . . . . . | 966 | 1.742 |
| Alomina. . . . . . . . . . . . . . . . . | 1.849 | 14.97 |
| Magnesfa. . .................. | -284 | 988\% |
| Limo . . . . . . . . . . . . . . . . . . | -4311 | -6xt |
| Petash. . . . . . . . . . . . . . . . . . | $2 \% 4$ | Trace. |
| Sonds .... . . . . . . . . . . . . . . . . . | 878 | '1race. |
| Auphur . . . . . . . . . . . . . . . | 214 | 1994 |
| Phosphorle seld. . . . . . . . . . . . | -24 | 114 |
| t'arbonte achd.. . . . . . . . . . . . | 81.148 | 14.000 |
| Sillea. . . . . . . . . . . . . . . . . . . | 6.640 | $26 \cdot 170$ |
| ('arbonnecons matter. . . . . . . | $2 \cdot 160$ | 16.910 |
| Lnes. . . . . . . . . . . . . . . . . . . . | 2180 | $2 \cdot 420$ |
| Total... ............... | $100+60$ | 1010.000 |

In North Lancashiro nud Cumberland, the red hamatite ores are now extensively worken, und great quatitios are yearly shipped from Whitehaven, Ilverstone, ete., to Staffordshire, Nouth Waios, und Scotland, for mixing with tho poorer argillaceoun and blackhand ores. In Cunherlami, North Lanenshire, no less than $[-16,998$ tons were ruised in 1854 for this purpose, and she greater portion wan exported from those diatricts. In addition to these experts, nbout $\$ 3,000$ to 30,000 tons are amelted hy the hot hast at lowor than in 1820. And it may be safely affirmed Clestor, in the moighborhool of Whitehaven. It that thore are veiy fow deseriptions of articles to which producns a atrong and ductile lroa, eonshered higbly a fuit of price would havo been to advantageoti.
 KINODOM DUMING 1850, GPRCIFYING TIE QUANTITIES BENT TO THE DIFYBEKNT COUNTBIES,*

| Countrien to which exported. | Pig tron. | Bar Iron. | Boll and rod tron. |  |  | Wrouphs trop, vis. |  |  |  | Old Iron tor remanufle. fluse. | $\underset{\substack{t / 4 \\ \text { wrought } \\ \text { olevil }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Iras wire. | $\left\lvert\, \begin{gathered} \text { Anehora } \\ \text { srapnets } \\ \text { etc. } \end{gathered}\right.$ | Hooga. | Nallo. | Or all oth- or torta (smeapi ordnames). |  |  |
| Rinse | $\begin{gathered} \text { Tonm } \\ 812 \end{gathered}$ | Tons. 44 | Tons, 8 | Tona. 516 | $\begin{array}{r} \text { Tonx } \\ 254 \end{array}$ | $19 \%$ | ${ }^{\text {Tolis. }}$ | Tuns. 9 | $\begin{array}{\|r\|} \hline \text { TH14. } \\ 868 \\ \hline \end{array}$ | Toon. | Tons. 676 |
| Swerlen | 230 | 463 |  | 410 | 8 | 93 |  | 0 | 75 | 10. | 6.6 7 |
| Norwny | 1.460 | 171 | 142 | 95 | 41 | 883 | 82 | 1 | 208 |  | 14 |
| Denmar | 7.571 | 2,263 | 422 | 39 | 40 | 675 | 807 | 7 | 847 | 952 | 89 |
| Prussta | 16,959 | 1,422 | 98 | 6 | 10 | 163 | 69 | 8\% | 942 | 5,685 | 214 |
| Mocklanbu | 21 | 264 | 114 | 0 | 1. 19 | 49 | 189 | 1 | 160 | , | - 6 |
| Ismover. | 1,898 | 529 | 470 | 1 | 187 | 75 | 808 | 1. | 344 |  | 7 |
| Oldenbarg | 818 | 878 | 69 | 2 |  | 8 | 80 |  | 98 |  |  |
| Ilanseatle | 7,870 | 7,888 | 1,901 | 1,809 | 581 | 960 | 1,519 | 181 | 6.201 | 171 | 897 |
| Ilolland | 18,108 | 8,786 | 417 | 707 | 153 | 811 | 1,821 | 94 | 4,763 |  | 478 |
| Belyluas |  | 21 | 100 | 28 | $5 \%$ | 48 | $k$ | 0 | 120 |  | 615 |
| Channel Islends | 612 | 592 | 48 | 869 | 8 | 227 | 88 | 152 | 198 | 6 | 16 |
| France.. | 11,718 | 1.085 | 848 | 65 | 99 | 216 | 470 | 0 | 1,086 | 17 | 143 |
| 1'ortugal, Azores, and Mad | , 887 | 4,649 | 2,283 | 64 | 19 | 290 | 1.468 | 69 | 682 |  | 4 |
| Spaln and the C'anarles... ${ }^{\text {S..... }}$ | 4,64! | 1,812 | 875 | 1,620 | 288 | 727 | 1,878 60 | 41 | 1,020 | 1 | 117 |
| Gibrnltar......... . . . . . . . . . . . . . |  | 2, 8181 | 9 4.989 | 12 | ${ }_{955}^{2}$ | 197 | 60 | 88 | 21 |  | 8 818 |
| ltaly. | 7,400 | 22,184 | 4,948 | 1,683 | 855 | 168 | 1.18 | 8 | ,384 | 1,198 | 812 |
| Malts. | 8 | 1,1096 805 | 100 | 18 | ... | 168 | 1.12 102 | 1 | 100 | 10 | 1 |
| Oreeec. |  | 1,081 | 146 | 14 |  | 206 | 140 | 5 | 149 | . | $\ldots$ |
| Turkish dominions, exclusive of Wallachla, Mohlavia, Syrla, Palestlne, and Egypt. . . . . . . . . . . . . | 861 | 9,060 | 8,857 | 80 | 18 | 558 | 228 | 215 | 759 | $\ldots$ | 3 |
| Wallachia anil Mloldavis.......... | 70 | 1,008 | 658 | 5 | 6 |  | 207 | 24 | 880 |  |  |
| Byria and Praleotine |  | 185 | 141 | 8 |  | 22 | 5 | 1 | 26 |  |  |
| L®ypt . . . . . . . . . . . . . . . . . . . . . . |  | 879 |  | 42 | 17 | 13 | 120 | 8 | 102 | $\ldots$ |  |
| Algetha. . . . . . . . . . . . . . . . . . . . | 190 | 058 | 16 |  |  | . ... | 16 | . | 51 | .... | . |
| Tuals. |  | $2 \times 1$ |  | 18 |  | . | 5 |  | 10 |  |  |
| Meroceo | ...' | 111 |  |  | 2 |  | 6 | 3 |  |  | . |
| Western coast of Africa. . . . . . . . |  | 2,745 |  | 814 |  | 5 | 443 | 26 | 160 |  |  |
| 1ritish pussesseluna In 8. Afrlea .. | B | 1,348 | $1 I$ | 407 | 2 | 297 | 299 | 130 | 669 | 4 | 8 |
| Cape Verd Islands..... ......... | .... | $\cdots$ |  | 5 |  | .... | .... |  | 6 | ... | .. |
| St. Ilchem and Ascenalon Isls, ... | .... | 1 |  |  |  | 8 | 109 | $\stackrel{2}{2}$ | 4 | . | $\cdots$ |
|  | 0 | 816 | 5.8 | 84, | 40 | 57 | 140 | 253 | 461 |  | 5 |
| 13ritial terrltories in East Inilica. | 880 | 82,319 | 4.845 | 1,34t | 80 | 735 | 8,818 | 069 | 8,974 |  | 100 |
| Java. | 260 | 1,9t6 | 465 | 206 | 68 | 157 | 140 | 86 | 194 |  |  |
| I'billpplne lalands. . . . . . . . . . . . |  | 845 | 160 | 7 |  | 018 | 75 | 10 | 212 |  | \% |
| China, Inchdlag llong Kong.... | 820 | 509 | 2,207 | 85) | 48 | 15 | 191 | 13 | 24 | 25 |  |
| Ifritah nettlonents in $\mathbf{A}$ ustralla.. | 1,102 | 4,86! | 208 | 1,498 | 83 | 488 | 916 | 1,677 | 1.6116 |  | 6 |
| South Sua lalanila... |  | 18 |  |  |  | 8 | 8 | 8 |  |  |  |
| British North Amer, colonjes.... | 10,404 | 48,494 | 848 | 2,995 | $0 \%$ | 2,0488 | 1,930 | 2,016 | 6, 334 | 8 | 476 |
| Hritish W\%. ladies and dr. Gobuta | 111 | 812 | 27 | 1,048 | 20 | 1128 | 675 | 1.112 | 1,063 |  | 9 |
| Forelgh Wust Indtes. . . . . . . . . . | 269 | 6.475 | 487 | 1,809 | 12 | 123 | 819 | 404 | 758 | 8 | 14 |
| Initeid States of Amerles. . . . . . . | 57, 1221 | 260.41 | 1,400 | 1,476 | 1,205 | 12,603 | 7,349 | 697 | 10,894 | 7,6i9 | 6,5225 |
| Mexico |  | 1,781 | 10 | 83 | 10 | 4 | 400 | 44 | 82 |  | i0 |
| Central A warl |  | $13 \% 1$ | 2 | 29 |  | 4 | 9 | 24 | 61 |  | 17 |
| Nuw Itranala |  | 1,965 | 12 | 95 |  | 14 | 23 | T3 | \% |  | 11 |
| Vonezuela | 4 | 71 |  | 49 | 2 | 2 | 18 | 30 | 26 |  |  |
| Ecualur | 11 | 65 |  | 6 |  | 7 |  | 31 | 14 |  |  |
| IIrazll. | 1,6tict | 2,34: | 147 | 690 | 12 | 729 | \%90 | 480 | 841 |  | 40 |
| Trlental republle of L'ruguay |  | 11 |  | 27 |  | 14 | 21 | 19 | 57 |  |  |
| Snenos Ayres. . . . . . . . . . . . . . . |  | 1,**5 | 84 | 479 | 32 | 154 | 881 | 106 | 489 |  | \% |
| \|hili.. ............................. | 24 | 6, 441 | 49 | 864 | O | 175. | 141 | 155 | 412 |  | 17 |
| I'eru. | ©) | 86 | 8 | 124 | 2 | 84.1 | 34 | 52 | $2 \pi$ |  | 6 |
| Falklatid Jslands................io |  |  |  |  |  |  |  |  | 7 |  |  |
| Itusalan antilements on the forthwest coast of Amerlen. |  |  |  |  |  | 112 |  |  |  |  |  |
| Totel. | 141,972 | 42.048 | 26,43) | 21,042 | 4,1634 | 25,422 | 30, 605 | 8.267 | 54,908 | 189:3 | 10,542 |

- Corts, and bes ate omitted In this table, but ars allow ed for in the sumalng up.

In Ireland there are vast depmitis of iron ore of great richnewn, though as yot but little worked. Sume of these, such as the oren worked at the Arigua minea, and the Kidney ores of Ralcarry lhay, yinld an much as 70 per cent. of iron. If thess mbines were worked mern extensively, and if peat fucl wern uged in the nometting operations, the Iron would probality be of the very leat qualty, and might rical the famed Swedish charcoal metal. Of this there is now every reaten to hope, an the entablimhment of rallwny commanication, whth a!most every iart if Ireland, will open out the immense peat hogs of that country, and facilitate the Intruluction of vegetabiof fuel for the reduction of the oren, and create a large and unportant uldition to other branches of Irivit induatry:
Frutere posmesses an almadant supply of Iron ore, thet on account if the searcity of cont, the naminacture has lween greatly pestricted in extent. The introduction of railway cembumication in, however, rapidly rembring thin tificuty, and the operations of mmelting are greatly an the incrense. The railroed has enalided the cilench iron-master to nuthititute coal for charcoal in the reduction of the irom oree, and in consequence at lininense increase has inken place in the
probluction of pis and mannfactured iron, The ores are fomal in beds or strata in the Jura rango; aecumulated in kidney-shaped concretions in the lissures of the linestone; or dixpersed over the surface of the ground, and hut nlighally covered with mand or clay: They are found in the lepartments of the Vonne, the Mense, and the Momelle, mad indeed may he traced from the l'us de Calain on the nurth to the dura on the sonth, Indication throughout an alomidant naci manple nuphly. The present increased pronaction of trun in France is chintly due th the introluction of coal in smelting, lut it may aton be tracel th sume mearere to the encouragement given by the governmeat to that branch of industry, end to the whaterprise of a a th men ans M. de Gallois and M. Dufrinow, wha have exerted themanlves to extemel ite maninhature in that country. M. de fialloid reailed in Einghand fir neveral years, immedistely sulosequent to the peace of 1 14ts, and having oltained miminvion into the difleremt iron-workt hern, ha returned to france and established the workn at si. Diteme, now probathy tho largest and mowt extensive in that country. The universal exhilition of hat year (ldobi) fully juntilies the remarke in reference to the great incrense of the irou
trade of Fi with the im manufactnr could not $h$ improved Exblhition. even this) $h$ a time, In ad news to one The product tle short of for railwaya, and other co ties of iron al try.
German Ir proluction al within the la Westphalia al compunics ha since 1854
523 cwt. pig while in 185 and 333,061 ca per cent. in o produced 1,51: bar irnn. Th 1853, was 1,49 increase, 647,6 nnces in the ki rwt.; in 1858, 668,167 cwt. : 1830, produced ewt. cast irum and $582,446 \mathrm{cwt}$ the furnaces in 18ill, 4,612,102 $6.126,158 \mathrm{cwt}$. increase from 1 nato of inerease ceed its consum iron is now in mills on the to supply Prossin; demand of Saxe plies Inavaria. mills. Ger,man glish, but are als
In regard to rapid progress, п building of loco now sent from 1 tount, while nun to France and Su and machine-sho Sunsich, Augev. Chapelle, Ruhror 1sist, one extahli oul 500 locomotiv Germany wince beginaing to con the Went Indla sugar phantations oftained thelr hat now import them Prussic.-VHalu clay carbmate ort great couldith of tite ore are foun ish I'russia and ol Vletula and the O are found in juxt sidenable extent.
The consunption though it is incre: returns recently faires at Beilin.
trade of France.' Any person in the least conversant with the imperfect inachinery and processes of tho iron manufacture as it exiated in France soma years since, could not have been otherwise than struck with the improved character of those exemplifled in the Parls Exhbibitlon. In no country (prohably not excepting even this) has so great progress been mads in so short a time, In advancling from a state of comparative rudeness to one of conslderable perfection, as in France. The production of crude plg-lion in France is now litthe short of $1,000,000$ tons annually, but the demand for tallways, rolling-stook, bridgos, iron ships, girders, and other constructions is so great that large quantlties of iron are still annuilly imported from this country.
German Iron Manufactures.-The increaso in the proluctlon and manufacture of Iron in Germany, within the last fer years, is remakuble. In Prussian Westphulia alono, no loss than 16 mining and smelting companies have been formed since $1848-12$ of them aince 1854. In 1853, thls province produced hut 603,525 cwt . plg Iron, and $118,064 \mathrm{ewt}$. cast Iron ware; while In 1854 the prodact was $709,110 \mathrm{cwt}$. pig Iron, and 332,061 cast iron ware; showing an increase of 78 per cent. in one jear. In 1855 the saine provlnce produced $1,513,039$ cut. pig iron, and $1,126,025 \mathrm{cwt}$. bar iron. The product of iron ore in all Prussia in 1853, was 1,406,516 tons, and in 1854, 2,1-14,149 tons; increase, 647,633 tone. The prodoct of all the furnaces in the kingdom of ...iony, in 1852, was 168,175 ent. ; in 1808 , 170,637 en 2 . Havaria producer! in 180̄0, $668,167 \mathrm{cwt}$; in 1853, $1,074,817$ cwt. Austria, in 1830, produced $1,487,836$ ewt. pig iron, and 151,637 ewt. cast iron ware in $1854,4,151,505$ ewt. pig iron, and 582,446 ewt. east iron ware. The product of all the furnaces in the States of the Zollverem was: In 1851, $4,612,102$ ewt. ; In $1852,5,137,821 \mathrm{cwl}$. ; in 1853 , $6.126,458$ cwt. : in 1854, 7,501,470 ewt. ; showhyg an increuse from 1851 to 1854 , of 64 per cent. At this rate of increase, the production of iron will soon uxceed its consumption in Germany. But little railroad iron is now imported into Germany. The rollingmills on the lower lhhine, in Berlin, and in Silesia, supply l'russia; the rolllng-mill of Zwickuu meets the demand of Saxony, and that of Burglengentiold supplies lavaria. Austria, too, is supplied by domestic mills. Gernun rails are more expensive then English, but are also said to be more durable.
fa regard to machinery, Gemmany is also making rapid progress, and already outstrips England in tha building of locomotives. Not a single lucumotive is now sent from England to Germany on German account, white numbera of them are sent from Germany to France and Switzerland. Fixtensive iron-founderies and machine-shops are to be found in Herlin, Vienna, Blunich, Augsbarg, Faslingen, Carlaruhe, Aix-laChapelle, Ruhrort, Hanaver, ete. U1 to January 1, 1854, one estaldishment in llerlin had alono turned out 500 locomotives, and $1: 100$ have been built in all in Germany aince $1 \times \cdot 11$, tierman cutlery is likewise beginaing to compete with the langlish, especially in the West Indla and South American markets. The sugse phantations of the West Indies, which formerly obtained their harveating implements from lingland, now import them lirect from tiermany.

Prussic.-Valnahle deposito of the bhackland and clay carhonate ores are found interstratifled with the grest coal-ifeht of luhr ; nul the bog-iron and hematite ores are fund in considerable profushon in Whenish l'russin and other parts. In Upper Silesia, on the Vistula and the Oder, large ileponits of coal and iron are found in juxtaposition, and are worked to a censilerable extent.
The consunption of iron is not so grent as in Frunce, though it is increasing rapldy, us may be seen from returns recently ghen by tho British Chargo d'Atfaires at Borlin. Theso returus show that the anount
of iron are raised in Prusela has increased from 1,495,516 tons in 1853 , to $2,144,509$ tons in 1854 ; this has taken place in nearly all the producing districta, but chlefly on the Rhine, where the demand has lncreased from 719,684 to $1,068,656$ tons; in Westphalle, from 146,820 to 830,014 tons; in Silesin, from 563,730 to 650,369 tons; in lower Saxony and Thuringia, from 51,963 to 70,676 tons ; in Prussian Brandenburg, from $\mathbf{8 , 0 8 4}$ to $\mathbf{1 2 , 7 3 1}$ tons; and in the Upper Zollverein from 6,736 to 12,063 tons.

In I ustria, all the iron is smelted with charcoal or carbonized peat, and is, in consequence, of the finest quality; it may be applied to every description of manufucture, from the inost ductile wire to the harilest steel. The production is, however, small. The eres are found in IIungary, Styria, Moravia, and Epper Silesia.

In Belgium, both coal and iron are found in equal abundance, and are worked at Charleroi, Liege, and at other places. The ores, which are chiefly hematite, are derived from the linestone at the buse of the coal measures.

The auperiority of the Sucedish iron has long been acknowledged, and till recently it has been unrivaled. This arises not only from tho purity of the ore-the magnetic oxyd of iron-but in consequence of its being smelted with charcoal on'y. The quantity is, however, restrieted, as the iron-masters are allowed by law only a cortain number of trees per annum, in order that the forests may not be totally destroyed. Coal does not exist in either Sweden or Norway.

In 1814 some experimental researches were undertaken by Mr. Fuirbairn of Manches'or, at the request of the Sublime Porte, in regard to the properties of iron mate from the ores of Sumakoff in Turkey. The oree were strongly magnetic, and contained, occording to Dumas and others, 62 to 64 per cent, of iron. They conslatel of:

Sumo of theso ores have been smelted with charcoul, and some very fine specimens of iron and steel prodnced. 'The mannfacture is, however, in a langnid state in Turkey, and although smelting furnaces, blowing apparatus, forges, rulling mills, etc., woro propaied and sent out from this country, tasy are to a great oxtent useless anong a peoplo who havo decply rooted prejudices and halitual inactivity to overcarse, and every thing to learn in all those habits of industry which indicato tho rising prosperity of an energetic and an activo people.
America.-lloth the liagnetic, hamatite, and clayironstones abound in the United States. The magnetic ores workel in New lingland, New York, and New Jersey; the hamatite in l'ennsylvania, New York, New Jersey, and other localities; but the greater part of the manhacture must evertuall. establish itself in the valley of the Mississippi, wesi of tho Alleghany range, w here vast deposits of coal and iron exist, thusgh at present but imperfestly known or developed. The ores in mosi of theso districts aro smelted with a misture of eharcoal and anthracite, and the usual limestone flux, and $\rho$ roduce a \%ery excellent quality of iron. la another fortion of this article (*2 p. 11105) a full account of tho iron ores of the L'nited States is given.

In Nuva Scotia some of the richast ores yet discovered oecur in exlanastless abundarace. The iron mannfactured from them is of the vely best quality, and is equal to the tinest Swedish metal. The specular oro of tho Aedian mines, Nova Scotia, is said by Dr. Ere to be a nearly pure peroxyd of irnh, containing 99 per cont. of the peroxyd, und about 70 per cont. of iron. When smetted, 100 parts yield 75 of iron, the increase in weight beias dus to combined carbon. The red
ore Dr. Ure states to be analogous to the kldney ore of Cumberland, and to contain :

| Peroxyd of Iroa. | 858 | 84.4 |
| :---: | :---: | :---: |
| stlien. | 8.9 | 8.0 |
| Water | 6.0 | 7.6 |
|  | 100-0 | 000 |

The Acadian ores are situated in the neighhorhood of large tracts of foresta, capable of aupplying almost any quantity of charcoal for the manufacture of the superior qualities of iron and steel. Several specimens of iron from these mines have been submitted to direct experiment, and the results prove its high powers of resistance to strain, ductility, and adaptation to all those procerses by which the finest deacription of wire and ateel are manufactured. The difficaltles which the government haverhad to encounter, during the last two years, in obtaining a sufficiently strong metal for artiliery; are likely to be removed by the use - the Acadian pig-iron, Large quantities have heen purehased by the War Office, and experiments are now in progress, under the direction of Lien-tenant-Colonel Wilmot, Inspector of Artillery, and of Mr. Fairbairn, which seem calculated to establish the superierity of this metat for casting overy descrlptlon of heavy ordnance. There are also nome very rich ores at the Nhetau mines, as the following analyses by Dr. Jackaon ahow. They cont in lmpressions of Silurian tentacultea, spirifers, etc.:

|  | Browa tre, somewhat 1.4gmeth. | Reil Inon Ore. |
| :---: | :---: | :---: |
| Peroxyd of 1roa | 7020 | $64 \cdot 40$ |
| Billea...... . . . . . . . . . . . . . . . | 14.40 | 19.20 |
| Carbonate of lime...... . . . . . . | $5 \cdot 60$ | $5 \cdot 40$ |
| Carbonate of magnesla | $2 \cdot 80$ | $8 \cdot 20$ |
| Alumina.......... | $0 \cdot 60$ | 12) |
| Oxyd of manganese........... | -40 | 4.40 |
| Water............ | 10 | $2 \cdot 40$ |
| - Gain from ourgen. | $\begin{array}{r} 10020 \\ 20^{\circ} \end{array}$ | $\begin{gathered} 100-20 \\ 20+ \end{gathered}$ |
| \$ O, int-run, probmbly carbould arid iromy earbonals of lime. | 10000 | $160 \times 6$ |

As our innits are circumscribed, it will not be necessary to extend thie section further; snffice it therefore to observe, that in all countries nature has, with a beneficent purpose, interinid and interstratilled the whole surface of the globe with this useful and indispeusable material, and it would ill hespeak that bigh intelligence with which man is endowfil if he did not avail himself of, and turn to gool aecount, the immense stores of mineral treasures which are so profusely laid at his feet.
firel.-The inquiry into the properties and composition of the ores of iron, and the processes employed for their reduction and sulsequent conversion int., bars and plates, weuld be incomplete unless accompanied by dercriptive analysea of the fucl by which they are fused. Indeed the results of the operations of smelting, pudiling, etc., are so intimately depend. ent on the quality of the fuel employed, as to render a knax iedge of its constituents essential to the manus. facture of good iron.

Charcoal was at first universally empleyed in the manufacture of iron, and on account of its puri'y conspared with other kinds of furl, and its strong chemical nffinities and consequent high romhuatibility, it is uf rery nuperior value where it cant be ohtuined in large quantitles at a moderate cost. Thim, however, is rareIy the case, and hence its use in restribted within very arrow limits in most cunatries. Charooal is the wint of , verel processes, in earh of which the nls"e is: !nerver in amount of fuel In a given loulk. The will ting et: it to convenient lengths, and piled closel. pco her, in a large lieap, the interatices being $f$ 'led with "te nimalier liranchen, and the whole cove? raik? wet lorer. if powiter, when sis on lire.



auming the carbin. After the whole of the gaseous products have bean separated, and the carbon and salts only are left, the access of air is prevented, and the heap allowed to cool.

Another and bettor process is to throw the wor, into a large close ovan or furnace, heated elther by the combuation within it, or by a separate fire conducted In fluea around it. By this process, not only is the yield greater and of lettor quality, from the slower progrese of the operatio.2, but the products of the distillation may be preservel and omployed for a great variety of purposes. The following reaults of some experiments by Karsten, show the difference in yield of very rapid and very slow processes:

| Wood. | Cbarcoal produeed by quick earbonization. |  |
| :---: | :---: | :---: |
| Young oak | $16 \cdot 54$ | 2569 |
| Old oak | 15.91 | 25.71 |
| Young deal | 14.25 | 25.25 |
| Old deal. | 14.05 | 25.00 |
| Young fir. | 16.22 | 27.7 |
| Old tir.. | $15 \cdot 35$ | 24.75 |
| Mcan.. | 15.88 | 2507 |

These, on the average, give for the quick processes $15 \cdot 3$, and for the s!ow $25 \cdot 6$, being in the ratio ef 1 : $1 \cdot 67$, or 0.67 in favor of the quick process.

Peat-This materiul seems likely to come into use for smelting iron in countries such as Ireland, where neither coat nor wood are found in abundance. It is purer and less oljectionable than coal, and if properly dried, compressed, and carbonized, woull prove a very valuabla fuel for the reduction of such orea as we have already described in the eection on the iron ores of Ireland. It is carbonized in the same way as the charring of wood.

Coke.--Before the introdnction of the hot-blast, this macerial was used to a very great extent in the maufacture of iron; it is prepared from coal in the same way that charcoal is prepared from wool, the uperathen being ealled the coking or deanjphurizing process. The heaps do not require so careful a regulation of the admission of air as those of charcoal, on account of the comparatively incombustible character of the coke. Sometimea the heaps are maile large, with perfurated brick chimnies, to increase the draught through the mounds; at other times they are formed into sanaller heapn, and the conversion takes place withous the intervention of flues. The more usual and economical plan is, however, the emphoyment of close ovens, hy which process a great saving is effected, the yiehd being from 30 to 50 per cent. in the one case, and irom 50 to 75 in the other, accorting to the nuture aod quality of the coul.

The following table of the heating power of various kinds of fuel, trom Knapp's Chemical 'Technology, is not without interest ; in practice, howerer, only a portion of the absulute heating power is male available :

| Faul. | Authority. | Folt ond of water bested fromet of to 1 lt te oflig by 1 It , of fuel |
| :---: | :---: | :---: |
| Chareval, Averag | Berther | $\operatorname{tin} 0$ |
| I'eat from Allen In Ireland, | arifith | fig |
|  | Dritith. | 4, |
| P'eat charcoal, Exacne |  | :00\% |
| "*Framont \& Chamin do Fea | lerthar | 8.9 |
| Coke, Nt. Ettenno............... | d | 65.6 |
| " Itenseruer... | Herthler | 64.3 |
|  |  | Sis. |
| "eannel, Wlean ... ........) |  | 64.1 |
| ${ }^{6}$ cheriy, therbysbire ........ |  | 414 |
| "cannel, dlasgow.... | Berthler | :14.4 |
| " ${ }^{\text {* }}$ Lancashlre |  | 4 |
| ** Dnrham. |  | 71.18 |
| Glas coke, l'aris ................. Aathracte, l'eumalvanla....... | Herthler 2 | Pir 6.9 6.1 |
| Aathracte, lecumayivana,........ | -letther | 8 CiO 4 |

Coal.-The lot-hlrat has enabled the Iron-masters to use raw conl In the hlast furnaces, the great lieat of
the ascend coking it a ever, and to be so co in the sha even with


According cent. of its wel ing from Mr.

Welsh furnace
Derbrshite furn
cann
And ugain $t$ ef coal, may bo contanaed in th

Sulphate of 1 Lime
8iex....... Alumlaa....

Tot
Malleable Iro of wrought Iron ders an investig exting. It is $n$ cast iron; and o nearly two third many cases be a lightuess and d is especially evit ness is not reguit of rigidity muy tuhular or cellu the construction leanss, and iron iron which is ma of construction, e ant, and coasider limit of its appli thut iegree of at suliject demmnds. mill we derive tw "reldedort" and " ductile, und is a t itk considerahle st hrittle, and has , like cast-Iron; bu known, that the $b$
the ascending current of the products of combuation might be advantageously used, on account of the coking it as it falis in the furnace. The aulphur howover, ard other deleterlous ingredienta, do not appear to be so completely got rld of as when the coal is used in the shape of coke; and it appears prohable, that cyen with the hot-blast, the seporate process of coking
greater purity of the iron produced.
The following tablea, selected from varions sources, give the cumposition of the different kinds of fuel, all of which are applicable to the reduction and fasion of the iron 01ss:

| Fuel. | Locallity. | 8peci8a gravity. | Carbon. | Hydrogen. | Oxygeu and Nilirogen. | Ashes in 100 partis, | Authority. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SpInt Coal. |  | 12900 | 75.00 | 6.25. | 1875 |  | Themson. |
| い |  | 1-268 | $70 \cdot 90$ | 4890 | $24 \cdot 80$ | - | Ure. |
| * | Newcastle, Wylam | $1 \cdot 302$ | 74828 | $6 \cdot 180$ | 5085 | 18.912 | \} Richardson. |
| Cannel | Glasgov | 1807 1279 | 82.924 Ci.72 | B.491 | $10 \cdot 457$ 1872 | 1.128 | f Thomardeon. |
| * |  | 1.298 | 72-22 | $8 \cdot 98$ | 28.85 |  | Ure. |
| 4 | Lancashlre, Wigat: | 1.819 | 83.753 | $5-860$ | 8.089 | $2 \cdot 945$ | 3 Bicher |
| ${ }^{4}$ | EdInbarg (parrot coal.).... | 1818 | 87.597 | $5 \cdot 405$ | $12 \cdot 492$ | 14.568 | \}richardson. |
| Cherry coal |  | 1.268 | 74.45 | $12 \cdot 40$ | 18.15 | 9-876 | Thomen. |
| " | New castle, Jarrow Glasgow......... | 12668 1.286 | 84.848 81.208 | 5.048 5.452 | 8.480 11.988 | 1.876 |  |
| Caklog coa | Nowcastle, Garesfield...... | 1.280 | 87.952 | 5-289 | $5 \cdot 416$ | $1 \cdot 898$ | RIchardson. |
| " | Durham, South IIction.... | $1{ }^{1274}$ | $88 \cdot 274$ | $5 \cdot 171$ | $5 \cdot 086$ | 1-519 |  |
| 6 | ............................ | 1200 | 75.28 | $4 \cdot 18$ | 90.54 | 4870 | Thomson. |
| Anthracite. | Swansea | 1848 | 92.56 | $2 \cdot 880$ | 2.580 | 1.720 | Regnanlt. |
| ${ }^{\text {A }}$ |  | 1270 | 90.68 | $8 \cdot 600$ | $4 \cdot 100$ |  | Jacquelín. |
| 4 | South Wales. . . . . . . . . . . . |  | 94.05 | 8880 | $2 \cdot 570$ |  | Overman, |
| * | Pennsylvania. . . . . . . . . . . | 1.462 | 90.45 | $8 \cdot 480$ | 2.450 | 4-870 | Regnault. |
| 4 |  | .... | 94.89 | $2 \cdot 600$ | $2 \cdot 660$ | $0 \cdot 6$ | O-0rman. |
| 4 | Masacliusetts, Worcester. . | . $\cdot$. | 28.35 | 0.920 | $2 \cdot 150$ | 88.60 |  |
| l'eat. | Vulcalr | .... | 57.08 | 5.680 | 81.760 | . $\cdot$ |  |
| ". | Long...... | .... | 88.09 | 0.980 | 31-870 | *... | YReguaul* |
| 4 | Champ de Feu. . . . . . . . . . | .... | 67.79 | 6.110 | $80 \cdot 770$ |  |  |
| 4 | Cappago . . . . . . . . . . . . . . . | .... | 51.05 | 6.55 | 30. 55 | $2 \cdot 55$ | - |
| " | Kiluggan . . . . . . . . . . . . . . | ... | 61.04 | $0 \cdot 67$ | $80 \cdot 46$ | 183 | Dr. Kanc. |
| " | Kilbakan. . . . . . . . . . . . . . . |  | 81.13 | 6.89 | 84.48 | 8.06 |  |

According to Knapp, peat contains from 1 to 33 per under the hammer, as the other, when at a high temcent. of its welgit of ash. In coal we have the following from Mr. Mushet's analyses :

|  | Spucitle gravity. | Carbon. | Ashas. | Volatile matter. |
| :---: | :---: | :---: | :---: | :---: |
| Welsh furnace coal | 1.897 | 38.068 | 3.432 | 8.300 |
| " ${ }^{\text {" }}$ | 1.393 | 89.709 | $2 \cdot 300$ | 8.000 |
| " slaty | $1 \cdot 409$ | $82 \cdot 175$ | 0.725 | $9 \cdot 1100$ |
| Derbyshlre furtace coal | $1.204$ | $32 \cdot 892$ | $4.293$ | 42.880 |
| ir cannel " | $1.275$ | $48 \cdot 362$ | $4.638$ | $47 \cdot 600$ |

And again the analyses, from Overman, of the ash of ceal, may he quoted, us showing the constituents contained in the ashes derived from combustion :


Malleable Iron.-The greatly extended application of wrought iron to every variety of construction renders an inventigation of its propertiea peculiarly interesting. It is now employed more extensively than cast iman and on acconnt of lts ductility and strength nearly two thirda of the weight of material may in many cases be saved by its employment, while great lightness and durability are secured. Its superiority is especially evident in constructions where great stiliness is not required, but on the other hand nuy degree of rigidity may be obtained by the emptoyment of a tahular or cellular structure, ind this may the seen in the construction of wromght iron tubular bridges, heams, and iron shops. The material of malleable iron which is making such vast changes in the forms of constructlon, can not but be interesting and important, and coasidering that the present is far from the limit of its applicatlon, wo shall endeavor to give it that degree of attention which the inportance of the aulject demands. From the forge and the rollingmill we derive two diatlact qualities of iron, known as "red-short" and "coldeshorf." The former is the most ductile, mad is a tough, fibrous materlal. which exhibits considerable strength when cold; the latter is more brittle, und has a highly erystalline fracture almost like eust-iron; but the fact is prohably not generally known, that the brittle worika as well, and is as ductio

## perature.

United States.-Iron was first made in America in the province of Virginia, aloout the rear 1715, and the example was quickly followed by the provinces of Maryland and Pennsylvania. This opening of a new source of wealth was a subject of great satisfaction and importance to those who were interested in the prosperity of the colonies, presenting to their view, at no distant date, a prospect of independence of forelgn countrics for the aupplies of those most essential articles, iron and timber.
Einfohta of Ibon from the Ampaican Plantationg.


In 1810, Mr. Gallatin, the Secretary of the Treasury of the United States, presented to Congress a report on the manufactures, in which, among many other branches, iron, and the manufactures of iron, are mentioned as being firmly established, supplying, in several instances, the greater, and in all, a considerable protion of the consumpition of the United States.

The furnaces, forges, and bloomeries of the United Staces, amount to 630 , of which the State of New York furnlsies 69. The annual value of iron and ita manufactures is estimated at $\$ 12,000,000$ or $\$ 15,000,000$. The average value of imported metal, in lar-iron and wtec., at $\$ 1,000,000$. The Franconia Iron Works, In Nuw llampshire, extablished in 1810, enploy a capital of $\$ 100,000$, The Vergennes lron Works, in Vermont, promise to he very important. The price of bar-iron at this establishment is 8140 per ton, the ore ©il, charcoal $\$ 150$ per 100 hushels; 19,000 muskets are anumally nado at the two public armories of Springliehl and Harper's Ferry. There is now a consile rable surplas of sumall arms."

Some of the ores of iron are found in overy State in the Union; and, nbout the period of Mr. Gallat: :s eport, mines of this metal were worked in New, ". pshiru, Vermont, Hhode Ialand, New York, Coluecti-
ctut, New Jersoy, Pennsylvania, Virginia, and North Carolina.

According to the "Statistical Annals of the United States," by Adam Seybert, founded on official documents, the manufacture of iron in the year 1810 was an follows: 153 furnaces, making 53,908 tons of iron; 330 forges, maklng 24,541 tons of bar-lron; 316 tripbammers; 34 rolling and slitt:ing-milis, which required 6500 tons of tron; 410 nailiries, in which 15,727,914 lbs. of nails had been made. Manufacture of iron, value, $\$ 14,364,526$.

From alstracts of reliable statements it appcars that the whole quantity of iron made in the year 1830, computed $\ln$ pig-iron, amoun $\mathfrak{\gamma d}$ to 191,536 tons, produced from 239 furnaces, two fifths of which were made in Pennsylvania.

The average quantity of lammered iron imported from 1821 to 1830 , was about 26,200 tons, anit of rolled iron about 5600 tona, making together 31,800 tons, valued at $\$ 1,762,000$. The whole quantity of hammered and rolled Iron consumed In the United States in 1830, may be entlmated at about $14,4,666$ tons.

The value of the various forelgn manafactures of iron consumed, on an nverage, from 1821 to 1830, was aloot $4,000,000$, making the whole amount of foreign iron and its manufactures annually consmued, about 85,762,000.
Iron Manufactures of the Clited States in 18i0, from the "Report of the Superintenden; of the strenth Census," printed by order of the House of Lepresentatices.- l'si-mox.-Number of estallishnen,ta in operation, 377. Capital lnvested, $10,346,425$. Naterials used, and value,

$$
\begin{aligned}
& \text { Coke and charcoal. . . .hushels } 54,165,36\}
\end{aligned}
$$

Number of persons employed, 20,448 . Average wares per month, $\$ 20$ 76. l'ig-iron made, 564,755 tons; value, $412,748,737$.

Castings.-Number of eatablighments in operation, 1891. Capital invested, $817,416,861$. Materials used, and value,


Number of persons employed, 23,589. A verage wages per month, 27 38. Castings made, 322,745 tons; value, $825,108,155$.

Witonout-inon.-Nunber of estalillshments in oporation, 422. Capital Invosted, $14,495,220$. Materiald useri, and value,


Number of per-ons employed, 13,257. Average wages per aonth, 22541 . Wroughtiron made, $278,0.4$ tons; value, $\$ 16,74 \pi, 071$.


This table shows the imporls to have raathed the maximum in 1831.
v Manepacteres of the Unithd States ix 1 sho.

| NTATE. | cant imun. |  | matimon. |  | Tone of fuct consumed. | Sten eluployed. hicluditit nitulog aperathos. | Captud invented. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of Murnaces, | Tuna produred. | Ditomentien, furgea, and rolling mills. | Trun produced. |  |  |  |
| Malne | 16 | 6,120 | 1 |  | 250 | 4) |  |
| New llanpablre. | 15 | 1,8:31 | 2 | 1:5 | 2,104 | 121 | 98, $2(9)$ |
| Massachusetts. . | 44 | 0,382 | 87 | 6,044 | 199,402 | 1,097 | 1,232.45 |
| Whote Inimat. | 5 | 4,196 | ii |  | ${ }^{2987}$ | 29 | 22, 2000 |
| Connectlcat. | 28 | 6,495 | 44 | 1 3,62; | 10,9:3 | 69.5 | 攻, 3, \% |
| Verthatit. | ys | 6,343 | 14 | (in) | $85 \times 407$ | 3 | 661,12 |
| New York | 141 | 99.1148 | 124) | 58,698 | 128.657 | 8, 106 | 2, 1013, 419 |
| New deray | 211 | 11,114 | 40 | 7,171 | 27.12) | $2,12 \div 0$ | $1,721,421$ |
| Penosylvana | 213 | 05,895 | 169 | 67,244 | 350,908 | 11, 222 | 7,7ヶ1,4i1 |
| IMelaware... | 4 | csif | \% | -46) | 29!1 | - \% |  |
| Marylaned. | 12 | 5876 | 17 | 7,000 | 21,423 | 1.76 | Thatho |
| Virciula | 42 | 14,410 | N\% | 5, 4.6 | 86.808 | 1.742 | 1, 246.65 |
| North C'arolina. | 8 | y64 | 411 | Vits | 11,094 | tivs | [4,961 |
| Routht'arolina. | 4 | 1,2** | 9 | 1,165 | 1,381 | 248 | 113, 3 (6) |
| tJeorgla. | 14 | 404 | 29 |  | 6301 | 41 | 24, 4 (4) |
| Alabrama. | 1 | 80 | 5 | 75 | 157 | S41 | ?,061 |
| Ioulalana. | 6 | 1.460 | 9 | 1, Whis | 4.152 | 145 |  |
| Tennesarn | 81 | 16,124 | 99 | 9.648 | 177,424 | 2,206 | 1,514, 2156 |
| Kentucky. | 17 | 29,206 | 13 | 8,087 | 85, inl | 1,108 | 4.19, man |
| Whio..... | 78 | 85,236 | 19 | 7,466 | 104.819 | 2.268 | 1,161, \%ma |
| Iniltana. | 7 | mla | 1 | 940 | 7<7 | 1181 | (\%7.7(1) |
| IIInola. | 4 | lis | , |  | 249 | 74 | 411, 3 ah |
| Mjecouri. | 2 | 1*) | 4 | 118 | 8141 | 801 | 7 3 , (M) |
| Michizan.. | 15 | 61 | . |  | 451 | 91 | 60.819 |
| Wiscounsio. | 1 | 8 | . |  | 1 | 8 |  |
| Total. | 844 | 243,904 | \% 4.15 | 107.294 | 1, $2 \times 24,110$ | \$1, 197 | 20.4829 .181 |

It is not easy to ntrike the true medium, the bent even if a smail dechine follown the redectur of duty
 tion, due to the iron manufacturer, and, at the samo gaestion of time, und no very great whount of that time, ant to restrict the constructon of railoads, and, cash artiele is now repuireal to bring it tin that print an a conueruence, the growth of aew Statea, by con- where it will take the lead of the worlit, mul hermue fining by high dutien the muply of iron to the pro- the wapleat and most protitable liranch of dinerican duction of our own mills. The revloction of daty un imbustry. A great denal of hastraction is to he derived iron, l,y the new tarisf, from 30 to 2t per cent., will, from the reports of the iron manufacture in Enghat. undoultedly, have some etfect on our iron manufac- - The following in an extract from one of the most fetures; but rather to limit the profita, than to reduce cent
the production or number of mitls; the gresent priwes are ample to give large probles to home manufactury,
"'lanks for the most part to the demand from the: L'uited States, the iron trale of soath Statiordshiro
may $h$ month there numbe receive the Am portion strative might would product whose 1 especial In the Stafford: under su This has of largo been sto within a week tha pleted, as next fort animation the distri the incon most of $t h$ ingly sho ciently fin If this det some little of iron ar pounded es There are those cours nace. "- -10
The supy in England ning to dev ores. "Iro eontain iron ore not to limited in a undeveloper common por port iron ; n so, unless 8 are made in

No State iron trade at varicties, fo wealth. Th commonweal vallese, givia problacing th portel to oth interested in phies iron to life. It sup! into the cons. new and innon becomes a ri ment of our of coourse, im gree, and if t favor of home trade, it must policy of our durtive indan that compara comprete with rapital is ubu of legislation and country, : ly our nution

Since the . lron market of
may be reported as much more healthy than it was a month ago. By the last two or three American mails there have been brought speclficatlons which, in thelr number and value, form a striking contrast to these recelved during many months past. These show that the American mills are able to supply only a very amall portion of the demand of the Statea; and are demonstrative that $w^{\prime}$ th bars at $£ 8$ inateaci of $£ 9$, a trade might be carried on with America to an extent that would be restricted by nething else than the powers of production attaching to the Britlal werks. The Persia, whose letters were dellvered on SAturdsy last, was espectally valuable in respect of such npecifieations. In the past fertnight, however, the 'make' of nouth Staffordshire has net been lyy any means so large as under such circumstances might have heen expected. This has been occasloned by the unusual circumstances of large masses of machinery at several works having been atopped by breakages, which have all happenad within a few days of each ether. By the end of this week the preparations that have ensued wlll be completed, and If there should not be a recurrence, the next fortnight will be characterized by the utmost animation at the works of the principal $i$ on-masters of the dlatrict. The large American demand will make the inconvenience greater than is now being felt by most of the makers of malleable iren, from the exceedingly short supply of hematite ore of sample sufficiently fine for the purposes of the puddling furnace. If this deficiency should last much longer, it will cause some little anxiety in cases where those deseriptions of iron are in demand, in the manufacture of which pounded ealeined cinder is not an efficient substitute. There are no complaints of a shortness of supply of those courser samples of red ore used in the blast fur-nace."-Iondon Engineer, Feb.
The supply of the hest quality of iron is decreasing in England, whereas in this country we are but heginning to develop and ticcome acquainted with our hest ores. "Iron Mountain" and "Pilot Ǩnob" in Missouri, contain iron in immense quantities, and of a purity of ore not to be found but in two or three mines, and limited in amount, in Sweden. And Kentucky bas andeveloped iron ores to a great extent, and of uncommon purity. We onght to export rather than import iron; and in less than twenty years we shall do so, unless some womderful mineralogical discoveries are made in the British Isles.
So State in the Union is но vitally intcrested in the fron trade as PennsyIvania. Irom, in all its lifferent varicties, forms one of the chief sources of state wealth. The ore aboumids in several sections of this commonwealth, while furnaces dot the hill-sidea and valleys, piving employment to numerous laborers, and producing thousamels of tons of iron, whichare transported to other States, and serve to enrich all who are interested in ite manufartore. Farh yoar wrience upplies iron to more of the common nses of every-day life. It supplies the muterial for ships ; enters largely into the construction of homses; forms part of all the new and improved agrieultural implements; and thus becomes a rival to timber in the merhanical department of our country. This increasing consumption, of coorse, must increase the demnnel in a parallel degree, and if Congress will but legislate wisely, and in favor of home labor and enpital, as exhibited in the iron trade, it most prosper in the future. It is surely the policy of our country to foster this branch of her prom ductive industry. it is by wise, jublicions legislation, that comparatively young countrics are enabled to compete with okler and more practiced ones, where capital is abundant and labor cheap. Thls is the kin! of legislation demanded by the iron trable of this State and country, and wr hope that much will te extended by our mational legislature.
Since the commencement of the present year, the fron market of this conatry has heen marked ly peen-

Har clrcumstances. East of the Alleghany mountains the production of pig Iren exceeds the quantity manufactured during the same period of any prevlous season. A atill greater increase is also looked for during the remaining menths. There ls now on hand a considerable quantity of the stock of 1855 , accumulated in consequence of the severity of the winter preventIng lron from being dellvered when ordered, But a singular fact ls , that with all these apparent drawbacks, the price stendily and firmly advanced to the highest guotation, and aales have been greater in the early months of this, than in the same months of any other yenr. More than 60,000 tans were contracted for in thle city, in the month of April, to be delivered during the year. This is a very heavy busineas to be perfected so early in the season, and since then the quantity has been swelled to a much higher figure. Importatlons of pig Iren, especially Seotch, have been decreasing for the past year or 18 months. During the six months ending December 31st, 1855, the importation of pig Iron from all foreign ports only reached 29,839 tons. This is leas than one third of the ameunt imported during the previous 12 months. This is a cheering indication, and the decrense in the importation of foreign pig iron will give a fresh impetus to our home manufacture, which is much needed in many sections of the Union.

The long and severe winter prevented shipments of har iron from Pittsburg in the usual quantities, consequently there has been a heavy accumulation of that particular stock at that place. It was estimated that in the month of April, there were 35,000 tons of Lar iron waiting sale and transportation at Pittsburg. In despint of these facts, however, the various mills are in full operution, leprending upon the heavy trade to carry them through the sensen. The general presperity of all the weatern interests must keep up the demand for iren, and if so the stons. will not be too heary. It is computed that $280^{1} \mathrm{~ms}$ s is of pig iron will he produced in the West dui roin $1 /$ rresent year -this, of ceurse, includes wesi i ansylyanin. From tha districts of Alleghany, llanging Roek, and Clarksville, about 200,000 tons will be sent to market. There will he a decrease of charcoal pigg iren in the present year, when compared with the production of $1 \times 55$, of $5 \mathrm{E}, 000$ tons. The product of new ceke and raw bituminous ceal furnaces will, however, make gool at least 15,000 tons of this deficit. The amount of anthracite pig iron consumed in the West in 1855 , was 33,000 tons. There will be an increased amount needed during the present year, If we may julge from the contracts nade for supplies from Susquehanna. We tive below an interesting article from the "Iron Masters' Review, " showing the amennt of pig iron consumed in the places named in the West; and also the quantity und value of railroad iron imported inte the Initud States, from the :10th June, 1839, to the 30th June, 1855 . It is well worthy in attentive perusal by all those who are interestes in the iron trade of the United istates.

In the lower part of tho Surquehanna district, the furnaces have mostly produced for the western market. There has been considerable irregularit:" in their operations, partly on aceount of deficiency of coal and the lato opening of navigation. The new furnaces-Dulley, Keystone, No. 2 Cornwall-anl several furmaces which worked little, if any, in 1855 , will prohmbly increase the product of the district this vear liy 25,100 tons. Cireumstances do not admit of a comprehensive survey of the produrt of this district, nor of the demands that may come from the West.

In the Ieehigh district, at this date, the stock of pigi iron, which is nearly all No. 1, smounts to 34,250 tons. The contrnets nilready nade, for iron of this district, for thin year's delivery, approximate to $37,6 \mathrm{fl}$ tons. There are 17 furnaces now in blast, whe to be put in hast hy the middle of May, and one in July

The 17 furnaces are prolucing weekly an iverage of 2100 tona, making for the remaining $37 \frac{1}{\text { s }}$ weeks of 1866 , 78,750 tonm, whieh, added to the present eto 2 -, rives an aggregate of $\mathbf{1 1 2 , 9 0 0}$ tona. In this eathnate we omit the produet of the twe furmsees soon going into blast, to make up for tho ponalble deficienclea that may raralt from accidenls. If we allo "for next yeur'a market the production in four weeks of December, daring which the product may be closed la by winter, we hnve 104,500 tons for the market for thia year, leas thunalreaity contrac sa, 37,600 tons ; leaving ansold for this year's delivery 66,900 tons. In tisese eatimates no acconat la taken of the amall nalea in the diatrict, nor of a fow small shipments by railroad, made in 1856 prior to this date. The sales of Iron from this diatrict in $18: 5$, npproximnteil to 105,000 tons-equal to a reduction of stocks, of 19,000 tona. Tha ntocks on the lat of Jannary lant approximated to 20,700 tona, and on the 1at of January, 1855, to 39,000 . The total production in this distriet in the year 1856, will approximate to 106,000 tons; ansuming as a basis the dsta above given, which will prove reliable, save as It may be affectod by accidents in manofacturing, or by a change in the market. The production in the 14 weeks pant has noi averaged 2100 tons-several furnaces laving liut recently been put in hast.

Tha consumptiont of rals within the past aiaf months has greatly inereased over the overage of the provions year. The impurtation in the six months enrling December 81, 1855, amonated to $89,8 \mathrm{c} 4$ tons ; or 50 per cent. more than in the avarage of the previous 12 montha. In the six montha named, Anerican mills produced about 70,000 tons. As the returns of last year's harveat are now exerting their grealest Intuanoe upon the general proaperity of the interior, railroad enterprises are much encouraged. If the promised peace of Europe is fally re-inaugurated, there is no doubt that with un averagu harvest the present jear, our rallroad oxtensions will be greater than in any prorion heletofore. In addition to the reguirements for new roadn and exteasions, the older roads are jringreasively needing a greater amount of ralla for renewals, where In most inftancea heavier ruils are pat dewn. It is worthy of uote, that a harge çortion of the oid rails taken up is used in other manufactures, to whieh thia ilescription of iron is rogarded hy many as being better ulapted. The increasing amonnt of this stock, which comes in competitlon with pig lron, is worthy of special consid. eration. Capital la wanted in I'ennaylvunia, Marylani, Virvinia, Dissouri, Tennessee, and other States, for the more vigorous and inore profitable workiugs of the extensive iron orea of those States.

Paonection or Pio laon in ties United Statioh, acconoino to tire Crnber or 1850.


I'godection of Whought Ibon in the Liniteid Statks, buo.

| *74** |  | Caphtal Invested. | $\underset{\text { metal }}{1 \text { m }}$ | iliorons. uned. | Cond | Vineral comb. | Cule anul charesal. | S'sisum in aw vialm [in] Usell |  hnatut tinphrovel $\begin{array}{c\|c} \frac{\Delta}{y} & i \\ \vdots \\ \vdots \end{array}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2 |  |  |  |  | Toma | ushehs. (1) (MM) |  |  | thila, of is |  | C.l'nos. | Itallats, |
| Vertaouh.... | $\stackrel{1}{4}$ | 6, itm | T:W1 | ) | 2.62: |  | 8:37, MMA | 1 |  |  |  |  |  |
| Maqacliaselts. | 6 | 616, 3 an |  |  |  | 11.122 2 | T4, $8 \times 0$ | 2:1,194 | 260 | $3{ }^{5}$ |  |  |  |
| Khousy Istan | 1 | 905, 130 | 8, (0)0 |  |  | 6,0M\% | \%, | 111, 3 k | $2 \div 0$ | 28 m | 2,650 |  | 2, 51 m |
| ('ontrecticut. | 18 | 629, SiNO | 7,4) 1 | 1,644 |  | 5,1662 | $783,8 \mathrm{HO}$ | 35, 7 \% 0 | 874 | 9160 | 6, $2 \times 5$ | 5, 146 | B67, mel |
| Nuw York | 6) | 1.181.8300 | 8, CW |  | 41.142 | 18.900 | 5.854 .150 | 438,314 | 1,08i | 26 no | 13,4431 | 108,190' | 1,424,968 |
| Now dursey. | 53 | 1, 6116,443. | 10,4my |  | 14,\%49 | 4,5016 | 1,991, 7 (x). | 834640 | 598 | 27 15 | $\cdots, 162$ |  | 689.27 |
| Pubnsylvaila. | t31 | 7.620,906 | 164,982 | 90,405 |  | $825,96{ }^{\circ}$ | 8,949,904 | , $4 \times 8,891$ | 6,764 | ${ }_{27} 7695$ | 152.516 | 15, 1 (4) | - 2402.907 |
| thelawar | 2 | 15,0M6 | \$10 | fif |  |  | 222,1000 | 19,010 | B4. | 2119 | (\%)w |  |  |
| Qaryland | 17. | 700, $\mathrm{H}_{5} 0$ | 10,172 | 8,849 |  | 11,45. | 245,000 | 489,511 | 564].. | 2888 |  |  | 731.431 |
| VIrgitala | 89 | 791,211 | t7,296 | 2,'minl |  | 66, 015 | 148, 1010 | 831,445 | 1.455 | 2362 | 13,825 |  | . 254,984 |
| North P'arol | 19 | 103, 000 |  |  |  |  | 8 m 7.9 al | 24,114 | 17414 | 11180 | Sill |  | 66, 9 , 17 |
| liporela | 8 | 9.2000 | 119) |  |  |  | 75, 9100 | 5,04n | $2{ }^{1} 1$ | 1185 | 96 |  | 12.306 |
| Alaban | 1 | 2.5m ${ }^{\text {a }}$ | $121)$ |  |  |  | 84,1mel | 8, 4, $\mathrm{Ma}_{0}$ | 14. |  | 1160 |  | , ${ }^{1 / 4}$ |
| Tennease | 42 | 755,1501 | 11.696 | Sts | 9,151 | 86.1 |  | 343,616 | 7815 | 1540800 | 50,448 | 33,5i4 | 150,615 |
| Kentuc | 4 | 176,000 | 2.00 mm | 1,614) |  |  | 2540, + $\times$ (0) | 150,400 | 1×4.. | ye 46, | 8,070 |  | 299, ${ }^{\text {a }}$ ( ${ }^{\text {a }}$ |
| (Hils | 11 | 021,560, | 17,675 | 2,900) |  | 22,7 | (B6.9my | 604,493 | 718 | 8361 | 14,416 |  | Cid 192 |
| Itullan | 8 | 17, 1000 | B) |  | 8,150 |  | (45, man ) | 4,425 | 24 | 27.15 .100 | $17 \%$ |  |  |
| Mieso | 2 | 42, 100 | 1,204 |  |  | 9,434 |  | 24,500 | 101. | $80 \mathrm{00} \ldots$ ? | 963 |  | $6 \checkmark, 1 \mathrm{Mk}$ |
| Total. | 422 | 485,269 |  |  |  | $\bigcirc$ | 0,4 | , 10 | 18.17 79 | - .. .. | $2 \% 8014$ | 2, 8 m | , 17.0174 |

Malne.. N. IIamp Vermont Massachu
Hhode lhbodo Is Conneetle New Yorl New Jors Peunsylva Delaware.
Maryinina.
N , Carolin
8. Carellan Georgla... Oeorgla...
Ahabama. Misistssippt Lonlsiana.
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Mtoliggan
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ty, ol'Colum
Total...
Appearan more into re Wite mpes a midland and ing nearln to At equal atr than a hemp important las Then we are arny-wagona Woolwich and we hear, can used ever so r lightness. A have recomme northern, cent in length. $T$ $131,865 \overline{5}, 1400$ ac What a demar to have the $o$ Euphrates val reyed. And across to the

## statgient su,

Whither

Ifanburg.
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other Be. North Pritlesh West In Prilloh Australl Brillsh Favt Ind
France on the A France on the $\mathbf{A}$
Prenell North A Cuba.
Oher jurtiolin A Mexleo.
Contral Repouhtic
New tíramain.
pern.
sandwleh Iolaniol:
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From wareh
Not from wh

Produotion or Inon Cabtinoe in the Unithd Statra, 1850.


Appearances indicate that iron will grow moro and more into request-in architecture, ships, and rigging. Wire ropes are now used at mun; of the mines in the midland and northern counties; and an attempt is being made to introduce them in Devon and Cornwall. At equal strength, a wire rope is lighter by one third than a hemp nupe, and by two thirds than a chain; an important fact, eariceinlly where mines are deepest. Then we are to linve metallic life-bonts, pontocns, anny-wagons, if the reeult of experiments made at Wootwich and Roclsester may be trusted. The boats, we hear, can not be broken or overset, let them be used ever co roughly; and the pontoons are models of lightness. And again-tho United States' Congress have recommended three lines of rallway to California: northern, central, and southern, each about 2000 miles in length. The landa grantel to the three comprise [ $31,865 \hat{5},(000$ acres-a truly gignntic encouragement! What a demand there will be fur rails! Then we are to have the often-talked-of railway to India by the Euphrstes valley; the route is to be forthwith surreyed. And there is talk of a railway from IIonduras across to the Pacific-161 miles, the estimuted cost
$\$ 7,000,000$, and the expectations of a profitable traflic, fair. To say nothing of the trade from ocean to ocean, there are forests of mahogany and other woods to supply timber-freight for centuries. Accurding to a report in the Journal of the Society of Arts, the Honduras government " agrees to give a bounty of 50 acres of land to unmarried, and 75 acres to married laborers who shall go to the concity to work on the road, and who shall declare their intention to become citizens."-Chambers' Journol. We now subjoin an official sunmary of the exprort trade of the United Stntes from 1847 to 1856:
Foarinn Iron Trade or Cinited States foa ten Yraeg.

| Yearn. | American anported. | Foreign conaumed. | Exrmas io forelgn coovumed. |
| :---: | :---: | :---: | :---: |
| 1347 | 1,167,494 | 88,717,656 | 8,850,172 |
| 1849 | 1,259,6:38 | 12,428,559 | 11,168,927 |
| 1849. | 1,096,172 | 18,722,834 | 12,026,212 |
| 1850 | 1,911,820 | 16,232,399 | 14,821,079 |
| 1851. | 4,2.5,095 | 17,206,419 | 14,050,719 |
| 1852. | 2,808,519 | 18,82\%,056 | 16,510,237 |
| 1853.. | 2,489,653 | 26,998,082 | 24,498,430 |
| 1854.. | 4,210,850 | 28,545,908 | 82,483,655 |
| 1555. | 8,758,472 | 21,415,205 | 17,661,783 |
| 1856. | 4*01,008 | 21,618,718 | 17,457,710 |

Stathent bhowing the Expogis of Foneinn Manifactumed ison fhom tue United Stateg, for the Vkak ENDING JINE $80 \mathrm{rit}, 1856$.

| Whiber riported. | Muskula and rifor. |  | Fire arme wot apeeltid. | Naedies. | Cutlery. | Other nisubtactures and warem of, not specitien. | Side-urmn. | Cap or b | net wire, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nu. | Dulle 3 | Dullars. | Duthars. | Inullaw | Irullars. 450 | 1sounars. | Pounds. | Thollars. |
| llanburg. . . . . . . . . . . . . . . . . . . | $\ldots$ | . |  | $\cdots$ | $\cdots$ | 450 | $\cdots$ | .... | $\cdots$ |
| England. | .... | .... | 24.614 8,895 | 5,0050 | 45,646 | 4,770 181,900 | ..... | 4,200 | $\because 48$ |
|  | ... | . | 8,595 $\ldots . .$. | 5,050 .... | 45,696 150 | 181,900 8,608 | .... | 4,200 $\ldots .$. | 448 |
| Other Br. Nurth American pos. lirtlish West Indles. . . . . . . . |  | $\ldots$ | * | .... | +82 | +618 | . $\cdot$ | * | . $\cdot$. |
| Hirtish West indifa............ British Australls............ | $\cdots$ | ... | ivio | . |  | 8,091 | .... | ..... | $\cdots$ |
| British Australls . . . . . . . . . . . Mritish Fast Indlea. . . . . . . | $\cdots$ | 1,200 | 240 | $\ldots$ | . | 8,001 | . | ..... | $\cdots$ |
| Hritish Fast Indles.............. Franee on tho Atlantle. . . . . | oro | 1,200 | .... | . . . | ..... | - 472 | $\cdots$ | ... | $\ldots$ |
| France on tho Atlantle. . . . . . . French Vorth Amerlcan posses. | $\ldots$ | .. | .... | $\ldots$ | $\cdots$ | 172 | $\ldots$ | ... | $\cdots$ |
| French North Amerlcan posses. Cuba.........................$~$ |  | $\ldots$ | $\ldots$ | ..... | 1,899 | 1,822 | . | .... | .... |
| Cuba ........................ | 8296 | 10,589 | $\cdots$ | . | +819 | 1,187 | 485 | .... | $\ldots$ |
| Other porls in Aftos. . . . . . . . . Mosleo. . . . . . . . . . . . . . . | 8,2964 | 10,020 | $\because 1,107$ | 000 | 1,745 | 7,728 | 877 | . $\cdot$ | . |
| Central liepuhlic................ | 100 | 418 |  | .... | .... | 50 \% | .... | .... |  |
| New tiranada. ................ | .... | . . . | 294 | .... | .... | 574 | .... | .... | ... |
| Pera...... ${ }^{\text {a }}$. | .... | ... | \% | ... | . . . | 841 | ... | . . . | .... |
| Sandwhet leland | . $\cdot$ |  | 850 |  |  | 8,663 |  |  |  |
| Tolal. | 4,480 | 14,204 | 80, 503 | 6,056 | 00,225 | 210,605 | 1,862 | 4,2in0 | 448 |
| from warehonse.. . . . . . . . | 8,494 | 11,194 | 5,044 | 6,433 | 25, 129 | 120,043 | 1,256 |  |  |
| Nol from warchoute. . . . . \| | 736 | 2,034 | 84,064 | 24 | 25,096 | 90, 008 | 6 | 4,200 | 445 |

 moing JUn $80 \mathrm{rr}, 1850$-Continued.

| Whiliber espurted, | Bar Iran. |  | Rodition. |  | Hoop tron. |  | Sheol tros. |  | Pig iron. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brema | $\begin{aligned} & \mathrm{Cumin} \\ & 250 \end{aligned}$ | $\begin{aligned} & \text { Bollart: } \\ & 1,250 \end{aligned}$ | Cwn. | Luliars, | Poundt. | Dollers. | Praunde, | Lollars: | Cw | Sollars. |
| Holland | - | ..... | $\cdots$ | $\cdots$ | .... | ... |  |  | 1, $1,6(0)$ | ,981 |
| Fiogland |  |  |  |  |  |  |  |  | 40 | 716 |
| Camala | 2,976 | 11,937 | 827 | 4,434 | 92,160 | 619 | 44,101 | 14,001 | 880 | $75 \%$ |
| Wher Brilish North Alacr, pes | 306 | 2,008 | ... | .... | .... | ... | 18,076 | -972 | 100 | 150 |
|  | Bis | 1.390 | ..... | .. | $8 \times, 40$ | 2863 | 87,882 | 2,329 | 600 |  |
| ther ports Ia |  |  |  |  | 16,036 | 799 | $\ldots$ | $\ldots$ |  | 770 |
| Hayll. | 94 | 96 | .. | -•• | 22,136 | 981 | $\cdots$ |  |  | .... |
| Mexios | 8,576 | 13,849 | .... | ... | 0,5020 | 848 | 8,468 | iss | 125 | 4ino |
| Now Gr | 120 | 462 |  | - | $\cdots$ | $\ldots$ | .... | .... |  | 4 (10) |
| Hrasll | 11 | 45 | .... | $\ldots$ | .... | .... | $\cdots$ | . |  | $\ldots$ |
| Chilt | 617 | 1,119 | .... | $\ldots$ | $\ldots$ | .... | 6, 80 |  | 3,500 | 5,800 |
| Finlua. | $\begin{aligned} & 818 \\ & 90 \end{aligned}$ | 1919 50 | .... | $\ldots$ | $\ldots$ | ...' | 6,800 | 239 | .... | .... |
| Total | 9,970 | 82,546 | 887 | 4,494 | 125,9:42 | 8,454 | 519,881 | 18.684 |  |  |
| Frotn | 68.1 | 17.46 | 827 | 4.44 | 71.884 |  |  |  |  | 10,069 |
|  |  |  | $\ldots$ |  |  |  | a, 0 , | 8,693 | 4,1\% | 8,960 |

 кмріке Jus- 80 ти, 1 130-Continued.

| W'bilther exports | Nails, ophliee, tacks |  | Chain cableo. |  |  |  | Anchurs, and parts thereof. |  | Acsif. nated parts thereof. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rusalan pos. In North America.. | Poands. | Dollars | Pounds. <br> 21,490 | $\begin{aligned} & \text { Dollars: } \\ & 642 \end{aligned}$ | No. | Dellars. | Pounds. | Dollara. | Tounda, | Duliorn. |
| Enghand........................ | 70 | is |  |  | $\ldots$ |  | 89\% | 197 |  |  |
| Carula. | 4,910 | 209 | 22.936 | Sas | \%88 | 1, 183 | 4,897 | 808 | $\cdots$ | ... |
| Oher Brilish Nortb Amer, pros. | g, $0 \times 0$ | 420 | 61,786 | 8,877 |  |  | 21,016 | 1,419 | $\ldots$ |  |
| Pritish Australa | 8,000 | 154 |  |  | 305 | 1,407 |  |  | .... | .... |
| Philippinc Islands................ | .... | .... | 14,892 | 630 | $\ldots$ | .... | 8,894 | 220 | .... | .... |
| Other ports in Afrlea | .... | .... | 5,876 | 2s9 | $\ldots$ | .... | $\ldots$ | $\ldots$ | .... | .... |
| Mexico | 6,809 | 801 | 1,788 | 85 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | \%00 | 6 |
| Now Giranala |  |  | 17,000 | 969 | .... | ... | . | . |  |  |
| Chlll. | .... | $\cdots$ | 1,121 | ก9 | $\ldots$ | .... | 310 | 180 | $\ldots$ |  |
| Sandwleh Taiands |  |  | 215,839 | 6,685 | $\ldots$ | $\ldots$ | 125,702 | 6,452 | \%ion | 465 |
| Fisherlea | 8,200 | 780 | .... | .... | $\cdots$ | .... | .... | $\ldots$ |  |  |
| Total. | 31,410 | \%,03s | 364,138 | 18,201 | $88^{3}$ | 8,240 | 159,078 | 8,656 | 9,250 | 431 |
| From warehous | 18.510 | 1,01018 | 307, 1939 | 10,819 | 858 | 3,065 | 88,884 | 1,716 | 3, 8 ( $0^{\prime}$ | 364 |
| Not from wareh | 12,600 | 1,077 | 87,143 | 2,142 | 5 | 175 | [25,717 | 6,940 | S50 | 66 |

Iron Mountain.-Iron Mountain is situated in St. Francis county, Mo. The land on which it lies was a grant by the Spaninh government, when this portion of the south-west was in possession of that goverainent. The grant was conilrmed by the Congress of the United States in 1836; but of arcount of the dillterlty of transportation, and of the impression that tho ors coud not be amelted, this luexhamatible supply was permitted to remain unproductive until 1851, when the Iron Dlenntain Company was formed and proceeded to the erection of furmaces. The mountain is a flattened, conical shaped hill, with an uverage elevation alove the surrounding valleys of 228 feet, the hase of which envera an area of about $\overline{\mathrm{t}} \mathrm{f}$ acres. Tife ore is the specular iron ore, and is remarkably pure; its average yield, In the furnace, being 56 per cent. From surface indications, and from ail explorations made, the whole Iron Mountain acema to be mate of iron ore. Almost the entire aurface of tise mountain is covered with irou ure, the particlea : ecreasing in size as you aseend toward the top, until on its aummit are found disconnected masses, many tons in weigit,
and often six or elght feet in diameter. To what depth the iron ore extends below the base of the mountain, has never yet been ascertained. An artesinn well was attempted to be bored by the compnny, at the base of the mountain, and after attaining the depth of 180 feet, most of the way through iron ore, the work was abandoned. When the bering ceased, the: 'ger rested In a solid mass of ore; so that there is ore under the ground, as well as ahove it.

Imports of Iron into the Unitec' States.-The United States, pext to England, may the considered among the leadiug Iron produciug countries in the world-Fingiand prolucing $3,600,000$, and the United States $1,000,000$ tons fer nnnum. Ansuming the average price of iron to he 847 , or even 830 , we produce annually to the value of $\$ 27,000,000$ or $\$ 30,000,000$. From the foliowing table it will be seen that our imports of iron and steel manufuetures lave gradually reached nearly the same sum. The imports were in

|  |  |
| :---: | :---: |
| 1 $850 . . . . . . .$. 17,665,898 | $15^{2} 4$. |
| 1451........ $14,470,764$ | 16*W. . . . . . . 25. |
| 1592........ 80,681,092 | 1556....... 24.50 |

Gtatement hhowino the [meobts of Manufactuger of Ifon into the Unitel Statms ron the fear endina JUnE BOTH, 1556.

| Wherice tuparled. | Cap or bannel wirv. |  | Noils, spikes, tacke, ate. |  | Chain tables. |  | $\begin{aligned} & \text { Mill-aswa, crose } \\ & \text { eul cnd pht-saws. } \end{aligned}$ |  | Aochors, and parta therwo? |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Swedish West Indies... ..... | prouras. | \|ailars. | Prupds. | bullars. | Ponnes. 9,640 | troliara. | No. | Lnollars. | Poueds. | Dulis.0. |
| Ilamburg.. . . . . . . . . . . . . . . . |  |  | 6, sin | 327 |  |  | ... |  |  | $\cdots$ |
| Irensea | 8,167 | 99 | 1,960 | 91 |  |  | $\ldots$ | .... | .... |  |
| ibelgiam | 8.811 | 846 | $1,195,435$ | 48,009 | 12,80, | 417 | . |  | $\ldots$ | -•• |
| Enkland. | 120,808 | 8,54 | 1,101,2\%2 | 76,9m | $15,509,722$ | 476,991 | 20,539 | \$4,972 | 844,290 | 87,150 |
| Mcotanni |  |  | 2.4() ${ }^{\text {a }}$ | 334 | (4), 110 | 2,940 |  | - | 9,966 | 507 |
| Canada | 2,170 | 87 | 18,911 | 1,225 | B7,415 | 1,907 | 3 |  | $6{ }_{6}$ | $2)$ |
| Itritsh Weat Indick |  |  | 6,123 | 275 | 86,118 | 2,475 | 2 | 8 | 62,690 | 2,043 |
| Mritist, Ifoniluras............. |  | (in |  |  | 4,006 | 841 | .... | . ... | .... | , |
| France on the Athatic.. . .if | 21,030 | (4)6 | 17,004 | 521 |  | .... | .... | .... | .... |  |
| Portugal. . ........... . . . | \% | .... | '. ${ }^{\text {c }}$ | .... | . . . | .... | .... | .... | 8 , (146) | 119 |
| Mosico. . . . . . . . . . . . . . . . . . | .... | .... | . . . | .... |  | 8 | .... | . . . | 577 | 28 |
| New frranada Prut........ | . ${ }^{\text {c**}}$ | $\ldots$ | . . . | . | 80,460 | 899 | .... | . $\cdot$. | .... | .... |
| Chlan. |  | .... | 3,000 | 184 | 11,01s | 118 | . $\cdot$. | .... | . $\cdot$. | .... |
| Total | 184,876 | 4,452 | 2,292,6516 | 127,479 | 15,450,788 | $4 \times 5,508$ | 20,848 | 51,948 | 921,123 | 10, $\times 16$ |

## Statman

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Dauish We
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Turkcy in $\boldsymbol{A}$
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cblaa.
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sweden and $\mathbf{N}$
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scetland.
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Protland
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Canada
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Brillsh Hondura
Britivh Gulana.:
British poa, in A
British Australia
France on the
France on the $\mathbf{A}$
Cuba.
Porto Rico......
Cape de Verd Is?
Sardilija.
Austrla.
Oustria...........
layti. porta in
Nan Jomingo.
Mexico......
Now Gransila
Itrazil.
litazill.
Peru.
anutwich Islanil
Chlna....
Total.
 JUNa 80Th, 1850 - Conlinuod.

| Whanee lumperted. | Muskut | \% ¢fina. | Firt-mrnas, mot apealited. | Slde-arum, | Nandles. | Cuitinry. | $\begin{gathered} \text { Ohur manufree } \\ \text { tures and waree ok } \\ \text { mot mpoeiliced. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Doilera. | Dollars. | Dollars. | Dellart. | Dollari. | Dollars. |
| Sweden snd Norway . . . . . . . . . . . . . | . $\cdot$. | .... | . $\cdot$. | .... | .... | ..... | 907 |
| Danish West Indies. . . . . . . . . . . . . . | * | * is |  | ** | - 818 | -909 | ${ }_{19} 907$ |
| Ilamburg. . . . . . . . . . . . . . . . . . . . . . | 6 | 41 | 8,628 | $\cdots$ | 818 |  | 19,179 |
| Bromen... | 1 | \% | 11,164 | 1,204 | 21,020 | 119,518 | 121,689 |
| lloldand ...... . . . . . . . . . . . . . . . . | .... | . . . | 10 | .... | 842 | 810 | 1,860 |
| Dutch Quians. . . . . . . . . . . . . . . . . . | j98 | - |  | - |  |  | 20 |
| Belytum. . . . . . . . . . . . . . . . . . . . . . | 128 | 604 | 265,406 | 420 | 1,486 | 12,017 | 147,788 |
| Fingland. . . . . . . . . . . . . . . . . . . . . . . | 7,606 | 89,824 | 264,959 | 468 | 174,221 | 1,489,889 | 8,602,115 |
| Scotland. . . . . . . . . . . . . . . . . . . . . . . | .... | .... | .... | .... | .... | 467 | 14,050 |
| Cibraltar... . . . . . . . . . . . . . . . . . . . | $\cdots{ }_{4}$ | * ${ }^{\text {cos }}$ | -"i17 | * $\cdot$ * | . $\cdot$. | *'*i08 | 424 |
| Canada....................... | 4 | 42 | 117 | .... | .... | 406 | 7,652 |
| Other British North Amer. postes. . | ...* | -•.. | 989 | . . $\cdot$. | - | 25 | 1,274 |
| Iritish West Indies................. | .... | .... | 889 | .... | .... | *** | 784 |
| Hritish Gulans . . . ............... | .... | *.. | D64 | . $\cdot$ | . $\cdot$. | . $\cdot$. | - 919 |
| British possessions in Africa. . . . . . | - 84 | 849 | $\ddot{27} 974$ | -928 | 48,198 | 69,014 | 209,880 |
| spaln on the Moditorranean........ | .... | .... | 27,074 | . | $\ldots$ | 00,014 | 10 |
| cuha..... . . . . . . . . . . . . . . . . . . . . | ... | .... | .... | .... | .... | 478 | 159 |
| Tusany . . . . . . . . . . . . . . . . . . . . . | .... | . . . | .... | .... | .... | ... | 102 |
|  | . $\cdot$. | . $\cdot$. | .... | .... | . . . | . | 908 |
| Turkey in Asia........ . . . . . . . . . . . . | .... | . . . | ... | ... | .... | ... | 98 |
| lifayth. . . . . . . . . . . . . . . . . . . . . . . . | .... | . . . | . . . | .... | .... | .... | 68 |
| Mexjeo. . . . . . . . . . . . . . . . . . . . . . | . $\cdot$. | . $\cdot$. | . . . | ... | .... | . | 684 |
| Central Repubilc. . . . . . . . . . . . . . . | 5 | is |  | .... | 98 |  | 10 |
| New Gransda. . . . . . . . . . . . . . . . . | 5 | 11 | 2,828 | *.. | 28 | 2,481 | 9,486 |
|  | -••• | ... | .... | ...* | .** | ...* | 188 |
| Sandwich ishand . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . | .... | - | $\ldots$ | .... | 888 | 3,050 |
| Total. . . . . . . . . . . . . . . . . . . | 7,778 | 40,946 | 876,485 | 8,015 | 246,060 | 1,008,094 | 4,101,147 |

Statenent hiowing the Impobts of the Manupactobyg of Iron into the United gtates for the Yane endino JUNy 80 TH, 1856 .-Contlined.

| Whenoe imported. | $\begin{aligned} & \text { Anvils arut yarts } \\ & \text { thareol. } \end{aligned}$ |  | Bar Iron. |  | Rod tron. |  | Jicop Iron. |  | Sheel tron. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounda, | Dollara. | Cwts. | Dujlara. | Cwia. | Dollars. | Pounds. | Dollara. | Pounde. | Doliars. |
| $\left.\begin{array}{l}\text { Rusia on the Bultio and } \\ \text { North Scas........... }\end{array}\right\}$ |  |  | 1,449 | 2,796 | .... | .... | 7,686 | 255 | 1,038,068 | 42,250 |
| Prussia. . . . . . . . . . . . . |  |  |  |  | - | . |  | .... | 16,775 | 875 |
| 8weden and Norway.... |  | .... | 277,905 | 850,609 | 120 | 989 | .... | .... | , | .... |
| Mamhurg. . . . . . . . . . . . . |  |  | 48,816 | 110,168 | 120 | 288 | .... | . . | ... | *... |
| Brement. . . . . . . . . . . . . . . |  | .... | 10,246 | 26,672 |  | ... |  |  |  | 18186 |
| Belgium. . . . . . . . . . . . . | 958,700 | $4{ }^{46764}$ | 1,805,194 | 4,808,581 |  |  |  |  | 29,861,191 | 18,186 $\mathbf{7 8 5 , 7 5 6}$ |
| England. . . . . . . . . . . . . . . . . . | 958,700 | 46,764 | $1,805,194$ 10,818 | $4,803,581$ 89,186 | 108,579 121 | 477,905 495 | $18,107,088$ 00,820 | 848,087 1,482 | 29,861,191 | 755,756 |
| Ireland. | . $\cdot$. | ..... | 10,87 | 30,8 89 | 12 |  |  | 1,4.. |  | 002 |
| Canada | . $\cdot$. |  | §,901 | 12,983 |  | 1 | 482 | 21 | 65,205 | 2,761 |
| British West Indies...... |  | 4 | 1,4105 | 2,706 | $\ldots$ | ... |  |  | . | . $\cdot$. |
| Firanee on the Atlantlo... | 2,100 | 64 | 468 | 1,609 | .... | .... | 0,987 | 205 | . | .... |
| Cuba.........il. | .... | ... | 100 | 436 | .... | .... | $\cdots$ | 41 | .... | ..... |
| Central Repabile.......... <br> China |  | .... | 20 | ¢0 | .... |  | ... |  |  | ..... |
| Total | 966, 500 | 46,828 | 2,165,449 | 5,852,755 | 198, 820 | 474,528 | 13,228,649 | 345,094 | 81,387,388 | 814,842 |

Stateqent blowing the Imioats of the Manufacturgs of Jaon and Stagi into the Usited States for the

| Whence inported. | Pig lron. |  | Old and acrap. |  | Rallrond Iron. |  | Cnat, shear, mid (JerciaatslenI. |  | All othar. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cwis, | Loilars. | Cwts. | Ivellara. | Cwte. | Dullars. | Cwto. | Dellars. | CWta. | Dollara. |
| Prussia..... .......... | 4,031 | 8,500 | $\cdots$ | ... | $\ldots$ | ..... |  |  | .... | .... |
| Sweden sul Norway. . | .... | . . . |  | 5 | . | . | 2,685 | 20,150 | . | . |
| Swedish West Indles, . | *... | -•** | 8 2,710 | 1,481 | $\cdots$ | $\ldots$ | 6 | *99 | $\ldots$ | $\cdots$ |
| Danish West Indies.... |  | 4,087 | 2,710 | 1,451 | $\ldots$ | . | 225 | 9,94.5 | . . . ${ }^{\text {c. }}$ | ... |
| Ilamburg. . . . . . . . . . . . | 4,892 500 | 4,054 | . | $\ldots$ | . | $\ldots$ | 161 | 1,474 | $\cdots$ | .. |
| Bremen.. . . . . . . . . . . . | 600 | 054 | ... | . . . | . . . | .... | 8.981 | 86,484 | . $\cdot$ | . . |
| Holtand. . . . . . . . . . . . |  | . | 57 |  |  | ... | 8,980 | 30,434 | $\ldots$ | ... |
| Dotch Eust ludies..... | $\cdots$ | $\ldots$ | 57 | 42 | … | $\cdots$ | $\cdots{ }^{\prime} 7$ | 420 | .... | $\cdots$ |
| Belzututh. . . . . . . . . . . . . Enpland. | 858,170 | 359,183 | 78,038 | 81,068 | 2,923,5i5 | 8,790,887 | 158,295 | 1,638,285 | 108,578 | S28,921 |
| Scotiand. | 740,415 | 788,184 | 58 | \% 5 | .... | .... | .... | .... | .... | .... |
| Ireland. | 89,479 | 87,967 | 6,050 | 4,742 |  |  |  | $\ldots$ |  |  |
| Canada................. | 20,70\% | 28,005 | 40,016 | 25,475 | 157,089 | 858,687 | 12 | 148 | 244 | 072 |
| Other Mr. N. Amer. pos. | 8,090 | 6,884 | 20,121 | 18,572 | 942 | 256 | 93 | 528 | E0 | $\ddot{81}$ |
| British West Indies.... | . . . | .... | 44.874 | 97,049 | . . . | ...' | . . . | . . . | 50 | 361 |
| British Honduras.. | .... | . . . | 173 | 97 | . $\cdot$. | . . . | .... | . . . | .... | . |
| British tiviana. . . . . . . | .... | . $\cdot$. | 9,084 | 4,407 | - | . $\cdot$ | $\cdots$ | . $\cdot$ | $\ldots$ | *... |
| Pritish poa. in Africa... | . . . | . . . | 1,202 | 901 | .... | . . . | . | .... | .... | * |
| British Australia....... |  | 9177 | +228 | 81 8.075 | " | . ${ }^{\circ}$ | . $\cdot$ | . $\cdot$. | is | 859 |
| France on the Atlantio. | 1,060 | 8,17 | +,986 | 8,075 | - $\cdot$. | . | . | ... | 08 | 0,2 |
| Caba...... | .... | .... | 12,964 | 7,125 | *** | $\ldots$ | . ... | *.. | .... | $\ldots$ |
| P'orto Rilieo. . . . . . . . . . | . . . | ... | 17 | 8 | .... | . | - | . $\cdot$ | . $\cdot$. | . |
| Cape do Verd Islands. . | .... | *... | 84 | 102 | . | $\cdots$ | $\cdots$ | $\cdots$ | 85 | 438 |
| Sarimia.... ............. | . | . | - | .... |  | . | - 885 | 8,400 | 1,211 | 9,029 |
| Other poris in Africa... | *** | *.. | 1,244 | 78 | . $\cdot$. | . . | ... | d, | ... | ... |
| Hayth.. | .... | . . . | 176 | 121 | . $\cdot$. | -•. | ... | .... | .... | .... |
| Nati berningo.. . . . . . . . | . . . | . . . | 495 | 247 | . . . | . $\cdot$. | . . . | .... | $\cdots$ | . $\cdot$ |
| Mexleo.... . . . . . . . . . . | .... | * . $\cdot$ | 2,260 | 1,298 | . $\cdot$. | .... | .... | ... | .... | . . . |
| Now Granala. |  | . . . | 14,185 | 9,802 | .... | .... | * . | . . . | .... | - |
| Itrazil. | . | . $\cdot$. | 1,950 | 0.40 | *.. | . . . | ... | . . . | ... | . $\cdot \cdot$ |
| Pern,... | + . $\cdot$. | -••* | 98 | 81 | .... | - | - | .... | , ' | . $\cdot$. |
| Nandwieh frlands...... |  | . . . | 162 | 144 | .... | . . | . . | . | . . $\cdot$ | . $\cdot$. |
| China. . . . . . . . . . . . . . | .... | $\cdots$ | 2.610 | 1,580 | ... | .... | .... | … |  | - $\cdot \cdots$ |
| Total. | ,580,239 | 1,171.085 | 247,769 | 185,112 | 8,109,916 | 6,179,280 | 165,894 | 1,608,845 | 105,105 | (489,968 |



IMAGE EVALUATION TEST TARGET (MT-3)




Photographic Sciences Corporation


| , Whacio Whilior asported. | Pis |  | \% Ear. $\%$ |  | Srats. |  | $\therefore$ Continge | $\begin{array}{\|l\|} \hline \text { All other mangy- } \\ \text { factures of. } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Buecian posses, fa North American. | Cwita, | Doliars. |  | Dollat. | Pounde | Dollers. 810 | Dollars. | Doltara. 628 |
| Swedish Weat Indiss................ | .... | .... | .... | -** |  |  | *** | - 9.880 |
| Dentsh West Indles. | .... | .... | ... | ..... | 88.450 | \%,487 | - | 8,689 |
| Hambrars. | .... | -... | .... | +6... | 1 .... | ! $\cdot$ ! | - $\cdot \cdots \cdot$ | $\times 11,768$ |
| Bromen. | *... | . $\cdot$ | .... | . | - $\because \cdot$ | ** |  | 6,888 |
| Dutch Frest Indiea | ..... | .... | ..... | .... | $\because 800$ | 10 | 20 | 817 |
| Dateh Guiana | ... | ... | 8 | 4."is |  |  |  | 906 |
| Datch Mast Iadiee | .... |  | $\ldots$ | 1 |  |  |  | - 1 ? $\square^{3} 89$ |
| Belginm. | - | - $\cdot$. |  | "*** |  |  |  | $\therefore 81.841$ |
| Ropglad. | . | .... | 1 100 | $\because: 600$ | - 000 | ${ }^{18}$ | 20 | 115,178 |
| Gootiand. | .... | .... | - | *** | $\because$ |  |  | 18,725 |
| Gibraltar. |  | * | .... | , ... | 60,800 | . 2,080 | 608 | 1,488 |
| Canasia.. | 15098 | 98086 | 3885 | 19611 | 6,000 | ${ }^{2886}$ | 175, 180 |  |
| Other Britioh North American po............ | 15,028 | 28,065 | 3,645 | 19,611 | 647,417 415,874 | 29,771 19,825 | ¢ 175,698 61.190 | 1,811,698 |
| Brithah Weet Indies................. |  | - . ${ }^{\circ}$ | . 10. | .... | 410,874 80,425 | 1,820 | . $1.61,180$ | 88,505 15,884 |
| British Honduras. | .... | . | .... | .... | 9,000 | 897 | -. 86 | 2,702 |
| British Gaiana. | .... | . | - | .... |  |  |  | . 298 |
| Britiah possesciona in A | .... | . | .... | .... | 68,480 | 8,167 | 8,924 | 7,698 |
| Britioh Australla. | .... | .... | .... | - | 10,600 | 490 | 86,882 | 994,897 |
| Britigh East Indies.. . . . . . . . . . . . . . | .... | .... | .... | .... | ..... | .... | 106 | 18,401 |
| France on the Atigntle..... | $\cdots$ | , | .... | .... |  |  | - | 17,848 |
| France on the Mediterranean....... | .... | .... | .... | .... | 81,000 | 2,895 |  | 880 |
| Frenci North Amerlona possenalons | .... | .... | .... | .... | 42,600 | 1,766 | 179 | 149 |
| Frenich West Indles.................. | . . . | .... | .... | .... | 7,500 | 818 |  | -. 28 |
| Freach Galaras. . . . . . . . . . . . . . . . . | .... | .... | .... | .... | 9,200 | 898 | . $\cdot$. | 68 |
| Spain on the Medtterranean. ....... | .... | .... | . . . | *." | 40,000 | 2,000 | *... | 640 |
| Canary Islands.... |  | . $\cdot$. | .... | *..* | ..... | .... | .... | 59 |
| Philipplne Ielauds. |  |  |  | . ${ }^{\text {is }}$ |  |  |  |  |
| Ouba...it. | 900 | 850 | 4 | 25 | 1,887,460 | 78,959 | 1,814 | 589,809 |
| Porto Rico. | .... | ..... | ...0 | ...' | 70,740 | 2,797 | 101 | 110,405 |
| Portugat. | .... | -..0. | *** | -• |  |  | ** | 878 |
| Madelrs. | .... | ** | .... | ..... | 2,600 | 114 | . ... | 50 |
| Cape de Verd Islends.. .............. | . | .... |  | .... | 14,100 | 589 |  | 126 |
| Arores... . . . . . . . . . . . . . . . . . . | ... | . |  | .... | 85,600 | 1,180 | 80 | \%.... |
| Austrian poseesions in Italy ....... | ... | .... | ...** | * | 10,000 | 875 |  | $1 \times 0$ |
| Tartsy in Enrope. . . . . . . . . . . . . . . . | ... | ... | *** | .... | ....) | ...' | 800 | 8.859 |
| Turkey in Ada. | .... | .... |  | ... | \%071 |  |  | 9,806 |
| Other ports ta Africs................ | .... | .... |  |  | 88,712 | 8,508 | 847 | 16,417 |
| Hayti. . . . . . . . . . . . . . . . . . . . . . . . | .... | . $\cdot$. | 22 | 111 | 148,900 | 6,405 | $\cdots{ }^{\text {. }} 88$ | 90,025 |
| Gan Domingo. . . . . . . . . . . . . . . . . . | .... | .... |  | 9 | 11,600 | 478 | 944 |  |
| Mit Xion. .......... . . . . . . . . . . . . . . . | .... . | -... | 78 | 487 | 180,768 | 8,721 | 1,202 | 208,899 |
| Cantral Republie. . . . . . . . . . . . . . . . | .... | .... | .... | .... | 8,600 | 867 | ... | 18,014 |
| New Granads. . . . . . . . . . . . . . . . . . . | .... | .... | *... | - | 88,400 | 8,688 | - $\cdot 1$ | 178,006 |
| I enezuela | - 1 | . . . | .... | .... | 48,900 | 1,866 |  | 84,226 |
| Brazil |  | .... | .... | .... | 48,100 | 1,788 | 429 | 26,063 |
| Uruguay.. |  |  | ...* | ... | 80,244 | 1,697 | ** | 81,907 |
| Buenos Ayres.. | - . ${ }^{\text {c }}$ |  |  |  | 105,800 | 8,798 |  | 28881 |
| Chlili. |  |  | 84 | 100 | 1,856,925 | 68,089 | $\therefore \quad 2,414$ | 68,778 |
| Pero. |  |  |  | .... | 267,900 | 2,888 | 978 | 68,820 |
| Renador... ........ . . . . . . . . . . . . . . | . | - . $\cdot$. |  |  | 1,600 |  | 150 |  |
| gandwleh Islands. |  |  | 18 | 101 | 118,720 | 5,871 | 1,948 | 105,504 |
| Chitat . . . . . . . . . . . . . . . . . . . . . . . | 15 | 800 | .... | .... | 8,000 | 780 | 1,000 | 78,699 |
| Whale Fisheries . . . . . . . . . . . . . . . . . . |  |  | $\cdots$ | . ... | 7,681 | 800 | ..... | 84,511 |
| - Total. | 15,788 | 27.215 | 8,886 | 21,889 | 5,788,690 | 288,858 | 288,818 | 8, 585,712 |

Iron-Wood (Ger. Eisenholx; Du, Yrerhout; Fr. Bois de fer; It. Legno di ferro; Sp. Plo hierro; Lat. Sideroxylon, Lignum ferreum), a species of wood of a reddish cast, so called on account of its corroding ao that metal doee, and its being remarkably hard and ponderous-even more se than ebony, The tree which produces it grows princlpally in the West India Islands, and is likewise very common in South America, and in some parts of Asia, especially about Slam.
Irrawadi (Erivati, "the great river"), one of the groat rivers of south-eastern Asia, is supposed to rise in Tibet, near lat. $28^{\circ}$ north, long. $97^{\circ} 30^{\prime}$ east, flows generelly southward, traversing the Burmese Empire throughout, and enters the Indian Ocean (Bay of Bengal) by numerous mouths, east of Cape Negrais, in Lat. $16^{\circ} 20^{\prime}$ north, long. $96^{\circ}$ east. Principal affluents, the Ning-thee, Mogouny, Bhamo, and Langcchuen Rivars. In lat. $17^{\circ}$ north, it separates into numerous arms, which cover the whole kingdom of Pegu with net-work of ramifications, and the Rangoon and Baasein branches form the east and weat boundaries of ita delta, a region comprising upward of 10,000 aquare miles, covered with teak forests and grass jungles, interapersed with some rice-grounds. The main atream from the bead of the delta to Yedan, above Ava, varies from one to four miles in brealth, and may always be ascended to Ava from the sea by vessela of 200 tona, which, during the rains, ean reach the influx of the Mogouny RIver, 800 milies from the ocean. It is
usnally navigable for canoes as high as Bhat.o, besides which town and Ava, Amarapura, Sakalig, Yandabo, Pagahm Mew, Prome, Henthada, Baseein, and Rangoon, are the principal places on Ita banks.
Ininglass (Ger. Hausenblase, Hausbluse; Fr. Colle de poisson, Carlock; It. Cola di pesce; Rus. Klei rübūi, Karluk), one of the purest and finest of the animal glues. A variety of gelatine, sometimea called ichthyocolla, or fish-glue (from lx $\chi$ ús, a fóah, and кúd $\lambda a$, glue), prepared from the alr-bag, awimming-bladder, or sound of various fishes. The Rasaian and Siberian isinglass is most esteemed; it is cliiefiy obtained from sturgeons, a family of cartllaginous flaten of the genus Atcipener. The awimming-bladder is cut up, washed, and then exposed to the nir, with the luner silvery membrane upward. When dry, this membrane is remevel ly beating and rubbing ; the sound is then prepured in various wnys. For forming what is calied leaj' 'singlans, it ia marely dried; for lomg and ahort staple, it is twisted between three pegs, lato the shape of a horseshoe, harp, or lyre; for book isinglass, it is folded like the sheeta of a book; for ribbon isinglass, it is rolled eut. The awimming-Hladder of A, sturio of the Casplan Seen furnishes leaf isinglass of three qualities, known as fine-firsta, firsts; and seconds. A. güldenatadiii of the Casplan and Biack Seas and their tributary rivers, furnishee caviare from its roe or ovary while the ewimming-bledder ylelds staple nud leaf isinglass. The varieties of staple are Patriurch Astrac

Lhan, and Astrakhass Arets, reconde, and thirdes, The may be imported under any flag. This island is situ varieties of leaf are also firsts, secoinds, and thindowthe firsts forming the fineot leaf known in commierce. A. rufinus and A. otellatus also yleld isinglase. .There io a kind known as Edmovey leaf, from 'Tanganiod,' hut this is inferior , there is also thio sisane leaff sald to be obtained from a small fish, and krobki ininglass; which is made Into emsill membrenous diske." Isluglass is also procured from siluris glanis. For purre, pips, and lump isinglass, the swimming-bladder is dried unopened, and the variety known as siberian purte, of moderately good quality, is greatly in demand.
Brazilian ftinglase is obtained from 'Para and Maranham, but the fishes which produce it have not been named. For the variety known as pipe-Brazil, the swimming-bladders are dried unopened, and made into pipes 10 or 12 luches long, and from 2 to $2 f$ inches brosd, snd are sometimes distended with air. Lump islinglasa is formed by placing two swimming-bladdere side by iide, and for hioney-comb istinglass, the largest lump ialuglass is aplit open. "There are also varietles of lsinglass from Now York, from Hudson's Bay, and from the East Indles. In Moldavia as variety is prepared from the skin, stomach, intestines, and swim-ming-bladder of the sturgeon. These are eut small, steeped in cold water, and alimmered. The jelly thus produced is spread out into thin layers, and dried into a kind of parchment, whieh,' on being softened witth wster, is rolled into cylinders, or extended into plates, and forma an infericr islaglass. Cod sounds are also nsed for a similar parpose. The patent gelatin propared from glue-pleces or cuttings of hides, etc., after the manner of glue, it also uned as a subetitute for ielnglass. A sold gelatin in thin plates and strings is prepared from bones, and is chlefly' of French manufacture:
Isinglass is propared for sale by being picked and eut. Thls was formerly' done by hand, bnt is now effected by steam machinery; the thin filaments thus produced should be whitish in color, dry, semi-transparent, nearly tasteless, anid quite devold of amell. Islngiass differs from glue in being tongh, filhrous, and elastic, Instead of brittle. On boiling, it shiould completely dissolve, and on cooling, should form a whita Jelly, soluble In weak aelds, but saparable from them by alksies. With millk and sugar it ls used as a dieî for invalids, and it is slso used in the preparation of blanc-mange, jellies snd creams, snd for enriching soups and sauces. Isinglass is no longer considered to he highly nutritive; it is even less digestible than the flesh or muscular part of animals. The great consumer of isinglass is the brewer, who uses it as a finlng mstcrial, for which purpose lump islnglass is chiefly used. This is deeper in color, and inferior in solubility to the better varieties. On mixing it with the liquor to be fined, It partly combines with some of those mstters which render the liquor cloudy, and entangles in its meshes those whith sre mechanically suspended, tha vhole then rising to the snrifice can be removed; and the liquer be left olear. Wine, ceffee, and other Hiquids are slso clarifled by Islnglass, but solesklus und hartshorn shavings ams often used as substitutes for it. Isinglass forms the adhesive materlal in court-plaster, for which purpose a solution of Lsinglisss, mixed with tlincture of bensoin, is brushed over bleck saresenet.' Isinglass dissolved in spirits of wine or common gin, and gently simmered by placing the bottle in a vessel of bolling water for sbout an hour, forms diamond cement, or whits fieh-glus ; gum anmonise is sometimes added. Panes of lisinglass, Instead of glue, are used ir. France instead of horn, for lanterns, and alao for lamp-shades, ete.-E. B.
Isle of Bourbon. Merchandise from Enrope, or sny country facing the Mediterranesen, is inaimissible to the estabilisied entrepot of thlis leland, unless directly lmported from French entrepots, or the place of production; but merchandise of any other origin
ated in the Indinu Ocean, between latitude $20^{\circ} 50^{\circ}$ and $21^{\circ} 24^{\prime}$ S., 410 miles eant of Madagascar. It is of ani oval shape, greatest longth 40 millen, grestost breadth 27 millos. Popalation about 109,000. Area, 900 square miles. It is intereected by two mountain ridges, with volcanoes. Thare are many small rivers, bua noue navigable. The vallays of any considerable size are not numerous." It has no safe harbor. The cllmate la healthy and pleasant. From December to May is the hot and rainy season. The soil is very fertile. In 1836 the surface was distributed into about 65 parts of cultivated land, 14 parts of pasturage, 55 parts of wood, and 97 parts of waste lands. The cultivated parts enicircle the island, and press np the eldes of the interior mountaling. The articles produced ere the sugar-cane, coffee, cloven, cocoa, tobacco, and grain ; of these, the sugaresane, grain, and coffee aro most largely produced. The fisheries are excellent. They omploy about 500 peraona. The fish taken sell in the Ialand for about $\$ 80,000$ per annum. In 1848 the population consisted of 108,000 souls. They have numerous brick and lime kilna, tanneries, forges, founderies, thu-ware factories, brewaries, and manufactures of palm-lesf bagglag. The principal articles of export are raw angar, coffee, clovab, dyewoods, csbinet-wood, and asltpetre. The staplea are onumerated in the order of their importance, and are of the annual value of shout $\$ 5,000,000$. The chlef imports are rice, whest, oll, wines, cattle, timber, salt, glass, percelain, and cottons and other manufactured goods.: The total value of the - imports is about $\$ 2,800,000$.
Isothermal (Gr. coos and $\theta \in ́ \rho \mu \eta$, heat). In physical geography, ivothermal lines are those whlch pass through thase points on the surface of the earth at which the mean annual temperature is the same. Isothermal zones are apaces on opposilte aldes of the equator, having the same mean temperature, and bounded by corresponding isothermal lines. ${ }^{3}$ On account of the irregular form and dispositien of the continental masses, by which the climate of different places is greatly infinenced, the leothermal curvea are not parallel to the equator, excepting in the very low latitudes. Accordicg to Humboldt; the isothermal line, which corresponds to the tempersture of $32^{\circ}$ Fahrenheif, passes between Ulea, in Lapland, lat. $56^{\circ}$, and Table Bay, on the coast of Labrador, lat. $54^{\circ}$. The isothermal line of $41^{\circ}$ panses near Stockholm, lat. $591^{\circ}$, and St. George's Bay, Newfoundiand, lat. $48^{\circ}$. The line of $50^{\circ}$ passes through the Netherlands, lat. $510^{\circ}$, and near Boston, in the United States, lat. $421^{\circ}$; that of $59^{\circ}$ between Rome and Florence, lat. $43^{\circ}$, and Raleigh, in North Carolina, lat. $36^{\circ}$. In all these cases we see that the isothermal Innes, in passing from the western side of the continent of Europe to the eastern coast of America, deviste very considerably toward the outh; the deviation in one case amounting to $111^{\circ}$ of latitude., In passing over the Ameriean continent they again recede to the northward ; and in Californis, and to the north of that peninsula, aleng the weatern alde of the continent, the annual temperature is nearly the same as under similar latitudes in the west of Europe. From the western to the anstern side of the old continent the flexure of the lsothermal curves and the diminutlon of the mean annuil tomperature under the aame parallels, are not less conspicuous. The lisothermal line of $55^{\circ}$ passes through Nantes, lat. $47^{\circ}$, and Pokln, lat. $891^{\circ}$. EdInburg, and Kasan, in the enst of Russia, have the bame latitude; but the mean annual temporature' of the former is $48^{\circ}$, while that of the ascond is below $88^{\circ}$. For the different eauses which affect the parsllellsm of the isothermal lines, or which produce the differences of the mean snnual tomperature of the places nnder the sume parallel of latitude.
IIumboldt gives the name of iootheral lines (ioos, and $\theta$ epos, oummer) to the curves passing through those
places at which the mean aummer hat is the same; and of isochimenal ( $1 \sigma 0 \varsigma$, and $\chi e t u \omega y$, winter) to those which pass through the placea at which the mean temperature of winter is the same. The isotheral and isochimenal curvea deviste much more from the parallela of lat'tude than the iaothermal. The latitudes of places having the same winter temperature sometimes differ so much as $18^{\circ}$ or $20^{\circ}$. The winter of Scotland is as mild as that of Milan. The mean temperature of the winter months at Edinhurg is about $881^{\circ}$; of Kasan, uader the same parallel, only $2^{\circ}$. The winter of Pekin ia as rigorous as that of Stockholm.-Humsoldr's Fragmens Asiatiques.

Inthmus, a narrow neck or alip of land which connecte two continents ; or joins a peninaula to the terra firma, and separates two seas. The most celebrated isthmuses are, that of Panams or Darien, which joins North and Sonth America; that of Suez, which connecta Asia and Africa; that of Corinth, which unites the Morea with wastern Greece; that of Crim Tartary, otherwise called Tauricu Chersonesus; and that of the Peninaula Romania, and Erisso, or the isthmus of the Thracian Chersoneaus, twelve furlongs broad, being that which Xerxea undertook to cut through.

Italy. The name Italia was originally applied to the extreme end of the peninauls, south of a line drawn from the Galf of Squillace, Sinus Scylaceus, to that of Sta. Eufemia, Sinur Terinous. By the time of Thucydides, in the' 5 th century B.c., the appellation had already extended to Metapontum on the east, and the Posidonian Gulf on the weat coast, thua including the whole of modern Calabris, and great part of the provinces of Basilicata and Salerno. The further extension of the name was cotemporary with the progress of the Roman power, and at the time of Pyrrhus it included apparently the whole peninsula, except Liguria and Cisalpine Gaul. In the 7th century of Rome. though loth Ligurin and Cisalpine Gaul were stili, in offleial usage, distinct from Italia, yet the latter name, as we gather from many passages in the clasaics, was already employed, in common acceptation, to designate the whole country from the Ajps to the Sicilian Straits. The official acceptation was dropped as soon as Augustus, in his division of Italy, incorporated Liguria, Cisalpine Gaul, Venetis, and Istria.
The origin of the name has been referred to vurious sources, all equally uncertain. Greek and Roman tradition deduced it from the eponymons hero Italus, a anpposed (Enotrian or Pelasgic chief; while Timens, followed ly Varro and Geilius, derived it from Italos, which in old Greek signified an or, from the quantity of cattla bred in the country. Greria, enim antiqua, ut scribit Timeus, tauros vocabat 'Iraגoig, a quorsm multitudine et pulchritudine et fietu vitulorum, Italiam dixerunt.* Thn word litulus (calf) and Italus were, according to Festus, synonymous; and on the denarii struck by the Sabellian nations daring the Social War, n.c. $90-88$, there wecurs the word :itelu for Itaiy.

In early times Italy was also calied Snturnia from the Iatin god Saturnus, Qinotria from an ancjent chie? (Enotrus, and Arania from the Ausones, the Auruwici of the llomans, who occupied the centre of the peninsula. All these names, however, seem to have belonged to particular districte, and to hava been applied to the whoie country only ly the Latin and later Greek poets; indeed (Enotria would appear from Antiochus to have been synonymous with Italia in Its original acceptation. The Gireek poets apilied to it sometimes the name Hesperic, on aecount of ita being to the westward of their country. 'The (lermans called it Woelshland, because the parts nearest to them were Inhabited by the Galles or Wallea; and in their pres-

- Varro, De He Mustied, It. 6.
ent language the name of Waelshland is still retained by the common people.
The loftioat range of mountains in Europe on the north-east, north, and north-weat, and the sea on every othar side, form the natural boundaries of Italy. The Alpine chain, oxtending in a semicir. cular form from the Julian Alpa at the head of the Adriatio to the Meritime Alps on the Gulf of Genoa, dividea it on the north-east from Illyria and the Tyrol, on the north and north-west from Switzerland, and on the west from France, where the liver Var (Varus) forma its boundary. From this Alpine range, which may be called its basis, Italy prcjects south-oast in a peninsulsr form, and nearly in the shspe of a boot, far into the Mediterranean Sea, which takea the different namea of-Adriatie, Afare Superum, on the east coast-Ionian, Mare Ionium, on the southeast coast, from the Cape of Sta. Msria di Leuca to the Straits of Messina-and of Tyrrhenian, Mare Inferum vel Tyrrhenum, on the west coast. According to these
physical barriers, Trieste and the province of Istria on physical barriers, Trieste and the province of Istria on the east, and Nice on the west, would be excluded from Italy; but ever eince Augastue extended its limits to the Var on the west, and the Gulf of Quarnero (Sinus Flanaticus) on the east, they have been reckoned as part of ltaly. In the present politicai division of the Austrian empire, however, neither Istria nor Trieste la included in the Lombardo-Venetian kingdom, the limits of which are at the Isonzo, north-east of Aquilein. Along the north snd northweat frontier the limits of Itsly have at different times undergone various, though lnsignillcant ehanges; for the Alps, though presenting an unbroken line in a distant viow, are so deeply indented with valleys a 3 to make a natural boundary possible only by foliowing the watershed, a course never or eeldoin adopted in political arrangements. But oven the watershed would not mark the limita of different nationalities, as valleys which, by this criterion, should not belong to Italy, are inhabited by an Italian race; and German or French is apoken in districts which should be included in Italy.

The Italian peainsula is situated between the parallels of N. lat. $46^{\circ} 30^{\prime}$ and $37^{\circ} 54^{\prime}$, and E. long. $6^{\circ} 38^{\prime}$ and $18^{\circ} 32^{\prime}$; if the islands are included, the southernmoat parallel of lat. is $35^{\circ} 40^{\prime}$. Its length in a direct line from the foot of the Alps near Aosta to the Capo di Sta. Maria di Leuca (Iapygium Promontorium) is about 609 miles, and to the Cspo dell' Armi (Leucopetra) a little moro than 660. Ite breadth varies greatly. From the mouth of the Var to the head of the Adriatic, near the Isonzo, it is 300 miles; and if the line be carried te the head of the Gulf of Quarnero, near liume, it is more than 850. It narrows rapidly as it descends south; and from Viaroggio to Cervia is only 95 miles. Further south it expands a little; and from liomhino to Ancona the breadth is 138 miles, and 150 from Capo di Licosa to Brindisi. From Diamante to the mouth of the Crati, in Calabria, it ia 29 miles, ani oniy 18 between the Gulfs of Sta. Eufemia ant: Squiliace. It is surrounded by many islande, the princlpal of which are: on the east coast the group of the Tremiti, north of Monte Gargano, and S. Pictro and S. l'aolo in the Gulf of Taranto; on the south, Sicily, the largest of all, the Lipari group, Pantelleria, Malta, nnd Giozo, 58 miles from Sleliy; on the west, Capri, Procida, anit Ischia, at the two extremities of the Gulf of Nuples; the l'onza group opposite Gacata, Giglio near Monte Argentaro, the two large Jslands of Sardinia and Corsiea; and between the latter one and the const of Tuacany are l'ianosa, Elba, and Capraia. The most important of these ure noticed under their respeetive heads in thla work.
The sea coasts of the peninsula, on the Tyrrhenian side, are, for tha most part, protected by lofty acclivitien, but on the Adriatic and the Ionian they are genersily flat. The moat remarkable capes and promontorles of the jeninsula are: Delio Nielle, Manara,

Pioml
Licoas
Sparti
Gargs
The

Piombino, Argentaro, Circelio, Miseno, Campanelia, Licosa, Vaticano, Delie Armi, on the west shore; Spartivento, Rizzuto, Nau or Colonne, Alice, Leuca, Gargeno, on the south-east and east shore.
The extent and population of Italy, including ita jsiands, are shown by the following table, which is to
be considered as merely approximative. In some of the States, the returna of population are not mach attended to; and, with regard to their area, there is great discrepancy between the varions authorities. This table, however, has beta compilod from the moat authentic data.

| Namee of the Stales. | Eplacopal sens. | Extant $\ln$ square milos. | Juwa. | Population. | Caplial eltios. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kinglom of the Two Sicilien: |  |  |  |  |  |
| Naples.. . . . . . . . . . . . . . . . | 88 | 24,962 | 8,000 | 6,845,855 | Naples, |
| Btcly. ................................. . . . . . . . . . . . . | 14 | 9,056 | .... | 8,285,580 | Palermo. |
| Kingdom of Sardinta Pledmont and Riviera. . . . . . . . . . . . . . . . . . . . . . . . . . | 26 | 15,397 | 4,250 ${ }^{1}$ | 8,946,450 | Turin. |
| Islend of Sardiola.... | 11 | 8,228 |  | 653,665 | Caglarl. |
| Lombardo-Venetian Kingdom | 20 | 18,208 | 7,000 | 5,508,478 | Mtran. |
| Papat 8tates. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 68 | 12,120 | 12,800 | 8,005,000 | Rome. |
| Grand Duohy of Tuscany (includiog Lucca). . . . . . . . . . . . . | 21 | 6,784 | 7,180 | 1,817,500 | Florence. |
| Duchy of Modena.. | 4 | 1,689 | 8,480 | 606,800 | Modena. |
| Dnehy of Parma..... | 4 | 1,712 | , 680 | 608,800 | Parma. |
| Republle of 8. Marino. | $\cdots$ | 18 | !. | 7,800 | B. Marino. |
| Total | 251 | 98,614 | 87,040 | 25,148,928 |  |
| Corsica, ! alonging to France. | 1 | 2,850 |  | 286,201 | Ajaccio. |
| Malta and Gozo, helonging to Eogland | 1 | 114 | . . . | 188,861 | Valetta. |
| Total | 253 | 96,578 | -••• | 25,508,585 |  |

The most densely inhabited State is that of Lncea, which contuine 525 individuals for every square mile ; next to it come the Lombard provinces. The most thiniy inhabited parts are the Campagna of Rome and the Island of Sardinia. Itsiy has more populous towns than any other State of Europe of the same extent. Naples has more than 400,000 inhsbitants; Milan, Turin, Rome, and Palermo, each more than 150,000 ; Ficrence, Venice, and Genos, more than 100,000; Leghorn, Messina, Verons, and Bologna, more thsn 60,000; Purma, Padus, and Catania, more than 40,000; Mantua, Bergamo, Brescia, Ferrara, Modens, Piacenza, Ancons, and Bari, more than 30,000 , etc.

The division of Italy into northern, central, and southa* ., is neither political nor etrictly geographical, but is adopted sometimes as a convenient designation of some parts of the country. According to the general acceptation in the peninsuia, northern Italy is understood to include Piedmont und the Riviera, Lombardy, the Venctian, Parma, Modena, and the States of the Church, as far as an imaginary line from the Gulf of Spezia to Ravenna; central Italy inciudes Tuscany and the rest of the States of the Church; sind southern Itaiy the kingdom of Napies. Tho division in more common use among natives is into upper and lower Italy, the former applying to the portion north of the Apennines and to the Riviera, the istter to sili the rest of the peninsula.

The face of the country is much diversified by mountsins, of which thoso forming its northern und northwestern boundary have been described in this work under the article Anss. A second range of mountsina, running through its whole length, determines its contigurstion and its phyeical churacter. From the earliest historical times they wero called Apennines-a name supposed to be of Ceitic origin, from its containing the root Pen, which in Celtie dialects signiflea height or head.

The Apennines may be regarded as a great offyhoot of the $A \mathrm{lps}$, from winch they branch off near tho Guif of Genoa; but as there is no regular break in the chain, much difference of opinion has prevailed as to the point of their real commencement. Poiybius extends the Apennines neariy as far as Marseilios; Stralo, on the contrary, extends the Maritime Alpa to Vado, and states that the Apennines begin near Genoa, The latter opinion has heen adopted by tho best modern geographers, who fix the junction of the Maritimo Aips and tho Apenuines in the valley of the Bormida, west of Savona, where the range, which does not exceed the height of 1300 fect, prosents the nearest approach to a break.

All the rivers of Itsly are subject to audden and
very heavy floods, and with the exception of the Po, the Adige, and the Tiber, have their volume of water groatly reduced in summer. The insignificant amount of tide in the Mediterranean renders most of them useless for navigatior
In a country extending throngh 10 degrees of iatiwude there must be great differences of climate, and consequentiy of vegetation and agriculture, from position alone. Besides that, however, the climate of Italy is modified to such a degree by the ranges of the Aips and Apennines, and by the sir of the sea along its coasts, as to render useless any division into regions according to the classification of Saursure. In the plains of Lombardy and Pledmont, and the other territories to tho north of the Apennines, which are inclosed by mountains on every side but the east, Fahrenheit's thermometer in winter descends to $10^{\circ}$; snow lies sometimes a fortnight on the ground, the lagoons at the mouths of the rivers are frozen, and slight night frests appesr early in Nuvember, and some years as late as Aprit. Delicate plants do not thrive except in sheitered situations, but the mul-berry-trees flourish, rice is grown, and the pastures are rich. South of the Apennines, that part of Tuscany and the States of the Church which is near their main range is subjoct to great cold, but westward, and aiong the Riviern, the temperature grows mildor, snow soidon lies long on the flelds, and the climate is suitable to the growth of the olive and the orange. But it is when wo reach the cential range of the Apennines that we find the coldest districts of Itaiy. In all the upiar d valleys of the Abruzzi and of Sannio, snow begins to fali eariy in November, and heavy storms occur often as lite as May; whole communities aro ahut out for monthe from any intercourse with their neighhors, nnd some vilinges are so long buried in snow that regular passuges are made between the different houses for the sake of communication among the inhabitants. The district extending from the south-east of Inke Fucinus to the Piano di Cinquemiglia, and laclosing the upper basin of the Sangro and the smail lake of Scanno, is the coldest and most bieat. part of Itaiy south of tho Alps. IIeavy fails of snow in June are not uncommon, ond it is oniy for a short time toward the end of Juiy that the nights are totaliy exoupt from light frosts. Yet, loss that 40 miles east of this district, and even more to the north, we find tho olive, the flg-tree, and the orange, thriving luxuriantly on the elsores of the Adriatic from Ortona to Vasto. In the samo way, while in the plains and hills round Naples snow is rarely seen, and never remains long, and the themometer aeldom descends to the freezing point, 20 miles eust from it in the fertile valley of Avellino, of no great elevation, but encircled by bigh
mountains, light frosts are not uncommon as late as June ; and 18 miles further east; in thio elovated region of S. Angelo do' Lombardi and Bisacela, the Inhabitants are always warmly clad, and vines grow with difficulty and only in sheltered places.' But nowhere are these contrasts so striking as In Calabria. The shores, especially on the Tyrrhenian Sea, present almost a continued grove of olive, orange, lemen, and citrontrees, which attain a size unknown lu the north of Italy. The sugar-cane flourishes, the cotton-plant ripens to perfection, the date-trees are seen in the gardens, the rocks are clothed with the prickly-peur or Indian-fig, the inclosures of the fields. are formed by aloes and sometimes pomegranates, the liquorice-root grows wild, and the mastich, the rosemary, the myrtle, and many varietiea of oleander and cistus, form the underwood of the natural forests of arbutus and overgreen oak. If wa turn inland but five or six miles from the shore, and often even less, the scene changes. IIIgh districts covered with oaks and chestnuts succeed to this almost tropical vegetation; a little higher up, and we reach the elevited table-lands of the Pollino and the Sila, covered with firs and pines, and affording rich pastures even in the midst of eummer, when heavy dews and light frosts succeed each other in July and August, and onow beging to appear at the end of September or early in October.

The cerealia form, as elsewhere in Furope, the chief aliment of the inhubitants; in Italy, however, the lower classes, who are the most numerous, subsist much on maize and beans, which require little prepamtion to render them fit for food. In some of the southern parts wheat is made use of by the same clasa, both in the form of bread and in that of macaroni, which is manipulated with great facility. Wheat and maize are, on the ivcrage of years, about equal to the consumption, hut little can be spared for exportation; and in many of the ports are dépots of foreign wheat kept to meet the variations of seasons, or to be used as articles of commerce with other countries.

Aa Italy produces abundance of wine, and consequently nceda neither beer ner corn-spirits, no barley is needed for these drinka, and scarcely any is cultivated. Oats are but little grown, bat abundance of leans of various kinde are prodaced. Rye, the common bread-corn of the far greater portion of Europe, is ouly raised in a few spots in the very northernmest parts of Italy, where it is made into bread for the poor ; while those of the higher classes there, as well as throughout the whole peninsuls in the citien, make use of wheaten bread. Rice grows in many parts, in fact wherever there is a sufficiency of water to insure a good produce, ut such diatance from towns as not to be injurieus to the health of the inhuhitants. It in a part of almost every meal in families in eany circumatances, hut is scarcely uned by families who are in circumstances that requlre the practice of great parsimony. A great variety of lupines are used as food, especially in the soups. In some parts of the mountainous repions, cheatnuts are a substitute for corn as long as they last. Fruitn are plentifully used, particularly fige, grapes, and melons, se food; while the cheapness of onions, garlic, tomatoes or love-apples, and capsicums, render them valuable as condiments. The potato, which in the other parts of Europe has theen mo mach oxtended of late years, has been hut partially introduced into Italy; and, where it is caltivaterf, it occupics a very small proportion of the soil. lettucen, asparagas, endivo, artichokes, and several kinds of tumips and of earrots, are everywhere grown.

Animal food is far from being extenively used. The oxen yield in some parta excellent, in other very indifferent meat. " The mutton is noither good nor abundant, hut has been much linproved of late years. Swine farnish a plentifal supply daring the winter months: they are also propared as bacon ur hams, and above all as sansagen, the fame of which latter has
reached unto England under the name of the city of Bologna, whare they wore early and extenvively prepared. The large dairy farme in Lombardy, in which the cheese known by the name of Parmessan is made, and the oak and ehostnut forests of Calabris, furniah the mast and best swine's fonh.
:The 'fisheries contrihute largely to the supply of food in Italy, thengh from the number of fasts still countenanced by the Catholio church, net sufficient for the consumption; and the deflciency is procured by commerce with the English, French, and Americans, who convey to the sea-ports the salted cod-fish from the banks of Newfoundland. Their own fisheries on the coast give much occupation; the most considerable are these for the tunny, a very large fish, and for the anchovy, a very small one. Thees are conducted upon a large scale by joint-stock companies. The lakes and the rivers also yield some, though not a great proportion, of that kind of food which accleciastical restric. tions render indispensable. The sugar-cane is not cultivated in the sonth of Italy, as it is foum, that in point of etrength, as well as of cost, the yugar made from it dees not aucceed in a competition with that substance when imported from the West Indies. The products of agricultare are sufficient for the clothing of all the inhahitents; for though wool is neither good nor plentiful, yet hemp and fiax are grown everywhere, are manufactured at home, and, from the nature of the climate, linen can be substituted for woolen dress during most of the montha of the year. Some raw wool is, however, imported to supply the manufactures, and some cloths, both from England and France, together with (in Iombardy) those from the other 'Austrian provinces, especlally from Bohemia. Some cotton is grown in the southern divisions of Italy, but not sufficient to furnish matorials for their very insignlficant manufactures of that nrticle.

The chief product of Italian agriculture is the silk. It is produced from every part, and much of it is converted into articles of dress or of farniture where it is collected; but the chief production of it is in Sardinin, Naples, and Lombardy, whence the looms of England, Prussia, Austria, Russia, and Gerınany are supplied. The valne of this commodity exceeds that of all the other productions of Italy which are exported to foreign countried. The manufuoture lise of late years made grent progress, wnich it in still steadily maintaining. The great increase which has taken place in the propagation of the mulberry-tree has, within the last 30 years, incressed the quantity of raw silk to an extent that had never before been droamed of.

Another very important Italian product, which is used partly as foon, partly employed in home manu. factures, and extensively experted as an articie of foreign commerce, is the oil of the olive-tree. It is used as in substitute for bitter in the south, is much appropriated to the manufacture of many kinds of soap, and is experted to Fingisnd for the use of our various falries, chiefly those of trool, and as a lirxury at our tables. The planting and watching cost but littie labor or expense, and in a fow years the income more than recompenses the labor. The best olive oil is proluced near Genon, in Iucea, in Tuacany, and in Calahria ; but it is plentiful thranghout the whole of Italy, oxcopt in Lombardy and in P'ledmont.

The wines of ltaly are not very highly valoed in other countries, and almest the whele that is protuced is consumed at home. Those of the nerth are for the mont part disagreeably nekd, and scarcely nuy of them are or can the preserved beyond one yeur. The vines are net to much grown in vineyarils an in tho hedgerown ; a system which deubtless injures the quaity of the wine. In the southern parts, however, where the vines are grown in low vineyards an in France, the wines are of a more flery quality, and though prejured with little care, they only require to be better known to $i$ es esteemed by fureigners.

The though wrough alum is tan ten and sul there m Verona the mor shore, quired ft might be Direct conducte Palerme Trieata. in 1854, reached,

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The cor rangement abiy situat small, and

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Total

The minerals of Italy are of amall value; and of cotton exported to Sicily, Sardinia, and Tuscany, though minee of gold, sillver, and copper were once wrought, the veine have long been oxbausted... Some alum is found in the Papal dominions and the Neapolltan territory, some vitriol and antimony in Parma, and sulphar in the island of Siclly. In many places there are exceilent marble, quarries, the best near Verona and Carrara. Alebaster is found in many of the monutains. The salt manufactured on the seomshore, and from aaline springs, is more than is required for the home consamption, and a large quantity milght be exportod.

Direct tradeq between the United States and Italy is conducted through the porte of Leghoin, Genoa, and Palermo, to which may be added the Austrian port of Trieste. Exports to Sicily, Ssrdinia, and Tuscany, in 1854, amounted to $\$ 469,148$; while to Trieste they reached, during the same your, $81,751,766$. The value
during the same year, was 179,098 ; to Trieste, it reached $\$ 1,370,402$, The valne of tohacco exported to Sicily, Sardinla, apd Tuscany, in 1854, was ${ }^{\circ} 144$,082 ; to Trleste, It resched the sum of $\$ 259,262$. A large portion of the exports to Trieste, however, are purchased there for the German markets, that port possemaing unusual facilities as a leading entrepot for many of the States of Germany. Many American vessele clear from the ports of the United States with cargoes destined for the markets of "Italy generally i", at least such would seem to be their mode of clearance, from the cnstom-house returns; and the average annual value of cargoes thus deatined, exceeds the whole amount of cargoes for designated points in the Italian peninsula, except Trieste. The following tahle exhibite the value of this triangular trade for a period of $\mathbf{8 6}$ suocessive years:

Commreck of the Unitid Btates wita Italt (inoludino Malta to Ootorir 1, 1888), fhom Ootorir 1, 1820, to July 1, 1856.

| Yeare amdlng | Exporta. |  |  | Importo. | Wheroof there wes in Bullion and Sppole. |  | Tonnage Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doaneolle. | Toreigu. | Total. | Total. | Export. | Impon. | Amperican. | Foreign. |
| Sept 80, $1381 \ldots \ldots .$. | - 10.171 | 689,406 | \%1,090,667 | 6978,463 |  |  | 8,802 |  |
| Nept 18, $1822 . . . . . .$. | \$60,714 | 889,470 | 1,450,184 | 1,062,038 |  | $911,94$ | 10,056 | $\ldots$ |
| 1888 | $\begin{array}{r}\text { 115,994 } \\ \hline\end{array}$ | 051,911 587,480 | 1,067,905 | 1, 1,890,449 |  | 215,197 | 6,057 | 19 |
| 1824. | $\begin{array}{r}\text { 1 } \\ \hline\end{array}$ | $\mathbf{8 8 7 , 4 8}$ $\mathbf{5 7 8 , 4 9 4}$ | 644,848 645,089 | 1,029,489 |  | 70,808 100,684 | 8,111 7,015 | 461 |
| 1826 | 81,622 | 448,599 | 830,221 | 1,120,749 |  | 14,859 | 8,208 |  |
| 1827. | 74,417 | 885,804 | 610,921 | 1,018,126 |  | 108,509 | 5,891 |  |
| 1888 | 970.680 | 841,280 | -920,780 | 1,607,417 | 29,000 | 67.889 | 6,515 | 167 |
| 1829 1880 | 980,765 826,289 | 611,28T 414,121 | 901,019 740,860 | 1,409,388 | 83,693 | 1,200 2,570 | 7,081 $\mathbf{6 , 0 2 6}$ | 418 |
| Total. | 82,281,005 | (0,847,802 | 88,629,707 | \$18,479,581 | \$58,992 | (1,201,482 | 67,819 | 1,646 |
| Sept. 80, 1881. | \$871,515 | -8829,010 | \%69,523 | \$1,704,264 |  | \$87,088 | 9,120 | .... |
| 1899........ | 178007 | 60,006 | 687,568 | 1,019,795 | 8680 | 4,400 | 6,049 |  |
| $\begin{aligned} & 1889 . \\ & 1894 . \end{aligned}$ | 70,864 105,786 | 801,822 $88 \%, 771$ | 872,188 498,557 | 999,184 $1,428,068$ | ... | 1,200 18,905 | 6,085 | 882 426 |
| 1885 | 178,545 | 107.898 | 285,041 | 1,457,977 |  | 14,004 | 4,544 | 206 |
| 1898 | 180,478 | 684,086 | 664,059 | 1,970,246 |  | 8,514 | 5,863 | 258 |
| 1887. | 205,2e3 | 418,409 | 623,677 | 1,897,181 |  |  | 2,837 | 8,581 |
| 1888. | 818.588 | 141,837 | 459,898 | 944,288 | .... | 88,018 | 8,041 | 1,810 |
| 1839. | 815,899 | 182,753 | 483,152 | 1,182,297 | .... | 8,728 | 1,010 | 1,8835 |
|  | 1, |  | 1,4 | 1,10, |  | 07,018 | 8,081 | 2,002 |
| Tota | (8,078,281 | \%8,119,5 | 80,192,783 | 114,234,898 | 8660 | 180,709 | 50,871 | 11,000 |
| Sept, 80. 1841. | \$71,411 | \$180,907 | \$912,818 | 1,151,236 | \%8,750 | \$8,941 | 6,239 | 1,267 |
| 1842. | 515,577 | 304,940 | 820,517 | 987,529 | 16,000 | 1,414 | 7,867 | 1,402 |
| 9 mos 1848. | 541,500 | 188,721 | 7289281 | 894,064 | .... |  | 8,350 | 1,117 |
| June 80, 1844........ | 818,566 | 258,257 | 578.823 | 1,096,926 |  | 1,861 | 2,340 | 941 |
| 1845. | ${ }_{9} 819.569$ | 290,832 424,652 | 817,921 1866915 | 1,801,677 |  | 8,400 | 8,984 | 914 |
| 1847 | 1,056,022 | 98,893 | 1,149,855 | 1,479,836 | $\ldots$ | 189775 | 1,106 | .... |
| 1848 | 1,101,118 | 159,483 | 1,260,601 | 1,616,100 | ..... | 7,719 | ..... | .... |
| 1849 | \$11,450 | 298,419 | 1,104,869 | 1,550,896 |  | 8,000 | .... | .... |
| 1850. | 1,567,166 | 239,904 | 1,307,070 | 2,105,077 |  | 4,028 |  |  |
| Total | 4,172,687 | 82,871,078 | 10,54,610 | 812,678,626 | 819,730 | 848,288 | 26,519 | 5,641 |
| Jaee 80, 1851. | *1,780,984 | \$187,406 | \$1,894,940 | \% ${ }^{1}, 051,807$ |  |  |  |  |
| $18 \% 8$ | 1,577,852 | 205,842 | 1,779,194 | 1,284,905 |  |  |  |  |
| 1858 | 2,178,745 | 159,838 | 2,883,578 | 038,714 |  |  |  |  |
| 154 | 1,886,827 | 165.489 | 1,751,766 | 971,783 |  | ... |  |  |
| 1856. | 601678 457,437 | 48,786 5,583 | 619,808 463,020 | $1,763,88$ 1,63565 |  |  | 2,888 4,179 | $\begin{aligned} & 288 \\ & 768 \end{aligned}$ |

The commerce of Italy has suffercd from the derangeneat of the government; and although favorshly situated for a large trade, the merchant marine is small, and confined almost entirely to coasting vessels. Valuo.
Sendo.
Imports $\ln 1559$ 10,218420
Expports ............................................. 10,474,018 The Scudo $=108$ of : nitted States' curreney.
Value of the Impobit and Expoats of Leghoan.

| Year ending | Imports. | F.aportm |
| :---: | :---: | :---: |
| Octeber. |  |  |
| 152 | $85,520,000$ | 54,800,000 |
| 1853 | 115,400,000 | 71,220,000 |
| 1855 | 142,200,000 |  |

Nafleation or the Poats of Civita Vrocila and of Ancona (1852).

| Vensels. | \|Eutered | Tonsage. | Crew. | Clieared | Tonnage. | Crowe. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Roman.. | 1,080 | 67,096 | 7,449 | 1,082 | 68,679 | 7,893 |
| Foroign..... | 1,281 | 187,788 | 20,117 | 1.210 | 185,318 | 19,729 |
| Total | 9,811 | 254,824 | 27,556 | 12,299 | 251,992 | 27,122 |

The mercantile marine numbered at the close of the year 1854, 1,893 vessels (of whlch 210 were veasels of wnr), having a total tonnage of 31,637 with 9711 men.-Foreign Com. U. S.

Ivory, the name given to the tecth or tusks of the elephant, and of the walrus or sen-horse. Each male elephant come to maturity has two tusks. These are hollow at the root, tapering, and of varioue eizes, depending principally on the nge of the animal. Color externally, yellowish, brownish, and sometimes dark ; internally, whe e. The best are large, etraight, und light-colored, without flaws; not very hollow in the stump, but solld and thick. The most esteemed come from Africa, being of a closer texture, and less linhle to turn yellow, than those from the East Indies. The trade in Iondon thus divide them:-First sort, weighing 70 pounds or upward; second sort, weighlng 56 lbs. to 60 lhs.; third sort, weighing 38 lbs. to 56 lbe. ; fourth eort, weighing 28 ibs, to 87 Ibe. ; fifth eort,
wolghing 18 lbs. to 27 lbe. All under 18 lbs are called serivelloes, and are of the least value. In parchasiag elephanas' teeth, those that are very crooked, hollow, and broken at the onde, or cracked and decayed In the inaide, ahould be rejected; and care taken that lead or any other aubstance bas not been poured into the hollow. The freight is rated at 16 cwt . to the ton. -Mrlburn's Orient. Com.
Supply of Ivory.-The imports of elephaats' teeth, in 1840 and 1841, were, at an average, 5556 cwt ., ef which 4620 cwt . were retained for consumption. The medium weight of a tusk may be taken at about 60 lbs.; so that the yearly imports of 1840 and 1841 may be taken at 10,372 tusks; a fact whlch supposes the destruction of at least 8186 male elephants 1 But, supposing the tusks could only be obtained by killing the animal, the destruction would really be a good deal greater, and would, most probably, indeed, amount to about $\mathbf{7 0 0 0}$ elephsnts. Occasionally, however, tueks are accidentally broken, one loat ln this way being replaced ly a new one; and a good many are also obtained from elephants that have died in the natural way. Still it is sufficiently obvious, that the supply from the sources now alladed to can not be very large; and if to the quantity of ivory required for Great Britaln, we add that required for the other countries of Europe, America, and Asia, the slaughter of elephants must, after every reasonable deduction is mnde, appear immense; and it may well excite surprise, that the breed of this noble animal has not been more diminished. The western and eastern cnants of Africa, the Cape of Good Ilope, Ceylon, Inwa, and the countries to the eastward of the Struits of Malacca, are the great marts whence supplies of ivory are derived. Tho lmports from westera Africa into Great Britain, In 1810, amounted to 1933 cwt .; the Cape furuished only 97 cwt . The imports during the same year from India, Ceylon, and other eastern countries, were 2418 cwt . The Chinese market is principnily sapplied with ivory from Malncea, Siam, and Sumatra.
The chiof consumption of ivory is in the manufacture of handles for knives; but it is also extensively used in the manufacture of musical and mathematical Instruments, chess-men, blliard-balls, piates for minlatures, toya, etc. Ivory articles are sall to be manafactured to a grenter extent, and with better success at Dieppe, than in any other place in Earope. But the preparation of this beautiful material is much better understood by the Chinese than ly any other peoplo. No European artist has hitherto succeedod in cutting concentric balls after the manner of thic Chinese; and their loxes, chess-men, and other ivory articles, are all far superior to any that are to be met with any where else.

STATEMEFT 8HOWINO THR IMPOETS OF IVOgT INTO THE UNitRt NTATES Fon tirg Fiscal IEAR endino Jukf 30tn, 1556.

| Whewre imported. | Manefaclures of. | Unmanufactured. |
| :---: | :---: | :---: |
| Kusian Posses ts N. America. |  | 4993 |
| liremen... | 12,018 |  |
| Fingland.. | 9,478 | 46,553 |
| 13rittsh Posmessions in Afrlea. . |  | 2t,945 |
| France... | 4,867 | 205 |
| Portugal.. | . . . | 189 |
| Ports in Africa. |  | 280.278 |
| Ohtha... .. | 2, 180 | 178 |
| Other jilaces. . . . . . . . . . . . . . . . | 102 | 83 |
| Total. | 18, 1820 | 1820,100 |

llistorical Notice.-It is a curioun fact, that the peo ple of all Aolatio countrien in which the elephant is found, have al waya had the art of taming the animal and applying it to useful purposee, but that no such art han over boen possessed by any natlve African natlon. Is this owing to any difference between the Asiatio and African elephants, or to the inferior sagacity; of the African people? We incline to think that the latter is the true hypothesif. Aloxander the Great is belleved to have been the Brst Eurupean who employed elephants in war. It appears pretty certain that the elephants made use of by the Carthaginians were mostly, if not wholly, brought from India; and that they were managed by Indlan leadera. Some of the lutter were captured by the Romans, in the great victory galaed by Metellus over Asdrubal. See, on this curious suthject, two very learned and valuable notes in the Ancient Universal History. Burfon's Article on the Elephant is a splendid plece of compoaition.

Rendering Irory Soft.-The various mechanical and chemical processes connected with the manipulation of ivory; are among the most interesting peculiarities of art. In rendering it soft and transparent, small pieces of the article are laid in strong phosphoric acid untll they become transparent, then rinsed in water and dried in pure linen. When dry it is translucent and harl, but softens as often as it is dipped in warm water or millk. The time of immersion in the acil differs with different pleces of ivory. If certain parts are to retain their original character, they are covered with a varnigh before immersion. The acit probably acts by forming an acid phosphate of lime out of the buric phosphate which constitutes three four hs of Ivory. The process of hardening lvory, which has become pllable by age, consiste in bolling it for seme time in a solution of gelatin.

Vegetable Irory is now imported chie日y from the River Magdalen into Europe and the United States of America; in some years no less than 150 tons of it have been imported into England. The " nuts" may be purchased in the toy-shops of the British metropolis for a few pence ench, but when bought in large quantities, they are obtalned at a much cheaper rats. In August, 1854, 1000 "nuts" were sold in Iondon for in. Gd. The ivory plant is conflned to the continent of South America, where it grows hetween the 9th degree of north, and the 8th degree of south lstitude, and the 70th and 79th of west longitade. It inhabits damp localities, such as confined valleys, banks of rivers and rivolets, and is found not only on the lower coast region, as in Darien, but also on mountains at an elevation of more than 3000 feet nlove tha sea, as in Ocana. Among the Spaniards and their descendants, it is known by the name of Palme de Marfl (Ivory palm); while its fruit is called by them Cabeaa de Negro (Negro's head); and its seed, Marfil regetal (vegetable ivory). The Indlans on the banks of the Magdalenn term the piant 7agua, those on the coast of Darien Anta, and those of leru, Pullipunta and Homero. It is generally found in separste groves, seldom intermixed with other trees cr shruls, and where herbe are rarely met with.-Botanical Magazine, May, 1856.
Ivory Black. The mixture of charceal and phosphate of lime obtained by burning bone, is moid under this name, and, like other forms of animal charcoal, is very effective in depriving certain substances of their color.

JaO in makit
Jacn ing the enjoys a It forwa It import silk text packets. fermerly United S under th 151 ; und lar royal only 5 . States an menths 0 sela, 30 ; esrgoes it ward, not consisted goods. C vite, fust Jacob from King strack. 'I new ; the weights te ralued at 2 grains.
Jacqua lem, invent to a silk o ment of dr pendently for the for these thread duce the fig child forme them toget time desire casioned no the design Jecquart, w mechanical simple peda generaliy a Every comr besutiful ap 40 in this
Jade, an to be two surite or ja magnesia, 0. varies from green, passi scarcly fusil formerly wo cure for dise véqpos, kidne for the lilade other savage being an art nerth and sol used in Turk dagrera, swo trinkets, deli the jude is o formed into variety of ja. pesred at the are very cost

Jaok, in nautical language, is a fiag of colors used in making signals. See Flags.
Jacmel, a sea-port of Hayti. Thia port, conslderIng the scantinesa of its supplies for foreign export, enjoya a conaiderable share of the navigation of Hayti. It forwards to Port-au-Prince most of the merchandise it importa, especially the large quantities of flax and silk textiles which it receives by the Britiah ateampacketa. The first rank in the commerce of thin port, formerily held by the British, is now transferred to the United Statea. In the movements of 1850 there were under the American flag 60 vessela, out of a total of 151 ; under the Engliah flag, 45 (including their r:gular royal mali steamers); and under the French flag oniy 5. The trade and navigation between the United Statea and the port of Jacmel during the last six months of 1854 ia given as follows:-Number of vessels, 30 ; average tonnage of each, 140 tona; value of cargoes Inward, $\$ 661,59932$; valoe of cargoes ont ward, not given in official returna. Cargoes inward consisted of provlsiona, lumber, ahingles, and asaorted goods. Csrgoes outward of coffee, logwood, lignumvite, fustic, braziletto.
Jacobus, a gold coin, worih 25 s., and so called from King Jamea I. of England, in whose reign it was gtruck. There are two kinds of Jacobus, the old and new; the former valued at 26s., weighligg six pennyweighta ten graina; the latter, called also Carolus, ralued at 23a., and in welght five penny weights twenty grains.
Jacquard, a pecular and most ingenious mechanism, invented by M. Jacquart of Lyona, to be adapted to a ailk or muslin loom for supereeding the employment of draw-boys, in weaving figured goods. Independentiy of the ordinary play of the warp threads, for the formation of the ground of auch a web, all thase threads which should rise simnitaneougly to produce the figure have their appropriata healds, which a child formerly raised by meana of cords, that grouped them together into a system, in the order, and at the time deaired by the weaver. Thia pian evidently occasioned no little complication in the machine, when the design was richly figured; but tho apparatus of Jacquart, which subjects this mancurre to a regular mechanical operation, and derives its motion from a aimple pedal put in action by the weaver's feet, was generally adopted aoon after its invention in 1800. Every common loom is susceptible of receiving this beautiful appendage. It costs in France 200 francs, or Q 40 in this country.
Jade, an ornamental stone, of which there appear to be two varieties, common jade or nephrite, and saussurite or jade tenace. Common jade is a silicato of magnesia, oxyd of iron, alumina. Its specific gravity varies froin 2.9 to 3.0 ; hardness 7.0 . Its coior is leek green, passing into gray. It is very tough, und scarcly fusible beforo the blow-pipe. Nephrite was formerly worn as a chatm, and was supposed to be a cure for disease of the kilney, whence the name fren vépoos, kidney. From its toughness it has been used for the Mades of hatcheta by the New Zcalanders, and other savage nations. II umboldt speaks of jade stones being an article of trade among ths natives of the north and south sides of the Orinceo. Jade is muci used in Turkey and Poland for the handics of knives, daggers, sworda, etc.; and in India, ornamenta and trinkets, delicatoly worked, are mado of it. In China, the jade is of a whitish color, and is called $y n$. It is formed into vases, ringa, and other articles. A great variety of jade ornaments from India and China appeared at the Great Exhilition of 1851. Such articles are very costly, on account of the extreme difflculty
of working this refractory substance, but it has been auggested that mortara, peatlea, and some other objects required by chemista, could be manufactured of jade of larger siza than can now be made of agate, and, from the simplicity of the forma, at moderate cost. Jade is poliahed by carnelian, but it takea only a greasy, not a brilliant polish.
Saussurite ia a donble allicate of magnssia, lime, and oxyd of iron, with silicate of alumina ; specific gravity $8 \cdot 2$ to $8 \cdot 4$, hardness $5 \cdot 5$. Its color is greenishwhite, or ash-gray; ita cleavage is in two directions, meeting at an angle of nearly $120^{\circ}$. Ita luatre ia pearly, resinous, or vitreous; it ls extremely tough, and in fusible before the blow-pipe.-E. B.

Jaffa, or Yaffa (the ancient Joppa), is a sea-port town of Palestine, in north lat. $32^{\circ} 8^{\prime}$, esat long. $34^{\circ}$ 45 . It ia aituate on an emirance projecting into the gea, about 40 miles north-west of Jerusalem. It is mentioned in the Old Teatament as the port at which the timber for Solcmon'a Temple was unshipped. DurIng the wars of the Maccabees, its shipping was set on fire by Jonathan ; and it waa again pillaged during the wars between the Romans and the Jews, $\mathbf{8 4 0 0}$ of its inhabitants being put to the aword, and the town burned. Having aubsequently become the refuge of plrates, the place was ntterly destroyed. Gradually, however, it seems again to have risen to importance, for, during the reign of the Christian emperors, it was made the seat of a biahopric. In A. D. 636 it was taken by Omar. In the crusades it was taken by Baidwin I., and in 1186 retaken bj Saladin. In more recent times it was stormed by Napoleon in 1797, when 500 Tarkish prisonera wers put to death. The harber of Joppa haa alwaya been dangerous, owing to its exposure to the sea, and, being now nearly choked up with sand, vessels are obliged to keep at a distance from the shore. Notwithstanding all the langer and difficulty of landing, Joppa has for many centuries been the resort of pilgrims on their wuy to Jerusalem. The town chiefly faces the north. The buildings are surmounted by flattened domes, which rise in rows above one another like terraces, on the steep face of the eminence on which the town is built. The anmmit of the height is crowned with a castle; but though the generul situation of the town is thus somawhat picturesque, its appearance on closer inspection is mean and comfortiess. A wall 12 feet high defends the town on the lundward side, and two forta protect the harbor. Joppa carries on trade in cotton, goap, fruit, coral, etc. The frults, consisting of watermelons, oranges, lemons, etc., grow well in the sandy soil of the numerous neighboring gardens. It importa rice from lgypt. The inhabitants consist of Turks and Arals, Romanists and Greeks, with some Armenians, ss may be inferred from the threo mosques, thres churches, and three Armenian convents to be seen in the town. A British consul resides here. Population 4000 .-E. B.

Jrfna, the eapital of the district of Jafnapatam. It stands at some distance from the sea, but communicates with it ly a river navigable for large boats, and which falls into the sea near Point Pedro. The town is fortified and possesses a good citadel, which, though small, is exceedingly well built ; but it was given up in 1795, after a slort resistance, to the Britiah troops. The situation is salubrious, and living is cheap; on which account many families have removed to this place from Columbo. 'Tho greater part of the inhabitants are of Mohammedan extraction, and are divided into several tribes, known by the names of Lububuhs, Moplays, Chitteea, and Cholias. The foreign settlers are nore numerous than the native inhabitauts. There are
manufactures of coarse cotion cloths, chsicoes, handkerchlefs, shawls, atockings, ete., and there are also many artificers, auch as goldsmitha, jewelers, jolnera, and cabinet-makers,-E. B.

Jalap, or Jalop (Ger. Jalapp; Fr. Jalap; It. Sciarappe; Sp. Jalapa), the root of a certain convelvulus, so named from Xalapa, in Mexico, whence we chiefly import it. The root, when lirought to this country, is in thin transverse slicea, solid, hard, woighty, of a blackish color on the outside, and internally of a dark gray, with black clecniar atria. The hardeat and darkest colored if the best, that which is light, apongy, and pale colored, ahould be rejocted. The odor of jalap, especially when in powder, fo very characteriatlc. Ita taste is exceedingly nauseous, accompanied hy a aweotish bltterness.-LImwis's Mat. Med. ; Branns's Phamacy.

In Mexico, from 4000 to 6000 feet above the sea level, grows the plant which ylolds true jalap, and which has been called by botaniata Convolvulus purga, and Ipomea purge, the latter name belag adopted by De Candolle. It has aince, howevar, been placed in the genus Exogonium. The trae jalap (Kxogonium purga) hat a tuberous perenulal root, a amooth, twining, annual atem, a salver-ahaped corolla, with long cylindicical tube, a calyx of five small, unequal sepals, and herbaceous stems. Its leaves resemble the ivy, and its beautiful red flowers open only at night. The dried tabers of this plant supply the drug jalap; these, as found In commerce, rarely exceed 1 lb . in weight I thay are oval in form, and covered with n dark akin or cuticle. Internally they are yellowish gray, with deep brown enncentric circles, and ars hard and difficult to powder. Inferior sorts are more irregular in form, and aro called opurious jalop, or, from their ahape, cocked-hat jalap. Some roots are mneh morm-eaten, and are so called, but as the Insecta do not touch the resinous portions, such roots are available for extructs. Four kinds of Jalap are known In commerce, two genuine and two epurious; first, dark, heavy, reainous tubers 1 secondly, lighter oolored and leas resinous; thlodly, whice or false jalap, pieces of which are occaslonally mixed with the true; and, fourthly, jalap-stalk or woody jalap, the sllees of which are more tibrous and woody than the genuine. There are about $200,000 \mathrm{lbe}$. of the pure jalap ennually exported from Vera Cruz on the Gulf of Mexico, the sea-port of Jalapa.

Jalapa, or Kalapa, a town of Mexico; capital of a cognominal department, in the State of Vera Cruz. It is situated on a amall plain at the foot of a range of hills 65 milea north-went of the town of Vern Crux, and about 4500 feet above the ses level. On account of its exhilarating climate it is a fuvorite remort of the lnhabitanta of Vors Crus when the vomito prieto is prevalent there. The only building of importance is an old church, which is belleved by the people to have been founded by Cortez. Cotton is manufactared, hut ita trade has greatiy diminished. In the neighlorhood grows the creeping-plant, Brogonium puryn, or, as it is called from thia town, Jalap. The population of the department In. eatimated at 45,000 , and the town at 16,000 perwens.
Jamaifon, an Island lying off tho Bay of IIonduras, between the Carilitean Siea and tiulf of Mexico, within N. lat. $17^{\circ} 40^{\circ}$ and $18^{\circ} 80^{\prime}$, and W. long. $76^{\circ} 10^{\prime}$ and $78^{\circ} 80^{\prime}$, about 4000 miles S.W. of Fng 'and, 80 S . of Cuba, 90 W. of St. Domingo, and 515 miles N. of Chagres, the Atiantic port of the Isthmus of Panama. It is the most southern of that group, which ls eailed by some the Greater Antilles, by othern the Leeward Iaiands. The latter name, however, is now generally appitins to the amaller islands on the north-east, snd sometimes to those on the south of the Carlbbean Sea. It is the largest, and was formerly the most valuaitle of the Britioh West Indles, belng 140 geographical milet in length, by 50 in extreme breadth, and con-
talning about $4,080,000$ acres, or 6400 square milea Within it government are comprised, besldes the three amall islands called the Caymanas, Belize, or British IIondura, on the main land of Central AmerIca, with Ruatan and other lalande in the Bay of IIonduras. Thene places, though dintant respectively 600 and 460 miles, have been called the dependencles of Jamalea, and are ruled by auperintandente appointed by the govemor. The title of Britala was disputed by Spain in the early part of tho-last century, and the Bay Islands were given up to that power by the treaty of London in 1786, but were re-occupled by the Britlsh during the aubsequent war. IIaving, with the Mosquito Territory, formed the sulject of dispute between Great Britaln and the United States, arising out of the Clayton-Bulwer Treaty, they bave (1886) been constituted as free territory under the republio of Honduras, with provisos agalnst alienation, the ereetion of forts, and the introx cetion of elavery.
Jamaica was diacovered by Columbus on the 34 of May, 1494, while coanting along the wouth of Cuba, duriag his second voyage. He called it St. Jago, after the patron saint of Spain, but it is now generally known by Its Indian name Jamaica, a word sjenifyiag the Isle of Springe, according to the beat autherities, though Long derives it from a kind of fruit. It is sometlmes written Xaymaca hy the Spaniards. On approaching the shore, Columbus called the naarest land after his firat ship, Santa Maria, a name atill preserved in Port Maria. He effected a landing a little to the westward, at Ora Cabesna, where, after a slight opposition from the natives, he took possession of the ceuntry, with the weual formalities, for the king of S ainThe inhebitants were the ame mild, inoffensive race as those of Cuba and IIaytl. Like the Arowaks of Trinidad and Guiara, they were probubly offishoots of the great Mexiean stock, and very different from the flerce Caribs of the Windward Islands. After a short stay, Columbua quitted Jamaica, which remained ua. disturised for nine years. In Juno, 1503, on his fourth and last voyage, he was driven by a terapest, in which he loat two shipe, to a bay on the north side of the island, which he named Sta, Gloria (now St. Anu's liay), where he ran hls remaining vessels ashore in a omsil inlet still called Don Christopher's Cove. The shipwrecked mariners were received with the grestest kindness by the Indians, and here Colvmbus remained upward of a year a waiting the return of messengers he had dispatched to Ovando, governor of IIispaniola, as Cuba was then called. Daring this time he suffered much from disease, as well from the mutiny of his followers, whose gross misconduct alienated the 1ndians, and provoked them to withhold tixeir accustomed supplies, until he dexterously worked upon their superstition by prognosticating an eclipse.

By Esquivel the natives were treated, according to IIerrera, with unusual humanity. That his successors did not imitate him in this respect is proved by the stounding fuet that of the Indian popuintion, at this ..ane estimated at from $\mathbf{6 0 , 0 0 0}$ to $\mathbf{1 0 0}, 000 \mathrm{souls}$, not a descendant of either sex existed in 1655, when the island fell into the hands of the Euglish, nor, is it supposed, for neariy a century lefore. Aiter a short sway, Esquivel died in Sevilla d'Oro, a towa founded by himself on St. Ann's Ray, which is supposed by some to have been deserted on account of the ravages of ants, by others to have been destroyed during on insurrection of the Indians. Its premature fall was, however, most probably owing to the attacks of French filbustiers, or plrates, who for a long perlod infested these coasts. The site of the town may atill be traced by mounuls of earth, as well as in the names of certain flelds belonging to the Seville sugar plantation. Melilla, near Port Maria, or, according to another opinion, at Martha Brae, near Falmoth, shared tiee same fate.

Abont the year 1523, Diego Columbus, visitin'; Jamalca from IIlepauiola, fonnded ou the River Cobre,
inland la Vog of mai capital distan whieh history pearau of intr ject th whose and ev they pe revertit quence duke of anterioz Spain a sianed a whe cen hut wer settlers. to agriet vated, a) com and small spe mestic $q$ herned al panioln, trsde spr sugar, an
The po comsiats 0 this is be the popula were whit about 120 peopie hav 2000 have wsy over oaly have dren by th pugnence reduced th the natura menoy du Coancil an ber of imn celenies. arrived in 1852 only lowing ret Comanissio from 1848 t
$\underset{\text { Elerra }}{\text { Emancty }}$
Slerra
$8 t$. Itele
Madetrs
Chtos. .
To
Besides whi
who had ars her of recal this popuia ber in prisc cember, 18 reperts tha Jamaica wh 18 to 33.
The reve lation made £ 490,000 was indepe parochial pu curreacy, or of 18.11 was 401, 128. 10d

Inland to the south of the monntaln range, St. Jago de la Voga, St. Jaman of the Plain, which gave the title of marquis to hia deacendanta, and is atill the officlal capital, under the name of Spanish Town. At some distance weatward, on the const, was built Oristen, which is now calied Bluefields. Down to 1598 the bistory of Jamaica is only a record of the rapid disappearance of the Indiana, under the Spaniah yoke, and of intrigues at the court of Spain, heving for their object the disposseasion of the deacendants of Columbus, whose rights were, however, succeasfully defonided, and eventually centred In an heirees, through whom thay passed by marriago to the house of Braganza, reverting afterward to the Spanish orown, in consequence of the revolution of $\mathbf{1 6 4 0}$, which piaced John, duke of Braganza, on the throne of Portugal. Long anterior tu this last event, the unior of the crowns of Spuin and Portugal, wnder Philip ${ }^{\prime}$ r., in 1580, occasioned an inflax of Portuguese colonists into Jamaica, whe contribated much to its strength and prosperity, but were usually on indifferent terms with Spanish settiers. - ontion had at an early period been paid to agriculture, the cotton-plant zeas extensively cultirated, and the sugar-cane, vlne, and various kinde of corn and grass had been introduced; and wheress a emall epeciee of dog, called the alco, was the only domestic quadruped known to the aborigines, horses, horned csttle, and -Flne had been imported from IIispaniola, which multipiled amazingly, and a flourishing trade sprang up in lard and hides, as well as tobacco, sugar, and ginger.
The popnlation, according to the return of 1855 , consists of 181,033 malee, and 105,800 females; hut this is hased upon the last census, that of 1844 , when the population was returned at 380,000 , of whom 16,000 were white, 68,000 colored, and the rest black, of whom about 1200 were maroons. Since then upward of 40,000 peopis have died from cholera and small-pox, and about 2000 bave emigrated to Navy Bay to work on the rallway nver the Iethmus of Panama, a portion of whom only have returned. The careless treatment of children ly the negroes, and thelr almost Invincible repugnance to pay doctors' fees, which has necessarily reduced the number of medleal practitioners, prevent the natural rate of increase; and the waste of public money daring the protracted dispnte between the Conncil and IIouse of Assembly, has cansed the number of immigrants imported to fall very short of other colonies. We find, in consequence, that whlle 40,000 arrived in British Gulana between the years 1840 and 1852 only 14,000 were brought to Jamaics. The following returns have been msde by the Emlgration Comnissloners of Immigrante introduced into Jamaica frem 1848 to 1855, both inclusive:

$$
\begin{aligned}
& \text { 8t lielens..................................................................8198 } \\
& \text { Maleltra.... } \\
& \begin{array}{r}
2,198 \\
879
\end{array} \\
& \text { Chloa. } \\
& 872 \\
& \text { Total. } \\
& \text { 5,105 }
\end{aligned}
$$

Besides which there were still in the island 1684 coolies who had arrived before 1847, and a considerable numher of recsptured Africans. The criminal returns of this population are reioarkally favorable; the number in prison throughont the island on tho 31at December, 1850, was only 583 ; and Sir II. Barkly reports that the numbers convicted of crimes in Jamaica when compared with British Guiana wore as 18 to 33.

The revenue of Junaica was estimated, in a calculation made in 1830, on an average of ten yeers, at $£ 490,000$ urrency; or about $\pm 327,000$ sterling. This was independent of that raised by the vestries for parochial purposes, whlch anounted to about $\mathbf{£ 3 0 0 , 0 0 0}$ currency, or $£ 200,000$ sterling. The public revenue of 1841 Wha $£ 226,959,18 \mathrm{~s}$. Bd.; the parochial, $£ 177$,401, 12 H . 10d. sterling. The publio expenditure, £291,-
$415,108,0 d . ;$ the parochial, $\mathbf{E 1 5 0 , 8 5 7 , 1 6 4 . 8 d . ~ I n ~ t h e ~}$ yoar 1854, owing to the auapesaion of the Import and ram duties, and consequent large secumulation of taxable articies which had pald nothing to the treasury, the revenue fell to $\pm 96,624$ sterling, while the expenditura was $£ 197,688$. In 1855 the following return was made : Incor e, -Ordinary revenue, $£ 190,047$; casual revenue, $£ 26,771$; total, $£ 226,419$. Expenditu res. Ordinary expenditure, $£ 198,461$; casual expendi.ure, $\mathbf{£ 4 9 , 6 4 8 ;}$ total, $£ 248,105$. In the name year the local or parochisl taxes amounted to about $\mathbf{8 8 0 , 0 0 0}$. In the budget for 1856, the following eatimates of the rev. enue and expenditure for the current year were presented to the Jamaica Jegialature:

Income.

| Impurt dues. | 2125,000 |
| :---: | :---: |
| Ranin dutles. | 80,000 |
| Stampe | 11,100 |
| Tonamg | 11,000 |
| Fee | 1,000 |
| gtock and bereditam | 16,000 |
| 1Iouse tax (disallowe | 6,000 |
| Land tax | 5,000 |
| Interest oa guaranteed loan ta Colonial B'K | 1,000 |
| Total Jncome | 2206,000 |
| Exprndituan. |  |
| Collectlon of revenue. | 220,105 |
| Parochlal ftems transf | 14,059 |
| Church estahlishment. | 29,808 |
| Administratlon of Jastice. . . . . . . . . . . . . . . . . | 20,292 |
| P'olice. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 23,455 |
| Governor and Privy Conbell............... | 4,450 |
| Legielative Councll. . . . . . . . . . . . . . . . . . . | 2.004 |
| Horase of Ansembly...... ................. | 8,845 |
| Executive conmmitte | 8,820 |
| Sanitary establishmient | 10,120 |
| Educatlon (disallowr,t)....................... | 8,000 |
| Printing....... | 4.000 |
| Pablto works. | 8,500 |
| Light-houses. | 1,100 |
| Prisons | 17,700 |
| Insolvent depostts | 2,000 |
| Interest on loans........................... | 8s,411 |
| Mlacellancoas, Jncludlog ess00 for milltla, esiot to geologlat. | 8,546 |
| Total expenditure. | 206,765 |

By an act of the Assembly in 1854, the Councll fund of $£ 6000$ a year, originally granted in 1728, ceased, and it was provided that $£ 25,000$ should be raleed annually as a permanent civil list, for the purposes of the government of the island, ard a further sum of $£ 30,000$ for the Interest on, and repayment of the guaranteed debt.
It is difficult te fix the value of the movable and immovable property in Jamalica, once eatimated at $£ 80,000,000$. The latter, bowever, that is, the lana: with the buildings on it, is periodically val:ed for taxation, and the hereditament tax is raised upnn a sum equal to 6 per cent. on auch valuation-that being, according to an arbitrary assumption, the nett revenue of the land. Though the tax is puid upon many properties on which the cultivation has been given up, and which produce no revenue at all, this sum was fixed in 1850 ut $\pm 693,382,4 \mathrm{~s} .3 \mathrm{~d}$., on an estimated value of about $£ 11,500,000$. Since then the decline has been rapid; and when it is remembered that the fall in ratable property in the next year exceeded $£ 2,000,000$, there can be little dnubt that the difference in valus since the prosperous days of Jamsica amounts to at least 80 per cent. For many once valuable estates no purchaser could now be found on any terms. It is on record that 231 sugar estates have been abandoned, bealdes 243 coffee plantations, and 132 grass pens. It is notorious tist the paper circulation, which amounted to $£ 258,816$ in 1844 , has dwindied to $£ 70,000$ in 1855. It is clear, therefore, that though the public and parochial taxation has been reduced from sbout $\mathbf{£ 8 0 0 , 0 0 0}$ currency to less than $£ 300,000$ aterling, it is much more burdensome to the tax psyer now. Indeed, when it is considered that the value of artioles expurted, expensive as they are to produce, does not reacs $£ 1,000,000$, it is evident that the estates in the

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aggregate yield no rontal at ell, but are maintalned by mon-reeldent proprietors posessed of other meana, who are unwilling to abandon the hope of future improvement. Even auppoalng the whole money expended is. raising thase articlen of export amounted to little more than double the publie revenue of the country, a proportlon, highly taxed as the foland la admitted to be, quite beyond bellef, it would follow that after pay. ment of production, expenmen, and taxes, little or no sarplas would remain for the proprictor; hut such sxpensas must in reality far exeeed $\mathbf{8} 600,000$, and can only be provided, as before observed, by those proprietors who have other funda at thelr diaposal.

It is necessary to explain the two forms of calculation to which refarence has lieen made-currency and sterling. The former was an arbiltrary mode of reckoning, unrepresented by myy colnage, omployed until the year 1840, hy which $\mathbf{2} 140$ currency equalled nominally $\mathbf{2 1 0 0}$ sterling; but a premium of about 18 per cent. was pald in adalition to place this aum In Eirgland, so that upwarl of $\mathbf{\alpha 1 6 6} \ln$ Jamaica wern needed to pay efloo in Eingland. In 1840 an act parsed establiahing the Engliah computation, fixing the pound aterling at $\hat{⿻}$ linglish money the legal tender. Spanish and l'ortuguese coins are atill current, the highent being the doubloon, or ounce, worth about $\mathbf{4 3}, 6,8 \mathrm{Bd}$. Hefore this date, a "fivepenny;" worth 8d, sterling, was the lowest coin. There is atill no coppar, and the lowewt coin is the silver three-halipence, colned eapecially for Jamalea, and called a pradial, as Intended for the payment of agricultural iaborern. In former dayo, the only paper currency consiated os' ialand checks isutied by the treasury. There are now two banks of ianue, a branch of the Colonial tiank, and the llank of Jamalica. A thlrd, the l'lanters' Dank, has been glven up sinco the trude of the colony declined. The present inasue in usually from $\mathbb{E} \mathbf{0 , 0 0 0}$ to $\mathbf{8 8 0 . 0 0 0}$. Savings banks have also been eatablished in the inland.
The commerce of Jamaica dejends almont entirely on Its agriculture. It bas gradually lost the greater portion of the tranait trade in consequatice of the revolt, and aubsequent disorganization of the Spanish colonies on the mualniand, the eatulilishment of St. Thomas an a free port, and the rapility of ateam communication bet ween Eamope and the American coant, which diminished the advantages of an emporiam In the Weat Indles. its agricultural promperity has declined in equal proportion, though, from different causon, the value of its ataple having been deprecinted by successive acts of the Imperial Govermment, whereby the differential duties, under the protection of which
the scheme of emancipation wat originally intended to be oarried olut, were discontinued. In 1840 Eant Inclia sugar was admitted on equal torma Into the Britlah market. Four yaara afterward the same edvantage was cunceded to forelgn augar, the produce of free labor; and in 1846 to alavo-grown augar. Protection has also been removed from molasees, coffee, and cocos. Under thes clreumatances, the want of ale. quate labor has prevented Jamalea competing with those countries in which, from slavery and other causen, there is a sufficient sapply.

The following tables Hlustrute these observations:

| Years. | Volua of timpneta. | . |
| :---: | :---: | :---: |
| 180 | . . 24000 S87. |  |
| 1810 | 4,308387 | 2,908,570 |
| 1459 | 864.004 | 837,276 |
| 184. | 408,020 | 989,816 |

The exporta consist of her own products only, the Imports Include those intended for re-expertation, as well as those taken for home consumption, whicn explalns why, In the flourinhing era of the transle trade, the balance should be apparently no unuch against Jamalca. The exports, too, are entered at their value In the place of growth, whlle to hupor's are added chargee for freight, etc. Tho amall imports of 185 t were partly owing w the goods imported in anticipation the year befure, when the duties were not luvied. The same cause accounta for the amall quantity of rum exported in 1853, and the excess of the two fol. lowing yeara, enough for two yeara' home consumption huving been entered in the same year duty frec. The following talle gives the trade and navigation report for 1855:
bumitala in Jayatea in isss.

| Frons | No. of shiper | Ton. nage. | 3en | Value of imporis. |
| :---: | :---: | :---: | :---: | :---: |
| Orest Brita | 122 | 48, (rys |  |  |
| Untted stat | 94 | 18,784 | .... | Brit ex94,0t9 15 |
| Colonial | 145 | 15,445 | ... | Hor. 405,458 124 |
| Fursigo.. | 127 | 11,84 |  | -r |
| Total. | 483 | [ 84,052 | 4,322 | E509,507717 |

Defabtebea faim davaioa in 1855.

| T. | No, of thlpo. | $\begin{aligned} & \text { Ton- } \\ & \text { nagr. } \end{aligned}$ | Mea. | Value of exporte. |
| :---: | :---: | :---: | :---: | :---: |
| Great liritatn... | 123 | 34,997 |  |  |
| Vitsed Stater.... | 77 | 18,5012 | $\ldots$ | $\pm 1,048,825$ of w lich 9 |
| Culontes...... . ${ }^{\text {a }}$ | 68 | 8,947 |  | 983, 12.3111 |
| Forelgn conitrles | 241 | 28.1114 | .... | sepresented island |
| Total......... | sus | 80, 510 | 4,462 | produce. |

Of the elilps in this lint 40 were ehips of war, 44 steamers, and 88 coiliers.


| Vaar. | \%agro. | Rum. | Mulas- ee9, | Cuthoe. | Comen. | Cotton. | ${ }^{1}$ 'imento. | Cilnger. | $\begin{gathered} \text { Arrow- } \\ \text { rout. } \end{gathered}$ | Inywend A farlie. | Mtnhog. shy. | tedigo. | $\operatorname{Livi}_{w \rightarrow x .}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1817 | $\begin{aligned} & 7,400,500 \end{aligned}$ | $\begin{aligned} & \text { Wn'1u } \\ & 9,704,969 \end{aligned}$ | $\begin{gathered} \text { CWG: } \\ 86 \end{gathered}$ | $\begin{gathered} \operatorname{lin} \\ 14,603,518 \end{gathered}$ | $\begin{aligned} & C w 1 n . \\ & 260 \end{aligned}$ | 1, he | $1,627,612$ | $\begin{aligned} & 1, b * \\ & 84,378 \end{aligned}$ | $1.1$ | $\begin{gathered} \text { Tuns. } \\ 18,819 \end{gathered}$ | $\begin{aligned} & \text { T.199. } \\ & 1,590 \end{aligned}$ | $88,011$ | $n$ |
| 1455 | 450,252 | 2,109,291 |  | 5, $05 \% 1083$ | .. | 250 | 7, f366,590 | 799,796 | 87,900 | 11,54t | Fert. 147,924 |  | 81,436 |
|  | Joe 900,918 | $\begin{aligned} & \text { Toe. }{ }^{\prime} \\ & 697,678 \end{aligned}$ | Dive. 95 | then, $8.990,44$ | Imer. 200 | $110 \times 4$ | $\begin{aligned} & \text { Ine. I } \\ & 6,045,904 \end{aligned}$ | $450.483$ | $\ldots$ | bue. 875 | $\cdots$ | $\begin{array}{r} 5 m e r \\ 82,011 \end{array}$ |  |

The largent sugar crop was in 1805, which exceeded lle and Bardowie, in St. Andrew; the Portland Min160,060 hhds. ; that of 1855 dill not reach 80,000 hhuls. ; that of $18: 6$ had fallen to $20,(000$ hbin. The largest coffee crop was In 1814, and exceeded $34,000,000$ lbs. The grest increase of phaento is unfortunately accounted for hy the rapid apread of the tree, which growe wild in Jamaica, over landa formerly nnder cultivation. Since 1852 a amall quantity of copper ore has leeen exported, amounting in 1854 to 37 tuns. Ilesidea these principal articlen, there in exported a small quantity of tamarinds, cocon-nuta, muccades, shruh, ebony, ligaum vitre, and lancewood. There are five mining companies in Jamaica, all in their infuncythe Clarendon Consols, and Wheal Jamalea, In Clarandon ; the Port-Royal and Se. Andrewa, and the Ellers-

Ing Company in lortland. Of these the first two are at jresent the mont promising. The principul impurts, Into Jamalca are malt pork and beef, nuit fiah and oil, hutter, lard, cheese, corn, corn-meal, oatmeal, fiour, bisculta, rice, tobacco, wine ard beer; hardware, cutlery and Ironmongery ; ready-made clothes, buita and ahoes, and iry goodm of ali sorts; soap, caobles saddiery, and harness; shingles, lumber, wood-jwops. and rouls.

Imports into the Jaland of Jamoica from the linited States in 1854.-Flour, 13,82s barrela; pandlea, 7911
 barrela ; hame, 20 barrele, 15 catka, 11 ticries ; cheese, 108 boxes; meal, 2614 barrels; corn, 2191 hags;
bread, 87 lumber, value, 0 Amerio 1852, 194 1852, 119
The oo seen from years, 185

Rugar.....
Rugar......
Mrolasses...
Molasses
Pinger....
Plmbato...
Port Res
maica, then a port duty cents per to troples, 8 o cents per to 88; on a or aloop, 1 brig or brig Jumalca aml contalua a 812,000 free
pilot dues
In-350 ton
\&1728; 160
61152; 100
Out-850
\$13 44 ; 200
690; 100
These charge
cleara from $F$
There is a and Jamalca, The Royral Mis 8outhampton ing at St. Th and reach Kin agsin for En course of pos month betwe post 10 days. tween Jamalc In tho island ton and Span week between besiden expre. mail puckets. England to Ni growing impor
Emancipatio pation, has bee The negro on pends, has gri graded In the uny hostile fec usually livee mataral reault low in civilizat wants, In a Tho Jamaica ne tion in a fow w land. The wo tables which $k$ in tolerable co not require his hire ; but as $\mu$ and the count confined inore and though not ceding into an venting ministe
bread, 977 banels; beef, 241 barssle; coals, 8801 tons 1 lumber, 88,186 feet; lice, 1642 baga. Approximate value, 499,515 .

American vessols ongaged In trade with Jamaica in 1852, 194 i in 1853, 164 ; from all European ports, in 1852, 119 in in 1858, 165.
The oommercial resonrcen of this lsland may be seen from the following tablea of exports for three years, 1850-1862 :

|  | $1 \mathrm{H}_{3}$ | 105. | $153 \%$ |
| :---: | :---: | :---: | :---: |
| Bagar. ..........intar | 88.6080 | 40,298 | 84,414 |
| jknm......pancheona | 10,691 | 18,492 | 15,660 |
| Molasses. . . . . . caska | $\therefore$ ¢ | 140 |  |
| Olngerw. . . . . . . . . Ibe | 799,000 | 1,176,000 | -894,000 |
| 1'mbnto........ ${ }^{4}$ | 4,049,000 | 4489.000 | 6,488000 |
| Contee............ ${ }^{\text {W }}$ | 127,000 | 0,596,000 | 7,187,000 |

Port Regulatione,-On overy vesmol ontering Jamaica, there is levied under the customn-tonnage act, a port duty of 24 conts per ton. Light-house duty, 6 cents per ton. Hospital tax-vensela from out of the tropics, 8 cents per ton: from within the tropics, 4 cents per ton. IIaalth officer's fees-on a ship or bark, 628; on a brig or brigantine, $2 \mathbf{8 1 6}$; on a schooner or dloop, 12 44. JIarbor dues-ship or bark, 8768 ; brig or hrigantine, 8576 ; schooner or sloop, 884. Jamsica embraces an area of 5520 square miles, and contains a population of about 36,000 whitee, and 812,000 free blacks. Total population, 848,000.
pilot dues in the ports of Kingston and Port Royal.-In- 350 tons and over, $23804 ; 250$ tons and over, \$1728; 100 tons and over, 1440 ; 100 tons and over, 41152; 100 tons, 804.
Out- 250 tons and over, $11536 ; 250$ tons and over, $41344 ; 200$ tons and over, $81152 ; 150$ tons sad over, $\$ 960 ; 100$ tons and over, $8768 ; 100$ tons, 6672. Thees charges are reduced when the vessel enters or clears from Port Royal only.
There is a steam communication between England ad Jamaica, and eice veraa, twice a month, in 10 days. The Rayal Mail Steam-pucket Company's ohipa leave Southampton on the 2d and 17 th of each month, calling at St. Thomas, Porto Rico, and Jacmel, in Haytt, and reuch Kingston on the 21st and 6th. They leave again for England on the 27th and 12th. making the conrse of post about 44 days. They also anil once a month between Jamaica and Honduras; courao of post 10 days. There sre frequent opportunities hetween Jamaica and LIavana, and the United States. In the island there ls a post twice a day betu 'an Kingaton sad Spanish Town, and a communication twice a week between these capitala and the country districts; besides expresses, on the arrival and depurtare of the msil packets. Jumaica being on the direct route from Englund to Nicaragua, can scarcely fail to share in the growing importance of the States of Central Anerica. Emaacipation,-IItherto ite history, since emancipation, has been discouraging to the friends of liherty. The negro on whom the cultivation of the island depends, has grudually retired from labor, nad retrograded in the social scale. This does not arise from any hostile feeling toward the whites, with whom be usually lives on the most amicable terms; it ia the ustaral result of removing all restraint from a people low in civilization, and consequently with fow artificial wants, in a country where land is superabundant. The Jamaica negro can earn enough on a sugar plantation in a few weeks to huy a mmall pateh of frechold land. The wood upon it forms his cottage; the vegetalles which grow almost spontanesusly support him in tolerable comfort. When hila little property does not require his care, he works from tims to time for hire ; bat as plantation after plentation is abandoned, and the country returns to itc primeval forest, he is confined inore and more to the society of his own race; and though not more addicted to crime, ts rapidly receding into a savage atate. During slavery; the disseating ministers possessed great Infinence over him;
he naw prefors the eetabliahed chnroh, becanie it conts him nothing, but he oares little for olther. Not foeling the want of educatlon, ha doen not reak it for his children, whom he profors amploying in hia own sarvice. Hence, noither charches nor achools are wanted In Jamaica, but congregaticas and scholars. These observations are confirmed by the last roturna, which fix the diminution of children in the achoola in 1854, at compared with the prevloue year, at 2000, and show this decrease to be lesa conspleuous in those belonging to the entablished church of Eagland and Scetiand, than in those of the Baptists and Independents. We cen acarcely blame the negro for following the beut of his laclination; but it is evident that under these circumstances, unless there ls large and immediate oupply of limmigrants, to meet the expense of whose Introiluctlon, averaging at least $£: 10$ per head, there are no avallable fund, all soclety will come to a epeedy end, and the tsland become a second Haytl. Already the enermous depreciation of property has caueed the ruin of no many, that the name of Jamaica Fiuprietor, once naed proverbl: ! y to Indicate wealth, is now associated with pove - and distress.

Ianalica is of a long ovm snese, and has been compared to is seal with the huad pointed to the west. Its surface ls beautifully diversified with hills and valloya. An elevated range, called, in the eastern or highest part, the llue Mountains, and terninating in Dotphin IIead, to the west, runs longitudinally through the island, and other high ridges insersect this chain. On the south the mountains are genorally steep, with gigantic apines or buttressed rising from the plain at an everage distance of 12 miles from the sea. Though difficult of access they are traversed by bridle-roads in various directions to the height of nearly 6000 feet ; and several passes, or gaps, as they are called, of great altitude, colsrect the two sides of the island. On these olevated ranges the coffee attains the greatest perfection, and above, denso foresta ascend to the highest peak, composed chiefly of beef-wood, as it is called from its color, and astin-wood. Under their shade the tree-fern grows to the helght of 15 feet, and the flute-like note is heard of the solitaire, a bird only found in these wildernesses. On the north side tho mountains approach the sen closely, but more gradually, their conical furms are gently rounded, and in St. Ann and Trolawny the lower slopes are shaded by pimento woods, the indigenous growth of the ialand, and elsewhere by orsnge groven, mango, and cedar forests, ahove which frequently towers the grigantic silk-cotton tree. The shady valleys between were once occupled hy cacso walks, now destroyed; and on the lowlunds, near the sea, were formerly the indigo-works, long sinco abandoned. Here are now the augar eatates, in which the dark green of the cane is varied by the golien tint of the guinea grass, and the cabbage and cocoa-nut palins shoot up in long lines close to the water's edge, from which they are separated by a fringe of manyroves, growing below high-water mark, and tho heautifui lut poisonons manchineel. The waving field of canes is broken at Intervals by the white clnster of huillings composing the sugar-works. The mill, the boiliug-house, with its tall chlmneys, and the stablea, stores, and bookkeopers' houses snrround a large court-yard. Above, on an eminence, is usually the proprietor's mansion, and close by, though completoly buried in the broad follage of the plantain and bunama, the negro village. On these plantations during erop the scene is most animated. Bands of negroes, with cutlases, attack the rows of canee which tower above their heads; wagons, drawn by oxen or mules, in endless auccession, carry the canes to the mill; women and children hurry with the dry' stalks to feed the fires; and the shouta, without which a negro seldom dow any thing. announce afar off, is this clear atmosphere, the neighborbood of a sugar eatate. It is here, too, that the traveler sees most clearly the
decline of the country. At ench end of the island, in the pariobes of Hanover and Portland, he may Journey for miles through deserted plantationa. Ridges, overgrown with guava bushes, mark the alte of the corn fieldn ; rank vegotation filis the court-yard, and oven burets through the ence hospitable roof. A curse aeems to have fallen upon the land, as if this generation were atoning for the sins of the paet. For whlle we lament the ruin of the present proprietors, we can not forgot the uurequited toll which in times gone ly created the wealth they have lont, nor that haplens race, the orlginal owners of the soll, whose fate saddena the darkest page of hiatory.

The sugar estates resemble generally those of the other Inlunds, but Jamuica has a feature peculiar to Itself. In the centre of the lsland, and toward the south and west, are large plains, or table-lands, at an olevation of about 1000 feet, coverad with a luxuriant growth of guinea grama, dotted with groven of tall trees, and, at greater intervala, whth white housea and villages. From an eminence the whole country resembles a series of Engllsh parks. These are the pens, or grazing farms, where horses and cattle of most excellent quality are bred. They are chlefly In St. Ann, Mancheater, St. Flizabeth, St. Jamen, and Hanover. The climate, at this elevation, is well nulted to $n$ Enrepean population, who can not work on the augar plantutions, hut may with aafety be employed on the light and healthy dutles of the farm. From one of the many points of view on the mountaln range the country presents an aspect of heanty and grandeur searcely to be surpassed. Above tower the lofty peakp, with clouds on their summits-aronnd are magnificent for-eat-beneath are the pecullar hollow basins, called cock-plts-below them deep ravinen, or wider valleys; through these flow river or mountaln torrenta, ocensionally falling from the rocky ledges In eascades which would attraet notice in any part of the world. At a greater distnnce the wide plains are apread out Hke a map, checkered whith towne and villeges ; and the deeply indented coast, terminating to the easi In lofty ellffa, in washed by the glittering waters of the Carilibean Sea. The vlew of the island from the sea has long teen colebrated. Soon after leaving Cape Tiburon, the western polnt of Hastl, the Mlue Mountains are in alght, and along the south coast of Jamalca, from Polnt Morant to Kingston, the Inhabited plains, sloping gradually up, til cultivation terminates in forest, present an anpect of no common beanty. From Fort Nugent, which is conspicuous uniler a nteep hill, to Port Royal, runs a narrow sandy promontory, called the Pallsades. Here is the great cemetery where no many vietims to yellow fever lio buried that the name has become proverbial; and this neek of land Incloses the harbor of Kingston, which is entered by a mont Intricate channel lotween Port Royal and Port IIenderson, and beyond which the capital Is meen atretehing northward toward the amphithe tre of the Ligunna HIIIs, and protected liy the. deat range of the Illue Moontains. The helghts of the principal peaks have been computed ne follows: Hlue Mountain Peah, 7770 feet; the Portlund Gap rilge, G501 feet; Phrtland Gap, 5040 feet ; and St. Catherise's Peak, 4970 feet. It is stated, however, hy nome authoritles, that the three higheat peaks on tho grand rifige of the Illue Mountalas, called Coldridge, have their respective summits 8184, 7656, and 7576 feet aloove the level of the nea.

The moll is In mont places deep and fertile, and for the growth of sugar, pimento, and ginger, and, as some think, of coffee, has never heen aurpassen. On the north there is a reddiah yellow noll. The brick mold, reckoned the best in the West Indlien for the cane. la a deep warm hazel mold, casily labored, and requiriug little manure. The black shell mold owes lte fertility to the mineral malts and exuvine which it contains. On the south side are large natural salt
ponds, which of late years have been neglected. The prinolpal solls in the laterior are a red clay, a yellowish clay, a red grit, a loose conchaceous mold, a bleck mold or clay or marl, a loose vegetable mold on rock, a fine sand. The red sandstone of the lower monntalna resembles much the porphyrite conglomerate of the higher, and both produce coffee; but while that grown on the former has been driven out of the market hy the cheaply grown coffee of Ceylon, the latter reteins its value, belng condidered by many superlor to the Mocha which aprings from a slmilar soll. Among minerale are-argillaceoue dark purplo schist; gneiss ; steatite, and oven serpentine; sienltea, highiy micuceous; and the hard Jamellated amlanthus, resembling petrified wood; white freeatone; quartz of different kinds; llmestone, and a kind of murble. Rlch lend ore, impregnated with silver is found in St. Andrew; radlated antimony and rlch copper ores, abounding lit mulachite, are found chlefly In Clareudon, Portland, and St. Geerge; magnetio iron and cobalt in St, George and Metcalf; anthracite coal In Portland and St. George 1 but neither gold nor pure silver have been found, though the Indians porreased ornaments of both when discovered by the Spaniards. A species of marl, common In Jamalca, was eaten by the negroes during slavery, so much to the detriment of their heaith and value that the practice was mads penal. The honeycomb llmestone rock, of which a great part of the fsland ia composed, contalns no mineruls, but is hollowed Into Innumerabie caverns and fiswures. Many of these are beautlfully ormamented with stalactites, particularly one on the Roaring River estate, near Savana la Mir. In some of these fissurps called "slnks," rivery anddenly dixappear to rise again ni a considarable distance. On the Sweet lijiver estato several apring" rise like fountalns with great force in one field. On the rosd from Falmouth to Maroon Town, a conslderable atream pours from an opening in the solld rock neveral fect above the ground, anil the Rio llueno streams at once from the foot of a perpendieular rock in St. Ann. There are fever trices of fi, in Jamuica than In the other ishands; but the llurnt Ilill, near Hope Bay, arems to be nn extinct volcano. 'There is great varioty of wimate; the wedium heat at Kingston is about $80^{\circ}$, and the minimum $70^{\circ}$ Fulirenheit, throughout the year. At an elevation of from 4000 to 5000 feet, the average range $i_{s}$ from $55^{\circ}$ to $05^{\circ}$; the minimum in winter teing $44^{\circ}$. On the Blue Mountain I'eak, In Augunt, the writer found the temperature $44^{\circ}$ at sunrlae, and lee of aome thicknees has been formed there In March. Snow has never leen known to fall. The niternation of temperature Is froms $8^{\circ}$ to $10^{\circ}$ on the south side, and more on the north, but the transitions are not so suldeu and detrlmentul us in many parta of the continent of North America. The grand compensation for excess of temperature is afforded by the breezes whith regularl every morning sent in from the sea to tho land, and every evening from the land to the sen, to preserve the equilibrium which the noonday aun has distnrled; when these are nometimes Intorrupted tho heut is intense, the thermometer rislngt to $100^{\circ}$ Fabrenheit, and the island becomes unheathy. There is no striking variety In the length of the duy, or in the samsons, except the alternations of wet and dry. Storns of thunder and lightning are prevalent, and aometimes very mischievous in autumn. The hurricane season rangen from July to October The periodical ralus, which last ordinarily forman weeks, are called the May ans: Oetober seanons, hut there is great irregularity in the time of thelr falling. The north side usually anffers less from drought than the south, hut even there the rains are sometlines very capricions, following the course of a river, or being stopped ly a ridgo of hills. The parishes of Vere and St. I lorothy, on the sonth akle, have aonsetlmes been moro than a year without rain, to the deatructlon of vegetation and cattle.

Some parts of Jamalea, psticularly near morasses, are extremely unhealthy, and there fow escape intermittont fevere, or "fever and ague," as it is called; but in general the clinate is favorable to those who live carefully, theugh when the yellow faver comes as an epidemle, which happens every teven or elght years, It carrles off all ulike. It lis, however, rarely knewn at an elevstion of 1000 feet, and in aome of the hilly dlatricts, especlally the Santa Craz Moantalna and Pedro Plains, there are remarkmble instances of longevily aineng the linglah settlers. The annnal mortality among the white troops for twenty years ending 1887 was $130 \ln$ the 1000, or a seventh of the entire force. Since they have been fed on fresh provisions, and more eapeclaly alnce they have been encamped on high ground, thls has been reduced to 34 per 1000. Of late years the cholera has made lts appearance, and committed oxtraordlnary havoc; and aince emanclpation, small pox has been more prevalent, on account of the negroes neglecting the vacelnation of thelr children. The vegetable productions of Jamalca are far too numerous to be deserlbed. There are forest trees fit for every purpone, from ohlp-bullding to cablnet-making, among which the hallata, rose worl, satinweod, mahegany, Ilgnum vite, lancerrood, and ebony, are conspleuous; but the ecarcity of latior makes it cheaper to import planke ready sawn from Anoriea. The logwood, the trunk of which resambles the eluatered columns of Gothic architecture, and the fustic, are largely exported for dyelng. The Jamaica cedar (Cedrela odorata), with ash-like leaves, is valuable for the interlor of houses, as its scented wood keeps off Inseets. The sllk-cotton tree (Ceiba Bombax or Eiriodendron) is one of the largent in Jamaica; its silky poils are used to stuff pillows, but, from want of alhesion in the tlbres, is useless for manufacture. The pimerto ia iniligenous, and furnlshes the allspice. The bumboo, the coffee, the cacao or ehocolate tree, are well known productlons; the last, however, is disappearing, and the oxport hiss ceased. Several species of paim nbound, the macea, the fan pulm, and screw pulim, but the noblest is the palmetto royal (Areca oleracea), the green top of which is callod the mountsin cubbage, and eaten as a vegetathle. The cocos-nut is the most valuable of all this trilve. The mango, which overspreads the laland, forming a oplendid forest tree, and affording food for man and heast, was introduced by Rodney, who took it from a French ship; the bread-frult by the famous Bligh in 1793. The papaw has the peeculiar property of rendering ment tender. The lace-lark tree, found near Maroon Town, has an lnner bark of so delleate a texture that ladies' dresnes have been made of it. The guava, from which the delicions preserve is made, is a weed of the country, and the fruit when raw ecarcely eatabie. The palua chisisti, from which castor oil is made, is a very ubundant annual. A new epecies of silkwerm (the Bondyy C'ynthia), which feeds on its leaf, bas lately leen introduced from India, by the slamales Society of Arte, founded by Sir C. Grey, 'The aunflower is sometimen cultivated for oil. A variety of the Coctus Opuntif, en whlch the cochineal feeils, is coinmon, and from which, as well as from the lnaces, recent experiments have proved that a dye may be olitained. Linglash vegetables graw in the hilln; while the plains produce the plantain, coeoa, yam, cassava, oclara, beans and pema of various sorts, ginger, and arrownot. Malze and guinea corn are getserally cultivated, nud the gulnea grass, nceidentally latroduced in 1760, has overspreal the whole islanil, and forms the most whelesome and atrongthenting firal for horsed and eattle. The princlpal frults are the orange, the shallock, the lime, the grape or cluster fruit, the pineupple, noseberry, granudilia, star-apple, custard-apple, mainuee ampota, mange, banans, grapes, meions, the a vocalo pear, the liread-fruit, and timarind, thuugh the last three would be more correctly runked
among vegetables. There la a botanle garden near Kiugaton, and a finer one at Bath, where many now anturaliaed exotlies were flrst planted. The sar uparilla la erroneously aupposed to grow In Jamale. though it is classed in the customs' returns there among the lmports. It is brought from the Spanish main, and re-exported by the Jamaiea Jews, In whose hands the trade is; hence it lo called Jumalce sarsaparilla. The sugar-cane was cultlvated at an early perlod in Jamalea by the Spaniards, and was so mueli extended by the English that, In 1671, we read of sugar worke ecattered over the whole loland. There are several varletlas, the mest valuable being the one brought from llourbon In 1799 , which lo of a bright yellow; and the Mont Blanc, of three sorts, white, vlolet, and blue. Beslder which is the ribbon-cane, beautifully striped with varleus colers, which is coarsa and dry, but more harily than the othar eorta. Tha statistics of the sugar and coffee cultivation have been given elsewhere. There are many lesautiful flowers in the island, the most remarkable of which are the aloe, the yuecn, the dutura, the mountain prlde, the portlandia; the cactus and cereus tribe, the various klnds of convolvulus and lpomeen, and two beautiful descriptions of plumeria, called the tree jasmine. Innumerable varietic3 of ferns grow In the mountains, and orehids in the woode. The pastures are Infested by that interesting minosa, the seasitlve plunt. It is oaten by sheep, but is armel with minute thorns, which make troublesome wounds In thelr feet. Thero are many henutiful insects, among whleh the fire-files are most remarkalile. There are fourteen sorts of Lampyridas or tlre-fles, besides the Elateridee or lantern beetles, which aro larger and more luninous; but neither lin flowers nor Insects is Jumaica so rich as more southern islanis. To compenate for thls it has no venomous oerpents, though abounding In harmlesa sankes and lizarile, A large lizard, the iguana, is considered a delicacy, as are the land-crab and tortoise. Tha scorpion und centipede are poisunous, but not very common or dangerous. Ants, mosquitoes, and sandtlies swarm in the lowlanda. Bees, unong whleh is a atimgless variety, uro numerous in the wools, and produce excellent honey. It is a popular error that in the tropics flowers have no scent and birls no song. The datura amb orange are aniong many Instances to the contrary In the former case; and as to the latter, Goss cnumerates some twenty different song blrde in Jamaica, among which may be mentloned the Jumaica nightingale, a kind of mocking-blrd (Merula Jamaicemis), und a species of humming-hilrd (Mellisega humilis). Darrots and pigeons are common, and the wild guinea fowl ; also a specles of goatsueker, called tho moscjuito lawk, mal in great variety of waterlifids, amongs which is the pelican and a sort of albutross. The crane, heron, plover, sulpe, ortolan (or rice-birl of Curolina), und quail, are migrutory. The atura vulture, or turkey buzzard, called the Jolin Crow, Is numerous, und valuble as a ecavenger. By ita lustinct the coucealed booly of a murdered man has more than once been traced lin Jumaica. The seu and rivers swarm with llah; umong the larger ones are the shark, the nurse shark, the bonito, the eword and suw-llah; besiles the snapper, mullet, klng-llsh, Spaniah mackerol, the flying-lish, cte. The cachalot is found. Turtles abomul ; and the neal and manatee, or river cew, aro sometimes found, and the crocodlle (callel errmeously alligator). Jamaien, when tiscovered, coutained but few species of unimuls. Hesides the alco, there was the ntin or Indian cony, the musk rat, the armadillo, monkey, ugoitl, peccary, oporamm, ant raccoon. At present the ouly will animala are the wild hog (nn Afrlcan variety, hitroduced from the Canarics), a kind of deer (the carlacou), goats, rats, and mice. The rats commit serioun ravages among the canes, and those which feed only in the camo-liehle are ly anme asteomed a delicacy. Thia spocies, called the

Charles Price rat, was introduced to destroy a smaller kind; but the remedy seems to have proved worse than the evll. The breed of oxen has been much improved by judlclons crossing, and can scarcely be ourpassed. The horsos have much of the Arab blood. They are small bnt fleet, and at the island races have often beaten English racers, particularly somo taken out by the Marquis of Normanby, when governor. The Cleveland bay has lately been introduced from England, with a viow to slze and bone. The mules are large, hardy, and sagacions, and much nsed for mountain-riding, as well as for carrying baggage and working on the estates. The sheep and pigs are of excellent quality, and the pork of Jamalca is conaidered much more wholeame than that of England, being frequently recommended to invalids. Goats are mnch reared liy the negroes, hut they are very mlschievons In angar and coffee plantations. The Cuba bloodhound is used as a watch-iog, being the species whlch thrives beet In a hot elimate; the Fnglish hound and terrier, which have frequently been Introduced, soon degenerate and dle. Poultry sueceeds well, particularly the turkey, the Guinea fowl, and Muscovy duck.
Tho principal publleatlons relating to Jamaica are : Luno's History, 1774; Bnyon Enwanns' History, 1809, wlth an Appendix, 1819 ; Ressv's History, 1807 ; Mathison, 1811 ; Ilowarn's Iare gf Jamaira, 1827; Inck fonn's Hisfory; Daltas' Miroun War; Stewaut's Jomaica; Monk Lewis' Tour: Mandex'a Jumaicn; Montoomeay Martin, 1836 ; PurLirPu's Past and Pretent State of Jamnica, 1843. The earlier historles are acarcely applleable to the present day, while many of the later pullications are mere vehicles for convering the authors' views for or against slavery. Hy far the beat and most rellable information is contained in the dispatches of succeasive governors, publlshed in the Parliamentary Blae Books; many of whlch, and particularly those of Slr Charlea Grey, contain admirable expositions of the state of the country, and causes of its decline. The natural history of Jamaica has also been the theme of many writer*-Sloane, in 1692; Brown, 1754; Barham, 1794 ; Lunьn, 1814. These authors lave a most able and enthnsiastic suecessor in Gosse, whose Journal of a .Vnturalist in Jamaica, 1851, and Birvis of Jamaira, 1847, are dellghtful lroks. For vivld pietures of senery aud Jfe In Jamalea, Tom Cringle's Log, and The Cruise of the Midge, by Michaet. Scotr, a Kingston merchant, are unrivaled.

The Caymanas, or Cayman Isles, are tiree amall coral ialands or keys, $\ln \dot{N}$. lat. $10^{\circ}$ th $19^{\circ} 20^{\prime}$, and 30 to 40 leagues west north-west from Point Negril, Jamalca, and sbout the same distance nouth of Cuba. Grand Cayman lles off tha centre of the Yucatan l'assage ; Cayman-liraque or Hrae, and lilttle Csyman, are near each other, and slout 34 miles northoant from Grand Cayman. They were dlseovered by Culumbus, hut no settlenent was over made by the Spaniards. Grand Cayman, the only one occupienl, is about a mile and a half long by i mile broad, and colitains about 1000 acres. It is very low, entlrely withnut mirings, and overgrown wleh low atunted shruts. These islands are favorite lireeding-places for turtles, iumence shoals of which anlmals frequent the low sanily shore for the purpose of depositing thelr egg ${ }^{\circ}$.

James, Capt. Thomas. This Engllsh navigstor was employed by a conipany of merchants of Hristol, In connection with one luke Fox, in 1631, on a woyage of exploration for the discovery of a north-west pasage. Slr Thomas Kie presented him to Charles 1., who greatly encouraged the enterprise. He suiled from the port of Brtatol on Bd May, and wintered on an Island In Hindson's Bay, In latitude about $52^{\circ}$, from whence he proceeded northward as far as $60^{\circ} j^{\circ}$,
when his further progress was provanted by the great accumulation of lee, aud he returned to England, Whera he arrived 22d October, 1632. During the enaning year, he published his "Strange and Dangerous Voyage for the Discovery of a North-west Passage to the Sonth Sea." He made some discoveries on the coast of Hudson's Bay, to the western slde of which country he gave the name of New Wales, in honor of the prince, afterwand Charles II. His journal contains much curious and interesting matter connected with tha sufferrings of himself and his companions doring their sojourn on the Isle of Charlton.
Japan. The emplre of Japan consiata of a chain of ialands lying off the eastern conat of continental Adia, and extending south-east and north-west bet ween north lat. $31^{\circ}$ and $48^{\circ}$, and east long. $129^{\circ}$ and $150^{\circ}$. Inclowed between thie chaln of lislands and the oppoaite coasts of Corea and Manchu Tartary; is the Ser, of Japan, which communicates by means of strsits with tha Chlness Sea on the south, the Pacific Ocean on the east, and the Sea of Okhotak on the north. To the esst, Japan has no nearer land than Califernin, 5000 millos off; the nearest part of China is about 420 miles, and of Kansschatica 270 miles diatant. The term Japan is probably a corruption of the Chinese name, Ji-pun-quo-i, e., Klngdom of the Source of the Sun, or Eastern Kingdom. Marco Polo, who was the first to bring Intelligence of thls country to Europe, and who açuired hle Information in China, calls it Zipangu. The Japanese name is Nipon, or Nifon-i. e., Sun-source.

The empire is divlded into Japan proper-consisting of the three large islands of Nlpon, Kiu-aiu, and Sitkokf, and the numeroue small islands, Nipon, the largegt and most important of the group, and that which gives name to the whole empire, has an estimated area of 100,000 square miles; its length being more than 900 miles, while its average breadth exceeds 100 . It is thus about one fifth largor than Great Britain. Its form is that of a curve or crescent, with the concave side toward the main lund. South of Nipon, and separated from it by a narrow ehannel, is the island of Kiu-slu, or Xinso, about 200 mlles $\ln$ leugth snil ahout 80 in average breadth, thus containing an area of about 16,000 square milee. Lyligh north-east of Kiusiu, and eastwaril of the southern extremity of Nipon, is the islanil of Sitkokf, or Sikoka, about 150 miles in leugth thy 70 ln average breadth. It is separated from Nipon by a long strait in aome parts not more than a mile In width; and from Klu-siu by Bungo Channel, which is about 30 miles broad. North of Nigon, and separated from it loy the Sangar Straits, is the large Island of Yesso, a conquest and colony of the empire. Its form ia that of an irregular triangle, and its area is computed at 30,000 n $\quad$ quare miles. Tho southern portion of the islund of Krafto, or Sagallen, which is separatell from Yexso by the Strait of Perouse, and the three southernmost of the Kurile Islands-Kunashir, Itarup, and Ourop-belong to Japan.

The small islands which surround these are generally rocky and barren, but occaaionally rich and fruitfinl. The entire number of lalands consposing the empire of dapan is estimated at alove 1000 , and the area of the whole einpire at not less than 170,1 kio squaro miles. The coasts are difilcult of arcess, not only from the multitude of roeks and lslets which beset the passages, but also from the severn gales which, more than any other part of the ocean, agitate theee narrow seas. Several dangencua whirlpools also occur manong the rocks. Kmonpfer renarks, that natare seems to have tlenigned theme islands to lie a sort of little world, secluded anil independent fron the rest, as well by rendering it langerous to approach their shores, ss by endowing them plentifully with evary thing necessary for luxury and comfort, and thus enabling them to aubsiat wlthout any commerco with other natlons. 'The Japausse policy, whleh rigidly
forbids all stances im the interpo Climate. ably betwe bit, except formation empire, it Finghand. $33^{\circ}$, the avi was $35^{\circ}$, ar the weather all seasons of July and ground is c with anow, the land is c the south dt At Simodn, $39^{\prime} 49^{\prime \prime}$, eas account of $t$ "the climate spring. The althnagh the self, and the cessary fogs, to the atmos and nurst be I cases, auch as with us. The the warm sea blasts from th produces the tions. In sum time, hut the From April 1 mometer give: loweat point ; As the season inuch higher, more." Golon for two years lat. $41^{\circ} 49^{\prime}$, eas as follows:-" in the valleys a falls in as great vere frosts are: is often two deg mer the rain the horizon is how, and the f pents, and 1 ,anc suge and lems mate of the stil have no preciae as that on the further north th exrly as the Gul he expected, ve storms are frequ
Surfay.-The generil very lir plains of conside hills descend ch nsprow atrip of hases. Tho hig extinct vencano, the 1l:iy of Yed snow, thus Indte feet above the le consideratile clev part of Nipon, In them are netlive Prequent voleanl quently virited 1 fer enumeraten al quakea," nays he
forblds all intercourse with strangers, in other ciroumstances impracticable, has been greatly facilitated by the interposition of these natural bartiera.

Climate.-The climate of Japan must vary consider ably between its northern and southern extremities; hat, except at a few points, we possess very little Information on the enbject. In the sonthern part of the empire, it is said In many respects to resemble that of Enghand. At Nagasaki; in the island of Kin-siu, lat. $33^{\circ}$, the average temperature in the menth of January was $85^{\circ}$, and in Auguat $98^{\circ}$ of Fainr. At this point the weather is very changenble. Rain is frequent at ail scasons of the year, but enpecially in the months of July and August. In December and January the ground is covered with hoar frost, and occasionality with snow, oxcept in very mild winters. In summer the land is cooied by the sea-breeze, which blows from the south during the dar, and from the east at night. At Simoda, on the island of Nipon, in north lat. $34^{\circ}$ $39^{\prime} 49^{\prime \prime}$, esat long. $188^{\circ} 57^{\prime} 50^{\prime \prime}$, we learn, from the account of the American expedition (1852-64), that "the climate is more or less varinble in the winter and apring. The presence of anow upon the lofty peaks, although there is seldom froat or anow at Simoia itself, and the not unfrequent rains, with the ever necessary fogs, give nn ocessional humidity and rareneas to the atmosphere, which are chilling to the nenses, and nust be productive of occasional inflammatory discases, such as are frequont in the spring and winter with 11s. The change of wind alternates of ten between tha warm sea-breezes from the south, and the cold Wasts from the anow-capped mountaine inlarid, and prodaces the usunl effects, doubtless, of such variations. In sammer it is occasionally very hot in the daytime, hut the nights are refreahed by the sea-breezes. Fron April 19 to May 18, a record of the thermometer gives $72^{\circ}$ ns the highest, and $58^{\circ}$ as the lowest point ; and of the harometer, $29^{\circ} 88^{\prime}$ and $30^{\circ}$. As the senson adrances the mercury rises, no doubt, much higher, renching probably $85^{\circ}$ of Fahr., or more." Goiownin, a Russinn naval officer, who was for two years a prisoner at Hakodadi in Yeaso (north lat. $41^{\circ} 49^{\prime}$, east long. $140^{\circ} 47^{\prime}$ ), deseribes its climate as foliows :-" The ponds and lakes freeze, snow lies in the valleys and plains from November till April, and falis in as great nhundance as at St. l'etersburg. Severe frosts are indeed nneommon, yet the temperature is often two degrees below the freezing point. In summer the rain pours in torrents at leant twice a week, the horizon is obseured by dark clonds, violent winde blow, and the fog is scarcely ever dispersed. Applea, pears, and paches hardly attain ripenese, and the orange and lemin will not bear fruit." Of the cllmate of the still more northern part of the ompire we have no precise account; hut the same writer informs as that on the coast of Sagalien which is but littie further north than Paris, the sen is not clear of ice so eariy af the Guif of Finiand. Foge are aiso, as might be expected, very prevalent in Japan, and thunderstorms are frequent.

Surfare.-The surface of the principsl islands is in general very irregular, though in the interior some piains of considerable extent occar. In many places hills descend close to the sea-shore, or lenve oniy s narrow strip of land between the water and their bseses. The highent mountain is said to be Fuai, an extinet unlesno, on the island of Nipon, westward of the llay of Yeddo. Its sammit is cind in perpetual snow, thas indicating a helght of not lass than 12,000 feet alove the level of the sees. Several mountains of consilieratile elevation are seen to rise in the northem part of Nipon, in Yeaso, and In Sagailion, and neme of them are aetive volcances. llenides the outbursts of frequent volcanic eruptions, no country is more frequentiy visited by deatructive earthpuakea. Krempfer enumerates six active voleanle mountains. "Earthquakes," anys be, "are so frequent that the natives
regard them no more than Europeans do ordinary storms." In 1586 a auccession of carthquakea took place and lasted for 40 days, causing the dastruction of the best part of the elty of Yeddo, and the desth, it is alloged, of 200,000 of its inhabitants. In 1783 the eruption of a volcano in the island of Kiu-slu, accompanied by vielent oarthquakea, lestroyod in a single province 27. villagea. Another volcanic aruption took place in the same island in 1793, accompanied by earthquakes which continued from March to June, and cansed, according to official returns, the death of 58,000 persone, with a proportional destruction of property... On 23d December, 1854, an earthquake occurreả which was felt on the whole coast. Of the town of Simoda only a few temples and private edifices, that stood on elevated spots, eacaped destruction. The fine city of Oasca, on the couth-eastern side of Nipon, was completely deatroyed, and the capital Yeddo did not escape without injury. On 10th November, 1855, an earthquake at Yedilo is said to have cansed the destruction of 100,000 dwelliaga and 54 tomples, and the death of 30,000 persona.

Rivers. $\rightarrow$ The rivers are numerous, but ahort, ahallow, and rapid. They are not navigable for veasels of burden, but some of them may be ascended by amall beats for some miles from the вea. The priacipal lake of Japan ia that of Oitz, in the eouthern part of the island of Nipon. It ia about 60 miles in length, but of inconsiderable breadth.

Geology.-Little is at present known of the geological formation of the Japanese islands. The voleanic formation appears to prevail, but by no means to the exclusion of the plutonic and sedimentary. The useful mineral products, so far as yet known, are gold, silver, copper, quickailver, tin, lead, iron, coal, aulphar, and aalt. With the exception of tin and iron, these seem to be all very abuadant. The gold ia found in many parts of the empire, sometimes as ore, and sometimes from the washings of the earth or sand. Siiver is equally plentiful with gold, and it is probable that the quantity of these metals annually exported from the country, when the trade was open, amounted in value to a million and a half storling. Copper abounds through the whole group, and sometimes of a quality not to be surpassed by any in tise world. The natives refine it, und cust it into cylinders about a foot long and an inch thick. A specimen annlyzed by Dr. Percy gave $0 \cdot 13$ per cent, of niekel, 0.03 per cent. of iron, and extremely minute traces of tin and geld. The coarser kinds they cast Into round lumpe or cakes. Iron ore rich encugh for the purpose of smelting appears to be contined to three provinces, and the metal is consequently dear. "Iron," says Kampfer, " is much of a price with copper, iron tools belng full as dear, or rather dearer, than those of copper or brasa." The same is stated with respect to the proportional value of iron and copper by Golownin. Lead and quicksiliver are said to be abundant, but they have never been articles of export. Tin has been discovered in smail quantities, and of a quality so fine and white that it ainost equals siliver ; but of the extent to which it may be procnred little is known, as the Japanese do not attuch mach value to it. Zine, according to Kimmpfer, is not produced In Japan, and in his time calamine used to be imported from Tonquin for the manufacture of trass wares. Zhe, however, is expressly statel by the governor-general llaron Van Imhoff to bo an articie of export as well as brass. This was 60 years after Krempfer's time. Sulphur, as might be expected iu a region so volcanic, is very abundant. In some places it lies in broad deep beds, and may be dug up and removed with aa much caso as sand. A considerahie revenue la darived by the government from thia aource. Coal appears to be found In many parts of the country, and is used for fuel. Sietrold speaks of it as boling la common use throughout the country, and on visiting one of the mines he

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saw enough to convince hlm that it was skilfally worked. Baing bitnminons, it is, for domestie purposes, generally converted into coks. Rock-salt aeems to exist in aome parts of the conntry, bnt does not appear to be much used, the cnlinery salt in use belng made frum sea-water by an unakillful and expensive process. By saturating massea of and with see-water in the sun, a strong lye is obtained, which fa afterward bolled In earthen vessels, and ylelda an expenalve and impure muriate of soda. No dlamonds have been fonnd, but agates, carnolians, and jaspers are met with, some of them of grest beanty. Pearls, frequently of great slee and beauty, are fished up on nearly all parts of the coast.

Vegetabis Productions.-The vegetable productions of Japan are, for the most part, thoae common to temperate reglons. Timber f , however, no acarce, that no one ls permitted to cut down a tree without permisslon from the maglatrate, and only on condition of plantlng a young one in lts atead. The most common forest trees are the fir and cedar-the latter growing Whan immense size, being sometimes more than 18 feet in diameter. In the northern parts of the empire two species of oak are found which dlfer from those of Europe. The acorus of one kind are boiled and eaten for food, and are said to be both palatable and nutritlous. The malberry growa wild in great ntuadance, and the varnish-tree (rhus rermir) abounds in many districts. In the south, the bamboo cane, though a tropical plant, is found elther in the wild or cultivated state, and is largely used in the manufactories. The camphor-tree is of great value here, and lives to a great age. Slelold visited one which Kxmpfer hall described as having been seen hy hlm 185 years before. It was healthy, and covered with folinge, and had a circumference of 50 feet. The country people make the camphor from a decoctlon of the root and stems rot into small pleces. Chestnut and walnut trees ars both found. Among the fruit trees are the orange, lemon, fig, plum, cherry, and spricot.

A aimals.-Wxtenslve cultivation leaves no room for wild animals ; and tame anlmals, not being lued for food, are nat multjpliad beyond the falt necessity for their use. The horses are emall, hut hardy, active, and of grool hottom. William Adama, an Eliglish mariner of the time of James I., describes them aa " not tall, but of the slze of our middlling nags, short and well trust, small headed and very full of mettle, in my opinion far excelling the Spanish jennet In pride and atomach." Oxen and cows are only used in plowing and carriage, milk and butter not being used as articles of food. lluffaloes of an extraorlinary size, with hunchem on their backs, likn camels, are used to draw earts and carry heavy govis on their backs. Sheep and goats were formerly kept at Firardo by the Dntch and Portuguese, and might be brel in the country to great advantage if the natlves wern permitted to eat their fleah. or knew how to manufacture their wool. They have a few awine, kept chiefly for trading with the Chlnese, among whom they are in great demand. Dogs are to the found in large numisers In the half domesticated state in which they generally exist in the Fast. Thin in not true, however, of one species, re. nembling aomewhat an Engilsh apaniel, which is conslidered so valuable as to form part of every reyal Jupanese present. It is conjectured that the Fingliall variety may have aprung from some presented hy the emperor to the king of Eingland. The wild animals are liears, wild brars, foxes, monkeys, Heer and haren. Kats and mice are very common, as well as two small npecies of wearel or ichnemmon, which live, half tame, under the eaves of houses.

Wild fowl are very abundant, eonsiating chlefly of geene and ducks, which migrate in great numbers to the shores of Japan in wlater. Numeruus specles of pigeons are to le found, and woodcocks, pheasants, snipes, larks, etc., are commion. There are two spe-
cies of pheasant, and one of peacock, pecullar to Japan Domentic poultry are kept by the nativea almost solely for ornament or amusement. Soms of the reptilia aze of large size, and, along with the inasct tribes, are dreaded for their deadly; and deatructive powers.

The shallow bays and creeks around the islenda swarm with ehoals of fish, which, indeed, constitute nearly the whole animal food of the Japaness, and furnish them plentifully with oil for domeatic parposes. In their coarso taste, the inteatines of the whale, and even the refuse of blubber, are consldered good enough for food. The Japanese are the boldest and moat expert of all Aalatic fishermen. Their fishing voyrges extend to the rigorous aema of Sagailen and Kurilea in pursuit of herring, with which they manure their cotton fields. They are the only Asiatic peaple that pursue the whale. The women are said to be expert divers for shell-flah, with which the shores of Japun abound.

Nutives.-The Japanese are described as an active, vlgorous people, of the middling size, and their bodily and mental powsrs more closely asoimilated to Europeana than Aslatics. The common people, according to Thunberg, are of a yellow color, which ametimes borders on brown, and sometimes on white. The laboring classes, from the exposure of the upper parts of their todies in summer, have their nuturaily fuir cemplexion deepened into brown. Their durk brown cyes are otalong, small, and sunk deep in the head. The eyelids forming a deap farrow givea them the appearance of belng keen-siglited. Their heads are lurge, and their necke short, their hair black and glossy witit oil. 'iheir noses, without being flat, are yet rather thick and short. Dr. Ainslie gives a aomewhat difterent account of their complexion. Ile represents thein as perfectly falr, and indeed blooming, though this seems to apply chistly to the women. Thunberg ulso mentlons that the descendunts of the oldost and noblest families of the princes and lords of the empire are somewhat majestle in their shape and countenance, being more like Europeans; and the ladies of distinction, who seldem go out in the open air without being covered, are perfectiy white. Siebold, apeaking of the inhubitants of Klu-siu, corroboraten this view, and says that "the wonsen who proteeted themeeives frum the influence of the atmosphere have generally a ling and white skin, and the cheeks of the young girls display a hoominy carnation." The married women of Japan dye thelr teeth black, by means of a cortosive conposition, so powerful that by nere tonch it hums the tlesh into a purple gangrenous spot, and in spite of the utnoat care in Its application, Invariahly taints the gums, destroying their ruddy color and vitality. "The Japunese women, slways excepting the disgust. Ing black teeth of thoae who are married, are not ililooking. The young girls are well formed, anil rather pretty, and have much of that vivacity and self-reliance In manners which come from a censciousness of dignity, derived from the comparative! high regard In which they are held. In the ordinary mutual in tercourse of friends and families the women have their share, and rounds of visiting and tea-parties are kept up as Lriskly in Japan us In the United States."A merican Eispedition.

Language.-Superticial observation led to the belief that Japan was colonized by the Chinese ; but a mure accurate knowledge of the physical characteristies and language of the people has ranifered this opinion artcuable. Indeed, the Japaneso themselves consider it a high disgrace to be compared with the Chinese. Ir. Ainalie states that the only ocrasion on which he suw a Japanese anrprised into a pasaion, and, forgetting his babitual politenexn, lay his hand on his sword, was on a comparimon being mada between the two nutions. The structure of the languiges of the two conntries is essentially different, that of Japan being polysy'labic, while all the dlalecta of the Chinese are monosylahic

It is true middle ag use among elaewhere introduced these only strikingly of Jupan, ture. The in pronunel in their rell country is a nut been tra other Aslat thought to $b$ Tartar race, characteriatI the Japanese

Population all our Inform authorities ea othars make mount. Al bear teatimon by them. I over that par Yeddo, sayspression, and being not great tain and supp The highways and burghe. enter another : were, in one st of different vill were formerly retain though towns, the chief sideralle in the the namier of I
The men of and although Inq offensively intru in great drend of in their presence to their natural i regand to forelg guvernment from ment of the Japa mang theinaelve friandly interceu fer, "are very ir Pery little will sa plants and roots, the like. Water bare-healed and they have no soft sieep on tha gron pillow, on a piece depressed in the n without sleeping, The following app people is given by of Eilizabeth: "T and an incredtble rows. Tlisy take wasd or deed they of mind, and lest $t$ ever he lie) part They cavet exeeed erty with them br birth. They suffer to pars unrevenged give not place to th afiable and full of $e$ tual in the entertaj will carionaly inqui

It lo true that, llke tha Latin in Europe doring tho middle agen, the mandarin dialect of the Chinese is in use among the learned here, as In Corea, Tonquin, and elsewhere; and hence many Chinese words have been introduced into the Japanese; but the introduction of these only makes the structural difference the more strikingly apparent. Tha Yomi, or primitive language of Jupan, is used In poetry and worka of IIght literature. The Koye, or Chinese language, allghtly varied in pronunclation, is employed by tha bonzes or priests in their religious books. The vulgar language of the country is a mixture of the two. Close affinities have not been traced between the Yomi of Japan and any other Asiatle language. Hy some, at least, it is thought to be moat analogous to the languages of the Tartar race, to which, in spite of diversity In physical charscteriatlea, it ls now inost commonly believed that the Japanese belong.

Population.-In regard to the populstion of Japan, all eur Information rests merely on conjecture. Some authoritica estlmste- It at more than $10,000,000$, while others make It mere than four or five times that amount. All travelers who have visited the country bear testimony to the populousness of the parts vialtod by them. Thus, Kampfer, who passed four times over that part of the country between Nagasakl and Yeddo, says-" The country la populous beyond expression, and one would scarce think it possible that, being not greater than it is, it should nevertheless maintala snd aupport such a vast number of Inhabitunts, The highwaya are an almost continued row of villages und burghs. You searce come out of one but you enter another; and you may travel many miles, as it were, in one street without knowing it to be composed of different villages but by the different names that were formerly given them, and which they afterward retain though joined to one another. It has many towns, the chief whereof may vie with the most condideralle in the word for largeness, magnificence, and the number of inhabitants."
The men of all classes are exceedingly courteou", und although inquinitive about strangers, never become offeasively Intrusive. The lower people are evidently ia great dread of their superiors, and are more reserved in thelr presence than they would be If they were left to thelr natural inatinctas. The rigid exclusiveness in regard to forelgnera is a law merely enacted by the guveroment from motives of pollcy, and not a sentiwent of the Japancse penple. Their hablts are sochal ming themselves, and they frequently intermingle in friendly intercourse. "The Japaneae," says Kampfer, "are very industrious and inured to hardships. Very little will satisfy thens. They generally live on plants and roota, tortcizes, shell-fish, sea-weeds, and the like. Water ts their common drink. They go bare-headed and bare-legged. They wear no ahirts; they have no soft pillows to lay their heads on, but sleep on the ground, laying their hends, instead of a piliow, on a piece of wood, or $n$ wooden box somewhat depressed in the middle. They esn pass whole nights without sleeping, and suffer all manuer of hardships." The following appurently very correct pieture of this people is given by an anonymous writer of the relgn of Elleabeth: "'The Inhabitants slow a notable wit and an Incredible patiance In sutfering, labor, nul norrows. They take grent and diligent care lest either in word or deed they should show their fear or dullness of mind, and leat they should make any man (whosoever he be) partaker of thelr tronblea and wants. Ther covet exeeedingly honor and pralse; and poverty with them bringeth no damage to nobility of Wrth. They suffer nat the least injury in the world to pass unrevenged. For gravity and caurteny they give not place to the Spanlarda. They are generaliy affable and full of compliments. They are very punctual in the entertalument of atrangers, of whom they will curiously lnquire even triflea of forelgn people, as
of their manners, and such like things. They will as soon lose a limb as omit one ceremony in welcoming a friend. They used to give and recelva the cup at one and the other's hands, and before the master of the house begins to drink, he will proffer the cup to every one of his guesta, making ahow to have them begin. Fish, roots, and rice are their commen junketa ; and If they chance to kill s hen, duck, or plg, which is hut seldom, they will not, like churla, eat it alone, hut their friends will be partakera of it. Althongh essentially an abstemious and sober people, they are not averse occasionally to strong potations."
The Japan -as laws are very ahort and intelligible, and the pro sedings under them are as simple as the lawa themselves. There are no profecsional lswyers, every man belag deemed competent to plead his own cause. If a party is aggrieved, he appeals to the magistrate, who summons the other party before blin. The case is then stated by the complainant in hle own way, and the accused is heard in reply. The magistrate examines witnesses, and is sald frequently to cisplay great acuteness in the detection of falsehood. IIe passes sentence, from whlch there is no appeal, and it is carried Into execution instanter. If the matter In dispute he of great Importance, the magistrate may refer it to the emperor in council. Sometimes in trifling cases he orders tho partles to go and settle the matter privately with the aid of their friends, and it is. well understood that the matter must be settled, or unpleasant consequences will result. See Eincy. Brit., 1856; De l3ow's Review, Ix.

Revenue.-The great source of revenue in Japan is the rent of land, with an impost on houses, in the manner of a ground rent. There appenrs to be no tax on articles of conaumption, no capitation tax, and no transit duties. The cultivators of the soil appear to be mere villeins, simply occupants cultivating as metayers. In lands belonging to the crown, the proportion of the crop considered rent is four parts in teu, and in the rest six In ten, most commouly the latter. These proportions apply to every kind of crop-corn, pulsea, and cotton. The land, in order to determine the rent, is surveyed by sworn nppraisers twice a year, once before the seed is sown, and again iminediately before harveat. Those that cultivate untilled ground have the whole crop for two or three years. Among their many excellent laws relating to agriculture, ne is, that whosoever does not cultivate his ground for the term of one year forfeits his possession. It would appenr, from the proportion of crop taken as rent, that the limpost on the land does not materially differ from that assumed as land-tax under the Mohammedan government of llindoostan, and continned in some places by oursel ves. This will emahle us to maxe an approximate estimate of the rental of Jrpan-that is, of the principal source of its public income. This, of course, will suppose a similar condition of society and rate of population in Japan and the country with which it is compared. Let us take, therefore, the same Indian territories by which we have sttempted to estimate the population. These have, in reund numbers, a population of $46,000,000$, and yielil a land-tax of $\pm 10,000,000$. This proportion would give to dapan, with its estimated population of $40,000,000$, a rental of nearly ( $8,700,000$ to le divided between the Imperial governments, feudatory princes, hereditary nobles, und the soldiery.

To the rent of lanils ia to be added the ground-rent of the houses, which is said to he at the rate of 1 s .8 d . for each fathom of frontage, without regard to depth, inless it exceed 15 fathoms, when the rate ls doubled. Whether the lmpost applies to all houses, wherever situated, or ouly tu thoso in towns, is not stated; but if the former be the case, estlmating each honse to hare an average of tive inhnbitanta, and also tivo fathoms of frontage, would give the Income from this source st more than $\pm 3,300,000$, or, adding this to the land-reut,
would make the annual revenue of the empire about ع12,000,(000.
"The Japanses beligg chiefly dopendent on the soll for subaletence, have arrived at a high atate of perfection in the arts of agriculture. Thoigh a great part of the country fo hilijy or mountainous, and the soll in general rather poor, yet almost every available foot nf land is caltivated, and very abundant orope are raised. Where the land is inaccensible to the plow it is cultivated hy manual labor. Like the Chinese, they pay great attention to manuring and irrigation. Aa animal food conatlutes handly any part of thelr culvelstence, no pastures or meadown ary to be seen. Rice conatitutea the main object of agriculture, as it fnrms the bread corn of the peopie from one end of the empire to the other. Its cultivation extenda to the faland fir Yasen, and as far north as 45 degrees of latitude. The rice of Japan is known to excel every other in Asia, and this may not be owing exclusively to Its akillful cultivation, but partiy to the climata and the distance of Japan from the tropics. From it the inhabltanta diatil a drink cailed saki (a kind of rice leeer), in very general nse. Whent and barley are grown, but the former is not. in much nae, and the latter la the chief procender of cattle. Rye, maize, panic, miliet, and the Cymosmrwe cororawhs are aleo raised. Beans and peas of different kinds are cultivated in great abundance, particulariy the bean Dolichos anja, from which any, a kind of sauce, prepared by boliting and fermentation, Is made. Among esculent roots and pot-herbs the following are sucreasfuily cultivated : the hata, the potato, carrot, tumip, cabbage, malish, lettuce, gonnd, melon, and cucamber. The frults are generily those of Earope, as the nrange, lemon, peach, flg, pear, chestnut, walnut, and cherry.

The tea-piant in Japan, in in China, takes the place of the vine in the temperate regions of the west, and of the coffee in tropical conntries. "The tea shrub," eays Ksempfer, "is one whe moat nseful plants growing in Japan, and yet it in allowel no other room but round the iorders of rice and corn flelds, and in other barren places anfit for the culture of nther things." In a few places the plant, accorling to Slebold, receives more attention; generally, however, hardly an much as our hawthom hedges, and thus the leaves are anfit for the consumption of strangers. It use, however, la unlveral among the natives. It was Introdaced into this country from China in the ninth century. Tohaceo was first Introdnced by the Portis. guese in the early part of the 16 th rentury, about the aame time that it was introdnced Into England, and it is remarkable that the Japanese emperor irstituterl n perneention against its growers and amokers at the asme time that King James issuet his Coviter Blast, and with an littlo effect in arresting its use. The plants eultivated in Japan for textile parposex are cotton and hemp in the northern istands. The mulberry is grown for the silk.worm. In hushaniry cotton ranks next in import ace to rice, and furnishes materials fir clothing the great mase of the people.

Manyfactures.- In the manufacture of cotton fabries the Japanese diaplay considerabis akll, but in this respect they do not equal the 11 indions. Their beat sllk is sabl to be superior to that of Chins. In the manufacture of porcelain, too, they are alit hy some to excel the Chincse. Specimens of great heanity and delicacy, at lenst, have been produced, though some ascert that, owing to the exhaustion of the liest clay; such articien can no longer ive manufactnreil. Llke the Chinese tho Japanease have long precticed the manufact ure of paper and gians. Formeriy they did not know how to make the fiat pane for window glase, and probably what they do make is of an Inferior quality, as they stll! purchase thick mirror glass from the Duteh, to grind Intn lenaes. Paper they manufarture lo great abunlance, as well for writing and printing as for tapentry, handkerchiefs, otc. It is made of very
various qualitios, and some of it in as soft and flexibls as cotton cloth. Indeed, that used for handkerchiaf: might be mistaken for cloth, co far as toughnass and flexibility are concerned. Thla peper in made of tha bark of the mulberry (Morwa papyrifera) by means of the following process: In December after the tree has shed its leavse, they cut off the young ahoots, about three feet in length, and tie thom up in bundiee. They are then boiled in alys of aahoe In a covered kettle, tili the bark is so shrunk that half an lnch of the wood may, be seen projecting at sither enil of the branch. When eool the bark is atripped aff, and soaked in water for three or four hours until it becomes soft, when the extorior black cuticle in serapod off with a knife. The coarse hark, which is full a yoar old, is then separated from the fine, which covered the younger brancher, and which maken the best paper. The bark is then loiled agaln in clear lye, continually stirred with a atick, and fresh lys from time to thme added, to make up for the aveporation. It is then carefuliy washed ut a running stroam, by means of a sieve, and ineeasantly atirrad until it becomes a fiac puip. For the finer kinds of paper this process is repeated, a pivee of liaen being aubatituted for the sieve. After being washed, It is beaten with aticks of hard wood on a wooden $\boldsymbol{t}$ table, till it is brought to a pulp, whirh is put into water and dissolved and dispersed like meal. This is put into a smail vessel with a decoction of rice and a epecies of Mibiscus, and stirred until it has attalned a toierable consistence. It is then poured into a larger vessel, whence it is taken out, and put in the form of eheets in mats or layers of grass straw. These shsets are laid one upon anothar, with straw between, and pressure is applied to fore the water out. After thia chey are spremi upon bos ds in the sun, dried, cut, and gathered into bundiea for sale and use. The well-known lacquer ware to which Japen has given name, is mnequaled for beauty and durability by that of any other nution. We have ourselves of late years imitated, but certalniy not equaled it. They diapiay considerabie skili in working the metals, In wood work, caskete, cabinets, and the like, they are unsurpassed. Some of their awords are sald to be equal to the tineat Damascus biades; end Golownin stated that their carpenters' and cabinet-makers' tools are equal in temper to those of a simitar kind in Eingland. Thay are exceeding quick in observing any improvement brought in among them by foreiguers, and cops it with great ekill and exactness. Clocks, watches, and astronomical instruments are made by them, copied from kuropean modela.

Ares.-In certain 'ranches of the fine arts the Japanese have attained no smail skilh. They are isnorant of anatomy and perspective, and therefore harbsrous In their aculptures and landacapes; bat in tha representation of a single objert they manifest great necaracy of detail, and a truthful alharence to ature. Architecture, as an art, can hardly be said to hava an existence-their tempies, palaces, ani private houses being all low and temporary structures, generally of wood; and the frequency of sarthquakes leails them to bestow less care on their buildings than in other circunistances they might do.

Trade.-The dapanese carry on $n$ large internal tratic, which, from the peculiar characteristics of their country, is in a great measure by coasting. Tha numerons straits and creeks, with their shalliow waters, though generally unfit for shit, of burden, are aufticiently commodions for the smali craft of the Japanese, which rarely exceed 60 tons burlea. Tha iniand tranaport la by horses, oxen, and porters, there being very jittle river or canail navigation. Kicmpfer, who, however, refern to the busieat parta of the conntry, that letween the chilef port Oasco and the two capitals, apeaks of its commercial activity as follows: " Ilow much is carried on between the several provinees of the empirel How busy and Industrious the

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down th peoplo al noise of both for Imagine the inian This wus samed th has since prosperit ple nuay priety wit tnide is ec par muney have sign with a tru
The for two centur confined to the trade siderable $t$ with the C ports were parchases ment. Tt of Dexima about 640 A amail st town of N always stal alther to 0 whole ialan top of whic side are tr phat, excep When a sh first taken avery part, board. Thi isiand, wher mained, und patrese offic or thrice as and hatred trample cro Datch were whom they clerks, serve

As the $e$ open to foreif to speculate it. The ent mand in $\mathrm{Ja}_{\mathrm{a}}$ cinnabar, sa sugar, putel quin raw sil rors and ot! one time or in Japan, an and Chinese any approael Iron and ste become stapl to a consuin panese are what has tak wrought artl infer that cot vantage. C the regular al high-priced m that was inup doubt, tind in demant, may be sald
merchants are everywherel How fall their ports of ahips I How many rieh and mercantile towns up and down the country ${ }^{\prime}$ There are ench multitudes of people along the comste and near the sea-l ots; such a noise of oars and mails and numbers of ships and beats, both for nee and pleasure, that one woold be apt to imagine the whote nation had settled there, and all the inland parts were left quite desert and empty." This was sald 160 years ago, and it may be safely assunied that the uninterrupeed peace which the country has since onjoyed has not impaired its commercial prosperity. That the Japanese are a commercial people may be inferred from the order, neatness, and propriety with which every thing connected with their tride is conducted. "They bave gold, allver; and copper money; as well as bllis of oxchange. "Their shops have aigns, sid thele goods are packed and labeled with a truly mercantile cere and neatness.

The foreign interconrse of Japan was, more than two centuries, and till within the Inst fow years, solely confined to the Dutch and Chinese. Even with these the trade wan limited, belng with the Dutch for a considerable time restricted to a aingle shlp annually, and with the Chinese to ten junks, The exports and imports were even limited as to value, and the aales and porehases fixed by a tariff of the Japanese government. The Dutch were confined to the mmall island of Dexima, in the harbor of Nagasaki, which is only about 640 feet In length by 240 in extreme breadth. A small stone bridge connecte the laland with the town of Nagasakl, and a atrong Japanese guard was always stationed here, no one being allowed to pass either to or from the Ialand without license. The whole island is surrounded with a ligh fence, on the top of which are placed iron spikes. On the north side are two water-gates, which were kept always shat, except to sidmit or let out the Iuteh vessels, When a ship arrived her guns and ammunition were first taken out, and she was afterward searched In every part, and nn exset liat made of every thing; on board. The crow were then permitted to land on the island, where they were kept, as long as the ship remained, under the inspection of guerds. Every Japanese official at tho Dutch factory was bound twlice or thrice a year to take a solamn oath of renuncintion and hatred of the Chriation religion, and was made to trample croase and eruclifixa under his feet. The Duteh were at all times surrounded by Japanese apies, whom they were obliged to employ as interpreters, clerk, servants, ete.

As the emplre is ngain in some measure thrown open to foreign Intercourse, it may not be unprofitable to speculate on the nature and value of a trade with it. The commoditien which have been chiefly in demand in Japen, are iron, steel, load, tin, quicksilver, cinnsbar, sapan-woon, black pepper, cloves, nutinegs, angar, putchak, deer-skins, ivory, Chinese nnd Tonquin raw silk, Indian cotton goods, entton yarn, mirrors and other glass ware, and Engliah woolens. At one tine or another all these articles found n market in Jspan, and mont of them are Imperted by the Duteh and Cbinese at the present time. In a free trade, or any approsch to lt, with Japan, wo may suppose that iton and ateel, high-priced commodities there, would become staple imports. The climate would give rise to a conamuption of woolens; and although the Japanese are elothed in their own cotton, fudging from What has taken place in India, where both the raw and wrought artleles are cheaper than in Jnpan, we may infer that cotton fabries might be imported with advantage. Cotton yarn or twiat has long heen one of the regulse articles of import, although it was long the high-priced manufucture of Java spinn with the diataff that was imported. Mirrors and glaes ware would, no doubt, find a ready mart. Sugar would certalnly be In demand, ne Jnpan producen none; and the same may be said of nearly all klude of apiceries and dye-
woods. Even cotton wool and rice might be occa: olonally lmported, sa they are regularly into China. According to M. Caren, whoas. Information' refers to 1636 , or the period preceding the last persecu, thon, the European nations imported annually. into Japen from 640,000 to 675,000 lhs. of Chinese rav silk, 200,000 deer-akins, and 100,000 other kind of peltry. :".
With reapect to the exchangeable products from Japan, gold, silver, and copper were largely exported when the trade was open. While the Dutch were carrying on their trade at Firando, and atill unreatricted, they exported annually gold to the value of $\mathbf{£ 4 0 , 0 0 0}$, and silver to from $\mathbf{£ 8 3 0 , 0 0 0}$ to $\mathbf{£ 8 8 5 , 0 0 0 .}$ But the Spanish and Portuguese trada was free at the same time, and these nations are atated to have exported more largely, so that we may conclude that a inillion and a half of the precions metals were, from near the beginning to near the middle of the 17 th century, exported from Japan. Of copper, the Datch exported in some years as much as 1800 tons. Most important, however, in this part of the world will be the supply of eoal; whioh the islande are eald to furnish abundantly. It will also be seen from what we have already alald of the productions of the country, that there ere many things among them that may become valuable as exports, while a demand for other articles will no doubt lead to their introduction an subjects of trade.

After the expulsion of the Portuguese in 1639, and before the restrictions were so stringent as they afterward hecame, the entire value of the foreign trade was extimated by the Duteh governor-general, the Baron Van Inihoff, at $\mathbf{£ 8 3 8 , 0 0 0 ; ~ w h i l e ~ i n ~ b l e ~ o w n ~}$ time (1744) it had declined to $£ 264,588$, of which one thind only was Duteh, the rest baing Chinese. In 1805 the cargoes of two ships laid in at Batavia, were sold in Japan for £ $\mathbf{8 5}, 416$, with whieh, or rather with the balance after deducting heavy local charges, copper and camphor were purchaeed, which in Batavia sold for $£ 195,733$. The adventure of next year was noither so large nor oo prosperous, for the outward cargo brougut in Japan only $£ 24,325$, and the return cargo of copper and eamphor produced when sold in
 however, arose entirely from the enormous war prices for copper and camphor. Since then the trada has become still smaller, and, as already atated, is confined to a single ship. In the earlier period of ite trade Japan was not only freo to all the world, but was not even burdened with imposte on eithar ship or cargo; presents, however, required to be made to the emperor, the provincial governors, and one or two other partien. - W. E . 3.

Afoney. -Accounts are kept in teels, mace, and candarines; 10 candarines make 1 mace, and 10 maces 1 tael. The Dutch reckon the Nangasaki tael at $3 \frac{1}{2}$ florins, equal to alout 6s. 2d. The gold coins current aro the now and old itjih and cobsnge, or eopangs ; the silver coins are, the nandiogin, itaganne, and kodama. They are in general very simpie, struek plain and unadorned, the greatest part of them withont any rim round the margin, and most of them without any determined value. For this reason they are always weighed by the merchants, who put thoir chop or stamp upon them, to aignify that the coln is atandard weight and unadulterated. The new cobangs are oblong, rounded at the ende and flat, about 2 inebee broad, scarcely thieker than an English farthing, of a pale yellow color; the die on one side consiats of sevoral cross lines stamped; and at both ends there is a rectangular figure, with raised letters on it, and, hesilen, a moonlike figure, with a fiower on it in relief. On the other side is a circular stamp, with raised letters on it ; and within the margin, toward one end, two smaller sunk stamps with raised letters, which are differeut on each colong ; they are valued at $\mathbf{6 0}$ mace.

There are old cobangs oecasionally met with, which are of fine gold, somewhat broader than the new. The old cobang weigh 371 Dutch asen, or 275 English grains, and the gold is said to be 22 carata fine, which would give 44s. 7d. for the valus of the old cohang. Bat the Japanese colpa are reckoned at Madras oniy 87 touch, which is $20,22,25$ carats, this reduces the old cobming to 41 s .10 d . The now cobang weigh 180 grains; the gold is about 16 carats fine, and the value 219. 8d. The oban is thrice the value of the cohang. The itjib is called by the Dutch golden bean, and is made of pale goid, of a paralielogramical figure, and flut, rather thlcker than a farthing, with many raised letters on one side, and two figures or flowers in rellef on the other; the value of this is half of a cobang. There are old itjibe also to be met with; these are thicker than the new ones, and in value 22 mace 5 candarines. Nandiogin ls a parallelogramleal flat silver coin, of twice the thicknees of a halfpenny, 1 inch long and inch broad, and formed of fine silver. The edge is stamped with stars, and within the edgea are ruised dots. One side is marked all over with raised lettere ; and the other on its lower and larger moiety, la filled with raised letters, and at the same time exbibits a doubie moonlike figure. Its value is $\mathbf{7}$ mace 5 candarines.

Itaganne and kodama are denominations by which various lumpa of ailver, without form or fashion, are known, winch are neither of the same size, shape, nor value. The former of these, however, are ollong, and the latter roundish, for the most purt thlek, but aometimes, though seldom, flat. These pass in trade, but are always weighed in payment from one individual to another, and have a dull leaden appearanc?. Senl is a demonination applied to pieces of copper, brass, and iron coin, which bear a near reaemblance to our old farthings. They differ in size, value, and e ternal appearance, but wre alvay's cast, and have a quare hole in the middie, by means of which they may be strun- together; and likewise liave always broad edges. Of these are current, sjumon sent, of the value of 4 common seni, made of braes, and almost as broud as a halfueany, lut thin. The common seni are the size of a farthing, and made of red copper; 60 of them $=1$ mace. Duosa seni is a cast iron coin, in appearance like the last, of the same size and value, bot is so brittie that it is easily broken by the hand, or breaks in pieces when let fali on the ground. The aeni are strung $\mathbf{1 0 0}$ at a time, or as is most commonly the case, 96 on . rush. The coins in one of these parcels are seldom ali of one sort, but generaliy consist of 2, 3, or more different kinds; in this case, the larger ones are strung on firnt, and then foilow the smaller; the number diminishing in proportion to the number of large pieces in the parcel, which are of greater value than the smaller. The sehuit is a silver piece of 4 oz .18 dwte .16 gr . Truy, and is 11 oz . fine, which gives its value 21 bs. 3d. The name is 1 )uteh, referring, probably, to its shapo, like a lroat.

Weights.-These are the candarine, nuace, tael, catty, and picul, thus divided:

| 10 candariaes | $=1$ mace. |
| ---: | :--- |
|  | $=1$ tael, |
| 10 manee | $\equiv 1$ cativ. |
| 100 cattics | $\equiv 1$ pleuil. |

The picul $=2125$ I uteh lise, or $1331 /$ ilss. avoirdupois. It is, however, said to weigh only $1: 30 \mathrm{lbs}$.

Measures,-The revenues of Japan are eatimated by $t$ wo measures of rice, the man and koif; the Cormer contains 10,000 koifs, each 3000 lmales or bage of rice. The long measure is the inc, which ls about 4 Chinese cubits, or 67 feet English nearly ; and 21 Japanese leaguea are computed to be about I Duteh league.Milbuas'a Orient. Com.

The principai, or more insportant towne of the empire, are Yelo (or Jeddo), Mijako (or Kio), etc. ; Nangaeki, Saga, Kokura, etc. ; Sinocla, Kotsi, Takamutsl, etc. ; Hakodade, Matsumae, etc.

Commercial Intercourse.-At an early period the Portuguese founded a suttlement, and established trade with the Japanese, having aucceeded in winning the favor of several of the native prinees, through the Instrumentality mainly of Christian misoionaries. In 1642, Fernando Mendea Pinto, a Portugueso, embarked in a Junk from Macao to Lew-Chew; but encountering adveree winds, he was driven to one of the western islanda of the Japanese archipelago. About the eame period, the celebrated Xavler arrived at Goa, anil, proceeding soon after to Koyositna, mede so fa vorabie an impreasion on the Prince of Satsuna that an active and profitable intercourse at once apruag up hetween the western ports of Japan and Macao. This Intercourse continued unlnterrupted during a period of neariy 40 years, when un edict was laeued permitting the Portuguese to continue their trade as before, but forbliding them to bring any more misuionaries, or even to speak on rellyious subjects. In 1635 , under the reign of Yeyo Mitson, a prison was constructed off Nunguakki, and ali the Portuguese found in the country were there confined, and the commercial privileges which they had so long enjoyed were tranaferred to the Dutch, who were generaliy helieved to the the instigators of the severe mensures put in force against the Portuguese. A anguinary buttle between the Portuguese and native Christians, amounting to 38,000 men, on the one side, and tile Dutch, and such of the natives as aymputhized with them in their hostility to the Portugueae, on the other, was the reault of these rigorous measures. The former fortilled themselves in Slmabara, and the latter mado their utack under the comanand of the Dutch director Kockebecker. The fortreas was soon reducel, and the l'ortuguese, rither than subuit to their rivals, to whom they attributed all the misfortunes that had befalien them, perished to a man. An edict was lmuediately published, forbidding the Portuguese to enter the country. The intelligence of these procecilings soon reached Macao, and four of the most distinguiahed citizens were sent to conciliate the favor of the gavernment of Sapan. They arrived at Nangrasaki In 16-10, and were inmediately put under arrest, and condemned to death for entering the country in violation of tho edict. The following inseription, written, it is said, by the butch director, Koekelecker, was placed on their grave: "So long as the sun shall warm the earth, let no Christlans be su bold as to come to Japan ; sul let ail know, that the King of Spain himself, or the Christian God, or the Great Saca, if he violate this command, shall pay for it with his head." The Portuguese have never nince been permitted to renew their intercourse with Japan.
The first formal edict in favor of tho Dateh was issued in 1611, and the priviloges of trade which were then conceded have continued, modified at various tiuses, to thas present day, In the earlier period of this trade, return cargoes consisted chieliy of siiver and goid, Japunese copper lreiug then but hittle known in Europe. This latter article, however, soon became one of the leating staples of Japanese export trade. In a work, entitled " Notes of the Voyage of the Morrison from Canton to Japan," pulilished in 1833 , the following reference to the Dutel truice at this perind is made: "The Dutch were now left in sule possession of tho trade with Jepran ; and, since that time, it is well suown, their monopoly has never been disturlied. Their subsequent political intercourse has been limited to an occasional mission from Batavia, and the visits of the Dutch chief of the factory to Yedo, fomerly made annualiy but now once in four years. Charlevoix mentions embassies in $166{ }^{6} 4,1656$, and 1635 . It was while tife second of those misgions was at Yedo, that two thirds of that city and 100,000 of its 1 ppuiation were ciestroyed liy fire. It remalns to trace, briefly, the use the Dutch have made of the monopoly to which ties liave so long asplred. Of the assurtment
ard value we have 1 In aliver, Company was at thi little knov came an 1 piculs was Various from time the Japan were litinit restricted treaty. T trade have author aire posed by t der these an annual 80 years pr charges." riods, by the as liy that intercourse the very lin 81at March Japan, and British, by ileges grant without succ to establish proposal wa at to return
The treaty
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1854, ratified 1855, and pr "The Unitec Japan, desiril friendship be fix, in a mas treaty or gel ruics which the intercour. mast desirab States has co Matthew Gal United States Japan has gi sloners, lisy Tsus-Sima, Iz nember of th missioners, a powers, and il to the followi perfect, perme and cordial an dea on the on other part, a without exce The port of the port of II are granted by of Amseriean wood, water, their necessith have them. port is immod named port is samed day in th tariff of prices cers of tive thi or which shal Article III. hrown or wree essels will ass moda, or Hakod
and value of their import cargoes, in the $\mathbf{1 7}$ th century, we have little or no account. Their returns had been In silver, chlefiy, untll 1641, when the directors of the Company suggested returna in gold. Japanese copper was at this time in little estimation in Europe, becanse little known; but afterward, on a rise in value, it hecane an important return. The first order for $\mathbf{2 0 , 0 0 0}$ piculs was sent out in 1655."

Various reatrictlons and prohibitlons have been, from time to time, imposed npnn Dutch commerce by the Japanese authorities. The imports and exports were limited, and the number of vessels was finally restricted to four, three, and two, as before the late treaty. The profts realized by the Dutch from thls trade have never been accurately aseertalned. The author already elted, referring to the restrictions imposed by the Japanese government, remarks: "Under these circumatances, the trade, which had yielded an annual profit of 500,000 to $\mathbf{0 0 0}, 000$ floring for the 80 years previous [to 1714], wonld no longer pay the charges." Efforts have heen made, at different periods, by the Engllsh and French governments, as well as by that of the United States, to open commercial intercourse with Japan; but, with the exception of the very limited concessions granted by the treaty of 81st March, 1854, between the United States and Japan, and concesslons nearly similar allowed to the British, by treaty, subsequently ratified, and the privileges granted to the Dutch by the treaty of 1855 , without success. Some years since, Russia endenvored to establish commercial relations with Japan; but the proposal was declined, and the envoys were ordered aot to return again on pain of death.

The treaty, already referred to, between the United States snd Japan, which was concluded March 31, 1854, ratified August 7, 1854, exchanged February 21, 1855, and proclaimed June 22, 1855, is as follows: "The United States of America nnd the empire of Japan, desiring to establish firm, lasting, and sincere friendship between the two nations, have resolved to fix, in a manner clear and positive, by means of a treaty or general convention of peace and amity, the rules which shall in future be mutually observed in the intercourse of their respective countries ; for whlch most desirable object the President of the United States has conferred full powers on his commissioner, Natthew Galbralth Perry, special embassador of the United States to Japan, and the august Soveroign of Japan has given similar full powers to his commissioners, Ilayashl, Daigaku-no-knml, ldo, prince of Tals-Sima, Izawn, prince of Mima-sakl, and Udono, nember of the board of revense. And the said commissioners, after having exchnnged their sald full powers, snd duly considered the premises, have agreed to the following articles: Article I. There shall be a perfect, perinanent, nad unlversal peace and a sincere and cordial amity between the United States of Amerlea on the one part, and the einpire of Japan on the other part, and between their peoplo respectively, without exception of persons of places. Article 11. The port of Simoda, In the principality of Idzu, and the port of Hakodale, in the principality of Matsmai, are granted lyy the Japanese as ports for the reception of American ships, where they can be supplled witi wood, water, provisions, and coal, and other artleles their necessities may requiro, as far as the Japanese have them. The time for opening the first-named jort is inmediately on slgning thls treaty; the lastnamed port is to the opened immedintely after the same day in the ensuing Japanese year. [Note.-A tariff of prices shall be given by the Japanese officers of the things which they can furnish, payment for which shall be made in gold and sllver coln.] Article III. - Whenever slips of the United States are thrown or wrecked on the coast of Japan, the Japanese vessels will assist them, and carry their crews to Simoda, or Hakodade, and hand them over to their coan-
trymen appointed to receive them; whaterer artieles the ahipwrecked men mey' have preserved shall likewise be reatored, and the expenses incurred in the rescue and support of Americans and Japanese who may be thus thrown upon the shores of either nation, are not to be refunded. Article 1V.-Those shipwrecked persons and other citizens of the United Stutes shall be free as in other countries, and not subjocted to confinement, but shall be amennble to just laws. Article V.-Shipwrecked men and other citizens of the United States, temporarily li..ng at Slmods and Hakodade, shall not be subject to anch restrictlons and confinement as the Datch and Chinese are at Nangasaki, but shall be free at Simoda to go where they please within the llmits of seven Japanese miles (or ri) from a small island in the harber of Simoda, marked on the accompanying chart hereto appended; and shall in like manner be free to go where they please at Hakodade, withln the limits to be defined after the vlsit of the United States' squadron at that place. Article VI.-If there be any other kind of goods wanted, or any bisiness wbich shall - quire to be arranged, there shall he careful dellbusatinn between the parties in order to settle such matters. Article VII.-It is agreed that ships of the Unlted States resorting to the ports open to them shall be permitted to exchange gold and silver coin and articles of goods for other articles of goods, under such regulations ns shall be temporarily eatablished by the Japanese government for that purpose. It is atipulated, however, that the ahips of the United States ahall be jermitted to carry away whatever artlcles they are unwilling to exchange. Article VIII, Wood, water, provislons, coal, and goods require $i$, shall only be procured through the agency of Jnpav:ese officers appointed for that purpose, and in no other manner. Article IX.-It is agreed that If at any future day the government of Japan shall grant to any other nation or nations, privileges and advantages which are not herein granted to the United States and the citizens thereof, that these same privileges and advantages shall be granted likewise to the United States and to the citizens thereof, without any consultation or delay. Artlcle X.-Shlpe of the United States shall be permitted to resort to no other ports in Jupan bat Simoda and Hakodade, unless in distress or forced hy stress of weather. Article XI.-There shall be appointed by the government of the United States consuls or ngents to reside in Simoda, at any time after the expiration of 18 months from the date of the signing of this trenty: provided that either of the two governments deem such arrangment necessary."

The harbor of Simoda is near the south-eastern extremity of the peninsula of Idza, and affords a safo and capacions anchorage. Hakodade lies on a spacious and beautiful bny of that name, and, for accessibility and safety, is one of the finest in the world-capatie, says the Ifong Kong Register, of holding all the fleets of the Paclicic in security.

Port Regulutions of Simoda.-Three natives havo been appointed pilots for American vessels entering or departing from the port of Simodn, and the follewing rates of pilotage linve been established by the pi p.r authorities, viz.: Vessels drawing over 18 feet, pay \$15; over 13 feet, and less than 18 feet, 10 ; under 13 feet, $\$ 5$.
"These rutes shall be paid in gold or silver coin, or their equivalent in goods; and the snme slalil be paid for piloting vessels out, as well as into port. When vessels anchor in the outer roads, and do nct onter the inner harbor, only half the above compenation shall be paid to pilots. A look-out place shall be established at some convonient point, from which vessels nppearing in the offing can be seen and reported; and when ono is iliscovered, making apparently for the harbor, a boat shall be sent to her with n pilot. And in order to carry this regulution into full effect, boats of suituble size and quality shall ulways bo kept in
readinesa by the harbor-maater, which, if neceseary, shall proceed beyond Rock Island, to ancertain whether the veseel in alght Intends entering the harbor or not. If it may be the denlre of the master of the sald vaseal tn anter the port, the pilot shall conduot her to safe amehorage, and, during her stay, bhall render every adolutance in hia power In faclitating the procaroment of all the suppliee, he may require. The prices fur anpplying water to American vessoln at Simoda - hall be 1400 eashe per boat-loed (the caaks being furnished by the vessel). And for wood delivered nn boand, ahout 7200 cash per cube of 5 Americsn feet."
is The foregoing In a full mmmmary of the concesalons granted to American Intercourse by the treaty with Japan of March 31at, 1854.' As a means of opening commerclal relations with that empire, its provisions have proved Ineffielent; bat, befo enubmitting any nocice of facts that have come to knowiedge of the Department relative to thla auhject, it is deemed appropriate to glve the leading provisions of the treaty entered into by Great Britain with Japan. The flrst articie of this treaty opens the ports of Nanfresaki and IIakoulade to British vessels to repalr and oistain aupplies only: It opena all parts of these ports; hut, an reapeets anchorage, vessels must conform to the instraetions of the iocal government. Safe and commodious piaces are to the dealgnated for the repair of vensela. Workmen, material, nind other necessary supplies to be furnished by the local government, in accordance with a tariff to be agreed npon, which shall regulate the manner of payment. All officieial communteation to the condueted In the Engtish language, as moon as the Japanene shnll have acquired a knowledge of that language. A place to be reeerved as a burial-ground for the Einglish at Medsuma Sitna, which will be Inelosed hy a stone wall and sultally protected. The second article stipulates that at each of the ports of Nangasaki and of Hakodude, the regalations of the port shall lee ohserved; but the Japaneso government wili ace that theso regulations ahall be sueh an to create no diffieulties and interpose no olstacle whatever to the general olject of the treaty, which is essentinlly designed to facilitate amirable relatlona letween freat liritain and Japan.
'ihe third artiele declares that only veasela in distreas or dismantled can enter other ports than Nangnsaki and IIskodade, without peraission of tho Japanese government; but shlpa of war possea, as a necesaary attribate of their public character, tho general rigit to enter all the ports of frienily powers; while, however, this right shall suffer no prejudice or restrietion, the vessela of war of her Hritanic majeaty will not enter any other than open ports, without necesnity, nor without offering proper explanations to the imperial anthorities. The fourth article provides that liritish ships and subjects in Japanese porta slasll conform to the laws of Japan; and that if any subordinate liritisit nuljects comonit offenses against tho laws, they shali le delivered to their own officers for punishment ; ani that if auperior officers, or commanders of shipa, siatait break the lawn, it will lead to the closing of the ports apecified: bat it is not intended liy this article that any acts of individuals, whether high or low, previonsiy unauthorized or sobsequently disspproved of by her majeaty the Queen of (ireat İritain, can set asife the convention eutered into with her majesty aione by his inperial highness the Emperor of Japan. The fifth article secures, in the fullent sense, to Hiritish shipsand anbjecta, in every port of Japan, eiticer now open or hereafter to be opened, an equaity, in point of advantage and accommodation, with the ships and aubijects or citizens of any other nation, witibut prejudice, however, to any peculiar privilegen hitherto conceded to the Dutch and Chinese in the port of Nangasaki.

- C00 oopper eash are equal to 43 centa (arbitrary value). The curreacy of Japaa is uimilar to ihat of China, to which 1 tanl -10 mace $=100$ eandareens -1000 cash $-3148 \mathrm{U} . \mathrm{S}$. eurrency.

If, therefore, any other mation or people be now, or hereafter, permitted to enter other perts thon Nangasakl and Hakodade, or to appoint conaula, or to open trade, or to anjoy any advantage or privilege whatever, Hritish ahlps and anhjects shall, as of right, enter apon, the enjoyment of the name. The alxth article declarea that the conventlon shall lie axchanged at Nangasakl, on behalf of her majesty the Queen of Great ifritiln, and on behaif of his highness the Eimperor of Japan, within 12 months from the 14th day of October, 1804 .

The governor of Nangaakil communleated, In Oetober, 1804 , to Sir dames Sterling, the following atanding port ragalations: Anriclis 1. Shipe ahall anchor within two sima, and there await the direction of the governor. 2. No tire-arms are to the diechargeit. 3. No permon to land on any of the lalands. 4. No moundings to be taken, nor boate to be puiling about. B. Nhould any communications be desired, a loat of the upper oficers shall be called; hut no communleation shail be beld with meprhant boata, and no exchange of articles take place, or trading of any sort.
The above being, according to the law of Great Japan, all commanders and other officers shall obey the same, and oridera shall be given to the erow that the aforesald law shall not le broken.

An arrangement, maile aubsequently to the conventhon with (ireat Britsin, requires that liritish ahipa, intending to visit Japan, shall be provided with a document in proof of their nationality, and as a eheck upin the conduct of vessels in Japanese ports; end her majesty'e guvernment hus directed a form of certiticate of registrution to be adopted, which han treen accepted as antisfactory liy the Japnnese authoritien; nnd merchant ahips arriving in Japanese ports are to al himit their certilicate of registration to the officers to be appointed by the Japanese authoritien, and to permit theur to make sueh extracts from it as may seem grod to them, lefore such alips can be admitted to olitain repairs and supplies. Iler inajesty's ships of war are not to be provided with such doenments; but the ofticers in cominand, npon proper apptication, will afford all reanonable information regaroing their ships.

Holland has also recently formed a provisionai treaty with Jupan, but it is a+ated that tho Duteh government withholds it from publication. The singapore papers give tho following summary of its provisions: "The Dutch are no longer linited to Decima, but may freeiy remort to Nangasaki nod the immediate neighborhood. The inland of Decima is plaeed at the disposal of the Dutch, and tho buidings thereon sold to Ilolland. This island will serve as an entrepit for the Buteh, where they can land their goods without payment of daties or aearci. The keys of the watergates and of the entrepot warehouses will remain with tho Dutch chief factor. The usunl duties will not be exacted until goods are brought to Nangasaki. The trade with the Datef government remains on the former footing. Free exercise of religion and right of burial is canceded to tho Dutch. There shall exist, henceforward, freelons of communication with other ships entering or depurting from the roads. A detinitive treaty is to ho hereafter concluded; hut, until that takes jplace, the jresent agreement is to beconsitered in furce."

The atove in, in substance, all that has been published relative to the conveotion bet ween Iinitund and Japan; but, until the definitive treuty, uiluded to in the last paragraph, shall have been entered into, the ir.tercourse lietween the two countrien will be of the same limited character that has hitherto existed. Indeed, the Japaneso evince an almost invincilite repagnance to opening their ports to foreign commerce, and, In their interpretation of treaties, concede nuthing theyoud what is aprecilicaily granted. Thus, the term "temporary residence" in the treaty with the United Statef, is so strietly interpreted that citizens of this country, who desired to land at one of the open ports,
were requ atato how tions wow sutilielent case, the been to ro for the pu of whalee the exact shore for permitted On the W'iluningto nectleut, a misceilane at that por 20 ottieors husiness tl formed the modities, w for goods irmed the people at la that the em cial interco ers. A let oity of Sim ' velope, with would not trade, nor ed Wood und officred; but tuin, were r surrounded bay. The 1 where slis In miasion to tr provisions to nips, seallion Japanese lool kill theu. T ashore and $v$ slao exempte well as trom Simota.
It seeuss e under the pr will nat pert there much anoro liberal the officials at treaty of pe against any ican citizens trade.-Com.

To Amerie iug been the with Japan. world, partica wentern Alue fishery in the airable to hav of Japan. gland, Russi success, when resolveif 10 m aceordingly ti mand of Com sailed from N thu 24th of N possible by th arrived in the with four vens war, and after ter of the Pres in the spring. Choo and Chi
were required, before being permitted to go ashore, to atata how long they intended so to reside I and intimatione ware given that "four or five days" would be sulticisnt to satiafy the words of the treaty. . In one case, the applicants, whose olject appeare to have been to reaide permanantly at one of the open ports, for the purpose of establishing a dépit for the aupply of whaleships, were informed that, until they atated the exaet number of days they intended to stuy on ahore for "temporury residence," they would not be permitted to aleep one night from their veasel.
On the 17th Auguat, 1855, the Ameriean achooner Wilmingtom, Brovn manter, of New London, Connecticut, arrived at Simoda from Hong Knng, with a misceilaneous cargo, anpposed to be auitable for trade at that port. Shortly after emating anchor, some 15 or 20 oflicers came on board, and desired to know on what business the vessel came inte port.. They were informed that she brought a cargo of Americun co moditiea, which the captain wiahed to sell or exchange for gooda of Japanese manufucture. . They then ininrmed the eaptain that they could net trade thut the peopie at large would be much pleased to do so, hat that the omperor had pesitively prohibited all commerciai intercourse, under penalty of death to the offiendsca. A letter was addressed to the governor of the eity of Slmoda, which way returned tin the aane onveiope, with is verbal message to the effect that he would not be permitted to land a single article for trade, nor could he prosent any for trade on shiplourd. Wood and water (the former at $\$ 5$ per cord) were offered; but fresh provislons, It is stated liy the captuin, were refused. The veasel was, night and day; surruunded by guard-hoats until she cleared from the bay. The Wilmington then proceeded to Hakodnde, where sha met with more liberal treatinent, inut permission to trude was refused, as at Simoda. The only provisions to be parchased consiated of heana, turnips, scallions, and such vegetables. T'to catcie the Japanese look upon as sucred, and will $n$ ither sell nor kili theu. The captain and crew were pr initted to go ashore and visit wherever they pieased. They were slos excmptad from the vigilunce of guard-trouts, as well as from the constant attendance of g uards, us at Simoda.
It seems evident, therefore, so far as appears, that, uader the present treaty, the Japunese government wiii not permit any trade to be carried on; nor is there much probability of the treaty receiving any nore fiberal interpretation than that siven to it hy the oficinis at Simoia. It is, as tho dupanese aver, s treaty of peace and amity only, strictily guarded against any concesaion or ciuuse under which American citizens could claim the privileges of general trade.-Com. Bel. U. S.

To America andoubtedly lelonga the eredit of haviug been the first to re-establish commercial relations with Japan. The increased traffec in this part of the world, particulariy between eastern Asia alld northwestern America, and the importance of the whalofiahery in the Jupanese seas, hud rendered it very desirubie to have free access to at least some of the ports of Japan. Repented attempts had been male by En. giand, Russha, and the United States, but without success, whell ut iength the United States' government resolved to make an effort worthy of the oliject, and accordingly titted out an expedition under the command of Commedore M. C. Perry. The commodore saited from Norfolk in the Mississtppi war-atenmer, on the 24 th of November, 1852 , to be followed ne soon as possible by the other vessels of the experlition. He arrived in the Bay of Yeido on the 8th of Juiy, 1853, with four vessele, two war-steaners, and two sicops of war, and after some negotiutions he deliverod the lotter of the l'resident, promising to return for an answer in the spring. The rest of the year was apent at Loo Choo and China, and on the 12th of February, 1854,
the squadron reappeared in the Bay of Yoddo, having ty this time been Inereased to nine vessele, three steanc-frigatea, four sloops of war, and two store-ahipe. A treaty. was concluded on the 81at of March, in terna of whleh the porta of Simoda in the island of Nipon, and liakedada in Yeaso, are opened for the reception of Amariomn ahipe, where they will be aupplied with wood, water, provisions, coal, and other articies, so fur as the Japanese possees them. Ships in distress, or from stre 18 of weather, may onter other, porte ; and ueamen shipwrecked on any purt of the coast aro to be alded and carried to either Simola or Hakodade. Shipwrecked seamen and othera temporarily residing at these ports, are, at Simods, free to go any where within the linits of 17 Engliah miles from a amail Islund in the harbor, and in like insnner at Hakodade within 12 milies. Ships of the United States are also permitted to trade under such reguiations as shali be temporarily eatublished by tine Jupanese government for that purpose. All the privilegea that may hereafter be granted to ally other nation are to be accorded to the United States. On the 7th of September foliowing, an English aquadron, consivting of a frigute and three steamers, under the command of Rear-Adinirul Sir James Sterling, entered the hurbor of Namyasaki. The primary object of this vieit to Japan was to seurch for Russian vesseis, but it was aiso intendod to attempt to establiuh friendiy relations between the two nations. $A$ treaty was entered into, the effect of which is to open absoiuteiy and at once to British ships of every description, for effectlng ropuirs and obtuining fresh water, provisions, and other suppliea, two of the most convenlent harbors In Japun-Nangasaki and Hakodude; to open inferentially to Britiah ahipa in diatress any other port in Japan it may be expedient for them to seek ahelter in; to secure eventually to British ships and aubjects in every port of Japan which may hercufter be open to foreigners, equal advantages with the ahips and sulijects of the most favored nation, excepting only the advuntsges at present accorded to the Dutch and Chinese. It imposes In return for these concessions, no other obijgation on Britisis ships and sulijecta than that of respectiog the luws and ordinances of the ports they visit. More recently the Russiuns have succeeder in obtaloing a similar footing in Japan. See Eincy. Brit., 8th. edition; Ifuxr' M Mer. Mug., i., 208, xxxi., 234, 6:6, xxxiv., 120, 742 \& Nor. Am. Rev., x., 83 (by N. Hales); Quar. Rev., xxii., 107, iii., 159, vi., 357 ; l'euny's Japan Esped., 180 H ; Living 1 ge , x., xiv., xxlil.; De Bow's Rev. ix., 44 .

Japanned Wares (der, Japanische vare; Du. Japanach lukwerk; l'r. Marchandises de Japan), articles of evary description, such us toa-trays, clockdials, candiesticks, suuff-boxes, etc., covered with conts of Jupun, whether pluin, or embellished with painting or gitding.

Japanning, aspecies of lac-varnishing, in imitation of the hacquered waro of Japan, whleh, with that of China, is esteemed the best iu the worid. The ware muy be lacquered upon wool, metal, or papier-maché grounds. A description of the procoss as practiced in China may serve to expluin tise nources of eupeciority. The urticle, if of weod, being inade very dry, light, and smooth, is primed with a mixture of ox gall med rottenatone, which is rubbed stnooth before the varnish is appied. The varnish in composed of 605 gruins of gumblue in 1200 grains of water, to which are sided is grains of oil of Camellic sasnnqua, pig's gali, and is grains of rice vinegar. The ingredients are weli mixed in full daylight, when the varnish graduaily doepens into a brilliant bhack. A very thin cout of this varnish is ar, cied witin a hat hair brush. The article is ieft in a steamy heat, und is then rubbed down in water with very fine pumice. A second coat of lac-varnish is next nppilied, and the polishing is repeuted, which two operations are continued until a perfectly oven and brilliunt surface is
attained, a finar quality of lac being uned for the later coats, of which thera are never lean than three; nor more than 18. The object is ornamented by an artist, who drawa the design in white lead, engraves it, and Alis up the details, The article is next painted with the camphorated lac of Kouangenl, which servea an a bagis for the gilding. It in eompleted by vurninhing.

In our method of japanning, the "ood intended for the loest works ia thoroughig dried, since any warping or ahrinking would be fatal to the finislied aurface ; for which purpose well-seasoned wood is cut nearly Into the required forma, and exposed for eeveral daye to a gradually increaning 7.ent in the japanner's stove. The articien are then finished as to form, and are again stoved, after which the cracks are atopped with putty or white lead. For black japanned works, a ground of ivory-black mixed with dark colored animè varniah is applled. This in dried in the stove, and conted with varnlah three or four times, the work being stoved between every two conta. For colored grounds, the varnish mised with the proper color is lald on in one or two coats, and the work in completed by several succeasive varnishinga and dryinga. Ordinary painters' colors ground with linseed oil or turpentine and mixed with anime varniah are employed for various black op brown anrfaces with gilt edges, imitationa of marble, fiae-grained woods, tortolse-shell, etc. The colors mostly used are flake-white or white lead, I'russianhise, vermillion, Indian-rell, king's yellow, veriligris, lamp-black, and the various tints prowluced by their almixture. Tha varnishes used are copnl, seed-lac, anime, and mastic. The lac varulsh is the best for hardnese, but its color prevents its use for delicate grounds, so that for such parposes it is either mixed with gum varniah, ar enpal varniah is insed inatead. Copal or animè sarnish made withont cirlers is applied, in from two to aix coats, after the color has been laid on. See Vanmint.
Japanners sometimes use a priming of sise and whiting, which is laid on with a brush, and left for a day or two to dry; it is then mades smouth by rubbing with rushes and a wet cloth. When this is quile dry; the grounds are laid on, and finished by varnishing and polishing with rottenstone, or in the case of a white groand, with putty or starch, and oill. It muxt, however, be remarked, that a priming, or artificially perpared gronnd, la oljectionable, the japunning leling uore liable to crack than when executed on the actual surface of the object itself. A gold ground is formed ly varnishing the work with Japanner's gold slze, and when nearly dry, lint still clammy, covering it with gold duat applied on a piece of wasio-leather ; the effert of auch a ground when bighly varnished lis very brilliant. dapan work is ornamented with drawinga of engravings, on the princijle of tranafer, for whleh purpose the engraving is printed, or the drawing executed on fine paper previously prepared with a cunt of isinglasa or gum-water. When this is dry it in placed face down ward upon the japan ground, which is covered with a thin coat of copai yaruish. A pponge dipped In warme water ta then applied to the back of the paper, which dissolves the isinglass, loosena the paper, and leaves the print on the work. Ancther method is to execute the print on an elastic composition of gluc, etc., wbich receives the impression well, and can te luld down at once on the japanned surface. The whole of the processes require so much drying, that ntoves are requiwite to hasten the work.

The great demand for japanning is for works in papier machs, to which article we must refer for further information on the subject. ('ommon articles of furniture are sometimes suid to be japanasel, therely lmplying that they are more duratile than common painted articles. The term as thus used is, howover, incorrect, since the eolors employed on such common wouks are only mixed with turpentine instead of oll. For japanning works in metal, they are cleaned with
turpentime to get rid of greane or oll, unlers the oll whonld be linseed, in v hich case the articlem are stoved until the oil hecomes quite hard. Japanning is then performed in the mala manner.-F. B,

Jagper ((Jar. Jaapi: ; Du. Jasin; Yr. Jnope; It. Diacpro; Sp. Jaspe; Rus. Jushma). This atone is an ingredient in the comprosition of many mountains, It occors uenally in large amorphona masaes, nome. timen in round or angular pieces; its fracture in conch. oldal ; specitle gravity from 2 to 27. Its colors are various; when heated it does not decrepitate; It is usnally divided into fonr apecies, denominuted Egyptian jaspar, strjped jasper, porcelain janjuer, and com. mon jasper. It la sometimes employed by jewele ra in the formation of seals.
Java, the firat in importance, although only the third in magnitude of the lalands in the Indian Archi. jelago, tlea bet ween east long, $105^{\circ} 12^{\prime}$ and $114^{\circ} 4^{\prime}$, and south lat. $5^{\circ} 52^{\prime}$ and $80^{\circ} 40^{\circ}$. In form it is long and narrow, being 666 miles $\ln$ length from east to west, by from 56 to 136 miles in breadth. Aren 60,260 square miles. To the north-west it is parted from Sumatra hy a strait, at its uarroweat part only 14 milies wide, and with islands between ; and to the east from Ball, by a strait of no mow than two mllea broad. On its low, and in mome measure sheltered north coast, Java has a good masny islanda, by far the largest and mont impertant of which ia Madura, sepa. rate from it by atralt at one part only aboat a mile wisle. On the bold preeipitous south coast there are very fow islands, and only $t$ wo of a conaifleralile size, Ihanon and Kambanagan. The coast line of Java, which is about 1400 English miles in extent, has muny bays on its northern const, but it is not deeply, renetrated by any one of them, so that it has properly no harbor hut one, that of Surabaya, formed bet ween the nain island anil Madura, where the atrait that dividen them lis still narrow. The acuthern coast is atill less indented. Here there are two harlors only, Pachitan -inconvenient and unsafe-and Chalachap, formed bet ween the main island and Kambangan, both out of the way of intercourse, and little frequented. On other parts of the sontis coast there is no sufe anchorage, while dangerons surge rolls in on the shore in ail seasons. With the ningle exception named, the prorts of the nothern eoast are but open rondsteads, with good anchoring ground; lut the want of land-locked harbora in not felt an near the equator, where hurricanes are never experienced, and where the weather is only eccensionally tempestuous at the change of the monsoons.
The physical outline of Jaya may he divided into five different sections of varions breadtha. lleginning from the western ond and following the line of the northern coust, the first section ends with the eastem side of the bay of Bataria. This la alout 75 miles in average treadth. The recond extenda enst as faras Cheribon, in long. $108^{\circ} 36^{\prime}$, and is abont 93 aniles broad. Both these divisions are mountainons, the mountains heing of leas elevation than in the other parts of the islund, but loore crowiled, and with narrower valleys. 'They conatitute the proper country nf the Sundas, who speak a distinct language, and are less adranced in civilization than the Javanese, the nation which occupies all the rest of the inlind. The thinl section extenda from Cheritoon to the western sile of the promontory of Japara, in aloout long. $110^{\circ}$ $30^{\prime}$, und its breadth does not exceed 50 miles, the ialand belng greatly narrowed by the bay which ex. tetrds for 140 inlles from the point of Indramaya to that of sapara. 'The fourth section exteads from the promontory of Japara to that prortion of the ishand which is opposite to the western end of Madura, sad this has an average breadtls of $\mathbf{1 0 0}$ miles. The fifth gection embraces the remainder of the island, and is no more than 50 miled in breadth. In the three last sections, the mountains are of greater elevation, the
plaias mo there rume from 8 to and irregul horizontal Java haa freah, and $n$ Therr exist, One of thos green"), whi and is know ond in the $\mathbf{p}$ werit name o in the provi the blue wate extensive ma become laken rivers of Jav merous ; but mall size. burien, and the tide. Th mud or sandutility for trad gation. Few name, hut tal places they pa one, a circum! their amall siz ever, a few ext Sàraya, a rive Praga, with It all debouching
Climate.-TI pected in a na elyht degrees most on a leve feet above it. and ends with with Sopternle sauthem hemis with the wet s dry. The sett and, even duri weather in the dry. At the $e$ the weather is at the commenc ber and October and often deatr are experienced southern consts em and narrow soon hlows with The temperature is equable,. of the great northern side of the interior, Fa helow $70^{\circ}$, and to the elevation ature is experie free.ing point. peaks ; but on $t$ and August, iee frost is seen ov poison-dew (âmh
pisina more speciout, and aiong their northern coanta there runa generally a belt of ailuvial land varying from 5 to 15 milas $\ln$ depth.

The geological formation of Java in eminently, olcanic. A range of mountains runs in a longitudinal direction through the centre of Java, the peakn of which vary from the height of near 4000 to near 12,000 feet abova the level of the sea. No fewer than 46 of those peaks are volcanoen, 20 of which are in a state of greater or lene activity. The craters are pumetimes of great extent, and their walls illuatrate the structore of the mountains, which in either vertical and irregulariy columnar, ar disposed in oblique or horizontal atrata.

Java has no extensive collection of water, alt or freah, and no large lagoons connected with the sen. Thers exist, however, a few heautiful mountain Iakes. One of those lies within the mountain WIlls (" the green"), which parts the plains of Madiyun and Kadiri, and is known by the name of GAbal. There is a secoad in the proviace of Cheribon, known hy the Sanserit name of Talaga, or the reservoir 1 and a third in In the province of Paouruhan and called Banunila, or the blua water. In Java, however, there are aeveral extensive marshes, which, in the season of the rains, become lakea, are navigated, and have fisheriea. The rivers of Java, especially on its northern aide, are numerous; but from the form of the island, they are of small size. None of them are navigable for veasels of burien, and few even far boats beyond the rench of the tide. They are all, more or less, obstructed hy mud or sand-hars at their mouthe. Though of Ittle utility for trade, they are oxcellentis adapted for irrigation. Few of the rivers of Java have specifie names, but take their appellations generally from the places they pass by, and change thein with every new one, a circumstance which may, perhaps, be owing to their small size and great number. There are, however, a few exceptions, in nome of the larger, ne the Saraya, a river of the province of Banumna nnd the Praga, with its tributarien the Elos Rivers of Kadu, all debouching on the southern coast.

Climate. -The cllmate of Java is what may he expected in a natrow sea-girt conntry between five and eight degrees sonth of the equator, having plains almost on a level with the sea, and inhabited land 5000 feet above it. The wet season begins with Octoher and ends with March, and the dry with April and ends with September. The monsoons are those of the southem hemisphere, the north-western corresponding with the wet season, and the south-eastern with the dry. The setting in of these monscons is irregular, and, even during their prevalence, there is aome try weather in the wet, and not unfrequently rain in the dry. At the equinoxes, when the monsoons change, the weather is very unsettled, and most tempestuous at the commencement of the winter solstice in September and October. Thunder-storms are then frequent, and often destructive to lifo. Jand and sen-breezer are experienced within 15 miles of the northern and southern coasts, and in particular loenlities of its eastern and narrowest extremity the aouth-eastern monsoon blows with great force across the whole islind. The temperature, so far as the scasons are concernei, is equable, Near the ievel of the sea, which is that of the great alluvisi baud, which runs along the northern side of the island, and of the wide plains of the interior, Fahrenheit's thermometer selloun falls below $90^{\circ}$, and seldom rises above $90^{\circ}$. According to the elevation of the land, every variety of temperature is experienced from this last to $5^{\circ}$ below the frec.ing polnt. Snow never falls, even on the highest pesks; but on these at the height of winter, in July and August, ice a few lines thick is formed, and hoar frost is seen every morning, calied hy the nativee, poison-dew (àmbun-upas), irom its pernicious effect on regetation. In the Inhabited mountain valleys, at
the height of 4000 feet, the thermometer is meally about $20^{\circ}$ below what it it at the leval of the sea. Here is axperienced a climath agreeable and congenial to the European conatitution $;$ and here, the come, fruits, flowers, and esculent vegetables of temperate regions, hava long been acelimated. In point of salubrity, tha climate of the high lande of Java is unexcoptionable, and that of the low, containing the maas of the population, in generaliy equal to that of any other tropioal country. In a fow apota of the alluvial band of the northern coast, auch as Batavia and Cheribon, deleterioua malaria have oceasionally provalled, ariaing from tha naglect of canals and water-cournen, or from these being obstructed by voleanie dobbris; but these are exceptiona, as are aiso in fow forest tracts of the interior of the isiand. The extenaive cultivation of rice by Irrigation might have been expected to genererate inaiaria, but such is not the case, nor has it ever been alleged to have done so in the country italf.

The elephant is not found lu Java, nor does there exist any evidence of its ever having heen indigenous, and thia is the more remarkable as it in abundant in Sumatra. The anlmal, however, wan known to the Javanese for ages, and was probably lmported ocensionaily for the use of its princes. Java has one rhinoceros peculiar to itself, and differing even from those of Sumatra. It is an animal easily tamerl, and when so, gentle in lis hahits. Desides the domesticated hog, Java has two wild species, the Sus verrucosun and Sus vittatus. Bith are very numerous, and their depredatlons are a serioun impediment to agricuiture.

A wild ox is found in the forests of Java, the same as that found in the peninsula and Borneo, but which is wanting in Sumatra. It is the Bon aondaicus of naturaliste. The Dutch naturalists inform us that all attempts to tame it have been vain, as in the case of the buffalo of the American prairies. According to the Javanese, however, it will pair with the domestlcated cattie, producing a fertile offapring, to which they attribute the largest breed of their oxen. The buffalo, Bos bubalus, is found will in many of the foreats of Java, but considered by naturalists to be derived from individuals in the domestic state that had escaped from servitude. The horse nowhere existe in Java in the will state, but the numbers of this animal and of horned cattio in the domestic state throughout the island are very large, the Dutch returns reckoning the first at 320,000 , and the last at about $2,000,000$.

Fish are plentiful along the whole northern coast of Java, and a few species are of excellent quality, but, upon the whele, the abundance and the quality are not equal to those of the shores of the Stralts of Malacea. The frosh water fish are all of very inferior qually and no migratory species frequent the rivers for spawning as they do on the rivers of the eastern side of Sumatra. Shell-fish are very abundant on the northerr coast, especialty oysters of excellent quality, unt prawns, the last being much used by the people in the shape of the coudiment called by the Javancese trasi. The fisheries of the exposed southern coast of the island are unimportant.

Java, whether the Inhabitants be of the Javanese or Sunia nation, is peopled by the same race, the Malayan. This is characterized by a short and squat person, the stature being about two inches less than that of the European, the Chinese, the Hindoo, the l'ersian, or Arubiun. The face is rouad, the mouth whie, the cheek-bones high, the nose short, small, never prominent as with the luropean, and never flat as with the African negro. The eyes are always back, small, and deep-seated. The complexion is brown, with a shade of yellow, not so dark as with the majority of IIlidocos, and rever blacn as with some of them. Fairness is, indee c , in estimation with the Javanese and others of the same race. The hair of the head is abundant, always black, lank, and harsh, or at.
least never soft or silky. The halr on other parts of the body is either acanty or altogether wanting. The beard consista only of a few ehort straggling hairs, and there la none at all on the breast or limbs. The Javanese, personally, are not an agile people, and make very indifferent ruaners or wrestlers. As to moral character, the Javanese of the present day may be described as a peaceable, llocile, sober, simple, and industricus people. The practice of running a muck, so frequent with the other cultivated nations of the Archlpelago, is of very rare occurrence with them. Java was populous, nad to a considerable degree civilized for many ages before it was known to Europeans. De Barros describes the Javaness, at tha arrival of the Portuguese, as what they still are, "the most civilizel people of these parts" (gentes de mais policia). They were then found carrying on trade from Sumatra to the Moluccas; they furnished breadcorn and manufucturea to the less advanced nations in return for their rude proluctions, and they hat effected conquests or settlements in Malacea, palembang in Sumatra, and in the two fertile islands of Bali and Lomboe. In fact, it is cortain that the Javanese were, at this time, a far more civilized, probatly even a more numerous people than either the Mexicans or Peruvians, who became known to Europe nearly at the same thene. The essential part of Javanese cirilization seems to be of native origin and to have eprung up in the island itself, although it sulisequently received considerable accessions ly interceurse with Hindooxtan.
With the exception of the preple of BaSi and Lomboc, the Javanese are the only nation of the Archipelago that can be said to io almost exclusively agricultural. With the exception of the fishermen of the northern coast, and a snull proportion of artisann, the computed ten millions of the population of the island is directly or indirectly engagal lu agriculture, and have made a respectable progress in it. To reguInte the jrocessen of agricultare, the Javanese have a rural calendar atill in use. This consists of a year of 360 days, beginning with the winter solstice of the southern hemispliere in the end of , lune, and divided Into twelve seanons of uneyual length, varying from 23 to 41 daya cach. It detalls the times for clearing and preparing the land, for sowing, for transplanting, and for reaping the diftierent crops. The native terms by which the seasens are uamed, are, for the most part, the ordinal numbers of the vernacular hampuage, while the alaptation of the seasons to the latitude of Java sufficiently show that this calendar ia a Javanexe invention, and not borrowed from straugers. I rrigation, in to far as the rice crop is conconned, multiplies the pre luctive jowers of the soil from tive to tenfold, accorling to the abundance of water, and the facility of uxing it, and has been carried to such an extent in Java that the majority of the armble land of the ishand consists of rice tields. The perennhal streams and rivers, as they descemel frum the monntains, are, by moans of enilankmente and trenches, diverten into small tielids surrounded ty low dikes, wheth man le flocked or itruined at pilanure. The pirneess of forming such lands is expunsive amd haterions, hut when once formell, they are casily presersel. When the water for irrigated lands is sum sently ahoundant and comtinuons, two crope of rice are riiseld within the year, and in some cases even three within lifteen monthe, the sunt being hot rnough to ripen rive in every meason. The hustmmiman may follow his convenience as to the time of sowing, and in contignons fields may be seen at once sowing and reaphis rice, with every inturnediate ntage of the gresth of the phant. When the water is not sufficently copisus for t..0) crops, the rice is sown in the wet ur het sersum; and in the dry, or colit, erops consilerind of kecumbary value are prouluced, nuth an pulsen, vilogiving plant, and cotton. No manure is over applied to irrigated lauds, wor are fallows practiced.

Dry or upland arable is of small value compared to irrigated land. On the best dry lands rice is occasionally grown, but more generally these lands are used for such crops as pulses, oil-giving plants, cotton, sugar-cane, and tobacco, and on the mountain-slopes, at an elevation of 2000 and 3000 feet, for coffec. In the moat fertlle parts of Java, which, from the neighborhood of the high mountains, are usually also the moat picturesquo, the scenery is at once agreeable and magnificent, and certainly fer grandeur and beauty excels all that may be seen, even in italy, that country which in aummer hears the nearest resemblance to Java. In such aituations we have movntains 10,000 fect high, cultivated to half their height, the valleys below having all the appearance of a well-watered garden.
When Java frst became known to Europeans, its prineipal agricultural prolucts were rice, pulses, sesame, ground-pea, und other oil-giving plants, indigo nad cotton, with palins and indigenous fruits. European intercourse has added to these, maize, tolnceo, and coffec. The quantity of its great stinple, rice, which it produces, can only be estimatel. With the exception of $n$ small quantity of maize, rice is the only bread-corn of the davanese; and, therefore, if we take the consumpticn per heal at a quarter, or 418 lhs., this, on a computed population of 10,000, (HM) , will make the total annual produce the same number of quarters. The export is, at present, too incensiderable materially to affect this computation, for in 1818 it amounted to no more than 217,000 quarters. Firem the first appearance of Europeans, and no doult for many ages before, Java was the greatest gramary of the other countrics of the Arclipoligno. Reeently the extensive culture by corvece labor ca such prod cets as sugar, coffee, and indigo, under an ille and permicius hypothesis that some peculiar commereial adsautisg to the State belonged to their culture, has greatly iaterfered with the production of corn. The expert of it has consequently diminished, mol the price materiully risen; the consequance of which has heen, that countrics immemorially supplied ly Jawa, now draw their corn from other phaces, such as Hali, Lematoe, Siam, and Arracan.

Mechanic .1rts.--The state of the mechanic arts among the Javanese is far bolow that of their agrienlture, but still in advance of that of the other nations of the Arehipelago; mul with the exceptiva of textile falrices, not helow that of the llindoos. Atwit thity dillerent crufts may be enumerated as practiced mung: them, the most important of which are the hiseksmith or cutler, the carpenter, the kris-shoath maker, the coppersmith, tho golelsmith, and the putter. Buth bricks and tiles are, at present, largely made; and excellent bricks ure found in the remains of amy ancient temples, proving that the art of mandaturing them has been known for many ages. Coarse unhlazed pottery, similar to that if Ifindeontin, is aloo made ; and the names of the different surts all humg to the vermacular language. Heyon the manufueture of this coarene article, the davanese have me ahanced -all tha ir hetter pottery having been for ager feccived from C'hinal. Their skill In earpentry is displayed in bonse and boat building, in the falirication of agricultural lmphements, and of the hilts, shaft, and Renh hards of warlike we ponas. The urdinary ducll. ings of the peasantry consist of a rough frame of timleer, thateched on the coast with the leaven of the nipa palm, and in the luteriar with grias; having walls and partitions of split, flattened, and phated hambure work. They are always l, nitt on the kromut. The duelling of the upper chasess differ, chicels, in their greater rize, with the exception of ole patacen of the princes and higher notility. Muat-buiding in an art extensively practiced all along the northern const of hava. Their loats vary in form now ala, from mete fishing canoes to vesuels of tifye tons. The buildin'
of shlpe of Eurol Javanese. with the large size agricultur those of n rule.
The Jav ture that ples of the kiml of don or of embar country of ahle edifice abundant; tecture ceas medan struc constructed religion tow
It is in
Javanese ha this compara the metals ported, the $f$ paratively a Javanese, the cribed to the must esteemc well known at least one $\mathbf{k}$ of rank two, a rank accusiont native warfare kris, the nati plain pike wle from its long s daranese krise preciated, and Javanese had guese, aknowl Barros, in dess Malacea in 15 much artillery Javanese are sk work in iron, be
The Javanes and silver orna nothing equal works in brises, falrication of which is know Javaneso name chlefly of bars, stakeita, or of $t$ way into our Sune of these dhameter. Musi still manufuetur portation, as, iml tint arrival of th
The only text ton, rather a coa made from it is a other tine textul known as manut and preparing tl Iyring, are all e domentic operati, nutions of the Ar variety of colors consisting la weal stripes, cheerkere with the other to Javanese, Anotl dists la covering cloth not fintening
of ships is, at present, carried on under the dlrection of Europeans, the workmen, however, being all fivanese. When Furopeans became first acquainted with the Jsvancse, they were possessed of vessels of large size, well entitled to the name or bhips. The agricultural implement of the Javanese are, like those of nearly every other Asiatle people, simplo and rude.

The Javanese of the present day have no architecture that deserves the name, and apart from the temples of their anclent worship, no relics remain of any kind of domestic architectore, of bridges, of reservolrs, er of embankments of rivers, such as are found in the country of the II indoos. The remains of the remarkable editices connected with the IIindoo religion nre abundant ; but it is singular that an improved archltecture eensed with that rellgien, and that ne Mohammedan structure of solid materials or benuty has heen constructed sloce the adoption of the Mohammedun religion to ward the end of the 15 th: eentury.

It is in working the metals, however, that the Javanese have mest excelled, and as they acquired this comparative excellence withont possessing any of the metals themselves, but having all of them 1 m ported, the faet may be censidered as evidence of comparatively nulvanced eivllization, Aceording to the Javanese, the first rank among artisans to to be ascribed to the hlaeksmith, or at lenst te the cutler. The most estcemed preduet of his skill is the dagger, the well known kris. Every man, and boy of 11, wears at least one kris as part of his ordinary dress, and men of rank two, and sometimes four. Even ladies of high rank oceusionally wear one. Swords are used only in native warfare, and are much less esteemed than the kris, the natienal weapon. The Javnnese spear, $n$ plain pike with an lron head, is a formidable weapon, from its long shaft of from 12 to 11 feet. Some of the Javanese krises, from their antiquity, nro highly nppreiated, and when sold bring enormeus prices. The Javanese had also, before the arrival of the Pertuguese, a knewledge of gunpowder nad artillery De Barros, in describing an expedition which invaded Malace in 1513, says, "that it was furnished with much artillery, made in Java, for," ndlds he, "the Jaranese aro skilled in founding or easting, and in all Fork in iron, hesides what they lave from India."
The davanese, although they manufneture pold and silver ornaments of considerable heauty, execute nothing equal to the tiligree work of Sumatrit. In works in brass, their chief excellence consists in the fabrication of musieal instruments, a full band of which is known thronghout the Archipelago by the Javanese name of gamilan. The instrmments consist chiefly of hars, constructed after the manner of the stancatia, or of the gong, a word which has found its way into our dictionaries and is gemuine bavanese. Some of these gongs have been maile three feet in dimmeter. Musieal instrmments of this descriptimare still manufactured in , hava, antl form no artide of exportation, as, indeed, they are sald to have done on the first arrival of the l'ortuguese.
The only textile material of native produce is rotton, rather a coarse article, and the only kind of eloth made from it is a stout durable calico, the muslins and other fine textures of continental Intia being unknown as manufictures. The processes of chaning and preparing the cutton, of spiming, weaving, and dyring, are all carried on hy women, and aro purely domentic operations, as is the case with all tho other nutions of the Archipelago. The usual mode of givinis rariety of colors to the web is the simplest possihise, conslsting in weaving the previonsly colored garm in stripes, checkeres or tartan patterms, su frequent with the other tribes, heing ngainst the taste of the davanese. Another mode pecculiar to this people consists in covering with melted wax the part of the eloth not intunled to be dyed beforo putting it in the
rat, the process necessarily requiring repetltion in proportion to the number of colors intended to be given. The only material, besides cotton, from which cloth is made by the Javanese is silk, and as the art of rearing the silk-worm has never been suecessfully introduced into Java, the raw material has always been imported. At present it is imported from Chins, an Inferi w allk, from which a coarse cloth is wrought with the same implements as that of cetton. Paper is a minufacture peculiar to the Javanese. It is of the nature of the papyrus of the ancients, and not of the beautiful and ingenious fabric which the nations of Europe acquired from the Arabs of Spain, and so long known to the Chinese.

Twe langunges are spoken in Java, of the same general strueture, belonging to the same elass of tongues, ad having many words In common, yet essentinlly differing from each other. These are the Invanese and Sunda. The Javanese has been immemorinlly a writton language, and ita nlphubet has extended to the Sunila language. Inseriptions on stone and brass enrry us back in its history to the 12th century. The written charneter is of twe descriptions, that found in ancient inscriptions, nnd that at present current. They seem, however, to be essentially the same, nnil not to differ more than black letter from modern manuscript.

Ifistmy. -Iava was unknown even by name to the eivilized nations of ancient Lurope, nnd even to those of the midille ages. It is first named by Marco Pele, who, in his junk voyage from China to the Persian Gulf, [assed through the northern part of the Archipelage about the close of the 13th century. Ile gives the name as Ciaua or Java, but his infermation being mere hearsay, is in other respeets erroneous Thus, mistaking prohably the products of its con. ce for its indigenous productions, he enumerates mong the latter eloves and nutmegs, nnd gold in quantity "exeeding all ealeulation und belief," nlthough it produces none at nll. No semuer had the l'ortuguese rearhed India by the Cape of Good Ilope than the name heenme familiar enough to Europeans. I. Barthema visited the island and remained fourteen days in it, hut his account is obvionsly fulse or worthless, for he deseribes parents as selling their children to be eaten by the purchasers, nid himself as puitting the island in haste for fear of beiniz made a meal of. Eiloarila ltarbosn, althougi ie ...d net visited lt, describes its productions, its trable, its manufactures of arms, and the prosons, dress, and manners of its Inhabitants, with mueh aceurner: ligafatta, although his information respecting it was leriv, ', as he tells us, himself, from the old pilot whe aecompanied him from the Moluccas, is even more correct than Barbosa. Hlow very little, however, was really known of Java hy the early Portugnese of Indin, is to be seen from what De Harros, master of all the Indian urehlives, says of it in lus Third lleade, published in 1668, no less than 52 years after the conguest of Malacea, and reveral years after his countrymen had visited China, dispovered dava, and traded with both. He makes it ronsist of two islands, Java and Suntla; and his work contains a ruile map, in whieh a great river, or ruther a strait of the sea, is represented as diviling them. This he calls the Niver Chiamo, which may pessibly bee the Chitambo of the Sumbas, 1 consideralile atream nt the eastern boundary of their conntry, a ond which, in their language, signitios, "bomblary water op river."

It was in the reign of the second prince of this dymasty, that the Dutch made their first appearanco in Java, umder lloutman, in 1595. In 1610 they ohtained permission from the Sunda prince of Jacntra, to build a fort near the spot on which now stands the eity of liatavia. In $16 i 9$ this fort was besieged ly the joint forces of the primers of Jacutra and Bantam, aided and nontted by the Bimglish. It was relievd by a Dutch tient under admiral Koen, and the assaliants defeated
and driven eff. It was after this event that the name of Batavia first given to the fortress was bestowed on the town. In 1628 Batavia was bealeged by a numerous army sent againat it by the reigning prince of Mataram, with the hepe of expelling the Dutch from tho island; but by the akill and courage ef the European garriaon, the rude and diaorderly host was baffled and routed. From this time the hlatory of Java is properly that of Its European conquerors. No consideralile territorial acquisition, hewever, was made until 1677, when the Dutch oltained a cession of the princlpality of Jecatra. From that time up to the year 1830, every war carifed on hy them with the native princes, whether as principals or auxiliaries, invariably ended in a cession of territory to the former; 80 that, at present, hardly one fourteenth part of the island is in possession of native rulers, and even that is entirely tributary and dependent. From the year 1674 to 1830 , the Juteh, as principals or auxiliaries, bave lieen engaged in no fewer than four great wers, all of long duration; nne of which, begun in 1674, lasted for 34 years; nne in 1718 , lasted for 5 yenrs; one in 1740, for 15 years; and one in 1825 , for 5 yeers; so that, of one thirl part, at least, of a period of 151 ; yeara, eivil war ragel in the island. The Duteh have divided their possessions in Java into 20 provinces or residences, each of whilh is administered ly a resident or prefect. Six of these belong to the country of the Sundas, and 14 to that of the Javanese. The two remaining native States, although ahministered by their own princes, are virtuall: Duteh provinces, and placed under the control of an officer, with the same title as those of the provinces under direct Dutch rule.

Population.-Attempts have heen made at various tlmes to estimate the tetal population of lava. The tirst of these was by the historian Valentyn, who estimates the population in his time (1726) nt $\mathbf{3}, 194,7501$; and including Madura, 3,591,500. This estimate was made shortly'after a civil war of five years' duration. In 1755, immediately after the finest parts of the island had been the theatre of a civil war of $15 y$ ears, an estimate was made which gave dava only $1,9.91,911$, or including Mailura, 2,001,911. This would neem to show that In less than 30 yeurs a der reawe had taken place exceeding a inillion abil a quarter. At the close of the last cencury, estimates of the population were made, which raised the joint population of Java and Madura to $3,559,611$. This was after a continued peace of 45 years; and whows, compared to the last estimate, an increase excoeding a million and a hulf. In 180 s another estimate was made, and by this, the number was maile $\mathbf{1 , 7 3 0 , 0 0 0}$. In $1 \times 15$ a crnsus was attempted during the temporary ocenpation of the linchlish, which raised the population of Java to 4,390, , $6 ; 11$, or ibrluding Madura, to $4,615,2 \% 0$. In Ised a rennus was taken which gave the pepulation at $\bar{\delta} 40: 1,7 \times 6$. 10 years later, another was taken, nal this raised the number to $7, \times 61,551$; and consequently gave a derennial incrosas at the rate of about it per cont. The census of $1 \times 15$ mate the joint prpulation of dava and Badura $9,5 \%,-81$, or of la va alone, $9,2: 5,0,03: 4$. The last census is that of 1862 , and this male the joint propulation of dava and Malura 9,9-13,075. The pepulation wawestimated as heing, on 11 st I lecember, $1 \times 5: t, 10,24,1,1000$.

Rrcentr.-The revenue of the Eurnipan governmont of Java is that of the whole island, inclurling Malura; excepting an to anme taxpa on consumptim, the terrlturies are subject to the two remuining nativen princes, embracing an area of $2 x 29$ mpare milow, and a reputed population of 850,000 . It is derlved from multifarions wources, and may be brietly desiribed, taking the thigures from the public necounts of $1 \times 49$, an given by Mr. Temminck. These may be sutlicient for a general view, as no material clinge has slace becon made in the fiscal nystem.
During the five yoars' temporary orcupation of Java ly the British government, from lxil to lelf, nearly
the whole ancient aystem of monepolies, forced deliverica, and corvée labor was overthrown, and free eulture, open trade, and free laber substituted for them. The merit of thls great revelution in the administration of the Jsland belongs to the late Sir Stamford Raffles, the British lieutenant-governor of Juva, under the supreme gevernment of India; and be carried his
bold ond valuable innovations into effect with a courage, industry, and perseverance entitled to the greatest praise. The finaneial aystem which he alopted, however, was not so happy, in so far as the land-tax was concerued, for it proceeded on the principle of the States entering directly into an arrangement with each individual occupant of a few acres, in the case of Java probably not fewer than half a million. Under this aystem, the tax was puid either in money or in kind, at the option of the occupunt; and being generathy paid in the later, it followed that the government was converted at once inte warehense-keepers, and cornmerchants. As in other territories on the concinent of Indin, the new nystem was found mischievons and impracticable. The land was over-assessed, and the hypotheticul fund-tax could not be realized.

After two years' trial, the Dutch commissioners who receivel charge of the island, judiciously abandoned the Ryotwarrie system of 1814, and arranged with the lumbs of the village corporations for the lamb-tas, leaving its distribution among the occupants to these corporations themselves. This natural and simple system, the only one suited to such a state of rociety as that of Java, after heing in operation for It years, was partially relinquished in 1832, and the old system of forced teliveries of certain agricultural product., and of corvíe labor in raising them, was, to slarge extent, rextored. The pretext for this was the hope of greater gain, and the assumption that, by the immemorial usage of the country, the State was entinled to take, at its option, its tax in noor. $y$, in kinl, or in corvé labor. U'uder this system, a ronsiderable portion of the tax on rent is remitted, and some of the best lamd with the labor of its peasantry las licen ap. propriated to the cultivation of products deemed jeculiarly fitted for the markets of Burope, sueli as coffece, angar, and indifo, with tea, cinnamon, and enchineal, and the lant three expressly introduced into the inland for this special purpose. By this impolitic measure, the Duteh govermment has become, once more, a cultivator, a trader, und necessarily, from its positinn, to a certain extent, a monopolist trader. The evil elfects of such a system on that wealth, which is the only sourre of pullic resinue, must be obsions th every enlightened ntatesman.
The actual monnt of the tax on rent or lamp-tax remainlag to the butch goverument. attor leductin: expmptions, was, in $1 \times 13$, allowing etot. to the thorin, Ex:L5,551. To this, however, is to bumbisi a sum of ceti,215 for the quit-ronts of land sold at varions times in fee-simple to buropems, with cother items of the mature of a land-tax, as the rents of certain tish-joms, or stews, amounting to $\boldsymbol{x}^{2} 2,30^{2}$, mar ing the tital limitax realizenl $\mathbf{E} \times 89,12 \times$. No acconnt is rableted of remissions on account of land appropriated to the cultur of proklace for government, but a fow farts are shated which will give a tolerable nution of the "atent to which this very barbarous system is carriol. The number of lavanese families fruna whith corvio lahw was exacted for the culture of collice, in In II, was sas, $2 x!$, and for that of sugar, intign, ant thoamum, itate,95is, making the total jumbine, exclusive of those employed in the cultivation of tea and cochineal, which is not atated, $701,2 \operatorname{ll}$ families, eguivalent to a papulation exceeding three millions and a hatf, or 10 patts in 100 of the entire population of the luroman protion of the ishand. 'The quantity of land sot anite for the cultivation of sugar, indligo, and cinuanon, amomed In 18.11 to 117.435 acres, abd this consisted of the rirhest irrigatel lands of the island, unally firling twa
yearly hav the avera of an infel of coffee al maize, is formed fror given, ond in 1841 to
The taxe iog of meno duties, $\mathbf{t} \times \mathbf{x}$ the. The opium and to $\pm 796,630$, of opium is principle. amounis to onerous than the produce, en const, b ically distrib gal. Anethe caves produc as the birds a the chicf con revenue. In of timber fro sive property monopoly, of £42,141. The arising from accounts the $n$ as Javanese $\mathbf{r}$ 000 . As the with which the branch is ther financial resou
The export cluding pert cl market, transit The tax on th that on firh and to add that the are injurious in an obvions pria ernment of dav tle. The slang ited, with the ber of this anim certain eflect course the the ve rearing of these promotel, by de ohl, imperfect, o
The expenses were piven at $t$ ? expenliture exes enurmotis stims of contingency of 1 The civil charg E: 20,319 , the na ry expenditure, The expense of clusive of frelgh while the interes red in sti years't of that of Ilritis itants, and which

Trude,-'The it all the Netherlan trepit for the w remittance for the duce, as cofice, and the other I) by the English it commerce, and e feld for the enta
yearly harvests, and equal in value to 10 times that of the average of all dry lands. The quantity of land, of an infarior deseription, appropriated to the culture of coffee and tea, all peculiarly fitted for the growth of maize, is not stated, but some notion of it may be firmed from the number of faniliss employed, as above given, and from the number of trees, which amounted in 1841 to $336,922,460$.
The taxes on consumption are multifarious, consisting of monopolies, excises, customa, transit and market duties, $t$ "xes on fisheries, and on the slaugliter of cattle. The chief monopolles are those of the vend of opium and salt. In 1843 the first of these smounted to $£ \mathbf{8} 96,630$, and the last to $£ 381,150$. The monopoly of opium is at once proluctive and unexceptionable in principle. That on salt is, of course, a poll-tax, which amonits to about 4s. on eneli family, and is only less onerous than our own in Bengal, from the salt of Java, the produce, chiefly by solar evaporntion, of its northern coast, being better, cheaper, and more economically distributed to the consumers than that of Bengal. Another monopoly is that exareised in certain caves producing the esculent swallow-nests, and this, as the birds ara the chief manufacturers, and strangera the chicf consumers, is an unexceptionable souree of revenue. In 1843 its amount was $£ 24,271$. The sale of timber from the teak forests, which are the exclusive property of the gavermment, constitutes another monopoly, of which the produce in the same yenr was $\mathbf{f}+2,141$. Theso difforent items make the total revenues arising from monopolies $£ 1,247,201$. In the publie accuants the monopoly of the tin of hanca is get down as Javanese revenue, and stated at the sum of $£ 250$,000 . As the revenue of Java nlone supplies the funds with which the mining and smelting is carried on, this branch is therefore correctly enongh incluled in the financiul resources of that island.
The export and import duties of Java $\ln 1813$, $\ln$ clading port charges, nmounted to E. $60,8 \cdot 10$; and the market, transit, null ferry dues, cane to £262,672. The tax on the slaughter of cattle was $£ 39,341$, and that on fiwh and fisheries $£ 27,911$. It is not necessary to add that the two last, as taxes on necessaries of life, are injurious imposts. A strange want of nttention to an obvious principle is evinced by the European goverament of Java, connected with the slaughter of catthe. The slaughter of the buflite is expressly prohitited, with the avowed olject of increasing the number of this animal for the tienefit of agriculture. The certain effect of the prohilition, however, must of course the the very reverse of what is intencled, for the rearing of these animals, is surely discournged, not pronoted, hy depriving the owners of a markec for the old, imperfeet, or superduous ones.
The expenses of the govermment of Java in 18.13, were given at tho sum of $\mathbf{E} 6,291,606$. Thus, then, the expenditure excreded the nmount of the taxes by the enomous shm of $\mathrm{EA}, 082,249$, to be made good hy the contingency of profits on proluce remitted to Jiuroper. The civil charges eame to $\mathbf{E 8 2} \times 7,825$, the military to fiso,310, the naval to $\mathrm{fl} 1 \mathrm{k}, \mathrm{k} 56$, and the extraorlinary expenditure, on necount of Sumatra, to $£ 920,0$ od The expeuse of dispatching government prombuce, exclusive of frelght nod charges, nmounted to f75,212, while the interest of the public debt, nearly all incurred in 27 years' time, eame to $£ 1,018,16: 1$, or about half of that of Iritish India, with $120,060,000$ of inhabitants, and which it has taken a century to incur.

Trude. - The intermal trale of Java embraces that of all the Netherland possessions in Indla, as it is the entrepit for the whole of it. It includes also a large remittance fur the public revenue in the sliape of prodace, as coffec, sugar, indigo, tin, and spices. Java and the other 1)utch possessions were delivered over by the Binglish in 1816, with a conshlerally Improved commerce, and cortainly, at all events, wioh a clear fied for the establishment of a liberal aystem. The
opportunity has assuredly not been taken advantage of. Double dutlas have been imposed on all gooda importad under a foreign flag, and other contrivancaa of the exploded mercantile aystem have been had recourse to, in ordar to give trade a direction to Holland, a costly expedient, injurious to the colony, and of no substantial valus to the mother country. In 1824, and within eight years after the restoration, a new East India Company was set ap as ons of these contrivances, the Handel Mantschapij or trading association. This association is merchant, shipownar, agent, for the sale of the government produce in Europe, carrier of this produce, and farmer of some branches of the public ravenue of Java. Originally, there was guaranteed to it a fixed and certain intersat on its capital stock, and even the sovereign of the Netherlands was a slaeping partner of it. The fulse hypothesis on which this retrograds policy was adopted, was a supposed nacessity for encountering what was called the overgrown capitala nnd enterprise of England and America, ns if the free capital and enterprise of IIolland, which, nnder greater difficulties had achievel much graater things, was unequal to carry on the trads of its own colony' without pillowing and bolstering.

The values of the exports from Java, and their destination, in 1816, 1836, and 1826, were as follows:

| Combiten. | 18.80 | 1836. | 1826. |
| :---: | :---: | :---: | :---: |
| Netherinods. | $\begin{aligned} & \text { Hlorisk, } \\ & 89,603,848 \end{aligned}$ | $27,232,1888$ | $\begin{aligned} & \text { Florina. } \\ & 6,118,525 \end{aligned}$ |
| Indian Arehipelagu. | 9,326,548 | 6,708,153 | 4,857,783 |
| Great Britaia...... | 2,365,987 | 189,592 | 849,098 |
| China, Macao, ete.. | 1,896,709 | 3,818,706 | 1,976,192 |
| Franee | 1,326,149 | 1,944,145 | 42,282 |
| Aeneriea.......... | 1,199,644 | 1,002,529 | 211,281 |
| İamburg.......... | 615,041 | 108,142 | 63,334 |
| Sweden. . . . . . . . . . | 845,949 | 258,989 | ¢7,172 |
| Other places......... | 711.888 | 869,315 | 959,785 |

The previous statements show that the produce and trade of Javn have lncreased during the last 12 years with a rapidity unknown in any other colony, Cuba, perhaps, excepted; nnd if the resources and capabilities of this noble islnnd ba fully developed, it is quito impossible to say how much further her trade may be exteniled nnd her resources developed.

Principal Port.-Batavin, a city of the island of Inva, the capital of the Dutch possessions in the Fast Indies, and the principal trading port of the Oriental lslunds, lat. $6^{\circ} 8^{\prime}$ south, long, $106^{\circ} 50^{\prime}$ enst, on the north-west coast of the island, at the mouth of the Jacatra liver, on an extensive lay. The harbor lies between the main land and several sundl uninhabited islands, which, during the north-western monsoon, attord sufficient shelter and good anchorage. Population in 1842, 53,8t0, including about 3000 Europeans; the rest are Chinese, Javanese, Malays, etc. It is built on marsly ground, and intersected by canals in the Dutch style. It is defended hy a citadel and several batteries, and has a considerable garrison and marine arseual. Other authorities represent the population of latavia, in 1832, at 118,000 ; viz., Europeans, 3000 ; Chinese, 25,000; Aborigines, 80,000 ; Moors, 1000 ; Arabs, 9000 . Batnvia has n bank, with bramehes at Samarano nnd Smabnyo. This place was long considered very unhealthy, but has beon mueh improved hy ilruinage, Mean temperature of year, $78^{\circ}$.

The Jaratra is naviguble by vessels of 40 tons two miles inl-.$d$; ships of from 300 to 400 tons anchor in the hay, 1f miles from shore. lhatavin is the great commercial emporium of the Asiatic Archipelago, and atisorbs by far the greatest proportion of the trade of Java and Madura; the nunnal exports of whieh islands amount to $60,300,000$ tlorins $(\$ 25,123,000)$, and the imports to $30,000,000$ florins ( $12,000,000$ ).-E. 1 .

See Quar. Rec., vi., 487, xvii., 72; Munt's Mer. Mag., il., 328 , xxxili., 369; Eil. Rev., xxxi., 395.

In 1853 the foreign commerce of Java and Madura amonnted to $817,712,241$ for general imports, and to $28,677,183$ for exports. Tho imports and ex-
ports during this year exceeded those of the preceding year-the former $\$ 1,596,164$, or 9.9 per cent.; the latter $\$ 6,294,489$, or 21.83 per cent. ; thua exhiblting the most practical illuatration of the increasing trade of these rich and fertile ialands. The share assigned to
the Netherlands In the general trade of 1853 represented, for imports, 42.23 per cent of the whole; and for exports, 76.09 per cent. The trade with the United Statea with these lalands, during the same jear, was 1.89 of the whole.

Comareer of tha Uniteo States witit the Detoh East Indiga, phom Octobab 1, 1820, to Julv $\mathbf{1 , 1 8 5 6}$,

| Years ending | Erports, |  |  | Imporis. | Whereof there was in Dulllon and Spreeie. |  | Tounnge Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatie. | Foneigh. | Tetal. | Total. | Kisported. | Imported, | American. | Foreiga. |
| Sept. 80, 1821. | 183, 919 | 61,014, 808 | (\%1,714,818 | (184,869 | 61,257,495 |  | 5,610 |  |
| (18gy. | 121.441 | 909,571 | 1,181,018 | 858,144 | , 877,641 | \$2,800 | 5,286 | $\ldots$ |
| 1823. | 151,120 | 1,700,981 | 1,902,101 | 418,6*0 | 098,940 | 240 | 4,990 |  |
| 1524.. | 61,669 | 698,616 | 700,285 | 147,453 | 419,818 | gïgs | 3.814 | $\cdots$ |
| 1825. | 168,028 | 1,884.54 | 1,527,906 | 188,408 | 669,583 | 24,808 | 7,054 | 1,24 |
| 1882. | \$7.046 | 874.057 | 4 42.463 | \$14,056 | 278,069 | "067 | 3,242 | . |
| 1827. | 84, 499 | 127.749 | 166,608 | 286,47 | 93,222 | 2,067 | 1,143 | $\cdots$ |
| 1829. | 83,710 | 813.277 | 306,957 | 113,462 | 265,480 | 2,010 | 8,028 | .... |
| 1829. $18: 30$. | 62,074 | 176.814 | 294.398 | 121,848 | 149,850 | 8,893 | 1,985 |  |
| 18:30. | $6 \times, 278$ | 107.298 | 170,566 | 181,848 | 02,600 | 10,000 | 1,601 | 220 |
| $\begin{array}{rr}\text { Sept. 30, } & 1881 \\ 188 \\ 11488 \\ 1883 \\ 183 \\ 1884 \\ 1887 \\ 18888 \\ 1439 \\ 1540\end{array}$ | \$835,684 | (3,7435,449 | +8,871,183 | (2,409,714 | \% $0,060,865$ | S44,848 | 87,605 | 1,454 |
|  | -128,884 | 6631.442 | 6760,826 | (319,885 | \%480,975 | 4,4,827 | 6.499 |  |
|  | 24,516 | 503,514 | 828,020 | $16 \times 10$ | 426,998 | 10.9 | 7,458 | 600 |
|  | $94 \times 42$ | $6 \times 10.929$ | 774,841 | 750,2:00 | 477,988 | 10,28t | 7,477 | 1.153 |
|  | 115,011 | 466,188 | 5*1,149 | 582, 150 | 896,475 | 1,615 | 8,324 | 316 |
|  | 930.4ins | 1,218,6*2 | 1,444,290 | Sthe, $3 \mathbf{3} 3$ | 1,106,498 | 925 | 20,476 |  |
|  | 172,691 | 906,831 | 1,079,022 | 1,477.910 | 704,740 | 224 | 16,958 | 447 |
|  | 208,230 | 245,924 | 548,474 | 1,119.768 | 285,689 |  | 5,441 | 7,340 |
|  | 166,214 | 829.747 | 495,961 | 576,396 | 108,144 | 8,742 | 11,430 |  |
|  | s6, 119 | 898,034 | 4.3,524 | 692,196 | 878,626 | 628 | 0,294 | $6{ }^{6} 3$ |
|  | 132, 751 | 2022,562 | 935, 308 | 817.897 | 176,724 | 21,619 | 1,824 | $4 \times 5$ |
| Sept, 30, 1841 | \%1,414,898 | 莗5,616,543 | \%, $0: 50,939$ | -7,405,870 | -4,655,1182 | - 48,469 | 95,141 | 11,449 |
|  | -175,876 | (224, 150 | C-603,426 | \$266,425 | - 2418,500 | 48,000 | 5,824 |  |
| 1842. | R5,578 | 198.5 *) | 279,188 | 741,449 | 175,271 | - | 794 | $\ldots$ |
| 9 fios. 1047. | 90,289 | 103, T.12 | 193,9×1 | 121,524 | 89,577 |  | 2,840 | $\ldots$ |
| Jane sm, 1844. | 94.818 | 261,073 | $4 \mathrm{H} 9,383$ | 995,941 | 944, 828 | 11.901) | 4.656 | $\ldots$ |
| 1-45 | 129.151 | 72,017 | 241,124 | 888.604 | 68,516 | 121 | 4,592 | .... |
| 1468. | 41,710) | 42,842 | 53,042 | 4014,323 | $8 \times+40$ | *... | 8,079 | .... |
| 1847. | 91,9012 | 10,2:2 | 200,140 | b94,982 | 106,120 | ...* | 5,870 |  |
| 1814. | 142,965 | 105.934 | 24b, 40 | 249,446 | 92,584 | . | 4.575 |  |
| 1849. | 2-0, 523 | 0.4.114 | 831,941 | 854,524 | 32,000 |  | 6,683 | 1,4138 |
| 1550. | 150,5033 | 262,95\% | 443,455 | 44.404 | 219,460 | 1,800 | 4,070 | 8,320 |
| Total.... 1,310,020 |  | 1,430,6\% ${ }^{\text {a }}$ | 19,740,678 | *5,127,202 | 51,272,463 | \%21,871 | 42,648 | 4,238 |
| June 30, $\begin{array}{r}1851 \\ 15402 \\ 1588 \\ 1554 \\ 155\end{array}$ | -204,480 | -43,141 | - 217,16 | \% 410,148 | 61,500 |  | 8,016 | 5, ¢in |
|  | 142,997 | 141, 145 | 824,192 | $1,018,904$ | 154,430 | . . . | 3,649 | 14,182, |
|  | 2002,024 | 180.884 | $8 \times 1,76$ | 844,543 | 140,400 |  | 8,524 |  |
|  | 1199,208 | 75,576 | 154,776 | 1,1111,460 | 68, ${ }^{1010}$ | 2,956 | 5,634 | 4,313 |
|  | 287.987 | 24, 886 | 311,423 | 1,032,270 | \$17,170 |  | 8.4106 | 8,458 |
|  | 120,444 | 89,712 | 2110,48 | 1,348,249 | 71,060 | 17,000 | 10,877 | 2,141 |

Tariff.-The tariff regulations of Java nre ilvided into slx different classes, vlz. ; Class I relatee to dutien on wines and apirita, etr. ; clase 2 relates to duties on cotton and woolen goods; clabs 3 relates to aundry Imports from Europe, Anmerica, and the Cape of Grox Hope: class 4 prescrilees the dutien on the products of tho Indian Archipelago; clase 5 relates to merchandise lueing the proiluce of countries east of the Cape of Good llope, not Included In any of the foregoing clarspa; clans $f$ prescribes the export dutien lovied on the prolucts of Java. All these classes recognize a diserisination In favor of the luteh flag; but, nuder the treaty of Auguat 26, 1852, between the United states and llolland, these discriminatious ilo not spily io the Ameriean thag when importing or exporting from or to the ame places an the nuthunal flug. 'lise article, by virtue of which the vesnels of the I'nited Statea are equalizod with those of llolland, reads thas: Art. 11. "The alove reclpucal equality in relation to the flapg of the two conntries in understoenl to extenil also to the parts of the colonies and dominlons of the Netherlands beyond the sean, In which gooda aud merchandise, whatever their origin may be, imported or expurted from and to any other country in veasela of the Vinited states, shall pay no higher or other dutien than shall be levied on the like goods and merchandine imported or exported from and to the sume placen in veasels of the Netherlands. The lounties, drawhacks, or other privileges of similar denomination, which muy be there granteal on goodn and merohandise imported or exported In vensels of the Netherlanils, shallalso, and in like manner, loe granted on grools and merchandise imported or exported lu vessels of the United States."
'Pame rixhbiting the Navioation of the falands of Jaya and Madua in the Igaha aprcimid.

| Natiosality, | Vonsma |  | Veatela cirated. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $1 \mathrm{~B} \%$. | 1sss. | Imby. | Tuss. |
| lutch. | 1, 2 23 | 1,483 | 3, 19 | 2.03 |
| Engitsh. | A9 | 77 | $4 *$ | 4 |
| Freneh. | 19 | 14 | 16 | 13 |
| Ihelklan. |  | 3 |  | 8 |
| liamburg | 10 | 17 | 101 | 1.5 |
| Ifomen. | 10 | 9 | 10 | 12 |
| I'rusplan. | 1 | 1 | 8 | 1 |
| Nwedlah. | 12 | 13 | 17 | 12 |
| lataslan. | 1 | 1 | 1 | 1 |
| Hanjal | 4 | 3 | 5 | 2 |
| Amerioan. | 7 | 24 | 10 | 4 |
| Porlugues | 9 | 9 | 1 | 8 |
| ('hlthere. | 1 | 1 | 2 | 1 |
| Ham! | 19 | 2 | 12 | 19 |
| Other Aslatie cou | 81 | 119) | in | 6 |
| ''otal | 2,046 | 4.176 | 2,012 | 2,2\%11 |

From tho precerding table it appears that in 1 sins the Lnited itates just trebled in one year the number of versels bearing their llag in that renoto corner of the gholes. This in to he asirilied to the liberal conmercial treaty of 1802, equalizing the U'altenl States' ant the lutch llags in tho colonial trade. The aubjeined turifl of iluties of the laland of Java has been prepared from a copy printed nt Inatavia in 1844, with monlifications and changes down to dune, I85is, transmitfed from the United States' conmulat at that furt:
fort Chargea ut Joma.-The larion dues are one half a rupee per ton; lut a ship having once pali this charge can touch either at Samarang, Soerabaya, or go to a foreign port and roturn, if within six monthe from date of payment, withuut further expense. Ships can
anchor an with the s charge of line drawn All letters tom-house, be intenile no pilots pilots can west, and terell wate with a fore

Duteh
In Duteh ves European ane atd Jollan Frem countrl thona do not From Dutela prlago....
From do. in From do. In I tonehed at Chinese go

Import

Burf, salterl, so
Books musc,
Butter.
Candles, wav. Clothing, wool Copper and cop Coal..
Corks....
(arrls, playing.
(cirils, play
corilage..
Cattle, as cows
lyturs and med
Flour. .
Furalture.
Class, chltha, an
lioll and sllver
Gioh and silver
Gold anal allver
Jlans..
Ilores abd mul Horse
Hats.
lron, 7
ron, in bars, pil tron waro and in wiwelry, pearls, lumber.
Jeather, anil art Le:wh.
Linen of beomp on Mitical Inatrume Aparal stores exe prosill, prohbit Prosistons, other Prerfamer. Perfamery... I'ants, linserenl ol Pietures, plates, lork, zalt, sthoke
 Steel Ware...ibl
Stone fur hathli

Marble the
Filnts, prol
Segars, IIavana .
All nther $\ddot{k}$
suift of alt klnis.
saldles and harne
sosp..
silver. (Nee Guli
silk and silk grood
sait, pruhiblted.
Tha and tia ware.
Tubaceo leaf, mau
Taf. (Mee Naval
all gooda not ine
Fiaripe, Amerled
anchor and remain in the roads, and can communleate with the shere, recelve provisions, water, ete., without charge of anchorage fees. The roads are south of a line drawn from tha Rhoneland to the Neptune shoal. Ali ietters must be lnmediately delivered at the cus-tom-house, except consignees' letters, and such as may be inteuded for the captain or snpercargo. There are no pilots for Batavia or Samarang. For Soerayaba pilots can be had at Point lauka coming from the west, and nt Passaroeng coming from the east. Filterel water is sent alonggide in government tanka, with a force-pump and hose, et a charge of 57 cents
per hogshead, and in the outer roada at 66 cents. When a blue flag ia flying at the maln-mast bead of the guard-ahip, or at the aignal ataff of the lookoat-house at the head of the canal, it is unsafe to attempt entering the river.

Tariff' of Duties for the Island of Java.-By Dutch vesseis aro meant vessels belonging to Holland, and no others. Under the Dutch flag are comprehended the flags of Asintic princes which are placed on the arme footing as the Dutch flag. The pound in this tariff is the old Amsterdam pound. To the duties in the tariff, 5 por cent. is added for breakwater.

Duties on Cotton and Woolrn Gooda Imported into Java.

| Articles. | Hate of duty. | Remarkn, |
| :---: | :---: | :---: |
| Dutch ........................................ | 25 percont. |  |
| In Dutch vossels, with certifestes of Dutch orggla........ |  |  |
| European and American, if from countries betweon which and Lfolland friendly relations substst. | $\}_{25}^{25}$ | On appralsed valne, according to tariff of priecs, corrected overy three months. |
| Frow countries hetween which and Ifolland ficmily relathons do not enbslat. | $\} 50 \quad \cdots$ |  |
| From Dutel Indla and favored States in the Iadian Arehipelato | $\} 25$ per cent. | On appraned value, according to the market |
| From do. in Dutch Indian vessils, provided they have not teucherl at my forctign port... | \}12t ${ }^{\text {" }}$ | price of the day. |
| All other comntries east of the Cape of Good Hopo, excopt Chithese gools In Chinese Junks. | $\}^{25} \times$ | $\left\{\begin{array}{c}\text { On invelce vnlue, with aidditlon of } 30 \text { per et..or } \\ \text { nppraisement according to market prices. }\end{array}\right.$ |

Import Dutiza on aundiy Goode the Products of Eunopp, Amenica, and the Cape of Good Ilope,


Java Tanify-Expont Dutikg

| Ardeles. | Rate of da'y. | Remarks. |
| :---: | :---: | :---: |
| Arrack. | Free. |  |
| Birds' nea | 12 per cent.... | Uader Duteh fiag, 6 por oent. |
| Camphor, Jap | \% 30 per tub. | To Holland, in Dutch vessels, 1140. |
| Cotton goods |  | To forland, in Duteh vesseig, 0 per cent. cly |
| Coffer. | $\{\mathrm{lbs}, 12 \mathrm{p} . \mathrm{ct}$. | Ing botd fir the dlfference. |
| Copper, Japan.... | \% 280 per pleot | Under Dutcha fiag, 8140. |
|  | Frue. | In sums less than ${ }^{\text {20, }} \mathbf{2 0 0}$, for owner's use, fres |
| In other cases, ............... | $4{ }^{4}$ ".... | provided permission be obtained. |
| Gold and silver not coined, and Japan cobang Horsen................................... |  | Under Dutch flag, ene half these dutiea. |
| Hildes, cow | ${ }_{8} 20$ per 100 . |  |
| Indico baff | 240 p. plcui | Hohtani, in Datch vessels, gno lialf these dutles. |
| Jewele, pearis, and | Frea. ${ }^{\text {a }}$ (per |  |
| Oif, cocoanut....... | (t 20 per plcot |  |
| Ratans.. | 18. |  |
| Kum, Java | 480 p .1 Icgger | Under Dutch flag, ono half these dutles. |
| Splers, cloves. | $7{ }^{4}$ per picot |  |
| Splers, cloves. | 760 800 |  |
| " matme....... | 760 | To Ifolland, in Dateh vessels, one half these dutles. |
| " wild nutmega. | 4 por cent.... |  |
| Sugar, fava list and ${ }^{\text {ad }}$, sorts. | 6 fera pent.... | Aa above, free. |
| " brown, and mulasses if, in the optaion of tho collector, not auttable for export to Europe or America. | 20 cts.per pieol | Under Dateh flag, frue. |
| Salt. | Frec. |  |
| Tortotae-sinel | ${ }_{4}^{4}$ per cent. | $\}$ Under Duteh flag, 2 per cent. |
| Trim....... | 11 00 per plcol | To ITolland, in Duteh ressels, so cents. |
| Tripang | ${ }_{4}^{4}$ per cent.. | \} Under Dutch flag, 2 per cent. |
| Wook, zandal wool | $40 \mathrm{ct}$. pur $\mathrm{Olicol}^{\text {a }}$ | Under futch flag, one half this duty. |
| eapan weord | ${ }^{\prime \prime}$ | $\{$ To Lullani, in Dutels ressela, oue hate this |
| Gools not mentioned above, belng tho products of the Indan Arehiprlage. | 4 per cent .. | tonder Duteh flag, 2 per cent. |
| Coods, the maxtmum fmport duty on whith is 25 or 24 per cent. | $\}+\cdots$ | As above, free. |
|  | 4 " | As above, 2 per cunt. |

Jeddo, Jedo, or Yedo, the capital of Japan, nid the largent eity in that empire, is situate on a gilf, on the weatern side of the island of Nipon, lin N. lat. $35^{\circ} 32^{\prime}$, li. long. $110^{\circ}$. It atands on a large plain at the heal of the gralf, which is here at ahallow that vessels gencrally discharge their cargoea a league or two below the city. Jeddo is suid to be 7 miles in length by 5 in breadth, and to have a circumference of 20 miles. It is not inclosed liy walls, but is intersected hy numerous broad canals and ditches, having on each side high embankments, on the tup of which are planted rows of trees. A river of considerable size tlows through the town into the harisor. The hauses are small and low on account of the frequency of earthquaken. They are built of wool with thin clay walla, and are divided into rooma by paper screens. The thoors are covered with mats, and the roofs with shavings of wool. Being thus entirely compsed of combustible materialn, fires are frequent and destructive. As the familles of princes, lords, and nobility of the empire are obliged to rewide continnally at Jedilo, zhere are uumerons housea of a sisperior class. These, lowever, are only one story in height, and have no towers. They ary distinguivhed from the ohher louses ty large court-yaris, stately gntes, and tho varnished nteps leading up to the door. There are besides numeruas temples, monasteries, and other religious boillings, The imperial palace is near the midlle of the town, and is salil to be more than cipht miles in circminference. It comsists of several palacen or caatlen, with large gardena and orcharila. Benides leing the residence of the court, Jodhlo contains loori-hing mannfactures, anl carries on nu extenslve commerce. The population is varionsly extimated from 700,060 to $1,500,060$, and even more. See Japan.

Jeremie. This is the km dlest pert in the island of Ilaytl apen to foreign commerce. The anchorage at Jeremie in so dangerons that scarcely a year panses without one or more mbipwrecks, or other seriuua casnaltiea, being recorded. In 1819 there entered and
cleared 76 vessels, with an aggregate of E 200 tons; und in 1850 there entered and cleared 91 vessels, measuring $11,5: 16$ tons. The following summary exhilits the general trade of this port for 1850:

| Countrie. | Value of litipurts. | Arcicles and quan'ilies uf exports In leson. |  |
| :---: | :---: | :---: | :---: |
| linftel States | $\begin{aligned} & \text { Francs } \\ & 1,065,000 \end{aligned}$ | Coffee. | $\begin{gathered} \text { Ronali4. } \\ t, 493,919 \end{gathered}$ |
| France ${ }^{\text {a }}$ | 244,030 | Cocoa.. | 0.41,871 |
| Hireat lirit | 24.400 | Camprocho....... | $6,429,169$ |
| Denrriark | 113,000 | Guyar............ Wax. | 81,519 3,124 |

Jersey, the largest and most important of the Enlish Chamel Islands, is situate in the Bhy of st. Nichael, 13 miles weat of the nearent coast of France, and 85 miles from the nearent point on the linglish coast ; N. hat. (St. Helier's) $49^{\circ} 11^{\prime} 3^{\prime \prime}$, W. long. $2^{\circ}$ $7^{\prime}$. It ia 12 miles in lungth, from east to west, and 7 in breadth from north to south, and has an area of alant 40,000 acres. The north const of the inlanl is rorky, bold, and precipitous, rising sometines to the hoight of more than 200 fect above the sea. The t'hamel Islanto are considered an belonging to the crown, but ay forming no purt of the reahm, so that they are not represented in P'arliament ; and Acts of l'aribament, as such, have no legal force as regads them, unkess they are therein specinlly namod, or unless the actu, in virtue of an order of council, are rentistered on the records of the ishands. In their institutionn, customs, and lawn, the people at'll retain much that is Norman; and, in this reapect, dersey has cetained considerably more of the ohl institations and of their free efirit than the fiter island of liucrneys. The people appear to have at all thes onjoyed muith freedom and great privilegen.- C . It.

Jet, or Pitch Coal (1)n. Giit, Zuarte burwstern; Fr. Jais, Jayrt; (ier. Iiagut; It. tioguta, I.ustrino; lat. tingus, (ougates), of a liuck velvet color, owors mato eive, in platen; aometimen in the ahape of trameles of trees, bat without a regular woomly texture. Intornal lustro shhning, resinous, woft ; rather britthe ; easily
frangible; ap and for maki it is called b necklaces. conchoidal fra

Jetsam. Jettee, th pier, in certah linf; conslatls whth stones, e foundationa of
Jetty-hea dockyurds to yoad the rest wharf, the side dry or wet doel Jewelry.
So procligiong dies, that Pliny wearing ornam Jewels were wo The manufactn gland in 1685.
Jib, a large msst head and which projects $b$
Jidda, or D the Red Sea, 64 the port ; N. lat. on a gentle clev surrounding con spects cleanlines to most eustern t are comparatively are built of cora Red sca, and fro rial, are not very are mere huts con
Jidha has long porium of Arabite for ils existence middle of the eas 120 miles tistant and within two da fitted for the impo for the exportatio bowever, like mose is inconvenicht, an account of the shm are obliged to dis alont two miles f? Exypt and Aburssin clothing, oil, tobaed muslias, shawis, a Malay islants and slaves. The inpor whence they lind ports, or by caras which cities they a and Turkey. Dat Necca, are brough Next to hrain, the perhaps cofliee, whic from Mocha. The the port is estimate of Jitha is in the h the town is garrisome asually to alomet $\mathbf{4} 0$ ating ; the permane exceed $10,0(100)$, while Heety, and during th le as many as 20,000 Jobber, a jerson pieces of work. In signify a person who ВНоКER.
Jobbing ls the buelt
frangible; specific gravity $\mathbf{1 . 3}$. It is used for fuel and for making vassela and annff-bexes. In Prussia it is cailed black amber, and is cut into rosariea and neckinces. It is diatingolshed by its brilliancy and concholdal fracture.-THomson's Chemistry.

Jetsam. See Flotram.
Jettee, the border made round the stlita under a pier, in certnin old bridgea, being the aame with starling; consisting of a strong framing of timber filled with stonea, chalk, or other materials, to preaerve the foundations of the piers from injury.
Jetty-head, a name usually given in the royal dockyards to that part of a wharf which projecta beyond the rest; lut more particulariy the front of a wharf, the side of which forms one of the cheeks of a Whary or wet dock.
Jewelry. Worn by most of the early nationa. So prodigious was the extravagnace of the IRominn ladies, that Pliny the eiler says he aaw Loliia l'sulina wearing ornaments which were valued at $\$ 1,605,000$. Jeweis wore worn in France by Agnes Sorel, in 1434. The manufacture was extensively encouraged in Enghand in 1685 . See Gold.
Jib, a large triangular sail, between the fore-topmast head and the boom (thence called jib-ioom), which projecte beyend the bowsprit.
Jidda, or Djidda, a sen-port town of Arabin on the led Sea, 64 milea west from Mecea, of which it is the port; N. lat. $21^{\circ} 29^{\prime}, \mathbf{E}$. long. $39^{\circ} 15^{\prime}$. It stands on a gentle elevation, rising from the sen, while the surrounding country is a bare desert. Jidin, as respects cieanliness and regularity of pian, is superior to most eastern towns. The strects, though unpaved, are comparntively well Inid out and wide. I'he houses are buit of coralline stone, from the shores of the Red Sea, and from the perishing nature of this material, are not very durable. In the suburbs, the louses are mere huts constructed of reeds and bushwooi.
didda las long been famous as tho commercinl emporium of Aratia, and indeed is solely dependent for its existence upon its trade. Situate atoout the midule of the east const of the Rel Sea, only nbont $1: 0$ miles distant from the opposite shore of Nuhia, and within two days' journey of Mecea, it is peculiarly fitted for the importation of foreign goods as well as for the exportation of home produce. The luarber, bowever, like moat of the other jorts on the Ked Sen, is inconveninnt, and the entrance rather intricate. On account of tife shallowness of the harbor, inrge ships are obtiged to dischago their cargoes in the offing about two miles from the ohore. The inports from Efypt aud Abyssinia comprise corn, rice, hutter, sugnr, cluthing, oil, tobacco, musk, and incense ; from Indin, musins, rinawls, spices, and cocon-nuts; while the Malay islands and the Mozambigte coast send hither slaves. The imports are conveyed by ships to Suez, whence they tind their way to the Mediterranean purts, or by caruvans to Mecea and Medima, from which cities they are dispersed to Syria, Asia Miner, and Turkey. Dates, nad the ectebrated haim of Mecea, are brought from the interior for whipment. Sext to prain, tho most important nrticle of trade is perhaps colfie, which is obtained in large guantities frou Mocha. The number of vessels thelonging to the port is estimated at ulout 250 . The government of Jihla is in the hands of the $l^{\text {ashen }}$ of bigypt, and the town is garrisoned by I;iyptian troops, anownting ustaliy to ntout f 16 . The poputintion is very Hactuating; the jermanent pepulation dioes not probably exceed $10,0 \% \%$, while, on the arrival of the merchant flects, and during the feast of Rumadthan, there miny be as many ns 20,000 strangers within its walls.-E. 16 .
Jobber, n person who undertakes jobs, or sunnil pieces of work. In some sitatutes, jubier is used to signify a person who buys and selis for others. See Bиoker.
Jobbing is the business of a jobber.

Stock-jobbing denotes the practice of trafficking in the publie funds, or of buying and selling stock, with a vlew to its rise or fall. The term is commoniy applied to the practlce of buying and aelling stock for time, or of accounting for the differences in the rise or fail of any particular stock for a stipulated time, whether the buyer or seller be possessed of any such real atock or not.

Joint-stock Companies are, in Fingland, a speciea of partnership in which a number of persons contribute funds or "stock" for the accomplishment of some trading or other profitable object. The peculisrity from whicin the term is derived is the contribntion of atock apart from joint management. In an ordinary partnership the membera loring more or less of their own personal management into the affairs of the company; and although, in peculiar circumstances, a partner may abstain from any interference, such a person, called in the trading world "a sleeping purtner," is treated by the law in all respects as if he proticipated in the privileges and responsibilities of his working bretiren. The distinctive peculiarity of the jeint-stock company is, that their members throw their stock into the venture without directly participating in the management, which may be either in the inunds of a selected number of the eliareholders, or in that of persens whe do not contribute at all to the undertaking. 'The subject thus presents considerations stretching far heyond the boundary of the mere lawe affeeting the rights nad obligations of individual partners into the tleld of politics and history. It is at once obvious that these arrangements, by which the wealth of indelinite numbers can lo concentrated in the hands of a few, are capable of creating a political influence which will have more or less the character of a ruling or governing power, according to the strength of the etherwise constituted authorities with which it may come in contact. It was by tinis sort of concentration of the wealth of many in the hands of a few that aome of the reigious societies of the middle uges lecame furmidable rivals of the monarchies; the Society of the Knights Templars rising conspicuously above nll others, and threatening to establisi a sort of corporato empire, presiting over the Jirropean monarchies. Subsequently the Jesuits, in their government of laragnny, afforded evidence of the power at the command of elever men regulating a common fund, which alarmed crowned heads no less than the usurping tenor of their loctrines. The great union of the Hanse Towns, before which the robber monarchies und aristoeracies of central Lurope fell, was again an instance of the power of concentrated weaith when mensured agninst pure monarehical mod aristocratic authority; ant the expanding resources of the republic of Venice, and of other wenltily oligarchies, seemed to be raising a new ruling power which would gradually nbsori) and supersede the old dynasties, whether autocratic or nristocratic, by which nations were ruled. The expansion of trade by the discovery of America and a new passage to lndin, and still more jerhaps the recasting of the political state of liurope by the Reformation, ioroke up these great concentratel musses, and distributed tho power of collective wealth into amalier groups. Stili the influence of joint-stock associations has ever, from time to time, arisen in formidable rivairy with other forms of political power, sometimes crenting an effectual barrier to jolitical oppression, hut nt others threatening the liberties and just righte of communities by a apirit of aggrandizement and rapneity. D'erhaps the most curious single instance of a atruggle between concentrated wealth und a ruling dynasty will be found in the history of Russin. The merchants of Novegorod increased in wenlti ami influence until they becamo a virtuai repubilican government. gradually absorbing under their influence the surrounding territory. "Who can resist God and the great Novogorod ?" became a saying of
the 15th century. The Grand Dukea of Mascovy commenced a aystematic war againat the royal company of merchants, and it seemed for some time a question whether luasia should be ruled by a commercial company or an autocracy. After many acenes of cruelty and rapacity, the latter prevalled. Hut the Influence of Novogorod was not eutirely extingulahed until the foundation of St. Petershurg drew the northern trude of Russia into a new channel, where it came effectuaily under imperial control.

IIritinh history afforis many memorable instances of the intluence of joint-xtock operations. It becune the policy of the crown, from Qneen Elizabeth's reign lownward, to cherish commercial combinations, as a balance against the power of the aristucracy, and nounetimes the body thus started with a stock of exclualve prlvilegen acquired an intiuence langerous alike to the anthority of the crown and to the rights of the suliject. The Russian Compnny, whileh had been licensed just hefore the accession of Ehizabeth, açuired so mach induence under her fostering care as to npread its transactions inte Persia on the one hand, and embark in the whale fishery of Spitzbergen on the other. This potent bocly was in une to nend ombasadors to the tirand Duke of Muncovy. But his successors, the carars, were net is slinel to encournge such fellowship, and gradually. enfeebled the haughty corporation by restricting itis foreign privilegen, anil encouraging the rival company of lloliand. The celohrated turkey or levant Compuny was elartered in 1581. Just is years afterward was formed, under far lens pompoun auspicee, that East Iudia Company which has lueen deatined to rule over a greater empire than that of Juliun Casar or Charlemagne. See INims. Many African and American companies wero formed in the Sth century, and created much exeitoment ly their agiressions and rivairios. The Sents, excited iy wits nessing the enterprise and pronperity of England, in which the invilituus navigation law of Charles 11. prohibited them from participuting, resolvell to eatatilish a great national joint-atock company for themselven, In 1695 they formed the "African Compans," hetter known an the Darien project, sulscribing a capital of four millions, the rreater portion $0^{\prime}$ which waf paid up. This was helid in its day to te a marvelous pecuniary effort fir a portion of the empire which, a century and a half later, entered on railway projects lnvolving in one year an ontlay of sixteen millions. The company oftained from the Seottish l'arliament more alseinte power than even the great corporations of Eingland; being authorizel to hold a monopmly of certain trades, to occupy and govern torritories, and to make pence and war. It commenced the execution of a varicty of projects on a grand scale, and their tisastrous result was a signal instance of that unserupulous spirit of aggraudizement and op, reessien to which trading curpuratione are so linble. The Seotish connpany, prohably, like many of the other boolies of aidventurers, csumitted mome queationable aetn, lut none muticient to justify the rancoroua hatred of the Euglish rival companies, which, while the Scots were prevented, as an alien nation, from having their ahare in the Finglish companien, denounced the corporstion set up loy the nation, which they thus counteal meparate nni indeprendent, for an lifringcument of a monopoly purely Banglish. King Willam was too deprendent on the noneyed power in Finglanl to hold an even latance of justice between opponents on unequally ustelid, and the scottish colony was ruinem.

Among the English companias of that age, neveral were nuccessively estalilished for trading with Africa and Anerica. Their chief object and nuturee of gain wan one that wonld be fortunately held in detestation lig the greatur portion of British appeculaturs at the present day-the supply of capturesl negroes to the plantationa, foreign an well as Britinh. The culminathou of these projects in the greut South Sea acheme
of 1719 is a well-known chapter in English history. The names of the many prepoeterous antellite achernes by which it waf aurrounded have often been cited an instancess of folly" calculated to tax the credulity of aniberer periods, as projocta in which the iahabitants of the winest of natlons aotually embarked. If it were any consolation to tind their neightors guilty of greater follies than their own, the British of that age might find aucle consolation in a view of the Freach Missinnippi schene. The corporate power thus created not ouly professed to absorh the trade, linanco, and banking of France, but projectod tha creation of a transatlantie empire, which, from ita centre in louisiana, should gradually absorb the American centinent.
Since the passing of the Puteuta Act in the reigh of James I., the crown alone was preciaded from grint. ing powers of traling monopoly in royal charters, and the companies which, since that periori, have obtuined uny monepolies in England heyond those created hy the slimpte instance of their large capitai, have lield their powers froin I'arliament. The crown continued to grant monoprilies in foreign tructe till 1693, when, in the celelirated question of the old East Indial Conppany; the practice was condemned by a vote of the liouse of Conumons. A remaricable Instance lately occurred of an attempt ly some enterprising men to carry out a project momething like that of the Last ludia Company, Inilependently of authority either from the erown or Parliament. It was repreenented that the islands of New Zealanil were admirabiy guited for culmization, and shouid be innmediately attached to the IIritish eolonial emplre by the right of eceupancy. There wan, however, a atrong disinclination on the part of Iritish statesmen at that period to encumber the imperial government with tise management of additional colonles. The adventurers conceived the idea of oecupying the inlands with independent British eaingrants. The novelty of their viows, and the energy and eloquence with which these were euforced, intracted a number of arient apirits around them, who were tulght that in these hapiy islands, pussessed of alf the advantages of our liritish climate without its drawhacks, they were to found that empire of Angho Saxon origin, by which the asouthera purtion of the world was to te eventually ruled. It seomed bard that the government, deelining to cecupy the colmies, should discourage this project; hut there were many groumis for drealing from it evil conseguences, smong which the mont ohyious and immediute was, that when the colony began slightity to prosper, it would uttract the cupidity of ame cither liamopean 1 mwer, from which it coild not lee protected without an interference which might involve the British government in furmidable disputen. Hence, in the year $1 \times 10$, the lritish flag was luisted in New Zesianic, and although "'The New Zeainad Company" was incorporatell, and nfter. wanl hecame the medinm for the disposal ot large tracts of lamil, its position was 40 humble in contparison with the spleudid virions cutertained by its promoters, that after a long neries of litricate disputes, they resigned their charter to thr government in 1x.00.--1., 11 .
Tho chics objects for which joint-stork compmies have lat ' $y$ been constituted are haukinge, insuramce. works the supply of cities with watter and kat camais, shijping, and harbors, and, at the head of all, railways. The railway syatem, inteet, is the forn in which hoth the government and the proplo have of hate feit the preasure of joint-stock power, nal huown the intluence of which it in suaceptible. Tha hixtury and effect of the rallway system will the found underits proper heal.
Jonk, Jonque, or Junk, in naval siffirs, in a kind of smail ship, very common In the Fant laties. Thene venseltare of varimes timensions; and dititr in the form of their building, neeording to the differant
methods of which they b of mats, and Journal, passes daily. book tit which the waste-bool clenrly worded tim, is sort o course, winds necount of wh periol of a sea or what is call cause the erre periox goneral The daily com wenther ; the v wini ; and the ing the quantl material incidet the ship and her ether ships or fl and the like.
Juan Fern Hand in the $P$ const of Chili, o $33^{\circ} 45^{\prime}$ S., long. mil: : lirond, tise attep shoren, and but in its north some fertile valle wood, cork, and from the chilia thited St:tes n here for four year Selkirk, is вuppos foe's well-kuown fuera is anether $\mathbf{r}$ the west. Last. :
Juniper. Th enler coniterme, an berries. The Vir cedur, affords a lig ship-luillling. It and gnows reli in $^{\text {in }}$ flavoring gill are a nis, and ahout 200 to this country. purgency to heer. affionl a substitute important ingretie werk, etc. The be and are usell in mic ther were subject h junk, in nautic remnant or piece o intuosmall portions, nuts, pasketw, sennt
Jute. Jute is " silky; ant pasily of tages were addend ti wouth probably sup lhat it is as riphid in in reality, the most period of its lirst duwly, aud of ite ow the leautiful peariy it, and sssuming su
methods of naval archltecture used by the nations to which they belong. Their aalls are frequently made of muts, and their anchors of wood.
Journal, a day-book, reglater, or account of what panses dally. Jourmal, in merchants' accounts, is a book in which every particalar article is ponted aut of the waste-book, and made debtor. This is to be very clearly worded and falrly engrossed. Journal, la navigatiom, a sort of dlary or dally reglater of the ship's course, winds and weather, together with a general necount of whatever is material to be remarked in the periol of a sen voyagg. In all such journals, the day, or what is called the 24 hours, terminates at noon, becanse the errors of the dead-reckoning are at that period generally corrected by a solar observatlon. The dally compact usually contains the state of the weather; the varlation, Increase, or diminution of the wiad; and the suitable shifting, reduclng, or enlarging the quantity of anll extended; as alao the most material incidents of the voyage, and the coniltion of the ship and her crew ; together with the dlacovery of other ships or fleeta, lanil-shoals, broakers, soundings, and the like.
Juan Fernandez, or Mas-a-tierra, a rocky island in the Paolfio Ocean, about 400 miles off tho chast of Chill, of which it it is a dependency. Lat. $33^{\circ} 45^{\prime} \mathrm{S}$., long. $79^{\circ} 2^{\prime} \mathrm{W}$, It is 18 miles long and 6 mils broad, risea to 3,000 feet aiove the ocean, has ateep shores, and a desolate appearance from the sea; but in ita nerth half, in which ls Cumberland Ilay, are some fertile valleys, producing tigs, grapes, and eandal wood, cork, and other timber trees, and it is leasel from the c"illan government by settlers from the Vaited States and Tabitl. The solitary resilence here for four years of a Scotchman, named Alexander Selkirk, is supposed to have formed the basis of Defoe's well-known tale of " Robinson C'risoe." Nas-afuera ls another rocky and precipitous Ialand, lying to the west. Lat. $83^{\circ}: 19^{\prime}$ S., long. $80^{\circ} 27^{\prime} \mathrm{W}$.
Juniper. The juniper-treo belonge to the natural orier Conifere, and is usoful both for its wool and its berries. The Virginian specles, which is called red ceder, uffords a light and durable material valuable in ship-building. It attains tho heipht of about 30 feet, and gows well in barren soid. The berries used for flavoring ghare oltalned from the Juniperus commuwis, and about 200 tons of them are annually imported to this conntry. They are also used for imparting pungency to lieer. When roasted and ground, they afion s sulstitute for cottee. The oll of juniper is unt importunt ingredient la varniah for pictures, woodwork, etc. The berries have ulso a diuretic property, and are used in medieine. The heavy duty to which they were subject in England was abolished in 1845.
Junk, in nautical language, a name given to any remant or piece of old cable, which is usially cut into monall portions, for the purpose of making points, mats, gasketa, sennets, and the like. Nee Jonk.
Jute. Jute is a remarkably beatiful titro-soft, silky, amd essily spun; and If to lts other alvantages were added those of strength and churabilty, it woull prohatly supessede all othar tibrous natorials. Hut it is as rapid in its decay as in its growth, and is, in reality, the most perishable of tibres. lirom the period of its first production in the dear state, it slowly, and of its own accorl, changes its color, losing the beautiful pearly white, which at tirst distinguishes it, and assaming succesaive sliudes of fuwn-color and brown. At the same tiue, its strength proportion-
ately diminishes. Circumstances hasten ar retard thils decay; and molature is particularly Injurlous to It. Iligh-preasure steam almost melts it away, so that when suil-cloth, adulterated with jute, is submittel to high-pressure steam (of only 30 lbs. pressure), for four hours, mere wathing afterward removes the jute. It is belleved that an improvement in the process of setting would herease both its atrength and durability but it is very doubtful if it can ever be rendered equal in theno respects to either hemp or flax.

The extent of the foreign traffic which bas already been established in this tibre, notwithstanding its linperfections, may be juiged of from the fact, that in the yoars 1850 and 1851 , the quantity of jute exported from Calcutta alone was valued at $2,000,000$ rupees, or $£ 200,000$, and the jute or gunay-cloth at an equal sum, and that it has already obtained a considerable place among the raw materials employed in manufacturen.P. J. of T. See IIeshr.

According to Braithwaite's "Commerce of Liverpool," 100,000 bales of jute are used annually in England, valued at $£ 20$ per bale. The grass is sent to Dundee aud other places, and the fibre so resembles caterpillar's throad, that it is used to adulterste silk. It is made into coverings, called " baggings," for cotton bales; and, after varions uses, finds its way to the paper-mill, for the manufacture of coarse wrapping-papers.-llemepati's Journal.

This article is now largely introduced in the manufactures of lingland. It much resembles a coarse hax, having a loug thry texture, and when dyed has a very woolly appearance. In and around Dundee, Scotland, there are no fewer than 76 mills, all engaged, spinning this jute and thax-the principal of whichis eaid to to the largest mill in Scutland. There are in this mill some 2000 hands, all wholly employed apinning jute, which is used to a large extent in the manufacture of carpets and rugs. Some three hauses in that quarter dye for this branch of trade alone alout soven tons a day. The carpets are sold as low as from 7d. to 11d. per yard; the rugs again as low as 3s. sterling. Jute can be spun to a very fine thread. It might be turned to a good account in the shawl trable, as a substitute for cetton. In its unmanufactured atato it is eaid only to cost 11 s . per ewt.; a very great contrast to the very coarsent wool-at least 1s. per pround in its oily state.

Jury-mast. In haval affairs, a temporary mast erected in a ship in the room of one that has been carried away by tempest or any other accident. Iurynusts are nometimes erected in a new slip to navigate ber down a river, or to a neighboring port, where her proper masts are prepared for her.

Jury Trial, the most thoroughly expressive feature in the administration of modern justice, is, in its essential prlnciplo, nothing more than the citizen's right to lavo the judgment of an impartial committee of his fellow-citizens on any question of tact tending to affect his life, lis liberty, or some important pat rimonial interest. The origin of the practice hay been traced by juridical antiquaries into many and far diverging sourcen, but they havo all been fuund converging in one direction, by the intluence of a commun determination, which seems to have over guided the purpose of the Anglo-siaxons and some other northern races in the practical application of such existing institutions as could be intluenced to tho end in view. See North Srit. Rer., viii., 44; Quar. Rer., Ivii., 177 ; Dem. Rer., vi., HiBi ; Blackwoon, xxvii., 736; Ḱnick., xv., 478, x viii., 217 ; Nuses's Reg., xiii., 139.

## K.

Kaleidosoope. Thls optical instrument, which combines milrors, and produces a symmetrical reflection of lseautiful Imagen, was invented by Dr. Brewster of bilinburg; it wan frat auggeated In 1814, and the Instrument perfected in 18.7, after whleh large numbera were manufactured. It la intended to asalat jewelers, glass-palnters, and ether ornamental artists, in the formation of patterns, of which it produces an inflnite number. See lirackwoob, Ill.
Kane, Dlisha Kent, the Aretic explorer, was born in I'hiladelphla on the 3d of Fetruary, 1822, and graduated at the University of Pennsylvania in 18.43, first $\ln$ the college and aubsequently $\ln$ the medical department; and when he started upon his actlve career of adventure, he was esteemed a cood clasalcal scholar, and a good chemist, mineralogist, astronomer, and surgeon. Llis frame, even in boyhood, was delleate, and. with a view of atrengthening his constitutien, he solicited an appointment in the navy as aurgeon, ond obtalned it, and was attached to the IIrst Ameriean embassy to China. This position gave him nn opportunity to explore the lhilippine Islands, which he etrected mainly on foot. He was the flrst man who deaceniled Into the crater of Tael, lowered more than 100 feet by a bmaboo rope from the overhanging cliff, and clambering down some 700 more through the scorias, he made a topograpical sketch of the interior of this grent velcano, collected a bottle of anlphurous ach from the very mouth of the crater, nad, although he was drawn up almost senselusa, he brought with him a sketch of this bidoous eavern and the specimens which it afforded. Before returning home from this expedition he had ascender the Illmalayas, visited Ceylon, the upper Nile, and all the mytholugical regions of Egypt-traversing the route and making the acquaintance of the learnel lepslus who was then pronseuting hia archaological researches. He nlso trinversen tireece on foot, and returned to the Duited Statea throagh Furope. S: after hla arrlval he was again ordered on duty-this time to the western conat of Africa. Ile now attempted to visit the shave murts of Whydah, but haviag taken the African fever, he was nent home in a precarious state of health. He recovered, however, and we next tind him a volunteer In the Mexican war. Ilis adventures in Mexice proved him to be the possessor of lion-like courage, and of a mont generobs and noble heart ; lut he fell a virtim to one of the fevers of the country, and was very near dying. When he recovered and returnent, he was employed in the Const Survey depurtment, from which be was transferred ly the secretary of the Navy to the pant of aurgeon on the tirinnell Arctic expelition. Hlis history of that experlition gave him a high position as an muthor. Not yet satisfled, however, he acarcely gave himself time to recover from the hariships of that cruise, hefore lie set on font tho second Grimnell or Kane expedition, the reaults of which have been pronounced ly the highest European mathoritles as among the wonlern of the present century. Dr. Kane died of consmmption, at llavana, Fehrary 16th, 165\%. See Irctic Eirpharutions and Lafe of Kane.

Kansas Territory extends from the 37 th degren of north latitucle to 40 degrees north, and from the went lnoundary of Missouri to the crest of the liocky Mountains. Area, $122,0(4)$ square miles. Drainet by the main branch of the Arkansas, by the Kanmas, and lig heall liranches of the south fork of l'atto or Nebranka liver. Surface level, consinting of an immense plain, with a gentle nlope from the base of the Rocky Montains to the Mismuri Exoriler, and the abrapt descent from the mountain ridge to the bave of about 75 milee in width. 'The soll is various, rich alluvial bot-
tom landa bondering the streams, nome fertile prairia lands and extensive sandy plaina, but these are of sufficlent fertility to furnish nourialiment to immense herda of the American blson. It was formed into a Territory by the act of Congreas of May, 185:t, together with the Territory of Nehraska.

Kedge, a mall anchor used to keep a ship rtedy while ahe rides In a harbor or river, particularly at the turn of the tide, when she mlght otherwise Irive over her principal anchor, and entangle the stock or thukes with hor atack cable, so as to loosen it from the ground. This la accordingly prevented by' a kedpe roje that hinders her from approsching it. The ked tes are pare tleularly useful in transporting a slip; that is, remorlng her from one part of the harbor to another, by means of ropes, which are fastened to these nochors. They are generally fun ishel with an iron stork, which is easily displaced for the convenience of stewing them.

Keel, the jrinclpal piece of timber in as ship, which is usually thrst laid on the blocks in builting. liy comparing the carenss of a shlp with the skeleton of the human booly, the keel appenrs as the hack-trme, and the thmbers as the ribs. The keel supports and unites the whole fabric, nince the stem and stern pesty, which are elevated on its enda, ure, la some measure, a continuation of the keel, and serve to connect nad inclose the extremities of the sides by transoms, as the keel forms and unites the bottom by timhers. 'Th' herl is generally composed of several thick pieces placed lengthways, which, after behg scarfed together, are bolted and clinched upon the upper side.

Fiblse Kerel, a strong thick piece of timber, Isilecil to the linttom of the keel, which is very useful in preserving ite lower side. The false keel is provided when the thick pieces whicli form the keel can not be procured large enough to give a suthicient depti thereto. In large ships of war the false keel is composed of two jieces, called the upper and lourer false keels, The lowest phank in a ship's botton, called the gurbenard streak, has its inner edge let intor a growse or chamel, cut longitudinally on the side of the ked. The depth of this chamel is therefore regulatel by the thickness of the garionmil streak, - Li. A.

Eeel-hauling, a jumishment inticterl for varions uffenses in the luteh hivy. It is performed lyy suc. pending the culprit by a rope from one yarlarm, with a weight of lead or iron upon his lege, and baving another rope fastencel to him, lealing under the mip's bottom, and through a blowk at its opposite yari-arm, He is then amblenly let fall from the one yard ann Into the sea, where, passing under the shipis hetton, he is hoisted up on the opposite side uf the vessel to the other. This punishment is rot altogether unknown in llritish ships; thet, as it is dangermas, it is very rarely, or, indeed, nearcely ever, now frat tiocel.
Keelson, or Kelson, " piece oi timhr forming, the interior or connterpart of the keel, bing hilt unin the midulle of the fore-timbers imberiately wor the keel, nid sarving to bind and unite the former the the latter, by means of long Isilts driven frum withat, and cinched on the upper sile of then kedsem. The keelson, lihe the keel, is comamsed of sebral pieces acarfol together ; and, in order to fit with murre secusity upon the floor-timbers and erotehets, it is intemem about an inch ams a half derf ormasite to each of thoie pieces, theroby acored down "jon them to that depth, where it is mecared upen them by apikenaits. The pieces of which it is formed aris of only hali the lorealth and thickness of those of the kerd,--V. . A.

Kelp, a subatance composen of different materials, of which the fossil or mineral alkuli, or, as it is com-
monly terme renilers it un manufucture and thittle gla leing ent fro and Iried en afterwaril put hent of which tste of semlwith iron rake blee or whitess alout three ye kelp. The bee pharous indor, color. It yiel sola,-Baniry satory. The m or rather was, |hanils, and on it was introlue hist century,
ke!p shures of a year. It han kelp nunually $m$ clusive of thie m land Inces, amo about bilime tons made in Senthan about 20,000 to it sull for $\mathrm{EPO}_{2} \mathrm{n}$ to enling with $1 \times 2=2$ Filinbury, Eneyel frundititions on altogether factitic maintenance of lns:smueb, howe withont unilergoin in a grant many use of mineral alk sary ma cerially to na barilla during facture has been thongh inurilla ha markets which cen injury to many mo sult would have b kelp is cencerned aloo heen maintain that gave the ke The purilleration of mikhing, is 11 muct proress than the at est quantity of all latter methonl. IT tinct. Shores that rent of $£ \mathbf{E} 00$ to ct nothing. The jric at an avernare, abo most probalily, soon

This result, thon kelp shores, and po the laborers amploy regrettent. It could keeping up the pri necessaries of life a The hish price of $k$ cies of the late was supply of harilla, $f$ ties on it and on restige of a 4 round things would the pert by it while it lasted government was to to some of the neve war, merely that the cidental advantage.
xelp is chiefly us
monly termed, noda, is the chlef. Thil ingredient renulers it usaful in the composition of soap, in the manaficture of alum, and in the formation of crown anit toittle glasa. It in formed of marine planta, which, leing cut from the rock with a hook, are collected and dried on the beach to a certain extent; thay are afterward put into kilns prepared for the purpose, the heat of which is aufficient to bring the pinnta into a state of aemi-fusion. They are then atrongly atirred with iron rakes ; and when cool, condanae inte a dark Hue or whitish masa, very haril and molld. Ilanta about three years old yleld the largeat quantity of kelp. The beat kelp has an acril caustic taste, a amlpharous odor, is compact, and of a dark-blue greenish chlur. It yields ahout 6 per cent. of its welght of sola.-Bannv's Orkney Islunds ; Tuomson's Dispensatory. The manufacture of kclp in Great Ililtain, in, or rather wns, princlpally carried on in the Weatern ldatals, anil on the western shores of Scotland, where It wis introduced from Ireland, about the middle of last eentury. Toward the ent of the year 1815, the kelp shores of the island of North Ulat let for $\mathbf{E 7 0 0 0}$ a year. It las lieen ealculated that the quantlty of kelp annuslly manufatured in the llebrides only, exdusive of the mainland, and of the Orkney and Shetiand intes, nmounted, at the period referred to, to about b000 tons a year, and that the total quantity male in Scotland and Its adjacent Islea, amounted to abuit $: 9,000$ tons. At some periokls during the war, it sollifor $\mathrm{f}^{20}$ a ton; but at an average of the 22 years endin, with $18: 2$, the price was $£ 10$.-Art. Scotland, Bilinburg Encyclopredia. Unlucklly, however, the fundations on which this manufacturs rested were altogether factitious. Its existence depended on the maintemance of the high duties on barilla and aalt. Insaumeh, however, as kelp eould not be substituted, without undergoing a very expensive process, for marilla, in a great many departments of industry In which the use of mineral alkali is indlspensable, It became necessary maserially to reduce the high duty in (irent Britain on harilla during tho war. The ruin of the kelp manufacture has been nseribel to this reduction; but thetgh harilla had ieen altogether excluded from the markets which conll not have been done without great injury to many most linportant manufactures, the result would have heen perfectly tho same, in so far as kelp is concerned, unless the high duty on salt had alo lieen mantained. It was the repend of the latter that gave the kelp manufacture the comp de grace. The purithation of kelp, so an to reniler it fit for soapmaking, is a muth more troublesome and expensive proress that the arcomposition of sult ; and the greatpos quantity of alkali used, is now olitained by the lattet methoil. 'The manufarture ja now almost ex. tinct. Shores that formerly ylelibil the proprictors a reat of $£=00$ to $£ 500$ n year, are now worth next to nothing. The price of kelp since 1 de: has not been, at an avarage, alove £4 a tom; and the articto will, most probalily, som cense to be produred.
This result, though injurious to the proprietors of kelp shirea, and prombertive of temporary distress to the latorere empored in the manufacture, is not to be regrettel. It could not have been obvinten, without keepiat, up the price of some of the mest important necessaries of lifo at a forced and unnatural elevation, The high price of kel p was oceasimed by the exigencies of the late war, whilh, hesides ohstructing the supply of harilla, forced government to lay high duties on it and on aalt. The proprietors had not the restige of a ground for cemsidering that surh a state of things wouht lee permanent ; they illd right in protiting by it while it lasted; but they could not expect that government was to subject the conntry, during jeace, to some of the severest privations occasioned ly the war, merely that they might continue to enjoy an accidental advantage.
Kelp is chiefly used in the United States as a ma-
nure, and for this purpose is very valuable. Large quantitles are thrown on the besches after a storm, and the Gulf Stream constantly brings it to our ahorea, from whence 't ls carted by our farmers to their fields, and allowed to decompose.

Kentledge, the name aometimea given to the Iron piga cast in a partleular form for ballasting ships, and employed for that purpose.

Sentucky, one of the central United Statea, is aituated between $36^{\circ} 30^{\prime}$ and $39^{\circ} 10^{\prime}$ north lat, and between $82^{\circ}$ and $89^{\circ} 40^{\circ}$ west leng. Its length is about 400 miles, and its breadth 170 inlles, containing 37,680 aquare milles. Yopulation ln 1790 was 73,607; In 1800, 220,959; in 1810, 406,511; $\ln 1820,564,317$; in $1830,688,814 ; \ln 1840,779,828$, and $\ln 1850,082,-$ 405 . The State is divided into 100 counties.

Surface, Soil, etc.-A tract from 5 to 20 milee whle nlong the Ohlo River, through the whele length of the State, is hilly and broken, but has a fertile sell. The margin of the Ohio for about a mile in width, consists of bottom lands, which are overfiowed when the river is high. Hetween this tract of hilly country the more mountainous eastern counties and Green Liver is a fertile tract, frequently denomlnated the garden of the State. It ts about 150 miles long, and from 50 to 100 wide. The soil is excellent, the surface gently undulating, and the forest-growth, hack-walnut, blackcherry, buckeye, paw-paw, sugar-maple, mulherry, elm, ash, cotton-wood, white thorn, and an abundance of grape-vines. The country in the south-west part of the State, between Green aml Cumberland Rivers, is called the "barrens." In 1800 the legislature of the State made a gratuiteus grant of this tract to actual eettlers, under the impression that lt was of little value, but it proves to he excellent grain-land, and also adapted to the raising of cattle and swinc. The whole State below the mountains, has, at the usual depth of elght feet, a bed of limestone which has froquent aperturea through which the waters of the rivers sink into the earth, causing some of them to disappear for a tlme, and others to be greatly diminished in the summer seasou. The rivers have generally worn deep channels in the calcareous rocks over which they flow. The preciplces formed by the Kentucky are in many places stupendous, presenting perpendicular banks of solid limestone 300 feet high, above which is a steep and difficult ascent several times ns high. In the south-west part of the State, between Green and Cumherland livers, are several remarkable caves. One called the Mammoth Cave, $1: 30$ miles from Lexington, on the rond to Nasliville, has been explored for a distance of elght or ten miles. Iron ore and coal, are widely ditfuset, coal especially occupies an extensive field. Salt springs are numerous, and minaral springs are found in many locnlities. There were in this State in $1850,5,968,270$ acres of land improved, and $10,981,-$ Ti8 of anluiproved land in farms; cash value of farms, $\hat{6} 15,031,26_{2}$, and the value of implements and machinery, $\frac{75}{5}, 169,0: 17$; live stock-horses, 315,682 ; nsses and mules, 6in,ti09; mikch cows, 247,475; working oxen, $62,27.1$; other cattle, 442,763 ; shes?, $1,102,091$; swine, $2,891,163$; value of live stock, $\mathfrak{z} 29$, ti61,4it

A! mictultural froducts, etc.-Wheat, 2,1.12,822 bushels; rye, 115,073 ; Indian corn, $5 \mathbb{2}, 672,591$; outs, 8,2111,311; barley, 95,343 ; buckwheat, 16,097 ; peas and beans, 202,574 ; potitoes, $1,492,4 k 7$; sweet potatoes, 998,179 ; value of products of the orchard, $\$ 106$,$2: 10$; produce of market garilens, $\$ 303,120$; pounds of butter mide, $9,9 \cdot 7,523$; of cheese, 213,95.1; sugar, 284 hhils. : maphe sugar, $43 \overline{7}, 405$ pounds ; molansea, 30,079 gallons; beeswax and honey, $1,158,019$ pounds; wool, pounds produced, 2,597,433; cotton, 758; thax, 2,100,116; wilk cocoons, 1201; hops, 13019 pourids; tobacco, $55,001,196$; hay, tons of, 113,747; hemp, 16,4:12 tous; clover seed, 3230 bushels; other grass seeds, 21,481 ; thax seed, 75,801 bushels; and were made 8093 gallone of wine; value of slauglitered anlmals, $86,46^{2}, 598$.

The Ohio River, hy ita varlous windinge, bordera this State on the north fer 637 milen. Cumlierlend and Tennennese Bivere paas through lta weatern part an thay appreach their entrance Into the Ohlo. Cumberland rises In the eastern part of this State. The Blig Sanily ls 250 miles long, and for a considerable ilintance forman the houndary between thls State and Virginia, It la nave igable 50 miles for honts. The Kentucky Illver rises in the Cumberiand Mountains, and after a couran generally through a deep rocky hed, falis Into the Ohio 77 milea alove Lonlavilte. It In navighle for stenmionats 60 miles to Frankfort. Ileklng, Grmen, and Salt, are other considerahie rivers. The Misainalpul runs on the weatern lorilor. Tonnage of the State, January, 1853, 12, 166 , composed entirely of ateamicoata.
fanufuctures, efc.-These were in this State in 18B0, 8 cotton faetorles, with a eapital lnveated of 8511,000 , employing 206 mules and 307 femalen, producing $1,078,081$ yarils of sheeting, ete., and $725,00,0$ pounds of yarm, valued at $\mathbf{6} 440,095$; 27 woolen factories, with a enpltal of sego, 820 , employing 289 males and 81 fomales, manufneturing 878,03. 5anla of coth, valued at © 8424,544 ; 2.1 eatahilishmenta making pig Iron, with a eapital of $1,027,5 \mathrm{th}$, employing 1922 persons, producing 28,609 tons of pig iron, etc., the entire value of products, 4699,937 ; 20 estubliblimentn, with a capital of © 512,200 , emploring 578 persons, and making 5 ands tona of eastingon etc., valued at 9741,$316 ; 4$ eatatillahments, with a conpleal of 6176,000 , employing 183 persons in mannfacturing 3070 tons of wrought lron, valned at $\mathbf{H} 299,700 ; 820$ thovring and grist-milla 862 saw-milla, and 380 tanneries; 51 printing officen, 9 daily, 5 tri-weekly, 2 seml-weekly, 34 weekly, 1 semimonthty, and 7 monthly pullicatlons ; cotal coples printed annutlly, $6,882,8: M_{M}$.

There were in this State Janunry 18\%7, 83 bankn, with a eapital of alout $\$ 12,000,000$. There were in operation Jnnuary, 1856,238 mile of railroad, and 452 miles in course of construction.

The foreign commerce of Kentucky la very amall. Effort in beling made to inerense it, and also the forelgn eomnserce of some of the other wentern Staten, lyg glving facllities for the direct importation of gowls. At several of the western cities, fine eustom-houses have been luilt ; at St. Inuls and ('incinnati, and at uthers, Lavilavilie and Dhouque, it is projmued to ereet them. There are no recorils of the foreign eommorce of Kenturky pron to $1 \times 35$. Since that the it has beens an follows:



Kepler, John. This eminent man, known In the ennals of astronomical sifintes an diseoverer of the lawn of motion of the planetary bodics which composen the solar circle, was the son of a military officer, and was lom at Wiel, luchy of Wirtemblure, 27th Ite. ceminer, 1ati. In 1 ind be liectame the pupil of Mchat Minatlina, under whom he made great progreas as a mathematician. Ilaving added divinlty to his atullen, he acipulem considerable celebirlty an a jireacher; but, relinguiahing the elorical gown, he anccueded, In 1594, in ehituininif the mithematieal chair In the nulvernity of diratz, in styrias. In liges, huving profesaed the I'rotestant falth, he was removed from his office. hut was moon recalled apain by the Statea. In lews he accepted nn livitation from Tralog, loging him to wattle at l'ragne, nol nevist him in the prospeution of astronomical researeloca, unilor the patronage of the I'mperor Rodelyh. The duath of TYeho, and Kepler'A own llinean almont immediately on hisarrival in l'rague, prevented the lesired co-operation; bit on bis introduc-

Ion to the emperor, he was requested to complete the tablen hia late frient hal begrin, which were to lie ealled the Rorlolphine Tables, This work, which oceupied him during the greater part of the remalailer of his life, he earried on and ecmpletel in 1627, amid the inconvenlences and difficultien which arose trom the irregalar payment of hia pension, and the other expenaes attending the unilertaking. Illa health now again failed, and as a meana of rentoratlon, together with the desire of ohtaining the arreara due him by the emperor he went to Ratiabion; but the fitligue of traveling and mentai uneasinenn threw him luto a sickness whlich closed hin life, soons after his arrival in that rity, In November, 1630, Ills publizhad works on astrunomi. enl sulijects are nimeroun, liealilea whlch he wrote on chronology, geometry of anlida, trigonometry, loga. rithme, and dloptrics. To this great philonopitier the world is indebted for the diseovery of the true tigure of the orlits of the planeta, whiels he demonatratel to be ellipaen, together with those princlples of planetary motlon genernily denominated "the lawn of Kepler."

Kermes (Ger. Ncharlachbeeren; 1)u. Girein Schar. Lulicubesern; lt. (Iruna, Chermes, Cremese, thechi; sp. Gimana Kermes, Grama de la eosoyja), an lusect (Circus illicis Lin.) of tho same npecies as the true Mexican cochineal, foumd upon the quercus ilex, a arecles of oak growing in Spain, France, the Levant, etc. Ilefore the dincovery of America, kerines was the mont exteemed drug for dychig scarlet, and had been uset for that purpose from a very remote period. Berkmann heclincs to think that it was employed by the l'henicians, and that it excelled even the famons Tyrian purple. (list. of Inceat., vol. ii., p. 197, Eng. el.) From the name of enceum or coecus, cloth dyed with kermes was ealled corcinmm, and persons wearing thla cloth wer. suid by the limmans to be concinati. (1/art., lib. l., epig. $9 i^{\circ}$ lin. 6.) It is singular, however, notwithatandiag its extenaive use in antiquity, that the ancients had the most incorreat nuthons with respect to the nature of kermes; many of them supposing that it was the grainn (gramb) or fruit of the ilex. Thin was l'liny' opinion; othera, after him, considered it in the wine light, or as an excreacence formed by the puncture of a particulier kind of lly, like the gall-nut. It was not till the early part of last century that it was finally and aatiafactorily eatahliahed that the kermes lo really nothing but an insect, ussuming the njpeurance of d berry In the process of drying. -Tho term kermes it of l'ersian origin. The Arubians had heen wecpainted with this prominction from the earliest perioris in africa; and having found it in Spain, they cultivatel it extensivaly as an artic* of commerce, as well ns a dye drug for their own use. sont since the introduction of cochingeal, it las become an oljoct of compuratively trifling importance. It is atill, however, preparel in mome parts of simin. I'lothes dyed with kermes are of a leep red color: and though mach inferine in tritHancy to the acarket rloths dyed with real Mexican cochineal, they rotain the color better, and are less liable to stain. The ohd tapestries of Bruselels, and other places in Flandera, which have scarcely lost any thing of their orlginal vivacity, though ewo years old, were all dyed with kermes, The history of this production has been treated with great learning in leekmann (Hinf. of Inernt., vol. I., pp. 1:1-14n, Int ed. trana.) ; and by Dr. Jancroft (I'ermament iolors, vol. i., plo 28:3-409).

Keraey (probatily a corruption of Jersey, whence it originally came), nkind uf coarse cloth, usually ribo thed, and woven from long wos). It is chiclly mana. factured in the north of lingland. Kerseymere, on the other hund, in a thin atuti, generally woven plain from the tinent wools; and hence it has been inforred that these two terms, whose meaning is no distinct, can not the reforced to the same orkin. Kerveymore is waid to linve derived its apmellation from ( iashmir, a country which probluces the finest wool, and is consequently
most colalirat gland it ls $p$ nistrict.

Katoh (It plied to a ves 100 to 250 to with the mode basaudors or ot from one place he amparatus t
Keym. The dore, of Samos in ertor, aa ke 1193 日. ©. Ke the earliest for common pleklo to be found In of bronze. Th of remarkable side ly the wor this deacriptlon and were return
Keys are ce: of the water, po the Spanish eayo off the Florida larger class of ve see articles K kr Key-West, in length, lyy one Cape salule, in Fl or of that oxten lankf, and reefn, and forma the nor from the Tortuga florida on the nc suth-west point long. $\mathrm{N} 1^{\circ}+\mathrm{s}^{\prime} 30^{\prime}$ feet alowe the leve West, near tho about 1600 inhahht with nhout 25 feet six miles in leng Gulf Stream to th of water at ebb tid for New Orleana, the funner, ty pas danger of the more gas. Uwing to $t$ from coming in co this dangeroun vi: has organized an , assistance of ships an adminalty court salvage. The fors ressels, with erewa kept constantly ert ships in distress or meat princljually de their assintance ${ }^{\text {a }}$ It m renderes with the ge thing is to hiniler $v$ assidting them when an important, a seen however, and not th the licensed arnisera Wuald lie proferable ing their remunerat io proventing dlaas gating their Intuenc essily done. Shipwr ually prevented by holkes, light-veaucha of the islands and r salgoin an account y the coort of Ke pading with $1 \times 51$.
most celabrated for the works of its looms. In England it is prineipally manufuctured in the western ilastriet.

Kotoh (It. caicehio), an old English term applied to a veasel equipped with two mata, and from 100 to 250 tons burden. It wae nearly gyonymoua with the modern term yrieht, lielng used chielly by embasadora or ether diatinguished personagen In veyages from ane place to another; and was furniahed with all the onparatus necesmary for defenas or aggreandon.
Keys. The lnvention of them faseribed to Theodere, of Samon, by Illiny, about 780 nc . . Hut this in an ertor, as keys are mentloned In the aiege of 'Troy, 1103 s.c. Keys were orighally mude of wood, and the carlient form was a mimple crook similar to the comnon pieklock now in use. The anelent keys now to he fonnd In the cabinets of the curlous are mostly of bronna. The late Francla Jonce, liaq., had nome of remarkabla shaper, the shaft terminating on one side by the workn, on the other by a ring. Keya of thia description ware presented by husbanis $t_{1}$; wilvea, and wers relurned again upon divorce or separatlon.

Keys are ce:tioln sunken rocks lying near the aurfuce of the water, particularly in the West Indlen, from the Spanirh cayo (an Inlet rock). The keys, so called, off the Florda coast, are prolifio ln wreckn of the larger chass of vesseln. For an account of thene wreckn, ree articlen Kicy West, Fhorida, and Wrecks.
Key-West, a anall island from four to tive miles in leaght, hy one in wheth; 56 miles sonth-west from Cape Sable, In Florida. It in one of the Florida keya, or of that extensive circular range of low lalnnile, bank, and reefn, which fences the coant of blorida, and forms the nerthern boundary of the (inlf Stream, from the Tortugas lslands on the west round to Cape Horida on the north. A Hight-house erectell on the gouth-west point of the ksland, lat. $24^{\circ} 32^{\prime}$ 'tiz' N., long. $81^{\circ} 48^{\prime} 30^{\prime \prime}$ W., has a fixed light elevated 67 feet alove the level of the water. The town of KeyWest, near the north-west part of the lalanil, has about 1600 inhahitanta, and has an excellent harhor, with about 25 fert of water. A safe passage, ubout iix miles in length, loads hy Key-West from the Galf Siream to the (inlf of Mexico. It has 12 feet of witer at ebb tide, and vessels from the north lound for Sew Orlenns, Mobile, ete., or Prom the latter for the fonner, by passling throughilt, avoid the delay and danger of the more westerly passage round the 'l'ort ugas. Owing to the frequent accidents to shipping from coming in contact with the banks and reefs in this dangerom vicinity, the American government has urganized an eatablishment at Key-West for the asistance of ships in distress, and made it the seat of an edminalty eourt for the miljutication of elaims for malrage. The former consints of above 20 licensed ressels, with crews of ubout 10 men ench. These are kept cunstantly craising about on the look-out for ship in distress or wanting pilots; and as their emolument priacipally depends on the fees they oltain for their ascintance, it may be fairly assumed that it will be readered with the greatest nlaerity, Hut the desirable thing is to hinder vessels from gettlag on shore, the assisting them when in that predicament being, though an impertant, a secondary conalderation. The latter, howerer, and not the former, is the moln object which the licensel cruixers of Key-West have in view ; and it would he preforable, conld means the devised for making their remmeration depend rather on thelr sucecss in preventing disasters, than, as at present, in mitlgating their intluence. This, however, is by no means easily done. Shipwrecks will, perhaps, the inore effertually prevented by increasing the number of lighthonses, light-vessels, and sea-marks along the edges of the islands ant reefs, than in any other way. Wo subhoin an account of the sums awarded as ailvages br the court of Key-West, in each of the 16 years eading with $1 \times 501$. These, though of small amount,
bhow a general uniformity, making it probaible that they are from local canses.

| 1236 |  |  | 192,712 |
| :---: | :---: | :---: | :---: |
| 1887 | 107,405 | JM45 | 69,50\% |
| 1893 | 84.878 | 1846 | 124,409 |
| 1830 | 90,707 | 1847 | (1), $\times 51$ |
| 1440 | 88,118 | 1848 | 125,410 |
| 1441 | 71,178 | 1849 | 127,870 |
| 1842 | 38.108 | $1 \times 50$ | 122,841 |
| 1848 | 88,511 | 1851. | T5, 80.2 |

See Illuyr's Americun Pilot; Delkow's Imhutrial Reanurces ; Acrount of Light-hounen, U. S., in 1850.

Kiakhta, a Kusslan settlement of more than $n$ century olle, a little to the aouth of Lake Baikal, and constitutea, wlth the Cbinene frontier town Malmachen (which is in immediate juxtapoaition), the emporium through which the whole of the overland tea for Kussia passes, and it is from this fact that this place nequirea ita present importance. It la liy thia channel that the artlele originally reached western Europe; and If all Intercourse with the Chinese seaboard were atopped, by this channel only would all consumers, not only in Firrope, but In Amerlca also, be able to obtain lt. The whel "ea-drinking worlil would have to content itaelf wlth viltalning from St. Petersburg what supplies it conld, after It had been bronght a distance of nearly sin00 mites by land transport and rlver navlgatlon. The cost of tranait is auch that before the late war with Iluasia scarcely any thing was ilrunk throughout the whole kingdom of J'oland but smuggled Canton tea, which was every year penetrating further and further Into the Interior of Russia, as will be bellezed, when it is stated that the average whilesale price of the common tea was 270 copecks ( 9210 ) and of the beat 410 copecks ( $612 \times$ ) at Moscow in the year 185\%. To what price it would reach, were the demand suddenly inincrensed to anv great extent, is mere conjecture. One thing ls phain-it would dejprive not merely the common people, but the great bulk of the middle clase, of all purticipation whatever in this great necessity.

The dutica on this overland tea form on Impertant item In Russlan finance. A most serious diminution In them was oceasioned by the treaty with China which threw open the northern ports. In 1842 no leas than 467,679 poois of Chinese merchandise, the far greater part of it being tea, left Kiakhtin in 185.l little more than lulf as much. If a perfectly free Intercourse with the Interior of China were allowed, the Kiaklita trade would he proportionably diminished; and it is fuite eonceivahle that it would even be superseded nltogether, except as regarils the no-called "brick-tea"-a compost of tea-lenves and sheep's blood, in which the Mongul palate exelusively delights. This inference is Irawn confidently from the prositive statement of the Russian stutist, M. Tengoloraski, that the Kiakhta teat costs 20 copecks the poind in tramspurt before it even reaches the emporium; whereas the same article from the name depiot may he taken to Shanghal for only 8 copecks, and ull the way to London for 10. It is plain, therefore, that the question of open or closed jorts in China is the question het ween the annihilation of the linssian rovenue from tea, and the compelling of the consumers of the commodity throughout the world to enrieh the liussian treasury by purchasing a tithe of their requirements ut tenfold the price they need pay for an ample suppro

The only country which has an Interest in mealing the 1 hinese seaboard is likewise the only one which enjoys, and has long enjoyed, the privilege of heing represented at lekin. Wer since the year 1727 the Itasaian goverament has maintained un establishment in that capital, the members of which are changed regularly every 10 years. It originally professed to be for the spiritual behoof of the dencendants of some Siberitm settlers who had been carried ofl about half a century before from the uper valley of the Amoor,
but the mission still continues, although the necessity has ceased; and, while authentio information relative to the reeonrces and the administration of the Celestial Erupire is derived through this channol by the foreign effice at St. Peteraburg, no douht whatever opinlons are curreat at Pekin of the powers of western Europe owe thelr shape and culor to the same agency.-Le xdon Times.

Kiddermingter, a manufacturing town of Enngland, county Worcester, on the Oxford, Worcester and Wolverhampton rallroad, and on bu. ©ides of the Stour, near its contluence with the Severn, 15 miles north of Worcester. Population, 18,462. |" lilderminuter was noted for its woolen manufactures in the reign of Ilenry VIII. The fabrics now male are carpets and finger ruga, with eome bumbazinge, button coverings and waiatcoat pieces. The carpets are nnrivaled for excellence of workmrnehip at the low prices charged. In 1838, upward of 2000 looma, and 4000 hands, were employed in this manufucture. The Stafford and Worcenter canal paenes the town, and opens a communication with Liverpool, Hull, and Bristol. The Kidderminster and Scotch carpets are woven on the principle of damask patterne, all being wool, and the patterna being effected by arranging and interehanging two coters, so that white one prodominates on one side, the other pattern shows itself on the other side. They have littie substance, and soon wear out; their low price being their only advintage. They are made in widths of a yard, and are aohl at ahout Ba, eterling per yard, or nometines even beluw that price.

Eidney Beans, or French Beans, were introduced into England about A.b. 1633 . The kidney bean-tree (Gilycine frutescens) was brought to that country from Sonth Carolina about the year 17\%4, though some anthorities say earlier. Kithey benns are a summer puise, and ara of peculiar dellesacy earty in the season. They are much estcemed, both in this country and in Englund.

Eilogramme. In France, the unit used in weighing is the gramme, which hue been tixed by law, and is equal to the specilic weight of the distilled water contalned in one cubio centimetre. The gramme thas fixed weighe $15 \cdot 433$ graina Troy and $16 \cdot 9: 4$ grains avoirdupoia, while the kilogramme, which consists of 1000 grammea, is found to be equal to 2 livres (pounds) 5 gros, 35 grains- 16 -100ths joitls de tuarkand to 2 pounds, 8 ounces, 3 pennyweights, $6 \cdot 355$ grains 'Proy, or 2 pounds, 3 ounces, 4 itranchans, 16 grains avoirdupois weight Einghish. An the moat common thlugs of daily consmmption are autd by weights in smail quantities, a great dilliculty urose in introducing thin part of the syatem; und the old denominations of welghts have therefore been allowed to remain, with some modification in their actual value, taking the kilogramme as the banis. The kilogramme is divided into 2 livres, the liver is subdirided into 16 ounces, the ounce into 8 gros, and the grow into 72 gralns. The new Uyre, therefore, exceeds the ofd one (poids de mare) by $2-1$ Cothe ; so, to reduce kilogrammen into old measure, it is necessary to nuitipity by 2 and add 2-100tha. In the decimal syatem adopted In 'rance, the pretixes for multiplying are tireek, and for diriding are latin, Thus:

| Deca means | 10 ttmes. | Deel | incans | 1 mb | uart. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Heeto | (11) " | Cent | " | 16以 |  |
| Kilo | 1,1100 | Milil | * 1 | 1,090th | ${ }^{*}$ |
| Myrla | 10,000 |  |  |  |  |

We have, therefore, the milligramme, centigramme, dseigramise, Gमamмr, decagramme, hectigramme, kilogramme, and myriagramme, as the namen of the various weights.

Eino (Fir. Gomme de Kino; Gisr. Kimoharz; It. (Chino), a gum, the promluce of trees that grow in the Lant and Weat Indien, Africa, Bocany llay; etc. The kino now found la the abops is aaid by Dr. A. T.

Thomson to come from Indla, and to be the producs of the nauclea gambir. The brancheo and twigs are brulsed and bolled in water. The decoction is then evaporated until it acquiree the consiatence of an extract, which is kino. It is importen in ehests containing from 1 to 2 cwt .1 and on the inside of the hid of each chast is a paper, inscribed with the name of John llrown, the month and year of its importation, sind atating that It is the produce of Ambryns. It is hodorous, very rough, and elightly bitter when lirst taken Into the mouth; but it afterward impresses a degree of eweetness on the pralate. It is in small, uniform, deep brown, shining, brittle fragnents, which appear llke portions of a dried extract broken down; being perfectly unlform in their appearance. It fe eablly pulverized, affording a powdor of a lighter brown color than the fragments. Ilut it may be doubted whether the insplesated juice of the nauclea gambir ought to be coasidered as kino. Dr. Ainslie says that Botany Bay kino is the only kiud he had seen in an Indian hazaar. The tree which yiedds it grows to a grent helght: it flows from incisions made into the wood of the trunk.-Titomsos's /ispensatory; Ainhlie's Mfateria Indica.
Knee, in a ship, a crooked piece of timber, having t wo liranches or arms, and generaily used to connect the beums of a ship with her oldee or timbers. The branches of the knees form an angle of greater or amaller extent, according to the mutual situation of tha pieces which they are designed to unite.
Kinee of the Ilead, a large, that piece of timber, fixed olgowise upon the fore part of a ship's stem, and supporting the ornamental figure or hauge placed under the howsiprit. I'he $h$ wee of the head is a phrase peculiar to ahipwrights, as this piece ls always called the cutvater by seamen, if we excent a tuw, who, allecting to he wiser than their brethren, have adopted this expression, prolucbly on the prosumption that the other is a cant phrase or vulgarism.

Curling-Knees, in a nilp, those timbers which ex. tend from the ship to the hatchwny, and bear up the deck on both sides.
Kniven (Ger, Mfesser; Dn. Messen ; Fr. Couleaus; 1t. Coltelli; Sp. Cuchillos; Rus. Noohi) well known utenaila made of iron and steel, and enıployed to cut with: they are principully manufnctured in lomaton and Strellichl. Knives are made for a varicty of purposes, as their different denominations imply ; such as tahle-knivea, pen-knives, oyster-knives, pruningknives, cte. Although England at [resent excels every part of the world in the manufacture of knives, as in most branches of enthery, the ther kinls were imported antil the reign of Elizalieth. It is stated ly Mr. Mncpherson (Anmals of Com.: A.11. lithit), that kniven were not mate for use in lingiand till listis; but there can be no doubt that this is an urror. They had leeve made, though protably of a rude and elumso pattern, for centurien before, in the district ealle! Italfamshire, of which Sheftield is the centre; the cutlers of London were formed into a cerporation in 1117.Manufictur - in Metol, in Lamonsin's C'ychopedias. See llantowauk and Cutheny. Forke were In lise on the Continent in the $\mathbf{1 3}$ th and 1 dth centuries. - Foltathe. This in reasonalily disputed, as heing tou earty, In Fixise Monymon's linerary, reign of Nilizubeth, le says: "At Yenice each parsum was served (besiden his knife mili apooni) with a firk to lold the meat while he cuts it, fer there they deen it ill manners thar one should touch it with his hand." Thomas Coryate describes, with mush minmaty, the manner of using furks in Italy, and adds, " 1 uyself have thought it gorel to limitate the italian fashion since I came home to kingtend," A.t. than.

Konigeberg, the capital of enst I'rusxia, in las. $54^{\circ} 42^{\prime} 11^{\prime \prime} \mathrm{N}_{+1}$ long. $20^{\circ} 29^{\prime} 15^{\prime \prime}$ E. $l^{\prime \prime \prime}$ pulation, in 1846, 75,234 . Königsiserg is situated on the l'rugel, which fluws In the F'riache Haff, or Freah Bay, a large
ako having mouth of the so thint vess requiro to Pllau, in lat the north sin Friscle Itaff, these few ye rising grount tern of which sea, The ligh tha harhor is vide being sur $\operatorname{lng}, 120$ foet a ed to serve for a threc-masted 15 to 16 foet w harlor; but $p$ ences in this r river of consit lange commant slpal emporium rye, und other export. The Dantzic, but ot berry, and thick but barley; witt fow remarkable the loulk are of : mon feed, with these last answe the value of thi wise by the cir here than from price of all sorts berg than nt the and rapeseed, her relinel sugar, etc

Accoint or the Er SEA is 188 to GReat 13Rr AND turta $V$ poatco in 1854

Ariteles.

[^30]- tog ituperial qu
ake having from 10 to 14 feet water. The bur at the mouth of the Pregel has only from 10 to 11 feet water, eo that vessels of more than that draught of witer requiro to be lightered to come up to Konigaberg. Pillau, in lat. $54^{\circ} 33^{\prime} 39^{\prime \prime} \mathrm{N} .$, long. $10^{\circ} 52^{\prime} 30^{\prime \prime} \mathrm{IE}$. on the north side of the entranca from the Baltio to the Frisehe Ilaff, is properly the port of the town. Within these fow years, a light-houas has been erected on a rising ground, a little to the aouth of lllleu, the lantan of which la elevated 90 feet above the level of ths sea. The light is fixed and brilliant. The entrance to the harbor is markel by buoys; those on the larboard side heing aurmounted by amall flags. A Gothic building, 120 fect abrove the level of the sea, has been erectell te serve for a land-mark; nt a distance it looks like a three-nrasted ship under sail. There is usually from 15 to 16 feet water between the hueys on entering the harlor; but particular winds occaslon material differences in this reapect. Being aituated on a navigable niver of ennsiderable lmportance, Könlgsberg has a large commund of lnternal navlgation, and is the prinedpal emprium of a large extent of country. Wheat, rye, und other species of grain are tho chief artleles of export. The wheat la somewhat similar to that of pantaic, but of inferior quality, belng larger in the herry, und thicker skinned. The rye is of good quality, hut barley, with fow exceptions, is thin and light. $A$ few remarkable large and fine peas nre exported; but the luik are of small slze, ant inferior. Onts aro commun feed, with a sllght admixture of tures, but as these hast answer in some dogree the purpose of heans, the value of the oats is rathar enhaticed than otherwise by the circmustance. Morc tures are ahipued here than from any other port in the llaltic. The price of all aorts of grain ls uatally lower at Könlgsberg than at the nelghboring Prusalun ports. Linseed and rapeseed, hemp, llax, linens, oil-cake, vil, bristlee, refinel sugar, etc., are largely exported.

Accoint or tit Aatiolbs Exponted fitom KÖniosmean ey Sea in 1851, Bprotiting tha Quantitiks mhirped to GBeat libifain, the total. Quantivies kxponted, and tifir Valuks, witil the rotal Qeantitirs ex: yorted is 1550.

| Aritcles. | Exports in 1881. |  |  | Total quantItties EI. pirtival In 1850. |
| :---: | :---: | :---: | :---: | :---: |
|  | Total quantithen. | Value in Pruesian curreucy. | Valan In sterling. |  |
| Whent.................. .lasts* | 8,74 |  | $104,864$ | 14,82\% |
| \|lye................... * | 22, 447 | [, 496,46\% | 224,170 | 28,84 4 |
| Barley | 2, 910 | 114, 184 | 28,190 | 5, $0^{4} 10$ |
| Onts. | 1, $10{ }^{\text {cha }}$ | 45,717 | 6,558 | 4, FI A |
| Peas | 1, s, 2 nㅣ | 138, 188 | 201,989 | 4.1104 |
| 13eans. | 639 | 47,920 | 7,159 | 1,812 |
| Tarcs. | 87 | 2,848 | 881 | 686 |
| Linseed and rapeseed. | 4,411 | 409.918 | 74,047 | \$,101 |
| (lover d Tlinothy seed, owt. $\dagger$ | 2,0\%k | 19,914 | 2,030 | 4,040 |
| Phax.................. | 18,545 | 184, 815 | 18,677 | 20,468 |
| Flax codilla............ * | 18.770 | 70,40\% | 11,820 | 8,724 |
| llemp. | 4,362 | 92,844 | 8,4\%2 | 8,511 |
| llemp cotilla. . . . . . . . | 212 | 1,010 | 151 | 171 |
| 1inen.................. | 4,14.2 | 125,460 | [8,819 | 4,1751 |
| Brislies and batr | 15. | 14,1:10 | 2,120 | 64 |
| Feathers and quilis. | 104 | 11,441 | 1.7. | 128 |
| \|inlcakes................. " | 70,804 | 98,820 | 14,018 | 67,998 |
| 1)ll. | 9,0015 | 90, 1160 | 18,807 | 13,421 |
| Branem. | 1,420 | 2,180 | 820 | 1,406 |
| Ihone Jlack | 7,549 | 8,920 | 5 S 8 | กิ6s |
| Augar refil it mulasaus. | 12,716 | 284884 | 84,834 | 11,609 |
| Buther and cheesw. | 62 | 1,2010 | 148 | 160 |
| Mitles and aktas........ " | 864 | 10, NON | 1,694 |  |
| Ashis.o. | 0 H | 121 | 18 | 14 |
| Raga. | P12 | 910. | 189 |  |
| Mata. ........... . buntled of $i$ | 5,060 | 8,08i | 450 | 8,810 |
| cuandics. | , | 80,0001 | 7,500 |  |
| Total valne of exports 1851 | $\cdots$ | $4,474,501$ | 630,228 | .... |

The importa aro sugar, taa, herrings, fron and atcel, coffee, wines, th and tin plates, dye-woods, tobscco, splees, druga, coals, ctc. Salt is a govern ment monopoly; any person bolng allow ed to lmport it, but he must elther sell it to government at a price flxed by them, or export it again.
Aocount or the Propuons impoated into Köniegazeo bt SkA IN TLI YEAR 1E51, GRYCIFTINO THE QUANTITIEA inported rbom Gasat Baitain and elsewilabe, with tikia Eetimatyd Valukg.

| Aricien. | From the <br> United <br> Kingdom | Froun all other piaces. | Tatal thes. | Valun in sterling. |
| :---: | :---: | :---: | :---: | :---: |
| Arrack, rum, ${ }^{\text {a }}$ brandy . cwts. | 614 | 18,699 | 14,203 | $88$ |
| Ashes, caletned........ | 210 | 898 | 810 | 417 |
| Cutton wool. | 1,422 | 918 | 2,840 | 7,020 |
| Cotton w | 82 | 224 | 250 | 8,072 |
| Cottou | 5,9*9 | 64 | 0,027 | 28,601 |
| Coffee | 816 | 14,694 | 15, 310 | 08,510 |
| Cbees | 7 | 528 | 583] | 950. |
| Copper | 2,087 | 682 | 9,669 | 1,201 |
| Conds . . . . . . | 100,300 | 860 | 190,060 | 7,697 |
| Ching and earthenware | 88 | 1,178 | 1,926 | 8,988 |
| Uemont. | 7, S68 |  | 7,868 | 1,180 |
| l)yo wo | 1,218 | 9,858 | 10,771 | 11,310 |
| Drugs. | 8,414 | 11,656 | 15,070 | 11,802 |
| Frutt, mout | 184 | 4,063 | 4,191 | 6,287 |
| Frult, freal |  | 1,198 | 1,198 | 1,258 |
| Firo clay. . . . . . . . . . . . | 2,104 |  | 2,104 | 105 |
| Otass and glassware.... | 10 | 1,022 | 1,082 | 4,847 |
| Gypsam............... " |  | 81,225 | 81,225 | 1,875 |
| Honey |  | 1,289 | 1,230 | 9,982 |
| $110{ }^{\text {as }}$ | 87 | 715 | 755 | 2,832 |
| LItues a | 485 | 2,544 | 8,020 | 0,087 |
| fierrlugs . . . . . . . . . . . barrela | 4,28) | 75,089 | 79,269 | 77,290 |
| Indigo. . . . . . . . . . . . .ewts. | 442 | 94 | 464 | 11,424 |
| Iron anil steel waro...." | 1,4193 | 13,051 | 15,444 | 84,740 |
| Iron sind steel, raw.... " | 81,718 | 1,490 | 82,208 | 0,468 |
| Iron sad stecl, | 1,495 | 28,128 | 20,018 | 85,886 |
| Ieal. | 1,908 | 889 | 2,827 | 2,094 |
| White l | 76 | 175 | 251 | 490 |
| Litharge. | 119 | 80 | 149 | 179 |
| Limestone . . . . . . . . . . . .lasta | 148 |  | 148 | , |
| Linell . . . . . . . . . . . . .ewts. | 49 | 1,156 | 1,208 | 14,000 |
| $\left.\begin{array}{c}\text { Mill and grind-atonos, } \\ \text { files ant brteks..... }\end{array}\right\}$ lasts | 201 | 508 | 7 | 8,722 |
| Matt liquors. . . . . . . . . . cwts. | 1,88s | 17 | 1,60.4 | 2,164 |
| Molasses.............. " |  | 917 | 007 | 218 |
| Mustard . . . . . . . . . . ${ }^{\text {" }}$ | 111 |  | 118 | 600 |
| Olt, thferent sorts..... " | 7 | 3,4,75 | 8,5n2 | 8,0001 |
| P'aper. |  | 3131 | 861 | 975 |
| \|He日................... | 4,908 | 4,903 | 9,809 | 11,751 |
| salt. . . . . . . . . . . . . . " | 145,847 | 8,018 | 169,865 | 9,870 |
| Splees of alt ki | 1,547 | 14,463 | 10,290) | 94.48k |
| Sugnt, reflbed......... * |  | 785 | 105818 | 1,654 |
| Sugar, raw ........... | 100,400 | 24,948 | 185,848 | 150,418 |
| Anceory root |  | 0,042 | 1,842 | 7,989 |
| Tuan.. | 9,054, | 4,804 | 18,447 | 181,028 |
| Tin. . | 84 | 1831 | 217 | 651 |
| Tinplate | 655 | 1,990 | 2,03i | 9,230 |
| T'ohsceo, manufactared " |  | 2,811 | 2,911 | 17,046 |
| 'Tobaeen leaves. . . . . . . |  | 1,111 | 1,111 | 3,8888 |
| 'T'ar and piteh | 600 | 14,207 | 14,467 | 3.448 |
| Train ilf.............. | 2.148 | 2,151 | 4,294 | 5,182 |
| Vtuggr . . . . . . . . . . . |  | 971 | 971 | 477 |
| Wloc... | 175 | 17,4116 | 17,641 | 31,758 |
| Woolen ware. . . . . . . . * | 145 | 09 | 214 | 2,889 |
| Woul, not Europerat. " |  | 960 | 901 | 7 720 |
| $\left.\begin{array}{c}\text { Sundry } \operatorname{lmpporta} \text { of various } \\ \text { tesertptions................ }\end{array}\right\}$ | $\ldots$ |  |  | ,600 |
| Totnd value of imports |  |  |  | Sut, 886 |

Money, Weights, and Measures, same as at Dantzic ; sce Dantzic.

Kurk - see, or Karachee, the ,rincipal sem-jort town of Scimin, on an inlet of the Indian Ocean, 18 miles from the west branch of the Indus. Lat, $24^{\circ}$ $17^{\prime} 3^{\prime \prime}$ N., long. $65^{\circ} \mathrm{bti}^{\prime} 2^{\prime \prime} \mathrm{E}$. It stanils on a low, sandy whore, and a fow yeurs ugo consisted, with ita extensive suburbs, mosily of straggling linte; but the latest accounta state that it has been almost reluiit, and greatly limproved since it has become a liritish ;ossession. Its trade and conserpuenco are rupidly augmenting. The harbor is the only port along thia const for vessels drawling more than 10 feet water, and Is sleeltered by Cape Munorah, four miles south-weet.

Iaboring of a ship, Implles pitching or rolling heavily in aturbulent sea, an effect by which the masts and hull are greatly endangered; because by the rolling motion the masta strain npon thelr shrouds with an eflort which Increuses as the sine of their obliqulty; and the continual agitation of the vessel often loosens her joints and makes her oxtremely leaky.

Labrador, a large peninsula of North America, nearly of a trlungular shape, extending from N. lat. $50^{\circ}$ to $63^{\circ}$, and from W. long. $56^{\circ}$ to $79^{\circ}$. It is bounded on the south by Canada and the Gulf of St. Lawrence, east by the Atlantic Ooean, north by IIudson's Strnits, and weat by Hudson's 13ay. Lahrador is thus detached from the arctie lande, but is nevertheleas a country as frozen, desolate, and barren, un those on the west of IIudson's Bay. The const along that apacious Inland nea is called liant Maio, and the elimate there is peculiarly rigorons. The whele surface of Labrador, indeed, is as storile and naked as any part of the globe. The prevailieg features are rocka, awamps, and water; and vegetation uppears as the last effort of expiring nature. Snell, seraggy poplars, stunted firs, ereeping birch, and dwarf willowa, thidy neattered in the sonthern parts, constitute the whole of the treen. Herbs and grana are also in aheltered places to be met with, but in the nost northerly parts only varieties of moss and lichens are to he found. The whole of the interior, from the aspect of what has heen explored, and from the reports of the Fsquimaux and other Indiana, seems to he broken up with rivers, lakes, and rocks. The prevailing rock continuons to the sea-shore of Iabrador, is gnelss. On this, at l'Anse a I.oup, the mout fertile jart of the coantry, a bed of old red sand-stone, abut 200 feet thick, is superimposed, and extends about half a mile Inland. Ilere, also, as on other parts of the const, the appearances of the cliffe and of the land near them, and the rolied masses inland, which bave evidently lieen exposed to the action of the sea, secm to prove that the latter has consherihly receded.

On the coast of Jabrador the winter is extremely severe, the thermometer often falling 30 degrees beJow the freezling point ; and although the houses of the Noravian misslonaries are heated by large castfron stoves, the windows and watis are all the winter covered with ice, sad the hed-clothen freeze to the walls. linm is frozen ln the air as rapidly as water, and rectified apirits soon become thirk like oil. From Decemiser to dune, the see: ompletely frozen over, and an intense is the cold during the winter montins, that traveling is ametimes attended with the most palnful consequences. The summer months, again, are extremly hot along the const, the thermometer rising to $8 f$ degreen of Fahrenheit, when awarms of musquitoen Infont the alr.

The elimate is not insululrious; and, notwithatunding all its disadvantagea, Jabrator in of considerable Importance to Grent llitalı. No country is better provided with large, convenlent, and afe harioors, or aupplied with lietter water; and vast multituiles of all those kinds of fish cormwn to the aretic neas abound on the coant. Ilerringsare very fine and plentiful in August, bat there is no weather to cure any kind of fish after the loth of Septeminer. The rivers are frequented liy aalmon and aea trout ; and phke, barliel, eels, river tront, and the like, are likewise found in them. On the numeruas blands whidh are acatered along the east const, maltitules of ehler-ducka and other water-fowl breed. Those of large size have dever, fuxen, and hares upon them. On the continent the wild animals ure principally bears, wolven, foxes,
and otters; beavers and deer are not numerous, but their furs are remarkably close and beautiful. The birde of the country are the white-tailed engle, falcons, hawks, and owls of varlous kinds ; raven, white grouse, ptarmigan, spruce-game, whistling-curlew, gray plover, varioua kinds of sand-plpers and ether wroders; geese, ducks of various sorts, shags, gulla, divers, and some fow apecles of small biris. During the ahort aummer insects are very numorous, eapecially in swampy places. In winter they exist in a state of torpidity, from which they are areused by the solar heat or artificial warmth. The phenomemon of the anmora borealis is uncommonly brilliant in this region, and exarcleses a very marked Influence over the compnes.
No accurate accoant of the truie of Labrader ean he olitained, as there are no cuatom-honses or public officers in the country; but the following estimate is probably as clese an approximation as can be made to the annual value of the experts :

| In Nowfonndland vern | £240,400 |
| :---: | :---: |
| " Nova Seotia | 96,000 |
| "Amortean " | 90, 010 |
| "Canadlan " | 29,400 |
| " Vessels owned or chart or Jersey honses. | 96, 040 |

Some, however, extimnte the total exports it $£ 800$, 000.-E. 13.

The oxports of Lal,rader are cod, herring, pickied salmon, fresh salmon (preserved in tin cases), sealskIns, coll and senl oil, furs, and festhers.
Fishories of Inbrador.-An lnte as 1761, it is not probahle that fishermen of any flag had visited the waters of Labrador. The English whale and sea fisheries were the first, and employed upward of j00 ves. aels, at times, pror to the yenr 1775. The earliest ad. ventures were near 1763 ; is at that time the jabradur country was palitically separnted from Cansia, and annexed to the govermment of Newfoundland ly, royal proclamation, to the end that the "open anil free fishery of our subjects may he extended." The pursuit of the eod and salmon followel. Menntine the $\mathrm{B}_{0}$. raviuns, whone principal settlement is nt Nuin, who have ever led a quict and aimple life, and who now annually ship furs, oids, and other productions of that region to England, in payment for the manabactured commoditles which they require, hath fotunded a colony. The lslands aro so numerous, und so near cach other, as to resemble, and often to be mistaken for, the moln land. llack from the coast, the comutry is still unknown. Labrador atill forms a part of the calony of Newfoundland. The natives hear the general name of Eanquimaux. The realdent indabitants of Eurogesn orisin are English, Irish, Jerseymen, and tamatian, who are employed vither on thelr own acconnt, or as servants of others, as furriers, scal-catchers, and col and walmun-fishers.

The Camulian fisheries are mall. They semp 8 or 10 wessels to the coust, with 80 or 100 men. They thah for cod ant? aultoon. They carry a part of what they caluli to Quebee, nud nend a jart to Durope. The colonlsta of Nova Scotla and New Brunswick adventure at labirculor to a comiderahle extent; but they do not pursme the husinesan as ragularly and with ua much systiom an do those of Nevfoundiand. Sume. times they send uore than 100 vessels in a year; at others the number ts moch les. They angage princtpally In the cod-tishery, making a singig fire and cur. inge their fish at home. The latirador tisheries have "Increased moro than aixfoli," nays Macgregn, "principally in consequence of our tishermen (tho

Engligh) by the Fr that abou quired dus ing, and remote sea

| Yonr. | Verne |
| :---: | :---: |
|  | No. |
| 1529 | 608 |
| $183 t$ | 700 |

The flshit sey merchan They are en in the takin their whipm The number J2, who ma either $b y$ the rerks, or by foundland, a have driven sort to Lalirad part make tw conumonly cm ried home wit Newfoundlan cerrespondent captains to ret nid sil at thei Fisheries.
Labuan, a Ilornee, a depe miles distant f and 30 miles no lnt. $50^{\circ} 12^{\prime} \mathrm{N}$. to 30 miles in wood. The an is protected by and the town of emboachure of the incherage. ishind, and it $i$ was ceded by th 1844; and Sir J sion, was afterw came into josse but its situation ly healthy, it ea eniporlum. It from the Strails is extremely we tho west and nort Islands, it will convenient statio war requirel to to the great injt cxtent from the smine of the adj abundant supply In war, the posse gliwh entire comm Jummal.
Ilornes, or Bru land, and the reste has been termed from 30,010 to 40 , ruily neems as if ated on an estuary to regularlty, it is itreets, which dlvi which stands on tixes party are of them ahove the w called, to ndmit tl

## LAC

Engllsh) being driven from the grounds now oceuplad by the French," alnce the yaar 1814 ; and he estimates that about 20,000 Britiah subjecta are at present requirel during the fishing aenaon, in the catching, curing, and transporting the varlona producta of these remote seas.

| Year. | Vesseln. | Men. | Dry finh prodoced | $\left\|\begin{array}{l} \text { galmon } \\ \text { pro- } \\ \text { duced. } \end{array}\right\|$ | Seala caught. | $\begin{aligned} & \text { Oils pro- } \\ & \text { dueed. } \end{aligned}$ | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | Qulata | Tlerces. | No. | Tuns, | Dollars. |
| 1229 | 608 | 9,110 | 678,000 |  |  | 1,682 |  |
| 1834 | 760 | 11,200 | 720,900 | 2,430 | 16,000 | 2,200 | [1,450,000 |

The fishing establiahments of the English and Jersey merchants are extensive and well conducted. They are engaged in the cod and salmon flsheries, and in the taking of seals. In the yaar 1831, the value of their shipments to Europe was npward of 8200,000 . The number of these commercial houaes is from 10 to 12, who mansge their business at Newfoundland, elther thy the temporary presence of junior partnera or derks, or by realdent agents. The people of Newfeundland, averring that the French and Americans have driven them from their own "bank-flahery," resort to Labrader. They employ 200 or 300 vessels. A part make two voyages in a season. The tirst fare is commenly eured on the coust ; but the socond is earried home without drying. Some of the merchanta of Newfourdland ship both cod and salmon directly to cerrespondents in Europe; while others oriler their captains to return to the laland and unlade their flsh and eil at their own warehouses.-Sanink's Anerican Fisheries.

Labuan, a small Island off the north-west coast of Hornee, a dependency on the British crown, about six miles distant from the nearest point of the mninland, and 30 miles north from the city of Borneo or Brunt, lat. $50^{\circ} 12^{\prime} \mathrm{N}$., long. $115^{\circ} 19^{\prime} 36^{\prime \prime} \mathrm{E}$. It is from 25 1030 miles in circumference, flat, and covered with wood. The nuchorage on the eonth side of the island is protected by agrenter and three amaller ishands; and the town of Victorin has been commenced at the embonchure of a rivulet $\ln$ a small bay, at the head of the ancherage:' Coal of good quality is found on the island, and it is well supplled with fresh water. It was ceded ly the Sultan of Iorneo to Great Britain in 1844 ; and Sir Jamas Brooke, who negotiated its cession, was afterward appointed lis governor. When it cameinte posse sion of the English it wus uninhabited; but lis aituation ls such that, proviled it be moleratefy healthy, it can lurdly fuil to become an important emporium. It lies near the liest ronte for shipping from the Stralts of Singspore to China, and, while it is extremely well aituated for carrying on trale with the west anil north consts of Bomeo and the Phillppine Iflanda, it will serve as a harbor of refuge, and as a convenient atation for the steuners and other ships of war required to put down the piracy that has been, to the great injury of cominerce, carried to ao great extent from the ports and rivers of $\mathrm{B}_{\text {boneo, and of }}$ sone of the adjacent ishunds. In this respect, its abundant supply of coal will the of the greatest service. If war, the passesslon of Labonn will give to the English entire command of the Chlnese Sen.- Brooke's Jourmal.
Horneo, ar Branl, on the adjacent shore of the mainland, and the resilence of tho Saltin of lSorneo proper, has heen termed the Venice of the Bast. It contuins frome 80,010 to 40,100 inlubitants, moatly Malays, and rally seems as if it tlonted on the waves. It is situalel on an estury, anl thomgl lmilt with little regard to regularity, it is internectel erosswlase by two main streets, which divile it into tour jortlons, one only of which stands on dry land. The housen in the other three parts nre of wood, huilt on piles, which enpport them nhove the water, with atreetix, if so they may be eslled, to admit the passage of eanoes. The steamer
whleh convejed Sir James Brooke to Borneo, when Lahuan was ceded, anchored in the main atreet, in the centre of the town ! "The greatest novelty at Brunl," says Mr. Marryat, from whom we have borrowed thase detalla, "is the floating bazaar. There are no ahops in the city, and the market is held every day in canoes. These come in at aunrise avery morning from every part of the river, laden with freeh fruit, tobacco, pepper, and avery other article which is produced in the vlcinity; a few European productiona, such aa handkerchiefs, check-cotton printe, etc., alao make thair appearance. Congregated in the malu atreet, the canoes are tacked together, forming lanes, through which the purchasere, in their own canoes, paddle, selecting and bargaining for gooda with as much convenience as if the whols were tranaacted on terra firman Iron is here so valuable that it ia uaed aa money. 100 flat pieces, an inch aquare, ara valued at a dollar; and among the lower classes these iron pieces form the aole coin. They are unstamped, so that any person appears to be at liberty to cut his own iron into money; but whether such is really the case, I can not vonch."-Marmyat's Borneo.

But thougly deficient in iron, the gold minea of Borneo are salil to be of the richeat deseription. Sir Stamford Rafflos estimated that in his time about 32,000 Chinese laborera were employed in these minea on the west coast of Borneo ; and it ia not eusy to asy how productive they might become ware the miners in a condition to prosecute their undertaklaga in eafety, and to bring the resources of science and of eapital to their ald. Antimony is slao found in abundance in Borneo, eapecially in the district of Sarawak, of which Sir Janea Brooke is rajah; and the diamonds of Borneo rival those of India and Brazil. But independently of its coal, and of its precious and other metsls, its vegetable products might alone furnish the materiala of an extensiva commeres. The sago-palm grows in great perfection in many parts of the islund, and sago is largely exported in it rough state to Singapore. The areca nut, rattan, gutta-pereha, gum-benjamin, camphor, hirds' nests, etc., are also considerable articles of export; und sugar, pepper, anel all the products of tropienl regions, might, with a little care, be raised to any extent in most parts of thia vast island. The numbers and ferocity of the aavages by whom it ia occupied present, indeed, formblable obstnclea to its improvement. Ilat civilization la beginning to make its way smong them ; und, though probably slow, its progress can not well be arrested.
Lac or Gum Lao (Ger. Lack, Gummilaek; Fr. Laeque, Gomme lacque; It. Lacca, Gommalacca; Sp. Goma laca; las. Laka, Gummilak; Arab. Laak; IIind. Lak' $h$; Nans. $L_{i} k^{\prime} s h i \bar{i}$, a substamee whleh has been improperly called a gum, proluced in Bengal, Assum, l'agu, Siam, etc., on the leaves und branchea of certaill trees, by in insect (chermes hucea). The troes selected hy the insect on which to deposit its eggs aro known by the names of the bihar-tree (Croton lacciferum Lin.), the perpel (Butea firmilosa), bott and coosimtrees, ete. After being deposited, the egg is covered by the inkect with a quantity of this peculiar sat)stance, or lac, evilently intended to acrve, in the economy of nuture, as a nidus and protection to the ovum and insect in its flrst stage, and as food for the maggot in its more alvanced atage. It is formed into cells, finished with us much art as a honeycomb, but differently arranged. Lat yieds a tine red dye, which, though not 80 bright as the truo Mexlean cochineal, is said to te more permanent; and the resluous part bextensively used in the manufacture of sealing-wax and hats, and as a varnish. Lac, when in its nutural state, incrusting leaves and twigs, is called atick luc. It is collected twice a year; and the only trouble in procuriug it is in breaking down the leaves and brunches, and carrying thom to markot. When the twigs and sticks uro large, or only partially cov-
ered, the lac is frequently separated from them, as It alwa's ought to be when ehipped for inarket, to lessen the expense of frelght. The best atlek lac is of a deep red color. Whon held against the light it ohould look bright, and when broken should nppear in din-mond-like points. If it be not gathered till the $\ln$ sects have left thelr cells, it beconies pule, and pierced at the top; and it is of little use as a dye, though probably better for a varnish.

Iac dye, lac lake, or cake lac, consists of the coloring matter extracted from the atick lac. Varjous processes have been adopted for this purpose. It is formed into amall square cakea or pleces, like those of Indigo. It should, when broken, look dark-colored, shlning, smooth, end compaet; when scraped or powdered, it should be of a bright red color, approaching to that of carmine. That which is sandy, light-colored, and epongy, and which, when seruped, is of a dull brickdust color, should be rejected. Notwithstanding the continued full in the price of cochinenl, the nse of lac dye has been extending. The annual consumption in 1853 was estimated nt nowot $1,200,00013 \mathrm{n}$., having more than quiutupled since 1818. The finest qualities of lac dye are seldom met with for sule In Calcutta, being generally manufactured umber contract for the European market. When stisk lac has been separated from the twigs to which it naturally adheres; and coarsely pounded, the native silk and cotton lyers extract the color as far as it conveniently can be done by water. The yellowiwh, hard, resinous powder which remains, haviug somewhat of the appearance of mustard-seed, is called seed lac. When liqueticd by fire, it is formed Into cakes, and denominated lump lac. The natives use the latter in making bangles, or ormaments In the form of rings, for the arms of the lower class of femates: the hest shellac being used in manufacturing these ormaments for the siperior class.
Shellac is produced from seed lac, by putting the latter into bags of cotton eloth, and holding it over a chareoal fire, when the lae melts, and being strained through the bag, the resinous part, which is the most liquefiathe, is obtained in a conviderable alegree of purity ; It is formed into thin sheets or plates. Thin, transparant, or nmber-colored shellar is best. A volid that whleh is thiek, dark, and speckled. It should a)ways, when broken, be amber-colored on the elke. That which has dark-brown fracture, however thin, should le rejected. When latid on a hot Irom, shellac, if pure, will instantly catch tire, and hum with a atrong but not disagreable smell. It used to be prineipally employed in this country in the manufacture of sealing-wax and us a varnish, hut it is now very extensively ueed in the manufacture of hats. In Hengal lae is chlefly profluced in the forents of Sylhet and Ilurdwan. The finest dye is sulat to be obtained from the stick lac of Siam and l'eg'u ; but the nhellae or resinous part obtalned from the latter is luferior to that produced from Sythet stlick lac. It may lie olstained in almost any quantity.-llanisort on /'rmanent Colors; Aisslar's Mut. Sfed.; Ma.aurn's Orient. Com.

Lac of Rupees, is 100,000 rupees, which, suppresIng them standard or siccas, at 2n. 60. each, amounts to $£ 12,500$ sterling.

Laccadiven, an archipelagn of low inlanda lyinfe off the wextern const of Indha, hetween $8^{\circ}$ nnd $13^{\circ}$ $N$. lat. There are 19 conslderalice ones; but ns most of them are surrounded with reefs and steep rocks, with a great depth of water cleap to them, the approach to them is very dangerous. Ihetween these inlands there are many channels, through which ships from India. bound to I'ersla or Arabin, frequently asil. The afest of these is called Mamale, or the Nineale. gree Channel, which runn letween the Inlandi of Seuhilipar and Kalpenny. The largent of these ixlands is atosut 7 mllem in length and $2 f$ in breath. Most of tinem are inbabled by a race of Mohammedans called

Moplnys. They do not yleld graln, but produce an infinite quantity of cocoa-nuts, from the huska of which they form the coir cablea, which are more elasthe and durable than hemp, as the sea-water, histead of rotting, preeerves them. These lslands are well supbled with fish, and carry on a trade with the small shells called cotorica, which pass as coin all over India and most of Africa. Most of these islands are under the uncontrolled management of the beebee of Cannanore, sulject to the payment of an annual tribute to the British government. A proposal has been made to the beebee to transfer them to the Britlsh, la consideration of a pecuniary equivalent. The $y$ were dis. covered by Vaaco de Gama In 1499, but have sine been little frepuented by Europeana.
Lace (I).. Kanten; Fr. Dentelle; Ger, Spizen It. Merletti, Jizzi; Rus. Krushero; Sp. Encajes), a plain or ornamented net-work, tastefully composed of many fine threads of gold, silver, silk, flax, or cotton, interwoven, from Lacinia (Lat.), the gunrd hem or fringe of a garment. This dellcate fabric appears to have clains to high antiquity, but its origin is involved in considerable obsenrity. That it was worn by Grecian femules is certain, and the derivation of the word lace afforls preaumptive evidence that it was also in use among the liomans. In Venice, and the neighioring States of Italy, it was very early worn ; and Mary of Medleis is supposed to have been the tirst who introduced ite use into France; but as early as 1.183 it was lecluled in a list of artlcles prohibited from importis tion into England. Hence it had been made in this country piore to the period above mentioned; and this prohibition, like many other subsegtuent nets, was for the protection and encouragement of home munufuctures. llut pins, which are indiepensable in the process of fine lace-making, were unknown till long afterwarl ; so that it is probuble the fabric made was neither very fine in texture nor produced to any great extent. It is uncertuin by whom the manufueture of lace was originally introduced Into this country. Alsut the middle of the 17 ith century the lace trade was touriahing in Buckinghamshira; and so greatly. had it advanced in England, that, by a royal ordunnance in France, passed in 1600, a mark was estallished upon the thread lace inported from this country and from Flanders, and upon point lace from Genoi, Venice, and other countrics.
fillou, or Threais Iace, is made by placing a perfornted puttern on a hard stufled pillow, and the thread recuired in wonnd upon hobhins with a grove in the upper part for retaining the threal ; while, to form the meshes, pine are stuck in the cushions, and threals woven or twhated round them, the pattern showing the polats of insertion for the pins, and also the direction for the gimp, which is interwoven with the tine threals of the faliric to form the pattern. At the commencement of the work the bobbins are arranged on one side of the cushion, and are lirought to the froit side, two puirs at a time, and twisted together. The woman holds one pilr of hobbins in cacl hund, and twists them three thes over eachother to form the sides of the mexh, the adjacent bobbins of einh puir are next interchnnged, so as to cross thene threals over one another to form the lootum of the next. Supposing the four bobling to be marked $1,2,3,1,-\mathrm{Ko}, 1$ is twintell round 2 , nud No. $i \frac{1}{}$ round 1 ; thene, in onler to crove 2 and 3, are interchauged, so that 1 and 3 and 2 nnil 4 come together, aud at the next $t w i s t$ those pairs of threads will be combined. As the meshes or half-ilmashen are furmed, they are secured by pins. These four bobhins are now put on one nide of the cushion; two nore pairs are brought forward, twisted and crussed as before, and these operations ate repenated until a row of meshea is formed of the required breadth, when the bobbins are worked over again to form another row. From 48 to 60 bobbins are required fur every inch of bremith. l'illow or threal
lace, form children Northam! kind of $w$ its place. ing the were form but the fal of executle jags, shaw vary in pri lace distric Devonshire $i 000$ to 800 ture.

British $p$ imitation, a court traine mude chiefly chiefly at while Limes lsces now oc tion of the been classer There are tw agon mesh, threads of fla sels wire grou and partly ar and set on $\mathbf{b}$ mesh, fon med to a perpend worked in th hexagon, form platted at the in the net ain mond mesh, fo 5. Alencon, ca twisted simila, most inferior o fon point: forn tagonal and sq In the mana and it is cale hund gives em 200,000 females bins upon a ${ }^{2}$ the needle only band-spun line and silver thre made with pure is worth from \& now chlefly mad The principal as llayenx, Chanti 3irecourt, P'uy, distriets hat ite lace may be mat material, ia all is easily recogni and was so calle a nankeen color silk is now emp other placea in manufacture sha sively than any means of a stite partment of Cal 30 cleverly as to ing glase. Mos in lace-makingo same kind of lae ation, fonds clai thread, also a lac pure.
Flowers aro tremely fins net
lace, formerly employed a large number of women and children in the counties of Bedford, Buckingham, Northampton, and Oxford, but the demand for this kind of white thread laco failed, and llack lace took its place. Lloniton lace ditfers from plllow lace in having the pattern made aeparately. The ornaments were formerly confined to almple aprigs and borders; but the fabri s now produced show extreme delieacy of execution, with beauty and taste in design : flouncings, shawls, scarfs, handkerchiefs, berthos, etc., now vary in price tiom 10 to 200 guineas. The Honiton lace district extends alout 80 miles along the cosst of Devonshire, and about 12 miles inland. In 1851 from 7000 to 8000 persons were employed in the manufacture.

British point, tambour, and Limerick laces are chiefly imitation, and are produced in shawls, scarfs, dresses, court trains, flouncings, lappets, etc. British point is made chiefly in the nelighborhood of London, tambour chiefly at Islington, Coggleshall, and Nottingham, while Limerick lace is peculiar to Ireland. Black laces now occupy a considerable portion of the attention of the trade. The most celobrated laces have been elassed as-1. Brussels, the most valuable. There are two kinds: Brussels gronnd, having a hexagon mesh, formed by plutting and twisting four threads of flax to a perpendicular line of mesh; Bovssels wine ground, made of silk ; meshes partly straight and partly arehed. The pattern is worked separately, and set on by the neerite. 2. Nechlin: a hoxagonal thesh, formed of three flax ihreads twlated and platted to a perpendicular line or pillar. The pattern is worked in the net. 3. Valenciennes: an irregular hexagon, formed of two threads, partly twisted and platted at the top of the mesh. Tbe pattern is worked in the net similar to Mechlin lace, 4, Lisle: n diamond mesh, formed of two threads platted to a pillar. 5. Alencon, called blonit: hexagon, of two threads, twisted similar to Buckingham lace; considered the most inferior of any made on the cushion. 6. Alengon point: formed of two threads to a pillar, with octagonal and aquars moshes alternutely.
In the munufacture of lace, France takes the lead; and it is calculated that the production of lace by band gives employment in that country to upward of 200,000 females of all ages. It is all made with loobhing upon s amall pillow, except at Alencon, where the needle only is employed. The materials used are hand-spun linen thread, cotton, wool, silk, and gold sud silver thread. Point $d^{\prime}$ Alencon is the only lice made with pure linen hand-spon thrend; this threati is worth from 8500 to 600 per pound. White lace is now chiefly made with cotton thread, Nos. 120 to 320. The principal scats of the manufacture are-Caen and Bayeux, Chantilly and its neighborhood, Lille, Arras, Mirecourt, Pay, Bailloul, and Alençon. Each of these districts has ite own peculiar style; and although the lace may be made in the same way, and with the same material, ia nil thene districts except the last, yet each is easily recognized. Silk blond originated at Caen, and was so called from belng made of nndyed silk of a aankeen color: the finest white or the finest bluck silk is now emploged. Caen and bayenx excel all other places in the production of piece goods, and manufacture shawls, roles, mantles, etc., more extensively than nny other distriets in the world. lly means of a stitch called rucroe, the wonien of the department of Culvados join several parts into one piece so cleverly as to defy detection, even with a magnifying glass. Mest of the improvements ani noveities in lace-making origin - o at Mirecourt ; it prodnces the ssme kind of lace ia Lille and Arras, via., clear foundation, fonds clair, and also fonds de champs, in white thread, slso a lace resembling the IIoniton called guipure.

Howers are also made, and sewed upon the extrenely fina net called lirussels net, closely resem-
bling the Belgian fubrlc. The whiteat and cheapeat Freach lace is produced at Ilayeux.
Belgium is the grest rlval of France in the manufacture of laces, the chief varieties of which are known as Brussels, Dfechlin, Valenciennes, and Grammont. Brussels produces two descriptions of lace, known as point à l'aiguille, snd Brussels plait, the one made entirely with the needle, and the other on the pillow. The finest kind is mad of very fine flax thread, and some of cotton. It is remarkably soft and clear, but very costly. Mechlin laces are made at Malines, Aatwerp, etc. They are mado in one plece on the pillow, and the flowere are sarrounded by a plait thread, which designs tle outline, and has the effect of embroidery. Valensiennes laces are made chiefly at Ypres, Menin, Courtrai, Bruges, Ghent, Alost, and their respective neighborhoods, each town having its characteristic peculiarities by which its productions aro identified. Ypres produces laces of tho finest square grounds, varying in price from 12 cents to $\$ 250$ the English yard.

It is natural to suppose that attempts would be made to lessen the cost of production of so beavtiful and costly an article as lace. It was not, however, until machinery had been largely intioduced for the purpose of manufacturing textile fabrics that lace machinery can the said to have been successfully employed. About the year 1768 a frame-work knitter of Nottingham employed the common stocking-frame In the manufacturo of luce, and about the same time another person of the sume pluce introduced a pin machine for making single-press point-net in imitation of the Brussels ground. Varions machines wore from time to time introduced, all of which, except the varp machine, have been superseded by the bobbin-net machine, so called from the circumstance that the thread that makes the lace is partly supplied from bobbins and partly from a warp. The first successful machine of this kind was mudo and patented by John Heathcote in 1809, the principle of which was to pass the boblins from front to back, and from back to front, while n lateral inotion was imparted to the warp-threads, thas causing one series of threuds to wrap round the uther. The first machine was so complicated, that 60 motions wero required to complete one hole-an effect that cau now be produced with six. The cost of production hus also moro thun proportionally decreased; for in 1815 one square yurd of tho produce was worth $\$ 7$, and can now bo purchused for eight to tea cents. Up to the year 1831 plain net and quillings woro the chief produce of the boblin-net machine; lut sbout this time methods were introluced to purl and bullet-hole the edges of narrow laces, finishing them afterwarl, with a gimp thread, with the needle. The machines used wero known as the Leaver's, named after the original constructor; the pusher machine, so called from having independent pushers to propel the bobbins and carringes from front to back, insteal of pulling or loooking them; the circular mac'dine, so called from the bolts or combs on which the carriagea pass beiog made circular instead of straight ; the traverse-varp] machine, so called from tho warp traveraing, instend of the carriages. Ahont the year 1839 the Jacquard apparatus was successfully applied to a pusher machine; and since 1841 , when a plan was discoverd for applying the Jacquard to the guide-bars, acurcely a machine has been worked without the ornaments being applied by means of cards. New sources of manufncture soon developed themselves, such as flounces, scarfs, ahawls, window-curtains, etc.

Bobbin-net luce owes mach of its beauty to the quality of the threude, and the correct shape of the meshes. liy increasing the umber of warp-thrends within a given spnee the meshes ure reduced in eize, und finer lace is formed. There may be from 700 to 1200 und upwarl of warp-throads in a piece one yurd wille. The flneness, or gnage or points, ss it ta culled, depends
on the number of sifte in the combs, and hence on the number of bobbins in an inch; thus grage nine points indicates nine openings in one inch of the comb. The leugth of work counted vertically, and containing 240 holes or meehes, is called a rack. A circular-bolt machine may produce about 360 rucks per weak. Bobbln-net is made up in pleces of from 20 to 30, or more yards in length, and of varialle breadth. Nar row quillings are worked together in a numbor of breadths, united by threads, which are afterward drawn out. In well-mude lace the meshes are alightly elongated in the direction of the selvage. Ornaments, consisting of soparate flowers, sprigs, etc., are worked in by a Jacquard apparatus attached to the frame; but as the ornaments are all necessarily connected by the thread of glinp which forms them, the connected thread is afterward cut out with acissors, by children employed for the purpose. Where the inachine produces only one plain net, the pattern ls workod in by hand, the lace-runner being gulded by a lithographic pattern placol under the net. When the embroidery is complete, It is examined, defective parts are murked by tying the lace in a knet, and thene are restorad hy a distinet met of women called lace-menilere.

In addition to the bobbin-ruet machine for making lace, there is almo the varg machine, invented alout the year 1775. It was suggested by the stockingframe, thich only one thread is reyuired, while in the warp-frame there is a thread to each needle. The first articles mude by it were ailk stockings, with blue and white zif-zag stripes, or mandykes, as they were ealled, from the name of one of the four claimants to the inventlon of the warp-frame, the uther three leing Engllshmen. Alout 1784 a Nottingham mecinaic greatly improved the warp-frame by the applicution of the rotatory motion, and the cam-whicels to move the guide-bars, still known as Dawron's whech. The improved framen produced officers' sashes, purses, liracen, and other elastic textile fabries, the manufacture of some of which still continues. In 1796 s new falric was produced from the warp, and employed for mailora' jacketa, pantaloons, and the article known an Jerlin, so much used for making gloven. Warp machines were the first to produce ornamental patterns on lace, such as apots, bullet-holea, etc., which had been previously embroidered or tamboured liy hanil. The bohbin-net machine, invented in 1809, soon liecame a formidalle rival of the warp, and inthenced its fortunes in various ways, until 1899, when the Jaequard apparatus was applied to it, and so much increased its eapiabillies as to intromuce into the warp-lace trade of Nottingham a new clase of products of elaborate design, such as shawls, scarfs, mith, fall A , luces, etc. Of late years the tacist machine has been employed on aimliar goorls, and has to a great extent superseded the warp. Great improvements have also been introduced in the Finglish methods of dressing lace, especially in silk goods. Many new kinds of elastic fabricn, in gloves, in ailk, and other materlala, have been introduced. Velvet, and velvet in combinatien with luce, have also leen produced nt the warp-frame. At the the of the Great Exhibition there were alout 1400 warp-frames in operation, namely about 600 in Iejcentershife, about 400 in Ilerlychire, and about the name number in Nottinghamshire. The employment in the varlous liranches wan eatimated as followa: $150 \mathrm{ma}-$ chines engaged in the production of hioml, and other silk lacea; 150 in cotton tatting $\mathrm{A}_{\text {, }} \mathbf{5 5 0}$ in lecicester hosiery, etc. 100 in lace gloven and mita, 150 in woolen cloth, lumiery, purses, and varionk faliries for gloven, etc. The flrst machinen were about 16 inches in vidth; they are now, in the Nottingham trale, fr. a 90 to 150 inchen in willth, and in the leiceater hralery trade, from 44 to 72 inches. The number of penons employed in the warp trade in (ireat Iritain, in 1851, was estimated at 10,000 , and the capital invested at $\$ 1,800,000$, making a return par annum of
$\$ 3,500,000$. In the Great lixhibition was exhibited a power machine, capable of producing (working 12 hours per day) 800 racks per week, which, when dressed, would be equal to about 1200 square yards. A yurd of d-quarter white silk blond, whteh in 1830 cost 50 centa, can now be had for 12 cente.

Gold and Silver Lace.-The textile fubric known es gold or ailver lace censlets of warp threads of silk, or of a mixture of silk and cotton, while the weft or shont is a silk thread covered with silver, or with sllver gilt, as the ense muy be. The production of thls thread is, a remarkable illustration of the extensilililty of golis and of the ductility of nilver. The silver preferred by the wire-drawers is that which bas been meparated from argentiferous galena, this boing less brittlo than the silver oltalned from purer souries. Fron 400 to $\mathbf{j} 00$ ounces are cant into in ingot slout 2 inches in diameter, and from 20 to 24 inches in length. This is male red-hot in a charcoal tlre, and hanmered until sufficiently reduced to pass through the first hole of the draw-jlate, the hammering increasing the tenacity and elasticity of the metal. After the thar has been reduced by pnssing throngh 10 or 12 holen, it is planell, in order to remove iny imperfections from the surface which would interfere with the perfect gilding; the blemishes are readily detected by the retlection of a oheet of foolscap puper slightly arched, and placed over the bar. The bar is now gllt, by placing on it a number of gold leaves, varying from 10 to 30 , nceanding to the richness of the wlre required, the higher qualities being used fer milltary purposen, and pearls and bulliens for embrodering, while the lower qualities are used for liveries, the ends of muslins, and for skein threads exported to India and China. The gold leaves are placed in a row, side liy side, neariy the length of the bar, on a piece of cartridge paper: the bar is then gently placed on the leaves, prossed clices, and the edges of the leaves raised up until the silver $i$ : entirely covered. Tho bar is next enveloped in paper tied tightly round with cord, and placed in a charcoal fire, where it is left until it becomes of a bright rel heat, the paper not burning, but becoming red with the metal, when it alowly consumen, after which the bar is withulawn. While atill red-hot it is humished with a blool-stone ar with South Sea ax-stone, for the purpose of uniting the gold and the allver perfectly. When cold the aurface is covered with wax, and the bar is drawn into wire through graduated steed dies, and, after ene or twe annealings, finishod by drawing through perforated rulises, so fine that from an eunce of metal a wire a mile and a quarter in length is produced. At this point the wire has not so rich and deep a shade of yeilow ns is required, but this is given by winding the wire round a copper crlinder, with the addition of a small portion of wax, and tilling the casity of the cylluder with red-hot clarcoal made from birch-wood, the effect of which is to decpen the color, and render it permanent. The next prueess is to flatten the wire by passing it between in comple of steci rollers, one of ten, and the other of four lnches in diameter, made of the finest ateel, and of exiquisite polish. They are manufactured in Khenish Prussia, ut a cost of $\$ 600$ for a single pair of rollers. The flattened wire is wound on snall bobblas, which are phaced in the centre of circular ringe, attached to s luar over a apinning frame. On the front of the frame are tulblins of wilk, the threads of which pass through the centre of the ring to whieh the reul of wire is fixed. The whole is aet in motion, and while the threal is bolng $t$ wisted, the ring with the wire revolves ronnd the thread in the opposite illroction. In this way from 30 to 49 threadn are covered at once, the rerult being s resplendent flexible goll thread, adaptel to the jurposes of lace-making, embroidery, etc. Of thls thread, although gold only appears, probathy 9-10tis of its bulk is silk, whila of tha remaining 1-10th only 1.50 th part is gold. See details on this subject in the Journal
of the Socie Ilennoch's E. $B$. The expc year 1856,

Canada. Brtish p Mexteo.

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Sweden and Itsmbarg
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France on the France on the Frafieg on the Canary Islands New Grinata.
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Lacquer, ing of a solut gamboge, Raffr red coloring m rarnishing hra givo them a gol
Lacquer $\nabla$ laf, which is $t$ by the lac inse or coating of in confoundel in I ing in the son the other in C these wares, etc., was much being brought China; but the seems to have I cimens of it m folding screens, facture arlses fr ers of varnish m to this country show the grade The other kind of the nature o more layers of boxes belonging here, are remark
Lading, bil
Laden, in $n$ when she is char sort of merchan tonnage or burd laden he extrem by the weight of as much as she puiposes of navi crully estimated 200 tons ought, to 400,090 pound is composed is al which slie floats ; is so heary that great in quantity

## LAG

of the Society of Arts, No. 178, in tho Report of Mr. F. jlennoch'e paper on "Thread or Filre Gilding." E. 13.

The exports of laces from the United States for the year 1856, were as follows:


Statrment showino tik Imperts or Lacrs and Emhhoinkaifs into the UVited States yoa the Yeas gnoino Junr Buth, 1856.

| Whence Importad. | Laces. |  | Embrolderies of wool, eotton, silk, anillinen. |
| :---: | :---: | :---: | :---: |
|  | Threat and Insertingo. | $\mid$ Cotton Ineert Inge, ty haminge Incen, hrulids,et |  |
| Swedeo and Norway. |  |  | 18 |
| Hambarg.............. | 429 |  | 11.542 |
| Irremeo................ | 82,704 | 618,655 | 186,754 |
| Ifollani.. |  |  | 748 |
| Belglam.............. | 111 | 118185 | 2,284 |
| Pogland.. . . . . . . . . . . | 275,846 | 1,151,222 | 8,294,092 |
| Scotland | 479 | 8,940 | 198,194 |
| Malta. ................ | 27 | 28 |  |
| Canada. . . . . . . . . . | . |  | 15 |
| Brlish West Indies... | .... | -378 | 46 |
| British pos. In Africa.. | .... | .... | 40 |
| British East Iadies.... |  | $\cdots$ | 2.85 |
| France on the Atlantle | 100,254 | 10,743 | 959.483 |
| France on the Moditer. | 118 | .... | 1,798 |
| Canary Islands. . . . . . . |  |  | -253 |
| Now Gransila. . . . . . . . | 1,562 | 2,028 | 7,210 |
| China and oltor ptaces. | 49 | , | 2,724 |
| Total. . . . . . . . . . . | 1410,501 | (1,191,019 | 4,664,853 |

Lacquer, or Lacker, a yellow varnish, consisting of a solution of shellac in alcohol, colored by gaaboge, saffron, annotto, or other yellow, orange, or red coloring matters. Lacquers are chiefly used for rarnishing brass and some other metals, in order to give them a golden color and preserve their lustre.

Lacquer Ware, is derived from the Hindoo name lac, which is the resin seereted together with lae-dye by the lac insect. The lacquer ware has a covering or coating of lac; but two different processes are often confounded in India under this name-the one prevailing in the sonthern yarts of India and in Burmah; the other in Cashmere and Lahore. The former of these wares, comprising lacquered cablnets, loxes, etc., was much appreciated in the last century ; part being brought from Bnrmah and Indin, and part from China; lut the lacquered or japanned work of Japan, seems to have been superior to either; many fine specimeas of it may still be seen in the forms of large folding screens, ete. The chief expease of the manufacture arlses from the care with which successive layers of varnish must be laid on. Boxes have been gent to this country in various stages of progress, which show the gradual production of the desired effect. The other kind of lacquered ware partakes somewhat of the nature of pajier-mache, covered with one or more layers of lac varnish. Many of the luequered boxes beionging to this class, from Cashmere and Labore, are remarkabie for the clegance of their patterns.

Lading, bill of. See Bitic of Lamina.
Laden, in nantical langaage, the state of a ship when she is charged with a weight or quantity of any sort of merchandise or other materials equal to her tonnage or burden. If the carge with which she is laden be extremely heavy, her burden is determined by the weight of the goois; if it be light she carries as much as she can stow, that slie may be fit for the puiposes of navigation. As a ton in measure is generully cstimuted at 2000 pounds in weight, a vessel of 200 tons ought, accordingiy, to carry a welght equa to 400,090 pounds, when the matter of which the cargo is composed is specificaliy heavier than the water in which she flaats; or, in other words, when the cargo is so heavy that she can not float high enongh with so great a quantity of it aa her hold wili contain.

Iaden in bulk, the state of being freighted with a cargo which is nelther in casks, boxes, bales, nor cases, but llea loose in tha hold, being defended from the moisture or wet of the hold by a number of mats, and a quantlty of dunnage. Such are uaually the carg;oes of graln, salt, or snch materials,

Ladoga, a lake in Ruasin, the largeat in Europe, lies between the governments of Viborg on the north and west, Petersburg on the soath, and Olonetz on the east. Ita greatest length is about 180 miles, breadth above 70. The coast is generally low, much indented, and abounding in dangerena reefs. The depth in aome placea reaches alout 150 fathoms, in others it is insufficient for safe navigation. Storms are frequent, and the infiux of many considerable atreams produces strong currents. The chief rivers entering the lake are the Swir (or Sveer) from the east, bearing the waters of Lake Onega; the Volkhoff on the south ; those of Lake Ilmen and the Saima on the north, draining the retlculation of waters of that name. It empties itself on the south-west by the Neva, into the Gulf of Finland. There are numerous islands scattered aleng the north-weatern shore, several of them inhnbited. The princlpal towns on the coast are Kexholm, Schlusaelburg, and Novala Ladoga. A canal execated in the reign of Peter the Great connects the two latter, forming a direct communicatlon hetween the Neva and Volkhoff.

Ladrone, or Marianne Islands (so called reapectively from the thlevish habits of the natives, and in honor of Queen Mary Anne of Spain), a group in the North Pacific Ocenn, between lat. $13^{\circ}$ and $21^{\circ}$, long. $144^{\circ}$ and $146^{\circ}$. They are about 20 in number, of volcanle origin, irregular and pieturesque in outline, and clothed with luxuriant vegetation. The iatervening straits abound in shoals and currents, and there are few good harbors. The heat of the climate is somewhat tempered by the trade-winds. Among the vegetable products are sugar, rice, Indian corn, tobacco, cotton, indlgo, etc. Of wild animals, the most numerous are swine, sometimes of large size; cattle, horses, asses, mules, and Ilamas, have been introduced liy the Spaniards. The principal island is Guajtan, or St. John, the most southerly of the group. It is about 80 miles in circumference, and has a good fortifled hurbor, some milies to the south of St. Ygnacio de Agana, the seat of government. The aboriginal inhabltants, an active and athletic race, have gradualiy given place to a mixel pepulation, descended of colonists from Mexico and the Plitippine Isles. This group was discovered in 1521 by Magellan; but no settlement was made in them for about 150 years, when the widow of Philip IV. sent out a body of missienaries to convert the nat! ;es. They were visited in 1742 by Anson, who spent some time on the island of Tinain, where he discovered architectural remains, indicating a considerable progress in the arts of civilization. There are two other amall island groups of this name, the one on the coast of China, at the mouth of the bay of Canton, a groat stronghold of pirates, the other off the coast of Guatemala.

Lager-Bier was introduced into this country; generaily, about nine years ago. The process of manufacturing the peculiar and popular beer under consideration, differs very much from that in makiag common beer, or ale. The only materials used are malt, heps, aud water, and an inspection of the breweries is cenvheing that much care and cieanliness are exercised in ali the ojerations. Lager-bier ferments dewnward. Common beer can be unade fit to drink in four or five days, according to the heat of the weather; but it requires as many weeks before tager-hier can he drank, and it is thought to improve constantly if it lo given years of probation.

Fireweries, etc.-The art of fermenting grain was early known to the ancients, who employed it ndvantageously in fattoning animals. Urquiart ims noticed

## LAG

that Penelope steeped the grain with which she fed her geese. The eariest mention of beer is found in the history of the Egyptians, who are sald to have invented it more than 12 centaries befou 3 the Cbriatian advent. They called it, however, not beer, but Pelnsian liquid, from Pelusinm, a city near the mouth of the Nile, where It was first made. Hops were first used in England, A. D. 1624, where, it appeare, they were for a time prohibited as a "polsonous drug." The famons white beer was made from wheat, at Nuremberg, In Germany, alout A. D. 1541. Ale was brewed by the English Saxons as early as A. D. 728, and their " tharley-wine" was celebrated for its exhilarating qualities. Porter was originally a mixture of different draught lears, first compounded in 1730 for the latoring classes in London, who required a beverage of more nutritive qualities than had been prolineed by the mixture of ales of two, three or four "threads" or draighta. The ceiebrated Germuan mumm was first hrewed at l3runswick, A. n. 1492, by Charies Mumm, who gave his name to his invention. lingland las, however, till recently, been the great " beer conntry." Official returns ahow that in $\mathbf{1 8 5 0}$ the licensed brewers In the United Kingiom were:

In England, 5631 ; malt consumed, 24,055,202 hush.; Scotland, $1510 ; 950,105$; Ireland, 951 ; 164,702.

Of this last quantity; the greater portion was doubtless used in distillation! The licensed tavern-keepers In Scotland are shown by these returns to have numbered 14,971 , and the number in lroland to have been 13,793, many of whom were also licensed to brew or distill.

The quantity of ale and heer brewed in the United States, In 1450 , was $1,177,924$ barrels; of whisky and high winea, $42,188,955$ gallons ; of rum, $6,500,500$.

The amount of capital inverted in the United Statea' broweries averaged $48,334,254$; and the number of persons emptoyed in thia branch of commerce, 5487. The breweries in our American States have been greatly increaned of late years by the adilition of German capital, amounting nearly to $\$ 7,500,000$, distributed among upward of 590 entablishmenta. In 1847, the German breweries first introduced into this country the heverage known as lager-bier; perhaps the drink more extenslvely used than any other theer compound in the present day: The process of brewing thls peculiar and popular bier differs, we are told, very much from that employed in making common ale or beer. The only materiala, we learn, are malt, hops, and water, lut the quantities employed, aod the mean temperature observed, are a secret to all but the initiated. An inspection of the different breweries, wiii show that a studied care and cleanlineas are exercised In alt the operations. Fermentation, which in common beer is upwand, we are told, in the instance of lagerbier, is the reverse, or downward; lunt as it is the nsture of all fermentation procenses for the "workinga," as they are termed, to ascemd for a certain perion thefore they finally settie, we are liscined to beiieve this "downward fermentation" an ingenious juke, in order to stifle further inquiry. The word lager, in tierman language, means "rest, repose," an attention this jeculfar drink requires in orler to secure a ripening or maturity of perfectness ; and from this word the bier derives its prefix, hagre.

The iager-bier annually macie in New York eity and suburtha la estimated at $\mathrm{NS}, 000$ barreis, a number we are inclined to beileve beneatit the actual average. The entire city conaumption, however, of thin tier from ail parts, In computed to be not less than 8,075, 000 barrels! The city retailera number about 2000 , exclinive of the large hotels and restaurants, which alone consume from 85000 to 66000 worth nnnuality. In the eity of St. Lonin, Missouri, there were drank, from Int March to September 17, 1854 , more than 17,B00, 000 glassee of lager and common heer, and the entire stock of 24 breweries of that district wus com-
pletely exhausted. Philadelphla has 22 breweries of iager-hier, and the stock accumulated during the fali and whintar of 1855 , was valued at $\$ 600,000$ wholesaie ! The clty of Cincinnati has 7 first-class and 22 secondclass breweries; the value of the "plant" (machinery, tulss, etc., etc.) of the former lo estimated at $\$ 150,000$ each. The first-clase breweries average each about 4000 barrela per year. Most of them have large excavated vaults for atocking or lagering this bier. M. Yon Beck's store-ceilar, in the rocks at Rondout, Naw York, which will contaln 30,000 casks, cost $\$ 15$, 000 for excavations, etc.
The brewing of luger-bier usually commences about Octotser, and is then deposited thll the succeeding April
or May, when it is consldered to be in " tine or May, when it is consldered to be in "the condl. tion." The. Cincinnat! lager-bier brewerian empioy abeut 250 brewera, and as many others as assistants, etc., etc. The salary of a good foreman is $\$ 1000$ per annum and house-rent ; his assistants receive from $\$ 30$ to ${ }_{6} 50$ per month. They commence operations at four A. M., and get through in from 9 to 10 hours. These men are remarkatile for good health. Some of these establishments make 0 brewings a week. The fali stock of Milwankie lager-bier, in 1856, was fuljy 60,000 harrels. The weatern lager requires to the of a stronger quulity than that made in the northern breweries. Of the benefical qualities of this hier, apinions are far from unaninous; the jartisans in favor of the beverage profess that from 10 to 60 glasses per day may the drank with impunity! While the editor of the New Furk Scalpel, in his issue for October, 1856 , asserts that its continued use produces the most injurious effects on the human constltution, and which, if persisted in, induces disease and gradual decay; wentaily and physically.

Lugoon, from the Latin lacuna, a ditch, means a morans. Tho name is given paiticulariy to thoss erecks which extend aiong tie coast of the Airiatic, in the present government of Venice, and which are formed by water running ui in the land. They contaln many islands. Venice, for instance, is buitit on 60 of them. in some placen they are deep; in others so whallow that their exialations are offensive and dangerous. The Austrian government does less toward clearing them out than tho former Venetinn government did; and Venice in consequence is considerabiy. less healthy than it was. Toward the sen the islets are secured by dama, natural or artificial.
La Cuayra, the principal sea-port of the repubtic of Venezuela, in the province of Caraccas, on the Caribhean Sea, lat. $10^{\circ} 36^{\prime} 19^{\prime \prime} \mathrm{N}$., lon. $66^{\circ} 6^{\prime} 45^{\prime \prime}$ W. Population 8000? In 1810, the population is believed to have amounted to 13,000 ; the reduction leing a consequence of the loss of life caused by the tremeadoun varthquake of 1812, and the massacres und pioserijtions incident to the revolutionary war. The population of the city of Caraccas, of which La Guayra may be considered as the port, feil off, from the same causes, from 43,000 is 1810 , to 221,000 in 1830; but they are now both increasing. There is neither quay nor mole at la Guayra. Ships moor E. N. E. and W. S. W., with their heads to the north, at from $\ddagger$ to $\frac{!}{\text { of }}$ a wile from the land, in from 9 to 18 fathoms. The holding groumd is good; and notwithstanding the openness of the road, vessels projerly found in anchors and cables run very llttle risk of heing driven from their moorings. The principal articles of export are coifee, cocoa, indlgo, hiles, sarsaparilia, etc. La Guayra shares the trude of Venezuela with the ports of Cumana, l'uerto Cabello, Maracaybo, etc., having about a haif of its entire amount.

Port Reguhations.-Dn canting anchor, a visit is paid hy the collector of customs, or his agent, accompanied by otier officers, who take from the master hi. register, manifest, and muster-roll, and an officer is left on board untll the cargo is discharged. The master must awear to his manifest within 24 hours after his arrival,
when the $I$ days ali in compieted, ine the vess is withdraw has entered by paying t duced, tive I and hurbor then the sat on the entry invariatly s other hand, of credit va ruptcy is ve
We sutijo from La Gua 5th October,
Yeare ending 3 il
October.
1848.
184.
1844......
1845..
1847..........

Dutics re 1842-43, $\% 831$ 651 ; $1845-46$

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## Liverpool.

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Now York..
Bremen.
Marseilles..
Antwerp.
Stetth...
Genos.
Petersburg.....
Potersburg.
Boston .....
New Orleans
Barectona.
Tbrattar and
Elainear and $m$ Codic.
Nanter.........
Havans...
Ancaster...
Cetto...
In ballast to än
Total.
Lahore, an unted between of north iatitu in length by $2 d$ on the north $b$ dus; on the s on the east by and on the we
when the permit to dlscharge is granted, and within 8 days all Involces must be prenented. The discharge completed, the sama offlcers repeir on board to examine the vessel, and all heing foand in order, the othcer is withdrawn. The clearing of a vessel outward (that has entered wlth oargo), in luallast in then completed by paylng the port chargas ; proof whereof belng produced, the permission to sall is slgned by the governor and harbor master. If the veasel take cargo on boarr', then the aame formality, as to vislting, is pursued, as on the entry of a vessel. Goods imported are almost invarhally gold upon crerlit ; those exported are, on the other hand, always aold for ready money. The terms of credit vary from 2 to 6 months, or more. Bankruptey is very rare.
We aubjoln a statement of the principal exports from La Guayra during each of the 5 years endlng the Sth Octolier, 1847.

| Yeara ending sith Ontober. | Coffer. | Cucon. | Cotion. | Sagar. | Indigo.\| | Hilden. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quintala. | Fanegas. | Quint ${ }^{\text {cos }}$ | Qwnils | Quiutla | Numilut. |
| 1843 ....... | 147,474 | 28,624 | 510 | 8,268 | 1,074 | 81,684 |
| 1st4......... | 182,086 | 88,749 | 235 | 2,508 | 7112 | 45,242 |
| 1845. | 122,912 | 29,419 | 767 | 0,153 | 489 | 44,878 |
| 1846. | 111,975 | 82,476 | 240 | 4,562 | 517 | 85,560 |
| 1847. | 126,812 | 87,876 | 1,128 | 7,040 | 621 | 49,773 |

Duties received at cuatom-house, La Gusyra, $1842-43, \dot{8} 831,848 ; 1843-44, \$ 722,115 ; 1844-15,8795$, 651 ; 1840-46, *891,502.

|  | National. | Foreign (nos privileged). |
| :---: | :---: | :---: |
| Tonange duty. | 83760 | \%50 00 |
| Eatranee fee.. | 400 | 800 |
| Anchorage. . . . . . . . . . . . . . . . . . . . | 1200 | 1600 |
| Captain of port's foe. . . . . . . . . . . . . | 80 | 600 |
| Interpreters fee.................. | 200 | 400 |
| Permit to discharge and atamp.... | $112 \%$ | $112 \%$ |
| Henlth officer's feo. . . . . . . . . . . . . . | 400 | 400 |
| Munictpad charge for water. . . . . . . | 4000 | 4000 |
| yrnicipal bilf of heath.. . . . . . . . . | 410 | 200 |
| Permit to load and atainp.......... | $\begin{array}{ll}1 \\ 9 & 121\end{array}$ | 1125 |
| Certitcate ef sea worthiness....... | 300 |  |
| Total. | \%108 75 | 428225 |
| Value in sterling inonoy....... | £1715 | 239 14 |

A ship introducing a cargo, and asiling in ballast, would lee liable to all tho above charges, with the
exception of the last two. The charge for water is levied without regard to tonnage; viz., sloops and schooners, $\$ 20$ each, brige, $\$ 30$, and ohips, $\$ 40$. Tonnage employed in the foreign commerce of La Guayra, for six monthe of $1856,30,417$ tons. Sea Venezuela,

Laguna di T'erminos, or Laguna di Carmen, a sea-port on the south sbore of the Gulf of Maxico, State of Yucatan, lat. $18^{\circ} 38^{\prime} 44^{\prime \prime}$ N., long. $91^{\circ} 51^{\prime} 22^{\prime \prime}$ W. It dorives its numes from being situated about 1 mile within the south-west extremity of Carmen islund, on the moat westerly of the strults or entrances loading into the basin or lagoon of Terminos. Pepulation about 8000 . The port, which is secure and one of the best on the gulf, bas from 12 to 14 feet water over the bar at the entrance to the lagoon. Veasel:, of greater draught load and unload by yueane of lighters, outaide the bar, In from 3 to 4 fathoma, with gool holding ground.

70 Euter the Port.-Kun in over the bar with Xicalango Polnt, bearing by compass S. $\frac{8}{4}$ li., till Point Sacatal bears S. E. $\frac{1}{}$ S., and then ateer for it ; and when the north eide of the jeland begins to shut in haul up for the anchorage off the town. Tha lead is a safe ginde on the weat side of the channol, but not on the east. The chlaf trade of the town conslsts in the shipllng of logwood, known in foreign markets ly the name of Campeachy wood, from its laving been origInally cut down In the vicinity of that port and shipped from it. But Cumpeachy has censed to be an entrepôt for logwood. It ia now principally cut down on the mainland adjoining the lagoon of Terminos; and being thence conveyed to Laguna in coasting schooners, Is sent from it to all party of the world. Vesaels arriving with cargoes muat bring a general manifest and involce in triplicate, certitied by the Mexican consul at the port of departure. Those arriving from a forelgn port ln ballaat, must produce s clearanco aither from the Mexican consul or the authorities of the place frem whence they came, showing that they bring no cargo. Pilotuge $\$ 1.75$ per foot, other port charges, auch as harbor-naster's fees, anchorage, bonrd of health, etc., about $\$ 25$ each veasel. Ships arriving direct from a forelgn port pay $\$ 1.50$ per ton for tonnage dues. See Mexico.

Siatfgent of tie Exportation of Diewoole from the Pont of Lagena di Traminos nerino the Yeans 1850, lish, and 1859, bpecifyino also the Vessris in when they wear bitpped and tho loats to which thay AElositid.

| Purts. | : $\times 50$. |  |  | 1851. |  |  | 1852. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vesceln. | Logwnod. | Fontie. | Vessele. 7 | lagwoud. | Fontic. | Vassela. 1 | Logwered. | Fiunilo. |
|  |  | Quintats. | Quintala. |  | Grintala. | Quintala. |  | 4nintals. | sulntats. |
| Liverpool., . . . . . . . . . . . . . | 19 | 97,723 | 1,891 | 28 | 100,9018 | 4,491 | 21 | 96,3114 | 100 |
| tisvre........ . . . . . . . . . . | 17 | 99,679\} | .... | 12 | 73,545 | 529 | 15 | 88,708 | 1,006) |
| liambarg. . . . . . . . . . . . . . | 12 | 42,369 |  | 9 | 82,889 | 2,897 | 14 | 47.877 | 8,094 |
| Cer ${ }^{\text {k }}$ and market. . . . . . . . . | 15 | 70,940 | 1,474 | 7 | $81.568\}$ | .... | 7 | 80,010 | 2,012 |
| Bordenex. | 8 | 26,49 |  | 10 | 24,164 |  | 7 | 17,408 | 12,277 |
| New lork................. | 4 | 81,284 | 05 | 2 | 5,014 | 1,929 | 4 | 21,0711 | - |
| Bremen.................... | 1 | 4,511 | $\cdots$ | 5 | 27.422 |  | 6 | 44,227 | (1) |
| Marseifles. | 9 | 14,090 | 523 | 8 | 22,648 | 1,177 | 5 | $8 \mathrm{t}, 084$ |  |
| Antwerp................... | 1 | 5,197 | . | 2 | 7,364 | 1,201 | 6 | 84,510 | 40 |
| 8tettln... $\cdot . .$. . . . . . . . . . . | 2 | 17,718 | . . . | 2 | 15,102 | 6430 | , | $\cdots$ | ** |
| Genoa. . . . . . . . . . . . . . . . | 2 | 6,821 | $\cdots$ | 2 | 7,606 | . | 4 | 15,603 | .... |
| Petensburg................. | 8 | 176.70 l | 4,440 | 1 | 8,966; | . |  |  |  |
| Boston . . . . . . . . . . . . . . . | 9 | 8,645 | .... | 1 | $2,1(6)$ | .... | 2 | 8,461 | 1,114 |
| Now Orleans... . . . . . . . . . . | 1 | D(6) | ... | 8 | 1,591 | . | 2 | 1.0100 | 1 |
| Barcelona. . . . . . . . . . . . | . | $\cdots$ | . . . | . | .... | . . . | 1 | 2,480 | .... |
| Gibraltar and market...... | . | .... | ... | , |  | .... | 1 | 8,6794 | $\cdots$ |
| Fisfuesr and market...... | i |  | * $\cdot$. | 1 | 7,461 | . $\cdot$. | "' | $\cdots$ | .... |
| Cadlz..................... | 1 | 1,5101 | ... | 1 |  | . . . | 1 | 1,678 | .... |
| Nantes.......... . . . . . . . . | - |  | .... | 1 | 6,011 | . . . | ; | gist | .... |
| Ilavane......... . . . . . . . . . | 1 | 1,410 | . . . | $\cdot \square$ | .... | . . . | 1 | 8881 | . . . |
| Lancaster............ .... | * | .... | . . . | " |  | . . . | 1 | 8,972 | $\cdots$ |
| Cette...................... | 10 | .... | . . . | 1 | 2,281 | ... | $\stackrel{\sim}{*}$ | .... | .... |
| In bailast to eundry ports. | 10 | .... |  | 3 | .... | $\ldots$ | 6 | .... | .... |
| Total. ................. | 111 | 444.611 | 8,8:3 | 68 | 871.406 | 12,5411 | 104 | 463,4001 | 19,537 |

Lahore, in extensive province of I!indonstan, sit- the Indus. The principal geographical and territorina uated hetween the thirtieth and thirty-fourth degreen of north latitude. It has been estimsted at 340 miles in length hy 200 In average breadth. It is lounded on the nurth ly Cashmere and the conrse of the Indus; on the south ly Delhl, Ajeueer, and Moultan ; on the east by the mountalns of northern Hindoostan; and on the west it it separated from Afghanistan by
sublivisiona are the Puajal, comprehending other minor subdivisions, and the Kohistan of I.nhere. kice is cultivated in the narrow valleys, hut the inhabitants sulaist chiefly on what bread, and peas made lato a thick soup. Pines and willow-trees grow on the aurface of the monntains. The resinnus part of the fir is cut into slipa, and supplics the place of a
lamp. The climate in not favorable to frults and vegr stables. Fossil salt in found in many partn, and the mountaln tracts are apposed to be rieh in minerals.

The coinmerce of thls country was formerly much obatructed by the havy dutiea levied on all the gooda as they passed through the different territoriee of the petty Sikhs. It wan In consequence earried to IIIs. doostan l'roper by the difficult and mountninous route of Jamboe, Nadone, and Serinagen. The Slkh chlefs, bowever, diacovered thele error, and many of these heavy and vexatlous duties have been reducel; and by a mero strict aiminiatration of justice, cenfidence has been rentored to the merchants. The exports of Lahere to the countries weat of the Indus are, augar, rice, Indigo, wheat, and cotton eloths. 'the importe from these countries are, sworda, horsea, fruit, lond, and apices. The exports to Carlmere nre nearly the suine us to l'ersia, the imports beling shawle, a variety of cloths, mafiton, and frults. With Kohiatan the mountainous district of Lahore, the inhatitants of Punjah exchange cloth, matchlocks, and horses, for Iron and other small commoditles. from the south are lmported sulphur, indlyo, nalt, lead, Iran, European coarse broadeloth, anil apices. The exports to the south are, horses, carnela, sugar, rice, white cloth, mutchlocks, sworls, und bows and arrowa.

Iahore, tho capital city of the Punjab, lliltish India, on min aftinent of the Ravee, In lat. $31^{\circ} 83^{\prime} \mathrm{N}$., long. $74^{\circ} 18^{\prime} \mathrm{F}$. I'opulation estimated at from 100 , 000 to 120,000 . It is inclesed by a donble line of ilefenses, the outer heing ubout 7 miles in circult. Streets narrow, filthy, and excessively crowded; hounes of lrick, and lofty. It has many large and bandsome mosques, and around it for many miles aro extensive Mohnmmedan ruins, with the fine tomb of the Emperor dehangire, and the garien of Shat Jehan. Here nre also many llindoo temples, well-supplied markets, und a citadel, contalning the palace of the Sikh sovereigna. Under the Mogal emperora, the city was of much greater extent. In 1748 , it fell into the hands of Ahneed Shali; In 17 an Runjeet Singh was invested governor and rayuh. After the tinal defeat of the Sikhs, $\ln 1849$, Lahore wus taken possessiun of by the liritish.

Lake, an extensive accumulation of water wholly surrounded ly land, und having no direct nor limmediate communication with the ocean, or with any neam, or having so only ly means of rivers. Lakes are of varlous kibln, and have been divided into two classen, aceording to their situation and causes of production. Those which are formed in deep hollows between the ridges or ut the basen of the moontain, and which are supplied with water by aprings or turrents, are classed together, and those which are formed in low and level countries ly the surplus water of rlvers, or from a want of sutficient declivity in the ground to allow the waters to cotinue their conree, constitute a second class. Sometimer a chain of lakes is connected with one nother and with the oceun by a series of rivers. Thim in the case with the great lakes on the northern frontier of North America, where basin aucceeda basin, on a lower level, like ne many lucks on a cana!. A fourth clase of lakes are those which recelve at reams of water and often great rivers without haring apparently any outlet. These lakes are in gencral condhed to wurm climates; but the Caspian Sea, the largest of all laken, belongs to thin clans. There are a great many of hery Lienide In Asia; and South Amerina contains Lake 'Titicaca which has no efllux, although it recelves very onsiderable riven into it. Surh laken appear to belong to the interior of great contineate ; they are pluced on elevated plains which have no senaible deellity towaril the sea, and which do not allow the water opening for itself a passage through which to flow out.

It was long conjectured that ly some nuliterraneous channel laker of this description communieated with
the sea; but the faet that the surfaces of sonse of the mest remarkable of them, such as the Caaphan and the Dead Sen, are depressed below the level of the ecean, In quite sufficient to explode this bypothesia. For were there any communication, howover amall, the ocean would flow into the lake tIll it brought it to a lavel with Itself. The true explanation meems to be that a quantity of water equal to that which runs in is carried off by evaporation. The absorption of liquid by the contlguous land, may ulso materially assint in carrying off the surplus fluld.
Dlathet from any of the oharncteriaties of lakes yet alluded to, in the chemical nuture of their waters. Lakes in reapect to the quallty of the waters are dis. tinguished Into frenh, naline, ond alkuline. Those which receive and diachurge conviderable gantitiea of fresh water are almost always kepit ln a state of perfect freslmess; but those which have no eutlet are in variably waline. Thus the Deal Sea, whose waters have no eftlux, and lnto whleh the river dordan continually flows, contalns about elght itmes as much salt as common sea-water. The waters of the Iorian are brackish, and the nelghboring soll is much impreg. nated with sult, so that the accumulation of such a quantity of saline matter in the lake during a serics of ages is by no means surprising, for none of lt ever pasmes off by evnporation. Salt muat likewise lie accunsulating in beds ut itn bottom; for as moon as water in perfectly saturated, und can hold no more salt in molution, the latter must fall to the bottom. Some of the large Aslatic lakes are dried up during summer, and their heds appear lined with an incrustation of salt. All the grent American lakes consist of fresh wnter; those of Furope are either fresh or slightly saline; but the Caspinn sea, and various others which are situated in plains full of salt, or In tracts of conntry whero nait spriugs abound, are almost invariably impregnated with that anbstance. Some lakes are both maline and alkaline, us is the case with the Natroa Laken in Lower Eyypt. They derive their appel. lation from thelr shounding in seda which is there called trona, and natron, the nitre of the Seriptures. Some laken produce a pitehy nubstance. In the island of Trinilad there is one on the surface of which an enormous quantiny of hitumen, fit for naval purposes, is collected. Jeposits of varioun kinda besiles those enumerated seem to owe their origin to lakes. Ibg iron ore, or hyilro-phosphate of Iron, is often found in such situations as to nhow that it lins been deposited from the watera of taken ; and in nome conntries it is collected from the siles and bottoms of lakes once in a certain number of years. Calcareous springs are numerous, and when the waters of these collect in hollow place so an to form a hata, quantitios of faleareous sinters and tuffus are depositen, so that the lakes when emptied preaent extensive dejosit of that mineral. The trnvertine ennployed at lome for luilding, Is a lake or spring calcareoua deposit of sinter and tuffa.

Iaices, Great American. The following are the principul lakes forming the great chain of inland uavigatlon, extending from the St. Lawrence River to the head of lake Superior:
T.ake Ontario, In shape, appronches to a long and narrow elllpse, belng atout 190 miles long und 55 wide, with a coast line of about 480 miles. Its surface is 331 feet alowe tide water, and 330 feet lelow the surfice of lake Dirie. It is in many places over boof feet deep, so that its lottom is below the level of the diluntic. In every part it has suticient depth for the largest vessels, und is rarely frozen, exrept near the shore. There are many good harbors on the lake. It receives the water of Niagara Iliver, the oullet of the other American Laken; also the Genesee, Obwrgo, and Illack Kivers. It is connected with the Eris Canal by the Oawego Canal, und has by this means a direct wutor comnanication with New York city.

Lake Erie, which is situated fots feet above the sea,

380 feet abov miles in leny between 600; depth la 120 lakes, and mo account of it storms, caun] dangerous dns log large loss quant occurre navigation, lie atop to all acti present feata tario; the han and move elay sund. The $n$ from the ban table-land bey harbors along of dsep creeks tion of storms jecting piers.
Among the Port Collorne, Canal, at the $f$ conmencement up is the harl the Grand Riv atresm, naviga tance, and pos scenery along some way abo sents maty del the harbors fur well, and Stan flourishing of $t$ the most propu part of Canada great fertile pe here high, and mediate bank, extensive tract Lake IIuron, a best quality, be beech, maple, cherry, and oth of soil. The v appearance, an upper part of beautiful islanil there is a light along the upper mouth of the 1 riant aspect. shore, and the clustering amon tall shrubs alo here covered w

Lake st, Cll country, we pa: St. Chair, then Into the liroad head of Lake : tance of hetwe of unsurpassed ling many deli, about 27 milles islands, several Frie, are beauti burg and Sand sor, aro situate Opposite Wind and where the of a mile, is the of Michigan. necting link, $h$ Rivere, betwee!

390 feet above the lovel of Lake Ontario, la about 265 miles in length, fron: 80 to 00 mlles in breadth, and betwoen 600 and 700 mlles in clreumference. Its mean depth is 120 feet, beling the shallewest of all the great lakes, and most easily frozen. Its waters are alac, on accaunt of its shallowneas, mere readlly agitated by gtorms, causing ita navigation to be therefore more dancerous dnring atormy weather. Dinasters, Involvlng large loas of life and property, are not of unfrequent occurrence on the lake, toward the cloae of navigation, liefore the rigore of winter have put a final stop to all active lake traffic. The siones of this lake present featares very aimilar to those of Lake Ontarlo; the banks of lake lifie being generally bolder and more elevated, and composed chlefly of clay and sand. The more fertle parts are at seme diatance from the banks, througheut the extenaive plain of table-land beyond. There are several good natural harlars along the whore, formed chlefly by the mouth of deep ereeks or atreams, and protected from the action of storms and current of the lake by streng pro jecting piers.

Among the harbors of Lako Frie may be mentloned Port Collorne, altuated at the entrance to the Wellind Canal, at the foot of Lake Frle, and a little above the conmencement of the Niagara Rivor. A little further up is the harbor of Pert Maltland, at the mouth of the Grand Kiver. This is a very fine and capacions atresm, navigable for small veswels a considerable distance, and possessing much fertlie land and pleasing scenery slong its banks. The shore of the lake for some way above the mouth of the Grand Rlver presents many dellghtful and fertile gettlements. Among the harbors further up the lake are l'orts Dover, luarwell, and Stanley. Port Stanley is perhaps tho most flurishing of these harbors, belng the port of one of the most propulens and enterprising districts of this part of Canadn, and aituated neur the centre of the great fertile penlasuia. The banks of Lake lirie are here high, and of a asandy character; but off the itnmediate lank, and extendlng all the way through tha extensive tract of country to $t^{\prime}$ e town of Goderich, on Laka Iluron, a distance of 85 miles, the soil is of the best quality, being for the most part timbered with beech, maple, black and white walnut, oak, ash, cherry, and other trees, Indicating the first qualities of soll. The whole tract ls greatly undulating in its appearance, and is everywhere well watered. The upper part of Lake Erie is distinguished by many besutiful islands, the largeat of which is Pele, on which there is a light-house, and several fares. The shores along the upper part of the lake, espeeialiy toward the mouth of the Detroit River, have a amiling and inxuriant aspect. Trees of the finest growth rise from the shore, and the wild vine may be seen twining and clustering among the branches of the lesser trees and tall shrubs slong the sioping banks. The shore is here eovered with fine white sand.

Lake St. Chir.-In our further progress up this country, we pass the Detrolt River, thence inte Laks St. Clair, then the River St. Ciair, which last opens into the broad expanse of Lake Huren. From the head of Lake Erie to the foot of Lake lluron, is a distance of between 80 and 90 nilea, through a country of unsurpassed fertilty and loxuriance, and possessing many delightful fentures. The Detrolt River, about 27 miles in length, is interspersed with many inlands, several of whiel, near its entrance into Lake Erie, are beautifully wooled. The towns of Amherstburg and Sandwich, and the smali village of Windsor, are situated alorg the Canada side of this river. Opposite Windsor, toward the upper part of the river, and where the banks narrow to about three quarters of a mite, is the American city of Detrelt, in the State of Michigan. Lake St. Clalr, which forns the connecting link, by meana of the St. Clair and Detroit Rivors, hetween Lakes Iluron, Mlehigan, and Erio, Is
the smallest of all the lakea, and exceedingly shallow for the larger ciass of veasela passing through it. It la from 20 to 30 milies in length, and about the same ln brealtt: Its average depth is about 20 faet, but the principal channei used by veasels parsing through it in much shallower, especially in dry seasons, when the mud of ith flats is atirred to the surface not unfrequently hy large veanels. The ehief stream which it receives from the Canadiun shere is the IRlver Thames, which is pavigable for lake vessels 22 miles from ita mouth, and the banka of which are exceedingly fertile, and moatly well settled. Much of the lend bordering on the lake is low and marshy. In the upper part of the lake are several islands, the prinelpal of which is Walpole Island, about 10 mlles long, and from 3 to 4 milies wide. This laland is inhabited by a stray portlon of the remnant of Indians still exlstling In smail and decreasing numbere in Canada. We are now at the entrance to the River St. Clalr, in langth abont 30 mlies. There are several thriving settlements aleng the fertile and beautiful banks of this river. Toward the lowar part, amid a cluster of wooded islands, the banks, with somewhat of a flat appearance, are covered with lnxuriant timber. Further up, the land risee, with finely aloping banks and cultivated farms. Nenr the heal of the river, and picasantly eituated, is the fourishing town of Sarnis.

Lake Iluron.-The River St. Clalr now opens te the wide expanse of Lake Iluron, of about 1000 milea in elteumierence. This vat sheet of inland aes is the second In point of size of the great lakes, yicldinct only in this respect to Lake Superior. The surfuce of Lake Huron Is about 30 feet above the lovei of Lake Eric, and 505 feet above the level of the Atlantic. The length may be estimated at 250 miles, and its breadth 160 miles, inclusive of the Georgian Bay, a large wing of the lake, extending along the nerth-eaatern shore for a distance of about 100 miles. The mean lepth of Lake lluron is 900 feet, and lts greaiest depth 1000 feet near the west shore. This lake is suid to contuin the almost incrodible number of 32,000 islunds, principally ulong the northern ahore and at the north-western end, varying in size from mere rocky reefs and pinnaclea to iarge and cultivable islands. The Great Manitoulin, the longest of the islands, is upward of 75 mlles in length, and varies in width from 3 to 23 miles. Tho waters of the lake are remarkably pure, clear, and cold; in these respects reaembling the great upper Lake Superior. The surface of Lake lluron is about 82 feet lower than that of Lake Superior, and it is very nearly us deep as that lake. The nature of the banks of Lake Iluren vary very much. In parts they ure low and sundy, in others formed of clay; they rise to a height of about 120 feet, while again the shore of this inland sea presents a bold, rocky, iron-bound coast, having great depth of water to the base. Numerous streams descand on nil sides into the lake; and among its rivers may be mentioned the Maltland, Sovern, and liver Français. Tho lake, which is rather aubject to storme, is detdcient in good and natural harbors, the prineipal of which, along the eastern coast, are Goderich, it the mouth of the Maitlanil, Baugeen, and I'enctanguishene; and in the western alore the best places of shelter in h ivy weather are Thunder Bay and Saginaw llay.

Lake Iluron possesses the advantage of heing reremarkally centrally situated with respect to the other great lakes. With Lake Erie, as we have seen, it is conneeted by the Straits or Rivers St. Clair and Detroit, and the small Lake St. Clair. Lake Ontario, tho lower of the lakes, is even open to it by the River Severn, Lake simcoe, then by a ahort portago, a chain of lakes, und Trent Itiver. Lake Simucoe, thus situated between Lake Huron and Lake Ontario, is a very beantiful lake, about 30 miles in length and 20 in broadth. The nock of land south of lake Slucoe from IIoliand River leading to Toronto is, it will be
remembered, aisut $s$ milea; and again, north of Take Slineoe, from the narrows of this Jake to Lake Huron, the portage in only about 14 inlles. The new railway now eutting through thla neek of the penin aula weat ward, situated between the Lakes Fria, Ontario, and lluron, will greatly facilitate the growing Intercourse lietween the nhores of Ontario, an well as all the country lower down along the banka of the St. Lawrence, aul also great part of the United Staten, with the reglons of the grea. upper lakes, Huron and Superior. This direct course will no doubt be much preferred to the elreultous ronte through Lakes Erie and St. Clair, and the connecting rivers.
Lake Iuron, besiden, communicatea with the Ottawa, and thence wlth the St. Jawrence above Montreal, hy means of French Iflver, Lake Niplasing, and the Eiver Mattawa, into the Ottawa. This is the route adopted generaliy by the north-west traders in proceevilig to the remote parts of the country; and It is also the one by which Rumpeans first penetrated the Weat, The distance from Montreal by this route to Iake Iluron la fully more than one half sherter than that ly the St. Jawrence. From Montreal to the Georgi:an liay, the diatance is extlinated at 100 mliea, while ly the St. Iawrence the ciatance is upwarl of 1600 milen, Again, lake Iluron comminaicates with the great upper Jake Superior by means of the River St. Mary, aheut 40 miles in length. Jantly, we have this centraily situated lake communienting by the atraits of Mackinae with Jake Michlgan, and thenco by the Illinois Rlver and Canal with the Misalaslppl and tiulf of Mexleo. The shorea of Jake lluron have of late revealed important mineral treasuren. The Iruce eopper minea promise to the of great value. Theae minen are situated upon the northern ahore of the lake under the Cloche Mountains, a bold range of hilis extending alout 40 mites along the coast. Along the aontb-eastern sheres of the lake, extending beyond the town and harbor of Goderich, on the Kiver Maithad, are many highly prosperous settlements. The Jands in this direction, and through the large and tine diatrict inland, are belleved to he the most fertlle in Cansia. The eountry is every where well watered, and enjoys much delightful scenery, inoth along the elevated lanks of the lake and the beautiful rivera whleh liversify it. The town of foilerich, on the liver Maitlani, is very agreeatly situated, mul possesses an excellent liarbor. The high banks of the Maitiand are exceedingly picturenque.

Inke superior.-We now approach the uppermost of these vast coilections of water, not lmuppropriately named iuland seas. The River or Strait of St. Mary, connecting Iake Ifuron with Jake Superior, is between 30 and 40 miles in length. The character of the scenery, on entering St. Mary's Channel, is the most delightfol that can lie imagined. The ehannel throughout, with the exception of soveral sunall lakes, neems to he alnost packed with Islands ; and while perplexing the navigator by its Intricacy; it is every now and then reveailng now and atriking lieantien of woodes helghts and steep banks clothed with verdure, and spots of fiat, fertile meadows, and, at times, bare, rocky, fantantic crags. The sldes of the ridiges of table-bands that ahirt the country, aromal the bordera of Jake Superior, afpear in the distance ciothed with one mass of lively green. The foot of the Falls, or, mure jroperiy speaking, Ihapids of St, Mary, mpproach within alout Is miles of Lake Snperior. The region in this direction seems much less fertile; the trees along the shoro of the broad atrait appearing to be chiefly of the pine species, and the mil in many parts light and andy, while the lands clowe upon the banka lie for the noat part low and flat. We now approach the chicf seat of the great copper district of Ameriea, where the barrenness of a large portion of the country is richly compensated ly the value of the metala with which it abounds. The copper minea of Canada, along
the ahorea of Iakes Iluron and Superior, are perhapa ontilled to rank among the moat valuable reaurcen of this great country.

As we approach the great queen lake or inland sea, upward of $\mathbf{4 0 0}$ miles In longth anil 180 in bresith, dark blue masaes of hills uprise, somewhat reminding the veyager of the haproaches to the St. Lawrence fin the forma of the headlanda of Cape Itoalere and others, yet belng neither an high nor no bold as thene. Tha nain entrance to the lake is marked by two such rocky lreallands, one upon either shore aeveral millos apurt. From the heighta of the one on the other aloore, named Grun Cap, consposed of the roek of the old red mandstone, the aidea of whileh are partially covered with junipera, blue bella, wild briars, and other vegetation, reminiling one of the Scottlah bills, we overlosk a seene of the moat imporing and atill grandeur possible to lise imaginad. The dim diatance linto the lake is botmded by vast islands, and along both ahores iold uneven loanks uprise, apparently covered with dark deane follage, and atretch themselves in Irreguiar conrae, as far an the eye can reach, along the wide ex. panse of water that scarcely as yet presenta any speck of mulgation. The alores of lake Superior, which are even now lmperfectly explored, already prove to be abundant in mineral reaources. Many of the enterprising luhabitants of Canada, having formed theuraelvea into associations, are now engaged in mining the seemingly inexhaustlble treasures of virgin copier which are found along the shores of this like as well as Iake IIuron. Thls source of wealth to the colony ls likely to prove of considerable import. ance.

Lake Superior, which ia the largest sheet of fresh water on the face of the globe, is the inost remarkabite of the great American Iakes, not only from its mugnitude, but also from the picturesque accnery of its borders, and the intereat und value attaching to its geologleal foatures. "As a mining region," continues Dr. Jackson, who, as Unitel States' geologist, was intrusted by his government to survey the territory, "it is one of the noost Important to this country, and is rich in veins of matallic eopper and silver, as weil ss in the orea of those metals. At the prenent moment it may be regarded as the most valuabie mining district in North Amprlea, witil the exception only of the gold deponita of California. The whole coast of Jake Superlor ls rock-lound. Mountain manses of considecable clevation in some places rear themeslves from the linmediate shore, while steep precipicen and frightful crags oppose themselves to the surges of the mighty lake, and threaten the unfortunate marlner who may he caupht In a atorm upon a lee shore with almost inevitable destruction, The northern or Canadian ahore of the lake is the most precipltous, and eonsequently most dangerous to the navigator. Good harlora for vessela of moierata capacity ara comparatively few, hut there are almindance of coven or hout-harbors formed by the countlens indentations of the rocky coant. In reutarkablio contrast to lake lluron, which is thickly stuldeil with itsands, there are very few islands in lake Superier.

Agrienlture may be truly sald to have not yet commenced to tame the great and comparatively unexplored wilterness around the shores of Lake Superior. The forests of stunted apruce and tir-trees aiong the immerliate coast of the lake are auid to atiord a very inadequate idea of the agricultural resourecs of the whores of the great queen lake. The ecld air from the lake, auy, Dr, Jackaon, affects only the vegetation nasr its ahores, while further inland the temperature more resembles that of the settled parts of Camada. The native forent trees, anil also the dowering plants, as well as the agricultural produce where clearings have been made, are believed to afficd very satisfactory evidence on thin polut. The forests are tilied with excellent timber for bullding purposes; the
white and dimensions. are numerol interesting : bringing dow abundant w extensive In dencenta and nevar be rent above their is Jake Mleh America, lie and liet ween aorthern pari Struits of Mi miles in widtl Ite northern Dlichigan. B lies whelly wi long, andi, on 16,981 square Bay, a large east, Grsnd 'I It is estimated is elevated ab few good harb cago, Milwaul are Dlichigan Jeseph River Gruad liver. and eeveral

Coliection
Vermont. Champialn.. Onwegatehle. Cape Vincent Sackett's Har Oswego.
Orneser.
Neneser.
Rafisio..
Bainio.......
Cuyshoga...
Sandusky .
Mlamı.
Detrolt..
Macklnac.
Mllwankle...
Chleazo.....
Tetal....
Lake Trade. canal naviggatlo Lac and Chica bracing the lar thon in the w condensed form
Lake sinperior Mtchtgan
" Iluror. St. Clair. Erte.... Ontarie... River Bt. Lawto

The great la

## LAK

white and yellow pinem，particularly，belng of large dimenaions．＂The trilutary rivers of Jake Superior are numerous，＂says Mr．I．1）．Andrews，in his very latereating report to the United States＂Senute，＂auil， bringing down a large volume of water，afford super－ abundant water－power for manufactories the most extenaive in the werld，though，from the precipitous descenta and numerous fallis and chutes，they can never be rendered navigabla for more than a fow millea above their moutha，except for canoes．＂

Lake Michlgan，ona of the five great lakes of North America，lies between $41^{\circ} 38^{\prime} 68^{\prime \prime}$ und $46^{\circ} \mathrm{N}$ ．lat．， and leetween $84^{\circ} 41^{\prime}$ and $87^{\circ} 8^{\prime} \mathrm{W}$ ．long．In the northern parta it communicstes with Iluron by the Straits of Michillmackinne or Mackinac，about four miles in width in its narrowent part，and lyy which and its northern part it separates the two peninaulas of Michigan．Michigan Laka is the largeat lake that lies wholly within the United Statea，being 330 miles long，und，on an average， 60 milea broad，containing 16,981 rquare milea，or $10,868,000$ acres．It has Green Bay，a large branch on the north－west ；and on the enat，Grand Traverse May and Littla Traverae Bay． It is eatimsted to be on an average 000 feet deep；and is elevated about 800 feet sbove tide－water．It hss few good harbors．On the west slde are thoee of Chi－ cage，Milwaukie，and Green Bay．On the east side are Mlichigan City；St．Joseph，at the mouth of St． Joseph River，and Grand Ilsven，near the mouth of Grand liver．It is navigated by many inrge vessels and several stemboats，which fly from Buffulo to

Lake Frie and Chicago，atopping at the intermediate places．It affords great facilities for tranaportation． The lake has jure and clear water，and abounda with excellent flah．There are aeveral lislunds on ith north－ ern part．It has 23 light－honses and 4 beacons on Ita Islands and coante．The Illinols and Michlgan Canal conneets the navigable waters of the Ihlinola Itiver with Lake Michigan．

Commerce of the Lakes．－These lakes are eatimated to druin an entlre area of 335,515 square miles，and dissharge their waters into the ocean through the River St．Lawrence，which is rendered navigabie from Lake Frie dowrward to all veasela not exceeding 130 feet keel， 26 beam，anl 10 feet draught，and the free navigation of which fur American bottoms was recently＊ acquired by the concession of reciprocity of trade to the Canadian government．The whole traffic of these great waters may be now unhesitatingly stated st $\$ 326,000,-$ 000 ，employing 74,000 tons of stenm，snil 138,000 tons of aail，for the year 1851，of 215,000 tona burden．

The entire number of veasels and crews of the in． terior trade amounta to 140 bottoma，and $\mathbf{0 , 8 3 7}$ men，in excess of the whole ocesn and coast navy，though the tonnage emploved in the Jutter is smaller by ${ }^{\prime}, 775$ tons．

Llowever r6．．．ote the period of the diacovery，ex－ ploration，and partlal colonization of these wilds and waters，any thing like pructical navigation of them for commarclal purposes was unattempted until after the commencement of this century．In 1679 a French craft indeed was launched at Erie，Pennsylvania，for the expedition of the celebrated and unfortunate La Salle．

Tonnare of the Lake Poats， 1856.

| Collection diolriats． | Uwned la diutricta． |  | Tonmage eotered． |  |  |  | Tonnege eleared． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sleam tonnage． | Sall Tonjagre． | Amertran． |  | Forsign． |  | Amenean． |  | Forelst． |  |
|  |  |  | Bleam． | 8 all． | Ntwang． | Sall． | Sieam． | क⿴囗十介． | 8 team． | Bali， |
| Vermont．．．．．．．．．．．．．．．Ver． | 8，240 | 69.2 | 56.421 | 17，490 | （1）， 166 | 10，758 | 88，024 | 17，020 | 0，321 | 7，602 |
| Champlain．．．．．．．．．．N．Y．Y． | 917 | 3，291 | 90，484 | 8，135 | 11，409 | 20，759 | 90，438 | 8，185 | 8，899 | 20，759 |
|  | 1，985 | 878 | 206，684 | 47，124 | 90,962 | 6，057 | 218，048 | 45，205 | 89,856 | 6，657 |
| Cape Vincent．．．．．．．． | 8i8 | 2，496 | 427，457 |  | 12，478 |  | 427，457 |  | 12，478 |  |
| Sackets＇s IIarbor．．．．．＂ | 848 | 6，768 | 164，616 | 201 | 1，060 | 1，984 | 161，875 | 1，885 | 1，060 | 1，984 |
| ＠wego．．．．．．．．．．．．．＊ | 4.859 | 21，94t | 928，842 | 845，681 | 7，250 | 85,601 | 967,6094 | 827，17y | 7，259 | 88，768 |
| Genesee．．．．．．．．．．． | 429 | 257 | 160，000 | 1，640 | 27，900 | 8，714 | 160，000 | 1.620 | 27，900 | 8，714 |
| Niagara．．．．．．．．．．．．．．${ }_{\text {\％}}^{6}$ | 100 | 506 | 75，078 | 864 | 145，778 | 1，344 | 75.074 | 964 | 145，779 | 1，844 |
| Buthio．． | 22，483 | 24，620 | 18，408 | 11.705 | 4，4，46 | 23，755 | 18，152 | 18，774 | 48，672 | 22，568 |
| Presque Isle．．．．．．．．Penn． | 5，961 | 2.249 | 680 | 1，089 |  | T81 |  | 8，205 |  | T41 |
| Cuyshoga ．．．．．．．．．Ohto | 11，805 | 24，716 | 4，848 | 24，264 | 878 | 10，892 | 2，070 | 15，090 | 826 | 8,619 |
| Randusky ．．．．．．．．．．．．． | ， 78 | 4，755 | 1，494 | 4，760 | 284 | 746 | ．．．． | 1，396 | 886 | 1，800 |
| Nlaml．．．．．．．．．．．．．．．．${ }^{4}$ | 1，158 | 2，03i］ | ＊ 88 |  |  |  |  |  |  |  |
| Detroit．．．．．．．．．．．．Nich． | 21，944 | 18，475 | 883 | 1，544 | 49，081 | 7，300 | 2，056 | 1，668 | 51，727 | 6，546 |
| Mackinac．．．．．．．．． 4 | 1，747 | 1．409 | ．.. | ．．． | ．．．． | ．．． | ．．．． | ．．．． | ．．．． | ．．． |
| Milwankie．．．．．．．．．．．．Wis． | 287 | 2,699 2,2898 | 65 | 89 | $\ldots$ | 429 | 2，133 |  | ．．． | 423 |
| Chicaz0．．．．．．．．．．．．．．．．．．．． | 77，061 | －22，806 | \％ 6.48478 | 444， 290 |  | －17619 | －$\frac{2,138}{494,548}$ | 1，025 | 9870 | 423 |
| Total | 77，001 | 185，914 | 1，484，779 | 464，423 | 897，087 | 174，619 | 1，492，043 | 438， 562 | 398，702 | 166，010 |

Lake Trule．－The grest chain of river，lake，and canal navigation，which extends west ward to Fund du Lac and Chicage，a distance of about 1400 milon，em－ bracing the largent extent of inlund water communics－ tlen in the word，the following table exhibits in a condensed form：

|  | Leagth． | Brandih． | Depth． | Elevation over sea． | Area． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Lake Saperlor． | $\begin{aligned} & \text { M1lea. } \\ & 420 \end{aligned}$ | $\begin{aligned} & \text { Milea } \\ & 120 \end{aligned}$ | Fiet． 600 | $\begin{aligned} & \text { teat. } \\ & 600 \end{aligned}$ | $\begin{aligned} & \text { Sy, twilem } \\ & 8), 100 \end{aligned}$ |
| ＂Michtgan．．．．． | 820 | 70 | 1，010 | 878 | 21.9001 |
| ＂Ilvror．．．． | 274 | 145 | 8，5） | 578 | 18，7，0） |
| ＂8t．Clair．．．．．． | 25 | 18 | 20 | 570 | 800 |
| 4 Erle．．．．．．．．．． | 250 | 45 | 70 | 564 | 8.910 |
| ＊Ontarlo．．．．．．． | 190 | 40 | （0）0 | 294 | 7，800 |
| River Et．Lawronce． | 700 | ＊＊ | ＊$\cdot$ |  |  |

Caxala．

| Canale． | Lengit． | Depth． | Size of | Lockage． | Loek ， |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Iachlue． | ${ }_{\text {Miles．}}$ | $\begin{gathered} \text { Feet. } \\ 10 \end{gathered}$ | $\begin{aligned} & \text { Feet. } \\ & 200 \times 45 \end{aligned}$ | 44］ | No． |
| Meauliarnols．．．． | 11 | 10 | $200 \times 45$ | 824 | 9 |
| Cornwati． | 11. | 10 | $200 \times 45$ | 48 | T |
|  |  | 10 | $200 \times 45$ | 4 |  |
| Rapld Plat．．．．． | 01 | 10 | $2000 \times 45$ | 114 | 2 |
| Polat Iroquis．． | 9 | 10 | $200 \times 45$ | 6 | 1 |
| Galops．．．．．．．． |  | 10 | 260× | 8 | 2 |
| Welland． | 98 | 10 | $150 \times 26 t$ | 830 | 27 |

The great lakea are about 1－25th of the area of the

Atlantic Ocean；but in proportion affurd much greater facilities fur commerce，in consec，uence of the advan－ tage of great length with less width，sud of greater proportion of shore line．The country furming the shores of the lakes can not be surpassed in general productiveness by any section of the Union，either in variety of important commodities，or in quantity pro－ luced per square mile．The extent of the commerce of the lakes may be catimated b ，the commerce of the lake ports．During the past 15 years the value of the trade of the lakes has awelied from $\$ 65,000,000$ ，in 1841，to $\$ 608,310,320$ ，in 1856；and the whole of this granil aggregate，with the exception of $\$ 42,260,060$ ， set down fur Sackett＇s llarbor，Cape Vincent，Oswe－ gatelife，Genesee，and Niagara，came through the fol－ low：ug ports ：

| Buffalo． | \＄303，023，000 | Milwaukte．．835，000，000 |
| :---: | :---: | :---: |
| Chicago | 228，59x，0000 | Maumee．．．．94，107，000 |
| Clevolaud | 162，155，000 | Sandusky ．．$\quad 59,906,000$ |
| Detrett | 140，000，000 | Oswego．．．．．146，235，000 |

With the exception of Buffalo and Oswego，these are all ports of the north－west，whose trado has been the result of its development during a very brief period； and the great bulk of the trade of Buffalo and Oswego is derived from the same cause．

The tonnage employed on the great lakes is shown
in the following table, and does not include any ocean or river tonnage:

|  | Tone. | Ton |
| :---: | :---: | :---: |
| Illinole. | 1,742 | Ohln (take tonoage) 11,856 |
| Wiseon | 1,451 | New York . . . . . . . . . 88,504 |
| Mehiga | 7,548 | Total........ ${ }^{\text {a }}$ 45,42 |

This la $1-12$ th of the total tonnage owned by the United States, and ahout $1-5$ th of the total amount omployed in the coasting trade. The ilrst stemmer launched on Lake Ontario was in 1816, while on Lake Erie ateam navigation rommenced in 1814. In 1851 the proportion of steam craft to sailing craft was ns 74,000 to 138,000 tons. The number of Camadian
steamers and schconers now trading on Lake Ontario is 234 , of which 48 are ateamers, 17 propellers, and 169 schooners, the tonnage of which amounts to atout 42,000 tona, and their value la about $\mathcal{C 3 7 8 , 0 0 0}$. 'The whole tonnage owned on the lakes in 1820 unounted to but 5,500 tona, in 1840 to 70,000 tons, in $18 i 0$ to 215,787 tons, and in 1855 to 345,000 tons. hiut even this rapil increase hardly conveys an Idon of the vast commerce of which theso great Inlund eens are destined to becemo the scene even before the close of the curret it century. The lihoral provisions of existing truaties vith England and her American colonies, will rapialy develop tha resources of Canada and the N. Slates.

Valite of Exports mom tis Lakf Ponts, 1856.

| Collection diatricte. | Ouna ling Iradn. |  | Canadian mod forelga trade. |  | Agremate valae of coasting trede. | Aurgreigatif valua of foreign lraife. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Kxports. | Imports. | Esporta | Importa. |  |  |
| Vormont............... Vrp. |  |  | $\{3767,592$ | 1206,417 |  | $\left\{\begin{array}{l}1,088.989\end{array}\right.$ |
| Champlain . . . . . . . . . . N. . Y. | \} $20,508,426$ | 18,453,196 | \{ is9,002 | 2994,254 | \} $24,818,022$ | $\left\{\begin{array}{l}1,088,489 \\ 1,048,2 \times 6\end{array}\right.$ |
| Oswergtehte.......... * | 915,557 | $2,424,145$ | 018,643 | 214.520 | 3,842,782 | 833,168 |
| Capo VIncent.......... ** |  |  | 82,899 21.980 | 81,858 88,119 |  | 98,it7 |
| Sackett'm leaber. . . . . . | 308,2x8 | 407,8019 | 21,980 | -68,119 | 801,007 | 78.099 |
| Uunesce................. |  |  | 918,454 | 48, 0411 |  | 4.992 .228 |
| Ningara............... * | 483,684 | 216,834 | Ens.784 | 105,043 | 670.818 |  |
| Butfala. .............. | 60,671,975 | 87,474,108 | 618,948 | 5117,006 | $88,147,083$ | 1,121,454 |
| Iresque I*i0. . . . . . . . . . Ponn | 1,601,987 | 8,707,589 | 10,415 | 3,453 | 8,849,449 | 18,50 |
| cuyathoga. . . . . . . . . . . . Ohitu | 12,026,497 | 22, 84.159 | 284,933 | 360,634 | 85, S10,0656 | (16, into |
| Sanlusky . . . . . . . . . . . . | 6,459,649 | 18,905,357 | 99,089 | 75,699 | 29,445,016 | : 4,716 |
| Alsmi............... . . . | $7,47,819$ | 22,997,772 | 68,804 | 20.479 | 80,885.580 | 94,7it |
| Dotrolf. . . . . . . . . . . . . Mich. | 6,961;430 | 20,416,397 | 115,1114 | 64, 041 | 27,877, (067 | 218,555 |
| MackInac............... ${ }^{\text {" }}$ | 9.1h10,1610 | $8,10 \times 2,0 \times 0$ | .... | 8,967 | 5,000,0010 | 89087 |
| Milwaukle. . . . . . . . . . . Wis | $1.564,707$ | 19,500, ${ }^{5} 18$ |  |  | 24,125,510 | , 0 |
| Ch\|ergo. . . . . . . . . . . . . . 11 . | 5,459,471 | 25,425, 1552 | 116,185 | 5,911 | 81,184,523 | 121,996 |
| Tutat. | 132.017.470 | (102,456,924 | * 4.2077 .700 | (8,912,117 | \$814,478,458 | +12.110,677 |
| Totsl cuastug de for, trade. | .... |  | . $\cdot$. | ¢ $\quad$... | - $\cdot \cdot$ | (324,508, 830 |

Marive Inseses on the Lakes for the Year 1856.-The Report to the Boart of lake I'nderw riters ls amually publishemb, showing the disasters and losses on the lakes. The losses during $\mathbf{1 8 5 0}$ aro shown in the followint smmmery:


This mhow an increase in the lona of life during the past year over lhat o! $1 \mathrm{w}_{\mathrm{i}} \mathrm{s}$, of 289.

The increased fincilition for kaving wrecked jroperty has lessened the netunl arposunt of lose on property in diatrema at leant ${ }^{3} 5$ per cent. during the pant acevere season; as the proportion of total losnes to the whote number of dimanters will show when compared with JOOU.

Avmpisia of the Magine Remster of the Moard uf hake liniehwhitrbs of Vesskis in Complision on taie Laken in tilk Fabi, of 1 nso.

| Frasela. | No. | Tonnay. | (ach Value |
| :---: | :---: | :---: | :---: |
| Nteamers | 117 | 62, 864 | 4, $3^{2}, 4,4,4(x)$ |
| 1'ropeilers | 145 | 64,375 | 2.741219 |
| Prarks. | ${ }^{68}$ | 21,78 | 693,600 |
| Ifrigs... | 116 | 27,145 | 710.480 |
| tehomers | Sto | 175,389 | 5,446,140 |
| Total. | 1,260 | 849, 3 \% | 12,94.30 ${ }^{\text {a }}$ |

For Conmerce of the Iakes, see South. Quar., xix., 120; Suuth. Lit. Misc, if. (Maumy) : De Mow's Rer., vii., 2fls; Chris. Eram., Ixix, ; Shliman's Jur, x., 83 (Ausasiz) : Ilust's A/ug., vili.; Am. I'hig Rer., vi.,


Lamar, fermerly Conisa, a sen-port of the repulto lic of Iloliva, the cidevant Vpper l'eru, on the west coart of south Ameriet, lut. $22^{\circ}: 19^{\prime} 31^{\prime \prime} \mathrm{S}$., long. $\mathrm{Ft}^{\circ}$ $1 z^{\prime} W^{*}$. l'opuhaton tooot. In 1833 : amar was do. clared in free port, and in it centres almost the whole foreign trade of the republic. Its situation is, however, very unfavoruhbe. It labors under a great want of fresh water; and is ohliged to Import all it* provisiona Hy men, elther from Valparaiso on the one hand, or from Arica on the uther. The llesert of Atwana lios hetween it and the internal and populous part of the comentry, where the towny of l'otosi, I'ollamman, Charcas, ete., bre sitwated. Thin pronluce imperted at Iamur is convey enl waros tho desert on the theh of mule to the linterier; the golle abi wilver of tha mines being larenght in the same way to the port to the nhipped. Theoe, with copper, salipelte, chinchillawlas, and wani, lorm the principal articies of expmot. Salt jetre ix found in largo quantities in the desery ; the
 of furl, monst part of it is expurted in the shape of ure. ICru poraesses n hime narrow strip of land, struthing alonit the corat of the farlle from Ampuipa to the llay uf lien, which anght maturalle to hilonit to lolis via, leing, in face, the litternl of the latters. The Imbivian guvernment has set ond foot varinua negotia. thons tos obtain the eession of this tract, which, heside greutly improving the frontier of the ropulitie, would, it the name time, render her miatresa of Arion, which is in all respreta much better fitted than hamar fot
becoming the these negotis already stated of the foreign cree constitut

1. From and Port Lamar sha very nation mu please, without on entrance, or They shall bo ahlatiog, unlond ny ather of wl positel io prive the part of tho lanuer la mppr offee, fue the p portation of goos to be enent into the commisalone 7. The commle pether with the place, and the n and the place wl by the person e binds himedf to bouse fir which the cases, baga, sealed, marked, poldete aris to be divar shall by 1 of the cuatom-ho speclfylog the n of the several ar niy nseccustom publio thorough place at which a milit nust bo ext neals unbroken $n$ person ar by a divater of the por the cuatom-hous monthe from the mult at the end them. 11. Fronv tered at Port la aud above that o duty of 5 per cen on the valuation tom-houso in the In eacb ease, one end of 5 monthes. land to any of th duty of 2 per coull three fourths of the custom-hou fort Lamur. 15 silver ln bullion use of the pereson It in found on the mepte, Aloca, At the canal, 16. A chlucry, inntrum sllver, und morat the republlo, srui wles free. 17. A beallowed on thi cilla, wool, thn, from duties to t rior from tho wa cree are of a pur

Lamb-akl caus ; It. I'lll The valuo of 1 nesw, lyillianes skins aro more other color. I: with perfectly Nerino sherpl lieeces have, in perfection whas some of the hes lambesklus is quantily ure an In the glove me
becoming the eutrepot of trade. Hitherto, however, these negotlations have proved abortive, so that, as already statod, Lamar at present engrosses most part of the forelign trade of the State. We suljoin the decree constitnting Lamar a free port:

1. Frem and after tho lat of Joly of this present year, 1833, port lamar shall be absolutely free and open, 2, Vomela of crery nation may enter thls pert, and remaln as long as they please, without belog suljected to any tax whatever, elther on entrance, or during their stay, or on their departure. 3. They shall be firee from nill dntles of anchorage, tounge, shilfing, unlosding, or relonding of cargo, deposit, atorage, or any other of whatever denomination. ' 4 . Goode masy be depooficel in private warehoused, wilhout any intervention on tha part of the government. 5. The cuntom-house of Port latuar is duppressed. In lis atead will be a commassioner's offee, for the purpose of distrithuting permits for the transportation ci goods into the Interior. 6. Whenever gooits are to be sent lote the interior, they must first be suhmitted to the comaisuloner, together whit the luvolee correaponding. t. The commissiener will regiater then in a mooi. together with their vuluation, inade by two merchants of the place, and the anme of thelr owners, of the pereon to whom and the place whero they are to be sent. This is to be slgned by the person ontering the goods, who, at the same thac, binda himenelf to have them transported direet to the cusiomhonse fir which they are destlied, witheut opening any of the cases, bage, or other envelops, each of which shall be sented, marked, and numbered before drparture. These poluts are to be expressed in the permit. 8. The comminsluare thall by the earliest post send a netice to the cultector of the chatem-houne for which nuy merchandlse la destined, muedfying the numbers, characters, qumbtitles, aud qualltes of the several articles. 0. The goode must not be carried by suy unaccustomed ronds, but only through Calanaa and the publio thereughfares; and whenever they pans through nay phace at which a guard or commlsslouer in statloned, the permita muat be exhiblted, in order that their arrivas with their meals mbiroken may be atcertalaed. 10. Merchante, olther to person or by a represeitative, mat produre to the commlssioner of the port a certlifato of the dellivery of the ge eds at the custon-honse for which they are deathed within aix nonthe frou the day of thelr entry ; In ease they do not, they mast at the end of that period pay the whele of the dutlen on them. 11. From and aftec the lat of, July, 1838, all goods entered at lort lamar nhall pay a duty of obsy 5 per cent. over and above that of half per cent, to the consulado. 12. The duty of 5 per eent, shall be pald thus: nt the port, 2 par cent. on the valuatlon male as aforesald ; and tho other k at the cun-tom-house in the luterler for which the goode are deatined, In each rase, whe half at the end of 3 , the other haif at the end of 5 monthes. 12. All geeds carrled from lort Lamar hy land to any of the adjucent repubiles shall only pay a tranade duty of 2 pur cent. 14. A duty of 2 per cerit. ghall be pald on three fourths of all gold and allver mency entered at any of the castom-houden In the interlor for exportation throngh Port hamar. 15. It is abselutely prohiblted to export gold er sllver ln bullon or plate, except In small quantiles for the une of the presson carrylng it out. It wlll be aiked wherever It is fonmel on thita alde the diatricta of San Antenlo, San Viacente, Atoca, Axua, de Castllia, Lequapite, or the llae of the canal. 16. All hardware for agriculture and mintug machluery, Instruments of uclence or the arta, Iron, sheel, qualeksliver, and moral booka, may be introducel free of duty lnto the repulitic, and preductiona ef liolivia may bo oxported likewhe free. 17. A promilum of 2 per cent on their value shath be allowed on the expertatlon through Port lamar, of easenrilla, woot, tin, cocor, and coffec, In the ahape of remisaton from dulles to the amman on goods rarrind lnto thy interlor from the same pert. The remaining articlea of the the eree ara of a purdly loeal nature. Noct homivis and leme.
Lamb-skins (Gier. Lammsfelle; Fr. Prounc d'ugeneater; lt. Ielli agnelline; Sp. Pielle de camperow). The valuo of lamb-akins varies according to the lineness, briltisney and color of tho wool. Hhek lambskins are more generally estomed than those of uny other mon. Vaglish lambeklins are soldom to the met with perfectly hack; but since the introduction of Murioo sheep into this country, many of the white deeces have, in point of quality, nerived at ; zituch of perfection which justly eutitles them to be rannad with sonie of the best tleeces in Spain. The limportation of lamb-skins is immetse. Hight tenths of the whole quantily aro aupplied by Italy. They are montly unel In the glove manufucture.

Lamp (Ger. Lamps; Fr. Lampe; It. Lucerna; Sp Lampara; Rus. Lampadu), an Instrument used for tho combustion of liquid inflammable bodies, for the purpose of producir; artificial light. Lamps are mentionod in oll the early ages: they were in use in Eigypt, Greece, and Rome. The earthen lamp which Epictetus the philosophor had In his study sold after his death for 3000 drachmas, A. D. 161. Lamps with horm sides were the invelition of Alfrod. Lamps were in general use through the streets of L.ondon up to the close of the 18th century, as were flambeanx, which were carried by link-boys. London strects were tirst lighted by oil-lamps in 1681, and with gas-ic.aps in 181.4. The domestle lamp is now of elegant manufacture ; of this kind is the Arpund lamp, brought Into general ase in Fingland in 170.--Haydn.

It la nunecess:ry to givo any lescription of instrumenis that are so well known. We may, however, remark that the discovery of Sir II. Davy, who, by covering the flame with wire ganzo, ancceeded In producing a lump that may lie securely used in coal minep chargeil with inflammalslo gas, ts one of the most $i \cdot-$ genious and vuluable that has ever been mude. "he following extracts from a communication of the late Mr. linddle, an able and well-Informed coal enancer, evinces the grot importance of Sir Humphrey inavy's invention: "llesides the facilitles alforded by this invention to the working of conl mines abounding in firedamp, it hus enabled the directors and auperintendent to ascertain, with the utinost prectsion and expedition both the presence, the quantity, and correct aituation of the gur. lustead of creeping inch by inch with s candle, as is usunl, along the galleries of the mine suspected to contain fire-danip, in order to ascertain its presence, wo walk firmly on whth the safe lamps, and, with the utmost comidence, prove the netual state of the mine. liy olserving attentively the several appearances upon the flane of the lamp, f:s an examination of this kiml, the canse of accidents which happened to tho most experienced and cautious miners is completely developed; and this has hitherto boen in a great measure mattor of mere conjecture. It is not necessary that I wonk enlargo upon the natural advantuges which must necessarily result from nul hivention calculatel to prolong our supply of mineral conl, hecause I think them ohvious to every reflecting mind; but I can not eonctude without expressing my highest sentiments of ndmirution for thuse talents which have developed tho projerties and centrolled the power of one of the most dangerons clements which luman enterprise has hitherto land to encounter."
'The lamps now used for light-houses are highly ingenious, anl benutiful. In the first place, it is necessary to distinguish hol ween two systems-the catoptric mul the dioptris-tho formor depending on the retlectimn of lipht from a mitror, and tha latter on the trammission of light through a lens. If a large lamp were placed ofl the cop of a lifht-house, with glass roof and windows all around it, the light would shine in every direction, hosing ifs lutenaity ly heing on much diliused; lint by the nse either of mirrors or of lenses, all the light is conventrated tu one clotinito dimotion; its energy is incrensed by being circumserited in range. In the catoptric system, numerous concave rellectors are placod ut detinito miglea round a central lamp: they ure of kilvered eopper, und ure kopl exquisitely bright; und they all contrive to reflect the rays out neawark, without allowing any to waste their puwer handward. 'I he dioptrio syitem involves the use of powerful cunvex lenses, through which the rays are focalized in a detinite diration. If very large, these leuses would bo diffleult to make und costly to purchase; hut it has been ahown by lirewater nul liresnel, that a compound lens may be huilt up of a number of pieces, provided tho curvitures uro wenl ndjusted. Around thousands of iniles of coast,
where the annual wrecks are from 700 to 800 , and the property lost amounts to inllions sterling, the lighthonses havo passed through many stages of efficioney. First there was the large coal fire used on the summits of open buildings, then the old-fashioned oil lamps, or sometimes wax candles, with a looking-glass reflector behind; thon the more brightly-hurning Argand lamp, with concave metallic refiectors belind; then the convex lens, to focallze the rays by transmission; and then the lens built up plecemeal, so that the light may appear almost as one vast luminous pillar. See Ligartllovasas.

Jamp-black (Ger. Kienruss ; Fr. Noir de fumde, Nero difumo, Negro-fume, Negro de huno). Tho finest lamp-bliak is produced by collecting the amoko from a lamb with a long wick, which supplies more oil than can be perfectly consumed, or hy suffering the flame to play agoinst a metalline cover, which impedes the combastion, not only by conducting off parts of the hrat, but by obstructing the current of alr. Jampblack, however, is prepared in a much cheaper way for the demands of trade. The drege which remnin after the eliquation of piteh, or elae small pleces of flr-wood, are burnod in furnaces of a peculiar construction, the smoke of which is made to pass through a long horizontal flue, terminating in a cloae boarded chamber. The roof of this chamber is naile of conrse cloth, through which the current of air eacapes, while the sont remains.-Une's Dictionary.

Land, in sea language, makes part of several compound terms: thus, laying the land, denotes that notion of a shlp which inerenaes its distance from tine coast, so as to make it appear lower or sm-ller on account of the intermediate convexity of the mon. Rusing the lankl, ls produced hy the motion of the vesmel toward it. Land is shut in, signilies that another part of the land hinders the sight of that the whip came from. Iand to, or so far from shore that it can only he just diseerned. Land turn, a wind that in slinost all hot countrien blows at certain tises from the ahore in the night. To set the land; that lis, to see liy the compress how it lears. Iand-breeze, a curreat of air, which in many parta within the tropica, particularly in the Weat Indies, regularly sets from the land towand the kea lurIng the night, and this even on opposito points of the coast. Iaud-locked, is aaid of a liarbor which in environed liy land on all silles, 80 es to exclude the prospect of the sea, unleas over soms Intervening lunil. If a ship is at anchor in auch: place, she is said to ride landlocke, and is therefure considered th the anfo from the violence of winds anil tinlen. To mule the land, js to discover it after having leen out of sight of it for nome tlave. Land-mark; any mountain, rock, steeple, or the like, near the sea-sille, which servea to direct ahips passing ly how to nteer an as to avoid certain dangeroun rocks, shoals, whirlpools, etc.

Lands, Publio. Dirants of public land tocertain Staten for railroaln, mate at the last gesaion of the
 ternate woctiuns deabroated hy od 1 nombers, for aix mallen in width on each wide of certain railroade named in the a-t ; and, in ease any of such sectiona shall have heen meld, or become subject to gre-emption, then the limit of melection is exteuded to fiftecn milex on each rile, to make up the deticiency so caumed. "The alfor. nate sections remaining to the Cnited States within ais milez on rach phle not to lie woll for lews than sonhle the minimun prine of other pmblic lamdaE1 25 leer acre. Iroopen and wher property of the Linited States for lie transperted free upon the rail-roals-mails to be carriesl at auch rateman t'ongrosa may; prescribe, and, until so lixed, at such potes as 'ie l'entnanter-tieneral may allow.
At the second session of the amme Congrean, IXifi- 7 , a like graut was made to Minnesota ami to ilabama. The quantity of land granted in each case is over 8000 screw per mile of railway.

In the first grant mada to Alabama, there does not seem to le any Increase of the price of the sections retained by the United States, that provision of the law not being fairly construable as onc of the terms or conditions of the grant. In all these grants, it will he observed, the States are authorised to make the! r selections as far as fifteen miles on ench side of every railrosd, while the increase in the minimum government price of the retained lands Is contined to the six mile limit. The public landa, in all the shovenamed States, particularly in lowa, Alabama, Mississippi, Louislana, Wisconein, and Michigan, having been eold or pre-empted to a great extent, it is manifest that the selectlons for all the named railroads will range, more or leks, to the maximum limit of 15 miles on each side of them. The increase in the minimum prace, therefore, does not apply in a width of nine miles on each side. This seems to give up the argument that the only consideration which moved Congress to mal.c these grants was such as would actunte any large holder of noccupied land to give away part to enhance the value of the residue; for if the land is not Improved in value for the full extent of the 15 miles, what right have Congress to make such a grait for such s reason?
The immenso donations of public land made of late years by Congress to corporations within the new States, have awakened the attention of the people of the old Staten to the subject, and of Virginia, espectally; where the burlen of taxation for internal improvementa has heen greatiy increased. It strikes us, therefore, that a brief recurrence to the history $n \cdot\}$ conditions of the tenure of the public domain ri.. it of general juterest at this time.

At the commencement of the Revolutionay $\mathrm{War}_{\text {, }}$ there belonged to some of the States large tracts of w!d und unappropriated lands, while in others none such existed; the States possessing no such lands, chimed that as the war was waged with united means and erdal sacritices, the waste lands which might be confuered from the enemy should become common property, and, under the recommendations of Cor gress, loth Betolier, 1780 , "that the unapiropriaten lands which might he reded to the Inited States, ly any particular State, pursuant the the recommendation of tongreas of the 5 th of September last, shall be thisposel of for the common benefit of the l'nited States."

Virginia promptly made a ression of her vast domain north of the liver Ohio, out of which six States ha e since been formed. The condition of har epesion (adopted substantlally by other states) was, that atl the lands conveyed "shall be considered as a common fond for the use and benefit of such of the l'nited States as have hecome or shall become members of the confederacy or federal alliance of the said States, Virghinia inclusive, according to their usual respective propsortions in the gencral charge and expmotiture, and shall be faithfully and bond fill disjosmod of for that purquse, and for no ether use or purpese whaterer." Thua were thw lands ceded, acceptord, and hield in trast. How they have nince been disjosed of, in tutal diapegurd of the combitions of the trunt, the himory of the comintry tel! in tho ammala of Congressional legidhation.

In dinregaril of the phain obligathons of the truse, I'renident lackann, in the early days of his mhinistration, proposed tor cede the lands thus aryuiresl, and all snbsequently purchased, to the states in which they Hon, gratuitonaly, or for a mominal price.

Tis counternct tha movempot, whidh at that time mot wit!: no favor in Congress, hut which has nitree teen subatantially adopted in the syatem of partiad granta, Mr. Clay butroluced hia well-knoun listrilution bill, nhich was panaed by Congrows on the 影dyy of March, 18:3, by a vite of 24 to : 6 in the senaki and 96 to 40 in the Jlouse of Representatives. This liill I'roshlent Jacknon rofused to aly,
not become the vote of $t$ ing. Some to avow the the States in one of the $m$ the census of sistible. The plete, and afte be utterly po their common
The whole gone into the visions of $\mathbf{M r}$ periol of seve for each year,
Statexent of

Stales and Terr

Ohle.
Ohle.........
Indiana.
Thitals.
Misnourt.
Mabaus.....
Mississippi...
Loulsiana.
Michizan...
Arkansas.....
Florida...
Iows. .
Wlacoasin.
Califorala..
Minnesuta...
Oregon..
Wasilugton.
New Mexico.
New Mexico.
Nebraski.
Kebrask
Kansas.
Indian.
Total.....


Land-waite
house, whose dut illse, to taste, we the varieus urtiel the amme. They are to attencl, nuic execution of all e exportell to forei backs or bountie

## LAN

not become a law, the popular will, as Indicated by the yote of the Mouse, to the contrary notwithstanding. Some of the westurn members did not hesitate to svow the purpose of eventually appropriating to the States in which they lie all the public lands, and ene of the most eminent of them declared that, after the census of 182 , the power to do so would be irresistible. The fulfilment of this menaco is almost compiete, and after the census of 1860 the old States wilt be utterly powerless unless they unite cordially for their common protection.
The whole amount of monay which would bave gone into the Treasury of Virginia, under the provisiuns of Mr. Clay's land bill from 1892 to 1839, a period of soven years, would have been $\$ 4,369,169$, or for ench year, $\$ 728,194$.

On September 4, 1841, an act was paesed to appropriate the proceeds of the sales of the public lands among the savaral States. The first section provided that from and after the 81st of December, 1841, there should " he allowed and paid to each of the States of Ohio, Indiuna, Illinois, Alabama, Missouri, Missiasippi, Louisiana, Ary ınsas, and Michigan, over and above what each of the enid States is entitled to by the terins of the compacts entared into between them and the United Stateg, upon their admission into the Union, the sum of ten per centum upon the nett proceeds of the sales of the public lands, which, subsequent to the day aforessid, shall be msde within the limits of each of said States respectively." Wa give below a atatement, showing the quantities of public land disposed of, and slso the quantities vacant.
gtatbeent of tif ageas of tie sbveral Pudlio Land, States and Temitorikg of tife U. b., the Quantity of Land diafosid or, and tife quantity aenainine vacant, on the botil of June, isfe.

| States and Terrilorisa. | Aresa. |  | $\begin{gathered} \text { Surve yed } \\ \text { up to } \\ \text { June } 30 \text {, } \\ \text { IB5E. } \end{gathered}$ | Unsarvoyed. | Oftered for Sale. | Sold. | neaturatione ros- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 8olines. |  |  |  | Indians. | Compacies, lodividuals, eorporations. |
| Oblo. |  | ${ }^{\text {A }} \text { A }$ |  | $16,770,084$ | Acres. | $16,770,994$ | $12.820,890 \cdot 08$ | $\begin{aligned} & \text { Acres. } \\ & 24,216 \end{aligned}$ | $\begin{aligned} & \text { Acrec. } \\ & 16.83078 \end{aligned}$ | $\text { A, socres. } 976$ |
| indlana. | 83, 809 | *21,637,760 | 21,487,780 |  | 24,487,760 | 16,090, $850 \cdot 87$ | 23,040 | 126,220.71 | 149,102.00 |
| Illinots. | 55,410 | 85,462,400 | 35,462,400 |  | 35,454,262 | 19,060,890)-59 | 121,629 | 48,989'69. |  |
| Misseurt. | 65,087 | 41,603,680, | 41,590,898 | 24,78\% | 41,186,654 | 16,891,887 007 | 48,080 | 22,587.61 |  |
| Alahuma. | +50,943 | +32,027,520 | 81,993,818 | 33,707 | 81,903,283] | 15,688,223•34 | 28,040 | 2,542,878.82 |  |
| Mississi\| ${ }^{\text {P }}$ ] | +37,827 | t23,805,6902 | 23,895, 080 |  | 23,892,577 | 11,847,267.81 |  | 277,612.04 |  |
| Loulsiana. | $\begin{aligned} & 41,346 \\ & 5645 \end{aligned}$ | $\begin{aligned} & 26,461,440{ }_{2}^{2} \\ & 86,128,60 \end{aligned}$ | 24,022,272 | 2,489,168 | 19,281,161 | $4,823,198 \cdot 89$ $11117714 \cdot 55$ | 40030 |  |  |
| Meligan | 56,41 52,108 | ${ }_{33,406,720}^{86,128, ~}$ | 83,279,008 | 127,712 | $34,115,710$ $82,618,409$ | $\begin{array}{r}11.117,714 \cdot 55 \\ 4,436,521 \cdot 85 \\ \hline\end{array}$ | 46,0S0 16,080 | 109,800 88 |  |
| Florida. | 59,268 | 87,981,524. | 25,242,062 | 12,689,458 | 19,876,615 | 1,582,296-66 |  | $\stackrel{\square 27}{7} \times 19$ | 805\%\% |
| jowa.. | 56,080) | 25, 891,20018 | 39.315,480 | $1.820,720$ | 43,560,514 | 10,908,507•45 | 48,080 | 119,18884 | 10,880.00 |
| Wheons | 63,924 | 84,511,860) | 87,834,491 | 7,176,969,24 | 2,131,412 | 9,066,912/26 | 46,080 | 187,894-27 |  |
| California | 188,980 | 120,947,8401 | $10,921,411$ | $110,420,489$ |  |  |  | .... |  |
| Minnest | 141,789 $1 \times 8,920$ | 90,766,960 | $10,675.138$ $8,987.679$ | 812181,827 $115,691,121$ | 2,508,710 | $\begin{array}{r} 1,582,68 \cdot 67 \\ 23,434 \cdot 69 \end{array}$ | $\ldots$ |  |  |
| Oregon.... | 126,547 | 119,08x, 80.090 | 817,720 | 8i, 872,360 |  | 23,495.75 |  |  |  |
| Now Next | 246,934 | 158,097,760 |  | 158,037,760 | .... |  |  |  |  |
| $\stackrel{\text { litah.... }}{ }$ | 187,923 342,488 | $120,270,720$ $210,100,820$ | 220, ${ }^{179,139}$ | 120,981,181 |  |  | $\ldots$ | $\ldots$ |  |
| Kansas. | 126,258 | 80, 821,120 | 1,572,690) | 78,249,430 | . $\quad . .$. |  |  |  |  |
| Jndaan. | 67,020 | 42,892, 800 | - .... | 42,892,900 | ..... |  |  |  |  |
| Total. | ,215,752 | 418,051.230 |  | ..... | . | 134,300, $130 \cdot 81$ | 422, 122 | 8,400,725:53 | 8,966,268.75 |




| Staten and Tertitorier | donamona and oranta poe- |  |  |  |  |  |  | Contirmed private elalors. | Swamp lande. | Vacanl publie lands. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schools aod univeralilem, | In af and 1 hrmb Avyluign. | Iaterisal improveinents. | Railrosidn. | $\left\|\begin{array}{c} \text { Cadividuals } \\ \text { nonit } \\ \text { Cumbiles. } \end{array}\right\|$ | Sunts tiov. and public building4. | Mllitary Sorvicee. |  |  |  |
|  | Acrus. ${ }_{\text {727.52 }}$ | Acrus. | Acres. 1,243,1411.77 | Aures. | $82,111-24$ | Acres. | Aerest | $\underset{28,460}{\text { Acren. }}$ | Acres. 182,428 | Acres. 48,558 |
| Ohilo... <br> Indians | 727.52 67.457 |  | $1,068,881 \cdot 61$ |  | 82.174 84.4 | 2,560 | $1.251,480.61$ | $\begin{array}{r} 28,460 \\ 829,481 \end{array}$ | $11,315,199$ | $86,337$ |
| Illinois. | 1,041,798 |  | (10, $\mathrm{ONO} \cdot \mathrm{ON}$ | 2,505, 0,88 | 954-64 | 2,580 | $9,507,050 \cdot 69$ | 188,042 | §1,538,418 | \$11,668 |
| Miscourl | 1.222,179 |  | $800,0 \mathrm{MHFOM}$ | 1,815,184 |  | 2,560 | $8,041.778 \cdot 20$ | 1,462,456 | $18,858,453$ | 18,875,021 |
| - labsuma. | 925,404 | $21,949 \cdot 46$ | \$00,000 00 | 2, $854,4,248$ | 1.041:03 | 1,62211 | 1,014,244\%5 | 218,957 | 12,596 | 8,288,088 |
| Mississipp | 834.624 |  | 500,000900 | 1,664,540 | - 2,486581 | 1,290 | $244.058+21$ | 684,0>8 | $12,758,894$ | $5,542,381$ |
| Lanisiana | 842,124 |  | \$10,000 - 0 | 1,091,640 | 8,412 9* |  | \%89,190.80 | 2,092,914 | $10,540,676$ | 6,444,294 |
| Michlyan | 1,118,478 |  | 1,250,000.01 | 1,269,52u1 |  | 18,240 | $1,1222,0 \% 1 \cdot 69$ | 126,711 | 17,178,725 | 11,852,778 |
| Arkansas | 012.540 | $2,097.43$ | 800,100000 | $1.681,91]$ | 180.804 .25 | 10,601 | 1,74.698-15 | 118,451 | $18.401,880$ | 15,448,980 |
| Florda | 951,602 | $211,924 * 2$ | \$00, 0100.61 | 1,328,2811 | 52,1140 ${ }^{\text {a }}$ | A,2 10 | +122,430.81 | 8,739,759 | $10,790,787$ | 18.558,188 |
| Dowa... | 951,924 |  | \$1,336,79:122 | 4,748,561) | 15.27640 | 8. $\times 10$ | $10,929,043 \cdot 314$ |  | 11,499,716 | 7,35< 596 |
| Whenensin | 1,1M4.714 |  | 1,069,871 90 | 1,201,920 | 5,745-52 | 6,140) | 8,942,037-17 | 36,8sl | $12,850,000$ | 15,642,429 |
| Californta....... | 6,75,444 |  |  |  | .... |  |  |  |  | 118,682,436 |
| Ninterota..... | 0,459.244 | .... | है $310,0 \times 0 \times 131$ | .... | ... | .. | 1,2118,020.00 | . $\cdot$. | ... | $89.502,668$ |
| Oregan... | 6, 10162,124 |  |  |  |  |  | . |  |  | 12,918,241 |
| Washlugton. | 4.045.524 |  |  |  |  |  |  |  |  | 76,444,055 |
| Now Mexteo... | 8,826,930 ${ }^{3}$ | .... |  |  |  | . $\cdot$. |  |  |  | 149.910,804 |
| l'tah..... | $6,61.777$ |  |  |  |  |  |  |  |  | 118,589,018 |
| Nebraska. | 12,175,504 |  |  |  |  | ... |  | .... | .... | $206,984,747$ |
| Kansas. | $4,460,1162$ |  |  |  |  |  |  |  |  | $\begin{aligned} & 70,861,058 \\ & 42,832,800 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |  |

[^31]Land-watter, an oflicer of the thglish customheuse, whose duty it is, upon Imaling nny merchandise, to tasle, weigh, measure, or otherwisa examine the various artiches, ete, and to take an account of the same. 'they are likewise slyfed searchers, nudi are to attund, and join with, the patent neurchers, in exectution of aii coekets for the mhipping of goobs to be exporteil to foreign parts ; and, in carea where ciraw. backs or bounties are to be paid to the merchant on
the exjortation of my goods, they, as well as the patont senrehers, are to certify the shipping thereof on the tehentures.

Lantard, or Lanyard (frow: Lamier, Fr.), a whort piece of cord or tine fastened to several machines in a sthip, nmi serving to secure them in a partientar piace, or to munnge them more convenientiy. Such nre the lunyuris of the gun-pert, the lanyard of tho buoy, the lanyarl of the eat-hook, and others. The principal 1 lu
lanyaria used in a ship, however, are those employed to extend the sbrouds and stays of the masts by their communicatlon with the-dead eyes, so as to form a sort of mechanical power resembling that of a tackle. These lanyards are fixed tu the dead-eyes as follown: one end of the lanyards ia thrust through one of the holea of the upper deadeye, and then knottell to prevent it from drawing out; the other is then passed through one of the holes in the lower dead-aye, whence returning upward, it is inserted through the second hole in the upper dead-eye, and next through the second hole In the lower dead-eje, and finally through the third hole of both dead-eyes. The end of the lanyard being then directed upwand from the lowest dead-eye, is atretehed as stlff un possible ly the appllention of taekles; and that the several parts of it may alide whith more facility through the holes of the deat-eyes, it is well smeared with hog's-lard or tallow, so that the straln is inmednately communicated to all the turns at once.

Ia Perouse, a celebrated French navigator. IIs first voyage was commenced in 1785, whee Perouse sailed from France for the l'acific with the Roussole and Aafrolabe under his command. The last direct latelligence received from him was from Batany liay; In March, 1788. Several expeditions were sulseequently dispatched inseareh of l'erouse, hut no certain information was hat until Captain Dillon, of the Finnt India ship Research, ascertained that the lirench ships had been cast away on two different islands of the New IIeliriles-a fate authentieated by various articloz of the wreck of these vessels, which Craptain Dillon broughit with him to Calcutta, April 9, 1828, 10 years afterward.
Lapldary, a nume given to the artist or artinan whose husiness it is to cut, grind, and polish gems. amall stones, etc., for the purquses of jewelry, and atso for mineralogical specimens. The name, derived from lapidarius, pertaining to stones (fros lapia, astone), would seem to include the varions modes of working or finishing stones in general ; the technical use of the worl, however, is limited as above noticel.

LapIs Lazuli. See Uithamaitine.
Lapland, the most northerly eomitry of Finrope, is bouniled north liv the Arctic Ocean, south by Nweden, east hy the White Sea, and west hy Norway and the Atlantic Ocenn. Its limits nre not :ury areurately la!. down ly peographurs; hat it seems to be dividel from the rett of Scamimavia ly a line umarly corremponding with the polar vircle, in latitule $66^{\circ}$ 32', and is conmequently alnost entirely an arotic region. North Cape, its most northerly point, is situated in N. lat, $31^{\circ} 10^{\prime} 15^{\prime \prime}$, consequently its lengit from north to south, is alout aso miles, ami nut ban, ns is usually statel. From Cape Orlov, on the White Sel, to the Atlantic on the west, it extemis almint 700 miles; but besides this eontinental territory, threre are a vast number of i-lands, whiels are incluidel in the general name of laptand. The whole country it divided into three part*, calted lius-inn, Swedinh, and Norwegtan lapiani or Finmark, and is rerompizeal hy the Swedes and Norwerians loy tha name of Lapmark, mark aignifyius, leth in Sweilish amd Nurse, land or trat of conatry. The veis eariy writera, however, dos nu: notice any country uniler the name of laphark, while Finmark is alluted to, though not with alsibs chearnees as would almit of our detining the exart extel.t uf contistry whish went tive that appeltation. It hat been conjectured thit, in former ngen, the girt a the porth now hoown by the manes of Swellish and Ruasian Inplame were diatinguiahed as linsaion ani Swodidh Fimmark pire lutsty to the perioni when the Fimus obtained the namo of lapper, "I laphanders.

Fimmark, which forms the mast morthern part of thin wild and extemalve territory, constitutes obe extremity of tha kinulom of Norway, to which it now belongs, though doulitless in ambient times it was a oegrazate hioggom, governed ly its onn noverelgits.

Its present boundary on the west is Loppen, the first ieland in Finmark, and whleh forms a line between it and the Nardlands, a part of Norway sometimes erroneously confounded with Lapland. On the northwest and north-east it is washed by the Polar Ocean, while to the east it is bordered by lussian Lapland, which also, with Nordland, bounds it to the souththe boundary line between the two countries being tha River Tana. Its extent from north to south-that is, from the borters of Russian Lapland to the North Cape--ls neurly three degrees of latitude; its greatest brealth heing from west to east, namely, from the western side of Faroe to the coast above Waranger, near the liorders of Russian Lapland. At the eastern extremity of I'Inmark there is a considerable tract, to which both Norway and lussia lay claim. It lies between the nek nowledged boundaries of each of theso powers, and leing now cousilered as neutral ground, Is free to the Laplander of both countries to hunt and tish in. This district extends a little to the westward of Bugefiord, stretehing nearly sonth to the linara Lake, where it liends to the enst, and afterward to the N.E., where it joins the coast. Russian Laphand lies to the south and east of the delatalle groumi aluse mentioned. The river Muonio, which for a consilerable portion of its early course receives the name of the Konghirnalelf, constitutes the boundary between Sweden and Russia. The cirele of V : la, and the northern part of eastern Kemi, constitutal at one time Lussian Laplanul; but, ly subsequent treatics, two extensive districts, all the lapmark of western Kemi, and the greater part of the lapmark of Tornen, have been ceded to lussia. Thus nearly two thirds of the regiona inhabitel by the laphanders are included in the dominions of the Emperor of liussia. Swellid Lapland, the most southerly division, ocenpies the interior purt of the country to the west of the River Torneo-the maritime district of Nordlanil, a portion of Norway, being aituated letween it and the North sen. Jow much of the northern purt of Swelen is entitied to be enlled Swedlsh lapland, it is imperssible to ssy. If the arctic circle be taken as the homadary lime, only that portion of Sweden called North loth. nla can he eonsldered ns belonging to lapiamd; but l'itan lapmark and V'mea Lapmark are sonetimes mentioned as forming part of the latter comatry, and these are situatell in West llothnia. The cuuse of error may he traced to the circumstane of these nomadic tribes frequently inimbiting, at least for a porthen of the year, districts of country far down in the interior of sweden and Norway. Thus, in the latter countiy, the Kormas Mountaine, situated hetween Cloristiasia and Drontheim, are inhabite il, during: sumbure ut least, by a fanily of laphanders, with the never-failing lierd of reincleer llut the exat buydary line is not very material, as it has reforeme only to diffrent purtions of a tract of country which is under one government.
Thure are numerons lakes and rivers in lapham. Of the hater, soveral take their rise is the Koulin Mountains, and tow in various directions inte the Ithatic Wrean or the tinlf of thothia. The promeipal rivers of the country are the Tama or 'arma, which tahes a mertho eastern courne through Flamark, and emption italf into a bay or somot of the amme mame ; the Alten or . Nata, which is vory rapid, forcing its way through the nountalne of Fimmark in a northewenterly direction, "mpene it-rifluton lay of the same mame; the Tonnen, which issues from a lake so natned, ami, after bein! rolarged by a number of streams uniting in one channel and running nearly due month through a long coorme, falls into the merthorn extremity of the lhothnlan Gulf at Turneo; ani the Mmolio, which rives from the Killpis Iatre, at the font of the appine chain of Sorway, is a consinerable atrean, ani eometitutes the Inundary line inetwern siweden and ithosha, till it unites with the liver Tumeo, when the latter marks the
limits of ei also other ri fall into the Kalix, and neverai cons ec weil detin ally de rib amorg the K of the count It has many Kinski, or the the adventur Passe, or hol Enara, flowin em declivitle Punei, which The Tuloma Kola, which Kola May, on are numerouts in various dir issue from the Fishery.-T eatirely ly $t 1$ ductive, 20001 in a day by n aamber of sm coast at certal fruits of their meal, brandy, abundant. part which is long, and speed, and
Manufarture tures, that is, n mode of life req Their sledges a put together, so They tan hides make strong ec reladeer, weave fashion wooten the women pre! and other anima brineous parts,
Russian Laph der N . lut. 70 , Aümiral Litke, yeass 1822-3, h ticulars, from $\mathbf{w}$ It may appear that this eoast, first maritime surrey, less kno tant and uninh trading to Arch Zeefultel of the I tregan his surve, in almut N . lat. Russiam 1.aplian rocks. Nears S s an ins iting appee or Indentations, will leek, mid were no bunhes, seen low dwarf ous tracks of rei titke was here in Lapland; numi al -as, for examht of julitital rourt shere, by station sula, ns far as eastern puint of t shs, however, "n usual manner. the munth of thut

Ilmits of elther country In this quarter. There are also other rivers which take their rise in Lapland, and fnll Into the Gulf of Bothnia, anch as the Lulea, Pitea, Kalix, and others. In Russinn Lapland there are severa: considerable streams, but these have not been so well detined, nor has thls part of Lapland been so ally de ribed as the others. The Kep̣i takes Ita rino mong the Kemi Mountalns, altuated near the centre of the cenntry, and flows into the Gulf of Bothnia. it has many imposing cataracts, of whleh the Tairal Konki, or the full of the heavens, is the only one whieh the adventurous boatmen never attempt to cross. The Passe, or holy atream, is the outlet of the great lake Enara, flowing thence to the Arctic Ocean. The eastem declivities of Russian Lapland are watered by the Panol, which discharges itself into the White Sea, The Tuloms falls from a great helght, enters the Lake Kola, which name it afterward takes, and falls Inte Kola liay, on the Aretlc Ocean, Beside these, there are numenous other rlvers which traverse the country in varions directions, and elther give rise at lakes, or issue from them.
Fishery.-The const Laplunders support themselves entirely by the fishery; which is natonishingly productive, 2000 pounds' weight of cod-fish leing caught in a day hy means of lines alone. From the great aamber of small Russian vessels which frequent the coast at certaln seasons, they find a ready sale for the fruits of thelr lnduatry, receiving in exchange ehlefly meal, brandy, tobacco, and the like. Whales are abundant. particularly what is enlled the fin whale, which is iong, active, swimming with grent strength and speet, and consequently difficult to enpture.
Manufactures.- In tiselr innnual arta and manufactures, that la, making the various utensils which their mode of life requires, the Iaps displsy some ingenuity. Their aledges and canoes are very strongly and closely put together, so ss to he entirely impervions to water. They tan hldes with the first inner bark of the birch, make strong cordage and thread of the sinews of the rindeer, weave coverings for their tenta, knit gloves, fashion wooten utensils for domestic purposes; and the women prepare the skins of foxes, fawns, otters, and other animals for anle, ty stripping off the membraneous parts, and curing them with tish-oll.

Russian Lapland hegins st the Warnuger Fionl, undet N. lat. 70, and oxtends as far ne the White Sea. Admiral litke, in anrv ying its northern const, in the years $182-3$, has noted down many interesting partheulars, from which we derive the following notes:

It may appear surprising, hut it is nevertheless true, that this coast, nuvigated for thren centuries by the first maritime natlons, was, hefore Almiral litke's survey, less known to us than many of the moat distant and uninhabited purts of the globe. Vessels trading to Arebangel had, for a long tlme, only the Zeefokel of the Duteh forn gulde. Litke, June, $18: 2 y$, hegan his survey of the Laphand const at Cape Orlov, in alout N. lat. $67^{\circ}$. This, the enstern extremity of Mussian Lapland, consista of hlfh, sterp, and lare rocks. Near Sviatol Nos (in N. lat. tis ${ }^{\circ}$ ) the const has an insiting appearanee; the south side of the inlands, or lndentations, being covered with beantiful turf, wild leek, and a number of strawherries, hat there were no bushes. thi the main shore, however, were seen low dwarf hirch and junjuer bushes, and numerous tracks of reindeer. Juring simmer, as Admiral Litke was here inforned, there is no laril route throurh Lapland; and all who are then need sitnted to travel -an, for exmmple, elergymen, the judges, or oblicers of Jullicial courts, etc.--poss by showites hlong the shere, ly stations, from Kolu, roind the whole peninsula, as far as Kandalakolua, In the extremo northeastern puint of the White Sea. Ietween Kanclahaksha, however, and Koln, they manage to traval in the usual manner. A little to the west of svatol Nos is the mouth of the Yukanka River, whilh is navigalide
for three to four ses miles up, when rapida commence, and prevent navigation, even for small boats. On the left bank of this river lies a Lopar village, callad the Yukanka Lodge: for all places of the Lopares, both for summer and winter residence, are called by the Russians pagosti (lodges).

About 30 miles north-west from Yukanka is Cherni wos, or Black Cape; and near it, Noknev Itand-in earlier charts, called Nagel, or Nagol. Here Admiral Litke found that the needle showed no variation. On the main shore, near Noknev Island, the prinelpal fishes caught aresalmon, bib, paltus, and piksha. The peshehanka (sand-eel) is caught in a remarkable manner. Some time hefore ebb, the Lopares set abont digging up the wet sand close above the etrand line; with slmost every atep they dig out such a fish, to which, however, they must not allow a seennd's tlme, as otherwlse it would be sure to dig itself in again, and esenpe. As soon as they perceive it, therefore, they selze it with a handful of sand, and throw lt violently on the ground. The fish, thus stunned, are collected in baskets or casks. It is strange that this fish is found only nt ebly during the dny, and never at night. The people of thls place had also some shaep, which had ahuudant food in the adjoining pastures.

The chief ivlnnd on the const ef Rnssian Iapland is Kildin-not Kilduin, as the Duteh enll it-and lies 11 miles enst from the mouth of the Kela Bay. It is 9 miles long, and $I \frac{1}{2}$ to $3 \frac{1}{2}$ miles broad. Its shores are high and precipituus on the north side, and terminate abruptly in a perpendicular rook on the west, while on the south-cast side it slopes down gently to the sea. The appearance of the south coast is most pecullar, rising as it does in four most regular terraces, forming an amphitheatre of 500 feet in hoight, with a flat, talle-like top. This coast is everywhers clothed with the richest verdure, forming a most atriking contrast with the bare granite erags on the main shore. The island consists of prlmary slate, and thus differs from lonth the islamis nul the main shore to the south-eastward, which show only grnuite.
Kola, the capital of Itussian Lapland, is situate nt the conflnence of the Rivers Kola nad Tuloma, about 30 miles from the sen. As determined by Mr. Rasnnowski, who, in the lnst century, obeerved in this place the transit of Venus over the sun, the latitude of the city is $68^{\circ} 62^{\prime}$, the longltude $33^{\circ} 1^{\prime}$ enst from (ireenwleli. It appears that Kola was founded long before 1553, ns linglisli and other mariners traded nlready nhout the midille of the 16 th century to Kola na to a well-known place. It was at first only a reolish (capltal of a ilistriet), heeame nuder Peter the Grent un ostrog (fortlifind place), and since the foundation of the stadtholdership, the capital of a government. The place extends 630 fathoms nlong the liver Kola, and $\mathbf{j}_{7} \mathrm{~F}$ futhoms along tho Rlver Tulema. Except at chard binitt of stone, all the houses ave of wincl. The streets are paved with planks. On the bank of the Kola, near tho centre of the town, lles a wooten fort, being a square with five towers: since the rupture with lingland, in the year 1800, the cannon of this fort were removed to the priory of Solowez, in order to put the latter in a state of defense; and sinee then, the walls of the fort serve only as a fence for the eathedral, and the towers are transformed into starelumses. I'he number of inhahitants of both sexes was extimated by litke, $\ln 1822$, at nhout 800 , hut recent oflleial datis show that it was, in 1849, only (i.te. The otlleling and merchants oi Koln live in in style varying litele from that of the eapital. In extemal mpearanee, Kola is that of a rlean town; nud the lonses, comainting frequently of two thoors, are neat. The view of the town from the north-eant la most churming ; it stands on n high and abrupt bank, from which in wide mhin extends, tordered on three sldes by high hills. "The principal trate of Kola is in tish, partienlarly In bib (triskin) und paltus. 'The Ko-
laers are net themselves engaged in flshing. but obtain the fish by barter, mostly from the Ruseian fishers tredlag on the Lapland coast, partly from the Norwsy ports of Wadsö, Wardhuns, IIammerfest, end oven from Tromsö, to which porta the Kolaers are permilted to export about 2000 tchetcert of rye flour every year.

Kola lodji go to Archangel to barter their cargo of fiah for the various merchendise they require, and some of them venture to set out from the latter place on their return home as late as October. While the men of Kola are thus occupied, their wives and daughters do not remain idle. They croas in little loats to the istands to gnther maroshlia, the berries of Rubus chamemorus. A boat contalins usually but one young and able man, and from 12 to 20 women. Among the islands near the Bay of Kola, the Korellne Islands are considered to give the hest produce of moroshka; thoy lie five miles west from the month of the biy. The Koln women, however, will go atill further, to Metov Bay, and even to the Alnova Islen, at least 100 miles from Kola, in a boat. The moroshka from theae isles are said to surpass in size and flavor all others, ned are montly destined for the imporial court. The Hay of Kola, gear the town, is so shallow that even the smallest vessels can approsch it only at high water. The River Kola ceases altogether to be navigable nt the town; but the Tulome is navigable for about 40 miles, namely, to its origin frum the lake. Its hanks arg densely rooded with splendid fir. There is a small and bare lstand in the middle of the Bay of Kola, called Solnei Ostrov (Tallow Island), from the immense number of senla which formerly used to come ashore here, but which entirely disappeared atont the end of the last century.

The lay hut la formed interiorly of wool, ly means of curved ribs, which unite near the centre in a ring, which is open, and alluws free escape for the smoke, the fire being lighted in the centre of the floor. the exteriur is covered with turf. The duor is wool on one side. The inmates recline on skins on the thoor, with their feet toward the fire; and behind them, on a row of stonea near the wall of the hut, are their various ntensils. Their clothing-hiefly of tanned skins and woolen stuffs-looked very dirty. 'Iheir whole wealth consints in reindeer. The two families who frequent this valley possens alout tocideer. We asw, perhajns, nhout one fourth of that number. A few of them were driven, for our inspection, into a circular melosure of wooten praling, where they are halitually milked. One of the men dexteronsly caught them ly the horns with in luaso, or noose. The deer are small; but nome of them carry immense branching horns, the weight of which they seem almost unable to sujport. At this meason their long winter cont of hair eame off ly hundfulls. They make a low gronting noine, almost like a pig. The milk is very amall in quantity, and excessively rich.

The whole population of Finumark dies not exeed 45,000 . The degraling superstition in which they were formerly aunk has now in a great monature disurpeared, along with those numerons deities which they worshiped : the wild creations of unenlightenel nature have been superseded by Christianity, and a knowledge of the true Goh. Itpgular elergymen are astatilished in the country by the different governments, and the laps exhibit much reverome and devotional feeling cluring dlvine eervice, although its purport ia only known to them through an interpreter. Finmark, in regard to ecelesiastical regulations, is under the juriadiction of the llinhop of Norland and kinmark, both of which form one dioeene. Swedinh lajland has a population of only slout 12, (MM).-lia. It.

La Plata. The Argentine Repulilic, or " La tonfederacion Argentina," comprisen the provincea which, with Pareguay and Vruguay, now Independent States, conatituted, under Spaninh rula, the vlce-royalty of Buenow Ayres. Ita area is the largest of the South Amer-
ican republics, and its pepulation to the square mile the smallest. It consista of 18 provinces, comprising an area eatimated at 786,000 square inlles, and contains a population of about 764,000 souls. Other estimates reduce this number to 596,000 , while the " Almanach de Gotha" for 1855 gives a total number of about $2,600,000$, of whom $1,200,000$ are creoles, Spaniards, and mestizos, 200,000 subjugated Indians, anl 25,000 negroes. Within a fow years, Buenos Ayrea has withdrawn from the confederacy. With the exception of a portion of the extenslve plains, called pampas, watered by the rlvers Rlo Negro, Colorado, und Desaguadero, nearly all the country belonga to the hasin of the Ia Plata, the great estuary of which is between the State of Buenos Ayres and the Uruguayan port of Montevideo. The most important product of the republie is cattle. Immense droves of oxen roan at large over the pampas, and vast herils are scattered throughout the extensive breeding estates of private individuals. Horses and mules constitute a prominent article of commerce with the Peruvian and other traders; and sheep ind hogs, and the small quadrufeds which furnish the nutria and chinchilha-shins, are muong the valuable native snimals, Cotton, tolaceo, rice, cocoa, sugar-cane, indigo, maize, wheat, und other grains, constitute leuding productions; but the stuplea of export are hiden, skins, horne, hones, hursehair, wool, tallow, ostrich feathers, salted meats, crude naltpetre, and cocoa. The export trade reaches, annually. a value of about $\$ 10,000,000$.

Commercial relations letween the United States and the Argentine Repulilie are regulated by treaties of July 10th and gith, 1853 . The former treaty relates chiefly to the narigation of the rivers latana and Uruguay : that of July 2ith was designed to acknowl. edge and contirm the relations aubsiating bet ween the two governments by the signing of a treaty of friend. slip, commerce, and navigation, as well for the good security as for the encouragement of the commercial intercourse niready subsisting hetween them, This latter treaty stipulates that perpetual maity shall exist letween the two couatries and their respective citizens; that there shall be reciprocal freedom uf commerce : that the citizens, ships, etc., of cach shall be protected in the territuries of the other, to which other forcigners, or the ships or cargoes of any other foreign nation or state ary or may be, peranitted to come ; that the rexpective ships of war, and post-office or passen. ger packets of the two countries shall have literty freely and securely to come to all harlors, rivers, and places to which other foreign shipa of war und packets are, or may be, permitted to come; to enter into the same; to anchor and remain there, and retit, subject always to the laws and usages of the two contries rempectively; that any favor, exemption, privile ${ }^{\circ} e$, or humunity whitever, in mutters of commerce or mavigation, which either of the two nations hes actually granted, or may hercufter grant, to the citizens of soliject of any other govornment, nation, or state, shall extend, in tike eaxes and circumstances, to the citizens of the other; that no high or discriminating duties shall be imponed, in the territories uf either of the contracting parties, on uny article of the growth. produce, or manntacture of the territorias of the ather, than are, or shall he, paynble on tho like article of any wher forebsn conntry ; that export duties on all articlen exported from the territorica of either party to those of the other, ahall be the same as when the expurtation ia made to any other foreign country; and that all prohibitions as to imperts and exports, into or from either country, shal! lee such as extend to tho like articlen of any other forelgn country. The traty further providea that no other or higher duties or charges, on ncconnt of tonnage, light or harbor dues, pilotage, salvoge in ease of average or shipwreck, or any ether bocal charges, shall be limposed in the perts of either of the two contracting parties, on the vessels of the
other, than th veasels; that equality with both nis respec passport, or se ity, shall be the versel ; th and all other c tices, shall enjo the territories rights, in all $r$ under the law: try ; that, in e ment, of any c ties, in the terr or consul of the or the reprezent la his alisence, possession, adm the estate of th of the country, heirs. The tre matic agents ar same footing a farored antion, religlous privile contains no lim that the amity zens of the two cign trado of tl inenopolized by ciuanels of com Uruguay Rivers traffic and navit cially promulgat is sulijoined:
Article 1. The Uruguay is allon vessels, whateve parture, or tonn mar enter the po and l'ruguay. In the province rann, the capita! manti, Victtori, Parama; and the Traguay, Conco Urugaay. 2. In the capital of th In Corrientes, th Gerga. Art. 4. ging article sh trado; and those Salta, San Juan houses for inlan tariffs be fully ar trade on the rive rorling to exlati cent. upon the va consumption into leeted us the rol tom-houses for it valuation shall be as a national tax. fureign trade, an rior, Ahall permit for the provinces tom-house dispate five per ceut. upo whole of the na merchandise of $f$ foreign places, an tures or lndustry duced by land inte shalt pay, for the lected in the cus the ame cnstom-
other, than those payable in the same ports on its own vessels; that the vessels of each shall enjoy entlre equality with natlonal vessels in the ports of the other, both as respects imports and exports; thst a regular passport, or ssa-letter, furnished by competent authority, shall be sufficient evldence of the natlonality of the vessel ; that the merchants, commanders of ships, and all other citlzens of either of the contracting partice, shall enjoy, in the management of their affairs in the territcries of the nther, the aame privileges and rightr, in all respects, that belong to its own eltizens under the laws and eatablished eustoms of the country; that, in case of the death, without will or testement, of any citizen of elther of the contracting parties, in the territories of the other, the consnl-genarsl or consul of the nation to which the deceased belonged, or the reprezentatlve of such consul-general or consul In his abeence, shall have the right to intervene in the possession, administration, and judicin! liquidation of the pstate of the deceased, conformally with the laws of the country, for the henefit of creditore and legal heirs. The treaty concludes with placlng the diplomatic agents and consuls of the United States on tho same footing as slmilar represertatlves of the most fapored nution, and makes anıplo provision respecting religious privileges, rites of hurinl, etc. This treaty contains no limitation as to its duration, but provides that the amity which it estathlishes between the cithzens of the two republics shall be perpetual. The forcign trale of the Argentine Republic was formerly monopolized by Buenos Ayres; but, in 1852, new cimunels of commerce were opened, the Paranu and Uruguay Rivers heing declared free to the commercial traffic and navigation of all nations by a decred officially promulgated October 80 , of which a translation is suljoined:
Article 1. The navigation of the Rivers Parana and Uruguay is allowed to every deseription of merchait ressels, whatever may bo their nation, place of departure, or tonnage. Art. 2. All merchant vessels may enter the ports established on the Rivers Parana and Uruguay. Art. 3. The established ports are: 1. In the province of Entro Rios, that of the city of Parana, the capital of asil province, and those of Diamanti, Victori, Gualegrai, and Ia Paz, on the Rlver Parana; and those of Gualeguaichu, Concepcion del liruguay, Concordin, and Federacion, on the River Iruguay. 2. In the province of Santa FC , that of the eapital of the province and that of Rosario. 3. In Corrientes, the capital of the same, Belle, Vista, and Gorga. Art. 4. All those ports designated in the foregoing article shall have custom-houses for foreign trade; and those established in the provinces of Jujul, Salta, San duan, and Mendoza shall have customhouses for inland triale. Art. $\overline{1}$. Until the national tariffs be fully arranged, the custonn-houses for forelgn trade on the river shall continue to collect duties, neroding to existing regulatlons. Art. 6. Seven per cent. upon the valustion of the artheles imported for consumption into the litoral provinees shall to collected as the sole national tax. Art. 7 . In the cus-tom-houses for inland trade, six per cent. upon the valuation shall be collected on all articles introduced, as a national tax. Art.8. All the chatom-houses for foreign trade, as well on the rlvers as in the interior, shall permit the transit of forelgn merehandise for the provinces of the confederation; but the cus-tom-house dispatching them shall collect and retain five per cent. upon the valuntion of the goods, as the whole of the national tax. Art.9. All grools and merchandise of forelign production, or shlpped from foreign places, and all the productions of the manufactures or industry of Buenos iyres, which are hitroduced by land lato nny oi the prorinces of the lnterior, shall pay, for the present, the same dutios as are collected In the custom-house of Rosario. Art. 10. In the same custom-louse, the same duties on exporta-
tlon as on Importation shall be pald on whatever articles interior provinces may introduce into the province of Buenos Ayres. Art. 11. In all the custom-honses In which doposit is allowed, the same shall be conthued subject to the exlsting regalstions. Art. 12. Within the territories of the $\mathbf{1 3}$ confedersted provinces, the passage of their own product or msnufacture shall be free of all duties of transit or on consumption. Art. 13. The present decree shall have effect only nntll the natlonal congress shall establlsh permanent regulations on the subject it embraces.

The sbove decree, pulllshed by the provisional dlrector of the republic, was followed by the publicstion, on the 18th of the same month, of tbe following resolutlon of the representatives of the province of Buenos Ayres :-" The province of Buenos Ayres, recognizing as a princlple of general convenience the opening of the River Parana to the traffic and navigation of all nations, from this present date declares and authorizes the same on its part.'
Buenos Ayres must always be a point of groat commercial importance, as it is the principal outlet through which the produce aid industry of the immense regions lying behind can have an egress to a foicign market ; and it is only through this part and Montevideo that those countries can receive, by the La Plata and its tributaries, unless in the direct trade, their supplies of foreign merchandise. Indeed, these two ports form the only channels through which the productlons of the countries lying between the Cordilleras and the La Plata will find their way to forelgn markets. By late advices to the Stute Department, notice is received of a law which passed both houses of the Argentine legislature, and was approved by the President July 10, 1856, establishing differential duties on all foreign merchandise Introduced lnto the ports of the confederation, in the indlirect trade from Buenos Ayres. These duties are almost equivalent to prohibition, and will divert from the port of Buenos Ayres that portion of the foreign trade destined for the fluvial provinces. The chief reason assigned for the adoption of this measure, as announced during the debate which it elicited in toth lranches of the legislatue, was, that it would be the most effective moans that could he adopted to forco Buenos Ayres from its secession movements, and thus restore tranquillity to the republic. Already the goverment buiget of Buenos Ayres shows a deficiency of $\$ 9,000,000$. Thls act of the confederation, in driving from its ports the foreign trade of the other provinces-hitherto a sonrce of immense profit to its treasury-muy lesd to a commercial, perhaps a political, crisis.

The navigation of the La Plata and its trihutaries is represented to be at this time active, emplnying a heavy tonnage both of steamers and sailing vessels. The trade between Buenos Ayres and Montevideo consists in the transhipment, to and from either port, of articles the grewth or manufacture of Europe and the Vnited States, and the conveyance of passengers. lirom Iltenos Ayres to the interior, the trade consists in the interchange of forcign merchandise for the various proluctions of the la llata provinces. South of lluenos Ayres, and from l'atagonla, in exchange for dry goods, spirits, wines, and sundries, are imported hides, akins, tallow, hair, and, occasionally, whent and salt, especially from latagonia. The principal ports in the provinces open to this trade are San Farnando, San Pedro, and San Nicolas, in the province of lluenos Ayres; lossario and Santa Fé, in Santa Fé; Gualoguaigelun, Parana, and Concordia, in Entre Rion ; Gorga, Bella Vista, and Corrientes, In the province of Corrientes, From all these ports, as from those in Paraguay and Uruguay, the imports consist chiefly of yerba maté (Puraguay tea), and tobaceo, hides, lumber, nutria, wool, candles, soap, ashes, peunuts, and varions manufictures of wood.

The stean-vessels, exclusive of those of the Ilritish

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Royal Mail Steam-packet Comp any; regularly em- number of round trips made by each, were as follows: ployed, at a late date, in the navigation of the Plata, 1 American, 44 ronnd trips; 1 British, 17; 2 Orlental, are: five steamers, under the Orinntal flag-one of 38 ; and 2 Brazilian, 14. The sailing-vensels engaged them constructed in the Unlted States-and one under In the sume trade, were 2 schooners, mider the Orientthe Buenos Ayrea fag, alno of United States' origin. al flag, which made 42 round trips; und 2 schogaers According to the navigatlon returns of the Argentine and 2 brigantines, under the flag of Buenos Ayres, Republie for 1852 , the steamers engaged $\ln$ the regular which made 40 round trips. The following talile shows trade between Buenos Ayrea and Monteviduo, with tha the exports of Bucuos Ayres for six yeara, ending $185 .-1$.



${ }^{1}$

Statimint of Fokrion Menciant Febabls wmigh angived at tite port of livkion Atrre, mom 1821 to 1854, digtisgutbana thosk under tili United statme Flat.

| Yespr. | From wth mallions. | $\begin{gathered} \text { kronn } \\ \text { Unflellistates } \end{gathered}$ | Years. | From all nallons. | Fmm V'nhted States |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1821 | 208 | 42 | 18841 | 200 | 87 |
| 1822 | 202 | 75 | 1887 | 228 | 40 |
| 1528 | 244) | 80 | 1812 | 408 | 62 |
| 1524 | 818 | 148 | 1848 | 575 | 75 |
| 1825 | 275 | 102 | 19.4 | 618 | 88 |
| 1830 | 257 | 88 | 1849 | 526 | 86 |
| 1841 | 207 | 77 | 1806) | 440 | 87 |
| 1634 | 218 | 55 | 1851 | 471 | 80 |
| 1838 | 294 | 01 | 1842 | 489 | 57 |
| $1 \times 31$ | 261 | 87 | 1853 | 844 | Ưロknown. |
| 1835 | 211 | 61 | 1854 | 884 | 28 |

The aggregate value of cargoes from the United Staten imported Into the port of Buenos Ayres during the year 1851 , was 8600,$181 ; 1852, \$ 659,915 ; 1853$, \& 197,83 . The ageregate value of exports from the port of Buenos Ayres to all countrles in 1854, ts atated by French authoritles, as follows:

|  | Frn |  | Franc |
| :---: | :---: | :---: | :---: |
| Great Britaln | 10,061, 5 S8 | Ifanover | 204,382 |
| United States | 9,168,799 | Ifolland. | 1,829,547 |
| Spala | 11,255,389 | Portogal......... | 125,694 |
| flans Tow | 8,186,907 | Argeattne lepub. | 86f,061 |
| France | 8,356,952 | trugaay......... | 212.03 H |
| Sardiala | 8,796,605 | Prussia | 40,853 |
| Brazll. | 1,785,272 | Two Bletil | 30,788 |
| Belgiam |  |  |  |
| Denmark Swcdet. | $\begin{aligned} & 94,840 \\ & 927,604 \end{aligned}$ | Total | 51,287 |
| Norway.. | 95,450 | Total dollars. | 19,744,548 |

From statements published by the minister of finance of the State of Buenos Ayres to the legislative chambers, on the revenues of the customs, it appears that there was imported in 1854, of merchandise of every description, in value, as follows:

| Sundry artleles, paylag 5 per énnt. duty. | aper plantres. 16,677,540 |
| :---: | :---: |
| gandry articles, paytng 10 per cont. dnty | 1,437,947 |
| sllks, payiag is per cent. duty | 41 |
| Sundry artheles, pas luit 15 por cent. duty....... | 184,494,583 |
| Artches made up, and provislons, payling 20 per cent. daty. | 44,800,880 |
| Liquers, paying 25 fer reat. duty | 39,424, 824 |
| Articles free of duty, or entered in contraband. | 57,853,245 |
| Total. | $800,000,000$ |
| Value in U. B, eurrency. | -15,000,090 |
| Total exports of Buenos Ayres in th4....... Tolal limports of thenes Ayres tu 1s\%4...... | 99,74,548 $15,000,000$ |

The large balance of trade, however, which appears against this jort (as is the case also with the port of Nontevideo), is accounted for by the fact that the wants of the interior provinces of laraguay, and even of many places in lolivia, are supplied from these two points.
Wool constitutes upward of 25 per cent. in value of all the imports into the United States from the Argentine Regulilic. 'This is shown by the following tabular statement made $u_{i}$ from annual reports of the Treasury Departmunt on commerce and mavigation for the years na:aed, exhibiting the total values of imports fato the Cuited States from the Argentine Rejublie, from $1 \mathrm{~s}_{\mathrm{i}} 1$ to 1855 , to $\mathrm{G}^{-2}$ her with the values of wool imported from the same country during the same periorl:

| Yeart. | Tutal saluen of tropiorts. | Valups of wout. |
| :---: | :---: | :---: |
| 181. | \$8,265, $2 \times 2$ | \$1,324,887 |
| 1 k 2. | 2.061,027 | 714, 184 |
| 1 N2il. | $8.188,641$ |  |
| $15 \%$. | 2,144,971 | 854.232 |
| $185 \%$ | 2,5-4, 00.7 | 627,714 |

Of the total quantity of wool inported into the Conited States from alf countrics, nhout one third, or nearly 64 , is received from the Argentine liepublic. This is shown by the following tabular statement, derived from the same sources as the former, exhiliting the 'quantitice of nool imported into the United' "tates frum all countrics, from 1851 to 1855 , togethor with
the quantities imported from the Argentine Republic during the same period:

| Yeara. | Alt connirles. | Argentine Republle. |
| :---: | :---: | :---: |
| 1451. | 82,5-48,491 | 12,108,036 |
| 1859. | 18,941,298 | 7,084,748 |
| 1858. | 21,696,079 | 5,745,857 |
| 1854. | 20,200,110 | 6,250,098 . |
| 1855. | 18, 884,415 | 6,966,969 |

The preceding table oxhibits an aggregate of 111, 219,393 pounds of wool imported frum all countrlas, and of $\mathbf{3 7}, 159,802$ pounde from the Argentine Republic, or an annual average of $22,243,878$ of the former, and of $7,481,060$ of the latter; being a fraction over one thind of the whole.

Regulations of the Port of Buenos Ayres,-Article 1. -All versels at anchor in the port, whether national or foreign, shall render every assistance in case of a vessel breaking adrift, or of any other acchdent; or, in default, shall suffer the penalties established by law, and in proportion to the gravity of the case. 2. All vessels at anchor in the roads must have their anchora buoyed, on account of the shallow water; or pary all damages which may occur to any vessel or boat, from thila precaution having been neglected. 3. Any vessel losing a bnoy from ber anchors shall report it immediately to the captain of the port, who whll send off a pilot to replace it. No auchor can be weighed without permission of the eaptain of the port. 4. Pilots on bringing vessels up ln the roads are to laform the captain what articles are necessary for their perfect safety, and in case of there being any wanting, report it to the captain of the port. Pilots neglecting to do so will be punished with the rigor of the law. 5 . If, In a gale, the anchor of any vessel should happen to drag, or the cable part, either on account of said cablo not corresponding with the size of tho vessel or the anchor, or from rottenness, said vessel will be reaponsiblo for all the damages occasioned thereby. 6. Any vessel from sea, that may unchor in this port without applying to a pilot, will be liable to pay all damages that may occur, and can not clain redress if she, in any way, austains damage. 7. Any vessel nt anchor with her boats astern, and not hauling them alongside upon deeing another under sail, so as to givo a free passage, ean not claim for the damages she may suffer, and ahall be ohliged to pay fur those occasioned. 8. No vessel at anchor in the roads can heave ballost, or any thing that does not float, overbonrd; and if such he proved to have heen dune, the act wiil be punished according to law. 9. No vossel, excepting on her arrival, can salute in the inner roads without ubtaining permission of the captain of tho port. Those which du so will suffer the penalties the government may determine on. 10. All bosts, belonging to merchant vessols at anchor in either roads, slall put off from shore one hour after sunset. 11. All boats that nuay be found on the beach, from the time of firing the evening gun until daybreak, will be seized, and the crew punished according to the gravity of the case.
f'hot Duks of tirk l'ont of lurnos Atres.


All veesels, excepting packets, requiring a pilot to enter the inuer roads, pay $\$ 200$ eurrency (equal to $\$ 10$ Ithited States' coin-the eurrency dollar heing, at present, equal to 5 cents, United States). When leaving port, whether taking a pilut or not, thoy pay $\$ 200$ currency ( $\$ 10$ United States). Any vessel that may enter the inner rouds without a pilot, wishing to be moered or to change anchorage, jays $\& 100$ currency ( 55 United States).

Port Charges.-'Tonnage dues per ton, entering (eurreney) $\frac{* 11}{}=400.1$ centa, United States; visit and regulation, $87=\$ 035$; stamps for opening register,

## LAU

otc., $169=4845$. Tonnage dues, clearing, $11=$ 0071 ; crew list, $12=0060$; blll of health, $6=$ 1030.

By the following law, passed by the Senate and Chamber of Representativen of Buenos Ayres, and officially announced under date of September 6, 1804, It will be seen that vessels of friendly nations enjoy the same privllegen, and are subject to the ame restrictlona, as natlonal vessela :-"From the date of the present law, there will not be charged In the
ports of the State of Buenon Ayres, to the vesseld, of friendly nations of more than 120 tons, for tonnage dues, port dues, pllotage, salvage in case of damage or ahlpwreck, more than will be charged to Argentine vessels."

Thls law places the vessels of the United States on an equality with those of Buenos Ayres; while, under an old law, the ship's register la taken as evillence of bet measurement. For a more extended account of the commerce of La Plata, see article Buenos Ayufs,
 Falua of Fispoats to and Imports phom rach Cofntay, and the Tonnagr of ambrioan ano forgion Vkegea


| rears. | COMMERCE |  |  |  | NAVILIATION. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vatue ozax roxis |  |  | valum or נMPORTM, | AMEREAS TUNSAHK. |  | unation tonkatic. |  |
|  | Dompatie produen. | Foreliga produce. | Tatal. |  | Eniered the Vnited Statea. | Clizared from the U. States. | Entered the United Histen. | Cleared froin The U. States |
| 1845. | 6842,575 | 160,431 | 8508,006 | 81,751,09x | 11,608 | 10,667 | 1,869 | S13 |
| $1 \times 46$ | 147,807 | 82113 | 155.485 | 790,218 | 5,968 | 4,184 | 987 | ... |
| 1847. | 124,954 | 59,185 | 176,1189 | 241,209 | 698 | 2,237 | . | $\cdots$ |
| 1844. | y118,703 | 24,225 | 288,92H | 1,026,007 | 645 | B88 | 714 | 1,40 |
| 1849. | 506,518 | 172,076 | 767,094 | 1,709,827 | 11,929 | 9,807 | 7,282 | ก,462 |
| 1550. | 718,331 | 846,311 | 1, $064,6.62$ | 2,653, 877 | 18,030 | 16.107 | 18,0×1 | 9,26m |
| 1851. | 659, 3 N\% | 414.916 | 1,074.768 | 3,205,982 | 18,842 | 11,661 | 11,004 | 5,185 |
| 1852. | \$18,007 | 281,110 | 799,117 | 2,091,097 | 18,463 | 18,719 | 4,872 | 4,851 |
| 1563. | 618,405 | 262,611 | 881,468 | $8.1 \times 6,641$ | 11,887 | 10,749 | 4.741 | 4,639 |
| 1854. | $65 \times 1.7 \times 10$ | 1108,005 | 761,725 | 3.144971 | 11,445 | ${ }^{8,526}$ | 1,669 | 1,8゙19 |
| 1855. | 810,756 | 108,671 | 960,427 | 2,545,037 | 12.083 | 18,054 | 707 | 2,815 |

By a recent treaty with Brazil, the free navigntion of the l'arana and Paraguay ls secured. The tariff of import duties adopted by the Argentlno Repullie is based on the per cent. ad valorem princlple, breadstuff: excepted; while export dutles are chlefly spectic.Con. Relations, U. S.

Larboard, among seamen, the left hand side of the ship when you stand with your face toward the head.

Earch. In the catalogue of aft timier used in shlp-building, the larch or hacmatark is not the leost useful-the latter name lo the aboriginal. It sometimes attaius an altitude of 70 feet, but is usually found from 10 to 50 feet. It is generally of struight gowth, but quite tapering. It grows rajidly, and is of great atrength; and its durability exceeds that of the oak. It is distingulshed for the closeness of its grain, is very compact, and of redtish color; and ior knees and top-ifinbers of vessela, particularly stenmvessels, is unequaled. This fact should, however, be retained, that its strength is quite out of proportion to its density; hence, we say, that it should aiwaye be fastened with muare Iron; under such circumstances it is superior to oak. This inmer is extensively cultivated in Europe, and ls not a rare specimen of segetation in the New England States,-Gitupitis's Shipbrilders' Munual, V. 1', 1856.

Lascars, native Indian sailors, many of whom are in the service of the East Indiz Company.
Last, an uncertain quantity, varying in different countries, and with respect to differebl articles. Generally, however, a lasi ly extimated at 4000 pounds; but there are great discrepancies.
The following guantitice of different articles mako a last, viz. :- 14 harrels of pitch, tar, or ashes; 12 duzen of hides or akins; 12 barreis of codish, potash, or meal; 20 cades, cach of 1000 hurrings, every 1000 , 10 hundred, and every 100 llve score; $10 \frac{1}{2}$ quarters of cole-seed; 10 quarters of coan or rajo-sect. In some parts of lingland, 21 quarters of corn go to a last ; 12 sacks of wool ; 20 dickers (wary dleker 12 skins) of leather; 18 barrels of unpacked herrings; 10,000 pilcharis ; yat barrels (each harrel containing low lhas.) of gunjowiler; $\mathbf{1 7} 00$ lber of feathers or thax. J.ast is sometimes used to nignify the burden of a ship.

Lateen Sail, a long triangular mail, extended by a lateen yard, and frequently used in Xiebecs, Jolucres, Setees, and other vexsels which mavignte in the Mediterranean Sea.

Lath, Laths (Fr. Lattes; Ger. Lattet; It. Correnti; Kus. Slegis), long, thin, and narrow alips of
wood, nailed to the ralters of a roof or ceiling in orter tustastain the covering. Laths are distinguighed into varlous sorts, according to the different kinds of wood of which they are male, and the different purposes to which they are to be applted. They are also distin. guished, according to their length, Into five, four, snd three feet laths. Their ordinury brealth is about an inch, and their thickness a quarter of an inch. Laths are sold by the bundle, which is genetally called a hundred; bit seven score, or 1.10 , are computed in the hundred for three feet Inths; wix neore, or $1: 0$, in such as are four feet; and for those which are denominated five feet the common hundred, or five score.

Latitude. First determined by Ilipparehus of Nice, alont $170 \mathrm{n} . \mathrm{c}$. It is the extent of the earth or of the hervens, reckoned from the oquator to cither pole. Maupertuis, in latitule 66:20 measureal $1^{\circ}$ of latitude, und malo it 69.196; he menarared it in 1737. Swanherg, in 160:1, male it $68 \cdot 292$. At the equator, in 1714, four astronmmers mute it 68.732 ; and lampton, in latitude $12^{c}$, made it 68-73. Mudge, in linglant, mate it til 148. Casuini, in france, in 1718 and 17.41 , noade it $69 \cdot 12$, nud lhot 68.769 ; while a recent measurer in Spain makes it hut 68-6:I, less than at the eqator; and contradicte all the others, proving the earth ta be a prolate spheroid, which was the opinion of Cussint, Dider, and others, while it has more gencrally been regarded as an oblate spheroial. See l.ovititime.

Latten, a name sometimes given to tin pates; that is, to thin plates of Iron, tinned over. See Tis.

Launch, in sea lauguage, signitles to put out; as, launch the shlp; that is, puther out of dock. Latuch aft or forwarl, speaking of thinge that are stowed in the bold, is, put them mure forwarl. Laumh, ho! is a term nsed when a yard is hoisted high enough, and signifies, hoist no more.

Laurel-tree. The Kalmin latifolia, or laures, is a larbe evectreen khrub or low tree, growing to a helight of 15 or 20 feet, in favorable nituations, with a stem three or four inches in thameter ; but ordinarily it does not attain more than one half of these dimenwions. Its leaves are of a coriaceona texture, obalnemminate, entice, nul aloot three inches long. The tleners, which jut forth from May to July, are rome. times of a jure white, timed with jale pink, delicately apotted; hut, in general, they are a beantiful rosecolor, and are destitute of islor. They are disposed in corymas at the extremity of the branches; and, as they are always numerons, their lirilliant effect is belghtened by the richness of tho nurrounding foliage.

The seeds a globular ca The Kalr lea, from C ever, north and is but ern Tenuess States wher where the paratively a southern St multiplied, $r$ riant vegetat parts of the tracte, and for a third are rendered unyielding tr As the shrub of the same foliage, they verdant mead
The wood of the roots, ls with red lines and is easily very hard, ant box (Buxus wood. Conse mathematical wood. It is so for the handles and it is raid, used by the dishes, spoone, plant is regar sheep, but not leaves of this $\mathrm{t}_{1}$ able natives wl lint modern en the service of or ized form, inter relief of cutane tincture poured ratllesnake, kil powder which e in some purts of The honey colle counted deleteri ties of this cle, its beauty claim
The Laurus t rope, and northe remarkally fine the river l'enen have given rise (supposing the daughter of tha duction of this must have heon Turner, in his" we find that, in houses of dietin, leaves, The lat Britain, is at. seat of C. P. Tal sea. It is upwa nificent lell-shay At Cypress Giros laurel 50 feet in eter, and an an! Throughout (ier house plaut. It protection durin tains a larger si forming immens: In the northern

The seeds are very minute, and are contaiped in small, globular capaules.

The Kalmia latifolla ia indigenona to North AmerIca, from Cansds to Carolina. It rarely occura, however, north of the 42 d or 43 d degrees of north latitude, and is but sparingly produced in Kentucky and weatern Tennessee, and clisappears entirely in the aouthern States wherever the rivers enter the low country, or where the pine-barrens begin. Although it la comparatively sbundant along the rivers of the middle and southern States, it is nowhere seen more profusely multiplied, nor of a greater helght, and of more luxuriant vegetation, than In North Carolina, on the loíciest parts of the Aileghmiles. It there occupies large tracta, and forma thickets upon their aumimits, and for a third of their distance down their alles, which are readered almost impenetrable hy the crooked and unyiclding trunks, crossed and locked with each other. As the shruba which compose these copaes are nearly of the samo height, and richly leten with evergreen foliage, they present, at a distance, the appearance of verdunt meadows, surrounded by tall trees.
The wood of the Kalmia latlfolia, particularly that of the roots, is very compact, fine-grained, and marked with red lines. When green, it la of a soft texture, and is easily wrought ; but, when well scasoned, it is yery hard, and more nearjy reambles the European box (Buxus eempervirens), than any other American wood. Consequently it is worthy of the attention of mathematical inatrument-mnkera, and of engravers on wood. It is sometimes employed In the United States for the handles of light tools, for scrows, boxes, etc.; and it is sald, also, to make good clarionets. It is used by the American Indians for making small dishes, spoons, and other domestic utensils. The whole plant is regarled as polsonous to young catt'-, and sheep, but not to gonts and deer. A decoction of the leaves of this tree was formeriy tnken by those miserable natives who had determined on self-destruction. llut modern enterprise has succeasfully enlisted it in tha service of medicine, and it is epplied, in a pulverized form, internally, in fevers, or topicaliy, for the relisf of cutancous affections, A few drops of the tincture poured upon the boly of a large and vigorons rattlesnake, killed the reptile in a short tinte. The powder which covers the leaves is popularly enployed in some purts of the country where it grows, for snuff. The honey collected from the flowera ly bees, is nerounted deleterious, wilch, with other noxious qualities of this elegant shrul, lessens that esteem which its beauty elaims.

The Laurus pobilis is a native of the south of Euroge, and northern Africa; and, accomling to St. Pierre, remarkahly fine trees of it were found on the lonnks of the river Penens, in Thessaly, which, probably, might have given rise to the fable of the nymph Daphne (supposing the Greek daphns to he this tree), the daughter of that river. The exact date of the lntroduction of this species into Ilritain is unknown, but it must have heen previous to listis, ns it is mentioned hy Tumer, in his " llerhal," published in that year; nod we find that, in the reigin of Bilizabeth, the floors of tho houses of dixtinguished persons wore strewed with its leaves. The liargest recoriled tree of thits apecies in Britain, is at Margram, in Glamorgansiare, at the seat of C:. D. T'albot, M. 1', ahout 1 ? miles from Swansea. It is upwari of $\mathbf{6 0}$ feet in height, with a naggnificeot hell-shaped summit, ahent 60 feet in diameter. At Cypress Grove, near Inblin, in Ireland, there is a laure 50 feet in helght, with a trank two feet in dianeter, and an umbitus or spread of branches of 25 feet. Througheut tiermany, the Laurus nobilis is a green. house plant. In Russia, in the Crimen, it requires protection during winter. In italy and Spain it attaina a larger elze than in any other part of Europe, forming immense bushes, from 50 to 70 feet in height. in the northern parts of the United States it is only
cnltivated as a green-house plant ; but in the sonthern sections of the Unlon, where the climate la more mild, it grows in'great perfection In the open air. The wood of this tree, from its Inferior size, is not much used In construction, nor in the arts. The young branches are sometimes employed for the hoops of amall canks. Both the leavea and berries were formerly conaldered medicinal, belng highly aromatic and stomachic; they are also astringent and carminative. An infuaion of them was not only conaldered beneficial, when taken lnternally, but it was used in fomentatlons, etc. From the berries there is extracted a particular princlple, called laurine. The kernela of the fruit yield an emollient and resolative oll, called oil of laurel, whlch is employed as an embrocation in materia medlca, and in the veterinary art. The essential oil is used In perfunery, and for acrubbing wainscota in chambers, in order to drive away flies. The leaves impert a yellow color to wool. The princlpal use of this tree, however, lo for hedgen, and other purposes of ornament, though the icavea are much einployed for flavoring custarils, blanc-mange, etc. The flowers afforl the beat kind of honey, and are nuineronely frequented by bees.

The Laurns carolinensia is indigenous to the lower part of Virginia, end is found more or less abundantly throughout the maritime districts of the Carolinas, Georgia, Floridn, nnd of Louisiana. It occurs in the brond swamps whleh intersect the pine-barrens, and is there assoclated with the tupelo (Nysa biflora), red maple. (Acer rubrum), and the water oak (Quercus aquatica). A cool and humid soil appears to be essential to lts growth; and it is remarked, that the further south it grows, the more vigorous and beautiful is its. vegetation. 'I'he wood of the Laurus carolinensis is very strong, and of a benutiful roas-color, with a tine, compact grain, and is susceptible of a brilliant poliah, having the appearance of watered satin. Before mahogany became in general use In cabinet-making, in the United States, the wood of this tree was much omployed Ir, the regions where it abounds, in the manufacture of artleles of furniture of the highest degree of beanty. It might also be employed in ship-building, and tor other purposes of construction, as it unites the propertics of etrength and durability; but its trunks are rarely found, of lite, of sufficient dinensions to render it available for these purposea. When bruised, the leaves diffuse a strong olor, resembling that of the sweet bay (Laurus nobilis), and may, like them, be employed in cookery.-Brome's Trees of America.

Law, John. Law's Bubble was the most ruinous speculation of modern times. The projector, John law, of Fdinburg, raised himself to the dignity of comptroller-general of the finances of Europe, upon the strength of a scheme for establishing a bank, an Fust India ande Mississippi Company, by the protits of which the national delit of France way to be paid off. He first offered his plan to Victor Amadeus, King of Sardinia, who told him he was not powerful enough to ruin himself. The French ministry accepted of it in 1:10; snd in 1716 he opened a bank in his own name, under the ןrotection of the Duke of Orleans, regent of France; and most of the people of property of every rank in that kiugdom, sednced by the prospects of immense fains, subscribed both in the bank and the rompanies. In 1718, law's was dechared a royal hank, and the shures rose to upward of twenty-foll the original value, so that in 1719 they were worth more than 80 times the amount of all the current specie in France. flit the following year this great fabrio of false credit feil to the grombi, ant aimest overthrew the French government, ruining tens of thousund of families. It is remarkahie that the rame desperate game was played by the Sosth Sen directors in Engiand in the same fital year, 1780.-Mist. of France, Nouv. Dict.

Law was the eldest son of Wiltiam Law, and was
born at Ellinburg in the month of April, 1671. IIf father followed the profession of goldamith or banker, with so much succesw, that he was onableil to purchase the landa of Lauriston and Iandleaton, which afterwand descended to his son. The latter was educated at Edlinburg, where he In asid to hava made some progrons in literature; but the lient of his genius havigg led him to study arithmetio and goometry, he attained such proticiency in theme branches as to be able to solve with facility the most intrieate problems $;$ and he likewise made bimself manter of algebra. Law resided for several years abroud; first at l'urle whore ha acquirod great dexterity in all gumes of chanee, and afterward at Genoa and Venice. One cause ansigned for hila leaving l’arin, was hle eloping with Lady Catharine, third danghter of Nicholas, Lond Banbury, and wifv of Mr. Senor, or Semour. Ilis success in play was so great, that he is sald to lasve nequired $\mathbf{£ 2 0 , 0 0 0}$. The favorite maxim inculeated by Law, and upon whels hia whole fulric of the Minsissippl system wan reared; namely, that the power and prosperity of a nation increase in proportion to the quantity of money circulating therein, and that, su the richest nutions have not speciesuftieient to atforil full employment to their lnhabitants, this defect may he supplied liy paper credit; Involvea a dangerous fallacy, even in the most reatrieted view that can be taken of ita application, inasmuch as it implies that paper muney may be lasued with advantage to an almost unlimited extent, upon general security ; and that its credit, or, in other words, its. value, may thus le maintained without its being renderd convertible at pleasure into cash. But all expe-
 There is much truch in an olowervasion of Mr. Harke, In his Refilctions on the fronch Recolution. "It is not true," ayys he, "that law built solely on a sjeceulation concerning the Mississippi; he added the Fast Iudia trade, he adiled the African trade, he allded tho farms of all the farmed revenue of France; all these unqueationably could not support the atructure which the pablic enthualaam, not he, chose to builil on these banes. He laid the best foundation that he could, perhapa the beat which, In the cirenmatances, it was posaithle to lay; but the nation went audidenly mad, an event which he could searcely have foreseen: the Company was hurried onwarl by the general frenzy : and when the deliriam hal reached its height, the resent was allvised to issue the fatal ediet, which leveled the whole faliric the the duas. (Nee E. H., 185th.) Gueres de lanc, jansim; Histoire du Syatome deatio nances, tom. i.t Jollnitz, Jemaires; Mawallon, J/imoirra de la Minorite de Sanis XV.; Mimoires de te Regence do S. te the d'Orleans, tom. I.; Kichulieu, Mímoirea, tom. iil.; Voltaire, siticle de louia XI: Chalmers's Hiog. Dict., art. "Law."

Leawn (ijer. and Fr. Linon; It. Linone, Jiwsu; Sp. Cambroy clarin), a sort of clear or open-worked camliric, which, till of late years, wan exclusively manufartured in France abd FInndera. At present, the lawn manufarture in entablinhed in Scotland and in the north of Ireland, where articles of this kind are lirought to such a dogree of perfection as nearly to rival the productions of the French and Fleminh manufartories. In the manufacture of lawna, ther flaxen threall is used than in that of rambric.

Lavrence, a manufacturing town of the laited Statef of North America, Hineex county, Massablhusetten, Is situated on the lefl bank of the Merrinace, 2ti miles north of lsoxton, and forms the centes of a nelwork of railronds communicathis with lowell, Newlouryport, Hoaton, and other placen of importance. Although founded but recently, lawrence has leconie one of the chlef manufacturimg towns in New England, in conmequence of the great water-power it derives from the Merrimae. In 1etio, the Fismex Commercial Company conatructed a dam of manonry acrons the stream, hy whicha
fall of 28 feet was obtained for the whole river. From thia dam a canal, from 60 to 100 feet broad, 12 feel deen, and more than a mile long, conducts the water to the varluas fuctories situate hetween It and the Merrimac. The town proper, which is lald out bet ween the latter and a small tributary called tha Spleket, has in its centre an open common of $17 \frac{1}{2}$ acrea in exteat, and contains a town-house, jail, several churches and schoola, anil a ilterary institute. The inbabitant, are almoat all employed In the varioua factories in the town, sume of which are of great slze, and one, the I'uclile, la auid to le the largeat in the world. The building has seven atorien, and ita flooring covers 16 acres, while the consumption of cotton within lts walls amounta to $1,500,000$ llis. yeurly, and of wool to the third of that amount. It gives employment to nibout 2000 persons. The manufactures of the town comprise woolen, Jinen, and cotton graila of various kimils. Incorporated 18.7. I'opulation in 1848, 6000 ; in 1800 , 8283 ; lu 1855, abont 14,000.

Invience, Bt., an important river of North Americi, forming part of the north houndary uf the United States, and watering the theat portion of llitish Amerlen, rises, undur tho name of the St. Louis, in lat. $47^{\circ} 45^{\prime}$ N., lung. $98^{\circ}$ W., Hows east, und enters the south-weat extremity of Lake Saperior. Lasving through the ehain of great lakes, it juits Lake Ontariont Kingaton. llere it takes the name ut the lrofuolx, and thowing north-east forms the while expauses called Lakes St. Francis, St. Louin, and St. I'uter. It Is flrat called St. Jawrence after passing Montreal. Below Quelvec it forms a broad extuary; nut it enters the Gulf of St. Jaw renco at Giaspue 1roint lyy a moath 100 miles wide. J.ength, from Juke Ontarin, to the Gulf, G50 miles ; entire length, 1800 mites. Ti e basin of the St. latwrence lo estimated to eomatain 497,000 wquare miles, of whilh 91,000 are rovered with the waters of the great lakes. The river receives many important tributaries from the north, but none of any sizu from the south. The tided rise to the dis. trict of 'Three livers, Ships of the line ascend to tyineTher, and vessels of tinotons to Montreal. The navigation is continned hence by canals to Kingeton ani lake thatario. See Cianain lakes, Commbine or.
Lawrence, 8t., Gulf, an inlet of the Atlantic Dean, Ilritish Nurth America, having Nen fombland on the east, Labrador, lower Canala, and New Ilrunswick on the north end west, and Nova Scutis and Cape Breton on the south; extending from S . lat. $46^{\circ}$ to $\left.\overline{51}{ }^{\circ} \cdot\right)^{\prime}$, and W. long. $58^{\circ}$ to tisio . It comminicates with the ocean by three channels, the princijal of which is Letween Cupe Ilreton and New fundland, 4 N miles in wilth at its narrowent purt. The ither two chanuil/ are much marrower; the straits of Itelle Inle, hetween the north extremity of New. foundlanil and Sabrador, belog 10 miles, sul the Gut of C'anso, lee wixt t'ape lireton and the main tand, being only about lalf a mile in wilth at the narrowest purt. The tialf is about "00 miles in lengeth, from north to south, ly $240 \mathrm{mi}^{3}$ in br dadth, and imeloses nomerous isfands. the chiet of which are-.. Inticusti, in the north, the Magdalen group in the centre, and I'rince Fidward's Ishand in the south. The astuary of the St. Law rence liiver deloucters into the diulf at the weateri extremity of Auticosti; although, properly Nacaking, this tirth is an intet of the liolf as far ap as the River Saguenay. Navigation is suspentenl here during winter and early spring, from the prevalence of bee, which is especiall: dangerous in the entrance to the tinlf. Fongs aho are very frefucnt during the prevalence of the east winds in spring. In submer, however, the weat and south-west wimder racier navigetion comparatively eafe. The tisheries, which are very valuahle, are prosecuted with assiduity by the colonies as well as hy United States' compnoies. Herring, coil, and mackerel abound. Site Ciasion and l.AKim,

Latwa of contaline a cor commercial United State this valuable mercial Iarea 1 NH +, 2 vols.

1. Awhalt- $H$ Duchire of.-halt-foethen, independent neiven. One provinces of ar relations are $v$ have remaine they have to r than commerel mon liw of $f$ gant, 1802 and by the law rec exists in the I) regard to brok relating to hat these contaln o rangements, wh only une except brokers, every nall if not dran when the deed t parties interest the three Duchi suits. They at It would be diffi ganlzation of th i very eomplica rariea according fore them. It of the three Juc of Schwartzharg suprame eourt of and criminal, of be, finally carrie
2. Austrian : Austria, st jures Maria Theresa, of considerable l merce. She at former law of ex of lat Ortolier, tive in almest a archy. This, e tions relative to of commercial of later late, la ruptey is equally though not prom This law, not le of its provislon throughout all t in force on the quence of some acted upon till all the pre-existi It presents at points afterwari insertet in the all the provision edition of the la portunt points w the title " Hanks Austria is the wo April, 1774. Sil der the titls, " r . tile Austriaca," " nances. The why systen of comm ico," whill embr

Invis of Commeroe. The following artlele contains a condensed summare of the present state of commerclal lan In thoes $c$ intrien with which the United Staten have commercial Intercourse. For this valuable sketch, wa are indebted to "The Commercial /aves of the World," by Inone Lkvi, Lonilon, INSH, 2 voln., tho.

1. A nhalt-llernbourg, Anhalt-Coethen, A nhalt-Desean, Duchirs of.-The I)uchlee of Anhalt-llernboarg, An-halt-Coethen, and Anhalt-Dessau, each forming on jadependent State, are unler laws peculiar to themselvea. One may eally percelve, however, that In provinces of an llinited extent, and where cenmmercial relations are very partially developed, legisiation munt have remainel imperfect. Thus, in their tribunals, they bave to refer etther to lawa which are rather civil than commercial, to forelgn legislation, or to the common law of Germany. Two orlinanees of 31st Aupast, 1802 and 1832, on hills of exchange, were replaced br the law recently enncted for all Germany. There exists in the Duchy of Anhalt-Dessau an ordinance in regaril to brokern, of the 19th April, 1803, and a law relating to bankruptcy, of the 12th July, 1818; but these contain only a amall number of animportant arrangements, which it is unnecessary to specify; with only one exception, namely, that in the law regarling brokers, every contract concluded ty such persona is null if not drawn up in writing, and is complete only when the deed has appended to it the signatures of the parties interested. There is no special jurisdiction in the three Duchies for the determination of commercial suits. They are decided hy the ordinary tribundis. It would be ilfficult te enter into the detail of the organization of these courta, the powery of whlch are of a very complicated character, and whose competency raries accorling to the persons or mutters brought tiefore them. It is sufficient te remark that the princes of the three Duchies of Anhalt joined with the princes of Schwartzhurg In estathlishing, 14th October, 1807, a supreme court of appeal, before which all affalrs, civil and criminal, of their reapective States, are, or may be, finally carriod.
2. Austrian Empire.-The commercial legislation of Austria, at present in force, is tracel to the time of Maris Therean, who, $\ln 1756$, published an ortinance of considerable length on matters connected with cemmerce. She at the same time catusel a revision of the former law of exchange of 1717, and ty lotters patent of 1at October, 1763 , dechared the same to be limperative in almost all the provinces of the Austrian monurchy. This, consinting of 54 articles, contains direetions relative to bills of exchange and to other points of commercial law. Various molifleations, however, of later date, have passed on it. The law of lonnkruptcy is equally due to the carn of Marin Theress, althaugh not promulgated lefore the reign of Ioseph II. This law, not leas limportime on arcount of the wisilem of its provislons than from lts general extension throughout all the Austrian States, was to have come in force on the lat of January, 1782 , but in consequence of seme accompanying difticulties, was not scted upon till the 1st of Miny following. It repeals all the pre-existing statutes in relation to bank ruptey. It presents at the aame time certain undetermined points afterwasd providel for by later statutes, mostly inserted in the judiclary ordinances of Gallicia. As all the provisions of this law were repeated in a new edition of the lombario-Venetian cole, the most important points will he exhibited In that division under the title " lhankruptey." The maritime legislation of Austria is the work of the aame empress. It dates 2ith April, 174. She publiahen the orlinance known under the titte, "Editto l'olitico ill Navigazione Mercantile Austriaca," attended thereafter by nome other orlinances. The whole, however, is far frum being a perfect syatem of commercial legisiation. The " linitite Dolltlico," whi h embrace the most extensive and the whest
provislona in regard to captains and seamen, contalna nothing on the anbject of frelght-contracts, of bot-tomry-bond, and insurances. In the abmence, tharefore, of legislative decision, reference la at present made, on the shores of the Adriatic, to the French "Ordonnance de la Marine" of 1082. Theme different lawn are already of aomewhat ancient date, and are by no means adequate to the new wanta of commerce. We are led to this conclusion by the fact that of late there were leing prepared $\ln$ Austria two projects of law, the object of whleh was to emtirace in the one the Intereats of Inland commerce on which a great part of the new code of IIungary has been bamed; In the other, all the maritime leginlation. Neither the one nor the other has raceived the legislative sanction.
3. Builen, Grand Duehy of.-From the 1st July, 1809, the French cole has heen In force withln the Grand Dachy of Baten. Though the text of this has not been altered, and the same order of articlea has been malntalned as far as article 206, numerous additions, under the form of articles supplementary, have heen introducnd, particularly in what relates to commission, carrying-trade, and bils of exchange. We have innerted only these additional regulations. The clvil code of the Grand Duchy of Itaden, under the head of "Iroperty;" contalus important provisions in regard to literary property. The eecond book on maritime commerce was necensarily retrenched. The fourth, on commerclal jurisilction, slso has not been reprofluced.
4. Bavaria.-Davaria has an commercial code, nor even a commerclal legislatlon, applleable to the whule extent of lts territory. In the provinces where the Code Napoleon has been maintained, that is, In Khenish Itavaria, the Code de Commerce is cqually in force. In a aimilar manner, the distriets which formeriy belonged to I'russia, such as the principalitles of Anspach and Balrenth, Incorporated into Bavaria in 1803, have preserved the Jrussian legislation. There are, therefore, none but the ancient provinces of llavaria which are governed by npecial laws. 'This legislation, in what concerns commercial right, is extremely imperfect. In most cases, it is true, the defect le supplied by the common law of Germany and ly the clvil law, but the documents most important and complete, are three statutes: the first known under the name of the statute for Bavaria of 24th November, 1780, extending to all the provinces of the kingdom by the laws of 11th of September, 1825. The two others, that of 1778 , for the city of Augsburg, and that of the 16th February, 1722, for the city of Nuremberg. We find in these three enactments regulatione not only in regard to bills of exchange, but respecting inerchants, brokers, partnership, and factorage.
5. Belgium, Kingdom of:-The commercial code of Framce, without any moilitication, has continued to regulate affairs of commerce in lielgium ever since the year 1811 , the period at which a political separation between the two countries took place. The same judleiary organization has been in like manner continued. The single exception is, that a law has been enacted in Ilelgium ( 25 th March, 1841) ordering that the trlounals of commerce shall give tinal judgment in causea that may ceme before them to the ameunt of 2000 francs, whereas in France the law of the 25th May, 1838, fixcs the competeney of the tribnnals in the first instance at 1500 france. Royal edicts have named comminsions charged to prepara projects of law for the rovision of the legislation in regard to bankruptey, ниspension of paymont, partnership, civil or conmercial insurances, writs of captim, mortgage seizure of real estate, accounts of law, expenses, marriage contract, possession and division of property. A law has been in progress on the proper interpretation of article 4.12 of the Code of Commeree. It was discussed in the Chamier of IRepresentatives in the session of 1842, but was rejected hy the Senate.
6. Brazil, Empire of.-A commerclal codo to which that of Spain has aerved as a basis, has lately been laetued, but not being yet in our possession, we refer cur readers to article Brazit.
7. Bremen.-Theugh the city of Bremen was one of the first in the anc!, nnt Hansestle League, and is atill among the most important sea-ports in Germany, Ite commercial legislation is extremely defective and Incomplete. Statutes and legislative enactments hearing a very remote date, have fullen entlirely into desuetude, and causes are determined either by the common law of Gernuny or hy that of neighboring legislations, Hamburg, ete. Commerclal disputes are determined by the tribunal of commerce, as In Inmburg. Bremen names tipo deputies to the Supreme Court establishad at Lubec for the four Hanseatic Towns.
8. Rrunswick, Duchy of.-The city of Bronswick had formerly celelirated fairs. Shs obtained at an early period a special ordonnance in regard to exchange, which, renewed on 1st Aug ${ }^{-}$, $\mathbf{1 7 1 5}$, and afterward extended to the Duchies of Brunswick and Brandc? bourg, was still the law of tr, State untib the law for bills of exchange for all $\qquad$ 'ony came Inte force. Another ordinance releting ow asakruptcy, of date 26 th March, 1823, is alrost the only document of a commercial character to be tound in the duel $y$; for wlth the exception of some recenc decisions in the Court of Appeal of Wolfenhottel in regari to mercantile acconnta and fuctorsge, and whose simple olject was to give the force of law to usages alresdy established, other enactments lave been of a deacription so purely of detail, without bearing directiy on commercial legislation, properly so called, that it has been thought unnecensary to to more than refer to them. In the Duchy of Irunswick commercial causes are determined hy the ordinary tribunals.
9. Cracove,-The conmercial code of France, of which an almoet literal transintion was made for the use of Warsaw, has not been officially reparied in the new kingdom of loland. It mppears unlikely, however, that legislation of French origin will be permacent in thia country. In the city of Cracow the cole just mentioned atiil maintains its authorjty. It in also in fore throughont the Grand Duchy of Warsaw, having been introdnced in 1808; Cracow at that thme forming a part of tho ducliy. Only one alteration has lueen male in the colle, namely, that wich authorizes the notaries and the juiges of the court to affix their seals to the piroperty renl or movabid of a bankrupt, and to deternine the dividend paybhio to the respective ereditors. Commerelal affairs have no apecin] trilinnal. They aro darried before the orllinary conrts as well in first instance as in cases of appeal. Three lawg, the one of 15 th Octolser, 1818 , relative to the puille exchange (la llourne), and the eorporation of merchants, and the other two of the 1 ot March, 1821, and 19th May, 1833, on the frcedom of commercial tranametions, and on the reatriction to which in certain cases they may be lindle, are not of sufficiently general interent to have a juse given them here. There are certain articles of prosiuce anljected by the Senate to a tarifi, in which trading in not considered as a part of commerce, and only legal process of a civil character in allowed.
10. Inmmark.-The enactments relating to commerclal Jnriapruience in Denmark are not ut all numerous. In matters of exchange the ancient ordommance of 1768 , has beet replaced by a later net of laginfature of 18th May, 1895 , which mopeala all preceding deeds with the execpution of that of s6th dume, 1824, relative to some partieular branches of the law on hille of exchange, the reseript of 22d March, 17 tib, and the proclamiation of 8th Nuvember, 1799, In whiteh are found reycitationa for billa upon the Weat Indles. The marit'me law of INenmark constaine $\ln a^{\prime \prime}$ = sude of Chríclan $V_{\text {., }}$ l6ss, contlanes atlll in force. We
should have confined ourselves to an analyois of these regulations which possess only a historical Interest; but we have folt the propriety of joining with them ara analytio view of all the later enactmenta and laws which have served to complete, at this day; this anclent monument of maritime jurisprudence, and which wa are enabled to present by the ansistance of the excellent abstract of M. Poehis. As to bankruptcy, there exista no law which gives precise and fixed rules. Ordonnances of very anclent date, the meaning of which long custom has determined, constitute, on this mobject, the legislation of the country. It would have been a matter of great difficulty to give a copy of these had not a valuable document, due to the labors of M. Orstedt, Attorney-General in the High Court of Copenhagen, and generally intended for the use of the French Consell d'Etat at the time of the iliscuasions on the profot de lol on bankruptey (published 28th May, 1838), easbled us to present an sbstract which wili be found as exact as it is substantial and well arranged.
11. France.-France had, under the admiaistration of Colbert, united, or rathor codified, ber commercial legialation, anil coliected in the two ordinances of comrerce and navigation of 1673 and 1681 , their principlea, uanges, and customs. Yet the want of a general code of lawa was seriously felt untll, with the entire reconstruction of her political institutions, Napoleon ordered the compilation of codes which, within a ahort period, were jresented and adopted. With seme unimportant modifications, they are still the basis of French juriaprudence. With regarl to the alministration of commerchal law, the following is a summary of the report of the Minister of Juntice for the 3 ear 1846, which deserves detentive conslderation :- ? ? ribunals of Commerve.-Conmercial affairs ure ndjullicsted by 220 apecial tribunals of commerce, established in the most commercial departments, and by 170 civil tri. bunals, which are charged to take cognizance of the asme in the other departmonts. In 18.16 there were Introincel 207,279 new cases before these 8100 c.ibunals; 177,446 have been brought before the 220 special tribunals, and 29,833 only before the civil tribunala, tuilging commerciaily. In 1845 only 191,687 cases wero enrolled in the 890 tribunals; since $18: 15$ the number has incrensed 38 per cent. On 31at Decenbe:, 1845, there remained 7,932 cabes to be adjudicated; ;, 864 cases which ware conshderel as terninated by compromise or abmaionnent, were brought before the court in 1846. These, united to the 207,279 new caspa, form a total of 219,039 camen to lee aljulicated. Of this number 59,323 have been adjudicateil contradietorily, and 115,308 by non-appearance; 4009 have lieen allimitted by the tribnnal_ to arlitration, and 32,705 have been erased from the register as terminated hy compromise or abanionment: 7678 only were left unsettled on the 81st lecember, 1846 , or harily 34 per cent., while the civil trihumats left unsettlod at the same apoch 26 ner cent. of the divil casec lirought before them. Of the 174,641 adjudiations rendered in 1816 by the trilsunain of commerce 34,669 only, harily one fifth, were susceptible of appeal. The npecial tritunals of commerce have 1 court and I president only। the number of juljea variea from 1 to 10, and that of the surrugates from: 2 to 16 . The tribunals of l'aris and lyons have eath 10 judgen, and of anrrogates the first 16 , the secomd 6 ; 8 tribumals heve 6 julgon and 4 to 6 surrugates; 1 only has 5 jadgee and 8 surrogates; 96 have 1 jodges and 2 to i surrogntes; 106 hayo 3 juiger and 2 to 4 surrogatea! lartly, 7 have 2 juigen and 2 surrugates. In 1810 the tritunals of connueree of l'arlm had disjutched 66,276 casen, or more than one fourth of the gotal number. The tribunals of conmerve which have dinpatchad most eases after that of Paris, are thowe of I.yor, 0811 ; IRouen, 4914 ; Marseilles, 4296 ; Boreaux, 4137; Toulouse, 8728 ; thut of Liungen,

2307 ;
$2307 ; 21$ othor tribrunals have adjudicated upon 1000
to 2000 cases; 11 triburals composed of 3 to 4 judges have diapatched csch 50 per year, and 16 others have terminated from 50 to 100 only. There were renilered, in 1846, $\% 40$ sentences by arbitration in disputes between partners, 169 of which with the esalstance of $n$ third. The greffiere of the tribunals of commeice have received the deposit of 2724 partnershlp duds, of which 1980 in colleetive names, 450 in commandite, 235 by shares to mominated persons, and 41 by shares to the bearer, 89 anonymous partnerahipe, have been beaidea authoriaed by regulations of pablio ariministration; in all, 2747 partnerships of every kind. The greffer of the tribunal of the Selne alune has raceived 869 partnership deeds, almost the third of the total nurmber. On 81st December, 1845, there remsined 5964 bankruptclee to be liquidated. In 1840, 8795 new ones were openel; 3606 only have heen terminated, and 6153, or almost two thirds of them were left unsettled at the ond of the year; 1612 bankruptdea havo been tarminated by compromise; 1031 by liquidations; 820 have leen closed by insufficiency of capital; lastly, there have been declared 134 judgnents of bankrupteies. The tribunal of commerce of the Seine has terminated 896 bankruptcles $\ln 1840$, that of Reuen 193, of Lyons 181, of Bordealix 60, of Marseilles 51. The passive debt of 356 bankruptcies which terminated in 1846, by agrecment or liquidation, did not exceed 5000 francs; it varied from 5000 to 10,000 in 441 bankrupteles ; from 10,000 to 50,060 in 1269 ; from 50,000 to 100,000 francs in 270 ; lastly, it exceeded 100,000 franca in 307 . The amount of the active debt of 2948 bankruptcies liquiduted was $51,-$ 819,891 francs ; namely, in estates, $19,855,111$ francs ; and movables, $81,964,280$ francs. The totni amount of the pasaive debt weas 143,544,671 franeq; murtgagod debt, $19,257,540$; privlleged, $3,901,637$; and ordinary; $120,385,404$ france. The loss borne by the ordinary creditors was, on an average, 76 per cent. The dividend obtalned has been more than 75 per cent.; in 84 baukruptcies 51 to 75 per cent. ; in 62 from 26 to 50 per cent. ; in 59410 to 25 in 1228 ; and 1 per cent. in 412. In 185 hankrupteles the ordinary creditors have reseived nothing; the assets having seen absorbed ly mortgaged and privileged cred?ors. Laatly, the dividends of 78 bankruptcies temminated by compromise have net been, inclicated, an tho assets could not be reailzed immediately. Court of Appeal.-In commercial matters the number of judgneuts susecptible of appeal have been in $3840,34,569$. 2511 appeals were made, namely; 7 appesls for 100 judigments less than in civil matters; 1777 appenls only were adjucilcated upon, 1212 judgments ( 68 per cent.) have been confirmed; 1565 ( 82 per cent.) modlfied in whole or in part; 602 appeals have been negativerl. Connt if of Prudhommes.--68 cuuncils existed, 4 of which did nat sit in 18i6. The 64 councils have had on hand $21,25 i$ caves. The parties have withdrawn 3153 easca lefore they were settied; 16,140 have been conciliated; 1:62 remitted to tha bureaux-general, and 196 to the julge of pesce.
12. Fromlfort.-The anclent ordinance of Framkfort (26 May, 1739) relative to varlous points of cammercial law, such as partnership, commission, and brokerage, has always continued in force. 'The Netuato haid in 1811 propared a proloet ahmilar in groat part of its provisions to the French collo, hut wilich, from national feellige, was not ailoptel in 1814. In 1827, a new project of a code of commercial law was published, for the purpose of belng aulmitted to jurists and to merchants. This project, however, has not hitherto received any legiaiative aanction; so that the ordinance of 1790 still remains as law. There exists in Frankfort no special juriadiction for commerelal matters: they are brought befure the ordinary tritunals. There la a court of appeal, a munleipal court, and a municipal or teritorial balliwlek. The aupreme
court of appeal sits at Lubeo. Its jurisdictlon extende to all the free cities of Germany.
18. Great Britain.-The mercantile law of England Is ahnost entiroly fouruded on what has been experienced to be most conducive to the welfare of soclety. Its origin is derived from many sources, while ancient commerclal enactmente were the basis of our maritime law. With the increase of commerce and general aivancement of the natlon, mercantile law grew in importance. Promisaory-notea and the banking aystem were placed in their present state during the reign of William and Anne. Numbers of judges fullowed, whose commanding intelligence formed an epoch in the annals of Jurisprudence. The names uf Juatlee Ifale, Lord Mansfield, and Lord Stowell, are rendered fumiliar from their being constantly referred to in the adjudication of the moat subtle arguments on commercial law. Most of the cominercial law of Great Britain is included in the cominon law; jut lately various enactments have passed consolidating the bankruptey law, jolnt-stock companies, etc. The law of Scotland differs materially from that or England in cuntracts and bankruptcy. The mercantile law of this country is entirdy included in the civil law, of which Erskine, Stalr, etc., are the leading writers.
14. Greece.-Since the erection of Greece into a sovereign and independent State, its government has been engaged in fixing its laws and digeating the various codes. The civil law is atill determined by the manual of Hermunapol, the lateat compilation of the Byzantine emperors. The commercial code, which is but a textual repctition of that of France, with a few unimportant alterations, has heen In force since 1st May, 1835. These altevations consist only in the suppression of Artleles 615 to 630, relating to the organization of tribunals of commerce, in place of which there is the law of 1834. To complete the documents relative to the commercial code, we shall say that the law of 14th May, 1835, re-established tios regulations of Arts. 631 and 641 of the French code, which at flirst had been supprossed. It is interesting to remark that the adoption of the lirench code was anterior to the Greek revolution; Inasunch as $\ln 1821$ it had been twice translated, and the merchants of Greece had unanimously adepted it. It was for the purpose of coufirming this volutnary preference that his majesty Otho, by a royal declaration of May, 1835, gave the force of law to a translation executed by his command, and now acknowledged as the nole official nuthority. As to the judleial organlzation, it is simllar to tinat of France. There is nn innovation, however, wheh is of some practical utility; thls is the being obliged to choose a jurist as president of the tribunal of comnierce. All the articles of the commercial code are the same as the regulations of that of France, with the exceptlons of the modifieations duly noticed.
15. Hamburg.-Though the commerclal laws of linmburg are now of old date, and have frequently, particulaily in later years, been sought to the suimitted to revicion, yet going back, as they do, to the statutea of 1603 , and supplied, when defective, by enactments of greatly more recent date, they demand our notice; and the moze so that they regulate matters not only in Ilamburg fint in the neighboring eities, such as Bremen and Lubec, where, properly speaking, there exlat no commercial laws whatever. Thu emetments most recemily nuade in regard to points embrace $i$ in the commercial codo of France are the fullowing : sucrnetment on the subject of brokerage, of 15 th December, 1824 , and another on partucrshij, of 28th December, 1835 , the lattor, however, lasving only for its ohject the deposit and pulilication of partnership deeda. The statutes of 1603 , relative to mercantile books, have not been repealed hy any later enactment. The law on bills of exchange la now similar to that of I'russia. The regulations in regard to maritime conmerce
are atill chiefly borrowed from the atatutes of 1603, As they have been modified, however, by several more recent enactments, we have a siled ourselves of the work of M. Poehls apon this subject. These wilt be found also In the proper place-the regulation in regard to maritime insurunce of 10th September, 1731of great importance to one wishing Information, and remarkable for the completeness of its details, IVankruptcles, befote the trilunals of commerce (a procedure which does not exist generaity in Germany, where in cases of failure the process for a settlement between the partiea is carried to the civil courts), have been regulated by an ordinance of 31at At; uet, 1752. The commerclal jurisdiction and competency of tribunals of commerce had been fixed by the law of 15 th December, 1815 , which appointed a tribunal of commerce at llamburg for all conmercial nffairs. Prior to 1810 thene wure carried before the administrative authority, or before the Court of Almiralty when the affinir was of a maritime character.
16. Hanocer.-There extsted, accurately speaking, no commercial legislation in llanover till the period of the Prussian occupation in 1801. Immediately after this the Prossian code was introduced into the Laniliages of Ileldesheim, Verden, Ifaya, Diepholtz, Osnaliruch, and Lenjar. A royni obdinance of George IV., dated 23d July, 1822, contirmed it. It is still the existing law. In the other parts of tho kingdom there existr, with the exception of the repulation in biils of exchange, of the ame date ( 233 d duly, 1822), no law whatever, learing on commerce. Actions are determined by ueage and common law. The new pena: code adopted in Hanover, 1810 , flxes the penalties extablished in cases of bankruptey. All commercial differences are brought before the ordinary tribunabs. In most instances, however, they are terminated ninienbiy by arbitrament, or they are decided by the municiphl court which onduins nccording to common law, or, otherwise, acts in the capacity of a court of equity.
17. Hayti, Republic of.-The republle of IIayti has had, since 1828, its coles in nniformity with those of France. The commercial code is throughout the same as that of France, It was pubished on exth March, 1826, and has been urted upon since 1st July, 1827. The other codes, those relatiog to civil and commercin! procedure, penal and rural, form tagether, with the civtl and commerciai corter, one thedy of law, dated the 25th year of Independence, und priduced by the labors of M. Hianchet, a distinguished member of the Parisian bar.
18. Hesse, firamd Juchy if:-The lirench code has been maintained where it had been introduced at the time of the French occupation in the Ihenish provinces. With regani to the other provinces such as Starkenburg and IIesse-Superieure, commerciat legfalation is regulated as much as possible in conformity with the Fremels faw, with the exception of the town of Offentach, which had a apecial ordinancen on the exchange, of date fth March, 1829 , the same as that of Frankfort. There are me trilomals of commerce in the firand llus!y; commerchal disputes are atbuitted, as in most parts of Cermany, to ordioary triburala.
19. Hesse Electurate. - Three ordinances only, and of very oid date, exint in this sitato on commercial matters; the firnt, of lith May, 17 ti, , ha hankruptien; the recondi, of 21st Novemier, 17Ns, on part nershijus ; the thiri, of 1 tth lecember, $1: 36$, rorcerning commercial twok Although these three ordimancen merve oniy to estatilsh primejples siready recognized, and contain onily a very limitei number of jrovicions, yet we have thought it necessary to ruprotuce them. indejendent; of these ordinames, which wre fir from forming a aufficient lonty of commercial law, they generaliy refer either to the Fronch conde which has heen in force for mome thue in this rountry, or to the common law of Germany.
20. Holland.-The code of Itolinnd came into oper-
ation the 1st October, 1838. It passed under a sevese ordeal, and it was delayed through the revolution which caused her separation from Belgium.
21. Hohenzollern-Hechingen.- (Principalities of Siegmaringer and Llchtenstein.) These States have no general procedure for commercial matters ; the diaputes arising on them are adjudicated by the ordinary tribunals. The principality of Llehtenstein la governed, for commercial mattern especially, by the laws and ordinances of Auéria.
22. Ionian Islands,-The French code of commerce with n small number of modifications, most of which have been borrowed from the code of commerce of T'wo Sicilies, has recently been introduced In the United States of the seven lonian Islands, which form an aristocratic repreaentative republic under the perpetual protectorate of England. A decree of 16 th March (26th February), 1841, abrogated ail the laws, statutes, regulutions, general or local customs, the requirementa of which are cuntrary to the present code which cane in force on the lat May, 1841. At the sume epoch of 1et Msy, 1841, the other codes of civil and criminal procedure, and the penal codes, had been promulgated; they are drawn up almust in the samo spirit and system as the French corles.
23. Lombardo- Veretian Kinjdom.-The French code of commerce has been almost entirely preserved in the Lombardo-Venetian Kingdom; only with regaril to bankruptcies they refer to the Austrian legisJation ; numely, to the ordinance of 1st January, 1782 , and to the more recent ordinances inserted mostly ia the ordinance for Western Gullicia, and lnter on in the judicial ordinance, for the Italian States of the Austrian monarchy. A transiation in Italian of the French code of cominerco has been recently pablished at MiInn, where thone provieions whicia havo remained in visor, and have the force of law have heen repreduced; these provisions have repiaced the lirench code, especially on bankruptcies. We have made use of this work is the most authentic compiation we couid adopt; and have aimply indicated the direct correspondence hetween them and the ancient ordinances or law of 1782 , and the ordinance of Gadicia, deeming this suffecient to show the various cbanges which have beeu made. Trieste follows entirely the Austrian legisintion, namely, the ordinance of 1760 on bills of exchange; that on hankrupteie of 1782 moditied by more recent inws, such as thint of Gallicia and others, and the pritical procimmation of Maria Theresa of 1tis3, on maritine conmerce.
O.f. Lubec (F'ree Toun of ).-Lubec, although a truly commercial city, does not, properly speaking, possess any hody of commerciat law. She borrows provisions relative to this matter either from the conmon law of (iermany from foreign leginlation, or from ancient statutee. The Stadtrecht, which is the foundation of the law of lubec, is not sutheient for the wants of commerce. Yet, with all the imperfections of the law, uttempts to fimprove it have proved nhortive. The political constitution of Lubec, which goes an far hack as thou midille ages, demamis, for the compilation or revinion of the daw, such minute ami complicated formalities that even the most indispensa bhe improvaments are intinitely long delayed. IVery project, in fact, after inving been elaborated hy a commisrion, and sulbected to the examination of the Senate, must to woccessively diacusarl anil approved by 4. $\boldsymbol{y}$ cieven coileges of tho llurgens. This mude of deUnerathing, isolated and multipiied, carries with it lengtisened anil incaloulabion didieulties, l'ractice very imperfectiy napplies lefects of the written law; because no regular jarispruclence can be extabilisited in a country where the infabitants terminate their differences chiefly ly arbitrathon. This is so true that in $1 \times 30$ the saprome court estalidished at lubec, for the 4 free town of (iermany, had to adjudicate only upon 4 appenta made by the citizens of Lubec. Nev-
erthelese, transmitte France, a of Lubec, from it. are furnlal chants, als there exist on commes time comm 90 method on bills of November, gust, 1823 , dure. The execution the righit of the third le ine whether of taking $p$ reproduction sary. Title is devoted te vislous are , that have ta foresee nor 1 actment of a subject, they burg. As f and uneerta chants denu apparently any improve pared in the Bucchoiz, a subnitted to more than 10 code in its at Third Book of still in force itors ulistraint more to indivi "Bourse" of Ifamburg, for iic funds. affairs ure sul ferent degrees 25. Lucca, 1840, declares continue in fo 26. Luremb of commerce Luxemburg. 31 Aprii, 1817 it suppresses that commere ondinary tribu
27. Mralta. application of of fixity, whice Their only gut rine," of 1681 Corde, or "Pra (which is ont 1784, of the (it name of "Mul general authe given, procha govermments Malta, and in have introdue pradenco in equily. The generally allop tribunals. 'T, commerdal us published by
ertheless, M. Herbert, the French consul there, in 1841, transmitted to the Minister of Foreign Affairs la France, a remarkahle work on such legislation as that of Lubec, that we think proper to give some extracts from it. Through his care and enlightened zeal, we sre furnished with some valuable documents on merchants, also, on commercial books, brokers, on whom there exista a regulation of the 26th Jme, 18z2, and on commerclal jurisdiction. With reterence to maritime commeree we have followed the irestise of Poohls, so methotic and complete. The St. odtrecht is silent on bills of exchange. Tho tnree ordinances of 14 th November, 1669, of 5th March, 1738, and of 20th August, 1823, contain only provisions of simple procedure. The first prescribes some measure for prompt exceution in matters of exchange; the second declares the rifht of appeai, but nor its suspe: an powers; and the third leaves to the tribunais $t$. sculty to examine whether a permission may ${ }^{\text {' }}+$ ! $\cdot$ ven to tho natives of taking proceedings in matter's of exchange. The reproduction of these texts did not appear to us necesasiry. Title IX, of the Third Book of the Stadtrecht is devoted to commercial partnerships; but their provisions are not in conformity with the dovelopments that have taken place which ancient law could neither foresee nor regulate. Thus while expecting the enactment of a law on bankruptcy, and bearing on this subject, they are guided by the regulation of IIamburg. As for bankruptcies, the subject is so obscure and uncertain that it is now fiity years since merchants demanded somo regulations; but difficultics, spparently lusurmountable, have hitherto prevented sny improvement. Still there exists a project prepared in the name of a commission by tho Syndic Buecholz, a llistinguished jurist. This project is to be subnitted to the Senate. It seems that it is composed of more than $\mathbf{1 5 0}$ Arts. and that it approaches the French cole in its spirit and as a whole. Tise titlo I. of the Thirl Book of the Stadtrecht contains some provisious still in force (the rights of creditors privilegenl, creditors listraint, ete., etc.), lut which have reference more to individuals in general than to merchants. The "Dourse" of labec is reguiated entirely by that of lLatuburg, for the course of exchangs, money and public funds. With respect to jurisiliction, commercial affairs are sulmitted to the civil tribumals of three different degrees, of which we will givo some details.
25. Lueca, Duchy of:-An ordinance of 6th May, 1840, declares that the French code of commerce shall continue in force in the Dnchy of lucce.
26. Luremburg, Grand Duchy of $f$.-The French code of commerce has not ceasel in the Grand Duchy of Luxemburg. Simply a decree of King William, of 3d April, 1817, modifies the articles 615, 640, nud 641. it suppresses the triburials of commerce, and it orders that commercial disputes shall be aljulicated ly the ordinary tribunal.s.
27. Ifalta.-Much confusion exists in Malta, in the appication of the laws in regard to commerce; a want of firity, which gives occasion to constant complaints. Their oniy guides are the "Ortonnance of French .Marine," of I681, and other old authorities, such as the Code, or "Pragmatique," of the Grand Master Manoel (which is only subsilharily in force), or the code of li8t, of the liramd Master de Rohan, which hears the anme of "Manicipal Law," and is st present a very gencral autioring. Subsequently to the date last given, irocianations emanating from the different governments which havo atucrecded each other in Mafla, and in partleuiar that of Britain, since 1800 , have introduced or remodeled certain rules of jurisprudence in regard to varibus poiats of commercial equily. The result has been a sort of common law, generally adopited in praclice, and auted upin ly the tribunals. To promote tits olject, a coliection of alt commercial usuges in the form of a manual, has lieen jublished by gentlemen of the legal professlon; it
bears the title of "Compendio ii Diritto Commercials Mallese (Malta, 1841)"-Compendium of the Commercial Law of Malta. This collection presenta an abridged view of the principles of Maltese leglslation and jurisprudence, in the absence of any thing like a regular syatem of commercial law. It is a subject of regret that the English government has not followed up its plan in giving a code to the Ionian Repablic by promnlgating a olmilar one in Malta. (We understand that the civil code for Malta is already prepared and printed.) On the subject of bitls of exchange, the want of legal arrangements has been pecularly felt. In the mean time, the regulations in regard to haritime commerce, borrowed chiefly from the French shipping law, enter much into the necessury detaila, and form the principal part of the commercial law of the island. In the matter of bankruptcy, the ordinances of 1815 have established certain principles which, in the form of procedure especially, have been only imperceptibly modified by later enactments. These regulations trent hankruptcy as in England-Chap. XVI.-in which it is stated, that ahonld eny difficu]lies occur in regard to procedare, reference should be had to the luw of England. The judiciary organization, which dates from 1679, was terminated by the constitution of 1814. The maritime consulship was then reformed, and the name of tribunal of commerce linposed. Regulations were at the same time enacted for its auitable efficiency. The commercial code so many years under consideration, was revised by the council in 1847, on the recommendation contained in the ahle Report of Androw Jameson, Esq., Advocate, Sherifflepute of the county of Edinburg. A commission was nlso named to revise the code of civil procedure, intended to remove many obstructions and delays in the administration of justice.-Parliamentary Report, 1849.
28. Mecklenburg-Schverin, and Mecklenburg-Strelitz, Duchies of.-There exists in theso Duchies no peculiar law relnting to commerce. The ouly authority throughout their respective provinces is the common faw of Germany. Rostock, however, has a municipal law peculiar to itself. A decree of this city wns passed, 19th December, $18: 27$, relative to bills of exchange.
99. Molena, Duchy of:-The duchy of Modena has no codo of commerce. Heference is made to the opinions of the most celebrated writers, sucl: as Casaregi and Ansalito, und still more to Azuni, lhaldasseronl, and Cassiani. In the absence of legislative cnactment, in regaril to commerce, the civil code is alao most frequently appealed to, which in commercial differences alone permits to net by exccutory process.
30. Nassau, Duchy of.-Till the present period there existed in the Duchy no baw relating to commercial rights, anil the ordinance of Frankfort on bills of exchange was the sole antiority. The government has, thowever, recently promulgated the project of a commercial code, extending to every subject that might lie contemplated by it. This project, which has been aided liy the valuabie co-operation of Messrs. Yolpracht ind llertram, is in a great measure a repetilion (as to the text nlmost always so) of the regulations of tho conlo of Wurtemburg, of those of the ordomnance of Staxe-Wrimar (20th April, 1819) on bilis of exchange. Though the above $p$ yjet has not yet been discussed at an assembily of the States, there is every probahility of its being notopted in its present form, at lenst without any whterial alteration. We have accordingry inserted it in dine orler.
31. Nomus.-Civii und commercial legisiation remain in this country the same as ln Ibenmark. Ita union with Sweden, in 1814, pruluced no nlteration. T'wu laws ouly were carriel in the last Storthing (Darliament) in 1842. The tirst, of date th Atigust, on hifls of exchange, given in its pioper place, tirg second, of 99 th June, and which has received the royal assent. This law, however, belug merely a rep "tion on the right of engaging in commerce, which it limits, with
very few exceptions, to the citizens of commerclal towns, we regard as net coming within the legal department we had assigned ourselves; we therefore omit it. There was recently in force a regulation in regard to exchange of Copenhagen, 16th April, 1681, as presented hy M. Nonguler. Thls regulation has been replaced in Denmark by the law of 28th May, 1825. In Norway it has hitherto undergone ne alteratiun except those of the recent law of 4th August, 1842.

The maritime law of Norway is the same with that of Denmark. The code of Christisn, promulgated in 1683 in Denmark, and in 1657 In Norway, is stlll in force.
32. Parma, Placentia, and Guastalla, Duchirs of.-The commercial code of France, which had been introducel Into these duchles, still continues in force. Only the clvll code of Parma contains regulntions in regari to bills of exchange. These remain the sole distinguishing documents of commercial clisracter.
33. Portugal.-On the 18th September, 1833, an ordinance of the King Don Pedro sanctloned a code drawn out by a jurist alone, and which, derived in great part from the Spanish ond Dutch codes, has taken from them the most enlightened provisions, and added others, especially on the institntion of the jury, for commercial matters.
3I. Roman states.-The commercial code of France, suppressed in 1814, when the French ceasel to oceupy the Roman territory, has, notwithstanding, atill continued in force in some of its provinces, and in 1821 was furmally re-estahlishel thruughout all the Papal States, by all edict of liv. VIl., under the title of Provisional Law of Comnerce. Certain moditicationa, however, of minor importance, and which were to remain only until the completion of n new code, were introduced. This cole has not yet uppearel. The edict of 1st June, $18 \% 1$, contains, moreover, several enactiments whical have for their oliject the leetter organization of tribunals of commerce. In regarl to this point, however, "a legislative and judicinry regulations of 10th November, 1834, contalns, in sections "hree and four, new provisions. The declsions of the tribunals of comnerce may be carried before the ordlnary courts of appeals. The net law, however, has not revoked a papal statute of date 27th February, 1830, reetentablirhing a court of appeal at Ancona, anil of which wo have alsn given a transtation. The edict of 1nt Iune, 1821, contains, tuesidew, different juliciary enactments, several of which have been borrowed from the knglisla corle of civll procelure. Into the examinatua, thase we felt it unnecessary to enter, the grater part incing presented in the new legislative nuo judiclary law.
35. Russiu.-As eady an in 1700, Peter the (ireat conceived tha hea of collecting all the ukases pulslished siace :'se culd of 1649 , but co-operation was wauting to carry it into practice. Neholus completed this inipurant undertakhig. 'tbe sorod was pubilished with the ulame of 31st January, 1826. It is a complete digest where the old Jaws ara inserted, yet conforming them to the r rogress of lagislution ant Furopean civilization. The commarcial part, forming the 11th volume, occupios an important place; it includes more than cow articlen, and it contahis very remarknbe provisions, such as demonstrate the customs and usage of the lahabitants of this vast empire.
86. Nerdenia.-Ifter the events of 181., which placell upin the throne the present family, the anclent laws puthlished in 1703, an impresmion of which, with numerous additional provisions, had beent published hy King Charles Finmanuel Ill., the Tth April, 1770 , were re-established in Sardlnia, Savoy, and l"iedinont. They remalned in force as to commerciul matters until the jronsulgation of the now comle of commerce, which came into operation the Int Jaly, INAS. The city of Genoa slone has contlnued to be regulated by the French code sizee the liestoration, the exligencles of
this commercial port requiring the application of a more modern legislation, and one which weuld be in harmony with the la we and custome of other nations. The same motive has arged the enlightened governments of Sardlnia to endow their country with new and more uniform provisions by publishing a code of commerce, The new code of 1843 follows entirely the French code, taking into careful consideratlon the laws voted for Its amelloration by the French Chambers in 1817, 1833, 1838, and 18.11. It has done nore; It has almost slways resolved any dificulties that have arisen in the practice according to the sense and juidgment of the Court of Cassation, and often made reforms which experience had proved to be necessary. Among the various innovations introducel, it is neeessary to mention that minors and females whan the clvil Sarillinian code-the same as tho Macedonian and Velleine stutus consultus-considered as incapteitated to act for themselves, are, as regards the exercase of commercial profession, Independent ; which modificstion was certainly Indlspensable; adding also to the No. 6 of the French law in conformity with their ju-
risprudence, a presumption of the consert of the husband when the married female is engaged in trade. The code intrusts to the tribunals of commerce the in upection of books of commerce; it prescribes precautions already specified in the projects of law presented by the Garile-des-scealux, bufore the Chanher of Deputies, the 15th Februnry, 1838, with a view to put an end to the scandalous speculations of partnerships in commandite; it relieves partners from foreed urbitration, and makes it optional, as in several momern codes ; it dedicates a fourth book to this important matter, under a spechal title, in conformity with the provislons of our cokle of procedure; and it replac ss the entire section of the French colle whleh treats of disputes between partners, with most valuable provislons in the functions of the llyuldators of partnerships. The exchange agents nre, as the notaries in France, reaponsible for the slgnarures to bills which they negothate when signed in their presence; their books, and those of brokers, furm evidence of agreentents among parties. With reference to bllts of exchange, those drawn by the States of the king In a forelgn country; may be signed liy any person who may lie subjectel to imprisomment for non-payment, without distinction of rank, but, for inland bills, merchants alone may be prosecuted commercially; and it is further necessary that the bill shall not lie drawn by order and on account of a third, in which case they are only deemed as simpla promises The endorsement, after the bill trecomes due, and the security giver, by a person not engaged in trade, do not constitute procuration. It is worthynf remark that Sarillnis has adopitell the same metrienl aystem for distances and mensurement as in France. The secund book relatlve to maritime comancree contains only regulations amalogous to the French code, with the exception in reference to the sale of rhips, which must be made by puthice act, under penalty of nullity- it prescribes alsa to the capain, express duty of ascertaining the good state of tho ship liffore going to nea; It enjoins on him to wateh with great care over the interests of seamen. lastly, hy the Art. 343 , § 1 , the negotiation of a loottomry-bond between persons not engaged in trade, produces the same effret as hills to order, and by the Xrt. 3to, any ronsention which should have for it object to discliarge the lender on lottoniry bond from the contribution to the rommon averugen, is uull. The regulations of the thirit hook on banakrupteles nre the sume as these of the Firnch law of 20th May, 1838. Simply they have aupressed the Art. 4.18 of the Frencll coile which declares null the inscriptlons of mortgages taken within 10 dava prereding the suspension of payment; unt, slas), they order the exposition of the names of all persons who fail at the hall of the tribunal of commerce daring the whole of their livea unless thay obtained a licease.

The treas the proced only be gi the accom nals have t judges oleo king. An in Surdinle (consulente counselor, stitution ha ject to gre consultore, t should pred rule the jud creation of bunals, who francs, nad not exceed 1 in disputes a of the Frensl imprisonmen fixes its dur submits to it exchunge, des results from of frauds, or There is not fore the tribu the cole of pr hsving been A diplomatle place Surdini ceptional posi ments rendere payment of th
37. Saxe-At Meiningen.-II commerce, onl Commetcial dli tribunals, and, law and usage Thus, for exam cipal guide to burg sind Saxe
38. Saxc- $1 / 0$ of Leipsle, whl virtue of a res ia force.
39. Saxe-IITe considerable de the proper distr cases of bankru ment in 1839 only to estublisi formity of rule, arrangement. brokerage, failn tions. The Pru parts of Germa common law. merce $\ln$ the 1 to remark, that, fair, which is an of June, a comn compesed of tw several merchar difference: that no commercial (place of exchat lisch city has I fairs hold in it.
40. Sarony, K ony are at prese cient legislation, As yet, however oven in the for

The treasury edvancer the prellminary expenses of the procedure. With reference to the lleenae, It can only be given by the Senate (court of appeal) after the accomplishment of many formalitiea. The tribunals have the same organization as in France; but the judges elected hy the merchants are nominated $1 \mathrm{y} y$ the king. An important modification has been introduced in Surdinia; es In Mexico, and in Spain; a lawyer (consulente quidiziale) is appointed to each tribunal as a counselor, but without a deliberative vote. This institution has doultless great advantages, yet it is subject to great inconvenlences, as If, for example, the consultore, through the influence of his acquaintances, should predominate In nill the deliberations, and overrule the judges. Another innovation consists in the creation of a judge, delegated eversj week by the trlbunals, who decides by himself all disputes below 300 francs, and judges without appeal all thiose which do not exceed 100 niunce. The appeal is admissible only in disputes above $\mathbf{1 2 0 0}$ franes, as before the enactment of the French law of 11th April, 1838. An article on imprisonment for delit has been added to the code; It fixes its duration in proportion to the sums due, and submits to it persons not engaged in trade for bills of exchange, drawn from or on foreign countries, when it results from maritime operations; nnd in consequence of frauls, or presumption of flight, and insolvency. There is net yet any regulation on the procedure befere the tribunals of commerce. The publication of the celle of procedure is shortly expected, the ministry having been oceupied with it for severnl years past. A diplomatle treaty of $24 t h$ March, 1760 , scems to place Sardinia, wlth respect to France, in a very exceptional position relative to the execution of judsments rendered by the Sardinian iribunals, and the payment of the security judicatum solvi.
37. Saxe-Attenburg, Sare-Coburg Gotha, and Saxe-Meiningen.-In these duchies there exists, in regard to commerce, only a very small numier of regulations. Commercial differences are declded hefore the ordinary tribunals, and, in general, by a reference to common law and usage much more than to particular statutes. Thur, for example, the practice of Leipsic is the principal guide to that of the two duchies of Saxe-Attenburg and Saxe-Meiniugen.
38. Saxe-Moldburghausen, Duchy of.-The ordinance of Leipsic, which was introduced into this duchy in virtue of a rescript of 11 th June, 1714, still continues in force.
39. Saxe-Weimar.-A number of laws, entering into considerable detail, on the sulject of mortgages, and the proper distribution and precedeney of creditors in cases of bankruptey, were promulgated by the government in 1839 and 1841. Their ohject, however, is only to establish, in regard to the intter subject, a uniformity of rule, such as is reculired in any other civil arrangement. For books of merchunts, partnership, brokerage, fallnres, there exist no other apecial reguiatiens. The Prussinn code ls foltowed, or, ns in other parts of Germany, actions are deciled by uage nod common law. There is no special tribunal of commeree in the firand Duchy. It is proper, however, to remark, that, during the contlnuance of the woolfair, which is annually held In Weimar, in the month of dune, a commission is named by the burgomaster, compesed of two members of the municipality and several merchants, for the parjose of dechiling upon differencer that inay occusionaily nrise. There being no commercial town in the Grand 1)uchy, no lourse (place of exchange) has been regularly estabilished. Each city has its particular regulations in regard to fairs hell in it.
40. Saxony, Kingdom of.-The government of Saxony are at present occupled in the revision of the ancient legisiation, and in completing it by new laws. As yet, however, there exlats no commercial code, not even in the form of a "projet." The tribunals are

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guided by anclent statutes and ordinances, whieh, where no enactments exist, are considered as poss $3 s s i n g$ unlform authority. Varlons regulations have passed In regard to brokarage. Thelr respective dates are 7th March, 1818, 21st Septemler, 1883, and 14th April, 1832. In regard to payments and bankraptcy, the only legal authority is the ordinance of 20th December, 1766, promnlgated in Insatia in 1783 ; this anawers, however, very insufficiently for the presant reqnirements of commerce, and government are preparing to replace It by new enaetmenta. The ancient tribnnal of commarce established at Lelpatc, by an ordinance of date 21st December, 1682, still exists, hut sirnply as a local court, and without any effort beling made to estnblish other trilunals upon a enmmon principle of judiciary organlzation. Such ls the present state of commercinl law in Saxony, to which the government are now endeavoring to apply a remedy. In addition to other means for this purpose, M. Einert, one of the most distingulshed jurisconsults of the country, has lately received an order to review the rocent laws, 80 aa to bring them still more into unison with the inereasing demands of commerce and industry.
41. Schtcartzburg, Rudolstadt and Schwartzburg-Sondershausen, Principalities of.-A" in the greate، number of the minor Stwe: of Germany, so in the above principalities, conmercial differences are brought hefore the ordinary tribunnls, and are decided upon according to common law usage, or even the laws of the neighboring States, Saxony, etc. The former ordlnunce of 1 st September, 1787, respecting failures, has been replaced by another of 1st December, 1885, on the same subject.
42. Nicilies, Kingdom of the Tuo.-The French commercial code was introduced into Naples the 28th May, 1808, when the throne was occupied by King Joseph Napoleon Bonapurie. The laws, having undergone a general revision at the time of the Restoration, a new code of commerce for the Two Sicilies was made public 26th Mareh, 1819. It forms one of the parts of a body of general law, arranged under the flve heads of civil, penal, and commercial law, and civil and criminal procelure. This cotle of commerce contains nearly the same ragulations as that of France, on the busis of which it has obvionsly been founded, and which long practice besides has sanctioned.
43. Spain.-In 1827 King Ferdinand VII, nomlnated a commission charged to frame a cede of commerce; and on the 30th May. 1829, a royal ordinance sanctioned the new code, which was to come into force the lat January, 1830.
41. Suceden.-lor hills of exchange in Sweden there ure two orilinunces, of 1st February, 1748, and 13th June, 1816. The text of them has heen given by M. Nonguier in his treatise. It appears, however, that these onlinances have been insufficient for the wants of commerce. Accordingly, on 20th May, 1835, there nppeared a new law regulating inland bills. This law, which in perfect in itself, and may be considered as the common law of exchange in Sweder, forms, with the orlinances nlready mentioned, an extremely remarkable borly of laws. In relation to inaritimo taw, a complete nccount of it, as it formeriy stood, msy he found in the celiection of M. Pardessus. 1le has given there the ordinance of 1667 , being an abstract of the Hanseatic Reces Marltime Consulate, etc. Numerous changes, however, have aince been made in this ordinance, certain articles havlng been retained, while others liave been supressed or modified. On the present state of the muritime law of the north, the work of M. Poehls may he regurded as of the highest authority. A law, very minute in detail, was is. sued in regard to fuliures, in 1818. This has been mere recently replaced by a new law of date 12th March, 1830, laving regard to some molifications made in it in 1835. In regnrel to justiclary organiza.
tions, it is sufficient to note that, generally, the settlement of commercial disputes devolves on the clvil tribunals. The only exceptions are proceeding rolstive to billa, or ariaing from disputea which may have arisen between ahlp-owners and the proprietors of the cargo, or the captalna, or between captalns and their meamen. Actlons in regard to these are within the competency of the munlcipal conrta. The same tribunala take cognizance of ordinary failures, If the bankrupt is noble, the case la brought before the courts of justice. To these also an appeal lies from the declsions of the munlelpal tribunals. When there Is room for appeal from an inferior dlatrlet court, it may be carried in the second Instance before a ouperior one; and in the third (finally) lefore one of the three high courts of the realm.
45. Suvizerland.-Each of the twenty-two Swies cantons is soverelgn and Independent, ruled by lts own laws. There exists, however, in the greater part of them, nu commerclal law whatever. Matters of commerce are treated as other affaire of civil life, with all the restrictlous and limpediments whlch have been the frult of muleipal legielation. In the Canton of Geneva, the French code, introduced provialonally after the cvents of 1814, seems nuw to poosess the mithority of definitive law. No chango has been made in It, except ia what regards the mode of legal procedure, delineated in the "Cods de Procedure," arranged hy M. Bellot, and promulgated 1st January, 1821. A law of 12th May, 1817, glving a new aanction to the Prench code of commerce, established those changes already adopted in France, and introduced into the art. 160 a provision having special reference to Geneva, namely: "The loss of right mentioned In the art. 160, shisll take place agalnst the hearor of a bill of exchange, at one or more duys after aight, or montis or usances after sight, drawn from the Cunton of Geneva, payable in foreign countrice, who shall not exact the payment or acceptance withiu the time preseribed by each of the prefixed dates." In the other French Cantons of Switzerland, the eame French code, though not expresaly enacted, is frequently, lu the absence of owher legislative authority, the guide, or is at least apprealed to as a rule of equilty. The Canten of Vaud has published a law on hills of exchange, the th Jume, 1819, which is chicfly extracted from the French code, und whiels has leen also
 Council d'Etat of the Canton of Vaud had prepared a report of a code of comnierce to be aulmitted to discussion, but it was rejected in 18.13, by the (irand Council. The Canton of Frithurg, in $1 \times .10$, prewented the projet of the first look of the "Cuhe de Commerce "" it has not yet, however, undergone disenssion. Lastly, Neufchatel has recently published some commerifil laws. The legislation in the German Cuntous is extremely imperfect. The least defective aystem of mercantilo law is that of Dasle, in which, in adlition to an ord nance on exchange, of 14 th Derember, 180 s , there are to tre found various rugulations in regarl to mercantile bookk, lirokerage (Etid llec., 18*2; "rill, JK0.\% and JN17) as well as mone old regulations (i:19) relative to the ranking of creditors in a cane of hankruptey. Tho latter also still retalif some degree of authority, und are therefore not without inijortanue, liecently, in the Canton of lierne, the discosmion as to the propriety of maintaining the codes of France in the Freuch jertion of tho Canton, seems to have fed the way to important reforms, having for their oljfect the revision, not only of these coles in certain articies, but of the cutira leglasution of the country. This içislation is composed of very anclent haw w, which conld net he lincluded in this work. The law on lankruptey, of 221 Derember, 1820 , contains aome very rencrkable provisions. The new civil code of Lucerne einliraces various reguiatlons on consmercial matters. Zurich ponsesses an ordlanance on
villa of exchange, of date 16th May, 1805. St. Gall, an ordlanace on the oume of 18 th July, 1784 , and a law of 11th October, 1832, on commercial accounts. Lucerne followa the ordinance on bilia of exchange of St. Gsill; Soleurs, that of Basle; and Eribury has the same law as Vand on billa of exchange, of date 24th June, 1829. In the German Cantons the defects of commercial law are auppled partly from the civil luw, but chiefly by usage. Commerclal disputca are determined before the ordinary tribunale. A law on bunkruptoy, of 18th May, 1818, for the Canton of Zug, contains some curious regulations in regard to religious eatablighmente, in faver of the bankrupt himself, who preserves the right of redemption over the sale of his real estate, und against his family in certuin cases. Thore etill exista at Bchoffenhausen a committee of commerce which traces ite origin to the year 1703; aimilar ones were to be found in several citics in Switzerland. Its memivers were elected from the inercantile body, and wero appointed to wateh over every thing that concerned the commerce of the eity. In 1805 it was erected into a tribunal of commerce for the declaion of all morcantile differences, It is much to be wished that Switzerland, especially in regard to commerchal affulra, were possessed of a common legislation applicable throughout the whole extent of the confederations. It is possible that the late reforms in the civil and the criminal codes of the Cantons individually, may lead eventually to this result. In certain cases, indeed, the Cantons have slready felt it necessary, minld the multiplicity of statutes and usages, to adopt certain nieasures of a general character, by federal conventions or concordats. Thas, in a case of bankruptcy, by the concordat of 15th. Iane, 1804, contirmed Xth iluly, 1818, every Swiss thioughout all the Cantens, enjoys, on ranking as creditor, the same rights with the inhalitiant of the Canton in whose juriadiction the bankruptey has been dedared, loth in regard to preferable and to ordinary claims, No seizure can take place of the movable proterty of the hunkrupt, except for the cominon interost. Thrae Cantons only-Schwltz, Claris, and Appenzell-n. fused their adhorence to this feteral ngreemen: their particular legislation seoms to oppose it. liy another concordat, ith June, 1810 , contimed Sth July, 1818, the Cantons have mutually decreed that all the effects of the bankrupt, whereser found, mist go into the general mass, without prejudice, meanwhile, to the clalus of the present holder. In the case, however, of the body of the creditors conteat ing either the property of deposits, or a mertgage or ownership aecurity situsted in a different Caston from that in which the hankrupt was domiciled, the claim must be carried before tho competent judge in that Canton, where the said effects, mort sike, or security, were foond. Ily virtue of art. 1t of the treaty of alliance between France and Switzorland, Frenchmen and Siwisa are respectively exempted, in pleading vefore the courts of aach other's country, from the obiigation to furnish a " judirntum anlci." The Court of Cassathon, !h April, 1807, and the Court of Colmar, 2sth March, 1410, have spechally determined to this effect; and the law may be considered as tixed.
46. Tunis.-There is no commerci.al law in Tunis, Ihage and particular articles of agreement direct the decision in those cases of dispute that may oceur hetween native traders. Bivery trader kneps a book in which he registera lis purchames and his sades. Tha native Musabluen and dows know no higher form of mercisntile look-keeping. Thory ars sew countries, however, where commercial probity is fombd moro prevalent. And though cases may weeur, in which the condidence of the creditor or the cquity of the judge are attempted to he worked upon, yet such are proportionably rare, whell compured with smilar instances smony nations where the written laws of commerce ara of a more definito and extended character.
47. Twr was destln thally eom of lts Inha advantage foreign tr atrangere, the privile, amount the sulmen an ©.fferences own intern law aecord! moet alway therefore, $t$ to mintters neem to bea tered throat sorts of law sanetity is together by lng religious collection of piled by ord titled Multel by Chevalle stantinople, $\operatorname{man}$ (interpr den. The volutnes $\ln 1$ of "Tablear eents an ace that vast em mercial matt rather to prit adapted to 1 right, proper of Ahmed-Fe mercisl code France. Th definitely def jurisdietlon $n$ actions in re nople and in the chief of douane), aide leading mere and frecmen. pressed in the aimiiarly alde merchants, $h$ all commereia that disputes peans, shonid nal withont and suliject o. of the emhass tire diplumati ixtry of eomn order of thing Grand Dounn vides as forme final. "A ca examined, di, be brought i ayainst all a nounces are The cuile of 1 their private in the tribuna of commerce $i$ stintinople. Arz Odassez, Grand Vizir $p$ before whom, are determined jects. 2. The
47. Turkey.-The geographical position of Tarkey was destined to form this rich country into an essenthally commercial power. But the natural indelence of its Inhabltants has prevented it from reaping the advantages which nature had laviahed on it. Their foreign trade is almost exclusively carried on by atrangern, who enjoy, by virtne of diplonatlc treaties, the privilege of paying dues of customs of amaller amount than those which are exacted from the Mussulmen and Rajpas, and possess the right, in cases of u'fferences with other foreigners, of appealing to their own internatlonal laws. The Koran is the commen law according to which canses among natives are almost always declded. It is no matter of surprise, therefore, that there exists no special law spplicable to matters of commerce. Those enactments which seem to bear the nearest resemblance to such, are acattered throaghont the general code-a collection of all sorts of laws; to which, moreover, the ldea of religions sanctity is attached, and which have been brought together by varions doctors for the purpone of regulating religioga services and pabllc administrations. The collection of highest authority is that which wan compiled by order of Solymen II., from 1520 to 1566, entitled Multeka Fhbar. This code has been translated by Chevaller Monrudja dI Hoasen, s native of Constantinople, of honorable Armenlan famlly, and dragomsn (Interpreter) to the embassy of the King of Sweden. The work appeared in France, the first two volumes in 1798, and the third in 1824, under the title of "Tableau General de l'Empire Ottoman," and presents an accurate exldbition of the laws which govern that vast empire. This cede centains a book on commercisl inatters, hut the laws embraced in it refer rather to principles bearing upon civil contracts, and sdapted to Musaulman manners, than to commercial right, properly ae called. Under the adminjatration of Ahmed-Fetchi-Pacha, In 18:39, a project of a commercial code was prepared on the model of that of France. The fall of that minlster, however, has indefinitely deferred lts putilication. As to commercial Jurisdietion not falling under the rule of common law, actions in regard to it were deterinined at Constantlnople and in the princfpal sea-ports of the Levant, by the chief officer of the custom-house (chef tle la dooane), alded by several assessorn chosen from the leading merchants of the place, Mussulmen, Rayns, and freemen. This court, however, had heen suppressed in the capltal, and the Ministers of Commerce, almilarly alded by assessors from the same class of merchants, have for some time taken cogniaance of sil comarercial affairs. It was the wish of the l'orte that disputes between Ottoman suljects and Europeans, shuuld be carried by petition hefore this tribunal withont the presence of any Furopean asscssor, and subject only to the interposition of the Interpreter of the embassador of the respective country. The entire diplomatic body' were opposed to this, and the ministry of commerce has been abolishel. The former order of things has now been reestablisleed, and the (irand Dounainr (the officer already mentioneti) presides as formerly in the tribunals. Its decisions are final. "A cause," says the religious code, " legally examined, discussed, and determined, can not again be brought into court, the law having pronounced agalnat all appreal." The judgments which it pronounces are not founded on any well-defined usages. The coule of France in generally the rule to which, in their private transactions, the Rayas, who hold a seat in the tribunal, are accustomed to defer. The tribunal of commetce ls not the only tribunal existing in Conatintinople. There are other three, uamely: 1. The Arz thdabsez, a supreme tribunal where formerly the Grand Visir presided, now the Chelk-ul-lslain (mufti), before whom, without appual, differences of every kind ara determined, save on cormmercial and maritime subjects. 2. The tribunal of the Cadlz; the Melikelim, a
sort of coart of paace or conciliation. 8. The court of the commandant du pert (governor of the harbor), Leiman-Odaasy, who, assisted by everal captaina, judges of all marlitime quentlona, Insurances, shlpwrecks, jettisons, etc. Commercial differences between the subjects of the Gravad Selgnlor and these of foreign powers whe are residents in the Ottoman empire, are determined aummarily in presence of an interproter of the legation, or of the consul of the natlon to which the foreign subject belongs, aometimes by the decision of the custom-house suthority, sometimes by that of the Pacha. In consequeace of forelgn treatles, every process involving a subject eaziveding 4000 aspres (about 8 francs each) may be foreed before the divan in Constantinople. This privilege, however, ls seldom made nse of. In cases of dispute between the subjecta of forelgn puwers, a decision is given by the censuls of the respective parties, assisted by merchants of both nations. The Turklsh tribunals decide on actions brought before them by the commentaries of the Koran, of which there are four in number, namely, as follows: the Hanafi, the Maleki, the Chafiy, and the Hambuli. These have never been translated from the original language. The Hanafi is followed at Constanthople and throughout Furopean and Asiatic Turkey; the Maleki, in Barbary ; the Chafiy, in Egypt ; the Hambuli is no longer used; the collection entitled Multeka Ehbar is known over the whole empire.
48. Tuscany.- The "Code de Commerce" has always, since it was introduced into the Grand Duchy; held its position as law ; and with the exception of the suppression of the tribunals of commerce, which, notwithatanding, have been continued in Florence itself, it has undergone no adteration of any importance. The article 117, however, of the judiciary reform of 1838, has annulled the regulations of article 51 of the French code, relative to ebligatory arbitration in matters of copartnery. An ordinance of 5th September, 1814, with a view to prevent the facility with which persons not engaged, in trade aign bills of exchange, suthorizes oaly bankers, merchants, snd traders, to draw bills of exchange. In cases when on such bills there should be the signatures of ethers chan merchants, the ordinance grants only a recourse against them through the civil procedure. Another erdinance of 23 d November, 1818 , prescribea certain measures proper to shorten the procedure in matters of bills of exchange. Lastly, a thlrd ordinance, of 20th December, 1824, declares that the words value exchanged, in bills of exchange, shall be considered as a true cause. We may also announce an important reaolution of the jurisprudence of the court of Tuscany, by which a failurn dees not destruy the provision of funds for a bill of exchange: a question much disputed in France, and which the Court of Cassation has adjudicated upon in a manner contrary to the juliciary decisions of the tribunals of Florence, by decrees of 7th February, 1816, 30th July, 1832, ant 20th March, 1841. We may add that the article 130, of the new Sardiniun code of commerce, contains a regulation in conformity to the jurisprudence of Tuscany. An ordinance of 6th August, 1827 , has made alterations in regard to insolvency and baukruptcy. It confers on the Advocate Fiscal (public prosecutor), or his substitute, the same powers with those of the public uinister of France. The eame ondinance proceeds thereafter to abrogate the enactments of article 587, of the lirench code of 1807, relative to those cases in which proceedlings might be taken against a simple bankrupt: The court above mentloned in F'lorence consists of two merchunts who are judges, two surrogates, one judge, a professional lawyer, and a "greftier." The judges-consular are chosen by the principul merchants; the list of nominals is laid before the Grand Duke for approval. The judgments awarded by this tribunal may be carricd by appeal hefore the tri',unal "de la vote," and finally before the council of justice. All maritime casea are

## LAW

under the jurisdiction of the "bnrean de la Marine," at Leghorn. In the other provinces of Tuscany the tribonale of comaierce have been suppressed, and the cognizance of commercial affuirs transferred to ills civil judgea, whose juriadiction ia uniimited.
49. Unit-d Stafes, - The commercial law of the United Statee is, in general, the same with that of England. The principles connestad with it are almost alwaya traceable to the latter source; modified, however, by the legialation of individual States, an well as by the decisions of tha federal court of the Unlon, and other inferior tribunals. Fingliah laws are not valid as auch. They must be anctioned by legialative enactmont, or int roduced by a court, as an erpoaitlos of principles common to the two natiens. Jach State has a neparate commercial legislation. This is founded either on exprees statute, or on der isiona of court. But as the flecrees of the different courts ha's a sort of anthority of thomselvea and ong in a...bision: to this, egastions in relation to anmerie, sitnate
 the proper interpretal $\because \in$ of tho ram. . . nerost law may be said to be the samie $w_{i}$ very inconsiderably throughou' 'he $\qquad$ ous queetlons on ecmmercial affairs ars tishted hy ine
 held for tho purpore of taking cognizunce cf civll de. putes between inhatitants of different States, and of all cases of admiralty and maritime jurisdietion. The final revision of the decisions of these courts ingenerally competent to the Supreme Court of the United States, which, differing frum the Court of Cuasation in France, judgeas buth in regard to fact and law ; and the decrees of which, whife not considered as determining the principles of legisiation or jurisprudence, have, ind..ectiy, great inflenee in giving uniformity to the decisions of inferiur courts in the aeveral States of the republic. Though each State is in itself independent, yet lawn of a, general and uniform character may be enactod by Congress. For example, articie 1at of section 8 wibd section of the fonstitution of 1783, prevides, that Congrowa shall have the power, in the matter of hankruptey-a suthject of wo grave interest in Ancrica, and affecting so deeply public credit -to enact laws that shail be ohligatory on ail the States, and take place of local enactucnts, whatever these may be, Uuker a general view, the eribunaia must forin their decisions on the basis of four suffciently defined eloments: lat. The common or imperfeetly written law. 2d. Tin ntatutes of the particuIsr States. Sd. The legisfative acts of Congreas ; and 4th. The decisiuns oi English courty and treatised on Einglish jurisprudence to which fiwyers are permitted to appreal, an maison icrit, profesionti decinion reduced to writing. There are no tribunalis of commerce in the United States. Commorciai or marltime ques. thens are determined in th" tirst lnatance hy the orlinary coursa appointed in. sh State. There are many exceptinns, however, viz.: 1at. If inaritime civil canses such an seamsn's wagen, mortgages, salvage, engagenents of ressels, cte., in general, of every reai acticil agsinnt the vessel, or even in certain cuses afginat the cargo. 2d. In the came of neianre of the alip or cargo. 3 k . In regard to patents for diseovery; rights of authorship, etc.; sul th. In an action intended by a citizen of onn State agalust a citizen of another, In all theae camen the jurisuliction devolvea on the federal extirt of cireuit or of district. Though the juikes have no pollitical privilegen, they posseas each in his own ephera, great fower; inasinuch as they may refuan to apily the law on the ground of unconstitutional inprupriety in particuiar casen brought thefore them-an ingenioun but sure method of fixing the character of imperfection on a particular law. In onder ti place in one view the decuments secessary to give the moat perfect view of Ainerlcan ingiatation on the varions matters contained in a com.
mercill code, it was nacessary to have recourse to the beat accredited exposidions and commentariea, und to which the Ancericans thomselver attach the highesi nuthority. The nuthor generally followed, as the most accurate, is Chancelior Kent, whose Commentarifs on A merican Law, presenta an admirable and general view of commercial legislatlon. With reference to bankruptcies, the Congress having made use of the power granted to it lyy the Constitution, votid 19th June, 1841, a general law for all the States of the Uuion, which eame in ferco lat February, 1842. See Inaolvenoy.
50. H'alluchia and Moldavia-Theae pincip.lites are tuled by lawa, originally a mixture of Roman law, and uacke. More recentiy the laws of the Lower Fimpire came into force, and retained their autherity to a pee riod nut yet remote. The position of the two countriea, pressed by the great powera which surround them, has led them to feel the importanc, of stibility in civil legist ation. For this purpoes taere have been Astablished igganic resu: tiuns, with a view to protect The eitizous against the usurpations of the governing wathoritiea, aa well as to render secure the rights of the principalities against their powerful prutectors. $A$ lesire has been felt also to preserve the traditionary agea which are the expression of aational hahits, olu righ soncetimes these usarea are not perfectly in Iuranony with the French legislation, which has been adopted as the leading authority: The arintocratic principle is maintained in all its rigor in their laws, As the primary element in that principie is the preservation of the great estates, the luw confers on parents, according to their rank, and, fuiling these, ou iahulitants of the loculity, a proference in the right of purchase, and also a power of reliemption on the sale of immovable property. In the case of encroachmenta on contignous property, prescription is not mamitted. So jealons indeed are the inhabitants ia preserving their estatee intact that the pruperty coureyed in dowry by the wife (such is the rigor with $w$ hich the dotai eyatem is carried into exceution), is freed from obiligation to a leasehold hy the simple fact of macriage, if the husband refuses to contirm the lease ; a regulation greatly tending to shuckle and discouragn the lubora of the agriculturist. In 1810 a commercial conte was laid before the General Aisentily, conthining, with a few alterations, the anne regulatiuns vith that of Framee. It has 595 articles, After having lieen aduptei by the General Assembly it roceived the sanction of the prince, June, Into, Bin? was to come into force lat Jamuary, 1841.

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Iusaretto. See Quahantine.
Lead (Ger. Bley, Bles; Du. Lood, Ioof; Fr. Plomb; It. Piombo; Sp. Plomo; Run. Sveinetz ; P'ol. Ohom ; Lat. Plumbum ; Aral. A nuk; Illod. Sisa; l'ern. Surb), one of the most useful metala. It is of a hiluish white color, and when newly melted is very bright, but it soon becomea tarnished by exposure to the air. It has scarcely any taxte, but emitn, on friction, a peculiar smell. It stains paper, or the fingers, of a lloikh color. When taken Internally, it acts as a poison. It is one of the softest of the metals ; its specific gravity is $1 \mathbf{1} \cdot 35$. It is very malleable, and may be reduced to thin plates by the hammer ; it may also be drawn out into wire, bat its ductility is not very great. Its tenacity is so small, that a lead wire 1-126 lach diometer in capable of supporting only $18 \cdot 4$ lbs. without breaking. It melta at $612^{\circ}$.-Tvossox's Chemistry. Lead is a metal of much importance in the arts. Its duralitity and malleability make it very auitalise for the roofing of luildingn, the construction of guttern, and such like parposen. It used to be very extenaivaly employed in the formation of water-pipee and
cintorns. But though watar has no direct action on jead, it facilitaten the action of the external air; and hence the load of cisterna and of plpes from which the alr in not entirely excludad becomes oxydized, und ia covered with a white cruat at the point where the aurface of the water comes Into contact with the air. In. asmuch, however, an thla oxyd ls extremely teleterous, lead plpes and cisterns are now very generally auperseded by those of cast Iron. At present, perhape, lead in more extenelvely used in the nunufacture of amall ahot than in any other way. Its salts, though poleonous, are used in medicine to form seilative external applleationa; and frequently unt a little, by the diareputable wine merchant, to atop the progrese of acetous fermentation. Wine thus poisoned may, however, be readily dintingulahed; a smull quantity of the blcartonate of potass producing a white precipitate, and aulphureted hydrogen a black one. Pure wine wlll not be affected by elther of theme testa. "The oxyd of lead enters linto the composition of white glass, which it renders clearer and more fusible; It in alro need In glazing common earthen veseels; hence the reason that pleklee kept in common reij pana becume poisonous. Lead, wlth tin, and a amall quantity of some of the other metals, forms pewter; with antimony, it forms the alloy of which printing typen are made," Joyce's Chemistry. Mines of this vaiu. able mineral havo been wrought in England from the ara of the Romans. It does not, however, ajpiear that it was obinined any where except in lertiywhire, tiil 1289, when it was discovered in Wules; and the fact that silver was found intermixed with the Weish urea having transpired, gave a new atimulus to the business ; but In other respects the discovery of silver was of no use; the quantity obtained being insuffcient to defray the cost of lts separation from the iead. At present, the most productive Englinh lead mines are situated in Northamberiand; in Cumberland; in the western parts of Durhans; in Yorkshire; in Derbyshire, and in Cornwall. The Welsh minee are principally aituated in tho countied of Flint, Cardigan, and Montgomery; those of Scutlan.d in Ayr, KirkcudWright, and Lanark; and those of Ireland, in Wicklow, Down, Limerick. Leal mines are aiso wrought to consilerable advantage in the Jule of Man. We aubjoin an aliatract deduced from the accounta fur nished by the Museum of Practical Ceology, of the
quantitiza of Lead Oar and Iefab producen in Great

"In 1852, 14, 124 tons of lead were Imported, and 2f,548 tons (including 2,967 tons foreign), were exported. It consequently follown that the produce of IIritish mines is sufficient not only to suiply tho home demand, lut to furnish a surpulus of 9,457 tons for exportation. $\mathrm{I}_{\mathrm{g}}$ lead was worth, In the London market, in Septem. ber, 1883, f\%2 10s, 6l. a ton. In 1832 it was ouly worth $\mathrm{Cl3} 10 \mathrm{~s}$. a ton.
"Lead, when firnt extracted from ite ore, alwayscentalns a certaln portion of ailver, varying from a few graine to 45 oz . or more In the ton. When the silver mixed up with the lead ts sufficient to repay tine expense, it is usual to separate it, whlch is effected hy the procesn termed refining. The lead of anme if the Fingllah mines, especially those of Cornwall, and, nlso, of the Isle of Man, containa very considernije qusntities of silver, and our readers will, perhajw, be surprised to learn that It has been estimated by the highest authority that, In 1852, the United Kingdum furnished no fewer than $818,325 \mathrm{cz}$. of silver, worth, at 58 an oz., ${ }^{\prime \prime 2}: 05,080$, obtained from lead."

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The followin Western produc leans from 1844 lead, paying 20 of New York, ft tlons of this sta

Years.

[^32]The consumption of lead in France hat greatly in-| bltuated in Illinols and Wisconsin, on the Upper Miscreased within the last 20 years. In 1852, about sissippi. Their produce and that of the other minat 30,000 tona of ore were Imported, of which from 8-10tha In the Unlon, may, perhaps, average from 16,000 to to 9 -10the were brought from Spain. 18,000 tona a year. Lead ore is alco foand in abundance in Missouri.
The iead mines of the United Atates are principally
 Countmins to whion tt wab hint, ant tha Quantitirs annt to gaorb

| Coantries to whleh enported. | Land ore. | Pls end rolled | Shot. | Letharg*. | Red lead. | White leed. | Total Esporta, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rusala. | Tone EWI | $\begin{array}{cc} \text { Tunf. } & \text { ewts. } \\ 1,018 & 0 \end{array}$ |  | Tons. fwts | $\begin{array}{ccc} \text { Tomen. } & 8 \\ 41 & 8 \end{array}$ | Tone. ewta. <br> 1719 | Thns ewta. |
| 1hemmark........................ |  | 1050 | 880 | 814 | 20.6 | 10916 | 5044 |
| Prussla. | .... | 2520 |  | 184 | 1619 | $b 4$ | 2971 |
| Ilsnseatlo Towns.............. | , | 4850 | 450 | 69 5 | 1926 | 484 | 71917 |
| \|lolland. . . . . . . . . . . . . . . . . . . . | 700 | 9170 | 90 | 2418 | 10711 | -18 | 4718 |
| H.1tum........................ | .... | 9090 | 10 | 30.5 | 1076 | ... | 89710 |
|  |  | 2,974 11 | , | 1318 | 17 |  | $\begin{array}{r}9,959 \\ \hline 498\end{array}$ |
| ['ortugal, A zorea, mind Madolra. |  | 1720 | 190 | 96 0 | 88.8 | 16918 | 4288 |
|  | $16^{\circ} 0$ | 11 <br> 815 <br> 1 | 490 | 013 | $\begin{array}{ll}8 & 19 \\ 510\end{array}$ | 14 | 1878 |
| dyria and | 1020 | 210 | 10 |  | 418 | 010 | 198 |
| Western consi of Afriea. . |  | 840 | 10 |  | 06 | 718 | 9818 |
| Brilsh possemmions in 8. A: 'ca, |  | 1990 | 290 | 016 | 99 | 2919 | 2674 |
| iflilish territories in \%e la.ales. | 60 | 1,811 0 | 2010 | 09 | 15018 | 260 | 1,929 9 |
| gava............. ................ | .... | 210 | 280 | .... | 0 T | 115 | 469 |
| Chtna.......................: | . . . | 2.21820 | 89 | - | 08 | 219 | 8,903 |
| ilirilsh settlemontie in Australia | [** | 4880 | 1470 | 99 | 78 | 15018 | 7936 |
| (1iritish North Amer. colonles.. | 10 | 6rs 0 | 4190 | 117 | 8814 | 17919 | 1,978 8 |
| Ifritish Wett Indies. . . . . . . . . . | .... | 5860 | 580 | 15 | 917 | 8819 | 8761 |
| Forelgn West 1ndlos. . . . . . . . . | .... | 620 | 400 | 01 | 2210 | 985 | 15816 |
| finited Slates. . . . . . . . . . . . . . | *.. | 6,466 0 | 3810 | 710 | 1614 | 1061 | 6,764 1 |
| Brasill... |  | 4890 | 1040 | 111 | 006 | 1044 | 87710 |
| trugray | *** | 90 | 10) 0 | $0{ }_{0} 1$ | 0 | 418 | 948 |
| Chill ........................... | .... |  | 150 | $011)$ | 018 | 1818 | 1446 |
| Pera. . . . . . . . . . . . . . . . . . . . . . . | . | $\begin{array}{rr}15 & 0 \\ 405 & 0\end{array}$ | 1130 | $\begin{array}{rr}0 & 4 \\ 126 & \\ \end{array}$ | 210 1718 | 924 48 | $\begin{array}{r}26 \\ 1,089 \\ \hline 15\end{array}$ |
| Oher places . . . . . . . . . . . . . . . . . | 1950 | $\begin{array}{r}405 \\ \hline 18,641\end{array}$ | 113 1,355 | 1268 | $\frac{171}{1,181} 8$ | 1781 | $\frac{1,089}{}$ |
| Total. .................... ${ }^{\text {a }}$ | 1950 | 18,441 0 | 1,355 0 | 477 18 | 1,181 15 | 1,781 1 | 2,3,051 9 |

The annexed table shows the total product of the leat mines, and the average yearly prics at Galena, Illinois.

| Yeara. | Pig lead. | Toral puunde. | Price. |
| :---: | :---: | :---: | :---: |
| 1818........ | 447.709 | $81.854,680$ | 424 |
| 1541........ | 809,261 | $89,148,470$ | 984 |
| 194........ | 624, 672 | 48,797,440 | 280 |
| 1845....... | 778,499 | 54,494,860 | 296 |
| 1416........ | 789,408 | 61,298,210 | 989 |
| 147....... | 778,656 | \$1,005,920 | 817 |
| 1549........ | 681,909 | 47,787,880 | 324 |
| 149........ | 628,985 | 41,025,840 | 867 |
| 1800........ | B68.559 | 89,801,930 | 420 |
| 1851........ | 474,115 | 88,184,150 | 418 |
| 1854........ | 408,629 | \%8, 918,960 | 412 |
| 1858........ | 425814 | 99,807,990 | 550 |
| 1654........ | 488,617 430.865 | $29,654,190$ $80,125,500$ | 580 |
| 1585........ | 430.865 | 80,12x,000 | 575 600 |

- Estimated ut 25 per cent. lens than 1855 .

The following tables show the quantity of lead of Western production received in the port of New Orleans from 1844 to 1855 inclusive, and also of fureign leal, paylng 20 per cent. duty, imported into the port of New York, from 1849, the inst year of late luportatiwas of this staple, to 1856, both inclusive:

| Yeara. | Recelved at New trionns, and moselly forwarded to northern eflise of U. 8 . | Forrign lead linporiel inta New Yurk. |
| :---: | :---: | :---: |
| 1844. | $\begin{aligned} & \text { Pound } \\ & 44,746,890 \end{aligned}$ | Ponnes. |
| 1545.............. | 61,948,750 |  |
| 1846............. | 54,977, 290 | ... |
| 1547. | 46,509,030 |  |
| 1844.............. | 86,437,680 |  |
| 1849. | 85,695,990 | 28,875, 000 |
| 1850............... | 29, 1178,610 | 80,004,240 |
| 181.............. | 94.745,850 | 48,464,120 |
| 1812.............. | 18,798,489 | 85,451,000 |
| $1 \times 58$. | 14,780,090 | 87.918,160 |
| 1844.............. | 8,456,000 | $5 \mathrm{E}, 918,900$ |
| 1655. | 8,000,000 | 40,827,140 |
| 1856.............. | 1,900,000 | 42,281.04) |

Estimating the American lead to welgh 70 pounds each pig, and the foreign 140 pounds each, which is deemed alout the average of both.

Lxad axexivid at St. Louls paon Weatzan Minis.


In 1844 the Galena mines produced $51,494,860$ pounds of lead, and the price at St. Louts was about i centa per pound. In 1856 they landed at St. Louls $14,325,920$ pounils-less than one fourth the aupply of 12 years previous, and the price was about $6 t$ cents per pound, thus being more than doubled. In 1854 there was imported into the single port of New York $55,945,900$ pounds of foreign lead-inore than the Galena mines ever produced in any one year. Doubling the price, doubling the demand, has reduced the prolluction to one quarter, and it is certaln that in 1857 the western manufucturers of lead will have to procure a portion of their staple from imported foreign lead $\ln$ the Atiantic cities.
Statement eximeitina the Foneion Inpogtations and Expogrationg, Dumeatic Exports and llowe Consumption of Forehan lmpoktations of Lead, and tha Mantitacturgs turkrof; alao Itomr Consumption of fuxgion Impoxtations, lesb Domestio Exporta, of Leab, and the Manufactibes of Lead, and Donystio Expohth, less llona Conecmition or Fongion Inpoatationg of Lzad, and the Manufactebes thereon, yor the labt seventagn Yikabs, and the Annval Avzaage thebrop.

| Years. | Forelga Importatons. | Forelgn esports. | Domente exports. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1840 | bullars. 20.856 | Dollars. 34090 | Nollars: <br> 80,637 | Dullars. | Dullars. | Dollara. <br> 89 RS |
| 1841 | 8,909 |  | 117,294 | 89989 |  |  |
| 1848. | 815 |  | 6410,217 | 815 |  | 589,402 |
| 18434 | 227 | 525 | 492,763 |  |  | 492,745 |
| $15+4$ | 103 |  | 615,256 | 56 |  | 605,200 |
| 1845 |  | 192 | 857,051) |  |  | 857,050 |
| 1946 |  |  | 624,790 |  |  | 024.706 |
| 1847. | 8,485 |  | 188,675 | 0,485 |  | 188,240 |
| 1848 | 7,182 | 181 | 92,017 | 7,071 |  | 84,946 |
| 1840 | 88,257 | 11,511 | 48,301 | 1 7,756 | 81,888 |  |
| 1830 | 1.187,425 | 61,876 | 85,479 | 1,125,849 | 1,090,070 |  |
| 1*51 | 1,624,188 | 154,246 | 88,200 | 1,869,892 | 1,841,698 |  |
| 1552 | 1,24,672 | 182,64 | 61,194 | $41,152,028$ | , 1,100, 234 |  |
| 1858 | 1,619,757 | 60, 657 | 19,604 | 41,559,100 | 1,539,496 |  |
| 1854 | 2,100,487 | 29,117 | 48,858 | 2,074, 8701 | 9, 0811,018 |  |
| 1885 | 2,566,163 | P0,688 | 19,531 | $12,473,083$ | 38,455,994 |  |
| 1856. | 2,554,284 | 189,578 | 83,140 | 2,414,658 | 39,881,510 | $\ldots$ |
| Avorage | SO4,850 | 04,911 | 128,038 | 8 943,430 | 1,490,493 | 882,048 |

- The year 1943 is given for nine montha onty, in cease* quonce of a change in tho lescal year.


| Whones lmported. | Pist, bar, sheot and odd. |  | Shot. |  | Pipos. |  | Masultactures of, not |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8wediah West Indles.......... | Pounde. <br> 4,028 | Dollare.95 | Pounds. | Dollara. | Pounde. | Dolínre. | $\frac{\text { aperined. }}{\text { Intiatas. }}$ |
| Danish West Indles, ........... | 8,758 | 105 |  |  | ... | -.... |  |
| \|liamburg. . . . . . . . . . . . . ${ }^{\text {Rramen }}$. . . | 481,608 | 12,248 | 10,000 | 605 | .... | .... | $\ldots$ |
| Mroinen. . . . . . . . . . . . . . . . . . . . . . . . | 88, 4198 | 1,896 | $\cdots$ | .... | .... | - $\cdot$. | .... |
| Doteh Gulana. | 291 | 2,204 | .... | ... | .... | $\cdots$ | .... |
| Belalum.. | 1,257, 147 | N8,458 |  | .... | ..... | $\ldots$ | $\cdots$ |
| Englanci | 20,265,075 | 972,218 | 248,610 | 14,024 | 5,679 | 880 | 982 |
| G1brattar......................... | 6,60 | ioy | 6 | 8 | … | $\cdots$ |  |
| Canads....................... | 8,825 | 24 | .... | ... | .... | $\ldots$ | 241 |
| Other Britsh North A mer, pos. | 64, EOH | 1,811 | . |  | ... |  |  |
| Brtish West Indtes............ | 701.24 | 93,218 | 48 | 26 | . | .... | $\ldots$ |
| British Gulatin ${ }^{\text {Frane on the Athaitic.......... }}$ | 14,815 | 494 |  |  | .... | .... |  |
| France on the Atlaitle........ | 0.244,288 | 415,825 | 850 | 21 | .... | .... | 458 |
| France on the Meilterranean. . <br> Freneh West Iniles.......... | 18,578,097 | 626,283 | .... | .... | .... | - | .... |
| 8pain on the Atlantle.......... | 1,491,794 | 69,151 | $\ldots$ | $\cdots$ | ... | $\ldots$ | $\cdots$ |
| 8pain on the Meitterrancan.... | 6,6+2,896 | 297, 609 | 189,639 | 8,887 | .... | . | $\ldots$ |
| Cuba.......................... | 4.789 | 195 | .... | .... | ... | $\ldots$ | isis |
| Portorico. . . . . . . . . . . . . . . . ${ }^{\text {Pardinia. . . . }}$. | 8100 | 24 | $\ldots$ | $\cdots$ | ... |  | $\cdots$ |
| Muxico. | 1,091,766 | 22,545 | $\ldots$ | .... | $\cdots$ | . |  |
| New Oranada | - 520 | 28 | $\ldots$ |  | .. | . | 15 |
| Veneruela.. | 215 | 18 |  |  |  | .... |  |
| Total. | 65,294,256 | 2,504,014 | 488,166 | 24,150 | 0,679 | 831 | 1,881 |



| Exported to | thes. |  | 1854. |  | 188s. |  | 1sse. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| England. . | Pronede. <br> N 980 | Tholtars. 400 | protents. $4 \times 1010$ | \|hillare. 2,701 | Jourde. | Thellate. | Pounds. | Invilara |
| Canaila.......... | 10,800 | N17 7 | 229,44 | 14,918 | 60,260 | 8 Na | $82 \times 702$ | 91,10 |
| British Amer. col. | 225 | 12 | 64,000 | 8.940 | 1.720 | 187 | 1.4.85 | : 0 |
| Gubs. | 2.219 | 140) |  |  | 604 | \$1 | 8,480 | 210 |
| Iliay $11 . . . . . . . . . . . .$. | 65,781 | 3.469 | 8.121 | 021 | 6,485 | 488 |  |  |
| Juxltoo. . . . . . . . . | 0,150 | 821) | 82, chn | 2,622 | 12,450 | 1, 5178 | 1,5,10 | i(i) |
|  | 6,61 I | 482 | 21,642 | 1,843 | 21.656 | 1,774 |  |  |
| Yritish W. Indles. | .... | . . . . | 190 | 445 | 8,560 | 804 | *9,199 | 6 it |
| Central Bepulitr. . | . . . | .... | 1, (10) | (1) | 1,000 | 160 | 440, $\mathrm{Nax}_{8}$ | $8.19 \times 2$ |
| $\left\lvert\, \begin{aligned} & N_{1} w \text { Granada . . . } \\ & \text { Afrtea........... }\end{aligned}\right.$ | . $\cdot$. | . . . | 949 | 7\% | 1,220 | 99 | 2,525 | 263 |
|  | .... | ..... | 2.050 | 145 | 1800 0,900 | 2\% | 8,978 | 2 Cl |
| Hritiali Fiast Inilles | $\ldots$ | .... | .... | .... | TSy | 61 | \$6,600 | -800 |
| Porto İteo... .... | . ... |  | .... | . . . | 209 | 17 | 300 | 49 |
| 1trazill ............ |  |  | . . . | . ... | 2,025 | 109 |  |  |
| Ruenos Ayres. . . . | . $\cdot$. |  |  |  | 80,121 | 2,714 |  |  |
| Pern .......... |  |  | . $\cdot$. | . . . | 478 | 189 | 630 | 71 |
| Nandwich Islands. |  |  |  |  | 4.1908 | 237 | 11,5\%11 | 1,043 |
| Tutal. | 1100,7is | 0,540 | 414,217 | 26,584 | 16n, 5 cil | 14,294 | 810,029 | 57.512 |

The proluction of lead at the Galena inines, of late yeara, has heen materially reduced by the discovery of gold in California

White Lead.--The manufacturers of white lead, shot, Jead plpe, etc., have putitioned Congress to place the raw material, ply leal, on the free list, and the committee reported favorulily on the subjest. The prition wan slgned ly all the leating hensea engaged in the trade, and the fact. presentel in favor of the ir request aro numerous and conclusive. They say that for a loug thme previons to laty the domestie supply of pha lead was more than adequate to the entire domestic demand. Up to 1817 the © ialena mines steadily increased in productiveness, and kept pace with the Increame in condumption. Since that year the con numption has heen in alvance of the tome supply, and the manufacturern on the seaboarl bave had to pay comparatively high priven fir the raw material, the wetern states now manufacturing nearly all the phig lead they prolure. Ont of $150,000,(600$ pobinth of pig leall inymorted lato Naw York in 185t, enly about $2,500,000$ poumils were American. The dity on pigg lead, ly the tariff of 1 RAB, was 20 jeer cent. ad ralurem, and at the time that eet was passed, it protected all donentio interente, for we proluced an much lead an the country consumed. Slnee 1818 we havn been obilged to lmport the bulk of our cenaumption, and all connumera and manufacturern are therefore hinjured, while foreign manutacturery are lestefted ly the du!y now imponed on the article. (lur manufacturars are ahut eut of all foreisn markets by the enhanced price
whieh the duty of 20 per cent. puts upon their gools The mamufucturers ask only that jig lead shomid he put in the free list. It is their wish that all artides manufactured from pig lead slould remain as at prow. ent, under a duty of 3 per cent. The manufurturess of articlea from pig lead ank no more than the secretary of the 'Ireasury han repeatedly suggested in his munual reports-" that the raw materlils used in our manufactures should be almitted free of dutr." lif the tarilf of 1837, passell 3d March, tho duty on leid imanufactures generally was reducell from 30 per cent. ti) 21; Inad In pig and bars from 20 to 15 per cent. Uro from 20 to 15 per cent.

Lead, for sounding. The emmon hand lead weighs 11 lbs. with alont 20 fathams of line. Thi lealsman stands somewhere on the side of the vessel, leaning against a band fer the purpose; leta the lead descend suar the water; then, swinging it wer his head once, or trice, if the shifp is poing fast, throws it formard. The line is marked at $5,7,70,1: 1,17$, and 20 fatherna. The numbers betwern aro called depms: thus, "hy the mark 7," "lyy the deep! !!," indientes 7 and 9 fathoma. When the depth is great, the teep-sea leal of $2 \times$ lins, is used. The tead is dropmed from the fore part of the vessel, the line heing pussed outsile all. It in gonerally necessary to licave the ship to. See Soumbinas.

League, a measure of length, usell in reckoning distanses by sea. The sea league is three nantical or geographical miles, or the 1-20th of a tegree, and colssequently about 3.45 Engllish miles. Tho comerna
land league continent of hewever, hin league (lieue equal to $2 \cdot 42$ degree (anele 2.76 English be regarded $n$ Revolution provinces. 1 Celtel louch, by stones $\ln$ t thuse provine by leagues as considered ly half of their man paces. was introduced an early period to 2 milos of th tern lev. $n$ is u. ef the old Eny the limit from tion of a count the limit of ne wafe. Seo Fis
Leak, at se the water come when she legel manner of sto wrappel $\ln$ oal pauling clout piece of sheet-1 stop a leak ly The sea-water, brine imhilined h . causes it to aw edges of the lir flux of the wat ship is to apl trumpet to the $e$ where the leak the water rusha nearl, and there Leakage, in toms, grantell to danauge the goon Leather. ' fresh state, are ear to he admir ing. But in dryi on expenare to $n$ the anpple qualit be, appears to rind of man's bi Naxon luh, lithe, pleness. Leath the dermis, corit with an astring sin, or tunnie: no tanner, to tan, np tapare. Leather prognating the at aulmat hide or with hair oe wn belew whith is at towt with the tle, is the only part varies In thlekn lack rand the rum shin is coaverted Muiling water.
L'arietira.--Len three kinds, num yield diffirent va hacke, which ure bilice. When hat
land leagre is a well-known itherary measure on the continent of Europe, chlefly in France. The Fronch, hew over, have two distlnct leaguss : the legal posting league (lieue de paste), contalalng 2000 toises, and equil to $2-42$ English miles; and u league of 25 to the degree (anelently the lieue moyenne), or equal to about 2.76 Engllsh miles. Thla last, however, can searcely be regarded as a definite measire $;$ and previons to the Kevolution the leagne was different in the different provinces. The word ls sald to be derived from tho Celtic loach, afone; the diatances having heen marked by stones in the Roman provinces. In Gaul alone of thuse provinces, they were marked In some instanees by leagues as well as miles. The Gaulish leugue was considered by the Romsne as equa: to a mile and a half uf thelr own measure, or as centaining 1500 Roman puces. It is supposed thut the league, or leura, was introduced into England liy the Normana, wherf at an early period, it came to be reckoned as an equiv'sent to 2 milus of the time; this being the sense in whach the tern lev a is used by the oldest law writers, und in most of the old English charters. A league, or 3 mlles, is the timit from shore generally allowed fur the jurisdiction of a country to extend ln fisheries, etc.; und also the limit of neutral water, in which a fugitive ship is safe. Seo Fisuentes and Neurnibis. Suo Milz.
Lealc, at seu, is a lute in the ship, through which the water evmes in. A ship is maid to spring ol leak, when she liggins to leak or let in the water. The maner of stopping a leak ls to put into it a pligg wrapped in oakum und well turrel, or to insert a tarpauling clout which keeps out the water, ur to mail a piece of sheet-leurl on the place. Seamen sometimes stop a leak by thrustlug a piece of sult beef lnto it. The sea-water, salys Mlr. Boyle, being frosher than the brine imblied by the beef penetrates into its budy and canses it to swell su as to beur strongly ngainst the edges of the broken plank, and thereby stops the itHax of the water. A ready way to thad a leak in $n$ whip is to apply tho narrower jart of a speakingtrumpet to the eur and the other to the side of tho ship where the leak Is supposed to be; then the noise of the water rushing in it the leak will he distinctly hearl, ans thereliy discovered.
Leakage, in commerce, an alluwaneo in tho eustoms, granted to importers of wine for the wasto and damage the gools are supposel to rocelve liy kerping.
Leather. The sklas of various anlmais, in their fresh state, are flexible, tough, anl elastic, and appear to he ndmirably adspted to the purposes of clothing. Bat in drydug, they become hard and horny, and. on expesure to molsture, putrid. Tho art of restoring the supple gualities to akins, and rendering them durnble, appears to have been discovered at an early period of man's history; and the worl leather, from the suxom liah, lithe, or lither, indicates the quality of suppleness. Leather ls formed by the chemienl union of the dermis, rorium, cutis, or true skln of an anlmal, with an astringent vegetable priuciple, known as tannin, or tanaic acid. The worl tan, from the French tanner, to tan, appears to be derived from the low latin tanare. leather may, however, he prepured by imprognating the akin with alum, oll, or grease. In the aninial hide or skln, the outer part, which is novered with hair wr wool, is called the epidermis or anticle, belew which is the reticulated tisaue, and then, in contact with the llesh, is the dermis, or true skln, which is the ouly part which mbinits of leeligg tanned. It saries in thickness In diferent purts: the mune, the lask sul the rump, belng thicker than the leelly. 'Ihow shin is converted into gelatio, or glur, hy the artion of builing water.

Variefies,-Leather tanned is generally divided into three kinils, numely, hiles, kips, and shime; and these yiekd dlfierent varieties of leather, such as butts and buche, which are male of the stonteat and heaviest oxbiaca Wheu hides aro tanned whole fur sole lenther,
they are called crop hides. Skins produce tha lighter varieties of leather. Large quantlites of hlden, dry salted, are Imported Into the United Klngdom from South America and different parts of Eurepe, from the Cape of Good Hope, Morocco, etc. Calf sklna are imported from the Baltic, and the calves bolng killed, younger than in England, the leather prepured from thein is used for hook-binding, gloves, and ladies' ahoes.

The stoutest leather is made from butts or backs. Buf leather was formerly made from the hide of the buffalo, bitit it now surnished by the cow-hlile, and ls used chiefly fur soldiers' belts. Bull-hlde ls thleker than cow-hide, while that of the bullock is intermediate. Calf-skin supplies the greut demand for the upper part of boots and shoes. Sineop-skins furm a thin, cheap leather; lamb-skins are used for gloves; goat and kid-skins form a light leather of tine quality; deer and antulope aro usually shamoyed, or dressed in oil ; horse-lide is prepared for harness-work, etc., and this, with senl-skin, is used for making enumeled lauther; dog-skin makes a thin tough leather, but most of the gloves sold ue dog-skln are made of lamb-akin. llog-skin mukes a thin, porons lenther, and is used for covering the seats of suddles. There is a large lmport trade in skins. The great demand for leathor for the best gloves is supplied by lambskine from Italy, Spsin, the suuth of Framce, und other parts, wisero, in consequenes of the lumb beling killed earlier than with us, the skin is smull, fine, und thln, nuil is used instead of kld; but it is neither so strong nor so glessy. The skin of lambs that die soon after their lirth sre somethmes dressed with the wool, and are used for lining fleves und shoes. The hent kid-skins ure from the south of lirance; they are also imported from Germany, Switzerland, Italy, and Ireland. It is sald that as soun as the kid begins to fevd on herbage, the skin sulfirs in tineness and delicacy, and is no longer muituble for thu best gioves. The best muroceo leather is male from Swlss goat-skins, unother kind is from Mogador und Bast Indiun gont-skins, which are often made into hlack moroceo, known as "black Spunish leather," from the circumstance of the first supplies laving been obtained from Spain. The leather from the Cape sheep-skin is noarly equal to meroceo. 1lippopotamus hides are Importel from suath Africa, and when tannod with oak burk, they make an extromely thick und eompuct leuther.

Tanning Materials,-The vegetable substances used in tanning have of late years become almost us numerous us the varieties of hides und akins on which thoy are employed. The netive vegetuble principle, tannin, varies sumewhat ncevrling to the aource from which it is derived; but it ls alvaya marked by an astringent tuste, a bluish-black, or dark-green precipitate, in aqueuns sulutions, by almixture with a solution of one of the eults of poruxyl of Iron; twbile, with a solution of gelatin, it gives a dirty white or brown precipitute. A cold aqueous exalution of tunnin, mixed in certain proportions with one of gelatin in the form of glue, size, or isinglasa, forms a sulstance wheh is known as tumo-grlatin, which may be formed liy the application of heat into a vlseld elastic muss, resemt:'ug Indiarubber. lly tho action of ether, contalning a little water, on gull-nuts, pure tannin may be proeured. The etherial solution separates by repose into twa layers, the lower one, which is of an amber culor, belng a solution of : mutili In water; whlle the upper layer contuins gullic urid, mlxed with other subetances. On gently evaporating the afueons molution, nearly pure tamnin is procured, to the extont of from as to 40 per cent. frum galls. Ohtained in this way, it is a shinling, promus, unerystulizuble mass: it ls soluble in water, and then exerts the properties of an achd. By ex:posuro to air it absorbs oxygra, nod gives off a curbonic achl ; two new products, gallion neid and rliaghe acid, leing formed at the expense of the tannin, the luttor being inseluble. Tannin may be precigitated from lts
solntions by sulphuric and some other acids ; by boiling the precipitate with sulphnric acid for a few min. otes in a dilute solution of the aame acid, gallic ncid in formed, and cryatallizes in cooling. Gallic acid exlats in gall-nuts, anmach, vallonea, tea, and other subatances, and probably arises from the decomposition of tannin. It dees not combine with gelntin, and is, therefore, useless in tanning. Some tanners, however, imagine the gallic acid of the wante liquar to be useful in swelling or raising the hides, preparatory to removing them to a stronger liquor. it is important to the tanner to understand the circumstances under which tannin is converted into gallic acid; they are numerons and somewhat complicated, and their investigation belongs to the scientific chemist, to whom the msnufacturer already owes so many obliggations.

During a long period the principal tanning material has been oak bark. That which in stripped in the spring is the most esteemen, for it then contains a larger quantity of tannin than that stripped in autumn, and this more than the bark stripped in winter. The best bark is obtained in a warm spring, from cop-pien-trees about 12 years of age. Oak bark contains from $5 \cdot 6$ to 6.0 of tannin, which is contained in the Inner white layers next the alburnnm, as in the cnse of nther astringent barks. The tannin of bark is probably not Identical with that of galla, as it dnea not yield pyrogallic acid when suhjected to destructive distillaton. From four to six pounds of oak bark are required for every pound of leather. After the stripping, the bark is stacked to dry. Should the season bo rainy n portion of the tannin nayy be washed out, and tho bark be thins deterinrated. There is un dnulit that the peculiar excellence of the sole lenther of Eingland is due in grent measure to the superior oak bark which is possessed. Oak burk imparts firmness and solitity to leather, while other sorts give softness; thus the pecultar softness of French curried feather in referred to the bark of the evergrean oak, with which the lietter kinds are tanned, while the other tanning materials next to be named give each its peculiar quaity with resject to color, scent, toughness, or the power of resixting moisture and decay.

The other tanning naterials, used chiefly for fancy leathers, are as follows:-Sumach, consisting of the young branches and powiler of the leaven of hhus fofinus, Jenus sumarh, or the wild olire, and Rhus Coriaria. Sumach varies in its amount of tannin from 16.4 per cent. in Malaga and Sicilian sprecin. 2ns, to 10 and 5 in Virginia and Cesrolina sumsch. The solution is liable to fermentation. Dici, or diri-dici, is the pod of a South American whill, Corsalpinia Coriaria, The pod is dark-lirown, shout three inches long, and curled $n_{i j} s^{3 s}$ if lyg heat. It in rich in tannin, the whole of which is found in the rind beluw the epidermia. Vallonen, conaisting of the acorn cujs of Querces .Fgilops, ur prickly-cupped osk, growing in tho Morea. A smaller kind, called cornata, containing a larger proportion of tannin, is for the most part used by the aijk dyers. Alout two pounds of vallonea are required for making one jound of leather. Vallunea and oak hark mar be mixed together with gool eifect. Citechu, rutioh, Terin joponict, or terma, are the inspisasted aqueows pxtracts ci the bark, wood, and leavea of the . 1 raciut tutechu, and i'necria rumbier. The twu varieties are known in commerce as catechn, or gambier, and cutch; that from Iloming is richer in tannin than that from Ibengal. Myrobalian is a mane ofiven to the fruit of several Fast India trees; the husk, leing the portion valuahle to the tanner, is separated liy bruise ing the nut which it inclosea. Minnart ce W'atlehark In furnished ly differeut ajecies of Jimose growing in Auntraila and New Zeainad. Cork-tree bark is the inner thark of the cork nak, the outer, or dead hark being the welt-known sulstance, cork. It is ottained from Corsira, Spain, and a few other countries, and contains $t$ w're an much tannin as asarage oak bark. larch bark is sometimes used for tannings sheep-skins,
and Willow bark for kid and lamb-sking. The lastnsmed bark is used in making Russia leather, but its pecullar odor is given by means of the oil of birch-tree bark. In addition to the tannin contained in the above substances, there are mucilaginons, coloring and other matters which have an influence on the kind of leather produced. The tannin itself may also vary in different materials; thus cateehu and divl give a more porous leather than oak bark or vallonea, while larch bark gives a very inferior leather to that prepared from oak bark. The celoring mstter in some excellent tanning materiala proventa their use; sinco it is the custom to sell both upper and role leathers of a yej-lowiah-fawn color, and any thing which interfered with the production of this tint would be oljected to thus, catechn and cutch would be among the cheapest of tanning materials, were it not that they impart to the leather a reddish-brown color, whith would in no way interfere with the dressing or currying.
Statemgnt biowino tha Exports of Lraturib prom the

| Whither exported. | Leather. |  | Boots and woen otleal her. |  |
| :---: | :---: | :---: | :---: | :---: |
| N | Pounds. | ivilure. | Paize: | Tolatim |
| Dasisin West Indies... | 3 |  |  | 3 |
| Ilamburg. ........... | 211,000 | 4.670 |  | 7, 53 |
| Bremen | 1,200 | 2\% |  |  |
| Holland. | 1,1000 | 160 |  |  |
| Duteh West Indics. | 11,447 | 2,460 |  |  |
| Duteij Guinna | 40 H | 57 |  |  |
| Dutrh East Indes. | 6 | 23 |  |  |
| Belgium. | 5,(00) | 750 | 210 | isir |
| England. | 42,707 | 9,75 | 4,905 | 3,87i |
| Beotland | 84.884 | 4,828 |  |  |
| Canada. | 303, 194 | 181,149 | 215,169 | 82, ${ }^{\text {ats }}$ |
| Iritish N: Amer. pos.. | 879,891 | 30,141 | 133,619 | 142.115 |
| Rricisis West Indles... | 8,610 | 620 | 20,30 | 1i, in ${ }^{\text {a }}$ |
| British Ionturas. | \% 0 |  | 4,992 | S, 04 |
| Britsh thitiana. ${ }^{\text {argi.... }}$ | 750 |  |  |  |
| IIritis), Austraila...... |  |  | 2,191 143,685 | 20,049 |
| New Zealanil... |  |  | 109 | 30,200 |
| Freneli S: Ainer. poss. | 1,006 | \% | $2 \times 2$ | 211 |
| French Werst Indles. . | $80 \% 1$ | 66 |  |  |
| Cubn. | 25,541 | 4,0se | 11,154 | 11,64 |
| Porto Eiten........... | , |  | $33^{3}$ | 211 |
| Cape de Verd Islands.. | .... | .... | 961 | 75 |
| Turkey in Eurone | $\ldots$ | .... | 468 | +111 |
| Turkey Jo Asia..... | $\ldots$ | .... | 724 | 513 |
| Other ports la Aftica |  |  | 2.7115 | 9.6.i. |
| Hayll., | 6,122 | 1,871 | 10,409 | 12, 3 s |
| San bun |  |  | 2,042 | 4.145 |
| Mexico. | 2,425 | 405 | $5 \times 11$ | 7:91) |
| Central hepub | 60 | 711 | 8.916 |  |
| Yew tiranal |  | 758 | T, 617 | 10.642 |
| Vencateia | 11,594 | 8,948 | 4.010 | 3,4\% |
| Bazil | 4.881 | 763 | 1.374 | 1,112 |
| Urugasy |  |  | 8.0401 | 2.501 |
| Hmprios Ayre | $810)$ | 68 | 13,483i | 12, 2.6 |
| Chill |  |  | 15.822 | 14.31 .5 |
| Per | 4.0041 | $6 \times 6$ | 19,7.3 | 1i,2:li |
| Sandwich | 8,042 | 528 | 20,748 | 30.4.42 |
| Whaio Fixherl | 2.6.61 | 54 | 2,127 | 4,119 |
| Whato Fisheri | 212 | 5 | 494 | Stin |
| Toial | 072,765 | 252,84 | 6, 3,149 |  |


 1455.

| Ienther. | 1838. | 1854. | 1855. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Tanned, bend and solo | 20,267 | \% 51014 |  |
| Tanned abid dressed upprer. | 1,052. 120 |  | 1.252,349 |
| skins tanned and dressed.. | 4 16.848 |  | 436,4311 |
| Wkjos tammed is nat dressed | 16,ixa | 10,4:3 |  |
| Nkivers. | 89,764 | 64,4:4 | , 196 |
| Bhoots. | B4, 611 | $6,66 i$ |  |
| shoen and pumy | 87, 614 | 3381211 |  |
| Oloves | 1,86:997 |  | 9veres |
| Oeneral | 831, ity | 838, $3 \sim 1$ | 4.3,926 |
| Total. | 8,840, 0 ¢4 | 3,601.244 |  |

Grained l.father, which is curried on the hair or grained sule, is cailod black on the gruin, and is mathy used for the upiper leathers of ladies' alones. In preparing such leather, the waxing is performed as follows: A solution of sulphate of iron, called copperamarater, or iron-liquor, is applled to the grain aile of the wet k in, when the salt, uniting with the gullic acid of the tatr,
produces an in skin, and whe is ruised, and and ugain gra taliow opplied Varnished an it was found here to leathe now producer?
statgingnt firov

Whence Impe

Prussla.
Swedlish Woert
Danish West Ith tlamburg.
Bremen..
Hulland.
Belpium.
Eagland.
Seviland.
Malta.
Canada
Other IIr. N. AM
British W. Indles
Bralkh Gulans. .
British Australia.
Dritish East Indie
France on the At
France on the At
France on the Me
Philippine Ialand:
Cuba....
Cuba....
Two sic:illes....
Two sh:ilies....
Turkey in Asia.
Wher ports In Af
Mexico.
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New Granaida. .
lirazil.
Tragaay.
Bachos Ayres.
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Chlaa.
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Malae
fev Hampshire.
Vermont. -
Massachusetts.
Thote island.
Coapetilal.
New York.
New Jersey.
Peansylvania.
Deansylvani
Melawame.
Mirylaind.
Voth Garollo South Caroilna. south C'arollua.
reoflia.
Flertila.
Llabsama.
Mbsskslppl.
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Texas.
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$\mathrm{T}_{4}$ thaesme.c.
Kentucky...
Ohla.
Michisan.
Tadlana.
Milliols.
Mlssourl.
lowa....
C'alifornla.
Dist of Columilis."
Total.

- There are about

Thin teuther.-1 ciderably in thas my kin, snd tho resul lesthess which are tarious wuys. V

## LEA

producea an ink dye; atale urine is then applied to the skin, and when dry, the stuffing is applied. The grain is raised, and when dry the akin is whitened, bruised, aad ugaln grained; after which a mixture of oil and tuliow applied to the gruin side, completes the proceas.

Varnished and Einameled Leather.-For many years it was found difficuit to canse a bright varnich to arkhere to leather without cracking, an effect which is now producer by means of beilied linseed oil, mixed
with vegetable black and Prussian blue. This composition, of the consistence of a thick paste, la rubbed upon the surface of the leather, and then dried at a temperature of from $150^{\circ}$ to $170^{\circ}$ Fahr. The proceas is repeated from 3 to 7 timea, and when quite dry, the varnish adheres very firmiy, and will bear considerable flexure and tension without cracking. By mixing colored pigments with the varnish, enameled leather colored pigments with the varnish,
of various colora may be produced.
 Yrah ending Juna 8ytis, 1850.

| Whenca Imported. | Tanned, bend, aole, and apper. |  | Skins tanned and dronsed. |  | 8klvarn. |  | Boots and ahoe to |  | Gloven for man,women, andmhlldren. |  | Maoufacturer of leather not apectifad. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Prupis. 1,659 | Eblinar. | Duzen. | Dollara, | Dozen. | Dollara, | Pairi. | Dollare | Dusen. | Dollara. | Dollars. |
|  | 1,600 | 796 | $\begin{array}{r} 42 \\ 1 \end{array}$ | $806$ |  | …'. |  | $\ldots$ |  |  | .... |
| Danish Weat Indtes. |  |  | 40 | 181 |  |  |  |  |  |  |  |
| clambarg. | 83,591 | 12,645 | ${ }_{6}^{643}$ | 7.272 |  |  | 329 | 1,208 | is | 62 | \%,872 |
| Bremen.. | 74,678 | 29,594 | 2,551 | 22,893 | 239 | 1,779 | 1,065 | 1,935 | 15,628 | 79,865 | 52,859 |
| Holland. | 13,890 | 3,411 | 43 | 825 |  | .... | 716 | 2,048 |  |  | 1,065 |
| Belyfum | 108.611 | 42.702 | 101 | 1,083 |  |  |  |  |  |  | 944 |
| Engiand | 411,937 | 14.189 | 29,184 | 283,4161 | 11,035 | 34,780 | 36,255 | 85,656 | 118,261 | 500,010 | 29,025 |
| Scolland | 7,190 | 1,538 | 1,535 | 12,304 | $\ldots$ | .... |  |  |  |  | 208 |
| Malta........ | 8,300) | 1,947 | 56 | 305 | $\cdots$ | $\ldots$ | 451 |  | $\cdots{ }_{9}$ | 75 | 8, ${ }^{494}$ |
| Canaila Br . N . Am mer. | 1,646 | 608 | 54 | 256 | $\ldots$ | ..... | 90 | 81 | .. |  | 8,264 |
| Britsh W. Indlea. | .... | $\ldots$ | 100 | 553 | .... | .... | 98 | 228 | ..... | .... | 21 |
| Britlsh Mulana... |  |  | 65 | 239 | ... | $\ldots$ | ivo |  |  | **.* | .... |
| British Anstralin... |  |  | ${ }^{279}$ |  |  | ... | 120 | 154 | .... |  |  |
| Iritish East tutles... | 8,848,440. | 1,669,889 | ${ }^{19,465}$ | 47,402 | 2,325 |  | 22,777 |  |  |  |  |
|  |  | 1,0,8,316 | 34,637 | 818,939 | 2,325 | 12,003 | 22,174 | 40,210 | 141, 109 | 98,6+1 | 163,640 |
| Fraice on the Medile | 085 | 8,316 | 82 | 183 |  | $\cdots$ | 014 | 883 | 100 | 174 | 46 |
| Phlipplave | 497 | 338 | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | 40 |  |  | $\cdots$ | 21 |
| Portuzal | 970 | 820 |  | $\cdots$ | $\ldots$ | $\cdots$ |  | 19 |  |  | $\ldots$ |
| Two stelles. | .. | .. |  |  |  | $\ldots$ |  |  | 80 | 68 |  |
| Turkey in A aia. | .... | $\ldots$ |  | 154 | ... | .... |  |  |  |  |  |
| Other ports |  |  | 10 | 44 |  |  |  |  |  |  |  |
| Mexteo. | 1,0,0 | 211 | 1 | 13 |  | $\ldots$ | 6 | 5 |  |  | 633 |
| Central leppib | 446 | 17 |  |  |  |  |  |  |  |  |  |
| Sew Grama | 446 | 171 60 |  | 29 |  | $\ldots$ | $8,8=1$ | 5,950 | 3,810 | 10,655 | 531 |
| Brazil.. | 15 | 0 | 197 | 914 |  | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ | .... |
| Truguay |  | ..... | 420 |  | . | .... | .... | $\cdots$ | $\ldots$ | .... | .... |
| Baenus Cy | $20_{0}$ | '59 |  |  | $\cdots$ | $\cdots$ |  | $\cdots$ |  |  |  |
| chisa | ... | .. | 23 | 320. |  |  | .... |  | ... |  | 2,524 |
| Total. | 4,519,651 | 1,918,9n7 | 99,581 | 750.788 | 12,599 | 00,212 | 66,421 | 189, 80 | 279.349 | , 344,850 | 30,043 |

## Statigtica of the Tannehes in the United States, accohdno to the Crnsey or 18010 .

| States. | $\left.\begin{gathered} \text { No. of } \\ \text { tan- } \\ \text { neries. } \end{gathered} \right\rvert\,$ | Capital | No. of hides and skina, |  | Value raw anterlal. | Nu. of hamia employed. |  | Munthly wegas. |  | No. of sides of leathur, skins, ete., produced. |  | Valoe of manulact. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Hidex. |  |  | Males. | Fem. | Mates. | Fiem. | Sking. | Sideoleath. |  |
|  |  | 13, ${ }^{\text {732-4.74 }}$ |  |  |  |  |  |  |  |  |  |  |
| N |  | 182,74i |  | 81,3.m | (1) 770 | 50 | 8 | 17,229 |  |  | 692,663 |  |
| Sew lami | 161 | 411,975 | 160.679 | 169,595 | 54.779 | 512 |  | 11.787 |  | 100,595 | 889,178 | 900,421 |
| Termont. | 152 | 840,251 | 125,1152 | 41.3314 | 357,946 | 890 |  | $8,807^{\circ}$ |  | 44.8331 | 254,204 | 887,400 |
| Massachusett | 2414 | 1,877.725 | $751,221)$ | 298,001 | 2,911,178 | 1,510 | 82 | 41,245 | 868 | 298,000 | 1, (5) 0,444$)$ | 8,519,128 |
| Thode Ista | 10 | 42,916) | 10,571 | 14,801 | 41,615 | 18 |  | 529 |  | 14,801 | 21,142 | 75,0 ${ }^{\text {che }}$ |
| Connectleat | 115 | 860,500 | 122,4.5 | 07.110 | 45il,554 | 407 |  | 10,127 |  | 07.110 | 644,910 | 781,0,00 |
| Sew Yori | 949 | 5,02h,143, | 717,868 | 971.594 | 6, 1465,221 | 4,914 | 81 | 102.171 | 298 | 871, 1294 | 8,415,724 | 9,804, 0000 |
| Nicw derse | 1838 | 872, 07 | 111,485 | 120,781 | 429,6371 | 4158 |  | A,946 |  | 120.781 | 202,970 | 724,466 |
| P'enasylva | 1,0339. | 3,5411,818 | 920,450 | 291,794 | 8,160,309 | 2,9is | 2 | 54.754 | 17 | 298,799 | 1,852,900 | 5,275,492 |
| \| $\mathrm{c}_{\text {lavare }}$ | 16 | 99,450) | 26,050 | 12,051 | 09,620 | 105 |  | 2,5834 |  | 12,051) | 52,100 | 168,742 |
| Marylan | 1 ti | 628.90\% | 169,045 | 0×, 910 | 725,412 | 479 |  | 8,0,34 |  | $6 \times .819$ | 899,170 | 1,103,189 |
| Yirdiola | 341 | 070.988 | 1 29,200 | 74,573 | 408,926 | INHO | 6 | 18, (14) | 62 | 74,573 | 878,410 | 894,877 |
| Sorth Carolin | 151 | 251,1045 | 77,515 | 21.035 | 191,237 | 872 | 1 | 5,291 | 4 | 24,035 | 155,610 | 352, 585 |
| south C'ar | 91 | 181,305 | 85, 000 | 18, 831 | 181,879 | 264 |  | 4,467 |  | 18.830 | 110,000 | 201,882 |
| teargla. | 10 | 2112,405 | H1.484 | 21,7415 | 155.(4)4 | - 112 |  | 7,107 |  | 21705 | 162,968 | 361,556 |
| Flortha. | 4 | 9,4th) | 2, 1010 | 1,243) | 4,30\% | 12 |  | 180 |  | 1,200 | 4,2009 | 9,200 |
| Alabam | 149 | 2:m, 5 70 | 79,054 | 13,923 | 20, 247 | 437 | 5 | 5.514 | 45 | 13,122 | 158,066 | 335911 |
| Mlsajaslpp | 92 | 145,615 | 59.115 | 9,730 | 111,474 | 2645 | 3 | 4,024 | 25 | 9,790 | 114,69? | 229,407 |
| 1.auklana | 15 | $8 \times, 810$ | 10,0129 | 9. $\varepsilon_{0}^{*} 0^{\prime \prime} 1$ | 2n, 4 ( $n$ | 81 | 8 | 930 | 92 | 2, 550 | 21,000 | 5 $5,00 \mathrm{Ps}$ |
| Texa | $2 \cdot$ | 812, 4\%N | 9,304 | 1,750 | 14.024 | 63 | 1 | 1,6,47 | 113 | 1,750 | 16,700 | 52,050 |
| Arkan*as | 51 | +2,460 | 16,450 | 8,451 | 85, 24, | 110 |  | 1, 242 |  | 3,451 | 32,900 | 78,7i4 |
| Tenoes | 1194 | $4!\mathrm{M}, 820$ | $136,9+4$ | 44.439 | 396.169 | 015 | 6 | 14,343 | 82 | 48,429 | 833,489 | 746,494 |
| Kentuel | 275 | 763,455 | 198,210 | 69.880 | 537,147 | 877 | 2 | 14.417 | 0 | 61.940 | 812.46 | 985,267 |
| Ohto.. | 710 | 1,840,749 | 844.281 | 228, 19:3 | 1,118,08t | 1,82tb |  |  |  | 225,498 | 683, (6) | 1,464,591 |
| Michican | 60) | 2:36, 104 | 72,865 | 281.614) | 2108,400 | $210{ }^{2}$ |  | 6,7s2 |  | 23,600 | 144,780, | 268,980 |
| Intiana. | 838 8 | 514,497 | 141, 411 | 57.1070 | 413, 8.3. 8 | 686 | 2 | 15,198 | 14 | 57,070 | 289,094 | 714,818 |
| Illieuls | 96 | 148.978 | (12.ses) | 21,575 | 129,007 | 210 |  | 0,145 |  | 21,575 | 101,650 | 2,14,029 |
| Niscol | 14* | 244,1985 | 120, 6167 | 44,4!8 | 217,054 | 412 | 5 | 8. Hen | 41 | 44,4981 | 241.834 | 486,241 |
| lowa. | 14 | 2 21.8506 ) | 8,840 | $\times 30$ | 11.755 | 28 |  | 24: |  | 200 | 10,640 | 24,5221 |
| Wheconvit |  | $7 \times .9501$ | 29, 410 | 14,940 | U3, $3 \mathrm{j} \times \mathrm{M}$ | 78 |  | 1, 710 |  | 14,900 | 59,000 | 175,710 |
| Calfornla | ! | 000 | 129 |  | 210 | 3 |  | 80 |  |  | 240 | 940 |
| Dist, of Colum | 2 | 25,000 | \$, (tan) | $4.2 \times 1$ | 25.6ino | 11. |  | 270 |  | $4,2^{\prime} \times 1$ | 10,000 | - 40,000 |



Thin Lewther.-The process of cunning diffory con- |tawed; or treated with alum, anit, and some other matdiderably in tha mude of treatment, with the kinci of |ters. Wash leather is dreasel with oil, or simmoyed. kin, and the result tieaired. A large number of thin But whatever may he the rubsequent treatment, the leathere which nre intended to bo dyed, are tanatd in jreparatory ateps somewint reasmble each other, various waya. Whito leathers are not tannad, lut whereby hair, wool, grease, and other matters, are
removed, and she ekin is reduced to the atate of a matters are got rid of by aubjoetling the skins to hygelatinous membrane culled pelt. The halr is removed from kld and goat-skins hy means of cream of lime; the wool is generally removed by the fell-mengera before the skin to passed to the tawers. Forelgn lambekins, which are recelved with the wool on, are washed, seraped on the flesh aide, and aweated in a close room, intil, In consequence of the patrefactive fermentation, the wool can be easily removed. After thls, fatty
 $1868,1854,1845$.

| Kxported to | 1835. |  |  | 1R4. |  |  | 1855. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lealher. | Boots and Shoes. | Yulue, | Lealher. | $\left\lvert\, \begin{aligned} & \text { Moots and } \\ & \text { Shoes. } \end{aligned}\right.$ | Value. | Leather. |  | Boosa ard Shuen, |  |
| Swedish W | $78$ | Pmis. | Tolllats: | Founds. | Pala: | $\begin{aligned} & \text { Thllara- } \\ & 188 \end{aligned}$ | Founds 043 | folinain | Pairn. |  |
| Daniah Weat Indl | 7,829 | $\ddot{63 i 9}$ | 7,692 | 14,145 | 9,224 | 11.546 | 80,827 | 6,809 | 18,088 | 10,161 |
| Dutch West Indl | 0,299 |  | 1,588 | 15,266 |  | 2,095 | 16,097 | 2,854 |  |  |
| Englan* | 5\%\%, 879 | 96 | ks,071 | 041,639 | 3275 | 87,081 | 457898 | 79,400 | 8, 102 | 4.318 |
| Seotlann. | 163,40 |  | 26,940) | 883,957 | ..... | 53,6i8 | 194,289 | 96,088 |  |  |
| Oibraita | 8.880 | 8959 | 4,421 | 8.476 | 6,530 | 11.744 | 12,090 | 2,148 |  |  |
| Hrtish | ${ }_{722}$ | 8.62: | 2,934 | 1,925 | ${ }_{6} 63$ | 1.t7\% | 2,724 | 719 | 88.80 | 8,160 |
| Pritith W | 3.651 | 14.466 | 18,486 | 9,063 | 17.188 | 17,592 | 12,1177 | 1,850 | 27, 2ibl $^{1}$ | 24,46 |
| Canada. | 170,570 | F10,671 | 104,473 | 490,010 | 106,942 | 271,477 | $23 \times 790$ | 75,8*5 | 112,424 | 20P, 433 |
| britlsh Aurerican | 190,297 | 119,892 | 191,64.3 | 266.991 | 155,495 | 219,562 | 417,538 | 74,050 | 161.487 | 172,014 |
| Australa | 468 | 126,452 | 193,758 | 4,100 | 42,79t | 84,863 | .... | .... | 80,968 | 138,054 |
| Miquelon and Brit. E. Ladwa. |  | 150 | 190 |  | .... | .... | .... | $\ldots$ | 891 | 640 |
| Cenert | 21,460 |  | 3,561 | 19,295 | 1,49 | 5.593 | 30,850 | 5,245 | 1) |  |
| Spunioio | 21,66. | 1,45 | 145 |  | 48 | 59 |  |  |  | 86 |
| Madelra |  | ¢ 5 | 64 | 200 |  | $3 \times 5$ |  | .... |  |  |
| Cape te V |  | 60) | 68 |  | 268 | $3 \times 10$ |  |  | 946 | 46 |
| Hayli. | 6, 2 da | 22.791 | 19,976 | 15.241 | 14.316 | 16,255, | 10,299 | 1,899 | 4.812 | 4.068 |
| Mevero...... | : 10 | 1,243 | 1.861 | 2.2546 | 1,312 2 | 1.46 | 1,504) | 216 | 1,6241 | 4,1236 |
| Cuntral dinctea |  | 5,214 | 6.169 | 2,490 | 1.946 | 4.855 |  |  | 5,218 | 4.931 |
| Yew Granad | 264 | 6.2.19 | 7.680 | 116 | 7.8499 | 9.417 | 1,410 | 974 | 18, is- | 11,is |
| Venrzilt | \$889 | 2,2501 | 4.212 | 19,340 | 2,594 | 6,520 | 11,530 | 2,730 |  | 7,512 |
| Mrugua | 260 | 11 | 69 | .... | 2,154 | 2,991 | 1,300 | 50 | 2,174 | 2.0109 |
| arsentin | ..... | 7,961) | 5,504 |  | 5.403 | 5,369 | 12,100 | $\stackrel{310}{2,0}$ | 16.402 | 1.6.98 |
| 1'י.ril. |  | 7,749 | R,5ix | 1,110 | 8,350 | 10,818 |  |  | 27, witi | 73, 3040 |
| chlli. |  | 6, $\mathrm{M24}$ | 7.53\% |  | 30,6:12 | 2x+2.27 | 2,56i | 42.) | 72,690 | ${ }_{6}+1.58$ |
| Chlua. |  |  |  | 4.500 | 1,0 0 | 1,*29 | 8,5801 | 814 | 3,249 | 8.516 |
| Oonth A metlea genera |  | $3 \times \sim$ | 8,24 |  | 62 | 75 |  |  | 3, | e.th |
| Weat luthes getuectily | 60 | iso | 1.148 |  |  |  | 11,501 | 2,918 | 446 | 612 |
| Afilea., |  | 2,936 | 2,980 |  | 2,810 | 2,572 |  |  | 4.64 | 1,46, |
|  |  | 3, 14 | 141 |  |  |  |  |  |  |  |
| sonth seas and l'actic Ucean <br> Oither places. | 1,450 | 22,62; | 20,223 | 9.1044 | 27,576 | 41.146 | 2,147 | 521 | 34.i.2 | 31,24 |
| T | 1,1:4,561 | 4t0,709 | 674,764 | 1.763, 1468 | (55,60\% | N91, 「z3 | 1,410, 3 - | 248, Ni 7 | 810144 |  |

Monocro.-Muroceo leather is prepared by tanning goat-skIns with mumech, and dyeing on the grain mitle. Inferior moroceoes are prepared from sheep-skins whiilarly treated, for which purpose each akin of pelt is sewed up into a bag, the grain olde outermost, distended with alr, and placre] in a mordant of tin or alum. They are next placed in a warm eochineal thath for red, Indigo for blue, urehil for purple, and are worked by hand untll the dye has properly situek. For certain colors the tunning precedon the dycing. The tanning or mumaching is carried on in "large tuh, containing a weak solution of numach In warm water; another and, reronger solution is contained in an udjolnigg voratel, portion uf which, together with aome numach leaves, in pured into the bas; mome of the wosak solution is then adifed, the tag is then distemied with air, and the akin thrown inte the vat. In this way alwat 60 skine are treatel, and are kep in motion a few hours in the kumach tuls ly means of paddles worked by hand or ly machlnery. The skins are then taken out and heapeal up on a shelf at the shle of the tha, the preasure thas prondiced cansing the higoor to escape slowly thrungh the pores of the mkin, the bage being alifted abolit from time tu time. The batgu at ne, iown! Intoa arecud vat containiuga str nger

 Shad i . . thath of maftion. All the kinn are noxt



 Fian theij trevo, borny, und are ion the crust, an It la
called. They next gass through much laborions friction with the pommel, and with a glass-lall; while the peculiar ribibed appearance of morocco is riven by means of a bell of bax-wood, on which is a number of narrow ridges. Sheep-skin moroceo is premad from whlit sklus ; the skin-spititinte madio e rasembles in principle that alreaty describul, only as the membrane ls thinnor certaln variations are reguired. Instead of saretching the vkin on a drum, it iv passed loneween two rollerx, the lower one of gun-lu"til, and sulit, and the upper made of gon-metal rings; while lietwren the two rollers, and nearly in cratat, is the elgee of the alasp knife, which is nowed ly a a rank, an already mentioncel. When a akin is introluced Inetween the two rallera, it is dragged through ugainst thw knife edge and diviled, the nulill lower raller suppurting the membrane, while tho mper une, being capabile of moving through a small powe by means of itn ringe, ubljants leself to inequalitios in the menlonane; where this is thin the ringe beecme depresed, and where it is thick they rise "I, so that no part es. capers the uction of the kulfe. The divided hins are mit wewol up int, bags, as from their thinnees they can be ammached quickly'.

In proparhys white leather ber tawing, the pelt is made an puro as possible; the loset kind of hesther laing preparal from hid-skins, while theep or laminskias make the inferlor kinda. They are tirst ficl withalnm and nate in a dram or tumbler made like a luge charn; aborit: llos. of altim, and iths, of salt heing ued to 1:20 minn of mediam nize. Tive alamina wh the alam probably forms sos:w delinite compond with the gethtin of the akins, while the walt ocrves to whiten them

When taken allowed to fer surplus nlum They are nex brittle, but th a dressing of dozen eggs. some time the thing but wat repeated, and beautiful softn given hy mani clein water, $\mathbf{w}$ stretching, or iron plate flxe which the skin They are finlah
Statenret Exil pIRTS AND llome Cons Lhatien, as last SEVENy THERROF.

| Year*. |
| :---: |
| 1810... |
| 1811.... |
| 1812.... |
| $1843^{14}$. |
| 184. |
| 1845. |
| 184. |
| 1847. |
| 1843. |
| 149.. |
| 1830. |
| 15t. |
| 1 t 12. |
| 14.is. |
| 1511. |
| $188 \%$ |
| 16\%6. |

Yearly sverage. 1

* The ycar 18 it quence of a change
Statenent exihimi Hxportationa HIMPTION of Shinh in tif
TEEN IEARA, A
$\qquad$

- Yuar IS49 ly giv. of a cronnge In the fir
+ For but slx See llinss, for the Initerl States Ledger, the merchants and tra count la placed is the Jiuraml. Vor different comitrles

When taken out, the akins are washed in water, then allowed to ferment in bran and water, to remove the surplus alum and salt, and to reduce the thickness. They are next drled in a loft, and become tough and brittle, but they are made soft and glossy by means of a dressiag of 20 lbs , of wheat flour, and yolks of 8 dozen egge. By rotating the skins in the drums for sonte time the dressing is absorbed, and scurcely any thing but water remalns. Thls dressing is nsually repeuted, and the aklas are hung up to dry. The beautiful softness and elasticlty of this leather is now given by munlpulation. The ekins are first dipped in clean water, worked upon a board, and staked upon a stretehing, or softening iron, conslsting of a rounded iron plate flxed to the top of an upright beam, by which the skins become extended and made smooth. They are finlshed by being passed over a hot fron.
Statimbnt exiliaiting thr Fonelon Imponts ano ExPuRTS ANO Domprtio Exporth, togetilkt witil tir Hone Consumption or Foneion Inpoatations of Leather, and the Mandfactuads therbof, tor tilk last Sgyentern Yearg, and the Yearly Average Therrof.

| Years. | $\begin{gathered} \text { Foralen } \\ \text { Importatione } \end{gathered}$ | Forelga exportis. | Domeatlo sxports. | Home coanenuption of forelen Importationa. |
| :---: | :---: | :---: | :---: | :---: |
|  | , | Dilaras | Dollura. | Dorlary |
| 1810. | 542,408 | 14,249 | 2331,917 | 508,250 |
| 1811. | 819,854 | 22,5013 | 282,272 | 787,831 |
| 1812. | 912,58\% | 10,258 | 191,427 | 942,839 |
| 184\% | 837,217 | 8.446 | 142,187 | 238,771 |
| 184. | 778,407 | B,216 | 248.197 | 723,19t |
| 1845 | 979,986 | 40,263 | 84.4.454 | 939,623 |
| 1846. | 1,180,084 | \$.103 | 874.188 | 1,124,371 |
| 1547. | 1,060, 818 | 8.830 | 278,672 | 1,068,483 |
| 1843. | 1,890,492 | 6,692 | 210,578 | 1,384,306 |
| 1499 | 1,460,125 | 18,409 | 161.2011 | 1,447,927 |
| 1850. | 2.107,590 | 18,060 | 183,593 | 2,091.454 |
| 1511. | 2,815,664 | 28.449 | 472,147 | 2,759,814 |
| $1 \mathrm{Si2}$. | 2,627,911 | 28,787 | 447,325 | 2,6014,124 |
| [85]. | 8,816.283 | 41,630 | 68'106 | 8,275,618 |
| 13)1. | 8,601.204 | 82.6831 | 99.605 | $8,575,371$ |
| $18: 5$ | 8,469,800 | 139,700 | 321.912 | 2.081,160 |
| 1836 | 4,585,122 | 74,297 | 1,419,076 | 4.461,825 |
| Yearly averago. | 1,849,143 | 8., Min) | 397,227 | 1,518,208 |

* Tho year 1843 represenis but nine months, In couse quenre of a change in tho fiscal year.
Statenent evilhitina the Fobrigin Impontationg ani Hxpostations. Doneratio Exiorta and Ilour Conbryption of Forkion Imporications of llioks and Skism IN TILK UNITRD STATE, Fua the f.ast Seven teen Yeabw, and thay frakiy Avfigade tubugor.

| $\mathbf{Y}$ | Foreign itmportalions. | Forelan esports. | Domestic esper.s. | Iluma con. sumprion of forrign limportal trana |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 1 h_{1} l_{n} r s \\ & 2.756,214 \end{aligned}$ | Duflart. | 2) H14.** | $\begin{aligned} & \text { 1miln} n n \\ & 2,750.214 \end{aligned}$ |
| ist | 3,457,249 | 68.972 | $4{ }^{4}, 898$ | 3,398,276 |
| $19+2$ | 4,067,816 | 61,702 | 68,187 | 4.0 (18, 1644 |
| 1549. | 2,619,8:5 | 7,0\%8 | 51,340 | 2,612,257 |
| 154. | .... | .... | 112,65 ${ }^{\text {a }}$ | .... |
| 184\%. |  | . . . | 111,698 | . $\cdot$. |
| 1846. |  |  | 148,8:8 |  |
| 1517. | +1,829,948 |  | 181.894 | 1,529.948 |
| 148. | 4,262,069 |  | 86.145 | 4.242, 166 |
| 1819 | 4,507.300 | 127,616 | 23,3901 | 3.179,64 |
| (ss). | 4,703,1091 | 74,822 | 71,940 | 4.721,249 |
| 151. | 0,961.848 | 103,943 | 88.624 | S, ¢81.2(6) |
| 1593. | 4.828,119 | 191, 014 | 65,121 | 4,72201\% |
| 18.21. | 5,91:9,391 | 67, 代2 | 25, 13.58 | \$,451.751 |
| $15^{3} 1$ | 7.820 .272 | 179.798 | 28,624 | 7,440.479 |
| 18.5 | $8,14+4,015$ | 811,0.98 | 861,942 | 7.741, 1127 |
| IS56. | 8, $10 \times 3,2492$ | 161,927 | 101,174 | 7,081,964 |
| liearly ave | 4, 510,465 | 109.104 | 91,805 | 4, i12.6is3 |

- Year tifis is given for nime monthsonly, In consequenco of a change th the fiseal year.
+ For but six monlths.
See llinns, for the imports into, and exports from, the I'sited States, of hidea and leather.
Ledger, the principul book of accounts kept by merchants and tradesmen, wherein every person's nccount is placed ly itself, after lioing extracted from the Joumal. For an extended summary of the laws of different countrics regulating the keeping of accounts, see lane hayt's Commercial law of the World.

Lee, an epithet used by seamen to distingnish that part of the hemisphere to which the wind is directed from the other part whence it blows, and whlch is ac-co-dingly called to windivard. This expression is chlefly used when the wind crosses the line of a shlp's course, so that all on ons eide of hev is called to windward, and all on the other side to leeward. Hence, under the lee, Implles further to the leeward, or further from that part of the horizon whence tha wind blows. Under the lee of the shore, means a short distance from the shoro which lles to windward. Thls phrase is commonly understood to express the situation of a vessel anchered, or suillig under the weather-shore, whers there is always smoother water and less danger of hasvy seas than at a great distance from it. Lee lurches, the sudden and v!olent rolls whlch a ship often makes to the leeward in a high sea particularly when a large wave strikes her on the weather-slde. Lee side, ell that part of a ship or boat that lies hetween the mast and the side furthest from the direction of the wind; or, otherwise, that part of a ship which is pressed down toward the water by the effort of the sails, as separated from the other half by a line drawn throngh the middle of her length. That part of the shlp which lles to windward of thls line is accordingly called the weather side. Thus, admlt a ship to be sulling southward with the wind fit east, then is her starbourd or right side the lee side, and the larmourd or left the weather side.

Leeward Ship, signifies a versel that fulls much to leeward of her cotrse when suiling close-hauled and consequently loses much ground. To leeward, toward that part of the horizon whieh lies under the lee, or whither the wind blows. Thus, "We saw a fleet under the lee," and "we saw a fleet to leeward," ars synonymous expressious.

Lee-ray, in navigation, is the deviatlon of the course actually rin by a ship from the course stecred upon; or it is the angle formed lietween the line of the ship's keel and the line which she actually describes through the wuter. Ju consequence of the action of the wha or currents, a ship is generaily inspelled sideways as well us forward, whence the direction of her motion is ditierent from that of the keel.

Leeward Islands, a name frequently appllenl to those of the West India Islands lylng between $N$. Int. $15^{\circ}$ and $19^{\circ}$, and W. long. $60^{\circ} 30^{\prime}$ and $65^{\circ} 40^{\prime}$. The group comprises the llitish posacssions of Antlyan, Deminica, Montserrat, Nevis, St. Christopher's, Anguilla, Baroula, and the Virgin Islands, which are all included under one governinent. The French, Dutch, Danen, ete., lative also possessions to the group. There are $2: 3$ islands, hesides numerous lslets, haviort in ull an area of about 1700 square miles, and a population of about 321,000.

Leech-Fishery. The denand for the medieinal leech (Hirudo medicinalis) is so great as to athord employment to a eomsideruble number of persons in catching und selling the aninul. It is commen throughout limrope, America, and India, inhabiting lakes and poris. Norfulk supplies the greater purt of the leeches bronght to the london market; but some are taken ia Kent, Sultolk, lissex, and Wules; und large quantities are tmported trom lhordeaux and lidshon, They are caught in spring und nutumn by people who wade into tho pools and allow them to fasten on their limb; or more generally the eatchers bent, as they wate in the surface of the water with pules, which sets the leeches in inotion, and lorings them to the aurface; when they are taken with the haud, and put into bags. As they come to the surface just before a thunder starm, this is rugatiod a good time for collecting them.- 'linonnos. We extract from the Gazette des Hopitaux the following interesting necouat of the lishery of leoches ut La Hrenne, in France:
"The eonntry abont Ia lirenne la, perhaps, the not tatatereating in France. The peopte are miserable-lookling, the
eattie wretched, the fish junt sa bad-but the leechen are admirahia. If ever yon pene through La Brenne, you will nee n man, pole and atreight-haired, with a woolen cap on hia head, and hita legs and arma naked; he walkn along the bordern of a marah, ameog the apota left dry by the aurrounding waters, but particularly wherever the vegetatien aeemin to proserve the autijacent solt undistarbed; thle man ia a leech-fiaher. To aee him from a diatance-bla woe-begone aspect-hia hoilow eyea-hhia livid lipo-hia aingular gentares-yen weald take hin for a patient whe had left hia aick bed in a at eif delirlum. If yon ebmerve hias evary now and then ratatog his legt, and examiniag thein one after the other, you might suppose him a foolt but he is an intelligent leech-fater. The leechen attich themseiven to hia lega and feet as he movea among their haunta; he fecta licelr prosence from their bite, and gathers them as they cluster abont the roots of the bullruchee and asa-weeds, or beneath the stoned covered with green and giuey mose. Bome repoet on the mud, while othera awim about, hut mo alowly that they are eanily gathered with the haod. In in favorable season, it is poustibe, io the ceurse of three or four hours, to stow ten or tweive dozen of them It the ittle hag which the gatherer carries on his ahoulder. Sometmes you will see the leech-fiaher armed with n kind of spear or harpoont with thia he deposita pieces of decayed anImal matter in placea frequentod by the leechea; they soon gather round the prey, and are prosently themnoires gathered Into a litile vensel half full of water. Such in the leech-huhery In apring. In aummer the leeeh retires into deep water; and the fahera have then to atrip nesed, and walk immersed up to the ehtn. Some of them have little rafls to go upon; these rafta are made of twige nud rnalies, and it ta ne casy matter to propel them among the weeds a nd riqualic piants At thts season, ies, the aupply in the pool ita aennty ; the fisier can only take the few that awim withil his reach, or these that get entangled in the ntrueture of hia , aft. It is a horrid trade, io whatever way ti ia earried on. Ti eleech-gathorer If conatantify more or leas in the water, brea hing fog and miat and fetid odore from the marah; be ia oft 3 attacked with ague, catarrha, and rieumatism. Some indc'ge in atrong liguors to keep off the noxtons influenee, but they pay for it in the end by itsorders of other kinds. But, w th all ita forisüuling pecuilaritles, the leech-fiahery given em, voyment t.) many handa: If it be peroicioue, it in also lueraive. Besides supplying all the neighboring pharm' ens, great quantilea are exported, and t'rie are reculer era congaged for the purpose. llent E"sartier la de of those persona; and an ímportant personage he is when be cemes to Meobecq, or Ita viefnity ; hia arrival makes quite a fite--ill are eager to greet him. Among the fateresting particulara which 1 kathered in La Brenne rulative to the teceh-trade, 1 mar mention the fotlewing: (me of the tradern-what with hie own flahing and that of his children, and what with his acquialtiona from the cartiers, whe sell quantitien second-hand-was cuabled to hoard up 17,500 leeches in the course of a few montha; he kept them deposited in a place where, in one nifit, they all became frozen en masse. Hut the front does not iminicilately fill then: they may generally be thawed futo life agrin. They easlly, indeed, bear very hard usage. I ani told by one of the carriera, that he can phek them as closely as he pilen res io the moist mack which be tiea belind his waddle: and sometimen he atowa bis ctoak and boots on top of the anck. The treter buys his tecerhes pille mile, hig and little, green and black-alt the amme; but he atterwaris morts them for the market. Those are generaily accoonted the best which are of a green gronod, with yelluw atripee along the body."

A tract puldished at Paris in 1845, hy M. Jorepls Martin, Jeech-merchant, contalns a great $\quad$ arlety of curious and instructive detalls in regard to the natural Mistory of leerhes, the trade carride on In them, and the frauds of the dealers. They are, we telleve, muth mere extenalvely uned In medlioal practive in France than in Fingland; and, at all eventr, their conaumption in the former seens to be quite immense. Nowithstanding the exhaustion of some of the marahes and ponda in dlfferent parts of the eountry, whence sup)jolien of leechen were formerly prowired, great numbern are utill obtained at home. Jhy far the largur jortion of the necensary rupplies is, however, brought frous abroal ; princlpally from Germany, Spain, Sarillnia, Turkey in Jiarope, Aggern, Asia Ilinor, ute. In tie French custom-house the 1 mport a ere eatimated at 500 leechee per kllog.; but M. Martin affirins that 1000 leeches do not, at an average, wolgh more than a kilog. Hence the nombers and values of the loeches importod
into France during each of the five yeare ending with 1847, will be:

| Yearm. | Numbers aceording to officlal Relurns. | Number corres'tid. ${ }^{*}$ | Offichal <br> Yalue. |
| :---: | :---: | :---: | :---: |
| 1848 | 17,607,696 | 84,915,898 | ${ }_{\text {FPates, }}$ |
| 184 | 15,292,678 | 80,466,846 | 456,980 |
| 1845 | 18,548,488 | 27,686.9811 | 415.344 |
| 1846 | 12,781,545 | 28,448,090 | 881.647 |
| 1847 | 11,790,840 | 28,681,680 | 80, 7110 |

See Dr How's Rer., xili., 80.
Leghorn, acity and sea-port of Italy, in Trucany, lat. $43^{\circ} 33^{\prime} 5^{\prime \prime}$ N., long. $10^{\circ} 16^{\prime} 45^{\prime \prime} \mathrm{E}$. Population, in 1851, 84,000. Leghom has an outer harbar, pro tected by a fine mole, running in a north north-west direction upward of half a mile into the sen, enil a amall Inner harbor or basin. The water in the harbor is rather shallow, varying from 8 feet In the inter basin to 18 or 19 feet at the end of tho mole. The rise of the tides ?" about 14 inches. Ships lle within the mole with their sterns made fast to it by a cable, and an anchor out ahead. The light-house is built on a rock a little to the sour a-west of the mole. It is a consplcuous object, being rimut 170 feet above the level of the aea. The roadstead lies west north-west of the harbor, between It and the Melora bank. The latter is sunily, lying north and south, 4 miles in length hy 2 in hreadth, the side nearcst the shore being almut 4 milea from it. It consista, for the most part, of sand and mud, and has from 3 to $8 \frac{1}{2}$ fathoms water over it; lut toward his southern extremlty it is rocky ; snd there, on some of the points which project above the water, the Melora tower has been constructed to serve as a sen-mink; it benra from the llght-house west one half north, distant alout 4 miles. The best courve for entering the roads in to keep to the northward of the Melora bank at alout a mile from it, and then, having doubied it, to stand on for the light-hnose alnat $2 \frac{1}{2}$ miles, anchoring in from 7 to 9 fathoms, the light-house frearing south mouth-east one half east 4 miles off. The entrance by the channcl to the south of the Melora hank is nlso quite safe; bat it is not so suitable for large ships as that by the north. During southerly winds there is sonsetimes a heavy sen in the roads, the the holding-ground is good; and with sufficient anchors and cables, and orlinary precaution, there is ne danger. The lazaretto lies to the sonth, atout one mile from the tower, anil lss said to be one of the best In Fiurope.

Trade, etc.-The compurative security and freedem which forelguers have long enjoyed in Tuscany, still more than its advantageous sithatlon, render lechiorn the greatest cominercial city of Italy. Its exports are slailar to those from the other Itallinn ports ; consisting prinelpally of raw and manufactured silks, olive oil, borax, fruits, shumac, Valonla, wines, rags, hrimatone, cheese, marhle, argol, anchovies, muna, juniper herries, hemp, sklus, cork, etc. Leghorn platting for straw hats is the tinest lin the wordd; aull latge quantitien are imported into liritals. See llits, Straw. Hesiden the above, all sort: of articles, the produce of the levant, may be had at Jeghora. Jecently, how. over, this trade has fallen off; tho linglishand otbernations who used to import Levant jrodece at serond hand from Italy, preferring now, at least for the must mort, to bring it direct from Suyma, Alexamition, etc. The imports are exceedingly numerous ant salualile, com. prlsing all sorts of comnsalities, with the exception of those produred by Italy. Sugar, coffec, and afl serts of colonial produce; cotton stulfs, yarn, and wonl; enrn, woulen stuff, splees, dried fish, limigo, dyewooln, rice, Iron, tin, hilea, ete; are among the most prominent artlclea. Shlps with corn on luard may unload within the limits of tho lazaretto, without being detalned to jerform quarantine ; a clreumstance which has contributed to make Jeghorn one of the principal dipher. for the wheat of the lilack Sea. llurl wheat, partieularly from Taganrog, 1 s in high eatimation leve and in the other Itallan ports. It is particularly we!]
fitted for m ernment do ports of Leg have been f deficlency.
Money.kept in pezz pezza beling money has b accounts are centesimi is with London in 20 soldi d bist, p. 37.

Weights an and silver an divided Into 6912 grani. English grain lbs, avoirilupe usual to recko pois : this, pe and other allo of uncertalnty English cwt. at leghorn, th of logwoed, to der more than 100 lbs . The taro of sugar brandy $=120$ cles $=160 \mathrm{Jbs}$ the sacco or 8 4 sach:s $=1 \mathrm{in}$ measures are:

2 Mezzett
2 Boceato
20 F'lasehi
The barile of 8.83 wine gallor A large jar of o and a box with
The long me into 20 soldi, 6 22.08 Enylish yards. The car
Credit, Charg and sold for sil money in which a difference of \$107 in silver lought or sold there is no dis discount of 3 pe per cent. Charg generally from ceat. Tares, Mocha caffee, 5 30 to 40 per se crushed, fe per package, and 4 p if per cent. upwa rosia, 12 per cent the price current Three Montha' Da ish dollurs, it 11 loons, flo1; tien wher 196 C. Flo
In $18: 16$ n join horn, with a mapit taking the lira at whole of the eu bility is limited t the power of issu 6,000,000 lire. government, are the bank ars conf
fitted for making vermicelli, macesroni, ete. The government do not publish sny official account of the imports of Leghorn ; and no mercsntile circulars that we have been fortunate enough to fall In with supply the deficiency.

Money.-Down to 1887 accounts were principaliy kept in pezze da stto reali (or dollars of 8 reall), the pezzu bcing divided into 20 soli or 240 denari; but this money has been discontinued since the above date, and accounts are now kept in lire Toscane. The lire of 100 centesimi is worth 7.82 d ; ; so that the par of exchange with London is $80 \cdot 69$ lire per £1. The lire is divided in 20 soldi di lira each of 5 centesimi.-Tate'a Cambist, p. 37.

Weights and Measures.-The pound by which gold and silver and all sorts of merchandise are weighed is divided into 12 ounces, 96 drachma, 288 denari, and $691 \%$ grani. It $\mathrm{ls}=339 \cdot 542$ French grammee, or 5240 Engish grains. IIence 100 tbs . of Leghorn $=74.864$ lbs, avoirdupois; but in mercantile calcuistions it is usual to reckon 100 lbe . of Leghorn $=77 \mathrm{lbs}$. avoirdupois: this, perhaps, has arisen from taking the tares and other aliowances, as to which there is is good deal of uncertainty, into account. Thus it is found that tho lingish cwt. seldom renders more than 140 or 142 lba . st Leghorn, though it is $=150 \mathrm{Ibs}$; in the instances of logwood, tobacco, and a few others, it does not render more than 135 libs. The quintal, or centinago $=$ 100 fls . The centuro is generally 150 lbs . ; but a centaro of sugar $=151 \mathrm{lbs}$; that of oil $=88 \mathrm{lbs}$; of brandy $=120 \mathrm{lbs}$. ; of stock-fish, and some other artjcies $=160 \mathrm{lbs}$. The rotolo $=3 \mathrm{lbs}$. Corn is sold by the saceu or sack $=2.0739$ Winch. bushels; hence 4 sacl: $=1$ imperial quarter, very nearly. The liquid measures are:

## ${ }_{2}^{2}$ Mezzette $=1$ Boccale

20 Flaselit $=1$ Bartlo $=12$ English wino gallons.
The lurile of oil is 16 fiaschi, of two boccali esch $=$ 8.83 wine gallons; it weighs about 66 Ths. avoirdupois. A large jar of oil contains 30 gallons; a small one 15 ; gnd a box with 30 bottles $=4$ gallons.

The long measure is the braccio, which is ciivided into 20 soldi, 60 quattrini, or 210 denari; it contains 22.98 English inches. 155 bracei $=100$ English yards. The canna of 4 bracei $=92$ English incies.

Credit, Charges, etc.-Goods in general are bought and sold for silver money; between which, and the money in which bills of exchange are bought, there is $a$ difterence of 7 per cent. (agio) against gitver; i.e., \& 107 in siliver are equai to $\$ 100$ in goil. On goonls bought or soll (unless it be in effective money, where there is no discount) there is, generaliy speaking, a discount of 3 per cent. ; on all cotton manafactures, 4 per cent. Charges on sales, incinding commission, are generaily from 6 to 8 jer cent.; on tish, 8 or 10 per ceat. Tares.-Cinnamon 1 b .12 to 1 i per half buie ; Socha coffec, 5 to 7 per cent. ; indigo seroons, $\mathbf{i b}$. 20 , 30 to 40 per seroon; sugar Ilavana, 14 per cent.; crushed, 42 per cent. or real tare of package; loaf package, ani 4 per cent. for paper; lirazil of 19 inches, js per cent. upward 20 per cent. ; tobacco, 10 per cent. ; rosin, 12 per cent. For most other articles specilici in the price current the real tare is sliowed. Eirchanges, Three Mowths' Date.-L.onion, liv, (it) per $\boldsymbol{E}$ stg.; Spanish dollurs, 6611 s ; Paris, liv. (at per 100 franes; doulsloons, £101; Genea, liv, @ per 100 Ln ; ; Trieste, Jiv. at per low C. Hior.
in 1830 a joint-8tock bank was established in Leg. hom, with a rapital of $2,000,000$ lire ( $\mathbf{£ 6 6 , 6 6 6}$ sterling, taking the lira at 84.) In sharee of 1000 lire each. The whole of the capital le paid uph, and the reaponsihility is limited to the capital. The munugers have the power of issaing prom ssory notes to tife extent of $6,000,000$ lire. These notes, though recuivel liy the goveinment, are not lega? tender. The operations of the bank are confined to the disconnting bills of ex-
change not having more than four months to ran, and to the purchase and sale of foreign coins. The rate of discount is fixed at $\overline{6}$ per cent. The superintendence is veated in a director and eight regents, nominated by the shareholders; and the government appoints a com. missary and three censors (from among the share holders), who exercise the highest authority, to secure obedience to the statutes. An annual report and hal-ance-sheet ia produced, and is accessible to all shareholders. The maximum amount for which notes are issued is 2000 lire $=£ 60$ 13s. 4d. sterling; the lowest, 200 lire $=\mathbf{f 0 1 3 s , 4 d . ~ s t e r l i n g . ~ I t ~ i s ~ a ~ p r o t i t a b l e ~ e s t a b - ~}$ lishment ; its shares are st a considerable premium, and it hus every prospect of success.
 tua Years 1850, 1851, 1852.

| Arilcles. | 1850. | 1851. | 1869. |
| :---: | :---: | :---: | :---: |
| 8ugar, 11avana . . lbs | 8,400,000 | 1,149,000 | 2,510,000 |
| " crushed ..lbs. | 18,374,000 | 7,088,000 | 15,182,000 |
| " loaf .......lbs. | 18,500 | 6,000 | 87,000 |
| $\cdots{ }^{4}$ Brazil | 602,000 $1.512,000$ | 185000 | 89,000 |
| Coftec ...........lbs | $1,512,000$ $8,028,000$ | 129,000 $4,439,000$ | 986,000 $8.810,000$ |
| Cotton ........... ${ }^{\text {Ibs }}$ | 211,500 | 650,700 | 188800 |
| Pepper . . . . . . . . . Ibs. | 298,500 | 635,000 | 886,1000 |
| Indigo..... $\left\{\begin{array}{l}\text { cases . } \\ \text { soroons }\end{array}\right.$ | 152 128 | 128 181 | 278 111 |

Aooount of the Numaze, Tonnage, and Cames of the Megohant Vebbeis whiog brlonoed tu eaci Maritime Division of Tuseany in 1850.

| Martime Divhiona. | 1 to 49 tons. | Above 50 tone. | Total. |
| :---: | :---: | :---: | :---: |
|  | Ves. 1 Tane. Crewn | Vea Tens, Crew | Ve4. Tons. Crew |
| Leghorn... | 1088.687 | $11314,5741,809$ | 22117,251 |
| Orbetello. | 124.8189 .9 |  | $124{ }^{1215} 9040$ |
| Lsl, of Eiba | a $168,2,2841,438$ | 464 4,663 |  |
| Vtareggfo. | - 98 2,712 847 | 54 8,612 841 | 152 6,824 888 |
| Total. | 498, 8, 471 8,782 | 213 22,849 2,440 | 711 $81,340, \overline{6,222}$ |
| Custosa 1 | Dotifs heogited in tha for. Tcecany, in 1348, 1849, as |  | ?nn Decter |
| Duties. | 1848. | 1849. | Sso. |
| Imp | $\bar{L}$ | $\begin{aligned} & \text { Idvres. } \\ & 3,614,28! \\ & \hline \end{aligned}$ | 4,660 |
| Export.. | 286,490 7,8\%3 | $\begin{array}{lll}\mathbf{2 7 4 , 0 1 0} & 9,184\end{array}$ | 297,710 9,204 |
| Transti.. | 81,922 2.730 | 100,751 8,853 | 79,793 2,660 |
| Tota | 8,730,16t 124,88 | ,042 182,96 | 187,974 $\overline{167,982}$ |

Leipsic, or more correctly Leipzig, one of the four circles into. which Saxony is divided, comprises the north-west part of that kingdom, and is bounded on the north and west by Prassia, south by Saxe-Altenburg and the circle of Zwickau, and east by the circie of Dresden. Area, 1336 square miles. The country is generaliy level, and lies lower than any other part of Saxony. It is most elevsted in the south, where soine offisets of tho Eragebinge sppear, but do not attain any great height. Leipsic belongs to the basin of the Eibe, and is principally drained by its tributaries the Eister and Mulda. The soil ls fertile, und in general weil cultivated. The principal crop is corn. The rearing of catt!e, and especially of shee $j$ of a superior breed, is much attended to. Tobacco i extensively grown. There are no metals; but limestone, marble, potters' cluy, fullers' earth, and peat are shundant in various parts. The manufuctures in th.y circie are tiourishing, and include woolen cutton, and linen goods, and carthenware. Population (1855) $454,2162$.

Leipsic, or leipzig, the capital of the above circle, und the second city in the kingdom, is situate on an extensive and fertile pisin, on the White Fister, here joinet by the l'ieisse and I'unte, 72 miles W.N.W". of Dresden by ruilway. The fortilicutions which furmeriy surrounded the town have heen converted into beuntiful wulks and gariens. The houses are chiefiy old-fashioned stately buildings, frequently six stories in height, besides three or four additional ones in the pyramidial roof, and exhlbiting much carved masonry. The streets are narrow, and from the height of the houses, have rather a dingy appearance, but are well
paved anu clean. The suburbs, horcver, of which thery are four, are of recent date, and more regularly built.

Lelpale io connected hy railwaya with Dreaden, Magdeburg, Berlin, and Altenburg, and is the centre of a very extensive traie. The celehrated Leipsic fairs are held thrlce a year-on the lat of January; at Easter, und at Michuelmas. They nsualiy last for threa weeks, and are attended by merchants from all parta of Germany, Fingland, France, America, Russir, Italy, Greecen 'T' rkey, Persia, etc. The grods contprise all kinds of woolen, linen, and cotton stuff, silks, lace, hardware, Jewelry, watchea, toys, puper, books, lenther, etc. The value ot the goorls brought to these fains in 1855 was entimuted at about $\$ 55,000$,000. On these occustons the town j , mesants the greatest bustle and confusion; the streets and pquares are orcupled by temporary bootha, in adidition to the ordi. nary ehopa, while the population of the town is nearly dotbled. The Easter and Michaclmas fairs, particularly the fomuer, are famous for the vast numier of new publications brought there for sale. The Easter fair is attonded hy bookseliers from all parts of Germany, and even from other countries, sometimes to tbe number of 600. Prospectuses and specimens of new pubilications are brought bere for circulation, annual accounta are settled, and purchases made. In the Easter fair catalogne for 1856 the number of new works announcel'as published In Germany during the preceding year was 9540 , as forthcoming, 1171, Lei,sic ia also of considernble importance as a manofacturing town. It has large type-founderies, oil-milln, paper-milis, and manufactories of ailken goods, stockIngs, leather, hats, hardware, musical, oftical, and mathematical instruments. There are about 100 puls lishing eatablishments io the town; and in 180 sis there were 36 printing-offices, with 58 steam, and 164 hamd presser. Lelpsic was the acene of a trensendoun conflict on the 166 h, 17 th, and 1 tuth of Oetoler, 1813, between the allies under Prince Schwartzenberg, and the French, under Napolcon, in which the iatter were totally defented. See IIstony of France. IopaIation (1855), 69.986.-EE. B.

Leith, although an independent burgh, may in considered the sed-port of Filinburg, from which it is only about a $i$ le and a haif diatant. The Water of Leith, at its r al luence with the Firtin of Forth, divides the town ito two jarty, ealied, rempectivily, Nortit and Kouth ietts. The tirst mention male of Leith is in the charter of erection of liolyroorl Abley, founded by Davi!! I. in 1128 , where it is at $y$ led Inverleith. The magistrates of Filinhorg obsained a grant of the harbor and milis from Rolert I. in 1929, and they aulsequently purchased, from loggan of lestalrig, ail the other rlghts and priviinges.

The chief manufactures of faith are ropes, saililoth, locomotive engines and machinery, glass, soap, ale, refined sugar, and ollweed conkes. Iron and timber ship-binilding is also carried on to a conaiderabie extent. Varioun efforts have frim time to the hean made to wercome the uatural onstacles timat lay in the why of Leith as a shipping purt. In 1720 a dock was formed on the eant side of the river, and in 1777 a smail quay caljed the cinstom-house quay wan built. Betwecn iwn and $1 \times 5 t \overline{7}$, two wat docks wire consstructed, cach mensuring ofy fevt in length by now in width, and haviog a united area of about 10 acres. In 18:11 two great additional works were uniertaken, viz., an addition to the oldor eant pier of 500 yards, and the formution of a covering hulwark, by means of which the wator in the chammel was deepened about two feet. There were still, however, only. 17 feet of water over the lour at it mooths at high-water apring then, and no vessel of alove 400 tons could enter the harbor without lightuulug. Further inpirovements were rommenced in $1 \times 18$, and rompleted in 1855. These included the formation of the Victorin llock,
equal in extent to either of the others ; the new west. ern pler and low-water landling allp; the extension of the eastern pier 1000 feut seaward. The length of the east pler is now 3530 feet, and of the went, 8123 feet. They are uneurpassed ly may in tite kingdom; nuti, in addition to other important purposes, afliurd the means of a healthful and pleasant promenale. By meaos of these improvements, a depth of 26 feet water has been obtained in the new harbor at high-water opring, and of 21 feet at neap, tides. The Vletoria Dock hat 25 feet water at spring, and 20 feet at neap, tides, upon the gate $\varepsilon \pi^{\prime}$ and two feet nore within the dock; and the two ond docks have 18 fcet at upring, and 13 fect ut neap, tides. Vessels of upward of 2000 tons burden, of 320 feet in length, and 58 fect in breadih, can he accommodated in the Vietoria Dock. There are ulso five dry or graviag lueks at Leith, of the folowiag dimenalone:

| Ne, ofdoekt. | Leenght. |  | Whoh, |  |  | Thepth of watep orer doek alila af Migh-wntep apring lade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Or Aeor. | At top. | Ot Roos. | At top. | Of gates. |  |
| 8 | ¢, in. |  |  | ${ }_{\substack{\text { n }}}^{\substack{\text { min }}}$ |  |  |
| 1 | 1780 | 1770 | 320 | 540 | 860 | 186 18 |
| 1 | 1660 | 1780 | 809 | 496 | 309 | 125 |
| 1 | 17\% 6 | 1216 | 410 | 310 | 839 | 128 |

A new graving dock of greater capacity is proposed to be mado on the aat sands, and to enter the present new harthor a little to the north of the entrance to V icturia Dock. The following are its proposed dimensions: length of floor, 300 feet, nt top, 330 fett; width of floor, 4 , fiet, int top. 80 feet; of caisson, 72 feet ; depth of water over pille at high-water springs, 44 feet 5 inches. Betides havlug regular steam conmunica. tion with Rotterdam, Ilmburg, Hull, Londin, Newcastle, and the north of Scothand, I.eith trades largely with the Baltic, Mediterranean, North America, and Australia. Tho exports are principuliy coul, iron, apirits, aic. puper, linen yarn, etc. Of coal and iron the quantities exported during the last three years were us fullowa:

To May 15th, $1454 . .$.
Exports.


| Coals. | Stry lion. | Malleable |
| :---: | :---: | :---: |
| Toma, | Tond. | Tuna. |
| 29,7i3 | 24,0i2 | 2, 1 (1)4 |
| 85, 1198 | 88,406 | 1,196 |
| 84,994 | 29,220 | 2,832 |

The princtpa! import is grain, of wilich the frantity imported during the last three years is given he the following tatile. Ifter gratn and timber, the enief articles of import are hemp, flax, wool, tinsend, nilcakes, ghano, agticultural sceds, butter, cheese, frait, corkwool, whes, spirits, ell, sugar, ten, ete.

Imports.

| $\begin{gathered} \text { Years } \\ \text { esading May 1aid. } \end{gathered}$ | Wheat. | Flonr. | Timpeef frum |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Baltic and } \\ & \text { other purts. } \end{aligned}$ | $\begin{aligned} & \text { Nurith } \\ & \text { Alierica } \end{aligned}$ |
| 19\%4 | 277, 2n 6 | liage a har's ME: 697 | Lamb. 88,3:40 | Tande. turnt |
|  | 271,017 | 4f, 4 ,94 | 19.8s: | 1524 |
| $1 \times 38$ |  | 85, 200 | 25,34 | 18,029 |

C'cmage and Tongatig of Venela abriving at I.fith,


| Year | oalling resente. | IbriLish Hean tresele. |  | Foretion reavela. | Tutal. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Va, Tine | $\bigcirc$ |  |  | No. 1 Tus |
| 4 | 8,416] 192,986 | 049 | 89,111 | sol | 4.912 4609.499 |
| 153 | 3,814 191, 411 | 626 | 4,0402 | -16 ix |  |
| 18 | $8,2 \sim 9,184,759$ | 69.) | S, 064 | $734-1,18 \%$ | 4,693 : 9 9,911 |




The amount of customs duties reseiven at lecith for

$\mathrm{C} \cdot 155,110$ vessels rentier, tnas, 71 17,058; mage, 2 recent w trade th greatl:
Lem mora, Ci Rus. Li tree ( Ci syria mis first to $G$ tivated uncoramo to Englu packed in in paper. Like most ration a known in Lemen (C meoth-p:e its rinil is monum $B i$ the wax the point; usuaily tis largeiy the quantity of Clustered I is the leant like point i has a lirigh than the va other variet oceasionally consideralil
Lemon saft; $\mathrm{Fr} . J$ Jugo de lima may be pres covering it great quanti different jar abtadance urticle of ex cry of the one of the The scurvy, vovagea, is that is entire of lemon jui also frequen teasively ust

## Lemon!

 Pr, James id Courtesas de wartu, aroma ing en the es: uses, sand, w preserve. I name of Ean peel, which t in a mamer and the cons in France.
## Lending

 beell conceiv, of money, wi ered that at a a mann could ous nor so pri therefore, wit diate necessit$£ 453,403 ; 1855, £ 162,917$ ；und $1856, £ 498,172$ ．The vesseis registored as belonging to the port on 31st De－ rember，1855，were：wailing vessels，of and under 50 tons， 71 ；tomage， 2218 ；above 50 tons， 80 ；tonnage， 17,038 ；aterm vesyela of and under 50 tons，i ；ton－ na；e，289；above 50 tone， 23 ；tonnage，66ib？．The recent war with Rusaia has cheeked the increass in the trule that would otherwise have resulted from the greatly enlarged accommodation．－E．II．

Lemons（Ger．Limonen；Dı．Linoenen；Fr．Li－ mens，Citrons ；It．Limoni；Sp．Limenes；Port．Limbes； Rus，Limoni；Arab．Limin），tho frult of the lemon tree（Citrus medica，var．$\beta$, C．）．It is a native of Aso syria and Pergla，whence it was brought into Europe： first to Greece，and afterward to Italy．It is now cul－ tivated in Spain，Portugal，and France，and is not uncommon in our green－louses．Lemons are brougit to Fingland from Spisin，Portugal，and the Azores． packed in cheats，each lemon being acparately rolled in paper．The Spanish iemons are most esteemed． i．ike most of its tribe，the lemon produces noter cuiti－ vation a great number of varletics．Several are known in commerce．The principal are：the Wax Lemon（Citrus Limonum reviescum of Risso）；this is tho smeoth－pepled one，most generally found in the markets； jts rind is thick．The Bignette Lemon（Citrus J．i－ monum Bigneita of Risso）is a thinner－feeled fruit that the wax lemon，less oval in mhape，and more blunt at the point；the color of the rind is less clear，and is asually tinged with green．It is cultivated more largely than any other variety，as it yields a larger quatity of juice，and is a most abw diant licarer．The Custered Lemon（Citrus Limonur racemosum of Risso） is the leat oval of the imported lemons，lint the nipple－ like point is fully developed．The rind is thick，and bas a brigit yellow color．The pulp is less agreeahle than the varieties proviously mentloned．One or two other varietico，as the ：imperial and Gaeta lemons，are occasionally brought to this country；but not in any consiferabie quantities．
Lemon Juice，or Citric Acld（Ger．Zitzronen－ saft；Fr．Jus de limon；It．Agroo Sugo de limone；Sp． Jugo de limon），the liquor containei in the lemon．It may be preserved in botien for a considerable time by covering it with a thin stratum of nil：thus secured， great quantities of the juice are exported from Italy to differeat parts of the worhl ；from Turkey，alsu，where abondance of lemons are grown，it is n comsiterable article of exprort，particnlarly to Odessa．The diseos－ cry of the antiscorhutic intuence of iemon juice is one of the most valuable that has ever been mado． The scurvy，formerly oo fatal in ships making long vogages，in now almost wholly unknown：a result that is entirely to be ascribed to the regnar allowance of lemon juiee aerved out to the men．The juice is also frequently administered as a medicine，and is ex－ tensively used in the manufacture of punch．
Lemor Peel（Ger．Zitronenshalen，Limonschelles； Yr．Lames d＇cirorce de citron；It．Scorse de limome； $\mathrm{S}_{\mathrm{i}}$ ． Courtezas de rifra）．The outwarl rind of lemons is warm，aromatic，mad slightly bitter－qualities depend－ ing on the essentill oil it contains．It is turned to many usen，and，when well candied，constitutes a very good preserve．in llarinuloes，a liguenr，known under the ame of Ean de Barbale，is manufactured from lemon peel，which the inhahitants havo tho art of quesersing ia a manner peouliar to themselves．lhoth the liqueur and the conserve ueed to be in bigh repute，especially in France．
Lending－houges．That it should have once been conceived unlawful to exact interest for the loan of money，will not appear surprising when it is consid－ ered that at an early periol the occupations hy which a man could support his family were neithor so mumer－ ous nor so productive as in modern times．Aa money， therefore，was at that timo suaght to remove imme． diate necessity，those whomdanced it were influened
by benevolence and friendship．But on the extension of trade，arts，and manufaciures，money lent prodncer： much more than what waa adequate to the borrower＇s daily support，and therefore the lender might reason－ ably expect from him sume remuneration．Ts the Iending of money upon interest，according to th，earil ost accounts，succeoded the practice of estaluishing fands for tie relief of the needy；on condition that they could deposit any thing equal in value to double the enm borrowed，for which they were to pay no interest． But，as upon the one hand，the idea of exacting in－ terest for the loin of money was olious to the mem－ bers of the Catholic church in general，while，on the other，it appearod proper，and even neceesary，to pay interest for money to be employed in commerce，the pontiff themseives at length allowed the lending－ houses to take a moderate interest；and，in order not to alarm the prejulices of those to whom the measure whs obnoxinus，it was concealed under the name of being paid pro indemnitste，tho expression made use of in the papal bull．

It eppears that lending－houses，which gave money on receipit of pledges at a certain interest，are by no means of recent date；for many houses of this de－ acription，in Italy at least，were established in the 15th century，ly Marcus Ilononiensis，Michel a Carcano， Cherulinus Spoletanus，Antonins Vercellensis，Ber－ nardinus Tomitano and others．The lending－house at Perngia established hy Ibarnabs interamnensis was inspected in 1485 ly llernardinus，who angmented its capital，and in the sane year estallished one at Assisi， which was contirmed by Pope Innocent，and visited and improved by its founder in the year 1487．Ile likewise estabiished ono at Mantua after formidable opposition，having procurad for it the sanction of the Pope．The name percom niso fornded lending－houses at Florence，Parma，Chieli，and Piacenza，in doing which he was sometimes well received，while at others he frequently met with grent opposition．A house of this kind was established nt Padua in tho year 1491， and anotier at Ravenna，which were approved of and confirmed by Pope Alexander VI．

Long after the jeriod here referred to，lending－houses wore extablished at Liome anl Naples；that of the former city luving been opened in 1539，and that of the latter probaliy in the following year，A lending－ house was extublished at Nuremberg，in Germany， uhout 1618，tho inhabitants having ohtained from Italy the reguistions of different houses In order to select the best．In France，liugiand，and the Netheriands， lending－touses were lirst known under the denomina－ tion of lombards．Similar institutions were formed at Rrussels in 1619，at Antwerp in 1620，and at Ghent in 1622．Although su $h$ irouses must lie allowed to be of very con iderable utility under certain circumstances， especially when interest is not allowed to ho exorbitant， yet they were always odions in France．One was， however，estahlished at laris in 1626 in the reign of houlm Xill．，which the managers next year wero obliged to abundon．The mont de pieto in that city， wilich has sometimes fund in its possession forty caske fill uf gold wateles which hat been pledged，was ps． tablished ly royal authority in the year，1777，as wa learn from the Tibleau de Paris，publisised at Iianhuag in the year 1781．－Fi．A

Lengthening，in shif，building，the operation if cutting a mhijutown across the middle and adding a cec－ tain portion to her length．It is jerformed by sawing her jlanks asunder in different places of her lengtin on ench side of the midiship frame to prevent her from being too mucin weakened in one place．The two ends are then drawn apart to a limited distance，which must lee equal to the proposed addition of lengtit．An in－ termediate piece of timber is next udded to the keed， nfom which a sufficient number of timbers are erectel to till $u_{j}$ the vacaney produced by the separation．The two jarts of the kelson are afterward united ly an ad．
ditional piece, which is scored down upon the floor timbera, and as many beams as may lie neceaanry are fixed across the alilp in the new Interval. Finally, the planks of the sidn are prolonged so as to unite with each other, and those of the ceiling are rofitted in the same manner, by wilch the whole process is comploted.

Lentil, the seeda of Ervum leva (natural order l.e* gummone). The lentil la closely allied to the tare, and is probably the mont ancient of ull the food pro $u$. which man deriven from the pea-tribe. The re citt. tage in Gen, $\operatorname{mxv} .34$, is the anall lentil decortion 4 as it is sold at the preaent day in the bazasars of Indla. Pliny mentions two kinds of lentlls grown in Eigypt, one ronader and blacker than the other. These were, probably, only varistiea reaulting from cultivation. Three such are cultivated in France, where, as in most Roman Catholle couratries, this kind of pulee la extenslvely nsed during Lent ; to which season, as some ouppone, It givee ita narne. The lentil is a native of Europe, Asis, and northern Africs; or, at all evente, ic ls natnralized in those parts of the world. It is cultivated occuslonally in some parts of Fingland, but chlefly as a fodler plant. The ripe seeds are very nutritious, and contuin a large proportion of gluten. They are frequently imported from Alexandria for cattle-feeding; while, for culinary parposes, the larger und lightercolored varietien are linported from France und Germany, where considerable attention is paid to their cultivation and harvesting. In Euypt the lentil forms a large proportion of the general food of the inhalitants, and the haulm is used for packing purposes. The empirical preparation called lievalenta Arabica, has been proved to be nothing but the meal of decorticated lentiln; fool hy no meaus well adapted to nll constitutionk, especialiy those of infants. The quantity of starch in the lentil is very cousiderable; and, in addition to the gluten, renders this pulse one of the most nutritive of vegetahle food products. Lentils are, Lowever, heating if used much. The starch, according to Einhoff, is nearly one third lts weight.

Jetters of Credit. A letter of credit is an open letter of request, whereby one person requests some
othor person or persons to advance money or to give credit to a third person, named therein, for a certaln amount, and promieea that he will repay the mane to the person advancing the same, or accept lills ifawn upon himself for the like amount. It is called a gen. oral Jetter of credit when lt is addreased to all mer chants, or other persons in general, requesting such advance to athird person, and a apecial letter of credit when It Ia aullressed to a partlcular peraon by name, requenting him to make such advance to a third persun. If the letter of credit he of the latter sort, there doea not seem to be any doube that it la un svailable promisa in favor of the person to whom it ls addressed, and who makes the advance upon the faith thereof. But if the letter of credit lie general, it is a matter of some doult whether the writer ls lound to the jeraon maklng advance upon the atrength of the letter. The questlon does not appear to have been ever decideci in England, bat lt has aereral times been thoroughly discussed in the Suprame Conrt of the United Stites (Lauerason vs. Mason, 3 Cranch, 492 ; Adams vr. Jones, 12 Peters, 207). The doctrine wus maintained in these cares that the letter writer in bound positively and directly to any party making the advance upon the failth of the letter, not only where the letter purporta, on its face, to be addressed generally to any person or jersone whatsoever who should make the advance, but also in cases whery the letter is ad. dressed solely to the person to whom the adrance is to be made, and merely atates that the person signing the same will become his aurety for a certain amonnt, without naming any person to whom he will hecome security, if it is obviously to be used to procure credit froin aome thinl person, and the alvance is mude upon the falth of the letter by such thiril person.

Formerly, and up to the years $1825-1830$, remittances to India and China, for importations into the Inited States, were made almost exclusively in SpanIsh doliars. After that perion letters of credit were liberally issued by the Ibank of the Uolted States, on their Vurojean correspondents, in favor of Amprican merchants. This mode of remittance is made universully from the United States.
 Scotiaxl, fom Remittances to Inhia, etc:
No. j 30 .
New York, 7th June, 1812.
Fxchange for $\mathbf{E} 3(\omega)$ Sterling.
2385

1. S. \& Co.

Six Montha after alght of this First of Exchange (Second and Thirl anpaid) pay to the order of Iavis, Brookn, \& Co. Three llundred Pounds Sterling, value received, as advised by

Your obedient servant,
Geo. I). Cabteh.*
Ta
Messra. Palmers, Mackillop, Dent, \& Co., London.
*The bill la indorwed, " Hay Grorgo I. Car'er, or order. - Davia, Brooks, \& Co.
By the Wemtenn lank of Scothand,


In New 644) that le are not negs Iv. 393 , lt to say pers the faith of of the persos as available of any perso of it. See a Excuavar.

Levant, the snuth-es: quarter of tl now generall Syria, etc. try to the eas continent or rises.
Levee, a to coafine it part of Iouisl ments upon tl the Misaissipt of more than lands on these cypress-logs, a of 15 fect, wi These, in the valled leveen. and when the with rich erop several feet be of these leveea violent pressu dental perforat ruption.

## Lew-Che

Ilberia, a
Africa, establl. Guinea, betwee from the Shebat the sonth, s di breadth of 80 whom 10,1000 a and the remai from siavers. from thime to ciety, sad lts tematic drninag mated that 2,0 sbtain supplies and Cape Palm: the Vnited Stat indepeadent re vested in a pre 6 members, and bers, elected by value of $\$ 30$. to nse the ling from the surron tunt, to attend sapports two pu tal, Monrorla, h

By the Clydabdale Bamk.

## TIILD OF ExOAANOM.

Wo hereby engage to accept and to pay at maturity, the arat premented fitt of the met of maxturity, the of whilik the annexed to the Third, to be drawn by yen on na, on or before the o be drawn by you on na, oay any
sterilog, payabla In Iondon at e date not lem han
day's algbt, provided thia Letter of Crudtt be delivered to us on acceptance of the anmexed Bill. For the Clydedate Banking Company.
 No.
$\boldsymbol{\varepsilon}$
1851.
after sight, pay this Third of Exchange (First and Second of the same teaor nad date rapald), to the Order of in Inndon

Sterling. Value received as advised To
in New York it has been held (IIil's Rep., vol. v., 634 ) that letters of credit and commercial guaranties are not negotiable Instruments. In Cnmpbell' Rep., iv, 393, It was decided that a letter of credit, addrensed to any person who should make an advance upon the faith of the letter, is an available promise in faver of the person making the advance; and it is considered as available if it he a general letter of credit, in favor of any pereon who makes the advancement the faith of it. See articlea Banks, Bills of Exchiange, and Exchaxoe.

Levant, a name derived from the Italian word for the south-east, and applied in the middle ages to thint quarter of the Mediterranenn east of Cape Matapan, now generally applied to the coasts of Asia Minor, Syrla, etc. Levant, in geography, signifies any countfy to the eastward of us, or in the eastern part of any continent or country, or in that quarter where the sun nises.
Levee, an embankment on the margin of a river to confine it within its natural channel. The lower part of Louisiana, which has heen formed by encroack. ments upon the sen, is suljected to be inundated by the Mirsiseippl and its various branches for $n$ distance of mere than 800 miles. In order to protect the rich lamds en these rivers, mounds are thrown up of clay, eypress-logs, and green turf, sometimes to the height of 15 fect, with a breadth of 30 feet at the base. These, in the langunge of that part of the country, are ralled lerefs. They extend for hundreds of miles; and when the rivers are full, enltivated fields covered with rich crops, and studded with villnges, nre seen several feet below the river courses. The giving why of these levees, sometimes ocensioned by a auditen and violent pressure of the water, and sometimes by accidental perforations, ls called a rrecasse; French, a disruption.

Lew-Chew Islands. See Loo-Choo Imbavas.
Liberla, an independent Negro republic of west Africa, established 1823, extends nlong the const of Gainen, between Sierra Leone and Cape Mensurado, from the Sbebar Rlver en the north, to the Garawny on the south, a distance of 350 miles, with an average breadth of 80 miles. Population 1850, 250,000, of whem 10,000 are free blacks from the linited States, and the remainder aborigines, or captives roleased from slavers. The country has been nil purchased from time to time by the American Colonization Society, and its climate has inproved greatly by n systematic drainage, and clearance of woods. It is estimated that $2,000,000$ inhabitants of the interior now obtain suppilies of luropean goods from this republic and Cape i'nlmas. Lilieria, formerly a depentency of the United States of Amsrica, was recognized ns an independent republic in July, 1848. Cioverument vested in a preaident, vice-president, and a senato of 6 memiers, and $n$ house of representatives of 28 membert, clected by nll possessors of a renl estate to the value of 830 . About $\$ 0,000$ of the popuintion nre and to nase the English languago, and children are sent from the surrounding countries, 400 or 500 miles distant, to attend the schools of this State, which also supprorts two pulbic journals. The rea-port and capital, Monrovia, has a population of 9,000 .

The treaty concluded in 1852 between France and the repablic of Liberia was finally ratified in the year 1858. The independence of the republio was recognizod anccessively by the United Statea, England, Belgium, Prussia, and Braxil, from 1847 to 1854. To this list France has at last added her name by the late treaty. The original colony of Llberia was founded by the American Colonization Soclety, under the direction of its first President, Mr. Finley. It is situated at the northern extremity of the coast of Guinea, and is about 370 miles in length. Its capital, Monrovia, is on the former site of the principal slnve-market on this part of the African coast, and stands as a living protest against the slave-trade, in the abolition of which the colony has been largely instrumental. In Feliruary, 1820, the firat ship-load of emigrante left New York for the coast of Guines. They were 80 in number-forming 25 familieg-under the care of 8 citizens of the United States, a clergyman, a lawyer, and a physician. In 1847 Liberia emerged from its dependent colonlal condition, and became an independent State. In 1854 it contained a population of about 12,000 black colonlsts, chlefly Americans, and from 140,000 to 150,000 natlves, whose social and religioun condition is fsr in advance of that of their blood-thirsty and idolatrous ancestors.

The cnpital ls now a fourishing maritime city, hering a fort, a light-house, a commercial market, a amsll marine, and schools, churches, newspapers, charitable associations, and other institutions similar to those in the United States. The 6 th article of the constitution of the repnblic deciares that, Inasmuch as the essuntial object of its foundation was to open an asylum for the scattered and oppressed children of Africa, and, at the snme time, to regenerate the people of the vast continent of Africa, yet enveloped in the darkness of ignorance, noue hut persons of coler will be allowed to become citizens of the republlc.

Tho exports of Liberia, consisting chiefly of palmoil, logwood, and other dye-woods, which are transported to Eagland and the United States, amonnt to ahont $\$ 1,000,000$ nnnually. Hesides all the usual tropical productinns, it proluces Indina corn, rice, the potato, sugar, coffee, and cotton. Gold ls also found in considerable quantities. The cotton of Liberia, which has been highly approved in the Manchester market, has latoly attracted much attention, sad its probable auccessful cultivation promises to exert a most important influence on the futnre of the republic. A communleation from a highly reapectnhle and relinble source recently appeared in the National Intelligencer, the writer of winch gave a decided preference to the cotton of Literia over that of Brazil, in point of quality, chonpness of production, and facility of transportation to market. The subject deserves further and full investigntion. Cousidered simply as an experiment in practical benevolence, Llberia deserves und will recelve the protection of the great powers of the world. Whether or not it be destined, na sume have thought, to work out the solution of the vexed queation of slavery in the United States, it will yet gain the great glory of rodeeming from barbarism and idnatry many millions of the human raco.

Trade is the chosen employment of the great mass


## IMAGE EVALUATION TEST TARGET (MT-3)





Photographic Sciences
Corporation
of the Liberians, and some of them have been decidedly auccessful in this vocation. It consists in the exchange of articles of Amerlcan or European manufacture for the natural products of the country, of which palm-oil, cam-wood, and ivory, are the principal artlcles. Cam-wood is a rich dye-wood, and It is brought to Monrovia on the shoulders of the natives from a great distance. It is worth, in the European and American markets, from $\$ 60$ to $\$ 80$ per ton. The ivory of this region does net form an important ltem of commerce. The Liberian merchants own a number of small vessels, bullt by themselves, and varying in eize from 10 or 15 to 40 or 50 tona. These are navigated by the Liberian sailers, and are constently engaged in bringing palm-oil to Monrovia, from whence it is again ahlpped in foreign vesseis for Liverpool or New York.

Under the general name of Liberia are comprehended the territories of the republic and of the Maryland colony, founded at Cape Palmas. The political jurisdiction of the republic extends from Sheivar, a point immedistely north of Gallenas, to Grand Sesters, giving a coast frontiar of 350 miles, or, including the Maryland colony, of 4.0 miles, running Into the interlor an average of 40 mileo ; the whole territory embracing an ares of upward of 14,000 equare miles. The jurisdiction of the Maryland celony extends from Grand Seaters to the River San Pedro, opening a cuast frontier of 120 milos. These territories have, of late years, been considerably extended by means of purchase, the most important addltion being the annexation of Gallense, formerly the point ut which the siave-trade was moet exteneively conducted. The Now Jersey Colonization Soclety, establighed in 1825, is said to have recently purchased from the natives 150,000 acres in the interior of Bussa conntry. The population in 1850, as estimated by the Rev. R. R. Gurley, who was sent out by goverament to olituia informativn in respect to Liberia, was, in the repnblic, emigrants, 6,000 ; natives, 140,000 to 200,000 . In the Maryland colony, emigrants, 9000 ; natives, 100 , 000. The independence of the repnblic of Liberia has heen recognized by France, Belgium, Pruasia, the Hanse Towns, and England; and, with the latter country, a treaty of peace, friendahip, and commerce, was concluded, Auguat 1, 1849. Treaties of friendehip, etc., have also been entered into with several tribes of the interior, containing atipulations for the abolition of the alave-trade, and including new territory within the political and judicial jarisdiction of the republic. The soll of the republic ls capable of Fielding, in the greatent abundance, the most valuable productlons of the tropics. Rice, cetton, the sugar-cane, and coffiee are classed among the staples of Liberia; and corn, cassada, yains, aweet potatoes, arrow-root, vegetables, and beans, of every variety, are among the productions of this region.

It is stated, on the suthority of persons thoroughly scquainted with the resourcea of this region of Africa, that no clirie or country In the world will bring coffee to higher perfection than Africa; and, whether introduced at an early period by the Portuguese and Spanlards, or whether it is a native of the country, it has propagated itseif aleag a great extent of the African cosst, without culture, for many ages. The convmerce of the republic with forelgn countries censista chlefly in the exportation of articles supplled by the native population, from the spontanaous growth of the country, auch as palm-oil, cam-wood, ivory, tortoleeshell, and gold, wheh are bartered for tobaceo, powder, muskets, runi, cotton goods, salt, soap, crockery, and iron wares, copper und lron rode, and American provisions. This commerce must necescarily expand with the growing development of the agricultural resources of the country, and the extenaion of the arta of civilization and industry, in a region so highly favored in soll and climate, and so eminentiy adapted
to the production of ao grest a variety of valusblo ataplea.

In a letter from the Secretary of the Treasury of Llberia, in Novamber, 1849, that gentiaman says, "The committee whase duty it was to furnish you with a report, have, I think, considerably underrated the annual exports from Liberia. It may be fairly atated at $\$ 500,000$, in Arrican commoditles (one fifth of which is $\$ 100,000$, , and our importa from the United States may be estimated at $\$ 150,000$. It is worthy of remark that, at present, it is only from the United States that our merchants import goods; and, further, that the kinds of goods most au. ${ }^{-1}$ ble for the African trade come from Enrope. The commerce of Llieriu is in its Infancy, but it advances rapidly. The two priucipal articles of trade are tobacco and powder; und no country can compete with the United Statee in these Items. Provielons, also, will eoon find an extensive market in Liberia; already the natives have commenced purchasing them, partlculariy bcef, pork, and aalt fish. I am not exaggerating when I asy thai the trade advances at least 50 per cent. annually. The Amerlcan cotton goods are, in quality, auperior to those brought from Europe; but there is a material difference in price. The European is the cheapest, and hence the inability of the American to compete with the European. In Liberla we attribute the difference la price to the low price of labor in Europe." Changes have occurred in the commercial movements of Liberia since the date of Mr. Gurley's report. Then, Liberia imported Engliah goods, though not directly from Engiand; but now, Importatione from England are very larga, while from the United States they are annually dlminiahing. It is estimuted that there are not lesa than 100 ahips, somo of them of 1000 tons' burden, regularly trading between Mritish ports und the coaat of Africa, while a regular line of steamers plies monthly between England and Liberia. Most of the supplies of every description are derived from Eagland; while the only artlcies going from the United Statea are powder, rum, flour, beef, pork, tebaceo, herringa, mackerel, and some few cotton goods; the latter article constantly diminishing. A rellalie statement, recently put forth, estinates the value of the average annual exports from all this region of western central Africa, to the European States, it some sis., 000,000 , and at a commercial excbange in faver of the European merchants of about 500 per cent. The commerce has been carrled on chiefly by natlve and Lilie rian traders from Liberian ports and ethers on th Gulf of Guinea, in European vesaels. France, Spain, Denmark, Pertugal, and Germany, have participated in this commerclul intercourse; but they are all surpassed by Great l3ritain.

From the "Annual Statements of the Trade and Navigation of the United Kingdom," it appears that the importa Into Groat Britain from the western cosst of Africa-the limits of which are not purticularly designated, theugh estimated to contain some 50,600 ,000 inhabitunts-conslat ehiefly of har-wood, cam-wood, ebony, guano, gum-animi, gum-copal, untauned hide, palen-oil, orchal, elephants' tecth, und bees'-wax-the heaviest item, by far, being palm-oil, which averaged nome $450,000 \mathrm{cwt}$. each of the five years cndiug with 1853 ; and amounted to $633,508 \mathrm{cwt}$., ut a "computed real value" of $£ 1,457,068$, in 1854. The aggregate value of inporta in 1854 is given efticially at $£ 1,528$, . 896. The exports, durlng the same year, the produce and manufactures of the United Kingloun, or of other countries, consisted of arnos and anmunition, wearing apparel, manufuctures of cotton, wool, silk, iron, brase, copper, steel, and glasa; salt, soaj, epirits, ataves, coala, hauda, unmunufuctured tobacco, carthenwara, und porcolain ; of which the heaviest items were cottons, gunpowder, guns, staves, and tubacto. Theaverage "declured value" of cottons thus expurted, during the six years ending 18004 , was $£ 18 \pi, 000 ;$ and
of tobacco, the average quantity was 2,$150 ; 000$ pounds. The computed real value of the $1,816,827$ pounds of tobacco exported in $\mathbf{1 8 5 4}$ is given at $£ 58,700$. The computed real vaiue of all forelgn exports to western Africa for the amme year was $£ 174,078$; and of all domeatlc exports, $£ 640,868$; belng more than that of 1858, snd donble that of 1852-the average value of each of the slx years ending with 1854, being ppward of $£ 460,000$.

It is thns seen that the trade of Great Britain with western Africa is rapidly incressing-amounting, in value, in 1854, to : $\mathbf{E 1}, 528,896$ imports: doniestle ex-
 (lmports and exports) $£ 2,849,887=\$ 11,749,185$. And this, Independently of the Britlsh colony of Slerra Leone, the trade of which amounted in 1854 to $\$ 1,421$,865 ; and of the Britleh posnessione on the Gold Coast and the River Gambla, smounting to $\$ 1,547,285$ more ; and of those at the Cape of Good Hope and south Africa, swelling the amount $\$ 8,383,090$ more ; mnking, in all, an nggregate of over $\$ 23,000,000$ In 1854 , for the western coast of Africa entire. The trade of the United States with west Africa, there are no means of determining-the values of Imports and exports being given in Commerce and Navigation for "Africa Generally." "Liberia," it is true, appears in the reports from 1849 to 1854 , incluaive, but with no figures to indicate trade, and but few to lndleate navigation; giving, it is inferred, the tonnage of colonization vessels only $\rightarrow$ none others, perhaps, taing engaged in the direct intercourse with Llberia. The following table showa the trade of the Unlted States with Africa during the seven years ending June 80, 1855 :

| Yasrs. | Exporth. | Imports. | Total. |
| :---: | :---: | :---: | :---: |
| 1849.............. | *708,411 | \%495,742 | 1,204,158 |
| 1850............... | 750,266 | 524,722 | 1,288,988 |
| 185t................ | 1,840,644 | 1,163,176 | 2,508,820 |
| 1852.............. | 1,246,141 | 1,057,657 | 2,308,798 |
| 1888............... | 1,610,839 | 1,202,956 | 2,818,819 |
| 1854............... | 1,804,972 | 1,386,564 | 3,191,582 |
| 1565. | 1,375,915 | 1,987,527 | 2,713,482 |

From this statement, it will be percelved that, although the figures for 1855 show a falllng off in that year, as compared with 1854 and 1853, yet that there is a regular and very rapld advance from 1849. Hut, whlle the average value of the trade of the United States wilth all Africa, during the six years ending 1854 , is found to be only $\$ 2,200,000$; that of Great Britian with west Africa, alone, for the same perlod, averaged $\$ 2,800,000$; and, Including all of her African colonles and possessions, together with the estimated value of her trade on the eastern cosst, it could not have averaged much lese than $\$ 20,000,000$.

In 1854, the trade of the Unlted States with "Arrica Generally" rose to $83,191,582$-a hlgher figure than before or since; at the same time, the trade of Great Britaln with weat Africa, only, amountert to $\$ 11,749,180$. The valne of the unmunufactured tobucco ulone-ilerived mostly from the Unlted Stutosnumounted to nearly $\$ 300,000$ of that totai ; and tine value of liritiah trade with "Afrlca Generally" was, as has heen seen, more than $\$ 28,000,000$, or nearly 8 times that of the United Stster,

The establishment of a llne of commercinl ateamers between the United Statea and the weatern coast of Africa has been urged, as tending greatly to the angmentution of our commerce with that country. The uses which such steamers might subserve have heen stated thun:-1. The transportation of free negroes from the United States to liheria, 2. The carrying of the mails. 3. The tranaportation of merchandize. 4. The carrying of pilgrims on their way to Mecea. 5. The carrying, on the return voyage, of the pllgrims, who now aseume the name of Hadjla; the certsin and expeditious transportation of the fruit and ether products of the Mediterranean; and the greater facility afforded to passengers from contrul Europe
to America, whose expense of travel will be greatly diminished by embarking at the south of France instead of at the usual western portis.

Palm-oll has become, withln a few years, a staple of export from Liberia. More than 80 vessels were frelghted with the article at her ports, in 1855 ; while three yerrs before, the quantity exported did not exceed 1000 gallons, at a cost of $\$ 1$ per gallon. The quantlity exported at the present time is, at least, 700,000 gallons; hut the price has fallen to 83 cents per gallon. The trade In ground-nuts, chiefly carried on with France, is becoming of grest importance. They are shipped in bags, and, when ground, supply a wholesome subatitute for olive-oil. Sugar, cotton, and coffee are, however, viewed as the grest natural staples of product for the coll and climate of Liberia. The import duties in the republic of Liberta are 6 per cent. ad calorem.

From recent intimations, it is not improbsble that the country east of Liberia may shortly be more extensively explored, with a view of plantligg new eettlements in the interior of the present coast line, whlch it is hoped will be beyond the reach of malaria. Should such an enterprise be successfully carried out, the imunense natural resources of that fertile region would soon attract forelgn commerce, and thne the philanthropic labors of those engnged in the movement would be greatly facllitated.-Com. Rel., U. S.

There can be no question that vast commerclal advantages would accrue to the commerce of western Africa, If the Niger and Tachadda, the natural highways Into the interior to Timbuctoo and other large cities of the continent, were effectually opened and maintained so for a few years. The last expedition is a proof that, under judlclous management, and at the proper eeason, there is no greater danger to health in a navigation of those streams, than of other rivers in Brszil and our sonthern Statee. While the British export trade with different parts of the world has only increased in the last 20 years 50 per cent., the export trade of western Africa has more than doubled. Britieh manufuctures are malnly dependent on that quarter for eeveral artlcles, especially vegetable oils and ivory. The yearly export of palm-oll has risen to the value of nearly $\mathbf{£ 2 , 0 0 0 , 0 0 0}$ sterling, or $\$ 10,000,000$. Ground-nuts, for oil, are a leading artlcle of production. Dyewoods are important. Of the whole imports of ivory into Great Britain, Africa supplies one half. When it is noticed what has been done in stimulating the cultivation of coffee, sugar, spices, and other staples in Liberin, there is no reason why a great stlmnlus may not be given also to the countries bordering on the rivere of the interior.

The following returns to Parllament illustrate the increase of British exports to the west coast of Africa, and of Imports from the ame region :

| Yentr. | Expmoris. | Impors. | Total. |
| :---: | :---: | :---: | :---: |
| 1851. | £680,429 | (1005,958 | E1,24, 857 |
| 1851... | 6,54,548 | 794,8t0 | 1,440,353 |
| 1552.. | 543,725 | 707,024 | 1,241,349 |
| 1853. | 901,402 | 749,873 | 1,059,775 |
| 1854. | 958,409 | 905,634 | 1,981,449 |

This is indepondent of the British colonies of Sierra Leone, the trade of which amounted $\ln 1854$ to 61,421 ,865 , and of the 13ritish posseasiona on the Gold Coast and the River Gambia, amounting to $\$ 1,5 \cdot 17,285$ more, rid of those at the Cape of Good Hope and in aouth Africa, swelling the amonnt $48,888,090$ more; making In all an aggregnte of over $\$ 28,000,000 \ln 1851$, for the western coast of Africa ontire.

An American steam line to Africa would be a pioneer of civilination. It wouid afford a rapid cominunication with the interesting republic of Liseria, whioh Is proving the capacity of the Christianized and Americanized African for relf-government, accordling to An-glo-Saxon idear and institutions. It could not fail to promote powerfnlly tho prosperity of that young com-
monwealth. It would practically bridge the Atlantio in a new direction, and connect together the most progreasive and the most atationary of the continenta. It would aoon be an effectual ald in that African exodus from the eoil of the new world to the ancient fatherland of the race, of which we now see the falnt beginninga. Ite realization wowld involve more widereaching and beneficial reaults than even its warment friende have ever hoped.
Libraries. In a volume on Public Llbrarios of the United States, pablished by the Smithsonian Institution, the following atatistice appear, obtalned for a large part from repliea to circulars, and therefore less full than those of the censua:


Life-Premervers. Although it too frequently happens that an accident which materially endangers the life of an individual, deprives him, in the meantime, of that prevence of mind which alone would onable him to take proper measures for his safety ; yet to have meditated, in an interval of leisure, upon the best method of proceeding in case of emergency, must teand groatly to diminioh the embarrasement and confuslon that commonly accompany the accident, even If it ahould not be thought necessary to provide any particular apparatue for the purpose of eacaping the dangor. There aro also many waye in whlch those who are not immediately $\ln$ volved in the disattar may contribute to the preservation of life, whether actuated by intereat, or by humanity only ; and the modea of rolief will therefore be naturally divided into the internal and the external, whether relating to fires or to shipurecks.
Internal Fire-Escapes.-Whenever a family establishes itaelf in a residence not detached from others, it becomes of importance to ascertain what facilities the houes afforde for asceading to the roof, and for passing to those of the neighboring houses. It is scarcely possible that a conflagration ohould extend at once to the contiguous honses on each side, before the Inhabltants of the house in question have had time to eacape. But in a detached house, if there are not two or more atair-cases remote from each other, and even in a house contignous to othera, when there is no facility of communjeating by the roof, it becomes highly ex. pedient to provide some internal meana of escaping through the windows, in case of fire, and to have on every floor a atrong rope, with a hook or a loop at the end, by which it may be fustened to a bed-post, so us to enablo an active person to descend by its help out of the window, finding from time to time a partial footing in tho inequullities of the wall. This process will be greatly facilitated by having the rope knotted at intervala of about a fort throughout its length; the knots being neariy as convenient as the blocks or clips, that are sometimes made for the purpose of retarding the deacent, by holding them, and regulating the friction by the preasure of the hand; unless the clip be attached to a strong cross-bar, on which a person may ait, while he reguiates the position of the ciip by its handles, aliows himself to descond with more or less velocity at pleasure.-Emerson's Mechanics, flys. 228, 229 ; Levrolin's Thaatrum Muchinarium, plate liv.

External Means of Escape from Fire,-The external means to be employed in cases of conflagration must be provided ly the managers of fire-ofices, wr by other puhlic officers; and every ingenious workman whom they may employ will be able at his leisure, to deviso such apparatus as he can the most convenientiy execute, and to give it a fuli trial in tho alsence of all danger; it will therefore only be advisabio that he should comparo for hinnelf the particalar inventions which have been auggented for this purpose, and tint he ahould choose from among them such as he thinks most iikely to do hiin credit; and he may, indeed, very passibl. find means of improving on any of tien. In Lellpold's Theatrum Machinarium (piates Siv. iv.), we find the representation of a cimir calcuinted to be drawn up or down ly mouns of puileys. Mr. Varcourt oltainel, In 1761, the approbation of the Parisian Acaleny of Sciences for hia invention of a holiow mast, fixed in a wagon, and supporting a atnge, with the means of ass conding and dencending.-Ilist., i. 158. In the beginning of the present centary, a lireescupe of Mr. Aulibert was approved iy the larisian Institute.-Mem. Inet., iv. A committee was also appointed for examining soveral similar inventions at the Lyceum of Arts, and a nedal was awarded ly it to Mr. Daujan, for his apparatus, whish consinta of a phatform carried on wheels, sujported by threo frumes, with brass wires, on which boxes are mado to sildo up and down for the conveyance of persous or furniture.-Annalea des Arls.

Repertory, li., vol. i., p. 489. Mr. Colling's invention of plpes roised by ropes, and affording a centre to a long lever, is described in the fourth volume of the American Transactions, and in the Repertory, vol. xv., p. 85. In the 81st volnme of the Transactions of the Society of Arta for 1818, p. 244, wo have an acconnt of a fire-escape Invented by Mr. Adam Young, for which he recelved a medal from the society. It appears to constitute by far the most portable of ladders, consisting of cross bars or rounds connected by ropes, snd bsving their enda fitted together, at as to form a pole, which is readily olevated to the window; and the rounds being separated, and the hooks at the end properly fixed to the window-frame, the whole forms itself into a very convenient Isdder of a mixed atructure. The 34th volume, for 1816, p. 227, contains a descripthon of Mr. Braby'a fire-escape, conslating of a cis made to slide on a strip of plank fixed to a pule, and governed by a rope, which is cased with Iron, to protect lt in cas. of necessity, from the effect of the fire.

A great many other forms of fre-escapes might be noticed, for it is one of those subjecte which readily appeal to the ingenious mechanic in a large city where firos are numerous; and every form of fire-escape must at times fail. Hence, there has been a sort of competition among the uneducated inventora, who have displayed aome mechanical ingenulty, but have not, so far as we are aware, developed any new principle.

Internal Means of Escape from Shipwreck,-The means of escaping from shipwreck may be similarly divided into internal and external, or Into the precauthens to be taken by the ship's company, and the measures to be adopted by persons on shore. The Internal means depend elther on enabling the Individuals to swim or fiost, or establlshing a connection with the shore by ropes • and of the former, we may firet consider those $w^{\prime}$.ch require no particular proparation before the occurrence of the accident thst calls them into action, and which are, therefure, the most nulversally spplicable. Of such expedients, the most effectual sppear to be thoee which depend on the employment of empty water-caska for assisting the ship's company to drift on ahore. 1. A peper on tho arrangement of water-casks, to aerve as floats in case of shipwreck, appears in the publlcations of the Soclety for the itmprovement of Naval Architecture, dated in 1796 (vol. li., p. 51). 2. In 1818, Mr. Grunt of 11ideford oltained a gold medal from the Soclety of Arts, for the invention of a life-preserver, consisting of a 36 gallon cask, with some iron ballast fixed on a wooden bed, and lashed to the cask, und with ropes round it for the men to hold; and it was found tiat 10 men were supported by it with convenience in tolerably smooth water, the bung of the cask being well sccured by cork (vol. xxxvl., p. 6i3). The ballast cuuld be of very little use, and a cask simply tied round with a rope, like a common parcel, would probably answer the purpose equaliy well. It would, indeed, be prudent for every ship in a storm, on a lee shore, to have a few of her casks well einptied and stopped, and tied in this manner, before the setual occurrence of imminent danger. 3. In 37th volume of the Trousactions of the Society (p. 110), there is an account of Mr. Cook's life-raft, conalsting of a square frame with canves nalled across it, nupported by a cask at each corner, for which the gold medal whis voted to him. 4. It is followed by a description of Lieutenant Roliser's life-raft (p. 11i), which obtuined a similar compilment. This raft has the advantage of requiring only ouch materials as are usually found on board of every ship; capstan-hars, boat-masts, yards, or any other spars of moderate dimensions, which are tied together mo as tn make a sort of wagon Prume, with a large cusk fixed on esch side; it ,upears to affurl a very convenient eupport to the men, bat it can scarcely
poseess any great atrength for resleting the force of the breakers.

Mr. J. Bremer, a clergyman in the Orkneys, had recelved a medal from the Society in 1810; for hia method of converting any shlp's bost into a llfe-boat by putting into it 3 or 4 casks lashed to the keel, which is to have ring-bolts fixed in it for recelving the ropea by which the casks are fantened; he gives partlcular directions for making sll the necessary arrangements, in the 28th volume of the Transactions ( p .184 ); he partlcularly adviees that no use should be made of the natural buoyancy of the cavity of the boat, but that the bottom shonld be perforsted without heaitatlon; wherever the hole would afford any additional facllity for fixing a rope. Captain Manby's jolly-boat, fitted es a life-boet, "at the expense of $\pm 3$, " seems to be comprehended among those preparatione which are to be made previously to the voyage. The buckling a soldier's canteen on his breast as an asslatance to ensble him to float, belonge to those temporary expedlents which may occasionally be employed with advantage. Tying a hat $\ln$ a pocket-handkerchief, and holding it as a float, has been recommended by Mr. Dawson In the Philosophical Magazine (rol. xx., p. 362); he advises that the crown of the hat should be held downward, and observes that a stick may be employed, to enable us to use 2 or 4 hats at once; but this method can only be a.oopted when the accident occurs in very still water.

In China, a frame of bamboo surrounding the person is used for a float, and the lightness and strength of this substance must well sdapt it for the purpose ; sometimes also a gourd is tied to a child, to secure its floating in case of accident. The inflated goat-skins used from time immemorial by the Arabs, or the aealskins employed by the Chillans, have the disadvantage of being easily rent or torn by a rock or a spar; an oljection which ls also more or less applicable to all substances containing sir; for example, to the sirjackots described in Leupold's Theatrum Pontificum, published about 1724. A flout of a semlcirculur form was recommended by Ozanem, the author of the i.ecreations; and Bachstrom, in his Art of Suimming, proposed to float a troop of cavalry, by tixing cork to the saddles. The cork jucket of Gelacy is described in the History of the Parisian Academy of Sciences for 1757, and Lachupelie's Scaphander, which is considered an improvement on it, in the volume for 1765. In the year 1764 the attention of the British public was particularly called to the flosting powers of cork, by some experiments which were made with cork jackets on the Thanes, together with some comparative cxperiments on sir-jackets ; and Dr. Wilkinsen, in the Philusophical Transactions for 1765 , describes some experiments by which he asc rtulned that about a pound of cork was amply aufficient to enable a man of ordinary slze and make to tloat without effort. It is alinost superHuous to enumerate the multitude of trifling variatione that have been made in the arrangements of cork jackets and air-jackets, apparently for the purpose of exciting a momentary interest, though possibly from the best motives. Mr. Ilosquet advised a hug of cork shaviugs to be kept in readiness by each person; the Seaman's f'riend was composed of two pieces of cork, united by straps; the Collinetta was a hollow vessel of copper, divided into cells; п " marine spencer" has been deseribed by Mr. Spencer, in the 16 th volume of the Philosophical Mugusiue, conslsting of a number of old corks, arrunged so as to form a girdle ; und in 2806, Mr. T. C. Daniel olitained a gold medal from the Society of Arts, for the invention of an apparatus of waterproof leather, surrounting the body, which, according to the testiinonials ho produced, had naved the lives of some permons who had been suiling in a pleasure-bout on a river. In smooth water, it has been suggested that throwing a foot-bali, with a emall weight tied to it, to the person inmersed, would often afford sudicient asslistance;
and, with reapect to floating, there is no donbt that any of the aseistances which have been proposed would be sufficlent if thoy were at hend; but there is another object, to which it is necossary to attend, in cold, and even in temperate climaten, that of supporting a temperature compatible with life and health, if the immersion is likely to be of long duration ; and an additional provision of worntel etockings, jackets, and trowsers, will be almost as eseentlial, in euch cases, as the means of obtaining buoyancy.

The Invention of Indin rubler cloth led to the introluction of infated belts, the advantagee of which, compared with cork, and other forms of belt, are their greater buoyancy compared with their hulk, and their greater portability, for, when emptied of air, they can be folded up, and packed into a small apace. The objections to thom are their liability to get panctured or torn, and to decay, from being put away damp; the metal valves by which ther are inflated mny also get out of order; daring the hurry and confusion of a wreck they are liable to be only partially inflated, and the valves to be oniy half ecrewed up, eo as to allow of the eacape of the inclosed air. Commander J. R. Ward, R.N., inepector of life-boats to the Natlonal Life-Boat Institution, has invented a lelt with 4 compartments, which admit of being separately inflated, thus mitigating the danger arising from puncture or Injury to the infating valves; it has a buoyancy equal to 30 lbs ., and should two of its compartments be diaabled, the remaining two would be sufficient to tiont the wentor.

For the rough purposes of ordinary boat-work, Commander Ward insists on the advantages of cork as a material for life-belts, and he has invented a form of belt, which has been selected by the National Li'sBoat Institution for the use of its life-boats' crews. The buoyant power of each belt is from 20 to 24 lbs., tho cork is uncovered, so thint its quality can be seen, and it is divided into numerous narrow piecen, each of which is sewed separately to a strong linen or duck beit, which covers the body from the arm-jits to helow the hips. The pieces of cork are distributed in two rows, one alove, the other below the waist, and the belt is secured closely about the booly hy means of strings passed round the waist, hetween the two row's of cork. It is further secured thy other striags, crusped over the shouiders. By this arrangement the trank of the borly is enveioped in cork, attached so as to be quite liexible, and to allow of the usual movements of the lody without inconvenience, while it protects the body against injury from blowa, and is a warin covering $\ln$ cold weather.
Various forms of buoyant mintresses have been contrived by Mr. Laurie and others. As mannfactared by Mr. Silver, numerous waterproof tabes are partly diatended with horse-bnir, woolen flocks, or cocon-nut filbes, mo that, should one or more of the tulies fail, the others may suffice to sustain the required weight on the water. The tules are made up into mattresses, pilluws, and floats-the last to be placed under the thwarts of boats. A mattress weighing 17 lbs , sustains in the water 2 kr 4 lhs . A piliow eustaina 28 lbs. A mattress for enigrunt vessela, sold at 9s., was proved at the (ireat Exxiilition. It sustained 961 lbs . in the water during 5 days, without being injured. Floating mattreases are alwo male, fllied with cork niavings. In the Great Exinitition, Mr. Khind had various modeis of deck neats and lienches for stonmere, so constructed as to be readily formenl into rufts, each of which was capable of sustaining 8 jpersons.

For the second olject which in desirable to a ship in distress, that of oittaining a sufe comununkeation with the nhore, it has been nauai of late years to rely principaliy on the humano excrtions of persons who may be on the coast, and who may have made preparationa for thin purpose; and with this view, some instructions for properly co-operating in the mec.sures to be
adopted with Captain Manby's apparatus have been liberally distributed to all ohipe when they received thelr papers from eome of the British cnatom-honsee. Thore are, bowever, some elmple expedients which may be adopted for this parpose by persons on board of the ohip; for example, the making a kite with a pocket-handkerchlef atretched over a hoop, and caua ing it to carry a cord to the lee shore, by means of whioh a stronger line, and at lagt a hawser, muy be drawn by persons standing on the teach. A line may also sometimes be carried on shore by a caak, aliowed to drift before the wind; and a bag has been recommended to be attached to such a cask, or to a buoy, in orler to act as a esil, and to insure its crossing the surf. Mr. Cleghorn was also rewarded, in 1814, by the Society of Arts, for tho invention of a buoyant line, having a heart of cork, to obviate the inconvenience which would arise from Its sinking and being dragged on the stones under the breakers; but he e'rserves, that in heavy storms there is generally a current along shore which renders the method ulmost impractlcable. (Transactions, xxxii., p. 181.) A Mr. Wheatley assures us, in Captain Mnnhy's Essoy, that hie own life, and those of 8 other persons, were saved, in 1701, by a lead line, which was carried on ahore by a Newfoundland dog that be happened to have on board, when two good swimmers had been drowned in the attempt to swim on ehore. It had occurred to Lieutenant Bell, in 1791, that a rope might be thrown from a ahip which had atruck, by meana of a mortar carrying a heavy ahot, and upon the principle of the gun harpoon; and he showed the practicaLility of the suggestion by an actual oxperiment, in which a deep-aen line was carried to a distance of about 400 yarls. (Trans. Soc. Arts, xxv., p. 136.) He recommended that every ship should be provided with a mortar capable of carrying euch a shot, and oliserved that it might be placed on a coil of rope to be fired, instend of a carriage. The line was to be coiled on handspikes, which were to be drawn out hefore the mortar was fred. In 1792 he received a premiuna of 50 guineas from the Society of Arts (Transactiom, x., p. 204); and he olitained his promotion in the Ordnance as an acknowledgment of his merits. The shot was to weigh about 60 ibs . or more, and the mortar 5 or 6 cwt . The experiments of the French artiilery at Lafere werv subequent to thees of Mi. lieil, though they hive sometimes been quoted as the first of the kind.

It has, however, generaily been thougit impracticable to manage $n$ mortar with effect under the circumatances of actual shipwreck; and Mr. Trengrouse has preferred $n$ rocket, as more eas!! fred, and ns having a sinaller Initial velocity than a ahot, ao that the rope wouid be jess in dinnger of being broken by the inpulse. He found that a rocket of 8 oz , carried a mackerel line 180) yards, and a 1 lb . rocket 212; and in mome experiments made under the inspection of the Society of Arts, a rocket $1+$ inch in diameter carried a cord acroas the Serpentine Miver in Hiyie Park. Tho masket is provided with a valve, to prevent the escape of the materials of the rocket; and it is to lefired with a little powder, without wadding. The whole apparstus is packed in in chost, containing from 8 to 12 rockcta, the muaket, is life-spencer, a chair to traverse on a rope, in ennvas bag, and a ball of wood to throw to a person swimming. Mr. Trengrouse was complimented with a medal from tise Society of Arts in 1820. (Vol. xxxviii., p. 161.)
birternal Means of kirape from Shipertck.-The means to the employed by pereons on sthore, in cases of shipwreck, depend either in projecting $n$ iine over the elilip, or on the nese of a life-loont. Mr. Hell ind curmorily obenerved that a ilne might the curried over a ship from the abore by meane of his mortar; but for the artuai execution of this proposal, in n variety of casen, we are indebted to the meritorious excrtions of

Captali the ref dated I ed to it fullest quence worthy publish title of Persons ceived (Tramsa oxpedie tion of somewh order of to a shot when pr ed vesse a jagged ahell, an bolling 1 through an eye to it should means of being bu erful inf infinite ti pied it ous. Ch variety great atre ing, prov quired $n$ disatic, connected stout pint extremely shot, abou yond the 1 with a 10 the rope,
"This immediate and applie may likew that the 1 anotier $m$ leather, ta cured at the alighte barbed shot

When $t$ of availing munication in the rigg which is from long which ocea lose the use of assisting advantages over the ve in ; it firml or rigging, lief of the it is ronuer hoid, or eli which it hn

Captain G. W. Manby, whose apparatus, according to the report of a committee of the Hones of Commons, dated in Mareh 1810, appears " to be admirably adapted to lta parpose, and to have been attended wlth the fullest success in almost every Instance." In consequence of this report, Captaln Manby was thought worthy of a parliamentary reward; and he afterward published a description of hls inventions, under the title of "An Eseay on the Preservation of Shipwrecked Persons," 8vo, London, 1812. He had prevlously received a gold medal from the Society of Arts in 1808 (Transactions, xxvi., p. 209). Hla auccess makea lt expedient to extract from hla esazy a detailed deacription of the apparatne; and It wIll be easy to make It somewhat more intelligible by a sllght alteration of the order of arrangement: "The method of affixing a rope to a shot, for the purpose of affecting communication, when projected from a plece of ordnance over a atranded veasel, was at length sacceeded in, by Introducing a jaggel plece of Iron, with an eye at the top, into a sheil, sud securing it by filling the hollow ephere with boiiing lead; and In another way, by drilling a hole through a solld ball, and passing a plece of iron with an eyo to It, as before described, to the bottom, where It shouid be well secured by riveting. To produce the means of connecting a rope to a shot, and prevent its being hurnt, and rendering It 'irresistible' to the powerful inflammation of gunpowder, was the labor of infinite time, and the number of experiments to accomplish it are numerous. Chains in every variety of form, and great strength, breakling, proved that it required not only an elastic, but a closer connected body. At length, some stoot platted hide (lig. 2), woven extromely close to the eye of the shot, about two feet in longth beyond the muzzle of the piece, and with a loop at the end fo recelve the rope, happily effected it.

"This method is certainly desirable, as a rope may immediatcly [as] it is required, be affixed to the loop, and applied in eervice. The form of the phatted hide may likewise be woven by twisting it in the manner that the lashes of whips or rope are spun. There is another method, by passlng the rope through a case of leather, taking the greatest care that it is so well secured at the eye of the shot as to leave no room for the slightest play, as is represented by the annexed barbed shot (fig. 2).


FIg. 9.
When the crew of the distressed vessel are incapable of availing themsoives of the benefits arising from communication, they having previously lashed themselves in the rigging to prevent being ewept away by the sea, which is repeatedly breaking over them, and when, from long fatigue and the eeverity of the storm (on which occasions it too frequently occ rs), they totally lose the use of thelr limbs, and are rendered fincapable of assisting themselves in the alightest degree--the sdvantages of this ahot are, that, on its belng projected over the vessel, and the people of the shore hauling it in; it firmly eecures ltself on some part of the wreck or rigging, by which a boat can le hauled to the rollef of the distreased objects; and by the counterbarbs it is rendered impossilile [that it should] give up its hoid, or alip, while that part of the wreck romains to which it has secured ituelf.
"Among the many that have been asaved by this shot, the following are teatimonials of a few of the cases: 'Wo, the crew of the brig Nancy of Sunderland, do bereby certify that we were on board the sald vesael when ehe was stranded on the beach of Yarmonth, on Friday mornlng, the 15 th of December, 1809, and compelled to secure ourselves in the rigging to prevent being swopt away, the esa running so high over the veesel. And we do further declare and certlfy that Captaln Manby, firing a rope with a hooked ahot, ascurely holding on to the wreok, enabled a boat to be hauled from the shore over the surf to our rellef, otherwise we must inevitsbly have perished.' This certlficate is atteated by six signaturee.
"Facilitating communicatlon is at all timea of lmportance; but when the stranded vessel is in momentary danger of going to pleces, this point becomes a consideration of extreme urgency. I feel a persuasion that this particular service can only be carried Into effect by a emall and light plece of ordnance, the range of which is consequently very inconsidorsble, when compared with that of a large and heavior piece, as it is weight alone that conveys the rope. In order, therefore, to lncrease the powers of shot projected from a emall mortar, its natural form must be varied, so as to give it additlonai 'preponderane.' The annexed ehape, in the form of a pear (fig. 3), has been used with the greatest euccess; for, by
 the increased weight, the shot's momentum and power
over the line ls in consequence considerably augmented In its range; and whon made to fit the piece as close as possible, a great increase of velocity is likewise produced from the decrease of windage.
"Portability in the construction of a piace or ordnance (as just described) la the very ossence of this service; and communlcation with the stranded vossel or wreck may be effeeted wlth a cord, by which cord a rope can be conveyed, and by that rope a hawser or cable sent to the distressed vessel; for this purpose the annexed was constructed (fig. 4). A person completely equipped with every necessary apparatus to effect communication with a vessol driven on a lee-shore * *


Fig. 4.
the horseman, fully equipped, traveled a mile and a hulf, the howitacr was dismounted, and the line projected 153 yards, in six minutes.
"Tho application of a sinall piece of ordnance likewise offers particular advantages, capable of being employed from a lost to go to the assiatance of a vessel grounded on a bar when running for a harbor, the necessity of which repeatedly oceurs, and was twico witnessed at Blakeney, on the 10th of Novomber, 1810, when boats endeavored to go to their relief, and were enabled to get out of the harior on tho ebb tido, within 20 yards of the vessel; but It was found impossible to approsch them nearor. Ilad auch boats been provided with a piece of this doseriptlon, and tho same firmly secured on a atoat piece of plank, by the holes left at each corner of the iron bed, they' might have projected a small rope, coiled in a crate or hasket, made to the form of the bow of the boat; and the persons in the boat, so provided, would not have remuined the distressod apectators of the untimely end of their fellowcreatures, without being ablo to afforl them the smallost relief, although so little was lien wanting for that desirable parpose.
"Although alvantages have been pointed out in the use of those small mortars, it is necessary to be kept in remembrance that they are produced for particular eervices ; as the nature of the coust, nud circumstances attending the distreased vessels, will direct what pieco lo best adapted to the undertaking. To onailo
the mind to form a judgment of what can be effected by other pieces, the following are the minutes of ex. periments made with a 5 -inch brass mortar, stating the quantity of powder used, and distance the ropes were projected against a strong wiad, at the angle of $17^{\circ}$ (elevation): wright of the mortar and bed about 800 lbas:

| Ounces or powder. | Tarde of Ineh and half rope, |  |  | Yarda of deepees line. 148 |
| :---: | :---: | :---: | :---: | :---: |
| ${ }_{4}$ |  | 184 | . |  |
| 6 |  | 150 |  | 182 |
| 8 | ......... | 184 | ......... | 915 |
| 10 | ........ | 207 | ........ | 949 |
| 18 |  | 885 |  | 890 |
| 14 | ........ | 250 | . + | $8 t 0$ |

"With a short 8-inch mortar, the weight of whlch, and bed, was aupposed to be about 700 lbs ; the angles of eleration uncertain :

| Ounces of powder. | Yarde of deoptealline. | Yands of two-lneh pateat <br> Bondoriand rope, eappoble of halinge tho larreat beol from a beach. |
| :---: | :---: | :---: |
| 89 | 499 | .... .. |
| 898 | 479 | 838 |

" Directions for using the Apparatus.- When the rope (which should be pliunt and well atretched) is brought on the beach or cliff opposite to the atranded vessel, the most oven spot, and free from projecting stones, should be selected to lay it on, and great care be taken that no two parts of it whatever overlay or even touch each other; nor nust it be laid in longer lengths than of two yards. But to project $n$ small line or cord, it will be necessary, If it is reqnired to contract the faker to half a yard at moat, to evoid the jerk received at the end of each right line. The best method, with such a description of cord, is to lay it on the ground in the most short and irregular winding, to relieve it from the powerful impuise. To prove the eflivet of tise impulso on a rope, if it is faked in lengthe of $\mathbf{1 0}$ or 15 yerds, it will break each time, as it then becomes a most powerful pendulum. These precautions aro absolutely necessary to the enccess of the service.
"The following has, after various trials, been found a
 certain method of laying the rope, and placiag it into compart. ments." ( 'rench Faking, fig. 5 ) "A particular attention to this mode wiil never fuil, with a good rope, when the impedimentsare removed that might otherwise obstruct its rapid fight. Its advantages are, that it will allow the eye rapidly (yst correctly, just before firing, which is absolutely necessary) to jasa over the different compartments, and at once discover if any fake has been displaced by the atorm, or by any other casuaity or accident come in contact with another part, which would deatroy its application by the ropo breaking.
"It may likewise be coiled in the manner used in the whale fishery, whale lair (fig. 6); and in the method called chain fuling (fig. 7).


Fig. a.


Fig. 7.
place 1 , but from the great anxiety of mind natural en these occasicna, where the liven of follow-creatures are Ilterally dependent on the correctness with which the rope la laid; it is therefore extremely difficult, in a moment of agitation, to determine whether any overlay has taken place, an error that would infuliibly deatroy avery endeavor, and occaalon even the fatea of those whof lives we might be exerting ouraelves to prenerve. Could permons in the perfurmance of th ${ }^{t_{3}}$ service bo alwaye collected, the two latter methods would have a decided advantage over the firat mode of faking, they being laid in a much less space of time.
"As all these methods of laylag the rope occupy time to place it with the care necessary ; and as it has repeatediy happened that a vessel very soon after grounding, has gone to piecen, and all hands perished; it was necessary to produce a method of arranging the rope, so that it couid be immediately projected as soon as it arrived at the apot ; and none proved so effectual as when brought ready in a basket (fg. 8.) In this


Fig. 8.
case, the rope should be most carefully haid in alternate tiers or fakes, no part of it overiaying; and it shon: be well secured down, that in traveling it be not displaced; lint, above all, no mistake must happen in placing the basket properly. For example, that the end of the basket, from which the shot hange in the above figure, should be previously marked, and mast be placed toward the sea or wreck, that the rope be delivered freely, aud without any chance of entangiement. It will be scurcely necessary to add, there wil! be several tiers of the rope when laid. The utmost care and attention are required in lnying the rope in tiera with strict regularity, to prevent entangiement.
"The next is the application of the mortar. If the wind is sideways to the shore, it nust be pointed sufficiently to windward to allow for the slack of the rope ligitting on the olsject, as the rope wili, of course, be considerably borne to leeward by the effect of a strong wind, and by its being luid at a low elevation insures the ropo falling against the weathermost jart of the rigging. While this service is performing, great care should be taken to keep the mortar dry ; nor should it he loaded until every thing is ready ; when that is done, it shouli be primed; but as it would be impossible to do it with loose powder in a storm, a tube is constructed in the simpiest manner of common writing paper (the onter edge being cemented with a littic gum) in this form (fig. 9). It is filied with meai gunpowider, made into paste with spirit of wine; when in a stute of drying, ran a needle through the centre, and take care the hole is left open, for, on the tuie leing inflamed, a strenm of fire darts through the aperture with such force as to perforate the cartridge. The mortar should then instantly be fired; Fig. 9. and in order to lessen a difficuity that has often occurred in performing this service, a pistol may be usel, having a tin box over the lock, to exclude the effect of wind or rain on tise priming; und the muzzie ieing cut [obliquily], dilates tha infummation, so as to require but ittie exactness in the direc-
It is, however, necessary to add, that great atten- |tion of the alu. tion is required in laying it agreeabiy to the two latter methodn, arising not oniy from the arm being liable to get uniler certain parts of the rope, and thoreby dis.
"Wo will suppose the communication to be secured, although it is nenrcely necessary to offer any other assiatance than that of a rope, as the inventivo genins
of a sail expect meeting prompte as the $\mathbf{n}$ her off $w$ to the wo the surg rope atta fired over those on 1 rigging ol but sboul by the pro throogh rope be m and the to block a litt have heen fast to the this ls don cot, hamm numerous larger rope If a cot be to it as to then be brc fect safety.
"While
be driven $\mathrm{i}_{1}$ as to meet e As soon as crew of the sttached to crew will ha block, thront ends of whi ohore, Whe the larger ro tackle purch to the atake larger rope $m$ if care be ta roils ont to se will be guard purchase be shore, the ala the cot (fig. piunge it in t wili he arold
"Supposin first cast off $t$ - close hitch, ders of the pe

ench arm, draw knot is on the $t$ that position, o person from th back, conseque
of a sailor will aupply evory thing olse; yet I could expect the people on ohore to get a boat ready for mseting the vessel when driven on a heach: it ia tha promptest ind most cortain method of rellef, as woll as the most easy to be accomplishod; for by hauling her off with the rope projected, the boat's head is kept to the waves, and not only insures safety by rising to the aurgo, hut provente her upsetting. When the rope attached to the shot (not having barbs to it), ls fired over the vessel and lodgen, let it be secured by thoee on board, and made fast to some firm part of the rigging or wreck, that they may haul off a boat by it but should there not ba any boat, then haul on board by the projected rope a larger one and a talled block, throngh which a smallor rope is rove. Let the large rope be made fatt at the matt-head, betwreen the cap and the top of one of the lower masts, and the tailed block a little distance below it ; but, if the mast should have been cut or carrled away, then it must be made fast to the loftlest remalning part of the wreck. When thia is done, there will be aupplied from the shore a cot, hammock, netting, basket; hoop, or any of the numerous resoarces of seamen, which will run on the larger rope, and be worked by the people on shore. If a cot be used, the men may be so securely fastened to It as to preclude all possibility of falling out, and then be brought from the wreck, one by one, in perfect safety.
"While communication la gaining, 3 atakss should be driven into the gronnd in a triangular position, so sa to meet close at the heads to support each other. As soon as communication has been effected hy the crew of the vessel, and they have socured the line attached to the shot, made fatt to these stakes, the crew will haul on board by it a large rope and a tailed block, through which a maller rope is to be rove, both eads of which (the smaller rope) are to be kept on shore. When they have secured these on board, and the larger rope is rove through the rollers, let a guntackle purchase be lashed to it, then lash the purchase to the stakes. By the meens of the purchase the larger rope may be kept at a fit degree of tenaion ; for, If cere be taken to slacken the purchase ns the ship rolls out to sea, the danger of the rope being broken will be guarded agninst; and on the other hnnd, if the purchase le gathered in as the ship rolls toward the shore, the slackneas of the rope, whlch would prevent the cot (fig. 10) traversing as it ought to do, and plunge it in the water mora than it otherwise would, will be avoided.
"Supposing neither boat nor cot apparatus at hand, first cast off the shot from the projected rope, and with a close hitch, let it be put over the head and shoulders of the person to be saved, bringing it close under


Fig. 10.
each arm, drawing it tight, obserring particularly the knot in on the breatbone; for, ly having the knot in that position, on the people of the shore hauling the person from the wreck, he wlll naturally be on his back, consequently, the face wlll be uppermost to
selze every moment for respiration, after oach surf has passed over the body. If eircumatances compel rocourse to thin method, care mant be takon to free the rope from any part of the wreck, and to jump clear away ; but should there be more than one on board, each man should make himself fast in the same way; abont 4 four feet from the other, and join hands, all attending to the same directions.
"For giving Relief to Vesela stranded on a Lee Shore in a Dark and Tempeatuous Night.-It will be requisite, first, to devise the meane of discovering preclasly where the distreseed vessel lien, when the crew are not able to make their sltuation knowa by luminous oignale; secondly, to produce a mathod of laying the mortar for the object, with as much accuracy as in the light ; thirdly, to render the flight of the rope perfectly distinguishable to those who project it, and to the crw on board of the vessel, so that they cen not fall or seelng on what part of the rigging it lodges, and consequently have no difficulty in oecuring it. To attuin the first objeet, a hollow ball was made to the size of the piece, composed of layers of pasted cartridge paper of the thickness of half an lach, having a lid on the top to contain a fuse (fig. 11), and It was then filled with about 50 luminous balls of star composition, and a sufficient quantity of gunpowder to burst the ball and inflame the stars. The fuas fixed in the ball was graduated, to set fire to the burnting powder at the hoight of 300
 yaric. Throngh the head of the fuse were Fig. 11. drilied holes, at equal [distances], to pass through them strands of quick match, to prevent the possibil. ity of any necident from the match falling out, or from its not fring the fuse. On the stars being released, they contlinned their aplendor, while falling, for near one minute, which allowa ample time to discover the situation of the diatressed vessel. During the period of the light, a stand, with two upright sticks (fig. 1: ) , (painted white to render them more discerntble in the dark), was ready at band, and pointed in adirect line to the vessel.
" A shell
affixed to the rope, having four holes in it to receive a tike numher of fuses (headed as hefore described), and filled with the fiercest and most glaring composition, which, when Inflamed at the discharge of the piece, displayed so splendia an Illumination of the rope, that its flight could not be mistaken.
"To yet a Boat from a Beach over the Surf. -The importance of going to the relief of ships in distress at a distance from the land, or fur taking off pilots, was viewed as of the bighest consequence by the elder brethren of the Trinity llouse, and offered to my particuiar atteution by several distingulahed characters. After numerous experiments to accomplish it in various ways, the mode fullowing was most approved :-About 40 fathoms of $2+$-inch rope, made fast to 2 moving anchors, was luid out parallel with the shoro, et a distance beyond the sweep of the surf; to the centre of this rope was made fast a buoy, of sufficient power to suspend the great rope, and prevent it from chafing on the sand, rock, or atenes, as well as embedding, a circumstance that has rendered it lupossible, on a sandy or ahingly coast, to heave out an anchor with a
rope to it from the ahore. As this earrise should be performed in fair weather (to be prepared for the atorm), it may be regulated with the greateat exactnema, and should take piace at the top of high-water, that the upper part of the buoy may be at the fuli strotch of lis power, and only oeen at that time. Should the ahore be oxtremely flat, it will be deairsble to place another set at a suffielent diotance beyond the firat, to inaure the operation of thle mathod in any atate of the tide.
"The royal mortar being brought to the apot, le to be pointed in the direction for the buoy, and should be laid at a very low elevation, but anch an to inaure the range ; for the more it is depreased, the lean slack of rope there will be from the parabola formed in tha ahot's filght; the basket with the rope ready laid (having a barbed ahot to it) is to be placed in the front of the mertar; on les being fixed, Instantly haul the slack of the rope in , to prevent the effect produced on it ly a strong tide; which being done, let the remainder be gentiy' hauled In , to insure the ahot's grappling with the great rope ; when that is canght and hooked, a power will be acquired filly mdequate to the service.


Fig. 18.
"As a cast-iron anchor appears particnlarly adapted to this method, and would be much cheaper than hammered, flg. 13 is a plan of one which the British Navy Boarl approved, and allowed me to cast at their expense, for the porpose of making the experiment. When a vessel is in that extreme and perilous situation, triven under a rugged and innccesaible cliff, and in danger of going soon to piecen, the most prompt method I should suggest is, by lowering to the crew a rope with stiff loope apliced into it (fig. 14), at the distance of a foot and a half from each loop, of sufticient size to contain the foot, ly which they can ascend as a ladder. This rope-ladder ls capable of being projected; and one of an inch and a balf rope was thrown from a niortar 194 yards. It might also, from the aimplicity of ita structure, be extremely useful in escaping from a house or fire. By making one end fast to the leg of a bed or a table, the jerson would come down from the window in safety, and with much leas difficulty, and quicker, Ftg. 14 than with the common rope-ladder, which is heavier and more nn wieldy. It has great advantages when employed in maving ohlpwrecked men in aitua tions just descritied, when, from extreme cold, and almost benumbed limbe, it would be imposaible for them to climb up a rock, or ascend it even by the aid of a common rope. The holds, thus apliced in, will support both hands and feet. ${ }^{\text {" }}$,

The Report of a Committee of the liouse of Commons contains also a $r$ aper of inntructions for the managers of Captalis Bianby's apparatus on ahore, which are somewhat more minute than the directions published in his Esasay. For example:-" If the wind be sideways to the shore, the mortar must be pointed eufictently to windward to allow for the alack of the
rope lighting on the objeet, as the rope will, of courne, be berne conaiderably to leeward by the ffeet of a strong wind. The distance your judyment deciden the veasel to be from the ahose ahould regulate the charge of powder at stated in the acale, taking just a unfficient quantity to clear the object 1 an attention to this will be more certain of your effecting communi cation, and guarding against the danger of the rope breaking, or any other circumstance that might provent the anccesaful porformance of the service. The elevation of $15^{\circ}$ is to be preforred, partioularly if the wind is aidowaya, pointing the mortar aufficiently to windward, at the ropo would then fall againat the weather-most part of the rigging of ths atruaded vessol. I Whan a veacel is driven on ahore in the night, you will flash gunpowder at often as convenient on your way; thia will animate the crew, and denote to them you are coming to thoir asaistance. . On getting to the apot where you bar. reason to suspect the vessel lies, as you are not able to discover har from the oxtreme darkness, and if the people on board can not [make known] their aituation by luminous signala, or noises (which they will be directed to make if posajible), you will lay the mortar at a very high elevation, and fire a light ball. Just before you fire (the rope) it would be advisable to lot off a blue light to put the crow on their guard, to look out, and be ready to secure the rope. The service can be performed with a carronade."

In the repert we have a copy of directions to jereons on board vessels stranded on a lee-shore, propused to bedellvered to the masters at the custom-house. It is observed, that even anspping a piatol, when the powder in wet, may cometimes afford a aignal viaible on ahore, from the aparks of the ateel alone. The other parts of the directions will be supplied by thene who understand the princijles of the pruposed nuode of rellef.

Rockets have of late years been much employed inatead of the mortar, In Manby's apparatus for thmw. ing a line to a ship in distress. "Dennett's Rocket Apparatus" is supplied to many atations aiong the coast. The only advantage which the rocket has over the mortar in ita greater portability; for, being much lighter, it can be used with greater facility among rocky eliffe, and in positions difficult of access. The disadvantages of rockets are, that they are somewhat uncertain, sometimes exploding es eoon as ignited, to the danger of the byatandera; and they are alao liable to deteriorate from the effects of damp or of age. Moreover, being expensive, they can not be often employed in trials, so as to keep up the practice of the people employed in using them. The range of a shot from a 24-1h. mortar, which is the ordinary size, is about the same as that of a $12-\mathrm{ib}$. rocket, which is the largest in use. As the management of the mortar and moket apparatus is much better understood by the officere and men of the coast-guard service than by ordinary boatmen and fiehermen, it has been almost entiroly le in their hands, and is provided by the Roard of Customs. There are in England 132 mortar and rocket atations; in Scotland, 15 ; in Ireland, 22. Several inventions, or variatione, in the Manby apparatus may be just glanced at. M. G. Delvigne nsee a howitzer luateal of a mortar, while a pertion of the line to be carried is contained in the projectile. Mr. Greener has a method of discharging a rocket, with a line atteched, from a tight harpoon gun. When discharged, the rocket Ignites, and is said ts prolong the range to a greater distance than if the gun or the rocket were alone employed. Captain Jerningham, R.N., has an anchor of a particuiar form, which he proposes to fire from a Manhy's mortar, in aufficient numbers to afforl the means of hauling a life-boat throug's the surf. Mr. A. G. C'arte employs a warrocket instead of a Dennett's rocket.

Life-boats.-The last description of the inventicns
to be
liven I
are of
ing,
adapto
purpo aoticed
to be $h$ active colves Greath fifty $g^{\prime}$ pariiam neration Coffee-1 dascribe p. 283.

10, and curvatur oned fro tended $t$ greater $\mathbf{P}$ mersion ance, the is alao co order to wale pros cased witl seven cw There are guawalea, both ends in onder provided, The deacri preservatio Shleids an and 1798 re
Mr. Chri 1807, for a tried at Ncn manageable xxv. 50. .)
"to establis result from boat, partic It can be p illustrate th ervation to example-w was fitted u mission of $t 1$ Board. "T lashed and $s \in$ it in an upr beaching, an of equal dep piece of iton keel, if any a regained its o with swellin rounded the vented it be drivea in con relleve. Th and was fille wale, when a every way, a the casks, it odge, that it was capabie o
Mr. J. 13oy boat and anfe made of canv: with each oth a man with an could not be
to be considered, with regard to the preser ration of iven in casee of shipwreek, is that of liff-bonts, whic: are of anch a conatruction as to be incapable of aink. ing, aven when flled with wator. The occasional adaptation of the common beata of the ahip to sucil purposes, by means of empty caaka, has been already aoticed. But the boata now in question are aupposed to be kept on ahore at proper aiations, and manned by active persone, who are is the hablt of exerting themseivea for tha rellef of eamen in diatreas. Mr. Henry Greathead of South Shiolds, recelved a gold medal and fifty guineas from the Society of Arts, in 1802, and a pariamentary seward of $\mathbf{2 1 8 0 0}$, beniden further remuaerationa from the Trinity House and from Lloyd'a Coffee-house, for his invention of a llfe-boat, which is dascribed in the Transactione of the Society, vol. xx., p. 283. The length of thin boat in 80 feet, lta broadth, 10, and ita greatest depth about 8, besides a igneral curvature, which nearly doublen the depth, ad reckoaed from the onda; the convexity beiow being in tended to give it a greater fueility of tarning, and a greater power of mour $\mathbf{i g}$ on the waves without submarsion of the bow, whach would increase the reaistance, though it would not sink the boat ; the breadth is also continued further than maual fore and aft, in order to contribute to the same property. The ganwale projecte some inches, and the aides below lt are cased with pieces of eork, amonnting in the whole to seven cwt., which are secured by plates of, copper. There are ten short oars of fir, fixed on pin's to the gunwalea, and a longer oar for steering at each end, both ends of the boat being alike. It is painted white, in order to be more conspicuous; and a carriage la provided, for conveying it overland when required. The description in accompanied hy documents of the preservation of 200 or 300 men by the bosts of South Shields and North Shiclds, which were built in 1789 and 1798 reapectively.

Mr, Christopher Wilson received a gold medal in 1807, for a life-boat with air gunwales, which waa tried at Ncwhaven, and was said to be lighter and more manageable than Mr. Greathead's. (Transactions, xxv, 55.) "Littie is required," says Captsin Manby, "to establish the importance and advantagea that will resuit from giving avery boat the properties of a lifoboat, particularly when taken into consideration that it can be prodaced at a very trifiling expense." To ulustrute the method of giving the properties of pres. arvation to any boat-a man-of-war's jolly-boat, for example-we quate the description of the one which was fitted up to make experiments thereon, by permiesion of the IIonorable Commisaloners of the Navy Board. "To glve it buoyancy, empty casks were well lashed and secured in it. For the advantage of keeping It in an upright position, launching from a fiat shore, beaching, and to resist upsetting, it had billago boarda of equal depth with the keel, and when a good sized piece of iron or lead was let into or made fast to the keel, if any accident did upset the boat, it immediately regainedi its original posture. A stout projecting rope, with swelings upion it to increase its elasticity, sarrounded the gunwale, served as a fender, and provented it being stove in lowering down, or when driven in contact with the vessel it nilght bo going to relleve. The bont thus deacribed had the plug out, and was filled with water until it ran over the gunwale, when a crew of four, with myself, tried it in every way, and found from the buoyant proporty of the caske, it kept the boat so mach above the water's edge, that it was rowed with the greatest enae, and was capalile of performing any service required."

Mr. J. loyes, in 1814, obtained a medal for his lifeboat and safety-buoy, consisting of hollow pylinder made of cunvaa, painted and varnished, and connected with esch other. It was tried on a river, and carried a man with safety (Trans., $x \times x i 1 ., 177$ ); but surely it could not le trusted among broakers on a lee shore.

In 1818 Mr , Gabriel Bray obtained a ailver medal for hla invention of a boat filied with air-boxca under the seate and along the aides. (Vol. xxxv., p. 172.)
Of late years the anbject of life-bonta has attracted considerable attention, from the circumstance of the mereasing number of wrecks, consequent on the rocky nature of many ahorea, and the rant and increacing umount of our commerce. The exertions, too, of the National Lifo-Boat Institution have had a powerful influence in directing attention to this subject. This aoclety, founded in 1824, is ander the patronage of her majeaty, and the proaidency of his grace the Duke of Northumberland. The olject is to aasiat every wrecked person in the kingdom, by auch meana as the astabitahment of lifo-boats and rooket-monars at all the dangeroua parts of the coast ; to sasist in the formation of local committees at the chief ports; to confer rewarda in the form of meduls, votes of thanka, or pecunlary remuneration to all persona riaking their lives for the aske of others; and also to encourage the invention of new or improved life-boats, belta, rocket apparatas, buoys, and other means of asving life. This admirable society is dependent on voluntary aubscriptions for its existence and aupport. That the society has worked with some succeas, may be Judged of from the fact, that slnce its establishment it has been instrumenal in saving the lives of 9682 persons; it has granted 79 gold medallions, and 556 aliver medals, besidea peenniary rewards, amounting to $£ 9631$. The attention of the public ls also kept alive by the publication of a journal entitled The Life-Boat, which, In addition to atatlstical returna of shis,wrecks, contains information on every sulject convacted wlth the preservation of life from shipwreck. One of the publicationa of the seclety is a Wreek Chart of the British Islands, originally phblished by the Admiralty. A vesacl wrecked on their coast is indicated by a black spot , while a vessel so aeriously damaged as to require to discharge her cargo is indicated by t; and the number of such marks at any one spot indicates tho annual average of wrecks, which may be large because the coast is dangerous, or because the traffic is great. Thus, the mouth of tho Tyne shows a larger number of black dots and crosses than any other place ; the mouth of the Ters and the mouth of the Weir occupy the next placea of distinction in this dismal chart: these three rivere belng the outlets of the district by which London is supplied by sea , th $3,000,000$ tons of coal every year, giving employment to several thousand collier ahips, which sail to and fro and greatly add to the otherwise large trade of tha Northumberland and Durham porta. The const of these two counties indicates per annum 180 wrecks, ainkings, and serious collialons. The mouth of the Humber, the const of Suffolk between Yarmonth and Southwold, the sandy shoals off the mouth of the Thames, the Goodwin Sands, the Scilly Isles, Barnatable Bay, and Liverpool, rank as the next dangerous portions of the English coast. The Welsh coast is also dangerous, especially Glamorgan, Pembroke, and Anglesea. Scotland, oxcept near the Firth of Forth, is comparatively free from wrecks, the western coas romarkably so, probably from being less exponed to the winds, which tend to drive shlps ashore on the enstern cosst. In Ireland, the east and south coasts present ubout an equal number of wrecks, the amallor number being on the northern and western. In the year 1855 no less than 1141 wrecks occurred on the coasts of the United Kingdom-about one half of that number belonging to the east cosste of Great Brita'n. The loss of life from shipwreck during that year was comparatively small, heing only 469, or lass than one third of the lose of the proceding year, the average loss per annum being between 600 and 700 lives.

Passing over a great variety of proposals for lifeboats, we proveed to notice the bont which the Lifeboat Institutio: recommends and smpplies to its sta-
tions. Its hlatory is intere ting. A fow yasre ago, a Jamentable secidont occurr do to south Shields lifoboat, whereby twanty pliota were drowned. This m dueed the Duke of Northumberiand to offer a reward for the beat model of a life-boat. This effer was reaponded to by boat-buildore and others from various parts of the kingiom, as well as from Hrance, Hollund, Germany, and Amuerica, $e$ that 280 models and plans wers sent in. A bout 50 of the best of these were exhibited by his Grace In the Great Exhibition of 1851; and he expressed the Intention of placing the best lifo-boata, with their subeldiary apparatua, on all the expesed polnts of the cosst of Northomberland. Ife aleo caused a report to be prepared, accompanied by plane and drawlags, with a viow to elicit the beat form of life-boat ; for although tiso prise of $£ 100$ was assigned to Mr, Beeching: of Great Yarmouth, it was considered that a bettar boat might atill be produced. Accerdingly, Mr. James Peake, asaistant master-shipwright in her majasty'a dockyard at Woolwleh, and a member of the Life-boat Committoe appointed by the Duke of Northumberland, was requeated to furnish a design for a life-boat which might combine as many as possible of the advantagen, and have an few as possible of the defecte, of the beat of the modela examined by the committee. A bont was accordingly designed by Mr. Peake, and built at the patilic expense in Woawich dockyard. Some modifications were from time to time mads in her, in consequance of varieus experi-
ments, and a trial of her capabilitlean $n$. de $\ln$ a gale of wind at Brighton. The boat, with othere of the mame dealgr, ballt at the cons of the Duke of Northumberland, was pliced on the Northumberland coast in the antumn of 1852. In the course of the following winter, theme boats were taken afloat on trial hy the Socl. ety' inapector of Ilfe-boats, wome of them in beavy seas and gales of wind, and the reault of the triala was considered to be highly antiofactory. Other boate were therefore built on the aame plan, and we may therefore conalder this as the model life-bont. These boats have been, for the moat part, of two sisen, vis., 27 and 80 feet In length, with 7 to to 8 foat bram, and rowing from 8 to 12 oars, donble-banked-their weight averagiag iwo tona. But as such boata have been found too hesvy to fie managed in sonse localitien, where boatmen are few, boata of leas beam and woight, rowiag alx oars siagle-banked, but on the same deaign in other respects, have been built under the denomination of second-lase life-boats. The forner clase of inosts has also been somewhat modified aince the deneription of the boat was firat published, so an to be reduced somewhat in bearn, and to have leas height, and greaiar sharpness of bow and stern, to onable them to $\mathbf{b}$ rowed with greater speed againat a head gale and a heavy sea. They are also built of fir, upon the diagonal principle of douole planking without timbers, wheress the earlier bouts were of olm, and clenched, or clinker-built.


FIs. 16


Fig. 16.

The accompanying figures show the general form and the nature of the fitting of the air-chambers of one of these boats, 80 feet in length, and 7 feet 6 inchey in breadth. In Ags. 15 and 16, corresponding to the elevation and deck-plans, the general exterior form of the boat is seen, showing the sheer of gun wale, length of keel, and rake, or slope of stem and stern posts. The dotted lines of fig. 15 show the position and dimensions of the air-chambera within the board, and of the relieving tubes. A representa the deck, 13 the relieving tules,


In. 17. six inches in diameter, C the side air-casea, D the end air-chumbers. Io fig. 17 the exterior form of tranaverse sections, at different distances, from stem to stern, is shown, Fig. 18 ropresents a midship transverse section, A be-
ing sectlons of the side air-cases, I the relieving tuber, bored through solld massive chocks of wood, of the saone depth as the apace bet weea the deck and the boat's thor; C C are apaces beneath the deck tilled up, over six feet in length, at the mid-ehip part of the bout, with solid
chocka of light wood, or boxes of cork, forming a portion of the ballast D ia a section of a tier below the deck, with a movablo hateh or lid, in which the bout'a cable is atowed, and Into which all leakage trencath the


Fig. 18. deck is drained through smail holes with valves fixed in them. In some of the later boata a stmall draining tier only is placed, having a pump in it, by whlch any leakage can be pumped out by one of the crew while afloat. The featcrned Hines in $\mathbf{6 g}$. $\mathbf{1 5}$ represent exterior life-lines,
attached persons 1 Into the lower tha person in Into the 1 The chl of being water-tigl difficultios amount ar essary apo the atowag space alon occupied b on the bon of, is confit It eerven to over to the the " uat. form In ahs adapted to boat there it and detache forming to $t$ Extra buoy built acrons feet to $1 \$$ foe to the gunw tended to $p$ event of the the deck bein have sufficier The second discharging, I shipped by t boat being su property does tain cases (th plugs which st out during a $g$ the water into The water thu to the midship ballast, and t gooff under su Liverpool lifewhen filled by balling. In B deck at the ld open tabes, op passing throug floor; the bott acting valves water shipred ligg placed at o which is aloove sea, so that the weight, and dis loast has very $g$ her stability ar The Greathead their great brea lity; t t some a neath the dect Beeching's lifecidents, with lo is filling the tan water when full Mr, Peake's lif keels, and with ander the deek. the space benea the cork would a
A life boat ou erty which, how Mr. Beechling'a
attached ronad the entire leagth of tha boak, to which |thit etability is sacrificed thecaby. The foot, bowpersonn in the wator may eling nntil they can be got into the bent $i$ the two central Ynoe are feotooned lower than the others, to be used ne etirrupe, no that a person in the wator, by atopplag on them, may elimb into the boak.
The chiof peculiarity of a lifo-boat is its incapability of being sunk, in consequence of its being fitted with water-tight aifr-cases, or compartments. One of the diffeculties of lifo-bonts has been to decide as to tho amount and distribution of such air-caneen. The necessary space for rowing and working the boat, and for the stowage of ahipwrecked persona lveing eccured, the opace along the aiden within-board should be entirely oceupied by buoyant cases, or compartmenta, because, on the boich shipping a nea, the water, until got rid of, is confined to tha midehip parts of the boat, where it serves to a great extent as bellast, Instead of falling over to the lee-aide, and destroying the equilibrium of the nat. Hence, berrels or caske, which do not conform in shape to the siden of the boat, are not well adapted to verve as air-cases. In Mr. Penke's lifobost thers is a water-tight deck at the load-water-line, and detached air-boxen along the sides, closely conforming to their shape from the thwarts to the deck. Extra booyanoy io also derived from largo alr-cases, huilt acrosa the how and atern, and occupying from 3 feet to $1 \ddagger$ feet in longth, from the atem and stern posta to the gunwale height. Thene cases are chiefly intended to provide self-righting power; but in the event of the boat being atove in, and the apace below the deck belag filled with water, these sir-casee alone have sufficient bnoyancy to float the boat.
The second pecultarity of a life-bont is its power of diacherging, in a few seconds, any water which may be shipped by the breaking over of the sea, or by the boat being suddenly thrown on her beam-ends. This property does not belong to all life-bonts, for, in certain cases (the Norfolk life-boato, for example) the plugs which stop certain holes in the floora are taken out during a gale of wind, or a heavy sea, so as to let the water 'nto them until it is at the level of the sea. The water thua let in is confined by the wide sea-cases to the midships of the boat, where it serves as a loose baliast, snd the boatmen conslder that it is safest to go off under suil with the boat deeply Iminersed. The Liverpool life-bosta have no relieving holes, so that when filled by a sea, the water must be got rid of by baiiing. In Mr. Peake's boat there is a water-tight deck at the load-water-line, and a number of large open tubes, opening at the nurface of the deck, and passing through the apace between the deck and the floor; the bottom orifices being furnished with selfacting valves opening downward, so as to allow any water shipped to escape through them. The deck being plased at or above the load-water-line, any water which in above it will be above the ontside level of the sea, so that the water escapes from the deck by its own weight, and disappeara in a few seconds. Ae a lifeloat has very great buoyant power, it is important to her stability and safety to attend to the bailaating. The Greathead life-boats have uanally no bailast, their great lwoadth of beam being relied on for stability; t't some of them have a tank in the midships beneath the deck, which can be filled with water. Bneching's life-boats are similarly ballasted; but accidents, with loss of life, have arisen from a difficalty in filing the tanks, and preventing the eacape of the water when full ; hence solid belliat is to be preferred. Mr. Peake's life-hoats are ballasted with heavy iron keels, and with solid wood and cork ballant, atowed under the decks; and should these be atove in, and the space beneath be filled with water, the wood and the cork would supply extra buoyancy.
A life-loat ought to be aelf-righting if npeet, a propenty which, however, belonge only to Mr. Penke's and Mr. Beeching'a boate, some boat-builders considering
 that the meane capployod to prodace solf-righting add to the atability of a boat, und improve har in other reapocta. The molf-righting powor is thus attained: , 1. The boat is bullt with comadiorable ahoor of gun wale, tha bow and atora being from 1 foot 6 tocheo to $\frac{1}{\text { foot }}$ highor thas the aldes of the boat at her centre, and the apace within the boat at oithor oxtronity, to the distance of from 8 to $4 \frac{1}{3}$ foot from the stom and atorn posts to gunwalo height, is then inclusod by a seotional bulk-head and a celling, and so convortod into a watertight air-chambor, the oubical contente of which, from the thwarte upward, are sufficient to bear the whole weight of the boat when ohe is placed in the water in an invarted ponitlon, or keol upward. 2. A heavy Iron keel (from itw 8 owt.) is astached, and a nearly equal woight of light wood or cork ballinot is stowed between the boat's floor on the deck. No nthar measores ane neceseary to be taken in order to affect the self-righting power. Whon the boat is forelibly placod in the water with her heol upward, she is $f$ sated unateadily on tie two alr-chambera al bow..ad stern; while the heavy iron keel and other bali belag then carided above the centre of gravity, an unatable equilibrium is at once effected, and the weight of the iron keel falling over on one aide, immediately rentores the boat to her proper poaltion; in other words, ahe self-rights."-The Life-boat, No. 22. Lateral stability or stiffinena, being the tendency to proeerve an upright position in the water, with proportionate resistance to upsetting, is obtained by breadth of beam or by bal-laet-as in Mr. Peake's boats, by an iron keel and other solid ballaet, and by flatness and length of floor, with moderate beam only. The other qualities to be required in a good lifo-boat are apoer atrongth, and stowage-room, all of which eeem to have been well considered in Mr. Peake's ionats.
A new description of life-boat, favented by the Rev. E. L. Berthon, M.A., of Fareham, and known as the Fareham Life-boat, hes been made the subject of a patent. Its novel feature is, that it is collapsible, so that it combines the property of the lifo-boat, with facility of atowage in a small apace. Hence, it la well whapted for the use of ebips, especially large eteamera, omigrant vesseia, and troop-ships. Its framo-work is of wood, all the timbers extending the whole length of the boat, there being no tranaverse timbera or ribe. The timbers, four on each side of the stem and keelF ce, are thin, flat, and deep, comething like a thin alice of melon; they are made without scarfing, by beading plank over plank till the required thickneas is attained. They are fointed together at their onda, and to the tops of the atem and stern posts by a kind of chuin hinge. When the boat is collapsed, these timbera atand side by side in vertical planes, like the leaves of a closed book; but when expanded, they stand apart in radial planes, somewhat like the aegments of an orange. Attached to the edgee of all the timbers are water-proof coverings, of which there are two, the outer akin being secured to the outer edgea, and the inner skin to the inner edges of the timbera, by which means the whole body of the boat is divided into eight separate longitudinal cells or compartments, which become filled with sir on expanding the boat. This is effected and maintained by the bottom boards and thwarts, which being jointed along the middle line, are made to stand up at an acuta angle when the boat is collapsed, and fall down to straight lines when open. The inventor comparea the principle of extension to that of a carriage-head, the frame of which maj be compared to the boat's timbera, and the joints to the thwarts and stretohere of the bottom boards; and as the leathern covering of the carriage shuts in when the head in down, so the coverings of the boat shut in between the timbers. The boat has rather a deep keel, berides two bilge picces on each side, and
in ave $y$ other salient point the covering is protected by wood or copper. The toat in lowernd by the following eontrivance: Inside the bulwarks ia a large, fint, deeply-grooved sheave abont 2 feet 8 inches in diameter; it has two deep, narrow grooves cut nearly to ita axis, and in these are wound eeparately the ends of the two falls. From this sheave is a projection on which a friction-strap with a powerful lever is made to work. This being placed flat agalnat the bulwarks, the falls are trought to lt fore and aft by amall sheaves set in the top-rall; thun the friction of the strap, when the boat is up, is enough to prevent motion; but by slacking the lanyard by which the leather la secured, it may bo allowed to descend rapidly or slowly, according to the pressure applied to the break. IRlslng and falling derricks are snbstituted for davits. The average size of the Fareham life-boat is 12 by 10 feet; It has 8 thwarts, beslles senta roumil the atem, and will pull, if required, 12 oars, doulble-banked.

Captain Manty's proposal for throwing ropes from whip to ship in cuses of arcidenta may ensily be understood from the methois $w$ hich he employs for saving lives in ahipwreckn. The life-bnoy by Lloutensnt Cook, R.N, F.3R.S., Profensor of Fortitication at Addiscombe Colloge, is relsted to the same elass of inventions; its otjeet in to preserve the life of a person falling overbeard in the night, by means of a floating light; and it obtained him a gold medal from the Soclety of Arta, in 1818.-Transactions, xxavi. lle observes that a ship way uften have to ron half a mile before she can get about and lower a twat, no that it lecomes highly deslrable to afforl a temporary nupport to the sufferer. The machine consisi s of $t$ wo copper apherical air-veswels, with a aquare tapering tube through each, made water-tight, and united together by a cross-pliece of wood, in which are two brass conducting tubes through which is fixed a perpendicular tulular-stalf, with a brasa forule at ench end, and a copper aliding-rod, nearly its own length, within it. Attached to the lower end of the rod is a fiat circular balance-weight, hearing a chain by which the life-buoy ts suspended, and a link which, when hooked to $n$ stad in the lower ferule, bears up tho rod and the balance-weight, but which, when unhouked, allows the weight to draw the rod nhont two thirde out of the seafi. To tho heal of the perpendienlar staff is attached at nipht a fuse, on a brass fuso-plate, the shank of which is wecured in a socket by a thumts screw. The buoy ls necured to the shlp liy the chain only, the ring of which hange on the hook of the wheave of the trigyer-plate. Attached to the stem of the vess.! are two iron rods cased with copper tubling, together with the nerew-bolls, from which they are manjended; just above the forked stay which keeps tho mond parallel, at a proper distance from the atern, in the trigger-plate, and the lirasy fince-case which covers ant proterts the fise on the head of the staff. There is alus a lirass case for the lort, or percussionhammer, placed no an to combr.. acte with the firsecase, by meank of the horizontal tutre ; all these, together with the fulleys and guand-iron, are tirmly attachert to the atern of the versel, inside of which, immediat ely opoosite to the pullies, are tixed the cups and bandles, the une for firimg the lock and lighthig the fuse, the other for raining the trigher-iwite and disengaging the buy from the ship. As noon as the trigiger-tool: is raised, the whenve revolves, the ntop turns round, sut the life-bnoy slides off the roks into the water, bearing on the head of the staff a brillinat fiame. The balance-wright, when no longer held uis by the chain, drops apward of three feet telow the cros-piece, prevents the hooy from upaetting. and affords aphere for the masin toniand an. This appuratus admita of being lighted and let down into the water in the short apace of tive neconds. Lleatenant Cook liw alao the inventor of a plan for converting beats used for ordinary purposen into life-tonats at pleanure.

Mr. Miller'n safety-polea for skutera, and Mr. Prior's mode of prevuntiog aecidenta in descending minos, are mentionod in the Transactione of the Society of $f^{\prime}$ Arfa (vols. xxxil., xxxvi.) Apparatus of the latter kind has been introduced at different tlmes with varlous modificatlons. In coal-pits, or coal and fron pits, where the mon are raised and lowered in a rectangular iron frame, called a cage, the rope or chain may break, or tho cage may be overwound by drawlug it over the framing ut the pit's mouth. Mr. Robert Blee of Reilruth, has intriduced what he calls a aafety-bucket, and Messrs. White and Grant of Glargow, have a snfety-eage. These inventions depend upon somo auch urrangements as the following : 'Two puirs of rccentrice are attached to the ends of two parallel shufts, which extend ncross the top of the cage; the edges of the eccentrice rre toothed, and when the cage is in motion they are free of the vertical wouden ratils which
ateady the cage in its motion ap and down the pit ateady the cage in its motion up and down the pit. Should the rope lireak, two volute spriags liring round the thick sides of the eccentrics to bear against the guldes, and hold the cago securely. To provent oyerwinding, the holdfast which comnects the rope to the cage is necured by a curved bolt, kejit in place by a strong apring ; this bolt inoves on a fulcram, and is continued as $n$ lever beyond the holdfast; across the framing at the month of the pit Is a bur so arramged that, when the lever comes in contact with it, the bolt becomes disengaged, the cage, by the action of the accontrics, liceomes fixed, and tho rope only is drawn upover the pulleg. In Mr. Hlee's sufety-cuge the catches allow it to move freely molong as chere is a vertion strain on them; but shuald this cease by the breaking: of the rope, the catches lecome liseritem, and attached to the iron staves of the lndders placed on either side of the shaft.

A sketeh of the expedients which have been recommended for the preservation of mariners, published in a work entitled shipurechs and Disusters at Sea (vol. iii., lilinlurg, 1822), contains a fow further historieal details relating to some of the inventions which have heen des, rihed.-Li, II,

Francis's lifo-lwats aro vory pencrally usel on our American const. and helow wo give a short description of them. Many of them are also used in Great llritnin. The atructure of the lioate, and of the wagons may be briefly described. A sheet of salvanizd irm or copper of the full sizo of ono half of the bost, from stem to sforn, but not thicier than a sixpeuce, is placed inetween two dies of the requirite form, and then oubjected to enormous hydraulic pressure. The diles regnire great care, labor, and expense, in their preparation, two being required for each form und size of lemat-one for the starloorrl, and ono fir the darboard section. The plate of metal is thus pressed iut) the shape of the half boat, receiving at the same time certain longitulinal, or foremath-aft corragations of a pecaliar character. The two halves are then riveted together, and the lwat is complete.

It is to the corrugations that the bont owes it anormons strongth, for it has no frume-work, no ribs, min timbers. A plate of plain mutal was exhibited; it was taid on two blocks of wool a yurd mint, and was too weak even to bear its own weight. Aasther phat" of metat of the samo thickneas, hat corrurgited, was placed on the book, and fore the weight of a man without bonding; and wonld have borne four men. Honts of all nizes may he thas construtel, from the smallent gig to the largest man-ofowar's cutcer or hunch. The grent majority of che Amorican steamers have, fur mome years, earried francin's beates. In at experiment to tent the atrength of theno lants, ane of them was aubjected to moat vholent treatment. It was pitched from a height on atone pavement ; it was rolld and bruised upon it, and several men used thoir utwast endenvora, with heury hammora, to damage it, but all in viin. It wan then set alloat, and four ktrong wen,
pulling aperl4, doere of annihilh fered no which $n$
pulling with mint and main, ran It, atem on, at full
 done of the meriments, whleh would linvo utterly aunihiluted a wooden boat, it was found to have sufferd no damage beyond a few dents and bruisea, which a hammar set to rights in five minutes.

The wagons were also experimented upon. The whyon was dirst placed in the water, with the whole of lts runuing gear attached, including the pole, the welght, 18 ewt .16 men then got in, their weight amounting to wis ewt., and brought the wagon to about one foet from the top. Attempts ware then made to upset it in the water, by the whole of the men bearing down, first on nue side, and then on the other, but all in vain; the upper edje of the wagon could net he lirought tielow the water. Many other severe experiments were tried. The advantages posseased by an army marching with these wagons, are numifold and self-evident. The cumbrous pontoon and brilge train may he dispensed with, the ordinary wagons which must acrompany an army supplying their place. On approaching a river, these wagens, full of men, may at once to driven across the water; or if the stream be full and rapid, the wagon-bodies mny be taken off their running-gear, and used as boats, propelled hy onrs, or dragged by repes from the oppesite lank. Two wagen-lodies put together will flout a field-piece, with its limher and ammunition reudy for Instant action. Four of the holies maku a valuable raft. A succession of them may be unchored arross the river, [lanka laid over them, and a brilge tor all arms is at once established. For a more extended account of the losses on tho coast of the l'nited States, see Warcess.
Lighter, a large open tlat-hottomelt vessel, generally managed with ears, and employed to carry goorls to, or itom a ship, when she is to lo laden or delivered. There are alse some lighters furnished with a deck throughout their whole length, in order to inclose such merdimatise as would be damaged by rainy weather. These are usually called close lightera.

Light-houses. Light-louso, anil sea-light, are terms which, although not etrictly syunymous, are indifferently employed to denote the same thing. A Suatight may be detined as a light so modified and directed as to present to the mariner an appearance which shall at once enable him to judge of his position during the night, in the same manner as the sight yt' a lumblmari ronld do during the lay. The early history of lighthenses is very uncertian; and many ingenious mutigiaries, tinding the want of authentie recerds, have endeavored to suphly the deticiency by conjectures founded on casual and obseuro allusions in ancient writers, and have invented many vague and unsatistatery hypotheses on the subject, drawn from the beathen mythology. Some writers have gone so far as to imagine that the cychops were tho keepers of lighthenses; while others have actually maintained that Cychops was intended, by a bold prosopepeia, to teprevent a light-house it self. A notion bo tanciful des serves little consideration; and in order to show how ill it nceords with that mythology of which it is intended to bu an exposition, it seems enough to quote the lines from the ninth Odysses, where llomer, atter describing the darkness of the night, informs us that the theci of Ulysses actually struck the shore of the Cyclopean island hefore it could be seen.




Odyss., Ix., 116.
Thero does not appear any helter reason for supproing, that uader the history of Tithonus, Chiron, or any other bersemuge of antiguity, the hem of a lighthouse was conreyed; for sueh suppositions, however reconcilatile they may uprear with nome parts of the mythology, involve obvious inconsistencies with
others. Nor does It seem nt all probable, that In those eurly times, when navigation was so little practleed, the advantagea of beacon-lighta were ao generally known and acknowledged as to render them the objects of mythologleal allegory.

Colossis of Rhoies,-About 300 yeare liefore the Chistlinn era, Chares, the ilisclple of Lysippus, constructell the celebrated brazen statue, called the Colossus of Rhodes, whose height was upward of 100 feet, which stood at the entrance to the harior. There is considerable probabillty in the Idea that thla figure served the parposes of a llght-house; but we do not romomber any passage in ancient writera, where thla use of the Colossus is expressly mentloned. There is much Inconsistency in the account of this fabric by early writers, who, la describing dlatant objecta which conld be seen from It, oppear to have forgotten the height which thoy assign to the figure. It was partly demolished by na earthquake, about 80 years after lts completion; and eo late as the year 672 of our era, the brass of which it was composed was sold by the Saracens to a Jowioh merchant of Eleasa, for $\mathfrak{n}$ sum, it ls sald, equal to $\$ 180,000$.

Tharos.-Littlo is known with ecrtainty regarding the l'hares of Alexandrla, which was regaried by the anclents as one of the seven wonders of the world. It was hilt by l'telemy Philadelphus, about 300 years before Christ; anil it is recerded by Strabo, that the architect Sostratus, the son of Dexiphanes, having first socretly cut his own name on the solid walls of tho building, covered the words with plaster, and, In ohedience to I'tolemy's command made the following inscription on the plaster-" King l'tolemy to the gods, the savlours, for the benetit of sallors." What truth there may be in this nceount of the fraud of Sostratus there ls now no mouns of letermining; and the story ls only now interesting, In so far as it shows the object of the royal founder and the use of the tower. The accounts which have reached us of the dimensions of thls remarkable edifice are exceodingly various; mul many of the otatoments regarding the distance at which it could be scen are clenrly fithulous. Josephus appronches nearest to probabillty, and informs us, that the tire which was kept constantly burning on the top, was visible ly seamen at a distance of niout 10 miles. It the reports of some writers are to be believed, this tower must have far exceeded in slze the great pyrnmid itself; but the fact that a binlding of comparatively so late a date should have so cempletely ilisapprarel, while the pyramid remnins almost unchanged, is a sufficient reason for rojecting, as erroneous, the dimensious which have been assigned by most writers to the l'haros of Alexandrin. Some have pretended that large mirrors were employed to direct the rays of the bencon-light on its top, in thu most advantageous direction; but there is nothing like respectable evidence in faver of this supposition. Others, with grenter prohahility, have imugined that this colehruted hencon was known to mariners, slmply by the uncertaln and rude light afforded hy a common tlre. In speaking of the l'haros, the poet Lucan, on mest ocenslons sudliciently fond of the marvelons, takes no notico of the gigantic mirrors which it is anid to have contained.

Soptha nox, Zepthyro nunquam faxaute rudentes,
Ostentit tharlis. Asgyilu littora flammis.
Sud prius orta dites yocturnam dampaita lextt,
Quan tutus tutraret nquas. Pharsat., ix., 1004.
It is true that, by using the word "lempada," whiel can only with prooriety he applied to a more perfuct mode of lliminuthon than an open tira, he appears to halicate that the "Aamme" of which he speaks, were not so prodesed. 'The word kampuda may, however, ho used metaphorically; and thomanis would, in this ense, not improperly describe the lrregular apicarance of a common fire. Thowe who aro desirous of knowing all that occurs in ancient anthors on the subject of the

Pharos of Alexandria, may consult Pliny, l. xxxvi., c. 12 ; 1. v., c. 18, and i. xili., c. 11. Strabo, 1. xvil., p. 791, ef seq. Cassar, Comment, de Bell. Ciril., l. ili., Pompon. Mela, l. if., e. 7. Ammian. Mancellix, 1. xxii., c. 16. Josepr. de Bell. Judiac., 1. vi. Nicholas Lloyd'e Lexicon Geographicum, and the Notitia Orbis Antigui, of Celarius, 1. iv., c. 1, p. 13.

Coruma.-Mr. Moore, in his History of Ireland (vol. 1., p. 16), speaks of the Tower of Corufia, which, be says, is mentioned in the traditionary history of that country as a light-house erected for the use of the Iriab in their frequent eariy intercourse with Spain. In confirmation of this opinion, he cites a somewhat obscure passage from Ethicus, the cosmographer. This in all probahility is the towor which Humboldt mentions in his Narrative under the name of the Iron Tover, which was built as a light-house by Caius Seevlus Lupus, an architect of the city of Aqua Flavia, the modern Chaves. A light-house has lately been eatablished on this headiand, for which dioptric apparatus was supplied from the workhop of M. Iétournean of Paria. See also a curioun account of the traditions about this tower in Sootiricr's Letters from Spain and Portugal, p. 17. There is also a record in Strabo, of a magnificent light-house of stone at Capio, or Apio, near the harbor of Mfeneatheus (the modern Mesa Aeta, or Puerto de Sta. Maria), built on a rock nearly surrounded by the sea, as a guide for the shatlows at the mouth of the Gurdaiquiver, which he deacribea in torms almost identical with those used by him in speaking of the Pharos of Aiexandria. I am not aware of any other notice of this great work, for such it seems to have been, to have deaerved the praises of Strabo. In Camden's Britannia a passing notice is taken of the ruins called Casar's Allar, at Dover, and of the Tour d'Ordre, at Boulogne, on the opposite coast ; both of which are conjectured, on somewhat doultful grounds, to have been ancient light-houses. Pennant deacribes the remaina of a Romsn Pharos near Ilolyweli, hut eites no authorities for his opinion as to its use. Thers were likewise remains of a similar atructure at Flamboroughhead. A very meagre and unintelit, ible account is siso given of a light-house at St. Fdmund's Chapel, on the coast of Norfoik, in (jough's additions to Camien, by which it might seem that the light-house was erected in 12\%2.-Govon's Camber's Britannia, voi. i., p. 318, and vol. ii., p. 198. Jatcheller, in his Jhover Guile ( $1 \times 45$, p. 111), says, that the Iover Pharos was built "during the lieutenaney of Aufius Piantias and Oatorius Scapula, the latter of whom ieft Britain a. 1, $53^{\prime \prime}$ (I'ennant'a History of Whiteford and Holywell, p. 112).

Moilern History.-Such seems to be the sum of our knowledge of the ancient history of light-housen, which, it must be admitted, is neither accurate nor extensive. Our information regarling molern light-houses is of course more minute in its details, and more worthy of eredit, an the greater part of it is drawn from authentic sources, or is the reauft of the actual ohnarvation of the writer of this article, who has visited the most important thght-houses of Europe. It secma sufficient here to notice briefly the mont remarkable establinhments of the kind now in existence: reserving, for the latter part of the article, the nore ajpropriate and important topica of the methois of iliumination, and the systems of management. The first iight-honse of modern disys whinh morits attention is the Tour ife Corduan, which, ill joint of architecturai grandeur, is unquestionably the noblest edinice of the kind in the worid. It in situate on an extensive reef at the mouth of the Kiver Garonne, and serven as a guide to the shipping of Iborleaux and the Languedoc Canal, and, indeed, of ali that part of the Ilay of Iliseay, It was founded in the year 1584 , and was not completed tiii 1610, under Itenri IV. It is minuteiy described in Beldor'a Arehilecture Hydromligue. The building is

107 feet in height, and is ohown in the accompanying woodent, fig. 1. Round the base is a wall of circum. vallation, 184 foet in diameter, in which the light.
ber, 1703 and Mr. went to $t$ but the st the whoie sistants ul
The wat fatal accid Mr. Winst war was w her crew after this n before the new act to month of $J$ iight-house Rudyerd of new light w lariy exhibi ne was dest years. But how long the hasve insted, his task wit architectural ation, and dt tower which waves. The cular form, a the lantern, which was a 23.


The advantal been so long knI time was permi were taken for whem applicatic recommended th which, both fro considereli most Sth of April, 17 rock, and matio tístune, and p
bet, 1703, some considerable repalrs were reqnired, snd Mr. Winstanley, necompanied by his workmen, went to the llght-house to attend to their execution; but the atorm of the 26th of that month carried awuy the whole erection, when the englncer and all his assistants unhappily perished.

The want of a light on the Eddystone soon led to a fatal accident; for, not long after the destruction of Mr. Winstanley's light-house, the Winchilsea man-ofwar was wrecked on the Eddystone rocks, and most of her crew were lost. Three yeara, however, elspaed after this melancholy proof of the necessity of a light before the Trinity IIouse of London could obtain a new act to extend their powers; and lt was not till the month of July, 1706, that the construction of a new light-house was begun, under the directlon of Mr. John Rudyerd of London. On the 28th of July, 1708, the new light was first shown, and contlnued to be regularly exhibited till the year 1755, when the whole fabric was destroyed by accidental fire, sfter standing 47 years. But for this circumstance, it is impossble to tell how long the light-house might, with occasional repair, have lasted, as Mr. Rudyerd seems to have executed his task with much judgment, carefully rejecting all architectural decoration, as unsuitable for auch a situation, and directing his attention to the formation of a tower which should offer the lesst resistance to the waves. The height of the tower, which was of a circular form, and constructed of timber, was, including the lantern, 92 feet, and the diameter at the base, which was a little above the level of high water, was 23.


Fig, 2. EDDYBtONs ligit, COBswall.
The alvantages of a light on the Eddyatono having been so long known and acknowledged by seamen, no time was permitted to elapse before active measures were taken for its restoration ; and Mr. Smeston, to whom application was made for advice on the sulject, recommended the excluslve uae of atone as the material, which, both from its welgnt and otier qualities, ise comsidered most sultable for the altuation. On the Sth of April, 1756, Mr. Smositon first landed on the rock, and made arrangements for erecting a light-house (f stone, sul preparing tise foumdatlons, by cutting
the surface of the rock into regular horizontal benches, into which the stones were carefully dovetailed or notched. The first stone was laid on 12th June, 1757, and the last on the 24th of August, 1759. The tower measures 68 feet in height, and 26 feet in diameter at the level of the first entire course, and the diameter under the cornlce is 18 feet. The first 12 feet of the tower form a solid mass of masonry, and the stones are united by means of stone joggles, dovatailed joints, and osk treenalls. It la remarkable that Mr. Smeaton should have adopted an arched form for the floors of his building, lnstead of employing these floors as tiewalla formed of dovetalled atones. To counteract the injurious tendency of the outward thrust of the arched floors, Mr. Smeaton had recourse to the ingenlous expedient of laying, in circular trenches or beds in the stones which form the outside casing, seta of chaine, which were heated by means of an spplication of hot lead, and became tight in cooling. The light was exhlbited on the 16th October, 1759 ; hut such was the state of the light-room apparstas in Britain at this period, that a feable light from tallow candlea was all that decorated this noble structure. In 1807, when the property of this light-house again came into the hands of the Trinity House, on the expiry of a long lease, Argand burners, and parabolic reflectors of silvered copper, were substituted for the chandelier of candles. Figure 2 shows a section of the Eddystone light-house, as executed according to Mr. Smeaton's design.

Beil-Rock.-The dangerous reef called the Inch Cape, or Bell-Rock, so long a terror to mariners, was well known to the earliest navigators of Scotland. Its dangers were so generally acknowledged, that the Ablots of Aberbrothick, from which the rock is distant sbout 12 miles, caused s float to be fixed upon the rock, with a bell attached to it, which, being swung by the motion of the waves, served hy its tolling to warn the mariner of tis approsch to the reef. Ainong the many losses which occurred on the Bell-Rock in modern times, one of the most remarkable is that of the l'ork, 74, with all her crew, part of the wreck having been afterward found on the rock, and part having come sahoro on the neighboring coast. During the survey of the rock also, many instances were discovcred of the extent of loss which thia recf had occasioned, and many articles of ships' furnishings were picked up on it, as well as various coins, a bayonet, s silver shoe-buckle, and many other small objects. lmpressed with the grest importance of some guide for the Bell-Rock, Captain IBrodie, R.N., set s sinall subscription on foot, and erected a beacon on apars on the rock, which, however, was soon destroyed by the sea. Ilo atterwnrd constructed a second beacon, which soon shared the same fate. It was not, however, until 1802, wien the Commissioners of Northern Lights brought a biil into Parliament for power to erect a light-house on it, that any efficiont measures were contemplated for the protection of seamen from this rock, which, being covered at overy spring-tide to the depth of 12 feet, and lying right in the farewny to the Firtis of Forti and Tay, had been the occasion of much loss both of property and life. In 1806 the bill passed into a law, and various ingenlous plans were suggested fer overcoming the tlifiticultes which were apprehended, in erecting a light-house on a rock 12 miles from land, and covered to the depth of 12 feet by the tlde. But the suggeation of Mr. Robert Stevenson, the enginear to the Light-house Board, after being submitted to the late Mr. liennie, was at length molopted; and it was determined to construct a tower of masonry, on the principle of the Eddyatone. On the 17th of August, 1807, Mr. Stevenson accordingly landed with his workmen, and commenced the work by prepuring tie rock to recelve the supports of a temporary wooden prramid, on which a barrack-house, for the reception of the workmen, was to bo placed; and during
this operation much hazard was often incurred in transporting the men from the rock, which was only dry for a few honrs at apring-tldes, to the vessel which lay moored off it. The lowest floor of thin temporary erection, in which the mortar for the bullding was prepared, was often broken up and removed by the force of the sea. The foundation having been excavated, the first utone wss laid on the 10th July, 1808, at the depth of 16 feet below the high-water of spring-tides, and at the end of the second season, the building was 5 feet 6 inches above. the lowest part of the foundation. The third season's operations terminated by flnishing the solid part of the etructure, which is 30 feet in height; and the whole of the masonry was completed in October, 1810. The light was first exhibited to the public on the night of the 1st of February, 1811. The difficulties and hazaris of this work were chicfly caused by the short time during which the rock was accessible between the obbing and flowing tides; and among the muny eventful incilents whlch rendered the bistory of this work interesting, was the narrow escape which the engineer and 31 persons made from being drowned, by the rising of the tide upon the rock, before a boat came to their as:, stance, the attending vessel having broken adrift. This circumstance occarred before the barrack-house was erected, and is aarrated by Mr. Stevenson in his account of the work, published at the expense of the Light-house Board in 1824, to which we may refer for more minnte information on the subject of this work, and the other lights of the coast of Scotland.


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Fig. 8. hell.-BOCK LiOnt, BCOTLAXD.
The Bell-Rock tower 1900 feet $\ln$ hoight, 42 feet In diameter at the base, and 15 at the top. The door is 30 feet from the base, and the ascent is by a massive copper ladder. The apartments, including tho ligitroom, are six in number. The light ls a revolving
red and white light, and is produced by the rovolntion of a frame containing 20 Argand lamps, placed in the foci of parabolic mirrors, arranged on a qualrangular frame, whose alternate faces have shades of red giuss placed before the reflectors, 80 that a red and white Ilglt is shown suceesslvely. The machinery, which casues the revolution of tho frame contahing the lamps, is also applicd to tolling two large bells, to give warnling to the mariner of his approach to the rock in foggy wosther. Vlg. 3 shows a section of tho lheliRock Light-house, and of the temporary barrack-house, whlch was removed on tho completion of the werk The entire cost of the light-honse was over f.61,3:3 The great inorit of Mr. Stevenson, as architect of the Bell-Rock Light-house, lies in his bold coneeption and unshakon belief in the possibllity of erecting a tower of masonry on a reef 12 miles from the nearest land and covered hy every tide-a situation, undoubtelly, much more difficult than that of the Eddystone. llut bis mechanical akill in carrying on the work is also deserving of high praise. Not only did he conceive the plan of the movable jib and balance cranes, which he afterward used with much advantage in buidding the tower; but his zenl, ever alive to the possibitity of improving on tho conceptions of his great master Smeaton, led him to introduce several benelicial changes into the arrangements of the masonry. In particular, he converted the etone floors of the bpart ments, which In the Edilystone exert an outward, and in its tendency disruptive, throst, into bonds of union and efficieut sources of stability. Thls thrust was hy Sueaton himgelf considered so disalvantageous, that he thought fit 10 counteract it, as alrealy noticel, ly means of metailic girders, concealed in the stone-work, and most ingeniously applled. The light-house llonrl placel in the upper apartment of the tower a lonst of Mr. Stevenson, "in testimony," as the minutes record, " of the sense entertalned by the Commissiemers of his distinguished talent and indefatigable zeal in the erection of the llyht-house."
The most remurkalile light-hows on the ceast of fro land is that of Carlingford, near Crminieh loint, at the entrance of Carlingford Lough. It was built aco eording to the design of Mr. George Ifalpin, the laspector of the Irish Liglits; and was a work of an arduous nature, being founded 12 feet below the level of high-water on the Hawibowline Rock, which lips about two miles off Cranfleld Point. The tigure is that of a frustum of a cone, 111 feet in height, and 48 feet in diamuter at the base. The light, which is fived, is from oil barned in Argand lamps pared in the foei of parabolie mirrors. It wafirst exhilited on the night of the 20 h December, 1830 .

Skervirore Rocks,-The Skerryvore lRocks, which lie about 12 miles W.N.W. of the seaward point of the lale of Tyree, in Argyleshire, were long known as a terror to mariners, owing to the numerous shipwrecks, fatai alike to the vessels and the crews, whieh hat orecurred in the neighborhood. A list, confessedly incomplete, enumerntes a vessels lost in the 40 years preceding 1844; but how many others, whin during that perion had been rejorted as "funntered at sea," or as to whose fate not even an opinion has heen had. arded, may have been wreeked on thi, dangerons reef, which lies so much in the track of the shipging of liverpool and the Clyde, It would be vain to conjecture. The Comnussiciers of the Northern Light-lonsen had for many years entertained the project of erecting a light-inowse on the Skerryvore ; and with this olject hall visited It, more oxpecially in tho year 181., in company with

Sir Walter description culty of lan the contlnus undiminlshe out no chee year 1834, dered by the formidable

The reef is over a surface I.N.E. The cient surface three miles fr composed of giass by the small that ut of the tower and some rugt through whel

Sir Walter Scott, who, in hls dlary, glives a graphic |cutting of the fonndation for the tower in this irregudescriptlon of lts Inhospltable sapect. The grent difficulty of landing on the rock, which is worn amooth by the continual bent of Atlantie waves, which rlse with undiminished power from the deep water near it, held out no cheering prospect; snd it was not until the year 1834, when a minute survey of the reef was ordered by the Board, that the idea of commencing this formidablo work was seriously embraced.
 lar ilinty mass occupled nearly two enmmers; and the binating of the rock, in so narrow a space, without any shelter from the risk of flylag splinters, was attended wlth much hazard.
The deslgn for the Skerryvore Light-house was glven by Mr. Alan Stevenson, and is an adaptation of Smeaton's Eddystone Tower to the peouliar situatlon and the circumstancen of the case at the Skerryvore, with ouch modifications In the generel arrangements ond dimenslons of the bailding as the enlarged views of the Importance of light-houses which prevail in the present day seemed to call for.

The tower is 188 for 3 inches high, and 42 feet in diameter at the base, and 16 feet nt the top. It contalns a mass of stone-work of about 58,580 cuble feet, or mors than double that of the Bell-Rock, and not much less than five times that of the Eddystone. The lower part of the tower was built hy means of jib-cranes, and the upper part with shear-poles, needles, and a balancecrane. The shear-polea were slmilar to those used by Smeaton at the Eddystone; and the $j$ jb cranes and balance-crane were the same as those whlch were designed and first employed by Mr. Robert Stevenson in the erection of the BellRock LIght-house. The mortar used was compounded of equal parts rf limestone (from the IIalkin Mountaln, near Holywell, in North Wales), burnt and ground at the works, und of Pozzolnno earth. The light of Skerryvere Is revolving, and resches its brightest state onco every minute. It is produced by the revolution of eight great annular lenses around a central lump with four wicks, and belonge to the first onler of dioptrle lights in the system of Fresnel The light may be seen from a vessel's deck at the distance of 18 miles. The entire cest of the light-house, including the purchase of the steanvessel, and the building of the harbor at Hynlsh for the reception of the small vessel which now attends the light-house, was $£ 86,977,17 \mathrm{~s}, 7 \mathrm{~d}$.
"In such $n$ situation as the Skerryvore," snys the engineer, "innumerable delays and disappointinents were to be expected by those engaged In the work; and the entire loss of the frult of the first season's laber in the course of a fow hours was a good lesson in the school of patience, and of trust in something better than an arm of tlesh. During our progress, also, cranes and other materials were swept away by the waves; vessels were driven by sudden gales to seek shelter at a distance from the rocky shores of Mnll and Tyree; and the workmen were left on the rock desponding and idle, and destitute of many of the comforts with which a more roomy and sheltered dwelling, and the neighhorhood of friends, are generally connented. Daily risks were run in landing on the rock in a heavy surf, in blasting the splintery gneiss, or by the falling of heavy hodies from the tower on the narrow space below, to which so many persons were necessarily coníned. Yet had we not any loss of either life orlinh and although our labors were prolonged

The reef is composed of numerous rocks, stretchlng over a surface of nearly elght miles from W.S.W. to E.N.E. The main nuclens, which alone presents auffcient surface for the bane of a light-house, is neurly three miles from the seaward end of the elunter. It is composed of a very enmpnet gneiss worn amooth ns glass by the Incessant play of the waters, and is an small that at high-water little remalns around the buse of the tower lout n narrow band of $n$ few feet $\ln$ whilth, and some rugged humps of rock, separated by gullies, through which the sea plays nlmost lncessautly. The
from dawn to night, and our provisions were chiefly salt, the health of the people, with the exception of a few alight enses of dysentery, was generally good throughont the six auccessive nummers of our sojourn on the mock. The close of the work was welcomed with thankfulness by all ongnged In It ; and our remarkable preservation was viewed, even by muny of the mont thoughtiess, as, in a peculiar manner, the gracions work of IIlm by whom 'the very hairs of our heads are all numberod.' "
There can be little doubt that, down to $n$ very late pe-
riod, the ouly mode of lllumination edopted in the lightbouses, even of the most civilined nations of Europes wes the combustion of wood or coal in a chauffor on the top of a high tower. It is needless to ealarye upon the evils of such a method; they need only be named to be anderstood; for it is dificult to concolve how an efficiont ayotem of lighting a count conld be managed under auch diegdvantages. The nucertainty cauned by the effects of wind and rala, and the imposilhility of rendering one light ditetinguishable from another, must have at all times renderod the early lighthousoa In a great measure usolens to the mariner.
Catoptrio Syatem.-M. Touldre, a member of the Eoyal Corpe of Engineers of Bridgen and Roads in France, is, by some, considered the first who hinted at the advantages of parabolio reflectore; and he le sald, in a momolr dated the 26th June, 1783, to have proposed their combinution with Argand lamps, ranged on a revolving frame, for the Corduan Light-house. Whatever foundation there may be for the claim of M. Tenldre, cestain it is, that this plan was actually carried into effoot at Corduan under tho directions of the Chevalior Borda, and to him lo generally awaried the merit of baving concelved the ldea of applying perabolio mirnors to ligbt-houses. Those were prodigions steps in the improvement of light-houses, as nat only the power of the lights was thus greatly increased, but the introduction of a revolving frame proved a valuable aource of dietinction among the lights, and has since been the means of greatly extonding their atility. The exact date of the change on the light of the Corduan is not known; but as it was made by Lenoir, the eane young artist to whom Borda, about the year 1780, intrusted the construction of his reflecting circle, it has been conjectured by some that the improvement was made abx it the same time. If this conjectare be correct, the ciaim of M. Teuldre must of coume fall to the ground. The refisctors wern formed of sheet copper, plated with silvor, and had a double ordinate of 31 French inchea. It wat not long before these improvementa were adopted in Englend by the Trinity Heuse of Londen, who sent a deputation to France to inquire into their nature. In Scotland, one of the first acts of the Northern Lights Board, in 1786, wae to subatitute reflectora in the room of conl lighte, then in uee ut the Isle of May in the Firth of Forth, and the Cumbrae Iale in the Firth of Clyde, which bad, till that period, been the only beacona on the Scotch coast. The refiectore omployed were formed of facets of mirror glass, placed in holiow parabolical molde of plester, according to the deslgns of the late Mr. Thomas Smith, the Engineer of the Board, who, as appesra from the irticle - eflecotor in the Supplement to the Bd edition of th. Encyelopadia Britamica, was not aware of what had been done in France, and had himself concelved the iden of this combination. The system of Borda was also alopted in Ireiand; and, in time, variously modifed, it bocame general wherever light-houses were known.
Paraboloidal Mirroro.-The property of the parabola, by which all linee incident on its surface from the focus make with normals to the carva at the points of incidence, angles equal to the inclination of these same normals respectively to lines drawn parallel to the axis of the carve, is that whleh fits it for the purposes of a light-bouse. A holiow mirror, fermed by the revolution of a portion of a parmbola about ite axis, hat, in consequence of thls property, the power of projectiag the repested imagos of a lumincus polat placed in ite focus, in directions paraliel to the axis of the generatligg curve; so that, when the mirror is placed with its axis parallol to the horizon, a cylindrical beam of light ha thereby sent forward in a horizental direction. When such mirrors aro placed aide by side, with thoir axis parallel on the faces of a quadrangular frame which rovolves about a vertical axis, a dirtant ob-
server receives the succousive impressions which result from the passage of each fuce of the frame, over a line drawn between the observer's oye and thi centre of the revolving frame." This arrangement conetitates what is callod a revolving light. A fixed light Is produced by placing, alde hy side, round a circular frame, a number of refloctors, with their axes inclined to each other, so as to be rad! containing equal arce of the frame on which they are placed. It is obvious Shat a perfect parabolle figure, and a luminous point mathematically true, would render the illumination of the whole horizon by meana of a flied light impossible; nd it io ouly from the aberration caused by the size of the flame which is substituted for the point, that we are enabled to render even revoiving lights practically useful. But fer this sberration, even the slowest revolntion in a revolving light, which would be consistont with is continued observable series, such as the practical seaman could follow, would render the fiashes of a revolving light greatiy too transient for any useful parpose ; while fixed lighte, being visible In the azimuths only in whlch the mirrors are placed, would, over the greater part of the distant horizon, be altugether invisible. The slze of the flame, therefore, which is placed in the focus of a parabolic mirror, when taken in conhection with the form of the mirror itself, leads to those important modifications in the paths of the rays, and the form of the resultant beam of light, which have rendered the catoprio system of lights so great a benefit to the benighted seaman. It is ebvicus, from a consideration of the nature of the action which takes place in this combinaticn of the parabololdal milrrors with Argand lamps, that the revoiving light is not only mere porfect in its nature than the fixed light, but that it possesses the advantage of being susceptible of an increase of its power, by increasing the number of reflectors, which have their axes porallel to each other, so as to concentrate the effect of aeveral mirrors in one direction. The perfect paralleilism of the axes of separate mirrore, it is true, is unattainable, but approsches may be made sufficiently near for practical results; and in crder to prolong the duration of the flash, the reflectors are sometimes placed on a frame, having each of its sides sligbtly convex, by whleh arrangement the outer reflectors of each face of the frame have thelr axes less inclined inwarde from the radii of the revolving frame which pass through their foci.

Proportions and Dinergence of Paraboloidal Mirrors. -The best proportions for the parai, loidal mirrors depend upon the abject to which they are to be applied; as mirrora which are intended to produce great divergence in the form of the resultant beem should have one form ; while those which are designed to cause a near appronch to paralleiliam of the raya will have another form. These objects may also be attained by variations of the size of the flame applied in the same mirror; but it is much more advantageous to produce the effect by a change in the form of the mirror, as any increase of the flame beyond the aize which is found to be most advantageous in cther respects can not be regarded otherwise than as a wasteful expenditure of light. The details into which a full investigation of this matter would lead us are quite beyond the ecope of this article, and it therefore seems sufficiont to give the formule which express the relations which exist betweon the size of the flame, the reflecting surfuce, and the corresponding divergence of the reflected ray. If $\Delta$ represent the lnclination of any reflected ray to the axis of a paraboloidal mirror, e the distence of the focus from the point of reflection, and $d$ the distance from the edge of the flame to the focus in the plane of reflection, we shall have sine $\Delta=-$; and whea
the flame in the given plane of reflection is circulsr, or has ite opposite sidea equidistant from the focus of
the mirror, wo shall, by putting $\Delta^{\prime}$ for the effective divergence of the mirror have in the given plane, $\Delta^{\prime}=2 \Delta$. When, therefore, great divergonoe, as in the case of the fixed lights, in required, the prolate form of the curve is to be preferred; and the oblate is conversoly more suited to rovolving lighto.
Power of Paraboloidal Mirrors. The power of the reflectors ordinarily employed in light-houves is genorally equal to about 860 times the effect of the rasesisted flame whioh is placed in the focus. This value, however, is strictly applieable only at the dintances at which the observations have been made, as the proportional value of the reflected beam must necessarily vory with the distance of the obeervor, agreeably to some lav dependent apon the nnequal distribution of the light in the luminous cone which proceeds from it. The ordinsry burners used in light-houses are one inch in diameter, and the focal distance generally adoptod is 4 inches, so that the effective divergence of the mirror in the horisontal plane may be estimated at sbout $14^{\circ} 22^{\prime}$. In arranging refiectors on the frame of a fised light, however, it would be advisabio to calculate upon less offective divergence, fur beyond $11^{\circ}$ the iight is feeble; but the difficulty of placing meny mirrors on one frame, and the great expense of oil required for so many lampo, have generally led to the adoption of the firat valuation of the divergence.
Manyfacture and teating of Reflectors.-'The reflectors used in the best light-houses are made of sheet copper pisted, in the proportion of 6 oz. of oilver to 16 os. of copper. They are molded to the paraboloidal form by a delicate and laborious process of beating with mallets and hammers, of various forms and miterials, and are frequently teoted daring the operation by the appilication of a carefully-formed mold. After being brought to the curve, they are stiffened by means of a atrong beasle, and a strap of brasa, which is atteched to it for the purpose of preventing any accidental alteration of its figure. Polishing powders are thea applied, and the inatrument roceives ite last finish. Two guayes of bruss are applied to toet the form of the refector. One is for the back, and is used by the workmen during the process of hammoring, and the other is applied to the concave face as a test, while the mirror is recelving its final polish. It is then tested, by trying a burner in the focus, and measuring the intenstity of the light at various points of the roflected conical beam. Another test may also be applied successively to various points in the surfuce, by masking the rest of the mirror. Having placed a screen in the line of the axis of the mirror st some given distance from it, it is easy to find whether the image of a very small object plsced in the conjugate focme, which is due to the diatance of the screen, be roflected st any distance from that point on the centre of the screen through which the prolongation of the sxis of the mirror would pass, and thus to obtain s measure of the error of the instrumert. For this purpose it in necessary to find the ponition of the conjugate focus, which corresponds to the distance of the screen. If $b$ be the distance which the object should be removed outward from the principal focus of the mirror, $d$ the diatance from the focus to the ecreen, and $r$ the distance from the focus to the point of the mirror which is to be tested, we thall have $b=\frac{r^{2}}{d}$ as the distance whioh the object must be removed outwand from the true focus on the line of the axis.
Argand Lampe.-The flame generally nsed in reflectors is from an Argand fountaln-lamp, whose wick is an inch in diameter. Much care is bestowed upon the manufacture of these lamps for the Northern Light-houses, which have their burners tipped with silver, to prevent wasting by the great heat which is evolved. These burners are aliso fittod with a alide apparatus, accuratoly formed, by which the burner
wy be removed from the interior of the mirror, at the thue of cieaning it, and returned exactly to the same. place, and locked by means of a koy. Thie arrangement, which is shown in figures 5,6 , and 7 , is very important, as it inanres the hurner always. boing in the focus, and does not require the roflector to be lifted out of its place every time it is cleaned; so that, when once carefully mot and scraved down to the frame, it is never altered. In these fige. aac represents one of the reflectors, $b$ is the lamp, o is a cylindrio fountain, which contains 24 oz. of oil. The oil-pipe and fountain of the former is connected with


Fis. 8. the rectangular framo $d$, and is movable in a vertical direction upon the gulde-rods o and $f$, by which it can be let down and taken out of the reflector by simply turning the handle $g$, as will be more fully understood by examining fig. 6 . An aperture of an elliptical form, measuring about 2 inchos by 8 , is cut in the npper and lower part of the roflector, the lower serving for the free egress and ingress of the lamp, and the upper, to which the copper tube $h$ is attached, serving for ventilation: if shows a cross section of the main bar of the chandelier or frame, on which tto reflectors are ranged, each being made to rest on knobs of brass, one of watch is seen st $k k$, and which are soldored on the brase band $l$, that clasps the oxterior of the reflector. Fig. 5 is a section of the rofloctor aa, ehowing the posltion of the burner $b$, with the glase chimney $b^{\prime}$, and oill-cup


Fig. 6. l, whioh receives any oil thst may drop from the lamp. Fig. 6 shows the spparatus for moving the lamp up and down, so as to remove it from the reffactor at the time of cleaning it. In the disgram, c , the fountain is moved partly down; dd


FIg. 7.
shows the rectangular frame on which the harner is mounted, $e, e$ the olongated socket-guides, $f$ the rectangular gulde-rod, connected with the perforated sockects on which the checking-handle $g$ slidos.

Arrangement of Refectors on the srame.-The modes of arranging the retlectors in the frames are shown in figs. 8, 9 , and 10. It soems quite unneceasary, after what is aald on the aubjoct of divergence, to do more than remark, that in rovolving lights the reflectors are placed with their axes parallol to each other, so as to concentrate thelr power in nno direction; whlle in fixed lights It is necessary, in order to effect as equal a diatribution of the light over the horizun as possible, to place the reflectors, with their axes inclined to each other at an angle somewhat less than that of tho divergence of the reflected cone. For this purpose a brass guage, composed of two long arms, sonewhat in the form of a pair of common dividera, connected by meane of a graduated limb, la employet. The arms baving been first placed at the angle, which is supplementel to that of the Inclination of the axes of the two adjacent mirrors, are made to span the fuces of the reflectors, one of which is moved about till its elgea are in close contact with the fat surface of one of the arme of the guage. The different arrangements of the refiectors willi be more fully understood by referring to the figurea.


FIg. 8.
Fig. 8 shows an elevation of a revolving apparatus on the catoptric principle. in thene figures, $n n$, shows the reflector frame or chandelier; $o$, $o$, the refiectors $w$ ith their uil-fountuins, $p, p$. The whole is attuched to the revolving axis or shaft $q$. Tho copper tuisen, $r, r$, convey the smuke from the lamis; $s$, are crows bars which support the nliaft at $u$; uu is a copper pan for receiving any moisturo which may accidentally enter at the centrai ventilator in the roof of the lightroom; $l$ is a cast-iron bracket, which supports the pivot on the shaft; $m, m$ are leveled wheels, which convey motion from the machine to the shaft. Fig. 9 shows a plan of one tler of reflectors arranged in the nanner employed in a fixed catoptric light; nn alowa the
chandelier, $q$ the fixed shatf in the centre, which napports the wholo, $o$, o the reflectorr, and $p, p$ the fount-
ains if their lamps. ains of tholr lamps.


Fig. 9.
To the Dutch beionge the honor of having first, after the Fronch, enibraced the systam of Fresnei in their lights. The Comminaionars of the N. British Lights followed in the train of improvement, anil, in 1834, eent Mr. Alan Stevenson on a mission to Paris, with full power to take such steps for acquiring a perfect know ledge of the dioptric ayatem, and formini; an opinion on its merita, as he should find necessary. The s igular liberality with which he was received by M. I , nor Fresnel, brother of the late illustrious inventur of the syatem, and his successor as the Secretary of the Light-honse Commission of France, afforded Mr. A. Stevenen the meane of making such a zeport on his return as induced the Commissioners to anthorize
him to remore the refiecting apparatua of the revolvo him to remare the refiecting apparatus of the revolving light at Inchkeith, and subatitute dioptric instruments in its place. This change was completed, and the light explibited on the ovening of 1st Octoler, 1835 ; and no great wae the satisfaction which the change produced, that the Commiasionera immedistely instructed Mr. Stevenson to make a aimilar change at the fixed light of the Isle of May, where the new light was exhiblted on the 22d Septemiver, 1836. The Trinity liouse of London followed next in adopting the improved system, and employed Mr. A. Stevenson to superiatend the construction of a revaiving dioptric light of the first order, which was afterward erected at Start Poiat in Devonshire. Other countries isiolowed, and the Rep of the Lighthouse Board of America, published in 1852, which recommendx (see page 1229 of this article) the adoption of Fresnei's dioptrie system, and the holophotal improventonts, is a very fuli body of information on light-house sutjects, extending over about 750 pagea. Even Tarkey ins followed in the train of improvement, and we helizve that a light on the dioptric principle will ehortly be exhihited (if it he not alreaily completed) from the Isie of Serpents. Fresnel, who is alrealy classed with the grea'eat of those inventiva ninds which extend the boundaries of human knowledge, wili thus, at the same time, receive a place anong those benefactors of the species who have consecrated thir gonius to the common good of mankind; and, wherever maritius intercourse prevails, the solid advantages whieh his latora have procured will be felt and acknowielged.

When, however, this system was in its infancy, there were several objections raised to it adeption, wilich appeared to be of very oonsideralicie importance, though the experience of years has proved that they ore not inaurmountable. The first, and probaliy the
mest is tinguis oil-pum there b tinction have be and an houses pcse ; fi has, on spare la totally $e$ the keep The o short du to the as This has or holopl lenses, as the princi cut the $w$ throngh t in advance dvantage nearly of Spherice over, suggs evil, hy co vertical pis plane may In the apI the annulus aal aurface be a portio Thus ench a plano-con the ruye ac would be of the excess Thus, ly 8 amount of $h$ this witiou glass, at leas curve of 1 Fiuel of 1 1 generaliy en Kingdem, w obtained fro cephalus). from the se oleracen colad a ajecies of troduced intd of the colza Scottis'l Ligi carefoi photo that the ligh intensity, s opermaceti colzs oil burn Argand bant without requ justment of $t$ more steady frotn sperma owing to the less hrenkag with the ape seems in the for apermace consuapition spermaceti; numbers, 515 representing and if the pri maceti is 6 s , saving in the
most important, wat the liability of the lamp to be extingulahed from the failare of the leather work of the oil-pumps-a most serious objection, inasmuch an, from there being only ona lamp, ita failare impliea the extinction of the light. The meane adoptel to romedy thls have been alroady doscribed (vide "mechanical lnnpp"), and an experience of 21 years in the Northern Lighthouses has proved them to be aufficiont for the purpcse ; for during the whole of that time (although it has, on several occasions been necessary to light the spare lamp), the light has only on one occasinn been totaily oxting uiabed, a casualty whleh was caused by the keeper oleeping on his watch.
The only other objection worthy of mention is tha sliort duration of the flash in revolving lights, owing to the small divergence ( $5^{\circ} 9^{\prime}$ ) of the annular lene. This hus been eorrected by aettlig tha inclined mirrora, or holophotal prisma, a littlo in advance of the great itases, so that they precedo, and consequently prolong, the principal flash. M. Degrand has also proposed to cut the whole apparatas by a horizontal plane passing throagh the focus, and to eet one portion a few dogreea in advance of the other, a plan which has conaiderahle adrantages, as all the portions of the beam are more nearly of equal intersity.
Spherico-Cylindric Lenses.-Mr. T. Stevenson, moroover, euggesta an ingenious method of remedying thia evii, by conatructing lensea whose nberration in the vertical plane is corrected, while that in the horizontnl pians may be aljuated to any determinate amount. in the application of this mothod of construction to the annular lenses they would be gronnd on the extornal surface as hefore; but the internal aurface would be a portion of a vertical cylinder of suitalle radlus. Thus each vertical section would be similar to that of a piano-convex lena as at present, and would refract the rays accordingly, while the horizontal sections would be of a meniscal form, and would act only by the excess of their convexity" over their coneavity. Thus, ly varying the radius of the cylinder, any amount of horizontal divergence may be obtained, and this without much increasing the thickness of the glase, at least in the case of revolving lighta, in which a curve of long radius might be applied.
Fuel of Light-houses.-The oil, until lately, moot 1 generally employed in the light-housos of the United Kingdom, was the sperm oil of commerce, which is obtained from the South Sea whale (Physeter macrocephalus). In France, the colza oil, which is expressed from the seed of a species of wild calhago (Brassice oleracen colza), and the oliva oil, nre chiefly used; and a species of the former has now heen succossfully introduced into the Britiyh light-houses. The advantages of the coiza oif are thus stated ly the engineer of the Scottish Light-house Board :-"İt appears from pretty eareful photometrical menaurements of various kinds, that the light derived from the colan oil is, in point of intensity, a iittle superior to that derived from the spernaceti oil, being in the ratin of $1 \cdot 056$ to 1 . Tho coizs oif burns beth in the Fresnel limup and the single Argand barner with a thick wick during 17 hours, without requiring any coaling of the wiek or any adjustment of the damper; and the flumo seems to be more steady and freer from fickering than that derived froin spermaceti oil. There seems (most probably owing to the greater ateadiness of tho fisme), to to less breakage of glass chimneys with the colza than with the spermaceti oil. The cousumption of oil seemin in the Fresncl lampi to be 121 for colza, and 114 for spermaceti; while in the coonmon Argand, the consuapition appears to be 910 for coiza, and 902 for spermaceti; and if we assume the means of these numbers, 515 for colza, and 508 for spermaceti, as representing the relative expenditare of these oils; and if the price of colza in 38. 9 d ., while that of spermaceti is 6s. 9d. per imperial gallon; we ahull have a saving in the ratio of 1 to $1 \cdot \frac{55}{}$, which, at the present
rate of apply for the Northern Light2; would give a saving of about $£ 3266$ por annum."

Gas.-In a fow light-houses which are near towna, the gas of pit coal has heen used, and thore are certaln advantages, more espectally in dioptric lights, where there is only one large central flame, which would render the use of gas desirable.' Tha form of the Hame, which is an object of considerahle importance, would thas be rendered lese variable, and could be more easily regalated, and the inconvenience of the elock-work of the lamp would be wholis avoided. But it is ohvious that gas is by no meane enitable for the majority of light-housen, their distant situation, and generally difficalt accesa, rendering the transport of large quantities of coal expensive and uncertain; while in many of them there is no means of orecting tho apparatus neceseary for manufactaring gas. There are other considerationa which must induce us to panse before adopting gas as the fuel of llght-honees; for, however much the risk of accident may be diminished in the present day, it atill forma a queation which ought not to be hastily $d$ ted, how fur wa should be justifled in running oven the moot remote risk of explosion in ectablishments auch aa light-houses, tho sudden failure of whieh might involve consequences of the most fatal description, and the situation of which is often such that their re-establishment must be a work of gieat expense and time.

Drummond and Voltaie Liphts.-Tha application of the Drummond and Voltaic lights to light-house purposes is, owing to their prodigious intensity, a vory desiruble consummation; but it is surrounded by so many practical difficulties, that it may, in tho present state of our knowledge, be pronounced unattalnable. Tho uncertainty which attende the exhibition of both these lights is of itself a sufficient reason for coming to thia conclusion. But other reasons, unhinppily, aro not wanting. The smalinees of the fiama renders those lights wholly inapplicable to dioptrie instruments, which require a grent body of flame, in order to produce a degroe of divergence sufficient to rendor tho durntion of the flash in revolving lights long enough to answer the parpose of the marinor. M. Fresnel made some experiments on the application of the Drummond light to dioptric instruments, which completely domonstrate their unfitness for this combination. He found that the light obtained by placing it in the focus of a great annolar lens was much more intense than that produced by the great lamp and lene of Corduan; but tha divergence did not exceed $30^{\prime}$; so that, in a revolution liko that of Cordmun, the flashes would last only 1 f second, and would not, therefore, be seen in aueh a manner as to suit the practicnl purposes of a revolving light. The grent cyilndric refractor, used in fixed lights of the first order, wns also tried with the Drummond light in its focus; but it gave colored apectra at the top and bottom, and only a small bar of white light was transmitted from tho centre of the instrument. The same deffeiency of divergenco completoly unfte the combination of the Drummond light with the refector for the purposes of a fixed light, and even If this cause did not operato ngainst its application in revolving lights on the catoptric plan, the supply of tha gases, which is attenderl with almost insurmountnble difficulties, would, in any case, render the maintenance of tho light precarious and uncertain in tha last degree.
There are many questions of much interest regarding light-houses which appear to open an extensiva fleld of inquiry; and it may he doulted whother soma of tham have recoived that degree of considerution to which their inportance entitles thom. Anong theso wo may rank the numorous questlons which may be raised regarding the most effoctivo kind of distinctions for lights. Those distinctions may be naturnliy expected to be of the most effectiva kind which etrike an obsorver by thoir appearance niono. Thus a red and
white light, a revolving and a fixed light, ofer appearancea which are calculated to produce upon the obasrver a atronger sonse of thoir difference than the same observer would recelve from lighta the sole difference of which Jies in their revolutions being performed in greater or less intervala of timo. On the other hand, the distiactions derived from time, if the intervale on which they depend do not approach too closely to each other, appear to afford very anitable means for characterialng lights ; and the number of diatlinctlons whlch may be founded upon time alone are pretty numerous. Colored media have the great disadvantage of absorbing llght, anil the only color whlch has hitherto been found useful In practice in red, all othera at even moderate distances, serving merely to enfeeble, wlthout characteriaing lights. In the system of Fresnel, as already explalneri, all the distinctiona are based upon tlme alone. Mr. Robert Stevenson, the engineer of the Northern LIght-housee, has inventel two diatinctions, which, although they are produced hy variatlona of the time, possess characteristlc appearances, sufflclently marked to enable an observer to distinguish a light withont counting time. The one is called a fashing light, In which the flashes and eclipses succeed each other so rapldly na to give the appearance of a succesaion of brilliant selntilintions; and the other has been called inermittent, from its consisting of a fixed light, which is suddenly and totaliy eclipsed, and agaln aa suddenly revealed to vlew. The effect of this light is entirely different from that of any revolving light, both from the great Inequality of the intervals of light and darkness, and aleo from the contrast which is produced by Ita sudden disappearance and reappearance, whleh is completely different from the grudeal diminution and increase of the light in revolving ilghts, more especlally in those on the catoptric principle. The great and still increasing number of likhts rendera the means of distinguishing then one of the most Important considerations connectel with light-houses.
Lights on the Coust.-Not lens important, and very nearly allied to the aubject of distinetion, is that of the arrangement of lights on a line of coast. The cholce of the most auita'ile places, snd the assigning to each the characteristic 1 ppearances which are most likely to diatinguish it from all the neighbering lighta, are points requiring tanch consideration ; and It ought never to be forgotten, that the Indiseriminate erection of light-houses soon leads to confusion, and that the needless exhibition of a light, by Involving the loss of a distinction, may afterward prove inconvenient in the case of some future light, which time and the growing wants of trade may call for on the same line of coast. To enter at length upon this topic, or even to lay down the general principles which ought to regulate the distribution of lights, would exceed the limits of this article ; but in connection with this it may be observed, that the aperinteadence of light-houses ahould be comniltted to one general body, and ought not to be jeft to local trusts, whose operations are too often conducted on narrow principlen, withont reference to general interests. The inconveniences arising from interference between the distinctions of the Jights under one trust, and those of the lights under another, are thereby avolded; and the full advantage is otitained of the meane of distinction at the disposal of loth.

The consideratlons which enter into the choice of the position and character of the lights on a line of coast are either, on the one hand, so simple and selfevident as scarcely to admit of being atated in a geasral form, without becoming mere truinms; or are, on the other hand, so very numerons, and often so compllcated, as scarcely to be suseeptible of compression into any general lawn. We ahall not, therefore, do mure than very briefly nutice, in the form of distinct propositions, a few of the chief considerations which should guide us in the selection of the sites and characteristic sppearance of the light-houses to be placed
on a line of coast. For further Information on this aubject, woe works mentioned at the ond of this article. 1. The most prominent points of a line of coast, or those first made on overvea voyages, should firat bo Iighted; and the meat powerfal lights shoald be adapted to them, at that they may bo dlacovered by the mariner as long as posisible before his resching land. 2, 80 far as la conaistent with a due attentlong to diatinctlon, revolving lights of some duncription, which are necensarily more powerful than fixed lights, should be employed at the outpoats on a line of coast. 3. Lights of procinely identical character and appearance should not, if posilibo, occur within a less dimtance than 100 milfes of ench other on the same line of coast, which in made by ovor nea veasels. 4. In all cases, the distinction of color should never be adopted except from absolute necesalty. b. Fixed lighta, and others of less power, may be moro readily adopted in narrow seas, because the range of the lights in auch aituatlons is generally leas than that of open eea-lighta. 6. In narrow seas, also, the diatance between lights of the same appearance may often be safely reluced within much lower limita than la desirabie for the greater sea-llghts. Thus there are many instances in which the diatance separating lights of the same character need not exceed 50 miles ; and pecullar cases occur in which even a much leas neparation between eimilar IIghts may be snfficient. 7. Lighta intended to guard vessela from reefs, ahoala, or other dangers, should, in every case where it is pructicable, be placed senicard of the danger ltaelf, as it is desiruble that seamen be enabled to make the lights with confidence. 8. Vlewa of economy in the first cost of a light-houme should never be permitted to interfere with placing it In the best pusibible position ; and, when funds are deficient, It will generally be found that the wise course is to delay the work until a sum shall have been oljtained sufficient for the erection of the light-house on the beat alte. 9. The elevation of the lantern alove the ses should not, If possible, for sea-lights, exceed 200 feet ; and alout 150 feet is sufficlent, under almost any circumatances, to glve the range which is rsquired. Lights placed on high headlands are suliject to be frequently wrapped in fog, and are oficn thereby rendered useless at times when lights on a luwer level might le perfectly efficient. Nut this rule must not, and Indeed can not, le strictly followed, eapecially on a const where there are many projectlng clifis, which, while they suliject the lighta placed on them to occaslonal obscaration ly fog, would also entirely and permanently hide from vlew iiglits placed on the luwcr land adjoining them. In anch casen, all that can be done is carefully to welgh all the circumstances of tio locality, snd choose that aite for the light-house wiich seems to afford the greatost balance of advantuge to navigation. As might be expected, in questions of thls kind, the opinions of the most experienced persons are often very conficting, nccording to the value which is set on the various elements which enter into the lnquiry. 10. The beat positlon for a neu-light ought rarely to be neglec.ed for the aake of the mere immediate thenefit of some neighboring port, hewever Important or influential; and the interests of navigation, as well as the true welfare of the port itself, will generally be much better served by placing the sealight where it ought to be, and adding, on a smaller scaie, such stibsidiary lights an the channel leading to the entrance of the port masy require. 11. It may be held as a geueral maxim, that the fever lights that can te employed in the illumination of a coast the better, not only on the score of economy, but also of real efficlency. Fvery light needlessiy erected may, in certain circumstances, become a source of confusion th the mariner ; and, in the event of another light being required In the neighborhood, it becomes a deduction from the meane of distinguishing it from the lights which existed previous to its eatabilishment. By the
needleas erection of a now light-house, tharefore, we not only expend publis treasure, but wante the means of distinction among the neighburing lights. 12. Distincciens of lighta, founded upon the minute estimation of intervals of time between flashes, and eapecially on the measurement of the duration of light and dark perlods, are lean antiafactory to the great majority of coasting seamen, and more liable to derangement by atmospherio changes, than those distinctions which are founded on what may more properly be called the characteristic appearancs of the lights, in which the times for the recurrence of cortain appearances differ so widely from each other as not to require for their detection any very minute obeervation in a atormy night. Thus, for example, flashing lighta of five seconds' interval, and revolving lighte of half a minute, one minute, and two minutes, are much mora characteristic than those which are distinguished from eact. other by intervale varying according to a slower serien of $5^{\prime \prime}, 10^{\prime \prime}, 20^{\prime \prime}, 40^{\prime \prime}$, etc. 13. Harbor and local Ilghta, which have a circamascribed range, ahould generally be fixec, instead of revolving ; and may often, for the asme reason, be safely diatinguiahed by colered media. In many cases, also, where they are to serve as guides into a narrow channel, the leading IIghta which are used should, at the same time, be so arranged as to eerve for a distinction from any neighboring lights. 14. Flosting lights, which are very expensive, and more or less uncertain, from thsir liability to drift from their moorings, as well as defective in power, should never be omployed to indicate a turning-point In navigation in any situation where the conjunction of lights on the shore can be applied at a reasonahle expenas.

British and Irioh Iights.-Engliah IIghts are placed under the Corporation of Trinity House of Deptferd, Stroud; the Scottish lights are under the management of the Commissioners of Northern Lights ; and the Irish lighte are under the care of the corporation for preserving and improving the port of Dablin, com monly called the Ballast Board.

The last act of Parliament on the subject of ligh. houses forms part of one the general title of which is, "An act to amend varioun laws relating to merchant shipping." It passed 20th Angust, 1853. The chief provisiona which affect light-housea are the following: 1. Tha light dues of the United Kingdom are to form one imperial fund, under the control of the Board of Trade. 2. From this fund all expenses of erecting and maintaining the lights of the United Kingdom are to be defrayed. 3. The three boarda which manage the light-housea in England, Scotiand, and Ireland, are to render account of thair expenditure to the Board of Trade. 4. The Trinity House, or English board, is to exercise a certain control over the boards in Scotland and Ireland, and is to judge of all their proposals to crect Lew lighta, or to change existing ones; but In every case the sanction of the Board of Trade must precede the acts of each of the three boards,-E. B.

Comparison of the Systems of Lighting in the United States, Fronce, Great Lritain, etc.-To nakke this comparison intelligible, will require a briaf notice of the light-heuse systems of France and Great Britain, with some remarks on the aystems of other countries, before giving an extended netice of the aystems of the United States' light-heuses.
France.-The administrative maiters relating to light-houses, theagh hardly such as it would be possible for us to follow, are, nevertheless, regulated with a system of order worthy of all commendation. As with us, no light dues are exacted from shipping, hut the light-houses are a direct charge upon the treasury, and aupported by annual appropriations. The question, shall there be a light-house at a particular point, is decided by a board consisting of naval officers, govemment engineers, and acientific civillans. The firt decision setties that inquiry is desirablo. The
civil engineer of the Department where the work is to be placed, reporta his viows, with plana and ostimates for it, which are laid before the board by their neeretary. If jt now appeare that the work ohould go on in the manner propesed, the detalls of constructlon and the eatimates pans to the genorel councll of govornment ongineers (Bridges and Roads-" Ponta of Chausedes'), and whon approved are conatructed by contract, under the aupervision of the government engineers of the Department. These ongineors also anperintend all repairs of light-houses. In some canes local boards are required, first, to oxamine and report npon the necesalty for a proposed light, before the sulject is examined by the light-honse board. The adminiatrative detalls are in the Department of State, ministry of public worke, nuder which the difierent persens referred to, serve. The general arrangement of seacoast liphts, adopted on the report of Rear Admiral Roseel ', ne light-house board in 1825, is hased npon two princlples : that one Ilght of the brightest clasa shall not be lost algint of until another is vialhle: and that such diatifnction shall be presented hy the light, that a veasel on nearing the coast, without very gross errur in the knowledge of her position, can not mistake one light for another. 21 nautical miles was adopted as the diatance of viaiblilty of the brightest lights, and three classes of distinction were admitted, via.: fixed lighte, revolving lights showing a bright light, and an eclipee at intervals of a minute and et half a minute. By placing the fixed light midway between the two revoiving ones, of the different kinds, and at a distance of 42 nantical miles from each other, the essential conditions of the syatem would be fulfilled. In applying this practically, it was, of course, so modified as to conform to the general features of the coast, and to the wants of navigation. Between these brightest seacoast lights, others of inferior power were arranged as required.

Every light is placed under the inspection of a person called a conductor, who visits it ot least once a month, by night as well as by day, and is provided with keys of the building and of the watch-room, so that be can enter at all times, without summoning a keeper. The resident eagineer of the Department inspects all the lights in his Department at least once a quarter, and the chief engineer of the Department once a year, and the secretary of the Departrrent makes an inspection at least once in three years. The light-house keepers are furniahed with books, ruled, and with appropriate headinge to the columns, to record the oheervations required of asem. Detalled Inatractions for Ilghthouses and beacons are distributed, which direct minutely their duty.

Prior to 1822, Argand lamps with refiectors were nsed in the French light-houes. In that year, Augastine Fresnel put up the first lans Ilight of his invention, in the tower of Cordouan, at the mouth of the Gironde. In 1825 the general adoption of the lans aystem was deterinined upon. In 1845 thare wore on the coast of France, not. including the colonisa, 151 lens lights and 47 reflector lights; and nearly all of the latter were merely beacon-lights.

According to Mr. Reynaud's statement, not ono reflector light will be left in 1852, in the class of lights of the first and second order. Experience, then, has led to the sulistitution of lens lights for the others, except as amail hurbor beacon-lights, requiring n amall arc of the horizon to be Illuminated. The mechanical lamp used with the lens light was the joint Invention of Arago and Freanel, combining the Idea of Rumford, of a number of concentric wicks, accorling to the intensity and volume required for an flame, and the idea of Carcel of keeping the wick from hurning rapidly, by making the oil overflow about it, by raising it with a pump, moved by clock-work. Several kinds of mechanical lamps have, from time to time, been preaented for examination and trial, an-
awering, gonerally, matiefactorily; those used in mome of the recent lights ase called the " moderator lamp." The ropuie of 28 lampe of the Arst onler lights, 4 of the accoull, and 18 of the third, amountel, in 1860, only to 418356.

Mr. Yresnel suggests that if it be approheniled, that, on account of the dintanee of $w$ light-house from the workshope, there maj be dimiteultien in regard to the repaire of the mechanical tamp, the appolitment of a meehanio an lighthouse keeper, and the supplying him with the necesmary tools, will be a very wimple remedy. In the refracting light the diverging rays from the lamp are rendered nearly varallel, ly passing through a glass lens. Several ineh lenses, forming the sides of a prism, eurround the lamp, the light from which is thun refracted Into a number of beama corresponding to the number of the faces of the prism, separated by dark angles. If this prism be mado to revolve slowly shent a vertical axis, there will be aiternations of light and darkness, as the beam from the fuce of the prism reaches the eye, or it is in the dark angle between the beame. The linereses of the light to its greatent brightnees, and the decrease agnin, will te gradual. A prisu of ejght niden, thus revolving in eight minntes, would show bright flathes at intervals of a miaute, and eelipaen at the eame interval.

The lens is made of a number of piecen of glase, around to the aman curve, and fitted elosely together. The buliding up of a lens in this way, of separate phocer, has been carried to very great perfertion, and the sepurate pleces composing it are of lenutiful clearnene, polish, and precision of form. A druun of glass, cylindrical in its horizontal sectione, and lena-shapeod in the vertical direction, placed about a lamp which occupies Its centre, will diffuse all arourd the horizon the raya falling borizontally upon it, bending toward the horizon those coming above or below the horizontal line from the lamp, furnishing a fixed light of equal brilliancy in every direction. A panel of glass, lensshaped in the borizental diroction, being made to revolve ntrout this, woull give a tiright flueh as the axis of the lens passed any particuiar point; and several of these thus made to revolve, constitate a fixed light, varied by fashes.

When the whole of the horizon is not to be Illuminated, s reflector is sulatituted for tho lens belind the lamp, so as to throw to the front the light which would otherwise he lont. Nit to lose the light thrown upward by the lamj, a series of glass prisms is so arranged an to receive the rays at the nugle at which they are reflectel, to throw them downward to the horison. Similar prisme below the lamp, serve to prevent the waste of the light which falls below the jens. This application of totally refiecting prisms, is claimed ly Mir. Alan Stevenson, of Edilnhurg. There are four ordere of likhts, according to the range of viathlity, determined by the rolume and brililancy of the flame ; the first order correaponding to the grentest range. The number of wicke of the lamps, nad the dimensions of the whole apparatur, vary, accordingiy, in the different onlers. The thind und fourth onders are subulivided into two classen, correnponiling to the larger and smalier size of the apparatus. The dimensions of the lantern of the several orders, the number of wicks of the lamps, and other detalis, will be fonnd in the talle annexed.

Flsed and revniving white lighta are used to give six characteristic combinations: the simple fixed light; the fixed light, varied hy bright flanhes every four, three, or two minutes; the revolving light, with intervaln between the flamher, or bet ween the eclipsens, of a minute or balf a minute. lly introducing a red fixed light, alternate red and white flashes, and a fixed white lifhe with red flashes, tivese combinations are extended to oight. Two filxed white lights, in sefarate towers, are used in a few cases for the sake of dintinction.

Tha losa of light by a deep-red plase, in atated by Mr. Stavenson to be as high as 80 per cent. of the whole. A pink French glase al orived but 57 per ceft.., but the color of the buraer wa not very decided. All parts of the illuminuting appara ye for light-houses are supplied from a depues and workahopm under the Immedlate direetion of tias secrotary of the lighlit-lwuse board. The distaince to which a light may be seen, lis range of visitility (callied mometimen simply its range), depends upon the brightness (intensity) of the light, its elovation above tha genoral surface, and the greater or leas transparenoy of thy otmonphere. Some peraons, too, can distinguish lights at a much greater distance than othera. The range of a light, then, is not a sure tent for comparing it with ather lights.
The value (useful effect) of a light depends on its brightnoun unil the extent of the horison which it will Hiluminato. The brightneas can be ancortained by experiment with the photometor, in terms of the light of a standaril hamp as a unit; the extent of horizun illuminated, by simple measurement in chegrees, minutes, and fractions. Hence tha value of a lightt can be expressed in numbers: ao many units of the standarit lamp, muitipilied by so many degrees on the horizon. If the light is nut apread uniformly ovor the horizon, it in necessary to estimato its brightness at different parte, and the apace over which it oxtends. The value for each portion beling thus found, the whole value is easily deduced.
Theory will show how much of a light from a lamp can be thrown by a given lens, or mirror, in a particular direction ; but as the degree of perfection of these instruments would vary the result cunsideralily, recourse is to be had to exjeriment in comparing differ. ent kinds of illuminating npparutus. Very careful and often-repeated experiments have heen made ly M. Leonor Fresnel, late secretary of tho $\mathrm{light}^{2} \mathrm{~h}$ house boart of Frauce, for the parpose of comparing the reflector and lens Ughts used in France. To appreciate them fully, it in neeessary to follow the very minute details entered into, by measuriug the lrililiancy of the light in the various divialons of the horizun, and inding its total value (useful effect) in estimating the value from different parts of the apparatus, and the allowance to be made for loss of light frum the construction of the lantern, etc. Without anch a scrutiny, however, the elaracter of their nuthor, as an oxperimentalist, is a guaranty for the accuracy of the rewults. They show the following comparison for lens lights of the different orders, and equivalent systems of retiector lights:
4th order, $2 d$ class; economy $2 \pm$ to 1 in favor of the lens light.
3d orler, Int class ; cconomy 34 to 1 in fuvor of the lens light.
2 al order, fxed ; economy 31 to 1 in fusor of the lens $\mathrm{ll}_{\mathrm{ght}}$.
21 onder, rovulving। economy 4 to 1 in favor of the lens light.
1st oriler, fixed, economy 4 to 1 in favor of the lens light.

The rombination of reflectors, to be equivaleat to the trat order lens, is such ohs never been male. The average econony of the light itself is about 3$\}$ to 1 in fiswor of the lens syatem.
To render these delluctions strictly upphicalide to practice, they should toe mado under the precise circumstancen in which tho apparatus is used; but as they would then be made in conditions unfavoralde tu accurncy, it is ususl to assume that, in practice, the lamp is burning in the hest way, and thus to muke the comparisons. To render them strictly applicalide to the Uginte of the United Statee, the vil, too, shootid be the same, and the manner of burning it the same; or, if different oils were used, each cil should be burned under the most favoralie circumstinces for it. These remarks, however, touch only the reline-
menta of the ence, and show the dealmbleneen of exporimenta made with the aetual rofisctors, lampe, and oil in une in the United Staten, with the lensen and their lampe, the eil boling the same.
The question of the relative eonsomy of tha lenn and refleetor lighte, depends upon the relative eost of the light-house adapted to them 1 of the illuminating apparatas; of the 'repalre of the building and apparatus; and.rien of the keepers; eost of the oil, and incldental expensen. In France two keepers have alwayn been employed for the larger lighta; ige or the other being required to be conetantly on duty, mo an novor to leave the lighta without attendance in the lantern or witch-mom. With the now apparatus foe tha firat onler lighta, in ordinary casen, three keapere are ullowel, fier anaing the expense for salarien about ene foarth. With those of the other orders, there han been no increase-two keepers tring allowed to thone of the seconil order, and thind order, firnt elame, unling the mechanical lamp; and onn to the thind order, nec. onil clume, and to the fourth opler lights, neligg the ordinary fountain lamps with Argand burners. "The light-houne buildinge are of the anme coest, except that an adilitional roum must be provided for the third keeper of the lens lighits of the firat order. The first cost of the lens apparatua to somewhat greator than that of the mirrors ; but the great economy in consumption of oll, turns the scale entirnly in favor of the leus lights-giving, aecording to the caleulatione of M. Prosnol, made upon the prices in France, for a smali light, an economy of nearly 2 to 1 in favor of the lens ; and for a large light (revolving light, eecoud orier), an economy of more than $1 \frac{1}{2}$ to 1 . The interest on the firat cost of apparetue, and the additional salaries, must make a large incrense to counterbalance the large economy in the consumptien of ell, which, in France, we have seen to be mere than 3 to 1 in favor of the lens lights. The aame grade of intelilgence and education is stated by M. Freenel to be required in the keepers of the two kinde of lights. The care of the mechinical lamp, however, reguires more mechanical tact than that of a common lamp; while the cleansing of the lens apparatue requires lems tlme sind care than the others.
The sdditlonal heeper of the large lights, and the providing of a eecond lamp in case of aceident, is supposed to graard sigalnot the danger of the total oxtinguishment, for any roneldershle time, of the single lights, which is the wesk point of the lens system. A very almple alarum is also provided, whleh, as soon as the overtow in the lamp ceases, rings a bell, giving potice of any derangement in the machlnery, etc., for faising the oil. Mr. Stevenson causes this apparatus to keep a bell constantly sonnding, and to atop whea the machinery becomes deranged; believing that he better seeures the watchfuluess of the keoper thereby. On this question M. Fresnel gives this very decided opinion-after an experiunce of 22 years, sustained ly the daliy results of more than 100 lenticular lights of the firat 3 oniers-" that they have been distinguished by the regularity of their service." The metsilic parts of the lantern are made of geu-metal (broose), the astraguls being laclinet to the vortical. The ventilition of the tanterua is carofully attended to. 'The tomes are of copper, painted white laside. There is a liglitning-conductor, of copper wire atrends, twisted like a rope, to each tower. Tho koeper's house, and the ceilarn for oil, are generally detached from the light-house, when practicable. The construction of light-house towers offers nothling for apecial remark, escept that, ns might le expectec from the care used 'a obtaining plane for them, they are sobstantial and convenient, dry and well ventilated.
Oil of colza (rape-seel), expressed from the seevts of a kind of will calbage (brassica olerasea), is the only oil used in the Preneh light-huitses. The colza gives a very white light, and the oil doee not readily
thicken by coll. M. Roynaud, secretary to the lightbotes bonrd of lirance, speake of the renulte of comparat - experiments on ollve oll, mineral oll from bitum , , uas achiste, hydrogen, and mixtures of oxygea and hydrogoy, as having been unfavorable. The oil is tented buforg beling recoived, hy hurniag for 15 or 16 consecutive houre in a mechanloal lamp, when, if It burpe clearly, and makes little or no crust on the wlek, it in received. The oliometer is also uned in the laspection. At the primilpal. porta a book in kept, in which mestars of vesaoin may register their complalata In reforenoe te the lighta on the coast. Their remarks are examined, and inquiry made by the inapecting ensinears.
Tamla or coupanmon or Lana and Rrvlkgton Liogita


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For a list of the principal French, Danish, Rassian, and uther Continental Light, showing the heights of power and elevation above the level, neo the last part of this article.

Great Britain.-The administrative part of the British light-house syotom is so peculiar, having gruwn ap liregularly with the expaneion of conmerce, that It does nut require to be described in detail. The chlef Eagilsh lighita are under the direction of the corporation of Trinity Ifouse, Deptford Stroud, London; and the Scottigh and Irish lights under commiyoloners. The expense of the lighta is paid by dues collected from vessela of ail natione, iucluding England berseif.

The Britiah lights are divided, according to their power and position, into three classes-sea-coast, secondary, and harbor lights.

Each tistrict in Enyland has a local Inapector, and the members of the Trinity House corporation also inspect from time to time. In Scotland, the engineer of the commiseloners has the general superintendence of the lights. Notices in regard to lights are given in eeveral of the duily metropolitan papers, in periodleala perused by nautical men, and are posted at the custom-houses.

The lights of Great Britain are principally still retlecting lighth, hut the Iens light has been introduced in many of the most important positions, and is gradually taking the place of the other.
I'rinity Ilouse lenses, 1st order, 15; 2 d order, 5 ; sth order, number not known.

In Scotland, the proportion of lenses to reflectors is greater than uader the Trinity Iloase corporation. Mr. Stevenson rays: "The Board of Northern Lighthouses are, oxcepting in a few cases, giving up the use of reflectors, and substituting either F'resael or holophotal lights." (See letter of October 15, 1851.) Quite reccutly throe new leus lights have been established in Eugland, by the Trinity ILouse loard; threo others, of the itrst, second, and fourth orders, reepectively, have taken the place of refiector lighte, and fourth order lenses have been litroduced for harbor lights.

The first lens light in Great Iritain wag established in 1835, at Inchkeith, near Edinburg, under the charge of Mr. Alan Stevenson; the next at the Isle of May; and now the Seottisin lights of the larger classes are graduaily being converted into leas lighte. The Trinity House, of Deptford Stroud, introduced tha first lens light in Eagland, in 1837, at St. tl'oint, in Devonshire. Mr. Herbert says: "The Lydraulic lamp is universally in use in the dioptrio lights of the corpo-
ration of Trinity IIouse, with one exceptiou (the South Forelaod light), where the light is shown from a Carcel lamp, the disailvantage ariaing from the use of which to the occasional derangement of the machinory:" In Scotland, the mechantcal lamp is used with the lens lights. When the ventilation of the towers la not complete, the introduction of Professor Farraday's ventiliting tubes over the chimneys of the lampe has been found very uneful. The consumption of oil Is increased, but the light in also increazed, and no filckering of the lainp can occur in the highest wlud. These tubes are used in alt the English light-houses under the Trintiy llouse loord. The oll of colza la now exelusively used in all the lights under the Trinity Houre board. According to Mr. Stevenson, its light is a little more intense than that of spermacetl oil; the consumption for a given quantity of light about the sane, whether the cwo be compared in a mechanical lamp or a common Argand lanap; it remalns fluid at tomperatures which would thicken spermaceti oil; the flame appears more steady, and bence the brenknge of lamp-glsseses is less than with spermacet! oil. It is furnished in England at 89 cents per gallon, which is 40 per cent. less than the cost of spermaceti oil there. The supplies of oll, wickn, glasses, etc., are dellvered once a year by a vessel helonging to the corporation. There are two distinctlve characters given to the refector lights on the Scotel const, differing from those already adverted to; in one, by placing the rims of all the mirrors on one alde of a revolving light, In one vertical plane, and inclining theis axes slightly to the horizon, and eausing a raplid rotation of the frame, $\boldsymbol{n}$ flash is produced every 5 seconds, which appears to rise and fall; the bright and dark intervals follow each other rapidly. In the other, an Intermittent light is produced by the vertical motion of etreular discs in front of the reflectors, eclipsing the light fir half a minute, nad then permitting it suddenly $t=$ sh $\mathbf{y}$ wout.

In England, the cost of the lens apparatus for a seacoast light, lantern, and pedestal, exceeds that of the refector apparatus nearly one fourth; but this disuppeara in the cost of towers and apparatas, and the adventage is on the other side when the charge for conatruction is turued into an annual interest, and the cost of illuminution is considered.

No difference la made in the number or salariee of the keepers of the lens lights in England. Two keepers are ellowed to all large lights, because one is required always to le on doty in the watch-room.

Comparing the value (useful effect) of the revolving lens light at Ske $\quad$ yore, Scotland, with the old reflector light at Incikeith, Mr. Stovenson makes it in the ratio of nearly 81 to 1 , and the ecenomy (economIfal efferi) $\ln$ the proportion of $3 f$ to 1 . Spermaceti oil was used in these comparisona, the result of which, as to economy, is the name as wan obtained in France. In the conparison of fixed llghta, Mr. Stevenson makes the economy of the lens light rise to four times that of the refiector. Taking the interent on firat cont of erection as an annual charge, ami conbining it with the cost of maintaining the two kindia of lights, Mr. Sterenson makes the economy of the lens system, for recolring lights of the first order, to be as $1 \cdot 2$ to 1 , and for large fixed lights an 1f to 1 .

Argand turners and paralwilic reflectors are used in the I?ritish light-vensels, Inth for fixed and revolving lights. The lanterns are of copper, or of guin-metal.

There are from 3 to 11 ilght-veseels in each of the dintrints under the charge of the Trinity lionse board, and in each ingtrict a relief light veasel is atationed. A gong is usen as a fog-alarm, in the Trinity House corporation light-vessels.
The lens system was early introduced into Hollandi, where is has been entirely approved; it has also leeen introduced into Sweden, Denmark, l'russla, and Ruasia. The colta oil is also in conmon use. There is
o cane where the lens ilghts have been introduced, in which recurrence has been made to the reflector systom.
From thene data, we are propared to make the cum. purison required by the instructions of the Depurtment, under the heads which it has pointed out, as far as it can be done withont further experiments.
The ase of these data will be entively safe, since the aystems of refiecting and refracting are compared undor the mont favorable eirenmstances for eneh class.

1. Ueeful Effect.-We have just shown that, hy the experiments of Freanel and Stevenson, the nseful effee: of a lens light is to that of a reflector light of tho same class, on the averuge, as 8f to 1 ; of course, the holo. photal system of asving some of the loat light in the various arrangementa, increanes thle disparity.
2. Eeonomy-Firat Coat-Repaira-Durability-Fifjciency. - This branch of the subject has been so elabio. rated elsewhere in this report, that it is considereel only necessary to remark briefly upon it in this phace.
Asanming that the lights in the two systems are the best of their kind:
The economy of the third orier lens light, in comparinon to the reflector light, as nearly equal to it as ponalile, is as 1 to $2 \cdot 6$. That in, it requires more than iwo and a half times as much oil, ete., for the reflector light, which is less than one thirl as useful, as for the lens light.
The economy of the second order lens light, In comparison to the refiector light, as nearly equal to it as it is possilile to be made, is as 1 to 407 . That is, the lens apparatus is four times as adventageous as the refiector light.
The economy of the first onder lens light, compared to that of the reffector, in $4 \cdot 04$ to 1 ; or that the refiector in four times as expensive as the lens, or that the lens is four times an aulvantageons as the reflector light.
"That if we take into account the first cost of conatruction and the expense of their maintenance, we will find, in renpect to the effect produced, the new ysatem (dioptric) lo still from one and a half to twice an advantageous as the old."
The repairs to the mechanical lampa employed in lens lights, amount to a mere nominal sum.

No dlfficulty can be anticipated in getting pruper keepers to attend to the lens lights. Nen belouging: to the clans of ordinary mechnnies or iaborers, are apppointed to take charge of the lamps in Fraice. Eight or ten days will suffiee to instruct a light-keeper in the morí essential parts of hila duty, receiving leamonn froma an Instructor conversant with ail the details of the service.

The attendance mpon the lamps can no longer be regnaded with fear of itt consequences. They havo been greatly improved, and are now belleved to tio nearly perfect.
There la mothing belonging to a mechanienl lamp which could not tee repmired by a watch-maker, and any peraon capaille of taking charge of n rovable light is equally competent to manage a fevs light.
While experience has fully proved that the fears which were entertalinel of the extinction of the single lamp nsed in the lens lights are llusory, yet, should they stlil exist in any mind, any greater guaranty tue absolintely requiral than experience given, it would lie easily a fioried by furnishing eath of the thres or four wicks of the mechanicai lamp with a separate pump, nendering them thas, in effect, threc or four lamps. Ity sululiviling the wick, this might, if desirest, luo carried stilil further, and the expense of the wdiditional pamps would not adid two doliars per annum to thin enst of esch firat-elass light. The experience in relavion to lenses has not lwen conflned to any one country; even In our own, with but three stations, the results are most anclusive in their finvor. livery fret-class light should have two keepers, as in Great

Britals
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they bi sistant romens, penso o fing the this am the fore charge The Com
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 cosst light sulticient t ers, timely up lights t extenting miles, is as The marine free from al ppinions. The olject hididen dan him clenr tined port. nate the pou enea to thes a " clear cos proach or pr runaing his must be gir lar sounding tended to so or shoal, the range as wi these dange exauple, us ing on shoreThere are States, with from them. lights of the Me, Tako leturen llar thase ofl ' 'ay, The showals of the present I alle circumst tirst orler lig requirel, is 1 named above mariner in F the hathama Florida coust. the haze, mis of our sonthe erroneons.

Britain, etc. Such, however, is not the case in the United States ; and In inaking the comparison of cost, they have deemed it beat to allow the salary of an asslstant keeper, and the additional cost of hia dwallingrooms, in making comparative estimates of the expense of the lens and reflector lights; but in comparling the actual annual expense of ilghts per lamp in this and ln forelgn countries, no credit was given to the forelgn light for having addltional keepere, and no charge made to our lights for deficlency of keepers. The Congressloual Committee on Commerce say :
" It la not beileved that dioptrlo lights of the first onler can be required at any points except i few, and these the most important outer sea-stations. The renuarks hereinafter made in regard to the comparative efliciency and economy of French and American lights, suil the letter of the Aulitor, may auggest donbta of the prepriety of using any of the first order."
first orier llghts are, if possible, more mecessary on our coast than on that of any other country, and the Bowd com not, therefore, conceies what good reason could be giren for not introducing them. It Is true, we have to first order lights at present, out many are claimed to be of that class, while thay are wo better than thirch dass owce. It is demonstrated elsewhere in this report, that the firat onder lenses are abrolutely necessary; and it is beyond question true, that no combination of the replectors can produce a first order light equal in potcer to a jirst orler lens.
Again, the committee say:
" ha arranging lights, "seful effect and expense ahould be looked at in one vlew. An outer or senensst light should have a 'pertee' or reach of light quithcient to give the npproaching vessel, in all weathers, timely notice of danger. Any expense in fitting up lights to produce more effect is useless. A light extending its limit of visibility to the distance of 25 miles, is as eflicient and useful as une of greater range. The mariuer sees It in ample time to shape his course free from all dllficulty." The lloard concur in these apinions. But cur lights are not of thot character. The ebject of a light is to warn the navigator of some hidden danger, or of hia nppronch to land, and to guide him elear of that danger on his way, or into his deatined port. It therefore becomies neeessary to regalate the power and range of a light, solely with reference to these primary objects. If a light is placed on s" clear cosst" merely to warn the mariner of his approsch er proximity to a lee-shore, or of hits danger of ruaning his vessel on it at night, a power ant range must be given with reference to the grailunl or Irregular senndings in approaching the danger. If it is lntended to eerve as a guide around a dangerous point or shoal, then it hecomes necessary to givo it such a range as will insure sufety to the vessel outsile of these dangers under every cireumstance; such, for example, as a suiden storm, or a contluued gale blowing en shore for many days.

There are many points along the coast of the linited States, with dangerous shouls extemding many miles from them. Toguido vensels clear of these dangera, lighes of the greatest power and range are indispensabe. Tako as example the Nantucket Shoals, these hetwees llarnegat and Capo May, off Alsecum, and these ofl Capes Ilattoras, Lookoni, Vear, Itomain, etc. The shosls of Cape bear extem t0 nautical miles from the present light, which can only be seen under favorahle circumstances about 12 miles. 'The necessity for linst order lights at all points where nea-eowat liglits are requited, is therefore limisputahle. None of the lights named above have a sumbient range to warrant the mariner in ruming boldly for thous. The lighta on the liahana banks are vastly superior to those on the Florida coant. 'The ilea that our lights are injured by the haze, mists, ete., ete., arising from the proximity of our soathern coast to tho Ginlf Stream, is therefore erroneons. That there is nothing la the atmospitiere
along our coast calculated to affect the brillancy and power of good lights, which doea not exist on the coaste of England, Ireland, Scotland, France, Molland, Denmark, Norway; Sweden, otc., ete., ls abundantly proved hy the ohservations of intelligent individuals, who are acute observers of meteorological phenomeua, and who have had their atteation drawn to this porticular subject in consequence of the great inferiority of our lights, compared to those of the reat of the maritime world.

The proper elevatlon to be given to firat-clase Ilghts, is a aubject elosely allied to, and In some degree dopendent upon, the general state of the atmosphere in the viclnity of the partlcular lighte.

Observation by Intelligent professional persons, will always enable the light-bouse engineer to act underatandingly and decide correctly in all special cases of thls kind.

As a general rule, it is consldered by able llghthouse englneers in Enrope, that on cossts where fogs prevail, a light should not have a greater elevation than 200 feet above the mean en-level; but under other circumstances any elevation, If desirable to afford a greater range to the light, may be given, which is not alove the region of clouls.

For a list of the principal llritish lighti, showing the height of tower and clevation above sea-level, see the last part of this article.

No light dues are charged upon shipping in France, as in Great liritain, Ilolland, Deaniark, Norway, and Sweden, etc., but the whole establishment is provided for as in the United States and Russia. The maintenance of the light-house luildings in confided to the departmental or local engineers, and the expenses are defrayed from funcle appropriatod for the serviee of the department of pulilic works.
Enited Sfates, Light-house System in the.-The followng account of the condition of the light-houses in the United States, and the proposed changes to be made in the light-house system, is extracted from the Report of the LIght-honse Iloard, made in 1851.
"The suliject of light-house illumination and improvement, although one of occasioual discussion in Congreas anil in certain circles within the last 12 or 15 yenrs, has not occupied the public miud to any great extent in this country, while in liurope generally, but more especiully in France, lingland, Scotla: and I reland, the ablest and most ilistinguished statesmen, philesopihers, and philanthropista have devoted themaelves for the last 25 or 30 years to this suly. , a enaleavoring to upply practically the aids which sciance nud the mechanic arts have tevelyed. Experin nts to ancertain the truthfol practleal tests of the relative useful and economieal values of illaminating apparatus, combustibles, and their necessorles, In the most minute detail, have heen mule by l'resnel, liaraday; Stevenson, hind other dintinguished indivituals; the results of their inveatigations hevo been published to the word, and their conclusions have served for the formation of a system for light-house illumination, approximating to perfection. Legislation, too, has taken a prominent part in this inportant branch of the public service in liurope, In 1825 the french goverament mopted definitely the Fresnal system of Ilhmination on the consts of lirance, anil took, ns the basls of thelr futnre light-house establishment, the programme proposed by tho lloard organized for tho purpose, at the heal of which was Almiral Rossel of the Firench havy.
"Ahout this tine the subject, which Sir David Ilrewster had forcoladowed in 1811, was revived in Bughand and Scotland, through Colonel Colby of the Royal lingheers, and Mr. Stevenson the enginear to tife Nertherv tioghte, nud the alistinguished architect of the liell-Reck tower. Ilowever, no important step was taken on the Einglish side of the Chamel to introduce the Vresnel upparatus until after a more careful and rigil
examination had been made by the light-house ongineer of Scotland, and after trials of comparative usefulneas and economy with that and the reflector apparatus at the Inchkeith station. In 1834, a new impulse was given to the subject of improvement in light-house illumination by lettera from Sir David Brewster, and from the action of the Honse of Commons' eelect committee. The light-house boards of Europe seemed to exert themselvea to satisfy publle opinion by the introduction of the Fresnel lens at a few of the most important points for land lights, and of Improved apparatus for floating lights, consisting of the Argand lamps and parabolic reffectors, in general use for land lights prior to the introdaction of the Fresuel lens, and movable machlnery for converting such fixed floating lights as were necossary into revolving ones.
"Although the lens met with much favor in England, and has been gradually getting into use, until nearly one half the sea-coast lights have been changed since $\mathbf{1 8 3 7}$, stili Scotland has introduced a larger namber, in proportion to extent of coast, than the Trinity House corporation. Notwithstanding these decided Improvements in the lights of Great Britain, another select committce on light-houses was raised by the House of Commons in 1845 ; and of the benefits arising from this last report have ireen the introluction of a large number of lens apparatios, not only in Great Britain but also into many of the colonies, and the eubstitution of the colza or rape-seed oii in nearly every light-house in the kingdom, in consequence of its superiority and economy compared to the best sperm oil. Improvements in illuminating apparatus and constrnction, ventilation, combustibies, etc., have made rapid progress in light-honse engineering in Europe; while in this country no attempt has been made to improve the lights, with the exception of the act of Congress approved July 7,1838 , and which was the result of the recomniendation of the committee on commerce in the Senate, as follows :
' Secc. 2. And bo it further enaeted, That the Secretary of the Treasury be, and he is hereby directed to cause two sets of dioptric or ienticular appararnsone of the first, the other of the second class-anil also one set, if he deem it expedient, of the reflector appnratun, all of the moat improved kinds, to be imported, and cause the said several sets to be set up, nud their merits as compared with the apparatus in use, to be tested by full and satisfactory experiments.' Under this authority, a lens apparatus wan placed in each of the towers at the highlands of Navesink, and 14 out of the $\mathbf{1 5}$ reflectors were placel in the Boston Hight-house. If 'the said several sets' were 'set up' and 'their mer. its, as compared with the apparatus in use, tenterl by fuil and satisfactory experiment,' in confomity to the act, the results of those experiments have not been made known. With this exception, and the authority of Congress 'to test Mr. Inherwood's plan of discriminating one light from another, and of determining the distance of a versel from a iight,' which resulted in placing a second orier lens in the tower at Sankaty Ifead, Nantueket, and the fights authorized by law to be constructed under the direction of the Toprographical Bureau (Brandywine Shoal, taryofurd Reef, and Sand Key'), no ateps have lieen taken to keep pace in thghtloouse improvements in this country with those of France and Great IHritain.
"The loord, nfter examining with a patience and a geal which they believe this important branch of the publie aervice to demand, the different quints to which their attention was-apecially calied liy the inmeructions of the lepartment, have arrived at the foliowing conclusions, which they feel assured will be found to twe fuily suntained by the detailed data in this report, and its appendix, upon which they are chiefly hased:
"Jluat the light bouses, light-vessels, bencons, and thoy, and their accessoriea in the United Staten, are
not as efficient as the interests of commerce, navigation, and hnmanity demand; and that they do not compare favorably with aimilar, aids to navigotion in Europe in general, but expeolally with those of Erance and Great Britain, and their dependencies, That the light-house eatablishment of the United States does not compare favorably in economy with those of Great Britain and France. * That white the superiority of European lights to those of tho United States (arising from the greater care and attention bestowed upon them, the better and more expensive apparatus employed in them, the larger number of keepers to the lighte, the more rigid superintendence snd frequent visitations for inspection and for delivery of supplies), render any just comparison of them in annual expense in money inpossible, it is shown that the difference for maintenance per lamp per annum is very small, fitted with lens apparatus of equal power to the reand that not invariably in favor of those of this country. * * if all our present iights were flectors now in use, the annual expense for supplies of oil and cleaning materials would coat little more than one fourth as much ns is now expended for these articles of supply annually; that is, that the supplies now costing upward of $\$ 152,000$, would not exceed $\$ 38,000$ to $\$ 42,000$, making an annual saving of $\$ 110,000$ to $\$ 115,000$. That in addition to the great superiority in brillianey, power, and veonomy of the lenses, compared to the reflectors, they porsess the great advantage of durability to the extent of never requiring to be renowed.
"The light-honse system of the United States has grown up from small beginninge-only 8 lights in 1789 , and 65 lights in 1820 -to the eniarged condition of 331 lights in 1851, and withont those helps from organization of which some other countries have hatd the udvantage. Great credit is due to the zeal and faithful. neas of the present general superintendent, and to the spirit of economy which he has shown. The systems of lighting, however, which 25 years ago were in general use, have gradually given way to more improred ones-more efficient and more economical. The generat condition of our lights is not such as our conmmerce now requires, and not suef as the improvements of the day ean suppiy. In considering the condition of the different parts of the aystem in their order, these facts will atrongiy appear, viz. : that waste of light, by imperfect appratus, is waste of oil, and muat te jaidi for in muney. The navigator would be aore benefited by a few good and reiiable lights than by many imperfect ones ; indeel, he would prefer no light at ail to a bad one.
"Classificution of Lights.-A proper classibication of lights has many and obvious milvantages; in fact, it forms the basis of the arrangement of tighty in a system. In lingland the shore-iights are classed ns sesconst, secondary, river, and hartor-iighte. In liranee they are divided into six orders, aceording to the slze of the iltuminating apparator. The name of the order of the light in the French aystem suggests its puirose, the range, the relative britiancy, the nize and ebaracter of the parts of the illuminating apparatus, and tho particulars of detail. That our own lights have not been elassed, wili explain the many momatiea in the number of iampa, the formo of the reftectors, and the like. It in an mbaitted prineipie, that the degreo of divergency given to a light hy a rofleetor for lighthouse purjosen, shonsi depend upon its intended objects, incluiling ranke, etc., etc. ; and yet no such prineiple has been applied in our tight-houses, ani a waste of light has treen the consequence. Classifleation is ef litte avail without other and nore important quatition; hut it in novertheleas an ossential of a system. The following is an assumed ciassifieation of the lights of the Innited Staten, accoriltng to their present value and useful effect, as comparell to the lens:
I. One at ation with a first order fixed and a second
order $x$ the lig One at This 1 constro of the 3. One light, c station nearest the coas. Three a not bet! dioptric ers (two order ea el). 7. equal to stations order len 21-inch r 10. Eigh third ord inch do. stations, inch do. station, 1 do. 18. stations, do. 21. stations, 1 inch da.
Twe statio du. 27. E stations, 6 30. Eight stations, 1 33. Une st inch do. stations, $w$
"Reeap, in one tow do. ; 2 do. 14 do. ; 11 do. 10 do. do. 6 do. ; 2 do.; 7 lights; 37 41 do. 16 do. ; 9 witl "Lens 1 lens light. tight. On
"Reflect
der iens lith
light (targ not better rior to the
" It is a a first-class of the lnit at the lligh second orde Monile Xoi der are Sant each fitted a goxi etev 1421-inch on this list, thas not had are 236 fix revoluing li
"Averag I'nited Stat 13; In Scot Ireland har
order revolving lens light. This comblnation renders the light only equal to a second order lona light. . 2. One station with a second order flashing light (lens). This light is not fully equal to a second order lens, constructed on the most approved plan, in consequence of the loss of light by metal placed in the focal plane. 3. One atation with a third order larger model lens light, constructed on the most approved plan. 4. One station with a revolving light, 2121 -inch reflectors, the nearest approximation to a first order catoptrio light on the coast; inferior to a second order lens light. 5 . Three atutions with 1821 -inch reflecturs (fixed light); not better than second order catoptric, or third order dioptric light. C. One station with 3018 -Inch reflectors (two lights in one tower), not better than second order catoptric, or third order lens. light (larger model). 7. Four stationa with 1815 -inch reflectors; about equal to third order lens ilght (largor model). 8. Two stations with 17 21-inch reflectors ; about equal to third order lens light (larger model). 9. Nine stations, 15 21-inch refiectors ; not equal to a third order lens light. 10. light stations, 1421 -inch reflectors ; Inferior to third order lens light. 11. Fourteen stations, 10 15 15 inch do. 12. Three stations, 1615 -inch do. 13. Eight stations, 1416 -inch do. 14. Fleven stations, 13 14inch do. 15. Three stations, 1221 -inch do. 16. One station, 12 16-inch do. 17. Four stations, 1215 -inch do. 18. Three stations, 1121 -Inch do. 19. Twelve stations, 1116 -inch do. 20. Nine stations, 1021 -inch do. 21. Eighteen stations, 1015 -iach do. 22. Forty stations, 101 -inch do. 23. Thirty-nine stations, 814 inch do. 24. Twenty-eight stations, 81 -liach do. 25. Two stations, 816 -inch do. 20. Two stations, 921 -inch du. 27. Eighteen stations, 714 -inch do. 28. Fourteen stations, 614 -Inch do. 29. Two stations, 216 -inch do. 30. Eight stations, 414 and 16 -inel do. 31. Fourteen stations, 11 14-inch do. 32. Four stations, 1 14-lneh 33. One station, 89 -Inch do. 34. Eight stations, 5 14tuch do. 35. Four stations, 314 -inch do. 36 . Nine stations, without reflectors.
"Recapitulation. -1 tower with 30 lamps (two lights in one tuwer); 1 do. 29 do. ; 1 do. 21 do. ; 7 do. 18 do.; 2 do. 17 do.; 3 do. 16 do. ; 23 do. 15 do. ; 16 do. 14 do. ; 11 do. 13 do. ; 8 do. 12 do. ; 29 do. 11 do. ; 67 do. 10 do. ; 2 do. 9 do. ; 70 do. 8 do. ; 18 do. 7 do. ; 14 do. 6 do. ; 13 do. 5 do. ; 8 do. 4 do. ; 5 do. 3 do. $; 2$ do. 2 do. $; 7$ do. 1 do.; 5 do. small gas-lights; 4 do. lens lights ; 37 towers with 21 -inch retlectors ; 1 do. 18 do. ; 41 do. 16 do. ; 51 do. 15 do. ; 168 do. 14 do.; 1 do. 9 do.; 9 without reflectors.
"Iens Lights.-One statiou equal to second order lens light. One station not equal to second order lens light. One station with third order (larger model) lens light.
"Reffector Lights.-12 lights nut equal to second order tens light. 61 lights not equal to third order lens light (large size). 35 do . (mmall size). 121 lights not hetter than fourth order lens light. 8.1 lights luferior to the fifth and sixth order lens light.
"It is apparent from this stutement that there is not a first-diss light of any deseription on the whole coist of the Cnited States. The nearest approximations are at the Iligilands of Naverink, composed of a tirst and secoul order light, and the revolving retlector light at Metike loint, of 21 reflectors. The three next in order sre Sandy' 11 ook, Cape ILenlopen, und Cape Heury, each fittel with 1821 -inch reflectors, and in towers of a good elevation. The Boston harbor light, fitted with 14 2l-inch Engilsh reflectors, probahly nour etands next on this list, although the apparatus is much worn and has not had the care and attontion it deserved. There are 236 fixel lights, 30 revolving ligits, 2 fixed anl revolving lights, 18 double lights, 2 triple lights.
"Average number of lamps per light-honse, in tho I'nited States, is now 91; In England (general const), 13; in Scothand (do.), 171; in Ireland (do.), 20; in Ireland harior, 7is The 41 light-vessels of the United

States are fitted without lamps (in the ordinary acceptation of the term), sind without reflectors. The llghta are consequently seen at very short distances, and do not fully subserve the objects for which they were authorized by Congress." Argand lamps, with large parabolle reflectors, are employed ln Grest Britain in light-vessels. The Admiralty list of Trinity House lights for 1849, shows that there were at that tino aeven floating lights fitted with revolving apparatus, belonging to that corporation.
" Distinctive Characters.-The distinctive characters of the lights of the United States, are:-1st, fixed lighta ; 2d, revolving lights ; 3d, double lights, or lights in two towers; 4 th, lights in three towers; 5th, colored lights. Distinctions have heen employed at 10 stations from two fixed lights, and from one fixed ltght , and ono revolving light; and In three towers with two lights, one above the other. There is but one friple light on the cosst of the United States. The beacons for ranges are not, of course, included in these numbers. Double and triple lights are among the most wasteful modes of distinction, and, it may be added, the least effective. Very little attention has been pald to distinguishing lights in the United States. At points nlong the eastern coast, many fixed lights are seen at the same moment, without the means of knowing any of them. The proportion of revolving to flxed lights on the entirc coast, ls $\mathbf{1}$ to 9.2 . Tho proportion of all modes of distinction, including multiple and colored lights, is 1 to $5 \cdot 2$.
"On the const of Naine there aro 34 light-stations; of which number, 3 are revolving, 1 two-towers fixed and revolving, 1 two-towers fixed lights, and the remalning 29 are oll nixed lights. In New IIampshire thore are 3 light-stntions: 1 fixed, 1 rovolving red und white, and 1 fixed, with 2 lights in 1 tower. In Massachusetts there are 42 light-stations ; of which 5 are revolving, 11 fixed and revolving, 1 leas, flashing, 8 double fixed, 1 triplo, and the remalning 26 are fixed white lights. In Rhode Island thero aro 9 stations ; 2 aro revolving, and 7 aro tixed lights. In Connecticut there are 11 stations; 2 aro revolving, and 9 fixed lights. In New York thero are 41 light-stations; 4 aro rovolving, and 37 fixed lights. In New Jersey there are 10 light stations; 1 rovolving, 1 fixed and revolving, 1 red, nud 7 fixed lights. In Pennsylvania thero are 4 light-stations, and all fixed lights. In Delawnre there are 8 light-stations, and nll the lights nre fixed. Tho one on the brenk water is called a red and white light, by the kecper; but as the light ean not bo seen through the dark red shleld-like shades, the white part only is seen. In Maryland there are $1+$ light-stations; 1 double fixed, and 13 single fixed lights. In Virginia there are 8 light-stathons; 2 are revolving, und 6 are fixed lights. In North Carolina there are 11 light stations: 2 aro revolving, 2 double fixed lights, und 7 fixed lights. In South Carolina there are 5 light-stations; 1 revolving, 2 douhlo fixed light-feacous, nad 2 fixed lights. In Georglat there are 9 light-stations; 2 revolving, 1 two fixed heacons, and 6 tixed lights. In Floridit there are 12 light-stations; 6 revolving, and 6 fixed; one of the hatter with rell shades. In Alabama thero nre 3 light-stations; 1 revolving, and 2 fixed lights. In Mississippi there aro I light-stations, and all fixcil lights. In loniskana there are 14 light-stations; 3 revolving, 1 with two lights in one tower, 1 red light, and the remaining 9 are all fixed lights. Of the remainhg 49 lights, on'y tuo are revolving.
"The foregoing lights are exclusive of the 12 lightversels distributed along the coast, forming un lmportint part of the light system, all of which are fixed lights. From tho Ilighlands of Navesink to the dixed light on Dry Tortugas, a distance of upward of 1300 miles by the coast, thero aro only is prominent revols ling lighta; all the rest being single tixed lights. The rovolving lights at Cape Charles, at Oeracoke, Sapel.
and Amellia island, are not included in thla estimate, becanse they are minor lights, and not aeen, oxcept by vessela bound into ports near their tocution. Body's ialand is co badly placed, and so low, that it ia of very litelo use to nuvigators. From Dry Tortugas to Cape Canaverul, alatance of nearly 400 milea, there is not a aingle revolving or other than fixed lights. From Charleaton to Cape Canaveral, a distance of 300 miles , all the prominent lights are flxed, with only two minor revolving lights. From Charleston to Naveaink, there is but one revelving light which can be of any use to the mariner boand to New York.
"In England the lights are diatingulshed by fixed, revolving, tlashlag, colored (red only being used), with combinations of double fixed, fixed and revolving, etc., etc. The Engllsh TriDity House corporation have 7 revolving lights on board of light-vessels, out of 25 ; and the proportion of revolving to fixed lights is 1 to 4.2. Of 40 sem-coast lights, 19 are fixed white, 10 revolving, 4 revolving and $t i x e d, 3$ red fixed, and 1 double fixed light; that js , one half are fixed, and the remaining half are revolving, etc. The Scotch have 11 fixed white; 2 revolving red and white; 4 revolving, showing brightest every minute; 4 revolving, and showing white ilghts every two minutes; 2 double fixed lights; 2 flushing once in every five seconds; 4 intermittent Ilghts, brightest state once in two minutea; 2 fixed und red; 1 double, revolving at the same instant; making only 11 fixed lights, out of 33 , on the entire coast of Scotland. In Ireland thers are five distinctions employed : fixed white, fixed red, revolvIng white, revolving red and white, and intermittent lights. Of 23 rea-coast lights, II are fixed white, 7 revolving, I fixed red, and ifixed and revolving.
"In France there are nine principal combinationa of lights, posseasing distinctive characteristlcs, via.: 1. Flashes which ancceed each other overy minute. 2. Flashes which succeed each other every half minute. 8. Flashes alternate red and white. 4. Fixed lights, varied ly flashes every 4 minutes. 5. Flxed llghes, varied ly flashes every 3 minutes.
6. Fixed llights, varied by thashes every 2 minutes. T. Fixed white Hghts, varied by red flashes more or leas froquentiy. 8. Fixed lights. 0 . Double fixed lighta, To which might lee atded tlxed and revolving, in two towers, as at Nuvesink. There are, however, very few double lights in France, and are only employed to give a very decided churacter to a locality, in contradistinction to those nearent. Hy adopting the principle of lear Admiral liossel, as set forth in the programme reported by him for lighting the coasts of France, in 1822, finally adopted ly the French administration in 1825, and whleh has lieen steadily adhered to rince, of placing first order sea-coast lights within the distance of 42 nautical miles of ench other, there can be no great difficulty in obtaining a suthicient number of very marked distinctions for sea-cosst Hights. The present advanced and progressive state of nantical science is also brought in to the ald of the light-honse engineer, as it will now seldom happen that a navigator will be 84 miles out of hid reckoning. lly commencing at one line of the boundary of a country, oll a sea-coast where a tirst oriler light is reguired, with a revolving light ; then, at the distance of 42 natitical miles, a fixed light; and at the distance of 42 nautleal milles forther, in thakhing light; then an Intermittent liright, then a fixed light ; then a revolv-ing-ani so on along the entire coast-the mariner will find no diffienlty in recogniaing any well-kept Ilght that he may see. Should it teconse necessury to employ thme as one of the elenents, then there can be no better aystem than that employed in France. An oceasional deviation may he found to be necessary, such as the erection of $t$ wo towers for fixed, revoiving, or fixed and reveiving lights. This is one of the iranches of light-house service which ean only the executed jroperly hy competent persons, who have thor-
oughly investigated and studied tho subject, both in general and for apecial cases. Sheuld the very lngenions plan of diatingulahing lights by occultations, as proposed hy Mr. Charles Babhage, prove, upon experiment, to be practicable, the whole aystem of characteristic distinctions will be entirely changed and greutly simplified.
"The flosting lights of the United States are all fixed, and firted with common torch lamps, without Argand hurners and reflectors. The light-veasels are too small for exposed positions, and the models are not the best for the purposes for which they are designed. They are not provided with moorings such as they require, and there is not aufficient attention pald to placing them in their proper positlons. The lights, In consequence of the inferior lamps without reflectors, are of very little use to the navigntor. 'The uncertainty of finding the light-vesaela in their proper positions, by navigators who have heen eeveral months absent from the country, produces a general distrust, which destroys all reliance on them.
"The floating lights of England and Ireland are built upon the best models; are of sufficient tonnage to be safe at the points for which they were buift; are constructed in the most substantial manner-of wood generally, but ln some cases of Iron; are moored with heavy unchors and chains, and long scopes. Those placed to mark channels, as the North-West light-veasel at Liverpool, are moored with long scopes of cable to a awivel, snd hove in, so that in swinging they do not change their positions perceptibly. These flosting lights are placed in the most exposed pesitions in the Irish nr St. George's Channel, in the llitish Cbannel, North Sea, and in the most exposed positions of the English and Irish coasts. It very seldom happens that they break from their mooringe, nud are never tuken away without previously placing a dupiticate in the poaition. The system of relief to the keepers and crews is an sdinirable one; nue that insures a faithful performance of the duties intrusted to them, to the great advantage of navigators.
"The lingliah floating lights are fitted with Argud lamps and parabolic reflectors-lixed, revolvhig, and double lights. They are distinguished ly day by cages of hoop-iron, balls, conen, flugs, etc., etc. The name and number of each light-vessel are painted in large letters and flgures conspleuously on the sides and stern. These lights from the superier apparatus emplayed in them, and the great care and attention of Inspections and superintenilence, nnder the nost rigid instructions in detall (which are printed in large type, und hung in frames in the apartments), are very little inferior to the same class of reflector lights, with equal elevations, on shore. Many of them can be seen from the deck of a merchant vessel $1: 2$ to 14 miles, while those in this country cun only be seen from 3 to 7 miles. Refractora have been made ly Mr. Bestourneau, of Paris, for light-vessels, which can not fial to be profuctive of much benefit, and which are, no donlit, destined to render floating IIghts mach aure nseful to the navigator then they have hitherto twen, even la lingland, where the hest reflecting apparatus has been employed for many years.
"Mode of ascertaiaing l"taces of Light-IVousps.-No aystematic mode of determining where there should be 4 light-house, or loost, seems to have been followed for nny period of yeurs, and hence the lights nre se mumerouk on some parts of the coast as to be inconcenimen, und on other parts are no few as mot ts auply, ertit moslerately, the demands of uavigation. The princido adopted by the French rommissioner of lightlionses for placing lights on the coast of France, will le found ntated in another part of this report : steadily adhered to, it has prevented the wasteful multiphication of lighta, and has provided, gradually, those really necessary for faclitating nayigation.
"Plany for light-Houscs, Light- Feareld, ifr,-No sys-
tematic cure pl ratue ar prepara ratus, a eer. O the Tre times de officers unculled adaptat1 how mu In discu constant efficlene quire nu their pur in repilir contained oil, and Mirrors In thetr $f$ which is a lad ligt In regurd light. Tt study and the prope houses of to differen frequeut $\mathbf{r}$ work, bric cier's-werl decided et gignals ha serves. I instead of no uttempt to compar nuls. Th recommend more effici means of $f$ merits of fogs, and f whistle for
"Mr. A propesed to mens on li on troard o use of a sh whistle, gi mound dired to those of reflection is helieved Mr. Gordo ject warra required to heavy gur effective I heuses to expensive, gun costin United St the best et a frime bu ened the ac subject re periments sides this vessels ent weather or carefully a. ef Cuptuin. the prisitic mast, or to
tematle methods appear to have heen reaorted to to secure plans for light-houses, light-boats, llghtling apparatus and other accessories, In the United States. The preparation of plans for light-houses, llghting apparatus, and other accessories, is the husinese of an engineer. Occasionally architects have been consulted, und the Treasury Department and Congress have sometimes devolved the preparation of plans, etc., upen the officers of the corps of topegraphleal engineers. The unculled-for variety and the Inconvenience and Illaduptation of the etructures vialted by the Board, show how much the intervention of knowleige is required. Ia discussing the detaile of thene works, this fact will constantly appear. Professlonal skill lis essential to efficiency and economy. Ill-contrlved light-houses require numerous additions, and do not then answer their purpose. Badly-constructod ones are expenalve in repairs, besides lnjuring the apparatus and stores contained in them. Badty-contrived lamps waste the oil, and anawer imperfectly the purpose of llghting. Mirrors badly made, uuskillfully arranged, unseientlic in their forms and adjustments, cause a loss of light which is paid for in oil. Imporfect ventilation canses s bad light. Unscientific arrangements of the lantern in regard to glazing, painting, ete., cause a waste of light. The proper arrangement of these matters is the study and ocenpation of a professlon. The negloct of the proper conditions is wasteful. Plans of lighthouses of different classes, with modifications adapted to differeat localities, would promote economy by the frequent repetition of the aame pleces, which in stonework, brick-work, Iron-casting, carpenter's-work, gla-zier's-work, and the like, is productive always of a decided economy. The limportant subject of alarm signals has not received the attention which it deserves. In the English light-houses the gong is used instead of the bell, to give slgnals in case of fogr, and no attempt appesrs to have been made in this country to compare the value of the two kinds of alarm signals. The fog-whlstle, introduced by Mr. Daboll and recommended by the loard, has been found to be far more efficient than the bell. The Board had ample means of forming correct conclusions as to the relative merits of the two modes of wnening the mariner in fogs, and found no difficulty in deciding In fuvor of the whistle for positions where it can be put up.
"Mr. Alexander Gordon, civil engineer, of London, proposed to the select committee of the llouse of Commons on light.houses, $\ln 1845$, that the gong employed on board of light-vessels should be superseded by the use of a shrill scream or whistle, auch as the railway whistle, giving it sound by a bellows, and having the sound directed around the horizon hy reffectors, similar to these of Bordier Marcet for retlecting light. The reffection of the sound of the alr-whistle of Mr. Daboll is helieved to be practicable hy the meuns suggented by Mr, Gordon; at any rate, the importance of the subject warrants the small expenditure which would be required to test it experimentally. The discharge of heavy guas has theen recommended, and would be effective if there were sufficient furco at the lighthouses to load and fire them. They would alwaye ho expensive, however, every discharge of a $2 \cdot 1$-poumiler gun costing atout $\$ 1$. The fog-belle exnmined thy the United States' Board were not placel so as to produce the best elfect. That at lloston farbor was lnclosed in a frime huilding, the sides of which effectually deadened the sound in two directions. It is time that this sutiject recelved full and eareful investigation thy experiments under the direction of ecientific men, Hesides this class of signals, those intemded to guide vessels eatering luto barred harbors, when (from heavy weather or other eanses) pllots can not be hall, should the carefully syatematized. The systom should be adepted of Captain Fenoux, of the French navy, depending upon the positions of a movable triangle fixed to a pole or mast, or to a light-house; und that of Lieutenunt John

Rodgers, United States' navy, by a flag, to be used in a boat or on shore. Surf-boats and life-boats should be furnished to certain llght-house stations, and the means of readily providing crews for them in time of need, be furnished. They ehould be planned by, and constructed under the directlon of, competent persons, who would study all the detalls of their use, and make It certaln that when required they could be launched and effectlvely manned. The truatees of the Liverpool Doek Company (England) have, under the admirable management of thelr very able marine surveyor of that port, a most perfect aystem for the rellef of the shlpwrecked.
"There are nina life-boats stationed at different polnts sround the bay and port of Liverpool. The boats are constructed on the most approved principles; kept on carrlages In the boat-houses near the shore, and horses provided to enable them to proceed to the most advantageous spot for launching. A gun is placed at each station to summon the crew, besides dlatress flags placed at each light-house, light-ship, and telegraph station. The srrangements are so perfect that in many linstances the life-hoat has been manned, launched, and on her way to the wreek in 17 or 18 minutes from the time the distress slgnal was made. The life-boats are manned by picked boatmen of Liverpool and pleked fishermen along the coast, who reside near the boat atations, and who are familiar with the banks, swashwaye, tides and currents, in Llverpool Buy. The whole of the boatmen are kept on constant and permunent pay, and are regularly mustered and exerelsed once a month, and no expense has been spared in rendering the bouts, their equipments and crews, as perfect as possible. The Liverpool arrangements ure well worthy of imitation for many parts of our dangerous coast (especiully dnring the winter months). The necessity can not too strongly he urged for the employment of more efficient mesns than now exlst at the polnts where life-boats have heen authorized by law to be placed.
"Light-Boats and their Accessories.-The first cost, large annual expense for maintenance and repairs, and the rapid decay of light-vessels, render this mode of lighting very objectiontible, Independently of the ineffectual manner In which they subserve the purposes of warning the mariner of danger. That thls description of lights has not recelved the attention in this country due to its importance as a necessary adjunct to a proper aystem of sea-coast illumination, is very evident to the Board.
"That there are many points on our extended seacoast requiring to be lighted, which will not admit of any other means, ls also evident. It therefore becomes necessary to eelect those means least objectionable, in an economleal polnt of vlew, and best adapted to the desired end. The rapld deeny of timbers, especially on our southern coast, would seem to snggest the propriety of employing more durable materials. It is stuted by the general superintendent of lights that these vessels last from 5 to 10 years. To obvlate the necossity for renewing them at such short periods iron vessels might, with great propriety, be substituted. The experiment has heen tried in Europe with perfect success. The advantages of iron over wood for the constructlon of light-vessels are self-evldent. Durahility, hoyancy, and economy of first cost, are the advantages, without any conceivatile ilisndvantages that could arise from their introduction.
"The inferiority of those vessele seen by the Board, the large sums approprlated annually for their support and rupalr, and the small amount of usefulness arising from their employment, warrant the Board In recommending a better elass of vessels; to be built of iron, and filled with the hest parabolic reflectors and Argand lamps, similar to the north-weat light-shlp at Liverpool and those generally employed by the Trinity Llouse Board und Irish Board. Proper distinguiahing
marks by day, as well as the distinctlona of the lights at night, should not be neglected, and the Board can not do better than recommend the Liverpool and other English light-vessela as proper models, in every respect worthy of imitatlon. There are many polnts on our aouthern coast, especially in the sounds and haya, where amall light-vessels are now placed, at which screw-pile foundationa might be anvetiluted with great advantage to the navigator, and in an economical polnt of view. Structuren on screw-pilae costing in the aggregate much less than the light-loata, and affordlng a more powerful and efficient llght , would conduce greatly to the efliciency and economy of this lranch of the lighting service of the United States. The apparatus of the light-vessels of this country is so far inferior that most intelligent and disinterested persons engaged in commerce snd navigation pronounce them useleas. The example of the Trinity llouse corporation, Liverpool lights astallishments, etc., etc., in fitting up their light-ships with 21 -inch parabolic roflectors und Argund lsmps and burners, has not been followed in this country. While the light-vessels of this country are comparatively useless, those of Great Britain are In many instances equal, and in all nearly so, to thoso placed in towers on the shore. The introduction of movable machinery, with the view to distingulshing these lifhts, is not of very recent date in liurope, though not known here.
"The remevul of light-vessels from dangerous and important pointa on the const, without due notice (a nource of almost universal complaint by masters of yessels), is an evil that can not be remedied too aoon. It has not been many days since the finest steam-frigato in the navy struck on a dangerous shoal, properily laid down on the coast-survey chart, in consequence of the absence of the lightwessel froun her position. Lightvessela stldon break away from their moorings in England, and are never taken away from their positiona without previously placing a substitute. This branch of the lighting service of the country is probably the most defective. Properly modeled, built, and moored, light-vessels, fitted with the hest apparatus, and phaeed under the charge of competent masters, with ample crews, governed by the must rigid rules and regulations, and subjected to frequent visitation and inspection, can alone aulserve the great interests of navigation, in this branch of the lighting service.
"Manner and Frequency of Inspection-Persous by whom made.-All experience shows that frequent inapections of light-houses are essential to maintaining an efficient ayatem. These inspections, by competent persons (engineers of the corps of Ponts et Chansien) are carefully provided for in France, by members of the Triuity Board in England, and by the engineers of local estabishments, such as that of the Port and liay of Liverpoal, and by the engineers and their assistant. of the eatablishmenta of Scotland and Irelanil. The vigilauce which is sucured by inspections at irregular intervals is of greater value than even the direct results of an examization. Our system, at present is quite deficient in this respect; a single annual vixit from the collectors, who are superintendents of lights, and the visit of the employee who delivers supplies to the lighthoune, etc. (the latter, fil rome districts, being the oniy' inspection), is obriously insufficent. (See Senate Duc, No. 428, 1st session, 20th Congress.) The evident state of preparation in the light-heuses at which the vixits of the board were expectel, showod that grod effects would flow from a syatem of inspection. Such a syatem could be organized with very littie, if any, additional expense to the g overnment; which will be discussed in detail in another part of thits report. The efficiency which would be gained by thorough inapection would justify additional expenditure, if it couid not we reached without it ; but it is Leiieved to be clearly demonatrated eisewhere in this report, that the present annual expenditure for com-
mission on purchasen, distribatlog supplise, and nominal Inopectiona, trould be ample, under the system proposed by the Board, to produce these desirable sod beneficial resulta. Metter havo feover lights and effective, than many without efficiency. In the district of New York the collector employs an asslatant, who is charged with the care of the llghts, beacons, buoyn, etc., and who has under his charge a small vessel for furnighing supplies, vistting the lights, roplacing buoys when diaplaced, and the like. The zeal of thls gentleman has been servicable in the management of this district ; and were it guided by good instructions, and sustained by occasional vialts of a competent general inspactor, would produce still bettor resulto.
"Positions of Beacons, Buoys, etc.-As a general rule, only seamen familiar wlth hydrography, and pilota, know what beacons, buoys, and sea-marks are required, and where and how they should be placed. The bescons, buoys, and sea-murks which would anfice for pilots, with their accurate knowledge of natural and artificial oljects available for affe navigation, are not always sufficient for mariners generally. Their object is net to dispense with the services of the pilot, but to furnish him with marks, etc., to provido for cases of eniergency, when the vessel must enter, and may not be provided with a pllot. Small coasting vessels, carrylug freights whleh do not pay well, can not afford to pay pilotage. The necessity for the beacons, buoys, and sea-inarks recently and at present provided for ty law, is inquirsd into and reported upon by the superintendent of the coast survey, on the examinatien of officers of the work, and by the chiof of the Topographieal Burenu. They are then usuilly placed by pilots or seainen, but sometimes by the officers of the coast survey. When required to be removed on account of ice, or for repairs, or when Ilisplaced, they are replaced by contract by the year, under the suthority of the local superintendent. The duty of replacing bunys driven from their moorings is nelther superiutended ner executed in a proper manner. The buoys are usually placed by pilots (who contract to perforn the service) by compass bearings, ranges, or by guess ; end it has been remarked by the surveyors, that li many cases their places are so much ehangel in diffetent years us to proluce crror, and oven danger. The cosst survey officers place them by the known positions of three suitable oljjects on shore-a method known as the three-point problem, measaring tho angles with a sextant. This is the true mode of placling them; and no person should be permitted to put them down who is not conpetent to use that Instrument. When placed, it is indispensable that their position should be verlfied by a conpleteat officer, that he should report In relation to them to the local or general superintendent, and that he should ingpect their positions from time to timo, und always when, by aceldent or design, they have been moved.
"Coloring nnd Numbering Buoys.-- Vntll the passage of the recent law (1850), in regard to coloring broys, the locul superintendeuts changeil tho colors at pleasure, often introducing the utmost confusion. No notice of such change being given to the general superintendent, no changes could be made in the elarts of the coast, and the wurst consequence might have reanled. Wine legisiation has checked this; hat it is still true, that the examination of positions, colors, and numhers, shoukd be mada ty compretent inspectors, and reported to the Department. Plain as are tho directhons of the law in segand to coloring and numbering buoys, there is known one importunt port in which the provixions of the law have been completely misunderatood, so that a navigator running hy the buoys must put his vessel, if of considerable drunght, on the bar.
"Sufficient care has not boen bestowed upon the huoyn generally; under the law of $\mathbf{1 8 0 0}$. The paint used for erioring has not been, in any single instance that the lbond has seen, of the best quality. 'lo carry
oat the design of the act of Cengress, the red espeelally should he of the beat quality of red lead, the black of the glosslest, and the white of the purest white. Spanish brown and dirty black are difficalt to diatinguish from each other. Sach may be seen almost everywhere along our entire coast. The apar-bueys, being the mest common in this ceantry, are insfficlent difficult to give easily distingaished marks or numbera, and from their peculiar shape, size, and Improper mooring, are too ofteri at'such an angle with the surface of the water as to render them exceedingly difflcult to be soen." Can and nun'buoys are empleyed, but not to a great extent, and those used are mach two small. The boat-bueys, ised chlefly on the eastern cosast are very inieficient. In aome of the rivers, barrel-buoys, equal In capacity to about $n$ sixty-gallon cask, are employed. Iron haoys have been authorized, by special act of Congress, for the Columbia River, rivers in Texae; Hatteras Shnals, etc. The mooring of buoys in the United States are, as a general rule, very defective. The welght of the blacka of granite, or sinkers of lron, and size of chains, are not sufficient. For want of proper inspection, buoys frequently sink st their mooringe, and part their chalns. Too much care can not be taken to gonril against those casualties, especially In Important channels: in rivers and on sind-bars, lodgments of thls kind may destroy n valuable channel. The important duty of raising and replacing buoys shonld not be left to the discretion of contractors. The kind of bunys required, their material, etc., shoald all he proviled for by competent persons. In regard to distingniahing them, the Bonrd will elsewhere make further remarks. The numbers, as now placed upon the buoys, are very ineffective. The law in regard to coloring and numbering them, however, is deemed all-sufficlent.
"Notice to Mariners in regard to Changes.-This Is a suhject which, in the opinion of the loard, requires more attentlon than has ever been given to it in this coantry. It is not sufficient to publish changes in a local newspaper. They should be pullished, as far in advance of the proposed change an possilite, in all the leading commercial newspapers, I'itical periodicals, snd by placards in large type, with conspicuous headlags, and distributed at home and nbrond, at the cus-tom-louses, and efflices of the different consulates. In making changes, they should take place nt the precise time designated, and nothing should prevent the perfect fultillment of the originally publlshed design. Changes of lights in light-houses, removal or placing of light-vessela, sheuld nover take place with less than six months' notice: a year's notice would be fetter. Shoald a light-vessel break adrift, nlthough replaced within a few days, a notlee of both facts should appear together in the same papers, and on the same placarls, as the navigainer might otherwise see the notice of the breaking adrift, and not the other, and thereby he deceived. This la one of the nost important branches of the lighting service, und one that can never be perfectly systematized witheut a corps of competent and efficient local inspectors. In this respect the Trinity IIonse, Northern Jights, Irish Hoard, Iiverpool llock Trustees, etc., are good models. Notices of proposed changes of lights, buoys, beacons, and of new lights, are to be found in every part of the globe, and always placed where the navigator is obliged to go before leaving port-the clearnnce office, and at the office of the consul of hla country. The milmiraile system followed by these indepentent boardx, in all the minute detalls of the service, for the lienefit of comnerce and navigation, can not he too highly commended. Those who have been around the world, and visited nearly every pribcipal port it contains, never saw a notice to mariners relating to an Amorican light, except by chance, in some corner of a newspaper, and thut probably a merely local one.
"Changes arising from casualtios should bo pub-
liahed widely in the manner prescritied, and at the eame time reported by the local inspector to the $\mathrm{De}-$ partment:- No changes sheald be made except on the authority of the Department, which should authorize at least six months' notice, in all cases of lights. The looseness of the system in this country heretofore in these respects is proved by the fact, that although a circular was issued by the general superintendent of lights, otc., directing the collectors, acting as suparintendents of lighta to report to the superintendent of the coast survey all changes in regard to lights, beacons, buoys, otce, that they might be placed upen the charte, but one collector ever complied with the direction. Changes which otherwise would be improvementa, unless known to the meriner, become snarea. No list of beacons, bnoya, or sea-marks exists; no description of them can be obtalned, except by a general vislitation and Inspection of them along the whole coast. Having falled to ebtain the required Information, efferta have been made by the Board te procure this important infermation from the local superintendenta, for the purpose of arrangling a descriptive list of them. Se far only a few returns have been made, and some of these not full enough to carry out the design. European light-house boards do not confine themselves to giving notice to mariners of proposed changes, etc., in their own lights, etc., but they cause those in foreign languages to be translated, and as widely disseminated ns their own. The Trinity House corporation of Iondon canses the netices relating to lights, etc., on the French coasts, as well as on thejr own, to be published in the commerclal papers in this country.
"Relative Economy of Reflector and Lens Systems.Now, although the most decided results in favor of economy are to be expected from the reformation of the minor classes of lights, we do not therefore conclude that we should begin with them, becanss humanity, and the more general interests of commerce, and the safety of our ships-of-war, have their claims. Our shlps-of-war, vessels engaged in foreign commerce, all that arrive on our const from distant voyages, are more linile to suffer from the lnferiority of our seacoast lights, or higher elass lights, than are our coasters froun the deficiencies of the inferior classes; and, necordingly, it is along our exterior coast line that we ind occurring the greator number nnd the most disastrous shipwrecks during the stormy seasons.
"The minor lights are usually so multiplled, and the localities inslde of the general coast line so well known to the navlgators of our bays and rivers, that they can not often be at a loss for a secure harbor somewhere in heavy weather; whereas the sea-coast llghts, at times comparatively few, nnd even deficient in number, and at others complicated by thelr superabundance, occupy positions full of danger to the navigater. It is, therefore, of the first importance to ships arriving on the coast from distant voyages, that the light which they tirst make should le clarrly vialibo at the greatest distance from the land, and that it should be so disthuct in chnracter as unt to le confounded with other lights; and it ls not less important that we should net delay glving to such lights all the perfection they are enpabie of receiving; and having accomplished this purpose with respect to the most prominent and important, we should extend tho improvement to the lighta of inferior elasses and of minor inportance, although by so doing we were to save at the outset something less than if we were to begin by reforming the minor lights, becanse in the mean time our foreign commerce and the navy might be suffering to an emount far surpassiug that which might be saved to the revenue.
"Mr. Alan Stevenson saya: ' In comparing the fixed dioptric and the fixed cateptric appuratus, the results may be summed up under the following heads:
"'1. It ls impossible, by means of any practical
comblation of parabololdal reflectora, to diatribute round the horizon a zone of light of exactly equal Intonalty, while thls may bo easily effected by dioptrio means in the manuer already deacribed. In other worda, the qualitles required in tixed ilghta can not be no fully ohtalned by reflectora aa by refractors.
u42. The average light produced In every acimuth by burning one gallon of. oll in Argand lamps with reffectors, is only abeut one fourth of that produced by burning the same quantity in the dioptrio apparatua, and the annual expenditure is $£ 14088.8$. lese for the entire dioptric llght than for the catoptric light.

64 . The characteristlo appearance of the fixed reflecting llght in any one azimuth, would not be changed by the adoptlon of the dioptric method, although Its increased mean power would render it vislible at a greater distance in every direction.
" '4. From the equal distribution of the rays, the dloptric light would be oheerved at equal distances on every point of the horizon-an effect which can not be fully attained by any practicable combination of paraboloidal reflectors.
645. The inconveniences arising from the uncertalnty which attends the use of the merhanical lamp, are not, perhaps so much felt in a ixed as in a revolving light, because the greater simplicity of the apparatus admits of easier access to it, In case of accident.
" 'There can be but little doult that the more fully the aystem of Fresnel is understood, the more certainly will it be preferred to the catoptric system of illuminating lighthouses, at least In those countrles where this important branch of administration is conducted with the care and sollcitude which it deserves.
" 'The expense of fitting up a revolving light with $t$ wenty-four reflectors, ranged on three faces, may be eatimated at £1298, and the annual maintenance, including the Interest of the first cost of the apparatus, may be calculated at $\mathcal{C A 1 8} 8 \mathrm{ss} .4 \mathrm{~d}$. The titting up of at revolving light with elght lenses, and the diacatoptric acceasory apparatue, may be estimated at $\mathrm{C1450}$, and the annual maintenance at $\mathbf{5} 354 \mathbf{1 0 s}$. 4d. It thereiore follows, that to establish, 3nd aiterward mahntain, a catoptric light of the kind called revolving white, with a frame of three facen, each equal In power to a face of the dioptric light of Corlonan, an annual outlay of $£ 63$ 18s. more would be required for the reflecting llight than for the lens light; while for a light of the kinil called revolving red and white, whose frame has four faces, at least 36 reflectors would he required in order to make the light even approach an equality to this of Cordousn; and the catoptric light would, In that case, cost $£ 225$ more than the dioptric light."
"Convert these two Jums Into our currency, and it will be seen that we have a saving in the first case of *309, and in the recond case of 41089 jer annum.
"The effect produced by burning' an equal quantity of oil in revolving lights in elther aystem, may be estimated as follows: In a revolving light, like that of Skerryvore, having eight aliles, each lighting with its greatest power a horizontal sector of $4^{\circ}$, we have $32^{\circ}$ (or units) of the horizon illuminated with the full power of 3200 Argand flames, and consequently an aggregste effect of $\mathbf{1 0 2 , 4 0 0}$ flames prolueed by burning the oil required for 16 retiectors; while in a catoptric apparatua like that of the oid light at Inchkeith, having aeven aides of one reflector each, lighiting with its greateat jower a sector of $4^{\circ} 25^{\prime}$, we have nearly $31^{\circ}$ (or units) of the horizon Illuminated with the full power of 400 Argand thames, and consequently ans skgregate effect of 12,400 flames as the result of burning the oil required for meven reflectors. Hence the effect of barning the same guantity of oll in revolving lights In either aystem will be represented resjectively by $16-7,12,400=24,343$ for the catoptric, contrasted with 102,400 for the dioptric light; or, ill other words, re-
volving lighta on the dioptrio principle use the oil more economically than thowe on the catoptric plan, nearly ln the ratio of 8.6 to 1 .
"Let us, then, take the appropriation for oll for the Ilghts In the United States, deducting the quantity used in the four towers fitted with dioptric apparatus, and divise It by $8 \cdot 6$, the proportion to 1 , in favor of the lens apparatua.
" 1851-2.-Appropriatiou for oll (lees oil burned in lena Ilghts) 122,62055 ; 1 to 36 will give necessury quantity for lens llghts of equal power, $034,063 \mathrm{cs}$ : annual savlag for oll by thle mode of comparison, 888,565 57. Glase chlmneys, wleks, and repuirs of lightling apparatus, will be In the proportion of not lese than 810 to 8193 ; thut 18,1 to 10 . Amnunt appropriated for these oljecta, minus the expenses of the same artleles, for the four lens llghta, 15,$16230 ; 1$ to 10 will give the necessary expenee with lenses, $\$ 1216$ 23: annual saving by this comparison in theso artlcles, $18,61607$.
"The oil being the most bulky article of anpplies, it may be assumed that the saving $\ln$ oll will be a fuir proportion for the transportation, tho more especially as apare lampa, burners, reflectors, and the great wear and tear of the Argand lamps, burners, and reflectors, is not included in the estlmate of annual aaving.
"Amount appropriated for the transportation and dellivery of oll and other annual supplien, 1851-2,道 11,437 ; 1 to $3 \cdot 6$ will give the necessary expense for this article, 3176 04: annual saving with lenses, $\$ 826006$. It may be urged that there would not be se, great a aving in transportation by the chauge; of that, the experiment alone can decide. By the uid of a small ateamer, ne half of the anount appropriated could be saved In money, while very importutat additional servlee would be rendored in the way of inspections, and more frequent visits to the principal sea-count llghts. Taking, then, the savings of this mode of comparison, it will be follows: for oil in one year, $488,5655^{7}$; for wicks, chimneys, repuirs of apparatus, etc., 13,64607 ; for transportation, $£ 8.60$ $06:$ total annoal eaving, $\$ 110,471$ 70. Making within a fraction the same amount which would be saved annually by the introduction of the lens apparatus by thls comparison, that was shown by taking the lights in thelr regular order of powers, and comparing with orders of an nearly as possiblo equal powers in the Fresnel system. Nothing therefore can be clearer than the results thus set forth.
"The effect produced ly the consumption of a gallon of oll in a fixed light, with 26 reflectors, which is the smulleat number that can be properly employed, may be estimated an follows: The mean effect of the light apread over the horizontal sector, sulastituted by one reflector, as deduced from measurements mude at each horizontal degree, by the method of shadows, is equal to 174 muassisted Argand burners. If, then, this quantity he multiplied lyy 360 degrees, we shall olitain an aggreguto effect of $62,(\mathbf{e - f} 0$; which, divided by 1,040 (the number of gallons burneid during a year In 26 reflectors), womld give 60 Argand flames for the effect of the light mointained throughout the year by the combustion of a gallon of oil. On the other hand, the power of a catadiopt:ie light of the firat order, like that lately catablished Cirdleness, may be estimated thum: 'The mean effert of the ligit produced by juint effect of both the dioptric and catadioptric parts of a fixed light apparatus, may be valued ut 450 Argand flames; which, multiplieil by 360 degreen, gives an aggregate of 162,000; and if this quantity be tivided by 580 (the number of gallons burned by the great lamp In a year) we shall have about 281 Argand flames for the effect of the light produced by the combuation of a gallon of oil. It would thus aphen $r$, that In fixed lights the French apparatus, as lately improverl, produces as the average effect of the consumption of the ame quantity of oll over the whole horizon,
upward of oltained b directlons, catoptric lis than the di "But th rests chlefl ant conditio the rayn equ the raving etc, spprop saving on of annum, $\$ 11$
"It may portlon of $t$ wages of ac may be stat and refracth of keepers Is and therefor gain.
"In the 1 keeper íther establisitmen apparatus) is the larger, o keepers shou single tower whether fitte
"Jlowever as our reflect and tiat the two to each li it may not br present light changed, and keeper to encl the Rio Gram be fitted with
"There are lights, which apparatos, ma and second or the rate of $\% 3$
"If thls s shown (whic) the present es department ec be un annual addltinnal evi proposition, t' ive than the 1 disregarding for ail the use found in the of Deptford $S t$ sioners, of lid lin, Ireland.
"In 1835 into Scotland,
"In 1837 t1 nnder the Tri the first lens 1
"Now (185 reflectors in abandoned th for it the Frem Steverimon.
The Trinit lights of the if fourth order 1 Introduced int now existing marked in the yet been rece:
"It la wo" hothe boards
upward of four times the amount of light that is obtained by the cateptric mode, although in certaln directions, opposite the axes of esch raflector, the catoptrie light is fully 50 per centam more powerful than the dioptrle light.
"But the great auperiority of the dioptrio method rests chlefly upon its perfect fulfiliment of an important condition required in a fixed light, by diatributing the raya equally in every point of the horizon. IIence, the asving for fixed lights in the same amount of oil, etc., sppropriated for as before, will be 001,07104 ; saving on other articlea, 82,220 07: total saving per

"It may, and probalily will be urged, that a large portion of thls annual eaving will be absorbed in the wages of additional keepers. In anawer to that, it may be stated, that in the comparisona of reflecting snil refracting systems in Europe, the same number of keepers is required for both, of equal class or order, and therefore the ancertained asving fa a net annuai gain.
"In the United States, as a general rule, but one keeper íthere boing only 14 assistants belonging to an establishment of 301 light-stations, fitted with reflector apparatus) is attached to a light-station. To render tho lurger, or sea-coast lights efficient and safe, two keepers should be attached to each station having a single towet, and three to those with two towers, whether fitted with reflectors or lenses.
"Huwever, as it may be contended, that inasmuch as our reflector lighta in general have only one keeper, and tiat the change to the lens system would require two to each light of the first or second class or orders, it may not be inappropriate to eee how many of the present lights on our const would be required to be changed, and the increased expense for an additional keeper to ench. From the north-eastern boundary to the Rio Grande there are 38 positions whlch ought to be fittel with the most powerful first order lenses.
"There are polnts between some of these first order lights, which ought to be fitted with second order lens apparstus, making a total of about 50 lighte of the first and second orilers. An ndditional keeper for each, at the rate of 8800 per annum, will be $\$ 15,000$.
"If this aum be deducted from the total already shown (which, on the centrary, ought to be added to the present expenditures, to reniler our lights in that department equal to European lights), there will still he an annual saving of $\$ 95,47170$, or $\$ 90,19801$. If additinnal evidence were required to prove ao plain a proposition, that the reflector aysatem is more expensive than the lens syatem in the proportion of $3 \cdot 6$ to 1 , disregarling the great auporiority of the lens aystem for all the aseful purposes of the mariner, it would be found in the action of the Trinity IIeuse corporation, of Deptford Stroud, London ; Northern Lights commissionets, of Pdinburg; and the Bullast Board, of Dublin, Ireland.
"In 1835 the first leus apparatus was introduced into Scotland.
"In 1837 the first lens was introduced into England, under the Trinity llouse corporation; and since 1845 the first lens light was Iighted in Ireland.
"Now ( $\mathbf{1 8 5 1}$ ) there nre very few lights fitted with reflectors in Scotland; the commissioners having abandoned the use of that upparatus, and substitutod for it the Fresnel and holophutal svatem of Mr. Thomas Stevenson.

The Trinity IIouse (Iondon) has upward of 20 lens lights of the firat and aecond order, besides numerous fourth order harbor lights. Lons lights are also being introduced into Ireland; the precise numher, however, now existing there, is not known, as they are not marked in their printed lista, and no information has yet heen received from that board.
"It is worthy of remark, that these three lighthonse boards of Grent Britain and Iroland, are closo
corporations, deriving their means entirely from lightdues levied upon the shipping of all naticis, including that of their own. They derive no pecunlary advantagea from the government, and are only under its general centrol ; coneequently their acte are independent of Parliamentary legiolation.
"If these boards had found the recommendations of the select committee of the House of Commons of 1845, to use less expenalve apparatus and combuatibles in their lights, with a view to the reduction of light dues, hod not been based upon sound priugiples, they would have had no Inducement to follow them; for whether the lights are economically kept or not, good or bad, the same amount of light-meney would be collected. It is, therefore, plain that the introductlen of the lens apparatus, and the celza oil, into the estahlishmenta under the control of these independent corporations, was the result of close examination and trial by those charged with, and most interested In the subject. The introduction after France, first by Holland, and auccessively by Helgium, Hanover, Prussia, Denmark, Sweden, Norway; Russia, Italy, Spain, Portugal, and Brazil, and the coloniea of the respective natione, goes far to ceunteract any prejudice which may exist in any quarter, of the globe against this inimitable illuminating apparutus for light-houses.
"Notwithatanding the renovations of English, Scetch, and Irish lights, and the erection of new towera, fitted with the lens apiaratus, a material reduction has been made of late years in the light-dues levled in Great Britain upon shipping. This may in soine degree be attributed to the increased ameunt of commerce and navigation, and the more frequent and rapid intercourse between natiens, by the aid of steam navigation; but, it can not fairly be contended that it is wholly due to that cause.
"These facte ure undeubted, and the deductions from them, it is believed, will, upon the elosost serutiny, be found to be cerrect.
"Mr. Alan Stevenson says, 'It therefore followe, that, by dioptric means, the consumption of oil neceseary for betweeen 14 and 16 reflectors, will produce a light as powerful as that which would require the oil of 24 reflectors in the catoptric system of Scotiand; und, consequently, that there is an excess of oil equal to that consuned by 10 reflectors; or 400 gallons in the year agninst the Scetch oystom. But in order fully to compare the economy of producing two rovolving lights of equal power, by those two methods, it will be necessary to take into the calculation the interest of the first outlay in establishing then.'
" It is worthy of remark that the French were followed by the Duteh government in introducing lenses into their light-houses.
"The sublject of introducing lenses inte the Scetch light-houses was brought before the commissioners of Northern Lights liy the Engineer* of that body, at the instance of General Colby, of the Royal limgineers, as early as 1824. Tho Scoteh commissioners direeted their engineer to visit lirance, and report upon tho lights of that country. At the closo of the year 183t, the boarl direeted lenses to be importel for the purjuse of making experiments. These experiment resulted in the recommendation that un impurtant light should te changed from a retiector to a lens apparatus.
"It is believed the powerful and nnanswerable arguments contained in the letters of Sir David lirewster, in 18:33, to the Bell-Rock committee, in faver of lensen, contributed greatly to the early introduction of them into the lights of Scolland.
"Netwithstanding the ummerous oxperiments from 1825 to 1834 , made by the Northern Lights cominissioners to test the relative merits of the two systems, it way not until the latter yeur that decisive steps wers taken to decide the question.
"In October, 183s, the refiecting apparatua of the revolving light at Inchkelth was remeved, and doptrio a pparatus subetitnted.
"So great was the satisfuction which this ohange produced, that another light was inmediately changed to a lena light. The second lens light erected in Seotland wae at the Ieje of May, In September, 1830.
"The Trinity House, Lonion, fitted the Start Point light with a lene apparatus in 1837 .
"The Torkish government employed an Englina engineer in 1836-7, to make experiments with the Froanel lensea, Drummond'a light, etc., to enable it to decide upon the best illuminating apparatus for the Bosphorns from the Hiack Bea. The letter upon thin suhject from Williain Henry Barlow, Esq., whleh was read liefore the Royal Soclety of London, will be found to contaln much valuable information for those interested in the experiments of light-house navigation.Vule Philnsophienl Transactions of the Royal Society of Iondon, 1837, p. 211.
"Number of Lenses in the Word.-At the present moment (1851), there are lens llghts of the three first orders (first, aecond, and third ordere), 216, and of the omaller claeses, 152; making the total number of lenser 868.
"They are found now in England, Seotland, Iroland, France, Belgium, the maritime States of Germany, Denmark, Norway, Sweden, Rnasla (the Kusalan governument has a French artist established at St. Peteraburg, for the manufncture of lenses for their lights), Italy, Spain, lortugal, the Mediterranean, Egypt, Turkey, Mast and West Indies, Braxil, nnd, In general, in ali the colonial dependencien of the Enorpean States. One first, two scoond, and one thind order, are the only lenses at present in the United States.
"The three first named were procured in obedience to specinl acts of Congress, and the third order was placed on the Brandywine shoal by the Topographical Bureau.
" It is understood that the t wo light-towers now in the counse of erectlon at Sand Key and Carysfort Reef, under the direction of the Tape traphleal Bureau, are to be fitted with first order lenst...
"Mr. Stevenson pays this merited tribute to the distinguished snvan whose ayatem la now almoat univereally admired and adopted thronghout the maritime world: 'Fresnel, who is already classed with the greatest of those inventors who extend the boundaries of human knowledge, will thus at the same time receive a place among those benefactora of the apecies who have consecrated their genius to the common good of mankind ; and, wherever maritine intercourse prevalla, the solid advantages which his labors bave procured will te felt and acknowledgel.'
"Illumination.-On a review of thin subject, the adoptlon is recommended, an early as practicatile, of the lens aystem instead of that of reflectors, as most effectfive and economical.
"It has been shown that the Fresnel lens is essential for sea or lake-coast lights of the tirst orifr ; that for those of the second onder, or for aecondary or hencon lighta, including the third, fourth, tifth, and sixth orders, the useful effect of a lens 1 ith ht in from 3.6 to $t$ times that of reflector lights of the same clans, and that, economically, the reflector lights are 4 thies as expensive for oil alone as the lens lights.
"It has been clearty ehown, it diactuasing thin matter, that If it were possithe to convert in a moment all the present reflector lights of the Uuited Seates into lens lights as nearly as possible (though, in alnoost every instance, they would the superior), of equal orders, the annual saving, for oil and other supplies, would be $\$ 112,1 \times 527$, taking the appropriations of 1851-'62 as the bnsls of the calculation, with, at the same time, an increase of 3 to 4 times as much light from each lantern as at present.
"If the eetimates for 1852-'53 bo taken as a hasis, then the annual saving may lo increased 420,000 , whloh will make the entire saving for one year, with all the advantages to be derived from euperior lights, 132,185.
"Add to this aum $\$ 40,000$, the mean of the value of the lamupe and refiectors proposed to le taken from the light.houses, to be fitted frrst with the lens apparatus, and which would be required, under any cireumatancen of Improvement, for the 42 light veseols niready oxlatipg, and the aum of e172,185 may be put down as clear proft, with which to purchase lena apparatus fo: the first year.
" By appropriating this sum, or as much of it as can be oconomically and judlciously employed in in. proving the sea-coast lights, there will the an additional gain, at the end of the flisat year, in the diference in the cost of oil, etc., under the two systems, for all the apparatue procured with this aavlog. 'This saving wll go on from year to year, on compound interest, at the rate of 30 to 50 per cent., un ${ }^{* 11}$, in $\bar{\delta}$ or 6 years, should the appropriationa be made as requirel to carry out gradually the aystem, we ahall have lights equal to those of France and Great liritain in brilliancy, neefnl effect, and economy, and apparatus that never requires renewing, without, in the aggregate, having apent one cent more than would have been required for the ordinary aervice under the present systen, with inferlor lights and enormous sums for annual repaira and renovations.
"These estimates are based opon the assumption that the sperm oil now in une is to le continued. Should it be decided, however, to foilow tho example of nearly the whole maritime worill in introducing the colza or rape-seed oil, a asving of 35 to 40 rents per gallon will be gained, eqnivalent to $\$ 10,000$ to $\& 45,000$ more.
"The price of the first-quality elarified colza oil is, on an average, at the prineipal markets in France, $i 2$ francs the heetolitre, or for a littie more than 26 gallous, which is equal to nearly 55 t cents per gallon. Sperm oil, in this country, rangea from $\$ 1.30$ to $\$ 1$. 80 per gatlon, and it is doubtful if a fair quality can be furnished at these prices. The supply of the best sperm oil to stand a temperature of $28^{\circ}$ Fahrenheit, is not equal to the demand, and no other quality should ever be hurnt In a light-house. A fow galions of rapesseed oil have been sent from Havre to the lhoard, costing about 60 centa per gallon.
"This important agricuitural proluct (rape-seed) only requires to be lutroduced favorably to the notice of our planters and farmers, to thecome a boon to the nation of no ondinary value. Adapted to the soils of nearly every portion of this great country; its aduirable qualities for domestio lilumination would soon bring it into favor, and, by its means, expel frour our houses the many dangerous fluids now used for the sake unly of eronomy.
"The experiments made hy Presnel, Faraday, Stevrowen, nuil other distinguishet individuals have proved, beyoud all question, that the colza in not only better than the best aperm oil (an article now very dificult tos procure), but that it will burn 17 hours without conaling the wicks; that it will remuin in a fluid state in a lower temperature than the best sperm oll, and that it is cheaper ly nearly one third.
${ }^{4}$ In this country, the quantity of sperm oil, independently of its bigh jrice, has not been sufficient to meet the demanda for the various pirposes connected with veam machinery, etc., for meveral years. Lari and other prepared oils have leeen forced to take the place of it, for these and other purposos for which it is peculiarly adapted.
"The returns from the thshing grounds show that this liraneh of commerce is becoming more and more uncertain, and less profitable, every year. Whin thase engaged in the whale fisheries find it unprotitable,
they will requ're a not go wr of other c "Frane tion of it and the 1 followed; ite use m eеоnomical the hest w in most lig Hyht-house per cent. o "In the and summ best qualit price than 1 ent prospec long as the
"It has sen-coast lif possible, wi lamps and r as may, upo good for th ilght-vessel nounced by their presen to effect thl haw, amount of Californis ratus; and which the 1 least, it wonl ber at once $t$ "IIaving with the he anthorized lis the minor lig paratus, won honse establi its present st
"To pure 42 light-vess
illumination an annual w supplies, to 810,000 , witl newed, prody the usefulne. never requird "Taking the lights of tell costs ant than the sal But in so 1 pablic servic management degree, the ! every indivi eated person. tho moans aly guide. The merchant, w the wants of cotton, tobar storea, and $t$ the best ma necessity for
" By thoss fiom the mo who are nov quence of a reason be freight lises this point.
they will not pursue it because the government may requ're a fow thousands of gallons annuaily. We can not go wrong in this matter, in following the example of other countries.
"France introdnced the rape-seed oll, from conviction of Jts auperiority. Engiand, Scotland, Ireiand, and the northern powers if Europe generally, have followed; first from motives of economy; and continue Its use from the conviction that it is not only more conomical, bnt is better for tight-house parposes than the best winter-strained sperm oll, the only kind used in most lights. Ollve-olf hns been introduced into the fight-houses of Liverpool, England, at a saving of 40 per ceut. over sperm oll.
"In the United Stntes, the oll (two kinds, 'winter anil summer,' heing used) for our IIghta, is not of the best quality. It is now nearly 50 per cent. higher In price than it was a few yeara since; and with the preseat prospects, it must continue to lncrease in price so long as the demand is so great for it as at present.
"It has been proposed that the 88 most Important sea-coast lights should be fitted, with as little delay ns poseible, with first order lenses, and that the Argand lamps and reflectors taken from them (or such of them as may, upon examination, be found to be sufficiently good for that purpose) be uscd for fitting $u p$ the 42 light-veszels now existing, whleh havo heen pronounced by high anthority comparatively useless in their present state. Several years would be required to effect this change, as the new lightitanthorized by law, anounting to 34 , exclusive of those for the ccasts of California and Oregon, require illuminating apparatus; and as there arn only two establishments from which the lenses could be procured fer some time at least, it would not be prudent to demand a larger number at once than could be easily sapplied.
"IIaving fitted the most important sea-coast lights with the best lens apparatus, as well as the newly anthorized fighte, by changing therenfter such only of the minor lights as now, or herenfter, require new apparatus, would in two or three $y^{\prime}$ ears place the lighthouse establishment of this country far In advance of Its present state in efficiency and economy.
"To purchase Argand lamps and refiectors for the 42 light-vessels, woald be to retrograde in light-houso illumination st a first cost of $\$ 40,000$ or $\$ 45,000$, and an annual waste of $\$ 7560$ for oil alone; antl of the supplies, to the extent to increaso the amount to $\$ 10,000$, with apparatus which must be frequently renewed, producing only from, one fourth to one sixth the usefulness of the laoe economical system, whlch never requires renewlng.
"Taking the estimate for 1852-3 for maintaining the lights of thls country as a bnsis, the present systein costs annually within a fraction of $\$ 135,000$ more than the same lights would under the lens system. But in so important and humane a branch of the public service us this is, upon the efflelent and proper management of which depends, in n grenter or less degree, the loss of humun life and property, in which every inulividual in the land is co a sertain extent interested personally, mere saving of money, which is ly no means always truc economy, should not be the only guide. The Incalculable benefits to the seaman; the merchant, who receives the foreign products to gratify the wants of our citizens; the planter, who ships his cotton, tobscco, grain, lereadstuffs, provlsions, naval stores, and the thousands of products of our clime, to the best markets, would scem sufficient to show the necessity for this change.
" By those of our citizens nlong our southern coasts, fiom the month of Delawnero Bay to the Rio Grande, who are now and have ever beent suffering in consequence of a badiy lighted coast, will this additional reason be best understood and apprecinted. Their frelght lists and heavy insurances speak out truly on this point.
"The $\mathbf{6 7 , 0 0 0 , 0 0 0}$ worth of property sent into Key West, and there adjudicated for salvage, within the six yeare prior to January. 1850 (lost to our citisens and our government chiefl; ; speakn trumpet-tongued on this subject. But this is not all. The wreck lists of Nasean and New Providence exceed by far those of Key West.
"Let us light our coasts as France and Great Britain have done theirs, snd wreckers will be compelled to turn their attention to other means of livelihood, and the consumers of every class and grade will pay less for their necessaries and laxuries, and the pianter, farmer, mechanic, will liave amaller freight and insurance bills to pay on their exports.
"If we ansume the neceasity for changlng all of the lights on our coast to lena lights, and give to each one of them its proper powtr and efficiency, we should have shout as follows: 36 first order iens Ilights, costlng for apparatus $\$ 244,800 ; 10$ second order lens lights, costing for appaiatus $\mathcal{Y} 44,000 ; 61$ third order lens lights, costing for appsaratus $\$ 113,460$; 206 fourth, tifth, and sixth order iens lights, costing, in the aggregate, shout $\$ 98,700$; total amount necessary to purchase lens apparatus for all the lights in the United States, $\$ 494,960$; deduct value of refiectors and lamps for light-vessels at present exlating, and for proposed ones, 845,000 ; deluct value of present illuminating apparatus, lamps, reticctors, chandeliers, etc., merely eatimating the value of the old allver, copper, and Iron, say 2500 lamps and reflectors, and 815 chandeliers, at one fifth their cost, $\$ 50,000$; deduct first yesr's saving on oil and other supplies, $\$ 110,000$; total expenditure, $\$ 205,000$; leaving at the end of the first year, with lenses, only a balance of 4289,960 ; saving for four years, $\$ 440,000$; making a gain, at the end of the fifth, of $\$ 150,040$.
"Thus, at the end of the fifth year the country will have galned $\$ 150,000$ in money, including interest, and an annual saving of 110,000 , the interest of which will make it $\$ 117,600$, and afford to the mariner lighte equal to the hest In the worll, by which means every consumer and exporter will derive a pecunlary advantage; and those who go to sea, either from plensure or necessity, will be doubly insured against ohipwreck on our Inhospltalle coast.
"To make the reform in our present light-house system perfect in its illuminnting departnient, it only remains to introdace, in addition to the lenses, the colza or repe-seed oil, which will produce an additional saving, as has already been shown, of about $\$ 10,000$ per annum ; making the grand total, in five years, of $\$ 200,000$. It may be contended that, inasmuch as interest is included in the saving, it is but fair to allow it on the first cost, which will he, at the end of the second year, $\$ 15,397 \mathrm{k0}$; third year, $\$ 8,79760$; fourth year, \&2,197 $60 \mid$ making for interest, $\$ 215,39280$; atill leaving a nett gain, at the end of five years, of $\$ 132,647$ 20, without taking into consideration the saving from the rape-seed oil, if introduced, which would increase it to $\$ 182,6.1720$ of clear guin at the end of five years, in addition to the annual guin and other advantages already stated.
"But lf we continue to employ refiectors, auch as we have now in uso and are constantly introducing into our lighta, we will not only lose the amount annually which has been shown wo should gain with lenses, but, in addition to that, these reflectors und lamps will require to be renewed once in 10 to 15 $y$ vars, at a cost very little short of that of the lenses, which suffer no deterioration from long use, and humanity and commerce will continue to suffer for want of good and efficient lights on our coast.
"Inspection.-Withoat a rigid system of inspection by competent persons, the light-house system oan never be efficlent or economical. The whold sea and Inke consts of the Unitell States should be divided into light-house districts, with less regurd to geographicai
than to local Irea. For example, the New York dintriet she., .d ombrace all the lights from Wateh IIIll, includte $;$ slock Island, Montauk Point, ete., to the Ilighlande of Naveaink, up tho baya, lacluding the Raritan, Hackensack, Pasailo anl North Rlvers, to the head of navigation. The Philadelphia or Delaware Bay district ahould ombrace the coast from the Baraegat to naar Asseteague, and up the Delaware on both aldes to the head of navigation. Thn Baltimore or Chesapeaze Bay district ahould embrace ali the coant from Aenateague to Cape Henry, Ilampton Koadn and tributaries, and Chesapeake Blay and tribus. tariea, to the head of navlyation. The other districts *hould be formed upon the aame prineiplea. In each of theae dintricte there mould be a local Inspector, whe should be furniahed with the necesaary means and fuellities for regularly inspecting the lights, attending to the wante of the keepere, superintending small repairs, reporting the ennilition of the establishment, at shert Intervals of thi e , to the executive offl cet or engineer of the Light-1louse Hoarl, superintend the placing, replacing and renovating buoy, beacons, etc., etc., under the general and special Instruction of the Llight-House Iloand, communicated threugh thelr executive officer or engineer.
"For thla purpose, there would be required on the lakea two Inspectorn, und e the Atlantic, Gulf, and north-west coasts, lacluding all the adjacent navignble waters, from 10 to 13 Inspectors more, making the whole number required from 13 to 16.
" Each of these light-house diatricts should be placed under the charge of an active and zealous ofticer of the aray or navy, who should recelve all his Inatractions from, and be responsible to the Jight-liouse Honrd, through their executlve officer or engineer, and to whom all reports should the made.
"The facilities for inspectors auperintending such repairs, etc., etc., as may be conflded to the local inspector, to be furnished by the light-honse vessela, revente cutters, and such other means as the 'Treasury Departinent may from time to time atuthorlze,
"Hy this mode of inspection, very little if any allditional exjense will be incurred, while there will be secured an independeat examination of every light on the coast, say from four to six times per annum, by a competent person, whose duty it will be to inform himself upon all essential matters connected with thla service. In adilition to the foregoing means, the revenue boarding beats might and wonld be approprintely put in requisition, as occasion might require, to askist the Inspector in his duties in situations where a strict economy would not authorize the elpployment of a vessel permanently to peform this wervice.
"Instead of, an now, contracting with persons to keep the huoyn In their places for a certain sum per annum, and who aeldom, if ever, perforn the service faithfully, the inspector would, under proper instruetions, be required to exanine the barn, channels, etc., etc., of his distriet, at regular periode, and always inmediately after heavy gales of wind to ascertain what bueya are out of position, and to replace them.
"The inspectiag offleers wonlil occaslonally be accompanled by tho secretary or engineer to the lightHouse Board, or perhaps by both of them; a thorought system would be providel, which would inevitatily be less expensive in the afgregate than that at present existing without pecific law. In connection with these inspections, dépôts for storen, spare buovs, mooring", etc., etc., are indixpensable in each district. These dépita might in nrost placen be at sonse place requiring but little annual expenae, where the bioyn and their mooringa could be repaired, palnted, ete, and where a ipare light-vessel might be kept realy for une. There ahould be at least one spare light-vessel for every three placed in exposed open sea-positions. Dupllcate buoya and moorings whould be ready at all times. The light-House Board should have autherity
to cause huoys to be placed on newly-discovered shoolg, wrecks, etc., etc., whenover necesary, lly the employment of these inapeetors, the country would derive the henefit of their services wlthout expense, and have an amurance, from their position and standing, of a falthful exceution of their dutlea. The flound would refer again to the reports of the committeg of the Senate and House, already pointed out in thls report, on thia Important branch of the lighting service. In connection with this recommenilation, the lloard would advise that light-keepers be examined, as naval engineers, midahlpmen, and cadets are, In refrerence t) quallficationa for thelr appointments; that they shoulil not be allowed to take charge of the Jights without sultable preparation ; nor the more importunt lights withont proportlonally hligher qualifications; that such meteorologieal and tidal observations be requirel of them in addition to the kepping of suitable registers of lighting, consumptlon of supplles dully, etc., ss may tend to tent the capaelty of the keepers, and to slevate the standard of information and pructleal akill of them as a class.
"To Givide Legishation in Eirtending and Improving Our I'resent System of Construction, Illumination, Inspection, and Superintendence. -The seventh section of the act making approprlation for light-houses, lightboatn, buoys, ete., approved March 3, 1851, provihes, - That hereafter, in all new light-housea, in all lighthouses requiring new lighting apparatus, and in all light-housea as yet unsupplied with lluminuting apparatua, the lens or Freenel system shall be adoptell, if, In the opinion of the Secretary of the Treasury; the fillilic Interest will be subserved thereby.'
"This is a wise provision. There are very few cases, in the opinion of the Boarl, where the puthic interest will not be greatly subserved by the subistitution of the Fresnel lens for the reflectors now employed in Illuminatlig our light-hnusee. In positinns where the light ls only required to Illuminate a small are of the horizon, it may lie of questionable propriety; but in all such cases, the capable light-house engineer should decide upon the merits of thie two kinds of apparatus. In no case ropuiring one half or more of the horizon to be illuminated, is it belleved reflectors ought to be employed, in preference to the lens. There may be occaslonally circumstancen of a paramount character, which may render the employment of reflectors preferable.
"The ninth section of the uct approved March 3, 1851, provides, 'Thut the I'resilent he, and he is herely' required to canse to be detailed from. hangineer corpis of the army, from time to time, such, valsers as may be necensary to superintend the constuction and renovation of light-houses.'
"The Hoard are of opinion tbat this act is one calculated to produce the most beneficial results, in increasing the durability of light-house structures, and consequently lespening, to some extent, at least, the present large aunual appropriations fur renovations asml repuirs; and they recommend that no new structure be erected, and no old ones be repairel, except under the superintendence of a competent officer of the rorpr of engineers.
"The lboard are of opinion that, pending the action of Congress upon the autiject of improving our lights, ete., nuch may be done toward introducing a more officient and economical administration of the astatilishment, hy a rigid adherence to the provinions of the seventh and ninth sections of the lar of $18: 1$.
" Lorvting of Sea and Lake-coast Lights.-The Hoard bave adoptent the same principle which has proved so effective in the organization of the lirenc! system of lighta; numely, to place a wea-coast light of the first oriler, in general, every 42 nantial miles, so that, as a rule, one light will not be lont elght of until auther is above the horizon. If It should be necessary to adopt only two main aystems of distinction for these

IIghts into ahould be ahly dlatin lighte of the foum each o in the publ navigatoion arising fron (without th if, however, ticahle, and tions of ligh ed on appro sea and lake essary to a though not There are merce will thoutgh nere
"Ata full on the fith 0 were offered " kiesolved That the len nation is th lens ar Fress in economy, rior to the be ratio of ubou system is ab the best refle expense, for the reflector bouse illumlt the United S time world. objection to is tion lato this sons rapitlly this consintry in conseguen ployed in the United States and rames, to countries ger Britain."
"The olije provements which it shall take any eas hnuse ; 2d, Es The plan requ optical means recting the Ill ly to the faci and from it sdapted to th nust become inting for the employed for The principle plished, is to number conti This is necon glass cytinde tin or brass, fore the tan hack, will ca the light.

Congres on a few of t to aill the 1 coast, which priate lens a। of the act 0 names of the coast to thil:
lights into fixed and revolving, then a fixed light shosld be placed between twe revolving lighta, nuitably dlatinguished by flasien, etc., so that no two llghts of the same kind should be nearer than 84 miles from each other. Other distinctions, earily descrited in the published lista, and easily comprohended by navigatoin, which wonld render all fear of mistaken arising from the want of proper distinctions Illesory (without the use of coloreil medlu), can be employed. lf, however, Mr. Nalbhage's nystem prove to be practleable, and be adopted, all doult in regaril to distinctions of light will be obvlated. The Board have adopted an approximate programme, in this report, for the sea and linke-coast lights, the number of which in necessary to a full nyatem. Of these many now exiat, though not with the requiaite range of visibility. There are many loeatlons where the wanta of commerce will not require such lights for many years, though nere $4 \pi a r i l y$ inciucled In a generul programme.
"Ata full menting of the IIght-house Iloard, holden on the fth of Junuary; 1852, the following realutions were offered and unanimnusly adopted :
"Resolved, That it la the opinion of this Board, 1. Thas the lens or Fresnel aystem of light-house illumination is the best at present known. 2, That the fens or Fresnel system of llght-house illumination is, in economy; brilliancy, power, and usefulness, superior to the best reflector aystem of illuminution in the ratio of nisout 4 to 1 ; or, in other words, that the lens syatam is about four times more alvantageous than the best reflector system, and at the same time, at an expense, for oil alone, of only one fourth as much as the reflector system. 3. That the lens system of lighthousc illumination is as well adapted to the coasta of the U'nited States as to those of the rest of the marltime world. 4. That while there is no well-founded objection to introducing the lens system of illumination lato this country, there is every reason for ilolng seas rapilly as possible. 6. That the flonting lights of this entintry are comparatively useless to the mariner, in consequence of the very lnferior apparatus omployed in them. 6. That the reflector lights of the United States ure greatly liferior, in usefolness, power, and range, to the sume description of lights in foreign countrics gencrally, but expecially to those of Great Britain."
"The object of these notes is to point out cortain Improvements in the use of existing light-houses, ly which it shall become almost impossible-1st, To milstake any casual light, on shore or at sea, for a lighthouse ; id, Ever to mistake one light-house for another. The plan requires, in most instances, no change in the optical saeans at present nsed for condonsing and directing the lliumination of light-houses; It adde slightIy to the facility of observing them at great dintances, and from its simplicity and generality is equally adapted to the use of all countries. Revolving-lights must become fixed; but the mechanism alrealy existing for their rotation may, with littie alteration, be employed for the motions required by the new system. The principle by which these objects are to be accomplished, is to make ench light-house repeat its own namber conthualiy during the whole time it is lighted. This is necomplishod by inclosing the upper purt of the glass cylinder of the Argand burner by a thin tube of tin or brass, which, when maile to descend slowly liefore the flame, and then allowed sudilenly to start tack, will cause an occultation and reappenrance of the light.
"Congress hoving authorized lights to be erected on a few of the most prominent and inijortant points to aid the rupldy increasing commeree along that coast, which it is preaumed will be fitted with appropriate lens apparatus, in conformity to the 7 th, section of the act of 1851, the Hoard have only addel the numes of the remaining most prominent points of that coast to this list, leaving the more detailed wants of
this branch of the publlo servies to be devaloped by tha operations of tha coast-survey, now In rapld prog. ress for external or net-coast, and of population and interior coinmunication for local lightn.
"Petit Manan lighi-house.-This in a fixed light, 53 feet abova the level of the sea, aituated on the south end of Peiit Manan Imland, Mulat, lat. $44^{\circ} 22^{\prime}$ north, long. $67^{\circ} 52^{\prime}$ went. This light in fitted with 12 lampa and 15 -Inch reflectors, to illuminate the whole horizon. If the mpparntun belonged to the flrst clasa, Instead of, as it does, to about the fourth, the greateat diatance at which It could be meen, under the mont fivorable circumstanees of weather, wonld be, from a vessel's deck 15 feet from the rea-level, about 13 milen. If wa take into connideration the small size of the reflectorn, and the amall number of lamps for so large nin are of the horizon, it is fair to presume this light is seldom aeen over 10 mllea . Dintant from this light to the enet ward are Seal Islands, 84 miles (two fixed lights), and Gannet Rock (turshing light), 44 miles at the mouth of the Hey of Fundy, belonging to the Dritish government. This light, with a proper elevation, and a lens apparatus, woull serve to gulde vessela bound to any of the porta on the coasi P'Maire, from Frenchman's Bay to Passamaquoddy llyy, having the sea-coast lights of Seal Island and Gonnet llock to the eastward, and Hount Desert Rock, distunt 27 miles to the southward and westward. [Now become a flashing light (180̈6).]
" Mount Desert Rock Light-house.-This light is on the keeper's dwelling, with an elavation of $56 \frac{1}{5}$ feet alove the level of the sea; it is fitted with 12 lumps and 21-Inch reflectors, to lliuminate the whole horiacn. Lat. $43^{\circ} 58^{\prime} 55^{\prime \prime}$ north, long. $68^{\circ} 08^{\prime}$ west; It is situnted about 20 milea S.S.Li. of Mount Desert Island; is 27 miles distant from Patit Menan light and 83 miles from Matinicus light (two fixed lighte). This light, with the best illuminating a paratus, could not be seen, under the most favorable circumstances of weather, at a greater diatance than 14 miles. The small number of lamps for so grent an arc, renders it littls better than a fourth order light, whila its elevation can only give it the range of a light of that class.
"A much greater elevation is required for this light, with the most powerful lens apparatus that can be constructed. Vessels bound from the eastward into any pert from the neighborhood of Mount Desert to I'enohseot Bay, would run for it ; having made it as a Ifrsteclass light, it would guide them into the ranges of the different harbor-lights along the ceast. From its isolated position at the datance of $\mathbf{1 4}$ to 18 miles from the nearest land, it is one of the most inportant points on the eastern coast for a first-cluss light.
"Martinicus Hock Light-house.-These lights (two fixed), are situated on the rock south of Mnrtinicus Island, at the mouth of Penobacot lay. They are placed 40 feet apart, N.N.W, and S.S.E. on the keeper's dwelling. Jach light las 14 lamps and 21 -inch rellectors, at an clevation of $82 \frac{1}{2}$ feet above the level of the sea; 33 miles from Mount Desert Kock and 39 miles from Segnin's Island light, lat. $43^{\circ} 46^{\prime} 30^{\prime \prime}$ north, long. $68^{\circ} 49^{\prime}$ west.
"Seguin Islamed Light.-This is a fixed light, 166 feet ahove the level of the sea, fitted with 15 lumps and 21 -inch reflectors. This light is deficient in illuminating apparatus; with 24 hamps and 21 -inch parabolic retlectors of the proper shape and linish, it could, unler fivoralile circumstances of weather, be seen 18 to 19 miles. It is 39 miles from Martinicus Rock light, 46 mites from lloune Island light, and 21 miles from Monhegan and Cape Elizabeth lighta. Lat. $53^{\circ} 41^{\prime} 30^{\prime \prime}$ north, long. $69^{\circ} 4 t^{\prime}$ west.
" Roone fsland Light.-This light is situated on the west part of the amall low inlund bearing its name, of York River, Maine. It is titted with 12 lamps and 15 inch reflectors (fixed), with an elevation of 70 feet $n^{3}$ hove the level of the sea, in lat. $13^{\circ} 08^{\prime}$ north, long. $70^{\circ} 29^{\prime}$ west.
"Thatcher's Island Lights.-These two fixed lights are situated abont two miles off Cape Ann, fitted with 11 lainps and 21 -lnch reflectore, each with an elevatlon of 90 feet; greatest range, 16 milea. Cape Ann forms the northern Ilmit of Maseschusetts Bay, Distant from Boone Island Hight 80 miles, Boston light 24 milles, and from Truro, Cape Cod, 48 miles. Lat. $42^{\circ}$ $38^{\prime} 21^{\prime \prime}:$ north, long. $70^{\circ} 84^{\prime} 48^{\prime \prime}$ weat. Thle ls a very important light-station, and the lights require to be Increased in power nad range.
"Trwro, Cape Cod; Light.-This is an important sea-coast light, aituated on the bighlanaim ontside of Cape Cod. It is 43 miles from Thateher's Island $1 \mathrm{lghts}, 45 \mathrm{~m}$ mes from Sankaty Ilead light, and 41 miles from lioston llght. It is fitted with 15 lamps and 21Inch refiectors (fixed), with an elevation of 180 feet, giving it a range, in good weather, if the apparitua is of the firat onder, of 20 to 21 miles. A first order lens is required for this tower; Lat. $42^{\circ} 02^{\prime} 23^{\prime \prime}$ north, long. $70^{\circ} 08^{\prime} 55^{\prime \prime}$ weat.
"Sankaty Head Light.-This is a second orier Fresnel flashing lens light, It is placed on the south-east extremity of the island of Nantucket, with an elevation of about 150 feet above the level of the sea, which gives it a range of about 19 miles in ordlanry atates of the weather. It has been seen at a much greater distance, and is comsiderad equal to the Highlands of Navesink lighta (first and second order lensea).
" In copsideration if the dangerous mavigation sround the reefs and shoals off the island of Nantucket, it would have been advisable to have placed a first order lens in thls tower; but the superiority of this light to those in its vicinity, renders it of doubtful propriety to propose any change in It.
"Gay Ilead Light.--This light ls placed on the west polnt of Martha's Vineyard. It is a revolving light. fitted with 10 lamps and 14-Inch reflectors, having an elevation of 172 feet above the lovel of the sea. This light is deficient in jower, and not arranged to anbserve the wants of the anvigator. At the distance of about $\mathbf{1 2}$ miles it is obscured abont three fourths of the time. Its present elevation, with first onder upparatus, would give it a range of 19 to 20 miles. Lat. $41^{\circ} 20^{\prime}$ $54^{\prime \prime}$ north, long. $70^{\circ} 50^{\prime} 26^{\prime \prime}$ west. Dlstant from Sanksty Ifead 39 miles, Montank Polnt 88 inlles, and Point $\mathbf{j}$ udith light 80 miles. This Ifght is not second to any on the eastern const, and nhould be fitted, with. out delay, with $n$ first order illuminating apparatus. A glance at the chart will suffice, to see its great larportance.
"Mowtauk Point Lighr-house,-ILat. $41^{\circ} 04^{\prime} 10^{\prime \prime}$ north, long. $71^{\circ} 61^{\prime} 58^{\prime \prime}$ west. This is a very important light, especially for navigators bound from Europe to Now York. It in fitted now wlth only 15 lampa and 21 -Inch reftectors for a Axed light. Its reported elevation is $\mathbf{1 6 0}$ feet above the leval of the sea, and with a first order apparatus would he neen under ordlnary circumstances alsout 20 nautical miles. Diatant from Gay Ilead 47 miles; from Fire Island Inlet light 66 millen. By erecting a llght in the vicinity of Creat West Bay, Long Iskand, mliway between Montauk Polut and Fire Ialsnd lighta, the trale between New York and all ports to the naxtward, includlug the whole of Furope, would log greatly henefitel.
"Lights near Great Wewt Ihay, lang Ishond, New York,-It is propowed to erect a first-clasa light on Long Istand, midway between Jontank l'olnt ond Fire Islund Iulet, distant 33 milea, to facilitate navigators golug to and coming from the eastwarl. The letters of packet and other shipmasters in Appendix II, will snow concluslvely the necessity for a light in thim vieinity.
"Fire Inland Inlrt Iight-house, Iong Islawi, Vem York.-This is a most important light to navigatons trading to New York. It may be said to mark the eastern entrance to the liay of New York. It is nituatel on the south side of long Island, New York, cast
side of Fire Ioland Inlet, lat. $40^{\circ} 37^{\prime} 46_{n}^{\prime \prime} \mathrm{N}$., and $73^{\circ}$ $13^{\prime} \cdot 3 e^{\prime \prime}$ W. long. ; diatant 37 miles from the High. lands of Navealnk, whleh mark the western entrance to the Bay of New York. This towor has an clevatlon of only 80 foet 3 inches, and has only 14 lamps, and 21 -inch reflectors for a revolving light. The range of this light, with Its present elevation and the best apparatus that could be procured, would not exceed $14 \frac{1}{\frac{1}{2}}$ nautical miles in orlinsry weather. It is, thereforo, clearly necessary to increuse its boight, and place in the tower the inost powerful lens apparstus that na be procured.
" Highlands of Navesink Lights, New Jersey,-Thers are two towers and lights at this station; a first orler fixed, and aseond order revolving lens apparatue. The great iuportance of the lights on this point rendera it highly necessary, in carrying out the proposed plan of inproving and increasing the numbor of seacosst lights, that the second order apparatum should be changed for a inst order one. Thess lights are now the best on the coast, but are not, when combined, equal to better than a second order lens light. With the present elevations of these lights above the level of the sea, and the substitution of a first order lens for the second order apparatus, navigators would be warranted in running toldly for thom, and with the certainty of seeing them, under ordinary circumstances, at the distance of 22 nautical miles.
" harnegat Light-house.-This is a light in print of importance equal to that of Fire Island Intet. It is situnted 37 miles from the IHghland lights, en Long lieach New Jorsey, mu the sonth side of lharnegat Inlet. At present. it is fitted as a fixed light, with 11 lamps and $1 \cdot 1$-inch refiectors, equal in powor to nbout a fifh order lens llght. The numerous wrecke, involving the great loss of lifo and property, attest the truth of the necessity for making chis a first class sea-coast light. 'I'he tower is 40 feet hlgh, placed on a low beach, giving !t a range of probably $11 \frac{1}{1}$ nautical niles. The iniprovement of the Montauk, Fire Island, and Barnegret lights, and the erection of a first class light near Grent West Bay, Long Island, would render the approsches to New York Bay mueh safer than they are at present, and would eave to our government and to our citizens many millions of dollars' worth of preperty, and provent the untimely lons of many valuable lives.
"Absecum Jench, Nem Jersey.-A sea-cosst light is aboolutely necessary in this vicinity to guide vessels, bound north, clear of the Absecum and Ilrigantine shoals. The coast here is very low, and diflicult to distinguish, and the light on Tuckor's leach, near Elttle Eigg Hartior, although fitted with 15 lamps and Ib-inch retlectors, mowing a Axed red light, from its little elevacion (891 feet) is not seen further than tive to eight miles; in addition to which the woods on the Absecum beach to the nonthward hide it from the mariner going north. A light shoulil be phaced some where In this vicinity, west of the fulet, and as nearly midway between lameg and Cajee May light is posslbie. An examination of this const by competent professinnsl persons can alone decile the luest site for a sea-coast light.
"Cape B/ay Light-house, New Jirsey.-The position of thin light on the east aide of Delaware llay, und its contiguity to the dangerous bank known to navigators as the Five-fathom lank, renders it of great importance that it atoould be of the that order. "Ihis is a revolving light, 88 feet aliove the level of the sea, fitted with 15 lampis and 16 -ineh rettectors. This light bas been shown to be inferior to the third onder lens light on Ilrandywine Shoal, in the proportion of three to one. Its present range, under the most favorahle circomstunces of weather, is not grenter thin ift matical milles, ant, with the present apparatus, it is duubttal If It can be seen wo far by soveral miles. Make Cape May and IIenlopen lights first order lughts, with
proper $\mathbf{e}$ place the without ti fathom $B_{1}$ miles fron two light the navig mast dire
The light
Five-fathe the more be mada.
"Cope
best retlec ferior to tl the propor tjen of 18 spparatus merce and from Phila and humal with true 1 "dsactea ated on $\mathrm{A} s$ and Charlo $45^{\prime \prime} \mathrm{W} . ;$ 14-inch reti ous const ro parimeunt 150 feet, an there will coast lifht and). The this entire low coast, miles, as sh surver, mal this light to rank of a tir "Smith's light is plae at the north important inch reflect speake Buy light shoul tower has very low e good, in ras which it ca inferior ill llghts reipul department
"Cape 1 the best ret an elevathe and 2t-Inch mark for vo con Roads, meat woult ment, to res ether mari
" fiyht-1" Island Ligh
vast amoul coast nlton waintainin ble site in badly locat subserve fil ligation. to make th ing curren tleme, to $n$ linites of $t$ trend of $t$
proper elevations, and navigatora will be able to place their vessel in positions for receiving pllota without the risk of shlpwreck on the dangerous Fivefathom Bank, distant 16 miles from Cape May, and 20 miles from Cape Henlopen. With bearings from these two lights, seon at the distance of 20 to 25 miles, the navigator could always shape his course hy the most direct line into the bay, or for the breakwater. The light vessel authorized by law to be placed on the Five-fathom Bank is so often out of position that it is the more important that these improvements should be made.
"Cape Henlopen Light-howse.-This is one of the best reflector fixed lightes on the coast, although inferier to the third order lens on Ilrandywine Shoal in the proportion of one to six. This light has an elevation of 180 feet, and only requires a first order lens apparatus to make it equal to the requirements of commerce and navigation. The large amount of trade from Philadelphia warrants the preposed expenditure, and humanity would seem to dictats it as consistent with trae policy and philapthropy.
"A sseteague Light-house, Virgivia.--Thia light is situsted on Assateague Island, between Capes Henlonen and Charles, in int. $37^{\circ} 54^{\prime} 86^{\prime \prime}$ N., and long. $75^{\circ} 21^{\prime}$ t5 ${ }^{\prime \prime}$ W.; a fixed light, fitted with only 11 lampe and 1 -inch reflectors. The shoals of this low and dangorous const render the improvement of this light one of paramount Importance. Hy elevating this tower to 150 feet, and placing in it a first order lens apparatus, there will be no great nacessity foz any other seacoast light until we reach Capa Churles (Smith's Inland). The very dangerons shoals extending aleng this entire coast, at a conalderable diatance from the low coast, at distances ranging from five to twelve miles, as shown from the secent surveys by the coast survey, make it the duty of the government to canse this light to be increased in power and range to the rank of a tirst class sea-const light, without delay.
"Smith's Island Light-house, Cape Charles.-Thls Itght is placed on the north-east of Cape Charlea, and at the north entrance of Chesapenke Bay. This very Important light has at present only 10 lismps and 21inch reflectors. Tha dangers nt the entrance to Chesopeake llay render It extronely important that this light should be increased to a first order one. The tower has an elevation of only 55 feet, placed on a very low coast, giving the light, if in other respecta good, a range of net uthere than 12 nanticul nilea, which it can soldum reach In consequanco of the very inferior illuminating apparatus. This is one of the ilghts rectuiring the earliest attention of the light-house department.
"Cape Ifenry Light-house, Virginin.-This la one of the beat reflector lights on the coast. It is altnated on the south sile $\mathrm{c}^{c}$ the entrance of Chesapeake lhay, has an elevation of 120 foet, and is fitted with 18 lamps and 21-inch retlectors. It belug a prominent lending mark for vessels bound Into Chesapeake Ilay, Inmpwh Foads, and their numerous tributaries, every argn. mest would seem to be in fhvor of its speedy finpre, ement, to runder it equal to the beat first claas lights of other maritime nations.
" Liyht-house half"uny betureen Cape Ifenry and Body's fsland Light.-The large number of shipwrecks and the vast amount of lifo nnd property loat anuually on this const should be a sufficient reaaon for erecting and maintainlog a first clans sea-c ast light on some plighble sito in this vicinity. The Ilouly's Island Light is bally located, and insuflelent in power and range to subserve fully the requirements of commerce and navlgation. Vessels bound aonth from the eastwaril run to make this coast, with the vlew to avold the opposlng currents of the (iulf Stranm, nall, nt the anine thare, to avail of the favoratile cutconts within the linits of the cold wall bounding the Gulf Stream. The trend of tho consts on elther side of the Chesneake

Bay renders navigation more dangerous than it would otherwise bel, and therefore it becomes the more lmpertant to light well the entlre coast from Cape Hatterras to Cape IIenlopon.
"Body's Island Lighthouse, North Carolina.-This light has already been referred to. It is of great lm. portance, especially to the oeasting trade, and would be of much more if. it were increased to a first class Hight. It is now fitted with 14 lampe and 21 -inch reflectors, revolving, with an elevation of $56 \frac{1}{2}$ feet, giving it a range of about 12 nantical millen., Thls, in addition to the proposed sea-coast light between It and Cape Henry, would, If properly fitted, save the life of many a gallant seaman, and mililons of dollars' worth of property to the country.
"Cape Hatteras Lightohot:Re, North Carolina.-There is perhaps no ligat on the entire coast of the United States of greater value to the commerce and navigation of the country, than this. That it is not atuch a light aa any sea-coast light ahould be is too apparent to require much argument; while ite special requirement, having reference to the Gulf Stream, the currenta and counter-ourrents which aweep past it, and the very dangerous shoals, extending to the distance of 10 nautical miles from the llght, all tend to make it one of no ordinary importance. Vessels propelled both by wind and steam run for sonndings off this cape; and It is of the tirst Importance to navigutore wishing to make quick pasenges, that thoy should see this light In going south. At preaent it is of very little use, in consequence of its Ilmited range. Navigatora do not, as a general rule, rely upon it sufficient!y to warrant them in running for It.. It is fitted with 15 lamps and 21-inch reflectors, having an elevation of about 95 feet, which would give it a range, under favorable circuustancea, of $14 \frac{1}{3}$ nantical miles, provided the apparatus for illuminating was of the best desoription. There is no slngle light on tha coast believed to require renovation more than this does. An elevation of 150 feet, and a first class Illuminating apparatus, are imperionsly demanded, and without any unnecesary delay.
"Gape Lookout Light-house, North Carolina.-This is at present a fixed light, fitted with 13 lamps and 21 inch retlectors, and elevated 95 feet above the lovel of the sea. In consileration of the manner in which navigators have to follow this low coast, this light becomes, ne ssarily, one of the important sea-coast lights, anil requiros to be elovited anil Improved to that extent. The shoals of this cape are of auch a character as to render it a very huportant light.
"Nero River Inlet, North Caralina.--The great distance from Cape lookout to Cape Fear, and the dangerous shoals extending to such a grent distance from them, witheut any prominent mark latervoning to gaide navigators, render it necessary, in making up a general plan for lighting the entire sea-coast, to include a tint class light, to be placed anmewhere in the vicinity of New Iliver Iniet. The coast between Capes Hatteras and Fear forms a eurve, but not to such a degree is to render a light near this point unnecessary, Although the nevessity for this proposed light may not be considerod as pressing, yet In a welldevised seheme it can not be entirely omitted.
"Ratd Head, Cape Fear, North Carolina,-This light in lts prosent position and whith its preaunt apparatus, etc., is comparatively useless. The apparatus, 15 lampis and 21-inch refiectors, is Inndequate to tho roosirements of the aervice of an ordinary sea-conat light, while this in one of the npecisl onses requiring extraordinary mouns to insure any chount of good. The tower ls nearly 4 miles from the piteh of the cape, and 20 nautical miles from 10 fathoms water, in a direct line on the end of the 'Erying l'an shoala,' which extend continuously from the pitch of the cape. The aspumed elevation of the light is 110 feet, which, with good llluminating apparatus, would give a range, un-
der the most favorsble circumstances, of 17 to 171 nautical miles. Carefui observation has, however, ahown that it is very seldom seen 12 miles; and then only resembling a atar of the fifth or sixth magnitude. This llght is consldered by the pllots as of very little, If indeed of any use at all, for the local purposen of the harbor; while it is perfectly clesr that it is of no value to the navigator in guiding him around and clear of these shoala, which, in the oplnion of naviggators, are only exceeded in importance by those off Nantucket. This light should either be reduced to a mere harbor llght, or removed to the pitch of the cape, and given an elevation sufficient to insure a first order light being seen, under ordinary circumatances, outaide of the shoala. This light as a first-class sea-coast light, and a first-clasa light-vessel placed on the shouls, would tend greatly toward increasing the aafety of navigation.
"Cape Romain, South Carolina.-The dangerous shoals off this point render this an important light to navigators bound to Charleston, and as far south as St. Augustine. To save the current, and to keep out of the infuence of the current of the Gulf Stream, navigators run for sonndings off the Cape Romaln shoals. A first-class light wonld tend greatly to lessen the hazards of this navigation. The present light. fitted with only 11 lamps and 21 -inch reflectors, at an elevation of only 87 feet, can not be seen with'any degree of certainty at a greater diatance, under the most favorable circumatances, than about 14 nautical milea, which is by no means far enough to enable navigators to run their vessels with that boldness which is essential to anceess. This light, in point of power, brilliancy and range, is not auperior to a fourth order lens.
"Charleston Light-house, Sowh Carolina.-This im portant light is fitted with only 12 lamps and 21-inch reflectors; revolving, with an eievation of about 126 feet. Its greatest range about 16 miles. The necessity for a ilrst onder iens apparatus for this light is too appurent to require inore than a bare reference to the chart. This light ahould be changed to a fixed light, and the lights on either $s^{i}$ de of it changed in their characteristic distinctions, fur the reason that it is used as a range with the beacon-light for croasing the bar. Revolving lights are not adajted to thin purpose, especiaily where chsunels are narrow and the eclipses of long duration.
"Munting Leland, Georgin.-This point is one of the positiuns selected for new lights in earrying out the general programme. Distant 33 milea from Charles ton, South Carolias, and about inidway between the Charieston and Tybee lights.
${ }^{4}$ Tybee Light.-This is an important light both In a general and local print of view. For the over-sea royager along the eoast, It is of equal is rance to those generaliy on the coast fur local purposes, an the guide to the entrance to Ssvannah River. This light at present is litted with 15 lamps and 16 -inch rellectors, and has an clevation of 100 feet. This light, in consideration of the sameness in the appearance of the coant, should be well ilistiuguished and louroved to the extent of making it a tirst onler light.
"Saprlo Jsland lighthouse.-Thia light is 46 miles frum Tybee light, and comes ints the liat enabracius the general programine. As a sen-coast light, its importance will appear clearly by referring to the chart, and in a local polint of view it is tho mark to ghide vessels into the important iniaud-watera constituting Doloy Sound. This is at present a light fitedi with 16 lampa and 10 -inch reflectons, elevated iit fent above the level of the nea, and is revolving. Its greatent range now, will nut oxemed list ne uciral miles. An a senecose light, it should he seess clearly and distinetly at the distance of 20 nauticul milea.
"Amelia Idand light-house, Florida.-This Hight, 41 miles frum Sapelo ligit-house, is another of the propesed ena-conat lights. It in at present fitted with

14 lamps and 15 -Inch reflactors; a revolving $\mathrm{llght}_{\mathrm{gh}}$, having an olovation of about 60 feet, and a consequent range for the beat descriptlon of apparatus. of 13 nautlcal mlles. The tower requirea to be elevated, and in other respects improved, to the extent of making it a first-class asa-coast llght.
"St. Augustine Light-house.-This light, being 50 miles from the Amelia Islaud light, is included in the list of ses-coast lights. The present light is one of a merely local character, being fitted with only 10 lamps and amull refiectors.
"Mfuquito Bar.-A light is proposed to be placed in this vicinity. Although its immediate necessity is not apparent, yet in time it will become necessary to orect a sea-coast llght half-way between St. Augusting and Cape Canaveral. This point is 50 milen from St. Anguatine, and 48 miles from Cape Canaveral.
"Cape Canaveral.-Thls ia one of the prominent points on the coat, requiring the most powerfui seacouat lights to facilitale navigation. Dangerous ahoals extend to a considerable diatance off this cape renderiug it still mors important that a flist order light should be subatituted for the present very Inelficlant one. The present apparatus conaiste of 15 lamps and 21 -lnch reflectors, revolving, in a tower of oniy 55 feet elevation. The present ranga of this light does not exceed 12 nantical miles, and should he increased to not less than 20 nautical miles.
"Cape Florida.- Between this and Cape Canaveral it ia propeaed to erect 3 new sea-coast lights of the hrst order: one near Jupiter Inlet is considered of immediate importance; and the other two at different periods, according to circuastances, and as the expend itures for light-houes service on other peints may warrant. The Cape Florida light, marking, as it dues, a prominent point on a most dan, gerous coast, should necessarily be of the noast powerful illuminating opparatus. The present apparatus la composed of 17 lampa and 21 -inch reflectors, with an elevation of 70 feet above the level of the sea, giving a range of not more than 13 nantical miles. The currenta and dangerous reefs alung the Fiorida coast, render it of absoIute importance that it should be increased to the rank of a tirst-clase sea-coast light.
"Caryffort Reef and Sard Key Lights.--''hese two important lifhts are now lu course of construction by the othicers of the 'Topographical Engineers, tu be fitted with tirst order lens apparatus.
" Dry Bank.-This position has been selected as an intermediate point for a first-class light midway between Carysfort Reef and Sand Kay lights, at the distance of to milen from them. It is leileved to he of the first importance that the entire Fiorida coast should be lighted with the lens apparatus of the grcatest power, without delay.
"Dry Tortugas,-This is a very important light, es. pecially to those wavigators hound to and from the liulf of Mexico. It is fitted at present with 17 lamps and 21 -inch reffectors, with an elevation of 70 feet, giving a range of about 13 nautioni miles. This light in $\$ 5$ milen from Sand Key, which makes it ntill more lmportant that it should to of the first order.
"/'ensacolet Light-house.-This light is deticient in power, being fitted with only 10 lampe and lf-ibch rellectors. This and the light at Mobile iruint, boing alout 40 wiles apart, are beth revoiving. As an important naval statiou, l'ensacola requires a inst-class sea-coast light. The present light is very little better than the ordinary local lights aloug the const. The diatinction of this llght shuald be changed, na it is liabie to be mistaken for the une at Mobile l'oint. The propesed ilghts along the florida const, from tho Keys and I)ry Tortugas to l'ensacola, etc., aithough necessary in n general plan, are not deemed to bo of pres. ent great iamortance. With the lncrease of trade and population, the coust must keep pace in its injurovemente In lighising.
"Mobile flactor-ligh with 21 lar of this ligh restricted nautical m could be a tower ahou the light of teresta of 1 mistaken $f$ characteris changed.
become a $q$ Island light
"Passes of the first them the $\mathbf{r}$ present ligh sive, witho lights are of Gulf of M efficient in lights along of minor im merated; b or may be, Many of th lights, esper bsys, at an Pacific coast delsy, and n with first-cla
"Lake C" Michigan, St links.-The tha United lights is conc few importau power and ra merce snd ne small lights of 6 in Mich eral in Super pier-head be into classes, actariatic, la portant ligh Barques, dis trance to Sap
"Many of reflectors, a ranges, than Guif coasts. near the Riv and raflector lamps and Capper Ilsrt cipal lights order lenses, circumstanet the Wagoosl the Topogra considered til third order Ontario, tixe Fort Niagar Erie, fixed; Lake Eirie, Buffile, Lat lifuron, fixe fixed; lreas Tour, Lake igan, thind quared ; Suu Milwaukie,
Michigan,
" Mobile Point.-This is belioved to be the best re-fector-light on the coast ; being revolving, and fitted with 21 lampe and 21 -inch reflectors. The elevation of this light being ouly 65 feet, its range is necessarily restricted within the very narrow limite of only 12 nautical miloe. This light, from a proper elevation, could be seen at a distance of 18 to 20 miles. This tower should be elevated to at least 125 feet, to render the light of as much importance as the navigation interests of Mobile demand. This llght may be easily mistaken for the one at Pensacola, and therefore the characteristic distinction of one of them should be changed. In carrying out the general plan, it may become a question as to whether Mobile Point or Sand Islend light should be the principal or sea-cosst light.
"Passes of the Mississippi.-These lights should be of the first class, with such elevations as will give them the ranges of at least 20 natical miles. The present lights are inefficient, and nnnecessarily expensive, without any commensurate benefits. These lights are of great importance to the commerce of the Gulf of Moxico, and should be rendered the most efficient in the shortest space of time. The remaining lights along the coatt, embraced in the programme, are of minor importance, compared to those alrendy enumerated; but deserve the attention of those who are, or may be, charged with the light-house service. Many of the points along the coast of Texas require lights, especialiy at the entrances to the porta and bsyo, at an early day. The prominent points on the Pacific coast should have lights without unnecessary deiay, and no sea-coast light should be fitted oxcept with first-claes apparstas.
"Lake Coast. Champlain, Ontario, Erie, IIuron, Michigan, Superior, and their tributaries or connecting lirks.-The shores of these inland seas belonging to the United States, are, so far as the number of the lights is concerned, pretty well lighted. There are a few important points which require lighta of greater power and range than those now existing ; and as commerce and navigation increase there, a few additional small lights may be required, to the extent probably of 6 in Michigan, 1 in Ontario, 3 in Huron, and several in Superior. The most of these lights are mere pier-head beacons. A syatem arranging the lights inte classes, and giving to each one a diatinctive characteristic, is necessary. In Lake Huron, the two Important lights of Thunder Bay Island end Point aux Barques, distant about 22 miles, and marking the entrance to Saginaw Bay, are both fixed.
"Many of these lake lights have more lamps and reflectors, although only requiring to have short ranges, than many eea-coast lights on the Atluntic and Gulf coasts. Galloo Island, enst end of Lake Outario, near the River St. Lawrence, is fitted with 15 lamps and refiectors; in Lake Superior, Manitou Lalund, 15 lumps and refiectors; White Fish Point, 13; and Cepper IIarbor, 13 lampa and refiectors. These principal lights on the lakes should be fitted with third order lenses, of smailicr or larger model, according to circuastances, similar to the one recently pinced in the Wagooshance light, built under the direction of the Topograpitical Bureau. The following may be considered tirst-clasa lake lights, and should be of the third order lens apparatus, vix.: Galloo Island, Lake Ontario, fixed; Sedus llay; Lake Ontario, revoiving ; Fort Niagara, Lake Ontario, flxed; Dunkirk, Lake Erie, fixed; I'resq' Iole, Lake Erie, fixed ; Cleveland, Lake trie, fixed; Western Sister, Lake Erle, fixed; Huffalo, Lake Eric, fixed; Point aux llarques, Lake liuron, fixed; Thunder Bay leland, Lake Iluron, fixed; Prenq' Iale, Lake IIuron, revolving ; Point de Tour, lanke Huron, fixed; Wagooshance, Lake Miohigan, third order lena ; Fox Isles, Lake Michlgan, required; South Manitou Island, Lake Miehigan, fixed; Milwakke, Lake Michigan, fixed; Chicago, Lake Michigan, fixed; White Fish Point, Lake Superior,

Axed ; Copper Harbor, Lake Superior, fixed; Maniton Island, Lake Superior, fixed.
"Of the 72 lighte on the lakes and their tribntaries; 68 are fixed and 4 revolving.
"Arrangement into one Syatem in reference to Classi. fication.-The following claseification of lights is recom. mended according to their positions, uses, etc., etc. : 1. Main coast lights for the most prominent points on the coast. 2. Secondary 1 lgh te for the inferior points on the cosets, and in broad sounde, bayes, etc. B. Minor sounda and baya, and for harbors and river lights. 4. Range, beacon, and pier lights. Also into six classes, scordling to the dimensione of the lighting apparatus and the range of the lights. All the main sea-coast lignts should be of the first order, and the classea to which the eecondery, eound, bay, harhor, river, range, beacon, and pler lights should belong, would be determined by the light-honse board, accord. ing to the locality, objects for which placed, etc., etc. This applies to new lights, and to the gradual replacIng of the old ones as they may require renewal. 'It is believed that many of the present lights might be dispesaed with if effective ones were subatitnted for those now placed on important points, but not of sufficient power and range, which would in the end produce a considerable saving.
"Distinctice Characteristica.-Experiments will throw light on this important eubject. The light-houses and veasels, as well as the lights, should be distinguished from each other by sight, as well as, in case of fogs, by eound. Colors should only be used for distinguishing small lights of ahort range, as river, pler, beacon, or range lights. In employing colored media at all for lighte, it is important that the most approved modes, with the best quality of appliances, only be usad; a duty which should devolve npon professional men. Mr. Stevens enumerntes the number of distinctions of which reflecting lights are ousceptible as nine: 1 st fixed; 2d, revolving white; 3d, revolving red and white; 4th, revolving red with two whites; 5th, revolving white with two reds; 6th, flashing; 7th, intermitting ; 8th, double fixed light; 9th, double revolving white lights; to which may be added, 10 th, double, one fixed and one rovolving. Of these, three depend on color and ahould be discarded, redacing the distinctions to seven. In the Scottish lights, by oausing a rapid revolution of the frame, and placing the rima of the mirrors of each eide in one vertical plane, Whie their axes are in a plane inclined to the vertical, flashes are produced every five seconds, which appear to rise and sink. The intermitting light suddenly appears, is steady for a short time, and then disappears suddenily. These changes are produced by the vertical motion of circular sliades in front of the reflectors. The different characteristic combinations in the lens system, according to M. L. Fresnel, are nine: 1st, flashing at the interval of a minute; $2 d$, flashing ak the interval of half a minute; 8 d , white and red flashes alternating; 4th, fixed lights flashing every five miluutes; 5th, flakhing every three minutes; ©th, overy two minutes; 7th, fixed white lights with red thashea; 8th, flxed white lighte; 9th, double fixed lights. These are applied only to the first three orders of lights. In England the lights are classified as aeam coast, secondary, and harbor and river lights. In France they are divided into six orders, according to their range and the slze of the lighting apparatus $;$. the first order befing the largest, and the mecond, third and fourth orders being each divided Into two clasees, the larger and smaller, or first and second classes. The objections to colored lights are, the large aboorption of the incident light, and the difficulty of distingaishing the color. Ked is admitted to be the best color. A good red light is seen 16 miles, and sometimes 22. Green lights from a powerfal apperatus, in Mr. Stevenson's experimente, wers eewn 7 miles in very elear weather, and blue lights anly 5.
"The objections to red are: 1. The great lona of light by abaorytlon. A full red glass used as a chimney of a lamp abeorbed 80 per cent. of the whole. A plak French glasa abaorbed but 67 per cent. of the light, but the light was not eharacteristic.
"2. White lights grow reddish in a fog. In a revolving light, showing a!turnately red and white, the red is absorbed at a lesa distance than the white, and the light may be mistaken for a white llght of half the period of revolution. Two IIghts will appear blended in one, which are not separated by at least $3^{\prime} 18^{\prime \prime}$; call II the required diatauce bet ween the llghts in feet, $\Delta$ the olserver's distance In feet, $\theta$ half of $3^{\prime} 18^{\prime \prime}$. Then II $=2 \Delta \tan . \theta$. For 1 mile, II $=5.84$ feet, and for $n$ milea $H=n \times 5 \cdot 84$. Leading, or range Jights, should be nearly on the same elevation, ac as to cause them to appear nearly, but not quite in one. The distance between them should not be less than one alxth of the distance at which they, are thus to be used.
"In forming a programme for lighting the coast, the following conditlons ahonld be reallzed: 1. The most prominent polnts should be first lighted. 2. Revolving lights, as more powerful than fixed, should be used, when posstble, on the projecting polnts. 3. Lights identlcal in appearance ahould not occur within 80 to 100 miles of each other. 4. Distinctions of color should not be adopted except In casee of absolute nocesslty. 5. Aa few lights as poaslble should be used, not only for the sake of economy, but to avoid confusion. 6. Distlnctions of lights lepending on the estimations of omall differences of time, of appearance and disappearance, shoull never be reaorted to. 7 Harbor or local lights ehould generally be tixed, and may be distinguished by colors. 8. Floating lights ahould never be used when fixed lights can be employed.
"The aystem proposed by Charles Balibage. Feq. 1 of London, and which has been communicated by its distinguished author to the Board, at the request of ome of ita members, in to distinguish lights ly occultations; or, to make each lighthouse repeat its own number continually during the whole time is is lighted. This is accompliahed by lnclosing the mpper part of the glaen cyllnder of the Argand burner by a thin tube of tin or brass, whleh, whea made todescend slowly before the flame, and then allowed suddenly to start back, will cause an occultation and reappearanoe of the light.
"The nnmber belonging to a light-house may be thus Inclicated to dintant ressels. Take, as an example, 243. 1. Let there le tuo occultations. 2. A ehort pause. 3. Four occuitations. 4. A nhort pause. 5. Three occultations. 6. A longer Interval of time. This syatem of occultations may be repeated all night by means of proper mechanism.
"The rapidity of the occultstions themselves, the leagth of the pauses between the units and teras and between the tans and hundreds, as well as the duration of the long interval of time which marks the termination of the number, must be made the subject of experiment. A light has been already nsed as an Illustration, In which the occaltationa occurred at intervals of one recond; the pauses occupied four and the long interval ten seconiln. The pause was thought to be unnecessarily long, and wan diminishet. Whatever may be the times ultimately alopited, the experiments already made render it lmprobable that the average timo required liy a light-house for repeating its number should anount to one minute. It is by no meank necessary that the counting of the number of a Ifght-house shonh commence with the digit which expressen hundred. No greater anmunt of time would have elapsed, If, In the above Instance, the otmerver had commenced with countling the unit'a dgure. It would then have read thua: (three occultations) long interval; (two occultations) passe: (four oceuliations) jusue. Ily the long linterval denoting the com-
mencement of a number, it is already apparent that the number of the light-house is 243, and not 324. In order atill further to prevent miatakes ariaing from ail incldental error in counting the number of occultatlona, It will he convenlent to establish another principle for the purpoae of numbering the light-houses. Light-houses muat not be numbered In the order of their position; but every light-house must have such a number asaigned to it, that no digit occurring in the number densting the aeveral light-houses nearest to it on either side shall have the same dlgit lo the same places of figures.
"If five adjucent light-houses were thus numbered:

$$
361, \quad 517, \quad 243, \quad 876,182 \text {; }
$$

supposing a mlatake to have occurred in the first time of counting 243, and that It had been reported to tha master of the vessel as 253 , he would immediately; on looklng at hla numerical list of light-houses, perceive that a mlstake had been made in the middle figure; because, in any general arrangement, 253 would have been assigned to some light-house on a coast very distant from that on which 243 was placed. In fact, two out of any three figurea would always detect the crror of the thitrd.
"The occultationa would diatinguish every lighthouse from all casual lights, and thelr aumber would identify the llght. The whole illuminating power would be alwaye employed, undiminished by the interposition of colored glasa. Theso lights would bo more readily visible at a distance, because it is known that the eye percelves more readily a falut light which is intermittent than an equal light which is fixed. The Board regard this as the most important proposition for distinguishing lights which has ever been made, and propose to make full experimental trials of it. In fogs, Mr. Bubbage proposea to mako the pausea between the strokea of the goug take the places of the occultations of the light. To give this plan a full development, sll matious should unite in a system ef numbering forlight-houses. Such a co-operation might reasonably be looked for, If the plan have all the succese which is now expected.
"Hest mode of ascertaining the necessity for introducing new Lights, Beacons, etc.-Legislation is, of course, necessary to the establishment of a new light, The recommendations of the Light-house 13oard, of officers of the corst survey, nf pilots, navigators, und others, all reach the Committees of Commerce of the two llouses of Congress, through different appropriate channels. It does not seem practicable to prupose any syatelu of examination of sites which woud not be very expensive, vihlle legislation is pending on the suliject. A reterence to the Light-house Board, in doubtful cases, would mecure the committees from recommending appropriations for ohjects which certainly would not have the approval of professional men. The law of the last session provided for the examination of sites, for which appropriations were made, by the officers of the coant survey, aud a report by the superlutendent. As this will leeve a full knowledice of all the circumatances of the case, and be attended with very llttle expense, the same plan whould be pursued lu all future cases.
" Best node of supplying new Lights.-When it has been shown, to the satisfartion of Congress, that new llghts are required, and appropriations nade for the purpose, the plans and specifications for cunstruction, Illuminating ajparatus, distlisetion, etc., mhoulit be made Liy the engiueer of the Light-house Boaril. Should a previuus eatluate have been made hy this engineer. for the inforination of Congress, genarsily, there will be required but little nore than to fill up the detains. The conatruction haviug been approved hy the lighthouse Board, a contract should be entered into, iccoriIng to law-based entirely upon tho plats, drawings, anil specifications and estimates of the engitner-and the building should be erected, and the lighting apps-
mtus an of the $e$ corps of the pur act appr be subje " Mod house Bo sny exis mlnating should be detail, to passed ul should be law ; or, to admit approprial tlons, etc. the Secret Congress. procure al establishm etc. ; to $b$ submitted, Congress,
"Discon
in regard
similar to light.
"Subject and light-k structions, well as thos the establis inspectors a Great Brita talied aceou the duties description and the mes the mschine structions f brace every not only for but slse of $t$ neeted with houses, ligh explielt; pri laga; and an frames, so t bis duty. described, an out, in piain isily to the : The subject msunals, we exsminatlon
" Beat Mo
The syatem examination the exercise glect or dis due degreo o mate entlrel general or lo lig upon w would be dot edge, skill, "/mprore In regard to seed), now in France, most of the for spermuce our lights, t reommenda of Commnis
ratus and accessories be procured, under the inspection of the engineer of the Board, or of such officer of the corps of engineers of the army as may be detailed for the purpose, in conformity to the 9th section of the act approved 8d March, 1851. All the details should be subject to similar inspeation.
"Mode of renoratir y Lights.-Whenever the Lighthouse Bosrd is atiafled of the necessity for renovating suy existing light, $b, t$ the introduction of better illuninating apparatus, ein., the engineer of the Board should be required to prepare estimatea and plans in detail, to be subinitted to the board, which should be pasped upon, and, if approved, the necessary steps should be taken to make the repairs, etc., according to law ; or, in the event of the expense being too great to sdmit of the works being done, except by a special uppropriation, then the necessary estimates, explanations, etc., should be prepared and anbmitted, through the Secretary of the Treasury, for the conaideration of Congress. It should also be the duty of the Board to procure all the necessary iuformation relating to the establishment of new lights, abolishinent of old ones, etc.; to be accompanied by estimstes of cont, to be sabmitted, through the Secretary of the Treasury, to Congress, at the commencement of each session.
"Discontinuance of unnecessary Lights.-The steps in regard to the discontinuunce of lights shouid be similar to those necessary in cases of renovation of tights.
"Subjects of Ivstruction to Employees.-Inspectors and light-keepers should be provided with printed instructions, in the form of manuals of instruction, as well ne those necessary to guide them in the police of the estabilishments, similar to those provided for the inspectors and keepers of light. houres in France and Great Britain. This manual should embrace a detailed account of the modes of executing every part of the duties confined to the inspectors and keepers; a description of the parts of the machinery employed; and the means to be employed, in case of accident to the machinery; etc., until it can be repaired. The instructions for the light-house service of France embrace every point in the most minute detail, and serve not only for the guidance of inspectors and keepers, bat also of the engineers and others in any way connected with the service. The instructions for lighthonses, light-vesgels, etc., of England, are full and explicit ; printed in large type, with conspicuous headlage; and are kept in the quarters of the keepers, in frames, so that no one can ever be at a loss to know his duty. The different kinds of lamps employed are described, and the modes of attending to them pointed oat, in plain, clear, and explicit terms, adaptel especiatly to the understandings of the keepers of the lights. The subjects contained in the printed instructions and mannals, would form a part of the essentials in the examinntions for qualifications of keepers.
"Beat Mode of securing Attention to Instructions.The system of inspection already recommended, the examinations for higher positions in the districts, und the exercise of the present power of removal for neglect or disoliedience of instructions, wonld secure a due degree of attention to them. If promotions wern made entirely liy merit, on the recommendation of the gencral or local inspectors, anil changes, not depending upon want of qualification, were avoided, there would he douitiess, grent improveinent in the knowledge, skill, and attention of the light-keepers:
" Inprocements in the Materials fir Illumination.in regard to the subatitution of the ofl of colza (rapeseed), uow used exclusively for light-house purposes in France, Enginnd, Scodand, and Ireland, nnd in most of the light-houses of the other mnritime nations, for spermaceti oil, or, more properiy, for that used in eur tights, the Bonrd woull refer to the fact, that the recommendation of the select committee of tite liouse of Cummons of Grent Ilritain, in 1845, to the Light-
house Board, to introduce the more economical oil of colzs into their light-house establishments, had the effect of causing a thorough experimental examination to be made of the two oils (colza and the best winterstrained sperm oil), by Professor Faraday, Mr. Alan Stevenson, and others interested in light-house service, by which, it was clearly demonstrated that the colza oil is auperior, in every essential particular, to the best winter-strained sperm oi: Professor Faraday saya, in his report: : Having burnt the lamps for many days, I have been much etruck by the great steadiness of the rape oil lamps, either as considered alone or in comparison with the sperm-oil lamps. They would burn for 12 or 14 hours at a time with little or no alteration of the light, the cottons or lamps not leing touched the whole time; whereas the sperm oil lamps would in the course of four, five, or six hours, give a diminished fiame, from the incrustation of the charred purt of the cotton retarding the flow of oil. In the rape oil lamps the coal is broken and porous, and serves for wick almoat as well as the fresh cotton; but in the sperm oil lamps the coal forms a hard, continuous ring, which seals up the ends of the threada; and this, with the more conflned condition of the burner, and the greater distance of the oil beneath (from intentional difference of flow in the lamps), csuses the sperm oil lamp flame to fail in brightness, and requirea that the wick should be re-trimmed. * * I have made many careful experiments on the proportion of light produced by the two kinde of lamps, in every case weighing the oil before and after combustion, so ns to know exactly the quantity burned, and making, during the experiments, above 100 comparisona of the lights one with another. The rape oil lamps were always more brilliant than the sperm oil lamps, except, indeed, one or two rare cases; but, at the same time, more oil was burned in them. * From 108 obaervations of the lights, taken at auch times as appeared fitted to give the best mean expression of the light of the lamps compared with the oil burned in them, the avarage light of the rape oil lamp came out as one and a half, that of the sperm oil lamp being one.' Mr. Alan Stavenson says: ' In my isst annual repert on the state of the light-houses, I directed the attention of the Board to the propriety of naking trial, at several stations, of the patent colza or rape-seed oit, prepared by Mesers. Brigge, of Bishopsgate-street. These triala have now been made, during the months of January and February, at three catoptric and three dioptric lights. * * Tho substantial agreement of ail the reports, ns to the qualities of the oil, renders it needless to enter into eny details as to the slightly-varying circumstances of each case ; and I have, therefore, great satisfaction in briefly stating, as follows, the very favorable conclusious at which I have arrivel: 1. The colza oil pesseasea the advantage of remaining fluid at temperatures which thicken the eperinaceti oil, so that it requires the applicati $: 1$ of the frostlamp. * * 3. The coles oil burns, both in the lireenct lamp and the single Aryand burncr, with 8 thick wick, during 17 hours, without requiring any coaling of the wick or any adjustment of the damper, and the flame seems to be more steady and free from tlickering than that from spermacetl oil. 4. There scems (most probably owing to the grenter steadiness of the tiamo) to be less breakage of glass chimney: with the colza than with the sperm oil. B. The consumption of oil, in so far as that can be ascertained during so short a pieriod of trial, seems, in the Fresnel inmp, to lie 121 for colzs and 114 for spermaceti; while in the common Argand lump, the cousumption appears to he 910 for colza and 902 for spermaceti. 6 . If we nuy assuine the means of these numbers, 515 for colza and 508 for spermaceti, as representing the relative expenditure of these oils, and if the price of the colza is 8 s .9 d ., whils that of aperuaceti is 6 s .9 d .
per imperial gallon, we shall have a saving in the ratlo of 1 to to $1 \cdot 775$, which, at the present rate of supply for the Northern IIghta, wonld give a saving of about £3226 per annum.' The ovidence of these two distinguished gentlemen is concluslve of the superiorIty of the colss or rape-seed oll to the beat winterstrained sperm oil; and how mnch better than that used in our lighte, may be readily lnferred without the ald of experiments on so nice a scale as these employed by Profeesor Faraday and Mr. Stevenson, when It is remembered that our lights are supplled with oll called winter and spring or summer ofl. That efficlent llghte along the coasts of all maritlme countries are oseentlal to a safo navigation, and the ouccessful proeecution of a lucrative commerce, will not be contested; that all mere personal or local interests ahould give way to the general good, is an asoumption which will not meet with disfavor in this country; and inasmuch us it is of paramonnt importance to the best interesta of the whole country, that our lights and other aids to navigation ohould be the best which money, science, and the mechanic arto wili afford, it is, in the opinlon of the Board, the duty of these charged with thle important branch of the public eervice to emnloy every reasonable means, not fuconaistent with law, to perfect them, and $t^{2}$ - ore recominend that the anbject of introducing othe smbustlbles than the oll now used, be taken Into serious conslderation, as one of the means of improving our lights, and, at the same time, of effecting considerable annual saving of expense to the country. If the rape-seed were cultivated to any extent in this country, it is not doubted it would oupply the plsce of the namerous chemical olls, flulds, etc., now in general nse for domestic purposes, as well as for llghtlng our llght-houses and light-veasele. To insare the consummation of so desirable an object as the cultivation of this plant on a large scale in thla country, where climate and soil are so well adapted to it, will be to place it in a fair competition with fts rivals. It will be the duty of the Boant, if authorized by Congrese, among its nnmerous other important duties connected with the light-house establishment, to examine into the merits of all proposed improvements in apparatus and combustibles, and, by their recommendations to Congress, keep pace with the Improvemente of other countries in this branch. The introduction of gas Into light-houses has long been looked forwant to as an important step. Hitherto it has met with but little favor in any quarter. While the introduction of gas into our light-houses, if found adaptable to them, would involve important points to be coneldered, it ls by no means certain that by the means of a series of experiments, the Boand would not be enabled to decide conclusively as to the practionbillty of making the attempt in the present state of knowledge, or the best and anfest means of generating, conducting, and contlnuing It for light-house purposes. The persone charged with the few gas-ilights now exiating in thls country, for want of praetical and theoretical ktowledge, it is believerl, are not competent to report results anficiently rellable to deche so important a question.
"Buoy:-The material is iron or wood, sometimes covered with copper. The anchom are heavy blocks of atone, or mushroom snihmra, or Imen ainkers (which shonld be hollowed out below), or Iron serews. It ls worth trial whether fastening the buoys by a traverse line passing through the centre of osclllation wonld not diminish the liability to chafe nff the chain, and separate the booy from the snehor. A awivel-thackie, in a degr . prevents this, but not effectually. The colora of truays are made to indicste their parpose, as dealgnathig a channel, ohoal, spit, etc. They are eonetimes even characterinticaliy marked to dietingaish them. The law passed in 1860, in rugand to colorIng and nambering lonoys in the United States, in sim. ple and effective. The numbers were intended to
begin at the exterior of a bay, barbor, etc. This lay is as follows: Extract from an act making appropriation for Ilght-houses, light veesele, bnoyt, etc., and providIng for the oreation and establishment of the amme, and for other purposes, approved September 28, 1850 ; 'Sectlon 6. And be it further enacted, That hereafter all buoys along the coast, or in the bays, harbore, sounde, or channele, shall be oolored and numbered, so that, pasaing up the coast, or eound, or entering the bay, harbor, or channel, red bucys with even num. bere shall be passed on the otarioard hand; black buoys with uneven nambera, on the port hand; and buoys with red and black stripes, on either hand. Buoys in olannel waye to be colored with altarnate white and black perpendicular stripes.' Of ecurse the bucys show, with more or less distinctness, when projected on the water, against the aky, treee, etc. The red buoys ahould be palnted a hirlght red, and not a Spanish brown, in order to be well dietinguishedred lead or vernillon belng used as the paint. The experiments and ohservatlons of the Board satisfied them that In such a case, red and black were good col. ora for distinguirhling buoys. The ean-buoys, in some lnstances (as In New York harbor) are too small to be easily seen. The numbering is a simple natter, but is by no meana effectlvely executed, especially on the epar-buoys, where the numbers repeated on the different sides, belng seen in range in a diagenal view, lead to confusion. The Board have given eome attention to plane for numbering buoys. The numbers should be placed above the buoys, on stems or perches ; should present the same appearance on different sides, and have their distinctions by dlfference in a vertical line, and not by varying horizontally. Several plans have occurred to them. Three solids, the cone, cylinder, and ephere, arranged in groups of not more than 3 each, will give 42 combinations ; no one of these flpures can be taken for the other, and they may easily be placed on atems projecting nearly vertically ubove the buoy, the several solide being placed one alove the other, with a anfficleut interval. They can be of adequate size, and may be cheaply made In the turning lathe. The elementary forms of the unit, the 5 and the 10, of the Roman numerals, are the cylinder, the cone and the Gouble cune. Iy cominations of theso, 89 numbers are represented. Seven numbers may be represented by 2 signs and their combinations ; 28 by 3 signs, restricting the number of elements in any one comblation, to 4 . Seven nunbers of every 10 may be represented by only 2 mere signs than those expressing the value of the ten's place, giviug a vely great variety. A letter made to revolve about a vertical axis, pruluces a solld of revolution which is easily recognized as the sign for the letter. Fourteen of the twenty-aix letters are adapted to characteristic sigas, as shown in the fignres ( $\mathrm{A}, \mathrm{I}, \mathrm{E}, \mathrm{I}, \mathrm{J}, \mathrm{L}, \mathrm{O}, \mathrm{P}$, Q, It, T, W, V, Y). Nine digits of the Arabie numorals, viz. : $1,2,4,5,0,7,8,9$, and 0 , give easily formed and easily recognized slgns, as is shown in the accompanying plate; and these the luard rtcommend for nanbering buoys, excluding 3 as not sufficiently characteristic. In the English system of placing bnoy, a red and black are placed on opposite sides of a charmel, and the vessel runs between them. In our system only ona buoy ls placed on the starimard or port hand, and the veseel rans for the buoy, keeping It elose aboard In passing. The linglish system is most ample, and even the most economical. In order to reader buoys available at nigit, various propositions have been made for causing thet to appear lamlnous, but none have succeeded practically. Lighting by gan in among the methods proposed.
"Of Fog signuale.-During the prevalence of fogs, the lights whlch ought to guide the seaman are often indiatinctly eeen, or entirely olsecured, untll he has approached too near the danger against which they wera intended to warn him. In casea of fog, light-
ohlps an with go soundin lng the shortest The lig of from bell is $h$ When th cate dun some cat bell sho This cou tion ln th ment at $f$ Interval 1 eively rep ships, jus for lightnumber two blowa three blew ism which produce ti planationa or light-sh might ren very near the oysten each light. to every chosen for tion, and t! will farais case. In pi extensive $b$ the sefety 0 able that a taken of sur mechanical must take $\mathbf{P}$ system may into its pro any present provement adaptinn. ments or a practicable alderation out the $N u$ not necessal has been alt jected witho
"Suggest nols, Buoys, might betucee. occur in wh ahould coms sead a boat be the beare vey some pf great objec The etate 0 sead for or even under tions from could be ed happ, be pre directed to possilly be be organise navy in the where, larg it is true, ar numbers $m$ lampa. An pressed by
whips and light-houses are, in aome lnatancea, provided with gongs and belle, which are then kept constantly counding. It in .nfortunate that the means of warning the seaman of his danger ahould extend to the ahorteat diatance when that danger is most imminent. The lights naually employed are visible at a distance of from 6 to 80 miles; but the sound of a gong or beil is heard at a comparatively very amall diatance. When these instruments are heard, they merely indicate danger, but not ite exact nature. It might; in zome cases, be of great inportance that the gong or beli should indicate the number of the light-ship. This could be accomplished by a very trifing alteration in the mechaniem. Instead of striking the instrument at fixed intervals, let there be pauses and a long interval between the number of strokes which successively represent the digits of the number of the lightchips, juat in the same manner as has been proposed for light-honses. A light-house or light-ship whose number is 248, would be thus indicated daring fo: 1 two blows on gong, pause; four blows on gong, pause; three blows on gong, long interval. The same mechanism which caused the occultations of the light might produce the blows on the gong. The preceding explanations are aufficient to show that each light-house or light-ahip, by continually repeating its own number, might render any mistaks of it for a different light very nearly impossible. The great principle on which the aystem reats is to giva numerical expression to each iight. If it be not thought necessary to apply it to every light-house, the most important may be chosen for its application. The expense of the alteration, and the amonnt of danger incurred by a mistske, will faraish the ground of decision in each individual case. In proposing, however, a now syotem which has extensive bearinge on other queations connected with the affety of those who travel on the waters, it is desirable that a general and comprehensive view should be taken of such of ita applications as the rapid advancs in mechanical and chamical acience justify us in supposing must take place in a fow years. However partially the system may be adopted at first, a judicious foresight into ita prohable applications may enable us, without any present inconveniance, to accelerste futore improvementa, and to auve considerabie expenee on their adoption. Tho following suggestions for improvements or applications, many of which are perfectly practicabie at the present time, are offered for the consideration of those who may be called upon to carry out the Numerical System of Light-houses. They are not necessury for the euccees of the situple plan which has been already deacribed, hut may be adopted or rojected without any interference with it.
"Suggestioms for the Improvement of Light-house Sigmolh, Beoys, etc.-Telegruphic communication during the might between Light-housed, and Ships in distress.-Casea occur in which it is of great consequence that a ohip should commonicate with the lenil long before it can sead a boat sahore or enter its intended port. It may be the bearer of important intelligence. It may convey some person whose prsaence is essential for some great object. The vessel itself may be in distrese. The state of the elements may render it impossible to send for or receive any aseintance fom the land; yet, aven under anch unfavorable cireumatances, if directions from skiliful pilots, acqualnted with tie coast, could be conveyed to the ship, ita wreck might, perhaps, be prevented; or, if driven on shore, having been directed to the least unfavorable spot, its crew might possibly bo asved. Such communications might easily be organized. There are already existing in the royal navy in the Fast India Company's service, and elsewhere, large dietionaries of numerical signale. These, It is true, sre made by flage, or $b_{j}$ balls; but the same numbers may be expreseed by the occultations of lampe. Any number, however large, may be exreseed by making the number of occultatione corre-
aponding to the first or higheat digit, then allowing a pause; after which the number of occultations representing the second digit, then a peuse; anil, so on, always oheerving that, after the unit'e figure has been expressed, there must follow a long interval.
"The plan for telegraphic communications would be thus arranged: 1. Light-house ropeating its own number. 2. Ship fires a gun, and holsts a light, to call the attention of the light-keeper. . 3. Light-house ceases repeating its number, and becomes a steady light, thus informing the ship that it is obsorved. 4. Ship having prepared ite measage, numerically exprasses it by the occultations of its own lamp. 5. Light-house repeats, the meesage of ship, in order to show that it has lyen rightly understood. . 6. Lighthouse now repeats ite own number, while it is preparing the answer. 7. Light-house expressea its answer by occultations. 8. Ship repeats the answer. This interchange of question and answer is coutinuad as long as necessary, during which the light-house repeats ite own number previously to each reply.
"Very little delay will occur; for these queationa and answers will be arranged on movable disce, which may be placed in the mechanism employed for occulting, even while it is repeating another meseage. Many such discs, each containing a different message, may be placed in the machine st once, and on touching any lever the light will continue repeating the corresponding message. In cass of a ship in distrese, for instance, requiring an anchor of given weight, it may be necessary to send to the harbor-master of the adjacent port to give the order, and to escertain the time when it can reach the vessel. During this interval, the light-house wiil be repeating itg own number. An eiectric telegraph from the light-house to the dwelling of the harbor-master would save much time, and, in come cases, much damage. The gun fired by the vegsel might also be heard by the harbor-master; and his attention then being directed to the telegraph lighthouse, the whole time might be saved. If even hls own house was invisible to the ship, but within view of the light-house, he might, by means of a small light, correspond with the ship, through the intervention of the light-house, repeating the signale of both partica. Colored shades might, if thought expedient, be used for different dictionaries ; or an entirely independent lantern might be specially devoted to signaia; but this would cause additional expense, and seonss unnecessary. It may the objected to this plan, that it would mielead other vessels on first coming in sight of the light-house. This olyection, however, will be found on examination to be invalid; for a ship on first getting sight of a light-house, will be at the distance of many miles ; and as all tolographic messages would conaist of more thun three places of figures, the ship would immediately perceive that the light-house was acting telegraphically, and on turning to the dictionary would even become acquainted with its message. Besides, in the course of every three minutes, at least, the light-house would repeat its own number. Thus the ship would alwaya know that it was in the presence of a light-house; and if its reckoning did not enabie it identify the light, it could only remain in doubt during a few minutes.
${ }^{4}$ Telgraphic Signals between Ships at night.-The application of the aystem of occultations to ships at sea may not perhaps be quite so easy as that which is proposed for light-housea, but no objection has yet occurred which appears at all insurmountable. The question of the position of the occulted light or lights placed on the alip must be settled by practical men, after due consideration asd experiment. It may; however, be anggeated, that a light hid by a mast or sall may yet have its occultations made perfectly apparent by reflection from anothor sail. If anch a system of signale were adopted, feets might suil in company during the night, each repeating its own number; and
any orders could be convered to any findividual ahip. Spoeific lights have already been employed to distinguish sailing-vensela from ateamera, in order to prorent colliaions." By adapting the syatem of oceultations to one or more of the lights of eteamers, their character would appear more diatinctiy, and at greater distancee. Perhaps, indeed, it would be better to have the 'distinctive character of a steam-vessel Indicated by a continual enlargement and diminution of ita light, rather than by an occultation. Two steamers aiso would have much less reason for approaching each other, becanse they could hold any correspondence hy signala. They might also, by the same means, convey to each other their Intended course long hefore they approach each other.
"Of a universal Dictionory of Signals.-Whether the aystem of occultations be ifenerally adopted or not, numerical dictionaries of signals have been found absolutely necessary, and have long been in use. The rapid increase both of ships and of steamers renders some common langage for all nations almost a matter of necessity. The concurrence between adjacent nations in numbering their respective light-houses would be essentinl if any numerical system is adopted for distingulahing them. Such an opportunity ought not to be lost of rendering those discussions atill mare usefal by attempting to organize a plan for a universal aystom of numerical signals. The first atep might, periaps, be that each nation hhould supply all questions and anewera that ships could ever require for their safety or convenience. Out of these, the duplicates being omitted, the first draught of the naval part of the dletionary might be formed. Thls being submitted to eriticism, would probably itself suggest many additions.
"The questions should be very carfully translated into the languages of all maritime nations, and should be printed in columna for each language. A dietionary of this kind, containing about 5000 terma in ten Enropean languagea, was publlahed in 1849 by M. K. P. Ter Reehorat. The words are contalned on about 200 double pages; and alnce each word, of which there are usually about 25 in a page, is numbered, this work might be used an a namerical telegraphic dictionary. If a more generni dictionary were midertaken, othor consideratione arise, and the great questions relating to the philosophy of language mast be examined with reference to such a work. It will, however, be sufficiently early to enter on that sutject when any stepa are seriously taken to accomplish so desirable an object. The continually increasing use of the electric telegraph renders a universal language atill more denirable.
"On the Identification of a Light-howse.-A case has been more than once saggented to the author, to which it may le dealrable to advert in order to point out the conrse of experiment which may lead to ite removal. At certuin periods of the year, and on certain coasta, there occar dense fogn. Under these circumstances, it has happened that a vessel han, on a partiai and momentary opening in the fig, insufficient to show more than a single ocenltation, found heraelf almost close upon a light-bouse. In such a case, there is neither time nor opportunity to ascertain its number. It may here be remarked, that the assumed danger of going sahore is so imminent that it is not mecessiry to know the number. It is sufficient for the moment to know that there is a light-house in a certain direction, which is clowe at hand. It must, however, be admitted, that in common with all received aystems of lighta, the method of ocrultatione will not furnish a remedy. If a colored light is already employed in partievlar localities to moet such a case, it will atill accomplish the parpose when occultatione are applied to it. The danger, although rare, ought, however, to be provided againnt. The following remarks are auggested to aswint in attuining that objeet:
"The time betweon two ocealtations (aaunlly one second) might be doubled in apecial casea. A little experience would enabla moet men to recognize the fact aftor two occultations. If sach light-housea were placed alternately with others, no light-houwe would be mistaken for oither of its adjacent neighborn. This plan might be partially extended, hut it is liable to objecticna. Another viaw may he taken. Ie it possible to give a ppecific character to the occultation itseif? It has been found, that if the occuitating cylinder deacend rather alowly over the lamp, and then, after a very short panee, rise suiddenly, the effect io best. It han aiso been obmerved, when an accidental defect in the apparatua caused the cylinder, after enddenjy rising up, to rebound, and again to obscure partiaily the iamp, that the nature of the oceultation was pecu. liarly charactoristic. Thia peculiarity was very remarkable up to a certain distance, aftor which it became lost. Aimost any form of peenliarity can be given to the ocoultationa by giving proper forme to the cante which govern shem. The fact that ench pechliaritien are not seen until the ship hae approached within cortain dietances, does not appear to present a material difficulty, and may even prove an adivantage. It would reem, then, to be dosirable to institute a se. ries of experiments to determine the following quastlons: Can the occuleations of a lamp, in which the rapid ro-appearanee of the light occura from the fuiting down of the shade, be distlnguished from those in which it oceure in consequence of the rapid rising up of the shade ; and if so, at what distance? In seme cases the ainadoa might move from right to left, and in ths reverse direction. What peculiarities in occultations can be soen at the greatest distances? Among the experimenta atill required may be mentioned the loss of light resultiug from the interposition of colored glasses, and also the proportion of light lost by sacrificing gives portions of various parts of the optical ap. paratus used for concentrating it, This is necessary in order to enable us to jodge what pertion may be most ecouomically sacrificed in case the space might be required for other purposes, The dangers arising from fogs are of auch an oxtent that all the resources of science ought to be called in to remove them. Voltaic light oan seareely be depended upon except under continual superintendeuce; th would therefore be expensive. If, however, any intense light can be fonnd capalle of peuctrating donee fogs, it might, during their contiuuance, be good econouy to employ it even at considerable expense. l'erhaps the ordinary light. house lamps might be supplied with oxygen during foga ; its expenditure being regulated by the olsecurity to be penetrated. Possibly portions of phosphorus might be burnt in oxygen, and the light-house would then express its numiler hy a series of flashea, and of pauses between them. The new form which that body is now known to assume, might render jts application to this purpose free from danger.
"On Sounde used for Signals,--Doth gongs and beils are employed as auhatitutes for lights during fogs. I am not aware of any meries of experiments on the distances at whleh sounda of varions kinds can be lieard. In a question on which so much property and so naany lives depend, it is surely important to be well jnformed. The only resource is experineut. It may be reuarked that the low nutes of the gong might be couffounded with thowe of the roll of waves lireaking on the shore, while the shrill whistle of the steam-engine will find a rival in the wiad wiistling throngh the rigging. The trumpet and the new and atill more powefful instrument at the recent exposition ought also to becompared.
"Again, although some of these may ise heard at grester distancos in the open air, some may he mora masily adapted to have their mound concentrated and directed, when placed in the fociss of a parabolic mirror, or, perhaps, at the end of a long tube. Sound is
transmi and it. ense of be muc motion conside nend do ments al can be 1 lte motho tsted, it atill wa Thus cha municat the elec whether makie tl tions. water, as "Wha est distan the best whether ones. I discorlan seems to stronger form of s are acqua What is t jous selln etrate as I to be noti " Lighte when ligh purpose of rocks, sho placed, or from being the chann nsort in of He durint lights on the lamp: Galvunic The chein offer Bome distillation other met and carbo remain liq pheres. T and by co a very sm gas, a jet nitude, an drop of $\mathrm{fl}_{1}$ produced closed wit if not mol
"Such trimming, ench even mechanis If it is th as to inuli might be pleces of wonid be in order t probahiy beavy pe right ang tion of th? pendalun of a por waves, w
transmitted to considerable distance through water, ind it has been suggested that this might be used in case of fogs. But it seems probable that sound would be much interrupted in its progress from the constant motion of the waver; and if it were transmitted at a cousiderable depth, it might be difficult for a veasel to send down an apparatus to render it sensible. Experiments should be made on the distance at which suunds can be heard under water in various circumstances of its motion. If, during storms, the surface only is agitated, it might be ponsible to trenamit sounds in the still water near the bottom to considerable distances. Thus channels might be traversed by telographio communications with a less costly apparatus than that of the electric wire. It ought also to be ascertained whether the forms of the instruments struck would enable them to project their sounds in particular directions. Gongs, bells, and the firing of cannon under water, are among the sounds to be tried.
"Whatever may be the sound audible at the greatest distance, it will be necessary to ascertain what are the best means of produoing it in greatest intensitywhether by ons large instrument, or by many small ones. It seems probable that some combination of discordant sounds may be most effective, because it seems to be a law of our nature that contrasts produce stronger impressious than uniformity. There is one form of sound the most disagreeable with which we sre scquainted; it is said 'to set the teeth on edge.' What is the cause of this, and does that highly obnoxious seund penetrste further than others? If it penetrate as far as others, lt will certainly be the earliest to be noticed.
"Lights on Buoys.-The time is probably not remote when lights will be placed on floating buoys for the purpose of pointing out isolsted dangers-as sunken rocks, sheals, etc., on which light-houses can not be placed, or whe.e the great expense may prevent them from being built. They may also be useful to indicate the chaunels lesding to sone few ports of very great nsort in order to render the approach of vessels possible during the night. The first difficulty in placing lights on buoys arises from the necessity of trimming the lamps, and of sapplying them with fresh oll. Galvanic processes seem to present a similar difficulty. The chsmical discovaries of recent times, however, offer some hope of removing it. By the destructive distillation of pent, of coal, and of shate, as we?! as by ether methods, a variety of combinations of hydrogen and carbon have been obtained. Some of these only remain liquid under a pressure of two or three atmospheres. They possese considerabie illuminating power; und by cenfiuing them in a close vessel, and sllowing s very small aperture for their escnpe in the state of gas, a jet of flume may be produced, of uniform magnitude, and witheut the use of a wick, until the latt drop of fluid has evaporated. If such a fluid could be produced at a moderate price, a quantity might be inclosed within the buoy, sufficient to last soverel weeks, if not mouths.
"Such a light would burn without the necessity of trimming, but it would require mechanism to light it each avening, and to put it 'out each morning. Such mechanism already exists in many of our public clocks. If it is thought desirsble, too, that it should occult, so as to indicate its number, the plan already described might be applied. Thus the buoy would contain two pieces of mechaniam. The only remaining diffeulty would be the neoessity of visiting the light frequently in order to wind up the two instruments. Thio might probably be removed by having within the inoy a heavy pendulum, or perhaps two such, swlnging at right angles to each other. "If the perpendicular inotion of the buoy could be secured, then the winding np pendulums must be maintained horisontally by meens of a powerful spring. These, by the action of the waves, wonid be continualiy whading up the springs
which drive the mechanlsm. This might be so arranged that it would naver over-wind tham. Spirite of turpentiae, benzole, and several other compounds, assume a gaseous state at very low temperatures. 'If the ond of a tolerably thick rod of metal is hested by the flame of the lamp, and the other end conducts the heat to the bottom of the fluid, it is sufficient to produce a continuous strean of gas to aupply the burner until thi last drop of the fluid is exhausted. Lamps constructed on this principle have, under varlous names, been in use for several years. If the fluid were sufficiently cheap, ona of these movements might be dispensed with, by allowing the light to burn constantly during the day as well as the night. New forms would be required for such buoys. Probably a columnar form, weighted at the bottom, might give a steadier light amid the fluctuations caused by the waves. These buoys should be attached to their moorings by rings fixed at the centre of resistance.
"Of the Mechanism necessary for Oeculting Lights,The period of time occupied by any occulting light in making a signal is so short that grest accuracy in the wheel-work is not necassary. In light-houses the moving power may be a heavy weight driving a train of wheels. This must terminate in a governor, which presees by springs against the inner side of a hollow cylinder. When the length of the time necessary to indicate the number of the light-house is known, the governor must be so adjusted that some one axis shall revolve in the given time. A cam-wheel must le flxed on this axis, havling its cams and blank spsces an arranged as to lift up the tail of a lever carrying the occultating cylinder at the proper intervals of time. Each tooth of the cam-wheel will cause an occultation of the lamp by the cylinder, which is instantly drawn back by a spring. It is olvious that an axis might be used which moves round in the course of $t w o$, three, or more cycles. In this case, the same system of cams would be repeated an equal number of times in the circumference of the cam-wheel. This plun is suflicient for light-houses which are not inteuded for sigual stations also. When signals are to be uscd, it is better to have a single cam on an axis which revolves once in the time which elapses from the end of one occultation to the end of the next. The effect of this cam will be, hy acting upon a forked lever, to lift up the occulting cylinder. If nothing retain it in that position, the action of the spring on the lever will cause it to descend, and the cylinder, acted on by gravity, will instantly follow. But if an arm is interposed which retains the cylinder, then the forked lever alone will be pulled back by its spring, and the occulting cylinder will remain suspend ${ }^{\circ}$ d until the next turn of the cam-wheel. The suspending arm which was interposed must itself be governed by a cam-wheel, exprassing the number of the light-house.
"When a signal is to be made, an adjustable camwheel is to be set to the proposcd signal, and is to be fixed upon the axis currying the constant number of the light-house. When the proper time arrives for making the signal, it is only nacessary to shift the axis, so that the adjustable cani-wheel shall be moved Into the place occupled by the fixed cam-wheel. The signal will now be made and repeated as often as required, sfter which, the original position of the constant cant-wheal must be restored. It is clear that auy number of adjusting cam-wheels might be prepared for eignals, and put upon the axis at once, so that a series of different signals might be made in a very short time. Lights to mark the depth of water nust have a heavy float connected with them, which, at every foot of its rise or fall, musi. alter the number of occultations made by the colored light. It must, also, at the tarn of the tide, change the color of the light. It is anficient for the present purpose to observe that the meohaniam similar to that hy which a clock strikes different hours, might be employed for
this purpose. . The well in which the flont is plaoed ought to be open to the tida by several amall apertures thil would render the rise or fall of the float more uniform. Trelescopes are used for observing light-houses. Thoy have a amall magnifying power, but a large aper-
ture. It is lmportant that thay should be as short as possible, for taking in a given visual angle. Pooeifly, those conetructed with a lens of rock-crystal might be employed with advantage, but upen this subject, aleo, experiment must be made.

Compalative Elavation of Fonmian and United Mrates' Lhamt-llover Towbra, etc.

| Names. | Hetrht towet. | ElowHas above 0 an level. | Wamen, | Heigh <br> tower. |  | Named |  |  | Names, | Iheight tower. | Elevatlon Above level leval, |
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| UkIT. 8tater ${ }^{\text {P }}$ | Feet. | Yeen | Ilalsbrongh. | $\begin{gathered} \text { Ye96 } \\ 67 \end{gathered}$ | 100t. | 1reland. | Feat. | Yeeh | Peusalar. | Feet, | Vees. |
| Portland | 46 | 80 | Cromer... | 89 | 274 | Fastnet Rock..... | 73 | 151 | Arcona |  |  |
| Segaiti.. | 20 | 168 | Chapel.... | 48 | 118 | Cape Clear. . . . . . | 49 | 415 | Arcona....t. . . ${ }^{\text {Jershof. }}$ | - | 208 |
| Weet Quodi | 45 | 00 | Spars........... | 90 | 100 | Kinsalo. | 48 | 274 | Rixhöft.... . . . . . . | - | 165 |
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| tiagle Iel. potat | 85 | 100 | Ifle of Mey..... | 67 | 240 |  | 4 | 18 | 8 w |  |  |
| Bear Island.... | 17 | 95 |  | 88 | 110 | Poobe | 68 | 68 |  |  |  |
| Boston. | 60 | 90 | Bell Rock...... | 100 | 90) | Carilngiord (Rock) | 111 | 101 | Orskiär.......... | - | I18 |
| Thatcher's Isl.. | 87 | 90 | Glirda | $\cdots$ | 185 116 | Copelend.. ........ | 68 | 181 |  | - | 108 |
|  |  | 90 | Bachannes | 100 | 180 | Maldens........... | 60 | 84 | Kandsort | - | 151 |
| Cape Cod. | 45 | 180 | Kinnaird. | 87 | 120 |  | 69 | 94 | Olimad.e......... | - | 1.5 |
| Gay Ilead.... | 88 | 178 | Skerries. | 07 | 180 | fonletrthal. | 86 | 167 | Kullen | - | 139) |
| Sankaty Ifead. | 68 |  | Tarbet. | 120 | 175 | Tory lsland. | 68 | 195 |  | - | 283 |
| Junlper Isiand. | 80 | 95 | Nose IIe | 120 | 175 | K1lybegr. . | 41 | 104 | Maratr | - | 97 |
| Now Londen. | 80 | 111 | Dennet. | 43 | 886 | Eitgle. |  | 220 |  | . | 292 |
| Hinton's Ncek... | 50 | 184 | Pentiat | 80 | 846 | Olare Ialand. | 26 | 849 |  |  |  |
| Mentagk...... | 80 | 160 | Pentis | 80 | 170 | Amab. | 87 | 498 | Nof wigutas. |  |  |
| Sandy IIook... . | 77 | 90 |  | 80 | 140 | Louphe | 41 | 269 | Nownmax. |  |  |
| Nateslok. | 40 | 248 |  | 85 | 100 | Kilkralan | 28 | 183 | Forder........ | - | 216 |
| H | 40 | 946 | Cepe Wricih.... | 85 | 800 | Skelilg... . . . . . . . | 26 | 878 | dumirainhd.... | $\cdots$ | 184 |
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| Bald IIoad. | 90 | 110 | Skerty Fore... |  | 650 | all the mose int- |  |  | Markie. | . | 201 |
| Cape IIatteras. | $90 \%$ | 05 | Ckerty Fore... $\left.{ }^{\text {Limmore..... }}\right\}$ | Roek- | 150 103 | portant lights. |  |  | Otnnarshnig.. | - | 129 |
| Cape Lookout. | 98 | 95 | Khlns of İley.. | - 80 | 103 150 |  |  |  | Moidingsio . . . ${ }^{\text {R }}$, | . | 183 |
| Charleaton. | 108 | 168 |  |  | 997 |  |  |  | Gultholmen. . . | $\because$ | 168 |
| Cape Roma | 60 | 87 | Plande........ | 80 | 180 | Ontend en order |  | 87 | Terningen. . ${ }^{\text {a }}$ | - | 181 |
| Tybee......... | 95 | 100 | Mull.,........... | 70 | 8825 | (1xed)........... | ) | 81 | Teraingen..... | . | 1100 |
| Dry Tortugas. | 65 | 70 |  | 10 | 170 | Netusblax |  |  | Vliedirs....... | $\cdots$ | 116 |
| Cape Florida. . | 65 | 70 | (orsewall. ..... | 98 | 112 |  |  |  | Vilia Nen......, | - | 124 |
| Cape May...... | 68 | 68 | Calf of Ma | 82 | 375 | Westkappel (fix'd) Schouw Un (ist or- |  |  |  |  |  |
| Litit LiOITrs |  |  |  | 49 | 982 | der lens)..... |  | 170 | liumar. |  |  |
|  |  |  | Don | 85 | 104 | Goeree (fized)... |  | 149 | Swalferort..... | $\cdots$ | 110 |
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| Lixard | 45 | 281 | W ras Coast. |  |  | Egmond-aan-zee | * | 125 | Flagad........ | $\ldots$ | 110 |
| " | 45 | 294 | 8t. Bee | 83 | 888 | Kykduln......... | - | 184 | Degeror | $\cdots$ | 98 |
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| Start Pulats.... | 94 | 914 | Black lRock | 119 | 118 | Terschelliog..... | . | 177 | Pakerop | . | 111 |
| Cesquets. | 18 | 81 | Lesowe. | 60 | 800 | Itanoveria |  |  | Sonrop........ |  | 186 |
|  | 88 | 81 | Lyaus | 88 | 188 | 130renm | 110 | 142 | Narghem |  | 115 |
| orthand | ${ }_{8} 8$ | 81 | Skerrie | 54 | 117 |  |  |  | Revel. | - | 135 |
| ${ }_{4}$ | 70 | 181 | Stack. | 1 | 201 |  |  |  |  | - | 410 |
| Needles | 96 | 409 | St | 1 | 70 | Neawerk (fixed). | 123 | * |  | $\cdots$ | 358 |
| *t. Catharine's. | 105 | 178 | St. Angis. | 4 | 198 | Daklish. |  |  | liangnoud. | * | 107 |
| Beactuy Itead. . | 80 | 285 |  | 17 | 169 | 8kew |  | 89 | P'arksiourd. |  | 178 |
| Dangennors, | 86 | 98 | Bnuih B | 86 | 14* | Anholt. . . . . . . . . . |  | 123 | Euskar. |  | 169 |
| Sonth Foreiand | 41 | 878 | Caldy | 41 | 810 | ITesmelve. . . . . . . | .. | 85 | Oilessa. |  | 268 |
| Tor | 82 | 275 | Mnmble | 86 | 114 | Nakkėho | - | 147 | Pellingho...... |  | 126 |
| North Foreland | 30 | 184 | Nagh. | 90 | 167 | Kronborg. . . . . . . | - | 118 | Tarkanknot.... |  | 115 |
| Margate........ | 70 | 85 |  | 45 | 122 | Thande. . . . . . . | $\cdots$ | 100 | Khersoarse.... | $\bullet$ | 109 |
| Orford. | 67 | 87 | Flathol | 77 | 158 | Stevenkklint..... | - | 144 | lakerinan...... | . | 420 |
| Loweatof. | 48 | 119 | Lundy. . ....... | 89 | 540 | Fakkebeirg | . | 143 | " $1 . . .$. |  | 8 th |
|  | 40 | 48 | Trevose Ilead. |  | 804 | liamere |  | 2s0 | Takl1. . . . . . . . |  | 163 |
| Hatshrough.... | © 5 | 187 |  | $\cdots$ | 199 | I.abec. | 118 | $\cdots$ | Belosarilisk.... | . | 176 |

[^33]8 coson Laums.
Of the $9 t$ aorthern lighta in 1884 , the following were flued es below:

| Kamo. |  | Name. | $\begin{gathered} \text { No. of } \\ \text { limpee \& } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Isla of May |  | Cape Wrath |  |
| Bell Roek | 90 | 1sland 0 |  |
| Qirdlees | 85 | Barta llead | 1 |
| Buchanae |  | Lusiaure. | 18 |
| Klabalrd 1 |  | Islay | 4 |
| Tarbetr |  | Mnfl of Kint |  |
| Peptlend sker | . 6 | Mull of Gallo | 17 |
| Sumburg lieed |  | One of only. | 8 |
| Dunnet Ifewd. |  | tre of only |  |

"Of the 27 aorthern IIghte in 1845 , there were 4 di optric IIgite. (Heflector lighte.) 1 fitted with 28 lampu and reflectors; 2 with $28 ;$ t with $24 ; 2$ with $21 ;$ y

14 with 12. In 1851, nearly all the northern ligits fitted previously with refiectors and Argand lamps had been changed to lons lights and the colxa or rape-seed oil introduced. Perfectly formed parabolio reflectors, heavily plated with ailver, and of large aize, are employed in the lights of Great Britain, chietly 24 and 21 jaches in diameter. Keftectors are belng changed as rapidly as possible for lenses, and the holophotal systom of lenses and reflectors upon the plan of Mr. Thomas Stevenson of Edinbarg.
"Of the nea-0oast lighte of Ireland in 1845, 1 was fitted with 40 lampa and reflectors; 1 with 28 ; 1 with $27 ; 2$ with $26 ; 2$ with $24 ; 2$ with $23 ; 6$ with $21 ; 2$ with $20 ; 8$ with $10 ; 1$ with 17 ; 2 with $16 ; 3$ with 15.
"Floating Lights,-1 was ftted with 24 lamps and reflectors; 2 with 16. Lens lighta are being tutro-
duced Intie atituted for

Tient

Name of in
Belly, revol Edilytone, Portianil, ra Lizaril (9), f Flamboronk Bouth Btack, Benchy IIom theilgoland, Fonlness, to Longshlps. N. Foreland.
"Whole do. floating "Trinity light-houses Of that nu lights, 11 ; remaining and reflecto 2 with 21 ; 15; 1 with belonging with 24 lam 12; 8 with introduced and 185 :.
"The fou tutes in har

Nana

Dankerque, 1 Gravellnes, 8 Calals, Ist ord Ia Canche. Is Cayeux, 8 d or Treport, the Treport, th Fecamp, sth Fecamp, ita Havre, 4 th or Taucarville, I Taticarville,
Point ifo Ver, Pointo de ßa la liague, Is Isles Chansey thranville, 81 Cape Frehel, lleanx do Br Lisle de Ban St. Mathlet, 8 Pertzec, 2110 L'lle de 8ein, Bre da Raz,
Belle Ile, 1st Chagelron, 1s Corilonan, Ist Cape Bearn,
Mont d'Agde Mont Pestust
"There a jights, with feet, range fect, range : range 18 m range 20 m range 18 m range 18 m range 20 m tien, range feet, range sufficient el nsutical mi have gober miles. Thi Irance.
daced intio Iroland, and the colza or rapo-seed oll aubstituted for winterstrained aperm oil.

Thinitr Ilouna Conponayion Liouts in 1884.

| Nome and eharmetor No. of of light. refectorm, |  |
| :---: | :---: |
| Bellly, revolving. | finatizo hiourm. |
| Edilystone, fixmi. . . . . . . 24 |  |
| Pertiant, ruvolvlog. .... 21 | Newarp................ 24 |
| Lizard (9), fixed. ...eeach 19 | Goodwin. . . . . . . . . . . . . . 24 |
| Flamborough, revolving. 9] | falloper................. 16 |
| South 8tack, revolvink... 91 | 1talshorough............ 16 |
| Beachy IIend, revolving. 80 | stanford................. 18 |
| Ilellgolund, fixed........ 9 | Goll 8tremm. . . . . . . . . . 16 |
| Fonloess, revo | Lynn Well............... 12 |
| Longships. 19 |  |

"Whole number of Trinity House lights in 1834, 42; do. floating lights in 1834, 13.
"Trinity Ilouse Corporatim Lights.-Total number of tight-houses in 1855,66 ; floating lights in 1845, 25. of that number, there were, in 1845, 1st order lens ilghts, 11 ; 2 d order, $4 ;$ tatal, in 1845, 15. Of the 51 remaining (refector) lights, 2 were fitted with 30 lamps and reflectors esch ; 1 with 27 ; 1 with $26 ; 4$ with 24; 2 with $21 ; 3$ with $10 ; 3$ with $18 ; 3$ with 17 ; 3 with $15 ; 1$ with 14; 5 with 13. Of the 25 floating lights beionging to the Trinity House in 18-5, 2 were fitted with 24 lamps and reflectors each ; 9 with $16 ; 1$ with 12; 8 with $8 ; 6$ with 4 . 6 lens apparatus have heen introduced into the Trinity House lights between 1840 and 1851.
"The fourth order lenses are introduced as sulistitutes in harbors for roflectors.

Faneoh Liohts.

| Nond and etarader of ilght. | $\left\{\begin{array}{l} \text { Ilslght } \\ \text { of } \\ \text { tower. } \end{array}\right.$ | Elevathon. | Range. |
| :---: | :---: | :---: | :---: |
|  | Fent. | Fept. | 1 |
| Donkerque, 1st order, revol | .. | 192 | 24 |
| Gravellnes, 8 d order, $6 \times \mathrm{ed}$ |  | 94 | 15 |
| Calais, lat order, movuble | 166 | 189 | 89 |
| Cape Grisnez, 1at ordor, rovolving...... | 47 | 192 | 92 |
| Ia Canche, Ist oriler, fixed. . . . . . . . . . . . | 169 | 178 | 20 |
| Cayenx, 8d ordor, movable. . . . . . . . . . . . |  | 81 | 15 |
| Trepert, 4th orilor, fix |  | 86 | 9 |
| Fecamp, list order fxo | 85 | 422 | 18 |
| Fecamp, 4th order, rev |  | 89 | 9 |
| Ta Ileve, ist oriler, fired | 65 | 898 | 90 |
| linvre, ith order, fixed |  | 89 | 10 |
| Taucarville, Ist order, novable. | 104 | 416 | $1{ }^{1}$ |
| Point do Ver, Pl order, movablo | 48 | 187 | 15 |
| Points do Barflont, 1st order, revolving | . | 244 | 92 |
| IA llague, 1 st order, fxed................ |  | 156 | 18 |
| Isles Chansey, 8 d order, mo | 58 | 120 | 16 |
| Granvlle, gi order, fixed. | 43 | 158 | 15 |
| Cape Frehel, int order, revolving....... | 78 | 257 | 29 |
| llesux do Brehut, 1st ordor, fixorl |  | 148 | 18 |
| Lislo de las, 1st order, revolving...... | 180 | 221 | 94 |
| L'Isle d'Buossant, 13t order, fixed | 84 | 273 | 18 |
| St. Mathen, 9d order, revolving. . . . . . . . | 81 | 176 | 18 |
| Portzec, yd order, movable...........t.. | 107 | 182 | 18 |
| L'lle do Seln, int order, novabio........ |  | 185 | 20 |
| Bre dn Raz, Ial ordor, ixed | 0 | 257 | 18 |
| Belio lle, ist order, revol | 180 | 978 | 87 |
| Chasstron, Ist order, flxod. | 140 | 168 | 18 |
| Cordonan, lat order, rovolvi | 205 |  | 84 |
| Cape Rearn, 1st order, ixed. | 89 | 748 | 18 |
| Mont d'Agde, lst ordor, revolving. | 75 | 410 | 97 |
| Mont Pestusalo, it order, revolving | 68 | 82\% | 27 |

"There are, in addition to the foregoing, 1st order lights, with elevations 183 faet, range 22 miles ; 192 feet, range 18 miles; 175 feet, range 18 miles; 237 fect, range 20 miles; 160 feet, range 18 miles; 134 feet, rage 18 miles; 130 feet, range 20 miles; 260 feet, range 20 miles ; 420 feet, range 27 miles; 335 feet, range 18 miles; 266 feet, range 22 miles; 286 feet, rsnge 18 miles; 838 feet, range 20 miles; 215 feet, range 20 miles. Second order lighte, i8 feet elevation, range 18 miles; 104 feet, range 48 miles; 150 feet, range 18 miles. Third order lights are given a sufficient elevation to average a range of sbout 15 nautical mides. Fourth order lights (harbor lighta) have generslly an average range of 9 to 10 nautical miies. This list comprises all the important lighte of Irance.
 BRA, AOCOMDIRG TO TAKI R REPEOTIFA EDRVATIGNS


| Helyhta In fork | Didances In Senglith miles. | Dhetanees In nantiea! wiles. | Jlophenta jo foet. | Dtstancea <br> jo Engliah nallet. | Dituncess In nantical milen. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 9.958 | 9.568 | 110 | 18.874 | 1848 |
| 10 | $4 \cdot 184$ | 8-623 | 120 | 14.490 | 18.56 |
| 15 | 6.148 | 4.43 | 180 | 15.098 | 18.08 |
| 20 | 8.916 | $0 \cdot 180$ | 140 | 15.659 | 18.57 |
| 25 | $6 \cdot 614$ | 6.788 | 150 | 17-201 | 1491 |
| 80 | 7245 | 6.288 | 800 | 15.708 | 16.29 |
| 85 | $7 \cdot 886$ | 6.787 | 980 | 90-916 | $18 \cdot 14$ |
| 40 | 8:968 | 7425 | 800 | 92-019 | 10.87 |
| 45 | $8 \cdot 874$ | 7 - 296 | 850 | 24.744 | 91.46 |
| 60 | 0.854 | $8 \cdot 119$ | 400 | 98.457 | 9294 |
| 05 | $9 \cdot 811$ | 8.500 | 450 | 98.042 | 2483 |
| 80 | $10 \cdot 48$ | 8.838 | 800 | 29.480 | 25.6 |
| 65 | 10.665 | 0249 | 550 | 81.024 | 26.90 |
| 79 | 11007 | 81598 | 600 | 82.408 | $89 \cdot 10$ |
| 75 | 11.456 | 9.985 | 650 | 89.723 | $99-25$ |
| 80 | 11.832 | 10.26 | 700 | 85.000 | 80.28 |
| 85 | 19.196 | 10.57 | 800 | 87.416 | 82.45 |
| 90 | 19-549 | 10.88 | 900 | 89.896 | 8454 |
| 96 | 19898 | 11.18 | 1,000 | 41-883 | 8628 |
| 100 | 18-223 | $11 \cdot 47$ |  |  |  |

"' The spheroidal form of the earth requires that the height of a light-house tower should increase proportionally to the difference between the earth's radius and the secant of the angle intercepted between the norunal to the spheroidal st the light-house, and the normal at the point of the light's occultation from the view of a distant observer. The effoct of atmospherio refrcction, however, is too considerable to be neglected in estirnating the range of a light, or in computing the height of a tower which is required to give to any light a given range; and we must, therefore, in accordance with the influence of this element, on the one hand, increase the range due to any given height and vice rerad reluce the height required for any given range, which a simple consideration of the form of the globe would sssign.'
"If the distance at which a light of a given height can be seen by a person on a given level be required, it is oniy needful to add togetiser the two numbers in the column of distances corresponding to those in the column of heights, which represent respectively the height of the ouserver's eye and the height of the inntern above the sea. When the height required to render the light visible at a given distance is required, we must first seek for the number corresponding to the height of the observer's eye, and deduct this from the while proposed range of the light, and opposite the remainder, in the column of distances, seek for the corresponding number in the column of heights."

Statiment bhowing the Jncmeabr of Lexs Liohts in Fhaner binee 189. Fuench Lights.

Character of Ilgbt.


The lights of Algiers and the colonios are not Included in this list. An iniporfect list of theso, up to the letest dales may be found in Porm's Yearly Journal of Trade. Several important itghts have been erected in Aigters during the past year (1950).


Chareter of lighte

In 1845 there were lightar aittighteith the Arst three urters of lens apparetus throughont the worta sumaller catadtoptrle lights.

Total lens lights.
10
From 1845 to 1851 (aix yeara), there ware con-structed in P'arts and sold-

Total in six years. 153
Total of the firat three ordere of lens apparatus in ofed in 185t..................................... smalier leus light.216

## Total of lens lighta lo $\$ 851$

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componition et les prix dos Pharea Lonticulaina, Co toptriques et Catadioptriques, parties optique et mécanligue, pur Létourneau et C'ie., succesaeurs do MM. Noliel pere, et Françoln, jeune, constructeura de Iharen diontrigues, syateme de M. A. Freanel, Rue des I'ulssonniers No. 24 , prì et hors la barrière I'olssonniere, a Paria. Instruction aur I'organlation et la survelilance du sarvice des Jhares et Fanaux des cóten de France. I'ar LAonor Fresnel, I'ingènlenr-en-chef, dlrecteur, sécretaire de la Comnnisuion des I'hares: l'aris, 1842. Captain leontoy Spafareif's Now (iuile for the Navligation of the Gulf of FInland: St. I'cturnburg, 1818. Colier, Gulde des Marinn. Paris, $18 \% 5$. Stevenson's Sketch of Civil Fagineering in America: Londen: 1838, p. 206. Heport of the Selert Committee of the House of Commons of Great Itritain on Llght-houses : Hannard, Iondon, 1833. Report by a Commltte of the Hourd of Commissioners, of the Northern I.lght-houses, on the Ileport of the Select Committee: Falluhurg, 1836. IReport of the Commissloners of thu Northern Light-houses on the Illumination of Likhthouses, by Alan Stevenson M. A. : Edin. burg, 1884 . Iteport to the s.ume bourl, on the Inchkeith Dioptric Likht, by Alan Stevenson't Edinhurg, $2 \times 30_{0}$. Heport on the Isle of May Dioptric Lhght, iy Alan Stevenson : 1836. Report on the Isle of May Likit, by a Committee of the Moyul Socloty (l'rofessor Forbes, reporter): Edinburg, 1836. Comptes liendus Hehdomadulres des Séances de l'Académle des Sciences, tome 18, p. 2u: : Mémolre présentó à l'Académie des Sciences le 8 Janvler, 184. Note sur l'Apparcil Catadioptrlque exécutíe par M, Frangeis, jeune, pour le l'hare Wcossais de Scherivare: Commissuires MM Arago, Mathieu, Babinet. Jeport of the Select Counmiltee of the Ilouse of Commons of Great Irituin upon Light-houses: Hansard, Londen, 1445 . Captain Denham, R. N. Mersey, and Dee Navigation: Liverpool, 1840. Encyclopuedin Hritannic.. 7th edition: Fdinhurg, 1842; vol. Xx., articlo Sea-lights, p. 15 , Circular: Instruction sur la Nouvelle Organisation de l'échairage des Phares et Finnanx: Paria, le 25 , huin, 1830. Clrcular: the name subject: I'aris, ie 28 Juin, 1839. Circular: I'hares et Fasaux ; Contrule des cunsommations en huile et de la ajtuation des divers approvissionments: Jaris, le 17 Mars, 1845. Documents 11. K., 2 d resslon 25tis Congress, Nos. $21,27,38$, and 41. Documents Senate, 2d nesalon 25 th Congress, Nos. 158, 159, 42x, $1755,506,208$. Document II. It., 84 session $25 t h$ Cungreas, No. 24. Documents Senate, 1st acsmion 261 h Congress, Num, 474 and 619. Documenta I1. R., Jd resnjon 27th Congress, Nus. 140, 198, 274, 811. Documents H. K., 31 session 2ith Congress, Nos. 183 and 193. Documents II. R. 1st scespion 28 th Compress, Nos. $8 \times$ ami 62. Documont Senate, "d sesslon 2xth Congress, No. 166. Document Senate, 3 d session 2tth Congress, No. 190. Document 11. R., 31 sension 27th Congress, No. 2x2. Document Senate, 21 session 2 th Congress, No. 983 . 1)ocument II, 1. ., 211 session 27 th Congress, No. 740 . Document Scriate, 1st mession 26th Cougress, No. 58. Ihocumunts binate, 3 i messlon 25 th Congress, Nos. 160, 131, 187. Hecuments Senate, 2 d session 2 th Congress, Nos, 18 , 254, 15. Memoir of Colonel 13. Aycrigg, on the Light-houses at Bartieur and Ostend; Document 11. II., No. 190, Bil seasion 2oth Congress. Ausericun Heview, vel. 1., No. 3: New York, March, 1815. Cajitivin Cotton's Illstory of the Trinity Ilouse, Loadon. Fiinburg Leview, No. exv., vol. 6T, p. 180 ; No. exxiil., vol. 61, p. 117 ; No. exxiv., vol. $61, \mathrm{p}$, 270. Transactiona of the Royal Society, London: Drummond 1ight. Nautical Magazine, vols. 1 to 15: 1832 to 1846. Eneyclopredia Britannica, 8th edition: Lelinburg, 1856 ; vol. 6 , artiele Burning-glasses. Annuaire pour l'an 18d1, prisenté au Iteí, pur le lareau des Iongitudes : Nntices Sclentitiques par M. Arago, p. 151 et p. 172. Ex. Document 1I. B., No. 14, 2 d session 81st Cougreas. Rudimentary Treatise on

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Light-house System $\boldsymbol{f}$ the United States 1856-67.The recommendutions auggested in the Report of 1851, have been generully carried into effect. At the ond of the year $\mathbf{1 8 5 6}$, there were in operation, or neurly finished, in the United States, B09 light-houses, Ilightbonts, ete. The following extracts from the Lightheuse Board Report, under date November 1, 18:6, will show ame of the important changes that have recently taken place:
"The general condition of the alds to navigation, at the date of the last report from this office, was such as to ieave but little to be done toward completing the systematic plan of improvements of authorized alds to navigation along the coasta heyond the general routine duties of renovating and repairing existing structures, and of providing those aids for which appropriations had been then recently made. Tho syatem of buoyage and beaconage liad been carried out as perfectiy, and to as great an extent as the means provided for that object woull admit; and it is believed that bat few locafities are known to exist requiring additionai ailds of that kind. Renovitions and improvements of light-honses and light-vessels, in adilition to the ordinury necessary' repairs, have been made us extensively during the past year as the means provided and the period of time for doing so would permit. A large number of tens illuminating apparatus has been substituted for the old reflectors and fuuntain lamps, to the great benafit and economy of the service. Changes are still being made as rapidly as the lens apparatus is available, having in each case due regard to the condition of the old apparatus in the lighthouses requiring renovation. Now and improved illuminating apparatus has been placed in, or is in course of preparation for, such of the light-vessela as had not been refitted at the date of the last report. All
the alda to navigetion, for which epecial appropriatione have been made, have sither been completed or consmencel, except those condemned as being unnecessary by the proper anthorlty, or thome to the sites of willch perfect titien have not been obtained. The late period of the year at which Congrese made appropriatione at its last regular seseion for new alds to navigation, renrlered it impracticable to commenon many of the works this season; but preliminary etepe have teen taken for commencing those at the north early next apring, and those at the south will be commenced and preeecuted as far as poasible during the ensulng winter.
"The frequent laspections ot the lights by inapectors and othara, the instruction which the keepers have derived from them, and their acquirement of a better $k$ nowlenge of their dutiea, as laid down in the printed instructions and directions, have resulted in a gradual but very perceptible improvement in the character, appearance, and reliability of lights slong the entire comat. Notwithatanding the extraordinary eeverity of the past winter, and the consequent injury done to the buoys and light-vessels by the masses of floating lce on the coast from the capes of Virginia to the eastern boundary, it is believed but little serious inconvenience reaulted to navigation os account of the temporary absence at times of these sids from their proper atations. The buoys which were driven from thair atations were promptly replaced, by meuns of the buoy veasele, from tho duplicates kopt on hand at different points along the coast, and no efforts were spared to bave the light-vessels ropaired and towed by ateamers to their atatious with the least practicalble delay. Sinco the light-vessels have been provided with aervice and spare inoorings of the best description, but few of them have broken adrift from, or left even the mort exposed positions. The suppliea have been distributed to the lights on the Allantic, gulf, and lake consts, hy three supply vessels employed, with as nuch regularity, and as eatisfactorily as could be expected in a service, the succesaful perfurmanee of which depends so much upon the weather. The great diurinution in the quantity of oil required to be delivered at the lights fittad with lens apparatua, will be the means, as the nevr appuratus is substituted for reflectors, of facilitating the operations of making deliveries; and more frequent and regular visits will be made without increasing the number or expense of the eupply-vessels.
"The officer in charge of the light-house service on the Pacific coast was instructed to lose no time in commencing the erection of the light-house at Umpqua, in Oregon Territory, and it is expected, from the urgent instructions from this office, and the zeal and energy of the officer in charge, that it will he buitt as soon us tho necessary materials can be collected at the site. The illuminating apparatus and lantern for that light reached the Pucific const in July last. Instructions were also given to commence the buidding of the light at Now Dungeness, in Washington Territory, and to take tho necessary steps for commencing the one at Cape Flattery and at Blunt's Island with the leant practicable delay. The Indian hostilities in Washington and Oregon Territories, and the difflculties nttending, necessarily, operations ut such distant and sparsely populated localities, will doubtless account for any seeming delay in the execution of these works. In the lakt report from this Board at tention was Invited to the low rate of compensation allowed to light-keepers under the existing law. By the fourth section of the act making appropriations for light-houses, etc., approved May 23, 1828, the Secretary of the Treasury is authorized and empowered to regulate and fix the salaries of the respective kecpers of light-houses in auch i manner as he shall deem just and proper, 'provided the whole sum allowed shall not exceed an average of 400 to each keeper.' The Board wonld again reapectfully renew its recommendation of last year, that a reasonable incrause be made
to the present average rate of compenation to lightkeepers, as the beat means of insuring efficiency and true economy In the care and management of the light-houses on our extended, dangerous, and, in many portions, sparnely populated and inhoapitable coast. The present average rate of compensation to the keepers of light-heuses on the Pacific coast, an established by the appropriation blils, ia $\mathbf{2} 800$ per annum; but the difficulties which have heen met with in obtaining the services of competent and reliable keepers for some of tha 'ighta at isolated, though important points, on that coas., and the frequent resignations of keepers after a short trial of the duties, lead to the opinlon that the main cause of dissatisfaction with the service arises from insufficiency of the compensation in the present state of that part of the country."

The annual report of the United States IIght-house Board, under date of November, 1857, recapitulates tho progress of the work, viz.

The ayst .natic plan for an economical administration of the light-house establishment service, and for Improving and perfecting those aids to navigntion which had been authorized by the different acts of Congress subsequent to the passage of the law of Augast 7, 1789, which enacted "that al" expenses which shall accrue from and after the fifteenth day of Alggat, one thousand seven hualred and elghty-nine, in the necessary auppor, maintenance, and repairs of light-houses, lreacons, huoys, and public piers, erected, placed, or sunk, before the passage of this act, at the eatrance of or within any bay, inlet, harbor, or jort of the Einited States, fur renileriug the na igntion thereof easy and safe, shall be defraycd out of the treasury of the United States," was commencel by this lmard under the direction, orders, and instructions of the honorsble Secretary of the Treasury on the Stli of Octolser, 1852, under the authority of the act of Congreas of $31_{\text {st }}$ August, 1802.

At that time there were $\mathbf{3 2 5} \mathbf{I l}$ ght-houses and lightel beacons, and 38 light-vessels, making an aggregate of 348 light atations and 371 lights of all onders or classes, distributed In the watera and along the coasts of the Athantle, Guif, and northwentern lakes. A few buoys and beacons were placed along be coast and in the bays and harbors of the most prominent sea-ports, without syatem or phan, and often mislesding lnstead of guiting the mariner. There were no lights or other alds to navigation at that time in the t irburs or bays on the I'ucitic coast of the United States. Thero are now on the Atlantic, Gulf, Jake, and Pacific coasts of the United States, B48 light-house and light-vensel st:ations, with an aggregate of 602 lights ; also 31 lights remaining either to be condemmed according to law, or to be built In obedience to the directions of Congress, as soon as valid titles to the sites are ohtained; making, after allowing for all probable sondemnations und the discontlnuance of such as time has ahown to be wholly unnecesaary for the general interests of commerce and navigation, an aggregate of 575 light stations, including light-vessela, ant 627 lights. The tmovage and beaconage, at that tims almoxt entirely neglected, in now, it in believed, umanrpunsed in systematic arrangement, in reliability, and in cconomy (ff adminiat ration. The number of buoys and beacons may be jut down, in round numbers, at mot less than 4500 or $\dot{5000}$, with duplleates (anil at most placea along the coast apare buoys) to repince those to be taken up aach spring and autumn for cleaning and palinting, and to replace thoso removed or destroyed by ice or by storms, and by being ran into and sunk by steamers and other vessels. The entrances to the jinncipal harbora, and ship-channels leauling to them, sre marked by large nun and cau buoys, made chiefly uf iron, which have leen introduced within the last four years. The previous retorts from this office during the last five yearn have infurmed the department and Congress of the extremely Illspidated condition
of the towers and buildings, of the inferior quality of the illuminating appuratus, and of the wasteful expenditures of oll, wicks, chimneys, and other necessary aupplies, owing to the large number of lamps enployed at the difforent IIght-atationa, many of which, with proper llluminating apparatua, would have licurred less thala one-tenth the cost for far more briliant and better adapted lighta. The light-vessels ware found to be $\ln$ a ate of inefficiency, aome of them alisent from their sta:lons for months at a time, without substitutes to occupy thelr places, with an inforior description of lamps, consuming large quantitios of oii without producing anfficiently powerful lights to be seen at the required distances, or an adequate return for the exponse Incurrad.

It will appear that at the time the Light-house Iloarl was organized under the act of August 31, 1852, there were but five lighta at four stations fitted with apparatus that had long before been ahown Incontestabily to be in point of economical effect in no ense less than 4 to 1, as compared with the catadioptric or reflecting light syatem, and in point of power and brilllancy the proportion in percentage was 83 to 16 -that !s, the consumption of oll would not exceed one-fuurth in the now system of what was actually required in the old, and at the aame time the new aystem problucIng for the lenefit of the navigator more than tive times as much light with this one-fourth part of tho oll required for the argand lamps and parabolic reflectors. Ilut even this comparison is too favorable to the state of the light-house establishinent an it existed up to 18:33, inasmuch us the appuratus was not, of its kind, the hest that could be made, nad also from the fact that the great majority of ilghts (those in the hays, sounds, rivers, and harlors) were fitted with a mieh larger number of Jamps than was necessary, even under that system, attributable, however, to the great inferiority of the ajparatus, which, it wouhd seem, it was attempted to remedy ly incrensing the number of lamps at each station. The estimates for 18.33 gave 3093 lamps for thec 331 light stations. Estimating at un averuge of 10 lamps for each new light authorized or huilt since that time, the number of lamps to befed with ofl, to be suppiled with wicks and chimneys, and in projortion to be supplied with the various articies of expensive cleaning materiats, would, under the old aystem, have amomited to the large number of 5560 lamps, repuifing su annual suppiy of not less than $42,2,400$ galtols of oil, computing the consumption at 40 galions per lamp, which is the minimum rate. Tha cost of oll hus been as high as $\% 2$ per gallun at the warehouses of the manufacturer, and has been estimated for the year $1838-59$ at the rate of है1 60 per gallon.

The lights at Southweat Pass and South Pasas of the Missiswippi should be discontinued after the completion of the Southwest Pass terew-pile tower, which was suthorized August 4, 1854, and for which $8.15,000$ was appropriated, leaving about 870,000 to be apiropriated for ita entire completion beforo commencing the work.

The annuai appropi stions for renovations, repairs, ete., of light-houses, within the period referred to, have been employed to the best possiblo advantare in rebuilding auch light-houses as were in inmineut danger of falling to jieces, and, where special appropristhons had not been made for rehullding them, in providing tho neceasary improved and economioral apparatus, flting the lanterns and towers for receiving them, and in placing them; and with those nerabs alone the whole of the light-fouses uxinting in fasuary, 1853, have been provided with new apparatus of the most approved kind, which combines the greatest ad vantages yet diacovered in the scionco of lighthouse illumination-of power, durability, and economy. - See Light-house difourts, $18 i^{3} 3$ to 1805; aiso Culst Surixy Reports.

Lima, South Amet W. Populs abl: amonn Pizi rro, mal beauty of th city, und ga City of the all İgal dee earthquankes rated liy an Octuber 28, destruyed, as Callao, the from the lat projecting pi small uninha to the emune Spanish prov grand entrep South Americ eign trade of Ayres, and th European goo other ports in principally of ant article, co Guano is fou the coust of some suall isl In vast guant manure is nov of less import than 80,000 t was partly; h ports, as well is deeddedly th of cotton stuft cipaly from quicksilver fri flour from the Paragtay her! Timber for th brought from measures, see
Lime (Ger Sp. Cal; Rus. culur, moderat powder, either turstion, It meanire corro aoimal bodies 2.3. Cuichum ered by Sir 1 worli in which in limestone, n stances is, how sre ali casily ed that is, by pi structed for th time in a whit line. - Thoms mortar in huili tiquity, and is tensively usod degree in seme Americi, as a curions fact th iy a liuropean that way has n part of Asta os in the arts, as sidape of chlori and timestones. without any amptoon in tin

Lima, the capltal of Pera, on the weat const of South America, lat. $12^{\circ} 2^{\prime} 42^{\prime \prime}$ S., long. $77^{\circ} 7^{\prime} 18^{\prime \prime}$ W. Population varlously estimated ; hut may probwhin amount to from 80,000 to $\mathbf{6 0 , 0 0 0}$. In 1524 , Pizi rro, marching through Peru, was atruck with the beauty of the valley of Rimec, and there he founded a city, and gave it the name of Ciudad de los Reyet, or City of the Kings. This Spanish name it retains in all legal deeds, but 't is better known as Jima. Awful earthquakes occurred here, since nelemnly commemorated liy annual festivals, A.D., 1586, 1630, 1687, and Octulier 28,1746 . In the last it was almost totally destroyed, as well as Callao.

Callao, the pory of Limn, is about six miles west from the latter. The harbor lies to the north of a projecting point of land, in the angle formed by the small uninhabited island of San Lorenzo. Previously to the emanclpation of Peru, and the other ci-devant Spanish provinces In the New World, Limn was the grand entrupót for the trade of all the west ceast of South America: but a considerable portion of the foreign trade of Peru is now carried on through Buenoe Ayres, and the former is also in the habit of importing European goods at secund hand from Valparsise and other ports in Chill. The exports from Ilma consiat jrincipally of silver, which is by far the most important article, conwer ore, berk, soap, Alpaca wool, etc. Goano is found in large quantities on some parts of the const of Peru, but is principally importad from some small islands, opposite to Pisco, where it is found in vast !uantities. The grent value of guane as a manure is now gederally recognized, and it is harilly of less importance as an article of commerce, no fewer than 80,000 tons having leen imported in 1847. It was partly, however, lirought from Chili and other ports, as well as from Peru; but that from the latter is decidelly the best. The importa consist principally of cotton staffa, linens, woolens, and hardware, principally from lingland; silks, hrandy, wine, and quicksilver from Spain and France; stock-fish and fleur from the United States, indlgo from Mexico, Jaragnay herb from laraguay, spices, dyo-atuffs, ete. Timber for the construction of silips and houses is brought from Guayaquil. For :..nneys, weights, and measures, rea Pervy.
Lime (Ger. Kalk; Fr. Chatix; It. Culcina, Colve; $\mathrm{Sp} . \mathrm{Cal}$; lus. Istrest), an earthy aubstance of a whito color, moderately hard, hut whleh is easily renluced to powder, either hy sprinkling it with water or by trituration. It has a hot burning taste, and in some measure corrodes and iestroys the texture of those andmal looties to which It is applied. Specific gravity, $2 \cdot 3$. Calcium, the metallic busis of lime, was discovered by Sir 1I. Wayy. There are few parts of the Forld in which ime does not exist. It is fi und purest in limestone, marble, aud chalk. None of these suibstances is, however, strietly spoaking, lime; fint they are all casily converted into it liy a weli-known proceas ; that is, ly placing them in kilas or furnnees constructed for the purpose, and keeping them for some time in a whito heat-a process ealled the burning of time.- Trosson's Chemistry. The nse of lime as mortar in lonilding, han jrevaled from the earliest antiquity, and is nearly nuiversal. It is also very extensively uset in this country, and in on inferior degree in some parts of the Continent und of North Anseriea, as a manure to fertilize land. Hut it is a curious fact that the use of lime ns a manure is entlreIf a liuropean practice; and that its employment in that way has never been no mneh as ilreamet of in any part of Aala or Africa. Lime is of mnch importance in the arts, as a flux in the amelting of metals, in the thape of chlorate in heaching, in tanniug, etc. Lime and limestones may be carried and landed coastwine without any custons document whatever. Its conmaption in this country la very great.

Lime (lir. Citronier; Ger. Citrone; Hinil. Neem-
bo), a species of lemon (Citrus medica, var. $\delta$ C.),' which grows in ubundance In most of the West India islands, and is also to be r. ot with in some parta of France, in Spain, Portugal, and throughout India, etc. The lime ls smalier than the lemon, its rind is uaually thinner, and its color, when the fruit arrives at a perfect state of maturity, is a inse bright yellow. It is uncommenly jalcy, and its flavor is eateemed superier to that of the lemon; is is, besides, more acid than the latter, and to a certain degree acrid.

Limeriolk, the principal city of west Ireland, and a parliamentary and mnnicipal borough, river port, and county of itself, anil capital ceunty. Limerick, on an jaland in the Shannen, and on both bankn of that river, haing partiy in county Clare, 50 milea sum the Atlantic, and 25 miles N.N.W. Tipperary, wlth which town it communicales by railroad. Lat. $52^{\circ} 40^{\prime} \mathrm{N}$. , long. $8^{\circ}$ '5' W. Area of horder, 70,000 acres. Popalation 1851, 55,268. Inhabited houses, 5,506. Population of town. 53,274 . There are numerous flour mills, but manufactoriea are very limited; those of lace and flahhooks are the principal; the trade, consisting of imports of Iritish manufactuies, coal, turf, continental and colenial produce, and of exports of corn, meal, butter, beef, pork, is frent, and still ineressing. Ships of 500 tens unload at the quays, and these of 1000 tons approach withln 5 miles of tha city, which by stemmers on the upper Shannon and by canale, hat also a wuter communication with Dublin.
Lime-tree. Lime-tree, Black Lime-tree, Smoothleaved Lime-tree, 13ass-wood. The Tilia Americana, like the Europesn linden, is rogarded as one of the finest of forest trees, snd when cultivated, proves highiy ornamiental. In our native woods it often riaes more tha, 80 feet in beight, and frequently upward of fowr fect in diametor ; and there is little deubt but, if cultivated, and judiciously treated, it would reach a size little inferier, If not equal, to the Faropean species. Its body is straight, uniform, und rurmounted with an amplo and tufted summit. In winter it is rendily recognized by the rohust appearance of the trunk and branches, and by the dark-lirown color of the lurk on the ahoots.

Grogrophy ond Mistory,-The Tilin Americana is found in Caumila and the northern parts of the United States. It hecomes less abundant toward the south, except on the Alleghanies, where it ls found quite ut their termination in Georgin. It is profusely multiplied on the borders of Jakes Erie, Ontario, nnil ia Naine, Now llampshire, and Vermont. It was culthvated in England by Miller, in 1752, but has not been very extensively distributed. The Tilia Americana lariflora is said to abound from Maryland to Georgia, near the aen-coast. It was intmoluced into IBritain in 1820, and is bu: sparingly cultivated in that country. The Tilia A nericano pubescens belongs to the southern parts of the United States, Florida, Kentucky, and Taxas. It is said to be the only variety found in the marithue parts of Carolina, Georgia, and Florida. Seeds of this tree were carried from this country to Fuyland by Mark Catesby, in 1726; but it does not ajpenr to have been much cultivated. The Tilia Ameritura atba is not met with east of the River Delaware, but it is found in Pennaylvania, Maryland, Delaware, Virginia, Ohio, Kentiecky, and Georgia, It is salil, also, to grow on the Kiver Santec, in South Caroilina, and orthe Misnissippt. It is remarkable, that, ulthongh thls variety was knewn in France in 1755, it ahould not have been latroluced into England till 1811.

Properties and Uses,-The wool of the Alverican lime-tree, when dry, weighs 85 pouads to a cuble foot. It is very white, when grnen, but becomes of a lightbrown hme, when searonel. It is noft, ensily worked, and is often sawed into boards, which do not warp, like those formsd of resineus trees. In the northern parts of the United Stateg, nud in the liritish prov-

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inces, where the tullp-tree does not abound, it io need for the panels of carriage bodiea, and the seate of chairs. In Kentucky end the western Staten, the wood of the white lime lo often substltuted for that of the white pine. In various parts of the country, it is turned into domestic utensils of vartous kinds; and is also carved Lite frages. for the heads of veesels, and other ornamental work. The young trees are sometimes cut, and employed as ralls for rural ferces; but they are not durable when thus exposed. The wood ls almost useless as fuel, when green, being too full of sap, and of but littie value when dry. The cellular integument of the bark is separated from the epidermis, and, after being macerated la water, is furmed into ropes, after the meaner of making them in Europe, of the other speries. The bark was also employed by the Lennl Lenape Indians for making lines and ropes, as well as for covering their habitations. The outer bark of the Tilia Americama is rough and stringy, and the inner portion viscid, and sweet. The twigs and buds are very glutinous when chewed, and afford considerabla nutriment. In severe winters, when fodder is scame, It is common for the farmers of the British American provinces, as well as those of Malne, New Hampshire, ad Vermont, to drive thoir cattle Into the wools in the morning, and fell a base-wood or other tree, on which they eagerly browse during the day.

The wood of the European lime-tree, or iinden-tree, as compared with that of the oak, the ash, und other timber trees, holds but an inferior rank, and lo only used in such wo.ks ne aro not to be exposed to the alternatione of moisture and dryness. It is of a pale yeilow, or white, close-grainell, soft, light, and smooth; and, when seasoned, It is net llable to be attacked by lnsects. It la used by piano-forte-makern for nound-ing-hoards, and by cablnet-makers for a variety oi purposes, as it does not warp under atmospheric changes. It ls turned into domestle utensils of various kinds, curved into toys, and turned into smali boxes for npothecaries. The most elegant use to which it is appllied, is for carving, for which it is superior to every other wood. Many of the fine carvings in Win-lnor Castle, Trinity College Lilbrary, at Cumbridge, and in the Duke of Devonshire's mansion, at Chatworth, nre of thia wood. It in eaid to mako excellent charcoal for gunpowiler, even beticr than alder, and nearly $a_{s}$ good as hazel, or willow. Ilaskets and cradles were sormerly made from the twigs; and shoomakers and glovers are said to prefer pianks of limetree for cutting the finer kinds of leather upon. The leaves of this treo are collseted in Sweden, Norway, Carniola, and Switzeriand, for feedling cattle; though, in Swellen, Linnues eays, they communicate a bad flavor to the milk of cows. One of the most important ases of the lime-tree, in the north of liatupe, is that of supplying material for making ropes and mats ; the lntter of which enter extensively into European commerce. The Russian peasants weave the bark of the young shoots for the nuper partin of their shoes, the bark of the trunks or large liranches rerving for the soles ; and they also make of it, tied together with strips of the inner bark, baskets and loxes for domesthe purposes. The outer bark of odd truen also nilpplies them, like that of the birch, with tiles for covering thelr cottager. Ropes aro still made of the lark of this tree In Cornwall, and in some parts of Devonwhire. The manufacture of mata from the inner bark, however ln now chletly confined to lluassia, pind to pome pais of Sweilen. 'Trees from alx to twelve inches in diameter are melected at the beginning of summer, when, from the expansion produred from the ascendlnge mep, the bark parts freely from the weot. The bark is then stripied from thein in lengtlus of six to elght feet, and is afterwarl stecped In water till it meparates freely in layers. It in then taken out, and divhled into ribbons or strands, und hung up in the
shade, generally in the forest where it grows, and; in the course of the summer, is manufactured into mats, $s 0$ much in use by gardeners and upholsterers, and for covering packages generally. The fishermen of Swe den make nets for catching flish, of the fibres of the Inner bark, separated by maceration, so as to form a kind of flax or hemp ; and the sinepherds of Carnlola weave a coarse cloth of it, which eerves for their ordlnary clothing. The sap of the lime-tree, drawn off in apring, and evapornted, affords a considerable quantity of augar. The honey producod from the flowers is considered euperior to all nther kinds for its dellicacy; aelling for three or four times the price of common honey; and it is used in the proparation of medicine and for making particular liqueurs, more especislly rosoglia. This llme-tree boney is only produced at the little town of Kowno, on the River Nlemen, in Lithuania, which is surrounded by an extensive forest of lime-trees, and where the management of the honcy. bee oceuples the principal attentlon of the inhabitants. The Jews of Poland produce a close imitstlon of this honey, by bleaching the common klnd In the open air, during frosty weather. The fruit of the lime-tree had long been thought of little use, till M. Missa, of laris, by triturating it, mixed with nome of its وowers, succeeded in procuriag a butter, perfectly resembling chocolate, both in taste and consisteacy ; but, unfortunaieiy, it was found that the lime-tree chocolate would not keep. It has been suggested whether some of the Americsn varieties of tilia would not prove successfal in thls particular. In England, there are many ancient lime-troes, planted in towns, hecause, in olden times, their odor was considered ss purifying to the air, nni to be good against epilepsy,-1]rownf.'s Trees of A merica.
Iline, in Geomotry, a quantity extended in length only without breadth or thickness. It is formed by the finx or motion of a point. Line, in the art of war, is understood as the disposition of an army runged in order of battle with the front extended out so that it may he flanked. Line of battle ls also untlerstood es the disposition of a floet in tho day of engagement; on which occataion the vessele are usually drawn up as much as poasibie in a stralght lino, as well to guin and kerp the advantage of the wind as to run the same board. Horizontal line, in Geograjhy, and Astronomy, a line diswn parallel to the horizon of any part of tho earth. Equinoctial line in Geography is a great circle on the earth's surface exactly at the distance of $90^{\circ}$ frum eseh of the poles, and of consequence bisecting the earth in that part. From this imaginary line the degrees of longitude and latitude are reckoned In Astronomy, the equinoctial line is that cirele which the sun seens to describe round tho earth on the daye of the equinox in March and September. Meridian line, is an Imaginary circle drawn throngh the two poles of the earth and any fart of its surface.

Linan (Ger. Linnen, Lжinvaml; Du. Lymetat: Fr. Tuile; It. Tohr, Punno, lino; Sp. Lienza, Tels de lino Rus. I'hotno), a apacien of cluth made of thread of flax or hemp. The linen manufucture has been prosecuted in lingland fur a very long periol; bat though its progress has been consileruble, particularly of tate years, it lata not been an great as might have been anticipated. This la partly, perhaps, to he useribed to the efforts that have been made to looster op and encourage the manufacture In Ireland and Scotland, and partly to the rapil growth of the cotton manufacure -fabries of cotton having to a considerable extent supplanted those of linen.
linen is a fabrie of very remote antlipuity, l'haranh arrayed Joseph in ventares of the linen,-Gen., xlt. 42. This artiels was tirst manufactared in Fingland by Flemish weavers, under the protertion of Heury III. 125:. Hefore this perion woolen shirts were generally worn. A company of linen weavers catabliwhed Itself in Lomion, 1368, and the art of stain- -

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ing linen became known in 1579. A colony of Scots in the relgn of James I., and other Preabyterians who fled from pereecution in that country in the succeedIng Inglorious reigns, planted themselves in the northesst part of Ireland and there established the linen manufacture. It was liberally encouraged by the lord deputy Wentworth, in 1684. Hemp, flax, linen, thread, and yarn, from Ireland, were permitted to be exported daty free, 1696. This law gave rise to the subsequently improved state of the msnufacture there. The Irish Linen Board was eatablished in 1711; the Liaen-hall, Dublin, was opened, 1728; the Board was abolished in 1828. Danfermline in Fifeshire, Dundee in Anguashire, and Barnsley in Yorkshire, are, in Great Britain, chief eeats of the linen manafacture.
Spinning by the hand is now mearly unknown in Ireland, and the manufacture has disappeared from several parts of the ecrintry, where it had been largely introducea, leaving those who were partially Anpenilent on it for aubsiatence, in a very depressed state. On the whole, however, thero can be no doubt that the introduction of the factory system will be, in the end, most advantageous. Belfsat has long been the great seat of the manufacture in Ireland, and there it is carried on in large factories furnished with the best machinery, and conducted on the most upproved principle. In 1841, there were in the town and its inmediate vicinity, 25 steam mills for spinning linen yarn, one of which employed 800 hands. In 1835, the exports of linen goods from lelfust, amonnted to 53,881 ,000 yards of the value of $£ 2,694,000$. Aecording to the offichal returns, there were in Ireland, in 1838, 40 flax-mills employing in all, 9,017 hands. The total average export of linens from Ireland during the 3 reurs ending with 1825 , was $51,917,413$ yurda, of which $49,031,073$ camo to this country; the exports to all other parts being only $2,916,340$. Since $18 \div 5$, the trade between Ireland and Great Ilritain has been placed on the footing of a coasting trade; and linens being exported and importel without any specifle entry at the custom-house, no accomst is kept of their quantity and value.
Seotch Linen.-In 1727, a Board of 'Trustees was eatablished in Seotland for the suporintendence and improvement of tho linen manufacture. It is not easy to suppose that the institution of this Board could of itself have heen of any material eervice; but conslderable bountics ond premiums being at the same time glven on the production and exportation of limen, the manufacture went on inereasing. Still, howover, it did not lucrease so fust as cotton and some others, which bave not recelved any adventitions support, until machinery bogan to be extensivaly employed in the manufacture; so that it la very doulitful whether the influence of the bounty has beon so great as it would at first sight appear to have been. The regulations us to the munufacture, after haviug beon long ol:jceted to hy those concerned, were atolished in 1822 ; and the bounties have now ceased.
Dandee is the grand seat of the Scoteh linen manufacture; and its progress thero during the last few years has been so extruorlinary, that the following detills in respect to it may not bo unscceptable. The manufaeture appears to lave been introducel into lhundee some thme toward che beginning of last century; but, for a lengthened perioil, its progress was comparatively slow. In 1740 only it tons of thax were linported, withont any hemp; the shipments of linen clath during the same year being estimated at about $1,000,000$ yarls, no mention hoing made either of sall-eloth or bagging. In 1791, the Imports of flax rmennted to 2,444 tons, and those of hemp to 299 tons ; the exports thit year being $7,842,000$ yards linen, $2 \times 0,000$ yards sall-cloth, and 05,000 yards hagging. From this period the trade began to extend itself graduslly, though not rapidly, ['reviously to the peace of 1815 , no great quantity of machinery was ell.
ployed in apinning; but about this period, in consequence, partly and principally, of the improvement of machinery, and lts exte sive introduction into the manufacture, and partly of the greater regularity with which supplies of the raw material were obtained from the Northern powers, the trade begin rapidly to increase. Its progress has, indeed, been quite astonishing ; the imports of flax, and hemp haviag lncreased from about 3000 tons in 1814 to 15,000 tons in 1830 , and 40,000 tons in 1845 , of which at least 30,000 tons were apun by the mills in the town, the rest being epun in the vicinity. The value of the exports of manufuetured goods and yarn, from Dundee, smounts at preeent (1847) to from $£ 1,600,000$ to $£ 1,700,000$, a year.
An Account of tile Quaxtitige of tile dipfegent Variettes of Linfen Goode kxportro from Dundies durino kacil of tite Foua Yeara emdino witit 19 as.

| Liment. | 1831. | 1885, | 184. | 1846. |
| :---: | :---: | :---: | :---: | :---: |
|  | Pleces. | Plecen. | Pleeep. 78816 |  |
| Sheeting | 18t,660 | 165,959 | 263,345 | 231,904 |
| Cotton baggtng | 65,592 | 80,158 | 10,524 | 952 |
| Sandrles.... | 7,895 | 12,511 | 16,009 | 28,886 |
| Sall-cloth | 72,268 | 108,010 | 118,264 | 160,861 |
| Sackting ....... | 45,893 | 57,177 | 174.759 | 132,817 |
| Dowlas. | 41,915 | 46,733 | 82,983 | 78,181 |
| Suudrtes. | 11,500 | 18,709 | 24,897 | 20,290 |
| Total. | 474,2310 | 618,707 | 774,591 | 784,910 |

It is not easy to give any satisfactory explanation of the remarkable progress of the linen manufacturo at Dundec. Something must be ascribed to the conveniont eituation of the pert for obtalning supplies of the raw material ; and moro pe.haps to the manufacture having been long established in the towns and villages of Strathmere, the Carse of Gewrie, and the northern parts of Fife, of which Dundee is the emporium. But theee circuinstances do not seem sdequate to explain the superiority to which she has recently attained in this department; and however unphilosophical it may seem, we to not really know that we can ascribe it to any thing else than a eoncurrenco of fortunate accidents. Nothing, in fact, is so dillicult to explain as the superiority to which certain towns frequently attaia in particular departments of Industry, without apparently possessing any peculiar facilities for carrying them on. Ilut from whatever causes their pre-eminence may arise in the first instanee, it is very difficult, when onee they have sttained it, for others to come into competition with them. They have on their side established connections, workmen of auperior skill and dexterity in manipulation, improved machinery, etc. Recently indeed the advantuges in favor of old establishments have heen, to a considerable extent, neutralized by the prevalenco of combinations among their workmen; but it is to bo hoped that moans may be dovised for obviating this formidable evil.

Talue of Mannficture.-There are no means by which to form an aceurate estimate of the entire value of the linen manufacture of Great lBritain and Ireland. Ir. Colquionn estimates it at $£ 15.000,000$; but there can not he the shadow of a doubt that this estimate was, at the time, nbaurlly exaggerated. In the last edition of this work we estimated the annual value of the manufucture at $£ 7,500,000$. But It has hereased very rapially in the interval, principally through the great extension of the oxports of lirunce, and lte value is at present (18.17) certainly not under, if it do not exceed $£ 10,000,000$ or $£ 12,000,000$. llut taicing it at the former nmeunt, and setting nside a third part of this sum for the value of the raw material, and another thirl for protits, wuges of superintendence, wear and tear of eapital, coal, ete., wo havo $£ 3, a 33,000$ to be divided as wages among those euployod in the manuracture. And supposing esch individial to earn on an averuge $\mathrm{c}_{2} 4$ a year, the total number employed would be about 133,000 . It may be thought, perhaps, that £24 is to low an estimate for wages; and euch, no
doubt, would be the case were not Ircland taken into the average. But as many persona are there employed in the mudufacture at very low wages, we believe that $\Sigma 24$ la not very fur from the mean rate.
The rapld increase In the exports of linen goods and yarn, espeelally the latter, to France (eee for an account of this increase the artlcle HAVRE), though latterly they have declined, is wholly a consequence of their comparative cheapness in this conntry, oceasloned by our auperior and cheaper machinery. And If the French reaily wish to rival us in this department of Industry, they ehould endeavor, by reducing or repealing the oppressive duties on Iron and nuchinery imported into France (which would, of course, proportionally reduce the cost of the spinning-mills and pow-er-loom factories), to place their manufacturers and spinners on something like the sume footing as ours. In this way they might, perhups, have some chance of rivaling us; but the attempts that bave recently been made to bolster ap the manufacture by means of dutien, must necessarily fail, and will have no effect but to perpetuate exploded practices, and to promote the trade of smuggling. The liritish exports of linen goods are also increasing to most other countries, as well as to France; and we are galning on the Germans in most markets that are equally accessille to both. Hence the decrease of late yeurs in the export of linens from Hamburg. The improvement in the manufacture of damaska and table-linen generally, whleh is prinelpally carried on in Dunfermine anid Kirkcally, bas been quite as striking as in the other departments of the trade, especially since the intioduction of the Jacquarl mounting. In fuct, tablelinen is now shippel from this country for Germany ; so that the duty of 10 per cent. on the importation of German damasks and nuch like fabrics might be reduced or repealed without the measure having any injurious lafluence over the manufacturer.
Tabulan view of fuil fonkion Fixpokts of Lisres Goons Fhom Ginear liatrain roa mach igan from 1821 to 1Siss, воти jncecaive.

| Years | Value. | Years, | Vmlae. | . | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1421. | 1.951.485 | $18: 12$. | 1,655,478 | 1944. | ,742,042 |
| 152 | \$,192,778 | 1539. | 2,289, 036 | 1844. | 4,075, 476 |
| 152\% | 2,095,571 | 1544. | 2,579,658 | 1845. | 4.104,983 |
| 1824 | 9,442,440 | 1285. | 8,405, 778 | 1846. | 8,7616,212 |
| 1225 | 2,180,705 | 1386. | 8,645,497 | 1847 | 8,619,778 |
| 1826 | 1,409,647 | 1887. | 2.646,758 | 1818 | 8,292,704 |
| 18y? | 1,995,185 | $1 \times 35$. | 8,566,435 | 1849 | 4,140,468 |
| 1,925 | 9,000.038 | 1859. | 4,234, 453 | 1450 | 4, 945,680 |
| 1829 | 1,565, 831 | 1340. | 4,125,064 | $15 \% 1$. | 5,06t,096 |
| 1830 | 1,226,256 | 154t. | 4.820, 121 | 1592 | 5,467,571 |
| 1581. | 2,501,503 | 1842. | 3,872,300 |  |  |

gtatement nhowido the Ixponts of hank into the


| Hfuricta | Unen bleached of unbleached. | Hosiary and articles made on frames. | Manafactaren net almeitiod. |
| :---: | :---: | :---: | :---: |
| Paskamaquodily. | -1,9098 | $\cdots$ | . $\cdot$. |
| Portland \& F'alinoutb | 18,788 | .... |  |
| (1oncesters. |  |  | \$806 |
| Jostond Charleatown | 641,298 | ... | 464,159 |
| Niagara. . . . . . . . . . | 96 |  |  |
| C)avegatehle | 1 |  | 4 |
| New lork.......... | 7,80\%,7is | (4,650. | 601. 897 |
| Chatuplain. | .... | .... | 748 |
| Cape incent ...... |  | .... | 10 |
| Phitauloiphis.... ... | 983,469 | . . . | 229,971 |
| delaware. | St |  |  |
| 8alitinore. | 125,499 | 11 | 14,5\%1 |
| Charleston | 42,74.3 | 24 | 2,671 |
| Savanhah. |  |  | 4001 |
| Noblle.. | 14,482 | ... | 8,843 |
| Key Weat. . . . . . . . . | 0,09 | .... |  |
| New Orleans. | 351,169 |  | 12,961 |
| Texas. | 104 |  | 997 |
| Aalurla. . . . . . . . . . | $\cdots$ | 29 | .... |
| IIrazos de Handiago.. | 1.93 |  | 63 |
| Ietrult. . . . . . . . . . . | 1,615 |  | 20 |
| Michilimackinac .... | \%09 | . |  |
| San Frasuctseo. . . . . . | 87, 995 |  | 4,460 |
| Total | 69,849,600 | 04,921 | 11,844,942 |

Consumption of Fureign Linens.-Acrording to the returns of the lmports and entries of forelgn linens
for the four years ending with 1844, the consumption of forelgn llness in England ls quite inconsiderable ; the real or declared value of those entered for home ; consamptlon in 1844 conld hardly amount to $£ 40,000$.

Until recently, this manufacture has been neglectod in the United States. Lately, however, mills have been erected to teat the profitablenese of linen manufacture. In Fall River, Mass,y new mills bave been bullt, but not long enough in operation to give any
etatlistles.
Lingeed. The manufacture of linseed oil has greatly Increased within a fow years, encouraging the Importation of seed from Calcutta and other placea. The Imports of linseed into Bonton from Calcutts for the yeur 1856 were $1,387,944$ bushela, valued at \$1,841,719. The imports of linseed into the United States for the year 1856, amounted to 1,606,294 hushosl, of whlch $1,691,875$ bushels were from the East Indies.
By the offletal returne it appears that the imports into the United Kingdoma in 1856 amounted to $1,180,179$ quarters of llinseed, and to 264,919 of rape-seed, showlug a very great increase in both cases as compared with the previous annual arrivals. Annexed are the official returns for the laat 16 years, during which the consumption of the manufactured articles has made rapid atrides.

| Years. | Luneed. | Rapa-seed. |
| :---: | :---: | :---: |
| 1841. | Cumararai | $\begin{aligned} & \text { Quantrema- } \\ & \hline 9,+12 \end{aligned}$ |
| 1512. | 8 84, 700 | 65,655 |
| 1548. | 470,039 | 87,197 |
| 1845. | 66,9678 | 64,834 |
| 1468. | S106, 141 | +4,677 |
| 1817. | 488,512 | 47,023 |
| 1848 | 799,050 | 79,9\% |
| 1849.. | 626695 | 29,40 |
| $1 \times 51$. | $61<994$ 630,471 | 107,029 |
| $1 \mathrm{~K}_{1} 2$. | 799,4012 | 4.394 146240 |
| ts3. | 1,035,835 | 16, 1 1, |
| 1850. | 829,549 | 109,154 |
| 1850. 1596. | (\%501,950 | 169,353 |
|  | 1,180,1\% | 204, 319 |

Liquorice (Ger. Suasholz; Fr. Réglisse, Racine douce; 1t. Regolizia, Logurizia, Liquirizia; Sp. Kegaliz Orozuz), a perennial plunt (Gilycirrhiza glabra), a native of the south of Europe, but cultivated to some extent in Englumi, particularly at Mitcham in Surres: Its root. which is its only valuable part, is long, slender, fibrous, of a yelluw color, anil when fresh very juley. The liquorice growa in Englund is sit for use at the end of 3 yoars ; the roots, when taken up, ure either Iminediately sold to the brewers' druggists, or to common druggiste, by whom they are applied to difforent purposen, or they ure pucked in sums, fike carrots or potatioes, till wanted. The roots of liguorice have heen introduced into the middle und southern States, and huve thus fur lieen successful. Firom the increaning demands for this root, it is probuble that it could tee cultivated profitably. The amount annually imported (and manufactured), is valued at ulx ut $\$ 300$,000.

Liquorice Juice (Sucrus Liquoritir), pupularly black sugery, the Inspissated juice of the roots jusc mentioned. Yery little of this extract is prepareel in lirit. ain, by far the larger part of our supply leing inported from Spala and sicily. The juice oltained by erushing the roots in a mili, and subjecting them to the prens, is slowly hoiled till it becomes of a proper connistency, when it is furmed lato rolls of a considetable thickneas, which are usitully covered with lay leaves. This in the state in which we impert it. Most part of it is afterward redissolved, puritied, and cast into smali eylindrical rolls of abvout the thichness of a goose quill, when it is called refined liquorice. It is then of a glosay black color, brittle, huving a aweet muellaginous tuste. It is used in the materia nedica, particularly in colds, eic.-Trosssos's Chemistry.

Lisbon, the capital of Portugal, sitnated on the north bank of the River Tagus, the observatory of the fort being in lat. $88^{\circ} 42^{\prime} 24^{\prime \prime} \mathrm{N}$., long. $9^{\circ} 5^{\prime} 50^{\prime \prime} \mathrm{W}$. Popalation : aisout 240,000 . The Moore are sald to buve given the name of Lisboa to thls city when they co"qui d it, - ?. 718. It was made the capital of Porturgal by Emanuel, 1506. Lishon was almost deatroyed by an earthquake, November 1, 1755. See Earthquakes. It became a point of the late war, and the court fled to the Brazils, November, 1807, in which month (the 80th) the French army under Junot entered Lisbon, and held possesalon of it until the battle of Vimeira, In which they were defeated hy the British, under Sir Arthur Wellesley, August 21, 1808. Insurrection at Lisbon, August 21, 1881. Massacre at Lisbon, June 9, 1884. See Portvonl.
Port.-The harbor, or rather road, of Lisbon is one of the finest ln the world, and the quays are at once cosvenient and beantiful. Fort St. Jullan marks the northern entrance of the Tagus. It is bullt on a steep projecting rock. There is a light-house in the centre, 120 teet sbove the level of the sea. At the mouth of the Tagus are two large banks, called the North and South Cachops. There are two channels for entering the river; the nurth or little, and the south or great channel, exhibited in the ordinary charts. On the middle of the South Cachop, abont $1 \frac{1}{2}$ miles from Fort St. Julian, is the Bugio fort and lighthouse, the latter being 66 feet in height. The least depth of water in the north channel on the bar is 4 fathoms, and in the south, 6. The only dangar in ontering the port arises from the strength of the the; the ebb running down at the rate of 7 miles an hour; and after heavy rains, when there is a great deal of fresh water in the river, the difficulty of entering is considerably angmented. When at such periods, there is s strong wind from tho sea, there is a complete break all over the bar; vessels moor up and down the river with open hawee to the southward. In gome parts they may come within 200 yards of the shore, being guided by the depth of water, which, from nearly 20 fathens in mid-channel, ehoals gradusily to the edge.

Trude, etc.-Lisbon is one of the best situated commercial cities of Europe. But notwithatanding this circumstance, the excellence of the port, and the command of the nevigation of the "agus, her commerce is comparatively trifling. Lisbon has a royal manufactory of fire-arms and powder, and a csninon foundery ; other manufactories comprise silks, parceiain, paper, noap, jewelry, and trinkets ; none of these, except the inst, is in a flourishing state. The despotism, intolersnce, and Imbecility of the goveremont have weighed down all the energles of the nation. The law and $p$ lice theing alike bad, there is no adoquato security. Assassination is very frequent. Induatry of sil sorts is, in consequence, paralyzed ; and alnce the independence of Brazil, commerce has rapidly decliced. Formeriy I.lsion had about $\mathbf{4 0 0} \mathrm{ships}$, of from 300 to 500 tons burden, employed In the trade with South Americu. But at present tisere are not above 50 ships belonging to the port enginged In foreign trade; and, of these, the average burten tioes not exceed 150 tens! The produce of Portugal ment to foreign countries, is almoat entirely conveyed to its destination $\ln$ forelgn ships. The trale between Ilstwa and Cork, is, we believe, the only except' in to this; it being principally carried on in l'ort' \&uese ressels, which take salt from St. Ubes, and bring lonek botter in return. About 200 small craft belong io the city, which are exclusively employed in the coasting trade. There are neither price currenta, shipping lists, nor official returna of any kind, published In Lisbon. The priacipal exports are lemons and orangeswhich, however, are very Inferior to thoee of Spain; wine, particularly Llston and Calcavella ; wool, oil, tanned hidea, woolen caps, vinegar, salt, cork, eto.

Besides colonial produce, the principal imports consist of cotton, woolen, and linen gooda; hardware, earthenware, drled fish, butter, corn, cheese, timoer and deals, hemp, etc.

Mfoney.-Accounts are kept in rees, 1000 of which $=1$ milree. In the notation of accounts the milrees are separated from the rees by a crossed cypher ( $\theta$ ), and the milrees from the millions by a colon: thus, Rs. 2:700 $\theta 500 \Rightarrow 2,700$ milrees and 500 reea. The erur sado of exchange, or old crusado $=400$ rees; the new crusado $=480$ rees; the testoon $=100$ rees; and the vinten or vintem=20 rees. The gold piece of 6,400 rees $=35 \mathrm{5}$. 11d. sterling ; the gold crusado $=2 \mathrm{~s}, ~ 8 \mathrm{~d}$; and the mifree, valued $\ln$ gold $=67 \frac{1}{2} \mathrm{~d}$. sterling. It appeare, however, from assays made st the London mint, in 1812, on modern eilver crusadon, that the average value of the milree $\ln$ silver may be estimated at 60 d . or 5 s . sterling. Weights and Measures.-The commerclal weights are, 8 ounces $=1$ maro; 2 marcs $=1$ pound or arratel ; 22 pounds $=1$ arroba ; 4 arrobas $=1$ quintal; 100 lbs , or arrstels of Portugal $=101 \cdot 19$ lbs. avoirdupois $=45 \cdot 895$ kilogrammes $=9 \pm \cdot 761 \mathrm{lbs}$ of Hamburg $=92 \cdot 918$ lbe, of Amsterlsm. The principal measnre for corn, salt, etc., is the moyo divided into 15 fanegas, 30 alquí́res, 240 quartos, 480 selemis, etc. The moyo $=23.03$ Winchester hushels. The princlpal liquid measure is the almude, divided into 2 potes, 12 canadus, or 48 quartellos; 18 almudes $=1$ baril; 26 almudes $=1$ pipe; 52 almudes $=1$ tonelada. The almude $=4 \cdot 37$ English wine gallons; snd the tonejada $=227 \frac{1}{3}$ ditto. A plpe of Lisbon is estimated by the custom-house (Britlsh) at 140 gallons; and this plpe is supposed to be 31 alnudes. A pipe of port is 160 galtons, divided into 21 almudes ot Oporto.. Of measures of length, 2 pes $=3$ palmos $=1$ covado, or cubit; 19 covados $=1$ vara; 2 varus $=1$ branga. The pe or foot $=12 \cdot 9 \cdot 4$ English inches ; 100 feet of Portugal= 107.8 English feet; the vara=.43.2 English inches. For freight a last is reckoned at 4 pipes of oil or wine, 4 chests of sugar, 4000 lbs . of tobscco, $8,600 \mathrm{lbs}$ of shumac. Bat from one place In Portugab to another, a tonelads is reckoned at 52 ulmudes of liquld, or 54 almuiles of dry goods. Coffee is solit per arraba; cotton, indigo, and pepper, per lb. ; oll, per almude; wine, per pipe; corn, per alquiere; salt, per mojra Grain, seed, tish, wool, and timber aro sold on board. Weights and long ineasures are the came throughont Portugal; but there ls a great discrepancy in the measures of capacity. The slmude and alquiére, at the principal places, are in English measures as follows: Lisbon almude $=5.37$ gals. Engligh wine measure; Lisbon alıjuiére $\Rightarrow 3-07$ gals. Winchester measure; Oporto aimude $=6 \frac{5}{5} \mathrm{~g}^{2} \mathrm{l}_{\mathrm{s}}$. wine measure; Oporto alquiére $=37$ gals. Wbichester measu:e ; Faro ailmude $=$ $4 \frac{1}{4}$ gals. wine uneasure ; Faro alquióre $=34$ gals. Winchester measure; HIguiera shnude $=5$ g gals. Wine meusure; Figuiora alquere=-34 gals. Winchester measure; Vianna aimude $=6 \frac{1}{2}$ gals. wine measure; Vianua alquiére $=37$ gals. Wlnchester measure.

Bunk of Lisbon.-1'his establishment was founded in 1822. Its capital conslsts of about $£ 700,000$ ster ling, divided into 7000 shares. The ahareholders are not linble beyond the amount of their shares. The tank discounts bills not having more than 3 months to run, ut 5 per cent. Its dividends, at an average of the 3 years ending with 1831 , wero about 6 per cent. It eajoys the singular but valuabie privilege of haviut its ciaims on all estates pald off in full, provided the entate amounts to so much; other creditors being obiged to content thenselves with a division of the residue, if there be any.

Port regulations.-Ail vessels ontering the Tagus are obliged to come to anchor off lielem Castle, where there is an office at which they must be entered, their cargoes declared, from whence they come, and whether the cargo be Intended to bo landed In Lision or not: If not, the mater appliea for "franquic," that is, for
loave to remain 8 days in the port for the parpose of disposing of the cafgo or of departing with ito is Two custom-hause officers are then eent on board; and if the cargo is to be discharged at Lisbon, the vesmel proceeds to the custom-house, when ishe mastor makes ontry, delivering the manifest and bilis of ladiag attached to the certificate of the Portnguese conanl, at the port of lading, in order to identify the cargo. The officers put on board at Belem are then relieved by two others, who remain until the veasel be diacharged and visited by the custom-house searcher, The port dues have to be paid in different affices; but the vessel is not aubject to any other chargea.
All goods sent on board for exportation muat be accompanied by a permit from the custom-house. When the cleurances are obtained, the papers are presented by the master, or the ship's agent, to the authoritien at Belem, wha deliver the signal the vensel is to hoist when going to sea.
There is no regular warehousing and bonding system at Lisbon. All imported dry goods are allowed to remain In the cuatom-honee atores 2 years, and liquide 6 months, without being charged warehouse reat, provided thoy are Intended for coneumption, and pay the duties accordingiy. But if, after that period, they are then taken ont to be exported, they are charged 2 par cent. duty.

Pout Charges.-On a foreign ship of 300 tuns entering the port of Lision, with a general or mixed cargo, and clearing out with the same:


Total. . $\qquad$ $66,260=511$ fa, Och.
Vessels coming with a cargo, or in ballast, and departing in ballast, pay 200 rees per ton lighte, or 4 times as much as if thry sailed with cargoes. Vessels coming with seargo, and sailing with the same carge, fay no tonnage duty.

Commision-T The ordinary rates of commisaion are, on the sale of goods, $2 \frac{1}{2}$ per cent.; del credere, 21 pur cent.; on the value of goois laniled from a vessel putLing in to offect repaira, I per cent. ; on ship's disbursements, 5 per cent.

Inarumaces are effected to $n$ trifling amennt. There is one national company for effecting insurances ; but it enjoy. littie credit.

Tares are not regulated ly any certain rule. Those allowed are generaity those invoiced or marked on the packaye. See Annuaire du Commerce Maritime, p. 290 ; Kelly'm Cambiat ; Connula' Anarera to Circular Querime, etc.

Litharge (Ger. Giotte, Glatte; Du. tielit; Fr. Litharge; It. Litargirio; Sp. Almartaga, Litorjirio; Rus. (ilet; Jat. lithurgyrium), an oxyd of lead in an injerfect atate of vitrification. Most of the lead nuet with in commerce contains silver, from a few grains to 20 ounces or more in the fodder: when the quantity is aufficient to pay the expense of separation, it ia refined; that is, the metal is exjosed to a high heat, paseing at the samie the a current of air over the aurface: the lead is this oxydised and converted into litharge, while the ellver, remaining unctanged, is collected at the end of the process.- Tuomsun's Chem. istry. litharge is used for varions purposes in the arts, by poters, giass makers, palutern, etc.

Litre. The French standard meanure of capacity in the decimal syatem. The itre is a cubir decimetre; that is, a cube, each of the nicke of which are 8.937 English Inches; it contains $61 \cdot 048$ Vinglish cubic inches, and is, therefore, rather lese than our guart.

Four and a half litres are a close approach to the En. glinh Imperial gallow.'
IIVe Onk. Under acts of Congrens, tho Preaident of the United States is authorized to take messurca for the protection of the live oak timber growing on Iands owned by the United States in Florkda and elsewhere Persons cutting or removing live oak. or red cedar, and other timbor belopging, to the United States (without nuthority), are aubject to ismprisonment. for twalve monthe and to a fine: the vessels engaged in auch unlawful rensoval are subject to fore felture, and the captain to a fine of $\$ 1000$. (Act of 1881.) See OAK.

Itiverpool, a borongh of England, in Laucashire, and one of the grenteat commercial towns in the world is eltuate on the Morsey, along whioh it extends for nearly six milea. For five miles of this distance $n$ line or chain of docks rune parallel with the river, and from these docks, at intervals, streets extend at right angles, tolerably direct, to the extremity of the bound. ary. These are crossed by sticets more or less parallel to the river; but dis the town graw up rather suddenly, no great attention was paid to regularity. The boundary line, from where it tonches the river at the south, to it termination at Bootle Uny, embraces a circle of about eight aciles. As yet the extremities are imperfectly filled up, but in some placea the houses extend beyond the line.

History.-Local archmoiogists have boen eager to invest the town with the dignity of a remote antiquity; lint their labors have not heon very successfui. In Doomsday Hook the name does not appear, altheugh sites within its present houndary are montioned. Mr. Picton, in his adınirahie paper on "Ancient Liver. pool," contends that the place mentioned as Smedore must have rejiresented Liverpool, and that Smedone is identical with Smithdown, now one of tho seuthern streets. This, however, is not likely, for Snuithdown was reasote from ancient Liverpool, and un the south side of the Pool, then called Mersey Sea. The name has been a subject of wasatisfying onntention; for ajthough the final ayillable pool is derived frous the locality, lieer is of donhtful origin. In early times the town was called inditforently Lirpool, Litherpool, Lith. pood, and Liferpole. $\boldsymbol{F}$ 'and $v$ were commatable; bat in the most ancient records, the name is written indifferently Lithepol and lithepols. Mir. Muines, in his History of Lierrpool, is disposed to think that lithe must in accepted for sea, anti thas the derivation will be the pool on the eea. Originaliy the place was oniy a muali tishing village; for the Mersey, up to a very recent period, was remarkabie for ita supply of salmon and other fish. The tirst anthontio record of the tonn is found in a charter of Ilenry II., in the year 1173, declaring that the estuary of "the Nersey shall be for ever a jort endowed with all the literties belonging to a purt of tho sea, and that the men of Lyrpul, near to 'Jexteth, may come and go from euch aide of the sen with their ahips and merchandise free and without obstruction." it is supposed that his majeaty in this charter had reference to the conquest of Ireisind; for, not content with the beatowai of a barren privitege, he actnally erected dweilings called turgage houses, the tenants of which were the primitive freemen of l.jverjool. These heuses continued to yieid a rental to the crown up to the time of Fitizabeth, and constituted, to a great extent, the dweilinge of the inhahitants. In 1207 King dohn granted the town a chaster, as fullows: "Know ye, that we have granter to ali our faithfal subjects who have taken burgage housce at Liverjool, that they may have all the litierties nad free customs in the town of Liverpool which uny other free lorough upon the nen has in our territories. And, thorefore, we command you, that, securely and in our prace, you may rome thither to recelve and dwell in our burgage houses; In witness whereuf, we transmit to you these our lettera patent. Witness-simon de

Patestitt, at Winchester, the 28th day of August, in the 9th year of our reign."
The first palpable step 'In advance taken by the town was in the relgn of Charles 1I: "A now world had then been epened to the enterprise of the old; and Liverpool Invited to, lts port such trade as was created by the Infant manafactures of Lancashire, Yorkshire, and Cheshire. As the plantationis in America ficreased, so did the trado of Liverpool; and fiom un eariy period her merchants took a prominent part in the llave-trade. She sent out ships to Africa, conveyed their IFe burdens to "America and the West Indies, and in return brought back to the Mersey the sagar, tobacco, and other prodace of thote regions. The English merchants and ship-ownere had competed successfully with tie Spainlards and Portuguese; but It was not until 1708 that the first 'slaver was' despatched from the Mersey. Having entered on the trade, they moon partleipated largely in It; for, in 1752, 101 Liverpool merchants were engaged in the slave traffic, 185 appertaining to London, and 157 to Bristoi. The number of Liverpool vessels engaged in tie Americun and West India trade was 106, and of these 88 were slavers. In due time this trade greatly lacrensed; ond that it enriched Liverpool may be inferred from the fact that the greater portion of the West Indies belonged to merchants of this place. This trade, however, like every other; wha affected by war. It almost ceased daring thi French war of the 18th century, and the merchant ships unemployed were eateriy converted into prifivateers. "At first the gala was immense; bot subsequently the French predominated, and Liverpool saffered sovereiy by the privateers of the enemy. On tiie return of peace trade was resuned, but not with any accelerated force until the inventions of Arkwight and others created the cotton trade in Laricashire. The war of American Independence had the wont possibie effect on the prosperity of liverpool; and the late war of the French Revoution at first operated most adversely. Still, two circumstances ohviated these bad effecte. The great increase of popuiation and trade in the United States of America created a demund for British manufactures, and these manufactores had neariy all to pass from the Merser, which received in return the raw produce indirectly paid for them. At the close of the war Liverpooi was still advaneing, hat not so rapidly as within the last 25 years. The population of the old horoug; In 1801 was 77,000 ; la 1811, 94,$000 ; \ln 1821,118,003$; in $1831,203,000 ;$ in 18.11 , In the new borough, 286,050; and in 1851, 376,000. The usual rate of increase from 1851 to 1857 will have augmented the population to more than 400,000 , and iatterly it has gone on in aceelerated ratio. l'roof of this is derived from the fact, that the number of new honses erected in 1855 wns 1355 , whitie in 1856 it was 1703.
Trade of the Port.-In 1750 tiverpool bud only 20 salling vessels engaged in the continental trade; now she bas trobie that number, and flects of screw steamers, which constantly visit every port in the Mediterranenn, and render the Mersey a medium of comnunication hetween France, Moliand, leeigium, ani America. The East Indles, too, have been opened to Wiverpool enterprise. Since the nlteration in the Company's eharter, and in the amount of business done in the East, Liverpool stands next to London. Asother trade she has aimest monopoizized-the Australian trade. Her clijper vosseis are admitted to be the finest in the warid, und, in consequence, the emigration to tho antipoies is the largeet from this jort, and the return cargoes the henviest ; for ne eessarily the freights are low, us mare goods r., than come, and cheapness Induces silppers to send their wool hero sather than to London, although London is the principal market. But Liverpool is now cresting a wool market of her own. The first authentic nceount of the number of ressels entering the port dates from

1577; and the following returns indicato at a glance the progress of the trade:

| til: Years. 1. | Vessela, | - Tonnage, | Doek drtios. |
| :---: | :---: | :---: | :---: |
| 1757....... | 1,871 |  | . 298,888 |
| 1780........ | (1) 2,26t |  | 8,628 |
| 1800........ | 4,746 | 450,000 ${ }^{\prime}$ | 28,879 |
| 18204....... | 7,277 | 805,088 | 94,412 |
| -1889........ | 11.914 | 1,4t1,904 | $.^{1} 151,850{ }^{\prime}$ |
| 1840......... | 15,998 | 9,445,708 | 178,196 |
| \| 1840......... | 20,457 20,886 | $8,589,807$ $4.890,618$ | 211,748 |
| 1,1600........ | 20,886 | 4,880,618 | 828,801 |

- This id the firat year when goods wero rated as well as shlps.
The custom-house revenue collected in the port wan, in $1855, £ 3,570,844,2 \mathrm{~s} .8 \mathrm{~d}$, and $1856, £ 3,824,177,14 \mathrm{~s}$. 8 d ., showing an increase of $£ 247,848,12 \mathrm{~s}$. The lant quarter, of 1856 exhibits a comparatively further increase of $£ 18,581$ over the correaponding quarter of 1855. The town dues now produce more than $£ 120,000$ a year, and there is another impost calied light-dues, Which produced in $1856 £ 99,965$, agalnst $£ 86,182$ in 1855. These light-ciles go altogether to the Board of Trade, and are disposed of as passing tolls. The greater number of veesels frequenting the port comes from the United States of America; for the great trade of Liverpool is in cotton, and the cotton supplied comes in largest quantities from the southern States of the Union. The foliowing returns will give a correct idea of the progress of this trade. In 1770 there were imported into Liverpool 6037 laggs 3 hales 3 barrele of raw cotton; but since the improvements of Hargreaves and Arkwright in spinning, the trade has greatiy incressed. Thus the importation was, in


In 1856 there were imported into Liverpool $2,028,850$ bnles of cotton. A large trade is carried on in flour, gtaln, and corn. The imports of these in 1856 were: Wheat......qrs 1,870,152 || Flour.....sacks 232,704 Corn....... * 897,407 || ....barrels 1,188,260
Two thirds of ali this came from the United Statee. Tho quantity re-exported is smali. The total sugar impsrtod in 1856 was 76,000 tons, of which 17,840 tons were from the British West Indis plantations, 18,555 from IBengai, and 10,996 from Brazil.

Doeks,--For carrying on a trade so large great facilithes are afforded. In 1715 the first dock was constructed with an area of 81 acres. This anfficed for 42 years; but, at an interval of 18 years, another dock appeared, and within a period of 30 years five additional docks were made. In 1826 the corporation filied up the primitive doek in order to erect the customhouse on lts site. In consequence of this proceeding, and the rapid increase of buiidings, none of the docks run iniand, but ail extend aiong and paraliel with the river. From 1830 to 1842, eigit new docks were opened; and from 1845 to 1852, not less than 14 docks and basins have heen added. The total water space afforled by the docks is 200 neres; and the quays mensure 14 miles in length. The river wall is 5 miles 200 yaris iong; the total area of the dock estate is 712 acres. No other port can present any thing to be compared with the Liverpool Docke. One acrious inconvenience, howevor, is, that running aluug the river wali, they interrupt the approaches to the ferries, and when the gates are open, stop intercourse for a siort time altogether. To remedy thla, an linmense ianding atage, constructed $1, y$ Mr. Cubitt, has theen piaced at St. George's Pier, snd this has not oniy promoted the comfort of passengers, but served as a very popuiar promennde. Another landiug-stage has been constructed, three times the size of the former one, at a ront of $£ 150,000$. Means, too, are under consideration for faclitating approach to the ferries. Until 1826 there were few wareiouses on the dock quays. The warehouses are in general up the town, or at some dis-
tance from the quaye. The inconvenience of this provoked a lively agitation among the merchants, and, through the great exertion of several members of the councll, the Albert Dock was constructed aud surrounded, like St. Katherine's Dock, Londen, hy piles of ponderous warehouses. Stanley Dock has alnce alao been surrounded by warehouses, and the new Wapping Dockn are to have the seme advantage. Extensive as the dock accommodation is, it is ne longer adequate to the wants of the port. Several new docks are projected at the nerth end, on land reclaimed from the bay, ander a certain understanding with the Earl of Derby ; and in 1854 the corporation became purchasera of the Birkenbead Dock and estates for a sum of $51,143,000$. Sut these docks, to be rendered available, will require a further outlay of $\mathbf{£ 8 0 0}$. 0nO. The constitution of the dock management has uudergone some changes. The corporation having been the first projectors and axpporters of the docks, were recognized as trustees of the eatate. Under the act 51.t veorge III. the committee censisted of 21 persens, all members of and appointed by the common council, and this continued until the passing of the act 6th George IV., 1225, whin the dock rate-payers were first difectly repleaentel hy retur.ing 8 niembers to the committee; the cuincil olecting 13, including the chalrman, and the courcil having a veto on the proceedinga. This cont inued until the act of 1851, by which a commitio or 24 Ja appinted-12 by the council and 12 by the dock 1 ate-payers. The committee appoint their own chairnan and deputy-chairman; the chairman being, however, one of the 12 members elected by the coancil. The council have also a veto on the proceedings of the commitece by a majority of two thirde. The care of the port is "'vided between the dock committee and the corporation. The latter constructed the light-house and built the Wallan y embarkment, to prevent the rea encroaching on the district and impairing the channels leading to the river; and the former provide buoys, and a morine surveyor whose duty it is to nute the shifting of the sandbanks, and give notice to the pilots and marlners.

Ship-building.-'There are several eminent shipbuildera in Liverpool, but of late the greater part of tha trade has been in repairiny and in the buidding of iron shipy. There are Ave building-yarda on the lancashire side of the river, and three on the other side. Those on the Cheshire side combite graving with boildhy docks, and, although thare are severni graving docks on the Liverpool aide, they are found to be inadequate to the wants of the port. As milght ine expected, a large trade is oarried on in shipus. In 1856, 694 shipe, of 328,991 tons were sold, and of these one fifth were bought by foreigners. Liverpool is a place of trade rather shan of manufactures, and those manafactures which exist are more for the suinly of local wanta than for general purposea. An atfenist was made to estabiah a cotton inenufactory, but without auccens.

Next to Landon, the corporation of Liverpool is decidedly the richest in the kingdom. At first ber incoms was miserably suall, and centories passed without improving it ; but in 1777 the cor, oration parchased from Lord Slolyneanx, for f2250, his reversion, expectant on the determination of his leaso in the town dues, and these rose gradually from f*n,000 a year to $£ 120,000$. The incolise of the corporation is also derived from band within the town, from markets, and from jolloe rates- tho whole estimated at $\mathcal{E} 38,000$ for 1853. The clain to the town duea bus often been questioned. A case was tried in the Corirt of inhig's leneh in 1831, and deched in favor of the corporation; but in $\mathbf{1 8 5 6}$ governmes: brought in a bill to abolish them. Great resistance being affered, a selert committee was appointed ; If beard evldence, tut made no report. The people of Manshester ore opposed to
these dues, and it in believel thet altimately there must be a compromice. Thu dues consist of small aums, hardly appreciable in amonnt, collected on merchandise. The dock-rates belong to no special in. tereat, being devoted not to deniends, but simply to interest of money borrowed, and the coat of working.

With the increase of trade and wealth, the mode of doing businese underwent a great change. At the beginning of the present century the merchant had his counting-house and warehouse behind his dwellinghouse. These mansions may now be seen in Jisnoveratreet, Duke-street, Seel-street, and othera, bearing atill, in their architecture, evidence of cost and taste, although now mostly devuted to mesner ases. 30 years later the mercantile offices began to gather about the Exchange; mean buildings were transformed lato lordly edifices; and as much as $£ 600$ or £800 a year ls now (1857) pald for a suite of rooms on a single floor. Such rents are, of course, temptations to an Increase of luildings; and in 1856 as much as £47 a square yard has been paid for building-land near the Town-hall. All the opulent classes live in the envircas. Vy to the year 1833 New Brighton vas a sand-nii, without a single temement on it; nor it is covered with rillas. TH villas cover the hills and crowd the gorges, which extend from the Red Nuses :o Ruck Fierry; while on the Lancasbire side, Aighurt,., Allerton, Woolton, Wavertree, Oll Swan, Knotty Ash, West Derby, Walten, Crosky, Litherland, Wuterloo, and Bootlo, have been entirely occupied by the tnansions and villas of the opulent people of Liverpool.

The mer:antile othices which have aprung ap around the Exchange are iemarkabie for thoir nrchitectural beant; as vell as for their convenience. Waterstreet, from ine Town Jhall to George's Dock, presents a succesaion of such buildings. On the site of the old tower, the last remnant of the Castle, have been crected the Trwer Building -a mass of countinghouses, ornamented toward the river by an ftalian tower, now used as a remaphore telegrajp station. Fenwick-street, ut right angles witin Wader-strect, presents a succession of buildings equally beautiful. The Corn Exchange is in Brunswick-strect ; and in the same strect is the Union Bank, a perfect architectural bijou; and a little further on, in James-street, at the top of Fenwick-street, is the North and Sonth Wales Hank, equally entitled to notice. In Custle-street stands the 13ranch Bank of Eagland, constructed by Mr. Coekerell; and in the same strect the Commercial Bank Buildings, crected after Mr. Cunningham's deaign. North John-street, which runs parillel with Cantle-street, is entirely devoted to eflices; and in
 remarkable for boldneas of design, The Customhouse, which rianits at the fort of South-street, was bailt after a fesign of Jolin Foster, at the cost of © $283,80 \%$. Thie estimate was $£ 175,000$; and although the buillin; is an imposiags one in app sarance, it is regarded us not fully naswering ita purposes. In front of it is a bonze statue of Ifaskisson, by Gibson. Purt of the custem-house is used $c$ dock-office, and another fart of it ua the post-offee; for neither af which in the building particularly suita' le. To the eant of the contom-house in th. Suilors' llone, which is dmirably adapted to the intended object of the Marine Board, and for a sailors' téphit.-F. II.

Breabeater fur lifierpoon,-Mr, Georg? Renaie, C. L., has projected for "ue port and harior of liverpool a jetty or lireak water, from tho Black Jowk l'oint, at th, entrance of the Merwy, on the Cheshire shore, ir a line newrly parallel to tide Januashire ehore. Tho breakwate, will tuke is inctli-wester'j direction sud curve outward towarl) the Victoria Channel, scross the llazail andi 13 "'w I lanks, for a listance of upward f three miles, when lt will bow ended by a light-house. Simultanoously with the construction of a breakwater, tt is propesed to continue the line of qualy wall of the

## imately there

 naist of small lected on merno apecial Inbut simply to st of working. th, the mode of ange. At the merchant had od his dwellingeen in Jianoverothers, bearing f cost and taste, anner uses. $\quad 30$ segan to gather ngs were transmuch as $£ 600$ or suite of rooms on urse, temptationa 1856 as much as for bullding-land classes live in the w Brighton ras es $t \mathrm{~m}$ it , nor it is ver the hills and a the Red Noses to Ire side, Aighurts. ld Swan, Knotty Litherland, WaterIy occupied by the people of Liverpool. e sprung up arouad thoir architectursi venience. Watere's Dock, presents a the site of the old Cnstle, have been mass of countingriver by an Italias e telegraph station. with Waier-street, gs equally heautiful. ek-atrest; and in the perfect architecturas James-atreet, at the th and South WajesIn Castle-street land, constructed by treot the Commercial r. Cunniugham's derune parallel with $d$ to offices; and in yal Dank Builhings, sign. The Customof South-8treet, was oster, at the cost of $-5,000$; and aithough $a$ in oprarance, it is its purposea. In front nakisson, br Gibson. lis a dock-office, and ofticu; for neither of arly suita' ?e. To the Sailors' llome, which itended oljert of the dépuit.--E. 11. Ir, Georg" Rennie, C. ind harmer of liverpool Bhack lowek Point, at the Cheshire shore, ir hurashire shore. The wester' $j$ direction and toria Channel, scross r a distance of upward - uded by a light-house. uction of a break water, He of quay* wall of the
north docks, in airection curving inward as far as Formby Point, eo as to assimilate the form of the entrasce lato the Mersey to a trumpet's mouth. The advantages proposed by this plan are cald to be: 1 . The general improvement of the entrance into the harbor, by which the flow and obb of the tides will be more regular and more favorable to the deepening and preserving the low water channels, and to their navigation generally. 2. The protection of the north docks (occasionally inacceaslble in otormy weather), and of the Bootle and Formby shores from the violent effects of the prevailing winds. 8. The acquiaition of nearly 2000 acres of valuablo land, which will be inclosed between the new wall and that shore. 4. The ralualie coaveraion of from 80,000 to 40,000 acres of sand-banks now rapidiy aceumulating cand rising above low water, along the whole shore in front of the Lea-
sowes, from the Rock Point to the ontrance of the Dee eatuary at Hilbre Point. 5. The prevention from entering into the barbor of vast quantities of drift sand which come from the North Burbo banks, in south-westerly gales. 6. The prevention of many shipwrecke and loss of lives and property which occur ann illy. 7. The reductlon to a minimum of the great exper ens now incurred in maintaining the llghts, huoy steam-tuge, dredgers, vte., now employed in preserving the direction and depth of the sen channels, and which heavily tax the 40,000 ships and $4,000,000$ of tons carried by them annually. Finally, the preservation and Imprevement of the port and harbor of Liverpool, and which, like its neighbor, the estuary of the Dee, will be entirely ruined if prompt measures be not taken to prevent it. The following table shows the grain trade of Liverpool:
 $1854,15 \$ 5$, AND 1856.

| Yesm. | wamar. |  |  | noun. |  |  |  | олтs. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Canatwisea } \\ \text { and Ireland. } \end{gathered}$ | Cotomal. | Forelgn. | Brilsh. | Forilgm. |  | Colootal, | Brithb, | Forolgn. |
|  |  | Quariars | Quarlera. 475.199 | Kacki. 81,584 | Sapka. | liarrols. 980,458 | Harroles. <br> 78.055 | Quariers. 184,268 | Quartera. 28,431 |
| ${ }_{1838 .}$ | 22,147 | 47,651 | 880,770 | 85,650 | 207,856 | 1,030,658 | 85,5\% | 171,943 | 5,445 |
| 1854 | 25,565 | 43,021 | 761,676 | 27,474 | 172,591 | 1,281,443 | 77,707 | 167,1034 | 2,206 |
| 1855. | 89,235 | 4,943 | 891,007 | 51,41t | 804,808 | 70,674 | 11,16\% | 157,211 | 1,612 |
| 1558. | 63,817 | 66,837 | 1,017,605 | 52,586 | 231,447 | 1,016,587 | 121,445 | 152,271 | 4,721 |

Jompagibon of Imports of Grain, mte., into Livebpoola-Conlinued.

| Yuars. | matery. |  | 384Ns. |  | rata, |  | оАTMK』L. <br> Grilish. | Fapzay cony. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Brtah. | Forelgn, | Intioh. | Foreige. | Brat h, | Foralgn. |  |  |  |
| 2. | $\begin{aligned} & \text { Quarcern. } \\ & 85,528 \end{aligned}$ | $\begin{aligned} & \text { Quartprn. } \\ & 28,8960 \end{aligned}$ | Quarters. $18, t 89$ | $\begin{aligned} & \text { Quaritan } \\ & 115,836 \end{aligned}$ | $\begin{gathered} \text { Quarturs. } \\ 7,768 \end{gathered}$ | $\begin{aligned} & \text { Quariera. } \\ & 4.9 \dagger 1 \end{aligned}$ | Lumad. | Tuarlers. 211,526 | Bartel. 712 |
| 1 1538. | 22,108 | 18,024 | - 9,9t5 | 105,481 | 18,953 | 9,100 | 649,888 | 304,860 | 228 |
| 134. | 29,089 | 25,258 | 9,535 | 78,247 | 7,682 | 8,843 | 824,621 | 814,008 | 87,440 |
| 1555. | 16,044 | 19,061 | 8,584 | 126,438 | 8,685 | 9,823 | 851,220 | 765,299 | 4,882 |
| 1856. | 12,396 | 14,189 | 2,776 | 127,2t8 | 16.040 | 16,898 | 287,710 | 775,804 | 8,699 |

 $1804,180 \%$, AND 1656.

| Yeara. | wrkat. |  | Floun. |  |  | O473. |  | B.0.tit. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Conatwise and Ireland | Forelign, | Comatwlee | d Ireland. | Ferelign. | Cowatwher | Forelyn. | Comatwine. | Foralgn. |
| 1354. | $\begin{aligned} & \text { Quarters, } \\ & 127,607 \end{aligned}$ | Quartern. 1,657 | Sacks. 42,468 | $\begin{aligned} & \text { Barrel. } \\ & 846,954 . \end{aligned}$ | lasrevin. $20,240$ | Quarisrs. 750 | Quartera. | Quartera. 087 | Quarters. |
| 1688. | 180,438 | 6,8t1 | 72,098 | 228,440 | 26,084 | 2,896 | 12,580 | 627 | 284 |
| 15\%4. | 110,258 | 4,984 | 88,4t0 | 298,367 | 18,8\%) | 2,094 | 13,527 | 7,252 | 875 |
| 1855. | 88,477 | 972 | 60,514 | 87,987 | 16,035 | t,048 | 85,1514 | 2,939 | 810 |
| 1556. | 108,984 | 17.824 | 85,107 | 84,520 | 89,1095 | 898 | 42,629 | 6,061 | 569 |

Comparison of Fixpurts of Grain, rto., faom Livpryool.-Continued.

| Yeare. | beana. |  | Pratis |  | Ostukal. | motav cond. |  | ingian cons meal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contwise. | Ferelgn. | Conatwire. | Furulgn. | DTlish and Forelan. | Conatwice. | Forslen. | Britist and Foreigo. |
| 1050 | $\begin{aligned} & \text { Quartera+ } \\ & 12,063 \end{aligned}$ | $\begin{aligned} & \text { Quartert. } \\ & \text {..... } \end{aligned}$ | Quariers. 419 | Gtuarters. - | lomula. | $\begin{aligned} & \text { Quartara. } \\ & 185,574 \end{aligned}$ | Quartera. | Burfolis. 8,434 |
| 189. | 8,174 | 418 | 865 | 1315 | 18,747 | 123,4t2 | 101 | 989 |
| 1854. | 7.758 | 68 | 248 | 104 | 83,743 | 452,061 | 2,277 | 22,994 |
| t5kn.. | 6,693 | 69 | 370 | 645 | 8,011 | 503,995 | 14,857 | 12,508 |
| 1856.. | 11.917 | $6 \times 1$ | 4,909 | 969 | 7,787 | 361,083 | 5,195 | 6,499 |

For a full exhibit of the commerce of Great Iritain, a screnty-aghth part of the silver contained in the livre including a statement of that of Liverpool, see articies of Chariemagre. It would then have requirel 7880 Great Britain mad Encland.
IIvie. From nisout the year 800, In the reign of Cbuis nagne, to the year 1103, in that of Philip. I., the French livre, or moncy unit, cuntained exactly a poind weight of twelve ounces (poids de marc) of pure ailiver. It way diviled into 20 sols, each of which, of course, welghed 1-20th part of a pound. This ancient standard was first violated by Philip I., who diminished conshlerably the quantity of pure silver containol in the sols. The examplo, once set, was so weli fultowed up, that in 1180 the livre was reduced to less than a fourth part of its original wolght of pare silver. In aluost cvery sueceeding reign there was a fresth diminution. "La Monnoje," saya Ia Minne, "qui ent la pius précieuso et la julus important des nésures, s chanfe en France presque ansol souvent quo nos habits ont changé de mode." And to auch an extent had the process of degradation been carried, that, at the epoch of the Kevolution, the livre did not contain livres really to axtinguish a debt of 100 livres contructed in the nims or tenth century; and an individual who, in that remote period, had an annual Income of 1000 livres, raa as rich, in respect to money, as thone who, at the Kevolution, enjoyed a revenue of 78,850 livres. (Paucton, Traité des Mésures, Poids, etc., p. 603.) It was not to be expected that degradations orighating in the necessities, the lgnorance, and the rapacity of a long serles of arbitrary princes, should te mule according to any fixed principle. They were sometimes the reault of au increase in the tonominatiga of the coins, but more frequently of a diminution of tie purity of the metal of which they were struck. A degradation of this kind was not eo easily detected; and in order to render its discovery still more difficult, Phlı; of Valois, John, and some other kings, obliged the officers of the mint to swear tn conceal tho fraud, and to endeavor to make the morchanta believe that the eoins were of full value. (afi Blance p. 212.)

Sometimes one apecien of moner was roduced, without any alteration being made in the others. No aooner, however, had the people, in their dealings, mhuifented a prefereace, an they uniformiy did, for the money which had not been reduced, than its circulation was forbidden, or its value brought down to the axme level with the reat. By an enactment of Congress, the commercial value, in the United States, of a livre tournofs of France, is fixed at $18 \frac{1}{y}$ cents.
Inloyd'e, a nnmber of rooms in the Royal Exchange of London, frequented by underwritera, merchante, ship-owners, ahlp and inaurance brokera, and others, chlefly for the purpose of obtaining shipping intelligence, and of traasacting business connected with marins insurance. The principal room is that of the Underwriters, in whioh two enormons ledgers 'lio conetantly open, the one contalaing notices of speakinge, or ships apoken with, and arrivals of vessela at their varlous destinutions; the other recording disaters at sea. All intelligeace is ontered immediately upon its reception, without removing the ledgera from their places, in order that they may at any moment be inapected by those Interested in their contents. At the finner end of the room is an ingenlous plece of mechanism, by means of which the indications of an anemometar and an anomoscope are inacribed every hoar in the $\mathbf{2 4}$, by a couple of pencils, upon a aheet of white paper. The advantage to the underwriter, in the cos:duct of his business, of this information respecting the force and tho direction of the wind, can scarcely be over-eatimated. The underwriters are jersona whe, for a premiam, grant an iudeminity to merchanta againat risks by sea; and they are so called from the custon of writing their names under, or at the foot of the pollcies of huaurance. The method of effecting an insurance at lioyd's is the following: When a broker recelves an order to insure interest to a rertala amount in a particular ship, he writea upon a slip of paper the name of the vensel, the master's name, tho nature of the vorake, the subject to be insured, and its value, and any ozher information which the cireumstances of the case may require. Ho tbea offers the risk to different underwriters until the value of the interest to be insared is exhausted, each underwriter subseriting his name opposite to the amount he engagen to insure, sand all agreeing to accept a uniform premiuns. The insurance js now virtually effected; the stamped poltey being afterward extended frem this slip. This distribution of the risk ameng many individuals is, of course, very conduclve both to the solvency of the underwriter and to the security of the lasured. The number of underwriters is under 200 ; but some idea of the immense aluount of insurance business done at Lleyd'e may be derived from tize fact, that the valuh of the laterest annually insured at the jresent is estimated at about $\{40,000,000$. No person is permitted to trankact businens at Lloyd'a as an underwriter or insurance broker until be shall heve lrees duly' a. itted as a member, and shall have pulil on eatrunce fea. Communicating with the 'inderwritery' Buom is the Chart liowm. Ilere a valuable collection of charta, and shipping intelligeuce as o-iginally receivel, are carefully arranged, so as to be at all times easy of acceas. In this room almo lie, for the use of members, four ledgers, in which the uames of ships are arranged in alphatietical order, each name having under it all tbe Information poasessed regarding the veasel. The Berchanta' Roon is a place of rewort for general news : it is, in fact, a news or reading-roori. The Captuing' Room is employed as an auction-room for sales of ships, etc. Every perwon who enjoya the privilage of freyuentigg Lloyd's pays a fixed annral sulsecription.
The shipping intelligence recelved at Lloyd'b is furnished by agents, who aro appointed for the purposes; and as thare is acarcely a port of any consequence where oue is not resident, their number is very large.

The information which each transmits to head-quar. ters is regular, aceurate, and complete, it is surnished ly moanse of locters, aigned by the agents, nui by meana of the newapapers, and ahipping hista which are published at the vanous porta; the intelligunce thus roceived consisting not only of lists of vesselis which had arrived at and which bad ealled froun the par. cieular porta, togethor with their aecoruplishod and futended voyages, and of casualties which had oecurred at or near the ports, but also of notices of ahipe sjoken with, and of canualtios at soa, furnished by vessels. No salary attsolhes to the office of arent for Lloyd's; the labor involved being amply recompensed hy the husinesa which It commanda, and by the credit which the appointment confers upan its holder as a person of worth and respeetability. The intelligence, besides belag made known to the membera of Lloyd's by meane of the ledgers, of which we have already apoken, ta puthished every afternoon ln Lloydr's Iist for diffusion over the country. The management of Lloyd's lies with the subecrliers, who select a committee from their number for the purpose, called the "Committee for managing the affairs of Lioyise," This committee appoints the agents and the officiuis of the estabilshment. The expenses connpeted with the eatablishment are defrayed ty the fees and unnuai aulscriptlons.

The designation $I$ loyds originated with a person of the name of Lloyd, who kept a coffee-houso in At chureh Lane, Lombard-atreet. From the vicinity of this house to the Old loyal Exelunge, it speedily hecame a rendezvous of merchants for news, and for the transaction of business. It was afterward removed to Pope'a Heail Alley, and theneo again, in 1774, to ti: Royal Exchange. After the dentruction of the Exchange, in 1838, by fire, which origisuted in Lloyd's, the bnilness was carried on in the South Sea llonse, in Old Broad-street, where it remained natil the ojening of the present loyal Exichange, in 18.14, when it was thally removed to tos present splendid apartments. Similar catablisbments exist in our principal sea-ports. Idoy Is Riggister of British aud Forcign shippint , a volume published annually, and furnishing information resirecting the nature of vesseis, their class, place where hailt, materiala, owners, captuins, age, repuirs, ete. The ehips are registered according to the rejorts of salaried Rgents, appointed at various portn. The offce of thls Register is in White Lion Court, Cornhill, and is quite diatinet from Lioyd's of the Exchange.-E. 13.
Loadatcne (Ger. Magnet; Du. Magneet; Fir. Aimant ; It. C'alamita; Sp. Iman ; Rus. IJgnit; Lat. Magnes). M. Hany observes, that the ores in which the iron voncains tine least oxygen without being engaged in other combinations, form natural magnets; and he calls the bodstones of commerce, which are found in considerahle masses in Germany, Sweden, Nerway, Spain, Italy, China, Sism, the Philippine Isles, Corsica, and Vthiopia, oxyduluted iron. The loadstone is characterized by the following properties: A very atrung action on the magiefic needilo. Spieclice gravity $4 \cdot 215 \pi$; not ductile ; of a dark gray color, with a metallic lustre; primitive forna, the regular vetahedron; insoluble in nitric acid. This singular subatance was knowu to the anceisats; and they had remarked its pecaliar property of attracting; iron; but it does not appear that they were acquaninted with the wonderful property which it also has of turniug to the jole when suspended, and left at ibiberty to inove frecly. Upou this remarkalise circunutance the mariners compans depeads-an instrument which gives us ruch intaite advantage over the anclents. It is this which enables the mariner to conduct his vessel throu,h vast oceans out of the aight of lund, in any given direction; and this lifective property also gaides the miuer in subterranean excavations, end the traveler through deserts otherwise impassable. The natural loalstont
has alao iron and pareel ar are den Its virtu yet its. from ve sures ns crates ap tracts iro power. is suid, $k$ honor is Italians tues to ate the inven Loans gland wer the reign ع200,000 e form her 0 city of 10 amount of able period

Seven 5
Anerica
Freaeh
war agal Benides the
loans of 21 , be recorded against Fraz 20 minutes, 5, 1796.
Lobos, c ishands in the ru. The lan miles west of $80^{\circ} 53^{\prime}$, and b) $2 \ln$ bread ward group ii S. lat. $6^{\circ} 56$ istands of abod in breadth, an channei. Il fui attempts rate compani morth group $t$ of albat te0, 0 than 200,000 employest in $t$ ing ciniefly of Lobater crab species. abound in lol Scotch shores, principni lobs whence it is b nually import are, however, biack color, an from Norway.
Looh. Th
Lock, in it included betwe vessel is transf from a fower to
Lonk, Lod Sertures; It. Ruts, Samki), a ore infinite va cace' is sometin the wards, spri the places wher sions of using locks, accomm acquire variou:
has also the qualfty of communicating its properties to iron and atecl ; and when pleces of ateel properly propared are touched, as It is called, by the loadstone, theyare denominated artificial magneta. ${ }^{\text {en }}$ See Compans. Its virtues were but indintinctly known to the anclents, yet its attractive quality had been taken notice of from very remote times.-Sturmius. Aristotle assures as that Thales made mention of It, and IIppocrates apeaks of it under the naine of atone that attracta iron; and Pliny was atruck with its attractive power. The, polar attraction of the loadatone whe, it is enld, known in Prance before A. w. 1180; but thls honor la accorded to Roger Bacon about 1267, The Italians discovered that it could communleate its virtues to ateel or Iron; and Flavio Giojo, of Amalf, was the inventor of the mariners' compass,-Hoydn.

Loank. Those for the service of the crown of England were generally bormowed at Antwerp untll after the reign of Elizabeth. " In 1559, the queen borrowed $\mathbf{~} 2000,000$ of the elty of Antwerp, to enable her to reform her own coln, and Sir Thomas Gresham and the city of London joined in the security.-Rapin. The amount of the English loans, during four late momorable periods, was, viz. :

> Sevea years' war, 1755-1768............. $2 x 2,100,000$
> Anericaa war, t76-1784. $75,500,000$
> French hevolntionary war, $1798-1802 . .$. 169,500,060
> War agalnat Boaaparte, $1808-181$ t ..... 209,800,000

Beshles the property tax. In 1818 were raised two loans of $21,000,000$ and $22,000,000$; and it deserves to be recorled, that a subacription loar. to carry the war agalnst France was flled up in London In 15 hours and 20 minutes, to the amount of $£ 18,000,000$, December 5, 1796.
Lobos, or Beal Islande, two gronps of guano islands in tho Pacitic Gcear, lying off the coast of $\mathrm{Pe}-$ ru. The landward and horthern group are about 20 milea west of the main land, in S. Int. $6^{\circ} 29^{\prime}, \mathrm{W}$. long. $80^{\circ} 53^{\prime}$, and consist of one large Island, 5 miles long by 2 in breadth, with severnl rocky inlets. The seaward group lie nbout 38 miles from the main land, in S. lat. $6^{\circ} 56^{\prime}$, W. long. $80^{\circ} 85^{\prime}$, and consist of two istands of abrut the same size, viz., 1 mile long by 1 in breadth, and separated from each other by a narrow channel. Hoth belong to Pert, although nnauceensful attempta havo been made at various times by private companies to obtain posseasion of them. On the north group there la estimated to be a deposit of guano of ahoat 460,000 tone, and on the other istands of more than 200,000 tons. The only linhablanta are those employed in the shipment of the manure, and consisting chietty of Indians and Chlnese.
Lobster (Fr. Ecrrvisse ; Lat. Cancer), a fish of the crab species. The Scilly Ialands and the Land's End abound in lnbsters, as well as several places on the Scotch shores, particularly about Montrose. But the principal lobster Hishery is on the coast of Norway; whence it is believed nisont $1,000,000$ lobsters are annusily imported into London. Those of ITeligoland are, however, esteemed the beat; they are of a deeper black color, and their flesh is tirmer than those brought from Norway.

## Losh. The Scotch term for lake, which see.

Lock, in Internal Navigation, Is a part of a canal included between two floolgates, by means of which a vessel is transferred from a higher to a lower level, or from a lower to a higher.
Lonk, Locks (Ger. Schldeser; Du. Sloten; Fr. Servures; It. Serviture: Sp. Cermadzras, Cermijos ; Rus, Somki), a well-known instrument, of which there are Infinite varieties. A great deal of art and delicacy is sometimes displayed in contriving and varying the wards, springs, bolts, eto., and adjusting them to the places whero they are to be nsed, and to the occasions of using them. From the varioue atructure of locks, acenmmodated to their different intentione, they wequire various names, as stock locks, spring locke,
padlocks, otc: The grand difficulty to be overcome in maklag a lock is to construet it so that it may not bo opened hy any koy exoept its own, nor admitt of being pleked ; it abould also be poseossed of sufficient strength and durability, and not be too complex. © Many ingenlous contrivanoes heve been proposed for the attainment of the desired security-several of whloh are poseensed of conalderable merlt. Common door-locks are now maually inserted in the wood, insteud of being, as formorly, ecrewed to lt; and when so placod are called mortise looks.

Cocoust-tree. 'The Robina peeudacacia, or common locust, from the valuable properties of its wood; and the beauty of its foliage and flowers, ranke amons the firat trees of the American foreats. In favorable situations, it attains a height of 80 or 90 feet, and sometines exceede four feet in diameter; but ordinarily, it doee not surpass half of these dlmensions. On the trunks and large limbs of old trees, the bark is very thick, and deeply furrowed, but on young trees, net more than two or three Inches in diameter, it is armed with strong, hooked prickles, which disappear altogether as they grow old; end in some varieties they are wanting even when young.

The common looust naturally abounds in the country weat of the Alleghanles, as far as Arkansas, It is also plentiful in the Canadas, but is not found indigenous In the United States eant of the river Delsware, nor does it grow epontancously in the maritime parte of the middle and southern States, within the diatance of 50 to 100 iniles from the sea. It is planted, however, for purpoees of utility and ornament, from Maine to Georgia. It was observed by Michaux, that "the locust forms a much smaller portion of the American foreats than the oaks and walnata, and that it la nowhere found occupying tracts, even of a few acres exclusively." Hence the tree, whers it is met with, is often spared by settlers, as being ornamental, and comparatively rare, and old specimens, which formerly belonged to the abo iginal foresta, ure frequently seen growing in the midst of cultivated fields.

Of all Amerlcan trees that have been cultivated in Europe thero is no one, of which so much has been said and done, as the locust. It was among the first plants that were carried to that country, and it has been more extensively propagated than any other, both in Britain and in France, where it has been alteraately extolled and neglected; and even at the present day, though the beauty of its foliage and flowere is unlversally admired, and the valuable properties have enthusiastically been praised and acknowledged, it in not considered as holding a high rank as a timbertree, or as being generally planted with a view to profit.
The wood of the locust, which is commonly of u greenish-yellow color, marked with brown veing, is very hard, compact, and suseeptible of a brilliant polisin. It possesses great strength, with but little elastioity ; and its most valuable property is that of resisting decay longer than almost any other epecies of wood. When newly eut, it weighs 63 pounds 3 onnces to a cubio foot; half dry, $56 t$ pounds, and when quite dry; only $48 t$ pounds, or according to others, only 46 pounds. According to M. Hartig, the German dendrologiat, its value for fuel, when compared with that of the beceh (Fagus sylvatica), is ns 12 to 15 . For duration, he places it next below the pak (Quercus robur), and next above the laroh (Larix europrea), and the Scotch pine (Pinus sylvestris). Barlow, in Wither's Treatise, gives the strength of locust timber, as compared with other wools, as follows :--Teak (Tectosa grandis), 2462 ; Ash (Fruxinus excelsior), 2026 ; Loeust (Rubina pseudacacia), 1867; Oak (Quercus robur), 1672; Beech (f'agus sylvatica), 1\%56; Norway spar (Abies excelsa), 1474; Higs fir (Pinus sylvestris rigensis), 1108; Elm (Ulmus campestris), 1018. From some experlments made at Brest, ia 1823, the weight of the lo-
cuat wood was fomnd to be one alxth heevier then that of the Fingliah oak; lte atrougth as 1427 to 820; and Ite elanticity m 21 to 9 . By experimente made in the yard of the royal naval college, at Woolwich, It oppears that the lateral atreagth of the locuat timber, In realinting fracture, la greater than that of the British oak, In the proportion of 100 to 76 . From all these experiments, however widely they may differ in their resulta, we may arfely oonclinde, that mound, wellsemaned loctat tluber "is hesvier, harder, stronger, more righl, more elastle, and tougher than that of the best linglish oak," and consequently is mope suitable for trenaile. Miehanx remarks that, "If the trunka of the loenatitrees grown in the north of Fennaylvaisa, exceed 15 mohea m diameter, when they are cut down and aplit open, they are frequently found to be decayed at the heart ; lut that this is not the case with trees that have grown further nouth ;" which would tend to show that a poor soil and a coid elimate are not sufficient to proiluce good timber.

There are, at least, three popular varieties of the common locupt, distingulahable by the color of the heart-wood, whieh may be deacribed an follown:

1. Reel locust, with the heart red, and is eateemed an far the most beautiful and durable timber. Foatm of this variety, perfectly neasoned before they are net in the gromd, are estimated to lant 40 years, or twice as long as those of the white locuat.
2. Gireen, or I'ellowe Ioruat,-This is the moat common variety, being known by les greenlah-yellow heart, and is held next leent lin quality to the rod locunt.
3. White Iocwat, wlth a white heart, and ls conoldered an the least valuable of them all.

All of the above-mentioned variation are aupposed to be owing entirely to the soil and altuations in whleh they grow, being caused in a almilar manner an the various colons of the flowere of the hydrangea, whieh depend on the nature of the earth in which they are planted, and even on the color of the water with which they are irrigated.

In naval architecture, the timber of the locust is much enteemed by American shipwrighta, and enters, with the live oak, the white oak, and the red eedar, into the upper and the lower parts of the frames of veasels, thengh in very amall proportion. It la considered an durable as the live oak and the red cedar, with the advantage of being lighter than the former and stronser than the latter. It is used for trenalla in the dockyands of Hurope and the United States, in preference to any other kind of wood ; and instead of decaying, it açulues, in time, an extraonlinary degree of harinean. In civil archlecture, In this country, it enters but little into the composition of housen, on account of its acarcity, and its value in ahip-building, and for posts of rural fencen, etc. When employed in the conitruction of houses, it is more particularly applled for the aupport of the sills, which usually consiat of more dentructible timber, and which, if they were placed immediately on the ground, would sooner deray. From the harduese of the wood when seasoned, the firmness of the grain, and lts luatre when poslished, it han lseen extensively used in cabinet-making, and has been aubstituted by turners for the box-wood, in many nperies of light work, auch as amall domestic wares, tos, ete. It has also been employed by millwrights for $\operatorname{cog}^{\prime \prime}$, but it is lens valuable for thin purpose than thut of the rock-maple.

The mont important use to which the locunt in applled in lbritain, is that of forming trenaila for ahlpfactenings ; and large quantitlea are annually imported into that country from Anerica. As long wa we can supply them for the pricee which they at present bear, It never would repay the erower to cultivate them in England for this syeclal parpues.

In France, the lucurt bae been extensively cultivated in the Girunde, in copses, which are cut at the age of four years, for vine-props; and thone prope are
mald to lant more than 20 years. In tha same dintrict, old treen are pollarded, and their hranchea lopped every third yesr, for the same purpose. In I'urla, many amall articien are made of the wood; auch as salccollars, augatdishea, apoona, forks, sand-boxea, paperknives, etc.

In Lombardy, the wood of the locust is used for many rural purposea, Young plants of it were forin. erly much employed for live fences; bat this practice has long aince been abandoned, because the tree was found to Imporeriah the soil; and, with age, luat lis prickiea ; bealdes, from being continually prunel, to keep It low, or from being cropped by animals, the hedgen became thin and open at the bottom, aisd eventually became more atumps. Italy, well as the aouthern Departmanta of France, Mlehaux cunsidera the countrien in which the greastest aivantages may be cierived from the rapid growth of thala tree. In good solle, in such climater, at the end of 20 or 25 years, he says that a mase of wood may im obtuined from the locust, twice an great as from any other species of tree.

In countriee where clover and root crops are not cultivated, the leaver of the locuat may berve as a subatitute for these articles as provender for unimals. When this apecies is cultivated for this purpose, it ahould be mown every year; or the treea may be allowed to grow to the helght of 8 or 10 feet, and treated as pollarde, the branches being cut off every other year, whlel ahould be done at mld-stummer, when they are nuceulent, and can be dried for winter's use. in performing this operation, one or two shoots should be left on each tree, to keep up vegetation, which may be pruned off the following winter or spring. When the shoote are to be eaten green, none shouki le tiken but those of the same season; because in them the prickles are herbaceous, and, consequeatly, do not lnjure the mouths of the animale.-1 howse's Trees of A merica.

Lofoden Islands, a large group of islands of the north-weat coast of Norway, stretching north-east to suuth-weat from N. lat. $67^{\circ} 30^{\prime}$ to $69^{\circ} 30^{\prime}$, und E . long. $12^{\circ} 16^{\prime} 80^{\prime \prime}$. The group reaemblea the verte. bre of an animal in form ; the lalands fitting into each other so closely, that from a distance they seem to form one long continent. The Island, which are all of a kranite or limestone formation, are precipitura, and very lufty; the hilla of Vaagoe rising almost perpendleularly to a helght of 4000 feet above the nea. The channels whlch separate them are nurrow, toituoun, and generally of great depth. The largext inlands of the group are in the north, viz., Itindoe, Andoe, and Langoe; the first treing separated from the main land by a passage about a mile in width. The tail of the chain is formed of a number of amaller idands, the chief of which are the two Vaagoes, Mouskenüsoe, Viaroe, and Roat, meparated from the main lund by West Fiord. This gulf is much dreaded ly mariners when the wind la south-west, on account of the great swell which rolls in from the North Se: and which is especially dangerous at the Malntroel hannel between Viroe and Moskenosoe. The mean temperature of the group ranges from $23^{\circ}$ in winter to $50^{\circ}$ in summer, which, conslilering the high latitule, is comparatively mild. This is casusel, lowever, by the exprosure of the group to the Gulf Stream. Jarge shoaly of berring and cod frequent the Iofodens annually, und attract to these falands a large concourse of tishing. boatn from several hundreds it miles of searcoast. in the incleusent month of Feliruary and Murch, generally about 3000 boats (montly open) assemble liere for the cod-fishing, each havlag, on an average, five of a crew, while the aggregate number of fish taken ameunts to more than $3,000,000$. These are chiefly dried in tho sun and wind, without asit, and nent to Trousoe, Trondhjem, Bergen, etc., alung with large quantitié of col-liver vil and cod-roe, for exportation or home coneumption. The cod-fielsery ends in April, and is
followe
till the perman. conalles prinelpa are kepi where Steilo, it group, al main lan fodena is 4000.

Log, ship's vol there are ally used is a piece cle of abo plate of le perpendict immersed. means of hole at one fixed in a 1 oceasionall spacen, whi geographle in hour of employed t lowing mat the half-inl watch fixes which, awia resistance, a alackened 0 ont. The line, at the d The glases is passen over t glase has ru then being of boarl, now p casily drawn oms which h determines glape, and di ineasured, to thent, and to glass runs 30 should be 50 i therefore be 30 is to 50, so the distance $t$ heat or moist 4 able effect on faster, it alou of a peadulum ing a day's sai tho different necensary to even if no alte constantly hea valuable devit occurs till the published ly I
Logarithm indexes of the were invented Scotchman (Sis computing by discovered alo Napier's lines. pleted by Mr. I
Log-Board book, and div the hours of $t$ winds and the c
followed by the herring-fishing, whioh to carried on till the bolaterous menson, at the ee of antumn. The permanent popniation of the Iofocena in very amall, conaldering the extent of territory, and is auntained principally by the fiaheries. Some cattle, however, are kept in the most slieltered parts of the leland, where good pasturage is obtalned in the aummer. Steilo, In the isiand of Ulvo, is the chief village of the group, and has communleation with the ports of the main land by means of a ateamer, whleh vislts the loo fodens in mummer. Natimated population of group, 4000.

Los, an apparatus uaed to measure the rate of a ship's veloclty through the water. For this purpose, there are eeveral Inventiona, hut the one moet generally used is the following, called the common log. It is a plece of thin board, forming the quadrant of a eircle of about 6 inches radlus, and balances by a amall plate of lead, nailed on the olrcular part, so as to awim perpendlcularly $\ln$ the water, with the greater part immersed. The log-llne is fastened to the log by means of two legs, one of which la knotted, through a hole at one corner, while the other is attached to a pln, fixed in a hole at the other corner so an to drew out occasionally. The log-line belng divided into certaln spaces, which are in proportion to an equal nimber of geographical millen, as a half or quarter minuts is to an hour of time, is wound alout a reel. The whole is employed to meanure the ahip's hoad-way in the following manner: the reel belng held by one man, and the half-minute glass by another; the mate of the watch fixes the pin, and throws the log over the atern, which, swimming perpendleularly, feels an Immediate resistance, and is considered as fixed, the line being atackened over the atern to prevent the pln coming ont. The knote are measured from a mark on the line, at the distance of 12 or 15 fathoms from the log. The gless is, therefore, turned the Instant the mark passes over the atern ; and, as soon at the sand In the glass has run out, the line is stopped. The water, then being; on the log, dislodges the pin, so that the board, now presenting only its edps to the water, is cusily drawn aboard. The number of knots and fathoms which had run off at the expiration of the glass, determines the ship's velocity. The half-mlnute glase, and divisions on the line, should be frequently measured, to determine any variation in either of them, and to make allowance uccordingly. If the glasa runs 80 seconds, the distance betwcen the knots should be 50 feet. When it runs more or less, It should therefore be corrected by the following analogy : as 30 is to 50 , 80 is the number of eeconds of the giass to the distance between the knots upon the line. As the heat or moisture of the weather has often a considerghle effect on the glass, so as to make it run elower or faster, it ghould be frequently tried by the vibration of a pendulum. As many accidents attend a ship during s day's sailing, such as the variablenees of winde, the difforeut quantity of aail carried, etc., it will bo necessary to heave the $\log$ at every alteration, and even if no alteration be perceptible, yet it ought to be constantly heaved. The Inventor of this simple but valuable device is not known, and no mention of it occurs till the year 1607, In an East Iudia voyage, published by Purchas.-E. A.

Logarithms, so useful in mathematica, are the indexes of tha ratio of numbers one to another. They were invanted by Barun Merchiston, an eminent Scotchnen (Sir John Napier), In 1614. The method of couputing by meany of marked pieces of lvory, was discovered about the same time, und hence called Napier'a lines. The invention was afterward eompleted by Mr. Brigge, at Oxford.

Log-Board, two boards shutting together liko a book, and divided into several columus, containing the hours of the day and night, the direction of the winds and the course of the ship, with all the naterial
ocenrrences that happen daring the 24 hours, or from noon to noon, together with tha latitude by observatlon. From this tabla the officers work the shlp's way, and complle their jeurnala. The whole being written with chalk, is rubbed out evory day at noon.-F. A.

Log-Bools, a book into which the contente of the log-hoard are dally transeribed at noon, together with any circumstance, deservlog notice, that may happen to the ship, or withiln her cognianace, elthar at sea, or withln a harbor, otc. The lntermediate divislons or watches of a log-book, contalaing 4 hours each, are naually signed by the commanding officer thereof, In ahlps of war, or Buat Indiamen.-E. A.

Iog-Idine, the line which in faotened to the log.
Inogwood (Fr. Bois de Campeche; Ger. Kampeschole ; Du. Campecheout ; Sp. Palo de Compecho), the wood of a tree (IIcomatoxylon Campechianum, LIn.), a natlve of America, and whlch attains the greatest perfection at Campeachy, and in the Weat Indies. It thrive best In a wet soll, with a large proportlon of clay. The logwood-tree ls like the white thorn, but a great deal larger. Tha wood is hard, compact, heavy, and of a deep red color Internally, which it gives out both to water and alcohol. It la an article of great eommercial lmportance, belng extenively used as a dye-wood. It is imported in loge, that are afterward chipped. (The logwood-tree, and the adventures of those that were formerly engaged In cutting it, are dencribed by Dampier; see hls Voyages, vol. Il.; part 2, p. 66, ed. 1729.) We borrow from the learned and able work of Dr. Bancroft, the following curious detalls with respect to the use of logwood: "Logwood seems to have been firet hrought to Wigisnd soon after the acceasion of Queen Elizabeth; but the varioue and beautiful colora dyed from It proved so fugacious, thut a general outcry mgainst its une was soon raised; and an Act of l'urliament was passed lu the 23d year of her relgn, which prohibited ita nse as a dye uniler severe penalties, and not only authorized but directed the burning of it, In whatever hands it might be found within the realm; and though this wood was afterwurd sometimes clandestinely used (under the felgned name of blackwool), it continued anbject to this prohibition for nearly 100 years, or until the passing of the act 13 and 1t Chas. 1 I.; the preamble of which declares, that the Ingenious Industry of modern times hath taught the dyers of Euglanil the art of fixing colors made of logwood, alias blackwood, so as that, by experienco, they are found as lasting as the colors made with any other sort of dyeing toood echaterer ; and on this ground it repeals so much of the statute of Elizabeth as related to logwood, and gives permission to import and use it for iyeing. Probably the solicltuile of the dyers to olstaln this permiseioa, induced them to pretend that their industry liad done much more than it really had, in fixing the colors of logwood; most of which, even at this time, are notoriously deficient in regard to their durability."-Banchozt on Permawent Colors.

Lolre, La (anc. Liger), the longest rivor in France, rlsees at the foot of Gerbier des Joncs, umong the Cevennes Mountains, in the Department of Ardeche, and after a westerly course of $5-10$ miles, falls into the Bay of Hsca:". This river drains a distrlet of Franco nearly equal in extent to one fourth of the entlre kingtom. It becomes navigable at Roanne, and passes the flourishing towns of Orlenns, Blois, 'Tours, Saumur, and Nantee. The navigation is interrupted, however, during four or five months of the year, by frost or thoods. To obviate mone of the difficulties incidental to the navigation of this river, a iateral canal has been formed along a part of its course, extending from the Canal du Centre to the Canal de Briare. The Loire communicates with the Rhone and Seiue by meuns of canuls. The affluents of this river are very numerous and lmportant-many of them navigable. Those on the right are, the Arroux, the Nisvre, the

Maine (formed by the unlon of the Hagenne and the Sarthe) $p$ on the left; the Alliet; the Lolret, the Cher, the Indre, the'Vienwe, the Thout, atad the S3vre-Nantaise. Tr To prevint the Enirn from spreading over the Iowigrounds aleng its course, thas brion banked in by dykeb, built mith above fts ordinary Iovel. These embankmente were naver known to give way previons to the grest floois of 1846. They gave.wuy at the same place during the fearful inundations of June; 1856, casrying away the bridge and vilinge of Savounieres, and inundating the oommunes of la Riche-extrs and La Cha velle-aux-Nanx, casuing a dreadful loes of llfe and property. The meuth of the river is about seven miles wide, measured from Sc . Nazare to Paimbreluf. Ships find great difficuity in taking the nooth of the river, owing to the exposed natnre of its position, and to the numetous sand-banks which traverse it.eve

Iombard, a term anolently used in Ningland for a banker or money-leader." Tha natmo is derived from the Itatian merchants, the great ia drers or money lenders of the middle ages, principaliy from the cities of Lomisandy, whoiare said to hav cettled in london in the midule of the 13th centiar., : : to have trken up their residence in's entreat in t.ae oity which still bears their name. Lomisard weumers were aent to England ty Pope Gregory IX. to lend money tweonvents, communities, and private petsons, who wert not able to puy dewn the centhe which were collected thronghout the kingdom with great rigor that year, 13 Henry III., 12\%9. 'They had officea in Iomisard stroet, which great bankiwg atreet is called after them to this day. Thefr usurionn traneactione enuaed their expulaion from the kingdom in the reign of Blianbeth. Stowe, in his Sturvey of London, bays, "Then have ye Lombarde-street, so celled of the Jongobards and other merchants, strangers of diverse nations, annembling there twlet every day. The meeting of which merchanta there continsed untll the $22 d$ of l)ecember, in the year 1568; on the which day the sald merchants to make their meetings at the Hursse, a place then new bailded for that purpese, in the ward of (Yornhili, and was since, by her mafesty Queen lizizobeth, named the Royal Exchange."

Ioudon (latin, Iondiniun; Freneh, Inomirea; Italian, Lowdra), the metropolis of the British empirn, and one of this greatent cition of ancient or modern timea, is sitaste on both banks of the Thames, about 45 nilion athove its mouth at the Nore, and is trelow the higheat tideway, Though chiefly within then county of Middlerex, I ondon Inelndes partr of Surrey and Kent, and extende into Fierex. St. Paui's, the mont striking cobject in the city, in in lat. $51^{\circ} 30^{\prime} 48^{\prime \prime}$ N., long. $0^{\circ} 5^{\prime} 48^{\prime \prime}$ W. of Greenwici. Its eariy history in loas in obacarity, aidl the first anthentic notice of $t$ existence is that of Tacitus ( $A$ wnol., $\mathbf{i f h}$, xiv., cap. 8), who, in alluding to Jomdinum, usy, "Cognomento quidem colonis non Inalgne, sei eopiâ negrotiatoram et enmmeatnum maxime celebre." The derivation of the name " London," has been the subject of mueh conjectore ; int that mentioned by Pengant (Iondon, p. 17) seoms most frasible, vis., /Iym, in Celtie, a lake, and dim, a town. It could not, howover, have lieen a place of importance at tho period of Julias Comar's invanion, an it is not notlced in his C'ommentaries. About 100 years themafter, the Romany, under Clandiun, took pmesesslon of the city, and ealled it Augasta, in honor of that prince. It was erected inte a grefecture ; and the inhalitanta, nominaliy oldizens of Home, were governed hy Roman laws and Rownn magiotrntes.
Condon was not fortiled at an early periol of the Koman oceupation ; for in A.15, 61, the Britons under Howdeas, moolted, eaptored and buraed the eitr, ar, d musasered the inhabitunts, The eity was soon, ho"over, rebuilt, but is muppoeel to live symeined ogers till the relgn of Cometantinn the Great. From the enabor of eolns of his time found asder the wallis, if
may be inferred that that omperod eonstructed the walle; and it is allogecic that he made London an eplso copal aen. The limite of these walls have been pretty exactly ascertained, $n$, They vommaneed near the site of the present Tower, extended along the Minories and tiack of Houndeditch, nerons Mishopegnte-street, in a strajght line, by London i Well, to.: Oripplegate; thence southwand to Alderagate, proeseding afterward hy the back of Christ's Honpital and OId Newgute, passing behind the aite of Nawgate Prison, and so reaching Ludgater: again proceeding weotward to the IRiver Fleet, and terminating at a fort called afterward Haynard's Castle. "Their' compasu was consleted. by another wall along the hank of the Thames. Extont of the walle from and to the side of the river, 2 miles and 1 furleng ; on the lank, 1 mile and 1-10th; uniform height, 22 feet. Through getes in these wailh, roula led to different parts of the kingdom.' The great Loman Rouda, Watling-atreet and Frmin-street, had their ternini at the London Stune, or Roman sliliari$\mathrm{un}_{\text {, }}$, portion of which still remaine, and is insert.d in the most conspieuous part of St. Swithin's Civurch, abusting on Cannon-atreet. The names of the gates are still 'preserved in eirects, etc., via., Ladgate, Alderagato, Moorgate, Bishopsgate, Aldgste, Newigate, Cripplegate, and Postern Row, on Tower Hili. After the Romans withdrew their forees from England, London suffered severely till the Baxons fixed themseives in the country. It la sald to have become then the capital of the Eust Suxon Kingloms at any rate, it quickly regained ita former importance, and is cailed thy Venerable Bede a "princely town of trade." Soon after the introduction of Christiantity, Old St. Paul's, and St. Peter's at Weatminater, were foondid. When the Saxon monarchien were united in the person of Jiptrert, Iondon becamo the eapital of the conmolidsted kingdom, and auch it has continued to be. in the reign of Alfred it recovered from the effects of the Dunish in vasion, as well as from those of a firs, which nearly coanumed it in 898.
After the battle of Hastings, the eity aubmitted to Wililam, whe granted it a charter, atiii extant; and who oommenced building the 'Tower of loadon in 1078. About this time the capital suffiored severely and frequentiy by fires, especiaily in 1077 and tox6. in the following reigm it was visited by a hurricane and an inundstion; the latter errrying away the tirst wooden hridge over the Thamen. IIenry I. granted a new charter to the city in 1100, reatoring the privileges it enjoyed previous to the Conquest, and eonferring on the eltixens the right of electing their owh magistrates, It is and that this document served as the moxill for Magna Charta. The population in 1141 was estimuted try Petar or llloia at 40,000 . The titie of tho chief ragiatrate was changed by Itenry 11, from i'ortreeve to Dlailiff; and in 1191 he ta catled Lond Mayor, in a document limatid ty the Court of Aligrmen. In 1198 Hichard I, committed the duty of fixing a nutional ntandart of weighte and measures to the sheriffs of London and Midiliesex. John, ly severu: charters, conferred additional fayors on the eity; among uthers, the jurimiliction and eonservation of the Rivers'Thinoes and Mediway; and the power of choosing nheriffs. It 1221 tha tirst atone of the proment Weatminster Abbey was inid ly lienry III. ; and in [2a6 wator was conveyed in inpes from the village of Tybarn to the eity. In 1 Sth and 1270 the city was vivited by famine, and in 1844 by a mpecies of plague, on ali of which oreashous it auffered erievonaly.
Under Eiwawi I. Iondon wos first divilied intu 24 wards, each to choose common councilmen and an aldernan. Fivard II., in 1316, prohilited as a naimance the buraling of eoal, then lately iutroduced, lut his mistake was noon discovered and rectified. Under Wdward III. the elty reoeived ths perpetusi rigit of rungintrueg over Southwark. In 1381 the citizens were alesmad by the insurrection of Wat Tyler, but
this used chlefy and a knight This w and w woil as sereml IIenry carried citizens in this which t materia hospitai Queen advance Netherls fore unk expecial
By m may be Cornhill, from the Westmin south, on the chief Buckingh uatel in gardens fo Gardens f etc., exter Palace, $w$ street. 0 ings botw friars Brld was contin tend + d hut there were to Horsely introduced an! the str was severe in the reig majority of mons, and their party.
$\qquad$ vive; but visit of the end of lee of the popu "Great Fir lasted four to ashea five The ruins c half a mile goods const lions sterlin visilation co of the city. by Sir Chris the time of curred. I'h The revocat to Londen in pled Spitalil silk. The o of Qreen An fifty new ehu coals brougin Alint general and meamure relgn, Clarkn ditch, Marib
this whe soon anppronsex 'at Street lampe weme first used ian 1416, il in the wars of the Roses, Landon chlefy Avored the interesta of the House of York; and arter the tatele of Barnet, in 1471; Edward VI. kuighted the mayor, reeordor, and :18 ! aldormen. This was the era of the firit printing-prese, construcfed and wort nd by Caxton In Weatminiter Abbey; as well as the orection of water aisterae and conduite in st veril parts of the city and suburbs. In the reign of Ilenry VII., a disdise called the " oweating siokness" corried off two mayors and slx aldermen, witn many citizens. Some conalderable improvementa were made in this reign, as well as in that of Henry Villia, to which the auppression of rellgious houae by the lattar masterially contributed; these giving way to achools, hospitala, and charitable inatitutions. .. By the tid of Queen Ellizabeth, the prosperity of I.ondon rapidiy advanced during her reign. The rofugees from the Notheriands introduced zumerous manufactures befors unknown in England, and in this way conferred especial benefits on London.
liy mupe of the time of Elizabeth and James. I.j it may te seen that the ehief part of Loncion then cou sisted of Newgate-street, Cheapside, the Poultry, and Cormhill, and the various streets and alleys leading from theu to the Thanes. Along the Strand, toward Westminster, were houses on both aides-those to the south, and abutting on the river, being the palaces of the chief nobility. The nabias of Saliabury, Norfolk, Buckingham, Arundel, Fseex, etc., have been perpet. uatod in the streets now on the sites of pulaces and gardens formerly belonging to these families. Spring Gardeus formed a series of walka, with bowling green, etc, extending from Charing, Cross toward Whitehall Palace, whence to the Abbey there was reguiar street. On the Surrey side, there were not ten buildings between lambeth and the wast foot of Blackfriars Bridge; but from that poiat a now of houses Was continued to the Borough. Southwark then extended but a short distance along High-atreet; and there were smali scsttered houses from Tuoley-atreet to llorselydown. In the relgn of Jamee I. brick was introluced as a subatitute for wood in L.ond;at houses, on! the streets ware first puved with stones. The city was severely visited by the plague in 1604, and again in the reign of Charles I. Daring the civil ware a majority of the corpontion took part with the Commons, and the city treasury, was of great service to their party.

After the Reatoration London began greatly to revive; but a serious check was given to it by tise last visii of the plague, which raged from June till the end of December, 1665, and destroyed neariy a thiri of the populstion. This was speedily followed by the "Grest Fire," which commencod 2d September, 1666 , lasted four days and nights, and in that tiuse reducer to asbes five sixthe of the whole city within the walls. The ruins covered a space more than a mile long and half a mile broad; and she value of buiddings and goois consumed was eatimated at ten to twelve milHons stering. But though severe at the time, this visitation centributed auaterially to the fiuprovement of the city. It was huilt on a more conmodious plan by Sir Christopher Wren in aiout four yearn. From the time of its re-conatruction, few stirriug eventr occurred. The firat atons of St. Paul'a was lald In 1075 . The revocation of the Bilict of Nanten in 1685 brought to London mauy Freach I'roteatant familien, who peopled Spitailleilis, and introduced the manufacture of silk. The oontinued growth of the eity in the rolgn of Qreen Anue occasioned the act of 1711 for building Afty new chunolics, tha oont leeing paid by a tax on all coals brougit into the Thimse. The atreete ware then first geaerully lighted, fre-enginge were provkded, and meanures taken for watehing the city. In her reign, Ciarkenwell, Old-wtreat, the lower phart of Shore. dteh, Marlborough-atreet, Soho, Bedford-mow, Fed

Lioneagaze, and, a district north of Holbow; wasor
 -In the reign of George I. aome additions ware made to London, chiefly to the north of Oxford-street and: about Berkeloy squave. In the reign of. George II. some nev parishes were erected, yis', St. George's, Bloomabury ; St. Ann'a, Limehouso ; Et. Pau's, Dept. ford ; and St. Matthew's, Bethnal Green. The River Fleet wha covered, and a market huilt on It; Grosve-nor-square, Weatminitor Bridge, and Great Georgestreet, were built; and roads were formed in several directions, the principul one skirting the northern part of the city from Paddington to Iolington.
The accession of George 1IL. gave a freah atimulus to improvemeat and extension ( A new hridge at Blackfriars, with handsome streets leading to it, and: many new dwelilags on the Surrey adde, were orocted; On the north-west side the parishes of St. Pancrae and Marylebone were formed. At the aame period the street pavement for foot passengers was firt hid down, the kennels removed from the middle to the aides of the streets, and the numbering of housee in- , troduced. The American war gave a temporary check to extension; but soon after the peace of 1783 the advance luecame more rapid thun ever. Docks were constructed, the commerce of the city rapidly augmented, the ground near, the water side was covered with bulldings, and, wostwiad, Bedford, Jussell, and Brunswick Squares quickly sprung ,up. From the Regency iu 1811, London advanced in extent and elogance etill more rapidiy. Regent's Park was formed, and surrouaded by handsome terraces; and within the last few years the extensive and fashionabie districts called Boigravia and Tyburnia-the former to the south and the latter to the north of Hyde Purk-have been created, and literully coverad with houses of a bigh class. In 1851 there were 805,938 inhabited louses in the metropolls, and there are, no less than 6300 streets enumerated in the London Postal Guide for Jnnuary, 1857.

The situation of London, on the banks of a great tidal river, is alao peculiarly favorable for a large elty in a sanitary point of view. The subsoll is partly clay (the London clay of the geologist). The valley of the Thames has a gradusl ascent on the north aide; and the eonth eide, though below the levol of spring tldes, has been well socureu aguiust inundations by eubankments. The air lo temperate and rather dry than noist, and the health of the inhabitants has gradually but rapidiy improved from the earlier part of last cen. tury; when the deathe were aznually 1 in 20 of the population, whereas at present they are blout 1 in 40.

It ls difficult to ausig a auy distinct houndaries to the metropolis, as almost continuona lines of houses atretch like branches from the main trunk of London, to Chiswick, Kensal Green, Kilburn, IIampstead, Ilighgato, Stamporl Ilili, and Upper Clapton in Middilesex; Stratfurd and North Woolwich in Essex: Greenwich and Lee in Kent $;$ and Dulwich, Norwood, Cispham, Wandsworth, and Putney in Surrey. These, too, are constantiy inemasing in length and breadith; the vacant spaces between distant iinea of roud being tiliel up with extrsordinary rapldity. The circle formed on a radius of four milee from Charing Cross oxcluies a large portion of london; but its ex. treme length may be set down as ten miles, and thi bradich at about six. There are four divisions of the motropolis which, though rathor vague, are pretty generally underatood by Londonors-these are, the City, the West Lind, Lambeth, and the Borough; the two first on the Midulesex, and the others on the Surrey alde of the water. The city of Loudon proper lias an area of 725 acrea, and containe 108 parishes- -17 withiu and 11 without the walls. In ite mont limited senve, the metropolis includes the oltiea of London and Weatminuter, the parliameatary boroughs of Tower Ham-
lets, Finsbury, Marylebone, Lambeth, and Southwark. | cities and horoughe above mentioned, as accertained hy Annexed is un account of the populatica of the various $\mid$ the different censuees, beginning with the first in 1801:

| Cltiee and Boroughs, | 1801. | 1815. | 1881. | 181. | 184. | 1851. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| London City.................................. | 156,859 | 120,900 | 184,484 | 189,968 |  |  |
| Westminster City | 164,210 | 162,085 | 182,085 | 901.848 | 919,980 | 241,6it |
| Tower Hamlets Boroug | 184,563 | 987,437 | 901,850 | 837,246 | 419,730 | $\$ 89,111$ |
| Ftusbury * $\quad$................... | 184,616 | 167,1做 | 901,781 | 259,188 | 200,043 | $828,772$ |
| Marylebone. | 97,649 | 146,500 | 174.854 | 940,294 | 287,465 | 870,047 |
| Lambeth \% 4 , ................. | 49,856 | 74,806 | 108,585 | 160,668 | 197,419 | \$51,345 |
| Sorthwark. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 94,818 | 108,768 | 188,668 | 184,117. | 148,680 | 172,846 |
| Tetal. | 876,904 | 994,746 | 1,207,459 | 1,476,048 | 1,652,902 | 2,027,528 |

The metropolitan district comprised within the bills / and abuses connected with the berthing and mogring of mortality includea, with the cities and boronghs embraced in the foregoing table, other integral parts of London, Bike Chelsea, Brompton, and Kensington; and the auburbs, such as Greenwich, Wandsworth, Hammersmith, Putuey, etc. In this view, the area of the metropolis is $\mathbf{7 8 , 0 2 9}$ ncres, comprising 186 pariahea, and the present population may be estimated at loward of $2,500,000$. Annexed is an account of the pepulation of this area at the date of each cenaua, commencing with 1801:

| Years. | Population. | Yee | Populatlom. |
| :---: | :---: | :---: | :---: |
| 1801. | 65,963 | 1881. | 1,654,994 |
| 1811 | 1,188,818 | 1841. | 1,948,417 |
| 182\%. | 1,878,947 | 1851. | 362,236 |

But many merchanta and citizens, taking advantage of the easy access to the country afforded by the railways, occupy bouses at such places as Kingston, Esther, Walton, Richmond, Twickenham, Staines, Windsor, Reigate, Bryghton, etc., making daily journeys to and from the city, so that they and their families are not includel in the foregoing accoant.

Commerce.-As one of the grent occupations of its inhabitants, the commerce of Londol demands the first notice. The capital of a great empire, with immense wealth concentrated in it, having casy access, toth by land and water, to all parts of the kingdom, and every facility o- communication with foreign countries, London has become, with perhaps the single exception of New York, the greatest commercial city in the worit. The commercial growth and prosperity of Lonton are especially to be ascribed to ita great river-jort, the Thames. This famous stream has its source within the berders of Gloucestershire, a little to the south-west of Cirencester, and becomes navigable at lechlade, 138 milien above London. It is first affected by the tide abont 15 miles above the metropolis; but before reaching this point it is awollen ty junction with the Isie, Kennet, Coln, and Wey. The city corporation are the chief conservators of the river, and appoint a navigation committee, who superintend the towing-paths, bridges, water-coursee, and whatever relntes to the river, as far as a atone a little alove Staine's Didge. Hif;her up the supervision is divided between the city and a body chicfly composed of the landowners on both sides of the river. The conservation of the river below London la also in some measure under the government of the city corporation, but the Trinity llouse has concurrent jurisdiction, and no ballast can be raised without ita anthority. The sppointment and control of piints, the piacing and repairs of land-marks and bnoys to indicate the channels, and the establishment of floating lighta, are also under the superintendence of the Trinity llouse. Close to landon Bridge there is water suffleient for vessels of 800 tons isurden, and the legislature has placed the shipping of the jort, and their moorings, nnder the direction of the bartor-mastere, nominatad by the corporation, and approved by the Trinity House. The sinuonities, currents, und shoals in the river, and its varying ilepth, renider the navigation rather Intricate. The river pilota, who are a distinet class, conlact vessels to Gravesend, where they are relieved by the sea pllots. Down to 1800, the commerce of Iondon, and the ahipping interest, suffered nusterially from the erowded state of the river, and the difficultien, telays,
of vessels, and the landing and storing of merchandise. These evils led to the construction of the West India Doeks, which were opened in August, 1802. These, next to the Commercial Docke, the oldest in Londen, were formed in the gorge of the Iale of Dogs, on the Middlesex side of the river. Thiey comprise the import and export dock (communicating with the river at Blackwall and Limehouse), and a dock of 19 acres for bonded timber.

The export dock occuples about 25 , and the inport doek 80, aeres. The gates are 45 feet wide, and admit vessels of 1200 tons. At the highest apring-tides the water is 24 feet deep; and within the docks thero is sufficient space for 600 vessels of from 250 to 600 tons. The import and export docks are parallel to each other, but divided by stacks of warehouses. There are sheds for sheltering the goods; and the chicf warehouses are capable of storing $170,000 \mathrm{hbds}$ of sugar, besides coffee and other tropical productions. The whole space occupied hy these docks and warehouecs is 295 acres. The East India Docks at Blackwail now belong to, and are managed $!y$, the same company as the West India Doeka. They' were commenced in 1803, finjshed in 1806, and were intended to accommodute the trede of the East India Company. They includo an import basin of 18 acres, an export hasin of about 9, and an entrance basin of 24 ncres. The entrance lock is 210 feet wide, the width of tho gates 48 feet, and the depth of water in the docks is never less than 23 feet. The extent of warehouse room at these docks is comparatively small. The East and West Indiu Docks are well inclosed and guarded, and the butilings are tireproof. The London Ducks, aituated between Rateliff lifighway and the Thames, were beguin in June, 1802, and opened in January, 1805. They conaist of two docks ; the western, covering 20 acres, and the eustern about 7 acres. The latter is entered from Shadwell, and the former near Wapping Oid Stairs, and also at the IIermituge. The whoie can receive 500 veasels of from 200 to 400 toms, The entire space inclosed is 71 acres. The warchouses are very line; the most extraordinary being that for bonded tohacco. The roof sud pillars supporting it are of iron, and the whole huilding covers five acres of land, and is capable of containing 21,000 hhis. The company is governed by a lody of directors, of whon the lort mayor is one. The regalations to prevent tire and pilfering nre as effectasio as in the Bast India Docks. St. Katherine's Docks, situnto between the Londion Docks and the Tower, were exeeuted in a year and a half, and tirst openci in Octother, 1828 . The whole extent of the property is 24 acres, of which nenry one half is jucloved in the two doeks - :nmunicating by a basin. The eutrunce lock, near Isacgate Wharf, is 180 feet long, anid 45 feet broed, and admits ships of from 20015 to 800 tons. Tho warehousea are very large and commodions, and the regulations and charges are nimilar to those of the other dock. Victoria Docks, the last constructed, were completed in 1855. They are situated in the Plalstow Marshos, inumediately below the East and West India Docks. The portion of this property appropiriuted hy the Dock Company for their own parposes is abont 200 acres, bint the dock Itself oreuples but 74 , und affords 244 foet dejth of water. The en.
trance wide. availabl acres. acre and for the ject of th portion o in the Pc river.
along the terninati India Dor iand Doct are now 70 are ws ladea wit! bulky tha basin near East Com within is d l'arallel inner and by which cation witl was forme don of artic ed for cens tropolis; ; Janction Paddington Regent's $P$ carried by and so on is 9 miles 10 is not easy, sinetch of $\mathbf{t}$ be an epitor capital are I of all soils n the ingenui globe can sp does net yifil state the nu and frequer and manufa from the sar Accoves or Lonein $185 \%$.
trance lock at Bow Creek is $\mathbf{8 0 0}$ feet long, and $\mathbf{8 0}$ wide. There ts a half-tlde busln of 16 acrea; and the available warehonee floor ls atated to be upward of 11 acres. The company have also sequired about on acre and a half between Thames-street and the river for the orection of an ap-town warehouse. One object of the company in to withdraw from the Thamea a portion of the large fleet of colliers whlch lle at anchor in the Pool; and serlously obatruct the trailio on the river. On the other bank of the Thames, axtending along the slde of the river opposite Limehouse, and terninating nearly opposite the entrance to the West India Docks, are the Commercial, formerly the Greenland Doeks, which existed In the 17th century. They are now of great extent, Inclosing 120 acres, of which 70 are water, and were denignea to renat's vessels ladea with tlmber, corn, and otuer cumer. 澺 more lulky than costly. These docks arr us tered by a basin near Dog-and-Duck Stalra, sometimes called the East Cotntry Docks, and the main body of the water within is divided into alx unequal parts. See Docks.
Paruliel to these is the Surrey Cansl, having an inner and outer dock at the entrance in Rotherblthe, by which ships are received, and affording communiestion with the Croydon Canal. The Regent's Canal wos formed to anve expense of cartage through London of articles brought by sea, and afterward forwarded for consumption to the north-weet parts of the metropodis; and also to communleate with the Grand Janction Canal. The Regent's Cansl passes from Paddington, by a tunnel under Maida Hill, to the Regent's Park, thence to Inlington, under which it is carried by a tunnel three quarters of a mlle in length, aod so on to IIoxton, Hsckney, and Llmehouee. It is 9 milea long, end la provided with 12 large locka. It is not easy, withla a moderato compass, to glve even a sixetch of the forelgn commerce of London. as would be an epiteme of that of the world. To the British capital are brought the products, natural and artiflelal, of all seils and all climates. It has in store whatever the ingenuity and induatry of man in any part of the globe can spare to exchange for what his own country does not gield. We can, therefore, do little more than state the number and alze of the vessels tias belong to and frequent the port, and the value of the produce and manufactures of the United Kingdom exported from the same:
acconst or the Numbin and Tonnant of Vmerts brLonginu to tife loat of London on 81at Decembra, 185\%.

| Description of vessels. | Under 50 lons, |  | Abova 60 lows. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Venels. | Tobat. | Vessela. | Tons. |
| Salling vessel | 617 | $81.818$ | 1,870 | 668,899 |
| Stcanters. . . | 182 | $4,827$ | 405 | 168,4)0 |
| Total. | 749 | 25,640 | 2,275 | 827.805 |

Account of the Numbri and Tonnage of Versels which HAFE ENTEAED THE I'ORT OV LON NON YBOM FORRIGN Counteife and THR dolonike, in eacu of the Fivn Counteira and tik bikg kinmino witit 1855.

| Yasm. | Veguele. | Tinmaga, | Sspr. | Vessele, | Tonn |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1851. | 10,341 | 2,170,3\%8 | 1554. | 10,048 | 2,667.828 |
| $1 \times 12$. | 9.986 | 2, 100,157 | 1855. | 9,570 | 2,420,080 |
| 1558. | 11,768 | 2,094,118 |  |  |  |

Account of the Numinh and Tonnagr of Coabtivg Ykaskla tuat enterno the Port of London is 1845 , dintinocibuine llaitish vmom Furvicin.

| Deseription of vesent. | Brit on. |  | Fiarsign. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Veatela. | Tomange. | Veamals. | Terimage. |
| Ssillug vessels. | 37,799 | 2,448, 878 | 18 | 1,801 |
| Steamers....... | 1.407 | 411,444 | 1 | 105 |
| Total.... | 19,026 | 9, $2 \times 00,817$ | 14 | 1,806 |

The conveyance of coals to Iondon employs a great deal of shlpping. They are chiefly brought from the north-eastern distriet of the kingdom, and are aold at the New Coal Exchange, lately erected in Lower Thames-atreet.
Very large quantities of coal now reach loondon by mesas of the railwaya whlch centre in the metropolts.

Aocount of the Numbis or Saiph laden wite Cone WHICH MNTRRED THE POBT OF LONDO: IK RACH YEAE thom 1845 to 1855 molvelve.

| Yearit. | d | rs. | d. |
| :---: | :---: | :---: | :---: |
| 1845. | 11,987 | 1851. | 11,765 |
| 1846. | 10,483 | 1852 | 12,085 |
| 1847 | 11,911 | 1858 | 18,111 |
| 1848. | 12,207 | 1854 | 11,875 |
| 1849. | 19,074 | 1855. | 10,784 |
| 1800. | 12,683 |  |  |

Declabid Falus or Baitigi akd Ibisu Pzovuot and Makuractobes syrortrd from Lonpon to Formian Coustries and the Colonims in 1850 and 186 ,
1855.

25,966,088
ustom-houre.-The preaent custom-house, opene in May, 1817, atands in Lower Thames-atreet, with Its principal and imposlng front, 480 feet long, toward the river, and occupiea the aite of a similar but ameller one deatroyed by fire in 1814, as a preceding one had been $\operatorname{In} 1718$. The Long Room is a noble apartment, 186 fect long, 60 hroad, and of sa appropriate height, with desks on each side for the eeveral officers; the centre being left for auch of the public as have business there. The other parts are distributed so as to sult the several branchea of the office. The London cuatoms establishment of clerks, tide-waiters, etc., amounted in 180.6 to 2167 ; though as but 1620 were required for all the other Engllah ports, it would seem as if the numbers here were excessive.
Axoukt of Custons Duties collegtad in the Podt of Lordon ix 1865 AxD 1856.
1580
1856. . . . . . . . . . . . . . . . . . . . . . . . s11,025, 125

Trinity House.-The Soclety of the Trinity House has its chlef eatabllshment In a large and handsome house on Tower HIll, built by Wyatt in 1793. It was incorporated In 1815; hut from the terms of its charter, it ovidently had a provious existence, and was then established at Deptford Stroud. Its privileges were confirmed by the charter of 1658 , and its members are now partly men of high rank, and partly those remarkable for naval knowledge and akill in maritime affairs. Its duties as to pilote, light-houses, buoys, ballast, etc., have already heen mentioned. In procesa of time this society acquired large property ; the nct revenue nnder ite management having in 1855 amounted to $\mathbf{x 2 0 4}, 195$. Until the passing of the act 13th and 17 th Vic., c. 131, the society spent much of lts surplus revenue $\ln$ pensions to poor and disabled seamen, or their wldowa and orphans ; but this act transfers their revenue, as well sa the charge for maintalning light-housea, etc., to the Mercantllo Marine Fund. It would appear, from a parliamentary paper lately pablished, that the Board of Trade expended in 1856 out of this fund $£ 1388$ as rewards for the salvage of life. The Trinity House contains some portraits of naval heroes, naval trophies, ctc.

Mint.-The Royal Mint, also on Tower IIIll, waa removed thither from the Tower in 1811. The present bullding which Is oxtonsive and woll suited to its purpose, was completed under the directlon of Sir $R$. Smirke. The interior ls aprzopriutely arranged for the manufacture of coin ; anci the machinery combines grent ingenuity and beauty. In consequence of tite report of a commilasion In 1849, the old company of moneye: was abollahed, and a acientlic chlef has since been allotted to this department, lastead of a politicul one. The amount of gold, sil'rer, and copper moncy coined here in the last three years had been as follows:
Account of the Total Valive of Gold, Silver, and Cobper coined at tar Mint in anoh of the Tubre Ykaks andige with 1856.

| Yisar. | Gold. | silver. | Copper. | Tntal. |
| :---: | :---: | :---: | :---: | :---: |
| 184 | 94, 152,188 | Si140,480 | £ 60,806 | 54.850929 |
| 1856 | 9,008,883 | 196,011 | 41,091 | 9,9, , , 4065 |
| 1856 | 6,002,114 | 469,588 | 11,418 | 6,476,460 |
| Total | £10,162,900 | \$ $\mathbf{5 7 0 8} 8019$ | 9.118 .876 | 220,074,854 |

ant Bambe.-The Bank of England, one of the most ettractive objects in the city, waa foninded. by act of Parilament in 1694, and its business was carried on for many yeare at Grocers' Hall. -t? In 1783 it was transferred to Threadneedle-striot, and- soon thereafter the present hall and bullion ofice were opened. Betweon 1770 and 1788 the facade was extended, and two wings added, under the directions of Sir Robert Taylor and Sir John Soane. Under the superintendence of the latter, the front and wings of the original structure were harmonized. The area of the bank is an irregular quadrangle; the south or prineipal front is 365 feet, and the north 410 ; the east 245 feet, and the west 440. Its principal entrance is from Thread-needle-street, the other twe from Bartholomew Lane and" Lothbory. The interior contains several open courth, the rotwnde, or circuiar room, numerous offices, committeo-roomn, and private npartments for the residence of officers and servante. The business is carried on by a staff of nbiont 800 clerks, etc.; whose ealarios amount to nearly $\mathbf{~} 200,000$. The bank has reoeived nite anceessive renowals of Its charter since it was Arat granted in 1694, and measures have been taken in Pariament thim session (the first of 1857) for egain renewing it: The act of 1844, still in force, reparated the Bank into two distinct branches, via.: 1 . The Iasue Department, devoted to its business as agent of the State in ereating and issuing paper money, or bank-potes, convertible into gold on denand ; and, 2. The Banking Department, where the private business of deposit and discount is carrier. on. There are 60 private and 28 joint-stock banks in the metropolin. Some fow of the former; much as Child's, in Fleetstreet, were eatabliahed before the end of the 17 thi century ; while the joint-stock banks are all the offepring of the iast fow yeara. Thsre is an eatablishment near Iombard-atreet, calied the Clearing House, where a daily exchange of checks or drafta on city bankers in affected, and this process lruids greatly to facilitate bank'pg business.
Roy: : Exchange,-The Royal Exehange, colosaal in proportions, and oocupying a commaading ponition betreen the Bank of England and Comidil, is a spot Where great mercantile tranamactiona are dally concluded. : The first excias ce was built by Sir Thomas Gresham, completed in 1507, bnt fektroyed by the great fire of 1666. It was, however; apeedily rebuilt, and was opened on 28th Septemiver, 1669. Agrain destroyed by fire in 163 B, it man rebuit, and completed in 1846 by Mr. Tite. The present luilding la quadranguiar, and the inter 'r acrruanided by rrcades. In the centre, which is uncovered and noprutected from the weather, stands $c$ axstee of her majesty by Lough. The outside of the bulding, except the grand western entraace, in ocenpied ly mall shopa ; and on the upper foor is Lloyd's, where the terointas of marine insuraxce ia conducted by maderwdters. It lasy been estitanted that, on an average, 200,000 pesscas dally visit the exchange, but this can be iittlo roon than conjecture. Merchants andi broxers reaort much to coffeehouses in the vicinity of tha Exchange for the transaetion of basiness. Moat of the larges transactions ore negotiated by hrokers, who in gererai confine themeivee to one branch of trade, with whieh they ere thoroughly aequainted. Thus we have colonial brokera, insurance brokers, ship irokers, wtock broken, bill or money brokers, etc. Near the Hoyal Kxehange and the Jiank is twe Stock Fixchange, where real und fictitiona nales are made of jruperty in the public fund , ete.; the latter for the mont part being a spectes of gambling.

Iondon, when compared with some of the towns in the aurth and west of Fingland, ean searcely be calieci a manufacturing place; yet the various artieles produeed hore employ many thousand persons. The slik manafacture eapecially emplays a large number of hands. Originally Introduced by French Irotestant
refugees, many of their descendants atill continne the trudey which omployed, in 1851, 15,764 persons; of whom 8277 ; were fomales. el The manufacture of Iondon portar and hear is a much mare lucrativo busiaess, but s London lirowery requires a, very large capital. Sugamefining and olock nad watch makiny also jrerail to a considerable extont, the lactor chiesy in a distriot called Clerkenwell London-bullt carriages are generelly considered the beat, an they are undoubtedly the most elegent in the world. Londen enjoy a high reputation for the manufacture of numerous smalier articien, such as mathemutical, sargical, and innsioal instrumente, jewelry of the ouperior kinds, gold and ailver plate, etc. at The great number of these employsd in houserbuilding provee that the metropolis ia still rapidly extending; and though this business received a sevare check during the late war with Russia, It was only temporary, as ovinced by the general resumption of building in the varieus outskirts of London.

The Gheps in London are, generally upenking, weil managed, and many of them are handsomaly fitted up, eapecially those in Bond-street, Regent-street, and Oxford-street.is The wholesale shope or warehouses are chiefly to be found in the city; the retail sheps, perticularly those on a large senls, leing mere groneral in the west or faghionable end of the metropoitis. The bazaars in London, each of which forms an aggregetion of shope or stalls, are not now so attractive ns they once were. They deal mostiy in fancy goods, furnitnre, toys, oto. The four great eatablishments of the kind are those in Soho Square sud Baker-street, the Pantheon in Oxford-areet, and the Pantechaicon in Halkin-etreet, Helgrave Square. The Burlington and Lowther Arcades contain many shops for the sale of the iike commodities,
Tamer bhowive time Area in Squabu Mitim, and tas Porelation of tian Methopolis, tig Nembra of
 CIPYINO TIIE BAWE IN 1591

| Divislats. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mldalese | 51 | 218,279 10,618 | 8,046 | 815,70 | 3 |
| Murrey. | 86 | 72,944 4,524 | 1,160 | 110,127 | 4-2,493 |
| Kert | 35 | 20,8te t,506 | 609 | 87,459 | 14,202 |
| Total | 122 | 846, 183810,304 | 4,815 | 538,5811 | 2,302,239 |

 Yeana or AOR in the Methopolig in ishi, distinoutambo tuf Marbied faom the lingaklige.

| Seces, | Oribe nue of to and of.wand: |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tota | $\begin{aligned} & \text { Barchelurs } \\ & \text { rand epinsteral } \end{aligned}$ | Ilunbanda and oire |  |
| Male | 0x2,445 762.418 | $\begin{aligned} & 196, R 87 \\ & 846,124 \end{aligned}$ | $\begin{aligned} & 899,624 \\ & 40102,266 \end{aligned}$ | $\begin{gathered} 37,464 \\ 110,125 \end{gathered}$ |

From different quartera we have glemed the following estlmates of tire anaual cousuruption of certain articles of London food. All, however, tuay be colisiflered applicalle to the jeriod of the last census in 1851 :

| Wheat. | 1,600,000 quarters. |
| :---: | :---: |
| Buliocks | 240, 6 hal fread. |
| Qheep. | 1,70n,0me * |
| Calves |  |
| 1) ${ }^{\text {cosa }}$ | 85,01010 |
| l'oultry. | 3,718(0M) " |
| Game, ete, | 1,N17,400 " |
| Finh, wet and dry, of wheh more than half wore lierrtugs.. . . . . .... | 4.0, $180,9 \mathrm{man}) \mathrm{lbs}$ |
| Oyaters. | 80at, 9\% barrels. |
| 1 'otatoes. | 810,404, (019 lis. |
| Cabtauges. | $88,672,(440)$ |
| Oolons. | 1,449.860) ${ }^{4}$ |
| Apples. | 125,500 bushela |
| Forelys efgen. . . . . . . . . . . . . . .nbout | 75,000,000 |
| 18ilk, the jroduce of. . . . . . . . . . . . . | 18,040 cows. |

Water. - Although London la auppiled wath many excelient eprings of fresh water, they jruved, centu
ries ago, As alrea a sabstit great ace -a spiri coavey a Froch thi the Than that its 1613 the

Table

Loniton B
Loniton B
8oathreari $80 a t h y: a r k$
Blackfriar Blackifriar
Waterico. Waterico.
Westmins Westming Vaxhealio.
Ifangerfor Hungerfort
Chelsea Su Battersea.

Trade of tion have of the nun their aggr oatward w its of the lat of Jan According ward, the crease of betweea 19 in 1855, an tons, in 18 vesseis and riod having tons, and 53,703 tens. cresse of 3 arrivals in 1 of 2917 tone 3723 tons. crease of 2 difference b tons, and 10 review of th eels and an having been tons, and in 63] tons.
Madras, and the statistles tha port of and 5905 ten vescele, with : 68 veeselis, case of Live 11,157 tons capecity of 8 of $69,247 \mathrm{ten}$ of 2 vessein ing heen 3 in 18561 ve regard to th of 8 vessels, 25 vessels, w seia, with a c sult of the w vessels, with been 283 ves in 1850275 The principa tralis, Calcut Arsbis. For Brituin, Inclu AIN.
ries ago, quite inadequate to the wants of the oitizens. As airesdy mentioned, conduits ware then' adopted is $s$ substitute. The first offort to nupply water on an great scale was made in 1608 by SiriHigh Myddelton -a spirited citizen, who undertooky at his own risk, to convey a river of fresh and good water to the city. From thls we may presume that in Myddelton'n time the Thames no longer merited the culogy of : Stowre, that its "water wiss as eleere aa that of the sea." 1613 the River Lea watein was let into the basin at the

Nevr River head at Inlington, and khouce, at the prement day, the New River Company, with increased means, trananit the water through pipen to tho houses,
 ${ }_{12}+1$ Bridges. The bridgea spanning the. Thames in its passage through London, are nine in number, eight of these being adapted for carriagen $i$ i) The cost of New Westminster, Bridge is estimated, at $\$ 235,000$. It The following table will ahow the cont and dimensions of these vatious bridges :


|  | Dite of som- plotlon. |  |  |  | $\begin{aligned} & \text { Nanber } \\ & \text { Are of } \\ & \text { Arches? } \end{aligned}$ | , Leoghh, | Breadith. | $\begin{aligned} & \text { bpun of } \\ & \text { Arech. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1881 |  | £2,000,000 | 8642,150 | ( 5 | Feet. <br> $\therefore 004$ <br> 1 |  | $\begin{gathered} \text { Feet } \\ 150 \end{gathered}$ |
| Lonthrark | 1819. | Iren arcties, eluis. plers. | , 800,000 | 1) 88, 000 | 4 8 | $\therefore 800$. | uf) 42 | 240 |
| Blackfrlars | 1770. | Stone. ..............pi + 1*..* | 260,000 | 187,840 | , 9 | 005 |  | 100 |
| Waterlco. | 1817 | Granite, | 1,150,000 ${ }^{2}$ | 879,915 | 9 | 1,890 | - 1148 | 120 |
| Westminster. | $178 t^{4}$ | Portisind stone. | 859,800 |  | 18. | 1,160 | 1 48 | $70$ |
| Varxhell.o. | is 1814 | Iron arches, atore plers. | Unknown. | - 800,000 | 9 $\times 11$ | ${ }^{840}{ }^{180}$ |  | $78$ |
| Inngerford Suspension. | $\begin{aligned} & 1845 \\ & 1857 \end{aligned}$ | Brick and stone plers.... | $\begin{gathered} 118,000 \\ 8 S .060 \end{gathered}$ | 98,760 | Nil. | 1,588 <br> 922 | - $\begin{array}{r}18 \\ 45\end{array}$ | $\cdots$ |
| Chelses Suspenston | 1837 1770 | Iron plere and roadway. . Wood. | $\begin{aligned} & 88,000 \\ & \text { Unknowe. } \end{aligned}$ |  |  | 922 | -13 45 | ! $\ldots$. |

Trade of 1856.-The East India nud Chine Associstion have published their uaual comparative statement of the number of atips, both British and forelgn, with their aggregate tonnage, entered inwurd and cleared outward with cargo from and to places within the limits of the East India Company'o charter, from the 1st of January to the 81at of Narch, 1855 and 1856. According to the atatistice of the vessels ontered inward, the retirn for the port of London shows a deeresse of 31 versels and 8971 tons, the difference between 187 veasols $;$ with the oapacity of 109,484 tons, in 1855, and 166 veasele, with a capacity of 100,613 toos, in 1856. Liverpool flgures for an increase of 8 vessels and 14,859 tons, the arrivals in the former period having been 62 vessele, with a capaeity of 39,364 tons, and in the latter 70 vessels, with a eapacity of 53,703 tons. With regard to Bristol, thero la a decrease of 3 vessels, with an increase of 806 tons; the arrivuls in 1855 having been 10 veseels, with a capucity of 8917 tons, and in 18567 vessels, with a capacity of 3723 tons. The return for the Clyde exhibite a decrease of 2 vessels and an increase of 722 tons, the difference between 8 vessels, with a oppacity of a 414 tons, and 10 vessels with a capucity of 2629 tons. - A review of these figures shows a net dacrease of 24 vessels and an increase of 5452 tons $\mid$ the arrivals in 1855 hsving been 277 veassels, with a capacity of 155,179 tons, and in 1856253 vessels, with a eapacity of 160,631 tons. The principal arrivala were from Colcutta, Madras, and the Cape of. Good Hope. Aocording to the statistics of ressels cleared outwant, the returin for the port of London exhibita an increase of 6 vessels, and $5400^{\circ}$ tons; the departures in 1855 having been $157^{7}$ versele, with a eapacity of 94,78 t tons, and in 1856 $\mathbf{1 6 8}$ vessels, with a capacity of 100,689 tons. In the case of Liverpool there ls a decresse of 9 vessels and $11,197^{7}$ tons, the difference between 98 vessela, with a capacity of 80,444 toma, and 89 vessels, with a capacity of 69,247 tons. The Hgures for Bristol elow a ilecrease of 2 vesseis and 459 tons; the departures in 1855 having heen 3 vearels, with a enjselty of 1641 tons, and is 18561 versel, with a capacity of 1182 tons. With regard to the Clyde, the resuits show a decreaso of 8 vessela, with 2634 tons, the difference between 25 vessels, with a capacity of 10,044 tons, and 22 vessels, with a capacity of $\mathbf{1 8}, 510$ tove. 'Iuking the result of the whole seturn, there is a net decrease of 8 vessels, with 8285 tons ; the departures in 18.5 having been 283 vesseis, with a capacity of 102,923 tons, and in 1856275 vessels, with a capacity of 184,628 tons. The principal decline has leen in departures for Avatralis, Calcutta, the Mauritius, Juva und Sumatra, and Arabis. For a full exhibit of the commerce of Great Britain, including that of Iondon, see Gneat BratAIN.

Iong Ialand, N. F. Situated in the routh-enat part of the State, and contains 1500 square milsa, lying between the Atlantlo on the south, and Long Island Sound on the north. It matains three countiesKings on the west end, Qua. $\Sigma s$ in the middle, and Suffolk on the east end of the island. A chain of hills runs from west to oast, on the north of which the surface is somewhat hilly and broken; on the south it is level. The north shore is somewhat bold; on the south it Is a besch of and and gravel, inclosing bay, with various inlets, admitting veasels of 60 or 70 tons, and abounding with shell and other fish. At the east end is Gardiner's Bay and Island, and Montauk Point, a bold promontory, on which is a light-house. The north shore has several light-honses.

Longitude. By the term geographical longitude, is mesnt an are which measures the inclinations of two terrestrial meridional plenea, one of which passes through a known place as - place of reference, the other through any place whatever, It is sometines also detined as the distance east or weat, along the equator, of uny place from a certain meridian. Longinede was deiermined ay. Hipparchus at Nice, who fixed the firdt Cagree in the Cauarios, 162 n. c. Harrison made a time-keeper in A. D. 1759, whach in two voyuges wus found to correct the longitade within the limits required hy the act of Parlianent, 12th Anne, 1714 ; and la 1763 , he applied for the reward of $£ 20$, 000 offered by that net, which be received. The cel elorated Le hoi of Jaris, in 1766, invented watch that keeps time better; and the chronometera of Arnold, Earnehaw, and Breguet, bring the longitude abmost to the truth. Philosophors have sought the longitude in vain; but Newton has said it will yet be discovered by a fool. The selection of a station from which the longitudes of all other places are to be zeckoned is entirely arhitrary ; British nstronomers and geographers heve chosen the meridian of the Royal Observatory of Green wich as their first merilian. The French and otier continental nations refer the longitudes of all places to the meridian of their principal obeervatory. 'The longitude of a place may be expressed in hours, minutes, and seconds of thine, or in degrees, minutes, and seconds of apace; if it he given in either, it may be translated Into the other. The reason of this is, that the earth revolves on its axls from west to exst in 24 mean soinr hours, thereby causing the first meridian to describe during that timo a space equal to $160^{\circ}$, and therefore, in one hour, $15^{\circ}$. Hence, if the plane of the Grst meridian pass nt the present moment through the sun, then the meridian of $n$ place $15^{\circ}$ reest of the former, will pase through the sun exactly one hour after; If the place be $15^{\circ}$ east of the first meridian, the plane of the former will pass through the oun one hour before the letter. The sun always
easees the meridian of any place when highest in the hearene, i. e., at mid-day, or 12 o'olook mean solar time. Wherefore, places lying to the east of the firat meridian will have avery hour earlier, but places lying to the west of that merldian will have overy hour later than it ; so that If, while the meridian of one place is pasaing through the sun, the time be known before the meridian of another place pass through the oun, then the longitude of that place from the former is determined, the time being turned into epace at the rato of $15^{\circ}$ to the hour. Hence, therefore, places will have east or weat longitude, accordiag as they lis east or west of Greenwich Observatory; the longitude of the meridian of which is mero.
The problem of the longitude may be reduced to this-Given the hour by calculatlon at the place of observetion, to find the hour at Greenwich Observatory corresponding to the aame time ; the difference of times gives the longitude of the place from Greenwich. The solation of this problem was attempted in very early timee, dating even from the time of the anclent Egyptiana, but the results obtained were very inaceurate, These resulte wore deduced from tables of celestial phenomena calculated for a certain meridian, and then the times were compared with the times at which the same fi.onomena appeared at a different place; actual admesaurement was also employed. But it was not until after the invention of watchea that the problem was rendered solvable. IIarrison, in the 18th century, was the first who gave a true aolution by a watch; but the first accurate resolntion of the problem may be oaid to date from the discovery by Galileo of Jupiter's aatellites, and his tables of their motions. The result of the problem at this period, as well as now, was, as Wolfiua hes expressed it, that the means might be found whereby the art of navigation might be brought to its utmoat pitch of perfection. If the advantages of determining the longitude to a commercial and marititne people be considered, it will not appear surprising that princes and othera ohould have held out high rewards for a true colution of the problem. thlif III., King of Spain, baw Its value, and in 1598 offered a reward of 1000 crowne to the person who would solve it. The States of Ilolland imitated his example by a prize of 10,000 fiorins. In the year 1714, the British government offered a premium of $\mathbf{£ 2 0 , 0 0 0}$ for any method wherehy the longitude might be determined at sea to within 30 milies; 515,000 , if the proposed method would give it to within $40 \mathrm{geo-}$ graphical milea; $£ 10,000$, if it would determine the longitude to within 60 miles. It was also enacted, that a reward of $\mathbf{£ 5 0 0 0}$ would be given to the inventor of any time-keeper which should enable a ship, during a voyage of aix monthe, to keep her longitude to within 60 miles ; $\mathbf{2 7 5 0 0}$, If within 40 miles ; and $\mathcal{C 1 0 , 0 0 0 \text { , if }}$ within tw miles. If the method were by improved astronomical tables, the reward was to be $\mathbf{8 5 0 0 0}$, the tubles boing compared with provious observations. France, aleo, in 1716, under the regency of the. Duke of Orleana, offered a prize of 100,000 livres. In consequonce of : ‥sae reward, many and varioua methode were proposed, the bent of which, ut leant as respects frequency of observation and sbortness of calculation, is the method of Lunar Distances.
Jean Werner of Nuremberg, appears to be the first who proposed, in his I'tolemy's Geography, 1514, a method of finding the longitude by the distance bet ween the moon and a atar. The lunar method was also recommended by Oronce Finó of Briançon, in his book Ie Incenienda Longitudine; by Gearma Frisiua, in his treatise Structura Rodï Astnunomici et Geometrici, 1545 ; by Kepler, in his Rudolphine Tables; and by Chrictian Longomontanus, in his Astronomia Davica, 1622. Gemma Frislu: is, moreover, said to have attempted the longitude by a watch soma time after 1680. Carpenter, in his Geography, 1635, aaya that the lunar method is to be ascribed to Plerre Applan, a

German, born In 1496. John Baptiete Morin, In 1884 , attempted to improve the lunar method, and recaived, in 1645, a peasion of 2000 livres; but his improvements were uselees, as Paschal declared; owing to the imperfact nature of the exiating tables.
The tables of celeatlal observations previous to Flamsteed's thine were imperfect and orroneous ; those generaliy used were Tycho Brahe'a, or Kepler's, and to show that they were of little value in determining the longitude, although invaluablo in other respects, it may be otated that Flamoteed's observed differed from Tyebo's computed placea by $5^{\prime}, 6^{\prime}$, or more; and the tabulated distances of the latter differed from the obeerved distances of the former by $15^{\prime}$ or $20^{\prime}$, which would cause an errcr in the longitude of about $15^{\circ}$, or 300 leagnes. Tycho's lumar theory, and the tables grounded on It, were in error 12 ' and more. The uncertaintr, then, of theae tables helag known, of weli as the paucity of astronomical observaticus generally, a Firenchman, named Le Sleur do St. Pierre, contrived, in 1674, to get his pretenalons to the discovery of the longitude brought under the notice of Charles 11., of Britaln and the court. Commissioners were appointed, and St. Pierre's data necessary to work the probiem were as followe :-1. The heighte of $t$ wo stars, and on which side of the meridian they were; 2. The heights of the two limbs of the moon; 3. The height of the pole; all to be given in degrees and minutes; and 4. The year and day of obeervation. Flamsteed beiog in London at the time, was appointed, not only to act as a commissioner, but also to supply the necessary data. St. Pierre, having recejved the data which he required, refused to work the problem, because he alleged the observations given him were feigned. Fismsteed, on this, wrote to the commissioners, assuring tham that the observations were genuine, and at the same time stated, that the longitude could not be eolved by the conditions proposed; but if the tables of celeatial observations, especially those of the moon, could be rendered more accurate, then the longitud, might be determined by them. On the letter being shown to Charles, his majoaty was startled at the asoertion of the computed places not agreeing with the observed, and sald with some vehemence, he must have them observed, examined, and corrected anew for the use of his seamen. It was this simple incident which led to the formation of the Royal Observatory of Greenwich, the foundation of which was iaid by Flamsteed on the 10th of August, 1675 ; and it was in that building that Flameteed labored for 44 yeara, under the most trying circumstonces, to correct existing tables, and to cominence the Britian Catalugue, one of the noblest monuments of British perseverance. So valuable were Flamsteed'e obeervations to Newton, that they enabled him to form his lunar theory, which is now of such consequence In determining the longitade.

From the improvements made in watches by lluygens, llooke, snil others, previous to the year 1714, it was thought that the longitude would be solved by this machine. Hence, after 1714 , the best artists applied themeslves to the coastruction and improvement of watches. Ilenry Sully, an Englishman, but resident at l'aris, tried in 1726 to determino the longitudo by a marine weutch, but without success. Julian Leroy, one of his pupila, would appeur to lay claitn to priority" of inveation ; but it has never been disputed that the honor of solving the difficult problem of the longltude by means of a watch belongs wholly to Harrison. Thia ingenious workman began, at a very eariy period, to make experiments on preadulums made of different metals, In order to counteract the effocts of beat add cold. In the year 1730 llarrison was brought into notice by a pendulum clock which ha had maile in 1526, and which, for ten successive years, kept remarkably oxact time. This clock was tried in a voyage to Liabon during Auguat, 1736, when it corrected an error in the ship's reckoning of $1^{\circ} 30^{\prime}$. At the special
requeal vanced watcher watches and abo nometer practica was em shown rather $\mathbf{P}$ piace, be 1 anaties arrival 0 the orro $28^{\prime} \cdot 375$ of Portss miles. S by the ac 000 ; but all its de was not testify the Harrison prove the This voya and that lyne and ( eary astro difference and that time, whic tude. In and the fo one half of $\mathrm{f} 10,000$, to the longitud watches, should dete to within nexed to th the invento of the prind This was de over all his made on H dall ; it was of its model care of Mr. Captain Co such was its to the Ilous to be prid done. llara ward of $£ 24$
Several ot provements f3000, and

Since $\mathrm{IL} a$ have been they are no acter that $\mathrm{g}^{2}$ one tlay. But while fected, tho tended to. astronomer-r ter had begi the future, $t$ the true plac of her motio be made, the ment with wi Italley prope shipboardat la such a ca equator the about 40 leag
request of the commissioners of longitude", tho edvauced him money, he continued his experiments on watches from 1787 till 1761; when he produced three watches, or time-keepers-the third the most accurate, and about 4 inches in diameter. This watch, or chronometer, was tried In a voyage to Jamaica as to Its practicability in determiniog the longitude. The trial was eminently successful: the difference of time as shown by the chronometer indlcating Greenwich or ruther Portsmouth local time, and the local time of the place, being 4 seconds of time, which is equivalent to Inautical mile in the parallel of Jamaica. On the srrival of the veasel at Portsmonth, it was found that srrival error of the chronometer was only $1^{\prime} 53 \cdot 5^{\prime \prime}$, or $28^{\prime} \cdot 375$ for the entire voyage, which, in the parallel of Portsmonth, would be equivalent to 18 nautical miles. Since this error was withln the llmit preseribed by the act, Ifarrison clalmed the full reward of $£ 20$,000 ; but the commissioners, considering the matter in ull its detall, came to the conclusion that the watch was not yet sufficiently tried. In order, however, to testify their appreciation of the invention, they gave Harrison a grant of $£ 5000$, and sequested him to im prove the watch still further against a second voyage. This voyage was undertaken, in 1764, to Barbadoes; and that no misunderstanding might ensue, MaskeIyne and Green were also sent out to make the neceseary astronomical observations at that place. The difference of longitude, as shown by the chronometor and that by astronomical observation, was $43^{\prime \prime}$ of thme, which is equivalent to $10^{\prime} 45^{\prime \prime}$ of epace, or longitude. In consequence of the success attending this and the former trial, the House of Commons ordered one half of the reward piomised ly the act of 1714, or $\boldsymbol{E 1 0 , 0 0 0}$, to be paid to Mr. Harrison, the inventor of the longitude clock; the other half to be paid him when watches, construcled on principles stated by him, should determine by trial the longitude of any place to within 30 nautical miles. Another condition annexed to the payment of the other $£ 10,000$ was, that the inveator should give on an oath a full explanation of the principles on which the watch was constructed. This was done most willingly, and Harrison delivered over all his watches to government. The first watch made on IIarrison's principles was that by Mr. Kendail ; it was found to exceed the regularity of tho lest of its models. This instrument was committed to the care of Mr. Wales, in his voyage round the world with Captuin Cooke, during the years 1772, 1773, etc., and such wus its success, that $\ln 1774$ an appeal was made to the Ilouse of Commons to order the remaining sum to be paid to Mr. Harriaon, which was accordingly done. IIarrison realized by his invention alone upward of $£ 24,000$.
Several other parties recoived rewards for their improvements in clironometers. Arnold \& Son received $£ 3000$, and Mudge $£ 500$.

Since ltarrison's time, remarkable improvements have been made in timo-keepers, or chronometers, as they are now termed; no one sustaining a yood character that grains or loses more than a single second in one day.
But while watchos were thus gradually heing perfected, tho tables of celestial motions were nlso attended to. Hlalley, on succeeding Flamsteod ns sstronomer-royal, continued improving whit the inttor had begun, so that for 1730, and consequently for tike future, the Caroline Tables were presumed to give the true pluce of the moon within the compass of $2^{\prime}$ of her motlon. But however perfoct such tables may be made, they will be useless without $n$ proper instrument with which to tuko angles accurately at sea. Dr. Italley proposed to overcome this ohstacle, hy using on ehipboard a telescope of five or six feet; but the error in such a case would nearly equal $2^{\circ}$, or uniler the equator the longitude would be in excess or dofect about 40 leagues. But in 1761 Mr. Hadloy communi-
cated to the Royal Society' the nature of the asatane, which he had then lavented. The sextant is an instrument for taking angles at sea with surpriaing aco caracy; "its principle depends on the "lnw of the roffection of light. This instruinent was tried in sevoral voyages with wouderful succeas 1 but ite resulte were most accurate when used with Professor Mayer'e Tables of the Moon, computed for the meridian of Paris. These tables first appeared in the Memoire of Gottingen for 1742, and a manuscript copy was sent in 1755 by Mayer to the Evard of Longitude, setting forth, at the same time, his clain for some one of the rewards which he might be thought to merit. These tables were placed in the hands of Dr. Bradley, as tronomer-royal, who comparsil several hnadred compated longitades of the moen with his own observed longitudes, and never found a greater difference than $1^{\prime} \cdot 5$. Dr. Bradley ehowed the commisaioners the value of these tables. Mayer died in 1762; but having in the interval greatly improved his tables, his widow sent them in 1763 to the Board of Longitade. These are the tablen which, in consideration of their value in fiading the longitude at sea, were, by act of Parliament, honored with a reward of $£ 5000$, which was paid, in 1765, to Mayer's widow. Dr. Maskelyne, astronomer-royal, was at the sams time requested to improve and correct them as far as possible, so that they might be compiled, and form the basis of a British Nautical Ephemeris, or Almanac ; and to print the same, in order to make the lunar tables of general utility. The first of tite series of the Nautical Almanac and Astronomical Ephemeris was published in 1766, under the superintendence of Dr. Maskelyne. It was published yearly hy the Commissioners of the Board of Longitude. The Nautical Almanac has been greatly improved, corrected, and extended, under the able superintendence of Mr. Alry, the present astronomerroyal ; it is now published four or five years previons to the observatious being made at Greenwich Observa tory; hence in long voyages the set of tables may be taken out.

In consideration of Mayer having availed himself of Euler's lunar theory, the latter recelved from government $£ 300$.

The several methods for finding the longitude are the following :
To find the Longitude by a Chronometer.-Suppose that a chronometer is warranted to measure equal portions of time uniformly, and alwaya indicates Greenwich local time; it is evident that, were this instrument carried to any atation on the surface of the earth where also the local time is known, the local times of Greenwlich and that place can be compared with each other. If the chronometer be carried to any atation on the meridian of Greenwich, the chronometer and local time of the place will elwaya coincide; but if it lee carried to any station west or east of the meridian of Greenwich, then the time as shown by the chronometer will be in excess in the Sormer case, but in the latter in defect of the local time of the place; the difference of local times gives the longitude of the place from Greenwich. The time may be converted Into distance, at the rate of $15^{\circ}$ to one hour. Chronometers can never be made perfect ; they require, therefore, to be daily compared with the heavenly todies in onler to ascertaln if their motion has been nniform.
To find the Longitude by Iumar Eclipses.-Since an celipse of the monn is visilile to one half of the earth at the same time, this would seem to be an excellent method of finding the longitude. The different steps of the process are-to compute the time at which an eclipse is to happen at the place of vbservation, and to compare thin time with an accarate chronometor showing Greenwlch time ; or, in the ubaence of this, the Greenwich time of the happening of the phenomenon must be looked for in the Nantical Almanac ; or it may
be compared by the obsorver from tho Iunar tables. But this method of determinining the longitnde is rarely uwed, owing to the difficuity of anoertaining the exact time of contsct of the penambia of the earth'a ahndow with the moou's limb at the heginning or ending of the eellpse. Somatimer 3, inceed, two observers of an enlipee at the same plnee may differ mure thau two minutes in noting the time of contact ; and hence the error from thia canse alons would the about four minutes of time, which would be equivalent to nesily $1^{\circ}$ of hungitude. It was proposed in the Philosophical Tromsactions of 1786 to diminish this source of error, by observit.g the eontact of the earth's shadow with some remarkuble spot oa the moon's face. But although thin method were more accurate, the unfle. quency of innar eclipses at sea renders the method of littlo use.

Tr. find the Lougitude by the Eelipses yrif uniter'a $\$$ th : i,-Ever since the dixrover, hy © ter's satellives the observa ino of thes their primary has been ued as a motew the lonsitude. Tables of these eclir as writ atrueted by Galleo; and it was the U . agre thees tables with aetual observation that lea dushor to the difieovery of the gradual propagation of ligit. See iturt. The firat anemonomical solution of the great problem of the longitude really dates from the discoveny of these secondssices, for the tafiles of their ecipsose wore framed on sclentific principles. The thine interior satelfties of Jupiter pass through his ahadow, and are aclipsed at every revolution; the fourth, or outer one, at timen escapes eclipse, grazes the uentira, or in partially eellpsed. The computed thmes at whicl the selipses are to happen at Cireenwhel thervatory are noted in the Nisutical Almanac, pubbshed three or four yearn in advance; so that if there tables arm in tho thadk of suy one distant from Greenwieh, he has but to otserve the edipne, and cal. culate the time at which it eccurn, to find the differance of the local times hetween (iremwich and the place of ohservation, and thin ascertain the longitude. The times of inmersion and emersion are noted with much greaser arcupary than the contact of the moon's limb with the earth'e shadow.
Bat before these telipses can be oherved with accuracy, telescope of conaiderable pewer nust be ased; and as it is extremely difficult co direct a toleseope properiy on shipboard, the methed is practically aselens at bes. But, aguin, pmrieular care is required in obnerving; for iwo olservers at the nams place, with telescopes of different magnifyling powers and aporturen, seldom agree swithin a second or two of each other; hasce the mean of the resulta of inmerason aud emeralon should be taken. Hut another source of error in, that no kwo or more obeervers will agree as to tin lnatant of the oxal liminersion, or of the complete emersion of the savellite; hence the only case in which this method is practically useful in deteraining terrestrial longitudes is that in which the instant of immersion and emaralon are obnerved with the same telescope, and by the same observer, since in tbls manner lie will tind the precise instant of the satellite's opposition to the aun.
To find the Iomgitude by Sigmale-If the difference of longlude thet ween two places be small, it inay be easily fonnd by meann of the barating of a rocket, the oxy-hydrogen llme-hall ighit, or the explosion of ganpowder fired from the one place at a preconcerted tine, and observed at the other place; the local times of these places being accurntely ascertained, the longitude is known. Thene artificial slgnala, when fired from an alevated apot of country, may lre seen, when the atmosphere is in a proper state, at diatancea varyIng frum 80 to above 100 iniles. An observer, therefore, distant from the apot at which the racket or other aignal in exposed, has only to oberve the time whan be sees it, and aflerwerd compare this time with the
time when the meket was set $p$, the difference of timee giving the longitude of the one place from the other; if at one of the piaces the Greenwich thine corresponding to that of the ovent is known, the longitudes of the places from that meridian are also known. It is here supposed that tho graiuni propagation of light leads to no appreciable error in the small distance totween the two placos.

If the distance between the two jiaces be consider able, and If a rocket aent up at the oue place can not be seen at the other place, the loug fidde of which is required, thea a series of elgnals must be made od tisted ly olservara, placed at atationa intermedlate to the two extreme places.
Thus, let $\mathbf{A}$ and $\mathbf{E}$ be the two places, the longitude between whlch is required; B, C, and D, observers at : itermediate stationa; $w, x_{1}, y, z$, slgnal places, and tot these placer be arrunged to tha foll wing

Peíure the signals are sent up $\quad \begin{aligned} & \boldsymbol{D} \\ & \boldsymbol{z} \\ & \mathbf{E} .\end{aligned}$ finged hours from $w, x, y, z$, the local times of the fises ulong the whole line $\mathbf{A E}$ are supposed to le ace cozas 7 known. Let then a signal be sent up at $a$, an ${ }^{\text {B }}$ " 1 at $\mathbf{A}$ and B , the difference of times of ob, ser ntiot, as noted by the chronumeters at thaso two phices, will give the longitude AB. Let, again, another signal be sent up at $x$, and she time of appiearunce noted at B and C, thon the difference of times, as ahown by the chronemeters, gives the longitude botween B and C: and therefore between A end C. Sinnilar resuits will bo found when signals ace sent up from the station6 $y$ and $z$, to bo ohserved at $C$ and $D$, $\mathrm{D}_{\text {a }}$ ad E ; and, in this manner, the whole longitude AE between the extreme stations can be found. The longitade found on this principle, and the mode of delucing the most edvantageous reaults from a combinathun of all the observations, Is fally atated ly Sir Juhin Herschel in the Philosophical Trumsactions, 1826 , on the Difference of Longitudes of Gireenvich and Paris.
To determine the Longitvde by Moon-culminating Sturs.-This method consists in finding the increase of the moon's right ancension in the iutervals between the passago of the moon over the meridian of Greenwich and over that place whone longitude is required. It is necensary to find the right ascenvion of the monn's bright limb, and of a star aelected on, or as near us posnible to, the 'mon's purallel of decination, und not differing much from her in right ascension at the two ucridisns; then, the moon's lucrease of right ancension leing known, the difference of longitudo is determined.
Let T, for example, be the time when the moon's enlightened limb transita the meridian of any aliace distant from Greenwich; $\boldsymbol{f}$ the time of passag; of a star over the merldian of the same place ; let aloo n tie the ecror of the elock it the course of the day; then $2 A f n$ will he the luterral of time elapxing between two succemsive transits of the same star, and $2: 1 ; n$ : $T-t=360^{\circ}$ : the difference of right asceasion of the roven's bright limitr and the atar at the instant of the limb beling on the meridian; und if to this the righis ascension of the star bc milded, the right ascension, $=\mathbf{a}^{\prime}$, of the moon's bright: limb, when on the neridian in deteronined. Now the preper ntars to be ebseerved for this purpome, an well as the right a-censino of the moon's bright limb when on the uncridian of Greenwich, are given for every day of the year in the Nautical Almanac, from which the daily licerement of right ascension miay be duterminefl. Jet a be the ri, hit uscension of the moon's hright limb when en the merid. tan of Greenwleh, athe inerement of right ascenting in the thexe leet ween two successlve transits over the same meridian; chen, while the moon, by her relative motion, separates frum tha meridian of Greenwich by an anglo of $360^{\circ}$, Its real motion in right usectaston is o; and while it separates by an angle equal to the dif.
ference
ference of longitude, the motion In right atecenrion it a- $a^{\prime}$; and therefore, suppcsing the change in right
$a-$ is
$--.300^{\circ}$
erence of
Where greater accuracy it required, the lifference of cenaion $a-a a^{\prime}$ ' novit be determinal by; interpolation. This methoi - umaldered ona of the beat whict can
 pluces, when illy observer, fusnlshed with a tranait Incirnment, carr (btaln alanding.- Hyaen's Aatrow. 1810.

To find thin 'mgitude ". ine passages of the Moon over the Meridiar, $f$ the aun, moon, and a star be supposed to be $u$, the meridian of Greenwleh at the present ioment, then the next instant the 1 ", o bodies will be separate: from anch otliti a the war will be found most advanced to the weat, the moon least advanced from the meridlan, white the sun will oceupy an intermediate sltuation. The meridian Itself alao leaves these bodies, but will approach them with different degrees of velocity, and reach ench of them after certaln intervala of time. It will pana the atar afer the lapse of a sidereal day, or after having described $360^{\circ}$; lt will pass the sun at the end of a solar day, or sfter having described $360^{\circ} 59^{\prime} 8^{\prime \prime} \cdot 8$; and it will pass the moon after a tlmes=the sum of 24 hours and the moon's refardation for that time, or after having deacribed an angle=the num of $860^{\circ}$ and the moon's right ascension in 24 hours. This always taker places in the interval between two succesaive transits of the moon over the same meridian. So also a spectator on a different meridian will notice similar effects, but leas In degrec, and less proportional to the distance of hls from the first meridian. The aun's right ascer 'on will be increased (or the separation of the sun fism the etar), but lees than $09^{\prime} 8^{\prime \prime} \cdot 3$; the moon's right ascension (or the separation of the moon from the star) will alao be increased to the spectator, but less than lts Increase between two succesalve transite; consequently there will be an excess of increase of the moon's right ancension above that of the san's, but less than the oxcess that taker place between two succeseive transits of the moon over the meridian of Greenwich. Wherefore, since the spectator at the second meridian may compute the respective incrementa of right nacension of moon and sun that take place between two auccessive passages of the moon over the meridian of Greenwleh; then, aince he is also sble to compute, by actual observation, the right ascenaions of sun and moon at the times of their pasagge over his own muridlan, he has determined the jongitude. The spectator may choose the aun and a star, the moon and a star, or the moon and sun; the two former are preferable.--Woodnouse's istron., 1821 ,

To determine the Longitude by means of Eiclipses of the Sun, or by Occultations of Stars by the Moon.-One of the most exact methoda, and at the same time the simplest, for finding the longituile, ls by means of solar eelipses and oceultationa. If the commencement and ending of an eclipse of the sun, or the immerslon and emersion respectively of a atar from the enllghtened and dark limb of the moon or of a planet, he ohservei, It is only neceasary to deduce the true time of conjunction for Greenwich and also for another place of observation; the difference of the times gives the difference of meridians, and therefore also of longituden. Kepler employed this method, and it is one of the simplest.Kevier, sfatron. pars opt. The only incouvenlence of this methol is the large amount of calculation required.

To find the Iongitude by Lunar Distances; that is, by the distance of the Moor from a star or the Sun.This method supposes that the fuce of the heavens is a dial-plate, the stars marks apparently irreguiarly
diatributed apon it, and the moon the hand movablo among them and round the oarth as a varialile centre Three chinges require pertjeular notice about this clock : 1. The intorvala of place separating the princlpal and secondary marks from one another and from the moving hand-the noon. 2. The exact antount of the eccertriclty of the earth, the centre of motion of the band. 3. The pisper motion of both moon and oarth at. any part of their respective paths. When thete data are properly known, the tlme as shown by this clock may be rep? The time as pointed out on this dial-plate Is gen s sily read at Greenwich Observatory; and tabulated In the Nautical Almanac, 4 or 5 yeurs beforehand, for every three bourd. But this clock is supfesed to be accurately sean by a spectator at the centre of the earth, and consequently, aince observers are on the aurface, the moving band belng rather neur, and the marks Immenaely distant from the earth, it is evldent thet thls movable hand will be diaplaced, or undergo a parallax with respect to the stars, which must be allowed for, ere the true place is known which she occuples in apace, as seen from the contre of tho earth. A reduction must also be made to the centre of the earth. The necessary steps fur computing the longitude by this nethod are: (1.) Find by a sextant the distance between a atar and one of tha moon's limbs; or, between the limbs of the oun and moon; add or aubtract, in the former caas, the semi-diameter of the moon, and in the litter, the simm of the semldiametcra of sun and moon, which gives the distance of the moon's centre from the star, or that between the centrea of aun and moon. (2.) When two observ: are making the observations, one should take the ainc: distance, while at the ame instant the ather take * altitude above the horizon of the moon and star, or of i: : moon and aun. In the case of one ebserver, he must : the altitudea immediately before and after the dis* ${ }^{4}$ has been found, and allow for the changes of altithos which may have taken place in the intervals betweos their observatlons and that of the distance. (3.) The true altitudes are derived from the spparent and observen, by correcting the latter for refraction and parallax; tha apparent altitude being the observed altitude corrected for the dip of the horizon and instrumental errors. (4.) The ubserved is also an apparent distance, and must, like the altitude, be corrected for parallax and refraction $\ln$ order to find the true distance. (5.) Since the true distance is found, the hour, minute, etr., of Greenwlch the corresponding to It will also be found by the tubles of the Nautical Almanac. (6.) The local time of the place of observation is now to be computed from the trua and corrected altitude of a star or the sun, the sun's or star's north polar distanco, and the latitude. (7.) The diffarenee between this local time and Greenwleh time givea tho longitude.

To find the Iongitude by the Electric Telegragh.This beautiful and ingenious application of electricity for recording astronomical observations is the latest method of finding the longitude, and was proposed by Mr. Bond of the Cambridge Observatory, United States. Mr. Airy, of the Greenwleh Ohscrvatory, has also carricd it into effect with great improvements. During the summer of 1847 experiments were made on the electric telegraph connecting Now York, Philadelphia, and Washington, fur the purpose of determining the differences of longitude hetween these threo eities. A competent observer was stationed at each observatory. A continuous wire connected the threo cities, so that telegraph slgnals might bo exchanged between sny two of them at pleasure. In some of the first experiments, aignals wero exchanged between Philadelphia and Washington, but it was found lmpossible to transmit signals from Jersey City to Washington, the power of the battery being inadequate to that distance. This, howevar, was remedied on the 29th of July, when 20 elock signsls were given at Jersey City, and recorded both at Philadelphis and

Washington; 20 aignaly were given at Philadelphis nad recorled at Jersey Clty and Wanhington; and 20 signals were given at Washington and rucorded at Jorvay Clty and Phltaielphla. Thus the comparizon of the threo clocka was deelisively made in a romarkably ahort period of time. The auccese of these experiments amply repald the first ansucceoaful affirts. The difierence of longltude between Jersey City and Philadelphia is $40^{\circ} \mathrm{g}^{\circ} \mathrm{i}$ and between Jarsey Clty and Fiashington, $12 \mathrm{~m} 8^{\circ}$; omilting in each case the amsll fractional part of a second, whleh was ulttmately allowed for. The fistance between New Ynrk and Wayhington is 225 miles, and the time required to make a communication pess hetwixt these twn places was 4 fraction of a escond which cinn not be measured.
Soon after a syotem of telegraphic wires was erected on the principal English lines of railway, Mr. Alry had thens put in communicatlon with Greenwich Obaervatory, hia object being to give Greenwich time on a given day to the United Kingdom. It wan at frst proposed that a ball ahould be dropped from the upper part of Green rich Observatory, so ns to touch a apring communicatif. 3 with all the tolegraphic wires in the kingdom, and then, hy the striking of a beli, glve instantancously true Green wieh time to Liverpeol, Manchester, and all the northern towna, But this method was found impracticable, owing to the nou-completion of all the lines with Greenwich. On the 1st of December, 1847, true Greenwich time was communicated directly from the ofservatory to the several stations of the London and North-Western and Midland lines in connection with it; but to all other atations of these lines apecial messengers wero sent with chronometers indicating true Greerwich time. Hence, since Green wich time is naed over the whole of the V'nited Kingrom, if the local time of any piace be known, its longitude from Green wich io also determined. Since submarino cables connect Greenwich with Brassela and l'aris, and these agnin with the princlpal citiea of Firope, Mr. Airy waa very lately enabled to correct the latitudea and longitules of their observatories. Hence, also, when the salmarine cables which are to conacet Indls, Anatralia, and America, with Greenwich. shall have lieen completed, the true longitudes of the principal cities of the world wll easiny be detennined.-E. B. Sie articles L.atitrie and Losgitelof, Eartr and Degake.
L.oo-Choo Islands, a group connisting of alout 36 Lshands in the North Praifíc Ocean, between Japan und Formosa. They Nie between N. Jat, $24^{\circ}$ and $28^{\circ}$ $40^{\prime}$, and E. long. $127^{\circ}$ and $129^{\circ}$. They are amall and insignificant, with the exception of Great Ionn-Choo, which extenda about. 60 miles in a north-easteriy d!rection. aud has an averare breadth of alout 10 or 12 miles. This ieland is entireiy encincled by coral reofs, whicti, however, do not appyar above wator. Along its centre runa a chain of hills, movered for the most part by forests of pine, and broken at intervals by rupt criga that bear aeening traces of volcunle action. Their slopea ha many parts asa covered with terraced gardens aud finlds of grain, and are watered by streams led in artificitl charnels. The valleys are well watered, fruitful, ans covered with a luxuriant vegetation. Then villagen are ahnont comphitely hididen aroong groves of bananas, bunforos, banyans, and pines. how of trees overanch the roals, lina the otrcets of the chief towns, and form a acreen in front of the houses. There are large rich fiedds of rice, intermingleal with crop of augar.cane, whest, miliet, sweet petatuen, plums, oranges, cotton, and tohaceo. The principal surfactorock in argillaceous, and is inter3ected at intervals ly pecaliar ridges of limestone. The diaintegration of the furmer rock forms the chief ingredient of the rich adbeaive moil which in most prevalent in the island. Situate within the range of isie trado-windt, Loo-Clico has in general a mild climate. The domestic animals are, geese, ducks,

Powls, pigs, goats, a mall apeciea of biack ox, and n nimble, and bardy breed of horsea. Wild toars abound in the axtensive forests. A striking trait in the
soology of the faland lat the scarcity of hirds in the woods.

The droas, curtoma, hut espeeially the language, of the Ioo-Chooans, indieate a Japanese origin. Suso pleious of atrangers, they are, novertioleen, gentie and hoapitahle. They are diminutive in statnre, and in complexion reseenhle tha Chinsse. They bave dark ayea and black halr, plaited into a knot on the crown of the head; and the character of the hair-pin determines the sex as weil as tha rank of tho wearer. The women wear ainglo, and the men double hair-pin:. Among the higher classes, these articles are made of gold or allveri among the lower, of brass, lead, or pewter. The highest grade of aociety includer the sples and officere of the govarnment, and also the mechanica and amall merchants. Immediately below them are the literary class, who puss the most of their time in amoking tolacce and drinking tea, and are supported by tha subordinate rank of field-lalorers, The meanost orior are the publio daver, possessing no personal freelom, and no eivil rights. Suibected from mere Infaney to perpetual toif, elosely watched hy aples, and prevented frota all intercourse with strangers, the lower classes are spiritlesa, nncomplaining drudges, subeisting apon two tenths of the produce they reap from the soll. In the same slavish labor the women also are engaged. The Loo-Chorvans of one villuge aelloon intermarry with those of nnother. Their dead are treated with grent reapect; and their capacious tombs, built of white limestone, appear at a listance like cottagea, checkering the hill-sides. The huts are generally placed in the middie of well-cultivated gariens. Their floors, covered with thick mits, are used both for sitting and sleeping. A gre 2 part of the industrial population are engaged in winving the grass-cloth that forms the onilnury garnent, and in turning woolen implementa and covering them with lucquer. There are alao manafactured tohace, sugar, and amall quantitios of anlt. Saki, a strng intoxieating liquor, is distilled from rice. All the processes of agriculture, and eapecially that of irrigation, are carried on with great guccens. The entire trade of the island is with Japan, and consist, chiefly of eugar, anki, and grass-cluth. The goverument of Ian-Choo seema to consist of an oligarehy of literati aubject to Japan. Learning is imited to a knowiedge of the Chinese eharater and the Confucian classirs, and the principal means of disseminating it is home education. A fow regular achoola, however, are scattered over the inland, and at Napakiang there is an advanced seminary. The Loo-Chowans have no native literature. Their religion is a hytrid betwe?n Confucianism and Buddhism. Concerning the history of the island nothing eertain is known, luat tradition reports that it was once subject to three distinct serereigns.
The principal sea-port is Napa, or Napt-Kpang, gituated in latitude $26^{\circ} 13^{\prime} \mathrm{N}$., and lougitude $125^{\circ} 96^{\circ} \mathrm{E}$ The harbor is secure, and the jourt is now open to Amerinan vesaels, for the purposes specilied in the convention ronduded July 11, 1854, and proclaimed March 9,1835 . The goverrment of Japan having virtualiy disclaimed any jurisisietion whatever over the Loo-Choo Islandf, a sepparate compact was entered Into between the United States and the kingdom of Lav-Choo. It in aa follown:
" Hereafter, whenever citizens of the 1 'nited States come to Ioo-Choo, they slall be treated with great courtesy and rriendehip. Whatever articles theso peojile ask for, whether from the offleers or people, which the country can furnish, shali be seld ta then; nor ahall the authorities laterposo any prohibitory regalations to the people celling; and whatever either party may wist to buy, shall be axchanged at resson-
alite P ahall c supplit but if purcha are wro the juri the loct saving brought to take axpense sone shi Whenav conie nal ramble ing offici do; the women, anch like luesl offic to the ea panishme the citize and tomb LourChoo the look-0 one is neel good boate curs anch the pilot the harloor at Napa, the rate of ties ; and 1000 cattie American Loom ancient and the decuses ma leagth threads thr the woof on Lorcha Chinese вe British cold ese, had he carried off. or apology; and China
Lorien France, an
ment of the han, is situ Biscay, wh mingling th It in a larg tolerably w an angle bet vai, and the is large and thereliy exc halistants. a chill tribu lege, and of yard is the ment of shi slips for the war. It ha ling works, good trade in etc. The t Freach Itrdi 1664, it was that the com dation of $L_{0}$
able prices. Whenevar ships of the United Staten ahall coma into any harbor in Loo-Choo, they ahall be supplied with wood and water at recconable prices 1 but If they wish to get other articlen, they shall be purchasable only at Napo. If shipa of tha United Staten are wrecked on Great Loo-Choo, or on islands under the jurisaliction of the royal government of Loo-Choo, ties local autheritias ahall diapatch persons to asolut in saving life and property, and proserve what can be brought ashore, till the ahips of that nation shall come to take away all that may have been saved; and the expenses incurred in rescuing these unfortunate persons shall be refuaded by tha nation they belong to. Whenever persons from shipe of the United Staten cone ashore in Loo-Choo, they shall be at liberty to ramble whers they please, without hinderance, or having officiale sent to follow them, or to spy what they do; but if they violentiy go lnto honses, or trifle with women, or furce people to sell them thiags, or du other such like illegal acts, they shall be arrented by the local officers, but not maltreated, snd shall be reported to the captain of the ship to which they belong, for punishment by him. At Tumat is a burial-ground for the citizens of the United States, where their graves and tombs shall not be moleated. The government of Lou-Choo shali appoint skiliful pilote, whe shall be on the look-out for ships appearing off the isiand; and if one is seen coming toward Naps, they shall go out in good boats, beyond the reefs, to conduct her into a secure anchrage; for which eervice the captain shall pay the pliot five dollars, and the ame for going out of the barbor, beyoad the reefe. Whenever ahips anchor ot Napa, the officers shall furnish them with wood at the rate of 3600 copper cash ( 43 cents) per 1000 catties; and with water at the rate of 600 copper cash for 1000 cattles, or 6 barrels full, each containing 80 American gallons,"
Loom (Fr. Metier a tisser; Ger. Weberatuhl), is the ancient and well-known machine for weaving cloth hy the decussation of a series of parallel threada, which rua length wise, called the warp or chain, with other threads thrown transversely with the shuttle, calied the woof or weft. Sce Jacquard, articie, Woolen Mancfactuafs.
Lorcha, the name of a coasting vessel used in the Chincse seas. One of those vessels, salling under British colors, was, in 18566, boarited by the Cantonese, had her fiag pullec down, and her crew forcibly carried off. Governor Yoh refused either reparation or apology, and this led to the conflict between Britain and China during the same year.

Lorient, one of the five great naval porta of France, and the principal town in the arrondisseraent of the same name in the Department of Morbihan, is situated on the northern shore of the Hay of Biscay, where the Kivers Searf and Havet, after mingling their waters, fall Into the Hay of St. Louis. It is a large and flourishing town, strongly fortlied, tolersbly well built, but not very clemn, standing in an angle bet ween two creeks, one of which forms the naval, and the other the mercantile port. The port, which is large and commodioun, is walied off frons the town, therely excluding all view of the water from the inhabitants. It is the eest of a maritine prefecture, of a civil tribunal, of a tribunal of commerce, of a college, and of a school of naval artllery. The dockyard is the first in France for the bullding and equipment of ships of war: there is accommodation on tia slips for the simultaneous construction of 20 shlps of - war. It has an arsenal, a park of artillery, engineering works, masting-shede and forges, etc. There is a good trade in sarilines, marine stores, iron, wax, honoy, etc. The town is quite modern. Founded tyy the French India Company, In the reign of Louin XIV., in 1664, it was not till the sline of the Duke of Orleans that the company took full advantuge of the accommedation of Lorient. The greater portion of the town
was then built, and the port. fortifed. In 1745 it contained 85 frigates, beaides a very great number of ahipa, averaging from 900 to 1200 tons burdes. In the comparatively short apece of 30 years Lorient had risen to the first rank of towns. On the diasolution of the company in 1770, it wee made one of the stationa for the French navy. Its population, nd ahipping declined daring the unsettled period of tise Revolution, but alnce the peace of 1815 it has been more than remoted to its formar activity. Population 25,700.

Inom Angeles (the City of the Anyels), capitul of Los Angelos county, Callfornia, 850 milee sonth south-east of San Franoisco, and in a direct lina 3,000 mlles a Jittle south of west from Weshington. It contains as large Koman Catholle chureh, and 1620 inhabitants. This elty was founded in 1781, by order of the Viceroy of Now Spain, Ballio Frey, Antonlo Bucareli y Uram, and is situated on the right bank of the Porciuneula Kiver, which copiously watere the highly fertile plain on whlch the clty stands. Invited by a genial climate, the inhabitente have converted this plain Into a delightful garden, covered with all sorte oad native fruite, but eapecially the vine, which ls cultivated with care and extraordinary success (the product of 1852 ameunted to $2,250,000$ pounds). This valley, famous for its whes and liquors, contuins the misaions of San Juan Capristrano, San Gabriel, and San Fernando, which but a few yeara eince constituted the richeat estabilshment in Califurnla, and numbered very nearly $\mathbf{5 0 0 , 0 0 0}$ head of cattle.

Iotteries, in their higheat application, are institutions for raising the revenue of the country by granting to those who veluntarily contribute the chance of olitaining a reversion os part of the money collected. This reversion is dictermined by lot. The first mentioned in English history began drawing at the weatern door of 8t. Paul's Cathedral, Jonuary 11, 1569, and continued, day and night, until May 6 fellowing. Its profite were for repairing the fortifications on the cosst of England, and the prizes were piecen of plate. The first lottery mentioned for auma of money took place in 1680. Lotteries were established in 1693, and fur more than 130 years ylelded a large annual revenne to the crown. The Irish state lottery was drawn in Dublin in 1780. All lotteries were suppressed in France hy a decree of the National Convention, No vember 15, 1793. They were abolished in England 1826 ; and an act was passed imposing a penalty of $\mathbf{4} 50$ for ad vertising foreign or any lotteries ia the Britiah newspepers, 1836. Abolished in Bavaria by unanimous vote of the depatiles, October 19, 1847. They have long been abolished in New England: In New York they were prohibited about 1830. In nearly all the States there is a penalty againat lotteries not specially authorized liy the legislatures. The practice may be traced back to the Romane, who were accustomed, at least in tho days e? the emplre, to ealiven their feativals with the diatribution of tickete, uniform in appeurance, but entitling the holdera to receive articles of various value. Instead of granting largesses to the lesders of the Plebs, the Emperor Augustus frequently dlatributed his gifs on the same princlple; and Heliogobalus has the merit of devising in sport a plan frequently resorted to in fraud to avoid the ponaltien against lotteries in England, of making prizes really worthless take the place of b l inks. In the middle ages the same practice prevalled at the banquets of feudial princes, who distribued their presents economically, and without the fear of jealousy; by granting lottary ticketo indiscriminately to their frlenda. The practice soon descended to the merchants; and $\ln$ Itaiy, in the 16th century, this became a favorito mode of disposing of their wares. In 1530 the "Lotto" of Florence was established for the necessities of the State, and the example was quickly followed throughout Enrope. The first lotteries with numbered tickets wers instituted at Genoa. Mercentile lotteries were
eatabilinhed in France, under Francis I., In 1890, and a tax lovied on ench tieket; but these were sopplanted In 1600 ly lottorime of money, under the diroct control of the king. The firct lottory eetablished in Eingland was drawn it 1569." It consimed of 40,000 loth, whioh were sold at 10s.' each. The prisee were plocen of plate; and the profte were devoted to the repaire of certain hariori in the kingdom. The printed plan of this scheme to ettll in posseasion of the Antiquarian Siciety of London. In 1612 a lotery was granted in behalf of the Virginin Company ; and in 18euthe ndine priviliege was mecorded to a contractor who under took to supply london whth water. From this time forward the epirit of gambling Inerensed so raptidy, and grew so ntrong, that, in the relgn of Queen Anne, private lutteries had to the suppressed as public not sances. The first parliamentiary lottery whe inatituted in 1709; and from this period till 1824 the passIng of a lottery bill wae in the programine of every sestion. Up till about the elose of the 18th century the prizas were generally pald in the form of terminable, and sometimes of perpetual, annailies. Ioans wrere also raised ly granting a bonus of lotiery tickets to all who subacribed a certaln nmount. Thls gambiling in annuitien, however, dexpite the restrictionn of an wet passed in 1793, soon lecl to an appaliling anount of vice and misery; and in 1 ane a conmittee of the Ilouse of Commona nrged the auppression of thin rulnove mode of Alling the natlonal exchequer. In October, 1896, the last publle lottery wan drawn in Britain. In France, State lotteries have been aholished, but they stlll exint in most of the continental Staten; and alitheagh demonstrably a source of lons to those who embark in them, they nre upheld as a very ready mole of procuring money from the poor, the miserly, and the adventarous. The lismburg lettery nffords the morl favorable representation of the aystem, as in it all the money raised by the sale of tickets la re-distributed in the drawing of the lats, with the exception of 10 per cent. dedncted in expenses and otherwise. In the United States, lotteries were established ly Congress in 1776, but with the exception of the southern States, heavy penaltes are now Imposed on persons attempting to establish them. Private lotteries are now illegal at common law in Great Hritain and Ireland ; and penalties are also Incurred hy the ailvertsers of foreign lotterien. Some years ago it became common in Scotland to dispose of merchnndise by meana of lotteries; but this in specially condemued In the statute 42d Geo. III., c. 119 . An evasion of the law has been attempted by affixing a prize to every ticket, no as to muke the transaction rosenible a legai nale ; but this has been punlabed as a fraud, even when it could be proved that the prise equaled in value the price of the ticket. Thin declsion rested uppon the plea, that In such a transaction there was no ilefinite enie of a specific artlele.
In 1814 art-unlous began to be entabilished in Iritain; anil an the princlple on which they are founded Involvea that of the lottery, their operations, which are in roality lilegal, were immediately sunpentied liy onder of government. In the following year, however, an act was passed to indemnify those who had emlarked in them for the loxies whict they had incurred lyy the arrest of their proceedings; and alnce that tinte they have been toleruted under the eye of the law without any expreas stutute beling fruued for their exemption. -i. 13.
Lotus. The letus ( Nymphics hotus) Is a native of the
lakes of the Cashinere, and its stema serve as an article of food. In autumn, after the plate of the leaf has begun to decay, the stem has arrived at maturity, and being bolled till tender, fumishea a wholesome, nutritious diet, which is sald to support 5000 persons in Cashmere for nearly eight monthe in the year. This plant would probably succeed weil in the maddy bottoruy of the coves, creeks, and aloughs of our lakee and
atreams) and, if not relishel as human fond, douhtiesa Iten producte would serve to nourish malmala, -I Iatenk Ofhos Rep., 1806.

- Zough, an Irish term, synonymoue wlth the Scotch loch, but not with the Einglinh lale: for loch und lough are applied to deslgnate arms of the rea, as wall we calloctuons of frosh water, which lake is not.
nols d'Os, a French ooln, firnt struck In the yeas 1640, under the roign of Louin XIII. Hy the Yronoh mint regaiations it was at longth mado equal to 24 livres, or $\& 1$ aterling. Thls, however, was unden rating it as oompared with allvir; and hence, as every one proferrod paying their delta in the oven valued coln, allver became the priacipal currency of Francethe gold cotna beling elehar sont to the malting-pot or
oxported. In oxported. In Great Britain tha procens wha reversed, gold baving, for a long period, been overvalued by their mint.
- Louiciana, one of the couthern United States, Jiea between $29^{\circ}$ and $83^{\circ} \mathrm{N}$. lat. It is 240 milles long from north to south, and 216 hroal, contalaing 41,346 square milles. Population in 1810 was 76,566 ; In $1820,103,407$; in 1830, 215,575; In 1840, 852, 411 ; and in 1850, 611,974 . The State is divided into 47 parishes. Rubert de la Sale, whea he reached the mouth of tha Miseissippl (J6N2), Introllaced the name Louisiane, in honor of the great king, as the name of the country along the great river, "from the 1llinola to the Guif of Mexleo." (Cuanlasvoix, toni, i.) Many other points and locations were vowed round the estue gulf to the mame name, king and hids sulat. Lat Side ( ficis) vowed to the saint and to the king "the Bay of St. Lonis" (Matagords Hay), discovered by him on the coant of Texan. When linerville, on the 12 th of .prili, 1699, discovered that little bay opposite Cat faland, on the coast of the continent, he introluced this name again into the Mississippl country, by naming the harbor "La Baye do St. Louin." In the jear 1001 Mr. Bienville, when he evacuated Billoxi, and removed the Fronch head-quarters to Molile Day, calleal his fort there "Fort de St. Iowia," and this name, Fort St. Louls, then designated, for more than 20 yeurs, the central settJement or capital of the Freneh Misxinsippl colony. It is carious that the nume "Ioviniame" seems noe to have been uuch used before 1712. We do not find it, fur instance, a olngle tiane mentloned in the Afemoira of MI. De Sacrolk, writen in this colony in the heginning of the 1sth century: In the yenc 1712 King Loais XIV. aulopted officially the naure "Lowisiane" for that province, which seemed now promising and Important enough for such a grace. IIe pronouncas that the countries at the mouth of the Nisuisisippl shall henemborward be called "In I'rovince de ha Lowisiane." He nt, the sauna time changes also the name of the Missinespt:, und say: that it shull at present be called "Riviere c.n St. Iantis" (the St. Louis River). The French extended the name of Lovisiena over the whole Misaiaslppl vailey, between the A1leghany Mountaina, the Lakes of Canada, Mexico, and the Rocky Muantaine, and gouth they went as far with their pretensiona as the Rio Bravo, iucluding all Texas. All the old French napp go with their "Louisiame" as far eouth nu the litio Bravo. On some maps even the peninsula uf Fiorida was called "Ia I'eninente do louiniune;" no that, according' to these French pretensions, the name "Jauisiane" comprehended the whole consts of the Gulf of Mexico which belong now to the United Stater.

The Spaniards, on the other hund, went with their name "sferion" as far as Red River and the wentera shere of the Minaisilppl, and they kept in Tex therir ground. They also kejt up their old dominion in the Fhoridna; ao that, in time, the name "Louisiane" was on the French mape more contracted. When the Spuniards acquired (1763) from France the tominien of Louislana, they retained that name, chaoging it only to "Louisiana," or sometimes also to "Lusinna,"
and eve of their Mermen the wes time of 1788) as Spuin ( branch lakes (1763-18 very am When t Loninian gulshed part of New Orl mgaln in colluny wi of the " ment of 1 inlana cor Tearl Riv weat, the little nore the name Spanish, h "Lomisian Kout. Phynical Rlirer, the entlets, wh their way west part The wester leaves the and inelinly the Gulf Atchafulay atream of portions of tions. 31 New Orlear nunicutes Below the branch off cast silile of lberville, Mexice thr Borgne. T oa the weat the Delta o shape to the tent of cont The alluvisul of from one prevent the in the rear, on the mar. east side o alout 40 n the river for it continues line. Alun beautiful an thanal auce western par margin of and fertile settlement. feet above sissiplu, Ib parts, is ge ton, sugar, has an undt of white, re cassafras, n part, the E
and even to "Isuciand," They put the eastorn limit of their Mexican provinces and of Toxan' at the River Mermentua, quite near to the Mialesippi Delta; and the weatern Ilmit of the Morlian wan, an well at the time of the Finglieh dominion in the Florldas (1788${ }^{1788}$ ) am after the retroceasion of theae provinces to Spain (1783), considered to be at the eastornmost hranch of the Minainalppi (Riviere, Iberville and the lakes Pontchartraln, ete.); so that during thia time (1763-1800) the name "Luaiana" comprised only a very amali part of the cosata of the Mexican Gulf. When the United Ststen acquired the dominion of Louisians (1802) this name was at flrat quite extingaished on the shoree of the Gulf. The whole southern part of old Loulsians was ealled "The Territory of New Orlenns." The old name was, however, novived ggain in the year 1812, when a part of the old French colony was admitted into the Union under the name of the "State of Iouislana." After the final nettlemeat of the boundarles of this State, the namo Louisinna comprised all the ehores between the mouth of Pearl River to the east and that of Sabine River to the west, the whole Mlasiselppl Delta, and on both eides a little inore. We may remark that the orthography of the name Joonsiana, which we have adopted, ts half Spanish, hall French. Purely Freneh it ought to he "Lowiaiane," and purely Spanlsh, "Luisioma."-J. G. Kollı.

Physical Feotures, etc.-Below the mouth of lied River, the Miasiasippl dividea into eeveral branchen or outlets, whloh, diverging from each other, slowly wend their way to the Gulf of Mexice, and divide the sonthwest part of the State into a number of large inlands. The western of these outleta is the Atchafalaya, whleh leavea the main stream at the mouth of lied River, and laclining eastward, flows Into Atchafalaya Bay, in the Gulf of Mexlco. About 128 miles below the Atchufalayn la the outlet of Phaquemine, the main strean of which unites with Atchafalaya, but other portions of it internect the country in different directions. 31 miles below the Plaquemine, and 82 stove New Orleans, is the outlet of Ta Fourche, which comaunicates with the Gulf of Mexico by two months. Below the La Fourche, numerous other amall streams brach off from the river at various pointe. On the esst side of the Missisaippl the principal outlet is the Jberville, which communicates with the Gulf of Mexico through Lakes Maurepas, Pontchartrain and Borgne. The whole territory between the Atchafalaya ou the west, and Iberville, etc., on the enst, la called the Delta of the Miseissippi, from ita resemblance in shape to the Groek letter of that name. A large extent of country in this State is annually overflowed. The alluvial margin along the Mississlppi has a breadth of from one to two milea, and is of great fertiliig. To prevent the river from inundating the valuable tracts in the rear, an artiticial embanknent has been reised on the margin of the river, called the Leveo. On the east alde of the river this embankinent commences about 40 miles below Now Orleans, and extends up the river for a diatance of 180 miles. On the west olde It continues with little interruption to ther Arkausas line. Along this portlon of the river therv are many beautiful and finely-cuitivated plantations, and a continual auceession of pleassint realdences. The southwestern part of tha State conslsts of sea marsh on the margin of the Gulf, but further inland of extensive and fertile pralries, which contain many flourishing settlements. The surface is elevated from 10 to 50 feet above high tlde. The country between the Mississippi, Iberville, and Pearl Rivers, In lis southern parts, is generally level and highly productive in cotton, augar, corn, rice, and indigo. The northeru part has an undulating aurface and a heavy natural growth of white, red, and yellow oak, hickory, black walnut, sassafras, magnolia, and poplar. In the north-western part, the Red Biver, after entering the State by a
dingle ohannel and Aowing mbout 80 miles, spresde into a namber of channela, forming many lakea, talands, und ewamps, over a opace of 60 mlles long and 6 broed. The bettoms on the river are from 1 to 10 millen wide, and vary fertile. The timiner is willow, cotton-wood, honey-locunt, pawpaw, and buekeye ; on the rich uplande, elm, ast, hlekory, mulberry, black walnut, with i profusion of grape vines. On the lese fertile and asendy eplands of the State are white pltch and yellow plnes, and various kinde of oak. There wore in this State in $1850,1,590,025$ acres of land lmproved, and $8,989,018$ of unimproved land In farms. Caah value of farms, 75,814,398; and the value of implements and machinery, $11,576,038$.

Live Stock,-1Horses, 89,514; sases and mules, 44,849 ; milch cowa, 106,576 ; working oxen, 54,968 ; other cattle, 414,798; sheep, 110,388 ; swine, 597,301 . Value of live stock, $11,152,275$.

Agricultural Praduets, elc.-Wheat, 417 buhhels; rye, 476; Indlan corn, $10,266,378$; oats, 89,637 ; buckwheat, 8 ; peas and beann, 161,732 ; potatoes, 05,632 ; sweet potatoes, 1,428,453; rice, 4,425,349 lbs. Value of products of the orchard, 222,859 ; produce of market gardene, 148,829. Pounds of butter made, 683,069; of cheese, 1,957 ; Bugar, hhds, 228,001 ; maple nugar, 255 pounda; molasees, $10,931,177$ gallona ; bees' wax and honey, 06,701 pounde ; wool, 100,897 ; cotton, 178,787; silk cocuons, 29; hops, 125 ; tobseco, 26,878; hay, 25,752 tons ; clover seeds, 2 bushels ; other graas needa, 97 buahela; and there were made 15 gallons of wine. Value of home-made manufactures, 139,232 ; of alaughtered anlmal , $1,458,990$.

Rivers, etc.-The Misolsaipil River forme the boundary of the State for a conalderable datance, and in Its lower part runs wholly within the State, and entirs the Gulf of Mexico by eeveral channels. It is navlgable for veasela of the largeat slze. Red River enter the State noar the north-west corner, and passes through In a southeaat direction, Gischarging a vast nmount of water Into the Missiasippi, 236 miles alove New Orleuns. The Washlts runa in a south direction in the north part of the State, and enters Red River a little above Ita junction with the Mississippl. Buyou Ia Fonrche and Atchafalaya are large outleta of the Mlasisalppl. The other rivers and streami are the Black, Tensuit, Sabine, Calcasieu, Mermanteau, Vermillon, Teche, Pearl, Amitie, Iberville, ete.

Manufactures.-There were in this State in 1850, 8 estahliahments with a capital of 225,000 , employing 347 persons, and making 1,570 tons of castings, etc. valued ut 312,500; 96 flouring and griat mills, 120 asw mills, 16 tannerles, 47 printing offices, 60 newspapers -11 daily, 6 tri and semi-weekly, 87 weekly-and one monthly publication; aggregate number of coples issued annually, 12,416,224. Capital invested In manufactures, $\$ 5,304,92.4$; value of manufuctured articlen, $\boldsymbol{6} 7,045,814$. On the lat of January, 1856, there were 7 railroads, with III miles of track rinished and in operition.

The principal places in the State are Baton Rouge, the capital, New Orlenns, Jackson, St. Francisville, Opelousas, Grand Coteau, Alexandria, Natchitoches, and Shreveport. There wore, January 18t, 1853, 7 banks in the State, with an aggregate capital of 612,000,000. Tonnage, same year, 156,273 tons. Total value of exports of American and forelgn produce, $1852, \$ 49,058,885$. Value of imports, $\$ 12,057,-$ 724.

Loulsiana was first explored by the French, and meceived its name in I682 from M. La Salle, in honor of Louls XIV, and a aettlement was attempted in 1684, but falled. In 1699 a more auccessful attempt was made by M. Tberville, who entered the Mississippl and founded a colony. His efforts were followed by Crozat, who held the exclusive trade of the country for a number of years. About 1717 he tranaferred his intereat to a chartered comp.ny, at the bead of which
was the notorieus John Law, whoee mational bank and Misodeolppl apeculation Involvod half the Freach nobllity. In 1781 the company resigned the concern to the crown, who, in 1762, oeded tine country of Louislann to Spain. In 1800 Spaln re-conveyed the province in France, from whom, in 1803, the United States
purchased the entire territory for $15,000,000$. The portion now included in the State formed a constituBlon, and was admitted into the Union in 1812. A second conatitution was adopted and went into operation in 1845, and the third and prenent one was iormed und adopted in 1852.


| roe | Txperin. |  |  | Inports. | Tonamg: Cleard. |  | Diterieat Tonnage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Domeatio. | Forelgn. | Total. | Total. | Ambican. | Forelga. | Reglatiored. | Earolled and Licenard. |
|  | -8.007.019 | 889 | 37,972,179 | 68,878.717 | (2), 19 |  | 18,24 |  |
|  | $7,808,461$ $6,769,414$ | 4075, 184 | $7,078,645$ 7779,078 | $8,817,298$ $4,289,125$ | 87,888 $8 R 258$ | $\begin{aligned} & 90,718 \\ & 86,445 \end{aligned}$ | $\cdots$ | $\cdots$ |
|  | $6,769,410$ $6,442,946$ | $1,000,668$ $1,485,874$ | 7,779,079 | 4,289,125 $4,589,769$ | BR,258 84,139 | 90,44 91,396 | $\ldots$ | ... |
|  | 10,465,831 | 1,617,600 | 19,602,924 | 4,900,004 | 81,609 | 20,776 |  |  |
|  | 0,044806 | 1,230,854 | 10,294,830 | 4,167,684 | 6*144 | 22.948 |  |  |
|  | 10,612,882 | 1,126,165 | 11,723, 997 | 4581,645 | 89,708 | 80,240 | .... |  |
|  | 10,168,349 | 1,784,058 | 11,977,400 | 6,817,881 | 85,841 | 88,781 |  |  |
|  | 10,898,1481 | 1,487,877 | 19,854,060 | $6,857,209$ $7,509,088$ | 87,657 106.017 | $\begin{aligned} & 88,179 \\ & \\ & \hline 18317 \end{aligned}$ | . |  |
|  | 18,042,740 | 2,445,908 | 15,488,692 | 7,509,088 | 106,017 |  |  |  |
|  | 502,144,258 | 13,232,009 | 105,877,162 | 49,084,228 | 652,151 | 277,659 |  |  |
| Bept. 30, 388 | 12,535,581 | 88,926,438 | -16,761,059 | \%9,768,603 | 96,758 | 88,508 | 10,408 | 88,909 |
|  | 14,105,118 | 9,489818 | 16,583,9930 | $8.871,888$ | 88.286 | 69,820 |  |  |
|  | 16,188, 557 | $2,807.916$ | 18,941,978 | $9.690,606$ | 80,021 | 00.580 |  | $\cdots$ |
|  | 28,759,607 | 9,707.917 | 96,597,504 | 18,781,809 | 112,880 | 71,599 | .... | $\cdots$ |
|  | 81,265,015 | 5,015, 108 | 80,270,528 | 17,519,814 | 197,891 | 68778 | .... | .... |
|  | 82,226,065 | 4,053,263 | 87,179,989 | 15,117,849 | 147,888 | 48.110 |  |  |
|  | 81,046,275 | 8,702,422 | 80888697 | 14,000,012 | 175,568 | 4.0 .583 |  |  |
|  | ${ }^{30,0177,084}$ | 1,44,714 | $81,502,24$ $88,1 \times 1,167$ | 12,0064,948 | 180,68 177,257 | 68,184 | ... | $\ldots$ |
|  | 82,99x, 50 | 1,288,877 | 84.236,936 | 10.67 4198 | 277,0121 | 78,850 |  |  |
| Tota | 1250,918,197 | (30,358,418 | \$286,501,515 | 8120, 48,051 | 1,438,182 | 069,074 |  |  |
| 8ept, 5? 1841. | 292,565,618 | (1,581,265 | *84.887.487 | \%10,23sA,880 | 244,988 | 12.577 | 64,792 | 91,407 |
| 1842 | 97,427,422 | 980797 | 2*,404,149 | 8,038,590 | 944.110 | 78,688 |  | 108 |
| 9 mon, <br> June 80,184 | 96,658,924 | 786.500 | 27.880, 424 | $8.170,015$ | 292,478 | 80,697 |  |  |
|  | 29,442,784 | 1,654.578 | $80,49 \times, 807$ | 7.826,789 | 231, 179 | t01,056 |  |  |
| 1845 | $25,41,711$ $80,747,838$ | (,816,144 | $27,157,465$ $81,975,704$ | 7,844,997 | 248.548 $28 \times 463$ | 189,541 110,028 |  |  |
| 154 | 41,768,818 | 263,890 | 42,031,653 | 9.822, 9 ¢9 9 | 274,119 | 166,709 |  |  |
| 184 | 89,850,143 | 1,821,218 | 40,971,861 | $9.8 \times 1,479$ | 287, 817 | 148,612 |  |  |
| 1849 | 817,057,113 | 654.519 | 87,011,1667. | 11,060,607 | 298,454 | 194,294 |  |  |
| 183 | 87,006,277 | 407,07.9 | 821104 | 10,760,499 | 211,800) | 158,197 |  |  |
|  | CTE $5,778,888$ | 69,061,155 | 6487,853,548 | *sx,978,885 | 2,568,011 | 1,2355,888 |  |  |
|  | \$53,988,018 | \%445,950 | 054,418,968 | \$12,529,460 | 202,054 | 198.612 | 81,158 | 172,120 |
|  | 48.804 .169 | 2500718 | 49,048, , 85 | 12.057 .784 | 870,741 | 178,741 |  |  |
|  | 67.748,74 | 888 ,04 | 68,292,04, | 18,650, 888 | 440,786 | 190,044 |  |  |
|  | cupha,he7 | 475,205 | 61, 3811,1802 | 14,422, 154 | $44 \times 499$ | 154,256 |  | .... |
|  | $65,048,094$ $60,576,6 \% 4$ | 811,468 258,428 | $54,867,062$ $80,885,080$ | 12,900, 16.681 | ( 400.502 | $\begin{aligned} & 128,460 \\ & 156.415 \end{aligned}$ |  |  |

New Orleans is the prinejpal port on the Shasisaippi, and the natural dépôt for the commierce of the great central valley. It is situated on the left bank of the river, 100 miles from the Gulf of Mexico, In Int. $29^{\circ}$ $58^{\prime}$, and long. $90^{\circ} 7^{\prime}$. Its site is low and ntarnhy, and in the nommer and fale very sickly. Two rallroads connect it with Lake Pontc,artrain, and thence ateamtoats connect with Mobile, etc. it communicatea northward by the New Onleans, Jncknon, and Great Northem Rallroal, and weatwarl by the New Orleans, Opelousar, and Great Weatern Railroad. Its conumerce by river ls carried on bis steaniboats In constant anccession, and theae traverse the great riveand tributarien for thousands of miles. lly these means it recelves and diptributes its merchandive. The nverage value of produce recelved from the interior, is about $120,000,000$. Its forelign eraile ts $\mathrm{co}-$ extenalve, and with regard to cotton and algar, it in the first port of the Unlon. The depth of water in the river, opposite New Orleuna, in at a inedlum of 70 feet, and it malntains soundings of 30 fept untll within a mile of its confluence with the sea. The river has four principal passes. The tonnagge of the port in 1856 , wai 163,308 tons.

Low oll, an important manufartoring town in Middlesex county, Masmachusetts, on the rlght bank of the Sterrimack IIlver, at itn Jonetion: with the Coneord, 25 miles north north-west ef Ioston. Although the site of the town has consifleralile inequality of nurface, lts otreets ure regularly lahd out, and lntersect each other at right angles. The private residences are spacious, and many of them elegant bullainge. Among the
putilie edffices, the chlef are the court-house, the tueclannles' hall, a nick hoapital for operatives, and a market-honae. The literary Inatitutions of the town aro very efficient, and have lieen of constideratile service to che community. The Mechanic Assacintion, Ineorporated in 1825, han a valuable llbrary of abont sonn volumen, and a acientlic apparatus; whlle the eity nehool llirary contains 9600 velumes, and is op-11 to all on a small yearly payment. The great advantnige which lowell enjoys for a manufacturing town is derived from a descent of 80 feet made by the Merrimack, and known as the Pawtucket Falls, which, hy seans of canals nnd locks, proviles aluudanee of water power. Iiesldes these there is a spaclous reservoir, placed on an clevation eastward of the city, which furnialies an inmerse supply of whter at all times in easo of fire. The principal goods mantfactured leere are cotton, wool, and iron. The first is made Into cotton cloth ranl enlico; the aecond into carpets, cloth, and coarse atnffs; and Iron into machinery and wire fences. Ilealilen these, lowever, Heaching is carricd on extensively, as well as the preparation of dyet, glue, and other essenthuls of the cotton and wool manufactures. In dabaary, $18: 50$, there were 12 manufacturing companles in lowell, owning 52 mills, and working 371,838 quinilles, and 11,407 looms. The nggregate quintlies prouluced every week wero $2,230,000$ yards of cottin cloth, 30 , 000 yaris of woolen cluth, 25,000 yards of carpeting and 50 rugn. In the same year. $414,500,000$ of coplat was invested in the while nanutactures of the place; while the number of handa einployed ameunted to

8723 fema by the mill operatives good cond large ame and also it acientlfio a
in the its manufa its present manufuctu stituting tt laid out in the owners der the titl the ilrat $\mathbf{m}$ 1830, 6,477 and $\ln 18$ ! was added miles, and I ell lies on : junction ot several line Pawtucket and easily deep, and 1 with water, tucket Falls priators of under a cha 000 , supplies facturing es turing Comp stock of \$2, 965 spindlee and 645 fom and sheeting pany is an Manufacturi Ital stuck of 36,228 sphid! and 360 ma prints, tiann na exteaslve incorporated 2 cotton fa loums ; empl factures 6,50 ally. The tered In $18:$ catton factor factory, 4,30 ploging 500 $4,9 \mathrm{H} 0,000 \mathrm{yt}$ nually. Ih chartered in mills, with 1 simere looms and 820 male cloths and c facturing Cd of $\$ 600,100$ Masa., 1805 ,

Loweris express the liquor by m marketable 1 a certain st streng:la whi poured from a froth or cra slat of about and half wa exposed for nearcei, any again and br above that

8723 femalos, and 4542 males. Nivery attention is paid by the mill-ownere to the heulth and morality of their operatives. One of the best proofs of the general good conduet of the mill-workers here is shown in the jurge amounte daposited by them in the savings-bank; sad also in the interest they take in the Ilterary and scientifio assoclations connectod with the factories.

In the rapidity of its growth, and in the extent of Its manufactures, it stands prememinent ; it has attained its present poaltion altogether from the extent of liss munufacturing facilititis. A tract of 400 acres, constituting the most central part of the present city, was isid out in 1821. It was purchased for $\$ 100,000$, and the owners were incerporated the following year, under the title of Merrimac Manufacturing Company, and the first mill ereated. Population 1820, about 200; $1830,6,477$; 1836, 17,830; 1840, 20,796; 1850, 88,283; and in 1854, 40,000. In 1834, Belvidere villags Was atded to it, making a territory of nearly 5 aquare miles, and in 1836 it was incorporated as a city. Loweif ties on the right bank of Merrimack River, at the junction of Concord River, and at the intersection of several lines of rallroads, It was originally known as Pawtucket Falis. The water power is very oxtensive, sad easily available. A canal, 100 feet wide, 16 feet deep, and 11 miles in length, supplies the factories with water, taken from the Concord River, at I'awtucket Falis. The entire descent is 31 feet. The proprietors of the "Locks and Canals Company," acting under a chartor granted in 1792, with a capitai of \$600,000 , supplies the water power to the different manufacturing estabishments. The Merrimac Manyfuefuring Compaty, was chartered in 1822, has a capital stock of $\$ 2,000,000$; with 5 cotton factories, with $67,-$ 965 spindles, and 1,920 looms, employs 1,600 malos, and $6+5$ females ; manufactures 18,000 yards of printe and sheetings annuslly. Connected with this Compary is an extensive print works. The flamilton Mawufacturing Company, chartered in 1820, with a capfanl stock of $1,200,000$, has 3 cotton factories, with 36,228 spindles, and 1,002 looms, employa 875 fomales, and 360 males ; manufactures $10,000,000$ yards of priats, flanneis, and sheetings annually. 1t also has aa extensive print works. The Appleton Company was incorporuted in 1828, with a capital of $\$ 600,000$; has 2 cotton factories, with 17,920 spindles, and 538 looms; employs 480 fomales, and 120 mules; munufactures $6,500,000$ yards sheetings and shirtings annually. The Lonvell Manufacturing Company was chartered in 1898 , with a capital of $\$ 1,000,000$; has a cotton factory, 7,142 spindies, 244 looms, and 4 earpet factory, 4,300 spindles, and 80 loonis, the whole employing 500 females, and 225 males; manufacturing 4,940,000 yards rugs, earjeting, and cotton eloth, unntally. The Sfidllesex Mfanufacturing Company was chartered in 1830, with a capital of $\$ 1,000,000$; has 3 mills, with 13,006 spindles, 45 broadeloth, and 375 cassinere looms, nad 3 dye-houses, omploylug 950 females, and $8: 20$ majes ; munufacturing 950,000 yarda of broadctoths ond cassimeres manully. The Suffolk Manufacturing Company, ehartered in 1830, with a capital of $\$ 600,400$, has 2 factorien.-Sen Statistits of Mass., 1855, for further items.
Lowering, among distiliers, a term empinyed to express the debssing the strengti of any spiritnous liquor by mixing water with it. The standurd and marketaile price of these ligaors is fixed in regari to a certain strength in them cailed proof; or, that streng:in which makes them, when shaken in a phial or jourei from on high into a glase, retain for some time a froth or crown of bubbies. In thin state sjifites consist uf about haif pure, or totally infiammable spirits, and half water; and if any foreign or home ajuirit be exposed tor sale and found to have that proof wanting, searcelj; any iody will buy it until it has been distijied argain and brought to the proper atrength; and If it lee above that strength the proprietor usually adds water
to bring it down to the etandard. There is another kind of lowering among the retailers of spirituons liquors to the vulgar, by reducing it under the standard proof. Whoever has the art of doing this without destroying the bubble-pronf, which is easily done by means of some addition which givea a greater tenacity to the parts of the spirits, will deceive all who. judge by this proof alone. In this oase, the best way to judge of liquors is by the eye and the tongue, snd eapecially by the instrument called the hydrometer.

Iubber, a contemptuous name, given by sallo-a to those who know not the duty of a seamsn, Lubber: Hole is the vacant space berween the head of a lower mast and the edge of the top. It is so termed from a aupposition that a lubber, not caring to trust himself ip the futtock shrouda, will prefer that way of getting into the top.

Jubec, one of the free cities of northern Germany, and nominally the chief of the Hanee Towns, is the capital of a small territory, is situate on a gentle sidge between the givers Trave aud Wakenitz, 10 miles from the mouth of the former at Travenuande, and 36 miles north-east of Hamburg. Lubec is the espital of the four free or IIsnseatia towns, and the meat of their supromo court of appeal. The court eonsiats of six members, one of whom is chosen by each of the free towns; Frankfort and Bremen nominate the fifth; while the sixth is named alternately onee by Lubee and twice by IIamburg. The president is choeen annually by the senates of the four towns. The present city of Lubec was founded in 1143 by Adolphus 11 ., Count of Uulstein and Schaumburg, by whom it was ceded in 1158 to IIenry Duke of Saxony, surnamed the Lion. In 1226 it was made a free imperial city by Frederic II. At this time it was an important comunercial city, and was rapidly inereasing. In 1241 it entered into treaty with 1 Hamiurg, and thus laid the foundation of the IIanseatic League, of which it became the head about 1260. For four centuries Lubee continued in a flourishing condition, and is said to have at one time contained 200,000 persoas. After the dissolution of tho League, which took place in 1632, it gradually fell into decay, and has never again attained its former impretance. Afler the battle of Jena in 1800, tho Prussian general Blucher, with the remains uf his army, took refuge in Lubec, which was then stormed by the French, and sacked and pillaged for three days. In 1810 it wus annexed to the French empire, and so remained till after the battle of Leipzig in 1813, when it was restored to its political independence, and subsetueatly joined the German Confederation as a free city. It has one vote in the full council; but in the select council it has only one in conjunction with the other free towns. Lubec is one of the anost picturesque old towns in Germany. Ito streets are genorally straight and regular, and its public bulidinge, which are mostly of brick, have undergone little change since the 15 th century. Many of the houses are in the old-fashioned atyle, with their guaint gables toward tho street; and not a fow of them are remarkable for the richness of their architecture. The old rumparts of the town have been laid out in public walks. Tho finest building in Luisec is the Marienkirel e, founded in 1804. It is in the pointed Gothic style, constructed almost entirely of brick, and surmounted by swo towers with spires rising to the height of 430 feet. It has three naves; the roof of the centre one rising to the unusual height of 184 fect. It contains numemos monnments and paintings-tho latter by llobbein, Vaudyck, Overbeck, etc. The "Dance of Death," dated 1463, is remarkaile as representing the costumes of the period. Tais church possesses a very fine organ, and bas also a curious old astronomical clook, construeted in 1405. The Dollkirche, or cathedral built betwren 1170 and 1341 , is alinost entirely of briek, and has two towers suranounted by spires 300 feri high. It contains numerous

## LUC

monuments to bishops and othors connected with Lubec. The screen of the choir is $n$ master-piece of wood-carving of the early German school. ' In one of the slde chapels is a painting by Menling representing the Passion of uir Saviour in 23 distinet groupa. The town-house, on the market-place, is a curious old Gothic brick bullding, completed in 1517. Heré in uncient times depaties from 85 citles In Germany composing the Hanneatic League, held their alttlog*. The educatlonal and charitsble institutlons are numerous; bealdes which there are an exchange, mint, arsenal, publle library with 87,000 volumes and a theatre.

Lubec is rtill a place of considerable commercial haportance. It trades lurgely with Hamburg by menns of the Trave and a canal, and aleo with Russia, Deninark, Sweden, and Finland. A branch line conneets it with the Hamburg and Berlln rallway: Regular steam communleation is kept up with Copenhagen, Stockholm, and'St. Peteryburg. Vessele drawing not more than ninc feet of water can come up to the town, but larger vessuls load and unload by means of lightere at Travemfinde, between which and Lubec smail steamers are constantly plylng. 'The chlef exports are-corn, cattle, wool, fron, and timber; imports-wines, silks, cottons, hardware, coloninl products, and dye-stuffs. In 1855, 972 vessels, carrying 55,266 Jasts, entered; and 958 veasels, carryling 54,246 lasts, left the port. The manufacture are numerous, thut not large or important. Among the chlef are woolen, linen, cotton, and silk goods; tobacco, eoap, paper, playing-cards, musical iristruments, hats ; and lron, eopper, and brass wares.

Its trade is principully carrled on with tho Baltle States, to whleh it exports com, eattle, wool, fish, fron, and timber. Its imports comprise wines, ailks, cottons, hardwares, and other manufactured goods; also colonial produce, dye-stulfs, etc. The terrltory belongligg to Isubee is about 20 milles in lenifth, hy 3 miles in breadth, containlng a population of 59,166 , chlefly employed in the rearing of live atock. In 1852 there entered the port of Lubec 2086 vessels, measurIng 262,724 tous, viz. : salling veksels, 1609, of an ag. gregate tonnage of 170,096 tons, and 387 regular steam-packeta, of an aggregate of 92,628 tons. Russia holds the first rank in the trade of Lubec. Of the whole number of vessels entered in 18.22 (20R5), there were ander the Russlan flag 456 vtasels, with an aggregate of 85,730 tors. The total ihports into this port in 1852 reached, in weight, $122,000,000$ kilos. ( $2 \cdot 20$ Jhs. each), viz.: ly sea, $94,000,000$ klles.; hy land, $28,000,000$ kilos. Thls was a falling off from tho preceding year of $10,000,000 \mathrm{kllos}$.

Among the imports of 1852 were: tobaeco, $1,049,132$ kllos. ; entton, drugs, and dye-stuffs, 4,031,8.19 kilos. ; coffee, $2,291,526 \mathrm{kllos}$; sugar, $4,278,066$ kilos.

The total imports in 1851 amountad to $182,333,000$ kilos. ; but the increase of $10,000,000$ kilos. was attributahle to the heavy stock of material introdnced by those engraged In tin sonatruction of the rallond bet ween liuber and Hamburg. A comparison with the precedling years of regular trade wifl show a steady, though a gradual increase. In 1850 the total Imports reached $120,000,000 \mathrm{klios} .$, or $2,000,000$ less thain In 1852.

The general imports of Lubec are thun ciassifled : Manufarfuree.-Incinding, principnlly, Hquorn, watches, jewelry, hariwane, gunpowder, plece-goods, glass-ware, 13,954, ben kllon. Coloninl, or tram*. 1 tlantic Jerchundise.-Coasisting of coffee, cotton, drugs, dyestuffe, augar, tobarco, anil tea, $11,708,795 \mathrm{kjlos}$. Animal Substances.-Consisting of lutter, cheese, wax, ollh, wool, peitry, sllk, $2,827,253 \mathrm{klloz}$. Mfetnf.Chlefly of inon and copper, 6,121,736 kllos. Bfisel-lumeous,-llucluillng sulted fish, tailow, grainn, tlmber, pot-anhea, etc., 88,424,913. 'Sotal, 123,037,477 kilos. Manufactures reoreacut 11 角 per cent., coionlal, or
trens-Atlantle merchandise $0 \frac{1}{2}$ per cent., metals 5 per cent., and all other Imports 74 per cent, of the total trade.
Elatement showing the Steam Navigation between Lnbec and the Baltic Ports, from 1849 to 1852.-1840.- Between Travemande (the port of Labec) and Copenhagen-royages; 67; passengera, 1955; recelpte, 152,046 france. 1850.-Bet ween Trsvemunde, Copenhagen, and Gothenhurg-voyages, 61 ; peaset. gere, 2858 ; recelpts, 194,788 france, 1851.-Between Travemande, Copenhagen, and Gothenburg-vo;agen, 87 ; pasaengers, 8,415 ; receipts, 187,884 francs. 1852.-Between Lubec, Copenhagen, ${ }^{\text {a }}$ and Gothen-burg-voyages, 20 ; passengert, 8081 ; recelpts, 114,860 francs.
The merchant marine of Lubeo in 1853 consisted of 65 vessels, of 18,800 tons aggregate, viz., 60 sailing vessels, of 11,898 tons, and 5 steamers: The once extemsive and flourishlng trade of Lubec had dwindied down to the mere shadow of its former greatness, The tardy communlcation with Hamburg (a city on which it depende almost exeluaively for lta commercial activity) by canal navigation, contributed much to deprens Its commerclal enterprise; and, hence, its merchanta have, for a long period, been strenuous and unremitting in thelr efforts for the construction of a railroad that would connect them with that city. Denmark, however, jeulous of any enterprise that would be likely to create a rival for the trade of Kiel, whlch town is also connected by railrond with Hamburg, long refused permiselon to construct the contemplated railroal acroas any portlon of its territories. The dlfficultles were, however, adjusted, the roml conatructed, and during the past few years the trade of Lubec has risen to considerable Impertance. In $1 \times 50$, before tho connectlon by rallroad was entabliahed, the merchandise whleh passed between the two cities amonnted to lut $\mathbf{2 6 , 0 0 0}$ quintals of 106.85 lis , each; in 1853, after the rallroad was opened, It ascended to 267,380 quintala, vlz., 89,575 Hamburg merchandise, and 177,805 forelgn merchandise, forwarded via Janburg. The Unlted States has no direct trale with Lubec, such of its staples as reach that market heing supplied either from llamburg or Altona, chiefly the former.

The teriff In that of December jth, 1851.
Moneys. -1 mare $=10$ schillings Lubec courant $=$ 28.79 cents.

Weights and Measures, -1 ship-pound $=2 \frac{1}{c} \mathrm{cwt}$. of 112 Jbs . Englieh, pach $=280 \mathrm{lbs}$. 1 lis-pound $=$ 14 lhs.

Duties on Inports. - Alt goods, whether of forelyn or herne production, pay d of 1 per cent. ad valorcm, as given in the invoices, exeept the following articles, which are free of import duties: Transit gombls re-exported withln thres months after entry; effects of travelers; household furniture uned; wool hrought for the Jubec fair, and delivered at the wool warehouse; goods on boaril of vessels not consignet? to Iubee; waren on thond of shlpe entering the port of Travemande in tilstreas.

None but eltizenn have tho privilegi of elesring grode in the curtou-house; Americun vessela, however, ure exempt from this regulation.--Com. $R / l$. . $U . N$.

Lucia, Et., one of tho liritish West Indin Islands, Windward groap, lying alout 10 milos north of Martinlque, In lat. $18^{\circ} 50^{\prime} \mathrm{N}$ lonk. $60^{\circ} 58^{\prime} \mathrm{W}$. It is $\mathrm{It}_{2}$ mlien In length from north to south, ly 12 in extreme breadth, and has nin arem of nowut 2416 square milea, or 150,000 aeres. It is longitudinally divited by a chain of mountalns, generally fron 1200 to $1 \times 00$, und In nome cames 2000 feet high, densaly clathed with the finest timber. There nre of voleatise formation, and asaume the mont fantastic forma, ubounding In deep ehasms and pointeal eminencea. From elther side of this chaln liranchen of lemet, salttude go off toward the cosst, forming plains and valleys of various slzes. At

Its soath origln, pendicul to the he evergrce deep nn througho cosst, ur atreams, is divide leeward most pop ters and and Caple is also ve wood on $t$ cltmato is attract tha to frequen year.

The ex
1854, and

Cades. .
Cotfec...
Cocoa...
Provision
Pron
The qui of the abov

Sugar
Cotfeo.....
Cocoa......
Rum......
Molasses. .
The quar were:

Articles
Cocon. ....
Goorls, Brit,
fact.... pa
Logwoorl...
Atolasse
Rlee.
tluDi.......
sngar, Mis.
Sngar, Mus.
Other srttele
Total va
The total cles of lirit live strock, and tobuce United Kin £26,433 from general rev duties on in and other th year was £ 24,123 , of w 11,081 male chief town ahout 3000 English set driven off effected a when It wo longed alte ernment is the troops, cruncil, eon ney-gignersl is also a ie and tive nt secretary snd of whic

Its sonthern extremity are two mountains of volcanio | Jaws of St. Lucia; oxeept in so far as they have beer origin, called the Sugar Loaves, whieh rise nearly perpendlcularly from the sea, in the form of parallel cones, to the height of about 2700 feet; they are covered with evergreen follage, and mark the entrance into the deep and beautiful Bay of Soufrière. The valleys throughout the island, as well as the plains upon the coast, ure fertile, being well watered hy numerous atreams, and are under good cultivation. The fsland is divided into two territorles-Basseterre, the low or leeward portlon, which is well cultlvated, and the most populous, though the prevalence of stagnant waters and morasses renders the clinate very unhealthy ; and Capisterre, the high or windward territory, which is also very unhealthy, but is becoming lese so ss the wood on the high lands is being cleared away. The cllmate is very moist, as the trees on the mountains attruct the clouds, and heace ronder the islund suljeet to frequent and beavy rains for 9 or 10 months in the year.

The extent of land nnder each description of erop in 1854, and the three preceding years, was:

|  | 1851. | 153:. | 1 Rs3. | $1 \times 84$. |
| :---: | :---: | :---: | :---: | :---: |
| Can8s......... | Anctas. $\mathbf{8 , 0 1 5}$ | Acreq. 3,563 |  | Acret. 3,290 |
| Cotfec.... . . . | 185 | 1, | 180 | 07 |
| Cocoa ......... | 181 | - | 89 | 87 |
| Pravlslons.... | 1,018 | 1,1.36 | 2.428 | 1,154 |

The quantities of various articles produced in each of the uhove yeare were :

|  | 1651. | 1858. | 1853. | 1854. |
| :---: | :---: | :---: | :---: | :---: |
| Sugar ......liba | 6,691,810 | 7,131,560 | 6,782,7190 | 7,414,100 |
| Cotfeo...... * | 18.620 | 25,989 | 6,051 | 10,250 |
| Cocodt. ..... ${ }^{4}$ | 15,143 | 40,858 | 21,000 | 17,430 |
| Rum......galls. | 45,058 | 66,929 | 81,349 | 77,751 |
| Molasses., " | 158,54) | 206,695 | 214.712 | 218,625 |

The quantities and value of articles exported in 1854 were:

| Articles. | Quanti(les. | Valuw. | To United Kingdom. | To Brltish colonles | To forolga States. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cocos........Ibs. | 148,983 | £1,491 | 507 | E21,424 | .... |
| Goorls, Brlt. masue | $\} 361$ | 1,417 | 35 | 1,230 | E151 |
| Logweoil. . . . .tons: | 1,098 | 2,368 | 1,057 |  | 1,811 |
| Molasses. . . . galls. | 116,490 | 2,984 | 1,6\%\% | 1,279 | , 811 |
| Hlce. . . . . . . .ewt. | 40 | 30 |  | 80 | . $\cdot$. |
| Ran., .......galls. | 14,864 | 1,428 | 1,428 |  | .... |
| Sngar, Mus... .ewt. | 09,242 | 41,468 | 41,462 |  | 9tin |
| Other arlleles. . . . |  | 4.70) | 300 | 2.699 | 2,712 |
| Total va |  | 45,886 | $\pm 46904$ | £6,668 | 48,164 |

The total value of imports in 1854 (principally articles of liritish manufacture, flour, dried fish, butter, live stock, lumber, sulted meat, olive oil, wine, rice,
 United Kingdom, $£ 27,880$ from liritish colonies, and $£ 26,433$ from forelign States. The nett amouut of the general revenue in 1854 was $£ 14,098$; belng, custom duties on inports, $\mathbf{£ 6 4 8 2}$; on tonnage, $£ 744$; assessed and other tuxes, $\mathbf{£ 6 8 7 2 \text { . The nett expenilture for that }}$ year was $£ 18,505$. The total population in 1854 was 24,123 , of whom 480 were male and 517 femsle whites, 11,081 male and 12,095 female persons of eolor. The chief town of the Island is Custries, which contalus sbout $\mathbf{3 0 0 0}$ persons. St. Lucin was tirst colouized by Engilsh settlurs in 1639, but these were soon after driven off by the Caribs. About 1650 the French effected a settlement, and from that time to 1803 , when it was tinully capitured by the English, it betonged alternately to Franco and Eugland. The government is administered by the commanding officer of the troops, a lleutenant-governor, and an executive councll, consisting of the colonial eecretary, the attor-ney-pencral, and the secoud military officer. There is also a legislative ceuncil, composed of tive official and tive non-offictal mombers, in which the celonisi secretary and nttorney-general have seats and votes, and of whieh the commanding officer is presldent. The
altered by orders of council; are the lawa of France, antecedient to the Code of Napoleon.

Lufir, the order from the pllot to the stersman to put the helin toward the lea side of the ship, in order to make the shlp sail nearer the direction of the wind. Hence, luff round, or luff a-lee, is the excess of this movement, by which it is intended to throw the shlp's head up in the wind in order to tack her. A ship is also sald to spring her luff when she yields to the efiort of the helm by salling nearor to the line of the wind than she had done before. Luff Tackle, a name given by sallors to any large tackle that is not destined for any partleular place, but may be variotsly employed as occasion requires. It is generally somewhat larger than the jigger tackle, although smaller than those which serve to hoist the heavier materials into and out of the vessel; which latter are the main and foretsekles, the stay and quarter-tacklee, and so forth.

Iug-Bail, a square sail, holsted ocensionally on the mast of a loos or small vessel, npon a yard which hangs nearly at right angles with the mast. These sails are more particularly used in the barca-longas navigated by the Spanlards in the Moditerrancan.

Iumber. One of the distinguisning characteristics of the United States is the quantity of $v, o o d$ and lumber they furnish. Of the well-wooded countries of the world, Russia, Sweden, Norway, and Amerlea, this country, no doubt, ranks as first. A discriminating writer, Volney, onee described this country as "one vast forest, diversified occasionally by cultivated intervals." If this is less true than it was a century or even half a century ago, it applies in the main at the present moment. Evon the oldest States of the Union, such as New Harapoh ire, New York, and the Carolinas, are still famois for both the quality and quantity of thelr lumber. And Maine, that had nomething like settlemente before any other portion of New England, is to this day the great lumber State of the land. lience, perhape, the name it sometimes gete the Pine-tree State. The trees of any country are valuable for at least four distinct purposes, for fuel, for shelter, for the fool many of them afford, ind for ornament. In the last point of view, which is generally considered the least important, irees are of much consequence. England has oftained the name of an extensive garden, very much through its beantlful snscle trees and shrubbery. One half of the beauty of many of our New England villages would be lost in the warm seasen without their elegant naturel sereens in the shape of trees. It was Lord llacon who said that "a tree in full leaf is a nobler object than a king in his coromation robes." No artist would ever think of presenting a tine lindseape without trees, And eo iniportant are trees regaded as objects of beauty and shade, that ornamental tree assoclat'ons are springing "ri in different parts of the country, whose olijects are to adorn streets and highways with our beautiful eimas, maples, and evergreens.

It is stated by Michanx that the Inited Statos there are 1.10 species of torest trees which attain a greater height than 30 feet, while in France there are only 18 of the same description. And we suppose that the con:purison would be similar if exiended to Grest Britali, Spuin, or Germany. No wonder, then, that our forest scenery so much surpasses that in the west und eouth of Eumpa, and that Eamopean travelors tilink that it la worth while to ceoss the Atlantic to see our forest seenery as painted by the Invisible artist every nitumn.

So great is the interost in portions of Europe to promote the growth of foreat trees that assoclations have theen formed in Germeny and other countriss to plant forests upon soll udapted to thoir growth. The vast amount of forest trees unnually used by such a country as Great Itritnin may be estinated by the fact that to build a 70 gun ship 40 acres of ship timber are re-
quired. In the light of auch a fact, it may be meen | eate aiready existlog, and to promote the growth of that it is none too early for the people of this country $\left\lvert\, \begin{aligned} & \text { others-on the waste lands thit already ebound in va- } \\ & \text { rious wections of the conntry }\end{aligned}\right.$


| " Dietriata | 8 bingles |  | Boarda, planka, and cowatimy. |  | Hewh timber. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. fel. | Dolliart: | 3. Fept. | Dollare. | Tome. | Dollara. |  |  |  |
| Pasemmaquoddy | 844 | 1,416 | + 8,485 | 84941 | .... | -*.. | 4.698 | . $\cdot$ | Dollara. |
| Machiss..... | 259 | 624 | 3,881 | $48,48$ | ...* | .... | 801 | .... | - 40 |
| Frenchman's Bay...... |  |  |  |  | .... | ... | i98 | .... | 3,698 |
| Ponoberot.. . . . . . . . . . . . . . . . . | 88 | 71 | 1,998 | 87,881 | **** | . | 196 | ..... | 8,174 16859 |
| Bath... | 68 | 08 | 1,718 | 81.881 | ..... | .... | 64,043 | * | 16,852 |
| Portand mad Falmonth. | 256 | 689 | 8.918 | 118,206 | . * | .... | 180,075 | . | 1,147 419,657 |
| 8 eco | . ... |  |  |  | ** | . . . |  | -.. | 41, 6,584 |
| Bollat. |  |  | 8,165 | 87.679 | .... | .... | 56 | . | 87,1/83 |
| Bangor | 4,003 | 12,261 | 8,18\% | 106,418 | .... | .... | 8,510 | .... | 28,652 |
| Vermont........... ... | - ...is | 978 | 88 | 19\%8 | .... | .... | 89 | . $\cdot$ | 10,078 |
| N6wbary port. . . . . . . . . | 65 | 976 | 86 | 1,708 | ... | . | 89 | .... |  |
| Glotucester. . . . . . . . . . . | '89\% | 808 | 108 | 1,794 | .... | $\cdots$ |  | . . . | 4,410 |
| Balem . . . . . . . . . . . . . | 897 | 898 11890 | 817 11768 | 14.687 | 886 |  | 298889 | $\because 80$ | 21,804 |
| Boeton sad Charlestown | 8.275 | 11,890 | 11,766 | 226,964 | 286 | 6,857 | 243,572 1,401 | 5,568 | 410,404 |
| New Bediord |  |  | 18 | ¢70 | . | ..... | 1,401 | .... |  |
| Providepee. | -i51 | 606 | 419 | 6,006 | .... | .... | *** | ... | 811 |
| Bristol and W | .... | .... | 157 | 2,468 | .... | 1.... | ... |  | 28, 100 |
| Nowport... | .... | .... | 199 | 4.040 | .... | , | . . | $\ldots$ | 11,189 |
| New Iondon | .... | *... | 448 | 11,076 | ... | .... | 868 | ... | 42,661 |
| Naw Ilaven | .... | .... | .... | .... | $\cdots$ | .... | 1,446 | .... | 10,671 |
| Beokate'M Harb | ... | .... | is | 870 | ... | $\cdots$ | .... | 800 | 98 |
| Genetee |  | .... |  | 8,708 | *** | .... | ... | 8090 | 87.753 |
| Onwogn . . . . . . . . . . . . . . . . . . . . | * 8 | if | 8 | 6,806 | ..... | .... | 1809t | 8,087 | 4,905 |
| Natinio Cree |  | 17 | 181 | 2.897 | ... | ... | 18,091 | Bion | 34,453 |
| Onwegatehle. | ..... |  |  |  | .. | . | $\ldots$ | 350 | 84,841 |
| Now York. | 2,581 | 14,818 | 97,469 | 654,911 | .... | .... | 85.724 | 87,694 | 778,789 |
| Champlefa. |  | .... | 047 | 6,681 | ... | . . . | 1,829 | 769 | 60, Mm |
| Capa Vlaceat. . . . . . . . |  |  |  |  | . $\cdot$. | $\cdots$ | . $\cdot$ - |  | 41,579 |
| Phlisdelphif.......... . . | 168 | 1,843 | 1,569 | 27,741 | * | . ... | .... | 81,430 | 164,579 |
| Presque Isle. . . . . . . . . . | .... | , | 115 | 8,450 | .... | ... . | is | , | 200 |
| Delsware. |  |  |  |  | .... | . . . | 788 |  | 210 |
| Baltimpre. . . . . . .* | 1,850 | 8,995 | 2,108 | 88.483 | .... | .... | 0.850 | 84,643 | 118,640 |
| Creorgetown, D. O. . . . |  |  | 146 | 2,047 | . | .... |  | .... |  |
| Nerfolk and Pertsmouth | 2,993 | 18,600 | 84 | 893 | . $\cdot$. | .... | 3,883 | .... | 89,719 |
| Rlebmond. |  | 19 Mas | ... | .... | .... | . . . | 2,250 | .... | 8,618 |
| Ommden.............. | 5,789 | 18908 | . $\cdot$. | . . . | .... | .... | .... | .... | $\ldots$ |
| Plymonth, N. ©........ | 8.64 | 15,368 | - ${ }^{\text {cis }}$ |  | . $\cdot$. | $\cdots$ | . . . | . | .... |
| Weshington, N. C...... | B,856 | 18.840 | 858 | 11.809 | . . . | .... | et | ... | $\ldots$ |
| Newbern | 1,854 | 4,849 | 580 | 6,793 | ... | . . . | 65 | . . . | .... |
| Oersenke. |  |  |  |  | $\cdots$ | . $\cdot$. | . . . | .... | 125 |
| Reanfort. | 61 | 18.18 | 209 | 2,905 |  |  | . . . | .... |  |
| W'ilmiagtoo. . . . . . . . . . . | 0.048 | 19,686 | 7,213 | 111.441 | 680 | 8.470 | 188\% | . | ..... |
| Charloston. . . . . . . . . . | 105 | 781 | 2,476 | 48, 8513 | 8.197 | 20,008 | 18,975 | ... | 1,829 |
| Greorgetow $\mathrm{m}_{\text {, 8, C . . . . . }}$ | 298 | 024 | 1,590 | 24.563 |  |  |  |  |  |
| gevannah. . . . . . . . . . . | 11 | 4 | 8,8089 | 62.096 | 26,878 | 189,167 | 19,085 | .... | -135 |
| dt. Mary '6. | 8 | 40 | 2,628 | 86.125 | .... | -•• | .... | ... |  |
| Sranamick |  |  | 8,106 | 49,726 | . 090 |  |  | . |  |
| Meblle. . .................. |  | 20 | \$,161 | 88, 8.78 | 982 | 7.756 | 184.093 | .... | 19,322 |
| Pensarols. . . . . . . . . . . . . | 74 | 224 | 4,865 | 68,778 | *.. | .... | 1.620 | .... |  |
| Key West...... . . . . . . . | i07 | Bis | $\because{ }_{\text {¢ }}$ |  | * . $\cdot$ | . $\cdot *$ | - ${ }^{\text {a }}$ | . ${ }^{\text {c. }}$ | 7 |
| Wt. Joho's.. | 107 | 535 | 8.486 | 109.859 | . $\cdot$. | ...' | 405 | ... | ... |
| Apalat bleols |  |  | 860 | 101 |  | . $\cdot$. ${ }^{\text {, }}$ | 14.500 |  |  |
| New Orle ans | 714 | 4,192 | 1,700 | 41,118 | 4 |  | 81,418 | 600 | 28,040 |
| Minmi. |  |  | 105 | 1,050 | 781 | 2,818 | 125 | *. $\cdot$ | .... |
| I dirot | 1,077 | 2,971 | 4,018 | 84,456 | .... | .... | 829 | .... |  |
| Chleapgo... . . . . . . . . . . . . | - | 9if | -8. |  | . $\cdot$, | *** | gis | . $\cdot$. | . . . |
| Tregut . ................ | *2 | 847 | Y85 | 8.409 |  |  | 215 | .... | . ... |
| Hugetas Botend... . . . . . | 848 | 1.646 | 2,24 | 85.48 | 1,666 | 1,090) | 20,829 | .... |  |
| Ben Eranclico.......... | 1,963 | 9.717 | 75 | 1,015 | .... | $\cdots$ | 35,244 |  | 14.811 |
| Total... ............ . | 45,178 | 166,4ण7\% | 126,890 | 1,407. 602 | 84,260) | 284,200 | (0)8,694 | 12:,960 | 2,801, $2 \times 3$ |

This table shows the singular fuct, that Chicago, the and horses, 80,000 ; number of eaw-aitis, 3000; numgreateat lumber market in the world, export in directl) no lumber to foreign countrips.

The State oi Malne, as the head-quarters of the Inmber and ship building trade, has for a long time oxcived much interest. The meason for cutting the timber and bringing it to market commencen in Decer: $y$ or eariler, and cluses in Jrarch or April.
sic atiog te ? "erpf. I eatirrate of Geurge W. Cram,

 The deacrlpt.its an $40,090,000$ of white plne limiser, $18.900,1 / 30$ serthern pioge, $25,000,000$ spruce, $10,000.040$

 lock, "tornd.



ber of vesaels, 1000 . I'ine, rpruce, and hemlock lumber la principally obtained from Bangor, Eillsworth, the Kennobec Kiver, Calaia, Machias, Ciserriticht, Maine, and St. John, New Brunswick, whlle the larger portien of the hard pine grows in North and South Carolina, (ieurgia, Florida, and Alabama. lite and Hiruce, too, are lirought from Canaila to lortland, and It thence shipped to this and other markets. The lumiver seoured from 8t. John la of a superior quatity Iumber is ohtained nlso froas the States of New York, Ohlo, and Mlehigan. Tre two last States furnish black walnut, eherry, ash, white wood, and baxswood; while New York and Jennaylvania furuish a mare of the aame. The railrouda bring to market, oak timber fr in Massachusetts and Ner Ilumpmire. 'lise sonthern and western Staten gruw a portion of the name, and furnish conslderaile llve oak. New York yields a Jurgo quantity of pine. Delaware and Maryland
more epar for ship-b Georgla, lina. It used in ahi in New E parts of misgion ho to be naed will be per more than yasr, show here is no Formerly t except whi within five the stream veyed for 8 Is floated 8 shipped to The recl ed between sions in No lumber tra sbound in $\mathbf{t}$ some iden provinces l built in the den ; while amounted to Most of the In the city on Colonial building est The vessels In 1849, 114 36,534 tons Brunswick a Doveste Ex

Staves, shing
Other lumber
Masts and apa Oak bark and Alf manilact Naval stores
rosia, ete.. Ashes, pot an Total....
Of theso stores go to ber to Cuba.
The shipconsumes a sels built in 370,649, ani consuming sons employ mated value \% $5,000,000$. articles yequ the value wa
There wer vessels of all About a six have been 1 whole, then, 000,000 . It unustal, ond struction of that single $y$ The lumb custs 830,00 may form si erected in the of all other the lumber
more sparingly. It is atated that the oent hard pine for ahlp-building grows on the Alatamaha River in Georgia, and on the Waccamaw River In Sonth Carolina. It la but a few years alnce bard pine has been used in ship-building. It is now omployed extensively In New England, and is considared as good for many parts of a ship as oak. During the year 1854 a commission house of thia city sold alout $23,000,000$ of feet, to be used mostly jn Massachusetts and Maine. It will be perceived that this house sold $5,000,000$ feet more thun all that was anrveysd in the elty for that year, showing how large a part of the lumber sold here is not aurveyed under our surveyor-general. Formerly there wss no hard pine obtained at the Bouth axcept what grew immedaitely upon the rivers. But within five or six yeara the timber upon the margin of the streams has become scarce, so that now it in conveyed for sevoral milen to the rivers, and in some cases is floated 300 miles to some sea-port, from whence it is shipped to the North or to ferelign ports.
The reciprocity treaty that has recently been effected between the Unlted States and the British possessions in Nerth America ls quite sure to increase our lumber trade, es Canada and the other provinces abound in this great staple. A few statisties will give some iden of the wealth and activity of the Britsh provinces in this department. In 1832 the new shlps buitit in the British colonles were of 32,778 tona burden; while in 1841 the tonnage of the shlps built amounted to 108,038 tons, and in 1850 to 112,787 tons. Most of these ships were built for the British markst. In the city of Quebec, according to Andrews'a Report on Colenial and Iake Trade, there are about 25 shipbuiding establishments, and 8 or 10 floating docks. The vessels bulit there aversge from 500 to 1500 tons. In 1849, 114 vessels were buitit in New Brunawlek, of 36,534 tons burden. Most of the ships built in New Brunswick are censtructed in St. Jehn and St. Andrewa.
Doyestic Exports of Lumeka afo Naval Stores frof til Unitm Statys.

| 1853. | 1854. | 1883. |
| :---: | :---: | :---: |
| 8taves, shingles, beards, etc. $2,578,149$ | \% $5,122,884$ | \% $4,609,665$ |
| 'Other fumber . . . . . . . . . . . . 129,743 | 165,178 | 677, 6081 |
| Mavts and spars. . . . . . . . . . . 189,623 | 180, 022 | 804,643 |
| Oak bark add dye. ........ 118, 594 | $\begin{array}{r}95,868 \\ \hline\end{array}$ | 99,168 |
| All manufactures of. . . . . . $2,294,122$ | 2,597,270, | 3,688,420 |
| $\left.\begin{array}{c}\text { Nsval slores, tar, pitch, } \\ \text { rosin, etc................ }\end{array}\right\} \begin{aligned} & \text { 1,406,488 }\end{aligned}$ | 2,960,806 | 2,049,456 |
| Ashes, pot and pearl. ...... 884,881 | 822,728 | 448,499 |

Total
$\ldots . . . . . . . . . .$.
Of these exportationa, more than half of the naval slores go to England, and more than half of the lumber to Cuba.
The ship-building Interest alone of Massachnsetts consumes a vast amonat of lumber. In 1837 the ves. sels built In the State were estimated to be worth 81 ,370,649 , and the agricultural and damestic artlcles consuming lumber were worth $\$ 2,952,317$. The persons employed in this handiwork were $\mathbf{3 9 5 0}$. The extimated vaiue of ahips built in thils State in 1854 was \& $5,000,000$. If the value of agricultural and other articles requiring tinther adraneed in the same ratio the value was fuily $10,000,000$ for that yoar.
There were built in the United States in 1854, 1774 veasels of all descriptions, with a tonnage of $5: 3,636$. About a sixtl of the value of the whole we flud to have been built In Massachusetta. The value of the whole, then, in round numbers, may be stated at $\$ 30$,$000,(0) 0$. It la true that the demand for vassels was unusual, and the prices obtained tha same. What de. struction of forests was made by the ship-binilding of that single year !

The lumber trade of this country in limmenan. It costa $830,000,000$ a year to bulld our ahips, and we may form some ilea of the cost of all the buidings erected in the country for a year, and then of the cost of ali other articles made of wood, and of the coat of the lumber material required.

| Whtther exporied, | Hown | Umimer. | Oiher tumber. | $\begin{aligned} & \text { Care barkt } \\ & \text { and ot osor' } \\ & \text { dyo. } \end{aligned}$ | $\begin{aligned} & \text { If घinana } \\ & \hline \text { celureo of } \\ & \text { wrod. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tana. | Doilhrs. | Dollera. | Dollara. | Dollara. |
| tie \& North Seara |  |  |  |  |  |
| 8 Breden and Norway |  |  |  | 7 |  |
| Swedled Weat Indlea |  |  |  |  |  |
| Danlah Weat Indles, |  |  |  |  | 11 |
| Bremen | 862 |  |  |  |  |
| Other Ger |  |  |  |  |  |
| Itolland. | 068 |  | $\ddot{24,104}$ |  | 831 |
| Dateb Weat Indt |  |  | 2, |  | 2,810 |
| Dateb Gulana | 80 | 600 | 4,185 |  | 4,848 |
| Dntch East |  |  | 1,270 |  |  |
| Eng | 12,151 | , | 76,988 |  |  |
| Bcotl | 8,116 | 22,183 | 140 | 6,505 |  |
| Irela | 1,118 | 8,097 | c65 |  | If 110 |
|  |  |  | 897 |  | , 1,788 |
| Canad | 781 | 2,616 |  |  |  |
| Other Br. N. A. | 0,525 | 40,567 | 9,1065 | 10,464 | 57,198 |
| Britah Weat Ind | 341 | 2,361 | 4,027 | 2,442 | 82,489 |
|  |  |  | 160 |  |  |
| British pos is Africa |  |  | 2,578 |  | 10,480 |
| Britiah Australia. |  | .... | 21,660 | .... | 18,190 |
| Now Zealaad. |  |  |  |  |  |
| British East Jadies.. | 78 | 1,043 | 12,881 |  | ,44 |
| France on the Athan. | 1,019 | 11,725 | 99,057 | 16.278 | 87,255 |
| France on tho Med. |  | .... | 18,199 | 5,776 | 1,791 |
| French N. Anser. pos. |  |  | 178 |  |  |
| French Ontana. |  |  | 88 | .... |  |
| Spain on the Atiantic | 305 | 8,2\%25 | 11,144 | 152 |  |
| spain on the Medit. | 879 | 6,105 | 16,711 |  | 27 |
| Canary Islanda.. |  |  | 1,140 |  |  |
| Phllipploe Island |  |  |  |  | 1,900 |
| Cuba... | 1,128 | 6,885 | 351,285 | 665 | 197,884 |
| Porto El | .... |  | 12,361 |  | 107,241 |
| Portugal |  |  | 41 | 14 | 10 |
| Madelra |  |  |  | … |  |
| Azorea | 00 | 1,361 | 46 |  |  |
| Sardinia |  |  |  | 200 |  |
| Papal |  |  |  | 400 |  |
| Anatrla |  |  |  |  |  |
| Turkoy II Europ |  |  |  |  | , |
| Turkey in Asfa. |  |  |  |  | 10 |
| Other ports in Afrlea | 20 | 290 | 1,799 |  | 28,426 |
| Hayll. |  |  | 8,055 |  | 102 |
| Mexle |  |  |  |  |  |
| Central Rop |  |  |  |  | 8,148 |
| New Gra |  |  | 6,050 |  | 28,961 |
| Vonezne | 24 | 824 |  |  | 18,560 |
| Brazill. | 685 | 4,071 | 8,080 |  |  |
| Uragusy | 646 | 5,168 | 2,259 |  | 6,81 |
| Buenos 4 | 600 | 8,599 | 7,585 |  | 24,66 |
| Chill. |  | .... | 11,782 |  | 89,381 |
| 1 Peru |  |  | 1,972 |  |  |
| Ecuador | 956 | 1,190 | 2,000 4,831 |  |  |
| China. | 869 | 4,410 | 94,298 |  | 8,32 |
| Whalo | .... |  | 16,763 |  | 52,580 |
| Total | 84,200 | 284,969 | 809,684 | 121 |  |

Lute, a substance used for making vessels or apparatus air-tlght, by closing the apertures of their jointa, or for costing, so as to enable thein to bear a higher temperaturs, or for repairing a fracture. Clay is the basia of masy lutea; whence the term, from lutum, clsy. Among the princlpi lutes are Stowerbridge clay, in fine powder, inade into a paste with water; Windsor loam, a naturs mixture of clay nad sand; Wilis's lutd, a thin paste made of a solution of borsx, in boins; water, with slncked lime. Mixturea of borax and clay also form useful lutes. Whst is called fat luts is a mixture of pipe-clay with drying linseed-all. Caustic lime furnisiea, by admixture with orther bodies, a varicty of lutes. A mixture of lime and white of egg, or glue, forms a powerful cement. Cron cement is useful for making johints tight, as is alao white lend ground up with oil and apread on atrips of cloth. Among the other substances used us lutes, may be mentiotsa: molatened bladeler, paste, and paper ; pajeer propar with a mixture of wax and turpentine, linsced-me $u$, and canatchouc. The last named substance is in exten-
olve nee for making chemical joints or olastio connectors, getting rid of that rigidity: which, in a complicated arrangement of apparatus la coliable to lead to acoidont.

Inte, atringed Inetrument of muale, long aince superseded by the harp and the gultar, but for centuries very fashlonable in Europe. The music for the lute was writton in tablature.
Tuzury. The Instances of extravagance and luxury are numorous in the history of almost all conntries, anciant and modorn, and many- lawa have been enforced to represe them. : Horace mentlons fuwls dressed in Falornias wine, musclea and oyaters from the Lucrine lake and Circean promontory, and black game from the Umbrian forests,-Iardver. Lunullus, at Rome, Fis distingulahed for the Immedorate expensee of his meals. Il is halle were named from the different goda; and when Cleero and Pompey attempted to surprive hlm, they were amazed by the cootlinese of a supper which had been prepared upon the word of Lucullus, who merely ordered his attendants to serve In the hall of Apollo. This feast for three persons casually mat would have auficed for 800 nobles opecially Invited. In Englaud, luxary was restricted by law, whoreln the prelates and nobllity were confined to two conrmes every'meal, and two klinds of food In every course, oxcept on great feotivalo. The law alvo prohiblted all who did not onjoy a free entate of $\mathbf{\Sigma 1 0 0}$ per annum frum wearing sirs (see Funs), skine, of sllks: and the nee of foreign cloth was confined to thi royal family alone: to all others lt was prohibited A. D. 1837. An edlet was lasued by Charies VI, of France whleh anid: "Let no man presuma to treat with more than a soup and two dishes." 1340.-Maydn.

Iying-to. A nautical term denoting tive state of the ehlp when the aails are so dlsposed us to sounteract each ocher, and therehy retand or dest roy the srogreasIve motlon of the vessel. The fore and main s'ay-kails and mizzen try-sail serve very well f . chis purpose, as they cause but litt's way, and b* dfficient power to keep the ship heeted over, and therefore ateady, with her decks turned from the sea. When the rea runs very high, the lower salls are llable to the becalmed by the waves, and therefore to suffer the ahip to roll to wind ward; the malntop-sail is then med.
IyOns ( Yr . Lyom, ancient Ingdunum), the capltal of the French Department of Rhone, and till rucently ranking, In point of population and commercial importance, as the necond eity of the empire; but the last census returns ehow that in the former of these reapects it has leen exceeded by Marseilles, It la situated at the junction of the Saine with the Rhone, and on the Paris and Marnellles Ruliway, 316 miles frotn the former, and 218 from the latter city; lat. $45^{\circ} 45^{\prime}$ $45^{\prime \prime} \mathrm{N} ., \mathrm{long} .4^{\circ} 49^{\prime} 33^{\prime \prime}$ F. ; elevation alove the level of the sea, 963 feet. The livera thône and Saóne heIng looth navigable, it enjoys great faclitien for trade; but it is as a manufacturing eity that it la chlefly cet. obrated; and in this reapect it is juatly elititled to the name of the French Manchester. Tbe staple articles of manufucture are ailk stuffis of all descriptiona, and whleh for richness and beauty are unequaled. In this manufacture about 100,000 of the population are either actively or Indirectly concerned. There are no exuct athtiatice of the silk mannfacture at liyons; but the following extract from a letter by the I'resident of the Chamber of Commenceat I.yons, dated Irecenber 19, 1863, is mald to give very naarly the exact results : " Juring the present year, and the two preceding, the manufacturern of silk at L.yous have employed about 60,000 machines (metiers), acattered over a district of alwat 40 miles. These machises have consumed alout $2,600,000$ kilogrimmes of allk ( $5,500,000 \mathrm{Jbm}$ ), valued at $160,000,000$ france ( $\$ 32,000,000$ ) ; and the manufac-
trared' atuffrat at $250,000,000$ france ( $050,000,000$ ). It le entranted that the home consumption amounte to one fourth or one thind of that quantity. The balarice is ex ported to all parts of the civilized world $;$ but b: fur the largeat foreign market ls found in the vidited States:" The allk manufacture in Lyons is not er rried on in lazge fectories, but on the domestio syotur in the dwellinge of the mator-wcarvers, each of which hes nsually from two to aix or alght looms, which, with tholr fittings, are gemerally his own property. IIlmcolf and as many of his family as can work are employed on these booms, and frequently alps one or more compagmont, ur'journoymen. The numlerr of masterweavars In the oity and anburbe la esticicated to be about 9000. . The ailk merchante, of whon there are about 600 in Lyoss, oupply the ollk and patterns to the owners of looms, who are intrusted with the task of producing the wob in anished atato. The weav Ing populatlon, though earning comparatively good wages, are an lguorant and degraded race, living in a diagracofully filthy state, and anowing little denire to lmprove thelr econdition. Few of 'so journeymen ever raise themaelvea to be master-weavers. The ailk manufucture was established here $k ;$ Itulian refugees in the middle of the 15th century. It was aearly ruined by the revocation of the edlet of Nantes, which dispersed most of lts best workmen to Spltalfields, Amsterdam, Crefeld, and other places. Lyons has nomeruus dyoworks, printing entablishmenta, founderies, flasgo works, potterien tan-yarle, breweries, chemical works, boat-building yards, erc.; but these are all insigniticatat compared with its chief hranch of lndustry. The commerce carried on by meana of the rivers is very considerable. The town is built principally on thr tonepis ui iand, or penineula, het ween the khone and Saone, each of which is erossed hy elight or nine bridges communicuting with axtensive ouburbs lying to the east and west. The old portion of lyons conaists ehiefly ef narnow, crooked, and dirty atreets, rendered dark and gloomy by the grent height of the houses on each slde, which are generally seven or eight stories high. Aloout tbree fourths of a century ago, the point of confluence of the two rivers was romoved about a mile further south, and on the alditional terrioory thus acyuired the suburb of l'errache was formed. This has been laid out on a regular plan, and now coutsins many elegant streats and some very agreasble promenades. The suburb of La Croix Konase, to the north of the town, and that of Fourvieres, on the right bank of the Saone, are chietly inhibited ly silk=weavers. Those of Brotteaux and Guillutiere are on the left bank of the thine. The best view of the cown and neighborhood is obtained from the summit of the ateep hill of Fourvieres, on the right luank of the Saone. The fortifications of Lyona consiat of 18 detached forts, erranged in a circle of $12 \frac{1}{2}$ miles around the town, crowning the helghts of St. Cruix and Fourvières, and of Croix liousse, alove the suburb of that name, and including In its circuit the auburbs of Brotteaux and Guilloticre. These fortilleations are required more to quell insurrections among the Inhabitants than to withatand attacks from without. In 1831, 1834, and 1837, formidable riota tools place, in which many lives wero mat. Both banks of the Stônc and the left bank of tike thone are lined with quays, susie of wbich are phanted with trees, and afforl very agreeable promenades

In the revclution of 1793 , the people of Lyons hav. ing declared agalust the revolutionary party, the city was laken by the cons sentional army after a seige of upward of two montha, and almost reduced to ruins. It suffered sevorely from the inundations of its two rivers in June, 1856. Population in 1851, 156,169.-E. 17.

> Macad macadamis and respeet born $\ln \mathbf{A y}$ inproveme for a distrit into practh been appol plalned hia Beay on the lic Roads, 1 Stats of Ro appointed $\mathbf{g}$ snme whloh of thie offic grante from 000 . The 1 was conferre 1886.

> Maono; Portugnese, mouth of thit $45^{\prime \prime}$ N., lon strikingly re the extreml south-west a is joined by a which is not erected, with the Chinese peninsula liel anst to southunder half a the town, is well cultivate all sorts of A Provisiona ar island or fro Portnguese d thorities, the obliged quiot! pass beyond assigned to may amount $t$ erably more t belonging to Csuton reside season. The in 1586 . It $v$ great trade es Japan, Siam, etc. ; but for compuratively that, If it bel people, it milx prosperity. senate compos the principal the hands of town.

> The harior it and I'rieat' sufficiently de anchor in the from tive to te All versels ed the l'ortugues town. When generally bou Macue roads. proceeds tu nation she be


Maoadam, John Loudon, the Introducer of macadamised road-mating, was descended from an old and respectable family in Kirkoudbrightshire, and was lom in Ayrshiro, Scotland, In 1756. His plan of rond limprovement occurred to hlm when acting as trustee for a district of roads in Ayrsblre, and was tiss carried fato practice on the Bristol roads, of whieh he had been appolnted aurveyor-general in 1815. He explalaed his syatem fully in two works-A Practical Fsony on the Aoiencififo Repair and Presercation of Public Roads, London, 1819 ; and Remarises on the Present state of Road-making, London, 1820. In 1827 he was eppointed general surveyor of roads; and for the large soms which be expended while performing the dutles of this office, he was afterward compensated ly two grants from goverament, amountling together to $£ 10$,000 . The honor of knighthood, whlch he declined, was conferred upon his son In 1884. Macadam disd in 1886.

Macao, a sea-port and settiement belonging to the Portugnese, on the island of the same name, at the mouth of the Canton Klver, in Chins, in lat. $22^{\circ} 12^{\prime}$ $45^{\prime \prime} \mathrm{N}$., long. $118^{\circ} 35^{\prime} \mathrm{E}$. The eltuation of Macao strikingly reeembles that of Cadiz. It is built near the extremity of a peninsula projecting from the sonth-west corner of tha isiand of Macao, to which it is joined by a long narrow neck. Across this iethmus, wiich is not more than 100 yards wide, a wall is crected, with a gate and guard-house in the middie for the Chinese soldiers. The greatest length of the pesiosuis helonging to the Portuguese, from northcast to south-weat, is under three miles, and its breadth under half a mille. The broadeet part, to the nortil of the town, is dat, and of a light, sandy soil; but is weil cultivated, princlpally by Chinese, and proluces all sorts of Asjatic and European culinary vegetables. Provisions are obtained from the Chinese part of the island or from the maln land; and wisenever the Portuguese do any thing to offend the Chinese authorities, the provisiona are cut off till thay are obliged quietly to submit. They are seldom aliowed to pass beyond the narrow precincts of the territory assigned to them. The population of the peninsuia may amount to from 12,000 to 18,000 , of whon conslderably mere than half are Chinese. The functionaries belonging to the East Indis Company's factory at Canton resided bers during the whoie of the dead season. The Portuguese oltained possession of Macao in 1586. It was for a considerable period the seat of a great trade carried on not only wlth China, but with Japun, Siam, Cochin-China, the Philippine Islands, etc.; but for these many years past it has been of comparatively little importance, though it is probable that, if it belonged to a more enterprisiug and aetive people, it might stili recover mont part of its former prosperity. The public administration is vested $\ln$ a senate composed of the bishap, the judge, and a few of the principal inhahitants; but all resi authority is in the hands of the Chinese mandarin reaident in the town.
The harior is on the west sile of the town, hetween it and lrieat's Island; but the water in It not being sulliciently deep to uilmit large ships, they generally anchor in the roals on the other side of the peninsula, from five to ten wiles enst reuth-east from the town. All vessels coming into the roads send their boats to the Portuguese custom-house on the south sile of the town. When a nhip arrives among the inlands, she is goneraily bourded by a pilot, who carries her into Macao roads. As soon as sile is anchored, the pliut proceeds to Macau to inforn the mandarin of the nation she belungs to. If there lie any women on
board, application muet be mado to the biahop and senato for leave to send them on shore, as they will not be permitted to proceed to Whainpoa in the ship. As soon as the mandarin has made the necessary inquiries, be onders off a river pilot, who brings with him a chup or license to pasa tha Bocca TIgria, or mouth of the Canton River, and carries the shlp to Whampon.
The Cblnese regulations do not permit any vessels, except auch as belong to Purtuguese or Spaniards, of which there are very few, to trade at Macho. But the Portuguese Inhaliltants lend their names, for a trifling. conalderation, to such fortigners as wish to be assoclated with them for the purpose of trading from the port. Independently, however, of this, vesseis of other natione usually experiencs no difficuity in obtalining the connivance of the Chinese officera to the landing or recelving of goods in the roads hy meana of. Portuguese bonts. At intervals the prohihitory regulation la atrictly enforced. Vessels of other nations, if in distress, and nut engaged in the contraband trade, are admitted into the hartor for repairs, on applicution to the senste.

The following summary exhilhits the dlrect trade between the United States and Macao during the years 1854 and $1805-$-the latter year up to Murch 6th: Arrived, 3 barks and 1 shlp, measuring 1828 tone, laden with ricc, sundries, solt provisions, and mlscellaneous goods. The return cargres were chiefy Coolies.
Port Charges.-The measurement duty paid by Spanish and l'ortuguesc vessela is moderate. When a vessel has once paid the full amount, and as mis ritted on the list of registered ehips belongin thite port (limited ly the Chinese to 25), she is liavel io a third of the original charges, on every swbsequeut occaslon of her entering, so long as she continues on the register. Portuguese vessela from Europe do not possess this privilege, unless they be registered as belonging to a morador of Macao. The rates of measurement duty, which vary, ss at Canton (which eee), on thres classes of vessels, are the following: On vessels of 154 covids and upward, $6 \cdot 223$ taels per covid; on vessels from 120 to 104 covids, 5.72 taels per covid; on vessels from 90 to 120 covlds, 4 taels per covid.
These rutes are nearly the same as those levied on Canton junka trading with foreign countries, and ought, in fact, to be entirely so. The dimensions are taken and calculated in the manner formerly practiced at Canton; but the Chinese, at both places, speak not of the covid, but of the chang of 10 covids. However, as this is only a decimal increase, it makes no difference in the method of calculation. The following additional charges, to lie calculated on the amount of measurement duty, are the same on every class of vessel2, vix.: 2 per cent. for inspectors; 8 per cent. for difference in welght by the treasury scales; 10 per cent. for loss in melting; 17 per cent. for making sycee. Also the sum of $\mathbf{7 0}$ taels for the "pubilic purse," or hoppo's treasury.

In addition to these, the following aro the charges levied by the hoppo (cullector of customs), or hls deputy: On a 1st class vessel from Europe, 250 taels; if belonging to Macao or Manilla, 50 taels. On a 2 d elass vessel from Europe, 240 tacis; if belonging to Macuo or Manilla, to theis. On a 8d class vessel fro:n Europe, lio tuels; If belonging to Macao or Manilla, 30 taels. Ships importing rice sre exemit from tho measurement duty, and pay only $\boldsymbol{\$ 5 0}$, as fees to the procurador of Mucav and the officers of his department. Portuguese vasscls from Liarope, in addition to the measurement duty, have to pay to the Canton

## MAC

hong merchants a charge, termed by tho Portuguese, IIanistagem, or Consoo charge, which is usually a matter of opeelfic bargain, varying from about $\$ 200$ on a vessel of 200 tons to $\$ 8800$ and npward on thesa of sond tons, and of larges sizes. The chasgey on goods carried by the inner passage, between Canton and Macao, being generally less than thoee paid on goods to and from Whampoa; and the duties levied by the Portuguese, on artiries of merchandise imported by vessels belonging to Macao, being very modurate 1 the Chinese are often led to engage In speculations on board the Macao vessele the risk being so much lees than in native junks. If the shlp owners conld manuge their expenses so as to be satisfied with only the same frejght as is charged by English vessels, it would probably induce many more Chinege to make remittances in this way.
Opium.-The trade in oplum is prohibited at Macao by the Chinese government, as well as throughout the rest of the empire. It was, nevertheless, formorly carried on to 3 great extent by the Portuguese moraderes, or cltizens, to the exclusion of all others, sven Portuguese who were not citizens. But this reatriction, having occasioned the decline of the trade, it was abolished in 1823, when the senate passed a regulation throwing open the trade to all, without distinction, whether Portuguese or foreigners; mecuring to the latter "hospitality and the utmost freedem in the speculations." At present, however, very little opium is imported, in consequence, it ia said, of the heavy lribes demanded by the Chinese officers, to Insure their conulvance. The trade in now principally carried ou at Lintin, about 30 miles from Macao.

Impe:te.-Goods imported pay at the Portuguese custor -house a duty of 6 per cent. on a fixed valua'ion. bealdes some fees, and Coolie hire. The follow$0 ;, 1$ e few articles extracted from the tariff :

| Artictera. | Vatusalion. | Inaty. |
| :---: | :---: | :---: |
| Cotton............. .......... per pleul | Taels | $\begin{aligned} & \text { Tecta } \\ & 0-249 \end{aligned}$ |
| 'Brost eloth, mldditag.......... per covid | 1.600 | $0 \times 194$ |
| " betterthan ordtnery ** | 0-800 | 0.048 |
| " ordinaty of comrse. | $0 \cdot 446$ | 0.024 |
| Camiet | 1-250 | $0 \cdot 016$ |
| Betel กat. . . . . . . . . . . . . . . . . per pienl | 1200 | $0-072$ |
| TIn.................... . . . . . | 8 | $0 \cdot 400$ |
| Birds' nesta, stat sort. . . . . . . . . . per catty | 22.400 | 1.844 |
| tlattans................. . . . per pleut | 1200 | 0.072 |
| Saltpetre, Bengal............ un un |  | $2240$ |
| coast of (ios ......... <br> Pepper. | $1 \cdot 600$ | 10090 $0-240$ |
| Oplum tmported in Portaguese shtpa,.... <br> " . forelgn ships......... | chest | $10 \neq \mathrm{drs}$ |

Gold and eilver, whether in coin, in bullion, or manufactured, pay, on Importatlen, 2 per cent.; except in Spunish vessels from Manilia, when the charge is 13 per cent.

Eisports.-No duty is levied by the Portuguese on goods exported from Macao; nor does the customhouse take any cognizance of them.

Inties and Charges on Goods landed at Macao.Mincao is a jlace without any mannfactures or commerce of its own. Prices are, in consequence, generally dependent on those of Canton. Money ls usually paid at 72 taels per 8100 . It is a point of some interest to ascertain the internal duties and expenses to which goods landed at Macao are liable hefore coming into the Chinese purchaser's hands at Canten. But the subject in so involved in mystery and uncertainty, the charges varylng according to the quantity of goods laden in one boat, etc., that it is searcely posmible to arrive at any accurate information reapecting it. We believe, however, that the following may be considered as a pretty close approximation to the real amount of charges incurred on cotton landed at Macao:

Portugueso duty, feer, etc., 2-6 inace per picul ; luties and charges on convegance to Canton, 6-3 mace per picul ; Canton charges, llfference of weight,
brokerage on sale, etc., 8 mace per pienl; total, about 2 taels 6-9 mace. The duties and chargen on convey. ance fronı Macao to Canton are, for pepper, 9 mace pe picul; rattans, 4.5 mace per pleul; betel nut, 4-5 mace per pieul.
The hoppo's examiner chargea 00 taels per boat of 1000 pleuls, the largest quankity allowad to le eon veyed ly a single boat ; but the same eharge of of taels is levied, althengh the boat should only contain 100 picals. The duty on exporting goods from Can ton to Macao 5 in some cases less, in other cases greater, than the Whampoa duty. Thue, nankcens to Micso pay 82 per 100 less than to Whampoa, Most deseriptions of silk piece goods also pay less duty. On the other hand, tea, paper, China ware, etc., pay a higher duty to Macao than to Whampoa,
For details as to the Weighrs, Measures, etc., used at Macac, see Canton.

For further particnlars, see IIamicton's Eaet India Grevtteer, art. Macao; Milaunn'm Orient. Com. ; and tLe Anglo-Chiseso Kalendar Conepanion to the Almanac. Macao, 1332.
drimearoxt, specles of wheaten paste formed into long, slender, hollow tuikes, used smong us dressed with cheese, und in souph, trouths, etc. Macaroni is the stme substance as vermicelli; the only difference hetween them being that the latter is made into smaller tribes. Both of thein aso prepared in the greatast perfection in Naples, where they form the favorite dish of ail clapses, and the principal food of the bulk of the populatien. The flom of the hard wheat (gramo duro) inparted froci the Bhek Sea is the best sulted for the manufacture of macaronl. Being mixed with water, it is knesded by moaus of heavs wooden llocks wrought by levers, till it sequires a sufficient degree of tonscity; it is the 2 forced, by simple pressure, through a rumber of holes, so contrived that it is furmed Into heliow evliuders. The name givon to the tuhes depends on their diameter; those of the largest size selng macaroni, the next to them vermicell, and the amallest fedelini. At Genos, and some other places, the paste is colored by an ode mlxture of eaffron; but at Naplea, where its preparation le hest understood, nothing is used except flour and water; the best being mside of the tion of hard wheat, and the inforior sorts of the flour of soft whent. When properly prepared and bolled to a nieety, Nespolitan micaronl asammes a greenish tinge. It is then taken out of the calilion, druined of inc water and lieing saturated with concensrated ment gravy, and eprinkled with finely-grated cheere, it forms a dish of which all clasmes, from the prince to tae beg gar, are passionately fond. Hnt the macaroni used by the poor is merely bolled in plain water, and is rarely eaten with any condiment whatever. The masaroni neually aerved up in Fingland is said, hy those familiar with tbat of Naples, to be a diagrace to the name it iears. When properly preparel, mecaroni is nutrithous and easy of digestion. The lazzaroni pigue themselves on the dexterity with which they ewsllow long strings of macaronl and vermiceili without brenklug them.

Mace (Ger. Macis, Musketembluthe; Ihu. Foelie, Foely, Muacaathoom; Fr. Macia, Fleur de muscade; It. Mace; Sj. Macio ; Port. Maxcis, Flor de noz moscada; Lat. Muria), a thlu, flat, memliranous sulutanre, enveloping the nutmeg; of a lively, reddish yeliow color, a pleasant aromatic smell, and a warm, litterish, pongent taste. Mace should be chosen fresh, tough, oleaginous, of an extreinuly fragrant smell, and $n$ bright color-the brighter the better. The smaller pieces aro eateemed the beat. The preferable mode of packing in in inles, pressed down close and firm, which preserves its fragrance and congistence. It is imported from the Moluecas, where the best is to be found. The finport trade in mace for home conanmption in Great Jritain for three years ending with

3ist Deo 1855,28, (1857) du per lb. Malabar, distinguis ness, and
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Unital
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thina..
Tota
Machir
br the inter very import sented and ground that interests of away, it bel ployment for facilitles ad ery. These some of the States. As mulations," Quar. Ree., Am. Dfondhly North Am. xil, 800.
Macinto Macintorh el merely two India-rubber ; the three beco stout and we horizontal be from this it is b' horizontal paste-like, sol sideralle thje knife edge, w] equally òver 80 or 40 yards ou a horizontal secend costing and fourth m Tro pleces, th with great car being passed $b$ are so thorougs bly and pern doubled and ds which will bea ing before rain Madder ( Garmere; It. ona, Krup; II bia tinetorum), They are long of a goore-quil semi-transpare smell, and a slvely used In it itaparts be 1 cochineal, it ha more durable. Asia Miner, on duced into an Alsace, I'rover tempted in Ens Our supplies at

## MAD

31st Deomber, 1856, was: in 1804, 25,384 :3. ; in $1455,28,563 \mathrm{lbs}$; in $1856,27,299$ lbs. The present (1857) duty on mace imported into Great Britain is 1s. per 1b. A production is met with on the coast of Malshar, au like mace, that at first it is net easy to be distinguished; but it has not the least flavor of spiciness, and when chewed has a kind of resiny taste.

Statement ghowing the larobis of Macg ixto the Unitad States for tia Figoli Ygan mindine duma



Machinery. The effects produced upon the world by the interposition and general use of machinery, are very important. Serioua obstacles were at first presented and objections made by the massen, upen the ground that the use of machinery was eppoaed to the interests of labor. Gradually theae objectiona were away, it being found that there was, and atill is, emplorment for all classes, even with the extreordinary facilities added by the many improvements in machinery. These questions have been fully discuased by some of the ahleat writers in England and th.e United States. As to the "efects of machinery and nceumulations," see Ldin. Rev., xxxv., p. 10f, lvi., 813 ; Quar. Reci, $\times \times x i .1,391$; Fraser, vili., $1 € i$, il., 419 ; Am. Mon/hly, ili., 24 ; Westm. Rev., v., i.11, xiv., 191 ; North Am. Rev., xxxiv., 220, xiv., 401 ; Am. Quar., xii., 800 .

Macintosh Cloth. The manufacture of the Macintosh cloth is a aingular ene. The material is merely two layers of cottin cemented with liquid Indig-rubler; but the junction is so well effected, that the three become, to all intents and purposes, one. The atont and well-woven cotton eloth is colied upon a horizontal beam, like the yarn beam of a leom; and from this it is atretched out in a tight state and a nearly horizontal position. A layer of liquid, or rather paste-like, solution is applied with a spatula, to a conaiderable thickness, and the cloth is drawn under a kaife edge, which acrapes the solution and diffusea it equally over every part of the cloth, which may be 30 or 40 yarls long. The cloth is then axtended out oa a horizontal framework to dry ; and, when dried, a second coating is applied in a similar way; and a third and fourth may be similarly applied if necesaary. Two pleces, thus coated, are next pluced face to face with great eare, to prevent creasing or distertion; and, being passed between two smooth wooden rollers, they are so theroughly pressed as to be made to unite durably and permanently. Cloth, thus cemented and doubled and dried, may be cut and made into garments which will bear many a rough trial and many a deluging hefore rain or water can penetrate.

Madder (Ger. Färberöthe; Du. Mee; Fr. Alizari, Gamance; It. Robbia; Sp. Granza, Rubia; Rue. Mariona, Arrop; Ilind. Munjith), the roots of a plant (Kubia tinctorum), of which there are several varieties. They are jung and slender, varying from the thinkness of a goose-quiil to that of the little finger. They are semi-transparent, of a reddish color, have a atrong smell, snd a mmooth bark. Madder is very extensively used in dyeing red; and though the color which it imparts be less bright and beautiful than that of cochinesi, it has tite advantage of being cheaper and more durabie. It is a native of the south of Europe, Asia Minor, and India; but has been long since introduced into and successfully cultivated in Holland, Alsace, Provence, etc. Its cultivation has been attempted in England, but without any benefleial reault. Our aupplies of madder were, for a lengthened period,
almost entirely derived from 1 olland (Zealand) ; but large quantitios are now imported from France and Turkey. Dutch or Zealand madder le never exported except in a prepared or manufactured atate. It is divided by commarcial men into fonr qualities, diatinguished by the terma mull, gamen, ombro, and crope. The roota being dried in stoves, the firat species, or mull, conalats of a powder formed by pounding the very small roots, and the husk or bark of the larger onea. It is comparatively low priced, and is employed for dyeing cheap dark celora. A second pounding separatea about a third part of the larger roots; and this, being aifted and packed separately, is sold here under the name of gamens, or gemeens. The third and last pounding comprehends the interior, pure, and bright part of the roots, and is sold in Heliand onder the siame of kor lraps, but is here simply denominated erops. Sometimes. however, after the mull has been aeparited, the entire residue ls ground, aifted, and packed together, under the name of onberoofde, or ombro. It consists of about one third of gamene, and two thirds of erope. Prepared madder should be kept dry. It attracts the moisture of the atmosphere, and is injured by it. The Smyrna or Levant madder (Rubia peregrina), the alizari or lizary of the modern Greeks, is cultivated in Bootia, along the border of Lake Copais, and in the plain of Thebes. It also grows in large quantities at Kurdar near Smyrna, and In Cyprus. The maduer of Provence h.as ween raised from seede carried from the latter in 1761. Turkey madder affords, when properly prapared, a brighter color than that of Zealand. It is, however, imported in its natural state, or as roets: the natives, by whom it is chiefly produced, not having industry or skill aufficient to prepare it like the Zealanders, by pounding and separating the skins and infucior roots; so that, the finer colering matter of the larger roots being degraded by the presence of that derived from the forner, a peculiar process is required to evolve that beautifui Turkey red which is so highly and deservedly esteemed.-Tuom8on's Chemiatry; Bancnort on Colors, vol. ii., pp. 221-278; see also Beelmann, IIist. of Inrent., val. iii., art. Madder.

In France, madder is prepared nearly in the saine manner as in Zealand. The following details are in regard to its cultivation, price, etc., in Provence.

This town (Avignon) is the centre of the madder country, the cuitivation of which was introduced here about the middle of the 18th century, and, with the exception of Alaace, ie stitl conflned (in lirance) to this Department (Vaucluse). The soil appears to be better adapted fur its cultivation here than anywhere else, and it has long beer the scurce of great wealth to the euitivators. Of lutc years, however, the prices have fluctuated o much, that many proprietore have abanduned, or only occasionally cultivated this root, so that the erop, which was formerly estimated to average 500,000 quintals, is nuw aupposed not to exceed from 300,000 to 400,000 . The root 18 called alizari, nnd the powder (made from it) garance. The plant is raised from eeed, and requires three years to come to maturity. It is, however, often pulled in 18 months without injury to quality ; the quantity only is smaller. A rich eoil is necessary for ita successful cultivation; and when the suil is impregnated with alkaline matter, the root acquires a red color; in other eases it is yellow. The latter is preferred in England, from the long habit of using Dutch madder, which is of this color; but in France the red sells at 2 francs per quintal higher, being used for the Turkey red dye. It is calculated that when wheat s6lls at 20 franes per liectolitro, alizari should bring 85 franes por quintal (poids de table), to give the same romuneration to the cultivator. That is, wheat 63s. per English quarter, and alizari 84s. per English cwt. The price has, howover, been frequently us low as 22 franes per quintal. Prices undergo a revolution every 7 or 8 years, touch-
ing the minimum of 22, and riaing as high ay 100 trancs. An in every similar case, she high prices induces axtonalve cultivation, and this genarally produces itn fuil effert 4 or 5 yeass after. The produce of Alaace, ohleh in inferior both in quantity and qualIty to that of Vaucinse, is genorally sold in Strasbarg market. Finginad employs both the root and the powder, according to the purpone for which they are intended. The Datch madder is more employed by the woolen dyera, aud the French hy the cotton dyers and printers. In making purchases of ganance, it is essential to employ a hoane of conaddence, hecanne the quallty dependa ontirely nuon the care and honesty of the agent. The finent is prodiced from the roots after being cieaned and stripped of their bark. The recond loy grinding the mots without clenning. A third ly niixing the bark of the firat while grinding। and ao on to any degren of ndulteration.
Atatement Ehowino tha 'Imporata or Madiea into an
 $80 \mathrm{~T}_{\mathrm{r}} \mathrm{task}$.

| Whenen linportod, | Pout | Doll |
| :---: | :---: | :---: |
| Ifolland. | 4,264,529 | 881,807 |
| Itelstur | 601,662 | 84,972 |
| Engiatal. | 134,048 | 10,800 |
| Mrita | 7,750 | 480 |
| British West indes....... | 3n | ${ }^{2}$ |
| Vranee ofe the Athantlo. | 836 | 29 |
| France on the Medlier..... | 15,888, 151 | 1,257,946 |
| Tarkey lif Anta. . . . . . . . . . | 0,122 | 4,8t9 |
| 'rotal. | 20,547,472 | 1,661,505 |

Madagasoar, a large and important island in the Indian Ocean, about 300 miles from the coast of Africa, from which it is separated by the Monamblque Channel. Cape Amber, its northern exiremity, is situate in S . lat. $12^{\circ}$, whence it extends nouthward, slightly inclining to the west, alout 937 English miles, to Capm 8t. Mary, in 8. Iat. $25^{\circ} 40^{\prime}$; Its extreme western shore is in E. leng. $43^{\circ} 10^{\prime}$, and its most eanterly capo in E. Jong. $60^{\circ} 30^{\circ}$. The treadth of the island incroases gralually from the northern point to the centre, where it is wiflest, being about $\mathbf{3 5 0}$ milea accons; whlle the average brealth of the southern portion in atout 250 miles. It has heen estimated to contain $150,000,000$ of even $200,000,000$ acren of land ; and thougl such estimaten, in the absence of actual measurements, can only be rugarded as approximations to its actual extent, its surface is equal to three fourths of the territory of Frence, and larger than Great Brituin and Ireland combined.
The monsts of Madagascar contsin a number of hays and hartores, sonse of them spacious and aheitered, and eapable of affording excelient and secure anchorage for shipplag of the largest dimensiona. Among these may be apecified Diego Saurez May, or British Sound, near the north-eastern extremity of the island; Port Loquez, Antongil Bay, and the hay of St. Luce, on the enstern coast. Samatave and Foule loint, though the mont frequented ports on this side of the islami, are oniy open roadsteads, protected by reefo of coral. St. Augastine'n Bay, a port of frequent resort for vessels trading on the north-weat coast and whips engaged in the white sishery, 'Tolia Bay, Boiann, Baminetoka, Majamto, Namenda, Pasandava, and Chitapaykee hays, are the moet import int on the western cuast. There are several manall islants adjacent to the nurthern mhoren of Mialagasear, of wi leh St. Mary's, al miles long, and 2 or 3 inilea broad, on the eastern coaft, and Nosihé, a somewhat larger and mere compact islanil, on the north-weat coast are the mont im. portant. Both thesm suall felandia are now oecupied by the French-the iatter having lieen taken posmession of by them in 1840.

The commerce of the island, though at present but trifing, is capable of almout unlimited extension. The chief articies of export are eattle, poultry, rice, rufia cloth, matting; a kind of grass hat, woven by hand, light and duraile; guma, and bees' wax. Coffee
would grow well in many parts of the island; Indigo might be produced to almont any extent; and both might furnish valuable articles of export. Good sugar has been made, but at present the cane it only cuitivated for purposes of food, or for distilling from its juien a ntrong, fiery sort of arrack, the use of whilh in extended ameng the people, eapeeinlly at the portar ard threatens to produce the most disastrous conse(4) .cen. Other articles of axport might be proluced intry an fertilo and extensivel and rice migight, w... a ut comparatively little additional labor, be raineel In much larger quantities than it is produced at present. It in scarcely possible to conceive of a soii more alapted for the cultivation of rice than that of nuny parts of Madagasear, or more fertife than, in favorahle seasons, it often provas-a singie bushel of seed yield. ing, under the most skillful modes of culture, in a favoratile season, 100 bushels of grain. The erep when ripe, is reaped, dried, and thrashed on tho ground. Their process of thranhing conaines in taking up large haniffulla of rice and atraw, and beuting tha ears on a stone or portion of nock fixed in the midet of a dry, hard, throahing-floor, prepared for that purpose in nome central spot easily accessible from the coitivated fields. When the grain in thrasied, it is carried on the heads of alaven to the granarion of thair owners. These granaries vary in structure in iliferent parts of the inland. On the eastern coast and to the southward, the grain is stored in amali houses raised on posts, with projecting ledgen, to provent the access of rats and mice. At the cupital and some of the central provinces, the rice is preserved In granariea bollt of cluy, in the form of a cone, with only one aperture on the summit. Some of these granaries are built alove ground adjacent to the dwellings of their owners others are constructed of the same furm and dimenrions under ground-the aperture at the top, generally about a foot beinw the surface, leing covered with is atome, and then the hollow filled up with earth con posing the aurface of the court-yari, in whieh the nnderground granary in naualiy aunk. Riee, hy these meanu, is often prescrved for a great length oc time in oxcelient condition. With land no fertile ani andapted for the growth of such abundant crepls of rice sathe phantatioos in tho interior often yiefil, it might be raised for oxportation to almost any extent; but the absence of canala and pailic roads, and all means of land carriage, precludea the ponsibility of convering the profuce of many of the provinces to the sel-inits, excepting in comparatively amall quantities, and thog impedes very materially the development of the renources of the island. The government has leen deterred from conatructing or eneouraging the furnation of publio roads, from an apprehennion of the facilitics they would afford to a hortile force invaling the country and seeking to penetrate the interlor. The want of good roads, therefore, though detrinemital to their commercial interesta, is preferred by them as a means of necurity. This disadventage might be, to a great extent, comprensated in some of the provinces by greater attention to the moans of carriage by water. The iatn Ralama commenced the work of conneeting some of the principal takes on the eastem coast by means of a canal, but since his death the work has heen discoustinned. Boats, better alapted for conveyIng grain in larger qu, ntities to the places aljacent to the ports, and accessifise by wat ${ }^{-\cdots}$, might be comstructed, and would andist in augme... ing the exports from the isfand. Their imports are chietly cotton and woolen goocls, wearing apparel, articles of domentic ase, fire-arims, ammunition, wines and fliquurs; and to thene other articies will doubtless lie addel as thein means of jurchasing them increasc. The ilovas, the paramount puce in the conntry, exhifit many of the eiementa of a thoroughly commercial people; keenness in trade aeems to be intuitive with many, and the love of bartoring almest a passion among ail ; scurcely any
engagem tudes em or dome In this or emplay amount 0 the Hove change, b they ияе franc Frt these nilv Malagany use among halves, q $_{1}$ to the 1-7 dollar are money sca not only e often seon ployed in t are a distio wich whe flactuates a pal places, In other g frotu the ca trade amom extent by have been nativen to rt other artic IIovas are and silver, furtuer for articles of pe
Madeir Atlantle Oce west cuast of west. They Porto Santo, ated between $10^{\circ} 18^{\prime} 30^{\prime \prime}$ Madeira, is lation, 1850, of a mass of to bi5t feet steep ridges cipices of 100 are a smull land of l'aul very steep a beasts of dra Climato rem salubrity, on with disease The soil, wh inland, is $\mathbf{w}$ Sugar, once Coties is groy is excelient. aluadant. tivenced to a home consum the chief supy remote distri and the condi poverty. Mo 1431.

It is said $t$ Crste to Mad extremely we the flavor anc the best are The method to trench the nine feet dee lay a quantit
engagement interferes with the market, and multitudes employ themselves in hawking goode of forelgn or domeatic manufacture about the country for sale. In this occupation many pereons of rank and property employ thelr alavea, giving them a percentage on the amount or the profit of thelr aales. The dealings of the IIovas are seldom transactions of harter or exphange, but nsually monoy purchases. The only coine they uas are Spanish dollars, and very recently flvefrane Firanch pleces. For all the cattle exported, these silver colns alone are received in payment. The Malagasy luave no native currency; and for ordinary use among themselves, the Spanish dollar la cut Into halves, quarters, eighths, and smaller portions, oven to the 1-72d part of a dollar. The cut pieces of the dollar are weighed in every Inatance, and a pair of money scales with their appropriate lron welghts, are aot only considered essential in every house, but are often seen thrist into the girdles of the men when empleyed in their ordinary avocationa. Money-changers are a distinct class among the traders, and the rate at which whola dollara and cut sllver are exchanged flactuates almost daily at the capital and other princlpal places, as the ons or the other are most In demand. in other parts of the island, especially thone remote from the capital or the ports visited ly shlpping, the trade among the inhabitants is carried on to a grent oxtent by axchange, or harter. Several attempts insue been made by the forelgn tradere to linduce the nstives to recelve gold coin in payment for cattle and other articles, but hitherto without auccess. "The llovas are not ignorant of the relative value of gold and silver, but at present seem only to value the formar for the manufacture of jewelry and other articies of personal ornament.
Madeira. The Madeira Isles are a group in the Atlantic Ocean, belonging to Portugal, from the southwest coast of which thoy are distant 660 miles sotithwest. They consist of the islands of Madelra and Porto Santo, and the islands called the Desertas, situated botween $32^{\circ} 23^{\prime} 15^{\prime \prime}$ and $33^{\circ} 7^{\prime} 50^{\prime \prime} \mathrm{N}$. lat., and $16^{\circ} 18^{\prime} 30^{\prime \prime}$ and $16^{\circ} 38^{\prime} \mathrm{W}$. long. The largest island, Madeira, is 31 milea long and 12 milea brond. Population, 1850, 108,461. Capital, Funchal. It consiats of a mass of rolcanic rocks, which, in l'ico Rulvo, rise to 6050 feet in elevation. From the central mass, stecp ridjes extend to the const, where they form preeipicen of 1000 to 2000 feet in helght. The only plains sre a small portion of the weat coast, and the tableland of l'aul de Serra in the interior. The ruads are very ateep and unfit for carriages. Oxen are the only beasts of dratight, and ponies are used in traveling. Climute remarkably equable, and celchrated for its salubrity, on which account numerous vlsitors, affictod with disease of the lungs, constantly resort to Madeira. The soil, which on the south elde extends 21 miles inland, is well watered, and extremely productive. Sugar, onco extensively cultivatod, is now neglected. Coffee is grown of superior quality, and the arrow-root is excellent. The orange, banaua, and ganva, are sbuadant. Wheat, maize, beans, and barley, are cultivatud to a small extent, but quite insufficient for bome consumption. The fallure of the potato, formerly the chlef support of the populntion of the villnges and remote districts, has added to tho oxisting distress, and the condition of the lower orders is that of aqualid peverty. Maieira was acttled by the Portuguese in 1431.

It is sald that plants of the vine were conveyed from Crete to Madeira in 1421, and have since suceceded extretuely well. There is conshlorablo diffurence in the flavor and other qualities of the wines of Mudeira; the best are produced in the south side of the lalund. The method of cultivation mnst genurally followed is to trench the ground from threo to soven and soven to nine feot deep, according to the nature of the soll, and lay a quantity of loose and stony earth at the bottom,
to prevent the roota from reaching the clayey soil beneath, which would otherwiee oppose thelr growth. The ground is watered three times if the summer has been very dry, the slulces being left open until the groand is pretty well eaturated; the less the ground is watered, the atronger the wino, but the quantity la dlminished in proportion. The vinee are found to bear fruit as high as $2700^{\circ}$ feet, but no wine can be made from it. Adjacent to Madelra is the laland of Porto Santo, about alx miles long, and two and a half brosd. It is high and rocky, composed principally of sand-atone, and a calcareous tuffa of a greenish gray color. The vlne is cultivated in considerahle quantitles, and the soll ylelda good crops of wheat, Indian corn, barley, and beans. The population la estimated at 1400, and there are $\mathbf{8 0 0}$ militia. It possesses a good roadstead, but the landing-place is bad. The Desertas are amall, uninhabited lslands, which, with Madsira and Porto Santo, form the group called the Madelras.
The manufactures of Madeira are insignificant ; their chlef object being to satlafy some of the slmple wants of the poorer classes. Basketa, atraw hats, coarse linen and woolen articles, and shoes, are the princlpal objects. Artificial feathers, flowers, and sweatmeats are made for sale by the nuns. A good deal of needlework embroldery has been executed of late yeura by the women of Funchal for exportation, and a few fancy articles are made of the fibre of the Agave Americana. The bulk of the laboring population is emplosed in agricultural pursuits. Wine has hitherto been the chief article of export, but thls branch of trade will soon cease. The rearing of the cochineal insect has been lately undertaken, in the hopes of its supplying the luss of the grape. Many of the coopers empioyed during the exiatence of the wine trade have emigrated; the rest earn a precarious subsistencs. The casks they made possessed repute for excellence of construction. The chief artisana of Funchal at present are boot and shoamakers, cabinet-makers, carpenters, and stone-masons. The number of merchant ships anchoring at Funchal (which is the only foreign port) during 1855 was 242, of which 121 were British, and 91 Portuguese. The chlef imports are, mannfactured goods, iron ware, grain, salt, and timber. In 1865, of grain there was imported 195,765 tushels, principally from the nelghboring coast of Africa, and from the Azores. In the same year 27,800 bushels of salt enterod. The othicial returns of the imports of manufactured goods can not be relled on. The total reccipts of the custom-house in 1855 amounted to rather more than $£ 17,000$. Thero is no tank on the island ; the gold and silver coin in circulation is not Portuguese, but British, American, and Spanish. Acconnts are made out in reis, Imaginary coins, 4800 of which are equal by law to the pound sterling. Spunish and American dollary are current, at the value of 1000 reis, or 4 s . 2d. British money. Funchal is a coaling station for the British mail steamers from England to Ilrazil and the African coast, which touch here once a month on tieir outward voyages, and again on their return. The Portuguess and French steamers to Brazil likewise touch here. Besides thoes vessels, two English sailing-packets ars continually plying between London and Madelra, and a Portuguces paeket-brig to and from Lisbon.
Commeres of thr United Statea witu Portcoal and
Maderina is 1856.

| Notlonal charneler. | Vouncle entered. |  | Verselo clearel. |  |
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|  | No. | Toinago. | No. | Tounak |
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> IMAGE EVALUATION TEST TARGET (MT-3)


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| Sopt 80, $1881 . . . .1 . .1$ | \%88,414 | $\because 64687$ | $8840,081$ | $8100.989$ | \% \% 2,000 |  |  |  |
|  | $\begin{aligned} & 186,959 \\ & 117,655 \end{aligned}$ | $\begin{array}{r} \gamma 609 \\ 8076 \end{array}$ | $\begin{aligned} & 101,014 \\ & 12!, 61 \end{aligned}$ | $\begin{gathered} 188157 \\ 949 R \end{gathered}$ | 17 ${ }^{1}$ | $\begin{aligned} & 1,600 \\ & 5000 \end{aligned}$ |  | iii |
| 1888........... | 115,690 | 96,647 | $\begin{array}{r}121,661 \\ +\quad 8984 \\ \hline\end{array}$ | 244288 <br> 24510 | 5 | 12,869 82,971 | 4.078 |  |
| 1890. | 189,540 | 55,89 | 178160 | 2) 081,016 | - $\dot{8 Q O O D O}$ | ${ }^{21} 8180$ | 8,861 | $18{ }^{18}$ |
| 189 | 112,008 | 25469 | 144,07 | \% 894888 | - 12,150 | 6,900 | 4290 |  |
| 1897 | 10,158 | 13,281 | 118.48 | - 1899.9810 |  | 81,94 | 4088 |  |
| 1888 | 101,948 175,074 | $\begin{aligned} & 9,985 \\ & 15,089 \end{aligned}$ | 111,988. | $\begin{aligned} & 168,610 \\ & 40,068 \end{aligned}$ | 1,167 | T,791 | 4887 | 911 |
| 189 | 150,719 | 12,888. | 168,077 | 289,058 | 1.4\% | S,000 | 8,080 | 669 |
| Total | 81,588,790 | 198,440 | 11,786,979 | 3,407,268 | 70,620 | \$100,806 | 57,485 | 1,126 |
| Bept 80, 1891......... | \$171,568 | \$5,728 | 177,291 | -177,869 |  | 8,078 | - 0,168 |  |
| -1888........ | 145,667 | 829 | 146,506 | 1) 888,818 |  | 6,188 | 48288 | 124 |
| 188 | 100,910 | 10,61 480 | 144,80 | 421,699 |  | 2,000 | 8,801 | 869 698 |
| 1835 | 78,898 | 88,595 | 102,488 | 881,266 | 8,674 | 2,695 | 8,700 | 941 |
| $18887 . . .1 . .$. | 88,04t | $\begin{aligned} & 17,800 \\ & 18,527 \end{aligned}$ | $\begin{array}{r} 58,888 \\ 101,269 \end{array}$ | 860,910 672789 | 14,011 | \% | 9,414 | .... |
| 1888.......... | 88,499 | 4080 | 40,957, | 806,274 | 8,166 |  | 8,464 | .... |
| 1889 | 64,089 | 15,046 | 19,128 | 889,800 | 14,148 | … | 4,978 | ..... |
| 1840 | 98,819 | 29,858 | 116,677 | 800,504 | 14,619 | 8,695 | 9,068 |  |
| Total | 6927,890 | 172988 | \$1,100,282 | 8,983,591 | 661,681 | 628,189 | 89,70 | 1,497 |
| Sept, 80, 1841. | 8107,905 | \$90,870 | 8128,275 | 3989,519 | - 19,920 | \$5,900 | 4.026 | 827 |
| 1849 | 48,054 | 1.080 | 44884 | (1) 148,189 | 1,889 | 100 | 8,258 |  |
| 9 mos 184 | 87,849 | 8,850 | ${ }^{41,505}$ | 7,100 | 2,606 | .... | 1,607 |  |
| June 80, ${ }_{\mathbf{1}}^{184}$ | 44768 | 7,688 | 62,983 | 29,004 | 8,085 | . | 2404 | 122 |
| 184 | 60,8 | 1,84 | 64,900 | ${ }_{187,070}$ | 1.600 | .... | 2,081 8855 | 491 |
| 1847 | 105,081 | 1,889 | 108,420 | 85,857 |  |  | 8,848 | 1,046 |
| 1848 | 110,819 | 7.407 | 118,249 | 2,482 | - 899 | .... | 4, 624 | 1,44 |
| 18800. | 117,878 | 159 | 118,687 | $\begin{array}{r} 78,759 \\ 114.729 \end{array}$ | $\begin{array}{r}4800 \\ \hline 668\end{array}$ | .... | 8,744 | 1,678 1,879 |
|  | 1894,201 | \$54802 | 8979,058 | 6905,286 | \$42,888 | 5,800 | 82,804 | 6,689 |
| June 80, 1851 | 194,589 | 87,176 | \$101,765 | \$102,448 | 89,626 |  | 8,878 | 1,814 |
| 1858 | 67,989 | 7.480 | 98,412 | 90,008 | 7,000 |  | 4,171 | 696 |
| 1888 | 101,084 | 15,074 | - 117.098 | 77,508 | 15,902 |  | 8,707 | 849 |
| 1854 | 47,708 48,509 | \%261 | 47,708 | 80,007 85,989 | $\mathbf{8 , 0 0 6}$ $\mathbf{8 , 9 8 6}$ | 8250 | 1,991 | 296 811 |
| 1856.. | 87,055 | 082 | 23,587 | 19,788 | 2,200 |  | 890 | 8870 |

The cereal crops of Madeira are scarcely equal to one third the consumption; hence, and owing also to the general poverty of the inhahitants, a decree was passed in 1848 reducing the dution on the leading forolgn imports to one haif the dutios levied in Portugal. This decree is in force at this time, and, consequently, but half the duties fixed in the tariff of Portugal are now levied on foreign imports into Madeira. In 1843 the importe from the United Statem amounted to 65,900 , and the exports from Madeire to the United States to 2750 , employing 38 veasels, with an aggregate tonnage of 8538 tons. The commerce of thic island with foreign nations, and eapecially with the United States, in declining, and must continue to decline so long as the vines remain diseased, as wine is the only article of export from Madeira.
See Am. Jour. Science, xxiv., 287 ; North Brit., vil., 73 ; North Am. Rev., xlvi., 836 (by J. W. Webeter). For Madeira Wine, see Wins.

Madeira Nut, or Peraian Walnut (Juglans regia), originally a native of Persia, or the north of China, has been somewhint extenaively distributed, and appears to be weil adapted to the climate of the middle and aouthern latitudes of the United States. A tree of the "Titmouse" or "thin-shelled" variety (juglans regia tenera), about 20 years planted, 45 feet in height and 15 inchea in diameter, standing on the premises of Colonel Poter Force, in the city of Waahington, in perfectly hardy, and bears ycarly an abundance of ex. cellent nuts. This is considered the most valuable of all the walnits, as the tree begins to bear in cight or ten yesra from planiligg the aeed; and the fruit is very delicate, keepa well, and is rich in oil. In Cashmere, where the walnut is the eubject of careful cultivation, there are four varieties: The "Kanak," or wild, the mut of which is diminutive, with a thick shell and acanty kernel; the "Wantu," having a large nut, with a thlek and hard shell, a deficient kernel; the "Denu," also a large nut, with a thick nnd rather
hard oboll, and a kornel large, good, and easily extracted; and the "Kaghazi," so called from its sheil being nearly as thin as paper. The latter, which may be readily broken by the hand, is the largest of all, having a kernel easily extracted, and producing an excellent oii. Its auperiority is said to be attributable to its having heen originally engrafted, but it is new raised from seeds alone, and does not degenerate. Tha nuts, after being ateeped in water eight days, sre planted in the beginning of March, and the sherit generaliy makes its appearance in about 40 days. is reared by grafta, the procese is performed when the plant is five years old. The head being cut off horizontally, at a convenient height, the stock is partially eppit, or opened, and the geion inserted in a similar manner to that adopted by our cleft method, in grafting the apple or pear; but clay-mortar, worked up with ricehuska, is put round it, and kept from washing away by being enveloped in broad slips of birch-bark. $-P a$ tent Offico Report, 1855.

In Cashmere, the walnnt-tree begins to fruit, ordinarily, whon seven yeara old; but twe or three years more elapse before it is in full bearing The average annual number of nute, brought to maturity on a singlo tree, often emounts to 25,000 . It has been observed that, after a few seasons of full bearing, the trees fall off in producing fruit, and run, with great luxuriance, to leaf and branch. To this Iatter condition the Cashmereans apply the appeilatlon of "must," and te remedy the evil, cat off ail the small branches, bringing the tree to the state of a pollard. The year following, ehoots and leaves alene are produced, which are succeeded the next season by an abundant crop of nuts. The cut ends of tho branches ewell into knots, or knobs, which are somewhat undightly in the tree, until they are concealed by tho growth of the young branches and leaves. Whon ripe, the frult of the Wantu walnut is retailed in the eity at the rate of about 2 cents a 100 . The nuts
of the Dunu are sold for about 8 cents per 100; and of are constantly beat by a heary surf. Besides these the Kaghazi, at about 4 cents per 100. It is a common prectice for the country people to crack the walnuts at home, and carry the kernela alone to market, where they are sold to oil-pressers, for extracting their oii. The kernele yield half thoir weight in oil; and the other half, which consists of oil-cake, is mach yalued as food for cows in winter, when it is usually oxchanged for its waight of rough rice. Abont $1,150,000$ pounds of walnut kernols are annuaily consigned to the oill-press in Cashmers, producing a large amount of oil and cake, besides a considerable quantity eaten by man, or consumed by other modos. Wainnt oil, in that country, is preforred to linseed oil, for all the purposes to which the latter is applied. It is employed in cookery, and also for baraing in lamps, without much clogging the wick or yieiding mach smoke. It is exported to Thibet, and brings a cousiderable profit. By ancient custom, the crop of nats was equally divided between the government and the owner of the tree, bat at present, the former takes three fourths: yet, even under thia oppression, the cultivation of this product is axtended, and Caahmere, in proportion to its surface, produces a much larger quantity of nuts than any other portion of the globe. Estimating the product of aach tree at a bushel of nots, and auppoeing that it will produce that quantity in 12 or 15 years after pianting, and considering that the amount imported into this country is valued at least at $\$ 100,000$ per annum, the inducements for its culture by the farmers and plantars of the middle and oouthern States would appear to be sufficlently ampis for their immediate attention.-Patent Office Report.
Madras, the principal emporium of the coast of Coromandel, or western ahore of the Bay of Bengal; istitade of light-house $13^{\circ} 5^{\prime} 10^{\prime \prime} \mathrm{N}$., long. $80^{\circ} 20^{\prime} \mathrm{E}$. It is the aeat of the government of the second presideacy of British Irdia, having under it a territory, including the tributary Statea, of 187,482 square miles, with a population, according to the census of 1850-51, of $27,054,672$, paying a gross annual revenue of nearly £4,900,000 sterling. The town is situated in the Carnatic province, a low, sandy, and rather aterile conntry. It is withoat port or harbor, lying close upon the margin of an open roadstead, the shores of which
disadvantages, a rapld current runs along the coust ; and it is within the sphere of the hurricanies or typhoons, by which it is occasionilly visited. In overy respect, indeed, it is a very inconvenient place for trade, and its commerce is consoquently greatiy inforior to that of elther Calcutta or Bombey. It ha's been in the posseasion of the English above two centuries, having been founded by them in 1639; and retained ever since. Fort St. Georgo is a strong and handsome fortification, lying close to the shore. The Biack-Town of Madras, as it is called, atands to the north and eastward of the fort, from which it is separated by a spacions esplanada. Here reside the native, Armenian, and Portnguese merchants, with many Europeans unconnected with the government. Like most other Indian towns, it is isiogular and confused, being a mixture of brick and bamboo housea. Madras, like Calcutta and Bombay, is subject to English law ; having a Supreme Conrt of Judleature, the judges of which are named by the crown, and are altogethor independent of the local government and the East India Company. The population is not exactly ascertained, but there are said to be about 400,000 persons within a radius of 2$\rfloor$ miles round Fort St. George.
Madras is the seat of all the chief government offcos for the President of the Supreme Court, Boarde of revenue, admiralty, education, eto.; and though having leas foreign trade than the capitals of the other preaidencies, its commerce is atill considerahio, as it is the chief emporium of the Coromandol cosst, and tradea direct with Great Britain and the other European countries, the United Statea, Ceylon, and southeast Asia. Principal imports are rice and other grains, chiefy from Bengal ; cotton piece gooda, twist; and metallic wares from Great Britain; raw silk, areca, betel, gold dust, epicea, and teak timber from Pegu; spirits and wines, coral beads, horses, drugs, to the total value, in 1851-52, of $£ 1,958,786$. Exports of cotton stuffs and wool, indigo, pepper, timber, coffee, and other natlve produce, amounted in the same year to $£ 3,075,103$. The site of the city formed the first territorial acquisition hy the British in Indla, permission to erect a fort here having been obtained in 1639.

Sdemary of tha External Conmegof of Madras at Sea, man 1949-50 and 1550-51.

| For the yeur 1849-50. | Privatp trade. |  |  | Oompeny's trude. |  |  | Grund total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Morchandlos. | Treastre. | Total. | Merchandis. | Tremule. | Total. |  |
| Importa |  |  |  |  | Co.'e rupeos. $\cdots$ |  2,86,099 | Co, mapentich |
| Exports | 2,86,88,859 | 9,10,427 | 2,45,48,786 | 81,944 | 60,70,000 | 60,51,944 | 8,06,00,780 |
| Total. . . . . . . . . . . . . . | 8,64,66,101 | 61,40,041 | 4,20,04,048 | 8,18,488 | 69,70,000 | 62,88,483 | 4,82,01,020 |
| For the yeand 1800-st. |  |  |  |  |  | 174 |  |
| Importa.. | 1,84,47,091 | 60,42,437 | 1,94,89,588 | .97,888 |  | 97,888 |  |
| Exports. | 2,61,92,274 | 11,97,691 | 9,78,19,065 | 1,8t,078 | 88,00,000 | 84,81,078 | 8,07,51,088 |
| Total | 8,90, 09,365 | 72,40,183 | 4,68,09,498 | 2,28,000 | 88,00,000 | 85,28,906 | 6,08,88,890 |

In Madras roads, large ships moor in from 7 to 9 fathoms, with the flagstaff off the fort bearing W.N. W., 2 miles from shnre. From October to January is generally considered the moat unsafe season of the year, in consequence of the prevalence, during that interval, of storms and typhoons. On the 15th of October the flaggtaff is struck, and not erected again antil the 15th of December; during which period a ship coming into the roads, or, indeed, anywhere within soundings on the coast of Coromendel (reckoned from Point Paimyras to Ceylon), vitiates her lnaurance, accorling to the conditions of the policies of all insurance offices in India. The cargo boata used for crossIng the surf, callsd Masaula boats, are large and light ; made of very thin planks aewed together, with straw in the sesms lustead of caulking, which it is auppoaed might render them too stiff. When within the influsnce of the surf, the coxawain stands up, and beata time in great agitation with his voice and feet, while the rowers work their oars backwarl, until overtaken
by a strong surf curling up, which sweeps the boat along with frightfal violence. Every oar is then plied forward with the utmost vigor to prevent the wave from taking the boat back as it recedes; until at longth, by a few auccessive surfs, the boat is thrown high and dry upon the beach. The boats belonging to ehips in the roads sometimes proceed to the back of the surf, and wait for the country boats from the besch to come to them. When it is dangercus to have communication with the shore, a flag is displayed at the beach-house, which stands near the landing-place, as a caution. The fishermen and lower clasaes employed on the water use a speciea of flosting machino of a very simple construction, named a catamaran. It ls formed of 2 or 8 logs of light wood, 8 or 10 feet in langth, lashed together, with a small piece of wood inserted between them to serve as a stom-plece. When ready for the water, they hold generally 2 men, who with their paddles impel themselves through the surf, to carry lettery, or refroshments in amall quantities,

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to shipe when no loat can venture out. They wear a pointed cap made of matting, where they secure the letters, whech take no damage. The men are often washed off the catamaran, which they regain by swimming, unless interrupted by a shark. Medals sre given to such catamaran men sa diatingnish themselves by saving persons in danger.

The limited extent of the trade of Madras as compared with that of Calcutta and Bombay, is partly ascribable to the badness of its port or roadstead, the want of any navigable river or other easy means of communication with the interier, and the backward state of the provinces of which it is the capital, in consequence of the beavy and fluctuating land tax to which they are subject. In 1839-40, there arrived at Madras no fewer then 5,426 vessels (including their repeated voyages of the aggregate burden of 335,465 tons. But by far the greater number of these were of very small burden; 2,832 belng country craft from Bombay, 853 from Ceylon, and 585 from Goa. In the course of the same year 81 vessels arrived from the United Kingdom,-Hamiltox's East India Gazetteer; Geog. Dicl., art. Madras; Madras Almanac for 1839, 1840, and 1845; Official Returws of the Trade of Mfadras, etc.
Maelitrom, or Moskoe-Strom, a whirlpool in the North Sea, near the Island Muakoe. In summer it is but little dangerona, but it is very much so in winter, eapecially when the north-west wind restrains the reflux of the tide. At auch times the whirlpool rages vielently 80 as to he heard acveral miles, and to engulf small vessels, and even whales, which approach it. See Lovoden Islands. See also Fraazu's Mag., x., 267.

Magelian, or Magalhaens, Btraits of, divide the continent of South Ainerica from the Island Tierra del Fuego; the east ontrance is formed by Cape de la Virgines, on the mainland, and by Cape del Espiritu Santo (Queen Catharine's Foreland), on one of the largest ialands composing Tierra del Fuego. Length nearly 300 miles, extending between lat. $52^{\circ} 10^{\prime}$ and $55^{\circ}$ S., and long. $68^{\circ} 20^{\circ}$ and $75^{\circ} \mathrm{W}$. Navigation difficult. Discovered in 1020 by Fernando Magalhaens. Ferdinand De Magellan, or Magathaens, the discoverer of the atraits that bear hia name, was by birth a Portuguese. He served with honor in the East Indies, and in 1510 distinguished himself at the battle of Malacca. He entered into the employment of Charles V., King of Spain, and in conjunction with Ruy Folero, formed the bold design of diacovering a new passage by the west to the Molucea Islands. On the 20th September, 1519, he sailed from San Lucas, with five ships and 236 men. After many exertions, he induced two of hia ships to prosecute the entire voyage; and entering upon the atraite which now bear his name, he boon reached the South Sea. The weather was so uniformly temperate, and the sea so calm, that they called the ocean Pacific. Msgellan visited places seen for the first time by Europerns; and in visiting Matun, ate natives gave becile, and Magellan was slain, in the year 1521. But for this he would have been the first circumuavigator of the world, which honor was aecured by Caro, who brought his ships home ly the East Indies.
Magnesia (Ir. Magnésic; Ger. Gebraunte Magnesue; It. Magmesia), one of the primitive carths, having a metallic basia. It is not found native in a atate of purity, but is easily prepured. It is inodorous and insipil, in the form of a very light, winite, soft powder, having a speciflc gravity of $2 \cdot 3$. It turns to green the more delicate vegetable blues, is infusibje, and requires for its solution 2000 parts of water at $60^{\circ}$. See Manganese.
Magnet. Sturmius, in his Epistola, dated at A1torf, 1682 , observes that the attractive quality of the magnet has been takea notice of from time immoniorial; but that it was Roger Dacon, of Ilchester, in

Somersetghire (he died the 17th June, 1294), whe first discovered its property of politing to the north pole. The Italians discovered that it could commanicate its virtue to steel or iron. The variation not leing always the same was taken notice of by Hevelias, Petii, and others. "Flavio Glojs', of Naples, invented or improved the mariner's compass in 1802. The important discovery of the inclination or dip of the magnetic needle was made about 1578 (published 1580) by Robert Norman, of London. Dr. Gllbert's experiment was mude in 1600. Artlifical magnets were Invented, or rather improved, in 1751. A magnetic clock, inveated by Dr. Locke, of Ohio, announced at Washington, January 5 ,
1849. See Compass. 1849. See Compass.

Magnolia. The magnblia conspicua, or lilyflowered magnolia, as its name indteates, is a beantiful and showy troe, and diatinguishable from all others of the genus by tho expaniding of the flewers before sny of the leaves. "A full-grown tree, in its nutive country, is aaid to attinin a height of forty or fifty feet, and it has arrived at noarly the samio elevation in Euroje and America. The tree was first introduced into En-
gland by Sir Joseph Banks, in 1789 ; but it was many gland by Sir Joseph Banks, in 1789 ; but it was many years before it attracted much attention, being considered merely as a green-house or conservatory plant.
Within the last 20 years, it has been discovered to Within the last 20 years, it has been discovered to be nearly as hardy as the American magnoliue, and is now most extensively cultivated in the nurseries of Britain, continental Europe, and the United States. It flowcrs freely every year, as a standard in the neighberhood of London, New York, and Philadelphia, when the wood has been properly ripened daring the preceding aummer; and at White Knights, in Englund; at Fromont, and various other places in France; and at Monza, in Italy, and Brookiyn, in New York, it has ripened, seeds from whlch young planta have been raised. Propertics and Uses.-Besides the value of the magnolia conspicua es an ornamental plant or tree, the Chinese pickle the flower-buds, after having removed thelr calyxes, and use them for flavoring rice. Medicinally, the seeds are taken in powder, in colds, and inflammations of the chest. It is also regarded as stomachic; and water, in which it has been steeped, is used for bathing the eyes when inflamed, and for clearing them of gum.

Geography and History,-The magnolia glauca has the mest extensive range, especially ncar the sea, of any of the genus. It abounds from Massachusetts to Louisiuns and Missouri. Its most northero boundary may be considored a sheltered swainp in Manchester, Cape Ann, about 80 milies northerly of Boston. It here attains but a amall slze, and is frequently kiiled to the ground by aevere winters. In tise maritims parts of the Floridas and lower Leuisiana, it is one of tine most abundant among the trees which grow in morasses or wet grounds. It is not usualiy met with fur interier, nor to the west of the Alleglisnies. In the Carolinas and Georgls it grows only within the linuits of the pinc-barruns. This speecies was introduced into Englund by Rev. John Hanister, who sent it to Bishop Compton, at Fulham, in 1688. It was soon afterward generaliy propugated by American seeds, and became known throughout Europe many yeara liefore any of the other apecies. At Woburn Farm, Chertaey, there was formerly a row of these trees 20 fect high, and nearly a century old, which frequently ripened their seeds. In France, and snutilern Europe generally, this species in not very abundant, from the great hent of the summers, and the gereral dryness of tho air. At Versailles and the I'etit Trianon, sa well ns in Belgium, it has attained the helight of 15 reet. In the north of Germnny, and in Sweden und Russia, it is n green-houso plant. At Monza, in Italy, it is found in all of its varicties. In genoral, this tree can only be used for ornamental purposes, and no coliection shonld be without it. Ths wood, however, is sontetimes euployed for making
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Not 10 manufact $\pm 3000$ for produce of and 38 inc eight to a ful, capab) polished, ner, like $t$ form of $t$ ever diree generaliy hut, notw with inucl that there logs for w wers brou
joinere' tools; and the bark Is alse used in some parts ef the country, like that of the cinchana, in the case of internittent and remittent fevers. It is aromatic and pungent, apparently more so than the other ipecies. When distlled, it has a pecullar flavor, and an empyreamatic emell. In a dry state It affords a little resin. The aroma is volatile, and probably contsins an essential eil: or a variety of camphor. The bark, seeds, and cones, aro employed in tincture, in chronic rheamatism. That from the cones is very bitter, and la sometimes used to cure coughs and pactoral diseases, and for preventing autumnal favers. The flowers in a dried state may be used in drawing-rooms for pot pourri, sa a substitute for those of the lily of the valley.-Browne's Trees of A merica.

Mahogany, the wood of a tree (Svieteria Mfahogani) grewlag In the West Indles and Central America. There are two other species of Swietenia found In the East Indic 3 , but thay are not much knewn in thla country. Mahegany Is one of the most majeatic and beautiful of trees: its trunk is often 40 feat in langth, and 6 feet In dlametar ; and It dividea Into so many massy arms, and throws the shade of Ita shining green leaves over so vast an extent of surface, that fow more magnificent objects are to be met with in the vegetablo world. It is abundant in Caba and Haytl, and it used to be plentiful in Jamsica; but in the latter island, most of the larger traes, at least in accessible situatinns, hsve been cut down. The principal importations into Great Britain are made from IIonduras and Campeachy. That which is imperted from the islands is called Spanish mahogsny ; It is not so large as that from Henduras, balng genarally in loge from 20 to 26 inches stitare and 10 feet long, while the latter is usnally from 2 to 4 feet square and 12 or 14 feat long, but some legs are much larger. Mahegany is a very beautiful rnd valuable specles of wood; its color is a red bro a, of different shades, and various degrees of brightness; sometimes yellowish brown; often very much veined and mettled, with darker shades of the same color. The texture is uniform, and the annual riags not very dlatinet. It has no largar septa; but the amallar aepta ars often very visible, with pores between them, which in the Hondurss wood are generally cmpty, but in the Spanish wood are mestly filled with a whitlsh substance. It has naither taste ner smell, ahrinks very little, and warps or twista less than any other species of timber. It is vary durable when kept dry, but does not last long when axposed to the weathar. It is not attacked by worms. Liko the pine tribe, the timber ja best on dry rocky soils, or in exposed situatiens. That which is most accessible at lienduras grows upon moist, low land, and is, generally speaking, decidedly infarior to that brought from Cuba nnd Hayti ; belng soft, cearse, and apongy, while tha other is clese-gralned and hard, of a darker color, and sometimes strongly flgared. Honduras mahegany has, however, the advantage of holding glue udmirally well; and is frequently used as a ground on whieh to lay veneers of the finer sorts.

Not leng since, Messre, Broadwood, the piano-ferte manufacturers of London, gave the Immense aum of £3000) for three logs of mahegany 1 Thess legs, the produce of a single tree, were each abeut 15 feat long, and 38 inchas square : they were cut into veneers of eight to an inch. The wood was particularly beautiful, capable of receiving the highest poliah, and, when polished, reflecting the light In tha most varied manner, like the aurface of a eryatal ; and, from the wavy form of the poren, effering a diffarent figure, in whatever direction it was viawed. Dealers in mahogany generaliy introduce an nuger before buying n log; but, notwithatanding, they are seldom able to dacide with much preciaion as to the quality of the woed, so that there is a good deul of lottery in the trade. The loga for which Measrs. Broadwood gave sn high a price wara brought to England with a full knowledge of
their superior worth. Mahegany was used in repairing aome of Sir Waiter Raleigh's ahipa at Trinidad, In 1597 ; but lt was not Introdr 'ed inte use in England till 1724. The daty on fereign mahogany used to be $£ 7$ 10s. a ton, on Honduras, $£ 1$ 109., and on Jamaica mahogany; $\mathbf{x 4 - i t a}$ effect being to force the consamption of the inferior in preference to the auperior article. Lacklly, hewever, the duty on foreign and colenlal mahogany, after being reduced $\ln 1845$ to $20_{\text {a. and }} 68$, a ton, was wholly repealed in 1845. There has been, in censequence, a very great Increase in the consamption of the superior sorts of mahogany for upholstary purposes, while the cheaper varietles are now largely employed, notwithatanding the diffieulties thrown in the way by Lloyd's regulations, in the construction of ships, and in coarser fabrica. In 1840 the imports ameunted to 23,115 , snd in 1852 to 41,090 tons, the re-exporta duriag the lattar yaar being only 2755 tons. Hnnduras, Caba, and Hayti, are the great sources of supply; the timber brought from the first being the cheapest and hy far the mest abundant. See Tredanld's Principles of Carpentry, p. 204 ; Library of Entertaining Knouledge, voluns on Timber-trees and Fruits; Edwaris's West Indies, vol. Iv., p. 208, ed. 1819, ete. ; and the Mahogany Tree, by Measra, Chaloner and Flemino; Living Age, xxix., 354.
The imports of ir hegany and other weods into the United Statea for the fiscal year ending June 30th, 1856, were as follows:

| Cabinet furniture. | Mannfactured. <br> . 46,781 | manufactured |
| :---: | :---: | :---: |
| Cedar, mahegany, | 22,807 | 8440,246 |
| Whilow....... | 125,803 | 86,554 |
| Cork. | 202,567 | 9,180 |
| Dye woods. |  | 796,802 |
| Others not speelfed | 429,915 | 25,157 |
| Total. | 8827,878 | 81,807,859 |

There are several varieties of mahegany, much admired, and sought after, for the beauty of thair figures, and the gradations of thair colors, which may be described as follows:

1. Plain Maifogany. Acajou uni of tho French, the wood of which is of one color, and equal throughout. 2. Veiny Mailooany. Acajou veiné, French. The wood of this veriety is veined longitudinally with the grain, displsying alternately dark and light streake, continuous, interrupted, or re-appearing. 3. Watered Mahoonny. Aeajou moired, French. This variaty is known by the traneverse waves which exhilit to tha eyo an effect similar to those of a watared ribbon. 4. Velvet-cord, or Catenilllar Mailoanny. Acajou chenille, French. This variety is distinguished by its whitlah lines, accompanied by a figured shade of fragments of rossate sprige, here and there disposed diagonally, longita inally, interrupted, or crossing one another. 5. IIn.'s-eyf Mahogany. Acajou moucheté, French. This variety is besprinkied with little oval knets, which, when duly proportioned, render the wood half light and half dark. 6. Festooned Mahooany. Acajou ronceux, French. This variety offers in its color a mixture of light and shads usually reambling ahcaves of wheat, feathars, wreaths, festoons, or figures of shrubs. As the wood of mahogany is generally hard and takes a fine polish, it is found to serve better than that of any other tree for cabinstmaking, for which purpese it is univeranlly admired. It is very strong, and answers well for beams, joista, planks, boards, and shingles, for which It was formerly much used in Jamaioa. Its adaptation to ship-buililing we have elready mentioned in the history of this tree.-Bnown a's Trees of A merica.
Maine, the most nerth-easterly State of the repuhlie of the United States of America, extends from lat. $43^{\circ}$ to $47^{\circ} 24^{\prime} \mathrm{N}$., and between leng. $6^{\circ}$ and $10^{\circ}$ E. from Washington, and contains an area of 35,000 square miles. Pepulation in 1790 was 06,540 ; in 1800, 151,719; in 1810, 228,705; in 1820, 298,385; in $1830,899,995$; $\ln 1840,501,793$; and in $1850,583.088$.

Sebastian Cabot, who was, after the time of Colnmbus, the first European navigator along the coasts of Maine and ita vioinity, appeara net to have given name to the countries discovered by him. The eldest and greateat name in these parts of North America is that of "Baccalaos"-a name given by the Biacmy fishormen at first to Newfoundland, and then also to all the countries which they found near this island. On some old maps the name "Baccalaos"-that is to say, the cod-fish country-reachea over a great part of the eastern const of America, but it appears more particularly in the regions of our State of Maine. Stephen Gomez was the firat Spanieh navigator who discovered (1525) and explored the cosate to the west and to the north of Cape Cod a little more particularly, and we therefore see on the Spanish mapa these regions designated with the name of "Tierra de Gomes" (Gomez's Land). So, for instance, at first on that of Ribiero (1529), and afterward on many others. After the middie of the 16th century, when Gemez was more and more forgotten, another name was introduced for these regions-that of "Norumbec." We can not exactly point out the occasion at which this name was invented; but we find it in the latter half of the 16th and in the beginning of the 17 th century, on nearly all the maps of these regions. The name seems to be of Indian origin, like the name of Kennelec, Quebee, and different ethers which have bec for the last syliable. Perhape some unknown sailors heard it pronounced by the Indiana, and introduced it ameng the geographers, whe were alwaye fond of new numes. It was, hewever, changed and apelled in many different ways: Norubec, Norombec, Arambec, Norumberge, Nerumberque, Norimbequa, etc.

The asvans of the time supposed that there was in the interior ef this northem country a lurge city of the same name, like that old fumed "Temistitan," in Mexico, and that through this city was running a large bread river, which was also called the River of Norumberge. It is probable that with this name our Penobscot Bay and its rivers were designated. They from this, therefore, called the whole country " La Terre de Norumberque," or the coasts of Arambec.

English Settlers.-At the sanne time the English introduced here another name, that of Virginia, under which they comprised, since 1584, pretty much the whole Atlantic coast of North America. Custom and use already introduced very soon a division in the Southern and the Northern Virginia coast. The royal patent of 1606 , by which the two Virginia companies were eatabliahed, made this custom legal and offleinl. After thie patent the whole section of the conntry north of the 40th degree of latitude, comprising our Maine, was designated as "Northern Virginia," or also, since some attempts at settlement, "the Northern Plantations," or also "the Second," or "Plymenth Colony," becanse the king had given this latter name to that particular society of merchants who had taken upon themselves the exploration and settlement of Northern Virginia. In the year 1616 the name of "New England" was introduced. The celebrated Captain John Smith was no doubt the inventer of it, and Prince Charlea approved of it. Smith says this himself in his history of New England, and states that he gave this name, which made some epposition against the neighboring French name of "New France" and the French pretensions; and, secondiy, he did it in contraposition to the country on the Pacific aide of Americs which was discov. ered by Drake, and named by him New Albion, and which was under the same latitude.

Sir Fernando Gerges gave, in the year 1686, to the territory between Piscataqua and Kennebeo Kivors, the name of "New Somersetshire," from the shire in England where he was born. Sometimes the whole vast region was therefore then called "Somersetshirs ;" and we find, even "'hen the name of Maine was already introduced, once the expression "Maine
or Somersetohire." In the same way the whole of Maine was also sometimes called "Lacona," from a part of the country to which this name was given for a time. We find on a map by Seller, of the beginning of the 18th century, written with great letters, "the Province of Laconm or Maine." The early English settlers on the coast of New England had for Muine the popular name of "the Eastern ahore," or "the Eastern country."

The name Maine was first introduced in the year 1639, when King Charies I. granted to Sir Fernando Gorges all the land from Piscataqua River to Sagadahoo, to which tract of land he gave the name "Irovince of Maine," "in compliment to the Queen of Charies I. who was a daughter of France, and owned as her private eatate the province of Maine in France." This, at least, is the opinion of the tirst good historian of Muine, Mr. Suilivun. But Sullivan gives no autherity for this opinion, which has, however, been adopted as a pretty general and popular one. The truth seems to be that it can not be proved that Queen Henrietta Maria had any rights at uil in Maine. An old author on Maine observes, "it is very curious that the name of our country hue been made shorter by an ' $e$ ' than the French Maine." In fact the word is, in old docnments, very commonly written "Main" or "Mayn." From this, one could be induced to suppose that the name originated in the Engiish expression for terra firma or continent: "Main" or "Mainland." Nearly all the first Engiish tradiog and fishing establishments along the ehore were on the numereus islands of the coast. From there the expiorers made excursions "to the Main," to trade with the Indians and to explore the country. There are innumersiife allusions, in their traveling reports, to "the Mayn." Could not from this have grown the custom of caliing the country " Main ?" From similar reasons and cir. cumstances the north coast of South America is callicd by the inhsbitunts of the Antilies and Caribhean Islunds, "Costa firme," or "Tierra firme."-J. G. Kont.

The name Maine extended st first only a amali distance along the coast. I3y degrees, and in the ceurse of time, in consequence of growing settiements and of many treaties and grants, it was oubsequeutiy extended as far east as Penobacot Bay, and at last as far as St. Croix River, and in the year 1819 the "Province of Maine" was erected into the "State of Maine."
There were in this State in 1850, 2,039, 596 ucres of land improved, and 2,515,797 of unimproved lund ia farms; cash value of land in farms, $\$ 54,861,748$; and the value of implenents and machinery, $\$ 2,284,557$. Live Stock.-Horses, 41,721; ssses and mules, 45; milich cows, 183,556 ; working oxen, 83,893 ; other cattie, 125,890 ; shcep, 451,577 ; swine, 54,598 ; vaiue of live atock, $9,705,726$.

Agricultural Products, etc.-Wheat, 296,259 busheis ; rye, 102,916; Indian corn, 1,750,056; oats, 2,181,037; bariey, 151,731; buck wheat, 104,523 ; peas and beans, $200,5-11$; potatoes, $3,436,040$; value of products of the orchard, $\$ 342,865$; produce of market gardens, $\$ 122$, 387 ; pounds of butter made, $9,243,811$; of cheese, 2,484,454; maple sugar, 93,042 pounds; molasses, 3,167 gallons ; beeswax and heney, 189,618 pounds; wool, pounds produced, $1,864,034$; flux, 17,081 ; silk cocoons, 252 ; hops, 40,120 pounds ; hay, tons of, $75{ }^{5}$, , 889 ; ciover seeds, 9,097 bushein; other grass seeds, 0,214 ; fiax seed, 580 fushels ; and were made 724 gallons of wine; value of home-made manufactures, © 513,599 ; of siaughtered animals, $81,646,773$.

Rivers, Lakes, efc.-It has been estimated that one sixth part of the surface of Maine consists of water. There are numorous laken, the largest and most nuted of which are Mooschead, Sebago, Chesuncook, und Umbagog. A part of the waters of the intter extend into New Hampshire. Some of these lukes are justiy celebrated for the picturesque beauties of thair scenery. A ateamboat has been built to piy on the waters
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Mant cotton 1 employi 168,556 woolen ing 888 320 yar 8934,92 capital 1,484 to tablishm 244 pers ued st

1. The p entry, altura ity of Csac long., $70^{\circ}$ aafe, und ar protected b by ice, and enough for of the port the Kenneb principal tic
of Moosehead Lake. The Kennebee and the Penobecot are the two most important atreama; the former Is navigable to Auguata, and the latter to Bangor. Their shores are adornad with villagea, and the interrales along their margina are the most fortile and beat cultivated In the State. The Saco, Androscoggin, and St. Crolx Rivers enter the Atlantle. St. John, and its confluenta, the Walloostook, Allagash, and Aroostook, drain the northern part of the State. The St. John forms a part of the northern part of the State by tha late treaty of Waahington, and its waters are open to the free navigation of both nations. The princlpal bays are Casco, Panobscot, Machias and Passsmaquoddy.

Ifanufactures.-Thore were in this Stato in 1850, 13 cotton factoriea, with a capital investad of $\$ 3,847,700$, employlng 840 males and 8,672 females, producing 83 ,168,536 yards of ahaeting valued at $\mathbf{2 , 6 8 0 , 6 1 6 ; 4 5}$ woolen factoriea, with a capital of $\mathbf{\$ 6 4 4 , 2 0 0 , ~ o m p l o y - ~}$ ing 388 malea and 890 femalea, manufactaring 2,926,320 yarda of cloth, and 1,200 lba, of yarn, valued at e034,923; 1 eatabliahment making pig-iron, with a capitsl of 8214,000 , omploying 71 jersons, producing 1,484 tons of plg-iron, etc., valued at $\$ 36,616 ; 25$ establishmenta, with a capital of $\$ 150,100$, omploying 244 persons, and making 8,631 tons of castings, valned at $\$ 265,000 ; 183$ flouring and grist millis, 752 aaw
mills ; 218 tanneries, with a capital of $\% 732,447$, omploying 780 persons; value of producta, $\$ 1,620,636$; 45 printing officea, 4 dally, 8 tri-weekly, 4 eomi-week: $1 y, 48$ weekly, and 1 monthly publication; aggregate number of copies pablishsd annually, $4,20 \mathrm{~d}, 064$. Capp ital invested in manufactures, $\$ 14,700,452$; value of manufactured articlea, $\$ 24,644,430$.

There were, January 1856, 11 railroads In this State; 494 milea completed and $\ln$ operation, and 00 milas in course of construction. The only canal in the State is the Cumberland and Oxford, $20 \frac{1}{2}$ milles long, connacting navigation from Portland to Sebago, and by a lock in Saco River, navigation is extended to Long Pond, 80 milea furthar.

The receipta on the principal linea of railroad in Muias, during the last four years, have been as foilows:

|  | Lengit. | 1853. | 1854. | 1855. | 184. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Milen. | Jollars. | Tollare | Bollara. | 17ailara |
| And and Kenaobee. | S5 | 8154,108 | 470,647 | 196,842 | 260,158 |
| Androseoggin....... | 20 | 19,152 | 99,896 | Voratirm | 23,805 |
| Bangor and Oldtown. | 18 | 48,188 | 44,858 | 40,170 | 85,698 |
| Calals and Baring. . | ${ }^{6}$ | 28,098 | 81,640 | 87,178 | 89,880 |
| Ken. and Portland.. | 724 | 177,088 | 297,857 | 228,084 | 228,290 |
|  | ${ }_{81}^{51}$ | 280,077 | 270,800 | 277,502 | $\begin{aligned} & 112,702 \\ & 264,180 \end{aligned}$ |

There were, January, 1854, 60 benks, with an aggregate cash capital of $\$ 5,013,870$.

Fobrian Conargce of thr State of Maine, vrox Octobea 1, 1820, to July 1, 1856.

| Years ending | Exports, |  |  | Importa. | Torunage Cleared. |  | Dintrict Tonnage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic. | Foroign. | Total. | Total. | American. | Forelgn. | Rtegistered. | Enroiled and Licenaed. |
| Bept. 80, 1821........ | 6904,928 | 46,926 | 1,041,148 | 8980204 | 111,861 | 620 | 60, 884 | 76,188 |
| 1829........ | 1,018,878 | 29,769 | 1,088,648 | 048,775 | 105,881 | 4,452 | .... | .... |
| 1823.......... | 865,046 | 80, 545 | 895,501 | 801,644 | 70,778 | 1,879 | .... | ... |
| 1824......... | 870.871 | 99,824 | 000,195 | 768,648 | 98,477 | 774 |  |  |
| 1825........ | 964,664 | 66,468 | 1,081,127 | 1,169,940 | 118,881 | 8,250 |  |  |
| 1828......... | 1,001,875 | 80,700 | 1,052,575 | 1,245,285 | 115,060 | 2,240 | .... | ... |
| 1327......... | 1,088,085 | 87,099 | 1,070,134 | 1,8388,890 | 94,660 | 2,800 | . | ... |
| 1528......... | 1,009,642 | 15,875 | 1,010,517 | 1,246,809 | 95,066 | 1,785 | .... | . |
| 1829........ | 729,108 | 8,788 | 787,882 | 749,781 | 88,718 | 2,705 | $\ldots$ | . |
| 1380. | 648,485 | 87,047 | 670,522 | 872,666 | 91,629 | 6,165 | . ... |  |
| Total. | (0,119,776 | 8836,518 | (9,455,288 | 6,805,177 | 982,448 | 26,160 | . | -*. |
| Bept 80, 1881......... | \$99,748 | 85,825 | - 805,578 | \%941,407 | 61,482 | 49,878 | 69,758 | 98,814 |
| 1892......... | 907,286 | 74,157 | 981,449 | 1,128,896 | 67,188 | 64,720 | 0,188 | .... |
| 1888. | 989,187 | 80,644 | 1,019,881 | 1,880,808 | 66,488 | 98,785 | .... | .... |
| 1844......... | 815,277 | 18,890 | 834,187 | 1,060,181 | 62,859 | 99,674 | $\cdots$ | * |
| 1885........ | $1,044,951$ | 14,416 | 1,059,887 | 888,389 | 68,048 | 64,081 | . | ... |
| 1838. | 880,074 | 14,912 | 850,986 | 980,088 | 71,155 | 74,086 | .... | .... |
| 1887. | 947,276 | 8,878 | 955,952 | 801,404 | 81,898 | 74,160 | . $\cdot$. | .... |
| 1888........ | 915,076 | 20,458 | 985,588 | 809,148 | 54.816 | 66,715 | . | .... |
| 1839. | 875,434 | 17,051 | 895,485 | 982,724 | 77,899 | 61,097 | ... | ... |
| 1340. | 1,009,910 | 8,359 | 1,018,269 | 823,762 | 82,594 | 75,005 |  |  |
| Total..... | 68,143,219 | 218,383 | 68,856,605 | 69,680,660 | 688,470 | 788,645 | -••• | . . . |
| Sept. 80, 1841........ | 1,078,683 | 12,989 | \$1,091,665 | \% 700,961 | 90,764 | 56,679 | 115,819 | 189,971 |
| 1848....... | 1,048,179 | 7,951 | 1,050,523 | 608,864 | 86,827 | 58,721 | .... | .... |
| $9 \mathrm{mos}, 1843 . .$. | 650,489 1164964 | 2,459 | 682,891 1176185 | 250,260 870824 | 60,463 | 38,974 81,989 | . $\cdot$ | . |
| June 80, 1844........ | 1,164,964 | 11,171 | 1,176,185 | 570,824 | 91,020 | 61,989 | .... | ... |
| 1885........ | 1,167,640 | 87,485 | 1,250,105 | 855,645 | 88,618 | 62,001 | . $\cdot$ | . $\cdot$ |
| 1846....... | 1,818,099 | 10,269 | 1,828,808 | 787,092 | 96,789 | 72,058 | .... | ... |
| 1847....... | 1,814,071 | 20,182 20.489 | $1,684,208$ $1,957,895$ | 574,056 | 104,189 | 69,603 89,443 | . $\cdot$ | ... |
| 1849. | 1,279,803 | 7,288 | 1,286,681 | 721,409 | 127,863 | 66,081 | ... | . $\cdot$ |
| 1800... | 1,886,818 | 29,084 | 1,565,912 | 856,411 | 111,128 | 91,014 | .... | .... |
| Total.... | 12,820,298 | (409,550 | \%18,028,778 | 60,719,087 | 1,009,091 | 614,403 | *** | *** |
| , Tune 80, 1551........ | 81,517,487 | 888,951 | (1,551,438 | -1,176,590 | 120,987 | T4,804 | 807,880 | 178,985 |
| 1852......... | 1,663,274 | 49,514 | 1,717,818 | 1,094,977 | 181,308 | 8,884 |  | 18, |
| 1843......... | 1,761,929 | 878,853 | 2,040,787 | 1,888,589 | 179,569 | 62,614 | $\cdots$ | $\cdots$ |
| 1854,....... | 1,980,081 | 659,010 | 2,559,041 | 2,301,900 | 198,788 | 82,627 | .... | .... |
| 1855........ | $2,048,014$ | 2,308,198 | 4,851,207 | 9,027,448 | 201,885 | 82,005 | . $\cdot$ | ... |
| 1856........ | 2,250,947 | T08,094 | 2,969,041 | 1,940,778 | 250,208 | 50,787 | $\cdots$ | $\ldots$ |

1. The princlpal porta are Porthand, city and port of entry, situated on a peninsula at the western extramity of Casce Bey ; lat. (Mount Joy), $48^{\circ} 39^{\prime} 52^{\prime \prime}$ N., leng., $70^{\circ} 18^{\prime} 84^{\prime \prime} \mathrm{W}$. The harbor is capacious and safe, and among the beat on the Atlantio coast. It is protected hy islands from storms, seldom obatructed by ies, and haa a good ertrance. The water is deep eneugh for veseels of the largest class. The tonnage of the port in 1836, was 136,154 tons. 2. Bath.-On the Kennebec, 12 milee from the ocean, la one of the principal towns of the State, and the largest ship-
building port in the world. A branch of the Kennebee and Portland Railroad connects the city with Portlund. The tonnage of the port is the largest in Maine, nnd in 1856 amonnted to 193,320 tons. 3. Bel-fast.-At the head of Belfust Bay, 30 miles from the ocoan, has an excellent harber, and a considerable trade in lumber and fish. Its chief industry, howaver, is ship-building. Stoamboats ply to Portland and lloston. The tonnage of Bolfast, in 1856, was 76,812 tons. 4. Bangor, on the Penohscot. Toanage in $180{ }^{6} 6,38,048$ tons.

Finances of he State.-The whole amount of tho funded debts of the Stats, December 81, 1856, was $\$ 699,000$; of that sum $\$ 30,000$ became due March 1. 1857, and the current expense of the year wili be dis: charged, without resorting to other masns than the nasual tax imposed by the Legialature. No Legitature will be required to provide for the payment of that suin. Recoipts and disturnementa for the yei ending December 81, 1856. Recejpts, balsace from year 1855, $\$ 89,18087$. From all other sources, $\$ 598$, 812,04. Total, 8632,442 41. Dishuraenients, $\$ 486,-$ 165. Balnnce in the treasary, 146,277 41. Soe North Am. Rev., Ivili,; 299 (SAnink), xxxvii., 419 (Leonamd), iil., 362 (Rand); Nikea's Reg., xl., 899 (II. Clay); IItuxt's Mag., fi., 313 (Lanman), xvil., 677 ; Jo. of Sc., xxxvi., 148 ; Am. Quar. Reg., v., 105 , x., 154, xiv., 148, xiil., 144; Air. Whig Rev., II., 262 ; De Bow, xii., 603; New Eing. Mag., ii., 394.

Maise, or Indian Corn (Fr. Bled de Turquie; Ger. Trarkisch korm, Mays; It. Grano Turco o Siciliano; Sp. Trigo de Indias, Trigo de Turquia), one of the cereal grasses (Zea Mays), supposed to be indlgenous to South America, being the only species of corn caltivated in the New World previously to its discovery. It was Introduced into the Continent abont the beginning; and Into Engiand a little after the middlo of the 16th century. Its culture has spread with astonishing rapidity; being now extensively grown in most Asiatio countries, and in all the southern parts of Europe. It has the widest geographical range of all the cerealia, growlog juxuriantly at the eauator, and as far us the 50th degree of north, and the :-vth of sonth latitude. It has been raised in England, in nursery gardens near the metropolis, for more than a century ; and recently it has been attempted to raise it in the fields, but with indifferent success. Like other plants that have been long in cultivation, it has an itnmenae number of varieties. The ear consiets of about 600 gralar, aet close together in rows, to the number of 8,10 , or 12 . The grains are usually yellow; hut they are sometimes red, biuish, greenish, or olive-colored, and aometimes striped and variegated. The maize of Virginia is tall and robust, growing 7 or 8 feet high; that of New England is shorter and lower; and the Indians further up the country had a stili emailer sort in common uas. The stalk is jointed like the sugar cane. The straw makes excelient fodder; and the grain, as a bread corn, is liked by some; but though it abound in mucllage, it coutains littie or no gluten, and is not llkely to be much used lyy those who can procure wheaten or even rye bread. See Cons.
Malachite. Until 1851, so little was known abeat it, except to mineralogists, that the publio knew not whether it was a stone or a composition. The industrial history of the substance, however, is exceedingly curious. Malachite is a peenliar variety of green carbonate of copper, found in a few localities in Siberia and Soath Australia. It is softer lut leavier than marble, and much more difficult to work. It can rarely be fuund in masses weighing more than from 10 to 20 pounds; and the finer specimens have a very high value. Thore is a mine in Siberia, where a mass of malachite, supposed to weigh 500,000 pounds, lios inbedded at a dejth of 280 feet In a copper mine; and there is every indication that the maluchite has beon formed by the aolidification or petrefaction of a liquid carbonate of copper, on aome such principle as the stalactites in the Derbyshire caves. Tho material breaks so readliy, that it is generally pleces of only two or three pounds' weight that can be brought eafely to light.
MM. Demidoff, the owners of this valuabie mino, have establiahed a malachito mannfactory at St . Petersburg. The production of large doors, or vanes, or other articies in this anbatance, is exceedingly difficult. The fragments of malachite are flrst eawn into
thin plates, the thickness of which varies from a twelth to an elghth of an inch. The cutting to effected by vertical circular sawa, controlled hy very delicate machinery; and molstened with aand and water. For curved surfaces, the malachite is cut by bent saws of a pecnllar kind, the working of which is oxtremely precarious and difficult. The malachite has markings in different tints of green, which give to the material no amall part of its beauty. Theartist'.0 workinan determines what convolution or pattern these markings shall present in the finished article; and he so selects the veneers or small pieces as to attain that end. The pieces are cut at the edgoa to Join with graat nicety ; and to make these joints accord better with the markings, they are often made curved. The grinding of the edges is effected by the aid of rapidiy-revolving copper wheels. The anbstance on which the malachite is veneered is generally iron or copper, but sometines, atone or marble. When the pleces havo been fixed down with cement, omall interstices are filled up with a cement mixed with fragments of malachite, and colored with a powder of the eame material. After this the surface is ground and polished. The price of the raw malachite, in average pleces as brought up from the mine, is about $\$ 850$ to $\$ 4$ per pound; lut very great waste occurs in the working; and this, coupled with the lengthened time required in the working, will account for the great costliness of doors, vases, etc., made in this material. The malachite doors which occupled so prominent a place in the Great Exhibition, London, empioyed 80 workmen for a wholo year.

Malaga, a city and sea-port of Spain, in the kingdom of Granada, in lat. $86^{\circ} 431^{\prime}$ N., long. $4^{\circ} 25^{\prime} 7^{\prime \prime}$ W. Population, perhaps, 65,000. Nalaga his an oxcellent harbor. It is protected on its eastetn side by a fine mole, full 700 yards in length. At its extremity a light-house has been constructed, furnished with a powerful llght, revolving once every ninute. At a distance it appears obscured for 40 seconds, when a brilliant flash ancceeds for the uther 15 seconds. A shoal has grown up round the mole-head; and the depth of water throughout the harbor is said to be diminishing. Latterly, however, a dredging-machine has been employed to doopen it, by clearing out tho mud end eccumulating sand. The deptis of water at the entrance of the harbor and within the mole is from 26 to 30 feet ; and close to the city from 8 to 10 feet. The harbor could easlly accommodate more than 450 merchant shlps : it may be entered with all winds, and affords perfect shelter. Owing to the want of officisl returns, and to the prevalence of smuggling, which may be said to have annibilsted all fair trade, it is not possible to obtain any accurate accounts of the trade of Malaga, or indeed of any Spanish port. The great articies of export are wine and fruits, particularly raisins and almonds, grapes, figs, and lemons ; there is also a considerable exportation of olive oil, with quantities of brandy, snchovies, cummin-seed, aniseed, harilla, soap, etc. Tho lead oxported from Ifalaga is broaght from Alra. The imports are salt fish, iron hoops, bar iron, and nails; cotton stuffs, hides, earthenwaro, etc., with dyo stuffs, all sorts of colonial produco; lutter and cheese from Ilolland and Ircland, linen from (iermany, etc. The trade with Eaghand neems to be diminlshing, and that with tho United States to be facreasing. This is a consequence, no doult, of Malaga wine being very littic in domand in the former, while it is pretty largely consumed in the latter. The Americans are also the largeat consumers of Malaga fruit. See Marcy's Com. Rel. U. S., vol. il., pj. 63 , 64, published 1856-7.

Commerce with the United States.-The following table will show, approximately, to what extent the direct trade between the Unitod Statea ond Spain has falien off within the past few years. Most of this trade is carried on through the port of Malaga: ander the of duty us ports of to $\$ 228,0$ States to exports $t$ quansity, high price brings ap amount, as is $\$ 1,240,9$ ing a tota been very not much actiptions ing to the been very the grape the Muscat season 1,50 scription he States: th France; an shipments of Europe.
fot M. R., American per box. did not exc may go to tions of thit good roads country, ca pete with they are $n$ leapues, lite transpoltati brought at interior, fro freight of $t$ the cost. quality thar the Americ high cost, ec
The follo valuabie wo fullest and of Malaga. pended upon
" Wine.
weet ond

## MAL

 of Malaga in the pollowine Yeare.

| Yeara. |  |  |
| :---: | :---: | :---: |
| 184 | 14.978 | 1850.............. 16,600 |
|  | 12,988 | 1851............. 11,018 |
|  | 15,609 | 1852. . . . . . . . . . . 12, 1210. |
|  | 18,002 | 11,378 |

The fulling off in tonnage which the above table exhibits is, hewever, perfectly reconcllable with the com-
parative tablea for 1854 and 1882; when we take into conalderation the fact, that at least one third of the exporta to the United States is carried hy privileged vessels ; and even national vessela, notwithetanding the dlacriminatlig duty of 10 per cent. to whlch they are subject in the ports of the United Statea, partictpate largely in this carryling trade, for the purpoee of returning with cargoes of cotton for Malaga and Barcelona, or with codfish from Newfonniland.


| Flag ${ }^{\text {d }}$ | Wine. | Raldina. | Iga. | Ant | Lamona | Lead. | $\begin{aligned} & \text { Red } \\ & \text { lond } \end{aligned}$ | phate. | pquorceo | Blnd | Malt. | Olives. | Ulive | Yaluse. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Bozes. Onakn. } \\ & 65,624 \\ & 1,250 \end{aligned}$ | Praik |  |  | Tonsis | K0\% | Canes. | condles. | (1andiou | 58 | 0 |  |  |
| Un | 2195100 | 21,895 4 | ${ }^{1} 800$ | 184 | 1,908 | 245 | ${ }^{1} 710$ | 46 |  | 287 |  |  |  | ${ }^{2278508}$ |
| 8pautoh | 680884 | 10,475 -. | .. | 163 |  | 294 | .... |  | $\ldots$ | 150 | ${ }^{284}$ | 300 |  | 57,288 |
| 1'russlan. | 400 | 411 .. | . | . | 176 | 175 |  | 1 | .... | 891 | 870 | $\cdots$ | 150 | 80,087 |
| Danish | 200 | $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | 66 |  | . $\cdot$ | .... | 176 | 150 | . | .. | 8788 |
| T | $\cdots$ | . |  |  | . | 246 |  |  |  |  |  |  | .. | 23,274 |
| Total | 8,644 040 | 88,295 1,700 | 1,881 | 840 | 2,779 | 1,681 | 2,000 | 96 | 1,060 | 1,748 | 1,312 | 1,150 | 897 | -420,652 |

The following extructs are taken from the comtnercial report of Malagn, dated the B1at of January, 1857, communicated to the Department of State: "The imports from the United States, which are usually limited to staves by Ameriean, and one or two cargoes of cotton by Spanish vessels, have been Increased by a few cargoes of flour and wheat, toward the end of the year, onder the late royal decree admltting breadatufis free of duty until June next; the approximate valne of imports of American produce for the last year amounted to $\$ 228,030$, and of foreign produce from the United States to 32,700 , making a total aum of $\$ 260,730$. The exports to the United States have not been large In qusnity, owing to short crops the past year. The high price of every article of exportation, however, briugs up the value equal to any former period. The amount, as per proximate returns of American vessels, is $81,240,907$, and by forelgn vessels $\$ 407,360$; making a total sum of $\$ 1,648,267$. The rulsin crop has been very short, the last vintage being estimated at not much over 600,000 boxes of Muscátela. Other descriptions of ralsina show a still greater decrease, owing to the cenlza, a disease of the vines which has been very general the two laat years. The culture of the grape is extending throughout the province; and the Muscatel vines would probably yield, in a favorabe seasen $1,500,000$ boxes. Over two thirds of this description have been shipped the last year to the United States: the finer quality is shlpped to England and France; and when very abundant, at low pricos, large shipmente would be made to Germany and the north of Europe. Prlcea have ruled very high, averaging $\$ 2$ for M. R., and $\$ 225$ for ordinary luyers, for the American market; fine London luyers from $\$ 3$ to $\$ 4$ per box. The stock existlng at the end of the year did not exceed 30,000 boxes, about two thlrds of which may go to the Unlted States. The various productiens of this and the ndjoining provinces, for want of good roads and rapld communicatlon in a mountainous country, can not be brought to market so as to compete with the same of other countries, consequently they ure not lucreased. Outside of five or eight leagues, little is recsived, but at such a ligh cost of transportation that many bulky articles cun not be brought at all. Sumac, for Instance, is worth, in the Interior, from 20 to 25 per arroba, or 25 pounds. 'The frelght of this artlele to Malaga is more than double the cost. It is considered by chemists of a better quality than the Siclly, but it can not be afforded for the American market, although, notwithstanding the high cost, conoiderable is shlpped to France."

The following detalls, extracted from Mr. Inglis's valuable work, entitled "Spain In 1830," contain the fullest and best account we have met with of the trade of Malaga. The authentlelty may, we belleve, be depended upon:
"Wine.-The wlues of Malaga are of two sorts, swect and dry; and of the fermer of these there are
four kinds; first, the commen 'Malaga,' known and exported under that name. In thla there ls a certaln proportion of bolled wine, which la allowed to burn, and which communlcates a allghtly burnt taste to the ' Malege.' The grape from which thls wine is made is a white grape; and every' pipe of 'Malaga' contalns no less than eleven gallons of brandy. Secondly, 'Mountaln.' This wine la mado from the eame grape as the other, and, like it, containa coloring matter and brandy ; the only difference is, that for ' Mountaln' the grape is allowed to become ripe. Thirdly, 'Lagrimas,' the richest and finest of the sweet wines of Malaga; the name of which almost explaina the manner in whleh it la made. It la the dropplinge of the rlpe grape hung up, and la obtained without ihe appllcation of pressure. The dry wine of Malaga is produced from the same grape as the aweet wine, but pressed when greener. In this wine there is an elghth part more of brandy than in the sweet wine; no less thun 1-12th part of the dry Mulaga being brandy. The whole produce of the Malaga vineyards is estlmated at from 35,000 to 40,000 pipes; but, owing to the increasing stock of old wine in the cellurs, it is impessible to be precise in this calculation. The exports of all sorts of Malaga wine may be stated at about 27,000 pipes. The principal market is the United States and South Anerica; and to these the export is upon the Increase. The average price of the wlnes shlpped from Malaga does not exceed $\$ 35$ per pipe ; but whes are occasionally exported at the price of $\$ 170$. Many attempts have been made at Malagat to produce sherry, but none with perfect success. The sherry grape has been reared at Malaga upwn a soil very sinilur to that of Xeres ; hut the merchants of Malaga have not ventured to enter the wine for expert. One reason of the very low price of the wines of Malaga is to be found in the cheapness of labor: tield labor is only $2 \frac{1}{3}$ reals a day ( 10 cents). In the fruit end vintage time it is about double.
"Fruit.-Next to lts wines, the chisf export of Malagn is fruit, conslsting of raisins, almonds, grapes, tige, and lemons; but of these, raisins are principally exported. I have lefore me a note of the exports of Mulaga for the months of September and October, 1830-the chlef, though not the aole exporting montha -and : find that luriug that tlme the export of raisins amounted to 268,845 boxes, and 31,916 amaller packages. Of this quantity 125,384 boxes wero entercd for the United 'Statea; 45,513 for England ; the remuining quantity belng for France, the West Indies, the Spanish ports, South America, and Hollani. The raisius exported from Malagn are of three kinds, muscatel, bloom or sun raisin, and lexias. The muscatel is the flnest ralsin in the world. In ita prepmration no art is used; the grape is merely placed in the sun, and frequently turned. The bloom or aun raisin is a different grape from the muscatel, but its prepuration le the same. The lexias acqulre this name from the

Hquor, or ley, in which t rey are dipped, and which is composed of water, asher, aud oll; these, after belug dipped, are also dried in the aun. All muscatel raisina are exported in boxes, and also a part of the bloom raiains. In 1829, the expot is of muscatel and bloom raiaina were 825,000 bexen of 25 lba. each; in all, $8,125,000 \mathrm{lbs}$. This quantity la independent of the axport of bloom ralains in casks, and of lexias; the latter amounting to about $\mathbf{3 0 , 0 0 0}$ arrobas. The export of raisins to lingland has fallen off, while that to America has conaiderably increased. In 1824, 75 shipa cleared from Malaga for England, with fruit; In 1830, down to the 1st of November, 84 vessela had cleared out. Of the other fruita raised near Malaga, grapea, almonds, and lemons are the most extenaively exportad. In the months of September and October, 1830, 11,612 jars of grapes were shipped for England, 6120 for America, and 1650 for Russia. During the same months, 5335 arrobas of almonds ( $188,875 \mathrm{jba}$.) were ahipped for England, this being neariy the whole export. There were also exported during the aame period 3749 boxes of lemons for England, 4201 boxes for Germany, and 840 boxes for Rusuia.
"Oil.-There is also a large expert of oll from Malaga; but the export during the latter part of 1830 would be no criterion of the average, because the Greenland whale-fishery having failed, extenalve ordera had been received from England."
Money.-Accounta are kept in reals of 84 maravedia vellon. For the coins, and their value, used at Malaga, $s e e$ Cadiz.

Weights and Measures.-The weights are the same as those of Cadiz. The arroba or cantara $=4 \cdot 19 \mathrm{En}$ glish wine gallons; the ergular pipe of Malaga wine containa 35 arrobos, but lo reckoned only at 84 ; a bota of Pedro Ximenes wine $=53 \frac{1}{3}$ arrobas; a bota of oll is 43 , and a pipe 35, arrobas; the latter weighs about 860 lbs. avoirdupois; a cargs of ralaina is 2 baskets, or

7 arrobas ; a cask contains as much, though only calied 4 arrobaa; as a last for freight are reokoned-4 botar or 8 pipes of wine or oli, 4 bales of orange-peel ; 5 pipea of Podro Ximenea wine or oll; 10 casks of almunds (each about 880 lbs., Finglish); 20 cheats of lemons and orangea ; 22 caska of almonds (of 8 arrobas each) ; 44 casks of raisina (of 4 arroban each); 88 half caeks of ralains; 50 baskets or 100 jurs of ralsins.
Port Charges.-The port and harbor duea amount, on an English veasel of 800 tona, to about $\boldsymbol{c} 21$; on a Spanish vesmel of the same burden they would be about $£ 11$ 10s.

Warehouding.-Goods may be warehoveed for 12 montha, paying 2 per cent. ad valorem in lipu of all charges ; but at the end of the year they munt be elther entered for consumption or re-shipped. The 2 per cent. is charged whether they lie a day or the whole year. See also Townamen's Trarele in Spain, vel. III., pp, 1042.

## Malmbley See Wine.

Malt (Ger. Maly; Du. Mout; Fr. Mal, Blédyemé; It. Malto; Sp. Cebada retonada ó entallecidu; Ius, Solod; Lat. Mfallum). The term malt happlied to designate grain which, being ateoped in water, is made to germinate to a certain extent, after which the process is checked by the application of heat. This evolves the saccharine principle of the grain, which is the easence of malt. The process followed in the manufacture la very aimple. Few changea have been made in it; and it la carried on at this moment very much in the same manner that it wus carried on by our ancestors centuries ago. Rice, and almost every speciea of grain, has been used in malting; hut in Europe, and especially in England, malt is prepared aimost wholly from bariey. It is the principal ingredient in the manufacture of beer, and is little used except in brewing and the distliation of spirits. Its conaumption In the United Statea is rapidly increasing.

Table bhowing the Conagmption or Grain, and the Paoduction or Malt and Spiattuoes Liquone, in tue Unitrd Btates foa tim Yana 1850.

| States. | Capital Invested. | Quantuties and kinds of grain, etc., consumed. |  |  |  |  |  |  | Manda enlployed. | Quantitios of liquori produced. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rarley. | Oorn. | Rye. | Oete. | Apples. | Molneson | Itopu. |  | Als, ote. | $\text { Whiskyd\|} \left\lvert\, \begin{aligned} & \text { Wigh wines. } \\ & \text { hin } \end{aligned}\right.$ | Aum, |
| Maine | $\begin{gathered} \text { Dollars, } \\ 17,000 \end{gathered}$ | Fuahela. | Buchela, | Busheto, | Buabelin | $\begin{gathered} \text { Buabele. } \\ \ldots \ldots . \end{gathered}$ | $\begin{aligned} & \text { Mibdm } \\ & \mathbf{2 , 0 0 0} \end{aligned}$ | Tops, | 5 | Barrelo. | Gallons. | Gilions, 420,000 |
| Vermont. | 7,000 | 2,500 |  |  |  |  |  |  | 2 | 800 |  |  |
| Masaschnsetts, . . . . . . | 457,500 | 80,000 | 18,400 | 26,600 |  |  | 85,180 | 89 | 181 | 25,800 | 120,000 | 78,000 |
| Rhode Island. . . . . . . | 17,000 | 12,500 |  |  |  |  |  | 6 | 9 | 8,900 |  |  |
| Connecticut | 12.500 |  | 20,000 | 80,1000 | -707 |  | 16 | 9 | 20 |  | 181,006 | 1,200 |
| New Yor | 2.565,900 | 2,062,250 | 1,647,266 | 909,007 | 6,707 | 60,940 | 24,5*10 | 581 | 1,8*0 | 644,700 | 9,291,701 | 29,900 |
| New Jers | 409,655 | 104,700 | 254,000 | 88,400 |  | 409,700 |  | 43 | 197 | 84,750 | 1,250, $2 \times 30$ |  |
| Pennsy | ,719,900 | 505,105 | 1,488,565 | 517,180 | 24,700 | 81,200 | 16 | 283 | 911 | 189,581 | 6,548,510 | 1,500 |
| Maryland | 847,100 | 76,900 | 166,100 | 54,700 | 480 | , | .... | 85 | 126 | 28,880 | 787,400 |  |
| Virgtnia.............. | 100,918 | 20,000 | 250,700 | 62, 680 | 450 | - | .... | 14 | 128 | 5,500 | 879,440 |  |
| North Carolln | 21,984 | , | 64,650 | 4,700 | , | , | $\ldots$ | .... | 75 | E, | 158, 081 |  |
| Sonth Carolham | 8,475 |  | 18,100 |  |  | .... | .... | .... | 88 | .... | 43,900 | . $\cdot$. |
| Ceorgis... . . . . . . . . . | 7,150 | .... | 80,150 | 9,600 | 1,600 | .... |  | .... | 15 | .... | 60, 450 | $\ldots$ |
| Alabams. $\cdot . .$. | 0100 |  |  | , |  | .... | 25 | -10 | 8 | \%®in | , | 8,800 |
| Toulsiana | ${ }_{18,500}$ | 18,000 |  | 8080 | - |  | .... | 10 | 8 | 8,000 | 1491\% | .... |
| Kertucky............. | 167,896, | 65, 050 | 651,850 | 80,620 | , | 5,000 | .... | 18 | 274 | 19,500 | 1,491,74 | ... |
| Tennessec............. | 63.125 | 81800 | 258,400 | 0,480 | . . . | , | .... |  | 109 |  | 657, ${ }^{(1090}$ | .... |
| Missourt. | 293,900 | 124,440 | 809.800 | 84,900 |  | ... | .... | 81 | 179 | 44,350 | 989,4 480 | . |
| Ohlo | 1,902,974 | 8890.950 | 8,589,140 | 281.750 | 19,800 |  | .... | 178 | 1,1899 | 96,948 | 11,565,150 | . 6 |
| Indla | 844,950 | 118,150 | 1,417,900 | 48,700 | 11000 |  |  | 15 | 287 | 11,005 | 4,630, 1000 |  |
| Itinols | 803,400 | 98,000 | 708,500 | 48,700 | $\therefore-0$ |  | ... | 80 | 274 | 27,925 | 2,815, 000 |  |
| Mlehlgan | 189.495 | 82,030 | 812,800 | 19,150 |  |  |  | 16 | 98 | 10,820 | 690,9140 | . |
| Iowa. | 18,500 |  | 61,150 | 7.200 | .... | . $\cdot$ | .... | 9* | 19 |  | 160,600 | . $\cdot$. |
| Wleconsin | 98.100 | 0t, 0200 | 29,000 | 9,200 |  |  |  | 25 | 98 | 81,820 | 127,010 | . |
| New Mexlen Territ.. | 7.300 |  | 2,000 | 12,900 | .... | .... | .... | .... | 21 | $\cdots$ | 42,000 | .... |
| Utah Territory....... | 8,000 18,000 |  | .... |  |  |  | ... | 2 | 8 6 | 800 1,850 |  | .... |
| Total.... | 8,884,2548 | 8,787,19 | 987,761 | 4,92 | 6,517 | 326,84 | 1,675 | 294 | 0.487 | 1,177,984 | 12, 183,905 | 500,500 |

Owing to malt liquor having early becone the bushels a year; whereas the annasl average quantity favorite beverage of the people of Fingland, the manufacture of malt has been carried on in that country, for a lengthened period, on a very large scale. Instead, however, of Increasing with the Increasing wealth anc. population of the country, it waa nearly atativaiary for the 100 years ending with 1816 . In proof of this we may mention that the quantity of malt that paid duty in England and Wules, at an average of the 12 years ending with 1720 , was $24,191,304$ that paid duty during the 12 years ending wilh 1816 , was only $28,197,754$ bushels. This spparentiy anomalous result is probably in some measure to be secounted for by the increased consumption of tea and coffee; but there can not be a quection that it is mainly owing to the exorbitant duties with which malt, and tho ale or lieer manufactnred from it, have leea loaded, and to the oppressive regulations imposed on the manufacture of malt and the sale of beor. But
the pu tructed hitant d sumptio out (8ee Great B
Malt to the $B$ Ity of S Valetta, the islan being in Muita is The islay Malts, lif miles' dit amall is! of Malta Maltese Gozo, at lstion of revenue $£ 100,000$ the rent o fa defent "These," pendous and Napl that have of a vast extend for ment to th to make Since the Britain, th proved; Bc strenglh.
the Einper the Knight slon it ren French. In 1800, an 1814. Th thinly cove brought, a being culti cellent frt oranges, co saffron, an inhabitants amonnting ported raw from $\$ 400$ island is no than five 100,000 qu their use. all sorts, in are largeiy import com tured goods tobacco, oi used to be monopoly varying, li were impos lahed, and sumption, atituted in Ities, whic advantage trade of the houses for c excsyated ted of sny The whest indefinite
the pubile attention belng at length forcibly attructed to the suljeet, and the offect of the exorbitant dutioe on malt and beer in increasing the consumption of ardent apirita having been clearily pointed out (see Edinbury Reriew, No. 98), the beer duty in Great Britain was repealed in 1830.
Malta, un island in the Mediterranean, belonging to the Britioh, neariy opposite to the southern extremity ef Sicily, from which it to about 54 miles distant. Valetta, the capital, is situated on the north const of the isisnd, the light-honse in the castlo of St. Elmo being in lat. $85^{\circ} 54^{\prime} 6^{\prime \prime}$ N., long. $14^{\circ} 31^{\prime} 1^{\prime \prime} \mathrm{E}$. Maita is about 20 miles long, and 10 or 12 broad. The island of Gozo, about a fourth part of the size of Malta, lies to the north-west of the latter, at about four miles' dlatance; and in the stralt between them is the amali island of Cumino. In 1847 the population of Malta amounted, excluding the gu-rison (except the Maltese regiment), to $\mathbf{1 0 8 , 1 4 0}$. Tho population of Go20, at the same period, was 15,130 ; the total popuLation of both islands making 128,270. The entire revanue co? sted in Malta usually amounts to abont $£ 100,000 \mathrm{a}$ yuar, of whleh about $£ 23,000$ is derived from the rent of lands. Valetta, the capital of the island, is defended by almost impregnable fortifications. "Thess," says Mr. Brydone, "are, indeed, moat stupendeus works. All the boasted catscombs of Rome and Naples are a trifle to the immense excavations ond have been made in this little island. The ditches, of a vast size, are all cut out of the solid rock; these extenil for a great many milles, snd ralse our astonishment to think that so amall a State has ever been able to make them." (Tour through Sicily nnd Malta.) Since the island came Into the possesaion of Great Britain, the fortifications have been considerably Improved; so that at present it is a pluce of very great strength. After the capture of Rhodes by tha Turks, the Einperor Charies V. made a present of Malta to the Knights of St John of Jerusalem, in whose possession it remainod till 1798, when it was taken by the French. It was taken from the latter by the English in 1800, and was definitely ceded to Great Britain in 1814. The Island consiata mostly of a rock, very thinly covered with soil, a good daal of which has been brought, at an immense expense, from Sicily; but being cultivated with the utmost cure, it producea excollent fruits, particularly tha celabrated Maltese oranges, corn, cetton, with small quantities of indigo, saffron, and sugar. The principal dependence of the inhalitants is on their cotton; the crop of which, amounting to about $4,000,000 \mathrm{lbs}$ a year, is partly axported raw, and partly manufactured to the value of from $\$ 400,000$ to $\$ 500,000$. The corn raised on the island is not sufficient to fced the inhalitants for more than fiva or six months, snd, st an sverage, sbout 100,000 quarters of fureign wheat are requirgd for their use. In addition to corn, cattie, provisions of all sorts, jncluding dried fish, fruits, Spanish peas, etc., are largely imported. The other leading articles of import cemprise cottons and most sorts of manufactured goods, sugar, coffee, and other colonial products, tahacco, oil, wines, timber, etc. The tride in corn used to be monopolized by government; and after the monopoly was sibandoned, duties on importation, varying, like those in this conntry; with the price, were imposed. But in 1825 these dntics were abollshed, and the fixed duties on corn entered for consumptien, specifiod in the subjoined tariff, were substituted in their stead. Maits presents unusual facilities, which have not hitharto been taken proper sdvantage of, for becoming the entrepót of the corn trade of the Meditarranean and Black See. Her warehouses for corn are, like those of Sicily and Barbsry; excavated in the rock ; and are, perhaps, the beat fitted of any in Europe for the ssfo keeping of corn. The wheat lodged in them may be preserved for an indefinto period; and it is affirmed that though it
shoud, on belag deposited, be affected hy the weevil, it is very soon freed from that destructivo inseet. It is not often that corn can be hrought direct from Odesaa, Taganrog, etc., to England, without the riak of beling damagod; but were it brought, in the first Inatanca, to Malta, and bonded thero, it migitt afterward be conveyed in the beat order to the Engilah market. Malta is almo admirahly well suited for liecuming a centre of the corn trade of Egspt, Barbary, Italy, ote. During the wars of $1800-1816$, particularly during the period when Napoleon's anti-commerclal bystem was in operation, Malta became a great entrepót for colonlal and other goods, which were thence conveyen, according as opportunities offerad, to the adjacent ports. This commerce ceased w'.'h the circumetancea that gava it birth; and for some yoars after the retarn of peace, tha trade of the island was depressed below its natural leval, by the imposition of varions oppressive discriminating dutios. In 1819, this vexatious oystem was partially obvisted; but it continued to exert a pernicions influence till 1837, when, purenant to the recommendation of the commisaloners of Inquiry, the then existing tariffs of customs duties and port charges wore wholly abolished, and a new tariff was issued in their atead. It imposed moderate duties, for the sake of revenue only, on a few articles in genaral demand, without regard to the conntry whence they came, at the asme time that it equslized the tunnage duties; and reduced the warehouse rent on articlas in bond to the lowest level. There are some good aprings of fresh water. Vuletts is partly sapplied by water brought by an aqueduct a distance of abont six milles, and partly by the rain rollected in elsterna.

Harbor.-The hartor of Valetts is double, and is one of tha finest in tha world. The city ls built on a narrow tongue of land, having the castia and light of St. Elme at its extremity, and an admirsble port on each side. That on the south-eastern side, denominated the grand port, is the most frequented. The entrance to it, about 200 fathoms wide, has the formidable batterias of St. Elmo on the ona hand, and those of fort Ricasoll on the other. In antering, it is necesasry not to come within 50 or 60 fathoms of the formar, on account of a spit which projects from it; bnt in the rest of the channel there is from 10 to 12 fathoms water. The port, which runs about $1 \frac{5}{4}$ miles inward, has deep water and excellent anchorsge throughout ; the largest men-of-war coming close to thaquys. Port Marsmusceit, on the north-western sic of the city, is also a nobla harbor. The entrance to it, which is about the same ureadth as that of the grand port, ia between St. Eimo and Fort Tiqua. In the centre of the basith is an island on which are built a castle anas lazaretto, for the convenlence of tha ships performing quarantine, by which the port is principally used. Owing to the narrownosa of the entrance, and the uaual variableness of the wind, it is customary for most vassels bound for Valetta to take a pilot on board before entering the harbor.
Clasbification of Merchant Vessels whor have ar. hived in Malta duaino the Yeae 1843.

| American .......... 22 | Neapolitan. . . . . . . 562 |
| :---: | :---: |
| Hanovarlas ......... 1 | Norwegian........... 8 |
| Austrian., ........... 212 | Ottoman ............ 88 |
| Belgian ............. 4 | Prussian............ ${ }^{8}$ |
| Bromen............. ${ }^{8}$ | Roman.............. 11 |
| Danish............. 17 | leusslan............. 75 |
| Duteli.............. 9 | Samiote............ 11 |
| English ............. 630 | Gardinlan............ 164 |
| Freach............. 802 | 8lclilao............. 224 |
| Qerosolimit ......... 89 | Spanish............ 4 |
| Greek. ............. 826 | 8wedish............. ${ }^{6}$ |
| Ionlan.............. 41 | Tonislan........... 28 |
| Labecese............ 1 | Tuscan............. 65 |
| Maltesa ............. 478 | Venetlan........... ${ }^{8}$ |
| Macklenburg....... 4 | Wallachlac......... 4 |
| Noldavlaa.......... 17 |  |

This arrivals of merchsnt-veasals and ahips of war at Maita during the year 1849, were as follows:-Mer--hant-vessels, 8251 ; ships of war (including steamers), 3 in; total, 3591.

Lut of Vraselu hemozomo to The Inlanm of Mastąon



The central positinn, excellent port, nnd great strength of Multu, mako it an admirable naval station for the repair and accommodation of the men-of-war and merchunt-abipm frequenting the Mediterrancan, and render ita possenalon of material importance to the Jritish emplre. Since Malta-built vessela were admitted into ports of the United Kingdom on the same terms at those of British-bult, the trade of ahlpbuilding has materially laereased in the Island. The Multese shipwrights are diligent expert workmea, and, their wages belag modernte, it is a favorahie place for careening. Owing to the want of a dry dock, all ablpa above the aize of a sloop of war, that require to have their bottoms oxamiued, have to come to England for that purpome. This, surely, ahould be obvinted. Quarantias ia strictly enforced at Malta ; but there is every facility for its porformance, and the chargea are leas chan at any other port in the Mediterranean.
Malta ls now the centre of a very extensive ateamspacket aystem; the ateamors froin England for the Iouian Islands, Constantinople, Alexandria, and other ports of the Levant, touching here. The French
atemmers from thase po: ' (uavally perform quarantine
at Malta.
Moneyg-In 1825, Britioh dilver money wan latrodueed Into Malta, the Spanieh dellar bolng made legal tender at the rate of 4n. Hn. 1 the Biellian dollar at 4 s . 2 d .1 and the acuio of Malte, at 19. Mt.

Weighes and Measurv.- -The pound, or rottolo, enm. merciai weight $=30$ oncie $=12 \cdot 216$. English graing. Hlence 100 rottoli (the cantaro) -1741 Ibs, avoirilupola, or 70.14 killog. Merohanth uaually reekon the cuatare nt 175 libn. The nalma of corn, stricken measure $=8221$ Wincheater buahela; heaped measure is reckoned 16 per cent. more. The caffiso, or niensuro for oll, contulua 64 English gallons $-20 \cdot 818$ Iltren. The barrel in double the caffiso. The Maltese fout $n$. 11 1-6th Einglish Inchos $=-2836$ metren. The canna $=$ 8 paiml $x=81.9$ English Inebea $=2.070$ metrea. Merchants uaanily convert Malta measure Into Finglish In tha proportion of 31 palmil te a yari, or 22 -7th yarla to 1 canna.
Hila on London are woually drawn at 80 and (a) daya' algitit. The deputy commissary general is obilgel to grant, at all times, billn on the 'Irsasary here for British silver tendered to hlm, at the rate of a $£ 100$ ) bill for every $\mathrm{f101}$ 102, allver, recelvin b, at the same time, other ailver, at a fluctantling rate of exchange.
Commercial Aehutions with the United Stutes.-The commercial intercourse of the Uniterl States with Malta is dependent, as la that of all other nations, on the regulationa and legialatlvo enaetments of the mother eountry. The traice of the United States with this isiand is not, however, very important, though an examination of the follonwing table will show a perceptible incrense in the mmonnt of our tomage, and but little varlation in the value of oar exports ciuring the years which they embrace:


| Tears anding | Exporta. |  |  | limporto. | Whereof there was in Bullion and speele. |  | Tonnagen Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatle. | Foroligh. | Toial. | Tatal. | Kxpurted. | Imported. | Amerinan. | Fiapeikn. |
|  |  |  | - \$50.3\% | \$1, 818 | * ${ }^{\text {c }}$ | *** |  |  |
|  | 97,416 |  | 87.486 | 44,524 | -1381 | 1189 | 1,091 | .... |
|  | 110,605 | (121,243 | 240.509 | 31, 467 | 3881. | 11,482 | 9,126 | -'.. |
|  | 84.817 | 189, 898 | 178,799 | 84,300 | .... | ....' | $7 \times 1$ | 761 |
|  | 100.406 | 178,016 | 974.171 | 45,961 | .... | -i\% | 1,998 | 110 |
|  | 81,805 | 4,07\% | 56,093 | 16,468 | . $\cdot$. | 2,470 | 887 | ...' |
|  | 05,470 14,616 | 84,186 45856 | 99,998 59,998 | 24,018 $28,4 i 1$ | $\ldots$ | .... | 1.869 .448 | $\ldots$ |
|  | 14,016 | 45,856 | 60,906 | 20,411 |  |  | 14 |  |
|  | 8489,986 | 6519,001 | -1,018,007 | -258,004 | c3st | 4,252 | 9,165 | 1,471 |
|  | 427.869 | \%21,070 | 48,989 | 81.461 | .... | . $\cdot$. | 360 | 244 |
|  | 11,644 | 8,261 | 19,905 | 7,410 | . $\cdot$. | ....' | 756 | .... |
|  | 6,436 | 11,471 | 17,407 | 27 | . . . | .... | 214 | . |
|  | 9,753 | 7,246 | 16,998 | 9215 | . | . $\cdot$ | 611 |  |
|  | 12,949 | $\cdots$ | 12,909 | 82.811 | . | . | 954 | ...' |
|  | 28,754 | 10,927 | 84,081 | \$1,680 | .... | - | 442 | ... |
|  | 24.196 | 28,841 | 47,687 | 98 | . | .... | 448 1.418 | 228 |
|  | 38,188 | 15,953 | 49,088 | 884 8.416 | '' | . | 1,412 |  |
|  | 81,2488 76889 | 62,784 80,001 | 118,987 114,850 | 8,416 | . | . $\cdot$. | 3,063 $\mathbf{2 , 0 6 5}$ | 720 456 |
|  | 6477,150 | (180,958 | (470,406 | ( $2,8,846$ | *** |  | 12,105 | 1,678 |
|  | \% 04.061 | \$12,289 | 176,299 | \%26,167 | . $\cdot$. | ... | 1,00\% | 746 |
|  | 96, 847 | 16,975 | 118,822 | 114,364 |  | . $\cdot$. | 2,412 | 4 ${ }^{3}$ |
|  | 185,819 | 22,23] | 167,500 | 80,008 | 12,009 | .... | 2,721 | 411 |
|  | 144, $02 \times$ | 81,245 | 163,77\% | 88,605 | .... | .... | 8,197 | 3192 |
|  | 912,097 | 72.482 | 234,849 | 62, 316 | .... | .... | 4.059 | 629 |
|  | 241,045 | 83,54t | 814,596 | 44,224 |  | .... | 2,998 | 410 |

No spirits or conllala, execpt rum und apirita, the prolnct of Great Britaln or of the llitish colonies, can be almitted for consumption, If they exceed 9 per cent. over-proof. The following are the legal raten for piIntage charged on all vessels entering the harbor of Malta:-Veasels of 100 tons burien, द̂2; 101 to 150, \%33 04 ; 151 to 250,$44 ; 251$ to 550 , 4504 ; 351 und upward, $\frac{8}{9} 0$.
Vessels dineharging merchandise in the luland of Malta, on clearing outward, puy for every ton, or any part thereof, including all port chargev, 12 centa. There is a public hoapital in Malte, to which British sailors are admitted free of charge. American and
other foreign sailors are also admitted at a charge of 20 cents per dienw, the payment of whleh must be guaruntied ly thelr respective consula, or by tho consignees of the vessels to which they belnng.
For trade of, travel In, etc., Malta, see Elin. Ren., vi., 191; North Am. Rep., xxxv., 228 (A. II. Evereтt), x., 225 (E. Evnikitr); South. Lit. Mess., x., 728, $1 x ., 86,163$, vil., 830 , iv., 780, v., 146 ; chr. Eirgm., li., 259 (Jas. Walken); Quar. Rev., ix., 1.
Man, Isle of, is, as every one knows, situated in the Irish Sea, st about an equal distance from England, Scotland, and Ireland, It is about 30 mites long, and 10 or 12 broad. Tho interior is nountais-
ons, and $\operatorname{in} 1881$, principul conaidiero by the $h$ be regref tention o fucturen, usually has been stram par latter to lit conser these elt fiux lias n Dhuaf, las, towas. verted $\ln$ Dakes of fact of th the island lower tha auneal in anbeixts, $h$ been $\ln n$ suil trade lected in 077 ; but count of $\mathbf{e}$ governmen
Manch borough, a Area of pal seres. lop Populution 401,3121, of chester, an stands on a mases of bu east to we and coverin Bank of En newspapera. day. The provenients chinary by Crompton, raised Man two thiruld o Its manufac and fuctorie ehester and

Cotton spinnl
Cotton weav! Cotton spinni Woolen and silk throwing Silk throwing
Flax spinnlng frint works.,

Woolen f twine, pins, large qunnti chemical wor ued at $\mathrm{f12,0}$ Mirningham W.) railroud Liverpool, 1 h
Mangan Bruinsteen; It. Mangaves Sanganesium grayish whit of brilliancy.
ons, and the soll nuwhere very productive. Population in 1851, 82,887. This ialand uned to be one of the principal stations of the horring. fahory; but for a connideruble period, it hus been comparatively denerted by the herring ghoale, a sircumatanes which is not to be regretted, for the fishery, by withdrawing the attention of the Inhalitants from agriculture and manufactures, and lowing them to engage in what has usually ibeen gambiling and naproductive bun'ness, has been, on the whole, injurious to the island. TEs ateam packeta from Glasgow to Liverpool, and from the latter to Belfast, touch st the Iale of Man; which is, int consequence, largely frequented lyy vislters from these citisa, and other parts of the euplre, whone influx lian materially contributed to the improvement of Duuplas, the prinelpal port in the island, and other towns. The feudal soverolgnty of Man was formerly vasted In the Farls of Deriy', and more recentiy ln the Dakes of Athol, a clrcumstance which a coounts for the fact of the duties on most comanoditles consumed in the island having been, for a lengthened peribl, much lower than those on the ame eominolities when conaumed in Grent Iritain. This distinction, whiluh atlll aubsists, has produced a great deal of ensugyling, and been in no ordinary degree injurlous to the revenue and truie of the empire. The customs revenue collected in the Isle of Man in 1852, amounted to $\mathbf{\Sigma 2 8}$,077 ; but from this sum $£ 14,378$ was deducted on account of expenses of coliection, publio works, Internal govariment, etc.
Manohester, a city, parliumentary and munlelpal borough, and parish of Englund, county Lancaster. Aren of parish, including the borough Salford, 33,853 seres. l'opulation, 452,158. Inhabited houses, $53,697$. l'opulation $\ln 1801,110,988 ; \ln 1841,853,890 ; \ln 1851$, $401,5: 1$, of whom 316,213 were in the borough of Manchester, and 85,108 in that of Salford. 'Jhe town stands on a plain, and consists, with Salford, of a dense mass of buildlings, extending aliout two miles from east to west, by somewhat less from north to south, snd covering sbout 3000 acres. It has a bruuch of the Bank of lingland, 5 joint-stock banks, and 5 weekly newspapers. Market, T'uesday', Thursiluy, and Saturday. The proximity of an aliundance of coal, the improvenents iatroduced lato spinnling and weaving muchlaery by llughes, Arkwright, Ilargisavea, and Croupton, and the applicaton of steum power, have ralsed Manchester to lts eminence of monopolizing two thirls of the cotton manufucture of Groat Ilritain. Its manufuctures are mostly conducted In large mills and factories. Of these in 1853, there were a Manchester and Salford:

|  | No. of works. | $\begin{array}{\|c\|} \hline \text { Persons } \\ \text { employed. } \end{array}$ | Steam <br> Powny. |
| :---: | :---: | :---: | :---: |
| Cotton splaning. . . . . . . . . . . . . . | 35 | K, 292 | 1,520 |
| Cotton weaving. . . . . . . . . . . . . . . | 65 | 7,709 | 1,080 |
| Cotton splinning snd wesving.... | 42 | 17,358 | 4,706 |
| Woolen and worsted saphiniog \} and woaving | 3 | 280 | 80 |
| Silk throwing and small waro.... | 50 | 7,520 | 680 |
| Plas splanimg. | 8 | 1,120 | 198 |
| Print works... . . . . . . . . . . . . . . . . | 85 | 2,955 | .... |
| Total. | 288 | 42,204 | 8,135 |

Woolen fubrics, machinery, hats, puper, ropes, twins, pins, and nnmerous other goode, are made in large quantities; and there are many blenching and chemical works, and breweries. Annual export valued at $£ 12,000,000$. Manchester communicates with Birminghain and London by the Grand Junction (N. W.) railroad, and by other railroads and canals with Liverpool, Bolton, I'reston, Rochdale, Sheffield, etc.

Manganese (Ger. Braunstein, Glasseise; Du. Bruinsteen; Fr. Mangonèse, Magalese, Saron du verre; It. Mangavesia; Sp. Manganesia; Lat. Magnesio nigra, Manganesium), a metsl which, when pure, is of a grayish white color, like cast-iron, and has a good deai uf brilliancy. Its texture is granular; it has veither
taste nor smell, it is softor than cast-iron, and may be filed, ite specific sravity is 8 . It is very brittle, and can neither be hammered nor drawa out into wiro. Its tenacity is unknown. When exposed to the air, it attracts oxjggen with considerably rapiaity. It soon loges its lustre, and becomes gray; violet, brown, and at last black. These changss take, place atill more raplally if the metal lo heated is an open veanel. Ores of manganene are common In Devonshirs, Someraetshire, ote. The ore of mangavese, known in Derbsshire by the name of blact wadl, is romarkable for ita spontaneous inflammation with oll. Oxyd of mangunese is of considerable une; it is emplojed in makIng oxymuriatio acid, for forming blamching liquor. It is alec uod in glaxing lilack easthenware, for giving colors to enamels, and in the manufucture of porcelain. It is the substance generally used by chemists for obtalning oxygen gas.-Tuomson's Chemisiry, etc.

Mangel Wursel, or Fiold Beet (Fr. Hetteraves; Ger. Mangold Wurzel; It. Bieltola), a mongrel between the red and white beent. It has been largels: enitivated in Eurupe and the United States, partly as food for cattle, and partly to be us $d$ in distillatlon, and in the extraction of sugar. Ite cure in Great Britain is very recent; and Mir. Lon ¿questions whether it has any advontages over the turnip for general agricultural purposes. Tho preparatlon of the soil is exactly the same as for turnips, snd immense crops aro raised on strong clays. The produce per acre is chout the sume as that of the Swedish turnip; it is applied aimost entirely to the fattoning of stock, and the feedIng of mlleh cows.-Loubon's Ency. of Agr.

Manger, the space near the lawse holes, bounded on the upper side by a partition acress the bows, called the manger board, to receive the water whlle it enters the lawas holes and prevent it from flooding the deck.

Mangle (Fr. Calandre; Ger. Mfangle), this is a weli-known machine for anoothing table-elotha, tablenapkins, us well as linen and cotton furniture, and much usci in botels. As usually made, it consists of an ohlong rectangular woorlen chest, flled with stones, which load it to a degree of pressure that it should exerclse upon the two cylinders on which it rests, and which, by rolling backward and forward over the linen apread upon a polishel tablo undernath, renier it smooth and level. The noving wheel, belng furnished with teath upon both surfaces of its periphary, and having a notch ent out at one part, allows a pinion, uniformly driven in one direction, to act alternately upon its outside und inside, so as to cause the reciprocating motion of the chest. This elegant and much admired English lavention, called the mangle-wheel, has heen litroduced with great advantage Into the machinery of the textile munufactures.

Mango (mangos marum, in the Tamul language of lndla), is a very lurgo fruit-tree, inhabitlag the tropleal parts of Asla, throughout all which it is as extensirely cultivated us the apple and pear-trees are In Europe. Old specimens have been seen with a trunk from 10 to 10 feet in circumference. The frult is sometling like a nectarine, but more compressed, longer, and more curved. It contains a large stone, covered with coarse fibres, which lose thomsclves in the succulont flesh. The wild and inferior varieties of the fruit tasto so strongly of turpentino as to bo wholly unfit for use by Enropeans; but in tho fine verietics this fluvor is replaced by a rich sugary quality, which renders it very dellcions. In this country the mango has rurely ripened its fruit, but it is common in tiee sloeps in a pickled state. The frnit of the Mangifera Indica, a tree cultivated in Asia, is also calied mango.

Manifest, in commercial navigation, is a document signed by the inaster, containing the name or unmes of the places where the goods on bourd have been laden, and the place or places for which they are
respectively destined; the name and tonnage of the vessel, the name of the master, and the name of tho place to whlch the vessel belongs; a particular account and description of all the packages on board, with the marks and numbera thereon, the goods contalned in such packagee, the nsmea of the reapectivo shippers and consignees, as far as such particulars are knownto the master, etc. A separate manifest is required for tobacco. The manifest must be made out, dated, and signed by the captain, at the place or placea where the goode, or any part of the goods, are taken on boarl.

Manilla, the capital of Luconia, the largest of the Phllippine Ialands, and the principal settlement of the Spaniarils in the East, in lat. $14^{\circ} 36^{\prime} 8^{\prime \prime}$ N., long. $120^{\circ}$ $63^{\prime} 30^{\prime \prime}$ E. Population about 100,000 , of whom from 4000 to 5000 may be Europeans. Manilla is built on the shore of a suacious bay of the same name, at the mouth of a river naviguble for small vessels a considerable way into the interior. The smaller class of ships anchor in Manilla Roada, in 5 fathoms, the north bastion bearing N. $\mathbf{3 7}{ }^{\circ}$ E., the fiahery atakea at the river's mouth N. $18^{\circ}$ E., distant about a mlle; Lut large ships anchor at Cavita, about 3 leagues to the southward, where there is a good harbor, well sheltered from the west and south-west winds. The arsenal is at Cavita, which is defended by Fort St. Ihilip, the strongest fortress on the islands. The city is surrounded by a wall and towers, and some of the bastions are well furnished with artillery. Though .ituated within the tropice, the climate of the Philippines

Is sufficiently temperate ; the only considerable disadvantage undor which they labor in this reapect being that the principal part of the group comes within the range of the typhoons. The soil is of very different qualities but for the moat part aingularly fertile. They are rich in mineral, vegetable, and animai prodactions. It ls stated in a statistical sccount of the Philippines, published at Maxilla in 1818 and 1819 thut the entire population of the isiands amounted to $2,249,852$, of which $1,376,222$ belonged to Lucenia. There were at the period referred to oniy 2837 Europeans in the lalsnds, and little more than 6000 Chinese. The nativea are anid to be the most active, boll, nad energetic, of any belonging to the eastern Archipelago. "These people," says a most intelligent navigator, "appear in no respect inferior to those of Europe. They eultivate the earth like men of understanding; are carpenters, joiners, smiths, goldsmiths, weavers, masons, etc. I have walked through their viliages, and found them kind, hospitable, and communicative; and though the Spaniards speak of and treat them with contempt, I percoived that the vicea they attrils. uted to the Inilians, ought rather to be imputed to the government they have themselves establislied."-l'oyage de M. De la Perouse, c. xv.

The principal articles of export consist of sugar, hemp, indigo, segars, cotton, coffce, rice, supun-wool, mother-of-pearl, hides, ebony, gold dust, cte. Tho principal articles of import are atuffa for clathing, iron, hardware, furniture, fire-arins, and ammunition, etc.


| Articles. | Ta Greal Hiliain. | To the Cundt nant of Eurole | To the Auntralinn colonten. | To China. | To Singapore, Matavin, and Hombay. | To Califurnia. | To the United States. | Fotal, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sugar.............. . peculs | 146,926 | 60, $\times 10$ | 142,459 | . $\cdot$. | 12,749 | 99,144 | 77,919 |  |
| Heinp............. | 18,073 | 5,564 | - | $\cdots$ | 804 | $\cdots$ | 102,144 | 124.867 |
| Cordigge . . . . . . . . . . . |  | 4767 | 8,758 | 1,782 | 680 | 2,197 | 210 | 9,044 |
| Begars . . . . . . . . . . . . . . . . | 10,819 | 11,967 | 12,501 | 9,262 | 80,850 | 1,707 | 914 | 78,4*9 |
| Leaf tobacco . . . . . quintais |  | 42,689 | .... |  |  | .... |  | 42.629 |
| Sapan wood........arrobas Coffee. | 87,063 | 14.436 9,670 |  | 18,942 100 | 17,387 250 | 1,072 | 9,015 | 90.809 |
| Coffee. . . . . . . . . . . pectuls | 165 209 | 9,670 218 | 1,451 | Cocertain. | 250 | 1,072 | 2,063 | 14, -2, |
| Indigo. . . . . . . . . . . quintats | 209 3,340 | 218 218 | .... | Cocertain. | -••* | *** | 3,753 | 4,205 |
| lifide cuttinis............ ${ }^{\text {a }}$ | 3,3* | 210 | ... | 1,586 | $\cdots$ | $\ldots$ | 8,419 | 4.652 <br> 2.055 |
| Mother-uf.pearl shetls * | $\mathrm{Sq}_{0}$ | 388 | .... | 8* | 260 | . | 74 | 1,492 |
| Tortulse-sliell. . . . . . cattles | 2,1181 | 6,0 | .... | Sts) | 1,912 |  | 469 | 5 Sig |
| Itce. . . . . . . . . . . . . "* | .... | 6,576 | ... | Uncertain. | .... | 1,467 | .... | Uncertaln. |
| Bepbe de Mer... . . . . peculs | . $\cdot$. | . ... | . | 4,844 | .... | .... | .... | 4,844 |
| Gokt dast . . . . . . . . . . tacts | 98* |  | .... | \%,043 | .... | .... | .... |  |
| Cathagon(ebony wd. ppecuis | 285 | 1,218 |  | 794 | ... |  |  | 2,212 |
| Grass-clolh...........pteces | 175 | 18,252 |  | \$00 |  | 650 | 22.975 | 85, 502 |
| Hats. . . . . . . . . . . . . . . No. | . . . | .... | 9,460 | 8,115 | 9,115 | 500 | 25,970 | 50,4K10 |

Tise quantity of rice and padily ahipped to China from the islands can not the ascertained with any degree of exactnens; what goes from Manilia is very emall, because, before arriving there, it has, by its transport expenses, added to the price at which it is obtainable in the districts where it is proluced, which, of conrse, prevents its being whipied from the capitul. Probabiy, however, abont * $\quad 40,000$ coyans, each of which, one with anot' , relghs about a China pecul, or $133 \frac{1}{2}$ ibs., may be annually exported. The export is regulated by the aupposed scarcity or ntbundance of fool in the country.-M'Mickis's Mranilla, p. 270.

The principal currency of Manilla consista of Spanish dollars, of 8 reals ard 96 graine ; but South American dollars are also current. The weights in use aro the Spanish pound, which is nearly 2 per cent. heavier than the English; the arroba $=251$ linglish lbs, nearly; the quint:al 102 lbs , and the pecul of 5 nrrobas, or $1 \frac{f}{6}$ cwt. inglish. The coyan is a measure for rice, etc., varying from 96 to $1: 5 \mathrm{lbs}$. According to a recent list, there are in Manilla 47 Spanish merchanta and 11 foreign firms. The Spanislt merchants liave a chamber of commeree and a joint-stock insurance society. The United States, France, and Helgium have consuls, and each of the Cantun innrine insurance companies has an agent here. There are, however, neither tire nor life-oflices norsgents ; nor is any nowapaper, price-
curreat, or other periodient publication issued in Manilla. Considering the great fertility and varied productions of the lliilippines, and their pecuiarly favorable situation for carrying on commerce, the limited extent of their trade, even with its late increase, may excite surpriso. This, however, is entirely a consequence of the wretched policy of the Spanish gove.... ment, which persevered until very recently in excluiling all foreign ships from the ports of the lhilippines, confining the trade tetween them and Mexico and South America to a single shipi liven shipis and settlers from China werc excluled. "l'rovisions," says La l'erouse, " of all kinds are in the greatest atimilance here, and extremely chenp; but cluthing, burvpean hurdware, and furniture, hear an excessivcly high price. The want of competition, together with preshibitions and rextraints of every kind laid on consmerce, render the productions and merchandise of India and China nt least as iear as in Europe!" Happily, however, this miserable policy the reffects of which have heen adinirubly depleted by M, De lia lerouse, has been materially morithed luring the last few years. The events of the late war destroyed fon ever the old colonial system of Spain ; and the ships of all nutions are now freely admitted into Manilia and the other ports in the Philippines. An unprecedented stimulua has, in consequence been given to all sorts of
indus rapid, ance the at buses so lon Por snd or heside the siz Imp vesseis
Forel and 7 nation Spirits ish ves be fure and 60 by Span they be 25 fore per cen ish ves: champa cent., Ht blue, nn use, rea confecti cent., a cotton a tive clot and pur and prin cloths, 1 cign. Il muther-o Spanish sorts for cotton t w and silvi free. T Philippin Opiunt is
tion. S warike s not lie in governme mitted.
Export descriptio cent., and sels, and whatever Rice, by elga. It siiver in t Eintrepú per cent. the comm months, $t$ for it.

Port an arrived ar having he within 30 presented, the vessel without st and witho charge on and forbide
Terms fo mall, dut at 21 per ports are by
industry ; and lts progress will, no doubt, become more rupid, according as a wider experienco and acquaintance with forelgners make the natives better aware of the advantages of commerce and industry, and disahuses them of the prejudices of which they have been so long the slaves.

Port Charges.-On forelgn vessels, 2 reals per ton, and ene half on such as neither load nor unload cargo, besides fees, amonnting from $\$ 5$ to $\$ 15$, according to the size of the vessel.
Import Duties.-Spanish commoditles by Spanlsh vessels, pny 3 per cent. ad valorem, and 8 by foreign. Foreign commodities, by foreign vessels, 14 per cent. and 7 by Spanish; in general, being 8 per cent. onder natienal flag from Singapore, and 9 from Chinn. Spirite and atrong liquors, produce of Spain, by Spanish vessels, 10 per cent., and 25 for foreign; if they be fereiga produce, by Spanish vessele, 30 per cent., and 60 by foreign. Cider and beer, produce of Spain, by Spanish vessels, 3 per cent., and 10 by forelgn; if they be forelgn produce, by Spanish veasels, 20 , and 25 foreign. All Spaniah wines, by national vessels, 8 per cent., and 8 by foreign. Foreign wines, by Spanish vossels, 40 per cent., and 00 by foreig 1 , exeept champagne, whieh pays, by Spanish vessils, 7 per cent., und 14 by foreign. Cotton twist, gray, black, blue, and purple, knives or bolos, such as the natives use, ready-made clothes, boots, shoes, preserved fruits, confectinnery, and vinegar, by Spanish vessels, 20 per cent., and 30 by foreign. British and other foreign catton and silk manufactures, made in imitation of native cloths, chiefly stripes or checks, of blaek, liue, and purple colors. Madras and Bengal gray, white, snd printed cottons, towels, table-napkine, and tablecloths, 15 per cent. by Spanish vessels, and 25 by foreign. Ileche de mer, rattans, diamonds, tortoise-shell, mother-of-pearl-shell, and biris' nests, 1 per cent. by Sbanish vessels, and 2 ly fureign. Machinery of nil sorts for the promotion of the industry of the country, cotton twist of red, rose, yellow, and green colors, gold and silver, coined or uncoined, plants and seeds, free. Tropical productions similar to those of the Philippines, also arrack and gunpowder, are prohibited. Opium is only ndmitted to be deposited for re-exportstion. Swords, fowling-pieees, muskets, pistols, and warlike stores may be deposited for re-export, and can not be introduced without the special license of the government; but cannon and dress-swords are admitted.
Eirport Duties.-Conmodities and proluce of every description to Spain, by national vessels, pay 1 per cent., nnd 2 loy foreign; elsewhere, $1 \frac{1}{2}$ by Spanish vessels, and 3 ly foreign. Hemp, by national vessels, to whatever destination, 1 per cont., nad 2 by forelgn. Kice, by Spanish vessels, free, and $4 \frac{1}{2}$ per cent. by foreign. Manufactured totogeco, and cordage of Manilla hemp, free by all flaga. Gold dust, gold in linrs, nud silver in bara, free.

Entrepút IVuties.-One per cent. ad valorem, and 1 per cent, at the exportation, with $l_{1}$ per cent. more if the commodities should be kept there more than 12 months, two years being the longest time nllowed for it.

Port and Custom-house Regulations.-Vessels nowly artived are not to communicate with the shere until having been visited by the port captain's boat; and within 30 hours nfter this visit, in manifest must be prescited, stating packages, marks, and numbers, but the vessel may retain her eargo 10 days in transit without atating whether for consumption or deposit, and without being obliged to land, or incurring nny charge on the same, except gunpowder, pocket-pistols, and forhididen arms.

Terms for Nales an: 1 Purchases.-Snles and purchases made, duty paid, at 8 to 5 monthe' credit, nccasionally at $2 \frac{1}{\text { per cent. discount for prompt payment, and ex- }}$ ports are bought for cath. See Philipirine Islands.

Manioc, is the Indlan name of the nutritious matter of the ahrub jatropha manihot, from which cassava and tapioca are made in the West Indies.

Manna (Fr. Manne; Ger. Mannaesche ; It. Manna), the concrete juice of the Fraxinus ornus, a species of ash growing in the south of Europe. The juice exudes spontaneously in warm dry weather, and concretes into whitioh tears; but the greater part of the manna of commerce is obtained by making incisions in the tree, and gathering the juice in baakets, where it forms Irregular masses of a reddlsh or brownish color, often full of impurities. Manna is imported in chests, princlpally from Slcily and Calabria. The best is in oblong pleces or flakea, moderately dry, friable, light, of a whitlah or pale yellow color, and in some degree transparent: the inferior kinds are moist unctuous, and brown. It has a slight peculiar odor, and a sweet taste, with some degree of bitterness not very plensant, and leaving a nauseous impression on the tongue.

Mantua-maker. The word is supposed by some, and we think rightly, to be a corruption from manteau, French. Othere assert that a court-dress was early known in England by the name of Mantua, either on aecount of its having been invented at Mantua, or from the celebrated Manto, in honor of whom that famous city was built by her son, Dianor, or Ochnus, about 1000 n.c.-Buther.

Manufacture, a commodity produced from raw or natural materials, either by the work of the hand or by machinery.

Manufacturer, one who works up a natural product into an artificial commodity.
Statenent auowino the Annual Manupacturies of the mort prominent Countries in the Woald.
Austrian E'mpire. Sptndles
Auntrian raly-Annuai Produce.
Disteres man.........................bs. 7,000,000

## British E'mpire, $£ 122,150,000$ estimate.



France, $£ 93,200,000$ estimate.
Raw stlk........................................... $£ 12,000,000$
Woolen. ........................................ . 10,600,000
Linen. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10,400,000

Refined sugar.................................. 4, 480,000
Other kinds. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 88,120,000
Prussia.



Weavlng. .........
2,608
2

Mills.......................
37,590
Metal.......
Other kthis
12,698
20,005
Russian Empire.
8plncles at st. Petersbarg in $1840 \ldots . . . .$. . 348,000
Producing 834 hanks per day.
Russian splatles............................... . $\mathbf{7 0 0 , 0 0 0}$
United States.

Woolen manufaetnres. .................. " $\quad \mathbf{4 , 9 9 8 , 1 1 2}$
Protuce of manufactures. . . . . . . . . . . . $81,020,000,000$
Bavaria.
Manufncturing establishments mestly on a small scale.
Belgium.
Woolen eloth, $1839 . . . . . . . . . . . . . . . . . . . . . . . . .$.

Bruati.
Hides exported ................................................ $1,763,100$
Cotton
Denmark.
8ugar prodace-Dantsh colentes.........tons 8,000

MAN
1914
MAN

Coloniss:
British Possessions-Indies.
 Australia-Neou Souith Wial....
Wool exported, 1848.......................bs $22,091,481$ Tastow.
Wool exported, 1848
Fan Diemen'a Lund. Wool oxported, 184 South.
Wool exported, 1848.......................) $2,762,672$
Jamaica.
Experied to Great Britain from the Weat Indios and Britist Guiana in 1850.
Sngar.
Coffer Cocoa.
Coffee exported to the U. Kingd., 1850...lbs. $80,850,949$ Total Cinnmmon exportod, 184s..........." 4 4is,211 Mauritius. 8ugar, 1848 ......................................... 121,261,310 Sugar exported to Great Brit. In 1550...ewt. 1, Monk,296 Coffes .................................. " 20,859
 Sugar.. Coffee, Catton .............................................. 24,360,000
Spanish Possessiona-Cüäa.
Coffie exported 1850...
Dutch Possessions-Java.

Cuffee, 1850........................................ 1 bs. 17,933,425
Sugar.

See Leone Levi's Statistical Chart.

Statibtics of Manuyactubes in the United Statea, in the Year 1550.

| States and Territories. | No, of establishments. | $\begin{aligned} & \text { Value of raw } \\ & \text { paterial consumed } \end{aligned}$ | Capital Invested. | Value of producta. | Capltal Invetedel. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Maine | 8,977 | \% $18.585,316$ | *14,700,4.22 | \$24,664,183 | \%7,105,620 |
| New Itampohire. | 8,211 | 12,745,466 | 18,2+2,114 | 23,104,503 | 0,242, 44 |
| Vermont . . . . . | 1,-49 | 4,172.552 | 5,001,877 | $8,570,929$ | 4,926,440 |
| Manachusetts | 8.250 | 85,556,771 | 83,357,618 | 151,187,145 | 41,711,44 |
| Rhode Inland.......... | ${ }_{1}^{683}$ | .... | 6,582,650 | 6,606,949 | 11,725, |
| Connecticut. | 8,442 | 23,599,397 | 23,589,397 | 45,100,02 | 1:10,609,139 |
| \% Fishertos. ......................... | 4522 |  | 1,946, 814 | 9, 0104,484 | 1, 801, 6140 |
| New York. | 23,453 | 184,673,674 | 99,904,405 | 237, 097.219 | $85,295,779$ |
| New Jersey .i. | 4,108 | 21,902,156 | 22, 14, 7146 | 89,713,556 | 11,817,5\% |
| Pennaylvania ... | 21,095 | 87.2006887 | 94,479, 10 | 165,044,010 | 81, 815,146 |
| Dela ware | 581 | 2,044,607 | 2,974,945 | 4,040,290 | 1,540,215 |
| Maryland | 8,704 | 17,326,784 | 18,108,793 | 29,692,019 | 1, 4 P0, $2 \times$. |
| Distriet of Columbia | 4, $\begin{array}{r}127 \\ \hline 14\end{array}$ | 18,148,483 | 38,104,793 | 29,592.019 | 1, $10.85,785$ |
| North Carolina. | 2, $\mathrm{m}_{(1)}$ | 4,905,403 | 7,2524,245 | 9,111,24s | 1, $3,834,910$ |
| Sontí Carolina. | 1,431 | 2,540, 534 | 6,140,515 | 7,076,1177 | 3,210,9:0 |
| Georgta. | 1,417 |  |  | 6,704,134 | 2,99,54\} |
| Flarita | 108 | 220,611 | 847,060 | 668,835 | (669, +4, |
| Alabains. | 1,022 |  |  | 4.464,1976 | 2,1301094 |
| Mississlypl | *118 |  |  | 2,749,589 | 1,797, 27 |
| Loutsiana. | 1,1119 | 2,485, 178 | $5,304,924$ | $7,148,814$ | 6,4i1),699 |
| Texas. | 3017 | 890,7:14 | 618.248 | 1,202, 955 |  |
| Arkansas | 271 | 2*0,499 | 8:14, 154 | 668,915 | +24,407 |
| Missouri | 8.8140 | 12,49,457 | 9,194,499 | 24,250,578 | 2,74,4tis |
| Tennessce. | 2,709 | 4,757, 20,7 | 7,04, 1.44 | 9,448 701 | 3,711, $1 \times 11$ |
| Kentucky | 8,471 | 12,458,796 | 14,230,964 | 28.978,201 | 6,95, 259 |
| Ohlo... | 10,53) |  |  | 62, 110,189 | 16,905,227 |
| Indiana. | 4,8210 | 0,947,920 | 7,917,819 | 14,747,064 | 4,182, 04, |
| Mirituan | 1.979 | 6,241,349 | 6,441,916 | 10,729,992 | $8,112.210$ |
| Illinuls. | 8,199 | $4,9 \times 1,112$ | 0,124,282 | 10,671,278 | 8, 180,512 |
| Wisconsin | 1,27:1 |  |  |  | ${ }^{635} 9.926$ |
| lown, | $4 \times 2$ | 2,093,44 | 1,266,419 | 8,803,542 | 109,645 |
|  | .... | , | 17,000,000 | $611,100,000$ $9.842,907$ | .... |
| Cily of New York.. . . . . . . | 8,168 | 47,603,80i4 | 29,407,7\%4 | 90,982,015 | 11,229,994 |

The entire capital invosted in the various manufac- |hers, according to the leport of the Superintendent tures in the United States, on the Ist of June, 1850- of the Census, to $\begin{gathered}5 \\ 5030,000,000 ; ~ v a l u e ~ o f ~ r a w ~ m a t e r i u l ~\end{gathered}$ not to include any establishments producing less than $u r$, $i$ nad connumed, $\$ 550,000,000$; unount paid for the annual value of $\$ 500$-amounted, in round num- latoor, $\$ 2 \cdot 10,000,000$; value of artheles manufactured
during year, $\$ 1,020,300,000$; number of persons em ployed, 1,050,000. See United Srates.

For "American Manufactures," see N. A. Rev., xxx., 165 (A. H. Fybnett), xvll., 186, 1., 223 (N. IIale), xxxv., 265 ; Niles's Reg., xliv., 204 (J. Q. Anams), xxxii., 237, 882. "Manufactures nt' the South," see Niles's Reg., xxxv., 135. Of the United States, Hunt's Mag., vil., 289 (Walter Fonward), xiv., 152, xv., 369 ; De Bow's Rev., ix., 466. Manufacturing System, see For. Quar., vili., 319 (Soutiey); Ed. Rev., Ixxvii., 101, xxxiii., 382 .

Maple Bugar. The State of New York produces more sugar than any other State in the Union, except Loulsinna. The whole cane sugar crop of the country in 1850 was as follows:


Tamle showing tite Pronuctions of Suoar in the U. Statkg in 1850.

| States and Terrinaries. | Naple angar. | Cane sugar. |
| :---: | :---: | :---: |
| Alabama... . . . . . . . . . . . . . . . . | lbe. 648 | $\begin{gathered} \text { Ithds. T040 Ihs. } \\ 87 \end{gathered}$ |
| Arkansas | 9,880 | .... |
| Conneelicut. . . . . . . . . . . . . . . . | 50,790 |  |
| Flardda........ ... . . . . . . . . . . . . | .... | 2,750 |
| Georgia. | 50 | 846 |
| Illinois.. | 248,904 | $\cdots$ |
| Indlana. . . . . . . . . . . . . . . . . . . . | 2,021,192 | .... |
| lowa.... | 78,407 | $\cdots$ |
| Kentueky.. . . . . . . . . . . . . . . . . | 437,405 | 10 |
| Loulsiana . . . . . . . . . . . . . . . . . . | 950 | 226,001 |
| Maine. . | 09,542 | . $\cdot$ |
| Maryland. . . . . . . . . . . . . . . . . . | 47,740 | . |
| Massaeliusetts. . . . . . . . . . . . . . . | 745,525 | .... |
| Michlgan. | 2,489,794 | .... |
| Missururl. . . . . . . . . . . . . . . . . . | 175,913 | $\cdots$ |
| N. Hampshtre. . . . . . . . . . . . . . | 1,295,863 | .... |
| Now Jersey. . . . . . . . . . . . . . . . | 2,197 | .... |
| Now York... . . . . . . . . . . . . . . . | 10,867,484 | . . . |
| North Carolina. . . . . . . . . . . . . . | 27,982 | . . . |
| Ohfo... . . . . . . . . . . . . . . . . . . . . | 4,568,209 | .... |
| Pennsylvanta.. . . . . . . . . . . . . . . . | 2,326,525 | T7 |
| South Carolina. . . . . . . . . . . . . . | ${ }^{200}$ | 77 |
| Tennesso0...................... | 158,557 | 8 |
| Texas.......................... |  | 7,351 |
| Vermoot...... . . . . . . . . . . . . . | 6,34, 3 ,37 | ... |
| Virginia ..... . . . . . . . . . . . . . . . | 1,247, 385 | - |
| Wisconsin. . . . . . . . . . . . . . . . . | 610.976 | . |
| Minnesots........ . . . . . . . . . . . | 2.850 | .... |
| Total......... . . . . . . . |  |  |

The States which $f^{\text {roduced }} 1,000,000$ pountid ad over of maple sugar in 1850 were as follows:

|  | Po | Vir Pounde. |
| :---: | :---: | :---: |
| New Ifampalire | 1,298,843 | Virglula. . . . . . . . . 1, 1,227,665 |
| Vermont. | 6,849,207 | Indlana.... ....... 2,921,122 |
| Now York | 10,357,484 | Ohto . . . . . . . . . . . . 4,548, 200 |
| Peansylvan | 2,886,54-4 | Michigan. . . . . . . . . 2,439,79 |

The State of Loulsiana produces four fifths of all the sugar crop of the Union, looth maple aud cane.

The production of maple depend.. very much upon the circumstances of the market. Its manufacture is not a regular husiness, like that of cane, lant ls proseruted or not, very much to sult the convenlence of the farming pojulation nowong whom the sugar orchards lie. Nothing hat a very high price of sugar-so high as to make its purchase a severo burden-stimulates a large production of maple. Accordingly we thad that from 1850 to 1855 the product of nugle sugar in New York State feil from $10,367,484$ poumls to $4,935,815$ pounds-a reduction of more than one half. If tho falling off in prico from 1850 to 1855 reduced the production one half, we are inclined to think it not extravagant to estimate that the present Increased price has doulled the production of 1850 , and wo accordingly estimate the maple augar crop of the present year In New York State nt $20,000,000$ pounds. It is worth not less than $12 \frac{1}{3}$ cents per pound, making its tetal value $\$ 2,500,000$ !

Adopting the same estimste, would give the maple augar crop of the whole Union for the present spring as $68,500,000$ pounds, and its value $88 \$ 8,662,500-$ making the quantity and value very nearly equal to one half the cane product of last yenr-and contributing In a very important degree to relleve the last year's deficlency. See Sugar.

Maple-tree (acer saccharinum) known as the rock maple, hard maple, blrd's-eye maple, angar maple. The acer saccharinum is one of the most noble and majestic of American trees. In favorable situations it sometlmes grows to a beight of 70 or 80 feet, and from 2 to 4 feet in diameter; but usually It does not exceed an elevation of 50 or 60 feet, and a dinmeter of 12 or 18 inches. The trunk is generally stralght, though often studded with projections and excreacences. In all healthful and vigorous trees, the outward bark ts llght-colored, by which they may readily be dlatlnguished. When growing in open situntions, with room to sprend on every slde, where all its branches are exposed to the free action of light, this tree is an object of great beauty. It somewhat resembles the Engllsh oak, in its outline, in the form of its trunk, and dispesltion of its branches, and in the dense and massy character of its foliage.
The wood of the acer saccharinum, when newly cut, is white, but after being wrought and exposed for some time to the light, It takes a rosy tinge. Its grain is fine and cloie, and when polished its lustre is silky. It ls very strong and heavy, but wants the property of duralility, for which the English and American white oaks are so highly esteemed. The northern wood, when dry, welghs 46 pounds to a cuble foot, but that grown south weighs much loss. When cut, and properly ilried, it makes excellent fuel, which is equally esteemed by some, for that purpose, with the onk and hickory. When exposed to the alternatlons of moisture and dryness, it soon decays, and for this reason it is not much used in civil and naval architecture. In Malne, New IIampshire, Vermont, and further north, where the oak is not plentiful, the timber of this tree is sulistituted for it, in preference to that of the beech, the hirch, or the elm. When perfectly seasoned, which requires two or three years, it is used for axletrces, spokes, runners of common sleds, mill-cogs, and for chairs, and calinet-work. It is also sometimes used for the frames of houses, keels, and the lower frames of vessels, files, and foundation pleces for mills, caunl locks, and for many other purposes where strength is required, and the work is not exposed to the alternation of meisture and dryness. The wood of thls treo exhibits several accidental forms in the arrangement of its fibre, of which cabinet-makers tako alvantage in manufacturing beantiful articles of furniture, such as hedstends, writing-desks, and other fancy works, and for lnlnying malogany and black walnut, In burenus, piano-fortes, etc. These forms or varieties may be classified and described as follows:

1. Curlen Misme. Erable gris ondule, French. The undulations or medullary rays of this variety, like thase of the red-fiowered maple, are lustrous, and in one light appear darker, and in nnother lighter than the rest of the wood. Sometimes the zlg-zag llnes are crossed liy beautifully-colored veins; but, unfortunutely, tho lustre of these shades disappear by long exposure to light and air.
2. Bambs. eye Marte. Erable mouchéte, French. This varlity' exhibits small whitish spots or eyes, not excecling $n$ tenth of an inch in diameter, sometimes oceurring a little way apart, and at others contiguously disposed. The more numerous these spots, the more beantiful and valuable the wod. They are seen only in old trees, whleh are stlll sound, and uppear to ariso from an inflection of the fibres from the centres of their trunks toward the surface across the grain. To ohtain the finest effect, the wood should he sawed
as nearly as possible in a direction parallel with the concentric circles.

In addition to the above-named varietles, two other kinds occur in the wens, or excrescences, which grow on the trank or roots of thls tree, and, like them, are covered with bark. The most valuable variety is known by the name of Variegated Maple-knob, or Loupe d'erable de couleurs variees, of the French. It presents an assemblage of shades, agreeably disposed, sometimes resembling Aralic characters, which renders the wood very appropriate for fancy works, and from its searcity it usually commands high prices. The other variety, known by ths name of Silver-schite Mapledinob, or Loupe d'érable blanc argente, of the French, exhibits a silvery lustre by the arrangement of Its fibres, and is highly prized for the same purposes as the preceding, although more common.

The wood of this species is easily distinguished from that of the red-flowered maple, which it resembles in appearance, by its weight and hardness. There is, besides, a very simple and certain test. A few drops of water saturated with copperas (sulphate of lron), being poured upon ammples of different woods, that of the sugar maple turns greenish, and the white maple and the red-flowered maple change to a deep blue. The ashes of the sugar maple are rich in the alkaline principle, and it has been asserted that they furnish four fifths of the potash exported from the United States to Europe. In the forges of Maine, New Ilampshire, Vermont, and places further north where this tree grows, its charcoal is preferred to that of any other wood; and it is said to be one fifth heavier than that made from the same species in the middle and southern States.

The extraction of sugar from this tree is a valuable resource in a new country where it abounds; lut it is obvions that this mode of obtaining sugar is only clestined for a certain atage in the progress of society, and eventuaily gives way to the suggar of commerce, produced by cane. For this reason we shall not detail the process of its manufacture, as it can not be regaried as a matter of practical atliity. In a country like the United States, intersected by canals, railroails, und other channels of inter-conmmuication, where labor is expensive, and fuel is becoming more and more vaiuable, the manufacture of this article can not fail to be an unprotitable occupation. lesides, the annual drawage of the aap renilera the trees sickly, and causes a premature decay.

From the great height, extonted branches, regular and often pyramidal form, and the rich verdure and cleaniness of the foliage in apring und summer, the ougar maple is accounted aa one of our finest shadetrees, and is highly recommended to be phanted along streets and ayenues, in pastures, atd ornumental grounds. And it is no less beantiful in our forest or woodiand scenery in autume, whea it puts on ita brightorange and deep-crimson robes, At firat, the extremitlea of the boughs alone change their color, leaving the internai and more sheitered parts atili in their verilure, which "gives to the tree the effect of great dejth of shade, and dispiays advantageously the light, lively coloring of the sprayn." later in the erason, on the contrary, when the thats become mors sul more gorgeous, and the fuli leans of the sunshine full upon the large masses of foliage, the warm uad glowing colors of the wholo summit ponsess a great deal of gramienr, and add much to the beauty and effect in the landsape.

The wool of the uiveriovarpum, or white maple, ts very white when newly cut, and of a tine texture; but it is softer and lighter than that of any other maple in the United States; and from the want of streugth and durability it is little used. When dry, it welgha 38 pounds to a culsic foot, and in seasoning, loses neariy half of its weight. It is sometimes used in cabinet. making, Instead of the holly or other light-colored

Wood, for inlaying furniturs of mahogany, cherry-Live, and black walnut; though it is less suitable for this purpose, as it soon changes color by exposure to ilght, Wooden bowls are also made of it, when that of ash, or tullp-tree can not be obtained. The charcoal of this wood is preferred by hatters and dyers to every other, as it affords a heat more uniform, and of longer duration. The sap is in motion earlier in thia species tian in the sugar maple, beginning to ascend, in the middle States, alout the 15th of January ; so that when it is employed for making sugar, the operations are sooner completed. Like the sap of the red-flowered maple, it yields not more than one half of the product of sugar, from a given measure, as that of the acer saccharinum. Its inner bark produces a Jack precipitate with copperas (sulphate of iron), and is sometimes employed in domestic dyeing.
The wood of the acer rubrum, or red maple, when dry, weighs 44 pounils to a cubic foot, and when green, it is soft, fuli of aqueous matter, and loses in drying nearly one half of its weight. In this treo, as in others which grow in wet places, the sap-wood bears a large proportion to the heart-wood, the latter of which censists of an irregular column, star-like in its transverse section, and occupies the central parts of large trunks, with its points projecting into the sap-wood. This wood has but little strongth, is liable to injury from insects, and ferments, and speedily decays when exposed to the alternation of moisture and dryness. Yet it is solid, unil for many purposes is preferred by workmen to other kinds of wood. It is harder than that of the white maple, ani of a finer and cleser grain ; hence it is ca-ily wrought in the lathe, and acquires, by poishing, a glessy and silky surface. It is principaliy employed in the manufacture of chairs, sullile-trees, shoe-lasts, ox-yokes, broom-handies, and varions other articles of domestic use. it sometines hnppens that, in very old trees, the graln of the wood, instead of following a perpendicular direction, is unifulated; and this variety bears the name of curled maple. This singular arrangement is never found in young trees, nor even in the branches of auch as exhibit it in the trunk; it is also less conspicuosus in the centre of the tree thau near the bark. Trees offering this disposition, however, are rarc. The serpentine direction of the flbres, which renders this wood difficuit to split und to work, protuces, in the hands of a skillful mechanic, the most beautiful effects of light and shude. These effects are rendered mure striking, if, after smoothing the surfuce of the wood with a double-ironed plane, it is rubbel with a littie sulphnrie ucld, and afterward with linseed oil. On examining it attentively, the varying shates are fouml to be owing entireiy to the inflection of the rays of light; which is more sensibly perceived in viewing it In different directions by canille-light. Wefore mahogany became generally fashionabie in the L'nited States, the beat furniture in uxe was mude of the red-flowered maple, ami bedsteads are still mule of it, which in richness of iustre exceed those of the finest impored wools. fiut one of the most constant uses to which the curled maple is applied is for the stocks of rifles and fowling-pieces, which, to elegance and hiphtness, unite toughness and strength, the rexult of the tortuous direction of the tibres. The colidar matter of the lamer hark is of a dusky-red. By luiiing, it yidels a purplish colored ilquor, which, with the midition of nulphate of iron (copperas), nequires an intense lark blue, or black; mad is wometimes emploved as ink hog American youth in village achools. For this purpose, however, it is very inappropriate, as it never dries pruperly, unj in damp weather the writing becones glutinoas, and biote. A fluid prepured in a similar manner, lov adiling sulphate of alumina (commen aium), instoal of copperas, is also used for dyeing black. The French Canadiana minka sugar from the sap of this maple, which they cali plaine; but, as in the
preceding specles, the product of a given measure is not move than ons half as great as that of the sugar maple.
The acer campestre, or field maple, is found thronghout the middle States of Europe, end in the north of Asla. According to Pallas, it abounds in Now Ruseia, and about Cancasus. It is common in hedgea and thickets in the middle countiea and soath of England; but in the northern counties, and in Scotland, it is rare. It is not indigencus to Ireland, and perhaps not to Scotland. The wood of the acer campestre, when allowed to become a tree, and of a proper age, la very compact, possesses a fine grain, sometimes beautifully veined, and is susceptible of a high polish. When dry, it weighs 52 pounds to a cuble foot. It makes excellent fuel, and produces charcoal of the best quality, which is sometimes employed in the manufacture of gunpowder. It was celebrated among the ancient Romana for tables; and Pliny, who has treated at length upon the brusca and mollusca, the names under which the knobs and excrescences of this tree were known, informs us that cabinet-work of the most costly description was fabricated from them. In France and other European countries, it is still extensively nsed by turners, carvers, and cabinet-makers, and the wood of the roots, which is often knotted and cariously marbled, is wrought into snuff-boves, pipes, and various other articles of fancy.-Buowne's Trees of America.
Maps and Charts. They were invented by An$4 x i m a n d e r$, the Milesian philospher, $n$ disciple of Thales, and the earliest philosophical astronomer on record, 570 n.c. He was also the first who constructed spheres. A celestisl chart wos, it is sald, constru ted in China in the 6th centnry.-Freret. And sja-charts were first brought to England by Bartholomew Columbus, to illustrate his brother's theory respecting a western continent, A. D. 1489. The earllest msp of England was drawn by Gcorge Lily in 1520. Mercater's chart, in which the world was taken as a plane, was iavented in 1556. A map of the moon's gurface was fint drawn at Dantzic in 1647.-1LArinn.

Of the Construction and Use of Maps.-In represeuting the geographical divisions of the earth's surface, two objects are to be kept in view; on the one hand to exhibit accurately to the eye the relutive position of the different countries, and, on the other hund, to give a delineation sufficiently minute to furnish a distinct knowledge of the necessary details. As a globe has very nearly the exact figure of the earth, the representation whici it affords of the surface fulfills the first of these objects in the most perfect manner; but to attain the second it would be requisite to enlarge the globe beyond all convenient size. A glole of the ordinary dimensions serves alnost no other purpose in this respect but to convey a clear conception of the earth's surface as a whole; exhibiting the figure, extent, position, and general foatures of the great continents and islands, with the intervening oceans nad seas. To oltain a detailed representation of any part of the earth's surface, geographers have therefore foand it necessary to have recourse to maps, in which countries are delineated on a plane, whilo the mutual proportions of the distance of places are preserved as ncarly as possible the same as on the globe.

For the construction of inaps different mathematical hypotheses have bcen adopted. lly one method of construction, that of projection, the boundaries of countries, and their inore remarkable features, are reprosented according to the rules of perspective, on the supposition of the eye being placed on some point of the sphere, or at some given distance from it, which may be increased indefinitely. Wherever the eye is supposed to be situated, the reprenentation thus ohtained answers very woll, provided the surface to be represented is of small extent, and the point of view, or projecting point, is nearly over the centre; but when the surface is of great extent, for example, a
whols hemisphere, those places which are situnted near the border of the projection are in all of them much distorted. Another method, that of development, is founded on the supposition that the spherical surface to be represented la e portion of a cone, of which the vertex is situated somewhere in the polar axis produced, and the conical surface is supposed eithar to touch the ephere in the middle parallel of the map, or to fall within the sphere of the middle parallel, and withont it at the extreme parallels. The surface of the cons la then supposed to be spread ont into a plane. For the "History and Constraction of Maps," see Eclec. Ret., xxv., 865 ; same article la Living Age, xxi., 853 ; Srithsoni- A nnual Report, 1856-7.

A third method, witich depends on the development of a cylindrical surface, is that according to which maps are so delineated as to have the parallels of latitude and circles of longitude respectively represented by parallel straight lines. By this method marine charts are constructed. As the rhumb makes equal angles with every meridian, it necessarily, according to this mathod of delineation, becomes a straight line. Such a representation of the earth's sarface is commonly called Mercator's Chart, although the invention is dne to an English mathematician, Edward Wright. These are the three principal methods employed to represent to the eye the several countries on the surface of the earth. See Chartr and Coast Surver.

The maps and charts of our country and the coasts, besides being of great general interest, are of such importance to the commercial community that any account of the progress made in this direction, should be made known as matter of common interest. The United States' Ceast Survey have completed the surveys of a large portion of our coast, and, with a view of obtaining the important facts relative to the old surveys of the country, have employed Mr. J. G. Kohl to investigate the earliest recorda extant of the history of our maps and charts. Mr. Kohl has extended his researches, and in a series of lectures before the Smithsonian Institute (and published in their last Report), has embodied a general history of the origin of the chartographical art, and from these lectures we make some extracts that have an especial relation to the early history of our own country: The Chartographical Art originated probably averywhere with travelers by land and ses and their requirements; all the maps which we see mantioned in ancient tines were probsbly more or less of this kind; as, for Instance, those which the Greeks received from the Phenicians, and which they improved upon; so, too, the mape of the Romana, who scarcely mention any other than travelers' maps, called "itineraria picta" (painted itineraries), of which n separate class was formed by the "itineraria mariti$\mathrm{ma}^{\text {" }}$ (marine itineraries).

By far the greater part of the mapa painted during the middle ages belonged to this class, and more especially to the class of marine maps; because the greatest map-makers of that time, the Venctians and other Italians, wers also the greatest navigators. Thus we sec that the art of map-making particularly flourished among the great trading and navigating nations-the Phenicians, Grecks, and Italinns. The different classes of chastographieal works for which they had names in the mildde ages related all of them more or less exclusively to the hydrography of the sea. Very common, for Instance, were the so-culled "portulanos," or indicators of harbors. The "isolarios" (books of lslunds) form a very curious sort of composition, also probably designed for the special use of mariners. In these inaularies the authors represented and described all the most important islunds of the world, which they separated from their surrounding continente. From the class of maps, made by conquerors and distributors of land, have grown onr officinl government surveys, which often are very
valuable, because they are made, wlthout a too great fear of expense. They generally contain the mioat important information as regands the political divisiona of the country, and for the adjustmont of boundary questlons. Sometimes, being particularly destined for government use, they have not been given to the publlc, or at least not to any great extent. With respect to America we have many most lmportant publications of this character made by the French and British governments for Canada, hy the British Admiralty for nearly every part of America; by tha Spanish hydrographical dépôt ln Madrid, tor Spanish America, and by the Iand Office, Topographical Bureau, Coast Survey Office, and other branches of the United States' government, for different parta of the territory of the United States. The governments of Brazil, of New. Granada, and other South American States, have likewise caused splendid publications to be made, descriptive of the territories under their dominion.

Until the time of Columbus and Gama, nations had no accurate knowledge of the world, except that of their own immediate neighborhood. Ilence, for thousands of years, the art of constructing maps made but little progress. The maps that were in use at the time of Columbus were not much better than those made for the work of Itolemy a thousand years hefore. They do not include a grester extent of country, they exhibit no new facts, nor do thoy show any greater accuracy in the location of points on the earth's sarface. After the discovery of Amorica and the countries bordering on the Pacific Ocean and the Indian Sea, the extent of the known and habitable world was much increased, and the figure of the continents aud the limits of the oceans were more correctiy given on the maps. But it was atill very long ere the classes of interesting facts represented on the maps were enlarged, and the manner of de 'icting them improved.
Water remained for a long time a blank on all the old maps. It was not known thet the ocean offers su much variaty in color, depth, tampersture, and fitness for motion as the dry land itself. The Spaniards know that some parts of the ocean are rough and boisterous, and called a certain part "el Gulfo de los Cabellos" (the IIorse Gulf), and a quiet portion "el Golfo de las Damas" (the Ladies' Gulf). . Some of the regular currents of the ocean were also of carly discovery. The Gulf Stream was known as early as 1512, or since the first voyage of lonce de Leon to Florida. We find on many maps, in the neighborhood of Florida, legends like the following: "Here the water runs continually to the north." it would have been easier to have designated this by a few strips of color; and yet it required the inventive gen is of Franklin, for it was he who first located definitely the Gulf Stream in our maps.

The regular trade winds between India and Arabia, with their nature, direction, and changes, were not only known, but daily taken advantage of ly auvigators for centuries. So too the trade winds of the Atlantic were described, discussed, and used, at leust since the time of Columbus. Nuvertheless, thongh there are curreuts that flow with nearly the same regularity as rivers, no mapanaker gave any visible hint respectling them to the navigater to whom be pretended to furnish useful charts, until the time of our unolern Rennell's Wind-maps, which are also a very into innovation of our century.

The existence of the Lanks of Newfoundland was known to the very first diseoverens of the eastern coast of North America, Nay, for a lung timo these banks wers the most frequented part of tho North American waters, heing visited mince the year 100.1 by whole deets of French, Portuguese, Spanish, and English tisherusen. To have a true conception of their configuration, extent, varying depths, currents, and
ther clrcumataaces, was simost of greatar lmportance for all the navigating nations of Europe than to know the configuration of the coasts of the great continent Itself. Yet at a time when the whole east coast of North America was already very well represented on the mape, we see the Georges Bank, Nantucket shoals, and the other great banks, before this coast, either not given at all, or else in a shape so little like reality that it would have been almost botter to leave them ont altogether. The other qualitius of the bottom of the ocean, its deep valleys and lofty mountain ranges, were of coarse not noticed in an age which did not possess our doep-sea sounding Instruments, and which had alsu no practical occaslon for such explorations. This pra. cial Interest has existed only since the question has been mooted where we can lay with snfety our electric wires for the connection of the two continents. For thia purpose we now explore those hidden recesses, and we may expect that ere long our pictures of the oceans will present as great variety of scenes as do those of the dry lund itself.

We should endeavor to collect and preserve all the old records and charta of our enrly maritime listory. These are valuable to science, and are oljects of curiosity and interest to our morchants, and it should be the object of the Chamber of Commerce to colloct and preserve these records of tho past.

Maranham, or Maranhao, a province of Brazil, in South America. Thls name, which is comman to the province, the capital, the island on which it stands, the Rlver Meary, and the Amazen, is derived from Marafian, the appellation which the unvigator Pinzan first hestowed upon the estuary of the Amazons, upon finding that its waters did nut possess th saline properties of tho ocean. It lies heween $1^{\circ} 20^{\prime}$ and $10^{\circ} 50^{\prime}$ of south latitude, and $45^{\circ} 10^{\prime}$ and $53^{\circ} 20^{\prime}$ of west longitude, being nenrly 400 miles in length from north to south, and having an nverage breadth of about 200 miles. Maranham, or St. Inlz, the capltal, is siturted on an island of the samo name of nhout 42 miles in circumference. It forms the south-eust side of the Bay of Narcos, having to the eastward the Bay of San José, in latitude $2^{\circ} 32^{\prime}$ suuth, nnd longitude $43^{\circ} 40^{\prime}$ west. It is fertile, and well inhabited, there being, besides the capital, numerous small hamlets belonging to the natives. Much difficulty is experienced in reaching this island, on account of the rapidity of three rivers at the mouth of which it is sitaated. The harbor, which is formed by a narrow creek, is of a sufficlent depth to ndmit of merchantmen enterlag; but it is so besot with shonla na to require n pllot, and its depth is diminiahing. Population about 30,010 . Chief public edifices, an episcopul palace, cottege, hospital, theatre, und numerous convents of the Franclscan and Carmelite urilers. It is tho residence of the governor, and has a lycentm and achools of navigation and commerce. Chicf exports, cotton, rice, ani arsaparilla. Chief imports, Blaves. The average number of slavea imported bet ween the years 1810 and 18.15 averaged 5000 annually, for whom a considerable cuty was derived. With regard to exports and innorts, there are no returns which can be relied on later than the year 1820. From 1815 to 1820, the average number of Lags of cotton exported was 68,000 . The exports of rico varied during these years from 56,000 to $8:, 000$ bags. The other artleles sout out of the country codsi ted of hides, tannod and untanned, skins, nud gums. '2he eutire population of the province mavanted, in 1821, to 182,000. This province might ine made one of great importance, for it possesses vast capabilities; but as yet it is in an infunt or semi-barbarous state.

Marble (Ger., Ilus., and Lat. Mfarmo; I)u. Marmer; Fr. Marbre; It. Marme; Sp. Marmal), a genus of fussils, composed chielly of limo; being a bright and beautiful stone, moderutely hard, not giving tire with steel, fe:menting with and soluble in ncid menstrua, and caleining in a slight fire. Dipunus and Scylis,
status
tored previo Marbl colum fices ornsin prove chiefly splend were d po, $\boldsymbol{A}$. The almost rgain, grayish are var and sha are tho the Un

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Statem:
$\stackrel{\mathrm{Or}}{\mathrm{M}}$
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Dutch
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ritish W
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Brittsil A
Cuba.....
Porto Kic
Madelra.
Srateyen
Vivit
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Bremen.
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Helydum
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Maltan.
Malta..
Canada.
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Tuseany.
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In the ca
tircly con
statuaries of Crete, were the first artists. who sculptared marble, and polished their works; all atatnen previously to their time being of wood, 568 s.c.-Pliny. Marble afterward came into uee for atatues and the columne and ormaments of fine huildings ; and the edifices asd monuments of Rome were constructed of, or ornamented with, fine marble. Tha ruins of Palmyra prove that its magnificent structures, which were chiefly of white marble, were far more extensive and splendid than those of even Rome itself. These latter were discovered by some English travelers near Aleppo, A. D. 1678.
The colors by whlch marbles are distinguished are simost innamersble. Some are quite black, others, again, are of a anowy white ; some are greenish, others gryyish, reddish, bluish, yellowish, etc. \{ while some are variegated and spotted with many different colors and abades of colors. The finest solld modern marbles are those of Italy, Blankenburg, France, Flandere and the United States.
Italy produces a most valuable marble, and its exportation makes a considerable branch of her foreign commerce. The black and the milk-white marble of Carira, in the duchy of Massa, are particularly esteemed. The marble of Germany, Norway, and Sweden are very inferior, beling mixed with a sort of scaly limestone. Marble is of so hard, and compact, and fine a texture as readily to take a beautiful polish. That most esteemed by statuaries is brought from the island of Psros, in the Archipelago. It was employed by Praxiteles and Philias, both of whom were natives of that ishnd; whence alao the famous Arundelian marbies were brought. Tho marble of Carara ls likewise in high repute among sculptors. The specific gravity of marble is from $2 \cdot 700$ to $2 \cdot 800$. Black marbie owes its color to a elight mixture of iron.
Statempat biowime the Exports of tile Manupacturdes
 YkAB Exdina June 30TII, 1856.
 Madsita............. 181 Total............ 162,876
Shatenent ahowino tha Imports of Marble intu the United States pos tik Fiboal Ybab findine June $80 \mathrm{TH}, 1856$.

| Whence imporied. | Mantifactures of, | Utrmanufuctured. |
| :---: | :---: | :---: |
| Bremen. | 108 | .... |
| [loilsaí | 28 |  |
| Bulydum. | 17 | $\$ 108$ |
| Emgland. | 8,017 | 25 |
| Scolland | 1,145 | .... |
| Malta | 170 | .... |
| Canada. | 154 | ...' |
| British East Indles. | 25 |  |
| France on the Attantic. | 2,487 | 14 |
| France on the Medilerra | 2,76T | 1,841 |
| Portural. |  | 8,189 |
| Sardinia | 11,886 | 82,858 |
| Tuscany | 15,885 | 140,843 |
| Two Sleilles. | 154 178 | ..... |
| Total. | \%8,0094 | \$177,967 |

Brande divides marbie, according to their localities, int cinsses, ench of which contains eight subdivisions: 1. Uni-colored marbles, including only the white and the biack. 2. Variegated marbles; those with irregular spots or veins. 3. Madreporic marbles, prosenting animal remnias in the shape of white or gray apots, with irregularly disposed dots or stars in the centre. 4. Sheil marblea; with only a few shells internpersed in the calcareuos base. b. Lumachella marbles, entirely composed of ehells. 6. Cipolin marbles, con-
tainlag veins of greenlah talc. 7. Breecla marbles, fonned of a number of angular fragments of different marbles, united by a common cement. 8. Puddingvone marbles ; a conglomerate of round pieces.
I Of Cutting and Polithing Marble.-The marble saw is a thin plate of aoft iron, continually supplied during its sawing motlon, with water and the sharpest asand. The aswing of moderate pieces is performed by hand, hut that of large alabs is moot economically done by a proper mill.
The first eubstance used in the polishing process is the sharpest sand, which must be worked with till the surface becomes perfectly flat. Then a second, and even a third sand of increasing fineness is to be applied. The next substance is emery of progressive degrees of fineness, after which tripoli is employed; and the last polish la given with tin-putty. The body with which the sand is rubbed upon the marble, is usualiy a plate of iron ; but for the subsequent process, a plate of lead is nsed with fine sand and emery. The polishing-rubbers are coarse linen clothe or bagging, wedged tight into an iron planing tool. In every atop of the operation, a constant trickling supply of water is required.
Marbling, the method of preparing and coloring marbied paper. There are several kinds of marbled paper, but the principal difference between theim consista in the forms in which the colors are laid on the ground; some being disposed in whlrls' or circumvolutions, othere in jagged lengtha, and others only in spots of a rounder oval figure. The general manner of managing each kind is, nevertheless, the same, namely, the dipping the paper in a solution of gumtragacanth, or, as it is commonly called, gum-dragon, over which the colors, previously prepared with oxgall and spirjt of wine, are first spread.

Marine, a general nume for the navy of a kingdom or state, as also for the whole economy of naval affalrs, or whatever respects the building, rigging, arming, equipping, navigating, and fighting of ships. It comprehends, likewise, the government of naval armaments, and the statio of all the persons employed therein, whether civil or military.

Marines, or Marine Forces, a body of soldiers raised for the naval service, and trained to fight either in a naval engagement or in an action on shore.
Mariner's Compams. The Chlnese ascribe the invention of the compass to their Emperor Hoag-Ti, who, they any, was a grandson of Noah ; and some of their historians refer the lnvention of it to a later date, 1113 n.c. The honor of its discovery, though much disputed, ls generally given to Flavio de Gioja or Giovia, a native of Amalfi, an ancient commercial city of Naples, A.D. 1302. The variation of the needie was first discovered by Columbus in his voyages of discovery, 1492; and it was observed In London in 1580. Tho dipping-needle was invented by Robert Norman, a compasa-maker of Ratcliffe in that year. See Compass; Am. Jour. Sc., xl., 242.

Maritime Law. By maritime law is meant the law relating to harbors, ships, nnd seamen. It forms an important branch of the commerciel law of all maritime nations. It is divided into a variety of different departments; auch as those with respect to harbors, the property of ships, the dutics and rights of mnsters anil seamen, contracts of affreightment, averuge, saivage, etc. The reader will find those suljects treated of under their respective heads.
Sketch of the Progress of Maritime Lav.-The enrliest aystem of maritime law was supplied by the Rhodians, seversi centuries before the Christian era. The most celelirated authors of antiquity hato spoken in high terms of the wisdom of the lihodian laws; luckily, however, we are not wholly left, in forming our opinion upon them, to the vague, commendntory statements of Cicero and Strato. (Creano pro Lege Manillia; Strab., lib. xiv.) The lawa of Rhodes
were adopted by Auguatua inte the legislation of Roma; and auch was the eatimation in which they were held, that the Emperor Antoninus, being solicited to dooide a contested polnt with respect to shipping; in reported to have anowered, that lt ought to be decided by the Rhodian laws, which were of paramount anthority in auch cases, unless they happened to be directly at variance with some regulation of the Roman law.-("Ego quidem muwdi dominus, lex autem maris legis id Rhodia, qua de rebus nauticis proscripta est, judicetur, quatenus nulla nostrarum legum adversatur. Hoc idem Dirus quoque Augustus judicavit.') The rule of the Ghodian law with respect to average contributions In the event of a sacrifice belog made at aca for the safety of the ship and cargo, is expressly laid down in the Digeat (lib. xiv.); and the moat probable conclusion seema to be, that most of the regulations as to maritime affiairs, embolied in the compilations of Justinian have been derived from the same source. The regulations as to average adopted by all modern nations, are borrowed, with hardly any alteration, from the Roman, or rather, as we have seen, from the Rhodian law !-a conclusive proof of the sagacity of those by whom they had been originally framed. The only authentic fragments of the Rhodian law are those In the Dlgest. The collection entitled Jus navale Rhodiorum, published at Bale in 1561, ls now admitted by all eritics to the spurious. See ante, pp. 1188-1192.

The first modern code of maritime law is said to have been complled at Amalfi, in Italy, a city at present in ruins ; but which, besides belng early dlatinguished for its commerce, will be forever fanous for the diacovery of the I'andects, and the suppose. invention of the mariner's compass. The Amalfitan code is anid to have been denominated Tabula Amal. fuana. Llut if auch a body of law really existed, it is aingular that it ahould never have been publiahel, nor even any extracts from lt. M. Pardessus has shown that all the anthors who have referred to the Amsititan code and asserted its existence, have copied the atatement of Freccia, in his book De Subfeudis. (Collection des Loic Maritimes.) And as Freccia assures us that the Amalfitan code continued to be followed in Naples at the time when he wrote ( $157^{\circ} 0$ ), it is difficult to suppose that it conld have entirely disappeared; and it seems most probable, as nothing peculiar to it has ever transpired, that it conaisted principally of the regulations laid down in the Roman law, which, it la known. preserved their ascendancy for a longer period in the sonth of Italy than any where else.

But, besides Amalfi, Venice, Marselles, Plse, Genos, larcelona, Valencia, and other towns of the Mediterranean, wore carly distinguished for the extent to which they carried commeroe and navigation. In the absence of any positive information on the sulject, it seems reasonable to suppose that their maritime Laws would be principally borrowed from those of Rome, but with such alterations and modilications as might be deemed requisite to accommolate them to the particular views of each state. Ihut whether in this or In some other way, it is certain that various conflicting regulations werv estallished, which let to much cobsfusion and uncertaiuty; and the experienco of the inconveniences thence arising, doubthess contributed to the universal adoption of the Consohuto del Mare as a cole of nuritime law, Nuthing certain is known as to the origin of this code. Azuni (Droit Maritime de l'Europe, tome I., or rather Juata, Colice F'crdinambe, from whose work a large portion of Azuni's is literally translated) contende, in a very able dissertation, that the I'isans are entitled to the glory of having compiled the whole, or at least the greater jurt, of the Consolato del Jeare. On the other hand, Ion Antonio de Capmany, in his learued and excellent work on the commerce of Llarcolona (Antiguo Comerrio de Barcelosa, tome 1., pp. 170-183), has endeavored to show that the

Comsolato wat complled at Barcelena $\boldsymbol{1}$ and that it containg the rules according to which the consula, which the Barcelonese had established in foreign places so early as 1268, were to render their decislens. It is certain that the Conoolato was printed for the first time at Barcelona, in 1502 ; and that the early Italian and French editions are translatione from the Catalan. Azunl has, indeed, sufficiently proved that the Pisans had a code of maritine lawa at a very early period, and that several of the regulatlons in it are subetantially the same as these in the Consobato. But it does not appenr that the Barcelonese were aware of the regulations of the Pisana, or that the reacmblunce between them and these in the Consolatu is more than accidental ; or may not falrly be ascribed to the cencurrence that can hardly fall to obtain among wellInformed persons legislating upon the same topics, and Infuenced by principles and practices derived from the clvil law.
M. Pardeasus, In the second volume of his excelient work already referred to, appears to have been suffciently disposed, had thore been any grounds to go upon, to set up a claim in faver of Marseilles to the honor of being the birtli-place of the Consolato; but he candidly admits that such a pretunsion could not he supported, and nnwillingly adheres to Capmany's opinion. "Quelque Francais," suys he, "quolque portie par des sentimena de reconnolssance, qu'aucun évènement ne saureit affoiblir, à faire valuir tout ce qui ext en faveur de Marseilles, je dols reconnoitre franchement que les probabilités l'emportent en faveur de Barcelone." -Tome 11. Bat to whichover city the honor of comjuiling the Consolato may bo due, there can be no tloult that ita antiquity has been greatly exaggerated. It is affirmed, in a preface to the different editions, that it wa solemnly accepted, subscribed and promulgatel, as looly of maritime law, by the Holy See lu $100^{\circ} \mathrm{j}$, anu by tho kinge of France and other potentates at different periods hetween 1075 and 1270. But Capmany, Azuni, and l'ardessus, have shown in the clearest and most satidfuctory manner that the circumstances alluded to in this sketch could not possibly live taken place, and that it is wholly unworthy of uttention. The most probable opinion seems to he, that it was compiled, and began to be introduced ubout the end of the 13th or heginning of the 14th century. And notwithstanding its prolixity, and the wont of precision und elearness, the correspondence of the greater number of its rules with the ascertained principles of justice and public utility, gradually led, without the intervention of any agreement, to its uloption as a system of maritime jurisprudence ly all the nations contlguous to the Mediterrancan. It is still of high authority. Casaregis suys of it, though perhaps, too strongly, "Consulatus maris, in muteriis maritimis, tanquam universalio consuetulo habens vim legis, inviolubiliter attemenda est apul omnes procincias et na-tiones."-I isc. 214.

The collection of sea laws next in celebrity, but anterior, perhaps, in point of time, is that denomin ated the Roole des Jugements TOteron. There is as much divorsity of opinion as to the orlgin of these laws, us there is with respect tu the origin of the consolato. The prevailing opinion in Great Ifritain has been, that they were compiled liy direction of Queen Eleanor, wife of Henry 11., in Jeer quality of l)uchess of Guienne; and that they were afterward enlarged and improved hy her son Mhelard I., at his return from the Iloly Land; but this statement is new admitted to rest on no good fonndation. The most probable theory neems to be, that they are a cullection of the rules or practices followed at the principal French ports on the Atlantic, as Burdeaux, Rochelle, st. Malo, etc. They contain, indeed, rules that are essential to all naritime transactions, wherever they nay be carried on ; but the refercnces in the code sulticiently prove that it is of Erench origin. The circumstanco of that
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enoug!
the ch equity them 8 the wo name." hapa, obtaine Rhodes the rea the case
A co island 3 ligh pilation It is tr that the Oleron, former 1
is not ac statemes pp. 425, Hanseat tainly of ning of compiled ron, and has spok ner:-" Gothland tum equit non tanqu Prolegom Beside the IIans system of autherity Amsterdd of the la is given i but the referred other, B system o peared, is ha Marine lent cule bert, hy a careful and othe lifferent cham'rert comlines had show institutio In the pr Lont Ten fended nt inust requ made to tion, whit perity to politic 14 Jightened who sele muritime method, a legislution nance of and most
menarch's having large poseessions In France at the period when the Rules of Oleron were collected, natnrally fucilitated their introduction into England; and they have long enjoyed a very high degree of anthority in that conntry. "I call them the laws of Oieren," sald a great civilian (Sir Leoline Jenkins, Charge to the Cinque Ports), "not but that they are peculiariy enough English, belng long slnce incorporated into the customa and etatntea of our admiralties; but the equity of them is so great, and the use and reason of them so general, that thay are known and received all the world over by that, rather than by any other nsme." Molloy, however, has more correctiy, perhaps, sald of the laws of Oleron, that "thay never olitained any other or greater force than those of Rhodes formerly did; that is, they were esteemed for the reason and equity found in them, and applled to the case emergent." -Do Jure Maritimo et Navali.

A code of maritime law isaued by Wisby, in the island of Gothland, in the Baltic, has long enjoyed a ligh reputation in the north. The date of its compilation is nncertain; but it is comparatively modern. It is true that some of the northern jurists contend that the laws of Wisby are older than the Rules of Oleron, and that the latter are chlofly copled from the former! But it has been repeatedly elown that there is not so much as the ahadow of a foundation for this statement. See Pardessus, Collection, etc., tome 1., pp. 425, 462 ; F'oreign Quarterly Review, No. 13, art. Manseatic League. The laws of Wisby are not certainly older than the latter part of the 14th or beginsing of the 15 th century; and have obylousiy been conpiled from the Consolato del Mare, the Rules of Oleron, and other codes that were then in use. Gretius has spoken of these laws in the mast laudatory man-ner:-"Quce de maritimis negotiis," says he, "insula Gothlandios habitatoribus placuerunt, tantum in se habent, tam equitatis, tum prudentic, ut omnes oceani accoles eo, non tanquam proprio, sed velut gentium jure, tatantur."Prolegomena ad Procopium, p. 64.
Besides the codes now mentioned, the ordinances of the llanse Towns, lasued In 1597 and 1614, contain a system of lawe relating to nsvigation thut is of great suthority. The judgments of Danme, the customs of Amsterdam, etc., are also often quoted. A tranalution of the law of Oleron, Wisby, and the Hanse Towns, is given in the $\mathbf{3 L}$ edition of Malynes's Lex Mercatoria, but the edition of them in the work of M. Pardessus, referred to in the text, is infinitely superior to every other. But by far the most compiete and well-digested system of maritime jurisprudence that has ever appeared, is that comprised in the famous Ordonnance de lo Marine issuad by Louis XIV., in 1681. This excellent code was compiled under the direction of M. Colbert, by individuals of great talent and learning, after a careful revislon of all the anclent aea laws of France and ether countries, and upon consultation with the different parliaments, the courts of admiralty, and the cham'sers of commerco, of the different towns. It combines whatever oxperience and the wistom of uges had shown to be best in the Roman iawe, and in the Institutions of the modern maritime states of liurope. In the prefuce to his treatise on the Law of Shipping, Lord Tenterden gaya:-" If the realer should be offended at the frequent references to this ordinance, 1 must request him to recollect that thoso references are inaile to the maritime code of a great commercial nation, which has contributed much of ita national prosperity to that code: a code cemposed in the reign of a politie prince; under the ausplees of a wise and enlightened ministor; by luborious and learned persons, who selected the most valuabie principles of all the maritime laws then cxisting ; and which, in matter, method, aad style, ls one of the most finished ucts of legishation that over was promulgated." The orillnance of 1681 was published in 1760 , with a detailed and most elaborate commentary by M. Valin, in 2 vol-
umes, 4to. It is imposaible whlch to sdmire most in thla commeatary, the learning or the eound good sense of the writer. Iord Mansfield was indebted for no inconsiderable portion of his euperior knowledge of the principlas of maritime jurisprudence to a careful study of M. Valin's work.

That part of the Cude de Commerce which treats of maritime affairs, inurance, ete., ta copled with very little alteration, from the ordinance of 1681 . The few changes that have been made are not always improvements. No system or code of maritims luw has ever been isaued by authority In Grest Britaln. The laws and practices that now obtaln among thein, in reference to maritime affalrs have been founded psincinally: on the practices of morchanta, the principles laid down in the civli law, the laws of Oleron and Wiaby, the warks of distinguished jurisconsults, the judicial decisions of their own and foreign countries, etc. A law so conatructed has necessarily been in a progressive state of improvement ; and, though still susceptible of amendment, it correspends, at this moment, more naarly, perhapa, than 8 other systom of maritime law, with those nnlvorsally recognized principles of justice and general convenlence by which the transactions of merchants and navigators ought to be regulated. Tite declaions of Lerd Mansfield did much to fix the princlples, and to improve and perfect the maritime lav: of England. It is also nuder great obllgations to Lord Stowell. The decialons of the latter chlefly, indeed, respect questions of noutrality, growing out of the conflicting pretensions of belligerents and neutrals during the lute war; but the principles and doctrines which he unfolds in treating those questions, throw a strong and steady light on those branches of maritime law. It has occaaionally, indeed, been al-leged-and the allegation is probably, in somo degree well foundad-that his iordship haa conceded too much to the claims of belligerents. Still, however, his judgmenta must be regarded, allowlng for this excusable bias, as amonys the nollest monuments of judicial wisdon of which any country can boaat. "They will be contemplated," saya Mr. Serjeant Marshali, " with appluuse and veneration, as long as depth of leurning, soundness of argument, enlightened wisdom, and the chaste beautios of eloquence, hold any place in the estimation of mankind."-On Insurance, Prelim. Disc. The Treatise of the Law Relative to Merchant Ships and Seamen, by the late Chicf Juatice of the Court of King's Bench, does credit to the talents, erudition, and llberality of its noble and loarned uuthor. It gives, within a brief compass, a clear and admirable exposition of the most important branches of our marItime law ; and may be consulted with equal facility and advantage by the werchant, the general acholar, and the lawjer. Mr. Serjeant Marshall has entered very fully into some, and has touched upon most points of maritime luw, in his work on Insurance; and has discussed them with great lcarning and sagacity. The works of Mr. Justice Park, Mr. Ifolt, and a few othcrs, are also valuable. Of the carlier troatises, the Lex Mercatoria of Malynes is by far the best; ind, considering the period of its publication (1622), is a very extraordiuary porformence. See North Am. Rev., vi., 323 (J. Stour), ii., 218, xiii., 1 (i1. WueAton) ; Munt's Mag., xiii., 232, 455, x., 337, ix., 261,358,643 , xiv., 547, xv., 75 , xxiv., 191.

The marine law of the United States ia the sume as the marina law of Eurepe. It is not the linw of a particular country, but the general law of nations; and L.ord Mansfield applied to its universal adoption the expressive language of Cicero, when speaking of the eternal laws of justice: "Nec erit alia lex IRoma, alia Athenis; alla nunc, ulia posthue; aed ct omnosgentes, et omni tempore una lex et sempiterna, et linmortalis continebit."

In treating of thia luw, wo refer to its pacific character as the law of commerco and navigation in time of peace. The respective rights of belligercuts and neu-

## MAR

trale in time of war constitute the code of prise law and that forms a distinet law of inquiry. Whan Losd Mansfield mentioned the law-morchant as belag a branch of publio law, It was because that law did not rest essentially for its oharacter and autherity on the positive institutions and local oustoma of any particejar ceuntry, but consiated of certain principles of equiky, and uages of trade, which general commerce and a common aenee of juatice had satabliahed to regelate the dealings of merchants and mariners in all the commercial countries of the civilized worid.

In the atuily and cnltivation of maritime law our improvement has been rapld, and our career Iliustrious, since the adoption of the present Conatitution of the United States. The decinions in federal courts, in commercial cases, have done credit to the intellectual and moral character of the nation, and the aimiralty courts in particular have dinplayed great research and a fumiliar knowledge of the principies of the marine law of Europe.
The reports of jadicial decisions in the several States, and especially in the States of Massuch:setts, Now York, and Penneyivsnia, evince great attention to maritime questiona; and they contain abundant proofs that our courts have been dealing largely with that business of our enterprialng and commercial people.
Deelaration respeding Maridime lawo signed by the Plemipotentiaries of Great Bricain, Austria, France, Prussia, Russia, Sardinia, and Turkey. assembled in Congrese at Paris, April 16, 1856:
The plenipotentisries whe signeal the Treaty of Paris, on the 30 th of March, $18 \% 6$, assembied in conference, considering: That maritime law in time of war has long been the subject of depiorable diaputen ; that the nncertainty of the law and of the duties in euch a matter gives rige to differences of opinion bet ween neutrals and belligerents which may occasion serious dificulties, and even conflicte ; that it is, consequently, advantageons to establish a uniform doctrine on so impertant a point; that the plonipotentiaries assembled in Coogress at Paris can not better respond to the intontions by which their governments are animsted, than by seeking to Introduce into international relations fixed prisciples in this reapect. The alove-mentioned pienipotent iaries, belng duly authorized, resolved to concert among themselves at to the means of attain. ing this object; and having come to an agreement, havo adopted the following solemn declarations 1

1. Privateering is, and remains, abolighed. 2. The neutral thag covers enemies' goods, with the exception of contraband of war. 3. The neutral goods, with the exception of contraband of war, are not liable to capture under enemy's flag. 4. Blockaden, in order to be binding, muet be effective; that is to any, maintained by a force sufficient realiy to prevent access to the coant by the enemy.

The governmente of the undersigned plenipotentiaries engage to bring the present deciaration to the knowledige of the States which have not taken part in the Congrean of Parin, and invite them to accede to it. Convinced that the maxims which they now proclaim can not but the received with gratitude by the whole worid, the undersigned pionipotentiaries doubt not that the efforts of their governmente to obtain the general adoption thereof will be crowned with full success. The present declaration is not, and shall not be binding, except between those powers who have acceded or ahall accede to lt.

Done at Paris the 16 th of April, 1850.
(Signed,)
Ilvol-Schaveneteix, Hatzfeliot,
Honeme,
Walewskt,
Hoerquestey,
Clahenibox,
Cowlexy,
Mantisuyefe,

Oklapf,
Jhennow,
Cavouth,
In Vilicamanina,
Ashit,
Menteamet litemit.

The United States', Executive, through the Dopartment of Stete, communicated to the Fronoh government ite roply in Auguat 1856, vis. :
Thees four pointe are indivicible, because he can uot accept the first point-sho abolition of privateering. Goverat Masoy respeotfully proposen, however, iwo distinct amendmentse $\mathbf{r}$

1. Either to add to the firse proposition in the "deolsration" of the Congrese of Paris-
" Ars that the private property of the subjects or citisons of a belligerent on the high seas shall be oxompted from selaure by pablio armed veosels of the ether balligerents, sxeept it be contraland," or
2d. To adopt the 2d, 8d, and 4th propositions, without the first.e

The argument contained in the reply of Goveranr Marcy is hintorical, argumentative, and forcible.

It goes to may, that no nation has a right to pregcribe to another what shall constitute her military or naval force; and that we can, conmiatently with our inatitntions and policy, neither agree not to employ volunteers on land, nor privateere on the high seas. When a nation having a large standing army is threatening a nation with a amail standing army, the latter must have recourse to volanteers; and so when a nation with a large navy, makes wat on enother with an inferior navy, the latter must have recourse to privateera, otherwise the nation with a large navy could empley a portion of her navy to keep the inferior navy of her enemy in check, and with the rest aweep the commerce of the latter from the occan. larity of position could only be reached if the armed cruisers of the auperior navy and other national ohips of war woull forego making capturen of the enemy's property on the high seas, or if the nation with sn inferior navy armed privateers to inflet as much inmage on the commerce of the greater naval power as the latter does on its inferior enemy. The concluding portion of Mr. Marcy' reply is as follows :
"In discussing the effect of the proposed measurethe alsolition of privateering-a reference to the exist. Ing condition of ontions is almost unavoidable. An instance will at once present itself in regard to two nations where the commerce of reach io about equal, and about equally wide-spread over the world. As connmercial powers they approach to an equality, hut as naval powers there is great disparity between them. The regular navy of one vastly exceeds that of the other. In case of war between them only an inconsiderable part of the navy' of the one would be required to prevent that of the other from being used for defense or aggresnion, while the remainder would be devoted to the unembarrassed employment of destroying the commerce of the weaker in naval nt rongth, "The fatal consequence of this great inequality of naval forco between two unch belligerents would to in part remedied ly tise use of privateera; in that case. while either might assail the commerce of the other in every sea, they would be obliged to dietribute ani pmploy their reapective navies in the work of prutection. This statement only illustracen what would lie the crse, with some molitication, in every war where thare may be considerable disputity in the naval strength of the belligerents.
" History throws much light upon the question. France, at an early period, was without a navy ; and in her wars with Great Britaln and Spain, both naval powers, she resorted, with sigual goosl effict, to privateering, not only for pintection, but successui apgression. She olitained many privateers from floflanit, anil by this force pained decided indvantagen on the ocean over her enemy. While in that comilition France could hardly have been expected to orlginate or concur in a proposition to abolish private ring. The condition of many of the smalier States of the world is now, in relation to nova' powres, net much unlike that of France ln the middle of the lith coutury.

Atala orsi e, whilly played Those осела manner project netions will be ascenila all the age. menach power iog a m esianhis wieided The inj minion powerfu jecting ligerent should b auch pro found ${ }^{1}$
"The propositi Paris th property on the by pulidi cept it ment of the other tion.' I the Presi sitions, it ment be mended principle phatic 8 operation believe it out the p can not c to chants privateer
"If th proper fo ing in re, they sha powers w tion to th upon the the same which wa before th gress.
"Abec not iuapi fuir claim moditicat relation the relati ed in th choose to rena of su character military olegg and diea ngain claim. eioged or with the blame fu to the obv

At a later perlod, during the relgn of Loula XIV., several axpeditions were fitted oat by hlm, componec wholly of privateers, whleh weie most effectively employed In prosenutlag hostilities with naval powers. Those whe muy have at any time a control on the oceaa will be atroagly tempted to regulate Ita une In a manner to subserve their own Intereatis and ambltous projects. The ocean in the cominon property of all nations ; and inatead of ylelding to a measure which will le likely to secure to a fow-posailily to one-an ascendancy over it, each should pertinaclously retain all the means it possesses to defend the commen heritage. A predominant power upon the ocean is more menacing to the well being of others than auch a power on land; and all are alike interested in reaiatlag a measure calculated to facilituta the permanent esiatilishmeat of such a domination, whether to be wielded by one power or shared among a fow others. The injuries likely to result from surrendering the dominiou of the seas to one or a few aations which have powerful navies, arise mainly from the practice of aubjecting privi ie property on the ocean to selzure by belligerents. Justics and humanity demand this practice should be abandoned, and that the rules in relation to auch property on land should be extended to it when found upon the high seas.
"The Presldent. therefore, proposes to ndi to the first proposition in the 'Doclaration' of the Congress at Paris the following worls: 'And that the private property of the subjects or citlzens of the belligerent on the high eeas ehall be exempted from seizurs by pullic armed veasels of the other belligerent, except it tue contraband.' Thus ameaded, the government of the United States will adopt it, together with the other three principles contained in that 'Declaration.' I am directed to communicate the approval of the Iresident to the seconil, third, and fourth propoaitiens, independently of the first, should the ainendment be unacceptable. The amendment is rece $n$ mended by so many powerful considerations, snd he principle which calis for it has so long had the $m$ phatic sanction of all enlightened nationa in mili ary operations on land, that the President is reluctant to believe it will meet with any serious opporition. With.out the projosed moditcation of the first principle, he can not convlnce hinself that it would be wise or safo to change the existing law in regard to the right of privateering.
"If the smendment should not he alopted, it will be proper for the United Statea to have some understanding in regarl to the treatment of their privuteera when they shnil have occasion to visit the porta of those powera which are or may become parties to the declaration to the Congress at Paris. The United States wlil, upon the ground of right and comity, claim for them the same consideration to which they are entitled, and which was extended to them under the law of nationg, before the attempted modification of it ly that Congress.
"As connectel with the subject heroin discussed, it ls not inappropriate to remark that a due regard to the fair claims of the neutrala would seem to require some modification, if not an abandonment, of the doctrlne in relation to contraband trade. Nations which preserve the relations of peace should not be injuriously affected in their commercial intercouree hy those which choose to involve themaclves in war, provilad the citizens of such jeaceful nations do not compromise their character as neutrals by direct Interference with the military operations of the telligerents. The laws of siege and blockaile, it is believed, afford all the remedies against neutraia thut the partjes to wir can justly claim. These laws interdict nll trade with the besieged or blocknded places. A further interference with the ordinary pursuits of neutrala, in nowise to blame for an existing atate of hostilities, is contrary to the obvious dictates of justice. If this view of the
subject could be adopted, and preotically obeerved by all civiliaed nations, the right of eearch, whlch has been the sonrce of so much annoyance, and of so many njaries to noutral commerce, would be restrioted to a wh casen only as justifed a surpiolon of an attempt $t$ : trade with places actually in a state of slege or b ockada.
"IIrmar'ty and juatice demand that the calamitles 3u sitent oo war should be atrictly limited to the bellig .. t, themselven, ind to those whe voluntarily take pe it with them; but neutrals, abotaining in good fu th from auch complicity, ought to be left to purave tl cir ordinary trade with elther belligarent withoat ristriotions ln respect to the articles entering into it.
"Though the United States do net propose to embarrase the other pending negotiations relative to the rights of neutrala, by pressing this change in the law of contraband, they will be ready to give it their sanction $w^{\prime}$.ever there is a prospect of ita favorable reception ly other maritime powera.
"The undersigued availa himaelf of this opportunity to renew to the Count de Sartiges the assurance of his high coneideratlon.
"W. L. Mancy."
The points here settled are all of them inportant. Privateering has been the scourge of the ocean-a lawless sort of warfare between belligerents them-selves-a grievous annoyance and damage to nentrale, and a most prolifie school of pliacy. those whose recoliection exteads back 80 or 40 years remember when the ocean was traversed by piratea, trained for their fiendish basiness by the long ware of the earlier yeara of the century. The best men of modern Christendom had never ceased to protest against the system. Sweden and Holland nttempted, in the 17th century, to put an end to the practice, but without effect. The Unlted Statea and Prussia, in 1785, enteral into stlpulations against privateering, as between themselves, but did not renew the provision. The Fronch Iegislature, in 1792, made a similar, but fruitless effort. Privateering wea destined to have one license more for perpetratiag its atrocities, and shocking the sease of mankind. Jurists lamented the practice, but were forced to acknowledge it a part of the law of nations, and gave up in despair all expectation of an early elandonment of the legalized outrage.

When the late war between the United States and Mexico occurred, it was matter of genersl grutulation that the circumatances of the case saved the woild from the curse of privateering; and much more did the worll rejoice, at the commencement of the late European war, when Euglund and France announced their intention to graat no letters of marque. With the conclasion of that war-as part of the conclusion, in-deed-we have the solemn compact of tho grent powors of Europe, that "privateering 18 , and remains, abelished." It is an important step in the progress of humanity.

The declaration that "the neutral flag covers enemies' goods, with the exception of contraband of war," diminishes greatly the liabilities of the world to fature strifos. Until the breaking out of the recent wur, Great Britain land steadily majntalned the contrary doctrine as the lnw of nations. The Empress of Russia, in 1780, set forth precisely the doctrine of the late Paris Conferance, and gained tha concurrence of most of the States of Europe, and of the government of the United States. Great Britain refused to yiold, and the other nutions, one ufter another, aubmitted to the interpretations of that power. Even Russin herself conceded that point, and in 1801 agrep ${ }^{\text {, }}$ by treaty, that an cnemy's property was not protected in neutral ships. Jurists, our own with the rest, regarded the question of international law as aettled on the Ilritish interpretation. The qualified accession of Engiand, in the Declaration of 1854 , to tite principles of the Armed

Neatrality occamloned, therofore, general and gratliyIng aurprise. It then ontered the minds of none, how. evar, that wlthin two years she would make her full acceaninn to thone principles, by a compact with thone very powern againat whom, on thia same question, she had leveled the hrondeldee of her fleets. In regart to thia particalar, Rusila is the victorious party, and lier triumph in a note of human progress. Turkey, too, has a proad diatinction in this decleration, for in settling the point that free ships make free goodn, sha is hut publishing anew what she was the firut to declare 250 years ago. The labora of our own government have been in the anme direetion through the whole period of our national history. Oar government, while admitting the Finglish rule as to the law of natlons, has decdaned that the rule had no foundation in natural right, and in repeated treation has gained the insertion of the doctrine now proclaimed In Parin.

The thind item in the late Ieclaration has iseen lens the oceasion of differences than the aecond. The fourth is a conclualve teatimony againat "paper blockadea."

Whether our government will "accede" in form to the poluts named may be doulited, though every one of them la a concesalon to principles or usages for which we have contended, and all, it may be hoped, will have our uniform and hearty practical coneurrence. It han been generally the pollicy of our atatesmen to keep our government clear from alliances which might, under any clrcumstancen, the embarrassIng, nud that diapoaition may demand for us, even In thif instance, an attitude of independence. IIowever this may be, the moral sense of the nation will accept with thankfulness the resulta of the Paris Conference, and the Christlan wlll see new forstokening of that day when nations shall learn war no more.

Maritime Loans. The contracts of botfomiry and respondentia are maritime loans of a very high and privileged nature, and they are always upheid ty the admiralty with a strong hand, when entered Into bond jule, and withoat any muspicion of fraud. The principle on which they are founded and supported is of great antiquity, and penetrates so deeply into it, that Emerigon says its origin can not be traced. It was borrowed by the Romans from the ancient Rhodians, and it is deeply rooted in the maritime general law of Europe, from which it has been transplanted into the law of this country. The object of hypothecation bonds is to procure the necessary suppliea for ships which happen to be in distress in foreign ports, where the master and owners are without credit, and in cases in which, if assistance could not be procured by means of such instruments, the vessels and cargoes must be left to perish. The authority of the master to hypothecate the ship and frelght, and even the cargo, In a case of necessity, is indisputable. The vital pripeiple of a bottomry tond is, that it be taken In a case of unprovided necessity when the owner has no resources or credit for olstaining necessary supplies. If the lender knew that the owner had an empowered consignee or agent in the port, willing to supply his wants, the taking the loan is a frand; but if fairly taken under an lignorance of the fact, the courts of admiraity are disposed to uphold such bonds, as necessary for the support of emmmerce in its extremities of distress. And if the lender of money on a bottomry or respondentia lond be williug to stake the money upon the safe arrival of the ship or cargo, and to taky upon himself, like an insurer, the risk of sea periln, it is lawful, reawonable, and just, that he should the authorize: to demand and receive an extraordinary interest, to be agreal upon, nud which the lender shall deem commensurate to the hazaril the runa.

A bottornry bowl is a loan of money upon the ship or shlp and accruing frelght, at an extraonlinary interest, upon maritime rinks, to be borne liy the lender for a specific voyage, or for a definito perici. It is in
the nature of a moregage, by which the shlp-owner. or the master on his behalf, pled, on the ship as a seeprity for the maney borrowed, anc it covera the freight of the voyage, or during a limited 'Ime. A respondentin bond la a loan upon the pledge of the cargo, though art hypothecation of beth ship and cargo may be made in one bond; and it amounts at most to an equitable Iien on the aalvage in case of lons. The condition of the loan is the aafe arrival of the subject hypothecated, and the entire principle an well as intereat is at the risk of the lender during she voyage. The lwittomry holier undertaken the risk of the voyage an to the enumerated perils, but not an to those which arise from the fault or misconduet of the master or awner. The money ls toaned to the borrower, upon condition that if the sulject pledged be lost by a peril of the sea, the lender shall not lie repald, except to the ex. tent of what remainn, and if the aubject arrives safe, or If It shall not have heen injured, except by its own defect, or the fault of the master or cuariners, the hore rower must return the sum borrowed, together with the maritime interent agreed upon, and for the repayment the person of the borrower is bound, an well is the property pledged. Thin in the definition of the contract given by Pothler, and it was taken from the Roman laws, and has been adoptod by Emerigon, and he anys the deflnition la given In neariy the same terms by all the maritime jurists. -Kenr'n Com.

Mark, or Maro, a welght used In several parts of Furoje, for varions commodities, enpecially gold and niliver. In France, the mark was divhled huto 8 nza. $=64$ drachuns $=192$ denlera or pennyweights $=4$, fir8 grains. In Ifolland, the mark weight was also called Troy welght, and was equal to thut of France. When gold and silver are sold hy the mark, It is divided into 24 carats.

The pound, or liere poids de marc, the weight most commonly used in retali dealings throughout France, prevlous to the Revolution, was equal to 2 mares, and consequentiy contalned 16 ozs. $=182$ drachms $=3 \mathrm{kH}$ den, $=9,216$ grains. One kilogramme ls nearly equal to 2 livres. Subjoined is a table of livres, puitis de marc, from 1 to 10 , converted into kliogrammes. Any greater number may be learned by a simple nultiplication and addition.

| Livres. |  | K1709 | Lurres. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $=$ | 0.4095 | 6 | = | 29870 |
| 2 | $=$ | 09700 | 7 | $=$ | $8 \cdot 4265$ |
| 8 | $=$ | 1.4645 | 8 | $=$ | $8 \cdot y 16$ |
| 4 | $=$ | 12880 | 9 | = | $4 \cdot 4 \times 36$ |
| 5 | $=$ | $2 \cdot 4475$ | 10 | $=$ | $4 \times 851$ |

Mark, is a term sometimes uned for a money of account, and in aome countries for a coin. The English mark ls fids of a pound sterling, or 13.s. dd.; and the Scotch mark is fde of a pound Scotch. The mark Lubs, or Lubec mark, used at Ilamburg, is a money of acconnt, equal to 291 cents. See ${ }^{1}$ amnuro.

Market, "public place in a city or town, where provisions are acold. No market is to be kept within 7 alles of the city of London; but ali butchers, victualers, etc., may hire stalls and staulings in the tleshmarkets there, and ecll meat and other provisions. Fivery person who has a marbet is entitled to reccive toll for the things sold in it ; and by ancient custom, for thinge otanding in the market, though not sold; but those who keep a market in any other maner than it is granted, or extort tolls or fiees where none are due, furfeit the mame. See Fains.

Marsellles, a large comnercial city and sed-port of France, on tho Mediterranean, Iat. $43^{\circ} 17^{\prime} 43^{\prime \prime}$ N., iong. $5^{\circ}$ 299' E. Population, 1831 , incloding suls urtow, 195,437. The harbor, the accoss to which is defenled ly several strong furtitications, is in the centre of the city, forming a basis 525 fathoms in length, by about 152 fathoms in breadth. The tide is hardly sensible: but the depth of water at the entrance to the hartor varies from 16 to 18 feet, being lowest when the wind is north-west, and highest when it is
south-we varles fro and dee! are cons prevent ceasible t of the be sized me alove 10 quays preedily' call and rock of which is and not point of : anchorage hhips bet to the we month, It $43^{\circ} 11^{\prime} 5$ erected or the light, every' hal seen 7 lea
Panier, or $4 \frac{1}{6 i l e s}$ s 7 milies fro of it, heav bor; it is pilot on 1 whether th they seldo osas per t vessels, an with Frane Jean, on th The luzare a little to $t$ pitalion Rat is dulious. for pillatage form quara catering at
Crages.made his de pradique, he Patache, w the one for the custon being made ular manife house with soon as the costed by o authorized and uther p sary, for th then gives respecting and cargo, specting th Independer in all port house, he i plete list of he has on 1 and he can rect as pos board by variation $s$ ticularly th erdment $m$ lance. Ald crew thave declared, ar gling is vi
south-west. Within the besin, the depth of wator varies from 12 to 24 feet, being ahallowest on the north, and decpest on the south ofle. Dredging machines are constantiy at work to clear out the mud, and to prevent the harbor from filling up. Though not accessible to the largest class of shipm, Maracilice in one of the leat and safest ports in the world for moderatesized merchantmen, of which it will secommodate alove 1000. Shipm in the basin lie clome alongside the quise: and there ls overy facility for gettling them apeedily loaded and unlomded. The Isies do lattoncau and l'omegues, anil the otrongly fortified laiet or rock of If, lie W.S. W. from the port; the latter, which is the nenrest to it, being oniy 18 miles distant, mid not more than of a milie from the projecting point of iand to the south of the city. There is good anchorage ground for men-of-war and other large shipe hetwoen the Isles de Rattoneau and Pomeguea, to the west of the Isle d'If. When coming from the sonth, it is usual to make the Isie de Blanier, in lat. $43^{\circ} 11^{\prime} 54^{\prime \prime} \mathrm{N} .$, long. $5^{\circ} 13^{\prime} 69^{\prime \prime} \mathrm{E}$. $\mathrm{A} 1 \mathrm{Ilgh}_{\mathrm{g}}$-house erected on thls lsland ls 131 feet hlgh; the flashee of the light, which is a revolving one, succeed each other every half minute, and in clear weather it may be seen 7 leagues off. Ships that have mude the Isle de Planier, or that of Le Maire, lying east from it about $4 f$ miles, ateer northerly for the Isic d'If, distant about 7 miles from each, and having got within $\frac{1}{6}$ or $\frac{1}{1}$ a mile of It, heave to for a pilot, who curries them luto a harbor; It It nut, however, obilgatory on ahips to take a pilot on board; lut belng obliged to pay for one whether they avall themselves of his services or not, they seldom dispense with them. The chaso ls 4 snus per ton in, and 2 sous per ton out, for French vessels, and the veascla having reclprocity treatles with France. There la a light-house in the fort St. Jean, on the north sille of the entrance of the port. The lizaretto, which is one of the best In Europe, lizs a little to the nurth of the clty; and there is an hospital on Rattoneau Island, for individuals whose heaith Is dubious. With the exception of the above charge for pilutage, and the charges for such vessels as perform quarantine, there are no port charges on shipe entering at or elearing out from Marseilles.

Cages.-As soon as the master has, on hia arrival, male his decluration at the Health Oflice, and received pratique, he is directed to an offico close liy, called the Datache, where ho makes two almilar declarations, the one for the captain of the port, and the other for the custom-house; the day and hour of the istter being made is markel, la order to ascertain if the regular uanifest of his cargo is delivered at the customhouse within 24 houra after, as required by luw. As boon as these declarations are made, the master is accosted by one or more public brokers, who nlone are authorized by law to enter shlps at the custom-house and other putlic effices, and to interpret, if it be necessary; for the master. The broker whom he may select then gives the master all the necessary information rexpecting the asages of the port as regards tho ship and cargo, and gees thrugh all the formalitios respecting them that the law or loeal regulations require. Independent of the regular manifest which it is usual in all ports for the master to give in to the customhouse, he is here required to give in a full and complete list of ali the ship's stores, provisions, etc., that he has on board for his own use, and that of his crew ; and he can not be too carefui to make this list as correct as possible, as when it is subsequently verilled on board liy the castom-house and excise ollcers, eny variation aubjects the shlp to penalties. 'I'his is partheularly tr $s$ case with tobacco, which, being a government monopoly; is watched with the greatest vigilance. All the tubacco on board over that which the crew have in their chests for their own uso, must be declared, and any attempt at concealment or smugging is visited with heavy fines. When the ship
salle, the stores, provisions, etc., are again oxamined, and an excles duty charged on such provisiona and oth excisabie articles as may lave been consumed in t. port. No fire or light is allowed on board, and the cookling is all done on shore. Marseilles $L$ L $A$ elty of great antiquity, and hes long enjoyed a very extensive commerce. Havre, partly, no doubt, from Its being, an it wore, the port of Paris, used to anjoy a greater whare of the trade of Erance ; bat, notwithstanding the increased Importance of the former, it has recently been surpassed by Marsellise. The custom duties coliected at Ilavre In 1851, were 20,164,000 francs, whereas those collected at Marsellies during the same year mounted to $30,077,000$ france ; having increased to that amout from $\mathbf{2 5 , 8 0 0 , 0 0 0}$ france In 1830.
This statement shows conclusively, thut the trade of Marselilas is not only lnereasing, but that it is already very extenslve. She is the grand emporiums of the south of France, and the centre of $\mathbf{9 - 1 0 t h s}$ of her commeree with the countries on the Mediterranean and Black Sea. The exports censiat principally of silk stuffy, wines, brundies, and liquora; woolens and linens; madder, oll, soap, refined sugar, perfumery, atatlonory, verdigris, and all sorts of colonini products. Among the prinelpal imports are augar, coffee, and other colonial products; dye stuffa; corn fom the llisck Sea and the north coast of Africa; cotton from Egypt and America; coal, linen, thread, and various descriptions of manufactured goods from England ; with hides, wool, tallow, tlmber, eto. Marneilles engrosses almost the whole trade between France und Algiers. She is now also the principal seat of the intereourse carried on by atramers with Malta, Alexandria, and Constuntimople; and besides the steaners employed by the government as packeta, she ran upward of 28 ateamera belonging to private companies. Mr. Maelaren says that in 1839 most of the latter had English-mude engines, and English engineers; and that they burnt English coal, which sold here for about 30s. a ton. There belonged to the port, on the 31et of December, 1851 , c 84 sailing vessels of the burden of 63,577 tons; and 43 steumers of the burden of 9,505 tons. A jolnt-stock bank establishod here in 1835 is auld to have been exceedingly auccebsful.
Account of the Shipping whell abaived at and dre patro phom Marbilllke in 1347, derciviting the
Cocevtales to which tilh Siths belonaed, and the
Numurr, Tonnaor, and Caswa cy those hrlonoino TV Each.

| Countries. | Arivais. |  | Departures. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Veseala | Tontake. | Vesuela | Tonnage. |
| Great | $2+2$ | 44.415 | 290 | 62,829, |
| France. | 2,247 | 366, 8022 | 2,043 | 831, 558 |
| Amerte | 54 | 15,578 | 54 | 15,57s |
| Ansiric | 434 | 1 1t, 208 | 442 | 104,943 |
| Brazil. | 9 | 547 | 1 | 837 |
| Bulatui | 5 | 500 | 6 | 588 |
| Cilill |  | 596 | 1 | 277 |
| Demmark | 16 | 1,689 | 18 | 1,947 |
| tollant | 19 | 8,8tu | 23 | 2,930 |
| areece | 770 | 169,572 | 771 | 168,812 |
| tianover |  | 260 |  | 260 |
| Msuseatie T | $\xrightarrow{8}$ | 1,290 |  | 1,220 |
| Lnee | 68 | 8,145 | 69 | 8,276 |
| Meeklenbarg | - ${ }^{\text {2 }}$ |  |  | 429 |
| Noroceso | 69 | 1,109 | 69 | 1,109 |
| Naples. |  | 127,456 | 576 | 184,517 |
| Portugal | 10 | 882 | 5 | 822 |
| Prussta. | 10 | 2,992 | 10 | 2,882 |
| Koman | 40 | B,086 | 48 | 5,2*3 |
| Rossla. | 2038 | 63,592 | 204 | 63,096 |
| Sariltaia | 885 | 84,909 | 890 | 89,567 |
| Spata | 517 | 45,718 | 529 | 46,822 |
| Sweden an |  | 24,865 | 10 | 27,617 80,047 |
| Turkey. |  | 2,0,822 | 171 | 8,927 |
| Yenezne | 1 | 170 | 1 | 170 |
| Tot | 6,445 | 07, | , 34 | 90, |

The arrivals and departures $i$ this and ate precedling year are conalderably above the average, a consequence of the great limportations of foreign corn. In

1846 the imports of whent ameunted to $1,290,000$ quarters, and In 1847 to above $2,200,000$ quarters.
t Wo are unable to lay before the reader any very recent aceount of the import and export trade of Marseilles. We belleve, hovever, that the valne of the first was, in 1858, eatimeted at abont $\mathbf{2 0 0}, \mathbf{0 0 0}, 000$ francs, and that of the exports at abont as much. For informatlon as to moner; wrighta, measures, dutles; etc., the reader is reforred to Francis and llavar, under which heads he will find an' account of the trade of France.

The trade of Murseilies has been much increased by the oceupation of Algiers, she being the grand centro of the intercourse carried on with that country. But independently of thla clrcumstance, Marsellies engroeses by far the largest share of the extenelve commerce carried on betweeu France and the east coast of Spaln, Italy, Greece, and the Levant. See France.

Martinioo, or Martinique, one of the French Weat India Islands, in the windward group, between lat. $14^{\circ} 24^{\prime}$ and $14^{\circ} 53^{\prime} \mathrm{N}$., and long. $60^{\circ} 80^{\prime}$ and $61^{\circ}$ $18^{\prime}$ W. Population, 1850, 121,145. It is monntaluoun, and contalne several extinet volcanoes; the numerous' amall rivers are used to turn sngar-milla. About one quarter of the surface is covered with dense foreste. Soll fertile, but only one fifth of the superficles is cultivated. Chlof products, sugar, cofiee, and acao. This laland, called by the natives Madiana, was diecovered by the Spaniards in 1493. The French founded a colony on it in 1685. It was taken by the English in 1762, but resigned in 1768 ; thoy again oocupied it from 1794 to $\mathbf{1 8 0 9}$, and it was finally given up to France in 1814. The capital of the colony ts Port Royal, but St. Plerre is the most populous town and the centre of commerce. The laland is nasrly 50 mises in length by about 16 in breadth, and comprehends an area of 860 square miles. The surface is une: ea, and intersocted In all parts by eteep and rugged rocka. Piton de Corbet, one of the highest, is about 812 feet above the level of the sea. The shape of this calcareous hill resemblen a cons, and It la on that eccount very difficult of access. The palm-treen with which it is covered, become more loty and abundant near the aunmit, and these continually attract the clouda, which occasion noxious dampe, and contribute to rander it more rugged in appearance, and more dangerous to ascend. There are also two other meuntains conspicnous from their clevation, and from these, particularly from the first, descend numerous streame, which irrigate the island. Martinique is better aupplied with rater, and less exposed to hurricanes than Guadaloupe, whlle the productiona are neirly the same. Of 75,821 bectaren, the superficial aren of the island, 17,1522 are employed in raising engar-cane, 3861 In coffeo, 719 in cocoa, 491 in cotton, 17,191 are pasturage, and 19,997 are woods. The annual production la valued at $21,000,000$ franca. In 1824 the laland consumed French products to the value of $16,000,000$ francs, and exported to tho mother country goods to the amount of $18,000,000$ francs. The tonnage engaged in this commerce amonnted to 33,500 tone. The revenue in 1823 , was $4,000,000$ francs. The conmerce of Martinlque has continued nearly the ame since the period at which the above eatimate was made.

Port Royal, tho capital and seat of the courts of justice of Martinlque, is sltuated on one of the several bay's which indent the iviand, and possess one of the safert and most capaclous harbors in the West Indiea, or even in the world.

The commercial relations of Martinique and Guadaloupe are regulated hy the royal decree of February 5, 1826, and lyy such other decrees as have subsequently been promulgated. Forelign and natlonal uhlpa may Import into all open ports of the lelands (la Martinlque, the ports of 8t. Plerre, Port Royal, and Trinito; in Guaduloupe, Deule, Ia Basseterro, and

Poin-a-Pitre; and in Mariogalante, of Grandbonrg, the principal town and only port of the Island), articles of merchandise enumerated in the fellowing tariff:

Tarify ron all Flaga, National and Foneton.
Denomilnption of mereh. No., wrighi or weanure. Rata of doly.

 Indlan corn, in graln.... 1 hect, $=24-5$ bush. $\quad 1871.5$ Vegetmbles, drled........ , Rlce. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 220 lbs. Balt.... $644-5$

 Wine, forelgn............ 1 hect. $=26$ gale.. $\{$ In for. shipa, 98 c . Stone coal. $\qquad$ \$0 02

By decres of Narch 10, 1855, ealted provislena (meats) of every description pay only 50 centimes ( 0.8 eents) per $100 \mathrm{kllog} r a m m s{ }^{2}$. Wood of all serts, other than hoop-poles; tar, pltch, and other extracts of plne, etc. ; hides, with the hair on; forage, green and dry $;$ table fruita, and seeds, pay 4 per cent. ed valorem.

No. 2.-Free of Duty.-Ammonin, unpulverized; mnimal substances used in medicine and perfunery; bones and horns of animals ; cassia; cochineal ; cocoashells ; copper; elephants' teeth; fats, except of tish; ginger; gloves ; gums ; indlgo; Jeauits' bark; kermes; lse; lead; medicinal baleamn, julcee, roots, barks, nerbe, lesves, and flowers; mother-of-pearl ; nutmegs; peltries; pepper: potash; quercitron; rocon; rushes and reeds ; seeds hard to he arushed ; skins, dry and undressed ; sumach ; tin, unwrought ; tortoise-shell, a.... merio ; vanilla; vegetables, green; wax, not werked; whale fins ; woods, odoriferous, dye, and cableet. Forelgn vessels importing the above enumerated merchandlse are aubjected to no other port chargea, lighthouse and tonnage duties, than are levied on French vessela. All goodn not enumerated in the above tarIff, and imported from foreign countries, either in forcign or French iottoms, are liable to confiscation.

The artlcies eaumersted in lists Nos. 1. and 2, as well as all articles imported from France, ma; be reexported, duty free, from one colony to another, hut only in French vessels; on condition, however, that the importer of merchandise contained in list No. 1 proves that the dutles have been discharged in the colony of original importation. Forelign vessels, as well as French, may export, duty free, to foreign countries, articles imported into the two colenies, whetber from France or elsewhore ; but these exportations can only be nllowed from the ports opened by the orilinance of Felruary 5, 1826, for the importation of merchandise enumerated in lists 1 and 2. Foreign flour may be imported (if neceasity or urgence suthorlzes the importation) for a fixed duty of 8391.2 per 80 kilogramines, or 1771 lbs. $;$ lut then it cam only be lone if a apocial order by the governer pernitting the Importation has been issued, which sllewance will never extend beyond the term of three months.
Maryland, one of the central United States, lies hetween $38^{\circ}$ and $39^{\circ} 44^{\prime} \mathrm{N}$. lat., and between $75^{\circ} 10^{\prime}$ and $70^{\circ} 21^{\prime}$ W. long. It is 106 inilea long and 120 brod, contalning 11,000 square miles. l'opulation in 1790 , 319,728 ; In $1800,3.15,824$; in $1810,380,5.56$ in 1820 , 407,350 ; in 1830, 416,018 ; in $18.40,469,232$; and in 1850, 583,035.

Aarly History of Maryland.-In the year 1632 King Charies I. gave a charter to Cecilins Calvert, Lord Laatlmore, and granted to him a tract of land fying in that peninsula, between the ocesn and Chesapeake Bay, and mound the northern extremities of that ame bay, and ordered this land to be called "Marylani," In honor to the Queen IIenrietta Maria, the consert of Charles I. She was of the Catholic religlon, like Jord Baltimere himself, and likewine the greater part of the settlers which he carried out. The name eppenrs for the first time in the charter of Maryland of the 20th

June, 1 his asso alse ut Americ is called that the old and that the cient tln cali acel by an a Other and the rettled $t$ this nam and not Spanlard ists and country of some that sair for instar lumbus, because t his prote gelag on likely, fn settiemer this settle so called name Ma: glons, spl dences in Kohl.

June, 1682. It is posslble that Lord Baltimore and his associates, m proposing to the king that name, had
 America before their eyjes, on which Chesapeake Bay is called "St. Mary's Bay" (Bahia de Santa Maria) and that they hidd a deeire to carry baek to this hay that old and historical name. ${ }^{\text {ln }}$ It may be $n$ mere aceident that the name Maria was as well in modern as in ancient times applied to the same regions. But what we call accident in history is often secretly linked together by an association of ideas which eacapes our research.
Others thlnk that the Calverts and their ussocistes, and their Catholic missionaries, who explored and settled the territory of Maryland, thought, in giving this name, exclusively of the Queen Henrietta Maria and not at all of the Hoiy Virgin. It was among Spaniards and French, and among all Catholie colonists and discoverers, very customary to vow a new country or plate, to which they gave a name in honot of some person, st the same time to the protection of that saint which bore the same nsme. They would, for instance, call a place named after Christopher Colambus, not "Chrietophoro," bat "St. Christophoro," because they thought at once as well of the man as of his protecting saint." That something similar was going on at the baptiam of Maryiand seems not unlikeiy, from the cireumstance that the first principsi settlement of Msryland was called St. Mary, and that this settlement, as well as the sarrounding country, is so calied to this day. The fact that the old forgotten name Mary, in ister times, retnrned to the eame reglons, appears one of the so-called "curious coineidences in history worthy to be pointed out."-ل. G. Koht.

Physical Featurea; ofo.L-Eastorn Maryland, or thatpart of the Stata enst of the Chesspenke Bey, is mostiy level. The conntry on the west shere to the head of the tides in elmilar to the eestern shore; the soll of thio portion in generally fertile, producing wheat, Indlan corm, tobacco, ote. Above the tidea the surface rises into hills, and the western part attains an elovated region, boing croased by the Alleghany Mountains. The western purt containe much fine land, adapted both to grain and grazing. Extenslve beds of coal and iron ore exist. There were in thls State in $1850,2,797,905$ acres of improved land, and $1,886,448$ of unimproved land, in tarms; cash value of farms, $887,178,546$; and the valae of implements and machinery, $\$ 2,463,448$.
$\cdot$ Live Stock. - Horses, 75,684 ; asses and mules, 6644 ; milich cows, 86,859 ; working oxen, 84,195; other cattle; 08,595 ; 日heop, 177,902; awine, 852,011 ...Value of live stock, $\mathbf{\oplus} 7,097,684$.
${ }^{2}$ Agricultural Products, eto.-Wheat, 4,494,680 busitels; ryb, 226,014; Indian corn, 11,104,631; oats, 1,242,151; barley, 745; buckwheat, 108,671; peas and beans, 12,816; potatoes, 764,939; sweet potatoes, 208,903. Value of products of the orchard, $\$ 164,051$,
 ter made, $8,806,160$; of cheese, 8975 ; maple sugar, 47,740 ; molasses, 1430 gallons ; bees' wax and honey, 74,802 pounds ; wool, pounds produced, 480,226; flax, 85,686; silk cocoons, 80 ; hops, 1870 ; tobacco, 21,407,497 pounds; hay, tons of, 157,956; clover needs, 15,217 busheis; other grase seeds, 2561 ; flax seed, 2446 bushels ; and were made 1491 gallons of wine. Value of home-made manufactures, 111,828 ; of slaughtered animals, $1,954,800$.

Forelon Coymeace of tie Stath of Maryland, froy Omtonfa 1, 1820 , to July 1, 1866

| Years endiag | Exporta, |  |  | Importa. | Tonnage cleared. |  | Diatriol Tounage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dometilc. | Forelga. | Tutal. | Total. | American. | Forolgn. | Regratered. | Enrolled and Licensed. |
| 8ept 80, 1821........ | \%2,714,850 | \$1,130,044 | (3, 8610,394 | 6,070,848 | 61,687 | 4,677 | 4,819 | 80,244 |
| 1829......... | 8494.998 | 1,039,808 | 4,886,796 | 4,702,486 | 88,790 | 0,469 | -•** | ...* |
| 1899......... | 4,178,118 | 1,857,116 | 6,030,228 | 4,948,179 | 62,911 | 7,615 | . $\cdot$. | .... |
| 1824........ | 8,540,957 | 1,818,476 | 4,863,288 | 4,061,648 | 74.610 | 6,017 |  | .... |
| 1825........ | 8,002,385 | 1,408,889 | 4,501,804 | $4.751,816$ | 68,928 | 8,845 | ** | ... |
| 1526. | 2,947,859 | 1,064,896 | 4,010,748 | 4,928,569 | 02,218 | 2,981 | .... | **. |
| 1827. | 8,457,691 | 1,053,716 | 4,516,406 | 4,405,708 | 67,480 | 4,191 | . ... | . . . |
| 1829. | $8,107,819$ | 1,226, 803 | 4,894,422 | 6,629,694 | 09,082 | 6,681 | . | . . |
| 1829......... | 8,869,978 | 1,148,199 | 4.804,405 | 4,804,185 | 54,988 | 6,890 | .... | **** |
| 1880. | 8,075,985 | 715,497 | 8,791,482 | 4,024, 566 | 05,020 | 8,886 | .... | : . . |
| Tota | -38,973,897 | 11,961,081 | (45,239,478 | 847,404,986 | 622,408 | 66,102 | * . ${ }^{\circ}$ | *** |
| Sept. 80, 1881 ...... | 88,780,506 | \% 578,141 | \%4,poz,04T | \%4,828,577 | 65,870 | 10,278 | 25,969 | 47,958 |
| Scpt $1888 . . . . . .$. | 8,015,878 | 1,484,045 | 4,499,916 | 4,689,808 | 49,880 | 15,648 | , | .... |
| 1888......... | 8,801,014 | 761,468 | 4,062,467 | 8,487,057 | 47,181 | 25,499 | . $\cdot$. ${ }^{\text {a }}$ | . |
| 1884........ | 8,019,708 | 1,155,087 | $4,16 \times 2.45$ | 4,947,483 | 41,702 | 17,880 | . | . . . |
| 1885....... | 8,176,566 | 748,368 | 8,925,284 | 6,647,158 | 45,999 | 18,628 | . | .... |
| 1886........ | 6,098,916 | 646,N59 | 8,875,476 | 7,181,867 | 89,416 | 18,007 | . ${ }^{\text {c }}$ | $\cdots$ |
| 1837.. | 2,800,178 | 424,74 | 8.789 .917 | 7.857,088 | 80,186 | 85,798 | .... | . ${ }^{\text {c. }}$ |
| 1885. | 4,165,168 | 859,407 | 4, 5244,576 | 0,701,869 | 64,421 | 22,635 | .... | .... |
| 1589. | $4,818,189$ $6,495,020$ | 268,779 278748 | 4,574801 $0,768,769$ | $6.995,285$ $4.910,746$ | 40,298 67,718 | 19,056 96,846 | $\ldots$ | ... |
| 184... | 6,495,020 | 278,748 | 6,768,768 | 4,910,746 | 67,718 | 20,046 | .... | . . |
| Total.... | -86,604,4 48 | 46,605,874 | \%48,299,907 | \%57,784,878 | 498,970 | 200,891 | *** | * |
| Bept 80, 1841........ | -4,789,160 | 158,008 | 64,947,160 | 6,101,818 | 63,056 | 28,698 | 41,936 | 64,920 |
| - 1842........ | 4,035, 007 | 209,259 | 4,904,760 | 4,117,078 | 61,447 | 21,260 | , | , |
| 9 mos. 1843........ | 2,820,214 | 105,649 | 8,015,056 | 8,470,182 | 41,478 | 15,481 | , | .... |
| June 80, 1844........ | 4,841,051 | 991,216 | $5,188,160$ | 8,917,750 | 69,884 | 21,905 | .... | $\cdots$ |
| 1845........ | $4,946,237$ | 875,740 | 6,241,977 | 8,741,804 | 69,716 | 28,842 | . | .... |
| 1846........ | 6,744,110 | 124,945 | 6.809,005 | 4,042,915 | 88,404 | 80,887 | .... | .... |
| 1847. | 9,682,360 | 129,94 | 9,762,244 | 4,492,814 | 114,802 | 68,228 | .... | ... |
| 1848. | $7,018,084$ $7,786,895$ | 118,748 818,965 | $7,199,762$ $8,1900,600$ | $8,848,648$ $4,970,781$ | 84,709 118,976 | 86,221 | $\ldots$ | . . |
| 1849. | $7,786,695$ $6,599,481$ | 818,965 877,872 | $8,1900,600$ $8,907,348$ | $4,976,781$ $6,224,201$ | 118,876 89,896 | 81,659 87,528 | $\ldots$ | .... |
| Total.... | 69,801,748 | 2,149,977 | (01,001,720 | 145,076,651 | 801,618 | 295,847 | . | . $\cdot$. |
| June 30, 18\%1. | \%5, 516.798 | 1218,988 | 65,685,786 | 66,600,645 | 75,406 | 80,888 | 98, 876 | 108,860 |
| 1859. | 8,014,641 | 188,990 | 6,607,861 | 6,719,946 | 88,006 | 48,087 | .... | , |
| 1858. | 7,708,294 | 188,245 | 7, 9086,409 | $0,880,078$ | 87.218 | 06,879 | . . . | .... |
| 1654. | 11,655,250 | 187,992 | 11,782,682 | 14,797,802 | 186,524 | 64,750 | ... |  |
| 1855 $1580 . . . . . . . . . . . ~$ | 9,849,218 | 61876 | 10,895,994 | 7,788,949 | 111,096 | 47,494 | -.. | . $\cdot$. ${ }^{\text {a }}$ |
| 1586......... | 10,808,687 | 204,761 | 11,221,893 | 9,119,907 | 118,878 | 40,488 | . |  |

The Potomas River, which dividas tho State from $\mid$ ton ; the perpendicular descent is 76 fect, and the rapVirginia, is 350 mileo long, and navigabie about 150 miles to Washington city. it is 71 milse whe at its mouth. The greut falls are 14 milles above Wusilugids extend for several miles up the river, snd form a very pleturesque viow. The Susquehunna is a large river which entors into tho head of Chearpeake Bay in
this State. It is 14 miles wide at Its mouth, bnt is naviguble only 5 miles, being above that much obstructed by falls and raplds. The Patapsco is a amall river, naviggble, however, 14 miles to Baltimore for ships. The Patuxent is 110 miles long, and is navigable for 50 miles for vessels of 250 tons. The other rivers are Elk, Sasssfras, Chester, Choptank, Nsnticoke, and Pocomoke. The Chesapeake Bay is $\mathbf{2 7 0}$ milles long, and from 70 to 20 wide, and by ita numerous inlets furnishes many fine hsrbors.

Ifanufactures, etc. -There were in the State in 1850, 33 cotton factoriea, with a capital invested of 42,248 , 600 , employing 1212 males and 2035 females; products valued st $82,021,396$; 43 woolen factories, with a capital of $\$ 258,100$, enuploying $26 \$$ males and 106 females; products valued et $\$ 319,240 ; 19$ establishments making plig Iron, with a capital of $81,033,500$, employing 1351 persons, producing 43,641 tons of pig Iron, etc., valued at $41,048,250 ; 16$ establishments, with a capital of $\$ 350,-$ 100, employing 761 persons, and making 6244 tons of castings, etc., valued at $\$ 685,000 ; 17$ establishments, with a cupital of $\$ 780,650$, employing 568 persons, manufacturing 10,000 tons of wrought iron, valued at $\$ 771,431$; 392 flouring and grist mills; 130 saw mills ; 116 tannories, with a capltill of $\$ 628,900$, employing 470 persons; value of products, $\$ 1,108,189 ; 59$ print-ing-offices; 6 daily, 4 tri-weekly, 64 weekly, 1 semimonthly, and 2 monthly publications. There were in this State (January, 1856) 3 railroads, with 460 miles of rosd tinished and in operation, and 30 miles in course of construction. The Chesapeake and Ohio Canal, 184 miles long, is mostly in thila State. Capital invested in munufactures, $814,753,143$; value of manufactured articles, $\geqslant 32,477,702$.

The principal places in the State are Baltimore, the metropolia; Annapolis, the capital; IInvre de Grace, Frederick, Jlagerstown, and Cumberland. There were (January, 1854) 25 banks, with an aggregate cush
 1852 of domestic produce in American vessels amounted to the value of $\$ 4,391,692$; in foreign vessels, $82,122,-$ 949. Foreibn produce in American vossela, 120,129 ; in foreign vessels, $\$ 38,091$. Total value, $\mathbf{*}, 667,861$. The imports same year in American vessels amounted to $\$ 5,620,114$; in foreign vessels, $\$ 1,099,872$. Total, $\boldsymbol{*}, \mathbf{1} 19,586$. Tonnage, $1852,201,181$.

For Iliatory, Finances, etc., of Maryland, see Am. Quar., ix., 483; llunt's Mag., v., 50; Bank. Mfag., i., 394 ; Jo. Sce., xxvii., 1 ; 12e llow's Rer., x., $64 \mathrm{~J}^{2}$.

The principal jort is lhaltimore, situnted on the north side of tho I'atapsco liver, about 14 miles sbove its entrance intu) the Chenapeake Bay, in lat. $39^{\circ} 17^{\prime} \mathrm{N}$., long. $76^{\circ} 36^{\prime} \mathrm{W}$. The harbor is spucious and convenlent, and the water deep. Its tonnage in $18: 6 \mathrm{~m}$ amounted to 183,344 tone. In tho fiscal year, $18: 3$. 6 , there were built at this jort, 12 shipa, 8 barks, 48 schooners, 3 sloops, with an aggregate tomage of 15,393 tons.

Annapolis, city, port of entry, and capital of Maryland, on the Chesapeake llay, at the entrance of Severn 1kire. The State Ilouse is remarkable as the Iniding in which the American Congress, turing the revolutionary war, held some of its sesaions. The Senate Chamber, whleh witnessed the last ucenc of the great drama of the lievolution, Wushington's resignation of his commission to the t'ongress, has been grenerved unaltered. The United States' Naval Academy, at Fort Severn, has 7 professors, and $7(1$ midshipmen ns atudents. Tonnage of the port in 1856 , was 10122 tons.

Number of vessels lallt, and their tonnage, in the State of Maryinad, during the yearending lune 30, $1855^{2}:$

| TMartet. | Shimed bathe. | litgrt. | tivhown. trm. | Aloope ${ }^{4}$ canal b't | Total | Tonnage. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ifalumo | 12 | \% | 4 | 8 | 36 | 15,893 |
| Oxford. | . | . | 4 | .. | 45 | 2,004 |
| Yteuna | $\cdots$ | $\cdots$ | 83 | . | 88 | 1,020 |
| Bnow 11 lli . |  |  | 7 |  | 7 | 468 |
| Annapolis.. | . |  | 2 | . | 2 | 188 |
| Total. | 12 | 8 | 10 | 8 | 138 | 19,014 |

Massachusetts, one of the eastern United States, lies betweon $41^{\circ} 23^{\prime}$ and $42^{\circ} 52^{\prime}$ north lat., and between $69^{\circ} 30^{\prime}$ and $73^{\circ} 30^{\prime}$ weat long. It is about 190 milles long, with an average breadth of 00 mlles, and contalns 7250 square miles. Population la 1790 was 388,727 ; in $1800,422,845$; in 1810, 472,040; in 1820, 523,287 ; it 1830, 610,408; in 1840, 737,699; and in 1850, 094,499.

Early History.-The first and most ancient names which were given by historians to the territory of the State of Massachusetta were more or lesa the same with those of Malne, and wo need not repeat thenhere. The nsme "La Cóte des Almouchiquo's" (the Coast of the Almonchlquois Indlang), which the Freach Introduced, and which the Duteh geographers frequently changed to "The Iand of Almushikosca," covered particularly tho whole extent of Massachusetts. This latter name was first introduced ly the English navigators and explorers. The word is said to be composed of the Indian words Mos (Arrowheal) and We+ tuset (hill). The pure and correct orthography of the componind word is from thls asid to be Mosuctuset, the hill in the shape of an arrowhead. The king of an Indian tribe is sald to have resided on such a hill near the shoros of Massachusetts Bay, and his tribe of Indians received from this, the namo "The Indiuns of Ifoswetuset. The name is already mentioned by Captain Juhn Smith under the year 1016. He writes it Massachuset. In the early times, the name was, however, corrupted in many different ways. Captain Dermer writes, in his celebrated letter on his discoveries, Massachusit (1619). In a letter from Mlymouth in the year 1629, the namo is written Massachutets Bay, and In the patent of Sir Fernando Gorgen, repeatedly M/assachusiack. In the earlieat time of tho Plymouth Colony this name included only the country round llo- on harhor, and the name was princlpally given to that great bay, of which Boston harbor is a part, and which was called Massachusetts Bay. The first English colony or province was therefore not called from the conntry, but from the bay, "The Colony of Masanchusetts Bay" (since 1026). The territory which this name covered was at first not extensive, but by and by it became the greatest name throughout the whole of New England. In the year 1692 the country of the Plynonth Colony was nnited to it, and for the whole was now introduced the name of "The Province of Massachusetts." So long also as New Ilampshire and Maine were united to the mighty Massachusetta, during the greater part of the 17 th and 18 th centuries, the geographers, forgetting local names, extended the name of Massachusetts often over the greater half of all the New Englund acas and countries; while aince 1774 the name "State of M/asxachusrffs" inchudes the consts between Merrimack River in the north and Naragansett llay in the sonth.-J, G. Koul.
Physical Feutures.-This State presents three distinct zones. The tirst towarl the ocean, is a marine nlluvion hut little elevated alove the sea; it is mostly sandy, and the least frrtilo and amallent in extent of the three sections. This plain is followed ly a tine hilly tract which crosses the State from north to south, elevated In some flaces 300 feet nbove the sea: from these elevations the rivera thaw in every direction. The second, or middle zone, Includes part of the beantiful valley of the Connecticut, and ls followed dy the mountainous, bit highty fertite comnty of Berkshire, which comprises the whole weatern prit of the state. through iferkshiro pusses two mountain ranges, the Taglakanle, on the western horder of tho State aul between the llousatonic and Connecticut livers, the Green Mountsin range here called the Iloonick Mountailns. Mount llolyoke, near Northampton, is near 1200 feet above the level of the sea, anil Wachusett Mountain in Princeton, is an elevated peak from 2000 to 3000 feet high. Sadile Mountain in the Toghkanic rainge in the north-went corner of the State is 4000 feet
high, ant south-we The valle those of 1850, 2,1 of unimp \$109,076, chinery snd mule 46,611; o 81,119; $\mathbf{v}$ Agricul rye, 481,0 harley, I1: 43,709; pc orchard, \$ $0: 0$; pour 7,088,142; 4693 gallo wool, poun coons, 7 ; $\mathbf{h}$
tons of, 6 gruss sced made 4688 nanufactur 500,924 .
The prin stream winc satonic, wh through the which rises miles in the the oceun large vessel there are $\mathbf{N}$ Rivers. Ma There are se of this State, tucket, 15 ir constitutes a yard, west of 10 miles bro stitutes Duk are diversifl cious bays. tween Cape south, is abc is on the aout long. Cape rocky promo penlusula in 75 miles long in the middle of Nahont, is connected milea long. breezes and sort during $t$

There wer 1409 miles w In course of milea long, co stone, and the in disuse.

The value as found by the State, is f be made for Il retary thinks © $350,000,000$. shows an eno of the Stete as
1587.......
1845........
1855....

That ly, wl and te per cen
high, and Mount Wsahington In the same range in the south-west corner of the State, is aboat $\mathbf{8 0 0 0}$ feet high. The valleya of the Connectlut are fertile, as are also those of the Housatonle. There were In this State in 2850, 2,183,436 acres of land improved, and 1,222,576 of unlmproved land in farms; cash value of farma $\$ 109,076,847$, and the value of implementa and machinery $\$ 3,200,584$. Live stock-horses, 42,216 ; asses and mulos, 34 ; milch cows, 130,099 ; working oxen, 46,611 ; other cattle, 83,284 ; sheep, 188,651 ; swine, 81,119 ; value of live stock, $\mathbf{6 9 , 6 4 7 , 7 1 0}$.

Agricultural Products, etc.-Whe: 31,211 bushels ; rye, 481,021; Indian corn, 2,345,490; oats, $1,165,146$; barley, 112,385 ; buckwhest, 105,805 ; peas and beans, 43,709; potatoes, 3,585,384. Value of products of the orchard, $\$ 463,995$; produce of market gardens, $\$ 600$,020 ; pounds of butter made, $8,071,370$; of cheese, 7,088,142; maple sugar, 705,525 pounds; molasses, 4693 gallons; beeswax and honey, 50,508 pounds; wool, pounds produced, 855,136 ; flax, 1162 ; ellk cocoons, 7 ; hops, 121,595 pounds ; tobacco, 138,246; hay, tons of, 651,807; clover seed, 1002 bushels; other grass seeds, 5085 ; flax seed, 22 bushels; and were made 4688 gallons of wine. Vnlue of home-made manufuctures, $\$ 205,333$; of slaughtered animals, $\$ 2$,500,924 .
The principal rivers are the Connecticut, a noble stream winding for 50 mlles across the State. Housatonic, which rises in Berkshire connty, and flows through the west part of the State, and Merrimac, which rises in New Hampahlre, and has a course of 50 miles in the north-east part of the State, and enters the acean below Newburyport. It is navigable for large vessels to Haverhili, 15 milea. Besides these, there are Nashua, Concord, Taunton, alid Blackstone livers. Massachusetts has numerous good harbors. There sre several important islands off the south shore of this State, to which they belong. The largest is Nantucket, 15 miles long and 11 milos broad, and which constitutes a county of its own name. Martha'a Vineyard, west of Nuntucket ts 20 miles long and from 2 to 10 miles broad, which, with other small islands, constitutes Duke's county. The shores of Massachusetts are diversifled by eome bold promontorios and capacious bsys. Of the latter, Massachusetts Bay, between Cspe Ann on the north and Cape Cod on the south, is sbout 40 iniles in breadth. Buzzard's Bay is on the south-west side of Cape Cod, and is 20 miles long. Cspe Ann, in the north part of tho Stute, is a rocky promontory 15 miles in length. Cape Cod is a peninsula in the south-east part of the State, extending 75 miles long and from 2 to 20 milles broad, with a bend in tho middlo neurly at right angles. The peninaula of Nahant, a fow miles north of the harbor of Boston, is connected with the malnand by Lynn-bench two milea long. It has hecome, on accouut of its cool breczes snd wild sea views, a place of fushionable resort during the summer months.

There were, January, 18i6, 43 rallroads, of which 1409 miles were finished and In operation, and 18 miles in course of construction. The Midullesox Cannl, 27 miles long, connects Boston with Lowell. The Blackatone, and the Ismpshire and Hsmden Canals are both in diause.
The value for the year of tho products of industry, as found by adding the separate returns throughout the State, is found to be $\$ 295,820,681$. If allowance be made for defective and erroneous returns, the Secretary thinks the whole amount would be at least $8350,000,000$. The returned value without allowunce, shows st enormous increase of the productive energy of the State as comparod with the prevlous returns, viz. :

|  | Produelion. | laton. |
| :---: | :---: | :---: |
| 1587. | *36,232,616 | 700,000 |
| 1845, | 124,749,457 | $8.45,0001$ |
| 1835. | 990, 310,681 | 1,183,123 |

That ls, while the population has lacreased only 34 and 62 per cent. reapectively; the value of the product $\mid$
of industry (ratnrned) has Increased 188 and 242 per cent. The amount of capital inveated in manufactures and other productions in Mussachusette, Is shown to he $\$ 120,000,000$, and the gross value of products §295,000,000 annually. The nuinber of hands employed is 245,908. The leading products of the Stste In 1855, and the amount of capltal emplnyed in 1845 and 1855 are sa follows:

| Products. | Valuan $1865 .$ | Capltal. 1855. | Captial. 1848. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
| Goods, bleached | 5,111,000 | 659,000 | 200, 000 |
| oolen go | 12,105,000 | 7,300 | 5,60 |
| Rolled and ellt troo, a | 5,512,000 | 2,842,000 | 1,906 |
| Hollow ware snd castln | 8,256,000 | 1,618,000 | 718, |
| Machiner | 4,039,000 | 2,484,000 | 1,163 |
| Stenm ongines and | 8,2050,000 | 2,100,000 | 127, |
| Rallroud cars, conches | 2,952,000 | 950,000 | 588 |
| P | 4,141,000 | 8,564,000 |  |
| Mualeal 1 | 2,295,000 | 1,280,000 |  |
| atehos. | 2,105,000 | 720,000 |  |
| Cord | 2,478,000 |  |  |
| Yessela | 4,648,000 | 1,940 |  |
| Sugar, r | 2,056,000 | 1, | , |
| Sperm csadloe | 6,818,000 | 3,282,000 | 2,451 |
| Soap and tallow | 7,720, 000 | 1,582,000 | 405,000 |
| Chsira and cabtr | 8.969,000 | 1,918,000 | 477,00 |
| coath | 12,206,000 | 4,880,000 | 1,900,000 |
|  | 87,450,000 |  |  |
| Brlc: | 2,027,000 |  |  |
| Atcol | 8,158,040 | 964,000 |  |
| Bre | 8,392.000 | 640,000 |  |
| Clothin | 9,061,000 | 2,770,000 |  |

The actual expenditures and receipts for 1855 are contrasted with those of 1856 (moatly actual, though a portion necessarily estinsted), and with the estimates for 1857, In the following table:
Expenditules yor 1855 ano 1856, contaabted with Estimates for iss7.

|  | 1858. | 1856. | 1857. |
| :---: | :---: | :---: | :---: |
| Leglalativo and Executivo. | ( 470,969 | \% 512,400 | \% 481,000 |
| 8clontifio and Eilucational. | 19,889 | 19,420 | 13,850 |
| Charitable and llumane... | 389,900 | 800,000 | 308,400 |
| Mliltsry | 78,399 | 75,250 | 70,000 |
| Reforinatory\& Correctlonal | 288,599 | 186,800 | 261,650 |
| Interost. . . ${ }^{\text {a }}$. . . . . . . . . . . | 118,150 | 158,900 | 185,000 |
| l'ubilo buldilngs. . . . . . . . . , | 150,400 | 78,850 | .... |

Rgoeipts foa 1855 and 1856 , onntaabted with Ebtimaters FOR 1857.

|  | 1885. | 186. | 1859. |
| :---: | :---: | :---: | :---: |
| Bant | \$578,983 | 8588,500 | \$885,000 |
| State ta | 428,108 | 900,000 |  |
| Insurance tax | 1,258 | 2,200 | 2,000 |
| Alien estates. | 778 | 900 | 1,000 |
| Atien passen | 15,849 | 16,800 | 15,000 |
| Western R. R. Sink'g Fund | 61,897 | 61,700 | 30,000 |
| Westorn R. R. Dlvidend. | 49,892 | 49,882 | 49,100 |
| Intereat on deposits. | 782 | 1,500 | 1,000 |
| Ifawkers sal peddler | .... | 5015 | 800 |
| Courts of Insolveney. |  | 115 | 12,000 |
| Attorncy, Suifolk County. . | 8,719 | 530 |  |
| Promium and int. on ecrip. | 4,803 | 12,8110 |  |
| Charios R. \& West Brlige.. |  | 9,830 |  |
| gundry secounts. | 2,2i1 | 4,220 |  |
| Slate tax of 1856-balaneo. <br> Cash on hand. | 15,610 | 10,937 | 56,000 |
| Total. | 1,4166,425 | 1,402,660 | 8751,300 |

For Manufactures, Finances, Commerce, etc., of Massachusetts, seo $\therefore$ th Am. Rer', l., 22:1 (N. Hal.E), ii., 277 ; De llow's Rev., iv., 459, lxvi., 190 ; Ch. E'xam., xlii., 29.1.

Cotton Manuyactuegs in Massachusetts in 1855.
Cotton mills, 294.
Namber of spindiles

 Unmanufact'd. cotton yern.1bs. 8,821,146 Cotton threal. .............. .liss, 034,898
Cotton bettlag . . . . . . . . . . . . . . Ibs. 4,825,68d
Capital Invested


In 1850, the total value of cotton manufactures in years. The capital Increased in the same period from Massachusetts was $19,712,461$; in 1855, it was 26, 760,006, an increase of 88 per cent. in a period of five cent.


| Yeare ending | Experta. |  |  | Importa. | Torange Claared. |  | Dtatrial Tonnage, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domenile. | Forejgn. | Total. | Total. | Americati. | Forsigu. | Regiatered. | Enrolled and Llemavad. |
| Bept 80, 1821........ | 68,688,697 | 8,848,174 | (12,484,771 | \%14888,7394 | - 189,741 | 1,170 | 106,975 |  |
| 1829. | 4,072, 166 | 8.026,869 | 12,098,525 | 18,887,820 | 185,884 | 5.297 | 1035\% | 130,006 |
| 1888. | 8,944,955 | 9,788,254 | 13,688,289 | 17,607,160 | 185,040 | 8,785 |  | .... |
| 1824. | 4,088,972 | 6,996,906 | 11,494,828 | 15,878,758 | 184,05\% | 4,667 |  | ... |
| 1825. | 4,262,104 | 7,170,988 | 11,482,087 | 10,945,141 | 140.979 | 4,948 |  | .... |
| 1898. | 8,888,188 | 8,210,724 | 10,098,869 | 17,064,482 | 189,746 | 4,519 | .... | .... |
| 1887. | 8,820,849 | 6,004,094 | 10,494,888 | 18,870,064 | 180,066 | 8,951 | $\ldots$ | .... |
| 1828. | 4,096,025 | 4,929,760 | 9,125,785 | 18,0711,444 | 188,899 | 4,819 | ... | $\ldots$ |
| 1829........ | 8,949,751 | $4,8145,186$ | 8,954,987 | 12,590,744 | 140,187 | 8,835 | .... | $\ldots$ |
| 1340. | $8,599,952$ | 8,618,2.9 | 7,218,184 | 10,458,544 | 148,124 | 5,176 |  |  |
| Totsl. | 889,811,689 | 106,839,978 | 105,601,011 | 150,478,889 | 1,378,601 | 47,162 | . $\cdot$. |  |
| Sept. 80, 1831. | 4,027,201 | \%3,706,5,62 | \%7,788,768 | 814,209,056 | 107,580 | 7,488 | 225,226 | 117,450 |
| 1838. | 4,656,685 | 7,387,188 | 11,909,768 | 18,118,000 | 204,299 | 85,676 |  | 117,400 |
| 1898. | 0,150,544 | 4,542,088 | 9.688,128 | 19,940,911 | 201,1187 | 81,785 | .... | .... |
| 1844. | 4,672,746 | 5,478,174 | 10,148, 120 | 17,072,129 | 183,631 | 81,299 | ... | $\cdots$ |
| 1885........ | 6,564,499 | 4,470,291 | 10,448,790 | 10,800,874 | 210,121 | 38,167 |  | .... |
| 1886........ | 8,118,198 | 5,267,150 | 10,980,846 | 25,681,468 | 219,057 | \$5,648 | ... | -. |
| 1837. | 4, 71.901 | 4,856,289 | 8,728,190 | 18,984,063 | 188,321 | 59,059 | . . | - $\cdot$. |
| 1842. | 6,154,029 | 2,946,883 | 9,104,862 | 18,3601,925 | 231,386 | 83,905 | * | .... |
| 1839. | 5,526,455 | 8,740,630 | 9,276,085 | 19,835,228 | 198,378 | 45, 69 | ... | $\cdots$ |
| 1840. | 6,265,134 | 8,918,1148 | 10,188,26t | 16.519,868 | 187,995 | 88,765 |  |  |
| Total. | (52,009,9,4 | (10,269,108 | 693,979,007 | 184,687,505 | 1,976,605 | 892,446 |  | . $\cdot$. |
| Sept. 90, 1841. | 67,397,692 | \%4,089,051 | (11,487,848 | \%20,818,0063 | 286,376 | 7.3,6\%8 | 816,530 | 229,370 |
| - 1842......... | 4,719,115 | 3,187,498 | 9,807,110 | 17,986,433 | 212,291 | 86,848 | .... | 2010 |
| $9 \mathrm{mas}, 1843$. | 4,480,681 | 1,974,526 | $6.415,207$ | 16,799,452 | 189,296 | 49,258 | . $\cdot$ | . $\cdot$. |
| Juat 30, 1844........ | 6,971,86 | 8,724.470 | 9,096,296 | 80,296,107 | 229,281 | 105,118 |  | .... |
| 1845. | 7,754,296 | 2,594,634 | 10,851,030 | 29,781,024 | 281,096 | 182,212 | . | .... |
| 186. | 7,855, 010 | 2,476, 143 | 10,818,118 | 84,190,964 | 247,384 | 137,117 | .... | .... |
| 1847 | 9,802,777 | 1,985,085 | 11,24 4,402 | 84,477,018 | 285, 800 | 182,684 | .... | .... |
| 1548. | 9,4118,487 | 4.111,302 | 18,419,699 | 28,647,707 | 296,883 | 192,787 |  | ... |
| 1849 | $8,174,667$ | 2,090,195 | 10,264, 569 | 24,745,817 | 250,187 | 244,067 |  |  |
| 1850. | 8,258,473 | 2,428, 290 | 10,681,768 | 30,874,684 | 272,27s | 274,074 |  | . |
| Total | 674,111,989 | 127,562,581 | \$108,474,580 | 1240,607,193 | 2,369,871 | 1,418,888 | -** | . $\cdot$. |
| Juat 80, 1651......... | \%9,857,537 | +2,495,145 | -12,352,6>2 | \$82,715,827 | 279,869 | 846,987 | 604,876 | 190,026 |
| 1852. | 14,144,00t | 2,4n2,404 | 16, $5+46,499$ | 88,504,789 | 803,039 | $84 \times 974$ |  | , 1 |
| 15\%\%. | 16,845,364 | 8,4059,972 | 19,955,278 | 41,367,956 | 837, 310 | 879,1223 |  | .... |
| 1841........ | 17,595,783 | 8,42,766 | 21,438,514 | 44,568,748 | 302,615 | 875,981 |  | .... |
| 1885........ | $24,412,924$ | 8,778,008 | 98,190,025 | 45,1 18,774 | 438,644 | 890,851) |  | . |
| 1850........ | 26,930,614 | 8,467,247 | 29, 22.8 (6) | 43,8t4, 884 | 414.808 | 872.213 |  |  |

The prinelpal ports are: 1. Boston, lat. $42^{\circ} 23^{\prime} \mathrm{N}$, , leng. $71^{\circ} 4^{\prime} \mathrm{W}$. The city is situated at the head of a deep bay, on a peninaula, being murrounded on three sides by water, Generally there is suflicient depth of water to enable the largest ships to come up to the city at all timen of the tide; and they usually moor alongside of doeks where there is perfect rafety. The depth of water in the channel varies from 15 to 30 feet. It ls the great centre of the commerce of New Fingland, and in this capacity rocelves und distributes one fifth of the whole commerclal material of the United States. The tonange of Hoston in 1856 was 621,117 tons. See l3osron. 2. Salem, city and port of entry. It is cblefly built on a tomgne of land formed by two Inlets from the sea, called North and South Rivers ; wer the former are two bridges (one of which in erossed hy the railroal), connecting it with lleverly. The harior has gool anchorage ground, but vessels drawing more than 12 or 14 feet of water must he partially unloaded before they can come to its wharven, The tonnage of Salem in 1856 was 29,970 tons. it. Nantncket. Tonuage in 1856, 16, Xint tons. 4. Now IBedfond. 5. Fall River. 6. Newharyport. 7. Gloucester.

Conmpata of Buaton, 1855-56.

| Yeara. | Custum Ilvues | Forelen |
| :---: | :---: | :---: |
| Years. | тeromue. |  |
| $14 \% 60$ | 4.307, 1124 | 2,990) |
| 1535 | 7,774,744 | 2,953 |

Mast, a long piece, or systen of piecen, of timber, placed nearly perpendlealarly to the keel of a vessel to support the yards or gaffis on which the saile are extended. When the makt is one entire piece, it is called a pole-mant; hut In all larger vessela it is composed of eeveral lengthe, called lower, top, and top-gallant masts : sonnetimea a fourth, called a rojal mast. The
method of eupporting each mast on the one next below it, is peculiar. On the siden of the luwer mast, some feet below the head, are placed checks: on these are tived horizontally two slort pieces of wood, fore and ift, called trestle treoa. Across these at right angles ure laid, before and abaft the mast, two or more longer and lighter pleces, called cross trees, which give the name to the entire aystem. On the mast head itself is a cap. The topmast being placed up and down, the fore side of the lower mast is swayed ap between the trestle trees, and through the ronnd or foremost bole in the cap. When ralsed mo higit that the hed of the topmast is nearly up to the surface of the eross trees, a piece of iron, called the fid, is put through the hole in the heel for the purposo; and on this idd, of which the ends are snpportenl on the trestle trees, the topmont rests. When flddel, the topmast is atsyed, mind the rigging or shrouls set up to the dead eyes in the enils of the cross treen. These dead eyes pull from the lower rigging luflow, and that the cross trees serve merely to extend the rigging. The topgallant is supported in the same manuer on the topmiast. When the mast is to le taken down, it is tirst ralsed to relieve the fid; which heing drawn out, the mast is lowered. The masts are supported ly a strong rope, leading forward, called the stay; by others, leading aft on each side of the ship, ealled, in general, backotiges; and by others abrast, called shrouds, and also breast luackstays Large lower masts are composed of pieces, and have for some years been male of several lengths, about a foot or 80 aquare, and the whole ampurten merely by hoops at intervals. 'The mainmast is near the middle of the vessel, the foremast is that which is nearest the fore part, and the mizzenmast is ahaft tho mainmast. The old rule for the length of the maia
lower m the lowe elght nl alderably of the lo the thic based or means at

Masts marine g separable the great specimen cement. Curaça, other wa fragment had been with glue joint did miade of eight ounc other was force of $\mathbf{f}$ tended to when buil glue. It pitch. Il with thls the purpos

## Maste

trusted wi
"The mas the owners lus of law of every la anual empl of Shipping owners are though con their will, pediency of lecting a po lic as wort that this that all op obvinted, i respunsil) pothecate, repuirs exe the voyuge pothecuted has no lien sdrancel judgment "As to wia ship shoul that purp the dealin considered the owner respect, be anos telon have its fis gitors ; fur every day venience, havior, or keep the s Pingland 1 of the ent pothecate the trades that thoy, master is tion In the
grty to ent
lower mast is to take one half the sum of the length of the lower deck and extreme breadth; the foremast is eight ninths of the mainmast, the mizzenmast considerably smaller. The topmast is about three fifthe of the lower insat. These rules, as well as others for the thicknesses, etc., are meroly for convenience, based on no mechanical principle, and are by no means atrictly followed.
Masts ure still built up in pieces, but by the sid of murine glue. A joint secured by this glue is leas easily separuble than the actual fibres of the wood itself. In the greut Exhibition of London there were many curious specimene illustrative of the uae of this extruordinary cement. One was a plece of the mast of the ship Curafoa, found Inseparable even by the wedge. Another was part of a mainmast, from which a glued frugment was torn awsy only after a force of 22 tons had been applied. A third was a block of elm, joined witi glue; it was exploded by gunpowder, but the joint did not yield. Inother was an ouk cannon-ball, made of two glued pieces; it had been fired with eight ounces of powder, but the joint held fast. Another was a doal block, which broke in the fibres by a farce of four tons.' Others were pieces of masts, inteaded to show how intensely strong a mast becomes when built up with pieces which are joined ly this giue. It is not only a giue : it is also a substitute for pitch. Muny vessels have tho soams puyed or calked with this glue, which is found much more durable for the purjose than ordinary pitch.

Master, in commercial navigation, the person intrusted with the care and navigation of the ship. "The master is the confidential sorvant or agent of the owners; and in conformity to the rules and maxims of law the ownere sre bound to the performance of every lawful contract made hy him relative to the usual employment of the sinip."-ABnotr on the Lave of Shipping. From this rule of law it follows that the owners are bound to answer for a ibreacis of contract, thuagh conmitted by the master or mariners against their will, and without their fault. Nor can the expediency of this rule be doubted. The owners, by seiecting a person as master, hold him forth to the pulblic as worthy of trust and confidence. And in order that this selection may le made with due care, ond that all opportunitios of fraud and coliusion may be obviated, it is indispensabic that they should be made responsible for his acts. The master has power to hypotheeate, or pledge, both ship and cargo for necessary repairs executed in foreign ports during the course of the voyuge; int neither the ship nor cargo can be hypothecuted for repairs executed at home. The master hus no lien upon the sliip for his wages, nor for money advunced by him for stores or repairs. In delivoring judgment upon a case of this sort, Lond Mansfeld said: "As to wages, there is no particular contruct that the ship should be u pledge; there is no usage in trade to that purpose; nor any inplication from the nature of the dealing. On the contrary, the law has always considered the captain as contracting personally with tire owner; and the casc of the cajetain has, in that respect, been distinguished from that of ali other persuns heionging to the ship. This rule of law nay have its foundiation in pulicy for the henetit of navigators; for, us ships nuay the making prollt and earning every duy, it uight the attended with great inconvenience, if, on the change of a cajotain for mistiehavior, or any other reason, he should be entitled to keep the ship till he is paii. Work done for a ship in Fughand is supposed to be done on the persond credit of the employer : in fureign parts the captain may hypothecate the ship. The defendant might have told the tradesman, that lie only ucted as an agent, and that they must look to the owner for payment." The master is bound to employ his whole time and attention in tie service of his employers, and is not at liberty to cuter into any engagement for his own benefit
that may occupy any portion of his time in other con cerns ; and, therefors, if he do so, and the price of such engagement happen to be paid into the hands of his owners, they may retain the money, and he can not recover from them.--A biott on Shipping.

Willfally destroying or casting away the ship, or procuring the same to be done by the master or mariners, to the prejudice of the owners, freighters, or inonrere; running away with the cargo; and turning plrates; are offenses punisliable by transportation heyond seas for not leas than 15 years, or by imprisenment for not more than 3 years. After the voyage has been commenced, the misiter must proceed direct to the place of his destinstion, without unnecessarily etopping at any intermediate port, or deviating from the shortest course. No such deviation will be sanctioned, nnless it has been occasioned by stress of weather, the want of necessary repair, avoiding enemies or pirates, succoring of ships in distress, sickness of the master or mariners, or the mutiny of the crew. -Marsinall on Insurunce. To justify a deviation, the necessity must be real, inevitable, and imperious; and it must not be prolonged one moment after the necessity has ceased. A deviation without such necessity vitiates all insurances upon the ship and cargo, and exposes the owners to an action on the part of the freighters. If a ship be captured in consequence of deviution, the merchunt is entitled to recover from the owners the prime cost of the goods with shipping charges ; but he is not entitied to more, unleas he can show that the goods were enhanced in value beyond tic sum above mentioned. If a merchant ehip has the misfortune to be attacked by pirntes or enemies, the master is loound to do his duty as a man of couruge and capacity, and to make the best resistance that the comparative strength of the ship and crew will allow. By tine common law, the master has authority over all the marinere on board the ship-it being tieir duty to obey his commands in all lawful matters reiating to the navigation of the ship, and the preservation of good order. But the master should in all cases use his suthority with moderation, so as to be the father, not the tyrunt, of his crew. On his return home he may be called upon by action of law, to answer to a mariuer he has either beat or imprisoned during the course of the veyage; and uniess he ahow suticient cause for chastising the mariner, and aiso that the chastisement was reasonable and moderate, ine will be found liabie in damages. Should the master etrike a mariner without cause, or ase a deudly weapon as an instrument of correction, sad death ensue, he will be found guilty, according to the circumstances of the case, either of mansluughter or murder.-Ausotr, part ii., o.4. The master nay by force restrain the commission of graat crimes: but he has no jurisdiction over the criminal. Ifis business is to secure his person, and to deliver him over to the proper tribunale on inis coming to lis own country.

Tise master must not take on board any oontraband goods, by which the ship and other parts of the cargo may be rendered liable to forfeiture and aeizure. Neither must he take on hoard any false or colorable papers, as these might subject the ship to the risk of capture or detention. liut it is his duty to procuro and keep on iourd sil the papers and documents required for the munifestation of the ship and cargo, by the inw of the countries from and to which the sfifi, is bound, as well by the law of nations in general, as by treaties betweou particular States. These papers and documents can not lis dispensed with at any (ime, und are quite essential to the sufe navigution oi neutrai ships during war. It is customary in bills of lading to insert a clause limiting the responsibility of the master and owners, as follows: "The act of God, enemies, fire, and overy other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soover, save risk of bouts, as far as ahips aro
liable thereto, oxcopted." $n$ When no bill of lading in signed, the mastar and ownors are bound, according to the common law. The most difficult part of the master'e duty is when, through the perils of the een, the attacks of enemies or pirates, or other unforeseen accidents, be is prevented from completing his voyage. If his own ship have suffered from storms, and can not be repalred withln a reasonahle time, and if the cargo be of a perishable nature, he is. at liberty to employ another ship to conver it to the place of destination. He may do the aame if the ohlp have been wrecked and the cargo saved, or if his own ship be in danger of slnking, and he can get the cargo transferred to another; and in extremo cases he is at liberty to ditpose of the cargo fer the benefit of ita owners. The moet celebrated maritime codes, and the opinions of the ablest writors, have differed considerally as to these pointz. According to the Rhodian law (Pand. 1. $10, \$ 1$ ) the captain is released from all his engagements, if the ship, by the peria of the sea, and without any fault on his part, become incapable of proceeding on her voyage. The luws of Oleron (ort. 4), and those of Wiebr (arta. 16, 87, 55), say that the oaptain may. hire another shlp; harmonizing in this reupect with the present law of England. The famous French ordinance of 1681 (tit. Du Frtt, art. 11), and the Code du Commerce (art. 296), order tha captain to hire anothor shlp; and if he ean not procure one, freight is to be due only for that part of the voyage which has been performed (pro rata itineris peracti). Valln has objected to this articie, and atates that practically it meant only that the captain mast hire another ship if he would earn the whole freight. Emerigon (tom. I. p. 428) holds that the captain, being the agent not only of the owners of the ship, but also of the shippers of the goods on board, is bound, in the absence of both, to use his beat endeavors to preserve the goods, and to do whatever, in the circumetances, he thinks wiil inost condace to the Interest of all concerned; or what it may be preaumed the shippers would do were they present. This, which seems to le the best and wieent rule, has been laid down by Lords Manstield and Tenterden, as atated alove, and masy be regaried as the law of England on this point.
But to use the words of Lord Chief Justice Tenterden, "the dleposal of the cargo by the master, in a mattor that requires the utinost caution on his part. He should always bear in mind that it ia hia duty to convey it to the place of destination. This is the purpose for which ho has been intrusted with it, and this purpose he is bound to necomplish hy every reasonabie and practicable methol. What, then, is the master to do, if, by any disaater happening in the course of his voyage, he is unable to carry the goods to the place of destination, or to deliver thom there? To this, as a general queation, I apprehend no answer can be given. Every case must depend upen its own peculiar ciroumatancee. The conduct proper to le adopted with respect to perishable goods, will be improjer with respect to a eargo not perishable; one thing may be fit to be done with tieh or frult, and ancther with timber or Iron; one method may the proper is distant regions, another in the vicinity of the merchant ; one in a frequented navigation, another on unfrequented shores. The wreck of the ship ls not necessarily followed by an impossilility of nending forward tho goods, and does not, of ltself, make their sale a measuro of necessity or expedience; much lens can the loss of the season, or of the proper course of the voyage, have this effect. An unexpected interiletion of commerce, or a audden war, may defest he adventure, and oblige the ship to stop in her course ; but neither of these events doth of itseif alone mako it necessary to meli the eargo at the piace to which it may be proper for the ship to resort. In these, and many other casen, the master may be discharged of hls obligation to deliver the cargo at the place of dentination ; but it doea
not therefore follow that he is authorized to sell lt, or ought to do so. What, then, ls, he to do ? In general, it may be said, he is to do that which a wise and prudewt man will think most conducive to the benefit of all concerned. In so doing he may expect to be saff, because the marchant will not have reason to be dils. astisfied; but what this thing will be, no general rulea can teach. Some regard may be allowed to the interest of the ship, and of Its owners ; but the interent of the cargo must not be sacrificed to It. Transhipment for the place of destination, if it be practicabla, is the firat object, because that is in furtherance of the eriginal purpose; if that be impraeticable, return, or a safe deposit, may be expedient. A disadvantagenus sale (and almost every sale by the master will be disadvantageous) is the last thing he should think of, because It can only be justified by that necessity which eupersedes all human laws."-Law of Shipping, part itit, c. 3.

The master of a ship is liable for gcods of which she is robbed, in part ; and the reason, es Lord Mans. field stated, is, leat room siould he given for collusion, and the mustar should get himself robled on purpose, in order that he might share In the spoii. The master is, however, entitiled to indemnify himself out of the seamen's wages for losses oceasioned by their neglect. If any passenger die on board, the master is obllged to take an inventory of his effeets; and if no elaim be made for them within a year, the master hecomes proprietur of tho goods, but answerable for them to the doceased's legal representatives. Bedding and furniture become the property of the master and mate; but the clothing must be brought to the deck, and there appraised and dietributed among the crew. If a master die, leaving money on board, and thie mate, beconing master, improve the money, he shaill, en allowance loing made to him fur his trouble, necount for both interest and profit. The conditions under which eeamen and apprentices are to be taken on bourl ship, and the oblligations of the master with respert to thera, are fully set forth in the article Seamen, in this work; and to it also the rendor is referred for a statement of the duty of the muster with respect to the registry of seamen, and thr contrihutions, etc., due to the corporation fur the relief of decayed aeamen, their widows, etc. For tho duties of the master as respects eustomhouse regulationa, see the articles Covarls, Freigur, Seabiex, United Stater, and Insumance, etc. a and for a further discussion of thla important subject, see the exceilent work of Lord Tenterdes, on the Lam of Shipping; Palqons On Connmercial Law; Kext's Commentaries ; Curty On Commercial Late, vol. iii.; add the articles Cuaiten-panty, Fheigut, etc.
Qualifications of Masters. Means by Which Thay Shouhl be Aecertained. - Considering the important nature of the duties which the master of a ship has to perform, it has been customary in some countries to require that all perans, previously to their being nominated to act in that capacity, should unierge an examination by oome pubilc bourd respecting their knowledge of seamanship, and their possession of the various qualifications necessary to act as masters, and that none shouid be appointed without their leing licensed by auch board or ather competent auth ,rity. We are inciined to think that this practice is consistent with sound policy. "The interposition of government in a case of incapucity, is not only alselutely just and necessary, but it is conformahle to the intghest authority. The famous French ordinance of 1681, hes the foilowing article :- Aucon ne pourra ci-npris etre requ capitaine, maftre, ou patron de navire, qu'il n'alt navigué jendant cinq ans, et n'ait été examiné publlque. ment sur le fait de ia navigution, et trouvé eaputhe par deux anciens maitres, en prósence des officiers de i'Amirauté at da Professeur de l'Hydrographie, a'il y en a dans lo lieu.' A Jike article has been inserted in the Code de Commerce ; and in 1820, the French governmeut issued
an ordin are nece his fitne cosatling didstes; A simila can not est servi suthority reposed gmods of passengel duty of that it $\mathbf{b}$ hands. of passen control ol thing of may be al 3 ship. appoint th unable to necessary not the ca to lilind th ter who is the prelin which, if $n$ erful guar being appo

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Mate, taking, in times only mates in a noninated however, $r$ in a merc mates bein being respr war, the of tain are cal whose pecu tion of the master's m men. The esch their See articies
The mat upon his te officii, to th managerne mate in suc latively, th with the aa hac vice, an privileges his wages to be cured master, an stitute in a a supercar reasonable
sn ordinance specifying, In detall, the qualifications that are necessary before any one can obtaln a certificata of fis fitness to command a ship, either on a foreign or a coasting voyage ; the persons who are to examine candidates; and the rules to be observed In the examination. A similar aystem has been adopted In-Prussia; and wo can not entertain a decuht that it would be of the greateat service were it introdnced into this country. The anthority of the master is eo very great, and the trust reposed in him, Including not merely the ship and goods of his employers, but the lives of the crew and passengers, so very extensive, that it is the boundon duty of the public to provide, in as far an practicable, that it be not committed to ignorant or incapable hands. At present the care of the lives of handreds of passengers may be commilted without check or control of any sort, and without their knowing any thing of the matter, to any incapable blockhead who may be sble to prevail on an owner to appoint him to $s$ ship. No doubt it is for the interest of the owner to appoint the hest captain lie can find; lut he may be unable to form a correct estimate of the qualiftcations aecessary for such a sitnation; and, though this were not the case, hundreds of circumstances mny conspire to blind his judgment, and to make him aelect a master who is really unworthy. Ifence the advantage of the preliminary exuminntion by competent parties, which, if made efficient, wonid certainly afford a powerful guaranty against the chance of an unfit person being appointed."

Mastic, Mastich(Ger. Mastix ; Du. Mastik; Fr. Mastic; It. Mastice; Sp. Almastica, Almaciga; Arah. Ardh). This resinous subetance is the produce of the Pistacia Lentiscus, a native of the Levant, and particularly abundant in the island of Chios. It is obtained by making transverse incisions in the trunks and branches of the trees, whence the mastic slowly exades. Ahout 1500 cwt . are anatually exported from Chios, part of which is brought to this country, packed in chests. The best is in the form of dry, brittle, yellowish, transparent tears; it is nearly inodorous, except when heated, and then it ha an agrecable odor; chewed, it is slmost insipid, feeling, at first gritty, and ultimately soft. Its virtues are trifling.-Alnslises Materia Indica; Tromson's Dispensatory.

Mate, in a merchant ship, the deputy of the master, taking, in his absence, the cominand. There is sometimes only one, and sometimes two, three, or four mates in a merchantnum, according to her size-denominated first, recond, third, etc. mates. The law, however, recognizes oniy two descriptions of persons in a merchantman-the master and mariners; the mates being included in the latter, nnd the captain being responsitule for their proceedings. In mun-ofwar, the officers immidiately subordinate to the captsin are called lieutenants. But the master, or officer whose peculiar daty it is to take charge of the navigation of the ship, has certain mates under him, termed master's mates, sometimes selected from the midshipmen. The boatawain, ganner, carpenter, etc., have each their mates or deputies, taken from the crew. See articles Masten, Simpino, and Consuls.

The mate is the uext to the muster on bourd, and upen his desth or nbsence, the mate succeeds, virtute officii, to the care of the ship and the government and management of the crew. Ile does not cease to be mate in such cases, but has thrown upon him, enmalatively, tho duties of master. IIe is quasi master, with the same general powers and responsibilitiea, pro hac vice, and with the preservatlon of his character and privileges as mate. Ile may sue in the ndmiralty for his wages as mate, and is entitled, in that character, to be curcd, if sick, at the expense of the ship. The master, and even the consignees, may appoint a substitute in a foreigu jort, in cases of necessity. Even a supercargo, in cases of necessity, and acting with reasumable discretion, may bind the owner.

- Matohen, Luolfer. According to Dr. R. Boettgor, in Annalen der Chemie und Pharmacie, vol. xivil., p. 384, take phospherus, four parta; nitre, ten parts; fine glne, oix psrta ; red ochre, or red lead, five parts; smalt, two parta. Convert the glue with i little water by a gentle heat into a smooth jelly, put it into a slighty warm porcelain mortar to liquefy; rub the phosphorus down through this gelatine at a temperature of about $140^{\circ}$ or $150^{\circ}$ Fahr.; sdd the nitre, then the red powder, snd lastly the smalt, till the whole forms a uniform paste. To make writing-pajer matches, which burn with a bright fisme and diffuse an agreeable odor, moisten each side of the paper with tincture of benzoin, dry it, cut it Into slips, and amear ons of their ends with a little of the above paste by meane of a hair pencil. On rubbing the said end sfter it is dry against a rough ourface, the paper wili take fire, without the intervention of sulphur. To form lacifer wood matches, that act without sulphur, melt in a flat-bottomed tin pan sa much white wax as will atand one tenth of an inch deep; take a bnadle of wooden matches free from resin, rub their ends against a red-hot iron plate till the wood be alightly charred; dip them now in the melted wax for a moment, shake them well on taking them out, and finally dip them separately in the viscid paste. When dry, they will kindle readily by friction.

The Manufacture of Friction Matches.-Among articles of great demand that have become of importance, though apparently insignificant, there is nothing more worthy of notice than the friction or Incifer match. About 20 years ago chemistry abolished the tinder-bax; and the burnt rag which made the tinder went to make paper. Slowly did the invention spread. The use of the match is now eo established, that machines are invented to prepare the splints. In New York one match manufactory annually cuts up a large rgft of timber for matches. The English matches are generally equare, and thus 90,000 splints are cut in a minute. The Ainerican matches are round, and the process of shaping being more elahorate, but 4500 eplints are cut in a minute. We find that a bundle of 1800 thin aplints, each 4 inches loug, is finally converted into 3600 matches. Without being separate, each end of the hundle is first dipped luto sulphur-when dry, the eplints adhering to each other by means of the sulphur, must be purted by what is called dusting.

Mats (Du. Matten ; Fr. Nattes; Ger. Matten; It. Stuoje, Stoje; Port. Esteiras; Rus. Progoshki; Sp. Esteras), textures composed, for the most part, of flagg, reeds, the bark of trees, rushes, grase, rattans, old repes, etc. In this country mats are used for a great variety of purposes. The coarser sort are very largely employed in the packing of furniture and goods; in the stowage of corn and various other articles un board ship; in horticultural operations; in covering the fleors of churehes and other public buildings, etc. The finer eorts are principally employed in covering the fioors of private houses. In Europe, mats are principally manufuctured for eale in Russia, where their production is a prominent branch of national industry. They consist of the bark of the lime or lin-den-tree, and are known in this country by the name of bast mats. The Russian peasants manufacture this sort of material into shoes, cordage, sacks for corn, ctc., and eanploy it in an endless variety of ways. In consequence of the vast quantities of matting that are thus made use of at home and sent abroad, the demand for it is immense. It is principully produced in the government of Viatka, Kostroma, and thoso immediately contiguous; and in the montha of May nod June, the period when the luark is most easily detached from the stem, the villages in the governments in question are almost deserted, the whole population being then in the woods employed in stripping the trees. The academician Köppen, who has carefully investigated this curions anbject, estiuntes the average
anaual production of mate in European Bucoia, as follows:

| Covorament of | Plocen. |
| :---: | :---: |
| Viatke.......... | 8,003000 |
| Kostroma | 4,000,010 |
| Kasan. | 1,000,000 |
| N(lut Novgoro | 1,000,000 |
| Vologra, Tamboti, Slumbir | 2,000,000 |
| Totat | 14,000,000 |

Köppon further eatluntea that about one fourth part of thls vast quantity, or 34 millions, are exported, the rest belag consumed at home. It ia olvioua from these statementa that the unaual destruction of lindentrees must be quite enormous; and it may wall excite astonisliment that they are not already all but exhausted. But whether it be from the rapid growth of the tree, or the vast extent of the forests in which it is found, the gloomy forebodiugs of Mr. Toeke ae to ita deatruction have not hitherto been realized (View of Russia, iii., 262), and mats have not become aither scarcer or dearer. It is, howover, hardly posaible to suppose that auch shouli continue to be the case, seeing the rupid inerease of population and of the consumption of matting in most parts of the empire. But in the event of lis becoming xarcer, the inhalitanta will have no dlfficulty in finding aubstitutes; so that we agree in opinion with those who think it would be bad policy to impose any rentrictions on thia branch of industry, in the view of averting an evil which may never occur; and which, if it do occur, may be easily obviated.-See Supplemeni au Journal de I'Interieur de Petersburg, fur. 1841.

Archungel is the principal port for the shipment of mats; and it appeara that at an average of the yeare 1851 and 1852 , the export of mata from that port amounted to 610,360 pieces a year. Large quantities are ulso shipped from Petersburg, Riga, and other ports ; and most descriptions of Russian produce aent abroad are packed in mats. Various descriptiona of reed mats are extensively manufactured In Spain and Portugal; some of them being very beautifully varied. In Spuin large quantities of matting are made of the Esparto rush. Rush floor mats, and rattan table nuata of a very superior description, are brought from Cifina. They should be chosen clean, of a bright clear color, and should, when packed, be thoroughly dry. 'The inats of the Japanese are soft and elastic, serving them both for carpets and beda; they are made of a peculiar apecles of rush cultivated fur the purpose. The bags in which sugar is lmported from the Mauritlus consist of matting formed of the leavea of a tree growing in the ivland, interwoven in broad atrips. They are very atrong and durable, and may the washed and cleaned wlithout sustaining any Injury. Being Imjourted In large quantisios, thoy are aold very cheap. (1)eside the works already referred to, see Miluuns's Oriental Commerce, and the valuable little work entilled Vegetable Subatennces, Materiuls of Manufactures, pabiished by the Society for the Diffusion of Useful Knowledge, London.) It is probable that mata forined the first sort of woven fabrica produced by man; and it is worthy of remark that but fow savage tribes have been discovered which have not attained to considerable eminence in their manufacture. On the coant of Guinea and other places in the west of Africa, pieces of tine mat, about a yard long, and of a pretty uniform texture, were denominated makiutes, and formed a sort of money; the value of commodities locing rated and estimated in thein.-Mouct.Ler, I'rospectus d'un Dictionnaire de Commerce. They enjoyed this distinction, no doubt, fronu their utlity, and the groat care and labor lestowed on their preparation. There is hardly an island in the south Seas in which the nativea have not acquired great skill and dexterity in the making of mats. The flnar sorts consint, generally, of dyed reeds or grasa; and have a very brilliant appearance.

Maulmain, or Moulmoin, a soanport town of India boyond the Gangen, capital of the British province of Martaban, at the mouth of the graat River Than-lueng, havlag north the Burmese town of Martaben, on the opposite alde of the river, and weat, the island of Bulu, which serves as a natural breakwater to defend the port from the heavy seas thut would otherwise be thrown in from the wast, 100 miles S.S.E. of Rangoon, 27 millea N.N.E. of Amherst, lat. $16^{\circ}$ $80^{\prime}$ N., long. $07^{\circ} 38^{\prime} \mathrm{E}$. It wan founded $\ln 1825$, when the aite was selected by Sir A. Camphell as eliglble as weil fur a cemmerclal as a military station. It la abou* 200 feet above the level of the rivar, und extenaive and fertile plains stretch eastward from it toward the mountuins. Its port is good, and, from its oxtensive command of internal navigation, it promises to becone a conaderabie omporium. The prineipal artieles of export ure teak-timber and rice; but there is also a considerable export of tobsceo, atick-iac, betel-nut, ivory, cutoh, cacoa-nuts, etc. The imports consist principally of European cotton gooda and marine atores. The principal trade of the place hus bither:o been curried on with Caleuthn, Madras, Rangoon, and Penang; but in 1837 a direct trude was commenced whth London. Owing to the fueility with which supplies of teak-timber are obtained, ahlp-lublding is carried on very extensively. The populution in 1848 was estimated at about $\mathbf{3 5 , 0 0 0}$. Tho principal article of commerce ut Maulmain is teak-thmber, with which from 25 to 30 shlps annuully load for England. The quantlty of teak exporterl to that country from 18.10 to 1847, and its eatlmated official value, was as followa:

| Years. | No. of toms. | Priee por ton, | Valoo. |
| :---: | :---: | :---: | :---: |
| 1840.. | 4.952 | $\begin{aligned} & \mathrm{R}_{1} \\ & \mathbf{2} \end{aligned}$ | ix, ${ }^{\text {a }} 3$ |
| 1841. | 6,399 | 25 | 15,939 |
| 1812.. | 11,44 | 25 | 28,717 |
| 1343.. | 10,028 | 80 | 81,68L |
| 1844.. | 14,245 | 90 | 42,375 |
| 1845. | 13,360 | 40 | 83,42 |
| $1846 .$. | 18,793 7,578 | 45 50 | 76.989 89.855 |

Maultain in a free port, on the same footing as Singapore, etc. There is no custom-house, and no duties on aea-lorne goods: but forelgn sugar, and sugar from Siagapore and Malacea, is contraband. The coins in use are tho Company's rupec and its sublivisions, the same as are current in Calcutta. The linglish sovereign is generally worth 11 rupees, and the Spanish doliar 220 rupees per 100 dollare. The weights are the Madras visa, ecqual to 3.065 lbs a voirdujois, or, say, 38 Hos. ; In this there are 100 ticuls. The Beughi ba zaar maund of 82 lhs., is also oceasionally used. Tho measures principuily used are called baskets: they are of uncertain aize. A basket of cleaned rice is alsout 65 lbs. in weight ; of mixed about 60 lbs. ; pudily 51 los. Ship-huidding is well adupted to the jluce; sind some of the finest taak-ships In the work have been huilt here. There are several dry deeks, though not of a very efficient description, for repuiring vessols. The British government bought here, during 1847, upward of 5000 tons of teak for the royal dockyards in Engiand.

The Maulmain Alman . $c$ for 1852 contains the fullowling otatemonts: "Tb falue of tho imports hy sea into Maulmain during 1850 amounted to $22,57,983$ rupeen, und the exports te $23,32,951$ rupees ; while in the lirst 10 months of 1851 the imports inereased in value to $28,78,487$, or $\boldsymbol{£} 287,848$, and the exports to $28,79,797$ or $\mathbf{5} 287,979$. The town, which 90 years back contained only a few miserable flishing-huts, is thus shown to have a trade of nearly $\mathcal{E} 600,000$ a year, whitich ls still increasing. The vaina of the piece goods imported from Europe during 1851 anounted to $£ 61,299$. coals, £ H 408 , and Iron $\mathrm{f1849}$. Provisions were imported to the extent of $\mathbf{£ 3 4 9 6}$, and winea of tha value of $£ 492$; military stores $\mathbf{£ 1 8 5 3}$, etc. The articles of export pre-
sent ne n the value first 10 m a large a sels, of ar launched three pris (ilive of English a

Manr the Portu first settle the Dutch nettied by most part of its gove was taket ly ceded siderabls by moant miles in c suljiget to inisud is a total negle excellent or abony, superior y kind is rai being imp other artic ri. als were articles fn this distin that all go of the Mau of the Uni and regula produce, a West Indi should be footing as great boon from it hal Milburn ( ed, in 181 amounted $334,553 \mathrm{lbe}$ in Mauritis
Sugar 7 thu.. again of Msuriti of that eol turna of vices from glowing te planters, more grat sensibly d are about the remov dia at the position of colony in shlpmenta A $12,483,49$ January t valued at average pr ing the fir 86 13, sho ment of the to a ctose 1 $220,000,000$ 1856. Th on the isla ed will res than the
sent no remarkable feature of inforeat, except timber, the value of which in 1850 was $£ 55,108$, and in the fint 10 monthe of $1851 ; \mathbf{£ 8 1}, 561$. The town poseseses a large and thriving European population, and 40 vessels, of an aggregate burden of 17,170 tons, have been luunched from its dockyard sinee 1830. It containe three printing-presses, seven places of public worship (five of which are Protestant), besiden elght echools, English and native."

Manritius. The Isle of France wan diacovered by the Portuguene, A. D. 1500, but the Dutch wore the first settlers, in 1508. The Mauritius was so eslled by the Dutch in honor of Prince Maurice ; but it was first settied by the French in 1720; and is indebted for most part of its prosperity to the akitiful management of its governor, the famous M. de le Bourdonnais. It was taken by the Engliah in 1810, and was definitiveby ceded to them in 1814. Mauritius is fertile, a considerabie part of the anfface being, however, occupied by mountains. Ita shape ls circular, being about 150 miles in circumference. The climate is healthy, but aubject to hurricanea. The principal product of the islund is sugar, which la now cultivated to the almost totui neglect of every thing else; but it also produces exceltent coffee, indigo, and cotton. The blackwood, or ebony, of the Mauritius is very abundant, and of a superior quality. Very little corn or gruin of any kind is raised in the island, moat articies of provieion leing imported. Previousily to 1825, the sugar and other urticies brought to Great Brituin from the Mau. ri. : us were charged with the ame duties as the like articias from India; but in the above-mentioned year this distinction was done awuy, and it was enacted thut all goods of the growth, produce, or manufacture of the Mlauritius should, upon impertation inte any port of the United Kingdom, be subject to the same duties and regulations as the like goods being of the growth, produce, and manufacture of the British colonies in the West Indies; and that the trade with the Mauritius siduuld be placed as nearly as possible on the same footing as that of the West India Islands. This was a great boon to the Mauritius, and the exports of augar from it have since rapidiy increased. According to Mitburn (Oriental Commerce, 3i., D68), they amounted, in 1812 , to sbout $5,000,000 \mathrm{lbs}$. In 1818 they smounted to about $8,000,000 \mathrm{lbs}$; and in 1824 to 23 ,334,553 tbs. Since 1826 nine tenths of the sugar raised in Mauritius has beeu shipped for the United Kingdom.

Sugar Trade-The recent removul of the interdicthu.. against the importation of coolies into the island of Mauritius has contributed largely to the prosperity of that colony, and nuterially augmented the sugar returns of $1856-57$ over those of preceding years. Advices from tie islund, under date of July 11, refer in glowing terms to the prosperous condition of the sugar planters, and inform us of the gratifying fact-the nore gratifying, inasmuch as the price of sugur has sensilily declined since that date-that "just as we are about to harvest the largest cropi ever made, and the removal of the interdiction to emigration from Indis at the sume time, has wonderfully improved the position of every landed proprietor, and has placed the colony in a bigh state of prosperity." In 1856 the shipments were $235,9 \mathrm{x} 8,460 \mathrm{lbs}$, smounting in value to A12,483,492, equut to $5 \cdots 26$ cents per pound. From January to May there wene sinipped $98,4400,286$ lbs., valued at $\$ 6,042,000$, or $6 \cdot 13$ cents per pound. The average price in 1856 was $\$ 526$ per 100 lbs . ; und dur. ing the first five months of the present year it ruse to $\$ 613$, showing madvance of 87 cents. The shipment of the old crop, it was believed, would be brought to a close by tife end of July, and would reach neuriy $220,000,000 \mathrm{lbs}$. , against $235,000,000 \mathrm{lbs}$. produced in 18o6. This, however, was the largest crop ever mude on the island. The next crop (1857-58) it is estimated will reach $240,000,000 \mathrm{lbs}$, or $20,000,000 \mathrm{lbs}$. more than the crop now closed. We annex a statoment
ahowing the prodaction of augar in Kauritius during the past neven years:

|  |  |  | Paunde. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | 1800000,090 | 1850 | 00 |
| - | 202,000,000 | 1857 | 840,000,000 |

About one fourth of the number of milla in the island wero already, in (July) in operation, and by the firat of Auguat sugar-making would be general. Some fow parcels had reached market, and aold at bigh prices to complate a eargo to Australia. Thua, for vacnum clairced $\$ 975$ to 810 ; good and fine yoliow, 4875 to 8025 per ewt. The news from Europe has, however, before this time arrested these advancing rates, and our next advices will show a considerable decline.

With the exception of molassen, ebony, and a few other unimportant articles, sugar is almost the only article of export. The principal imports consist of provisions, particularly grain and flour ; tho supply required for the use of the isiand being almost entirely derived from the Cape of Good Hope, Madugascar, India, Bourbon, etc. Earthenware, machinery, furniture, hardware, piece goods, wine, etc., are also largely imperted. The total declared value of the exports from the United Kingdenn to the Mauritius in 1852 amounted to $\mathbf{£ 2 4 3 , 0 4 5}$. In 1851 the population of the Mauritius amounted, ineluding military and seamen, to 188,506 souls, of whom between 9000 and 10,000 were whites. The population of the Seycheites-small islands dependent on the Mauritius-amounted at the eame time to 8000 . The emancipation of the slaves was little less injurious to the Mauritius than to the sugar colonies in the West Indies. But, owing to its more convenient situstion, vast numbers of hill-coolies and other laborers from India have heen enticed away and imported; and to this the increase of population and of the exports of sugar are wholly to be ascribed.

The principal imports from the United States are beef, pork, butter, cheese, candles, lard, and tobacco. The discriminating duties in favor of British produce and manufactures limit American exports to the articles above enumerated. Ad valorem duty 10 per cent., and specific duties various: On tobacco unmanufactured, 6 cents per pound; manufactared, 8 cents per pound; segars and suuff, 24 cents per pound. All foreign nations enjoy equal commercial privileges. The ports of the Msuritius are Mahebourg, Port Lonig, and Seychelles Island.

There is some direct trade between the United States and the Mauritius, Occasionaliy a cargo of lumber arrives from California, but as yet this trade has not been profitable.

Maury, Matthew F.-Lieutenant Maury is a native of Virginia. IIe reccived an appointment as midshipman in the navy in 1825, and was ordered to tho Bramlywine, then fitting out at Wushington, to convey the illustrious Lafayette to France. He returned home in that vessel, and in the spring of 1826 again sailed in her to the Pacific, and was absent about foar years, returning in the Vincennes sloop. Passing his examination, he was again ordered to the Pa ciffe station as master of the sloop-of-war Falmouth. From the time of his entrance Into the navy he was a elose student. Ile made himself master of the Spanish tongue, by studying a course of mathematics and navigation in that language. His werk on "Navigation" he commenced in the steerage of the Vincesnes, and it was completed in the frigate Potomac, to which he was orderel as acting lieutenant, when the Fal. mouth was about to return to the United States. When again Lieutenant Maury came bome, he was regularly promoted to a lieutenancy, and was appointed astronomer to the South Sea Explering Expedition, under Commander Thomas Ap-Catesby Jones. Soon after that officer gave up the command of the expedi-
tion, Lleutonant Maury retired from it also, and was aftorwand put in charge of the dópott of charts and inutrumants which has eerved an anucleus for the national olservatory and hydrographical office of the United States, of which he now has charge. His labors in organizling the ohaervatory were great and efficient, and he was successful in it once putting it on in respectable footing. The investigations of Lieutenant Maury as to the winds and currents of the ocean, the charts which be has conatrueted, mapping out better pathe and more rapid routes acroLs the tracklers depths, and the iocelculatila benefits which he has thus bentowed upon the mercantile and marine interente of the worid, nre well known. See South. Lik. Mess., vil., 660, hi., 454 ; Hunt's Mag., xvill., 616.

Mayagües, or Mayaguan. This is the moot important port on the island of Porto Rico. It possesses large eapitul, and contains several costly and fine dwellings. Hapidly rebuilt after the great conflagration, by which it was destroyed in 1841, Maym guez has gained in prosperity; huving been before that disaster but an inconsidersble vliliage, it has now become the mont impertant city on the island. The surrounding district produces large quantities of coffee, though, since 1840, thore has been a sensible diminution in that article. For that year, the exporta monounted to 80,000 quintals, while in 1858 they fell to 43,500 quintals. The coffee of Mayagues etands in such high repute in America and Germany, that purchases are frequently made in advanse of the crop. Hence comes also the best sugar of the island, which is mostiy imported in Anierican bottoms into the United States. In 1853, there arrived 83 American vessels, of 13,272 tons, carrying freight to the value of \$223,000; and there cieared 76, of 12,080t tons, taking cargoes worth $\$ 460,018$. The molasses from this port is always of the best quality, and much sought after by American and Einglish shippers. Besides coffee, in 1853 there were exported $165 \frac{1}{3}$ hogaheads of ruin; 8,221 hogsheads of molasses ; $20,766,038$ pounds of sugar ; but only 4,463 pounds of tobacco, showing a decrease, compared with the preceding year, of over 50,000 pounds. There were, beslis. 1,000 hogsheads of rum mixed with tabasoo pepper (malagueta), a preparation constituting now a nuw und protitable branch of domeatic industry. Imports from the United States and England are generally similar to the imports into San Juan.

Mead, or Metheglin (Ger. Meht, Meth; Du. Meede, Meedrank; Fir. Hydromel; It. Idromele; Rus. Lipez), the ancient, and fur a long time, the favorite drink of the northern nations. It is a preparation of honey and water.

Meal (Ger. Mehl; Du. Meel; Fr. and It. Farine; Sp. Farinu; Rus. Molk; Iat. Farina), the edible part of wheat, oats, rye, barley, and pulse of different kinds, gronnd into a specios of coarse flour. See Coun, Floua, Wheat, and Breadetuffs.
Measures and Weights. They were invented by Phidion of Argos, 860 n.v.-Arund. Marbles. They becune general in most countries soon afterward ; and were very early known in England. Standands of weights and measnres were provided for the whole kinglom by the sheritts of London, 8 Hichard 1., A.1., 1197. Standards were agalu fixed in Ensgland, 1257. They were equalized for the United Kingdom in 1825. Measure, in legal and commer. cial seuse, denotes a certain quantity or portion of any thing bought, sold, valued, or the like. See Weignts and Mmasomes.

Meats, Preserved. The interest whici has of late attached to the subject of such meats, warrants us in bringing nuder examination the principles and practice on which this important branch of industry is based. The art itself is of inodern invention, ard differs in every respect from the old or common modes of preserving anlmal food. These, an is well known,
depend on the use of culinary salt, aaltpetre, sugar, or similiar substances, which, when in solution, do not possess the powor of absorbing oxygen gat, and therefore ont off effectually all access of alr to the meat they protect. It might be imagined thut water alone wonld nuswer this purpone; but the contrary is the case, for pare water absosbe oxygen, and is, therefore, all the less adapted for presorving ment, in proportion as it is free from saline matter, since it is than so much the nore capable of combining with sxygen gas. Thus, anow, whlch is pure water crystalised, has a powor of produoing the panary formentation when mixed with flour; and this it is able to do in connequence of the large quantity of gaseons oxygen whieh it contains. Similarly, rain water, and eapeoialiy dew, will bring on the putrefaction of animal matters much sconer than apring water; and the vulgar prejudice reepecting tho effeet of the moon's raya in accelerating the corruption of ment, is, beyond doubt, dependent upon the fact, that duriug clear oonlight nights, there ia alwaye a large deposition of dew; and this having falion in a minutely divided atate, possesses the largest amount of free oxjgen, which pure or distilled water is capable of absorbing from the otmosphere, and, therefore, has a proportionate power of decomposing-just as it aiso has of bleaching. Thus far our remarks bave been applied solely to raw or uncooked meate ; bat the practical bearing of the object which we have in hand really points to those which are more or less cooked or preserved. It is with reforence to provisions of this kind, that a parliamentary inquiry is now in progress; and we can not do better than show the great importance of such a sulject to a maritime nation, by stating, that these provisions, when sound, nre an absolate preventive of sea-scurvy-a diaeate said, on good authority, to have dentroyed more Ilfe, and to have done more damage to commerce, than all the enemios and tempests which shipping ever encountered. We neel not go fir in search of evidence to prove the fearful havoc camed by this discase ; for we are well furnished hy the history of Adiniral Anson's memorable oxpedition, to damage the interests of Spain in the Pacitic Ocean, by Intercepting the anntal treasure-ship or galleod on her return to Europe. In apite of every thing that care and experience could do, Ansou tella us that he lost, In all, fully four fifths of his people by scurvy. Of 400 men with whos the Centurion departed from England, only 200 lived to reach tho isiand of Juan Fernandez, and no more than 8 of these were capable of doing duty; and but for a supply of others at St. Helena, there would not have been strengti remaining to carry the ship to her anchorago. After describIng, in the most pathetic manner, tho dreadful sufferlags of his crew, and rejoleing at the improvement caused by the ojourn at Juan Feruandez, the writer concludes-" I therefore shall eam up the total of enr loss aince our departure from England, the better to convey some idea of our past sufferings and cur present strength. We had hnriod on boarl the centurion, since leaving St. Helena, 292 men, and had remaining un board 214. This, will, doulitiess, nipear a most extraordinary mortality ; but yet, on board the Gloucester (his other ship of war) it had been much greater: for, out of a much amaller crew than ours, they had huried the same number, and had enly 82 remaining allive. It might," continues Anson, "have lieen oxjected that, on loard the Tryal (a prevision ship), the slaughter would lave been most terrible; lut it happened otherwise, for she escaped more favorably than the rest, since uhe on/y buried 42, and has now 59 remaining." The real object of tho voyage was, however, not yet commenced ; though out of 960 men with which the three vessel left Englani, 626 ware dead before thin the.

It is almost superfinous to multiply Instonces of the same kind; though, ln order to demonstrate the great
utility of two or th In Oet inte harb 8,(600 sie Channel houpital, want of during $n$, and Sir II 20 years, men had fleet reta in the Bey $\mathbf{v y}$; and pital that the higher also on the that this caused by of a heat o te cerrobo oaly notiv imperative iens can be on by the case, it ber the art of that degre which alon nsvy.-Kin Meat-Bio coming ex differing fr cated chief that countr are procued facture on porting the biscuit cont form sill th wheaten or said to cont of good me centrated $n$ 70 prunda the ment-be molding d the attueks be easily length of $t i$ esses the la United Sta these meatin America. lowing wey steam until The liquor evaporated the fat ia sk yet hot, flo into a stiff made into 1 kept whole in air-tight dered hiscui the addition Lindley, in pressed an most iarpor 1851 has bro
Meat, E Cuties,-The uread, beef, near Nevom of a society ment of the
utility of preserved meata In the navy, we shall give two or three other examples.

In October; 1788, the fleet of Admiral Keppell oame into harbor, and, before the end of cocomber, had sent 3,800 alck to the hoapital iat Hanlar. In 1779, the Channel fleet undar Sir C. Mardy, ment 2,800 to the haspital, and retained more than 1000 on board for want of heapital accemmodation. Wlithin 4 mnnth during a oubsequent year, 6,004 were aent to Haslar, and Sir H. Hawkins asserts, that, within the apace of 20 years, to his own knowledge, now leas than 10,000 meu had dled of senrvy. When $t$ dmiral Geary's fleet retarned to Portemouth, after a .'O weeks' cruise in the Bay ef Blscay, $\mathbf{2 , 4 0 0}$ men were ill of the acur$v y$; and the grona nnmber of admlaslons into the host pital that year was 11,732 , of $w^{\mathfrak{b}}$ wai $\approx \approx 9$ died. Now the highat modical authoriti, in this kingdom, and alan on the continent, have ail expresaed the opinien that thls fearful discase and mortality is altogether cuused by the nae ef alt provislena; and the evilence of a host of navy aurgeons and efficere can be adduced to cerroborate the truth of thia view; therefore, not ouly notlves of humanity, but also of self-interest, imperatively demand that, wherever unsalted provisions can be used, their employment ahoulif be lnsiated oa by the volce of the entire mation. Such being the case, it becomea necesary for us to Inquire bow far the art of preserving unsalted proviaions has reached that degree of unifermity, and certainty of result, which alone can warrant their introduction iato the asvy:--Brande' Dict.

Ifeut-Risenits.-The American meat-biscuits, now coning extenalvely juto use, ure a kind of preserve difforing from moat others. The manufucture ls located chiefly at Galveston, Texas. The prairles of that country abound in cattle of good quality, which are procued at so low a price as to justlfy the manufacture on the spot, thas saving the oxpease of transporting the uaelees portion of the meat. The meatbiscuit contalns in a concentrated state and portable form all the nutriment of the mest, comhined with wheaten or othor fleur. One pound of this biscuit is said to contain the nutriment or essence of five jounde of good meat; a $22-\mathrm{gallen}$ cask can contaln the concentrated nutriment of 500 pounds of fresh meat with 70 pounds of flour. As compured with corn or flour, the neat-haiscuit is said to be lesa liable to heating or molding during long voyages, and lesa subject to the attacks of weevils ara other snimale. It may be easily preserved in all climates, and for a great length of thes; thoughi it is not pretended that it posseseses the lasting quality of well-canistered food. The United States' Army in Mexico was gupplied with these meat-biseuits ; and their use is rapidiy spreading in America. The mest-biscuita are made la the following wsy:-Good beef la selected, and boiled by steam until all the nutritive qualities are extracted. The liquor is strained, allowed te settle, and then evaporated by heat to the congistence of thick treacle; the fat is akimmed off as it dises. While the liquor ls yet hot, fleur is added to it, and both are kneaded up into a stiff dough, which may then be rolled, pressed, made into biscuits, and baked. 'The biscuits are elther kept whole or are ground to powder, and are preserved in air-tight cases. For making into soup tise powdered hiscuit is mixed with hot water, and boiled with the additien of salt and other condiments. Professor Lindley, In a lecture before the Society of Arta, expressed an opinion that the meat-blacuit " is one of the mest important anbatances which the exhibition of 1851 has lurought to our knewledge."
Meat, Prices of. Prices of Meat and Bread in Cities.-'The following table of the prices of wheatbread, beef, vesl, and mutton, in 20 cities of the world, near Nevember 15th, 1856, ls derived from the report of a society in the city of New York for the improvement of the conditlon of the poor; the quantity of
each pound avoirdupois, and the price In cents and hundredths of a $a \cdot t$, Amarican weight and money :

|  | Wheat | Beal. | Veal. | Multon. |
| :---: | :---: | :---: | :---: | :---: |
| Reme |  |  |  |  |
| London. |  |  |  |  |
| Parja.. | 4.4 | 11.83 | 1404. | 18.82 |
| Glasgo | $5 \cdot 46$ | 18.62 | $18 \cdot 69$. | 18.62 |
| - Hiverpool | $4 \cdot 6$ | 1890 | 15090 |  |
| Dublia.. | 80 | $12 \cdot 68$ | 15.57 | $12 \cdot 68$ |
| Antwerp | $5 \cdot 4$ | 18.00 | 18.62 | 15.40 |
| Brusselo. | $4 \cdot 68$ | 1976 | 12.76 | 1875 |
| Amaterday | 749 | 1488 | $17-24$ | 14.88 |
| Dantzic. | $6 \cdot 68$ | 1004 | $18 \cdot 62$ | 9.10 |
| Oporto. | $5 \cdot 44$ | 8.68 | 18.93 | 970 |
| gartander | 494 | 6-89 | $8 \cdot 0$ | $8 \cdot 00$ |
| Nfea..... | 463 | 1106 | 1192 | 11.92 |
| Milan. | $5 \cdot 09$ | 10.80 | $10 \cdot 80$ | 7-15 |
| Constantinogle........ | 8.76 | $8 \cdot 17$ | $8 \cdot 17$ | $8 \cdot 17$ |
| Emyrnn............... | 5409 | $6 \cdot 55$ | $10 \cdot 00$ | 10.00 |
| Now York | 575 | 1826 | 14.50 | 1506 |
| Boston. | 0.25 | 1400 | 14.00 | 18.00 |
| Philadelphia | 5.25 | 11.50 | 1250 | 18.60 |
| Clncinnati | 400 | $10 \cdot 00$ | $9 \cdot 5$ | - 10.00 |

Medals, are pleces of metal, generally ln the form of a coln, and impressed with aeme peculiar stamp, Intended to commemorste some individuni or action. Medals are of very different pricee-varylng according to their rarity and preservation, the tineness of the metal, the beauty of the workinsnahip, etc.

Meohanics. The time when the simple mechanical powers were first introduced is so uncertain, and perhaps so little known, that they havo been ascrihed to the Greclan and other deities of the heathen my-thology-for instance, the ax, the wedge, wimble, etc., are said to be the invention of Dedalus. We know nothlng of the machinery by which the fmmense musses of stone whioh are found in seme of the ancient edifices were moved and elevated.
The first writing on mechanics was by Aristotle, about...................................................
The staters lomans Invented. ........................... otruments was demonstrated by Archimedes.......
Tho hand-mill, or quern. was very early in nse; the
Yoar
820
hammem, or quern. was very early in nse; the
Cattlo mills, mola jumentarie, wero also in nee boy the Itomans, and in parts of Europo.
Saw-mills are sald to have been in use at Angsborg. A. D. 1892
Theory of the finclined plave investigated by Carden, alsout. $.7 \ldots \ldots \ldots$............... 1540
Therk on of falling bodies, Galitoo........................... 1586
Theory of faling bodies, Gailioo............................. 1698
Theory of osciliation, huygens.............................. 1647
Lawe of conision, Waliace, Wren.,......................... 1682 p'ercusslon end animal mochanice, Borelis ; ho dicd...... 1079 Tho water-mill was probsbly In vented in Asla; the first that was described was near one of the dwellings of Mithridates.
A water-mill is sad to have been erected on the river Tiber, at liome,
Floating mills on the Tiber....................................... ${ }_{5}^{536}$ Thile-mills were, many of thom, in use in Ventee, about 1078 Wind-uilits wore in very general uso in the twotrth century.
Application of mechanles to astronomy, parallelogism of forces, law of mution, otc., Newtin................ 1679 Probiem of tho catenary with the analysis, Dr. Gresury 1697 Splrit level (and many otior inventions), by Dr. Hook, frnm 1661 to.............................................. 1 Tho Mechsntes: Institlito in London was formed In.... 1828 Mechanies' Institute in New York furmod.

Mediterranean Pass. The nature of this sort of Instrument has been described by Mr. Reeves, in his Treatise on the Lavo of Shipping, as follows:-"In the treatles that have been made with the Barbary States, it has been agreed, that the subjects of the King of Great Britain should pass the seas unmolested by the cruisera of those States; und for better ascertnining what elipe and vessela belong to British subjects, it is provided that they sliall produce a pass under the hand and seal of the Lord IIigh Admiral, or the Lords Commisionera of the Admiralty. In pursuance of thes treaties, passes are made out at the Admiralty, containing a very few words, written oll parchment, with
ornamus.06 at the top, through which a acelioped indeutu.e in made; the scolloped tope are aent to Barbary $;$ and being put in possension of their cruisers, the commanders are instructed to suffer all persons to paes who have paseea that will fit those acolloped tops, The protection afforled hy these passea is auch, that no ships, which traverse the naan frequented by thene rovers, ever fall to furnish themwelves with them, whether In the trade of the East indlen, the levant, Spain, Italy; or any part of the Mediterrunean; and Pron the more particular need of them In the latter, they, no doult, obtalned the name of Ifeditermanern pusses. For the accommodation of merchants in distant parts, blaisk passea, signed ly the lorda of the Admiralty, are lodged with the governors abroad, and with the Britlsh consuls, to be granted to thnse who comply with the requlaites necessary for obtaining them. Aa this plece of security ta derived wholly from the stipulations made by he erown with a forelgn jower, the entire regulation and management of it has been under the direction of his majesty, who, with the advice of the privy councll, has prescribed the terms and conditions on which these passea shall be granted. Among ethers, are the following:-They are to be granted for none but Britiah-bullt ships, or alips male free, gavjgited with a $\mathrm{m}^{\prime}$ sr and three fourthn of the mariners IIritlsh auljects, or forelgn Protestints made denizens. Hond ls to be given ln the sum of $\mathbf{E B O O}$ if the veasel in under 100 tons, and $\ln \mathrm{E} 500$ if it is of that or more, for delivering up the pans within 12 montha, unless in the case of whips trasling from one furelgn port to another; and such passea need not be returned in less than three years. It has been found expedient, at the conclusion of war, and sometimes durlng a peace, to recall and cancel all passes thut have been issued, and to isaue others in a new form. This has leen dune for two rensons. 1st. That these useful instrumeuts, by various means, either accidental or fruadulent, came into the hands of forelgners, who, under cover of them, carried on ln security $n$ trade which otherwise would belong to British auljects, and which had been purchased by the crown, it the expense of keeplng up this sort of alliance. 2d. That the liarbary States complained that, adhering to the rale of fitting the other part of the inclenture to the passes, they were obliged to suffer shlps to pass that did not helong to llritish aulijects." We have thonglit it right to give this explanation, though, since the occupation of Algiers by the French, and the disappearance of the corsairs of the other Burbary powers, Med. Iterranean passes have fulien Into disuse.

Mediterranean Bea (t/ure Internum), an Inland sea inclosed by Asia on the enst, Africa on the sonth, and Furoper on the north, and communicates with the Atlantic by the sitrait of Cilbraltar on the weat, aituated between lat. $30^{\circ} 20^{\prime}$ and $43^{\circ}$ north, and long. $6^{\circ}$ and $37^{\circ}: 10^{\prime}$ east. W'lthin this apace is in. cluded the Tyrhennian, Jonian, and Alriatic Seas, and the Sea of the Grecian Archipelago. The Sea of Marmora, the Black Sea, and the Sea of Azuv, whleh commmibate with it by the Strait of the Dardanelles, are considered na sepurate seas. The principal rivers which tlow into the Mediterranean are the Elim, Rhone, Arnu, and the Tiler la Europe, and the Nile in Aírica. The priocipal Islands ure Slcily (which divides the Mediterranean Into an eastem and weatern portion), Cyprus, Crete, Multa, and the Ionlan Ialnnds in the east, and Sardinia, Corsica, and the Inamaric IAlanda in the west. 'The most Important gulfa are Taranto in Italy, Iepanto In Creece, Syrtis and Cabes in Barbary, in the eastern portion; and Valencia In Spain, Iyon In France, Gipioa In Italy, and Tunia in Africa, in the west. The winds of this sea are very variahle; the tides are little felt, and very irregular. Flsh is abundant in the Mediterranean, especially tunny, anchovles, plleharis, and mackerel, and the fineat coral, sponge, and anbergrls, are procured. The Med-

Iterranean was called by the Ilebrewn "the Great Bea." The I'heniclana are the first peeple known to have extended their commerce along ite cosats, tha Ireeks afterwaril dinputed it with them. After the deatruction of Carthage, the Rotnans ware sole mastere of Its shorea; In tha middle agen, Lhe Venetiana monopolized Its commeree, and at present, Eagland, by the poameasion of (ilbraltar, Malta, and the Ienian Iolanils, possesses the greatent influence on It destinies. See Gibratitan.
It Is estlmated that three simes an much water as the Meilterranean recelves from lta rivarm is evaporated from lis aurfuce. Vide article Pifatcal, (ikiинapir, A'ncyelopedia Britannien. Thia may be an ovar eatimate, but the fuct that evaporation from it in in excess of the precipitation, is made obvious by tha current whlch the Atlantic sends into it through the Straits of Gilirultar ; and the difference, we may rest assured, whether it be much or little, is carried of to modify cllmate elaewhere-to refreeh with ahowera and make frultful ame rther purts of the earth. 'The great Inland banin of Asla, in whieh are Aral andi the Cuppian Seas, In aitunted on the ronte which this hypothesin repilires these thirsty windin from nouth-east traile-wind Africa nnt Amerien to take; and so seant of vapor are theae winds when they arrive in this basin that they have no moisture to leave behind ; just as much an they pour down they take up again and carry off. We know that the volume of water returned by the rivens, the ralns and the dews, into the whule ncean, is exactly equal to the volume whilh the whole ocenn gives bsek to the atmosphere; as far an our knowledge extends, the level of ench of these $t$ wo seas in as permanent as that of the great ocean itself. Therefore, the volume of water discharged by rivera, the rains, and the dewn, into thene two seas, is exactiy equal to the volume whilch these iwo meas give back as vapor to the atmosphere.-Mauny, Phys. (irog.

Commerce of the Mediterrumean.-The United Skatea' Comat at Triente communicates to the Department of State, the following detalls as to increased steam navIgation with the southern ports of the Mediterranean: "The project of establisting steam conumunication with the Mediterranean has long been a favorite one with a reapectable class of merchanta in the AtInntic States; and, If I am not mintaken, the experiment of a line to Genoa was tried seme yeara ago, but without snccess. There ls every prospect of the accomplishment of this important objeet, umiler the Immediate patronage of the Aust no rovernment. It 1s, In fuct, proposed to constrnet thece tirxt-clasa steamships of $\$ 200$ tons, huilder's w, easurement, and 1000 herse-power, to run between Trieste and New York, making 15 trijs each way per annum, and touching at Corfu, Malta, Algiers, Cadiz, and Idshon. The vesvels wonld carry the malls, passengers, and goorls from the Fast, recelved by the Iloyd's steamers und those of the Oriental Steam Navigntion Company, and prohably those of the greater part of the citles and ports of the Mediterranenn, to the United States, nnil rice rersâ. The running thne weat, from Trieste to Nuw York, wonld be 20 days und 14 hours; and eant, from New York to Trieste, 19 Inys 5 hours, Ineluling stoppages. The nteamers would the built in New York, but anil under the Austrian flag. The originator of thls enterprise Is Mr. Loosey, the Anstrian consul-general at New York-a geatleman of great experience, who has resided for the past 12 yeara in the I'nited states. I am credibly informed, also, that the new minister of finanee, Baron de Bruck, warmly fivors the scheme. He was formerly, Indeed, a lealing merchant in Trieste, and the founder of the Austrian Lloyd's Steam Navigation Company. If the project succeeds, Its effect upon the commercial and politleal relations of the United States and southern Eumpe must be very great. While it will prove a stimnlus to exertion, hy opening new channels for the Industry of the Oid

World, the preek tures of "The to th , eits 1852, and amount o Pork dire importa d udelphta, Mobile ar Hut it wo any criter counatry h financial a contidence, dlas, had $n$ of Ir.ierna comparativ ateninshlp the comple between Tr which conn rope. This aasa, and w iwelvemont

Commera Meditervane the countrie is very Irres tics which gives the he in regarl to luws:
"The cen the Mediterr export of cut etc., whieh a prits. The wines and 0 the United : for which the

A few wo now the co that time th respects reee whale it pres Tha causes a nuw, very If they are not successful ri sources, chant mercliants $h$ these impor branch house srs running to port ; whi and not one lgate the oc to be found withstanding these region. statistics wil
The expor the jear 18.42

Mibraltar... Malta.
France on the Spala... taly. steily.
Triemie.
Turkuy........
From Tuac 1842. The e

World, it mutt necessarily inorease the demand for the precieus aud abundant raw material and manufactures of the United Staten.
"The amount of goods axported direct from Triente to th city of New York, during the yeara 1800, 1851, 1854 , and 1853 , mounted to $2,045,2821$ and the ameunt of importa during the ama years, from Now lork direct, nivelinted to $\$ 1,550,516$. The amount of importa sluring the year 1852, from the porta of Philadelphia, Boston, Navannall, Mlehmond, Ihaltimore, Mobile and New Orleuns, amounted to $1,628,700$. Hut it would be very unfair to take these figurea an any criterion of the buaineea of the future. This country had then but partiaily recovered from the financial and political ombarrassments of 1848-9, and contidence, withent which commerce necessariiy dwlndies, had not been firmily eatabliahed; while the means of intiernal crol s'unication and tranaportation were comparatively thisted. Jiven now the snccean of this steamship pruject depende, in a great meuaure, upon the completion of $t i=9$ balance of 60 milea of railway between Trieste and Vienne-the last link in the chain which connecta Trieste with the principal cities of Europe. This work is, however, in a state of forwardnesa, and will, probabiy, be finiehed in the course of a tweivemonth." See Tureste and Tonkey.

Commerce of the United States with the Ports of the Mediterranean.-The trade of the United States with the countries on the Mediterraneun and in the Levant, is very irregular, and not yet developed. The statistics which we posesaa are of some value. Mactragor gives the hest report on general commerce, and speaks, in regard to the Diediterranean trade in 1842, us follaws:
"The commerce of the United States to the ports of the Dediterranean and Adrlatic, consists chiefly in the export of cotton, sugar, dried and salt fish, whale-oil, etc., which are shipped to Trieste and cther Austrian prts. The Anerican ships take bome in exchange wines and other manufactured urticles. To Spuin, the United States export cotton and other prodinee, for which thay take wines, etc."

A few words, with some statistics, will anffice to ahow the condition of American comuerce. Since that time this commerce has increased, and in some respects received a considerable impulse, but on the whois it presenta nothing of murh greater inportance. The causes are clear: the Americans have paid, untii now, very little attention to this important trade; they are not enough acquainted with it, while their successful rivals are thoroughly conversant in its sources, chances, and necessities. English and French merchante have, so far, the control of commerce in these inportant regioos; they have ugencies and branch heuses-English, French, and Austrian steausers running in the Mediterranean regularly from port to port ; while the Americans huve not a single ageucy, and not one of their numerous stenmers, such as nuvigate the ocean, the Pacifie, and numerous rivers, are to be found in the Mediterranean and Adriatic. Notwithstanding the passiveneas of American commerce in these regiens, it is still progressive, as the following statistice will show :

The exporta and imports of the United States, in the year 18.42, were as foliows:

|  | Exports. |  |  | Imports. |
| :---: | :---: | :---: | :---: | :---: |
|  | Dumestle produce. | Forelgn produce | Total. |  |
| Gibraltar | 486,987 | 118,961 | 8582,4981 | 12,263 |
| Maita | 11,644 | 8,261 | 19,905 | 7,300 |
| France en the Mediter. | 1,674,750 | 78,863 | 1,748,438 | 054,6is |
| 8 puln. | 291,898 | 16,078 | 288476 | ,085,040 |
| fanj | 515,575 | 804,901 | 8210,517 | ${ }^{\text {O }} \mathbf{5 1 , 4 2 8}$ |
| Stelly | 237, 861 | 195,797 | 483,643 | 699,419 |
| Trieat | 708,179 | 188,526 | N $\mathrm{H}, 7105$ | 413,210 |
| Turkny.. | 125,451 | 74,015 | 202,086 | 870,248 |

Froo Tusoany and Sardinia we have no reports of 1842. The exports from Alorocce to the United States
 to 484,000 , all of which were in foreign bottoma.

The ame in the jear 1854, was $t$


From these figures it can be seen that the commerce in question has, as it regardn soms States, greatiy increased. The most remarksble ls that of Spain, in the Meliterranean. The export to that country han augmented 13 times. Also sn Important increuse is aeen in Malta, Italy, 'Trieste, and Turkey. The comme- $\boldsymbol{3}$ of Frunce, however, on the Mediterranean, ilimitusised considerubly, also that of Sicily. Froun both these reports wo learn also, that the commerce of the United Statea in the Mediterrunsan has not been developed in such an admirable manner as with othor transatlantic countries, to which numerous mail lines and other ateamera are running. What influence these communicatlons have on trude and commerce, the cumparison between the trade of France on the Mediterranean, and of France on the Atlantic, ohowa:
Expoat to, and impozt or, the Unitro Statis in the Yata 1854, from Fuance.


The commorce in the first direction, where the stenm-line exists from Ilavre to New York, shows制6n,013,842; and the commerce between the United States and France on the Mediterranean, whero no steam communication exista, was only $\$ 4,309,532$. The difference is enormous! Maraeilles is much hebind liavre, which, by its direct ateam communication with Naw York, sttracted the greatest part of commerce. See Firance.

Let us take, now, a view of the countrisa on the Mediterrancan $\ln$ general. All depend for the expedition of their letters npon the linglish post-offices, if they do not prefer to send them viu Trieste, Ustend, and Liverpool; for in botb casea the postages are very high and expensive, and, as the letters have to pass through several different offices, the loss of time js, in loth ways, very great. These difficultiex, und wo might add nuisunces, have an influance in keeping the commerce back, and to them it is chiefly attributable that the commerce of these countries with the United States hus progressed no faster. Mr. Haker, who lived for several years as American consul in tha Mediterranean, and observed pretty closely the groat progress of commerce between these parts of the giobe, hinted to his countrymen, several times, to pay more attention to the Mediterrancan trude.
"Thousands, on both sides of the Mediterrranean," says Mr. Baker, "prefer American to other produce. Eipecially are tlour and rice highly prized. The commerce with dried and sulted fish is profitable. The ireatest part of the staves and lumber which are used on the shores of Spain, are mostly imperted from the United States. Also other produce, ouch as biscuit, different kinds of outs, sperm-oil, spermaceti candles, lard and provisions, find bere ready und good markets, The port of Malaga is much frequented by American vessels ; the same may be said of llarcelona, the great emporium of Spanish wines and brandics, where Americun import articles find gool sale. But very
fow American veaseln visit Cartagens, Allcante, and Valencia, wher American produce woukl be salable, with profit.

The cargoee which American shipe take up in those places are mostly brandien, red and white wines, silk goods, shawls, cloths, woolen goods, paper, laces, saffrom, nute, raising, and other dried fruits, ollves, ote. As to the commerce with France, only Marseilles $\mathbf{p c}$. teipates in it, and this very little, in comparioon wlth the great trade with the Unlted Staten. The advantages of Harre have already been stated. Of commercial porte, we name also Genoz, Leghorn and Messina. The old plan to connect Genoa, by a regular etoamshlp line, with Now York, bas now been taken up anew, and will soon be in readiness. This connection ls expected to give a powerful Impulse to the Italian commerce, and also to awaken greater interest on the part of the Americans. "Untll now the Italian commerce with the United States hes not been of much importanee, compared with what it would be, had it frequent and regular comtuunleation.' Of American wticles, there are sugars of Louisiana and Cuba, as, also, American gralu, highly appreciated, Imported by Genoa, and again shipped to the Lovant and other amalior ports. On the other hand, the artloles Imported from Genea are many, and in the United States in fuir demand. They consist In freah and dried frulta, ollve-oll, soap, ulk goods, damasks, velvete, linen, gloves, ribbons, llquore, prepared marble, etc. Amerlcan articles for export to Genon, are indigo, dyennoota, honey, provisions, butter, otc. Roain and pitch are bought freely In Genoa, and re-sold to other amaller ports in the Mediterranean.

The commerce of the United States with Tuseany presents Interesting features. Tuscany exported, in the year 1854, to the United States, a value of nerchundise of $\$ 1,152,71$-inueh mone than Trieste and the other Austrlan ports together. The United States expurted to Tuseany, of her own and foreign produce, not more than 48,767 . This small figure ls more remariable, as Anierican produce is In falr demand at Leghorn. For Sicily, the porta of Pelermo and Mesalna are the noont prominent. From these are exported to the United States, wines, fruits, extraets, olls, brandies, argols, tongues, sardines, prepared marble, senna, cantharides, soup, leeches, etc. The Americans export there stockfish, alted and dried meat, nugar, minc, lead, indigo, cochineal, dye woods, cotton, cocoa, coffee, flour, zobaceo, etc. The commerce of Sicily is Important. England has, however, as will be seen, the lion's part.

As MacGregor relates, the Import In Sicily was, in the year 1844, $x 744,630$; the export, $£ 1,085,026$. The whole commerce with the exterior, $£ 1,779,656$. Of thls the United States exported only $\mathbf{C 5 8}, 489$, and limported from there, $\mathbf{c} 224,988$. : In the year 1804, the United States exported to Sicily only $\mathbf{4} \mathbf{2 0 0 , 0 5 1}$ ( $\mathbf{C 5} 2,000$ ) ; and Imperted from there, $\$ 059,300$ ( $£ 191$, 860), which shows a deemuse on both alden. This decrease is m peculiar fact, if we conmider the quantity and quality of the artleles there consumed. It can only be explained by the great activity of Eugland, and the little attention paid to thie quarsor by Americans. Busied with the great commorvial projecta on the Atlantic, and culture in the Interior, they have not yet found time to phy mure attencion to this commeree, and not being much poated up in the nuarket pricen In Bicily, they ignore partly the importance of that trade.

If is now thine to act with energy. The energy will not be missed, while the communication with the Medicerranean will be facilitated and trade Ineremeed. The euminerce of the United States with Trieste and othur Austrian porta, is not matisfactory to the great wents in the trameAtlantic marketa, nor to the males of Asatrian manufactures, which are consldered of very good quality. Clothe, woolen gools, linen and allk
goode, can be had from Austria, at cheap prices and in
falr quality. Nevertheless, the falr quality. Nevertheless, the lmport of the said artleles, In 1853, wss $\% 78,064,287$. Other Austrian artleles would also find good market hers, by a regular and quiek communication.
4) As to the Austrian shlps, very fow eall Into the Atluntic. In the year 1854 only four Austrian ships came to the United States. Consldering the paskivity with which the commerce with the United Strites is reparded, it will not aurprise ns that so little is done het ween them. What has been exposted from Austria to the United Statee, during 1854, vlî Trionte, and other Austrian ports, was not more than eri41,119; in fact a great sum compared to the many good indus. trial artlelea; and its navigation, as also its ports, of which eapecially Trieute and the world-renowned Venice seem to be called to play a great part in the future cominerce of the United States. The export of the United States to Trieste is muoh larger than their import from Austria, and was, in the year 1854, not leas than $\mathcal{\&} 1,908 ; 609$.
The direct commerce of the United States with Turkey is fixed by the follnwing dats: to Turker, the United States exported, In 1854, merchandise in value of $\$ 325,198$; Importing from there $\$ 808,714$. This is a very poor trude, if we consider thie means of hoth parties. This trade is In Its first development and will soon be increased, if the Americans will take hold of it with their usual entorprise. Greece and the lonian Islands aro entirely forgoten by the Amerienns; no direct commerce is carried on from there to thie United States.

Mr. Baker says, "The commeree wlth the Mores would be of the greatest importance to the Ainericans, If thoy would only attempt and explore it. The great quantity of produce would easily procure re-cargo to American vessels. The demand for zinc, lead, ete., is permanent, also of fish; rice, flour, and other American produce, would find easy market. The same," anya Mr. Inker, "of the Ionlan Jalands, where a good trade would result."

Indirect Commerce,-As to the indirect commerce of the United States to the Mediterranesn, there are very meagre data. The total exprort of the United States in 1854, to all ports In the Nediterranean, of goods not produced In the United States, was only $\$ 953,417$. These foreign productions consiat in eoffee, ten, cocon, leather, skins, pepper, rum, dye-wools, sugar from Cuba, segare, cochineal, and honuy.

As to the American indirect import from those countrles, it ia difficult to find it out. The lists of navigutlon give only the direct trade; and at the dominations of the value of Importation from the States on the Mediterranean, no port le named from where sent.

England, whlch has the greatent tmie with the Mediterrancan ports, and which is from there extended in all directions, keeps no direct ohip coumunication froin there to the United States. Of the B50x British ships, tonnage 1,748 , wod $0_{4}$ whleh eame, in 1954 , to the United States, not more than 820 tona were from (iilsraltur ; not one aingle ton from Malta! The cause is natural. England tinds it more in lier interost to do the commercial trading with the Medite rranean snd Levantine prodace to the United States, not directly, but fron Liverpol and other ports. The advantage of this proceeding is easlly explained.

The linglish merchants receive, through Jiverpool, regular rejorts by the Collins and Cunaristeamers, of the standing of the transoAtlantic niarkets. This puts them in the way to use there all the chances offering to dispono of their rich atock of Mediterranean pruduce with ulvantuge, to the United States. The same is the case In other ports of the Lurojean continent, which foilow the aame polloy. In thia way considerahle quantlties of red snd white wines, fruits, drugs, and other jroduce of the Mediterranean, cone by ladirect commerce to America.

We ported $f$ United other art no diree alrendy 1 the rich and Asis tilene. lcan vess States. which th those pol the froily tions hav is the san Adriatic, to the ind with the ation to $t$ advantag of the Ui Africa, $V$ ssys: "I if the Am would cor undertaki hus not be are no stal there. I mentioned commerce
The An year 185.5, 61,386,560 belong to lolands, © 209,958 African ter are conside ican ports them at $C$ goods fron of Airican Meaca pily extremity
From th appear in as far less And it is tories, for and comm Americans are in oppe the Medit linos of $C$ not suffici and a Me swer the thrompil a road and $\$$ sooner lie that I'ries In genoral, to janss wit been done by Tricnte give satiaf communter exported is is much 1 communica were only advantage Anstria, ar rabeun and

We tsko, for example, the corinthen, which are exported from Zante and Corfu to England, and other Eurppean porta, from where they aro uent to the United States in small quantities. It th the same with ether articlea, to countries where the Americans have no direct communication. In addition to the ports already namod, wo can add, undor tho eame category, the rich islands of the Turkish domioions in Europe and Asia, vla.: Cyprua, Rhodes, Candiu, Samos, Mytilene. Even from ports regularly visited by Amerjcan vessels, goods are sent indirectly to the United States. Thie is the consequence of the isolation in which the United States are placed, in relation to those ports. In Smyrna, the large atoring place of the produce in the Levant, where merchants of all na~ tions have a counting-room, there is no American. It is the same in other ports of the Mediterranean, the Adriutic, and Levant. Thim lsolution is advantageous to the indirect intercourse of the Eaglish and French with the United States; both ere in the fortunate eituation to turn the chances of both hemispheres to thoir advantagu. Mr. Baker, in speaking of the commerce of the United States with the French dominions in Africa, viz., Algiers, Tunis, Tripoli, and Moroceo, says: "It would he very profitable for our commerce If the Anericans would engage in this branch; they would convince themselves, very soon, that such an undertaking would be very profitable. This advico hus not been followed up to this time; at least there are no atatistics that there have been any imports frum there. These are alnoat exclugivoly African, and mentioned only in general torms, without branches of commerce in these dominions."
The Americau export to Africa in general, in the year 185t, amounted to $\$ 1,801,729$; the importe to $\$ 1,386,560$; of which proportion, $\$ 47,708$ and $\$ 30,007$ belong to Madelra, Teneriffe, aide other Canarian Islands, 20,417 and 39,598 ; Cape of Good Ilope, 2099,958 and 4448,903 . There is no data for the other African territories. According to late disclosures, there are considerable numbers of vessels which leave American ports to erubark secretly in the save-trude, land them at CuF- and importa consideralile quantity of gools from Africa. Americana can buy niany kinds of Arrican produco from the great caravans of the Mecca pilgrins, which traverse Africa in its greatest extrenity to the Mediterranenn.
From the above, it will be seen that the Americans appear in the Mediterranean as well as in the Levant as far less than a mercantile power of the tirst class. And it is but too plain that thesu great and rich territories, for hundreds of years the centre of shipping and commerce of well-advied natione, are, by the Americans, very much neglectel. Englaad and France are in opposit' 3 a with steamera and manufactures on the Meditc.ranean, Alriatic, and Levant. The mail lines of Cunurd, Colling, Dremen, and IIavre, are nut suticient for our ateam commerce with Europe, and a Mediterrunear line, alone, wlil le found to answer the interesta of American commerce. And through ali this, the great project of the Pacifle Railroud and Marine Telegraph aeross tho Atiantic wiil the sooner be brought to completion. It is to to hoped that 'Trieste ann the Austrian comnercinl comunuity in genoral, will not aliow auch progressive movements to jass withent considering that tho sama winth has leen done by the small city of Brensen, can be dono by Trieste, with its powerfui reesurces. Bremen can give satisfactory proof of the importance of a stoam communication with the New World. Bremen han exprorted in 1854, not less than $\$ 14,6 \cdot 13,927$. Bremen is much ahead of Ismburg, on account of its ateam communication with New York, as itn exporta lu 1854 were only $82,322,971$. Trieste woald have double the advantage; it would have all the direet counmerce with Austria, and the indirvot oonnection with tie Mediterranean and the New World. The project is great, hut
promises well-paying results. It pan be developed by a direct, regular, and quick connoctlon with New York. It is also woll to mention, that Austria would, by these mesas, come into a more productive rolationahip with the Orient, as the commerce of Austria can look to a very proaperous future, on account of the Marine Telegraph from Sardinia to Constantinople and Alexandria, as the connection of the Mediterranoan and the Red Soa.-Nautical Magazine. For Commerce, etc., of the Mediterranean, sce Ed. Rev., vi., 478; Hunt's Mag., vi., 201; Frasea, zxvli, 377 ; Quar. Rev., 1xxv., 280; same article in Eclectic, v., 83; Living Age, v., 301.

Melbourne, the capithl of the Britlah colony of Victorla, former:; Post Philip, in Australia, occupying the south-east portlon of that continent, atretching through $9^{\circ}$ of longitude, from Cape Howe on the east to the Glenelg River on the weat. The town is situated on the north bank of the Yarra-Yarra River, about nine miles, fullowing its windings, froin its mouth, in the basin of Pert Philip, hutitude $37^{\circ} 40^{\prime} 5^{\prime \prime}$ S., long. $144^{\circ} 58^{\prime} 85^{\prime \prime} \mathbf{E}$. It was founded in 1837 , and extends along the banl:s of the river. In 1851 it had a population of 23,000; and such has been the immigration consequent on the discovery of the gold-fields, that, inclucling auburbs, it had on the 24 th of April, 1804, 71,188 Inhabitants. A cunsiderable portion, however, of thls immense population is to be regarded as migratory only, and as residing in town merely till their ultimate destination has been decidel upon. This audden incresse of population raised houso rent to an unparalieled height; ami for some considerable time a large proportion of the population was not housed, but encamped under tents. But partly through the extraomlinary stimulus which wa thua given to bullding, and partly throngh the morcantile failurea consequent to the overtrading of 1853 and 1854, there has been a very heavy fall of rents, whieh do not now (1855) exceed buif thoir mmount in 1852 . The site of the town is unfortunate ; for the river being obetructed by a bar and shallowe, it is not generally navigable for vessels of more than 60 tona burden; and it has the further disadvantage of being low, and lisble to be Hlowded by tho overflowing of the river during the wet season. It has been proposed to faclitate the trade of the town by renoving the bar at the mouth of the river, an leepening its channel : but this would be a very expensive undertakling, and one of which the succesa would be not \& little doubtful. The excavation of a ship canal from the deep water in the bay to Mellowrue has also been proposed; and it probubly woukl bo the proferable plan; but, la the mean time, a railway has been commenced, and is in progress to the truy, which, when completed, as is probably tho case, will obviato nasny of the inconveniences which are now experienced. It sooms, hovaver, not unlikely that the traie of tho town, and the grester purt, perhaps, of its population, will ultimately centre at Williamstown, a village a few miles distant, on a headland oxter ? ag into the bay, opposite to which all iarge vessels coming to Molbourne are obliged to anchor. The principal objection to Willianstown is the acareity nud bad quality of the frosh water; but this gerious defect might, perlups, be obvlated by ainking welle, or by conveying hither a supply of water from sone of the odjacent- atreams. Nothing can more strikingly illustrate the present unfavorable situation or the tawn for commerciul purposes, and the oxtraordinary state of things which was lately provalont there, than the fuot that while the ordinury charge for the freight of goods froun England ta Delbourne leads was in November, 1853, $£ 3$ 10s. a ton, it was $£ 5$ to the quays.

There are very fow goods or articlea exported from the coloay to the United States. The principal articlea have been gum, in amall quantities, a fow hides, and some bones. With the exception of goid, on which

MEL
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there is a duty of $\mathbf{6 0}$ cents per ounce (2e. 6d.), none are liable to duty.
Impoata, Exports, and Population of the Colony of Victulla rrom 1889 to 1858, both xkolueive.

| Years | Imports. | Exports. | Total or enternal trade. | Popoleifon, everayo of year. |
| :---: | :---: | :---: | :---: | :---: |
| 1838 | S2305,060 | 278,040 | £2 233,000 | 7,0100 |
| 1840. | 802,000 | 155,000 | 647,000 | 10,000 |
| 1841 | 835,000 | 189,000 | 474,000 | 14,000 |
| 1848 | 264000 | 204,000 | 468,000 | 18,000 |
| 1848 | 183,100 | 978,0 0 | 461,000 | 22,000 |
| 1844 | 131,000 | 251.000 | 408,000 | 84.000 |
| 1845 | 248,100 | 464,000 | 712,000 | 28,000 |
| 1846 | 316,000 | 425,000 | 41,000 | 84,000 |
| 184 | 483,000 | 600,000 | 1,107,000 | 42,000 |
| 1848 | 874,000 | 878,000 | 1,048,040 | 80,000 |
| 1849 | 489,000 | 735,000 | 1.288, 040 | 60,000 |
| 1850 | 745,000 | 1,042,000 | 1,737,000 | 70,000 |
| 1851. | 1,056,437 | 1.483,909 | 8,480,846 | 80,000 |
| 1858 | 4,44,806 | 7,451,549 | 11.495,445 | 180,000 |
| 1858. | t5, 442,647 | 8,946,096 | 24,7888788 | $28 \% \ddot{0}^{0} 0$ |

The following atatement exhibits the quantity of gold exported from the eeveral ports in Australis in each yrear from the commencement of the gold diacoveries to the end of the year 1855; the exports chiefly deatined for Great Britain and colonial possessions:

| Gold esported from Naw Sonth Wates, | ateas Quantify. | Value. |
| :---: | :---: | :---: |
| 1851 99th May to 8ist Dec... |  | - $2,841,680$ |
| 1859.......................... | ... 962,878 1618 | 18,0(1),880 |
| 1858.......................... | . 0480581891 | 8,905,825 |
| 1854............................ | . 237,9101828 | 8,966,045 |
| 1885. . . . . . . . . . . . . . . . . . . . . . | 61,89414 8 | $1,046,200$ |
|  |  | (14, 260,710 |
| Oold eapirted from Vietorla. | Quantily. | Valoe. |
| 1851.................... 1 | On. dwis.gr. 145,18I 812 | \%2.198,885 |
| 1858. . . . . . . . . . . . . . . . . . 1,0 | 1,089526 10 19 | 30,678,640 |
|  | 2,497,723 1516 | 448822.6445 |
| 1454....................... ${ }^{\text {g, }} 1$ | 2,144.099 918 | 4t,275,750 |
| 1855. . . . . . . . . . . . . . . . . . 2,0 | 2,575,745 417 | 56,818,900 |
| Av'ge during last 4 years |  | \$174,292,8221 |
|  |  | (43,573,205 |

To the preceding atatement we annex an official return of all the gold coined at the mint in Great Britain each year from January 1, 1846, to December 31, 1855 :

Gold coined ln Great Britain $\ln -$

| 1846........ 881.674,056 | 1583 | 959,761,985 |
| :---: | :---: | :---: |
| 1847........ 25,792,200 | 1534 | 20, 760,915 |
| 1848........ 12,289,995 | 1850 | 45,043,816 |
| $1849 . . . . . . .$. $1854 . . . .$. $7,456,18 t$ | To | 269,8511,299 |
| 1851......... 29,042,085 |  |  |
| 1852........ $48,111,881$ | Averags | 30,985,0 |

For further details, see the Articien Cobonies, Prectous Metals, and Calaponsia. Ilere, an in other parts of Australla, wool, down to the discovery of the gold fields, was the principal article of prodice and export. And it ls seen from the following statement that its exportation went on Increasing down to the present year.
Aocount of the Wool mheprd dehing thie Yabs bndinn 10th Остouen, 1858, 185t.

|  | $\begin{aligned} & 1458 \\ & 1080 \end{aligned}$ | 18B4. $110 .$ |
| :---: | :---: | :---: |
| Malbonrne. | 9,870, 711 | 11,104,180 |
| Geelong | 7,019,900 | 8, 44.400 |
| Portland. | 8,415,818 | 4,167,497 |
| Port Fialry | 1,461,425 | 1,436,910 |
| Port Albert | 8:16,890 | 242,876 |
| Total. | 21,904.104 | 22,593,689 |

A continuous high price of wool in the English markets will afford great encouragement to the nettlers to struggle with thene two tendencios so greatly deteriorative to sur wool ; and the manufacturers of Great Britaio will have to sfford that encuurugement, or they must gradually teach themselvea to look elsewhere fur a aupply.

| Years. | Produca of Vietorls, |  | $\begin{aligned} & \text { Piodice of } \\ & \text { ballanh } \\ & \text { Colonies. } \end{aligned}$ | $\begin{gathered} \text { Prodrse of } \\ \text { forelga } \\ \text { ctales. } \\ \hline \end{gathered}$ | Tolala, |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1845 | 2401,782 | S8478 | E100 | 28,226 |  |
| 1846 | 409,818 | 10,152 | .... | 5,236 | 425,201 |
| 1847 | 652129 | 18,480 |  | 2,989 | 668,511 |
| 1848 | 657,018 | 18,210 | 2,168 | 2,064 | 671,890 |
| 1848 | 737,067 | 18,079 | 791 | 4,466 | 755,926 |
| 1870 | 1,022,064 | 18,945 | 195 | 6,502 | 1,041,796 |
| 1561 | 1,388,26] | 29,888 | 2,107 | 9,018 | 1,422,9019 |
| 1898 | T,837,025 | 64,808 | 6,494 | 88,292 | 7,451,549 |
| 1858 | 10,430,854 | 241,094 | 24,880 | 865,165 | 11,061,643 |

Population of census 30th April, 1854, 232,000 show. Ing that, exclusive of the excess of lmmigrants over omigrants by aea, the population had galned $17,253 \mathrm{hy}$ overland arrivals and other causes.

Account of this Numaris axd Tommag of the Simp bNteagd inwabid in tha lobis oy Victoria is 1851 , 1852, AND 1653 , ermoirtine tilu Cocntates to whict tilay brionord, and the Numarie and Tonsage of THOEM BELONOINO TO EAOII.

|  | L831. |  | 1888. |  | T639. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Shipa. | Tubs. | Shlim. | Tunt. | Shicto. | Tin |
| 11. Klugrt | 95 | 54,621 | 201 | 163,819 | 8:39 | 24,719 |
| British colont | 391 | 67,136 | 1,864 | 22x,446 | 1,740 | 831.0966 |
| Unlted States | 8 |  | 13 | 5,820 | 119 | 58.998 |
| Othur for, states | 28 | 8,884 | 29 | 8,081 | 105 | 81,790 |
| Total | 718 | 129,426 | 1,637 | 418.2 | 2,594 |  |

Scale of Commercial Charges adopted at a Special Gien. eral Mreting of the Melbourne Chamber of Comnerce, 15th May, 1854.
Commissions.-On cash payments, when not in funds, 5 per cent.; on cash payments when in funds, $\frac{3}{3}$ per cent. ; on purchase and shipment of gold dast, I per cent. ; on purchase and shipment of gold dust, if drawn agalnst, $2 \frac{1}{2}$ per cent.

On the amount of Involee in either case.
On purchase and shlpment of merchandise and on otlier purchases when not in funds, 5 per cent.; on purchase and shipment of merchandise and nn other purchasen when in fundr, 21 per cent. ; on private sales, including the purchase of hills for remittance, 5 per cent.; on guaranty of sales, including remitt:incer, 5 per cent. ; on gooda receivel for salie and reshippel, and on consigninents of merchandise withdrawn, in involce value, 21 per cent. ; in iehts, rents, and other accounts collected, recovered, and remitted, 5 per cent. ; on granting of letters of credit, 9 ? per eent.; on letters of credit acted ujon, an additional charge of 2备 per cent. ; on freight or charter procured for vessela, and frelght or parsage-money colleeterl, 5 per cent.; on frelight paid at port of departure, $\frac{21}{3}$ per cent. ; on rhips' diabursements and outfits when not in funds, 5 per cent.; on shlps' disbursements and outits whien in funda, $2 \frac{1}{2}$ per cent. ; on guarunty of captains' drafts on owners, taken for balunce of ships' dishursemente, 5 per cent. ; on money olitained on battomry or respondentia, 5 por cent. ; on inaurance effected, or orders writsen for insurance, on the asarred value, $\downarrow$ per cent.; on insurance losser, partial or total, nettied, or on preminmer recovered, $\delta$ per cent,
All sales of goois underational to be guarantici, unleas there be special onlers to the pontrary.

Guarinty on mecurity for contracte, is per eent.; meting as trustee on arsigmments, $\overline{5}$ per cent. ; on advancer on produce for shipanont, 站 per cent.

Anctioneers' commishlon and brokeragy to be charged when incurred.

Advancea anil eurrent accounts not liquidated at the ond of the neanon, Marchanat, the balance to he elarged an a fresh edvance, sulject to a commission of $\mathrm{s}^{\mathrm{j}}$ jer cent.

Intereat.-On milvances for duty, freight, and lighteruge, and on amounts occarring jer annum, 10 per ecut.

Chargea.--For parsiag secounts with the gevernment for emigront ships, $\mathbf{e 2 1}$; for entering ship inward ut the cuntom-house, when the original port of depnrtire Is Australia, Van Diompn's land, or New Zealand, 82 2s.; for clearing alilp outward, when
the port Land, or ward fren ward, $£ 5$ lighters, fee for en survey of for sorve! ceiving, load; in a draft of 1
$\square$

From with bourae verde, pe From with boame o verred, pe Into or out into or out Hetween M The abo
Exemptic shlps outfit ships empl lariy tradia of the colo Land, New

Yeart ar

Sept, 30, 18

18
9 mos. 18
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184
Jung 80
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June 80, 18

Memel,
of light-hou ulation, in 1 east side of Haf, near quently, the ly the Nien commerce.
but the bar
dom more tl
than 13 or 1
feet water a part of their is but indiffe north-wert. feet in lieig; of the entr lixed and weather at buoy lien in light-house eart. The white buoy Three beace Into a line, however, as
the port of destination is Australla, Van Diemen's Land, or New Zealand, $£ 2 \mathbf{2 s}$; for entering shlp inwarl from other ports, $£ 558$; for clearing ship outward, $5558 . ;$ for attending dellvery of cargo from lighters, and giving notlee to consignees, 15s. per day ; fee for each surveyor within the city, f1 18. ; fee for garvey of hatehea and atowage of cargo, $£ 1.18 . ;$ fee for survey of hull of vessel, $\pm 5 \mathbf{5 s}$. ; on wool, for receiving, woighing, marking, and delivering, td. per load; In addition to the tare on wool, an allowance for draft of 1 lb . per ewt.

Pilotage Ratzb at Malbourne, 1856.

|  | 8elling Vessel. | $\mid$ | Maxіпиит. | Minimuni. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | A. d. | $\mathcal{L}$ | $\boldsymbol{4}$ |
|  |  |  |  |  |
| bourno or Geeloag, and tice cerdd, per ton. | $\chi^{18}$ | 010 | 100 | 15 |
| From within the Iesde to Mel- |  |  |  |  |
| boarne or Geelong, and eice |  | 06 | 60 | 10 |
|  |  |  | 60 | 5 |
| Into or out of alt other ports.... | 06 | 0 | 40 | 4 |
| iketween Malbourne \& Gealoog. | 06 | $0 \quad 4$ | 40 | , |

The above rates Inclade two remeves by the pllots.
Exemptions.-All ships belonging to her majeety, all ships oatfitting to or refitting from the lisheries, sll ships employed In the coasting trude, ail ships regalarly trading between any port of Victoria and of any of the colonies of New Sonth Wales, Van Diemen's Land, New Zealand, West and South Australia (the
master of such ship holding a certilicate from the Pilot Board that he is competent to act as pllot to snch trader), unless the services of a pllot shall have been actually received; and all ships not having actually received the services of a pllot.

The basin of port Philip, which recelves the Yarra. Yarra, and other rivers, ls a large circular bay, or inlet of the sea, whence the colony derived ite former name. It has a narrow entrance, not more than $1 \frac{1}{4}$ miles in width, partly occupled with rocks and shoals. A lighthouse has been erected near the extremity of Point Lonsdaie, near the west side of the entrance, lat. $88^{\circ}$ $16^{\prime}$ S., long. $140^{\circ} 40^{\prime}$ E., and another on Point Gelltbrand, near the head of the bay, between Williamstown and the mouth of the Yarra-Yarra River, lat. $87^{\circ}$ $52^{\prime} \mathrm{S}$., long. $144^{\circ} 55^{\prime} \mathrm{E}$. The bay is about 40 miles in dopth from south to north, and where widest ls ebout 40 miles from east to west. It is said to cover an ares of above 800 square milea, snd might accommodate all the nuvies of all the countries in the world. The whole trade of the colony, whlch la already very extensive, and is inereasing with extraordinary rapidity; ls at present carried on from thls basin. And from its advantageone situation, and its stretching so far inland, it is probable it will always contlnue to engross the largest share of the trade, though, no doubt, it will be partly, alao, carried on from other ports. Geelong, st the head of a deep bay on the west sile of the basin, has a large population, and a very considerabls trade.

Commagor or tha Unitad States wita Aubthalia, yaon Octoera 1, 1887, to July 1, 1856.

| Yeare ending | Exporta. |  |  | Imports. | Whereof there was in Builion and 8 procte. |  | Tonnage Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domente. | Foreign. | Total. | Total. | Exporied. | Imporied. | Ameriens. | Foreign. |
| Sept $30,1839 . . . . . .$.$1889 . . . . . .$.$1840 \ldots \ldots .$.Tolal. .. | \% 88,546 | 6516 | \%34,802 | 830,598 |  |  |  |  |
|  | 6,700 84,847 | 6,1122 | 6,791 90,809 | 58,844 122,141 |  |  | $\begin{aligned} & 1,040 \\ & 1,868 \end{aligned}$ | $\ldots$ |
|  | 8125,183 | 6,883 | \$882,021 | 8211,028 |  |  | 8,041 |  |
|  | 663,784 | 8112,557 | 8176,341 | \$86,706 | \$101,621 | *37,125 |  |  |
|  | 02,651 |  | 52,651 | 28,693 |  |  | 1,787 |  |
|  | 57,805 | 11,232 | 69,087 | 44,910 | 6,720 |  | 590 | . |
|  | 69,581 48,788 | 00 | 40,31 4889 | 122 | .... | $\cdots$ | ... | .... |
|  | 88,289 | $\ldots$ | 88.259 |  |  |  |  |  |
| Total. | 8855,500 | \%194,579 | 8 880,079 | 8160,481 | (108,841 | \%37,125 | 2,792 |  |
| June $80,1852 \ldots \ldots . .$. | 1196,554 | 811,713 | 8208,267 |  |  |  | 0.818 | 17,016 |
|  | 4,143,828 | 138,174 | 4,287, m 2 |  | 87,498 |  | 56,944 | 18,034 |
| 1854........ | $2,999,685$ 8,709048 | 149,444 | 8,149,1779 | \$814,202 | .... | *197,581 | 39,42t | 4.989 |
| 1858......... | 2,703,043 | 8221,506 | $8,023.649$ $5,484,978$ | 223,698 |  |  | 43,858 | 2,479 |
| 1830. | 4,909,925 | 125,047 | 5,484,972 | 134,4)2 | 8,112 | 10,900 | 42,865 | 4,722 |

Memel, a commerclal town of east lruasin, lat. | both in depth and direction, it is always prudent, on of light-honse $55^{\circ} 43^{\prime} 7^{\prime \prime} \mathrm{N}$., long. $21^{\circ} 6^{\prime} 2^{\prime \prime}$ E. Popuiation, in 1846, 9400 . Memel is situated on the northeast side of the great bny, denominated the Currische Maf, near its junction with the llalttc. It is, consequently, the princlpal entrepot of the country traversed by the Niemen, and as sach enjoys a pretty extensive comonerce. The harbor of Memol ts large and safe; but the har at the inouth of the Currisclie liaf has seldom more than 17 feet water, and sometimes not more than 13 or 14 feet; so that ships drawing more than 16 feet water are frequently obliged to load and unload a part of their cargoen in the roads, where the anchorage is but indifferent, particularly when the wiud is north or north-west. A light-honso, originnlly 75 , but now 100 feet in helght, has heen erected on the north-cast alle of the entrance to the harbor. Tho light, which is fixed and powerful, may be distinguished in eleur weather at more than 20 miles' distance. The outer buoy lies in $\mathbf{6}$ fathoma water, ahout a mile without the light-house, which bears froin it south-east by east $\frac{\text { ? }}{}$ east. The channel thence to the harbor la marked hy white buoys on the north, and red on the month site. Three bescons to the north of the town, when lirought into a line, lead directly Into the harbor. Inamunch, howaver, as the channel is subject to frequent changes,
loth in depth and direction, it is always prudent, on
arriving at the outer buoy, to heave-to for a pilot; but this is not obligatory; and the Prussian authorities have tasued directions for ships entering without a pilot, which may be found in Nonat's Sailing Directions for the Cattegat and Baltic, p. 36. Timber forms the principal article of export; for though that of Dantzic lie consilered hetter, it is generally chenper, and almost always more aluondant, at Memel. Hiere, as at Dantzic, the best quality of all sorts of wood ar ticles is called $k$ hron, or crown, the 2d, brack, and the 3d, bracks brack. Large quantities of hemp and flax are ulso exported, as are liristles, hides, linseed (the tinest for crushing broaght to England), wax, pitelh, tar, etc. The exports of graln nre rometimes very considerable. The wheat of Lithuania is reckoned the liest. All flax anic hemp shipped from Mensel must he brucked, or assorted, by aworn aelectors. See Fiax and lismp. The limports conaist prinelpuliy of sult, herrings, coffee, sagar, apices, lye-woods, tobucco, tea, iren, cotton stuffa and yarn, cutlery, wine, ete. Merchants at Memel generally send their hilis to Konlgsberg to be eold, charging their correspondents with 1 per cent. for bank commission, postagee, etc. The navigatlon generally closes ahout the latter end of Deceniber, and npens about the milddis of Narch.

1 Mercentile Agenoy Eyntem, T. Bu-The Mercantila Agoney is a name applod to varioua housen in the leading cilles of the United States, and in Montreal and London. * The principal object of the Ageney is so apply, to annual sulascribers, information reapecting the character, capacity, and peouniary condition of persons asking credit. The valuable services it hat rendered to the domestio trade of the country, at a oheck upon our credit. systein, are achnowledged by the mercantlie community, i. Its hilutory, together with an explanation of its mede of operation, may not be without interest to the general reader and foreign merchant:

The Agency was first eatablished in 1841 in the city of Naw York, by Mr. Lewis Tappan, and was conductod by him, upen a comparativoly llmited senle, until 1846, when Mr. Benjemin Douglass became his costjutor; and assumed tha chief tianagement. 1 From thls time the business increased rapldy, and asoumed a jermanent and recognlted position among the mercantile institutions of the coontry.

Our limita will not permit is to trace, step by step, the growth of the Agency, or to dwell upon the personal aspects' of its histery: Founded upon the interests of merchants, and conditeted from the beginnints by men of ability, capacity for work, high character, and thorough knowledge of the wants of mereantile business, its progress has lieen uninterrupted. From New York it has exteniled its liranches and associate oftices to seventeen other citios, vix, : Philacielphia, Boston, Montreal, Malthore, Klchmond, Petersburg, Charieston, New Ordeaus, Pittsburgh, Cleveland, Cincinnati, Chicago, Mliwaukie, Dubuque, St. Louis, Detroit, and London, Einglend. All these brancies are under the direction of the proprictors at New York, and are governed by uniform rules. A daily lnterchange of information facilitates the answering of the ingulrles of the respective anbscribers for all parts of the country.

It is obvious that the gigantic labor of reporting the buslness men of Canada and the United States could not be performed by any ono office, not cauid the expense be borne by the merchants of any one city. It is porformed by miesnes of their syatem of branch offices, each supported by the subscriptions of the merchants, bankers, and manufacturera of the eity in which it is located. The district allotted to ench office is the country of which its city is the centre of trade. For instance, the Boaton office reports that fortion of the New England States of which it has the chief trade; the Dubuque, the greater part of Iowa; the Milwankie, Wisconsin; the Charleston, South Carulina and Georgia; while the Ohio Valley is divided between the offices at Pittshurgi, Cincinuati, and Loulsville.

Thls aubdivisiou of labor is the means of securing a minuteness and accuraoy of reports, which, to any ond unacquaiated with the machinery of the Agency, is very great. The ojcrations of a branch office do not embrace a large extent of country. They are usually limited to the 150 or 200 counties, the majority of whose traders buy thoir guons chicfly at the eity where it is established. In cach of these counties the principai of the affice securas one, two, three, or more correspondents, the number varying with the population, and the division of tie local tratie among towns. These corruspondenta are selected for their integrity, long reatdence iu the county, general acquaintance, business experience, and juigment. Their duties are to adviae the Agency promptly, by letter or celegraph, of every change affecting the standing or reaponeiblity of tradors; to notify it of sults, protests, mortgages, losses by fire, indorsements, or otherwise; to anawer ali special inquiries addressed to them by any of the associate oflices; and to rovise before each tracle seaeon, or ofemer if required, the previous reports of every trader in the county, noting any change for the better or worse. No report is considered fuil unless it embraces, in regard to each trader, his businese, the
length of tine ha has pursued it his succese or the contrary, his age, character, habla, capacity, meana, prospecta, property out of buainass, real evtate, judgments, mortgages, or other liens upon his property. The greatest care is taken in selecting the agents, who furnish the bulk of the information to the Agency. Their integrity of character, freedom from prejulice, and from any entangling connectlons with mercantilo men, which might blas them in their roports, their social position, influence, and opportunities for knowIng thoroughly the inen they are reporting, are all taken carefilly into consideration, and tho very great success and expansion of the husinoss is, we have litthe donlst, to be attributed, in a great messure, to the judgment and careful discrimination which has been exercised in this particular. Neverthelens, after all this cere in the selection of the agents, predence would seem to require some check upon them. This is done by traveling agents who are sent throagh the country, and who report tho traders upon their own resourecs, and generaliy without any knowledge of what the local agent has previously reported. Their eports are compared carefully with those of the local agent, nnd any discrepancy thoronghly investigated. I'gain, much information of a most valuable character ia derived from specinl corresponitents, as bank cashiers, insurance agents, notaries public, sherifts, and others, whose official position gives them peculine opportuulties of knowing not only the resourees and character of business nien, but also the degree of promptriess with which they meet their husiness obligations. Another source of information is that afforded by merclants themelves, who frequently make "statements" of their own affairs from their books. These are given under their own aignature, with the avowed purfore of having them used by the Agency as a basis for credtt. The lending facts conteined in such "state. ments" are of course always made matter of special investigation. Ae, for iustance, a merchant in his "statement" says he owns a farm or a number of town luts, in a certain county, worth a certainsum. The records of the county are exemined to see if any such preperty stands in inis name; the estimate he puts infon it is compared with that given by persons acquainted with the value of pronerty in that locality; and, lastly, a careful examination is mate to ascertain if any incumbrance exists against it not mentioned in the voluntary statement of the merchant. All the other facts in his statement are scrutiaized in likè manner, and it is thus sutjected to a very searching analysis. lieperts obtained with the care thus exhibited, and from such a variety of scurcea, must certainly approach sa near perfection as is practicable under any circumstances.

The records of each office are arranged according to counties. Each partnership and individual name is indexed for convenience of reference on inquiry belng mado by aubacribers. The reports coming in daily ure copied without delay in the book for tho county to which they refer, and transmitted liy mail or express to the next or central office. All unfavorable information ia promptly copied on siips, and sent simultancously to all the oflices whoae subacribers' interests are probably involved therein. Serions embarrassments, assignments, and failures, are telegrajhed. The mass of information thus contributed by the lranches to the central office passes into the hands of the chief clork, ia distributed by him to the heads of tepartmenta, by them in their turn parceled out sintong the cierks, and by these last recerded and indexed in the proper books. The records of the New York office of tho Mercantile Agency contain the aggregate knowlelge of tradere possessed by the seventecn most exiensive mercantile communitiea in North America.
A comparison of the aystem of the Mercantile Agency with that of the "Commercial Traveler," which it auperseded, is much to the advantage of the former, as regards the Item of coet as well as Information, liom
a large
expense it was, who we ion was bility. men, wh collectio
It has it is secr server it age, seer of open usages. given, wi confident because What me company tion as t

New 10 Albany. Oswego Rocheate Syvacube Troy... Cthea,. bostorn, llalane Plitiadel I'itsbirg Halaoce Chleago Balanec Cincinnat Bajauce New Orte Balarico St. Louis, Balafic Provideng Baianes Battimore Kalance
Detrolt, Detroit, Dubiance Jlatance Loulavilie Halance Halance Territorle Indiana. Richinani Halance Halance
tliwaukt Mirwauk
talanee Balanea
Nertis Cal New Jemet Connectic Maine.. New llam Yermont Georgia. Delaware
a large dry-goods house wo iearn that, in old times, its expenses for travelers counted by thousands, and that it was, to a vexatious extent, in the power of clerks, who were anxious to make sales, and whose good opinion was too often won oy civilities than by responsibility. Now it holís an officient check upon its salesmen, who travel no: to choose customers, but to make collectione, and ohtsin orders.
It has been arged ac an objection to the Agency that it is secret in ita operatione, and that to the caauai observer it partakes of the nature of a syatem of espionage, seemingly at variance with that candor and love of open doaling so characteristic of our commercial usages. This objection, with the explanations herein given, will appear utterly futile. It is necessarily of a confidential, and, to a certain extent, of a eecret nature, because such communications must always be so. What merchant, ianker, or presideat of an insurance company, who asked for and received such information ns that kept by the Agency, from a business cer-
reepondent, wouid think of ueing it in any other way than as confdential, and to be kept strictly secret? What would his correapondent eay if his communications wers used as though they were not so regarded? Who wouid givo such information, however pure tie inquirer's motive might be, uniess he were assured that he could implicitly rely upon this?
The principal Mercantile s.gency eetahlished in the United Siates is that in the city of New Yo:k. Branches and associate offices are at all the following noiate: New York, Boston, Philadelphia, Baltimore, Cincinnati, Louisville, St. Louis, New Orleans, Charieston, Pitteburgh, Richmond, Chicago, Cieveland, Ohio; Detroit, Michigan ; Dubuque, Iowa; Milwaukie, Wisconsin; Montreal, Canada East; London, England.
[ It is proper to add that the editors do not entirely coincide with the writer of the above an to the merits of the Mercaatiie Agency system, but insert the articie as being valuable and reilable as to statoments and statistice.—Eds. Cyc. of Com.]
gratianica of Baxkruitot in the Linited Stated por the Year 185 t.

|  | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { ntored } \end{gathered}$ | Failuren. |  | Ordinary Failures. |  | How many hove arranyed wihh Creditors, and al whel Average. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number. | 1.lebilitiea, | Number. | L.lebilitiet, |  |
| New X'erk Cliy, New Yurk*..... ...... | 18,854 | 918 | \$185, 129.000 | 600 | \$83,901,000 | 218, average 51 cts |
| Albany. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 721 | 35 | 838,000 | 18 | 430,000 | 10, average 49 cts . |
| Buftale. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 793 | 72 | 4,224,000 | 63 | 8,795,000 | 13, average 43 cts , |
| Oswege . . . . . . . . . . . . . . . . . . . . . . . . . | 204 | 13 | 161,000 | 12. | 156,000 |  |
| Rechester . . . . . . . . . . . . . ., . . . . . . . . . . . . | 408 | 81 | 359,000 | 27 | 707,000 | 8, average 48 cts. |
| Sy:acter . . . . . . . . . . . . . . . . . . . . . . . . . . . | 805 | 99 | 439,000 | 28 | 268,000 | 4, average 31 cts. |
| Trny . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 801 | 24 | 1,607,000 | 12 | 682,000 | 8, average 48 cls |
| Tthes . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ${ }^{208}$ | 20 | 535,000 | 9 | 876,000 $\times 865000$ | 5 , average 47 cts |
| 13alance of the 8tat | 15, 8,875 | 447 | 6,733,000 | 879 | 5,565,000 |  |
| Rosten, Massachusette . . . . . . . . . . . . . . . . | 4,874 | 253 | 41,010,000 | 212 | 82,255,000 | 182, average 48 cts . |
| llalance of the Stato . . . . . . . . . . . . . . . | 10,26I | 280 | 2,611,000 | 202 | 1,711,000 |  |
| Philadelphia, Pennaylvanla .............. | 7,404 | 280 | 82,951,000 | 155 | 16,905,000 | 63, average 54 cts , |
| 1ittsburgh . ............. . . . . . . . . . . . . . | 1,374 | 8 | 1,183,000 | 22 | 818,000 | 28, average 47 cts, |
| Balance of the sta | 13.626 | 296 | 2,283,000 | 804 | 2,0015,000 |  |
| Chicage, Illinela. . . . . . . . . . . . . . . . . . . . . | 1,350 | 117 | 6,678,000 | 82 | 4,571,000 | 11, average 54 cts |
| Balance of the State. . . . . . . . . . . . . . . . . | 11,459 | 119 | 2,766,000 | 149 | 2,043,000 |  |
| Cincinnatl, Ohlo | 2,513 | 58 | 3,808,000 | 00 | 2,387,000 | 64, average 48 cta. |
| Cleveland. . . . . . . . . . . . . . . . . . . . . . . | 55, 15.740 | 80 | 613,000 $9,357,000$ | 24 | 810,060 $1.749,000$ | 10 , average 47 cls . |
| Balacee ef the Statc................... | 15,740 9,230 | 224 | 2,357,000 | 178 | $1,748,000$ |  |
| New Orleans, Louisiada Balonce of the gtate. $\qquad$ | 4,280 1,667 | 68 | 0,285,000 $\mathbf{2 4 6 , 0 0 0}$ | 36 2 | $4,388,000$ 26,000 | 8, average 65 cts. $\left\{\begin{array}{l}1 \text { amountlng to } \\ \$ 13,000 \text {, pays } 50 \mathrm{c} .\end{array}\right.$ |
| St. Louis, Dissourt . . . . . . . . . . . . . . . . . . . | 1,680 | 49 | 5,522,000 | 25 | 3,685,000 | 4, average 50 cta. |
| Halance of the State. | 4,551 | 20 | 483,000 | 17 | 247.000 |  |
| Provdence, Rhode lalan | 1,100 | \$5 | 4,504,000 | 22 | 2,186,000 | 12, average 40 cts. |
| Jialance of tho State. | 1806 | 4 | 105,000 | 3 | -60,000 |  |
| Daltimere, Maryland....... . . . . . . . . . . . . | 1,970 | 68 | 3,208, 1000 | 80 | 2,472,000 | 17, average 44 cts . |
| Balance of the 8tate | 8,968 | 41 | 725,000 | 87 | 708,500 |  |
| Detroit, Michigan . . . . . . . . . . . . . . . . . . . | 649 | 84 | 1,514,000 | 24 | 1,109,000 | 18, average 41 cta. |
| Ilalance of the Stale. . . . . . . . . . . . . . . . | 0,704 | 08 | 1,004,000 | 71 | 722,000 |  |
| Dubuque, Iowa . . . . . . . . . . . . . . . . . . . . . . | 403 | 36 | 735,000 | 21 | 463,000 | 4, average 44 cts, |
| 1talauce of the 8tate..................... | 4,308 | 108 | 1,333,000 | 79 | 1,059,000 |  |
| Loulsville, Kentucky. | 1.080 | 10 | 757,000 | 19 | 412,000 |  |
| Halauce of the 8tate. . . . . . . . . . . . . . . . | 5.715 | 81 | 1,007,000 | 24 | 496,000 |  |
| Charieston, Seuth Carol | 800 | 81 | 922,010 | 23 | 812,000 | 8, average 48 cts |
| Balance of the State. | 2,533 | 24 | 805,000 | 20 | 245,000 |  |
| Terrilories . . . . . . . . . . . . . . . . . . . . . . . . . | 1.697 | 63 | 1,705,006 | 46 | 1,802,000 |  |
| Indlaue. | 7,887 | 160 | 1,636,000 | 114 | 1,411,000 | 15, average 49 cts , |
| Pichmond, Virginla. . . . . . . . . . . . . . . . . . | 1,568 | 30 | 781,000 | 22 | 004,000 | 3, average 53 cts . |
| Balance of the state. | 7,781 | 90 | 982,000 | 70 | 749,000 |  |
| Miwaukie, Wisconaln .................... | ${ }_{0}^{083}$ | 19 | 380,000 | 14 | 812,000 | 8, average 78 cts , |
| lalance of the Stale..................... | 0,757 | 101 | 1,244,000 | 02 | 1,100,000 |  |
| Nerth Carellua | 8238 | 62 | 1,171,000 | 42 | 608,000 |  |
| New Jersey. . . . . . . . . . . . . . . . . . . . . . . . | 4,433 | 86 | 1,142,000 | 52 | 836,000 |  |
| Cenuecticut | 4,209 | 01 | 1,129,000 | 60 | 005,000 |  |
| Maine.. | 4,012 | 81 | 1,060,000 | 11 | 828,600 |  |
| New llampetit | 2,700 | 70 | 098,000 | 60 | 775,000 |  |
| Vermont... | 1,902 | 57 | 478.000 | $4!$ | 382,000 |  |
| Georgla . . . . . . . . . . . . . . . . . . . . . . . . . . | 6. 079 | 32 | 026.0 (\%) | 21 | 681,000 |  |
| Delaware and 1hstricl of Columbla...... | 2,727 | 20 | 261,000 | 18 | 888,000 |  |
| Arkansas | 1,170 | T | 809,000 | 6 | 285,000 | $\left\{\begin{array}{l} \text { evor } \$ 100,000, \text { will } \\ \text { pey pearly sil. } \end{array}\right.$ |
| Alabama . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,094 | 16 | 205,000 | 14 | 265.000 |  |
| Mlawinslppl | 8,235 | 11 | 445,000 | 10 | 485,000 | 2, average 50 cta. |
| Tennessee | 4,387 | 40 | 719,000 | 28 | 618,000 |  |
| Florida | 783 | 7 | 250,000 | 5 | 2\%9,000 | 2, average 58 cla |
| Texas............ | 2,44i | is | 793,000 | 12 | 358,000 |  |
| Tetal Uuited Statel | 204.061 | 4937 | 4201, 700,000 | 8703 | \$102,306, 600 |  |
| Toronto, Caunde Wcat. . . . . . . . . . . . . . . . | 383 | 25 | 2,714,000 | 17 | 1,270,000 | 8, average 58 cts. |
| Ilalance of Canada Weat . . . . . . . . . . . . | 3,444 | 100 | 2,172,000 | 79 | 1,081,000 | 8, average 45 cts . |
| Montreal, Canada Fast.. | 909 | 15 | 523,000 | 12 | 445,000 | 4, average 52 cts . |
| Baiance of Canada East. | 1,764 | 15 | 1,267,000 | 13 | $66,000$ | 8, average 85 ols. |
| Nove Scotla and New Itrunawlck. | 1.797 | 22 | 1,675,000 | 21 | 1,868,000 | 3, average 60 cts . |
| Tetal Brilish Provincem | 8,303 | 180 | 48,051,000 | 140 | \$4,775,000 |  |
| Total Uulted Stater and Britiah Irav. | 219,304 | 6128 | \$200,801, 100 | 8839 | \$197,080,600 |  |

Meroantile Lav. Among the anclent Romans, trade and manafactures were accounted degrading and dishonorable employments 1 and what was done $\ln$ that way was performed by slaves. None who had been employed in trade, or whose father had been a elave, could be ohosen into the nenate; and no senator, or father of a senator, could, by law, keep a bark above a certain amall burden, In order, no douht, to prevent his engaging in commerce. The Comorists likewiee deepined trade; and at the Conncil of Melf It was aolemnily determined that none could exerclas any traffic, nor follow the profesalon of the law, with a safe conacience.

These notlons, bowever, were singular, and very different from the policy which has ever preveiled in England. According to a law of Athelatan, If any merchant made three voyages on his own account beyond the Britlah Channel, or narrow teas, he was entitled to the privilege of a Thane; and it is especislly proviled hy Magna Charta ( $c$. 30 ), that all merchante, unlesa publlely prohiblted beforehand, ahall have safe conduct to depart from, to come into, or to tarry in and go through the realm, for the exerclise of merchandise, withert any unreasonable imposts, except in tlme of war; and that if a war breake out with another countr-" $\because$. merchanta of that place shall be attached, but their person only, tlll the king is informed how our merchanta are treated in the land with which we are at war; and lf our merchante are secure, theirs shall lie so too. Upon this Montesquien remarks, with admiratlon, that the English have made the protection of forelgn merchants one of the articles of their national liberty; and also that the English know much better than sny othar people on earth how to value at the same time these three things, rellgion, liberty, and commerce. 'These, ladeed, are the common rights of mankind. They are alao laseperably connected together ; and as liberty la the life of commerce, so commerce is in Ita turn the parent of man's advantagen, moral and physical, personal, and political. Its protection and encoursgement are now, therefore, an eatablished principle of the law of nations.
Trade and commerce being thus the linmedlate offspring of antural llberty, the lex mercatoria, or the law of merchants, je less a branch of this or that ayatem of munielpal law, than the law of natlons, or thut universal law which reason teaches all men. It la, if one may so call it, an ambulatory system of civll law, not confined to any one place or locality, but attaching to the persons of men in all their commercial transnctions thruughout the world; the custoun of merchants lieing everywhere acknowledged, as their persons and property are by the law of nations everywhere protected.
Thus, not to enter here at large Into all the details of nercantile law, which will he found in other parts of this work, divers sorts of writing used among merchanta and trading people in combiercial transactiona, are sustained in our courts, after the example of other Statea, althungh not executed with all the formallties of common deeds. Missive letters, in re mercutoria, are valld, although not holograph, and commlasions from merchant to merchant, thougin not sigued before wleneases; nor do fitted accounts among merchants, In mercantile mattern, require the writer's name or witnessen. Hut of all olligations, bills if exchange, which owe their origla to merchants, are the most favored. The risks erid aceldents of trade havo also caused particular favor to be extended to persona enguged therein, who have falleu iuto bankruptey ; provislon : -rig made liy atatute for thelr entire dincharge on their surrendering their effects to their creditors. See lians of Commprca.

Morcator Gerard, one of the most celebrated geographers of his time, wan born at Rupelmonde, in 1512. He appllent himself with such induatry to geography and mati smatics that he is sall to have fre-
quently forgotten to ant and drink. Thn Emperor Charles V. had a particular eateem for bim, and the Duke de Jullers made him his cosmographer, IIe composed a chronology, some geographical tabies, and an atlas, having eagraved snd colored the napps himgelf. He died in 1094. His method of laylng down charts is atill uned, and bears the name of Mercator's Charte.
Meroator's Charts. The true Inventor of these charts is sald to have been a Mr. Wright, who made several voyages; and in his absence Mercutor pubseveral voyages; in his own name, 1556.-milamons. They are, bowever, now confldently ascrithed to Mercator's own ingenuity. In these charts the meridians and parallels of latitude cut each other at rigitt anglee, and are both represented by atraight lines, enlarging the degrees of latitude as they recede from the equator.
Mercator's Charr, or Projection, is a representation of the ephere on a plane, in which the meridians ara represented by equidistant parallel straight lines, and the parallels oí latitude also by straight lines perpendicular to the n.eridiane. 'Thl', projection, which is universally adopted for nautical charts, by reason of the faclitites whlch it affords in navigation from the circamstance that the rhumb, or sailing course between two polnta, is represented by a straight line, was invented by Gerard Mercator (his true name was Kauffman, of which Mercator la the Latin equivulent), a nntive of Rupelmonde, in Fast Flanders, horu in tho year 1512. But, though Mercator gave his nnme to the projection, it does not appear that he knew the law according to which the distunce of the parallels from the equator increases. The true principles of the conatruction were found by Edward Wright, of Caius College, Cambridge, who explained them in his treatise, entitled The Correction of certain E'rrora in Navigation, pul,hished in 1599, and are as follows: Suppose one of the meridians on the globe to be divided into minutes of a degree ; one of these, taken at any parallel of lutitude, will be to a minute of Jongitude, taken on that parallel, as the radius of the equator to the radius of the prrallel; that is, as radius to the cosine of the latitude, or as the secunt of the latitude to ralius, This proportion holds true on the amip in thla sense, that if a ininute of the equator le taken tas the unit of a scale, and that unit be considered as the radius of the talles, then the representation of a minute of latitude will be expressed by the number $\ln$ the trigonometrical talles which is the accant of that hatitude. Heuce, in the inap, while the degrees of longitude are all equal, the degrees of latitude marked on the meridian form a scale of which the distances go on Jncreasing from the equator toward the pules, each leing (uppreximately) the sum of the gecants of all the minutes of latitude in the degree. The numbers resulting from the adlition of the secants of the successive minuter, reckoned from the equator, form a seale of meridional parts, whlch is given in all books of navigation. The very remarkable property of this projection, vamely, that the divisions of the meridian are analogous to the excesses of the logarithmic tamgents of half the respective latitudes augmented ly $15^{\circ}$, ulove the logarithm of the radius, wan discovered ly bond about the year 16.5: that was first demonstrated by James (iregory, in his E.rercitutiones Mathematiore, published in 16is.Une's Dict.

Meroator's Bailing is that whech is performed by Mereator's clarts.
Merchant, a peraon who huys and sells commondities in grosh, or deals in exchanges, or one whin traflics in the way of commerce, either ly inportation or exportation. The merchunts of 1 ondon and Amsterlam were accounted the most enterprisiug and richest in the world. An sttempt was made by Queen Anne's ministry to exidude merchants from sitting in the House of Cominous, $\ln 1711$; but it failed. The Bler-
chant
Duke
Edwat corpor Law and co treated As an most o left un Lubec Russia
holy 0 classes,
(i. e. n gulld a amount extent proport cept $G$ r prescrib merce, businese the dor peny, th procurat formatio countrie and new the tribu publicity son, by $p$ them. are, with
ing unde
Genera
privilegei them still convivial whleh, in ment, ard The worn of merch and by th sroso all decree, ar
"Halyru of God, 0 years," craftsmen versles of consent, craiftemen gild bret therefra
burgh, al
brether to
the anme
person ho
hardiewa
to exerce
without
This dec
fore, ufte
guilding,
abridged
unless th mercial $r$ same 8ys companie whleh be the form merce in thercial conimere acts of $t_{t}$ nals of c
chant Adventurer's Soclety was established by the Duke of Brabant in 1296. It extended to England in Edward IIT.'d relgn, and was formed into an English corporation in 1564.-Hayds.
Laws of Merchants.-The lawe controlling merchenta and commerclal transactions are namerous, and are treated of in detall in the article Laws of Commerce. As an analysis of these laws, it may be atated, that most of the Earopean and American conntries have left uncontrolled the free action of the merchant. In Lubec every merchant is required to be a citizen. Russia has established numerous restrictions. The hody of merchants are divided into three gullds or classes, to which none but Russian subjects or denizens (i. e. naturalized foreigners) may belong. In eash guild a certaln tax is lmposed, and a determinate amount of capital is required; also, the nature and extent of the commercial operationa permitted have proportioned limitstions. Nearly every ceuntry, except Great Britain, France, and the United S'ites, prescribes the enrollment in a publle register of commerce, of the name of the merchant, the nature of his business, the name of each partner of the firm, and the dormant partners included $\ln$ the firm and company, the power conferred on any party to act per procuration, and every partlcular connected with the formation and diasolutlon of the partnershlp. In some countries these detalls must be published in the gazette and newspapers. This register is either establiahed at the tribunals of commerce or at the clvil courts. Every publicity is given to such enrollments; and any persen, by paying a small fee, may obtaln extracts from then. The parties interdicted from ongaging in trade are, with a few exceptions, only those who are laboring under a civll disqualification.
General Regulations.-'The institutions of guilds or privileged companies are of Roman origin. Traces of them still exist in London and in Scotland; but the convivial meetinge in which are expended the grants, which, in ancient times, they recelved from government, are the only evidences of periedical revival. The word "guild" was originslly applied to a seclety of merchants, as by the statutes of the guild in 1283, and by the statute of Willam, c. 35, but out of them arose all the different cecporations of craftsmen. A decree, arbitral, promulgsted in Edinburg, dated from "Halyruidhouse, the twenty-t we day of Apryl, the yeir of God, one thousand foure hundreal fourscere three years," thus expresses the union of merchants and craftsmen in the gulldry: "Toward the lang controversics for the guildrie, it is finally, with common consent, appoyntit, sgreit, and concludit, that als weil crattsmen as merchants sall be recelved and admiltted gild brether, and tho ane not to be refusit nor secludit thercfra mair the uther, they being burgesses of the burgh, als met and qualified thairfore; and that gildbrether to have liberty to use merchandice;" and by the same decree it is ordered, "Thut na manner of person be sufferit to use merchandice or occupy the hardiewark of any free craft within this burgh, or yet to exerce the liberty and priviledge of the sald burgh without he be burgess and freemnn of the same." This decree was ratifled in Parllament; and, therefore, after this period, the genes il right of the originat guilding, or soclety of merchants of the realm, was abridged so far that they could not trade in Eiinburg unless they were admitted as burgesses. The cemmercial regulations of Lubec are still founded on the same system; the merchants are divided inte nine companies and colleges, and administrators, all of which bear the stamp of antiquity. Russia, besides the forming of merchants lnto guilds, divides commerce into varlous brancles, and specifies what commercial operations Include, with some notices of commerce with patent. Frunce determines what are nets of trade with regard to the competency of tribunals of commerce. Holland, Wurtembarg, and a few
other countries, have almilar determinatlons of what is comprised in commercial operationa.

Who may be Parties to Mercantile Contracts.-It was once the dectrine of the English courts, that the lawmerchant did not apply to eny sontracts betwoen partles who were not merchants. But this view has passed away; and it has long been a well-established rule in that country as well as this, that the law merchant appllea to mercantile contracts, such as negotiable notes, bllts of lading, charter parties, policles of marine Inaurance, and the like, wheover may be the parties to them. All mercantile transactions begin and end in contracts of some kind-express or implied, executed or to be execnted; and the first element of every contract : : we existence of parties capable of contracting. Generally, all persons may bind themselves hy contract. Whoever would resist a claim or action founded on hls contract, on ground of incapacity, must make this out. See Parbon's Mercantile Lav.

Minore.-By the English law, a miner cen not con*ract commercial engagements; yet he may act as a partner, and perform other functions for beneficial parposes, without belng liable for contrscts entered into during his minority. In Scotland, a minor may become a trader; and when he holds himself out as a major, he becomes reaponsilble. In France, minors, by beling emanclpated, may engarge in trade previous to the 18th year of their age, when authorized by a registered act, either of their parents or family council, or by civil authorities. They are allowed, in this case, to pledge or mertgage their estatea. Similar principles are adopted in Spain, Portugal, Prussia, etc., etc.
The age at which minority ceasea, is: In England, Scotiand, British Colenies, United States, Hungary, Roman States, Frence, Normandy, Two Sicilies, etc., 21 years ; in Mauritius, Britieh Guiane, 24 years; in Cape of Good Hope, Ceylon, Holland, 25 years ; in Gurnsey, Jersey (Ceutume of Normsndy), 20 yeare.

Married Females.-In London, a married female may engage in trade as a feme sole, but she must trade within the city, and on her account; she is, therefore, liable to be a bankrupt. In England she may engage in trade when authorized by her husbaud, but she is not responsible. Her endorsement, acceptance, negotiation of biils of exchange, are null, and no aetion can be malntained againet her. The husband is linble for the debts contracted by her in a separate trade. In Scotland, parties may settle, by marriage contract, their several rights and interests. A married female can not act by or for herself.
In France, Spain, Portugal, Prussia, and Sardinin, the authority of the husband is necessary fer her engaging in trade. Her property by dowry, and that held in common, are responsible for the obligatiens she centracts with reference to trade. The autherity of the husband ought to be made public, as also the revocution of the same. In America, the common law of England is generally retsined, with some exception, in Pennsylvaniu, Lonislana, and Seuth Carolina. In Lower Canada and St. Lucia, same as the Coutume of Paris; and in the Nauritius it is regulated by the clvil code. In Malta, a married woman may engage in trade with the censent of her husband, but she can not be imprisened for debt. In Lubec, married females must recelve the authority of the Senate for opening a shop. In Wallachia, a married female can not engage in trade without a marriage contract.
Aliens.-In Great Britain, United States and America generally, allens enjoy the eame privileges as natives with regard to trade. In France they enjoy the grentest llberty, and tho sume rights as the natives. In lussin anll Sweden, a variety of provisions are enacted with regard to aliens, hut a restriction prevails in all. In Spain and Persugal, aliens not naturalized may engage in trade, but they are estallished acoording to existing treatises with their respective govern-
menta. In Lubeo, the restrictions on foreigners are extended even to dony them the power of entablishing themselves as residente, withont the anthority of the tribunal of judicial pollice. Soe Lisvi's Com. Lauc.

Moroury, or Quichallver (Fr. Vif argent; Ger. Quicksilber; It. A rgento vivo; Sp. Azogue; Rus. Rtut; Lat. Ifydrargyrum ; Arab. Zibalh; Hind. Parah ; Suns. Pirada). Thie metal was known in the remotest ages, and eeoma to have been employed by the ancients in gilding, and soparating gold from other bodies, just as it is by the moderns. Its color is white, and similar to that of sllver; hence the names of hydrargyrum, argentum vivum, quicksilper, by which it has been known in all ages. It has no taste or amell. It possesses a good ileal of brilliancy; and when its aurface is not tarnished, it makes a very good mirror. Specifio gravity $13 \cdot 568$. It diffors from ald other metals in being a)wayn tuid, unless when subject to a degree of cold equal to $-39^{\circ}$, when it becomes solid. The congelation of mercury was first obsorved in 1759.-Thomson's Chemistry. Mercury is found in various parts of the world. Among the principal mines are those of Almaden, near Cordova, in Spain; Idria, in Carniola ; Wuifstain and Morsticld, in the Palatinate; Guancavelica, in Peru, ote. Most of the ores of mercury are readily distinguished from those of any other metal : in the first variety, glolules of the metal are seen attached to or just etarting on the aurface, which is at once a sufficient criterion, mercury being unlike every other metal; in the second, by the fine white color, and the action of the blow-pipe, which eublimes the mercury and leavea the silver behind; the third, by its beautiful deep red tint, varying from cochineal to scarlet red, excepting in those termed bepatio cinnatara, which are generally of a lead gray; the fourth, by its gray color, its partial solubility in water, and its completa volatilization by heat, emitting at the same time un arsenical odor. Before the blowpipe, theac varieties burn with a blue flame and sulphurous odor, lesving more or lese residue behind them, and which may consist of earthy matter, as silex and alumina, together with the oxyds of iron and cop-per.-Joyce's Chem. Min.

Mercury is often adulterated by the admixture of lead, bismuth, zinc, and tin. When the metal quickly loses its lustre, is covered with a film, or is lesin fiuid and mobile than usual, or does not readily divide into round globules, there ie reason to suspect its purity. Our supplies of mercury are derived almost wholly from Spain. The imports nsually amount to from $2,000,000$ to $3,000,000 \mathrm{Ib}$., of which about $300,000 \mathrm{lbs}$. are retained for home consumption, the surplus being exported to South America, France, the East Indies, etc. The oxports of quicksilver from Spain in 1848 amounted to 48,868 quintals, of which nearly 40,000 quintals were furnighed by the mines of Almaden. The province of Idria, in Austria, has also some rather productive quicksilver mines. And the produce of this metal in California, and other parts of in South Anerica, is said to be already considerable, and to the increasing. There are two sulphurets of mercury; the black or ethiops mineral, and the red or cianabar. When mercury and andphur are triturated together in a mortar, the former gradually dissppeara, and tio whole assumes the form of a black powder, denominated ethiops mineral. If this powder le heated redhot, it sublimes ; and on a projer vessel being piaced to receive it, a catra is obtained, of a fine redi color, which is calied cinnabar. This cake, when reduced to jow der, is well known in commerce iny the name of vermilion. Cirnabar may be prepared in various other ways. Culamel, or protochloride of mercury (mercurius dulcis) is the most useful of all the preparations obtained from it. It is in the form of a duli white, semitrasoparent mass, baving a specific gravity of $7 \cdot 176$, It in more generally employed, and with better effect, than ajmost any other remedy in the whole range of
materia medics. Besides its uses in medicine, meroury is extensively employed in the amnlgamation of the noble mutals, in water-gilding, the making of verinilion, the elivering of looking-glasses, the making of barometers and thermometars, etc. Fur the imports of mercury into the United States, see Quicksilver,
Meridian, in geography, a great cirule supposed to be drawn through any part of the surface of the earth and the two poies, and to which the sun in alway's perpendicular at noon. In astronomy, this circle is supposed to be in the heavens, and exactly perpendicnlar to the terrestrial ome.

Meridional Diatance, in navigation, is tho same with departure, or easting and wosting, being the difference of longitude between the meridian under which the ship now is, and any other meridian which she was under befora. Meridional parts, miles, or minutes, in navigation, are the parta by which the meridians in a Mercator's chart increase as the parallels of hatitnde decrease.

Merilian, Firat. The meridian from which loagitudea are reckoned. The choice of the first meridjan is cutirely arbitrary; and most nations recken the longitudes from thoir capital, or meridian passing through their principal observatorios. Thus, in English works, the longitude is reckoned from Greenwich; in French, from Paris; in Rusaian, from St. 1'etershurg, etc. Ptolemy emplayed the Cauary Isiands, the French formerly reckoned frum Ferro, und the Dutch from the Peuk of Teneriffe. Murcator chose the Island Dei Corvo. See Longituuns.
Meridian Line. A line traced on the surface of the earth, zoinciding with the intersection of the meridian of the place with the eensible horizon.

Mferidian of a Globe, or the Brass Sferidion, is a graduated circular ring, within which tho globe is sus. pended and revulves, and by means of which it is cunnected with the frame bearing the horizontai scale, Meridian lines arealso tracel on the glohe itself, ustually at $15^{\circ}$ distance, or a difference of longitude corresponding to an hoor of tinse. It is probaibie that these, with the parallels of latitude, suggested to Descartes the idea of cu-ordinates, which he upplied so successfulty. to connect algehra with geometry:

Merino Gheep. A. breed of sheep till lately peculiar to Spain, but now reared in Saxony, Engiand, und more particularly in Australia, chiefly for the superior fineness of thair wool. The word merizo signifies overseer of pasture lands, and is applied to this breed of sheep, because In Spain they are kept in immense flocke, under a syatein of shepherds, with a chief as a bead, and with a general right of pisturage all over the kingdom. The best flocks of Spanish merinos are found in Leon and Castile: of the Saxou variety, at Stolfen and Rochaberg; hat merinos aro to be found in North America, the Cape of Good iIope, and, above all, in New South Wales, which jromises to be one of the principul wool-growing countries in the wurld. See Wool.
Mermchaum (Ger.; Eng. sca-froth; lir. bicume de Mer Magnésie carbonatie silicif eve), is a white minerai, of a nomewhat earthy appearance, always soft, but dry to the touch, and adhering to the tongue. Specific gravity $2 \cdot 1$ to $3 \cdot 4$; affords water by calcination; fuses with dilliculty at the blow-pipe into a white enamel, and is acted upon by acids. It cousists, aceorling to Kiuproth, of silica, $41 \%$; magnesia, $1 \times \cdot \underline{5}$; water and carbonic acid, 39. Other analysts give silica 50 , magresia, 25, water 25. It occurs in vains of kidueyshaped nodules, among rocks of sorpentino, at ligribos, in the Isiand of Negropont, Eski-Schehir, in Anatolia, Brusea, at the foot of Mount Olympus, at Buadissero, in P'iedusont, in the serpentine veins of Cun. wali, etc. When first dug np, it is soft and greasy, nind lathers like sonp; and is on that account used by the Tartars in wasining their linen. The well known Turkey tobaccopipos ars made from it, by a process analogous to that for making pottery-ware. The bowis of the pipes,
whe soak
when Imported Into Germany, are prepared for sale by goaking them first in tallow, then in wax, and fivally by polishing them with shave-grass.

Measina, Zancto and Messana, a city and sea-port of Sicily capital of a province on the Strait of Messina, elght milee north-west from Reggio. Jatitude of light-house $88^{\circ} 11^{\prime} 10^{\prime \prime}$ N., long. $15^{\circ} 84^{\prime} 7^{\prime \prime}$ E. Popnlation 83,772. It is built on the west side of a noble harbor, inclosed by old walls; has wide, handsome streets, paved with lavs, and lined with white stone houses. The port, defended by several fortifications, is formed by a long curved tongue of land, projecting north-east from the main lend, snd then bending westward in the form of a sickle, whence its ancient Greek name. It is about four milea in circumference, has deep water throughout, and large vessels can load and nnioad close to this quays. The trade is considerable. The exports comprias oranges and lemons, silk, oliveoil, wine and spirits, inseed, salt, fish, etc. The imports conslst of colonial produce, cotton and woolen fubries, hardware, and other manufactured goods: It Las an active tunny and other fisheries, and manufactures of damaske and astins. Population of the province in 1851, 349,484. The Struit of Messina (Fero di Ifessina), separates Sicily from South Itsly, and unites two basins of the Mediterranean. Length, north to south, 22 miles ; breadth, 10 miles to $2 \frac{1}{2}$ miles at its north extremity, between the Faro Tower, Sicily, and the Rock of Scylla. No bettom has been reached in it with 200 fathoms of line. On its shores are the cities of Reggio and Messina, opposite which latter is the whirlpool of Charybdis.
A treaty of reciprocity between the United States and the Two Sicilies was concluded on the Ist of December, 1845 , and ratified on the Ist of Jnne, 1846. The terms of the treaty are fuithfully adhered to, inasmach as ti:e citizens of the United Stntes are Irented in the asme manner as the subjects of the Two Sicilies. The commercial intercourse of the United States is dependent solely on the regulations of the mother country: the existing regulationa are neither tempomary nor fixed to a definite period, bnt permanent. There are no privileges permitted to the commerce of other nations which are denied to the United States. There are restrictions imposed on commerce of others which have not treaties of commerce with the Sicilian government, as to he seen in the custom-horise regulations. All goods imported hy privileged vessels have a per centage nllowed of 10 per cent. on the import duty, and the vessels themselves enjoy alt the privileges and exemptions of national veasels, except the cossting tade. The few articles shipped to the United States, on which an export duty is paid, are brimstone, oil, and linen rags ; if shipped hy American or Neapolitan vessels to the United Statea they enjoy a drawhack of 10 per cent. on the export duty. The port charges consist of the tonnage duty and some small chargea in the police, the custom-hons3, and the health-office. The tonnage duty is 8 Siciilan grains, or 4 Neapolitan bajocs per ton, which is equal to $3 \frac{9}{4}$ American cents. The amall charges amonnt to nearly the same, consequently the whole port charges are from 71 to 8 cents, United States' currency, per ton. Pliotage is 85 for a vessel of any size. The transshipment of goods in veasels belonging to the United States is not permitted for another port in the kingdom of the Two Sicilies, although it is allowed for foreign ports without any privilege or restriction. United States' vessels may complete their cargoes in one or more ports of this kingdom, or on the Islan.? of Sicily, without being subject to pay the tonnage duty more than once. The moneys, weights, and measures known and in common use at the different ports are not the same as those established by the supreme law of the mother country; and they are even at variance in the ports of Nessina, Catanis, and Syracuse,-Com. Rel. U. \&., 1856-7.

Motalliquen, a kind of Anstrian stock, so called because the intereat is paid in the precions metals, and not, like the interest of other stocks, in paper money. The name was afterward used in Russia and other countries, for stocks of a similar kind.-F. A.

Mexico. Discovered in A. D. 15I8. It was conquered by the Spanisrle under Cortez, whose name is infanous on account of his cruelties to the vanquished, A. D. 1521. The mint of Mexico, the richest in the world, was begun in 1585. Thls country, like other States In the New World, has recovered its independence. Iturbide made emperor, May, 1822. Mexican constitution proclaimed by the president, Vittoria, Octaber, 1823. Iturbide shot, July 19, 1824. Treaty of commetce with Grest Britain ratified, April, 1825. Titles suppressed, May, 1826. The expulsion of the Spsnisrds decreed, March, 1829. Spanish expedition againet Mexico surrendered, September 28, 1829. Mexicsn revolution; the president Guerrero deposed, December 32, 1829. The iudependence of Mexico, previously recognized by the great Earopean powers, also recognized by the Emperor of Brszil, June, 1890. Civil war between Bustamente and Santa Anna, 1832. Santa Anna elected president, March, 1884. Declaration of war against France, November 80, 1838. Castle of San Juan de Ulloa taken by the French, November, 27, 1838. This war terminated March 9, 1839. Civil war, with change of leaders at varions times. Santa Anns displaced Bustamente again, October 6, 1841. Insurrection of General Paredes against Sants Anna, November 5,1844 ; succoeds without bloodshed, and Herrera made president, December, 1844. Paredes overturns Herrera, December, 1845. War wlth the United Ststes, 1846; Mexicans defeated st Palo Alto, May 8,1846, and subeequently st Matamoras. Santa Fo captured, August 28, and Monterey September 24, 1846. Mexican Congress authorized their government to raise $\$ 15,000,000$ for the war against the United States, upon the mortgage or sale of church property, January 8, 1847. Battle of Buens Vista, February 22, 1847. Vera Craz surrendered to General Scott, March 29, 1847. Battle of Cerro Gordo, April 18. General Paredes Isnded at Vera Cruz in diagnise, Augnst 14, 1847. Battles of Contreras and Churubisco, August 20, 1847; of Chepultepec, September 12. Surrender of City of Mexico to American General Scott, September 14, 1847. Treaty of peace with the United States ratifled st Queretaro, May 80, 1848. Mexico evacuated by the American troops, June 12. Paredes excites a revolt at at Guanaxuato, June 15. Herrera becomes president, July 6. Bustamente defeats Paredes, July 18. Vera Cruz surrendered by the United Stutes, August 1. Signor de la Roas first Mexican minister to the United States after the war, presented his credentials, December 2, 1848. See Mayer's Mexico ; Poinsett's Notes on Meaico; De Bow's Rev., ii., 27, 165 (J. R. Poinserti), v., 401 ; North Am. Rev., xlifi., 226 (Judge Bullaqd), xx., 77 (J. Spanks) ; Hunt's Mag., X., 118 (B. Mayer), xv., 250 , x vi., 455.

The territory constituting the republic of Mexico has an nren of $855,964 \cdot 49$ square miles, and forms, in its political divisions, 21 Ststes, a Federal District, and three Territories. The population has somewhat angmented since the time of its independence, and the census (Tejada's) of 1850 states its position and numbers as follows:-No two authorities agree as to the area and population of Mexico.

| Arua in 1821. | Ceded to U. S. by trealy of 1848. | Aren in 1859.* | Papulatlon la |
| :---: | :---: | :---: | :---: |
| Sq. leaguea, 216,012-27 | sq. leagues. $109,944 \cdot 80$ | sq. lenguos. 106, $067 \cdot 47$ | 7,650,910 |

* By the treaty of Dec. 80,1858 , defintag more accurately the boundary between Moxtco and the United States, add. tronal territory was ceded to the tatter, for the consideration of $\$ 10,000,000$.

More recent returns would indicate greater increase of the white than other classes of population;
but it ia probably explained by the faet that certain literary acquirements define color, and that aucceanful efforts have been made to sdivance the commen education In many of the Statea. A census atated to have been taken in 1854, makea some very elight aiterations in the preceding table. It raisea the population to 7,853,894.

Along the eastern declivity of the Cordiliers of the Andes, from 8000 to 4000 feet above the level of the sea, grow the coffee and tobacce, both of unusual excellence; but the coffee la heavily burdened with the internal taxes of the States, and the salo of tobacco ls a monopoly of the government; so that, with these restrictlons upon them, their caltivation languishes. From this elevation to the sea le the country of cane, of the prodnct of which little is at present exported. Cochineal, whleh has greatiy diminished in quantity within the past few years, has become of tittle inportance. Wheat, the growth of the table-lands, is equal to the beat in the world, and, when not absolutely forbidden, a heavy duty reata upon the imported article, which, nnless in timea of scarcity, ls equal to a prohlbition. The lunds of the people of the hot and temperate cllmates are chiefly taxed with this great difference; and; in consequence, the flour is brought to them, often a distance of 200 miles, on mule-back, Instead of being received at a fair and cheaper rate from abroad, by the sea. Thia weight fails heavily upon the State of Vera Crux, and exiata for the benefit of the proprietors of the wheat-fields, principally of Puebla; but force and wealth prove ever to ablde with the latter State, in every attempt to obtain relief. Nor do the burden and vexation stop here. Notwithstanding the exemption seemingly glven to the imported article from other than the federal duties, the owner has often to pay othor sume at the ports of entry, in the nature of municipal duties, and at every remove from State to State.

Maize, although indigenous to the table-iands, and growing in every climate of the republic, is rareiy to be found at a low price anywhere; and this, not from any falling of industry or a want of knowledge in its cultivation, but from droughta that continue, at times, for yeara, and sometimes until districts are haif depopulated. Even in the fertile valiey of Mexico, about the capital itself, corn usually beara a price of about 22 the bushel. The cetton, wherever it has been attompted to be raised, has been materisily and discouragingly affected by lnsects; and the article is yearly the subject of specisi Hicenses to individuals, to be introduced at Vera Crua at rates lower than those denignated by the tariff, to supply the calla of cotton manufacteries. The vine and the olive have been attempted to le cultivated since the revolt from Spain, but with poor, or only partial success. The price of the maruey, both in its natural state as pulque, and as the distilled ilquor made from it, mesoal, is an important item In the economy of considerable territories, but of no consideration in commerce. The pith of some varicties of the plant, baked like a potato, is, in many places, the food for nearly the year round of the haif-wlid tribes of the cierras; and the spirituous extract is the inebristing draught that keeps a large portion of the population about the citles and towns where it can be raised or bought, in a stato of wretchedness and physical deatitution.

The principal manufactures of Mexlco are augar and rum, aloes, wine, and brandy, eurthen and stone ware, glass, paper, and tiasues of cotton, wool, and silk. M. Lerdo de Tejada eatimates the entire value of the manufactures of all kinds in Mexico, annually, at $\$ 80,000,000$ to $\$ 90,000,000$.

The production of gold and sllver In the repullic has arrived at a atate of great prosperity ; but the inadequate eupply of quicksiliver is feit as a considerable obetacle to the still greater development of the mineral wealth of Mexico.

Manufactures.-The prinelpal products of Mexican Industry are brandy, and augar made from cane, mes. cal, made from the juice of the maguey, oil, wine, and brandy made from grapes, earthen and glass wares, paper pad apun and woven cotton, silk and woolen. Sugar is made in milla on all the estates where the cane in cultivated, and which are found chlefly in the States of Vera Cruz, Tabasco, Yucatan, Mexico, Guerrero, MJchoacan and Guadalajara ; and brundy by stllia Il most of them. Although the ancient aud linperfect syatem is generaliy pursued, aome improvements have begun to be introduced, of which miny be alted the apparatus lately put up on the hacionda of La Juga, near Tepic, that of San Carlos, In the Cafieda of Cuautla, and in Silva, four leagues from San Juan Bantista de Tabasco, for augar-making and distiling brandy. For the making of oil there are already in the capital 49 milla, besides those in Tacubaya, Toinca and Paebla. Not only oil is made In them from rlives, which nearly supplles the consumption, but from ajonjote, linseed, rape-seed, colwort, higuerola, almonils, cacahuate, small nuta, and tlnally from calveo' and plge' feet, otc., to oil wheels and machinery With respect to grape-wlae and brandy, althongh there were vineyards in sevoral States, they are manufactured only in those of Guanajuato, Couhuila, Lower Califurnia, Sonora, and Chihuahua, from the last of which are annually made more than 600 barrels of brandy, 300 of wine, and 200 tierces of ralsins. For the manufacture of earthen vessels of all kinds there are estallishments in the republic, where they ars made with much ekill, the best in Mexico, Guanajuato, and Gus. dalajara, In fine pottery, great improvements have been recently made in Puebia, where the business has been carried on from very romote times, in Salumanca, in the state of Guanajuato, and lately in the capitaj a manufactory excela all the reat. There ure four establishments for plain gluss in the capital, and the Statea of Mexico and Puebia, the product of which exceeds the consumption. There are eight paper mills in the Federal Diatrict, and the States of Mexico, Puebla und Jalisco, which not only supply the demand for the press, but for other purposes, particularly writingpaper equal to that of other countries. The scarcity of linen rags requires 2nost of the paper to be made of cotton, though some is made of linen, and also of the filaments of the maguey. Although many liand. wheel looms are usud in making cetton fabrics, is rebozoe, mantas and other ordinary articles, there are 62 large establishments moved by machinery, in the Federal District, and the States of Coahuda, Duratuge, Jalisco, Puebla, Mexice, Queretaro, and Vera Cruz, Although some pretty fine linens are ms le in them, they are but few, the chief part being hilazas and mantas, which in 1845 amounted to $3,000,000$ pounds of the hilazas and $1,000,000$ pieces of the latter. The manufactory of rebozos in the city of Zamora in the State of Morelis, is worthy of particular nutice. For wooien fabrics, besides the numerous shojs in which are manufactured orlinary cloths and various cemmen articles, there are seeu large establiahments in the district sud the States of Mexico, Queretaro, Zacatecas and the territory of Hexcala, in which are mide cloths, cassimeres, carpets, baize, etc., which compete with those imported, both in quality and in price. In spinaing and wheding silk, more than 60 hand machines are in the capital, I'uebia and Guadausjara, and the producta are preferred to the foreigu. In the capital is a machine by horso-power, on the French plan, which can apin above 100 lbs , a day. About 40,000 lbs. are ostimated to he epun In Dexico annually, The only woven sllk yet made are some rebozos and bands. All kinds of fancy trimmings are maces in Mexlco, as buttons, cords, bralds, and many ornsments of cotton, wool, and silk; and the best factery is that of the Hopicio for the poor in the capitsi, where they are as well made as in Europe. Gold and
ailver t gles, ga bells of qualitie minor a ble amo candes ilege. 1817, thl they are 890,000, Miner years, fr value of $80,481,0$ Lerido de quiata ha the amol during tit

1525
1922.

| 1927. |
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says: "T factures,
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## MEX

siliver thread of all kivda are made, and buglen, span-1 gles, galloon, cords and beita of allver and gold, and belis of silver and copper. Oll-clotha are made, of qualitiea and patterns equal to foreign. Many other minor articles are also manufuctured, to a conaidarabie smount annually. An eatablishment for etearine candles has been commenced, nnder an excluaive priviiegr. Acoording to the eatimates of Senor Quiros in 1817, this branch of producta amounted to $\$ 16,011,818$; they are now, probably, not lesa than $\$ 80,000,000$ or $\$ 00,000,000$.
Mineral Reaources of Mexico.-In a period of 27 years, from 1825 to 1851 , both Inclusive, the average value of the precious metala annually oxported was $89,481,042$, as appears from a recent work of Miguel Lerdo de Tejada, "Comercio de México dea de la Conquista husta hoy," which gives the following table of the smounts legally exported in coin and otherwise, duriug the period derignated:

| Years, |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1525.............................................. . . $83,742,447$ |  |  |  |  |
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|  |  |  |  |  |
| E'rom July, 1820, to June, 1s3). . . . . . . . . 12, 022, 812 |  |  |  |  |
|  | 1830 |  | 1831. | 10,583,974 |
| $\stackrel{ }{ }$ | 1891 | ${ }^{4}$ | 189. | 7,290, 808 |
| ${ }^{+}$ | 1882 | 4 | 1838. | 14,160, 148 |
| * | 1883 | 1 | 1884. | 13,587,789 |
| * | 1834 | 4 | 1885 | $8.012,213$ |
| 4 | 183 | " | 1886. | 12,705,471 |
| H | 1838 | 4 | 1847. | 8,471,886 |
| * | 1887 | " | 1888. | 4,459,745 |
| 1890.................. . . . . . . . . . . . . . . . . $11,025,143$ |  |  |  |  |
| 1840.... . . . . . . . . . . . . . . . . . . . . . . . . . . . $6,402,185$ |  |  |  |  |
| 1811.. .................................. . . . $11,861,491$ |  |  |  |  |
| 1542.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8,51,056 |  |  |  |  |
| 1s43.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $10.645,083$ |  |  |  |  |
| 18t1.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $11,681,298$ |  |  |  |  |
| 1415. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11.880 .901 |  |  |  |  |
| 1810.. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9 . 887.889 |  |  |  |  |
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It is believed that immense quantities of sulphur, sufficient, it is stated, to aupply the manufacturing wants of the whole worid, ars to be found in the Stute of Puetbla. A lato Mexican paper says, in reference to these sulphur-beds: "The volcano of Popocatapetl is no uncertain or chance enterprise. It possesses a real and certain treasure, and that treasure is the inexhsustible amount of pure sulphur whlch ls springing up every day In infinite alundance from its bowels." The Siglo nswspaper, published in Mexico, says: "The United States consume annually, in manufactures, sulphuric acid to the amount of the enormous sum of $\$ 18,000,000$ to $\$ 22,000,000$; and, perhaps, it would not be out of the way to estimate the inports of suiphur luto Great Britain at nearly the same amount. In these two countries alone, we shouid fitd a market for over $\$ 30,000,000$ worth annualiy. The price of sulphur la now at about $\$ 50$ per ton, in the Lingish and American marketa, for the article brought from Vesavius and the sulphur-beds of Italy. The articie from Popocatapetl would, of course, command a higher price, from Its superiority. * * * The sapply in Vesuvius is limlted, while that of Popocatapeti would find little diminution by the labor of a century." There seems to lie no doubt of the existence of incaleulable quantities of pure sulphur in the vicinity of this volcano. From observatious actually made, and ostimatea formsd on the spot, by scientifie officers, it is believed that the sul, inur thrown up and hardened may be set down at miliions of nitlions of arrobas. The government of Mexico has already given attention to this subject. The stipulations hy which commercial relations between the United States and the republic of Mexico are regulated are found in tise treaty of April 5, 1831, and that of May 30, 1848; the latter known as the treaty of Guadalupe Hidalgo.

Article 8d of the latter treaty provides that all the oustom-housea :hen In possesaion of officers of the United States abonld be Immediatoly restored to the Mexican authoritles, tegether with all bonds and evidencea of debt for duties on Imports and export not fallen due; and further, that all duties collected at such custom-houses by the United States' officers, from and after the ratification of the treaty, shall, after doducting the cost of collection, be delivered over to the Mexican government, at the city of Mexico, within three months after the exchange of retitications.
Articies 6 and 7 relate to the navigation of the Gulf of Callfornia, the livers Colorudo and Rio Bravo dei Norte (annulled by 4th article of the trasty of December 80,1853 , ratified and exchanged 80 th Juno, 1854). Article 17 revives treaty of 1831 for 8 years, with the usual stipnatation of 12 montha' notice by either party desirous of terminating tha same. From the treaty of 1881 the "additional article" in excepted, and also auch stipulations as are Incompatithe with the treaty of 1848 . Artlcle 20 continues ln furee, for 60 daye after the ratilication of the treaty, the tariff eatablished by the United Statee at porta and places occupled by their forces. Article 21 provides for the appointment of commisaieners or arbitrators to settie any disagreements which may hereafter arise between the two governmenta concerning ths political or commercial relations of the two countriea. Articie 22 preacribes rules and proceedings to fa followed, should a war unhappily break out bet ween the two republics, and covenants ppotection, atc., for the citizens of each residing ln the other; and also provides that this article shall not be annulled under the pretense that war dissolves all treaties, or under any other pretense whatever.

The treaty of 1831 , revived by the 17 th articie of the treaty of 1848 , secures to the citizens of ench country, In the territory of the other, equal footing with the citizens and subjects of all forelgn nations, and provides that neither country shall grant any particular fuvor to other nations in reapect of commerce and navigation, that shail not immediately become common te the other party; no higher or other duties, limposts, or fees whatsoever, to be paid by the citlzens or vessels of eitber country in the ports of the other, than are, or may be, paid by the citizens or vessels of the most fuvored nation; all merchandise, the produce, growth, or manufacture of either country, imported into the other, to be subject to no higher or other duties than similar importations from any other foreign country; no export duties or prohilitions to be prescribed by either country, that shali not equaliy apply to all other foreign nations; the vessels of both countriss, in the ports of either, to be placed on the footing of national vessels, as respects tonnage duties, light or harbor dues, pilotage, saivage in case of damage or shipwreck, or any other local charges, the coasting trade being reserved by each of the high contracting parties to lts own vessels, respectively; the duties on limports and exports of riticles, the growth, produce, or mar ifacture of either country, to or from the ports of we other, to be the same, whether such importations or exportations tuke place in vessels of the United States or of Mexico; all merchants, captains, commanders of vessels, and other citizens of either country, to have full liberty to manage, themsalves, their own affairs, or choose their own brokers, factors, agents, or iuterpreters in the ports and territories of the other. The fourth section of the 3-th article saves from the operation of this treaty all furmer or existing tresties with other sovereign States or powers.

Measu'es of Weight.-The largest measure for brandy, wine, and other liquors, is the jurva, which contaius 18 cuartilios, of 1 pound, or 16 ounces of distilied water at the temperature of its greatest density. Brandy burrels are distinguished into medidos and
redondos. The former contain 262 ouartillos, and the latter 160. The redondo barrel of wine contains 150 cuartilios. Oll la bought and sold at whoienala by weight ; but at retall a particular cuartllo is used, contuining 17 ounces and 9 drachras of distilled water. For ollva oil the same cuartilio is nsed as for brandy, wines, etc. At the mines the marco in need for goid and siiver. The gold marco is divided into 50 castilanon, of 8 tomines of 12 grains. The silver marco has 8 ochoods, of 6 tomines of 12 grains. Assayers, to determine the purity of these ifo metals, use the same marco. For gold, the caatollano is divided Into 24 quilates, of 4 granon de ley, sach grano equivalent to 50 in weight. For silver, the mareo in divided into 12 dineros of 24 granoe de loy, each grano being equivalont to 16 in weight. Lapidaries, for the ansay of precious atones, use the quilate, which la the tenth of an ounce. Apothecaries use the libra medicinal, which is divlded into 12 common ouncea of elght drachma, of 3 scraplen, of 24 granos.
Money in Circulation.-Baron Ilumboldt calculated, in 1803, the value of the money aceumulated in Mexico to ive $\$ 65,000,000$ or $\% 56,000,000$; whieh sum compared with the popuiation then exiating in New Spain, corresponded in proportion to 410 for each inhahitant. Taking this calculation for a basis, and consilering the prosperity in mining from that time to this, there Is no hazard in saying that the value of the money now in the repullic, notwithatunding the great exportation past and present, amounts to $890,000,000$ or 100,000 ,000. Althoagh this anin in, doubtless, sufficient for all the operations of the interior trude, whieh is very amall, as well in agriculture as in manufncturea and commerce, the circumatance of the greater part being confined to a few liands on the ons sids, and on the other the want of confidence, causes the frequent searcity of the money in circulation, causing the rare phenoinens of a country which produces goid and nilver se abundantly, paying a higher interest on money than in countries not yieliling it.

The geographical position of the States and Territories of Mexico is thus definel: 1. Hastern or Gulf Coast.-The States of Yucatan, Chiapas, Tabasco, Vera Crua, and Tamaulipas. 2. Western or Pacific Coast.-The Stntes of Oajnea, I'uebla, and Territory of Tlaseala; Stato of Mexico, and Federal District; States of Michoacan, Jalinco, and leeritory of Colima; States of Sinaloa, Sonora. Guerreoro, and Territory of Jower Callfornia. 3. Interior.-The Statea of Queretaro, Guanajuato, Zacatecan, San Inula Potori, New Leon, Coahuila, Darango, and Chihuahua.

Yucrian.-The State of Yucatan ocenpies the greater portion of the peninaula which bounds the southern edge of the Gulf of Mexico. It comprises an area of sbout 52,947 equare miles, and containa a population of 680,918 .

The principal productions of Yucatan are maias, cotton, riee, tobacco, pepper, augar-cane, dye-woods, hides, and moap. Forelgn trads with Yucatan In distributed bet ween the United Statem, France, Fingland, Spain, and other countries. The propertions may be estimated from the foliowing table, , howing the value of iraports into Yucaten during the year 1800 , from each of the countries above denignated: Spain, $1,950,000$ france: England, 1,400,000 francs; United States, $1,000,000$ Prance ; Francio, 225,000 france ; othe: countries, 925,000 france ; total, $5,500,000$ france, or 1,023 ,000.

The principal ports in Yucatan are Campeche and Sisal, both open to foreign commerce. In the former, the water is si shallow that vensels are obliged to anchor some considerable diatance from the town of Campeche, and discharge and take in cargoes by means of lightere and cancen. Sisal possenses a deoper port than Camperhe, but it is more expowed to the north winde, which prevall in the Guif of Mexico from October to April. It is the depot for the Jmport
and axport trada of Morida, the capital of Yueatan, and for all merchandise transperted to or from the in. terior of the State. Campeche attained, under the ancient rula, a high degree of commercisl prosperity. It enjoyed monopoly of all the lmports and exports of the province; bat since the independence of Mexico, its commerce has declined-a reault brought about by the opening of other ports to general trade, as well as by lts difficulties with tha central government, and the fearfut ravages of epldemics, by which, in one yent, fuliy two fifthe of its population were car. ried off.
Chinpas.-Thes State of Chispas possesses but iittic commercial interest. It was Incorporated into the territory of Mexico in 1833, forming, before tinat yemr, a pertion of the territory of Gumemala. Its produc. thona are corn, cocon, augar, tobacco, inviligo (of tha very finest quality, but in amall quantities), trepica! fruita, and timber of almont overy variety. like Yucatan, this state derives its chief interest from the ancient remaina of a former advanced civilization within its territories, bearing date long anterior to the Spanish conquest. The ruins of I'alenque, in Chiapas, and of Uxmal anil Chichen, in Yucatan, are, perhaps, the moat wonderful of all that have been discovered hitherto on the western contir snt.

Tabasco.-Trabasco, the smallest State of the confederacy, was, provious to the revolution, a province belonging to the Intendency of Vera Cruz. Its principal productions are cocoa, coffee, pepper, nugar, tainarinds, arrow-root, paimetto, and some tobacco. Its enpital, Villa de San Juan Bautista, llea about 70 miles from the Gulf, and is reached hy vessels of light druught. Its commerce is chiefly esrried on with th. adjuining States and with Guatemala.

Vera Cruz.-The State of Voru Cruz lies under tho burning aky of the tropics, and is coroprised within a long, but somewhat narrow, strip of territory along the Gulf of Mexico, running from the mouth of the Tampleo liver in the north, to the Guasacuaico and the boundaries of Tabasco on the south. It contains an area of $8199 \cdot 50$ square leagues, and a poputation of $264,725^{\circ}$ inhabicants. The port of Vera Crizz lies in $19^{\circ} 11^{\prime} 52^{\prime \prime} \mathrm{N}$. lat., and $98^{\circ} 29^{\prime} 19^{\prime \prime} \mathrm{W}$. long. from Paris, on a sandy plain, Interspersed with marshes, which bound the Gulf of Mexico. From the month of May to that of November, the uanal perioil during which the northers cease blowlag, the unhealthiness of Vera Crus is proverlisisl. The prineipal proluctions of the State of Vera Cruz a.d tobacco, coffee, sugar, cotton, corn, barley, whent, jalap, sarsaparilla, vanilia, mahogany, elvony, dye-wooda, and overy variety of tropical fruit. The port of Vera Cruz aיpplies a great part of the republic, and is considered by far the mont important shipping puint on either coast. Foreign vessela are sllowed to introdince goods and effects from foreign conntries oniy, and they are permitted to enter but one port for discharge; they may then proceed, in ballant, to any other port in the rapublin for the purpose of taking in cargoes of the produce of the country. During the year 1852 there arrivod at tixe port of Vora Cruz, from alt foreign countrien, 1.3 veskels, with an aggregate of $21,958 \cdot 23$ tons. The total value of merchandise exported, including gold and silver, was $\$ 10,449,07005$. Of the vessels named, there were 49 American, measuring 6234-15 tons. The charatep or valus of their inward cargoes is not given in the United States' consular returas, but the import dutics ars atated to have amounted to 159,30120 . Amouat of siiver exported, 8853,287 ; of gold, 855,884 ; other products, 205,150 ; total value of homeward cargees, 4614,322.

Juring the dame year there arrived from Great Britaln 38 veasela, with an aggregate of $2655 \cdot 22$ tons. Total amount of exports, $99,175,768$ 82, of which silver

- A essaus taken to 1854 raines thle number to 974,680
covered 48, the next ran of French $\mathbf{v}$ Inward carg * 421,$335 ;$ Number of during the $y$ tons. Total silver and $g$ this port, de tween 82 ve rying, resper Mexican, Po From Ifamb value of 23

During th Vera Crun the United sight of the national veas Mexico. $\mathbf{A}$ dsye. "It the loss of $t$ ner who in ur ieo is often ur with the lidea versel onwar nstion. And 'stiff breeze' hurricane; of the rocks atudded. In perhaps, the number of going ashore vessel can do snehors and of war, even not sllowed harbor of Ver feles, a barre At Sacrificios men-of-war, Vera Cruz, a of the castie are securell fr account of th comber 12, and contains dangers to w Mexico.
Tamaulipa State of Tex Coahaila; on San Luis Pot the Gaif of $\delta 5$ leagues. leagth of sea ing from 4 to by a bank o along the c . the month of and dangero ulation in 18 gives but 100 are similar t The coasting in the ports 0 From these North Amer northern Sta Nuevo Leon Chihushua, aupplies fron on the north commercial and its harbo
covered $48,665,350$ 32, and gold 47,952. France holde the next rank in the trade of Vers Crus. The number of French vesseis arrived in 1852 was 28, of 5717 tona, Inward enrgoes not atcertained. Outward, total value 421,235 ; of which, sllver $\mathbf{\$ 1 1 8 , 0 2 1 , ~ g o l d ~ \$ 4 5 , 6 5 4 . ~}$ Number of Spanish vemeels arrived nt Vora Crus during the year 1852, 26, with an aggregate of $8251 \cdot 67$ tons. Total value of cargoes exported 141,287, chiefly silver and gold: The residue of the foreign trade of this port, doring the same year, was diatributed between 82 vessola, with an aggregate of 4189 tons, carrying, respectively, the Belgian, Danish, Hanoverian, Mexican, Portuguese, Sardinian, and Veneauelan flags. From Hamhurg there were 8 veasels, exporting a total value of $\mathbf{8} 23,196$.

During the prevalence of the northern, the port of Vera Cruz is considered to be very uname. In 1846 the United States' Urig-of-war Somers was lost In sight of the city, making the third United States' national vessel lost during that season, in the Gulf of Mexico. A norther generally continues two or three daye. "It comes on," eays a pubilication elicited by the loss of the Somers, "gradusily, mo that the mariner who is unaccustomed to navigata the Gnlf of Mexico is often unsuspieious of danger, and flatters himself with the lies that the 'stiff breeze' which impels his vessel onward will soon carry her to her port of deatinstion. And ao it does, but not in safety; for the 'stiq breeze' freshena into a gale, and the gale into a hurricane; and, at length, the vessel atrikes on one of the rocks with which the harbor of Vers Crus is atudded. In that harbor the anchorage ground is, perhaps, the worst in the worid. At Vere Cruz no namber of anchors hardly will kecy a vessel from going ashore in a norther. All that the captain of a veseel can do, under such circumstances, ls to alip bis anchors and stand out to sea immediately. Veasels of war, even these belongling to friendly powers, are not sllowed by the Mexican government to enter the harber of Vera Crua. They aiways anchor at Eacrifcios, a barren island at the entrance of the harbor. At Sacrificios the anchorage is pretty good. Mexican menof-war, when there are any auch in the harbor of Yera Cruz, are always moored to rings set in the walls of the cartle of St. Juan de Ulloa, and by that means, are secured from the effects of a norther." The official sccount of the loss of the Somers, bearing date December 12, 1846, is on file in the Navy I)epartment, and contains many valuable auggessions relative to the dangers to which navigation is exprosed in the Gulf of Mexico.

Tamaulipas.-This State is bounded north by the State of Texas; north-west hy the Mexlcan State of Coahailn; on the weat by the States of Now Jeon, San Luis Potosi, and Vera Cruz; sud on the esst by the Gulf of Mexico. In breadth it varies from 12 to 55 leagues. This State has more than 350 miles in leogth of seacoast, and is fringed with lagoons varying from 4 to 18 miles in width, divided from the gulf by a bank of sand. The shallowness of the shores slong the ec.st, and the dangerous bars which choke the month of the rivere, render the navigation difficult and dangerous for vessels of almost all classes. Popnlation in 1850, 110,074; though the census of 1854 givee hut 100,064 . The cblef productions of this State are similar to those found In the State of Vera Cruz. The coasting and foreign trade is couductod principally in the ports of 'Tampico de Tamaulipas and Matamoras. From these places large quantities of Europoan and North American manufactures euter the middle and northern Statea of the republic. Queretaro, San Luis, Nuevo Leon, Coahuila, Zacatecas, Jaliaco, Durango, Chihushus, and Sonora, receive most of their forelign supplies from these points. Tampico do Tamaulipas, on the northern bank of the Panuco, is the principal commercial port of this State. Its bar is dangerous, and its harbor considered unsafe. The town is eituated

In the midet of extensive maribes, and ean not be appronched by large vessels. Ita foreign commerce in represented as inereaning (vide Marek' Mierico, vol. 11., p. 206), though consular return from that port, bearing data February 17, 1884, says that the trade with the United Statea is on the decrease, owing to "hlyh rutes of duties, both impont and consumption; as also circulation and municipal."

Tampico exports hides, marsaparilla, goat-skins, fustle, vanilla, wool, jerked beef, and Mexican hemp. Tampice is the outlet of the matale and other productions of San Iuis Potoni, (iuanajuato, Zecatecas, and Durango, considered to the the riobest mining districts In Mexico. The foreign trade of Tampico during the year ending December 81, 1858, was as fullows: Total value of inward oargoes, $\$ 1,228,948$; total value of outward cargoes, $\$ 3,266,0341$ total foroign trade, -4,405,582.

Total number of American vessels included in the above, 22, with an aggregate of 2207 tons. Value of inward cargoes, $\$ 196,936$; value of outward cargoes, \% 287,944 ; total trule in American vesseln, 4434,880 . Total number of British vessels, 17; aggregate tonnage not ascertained. Of these, 14 belonged to ti: a British IRoyal Mail Shamalip Company, und 8 were sailing vessels. Total value of inwad cargoes (exclusive of 1000 flasks of quicksilver, vulne not ascertained), $\$ 287,500$ ) total value of outwarl cargoes, $\$ 2,928,418$; totul trade in British vessela, $48,215,918$. Total number of French vessels, 9 , of 1,815 tons. Total value of Inward cargoes, 8398,000 ; total value of outward cargoes, $\mathbf{8} 2080$; total trade in French vesmels, 8400,080 . 'Total number of Spanish vessels, 7 , of 728 tons. Total value of inward cargoen, 4182,300 ; total value of o'tward cargoes, $\$ 50,176$; total value of trade in Spanish vessels, $4189,476$.

The residue of the trade at the port of Tampico, during 1852, whs distributed between Sardinia, Mamburg, Holland, and Mexico. Matamoras lies on the right bank of the Kio Grande, or Kio Bravo del Norto, at the distance of nearly 30 milds from its mouth. For purposes of navigation, this river is, perhapa, the mast important in Mexico, and has proved navigable by steamers for a considerable diatance into the interior. Recent returns from this port are not at hand, but the general trade of Matamoras is not of much importance. The following facts relative to its trude are dorived from French official returns: Imports into the port of Matamoras consist chiefly of breadstuffs, spices, previsions, and cloths, from New Orleans; exiorts, of specic, hides, and wool. In 1844 there entered 33 vessels, of 2054 tons, floating inward cargoes of the value of $1,638,000$ franes, and outward about an equal amount. Two thirds of all commercial operations at this port are under the American fing. In 1841 commercial movemente with the United States renched the sum of $23,000,000$ francs- $12,000,000$ for inward, and $11,000,000$ for ontward cargnes. Of the importa, British merchandise imported in American bottoms rached $5,000,000$, while Americun proluce and manufactures amounted to only $2,500,000$. French merchandise In American bottoms flgured as high as 1,300,000 francs, and German 1,080,000. Cotton cloths (mostly British) renched, in this trade, $5,136,000$ francs. Tho export trade to the United States during this year covered $9,000,000$ francs in specie, and over $2,000,000$ in hides.

Chihuahur.--The principal port in this Stnte is El Paso del Norte, lying on the right bank of the lio Grande. "The position of this town is nu important one, Inasmuch as the road by it is the only practicnblo one for wagons leading from Sazta Fé to Chiluahua." -Mayen's Mexico. The valley of El Paso is the moet fertile in Mexico, producing maize, wheat, and almost every varicty of fruita. The commerce of the United States with this port has decreased since 18011, not half the amount of merchandies baving been imported from

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the United States in 1852 as in 1850 and $\ln 1851$. This decline is attributed to the failure of the erops in the State of Chibushua, and the high duties, whleh amount almost to a prohibition. Mexican and forelgn merchants send to the United States whe and brandy, manufactured in the El l'aso valley, and sugar, soap, rebosas, saddlos, bridles, leather, segars, mats, and fruits, umounting annually to about $\$ 70,000$.

Oajaca.-Thls State has a sea-coast on the Puclfic extending 118 leagues, and comprises an ares of about it 50 square leagues, containing a population of 525,101 c.sabitants. The fertility of soil and richuese of productions render thls State, in a cominercial aspect, one of the most important in Mexico. There Is nut, however, any port open to forelgn commerce on this part of the Pacitic, from the boundary line of Guatemals to Acapuleo, a distance of nearly 900 miles. The coastIng trade is nearly nominal, although the State possesses uine sos-ports or anchorages, namely: Tehuantepec, 11watulco, Escoudido, Chacahoa, and Jamlltepee. Corn, cotton, coffee, sugar, cocoa, vanilla, tobacco, cochineal, wax, honey, and indigo, are the ataple productions. The iudigo crop, prodiced in the department of Tehuantepec, ls estimated at 500 garrones, of 155 pounds each, and that in the valle:- of Sonola at 600 garrone , making the whole crop of indigo equal to 192,500 pounds. The price paid to plunters is $62 \frac{1}{2}$ cents to $\$ 1$ per pound. From a message of the Governor of Oajaca to the National Congress, it appears that, during the 17 monthy previous to March 1, 185-1, the erop of cochineal prodaced in the State of Onjaca reached as bigh as $1,248,550$ pounds. The price ussally canges from 50 cents to 75 cents per lb., sccording to quality, This State possesses, also, considerable mineral wealth. There are, at present, silver mines worked, 4; not worked, 3; gold mines worked, 5; lead mines, 1. Annual produci of all the mines, $\$ 352,000$; annual products of iron mines, $24+, 000$ pounds. On both sides of the Isthmus of Tehuante-
 woots, gums, etc., are producel. The cocoa raised in some parts of this State ls of so superior a quality,
hat, while the country belonged to Spain, it was re. served for the royal family. It still has a dessived reputatlon.

Guerrero.-This State comprises the districts of Acapulco, Chilupa, Tasco, and Tlapa, and the municipality of Coyucan. Its principal port is Acapulco, so spacious and secirre that 500 vessels can lie at anchor in it with perfeot su'fety. The trade of Aeapalco Ls inconsiderable; thi foreign vessels ontering the port being either freig bted with coals for the Paoifto Muil Steamship Company, or in distress-the former being compelled to clear In ballast. By docree dated jiebruary 4, 1854, the Supreme Government made a reduction in the tonuage dues upon all vessels arriving in that port ladon with coul, and consigned to any steambost company baving a dépût of coals iu the harbor, viz. : 50 cents per ton, instead of $\$ 150$, as formerly. During the year 185\%, there entered the port of Acapuleo 81 American steamships, of 107,007 tons; 8 sailing vessels (ships) carrying 4,369 tons; 1 bark, and 2 schooners. Besides Acapuleo, there are other ports on the Paclic coast open to foreign trade; bu:t the Department is not in possession of information respectiug them. They possess, however, no commercial importance. The other States of Mexico, being either in the interior of tho republlo, or possessing no ports open to foreign commerce, are not deemed of sufijicient commercial consideration to demand separate notice. leturning to the generul commerce of Mexico with fureign nations, particalarly with the United States, it is found that the principal articles of inpportation from the latter to that country ure, machinery, articles of iron, small wares, linen, wcolen, and cotton cloths; silks, tlour (when not prohibited), raw cotton, timber fur the construction of houses, prepared medicines, housebold furniture, velicles, harnesses, horses, salt meats, sperm, paper, marble and other stone.

The imports into the United States from Nexice consist, principally, of gold, silver, dyewoods, dye stuffs, hides, skins of shoep, cattle, and other productions of less value. The following statement ohows a decrease in the importance of our commerce.



This exhlbl up from officia It will be per two countrles in the above to activity, excer reaching those 1830. The vo W8 \$3,463,19 total $\mathrm{nf} \$ 6,5$ yea. 1840 , and portations fro illustrated fros Fer a period 0 Incladed, the : was $882,946,7$ $12,000,1000$ pe port were as $\mathbf{f}$ ing apparel, printed books, niture, carrlag ton, eartlisuws and cutlery, he lead, prepared tures of flax, instruments. cotion rank his partation fur tl $\$ 57,000,000, w]$ comes next in 000 , lanving or the aggregate Britaln into M chandise enter Sexico with F the year 1851, the bificial retu ments thither o amounts, is, $t$ slways the more country,
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Conamuzus.
Cotles......

This exhibit may be rellad upon, having been made up from official reports on "Commerce and Navigution." It will be percelved that the commerce between the two countries decreased during the 80 years embraced in the above table. In 1854 it experienced considerable activity, exceeding in value the totals of 1850, but not reaching those of 1840 , and still further below thoae of 1830. The value of imports in 1854, as already given, wss $\$ 3,463,190$; and of exports, $\$ 3,185,486$; making total of $\$ 6,698,676$-being $\$ 91,666$ less than for the yea. 1840 , and $\$ 8,474,023$ less than for 1830 . The inportstions from Great Britain into Mexico may be illusirnted from a r sport made by order of Parliament. For s period of saven years, from 1840 to 1840, both included, the sum total of the value of the imports was $\$ 82,246,705$, making an average value of nearly $812,000,000$ per annum. The principal articles of import were as follows : drugs, haberdashery, and wearing apparel, arms and ammunition, malt llquors, printed books, manufucturas of brass and copper, furniture, carriages, coals, cordage, manufactures of cottoa, earthenware of all kinda, glass wares, hardware and cutiery, hats, iron and steel in bars, manufactured lead, prepared skins, harnessea and aaddles, manufactures of flax, machinery and machines, and musical iastruments. Of there articles, the manufactures of cotton rank higi ast ; the eatimuted value of the linportation for the seven years amounting to more than $\$ 55,000,000$, while that of manufuctures of linen (which comes next in order of value) was more than $\$ 12,000$,000 , leaving only some $\$ 12,000,000$ or $\$ 13,000,000$ as the sggregate value of ell the other imports from Great Britah into Mexico. The character and value of merchandise eutering inte the commercial movement of Mexico with France may be exemplified by those of the year 1851, as exhibited from the data furniahed by the official returns of France. The reason of the shipments thither of the precious metals being in so amall amounts, is, that the exchunge with England can always be more conveniently arranged than with that country.

| Taue |  | Deterption of merzh. |  |
| :---: | :---: | :---: | :---: |
|  |  | Perfuntry. |  |
| cetton. | 644,184 | Prectus stone | 41,100 |
| W0 | 625,447 | Cloeks and watches. | 80.943 |
| glas | 323,5<3 | Carriages, | 82,630 |
| Eagrav!ngs, b'ks,ete | 2760065 | Jewelry | 85,553 |
| Wincy.... | 245,698 | Furnitiare. | 82,581 |
| Arms. | 2:1,419 | Machilnes and |  |
| Manfs. of metal. | 179.850 | chinnery | 25,541 |
| Haberdushery, ete. | 126,549 | Musleal inatruments. | 23,008 |
| Rabbil it hare $\mathrm{sk}^{\text {'s.s. }}$ | 504,210 | Starlue o | 21,675 |
| Meeh, \& thth. touls. | 103,040 | Medlelnes, | 19,867 |
| 1) ressed shas. | 67,017 | Iron and steel. | 19,747 |
| Cutlery .......... | 56,551 | I'repared skin | 19,293 |
| Fish. plokled, ele. | 35,540 | Silk (rnw \& matuf.). | 15,961 |
| Artidelal tlowers \& |  | Toys................. | 15,178 |
| faney roods ..... | 47,810 | Olve-oil...... .... | 18,976 |
| Spirits sad liqueurs | 47,257 | Uinbrelias and pura- |  |
| Manufs, of thax and hemp. $\qquad$ | 45,921 | sols, sil | $\begin{array}{r} 13,525 \\ 241,966 \end{array}$ |

The importation to Mexico from Germany consists principally of linen textures, such as Silesian linen, creas, etc., etc. ; to which are udded, in kimaller quantities, some chintzes, muslins, silk hundkerehlefs, cloths, cassiunres, crystals, philn glass, fine and common hardware, arms, earriages, furniture, mul piunos.

The quantities of linen experted from ilamburg and liremen to Vera Cruz and Tamplico, during the yeurs designuted, were as follows:

| Khade of linem. | 1839. | 1840. | 1841. |
| :---: | :---: | :---: | :---: |
|  | Itineva, | Preent. | Premers. |
| Sllemat. | 110,2619 | 89, 134 | 52, 2,4 |
| C'rems. | 29,516 | 20, 314 | 19, 264 |
| liuates | 1,973 | 1,165 | 1.4 |
| Bretanias. | 12,995 | 11.622 | 4,100 |
|  | 7,177 | 7,156 | 5,848 |
| Listarles. | \%,568 | 10,442 | 2,425 |
| Owaburuek | 2,969 | 1,046 | 10) |
| A crillas. | 10.52 | 4,164 | 260 |
| Cangmazos | $8.4 \times 5$ | 3,154 | 1,8:10 |
| Cotlea. | 753 | 1,906 | 1,569 |

Statiment showine tily Values of Inpoata pron Hay humo ano Bakmen into tile Ports of Vera Caut
 AND TAMPICO, WITH THI NUMaRRB
GAOED DURINO THR YBA ' BPRCIFIRD.

| Years. | No, of vesela from |  |  | Valoen of marrh as par involes. |
| :---: | :---: | :---: | :---: | :---: |
|  | Haniburk. | Ere ${ }^{\text {deo. }}$ | Both perts. |  |
| 1887. | 10 | 5 |  | \$1,460,000 |
| 1889........ | 11 | 5 | 2 | 1,760,000 |
| 1889......... | 11 | 8 | 1 | 1,970,800 |
| 1840....... | 14 | 6 |  | 1,750,000 |
| 1841........ | 12 | 4 | 1 | 1,485,200 |
| Aggregate.... |  |  |  | \$8,432,000 |
| Av. an'l value |  |  |  | 1,688,400 |

Statement Exifibiting tif amount or Imiont Duties collequtel at tif Poat of Vgan Catz nubino tif Fouk Years indine witil i854, as oon "hen from thy Cuatom-1louse Books of that Port.


Dullara. Tholara, Dollare Dotala

 $1868 \ldots 2,454,72808$ 242,676 82 124,770 95 2,822,170 85


The forcgoing is excluaive of city and hospital contributions, and internacion, or intarnal duty, levied upon the same goods whea dispatched to tiele interior.
The commerce of Mexice is confined to the reception of forcign goods sufficient for tha necessities or luxury of a very small class of the population, for which is given in exchange a large portion of the products of the mines, and some few products of the soil. As the yield of the mines is estimated only at $\$ 26,000,000 \mathrm{an}$ nually, the amount of commerce can not much exceed that sum. The total numher of Mexican merchant vessels, all of which are small, does not exceed 50 , and of these more than half beloag to the merchants of Yucatun.
The following account of the trade and commerce of the republic for the year 1851-52 is compiled from the offielal returns:

| Ports, | $\begin{gathered} \text { Total, } \\ \text { Tonnage. } \end{gathered}$ | Passengors. |  |
| :---: | :---: | :---: | :---: |
|  |  | Artived. | Departed. |
| Vera Cruz. | 25.20] | 1,429 | 1,946 |
| Tampteo. | 7,704 | 178 | 126 |
| Campeachy | 6.992 | 4,975 | 1. |
| Sisal. | 4,249 | 43 | 95 |
| Trbaseo. | 8,789 | 81 | 21 |
| Acapuleo. | 181,430 | 81,842 | 23,540 |
| Maxzanilla | 1,402 | 11 |  |
| 8 man Blas. | 90, 921 | 4, 563 | 4,920 |
| Mazutlan. | 30,762 | ก,095 | 5,000 |
| Altata.. | 1,158 | 81 718 | 35 |
| Qunyamas | 4,936 | 718 | 40,158 |
| Total. | 256,692 | 43,816 | 40,103 |

Of the vessels arriving, (68 lelongel to Mexico, 435 to the United States, 108 to England, 69 to Frunee, 60 to Spain, 1.5 to llamburg, 2.1 to Peru, 5 to lhelgium, 8 to Ilremen, anta 1 each to lortugal, Nicaragua, Sweden, Itunover, and Venezucla.

Among the arrivals wete 219 stcumers, viz., 145 at Acapulco, 7 at Vera Craz, 4 at Tampico, 27 at San 1has, 35 at Mazatian, and 1 at Guaymmas. Of these, 1.15 were United States' vessols.

Of the classes of vessels, beside steamers, there were 55 frigates (vessels of war), 114 barks, 165 brigs, 63 hermmplirodite lirigs, 150 sehooners, and 68 pllot boats.

The chief coasting trade of the republic, on the Gulf of Mexico, is performed by schooners between Tiunjleo, Tuspan, Shal, Campeche, Tahasco, Minatitlan, Alvarado, and Tlacotalpan. For this trade, $n$ few vessels exist of about a hundred tons burlen, built at Campeche, and are equal to Ameriean vessels of like quaty in respect to capucity, sailing prope-ties, and durnhility. Nuthonal vessels make voynges only to the ports of New Orleans and Cuba; and in the year 1852 only seven sail were thus employed, and the amount of consting in the same time was very smail. There appears to be no increase in this trude, nor in the building of vessels. The commerce with foreign
countries is reported recently to have decreased; and with the Unitad States, in particular, to be on the decline. The cause of this change is consldered to be the ligh rates of duties, both on imports and exporte, and the additional charges, local as well as internal. It is known that the late Preeident of Mexico (Santa Anna), a short time before his ahdication, had granted privioges and special concessions to certain European houses for the introduction of fortign merchandise on the Pacifle coast, at from 25 to 30 per cent. less than the regular impost by the ostablished tariff, As this involved a palpable violntion of the treaty between the Uaited States and Mexico, the American minister to that country, under date of April 10, 1855, protented agninat such pri--lleges and speelal concessions. Under such is system, American nierchants were reduced to the necessit, of witnessing the prolucts of the United States contributing to the fortunes of European merchants ; while they were donied the right, notwithstanding treaty stipulations, of importing almilar merchandise on the same ierms, under a penalty of contiseation, and a fine to the extent of the market value of the eargoes at the place of importation.

The I'rin ripal P'orts are Acnp̣ico, lat. $10^{\circ} 50^{\prime} 30^{\prime \prime}$ north, long. $90^{\circ} 46^{\prime}$ west, the bert sea-port on the weatero cosst of Mexleo, and is capable of containing a large navy with perfect afety. Tampleo, n conshlerable commercisl port on the eastern enast of Mexieo, in lat. $22^{\circ} 15^{\circ} 30^{\prime \prime}$ north, long. $97^{\circ} 62^{\prime}$ west. The shifting of the har at the mouth of the river, and the shallowness of the water on it, which is sometimes under 8 feet and rarely above 15 feet, nre merions obstacles to the growth of the port. Vessels that can not enter the port, load and unload by means of lighters, mooring outside the bar, so that in event of a gale from the north, they cun readily get to ses. Vern Cruz, the prinelpal sea-port on the eastern coast of Mexico, lat. $19^{\circ} 11^{\prime} 52^{\prime \prime}$ north, long. $96^{\circ} 8^{\prime} 45^{\prime \prime}$ west. The harbor lies between the town and the island of San Juan de Ufla, about 2400 feet wide; it is insecure, the anchorage heing very bail, and no ressel is safe unless made fast to iron rings fixed into the wall of the castle on the island, and even then accidents sometimes occur. liuaymus, a sen-port town of Simors, on the Julf of California, at the mouth of a considerable river, lat. $27^{\circ} 55^{\prime}$ north, 'ong. $110^{\circ} 16^{\prime}$ west. It is neither lo-ge nor well buif, but its harbor is the best on the western coast of Mexico, and it has an netive and increasing trade.

New Porta Open for foreign Trade.-Guaymas, Camargo, Mier, Piedras-negras, Monterey, laredo, Tonala, Zapaluta, Guatzacoslcoa, la Ventosa.

Tonnage Ihuties nul Port Chargen at l'era Crvz.—On foreign ships alld natlonal vessels from forelgn ports, perton (the Mexican ton is 12 per cent. less than thnt of the United States), 150 ; fees of eaptain of the port, \&350; water dues (Mexican vessels in the coasting trade pay tit eents perton, as water tax, but are excupt from tonnage duty), $12 \frac{1}{3}$ cents; atamped paper
for ontering and elearing, $\$ 850$; pllotage, either way, per foot, 8250 ; pilot-beat, with four or six oars, 88 ; bills of health, if required, $\$ 4$; to consul of country where destined, $\$ 4$; vlsit of health officer, $\frac{\text { \& }}{} 2$. Wharf ago and mmiclpal dues are very inalgniffcant. The moneys, welghts, and moasures, In use in Mexico, are the asme as those of Spain. At the port of Tampico, the dues and charges are quite the sams as at Vora Craz. Hompital dues at the former port are $\$ 10$.

Tariff Regulations.--The tariff regulations of Mexleo have been subject to frequint changes of late. The rates established by the tariffe of $1845,185 /$, and 1856 , will be found in the Comparative Tariffs issued by tha Stato ; tapartment, Part II. The details of the tariff of Janusry 31, 1856, are as follows:

Charges on Veasels. $\rightarrow$ Tonnage, 81 per ton; free of tonnage, if in be last to load logwood, specic, etc.; or if bringing cosl for the Mexican deposits; or if enly bringing passengers or mails.

Prohibitions.-Brandy, of sugar-eane; and all ether except that made out of grape-excepting gin, rum, and others named in the tariff, in bottles, or jurs: sul. gars, of all kinds; rice ; buttons, with the Mexican or foreign arms; coffee; wax, made up in eandles; oracene pamphlets, books, etc. ; flonr of whest, except at Aespulco, Yucatan, Tampico, Mntamoras, and the custom-houses of the northerp frontier. l'or regulathons, see Comparative $\overline{2}$ ariffs, Part II. Monts, shues, slippers of leather with soles; rein-bitts and spurs of Mexican fashion ; books prohithlted by competent sy therity ; lsrd, subject to the ammo exceptions (omittin Acapuleo) as flonr; saddles, and sppurtenances of Mexican fahhion; playing-cards, of Mexican fastion; scarfs. Mexican fashion, of all kinds; speckled or printed toxtures Imitating the same; whoat, nod all kinde of grain and seeds; blanketa, woolen or cetton, or mixad excepting coverlets and bed-coverings of plqué, without seams.

Additional Inty to Tariff.-1. Munlcipal duty will will be $12 \frac{4}{3}$ cents on each package of 8 arrobas weight, payable at the time of importation. 2. For improve. tnent of the country, 20 per cent. on the inport duts. 3. International duty, 10 per cent. on importation duty, payablo at the thone of sending the goods to the inte. rior. A. Contrit registro, is 20 per cent. on impon, payable nt the tinal place where goods are sent. 5 . Amortization laty of the public debt liculuated and consoldated: this duty will be 25 per cent. on the import duty, and the payable in full at the General Treasury Department of the nation, with bonds of the public debt liquidated and consolidated.
Expurt Duty.—On coin nnd wrought gold, it per cent.; on colned ailver, $8 \frac{1}{2}$ jer cent.; on silver bars, stamped by mint, 7 per cent. All the remaining goods, prolucta, and mational manufacuures, mot specilied, may be exported without paying my duty.

All laws, deerces, elreulars and orders, which nre in contict with this tariff, directly or indirectly, will cease immediately after publication of tho present new one.

Involee of the follonoing goods shipped by the subsoribor for保 ......, merchumts of co port of Hera Crwi (Masco), whther inis reskel in bound.

| Mepks. | Nunsbera. | Number of parlayes. | Cirnes wolght of earh. | Des-ription of parlages. | Total net welght of earh which pay by weight. | Total menaurerpent by lumich of goundo which pay liy neentигашнепе. | Widith of goode uxceeding ouw varo. | (7) Tase of $x$ unds - jowelind. | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1', M. I: | Itol0. | 40 (ten). | t (one) quintal. | Bales of common sles. |  | ( $(19), 0 \mathrm{MO})($ (bDe hunireil thousand) yhrds. | $t$ (00e) yard. | White o.tinary colton. | +.* |

* 100 yarda Einglisila are equal to 109 11-t00 Mesican.

In this manner all invoizes are to lin made out, apes cifying every one of its packages. The total namber of parkages to be apectited in worth also.-Liom. Relothons, U. S.

Miohigan, a north-western State of the repulilic, lies between lat. $41^{\circ} 41^{\circ}$ sud $48^{\circ}$ north, and hetween $k 2^{\circ} 25^{\prime}$ nnd $90^{\circ} 34^{\prime}$ west from Greenwirh, or $b^{\circ} 24^{\prime}$ and $13^{\circ} \mathbf{3 3}$ west frow Wushington. It consigts of
two peninaul Popniation in 31,639 ; in 18
Physical F southern pen evations whlc rinr is gently lakes to the c gion may be 300 feet abov forests of tim eastern shore up by the win barren nnd na ron and Sayin the United S fowl and game There were land improvec furms; cush v of implement -horses, 58, 99,676 ; worki sheep, $\mathbf{7 4 6 , 4 3}$ 68,008,734.

Agricultura els; rye, 105, 0 iti f barley, beans, 74,254 1171 ; value produce of ma made $7,065,87$ 2,139,794; m honer, 359,23 flax, 7152 ; sil tohacco, 1245 16,989 hushels hushels; and of home-made animals 81,32
Of the nort "Pertions of scenery whieh portion of the rivere, and fo eutline which lar type of N ion embraces for the uses sumall lakes. large bays as liere have dis ore; on the a of lofty hluffs ance of ruins, pille, or the A character, as alsa reveral pi
The southe seversl large which, rislng westerly, and in sull Ituro into Detroit Struit of St. tion of 'litiba inaw llay. sono smallet seph, (irand, into lanke Mi stocked with, terior. This viz., Erice, 11 elpal rivers llaron, Men dar, White F tic. 'The pri
two penlnaulas, and contains 56,243 square malles. Popnlation in 1810, was 4528; in 1820, 9448 ; in 1830 , 31,639 ; in 1840, 212,276; and in 1850, 897,654.
Physical Features, etc.-The surface of the lower, or soathern peninaula is gensrally level, having few elevations whlch may be denominated hills. The interior is gently undulating, riaing gradually from the lakes to the centre of the peninsula, This central region may be regarded as a table land, elevated about 300 feet above the level of the lakes, covered with fine forests of timber, oak plalns, and prairlea. Along the eastern shore of Lake Michigan are sand-hills, thrown up by the winds into fantastic forms generally quite barren and naked. The part lying bet ween Lake IIuron and Saginaw Bay is low and swampy. No part of the United States ls better supplled with fish, aquatic fowl and game.

Thero were, in thls State, in 1850, 1,929,110 acres of land improved: and 2,454,780 acree of unimproved in farms; cush value of .arms, $\$ 51,872,446$, and the value of implements and machinery, $82,891,371$. Llvs stock -horses, 58,506; asses and moles, 70 ; milch ciws, 09,676 ; working oxen, 65,350 ; other eattle, 119, 171 ; sheep, $\mathbf{7 4 6 , 4 3 5}$; swine, 205,847 ; value of llve suock, \&8,008,734.
Agricultural Products, etc.-Whent, $4,925,888$ bushels; rye, 105,871 ; Indian corn, $5,641,420$; oata, 2,866,050 ; barley, 75,249 ; buckwheat, 472,917; peas nnil beans, 74,254 ; potntoes, $2,359,897$; sweet potatoes, $113 i$; value of products of the orchard, $\$ 132,650 ;$ produce of market grardens, $\$ 14,788$; pounds of butter made $7,065,878$; of cheese, $1,011,492$; maple sugar, 2,439,794; molasses, 19,823 gallons; beeawax and honsy, 359,232 ; wool, pnunds produced, 2,043,283; flax, 7152 ; silk cocoons, 108 ; hops, 10,663 pounds ; of tohacco, 1245 ; hay, tons of, 404,934 ; clover seeds, 16,889 bushels; other grass seeds, 9285 ; flax aeel, 510 bushels; and were mude, $\mathbf{1 6 5 4}$ gallons of wine; value of home-made manufactures $\$ 3 \cdot 0,947$; of slanghtered animals $41,328,327$.

Of the northern penlnsula, Mr. Schooleraft says :"Portions of it are the mere developement of aublime scenery which pertains to that comparatively elevated portion of the continent. Mountains and lakes, plaina, rivers, and forests, spread over it with a boldness of outline which may be sald to conatltute almoat a pecuHar type of North American Geograplyy. This division embraces the mineral region. It is of little value for the uses of ngriculture. The luterior abounds in small lakes. On tho shoro of Lake Superior are several large luys and good harbors. Recent explorations here have discovered Immense deposits of rich copper ors; on the southern shore of lake Superior is a series of lofty bluffs and isolated rocks, havinig the sppeuranes of ruins, tottering walls, and caverns. La Chapelle, or the Arched Rock, is a benutiful speeimen of this charucter, as are the l'letured lecks, etc. There are also several pleturestuo cascades."
The southern penlnsula of Miehlgan is a; ined by several largs rivers and numerous smallor streams, which, rishig in the latecior, pass off in easterly, westerly, and northerly directions into the lakes. Maisin and Humon Rivers tlow into lake lirie, lionge River into letwit Strait, Clinton and Black Rlvers Into the Stmit of St. Clair, Saginaw Rlver formed by the junction of 'i'itibawasse, F'lint, and Cass livers enters Saginaw llay. Thunder liay, Cheloligan Rlver, and some smaller streams fall into Lake lluron. St. Joneph, Grand, Kalamazoo, nud Maskegon livers How into lake Michigan. Many small lakes of pure water, stocked with lish of tine quality, aro found in the ithterior. This State borders on four of the grent lakes, viz., Errle, lluron, Michigan, and Superior. The prineppal rivers of the upier peninsula aro Ontonagon, Haron, Menomonee, Montreal, St. Mary, Eagle, Cedar, White Fish, llack, Sturgeon, llapid, and Manlstic. 'The principal islanda are Drummond, Sugar, St.

Joseph, Bois Blanc, Mackinaw, Maniton, and Beaver Island, in Lakes Huron and Michigan; Iale Royale and the Apostles, in Lake Superior.

Manufactures, etc.-There were in this State in 1850, 15 woolen factoriek, with a capital of $\$ 94,000$, employing 78 malea and 51 females, manv'acturing 141,570 yards of cloth, valued at $\$ 90,242 ; 1$ establishment maklag pig Iron, with a capltal of $\$ 15,000$, employing 20 persons, prodacing 660 tons of pig lron, atc., valued at $\$ 21,000$; 63 establlshments with a capital of $\$ 195,450$, employing 337 persona, "and making 2070 tons of castlngs, etc., valued at $\$ 279,697 ; 231$ flouring and grist mills, 477 sow mills, 45 tunncries; 57 printling offices, 58 newspapers, 8 daily, 2 semi-weekly, $47^{\circ}$ weekly, 2 aemimonthly, and 3 monthly publicatlons. Aggregate number of coples published, 3,247,736. Capitel invested In manufactures, ${ }^{\text {P } 5,764,645 \text {; value of manu- }}$ factured artlcles, $\$ 10,407,285$. There were, Jsouary, $18^{\circ} \mathrm{K}, 590$ miles of railroad in operation.
The principsl places in the State ars Detroit, the metropolis, Monroe, Ann Arbor, Ypsiantl, Adrian, Jackson, Marshall, Kulamazoo, Lansing, the capital, St. Josephs, Mackinac, Grand Haven, and Sault St. Maris. There were in 1854, 6 banks and 1 branch, with an aggregnte capital of $\$ 1,084,718$. Exports (1852) in American vessels, of domestic produce, to the value of $\$ 100,436$; in foreign vessels, $\$ 31,030$; of foreign produce in American veasels, $\$ 4398$; In foreign vessels, $88+18$. Total value, $\$ 145,142$. Imports in American vessels, $\$ 191,976$; foreign vessels, $\$ 4264$. Total vulue, 8196,240 . Tonnage, 1853, 4,591,284.

The shipments from Detroit were aa follows:

| Flour..................... bbls, | $\begin{aligned} & 1854 . \\ & 887,148 \end{aligned}$ | $\begin{gathered} 1856 . \\ 640.898 \end{gathered}$ |
| :---: | :---: | :---: |
| Wheat. . . . . . . . . . . . . . . breh. | 897, 159 | 787,890 |
| Indisa cora. . . . . . . . . . . * | 687,489 | 629,895 |

White Fish.-One of the largest and moat important items in the commerce of Detroit, is the trade in whlte fish. From the head of Lake Erie to the head of Lake Superior, including Lake Michigan, during the fall and spring months, the fisheries form an Important branch of our western commerce. But probally thore is no place of the same area along our lakes and rivers which is so valuable in this particular, as the river contiguous to this city. lirom Fighting Island, to the northern point of Belle Isle, a distance of 17 miles, there is one complete fishery, from which large numhers of fish are yearly taken. The cost of taking them, when the run is fine, ls very light, and fishermen realize large profits. They are known through all the States, and are esteomed among the choicest delicacies to be and in any market. 'The large demand creates a correspending valaation, and in every chty they have become the firsi brand of thsh sought. Tho river thbl! are generally larger, fatter, and better flavored than those of the lakes, and are, therefore, always in greater demand, and always command better prices. In New York, lloaton, New Orleans, and even San Franclaco, the Detroit River white fish are engerly sought for.

The sesano of 1855 was a remarkably good one. At the tlsheries (about 50 in number), between lighting lsland and Helle Isle, over 7000 barrels, or some 700,000 tish, buve been taken. About lulf of these have heen sold iresh, int an average of 11 cents each, bringing in a revenue of $\$ 38000$. The remalning portions are mostly held by the fishermen until navigation shall open to them the southern and eastern trade. These 1500 barrels, when aold, will nett the holders nhout 830,000 , or in the nelghborhood of $\$ 8$ or $\$ 9$ per barrel. lirom the fisheries upon lieile lale about 7000 tish were taken, a majority of whici: were sold fresh. The remaluder of then were caught below the city, mostly upon the Amerkan side of the river.

The metiod of euteling fish here in the river differs somewhat from the means adopted for lake fishing. There gill-nets nre the principal ageney omployed, while seines are the instraments here used.

## MIL

The nnmber of barrels canght annually in the lake fiaheries ls nearly as follows:


These are sold at an average price of $\$ 11$ per barrel, the aggregate amount of sales being $\$ 462,000$, or nearly 4500,000. Probulaly one sixth of all the fish caught in Lakee Michigan, Huron, and Superior, are trout; the remaiuder being white fieh. They are commonly canght by gill-nets, set some 10 miles distant from the shore. Large quantities of the fibh are taken from the Detroit liver, which they ascend from Lake Erie to spawn. On their return to the lake they are captured. The number of fisheries in the river is 50 .
In some of the rivers that flow into the lakea, enor-
mous quantitles of piekerel are canght. Not leas than 1000 barrels are taken annually from Fox Rlver, Wlsconain! from Saginsw River, Michigan, 1500 harrele; St. Clalr River, Michigan, 1500 ; Maumee River, Ohio, 8000 barrels, and an equal quantity of bses, mul. let, ete., making a total of 10,000 barrels, which are nold for $\$ 850$ per harrel, or 985,000 in the aggregate. The annual product of the lakes and tributary rivers is thus shown:

| The Lakes. | $\begin{aligned} & \text { Bban. } \\ & 80,000 \end{aligned}$ |  |
| :---: | :---: | :---: |
| Detrolt River | 7,000 | 77,000 |
| Other river | 10,000 | 85,900 |
| Total. | 82,000 | \$547,000 |

See Hunt's Mag., vl., 833, xix., 19 (J. R. Wit inms), xxil., 131.

Formitin Commrber of the Btate of Mighoan, yaon Ootoank 1, 1820 , to July 1, 1850.

| Yeare ending | Eaports. |  |  | Jmports. | Tonnage Cleared. |  | District Tormage, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentic. | Forelgn. | Total. | Total. | American. | Foraign. | Regholered. | Earolied and Litramed. |
| Bept 80, 182t....... | 853,290 | ** | \$58,290 | \%29,076 | *** | .... | 802 |  |
| 1884........ | , 694 | .... | . 694 | 18,877 | .... | . | 80 | 20) |
| 1828........ | 1,010 | .... | 1,010 | 2,159 | .... | .... | . | $\ldots$ |
| 1824....... | .... | ...* | .... | 1,086 | .... | .... | ... | ... |
| 1825........ | 7880 | * $\cdot$ - | 1.820 | 8,695 | ... | $\cdots$ | ... | . $\cdot$ |
| $1826 . . . .$. | 1,820 | . $*$ | 1,820 | 3,774 8,40 | . | .... | .... | . |
| 1829.... | - | . | $\cdots$ | 2,957 |  | . $\cdot$. | . | $\cdots$ |
| 1350 ... | 1,598 | .... | 1,589 | 21,915 | 09 | .... | . $\cdot$ | . |
| Total.... | 577,902 | -••• | 757,902 | \%58,679 | 50 | $\cdots \cdot$ | $\cdots$ |  |
| Sept 80, 1881........ | 12,898 | *** | 112.889 | 127.299 | 48 | $\ldots$ | . $\cdot$. | 1,212 |
| 1882......... | 9,234 | .... | 9.234 | 24,649 | $\cdots$ | - | . | 1,212 |
| 1838........ | 9,001 | .... | 0,054 | 68,576 | 644 | 210 | .... | . |
| 1834........ | 86,021 |  | 36,021 | 106,012 | 2,767 | 215 | .... | -. |
| 1485........ | 68,480 | \$1,350 | 64.430) | 160,629 | 1,881 | 020 | .... | $\cdots$ |
| 1895.. | 67, 181 | 4,050 | 61,281 | 202,287 | 780 | 808 | . | ..... |
| 1847. | 69,790 | ... | 69,790 |  | 1,579 | 8,258 | . ${ }^{\text {c.* }}$ | $\ldots$ |
| 1884. | 125,630 | .... | 125, (th) | 256,662 | 1,480 | 1,549 | ... | * |
| 1899. | 188,805 | .... | 182, 305 | 170,221 | 8.7109 | 1,986 |  | $\ldots$ |
| 1840. | 168,229 | . . . | 102,220 | 138,610 | 4,786 | 6,870 | .... | $\cdots$ |
| Tutal..... | 6778,340 | 35,4101 | 3643,746 | 11,424,434 | 17,787 | 14,064 | - $\cdot$. |  |
| Supt 80, 1841........ | \%88,829 | . | 458.529 | (137, 200 | 8875 | 4,734 | . | 11,504 |
| $9 \mathrm{mos} 1848 . . . \ldots$ | 262,229 90299 | .* | 208,229 | 80,784 78,470 | 1,714 | 4,640 | . | 1,024 |
| 9 mos. $1849 . . . . .$. | 902,90: | .... | 202,091 | 76.370 | 4:3) | 1.007 | -* | $\ldots$ |
| Juas 80, 1844........ | 898,201 | .... | 208,901 | 120,678 | 18 | 5,767 | .... | ... |
| 1845....... | X51,420 | . $\cdot$. | 231,290 | 41,982 | 1,817 | $\mathrm{N}, 548$ | .... | ... |
| 1846....... | 231, 590 | . $\cdot$. | 251,590 | 154,943 | $\$ 40$ | 27.921 | ... | . |
| 1847....... | 08,795 |  | 98,795 | 37,616 | 20,411 | 36,171 | . . . | . |
| $1844 . . .$. | 111,194 | S 411 | 111,885 | 115.760 | 186,810 | 87,614 | . $\cdot$. | .... |
| $1849 . . . . . .$. $1500 . . .$. | 127,844 182,045 | 8.607 | 1122,451 132,045 | 98,141 144,102 | 83,919 7,982 | 90,160 46,719 | .... | .... |
| Total | 1,575,641 | 35,44 | \% $1,881,089$ | 1,008, 113 | 245,034 | 314,200 | . $\cdot$ | *... |
| June 30, 1851........ | 189,419 | 97.978 | -191,426 | -192,146 | 7,0\%5 | 45,102 | . $\cdot$ | 41,7i4 |
| $1854 . . . .$. | 182,366 | 12,756 | 16, 18.2 | 101,240 | 4,4-4 | 65,197 |  |  |
| 1883........ | 9935409 | 87,876 | 3323,643 | 211,230 | 8,3615 | 71.944 | . $\cdot$. | .... |
| 1504........ | 405,151 | 29,814 | 481,495 | 204,286 | 9,4155 | 22,540 | ... | . |
| 1455........ | 626,425 | 41,264 | 565,091 | 251,879 | 24, 115 | 88, 104 | ... | .... |
| 1850........ | 895,621 | 85,404 | 981,023 | 840,608 | 22,072 | 27,124 | .... | $\ldots$ |

The principal port in Detroit, a large and flonrishing city on the Detroit River, opposite Windsor, the terminus of the Great Western (Canada) Rallroad, which here connects by ferry with the Miehtgan Central Ralroal, together oorining a convenient line between Niagara and thicagro. It is alwo the south-western terminua cithe Detroit and Milwaukee Rallroad; and a line (the Detroit and Toledo Kailroad) in now in prognress to connect with the railroads centering at Toledo. It has one of the theat harbors in the United Staten, and is admirably adapted for commerce. It has also extensive manufacturen, chiefty machinery, agricultural implements, ete., and a large trade in lamber. On the whole, it is a most Hourishing place, and ranka as the first city of the State. Population in $1 \times$ ins, 50,448 . Ihetruit was founded in 176 by the French, und wan for mary years the State capilul. Twentyfive years ago ic had only 2000 inhabitants. The tonnage of Detroit in 1 bot was 58 , 1 ind tons.
fort /luron,-A town at the month of Hhack River, on the St. Clair, and two miles south of lake llamon. It has a large lumber business and fine general trade.

Mloroscopes. Invented nearly at the same time in Italy and Holland, A. D. 1621. Those with doalife glasses were made at the period when the law of r fraction was diacovered, about $16 \div 4$. The hener of this invention is awarded to Drebel and Torricelli. Sollar microscopen were invented hy 1)r. Wooke. In Ingland, grent improvements were made in the microscope by llenry lisker, F.R.S., who wrote two treat isen upon it about $1763,-$ Riog. Ditt.

Mile (1at. mille prasurm, a thousand praces). The Roman pace helas five feet, and a Romat funt being equal to $11 \cdot 62$ modern English inches, it follows that the nacient lloman mile was equivalent to lidit Einglish yarde, or very nearly 11-12ths of an English ataute mile. 'tha Einglish statute mile was detined (iacidentally, it would neem) by an act passed lin tho sish year of the reign of (Queen lilizabeth, in which persens were forbldden to build within three mites of hondon; and the, mile was declared to be 8 furlongs of 40 perches of $16 \frac{1}{2}$ feot each. The statute mile is, therefore, lico yards, or 5280 feet. Seo Weibits and Measpras.

The mile is used as an litinerary measure la almosi
all conntries formerly und difticult to er to the great pob. $d$ theit in foualieu with table ahowe t of the mode countries in

Arablan mile.
Arabemlan. . . Brabant. . Brabant... Chingse ilis. lhanish millo. jadisa matlo. Engisin. ..... Engish (geog. Eng. (keog.) le flamish...... Freach art. les inaring of 2,000 tois of 2,000 tois " " Hsmbarg mile llanover.... lesse. Dotch....

## Milford-

 er deep inle Woles, count: In the Britie Hends, the $n$ and on which $51^{\circ} 41^{\prime}$ N., about 15 mild pletely landshipping of $t$ dock, in any the egress cB ebb, even in faverite scher of steamers and therehy rying trade and lioston.Milk ( F creted by the mammalia, s ment of her certain pecnl mllk. that man, and wi quaintel, is milk is thant ish tante, than that of it separates rram, colle and a more Milk which tion of the lates, Whe fuid is force of the milk, valuable an olitained art been a fave especially o Casar of on continue to articles liver Millet Panicastrell ceum). T Polish mill Iadlan mill
all countries of Europe, particularly thosa which were formerly under the sway of the Romans; but it is very difficult to conjecture the canse which has given rise to the great dicersity of its values. It has bean suppoo it thei in soins countries the Roman mile was confouncieu with th: aneient Celtlo league. The following table shows the length; in statute miles of $\mathbf{1 7 6 0}$ yards, of the modern mile, and also the leagues of various countries in Engligh yards:


Milford-Haven, a harbor of England, on a basin or deep inlet of the Atlantic, on the coast of South Wales, county Pembroke, forming one of the best ports in the British dominions. Latitude of St. Anne's lleads, the north-western extremity of the entrance, and on which are three light-houses, with fixed lights, $51^{0} 41^{\prime}$ N., long. $50^{\circ} 10^{\prime} 25^{\prime \prime} \mathrm{W}$. Leugth of haven shout 15 miles; average breaith, 2 miles. It is completely land-locked, has deep water, and the whole shipping of the empire might ride here as safely as in dock, in any weather; whilo the access is easy, and the egress can be accomplished, by aid of the strong ebb, even in head winds. It has for some time been a favorite scheme with the southern States to have a line of steanmers between this port and Norfolk, Virginia, and thereby sacuro a portion of the importing and carrying trude now absorbed by the ports of New York and lloston.

Milk (Fr. Lait ; It. La.do; Lat. Lac), a fluid secreted by the female of all those animals denominated mamalia, and evidently intended for the nourishment of her offspring. The milk of every animal has certain pecularitios which distinguish it irom all other ailk. lhit the animal whose milk is most used hy man, and with which, consequently, we are hest acquainted, is the cow. The external character of all nilk is that of a white opaquo fluid, having a sweetish tiste, and a specific gravity nomewhat greater than that of water. When allowed to remnin at rest, it separates hoto 2 parta; a thick whitish lluld ealled cream, collecting in a thin stratum over its surface, nod a more dense watery body, remaining helow. Milk which has stood for some tume after the separation of the cream, becomes ncescent, and thon coagulates. When the coagulum is pressed gently, a serous flud is forcell out, and there remains the caseous part of the milk, or pure cheese. Butter, one of the most valuable anhnal products, is solititied croam, and is obtained artilicially by churniug. Milk lats always been a favorite food of most Europen nations, and especially of the Iritish. Lacte et ca, ne riunt, says Ciesar of our ancestors; and the same articles still continue to form a large part of our subsistet:ce. See articien Muttha, Cheesp, Dairy.

Millet (Ger. Hirse; Fr. Millet, Mil; It. Miglin, Punicastrello; Sp. Mijo; Lat. Bilium, Panicum uiliaceum). There are 3 distinct species of millet; the polish millet, the common or (ierman millot, and the Iadian miliet. It is cultivated as a species of grain;
and is sometlmes employed to feed poultry, and as a substitute for rice. The Indian millet grows to a large siza; but the autumans in England are seldom dry and warm enough to allow of lts being cultivated here,-Loudon's Eacyc. of Agriculture.

Milliner. Defined hy Shakspeara and Johnson as a se'lar of ribbons and dresses for women, a very ancient occapation; the term is aupposed to be derived from Milan. There are men-milliners, and the adoptlon of such a trade by the male sex has been strongly and justly cansured. In 1810, men-milliners and other clasees of an epicene character were very strongly censured in the Society of Arts. Young females are employed at all seasons, and in all weathers, to carry bandboxes through the streets, exposed to the insolence of libertines, and the perils of vicious example, while the perfumed coxcomb ["He was perfumed liks a milliner."-Shakspeare.] measures ribbons safely at home, or folds gauzes, and lisps the while in lady phrases to females of distinction.-Butler.

Mill-stones (Ger. Mihhsteıne; Fr. Pierres meulières; It. Mole macine; Sp. Muelas de Molino; Rus. Schernowoi kamen), the large circular stones, which, when put in motion by machinery, grind corn and other articles. The diameter of common mill-stones is from 5 to 7 feet, and their thickness varies from 12 to 18 inches. These stones have been principally imported from Rouen and other parts of France; the burr-stones of that country being supposed to he more durable then our own. The leland of Milo, ln the Archipclago, furnishes mill-stones of a very excellent quality. They are exported to Greece, Italy, and other countries on the Mediterranean, where they are employed in grinding the hard wheat, or grano duro, used in the manufacture of macaronl, vermlcelli, ctc. The quarries are wrought on account of government, and the stones sold at moderate prices fixed by a tariff, which, however, lenves a handsome proft to the State.-Tournefort, Voyage at Levant; Strona's Greece. The stones usel by millers are of various sizes, according to the intensity of moving power ubtalnable. Technically, the two stones are called the rumuer and the bedder; and the operation of "hanging a runner," or adjusting the $\mathrm{m}_{1}$ per stone over the lower, is one of some delicacy; since not only must the two be rigorously parallel, but the distance between them must depend on the fineness of the flour to be produced and on the rapility with which the upper stone rotates. Other things being equal, the groater the velocity, the closer must the stones be together, else the centrifugal force would drive away the corn unground or half-ground.

Mineral Pitch, Maltha. A solid, softish bitumen. Sp. gr. alwut $1 \cdot 5$.

Mineral Tar. The bituminous substance called petroleum. It is brown, viscid, and unctuous. Its specitic gravity is 0.85 . It is found in Hritain, and on the continent of Europe, in the West Indics (Barbaloes tar), and in lersia. It may be resolved by distillation iuto naphtha and petroleum.

Mines (Mine, Fr.; Muyn, or Mun, Welsh), a subterraneons work or excavation for oftaining metals, metallic ores, or other mineral substances.

Statistica alfowinh tife Phontections of the Mines or the phisitpal tountaies in the Wohld,

## Austriun Empire.

Iron-Averaze produce. . . .ewt. $30,000,000 \quad £ 8,000,000$ Coal.....................4ulatals. 4,238, 441
Copper.................
tohl...
$\begin{array}{ll}. \text { imnres } & \begin{array}{c}5,6(6) \\ 94,105\end{array}\end{array}$
Russtan Empire.



Colonims:
sorione-Inclles.
White pine, $1446 . . . .$. pleces $\$ 44,690 . .$. .feet $24,698,260$

Cirpe of Good Hope.
Austruliu-A'to Nouth Wulen. cold uines at liathurst.
Hestern- Vian Mlemen's Land.
wiuth.
tons
fumitra

Maurillun.
Franch Poasessions-/hayti. Copper minnes.
('una.
Dutch Posmentons-Jued.
Ith exported, is40 . . . . . . . . . . . . . . . . . . . . . Ibe. 8, 895,805

Minim. The omallest liquid measure, generally regarded as about equal to one drop. The fluid drachm is divlded into 60 minlme.

Minnesota, a north-westernTerritory of the Unit od States of America, liss between lat. $42^{\circ} 30^{\circ}$ and $49^{\circ} \mathrm{N}$., and long. $91^{\circ}$ and $103^{\circ} 5^{\prime \prime}$ W. Area, 141,839 square milies. Population, 1850; whites, 6,038; cot ored, 39; total, 6,$077 ; \ln 1857$ estimated at 150,000 .

Phyaical Features.-Minnesota is an olevated tableland, with a surface but little varled, being mostly a relling prairie, sboundlng with lakes of pure water, and streams which flow in all Jirections, excepting toward the west. The solt is a fertile, eandy loam, easily cultivnted, and well adapted to agricultural purposes. The Mississippi River riges centrnlly in the Territery, In Itasca Lake, a beautifal sheet of water. The river flows first in an eastern, thence in a southern direotion, to the confines of the Territory; In its ceurse to the ocean. It le also drained by the Missouri and its numerous tributaries, the Red River of the North, whose watere pass off to lludson Bay, and the St. Louis entering Lake Superior on the eastern border of the Torritory. Forests of pine and other valuable Froods for timber, border the principal atreams, and lead and copper ere have been fonnd to some extent and iron ore on the shore of Lake Superior. There wers in the Territory in 1850, 5,035 nores of improved land, and 23,846 acres of nnimproved land in farms. Cush value of farms, $161,9: 18$; and the value of Implements and machinery; 15,981. Lire Stock:Llorses, 860 ; assee and mules, 14; milch cows, 607 working oxen, 655; other cattle, 740; shreep, 80 ; swine, 734. Value of live steck, 92,859 . Agricul tural /roduc/s.-Wheat, 1,401 bushels produced; rye, 125; Indian corn, 16,725; outs, 30,582; harley, 1, 216 ; buck wheut, 515. Value of the products of market gardens, \$150; pounds of butter made, $1,100 \mathrm{lbs}$; inaple sugar, 2,950 ; beeswax and honey, 80 ; tons of hay, 2,010; potatoes, 21,145 bushels; wool, 85 llwa ; sweet potatoes, 200 ; pens and beans, 10,002 . Valug of slaughtered animals, $\$ 2,480$. The common travel. ing roads and military roads are the oniy improve. menta yet constructed. The route of the great Nerthern Yacille railroad has been explored scross the Territory. Congress, in May 1856, appropriated ever $1,000,000$ acres for the censtruction of railiroals.
The French were the firet Europeans to explore the region now compriged in Minnesota, and the Missiso slppi River was oxplored ly the Jesuit fathers, even beyond the Fulls of St. Anthony, at a very early period. The IIrat American military post. was eatallished here in 1819, and ealled Fort Snelling. This county has furmed a part of severul territorial governments: the last were lowa and Wisconsin. It was formed Ioto a 'Territury with its present name (in 18.9), which it derives from the original indian name of st. Peter's River.
Mint. Athelstan frat enseted regulations for the government of the mint, abont A.D. $92 \%$. There were several provincial mints under the ocntrol of that of London. Stow says the mint was kept by Italians, the linglish being ignorant of the art of coining, 7 bilward I., 12:8. The operators wore formod into a corporation by the charter of King Eidward III., iu which condition It consisted of the warden, master, comptroller, assuy-master, workers, coiners, and sul) ordinates. The lirst ontry of gold lirought to the mint fur conage, occurx 18 Eilward III., 1aH3. Tin was colned by Cliarles 1I., :ibst; and gun-metal and pewter by his anccessor, Jamen. Hetween 1800 and 1810, grants amounting to $£ 263,000$ weru mada ly Parliament for the erection of tho presont line struct ure in London. The new constleution of the mint, founded on the report of the llonorable Mr. Welleaiey l'ole, took effect in 1815. The master is now the chief oflicer.

Tho general appropriation bill makes previsiou for
the exper States for

Mint

Cengre the brane lotte, conl advantag tahlished was produ the suppl penses at upon the Charlette necessary The colna ations for

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## Tot

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1N53.....
128....

Thus th small bran ally becom tain the she expenditur dient, whe phia for $\$ 6$ gold mine the mint 686, $56 \mathrm{c} \cdot \mathrm{F}$; pense of m (400,900) f
Mirage
at sea, und also witnes sia, and on
the expenses of the mint and branches of the Ualted Stater for the fiscal year, to the following effect :


Congress loges alght of the fact that the celnage of the branches at New Orlesna, Dahlonega, and charlotte, could be easily dispensed with, and with decided advantage to the Treasury. Those branches were established at periods when the bulk of American gold was produced In the southern Atlantle States. Now the supplies aro mainly from Callfornia, and the expenses at the three branches numed are a dead weight upon the Treasury, The colnage at Dahlonega and Charlotte, particularly, is too trifing to render either necessary or expedient any further operations there. The coinage at each place last year, and the appiopristions for the coming year, are as follows:

|  | Culnago-1888. | Expaneen-1888. |
| :---: | :---: | :---: |
| Pbllardelphta | 12,045,70298 | 177,200 |
| New Orleans | 2,868.510 60 | 68,200 |
| Drabonega, | 116,773 50 | 10,890 |
| Charlotte. | 217,885 50 | 11,600 |
| San Frauclsco. . . . . . . . . | 21,121,752 43 | 277,800 |
| New York Assay Oftice. | 20,441,818 68 | 02,210 |
| Total. | (56,812,782 99 | 8602,880 |

The coinage at Philadel phia, in 1855, was suspended for several months, in order to make extensive improvements, and to make the buildiag, for the first time, tire proof. The coinage of the parent mint has of late years been over $50,000,000$ annually. The sbove statement will, however, show that the coinage at New Orleans eosts noarly 3 per cent., Dahlonega 9 per cent., and Charlotte over 5 per cent. A Report of the Committee on Commerce, in 1850, demonstrated that the actual cost of colnage for a series of years was as fullows:

| At Philadelphia. | $\begin{aligned} & \text { Por cent } \\ & 0.23 \end{aligned}$ |
| :---: | :---: |
| New Orleans | 6.85 |
| Cliarlotte. | 890 |
| 1halonegis. | 9.97 |

This, be it remembered, was wisen tho coinuge at: the suutbern branches was more than double what it now is-the production of gold in that region being either actually less, or its profits less. The coinage at the three southern branches has now dwindled down to such small sums as to demand the closer attention of the gevernment, and indicates the expediency of cessation at all those points. The following is a summary of the gold of domestic production for each year, 185)-1855:

| Years. | New Orlanas. | Charlotte. | Duhlonrgn. |
| :---: | :---: | :---: | :---: |
| \|8iv1....... | 6,5,511,021 | (320),2-9 | \$247,698 |
| 1 5 ¢ $1 . . . . . . .$. | 8,770,722 | 818,081 | 870,349 |
| 1 $142 . . . .$. | 8,777,784 | 430,901) | 4,0,789) |
| 1553........ | 2,606,678 | S.k5, 150 | 454,290 |
| 1sit........ | 081,611 | 218,604 | 980,225 |
| 1855........ | 411,517 | 216,93 | 116,452 |

Thus the production of gold which was at the two small branches $\$ 567,000$ in the year 1850 , hus gridually hecome reduced to $\$ 383,000$, and in order to maintain the shovo of coinage at these two points, an annual expenditure of $\$ 22,000$ is hy Congress deemed expedient, when the same work could be dene at lhiladelphin for $\$ 6000$. Stnce 1838 , the gross product of the gold mines of North Carolina, as fur as indicated ly the mint returns was $\$ 4,238,236$, and of Georgia $\$ 5,-$ 6N6, N6t ; total, $89,925,100$; and the aggregate oxpense of maintaioing them $\$ 22,000$ unnually, or about Stoo, $(\mu)$ for the whole perind. See Coinages.
Mirage ( Fr .), an optical illusion very common at sea, and espeeially in high lattudes, and sometimes atso witnessed on land, particularly in Egypt and Persia, and on the margin of rivers and lakes, or on the sea-shore. It arises from nnequal refruction in the
lower strata of the atmosphere, and causes remote objecta to be asen double, as if reflected in a mirror, or to appear as If aunpended in the air. When the effect is confined to apparent elevation, the English aallors ctill it looming; when inverted images are formed, the Italians give it the name of F'ata Morgana (bee the term). Ships in the whale fiaheries are often descried, and aometimen known, by means of the mirage, at conaiderable distances. Csptain Scoreshy recognized his father's ahip at tice distance of more than 30 miles, and conaequently when below the horjzon, by its inverted Imsge in the air, though he did not prevlously know that it was crulsing in that part of the fiahery. The mathematieal thecry of the phenomenon is given by Blot, in the Memoires de l'Institut for 1809. See also Caddington's Optics; Biot's Traitd de Physique, tome lii.; Brewster's Optics, Cabinet Cyclopredia.

Mismissippi, one of the sonthern United States, is situated between $30^{\circ} 10^{\prime}$ and $35^{\circ} \mathrm{N}$. lat., and botween $80^{\circ} 30^{\prime}$ and $81^{\circ} 35^{\prime} \mathrm{W}$. long. It is 989 milea long from nerth to south, and 150 brosd, contalning 47,151 square miles. Population $\ln 1816$ was 45,929 , in 1820, 75,448 ; in $1830,136,806$; in $1840,375,651$; and $\ln 1850,606, b 55$.
The tract of land which now belongs to the present Stata of Nississippl was in olden times comprised under all those different ancient and general names under which the whole northern shore of the Mexican Gulf became known to Europe. In the year 1798 the name of the river was fur the first time given to a Territory, and the great "Missiasippi Territory" was erected, which included also the present Stato of Alalama. In the year 1817 the eastern portion of this Territory was separated from It and received the nams of Territory of Alabama, while the western portion, with a very limited sea-shore (from Pearl River to Grande Buy), was admitted into the Union as the State of Mississippl.

The southern part of the State, for about 100 miles from the Gulf of Mexico, is mostly a sandy, level pine forest, interspersed with cypress swamps, open prairies, and inundated marshes, and a few hills of a moderate elevation. This region is generally healthy, and by cultivation produces cotton, Indian corn, sugar, indigo, etc. As you proceod further north, the country becomea more elevated and agreeably diversilhed, and the soil is a deep rich mold, producing abondantly cotton, Indian corn, sweet potatoes, indigo, peaches, meions, and grapes. The natural growth of timber consists of pophur, hickory, black walnut, sugarmuple, cotton-wood, magnolia, lime, and sassafras, 'The eountry in the north of the State is healthy and productive, nud the lands watered by the Ynzoo through its whole course in the north-west are very fertile.

There were in this State in $1850,3,444,358$ acres of land improved, and $\mathbf{7 , 0 . 1 6 , 0 6 1}$ of unimproved land in farms; cash value of farms, $\$ 54,738,634$, and the value of implements and mathinery, $45,762,927$.

Live Stoch:-1Iorses, 115,460; asses and mules, 54,547 ; mileh cows, 214,231; working oxen, 83,485; other cattle, 436,251 ; sheep, 304,929 ; swine, $1,582,-$ 7ik. Value of live stock, $\$ 19,403,662$.
Agricultural Products, ctc.-Wheat, 137,990 bushels; rye, 9,606 ; Indian corn, 22,440,552; oats, 1,503,288; larley, 228 ; buckwheat, 1121 ; peas and beans, 1,072 ,757 ; potatoes, 261,482; sweet potatoes, 4,7.41,795; rice, $2,719,856$ pounds. Value of products of the orchard, $\$ 50,105$; produce of markct gardens, $\$ 46,250$. l'ounds of butter made, $4,346,234$; of cheese, 21,191 ; sugar, hogsheuds of, 388 ; molasses, $\mathbf{1 8 , 3 1 8}$ fallons; beeswax und honey; 397,460 pounds; wool, pounds produced, 559,619 ; cotton, 484,293 ; $11.1 \times, 665$; slik cocoons, 2 ; hops, 473 ; pounls tobaceo, 49,960; hay, tons of, 12,504 ; hemp, 7 tons; clover seeds, 84 bushels; other grass seeds, 533 ; flax seed, 26 bushels; and
were made 407 gallons of whe. Value of home-made manufactures, $\$ 1,164,020$ ) of slaughtered anlmals, *3,636, $\mathbf{8 8 2}$.

The Mississlppl River, with Its varlous windlngs, forms the entire western boundary of the State, and lts margin conalsta of laundated swampe, covered with a large growth of timber. Back of this the surface auddenly rises into what atre called bluffs, and behind them the country is a moderately elevated table land with a diversified surface. Cotton is the princtpal productlon of the State. The Yazoo is the largest river that has its whole course in the Stste. It rises in the north-west part, and after a course of 250 miles, enters the Missisaippl. I'he Pascagoula River, after a course of 250 miles, enters the Gulf of Mexico. At its month it widens inte a bay. It is navigable for a considerable distance for amall vessels. The Big Hlack River, after a course of 200 milex, enters the Mississlppi just above Grand Gulf. It has a bout navgation of 50 wiles. Pearl Piver rises in the eentral part of the State, and passing thiough lt to the south, forming la its lowe: part the boundary between this State and Louisia on, enters Lakg Borgne. Its navigation is much hupated by and bara and obstructions of timber. The Ilomoclitt, is a considerable river whieh entsas the Mississipyi. Leside those, there are a few other amall rivers no ! crseks. A shaln' of low, sandy islands, six or seven miles from the shore, enclose several bays or sounds, the largest of which are Misbissippi Sound, l'ascaguula Sound, and Lake Borgne.

Manufactures, etc.--There were In the State in 1850, 3 cotton factories, with a capital invested of $\boldsymbol{*}: \$, 000$, employing 19 males snd 17 females, produc ${ }^{2}$ g 11,000 pounds of yarn, valued at $\$ 30,500 ; 8$ establishme.ts, with a capital of $\$ 100,000$, employing 112 persons, and making 924 tons of castings, ete., valued at $\$ 117$,400; 157 flourligg and grist mills, 246 saw milla, 130 tanneries, 63 printing oflices, 56 newspm? $\quad s, 2$ triweekly, 2 semi- weekly, and 52 weekly pullications. Capital invested in manufuetures, $\$ 1, \times 35,395$; value of manufactured articlen, $42,962,038$. There were, January, 1856,10 railroals in the State, 87 miles completed snd in operstion.

The principal places in the State are Jackson, the capital, Natchez, Grand Gulf, Washington, Viekshurg, Columbns, Aberleen, and llolly Springs. On the 1at of January, 1854, there was one hank, with s capital of $\$ 240,000$. Total tonunge of the State, 1853 , 2,505,000 tons.


| 1526. ............ | Exports, … | Itmprits \$10,628 |
| :---: | :---: | :---: |
| 1836. |  | 5,600 |
| 1887...................... | (304, 5 , 31 |  |
| Jane 80, twit ta June 80, 1850. |  | 4,333 |
|  | . . . | 6,721 |

These returns are very incomplete, and only includo the direct commerce. Nost of the imports fir Misais. sippi are entered in the port of New Urleann.
Misalssippi River, the largest river of North Ameriea; and in length of navigalle tributaries, and in extent of facilities atfordel to commere, the greatest river in the world.

Discorery of the Miasissippi.-There seems to in Iltte doubt that l'inedo, the C'aptain of Cisray, saw for the tirst thae the mouth of the Mississipin when he aecomplished, in the year 1519, his first cirehomasign thon of the whole Mexican Ciulf. We have no npeerial repurt of Pinedu's peaceedings. But on the few map, or sketuhes of the Mexican liult which were mule in Spain soon after linetsis return (of the yeara lio20, 1525, and 1599), thare is to the found, near the centre of the northern ge'f shore, s large inlet called "Har pequefia" (the little sea), und a mithity rlver lea ug into it called "Rio del Beplritu Sante." Diego Ribero, on his larga and accurate map, (of 1529), which he made for the Fmperor Churles V., has this bav and
the mouth of the river already under $20^{\circ}$ north latltude, whlch is very remarkable, beoause it la the true latltude of the Mississippl mouth, and because it nearly decldes the question that not Moblle Bay, as some have supposed, but tho Miselsalppl, was indlented by it. Nobody could have made this diseovery, given theee names, and bruaght home the news of lt , hut Pinedo. Since that tline the "Mar pequena" and tho great Rlvor "Del Espiritu Santo" appoar on the old maps. We can trace and follow them or the Spanish maps through the whole of the 16 th century, und tind them slways, with some slight varlations, in the michdle part of the northern gulf shore, and generally under the latitude from $25^{\circ}$ to $30^{\circ}$ north.

It is thought that with the name "Mar pequena" is moant that great bay which is included between the projectlng promonturies formed by the Mississippl passos and the northern gulf shore, and for which we have nu general name. The Mississippi pusses must have appeared to the old Spandsh navigatora as very dangerous and difficult of npprnaei. And very often they put she name of the Iloly Cross to capse of this deacription.
The recond traveiar atter Pinedo who anw and erossed the Mississippl was no doubt Cubeca dy Vaca and his compunions, between the years $153 \%-1535$. Fron, Cambega de Vaca's report, it is evilent that his commander. Narraez, and his companions, font lost about Mobile or Porilldo Bay, or somewhere else not vary fart the cast of the Misslsslppi. Onve, he says, they believed themselves to have arrived at the " Bay of Espicitu Sants, near the Mhsmsslpli." Afterward Cabega and his followers wandered westwarl in the direction of Nex Mexlco; so they most have cros.ed the Misslssippi. But that is all we can say. He mentions so many great rivers in hls report, that we cab not recog.ize among them the true "Rio Grande," the Mississippl.

De Soto.--Fernando de Soto was the thir! discoverer and prinelpul old Spanish explorer of the Mississippi. lie arrived at its borders, in the neighturhoom of the so-ca'led Chicanaw hutfs, 1542 , and ascended and descended the river, which in the reports of his apeditions is generally only called " Jicic Grande," up and down. He died on the alore of the river, and was buried near its waters somewhere atout the mosth of the Arhansas River. De Sotu's sutcecessor, Mosenso, carried the rest of the Spanisharmy, in the year 15 d, down the whole river, and he was the first cemmander who sailed from the mouth of the river into the sea. Which of the passea it was can not be male out. Biedma. one of the writers on De Soto and Mosenso, and one of thei: companions, states, inwever, that the river had differint moths and tranches. In one of the reports on De Sotco's expelition (hy Garrilasso de la Vega) it is said that the Indian name of the great river was "Chucagu.." l'rohabl, it consequence of this, the geographers put somectimes on their maps the name "Shucagna" to the river. Generally, however, the old namn ot " Rio del Vist" itn Santo" (Biver of th" Holy (iisost) prevailed after :/s Sote for a long time Onv of ihe hisoorians of De soto, tig su called "I sptughese gentleman of cisves," sometimes calls it "the (ireat liver of Guachoya." (iunchoya vas one of the phees along the river where be Soto encamped. "In Cunchoyn," nay", tharrilasso "the fopad river is called
Tamaliven;' ite sileo, 'Tupala;' In Copa, 'Mico;' at the port or mouth it i4 called ' BI.' "
 sent to Pensacola tha, sad from thence, with his captains ind men, mali many inreds into the interior toward the ucrth ami west. It is very possila, thengh it la nowhern axactly stated, that anome of his men aliso got as far eest as the Missiseippi.
Mitrquette and /a Salle,-The Frebch Martquatte (1673) and mon aiter hin the Sieur do la Salle (16\%\%) re-discoverel the Misalsslppl, and say: a greater part
of the river than was ever acen before them. De la Salle was, after Mescoso (1643), the firat who aailed (1682) down the whole river to Its mouth, and entered the Mexican Gulf. He explored in boats the wholo delta of the passes, and saw, without however naming them, all the principal passes. A little above the dlviding point of the passes he erected a monument with the arms of France. Thls was on the 8th of Aprll, 1682. On the 7th of the same month he had explored the principal branches of the river and seen the sea. He observed also the latitude of this place; but there is a great diversity about the reaulta of ha observations. Some say that he oliservod the latitude $27^{\circ}$ north, as, for lnstance, that remarkable document of the taking posseeslon of the country at the month of the river by La Salle. Aiso, Barela aays that La Sillo nbserved the latitude of the mouth between $27^{\circ}$ and $28^{\circ}$ north latitude, "though," he adds, " some heurd la Salle say that the mouth was between $28^{\circ}$ and $29^{\circ}$ north latitudo," After this, La Salle ascended the stream agoin to the north.

Father Marquette (1672) was the person who introducal for the first time into geography the Indian nume of the river, "Mississippi." IIe, however, gave to it at the sume time the Cliristian or French name "Riviere de Conception." La Salle seems to have ratiled this latter name. He called the river, after the great French minister, "Riviere de Colbert." On some maps even the whole upper Mississippl country is called "La Colbertie" (Colbert's land). The name Riviere Colbert may be called I s Sulle's name for the Mississippi. It aeems, however, soon to have given way to the Indian name Mississipni, which really was already longer known to the European missionaries, and which was already oftener adopted in books and in commerce than those new inventions of the Finropean discoverers.
Tonti.-The next man after De la Salle who came down the Mississippi was tha Sieur de 'Touti, or 'Tonty, who hal already accompanied La Salle on his first navigation. De Tonti had heard that La Salle had set out from France to the mouth of the river, and he camc, in the year 1685, down to meet him at the whores of the Gulf. Ife arrived there during "the IIoly Week" (Faster) of 1686 , but did not find La Salle, who had reached the const of Texas instead of that of the Mississippi passes.

Origin of the Name.-" One of the names of the river under which Iberville, in 1699, hat heard it catled," says Charlevolx, "was Malbouchia." But the name Mississipil seems already then to have heen quite common. At least the first journal written in this colony-that of Captain Suuvol $(1699,1700)$-uses always the nane Mississippi, and not once that of lliviere Colhert. In the year 1712 an attempt was made to give the river atill another name. The great King of France himself ordered, in the letterd patent to Crozat, that the great river "heretofore called Mississipyi" should henceforward he called "Aiviere St. Louis." But this name, nowly sent out from France by ioyal authority, did not keep its ground against the ord long-ago adopted Indian nume. Charlevoix, who truvelet along the river in $1721-22$, and published his work in 1744, never uses it. He always calls it "Mississippi" or " 1 ficissipi." Into genernl uee the name liviere St. Lonla las certainly not eome; but on maps made ly royal geographers or great sizveros like D'Anville, we lind it still used in the yean 1332, though always besides tho numo Mississippi.

The namo "Mississipipi" is an Ojibheway wort, which the first discoverers of that strean heard pronomued in their missions round Labe Styerior. According to fome, its meaning is "the Great Water." Others, fur instance the Reverend Bishop Barage. 'xplain it as "rivers," or "woters from all sides."

The French authors generally write "Missisipi ;" Spanth avthors havo always "Misisiju." We now
double every consonant in it, and write "Missiselppl," In which word, I have no doubt, some letters could be spared.-J. G Koul.
Description.-Its extreme source, according to the explorations of Sehoolcraft, July 13, 1832, ls Itaska Lake, $47^{\circ} 10^{\prime} \mathrm{N}$. lat., and $95^{\circ} 54^{\prime} \mathrm{W}$. long., at an ele--atlon of 1500 feet, and the distance of 8160 miles ahove the Gulf of Mexico. Itaska Lake is a beautiful , set of water, lying among hills surmounted by pines. The outlet of the lake ls 10 or 12 feet broad, and from 12 to 18 incheo deep. Ita course ls then northwardly and north-eastwardly, and It passes through Iaken Irving and Travers, and then onstwardly and south-east wardly, and through some amall lakes, to Lake Cass. This lake is of conaiderable extent, and containe a large ialand, 182 miles below ita source, and Its surface is elevated 1830 feet above the Gulf of Mexico. Its course is weat to Lake Wlanipec, then south-west, through Little Winnlpec Lake, until it receives Ieech Lake Fork, the outlut of a consldorable lake of the same name. The mest northern point attainell by the river is a fow minutes short of $48^{\circ}$; it then pursues a winding couree eastwardly, passing through some smull lakes, until it attains a gouthwardly direction. The average descent of the Mississlppi, from its aource to its entrance into the Gulf of Mexico, ls a fraction over five inches per nile. The region about the source of the Mississippi is an clevated table land, ubounding in small lakes of pure water, and fed chiefly by aprings.
Extent of Steab Nafioation on the Rifers, Batous, mto, connbetrd with the Misbigsippi by Citannela navicaale for Steameha, 16,674 Miles.

Misaigeipiland Bbanenge, Bayote, etg.

| Mississippt, p | $\begin{aligned} & \text { Milles. } \\ & \mathbf{2 , 0} 0 \end{aligned}$ |
| :---: | :---: |
| St. Crolx... | 89 |
| St. Peter's | 1,120 |
| Clippoway | 79 |
| Black. | $6{ }^{6}$ |
| Wlsconsin. | 150 |
| Rock. | 250 |
| Iowa. | 110 |
| Codar | (0) |
| Des Moines. | 2 Na |
| Iiliaols.. | 245 |
| Maremee. | 60 |
| Kaskaskia. | 150 |
| $13 \lg$ Mudily. | 5 |
| Oblea. . . . . | 60 |
| Forked Deer | 195 |
| Blg liatelm. | 7\% |
| 8t. Franels. | 800 |
| White | 800 |
| Blg Black... | 60 |


| Bpr | 50 |
| :---: | :---: |
| Arkaosas (navigabie at |  |
| high water, S50 m. ).. | 600 |
| Canadian.............. | co |
| Neosho.. | 60 |
| Yazoo | 800 |
| Taltahatelige. | 800 |
| Thlabust ، | s0 |
| Bla Sunflower. | 70 |
| Littio Sunflower | 1/n) |
| Big Biack. | 90 |
| Bayou do Glaze, ....... | 140 |
| " Caro. | 40 |
| " Rouge.......... | 60 |
| " Lat Fourehl | 12 |
| " I'pquomiue | 96 |
| " Teehe.. | 12 |
| Grand RIver |  |
| Bayou Sorreil | 12 |

Missolirt and Buancues.


| Osa | Miles. |
| :---: | :---: |
| Grande | 1110 |
| Big Slour | $1 \%$ |

Omo and Bhancmes.

| O | $\begin{aligned} & \text { Milea } \\ & 1,004 \end{aligned}$ |
| :---: | :---: |
| Alleghan ${ }^{\text {a }}$ | 200 |
| Monongathela. | 60 |
| Musktngat. | 70 |
| Kanawina | 65 |
| ily Sandy | 50 |
|  |  |


| Kıntueky. | ${ }^{\text {anles. }}$ |
| :---: | :---: |
| Salt River. | . 25 |
| Green. | 150 |
| Barren. | 30 |
| Wabasib | 40 |
| Cumburian |  |
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Red Rivea ano Buancues.

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The average width of the Mississiopi below the Missourl is about a mile ; but the lurge rivers which enter it greally inereaso ite depth. Its medial current is about four miles an hour. At the head of the delta, tha depth is from is to 80 feet ; at New Orleans it is
100. At the distance of 105 miles belove Now Orleans, by the course of the river, bat 90 In a c'rect course, this majestic river enters the Gulf of Mexico by eeveral mouths, the principal of which are called the Bulise, or North-east Pass, in $20^{\circ} 08^{\prime} 80^{\prime} \mathrm{N}$. lat., and $89^{\circ} 01^{\prime} 24^{\prime \prime} \mathrm{W}$. long. Draining a country of over $1,000,000$ square miles in extent, it would naturally be expected that its spring floods would be vast ; and in consequence of them, it overflows its banks at that season to a great extent. From the sources to the mouth of the Miesourl, the floed commences in March, and does not subside before the last of May, at an average halght of 15 feet. From the Missourl to the Ohio it rises 25 feet, and below the Ohis, for a great distance, 50 feet. At every flood it overspreads a country, chiefly on its western side, from 10 to 80 miles wide, 850 miles from its mouth. This river is extremely winding in its course; and sometimes a bend will occur of 30 miles in extent, in which the distance acroes the neck will not exceed a mille. This circumstance undouitedly impedes the current, and than favore navigation.

There are three light-houses at the passes, and ono at the head of the South Pass, viz. : the one at the north-east is a flxed light, elevated 78 feet above the surface of the Gulf, and vivible $13 \frac{1}{\mathbf{h}}$ nautical milee; at the South lisss is a revolving llyht, on a tower of 54 feet above the sea; at the south-west pass is a flxed light, elevated 60 fect siove the murface of the Gulf, and visible 12 nautical miles; and one with a fixed light at the heal of the South Pasw, built of iron in 1852 : it shows a fixed light.

The acquisition of Loulsians and Florids by the United States having included within their boundary the whole river from its source to the Gulf of Mexico, and the atipulation in the treaty of 1783 , securing to British suljects a right to participate in its navigation, not having been renewed by the Treaty of Ghent, in 1814 the right of navigating the Mississippi is now vested exclusively in the l'nited States.-Wingatos's International Lav, p. 258.
"The right of the United States to participate with Spain in the navigation of the Kiver Mississippli, was rested by the American government on the sentiment written in deep characters on the heart of man, that the ocean is free to all man, and its rivers to sll their inhshitants. This natural right was found to be universally scknowledged and protected in all tracts of country, united under the same political socicty, by laying the navigable rivers opron to all their inhabltsats. When these rivers enter the limits of another society, if the right of the upper inhabitants to descend the stream was !n any cace obstracted, it was an act of force by a stronger society against a weaker, condemned by the judgment of mankind. The then recent case of the attempt of the limperor Joseph II., to open the navigation of the Schollt from intwerp to the sea, was considered as a striking jroof of the general union of sentiment on this point, as it was bolieved that Amsterdan hail nearcely an advocate out of llolland, and even there hire pretensions were advocated on the ground of treaties, nad not of natural right. This sentiment of right in favor of tho ujper inhabitants must become sironger in the proportion which their extent of country hears to tho lower. The linited states held 600,000 myuare miles of inhabitalde territory on the Mississipil anl its branches, and this river with it.s branches atforled many thousamis of miles of navigable atera penetrating this territory in all its jarls. The inhabitnhle territory of Spain below their boumdary, and lardering on the river, which alone could protembang fear of being incommoded by their use of the river, wan not the thousanith part of that extent. This vast portion of the territory of the Unitel States had no other outiet for its productions, and these productions were of the buikient kind. And, in tri th, their pasemge down the
river might not only be innocent, as to the Spanish subjecte on the river, but would not fail to enrich them fur beyond their actual condition. The real interesta, then, of the inhnbitaints, upper and lower, coneurred in fact, with their respeotive rights."-Wuraton's IMernational Law, pp. 258, 259.

Missourd, one of the western United States, is situated between $86^{\circ}$ and $40^{\circ} 30^{\prime} \mathrm{N}$. lat., and between $89^{\circ}$ and $95^{\circ} 30^{\prime} \mathrm{W}$. long. It is 287 miles long, and 230 broad, containing 65,087 square miles. T'opulation in 1810 was 10,838 ; in $1820,60,688$; in 1830,140 ,074 ; in $1840,383,702$; and in $1850,682,043$.

Phyaical F'eatures, etc.-This State prosents a great variety of surface and soil. Alluvial or bottom land is found on the margin of the rivers; receding from them the land rises in mome places gently, and in others very abruptly, into elevated harrens or rocky ridges. In tho interior, bottoms and barrens, naked hills and prairies, heavy forests and streams of water, may often be seen at one view, presenting a diversified and beautiful landscape. The south-east part of the State has a very extensive tract of low, marshy country, abounding in lakes, sind liable to inundations. Back of this a hilly country extends as far as the Osage River. This section is rich in aninerals. The leati region covers an area of more than 3,000 spluare miles. In St. Francis county is the celebrated "Iron Mountain," elevated 300 feet sbove the surrounding
plain, and $1 \$$ miles across its summit, and 80 per cent. of its mass pure iron. Five miles distant is the l'ilot Knob, MOl feet high, and with a base a mile and a half in circumference of the asme species of rich ore. Hetween the Osage and Missouri livers is a tract of country very fertile, and agreeably diversified nith woolland and prairic, and abounding with coal, salt, etc. The country north of the Missouri is emphutically "the rarilen of the Weat." There is no part of the world where a greater extent of country caln be traversed inore easily when in its natural etate. The surface is for the most part delightinlly undulating und variegated, sometimes rising into picturesque hllis, then atretching away into n sen of prairies, oc. casionally interspersed with shaily groves and shining streans.

There wore in this State in 1850, 2,938,425 acres of land in: reroved, and $6,79 ., 2 \cdot 4$ of unimproved land in farms ; cash value of farms, $863,2: 5,513$, and the value of implements and machinery, $\# 3,981,555$. Live Stock,-Horses, 225,319; asses and mules, 41,667; milch eows, 230,169; working oxen, 112,1 is ; other cattle, 441,173 ; sheep, 762,511 ; swine, $1,702,625$; valHe of live stock, $\frac{a}{3} 19,487,580$.

Agricultural Products, zte.-Wheat, 2,581,652; rye, 44,268; Indian corn, $36,214,537$; oats, $5,278,079$; barley, 9,631 ; buckwheat, 23,611; pess and beans, 46,017 ; potatoes, 933,006 ; sweet potatoes, $333,50^{\circ}$; rice, 700 pounds; value of the product of the orchard,
 of butter made, $7,8: 34,359$; of cheese, 203,572 ; maple sugar, 174,910 ; molasses, 5,636 gallons; beeswax ind honey, $1,328,1722$ pounds ; wool, $1,6: 2,16 \mathrm{t}$ pomuls produced; thax, 527,160 ; silk comons, 186 ; hops, 4,180 ; tohaceo, 17,113,784; hay, 116,925 tons; hemp, 16,60, tons; clover seeds, 619 busheis; other grass seeds, 4,346 ; thax need, 13,606 ; and were male 10, obit gajlons of wine. Valta of home-made manufactares, 43,674,705; of slaughtered unimals, $\$ 3,367,100$. The Mississipui winds aton; the entire eastern boundary of the State for a distance of 100 miles, and receives in its course the waters of the Great Missonri, which indeed deserven to be rogirded us the main stroam. Through the central and richest part of the State the Missourl rolls its tmmense volume of water, binger navigable for tive montha in the year tor steambata 1 , wo miles from ite entrance into the Mississippi. The la Mine, Osage, and Gasconade on the south, and the Grand anit Chariton on the north sitle, are navigable
tributa
throug und en Salt Ri sipil 8 St. Pra of Neo Mfan 2 cotton employi valued of 820,0 facturin ets, vult iron, wi sons, 3 n ued at *187,00 tons of ments, sons, mis at $\frac{8}{8} 68,7$ 210 tant semi-wes Capital of insnu

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tributaries of the Minsourl. Maramec River runs through the miaeral district, is a navigahle stream, and enters the Mississippl 18 miles below 8 t. Louia. Sult River, which is also nuvigable, enters the Mississippl 85 miles above the Mlasouri. The White end St. Pruncis druin the nouth-east, and the tributaries of Neosia the south-west part of the Stste.
Manufacturea, etc.-There were in the State in 1850, 2 eotton factories, with a capital invested of $\$ 102,000$, empioying 75 males and 80 females, producling articles valued at $\$ 142,900 ; 1$ woolen factory, with a capital of $\$ 20,000$, employing 15 males and 10 females, manufacturing 12,000 yards of cloth, and 0,000 puirs blankets, vulued at $\mathbf{9} 56,000 ; 5$ estabilishments making pig iron, with a capltal of $\$ 019,000$, employing 331 persons, and producing 19,250 tons of pig iron, etc., valaed at 3 314, $000 ; 6$ establishments, with a capitul of * 187,000 , employing 297 peraons, und making 5,200 tons of eastings, ete., vulued at $\$ 336,495 ; 2$ estublishments, with a capitul of 842,100 , employing 101 persons, manufacturing 963 tons of wrought iron, valued at $\frac{4}{6} 68,700 ; 75$ flouring and grist millx, 338 , saw mills, 210 tanneries; 50 printing etfiees, 5 daily, 1 trl and semi-weekiy, 45 weekly, and 7 monthly pullications. Capital invested in manufactures, $89,194,099$; vnlue of inanufuctured articles, $\{2 \cdot 4,250,574$.

The principal places in this State are St. Louir, Jefferson City, the capital, St. Charles, Pulmy ra, Columbia, Liberty and Lexington. Ticre were in January, 1854, 1 lank with 5 brunches. with a eash eapital of \$1,215,405. There were 9 railroads in the State; 50 miles of road completed, and 963 in the course of censtry"tion. Tonnage, 1853, 45,441 tons.
Dhect Forpion Commence ov tifa Statr of Mibsuuml
From October 1st, 1892, to Oetober 1st, 1840 Impur'-
" 1840 , to Juty ist, $1 \$ 50 . .1,024,11^{7}$
Jaly 1st, 1850 , to Jaty 1st, $15 \$ 5 . . . .$.
District tounage enrolled and licensed, $34,06 \mathbf{t a}^{5}$ tens. The returns of the foreign commerce are very incomplete, und oniy include the direct exports.
The foliowing statement exhilits a rapid increase in the population of Missouri for the years mentioned: poruiation.


The statement below showa a most gratifying allvancement in the number, quantity, and value of the chief oljects of taration in the State. The years mentimed are seiected merely for the reason that the aghregates for those years are the most accessible, witheut making laborious additions. Any other periods would exlithit the same flattering results:

| Yoare. | Polla. | land. |  | Personal property. |
| :---: | :---: | :---: | :---: | :---: |
| 1849 | 83,799 | Acres | Fatue. | $\begin{aligned} & \text { Saluw } \\ & \text {. } i 80,000 \end{aligned}$ |
| 1046. | N, 016 | 9,5t1,251 | 86,099,000 | 10,797,000 |
| 1433. | 97,470 | 1t,250,4.5 | 61, 511,000 | 19,021,000 |
| 1554. | 102,953 | 12,901,237 | 67, $3+4,040$ | 22,974,000 |
| 18is). | tu)6,151 | 15,890,834 | 79,010,000 | 24,842,900 |
| 1806. | 121,489 | t8, 588,128 | 89,702,000 | 30,846,010 |

For mineral resources, etc., of Missouri, see North Aner. Rer., xlviii., 514 (W. G. Eliot); Ilunt's Mag., viil., 635 (C. C. Wirttlesery), xiii., 222, xv., 28, xvi., 177.
Missouri, a large river in the United States, rises in the Rocky Mountalns, and takes its name after the union of three loranches, denominated Jefferson, Gallatin, and Madison, in $455^{\circ} 10^{\prime} \mathrm{N}$. lat., and $110^{\circ} \mathrm{W}$. long. The spring sourcen of Missouri, und those of the Columbla, which flows west to the Pucifle, ase not more th:n a mile apart. At the distance of 411 miles from the extrene point of navigation of its head branches, the Missouri passes through the Rocky Mountains by what is lenominated the Gates. For a distance of six milies the rocks rise perpendicularly from the water's edge to the height of neariy 1200
feet, and the river is only 160 yards wide. 110 miles below thin and 621 miles from its source, are the Great Falis, 2,575 milles alove its entrance into the Miselssippl. The river descends 857 feet in 18 miles, by a succession of talls. The Yeliowstone River, 800 yarls wide at lts mouth, enters the Missouri from south-west 1211 miles from lts source and 1,880 from its mouth. The Missouri enters the Mississippl 8,090 miles from ita source, which, added to 1395 miles, the distance to the Galf of Mexice, makes the whole length 4,491 miles. Through this whele length there is no serious impedment to navigation except tha Great Falla. The principal tributaries are navigable from 100 to 500 miles. See Mississtrpi Riven. The Mlesouri through the greater part of its course in rapid and turbd, and about a mile in width. The plat or valley of Its bunks is exceedingly fertile and from 5 to 25 miles wide on each side.

Moblle, eity, port of entry, and capital of Moblle county, Alabama, 200 miles sonth-west of Montgomery, 217 milles south by west of Tuscalosan, 170 milies east north-east of New Orleans, 35 miles west by north of Pensacols. Molile is situated on the west slde of a river of the same name, at its efltrance into Mobile Bay, 30 miles nerth Moblile Point, at the mouth of the bay, and at the commencement of the Mobile and Ohio ruilroad. Lat. $30^{\circ} 41^{\prime} 20^{\prime \prime}$ N., leng. $88^{\circ} 1^{\prime}$ $29^{\prime \prime}$ W. from Greenwich, Englancl. Population, 1830, 3,194; 1840, 12,672; 1850, 210,515; 1854, 25,000. Mobile is situated on a beautiful and extended plain, clevated 15 feet above the hlghest tides, open to refreshing breezes from the bay, and comanndiag a beautiful prospect. It is ilghted with gas, and gupplied with pure water brought from "the spring" near Spring Hill, a distance of 8 miles, and distributed throughout the city in iron pipes. The entrance to Mobile Bay ls between Mobile Point on the enst, and Dauphin Island on the west, ahout ist miles apart, the deepest channel having 15 fect water at low ebb; thit vessels Irawing more thun 8 or 9 feet water can not, ewing to a dhoul in the bay, reach the town except at high water. A light-house erected on the point, lat. $30^{\circ} 16^{\prime}$ N., long. $88^{\circ} 32^{\prime}$ W., exhibits a fixed light elevated 55 feet above the level of the sea. Vessels drawing more than 8 fect water pass up Spanish River, 6 miles, around a marshy island into Mobile River, and then drop down to the city. It is, next to New Orleans, the greatest cotton mart of the South. 681,000 bales were exported in the year 1855. The exports amount to from $\$ 12,000,000$ to $\$ 16,000,000$ annually. Tonnage of the port 1853, 176,949. It is defended by Fort Morgan, formerly Fort Bowyer, sitnated on it long, low, sandy point at the mouth of the bay, 30 miles below the eity. Near Dauphin Island is the anchorage for large class vessels, where may be scen at times a flect of 50 or lio sail. It was' surrendercd to the Americuns by Spain in 1813, chartered as a town in 181.l, ineorporated us a city in 1819 . It has suffered severely by lire : 170 buildings were burned in 1827, and 600 in 1839. But it has heen rebuilt, with additiodal beanty and convenience.
Statement of the Value of thposts ang Dutieg at the
 Fikst and secono quahtera of 1857.

|  | Importh. |  |  | Dutien. |
| :---: | :---: | :---: | :---: | :---: |
|  | Inillable. | Free. | Toral. |  |
| tst quartor, 1366...... | * 91.642 | 111.746 | +203,298 | 32. 2,256 |
| 2 l " " ...... | 302,287 | 86,5413 | 43x,790 | 93,069 |
| 84 " | 26,088 | 60, 0156 | 86,479 | 7,661 |
| 1th " | 197.432 | 6.4110 | 240.732 | 06,671 |
| Totat, 1*56 | . $\cdot$. | . . . | \$934.889 | 1 180,408 |
| " 1855....... | . . . | .... | 441.529 | 62,288 |
| " 1854....... | .... | .... | $8 \times 9,622$ | 184,878 |
| 1st cuarter, 1857. | 151,002 | 170,75t | * 821,818 | *40,964 |
| $2 \mathrm{~d} 4{ }^{*}$. | 81,159 | , | 81,150 | 11,545 |
| Total 6 months... |  | $\ldots$ | (3)22,972 | *52,508 |

Fommion Expronts from the Port of Moblly poz the

Tarlz of Eivtriga and Climabancth or Venaria at tik Pont of Manile (xxClitsivf of steamena and otiza


| Charseler. | Enirles. |  |  | Cliarmase. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Veneriol | Tuna. | Crew. | Feosela | Totus. | Craw. |
| American. | 81 | 60, 068 | 2.034 | 187 | 111, \$16 | 8,691 |
| Porelga | 64 | 49,758 | 1,418 | 82 | 4.881 | 1,048 |
| Coastwlse | Stid | 247,1044 | 0,780 | 217 | 71,618 | 2.264 |
| Total. | 706 | 857,406 | 18,286 | 456 | 222,560 | 6,608 |

 81m7, 1857.

|  | Hrles. | Pounds. | alun. |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | 81,148 | 41,21,9,6609 | $5,201,591$ |
|  | 1.871 |  |  |
| Total to Oreat Britalo. | [211,281 | 106,4 $\times 0,882$ | 118,464,415 |
| France, in Ainer. vessols.. <br> " " Bard. | $\begin{array}{r} 81,695 \\ 145 \end{array}$ | $\begin{array}{r} 42,789,8,3 \\ 7,94 \end{array}$ | $\begin{array}{r} 15,204.014 \\ 9.614 \end{array}$ |
| Total to France. . . . . . | 81,840 | 42,902,527 | - $5,3083,624$ |
| \|helgium................. | 2,297 | 1,157,501 | 151,424 |
|  | 2,10is | 1,024,200 | 128,845 |
|  | 2.545 | 1,942,476 | 164,675 |
|  | 8,190 | $4,145,150$ | 845,044 |
| folland | 1,470 | 706, 544 | 91,186 |
| Denmar Spaln. . . | 1,12\% | 59 | 74,200 |
|  | 1,2025 | 611,112 | 4 |
| Total to othar for, ports Total firelgn | 15,918 | $0.578,74$ | 41,238, 048 |
|  | 14,959 | 158,921,540 | : $20,20246,491$ |


| Companativk View of tile Exponts or Cotron yoor <br>  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Porta. | \| 1856 -81. | 1855-66. | $1854-56$. | 1853-64. |
| Livarpool | 196,465 | Holen. 840,512 | Haleet <br> 218,616 |  |
| Ilull. | 4,514 |  |  |  |
| Olasgow and Cre | 8.059 | 8, 14 |  |  |
| Cowea and a mark | 4,883 | 5,605 | 1,642 |  |
| Total to Great Britaln | 211.231 | 351,690 | 215,24 | 231,280 |
| İav | 84,563 | 94,012 | 110,0\%4 | 76,527 |
| Pochelle, | 182 | 804 | 1,016 |  |
| Marselllee and | 145 | 1,948 |  |  |
| Total to Fra | 84,840 | 96,969 | 111,090 | 16,927 |
| Amsturila | 1,470 | 5 | 2.0 | 2,961 |
| Autwerf | 2,297 | 0,901 | 9,5039 | 6,057 |
|  | 10,735 | 10.779 | 1,5\%3 | 8,994 |
| Stockholm, Ghent ete | 2.064 | 7,891 |  | 1,525 |
| Glbraltar and Barcelo | 1,245 | 8,017 | 8,7it | 8,406 |
| Ilavamame |  |  |  | 105 |
| Genom, Tr |  | 8,1000 | 1,989 | 5.719 |
| Oth | 2.3 |  | 1,268 | 13 |
| Total te oth. | 15,918 | 85,489 | 13,973 | 20,1994 |
| Naw Y | 28,786 | 28,402 | 81, 0.5 | 85,414 |
| Buwton. | 4i,412 | 65,907 | 26,953 | 43,234) |
| Provldan | 22.932 | 17.672 | 15,45 | 23,419 |
| Pbllatulp | 6,581 | 8,975 | 1,818 | 8,077 |
| Daltimo | 3,694 | 4,544 | 8,804 | 8,921 |
| New Orl | 60,036 | 78,507 | 82,007 | 64,056 |
| Other | 2,510 | 8,555 | 1.400 | 2,981 |
| Total cosatw | 174,405 | 194,286 | 112,782 | 174,505 |
| Gralld | 454,044 | +s1,321 | 458,1163 | 515,056 |
| 5 F |  |  |  |  |
| Prear | 211231 | 351,690 | 215,249 | 231,230 |
| Frall | 84,940 | 96,263 | 111,090 | 76,827 |
| Other forelign | 18,913 | 87,053 | 18,978 | 29,1194 |
| Tutal fore | 814.989 | 455.035 | 810 | 837,151 |
| Tutal Conlted States.. | 174055 | 196,2s6 | 112,72 | 174,505 |
| Oraml total | 459,044 | 681,321 | 483,108 | 515,0 |


Stofk of Cotton at the Poht of Mohile in Prenses,



Compabative Imponte of tire pollowino gtaple Ahthele intil tile Poht of Mohilik yok pive Y'zaks.

| Artielas. | 856 |  |  | 188 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Hayging . . . . plecen | 16.460 | 28, 17 | 23,989 |  |  |
| Halo rope, . . . . cealla | 82,711. | 64,909 | 31,507 | 21,88\% | $2.1,107$ |
| Ilacon. . . . . . . .hinda | 21,415 | 12,026 | 16,929 | 17,74 | 13,24? |
| Cotfee... ....smeka | 82,684 | 83, 2 54 | 28,986 | 20,67* | 84.403 |
| Corn | 14,482 | 48,486 | 101,225 | 159,029 | 92,114 |
| F'lour.. . . . . . . bbls. | 73, 280 | 69,075 | 41.920 | 62.05\% | 64,44 |
| Hay . . . . . . . . . bales | 81,008 | 13,056 | 17,508 | 25,101 | 22,4 |
| Lard. . . . . . . . . kegt | 14, 103 | 16,692 | 22,063 | 15,738 | 92, 8,9 |
| I.Ime. . . . . . . . bhis. | 28,100 | 6790 | 14.632 | 11,903, | 31,202 |
| Molas | 7,307 | 17,614 | 29.884 | 80,709 | $19,6 \times 1$ |
| Tata. . . . . . . . . ancka | 29,005 | 8s,912 | 831,839 | 60,426 | [4.80 |
| Potatoes . . . . . . bbls. | 17,605 | 19,813 | 12,099 | $2 \mathrm{H}, 2 \mathrm{tal}$ | 21,24 |
| Por | 18,612 | 19.944 | 12,440 | 14,700 | 15,44 |
| \|late. . . . . . . . Un-rees | 2,408 | 1,961 | 11.621 | 2,349 | 1,898 |
| Sult. . . . . . . . . .sacks | 172,015 | 234,8\%1 | 189,941 | 169, 6 31 | 12x, 2 估 |
| sugar.. ...... hhds. | 6,183 | 7,570 | 7,431 | 8,893 | N,35? |
| Whlsky . . . . . . bblw. | 81,24 | 35,015 | 10,702 | $24,69{ }^{\circ}$ | 21,951 |

Comparatiyg Virw of the Stums of the voliowina Staple Abticless to Datk at Mobile, yok bix Yeaky

| Ariclen. | 1mat. | JM56. | 1sss. | 1830 | 1853. | $185 \pm$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hagglng... .pleces | 5,2ヶ2 | 8,595 | 5,054 | 3.013 | 8,7-4 |  |
| Hale rope.. cella | 4,94B | 1,2639 | 4,290 | 3,874 | 7, \%M2 | 2,24) |
| Hacon.......hthia. | 704 | 507) | +28 | 4.4 | 273 | 656 |
| ('otton......bale | 4,514 | 5,0045 | 29,813 | 29,27 | 7.516 | 2.319 |
| f'offed.......saeks | 6.012 2 | 4,194 | 1.197 | 1,476 | \%,982 | 1.tis |
| Curn | 6,7:9 | 2,277, | 5,1230 | 7.484 | 0,the | $1,9(1)$ |
| 'Flour . . . . . . bbla | 2,196, | 2,222 | t,968 | 1,843 | 1,2x | 129 |
| llay . . . . . . . bales | 2,680 | 1,296 | ',180 | 3,492 | 2,994 | 2,52 |
| lard.........kegs | 1,171 | 1,000 | , 27 | 58 | 59 | 516 |
| Llme........bbls | 550 | 1,117 | 0,153 | 1,550 | 9,11* | 2,175 |
| Molasees | 814 | 794 | 815 | 2,156 | 1,236 | 793 |
| Oats........eacks | 4,632 | 4,983 | 2,924 | 4,677 | 1.153 | 914 |
| H'otatocs. ... .bbla | 807 | 43 | 824 | N9 | 171 | 179 |
| Dork | 918 | 451 | 248 | S894 | 418 | 15 |
| \|Rice.......t|erces | 691 | 146 |  | ${ }_{2}{ }^{2}$ | 43 | - |
| Sall..........rack | 47,149 | -22,666 | 10,745 | 23,1i4 | 14,324 | 3,43\% |
| Sugar. ......hlids. | 274 | Sis | 910 | B45 | 67: | 119 |
| Whlsky.... bbls | 7.170 | 3.8011 | 1,916 | 2,083 | 8,494 | 8,209 |
| Canlles . . . . | 28,53 | 1,664 | 1,865 | 1,580\% | H52 | 1,304 |

Exproats of Cotton from Mohlek rhon 1436 to 1sish, con nencing Sxitemuka 18t.

| Vorta. | -31. | 1899-50. | 1854 | 1841 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Anles. | thalem. | Hislos. |  |  |
| Great Brftala | 250,118 | 162,149 | 990,836 | 228,329 | 181,156 |
| France | 46,005 | 89,918 | 63.290 | 61.812 | 89,293 |
| Other for. ports | 26,878 | 11,027 | 44,525 | 29,070 | 19,734 |
| Total forcligh. | 822,496 | 214,099 | 899,61 | 819,211 | 190,238 |
| Total | 06,929 | 111,452 | 140,998 | L2, 1, 3,50 | 116,074 |
| Grand tot | 13,525 | 420,511 | 399,642 | 441,31 | 3nts |

Thrid tors of have ad on cotto 20 cent. hale: ex per bale brle ; dr wharfag age on bule; til bale ! ar Aluban of this : the fincal a total of

Bept. 30,
9 mos.
Jane 30

June 30,

Mobile Gulf of 1 age 12 m by two s The strai drawing 1 between and the $c$ There is has only is on the Lat. $30^{\circ}$ Shows $n$ level of $t$ cal miles is Sand I: $02^{\prime}$ west. the sea, miles. Molile, i fired ligh bny, and

MOC

Tariff of Chargen om Colton o Mobile.-The proprietors of the several preases and warehounes at Moblle, have adopted the following unlform tariff of chargen on cottou: Factor's storage on cotton for thes seanon, 20 cents per bale; compressing cotton, 50 cents per bala; extra ropes on compressed cotton, each $6 \frac{1}{6}$ cents per: bate, labor on ship marked cotton, 5 cents per bale; drayage, compressed cotton, 5 centa per bale 1 wharfaga, comprensed cotton, $B$ cents per bale; atorage on cotton going coantwise, per week, $\delta$ cent per bale; turning out and re-storing cotton, i cents per bale; urranging, 8 cents per bale.

Alubama t'inances.-The Comptroller and Treanurer of this State have published the hlennial reports for the ftseni year ending September 30, 1850, which show s that of recelpte into the treasury, from all sourcen,
of 798,00846 ; of whioh som $\mathbf{6} 616,86316$ was on the ansensment of taxes for the year 1856, 1 the balance, 481,14581 , maklag up the first sum, wat derived from taxes or 1844, 1847, 1851, 1853, 1854, from State Bank branchea, bonus from Stoek Bankw, Marietta and Ohio Kailroad, 16th section fund, and 2 and 8 per cent. funds, ete. The above sum of recelpte, 8798,008 40, with the balsnce in the treasury, September 30, 1855, of $\$ 1,102,66296$, makes $\$ 1,900,65642$. The disburbe. mente for the year ending 80th Sejtember lat, amount to $\$ 486,867$ b2, of which $\$ 158,65221$ were pald for edueatlonal purposes, $\$ 100,000$ to liank Commissioner, 461,745 50 to pay members of the Leglshature, ete., \$26,350 87 to lnmane hospital, and the bulunce to the judiciary, unlversity fund, etc., etc. There was in the treasury on September 50, 1846, 1,503,788 90.

Fobrion Connegce opitie Btatr of Alabana, phom Octobab 1, 1820, to July 1, 1856.

| Yonrs endlay | Exports. |  |  | Imporis. | Tonneys eleured. |  | Dlotriel Toanaga. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatic. | Forsign. | Total. | Total. | Aunerlean. | Forelgn. | Reglatered. | Enrolled and Hethed. |
| Hept $80,1821 \ldots . .1{ }^{182}$. | \$148,909 |  | 1118,960 |  |  |  | 614 | 0,576 |
|  | Y00,748 |  | 200,748 | 886,421 | 2,000 | 85 |  |  |
|  | 202,847 457,725 | 18,003 | 202,887 461,747 | 125,770 91,604 | 2,187 6,847 | 1,49 | $\ldots$ | ... |
|  | 691,897 | 788 | 692,64\% | 118,41t | 9,496 | 884 | ... |  |
|  | 1,518,701 | 8,41L | 1,527,118 | 179.554 | 16,086 | 3,807 |  |  |
|  | 1,880,770 | 45,594 | 1,976,804 | 201.009 | 18,000 | 8,078 | . $\cdot$. |  |
|  | 1,177,787 | 7, 822 | 1,182,1599 | 171,009 | 15,850 | 4,765 | .... |  |
|  | 1,679,885 | 14,378 | 1,69M,058 | 288,729 | 14,484 | 4,953 |  | . $\cdot$. |
|  | 8,201,825 | 8,129 | 9,294,454 | 144,428 | 22,277 | 4,050 |  |  |
| Sept. 30, 183t | 69,660,135 | * 38,269 | 6,749,404 | -1,209,121 | 102,939 | 20,975 | ... | . ${ }^{\text {a }}$ |
|  | -2,412,862 | -1,092 | *2,413,894 | \$224.435 | 14,707 | 10,959 | 2,196 | 8,025 |
| 1892.. | 2,733,451 | 2,438 | 2,786,847 | 816,945 | 18,764 | 12,384 |  |  |
| 1888. | 4,522,421 | 5,740 | 4,527,901 | 265,915 | 29,1167 | 9,238 |  |  |
| 1834. | 8, 664,047 | 4,780 | 5,870,797 | 395,961 | 299,272 | 10,614 |  |  |
| 1835. | 7,572,124 | 2,564 | 7,574,694 | 525,955 | 82,705 | 32,105 | . $\cdot$. |  |
| 1886. | 11,48,798 | 878 | 11,141,168 | 651,618 | 85,341 | 17.967 | .... | .... |
| 1897. | 9,1022.910 | 6,499 | 9,358,304 | 8039835 | 58,829 | 10,725 |  |  |
| 1888. | 9,084,049 | 195 | $9,0 \times 8,244$ | 524,548 | 27,191 | 11,996 |  |  |
| 1889. | 10, $12.454,094$ | ... | 10,888, ${ }^{12,594}$ | 8115,201 574,831 | 45,236 04,551 | 17,068 28,562 |  | .... |
| Tot | 676,42, 412 | * $4.5,390$ | 170,047, 512 | 61,973,917 | 358,795 | 180,5-18 |  |  |
| 8ept. 80, $1841 . . . .$. | $\begin{array}{r} 10.969,829 \\ 9,965,1175 \end{array}$ | \$11,445 | -10,081,27t | $8530,8.0$$366,47 \mathrm{t}$ | 47,48151,24 | $\begin{aligned} & 85,795 \\ & 8 \mathrm{y}, 005 \end{aligned}$ | 5,569 | 10.125 |
|  |  | .... | 9,965,075 |  |  |  |  |  |
| $9 \mathrm{mos} 1843.$. | $\begin{array}{r}11,157,460 \\ 0,4001 \\ \hline\end{array}$ |  | 11,157,400 | 8160,655 | 70,107 | 65,900 | .... |  |
| Jare 80, 184. |  | 1,459 | 0,907,654 | 442,919 | 47,007 | 68,983 |  |  |
| 1845 | 10,515, 274 | 22,954 | 10,538,229 | 473,481 | 81,032 | 62,491 | .... | .... |
| 146. | \$,2600,317 | .... | 5,260, 817 | 259,607 | 46,044 | 51,007 | .... | $\ldots$ |
| 1847. |  |  | 9,051,591 | 890,401 | 23,103 | 48,185 |  |  |
| 1848. | $11.920,608$ | 7,050 | 11,927,749 | 419,896 | 67,574 | 49,859 | $\ldots$ |  |
| 1949. | $12,824,725$$10,644,658$ | .... | 18,928,725 | 657,147 | 76,528 | 74,509 |  |  |
| Juve $30,18$. |  | .... | 10,644,858 | 860,362 | 32,268 | 80,717 |  |  |
|  | 102,116,608 | \$42,914 | 102,161,817 | 14,768,327 | 550,476 | 345,030 | .... | ...' |
|  | \%18,529,924 | 4,128 | $\begin{aligned} & \$ 18,529, \$ 24 \\ & 17,885,704 \end{aligned}$ | $\begin{gathered} \$ 418,410 \\ 688,882 \end{gathered}$ | $\begin{aligned} & 60,747 \\ & 91,067 \end{aligned}$ | 52,518 | 8,078 | 16,749 |
|  | 17,398, 881 |  |  |  |  | 72,068 | $\ldots$ |  |
| 1588. | 16,780,018 | .... | 16,786,918 | 800,562 | 79,568 | 64,122 |  | ..... |
| $1 \times 4$ | $13,911,612$$14,270,564$ | 7.9 .5 | 18,911,612 14,270,585 23,784,170 | $\begin{aligned} & 725,810 \\ & 619,064 \\ & 793,514 \end{aligned}$ | $\begin{gathered} 60,004 \\ 100,750 \\ 120,4199 \end{gathered}$ | $\begin{aligned} & 88,44 \\ & 44,865 \\ & 90,809 \end{aligned}$ | ..... |  |
| 150 |  |  |  |  |  |  |  |  |
| 1236. | 28,720,215 |  |  |  |  |  |  |  |

Mobile Bay, Alabama.-The bay sets up from the Gulf of Mexico, and is 30 miles long, and on an average 12 miles broad. It communicntes with the gulf by twe straits, one on each side of Dauphin lsland. The strait on the west side will not admit of vessels drawing more than 5 feet water ; that on the east side, between the islamland Moblle Point, has 22 feet water, snd the channel passes within a few yards of the polnt. There is a ber across the iny, near lts upjer end, which has only 11 feet water. The Mobile Point light-Lrouse is on the esst side of the entrance into Mobile Bay. Lat. $30^{\circ} 13^{\prime} 48^{\prime \prime}$ north, long. $88^{\circ} 00^{\prime} 30^{\prime \prime}$ west. Shows a revelving light, elevated 57 feet above the level of the sea, nad visible for a diatance of 12 nautieal miles. Three miles south-west of Mobile Point, is Sand lsland light, lat. $80^{\circ} 11^{\prime} 18^{\prime \prime}$ north, long. $88^{\circ}$ $02^{\prime}$ west. Showa a fixed light, elevated 54 feet above the sea, and is visible for a distance of 12 nautical miles. Within ths bay, a little south of the city of Molile, is the Choctaw Point light-house; it shows a fired light, elevated 54 feet above the surface of the tay, and is visible for a distance of 11 nautical miles.

Mocha, the principal port in the Red Sea frequented by Europeans, In that part of Arabia called Femen, about 40 milics to the north of the Strait of Bab-el-mandeb, lat. $13^{\circ} 19^{\prime} 30^{\prime \prime}$ north, long. $43^{\circ} 20^{\prime}$ east. Population variously catimated; lut may, perhaps, amount to from 5000 to $\mathbf{7 0 0 0}$. It is eacircled with walls, and indifferently fortified. Its appearance from the sea is imposing. Mocha is situated on the margin of a dry sandy plain. It is built close to the shore, between two points of land which project and form a bay. Vessels drawing from 10 to 12 feet water may anchor within this bay at about a mile from the town; but large shijes enchor without the bay in the roalls, in 5 or 7 futhoms water-the grand mosque bearing cast south-east, and the fort to the south of the town eouth by east, distant about two miles from the shore. The great article of export from Mocha is coffee, which is universally adinitted to he of the finest quality. It is not possible to ferm nuy very accurate estimate of the quantity exported; but we belicye it may be tnken at 10,000 tons, or perhapa more. The greater portion is sent to Djidda and Suez; but thero

Is a pretty large export to Bombay, and other parta of Indla, whence some is sent to Earope ; occaslonally, however, the exporta frum Mocha and Hodelda, lirect from Europe, are very conslderable. Hesldes cuffee, the princlpal articles of export are, dates, adjoue, or paste made of dates, myrrh, gam Arable, olibanum, senna (cassia senna), sharks' tins, tragacanth, horns and blden of the rhinoceron, balm of Gilead, ivory, gold dust, clvet, aloes, sagapenam, etc. The principal articles of lmport are, rice, plece goods, iron, and hariware, ctc. The ivory, gold durt, and elvet, met with at Mocha, are brought from the opposite const of Abyssinia, whence are also brought slaves, ghee, etc. The grenter part of the forcign tracie of Mocha is tranacted by the Itanians; and it is much sater to deal with them than with either Turks or Arabs. Europeans pay a duty of 3 per cent. al calorem on all goods imported by them from Europe, India, or China; the duty belng jevied on the aount of the sales. The bayer pays brokerage, coolle and boat-hiro. All kinds of foreign goorls are sold $r$. credit, and the payment is made by three instulme.,
rat a certain day, according as may have beea agiec, on. Collee la always pald for in ready mone; On the sale of other gomis, the produce of the country, a creait is giv $n$; or if resaly money the paid, a discount is allowed at the rate of 9 per cent. When goods are discharging the master mast furnlah the custom-house officer with a manifest, or account of the marks, numbers, and contents of each package. IIe then opens two or three hales taken at ranilum; and if they correrpond with the uccount delivered, no further examination is made; but if they do not correspond, the whole hales are opened, anil double duty is charged upon the excess. The quantities being thus usiertained, their value is leurned from the acconnt of sales rendered by the seller, and the duty charged accordingly. In this respect there is nothing to object to ut Mucha; but a good deal of extortion is practiced in the exaction of port charges, presents, etc., which may, however, be defeated ly proper tirminess. The port charges on shlps, or three-mast vessels, may amount to about 400 Mucha dollars, and those on brigs to about half as moch. Provisions are plentiful and cheap; but water is dear ; that In the vilinity being lirackish and unwholenome, whatever is ased for drint:Ing, ly all but the poorest persons, is broaght from Mesa, about 20 miles off. Fish are abandant and cheap, but not very good.
Mogadore, a rea-port town on the west consc of Moroces, lat. $31^{\circ} 50^{\prime}$ north, Jong. $9^{\circ} 20^{\prime}$ went. I'opulation alout 10,000 . It is indifierently fortitied; the conatry in the immediate vicinity is low, flat, sandy, and unproductlve. Water is scarce and rather dear; I ing either rain-water collected and preserved in clsterns, or lirought from a river about $1 \frac{1}{3}$ miles distant. The port is formed ly a small Island lying to the mouthward of the town; but as there is not more than $11 t$ or 12 feet water in it at ebh tide, large ships nochor without, the long lattery bearing onst, dintant $1 \frac{1}{2}$ mifes. The prinuipal Imports are English wooien and cotton statis and hardware, German linens, tiln, copper, earthenware, mirrors, gluss, nhpar, pepper, paper, and a variety of other artirles. The exporta principally consint of aweet and hitter almonds, gum Arabhe, and other gams, beeswax, cow and valf mkins, lvory, uatrich feathers, goid dust, olive oll, dates, etc.
"The dutles levied on importert articles are not pail in muney, but in kind, and on finglish manufactures, army and navy cloth, brass, copper, tea, and sugar, and in fact, in all casex, with fow exerptions, nre rated at 20 per cent., or a fifth purt of the goonls, whatever they may be, that are lamiled. Thla primitlve mode of Ísiness la aibo accompanied hy disulvantnger, and assists, in conjunction with the ins!) inriff, to cictpie any enleavors attempted to liring the liarhary Staten In closer mercantlie nillance with ouralreas." It la to be hoped that the government of Morveconay becone
allve to the mischlavous consequences of thla system. Nothing would do so much to promote induatry snd civIliantion in the country, as the effectual reduction, or ruther the total repeal, of the existing duties on exports.

Mohair (Ger. Mohr; Fr. Moire; It. Moerro; Sp. Mue, Muar), the hair of a variety of the commen goat, famous for belng soft and fine as silk, and of a silvery whlteness. It is not proluced anywhere but in the vicinity of Angora, in Asia Minor. The exprortation of this valuable and beantiful article, anless in the shape of yarn, was formerly prohibited; but it may now be exported unspun. The production, prepara-
tion, and sale of mohair have long engrossed the pintion, and sale of mohair have long engrossed the $\rho$ rincipal attention of the inhabitants of Angora; and it used to form an important artiole of Venetiant commerce. It is manufactured into camlets and other expensive stuftis, litherto but little has been imported Into England. See, for further partlcnlars, Tor'nst-
Font, Joyage du Levont and Ungoviant or. Turkey and its Resources.

Molre Antique. In an ordinary woven grods the threals anses each other at right angles; the lougs thre, ds forming the wurp, and the short threale the weft. According as the fuhrie is of high quality, to do these threala intersect in a regular and rinibibe quality; but be it as good as it may, there are always some irregularities; they may escupe the eye, hut they become apparent in a singular way. It good silk he wrapped tightly and curclessly round a roller, it may become moire mucle against the inclination of the possessor; it will have acquired an irregularkind of ghosing in some parts rather than in uthers; and this irrugulat glossing, when viewed firm a little distance, presents somewhat of the nprearunce of moire, or watering who knows? Perhups an aceldent to a piece of rolled silk sugerested the lirst iden of watering as a distinct mode of adornment to silken goods? Such necilents have fregueatly occurred in the history of mamufactures. lloweser, accident or no acchident, wate"ed silks liave long been in use, both in this conntry and In France. If a pattern be engravel upon one cytinder in relief, and a similar pattern on another cytiader, in sunken devices; and if one of these be heated from within, and if a plece of sitk or velvet he drawn between the cylinders, then will the silk or velvet acguire an cabossed pattern, hacause some purts of the surface are more presseal, and are consequently more glossy than the rost. Namprons varieties of this process ane employed in the greparation of tancy gothls. llut this is not exactly watering. For this promese two layers of silk are laid face to face, and are pressed tightly between wollers. What fllows? lliwever close the threads may he, there are still interstic's hetween them; they follow each other in ricige and hilLow fashion throughoat the lougth mil brealth of the plece. Now, if tho slightest ivrerglarity exists in the pressure, stmo of the threals become prosed in particular parta mora chun others: and the over. pressed portions prespat a grenter pions, a greater power of refiecting light than the rest. 'The more cse priclously these proportions Alstribute themselves, the more undulatory anl clonly will the the result. We do not way that the actual proersa ia nuthiniz more than this, hat that this is the busis on which the whole is founded. The gooula may he sprinkled with water prevonsly or not; the mollers may be loth hented or both cold, or one heated and one colld the rollers mar he plan or variously indented; they may mose whoothly over each ether or miny linve a slight lateral move-ment-how theee variations of method would proluce variations of effect evrry one will sec. The aljective "antliue" Is most likely glven to the silks thus produced from thelr resembinace to the tably silk ulresses worn in former timen. It is chletly problurem in Francs; hut in Spitultehels, Finghond, its weavers and moir:urs combined, huve lately copied the art so rleverly as actually to excel the F'rench. Jut Spitatields
guards
fairy and w dolngs Mo lasses; de aill' Rus, $I$ the jui during coior, swert spirit linses, depeni lasses. museov the syr hastaril from th from t! Molass sort of it is hacco. trade of the rece The las kinds of

Cuba.
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8 t. Kitls
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Antixus
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guards its necret as sedulously as the magiclan in a falry tale guards the oaptlve princess in the cartle, and will not let the world have a peep at their doings.
Molasses, or Melasses (Fr. Sirop de Sucre, Mclasges; (ier. Syrup; It. Mirlazzo di zucchero; Sp. Miel de asucar, Chancaca; Port. Melasso, Assucar líquido; Res. Patoka sacharmaja), the uncryatullizable part of tha juice of the sugar cane, separated from the angur during its manufacture. It is of $n$ brown or black color, thick, and viacid; has a pecaliar odor, and a swect emprreumatic taste. About 8 gallong of proof spirit may, it le said, be obtained from a cwt. of molasses, sueh as ius recently been imported; but this depenis, of course, wholly on the richness of the molasses. L'art of the refuse that remains, after relining muscovado sugar, ls a sweet syrup, which, as well as the syrup that remains after bolling molusses to obtain lustarils, is called treacle. But the treacle obtalined from the former is always preferred to that ohtained from the latter, and fetches 50 cents par cwt. more. Molasses is mometimes used in propuring the cosrser gort of preserves; and on the lusopenis continent it is extensirely used in the manufacture of tobacco. The following statistles show the foreign trade of the United Stutes in molassea, and nlso show the reccipts to the foreign and home of this ataple. The last table shows the average vulue of the different kinds of molasses at the port of New York for two years:
Asnifal, Stathuent showina the Inpont, Exiobt, Stock,
and Eitinateo Consimitiga of Molarses in the
finitron Statrg (Rxcbiesive of Califonsia ano Oba-
oun), for thx Year kndino Deckmaxh Blat, lond

| kecelved al New y:- 1 thats. |  |  | 19ercet. B.arrats: |  |
| :---: | :---: | :---: | :---: | :---: |
| Cubs........................... |  |  | (1) 8,71506 |  |
| Porto Itheo.. . . . . . . . . |  | . . . . . . . 14,40 | 63 824 | $4 \times 6$ |
| Harbuliers |  | 1,4+ | ${ }^{3}$ | 69 |
| Trinliand. 1 |  | - 1,04 | 7 | 4 |
| Demerata. |  |  | 50 |  |
| 8t. Klits. |  |  | 05 | 4 |
| Antigua. |  |  | 24 |  |
| St. Croly |  |  | 24 | 2 |
| Nassall. N. ${ }^{\text {P }}$ |  |  | 41 |  |
| Other forctign por |  |  |  |  |
| T Tutal recelpts of f | foralpll | . $\mathrm{N}^{\circ}$ | 4,0:0 | 7, 7,114 |
| Loulstana. . . . . . . . |  |  |  | 85,304 |
| Other coasiwlsa |  |  |  | 12,095 |
| Total recelpts. Adil stork Jan. |  |  | $\begin{array}{cc} 4,545 \\ 14 \end{array}$ | (6),5701 |
| Total supply |  | 105,22 | 44 4, 642 | 65, 147 |
| Deinet exportand to Canala..... | nland shlp | $\ldots . .\}$ | $0$ | 1,R34 |
| Joaluet stock, | + | $\begin{aligned} & 62,90 \\ & 1.71 \end{aligned}$ | $\begin{array}{ll} 8 & 4,560 \\ 18 & \ldots \end{array}$ | $\begin{aligned} & 53,11+9 \\ & 10 \mathrm{n} \end{aligned}$ |
| Taken from tbla p | for con | puthon 61,17 |  | 363, 148 |
|  | tiallona, |  |  | tallons. |
| Contalnlut. | 9,514,023 | forclign limp | , dir. | 6,914,175 |
| Jotal consump, 1555 | $12,476,134$ |  |  |  |
| Decriasp. 1856.. | 8,0.7,511 | Increas | 1856 | 969,497 |
| Rucelved as N | (1558) for | thhds. | Plereses. | Barrels. |
| Cubs |  | 4,18s | 8,570 | 7,104 |
| Portu 1ties |  | 6, 418 | 268 | $2 \times 7$ |
| Partinioes. |  |  | . . . $\cdot$ | .... |
| Port Spaln, ' |  |  | . . . | ... |
| St. Vitiment. |  | - .... | $\ldots$ | $\cdots$ |
| Antionta |  |  | \% |  |
| Dether forchign ports. |  | 12 | § | 31 |
| Tutal recejits of | redyn | 43,612 | 4,184 | 7,siz |
| Ioutsluna. |  | - リ4) | 119 | 04, 514 |
| Other conastwlee po |  | 21,10s | 416 | 7,124 |
| Tutal recolpts |  | 71.i-1) | 4,11\% | 108.696 |
| Ald stock, Jan. | t, 1300 | 276 |  | 3,7301 |
| Total supply |  | $\ldots$. 72,001 | 4,97\% | 118,232 |
| Imblact esport and ments to Cannila | Inland | $\text { p- }\}$ | 175 | nio |
| Ihndeet storek, Jan. | Ist, 1:300 | $\ldots \begin{array}{r}6 \%, 475 \\ y s t\end{array}$ | 4,414 14 | $\begin{array}{r} 112,2814 \\ 217 \end{array}$ |
| Takno from the pos | ort for colls | mp, di, 113 | 4,7th | 112.141 |
|  | Gillomes. |  |  | dullone. |
| Contalulug. | 12.46,481 | foreign limpt | d. dir. | 5, $21014,87 \times$ |
| Total consump., 105 | 11,742,030 |  |  | $8,420,478$ |
| lucrease, 15:5.. | $1,184,404$ |  |  | 447,645 |

Rsczipts of Foneign Molashph in tilk Unitre States, for the Yfar enolno Dremaza 8lat, 1856.

| Ports. | Hhds. \|TIerces. 1 Barritie. 1 |  |  |
| :---: | :---: | :---: | :---: |
| Now | 57,414 | 9 | 4 |
| Boato | 41,789 | 8,26s | 1,505 |
| " 8ur | 1,111 | 118 | 0 |
| P | 2,490 | 188 | 7 |
| Poitland-from Cuba, ete | 83, 375 | 2.961 | 2,517 |
| New Laven-from Porto Rlco, ete., | 11,625 | 61 | 871 |
| Olonceater \& Providenc- $f$ m, Cuba | 6,485 | 210 | 409 |
| $\left.\begin{array}{c}\text { Now bury port, Salem, Bristol, War- } \\ \text { ren, and other eastern ports- }\end{array}\right\}$ from Cuba surinam, cte...... | 2,947 | 278 | 49 |
| Philadelphla-from c'uba. it......... | $\begin{gathered} 17,819 \\ 1,614 \end{gathered}$ | $\begin{array}{r} 1,891 \\ 50 \end{array}$ | 8 |
| Balthnors-fus. Cubs, Porto Rkco,ete. | 6,361 | 850 | 1,180 |
| Now Orlesns-from Cuba........... | 151 |  | 1,170 |
| Savamah, Charleston, and other aouthorn ports - fin. Cuba, ote. $\}$ | 10,521 | 140 | 584 |
|  | $\begin{array}{r} 183,304 \\ 1,701 \end{array}$ | $\begin{array}{r} 18,610 \\ 81 \end{array}$ | $\begin{gathered} 418 \\ 57 \\ \hline \end{gathered}$ |
| Total supply. | 145,045 | 18,6+4 | 16,400 |
| educt exports and shlpmonts) inhnel to canada, from ntl the ports, in 1830. | 8,746 | 1,538 | 8,648 |
|  | 180,259 | 106 |  |
| Worl. stock at ell ports, Jan. $1,185 \mathrm{i}$ | 8,258 |  |  |
| Total consumption of forel | 78,148 | 12,106 | 2,811 |

Contulutug or Gmilone

14bi-2ut, the most of which camo to market In 18sto, and nssuming the stock of this deserlption, Jat Jan., of each yesr, to be opuai
Would thake the total consumptlon in $1 \times 56$. $89,608,878$ Total consumption in 1850.
inecrease In 1556.
23,014,878
$16,594,000$

47,266,055
 Foh the Yrah kndina December 3lat, 1sion

| ts. | dxx. Tlercen. | rel |
| :---: | :---: | :---: |
| N | 19,642 | 7, |
| Hoston-from Cu | 02,423 4,870 | 1,897 |
| Surtuan | 1,401, 68 | 50 |
| " " l forto Hileo | 633 S |  |
| Portani-from Cuba, et | 29,i47 2,482 | 997 |
| 1'rovilene-from Cuba | 2,x:11 | 0 |
| New llaven-from l'orto lito, | 15,146 |  |
|  | 0,058 460 | 653 |
| thiladuphta-tron t'ubu. in........ | $\begin{array}{cc}11,666 \\ 8711 & 1,146\end{array}$ | 976 68 |
| Haltmore-fr. Cuba, Jorto Itieo, ete. | 2,81: 192 | 181 |
| Now Orlorns-from Cuba... |  | 2,251 |
| Savnmuah-from Cuba, ete.......') |  |  |
| Charleston-from Cubs, ate. ...... \} Other sonthern ports-from Cubs | 10,915 25 | \%59 |
| Total recelpta...........ivis | $\begin{gathered} 190,625 \\ 5,041 \\ \hline 8,467 \\ \hline \end{gathered}$ | $\begin{array}{r} 15,828 \\ 2001 \end{array}$ |
| Total supply... | 111,670 18,447 | 15,528 |
| efluet exports and shipmonts) Inland to Camala, trom all $\}$ tho porte, fin ision. | $7,881 \quad 485$ | 1,3105 |
| Ded. strck nt all porta, Jen, I, 180 fo |  | $\begin{array}{r}14,228 \\ 87 \\ \hline 17.68\end{array}$ |
| Total consumpition of forelen | $182,14412,968$ | 14,166 |
| Contalulus |  | llona. $58,428$ |
| Add erop of Loulalana, Texas, Flordda, ete, if isit-i5, the most of whith came to market in I 6 Sh, and assumthg the stork of this ileseription, ist dan., of vach year to be equal. | $\begin{aligned} & \text { Gultons: } \\ & 21,119,1,42 \end{aligned}$ |  |
|  In ahove statemerst of ahlpmenta... | S87,080 |  |
|  'T'utal consumption in Jist................. 56,483,019 |  |  |
| Decrease In IS50...................... . 9,228,9:4 |  |  |

It will be neen liy the foregoing statistics, that the recelpts of forelgn molasares lo the I'nited States for the your ending Decomber 31, 1856 , were $25,0: 16,724$ gallons, ngainst tital receipts in 1855 of $24,152,446$ gallons, and the total cousnumtion of this desaription in 1856 was $25,014,878$ gallons, against a consumption
of forelgn in 1855 of $23,583,423$,allone, being a decrease in the consumption of foreign in 1856, as compared with 1855 , of $2 \cdot 20$ per cent., while the total consumptlon of forelgn and domeatic in 1856 was 39 ,608,878 gullons, aguinst a consumption in 1855 of $47,266,083$ gallons, lreing a fulling off in 1856 of $7,657,207$ gallons, or the large decrease of $16 \div 20$ per cent.

The consumption of all kinds in 1856, as shown, was $16 \div 20$ per cent. less than that of 1855 , while that of 1850 was $16 \frac{1}{1}$ per cent. smaller than the consumption of 1854. This contlinued large decrense is attributuble, in a great measure, to the rupid deeline in the yich of Lonisiana cane. The following table whew the average value of molasges in New York for two years,

Molagsea,-Itr Ayeraof Valek at New York for Two Yrabr,


Statament showing tie Domestio lixport or Molasabe to prevent the pasnage of ships without leave. It is
 Sitht, 1556.

| Whither exponed. | Gulluns. | Value. |
| :---: | :---: | :---: |
| गlasumerg. | 16,997 | \$4,470 |
| Canala | 411.048 | 140,385 |
| Other Mritish N. Amer pos...... | 8.671 | 2.54 |
| Brinish Wext lodkes.. | 9,265 | 6417 |
| Perts in Aftea. | 1,995 | i414 |
| Mexico. | 41 | 25 |
| New Granala. | 4.023 | 1,489 |
|  | 611 | 276 |
| Whate Fislieries | -1, 769 | 4,102 |
| Total..................... | 4.4,315 | * 154.680 |

Statauent hhowino tie: Forkigis Fixpoxth op Molarges fhom the liniteo states for the lieak bibino dune (1) 11 ,

| Whather exported. | finllons. | Value. |
| :---: | :---: | :---: |
| Russian possesstons tu N. Ame | 600 | 4368 |
| Mamburg. | 16.184 | 4,818 |
| (ifbraltar. | 2,103 | 720 |
| Caoaita. | 1,079,897 | 251,800 |
| Other Jifitish North Amer. pos. | 103,9.9 | 31,691 |
| Fremel North American pos. | 25,418 | 7.749 |
| Fremeh West ludles. | 2,184 | 784 |
| Madelra. | 75) | (40) |
| Ports in Afric | 430 | 199 |
| liajif. | 1,232 | 3(1) |
| chili.. | 82.1060 | 6,500 |
| Whate Fiwher | 69, ${ }^{\text {2 }}$ | 2,814 |
| Telal. | 1,261.141 | 4 $500,1 \times 1$ |
| Froth watehouse | 1666,64 | \$2:32,580 |
| Yot froll wareloure | 294.822 | 73,600 |



| Wherce layurted. | ciallons. | Value. |
| :---: | :---: | :---: |
| 1 Manish West In | 6,971 | \%obs |
| Dath Weat Indles. | 24.123 | 3,76) |
| Dutch Culama. | 732,819 | 91,242 |
| Doteh East Indies | 8in | , |
| Englam. | 1,2382 | 09 |
| Canala. | 811 | 106 |
| Thher littlas Xorth Smer | 35,4.4\% | R,685 |
| Itritish Wist lucthes..... | 792, (0)2 | 181,299 |
| Sritsin East lodies. | 25\% | 47 |
| Jrimah liulana. | 65.277 | 12,419 |
|  | 3,744 | 1,017 |
| Npain on tho Mo.iturranean | 1.091 | 154 |
| C'uba | 19.452, 85 | 8,510,6i49 |
| l'oram Ricos. | 2,321,946 | :385,67] |
| ceotral liepubis | 11, 113 | 1,910 |
| liraul |  | (1) |
| Mandwloh framis. | 89,448 | 10,442 |
| Total | 20,617,014 |  |

## See sroati.

Mole, in architecture, a mussive work formed of lurge ktunen laid in tho sea by menua of coffer tlams, extended wither in a right line or an ure of a circle, before a jurt, whinh it serven to close; to defemd the vessels in port frous the impetursity of the wavea, nid frequently fortitiod. Jole is sometimes used to signify the hartror itaelf, which it serves to form or defend.

Money. When the division of labor was first introduced, commodities were directly bartered for cach other. Those, for example, who had a surplus of corn, and were in want of wine, endeavored to find out those who were in the opposite circumstances, or who had a surplus of wine and wanted corn, and then excharged the one for the other. It is olvious, bowever, that the power of changing, and, consequently, of dividing employments, must have been subjecteal to perpetual interruptions, so long as it was restricted to mers Inarter. A carries produce to market, mal B is desirous to purchuse it; but the prolluce belonging to 13 is net enitable for A. (S, again, would like to buy If:s protuce, lut 13 is ulready fully supplied with the equiralent U'has to oifer. In wich cases-and they must be of a constant occurrence wherever money is not intro-duced-ho direct exchange could take place between the parties ; and it might be vety diffieult to hriog it about indirectly. The dificulties that would arive on such occasimes, und the devices that woukd be ahopsed to wercome them, lave been very well illustruted by Colonel Torrens, in his work on the Probluction of Weulth, p. 291. The extreme incomvenience attending such situations must ourly have forced themedres on the attentlon of every one. Fiforts wuild, in consequence, lee male to a void them; and it would speolily appear that the hest or rathar the unly way in which this coull be effected, was to exchange either the whole or a part of one's surplus produce for sonte commodity of known value, and in general temand; and whieh, consequent!y, few persons would be indinelt to refuse to, ucrejt na an equivalent for whatever they hat to dimpose of. After thin commorlity hat hegin wo he amployed as n means of exchanging wher counmonlities, indiviluals would become willing to purchase n areater quantity of it than might he required topay for the promlucts they weru cosirons of innmediately obtaining; knowing that shomb they, at any future p": :I, want a further miluly either of these or other ar:., es, they would le able readily to promure them In exchange for this univeraally dexlred commontity. Though at flrst clrculating alowly and with difliculty; It wonld, as the advuntages arlaing from lis use wire lecter apprecinted, begin to pass freely from land to hand. Its vulue, ne compared with other thinere, would thus come to be malrerrally known, und it would at last lee used, not unly us the common melimu of exchanges, but us a atandard by uhids to measuno the value of other thinga. Now this eommotity, whatever it may be, fis momy.

An intinite variety of commodities have heen used ss money in different countries and periods. But none esul he advantageously uaed as such, unless it possess severai very peculler qualities. The slightest reflection on the purposes to which it is spplied, must, indeed, he sufficient to convince every one that it is indispensable, or, at least, exceedingly dr rirable, thet the commodity selecter to eerve as money should (1) be divisible Into the smallest portions; (2) that it should adnit of being kept for an ind?finite period without deteriorating ; (3) that it should, by possessing great value in small bulk, be capable of being sasily transported from place to place; (4) that ore plece of money; of a certain denomination, should always be equal, in magnitude and quality, to evory other piace of money of the same itenomination; and (i) that: lue should he comparatively steady, or as littif, "et to variation as possitile. Without the first of : $\cdot \mathrm{r} \cdot$ qualities, or the espacity of being divided inte portions of every different mugnitude and value, money, it ls evident, would be of almost no use, and coull only be exchanged for the few commoditles that might happen to the of the same value as its indivisible portions, or ne whole multiples of them; without the second, or the capacity of being kept or hoarded without deteriorating, no one would choose to exchange commodities for money, except only when he expected to be nthle speedily to reexchange that money for aomething else; without the fhind, or facility of transportation, mouey could not be conveniently used in transactions between places at any consiterable distance; wlthout the fourth, or perfect sameness, it would be extremely diffieult to uppreciste the value of different pieres of moner; and without the fifth quality, or comparative steadlnoss of value, meney could not serve as a standaril by which to measure the value of other commorities ; and no one would the disposed to exchange the produce of his industry for an article that might shortly decline consilerably In its power of purchasing.
The union of the different qualities of comparative steadiness of value, divisibility, durablity, facility of trankportation, and perfect sameness, in the precious metals, louhtless formed the irresistiole reasen that has induced every civilized community to employ them as meney. 'The value of gold and silver is certainly not in rariable, turt generally speaking it changes only by slow degrees: they are divisible into, any number of parts, and have the singular property of being easily reunited, by means of fusion, without loss; they do not sleteriorate ly being kept; and from their firm and compact texture, they are very ilffleult to wear. Their cost of proluction, especially that of gold, is so consldershle, that they possess great value in small bulk, and can, of course, be transported with comparative facility; and an ounce of pure gold or silver taken from the mines in any quarter of the world, is precisely equal, in puint of quality, to an inuce of pure gold ur silver dug from the mines in uny other quarter. No wonder, therefore, when all tho qualities necessary to constitute meney aro possessed in so eminent a degreo by the precions metals, that they have been used ns such, in clvilized societies, from a vory remote eri. "Thisy hecame universal money," as 'Turgot has olsserved, " not in consequence of any arbitrary ugreement mong mee, or of the :nterventlon of any law, but by the nature and force oi things." When first used us moner, the precinus metuls were in an unfashioned stato, in Inars or lingots. The purtles hoving ugreed about the quantity of metal to be given for a rommodity, that quantity was then welghed off. Ihut this, it is pilinh, must have heen a tellions and tronblesome process. Indoulitediy, however, the grentent ohatacie that would he experienced in early agen to the use of guid nnil nilvur as money, would be found to consist in tha ditienity of deteroining the legree of their purity with suthcient precision ; and the discovery of somo meany liy which their welght and flneness might be readily und cor
rectly ascertained, would be felt to be indispeusable to their extensive use as money. Fortunately these mesns were not long in being discovered. The fabrication of coins, or the practlce of impressing pieces of the prectous metals with a stamp indicating thelr weight and purity, belongs to the remotest antiquity. Gougrt, Ds l'Onigine des Loix, etc., tome i., p. 269. And it may aafely be affirmed, that there have heen very few inventions of greater utility, or that have done more to accelerate the progress of imprevement.

It is matcrial, however, to observe, that the introduction and use of coined money make no change whatever in the principle on which exchanges were proviously conducted. The coinage asves the troutle of weighing and assaying gold and silver, hut it does nathing more. It dechares the weight and purity of the metal in a coin; but the value of that metai or coin is in all cases determinel by preciscly the same principles which determine the value of other commodities, and would be as little affected by being recolned with a new denomination, as the burden of a ship hy a change of her name. Inaccurate notions with respect to tho influence of coinage seem to have given rise to the opinion so long entertained, that cains were merely the signs of values! But it is clear they have no neerc claim to thls designation than bare of iron or copper, sacks of wheat, or any other commodity. They chango for other things, hecnuse they are desirablo articles, and are possessed of real intrinsle value. A itraft, check, or lill may net improperly; perbaps, be regarded as the sign of the money to be given for lt. Wut that money is nothing thut a commodity; it is not a sign-it is a thing signifled.

Money, however, is not merely the universal equiv. alent, or merchandise banale, used tiy society: it is also the standarl used to compare the values of all sorts of prochucts; and the stipulations in the great bulk of contracts and deeds, as to the delivery anil disposal of property, have all reference to, and are commonly expressed in, quantlies of money. It is plainity, therefore, of the intmost importance that its value should he preserved as invariable as possible. Uwing, however, to improvements in the urts, the exhaustion of old mines, and the discovery of new ones, the value of the precious metals is necessarily inconstant; theugh, If wo except the effects produced in the 16th centiry liy the discovery of the American milnes, it does not uphear to have varied so much at other times as might have been anticipated. Great mischief has, however, been repeatelly occasioned by the changes that have been made in most countries in the weight, and sometimes also in the purity, of exins; and since the impolicy of these changes has been recognized, similar, und perhaps atill neoro extensive, discords have sprung from the improper use of nulnatitutes for coins. It is, indeed, quito obvions, that no chnuge can take place in the value of money without proportionally affecting the pecuniary conditions in oll contracts and agrecments. Much, however, of the intluence of a change depends on its direction. An increase in the value of money is uniformly more prejudicinl, in a puthlic point of view, than its dinitation; the latter, though injurions to indlvilunls, muy simetimes be productive of natlonal alvantuge; but sush can never he the case with the former. See Prisuples of Political Economy, by Mc-


No certain estimate can ever he formed of the quantity of money required to conc'ret the husiness of mus country; this quantity lreing, in all cases, determined by the value of mnaey itself, the servicen it has to perform, and tho dovices nsed for economizing its cmployment. (ienerally, however, it ia very considerable; nad when it consints wholly of gold and silver, it occasionn a very hemvy expense. There can, indeed, be wo doubt that thit wish to lessen this expouse has heen one of the chief causes that have led .. civilized and - commerchal nations to fialiricate a portion of their
money of some less valuable material. Of tho varions substitutea resorted to for thils purpose, paper ln, In all reapects, the most ellgilse. Its employment seems to have grown naturally out of the circumstances incldent to an advancing soclety. When government lecomes anfficiently powerful and intelligent to enforee the observance of contracts, Individuals possessed of written promises from others that they will pay certaln sums at certain specilled periods, hegin to assign them to those to whom they are indebted; and when the subscrliers are persons of fortune, and of whose solvoncy no doubt can be entertained, their oblygations are readily accepted in payment of delits. But when the clreulation of promises or bllls in this wuy has continued for a while, indivihuals begin to perceive that they may derive a profit by lssuing them in such a form as to fit them for being readily used us a substitute for money in the ordinary transactions of life. Hence the origin of hank notes. An individual in whose wealth und discretion the pullic have conlldenee, heing applied to for a loan, say 85000 , grants the applicant his bill or note, payable on demand, for that amn. Now, as this note passes, in consequence of the confidence placed in the lssuer, currently from hand to hand as cash, it is quite as useful to the lorrower as if it had been gold; and supposing that the rate of interert is 5 per cent., it will yield, so long as it continues to circulate, a revenue of $\$ 250$ dollara a year to the lssuer. A banker who issues notes, coins, as it were, his credit. Ile derlves the same revenue from the loan of his written promise to pay a certain sum, that he could derive from the loan of the sum itself, or of an equivalent amonnt of produce! And while he thas increasen his own income, he, at the same time, contribises to increase the wealth of the public. The cheapest species of currency being sub) stituterl in the place of that which is most expensive, the superfluous coins are either usel in the arts or are as corted in exchange for raw muterials or manufaccured grods, by the use of which both wealth and elljoyments are increased. Ever siner the Introbluction of bills, almost alt great commercial tranametions have been carried on ly means of paper only. Notes are also used to a very great extent in the orlinary business of society; and? while they are reudibly exchangenble, at the pleasure of the holder, for coins, or for the precise puanities of goldi or wilver they profess to represe ., their value is maintainel on a par with tho "alue of theno metals; and all injurious thetuation. in the value of nut aey are as effectually uvoided as if it consisten wholly of the preeious metais.

In common mereantil language, the party who exchangea money jor a commolity' is said to buy; the party who exchanges a commoslity for money being said to sell. Price, nuless where the contrary is ulistinctly mentioned, nlways ineans the value of a commodity extlmated or rated in money. For a further account of metallic morey, see the ertlele Cins.

Sce Sunkers' Mag., v., 309, 481 , ii., 1, 1311; IIvst'e Mig., i., 50 (C. F. Ansms); Ed, Ree., x., Ist, xiii., 35 , $\times \times \times$ iii.. 548 ; IVest. Rev., ix., 93 ; De Bow's Rec., vi., 243, vil., 501.

Monopoly. Iby this term is usually meant a grant by competent authority, conveying to some une inilivilnal, or number of individuals, the sole right of buying, selling, toiking, hmoritug, exproting, wte., some one rommorlity, or net of commontities. Such grants were viry common previously to the uccossion of the lomse of Stuart, and were carried to n very ofpresnive and injurious extent luring the reign of Queen :ilizaheth. Combuercial monopolies reached to such it helght in Eifgland, that larliament petitioned against them, and they were in eonsequence mostly abolished ulsut the close of Ehazabeth'a reign, 1602 . They were further suppressinl, as being contrary to law, 19 James $1 ., 1622$; and were tota!ly abolished, and it wis decreed that none should the in future ere-
ated, as was previonsly the custom, by royal patent, 16 Charles I., 1040.-Andenson's History of Commerce. The grievance became at length so insupportable, that, notwithatunding the oppositlon of government, which lookod upon the power of granting monopolies as a vory valuable part of the prerogative, they were abolished by the famous act of 1624. The act of Jannes I. declared that all monopolies, grants, letters patent for the solo buying, solling, and making of grods and manufactures, shall be null and vohd. It excepts patents for 14 years for the sole working or making of any new manufactures within the realm, to the true and first inventors of such manufachures, provided they he not contrary to law, nor mischie vous to the State. It also excepts grants by act os Parliament to any corporation, company, or society, for ine enlargement of trade, and lettera patent concerning the naklng of gunpowiler, etc. This act effectually secured the freedon of induatry in Great liritain ; and has done more, perhaps, to excite the spirit of inventhon and Industry, and to secelerate the progress of wealth, than any other in the statute book.

Monscons (from the Malay mussin, season), periodical trade winds, which blow six months in mit direction, and the rest of the year in an opposite one. They prevail In the Indian Ocean north of the IOth degres of south latitude. From April to October a vlolent sonth-west wind blows, accompanied with ruin, and from October to April, a gentle dry northeast breeze prevsils. The chunge of the winds or the breaking up of the monsoons, as it ls called, is accompanled by storms and hurricanes. These periolical currents of whind do not reach very high, as their f rugress is arrested by mountains of a noolerate height.

Monsoons are, for the most part, formed of tradewinds. When at stated seasons of the year a trade. wind is detiected in its regilar courso from one quadrant to another, or drawn in by overheated districts, it is regarded as a monsoon. Thuy the African monsoons of the Athantic, the monsoons of the liulf of Mexico, and the Central American monsoens of the Pacitic, are, for the most part, formed of the tradewinds, which are turneil hack or defleited to resture the equilibriun which the over-heated plains of Africa, Utah, Texas, and New Mexico have disturbed. When the monsoens jrevail for five months at a time, for it takes about a month for them to change and become rettled, then both they and the trade-winds, which they replace, are called monsonas, The northeast and the soutlowest monsoens of the ludian Gcear afford an example of this kind. A force is exerted upon the north-east trade-winds of that sea by the disturbance which the heat of summer crates in the atmospliere over the interior plains of Asia, which is more than sufllcient to neutralize the forees which cause those winls to blow as trade-winds; it arrests them; and were it not for the peculiar conditiont of the tand about that ocean, whit are now called the north-eant munsoons wombld how the yar round; there wonld be no south-west monsoons there; and the north-eaxt winds, being perpetual, would hecome, all the year, what in reality for several monthe they are, via, north-eant trade-winils.

As lons ago as 18:1], Dove muintained that the sobth-west ntomoon was the sontheast tradowind rushing forward to fill the varant phaces over the northern deserts. Dove almita the promfs of this $b$ be indirect, and neknowledres the ditliculty of findin: out and demonstrating the problem.-Inmaten der Physik, No. 94. Tranalated by Dr. Resengartun for thon American Jourmel of Ncience, vol. xx., Gil.

The north-east and nouth-east trade-winls ment, we know, near the equator, where they produce the twill of equatorial calins. All vesseln that pias frum one bystem of trale-winds to the other hore to cross this culm belt. Sometimes they elear it in a frw hurs. Sumetimes they are delayed in it for weeks; an! the
calm is s water is If it be monsoon trade-wis regions o for insta tine of $t$ equatoria sheuld tit more to $t$ any belt trimmed Jansen similar d
The I) the cause the sun i : beatiog such as to to expan druught the ascer the north and calls winds ar ward drit burning s south-east place w'ac to mect north-eats hemisphe poles, the rotation, heated ill south-wes Doldrésps were, thur of central Since we that thes trales of that they C atart of treen the but a ${ }^{\text {gr }}$ into the -one of strip of o gration gi ficlid bet winl sou wind sol south-we south-we erally ta same till liela bel N., the : of Janua monsom
March t consider the domi til some: north-ed whith is the latte cendener. when, as mence $t$ next fie the nort able, an Februar
it is call
calin ls so still and the rain ou coplous that the fresh water is somethmes found standing in pools on the sea. If it be true, as Dove insintnins, that the south-west monsoens of the Indlan Ocean are the south-east trade-winds of that sea pressing up toward the desert regions of Asia, then a vessel bound hence to Calcutta, for instance, and entering the Indian Ocean at the time of the south-west monsoon, should find no belt of equatorial calme there at all, but, on the contrary, she slould find the south-east trade-wind to haul more and more to the eouth, antil finally, without having cressed any belt of equatorial calms, she would find her sails trimmed to the aouth-west monsoon. In like manner, Junsen muintalna that the north-west monsoon is a simitar deflection of the north-east trais-vind.

The llasert of Cohl and the arid wastes uf Asia are the cause of the monsoons of the Indlan Ocvan. When the sum is north of the equator, the force of his rays, beating down upon these wide and thirsty plalns, is atch ns to cause the vast superincumbent body of air to expand and ascend. Consequently, there is an indrunght of air from the surrounting regions to supply the asceniling column. The alr that is going to teed the north-east trades is thus arrested, drawn in, heated, and cansel to ascond; and so, the north-east tradewiuls are first weakened, then "killed," and afterwarl drawn into the vortex of ascending air over the burning sande of the deserts; on the other haul, the seuth-east trade-wind, failing, when it arrives at the place w'acere the equaterial Doldrums were wont to be, to mett with them or any opposing fores from the nerth-east trades, are drawn over into the northern hemisphere. Going now from the equator towarl the poles, their tendeney is to obey the forces of cliurnal rotation, as well as thoso of the indraught for the hented plains, and thus the south-east trades become sonth-west monsoons. In this view, the "equatorial Doldraps" of the Indian Ocean are transferred, as it were, during the south-west monsoons, to the deserts of central Asia. It may le asked by some, saying, Since we can net always tally the air, how to we know that these south-west monseons are the south-east trates of the Indian Oceun? The reply is, We infer that they nre, because in co-ordinating for the Phot C arrt of that sen we have found no belt of calms beticen the southerest trudes and the south-west monswons, but " gradual change, so to speak, of the one wind into the other. Thus, contining ourselves to August -one of the south-west-monsoon months-and to the strip of ocean between $85^{\circ}$ and $90^{\circ}$ enst, the investigation fives as follows for calins and whals in the fieht between: $10^{\circ}$ S. and $5^{\circ} \mathrm{S}$. 13:l observations, wind south-east. $5^{\circ} \mathrm{S}$. and 102 observacions, 11 cahms, wind south. $5^{\circ}$ N. 99 observations, 11 calus, wind sonth-west. $5^{\circ} \mathrm{N}$. and $10^{\circ} \mathrm{N} .77$ observations, winl seuth-west. These monsoons do not, as we are generally taught to suppese, commence or end at the same time alt over the Indian Ocean. In the first tield betow Calcutta, $i$, e., between the lant and $20^{\circ}$ N., the north-uist trade-winds, toward the latter part of Jannary, begin their condict with the south-west monsoons, The contict rases in Pebrnary, and by Mareh the south-west monsoons in that "hehl" are consitered to have regularly set in. They now remain the dominant vind for upward of six monthe, and until some time in the early part of September. 'The northerdst monsoons or trables now renow the conflict, which is carried on with more and moro vigor until the latter purt of November, when they obtain the ase cembency, and prevail until the later part of dimuary, when, as before stated, the sonth-west monsuons rommence the ir annual struggle for the mastery. In the next tiehl lelow, i, e., between $15^{\circ}$ and 21$)^{\circ}$ N. lat., the north-east monseons begh to grow light and variable, anil to huve conticts with the south-west in February. The period of this conllict, or change, as it is called, frequently lasts until some time in March,
when the force that is calling in and driving the monsoons from the south-west finally gains the ascendant. They then blow steadlly until late in September, when the north-east trade-wind forces begin again to assert their ascendency and to renew the conflict on this aide throagh October, by which time the north-east tradea or monsoons become the prevalling winds. Thus, hy geing 200 or 300 milee further from the supposed place of heat and rarefaction that give rise to this system of winds, the duration of the north-east monsoms is prolonged nearly a month; for $\ln$ thls "field" they prevall from November to January Inclusive, threc mouths, whlle the south-west last from about the middle of March to the middle of September, say elx months. In the next field below, i, e., between the parallels of $10^{\circ}$ and $15^{\circ}$ the south-west monsoons blow about five months, perhaps net quite so long; they de not commence as early, nor blow so late as in the "field" above. They begin the confiiet with the north-east trade-wind ferces in the latter part of March, and gain the ascendent in May. They chen prevail till Octeber, when the north-east trade-wind forces, escaping frem the heated plains of the interior, begin to renew the annual combat which is to get them the victory. They soen achieve it, and maintain the mastery undl. wited till the last of Murca or first of April.-Maurx, Phys. Geog. of the Sea.

Changing of the lfonsoons.-Lieutenant Jansen thus describes this phenemenon: "We have seen that the calms which precede the sea-breeze generally continue longer, and are aecompanied with an upward motion of the air; that, on the centrary, those which precede the land-breeze are, In the Java Sea, generally of shorter duration, accompanied by a heavy utmosphere, and that there is niso an evident difference between the conversion of the land-breeze into the sea-breeze, and of the latter iato the former. Even as the calms vary, so thero appears to be a marked difference between the changing of the monsoons in the spring and in the autmon in the Java Sea. As soen us tho san has crossed the equato., and its vertical rays begin to play more and more perpendicularly upon the worthern hemisphere, the inlanl plains of Asia, North Africa, und of North Amprica are so heated as to givo birth to the south-west monsoons in tho China Sea, in the North Indian Ocean, in the North Atlantic, and upon the west coast of Central America; then the north-west monsoon disippears from the East Indian Archipelago, anl gives place to the south-east trade-wind, which is known as the east monsoon, just ns the north-west wind, which prevails luring the southern summer, is ealled the west monsoon. This is the only monsoon which is found in the southern hemisphere, while in the northern hemisphere the north-eust trale-wind blows in the China sea and in the Indian Ocean; in the East Indian Archipelago the west monsom prevails; imd here, when the south-east trade blows as the east monsoon, we tint the south-west monsoon in the adjacent seas of the northern hemisphere. Genarilly tho westerly monsoons blow during the stmmer months of the hemisphere wherein they are found. As the land-breeze dialy destroys in miniature the regular flow of the trude-wind, so does the latter the west monsom in larger measure, and observations will le ablo to decide whether monthly disturbunces do not also tako place. In the Java Sea, during tho month of liehrumy, the west monsoon hlowa strong almost continually; in March it blows intermittlagly, und with hard supalls; but in April the equalls fecome less frequent and less severe. Now the changing commences; all at once guats begin to spring up from the east: they ure often followed by calas. The clouds which crowa themselves uponi the clear sky give warning of the combat in the upper air which the currents there are about to wage with each other."

Montevideo, a sea-port, and the capital of the Republic of Urughay, on the north bank of the Rio de

## MON

La Plata, lat. $84^{\circ} 54^{\prime} 11^{\prime \prime}$ S., long. $56^{\circ} 13^{\prime} 18^{\prime \prime}$ W. The population, which la variously estimated, may probaibly be about 12,000. The town is huilt in the form of an amphitheatre, on a regular plan, and is well fortified. It has suffered much from the various revolutions to which it has been subject during the last 30 years. Moutevileo is altuated $2^{\circ} 3^{\prime} 33^{\prime \prime}$ W. of Cape St. Mary, tho northern limit of the embouchure of the La Platu. Vessels from the north bound to Montevideo genernlly mako thile cape, entering the river between It and the amall island of Lobos, in from 14 to 17 fathoms. The course is thenco nearly west to the lyle of Flores, on which is a lighthouse 11: feet above the level of the sea, with a revolving light. fimm Flores to Montevideo is 16 miles in a direct line, and the course west lyy suith by compass. A lighthouse, 45 fest ahove the levol of the sea, has been erected on the summit of the Montevideo, whence the town has its name. 'The latter is built on a projecting tongue of land, the prort belug on its south sile. This, which is the bent on the la l'lata, is a large circular
basin, open to the south-west. Generally the water is shaliow, not exceeding from 14 to 19 feet; lut the bottom being aoft mud, vessela are seldom damnged by groundlig. It should, however, be observel thut the depth of water in the barbor, as well as throughout the whole of the Rio de la Plata, depends very much on the direction and strength of the winds. The southwest wind, called pamperos, hlows right into the liny of Montevideo with much force, not unfrequently causing a rise of a fathom or more in the depth of water 1 But it rarely occaslons much daunge to vessels properly moored with anchors to the, molth-wext south-aast, and one to the north. (BLuNT's dwerican Pilot, edit. 1857; Cotdier sur lea Phares, etc.) Mun tevitleo has a consideruble commerce. The great articles of oxport consist of animal prolucts, or of hides, beef, tallow, hair, 'mones, grease, worl, ete. The lmports principally coasist of British cottons, woolenc, and harlware, flour, wine aud spirits, linens, sugar, tobacco, boots and shoes, aalt, etc. The follow. talle shows the exporta from these ports fer five years;

Account of benday Expoats ybom Burnos Athra and Montevideo in tir following Yeaba.


Duties on Inports, in National or Forcign l'essels, at Montiudeo.-1. Machinery, ugricultural Implements, Instruments used in the arts and sciences, lookn, prints, and mups, free. 2. Silk, raw and wrought, laces, blonde, gold nnd silver emitruidery, watches, jewelry, salt petre, plaster of Paris, coal, tiuzber, cotton fringe, and woulen hoops, 5 per cent. 3. Powder, piteh, tar, rosin, and maval stores, 13 per cent. 4. All raw matterials, and manufactured articles, not included in the preceding enumeration, 15 per cent. 5. Sugar, Paraguay and Chima tons, cosoa, cassla lignea, and chanamon, spices, drugs, aud provisions in general, 20 per eent. 6. Furniture, pictures, looking-ghassen, musical instruments, all sorts of carriages, carts, etc., and harness, saddles, horses' furniture (excepting herse cloths of the manatiacture of the aljacent provInces, which pay ${ }^{15}$ per cent.), ready-mulo clothes, boots and shoes, ligueurs, brimly, wine, viuegar, alo and porter, rider, tobacco, and soap, 2ij per cont. Salt, 2 reals the fanego, say 1 1h. per 290 prounls. T. Hides of all classes, hair, horns, tallow, silver and gold, in bullion or coin, free. A suall charge is made for warchousing and porterage on pasing through the custom-house. Goods may be londed for an indefinlte period, during which time they are sulject to a moderate warchouse rent. Fioreign hour piys as follows: €s per barrel, when whent is worth 82 to 8 per fanega, alout 224 pounds; $\$ 6$ per barrel, when wheat is worth 813 to $85 ; \$ 1$, when wheat is worth \% $\%$ to 87 ; 利, when wheat is worth 87 to $89 ; 81$, when wheat exceenls 8? Wheat: 83 per fanmg, when wheat is worti) \&te to 83 per fanega; ;2, when whent is worth sit to $86 ; \frac{5}{6}$, when wheat in worth $\$ 6$ to 810; nothing, when wheat is wortia above \%in 10 irr fanega: gools tranthipped, or shlipied out of homi, pavazer cent. Forelign grode, shipped in vessels of less than 150 tons burden, for ports of the l'ruguay and loaragnay, pay mily 1 per rent. 8. All goouls imported, paying duties, are sulyect to puy andditional 1 per cent. to the cunsulado; $\frac{1}{1}$ per cent, to the hospital; and for the extinction of conper menery, 1 per cent aditional on all gowels that pay 5 per cent. (This has, much to the honor of the anthoritles and peopie, heen alrewly arcomplished; but the duty is malatalne! for genural purineses.) in all gools that pay 1:1, 15 , and 20 pure cent., 3 per cent. On all grumb that pay 25 per rent., 6 per cent. On flour, 10 per cent. On wheat, 3 per cent.

Duties on Exports, in Nutional or Foreign I'esstls.Ox und cow hides, 2 reals, 25 ceatesinos, for reconnidor valuations of 81 , and 1 per cent. consulad. Horse hides, 1 real for reconnidur, on valuations of $;$ reals for reconnidor cach, and 1 per cent. consu'ulu. All other produce of the country pays 4 per cen. on the market value, and 1 per eent. consulado. Jerked and salt heef, pork, etc. ; nlso all foreign goods that have paid the iuport daty, free. Golel and silver, coined or in bullion, 1 per cent.

Ibet Charges.-Tonage from beyond sea, foreign vessels, 3 reals; national vessels, 2 reals, Bunag londing and unloading, twoth classes pay $\$ 1$ per day. Pratique, with pilot, foreign vessels, \&n; national ves-
 tional vessels, \&2. Without pilot, foreign vessels, $\mathbf{y}$; national vessels, \%2. National and toreicn vessels that neither divelarge nor loal cargo, and that do nut remain more than six days, pay nothing; those thut remain in the hartor more than six days pay one third of the ulove tonnage dues. National vessels, and vessels belonging to the provinces of Bumos lyres, employed within the River llatte, called coasting may for a lieense for each voyage, if 3197 tons, 4 reals; 8 to 15 tons, 10 reals, or $1102 ; 10$ to 30 time 15 reals,
 tons, 30 reals, or 8306 ; 61 to 80 tons, :is reals, or Si4 $06 ; 81$ to 100 toms, 46 reals, or $8506 ; 110$ and ahove, 54 reals, or $\% 606$.

Ihopital Ducs,--National and fureign vessels, sailing for a foreign port beyond seat or in th.e liver Phitte, pay $\$ 2$ for the vessel, 4 reals for the captain, :2 reals for cach seaman, 81 for tach passenger.
liblatage from Monterideo to Hurnos lyres to the pail in Muntevideo. If the dramght of witer do not "xceed ! feet, llargor measure, $800 ; 9$ to 30 fent, tin);



 is nowe. Conrrent money, the Hracilian pataon and Spuniwh dollar; they pass for thio centesimos. 104 cents make a real ; fiou cents, or $\$$ reals, make a dollar; thio cents, or 9 realy 60 contx, mihe it current dullar, or 1 hard dothar or putacon. Werights and measures same as those of Spuin; for which, see Camiz.

As regaris the commerce of the l'nited stites with

Montevid years, wh nlne year which for withont a breeding $t$ heen dest the war $b$ Rozn ant or no pron from the proceed o return curn of late hev tieularly which flou of a few y to euply in exehan vast cousu steam mill as yet (Sei this count the enterp snd horso present th streams of been broug chiefly of the latter tributed to navigation is graduall sing regul and othors ing freight sidered as fuel is a quarter, as used come yery dear r not realize
lort ch Reis to the mooring, 150, if not 88 ; stanu day while Quil ; stan putclied, : ing to the pilut to Fr fees, if for here, $\$ 12$. sitio reis. rival with land samp their carr
Mont East, and seat of c the left h: line soutil $73^{\circ} 25^{\prime}$ 67,716; as thut o perior to lwend of $t$ near itse nation wi rily mak ada. Til sele draw lts gene dividvan mile belo it difficul

Montevideo, we find it has much diminlshed of late yeara, which may be attributed to the late clvil war of nine years' luration. Tho interior of the coontry, which formerly abonnded in homed cattle, is nuw without a sufficiency to supply the "Estanciag" for breeding those useful animals, milllions of them having been destroyed for their hides alono in the course of the war before mentloned, by the troops of Generals Rozas and Oribe; and the consequence is, that little or no produce comes ln from the country. Vessels from the United States with thelr outward cargoes proceed onward to Buenos Ayres, where they find return cargoes, which are easily obtained. Capitaliste of late have turned their attention to agriculture, particularly te the cultivation of wheat and Indian com, which flourlsh hero in a high degree; and in the course of a few years this country wlli, prohably, be ensbled to supply Ihrazil with the article of flour in abundance, in exchange for coffee, sugnr, tobnceo, etc, articles of vast consumption. There is a tine opening here for a steam mill, for the grindlng of wheat and corn, none as yet (Scptember, 18a54) having been Introduced into this country, and it is worth - the attention of some of the enterprising cltizens of the United States. Wind, and horse power for mills, are the only means nsed ut present throughout the country; and although its streams of water are innumerable, that power las not been brought into action. The manufactures consist chiefly of soap, tallow candles, chocolate, and leather, the latter of very inferior quality, which may be attributed to the specios of burk used in tanning. Stean navigation on the Rio de la Plata, and its tributaries, is grabually increasing. There are two steamers runaing regularly between this city and Buenos Ayres, and others to the Parana and Uruguay Rivers, carrying freight und passengers; however, it may be considered us yet in its infancy. The very high price of fuel is $n$ serious obstacle to steam navigution in this quarter, as ne conl mines are found here, and the coal used comes from England and the United States, at a very dear rate, and, In conseducnce, the steamers have not realized so profitable a business us was noticipated.
Fort Charges on Foreign liessels at the Rate of 800 Reis to the Montevidean Dollar.-Pilotage inward, \$10; mooring, $\mathrm{B} / \mathrm{F}$; tonnage duty, 300 reis per ton (saly on 150 , if not more), 4306 ; free of entry, if to discharge, 88 ; stamps for ditto, $\$ 12$; custom-house officer $\$ 1$ per day while discharging and loading, say for 30 days,备 30 ; stamps, in caso of londing, and on being dispatched, $\$ 20.0 .1$; hespital fees, from $\$ t$ to $\$ 6$, according to the number of hands on board the vessel, $\$ 5$; pikt to Franquia, 8.4 ; bill of health, 810.4 ; escribano's fees, if for balance of cargo, 88 , or if the vessel late here, क12. Spanish 127 to 1040 reis, or $\bar{*} 15 \times 06$ at son rein. Vessels aro allowod to lay 12 days from arrival without entering at the custom-honse, und may land samples, so as to dispose of a part or the whole of their cargocs.

Montreal, a city and river port of entry, ('analla Fast, and the largest and most populons city and chief seat of commerce of llritish America. Situated on the left taak of the St. Law rence, $1: 12$ miles ba a direct line south-west of Quebec. Lat. $45^{\circ} 30^{\prime}$ north, long. $73^{\circ} 25^{\prime}$ west. l'opulation, $1 \times 10,27,297$; in 1852, 57,$216 ; 1800,60,000$. The sito is not no commanding as that of Quebec, but it is in every other respoct superiur to that city. The position of Montreal, ut the herul of the ship navigation of tho St. Lawrence, and near its conduenco with the (ittawn, as well as its situation with respect to the city of New York, necessurily makes it one of the groatest emporiums of c'anada. The harbor, though not iarge, is secure, and vessels drawing 15 feet water, may lie close to the shore. Its general depth is from 3 to $4 \frac{1}{2}$ fathoms. Its chief divalvantage consists in the rapid St. Mary, abont one mile below the city wharves, which vessole often find it difficult to slem, without the aid of steam-tugs. To
obviate the obstructions in the navigation above Mantreal, the Lachine Canal, 0 milee long, 20 feet whe, and 5 fect deep, was undertaken $\ln 1821$, and completed at an expense of $£ 130,000$. The communication with the opposite slde of the river is carried on by several stean and other vessels; and during the summer a regular steamlroat communication is kept up with Quehee. At this sesson vat rafte of timber come down and pass the city of Quebec ; and scows, hatteaux of sbout slx tone, and Durham boata bring to Montreal the produce of Upper Canala, Neither is the trade of Montreal suspended $i_{11}$ wiater, like that of Quebec. Numerous sledges may be setn cotoing in from all directions with agricultural produce, frozen carcuses of beef and pork, tirewool and other articles. Montreal Is the centre of the comirs - "ce bet ween Canada and tho Unitel States, carried on by Lake Champlain and tho Mudson, and not only is it the depott of all the adjacent eountry, but most of tho business done in Queliec is carried on by branches from the Montreal houses. Sue Erports of Canada, p. 853 . The lmports in 1853, amounted to $£ 3,603,696$, and the net amount of dutles, $\mathbf{c 4 4 7 , 0 8 0}$. In the same year, 4885 vessels entered the port, of 191,928 tons burden. The wharves of thls city are constructed in a manner unequaled upon this continent ; tho entire line of which is over two miles in length, and considerable additions (to meet the rapidly increasing trade of the city) will be speedily commencel. The Lachine Cannl, with its locks and laasins, is anothe; of these public works of which the city may well bo proud. The Champlain and St. Lawrence Railruad, commences at Brewsterville, opposite the city and connects with the lines to New York und Boston, at Rouse's Point, a dlatance of 43 miles. This road is now completed and the cars run daily. The Lachine Railroud connects the city, hy a line of road 9 miles in length, with the village of that name. The continuation of this road from Caughnawaga till it connects with the Ogrlenshurit Road at Moers, is now complete, and the whole line is known as the Nontreal and New York Railroud. The St. Lawrence and Athantic Railroad, connecting Montreal with tho city of l'ortland, n distance of 292 miles, is now complete. A line trom Quehec to Melhonrne, in distance of 100 miles, is also in ceurse of construction, and will he completed in 1851. The Grand Trunk Railroad to connect Montreal with Kingaton, Toronto, etc., is now in ceurse of construction. The entire length of the road from Trois Pistoles to Sarnia, will he 1112 miles, und it will probably be completed in 1856. The Montreal and Bytown Railroad wlll pass through a fine distriet of country, and is in progress of constraction. The length will be about 121 miles, and will be opened in 1850 . The Itictoria Bridge.Thls splendid and useful structure is te cross the St. Lawronce from loint St. Charles to the south shore, a total length of 9.13 f feet, or some what over a mile und three quarters. It is to be built on the tubular principle, and will have a track for railrom cars in the centre, while on the outside of the tube there will ho a balcony on caela side, with u foot path for pussengers. The bridge will rest on $2 l$ piers and two ahutments of limestone masonry, the centre span being 330 feet long, and 60 feet high from summer water level. The iron used in its construction will be the hest boiler plate ' l ' iron, and the total cost of the work is to he \& $1,500,000$ sterling, or $\$ 7,500,000$. lormerly this city was the heud-(uarters of the fur-trude, but its interest in it lats greatly declined. It has establishments for the manufacture of cotton goods, India rubber, stenm engines, milroad cars, ases, ete., cast iron founderies, distilleries, breweries, soap, eandle, and tolnceo manafactories, several ship-building establishments, ete.; various articles of hardware, linseed oil, thour-choth, etc., are made in the city. Tho markets are abunduntly supplied with thesh, fish, pouliry, fruit, vegetubles, ctc. About three fourths of the population are
of French descent, the remainder consiating prisclpally of emigrants from Great Eritaln.
A letter from the Cnited Staten' Consul at Montreal, dated Uctober 9, 1855, remarka :-" Since my last communication, tiee only materin! alteration between the trate of the two countrlea has been the ratlication and adoption of the reciprocity treaty, wifle has provecl, so far, at lesst, as has come under may observution, highty satisfactery to the provincial government, and to the people of Canada at large; and there In every oppearance of its increaaling $\ln$ usefuluess, to this zountry at least. It fs, if 1 may bo allom of to une the expreasion, commereially spenking, tuntamount to annexation : while its lioneficial effecta have ahown themselves in the increased value of farms and landed eatatea on thin side of the line, and I n Is... daced to belleve, by carcful ob er antion, th, thers


United States, particularly the larger sea-port towns. This treaty hae been instrumental In doing mach for the advantuge of the carrying trade, hy conveying the prolucta of thia province over the railroada and canals of the Union, thereby placing Canada and the lowar provincek, no far an their trade is concerned, in the poaitlon of one of the Sintes of the Union. Theri has been, slnce my last commurication, hitherto alluded to, hut one enactment on the part of the Canadian govermment in relation to the trade botween the Unit. ed Srates and Canada, which was to the effect thas the governor in council had alolished the duty levieit upon the orighal packagee, containing products of the United States inported into this province, umler the provislona of the reciprocity treaty:"
The following figures will allow the somparative importance of tho trade of the priar nal cities on Tanada :

| *xpostn. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 1884. | 1485. | 18.63. | 1854. |  |
| t2.014.767 |  | 2125,454 | 6179,189 | 5 714807 |
| 572,514 | 475,6 ${ }^{\text {che }}$ ) | 449,102 | 478,608 | 310,219 |
| 273,040 | 4 4,106 | 356,083 | $172,5 \%$ | 1,52, 8 ¢ 6 |

The St. Lawrence, however, with all its aeknow:edged capacity, la not without its drawhacks. Foremost was tha long winter, which sealed its waters during olx months of the year; and next may he classed the dangers of a navigation of 700 miles between Helle Isto and Quelec. There were other circumstances which threatenel that commercial prosperity which once sppeared to be the undoabted appanage o. the unost convenient port of this large river - lising the term " most convenient" in reference to breadstufts, the chief produce of the West, and to manu. factured gionds, the chief artiche in deutand by the West. The principal of thase was the diveovery that the most fertile lande lay beyond the barrier formed by Niagara. Yepce, the popmation which wonld otherwise, in the matural order, have filled op the nearest land first, was templed to the shorcs of Dake Firie and the country lying leetween that lake and the head waters of the Missinsibpi. It has been lis this reghen that the great emlgrant jepulation has chicfly extablished itself, leaving the less frutitul whores of the St. Lawrence and Lake Ondario comparatively bare of inbahitanda.

Impourts to the Jort of d'ntreal. $-\ln 1815, £_{2}^{2}, 614,-$
 993,010 . The export trate generally has received a great inpetus during the past ye ur, oxing in jurt, no doubt, to the estahtishment of the ocean steam line. The exponts from Montreal for the first three quarters of the year 1 siś were but $£ 333,610$; for the year $18 \mathrm{n}_{6}$ they have amonated to $\mathbf{E}^{-1} 16,475$, or more lhan doulde.

The pepulation of the $r$ is steallly hecreasing, and it lis helicved that at no former period was its trude and gencral husiness on s more healthy footing. In 1 N00), the population was $(000 ; 1816,16,900) ; 1425,22,000$; 18:11, 2h, 297; 1851, 57, 515; 1856, $55,(600$, at a sery moxderate estimate.

Regulations in Force..-Merchamlise whall not the noladea in ('anadian ports ex'ppt after due entry, ut phaces designated for that purpose, unter jenalig of forfciture. Merchandise ahall not be imported execpt
 mader pemalty of forfolture uf vessel and gromls, if under the value of turn; if utme that num, they shall hir retained as reverity for the pryment of that moment.
tanks cownected weith Montreul.-Montreal being a large commerclal centre, the banking facilities afforted to the business community are on an extended scale. The thanks of ('anala have heen, on the whole, pradently and judiclonsly manged, and have proved remunerative to the shareholilers, while there has yet heen no instance of the stoppage of a Canadian hank. The names and capital of the banks carrying on their business in Montreal are here given, selected from the offichal statement, with a statement of whethe, the office be a head office or agency. These banky all, with one exeeption, trunsuct business under Camalian charters, and their stockholders are liable in double the amount of their shares. The lank of British Surith America holds a royal charter, the head office being in Londe: h, hut the principal colonial office is in Montreal.

A. Comparative Statruent of the rancipal, Abtibigs







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The total amount of duty collected durian the year


The following is a comparative afatement of impurts exhihithy in contrast the valre of'. sum mounts of duties collacted on, gimels entercul fur consumption in


| Weineter Imperird. | Snlur. |  |  |  | Iniy. ...... |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Incsis. | Ined. | 1838. | 1856. | 1853. | 1854. | 1452. | 1-5i. |
| Great Mrituln. | \& $1.652 .5 \% 6$ | 25.7.10.30, | 243, 385 |  |  |  |  |  |
| V. Amer. Colonles, | 154, 164 | 16*.774 | 216,401 | 4035,14x |  |  |  |  |
| West ]mileat..... | 2985 | gacyin ${ }^{\text {bi }}$ | 8, $\begin{array}{r}8,8228 \\ \hline\end{array}$ | 0.85.4.19\% | ¢1, 02.644 | $x 1,821,70]$ | E4, 1.6 | 1.12,20) |
| Cultesl Status. | 2,915.530 | 8,493,274 | 5,207,169 | 6, 8181,187 |  |  |  |  |
| 'T'etal. | ¢7,995, 889 | t10,182, 1891 | 20, $021,5+2$ |  | 21, 1224.6876 | £ 1, $2 \times 1,401$ | Ens 6.46 | 21, 127.20 |

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Te'al vo Vaine of Quebee. Estlmated porls, , Bhe
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1858...
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Summary Ports in Cin except afte purpose, u shall not 1 whether by tion, wheth place ât wh under pen: under the

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The following is a comparatlve statement of exports from the province of Canada for three years :

|  | 18.4. | 185. | 1155. |
| :---: | :---: | :---: | :---: |
| Prodaca of the ni | 274,7914 | E 11.458 | 241,411 |
| " " зса........ | 87,427 | 14.989 | 114185 |
| " fareat | 2,495,811 | 1,90c,980 | 2,504, 70 |
| Aalmals aut ${ }^{\text {a }}$ (sit prodacts | 208,813 | 896796 | 041,74 |
| Agricaltu.. : duets...... | 1,829,040 | $8, \cdot 57,599$ | 8 T13, 6 ' |
| Manufarturs | 54,109 | 119,019 | 08,467 |
| Other artle in | 11,248 | 17140 | 10,799 |
| T 'al rat of exports. | 24,740,264 | 25,925,976 | 27,148,749 |
| Vaine of sht 8 butt at $\}$ Quebec. |  | 804,856 | 808,269 |
|  | 412,470 | 816,208 | 628,725 |
| Gralu. lotal of experts. | 25,754,197 | 27,047, 16 | 58,011,754 |

The followiag is a comparat of $f^{*}$ ment of the value of imports anu expoits of Canada during tho years 1855 and 1856 :

Total. $\begin{array}{lll}1835, \ldots . . & 27,047,15 & \mathbf{x} 9,021,092 \\ 1856, \ldots . & 8,01,754 & 10,896,096\end{array}$
£10,069,657
15,907,851
Inereste of the commerce of


The nett comparative revenne from custom dutien for the nast ilve yearn, after deducting cost of cellectlon, return dutlew, and balancen, is as follows:

| 1858........ | £ 005.814 | 1855. | 2818,819 |
| :---: | :---: | :---: | :---: |
| 18:3........ | 986,20\% | 1856. | 1,023,900 |
| 1554........ | 1,188,018 |  |  |

The following la a statement of the tonnage inward and ontward, thowing the amonnt of coasting and ferringe on Cangdian inland waters, and the interconrse by inl ", il uavlgation bet 'veen Canada and the Ünited Sts ${ }^{*}$ s. uluring the yoar 1856:


The following is a subulivision of thla grand total : Cabullso steam... 6,297,897 || Amertcan steam... 4,768,826 salt...... 880,726 " sall.... 848,218
The following tables exhibit the number of vessels entered outward for sea, their tonnage, number of men employed, and the countriea whence they enme, during the year 1856, nud the two preceling years:

| Yeers. | T Late. |  |  | Great Brlasin. |  | Brilish calonjee. |  | L'aited States. |  | Oher furwign countrles. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number. | Tona. | Men. | Number. | Tonn. | Number. | Tuma. | Number. | Tons. | Number. | Toms, |
| 18.76, | 1,532 | 574,648 | 19,850 | 1,004 | 036,203 | 430 | 24,628 | 87 | 8,075 | 41 | 5,147 |
| 1505. | 1,219 | 451,241 | 15,814 | 760 | 412,782 | 855 | 27,545 | 24 | 8,000 | 50 | 7,919 |
| 1824. | 2,018 | 781,755 | 96,256 | 1,537 | 787,663 | 487 | 87,778 | 15 | 1,401 | 29 | 4,50 |

The following is the statement of the same inward:

| Yearis. | Toial. |  |  | Great Brliain. |  | Brilish colonies. |  | Uulted States. |  | Other farelgn | $\mathrm{A}^{4} \mathrm{sam}$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nuaber. | Tons. | Men. | Number. | Tons. | Number | Tons. | Number. | Tons. | Number. |  |
| [3itu. | 1,404 | 850,478 | 18,476 | 641 | 858,026 | 508 | 47,198 | 71 | 82,849 | 247 | 1,022 |
| 1835. | 1,168 | 419,053 | 14,252 | 523 | 279,956 | 424 | 51,280 | 80 | 88,706 | 141 | -1,181 |
|  | 1,890 | 705,842 | 24,401 | 1,05i | 501,458 | 403 | 68,525 | 138 | 85,401 | $20 \%$ | $\because 28$ |

The nunber of steamers built in Canada in 1856 was 22; their tonnage 3755. Sail vessels 26 ; their tonnge 41,58 . Total number of vessels built 148 ; their tonnare 45,839 .

Sumnary of the Regulations in force at the different Ports in C'anada.-Merchandise shall not be unlnden, except after due entry, at places designated for that purpose, under penalty of forfelture. Merchandise shall not the brought or imported into the province, whether loy sea, land, coastwise, or by inland navigation, whether dutiable or not, except inte some port or place at which a custom-honse is or may be establishef, under penalty of forfeiture of vessel and goods, if uniler the value of 81000 ; If abeve that sum, then
the vessel and goods shall be retained as sect $\cdot y^{\prime}$ sr the payment of that amnant. This applies, s, ilatis muiandis, to goods brought into the province, by land, in carriages or other vehicles. Other regulations have reference, principally, to frontier sinnggling, and to the duties and powers of the officers charged with its prevention. They convey no general commerclal information, and are, therefore, omitted. Most of the articles on which a discrimination in favor of importations from Great Britain exists, nre embraced in the thirl artiele ("schedule") of the Reciprecity Treaty. The foregoing regulations, etc., apply, with sone slight modifications, to all the other colonial possessions of Great Britain in North America.


| Yoars ending | Exports. |  |  | 1mports. | Whereaf there was in Bullion and Specie. |  | Tonnago Clisured. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic. | Forelga. | Total. | Tutsl. | Fixperted. | Imported. | Amerlcan. | Forelign. |
| Jano 80.189. | (2), $3220,322^{7}$ | *1,414,401 | * $4,234,724$ | \$1,481,082 | (101,500 | 1417,830 | 597.204 | 6tin,910 |
| 13 tr | $4,641,451$ | $1,299,370$ | 8,980, 521 | $4,2 \times 5,470$ |  | $\underline{426,369}$ | 919,515 | 456,527 |
|  | \$6,961,775 | *3, 203,761 | *10,465,549 | \%3, 7064,522 | \$ 151,200 | 1548,74 | 1,509,719 | 1, (120,437 |
|  | 45,535,834 | 82,098,806 | \$7,929,140 | * $4,056,47 \mathrm{t}$ | -284,901 | ( $7,868,727$ | 927,018 | 516,883 |
|  | 4,004,968 | 2,714,097 | 6,717,06i | 4.589,969 | 186,450 | $5 \times 3,959$ | 765,945 | 580,945 |
|  | 4,1005,512 | $8,923,5 \times 6$ | 7, 8299.049 | $5,278,116$ | 617, 619 | 94,4,219 | 1,062,086 | 734,629 |
|  | 10, 100,378 | 6,794,833 | 17.800,706 | 6,421,299 | 4.1.t77 | \%5,000 | 680,94t | 648,289 |
|  | 8,950,754 | $8,769,5 \times 0$ | 18,740,344 | $12.182,814$ | , | , | 800,017 | 908,502 |
|  | 15,194,788 | 5,688,42\% | 29,838,241 | 17,458,197 | .... | .... | 1,118,784 | 1,212,693 |

Moor, in mavigation, slgnifies generally to tix a vessel by two anchors in nearly opposito directions, so that she rides ly either in certain winds, or partly by both in wher winds. Also, to sccure a vessel to Weights or chains sunk in harbors for the purpose. These weights aro called meoring blechs, and the whole upparatus, moerings.

Morocco, or Maroquin (Ger. Saffiam ; Fr. Maroquin; It. Marrocthino; Sp. Murroqui; lius. Safian), a the kind of leather prepared of the skins of goats, imperted frem the Levant, Marbary, Spain, Flanders, otr. It is red, black, green, yellow, otc. It is extensively used in the blading of books. Seo Leatien.

4 S

Morocco. In Africa generally, barbariam, with all its attewdant evils-ignorance, superstition, and cruelty-still charactcrize not only the several governments, but most of tho countries of Africa, if we oxcept Egypt, the European settlements, ned the republic of Liberia. Bulbi, the distinguishel Venotian geographer, in his great work, Balance Politique "lu Glebe, remarks: "The title of African statistics may le rejected as nusurd;" nad, hence, he persisted for a long time in ha determination of excluting Af. rica, Oceanica, and the greater part of Asia, from consileration. Sinco Balbi composed his work, howover, civilization has made encouraging progress in some

## MOR

portlons of westorn Africa. Point Gallenas haa been bronght within the limits, and under the hmmanizing inflaences, of a young, vigerous, and Chriathan republic. Where the alave fuctorlee once stood, pulpits are now orectel ; and aavage tribes, and barharons chlefa, Inatend of warring with each other for human plunder, have cast a way the Implements of carnage, and now seek a common protection in the plew and the gospel. Geographteally; Macgregor divldeo Africn Into seven great reglons:
1st. The regien of the Nile, under which may be comprised Egypt, Nubla, and Kardafan. 2d. The region of the north, situated bet ween the Mediterral ann and the grent desert of Suhara, and extending from Eyypt wext to the Athantle, generally known na the States of Ilarbary-namely, Morocco, Tunls, and Tripoli. The soll and elimate of this region are cminently favorable to tho culture and growth of the choicest productions. Bh. The thitd region comprehends the vast desert of Wabara, west from Fezzan and Harfour to the Atlantic, and gonth from the Jarbary States to Senegr abia, Soudan, and Jlornou. ith. The fourth reglon comprehende Nigritia, or western Xfricn, cxtending from the south loundary of ths western desert to the seuth boundary of Jenguelu, in about latitude $16^{\circ}$ eouth, including the repubile of Iilieria. bth. Tho fifth reglon compirehends the Cape of food Itope colony; the country of the Caffren and Ilottentots; and the extensive iry desert coast north of the Hottentot conntry, to leuguela, and the great miknown southern desert. tith. The sixth region, or eastern Africa, extending along the sea-const, and to an unknown inlnud limit, from Delagra lay, in latitnde $26^{\circ}$ nouth, to the frontiers of Alyysintia. Tth. The seventh region compreliends the States of Alysshina and Somaula, extenting from Cupe Las-usser, or Guarlafo, to Zeylah, and along the lied sea to the torritories of the Jacha of Jigy jt.
the the seven divislons thus given by Mugregor, the 1st, fth, 5 th, and tith, only, jossess any cemmerclad Importance: the tirst, cumprising the Jharbary States: the fourth, the republic of Jikeria; the tith. the colony of Goot llope (some account of which will $z=$ found in the Digest of Lritiah Colenial I'ossenshons); and the sixth, the African possessions of the Sultan of Dluscat, lucluding the Jsland of Zanzibar.

Jarbary States.-Under the collective denomination of Barbary Staten, arn grouped together the countries which form the northern const of Africa, viz.; Moreve, Tunis, and Trigoli. Prior to the subnismion of Algeria to the l'rench nrms, this division was ulso comprehended under the same general natne. Ileing now a French edlusty, it is included in the Digent of French Colonial l'ossessions.

Eimpire of Norocco,-Moruce is one of the moat powerful of the Harlary States, and comprises un area of 220,0 (n) square miles, witha population estimated at $8,5100,00 \%$. Although agriculture is in the must backward state, the noil viehls, in great abondane and of the tineat quatity, wheat, turley, maizs, ollves. hemp, and cotton; uni lemons, grapes, figs, orangen, almonde, afil various fruits are grown in the greatast protusion. The amgar-cane, the tobacco-phant, and the date-tree thrive wherever they are cultivated. Under a lit eral government, and with ordinary intus. ery, Morocco could be male one of the most firoduce tive rountries in the world. Islamisn, however, wherever it estemif, spreads its withering bliffit over every branch of industrial Inprovement. Among the varied pliysical resources are mines of iron, tin, copper, untimony. and salt ; the lant of which only nppear to be wotked. Two treatiek of peace, friendship, etc., and for the security of petona nal property, have been concluled by the United States with Moroceo; the former betring dute January, 1787, and the lutecr, Sejtember, 1s3t6. The principal stipulations
relating to trade and commerce, in the treaty of 1836, are embodied in the following oummary ?

Article 8. If any vesael of the Uuited Stutea mhall meet with a disaster at sen, and put into ene of our ports to repalr, she ahall be at Ilberty te land and reload her cargo without paying any duty whatever. 14. The commerce with the United States shall be on the aame feoting as is the commerce with Spuin, or as that with the mont fuvored nution for the time being; and thelr eltizens shall be respected and esteemed, and have full llberty to pasa and repass our country anil sen-ports whenever they please, without isterruption. 15. Merchants of loth countrien shall employ only: such interpreters and anch other persona to ansint them In thelr burluesa as they shall think proper. No comminnder of a vesed alall tranagort hla carge on hourd another vessel ; te shall not be detained in part longer than he may thlnk proper; and all persons employed In loading or unlonding goods, or in any other lator whatever, ahall be paill at the customary rates, mot more and not less, 17. Merchunts ahail not be conspellent to buy or sell may klod of goods but sich as they shall think proper, ind may buy and sell all sorts of merchandise but such as aro prohlibited to the ether Christian nations. 18. All goods ahull be weighed and examined before they are sent on board; and, to avohl all detention of vessels, no examination shall ufterwarl the male, unless it shall first be proved that coat rablanill gooda lanve beensent on bourd; in which easo the persons who took the contrabmi goods on troard shall be punished according to the usugo and custom of the country, and no other perato whitever shall he injured, nor shall the slup or cargo inelr any penalty of lamage whatever. 19. No versel shall be cletained in port on may pretense what"ver, nor be othiged to tako on board any urticlo with out the consent of the commander, who slall lre at full liberty to ugree for the freight of any gools he takes on loand. The trenty to continue in force 50 years, with the ustal 52 months' notice ufter the expiration of that perioul.
The prinelpal ports of Moroceo are Mogatore, on the Athuntic, with a sufe harbor for vessols of tiou tons; Tangier, Tetuan, Dar ul Ihaida, Mazagan, Saffi, Mibat, and Laroche. The import dutles nre often arbitrarily raised, and frequently ecrruptly levied. With the exception of cochincal, coffee, cotton, iron, faw silk, supary, and tea, on which articles there are speclided duties, and tohacce, which can be sold only th the temporury assignees of the emperor's monopily, a general daty of 1t) per cent. is levied on all imports. When thas sold, it is almited free; the price of the monoply varying necording to the number of bid. dets, but ustally reaching us high us $=100,000$ ). The assignee realizes from nett males about $\$ 180,000$. Ibesides tobaceo, the saltan reserves the monopoly of lorimatone, gunpowder, and lead. Fivery article entering lato the export trado of Morocte is vubject to arlitrary, and fresuently oppressive daties. On leechea and cork-lark the sultan retains the mompor ly, which is annually sold to the lighbest bider, and sometines adde to the sultuis rovenue as muith as $\$ 100,000$ per nnnum. If we compare this large amount with the total value of these articles unnally
 (alout sll per cent. of which is puid for the monopuly), it can be seen at once bow much the trade in these urticles is affiected by ticese buritensome internal taxis. Marocco maintains an extenslvo trade with the interior of Afraca ly caravans, the principul of which usually necompanies the pilarims acrose the whole continent of Africa to the Red Sen, and the tomb of Sohammed, and Mceca. The value of the investmen.s in this curavan bas been usually estimated at $2 \cdot,(100,000$. The carbvans truding with the interior depart from Tetunn, Moroceo, und Fez, and meet at Tutiht, in order to creas together the groat desert of Sahari. The trade between the United States and the cupiro of

Morecee Marsellie mest par gested to States' co be secure produce 1 wool, wer Fingland. United S entirely 474 vesse 30,426 tes pire, thert in all 1,10 from Mos ostrich "e States to bnown suf suppled a

In 1848
$15,046,979$

Mercha
specio.

In thls port of Mo 038 francs francs. S

This lea
Mazagan, and Rabat. For the ments for 208 francs 154 franes.
Compare tion of 390 returns for francs, exc cipully ati the trado 2,314,154 -while in 404,906, a ef 657,768 in this tru in imports clously es mented $h$ incresse description official di State fron from the s which we nppellatio of import. of Manch Massachu Moors, w] that the I this connt the prober

[^34]1892...
142...
184.
164.

Total
Average

Moroceo is prineipally indirect, through the porta of Marselities and Glibraitar, and ta conducted for the most part in French and British bottoms. It in suggeated to the Department of State, hy the United States' connuj at 'Tangier, that this carrythg trade could lie secured to American vessels ? ? our himport duties on proluce in general of Morocco, enpecially on coarse wool, were reduced to the same standari that ruies in Fingland. In 1853 the carrying export trade of the United Strites to Moroceo, amounting to 884,000 , was entirely effected in foreign vesnels. In 1852, of the 474 vesseis of all sizen, measuring an aggregate of 30,426 torin, engaged in the foreign trade of the empire, there were but four American vesseif, measuring in all 1,100 tons. The imports into the United States from Morocee conslst of ceurse wool, guma, skius, ostrich 'eatl:ers, etc. The exports from the United States to Morocco are raw cetton, coarse domestica lown sugar, rice, and tobacco. The iatter article ls auppiied almest exclusively from the United States.
In 18.18 the maritime commerce of Morocce reached 15,046,979 francs ( $82,798,738$ ), viz.:

|  | Importa. | . |
| :---: | :---: | :---: |
| Merchandtac. | 8,747, 5is | 2is |
| Sprecte. | 228,500 | 400 |
| Total. | 2,001,304 | 0,045,675 |

In this general movement the returns asaign to the port of Mlognalore nmounts as foilews: Imports, 2,281, 038 francs; exports, 2,584 , 304 francs; tetal, $4,865,8.42$ francs. See Monadose, ante, p. 1368.
This Jeaves $10,181,137$ france for the other portsMazugan, Tangier, Tetuan, Dar ai Baida, Laroche, and Rabat.
For the purpose of comparisen, the general mevements for 1847 are given an foilows: lapports, $7,077,-$ 208 france ; exports, 6,910,946 francs; total, 13,988, 154 francs.
Compared with 1846, these figurea show a diminutien of $390,5.17$ francs ; but when compared with the returns for 18.18 , they exhibit an increase of $1,058,825$ france, exclusively en importa. The diminution principaliy alfects the trade with France; thas, in 1847, the trade of this country with Morocco amounted to 2,344,154 francs--(imports 520,965 , exports $1,793,189$ ) -whiie in 1848 it fell to $1,656,386$ france-(imports 404,906, and exjurts $1,251,480$--showing a decrease of 657,768 franch. With every other country engaged in this trala there was an augmentation in 1848, both in imports and exports. In one article, rather auspicionsly calledi "Americanos," Fingland largoly augmented her export trade to Moroceo-the whole increase in 1848 being upward of $\$ 1,500,000$. This description of merchandiae in thus explained in an officiui dispateh tranamitted to the Department of State from Tangier: "Threughont the whole empire, from the sultan down to the loweast anlject, the article which we call 'coarse domentice' is used under the appellation of Americanos. It is the principal articie ot import, and is an imitation, by the manuncturers of Manchester, England, of the cearse domestics of Massachunetts. * * * * It teok with the Moors, who were so pnthusinatic in their praise of it, that the English manufacturers diapatehed an agent to this ceuntry to examino and report on the falric, and the probabie demand. They then net to work to
manufacture an articlo in every respect similar ; and, ataliing the name, they managed to undersell our countrymen and monepolize the market." The tabular atatementa that fuliow, giving a cond'nsed view of the trade and navigation of Morocee, are brought down to the latest period for whle authentie data are acceanilile, They are compiled fr.a French offictal publications:
Tabulab Btathment eximbiting the Taade of Monoceo poa 18ty, compabid witil 1847.

| Porta, | Impurice. |  | Euporic. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 mid | 19 | , |  |
|  | ${ }^{\text {Frames }}$ |  |  |  |
| Tangler | ${ }^{1,1088,040} 1000$ | ${ }^{2,904,000}$ |  | 1,000,000 |
| Larcehe | 361,000 | 1,187,000 | 820,000 | 251,000 |
| Rubat | 935,000 |  | 848,000 | 898,000 |
| Paral la | 875,000 | 428,1000 | 1,157,1200 |  |
|  | ${ }^{8,80,000}$ |  |  |  |
|  | 2.0s5,040 |  |  |  |
| Total | 7,077,000 | 0,001,000 | 6,910,00 | 6,148,0 |

Officiul returns give to England the priscipal share of this trade-an ndvantage which she enjoys, partly hecause of the proximity ef Gibraltar, but mainly because she monopolizes the large bulk of the carrying trade between the United States end Morocce.
The imports, these years, consisted of cettons (A merichnos) and woolen cloths, raw silk, iron, steel, copper and leac, sugar, coffee, grains, drugs, hardwures, tea, and specie; the exports were wool, hides and akina, leeches, gum, elive-oil, Meroces leather, nud ostrich feathers. The general commerce of the Mediterransan in 1854 increased materially over that of 1853 ; the increase was chlefly with Spain, Moroces, Sarilinia, the 1 uited States, and Tuacany.
Navigation.-The following table exhibits the navigation of the ports of Moreceo in 1850:

| Netionality. | No. of resela. | Tonnage. |
| :---: | :---: | :---: |
| England. | 012 | 88,685 |
| Franco. | 157 | 18,089 |
| Spain. | 49 | 1,889 |
| Portural. | 82 | 2,120 |
| Turkey. | 14 | :,840 |
| Other countries. | 13 | 1,523 |
| Total.. | 877 | 59,155 |

The principal imports are cotton goods of all kinds, cloth, siik stuffs, velvets, copper, lron, steel, hardware, cochineal, indigo, and other dyea, tea, coffee, sulphur, paper, glass, beads, rum, etc. The exports consist in hiden, wax, wool, leeches, dates, almends, oranges, und other fruit, bark, flax, durra, woolen sushes, haicks, Moorish slippers, etc.
The following table exhibits the values of this trade during a period of tive years ending with 1856 ;

| Yearn. | Imports. | Eaporie. | Talal. |
| :---: | :---: | :---: | :---: |
| 1852........ | *395,260 | \% 8359230 | 8754,490 |
| 1853......... | 416,965 | 3s3,150 | 799,115 |
| 154........ | 686,245 | 222,050 | 858,825 |
| 1585......... | 662.120 | 255,750 | 917,870 |
| 1556........ | 677,830 | 856,320 | 1,064,150 |
| Total | \$2,738,420 | *1,605,330 | \$4,893,950 |
| Aversgel | 8557,64t | (3321,106 | 8578,790 |

That eur commercial readers mny see the ghare which Great Britaln helde in the trade of Tangier, we subjoin a tabular statement ehowing the navigation of this port during the same period, distingnishing the number and tonnage of Bri' sh vessels :

| Years. | Enierdd. |  |  |  | Total. |  | Cleared. |  |  |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bettiah shipus |  | Vorelgn abiys. |  |  |  | Brituh ahipa. |  | Forelgn shipm |  |  |  |
|  | Vesatio. | Tuns. | Frasela. | Tons. | Vessels. | Ton4. | Vescels, | Tone. | Venselo. | Tons. | Vetsels. | Tons. |
| 1802.. | 159 | 4,599 | 102 | 2,506 | 26 t | 7.4115 | 159 | 4,599 | 100 | 2,844 | 259 | 7,448 |
| 1483... | 171 | T,261 | 174 | 8,303) | 8301 | 15,614 | 176 | 7,261 | 178 | 8,191 | 848 | 15,454 |
| 1*, $4 .$. | 137 | 18,946 | 125 | 6,984 | 965 | 15,780 | 188 | 12,826 | 123 | 6,934 | 264 | 18,760 |
| 1sin.... | 153 | 12,397 | 10 | 3,213 | 243 | 15,610 | 153 | 12,897 | 87 | 8,188 | 240 | 15.545 |
| 1556.... | 203 | 10,483 | 119 | 4,780 | 818 | 15,609 | 207 | 10,984 | 110 | 4,780 | 817 | 15,714 |
| Total. | 528 | 47,956 | 004 | 25,776 | 1,432 | 73,162 | 831 | 48,017 | 597 | 24,887 | 1,428 | 72,904 |
| Average | 165 | 0,597 | 121 | 6,0135 | 256 | 14,032 | 166 | 0,603 | 119 | 4,977 | 285 | 14,680 |

In 1853 the commercial movements at the port of Mogadore renched, inporta and exports united, 10,692, 245 franca ; of which imports covered 4,984,220 franes, and exports $5,608,026$ frunca. In $1800^{\circ}$ the total was only $6,920,525$ franes; of which, for imports, there were $3,207,175$ francs, and for exports $8,603,85 C$ francs. There was, therefore, an increuse in 1853 of, impurts $1,717,045$ franes, exporta $1,954,675$, making a total of $3,671,720$ franes.

Navigation returns show that 62 vensels entered, measuring, in all, 7483 tons, viz.: Eingland, 87 France, 9 ; l'ortugal, $\mathbf{2}^{1}$ lelgjum, 1 ; Spain, 1 ; other nations, 7 .

The trade of this port (Mogadore) In 1854 exhlbita a total value of $6,946,095$ franca; of whleh there wan for imports $2,810,045$ fraucs, anil for exports $\mathbf{3 , 1 3 0 , 0 5 0}$ franes.
Navicattox or Morocco in 124s, companel witit that

| Yasrs, | Vnasels |  | Total Tunnago. |
| :---: | :---: | :---: | :---: |
|  | Sniters. | Cloared. |  |
| 144............. | 297 | 245 | 28,44 |
| 1647. ............. | 816 | 297 | 88,484 |
| Decrease in 1948. | 19 | 72 | 9,045 |

The general forelga commerce of the empira In 1849 and 1850 is hown by the following atatement :

| Yeara. | Importe | Expmit | T.tent. |
| :---: | :---: | :---: | :---: |
| 149. | \$2,108,400 | \$1,6\$3,200 | (2,740, 1410 |
| 1500. | 1,822,800 | 1,654,200 | 3, 806,014 |

The commerce for these years was thus distributed hetween the ports of Morocco:

| Puris. | Iraports. |  | Fipports. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Inys. | $1 \times 831$. | 14.9. | $18 . \mathrm{mi}$. |
|  | Fraus. | Frauses. | France. | Frais |
| Tangler. | 2,186,010 | 1,614,(06) | 1,549,001 | 1,144, (MK) |
| Tıtuan | 2,497,6M1 |  | 1,115,660 | \$17,010 |
| tarocite | 953, 1106 | 815, (1) ${ }^{\text {a }}$ | 882.000 |  |
| tiahat | 1,387,000 | 1, 314, (1) 6 | 477.9m: | 1, 145,1460 |
| Iar al llajla | 716,901 | *44,006) | 1,625, 0140 | 1,116,000 |
| Mivaqall | 63.10 | 498,0m |  | 410,010 |
| Mogmiore. | 2,756, (m61 | 3, $8 \pm 4, \mathrm{~m} .11$ | 2,970, 010 Mg | 8,792, 010 MM |
| Total | 11,585, $1 \times 00$ | 9,144,000 | 8,416,010 |  |

The following tabular statement shows the conutries which participated in the trade of $1 \times 50$ :

| Cumbite | limports. | Exporte. | Tutal. |
| :---: | :---: | :---: | :---: |
| E.ogland |  | 6976,460 | 0,293,200 |
| France | 893) 810 | 621.507 | 1, $017.4(\mathrm{~K})$ |
| Spain. | 45.200 | 87.400 | 85,601 |
| Portugal | 4i,400 | 2,500 | 55,200 |
| Sariluts |  | 29,000 | 25, 190 |
| Bely ${ }^{\text {atum }}$ | 11.0000 | 11,800 | 25,910 |
| dustria | $8,5 \mathrm{SMP}$ |  | 8,010 |
| Tetal. | 11, 922,810 | 1,6-3,249 | (18,506,000 |

The principal ports of Moroccoare Tangier, Tetuan, Laroche, Rahat, Dar al Baida, Mazagan, und Mogadore. The town of Tangier occupies an eminence at the wentern extremity of a eupacious hay, within the limita of the Nitrita of Gibraltar, and nearly opponite to the Spanish town of Tarifa. The peculiar alvantagea of its situation render it the most frequented port of Morocco. The town contains 900 houson, and ahout 8 in inhabitants-consisting of tove Moors, 2200 Jews, and 210 Christions. Tho iuhubitants are, comparatively apeaking, civilized and tolerant. Christians are treated with greater reapert, and lews with less suverity, than in any other part of the empireprivilegen for which they are indelited partly to tho presence of the chief representatives of formign powers and partly to the liberality of the present alile and energetic l'asha, Sid Dohamed lien Abslel Maleck.

I'ort Charges.-The jurt charges and duea are nimply for anchorage, and vary from 82 to 825 , with a gratuity to the port cajtaln of from $\$ 2$ to *4. 'This gratulty secures the nervices of this offeer In oltainIng abundant provisions and other supplies for the vessel. free of duty. The anchorage duea, as alove,
range between the two extroines, accondlng to tha friendly or unfriendiy tarms which may nubaist beo $t$ ween the local authorities and the consul of the nation the flag of whluh the vescel may bear, $\rightarrow$ Com, Rel. U. S.

Conenlar Regulations with the Unital States,-It L stipulated by the 10th and the three following articles of the treaty conel-ided between the Ualted States and Morocco, Uotolier 1, 1837, that if any of the citizenn of the United States, ur any persons under their jrotectlon, shall have any dlepute with each athor, the conaul sball decide !etween the partion aml whenever the cousul ahall requira any ald or assistance from the governmont of Morocco to enfurce his decialons, it ahall be lmmedhately renciered to him. If a citizen of the United States should kill or wound a Blour, or, on the contrary, If a Moor aliall kill or wound a citizen of the United Stutes, the law of the countiy shall take place, and equal juntice shall he rendered, the consul asshating at the trlal; and If any dellnquent shall make him escape, the consul ahall not le answerabis fur him In any munner whatever. If an Amer. lean citizen shall die in Morosco, and no will shall appear, the conenl shall take ponsersion of his effects; and if thero shall be no consul, the effecta shall te deposited In the hands of some person worthy of trust, until the purty nhall appear who lias a right to ilemand them; but if the heir to the pernou deceased he prosent, the property shall be delivered to him without interruption; and if a will shall appear, the property whall doscend ngreeably to that wlll, as scon as the consul whall declare the validity thereof. The consul of the United Staten ia permitted to rendde lin any seaport of the dominions of the eingeror of Moroe :o thut he ohall think proper ; and he shall lee respected, and enjoy all the privileges which the consuls of any other nation enjoy; and if any of the eltizens of the Uniter States shall contract any delits or engugementen, the consul shall not lue in any mannor answurable for thom, onlese he shall have givon a promine in writing for the paymeut or fulillment thervof ; without which promise in writing no applicatlon to him for any reIrens shall be imade,

Mortgage. A mortgage is a conveyance or trunsfer of real or persunal eatate to secure the grantee or ussignee the payment of somo debt or the jeerformance of some agreement, with a condition or understanding that, in case of the delt being pald, or the agreement being performed, within a certain time, and in the specilied manner, the conveyance or assignment ahall be vold, and the land or personal property revert to, or rather, still behong to the mortguger. The Finglish, and so the Am:. inin inortgage of hand, is mostly botrowed from the cir'l law (see Kient's Commentarits, vol. Iv., part iv., leci.. Ivid. ; Buown's C'ivil Lene, vol. i. , p. 2000 ), or, at least, many of the rulea and incidents of the Roman hyputhecs, coincide with ouss reliting to mortgages. The essentinl charmeteristic of a mortgage, however, necorling to the import and detinition of the term, unat be the same in all countries, namely, that tho property conveyed or transferred, whether real or personal, shall nut alisolutely go, sad belong to the grantee or assignee, in tase the deht intendend to bo secured shall be puil, or the contract, whatever it may ins, intended to the grariantied, shall be performed within the time and termen ugreed upua. The rules and incidents of such a hypothecation will, therefore, have some resemblanco undar all costes of laws. There is no limitation of the kind of deltas or contracts, the payment or performance of which may be secured hy mortgage, for all legal ones mas be is guarantied. What will he a suffeient conveyance of the property, whetleer real or personal, will again depend on the laws of the place. A conveyance of land, for inatance, must, In most countries, be made in writIng, end with certain formalitles. So, in Englund, the right of property in a ship must appear by a bill of
sale. WI lute tranem apply to puthecatio laws to b conling to are evilen
whieh the visible pe the publile tind the The ense title to wh the purchn session. posseanalon ble, the de by the pur establishiln, indeed, lad of the Ame solld or mo structive, $\mathbf{t}$ alon hy lidu relaxed; $n$ the vendee to extablish has been atructive policy of th does land, gagee, with gatlons ns Indulgence sons lnto a frucd and In apon the st of the prope distinctions latert in thla law upon th down as an tel must be to render $h$ has, by the it ls only in slruction, tl
'The most ges, whethe non-perform This will do the contraet sgreed betr formance 0 mortgagee land or go proceeds In obligation, surplus, if ilemand, an where the but, on the pliedly, tha dition, the immediatel right on tl call njon th for the proo touging lani provision t! a certain th whall be voil therefure, i thing hence But here t? and attemp or forfeitar
ssle. Whatever thene rulen are by which the ahoo- aecurity or guaranty. For thls purpose, different modes lute trannfer of property in ragulated, they will equally apply to a conveyance or asslgnment by way of hypothecation. As real entute is uanally required hy the laws to be conveyed by written documentn, and, acconling to the lawa of mant places; these conveyances are evideneed by publlc recordin of the Instruments by which they are made, there is no nacearlty of an open, visitile posseanion of the eatate by the grintee, that the puible may take notice of the grant, for they may find the evidence of it at the office of publle record. The ease is not the ame with peramal property, the title to which ls uavally confirmed and eataiblished to the purchaser by a dellivery of the article into hla possession. In respent in all chattela, of whleh mannai possession and transfer from place to place is pructicable, the delivery by the vender, and actual posseasion by the purcharer, are very material clecimastances in eatablialing the right of nroperty In the latter. It la, indect, ludd down as a maxim of the English, and alsn of the American law, that movalilea can not be valilly sold or mortgnged withont a dellvery netual, or constructive, to the parchaser or mortgagee, and n posseasion live him. But this rule is very inuch moditied and relaxed; not that a delivery to and a possession by the vendee anil mortgagee are not conslilered requisite to establish his title, but a very liberal interpretation has been put upon circumstances showing a constructive delivery and possossion. The olject and policy of the $\ln w$ is to leave the inovible, just as it dues land, to be uned elther loy the mortgager or inortgagee, without affecting their matual rights and obllgations as to the property $\ln$ the thing, as far an this indulgence can be carried without leadlng other persons Into a misapprehenslon, and exposing them to frucd and imposition In giving eredit to the mortgager, apon the supposition of hia being the absolute owner of the property hypothecated. The varions rules and distinctions ly which the mortgage of chattels is regulated in this reapect, constitute an essental part of tho law upon this aubject. Bnt, after nll, wo maty lny lt down as an exsential doctrine, that a mortgaged chattel must be In possession of the mortgagee, in order to render his title socure; and when the mortgager has, by the law, been permitted still to usn the thing, it is only in cases where lils possession la, in legal construction, that of the mortgageo.
The most materinl consilieration relining to mortgages, whether of lands or chattels, is the effect of the non-performance of the condition by the mortgnger. This will depend, it is true, in part, upon the terms of the contract of hypothecation or mortgage. If it he agrced between the parties, that In ease of non-performance of the condition of the hypothecation, the mortgagee shall sell the thlng hypothicented, whether land or gools, and account to tho mortigager for the proceeds in satisfaction of the debt, or discharge of the oldigation, lntended to the secured, and pay over the surplus, if nuy, this is all that justlee or the low ean demand, and this ls, in effect, what the law aims at where the parties do not make any such otipulation; hut, of: the contrary, agree, either sxpressly or impliedly, that, in ease of a non-performanee of the conclition, the thing mortgaged ahall be abolutely and immediately forfelted to the mortgagee, withoit any right on the part of the mortgager to reilem it, or to call upon the mortragee to sell it and account with hiru for the proceeds. 'Thus, in the common form of morttiaging land, it is conveyed to the mortgragee with a provision that unless he shall par a certain deht, or do a certain thing within a tlme apecified, the conveyance whall be void. According to the literal construction, therefore, if this condition is not complied with, the thing henceforth belongs absolately to the mortgagee. But here the law steps in and controls the agreement, and attempts to prevent it from operating as a penalty or forfeitare, at the same time giving It ull its force as a
are adopted In different corles of Inwe, all of which agree In applying the value of the thing mortgaged, in sutlsfaction nond discharge of the debt or obllgation Inteniled to be recured ; so that by all the codes justice lo done, If there is no onrplus valne. Jut lf there be a surplus value, some of the coiles will reach it, and others not, and the same code will reaeh It in regard to one kind of pledge, mortgage, or hypothecation, and not another. For example, by the Engliah and American law, If a delitor pledges bllss of exchange, or any personal property for a deht, to an amount exceeding lta villue, the credltor must account fer the procceds, and pay over tho surplua to the debtor; but In England, and an in some of the United States, If the dehtor mortgages lands, of which the crelliter takes poasenslen for lireach of condltinn, the tehtor has three years to redeen it, af ter which time the land is absolutely grone, though iwlee the amount of the debt in value. 'The inw, in this case, suppoaes three yenrs to be time enough to allow the delitor to redsem It, In case of an excess of value of the land; and this snpposition is not whelly unreamonable, since tho debtor has all that the to aell the land if he can get nooe than the amount of the delt for it. The clvll law, us more generally administered, where it has been made the buais of modern codes, and so the laws of many of the United Stutes udopt a different mode, prescribling an appraisement of the mortgaged land, and providing that it may be sold by nuction, if two thlrds of the appralsed value is bld for it, and the proceeda of the sale are applied in sutlsfaction of the debtor obllgation gaarantled by the mortgage, and the sarplus, if any, pald over to the debtor.-E. A
Moss. Iceland $\dot{\mathrm{f}}$ oss (Cetraria Islandica), a specles of llchen, a native of the meantainous lieaths and vooils In the Alpine parts of Scotland, and of the Asturias, in Spain, an well as In Iccland and the north of Germany, It grows to a height of only two or three Inches, and lias rather a rugged, bushy appearance, nnt doulitleas would thrive, and perhaps with profit, in the northern parts of the United States, particnlarly in Minnesota, Wlaconsin, Mleligan, northern New York, Vermont, New IIampahlre, and Maine. In Iceland and Lapland, this plant is used es an article of diet, being bolled in broth or milk, after belng freed from its bitterness hy repeated maceration in water; or dried and mado into bread. The drled plant differs but little from lts appenrance in a recent state. Medicinally, it is tonic and demulcent. The decoction, as ordered in the pharmacopieias, is so bitter as te prevent many persens from taking it ; and when deprived of its disagreeable taste, it can only be viewed as a demulcent, and is hardly equal In itg effects to linsced, quincesoed, and marah-mallows. It certninly does not cure phthisls pulinonalls; but in the last stage of that disense, when solid food is oppressive, and the diarrhoen appenra to he kept up by the nerid contents of the stomach und howels, it has appenred to check the latter, and to impart both vigor and nourlshment to the digestivo organs.- Patent Office Rep. See Icerand.

Mosaic Gold. For the composition of this peenllar alloy of copier and zinc, called also Or-moln, Messrs. Parker and ITamilton obtained a patent In November, 1825. Fqual quantities of copper nad zine are to he " melted at the lowest temperature that copper will fuse," which belng stlrred together so as to produce a perfect admlxture of the metals, a further quantity of aine is added in amall portlons, until the alloy in the melting-pot becomes of the color required. If the temperature of the copper he teo high, a portion of the zine will fly off in vapor, and the resalt will bo merely apelter or hard solder; bat if the operation he carried on at as low a heat as possible, the alloy will ussmne first a brassy yellow color; then, by the introduction of small portions of zine, it will take a purpl. or violet bue, and will ultimately become perfectly white; which ls the appearance of the proper compound

In its fused state. This alloy may be poured Into ingots, ; but as It is difficult to proserve its character when re-melted, it should be cast directly into the flgured molda. The patentees claim the exclusive right of compounding a metal consisting of from 52 to 55 parts of zine out of $\mathbf{1 0 0}$. Mosaic gold, the aurum musirum of the old ehemists, fa a aulphuret of tin.
Mosaio (Mosaique, Fr. ; Mosaisch, Germ). There are several kinda of mossic, but all of them consist in imbedding fragmenta of different colored substances, usually glass or stones, in a cement, so as to produce the effect of a picture. The beantiful chapel of Saint Lawrence, in Florence, which contains the tonibs of the Medici, has been greatly admired by artista, on account of the vast multitude of precious marbles, jaspcrs, agates, avanturines, malachites, etc., applied in mosaic, upon fts walls. 'The detailed discussion of chis subject belungs to a treatise upon the fine arts.
Mosquito Cuast, Mosquitia. The limits of thls psendo Central American State, Mosquitia or the Sosquito Coast, are so indefinite, and ite extent inland oo imperfectly ascertained, that scarcely more of a reliable character can be said respecting it physically, than politically or commercially. It is supposed to axtend from Cise Honduras to the mouth of the River Sall Juan, having west the States of Honduras and Nicaragua, and north and east the Caribbean Sea, and to enurace abont 26,000 square miles. The Mosquito Iudians, its native and almost only inhabitants, are represented as an active and daring race, never brought Licer subuission by the Spaniards. The San Juan River is clalmed as its south boundary. Its capital is Blewfields, snd it contains several other small villages, inhabited chiefly by native Indians and some fow British colonists. The country is fertlle, and, under proper eultivation, would produce cocoa, colton, sugar, indigo, vauilla, and logwood; but, antil some change takes place either in the mode of cultivation, or tho form of government, it. resources have but small chance for devolopment. See Ioniounas.

Mowher of Pearl (Nacve de Perles, Fri; P'erlen mutter, Germ.) is the hard, silvery, brilliant internal layer of several kinds of shells, particularly vysters, which is often variegaterl with changing purple and azure colors. The large oysters of the ludian seas alone secrete this coat of sufficient thleknews to render their shells available to the parposea of manufacturers. The geaus of shell fish called pentadince farnishes the tinest pearls, as well as mother of pearl; it is found in greatest perfection round the coasta of Ceylon, near Ormus in the l'emsian Galf, at Cape Comorin, and among som of the Australian seas. The brilliant haes of mother of pearl do not depmi unon the nature of the subutance, hut upen its structure. The microscopic wrinkles or furrows which run acrons the surface of every slice, uct upon the retlected light in such a way as to proiluce the ehromatic effect ; for Sir David Brewster has shown, that if we take, with very tine black wax, or with the fusible alloy of D'Arcet, an impression of mother of pearl, it will possens the irridescent appearance. Mother of pearl la very ielicate to work, hat it may bo faslitoned by sass, tiles, and drills, with the aid aometimes of a corrosive acil, such as the dilute sulpharic or mutatic; and it is polished by colcothar of vitriol.

Mozambique, a furtilied maritime elty, and the capital of the l'ortuguese possessions ha castern dfrica, on an lisland at the entrance of Mesarli Bay, an inlet of the Muaamblque Channel, 5\% miles lroad, and 6 miles in length, and receiving 3 small rivers, ite entrance leling sheltered alse by the ishands St. (ieorge and St. Jago, which help to hound its harbor. Muanmbique Island, In lat. $15^{\circ} 2^{\prime}$ S., long. $40^{\circ} 4 N^{\prime}$ E.., in about 1 \& milen in length, low, and of coral formation.

Mulberry. Soil, Situation, Propagation, rle.The morus mgra, or black malierry-tree, will grow in almost any soll or altuation that la tolerably dry, and
any climate not much colder than most parts of Britaln aud the United States. It is very easily propagated by truncheons or pleces of the branchee, clight or nine feat in length, and of any thickness, being planted half their depth in tolerably good soil; when they will bear fruit the following year. As it is extremely tonacious of life, overy part of the root, trunk, boughs, and branches may be couverted into plunts by separation; the rootlets, and small shoots or sprisa, being made into cuttings, the larger beughs into stakes, the arms into truncheous, and the truak, stool, and roota, being cut Into fragments, leaving a portion of the bark on each, and planting them after the Ital. lan mode of propsgating the olive-tree. The mulberry may also be increased from seeds, by layers, or by grafing and budding. Thls tree, from lts slowness of patting out lts leaves, being rarely injured by spriag frosts, and lits leaves belng seldom or never devoured by any insect, except the silkworm, and nover touched with mildew, very seldom fails to produce a good crop of frult. This fruit, however, though excellent, and exccedingly wholesome, does not keep, and is so far troublesome, that it is enly good when it is quite ripe, and is hest whon it is saffored to fall fron the tree itself. For this reason, mulberry-trees aro generilly. planted on a lawn or grass-plot, to prevent the fruit that falls from beling injured by the gravel or dirt. This practice, however, is objectionable, as no tree, pe haps, receives more bensfit from the spade and the dunghiil than the mulberry, and it ought, therefore, to be frequently dug sbout the roots, sad occasionally assisted with manare. The ground under the tree should bo kept free from weeds throughout the summer, particularly when the fruit is ripening, us the reflected light and heat from the bare surface of the soil is thus increased. In a cool, moist climate, like that of l3ritain, the frait is also vory tine if the tree be trained as an espalier, with the rollection of the south side of a building or wall. As a standard tree, whether for ornament or fruit, the mullerry requires very little pruning or attention of any kind, other than that which is given sbove. As it increases in age, it ic. creases in productlveneas, and in full-gruwin trees the frult is inuch larger and better thavored than in these which are young.

Iropervies and Uaes.-The wood of tho manus nigra is less compaet than even that of the white mul. berry, and when perfoctly dry, weighs only about 40 pounds to a cubic foot. It is sald to be durable, and has been employed in England for various purposes of carpentry, for hoops, bows, whecls, and ovon riber for small vessels, instead of oak. In F'rance, this wood is considered of hut little value, execpit fior fuel. In some parts of Sjpain, in Sicily, and in l'orsia, the lewes of this species aro said to be pretorred to those of the white inulberry for the food of silk worms. The leaves are alwo eaten by cattln, sheop, and goatd. The roots have an acrid, hitter tuste, and are considered as an excellent vermifuge, when taken, in powder, in doses of half a drachim. Tho tree, in overy part, contains a milky julee, which, beiag congulated, is found to form a coarso kind of elastic gam. The fruit of this tree is of an agreeable acid and aromatic thavor, and is enten raw, as a desacrt, or may bo formed juto an agreoable preserve; and Evelyn says that, mixed with the juice of cider apples, it makes a very strong und agregable wine. Ir. Clarke observes, that he saw sume (ireeks, In the Crimen, employed in distilling brandy frem mulberrles; which he describes as "a weak hat palatable spirit, es clear as watur." A wine Is ulso made from It in France; but it requires to be drunk lmmediately, fes it very sown becomes acid. The fruit, when rije, la regaricel as cooling aud hasative, alluying thirat, and belag grateful in cases of fover. When made into a syrap, it is considered excellent for a sore throat. Like the strawberry and rasplecrry, it is saill to undergo the acotous fermenta.
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by pers kinds o deverr

Insec or whit other is lein, ho insects
food, ex as thick a mullise that tre The wh ous dise natural stripped on by a the lea after ca the root them of attacked eases, w rorm. washed, the inse leaves with hor cnuse dy our intes and man refer the gressire the $222 d$ also to Arte di "Americ agricult Prope when it Framee, various the mak as it is white w posts an may lo For this during threa or t stunst water a for so:n pared li Europe The but multer possess aceorli
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than
thon In the stomach, and therefore may be asfely eaten by persons afflicted with the rheumatism or gout. All kluds of poultry are excesslvely fond of this fruit, and devour it with n ridity, whenever within their reach.

Insects and $\bar{D}$ iseuses.-The lenves of the morus alba, ar white mulberry-iree, are believed to be eaten by no cther insect but the silkworm (bombyx mori). M. Pulkein, however, made experiments with varions kinds of insects, but they all rejected the mulberry lesf for food, excopt "a green worm, about an inch long, and as thick as an oat straw." Although he found it upon a mollerry, it was hls bellef that it was not peculiar to that trea alone, but found its way there by accident. The white mulberry, however, is attaiked by numerous disenses, ocessioned partly, no doult, by the unnatural manner in which it is treated, by belng stripped of its foliage. One of these diseases is brou ght on hy any endden check given to the transpiration of the leaves, which turn yellow, and fall off, sbortly after cansing the tree to die. Another is the denth of the roots, which is accompanied by the formation on them of parasitio fungi. The leaves are also apt to be gttacked with honey-dew, mildew, rust, and other discases, which render them unfit for the food of the silkworm. Those leaves covered with honey-dew may to washed, and, when thoroughly dry, may be given to the insects without injury; but the other diseased leaves should be thrown awny. If leaves covered with honey-dew are employed without wasbing, they cause dysentery and death to the worms. As it is not our Intention to trent of the whols art of the rearing and management of the silkworm, we are compelled to refer tho reader to a "Treatise on the origin and Progressive Improvement of the Silk Manyfacture," being the 2 2d volume of the London Cabinct Cyclopardia; alse to the work of Count Dandolo, entitled "Dell' Arte di governare i Bacehi da Seta;" Kenntck's "American Silk-Grower's Guide;" and to most of the sgricultural journals of the day.

Iroperties and Uses.-The wood of the morus alba, when dry, welghs 44 pounds to a enbic foot. In France, the princlpal uses of that of the trunk, is for various purposes of turnery, and carpentry, and for the maklng of wine-casks, for which it is highly valued, as it is said to impart an agreeable violet-like tlavor to white wines. The branches are used for vine-props, posts and ruils to rural fences, and for fuel. The hark may to converted Into linen of the lineness of sllk. For this purpose the young wood is gathered in August, during the second ascent of the sap, and immersed for three or four days in stlll water. It is thon taken out, at sunset, spread on the grass, and returned to the water at sunrise. Aftor repenting this process daily for some time, it is finally taken out, dried, and propared like fiax. The bark is also used like that of the Euronean lime-tree, for making bast for mats, etc. The bark, and more espechally the leaves of the white mulberry, sbound in a milky juice, which is found to possess more or less of the properties of caoutchoue, aceording to the climate in which the tres is grown. It is cloubtless owing to this property in the leaves of the inblierry, that the cocoons of the silkworm have so nillih more tenacity of fibre than those of any other insect chat feeds on the leaves of trecs. Hence, also, the silk, like the tobaceo and who of warm clmates, and of poor, dry solis, is always superior to that produced In eolier climates, and from rich and molst solls. 'Io verify this opinion, we quote the following very judlclous olservations from the "Journal d'sigriculture de Pays-llas," which will not only show the impracicability of profitably raislog slik in the higher latitudes, but will serve as an infallible gulide in the chole of a soll and clitnate for thia apecies of agricullare: "The mulberry-tree is found in different clin mates; but the juice of the leaves grown in tho north is much less sultable for the proluction of good silk, than that of the leaves of the sonth. In thila respect,
mulberry leaves and ailk differ as much as wines, according to the climste and soil in which they are produced. In general, every climate and soil that will grow good wheat will produce large, succulent mulberry leaves ; but theae leaves will, in many casee, be too nutritive ; that is, they will have toe much anp, and too much sybstance and succulency. The wild mulberry, with small leaves, answers butter, for auch a soil, than the grafted mulberry, with large leaves. A general rule, and one to be deponded on, is, that the mulber:y, to produce the best silk, requires the same soil and exposure that the vlne does to produce the best wine. Experience has proved that silkworma nourishec by leaves gathered from a dry soil, succeed much better, produce more cocoons, and are less subject to those diseases, which destroy them, than those which have been nouriahed by lenves produced by an extremely rich soii." The frult of the white mulberry is less acid than that of the black species, and that of some of the varieties, particularly of the morus a. multicaulis, is used for making robs and syrups, and is said to be remarkably good to eat, in warm climates.

The perfect wood of the morus rubra, or red mul-berry-tree, which is fine-grained and compact, though light, is of a yellowish hoe, approaching to lemon-color. It possesses strength and solidity; and, when properly seasoned, it ls slmost as durable as that of locust, to which, by many persons, it is esteemed equal. In the dockyarls at Philadelphia, Baitlmore, und the more southern ports, it is employed in the construction of both the upper and lower frames of vessels, for knees, fioortimbers, etc. ; and is preferred to uvery other kind of wood for trenails, except that of the locust. In Charleston, South Carolina, it is sometimes selected for the rilis of large boats. It is also used in the parts of tho country where it abounds, for the posts of rural fences, which, from their durnbility, are as much esteemed as those of tho loeust. As the leaves of this species are thlek, rough, and bairy, while young, they are innproper for the food of silkworms, which feed with advantage, in ucold cilinate, only on the morus alba, or some of its varieties. The red mulberry is well de. serving of cultivation, both from its thick and shady folingo, and the agreeablo finvor of its dark-red frult.

The wond of the paper mulberry, which is soft, spongy, and brittle, is of little value except for fuel. The leavas are too rough and coarse, in their texture, for the fool of silkworms; but they are found to be exceilent fodider for cattle; and as the treo will grow rapidly in almost every soll, and throws out numerous tufts of leaves, it has been auggeated that it might be valuable to cultivate, in some situations and elimates, for that purpose. The juice of this tree is aufficiertly tenacious to be used In China as a glue, cither in gilding leather or papor. The finest and whitest cloth worn by the inhabitants of Otaheite, and of the Sandwich Islands, is made of its bark. Int the principal use, however, to which this tree appenrs to he applied, is for tho manufacture of paper. The fullowing is an abridgment of Kampfer's account of the process of makiur this article in Japau, as quoted from the lifth volume of the London "I'enny Cyclopeana:" "The brimehes of the current year, belng cut into yioces atout a yard long, are bolled until the bark shrinks from the wool, which is taken out, and thrown away; and the bark, being dried, is preserved tiil wanted. In order to muke paper, it is sonked for three or fonr lusurs in wator; after which, the external skin (epider$m i s)$, nad the green internal cont, aro sernied olf, and the strongert and finesi pleces are selected; the produce of the younger shoots icing of an inforlor qualley. If any very old portions present thomselves, they are, on the other hand, rejceted as too conrse. All knotiy parts, and every thing which might impair the heauty of the paper, are also removed. Tho chosen bark is loiled in a llxiviam till its downy tibres car be sepnrated by a tou'h oit the finger. The pulp, no produced,
is then agitated in water till it resembles tufte of tow. If not aufficiently boiled, the paper will be coarse, thangh apongy ; if too much, it will be white, Indeed, but f.fieient in strength and solldity:. Upon the various degreea and modes of washing the pulp, muoh also depends as to the quality and besuty of the paper. Mucilage obtained from boiling rice, or from a root called oreni, one of the mallow tribe, is afterward added to the pulp. The paper is finished much after the Europesn mode, except that stalks of rushes are used, instead of brass wires." The article thus made, constitutas the India or China paper need by engravers for taking proofs, and by chemists for filtera. Bhowns's Treas of A merica.

Munjeet, a apecies of Rubia tinctorum, or madder, produeed in Nepaul, and in various districts of India. That which is brought to England is imported from Calcutta, and is cultivated in the high lands about Natpore in Purnea. The roots are long and alender, sad when broken appear of a red color. It is used in dyeiog ; the red which it produces being, though somewhat peculiar, nearly the asme as that prodoced by European madder. Dr. Baneroft bays that the color which it imparts to cotton and linen is not so durable as that of madder; but that upon wool or woolen cloth its color is brighter and livelier; and, when proper mordants are used, nearly, perhaps quite, as perma-nent.-Permanent Colors, vol. ii., p. 279. The best munjeet is in pieces about the ligness of a small quill clear and firm, breakiog short, and not pipy or chatify Its smell somewhat resembles liquorice root.
Muriatic or Eydrochloric Acid; anciently mavine acid, and spirit of salt. (Acile hydrochlorique, sud Chtorhydrique, Fr.; Salzsaüre, Geriu.) This neid is now extracted from sea-salt, by the action of sulplauric acid and a moderate heat; but it was originally oltained from the salt by exposing a mixture of it and of common clay to ignition in an earthen retort. The acid gas which exhales, is rapidly condensed by water. 100 cubic inches of water are capable of absorbing no less than 48,000 eubic inches of the acid gas, whereby the liquid acquires a specitie gravity of $1 \because 2109$; and a volume of 142 cubic inches. The muriatic acid of commerce haa usually a yellowish tinge, but when chemically pure it is colurless. It fumes a rongly in the air, emitting; a corrosive vapor of a peculiar suell. The characteristic test of muriatic acid in the most dilute state, ts nitrato of ailves, which causes a curdy precipitste of chlorid of silver.
Muscat, a city and sea-pert situated on the east coast of AraLia, ahout 96 miles N. W. of Cape Rasselgate (Ras-el-hud), in lat. $23^{\circ} 38^{\prime}$ N., long. $68^{\circ} 37^{\prime} 1^{\circ}$ E. Population uncertain; but estimated by Lieutenant Wellsted at 40,000 , which we incline to think beyond the mark. There are more Buniaus here than in any other city io Arabia. There are among them some very extensive merclants, who eugross almost the whole pearl trade of the Persinn Gulf, and the supply of cern from Intia. The negro slaves are numeroms, and alegenerally stout, well made, and active. The harhor, which is the beat on this part of the Aralic coast, opens to the north, and is shaped like a horsoslue. It is lounded on the west, and sonth by the lofty projecting ehores of the mainland, and ou the enst by Muscat Island, a rides of rocks from 200 to 300 feet high. The town stands on a sandy beach at the south end or bottom of the cove or larlur, atoout if milles from lts mouth. The deptly of water near the town varles from three to four und five fathoms. Shipe at auchor are exposed to the north and northwest winds; but as the anchorage is overy where good, aceldeots are of very gare oceurrence. The harhor is protested by some pretty stronb forts. Vessels are not allowel to enter alter dusk, her to loave before sunrlse. If the usunl sigmal be made for a pilot, one will cone off, but not othorwise. It is best t: bake then attend thll the vessel be secured, as they
have excellent boats for carrying qut warp anchorg. Muscat is a place of considerable importance, being at once the key to, and commanding the trade of, the Persian Gulf. The dominions of the imaum, or prince, are extenslve, and his government is more liberal and intelligent than say other In Arabla or Persis. The town, situated at the hottoin of a high hill, is ill-built and filthy; and, during the months of July and August, is one of the hottent Inhabited places in the world. The country in the immediate vicinity of the town is extremely barren; but it improves as it recedes from the shore. Dates and wheat, particularly the first, are the principal articles of produce. The dates of this part of Arabia are held in high estlmation, and are largely. exported, those of Bushire sad Bussorah being innported in their stead. A date tree is valued st from $\$ 7$ to $\$ 10$, and its annual produce at from $\$ 1$ to $\$ 1 \frac{1}{6}$. An estate is sald to be worth $2,000,3,000,4,000$ date trees, according to the number it possesses.
But the place derives its whole importance from the commerce and navigation of which it is the ceutre. The imaum has some large ahips of war, and his subjects posseas some of tho finest trading vessels to be met with in the Indian seas. The part of Arabia auljoining to Museat is too poor to have any very considerable direct trade; but, owiug to its favorable situation, the backward state of the country round the Persian Gulf, and the superiority of its ships and seimen, Muscut has Lecome an important entrepôt, and has an extensive trausit and carrying trude. Most European ships bound for Bussorah and Bushire touch at it ; and more than half the trade of the lersian Gulf is carried on in ships belonging to its merchants. (See Businne.) But, exclusive of the ports on the fulf, and the south aud west coasts of Arahia, ships under the flag of tho inaum trade to all the ports of British Inulin, to Singapore, Java, tho Mauritius, the cast coast of Africa, ete. The pearl trade of the Persian Gulf is now, also, wholly centered at Museat. All merchandize passing up the gulf on Arab bottoms pays a luty of onte bulf per cent. to the imaum. He alse rents the islands of Ormuz and Kishmee, the port of Gombroon, and sume sulphur mines, from the l'erslau govermment. In the magazines of Muscat nay be found every species of produce imported lnto or exported from the Persian Gulf. Various artiches aro also imported for the use of the surronnding country, and for tho iuternal consumption of Arabia. Among these, the principal are rice, sugar, coffee from Mocha, cotton and cetton cloth, cocoanuts, wood for builing, slaves from Zanguebar, dates from Bushire and Bussorah, cte. Payment for these is chietly made in specie and pearls; but they also export drugs of varions tescriptions, ivory, fums, hilles, ostrich feathers, horses, sharks' fins, a sort of earthen jars, called nartuban, to Tranquebar, dricd fish, an esteemed swectmeat calted huluenh, and a few other articles. The markets of Muscat areabundantly supplied with all sorts of provislon. Ilecf, mutton, and vegetablos of goom quality may be had at all tiues, and reasonally cheap. The bay literally swarms with the grintest varicty of nost excelleut lish. Whater is excellent, and is converad to the beach in such a mumener that the casks of $u$ vessel may he filled in her boats while aloat. Fire wood in also abundant, and is cheaper than at Bowthay. A duty of tive per cent. is laid on impurts, all exports being duty frec. The ontire value of the imports has been entimated at $\mathbf{E} 900,000$.
Money, Wright, and Mfeasures.-Accounts here are kept In goz and mamoedies : 20 goz $=1$ mamoody and 20 mamoodics $=1$ dollar. All l'ersian, Tharkish, and Indian colus, an well as French and German cruwns, and Spanish dollars, are met with; their valae fuctuating with the demand; and they are generally sold ing weight. The welglits are, the carcha and tuaund; 2.4 cuchas $=1$ maund $=8 \mathrm{lhs} .12$ oz. avoirdupeis. Nlebuhr thinks that Muscat occupies the site
of the Mosca of Arrisn and other Greek writers (Voynge en Arabie, vol. il., p. 71, ed. Amst. 1780) ; a conjecture which eeema to be confirmed, not merely by the resemblance of the name, hut also by the terms applied $1 . j$ Arrlan to Mosca being suffioiently descriptive of Muscat ; and as the port is bounded on all sldea by rocks, it must now present almost the aame appearance as in antiquity. Dr. Vincent, however, though he speaks doubtfully on the subject, is incliaed to place Mosca to the weat of Cape Rasselgate.-Commerce and Navigation of the Anciente, vol. ii., pp. 844347. For further partieulars, besides the wuthorities above referreut to, see Hamilitos's New Account of the Eiust Indies, vol. i., p. 63; Frazer's Journey to Khorasan, pp. 5-19; Wellated's Travels in Arabia, i., $\mathrm{pp}, 14-2 \overline{0}$. The longitude given above is that of Arsnowsmitn's Chart of the Persiten Gulf.

Conmerce with the United States.-The Sultan of Muscat concluded a treaty with the United States, September 21, 1833, and it took effect June 24, 1837, the day on which the President of the United States made his proclamstios. Its stipulations establish perpetnal peace between the two countries, and open the perts of each to the $v$ els and citizens of the other, with unrestricted libe :cy of trade, reserving In the ialaad of Zanzibar the sale of mnskets, powder, and ball to the government only, but leaving the trade in theso articles in oll other ports of the sultan's dominions free from every restriction. The treaty further stipulatos that versels of the United States entering any port within the sultan's dominions shall pay no more than five per cent. duties on the cargoes landed, which shall bo in full of all import and export dutiea, tonnage, license to trade, pllotage, anchorage, or nny other charge whatseever; that no charge shall be made on that part of the eargo which may remain on board and be re-exported; that no charge shall te inade on any vessel of the United States which may enter any of the sultan's ports for the purpose of retitting, or for refreshments, or to inquire the state of the market. It is farther atipulated that the American eitizen shall nay no other duties on export or lmport, tonnago, license to trade, or other oharge whatsoever, than the citizens of the most favored nation shall pay; and similar equality in the ports of the United States is extemed to the vessels and citizens of the sultan.

In the report to the Departnent of State, of the ggent by whom this treaty was negotinted, the following piragraphs oceur: "Tho Sultan of Muscat is a very jowerful prince. He possesses a more efficient naval force than all the native princes combined, from the Cape of Good IIope to Japan. His resources nre more than ulequate to his wants. They are derivad from conmerce, running himself a grent number of merchant vessels; from duties on foreign merchandize; and from tributemoney and prosents received from various 1 rinces; all of which produce a large sum. Ilis possessions in Africa stretch from Cape Delgado to Cape Guardaful, anil from Cape Aden, in Arabia, to Ris el liaud; they extend aloug the northern coust of Anam to the entrance of the Persian Gulf; and he claims ulso the sen-coast and Islands within the Persian Gulf, indluding the llahrein Ishads, and the pearlfishery contiguous to then, with the northern coast of the gitf, as low down is Scindy. * * * In Africa he owns the ports of Monghow, or Mongallow, Ly'mly, (̧uiloah (Keelwah), Molinda, Larmo, l'atta, Brava, Mughdoshat (alias Mogrdore), and tho valuable ishunds of Donfeca, Zarabar, Jemba, Socotra (Socotera)," etc.

The exports from the African part of his dominions are guth-copal, aloes, guin-arabio, columbo-root, and a great variety of cther drags, Ivory, tortalse shell, rhinoceros' horns, hides, becs wax, coconnut-oil, rice, millet, etc. Frum Maseat tho experts are wheat, ravins, uru;es datea, salt, drled fish, etc. It is estimated that seven-vighthe of all the ivory imported in-
to the United States, and all the copal of the finest quality, are from the island'of Zanzibar. To this place all the goods collected for thls large trade are imported, and sold to the Banians and Ilindoos at six months' credit. The United Statea supply by far the most important goods for all the coast trade, viz. : Lowell manufactured sheetlags and shlrtings. Other goods in demend for the coast trade are powder, mnskets, brass-wire, glass-beads, and India rubber goods. The currency of Muscat dlffera materially from that of the Persian Gulf or Africa, and; with ita weights and measures, is peculiar to the country, 'The Spanish dollar is carrent, and the Spanish doubloon varies in value from $\$ 14$ to $\$ 16$. See Zanziban.
Musoat, Imamat of, an extensive and powerful State of Arabia, compriaing the easteru portion of that peninsula, its authority also extending over its southeast coast nearly as far as Aden, and over parts of the coast of Persia on the Peraian Gulf, $a-\lambda$ that of east Afrien from the equator south to Cape Delgado. Area and population not ascertainsd. Besides Muscat, the capital, this dominion comprizes the towns of llostak, Mittra in Arabia, and Juba, Melinda, Mombas, Magadoxo, Bravah, Quiloa and Lyndy in Africa, witt the islands Zanzibar, Bocotra, ete., and it has an active trade with all the adjacent countries, and with British India. The imaum has a patriarchal and despotic sway, and the most efficient naval force of any native prince from the Cape of Good Hope to Japan.-Muscat or Mascua (prohably the Mosca of Arrian), a fortltied maritime city of east Arabin, capital above dominion, on a peninsule In the Arabian Sen, lat. $23^{\circ} 37^{\prime}$ N., long. $58^{\circ} 35^{\prime}$ 1.. I'rmulation ostimated at 40,000 to 50,000 . It is urrouided by heights all strongly fortified. The harbor of the city ia well sheltered, and has deep water. Muscat is the grand emporium of east Arabia, and the key to the entrance of the Persian Gulf. Imports estimated $\$ 4,500,000$ in value annually, and consist chiefly of almoseds, aloes, assa. fotida, gum ammoniac, sulphur, nitre, gum copal, frankincense, coffee, pearls, ivory, horns, hides, wax from Persia and Africa, most of which ore re-exported to Inlia and the East; the returns thence being made in I3ritish and Indil cotton goods, shawls, China manufuctures. Large quantities of dates, as also wheat, horses, salt, and dried tish, are among the principal exports. The port is usually touched at by vessels going up the Persian Gulf. Though the country around it is sterile, a plentiful supply of provisions may generally be obtained at Muscat.
Commercial Relations with the United States.-The trealy made by the United States in 1833 , with the Sultan of Mused has been duly observed, and a very friendly disposition shown by the autharities to all Americans. The present existing commercial regulatlona are fixed and perinanent. There are no privileges permitted to other nations which are denied to our own. There are no port chargea or other dues levied on vessels of the United States. There is no drawhack of duties; merehnndises from ois 1 vessel to another, or landed fur re-shipment, minst pay a duty of o per cent. The German crown, and pice, and pie, from the linst Indin Compuny's possessions, aro the culy currency. The number ci piec for a German crown (better known in these countries as the black dollar) varies, according to the aupply, from 116 to 128. At this present time, 120 pice are given for one lilack dollar, and 3 pic make one pies. Spanish and Mexican dohlars aro worth no more, and do not circulate freely. They are purchased for the Ilombay market, usually at a preminm of 2 to 8 per cent. at the commencemont of the south-west monsoon, in April, und also near its close, in September, und tind their way from thenco to Chinn. American half eagles are worth 85; English soverelgns, 8l.75; Spanish and Portuguese doubloons, $81 t \mathrm{i}$; Spanish quarters and eighths puse frecly at 25 and $12 \frac{1}{2}$ cents, and American
dimes and half dlmes at 10 and 5 cents. Marchandise is bought and sold for dollars and cents.

Ivory.-This article varies greatly in price, according to quality and size. Ths superior kiads, and largest and best, are sent to the United States. In lota, average welght 70 lbs . and upward, $\$ 40$ to $\$ 44$ per frasla of 35 l lis. Ivory, 50 to 60 lbs . average weight, $\$ 37$ to $\$ 40$ per frasls. Tortoise shell per pound, of 3 lbs. English, $\$ 2$ to $\$ 5$. Gum copal, per frasla of 85 lbs , English, $\$ 5$ to $\$ 7$. Ilides, per conge of 20 lbe ., $\$ 10$ to $\$ 10$ per conge. Cloves, per frasla of 35 lbs ., $\$ 1.75$ to $\$ 2.50$.

Commisaions usually charged, 21 per cent. As for freighta and insurance, there are no rates to the United States. Cargoes imported from the United States are invari sly sold at 6 months' credit. If cash is wanted for a sale, a discount is made of $4 \frac{1}{1}$ per cent. fur 6 months. As for exchange, the captains of whals ships draw upon their owners for the cash they require, and the usual charge is 20 per cent. Duties, 5 per cent. on all cargo landed. No duties on exports to the United States. There are no internal taxes of any kind pald by the people of thls island directly. The sultan'a revenue is derived troin dutics on all articles of cymmarce brought from the neighboring coast, Ked Sea, Aden, Persian Gulf, Bombay, and the Malabar coast. The negro slaves are alinost the only common laborers, and receive per day ahout $12 \frac{1}{2}$ cents, or $\$ 2.50$ to 83 per month. The higher order of servants to oversee the work in preparirg and shipping cargoes are paid from $\$ 7.00$ to $\$ 10$ per month. Native workmen in the various branches of mechanic industry receive alout 85 to 87 per month.

No steamers are owned or built here, and there are no facilities for ship-building, or even repairing, to any extent. The sultan has a few ships-of-war built either at Bombay or at places on the coast of Dilabar. Thoy are manned by slaves and othcered b: I rabse, The only vessela owned here by natives are called dous, and seem to snswer the purpose very well, but atu the radest kind of shlp possible to conceive of, snd never undertako to get to any place agalnat the monsoon. They sail fast, and are of very peculiar construction. Zanzibar is a large, ferile, and populous island, and the favorite residence of the sultan, who is far superior to his brother princes in Intelligeace, and has a disposition to introduce improvements into his dominions. But his subjects, like all Arals, are far behind other nations, and despiss all improvement. Cloves are produced upon this island in large quantities, and the annunl inerease is considerable. All other articles of export are bronght from other places. See Com. Rel., U. S., vol. iii., 1866-5i, pp. 36i-368.

Musk IFr. Musc; (Ier. Bisam; Du. Muskns; It. Muzchio; Ep. Almizele; Hus. Musens; Arab. and Pers. Mashe) Is ohtained from a species of dear (Moschus moschiferus) Inhablting the Alpine nountains of the east of Asia. The musk is found in a mimall bag under the belly. Musk is in gralns concreted together, dry, yet slightly unetuous, and free from grittinoss when ruhber: hetween tha fingers or chewed. It has a peculiar, aromatic, and extremely powerfol and durable olor; the taste is bitterish and heavy ; and the color deep brown, with a ahade of red. It is limported into Fingland from Chlaa ln caddies containing trom to to "04, oz ach : hut oa infarior kind is brought Srom
 sth at wach is . . .he natural follicle or pol. Weing a $v r_{y} \ln h^{\prime}$-priced artiele, it is oftem allulterated. Thar whish in mixer with the unimal's boosl may be


 in. bolin:; t-wro? and ds harder as well as heavier
than genuine mu'k. $\quad 20$ cwt. of musk are allowed to a ton. It was not permitted to be brought home in the Chins ships belenging to the East India Company.'Thomson's Diopensatory; Milamin's Orient. Com.

Muslin (Ger. A'usselin, Nesseltuch; Du. Netelloek; Fr. Mousseline; It. Moussolina; Sp. Moselina; Rus, Kissea) is derived from the word mousale or mouseln, a name given to it in Indla, where large quantities are made. It is a fine thin sort of cotton cloth, with a downy nap on the aurface. Formerly all mushins were imported from the East; but now they are manufactured in immense quantities it Manchester, Glaggow, atc., of a fineness and dursbility which rival those of India, at the same time that they are very considerably cheaper. See Corton.
Mustard (Ger. Mustert, Senf; Fr. Moutarde; It. Mostarda; Sp. Mostaza; Rus. Uortschiza; Lat. Sinapis; Arab. Khirdal; Ilind. Rai), a plant (Sinapis) of which there aro several species. It is a native of Europe, and is now naturalized, and a common weed in some parts of the United States. It is besides very commonly cultivated for the sake of the seeds, which, when powdered and mixed with vinegar, form a well known pungent condiment in daily use. The root is annual ; the stem three or four feet high; the lower leaves are lyrato, and the upper ones landolato and entire. The flowers are small and yellow. It belongs to the natural family crucifera, and is known by the smooth fuur-cornered pols which are pressed close to the stem. Table mustard, mixed with warn water, and $t$ ken in considerable quantities, acts as an emetic, and as such is so much the more valuable from its being always at hand. The white mustard (S. alba) is milder than the precering, and on this accomet is more agrecable to some palates.-E. A.

Mutiny of the Bounty. Memorable mutiny on boarl the Bounty armed ship returning from ()taheite with bread fruit. The mntineers put their captain, Hligh, and 19 men, into an open boat near Annamooka, one of the Frienilly Jslands, April 28 , 1789 , and they reached the island of Timor, sonth of tho Moluccas, in June, after a perilous voyage of nearly $\mathbf{d} 000$ miles, in whieh their preservation was next to iniraculous. The mitineers were tried september 15, 1792, when six were condemned, of whom three wers executed.

Myrobalans are the dried fruits of difierent varieties of terminalia. The fruit, varying from the size of all olive to that of a gall-mut, consist of a white pentangular nut, covered hy a subatance about two lines in thickness. The latter, which is the only valuablo part, is mucilaginons and highly astringen; nud being separated from the nut is emplosed, with the best effect, both hy dyers and tannors, especially by the latter it produces with iron a strong, darable, black dye and link; mad with alun, a very full, theugh dark, hrownisla yellow. I'he hoports vary consider-


Myrrh (tier. Jfyrrhen ; Da. Mirrhe; Fr. Myrate; It. and Sp. Mirra; Lat. Mywha; Arah. J/urr), a resinous stiontance, tho produce of an unknown tree growing in Arabia nud Abyssinia, It is imported in chesta, each contaiaing from one to two ewt. Abyssinian myrrb comes to us through the Eant Indies, while that produced in Arabia is lirought by the way of 'lurkey. It has a poculiar, rather fragramt, odor, and a bitter aromatic taste. It is in small irregularly alnuped piecen, which can hardly be called toars. (iomd merli is translucer t, of a red lish yellow color, thittle, breakling with a resinous fracture, and easily pulverized. Its speeille gravity is $1 \cdot 36$. When it is opaque, mixel with impurities, and either white, or of at dark color approaching uarly to black, with a disurveablo odor, it should be rejected.-'itosson's Ihipetwatory.

Nail
Clous; I Gwosdi) being dr together, sumption of those a
onds. Two llght-houses, called the Alguilion lights, etand on the north side of the river, near lts mouth; the lower light, adjoining Point ds Leri, being in lat. $47^{\circ} 14^{\prime} 33^{\prime \prime}$ N., long. $2^{\circ} 15^{\prime} 46^{\prime \prime} \mathrm{W}$. The light is fixed, und ls 111 feet above the level of the sea. The upper Aiguillon light, altuated about a milo N. $81^{\circ}$. E. from the lowar, is 127 feet high ; it also is a fixed light, varied, however, by a tash every 8 minutes. A beacon tower, called the Turk, is erected on the southernmost extremity of Ia Blanche, the oourse for vessela enterIng betwean it and La Couronne, is to bring the Agulllon lights in one. The depth of water on the har at the mouth of the river varies from 2 to 24 fathoms. At aprings the rise is 14, and at neaps 7 or 8 feet. High water at full and change $3 \frac{8}{3}$ hours.

Her eituation renders Nantes the emporium of all the rich and extensive country traversed by the Lolre, so that ehe has a pretty considerable import and expert trade, particuł.rly with the West Indles. The exports conslst of all sorts of French proluce, but principally of brandy; wine and vinegar, silk, woolen and linen goods, retined augar, whent, rye, biscuits, etc. The principal importa are ougar, coffee, and other colonial products, cotton, Indigo, timber, hemp, eto. Nantes is a considerable entrepot or the commerce of aalt, larse quantities being made in the Department, principally at Neirmutiers and Cr isie. During the time that the elave trade was carris 1 on, Nantes was more extenslvely engaged in it than ny other French port. The castom daties of Nantes, xclualve of those on salt, produced, in 1851, $10,817,0,0$ fruncs; sle being in this respect inferior only to $\mathrm{Ma}_{\mathrm{s}}$ reeilles, llavre, and Bordeaux. There belonged to thi port, exction river cruft, coasters, anl steamers, on tie 31st December, 1851,569 thips, of the burien of 68,121 tons.

The port charges levied vessels of the United States ars t!os came, ai 1 in, ore than the port charger levied on French vesdels, except the tonnuge duty, which is 94 cente per ton register, the eame as the French vessets pay in the United States. The transhipnent in vessels of the United States of grods is permitted to any port, exeept from a Freuch port to another French port, which would be considered as a cousting trade; and no vessels of any nation whatseever are allowed to do that trade, except the Spanish veasels, Spain having an ancient treaty with France to that effect.
Amoent ano Character of Tise Piat Chabime i.gyifo
 loat or Nastes, tile Fessel ueino stiroseb to he
 ina 11 Fevt Amezicax.

| Port chacges. | $\begin{aligned} & \text { Ereach } \\ & \text { vninerls, } \end{aligned}$ | Ameriva: vernele. |
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| I'llotago from liello Ile to Iratmbutuf. | $11: 168$ | 2160 |
| Pllotago from I'almbuof to Nsintes. . | 605 | 11 54 |
| Tonnaye duty......................... |  | $2 \times 70$ |
| Kiver dues. . . . . . . . . . . . . . . . . . . . . . | 4710 | 897 |
| Cunsular fees . . . . . . . . . . . . . . . . . . . |  | 410 |
| Slyty tons of stone ballast, at $1-25 \mathrm{fr}$. | 7500 | 142.3 |
| Pllotage from Nantes to I'aimluevf. .. | 4985 | 94 |
| Pllotare from Palmberaf to sea....... | 8510 | 6 68 |
| Clearances out........................ | 1200 | 225 |
| Brokerage on 361 tona dellvered, at $\}$ <br> \| 50 centines......................... $\}$ | 13050 | 8488 |

Pilotage.-Veasels nader 80 tons (if French or aseimilated liy treaty) are not obliged to take a pilet at sea, but must have one for the river. The rates, whieli are fixed by law, are paid by tha foot from the sea in Paimbeuf, and from thenee to Nuntes for all vessels under 80 tans. Above ko tons, they are per ton. The master of a vessel bound to Pahinheuf or Nantes has merely to give a note to the pilot ntating where the pilot bearded bilu, where he left hilnt, the name and draught of water of his vessel in finglish feet. The nete will he deporited at the pilot's ofice, and the pilotage ise recelved from the whip's broker. No forsisn versel, however small, can lus removed from "han anchorago to another, or to or frotn a quay.
but by a pilot. Every vessel la boarde i at St. Nazaite, and If she has a foul bill of health, or lisease on board, is Instructed where to ge. River Dues on vessels ascending from Puimbeuf to Nantes are about 1dd. per ton. At Palmbocuf, and below it, none are levied. If a vessel under sail causes damage to another that if properly moored, she must pay all the expenses of repairs; if to a vessel at elngle anchor (unless intenthonally done) or under sail, tlat expense of the repalrs of beth are added together, and each pays a molety, The amme rule is enforced if tuztage be caused by one vessel properly monred driving on board another in the eams situation; but ff either wern riding at single anchor, the one proparly moored is indemnified; if hoth were at $\sin _{b}$ lo ancher, both bear the loss allke.

Naples, a large city and sea-port in the south of Italy, the capizal of the klngdom of the same nume the light-house being in lat. $10^{\circ} 50^{\prime} 12^{\prime \prime} \mathrm{N}$., long. $14^{\circ}$ $14^{\prime} 15^{\prime \prime} \mathrm{E}$. . Populalir : in 1851, 416,475. Naples is well situated for conmerce; bat the polley ef the government has hithr:to been most unfavorable to its growth, and has confined is within comparatively nar row limits. The Bay of Naples is spacious, and is celebratel for its pleturesque views. The harbor is formed by a mole, built nearly in the furm of the letter L, having a llght-house on its elbow. Within the mole there is from 3 to 4 futhoms water, the grousd being soft. The water in the bay is deep, and there is no bar; It is, however, a good deal exposed to the south-westerly wibds; and to guard agaiost their effects, vessels lying in the bay moor with open hawso in that direction. There is no obillgation to take a pilot on board, but it is usual to take one the first time that a ehip anchons within the mole. The light-house has a revolving light. The period of revolution is 2 minutes, during the first of which the fill streugth of the light is continued, and during the second minute Its brilliancy rapilly deereases. The helght of the light is 161 fect above the sea, and it is visible at the distance of 18 or 20 miles. At the extremity of the molo is a low fixed light to guide vessels round its beul. Fixpoats rhom tef Contingetin. Statrs of tife Two

Nighige hy Lamb and ay Bra, in Natonal and
Fobkion Ikaskla, in fach Ibab frox isto tio hive, notil inclusive.

| Years. | ny land. | Hy ma. |  | Total values. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | in nathonal veseels. | In fureliga nerelo. |  |
| 1540) | lhucate. 461,595 | [henats. 7,249,249 | $\begin{aligned} & \text { Mirste } \\ & 4,0: \bar{i}, 27^{\prime} \end{aligned}$ |  |
| 1291 | 726, 2417 | 7,352.093 | 5, 624,616 | 111,647,1446 2,267, 4t |
| 1412 | 802.164 | 7, 524,804 | $8,909.452$ | 18, 76,821 2, 312.720 |
| 1843 | 345,679 | $7,825,160$ | 2,044,295 | 16, 805,185 1,725, 46 |
| 1844 | 248, 400 | 6,844,870 | 2,424, 186 | 9,971,416, $1,1611,519$ |
| 1545 | 275,96t | 9,984,751 | 2, 41,927 | 13,702,039 9,20, its |
| 1816 | 274,400 | 11,170,154 | 8, 497, 8 y 4 |  |
| 1817 | 887,901 | 8,571,819 | 8,143,586 | 12,102,760 2.114,129 |
| 1818 | 202,760 | 6,5u3,045 | 8,164,848 |  |
| 1519 | 201,545 | 8,561, (1060 | 4. $964,54.1$ | 18,776,406 $2.246,0117$ |
| 1550 | 4241,823 | 9,449,914 | 4,410,689 | 14,763, $420 \pm, 460,070$ |

The exporte principally eonsist of the products of the adjaecnt country. Of these, silk is the must important. Olive vil is also a most fimpor sut article; but it is principally supplied hy Ga!lepoli, a town in the Terra d'Otranto, vilience it ip coummonty called Gallipoll oll. The entire exports of oil from the kingdom of Naples have been entimated at almol! ?lo, 000 salme, or 36,383 toms, a year, which, taking its mean value when exported at $\% 100$ per tom, is equivalent to the annual sum of $63,633,304$, See 9 hive Uht. The other articles of export are wool, wine, limuly, dried fruits, red and white argol, tallow, liquorice, fowes, musider, hemp, linseed, crean of tartar, fonen, lamb and kid akins, onk and chentnut staves, rags, walfou, ete. 'There is a great variety in the Neapolitan wilus, The mont esteemeal is the literima Christi, a red lasclous wine, better known in Eimpland by name than ia reality, the first growthy being contined to a small quentity only, which is chieliy reserved for the royal
cellars. T ond-rate $N$ such us the are sold ur largely exp sweet wine cient and 1 at Naples vintage. and cotton sugar, coffe market for dried and $b$
"The ex course with our treaty, change may the addition dise. I kn merce of ot States, nor of uther nat smount and dues lovied lows: On en eents per to and indireet Light mone tom-hutse v boletta, 30 e amuant on ance.- 1 Hg l coll of police present, 60 pensation, of $\$ 5.10$. presentm aro for grailting sel he sulij according to sent to Visits of the "nite the kingdom in ather vee It is allowed specities the teniled to he
"Exprorts free of any d st 20 cents p per pround; orice paste ice, Baracco obve oil, in box, s.8.20 t $4 \frac{1}{2}$ cents per There have first of , Iuly first, seconil, sis.6il yer ll. silks, raw or are shipped for the most clay pipes w stringen, eoral be quoted, 1 as article athl wholesale an of about 10 (Neapolition oranges and Sicily to fill fill up here. year from th they dre now of the season

Commercia

## NAP

collars. There are, however, larga quadtitiea of aec-ond-rate wines producel in the vecinity of Naples, such na those of Pozzuoli, Ischla, Noln, etc., whlch are sold under the name of lacrima Christi, and are largely exportad. Several parts of Calahria produce sweet wines of anperior quallty.-IIesinensox's Ancient and Modern Wines, p. 289. The price of wine at Naples depends entirely on the abundance of the vintage. The imports consist princlpally of cottons and cotton twiet, hardware, lron and tin, woolens, sugar, coffee, indigo, spices, etc. Naples is a good market for pilcharde, and it requires a large supply of dricd and barreled cod.
"The existing regulatlons as to commercial Intercourse with the United States appear fixed. When our treaty, however, shall expire, If not renewed, a change may follow, aa well for tonnnge duea aa for the additlonal 10 per cent. on the duties of merchandise. 1 know of no privlleges permitted to the commerce of other nations which are denied to the United States, nor are there any restrictions on the commerce of uther nations and not on the United States. The amount and character of the port chargea and other dues levied on vestels of the United States are as follows: On entry.-Tonnage, 4 graina, or 3 and one fifth cents per ton, when there is a treaty; without treaty and indirect voyage, 40 gruins, or 82 cents per ton. Light money, 81 ; presentation of manlfest, $\$ 1$; cus-tom-house visit, 80 cents; liquidation of manifest and boletta, 30 cents ; customary present, 60 centa. Total anount on entry, except tomange, \$3.75. On elear-ance.-Biglietto of departurs, 81 b bill of health, 81 ; mil of police, 25 cents; roll of port, 25 cents; usual present, 60 cents ; "spedizlonleri," or broker's compensation, \$2. Making a total amount on elearance of $\$ 5.10$. Natienal vassels pay the anme, but the presents are greater by them. The health officer has for grauting pratique on arrival \&5. Should the vessel he sulject to quarantine, the charges increase accurding to circumstances, and still more ao when sent to Visita to perforn it. Transhlpment in vessels of the "nited States of goods, elther to another port in the kingdom or to a foreign port is prohilited, as well as in ither veasels, except the Neapolitin steamboats. It is allowed by faver when the manifest, on arrival, specifies the gnods and the port to which they are intenilel to tie transhipped.
"Exprorts from this port have leen put on lward free of any duty, at prices as follows: Retined argols, at 20 cents per pound; refined ycllaw pink, at 23 cents per peund ; cream tartar, at 25 cents per pound; licorice puste (Codigliano) at 16 cents per pound; licorice, laracco and other, at 15 to 154 cents per pound; olive oil, in casks, at 78 cenis per gallon; orangea, per box, $\$ .20$ to $\$ 2.25$; lemans, $\$ 1$ to 8.20 ; illuerte, $4 \frac{1}{2}$ ecits per pound; walnuts, 5 cents per pound. There have been exported during the year, from the first of July lust, about $60,000 \mathrm{llis}$, of sewing silksfirst, seconil, and third qualities-at $9.20,83.80$, and 83.60 per 1b. of 16 cz ; also abrout 25,006 his. of such silks, raw ur undyed, at $\$ 3$ per 1b. of 16 nz . These are shipped ly steamers for Marseilies or liverpoot for the mest part. In like indirect way are also sent ciay pipes with reed tubes, of little value, musical stringe, eoral and lava ornaments, but no prices can he quoted, as their value depends on the hesuty of the artiche :wd the execution of the work. Hetween wheiesale and retail prices there may be a differenea of ulout 10 per cent. Five or six forelgn vessels (Neapolitan und English) lave loaded in part, with oranges and lemons for the United Stntes, and gone to Sicily to fill up, or firkt take a part eargo in Sicily and fill up here. About 20,000 loxes are shipped in the year from this port, lut the prices vary continuully; they are now double what they were in the beginning of the season."-Com. Rel. U. A., 18556-7.
Commercial Policy.-The polley of the Neapolitan
government with reapect to commerce was for a lengthened period the most objeotlonable that can well be imagined. Articles, whether of import or of export, were hurdened, alike; wlth oppressive duties and roatrictiona; and even the warehousing of foreign goode could hardly be aakd to be permitted. Of late, however, we are glad to observe, the administration appeara to have lecome aliva to the injurions influence of this felo de se syatem, and han given its aanctlon to seveial measurea of a comparatlvely liberal character.
The dutles on importa have sleo undergone various modifications. Those on fieh, sugar, and other colonial products, have been reduced fully a half. But we submit in illuatration of theas changee the following statement of the old and new rates of duty on certain artictes:

|  | Oid daly. | uty. |
| :---: | :---: | :---: |
| Herr | ${ }_{5}^{551}$ | $30$ |
| Coena. | 16 50 | ${ }_{8} 8$ |
| Coffee. | 2475 | 120 |
| Camphor, raw....... " | ${ }^{51} 50$ | 24.3 |
| Clnnamen, in ${ }^{\text {refned..........rottolo }}$ | 112 154 | ${ }^{10} 70$ |
| Cassia lignea, of any sort...csitar | 500 | 800 |
| Cloves. ................. | ${ }^{7} 0$ | 80.0 |
| Vatuegs..................rottolo | 184 885 | ${ }^{7} 80$ |
| Pile hisrds, etc............ias catar gross | 247 | 120 |
| stockilist............ ${ }^{\text {a }}$ | 463 |  |
| Sugar, hay kind, tin powder |  | 10 15 15 |
| Vвullla............... | ${ }_{23}{ }^{78} 8$ |  |

We have no coubt that the beneticial hafluence of these wise and liberal measures wi" Inad to further changee. The duties on Iren, w! a the, on cottona, woolens, and other descriptions of , 1sw'metured goods, ure a great deal too high. These dic.... + so impored partly for the sake of revenue, and partly in the view of encouraging domestic manafactures; but they bave not accomplished either object. See Two Sicilies nod Italy.
Naphtha. A limpid bitumen, which exudes from the earth upon the shores of the Caspinn and some other eastern countries. Near the village of Amiane, in the State of Parma, there exists a epring which yields this substance in aufficient quantity to illuminate the city of Genoa, for which purpoese it is employed. It has a peculiar odor, and genarally a yellow color, but may be rendered coloriess by distillation. Its specific gravity is about 0.75 . It boils at about $160^{\circ}$. It is highly inflammable, burning with a white smoky flame. It appcars to be a compound of 36 of carbon with 5 of hydrogen, and is therefore a pure hydro-carbon. A liquid very similar to mineral maphtha is oltained by the distitiation of coal tar. It has sometinee been used in lumps, but is apt to smoke. This variety of naphtha is in greut request us a solvent for caoitchouc.
Napier, John, Baron of Merchiston. Selebrated as the inventer of Logarithms. Bern 15050, and eduented at the miversity of St. Andrews. On returning from his travela, in 15i4, his leurning and accomplish ments attracted great attention, and would have raised lilm to the hlghest offices of State; but, deelining all civil employment, he devoted himself to scientile researches and to theology. In 1614 he peiblished his Logarithmorum Canonis Descriptio. To Napier science is indebted for consideratle improvements in spherienl trigonometry, etc. Ife is priucipally calebratell, however, hy his Rabidology and ${ }^{1}$ romptnary of Multiplication, or instruments and talhles for the moro casy performance of great arithnetical operations, conneeted with which were the rods of ivory, etc., known ns Napier's bowes. In addition to his selentific treatises, ha wrute eaveral works on theologleal suljects. He died $\ln 1617$, In his 68 th year, and , was buried in the cathedral of St. Giles, at Edinburgh.

Narrows, The, a channel between Long Island ard Staten Isiand, connectling Nsw York Bay with the Atlentic, nine miles sonth of New Yerk. The channel is 1905 yards wide, and is well defended by forts and batteries.
NTatal, a colonial pessension of Grear Britsin, on the south-eace ceest of Africs, hetween lnt. $27^{\circ} 40^{\prime}$ and $80^{\circ} 40^{\circ} \mathrm{S}$. , and long. $29^{\circ}$ and $81^{\circ} 10^{\circ} \mathrm{F}$., having south-east the Indian Ocean, west, the Drakenberg: or Kahlamba Mountaina, separating it from the terri tory between the Orange and Vanl Rivers, recently annexed to the Cape Coleny; and nerch-east the Buffalo and Tugela Kivers, dividing it fiom the Zooloo coantry. Estimated aree, 18,000 square miles. Population uncertain. Surface undulating, well watered, and meatly covered with tall grass. Timber in the interior grows only in clnmps, but the ecareasat is bordered by a belt of mangroves. Climate mist healthy, and the aill is reported to be far more fertilu than in the Cape Colony. Cotton and indigo grow wild, and the former has been produced for expostation, of the finest quality. Sugar, ceffee, wheat, oats, beans, and tobacco, are importent cropa. Superier coa? has been found in the interior; building stone is found all over its surface, and iron ore is abundant. Butter, com, hides, ivery, tallow, tobacco, cetton, and wool, were lately among the chief exports. Valus of exports in 1851, $\$ 15,000$. Imports same year, valued at 280,000. The territory, which is a dependency of the Cape of Good Hope, is administered by a lieuten-ant-governor, assisted by an executive and a legislative council.

It is subdivided inte the dintricta D'Urban, Pietermaritzburg, Umveti, Impafane, Upper Tugela, and Umzinzate, excluaive of a tract in the eenth, hitherto without an eatablisied magistracy. 1'ietermaritzburg, the capital, is 50 miles inland from Port Natal, which is zear the centre of the coast line. This colony derives its name from the fact of its having been discovered on Christmas day (1498), by the l'ortuguese. It was revisited in 1575 by order of King Sebastian.

National Debt. The first mention of parliamentary secusit ? for a debt of the English nation, occnrs in the reib of Henry VI. The present national debt commenced in the reign of Wiiliam III. It had amounted, in the year 1697, to about tive milicons sterling, and the debt was then theaght to be of aiarming magnitude.
1702, On the aocesslon of Quenn Anno, the debt amounted to.
£14,000,009 1714, On the necesslon of Geo. I........................ $84,000,000$ 1749, Geo. II.; after the 8pantsh war. 1768, Gea. III.; ead of the 7 years' war............. $189,000,000$ 1784, Three yeara after the American war......... $968,000,000$ 1798, The clvil and forelgn war............... 1802. Close of the French zevolutlonary war. 1814, Close of the 817, Whe of the war agalast Bonaparte. ....... . . 865,000,000 1817, When the Irioh aod Engtish oxchequers wero consolldated

843,252,477 1880, Total am't of the funded and unfunded debt 840,184,022 1844, Total amonnt of ditio. . . . . . . . . . . . . . . . . . . . 789, $7878,780,009$ 1845. Funded debt. $\qquad$
$\qquad$ 1867, $780,000,000$
The national debt of the United States originated in consequence of the expensen incurred during the revoiutionary war, and amounted in the year 1791 to ubout $\$ 75,000,000$. The revenue of the gevernment enabled it to curtail the debt until the year 1812, when it was only $\$ 45,000,000$. The war with Fingland in 1812-15, added largeiy to this debt, the loans necessary for war expenditures being raised at a cenaiderable loss. At the end of the war the debt was over 103, , 000,000 . This was rapidly curtailed, and by the year 1835 was fully liquidated, besides an appropriation of several millions of aurplus revenue to the individual States. In 1839 , the revenue was leas than the expenditure, and another debt was created which had been nearly llquidated up to tho year 1845, when the war with Mexice rendered further loans necessary. The
progress of the national deut from 1701 to 1857 was as follows :

| Years, | フ | Yours, |  |
| :---: | :---: | :---: | :---: |
| 1791 | *75,402,476 | 1824. | \$90,499,778 |
| $179 \%$ | 77,427,924 | 1825. . . . . . . . | $88,7 \times 8,483$ |
| 1798. | $80,852,634$ | 1826. | 81,054,960) |
| 1794. | 78,427,405 | 1827. | 78,987,95\% |
| 1795. | 80,747,587 | 1828, | 67,475, 14.4 |
| 1796. | 88,769,172 | 1829. | 05,42, 414 |
| 1707. | 82,064,478 | 1890. |  |
| 1798. | 79,228,529 | 1881.......... | 80,123,192 |
| 1799. | 78,408, 670 | 1889,....... | 24,822,295 |
| 1800. | 82,976,994 | 1884. | 7,001,699 |
| 1801. | 88,088, 051 | 1884 | 4,760,082 |
| 180\% | 80,712,632 | 1835. | 97,783 |
| 1503. | 77,054,696 | 1836. | 87.518 |
| 1844. | 8t,427,121. | 1897. | 1,97-24 |
| 1805. | 88,819,150 | 1888, ........ | 4, 5 ( 7,0641 |
| 1816. | 75,788,271 | 1899......... | 11,989,788 |
| 1907. | 69,218,899 | 1849. | 5,123,078 |
| 180x. | 65,104818 | 1841......... | 6,787,898 |
| 1809. | 57, 288,192 | 1842......... | 15,028,486 |
| 1810 | 6x,178,917 | 1848 | 26805,958 |
| 1815 | 48,00KRAS | 184. | 29,148, 396 |
| 1812. | 45,809,788 | 1845 | 16,801,647 |
| 1818. | 66,902,828 | 14.6 | 24,256,495 |
| 18! ${ }^{\text {ch. }}$ | 81,487,846 | 1847. | 45, $4.59,459$ |
| 1815. | 99,838,6610 | 1848. | 65, 804,450) |
| 1816. | 127,804,984 | 1849.......... | 64,704,693 |
| 1817. | 129,401,965 | 1850......... | 64,223,238 |
| 1818 | 109,466,434 | 1851.......... | 62,560,395 |
| $18: 9$ | 95, 223,643 | 1852......... | 47,080,395 |
| 1820. | 91,015,646 | 1854. | 58,836,157 |
| 1824. | 89,987,488 | 1854. | 44,975,450 |
| 1822. | 98,546,077 | 1355. | 89,060,781 |
| 1823. | 06,876,877 | 1850(Nov.15) | 80,963,909 |

For funded dehis of varions European nations, see articlu Euhore, p. 622.

Naval Arohiteoture. In the smali space we can assign in this subject we ahall meraly endesvor to convey a general notion of the principles snd process of construction. Ships are built in different forms, according to the service they are intended for, and the burdens they have te carry. It is in men-ofwar, shich, besiles possessing in an eminent degree the general qualitios oí a ship, hava to support a heary armament of cannen, and which are deatined to severe and leng-continued service, that the priaciples of construction have been carried to the greatest perfection. The form of the ship, her etrength, or the seratiing necessary for the services required of her, are, fivin our impe?fect knowledge of hydredynamice, the resuits of experience alone. When a ship is to be built, hacr form is projected in three differont planes perpendicuiar to each other.

1st. The sheer dravght, which is the side view, or projection on the plane of the keel. On this are inid off the length, the helghts of all the parts from the keel, the poeition and rake of the atem and sternpost, the principal frames or timbers of the eides, the ports, decks, channels, place of the greatest breadth or midship frame, stations of the masts, etc. The irames before the midship frame are distinguished by ietters; abaft it, by numbers. The midshlp frame is not exactly in the middle of the length, but ruther be-fore it.

2d. The body plan, or end view. This shows tus centour of the sides of the ship at certain points of her length, and since the two sides are exactly ulike, the left half represents the vertical sections in the after part of the body, and the right-hand half those in the fore part. The base of the projection is the midstip, or lsrgest section, called also the dead flut, withiu which the other sections are deiinented. Un this are exhibited also the beams of the docks.
3. The horizontal or floor pinne, calied also the half breadth plan. The base of this is the section made by the horizontal surfuce of the water sad the outside surface of the ship, and is cailed the upper toater line, or load water line. If the ship now be supposed to be lightened uniformly, she will exhibit another water line, and thus any number of like paralici sections at equal distances down te the keel. On this projection the water lines sppear as curves, on the sheer draught as straight limes parallel to the keel. Theso three sec-
oast ins
bers of
the frum
on. T
secured
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The bea
are secu
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lining $t$
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son for t
the well
water, is
to the br
17.8 i, $7 \times 8,43$ $4,5 \times 5,493$ $1,601,060$ $7,475,444$ $7,475,944$
$3,421,414$ $5,425.414$ 3040,46
$0,129.192$ $4,892,295$ $4,82(, 29$
$\mathbf{8}, 04(, 69)$ $8,041,693)$
$4,740,082$ $4,740,082$
87,783 81,88
37,818 1,57-22 $4, N i, 060$ $1,183,788$ $0,120,078$ $6,787,898$ 5,028,4s $6,505,988$ 1,141996 6,801.642 $4,206,495$ 6, 1039,050 $35,404,45$ 14,704,60: 44,223,23 $92,560,88$ $47,560,395$ $38,83,6,157$ $44,975,456$ $49,969,781$ 30,963,909
li apace we dy endesvor les and proin different intonded for, $s$ in men-of inent degree port s heavy ned to severe iples of conperfection. he acuntling 8re, fluill our the results of iilt, her form oudicuiar to

Hile view, or this are laid rts from the d sternpost, es, the ports, sadth or midle irames bely letters; B not exactly -fore it. is shows tue points of her tiy alike, the in the efter those in the the midship, within which is are exhib-
also the half ion made by the outside - water line pposad to be nother water I sections s is projection neer draught tse three sec-
tlous correspond to esch other upon the same scale, and any point in one is immedistely refersble to : other two projections. The eeveral parts are drawn from these plane in their full aizo on the floor of the moldloft, and worked from the molds or model so taken.

The place in which the ship is built is called a slip. la the niddle, and leading to the water, is a row of piles of stont pieces of wood cslled the blocks, having a declivity towards the water of about one inch in one foot. On these the keel, which is of elm, is laid, and its component lengths scarfed together. Under the keel is placed the false keel for defense. At the end furthest from the water is raised the atem, which is, in fact, the keel continned npwards. Inside the stem, and just above the keel, is the apron, a curved timbe.: counecting both. On each eide of the upper part of the stem is fixed an upright timber; these are called the knight heads, and the buwsprit lies between them. At the other ead of the keel is the sternpost, at which the planking finishes abaft, and on which the rudder is hang. Iaside (or before this) are the inner post and other pieces for atrongth. Upon the keel is fixed a isyer of timber of the asme breadth, and rising forward and sft, cslled the dead wood; on this are piaced the foor timbers; these consist of one which crosees the keel to which it is coaked, and tia two parts of a like timber firmly joining it, and projecting beyond its ends. The severai pieces are got into their places by ehifting shears.

The jrames consist of pairs o- timbers composed of pieces of different longths, joining the fioor timbers, and carried upwards. The length joining the floors is called the first futtock, the next the eecond futtock, and so on, ending in the top timbers. The pairs are bolted by iron bolts, and of late adjacent pairs have been thus connected. The frames are supported tomporarily by being fixed to the cross spalls, long fir pisuks laid horizontaliy about the height of the gun deck. Those frames whose planes are perpendicalar to the keel are calied square frames; st the head and stern these plaue incline toward the extremities, and are called cant frames. These divisions of the ship are calied, accordingly, square and cant bodies. When the froming has assumed its form the ribands are fixod; these are thick, narrow planks at wide intervals, extending the length of the vessel, marking the direction of the planks; they are firmly shored, and removed when the planking comes on. The riband lines appear on the half breadth plan as diagonal lines. Upon the keel, and over the floor timbers, to which it is ecored, is laid the kelson, which is, in fact, a seconl keel over the first. The stern of aquare-eterned elips is formed upon the wing transom, the uppermost of the horizontal pieces of timber, calied transoms, crossing the sternpost inside. The wing transom is eecured to the timbers of the side by a strong horizontal knee. When the framing is complete, the outside planking is laid on. The uales, thick planks above the wator, are first secured to the ribs. The clamps aro thick planks inside, to support the ends of the beams of the decke. The beams support the decks, rest on the clamps, and are securod to the side by knees. The breast hooks are strong curved pieces of timber crossing the stem, and joining the bows. The deck hooks are the aame, being at the decks. The crutches answer a like purpose below in the after part. The port sills are the npper and lower edges of the porte. The spirketting is the plask of the side between the water way and the port siii. The chain woles are thick planke of the ontside to receive the chains and preventer-boits for the anpport of the rigging. The foot waling, or ceiling, is the piank iining the inside of the ship below. The limber boards sre short, thick pieces of wood rosting against the keison for the convenience of keeping a clear passage to the well. The knee of the head, also called the cutwater, is the projecting part of the head ; it is eecured to tho bowe by knees called cheeks.

In order to bend wood into the necassary carvayare, it is steamed in placed for the purpose. When the planking la all complete, the ohip is caulked and painted. The fasteninge of timber are effected by bolts, treenails, or coake. The present method of framing shipsoof-war ia chiefly due to Sir Robert Seppings. We shall deacribe it here generally; fur pare ticulars, see the Phil. Trans., 1814, and the published reports on the enbject. As the timbers or ribe can not be procured entire, or of the proper curvature, various methads have been uesd for joining the several pieces together. A methoi used till lately consisted of an angniar chock $C$, fastened by truenails to the ends A $\mathbf{3}$ of the timbers. By this plan all atress upon the joint, in whatever direction, falls on the treenaile ; snd
 when the chock decays, no support is afforded in any sense whatever. At present the square ends, $\mathbf{A}^{\prime} \mathbf{B}^{\prime}$, are bronght together, while a coak $\mathrm{C}^{\prime}$, or small oak cylinder, is let into each.
By this plan the two faces resist any effort by pressure from without to cloee the timbors, and the coak itself resists the effort (perpendicular to this last) to mako one timber alide past the ot ${ }^{\text {h }}-$ - by the whole force necessary to cut it off flush with the section. In the single case of lifting one face exactly perpendicularly off the other, the cosk offers no resiatance ; this effort, which is that produced by the atrain of the rigging on the eides, is opposed by other numerous connections. The method is very ancient, being used in the construction of the pillars in the temple at Bulbee; the advantages of ita application to ship-bullding is seen in the frames, which undergo no change of form while hoisting into their places. The etficiency of tho plan, however, does not appear in a single length, but in the systom of frames, each joining of which is placed near the middie of the next piece.

A shelf piece, coaked and bolted to the timbers or ribs, and resting on short vertical piecesof timber called chocks, and sometimes scored to tho ribs, is carried like a hoop entirely round the ship. On this the bean ends are coaked; and over these
 again is laid a atrong water way scored to the beams, and coaked. Besidee these the beam end is claspod by two arms of an iron knee, of which the third, which is vertical, is bolted to the chock. The shelf binds firmly the ends and sides of the ship togethor, and reaige: like an arch ail external pressure. The spaces betweon the timbers below are filled up by dry woc 'driven in tight, and canlked, thus rendering the bottom solid and water-tight, independently of the pianking. One of the most important improvements is the diagonal framework below, Instoad of the former planking in the hold are placed braces, crossing the ribs, to which they are conked, at an angle of $45^{\circ}$; those in the fore body incline (or rake) aft, and thoae in the after body forward. They butt against the kelson, and extend nearly to the water; they are in goneral placed ander every other beam, but closer at the extromities.

Longitudinal pieces of timber are lsid nearly parallel to the keei ove; the lieads or joinings of the timbers, and boiter through; these, crossing the diagonals, form a series of rhomboidal fignres, across which, inside, are firmly driven trusses, lying the opposite way from the liagonals; these are boited through, and, when necossary, are further tightened by driving in thin iron plates at the eads. The diagonals act by the tersion of the fibrea, the trussoe by the thrust, and the whoie thus resiste overy effort to change the figure of the ship. The system was firat put into complete practice in tho Tremendous, $\mathbf{7 4}$, in 1810; which ehip evinced, in several severe trials, a firmness and dryness not known before. M. C. Dupin has shown (Phil. Trans., 1817) that the principle of diagonal framing had ang-
gested liteelf, and been tried by several French engineers, but as often abandoned. The merlt; therecore, of Sir R. Soppiagh, in redueing to practice a aystem which to othere had been attended with In. superable diffieultles, more than compenaates the want of novelty in the lidea itself. The ancient s: are, masilve, but weak sterns, have been repina in ir It. Seppings by round sterns, correaponding lo whotruction, and therofore In strength, to the bow. These have again undergone various alterations, tondIng to comblne the strength of the new with the Imposing appearance of the former stern. It is only now by contrasting thes solid and immovable frame witit the former weak and unconnected structure, that we can fully percaive the inefficlency of the ancient construetion. The timbers, instend of forming an independent syatem, were often supported in part by the plankIng itself, as is the cuse in boats. The masta, resting onily upon their steps, inetead of strong platforms which diffase the pressure on all slden, and pressed downwarla hy thelr weight, and by the enermoue strain of the rigging, arising from the wind on the salis, forced the keel down, and made the ship leaky. The tinaters and framework, being at right angles, without mutasi support, the whole stress of the ahip eame on the fasteninge ; and, Inatly, the safety of the ship depended entirely upon that of the outside plink, the part most exposed to injury.

The plaaiss of the decka have also sometimea been placed diagonally ; and lately iron diagonal at raps have been aditet to the upper works inslde. The extremities being unsnpported below by the water droop, of the ship hoga, a three-decker formeriy drooped at once, on being launched, nine inches at each ond, which increased with her length of aervice; at present, snch a ehip droope oniy 84 inches, which, when the materlats are set, suffers little or no increase. Exposure to moisture leing a cause of the decay of timber, buldiing noder cover has long been practiced. This also protects the men from the wenther. "'he wood nsually employed in ship-huilding is oak. Eint, whleh does not eplit readily, is employed for the keel, and for the caps. Bast India teak, a very heavy durable wood, which does not shrink, nor is liable to splinter from shot, is now very mach used. African teak is also much used. Fir fs used for light works, masts, etc. The bottome of ehipa are linble to become covered with weeds and shells, and to be eaten through by worms. To prevent these evils, the lottoms were fommerly covered with a thin sheathing of wood, which was replaced when worn. Lead his aiso been used. Ships are now eheathed almost universally with thin sheets of copper.

For further information on this suljert, reference may be mado to the following works: Boutauen, Traite des Navire; Claikbots, I'raite il'ementaire, etc.; Cilapmon's Namal Archit., with Noten by Dr. inman; Atrate's Elerlents, with an Appendix, by J. Knowless, F.LL.S. ; Fischam's Outlines of Ship-building; the orticle "Shlp-huilding" In the new edition of the Ency. Brifannica.

Naval Courts are tribunale astablished as oceasion may require, either on tho high seas or In foreign parts, or at home, for luquiring into and dealing with various matters pertaining to maritine nifairs.

Naval Btores. The principal of these are tar, pitch, rowil and turpentine, though other articies used in tyuilling and equipping vessels are sometitres ineluden. The United States are so abundantly aupplied with naval atores, that notwithstanding she is nore extensively employed in ship-building tian nny other nation, sine exports navai atores In large quantities.
Naval Stosea Expogtrn phom the Ukiteth States to

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| :---: | :---: | :---: | :---: | :---: |
| Year | 1848 | 6598,789 | Year | 1854......... \$9.55.224 |
|  | 189 | 124,630 |  | 1858......... 1,404, 383 |
|  | 1850 | 911,281 |  | 154......... $1,565,038$ |
| $\pm$ | 1851 | 761,408 |  | 1855......... . $1,153,468$ |

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Total.
(Lat. navis, a ahip), is thit branch of science by which the mariner is taught to conduct his ship from one part or place to another. To nnderstand the principles of nnvigation, and their practical application, it is necessary that the mariner should be sequainted with the form and magnitule of the varth, the relative situations of the lines eonceivel to be diawn on its sarface, and have charts of the cosits and maps of the harbora which he may have oecasion to visit. He must also understand the use of the instruments by which the direction in which a ship is steered, and the distance $v$ leh ohe sails, are asecrtained; and be able to deduce crom the lata supplied by auch Instruments the situation of his ship at any time, and to find the directlon and distance of any place to which it may he required that the ship shouid be taken. A curve pasaing through any two plares on the earth, and cutting every intervening meridian at tise same angle, in called a rhumb line; the angle which such a eurve makes with each meridian is caifed the course between any two places throngh which the curve parses; and the aro of that curve intereapted between any two places is called thelr mautical distance. This distance is more than that measured on the are of a great circle pawing through the two places, ane
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leas both placea are on the asme meridian, or both on the equator, when the rhumb line and great circle coinclile. The difference of Intitude between any two placear la an arc of a merdilinn intercepted between the parallela of latltude on which the places are situated; and the difference of longitude is the are of the equator, or the angle at the pole included bet ween the meridiana of tho places. Hence, when the latitudes or the lengitudes of two places are of the same denomination with rospect to north or wouth, east or weaf, the difference is found by subtrncting the less from the greater) but when of different denominations, what is called their diflerence la found by taking their oum. See Latituie, Longitude.

Navlgation owes its origin to the Phencians, aboat 1500 n.c. The first lawe of navigation originated with the Rhodlans, 916 3.c The first account we have of any considerable voyage is that of the Pheniclans aniling round Africa, f04 B.c.- Bi.ain. On the destruction of Thebes by Alexander the Great, $835 \mathrm{n} . \mathrm{c}$. its comnerce passed to Alexandria, and eubsequently the Remuns became the chlef masters of commerce. It passed auccesalvely from the Venetians, Genoeee, and Hanse Towns, to the Portuguese and Spaniarda; and from these to the English and Dutch.-IIAydn.
Plaoe charts and mariners' compass nsed aboat....A. D. 1420 Varintion of tho compass discovered by Celumbius. That the ebligue rbumb linea are eplrale, discovered by

Nenlus. 1492 Flrst treatise on navigation. ${ }_{1545}^{1587}$ The log tirst mentloned by Bour ie. Norcator's chart. .. 1577
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Harrlson's thate-keeper used. 1631 1764 Nautleal almanoc first published $\qquad$ Barlow's theory of the ctovintion of the compass. 2767 Sce Compass, Latitude, Longtitude, etc.
Navigation Laws. These laws form an lmportant branch of maritime law. In this country they are understood to comprlse the various acts that have been passed, defining the way in which ships are to be manned, the peculiar privileges enjoyed by thein, and the conditions under whleh forcign ships shall be allowed to engage in the trade of the country, either as importers or exporters of commodities, or as carriers of comaulities from one part of the country to another.

Shetch of the History and Principles of the Namigation Lurx.-The origin of the navigation laws of England, which ore the foundation of ours, may be traced to tho reign of Kichard II., or perhaps to a still more remote period. But, as no intelligible account of the varying and contradictory enactments framel at so distant un epoch could be compressed within any reasonable space, it is sullicient to observe, that in the reign of Henry VIl., two of the lealing principles of the navigation law were distinctly recognized, in the prohibition of the lonportation of certain commoditics, unless lmported in ships belonging to Einglish owners, and mannad by linglish seamen. In the narly part of the reign of Elizaheth (5 Eliz. c. 5), foreign ships were exchuled from the disheries and coasting trade. The repalilican Parliminent gave a great extension to the navigation laws, by the act of $\mathbf{1 6 5 0}$, which prohibited all ships, of all foreign nations whatever, from trading with the plantations in America, without hating previously ohtained a license. These acts wero, however, rather lutended to regulate the trude between the different ports and dependencies of the empire, than to regulate intercourso with foreigners. But in the following year (9th of Octoher, 1651), the repullican Parliament passed the famons Act of Navigation. This sct had a double object. It was intended not only to promote Iritish navigation, but also to strike a decisive hlow at the naval power of the Dutch, who then engrossed nlmost the whole carrying trade of the world, and against whom various circunstances had conspired
to lncense the Englieh. The act In quentlon declared, that no goods or commoditles whatever, of the growth, production or manufacture of Axia, Africa or Amerisa, ahould be lmported elther fato England or Ireland, or any of the plantationa, except In shlps belonglig to English suljecte, and of which the master and the greater number of the crew were nlso Engllsh. HavIng thus secured the Import trade of Asla, Africa and America, to the English ship-ownere, the act went on to secure to them, as far as that was poasible, the lmport trade of Europe. For this purpose, it further eascted, that no goods of the growth, production, or manufacture of any country $\ln$ Europe, should be imported Into Great Britain, except in British ahlps, or in such ahips as were the real property of the yeople of the country or place in which the gooda were produced, or from which they could only be, or most usually were, oxported. The latter part of the clause was entirely leveled agalnst the Dutci, who had but little nativo produce to export, and whese ships were prlnclpally employed In carrying the proluce of other countries to forelgn markete. Such were the leading provislong of thls famous act. They were adopted by the regsl governnent which succeeded Cromwell, and form the basls of the act of the 12th Car. 2, whlch contlaued, to a very recent period, to be the rule hy which anval intercourse with other countries was mainly regulated; and has been pompously leslgnated the Charta Maritima of England !

American View of the Righta of Navigation.-The liberty of passage to be enjoyed by one natien through the dominiens of another, was trented by the most eminent writers on pulilic law, as a quallfed, occasional exception to the paramount rights of pioperty. They made no diatinction between the right of passage by it river, llowing from the possessions of one nation through those of another, to the ocean, and the same right to be enjoyed by menns of any highway, whether of land or water, generally accessible to the inhabitants of the earth. The right of passage, then, must hold good for other purposes, besides those of trade; for objects of war as well as for those of peace; for all nations, no less than for any nation In particular, and be attached to artificial as well as to natural highways. Tho principle could not, tharefore, be insisted on by tho American government, unless it wus prepared to apply the snme principle by reclprocity, in faver of British subjects, to the navigation of the Mississippl and the Hudson, access to which from Cunadn might be obtained by a few miles of land carriago, or by the artificial communicstion created by the canals of New York and Ohlo. Hence the necessixy which has been felt by the writers on public law, of controlling the operation of a principlo so extensive and dangerous, by restricting the right of transit to purposes of innocent utility, to bo exclusively detarmined by the local soverelgn. Hence the right in question is termed ty them an imperfect right. But there was nothing in these writers, or in the stipulations of the treaties of Vienna, respecting the navigation of the great rivers of Germany, to countenance the American doctrine of an absolute natural right. These stipulntions were tho result of mutual consent, founded on considerations of mutusl interest growing out of the relative situation of the different States concerned in this navigation. The same observation would apply to the varions conventional regulations which hal been at different periods applied to the navigation of the River Missisulppi. As to any supposed right derived from the simultaneous acquisition of the St. Lawrence by the British and American people, it could not be allowed to have survived the treaty of 1783 , by which the independence of the United States was acknowledged, and a partition of the British dominions in Nerth Americs was made between the new government and thast of the mother country.

This argument, it was replied, on the part of th


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United States, that, if the St. Lawrocice were regarded as a strait connecting navigablo seas, as it ought probsbly to be, there would be less controversy. The principle on which the right to navigate atraites depends, is, that they are accessorial to those seas whioh they unite, and the right of navigating which is not exclusive, but common to all nations; the right to navigate the seas drawing after it that of passing the straita. The United States nad Great Britein have between them the oxclusive right of navigating the lakes. The St. Lawrence connects them with the ocean. The right to navigate both (the lakes and the ocean), Includes that of passing from one to the other through the natural link. Was it then reasonable or just that one of the two co-proprietore of the lakes should altogether oxclide his associate from the use of a common bounty of nature, necensary to the full enjoymeat of them? The distinction between the right of passage, claimed by one nation throagh the territories of annthor, on land, and that on navigable water, though not always cleariy marked by the writere on public law, has a manifest existence in the natare of things. In the former case, the passage can bardly ever take place, especially if it bo of numerous bodies, withont some detriment or inconvenience to the State whose territory is traversed. But in the case of a passage on wator no such injury is sustained. The American government did not mean to contend for any princlple, the benefit of which, in analogous circumstances, it would deny to Great Britain. 1if, therefore, in the further progress of discovery, a connection should be developed between the Mississippi and Upper Cansda, similar to that which exists between the United States and the St. Lawrence, the American government would be always ready to apply, in respect to the Mississippi, the same principlea it contended for in respect to the St. Lawrence. But the case of rivern, which rise and debouch sitogether within the limits of the same nation, ought not to be confonnded with those which, having their sources and navigable portions of their streams in Statee sbove, tinaily diocharge themselves within the limits of other States beiow. In the former cnee, the question as to opening the navigation to other nations, depended apon the anme considerationa which might influence the regulation of other commercial intercourse with forelga States, and was to be exelusively determined by the local sovereign. But in respect to the lattor the free navigation of thio river was a natural right in the upper inhabitante, of which they could not be entire$1 y$ deprived by the arbitrary caprice of the lower State. Nor was the fact of subjecting the use of this right to trenty regulations, as was proposed at Vienna to be done in respect to the navigation of the Earopean rivera, sufficient to prove that the origin of the right was conventiosal, and not natural. It often happened to be highly convenient, if not sometimes indiapensabie, to avoid controveraies, ly prescribing cortain rules for the enjoyment of a natural right. The law of natare, though sufficiently inteiligithle in ite great out'ings and general purposes, does not always reach every minute detail which is calied for by the complicated wants sad varieties of modern navigation and connmerce. Hence the right of navigating the ocesn itself, in many instances, priacipaily incident to a stato of war, in subjected, by innumerable treatien, to varions regulations. These regulations-the transsctions of Vienna, and other analogous stipulationsshouid tee regarded oniy as the apontaneous homage of man to the permanent Lawgiver of the universe, hy delivering his great works from the artificiai shackies and aelfish contrivances to which they huve been arbitrarily and unjuntly suljected.- Whisaton's International Lawe, pp. 268-266.-[This chapter in Ma. WusaTos's mort furnishes the best view, in brief, of the rights of navigation of the St. Interence, the Missisaippi, the Whine, and of the righta of $\boldsymbol{T}$ :ritory.-Eina. C. of C.]

Laws of trade and navigation can not affect foreigners, beyond the territorial limits of the State, b:t they are binding apon its eitizens, wherever they may be. - Thus, offonees agoinst the lawn of a State, prohlbiting or regulating any particular traffio, may be ponished by ita tribunals, whion committed by its citizene, in whatever place ; but if commilted by foralgnore, such offensess can only he thus punished when committed within the territory of the State, or on board of its veseels, in some place not within the jurisdiction of any othor State.-Wheaton, Int. Law, p. 175.

Claims to Pomione of the Sea upon the Ground of Pre. scription.-Besicee those bays, galfs, straits, mouths of rivers, and ostuaries which are incloned by capes and houdlande belonging to the tertitory of the State, a jurisdiction and right of property over certain other portions of the sea have been clalmed by different nations, on the ground of immemorial use. Such, for exampie, wse the eovereignty formerly claimed by the republio of Venice over the Adriatic. The maritime supremacy claimed by Great Britain over what ere called the Narrow Seas, has generelly been asserted merely by requiring certain honors to the British flag in those seas, which have boen rendered or refused liy other nations, according to circumstancea, but the claim itself has never been sanctioned by general acquiescence. Straita are passages communicating from one sea to another. If the narigation of the two seas thus connected, is free, the navigation of the channei by which they are connected ought also to be free. Even if such strait be bounded on both sides by the tarritory of the aame sovereign, and is at the same time so narrow as to be corr nanded by cannon shot from both shores, the exclusive territorial jurisdiction of that sovereign over aueh strait is controlied by the right of other nations to commnnicate with the seas thus connected.

Such right may, however, be modified by apecial compact, adopting those regulation which are ladispensably necessary to the security of the Stste whose interior waters thus form the channei of commnnics. tion between different peas, the nsvigation of which is free to other nations. Thus the passage of the strait may remain free to the private merchant vessels of those nations having a right to navigate the seas it connects, while it is shut to all foreign armed ships in time of peace.-Wikstos's Int. Lavo, pp. 238-240.

Navigation of the Mississippi.-By the treaty of peace concluded at Paris in 1763, between France, Spain, and Great Britain, the province of Canada ras ceded to Great Britain by France, and thet of Florida to the same power by Spain, and the foundary hetween the Freneh and British possessions in North America was ascertained by a line drawn through the middie of the River Missienippi, from its source to the Iberville, snd from thence through the inter river sad the lakes of Maurepas and Pontchartrain to the sea. The right of navigating the Misaissippi wes at tho same time secured to the subjects of Great Britain from its source to the sea, and the passages in and out of its mouth, withoat being stopped or visited, or sabjected to the payment of any duty whatsoever. The provinee of Doulsiana was acon afterward ecded by France to Spain ; and by the treaty of Paris, 1883 , Fiorida was retroceded to Spain by Grent llritain. The independence of the Unitcd Stntes was acknowl. edged, and the right of navigating the Mississippi was mecured to the eltizens of the United States and the subjecta of Gireat liritain by the separate treaty be. tween these powers. But Spain, having thus become possessed of toth banks of the Missisnipjii at its nouth, and a conalderahle distance above ita mouth, claimed its exclasive navigation below the point where the monthern boundary of the United States struck tho river,

This elaim was reaisted, and the right to participate

In the navigation of the river from its source to the sea was incieted on by tha United. States, under the treaties of 1763 .and 1788; as. well as. by the law of nature and nations.: The diapute was terminated by the treaty of San Lorenzo el-Real, in 1795, by the 4th article of which his Catholie majesty agreed that the navigation of the Mississippi, in its whola breadth, from its source to the oceen, should be free to the citizons of the United States; and by the 22d article they were pormitted to doposit their goods at the port of Now Orieans, and to export them from thence, without paying any other duty than the hire of the warehouses. The subsequent acquisition of Louisiana and Florida by the United States baving inoluded within their territory the whole river from tis source to the Gulf of Mexico, and the atipulation in the treaty of 1783, eecaring to Britials subjects a right to participate in its navigation, not having been renewed by the treaty of Ghent in 1814, the right of navigating the Misaissippi is now vested exclusively in the United States.Wheaton's IMt. Lav, Pp. 257, 258. The navigation of the continuous waters of the United States and Canada is provided for in the following articles of the treaty of June 5,1854 . The third article, whose operation may be affected at the will of the American government, by a auspenaion of thin priviiege, as atipufuted in the fourthartiole, on the part of Great Britain, provides for a reciprocal trade, free of duty, between the United States and the British colonies, in the atticles of their respective growth and produce, as enumerated in the schadule theroto amexed.
"It is agreed that the citizens and inbabitants of the United States shall have the right to navigate the River St. Lawrence and the canals in Canada, used as the means of communicating between the Great Lakes and the Atiantio Ocean, with their vessels, boats, and orafts, as fuily and freely as the aubjects of her Britannic majesty, subject only to the same tolle and other assessmente as now are, or may hereafter be, exacted of her mejesty's sald eubjects ; it being underatood, however, that the British government retains the right of suspending this privilege on giving due notice thereof to the government of the United States. It is further agreed, that if at any time the British government should exercise the said reserved right, the government of the United States shall have the right of suspending, if it think fit, the operation of articie 8, of the present treaty, in so far as the province of Canada is affected thereby, for so iong as the suspension of the free navigation of the River St. Lawrence or the canals may continue. It is further agreed that British subjecta shall have the right freeiy to navigate Lake Bichigen with their veasels; boats, and crafts, oo long as tie privilege of nevigating the River St. Lawronce, secured to Americans by the ulove clause of the present article, shail continue ; and tho government of the United States further engages to urge upon the State governments to secure to the subjects of her Britannic majesty the use of the several State canals, on terms of equelity with the inhabitants of the United States."--Wheaton's Iut. Law, pp. 266, 267. [A full understanding of this aubject, and of the able views of Mr. Wheaton, cas be had only by a careful reading of his elaborate and highly-prized work on International Laro,-Eide. C. of C.]

Navigators' Islands, a group of islands in the southern I'acitio Ocean, remarkutsle for their oxtent, fertility, and population. They are about 10 in number, and are situsted betweon $169^{\circ}$ and $17^{\circ} 2^{\circ} 30^{\prime} \mathrm{W}$. long., snd from lat. $13^{\circ} 25^{\prime}$ to an uncertain boundary southward. When seen from the oceun, they present a lofty appearance, and ure mountainous, but neither surrounded with a low border nur inclosed by reefs, like the Society lslands. The first discovery of these ialands was made in 1722 , by lRoggewin and lanman, who fell in with the easternmost of the number; while Bougsinvilie, in 1768, added another; and Porouse, in

1787, discovered the two westemmost, which are the largest, being more than 40 miles in length. The last navigator was informed of three more to the southwand. The whole group was visited in 1791 by Captain Edwards. The inhabitante are a atout and well-made race, of the ordinary height of 5 feet 9 or 11 incles. They are altogether savage in their manners, which are said to be remarkably indecent. They ars also of the most ferocious disposition. "The least diapute between them ls foliowed by hlows from clabs, sticks, or paddles, and ? 3 often attended with the loss of life. They are very ingenious, and fashion their work dexterously with hatchets shaped like adzes, and made of very fine and compact basalta. With these they finish works in wood, and give them so high a polish that they appear to be coated with the finest varnish. They also manufucture a species of cloth which possesses great strength and pliabllity, and is well calcas. lated for the sails of canoes. The name of Navigators' Ielands was bestowed by Bougainville, from the practice which prevails among the inhabitants of continually traveling in canoes. We have no data upon which we can calculate the amount of the population, but it must be considerable, considering that these islands are among the most fertile in the South Seas.

Navy Department. The Navy Department was crasted by an act of Congreas, 30th April, 1798, and is under the direction of the Secretary of the Navy. The Department conducts its business in several bnreaux, namely, the Bureau of Dock3 and Navy Yarde; the Bureau of Orduance and Hydrography ; the Bureau of Construction, Equipments, and Repairs ; the Burean of Provisions and Clothing; the Bureau of Medicine and Nurgical Instruments, etc. ; and the National Observatory at Weshington is under the charge of this Department. The ministerial duties of these several bureaux were formerly exercised by a Board of Navy Commiscioners.

Secretaries of the Navy.-George Cabot, Mass., May 8, 1798 ; Benjamin Stoddard, Md., May 21, 1798 ; Robert Smith, Md., January 26, 1802; Jacob Crowninshield, Mass., March 2, 1805 ; Panl Hamilton, S. C., March 7, 1809; Wiliam Jones, Penn., January 12, 1813 ; Benjamin W. Crowninshield, Mase., December 17, 1814 ; Smith Thompson, N. Y., November 30, 1818 ; Sainuel I. Southard, N. J., December 9, 1823 ; John Branch, N. C., March 9, 1829 ; Levi Woodbury, N. II., August, 1831 ; Mahlon Dickerson, N. J., Jưne 30, 1834; Jemes K. Paulding, N. Y., June 30, 1838 ; Georgo E. Budger, N. C., March 5, 1841 ; Abol P. Upshur, Va., September 13, 1841; David IIenshaw, Mass., July 24, 1843; Thomas W. Gilmer, Ve., Fobruary 15, 1844 ; John Y. Mason, Va., March 14, 1844 ; George Buncroft, Mass., Marcin 10, 1845; John Y. Meson, Va., 1846 ; Wiiiiam B. Preston, Va., March 7, 1849 ; William A. Gruham, N. C., July 20, 1850 ; James C. Dohbin, N. C., March 5, 1853; Ibaac Toucey, Conn., March, 1857.

Nary l'ards of the United States.-Portsmouth, Charlestown, lirooklym, Philadelphia, Washington, Gosport, Pensucola.

Nary Dry Docks.-Charlestown, Brooklyn, N. Y., Pensacola, Gosport.

United States Nary Squadrons,-East Iudian, Pacific, Atrican, Brazilian, Mediterranean, Home (W ost Indies).

Nary Hospitals.-Chelsea, Mass., New York, Portsmonth, Va., Peneacola.

Navel Magazines.-Chariestown, Mass., Now York, Washington, Norfolk, Peneacola.

National Observatory, Washington; Naval Acadomy, Annupolis ; Naval Aryium, Philadelphia.
Navy. The tirst flect of galieyt, ilke those of the Danes, was built by Alfred, A.D. 897. In the time of Henry VIII, the Britisin navy consisted of 1 ship of 1200 tons, 2 of 800 tons, and 6 or 7 smalior; the larg ost was culled the Great Marry. Blizabeth's fleet at

## NET

the time of the Spaniah Armada, in 1588, consinted of only 28 vessola, none larger than frigates. o James .I. added 10 shipe of 1400 tons each, and 64 guns, the largest then ever built.-Gisson's Camden.

Mavi of Bnolano reom Menet VHI'e beton to the Clobi of tiz Wain 1814.

| Year. | 84 pa . | Tomas | Mea voted. | Navy estimate. |
| :---: | :---: | :---: | :---: | :---: |
| 159. | 16 | 7,260 |  | no socount. |
| 1578 | 84 | 10,506 | 6,700 |  |
| 1603 | 42 | 17,055 | 8.846 | ${ }^{4}$ |
| 1659 | 157 | E7,000 | 21,910 | ${ }^{*}$ |
| 1683 | 178 | 101,899 | 49,000 | ${ }^{*}$ |
| 1709 | 978 | 150,020 | 40,000 | (81,056,915 |
| 1760 | 418 | 891,184 | 70,000 | 8,227,143 |
| . 1798 | 499 | 433,226 | 45,000 | 5,525,381 |
| -1800 | 767 | 668,744 | 136,000 | 12,422,897 |
| 1808 | 889 | 698,800 | 148,800 | 17,496,047 |
| 1814 | 901 | 968,000 | 146,000 | 18,786,509 |

Neap, or Nreep Tides, are the lowest tides, heing those which are produced when the attractlons of the sua and moon on the waters of the ocean are exerted in directions perpendicular to each other. When the two forces aet in the anme or exactly opposite directions, the spring or highest tides are produced. The neap tides take place about four or flve days before the new and full moons. See Tides.
Needles. They make a conslderalle artiele of commerce, as well as of home trade in England. German and Hungarian steel is of most repute for needtes. The first that were made in England were fabricated in Cheapside, London, in the thme of the sangninary Mary, by a negro from Spain; but, as he wonld not impart the secret, it was lost at bla death, and not recovered agala till 1566, in the reign of Flizatieth, when Elias Growse, a German, taught the art to the English, who have since brought it to the highest degree of perfection.--Stowe. The family of the Greenings, aneestors of Lord Dorchester, eatablished a needle manafaetory in Bueks alout this time.-Andensos.
Needles are made from the best ateel, reduced by a wire-drawing machine to the sultable dlameter. The manufacture is supposed to have originated in Spaln, and to huve been introduced into England alout the year 1565, by Elias Krause, or Growse, who then settled in London. Dr. Ure, in his Dictionary of Arts, states that "the construction of a neetlle requires about 120 operations; but they are rapldy and uninterruptedly successive. A chill can trim the eyes of 4000 neelifes per hour. When we survey a manufaeture of this kind, we can not fail to observe that the diversity of operations which the needles unilergo bears the impress of great mechanical refinement. In the arts, to divide liabor is to aliridge it; to multiply operations is to simplify them; and to attach an operative exclusively to one process, is to render him much more ceonomieal and proluctive."-E. A.
Statement miowina the impohts uf Ngenleg into the


| Portand and Falmouth. | ¢ 276 |
| :---: | :---: |
| Hostell anil Charle: 'own | 86,1999 |
| New lork. | 962,964 |
| 1'hilalelphia. | 6,806 |
| Italituore | 329 |
| ('harleston. | 126 |
| New Orleans. | $0 \times 3$ |
| San E'rancisco | 897 |

Nests, Esculent. A species of neata built ly swailows pecuitar to the ludian Islunds, and very much exteemed in China and other parts of the world. These nests resemble in form those of other swaliows; they ure formed of a viseid substance, and in external appearance as well as consistence are uot unilike flibate lii-concocted islaglass. Esculent nests are principaliy found in Java, in eaverus usually situated on the neaconst. Nuthlag satisfactory is known as to the subatance of which these neste are composed.

Net (Fr. Filet, reseau; Ger. Netz), is a textile fabric of knotted meshes for catching tish and other parposes. Each mesh should be so secured as to $L_{3}$ incapable of enlargement or diminution. The Freuch government offered in 1802 a prize of 10,000 francs to the person who should invent a machine for making nets upon automatio principles, and adjudged it to $M$. Buron, who presented his mechanical invention to the Conservatoire des Arts Métiers. It does not appear, however, that this machine has accomplighed the oldjeet in view; for no estallishment was ever mounted to carry it into exacution. Nets are usually made by the fiebermen and their families during the periods of leisure. The formation of a mesh is too slmple a matter to require description in this dictionary.
Nett (It. netto, pure), that which remaina of a weight, quantity, eto., after making certain deductions. Thus, in mercantile language, the nett weight is the weight of any article after deducting tare and tret ; nett profits, income, etc., is the absoolute profit or income, after deducting expenses, interest, etc. It is opposed to groses (britto).
Nottinge, in a ship, a sort of grates made of smali ropes seized together with rope-yarn, or twine, and fixed upon the quarters and in the tops. They are sometines stretched upon the ledges from this waist-troes to the roof-trees, from the top of the forecastie to the poop, and sometimes are laid in the waist of a ship to serve instead of grating.
Netherlands (Kingdom of the), or Holland (Du. Koningrijk der Nederlanden; Fr. Royoume des Pas Bas), a State of western Europe, on the German Ocean (enpitai Aneterdam), composed of the Netherlands preper, or the ancient ropublic of the Seves United Provinces, and part of the Duchy of Limhurg, situated between lat. $50^{\circ} 43^{\prime}$ and $53^{\circ} 21^{\circ} \mathrm{N}$., and long, $3^{\circ} 24^{\prime}$ and $7^{\circ} 12^{\prime}$ E., bounded east by Hanover and Prussia, south by Belgium and the Grand Ducly of Luxemburg (the south-east portion of which is heid by the King of the Netherlande), and west and north iv. the German Oeean. Extent and population as f lows:

| Provitees. |  | Popitaion la 1859. | Schamb. $1 \times 81$. |
| :---: | :---: | :---: | :---: |
| Brabant ( North)........ | 88.895 | 403,607 | 409 |
| Gelderland. . . . . . . . . . | 92.720 | 338,394 | 400 |
| llolland (South). | 50.275 | 594,098 | 480 |
| Hollant (North).......... | $45 \cdot 188$ | 518,(016 | 830 |
| Zeelend. | 81.683 | 103, 318 | 155 |
| Utreebt. | 25.244 | 158,946 | 153 |
| Frlesland | 59.589 | 255,915 | 85 |
| Overilssel. | 60-230 | 224,788 | 239 |
| Uroningota. | 41.707 | 195,264 | 246 |
| Dranthe. | 4s*329 | 86,733 | 140 |
| Llmburg-Duchy. | 40.100 | 210,275 | 210 |
|  | 593905 | 8,165,006 | 3,205 |
| Grand Duehy of Inxemburg, Dec. 8lst. $1 \$ 51 . .$. | 46600 | 104,619 | $\begin{aligned} & \text { Attendance. } \\ & 861.015 \end{aligned}$ |
| Total. | 638015 | 8,862,625 |  |

The leading features of the new uavigation laws of the Netheriands may be gathered from the fullowing summary: 1. Unconditional repeni of diseriminating favors granted to the Dutch flag, by suppression of the rules aliowing to this flay preferencealove foreign flugs. 2. Conditional sluilarity of flag in the navigation to snd from the Netierianis' colonies. 3. Stipoiations by law concerning the trade and navigution in the colonies of the realm carried on ly other nations. 4. Repeal of interiiction to grant Netherlamis registers to foreignbuilt vessels, ly their admittance for registry (baturalization) at a duty of 4 per cent. of their value. 5. Diminishing of injort duties on principal muterials for shipbuiiting. 6. Suspension of the shipping duties on the Rhine and $Y_{\text {seel. }}$ 7. Total abolition of tramsit duties.

Public revenue, in 1853, $71,685,772$ florins, of which amount nearly half is raised by direct taxatiun and excise duties. Expenditure, 70,085,078 tioring. National debt, $1,206,493,330$ florine. The marine force in
setusi gsrvice on 1st July, 1852, comprised 6087 mon, exclustive of those in the colonles. The morchant marine is comprised of 2000 vessele, aggregate burden 20,000 lasts. The following table shows the extent and population of the colonlal possessions of the kingdom of the Netherlands in 1849 :

| Colotalas. | $\begin{gathered} \text { Krea } \operatorname{lin} \\ \text { geog. miles. } \\ \hline \end{gathered}$ | Population In 1840. |
| :---: | :---: | :---: |
| Asia. |  |  |
|  | 2,444 6 | $0,060,880$ |
| Snmatra, West coos | 2,800.8 | 988,585 |
| " Benkulen | 455.6 | 08,875 |
|  | 475.0 | 82,900 |
| 4 Palembaing | 2,658.4 | 972,000 |
| " Indragiri.................... | 6708 | 50,000 |
| Assahan, Batoo, Bara, Blrda, Dolli, etc. | 852.8 | 100,000 |
| Banca. . . . . . . . . . . . . . . . . . . . . . . . . . . | $386 \cdot 0$ | 49,000 |
| Rhto. . . . . . . . . . . . . . . . . . . . . . . . . . . | $148 \cdot 6$ | 80,000 |
| Borne0, Sembas. . . . . . . . . . . . . . . . . . . . | 2448 | 46,819 |
|  | 2,561'5 | 804,076 |
|  | $8,507 \cdot 8$ | 811.100 |
| Macassar, Celobes... . . . . . . . . . . . . . . . . | $2,149 \cdot 9$ | 1,569,000 |
| Amboyиa.. . . . . . . . . . . . . . . . . . . . . . . . . <br> Monado. . | 478.9 | 977,608 |
|  | 1,207-2 | 189,000 |
| Ternate. . . . . . . . . . . . . . . . . . . . . . . . . . | 1,129•7 | 97,329 |
| Benda <br> Tlaier | 4118 | 185765 |
|  | 1,042.0 | 1,057,800 |
| tionor I.ombock | 1915 | 1,105,000 |
| Now Gulnen. | 8,210.0 | 200,000 |
| Total............. . . . . . . . . . . . | 28,9282 | 16,478,187 |
|  |  |  |
| Gulana. Curacoa aod St. Eustache. | 2,818.5 | 64,270 |
|  | 17.4 | 26,811 |
| Afrion. |  |  |
| Coast of Gulnea. . . . . . . . . . . . . . . . . . . | 500\% | 100,000 |
|  | 32,258'1 | 116,068,7t8 |

The Netherlands is a namo, which, for several centuries, was appiled to the countries now forming the kingdems of Belgium, and the Netherlands, and part of the north of France (Departments Nord and Pus-de-Caluis). This country belonged almost entirely to Charleo V. United to Franche-Comte, it fomed the circl of Bargundy. From this seven of the north provinces separated themselves in 1579, and formed the republic of Holland, or the Seven United Provinces. Part of the low country was conquered by Louis XIV., and called the French Netherlands ; the rest, firet nnder the dominion of Spaln, passed in 1714 to that of Austrin, and was called Spanish Netherlands, Austrian Netherlands, or Belgium.

The ligherien formed the origin of prosperity in the Nethorlandis, and the herrings prepared ly the Dutch still maintain thelr superiority. In 1842, 1603 boats, manned by 8280 men, were employed in this fishery. The while fifhery In the Sea of Spitzbergen has been profitalily carried on since the 10th century. The manuffacturing industry of the country is very netlve, Holiand having long been celebrated for Its linens, velvets, and paper; and during the 17th nnd 18th centuries, its typography enjoyed a weli-nerited reputntion. The shsence of cold, and the prevnlence of strong winds, have led to the adoption of the windmill as a motive power, and it is univerally employed in ali kinds of work. The chief manufactures are innen of the finest quality, woolens, aliks, and velvets, paper, leather, cordugo, hatn, ribbona, aaltpetre, and tobiech. Tho manufacture of cotton haa leen recently introluced. Thero are numerons distillerien of "Geneva" (rather jenever, from the juniper leerry, with which tho gin ls finvored), or "Holiands," and extensive bieach fields, brick and tile works. Holland preser. s the appoarance of an lmunense net-work of canale, which form the usual access not only to towns and, illages, hut even to private mansions. The most Inpiritant ls thnt of North Holland, between Amsterdam and the IIelder, the finest work of the kind in l. rope bi millos in length, 125 feet broad at the surfu : $:$, anit 21 feet in depth. By means of this important work, ships bound for Amsterdam avoid the danger at:d delay of navigating the Zuyder Zeo; it is spacions eliough to admit 2 frigates abreast. Since not only
the surface but the bed of many of the oanals is above the level of the land, the drainage of the polders or meadows, through which they pass, is an object of great sollcitude; it ls effected by means of pumps worked by wind-milis, 1he a country where human industry la engaged in a contlnual struggle with the eea, from the domaine of which it has been conquered, the management of dykes, canals, and roads, is a spectal object of attention on the part of the government. The rosds, which are always formed on the dykes and bordered by cansle, are excelient. In 1849 lines of rallroad were completed from Ameterdam weat to Harlen, and south to Leyden, the Hague, and Rotterdam, and south and east by Utrecht to Arnhom. The princlpal lmports consist of colonial products and manufactured goods, corn, wines, cotton, wool, and leather, valued in 1851 at $803,998,224$ florins. Chlef exports are butter, cheese, dried fiah, gin, the manufactures of the conntry; and colonlal produce; valned at $242,744,806$ florins.

A letter from the United States' consul at the Hague gives the annexed information, under date of July 20, 1855: "The ascond Chamber has, by a vote of 48 to 7, passed the bill abolishlng the tonnage dues. The deficit in the revenues, caused by this bill, is calculated at 500,000 franes a year, and is to be covered oy an additionsl excise duty on refined sugar, which has also been passed by the Chamber. The abolition of the tonnage dues, and of the still more vexations malt tax, has been hulled throughout the country with joy as an indication of a progressive policy, to which the present ministry has appeared but little inclined till now."

Commerok of tim Netitkrlande in 1854.

| Countrles. | Imports. | Exporta. |
| :---: | :---: | :---: |
| Anstralla | Florins, | Floring. 479,511 |
| Belgium. | 41,446,656 | 80,489,486 |
| Brazll... | 1,240,888 | 221,585 |
| Bremea. | 1,162,082 | 778,560 |
| Califord la |  | 81,904 |
| China | 561,900 | 63,004 |
| Cuba | 2,461,486 | 244,861 |
| Curaçor | 185,614 | 287,619 |
| Denmark | 8,968,716 | 1,190,010 |
| France. | 12,171,902 | 18,074,055 |
| Greenland, | 9,526 |  |
| Great Britaln.... . . . . . . . . . . . . . . | 09,761,465 | 75,194,278 |
| Hamburg. . . . . . . . . . . . . . . . . . . | 6,759,5042 | 9,824,683 |
| Hanover and Oldenburg. ......... | 5,458,925 | 2,687,857 |
| Java, ste. . . . . . . . . . . . . . . . . . . . . . | 74,888,228 | 29,402,189 |
| Cenary lislands. . . . . . . . . . . . . . . . | 2,772,244 | 242,023 |
| 1'bpal States . . . . . . . . . . . . . . . . . |  | 854.884 |
| Ceast of Guinea. . . . . . . . . . . . . . . | 422,185 | 517,116 |
| Lubee. | 88,569 | 16,428 |
| Mecklenburg. | 69,848 | 77,665 |
| Naples and Slelly. ................ | 2,002,891 | 8,805,510 |
| United States.. . . . . . . . . . . . . . . . . | 7,045,048 | 5,188,923 |
| Norway . . . . . . . . . . . . . . . . . . . . . | 4,824,728 | 844,948 |
| Auatrla. . . . . . . . . . . . . . . . . . . . . | 974,810 | 8,802,180 |
| Philippine I auds. . . . . . . . . . . . . | 179,818 |  |
| pertugal. . . . . . . . . . . . . . . . | 748,689 | 508,587 |
| Rassia (on Baitlc \& White Seas).. | $7.510,808$ | 87,448 |
| Russia (on the Biack Dea)........ | 1,748,529 |  |
| Sardinla. . . . . . . . . . . . . . . . . . . . . . | 264,157 | 2,925,746 |
| Spata. . . . . . . . . . . . . . . . . . . . . | 1,127,987 | 785,690 |
| Amertea, except U. S............. | 429,458 | 822,055 |
| Surinain. . . . . . . . . . . . . . . . . . . | 4,8\%4,095 | 1,00t,984 |
| German Customs' Unlon. . . . . . . . | 68,819,497 | 116,439,286 |
| Tuseany. . . . . . . . . . . . . . . . . . . . | 576,222 | 2,769,146 |
| Turkey, Greece, gte. . . . . . . . . . . . | 778,998 | 8,772,505 |
| Swoden. . . . . . . . . . . . . . . . . . . . . | 1,125,047 | 578,805 |
| Other perts.. . . . . . . . . . . . . . . . . . . | 115,101 | .... |
| Total. | 850,484, 519 | 808,780, 801 |
| Fear proeedlug............ | 321,051,729 | 272,801,606 |
| Differenco | 85,432,780 | 85,979,185 |

Silifpino in 1854 ann 1865.

| Vessels. | Enlored. |  | Clemred. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | Tasa. | No. | Tona. |
| Loaded (1854).. | 7,188 | 1,154,450 | 4,538 | 829,785 |
| In ballast. . .... | 474 | 84,682 | -8,901 | 461,896 |
| Tetal in 1854. | 7,802 | 1,244,182 | 7,884 | 1,284,681 |
| Loaded (1855).. | 7,788 | 1,808,450 | 4,248 | 810,126 |
| in hallast...... | 409 | 1,81,098 | 4,203 | 083,044 |
| Total la 1855. | 8,257 | 1,884,043 | 8,445 | 1,448,670 |

Neutrals. Of the General Rights and Duties of Neutral Nations.-The righte and dnties which beiong to a state of neutrality form a very interescing titie in the code of international law. They ought to be objects of particular study in this country, inasmuch as it is our trae polioy to cheriah a apirit of peace, and to keep oursel ves free from those politieni connections which would tend to draw us into the vortex of Ere ropean contests. A nation that maintains a firm and acrupuiousiv impartial neutrality, ard commands the respect of all other nations by its prudence, joatice, and good faith, has the best chance to preserve unimpaired the blessinge of its commerce, the freedom of its institutions, and the prosperity of its resources. Beiligerent nations are interested in the support of the just rights of neutrala, for the Interceuree which is kept up by means of their commerce contributes greatly to mitlgate the evila of war. The public law of Europe has established the principle, that, in time of war, countries not parties to the war, nor interposing in it, shall not be materially affected by its action; but they shall be permitted to carry on their accustomed trade, under the few necessary rostrictiona which we shall hereafter conslder.

A neutral has a right to pursue his ordinary commerce, and be may become the carrier of the enemy's goods, without being subject to any contiscution of the ship, or of the neutrai articies on board; though not without the risk of having the voyage interrupted by the seizure of the hostile property. As the peutral has a right to carry the property of enemies in his own vessel, so, on the other hand, his own property is invioluble, though it be found in the vessels of enemites. But the general inviolability of the neutral churacter goes further than merely the protection of neutral property. It protects the property of the leliigerents when within the neutral jurisdictios., It is not iawful to make neutral territory the scene of hotility, or to attack an enemy while within it; and if the enemy be attacked, or any capture made, under neutrul protection, the neutral is bound to redress the injury, and effect restitution. Tho books are full of cases recugnizing this prineiple of neutrality.-Kent's Conn.

Prizes brought into Neutral Ports.-A neutral has no right to inquire into the validity of a capture, except in eases in which the rights of neutral jurisdiction were violated; snd, in ouch cases, the neutral power will reatore the property, if found in the hands of the offender, and within its jurisdiction, regardiess of any sentence of condemnation by a court of a belligerous captor. It belongs solely to the neutral geverument to raise the objection to a capture and titie, founded on the violation of neutral rights. The adverse belligerent has no right to complain when tho prize is duly libeled before a competent court. If any complaint is to be made on the part of the captured, it must be l,y his government to the neutral govenment, for a fraudulent, or unworthy, or onnecesaary submisaion to a violation of its territory, and such submission will naturally provoke retaliation.-Jbid.

Arming in Neutral Ports.-The government of the United States was warranted, by the law and practice of nations, in the deciarations made in 1703, of the rules of neutrality, which were particulariy recognized as neccasary to be olserved by the belligerent powers, in their intercourse with this country. These rules were, that the original arining or equipplag of vensels in our ports, by any of the powers at war, for military service, was unlawful; and no such vessel was entitied to an asylum in our ports. The equipment by them of govenment vessels of war, in matters of which, if done to other vesselin, would be spplicalje equally to commerce or war, whs lawful. The equipment by them of veasela fitted for merchandise and war, and applicable to eititer, was lawful; but If it wure of a nature solely appicable to war it wan unlawful. And if the armed vessel of one nation should
depart from our jurisdiction; no armed veseel, being within the same, and belonging to an adverse belligerent power, shouid depart until 24 houra after the former, without being deemed to have violated the law of nations.-Ibici.

Prizes in Neutral Porta.-Though a belijgerent vessel may not enter within neutral juriadiction for hostile purposes, she may, consistently with a state of neutrality, until prohibited by the neutral power, bring her prize inte a neutral port, and sell it. The neutral power is, however, at iiberty to refuse this privilege, provided the refusal be made, as the privilege ought to bo granted to both parties, or to neither. The United States, while a neutral power, frequentiy asserted the right to prohlbit, at diecretion, the sale within their ports of prizes brought in by the belligerents ; and the saie of French prizes was allowed as an induigence merciy, until it interfered with the treaty of Eagiand of $\mathbf{1 7 0 4}$, in respect to prizes made by privateers.-Ibid.
Neutral Property in an Enemy's Vessel.-It is also a principle of the law of nations relative to neutral rights that the effects of neutrals, found on board of euemy's vessole, shall be free; and it is a right as fuliy and firmily settied as the other, though, like that, it is often changed by positive agreement.
'The two distinct propositions, that enemy's goods found on board a neutral ship may lawfully be seized as prize of wur, and that the goods of a neutrul found on board of an enemy's vessel were to lie restored, have leen explicitiy incorporated into the jurisprudence of the Unlted States, and deciared by the Suprense Court to be founded in the law of nations. The ruie, as it was observed by the court, rented on the simpie and inteligibie principle, that war gave a fuil right to capture the goods of an enemy, but gave ne right te capture the goods of a friend.
The neutrai fiag constituted no protection to enemy's property, and the belifgerent flag communicated no hostile character to neutmi property. The character of the property depended upon the fact of ownership, and not upon the character of the vehicle in which it is found.-Ibid.

Of Restrictione upon Nautral Trade. -The principal restriction which the law of nations inposes on the trucie of neutrals, is the prohibition to furmish the beiligerent parties with warlike stores, and other articles which aro directly auxiliary to warlike parposes. Such goods are denominatad contraband of war; but in the attempt to define them, the authoritiea vary, or are deticient in precision, and the subject has iong been a fruitful source of dispute between neutrai and belifgerent nations.
Contraband of IVar. - In the time of Grotius, some persons contended for the rigor of war, and ethers for the freedom of commerce. As neutral nations are wililug to seize the opportunity which war presente, of becemink carriers for the belligerent powers, it is natural that they whould desire to dininish the list of contraband as much as possible. Grotius distinguishes between things whieh are useful only in war, as arma and ammunition, and thinge which servo mereiy for pleasure, and things which are of a mixed nature, and useful both in pesce and war. He agrees with ather writers in prohibiting neutrsis from carrying articies of the tirst kind to the enemy, as well as in permitting the second kind to be carried. As to articies of the third class, which are of indiscriminate use in peace and war, as money, provisiuns, ships and navai stores, he says that they are sometintes lawful articles of neutrel commerce, and sometimea not ; unil the queation will depend upen circumstances existing at the tiune.
law of Blockades.-A neutral may also furfeit the iminunities of his national charscter by vioistious of blockade; and among the rights of beliggerents, there is none more clear and incontrovertible, or more just and necessary In the application, than that which gives
rise to
founded on the carrying port, as lous. '
with 8 on enem and sev the fact clear an have bac squadron must he the inte have bet going in a cargo The failt the exist defeasan of the $b$ governm rights of of neutr sumed ch of nation stion and to beilige necessity and doea conceded tions, an right in $t$ public jut tice of making t contraban troops, on brought is

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riee to the law of blockade. Bynkerehoeck says, it is founded on the principles of natural reason, as well as on the usege of nations; and Grotius considera the carrying of supplies to a besieged town, or a blockaded port, as an offense exceedingly aggravated and injurious. They both agree that a neutral may be dealt with soverely; and Vattel says he may be treated as an enemy. The law of blockade ja, however, so harsh and severe in its operation, that, in order to apply it, the fact of the actual blockade must be established by elear and unequivocal evilence; and the nautral must have inad due previous notice of its existence; and the squadron allotted for the purposes of ita execution must be competent to cut off ail communication with the interdicted place or port ; and the neatral must have been gailty of soms act of violation, either by golng in, or uttempting to enter, or by coming out with a cargo ladea after the oommencement of the blockade. The failure of either of tie points requisite to establish the existence of a legal blockade, amounta to an entire defcasance of the measure, oven though the notification of the blockace had iseued from the authority of the government itself.

Right of Search at Sea.-In orier to enforce the rights of beliigerent nations agulast the delinquencies of neutruls, and to ascertain the reai as well as assumed character of all vesse?s on the high eeas, the law of nations arms them with the practical power of viaitation and search. The dety of eolf-preservation gives to belligerent nations this right. It is founded upon necessity, and is atrictly and exclusively a war right, and does not rightfully $e x i s t$ in time of peace, unless conceded by treaty. All writera upon the law of nations, and the highest nuthorities, acknowledge the right in time of war as resting on aeund principles of pubic jurisprudence, and upon the institutes and practice of all great maritime powers. And if, upon making the search, the veseel be found employed in contrabond trade, or in carrying enemy's property, or troops, or dispatches, she is liable to be taken and hreught in for adjudication before a prize court.

Neutral notions have frequently been disposed to question and resist the exerciae of this right. This was particularly the case with the Buitio confederacy, during the American war, and with the convention of the Baitic powors in 1801. The right of search was denied, und the flag of the Stato was declared to be a substitute for all decumentary and other proof, and to exclude all right of searcin. Those powers armed for the purpose of defending their neutrul pretensions ; and England did not heaitate to consider it as an attempt to introduce, by force, a new code of maritime law, inconsistent with her belligerent rights, and hostife to her interests, and one which would go to extinguish the right of maritime capture. The attempt was speedily frustruted and abundoned, and the right of search has, since that time, been considered incontrovertitlo.

This right of search is confined to private merchant vesech, and does not apply to publio ships of war. Their immunity from the exercise of any civil or criminal jurisdiction bat that of tite sovereign power to which they beiong, is uniformly aseerted, claimed and conceled. A contrary doctrine is not to be found in any jurist or writer on the law of nations, or admitted in any treaty; and every act to the contrary bas been promptly nut and condemned.
Neutiral Documents.-..s neutral is bound, not only to submit to seareh, but to have his veseei duly furnished with the genuine documente requisite to support her neutral character. The most material of these documents sre, the register, passport or sea latter, muster-roll, log-book, charter-party, invoice and bill of lading. The want of some of these papers is strong presumptive evidence againat the ship's neutruilty; yet the want of any one of them is not absolutely conclusive. "Ni aliquill ex solemnibus deficiat, cum equi-
tas poscit subveniendum est" The concealment of papers material for the preservation of the nsutral character, justifies a capture and carrying jato port for adjudication, thoagh it does not absolutely require a condemnation. It is goed ground to refues cost and damages on restitution, or to refuse further proof to relieve the obscurity of the case, whers the canse labored under heavy doubts, and there was prima facie ground for condemnation independent of tho concealment.
The spoliation of papers is a atill more aggravated and inflamed circumatance of suspiciou. That fact may sxclude further proof, and be sufficient to infer guilt; but it doas not in Engiand, as it does by the maritime law of other countries, create an absolute presumption juris et de jure; and yet, a case that $88-$ capes with such a brand upon it, in saved so as by fire. The Suprems Court of the United States has followed tie less rigorous Englieh rule, and held that the spoliation of papers was not, of itself, sufficisnt ground for condemnation, and that it was a circumstance open for explaustion, for it may have arieen from accident, necessity, or superior forcs.-Kent's Comm., vol. i. See Wheaton'a International Law.

Neutral Trade, - The present position of the United States in regard to neutrals may be learned from the following extract :
"Soon after the commencement of the late war in Europe, this government submitted to tho considerution of all maritime nations two principles for the security of neutral commerce; one, that the neutral fleg ehould cover enemy's goods, except articles contraband of war ; and the other, that neutral property on board merchant vessels of belligerents should be excmpt from condemuation, with the exception of contraband articles. These were not preaented as new rules of international law, having been generally claimed by neutrals, though not alwaye admitted by belligerents. One of the parties to the war (Ruseia), as well as sevoral neutral powers, promptly acceded to thess propositions ; and the two other principul belligerents, Great Britain and France, having consented to olsserve them for the present occasion, a favorable opportunity seemed to be presented for obtaining a general racognition of them both in Europe and Americu.
"But Grest Britain and France, in common with most of the States of Europe, while forbearing to reject, did not affirmatively act upon the overtures of the United States.
"While the question was in this position, the representatives of Yussia, France, Great Britain, Austria, Prusaia, Sardinia, and Turkey, assembied at Paris, took into consideration the subject of maritime rights, and put forth a declaration containing the two principles whioh this government had submitted nearly two years hefore to tho consideration of maritime powers, und adding thereto the following propositions: 'Privatcering is and remains abolished,' and ' Blockades, in ordar to ise binding, must be effective, that is to say, maintuined by a force, eufficient really to prevent access to the coast of the enemy ; and to the declara. tion thus composed of four points, two of which had alreaty been proposed by the United States, this government has been invited to accede by all the powers represented at P'arie, excapt Great Britain and Turkey. T'o the lust of the two additional propositionsthat in relation to blockades-there can certainly be ne objection. It is merely the definition of what shall constitute the effectual investment of a blockaded place, a definition for which this government has n.]. ways contended, cl ${ }^{\circ}$ ning indemnity for losses where a practical violution of the rule thus defined has been injurious to our commerce. As to the remsining ar* tidie of the decluration of the conference of l'uris, 'that privateering is und remains abolishet,' I certuinly can not uscribe to the powers rapresented in the conference of laris any but liberal and philunthropie viows

In the attempt to change the uaqueationable rule of inaritime law in regand to privateering. Their proposition was doubtless intended to imply approval of the principle that private property upon the ocean, although it might belung to the citizens of a belligerent State, ahould be exempted from oapture; and had that proposition been so framed as to give full effect to the principle, it would have received my ready assent on behalf of the United States. But the measure ,roponed is inadequate to that purposs. It is true that if adopted, private property upon the ocean would be withdrawn from one mode of plunder, but left exposed, meanwhile, to another mode, which could be used with incremsed effectivaness. The aggreasive capacity of great naval powers would be therefore augmented, while the defensive abllity of others would be reduced. Though the sarrender of the mesns of prosecuting hoatilities by employing privateers, as proposed by the conference of Paris, is mutual in terms, yet, in practleal effect, it would be the relinquishment of a right of little value to one class of States, but of essential importance to another and a far larger class. It ought not to have been anticipated that a measure, so inudequate to the accompliahment of the proposed object, and so unequal in its operation, would receive the assent of all inaritime powers. l'rivate property would be still left to the depredations of the public armed cruisere.
"I have expressed a readiness, on the part of this government, to accede to all the principles contulned in the declaration of the conference of Paris, provided that releting to the ebendunuent of privateariug can be so amended as to effect the object for winch, as is presumed, it was intended, the imnunity of private property on the ocean from hostile capture. To effect this olject, it is proposed to add to the declaration ' that privateering is and remains abolished,' the following amendment: 'And that the private property of subjects and citizens of a belligerent on the high seas shall be exempt from selaure by the public armed vessels of the other belligerent except it be controband.' This amendment has been presented not only to the powers which have asked our assent to the declaration to abolish privateering, but to all other maritime States. Thus far it has not been rejected by any, and is favorably entertained by all which have made uny communichtion In reply.
"Several of the governments, regarding with favor the proposition of the United States, have delayed definite action upon it, only fur the purpose of consulting with others, parties to the couference of Paris. 1 have the aatisfaction of stating, however, that the Emperor of liussia bas entirely and explicitly approved of that modification, and will co-operate in endeavoring to oltain the assent of other powers; and that assurances of a slmilar purport have been received in relation to the dixposition of the Emperor of the French.
"The present aspect of this important subject allows us to cherish the boje that a principle so humane in its character, so just and equal in lts operation, so easential to the prosperity of commercial nations, und eo consonant to the sentiments of this enlightened period of the world, will command the approbation of all maritime powers, and thus be incorgorated linto the cole of international law."-Mcsataye l'resident L'nited Stater, Ife., 1856. See Mahitime Law, Navigation Laws.

Nevis, s West India lsiand, belonging to Great Britain, leeward group, in lat. $17^{\circ} 10^{\prime}$ N., long. $62^{\circ}$ $40^{\circ} \mathrm{W}$., separated from the south end of St. Christopher's by a channel two miles across. Area ubout 20 equare miles. l'ojulation in $1851,10,200$. Shape circular; the aurface rises to a eentral peak 2,510 feet in elevation. Soil generally fertile, and in 18t1, the total produce exported amounted in value to $£ 17,435$, sugar standing for $\$ 15,527$. 'Jotal value of imports in 1841, 223,728 . The legislature is composed of the ad-
ministrator of the government, a legisiutive council, and a house of aseenibly of 15 members. Salary of administrator, $£ 500$. The island consists of 5 purishes. Charlestown, the capital, in at ita nouth-weat extrom. Ity. Publio revenue in $1845, \mathrm{Ct}, 560$. A letter from the United States' consul, dated Deceinber 5,1855 , says: "The legielature of Novla has passed s law, to go into operation on the Ist of March ensuling, removing all duties on imports, exports, sind tonnage duties on vessela, therehy creating 4 free port. The consequence will be that the commerchal intercourse with the United States will be very comsideruble."

New Bedford, a port of entry in Massachusetta, 65 milies south of luston, 28 east of Newport, 49 south, east of Providencs, 226 east of New York, 434 frota Washington; in $41^{\circ} 38^{\prime} 10^{\prime \prime}$ N. lat., and $70^{\circ} 55^{\prime} 16^{\prime \prime}$ E. long. Population in 1830, 7,592 ; in 1840, 12,087; in 1850, 16,443; in $1851,18,044$; and in 1854, 20,000 . There are 88 manufactories of all eorts ; the most inportant of which are, 15 for oil and candles, the product of the whale fiehery; one large cotton factory; called the Wamsutta mili, propelied by ateam, containing 12,500 spindles, 288 looms, empioying 230 hands, and turns out daily 4,800 yards of cottion cluth, which has obtwined several medala for its superior quality; one cordage factory; with an invested capital of $\$ 50,000$, employing 100 hands, and produeing annually 1,000 tons of cordage, celebrated for beling of the best quality ; a large paper-hanging inanufactory which turns out 400,000 rolls of paper annually; sisu a rivet factory worked by steam, and two lron founderies; four printing offices, issuing two duily, three weckly, and ono moathy publication; and 186 mercantilo stores. There are two narine railways, one of them capable of taking up large ships. Ruilroad cara leave three tines daily for 1 loston and Providence, and every afternoon for Fall River and Stonlngton to connect with steamboats at those places runuing to New York. The whale fishery is the principal business which is carried on at Now Bedford, and has been the means chletiy of buildfigg it up to its present importance in population und wealth. Ae early as 176 f , small sloojs of 40 to 60 tons burden were fitted out to cruise, during the summer months, of the Capes of Virginia and latteras for sperm whales ; taking care to return to port before the equinoetlcal gales commenced ; the blubber was lirought into port and tried out on shore. Gradually the vovages were extended in larger veasels to the liay of Mexico, und ubout tho West. India Islands, thence to the Azores, and Cape de Verd lstands, and coast of Guinea. In 1791, a ship called tha Rebecca, was fitted out for a whaling voyage to the Pacifle Ocean; this ship was tho first Inerican whaler that ever eutered that ocean in parsuit of whales; her voyage was succeseful. From these small beginnings, tise whale fishery has steadily increased to its present importance, with the exception of the interruption of the revolutionary war, and of tho war of 1812 with Grest Britain, nutil New isedford hae becone the greatest whaling fort in the world. Jer ships now circumnavigate the glole, and explore overy ocedn and sea from the Arctic to the Antaretie in puranit of whales. The number of vessele employod in the whale fishery from the United States at this time, 1852, is 620, their tonage, 103,090, of which there are belonging to the district of New Bedfurl, 372 vessels, employing upwards of 10,000 scamen. There were entered into tite ("aited Statex, during the year 1851, of sperm oil, 99,591 bble. : of right whale oil, 328,483 bbls.; of whatetone, $3,916,500 \mathrm{lbs}$; nmounting in value to $\mathbf{~} \mathbf{8} 10,0: 8,089$, of which there were imported into the district of New lledford, of sperin oil, 60,465 thble.; of right whale oil, 175,460 bbis. ; of whaletronc, 2, $173,300 \mathrm{lbs}$; unounting in value to $45,781,118$; of which value, alout $\$ 5,000,000$ was brought into the jort of New Ihedford. The ayerage length of the voyages of the right whale ahlys are 36 months ; aperm whule ships

## 44 mon

 veamen Now of North $50^{\prime}$ to $6 t$ north-w by the east, Gu the latte and sout tia. Its rupted on where an connects of North Fundy, canal.listhurst the cast Lurbor, o larger ind larly on $27,704 \mathrm{sq}$ The po posed of remnant, Bay of Ch left, consi scoounting Physica country p times risil high land. beight ; bu and deep r character t rich valioy the more $\mathbf{r}$ St. Lawre present dift the land, f covered wi with exteu sund beact leurs and and gray c of granite, limestune, torrupted Specimens been picke and iron o over 10,000 the whole
New Bri smsill strea navigable next river near the w north-east, whoie cour neariy 40 n The Restig the north-y head of the 100 milea. Brunswick of any cons few somew Grand Lak and Washe miles bruad icton.
Manufac 1851, 52 wo grist mills,

44 monthat New Bedford is the great nursery for seamen in the United States. See artlele Ori.
New Erungvicic, a British provinoe, east coast of North Amorica, lat: $46^{\circ} 5^{\prime}$ to $48^{\circ} 40^{\prime}$ N., long. $68^{\circ}$ $50^{\prime}$ to $68^{\circ} \mathrm{W}$. ; bounded weat by the State of Maine; north-west Lower Canada, from which it is separated by the Rivar Reatigouche; north, Bay of Chaleurn; east, Guif of St. Lawrence and Northumberland Strait, the latter separating it from l'rince Edward Island; and south, the Bay of Fundy, and part of Nova Scotia. Its coast-line is about 500 miles in length, interrupted only at the point of junction with Nova Scotla, where an lethmus of not more than 10 miles in breadth connects the two provinces, and separates the watera of Northumberland Strait from those of the liay of Fundy, which it is proposed to unite by meana of a canal. The most remarkable lays and harbors are Bathuret Bay, on the north coast ; Mirsmichi Bay, on the east coast; 1'assamaquoddy Bay, and St. John harbor, on tha south coast. There are, beaides these larger Indentations, numerous amaller harbors, partlcularly on the south portion of the east coast. Area, 27,i0t square miles.
The population of this province is principally composed of British settlors and their doscendants. The remnant, of French oxtraction, are aettled around the Bay of Chaleurs. There is atill a few of the aboriginee left, conaistlag of the Miemacs, Melicites, and others, grounting in 1851 to 1,116 persons.
Physical Features, elc.-The general aurface of the country presents a series of bold undulations, sometimes rising into mountains, or continuous ridges of high land. The latter are seldom of any conslderable height ; but thelr precipitous acclivitien, aharp outline, and deep ravines, give them an alpine and picturesque character that finely and strikingly contrasts with the nich valleys and sheltered plains which alternate with the nore rogiged scenery. The shores of the Gulf of St. Lawrence and Northumberland Strait, however, present different and far less pleasing features. There the land, for sbout 12 miles inland, is low and sandy, covered with trees of a stunted growth, and skirted with exteusive marshes, lurge deep morassee, and long sand beaches. Along the aloores of the Bay of Chaleurs and the Gulf of St. Lawrence, gruy sundstone and gray clay-slate predominate, with detachel rocks of granite, quartz, and ironstone ; on the south coast, ilmestoae, graywacke, clay-slate, with saudstone, interrupted occasionally by gneiss, trap, and granite. Specimens of amethyst, cornelian, jusper, etc., have been picked up in various places. Coal is plentiful, and iron ors abundant; the former is sald to extend over 10,000 square miles, or above one third part of the whole area of the province.
New Brunswick is drained by numerons rivers and small streams, the principal of which is the St. John, navigable for vessels of 50 tons to Fredericton. The next river in importance ls the Miranichi, which riees near the west limits of the territory, whence it flows north-east, and falls into Miranichi liay, on tho east coast, about lat. $47^{\circ} 5^{\prime}$ N., long. $64^{\circ} 53^{\prime}$ W.; its whole course is upward of 110 miles, it is nuvigable for nearly 40 miles, and adinlts vessels of 600 or 700 tons. The hestigouche is the next considerable river; it forms the north-west limit of the province, and falls into the hend of the Bay of Chaleur, after a course of ahout 100 miles. There are a number of small lakes in New Brunswick, particularly in the northern part, but none of any considerable size. In the sonth there are a few somewhat larger, the most important of which are Grand Lake, 20 miles long, by about 5 miles broad; and Washedemoak Lake, about 20 miles long, by 2 miles luroad-both lying between St. John and Fredericton.

Mannfactures, etc.-There ware in the jrovinee in 1851, 82 woolen factories, employling 96 parsons; 261 grist mills, employing 866 parsons; 584 suw mills,
employing 4,802 parsons; 125 tanneries, omploying 255 persons; 11 founderies, employing 242 persons; 8 breweriea; 52 weavlay and carding eatablishmenta ( $5,-$ 475 hand looms), employing 96 persons; 96 of various manufacturing establishmonts, amploying 953 persons. Coals raised, 2,482 tons $\mid$ iron smoltad, 810 ; lime burnt, 85,599 caska; grindatones quarried, 58,840; gypsum, 5,465 tons quarried.

Products,-Cloth, 622,237 yards ; and $100,975 \mathrm{gal}$ lons malt liquor. Value of boots and ehoes made, $\mathbf{~} 89,367$; leather, $£ 45,165$; chairs, cahinot ware, and wood ware, $£ 33,977$; candles, $£ 19,860$; soap, $£ 18,502$ hats, $\mathbf{x 6 , 3 6 0}$; iron castinga, $\mathbf{~ £ 2 0 , 0 2 5 .}$

The principal plaees are St. John, the metropolis, and Fredericton, the capital. There were in 1854 several rallroads in course of construction; 5 lanks, aggregato capital, $£ 337,500$; a aavings' institntion, ani 4 insurance companies.
. Fisheries of Now Brunswick.--Thera were French fishing establishments in that part of Acadia now known as New Brunswlek, as carly as 1638. The English succeeded to these at the treaty of Utrecht, in 1713; but they do not seem to havo formed many others until after the cession of Canala, in 1763.* Among the first, 1 suppese, was that of Lieutenant Walker, of the roysi navy, in the Bay of Chaleurs, which was extensive, controlling the fur and fish trade of that region for several years. Thero woro similar settlemonts on the River St. John; but from the estimates of Mr. Grant, made in 1764, at the request of tho Rev. Dr. Stiles, the whole populution of British origin could not have axceoded 1000 .
At the peace of 1763, several thousand "Tories," or loyalists, compelled to abandon their native land, settled in New Brunswlek, and transferred thither the jurisprudence, the social and polltical institutions of "the old thirteen;" and, the year following, wero allowed to organize a eeparate colonlal government. Like those who went to that part of Acadia still called Nova Scotia, many of the loyalists were gentlomen of education, eminent private virtue, and distinguished consideration. Some obtained oflicos of honor and emolument ; others adopted agricultural purauits ; and another class, fixing their ubodes on islands and the shores of the main land, resolved to earn their support on the sen. Of the latter description, several, though compelied to toil and exposure in open fishing boate, had been persons of note and property. But, ruined by the confiscation laws of the Whlgs, or liy the general disasters of a civil war, they resorted to the hook and line to relieve the pressuro of inmediate want, indulging the hope of "better times," and more congenial avocatione. Few, however, abandoned the employment, and their children, trained to it from early yontis, and acquiring fishermen's habits, succeeded to boats, fishing-goar, and sinoke-houses, us their only inheritance, and continue it at the present day. I have often met with common boat fishermen of thle lineage, whose earnings were hardly sufficient to procure the absolute necessarics of life.

The fisheries of Now Brunswick are prosecuted with neither skill nor vigor. The apparent exports, small as are the statistics, do not indicate their real condition; since it is cortain, that of the products of the sea sinjpiped to other countrios, a part is first imjorted from Nova Scotia, and form a proportion of the exports of that colony. $\dagger$ The number of vessels sent to Labrador and other distant fishing grounds is never large, und often almost nomlnal. The cod-fishery in the Gulf of St. Lawrence and the Bay of Chaleurs is

- The Frencli bufft two forls on the Rivor 8 t. John prior to the peace of Utrecht (17t3), which they repaired to 1754 although the country had been ceded to lingtand quite hatf a contury.
$\dagger$ The Imports into $\mathbf{S t}$. John from Nova Ecotla for three monthe only (July 10 to Oetober 10) of tho year 186\%, were 7,80t quintuls of dried fist, 860 barrels of mackeret, $2,4: 3$ barrete of herring, aud other phekled fish
not at extenalve se might be $n, 4$, ably expected from the long experience of the Inhableanta there, and the general cofety and prais- flveness of the harbors and Indentations of the coast.'
The same remarkn need sllghe quallfication when applled to the Bay of Fundy, and lte prinelpal bramoh, the Bay of Paasamaquoddy. Cameron'e, Doggett'e, Druke's, Woodwarl's, Money, and Whale Coves ; Dark Flarbor, Jong'n Eldyr, Grand Harhor, and Long, Duck, Nantucket, and Kent's Islanda, which are nill ln the group of lalanda known as " Grand Menan," afford exceltent facilities for catching and curing ood, pollock, and herring, in large quantlites. In the waters that aurround Campo Helo, Deer, and Indian Islands, as well as In those that wash Hean's, Adama'n, Parker's, Minister'a, Hardwood, and Fiah Islands, and along the coast between L'Etite Passage and Point Lepreau, embraclng Mace's and Back Bays, IMlina' Island, Sealy's Cove, Crow, Heaver, and Deadman's Harbors, the advantages for fiahing are very good. Every place here mentioned is within a few hourn' sail of the frontier ports of Malne, and many of them are within cannon-shet distance of the ahorea of the United Staten. The fishermen of both countries meet on the same fishing gronnds; borrow and lend "bait," ask after each other's "woman"* at home; narrate the wonderful cires of the lant-discovered remedy for the "reumatla;" complain of the "scaclty" of fish, and the low price of "ille;" discourse about "flathooped flour;" and generally conduct toward one another as friends and brethren, owling allegiance to one government. Indeed, the observation of quite 25 years nuthorizes me to say that the colonints always agree fur tetter with the Americsun than with each other. Our countrys en are not often consldered interlopers when they leave the fiahing grounda neareat home and vislt these of Grand Menan; but the flwhermen of Campo Itello, and the otlier lalanila on the Hritish sde of the Passamaquoddy, are cometlmes roughly accosted and "twltted" when they venture to take the pame llberty. Frequent attempts have been made to dlaturb the friendly relatlons which have generally exlated between the people of the two ftage, but without success. The efforts of officlous Indivlduals, and of functionaries of the colonial government, have been alike disregarded. The captuins of the Jritiah shiph-of-war on the statlon, gentlemen In their feelinge, have ateadily refused to stoop to wage a petty warfare against the American boats that cross the imaginary boandary line In tho waters of the Passamaquoddy, though, of course, they have alvays obeyed their lnstructions. Yet, In the spirit of Nelson, who looked at the algnal he meant to disotey with hia blind eye, they lave never been able to aee a "Yankee," or to diatinguish one from a subject of her najjesty. Somo of them-as I remember the steried of by-gone rears-admittling the necessity of driving of the aggressors, have asked, "How ere we to know them-are they maried ${ }^{\prime \prime \prime}$, Others, sending their barges finto the fleet of boats, have directed that "all who say thay are Americana must be told to go to :": "r own side of the line;" but, strangely enough, the unbroken silence of the flshermen to whom the question was propounded afforded proof that sll were "Bluenoses." Stlll othera, natlsfying themselver, by peerIng through glasses from their quarter-deck, that all the loats in sight must belong to the islanda in New llrunswlek, have thought the sendling of luargea to inquire a needless ceremony. One, ${ }^{2} 1840$-the caj)tain of the Ringdore-in his officlal report, recommonded that "every British boat ahould have a license ; otherwise," said he, "it is impossibie to discriminate thom from Americans."
Thore who seek to put an end to this state of things, wincever thelr motiven, do not take into the account

[^35]that the instant they ahall acoomplish their olject, border strifes will follow of necesslty, ; Before renewIng their efforts, they may be kindly aaked to conilder that harmony and goodffellownhip botween the inhabItanta of frontler settlemeats are indispenamilie, and far betcer eeourities agalnat the marauder's toreh and bludgeon than armed whipa or bodies of troups. Tha produce of tha boat-finhery of the Bay of Fundy, and of the Pameamaquoddy, is not only minall in value, but generally Inferior in quality. An increase of this flahery', under present circumatances, la not dealrable. The fishermen drese and cure the cod, pollock, hake, and haddock-the kinde uaually dried-in a slovenly manner.
It is stated in an official dooumont that in 1850, at the different fishing-atationa montioned an within these hays, thers wore employed 62 vessele of 1,268 tons, 314 open boats, 65 weirs, and 1,337 men, in catching and curing the eeveral kinds of fiah just referred to ; and that the value of the products of the various branohes of the fiabery wore $\mathbf{C 3 3 , 0 8 0}$ currency; or 0132,320. These facts nhow that the fishermen rocelved a mlscrable plttance for their toil; since, without allowlag for the use and depreciation of the capital Inveated In the vessels, boats, weirs, nets, and other fiahling-gear, they earned for the yoar leay than 100 each. We may lament that men who parsue thelr avocation hoth day and night, 'mid raina and gules, are so poorly rewarded. We may lament, too, that the people of Grand Menan, falling short of those of Campo Bello, Weat Ieles, and the parishes on tha coast of the main land, enrn even less than the average. But, what then ? The fault is thelr own; entirely ao. They may, if they will, produce ss sweet and as well-cured pollock and cod an do their brethren of Barrington, and ea good colored and flavored smoked herring as do thees of Digly, and olstain prices to correapond with the quallty.

The general poverty amung them ia not to be attributed cotirely or prinelpally, as they aver, to the occaulonal lons of boats and nets, nor to glutted markets and bad seasons, nor to the Interlopers who visit their fiahing grounds, but to their own waut of industry, thrift, cleanlinesa, and honeaty. The few "who work it right," acopulre property, and onjoy the entire contidence of the dealers, command credit for supplies, and high prices for their connunoditlea when offered for sale.

It remain to apeak of the fisherlem of the Bay of Chaleurs, and of the Giulf of St. Lawrence. The county of IRestlgouche borders on Canadi, and the oountiea of Glousester, Northumberland, and Keat, are faverably aituated for adventures in these waters. The fishing grounds are eafe, and generilly closs to the shores; and those near Caraquet, in Gloucester, are much frequented by bonts from Gaspe, and owned by residenta of Canada. Since 1835, the catch of both cod and herring by the fishermen of Restigonche and Northumberiand has fallen off mure than half, aud in Kent has nearly become extinct. But the inhabitants of the port of Caraquet, availing themaeives of the advantages of their position, have actually produced a large portion of the driod cod experted from the colony for some rears. These fuur counties are more remote from the capital of Now Bruuswick, and from the markets of the United Staten, than the connty of Charlotte, which onibraces Grand Menan, and the other Islands in the Bay of Fundy (where the fish are so badly cured), and the attention of the people is livided letween sevoral branches ef induntry; but fishing, as an occasional and Irregular eatpoyment merely, has cominonly proved a source of protit, or at least has afforded a fuir reward for the labor und capital devoted to it. The Beh shlpped at Curaquet are in much better repute than these caught in the bay of Fundy, and the remark is truo of the produce of the Bay of Chaleurs and St. Lawrence Aisheries generally. It may be presumed that there the herring does not
"beco the " ent th being blood 350 , at
"becance rotten before aalting $j^{"}$ that, when sold at the "gibbed" article, it is not packed withont taking out tha ontralia; and that the cod is washed after being aplit, and mot salted and put in "kinch" In all lta blood and dirt.-SAming'日 Americans Fisheries.
The foliowing atatement exhilita the value of importa and exporta to and from the United States and New Brunawick during the years 1849 and 1850 t'

$$
\begin{aligned}
& \text { Experts to Now Bruaswick.... } \mathbf{8 1 , 8 2 8 , 8 1 0} \quad 11,810,740 \\
& \text { Imperts fratn . .... 202,010 }
\end{aligned}
$$

The following abetract of the trade betwean the United States aud the port of St. John, New Bronawick, ahowe the number of shipa and tonnage antered inward, and the value of importa at that port during the year ending 81at Decomber, 1851: Vesasia inward: 605 veasela, of an aggregate tonnage of 166,052 tons; value of importa, $\$ 1,408,205$. Veasels outward 859 vessels, of an aygregato tonnares of 64,844 tons ; value of exporte, \$812,8y5.

The United States axport to New Brunawick, prinelpaliy, books and atitlonary, Indian corn, flaur, whest, lumier, salted provialona, rice, coal, tobacco, timber, an various kinds of manufactured gooda, and merchandise ; and recaive, in roturn, timber of differont kinda (except pitch-pina, oak, ioenat, hickory, and black walnut), junber, atavea, luthe, shingies, spars, and fieh. Coal und timber beling clasaed among the ataples of both countrias, an exanination has been instituted with a vi: ; to ascertain the probable affect of the Reciprocity Tresty on the trade In these articlea between the Unitad States and New Brunswick. To meet this inquiry, it la neccesary to know whether the coald and timber of New Branawick and the Unitail States ars similar in character and kind, or whether they differ in both, and in the usea to which thay are appiled; asch huving their own peculiar advantages for certuin purposes.
1)r. Jackson, an Amarioan gealogist of ability, in a aketch " of the arly hiatory and of the presant atate of our knowledge of the geology, etc., of Nove Scotia and New Branawick," referring to the mineral productione of these provinces, says: "The cosls of Nova Scotia are of various kinds, and are whally different from thase of the United States; at least, they differ from all the coals which are found on the eaatern alde of the Apalachian Monntains, so that they do not enter into competition with the couls obtained from minea In tha United Statas, which aupjly our coast." In a aubeequent part of this exsay Dr. Jacknon remarka, in substance, that recent explorationa in New Hrunawick haya brought to light a beuntiful and before unknown variety of highly bituminous coal, containing 60 per cent. of gas-making bitumen and 40 per cent. of coko. This coai is a new variety, particularly adapted to the usen of the gas-hause; and it la represented by Dr. Jnckson as the vary material wanted by gas-manafacturers to enrich the products of our semb-bituminous coais of Maryland and Virgina. In the formation of gas, thia New Brunawick production can not be used aione, but is mixed with other coals, in the proportion of from ons fifth to one third; and thus gives the best msterial that can be obtained. It ulso givea greater vaine to the coke of our more ash-hearing coala. If these facts are ta be relided upon (and they are supported by high authority), it fillows that the importation of the New lbrunswick coal Into the United Statea, so far from interfering with the sale of our own cosls, would cantribnte, in a great measure, to make avilubo, in the manufacture of gas, much of those which would etherwise be unsuitable for that purpose. With these distinctive characters and diffarent applications, the caals of New Bronswick and Nova Scotia will aiways :e required, whatever may be the supply of our awn mines of l'ennsyivania, Maryland, and Virginia. Indeed, the mine near Rlohmond, Virginia, is the only* ono in the United States that furnishes bituminous coal
that will fully serve In the place of the coala of Nova Sn n.
Irom the fmports and exports of timber letween the United Statea and Naw Branawick, it will the seen that Naw Drunswlek Importa from the United States largo quantities of pitch-pins, oak, locust, hickory, and black wninut, none of whieh are found in that province; while the United Statea receives, in retarn, boarda, ncantling, deals, various kinds of lumber, and fiah. Tha interchange of theee producta moat be greatiy Increased uniler a aystem which relievas them from all mport duties, - U. S. Com. Rel.

Newoantle. The following information is from the United Statea' consul at Newcantio In anawer to a circuiar inaned ly tha State Dapartment: "In thls port there are no privilages that British or any other pancla have which American vuasels hava not to the aame extent, but there are reatrictions and extra ohargea at thla port on tha vessels of some other nationa that have not treation of reciprocity with England, via., France, Two Sicilles, and Portugal. Frenoh vearela, taking cargoen to, or bringing them from, any place but France proper, are subjoct to danble the ordinary light-house dues; also, to double harbor lights, doable Kamsgate duea; and In case the veaasl lomils conls or grindstones, instead of paying 4 cente, or $2 \mathrm{~d}_{1,}$ per chalifron town dues, aa tho vessela of nations in reciprocity, 16 centa, or 8d., per chalidron, Is charged. When the vessal goes to any place but France proper, auch vasaeia also pay 12 canta, or $6 d$. , per foot extra pllotage. Vessela belonging to the Two Siciliea are abbject to the sume extra charges. Vessela belonging to Portugal have the additiunsl privilege of taking cargoes to ar from thair own coluniea on the aame terms at to Portogal proper, but to or from any other country t'iey ars subject to the alova extra clarges. There are, also, other nations, auch as soma of the South American States, whose vessela are anbject to these extra charges, but such vassels never visit thin port. These extra local dues are, neverthelesa, payable by all foreign veseela coming to this port, but the British gevernment eatisfy these claims on the vessels of natlons in reciprocity.
"The port charges on vessals of the United States are tha same as on British veaaols. Annexed aro partianlars of the charges on a vessel of 400 tone registar, carrying 200 chaldrons, or 630 tona, of coale and 60 tons of other goods. Vasaela belonging to the United States (by a law passad this (1854) sassion of Parliament) are allowod to carry goods i any kind coastwise withont any reatriction, and witn every privilega that British vessels enjoy.
Ligt of Cleabino Cuaboks at the Port of Nzwcast ie, citarozd on an Ambaicay Yfaseri op Fot h Hunuaro
 of Coala and sixty Tong of other Goons.

| Chargen. | U. S. curreney.! | Atoriling. |
| :---: | :---: | :---: |
| Law lights. | \$061 | L0 ${ }^{\circ} \mathrm{g}$ |
| Lifo boats (once at | 78 | ${ }^{8}$ |
| Pler dines. | $807+$ | 1184 |
| Night otlice. | 148 | 20 |
| Irindilington pl | 121 | 58 |
| Whitby pler.. |  | 88 |
| Ramer wate. | 481 | 100 |
| 'rintty lights | 545 | $\begin{array}{llll}11 & 5 & 5 \\ 1 & 18 & 4\end{array}$ |
| Tower dues $\}$ Cargo | 8877 | $\begin{array}{rrr}118 & 4 \\ 8 & 8\end{array}$ |
| Total. | 88889 | 217 4 |

"If the vessel bring ballast, there is an additianal charge on it of 1a. 6d., or about 86 eents, per ton on the ballast. Sea pilotage, in winter, 1s, Gil.; and in summer, 1s. 31. per foot. Towage, according to distance, from Es. to $\mathbf{£ 3}$.
" Insurances are mostly effected in the States; the rate hera runs from $2 \frac{1}{\frac{1}{2}}$ to 5 per cent., according to season and class of vessol. Frcigits from \$484, or 20 s ., to 97 74, or 32 s , per ton, necording to circum-
stances. Commiasion for purchasing ta asually $2 \%$ per cent. Sale are made either by direct correspondence or through agonts realdent here. Torms vary, with the articles, from 2 to 4 monthr. 1 bilis, and a various dincount for eash, are the orilinary terms. There in no export duty payable on goods to the United Beates. There are no linternal taxes levied on any of the commodities mentioned, either in a erude, partially manufactured, or wholly complete atate."

Newfoundland, Colony of, in in lat. $40^{\circ} 40^{\prime}$ and $61^{\circ} 39^{\prime}$ N., and long. $53^{\circ} 44^{\prime}$ and $69^{\circ} 81^{\prime}$ W. Area, 35,013 equare miles. Dixtreme length, about 420 miles, and extrenus brea!th, alout 800 milen.

Nowfoundland is an island lying on the north-eust side of the Gulf of St. Lawrence, and is bounded on the whole east shore by the Atlantie Ucean, on the nurthwest and nurtu by the Strait of Belleigle, which sepurates It fronn l.ahrador, on the west by the Gulf of Sc. Lawrence, and on the south-west it approaches at Cape Hay towaril Cupe Breton, so as to form the main entrance from the Atlantle fisto the St. Lawrence. CinpItal, St. Juhn's. 'The island is of a momewhat triangular form, lut without any approach to regularity, each of its miden being loroken luto numeroue trays, harbors, crueks, and estuaries. Its perimetar is not leas than 1000 miles. Jrom the sea it han a wild and aterile appearance, and its general character lis that of a rugged, and, for the most juart, a barren country. Ililla and valleys continually succeed each other, the forner nover rising inte mountains, and the latter rorely expanding into plains. Of various character, the hilla sometimes form long, that-tupped sdges, and are occasionally rounded nnt isoluted, with sharp peaks and cragsy precipices. The valloys vary also from gently sloping depressions to rugged and abrupt ravinea. The sencelifis are loid and lofty, with deep water to their bases; and the rough character of the country is increased hy the existence of vat boulders acattered over it. This uneven surface is naturally distinguiahed into woods, marshea, and barrens. The " woods" are apread over the whole country wherever there is an, water-course, and are oven found crownIng the summits, and near the seancoast are especially Jnxuriant. The trees consist princijually of pine, opruce, fir, larch (or hackmataek), and birch; lu aome distriets the mountaln ash, the alder, the aspen, and a few others ure fuund. Most of the wood ls of small and atunted growth, although the claracter of the trees is greatly varied in this respect according to soil and situation, and in small groupa wood of fuir growth and length may be found. The open tracto are generally called " marshes." These are not necessarily lov, or even lovel lands, but are frequently at a consideratle helght above the sea, and have often an undulating nurface. They are open eracts, covered with moss, sonnetimes to the depth of neveral feet. Thls thick coating of moss is precisely like a great sponge njreal over the country. At the melting of the nnow, it thecones thoroughly saturated. Numerous amall holen and pools, and in the lower parts amall sluggish lirooks or gullies are met with. lint in most eases the surface in aufficiently eligible for drainage, and when the moss is strippeil off, dry ground or bare rock is generally found beneath. The "barrens" occupy the summits of the hilis and ridges, and other elevated und exposed tracts. They are covered with a thin and scrubly vegetation, consinting of berry-lvearing plants, and dwarf hushes of various kinds. Bare patehes of gravel and boulders, and crumbling fragments of rock are frequently met with upon the barrens, which are generally altogether dentitute of vegetable soll. These different tracts are none of them of grest extent ; woods, marshen, and burrens frequantly alteritating.

Not the least remarkable features of the island are its lakes and ponds. These are foumi in every direetion, and in almost every situation, not only in the
valleys, hut on the hl '4ianda, and even in the hollowa of the aummite, and 6 the very topa of the hilla, They va.jy in alze from pools of 50 yarda in diameter to lakes 80 milles in length, and from 4 to 5 milea wide. The number exceeding 2 miles is extent amount to several hundredn, while thoee of amaller size are abso Iutely conntlem.

13ut with all this lake aurface, thare are fow large water-courses ; yot this absence of any thing which can be called a navigable river ta readily explalned. The eharaeter of the natural surfaee, incleed, ls nuch that it alneorlan overy new acceasion of moisture from rain and melted anow, and only parts with it again by evaporation or a alow dralnage lato the ponds, tha overflow of which la the only supply the brookn have, Thus there is never formed current auffielently now. orful to Alig out a deep channel, or to breach oppoaing barriers. The area covered by fresh water has been eatimated at one third the whole island, and this large proportion will not probably be found exaggerated.

The const of Labrador is also ineluded in the government of Newfonndiand, to which it was annexed In 1808. It has a mea-const of aloui 100 miles, and is frequented during the aummer seasc hy more than 20,000 fiehermen. Thls vast country, inhespitabla in elimate and uninviting, is lnhabited by Finquimaux and Moravian missionaries, in all numbering somg 8000 or 10,000 aonla. Situate in a aevere and gloomy climate, and producing nothing that ean amplort human llfe, this is one of the most barren and desolate of countries. Wut, an if in compensation fur these disadvantagen, the aen in ita vicinity teems with tish, and thus thonaands of hardy adventurers are drawn to its rugged sheres, and their induatry and enterprise amply rewarded. The sea in this locality indeed forms the mont valuable fishery in the world. In no part the mainland of Labrador exceeds the height of 500 feet athove the sea, and is often much lower, as are all the Islands, except Greut and Little Meeatina. 1hoth are of granite rock, and alment bare of trees; and there are many ponds of dark bog water, frequented by water-fuwl and flocks of Labirador curlow. The coants are beset with ialanila and rocks, sometimes so intrieste as to furild navigation. There are, however, snveral harions fit for large veasels, and which may be safely entered. The Strait of Belleisle, which mepsrates the two parts of the government, is about 50 miles long and 12 wide. It is deep, but ita passage is not considered a safe onc, owing to lts currents. There are no harbers on that part of the Newfoundland coast which faces this atrait, and few on the opposite coast. During the winter months the resident populatien of Europan descent searcely numbera 800 souls, and many of these have Intermarried with the Esquimanx. The few widely scattered familiea reaide at the estalslishmenta for sen and salmon fishing and for furtrading. Seala and salmon are very pleatiful, and the latter are of a large and superior description. The furs of Labralor are very valuatiole, and consist of fox, otter, sat)le, lynx, bear, wolf, deer, ermine, hure, etc. The Canadian partridfe and the pitarmigua are also plentifnl. The "egging" buainess euploys a large number of small mehooners. The eggs oltained are chiefly these of the murr, but the egigs of putins, gannets, gulla, ohler duckn, and cormorante, ure also collected. Ilalifax is the principal market for these, slthough no small quantity ls disposed of at Joston and other United States' porta. Feathers ary also extensively cellected on the coasts and islands.

The average slee of New foundlanil vessels is alout 130 tons. The chief coasting trude consiats in carrying provisions and aupplies for the fishery, and bringing back the proceeda of the voyage.

Newfoundland proper is divided into nine distriets, the population of whlch, in 1815, the last eensus year, was as followa:

## NEW

| Eleetional Distista. | Males. | Fameles. | Total. |
| :---: | :---: | :---: | :---: |
| Twilingate anc Fogo | 877 | 8.078 | 6,74 |
| Bunavlsta liay............ | 8,948 | 8,894 | T,227 |
| Trinlty thay ........... . . | 4,089 | 4.119 | 8,801 |
| Coneeption liay............ | 18,177 | 18,127 18,019 | 28,56 98,146 |
| Ferryland. ................. | 8.418 | 1,967 | 4,870 |
| Placentia and Bt. Mary't... | 8.878 | 9,995 | 0,478 |
| Burin ..................... | - 9,485 | 1,478 | 4,858 |
| Yortune Bay ...... . . . . . . . | 8,109 | 1,091 | 8.100 |
| 'Total. | 02,004 | 4,231 | 2,805 |

The population of Nowfoundland at various riode, from 1808, has been ae followe in in 1806 It was 26,505 ; in 1816, 52,672 ; in 1828, 62,157 ; in 1825, 80,710 ; in 1828, 60,088; In 1832, 00,280; in 1836, 78,705; and in 1845, ae above utated. The population in 1881 was entlmated at 101,600 noula.
The chief atatisticn of the agricultural condition of the colony, ws gleaned from the cennus of 1848 , are exhlibIted in the subjoined table, showing the dieposition of land, nuruber of live stock, and agricultural products :

| Eletoral Melitus, | Lavel in soltlvaltue. | Lend la ponsestolo. | Live atock awned. |  |  |  |  | Agrieutiural produeta, |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Horses, | Cattle, | Sheep. | Plas. | Oomis. | Polatoes. | Crala, | Hisy, ats. |
| Twhtingato and Fogo... | Aeres, 400 | Abras. 091 | 9 | 976 |  | 069 |  | Buehele. 18,832 | Buehele, 14 | Tope. |
| Houavista lay........... | 1618 | 804 | 108 | - 070 |  | 1,804 |  | $25.971$ | $874$ | 89 857 |
| Trintty llay........... | 1,070 | 1,478 | , 287 | 5.988 |  | 195 |  | 20,028 | 8 | 618 |
| Conceptloa Bay........ | 8,798 | 8.875 | 1,820 | 1,076 |  | 3,710 |  | 122,878 | 0,703 | 2,820 |
| St. Jchn's. . . . . . . . . . . . . | 19,099 | 68,777 | 998 | 1,907 | 299 | 677 | 1,125 | 48,648 | 8,186 | 4,818 |
| Ferryland... | 1,902 | 2,870 | 850 | 1,206 | 815 | 129 | 1276 | 28,546 | 0.00 | . 918 |
| Placentts and Et. Mary's | 9,200 | 4,879 | 476 | 8,291 | 1,889 | 818 | 226 | 98,759 | 048 | 1,078 |
| Burla................... | 1,047 | 1,081 | 170 | 1,774 | 127 | 101 | 8 | 11,081 | 80 | 777 |
| Frortano Day . . . . . . . . . | 211 | 820 | 0 | 678 | 489 | 85 | T | 2,067 | 8 | 176 |
| Total. . . . . . . . . . . . | 99,345 | 88,428 | 4,301 | 18,810 | $\cdots$ | * | - | 841.160 | 11,095 | 11,008 |

The manufactures of the colony are very limited, and consist only of the following eatahliohmenta at St. John's, 2 corn, 1 gaw, and 1 bone mill, 1 iron foundery, and 1 brewery. The city has gas and water works. At Brigus, Conception Bay, there is 1 corn mill; at Harhor Grace, 1 corn mill and gas-works ; in Trinity Buy, 1 aaw mill; and at Groen Bay 2 saw nills. These are all that are noted.
As hefore atated, the chief wealth of tho colony consiste in its fisheries. The extent and value of these will be best appreciated ly perusal of the statistical returna.
In 1840 the numlier of fishing-boate, etc., wan as follows: boats from 4 to 15 quintala, 8002 ; boats from 15 to 30 quiatals, 1025 ; boate from 80 quintuls and upwerd, 972; cod seines, 879; and seal nets, 4368 .
The value of property employed in the fisheries, on an averags of four jearn, ending in 1819, has thus been stated:

$$
\begin{aligned}
& 841 \text { vensela engaged th the scal flabery...... } 1,028,000 \\
& 80 \text { " coastlng \& eod-fishery } 80,090 \\
& 10,039 \text { boats angaged in the cod-fishery....... T56,070 } \\
& \text { 8tages, firlshouses, snd fiukes............... } 125,000 \\
& \text { 4, } 568 \text { nets of all descriptions . . . . . . . . . . . . . . . . . . . } 68,500 \\
& 879 \text { cod seines. . . . . . . . . . } \\
& \text { oil. ... } \\
& \text { 110,000 } \\
& \text { Vats for making senl-oij, } \\
& 250,000 \\
& \text { Fishtag tmplements and caske fir itvor. . } 150,(000 \\
& \text { Total. } \\
& \text { 42,504,175 }
\end{aligned}
$$

The value of the annual prolucts of the colony during the same average period is thus ste d :

| 049,160 quintals fieh exporled.. | 8,010,000 |
| :---: | :---: |
| 4,010 tierces of stmon. .... | 60,500 |
| 14,476 berrete of herringe | 49,500 |
| 508,446 seal-skina | 25,000 |
| 0,200 tons of sest-otf. | 8511,000 |
| 8,990 tons of cod-oll. | 525,000 |
| Frnel and akins. | 6,100 |
| Bait sold to the Frencti | 00,780 |
| Value of agrtcultural prod | 1,011,770 |
| Fuel......... | 800,000 |
| Asme, venlson, sud wild-fowi.... | 40,000 |
| Timber, boards, staves, hrops, etc. | 250,010 |
| Fresh tish used hy tuhabitants. | 125,400 |
| Salted " " | 175,000 |
| Oll consumed by | 42,500 |
| Total...................... | 6,852,020 |

The outfit for the aenl-fon..fy in 1851 and 1852 is shown lu the aubjeined ta'

| From | 1851. |  |  | 1868. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vea, | Tuea. | Sten. | Ven. | Tun. | Men. |
| 8t. Jahn | 01 | 0,201 | 8,480 | 98 | 10,1:9 | 8,528 |
| Harbor Grneo. | 04 | 5,940 | 2,998 | 64 | 8.120 | 2,404 |
| Epanlari's Lay, e | 0 | 8439 | 192 | 6 | -671 | -287 |
| Carboncar............. | 84 | 8,408 | 1,92t | 82 | 8,844 | 1,167 |
| Brigus, Cuptds, Polt de Grave, otc...... | 17 | 5,398 | 2,010 | 69 | 6,407 | 2,450 |
| Trintty and Catalina... | 80 | 2,578 |  | .. |  |  |
| New Poritcen \& llants | 11 | 927 | 867 | 15 | 1,324 | 062 |
| Grarbor . . . . . . . . . . | 23 | 1,740 | 696 | 15 | 1,384 |  |
| Bay Bults, Aquaforto and Renews........ | 2 | . $1, \ldots$ | . . | - ${ }^{-}$ | $\ldots$ | .... |

The chief foreign trade of Newfoundland vessels is with England, Scotland, I relancl, Spain, l'ortugal, Hamburg, Brazil, the West Indies, United States, and Britieh North America. The time occupied on the veyage to Europe and back is from six to elght weeks. To Great Britain the cargo, generally, is oll, and to the other European countries dried codish. A voyage to the Weat Indiea and back requirea about nine weeke. The outward cargo is dried cod and pickled fish, and the inward cargo West Iudia produce. Vessels from the Wcat Indics sometlmed return by the United States, briaging four and provisions. Vessels proceedlag to Drazil with dried Isil generally go from thence to Europe with cotton, sugars, etc., and on thelr retarn to thla coneulate lring manafactured goods from Great Britain. This voyage occuples thein from three to four month. The trade with the C inited States and Canada is almost exclusively in the importation of provisions. American vessels could be advantageously employed in the foreign trade, particularly in carrying lireadstuffy, provisions, etc., to this colony, and ilried fish hence to the Weat Indies, etc.
The following table exhibite the quantity and value of the prodacts of the fisheries exported for the eleven years onding 1851:

| Years. | Dried Aah, |  | Olls. |  | Sual akins. |  | Setmon. |  | Herring. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quintats. | Valoe. | Gsllona, | ue. | No. | Value. | Tierces. | Valoe. | Barrels, | Value. |
| 1840. | 915,795 | 2576,245 | $8,216,5 \times 3$ | \$240,197 | 681,365 | 239,408 | 8,806 | £12,949 | 14,686 | 50,038 |
| 141. | 1,009,525 | 645,014 | 2,678,074 | 240, 3 S2 | 417,115 | 29,961 |  | 12,902 | 9,965 | 6.861 |
| 1242. | 1,007,9*9 | 561.950 | 2:262,031 | 283, 818 | 344.643 | 23,200 | 4,715 | 18,078 | 18,839 | 7.119 |
| 1843. | 936,202 | 532,194 | 8,111,314 | 3354,975 | 615,870 | 40,497 | 4,054 | 12,216 | 0,649 | 4,579 |
| 1844. | 852,102 | 482,450 | 8, (1)5,868 | 815,691 | 65\%,520 | 89,048 | 8,753 | 11,045 | 18,413 | 8,065 |
| 1845. | 1,019, 389 | 8386900 | 2,210,401 | 243,640 | 352,203 | 40,123 | 8,545 | 12,794 | 20,903 | 11,234 |
| 1847. | 837,978 | 489,940 | 2,244,283 | 299,172 | 436,831 | 46,250 | 4,917 | 9.782 | 0,908 | \$,111 |
| 1845. | 920, 866 | 491,924 | 2,619,820 | 8350,579 | 521,004 | 68,428 | 8,822 | 6,697 | 18,878 | 7,644 |
| 1349. | 1,175, 167 | 648,723 | 2,282,496 | 213,742 | 8168,073 | 88,780 | 6,911 | 10,315 | 11,471 | 5,671 |
| 1850. | 1,08日,182 | 682,969 | 9,636,800 | 800,928 | 440,929 | 60,850 | 4,600 | 9,200 | 19,506 | 9,79 |
| 1851. | 1,017,074 | 498,014 | 2,744,910 | 819,977 | 311,699 | 76,590 | 4,025 | 12,024 | 80,250 | 18,261 |

The annexed is an mocount of the vomols and ton- / cleared outrrard, of the colony of Nowfoundiand, in the nage, both Britioh and forolgn, antored inward, and | year onding 5th Jauuary, 1852:

| - |  |  | (t) , : Weralge vemeles: |  | iY, , Britah vemola. |  | Forder vepsels. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vesente - | T. Town, | 1Vatser | Tont. | Yeuels. | Tome. | Vespets. | Tom. |
| Areat Britatmicio dov.dU6.d5 | 36. 800 :17 | 1) 29.614 | -0,42 | . 886 | Tf. 180 | M 16,117 | 8 | 888 |
| Gbraltar.t...........un** |  | 'bugeils ${ }^{\text {a }}$ | cate) | 4.0. | - Mitr $\begin{array}{r}11 \\ 8\end{array}$ | 20. 1,109 | 1 | 149 |
| Jersey and Gaerasey .ia? Spali. | = $\frac{11}{12}$ | 10+11,45 |  | -1985 | - 18 | 48451 | 86 | 19\% |
|  | 15. 16 | - <1. 94898.11 | M15 10 | 4.76 | 小攻 80 | +0 11,608 | 86 |  |
| Denmark | 8 | 1,189 | -8 | 474 | 1 | 107 | $\because$ |  |
| Germany.0................... | 86 | 6,788. | $\therefore$ - | 1,289 | $\ddot{80}$ |  | . | ..... |
| Naples....................... | 8 | 487 | .. | .... | 90 ${ }^{\text {an }}$ | 8,809 : | .* | 1. $\cdot \ldots$ |
| Roman 8tates. | 1. | $\therefore 191$ | T1\% - | 1142..... | 18) \% | 5 | . | ** |
| Tusemay.................... |  |  | - |  | 9 | 1,10\% | 16 | 1,941 |
| Azores.. . . . . . . . . . . . . . . . . . | $\cdots$ |  |  | \%...... | 1. | 04 |  | , , 1 .... |
| Hieily. . . . . . . . . . . . . . . - . . | . | $\cdots$ | . | 1\%. .... | 1. | -195 | 1 | 1, 147 |
| Zante........................ | . | $\cdots$ | ** | ... | 1 | 155 | - . |  |
| Madeira . . . . . . . . . . . . . . |  |  |  | - | 1 | 562 |  |  |
| British N. Amer. Colonles.. | 669 | 49,848 | - 8 | 17. 808 | 564 | 55,868 | 7 | 1,014 |
| Unlted Statea, . . . . . . . . . . | 121 | 14,692 | 11 | 11, 1,907 | 81 | 8,041 | 4 | 818 |
| Britigh West Ipdies......... | 88 | 8,437 |  |  | 71 | 10,819 |  | 189 |
| Spaninh Weat Indies ...... | 21 | 2,826 | r. $\times \quad 19$ | 2 2,478 | 16. | 1,980 188 | 1 | 179 |
| Dantsh West Indlea........ <br> Brazil. | 8 | 1,661 | $\because$ | \% $\ldots \ldots$ | $4{ }^{10}$ | 188 8,841 | 1 | 200 1.992 |
| St. Pterre (French).... ... | 38 | 694 |  | .... | 10. | 1-98 |  | 1,292 |
| - Total. | 1,188 | 180,029 | 88 | 11,588 | 1,027 | 117,778 | 79 | 11,112 |

Making an aggregate of 1265 veasela, and 142,467 tons (manned by 8465 men ), entered, and a total of 1106 vessels, and 128,890 tons (with 7741 men ), cleared. From this exhibit it will be seen that the arrivala $\mathrm{n}: \mathrm{m}$ the United States greatly exceed tse departures for this country, thereby ahowing the balance of trade to be strongly against this colony.
The eutrances and clearances for the past four sears have been as followe:

| Years, | Entered. |  | Cleared. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vemeple. | Tone. | Veseele, | Tomes |
| 1849 | 1,186 | 182.889 | 1,074 | 120,643 |
| 1850 | 1,920 | 188,828 | 1,091 | 108,795 |
| 1851 | 1,232 | 187,465 | 1,084 | 141,578 |
| $18 \% 2$ | 1,265 | 1.48,467 | 1,106 | 128,590 |

\footnotetext{
The statistics of ahip-building for a series of yen exhiblt the following resulte :


Ships owned and registered in the colony, on the 31st December, 1851 : ships, 830 ; tons, 52,078.
The total value of the commerce of the colony for the past five years, ending 6 th January, 1852, has been as exhibited in the following table:

| Yeara, | Falue of impurta | Value of exports. | Tutal ralue. |
| :---: | :---: | :---: | :---: |
| 1847........ | 254,419 | Sunkid 605 | 21,750,014 |
| 1849......... | 709,629 | 887,081 | 1,607,9\%2 |
| 1840...v.. $\mathrm{S}^{\text {co }}$ | 770,193 | 876,567 | 1,646,757 |
| 1800........ | 847,816 - | 978,770 | 1,848,046 |
| $1651 . \ldots \ldots$ | 048,191. | 959,761 | 1,902,949 |
| Conpalativa TUHES | हTATRMENIN TIIT AARS | тทи Rสvสnยี 1840,1850 an | ann ExplendiD 1851. |
|  | 1 1840, | 184. | 181. |
| $\left\{\begin{array}{l} \text { Lmper'1 eus- } \\ \text { tons duties } \end{array}\right\}$ | 58,698 08 | ** | *... |
| Colonial dnties | 62,790 29 | 259,881 190 | 974,205 41 |
| From dues...i | 1,008 719 | 8,890 1611 | 2,48t 18 8 |
| From ether sonrces. | 11.88292 | 5,148 8 0 | 8,724115 |
| Totala. | $\begin{array}{cccc} & 509,405 & 5 & 1\end{array}$ | 266,915 811 | £20,805 14.9 |
| Expendituro. .\| | 60,902 91 | 71,807 1 6 | 75,77051 |

Total Amounts kmeaten and Paio Fof the IGan Endwa 8iat Dneernaxi, 1551. aкczipt por tai rasa.



The Labrador coast, as before observed, is tie resert of a large number of fishermen. Since the treaty of Paris, this fishery has increased more than alxfold. No accurate account of the products cen be ascertained, tut the following is considered te be an approx. imation. The saimon fiaheriea average annualiy about 30,000 tierces. The herring fisheries are also very large, and the neal fisheries are equni in valuo to those of Newfoundland. The imports of Lalirador have been ealimated by the authoritios of Nerfonadland at $\mathbf{~} 600,000$ per annam, and the foilowing is an approximation to the vaine of the exporta:
Amerlcan vewsels. $\qquad$ 1450, 0
Neva 8 cetla vessels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 tin, (n010
Cansis vestela.
Vescela nwned or chartered by English and dersey
huusea having estabilshiments on tha coast.
Veasels ewnel or cbartered by the poople of Nuw
fonndland
1,200,000
Tetal.
12,784,000
The cotal exports, however, are by some persons eatimated at $\$ 4,000,000$.
[Authorities: Offeinl Abetract of Census, 1845; Returs ahoving the Value of Articlen, etc., imported, and the Nerfouredlamd Almamac for 1853, furnished by IIon. James Crowdy, Colonial Secretary ; Martis's

British Colonies (London edit.): Aropawis's Roport on Colonial and Lake Cominerce (U. S. Seni' Doo. 112, part vili., p. 678) ; Report of tho Committet (Canada) to prepare is Etatement of the Population, Income; Expenalutre, and Debs of the Provinces of Britioh North America (Jane, 1858), ete.; etc.]
Trods with the U'rited Etates.-The great staple of this colony is derived from its extensive flsheries, An elaborate and interasting account of these may be found in. Mr. Andrews'a Beport on Canada, otc.,' already reforred to.
 Exports to Newfoundland from U. B..... $787,550 \quad 964,260$

The trade of Nowfoundland with othor countries than the United States; partieularly with Spain, Por-, tagal, Italy; and the Brazils, is mnoh more bxténaive, in proportion to 'its commercial capabilities, than is that of any other North American colony." The henvy balance against that island, in its trade with the United States, may suggest a reason why it neeks a Enropean market for so large a portion of las products. The United States export to Nowfonndland, beef, pork: pitch smd tar, corn-ment, flour, rice, tobacco, and genoral merchandise. It may be seen from the following table that fleur and pork amount to fally three fearths of the total exports from this country to Newfoundland.

## Compakativa Bratghent expiritige thi quantitige and valueg of the Peiwcupal Aryiolig inponted ixio the 


 HROIPROCITT TRRATT, THE VALVR OM SDOII IMPORTED, $\triangle N D$ THA AMOUNT, OF DUTIMS PAID, THEAEON, DUTEIXG tir Fiscal Yras endigo JuNe 80, 1854.

| Articles. | Rate of duty por 8004 | Volue of an tiden. | D) Dutlea. |
| :---: | :---: | :---: | :---: |
| Graln, flonr, and brealaturis..., | 80 | $18,908,078$ | 6781,214 |
| Animale, free. |  | $75,406$ |  |
| " dutinble. | 20 | 225,648 | , 45,188 |
| Fresh, maked, and salted meat, | 20 | 4,184 | 1,086 |
| Cotton-wool, froe............... | . | 125 | ..... |
| Beeds, plents, shrubs, oto., fies. | $\because$ | 18,910 |  |
| ${ }^{4} \quad . . / 4$ dntiable | 80 | 10000 | $111$ |
| Vegetables...................... | 20 | 102,806 | 20,801 |
| Undrlod fruits. | 90 | 18.18 | 9,788 |
| Drled ". | 20 | 18,692 | 96 |
| Fwh of sll kinde............... | 90 | - 001,671 | 130,884 |
|  | 90 | 1016 | .... |
| Poultry. . . . . . . . . . . . . . . . . . . | 80 | 1,016 | 208 |
| Efrs... | 20. | b,500 | 1,100 |
| Thides and skins. | 5 | 84,729 | 1,786 |
| Furs, thireseenl. . . . . . . . . . . . . | 10 | 18,920 | 1,892 |
| Talk, andressed. . . . . . . . . . . . . . | 20 |  |  |
| Unwrought atone. | 10 | 10,758 | 1,075 |
| Uowrought marble............ . | 90 |  |  |
| 1lutter. | 20 | 126,811 | 25,869 |
| Choese. | 80 | 127 | 38 |
| Tallow. | 10 | 87 | 8 |
| Lard. | 80 | 887 | 167 |
| llorns. | 5 | 1,421 | 71 |
| Mannres. | $\cdots$ |  | $\ldots$ |
| Ores of metals, free... |  | 18,790 |  |
| ${ }^{*}{ }^{4}$ dutiebl | 20 | ${ }^{18} 816$ | 108 |
| Conl. | 80 | 254,775 | T6,432 |
| l'itch, tar, and turpe | 20 90 | 76 | 888 |
| Ashes ..................... . . . | 20 | 4,441 | 888 |
| Fire and other wo | 80 | 728,683 | 218,600 |
| All other woud. | 80 | 674.051 | 114,510 |
| 1 'elts, | 20 | 24,638 | 4,927 |
| Wrol. | 80 | 60,182 | 94,754 |
| Flsh oil | 20 | 110,402 | 22,080 |
| Nilec....... | .. | .... | .... |
| Broom corn |  |  |  |
| Bark.. | 20 | 878 | 105 |
| Ojpsom, ground............... | 90 | 858 | 70 |
| " ${ }^{\text {L }}$ anground, free. ...... |  | 118.812 |  |
| Grindstones. . . . . . . . | 5 | 98,205 | 1,168 |
| Dye stuffe.... ............. | 6 | 14,717 | 785 |
| Themp, flex, tow, unmanuf'd. . | 80 |  | 874 |
| Tobacea, unmannfactured <br> Rags. | 80 5 | 8,915 18,690 | 874 634 |
| Total.... . . . . . . . . . . . . . |  | 7,898,808 | 1,024,87\% |

gtaple Ahtioles of PboDung, and turia Qoantitize, Expontid from Tinit Port of 8t. Jomi's, Newfotid. LAND, TO THA UNITED STATMS OF AMERIOA, IN THE YEARS $18 \% 8,1854$ AND: $18 \% 5$.

| ${ }^{\text {a }}$ ( Descripilion of geo | ¢ 1855.' | 1844. | 1856. ${ }^{\circ}$ |
| :---: | :---: | :---: | :---: |
|  | Quanitiy. | Quantity. | Qoatilit. |
| Fish, cod..........quintals | 21,886 | 14,862 | 60,257 |
| 4 salmion ........ ${ }^{\text {a }}$ terces | 1,850 | 1,070 | : 2145 |
| " horring. . . . . . . . . bbis. | 8,810 | 007 | 8040 |
|  | 66 896 | 5 41 | 28 187 |
| Sklns, sexi. . . . . . . . . . . . . No. | 6,00 | , .... | . . . ${ }^{\text {d }}$ |

Numben and Tonnank of Unithe Etatms' Vebsels abritING AT AND GLEARINO PMOM THE DORT OF, 8T. JOLN's, DשRINO TLR TEARS 1858, 1854, AND 1855.

"Article 3. It is agreed that the articles enamerated in the schedule hereunto annexed [the preceding list], being the growth and produce of the aforesaid British celomies, or of the United States, shall be admitted into each country, respectivels, free of daty." The colonies referred to in the foregoing articles are, Canada, New Brunswick, Nova Scotia, and Prince Fdward's Island. With respect to Newfoundland, article 6 providea ns follows: "And it is hereby further ngreed, that the provisions and stipulations of the foregoing articles shail extend to the laland of Newfoundland, so far as they are applicable to that colony. But, if the imperial Parliament, the provincial Parliament of Newfonndiand, or the United States, ahall not embrace in their lawe, enacted for carrying this treaty into effect, the colony of Newfoundland, then this article shall be of no effect ; but the omision to nake provision by law to give it effect, by elther of the legislative bodies aforesaid, shall not in any way impair the remaining articles of this treaty." This treaty is limited to ten years, with the usual notlce of 12 montlis by either of the high contracting parties who may wish to terminate the same. Date of exchange of ratifleations of the treaty alove reforred to, Septeniber 9,1854 . Date of President's proclantation of
the same, September 11, 1854. Date of ite neceptance by Canada, 23d September, 1854 ; by New Brunswick, 11th November, 18ö4; by Nova Sontia, December 15, 1854; by Prince Edward'a Island, 11th October, 1854 ; and by Nowfoundland, 14th November, 1855.-U. S. Com. Digeat, 1856. See Hunt's Mer. Mag., х., 880 ; Fraser, xxxil., 740; Eclec. Rer., xill., 816.

New Granada ia the most inportant of the three repablica inte which the Sonth Amerienn repnblic of Colombia reeelved itself at tha dissolution of that oenfederation in 1831. Till 1810 it was a viee-royalty under the Spanish crown, hut mubsequently a part of the republic of Colombia, the middle and western portions of which it now embraces. New Granada ls bounded on the north by the Caribhean Sea, on the east by the republic of Veneauelu, on the south-east by Bruzilian Gulana, on the south by the republic of Echador, and on the west by the Pacific Ocean. It lies nostly between the equator and $12^{\circ} \mathrm{N}$. lat., and between $70^{\circ}$ and $83^{\circ} \mathrm{W}$. long. Area about 480,000 aquare miles.

The Hanos or plains of the Orinoco extend over the entire tract, stretching away to the western banks of the Orinoco and to the Cassiquiare, between the Rlo Negro on the south, and the Rio Apure on the north. Aa far snnth as the Vichada, the nerthern part is a complete level, averaging only 300 feet above sea-level near the mountains, whence it gradually, but almost imperceptibly, declines toward the Orinoco. With the exception of a few palms that occur at great intervals ull over the plain, and some low bushy trees along the rivers, this district is quite deatitute of trees. During the rainy season, which is from April tili November, rain falis in torrents, accompanied with fearfil thun-der-storms, which usually occur between two and four o'elsek in the afternoon; but the contrast is very atriking in December, January nnd Febraary, when a cloud never crosses the sky. This immense plain is not at all fit for cultivation; but innumerable herds of eattle and horses find ahundant pasture on it during the rainy season; theugh they auffer much during the dry months, from November till April. The wet season is, on an averake, $8^{\circ}$ Fabr. hotter than the dry, and the mean annual temperature is $80^{\circ}$ Fahr.

The princlpal rivers of New Granada aro the Masdalena and Cauca, whleh run their whole course within the territory of the republic, taking their rise in the Andes near the southern frontier, and after flowing nearly the entire length of the country from south to north, unite in one channel, and discharge their combined waters through a delta, by threo channels, into the Caribbean Sea, about W. Long. $75^{\circ}$. Wesides these two princlpal streums, a large number of the tribntaries of the Orinoco, having their sources in the different ranges of the Andes, drain the lhanos of the east. Of these, the principal are the Apure, Metn, Vichada, Guaviare, lioo Negro and Japura, on the mutual boundary with Fcuador. The lakes of New Grauada are inconsiderable; the most celebrated in the Guatavita, not far from the city of Bogota, into which, it is affirmed, large treasurea were thrown by the natives during the Sjanish Invasion and cooquests.

The mineral riches of New Grumada are considerable, and mostiy occur in the western decivity of the three chains of the Audes. They consist of salt-roek, lead, Iron, copper, mercury, platinum, allver, and gold. Alung ull the central und western declivity of tho Andes gold is found, and is otitained by washing the sand of the rivers, as well as that on the sides and foot of some hillb. It is found on the plateaux of Cucuta and Girona in the eastern Andes, where silver also is obtained in considerable quantity. There are alno some very rich mines in the mountain region between the Rios Cauca und Magdalena, north of N. lat. 81 ${ }^{\circ}$. Patinuin is found in the western decllvity of the wentern Andes, and mercury in the vallej of Santa Roas, near Antioquia, and near the Pass of

Quindiu in the central Aniles. Copper is found in the eastern Anden, near Pamplona, and north of Tunja. Iron and coul oceur in the mantains border. ing on the table-lands of Bogota, and lead in varions parts of the eastern Andes. In some mountalns nerth east of IBogotá large masses of rock-salt are foand, and It is worked by the government. Large quantities of salt are furnished ulso by salt-springs in the asme mountaina.

From the great dlvorsity of sarface, soil, and cli. mate of New Granada, the natural productions are extremely varied, embracing almost every variety found in the temperate as well as in the tropical sme. The chief objects of culture over the table-lunds of Bogotá, and the district north of it, along the western sinpes of the eastern range, are the ceraals is In Europe, the aracachn-root, and potatoes; but in the river-valleys, and on the coast-piains, maize is the chief grain cultivated, with rice, sweet potatoea, and plantains. As articles of commerce, nre cultivated coffee, cotton, cocon, tobacco, some sugar, und indigo. The forests ahound with numerous kinds of useful timber trees; but those converted into articles of export are the logwood, Brazil, Nicaragua, and fustic trees, which grow most abundantly in the forests of the Santa Marta chain. The balsam of Tolu, so named from a viliage near Cartagena, lo collected largely on the bunks of the Kie Sinu, and ipecacuanha on those of the Rio Magdalens ; cinchona, or Peruvian bark, is oltained in large quantitles in the region of the Sierra le Sauta Marta, as well as in several other places; cochineal of the finest quality is procured from the banks of the $\mathrm{S}_{0}$ gamezo. Previous to the discovery of this country ly Europeans, horses and cattie were unknown in these reglens ; but now tasajo, or jerkell beef, nad hides, as nrticles of commerce, are furnished by the immense herds of eattle which the llanos support; and mules, horses, and cattle are exported to the Weat ladies.

The population of New Granads are descendants of the Spaniurds who havo settled there duriug the three lust centuries, and some of the native tribes intermixed with a few negroes. Very different degrees of civilization are found among the native tribes. Before the invasion of the Spaniands, those of the talie-iands along tho eastern Andes had organized a politicai system, and made some progress in the simpler arts of civilization. These, with the Indians in the valicy of the upper Magdalena, are still the best husbandmen In the republle. Between the Pucific and the western Andes, nearly all the population are descendants of the aloriginal native tribes, whose progress in the arts of civllized life is very small, and almost exiluaively owing to the few Spanish priests scattered mong them as missionaries. None but the descendants of Earopeans inweil in the treeless llanos; and their occupation is the cure of the herds of mules, horses, and cattle. Whadoring Indiana, still in a very barthrous state, necupy the nouthern wooded portion of the llanos, The numbers of the respective races orcupying New Gran.
asu havo been extimated by LIubner at follows:-

Total estimatel popuiation in trés, 2, $163,0 \times 4$
Agriculture holds the first place in the industry of New tiranada. Rice, cottom, tolaceo, cocoa, sibar, aud tropical fruits, are mong the productions of the coast region; while the elevated phulns yledd uaize, wheat, und ali the products of a temperate zone. The cultivation of the soil, however, is earried on ver: carelesaly ; and reclahned land lears but a small proportion to the whole. On the llanos toward the Orineco, almost the aole oceupation of the peopile is the
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rearing of cattle and horses. Agriculture is chlefly in the hands of the converted Indlans, who manifeat a very deelded predifectlon for these labors of peace. Manufacturing industry is of so littlu importance that it can hardly be said to exist in the republic. It is limited to home-made coarse woolens and cottons, adapted for the use of the lower clasees only. At Bogotá, the capital, and the other principal towns, indeed, atriw hats, carpetn, and some' other articlos are made, but in no case does the native industry become commensurate with the demands of the country, so that nesrly all manufactured goods in use are imported. Nining is carried on, but only to a very inconsiderable degree. There is a silver mine at Sants Ana, in Bogota, the onls one now worked; and gold la collected in a few localitles. Emeralda, diamonds, and pearls, are also obtained. The salt mines of Zipaquira are, however, exteneively worked. With the exception of this last, the mining business of the country is left entirely to the poor and Ignorant.
Tho prinelpal purta of New Granada are-on the Caribbean Sea, Santa Marts, Cartagena, Chagres, Rio de la Ilscha, and Portobello; on the Pacific, Panama and Buenaventura. Steamera now navigate the Magdalena; and the only railway in the country is that from Aspinwall to Panama.
Christopher Columbus diacovered terra firma in 1498, and, during his fourth voyage, on the 2 d of November, 1502, found Chagres and the Bay of Limones, called also Navy Bay. Different governments have been establiahed throughout the Granadian territory, while Spanish colonles; a vlce-royalty was at length formed in 1732, of what are now the republica of New Granada and Ectudor. In 1810, New Grannda aeparated herself from the Spaniah monarchy, and maintained a constant war until 1824, when the Spanish army was conquered by the republican, of which two thirds consisted of Colombians. Bolivar, the most distinguished leader of the Spanish-Americant revolution, was the first proposer of tho union of Venezuela and New Granala, in 1818 ; and when the Congress of Angestura met, early in 1819, the fundamentul law was concted which established Colombia, on tho 17th of Decenber of thut year. Venezuela sopuratel herself in November, 1829, and Facuador In May, 1830 ; and the centril part of Colombia instltuted itself the republic of New Granadis on the 21 st of November, 1831. In 1832, the constitution of the State was sanctionel, under the form of a democratic republican government, by dividing the supreme power linto the executive, legisiative, and juilicial, under a central regimen, but giving to the provinces a munieipal corporation, that each sectan might legislato In its local alfairs. The republic was divided into provinces, these into camtons, and the cantons into purochinl districts. The State recognized no national religion; but has declured that it will pay for the Catholic worship, and protect Granalians in its exercise. The law of Colombin, which uttributed to itself the law of patronage exercised by Spain, has continued in vigor to the present time. 'The republic was tirst divided into 18 provinces; and they have since been Increasel to 35 . The constitution of 1832 was refornied in 18.13 , withont any variation in the form of govermment.

Commerciul relations between tho linited States nad New Granala are regulated by treaty of Docember 12, 184(G, proclaimed June 12, 18.18. Tho following summary presents the princlpal commercinl features of this treaty:
There shall be a perfect, firm, and inviolable pence and friendship between the two republis.s. No favors to be granted by either party to other nations, wintih shall not become common to the other. Mutual benefits in trale and residence to be equally enjuyed. The coasting trade reservol ly each country to its own flag. Fquallzation of duties granted by each country on vessels and their cargoes. The privileges respoeting
drawbacks equalized to the flag of each la the ports of elther. Importatlons and exportations of articles, the produce or manufuctnre of either country, into or from the other, equalized as to duties with aimilar importations and exportatione of any other foreign country. All prohibitions as to articles of import or export to be equal In each country as respects the flag of the other; the three preceding stipulations to apply, whether the vessels proceed from their own ports or from foreign porta, reapectively. The citizens of either country to be free to manage their own busineas, as well with respect to shippling and Its incidents, as to purchases, sales, etc., in the country of the other; and this privilege to be enjoyed peraonally or by agents--they being in all these cases treated aa cltizens or subjects of the most favored nation. In case of embargoes, detention of vesaels, etc., for pablic or private usea, full indemnity to be allowed. The vessels of either party seeking refuge in the ports of the other to be protected. Vessels captured by pirates to be delivered up to the owners. Assistaxce to be given in cases of shipwreck, etc., in the ports of each to the vessala of the other, in the sane manner as to the national flag. Citizens of either country authorized to dispose of their personal goods and roal estate within the juriadiction of the other, by asle, donution, testament, or otherwise ; and their representatives, being citizens of the other country, to succeed to thelr said personal goods or real estute, whether by testament or ab inteitato, and to take possession thereof, either by themselves or othera actiug for them, and to dispose of the aame at their will, paying only auch dues as the inh:abitants of the country are subject to in like cases. Protection to persons and property formally guarantied, whether such persona are tranaient of dwellers in the territories under the jurisdiction of either party, respectively ; aul access.to the legal tribunala of each country, free nud unrestricted, granted to the citizens of the other, on the snme terms as to the native or other citizens of such country. Liberty of conscience and the free and unrestricted rites of burial guarantied. Both parties ut liberty to trade with those at enmity with the other. Free ships to make free goods, contrabund of war exceptel. Enemy's property, to be protected by a neutral thag, must be shipped within two montha after declaration of war. Articles contraband of war specilled. Illockade definell to the the besieging or blockading of those places only which are aetwally attacked by a belligerent foree capable of proventing the entry of the uentral. All contralmul articles liable to confiscation. In eane of blockale, vessels to be turned away, but not detained. Vessels entering before bockude may quit unmolested. During a visit at sea, armed vessels to remain out of cannon-shot. In case of war, sea-letters, certlileates of cargo, etc.. to be furnishel. showing to whom the property belongs. In case of war between the two nations, merchants allowed time ( 6 months to thoge residing in ports, and 12 months to those resilling in the interier) to arrange their business, transport their effects, etc. Citizens of other nceupations, who may be estahlished in the territories of the Vnited States or of New Grunadu, to be respected and maintained in the full enjowment of their personal liberty mul property, this protection being dependent on their comiuct. No contiseation of debts, etc., in the event of war. Cithans of the United Stater, their vessels and merchandlse, placed on the samo footing us these of New Gramula $\ln$ the ports of Panuma. Right of translt acress the Isthmas of Panamn guarmitied to citizens of the United States, and no other or lilgher tolls to be exucted from them than from citizens of New Granada. The United Stntes giarantles to New Granala the perfect neatrality of the lathmins. Citizens to be helil personally responslble for infringing any articles of tho treaty; but reprisals not to be anthorized, nor war declared, until jastice has been slemunded and refused.

An additional artlele providen that the two repablice will hold and sdmit as natienal shlpe, of one or the other, all those that ahall be provided by thnir reopec: tive governments with a patent issued according to ite lawe. The treaty to continue In force twenty years from tha date of its ratlicatlon, and after that period the usual twelve month's notlce required. The navlgation and tarlff regulations of New Granada are marked by a spirit of Ilberality, though the forelgn commerce of the rapubllo has not, as yet, attained any considerable importance. The commerce of the United States, however, wlth that republic, is thought to labor under some disadvantages, as appears from the following extract from a late consular return: "Our commerce, by treaty, is put on the footing of the moet favered natlons. But this is nominal only; for, In the list of dutiable articles, theae supplied by the United States are taxed at a higher rate than such as come from England, France, and Germany. I ean not now give you many lnstances; but my recollection is, that tlour, baeon, and provisions generally, as well as common hats, boots, and ahoes, may be enumerated. The articles mainly produced by the United States belng taxed at a hlgher rate than articien produced by England, etc., etc., creatlog a practleal discrimination against us, necessarily operates as a duuble injury $\ln$ the exchange for the products of this country. * * * These matters should be corrected, snd there should be a stipulation inserted in the treaty (should a new treuty be entered into) prohlbiting the provinces from adillog any tax, direct or indirect, except, perhaps, to enforce borna fide inspection."

The principal commercial ports of New Granada are Santa Martha, Cartagena, and Panama; the aggregate trade of which ports, for the yeur 1852, la given in the following stateinent :

Commrace of New Ganalaa, 1558. .

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|  | shlim. | Tons. | Ships. | Tuns. |
| Cartagena..... | 114 | [4,87 | 119 | 18,784 |
| St. Martha | *) | 4,187 | 48 | 4.127 |
| l'anama. | 818 | 148,899 | 297 | 183,836 |
| Total. | 135 | 162,4z7 | 45 | 151,697 |



The subjoined analysis of this statement will show the distribution of the commerce of New Granada for the year specitied:


The importa, during the same year, consinted of printed, dyed, and white cottona, calicoen, and other dimilar tisaues; silkn, linens, woolens, hardware, furniture, manufactures of metaly, medicinal drugs, wines, spirits, fluur, and provinions generally. The chicef article of export was gold, of which the antount for this year was about $1,000,000$.

A comparison of exportn for a number of years exhibits the fact, that the quantity of gold exported has either remalned stationary or allghtly diminished. The cause la not found in any defielency in the auriferous resources of the country, as the mines of Anthrquia, and these lit the country along the Pacific, on the Kto Zulla and the lio Hacha. contain large quantitien of the prechoua metala; but the difileculties attendlug the tranaportation of heavy machinery, indispensable in working the minen of Antioquia, seain to be lasuperable, beyond a certain weight. Until good roads rhall have teen eituthished, and the minea therely rendered more accessible, but little improve-
ment in the mining Industry of thin region (the richeat In New Granada) can be expected.

Large quantities of goid, in ingots and dust, enter into the clandestlna trade of the republlc, of which no account can be taken in the official returna.

Next to gold, tobacco lo the most impertant article In the export trade of New Granada, and its most prodactive staple. Tha soil, in many parta of the republlo, la pecullarly adapted to the growth of tobacco, and Its production might be made a source of the principal agricultural wealth of the Stato, under a different system of properiy regulated induatry. The quantity exported In 1848 exceeded thut of the preceding year by 85 per cent.; and the returns for aeveral preceding years exhibit a regular, though not eo large, augmentatlon.

Cabinet-maker'a wood and dye-atuffo rank next la the exports of the country. In 1848, they amounted In value to 8161,500 . The large bulk of these prodincts is sent to the United Statea, in part exchange for provisluns, cotton goods, furniture, medicinal drugs, und sundries. Excellent coffee and cocoa are raised, chielly In the valley of Cucuta; whence transported to Maracalbo, in Venezuela, they enter into the returns of Venezuelun axports.

In addition to these products of New Granada, a new species of berk has recently been discovered, which promises to become a valuable artlele of commerce. A letter from a mercantile house In London to a correapondent In New Granada, written in 1845, says: "We Imported last year 17,000 seroons (hampers or baskets) of New Gramada and 600 seroons of BoIlvlan, bark. The New Graneda all sold; but the Bolivian being held for a monopoly price, is atill in the market-proving that thla kind has very little demand."

Delondre, in his new work on quinine barks, gives an analyais of a New Granadlan bark containing quite as much quinine as Bolivian calisaya. If the calisaya of Santa Fe, or fusagasuga und pitaye barks of New Granada, had been intruduced Into the market lefown the Ilolivian, there would be no questien ahout the quality of the alkaloids they yleid.
There seems a probability that this New Granadiac. bark will noon enter largefy Into the expmit trade of that country. The chemieul test to which it has been subjected in lingland, has ulreudy atamped it as a valunble acquisition to the materia mediea; and the periodical scarcity of quinine, which ammetimes raises that artifle to a most exorbitant price, will render it atill more jopular. In reference to this bark, and uthre valuable products of New (iranada, a report aulanitted in July, 1856, to the French guvermment, relative to the cummercial movements of France in New firinada, suya: "Formerly, that republic had no other equivalent to otfer, in exchange for foreign morchanulise, than the gold of its mines." The ubolition, in 18is', of the monopoly of tobace, however, bas glven a new stimulus to agricultural induatry, and uttracted numbers to tho cultlvation of that article. This agrenulura, movement is not the only benefit arcruing tu New Granada from the anppression of this monopoty. In bringing the capitalists of the country in contact with foreign merchants, it has tanght them to apreciate better than formerly the lumense waith to be found in the soll of the reputilic. 'Thus, quinguina, whith hus remained almost nnknown since the depurture of the Sipanharlo, has been a second time disenverel in
 will noon beeotne n ronniferablo articie ansong the staples of New dirunala. The coltivation of corou, formerly limited to the consumption of the country, has also been hargely extended, and is nuw tecome an article of export.

The navligation lawn of New (iranada, by a decree of the Senate and Chamber of Reprenentativen of that republle, beating date May $2 \mathbf{2 7}, \mathbf{1 8 5 3}$, a translation of
which is aubjolned, undergo some modifications in fam vor of foreign commerce, as followa :
Anticle 1. The following ports and territoriea of the provines of Choco shall be free for all nations in the world, from January 1, 1854, for twenty years:

1. The ports of the Atlantic and the territory watered by the River Atrato, from its mouth to its confluence with the River Gulto, comprehended between the western chain of the Andes and that branch of it toward the eastward which eepurates seid province from that of Antrio-Chin.
2. The ports of the Paelfic and the territory watered by the River Sun Juan, from ite embouchure, as far as the city of Navita, contained between the abovementioned chaln of the Andea and that branch of it Which separates it toward the southward from the provinee of Buenaventura.
Ant. 2. Consequently, no eustom-houses can be established in sald ports and territories within the time specified; nor can any duties be levied, save those of toli, passage, and excise, corresponding to the municipal revenucs, and in conformity with the existing laws.
ART. 8. In order to recover the duties on importation of foreign merchandise whleh may bo introduced for the consumptlon of the interior of the reat of the province, and other provinces of the republic, there shall he established two eustom-houses, one in the city of Quibdo, and the other in the elty of Navita, with necessary officers, ete., ete.
Arr. 4. The executive power is authorized, when it deema it indiapensable for weighty motives of publie convenience, to asaign other ports for custom-houses than those expressed in chis law ; in which case, the naritime ports expressed in artlcle 1, and the territory comprised between the cousts and the spot on which such eustom-houses shall be fixed, ulone can enjoy treedom.
Another decree of aimilar importance to the interesta of furelign commerce was published in tho ufficial paper of the New Granudian government of the 20th of Juiy, 1856, in virtue of legislutive authority, dechríug Cartagena a free port for the commerce of ali nations, from the lst of September ensuing. By this decree, however, vessels wili continue to pay tonnage duty, conformable to the law of the 25 th of June last fo relation to that subject, The exemption from import duties is eircumseribed to the walied portion of the city, and hence does not apply to goods carried to the outside villuges of Cabrero, Boeagrande, Fspinal, und Manga f lis do In Popa. Counterfeit money, and Spanish, Culombian, and Granadian money, under the standard of 0.900 , as weli as cojper not sold for the use of the repuhlic, are prohlisted; elso, rum, and its compounds, so long as the legislature shail not decree tise free manufacture and sale of that article. Vessels must exhilit the usual papers on entering the port ; and when a vessei is only golng to leave a part of her cargo, the cuptain must, within twenty-four hours, present in manifest of what he intends to land, and whit to leave on board. If the vessel como in search of a market, and not for the determined jurpose of landing her goods, the captain will be ailowed forty-elight hours to present a manifest of what he intends to land and what to retain on boari. If the vesael come lin bullart, a manifest will not he required, but the visiting otherer wili matisfy himself that anci is the state of the versei. A vessei from another pert of tho repulilic, or from a purt of a nation in which, by virtue of atipulations elltered into with this repubilic, hy treaty or convention, merchandise jut on board in the jorts of such nation must be aceompanied by bills of lading, wili be required to produce biiis of lading for articies which may have leen shipped in ssid ports, unci a general manifest for the remainder of the cargo not enbraced in auch bili. The captain or supercargo not fuldiling these ragulations nust leave port immediately; first paying
tonnage duty, unleas oxempted from anch payment by the law of the 26 th of June, before cited. Vessels car. rying a mail, and stoam or aailing packets, ahall be visited at any hour of the day or night, and in like manner their gooda and the baggage of their paseengers may be landed. A caetom-house officer will board veseela at Bocachica. When the vessel contains gooda subject to import doties, the hatchways, et0., shall be cloaed and sealed by the commanding revenue officer, packets being oxoepted from this regulation; after which formality, the custom-honse officere will retire, leaving a anitable guard, which shall be relieved daily. The aeala on the hutches, etc., are not to be broken, except bo the commanding officer who placed them there, of ny his deputy. The decree embraces a number of additional provieions in relation to the discharge of cargo, cuetom-house inspection, re-exportation, etc., etc., and is accompanied by an explanatory note from the Secretary of the Treasury of New Granada.

The consting trade of New Granada is open to all foreign vessels, but only foreign steamers are permitted to naviggate the rivers of the republic. This ia an important privilege to foreign veesels, and one which is destined to atimulate American enterprice in this nelghboring republic. When the repairs of the canal connecting the harbor of Cartagena with the Magdalena, now in progress, under the superintendence of an American engineer, ohsil have been completed, the internal trade of New Granudu will be the means of developing more fully its great resources, and briuging to market the tobacco, India rubber, quinia, hidea, corn, cocoa, coffee, sugar, etc., the production of which can be inereased to an incredible extent. When this canal shall have been completed, Cartagena will become the great emporium of New Granada-at least of 20 of the principal agricultural provinces, containing a population of $1,628,471$ inhabitants. The present tariff regulations of New Granada, to be found in Part 11., have been in force since May 1, 1855; but by a late act of Congrese, the manumiasion duty of 20 por cent. is to be supprossed, and, in lieu, the additional duty of 25 per cent. on the total amount of the import duty is to be increased to 50 per cent. The port regulationa of New Granada are such as are deemed necessary, as weli in view of the general convenience and safcty of vessels, as to answer proper police and harbor discipline. Places are pointed ont into which all rubbish, ete., is to be thrown. Ballast is to be taken in and thrown out under writton authority of proper officers. Cannon are not to be fired without permisaion of the captuin of the port. At Curtagena, it is forbidden to sound the uipler or interior channels of the port, or to have any cominnnication with the shore bet ween eight o'clock at night and tive o'ciock in the morning. It is also forbidden to disensark any indlvidual beforo the visits of the officers of eustonis and eaptain of the port. For the violation of any of these regulations, fioes aro imposed, varying from 10 to 40 dullars, uccording to the nature of the caso.

There are no quarantine regulations ut any of the ports of New Gramada, and consequently no hills of health are required. No light or hospital money is levied. No local impost is churged. At the port of Savanilia there is a water-tax upon all vessols arri ag there of 84 each, imponed by tho provincial legisinture. lilots are employed and puid by government. Their duty is to visit all vessels requiring their assistance, and all vessels coming from a toreign port uro required to pay the fuil fees, whether they take on hoarif a piiot or not. The fee is $\$ 11$, in and out. There is aiso a fee of 9640 to be jaid to the cuitain of the port on visiting the vessel, and $\$ 160$ for the interpreter. With the exception of the interpreter's fee, this amount is also levied on New Granadian vessels. Ily a decree of the Congreas of New Granadu, bearing date June 19,1856 , which, like thut of July 20 , aiready given, comea to hand as thesu sheets go to press, new rogu-
lations respecting tonnage dues are established, of which a tranalation is given as followa: "Tonnage dues, port dues, pilotage, and. vislt foes, whall be the same in all the ports of the republio, including the free ports of the Iathmua of Panama, Cartagena, Choco, Buenaventura, and Tumaco, and the following suma ahall be collected: 1. Every vessel under 100 tom shall pay 40 cente per Granadian ton for her capacity. 2. Evary vessel exceeding 100 tons shall pay 40 conts per ton for the irst 100 tons, and 20 cents per ton for each ton over the same. 8. Tonnage duas shall only be paid at the first port at which a vessel touches, proceeding from forelgn countries: vessels proceeding from one port to another in the ropublic ahall not pay tonnage dues. 4. War vessels of the count $\tau$, or of friondly nations, and transporta assimilated so them, which moy tonch at the ports of the republic, shall not pay tonnage dues. 5. Tha executive may exempt from tonnage dues, and permit to coast, sail or ateam veasels that agree to convey the maila between the ports of the republie, and carry auch correspondence gratis as may be entrusted to them. Those that do not agree to this, shall pey tonnage dues, cush, in hard dallars of the country. 6. Vessela arriving in ballast, or which load in New Granada, shall not pay tounage dues; neither shali those chartered to bring immigrants to the republic, when the number of the same exceeds 50. Tonnage dues shail be charged at the lathnus ports from the Ist September next; the product shall he divided equally between the State and general government."-Com. Rel. U. S., voi. iii., 1857.
Since Junuary 1, 1850, Punamu, and all the other ports on the lsthmus, have been free-Aspinwsill, of course, included. The only duties levied at these free ports are navigation dres, as mbove given; from which, lowever, the vessels in the service of the Panama ruilroad at Aspinwall are exempt by charter. In February, 1855, Panam was erected into an independent State, with the po"ar vested in the legisjature to establish custom-houres, or, in other words, to abollsh the existlag freedom of its ports. It is not very likely, however, that the new State will be lisposed to take any legislative action by which the existing franchise of Aspinwall would be abolished, or ever abridged. This new State has now become the principal centre of commercial interest in this repubilic, In 185: there entered and cleared at its l'acific port (the jort of Panama) tow vessels, mensuring an aggregnte of 277,735 tons, of which 312 entered floating cargocs, including
apecie, to the value of $80,478,000$; and there cleared 297 vessels, with cargoes valued at nearly $\$ 500,000$. In this movement, the number of vessele under the Amorloan fing was. 158, measuring an aggregats of 163,118 tons; under the British flag, 188 vessela, measuring In all 88,070 tons; and under the French flag, 20 vessela, with an aggregate of 8856 tons. The freighte under the United Statos' flag were valued at $\$ 51,935,000$ I those under the British, at $\$ 8,000,000$; and the remainder of the total given above was dlstributed between the Sonth Americun, French, end other, European flags. The American and British frelghts included the goid dust brought down from California by the steamers for the former, and the sliver brought up the coast fer the latter, in neither case including the large amounts in the hands of passengers. See Panama.

The total amount of gold and silver whlch passed through Punama in transit in 1853 was $\$ 52,037,785$. The countries whence this sum was exported, and the smounts from each, are given as follows:

$$
\begin{aligned}
& \text { Caltforaia. } \\
& \text { 842,627,352 } \\
& \text { Mextco .. } \\
& \text { 2.705,010 } \\
& \begin{array}{l}
\text { Peru ane Chilii. } \\
\text { Australla }
\end{array}
\end{aligned}
$$

6,544,876
Total.
252,037,785

Tho total number of passengers who crossed the Isthmus the same year was 23,690 , of whom 13,937 came frem California, and 9753 were proceeding to that country. In 1855 the tetal number of passengers that crossed the Isthmus was 28,704 . Of this number there came from Califurnia 10,015 , and there proceeded to that Stute 16,289, all in Anserican steamers; by the British stesmere there came from Europe 1300 passengers, and there proceerled to E: ope 1100. The transit of gold and sllver the same year amounted to $\$ 40,407,907$. This amount was brought from the forlowing points:

$$
\begin{aligned}
& \text { San Franclsea. } \\
& \text { Chili and l'era. } \\
& \text { 831,671,815 } \\
& \text { Mexico. } \\
& \text { 6,854,578 } \\
& \text { Panama. } \\
& \text { 4.367,961 } \\
& \text { 813,568 } \\
& \text { * } 40,4117,9107
\end{aligned}
$$

The tatal exports of New Graindn, iluring the year ending Deceusleer 31, 1853, amounted to *30,8:19,005 65. Of this sggregate amount, Cartigena exported $\$ 17,913,146$; Cucuta, $4,153,898$; Gunapolo, 214,
 25 ; Tumaco, $834,442$.



I'ritripal ['orts.-Chagres, a sea-port town of New |shipping from the United States, C'artagena, and the Granaila, Central America, on the northern coast of the Isthmus of l'anama, at the mouth of the Chagrea Kiver, on the Caribbean Sen. Latitule of furt San Lorenza $9^{\circ} 18^{\prime} 6^{\prime \prime}$ N., leng. $79^{\circ} 59^{\prime} 2^{\prime \prime} \mathrm{W}$. It is a nere collection of hots, with a harbor only for vessels drawing 10 or 12 feat of water; but it has frequent traffic with I'anama, and is semetinses resorted to by British West Indies,

Panama, a clty and sea-port town of New Gransia, on the l'acific, 38 miles south-oast of Ciagrea, lat. $8^{\circ}$ $56^{\prime}$ N., long. $79^{\circ} 81^{\prime} 2^{\prime \prime} \mathrm{W}$. I'opulation eatimated at 7000. It atands on a rocky peninmula, projecting into the Bay of Panama, and has an imposing sepect fron the sea. Its streets are well veniliated, and it is said
to be cleaner than most Spanish American cities. It is encircled by lrregular and not very atrong fortifications, construoted at different periods.' The houses are partly of wood, struw, and other fragi ' materials. The tiden daily rise and fall from 20 to 27 feet; so that it in peculiarly well fitted for the repair and building of ships. The Panama rall road has one of its termini here, and another at Aspinwall, on Manesailla Island, Navy Bey. . Traias take about four houre in passing from sea to sea. Soe Parama.

Cartagena, or Carthagena, is atrongly-fortified city and sea-port of Now Granada, South Americs, of which repablie it is the chlef naval arsenal, capital of the proviace, on asandy peninaula in the Caribbean Ses. Lat. of the dome $10^{\circ} 25^{\prime} 86^{\prime \prime} \mathrm{N} ., \cdot$ long. $75^{\circ} 84^{\prime} \mathrm{W}$. Population, $\mathbf{1 0 , 0 0 0}$, nine tentha of whom are m mixed black race. Its excellent port is defended by two forts, and is the oniy harbor on the north coast of New Granads adapted for repairing vessela. Cartagenm is the priacipal dépot for the produce of thn provinces watered by the Cauca and Magdalena Rivers, and is connected with the Magdalena by a canal. It exports sugar, cotton, coffee, tobacco, hides, specie, huliion, etc. Under the Spaniarde, this city was the neat of a captain-general, and one of the three tribunals of the Inquisition in America. It was the first town that proclaimed independence, and in 1815 endured a most vigorous siege, and wat subdued only by famine. Population of the province, 108,783.

New Elampihire. It is situsted between lat. $42^{\circ} 41^{\prime}$ and $45^{\circ} 11^{\prime} \mathrm{N}$., and $70^{\circ} 40^{\prime}$ and $72^{\circ} 80^{\prime} \mathrm{W}$. long. It contuins 8,080 square miles.

Population in 1790, was 141,885 ; in 1800, 188,858; in 1810, 214,460; in 1820, 244, 161 ; in 1830, 269,828; in 1840, 284,574; and in 1850, 817,864.

Early History.-John Mason, one of the first ominent settlers of the north-eastern coast of New Engiand, having agreed with Sir Ferdinando Georges to make the l'iscataqua the division line between them,
took anbsequently from the Plymonth Council a patent of what lies between that river and Merrimack, nnd be calied that tract of land "New Hampohire," because he had been Governor of Portamoath, in Hampahlre, in England.

In the year 1880 New Hampshire separated from the province of Massachusetti, and was established as an independent royal province. It was afterward united again with Maesaohusetts, bat in 1749 finally separated, and has existed since that time as an independent community, first under the name of "the Protince of New Hantpuhire," and aince 1770 onder that of "the State of Net Hampshire."
The Connectiont River has its source ln the hlghlands, on the north border of the State, and its west branoh forms the boundary iine between New IIampshire and Canada to within one mile of the 45th degree of north lititude. Its general course is south by west. and dividing New Hampshire and Vermont it passes through the western part of Massachusetts, and the central part of Connecticat, where it enters Long Island Sound. Merrimack River, the Pemigewassit hranch, rises near the Notch in the White Mountaing, and is joined by the Winnipiseogee, 70 miles below the source of the former. It here taices the name of Merrimack. The Androscoggin and Saco Rivera rise and have a part of their course in this State.

Granite is plentiful throughout the State, and also marhle and limeatone. Iron ore, zinc, tin, lead, and copper exist, some of which have been worked to advantage.

There were in this State in 1850, 2,201,488 acres of Iand improved, and $1,140,926$ of unimproved land in farms. Cash value of farms, $\mathcal{S o x}^{5} 5,24 \overline{0}, 997$, and the value of lmplements and machinery, $\$ 2,814,12 \overline{0}$. Live Stock.-Horses, 84,283 ; asses and mules, 19 ; milch cows, 94,277; working oxen, 59,027 ; other cattle, 114,606 ; sheep, 384,756 ; swine, 63,487 ; value of live stock, $\$ 8,871,001$.

Formiun Commeres of thi Btatif of Nrw Itampshing, fbom Ootohen 1, 1820, to July 1, 1856.


## NEW

Manyfactures, etc.-There wore in the State In 1850, 43 cotton factories, with a capital invested of 10,874 , $^{-}$ 700, empluying 2,016 malee and 0,235 fomules, producing sheetings valued at $18,801,749 ; 91$ woolen factories, with a capital of $\$ 2,547,500$, omploying 878 malea, and 1,021 females, manufacturing $\varepsilon, 712,840$ yards of cloth, and 165,200 lba, of yarn, vulued at $\hat{8}$,499,967 ; I establishment with a capital of 34,000 , employing 30 persoris, producing 200 tons of pig iron, ote., valued at $\$ 17,200 ; 28$ establishments with a capItal of 232,700 , employing 874 persons, and maklag 5,784 tons of castings, etc., valued at $\$ 871,710 ; 2$ entabliahments with a capleal of $\$ 4,000$, employlng 8 persons, manafacturing 110 tons of wrought iron valued at 810,$400 ; 178$ fluuring and grist milla, 80 saw mile, 165 tanneries, with a capital of 441,075 , eraploying 518 persons; 40 printing offices, 2 daily, 86 weekly, 1 semi-moththly, and 2 monthly newapapers. Capital inveeted In maoufactures, $18,242,114$; value of manufactured artieles, $\$ 28,160,603$.

Agricwltural Products, etc.-Wheat, 185,658 bushels; rye, 183,117; Indian corn, 1,578,670; oets, 978 , 381 ; barley, 70,256 ; buck wheat, 65,265 ; peas and beans, 70,888 ; potatoes, $4,304,019$; value of producta of the orchard, 248,663 ; produce of market gardens, * 56,810 ; pounde of butter made, $6,977,056$; of cheene, 3,196,563; maple sugar, $1,294,863$; molanses, 8,811 gallons; teeswax and honey, 117,140 pounds ; wool, 1,108,476; tiax, 7652; silk coccons, 4,101; hepe, 257,174 ; tohseco, 50 ; hay, tons of, 598,854 ; elover seeds, 829 bushels; other grass seeds, 8,071; fiax seed, 180 ; and were made 344 gallons of wine. Valne of homemanee manufactures, 8393,455 ; of slaughtered anlmais, $1,522,873$.

Principal Port.-Portamouth is the only sea-port in the State. It is situated on the south slde of the Piscataqua River, on a peninsuia, three miles from the sea, lat. $43^{\circ} 40^{\prime} \mathrm{N} .$, long. $70^{\circ} 45^{\prime} \mathrm{W}$. The sarbor is one of the best in the world; it has 42 feet water at lov ide through the while channel, and the carrent is sutlicient to prevent it from fruezing. The United States' Navy Yarl is located on an ialand near the main bank of the river. The city has valuable manufactures and a large foreign and country trade, and being interwected by the line of railroads between lloston und lPortland is connected thereby wilth all the New Fugland and Canada towns; a railroad also extends to Concord. The tonnage of Portsmouth in 1456 , was 34,590 tons.
The principus places in thls State are Concord, the canital, Manchester, Portsmouth, Dover, Exeter and Nashua. There were in 1858,15 rallronds, with 660 miles of track completed and $\ln$ operation, and 24 ln course of construction. The only canals are those facilitatiug the navigatlon of the SIerrimack River.

For comnerce, reaurces, ete., of New Hampshlre, see IIurr's Merch. Nag., Iv., 346 ; Am. Jo. Science, xlix., 27 ; Am. Quar. Reg., xlii., 170; North Am. Rev., xviii., 33.

New Jersey lles between $88^{\circ} 55^{\prime}$ and $41^{\circ} 24^{\prime}$ N. lat., and between $73^{\circ} 39^{\prime}$ and $75^{\circ} 29^{\prime}$ W. long. It is $\mathbf{1 6 3}$ miles long and 52 broad, and containing 8,851 square miles,

Population in 1790, was 184,189; in 1800, 211,149; in $1 \times 10,245,502$; in 1820, 277,575; In 1830, 820,759; in $1810,373,309$; and $\ln 1850,480,555$.

Eiarly History of New Jersey.-The shore and territory of the present State of New Jersey were at first, since 160 H, , a part of the great English province of northern Virginia; and then (since about 1621) it was considered (at least by the Dutch) as a part of their New Netherlonds.
The Englith; however, always claimed the eountry; and in the year 1648 Sir Filmund Iloydon and nome English gentlemen recelved a charter and grant of a great tract of country "Jying midway between New England and Maryland," to whici the name of New

Albion was given. This if the first English name which this country recelved. The oharter had, how. ever, no great consequences. . The Dutch remained in possesaion, and the name Now Alblom was forgotten,
When the Faglish conquered the New Netherlands for the Duke of York, all thls land was Included in the large territory given to the Duke of York. But the Duke of York very woon sold (as early as the year 1664) that part of his grant which was lying between Delaware and Hudson'e Kiver to Sir George Carteret and John Lord Berkeloy. The grant which he gave to them is dated on the 24th of June, 1684 . The conntry recelved at once the name of New Jerney, in compliment of Sir George Carteret, whose ancestors came from the Ialand of Jersey, and who was himeslf Governer of the Island of New Jersey:

The Iludson and Delaware Rivera flow on the eastern and westorn sidee of this State. The Karitan is navigable 17 miles to New Brunawlek, and it enters Raritun Bay' the Pusatic is navigable for amall vessels fur about 15 miles, and enters into Newark liny; the IInckensack, navigeble 18 milea, also anters Newark Buy. Great Eyz Harbor Kiver, navlgable 20 miles for amall craft, passea through a bay of the sume name and entars into the Atlantic. The principal bays are Newark and Ruritan. Delaware Bay la on Its south-eastern border. It has two important capes, vlz., Cape May on Delaware Bay, and Sandy Hook at the entrance of the llay of New York. It centains quarries of good bailding stone, valuable mines of zinc and of iron, and in the south parts, beds of narl.

The principal places in this State are Trenten, the capital, Princeton, New Branawlek, Rahway, Elizabethtown, Jersey City, Hoboken, I'aterson, Hackensack, Murristown, South Amboy, Ereehold, Burlington, and Camden. I'hers were In the State, July, 1857, 38 banka with a paid capital of $\mathrm{e} 5,147,741$. The total tomnage of the State, January, 1858, amounted to 93,300 tons.

The nerthern part of the State in mountalnnus, being crossed by a branch of the Alleghany Ridge; the middle portion is agroeably diversified by hills and valleys; while the southern part is level, sandy, and mostly covered with pines and a scanty growith of shrub ouks. The northern and middle portions of the State havo a fertile soii.

There were in the State ln 1850, 1,767,991 acres of Improved land, and 984,055 of unlinproved in farms. Cash value of farma $120,237,511$; and the value of Implements and machinery $\$ 4,425,603$. Lire Stock.Horses, 63,955 ; asses and mules, 4,089 ; milch cows, 118,736 ; worklag oxen, 12,070 ; other cattle, 80,455 ; sheep, 160,488 ; swlne, 250,370 ; valre of live stock, - $10,679,291$.

Agricultural Products, etc.-Wheat, 1,601,190 bushels produced; rye, 1,255,578; Indian corn, 8,759,704; oats, $3,0.8,063$; barley, 6,492 ; buckwheat, 878,934 ; paas and beans, 14,174 ; potatces, $3,207,236$; ; weet potstoes, 508,015 ; value of products of the erchard, \$607,278; produce of market gardens, 8475,242 ; lus. of butter made, $0,487,210$; of cheese, 365,756 ; mapla augar, 2,197; molasses, 954 gallons; beeswax and houey, 156,694 lbs. ; wool, 375,396 ; flax, 182,960 ; silk cocoons, 28 ; hopes, 2, 138 ; tobacco, 310 ; lay, 433 , 950 tona; clover seed, 28,280 lushels; ether grass seeds, 63,051 ; thax seed, 16,525 ; and were made, 1 ,-81- gallons of wine; value of home-made manufacturen, 112,781 ; of slaughtered enitmale, $92,638,552$.

Sfanufurfures, etc.-There were in the State in $1 \times 50$, 29 cotton factories with a capital invested of $[1,691$, 000 , employing 739 mules and 1,299 females, produciug $8,122,580$ yards of sheeting, etc., and $2,000,000$ pounda of yarn valued at $\$ 1,289,648 ; 51$ woolen factorles with a capital inveated of $\$ 110,650$, employing 407 malea and 137 fomales, manufacturing $\mathbf{i 2 1 , 1 0 0}$ yards of cloth, etc., valued at $\$ 784,722 ; 9$ establishementa making plg lron, with a capital invested of
\$967,000, omploying 600 persons, producing 94,081 of pig Iron, etc. ; entire value of products 917,$000 ; 46$ establishments with a capital of $\mathbf{\$ 0 8 , 2 5 0}$, employing 803 persons, making 10,2059 tons of castings, valued at e 686,$430 ; 58$ oetabliahments with a capital of $\$ 1,016$,843, eniploying 598 persons, manufacturing 8,162 tona of wroughit iron valued at $\mathbf{\$ 2 0 , 2 7 8 \text { ; } 8 9 1 \text { thouring and }}$ griat mills 175 printing ottioes, 61 newapaperi, 8 daily,

50 wookly, and 8 monthly publications. Capltal invested in manufactures, $\$ 22,184,710$; value of manufwetured articlae, $889,184,614$. The Delaware and Raritan Canal, 42 miles long, and the Morris, 102 milea long, are the canals In this State. Thare wore, January 1, 1866, 11 railrouds with an aggregate length of 504 milea la operation, and 29 miles in course of construction. The State of New Jaraoy has no publie debt.


| Yeart ending | Exporta. |  |  | Importh | Tonnage olasared. |  | Disiriot Tonnage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domesile, | Forelgi. | Total, | Total. | Ambrican. | Forviga, | Reghtered. | Favrolled and Leensud. |
| Bejpt. $80,1891 . . . . . . .$. | 68,618 | 198 | 88,711 | 17,906 | ${ }^{281}$ | *** | 207 | 84,043 |
| 180pl. $1822 . . . . .$. | 83,501 | .... | 88,551 | 108,100 | 2.808 | $\ldots$ | . ... | .... |
| 1828......... | 26,164 | . . . | 26,004 | 0,089 | 1,299 | .... | $\ldots$ | $\cdots$ |
| 1824........ | 28.989 | $\cdots$ | 28,989 | 687,518 | 1,468. | .... | . | . |
| 1825......... | 48,080 | 8,288 | 47,218 | 87,988 | 1,657 | *** | - ** | . $\cdot$. |
| 1826......... | 80,859 25,627 | 7,106 | 87,965 | 48,004 | 1,658 | $\because \ddot{71}$ | .... | .... |
| 1827........ | 25,627 1,892 | $\cdots$ | 25,697 1899 | 888,497 | 983 | 671 | .... | .... |
| 1829........ | 1,892 | $\ldots$ | 1,899 8,027 | 704,878 786,47 | 180 414 | *** | . | ... |
| 1880......... | 8,224 | 100 | 8,824 | 18,444 | 627 | .... | ..... | .... |
| Total... | 8200,881.4 | 110,087 | 8801,888 | 2,684,900 | 10,718 | 87 | - | *** |
| $8 \mathrm{ept} .80,1881$. . . . . | \% 11.480 |  | 111,490 |  | 708 |  | 1,254 | 80,978 |
| 1832......... | 68,991 | 17,808 | 01,794 | 870,460 | 782 | 800 | , | , |
| 1889........ | 80,858 $8.18 t$ | 1,900 | 82,738 | 170 | 1,424 | *93* | . | *** |
| 1894........ | \%8.18t | Tiots | 8,181 | 4,492 | 9.897 | 235 | . | . |
| 1836......... | 88,769 | 24,040 | 68,800 | 54,268 | 8,076 | $\cdots$ | - | $\cdots$ |
| 1887........ | 19,040 | 24,677 | 44,217 | 60,169 | 427 | 9,002 | . $\cdot$ | - |
| 1888........ | 28,010 |  | 28,010 | 1.700 | 909 |  | . . . | ., $\cdot$. |
| 1889......... | 73,484 | 19,645 | 98,079 | 4,182 | 8,904 | 847 | . . $\cdot$ | . $\cdot$. |
| 1840........ | 14,888 | 1,198 | 16,076 | 10,209 | 725 | .... | ... | . |
| Total.... | 8850,504 | 60,886 | 687,840 | 8219,060 | 16,158 | 10,885 | *** | *. ${ }^{\text {c }}$ |
| 8ept. 80, 1841........ | 16,166 |  | \$18,168 | 12,815 | 2,739 | . $\cdot$ | 848 | 10,708 |
| 1842......... | 64,931 | 5,970 | 70,907 | 145 | 2,301 | .... |  | .... |
| 8 mos . $1843 . . . . . .$. | 80,088 | 9.698 | 10,621 |  | . 180 | .... | . | . |
| June 30, 1844......... | 18,839 | 4,800 | 18,189 | 17,670 | - 609 | .... | $\ldots$ | ** |
| 1845......... | 4.087 | $\cdots$ | 4,087 | 849 685 | $18 i$ | ... | . $\cdot$ | *..' |
| 1846......... | 18,423 | -700 | 10,129 | 685 4,887 | 652 | 61is | ..... | $\ldots$ |
| 1848.......... | 18,49 | .... | -62 | 1,885 | .... | 980 | .... | .... |
| 1849........ | 855 | 8 | 863 | 4,258 |  | 429 | ... | . |
| 1850........ | 1,655 | .... | 1,655 | 1,494 | 150 | 981 | . |  |
| Total.... | \% 180,606 | 18,072 | 144,178 | 84,018 | 6,608 | 8,244 | -** | . ${ }^{\circ}$ |
| June 80, 1851........ | +189 | . $\cdot$ * | ¢ 180 | \%,111 | *..* | 8988 | 874 | 88,518 |
| 1859....... | 1,488 | .... | 1,488 | 2,49t | .... | 1,898 | 析 | 88,818 |
| 1 $58 . . . . . .$. | 1,864 | .... | 1,834 | 8,839 | .... | 2,631 | . . | .... |
| 1254........ | 2,225 | ... | 2,225 | 8,071 | .... | 8,029 | .... | . $\cdot$ |
| 1855........ | 687 | .... | 687 | 1,478 | . | 608. | .... | . . . |
| 1856........ | 890 | *** | 890 | 2.788 | .... | 608 | .... | . . $* *$ |

Principal Ports.-Jersey City is a flourishing eity at the mouth of the Hudson Kiver, opposite New York city, and is the terminus of the aouthern railroad travel, and also of the New York and Eria Railroad and of the Morris Cunal. Though a separate munleipality, it may be considered as a auhurb of the great metropois, with which it connects by several terries. It is a place of considerable manufacturing induatry; ship-bullding, and commerce, and it is the American station of the Cunard line of New York and Liverpool steamshipa.

Paterson is situated immediately below the falls of the Passalc River, 17 miles from New York. It ranks next to Newark in manufuctures, and ia the third eity in the State as to population. Its principul products are cotion and ailk goods, locomotives, machinory, paper, ete. On the opposite side of the river is the manufacturing town of Maneheater. I'aterson communicater with Now York by the Pateraon and Hodson Raliroad and Morris Cansl.

The other townn of note are Newark, Now lliunswiek, Cumden, Trenton, and Princeton.

New London, Connecticut, is situated on the Thames River, 8 milea from the ocean, 50 milea esst of New liaven by railroad. Its harbor in one of the best In the United States, but is seldom visited by foreign vesse: ${ }^{\text {a }}$. The whale fiaheries constituto its main Interest, and it hut also a large coastlng trade. Several maliroads connect it with the interior, Now Yerk, and Boston, and regular ateamboats ply to and
from New York. The tonnage in 1856, was 40,871 tons. Population in 1830, 4850; in 1854, 10,000.

New INexioo, a Territory of the United States of America, lies between lat. $32^{\circ} 30^{\prime}$ nnd $88^{\circ} 32^{\prime} \mathrm{N}$., and long. $103^{\circ}$ und $116^{\circ} \mathrm{W}$. from Greenwich, England. Area, 210,744 equare miles.

New Mexico is a mountainous country, with an extensive valley in the middle, running from north to south, and formed by the Rio del Norte. The valley is genarally about 20 miies wide, and bordered on the east snd weat by mountain chains, continuations of the Rocky Mountains, which have received here different namses, as Sierra Blanca, de loa Organos, Oscura, on the eastern side, and Sierra de los Grullas, do los Mimbres, toward tie weat. The height of the meuntains south of Sante Fé is from 6000 to 80 ? 'net, while near Sante F ', and in the more northern regions, some snow-covered peaks rise from 10,000 to 12,000 feet above the eea. The mountains are principally composed of igneous rocks, as granite, sienite, diorite, busult, ete. On the higher elevations, excelient pine timber grows ; on the lower, cedars, and sometines oak; in the valley of Rio del Norte, mezquite. The main artery of New Mexico is the Rio del Norte, Its head waters were explored in 1807 Ly Captuin Pike, between $87^{\circ}$ and $38^{\circ} \mathrm{N}$. lutitude; but its highest sources are supprosed to be about $2^{\circ}$ further north in the Rocky Mountains, neur the head waters of the Arkansua nnd the Rio Grande (of the Colorado of the west). Following a generally southern direction, it
runa through Now Maxico, where its prinelpal afluent ts the Rio Chamas from the west, and winda lea way then in a aouth-eastern direction along the borders of Chihuahna, Coshulia, and Tamaullpas, to the Gulf of Mexico, In $25^{\circ} .66^{\prime} \mathrm{N} \cdot$. lat. Its tributaries below RI Paso, are the Pecos, from the north; the Conehoa, Salado, Alamo, anil San Juan, from the sonth. The whole course of the river, in a atraight line, would be near 1,200 milsa ; but hy the meandering of lisa lower haif, it runn at leant 2,000 mllea from the region of perpotual anowa to the almost troplcal elimate of the Gulf. The elevation of the river ahove the sea near Albuquerque is about 4,800 feet; at el 1'aso del Norte, about 3,800 ; and at Keynosa (between 300 and 400 miles from its mouth), nhout 170 feet. The fall of lits water between Alluquerque and el l'aso, is from 2 to 3 feet in a mile, and below Reynosa 1 foot in 2 nuiles. The full of the river is aeldom uned as a motive power, except for some flear mills, whleh are oftener worked by mulea than water. The principal mivantage which is at present derived from the river, is for agriculture, by thelr well-manared ryatwm of irrlgation. As to its navigation In New Mexico, even canoes could not be used, except perhaps daring May or June, when the river is in ite highest state froin the melting of the nowa in the mountalas. The river is entirely too shallow, and interrupted by two many sand-bare, to promise any thing for navigation. On the southern portion of the river, the recent expluration by Captain Sterling, of the United States' ateamer Mfajor Broven, has proved that steamboats may ascend from the Gulf as far as Laredo, a distance of 700 miles. ilthough the steamiont used dill not draw over two feet of water, yet the oxplorers of that reglon oxpress their opinion, that "by spending some $\$ 100,000 \ln$ a proper improvement of the river above Mier, boats drawlig four feet could readily ply between the mouth of the Rie Grande and Laredo."
There were in this Territory lo 1850, 160,201 acrea of hand improved, and 124,370 of unlusproved land in farma. Cash value of farms $\{1,653,952$, and the value of Implementa and machinery 477,960 . Lire Stock.Horses, 5,079 ; assea and mules, 8,654 ; mileh cows, 10,235; working uxen, 12,257; other cattle, 10,085; sine ep, 377,271 ; swine, 7,314 ; value of live stock, 81 ,494, 6i29.
. Igricultural Producte, etc.-Wheat, 191,516 hushels produced; ludian corn, 865,411; oats, 5; herley, 5; buck wheat, 100 ; peas and leans, 15,688 ; potatoea, 3 ; value of producta of the orchard, 8,231 ; produce of the market gardens, 06,079 ; ponnds of butter made, 111; of cheese, 5,848 ; molasses, 4,236 gullona; beeswax and honey, 2 pounds; wool, 32,301 ; hops, b0; tolmece, 8,467 ; and wure made, 2,863 gallons of wine; value of home-made manufactures, $\mathbf{\$ 6 , 0 3 3 \text { ; of shaught- }}$ ered urimaly, 682,125 .
Besides agriculture, the inhabitanta of Now Mexico pay a great deal of attention to the mising of atock, as horses, mules, esttle, sheep, and gonts. Their stock is all rather of a mall size, becauso they care very lit. tle for the improvement of the breed; but it increases very fast, and as no feeding in stablea is needed In the winter, it gives thens very little trouble. There are large tracts of land too diatant from the water-coursen to the cultivated, or in 200 mountainous parts, which afford, nevertheiesa, excellent pasturage for millions of atuck during the whele year ; but unfort unately the raising of the stock has been crippled by the invasione of the hontile Indians, who consider themselves secret partners in the buainess, and anaually take their share a way.
A third, much noglected branch of induatry In New Mexico, are the minea. A great many now deserted mining placea in New Mexico, prove that mining wan pursued with greater seal in the old Spanish timen than slace, whieh may be accounted for in varioun waya, as the want of capital, want of knowledge in
mining, but eapeenally the unsettled atate of tha coun. try and the avarice of ita arbitrary rulera. The mount. ainous purts of Now Mlaxico are vory rieh in gold, copper, lron, and allver. Gold seems to be found to a large oxtent In all the mountaina near Santa $F 6$, nouth of it in a diatanee of about 100 milea, aa far as cirinn Quivira, and north for about 120 miles up to the Rlver Sangre do Cristo. Throughout thin whole region, gold duat bus boen abundantly found by the prorir chases of Mexleans, who secupy themselves with tho washing of thla metal out of the mountuin ntreams. At present, the old and new Plucer, near Sante Fis, have attracted most attentlon, and wot only gulli washes, but nome gold minea, too, are werked there. They are the only gold minee worked now in New Mexico. Several rich allver mintes were, $\ln$ Spanish times, worked at Avo, at Cerrilloos, and in the Nambe Mountalna, but none at present. Copper is found in abundance throughout the country, but principally at las Tijeras, Jemas, Ablquiu, Gaudelupita de Mora, etc. There is but one copper mine worked at present south of the placers. Iron, though also abundantly found, is entiroly everlooked. Cal has been discovered in different localities, as in the Raton Mountains, near the village of Jentez, south-west of Sunta $\mathrm{Fi}_{\text {, apit in }}$ a place south of the placers. Gypsam, common and selenito, are found; most extonsive layers of it exist In the mountairs near Algodenes, on the his del Norte, anil in the neightworhoorl of the celebrated "Salinus." It is used as common llue for whitowashing, and the cryatulline or selenite instead of windowglass.

Santa Fó is the capital of the Torritory. There were in 1850, 3 printing offices in the Territory, issuing a weokly and a tri-monthly, and a monthly puiblieation. In the same year there were 1 ncalemy, with 40 pupils; 146 Rowan Cathollc churches. Total ancuut of church property valued at $\$ 188,200$.
The climate of New Mexico is of course very different In the higher, mountalnous parts, from the lower valley of the Rio del Norte; hat generally takeo, it is temperate, uniform, and bealthy. The summer heat In the valley of the river will sometines rise to nearly $100^{\circ}$ Fabreuheit, but the nights are always cosil and pleasant. The winters are Dung and eevere; the higher mountalns are always covered with snow, and ice and snow ary common in Santa Fó; hat Rio del Norte is never frozen with ice thick enough to aulmit the passuge of horses and carriages, as was formerly believed. 'The aky is generally clear, and the atmosphero dry. Between July and Oetober, rain falls; but the rainy seasons are here not so constant and regular as in the southern Staten. Disease meenas to be very little known, except some inflammations and typheidal fevers in the winter aeason.
Of the history uf New Mexico wo authentically know but little. The Spaniards, it soems, received the first information in regard to it, in 15x1, froma party of alventurers, commanded hy C'aptaia francinco de levya bonillo, who, tinding the atorigina inhalitants and the mineral wenlth of the conutry to be slonilar to those of Mexico, called it New Sexico. In the year 1594, the Count de Munterey, then viceroy of Mexico, sent Juan de Uniste, of Tacatecas, to take formal possession of the country, in the name of Spain, and to eatablish colonies, anissions, and pres. illios (firts). They found many Indian tribes, which they suceseded in Christianizing in the uausl Spanish way, with sword in hand, and made them slaves. The villages of the Christianized Indians were called Pueblos, In opposition to the wild and roving tribes that refused auch favors. Many towns, of which only ruins exist now, were established at that time ; many minea were workel, and the occupation of the counary seemed necure, when, in 1680, a reneral insurrection of all the Indian tribes broke out, and the Spaniarls, who were quite unduspecting and unprepared, were
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traverse trihutar ternal a or Now roots, an tively at which N ress has frum the during $t$ of the $n$ city amo exported spect to value of York un many; the " $W$ tant per well in $t$ and, con nary fert of the 1 those wh come th of the Stesmy n this por the Nisa used for performe lerity, a Mr. Flin Steam-b and it is harbor. levee, es 5000 or 1 time; ar gether fu the Has increasir ranks th rior ouly
masaacred almont to man. The Governor of Neve Mexico, Don Antovio de Otermin, after a hard struggle, retreated from Santa F6, and marehed us far south as i'uso del Norte, where he and his followers met with some friendiy Indians, made a atand, and lald the foundation of the town of that name. The war with the Indians lasted 10 years, when the Spaniards reconquered the whole country. Subsequently, sev. eral Insurrections have taken place, none, however, have lieen so disastrous as the first, but the deep rancor of the Indlan race againat the white, has continued to the present tlme. There has grown up a hatred betwaen the Indlans and the Mexleana, never to be subdued hut with the extinction of the raee.
Santa Fis was taken by General Kearney, September $N_{1}$ 1816, and the Territory was ceded to the United States by the treaty of Guadalupe Hitalgo, Felruary, $1 \times 18$, und the prosent territorisl government entabiisheil ln 1850. The legislative ansembly conalsta of a council of 13 members, elected for 2 years, and n $h^{r}$... of repre entatives, of 26 mambers, elected for 1 year. Governur appointed hy the President of the United States for 4 yeara. Every free white inhabilant, 21 jears of age, and a citlaen of the United States, is a legal voter.
New Orleans, the capital of Loulaiana, one of the United States, on the eastern bank of the Miasiasippi, ahout 105 milea from its mouth, lat. $29^{\circ} 57^{\prime} 45^{\prime \prime}$ N., long. $80^{\circ} 9^{\prime}$ W. Population, in $1850,119,461$. The new-bullt atreets are broad, intersecting each other at right angles; and the houses are mostly of brick. It is the grand emporlum of all the vast tracta tniversed by the Missiasippi, the Misnouri, and their tributary atreams, enjoying a greater command of intemal navigation than any other elty, either of the Old or Now World. Civillization has bitherto struck its rooth, and began to flouriah only in some comparatively small portiona of the immense territories of which New Orieans ts the sea-port ; and yet its progress has beet rapid beyond all preceden'. It appears from tho accounts printed by order of longrees, that during the year endod the 30th June, i 52 , the value of the native American produce expc ted from this city amounted to $\$ 48,808,169$, while the value of that erpurted from New York was $\$ 74,042,581$. With reeppect to imports, the case is materialiy ditferent; the value of those of New Oricans, in the year just mentioned, beiag only $\$ 12,057,724$, whereas those of New York umounted to $8182,829,306$. It is believed by many, secing how rapidly settlements are formlog in the "West," that New Orleans must, at no very distant period, exceed every other city of America, as well in the magnitnde of its imports as of its exports ; snd, coosidering the boundless extent and extruordinary fertility of the uneultivated and unoceupied hasins of the Mississippi and Mlasouri, the anticipations of those who contend that New Orleans is destined to hecome the greatest emporium, not of America only, but of the world, will not appear very unreasonable. Stoam navigation has been of Incalculable service to thls port, and, indeed, to the whole of the valley of the Mississippi. The voyage up the Mississippi, that used formerly to be so difficult and tedious, is now performed in commodious steam packets with ease, celerity, and comfort. "There have been counted," says Mr. Filint, "in the harbor, 1500 flat-loats at a time. Steam-boats are arriving and dejparting every hour; and it is not uncommon to see 50 lying togather in the harior. A forest of masts is constantly seen along the levee, except in the sultry monthe. There are often 5000 or 6000 boatmen from the upper country here at a time; and we havo known 30 vessels advertised together for liverpool and Havre. The intercourse with the LIavana and Vera Cruz is great, and constantly increasing." As a shipping port, Naw Orleans now ranks third in the Union; belag in this respect inferior ouly to New York and Buaton. Vessels of the
largent hunden may navigate the river ceveral hane dreds of milles above the elity. Tha aggregate burden of the shlpping belonging to the port on the B0th Jupe, 1852, amounted to 268,018 tone; of which 102,037 were employed In ateam uavligation. In the year anding 81 st Auguat, 18b2, the arrivale of steamers, prinelpally from the interior, were 2784. The depth of water in the river opposite to Now Orleans is, at a medium, sbout 70 foet $;$ and it maintaina monndings of 30 foet till within a mile of its confinence with the sea. Besides thrte or four of Inferior eonsequence; the Mississippl has four princlpal passes or outlets. In the south-east, or main pass, at Dalize, the water on the bar, at ordinary tider, doee not exceed 12 feet; and an the rige of tides in the Giulf of Mexico la not more than 2 or 2 f feet, vesaels drawing much water can not make their way from the ocean to New Orleans. The unhealthiness of the climate is the great drawback on New Orieans. This probably ariees from the low and marshy altuation of the city and aurrounding country, which is undor the level of the Misaissippi, being protected from Inundation by an artificial levee or mound, varing from 5 to 30 feet in hoight, and extending along the bank of the river a diatance of 100 mites. The unhealthy season ineludes July, August, and September; during which period the yellow fever often makes dreadfui havoc, particularly among tho poorer elasses of immigrants from the North end from Europe. Latterly, great efforte have been made to improve the health of the elty, by pupplying it abundantly with water, paving the streets, removing wooden sewers, and replacing them with others of stono, ete. Many placen, where water used to atagnate, have been filled up; and large tracts of swampy ground contiguous to the town have been drained. And as such works will no doubt be prosecuted on a atlll larger soale, aecording to the inerease of commerce and population, it is to be hoped that the ravages uf fover may be materially abated, though the situation of the city excludes any very strong expectation of its ever belng rendered quite free from this dreadful scourgo. It has latterly been proposed to bring earth from tie upper parts of the Nississippi, and to employ it in forming a site for a new city ruised some foet above tho level of the river. It is believed that this would be the most likely means to guard against fever; and the oliject in view is of such puramount importance, that the experse of the schome should be reckoned a very inferior matter.

Several cotton pressea are among the most impesing structures in the city. The Orleans cotton press is on ground 632 feet long and 308 wide, which is nearly covered with buildings. It contains a centre building, three stories high, surmounted by a cupola, which affords a fine view of the eity. The wings are two stories high, and very extensive. It presses, on an avarage, 150,000 bales of cotton annually, but ita capacity is much grenter. There are other cotton presses. Several of the banka have fine buildings, and come of the hotels are magniticent. Two of these hotels cost $\$ 600,000$ each. The United States' branch mint has an edifice, 282 feet long, and 108 feet deep, with two wings 29 by 81 feet, the whole, three stories high, which cost 9182,000 . The city is supplied with water raised by powerful steam-engines from the Mississippi River into a reservoir constructed on an artificial nound, 21 feet high nt its base. The reservoir is 250 teet square, built of brick, and plastered with hydraulic cement. It is divided into four compartments, to allow the water to settle before it is distributed over the city in cast-iron pipes, which are laid to the nggregute length of 18 miles. The water works belonged to the Conunercial Bank, and $r^{r}$ t $\$ 722,004$. The city lighted with gas. A draining company, with a capital of $\$ 04,000$, has two steam-engines for draining the marshes of 35 -miles in extent between the city and Iake Pontchartrain. There are in the cif; a United

Btates' land offiee, several puhile and private banks, having a large capital, and everal hasuramee companies, with conmmonsurate capitals.

The maanfacturiag establishanante of this eity are eomprised under the head of furnaces, founderies, machine shops, sugar refinerlee, cotton factorien, diatilleri $x$, tobaceo fisetories, saw milis, ate. The whole employed a capital la 1850 of $\$ 2,1: 2,060$, and manufactured articlea valued at $04,462,044$; pioce which tine the Inerease has been very rapld, and in 1854 were estimated to have doubled the amounts of 1800.

On the right bank of the river, and opposite to New Orleane, connectec by a nteam ferry; is Algiers; and adjoining, the suburh of Macdonough, where are the United States' Marina Hoapital and many pleasant eshlences. Algiers contains several large machine shops, iron founderies, and ahlp-buildiag entablishments.
There are steam and salling packet lines to all the large men-port cition, sailing weekly. Also, steann packets weekly to Vera Crus and other ports in the Gulf.

Foz commercial purposes, New Orleans occuplen a very superior and cornmanding situation. It ia the natural entrepót for supplies destined to all parts of the Mississippi ralley, as well as the dépott for those proilacts of that allubrious region which neek a market geaward. Hy means of the Mississippl River and Its tributariea, an inland trade is opened to her grasp, the magnituile of which has never been equaled. Steanlers may loave ber wharves and proceed on voyages of several thousand milen without breaking bulk. The Missixsippi and its afliuente are flanked on either aide by extenaive territories, unsurpassed in richness of soil, which readily yiehi a harvest to the labors of the agricultarist, whether it be of sugar, cora, or cotton. These are the principal staples of the valley, and the receipts of each of their products at New Urieans are rapidly increasing. Ileretofore, the river has been the only channel depended upon for their transportistion. Several lines of railroad are in proceas of conatruction now, however, to facilitate the tranajortation of cotton end sugar produced at a distance from the river, to market, anil thus enlarge the area of production. Those bulky products will not bear an extensive land carriage by the ald mode, and result in wealth to the producer; but the construction of ruilroads for their cheap tranalt to the river even, will not only change the prospects of the interior planters for the better, but will adid greatly to the wealt h and commerce of New Orieans, which is eminently a pluce of exchange and distribution. It is the great dejpoit of the south-western plantations, where cotton and sugar crips are bought and sold while still in the tield, or "advonced" upon prospectively if necensary. It has alvo an extensive trule with 'lexas, Mexico, and the Guif ports, as weil as a very beavy foreign export trade. She has, healden, a large coanting trade with Atlantic ports, the value of which can only be known generally by ito results. Iler commercial life may le aaid to date after the cesaion of Louiaiana to the United States, in 1803, as prevlous to that, her coinmerce was inaignificant; and yet, in this short period of about 40 years, she already ranks as the fourth city of the world for the magnitude and value of hep commerce. The facilitiea and convenience of transacting business at New Orleans are fully equal to, and in many respects superior to those of any other place. It is the centre of fmmonee exchange operations, end any amount of funis can at all times be obtained at the shortest notice under gond letters of credit, and bllls negotiated with great readiness and facility on any prominent point in the United Statea, or any of the cominercial citles of western Euroje; and the banking institntions afford all reasonable accommodationn to the local wanta and trade of the city. Some Kuropean clties can dhow more splendid quays or magnificent docks for the accommo-
dation of ahipping, and the landing and loading of car. guea, fur axcemiling 'a appearance and durability any thing of the kind in New Orieans, but in no way superior in point of actua 'conveniance to the unprotending wharven of the city. As is renerally hnown, the ourface of the alluvial soll of Louisiana, including, of course, the site of the elty, is consideralily below the river in ondinary atages of hlyg water, and the country Is protected from inundation by a ralsed and solid ensbanknient called the "levec," extending on both sides of the river below, and a great distance above the city, Outsile of the levee the bank of the river is called the "batture," which In many placen is incrensing from the continual alluvial deposits, while in other plues the river has what is called "a falling luank," aull the water gramually encroaches on the land. In the furmer casa the levee is advanced as the batture incronses, and this has been tha casa in a large portion of the front of New Orleans, where, In aome parts, the levee has, in the last 25 yer re, adranced fully 1000 feet; and the front warehouses now atand for a long extent that distance frum the wator, afforling \& splendid space for the vast bulk of produce that is annually landed and shipped. The wharves are conatructed ontwide the levee on maseive piles, driven with a heavy imn ram into the mud, and extending ovor the river into the water sufficiently deep to admit the hervient steumboats and ships to lle up against them; heavy oleepers connect tho piles at their topa, and on thess piles the platform is laid, of thick planking, the edges of which are eeparated about one inch, to prevent the accumulation of dirt, which fulls through these interotices into the river flowing below, and in tive minutea after the heavient storm the whole aurface is in perfect condition to receive any description of merchandize. Theee wharves are thus planked back till they join the crown of the levee, in nome places 160 to 200 fert, which is male flrm and sold ly a eonatingt coating of shells, and always kept in good order. One of these wharves presente an unbroken front on the river of 1500 feet, and others 600 to 800 feet, and in the busi. ness season it is usual to see these fronts entirely occupied with nteumboats lying bow on, and each with her etage rigged out to the wharf, actively engaged in loading or unlanding. The wharves intended for seagoing vessels are detached from ench other with in intervening dock, and each wharf accommedates a tier of veasela, which, unlike the ateamboats are moored up and down the river, one outside the other, three, four, and five tiers deep, with a liruad, common stage communicating with the levee, and extending on the buiwarks of the vesael to the outaide one; the timber, plank, and all the conveniences for this ataging, leing furniahed by the eity, who even also supply tarpsuiins to protect the goodi in case of rain.
New Orleans was founded by the French in lilic. In 1762 it was conveyed to tho Spanish, who, in 1810 , re-conveyed it to the French, and in $1 \times 03$ it was in cluded in the purchase of Ioulsiana hy the Unitod States. On January 8th, 1815, the IIritish anuier General Puckenham made an attack on the city, approaching, it through Lake Borgne, but were nignaily defeated by tue Americans unler General Jackson. The Hritish loss in killed and wounded was :1040 men, and Gencral P'ackenham was killed; the Americans lost only 7 men killed and 6 wounded. In 1718 ilienvilie. at that time governor of the province, nelected the present alte of New Orleans, bat owing to difliculties he had to encounter, it was not located until lits.2. In 1727 the Jeauita arrived and wero located in a trict of land, on a portion of which St. Cha-les llotel now stands. In 1763 they were compelied to quit louisiana by an order from Pope Clement XIII., and all their property confiscated, then estimated to be wurth 4180,000 , which is now worth uver $820,000,000$. in 1769 the first case of yellow fever known, was introduced by a British slaver with a cargo from Africa.

In 17

In 1778 Le Mowiewr, the firat nawapaper, was pub- York. In 1825 the grounde above Canal-atroet and lisherl; there are now 12 dalliea and as many weekly below Esplanade-atreet were princlpally plantations. papers published. in 1810 the Atrit atreet wan 'vel The following atatioles give a complete view of the in Now Orleana. At this time auch wan the an tic of trade of thia great and growing emporium. Ite preponthe atreeta after a raln, that aleda were uned to drag derance in ablpment of cotion is as deciled as that of cotton, walch pald it a bale. In 183 gan and Manchentar in its manufacture: for further information water were introduced. The preannt area of the elty refer to artlelen, Cotron, Couton Mnnopactura, ta not far from 40 aquare miliea, donble the nize of Now, Great Battatn, Lovisiana, Unitrid Statas.
 Avurnt 81.


| Months. | Culton, per pound. |  |  |  |  |  | Tobmeco, per hogabead. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1958-57. |  |  | 1885-58. |  |  |  |  |  | 3886-50. |  |  |
|  | Levarpmerl | Hevre. | Now Yorh | Livarponl. | tlavre. | New York | 1,dverpaol. | 1/avre. | New York | Liverpeol. | Hevre. | New York |
|  | Pence. $8-8$ | $1^{\text {Centa. }}$ | $\begin{aligned} & \text { Conte. } \\ & 8-8 . \end{aligned}$ | $\begin{aligned} & \text { Pence. } \\ & 8-4 \end{aligned}$ | $\begin{aligned} & C_{\text {enta. }} \\ & 1-9 \end{aligned}$ | $1^{\text {Centa. }}$ | ${ }_{4}^{4} 88$ |  | 1800 |  | \$1850 | \$1000 |
| September.... | 1-2 | 1 | 7-16 | 7-8 | 1 1-8 | 1 | 426 | ... | \% 80 | ... | -1200 | -1000 |
| November.... | 15-32 | 1 | 1-2 | 7-8 | $18-4$ | (1) 8-1 | 450 | $\ldots$ | ${ }^{600}$ | .... |  | 1200 |
| 1)ecembar.... | $17-84$ | 1 1-16 | 1-2 | t-8 | 1 | 0 1-2 | 128 | . $\cdot$. | 600 | . $\cdot$. | 1200 | 750 |
| January ...... | 9-10 | $18-16$ | 9-16 | 8-4 | 1 1-2 | 0 1-y | 300 | . | 775 | . | .... | 775 |
| February..... | 9-16 | $18-16$ | 9-16 | 1-2 | 1 1-16 | $000-16$ |  | .... | 775 | .... | .... | 760 |
| March ....... | 15.89 | 1. | 1-2 | 58 | 1 1-4 | $0{ }_{0}^{8} 8$ 8-4 | 400 | .... | $7 \%$ | .... | . . . | 850 |
| Ajrll. . . . . . | 5-18 | () 8-4 | 8-8 | $\stackrel{5}{5-8}$ | $1{ }_{1}^{1} 1-4$ | 08  <br> 0 8 | $\begin{array}{ll}85 & 0 \\ 97 & \end{array}$ | . $\cdot$ | 600 | .* | * . | 8511 |
| May.......... | 8-18 | 07.16 | 1-4 | 5-16 |  |  | 27 6 <br> 80  | .... | 880 | 250 | .... | 675 |
| \$une.......... | 5-16 | $\begin{array}{lll}0 & 5 \\ 0 & 8\end{array}$ | 8-16 | 11-82 | 0 8-4 | 088 | $\begin{array}{ll}80 & 0 \\ 80 & 0\end{array}$ | .... | 280 | 350 | .... | 475 |
| July.......... | 11-82 | $\mathrm{O}_{1} 8-1$ | 8-16 | 1-4 | 0 5-8 | 0 1 -1 <br> 0 8  | 80 | $\ldots$ | 980 | 890 | ' | 850 |
| Aughat........ | 7-16 | 1 | 5-16 | 7-18 |  | 0 8-8 | 850 | .... | 8 \$0 | 876 |  | 450 |

Comparativy legen of Mipoline to fair Cotton at Comparativg Arbivais Exports, and Stockr of Cotton New (lqueask, on the Firat liay of gacil Montif Hutiva a prbiod of Five Yeags, togerifen witu the ''otal kergipta at Nfw Onleans anis the Total Cobly of the Unitra Statas.

| Month. | 1856-51.] | 1835-56. | 1054-65. 1 | Sa-54. | $1552-83$. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1{ }^{\text {Centa. }}$ | Ceat. | Conte. | Cunla. | Cents. |
| Septein |  |  | 81 - | 111 | $98-11$ |
| October | 11-18 | $9 .-109$ | 81 | 104 | 9 - -11 |
| Novembor | 11-18) | $8\}-104$ | 8 - -101 | 8. | $9 \mid-10{ }^{2}$ |
| 1 1ucembe | 11 - 28 | $9-114$ | $8-10$ | 8 | 8 8-104 |
| Jatuary | 11 - 18 | $8 \mathrm{t}-101$ | $8-10$ | 9. | $8=$ |
| Februa | $12-184$ | $8-10$ | $8-10$ | 9 | 8 |
| March | 19 $-18 \frac{1}{4}$ | $9 \mathrm{y}-11$ | $8-10$ | 8 | 8 8- |
| Aprll. | $18,-144$ | $9)^{-11}$ | 81 | 8 | 91 - |
| May. | 18, -15 | $10-$ | 0 - | 8 | 912 |
| Jnine | 181-15 | 104- | 10 - | $t$ | $10-$ |
| Inly. | 14- | 10- | 9 \%- | 81 | $0{ }_{0}^{1}$ |
| Aligust | 15 | 101- | 07 - | 8 | 10 |
| Wecelpts at N.O. | $\underset{\text { Snlns. }}{\text { S }}$ | Batea, | (Enles, | 1,440,7 | $\begin{aligned} & \text { Balve } \\ & 1, \text {, } 104,814 \end{aligned}$ |
| Crop. | 2,935,060 | 8,527,845 | $2,847,889$ | 2,080,027 | 8,220,000 |

and Tonacco at New Orlikans, foh Trn Yeare, Phov lat Beptrmine each I'ian

| Yeart, | Cutrin. |  |  | Tobncen. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arrivals. | Expurts. | Stacke. | Arrivala. | Exprorts. | Stocha. |
|  | Bales. | Halea, | Balea. | That. | Thuts. | 11bds. |
| 1856-57 | 1,518,247 | 1,516,921 | 7.8\%21 | 55,087 | 50,181 | 18,711 |
| 135-5-63 | 1,759,298 | 1,795, (123 | 6,995 | 56,090 | 09,074 | 9,125 |
| 1354-65 | 1,244,76s | 1,910,204 | 89,425 | 63,843 | 64,100 | 12,688 |
| 1553-54 | 1,440,739 | 1,429,180 | 24,121 | 48,005 | 88,048 | 24,045 |
| 1852-53 | 1,664,864 | 1,644,98, | 10,522 | 75,019 | 64,075 | 29,166 |
| 1851-52 | 1,429,189 | 1,485,815 | 9,758 | 89,675 | 98,715 | 18,881 |
| 1850-51 | 995,038 | 997,458 | 18.890 | 04,1030 | 54, 801 | 28,871 |
| 1849-\$0 | 887.723 | 838,001 | 18,612 | 60, 804 | 67,0\% | 14,842 |
| 1544-49 | 1,142,482 | 1,107, 304 | 15,480 | 62,895 | \$2, 508 | 18,298 |
| 1847-48 | 1,218,805 | 1,201,997 | 87,4(1) | 85,989 | 601,364 | 14,8,51 |

Commerce of New Orleans.-The following tables, which we havo compiled from our records, presont some lending facts onnected .sith tho commorcial progrens of this city, and will le found valuable for future reference by the readers of this work:

| Yewre． | Cottoa． |  | Tobecos． |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Roeelpta． | Eiports． | Remelipte． | Keprorta |
|  | Hiator | Bales． | Hhado | Hids． |
|  | 161.989 | 171，87 | 16，292 | 28，644 |
| 1823－24 | 141.594 | 148,813 | 25，268 | 25，910 |
| 1524－25 | 204.853 | 202014 | 17，759 | 18，349 |
| 18＊3－96 | 249，881 | 250,681 | 18.42 | 18，231 |
| 1826－27 | 886，578 | 826,816 | 49，681 | 26，540 |
| 1827－23 | 294， 858 | 804.078 | 29，448 | 85，109 |
| 1828－29 | 268，699 | 867，789 | 24，635 | 25，289 |
| 1829－80 | 802，977 | 851，231 | 32，484 | 28.102 |
| 1880－81 | 429，898 | 498，942 | 82，098 | 88，872 |
| 1N81－82 | 845,646 | 25＜ 104 | 81，174 | 85，056 |
| 1832 | 404， 888 | 410，524 | 20，627 | 93，687 |
| 1883－34 | 467，894 | \＄61，026 | 25，871 | 25.910 |
| 1834－85 | 698，178 | 636，991 | 84，459 | 83， 801 |
| 1835－36 | 498，442 | 490，485 | 50,553 | 41，604 |
| 1830－37 | 615，519 | 588969 | 28.501 | 3s， $3: 1$ |
| 1887－34 | 742，789 | T38，918 | 87，488 | 85，355 |
| 188＊－39 | 378，014 | 379，179 | 28，153 | 80，938 |
| 183y－40 | 954，445 | 949,820 | 48，597 | 40，4i16 |
| 1540－41 | 822,570 | 821，268 | 53， 170 | 8，607 |
| 1841－12 | 740.15 | 749，287 | 67，055 | 68.058 |
| 1342－48 | 1，0＜9，642 | 1，08＊870 | 92,509 | 89，801 |
| 1848－4 | 910．854 | 802， 815 | 32，485 | 81，249 |
| 1844－10 | 979，283 | 944，616 | 71，498 | 68,079 |
| 1545－46 | 1，038，638 | 1，0544，957 | 72， 996 | 63，1445 |
| 1846－47 | 740669 | 724，509 | A5，008 | 50，876 |
| 1847－48 | 1，218，406 | 1，201， 687 | 85，8，${ }^{\text {c }}$ | 00，364 |
| 1818－49 | 1，142．9 ${ }^{1}$ | 1，167，303 | 64，3：5 | 62， 390 |
| 1649－30 | 837，748 | 8388091 | 60，8014 | 67，955 |
| 1850－31 | 892， 186 | 997，454 | 64，039） | 64， 501 |
| 1851－32 | 1，429，1＊s | 1，449，615 | 80，675 | 93，215 |
| 1582－30？ | 1，664， 364 | 1，644，981 | 75，01 A | 64，075 |
| 1 $1 \times 53-54$ | 1，440，79 | 1，420，181 | 44.905 | ${ }^{\text {Bx }}$（1）48 |
| 1854－35 | 1，444，763 | 1，270，264 | 24，849 | 64， 100 |
| 1855－36 | 1，759，209 | 1，793，028 | 88，090 | 59，074 |
| 1856－37 | 1，018，247 | 1，516，921 | B4，06i | \＄0， 151 |
| Tutal． | 27，201，568 | 27，151，59 | 1，642， 411 | 1，825，501 |

Upon the supposition that tho averago value of cot－ ton and tobacco for the 35 years above stated may be fairly estimated at $\$ 40$ per bale for the former，and $\leqslant 70$ per bogshend fur the latter，it would give a total value for these two urtlcles alone of $\$ 1,203,048,310$ ．
Impobiz of Specte at Nkw Oalkana，for Twrlve Yrare， fROM Jot Skrtknher m siet Auuver．

|  | Valap． | Years． | Value． |
| :---: | :---: | :---: | :---: |
|  | 18，541，015 | 1850 | 7．987，110 |
|  | 4．914， 40 | 1549 | 8，792，662 |
| $1 \times 54-85$ | 8，746，107 | 1848－48 | 2，501，2501 |
| 1589 | 12．967，056 | 1517－18 | 1，545，303 |
| 1832 | 7，565．926 | 1846－47． | 6，0351，450） |
|  | 6．279，528 |  |  |

 temeer Ist，ISNt，to Aveust 31אt，Isif．

Companativa Paions or Elouth，ox the 1at or haoit

| Monthi． |
| :---: |
| Septamber． |
| Oetober．．． |
| Nuyember |
| 1）reomber |
| Manusty． |
| February |
| Aprll． |
| May．． |
| Jane．． |
| July． |
| Aogust | Muntil fon Five Yeabs．

 ORligang

## 

| Months． | 1850－81． | 1855－56． | 1854－85． | 1853－84． |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $70-90$ | $70-75$ | $71-85$ | $\begin{aligned} & \text { Cente } \\ & 88-(6) \end{aligned}$ | $\begin{aligned} & \text { Contas } \\ & 62-58 \end{aligned}$ |
| Oclsbe | 6）－ 75 | 60－63 | （1）－ 80 | 68－64 |  |
| Noveinb | 65－70 | 65）－76 | 75－87i | 60－70 |  |
| Decenbe | $69-65$ | 80.90 | S6－90 | 57－61 |  |
| January． | 50－61 | $65-6 x$ | $87-90$ | 60－i0 |  |
| Februa | $105-110$ | 65－72 | $93-95$ | （1）－90 |  |
| March | 62＋-70 | $48-54$ | 90－9y | 61）－70 | d－ |
| Ap | 64－75． | 14－543 | 94－97 | 52－61 | $84-4$ |
| May | 70－78 | 48－48 | （N）－190 | 58－65 | 4t－30 |
| June． | $100-110$ | 54－67！ | 98－115 | D2 $2-60$ |  |
| dajy | $75-85$ | 46－50） | 71.85 | 45－3：31 | － |
| August | 70－85 | 6y－72 | $75-95$ | 50－6） | 66 |

Comparative Jates of Fxolianor on london，Paide AnD NBW Yobk，at NBW OnLmaNs，on tiff lst

|  | 18se－ 51. |  |  | 185s－56． |  |  | 1884－53． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Moeths． | $\begin{aligned} & \text { 碞 } \\ & \text { S } \\ & \hline \end{aligned}$ | $\begin{aligned} & \pm!4 \\ & \hline \end{aligned}$ | $\begin{aligned} & \frac{3}{5} \\ & \\ & \hline \end{aligned}$ | 5 <br> $\frac{8}{8}$ | $\begin{aligned} & \frac{d}{t} \\ & \end{aligned}$ |  | $\begin{aligned} & \text { g } \\ & 8 \\ & 5 \\ & \hline \end{aligned}$ | ＋ | 寿 |
| Sept | $1 m_{0}$ $91$ | $5$ | din. $10$ | $\begin{gathered} \mathrm{pHi}_{81} \end{gathered}$ |  | ${ }_{2}{ }^{2}$ | ${ }_{0}^{14 .}$ | 15 | 1. |
| 1 ctob | 9 | 582 | 1. | 8 | 520 | 8 | 9 | 512 | 1 |
| Nuvo | 88 | 585 | 9 | 74 | 580 | 24 | 94 | 512 | 1 |
| Decen： | 7 | 527 | 21 | 7 | ${ }^{5} 25$ | 2. | St | 513 | ${ }_{4}$ |
| Janoty | 71 | 5 5 5 1 | 2 | 7t | 58 H | $2 t$ | 7 | 524 | 21 |
| Feb．．．．． | 7 | \＄ 80 | 9. | 61 | \％84 | $2 t$ | 1 | 54 | ${ }_{4}$ |
| Marc | 71 | 587 | 2. | 8 | \％98 | 2 | 8 | 581 | 1 |
| Apr | 84 | 5 95 | 11 | 8 | 525 | $2\}$ | 9 f | 519 | 1 |
| May | 9 | $\begin{array}{lll}5 & 17\end{array}$ | 13 | 97 | b 14 | $1\}$ | 10 | 518 | 1. |
|  | 9 | 5 12 | 1 | 97 | $\begin{array}{lll}8 & 211 \\ 5 & 10\end{array}$ | 11 | 110 | 50.1 |  |
| daly ．．．． | 10 | 8 20 | 11 | 9 | 5 18 <br> 5 5 | 11 | 11） | 5117 |  |
| Augnst． | 91 | ¢ 16 | 1. | 9. | 515 | 11 | 97 | 5 10 | $2 t$ |


| Whither eaported． | 1＊56－57． |  |  |  | 1855－58． |  |  |  | $1854-85$. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bugar． |  | Mulaseme． |  | Sugar． |  | Molasmen． |  | Nugar． |  | Motawes． |  |
| New Yu．k． | Ithde． 307 | Barrefin． (1) | Hhis． | Barrela． 6.917 | $\prod_{11,479}$ | líarruia． $8,43 〕$ | HIh4n． | Burrale， $45,715$ | $\begin{aligned} & \text { blide: } \\ & \mathbf{7 4 , 9 \% 0} \end{aligned}$ | Barrule． 6，116 | Ithin， de： | Barsula． （117，h） |
| Philduletphis． | 65 |  | ．．． | 1，184 | 2，440 | 1 | ， | 10， 815 | 14，3022 | －820 |  | 20，is |
| Charleston， 8. | 171 | 15 | ．$\cdot$ | 1，8：10 | 8.1184 | 9 | ．．． | 12，98\％ | B，614 | 10 | ．．．． | 17，w2 |
| Savannah．．．．．．．．．．．．． | 38 | ．．．． | ．． | 840 | 759 | 54 | ．．．． | 4，1601 | Cis 4 | 6 | ． | \＄， 147 |
| Providenco \＆Eristor，IR．I． | $\ldots$ | ．．．． | ． | 60 1.220 | 439 |  | $\ldots$ | 1，801 | 2，65 | 21.1 $1+11$ |  | 1，408 |
| Ihenton <br> 1haltimore | （8） | ．．．． | ．．$\cdot$ ． | 1，226 | 439 11,540 | 554 | ．. | 12,227 15,754 | 2，054 | $1+1$ 866 | 2141 | 20．4AR |
| Norfolk，Elelimonis and | Sus |  | ．$\cdot$ | 1，6282 | 11,340 4,016 | 024 | $\ldots$ | 15,757 6,087 | 4,445 6,424 | 866 | $\cdots$ | 21,366 11,180 |
| Petersbarg，Va．．．．．．． Alexandria，${ }^{\text {b }}$ ，C．．．．．．．． | cos |  | ．．．． | 1，022 | 4，499 |  |  | 9，01 | 0.82 |  |  | 11，120 |
|  | 5，054 | 22 | $\ldots$ | 6，862 | 199 7,094 | ．． | ．$\cdot$. | 801 20,209 | 88.4 7,070 |  | $\ldots$ | \％is |
| Apalachleola \＆l＇ensacolas． | （0）19 | 875 |  | 1，1776 | 1，181 | 417 |  | 8,972 | 784 | 226 |  | 3，416 |
| Oher prorts．．．．．．．．．．．．． | 1，94t | 1，570 |  | 2，777 | 8，209 | 1，410 |  | 9，516 | 2，518 | $2,8 \sin$ |  | 10，910 |
| ＇Totsl． | 9，374 | 9，525 | ．．． | 24.456 | 51，015 | $5,5 \times 1$ |  | 142，967 | 129.467 | 10，466 | 260 | 285,14 |



| Monstas． | Sugar． |  |  |  |  | Mulareer． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1066-51$. | 1545－64． | 14ss－8s． | 1583－54． | 1852－53． | 14S6－87． | 1nss－ 60 | 1454－38． | 1858－84． | N54－－33． |
|  | Crnta． <br> Bt－9 | Con a | （ C ata． | $\begin{aligned} & \text { (onho } \\ & 3 t \rightarrow 5) \end{aligned}$ | Cents． <br> $84-14$ | Cente. | $\begin{aligned} & \text { Conte. } \\ & 89-828 \end{aligned}$ | Csul4: |  | （14） <br> 16－48 |
| ceptember．． | $51-9$ | $\begin{aligned} & 5-74 \\ & 4-4 \end{aligned}$ |  | $\begin{aligned} & 3 \\ & 2 \end{aligned}-51$ |  | $\begin{aligned} & 80-44 \\ & 311-15 \end{aligned}$ | $\begin{aligned} & 98-824 \\ & 92-341 \end{aligned}$ | $8-18$ | 18－36 | $16-48$ |
| NePabet．．．．． | by－11t |  | $8 \rightarrow 4$ | $2 \%-5$ | $81-1$ | $311-3$ | 28－31 | $9-14$ | 18－8t | 18－48 |
| November．．． | 0f－119 | 5 －it | $8 \rightarrow 2$ | － $1-5$ | 21－64 | $80-5$ | 24－31 | $50-24$ | 20 － 29 | 25－48 |
| Hecember．．． | 4t－10t | 4t－it | 91－3 | 1t－4 |  | $57-50$ | 97－3119 | 12－18 | $12-14$ | 24－239 |
| Janvary．．．．．． | 7 7 － 10 | $5-4$ | $2 \cdot-11$ | 9－4 | $21-31$ | 60， 5 －6il | $87-40$ | $14-164$ | $18-18$ | 17－2\％ |
| Peortary ．．．． | 7－11 | $5-4$ | $27-14$ | 2－4 | $8-5+$ | $58-101$ | 80－35 | 18－17 | 12\％－15 | 21－24 |
| Mareh．．．．．． | $7-117$ | ＋f -81 | $8 \rightarrow$ | $2 t-4$ | $8-31$ | 88 －${ }^{310}$ | $83-847$ | 151－19 | 18－17 | $18-418$ |
| Aprt1．．．．．．．． | $7-11$ | 4－st | 2i－3t | $1-11$ | y $1-5$ | $45-34$ | 40－ 315 | 121－91 | $9-151$ | 1i－2t |
| May．．．．．．．．． | 7）－18 | 4－4 | $4-6$ | $1-1$ | $22^{2}-51$ | $80-82$ | 80－37 | 29－29 | $9-18$ | 12－410 |
| Aune ．．．．．． | 9 －12 | 4］ 00 | $4-6\}$ | 1 － | $2 \mathrm{i}-\mathbf{5}^{\circ}$ | $64 .-67$ | 88.48 | 24－94 | $8-111$ | 11－49 |
| Jely． | $8-12$ | $8-9 t$ | 4 －6， | 1／-1 | 2i－5 | 47 －89 | $88-48$ | $80-94$ | 7－11 | $11-204$ |
| Isilgunt． | 10）－11 | 0t－9t | $8 \mid-4$ | $8 i-31$ | 8t－6 | 47 － 39 | 80－15 | $80-84$ | $8-13$ | $18-10$ |


| Monthas． | Sugar． |  |  |  | 1632－83． | Mtulaseev． |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $1 \times 6$－ 41. | 1465－64． | $1555-85$. | 1583－54． |  | 1486－87． | 1nss－ 56 | 1444－35． | 1883－34． | 1554－53． |
|  |  | $5-9$ | （ $)$ ata． <br> et -1 | (sntio. | 8 Centy | Cents． |  | $\begin{aligned} & \text { Csm1s. } \\ & 8-18 \end{aligned}$ | Cent： <br> $18-40$ | （14）ins． <br> 16－48 |
| Ceptember． | $5 t-9 t$ | $5-74$ |  | $3 \mid-51$ | $84-4 i$ | $80-44$ | $98-828$ | $8-18$ | $18-24$ | $16-48$ |
| Nevobet．．．．．． | 6） 6111 |  | $8-54$ | $2 \cdot-4$ | $81-1$ | $811-3$ | 82－i41 | $9-14 t$ | 18－3t | 18－94 |
| November | ct－10\％ | 5t－it | $8 \rightarrow 14$ | 5 | $21-64$ | $00-50$ | 24－－31 | $10-21$ | $20-221$ | 25－24 |
| Jatverary．．．．． | st－10t | 4t－it | 9， | 1t－4 | gi－6t | $57-59$ | 97－311 | 12－18 | $12-14$ | 29－234 |
| Jatrary．．．．．． | 7－10 | $5-4$ | 9 $2--11$ | 9－4 | $24-31$ | 6its－6i | 87－40 | 14－161 | $18-18$ | 17－24 |
| Feoruary．．．． | 7－11 | $5-4$ | 9i＋-14 | y－-1 | $8-5+$ | $88-121$ | $80-35$ | $18-171$ | 123－15 | 21－24 |
| Mareh．．．．．．． | $7-11$ | ty－8t | 83 | $2 \mathrm{t}-4$ | $8-31$ | 88 －did | $838-841$ | 151－19 | 14－17 | ｜18－34｜ |
| Aprtl．．．．．．．． | $7-11$ | $4-8 \frac{1}{2}$ | $2 i-3 t$ | $1-4$ | 21－5 | $45-34$ | 90－85 | 121－21 | $9-134$ | 17－4t |
| May．．．．．．．．．． | 7）${ }^{3}-18$ | $4-1$ | 4 －6 | $1-1$ | $24-51$ | 50－02 | 810.37 | 22－99 | 9－18 | 13－3t |
| June．．．．．．．． | 9 9－12 | 4］ 0 | $4-64$ | $1-0$ | $2 i-5$ | 64．－67 | 30）－43 | 20－24 | $8-111$ | 11－43 |
| July． | 8 － 12 | $8-9 t$ | $4-4$ | 1）$\rightarrow$ \％ | 2i－5 | 47 －69 | $8 \mathrm{~S}-48$ | $80-24$ | 7－11 | 11－20．4 |
| İIIgunt． | 10）－11 | 0t－9t | $8\|-6\|$ | $8 i-3$ | R -6 | 47 － 39 | 80－15 | $80-84$ | $8-13$ | $18-10$ |

## Expo 

Inyonts

## Apples Bacon <br> baton

＂tha
Bagging．
Bale toje
Batter．．．
Becswax
Beef．．．．．．
Bultale ro
Cutton．
Tah and
Cako．．
N．Ila．
Arkarsa
Montgot
Wohile．．
Florida．
Corn nioad
sletle
Cheese．
C＇ider．
Coal．West
ritod pea
Drfed apyl
Fhasse
Flenr．
Flenr．
Feathers
Olaswaro
licmp．
Ilites．
Iny．．．
Iron，
lig
fard
Ihne，Wros
leal．．．
＂ white
Melasses．
Oats．．．．
OII，linsued
＋4 cardor
I＇lckles．
Potatoes
＂In hul
Portur and
sklus，fuer
Ahot．
sugar．．．．
Soap．．．．．
Shingless．
Thares．
Tallow
Tobatco，

Twine．
Whlshy．
Wheat．．

Exports of Floum, Poak, Bacon, Lakd, Bfer, Wmiskt, and Conn, yon Two Yearg, thon Sept, 1 to Aug, 81.

| Ports. | 1550-51. |  |  |  |  |  |  | 1858-66. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Plour. | Pork, | amn | Lart. | Elost. | Whioky | Com, | Fout | Pork. | Bueon. | Lard. | Beef. (Whioky) | Cora. |
| New York | $\begin{aligned} & \text { Barrole. } \\ & 141,494 \end{aligned}$ | $\begin{gathered} \text { Barrole. } \\ 40,628 \end{gathered}$ | $\begin{array}{\|c\|c\|} \hline \text { Cnokft } \\ 8,979 \end{array}$ | $\begin{aligned} & \text { Tisk } \\ & 188,688 \end{aligned}$ | Barcile | $\left\|\begin{array}{c} \text { Barrote } \\ 1,950 \end{array}\right\|$ | $\begin{aligned} & \hline \text { Nackan. } \\ & 26,187 \end{aligned}$ | Batrole. 181,591 | $\begin{aligned} & \text { Barrels; } \\ & 60,682 \end{aligned}$ | $\begin{gathered} \mathrm{C}_{\text {mike }} \\ 4,124 \end{gathered}$ | $\begin{aligned} & \text { Kerna } \\ & 104,788 \end{aligned}$ | $\begin{aligned} & \text { Barrelo. Barrele. } \\ & 14,147 \\ & \hline \end{aligned}$ | Berks. $77, \uplus 00$ |
| Broston... | 241,466 | 08,785 | 2,788 | ET, 808 | 10,857 | 8,925 | -5,822 | 200,179 | 62,624 | 4.878 | 122,216 | 18,903 4,404 | 195,660 |
| Philladelphla...... |  |  |  | 1,480 |  | 8848 |  |  |  |  | 109 | $\cdots{ }^{\text {… }} 197$ | 0,049 |
| Paltimero........ | 141,148 | -8,874 | 25,881 | 17,901 | 866 | 46,884 | 204,608 | 108,886 | 4,868 <br> 80,707 | 24,848 | 20,851 | 1,910 51,402 |  |
| Oreat Britaln...... | 72,758 | 10,968 | 4.716 | 188,611 | 1,229 | -, | 250,041 | 99,862 | 9,868 | 1,990 | 181, 624 | 4,949 | 1,174,874 |
| Cobs............ | 17.974 | 1,420 | 1,740 | 185,090 | 814 |  | 80,785 | 8,947 | 2,658 | 1,488 | 212,7i | 235 | 1, 5,075 |
| Other forelgu ports | 290,776 | 4,7\%2 | 644 | 40,768 | 903 | 1,0148 | 1t5,235 | 185,174 | 17,688 | 412 | 94,884 | 1,504 | 104,748 |
| Tot | 904,910 | 145,1 | 88,447 | 648,506 | 18,720 | 60,058 | 711,643 | 729,442 | 178,682 | 97,915 | 742,817 | 86,179, 58,626] | 1,078,075 |

In the above the exports to Moblle, ele., via the Pontebartaln Rallioad and New Canal, are Incluted.
Inports into Nxw Orleang, fhom the Inteaiod, fon Ten Ybabg, from the let Septembell to the giat Auguat

| Aristes. | 1856-81. | 1855-56. | 1854-85. | 1863 - 64. | $1859 \sim 83$. | 1851-89. | 1850-81. | 1849-50. | 1848-49. | 1841-48. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Apples . . . . . . . . .bbls. | 88,418 | 62.448 | \$2,083 | 47,451 | 48,883 | 20,356 | 04,803 | 87, \%44 | 64,987 | 39,518 |
| llacul asst. casks, ote. | 89,187 | 88,4k4 | 40,7*7 | 87,684 | 50,847 | 46,784 | 48,002 | 88,388 | 82,056 | (45,119 |
| " ...... bbls. \& bxs. | $8.8,855$ | 2,782 | 8,492 | 9,091 | 4.1049 | 8,626 | 9,274 | 45.941 | 82,156 |  |
| " lains.......hbds. | 82,804 | 28,751 | 81,471 | 82,105 | 42, stay | 88,488 | 44,478 | 19,48\% | 19,831 | 18,030 |
| " In bulk, ...... ibs. | 7,660 | 178,760 | 232,920 | 121,000 | 184,806 | 231,280 | 235,000 | 209, 045 | 217,000 | 881,140 |
| Bagglag........... ploees | 82,028 | 88,905 | 40,578 | 45,264 | 64,144 | 60,041 | 72.804 | 68,321 | 72,041 | 77, 1882 |
| Bale rope. . . . . . . . . colls | 112.840 | 101,881 | 95,888 | 1122,274 | 121,553, | 90,2\%2 | 107,224 | 80,104 | 93,822 | 74,925 |
| Beans............. . bbls | 8.180 | 6,758 | 4,090) | 18,459 | 9, 49.4 | 6,308 | 4,2416 | 9,8197 | 18,157 | 20,4 ${ }^{3}$ |
| Butter..... . . . . . . .kegs | 82,845 | 88.119 | 88,874 | 47,642 | 44,444 | 4,786 | 84, 067 | 51,019 | 57,978 | 46,218 |
| * ..............bbls | 1,0ili | 1,825 | 1,017 | 1,984 | 2,184 | 1,778 | 2,720 | 1,772 | 2,144 | 1,15A |
| Beeswax | 87\% | 180 | 141 | 1611 | 194 | 171 | 240 | 867 | 441 | 698 |
| Beef.......... ibs. \& tes. | 80,985 | 81,059 | 41,087 | 40,011 | 7S,791 | 02\%,350 | 48,096 | 65,271 | 71,899 | 50,240) |
| " irlect. . . . . . . . . . ${ }^{\text {abs. }}$ | 80, 9.00 | 19,010 | 28,850 | 81, 601 | 18,900 | 26,100 | 15,460 | 48,219 | 20,3100 | 58,100 |
| Butfalo robes...... peks. | 80 | 1 | 8 | 12 | 17 | 1,3109 | 155 | 353 | 83 | 14. |
| Cottot. | 1,068,83* | 1, |  |  |  |  | 618.160 |  |  |  |
|  | 4,187 | 1, 4,6522 | 4,12* | 19,289 | 1, 21,614 | 15,202 | 14,494 | 10,4172 | 15,781 | 18,784 |
| N. Ala. and Ten | 277, 1 16 | 879.484 | 296,704 | 25.6.504 | 828,174 | 304,158 | 286, 821 | 249,684 | 217.078 | 227.561 |
| Arkarsas. | S17,483 | 102, 154 | 75,259 | 107,564 | 95,082 | 85,490 | 62,718 | 44,490 | 46,783 | 04,294 |
| Monlgomer | 15,99 | 87,481 | 16,824 | 83,798 | 28,995 | 21.760 | 18,051 | 17, bil | 9,839 |  |
| Moble... | 41,449 | 48.542 | 15,764 | 31,168 | 84.894 | 15,606 | 24,479, | 29,647 | 24,82s | 10,5077 |
| Flerdia. | 4,714 | 6, 189 | 4,147] | 8,964 | 7,96 | 4,817 | 11,49t | 10,601 | 6,06\% | 4,908 |
| Texas.. | 17,514 | 23,601 | 16,090 | 21,040 | 14, 185 | 14,540 | 5, 35 | 6,048 | $11.8{ }^{8}$ | 18,007 |
| Corn mesl. . . . . . . . bbls. | M06 | 410 | 220 | 3855 | 1.758 | 2,514 | 8,662 | 6,187 | 12,021 | 47,543 |
| " la ears........ " | 14,719 $1,487,131$ | $\xrightarrow{41,0934}$ | 10,761 $1,110,440$ | 48,404 $1.740,267$ | 17,820 $1,295,091$ | 163,048 $1,807,182$ | 42,824 | 44,719 | 1,795, 011 | $\begin{array}{r} 509,583 \\ 1,0 \times 8,465 \end{array}$ |
| 4. shellet. . . . . . . 5 . | $1,47,1081$ 48,1479 | $1,990,090$ $42, t h 2)$ | $1,110,446$ 45,245 | 1,740267 84.182 | $1,225,081$ 80,497 | $1,807,182$ 72,441 | 78,404 | 114,897 62,909 | 1,706, 12 | 1,088,46\% |
| Cranlles. . . . . . . . .boxes | 7,391 | 82,593 | $56,3 \times 3$ | 74,290 | 64,796 | 89,986 | 80,745 | 25,3106 | 28, 216 | 16, $\mathrm{T}_{510}$ |
| clder. . . . . . . . . . . bbls. | 17 | 59 | 14 | (in) | 86 | B(1) | 245 | 9083 | 1,189 | 344 |
| (ceal, Weslern..... " | 1,770,00t | 987, 0100 | 1,018, 1 H0, | 1,000, 0104 | 700,000 | 850,000 | 708, 0 (0) | 600,00k | 815,900 |  |
| Diliod praches..... " | 205 | $2 \times 6$ | 897 | 9,714 | ${ }_{908}^{258}$ | 836 | 2,645 | 984 | 469 | 8 St |
| Dried apples....... " | 875 | 2,760 | 803) | 4,64! | 1.979 | 4881 | 4,168 | (06i | 2.495 | 1,178 |
| Flaxseed . . . . . . .tierees |  | $11.20{ }^{240}$ | 98811 | 87192 | 1,278 | 0.7 $\begin{array}{r}619 \\ 219\end{array}$ | $0.1{ }^{204}$ | 601060 |  | 4,798 $70{ }^{1} 988$ |
| Flour . . . . . . . . . . . bbls. | 1,290, 9,9 | 1,120,974 | 678,111 | 874,258 | 808,479 | 027.212 | 041,1040 | 691,956 | 1,013,177 | 200,958 |
| Fars ...hhds. bxs, bils. | 1,740 | 1.1896 |  | 1,094 | ${ }_{9} 880$ | 2,136 | 1,488 | +44 | 2000 | 411 |
| Feathers.... . . . . . bayd | ${ }^{8} 823$ | 778 | 1,1178 | 1,978 | 2,042 | 9,063 | 8,645 | $5,9 \mathrm{k}$, | 8,889 | 2,504 |
| Glassware........ boxes | 30,4,59 | 810,326 | 11,484 | 21,487 | 18,418 | 19,281 | 16,425 | 4,857 | 875 | 4,2016 |
| Iremp.......... . . . bales | 13,41983 | 18, 1818 | 81,845 | 10,992 | 17.64 | 17,1.4\% | 25,116 | 84,702 | 19, 356 | 21,504 |
| Ildes.................... | 109.46 | 151.4121 | 84, 918 | 112,489 | 101.460 | 148,067 | 140, 1888 | 4:1, 542 | 830.570 | 47,608 |
| Ilsy . . . . . . . . . . . . bsles | 50,861 | 146,787 | 73,271 | 22, 5151 | 175, 1000 | 88,484 | 45,281 | B6,205 | 54,24! | 81,984 |
| Iron, ply.... . . . . . . tohs, | 71 | 332 | 18 | S1: | 121 | ${ }_{57}^{67}$ | 152 | 911 | 418 | 11 |
| Laril ... . . . . . . . . . blyls. | ${ }^{103004}$ | 11 | 144 1048 |  | 18,117 |  |  | 9 | 790 214.302 | (3,191 |
| " ${ }_{\text {c }}$. . . . .tcs. \& bb |  | 110,78, | 148, $0 \times 14$ | 198,402, | 1513, 372 | 127,459 | 151,081 | 3012,361 | $275,4 \mathrm{~s}$ | 813,681 |
| 1.inoe, Western.... bbls. | 28,809 | 16,6011 | 13,208 | 21,400 | 8 HzN | 42,305 | 87.78 S | 82, 12: 6 | 10.410 | 14,920 |
| leal...............plys | 18,291, | 80,624 | 79,514 | 74,200 | 210,2m7 | 207, 014 | 825,505 | 415,409 | 505, 85 | 606,906 |
| " bsr............kegs. | 315 | 841 | 301 | 210 | 187 | 1,182 | 629 | 631 | 919 | 787 |
| * white......... | $\cdots$ | (k) | 4 261) | 84. | 726 | 1,864 | 1,0x) | 5,974 | 7.705 | 9,208 |
| Mulases . . . . . . . . bbls. | 84,109 | 2-2, 411 | 810,718 | 341, 17\% | 204, 6126 | 243,928 | 184,403, | $1 \times 9.818$ | 155,807 | 130,460 |
| Tass........bbls it sarks | 303,171 | "87, 140 | 484.078 | 6810.451 | $416,9,48$ | 30, 278 | 479,741 | 825, 313. | 2601598 | 407,217 |
| Oulons.... . . . . . . .bhls. | 14,670 | 14,475 | 11,065 | 24, 5188 | 17,715 | 17,184 | 14,474 | 18,421 | 1, 098 | 7,940 |
| Oll, llasred........ " | 10 | 1838 | 88.48 | 889 | 508 | 754 | 178 | 1,1904 | 1.409 9.698 | 2,847 |
| ${ }^{11}$ castor. | 958 | 1,020 | 3,617 | 0,498 | 4,742 | 4,291 | 4.15 | 2,1181 | 4,628 | 1,109 |
| " diril.......... | 8.071 | 10, M-1 | 13, 3 [122 | 14,294, |  | 14,114 | 17,157 | 14,72 | 8,842 | 5,401 |
| lickles......kigs \& | 1118 | 167 | 266 | $4{ }^{4}$ | 117 | 4681 | 843 | 108.448 | (17138 ${ }^{639}$ | 50 |
| Potatoes.......... | 74, 198 | 1-2, (\%) ${ }^{\text {a }}$ | 70,503 | 906,2゙3 | 804.127 | 2e9, 1314 | 16:9232 | 164,4183 | 141, 116 | 18t, $80 t$ |
|  | 201, 2 y | 477, 811 | 27418898 | 219,184 | 814.502 | 276,646 | 32, 1018 | 6, 13,694 | 534,648 | 356,480 |
| " ............. boxes | 10,92.4 | 6,428 | 7,458 | 15,906 | 2.074 | 7108 | 1,9×0 | 15,60\% | 18,270 |  |
| * ........... .thhis. | 2,572 | 2, $\times$ 08 | 8.1417 | 1,700 | 2,51i | 2,47s | 1,2314 | 18,20194 | 18,499 | 14,261 |
| " In linlk ........ lbs | 8,417,841 | $7,446,841$ | 6,264.164 | 12, 6 46,060 | 12,95\%, 410 | S, 800,1460 | 19,513,806 | $15,562,481$ | 10,273,480 | 13,504,480 |
| 1 'orter amd ale..... bibls. | 1,7** | 1,107 | 1,2141 | 1,770 | 1,110 | 4198 | 184 | 814 | 1,838 | 8,492 |
| l'acklag yurı. . . . . reels | 1,44.0 | 8,41.4 | 1, 3.08 | 2,414 | 2,, 111 | 2.0288 | 4,190 | 4,181 | 2,211 | 3,1423 |
| *klus, wecr... . . . . packs | 794 | 416 | - 38 | $\mathrm{mb}^{105}$ | a 42.5 | $\operatorname{lin}_{9} 70.4$ | 1,111 | 1,875 | 1.801 | 1,1861 |
|  | 2, 315 | 8,314 | 13,485 | 8,675 | 2,2433 | 2,704 | 2, 21.44 .4 | 4,484 $1+9.910$ | 4,877 | 5,204 |
|  | 02, 412 | 155,819 | 184, 748 | 271,904 | 1481,461 | 111,146 | 12n,702 | 148,912 17890 | 125,592 6,879 | 128,132 |
| " ............. bhls | 3.435 | 8, 028 | 13,175 | 12,20.3 | 10,69.4 | 11,213 | 18,675 | 17,896 | 6,879 |  |
| Soap.............bexpes | 9,539 | 10,247 | 7,763 | 9,173 | 6.911 | 5,304 | 0.684 | 0,080 | 6,529 | 5,540 |
| Shingles.............. . ${ }^{\text {a }}$ | 6, (k) | S,0, 41 | 1,1918 | 8, 124 | (3) | 7819 | (51) | 79 | 800 | 00 |
| marges.............. M | \%, 010 | 4, (147 | 4, 1490 | 2, ink | O, (6, 6 | 7.818 | 9,090 | 6,014 | 8.500 | 2, (NW) |
| Tallow . . . . . . . . . . bibls. | 96 | 1,10.5 | 711 | 87\% | 1,414 | 1,407 | 0,164 | 4,9182 | 6,620 | 4,3027 |
| Tobucce, leaf. . . . . blinls. | 05.0067 | 60,000 | 02,3+8 | (8, 0 ) ${ }^{5}$ | T5, 1116 | S 9,1 , 6 W 5 | (4, 0210 | 60,304 | 52,835 | 05, $8 \times 2$ |
| $"$ chew .... boxes | 8,281 | 8,0199 | 4,153 | 4,417 | 10,8st | 4,779 | 4,116 | 2,321 | 2,315 | 6,890 |
| * ...........bales | 151 | 160 | 132 |  |  | 164 | 204 |  | 88 | 118 |
| Twino..........buniles | 2,942 | $8,65.4$ | 3,21! | 4, 514 | 4.024, | 2,341 | 8.156 | 2.118 | 2,046 | 2,464 |
| Whilshy . . . . . . . . . bbls | 179.164 | 148,7513 | 108, Wiv | 124,925 | 1888, 615 | 140.858 | 157,741 | 117,783 | 124, 6249 | 185,384 |
| Whent. . . . bbls, it aeks | 775,962 | 169,521 | - 81,2is | 14,943 | 47,488 | 64,918 | 88,797 | 6i,608 | 246,911 | 140,151 |

Expogts of Sugar frox New Ohluans, from the Yeaz 1884 TU 1855 inclugive.

| Year. | Esported to Athnide porin. | Wisported to <br> Wembernstates. | Firat recelpt of new erop. |
| :---: | :---: | :---: | :---: |
| 1834...... | bihd 40 45,510 | Thds. 44400 | October 15. |
| 1834. . . . . | 1,500 | 2:1,000 | Novernber ${ }^{\text {b }}$. |
| 1836...... | 2,8,800 | 85.000 | " 1. |
| 1837...... | 24,5100 | 88,500 | $\cdots{ }^{\prime}$. |
| 1888...... | 26.600 | 82,500 | Octobar 17. |
| 1835....... | 42,600 | \$8,000 | $\cdots 18$. |
| 1840...... | 82,5110 | 46,500 | $\cdots 14$. |
| 1841....... | 28,000 | \$0,000 | "18. |
| 1842...... | 83,000 | (6),000 | $1{ }^{12}$. |
| 1843..... | 34,000 | 592,000 | 422. |
| 1844...... | 10t,1000 | 70,000 | 48. |
| 1845...... | 79.000 | 75,000 | 44. |
| 1846...... | 45,500 | 70,010 | 147. |
| 1847...... | 81,1000 | 115,000 | 4. |
| 1848...... | 90,100 | 1,8,000 | " 5 . |
| 1849...... | 90,010 | 125,000 | " 11. |
| 1850...... | 45,400 | 123,190 | - 17. |
| 185t...... | 42,010 | 149,100 | - 19. |
| 1852...... | 82,000 | 206,400 | 40. |
| 1858. | 180,000 | 135,000 | " 6. |
| 1854...... | 122,040 | 148,000 | $\cdots$ 4. |
| 1855...... | 89,188 | 181,1427 | " 10. |
| Total... | 1,816,088 | 1,1884,529 |  |



| Monthe. | 1856-57. |  | 1855-56. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mean. | Prime. | Meta. | Trimue. |
| Beptember | $\begin{aligned} & \text { bkilara } \\ & 191-20 \end{aligned}$ | Dudiary. <br> $\rightarrow$ | $\begin{aligned} & \text { pollare } \\ & 20-211 \end{aligned}$ | $\begin{aligned} & \text { Inollara. } \\ & \text { 17t- } \end{aligned}$ |
| October... | 21-214 | $\rightarrow$ | $213-21$ | 171- |
| November | $21-21 \frac{1}{4}$ | 18-19 | $81-22$ | 17- |
| December | -20 |  | 19-20 | 15t- |
| January.. | 19-1st | 16-161 | 10)-10 | 10- |
| February | $21-21$ | 1it-1s | 164-17 |  |
| Mareh. | $21-21$ | 18- | 18t-111 | 14- |
| Aprli.. | 22 ${ }_{1}$-23 ${ }^{2}$ | 1s-1st | 10, -15 | 12\%-18 |
| May | $24-23$ | $18-15$ | 10-16i | 18-131 |
| Juis | $231-241$ | $17 t-19$ | 1it- | 14!-15i |
| July. | $2011-24$ | 17\%-19 | $19-191$ | 16- |
| Angus | $23^{3}-28$ | 1it-18t | 20.208 | 16 |



From the abreve table it resuits that the total value of all the productn received at this port from the interiur from september 1, 1811, to Septemiser 1, $1 \times 00^{\circ}$, a period uf 16 years, minounts to $31,526,652,970$.

The following is a statement of the imports at New Orleane, for the last four fiscal years :


Montm

##  <br> Monthly

## Mcethe

Septembe
October..
Novembe
January.
February
Yebruary
Mareh..
Marell.
Mipll.
Jun
Angust.
Total...

Coffec-tu

" -11 ra
Mulakses-
salt-1.1ver
New Orl passed by proved by
An Ord
Steambonts,
and after $t$
wharfage
ships, stert
be llxed
1,000 and
over 1,000
lis cents
and under,
1,000 tons,
rlving and
pay only t
not measu
matsuring
than 70 foe feet longs, il pach stemin stow and ed batge, or of ployed in t1 tailding ma anil nelighly nut over 25 Heer $i 0$ an
Over 75 mm
Over 100 to


| Mouths． | 1856－67． |  |  |  |  |  |  | 1855－66． |  |  |  |  |  |  | 1854－58． |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\frac{5}{4}$ | $\frac{6}{5}$ | $\begin{aligned} & 6 \\ & 8 \\ & 8 \\ & 0 \end{aligned}$ | $\begin{gathered} \text { 高 } \\ 6 \\ \vdots \\ \vdots \end{gathered}$ | $\begin{array}{r} \mathbf{j} \\ \mathbf{H} \\ \hline \end{array}$ | $\begin{aligned} & \frac{1}{6} \\ & \text { 融 } \\ & \text { ó } \end{aligned}$ | 患 | th | 䅼 | $\begin{aligned} & \text { 盇 } \\ & \text { 品 } \end{aligned}$ |  | $\begin{array}{r} \text { 亮 } \\ \hline \end{array}$ |  | $\frac{\dot{~}}{\mathbf{j}}$ | 曻 | 密 | $\begin{aligned} & \stackrel{\text { ! }}{8} \mathrm{H} \\ & \hline \end{aligned}$ |  | 宕 |  |
| Septemb | 85 | ${ }^{18}$ | 19 | 18 | ${ }^{19}$ | ${ }_{154}^{88}$ |  |  | 18 | 12 |  |  | ${ }^{87}$ |  | 28 | 7 | ${ }^{8}$ | 21 | 16 |  |  |
| Oetobe | 65 | ${ }_{86}^{23}$ | 19 |  | 15 | 154 |  |  | 89 | 25 | 80 | ${ }_{89}^{89}$ | 208 |  |  | ${ }_{34}^{23}$ | 11 | 18 | 18 | 187 | 87 |
| Sove | 00 | 86 | 22 | ${ }_{28}^{81}$ | 17 | ${ }^{208}$ |  |  | 61 | 42 | ${ }^{80}$ | 23 | 299 | ${ }_{85}^{291}$ | 89 | 84 | 17 | 44 | 17 | 201 | 20 |
| 1 ）ecemb | 89 | 84 | 23 | 89 | ${ }_{23}^{18}$ | 198 |  |  | 59 | $\xrightarrow{84}$ | ${ }_{49}^{84}$ | 28 | 281 | ${ }_{298}$ | ${ }^{94}$ | 88 | 18 | 49 | 20 | 218 | 84 |
| Febrilary | 96 | 48 | 48 | 48 | 16 | 228 | 287 | 82 | 24 | 24 | 89 | 17 | 165 | 297 | 81 | 27 | 20 | 48 | 22 | 198 | 7 |
| Mareh | 77 | 28 | 35 | 70 | 24 | 284 | 298 | 80 | 84 | 28 | 48 | 28 | 201 | 855 | 65 | 18 | 17 | 44 | 28 | 157 | 68 |
| Apill． | 74 | 20 | 21 | 50 | 23 | 188 |  |  | 42 | 24 | 40 | 20 | 280 | 811 | 79 | 29 | 14 | 41 | 22 | 178 | 882 |
| Muy． | 43 | 32 | 18 | 48 | ${ }^{23}$ | 104 |  | 48 | 18 | 17 | 84 | 19 | 181 | 270 | 50 | 21 | 14 | 48 | 19 | 146 | 588 |
|  | 25 | 25 | 21 | 84 | 28 | 128 |  | 68 | 84 | 15 | 25 | 21 | 168 | 185 | 41 | 16 | 14 | 25 | 19 | 116 | 190 |
| Tuly． | 11 | 11 | 12 | 20 | 13 | ${ }^{4}$ | 120 | 27 | 21 | 14 | 28 | 19 | 169 | 155 | 14 | 7 | 14 | 14 | 15 | 64 | 36 |
| August | 20 | 0 | 6 | 12 | 10 | 57 |  |  | 10 | B | 18 | 18 | 57 | 97 | 11 | 11 | 14 | 19 | 14 |  |  |
| Total． | 729 | 321 | 231 | 441 | 212 | 984 | 2.745 | 4 | 875 | 261 | 899 | 284 | 2，143 | 2，95 | 781 | 255 | 180 | 426 | 226 | 817 |  |

Montily Aubivala of Flathoats fon the pabt seabon．

| Mosth， | 홍 | $\begin{aligned} & \frac{b i g}{4} \\ & \text { a } \\ & \mathbf{y} \\ & \mathbf{y} \end{aligned}$ | $\frac{1}{\frac{1}{7}}$ | $\begin{gathered} \text { 需 } \\ \hline \end{gathered}$ |  | 号 | 䬠 | 宮 | 言 | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Scptemb | 1 | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ |  | ．． |  | ． | 8 |
| Oetober．．．．． | 2 | ． | － | ． | ． | 2 | ． | 1 | ． | 5 |
| Nevember．．． | 8 |  | $\stackrel{\square}{1}$ | $\cdots$ | $\cdots$ | $\cdots$ | i | i | i | 8 |
| December．．． | 2 | 2 | 8 | ． | ． | i | 1 | 1 | 1 | 9 |
| January．．．． | 15 | 4 | 18 | ． | ． | 1 | 2 | 1 | ． | 86 |
| Felirasy．．．． | 18 | ， | 7 | 9 |  | － | 1 | 2 | 2 | 28 |
| Mareh．．．．．．． | 17 | 9 | 20 | 2 | 46 | 8 | 8 | 18 | 1 | 121 |
| Aprll． | 4 | 5 | 18 |  | B | 6 | 2 | 8 | ， | 50 |
| May． | 7 | 4 | 40 | 1 | 20 | 1 |  | 11 |  | 84 |
| June | 6 | 2 | 15 | ． | 24 | ． | ． | 18 | ， | 62 |
| suly. | 1 | 7 | 4 | ． | 10 | ． | ． | 17 | 8 | 42 |
| Angast． | 1 |  | 17 |  | 18 |  |  | 20 |  | 51 |
| Total． | 71 | 84 | 186 | 8 | 119 | 12 | 14 | 94 | 8 | 491 |

1）irect Iupoats of Corfre，Suoar，and Salit，fur Thare


| Articles． | 1856－51． | 185 | 1854－55 |
| :---: | :---: | :---: | :---: |
| Coffee－titban ate．．．．．．．．．．．bags | 11 | 111,885 | 2，287 |
| ı－R6．．．．．．．．．．．．．．． | 440.908 | 885,982 | 841，188 |
| Sucar－Caba．．．．．．．．bxs．a bils， | 29,867 | 81，665 | 20,111 |
| ．．－＇nbs．．．．．．．．．．．．．． hhds | 21，304 | 6，639 | 448 |
| ＂－lirazil，etc．．．bxs．\＆baga | 8，306 |  |  |
| Mulasses－t＇uba．．．．．${ }^{\text {a }}$（hils．\＆tes． | 24，453 | 122 | 114 |
| ＂－Cuba ．．．．．．．．．．bbls． | 29.531 | 1，038 | 2.261 |
| Salt－IVerpool．．．．．．．．．．．nacks | 1，051，190 | 1，088，284 | 608．298 |
| \％－「urk＇s Island，otc．．bashols | 582，778 | 785，282 | 3s2，298 |

New Orleans Levee Dues．－The subjnined ordinance， passed hy the Common Councll of the city and ap－ proved by the mayor，May 28，1852，ia new in force ：

An Ordinance to Regulate the Levee and Whayfage Dues on Ships and Vessels ariving from Sea，und on Ntcamboats，F＇lata，Barges，ete．－Antici，1．That from and sfter the passage of this ordinunce the levee or wharfage rates on ships or other sail veasels，steam－ ships，steamboats，flats，barges，and other ciaft，shall be fixed as follows：On all ships or anil vessels of 1,000 and under， 25 cents per ton．Excess of tonnage over 1,000 tons， 20 cents per ton．On all steamshijps， list conts per ton．On all steamboats of 1,000 tona and under， 15 cents per ton．Exiess of tonauge over 1,000 tons， 10 cents per ton ：prorided，the bouts ar－ riving and departing more than once each week，shall pay only two thirds of these rates．On each ilationat not measuring over 80 fect，\＄10．On ench dathoat measuring 80 to 100 feet，$\$ 12$ ．On ench llathoat moasuring over 100 feet，© 15 ．On each barge more than 70 fect long，\＆12．Un each barge less than 70 teet long，and not exceeding 10 tens burden， 88 ．On each stcamboat hull used as a harge，O25．On each soow and constwise pirogue，妻2．For every thathat， harge，ur other vessel，not inclualing stemmboals，em－ ployed in the transpurtation of brick，lumber，or other iniding maternale，or in bringing produce from this and nelightoring parishes to thls eity，und measuring nut over 25 tons，the levee und wharfage dues shall be䋨0 per amnum．From 25 to 50 tons，$\% 60$ per annum． Ovir 80 and not exceeding 75 tons， 889 per annum． Over 75 nud not exceedlag 100 tons， 8125 per annum． Over 100 tons， 200 per annum．

Anticles 2．Every proprietor of any sinall craft of the description alove－mentioned，who shall desire to enjoy the privilege accorded by the present ordinance， must apply to the treasurer of the city of New Orleans for the purpose of oltaining a license，appreved by the mayor，and countersigned by the controller，which li－ cense shall specify the number or name of auch craft， which shall be paldeted in a conspicuous place on tho side of the said craft．

Anticte 3．Hereafter it shall not be lawful for any pirogne，flatboat，barge，boat，or keelboat，to remain in port longer than eight days，under the same pro－ visions and penalties centuined in Article 3，of an or－ dinance of the General Council，upproved May 20， 1843.

Anticle 4．That the payment of the levee dues on ships or ssil vessels，steamships，and steamboats，shall be exacted and collected lye the collectora of levee duce， and an extra duty of one third these rutes shull be paid hy all sall veasela or steamships which may re－ main in port over twe menths，the same to bu recov－ ered at the cemmencement of the third month；and if over four months，an additional duty of one third these rates．Steamboats shall be entitled to remain thirty days in port after payment of the ducs．All over thirty days to pay an alditional duty of $\$ 2$ per day．

Articie 5．That all vessels now in port，and that have paid a daily or weekly wharfuge，shall be al－ lowed（and the collectors are herehy anthorized）to deduct the umount so paid from the rates now to the collected．All ordinancea or parts of ordnancea cen－ flicting with the foregoing be，uid the same are here－ by，repealed．
Tabify of Commercial Cuabors and Rates aboitmm uy the New Galrans Clamara or Conneach in 1846 and 1814, and aymiled May $10,180^{\prime \prime} 2$.

## Commisvion on Saley．

Sugnr，cotton，tobaceo，lead，floor，and other products of the soll．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．
Domestle manufacturen，and
 Guaranty of saler pu time．．．．．．．．．．．．．．．．．．．．．．．．．．2t P＇urchase and alipment of merchandise or pro－ duce，．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 2t $^{\text {q．}}$ salees or purelinse of ntock and bullen．．．．．．．．．．． tiolieeting and remitting dividends．
Nolling weasels or stcambouts． Purehasing
Proearing frelghts．
©ollething fro Conlecting frelghts from forelgu ports．．．．．．．．．．．．${ }^{2 /}$ Ontfter F diaburse inents．．
per cent

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whthout litigutlon．．
With Ititgatlon．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．
l＇urchasing and remittiog drafis，or recelviug or
paylug thoney on which no other cammission
hus been elatrged．．．．．．．．．．．．．．．．．．．．．．．．．． 1
If bila remitted are gharanteed，in additlon．．．．It
ISilla mint notes remitted，for collection protested
and roturned．．
Landing，custody，and re－shipping merrhandise
or preduse from vesaein In distress．．．．．．．．．．．．
Difto，bulilon er 日peclet．．．．．．．．．．．．．．．．．．．．．．．．．．．
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## NEW

## Commfeelon on Sales-continued.

Consignments of merchendlee wlthdrawn or re ahlpped per order, on account of advancea end responslbiltilos-foll commisbion.
On the surplun ameunt of involces of ench consignmenta, deducting advancea and llabillties --Jalf commission.
Drawing, Indoralng, or negotiating forelgn bilia cf exchange.
Ditte, on dumeatle bilis of exchnime................. 1
liecelving, entering, and re-sblpplag merohandise to a forelgn port-on amount of involce..
On amennt of advancen, charges, and Mabillilee on ssine. ....................................... 9
Fer draw ing, wecepting, nogotlating, or ind or bills of tadligg in limed.
On cash ndvances lu all cases.
For enterlng and bonding merchandles for the interlor-on amount of dutles, frejght, and cbarges (bealdes the regular charme for for cbarges (
Ageacy for steambents-according to special con tract.
The foregolng rates to be exclusivo of brokerago end charges alread 5 Incurred.
Heceiving and Foncarding Merchandise, enclusive of Charges actualty finetrred.
Sugar, molassen, and tobacco........... per hhd. \$0 centa.
Coitoo..................................... bale 80 ".

Hemp. .
М.
Мияк......................................
"1 or bacon. . . . . . . . . . . . . . . . . . .per hhat. st
Pork, beef, lard, tallow. . . . . . . . . . . . . . . . per bbl
thax pork........................................er box 1

Corn, wheat, beane, onts, and other graln, per bug
Liquids.

Quarter casks and berrela. ............................................................ ${ }^{12}$ "
O14. ...................................................... 141
Storage and Labor per Month.

|  | First Month. | eevend mad athor. |
| :---: | :---: | :---: |
|  | Cerme. | cemo |
| Cotten and wool. . . . . . . . . . .per bale |  | 10 |
| Tubacso..............pper lihd. | 51 | 25 |
| Hemp, per balu not exceeding tiot llus. | 10 | ${ }^{10}$ |
|  | 15 | 10 |
| $\because \quad$ " 000 " | 9 | 15 |
| " 0 " $800{ }^{\circ}$ | 25 | 18 |
| Mons.........................per belat | 10 | 06 |
| latagriug nud rope................ | (\%) | 03 |
| Peltrips. | 10 | 07 |
| Hidea. . . . . . . . . . . . . . . . . . . . .ench | 018 | 01 |
| 1and. . . . . . . . . . . . . . . . . . . . per $\mathrm{f}^{\text {mig }}$ | ot | 01 |
| Huliow ware. . . . . . . . . . . . . . .jer ton | 125 | 75 |
| far lran and castlnge. | 75 | 51 |
| Raltroad lron and ply Iren. ...........' | 5 | 95 |
| Ikame and provindons. . . . . . .jer blat. | 25 | 24 |
| lourk, beef, larid, tallow, wic.. per blil. | 14 | 04 |
| Molavses, oll, and whisky. | 10 | 01 |
| Eloar. | $0 \%$ | 0 H |
| Lard . . . . . . . . . . . . . . . . . . . pler keg | 024 | $0!$ |
| sugar amil molustes........ per hidd. |  | 25 |
| - Ilavara..............prer boa. | 121 | 10 |
| lorn, wheas, ants, and other graln................................... bay | al | 03 |
| Cotfee, mploes, ett. . . . . . . . . . . . . . . . . | (6) | 03 |
| salt............................ | 03 | 02 |
| 'andles, soat, wha, fixh, raxima, chls, FWe tmeats, seghar, ele., Iwr box or haskil. | ${ }^{101}$ | 02 |
| Hitto, la half hoxes. | $0:$ | 11 |
|  | 03 | 0 |
| 1ry koalk.......nut excerdlag 10 feeh | 15 | 10 |
| " $\ldots$... " | 211 | it |
| $" 3010$ | 25 | 20 |
| " ...... "over 30 " | 40 | 24 |
| 'rorkrry...........per cark or rrate | 30 | 20 |
| \| "* .....half eask or lialf crate | If | 10 |
| Hardware. . . . . . . . . . . . . . . per cask | f) | \% |
| " ................ . phr therer | $\pm 10$ | 1\% |
| ". ...................jicr bid. | 10 | 03 |
| Itlquads. . . . . . . . . . . per plpe or hid. | 41 | 20 |
| " .......per haiff pije or thirer | 45 | 14 |
| "* .......per quarter cask or hill. | 10 | 0 s |
| flaret. ......................per cask, | 40 | 15 |
|  | 10 | 08 |
| Indld bagking. . . . . . . . . . . . . . . . . . . | 15 | 10 |

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in 1663 continu appeara clalms provions cury, ax Ellzahet Armada 23, in th peared 1643 (th riety of to the n were the Eagla Iatellige Parllame telligenc
Scout's
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he year
or"nation, was established by Sir Roger I'Estrange, in 1663; it was entitled the Publio Intelligencer, and continued nearly three years, when lt ceased on the sppearance of the Gazettc. A pablication, with few clains however to the character of a uewspaper, had praviously appeared; it was called the English Mercury, and came ont under the authority of Queen Elizsbeth, so early as 1588, the period of the Spanish Armads. An early copy of this paper ls dated July 23, in that year. In the reign of James I., 1622, apjeared the Jondon Weekly Courant, and In the year 1643 (the period of the clvil war) were printed a variety of publicatlons, certalnly la no respect entitled to the name of newspapers, of whlch the following were the titles:

England's Memorabie Accidents, The Klngdom's Intelligencer, The Diurnal of Certain Passages In Parliament, The Mercurius Aulicus, The Scotch Intelligencer, The Parliament's Scout, The Parliament's Sceut's Discovery, or Certain Information, The Mercurius Civleus, or London'e Intelligencer, The Country's Complaint, etc., The Weekly Account, Mercurius Britannicus.

A paper called the London Gazette was published August 22, 1642. The London Gazette of the existing series, was published first at $O x f o r d$, the court being there on account of the plague, November 7,1665, and afterward at Lendon, Febrasry 5, 1666. The printing of newspapers and pamphlets was prohibited 31 Charlee [., 1680.-Salmon's Chron. Newspapers were firat stamped in 1713. Number of the stamps lseued In England:

| Year. | 1 | Year. | N |
| :---: | :---: | :---: | :---: |
| 1753. | 7,41t,757 | 1825. | 26,950,028 |
| 1760 | 9,404,790 | 1880. | 80,158,741 |
| 1774. | 12,300,000 | 1835. | 82,874,652 |
| 1790. | 14,045,689 | 1840. | 49,088,834 |
| 1810. | 16,084,905 | 1848. | 54,448,977 |
| 1810. | 20,172,887 | 1849. | 76,569,285 |
| 1820. | 24,862,188 |  |  |

The total number of newspapers published in the United Kingdem in 1849 was 603, viz.: 160 in London, 232 in the Euglish provinces, 117 in Ireland, and 94 in Scetland. The number of alvertisements inserted in the Iondon newapapers in 1849 was 886,108 , paying a gross duty of $\mathbf{£ 6 0 , 4 5 8} \mathbf{2 s}$.; in the English provincial newspapers, 834,729 , yielding to the crown a revenue of $£ 62,60413 \mathrm{~s}$. $6 \mathrm{~d} . ;$ in the Irish papers, 220,524 , peying $\mathbf{£ 1 1 , 0 2 6 ~ 4 8}$; and in the Scotch papers, 240,911, paying in duty $£ 18,075168,6 \mathrm{~d}$.

Neuspapers, etc., in the United States.-The Boston Netes Letter was established in 1704, which was continued till 1714; the second was the Botton Gazette, 1719; the third the Anerican Weekly Mercury, at Philadelphis, started one day after the last. First New l'ork Gazette, in 1725; first newspaper in the Carolinas, st Charleston, 1731-2; first Rhode Island Gazette, at Newport, 1732; first Virginia Gazette, at Willismsburg, in 1736. In 1775 there were in all the colonies 97 newspupers; in 1810, in the United Ststes, 358 ; in 1828, 802 ; in 1889, 1550, and in 1850, 2526.

Newspapers in France,-'The first was the Gazette de France, estabilished by Renairdot, in 1631, and centinucd with few interruptions till 1827, when it ceused and snother paper assumed its nume. The Moniteur, commenced in 1789, has been since 1800 the official journal of the government. The Constitutionelie and the Journal des Debats have long had the largent circuiation. There were 374 newspnpers published in lirance in 1832. See 1'mitodical. Literature.

Nerspapers, Irish.-The first Irish newspaper was Pug'a Occurrences, published in 1700. Fauliknen's Journal was established by Georga Faulkner, "a man celebrated for the goodness of his heart, and the weakness of his head," In 1728.--Supplement to Suift. The oldest of tho existing Dublin newspapers is the Frecman's Journal, founded by the patriot, Dr. Lucas, ebout the year 1765,-Weatm. Rev., January, 1830. The Jim-
erick Chronicle, the oldest of the provincial prints, wes cotablished in 1768.-IIdem.

Notices of Newspapers.-The history of newspapers, and of periodical literature in general, remains to be written; and were the task executed by an individual of competent abllity, and with dne care, it would be a mest intereating end important work. It appears, from the reeesrchen of Mr. Chalmera, that the first newspaper published in modern Enrope made its appearance at Venice in 1536 ; but the jealousy of the government would not allow of lts being printed; so that, for many years, it was clrculated in manascript ! It weald seem that newspapers were first issued in Fagland by authority during the alsirm occasioned by the approach of the Armada to her shores; in erder, as was etated, by giving real information, to allay the geueral anxiety. and to blader the dissemination of false and exaggerated statements. From this era, newspapers, of one cort or other, have, with a few intermiseions, generslly appeared in Londen, sometimes at regular, and eometimes at irregular intervals. During the civil wars, both parties had their newspapers. The earliest newspaper published in Scotland made its appearance under the auspices of Cromwell In 1652. The Caledonian Mercury was, however, the first of the Scotch newepapers of natlve manufacture; it made its appearsnce st Edinburg, under the title of Mercurius Caledonius, in 1660 ; bur its publicstion was soon afterward interrupted. In 1715 a newspaper was, for the flrst time, attempted In Glasgow.

To Boston belonge the honor of establishing the first newspaper in North America. It was issued in the year 1690. It was deposited In the State Paper Office, in London, and stopped by the government. It was of the slze of an ordinsry eheet of letter paper. One copy of it alone was known to be in existence, and that it was that shared the luckless fate sbovenamed. The first regular paper that was issued was slso of Boston. Its title was the Neus Letter, its date was 1704, and It was printed by John Allen, in Pudding Lane. We have seen some of its early numbers, and they are peculiar. Its latest news from England was dated one hundred and twenty dsys previously, and consisted of a speech of Queen Anne to Parliament. An advertisement informs us that the mail between Boston and New York set out once a fortnight. Negro men, women, and children were sdvertised for sale, and an urgent appeal sppeared in one, culling upon a female who had stolen a piece of fine lace, valued at 14 shillings a yard; and upon another who had convered a piece of fine calico from its proper destinstion, under her riding-hood, to return the same or suffer exposure in the newspapers. For 74 years thls paper continned in existence as the leading Tory papar. About these days, the revelationary struggle drawing near, the Boston Gazette was iesned at Watertown as the organ of the patriots. When the war broke out, there were 37 newspapers being publiahed in the United States; eight of them were committed to the interests of the British, and five others were brought over to the government side.

Old Papers.-The Worceater Spy, published in 1770, is the oldest existing paper of Mabsachusette. There aro copies extant of the Albany Journal, or the Montgomery, Washington, and Columbia Intelligencer, printed in 1788. It was issued semi-weekly, at a subecription price of 12 shillings per annum. Its size was abont 11 by 13 inches. Charles K. and George Webster \& Co. were its puhitshers. Its leading article is an extract from a letter from Philsdelphia, dated February 20, as followa: "On Saturday linst, upon the arrival of the news of the ratification of the Federal Constitution by the powerful State of Massachusetts, the bells of Christ Cburch were rung, and congratulations of joy have appeared In every part of tile city for several days." The "latest news from Earope" Is made a feature of the sheet; it bears date December

1787, by which it would appoar that it took some three months to cross the water.

New York and her Newapapers.-The position which this city sustains, as compared with any other city of the world, in the number and circulation of her journale, can be adjudged by a glance at the following table, which gives the supposed number of newspapers in the world, 1852-56:

| Austria.......... | 10 | Belgiam. |
| :---: | :---: | :---: |
| Africa. | 14 | Denmark. ........ 85 |
| Ania. | 30 | Germanjo Statea. 850 |
| Oreat Britaln mod |  | Portugal. ........ 86 |
| Ireland........ | 800 | 8paln............. 24 |
| Roseia and Poly- | 60 | United States..... 2,800 |

Of these, New York alone lissues 122 sheets, as follows: secular journals, dally, morning, 8; evening, 6; semi-weekly, 2; woekly, 59; German dailies, 3; weeklies, 8; French daily, 1 ; Spanish weeklice, 2 ; Welsh, 3; of religious weeklies, there are 29 sheets. It is difficult to obtaln a correct estimate of the present circulation of so many papers. Of the daily papers, at least 250,000 copies must be circulstad; while 13 religious weeklies are spread before 150,000 substribers.

The whole number of newspapers and periodical publicatiuns in the United States on the 1st of June, 1852, amounted, according to the official returns, to about 2,800 . Of these, 2,494 were fully reported upou
wbile the particulars with reepeot to the others were in part estimated.

From these returns, etc., it appeara that the aggrogate oirculation of papers and other pnbllcations was about $5,000,000$; and that the entire namber of coples printed annually in the United States, amounted to about $422,600,000$. The following table shows the number of daily, weekly, monthly, and other isaues, with the aggregate clrculation of each class :

|  | No. | Oreulation. | Rrined |
| ---: | ---: | ---: | ---: | ---: |

Four hundred and twenty-four journals were lssued in the New England States; 876 In the Middle States; 716 in the Southern States; and 784 in the Western States. Of the whele 2,800 publlcatlons, about 2,200 were newspapers, properly so called; the residue being scientific, religloue, and educational journals. The average circulatlon of the mere papers was 1,785 . There was one publleation for every $\mathbf{7 , 1 6 1}$ free inhabitants in the United States and Terrltories. Tho following summary is based on the official returns:

Nbwspaprrs and Periodicals Publigitid in the Unttrd Btatks in 1950.

| States \& Territoriee. | Dally. |  | $\begin{gathered} \text { Tri-weotly abd } \\ \text { veml-wookly. } \end{gathered}$ |  | Weekly. |  | Serni-nnonthly. |  | Monthly. |  | Quartarly, |  | Agsregate. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. copien printed stinu. elly. | No. |  | N b. | $\begin{gathered} \text { No. epplues } \\ \text { printed nnnu- } \\ \text { ally. } \end{gathered}$ | No. | No. ecplea. meally. | No. | $\text { o. } \left.\begin{gathered} \text { So. copluas } \\ \text { printed an- } \\ \text { mually. } \end{gathered} \right\rvert\,$ | No. | No, coplen mually. | No. | $\begin{gathered} \mathbf{N u}_{10} \text { equles. } \\ \text { prinind onnim. } \\ \text { olly. } \end{gathered}$ |
| A) | 6 | 869,201 | 5 | 268,500 | 4 | 1,519,040 | 1 | 18,009 |  | $\ldots$ | $\cdots$ |  | 60 | 2,662,741 |
| Arkansas Callfordia | 4 | 026,00) | .. |  |  | $\begin{array}{r} 77,000 \\ 135,200 \end{array}$ | .. |  |  |  | $\because$ | ... |  | 877,1000 |
| 2Mst Colo | 5 | 6,149,198 | \% | 1,203, 010 |  | 8,789,424 |  |  |  |  |  |  | Is | 11,127,236 |
| Coonectico | 7 | 1,754,500 | 4 | 874,400 | 80 | 2,117,2322 |  |  | i | 1 6,000 | 9 | 8,800 | 46 | 4,267,932 |
| Delaware |  |  | 8 | 62,400 |  | 858,800 |  |  |  |  |  |  | 10 | 421,200 |
| Florids |  |  | 1 | 81,210 | , | ${ }^{288,600}$ |  |  |  |  |  |  | 10 | 819,400 |
| Geor | 5 | 1,096,000 | 8 | 146,380 | 87 | 2,609,778 |  | 2:28,600 |  |  |  |  | 51 | 4,070,466 |
| $111 i n o$ | 8 | 1,120,000 |  | 214,500 | 84 | 8,875,986 | 8 | $48,200$ |  | 147,200 | 1 | 900 | 107 | 5.102,276 |
| Indl | 9 | 1,158,000 | 8 | 195,060 | $\stackrel{95}{95}$ | 2,920.786 | 1 | 4,000 | 2 |  |  |  | 107 | 4,816,828 |
| Ken | 9 | 2,248, ${ }^{\text {a }}$, | 7 | 1,125,2sp | 88 | $8,058,024$ | 8 | 160950 |  |  |  |  | 62 | 6, $6,012.500$ |
| Lont | 11 | 0,947,140 | 8 | 67a,000 | 87 | 1,646,694 |  |  | 1 | 146,400 |  |  | Cs | 12,416,224 |
| Malae | 4 | 964, 040 | 5 | 802,900 | 39 | 2006,124 |  |  | 1 | 80,000 |  |  | 49 | 4,208,064 |
| Maryland | 6 | 15,816,500 | 4 | 499,700 | 54 | 8,166,124 | 1 | 48,000 |  | 92,410 |  |  | 88 | 19,612,724 |
| Massechues | 22 | 40,498,444 | 15 | 2,421,016 | 126 | 20,871.104 | 3 | 81,800 | 29 | 1,807, 200 | 7 | 24,000 | 209 | 64, $\times 20$ a 64 |
| Mlehigan |  |  | 8 | 54,000 | 47 | 1.685,786 | 8 | 184,440 |  | 128,600 |  |  | 58 | 8.247.786 |
| Mlestssip |  |  | 4 | 245,440 | 46 | 1,507,064 | . |  |  |  | $\cdots$ |  | 51 | 1,752,504 |
| Mlesouri.. | 5 | 3,850 | 4 | 973,000 | 45 | 8,406,560 |  |  |  | 185,600 |  | .... | ${ }^{61}$ | 6,190,600 |
| N. Hamp | 6 |  | $\because$ |  |  | $8,534,152$ $1,900.2 \times 4$ | 1 | 15,600 29,040 |  | 18,800 |  |  | 85 | 3,1067,552 $4,093,079$ |
| New | 51 | 68,925,653 | 21 | 8,992,460 | 808 | 89,205, 820 | 0 | 1,704,000 | 88 | 6,029,808 | 8 | 94,600 |  | 115,9n5,488 |
| North Ca |  |  | 5 | 414,810 | 40 | 1,530,204 | 6 | 76,050 |  |  |  |  | 51 | 2, 220.64 |
| Ohlo.. | 26 | 14.255,683 | 10 | 1,047,980 | 201 | 18,834.204 | 23 | 1,781,640 |  |  | 1 | 24,000 | 201 | $80,478,407$ |
| Pennsylvan | 24 | 80, $416,7 \times 8$ | 8 | 140,400 | 261 | 21,989,844 | 10 | 6,972,000 |  |  | 8 | 7,600 | 810 | $84.698,672$ |
| Hhode Ielan | $\stackrel{\delta}{5}$ | 1,768,450 | 2 | 25,900 | 12 | 963, 800 |  |  | $\cdots$ |  |  |  | 19 | 9.756,850 |
| Soath Carolloa | 7 | 5070,600 | 5 | 849,200 | 97 | 1,418,880 | 5 | 102,600 |  |  | 8 | 9,61 | 48 | 7,145,930 |
| Tennessc | 8 | 4,407,666 | , | 803,240 | 36 | 2,189,644 |  |  | 4 | 127,200 | . |  | 50 | 6,940,750) |
| Texas. |  |  | ${ }^{5}$ | 525,400 | 99 | 771.524 | - |  |  |  |  |  | 8 | 1.296,94 |
| Vermon | , | 172,150 | 1 | 228.800 | 30 | 2,142,712 |  |  | 8 | 24,000 |  |  | 38 | 2.067,662 |
| $\underset{\text { Virginla }}{\text { Veoss }}$ | 15 | 4,998,850 | 12 | 1,416,550 | 55 | 2.518,568 | 8 | 267,600 | 1 | 94,000 | 1 | 1,000 | 67 | 9,28g069 |
| Wiscoss]r | 6 | 1,058,245 | 4 | 198,250 | 85 | 1,895,012 | . |  | 1 | 14,000 | . | ... | 46 | 2, 665,454 |
| Minnesota Terri. <br> N. Mexico | $\because$ |  | $\cdots$ | .... | ${ }^{-1}$ |  | i | 18,0 | $\cdots$ |  | $\cdots$ |  | 9 |  |
| Oregon | $\cdots$ |  | $\because$ |  | d | 08,908 |  |  | $\cdots$ |  |  |  | 2 | 88,96* |
| Utah |  |  | .. |  |  |  | .. |  | $\cdots$ |  |  |  |  |  |
| Total. | 234 | 235,19,966 | 46 | 17,876,816 1 | ,902 1 | 33,120,70s | 95 | 11,708,450 | 100 | 4,887,800, | 19 | 108,500 | 2,326 | (409,973 |

Peblicatione and thela Cibculation in the Pbineipal Citigs in $\mathbf{1 s 5 0} 0$

| CTiees. | Nievec. | Publicatione. | Anaual el reslation | A varape elre da. thon. | Annnal circalaton wo park white thhabtiant. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Albany.. | Now York | 8 | 18, 1800,460 | 2,006,807 | 321 |
| lialtimorn | Maryland | 81 | 20,711,100 | 668,100 | 117 |
| Bostenc.... | Massachusetts, | 113 | 64,488,644 | 4682,147 | 414 |
| Charleston | Bouth Carolins | 12 | 8,675,400 | 472.983 | 244 |
| Chilcago. | Ilinole | 17 | 1,896,952 | 110,907 | \% |
| Chelnnat | Whlo... | 89 | 8,753,800 | 224,441 | \% 4 |
| Louinvile | Kentucky Alabama. | 23 | $8,186,638$ $1,042,600$ | 188,560 | 69 |
| Now Orlean | Todsian | 19 | 1,260,960 | 625,608 | 77 126 |
| New Yors | Now York | 104 | 78, 747,000 | 757,148 | 157 |
| Be Louis... Philidula |  | 18 81 | 4,890,080 |  |  |
| Philadetphia | lennsyivan | 81 | 48,457,940 | 850,142 | 125 |

See xlii., 8 Quar., IVestm. Souther iv., 127 Rev., ls Nev 1751; n the cale oned as gorian DAls.
styles ;
between much b person 1 who emp riation count for torical f New situated tween 71 area of 4 was 3.10 , 1820, 1,3 and in 18

Early comprise York un nated it particula shorter " for a lon known to English ginia, an ginia, or sidered it the place went dow of sorth discovery landt" ( $t$ ready ha the first $t$ They also is on m : They at fsr east a peninsula beyond it many old Delawar the Dute later mal sall Bay;
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See Am. Alm., 1835; 98, 266 ; N. Br. Rev., 11., 164, xili., 86 ; N. Am. Rev., Ivi, 229 (C. C. Frition); For. Qutar., xxx., 197, xxxi., 182, 250 ; Liv. Age, iv., 780 ; Westm. Rev., x., 216, 466, li., 194, xil., 69, $\times \times x ., 264$; Southern Lit. Mess., vil., 690 ; Fraske, xxxili., 674, iv., 127, 810, xiii., 620; Dem. Rev., xxiv., 219 ; Ed. Rev., lxi., 96.

New Style. Ordered to be used in England in 1751 ; and the next year eleven days were left out of the calendsr-the $3 d$ of Septomber, 1752, being reckoned as the 14th-so as to make It agree with the Gregotian Calendar, which see, and also article CalenDan. In the year A.d. 200, there was no difference of stries; but there had arisen a difference of eleven days between the old and the new style, the istter being so much beforehand with the former: so that when a person using the old style dates the 1st of May, those who employ the new, reckon the 12 th. From this variation in the computation of time, we may easily account for the difference of many dates concerniag historical facts and biographical notices.-M.

New York, one of the United States of America, situated between $40^{\circ} 30^{\prime}$ and $45^{\circ} 01^{\prime} \mathrm{N}$. lat., and between $71^{\circ} 50^{\prime}$ and $79^{\circ} 50^{\prime} \mathrm{W}$. long., and contains an area of 46,000 square miles. The population in 1790 was 340,120 ; in 1800, 586,050; in 1810, 959,049; In 1820, 1,372,812; in 1830, 1,913,508 ; in 1840, 2,428,921; sad in 1850, $3,097,894$.

Eirrly Ifistory of New York State,-Tine Spaniards comprised the territory of the present State of New York under thair great name of Fiorida, and desigaated it also on their maps of the sixteenth centary particularly as the "Tiarra de Stephen Gomez," or shorter "Tierra de Gomez," "Jecanse Gomez (1525) was for a long time the only Spanish navigator who was known to have explored especially these coasts. The English comprised it since 1585 under the name Virgiaia, and siace 1606 under the name of Northern Virginia, or the Northera Colony. Since 1616 they considered it as a part of New England, which name took the piace of the old name of Northern Virginia, and went down like this as far south ss the fortieth degree of aorth latitude. The Dutch began soon after the discovery of Hudson (609) to call it "Nienw Nederlandt" (the New Netherlands). This name may already have been in use for some time, but it occurs for the first time in a public document in the year 1614. They also sometimes called it "Nieuw Holland." it is on maps siso sometimes called "New Belgium." They at first gave to it very extensive boundaries, as far east as Cape Cod, including the whole Barnstsble peninsuia, and south as far as the Delawaro River and beyond it. With these limits we find it represented on many old Dutch maps. The southern linnit on the lelawsre River remained protty much unchanged on the Dutel maps. Not so the eastern boundary. On later maps we see this advancing only as far as Nassau Bay, Rhode Island. Since 1630 or 1635 the maps hsve it only as far as the Connecticut Itiver, where at this time the English had aiready arrived with their plantations. When, in the year 1664, the English conquered the whole country, it was named the "Province of New York," in honor of James, Duke of York, lrother of Charles If. It lost in the same yesr s part of its cosst by the grant which the Duke of York made to a company of genticmen who founded the province of New Jersey, between the lower IIudson and the Dalaware Bay,-J, G. Kont,

When the province became, in 1776, a State, the name romained unchanged, and also the ifmits along the coast.
Physical Features.-This Stato is divided into three unequal parts, by two great valleys, viz, : 1st. The viley of the Ifudson, Including the depression in which Lake Champlain is situated, or, more properiy, the vaileys of the IIudson and Champlain nnited. 2d. The valleys of tho Mohawk, and Onoidia Lake, and

Oswego River, nnited. The eastern division is a long narrow beit, oxtending from New York island to the head of Lake Champlain. Its eastern limita are the borders of Connectlcut, Msssachusetts, and Vermont, with a alope westward to the Hudson, traversed longitadinally by several narrow valleys. This division comprehends the western slope of the Taghkanic mountsins, which form the waler-shed thst sepsrates the waters flowing into the Iludson, from those which flow into Long Island Sound. The north division of the State is traversed by the Cilinton rsuge. There are seversl subordinate ranges connected with this group. It begins at Little Falls, in the valley of the Mohawk, and pursues a north-east course across the country to Trembleau Point, on the west shore of Lake Champlain. There are numerous lofty peaks which formed a remsrkable group, and have been styled the Adirondack mountains. Mount Marry, the highest of the range, attains to an elevation of 6,467 feet above tho sea. This ridge presents the water-shed of the region dividing the waters of the Indson, or those which flow south into the Atlantic, from those which flow into the Gulf of St. Lawrence. The south division is eituated between Lake Ontario and the Mohawk, and the lludson valleys and Penusylvania. It rises with a gradual ascent until it resches its maximum beight near the sonthern boundary of the State. The south-eastern part of this division is comprised in three ranges, viz., the Highlands, broken through by the Hudson, the Shawanguak, and the Catskill. There were in this State in 1850, 12,408,964 acres of land improved, and $6,710,120$ of unimproved land in furms. Cash value of farms, $\$ 554,656,042$, nnd the value of implements and machinery was $\$ 22,084,926$. Live Stock.-Horses, 447,014; asses and mules, 963 ; milch cows, 931,324 ; working oxen, 178,909 ; other cattle, 767,406 ; sheep, $3,453,241$; swino, $1,018,252$; value of live stock, $\$ 73,570,499$.

Agricultural Products, etc.-Whest, 13,121,498 bushels; rye, $4,148,182$; Indian corn, $17,858,400$; oats, $26,552,814$; peas and heans, 741,546 ; barley, $8,585,059$; bnckwheat, $3,183,955$; potatoes, $15,368,368$; sweet potatoes, 5,620 ; vulue of products of the orchard, $\$ 1,761,950$; produce of market gardens, $\$ 912,047$; pounds of butter made, $79,766,094$; of cheese, $40,741,-$ 413 ; maple sugar, $10,357,484$; molasses, $56,539 \mathrm{gaj}$ lons; beoswax and honey, $1,755,830$ pounds; wool, $10,071,301$ pounds produced; flax, 940,577 ; silk cocoons, 1,774 ; liops, $2,536,299$ pounds ; tobacco, 83,189 ; hay, $8,728,797$ tons ; hemp, 4 tons ; clover seed, 88,222 bushels ; other grass seeds, 96,493 ; flax seed, 57,963 ; and were made 9,172 galions of wine; value of homemade manufactures, $\$ 1,280,333$; of slsughtered anlmals, $\$ 13,573,883$.

The principal rivers are the IIudson, 324 milies long, navigalile 156 miles to Troy. The Mohawk, 135 miles long, which enters the Iludson a littie above Troy; the Genesee, 125 miles long, which enters Lake Ontario, having at Rochester, 5 miles from its mouth, 2 falls of 96 and 75 feet. Black River, which rises near the cources of the IIudson, and flows 120 miles into Lake Ontario ; the Saranac, 65 miles long, entering Lake Champlain at Plattsburg; the Oswegstchie, 100 nilies long, fiowing Into the St. Lawrence; the Oswego, proceeding 40 miles from Oneida Lake into Lake Ontario; the Au Sable, rising in the Adirondack mountains, and having a conrse of 75 miles to Lake Champlain. The majestic St. Iawrence forms a part of the northern boundary of the State. The head branches of the Susquehanna, the Aileghany, and the Delaware, rise in this State. Besides Lakes Ontario and Erie on the north, and Champlain on the east, which are but partly within it, there are wholiy within the Stnte many picturesque sheets of water, viz., Lakes George, Onelda, Skaneateies, Ownsco, Caynga, Senecs, Crooked Lake, Canandaigun, and Chautauque. The islands belonging to New York are-Long Isisnd,

130 miles long from weat to eant，with an average width of abont 15 miles，within whoes waters on the eata are Fisher＇s，Shelter，Robin＇s，and wome other isl－ ands．Statea Island，nonth－weot of the harbor of Now York； 18 miles long，and 8 wido．Maphattan Island on which tha city of New York stands，18，miles long and about 11 wide at an average breadth．Grand Ialand，in Niagara River， 12 milea long，and from 2 to 7 wide，and extending to within a short distance of the Falls．The harbor of New York la one of the finest in the United Statea．On the bar at Sandy Hook it hat a depth cf from 21 to 27 feet．Sag Harber on the east， and Brooklyn on the west end of Loag Island，have good harbors ；Sackett＇s Harbor has a good natural， and Oawego a good artificial harbor on Lake Ontario． Buffilo and Dunkirk are harbora on Lake Erie

Manyfactures．－There were in the State in 1850， 118 cotton factosies，with a capital inveated of $85,554,320$ ， employing 8,877 males and 5,499 females，producing 39，532 yards of aheetings，otc．，and $5,808,561$ pounds of yarn，valued at $\$ 5,019,328 ; 203$ woolen factoriea， with a capital invested of $83,844,090$ ，employing 3,500 males and 2,645 females，manufacturing $7,124,600$ yards of cleth，etc．，valued at $\quad 6,442,869 ; 28$ carpet factories，employlag a oapital of $\mathbf{4} 802,175 ; 29$ estab lishments making pigiron，with a capital invested of ©727，500，employing 994 persons，producing 23,022 tons of pig iron，etc．，valued at $\$ 1,067,572 ; 823$ establish－ mente，with a capital of $8,622,482$ ，employing 5,925 persons，and making 104,888 tons of castings，etc．， valned at $\$ 5.31,980 ; 60$ establiahments，with a cap－ ital of $1,131,800$ ，employing 1,037 persona，manufac－ turing 18,036 toas of wrought iron，valued at $\$ 1,428$ ，－ $968 ; 1,442$ flouring and grist mills； 4,599 saw mills； 942 tanneries； 550 printing offlees； 458 newspapers， vis．， 54 daily， 18 tri－weekly， 18 seml－weekly， 813 weekly， 13 semi－monthly， 25 monthly，and 3 quarterly pubilicatious．Capital inverted in manufacturea，499，－ 904,405 ；value of manufactured articlea， $\mathbf{8} 237,599,361$ ．
The principal places in the State are New York，the metropolis，Albany，the capital，Troy，Brooklyn，New－ burgh，Poughkeepsie，Hudson，Saritoga Springs， Plattsburg，Schenectady，Utica，Syricuse，Auburn， Geneva，Rocheater，Buffalo，Lockpo＇t，Oswego，and Ithaca．There were，Jannary，1856， 2 2 railroads，with 2,794 miles of road finished and in operation．There is in this State the greatest extent of cenal navigation within any State or conntry on the face of the earth， forming an aggregate of 787 miles．See Canals and Railioada．There were，Jazuary，1856， 287 benks， and 1 branch，with a paid capltal of $\$ 86,890,000$ ．

Canals，－The canals of New York were the chief element of her early prosperity，and we give a short history of them，and their present commercial import－ ance．

From 1814 till 1817，the suljject of the canal was warmly discussed in the legislature by the friends and opponeats of the interasi improvement aystem；and the act anthorizing the construction of the canal was finally passed in 1817，by a vota of 18 to 9 in the Senate．The firat contract was made on the 27 th of June，1817，and the 4th of July was ceiebrated by breaking ground at Rome for the construction of the canal．Inffalo then had a population of leas than 2,000 ． Notwithatanding the vast benefita conferred upon the State by De Witt Clinton in his vigorous efforts to bring about a system of internal inprovementa，he was removed in 1824 from the office of canal commisaioner， by a vote of 21 to 3 in the Senate，and 61 to 84 in the Assembly．In 1825，a report on canals was made， written by Mr．Marcy，afterward governor，in which he said：
＂From the vlews taken by the commissioners，it appeare reasonable to indulge the hope that within the space of 10 years tha canal debt may be extinguished； and thin coplous stream of reveaus，ylelding，according o the most moderate patimates，an annual income of
more than $1,000,000$ ，may be turned into the treasury， and the government bo thereby enabled to remnve from the people the harden of taxation，to diffuse the bles－ slaga of education in a more abundant manaer than at present，and to carry forward this State with increas－ ing progress，in its career of general prosperity．＂
In 1828，Governor Clinton congratnlated the legis． lature on the completion of the water cominunication between the lakes of the Weat and the Atlantic Ocean， affording an＂inland navigation unparalleled in the experience of matidnd．＂It was in this year（1826） that the firat act for a railruad was passed by the Leg－ islature of New York，being the road from Albeny to Schenectady， 16 miles in length．This road was not completed for several years．
In 1827，Governor Clinton called the attention of the legislature to the subject of internal improvements by the general government．The project of the Ches－ apeake and Ohio Canal was then before Congrees，and the aid of the government was given in behalf of that then considered great work．Governor Clinton ob－ aerved：＂It has become a question of great moment， whether the general government has power，with or without the consent of the State governmeats，to con－ etruct canala and roads in their territories，and whether auch power，if not already veated，ought not to be granted．＊I think it due to a sense of duty and a spirit of frankness，to asy，that my opinion is equaliy hoatile to ite poeseasion or exercise by，or its investment in，the national authorities．＂See Caxals．
River and Canal Navigation．－The aubjoined tables show the date of the opening and closing of the IItud－ son River and Erie Canal for a period of 15 yeurs，and the number of days they were open each year．
lludson River．

| River opened． | River eloced． | Day．open， |
| :---: | :---: | :---: |
| 1849，Fobruary 4 | Noveinber 29 | 808 |
| 1443，Aprld 18 | December 10 | 248 |
| 1844，March 19 | ${ }^{*} 17$ | 978 |
| 1545，February 94 | ＂ 8 | 988 |
| 184，March 18 | 14 | 275 |
| 1547，Aprll 7 | ＂ 425 | 263 |
| 1848，March 22 | 27 | 292 |
| 1849，¢ $\quad 19$ | 26 | 286 |
| 1850，${ }^{\circ} 10$ | 17 | 938 |
| 1851，February 25 | 14 | 298 |
| 1852，March 28 | 33 | 270 |
| 1853 | ＂ 21 | 274 |
| 1885\％＂$\quad 17$ | ＂ 8 | 266 |
| 1855，＂ 97 |  | 268 |
| 1836，Aprll 10 | 19 |  |

Ebia Canal，

| Canal opened． |  | Canal cloned． | Days open． |
| :---: | :---: | :---: | :---: |
| 1842，April | 40 | November 28 | 222 |
| 1848，May | 1 | ＂ 80 | 214 |
| 1044，Aprll | 18 | ＂ 86 | 228 |
| 1845，＂ | 15 | ＂ 99 | 828 |
| 1846，＂ | 16 | 4 4 | 224 |
| 1847，May | 1 | ＂ 80 | 214 |
| 1843，＂ | 1 | December 9 | 928 |
| 1840，＂ | 1 | 4 4 | 219 |
| 1851，Aprl | 28 | $4{ }_{4}^{4} 11$ | 234 |
| 1851，${ }_{1502}$ | 15 20 | 4 | 285 239 |
| 1858，＂ | 20 | ＂ 20 | 245 |
| 1834，May | 1 | $" 8$ | 217 |
| 1855，＂ | 8 | ＂ 10 | 224 |

The aver ge cost of railroads has been as foilows：


The number of railroads，including branches，now in progress in the United States，is $\mathbf{3 7 2}$ ．The miles in operation are 13，586；the miles in progress， 10,828 ； and the amount now expended is $400,000,000$－the average cost being 080,000 per mile．The average cost of the whole 2,579 dilles belng about $\$ 35,000$ per mile．The amount expended ou the canals of the United States is about $150,000,000$ ．

The Nevo York Camals，－The Annual Report of the Canal Aaditor of thia State，for 1856－7，has been com－
manicated to the Senate. The revenue for the pest year has been greater and tha expenses leas than for the jear 1865. The following comparative statement shows the difference in the receipta and paymenta between the two yearn:



10,183 40
Tols recelved........................... to repalr-conatrectora. ............... for repairs. .................... masters, and toupectori. ........ Refundlag tolls, malarlea, eto.....

8089,792 19
The whole amount of tolls recelved
Which amonut is componed an follows I


In tonnage of 98,465 , divided among the difierent articlen, as follows:


The increase in lockages at Alexander's lock is 850.
In flour and whest comprised in the returns of vegetable food, there has been an increase on tonnage the past year of 112,587 tons, and an inerease of tolls of $\$ 160,694$. In corn and oats there has been an increase during the same period of $\mathbf{2 8 , 6 6 9}$ tons, and an increase in toilf of 87,691. Under the head of "Products of the forest," there was an increase in tonnage upon shingles, boards, and scantling, as compared with 1865, of 32,163 tons, and ia decreased tonnage upon timber, stavea, and wood, of 97,705 tons, and an increase in pot and pearl ashes of 9,615 tons. Under the head of "Other articles," there was an increase in the tonnage of mineral coal, for the aqme period, of 77,568 tona, and an increase in unndries of 15,823 tons.
Statament No. 47, appended to the report, showa the tone and description of freight carried on the New York Central and Now York and Erie Railroads, onding 80th September, 1853, 1854, 1855, and 1856, and on the Now York Canals daring the seanons of navigation the same years.
Thus three lines of freight traneit, it is well known, take all the carriage which passes throngh the State between Now York and the Hudson River and the West, including a considerable portion of Upper Canada. It may with justice be said they are all of them competing lines of transport for what is termed "through freight," and two of tham are virtually competing linas for both through and way freight.
The ascertained results presented by these tables are intaresting, snd worthy of much reflection. They not only show the stesdy and progressive increased carriage and movement by reilway, and the ateady and progressive decreased carriage and movement by canal, but they also show the description of freight wherein the carriage by railroads exceeds that of the canal.

Tonn Curried.

|  | Railirond. | Canal. | To |
| :---: | :---: | :---: | :---: |
| 1863. | 901,08t | 4,257,863 | 5,288,892 |
| 1864. | 1,293,653 | 4,165,802 | 6,460,716 |
| 1850 | 1,512,121 | 4,022,816 | 5,584,738 |
| 1850. | 1,719,877 | 4,116,082 | 6,885,400 |

This statement shows an increase of more than 700,000 tons in 4 years by rail, and a lose of 181,771 tons to the canal in the same time.

Total Morement.

| Railroad. $1853 . .$ | $\begin{gathered} \text { Canal. } \\ 700,389,933 \end{gathered}$ | Total. |
| :---: | :---: | :---: |
| 1854...... ... . 211,976,114 | $668,359,044$ | 890,695,158 |
| 1856. . . . . . . . $250,279,834$ | 619,170,651 | 869,450,485 |
| 1856. . . . . . . . . 829,191,724 | 599,009,608 | 921,201,827 |

The total movement by railway in 1858 was not quite one fifth of that by the canals. In 1854, it was nearly one third-nearly one half in 1855, and it was quite three fifths in 1856. At this rate of progression on the part of the railioads, and of loss by the canals, the total movement of freight on those two railroads will be equal to that of the canals in about 3 years from this time, if not sooner.

The aggregate of tha total movement has increased on the railiroads from 1853 to $1856,164,483,622$, and the loss to the canal has been $108,380,330$.
The annexed tables show why it is that with an increased tonnage in 1856 of 93,485 over 1855 , the total movement should be $27,171,048$ lose. This increase in the number of tons carried was on short distances;
otherwise an increase in the recelpts of tolls would have been the result.
But thia atatement also exhtblts the amonnt of freight earnings on these railroads, and tolla received on the canala, including the tolls on boats and passen:gers duriag the above period, together with these total movements. Theae comparative atatements show the rapld and anccessful progress of the former, and the immobility of the latter:

| 1853. | Yrolgh | Tolic. |
| :---: | :---: | :---: |
| N.Y. Ceu, KR R., tona moved 1 ml 'e, | \$64,801,360 | 1,838,830 |
| N.Y. and Frie R.R, | 101,626,622 | 2,687,914 |
| Canala, | 700,889,033 | 8,904,718 |
| Total. | \%866,717,306 | 7,680,769 |
| Y, Cen $R_{R}^{1896}$. |  |  |
| N.Y. Cen. R.R. tona moved 1 mile, N.Y. and Erio R.R., " | ES1,163,080 | $9,499,820$ $8,809,600$ |
| Canais, $\quad 4$ | 669,600,044 | 9,778,666 |
| Total. | \$889,635,158 | 8,629,070 |
| N.Y. Cen. R.18. tons moved 1 mither |  | 8,180,603 |
| N.Y. gnd Frie k. R, it | 150,673,298 | 8,668, 000 d |
| Canals, | 819,170,601 | 8,806,075 |
| Total. | 4880,450,485 | 9,647,002 |
| N.Y. Cen R. $18 . \mathrm{K}$, , tons maved 1 mile, | 145,783,678 |  |
| N.Y. and Erie kr k., "4 | 183,488,046 | 4,645,782 |
| Canals, " | 502,009,603 | 2,748,212 |
|  |  | 5 |

Total. .
This atatement also showa the total tonnage of freight on these roads for 1855 and 1856 aeparately from other tabular calculations, from which it appears the increase on through froight in one year was 182,358 tons, and on way 14,847 tons.

The operations of these roada, for the year ending September 30, 1855 , were as followa:

| Roma. |  | $\underset{\text { felg }}{\mathbf{W a}}$ | Total number: | Total movement or milleage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| N. Y. \& Er <br> N. Y. Ceot | $155,469$ | 518,879 |  | 0, 005,88 |  |
| Total. | 811,669 1 | 1,900,460 | 1,012,188 | 240,279,884 | 1936, 2 |
| $\mathbf{Y}^{18 \mathrm{~g}}$ |  |  |  |  |  |
| N. Y, \& Erlu., |  |  | ported |  |  |

The New York and Erie Hailroad received on through freight in $1855, \$ 1,461,419$ 18, equal to 1940 per ton, on the quantity transported, and in the same year the New York Central received $61,289,70697$ on throngh frelght, which givea an average of $\$ 8 \mathbf{8 5} \mathbf{7 - 1 0}$ per ton ea the amount carried,

The comperative tabula: statemunt herewith aubmitted is a condensed view of the total tonnagy and recelpts of toll on all the canals on the different descriptions of property carried, for the perlod of six years:

| Year. | Tona carried. | Tolls recelved. | Av.per tom. |
| :---: | :---: | :---: | :---: |
| 1851. | . 8,582,733 | -3,073,993 | 85.88 |
| 1852. | . 8,809,442 | 8,866,385 | $74 \cdot 19$ |
| 1853. | 4,247,863 | 8,956,697 | $69 \% 1$ |
| 1854. | 4,105,862 | 8,547,438 | $61 \cdot 16$ |
| 1855. | 4,022,617 | 2,010,420 | $64 \cdot 99$ |
| 1856. | 4,116,082 | 2,064,215 | 62-05 |

The receipts of toll above given are upon the property carried exclusive of the tolls on boats and passangers, and the average must be affected hy the rates of toll charged and received, and the distance that property or freight is transported on the canals. The average of 1851 on the tonnage of 1856 would give 83,542,178 of tolls. The Auditor is satisfied that the rates of tell as arranged in 1851 may be Imposed on most of the property transported on the canals without any injury to trade, if the legislature will interpose Its constitutional authority to protect the trade of the canals.

The canal delt of 1846, to which the annual Sinking Fund of $\$ 1,700,000$ is applicable and constitutionally pledged, was, on the 30th September, 1856, ®18, $^{-}$ 223,70433 , the annual interest of which, payable quarter yearly, amounts to $\$ 792,19328$, and $\$ 5,739,-$ 02476 of this deht are for loans made npon the credit
of this Sinking Fund to aupply the deficienclen which oxisted in that fund, to pay the delt es it fell due after 1847. Former financlal officers of the State have estimated that the Sinking Funds established by article 7, section 1, of the Constitution, would be emple to meet all the charges npon them from year to year, and finally to liquidate the Canal debt, of $\$ 16,944,815$ 57 ontstanding on the 30th of Septemher, 1846, in 18 yeare and 3 montha, with a surplus. of 895,33348 on the 1nt of January, 1865, when it was aseumed the whole of the debt would be pald.
Oanal Drbt,-8tatament buowino the Amount of Painoipal and intrgint aotually patablein gaon Yeap,
 undar The Conbitution, Aat. T, Smu. 1, phom Skp:
 anrual Inthatity of the hame at Fiva pra Cxat. pRE ANMUY.

| Year. | Prisedpal payabi. |  | Sarplas on sept. 20ib, of selh yoar. | Ieterest oo - arplus la each year. |
| :---: | :---: | :---: | :---: | :---: |
| 1856 earplus |  |  | 1,259,901 | 602,995 |
| 1857..... |  | 6692,198 | 2,880,708 | 116,53s |
| 1858. | \%3,058,605 | 8,718,086 | -484,672 | ${ }^{21,798}$ |
| 1859. | 948,100 | 1,439,016 | $1,617.148$ $1,929,784$ | 80,887 96,489 |
| 1501. | 9,182,074 | 2,088,649 | 1,142,628 | 87, 181 |
| 1868 | 900,000 | 1,258,841 | 1,61,418 | S2,470 |
| 1868. |  | 829,841, | 8,095,148 | 154,755 |
| 1864 | 400,000 | 789,941 | 4,897,008 | 211,977 |
| 1865 | 1,789,124 | 2,017,280 | 4,191.655 | 206,492 |
| 1868 | .... | 200,000- | 4,187,738 | 206,986 206706 |
| 1888. |  | 200,000 | 4,140,881 | 207,041 |
| 1900 | .... | 200,000 | 4,147,872 | 207,993 |
| 1870 |  | 200,000 | 4,158,266 | 207,765 |
| 1871 |  | 900,000 | 4, 188,089 | 208,181 |
| 1877. |  | 200000 | 4,171,181 | 208, 5 , 59 |
| $1878 . . . . . .$. |  | 200,400 | 4,179,740 | 52,246 |
| 1874, Jan. 1st | 4,000,000 | 4,050,000 | 181,987 | .... |
|  | 228,704 |  | Intereation | *2,504,278 |
| Tatal debt, prin. Sarplus on Jan. 1st, 1874...... |  | 8,972,198 |  |  |
|  |  | 181,987 |  |  |
|  |  | 10,104,180 |  |  |

The following statoment ahowa the tonage of all the canals of the State from 1850 to 1855 , inclusive, the tetal movement in the years stated, and the total value of all the property carried on the canals io each year.

| Years. | Tolal tonamge. | Total movetnent. | Total value of property rarried. |
| :---: | :---: | :---: | :---: |
| 1890 | 8,076,617 |  | 1156,897,929 |
| 1801. | 9,588,788 |  | 159.981, 501 |
| 1859. | 8,862,441 | 602,800,818 | 196,603,517 |
| 1858. | 4,247,853 | 700,899,989 | 207,179,570 |
| 184. | 4,165,502 | 689,659,044 | 210,291,812 |
| 1885.... | 4,022,617 | 610,170,651 | 204,890,147 |

The two lines of railway in the State, which, during the season of canal navigation, most effectually and seriously compete with the cansle in the transport of freight, are the New York and Erie and the New York Central Railroads. The operations of these lines in the transportation of frelght doring the years stated below, show a steady and progressive incresse.

The largest amount of tolls in any fiacal year was in 1851 , when the receipts werc $\$ 3,703,99984$; and the per centage of the cost of collection on the gross amount received was $\$ 203$. This was befure the repeal of the laws imposing tolls on freight transported on certain rallroads, and the consequent reduction of tolls on the cunals, to enable the State to compete for the carrying trade. In 1851 tho tonnage of all the capals was $3,582,733$. The tennago of all the canals in 1855 , was $4,022,617 ; 439,884$ more than in 1851 ; while the tolla were only $\$ 2,632,90611$, heing $\$ 1,071$,00323 leas. The tonnage of 1855 , at the rates of toll as they wero fixed in 1851 , would have yielded about $\$ 4,108,000$, or about $\$ 1,586,000$ more than were sctually received; the very natural and perfectly legitimate results of a policy adonted by the State before It was prepared by the completion of the enlargemeat to encountor an actlve and vigorous competition.

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Table below show the amount of the new debt created sitce 1846, the interest of which is paid by the General Fund; the apecific objecta for which the eovoral stocks wore issued, and the date of redemption of each, followed by a recapitulation of the whole canal dabt of the Itata:

$39,000,000$
$1,000,000$

600,000
\$11,000,000
HOAPITULATEON OF THE DANAL DEBT.
To pay the interest and redeem the prinalpal undor Artiais 7, bection 1, of the conatio thon. . ................................................ 18,288,704 88
Ta pay the intorant and redeem the princlpal under Article 7, Bection 8, of the Constitu und
$1,000,00000$ 442,680 48 The interest paid by the General Fund

424,666,280 82
Total debt 1at Janךary, 1857 $\qquad$
Of the dabt paying interest there was held on the 30th September, 1856 :
On the United 8tates secount. . . . . . . . . . . . . . . . $818,092,28982$
On forelgn account. $3,424,00000$

Total canal deht to 80th Soptember, 1856..... \$22,416,289 82
The interest on the debt is a fraction over 5.51 per cent.
Oa the 1at of July, 1858, there will be redeemed by the Binking Fund under Bection one, all the five per cent. etocke then falling due, say.

43,063,605 84
The now debt will probably be increased by s resort to the credit of the 8iaking Fund under $\$ 3$, on the 30th September, $1858 . .$.

Decreaso in aggregate of canal dabt. . . . . $\quad 2,239,76500$
If the surplus of the canal revenues during the current fiscal year ahall not be sufficient to meet the whole anaual contribution of $\$ 350,000$ to the General Fund Debt Sinking Fund, the defleiency should be mada up from tha receipts from taxes transferred to the Canal Fund during the year.

The premiums on louns constitute quits an important item of recsipts to the State.

PREMIUME ON LOANB.
Tlue pre:niums received and paid into the treasury on loana made since the 1st of January, 1854, have been as atated balow :

| loan of June 22, 1854, of \$1,0 |  |  |
| :---: | :---: | :---: |
|  |  |  |
| " | Feb. 22, |  |
|  | June 21, | 1,250,000 |
|  | June 20, | 1,500) |
|  | Oct. 24, " | 1 |
| On loana to supply doficicneina in Blaking Fueds, December |  |  |
| 18,185 | per cent.) |  |
| n E. and C. |  |  |

-1775,700 25
167,246 52
181,380 0
234, 60000
C. R. C. 259,40500 204,511 60
atoan to supply doficicacios
18, 1855 (s per cent.)........ 4,500,000
M. ada C. ijad, March 25,

Aggregate to September 10, 1850.............. on the 18th Octaber, 1856, a loan of $\$ 1,260$,
000 for E . and C. was made at a premlum
of...............................................
31,081 20
17070900
\$1,375,439 52

Total of premfuma.
171,386 b0
4, $1,64,82 \beta 02$
of tie cobt por enlargement and completion.
The late 8tate Engieeer and Surveyor, Hon.
John T. Clark, in his report to tha Legista ura in 1856 , estimsted the cost of complet og all the canala, after the 31 et of Decom bor, 1853, lacluding 10 per cent, for contin encles, the coat of angreaing and land encles, the coat of engiaeering and land
To this eoat he applied the constitutional
loans, under $\& 8$, applicle $\tau$....................
And eatimated a defloiency of.................. $84,191,80874$ which is a pretty large addition to any estimate hero-
tofore given by the ongineors of the total cost of enlarger nt and completion.

Trade and Tomnage of the Canalf.-From the tablee furnished the Auditor of the Canal Departmant we compile the annexed atatement of the trads and tonnage of the canals for the year 1856. The tahlea, obtained from the sams source, of the movement for the years 1854 and 1855, are also publinhad, for tha purpose of giving a compariaon in both value and quan tity with the businean of 1858. The statement will be found of much intargat.

It will be found that in the products of the forest the Report of 1858, compared with that of 1855, preasits an increase in the articles of fure and peltry, timber and ashea, whils in the other articlen there is a largs decrease, both in value and quantity. Comparing the same products with those of 1854, the increase it in the articles of furs, shingles, and ashes, both as to valua and quantity.

Under the head of agriculture the recilpts of 1858 show a large incrasse in noms important articlaa, such as pork, what, rye, corn meal, barley, oata, peas and beans, potatoes, dried fruit and hope. In other articlea, under the aame head, thare is a large deficiency ; auch as beef, bacon, cheese, butter, wool, lard, etc. The products under the same haad, compared with those of 1854, show a diffarent exhibit from those of 1855. There ia a large deficiency in pork, beaf, bacon, lard, wool, corn, corn meal, and clover ased; while in the articlen of cheese, butter, hides, wheat, rys, barlay, oats, bran, and ship-atuff, peas and beans, potatoes, dried fruit, and flax seed, there is an increaze.
The first conatitation of New York was adoptad by the Provincial Congresa, April 20th, 1777, wae ratified by the State Legislature July 26th, 1788, and was comewhat amonded in 1801. On the third Taesday of June, 1821, a convention called by the Legislature mat at Albany, and having made a revision of the conatitution, the same was ratificd by the peopls in December following. The third and preasnt constitation was adopted in convention at Albany, October 9th, 1846, was ratified by the people on the ensuing 2 d November, and went into operation January 1, 1847. Among the provisions of the exiating constitution are thess :-A sinking fund to pay the State Canal Deht ahall be thus formed : from the aurplus revenues of the State canals from Juns 1, 1846, to June 1, 1855 $\$ 1,800,000$, annually ; from Juns 1, 1855, thencaforward, $\$ 1,700,000$, annually, including $\$ 800,000$ then to bs borrowed until the dabt is wholly paid. After thus appropriating there ahall be annually aet apart $\$ 350,000$ out of the surplus canal revenues from June 1,1846 , until the canal debt is paid ; and after said payment, then $\$ 1,500,000$ annually, which appropriations shall form a ainking fund to pay ths general fund debt of the State. After thus appropriating, $\$ 200,000$ or less shall be annually paid from the surplus canal revenuea to the State treasury for general State expenses. And the remainder of the snrplus canal ravenues shall be applied to the completion of the canals. If the above sinking funds are ingufficient to satisfy the creditors of the State, cquitabie taxes shall he laid. * * The credit of the State shall not be loaned to any individual corporation. To meet casual deficits, the State may contract dehts not exceeding $\$ 1,000,000$. Other debts may be contracted if submitted by the Legislature to the people, with provisions for payment by direct taxation, and ratified by the people. * * * Corporationa are to be formed under general laws, except those for municipal parposes. Municipal corporations are to be restricted by the Legislature in their power of taxation and contracting debte. Stockholders in banka are individually reaponaible for the debts of their corporation to the amonnt of their eharoa of atock. ** The capitals of the common echool literature and United States deposit funds are inviolate.

The aggrogato atatoment showis mencreces in the In reapect to the apward movement, thare in in indowa tonange in 1856 over 1855 of 200,844 tons, and a croase of tonnege in 1888 over 1856 of 115,846 tona, decreaso in value of $\mathbf{9 2}, 674,687$. and In valuo of $\$ 80,687,844$.



| 4 riceas. | 1846 |  | 186. |  | 146. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Queality. | Value. | Qmantic. | Value. | 4 4uantity. | Volus. |
| Tua Fombat. <br> Fur and peltry. $\qquad$ Ibs. Prodwcte of wood. |  |  |  |  |  |  |
|  | 67,840 | 398887 | 45,718 | 168897 | 00,000 | \$117,010 |
| Bloarde and seantliag.........f. | 092,478,855 | 2915,49 | 491,770,709 | 7,684,769 | 888,600,400 | 0,400,647 |
| 8hlngles.................... $\mathrm{M}_{\text {M }}$ | 25,886 | 14,674 | 71,898 | 812808 | 67,160 | 814,94 |
| Timber. . . . . . . . . . . . . . . . 00, ft | 4,466,039 | 971,959 | 8,179,446 | ctarzy | 891,700 | 680,500 |
| Whaven . . . . . . . . . . . . . . . . . . . . . . . . . . . eond | $182,061,491$ 10,870 | 889890 88,45 | $109,787,2 \times 5$ 10,190 | 680,115 $68,0 ¢ 0$ | 100568, 100 | 744,608 49,070 |
| Ashes, pot and peati. .....bble | 89,026 | 909840 | 12,075 | 809,250 | 60, 047 | 2,177,870 |
| Absicultumb. <br> Producte of animale. |  |  |  |  |  |  |
| Pork. . . . . . . . . . . . . . . . . bbla. | 141,846 | 81,789,926 | 60,422 | 11,408,284 | 81,018 | 11,703,427 |
| Beef. . . . . . . . . . . . . . . . . . . | 54,068 | 044,681 | 87,183 | 658,783 | 4,030 | *22, 101 |
| ${ }^{\text {Bacon . . . . . . . . . . . . . . . . . . . .lbs }}$ | 18.898 .808 | 1,648,298 | 9,519,657 | 901,411 | 4868,010 | 646,497 |
| Cheese | 0,756,169 | 618.405 | 0,007,123 | 900,429 | Q102,000 | 648,3\%9 |
| Batter. . . . . . . . . . . . . . . . . | 2,404,198 | 889016 | 4,41,083 | 895,992 | 8,483,000 | 728,497 |
| H\|des....... . . . . . . . . . . . . Wo $^{\text {W }}$ | 8, 901,076 | 81,238 $1,091,830$ | 4.821,965 | 98,892 $1,498,066$ | 2.914,900 | 112,194 |
| Lard, tallow, and liard oil.... | 16,508,910 | 1,718,783 | 9,408,458 | 972,606 | 8,726,000 | 800 , 205 |
| T'egetable frod. |  |  |  |  |  |  |
| Flour . . . . . . . . . . . . . .bbla | 1,949,448 | 11,434,807 | 1,290,140 | 12,655,089 | 1,190,500 | 8,581,804 |
| Whest . . . . . . . . . . . . . . . . bush. | 8,683,794 | 7,047,570 | 8,420,2*5 | 11,502,977 | 11,740,882 | 20,517,100 |
| Rya...................... * | \%25, $80 \%$ | 278,770 | 777,64 | 971,874 | 1,940,0015 | 1,002,716 |
| Coru ..................... ${ }^{\text {a }}$ | 12870,434 | 10,648,808 | 0,448,778 | 9,128,671 | 0, 1817,714 | 4,981,919 |
| Corn meal . . . . . . . . . . . . . . .bble. | 178417 | 174,999 | 1,9,949 | 11.821 | 14,881 | \$2,436 |
| Barloy. . . . . . . . . . . . . . . . . brah. | 1,949,279 | 2180.158 | 1,674.499 | 9,916,479 | 2, 189,839 | 9,409,424 |
| Oata.................. * | 8,858, 121 | 2,670,607 | 4,807,948 | 2,476,919 | 2000, 818 | 2,454,516 |
| Bran and shlp atnar. ........lbs. | 17,014,026 | 101,929 | 4,088,052 | 4408367 | 40,982,900 | 384944 |
| Preas and beans . . . . . . . . . bash. | 170.745 | 250.611 | ${ }^{00,723}$ | 922,788 | 1,146,280 | 654,806 |
| Potstoes. | 620,459 | 407,1*2 | 689.043 | 480,948 | 870,789 | 487,926 |
| Dried fralt.................lbs. | 602,481 | 60,850 | 823,410 | 81,903 | 788,000 | 78,799 |
| All other agricult al products. |  |  |  |  |  |  |
| Cotton . . . . . . . . . . . . . . . .lbs. | 789,818 | 71,949 | 96.874 | 10.848 | 184,000 | 20,1074 |
| Unmanufuctured tobaceo... " | 6,684,060 | 1,191,406 | 2,844,942 | 812,780 | 1,166,100 | 288, 149 |
| Ilemp................. | 2,207,924 | 159.756 | 448,8\%s | M2,207 | 14,100 | 8,448 |
| Olover and gras seed...... "* | 948,018 | 84,235 | 802,434 | ${ }^{85}, 485$ | 348000 | 76,778 |
| Flax meed. . | 181,881 | ${ }_{808098}^{4685}$ | 488,20\% | 18,748 | 888,000 | 83,494 |
| Hope... | 014,019 | 882,600 | 980,478 | 60,104 | 876,000 | 87,807 |
| Maxctacturas. |  |  |  |  |  |  |
| Domestic apirits.......... galle. | 2,088,781 | 778,965 | 1,329,589 | 649,142 | 8,750,150 | 817,000 |
| Oll meal and cake..........lba. | 18,022,755 | 885,979 | 11,149,467 | 242.189 | 10,650,100 | 170,423 |
| Leather. .................. ** | 0,217,978 | 1,992,865 | 7,438919 | 1,904.879 | 4,678,100 | 1,888,400 |
| Farsiture. | 170,941 | 17,104 | 72,44) | 124,196 | 718,000 | 71,447 |
| Bar and plg lead | 850,778 | 88, 881 | 8,780,819 | 194,072 | Bus,000 | 87,918 |
| Pig iron., | 11,915,58 | 152,709 | 81,68, ${ }^{183}$ | 8988829 | 88,408,000 | 792,412 |
| Bloon and bar lron | 13,876,716 | 461,108 | 15,000, 4441 | 498,250 | 12,298,000 | 8s9,392 |
| Oanlings and tron ware.....", "* | 1,786,878 | 60,024 | 1, 512,256 | 49,983 | 2.184000 | 15,242 |
|  | $\begin{aligned} & 30457 y \\ & 1.810 .75 \end{aligned}$ | 871,166 878,155 | -892,248 | 77,708 116,454 | 80,000 1,642000 | 884,615 |
| ${ }_{\sim}^{\omega}$ entons ${ }^{\text {salt............. }}$ | $\begin{aligned} & 1,810,575 \\ & 8,806,087 \end{aligned}$ | 878,185 64,186 | 6, 1,065,198 | 1167,04 | 1,642000 $8,728,000$ | 803,043 18,023 |
| Torelga nalt | 1,248490 | 80.036 | 67,900 | 88 | 210,060 | 1,044 |
| Merchandlse | 81,488,000 | 6816,528 | 83,112,000 | 0,509,9\% | 27,146,000 | 6,997,888 |
| Otire Aetiolsa. |  |  |  |  |  |  |
| Wive cattle, hore sod sheep. Ibs. | 167,820 | \$5,026 | 123,600 | 16.836 | 816,000 | 12,024 |
| Stone, Hime and clay....... * | 187,511,777 | 9020008 | 156,877,258 | 1,020.798 | 118,760,000 | 167,40 |
| Oypsum... | 15,199,989 | 80,410 | 6,677,246 | 27,510 | 1,882, 010 | 2,64 |
| Mineral con | 111,171,940 | 561,810 | 80,065,040 | 107.496 | \$4,158,000 | 139,897 |
| Copper ore.................. | $8,575,190$ $901,934,814$ | 793190 4,08868 | 288,618 $149,420,905$ | 87,546 B,739,528 | $9,810,000$ $43,262,000$ | 419,609 8.497, |


 is the abotim Table.

| Value. | 184. |  | 1858. |  | 1850. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Tons, | Value. | Tons. | Value. | Tons. | Value. |
| The forest ................... | 1,132921 | \%11,018, 009 | 885,053 | \% 10,698,483 | 808,7\%1 | 10,46, ${ }^{3} 3$ |
| Agrieultare. . . . . . . . . . . . . . . | 720,540 | 44,826,405 | 787,699 | 48,107, 269 | 1,02 2,417 | 49,422,812 |
| Msnnfaclures... . . . . . . . . . . . | 48.169 | 4,081,000 | 45,278 | 4,284,619 | 50,454 | 4,4i4.271 |
| Mercliandine.... . . . . . . . . . . | 15,774 | 3,816, 628 | 16,556 | 6,849,959 | 14,073 | 8,297,788 |
| Other articles................. | 284,782 | 6,285, $8: 2$ | 183,511 | 7,040,941 | 176,754 | 4,285,548 |
| Total. . . . . . . . . . . . . . . . | 2,155,146 | \$ $71,728,265$ | 1,922,625 | 676,961,271 | 2,123,409 | 174,296,88 |

8tatement anow inothe Aogrgoate Quantity and Yalue. of the Paopkatt which went tep tar Canala during the Yaart 1555 and 1856.

Tona.
Value...................... . $8118,448,563$ 184,181,707



| Tons | $\begin{array}{r} \text { 2n55. } \\ 2,690,748 \end{array}$ | $\begin{aligned} & 1850 . \\ & 8,774,418 \end{aligned}$ | Inerrase. 82,669 |
| :---: | :---: | :---: | :---: |
| Valu | 00,400,184 | 3208,418,441 | (18,018,887 |



| Yeens endins |  |  |  |  | Tomuape eleared. |  | Dietriet Tounaye. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domenelia. | Foroigut | Totas, | Totel. | Amarioma, | Forelers. | Maghetered, | Finrolled and LSempeod. |
| Bept. 80, 1891......... | 6, 996,616 | 6, 264.718 | 18,109,914 | 28,691,946 | 16, 174 | 10.720 | 118,750 | 130,416 |
| 1899. ........ | 10,97, 167 | 6,118816 | 17,100,489 | $88,440,698$ | 184.68 | 17,784 | .... | *... |
| 1824......... | 11,842,096 | 7,076,905 | 19,089800 | 99,491,849 | 189.091 | 28.008 | ... | ... |
| 164. | 18,52M,604 | 9,80,480 | $82,507,184$ | 84,118,788 | 278,971 | 18,149 | .... | .... |
| 1828......... | 20,661,508 | 14,607,708 | 85, 258.981 | 49,499,174 | 204,978 | 10,801 | *** | .... |
| 1828........ | 11,400,719 | 10,451,07\% | 91,947,791 | $8 \mathrm{~m}, 116000$ | 914,604 | 91.885 | .... | ... |
| 1887........ | 18,990,697 | 9,918,810 | 88, 884.187 | 84,719,644 | 289,968 | 88,876 | . | .... |
| 1898......... | 19,802,016 | 10,418,684 | $89,777,649$ | 41,947,793 | 917.118 | 49,878 | - | .... |
| 1820......... | 18.184581 | 8,009,460 | $90,118,011$ | 84,748,8017 | 919.074 | 92,855 | .... | - ${ }^{\circ}$ |
| 1880......... | 18,018,878 | 6,079,705 | 19,607,988 | 84, 184.070 | 929,841 | 88,074 | .... | .... |
| Tatal.... | 1177,961,179 | 87, 72,177 | 2915,888,006 | 1009,876,068 | 2,184,970 | 256,002 | * | ** |
| Bept, 80, 1884 ...... | \%18,786, 118 | -9,8c0,026 | 226.685 .144 | 87,077,417 | 984881 | 79,444 | 180,982 | 109,906 |
| 1889........ | 14,057,200 | 10,949,095 | 96,000,945 | 68,914,409 | 948,749 | 101,087 | .* | . $\cdot$ |
| 1888. | 15,411,298 | 9,988,881 | 25,895,117 | 65,818,448 | 894,176 | 153,666 | - | . $\cdot$. |
| 1816. | 91,707,807 | 11, 818,887 | 80,945,904 | $88,191,800$ |  |  | ... | ...0 |
| 1886. | 19,516,020 | 0,104,118 | 25,900,698 | 114,254,416 | 477,624 | 860,801 | .. | ....'. |
| 1897....... | 16,089,900 | 11,954,450 | 97.888,419 | 79,801,722 | 488,003 | 404,744 |  | .... |
| 1888........ | 10,489,488 | 6878088 | 29,008,471 | 68,468,200 | 616,789 | 824768 | ...' | - $\cdot$. |
| 1889. | 28,294,098 | 0,971,104 | 89,208,099 | 99,882, 438 | 600,786 | 890,666 | ... | ... |
| 1840..... | 92,676,609 | 12,087,471 | 94,904, 060 | 60,440,760 | 618,208 | 848,114 | ... | . $\cdot$ |
| Total. | (180,008,026 | 10, 020,666 | \%870, 588,191 | 768,921,690 | 4,846,970 | 8,672,628 | -** | - $\cdot$ |
| Bept. 80, 1841........ | 24,979,608 | 18,860,225 | 888,189,898 | 75,718,420 | 600,807 | 865,941 | 237,987 | 249,696 |
| (1848......... | 90,739,286 | 6,887,409 | 97, 578,778 | 87,875, 614 | 806,989 | 840,690 | 231,057 | .... |
| 8 nios, 1548......... | 18,449,284 | 8,819,489 | 16,762,694 | $81,838,5.40$ | 881,981 | 174,874 | - | . $\cdot$ |
| June 80, 184........ | 96,009.177 | 0,852,809 | 82,861,640 | 84,079,516 | 978.818 | 414,425 | . | .... |
| 1845....... | 25,029,904 | 10,245,891 | 88,175,398 | 70,900,085 | 928,290 | 414,088 | .... | . $\cdot$. |
| 1848.. | 99,580,606 | 7,849,847 | 88,985,418 | 74,454,943 | 1,180,944 | 448.942 | .... | , |
| 1847......... | 4,418,480 | 5,027,888 $14.579,949$ | $49,844.888$ | 84,167,860 | 1,040,840 | 488,755 | .... | . . . |
| 1849.......... | 86,788,216 | $14,48,948$ $0,244,855$ | $68,861,101$ $45,968,100$ | 94,025,141 | $1,044,816$ $1,348,43$ | 106,878 | $\ldots$ | . $\cdot$. |
| 1500. | 41,602,800 | 11,209,989 | 52,712,788 | 111,198,094 | 1,411,657 | 797, 589 | ..... |  |
| Total. | 601,815,779 | 88, 5077,150 | 7 $7868.822,980$ | 6787,571,840 | 0,879,470 | 4,901,571 | * $\cdot$ " | ' $\cdot$. |
| June 80, 18\$1........ | 102, 104,549 | -17,902,477 | 168,007.019 | -141,548,888 | 1,588,818 | 878,819 | 618,575 | B22,439 |
| 1853....... | 74,049,581 | 18,441,875 | 87,484,456 | 282,829,806 | 1,570,927 | 906,798 | .... | .. |
| 1858........ | 66,090,456 | 19,178,285 | 78,206,240 | 178,270,999 | 1,959,90\% | 1,084,749 | ... | ... |
| 1564. | 100.651,740 | 16,082,906 | 122,084,646 | 106,427,988 | 1,918,817 | 1,03\%,154 | . |  |
| 1805........ | 98,414,908 | 17,816,480 | 118781,288 | 104,776,511 | 8,461,688 | 1,140,187 | ' | . |
| 1850...... | 100,848,600 | 9,932,991 | 119,111, 500 | 910,162,45\% | 2,186,677 | 1,835,677 | . . . | . $\cdot$. |

## Ilomans Foreign Commerce of the United States.

For New York Canale, aee North Am, Rev., xiv.,
 mesce, Debts, etc., of New York, see IIunt's Mer. Mag., xviii., 243, xxili., 610, xxiv., xxv. (by A. C. Flaga) ; Banker's Magazime, vll., vili., lx., x., xl. Minetal Resources, ea N. Y. Rev., Iv., 71, v., 477, vill., 103 ; Am. Jo. Science, $\times x \times 1 \times$., $95, \mathrm{xl} ., 73, \times 1 \mathrm{if} ., 227$, xlvi., 148, xlvili., 296, $\mathbf{i}$. (N. S.), 43, Ili., 57, 164.

As our limite provent our giving full atatistics of many losportant elementa of commerce, we refer to these sulijecta under their proper heads. For particular informatlon, see articles Emiotiation, Tonnage, New Yoak City, Bankino, Commerce, Tarify, Sitipring, Railnoada, Canals, and Unttri) States.
Now Yoric, tha capital of the State of that name, and the commercial motropolis of the United States, on the southern extremity of Manhatian Jsland, at the polnt of confluance of the Ifadson Jiver, which separates Manhattan from Naw Jersey, with Fast River, which separates it from Long Island, In lut. $40^{\circ} 42^{\prime}$ N., and long. $74^{\circ} 8^{\prime} \mathrm{W}$. Naw York Bay, or inner harbor, is one of the most capacious end finest in the world; it is completely land-locked, and afforda the best anchorage. Tha entrance to the bay through the Nerrows is extremely beautiful. On each alde, the ahore, though wooded down to the water's edge, la thlckly studded with farms, vilagen, and country seats. At the upper end are seen the spires of the city; and In the distance the bold precipitous banks of the IIudson. From New York to the bar between Sandy IIook Polnt and Schryer's Island (the division between tise outer bay or harbor and the Atlantie) is about 17 miles. Fortifications have been erected at the Narrows, Gevernor's Island, end other places, for the defense of the city and shipping.

Manhattan was first discovered and explored by Hendrick Iudson in 1609, IIudson ascended the
river which now bears hia name as far as the preaent site of Allany. The shlp $\ln$ which he made the voyage from IIoliand was of about 80 tons barien, end called the Ialf Jfoon. In 1610 a shlp was sent by the Ansterdam merchante to trade with Indiane for furs, etc. In 1613 a small fort was erected, and four honses were built, under the auperintendence of Hendrick Corstiaensen, who explored the bay and the saveral inlets, creeka, etc. But no permanent settlement seens to have heen made until about 1625, on the south point of the island. After the formatlon of the Dutch Weat India Company, they took Immediate measures for eatablishing a permanent colony. Under their fostering cure, honwerles, or farma, were soon taken up, a subatantial fort creoted, and the dwellinga of the colonista clustered around It. In 1652 it was incorporated under the name of New Amsterdam, and was governed by 2 burgomasters, 5 achepens, and a schout or sheriff, and continued in their possession untll 1664, when it was taken by the Englisi, and the name changed to New York. Jn 1678 it was retuken by the Dutch, and called New Orange, but they held poasession only one year, whon it was again occupled by the Engligh, and continued in their possession until the period of the Revolution. The asseasors' valuation of property in the city, in 1688, was about $\$ 320,000$. In 1690 a congress of the commisaioners of the several colonies was held at New York. In 1694 there were 60 ships, 25 sloops, and 40 boats, belonging to the city. In 1095 Trinity Church was built. This building was burned in 1776. In 1725 the tirst newapaper was published in tills State.

In 1699 it contained 0000 inhabitants. In 1774, proviously to the commencement of the War of Independence, the population amounted to 22,750. Doring the war the popuiation contlnued stationary; but aince 1783 Ita Increase had been quite extraordinary. In 1790 the population amounted to 33,131 ; in 1800 , to


## NEW

in 1810, to 812,710 ; and $\ln 1850$, to 515,507 . This, howevar, is exclnaive of the population of Brooklyn, which, in 1850, amounted to 96,838 , and is as much a part of New York as Birkenhead is of Liverpool. Originally the houses were mostly of wood, and the streets narrow nad confined. In these particulare, however, a vast Improvement has taken place during the last half century; most part of the old houses having been pulled down and rebuilt with brick. The new streets, which are breal, and interse: each other at right angles, are well paved and lighted. Broadway, the principal street, is one of the lary to and finest $\ln$ the world. Many of the publie buildingsare commedious and elegant. The pools, that were formerly abundant in the clty and its vicinity, have been completely tilled up; a measure that has done much to improve the health of the population. In reepect of cleanliness, however, New York, though much innproved, is still rather deficient. Formerly thero was hardly such a thing as a sink or common sewer in the whole eity; the nlght eoll and filth were collectod in the pits, of which there was one in every house, and being conveyed to the nearest quays, were thrown into the water; and as these were made of timber, with many projections, a great deal of filth was retalned about them, producing, in hot weather, an abominahle stench. But in these respects a great amendinent has been effected; and the deticlency of water, under which the city formerly labored, bas been completely obviated by the construction of the Croton Aqueduct, about 401 miles in length, a work worthy of being ranked with the noblest of the old leman aqueducts.

New York is indebted, for her wonderful increase, to ber admirable situation, which has rendered her the greatest emporlum of the New World. The rise of the tide is about 6 feet, and even at etib there are 21 feet water on the bar; and the water in the onter and inner bays, and iu the river, is so leep that ships of the largeat burden lie close to the quays, and may proceed to a great distance up the river. The navigation of the bay is rarely impeled by ice. The great strength of the tide, and the visinity of the ocean, keep it generally open, eveu when the Chesapeake und Delaware Bays are frozen over. The influence of the tides is felt in the Iludson as far as 'I'roy, $\mathbf{1 6 0}$ miles above New York, affordiog peculiar fucilities for its navigation. Those natural advantages bave been vastly extended by a system of canals, which has connected the Hudson not merely wlth Lake Ontario and Lake Eirie, but with the Ohie River, and consequently with the Missinsippi and the Gulf of Dlexice! So prodigious a command of internal navigation is not enjoyed by any othe* elty, with the exception of Now Orleans; hut the readier access to the port of New York, the grant salubrity of the climate, and her situation, will secure her hereafter the preponderance.

New lork Jarbor.-In April, 1857, l'rofessor liache, of the L'nited States' C'oast Survey, furnished the Life Saving Ansociation with his Sailing Lirections for Sandy Hook aml its Approuches from Sea, of which 5000 coples have been printed in pamphlet form. A portion of these tas been placed in the lands of the dealers in natical instruments in the follewing jorts for gratuitous distribution to captalne of vessela, namely, Now York, P'ortland, Me., I'ortsmouth, N. Il., Boston, Mass., l'hiladelphia, Ihltimore, Savannah, Mobile, New Orleans, Norfolk, Charleston, and a supply of these puumblets, for the like purpose, hat been forwarded to the Enited States" consuls in Cork, Juhlin, llelfant, Iristul, Cardiff, Ilull, Sunderland, Portamoutl, Sosthampton, (ilasgow, Dundee, Llverponl, Londun, Harre, Marseilles, Antwerp, IIremen, Hamhurg, Amsterdam, Kotterilan, ond Havana,
lange lights from tiast Eind if' Gedney's Chumnel, between Siouly Hook uml Flymis hivulh,-'Two fix xell lhgis located near l'oint Comfort, New Jersey. The front
light will be exhlblted from a lantern on the keeper's dwelling, which is located near the beach, and painted white, with the top of the inntern black. The rear llght is loested three quarters of a mile distant from the front one, and will be exhibited from a tower painted white, with the head of it and lantern black. The keeper's dwelling is north of it and painted whito. The front light is 40 , and the rear one 76 feet above the mean level of the sea, and should be neen, under ordinary state of the atmesphere, outaide the bar. Daring the day the front building ean be readily recognizel from other bulldinge in the vleinity ly the lantern on its centre, and the rear one by the lantern of the tower belng projected on the sky atove the trees.

Main Ship Channel Range Lights.-Two fixed lights located on the New Jersey shoro, west of Ilighlands of Navesink. The front light will be exhihited from a tower near the beach, painted with 2 white and 1 red horizontal hands, and the roof of the lantern also of the latter color. The keeper's dwelling is west of the tower, and painted white. The rear light is located on the north side of Cbappel Hill, 1\% miles distant from the front light, and will be exhibited from a lantern on the keeper's dwelling. The dwelling is painted white, and the top of the lantern red. Tho front llght is 60 , and the rear one $22+4$ feet above the mean level of the sea, and both should he scen, under ordinary state of the atmosphere, the length of the range line. During the day they can he reatily recognized by the shape and colors of the towers of the front light, and ly the lantern of the keeper's dwelfing, und isolated portlons of the rear one. It is ntout 1 mile enst of Plgeon IIill.

Suash Channel Range Lights.-Two fixed light located on Staten lsland, New York. The front light will lee exhibited from a tower near the site of the "Old Elm Tree" Ieucon, painted with 2 white and I red horizontal bands, and the roof of the lariternalso of the latter color. The keejer's dwolling is south of the tower, and painted white. The rear light is lucated on a hill, near Now Dorp, atout 19 miles trom $t^{1}$. 0 front light, and will be exhibited from a lantern on the keeper's dwelling. The dwelling ls painted white, and the tup of the lantern red. The front light is 59 fect. and the rear ligint 189 feet above the mean livel of the sea; and looth shonhd he seen, under ordinary state of the atmosphere, well outside of the thar at Sandy Hook. During the day they can lee realily recognized liy the shape of the tower, and colors of the front light, and by the lantern on the dwolling, and isolated position of the rear one.

Sailing /Divcritons,-Mastern of vassels intending to enter hytiedney's Chamel aromal the nouth-west Spit lluoy, shouhl run on n north-west haff went course from the light-vessel for the black und white perpen-dicular-striped Nun Buoy at the outsilh of Gedney's Chanmel, nud from it west ly north through the channel, keeping het ween the buoys, untll the range lights near Point Comfort, New dersey, are in one, whea haul up for them, and continue upon the range until the two main channel lights are brought in ragere, which will also ho shown by the me.in light at Sandy Itork, belng a little open to the southward of the West Weacon. From this point the Main Ship Chaund range will take them up clear of the "Weat llank" and Craven'y Shoal. Masters of vessols Intending to pass through the Swash Channel, ean bring the lights in range ontabide the bar, and run for them, a;ail the Red Can huoy, No. 8 (which marks the upper middle), is pmesed, or until the Maln Ship Channel range is on, when hanl upi on that range uatil eloar of the "West lank." Vessela drawiag more than 17 feet whould not be taken through thin channel on the range line at low water. A fost more water may be carried through this channel, after erossing the har, ty keeping a little to atarbond, and opening the front light
dear o
dine in low wa Ther an agg suce co an akg surime 15 marl Compar THE
verts,
miles.
over al
8 inche
dischut
crosses
stone,
arches
feet $a b$
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20,1000
over t!
keeper's printed he rear a tower n hlack. d white. ct abovo n, under the bar. readity $y$ by the rove the
ed lights ighlanils ted from to and 1 tern also west of distant from a elling is d. Tho on, under of of the readily keeper's ighas los. nitt light te of the ite atull rnalso of th wh the ocatell en loo front n on the hite, and
809 feet. ogl of the - state of t Sandy cognized he from moling to vest spil a coarse Ciethey's he chango lights 10, wica
1 ge until e, which y Howik, he Weat nk" and L to pass lights in iddle), is ee iv on, t"Went mge litue carrie nit light
clenr of the rear one. The Swasis Channel range line indicates, by the most recent survey, 18 feet at low water.

There are $5 \boldsymbol{f}$ banks in the elty of Now York, with an aggregate capital of $\$ 60,000,000,8$ marino insuranco companles, and 60 fire iasurance companies, with an aggregate capltal of $\$ 20,000,000$; besldes 8 Iffe insuriance companies. There are 16 savings' banks, and 15 markets.
Coppabative Value of leral ann Prmbonal Ertatig of tite City and County of New Yobk, and amounta mabeo by Tax, from tae Yeab 1844 to 1850.

| Year. | Heal eatate. | Personal eatate. | Taxac |
| :---: | :---: | :---: | :---: |
| 184. | \$171,047,591 | 664,789,0\%2 | \$1,088, 18 |
| 14.5 | 177,207,990 | 62,787,527 | 2,006,191 |
| 1st6........ | 188,480,534 | 61,471,470 | 2,526,146 |
| 1817........ | 157,815,896 | 50,587,918 | 9,881,776 |
| 1518 | 193,029,076 | 61,164,447 | 2,715,510 |
| 1519. | 197,741,019 | 68,455,224 | 8,005,762 |
| (sist). | 207,142,576 | 78,919,240 | 8,230,0:5 |
| 1501 | 227,015,056 | 93,095,001 | 2,024,455 |
| 1492......... | 253,278,884 | 98,490,049 | 8,8*10,511 |
| 1483. | 294,637,296 | 118,994,187 | 5,1006,098 |
| 1534. | 8381),880, ,896 | 181,721,838 | 4, 45,886 |
| 1s33........ | 830,975,866 | 160,022,812 | 5,841,882 |
| 1536. | 840,072,093 | 170,774,893 | 7,075,425 |

Munufactures.-The manufuctures of New York albsorb a largo amount of eapital. The amonnt employed In 1850 was $\$ 34,232,822$, and the value of articles manufactured was $\$ 105,218,308$. The number of estahishments was 3387 , employing 53,703 males, and 20,917 females.

Retcens of the Pbodontive Eatablanments of the City OF New Yoak.-Cenaua of 1850.

| Warde. | $\begin{gathered} \text { No. of } \\ \text { manufactur- } \\ \text { Ing estabs. } \end{gathered}$ | Capital tuvented. | No. of bands employed. | Ardual producte. |
| :---: | :---: | :---: | :---: | :---: |
| First | 187 | (t, 1 18, 0140 | 9,717 | 8,9046,337 |
| Scenal | 851 | 12,672,095 | B5,714 | 31,310,642 |
| Thiril....... | 9 | 017,000 | 001 | 1,801,700 |
| Fonrth ...... | 189 | 1,688,904 | 2,89\% | 4,885,211 |
| Fifh......... | 88 | 1,298,568 | 2,146 | 4,478,214 |
| 8ixth....... | 150 | 1,125,4 50 | 4, 1) 417 | 3,322,101 |
| Soventh..... | 422 | 3,493,275 | 5,047 | 9,641,083 |
| Elght1....... | 988 | 881,490 | 2,7<5 | 4,(80),484 |
| Ninth.. ..... | 159 | 793,300 | 2,444 | 2,883,180 |
| Tenth....... | 08 | 807,700 | 1,1135 | 1,675,428 |
| Eleventh.... | 149 | 2,061,450 | 4,434 | 20,050,409 |
| Twilfh .... | 19 | 841,550 | 4211 | 620,500 |
| 1, arteenth... | 179 | 299,110 | 1,28t | 2,078,629 |
| Fearteonth. . | 78 | 965,760 | 1,060 | 1,040,927 |
| Fintoenth.... | 98 | $1,045,550$ | 1,176 | 1,976,818 |
| Sixtecuth.... | 129 | $8,2 \times 1,980$ | 2,763 | 4,868,175 |
| Arventeanth. | 145 | 842,401 | 1,885 | 2,579,819 |
| Ejghteenth. . | 199 | 1,247,780 | 2,618 | 2,020,76 |
| Ninetuentlis.. | 94 | 233,600 | 670 | 1,293,860 |
| Total.... | 8,857 | 134,232,222 | 83,620 | (105,218,3418 |

The Croton squeduct commences at the Croton River, 5 miles from the Hudson, in Westchester county. The dam le 250 feet long, 70 feet wide at the bottom, anil 7 at the top, and 40 feet high, built of stone na's cement. It creates a pond 5 miles long, covering a surface of 500 acres, and contatining 500 ,000,0000 gallons of wator. From the dum the aqueduct proceeds; sometimes tunneling through sulid rocks, crosaing valleys ly omhanknents, and brooks by culverts, 1 til it reachea Harlom tiver a listanco of 33 miles. It is built of stono, hrick, and cement, nrehec. over and under, 6 feet 3 incles wide at botton, 7 feet 8 inches at top of the sillo walls, aul 8 feet 5 inches high; lins adescent of 13 f Inchea per milo, and will discharge $60,000,000$ of gallons overy 2.4 hours. It crosses the Ilarlem Kiver on a maghilieent bridge of stinne, 1450 fat long, with 14 plera; 8 of them hearing srches of 80 feet span, and 7 others of 50 pect mpan, 11.1 feet above the ewator at the top, The recelving reservoir at lighty-sixth-street, 38 miles from the Cruton dam, covers 35 acres, and holda $150,000,000$ of gallons. The distributing reservoir, on Murray's ILill, at Forti-eth-strect, covers 4 acres, and in eonstructed of nono and cement, 45 foet high ahove the atreet, and holds $20,000,000$ of gallons. 'Ihenoe the water ls slistributed over the city in iron piper, laid so doop under ground
as to be secure from frost. Tho whole cost of the work has been about $\$ 13,000,000$. The water is of the purest kind of river water. There are laid below the distributing reservolr In Fortleth-street, more than 200 miles of pipe, from 6 to 36 inches in diameter. See Aqueducts. There are not more than four cities in Europe larger than New York, viz., London, Parls, Constantinople, and St. Petersburg.
Statement ahowing the Ayount of Taxfe, ano Oujeots for whion thev wear leviel, in the City and County 1850.


NEW
1436
NEW
 AKD 1856

 Total Increase.

The general reaults are:
Total voluation in county.
Lamp districts. 499,122,165 486,682,864

Pgemamant City Diet abidermanler prom tirg Simine FUND, Jandasy Iat, 1887.

Itecermatil.
6 per ceot. Water Btock . . . . . . . . . . . Jso. 1, 18, 88
 den. I 1860 g 000000 Nov. 1, 1570 8,000,000 July 12, $1875 \quad 285,600$ Not. 1, 1~75 20,100 2,147,000 $1,009,000$ 910,488
412,769 T5, 0100 115,000
715,200
$14,280,156$
Total armonit, Janamry Iat, 1857.

## Lent

Amount of Corporation Stocks helil by the Commissloneri of the sinking Fund on account of tho thedemptlon of C'ity Debt. ................... 4.525,478
Revenoe and Assessment Bonis........ $\quad 417,000$
Bonds and Mortyages taken on sale of real estate.

925,716
\$5,865,194
Actunl amount of l'ermanent Debt, Jan. 1, 157 $8,861,901$ which In a decrease of $\boldsymbol{F}^{11,2]^{\prime \prime}}$ ts compared with the amount of debt, Junuary 18t, 1 s.

F'uxded 1)eat of thf ('ity, meneemanle from Taxation, danvast 1st, 1657


Total amoant payable from taxatlon, Jall, 1, 189: $1,154,1000$

Funded Drit hrdeemable fbom Central Pagk Absiss. MENTE. JAMUART 18T, 1857.
6 per cent. Central Park Assessment Faod Btock, paynble February ©th, 1850.

1,600,000
Total amt. of Contral Park Aseessment Fand Slock $11,000,000$
The Chamber of Conmerce of the State of New York holds ita meetlags monthly, for the consideration of those questions baving a direct bearing upon the commerce of the city and atete. Hitherto this body has publishect no annunl reporte, whereby the com. merce of the state could be illuatrated for the benefit of ite citizens. It is now proposed however to supply this want, and to allopt such measures ns will secure at in early day suitable rooms for the use of the members, with the use of a reference library, and such far. elgn commercial journals as will enable the conmit. teea to publish to the world an annual report at the close of each year, illustrating the commercial opera. tions, not only of this clty and state, but of the unien,

Cammerce.-The magnitude of the commerce of the city of New York will be best explained by the statistics showing the exports and imports for a neries of years. We refer to the article State of New York for en exhibit of the commerce of the State (and which has lts principal entrepôt in the clty of New York) for a series of years extending from 1821 to 1856.
Anong the importa, the great lucrease in hides, liquor, railimasl Iron, Augar, ten, and dry goods will he noticed. There has been a decrease in the iumportation of watches, handware, and cutlery. Among the cxports, the most important articlet which have increased are flour, whent, prork, hama, and bacn. The dectease has been principally in cotton, corn, leef, butior, cheese, naval stores, aperm-oil, snd India-rubler good 4.
Importm into tife lont of New York por the lakt
 ( $556, ~ A N 11) 1557$.

|  | 1888. | 1858. | 1681. |
| :---: | :---: | :---: | :---: |
| IJutiable gooda | 129,446,801 | 689,441, 818 | 119,47, 14 |
| Freo " | 8,644,645 | 5,6n) 1,168 | $3,597,601$ |
| Total ent, for con.. | -26,091.246 |  | +22,6030, 044 |
| Warchoused........ | 6,475,210 | 10,451,563 | 80, 210,799 |
| Tutal malac, ent. | 182,486,484 | 255,914, (124 | -52, $2 \times 2.757$ |
| drecte and billlor. | 188, 818 | 486,025 | 2,829,842 |
| Total Imports. | 442.749,764 | 156,424,651 | 車4, 262, 2.5 |
| Whthd'n fr, w'liouse. | 1.901.778 | 64,674,796 | 15, 4, 40.561 |
| Aldent. for eon... | 28,091,296 | 4, 094,497 | 22, 8041.048 |
| Total put on m'ket | 131,092, 995 | -19,765,298 | 147,990,445 |

Exports

Joly... Anguat. Septemb October Novemb Decemb Janbary Februar Mareb. April... Apri...
Juy....

The hes three mont will not es dise is mot sponding total impor The ann articles im ing the yea

Clgnrs. .
Coffico..
Jarilware
Hides...
Lead.....
Liquor...
Molassea
kallroad
greel end
Ingar...
Tin.......
Tubacco
ratches.
WInes. .
Jry good.

Cotton..
Wheat. .
Cera....
Rye.....
leef....
ork....
lams, be
Butter..
Checac...
lard...
Augar....
Tca.....
Tea.....
Coffive...
RIce...
Tobacco.
Naval ato
Sperm ol
Whalebe
Indla rol
Furs and
Exponts pI
1.AAT
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Forelyu nud
Tata!
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The figl
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atively las


| Montha, | Domeatie marohandiae. | $\begin{aligned} & \text { Forefing } \\ & \text { merehandse, } \\ & \text { dutablab. } \end{aligned}$ | Forelgn <br> merchnadse, <br> free. | Total <br> merchandice. | Specte. | Total exports, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jnly.................... 1856 | -6,901,272 | \%108,617 | 822,428 | 7,088,812 | 67,771,001 | 14,804,218 |
| Angust. . . . . . . . . . . . . . . . . . | 5,612,828 | 211,998 | 88,242 | 6,918,068 | 8,202,053 | 9,115,116 |
| September,.................. | 7,045,202 | 609,752 | 67,825 | 7,622,279 | 8,788,547 | 11,360,826 |
| October. | 6,189,887 | 180,577 | 71,981 | 6,882,845 | 4,908,660 | 11,829,005 |
| Novembor | 7,541,595 | 202,008 | 65,662 | 7,709,850 | 9,008,889 | 10,755,189 |
| December | 8,246,463 | 467,501 | 188,148 | 8,897,112 | 1,779,181 | 10,676,298 |
| January . . . . . . . . . . . . . . 1857 | 4,548,842 | 188,408 | 151,920 | 4,884,170 | 1,807,946 | 6,192,116 |
| February .................... | 5,899,202 | 888,578 | 175,706 | 5,988,786 | 1,881,728 | 7,770,512 |
| March, | 7,904,481 | 628,080 | 485,880 | 9,017,801 | 2,174,965 | 11,102, 856 |
| Aprl | 5,162,160 | 814,148 | 105,642 | 5,671,945 | 8,884,805 | 8,026,750 |
| May. | 6,046,643 | 294,839 | 169,451 | 6,510,988 | 5,789,266 | 12,300,199 |
|  | 5,895,812 | 612,849 | 782,028 | 6,689,789 | 7,989,854 | 14,579,148 |
| Total, 1856-57. | \%75,928,842 | \% ${ }^{8,982,280}$ | - ${ }^{2,898,908}$ | 682,259,976 | 4 $46,942,2+3$ | *123,112,218 |
| "1 1855-58. | 75,026,244 | 8,207,710 | 1,752,804 | 79,986,758 | 22,080,901 | 102,567,749 |
| " 1854-55. | (52,609,408 | 5,836,788 | 4,084,887 | 62,828,681 | 88,058,884 | 100,881,915 |
| " 1858 | 66,821,085 | B,168,816 | 1,889,978 | 72,824,324 | 84,804,241 | 107,129,065 |

The beavy warehousing of goods during the past three months, to secure the benefit of the new tariff, will not eacape ohservatlon. The Import of merchandise is more than $\$ 8,000,000$ less than in the corresponding three months of 1856 , but a nearly equal total import is made up of specie nnd bullion.

The anuexed statement exhibits the value of certain articles imported into and exported from this port during the year 1856, compared with 1855 :

Commerige oy time Port of Nrw York.


|  | 1868. | 1856. |
| :---: | :---: | :---: |
| Imiolits. |  |  |
| Clgnes. | \$1,869,167 | , 2,070,923 |
| Coffeu. . . . . . . . . . . . . . . . . . . | 5,718,851 | 6,565,216 |
| Hardware and cutlory.......... | 4,100,452 | 2,956,000 |
| IIdes......... | 4,302,588 | 8,075,000 |
| Lead., | 1,454,788 | 2,081,786 |
| Llquer | 1,809,656 | 2,602,000 |
| Molasses. | 820,630 | 1,817,242 |
| Rallraad Iron.. | 440,769 | 8,476,059 |
| Steel and Iron. . . . . . . . . . . . . . . | 4,492,204 | 6,512,000 |
| Sugar... | 7,840,048 | 14,545,965 |
| TIn. | 4,481,879 | 4,022,918 |
| Ten............. . . . . . . . . . . . . . | 9,940,475 | 4,106,875 |
| Tobacoo.. . . . . . . . . . . . . . . . . . | 651,453 | 805,852 |
| Matches. | $8,820,184$ | 2,684,586 |
| Wines. | 1,414,681 | 2,000, 100 |
| Dry goods. . . . . . . . . . . . . . . . . . | 05,446,452 | 92,203,952 |
| Exiorts, |  |  |
| Colton. | 16,520,010 | 16,858,183 |
| Flour. | 10,762,674 | 14,981,923 |
| Whent. | 5,686,571 | 15, 310,0142 |
| Cern.. | 5,795,899 | 2,948,000 |
| Rye. | 389,875 | 355.940 |
| ]heef. | 1,543,295 | 896,079 |
| I'ork. | 832,842 | 9,170, 819 |
| Ilams, bacon snd shoulders.. | 1,480,451 | 2,063,194 |
| Bnttar... | 188,609 | 76,987 |
| Cheese. | 888,695 | 885,263 |
| Lard. | 1,457,007 | 1,414.287 |
| sugar. . | \$49,888 | 170,593 |
| Tea... | 652,394 | 198,500 |
| Coffoe. | 1,885, 582 | 481.273 |
| Hev.. | 329,668 | 711,1168 |
| Tobacco | 2,430,754 | 2,2:36.218 |
| Naval stores. | 2,986,990 | 1,496,860 |
| gperm oll. . . . . . . . . . . . . . . . . . | 1,503,961 | 892,104 |
| Ollcake.. | $4+6,556$ | 805.768 |
| Whaleban | 698,698 | 1,(0)1,670 |
| India rubber gooda. . . . . . . . . . | 1,695,763 | 210, 010 |
| Furs and sklus................. | 248,784 | 267,09 |

Exiborts from New lork to Foneian Pohta, for tiak lant Quartfa of the Fibcat Ibars endino dune $30 \mathrm{TIT}, 1555,1 \times 56$, and 1857 .

|  | Inss. | 1856. | 1857. |
| :---: | :---: | :---: | :---: |
| Domestle merohandise. |  |  |  |
| Forelyn mise., intlable. | 1,387,562 | 899,5 | 1,121,081 |
| ${ }_{4}$ freo.. | 892, (128 | 2×1,66 | 927,770 |
| Tolal merchandise. | (15, 627,930 ¢ $26,250,340 \quad 18,643,416$ |  |  |
| Specte. | 12,485,192 | $8.2880,2$ | 17,089, 425 |
| Total. | \%28,123,822 | +29,4180, 61 | H15,716,841 |

The tigures alove given for the last three months, although presenting inany points of comparisom with the same time in 1856; show little or nothing more, in comparison with those of 1855, than a stearly increase, except perhape, in specte, in which the Increase la relatively large.

Valug of Articleg of Merenandibr, of Domertio Growti and Manuracture, exportit) prom
tue Year ending Drormber 81, 1855.

| Artieles. | Quaniliy. | Value. |
| :---: | :---: | :---: |
| Alcotrol.................. gallons | 28,170 | *15,893 |
| Apples, . . . . . . . . . . . . . . . . barrels | 2,460 | 9,275 |
| Ashics, pot and pearl.........tons | 8,895 | 489,789 |
| Bacon ........................ . . ba $^{\text {b }}$ | 17,224,028 | 1,521,263 |
| Bark, ouk |  | 88,648 |
| Boef, salt.................. . . brrrels | 25,062 |  |
| Beef, salt...................tlercos | 87,046 | \} 1,8ie,880 |
| Bоeawax . . . . . . . . . . . . . . . . . . b $^{\text {bs. }}$ | 157,4100 | 42,889 |
| Blacntt or E.alpbread. . . bbla, \&kegs | 65,879 | 214,701 |
| Bricks, common. . . . . . . . . . . . .ibs. |  | 19,068 |
| Buttor........... | 1,083,076 | 220,897 |
| Candles. | 1,706,036 | 820,806 |
| Cheose........................ " | 6,123,960 | 654,839 |
| Clover |  | 17,781 |
| Coal,ant traeltedultuminous., tona | 18,260 | 91,404 |
| Copper ore, pla, plpo \& shect. |  | 547,851 |
| Cordage \& cables............ ibs. | 886,000 | 127,565 |
| Corn, Bhellod................ bush. | 3,806,999 | 8,811.245 |
| Corn meal. . . . . . . . . . . . . . . . . bbls. | 68,185 | 297.149 |
| Cotton . . . . . . . . . . . . . . . . . . bsica | 273,074 | 12,067,005 |
| Cotton goods, printed or colorol. | .... | $\begin{array}{r} 149,853 \\ 1,878,429 \end{array}$ |
| Earthenwaro |  | 8,341 |
| Flour...............................is. | 090,568 | 9,018,673 |
| Ginseng. . . . . . . . . . . . . . . . . . . ${ }^{\text {bsa }}$ | 72,740 | 88,876 |
| Ifemp, comonon. . . . . . . . . . . " | 60.400 | 6,640 |
| Ilddes......................... No. | 27,764 | 117,782 |
| IIogs, llve..................... ** |  |  |
|  | 1,692,236 | 419523 |
| Horses. . . . . . . . . . . . . . . . . . . No. | 110 | 20,000 |
| Iron cast'gs \& oth. manufs. of iron |  | 1,250,450 |
| Lard. . . . . . . . . . . . . . . . . . . lbe. $^{\text {b }}$ | 8,604,720 | 968,798 |
| Lesther...................... " | 914,757 | 156,759 |
|  | 29,478 | 685,174 |
| Molasses, . . . . . . . . . . . . . . . . .g.galst | 33,240 |  |
| Ont, lard.................... " | 90,786 25,657 | 76,454 23,646 |
| Onlons... |  | 21,900 |
| Palut, mineral |  | 68,138 |
| P'ork.. . . . . . . . . . . . . . . . . .tlerce. ${ }_{\text {a }}^{\text {, }}$ | $\begin{array}{r} 2,997 \\ 143,004 \end{array}$ | \} 2,517,185 |
| Potatoes, common. . . . . . . . . . ${ }^{\text {a }}$ | 12,590 | 50,111 |
| Rice.. . . . . . . . . . . . . . . . . . .tierces | 18,623 |  |
| bb | 11,591 | $\}$ 612,468 |
| Rosin. | 505,950 | 1,214,574 |
| Ru10.. ......................... .rala | 1,414,255 | 684,534 |
|  | 650.0000 | 824,885 |
| lye meal. . . . . . . . . . . . . . . . . bbls. | 20,100 | 183,881 |
| slicep and lambs. . . . . . . . . . . . No. | 1,781 | 11,817 |
| Snuff........................ibs. | 14,3810 | 1,424 |
| Spirits of turponitno.........gals. | 1,819,649 | 776,858 |
| staves and heading ...........N. | 19.512 | 1,821,990 |
| Sugar csine . . . . . . . . . . . . . . . . $\mathrm{lbs}^{\text {b }}$ | 577,635 | 85,784 |
| Thallow . . . . . . . . . . . . . . . . . . . . hs. | 1,064,718 | 239,630 |
| Tar and pltel................ ${ }^{\text {bbls. }}$ | 60,467 | 102,403 |
| Tobacco, leaf, ............. . . ${ }^{\text {a }}$, | 6,968 |  |
| " strips............. ${ }^{\text {arales }}$ | 8,514 8,244 | \} $1,030,515$ |
| "s chowlig. .............lis. | 8,426,021 | 084,108 |
| Vinegar. . . . . . . . . . . . . . . . . .kats. | 25,515 | 8,281 |
| Wheat..................... . bush. | 3,455,234 | 6,952,498 |
| Whaky . . . . . . . . . . . . . . . . . .gnia. | 05,300 | 36,514 |
| Total | ... | \% $63,756,387$ |

Large as was the export of apecie for the flacal year, It is lese than $\$ 9,000,000$ in excess of $1854-55$. The export of domestic produce is a trifle lerger than last yeur, with pricea averaging ahout the same-cotton and provisions being higher, nad broadstuffe lower,
 Jukz 80, 1857.

| Moutbs. | Dutiabla goods. | Free goods. | Total for oonsumption. | Where hotued. | Total undue. entered. | Bperto and bullion. | Total tmpert. | Withdrawua from warehouee. $\|$ | Total put on markel. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1030, | , | 1908,776 | 14,017,668 |  | -288,918 | *24,726,826 | 6, 187,887 |  |
|  | 18,875,986 | 1,804,790 | 19,679,776 | 4,186,716 | 88,818,492 | 108,178 | 2x,919,605 | 2,084,782 |  |
| Supte | 10,984,485 | 1,026,208 |  | 8,264,622 | 15,925,265 | 84,097 | 15,809,862 | 8,457,564 | 15,418207 |
| Octob | 8,982,001 | 961,781 | 10,988,782. | 2,480,781 | 18,780,1863 | 95,029 | 18,825,502 | 8,278,082 | 14,167,76.1 |
| Norombe | 8,780,429 | 1,079,524 | 10,8149,958 | 3,815,842 | 14,128,795 | 891.780 | 14,450, 8.5 | 1,725,541 | 12,6085,497 |
| Decembe | 7,980,499 | 1,141,628 | 9,072,127 | 2,806,241 | 11,768,368 | 946,876 | 12,015,94 | 1,025,650 | 10,697,777 |
| Janus | 15,800,084 | 850,928 | 16,150,957 | 1,969,268 | $18,120,228$ | 888, 600 | 19,008,732 | 2,078,75,5 | 18,224,712 |
| Febru | 18,508,918 | 2,447,889 | 20,956,758 | 8,544,946 | 24, 000,748 | 1,028,711 | 25, $524,459$. | 2,501,496 | 28,4ix,43s |
| March | 19,250,457 | 2,888,879 | 14,688,886 | 5,475,827 | 20,067,163 | 1,1061,889 | 21,122,496 | $\mathbf{8}, 689,228$ | 17, $2,28,169$ |
| Aprli | 11,155,630 | -965,428 | 12,110,958 | 8,16s,142 | 20,279,100 | 939,218 | 21,218,818 | $2,287,815$ | 14,398,278 |
| May. | 5,45t,191 | 1,674,810 | 7,126,001 | 10, 008,421 | 17,684,422 | 1,070,488 | 18,705, 255 | 2,202,178 | 9,84v,174 |
| Juae | 2,471,728 | 957,860 | 8,429,089 | 11,54,186 | 14,969,225 | 869,901 | 15,389,126 | 781,090 | $4,210,168$ |
|  |  |  |  | 879.159 | $219,797,772$ |  | 24, 169 | 27,951, 17 | 5,298,688 |
| 4 1505-56. | $150,088,182]$ | 17,482,102 | $167,520,224$ | $99,008,426$ | $197,028,660$ | $1,126,007$ | $198,154,747$ | 21,984, 180 | 159.4.54,844 |
| $\because 1544-50$ | 107,029,210 | 14,290,259 | 121,250,400 | 82,022,896 | 153,281, 256 | $1,153,061$ | 154,005, 529 | 23,001,421 | 144. $\sin _{10} \times 27$ |
| * 1858-54. | 147,020,241 | 12,791,056 | 100,720,296 | 97,417,160 | 188, 187,456 | 2,987,048 | 191,074, 014 | 19,876,4-4 | $1 \times 0,596,741$ |

It will be seen from the above that the value of goods put upon the market falls short of the total value of the import of merchaudise, abont $\$ 34,500,000$, and we have good reason to get down the value of goode in bond July 1,1856 , at $810,000,000$ at least, making the total value of geods in bond July 1, 1857, about 845, 000,000 , which is $\$ 6,000,000$ or $\hat{\boldsymbol{T}} \mathbf{7}, 000,000$ greater than was to have been expected from such reports as we have had from time to time. Wo must not forget to [lace to the credit of the year, an importation of apecie and buliion of $\$ 6,500,000$ against a little more than $\$ 1,000,000$ the previous year. Tho total import of merchandise is $822,000,000$ in excess of the previous year, and it is not a flattering fact, that we have been Importing most freely, when it was ovident that stocks were accumulating. The merchant can not devote a few honrs more profitably, than in a careful scrutiny of the above tinbles.

The extent to which goods have been warehoused, caused the eash receipts at the eustom-house to fall below those of last year, as is shown in the following: Casif Dutige mechifed at thes pont inerino the Fibeal.

Yraf reoino June Sotit, 135i, compaaey with the
TWO PAEFIOES YEARS.

| Month. | 1854-65. | 1855-86. | 1856-57. |
| :---: | :---: | :---: | :---: |
| Juiy. | (2,045,745 | 38787,548 | 85, 411,54 |
| Augus | 2,214,029 | 4,240,764 | $5,85 \times, 899$ |
| Septembe | 8,499,493 | $8.848,879$ | 8,702,185 |
| October | 2,402,115 | 8.489 .195 | 8,391,23t |
| November | 1,751,028 | 2,171,714 | 2,774,46 |
| Hecember | 1,515,790 | 2,84,942 | 2,881,970 |
| Jsnasry. | 2,560, 1838 | 8,688,655 | 4,697,778 |
| Febreary | 2,665,165 | 8,576,919 | 5,117,250 |
| March | 2,368,0¢5 | 4,8-2,107 | 8,752,185 |
| Aprl | 1,994,711 | $8.918 \times 5$ | 8,801,607 |
| May. | $2,410,483$ $2,810,465$ | $8,457,154$ $8,524,425$ | $1,007,990$ 677811 |
| Total. | 30,658,872 | -12,629,480 | -12,978,446 |

The final result of this expansion, if continued, will be the loss of credit, and, as a consequence, a reduc-tion-not, however, until we shall have endured ali the pensitien incident to bankruptcy. With the realization of the present prospect, good crops, and the continued development of the manufactures of our country, we can expect prosperity, if we can only avoid the ovil of excensive consumption, and, as a consequence, luportation of foreign manufactures. We have prepared s statement showing the exports of France, (ireat Britaln, and the United Staten for n period extending from 1847 to 1856 , inclusive. This ntatement enalles us to compare the increane in exports, nind consequently in wealth, of the three principal maritime countries in the world. With regard to the increase of wealth, it country is in a slmilar ponition to an individual. The exports of one are equivalent to the income of the other; and the imports of one, on the other hani, are equivaient to the expenses of the other. In the case of this country, the ad valorem tariff prevents us from obtalning a correct valuetion of the imports, in order to obtain the exact difference, or, in other wordn, the increase of wealth,
through the foreign commerce of the country. We may, howevor, judge in a measure from the charater of the imports of the probable gain of wealth. If they are luxuries instead of necesnaries, or manufactures that could be home-made, instead of the products fer eign to our soil and climate, we may justiy put that nation duwn on the extravagant list. Aud this is the position of the United States. In the period of 10 years helow given, the increase of exports to the United States lias been equal to 107 per cent. ; the increase of imports has been (for the samo period) ecqual to 114 per cent. Showing that even with our enormous productive powers, and the great wants of Furope, our exports have not kept pace with our demand for laxuries. We are upt to congratulate oursclves on the unegualed growth of our cosintry, and its eommerce. Of the former we have reason; but of the latter, the figures do not prove our statements. In the last 10 years the exports of the Unitedi States have increased 107 per cent, while the increase in the exports of France for the eame period is equal to 130 per cent. ; and the increase in the exports of Great Ilritain for the same jeriod is equal to 93 per cent.

Statement showing, separutely, the total exports of domestic p,roluce of France, Great Britain, and the United States for the past 10 years:

| Year. | Frunce. | Great Brltalo. | Vulted States. |
| :---: | :---: | :---: | :---: |
| 1847 | (140,000,000 | (203, (M00, (19a) | \$188,064,000 |
| 1349 | 185,100,000 | 268,000,000 | 154,000,000 |
| 1849 | $155,1000,000$ | $815,000,000$ | 145,14\%0, 100 |
| 1550 | 211,000,000 | $859,000,010$ | 152,001, 1900 |
| 1 51 | 922,000,000 | $870,000,000$ | $219,000,090$ |
| 1852 | $805,1000,000$ | $898,000,000$ | $210,040,000$ |
| 1859 | $245,000,000$ | 408, 0000,040 | $211,000,010$ |
| 1844 | $2314,000,000$ | 4, $3,1060,0400$ | $27 \times 1000,600$ |
| 1455 | $808,1000,000$ | 475,000,010 |  |
| 1556 | $825,000,000$ | 575, $0 \mathrm{MO},(\mathrm{MNO}$ | $828,04 t 0,(\mathrm{M}) 0$ |

The exports of a country are the best exponent of ite commercial prosperity, and in is meusure it in ins diroct ratio. For althongh the profit which is madie on the artleles exported may vary accoriing ss they sre the nataral products of the soil, or manufactures, the raw material of which is the growth of another ciuntry, yet there are other allowances to be made which compensato for this dlfference. It is evilent, thersfore, that any thanciai tronbles we may have must be the result of our extravagant fimperts. These we have shown to have lucreased more rapidly than our ex. ports, even with the valuation of our imperts by an ad valorem tariff. The correction to be applied, if we wiah to continue prosperons, ia self-evident; and this correction wili, under our present course, become cre long a necessity. A nation'm balance-sheet is equivalent to the relation of receipts and expenditures with an Individual ; sud national bankruptey will surely follow when the imports, for a long serics of years, are greater than the exports.
The exports of domestic cottons from the port of New York to foreign ports, for three years past, has been as follows:

## NEW

| Exporled to. | $\begin{gathered} 1831, \\ \text { Packngen, } \\ \hline \end{gathered}$ | $\begin{gathered} \text { I8B5. } \\ \text { Packages. } \end{gathered}$ | Packages. |
| :---: | :---: | :---: | :---: |
| Mexico | 1,718 | 2,972 | 4,897 |
| Dutch Weat Indles | 890 | 887 | 151 |
| Swodlsh West Indlea | 8 | 6 | 10 |
| Danlsh West Indles | 147 | 234 | 427 |
| Britisl: West Indies | 008 | 499 | 880 |
| Spanish Weat fudiea | 69 | 1,143 | 151 |
| san Dominio................ | 208 | 411 | 228 |
| britteh No th Amorlea. . . . . . | 112 | 181 |  |
| jewall ..... | 2,652 | 2,764 | 8,756 |
| Venezuela. | 988 | 1,094 | 385 |
| Argentine Repablie | 1,445 | 468 | 59 |
| Central Amerles............... | 43 809 | 495 | 190 |
| West. coast of south America.. 1 tonduras. | 870 | 1,152 | ¢ |
| Africa. | 1,007 | 1,824 | 1,574 |
| Australia. | 629 | 1,903 | 2,060 |
| East Indies sud Ch | ${ }^{12,486}$ | 11,929 251 | 17,674 267 |
| All others. <br> Tetal | 24,280 | 251 | 267 |

Maritime Adrancement.-We doubt whether the progress of this country as a maritime power, and of this city as a commerclal emporium, can be more clearly demonstrated than in the subjoined simple tables; the first showing the tonnage of the shlpping that entered this port from foreign ports, for a number of years, commencing with 1821 :

| Years. | Home. | Forelign. | Totel Tonnage. |
| :---: | :---: | :---: | :---: |
| 1521.... | \%105,738 | (16,240 | 171,963 |
| 1825. | 259,525 | 20,655 | 280,180 |
| 1830 | 255,69? | 25,921 | 281,512 |
| 1335 | 878,4\% | 90,999 | 464,46- |
| 1540 | +09,458 | 118,186 | 627,598 |
| 1845... | 472,492 | 140,858 | 618,950 |
| 1546. | 496,761 | 185,404 | 682,165 |
| 1847. | 605,488 | 839,537 | 989,020 |
| 1843... | 657,795 | 867,321 | 1,025,116 |
| 1849. | 784,009 | 414,096 | 1,148,105 |
| 1556. | 807,080 | 411.757 | 1,249,897 |
| 1501. | 1,144,455 | 479,569 | 1,624,052 |
| $12 \times 2$. | 1,291,95t | 478,087 | 1,709,988 |
| 1453. | 1,821,674 | 491,581 | 1,513,255 |
| 1554. | 1,442,278 | 477,035 | 1,019,818 |
| 155).... | 1,810,257 | 202,400 | 1,512,257 |

The increase in the total tonnage from 1821 to 1851 , thirty years, was nearly ten-fold. The increase ln American tonnage during the anme period, was more than seven-fold. Tho increase in forelgn tonnage was nearly thirty-fold-about 2,900 per cent. This explains, more clearly than any other fact, the cause of the growing interest felt by European governments in the affairs of this country. The great falling off in the foreign tonnage in 1854, in comparison with several years inmediately preceding, was doubtless mainly in consequence of the Eastern war, which employed, not only the Canard ateamers running to this port, but a vast amount of British shipping of ali descriptions, as
transports. The lnactivity in frelghts hence was also potent $\ln$ infinence. There is no reason to doubt that, with the return of peace, the foreign shipping entering this port yearly, will equal, if not surpase in tonnage, any former year.

The above table shows only the extent of the trade of this city with foreign ports. The coasting trade since 1847 is ahown, partislly, in the following. But it must be rememhered, that coasting vessels to or from ports north of the aorthern boundary of Georgia, are not compelled to enter or clear, unles distilled apirits are of the cargo. It will at once be eeen that this exhibit of the trade of thls city coastwise is far from being coraplete. The same fact will also explain the dlaparity between the tonnage entered and cleared:

| Years. | Entered. | Cleared. |
| :---: | :---: | :---: |
| 1848. | 402,143 | 805,989 |
| 1849 | 424,976 | 895,589 |
| 1850 | 489,898 | 1,020,070 |
| 1851. | 455,542 | 1,214,922 |
| 1852. | 497,540 | 1,378,762 |
| 1853. | 507,581 | 1,810,697 |
| 1854. | 548,482 | 1,490,963 |
| 1855. | 614,045 | 1,978,889 |

But the increase in tonnage is not alone remarkahle. It is a common obscrvation that the largest ships of 20 yenrs ago did not exceed $\ln$ tonnage the ordinary cossters of the present day. Then, a ship of 700 or 800 tons was a wonderful achievement of capital and mechanism. Now, shlps of more than 2,000 tons have ceased to be regarded as out of the ordinary course. The following is a statement of the number of vessels, foreign and American, that entered this port in the years indlicated, their total and average tonnage. The statement of the entries for 1855, shows a diminution in the average tonnage of foreign vessels, to below that of 1840 ; which makea $1 t$ quite clear that the dlminlehed tonnage of the year was, as we have said, caused mainly by the use of a great number of large ships for purposes incident to the war between the Allies and Russia. From 1835 to 1854, the American tonnago increased sbout four-fold, but the namber of ships increased only about 70 per cent., the average tonnago nbout 117 per cent., exceeding the average foreign tonnage about 60 per cent.

| Years, | American. |  |  | Forelgn. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of vessele. | Total tonnage. | Average tonnage. | No. of veasele. | Total tonnage | Avarage tonnage. |
| 1535 | 1,544 | 379,465 | 245 | 471 | 90,999 | 198 |
| 1840 | 1,447 | 409,458 | 280 | 470 | 118,180 | 258 |
| 1845 | 1,484 | 472,492 | 819 | 526 | 140,858 | 267 |
| 1850 | 1,812 | 807,080 | 427 | 1,451 | 441,757 | 804 |
| 1854 | 2,683 | 1,442,278 | 547 | 1,411 | 477,085 | 888 |
| 1855 | 2,497 | 1,810,257 | 527 | 904 | 202,000 | 228 |

Feserls hullt at the Pobt of Nge York, ineludino the Smp-yagde of Brooklyn, Williambrubo, and Geren:oint.

| C's.s. | Launched in the yeara |  |  |  |  |  | On the stocke al the close of the yeare |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1854. |  | 1855. |  | 1850. |  | 1854. |  | 1855. |  | 1856. |  |
| Steamships. | ${ }_{\text {Noi }}^{10}$ | Tonnare. |  | Tunames. | $\xrightarrow{\mathrm{No}} \mathrm{C}$ | Toranage. 18,900 1,000 | No. | Tonnage. 9,290 | $\underset{2}{\mathrm{No}}$ |  | $\underset{6}{\text { No. }}$ | Tonnage. |
| 1)th. steain vess. | 28 | 6,967 | 4 | 2,200 | 5 | 1,900 | 1 | 600 | 2 | 1,150 | 8 | 2,750 |
| ships........... | 30 | 89,830 | 6 | 0,130 | 11 | 12,550 | 6 | 8,200 | 8 | 8,150 | 4 | 2,150 |
| Barks and hrigs. | 15 | 6,151 | 10 | 4. 6.51 | 12 | 6,800 | 2 | 1,000 | 4 | 2,400 | 8 | 650 |
| Schooners, ete.. | 21 | 5,202 | 18 | 8,785 | 13 | 2,820 |  | 1,193 | 3 | 1,120 | . | .... |
| Total. | 108 | 81,820 | 87 | 29,467 | 56 | 42,470 | 16 | 20,084 | 17 | 21,720 | 16 | 13,000 |

We give two tables, arranged from the report on Cammerce and Navigatlon, showing the complete commerce of the port of New York, and specifying the destination of all vessels when outward bound, or the country from whence they arrlved when inward lound; also showing their nationality. This table euables as to sen at a glance the distribution of the commerce of New York, and gives a clear exhlbit of our relations to other countries in regard to favorablo or unfavorable tariffs, and ahows some very curious statistics. In our trade to Fingland, four tifths of the toonage belongs to the United Stater, showing that we lave s fair field for enterprise; while to the

British North American possessions we have less than one fonrth, showing that we are inferior in enterprise to our neighbore, or they have some tariff advantage. We nbsorb four fifths of the carrying trade to France, while to the northern Earopenn countrles we have bat an equal amount. The carrying trade to Sonth Amerlea goes almost entiroly in American bottome. The Cubn tracle is 95 per cent. in American vessela, while to lortugal only abont one third; showing that the tariff is in favor of that country. To Hamburg we have less than one fifth; which is probably owing partly to more economy practlced by the Dutch, and iower wages.

Statement exmiaiting tum Numaza and Tonnagi or Ambbican and Fommon Veahis wilicit ketkano into ting Dietuict or New York，and tua Codithige phom wiliol tiay amnited，zuning tia Figoal，Yitar
endino Junk buth， 1850 ．

| Arrieed from | Ainerkenn vousels． |  | Forelga | vessela． | Tolal． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No． | Tons． |  |  |
| Russla | $1$ | EP8 |  |  |  |  |
| SwedendNorw＇y | 8 | 1，480 | －8 | 9，871 | 11 | 8，857 |
| Swod．W．Indics | 6 | 658 |  |  | 6 | 656 |
| DanlshW．Indlos | 18. | 8,480 | 8 | 829 | 16 | 8，5112 |
| Jlambrırg．．．．．． | 8. | 4，540 | 41 | 24，010 | 49 | 29，460 |
| Bremen．． | 19 | 26，758 | 82 | 44，816 | 101 | 71，509 |
| Other Gor．ports |  |  | ， | 208 | 1 | 208 |
| Holland．． | 14 | 8，961 | 92 | 9，490 | 88 | 18，451 |
| Duteh W．Indl | 16 | 8.247 | 2 | 744 | 21 | 8，901 |
| Dutch E．Indles． | 6 | 2，568 |  |  | 6 | 2，868 |
| Helgirm． | 29. | 81，612 | ， | 626 | 80 | 22，183 |
| Fingland． | 482 | 515.468 | 85 | 60，844 | 617 | 576，818 |
| Neotlan | 81 | 17，057 | 15 | 11，764 | 40 | 29，421 |
| 1 roland | 4 | 2，227 | 2 | 849 | 6 | 8,676 |
| dibralta | 4 | 780 | 9 | 862 | 6 | 1，15］ |
| Malta |  |  | 1 | 282 | ， | 262 |
| Canal | 1 | 245 |  |  | I | 245 |
| therl3．N．A． | 4.5 | 8.671 | 810 | 41，810 | 809 | 49，981 |
| Ifritish W．Indles | 107 | 19，745 | 128 | 17，268 | 280 | 87，008 |
| liritlshIfonduras | 14 | 8,449 |  |  | 14 | 8，448 |
| 13rltlah Culana． | 17 | 8，983 | 8 | 870 | 10 | 4,858 |
| Br．poss．In Afrlea | 18 | 2，981 | 8 | 403） | 16 | 8，42＊ |
| British Australla | $1{ }^{4}$ | 11998 |  |  | $1{ }^{1}$ | 998 |
| 13ritish F．Indles | 16 | 11，982 | 8 | 18.828 | 18 | 18，914 |
| Franee on Atian． | 119 | 142，860 | 24 | 12，692 | 148 | 135，052 |
| France on Mod． | 85 | 16，600 | 4 | 1，640 | 89 | 18，240 |
| Mntur．pos | 1 |  | 10 | 1，196 | 10. | 1，196 |
| Weat indles． | 1 | 200 | 8 |  | 1. | 5．463 |
| Spain on Me | 41 | 11，618 | 19 | 8.917 | （1） |  |
| Canary Islands．． | 8 | 958 | 1 | 159 | 6. | 1，177 |
| Philipplne lsts．．． | 12 | 12，915 | 1 | 1，060 | 18 | 18，978 |
| Cuba． | 689 | 243，5100 | 89 | 8,491 | 728 | 252，891 |
| Porto Rilco | 100 | 19，444 | 48 | T，943 | 148 | 26，687 |
| Portuga | $\pm 6$ | 8,737 | 24. | 6，627 | 50 | 14，864 |
| Madelra |  |  | 2 | 254 | 2 | 884 |
| Cope de | ， | 1.849 | ． |  | I | 1，849 |
| Azor | 2 | 891 |  |  | 8 | $89!$ |
| Sardini | 4 | 2，641 | 1 | 2，607 | 15 | 6，840 |
| Tuscany | 19 | 9，86N | 16 | 8，856 | 23 | 12，724 |
| Papal s | 1 | 354 |  |  |  | （2） |
| Two Slef | 48 | 16，064 | 82 | 8，479 | 80 | 94，043 |
| Austrta． | 4 | 1，00\％ | 4 | 2，234 | 8 | 8，789 |
| Turkey | 8 | 1，256 | $\stackrel{2}{8}$ | 478 | 5 | 1，629 |
| Eyspt ．．．．．．． |  |  | 3 | 1，081 | 8 | 1，081 |
| Oth．ports Afrlea | 82 | 4．408 |  |  | 82 | 4，878 |
| Ifayt．．．．．．．．．．．． | 182 | 28,215 | 20. | $8,4 \times 4$ | 158 | 27，056 |
| San Don | 2 | 308 | 8. | 359 | 5 | ${ }^{662}$ |
| Mexlco． | ${ }^{81}$ | 9，64 | 0 | 786 | 42. | 16，874 |
| Central Republlc | 82 | 81，174 | 2 | 402 | 84 | 81，676 |
| New Giranada．． | 72 | 548810 | 8 | 741 | 75 | 59,1081 |
| Venexuela | 61 | 16，501 | 22 | 4，669 | 43 | 21,170 |
| 11 razil | 110 | $81.4 \times 93$ | 26 | 6，389 | 186 | 87，422 |
| Vragnay | 4 | 924 |  |  | － | 924 |
| Buenos Ay | 23 | 8,934 | 9 | 350 | 80 | 0，81t |
| Chllif | 1 | 841 |  |  | 1 | 821 |
| I＇eru | ， | 5， C 21 | 1 | 212 | 8 | 5,281 |
| Sandwleh lsianda | 4 | 4，893 |  |  | 7 | 4，393 |
| Cbina．．．．．．．． | 05 | 51，918， | 2 | 1，056 | 57 | 53，004 |
| Total． | 2，496 | 1，726 | 1，083 | 19，988 | 4 | 31，650 |

The greater increase of the commerce of New York over the other cities，ls shown by the tables from the allinal report on commerce and navigation．The tonnage buitt during the year euding Jume 30,1856 ，in sli the States，was 469,393 tons，the leading States ranging as follows：

| 8 tases． | 交 | $\frac{6}{4}$ | 安 | 最妾 |  | ذ | Toon． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mainc．．．．． | 10.6 | 71 | 4 | 1 | 4 | 816 | 149，901／84 |
| Massachnoetts | R | 10 | 35 | 1 | 4 | 144 | 80，48488 |
| New York．． | 24 | 7 | H7 | 161 | 27 | 806 | 76，801．12 |
| All others．． | 34 | 17 | 848 | 818 | $1 \times 6$ | $04 i$ | 162，301 01 |
| Tutal． | （1）6 | 108 | 440 | 479 | 281 | 1，708 | 469，398．78 |

Maine，it appears from this，bulits an amount of ton－ nage nearly as large as Massachusetts and New York together，and alab nearly as large an amount as all the other States of the Inion，onltting Maseachusetts and Now York；so that there is built on the conat of Maine almost one third of the aggregute tonnr．je of the Unlon． Irobably；leaving out of vlew steamshl pas，canal boats， and river craft，Maine luilds fully one haif of the ton－ nage of tho Union．

Teking the leading ship－owning States，we have the following result as to tomnage owned：

| New York．．．． Massachusotts． | June $30,185{ }^{3}$ Tons． 1，508，618 891,860 | $\begin{gathered} \text { Jone so, } 1885 . \\ \text { Tous. } \\ 1,4649.988 \\ 919,205 \end{gathered}$ | $\begin{aligned} & \text { Tonat } \\ & \text { Ino. } 44587 \\ & \text { Dec. } 87,845 \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Mistne． | T90， 170 | 806，699 | Deo． 20,429 |
| Total． | 8，180，898 | $\begin{aligned} & 8,250,020 \\ & 8,180,883 \end{aligned}$ |  |
| Decreaso | yoar 1856． | 60，687 |  |

The following table shows the relative emount of tonnage owned In the large ports which have ovar 50,000 tons registered at the custom－house of the dis－ trict：

| Poria． | June 35， 1856. | June 30，1988． |
| :---: | :---: | :---: |
| New York．．．．．．．．．．．．．．．．．． | Tone. | $\begin{gathered} \text { Tons. } \\ 1,228.224 \end{gathered}$ |
| Boston．．．．．．．．．．．．．．．．．．．．．．．．．．． | 621，117 | \＄46．263 |
| Philadelphla | 197，228 | 294，806 |
| Beittimoro．．． | 188，844 | 188，103 |
| Brth．，．．．．．．．．．．．．．．．．．．．．．．．． | 198，420 | 175，253 |
| Now Ordonns．．．．．．．．．．．．．．．． | 168，808 | 200，846 |
| Waldoborongh | 156，878 | 148,896 |
| Now Beilford． | 188，000 | 169，988 |
| Portland．．．．．．．．．．．．．．．．．． | 188，154 | 187，817 |
| 13nfluto．，．．．．．．．．．．．．．．．．． | 89.989 | 76，959 |
| Chicazo． | 67，407 | （0，，972 |
| Clovelonit．．．．．．．．．．．．．．．．．． | 60，919 | 81，579 |
| Detroith．．．．．．．．．．．．．．．．．．． | 58，889 | 65，058 |
| Relfast．．．．．．．．．．．．．．．．．．．． | \％ 08.612 | t0，764 |
| Barnatable． | 68，186 | 80,615 |
| Charleaton．．．．．．．．．．．．．．．．．．． | 59，188 | 66，419 |
| Aan Franoleco．．．．．．．．．．．．．． | 80，750 | 87，542 |
| Cuyshoga．．．．．．．．．．．．．．．．．．． | 60,910 | 81，42 |

The most remarkable decline is that ahown in Phil－ adelphia．New York exhibita the greatest increase of tonnage，accorting to these returns．

Of tonnage employed in sterm navigation，New York stands at the head by a large amount．The figures are as as follows：

| New York State． | Tans． 105,786 |
| :---: | :---: |
| Now Orleans．， | ：1， 151 |
| st．Inoula | 82， 745 |
| I＇ttsbur | 87，505 |

hatze or Commieatosa npoomminded uy tifi Canamba of
 ment to the conthaht exiets． lanking．
On purchase of atocke．bonds，and nill kinds of securitiea，inotndiog the drawing of bllis for the payment of manue．
On sale of ntocka，bonds，and ail kinds of accuri．${ }^{1}$ per cent tles，ineluding remiltanees in blls and guar． nnty．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． On purdiase of sale of apecle and bullion．．．．．．．． Remittances in bilts of exphange，with guaranty． Remittanecs in bilts of exphalge，with guaranty．
1）mawing or enduraing bills of exelinge．．．．．．．． Drawing or enduraing bling of exchange．．．．．．．．．．
Collecting dividende on stocks，bonda，er olher mecuritics．
hocectring interest on bonds and mortagyea．．．．． Recelving and paylng moneys on whleh no other comminaton is received．
I＇rocurlog acecptance of hilis of exehange pay－ nble in forelgn countriea．．．．．．．．．．．．．．．．．．．．．．．．
On lesulng lettera of credit to travelora，exclugiva On lesuing letuera of credit to travclora，excluaive of forelgn benkers＇eharge．．．．．．．．．．．．．．．．．．．．．．
Where billa of exehange are remittei for oin－ lection，and returned under protest for the non－scceptance，or non－paymont，tho same comminalons are to be eharged as though they were duly aceepted and pald．
For sates of forolen merenalisaines．
On domeatic aturehandise．
Goaranty．
Gaaranty．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． 多
Oa purchase and shipment of merehandise，on cont and charges，with funds in bond．
Collecting delayed and tiliguted aceounts．．．．．．． 5 Effecting musina humaranee，on amount inaured．
No amount to bo charged for effecting insurance No amount to ho charged
on property cosumpned．
on property complgned．
Land ing and re－ahippling gooda from veane le in distress，on value of involce．．
Lanuling and re－shipplug，on apecie and bulitun．at Recelving and forwarding merchandise enterod at enatom－house，on involee value 1 par cent． and on expenten locurred．
On conalgninents of merchandiee withirawn or re－shipped，full comminglons are to be charged to the extent of adrances or reaponilhilities in－
curred due of
 a ward bonds． The rlak be urd other to bo vided
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Du．
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Pacitie（）
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the sea at
canal to 1
Ocean．
discovery
fornia，ant
course wit
greater int
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course for
teat them sunk vess quence or consiteral new chua L＇Isthue still，hewt in the ra drawing 1

The lat mlapted if hetween guyc，on 1 nuid thous mathy maj of uny pai feet；at l 347 level． Thomesmo surtace of the lever overconae the level
serious al
bohlit not
Sipugne，

Coneral Business.
cirred, and one balf commission on the residue of the valne.
Oof ${ }^{-r}$ lng beods that passengera will not become a unrden on the cliy, on the amount of the bonds. $\ldots . . . . . . . . . . . . . .$. The riak of joss by robbory, fire (unlessinguranee
The riak of jos thaft popuise (umult and al be ordered, inda occucrencre ia in all cane to be borne by the ownera of the poods, pro. to bas dilgeace bas bean excrised to the care of them.
n purchate or shipping.
On purchase or ande of vensela. . . . .
rocuriug frelght and pashengers for
Hast Iodipe, aod in American vesset inirope, Do. de. In foreign veascia. . . . . . . . . . . . . . ${ }^{2}$ bo. do. coastwlae. . . . . . . . . . . . . . . . . . . . . .
Coilectlog freight. . . ................................... Coilectiog Insurance losbes of all kinda........... of eatimated, to be considered as due when the of catimated, to be considered as due when the
3nt no charter to bo considered bioding til
memorandum, or one of the coples of the chartor inar been aigned.
Oo giving bonds for veasels under altachmen. in
itigated cases, on amount of liablifty.......... 2 .
The forogoiog commiasione to be exclusiva of brokecage, aod every charge setualiy fucurred.
Nicaragua, San Juan de. A sea-port town at the mouth of the river of the same name, State of Costa lica, on the west shore of the Caribbean Sen, lat. $10^{\circ}$ 55 $5^{\prime}$ N., long. $83^{\circ} 43^{\prime} \mathrm{W}$. The port ls excellent, and is considered the best on this part of the coast. Till lately, the town was quite inconsiderable, and consisted of little else than a cluster of huta; but latterly it has no doubt been improved.

This phace las risen into importance from its being at the western extremity of a proposed line of water cenmunic:ation between the Caribbean Sea and the Pacific Ucean. This line is to consist purtly of the River San Juan, flowing from the Lake of Nicaragua east to the sea at San Juan, partly of the lake, and jarhy of a canal to be constructed from the latter to the Pacific Ocean. This project has been often mooted; but the discovery of the extraordinary mineral riches of California, and the consequent embration to and intercourse with that country; have given it an incomparably grenter intereat thar it formerly possessed. The country apperara to present grester facilities for effecting this great work, than any other part of Central Ameriaa, except the lsthmus of Darien or Panama. The River Sill Juan, ubout 90 miles in length, is sald to have heen occusionally navigathe throughout its entire course for sea-going vessels, till the Spanlards, to protect themselves from the attacks of the buccaneers, sumk vessels loaled with stone in its hed. In consequence of the interruption thas given to the stream, a consideraile portion of the water was carried of by a now chand ceiled the Rio Colorado-Cuesalize, L! Isthme de Panama, etc., p. 8.1. The Saus Juan is still, however, navignted, though with much difficulty, in the rainy spaspn, by steamers and other vesscls drawing littlo water.
The lake itvelf has deep water throughout, and is adapted for ships of the largest burden. The distance betwebn its south-weatern shore and the Gulf of Papagayo, in the Pacitic, is only 29,880 yards, or $15 \frac{8}{4}$ miles; and though the inter-ening country le latd down in many maps as numitainous, the greatest actual height of alyy part of it alove the level of the lake is only 19 feet; at least, such is the result given by a serics of 317 hevels, ahout 100 yards apart, taken in 1781.Thompsos's Ginatrmaha, Append., pp. $512-520$. The surface of the luke is 128 fent 3 inches (Bugtlish) above the level of the lacitic; an ascent whicly might te overeome ly a succession of locks. The difference in the level al the two oceans, furmerly supposed to be so serions motstacle to the undertaking, is said by Ifumbolit not to exceed 20), or, at most, 22 feet. (NourExpuyne, i., 123, ed. 1820.) At its wentern extremity,
the Lake of Nicaragus is connected by a amall river, the Tipitaps, with the Lake of Leon or Managua. The latter, 55 miles in length by nearly 30 in breadth, is slso sald to have deep water throughout. And the plan which appears to be at presen's preferred ls, to make the channel uniting these two lakes navlgable, and to excavate a canal from the latter to the pori of Realejo, on the Paclif. Mr. Squler, late chargd des affaires of the United States at Nicaragua, hae published the following atatements in regard to this route.

Length of the route hy Lake Nicaragua, etc., across the American Continent, from the Atlisntic to the Pscific Oceans: River San Juan, 90 miles; Lake Nicaragua, necessary to be traversed, 110 miles; hiver Tipitapa, 18 miles; Lake Managua or Leon, 55 mlles; froin Lale Managua to Realejo, 40 miles; total, 803 milees. Helght of the various lakes to be passed, and the elevatic ne of lund : height of Lake Licarsgua, 147 feet 9 inches above Atlantic, 128 feet 3 inches above Pacific; height of Lake Managna, 176 feet 5 Inches above Atluntic, 156 feet 11 inches above Pacifie; highest point of land to be passed, 231 feet 11 inchss above Atlantic, 212 feet 5 inches above Pacitic.
The River San Juan reaches the ocean by several mouths. The divergence takes place about 20 miles from the sea, forming a low delta, penetrated by numerous canals, or, as they are callell on the lower Nississippi, bayous, and lagumas. The principal branch is the Colorado, which carries off at least two thirds of the water of the river, sud which emptles into the ocean some 10 or 15 miles to the southward of the port. There is an almost Impassable bar at the entrance, which would preclude the ascent of vessels, even if the depth of water above permitted of their proceeding after it was passed. The little steumer Orus, nevertheless, after repeated trials, succeeded in passing. Thero is another small channel called the Tauro, which reaches the sea midway between the port and the mouth of the Coleralo. The branch emptying into the harbor, the one through which the ascending anil desceniling boata pass, carries off only about one third of the water of the river. It, too, has a bar at the mouth, i. e., st its point of debouchure into the harbor, upon which, at low tide, there ure but three or four feet of water. This passed, the bed of the river is wide, snd studded with low islands; but excepting in the channel, which is narrow and crooked, the water is very shallow. It has been suggested that the Colorado branch might be dammed, and a groater column of water thrown into the other, or San Juan branch. But the suggestion can only he made by those who are wholly unacquainted with the subject. Allowing it to be possible to build a dan, the stream would probably find a new channel to the sea; or, if it took the direction of the harbor, fill it up duriug the tirst rainy season with samd, or at once destroy the saudy barriers which now protect and form it. It can not be made navigable for slups or vessels of any kind, except of the lightest draught, by any practicable system of improvements. The boats used upon the river for carrying freight and passengers are exaggerated canoes, called bongos. Some are hollowed from a single tree, but the better varieties are built, with some degree of skill, from the timber of the cedro, a very light and durable kind of vool, which grows abundantly about the lakes. The largest of these carry from 8 to 10 tons, and draw 2 or 3 feet of water when loaded. They are long, and rather decp and marrow, and have, when fully manned, from 8 to 12 oarsmen, who drive the boats by means of loug sweeps and setthgr-poles. Sails are seldom, if ever, used, wxcept upon the lake. The masts are unshipped and left at the head of the river In descending, and resumed again $\ln$ returning. Theso hoats have a small spmee near the stern culled the " chopa," covered with a board roof, a thatch of palm leaves, or with lides, which ly assigned to the passengers. The rest of the bout ls open, and the oarsimen, or, as they c.all
themselves marineros (sailors), are without protection, and sleep upon thelr beaches at night, covered only with their blankets, and with the gunwale of the boat for a common plllow. The eaptain, or patron, la the ateersman, and oceupies a barrow deck at the stern, called tho pineta, upon which he nlso sleeps, coiling himself up in a knot, if the boat is small and the pinein narrow. The frelght, if liable to damage frome exposure, is cevered with raw hidea, which, between aun aud rain, soon diffuse an odor very unlike the perfumes which are sald to load tho breezes of Araby the Blest. The usual freightage from San Juan to Granada a distance of 160 or 170 miles - is from 30 to 50 cents per ewt.; if the articles are bulky, it is more. The boatmen are pald from seven to eight dollars tho trlp, down from Grenada and back, which usually occupies from twenty to thirty days, alehough with proper management It might bi mado in less time. Time, however, in thesa regions is not regarded na of much importance, and every thing is done very lelsurely.

Nicaragua, a Republle of Central Amerien. It extends from lat. $10^{\circ} 45^{\prime}$ to $13^{\circ} 20^{\prime} \mathrm{N}$., at the Bay of Conchagua, on the Pacitie Ocean, long, $83^{\circ} 40^{\prime}$ to $87^{\circ} 40^{\prime}$ W.; havlng west the l'acitle Ocean, east the Caribbean Sea, and part of the so-called Mosquito teritory, north the State of Honduras and San Salvador, and South Costa Rica. Area about 49,000 square miles. Tha Repnblie is divlded into five Departments, each of which has acveral judicial districts, as followa:

| Departimenta. | Pop. | Diutricta. |
| :---: | :---: | :---: |
| Meridional | $20,0 \times 6$ | Itvas or Nicaragoa. \{ Acayopa or Chontales, Granada, Masaga, and Managua. Leou and Chthandega. Matagalpa. segovia. |
|  | 0 |  |
|  |  |  |
|  | 90,000 |  |
| Septentrional of Matagalpa | 41.000 |  |
| Septentrionat of Segoria .. | 12, (6) $\mathrm{NHO}_{1}$ |  |
| Total ............. | 247.0100 |  |

The pop,ulation here given is the resulis arrived at, in round numbers, by a census attempted in 1846 . It was only partially successful, as the people supposed it preliminary to some military conseription, or new tax. The principal towns of the State, with their estimated population, are as follows:

| Leon (the enpltat), In- | Puebla Nueva ....... $\quad \mathbf{2 , 9 0 0}$ |
| :---: | :---: |
| eludtur Subtiava... 25,000 | Nagorote ............ 1.800 |
| Chluandega ......... $\mathbf{~} 1,004$ | thouct . . . . . . . . . . . . . 2,800 |
| thlnaodego Vi.jo.... 3 3,000 | Mmagua . . . . . . . . . . 12, 1800 |
| RealeJo.............. $\quad 1.000$ | Маязауа............. 15,040 |
| thilchigaipa ......... 2,804 | tranada. . . . . . . . . . . $\mathbf{1 0 , 0 0 0}$ |
| Poailtega ........... 900 | Nicaragua ............ 8,000 |
| Tellca............... 1,000 | Segovia ............. 8.0. 8.000 |
| Romotitio. . . . . . . . . . 2,000 | Matagal pa........... . 2,000 |
| Villa Neuva......... 1,010 | daugal |

It is a singular fact that the females greatly exceed the males in number. In the Department Occilental, according to the census, the proportions wore ns three to tuo! The civilized Indians, and those of Spanish andi negro stocks crossed with them, constlute the mass of the population. The Individnals of pura Furopean extraction constitute but a small part of the whole, and are more than equaled in number by those of pure negro blood. The entire population may le divided as follows: Whiters, 20,000; negroes, 15,000; Indians, 80,$000 ;$ mlxed, 130,000 .-Total, 250,000 . Most of these live in towns, many of them going two, four, nud six miles daily to labor in the fichls, starting before day and returning at night. The plantations, "haciendas," "haites," "ranchos," and "charras", are scattered pretty equally over the country, and are reached by paths so obscure as almost wholiy to escapo the notice of traveler who, passing through what appears to bo a contluual forest from one town to another, are lianle to fall into the error of supposing tha country almost wholly uninhatited. Thoir dweliings are usually of canes, thatched with palm, many of them open at the sides, and with no other floor but the bare earth, the occupation of which is stoutly contested by plgs, calves, fowls, and chilitren. These fraglle atructures, so equable and mild is the Almate, are adequate to auch jro-
tection us the uatives are accuatomed to conalder necessary. Some of them are more protonding, and have the canes plastered over and whitewashed, with tilo roofs, and other fimprovements; and theru are a few, belonging to large proprietors, which aro exceedingly neat and comfortable, approaching nearer our ldeas of inabitations for human lecingy. A large part of the dwellings in the towns are much of the same character. The residences of the better classes, however, are built of adobés, are of one atory, and inclose largo courts, which are entered under archways, often constructed with great beauty. The cuurt-yard has generally a number of shade trees, usually orange, making the corridors, upon whel all the rooms open, excectingly. pleasant.

In Octoler, 1855 , Walker, an adventurer from CalIfornia, landed in Nicarngua with a forco of one handred and iffy men, and being favored by part of the Inhabitanta, succeoded in eflecting a revolution. Firon this time until 1857 ho held possession of the country; though with varied suceess, agalnst all forces brought against lim. In 1857, his expected reinforcemeuts from the United Stutes failing to arrive, he was forced to retreat, and with an almost total losa of his army, and finally had to accept the offer of the United States sloop St. Wary to convey hlmself and command to the United States.

Unfortunntely, agriculture is at a very low ebh, and but a small portion of this valuable land is made avaifable. The productions are Indigo, of which from 800 to 1000 zeroons ure manufactured yearly; sugar, cotfee, cacao, and cotton-the last of superior quality, and formerly raised in large quantities; Indian corn, rice, beans, and plantains, the staple food of the people, are raised in abundance; wheat, also, is grown in the mountainous and cooler parts of the country. Fruits, of varions kinds, aro jlentiful, Inclnding excellent oranges and lemons. One of the principal sources of wealth consista In eattle, of which there are great numbers in all parts, particularly in the districts on tho eastern side of the lake, where extenslve and excellent pasturage is met with. The chief exporta of the State nte indifo, Nicaragua wood, and hides. The executive has the title of Supreme lirector, with two counselors, a legislative chamber and senate. From the reports of the Miuister of Flnance, it was estimnted that the recelpta into the State Treasury for the year endiug 30 th Junc, 1851, would amount to sil22,682, and the expenses to $\$ 173,646$, leaving a deticit of $\$ 00,946$. This, added to the standing delt of tho State, $\$ 523,905$, makts a total debt of $\mathbf{8}$ :374,869.

Commerce uith the L'nited States. - On the lath day of April, 18:0, a treaty was concluded between the United States and Great Britain, in respect to a proposed ship-canal between the Atlantic and the Jacific, by which both govermments stipulate sud declare that "neither the one nor the other will ever obtain or maintain for itself any exchasive coutrol over the said ship-canal." The 8th article further stipulatea that the two govermments shall "exteni their protection, by treaty atipulations, to any other practicable communications, whether by eanal or isilway, neross the lsthmus which connects North and South America, and esprecially to the inter-occanic communications, should the sano prove to bo practicable, whether by eanal or railway, which are now propesed to be established by the way of Teluantepec or l'anama." 'This treaty contains other stijulations relative to the Mosiulto coast, Central America ${ }^{2}$ enerally, etc., but nothing of commercial interest. General informa. tion reapecting the Centrai American States is exceediugly limited; thoufh, both for its productions and its geographical position, the country is one of great interest and importance. It abounds in all the jrecious and useful inluerals, and produces almosi spontancously the varied and luxuriant staples of the tropics. It has been termed the portage or stepping-stane between
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Congre:
the commeree of Enrope and Eastern Asia, and between the Atlantic and the l'acille possessions of the United States; and on this account da now the scene of active operatious for facilitating its transit. Of the many routes by which the prosagg is deemed practicalle, that by the way of the Hio San Juan and lskes Nicararua and Leon is sald to he tho most no; and here, therefore, the great Inter-occanic cunal may, it is thought, bo eventually construeted. The rontes vary in length from 13il to 279 miles. By these routco, in couparison with the older ones, the distanee from New York to Canton will be reduced from 17,100 to 12,600 miles; to Calcutta, from 15,000 to $1 \cdot, 000$; and to Singapore, from 15,800 to 14,000; while from Iingland to thuse places the distaneo will be materially increased. "In a commercial point of vlew, therefore," ssys a late statistical publication, from which these facts are glenned, "lingland can care but little about the canal as proposed, since without it her advantages are much superior to theac of the Vinited States in the Asiatic trade."

The trado with the United States has been decreasing for a number of years, as is shown by the following:

Exporis to Importa from
 Totat trede from 1830 to $19.60 . .$.
Nicaragua, or Peaoh Wood (Ger. Nirarugaholz, Mhtholtz; 1). Blocilhaut: lir. Bois de Sang, Bois de Nicarayue; 1t. Legno sauguigno; $\mathbf{S p}_{\mathrm{p}}$. Falo de sangre; l'ort. I'ao sanguinha), a tree of the same genus (C'azalpina) as the 1 razil and sapan wood; but the species lias net been exactly aserertained. It grows principalIy in the vieinity of tho lake of Niearagua, whence its name. It is satid by 1)r. llaneroft to be almost as red and heavy as the true llrazil wood, but it does not commonly afford more than a third part, in quantity, of the color of the latter; and even this is rather less durable and less beuutiful, though dyed with tho same mordants. Niearagua, or peach woods, ditter greatly in their quality as well as price; one sort boing so deficient in coloring matter that six pounds of it will only dye as much wool or cloth as one pound of Ilrazil-wood, white another variety of it will produce nearly half the effect of an equal quantity of llrazil-wood, and will sell propertionalty dear.-llancuor: on Colors, vol. ii.
Nickel, a scaree metal, which occurs always in combination with other metals, from which it is exceedingly diflicult to separate it. When pure, it is of a fine white celor resembling silver. It is rather softer than iron; its specitic gravity, when cast, is $8 \cdot 279$; when hammered, $8 \cdot 9.22$. It is inalleable, and may withont ditficulty be hammered Into plates not exceeding one hundredth part of an inch in thickness. It is nttracted by the maguet, and is not altered liy expesare to the sir, nor by being kept under water. It is employed in potteries, and in the manufacture of porcelain.- 'inosson's Chemistry. The cobalt ores are commonly empitoyed in the extrnction of nickel, and they aro now trented by the method of Wohler to effect the sepmeration of the two metals. The arsenic is expelled by roasting the jowdered speise, tirat by itae:t, next with the nddhtion of charcoal powder, till the garlic smell be no longer perceived. The residuum is to be mixed with three parts of sulphur and one of potash, melted in a critibie with a gentle heat, and the product being eduleorated with water, leaves a power of metallic lustre, which is a sulphuret of nickel free from arsenic: while the arsenic associated with the sulphur, and comhined with the resulting sulphuret of potassium, remains dissotvel. Should any arsenic still be found in the sulphuret, as may happen If the tirst roasting leat was too grent, the above process mut be repeated. The sulphuret must he finally washed, dissolved in coneentrated sulphuric acid, with the uddition of a little uitrie, the metul must he precipitated by a carbonated alkali, and the carmonate reduced with charcoal. Nickel forms twelve per cent. of the new cent authorized by Congress in 1857.

Since the manufacture of German silver or Argentan tiecame an olyject of commercial Importance, a great deal of attention has been hestowed upon nickel by minerstogists, chemista, and nickel-workers, and Its extraction from its ores has been undertaken upon a considerable scale. It is sparingly found, and in comparatively few localities, and even in those It is usually associated with cobalt. In consequence of its rarity it is generally classed among the precious metals. It is, when pure, almost as white as silver, and both tuctile and malleable, elther when hot or cold. It may l:e mado Into mariners' compasses, beling susceptible of magnetism. It does not oxidizo or rust by contact with air, and only melts, when pure, at an lntense heat. It makes other metals harder and brittle when alloved with them. The nickel used for alloys ls usually olstaned from what tho Germans call Kutfer Nlekel or Copper Nickel, which is an arseninret or compound of nrsenic with nickel, which is hard and has a metallic lustre of a coppered color inclining to brown or gray, and displaying all the hues of the rainlow. It contains 66 parts of arsenic and 44 of nickel, when pure, buc usually contains a little iron, lead, sulphur, and antimony.

The Chincse probably firat made use of nickel ; their ochite copper, or prack-fong, contains about 32 nickel, 40 copper, 25 zinc, and 3 Iron; hut the proportions vary more or less. The composition known as British plate is an alloy of nickel, the ores from which the Birmingham people extract it being imported princlpally from Norway aud Ilungary. In Saxony they produce twenty thousand pounds of nickel a yeor, and in Prussla about nine thousand pounds. In Germany they make it Into German silver, and in this country our Mint is busily engaged in making it into money.

Nickel is ohtnined at Chatham, in Connecticut; also in Missouri, in the chrome mines of Maryland and Pennsylvanin, mid in Lanenster Connty, Pennsylvania.

Nile (Nilus), a great river of Finst Africa, formed by the union of the Bahr-cl-dbiad (White River) and the Bahreel-Azrek (llue liver). The first, which is regarded ns the true Nile, is supposed to rise on the castern edge of the table-land of East Africa, about lat. $2^{\circ} \mathrm{S}$., leng. $34^{\circ}$ E., but its source is unknown. Expeditions sent by the I'uelin of Egypt in 1840-2 traced it to lat. $4^{\circ} \cdot 42^{\prime} \mathrm{N} .$, In long. $30^{\circ} 58^{\prime}$ E. Here the nav. igation was interrupted ly a ledgo of rock; It flows generally noith, with a width of from one to two miles, and joins the llahr-el-Azrek at Khartum, in Nubia (lat. $15^{\circ}: 5^{\prime} \mathrm{N}$.). The second rises in Alyssinia, in Jat. $10^{\circ}$ $59^{\prime} 25^{\prime \prime}$ N., long. $36^{\circ} 55^{\prime} 39^{\prime \prime}$ E. It flowa north 55 miles, when it enters lake Dembeah on the southwest; emerging from the lako on the southeast, it flows in the form of a curve, first south, then west and northwost, traversing in its course several mountain chains, and descending by numerous falls into the plains of Nubia, where it pusses Sennaar. Its confluence with the llalir-el-Abiad forms the Nile, which from t'its print tlows northeast, north, and northwest past Halfay, Shendy, and Berber to lat. $19^{\circ} 20^{\prime}$, where it turns to the southwest, forming a wide curve called the Great llend. In lat. $18^{\circ}$ it again turns northward, and continues in a northerly direction past Dongola, Girgeh, Siout, and Cairo to its mouth, near Assounn ; and from the junction of its hegd streams to its delta its basin is formed by two paraliel chains of mountains, whlch in some places closo upon it and form rapids, and in othcrs open up and leave tine plaing between them and the river. It forms the first cataract (in ascending) near lissouan, lat. $4^{\circ} 10^{\circ}$ N., the second belng in lat. $21^{\circ}$ $52^{\prime} \div 0^{\prime \prime} \mathrm{N}$., and the thirid in lat. $10^{\circ} \cdot 10^{\prime} \mathrm{N}$. Its hanks are generally elevated In Nubla; they aro less so in Middlo Egypt, and absolutely flat In the Jelia. From Essounn to the sea the average fall is two inches to a mile, and its mean velocity is nbout three miles an hour. Ita leugth from supposed source, following lts bends to the sea, is alout 3000 miles (direct distance 2300 miles).

The delta of the Nile commences in lat. $30^{\circ} 7^{\prime}$ N., where Ita watera spread out into numerous streams in the form of a trlangle, extending at its base on the Mediterranean over a space of $\mathbf{1 2 0}$ milles; the two principal mouths are the west, or Rosetta branch, and the cast, or Dimietta branch. The others are the Llourlos anit Dibe meutha. The system of the Nile la ananomaly among rivers: in asceading Its course ne aflluent la met with for 1400 miles, the ilrat being the At bara in Nubla, which joins It on the right, 27 mlles south of Berber. It ls the only great tropleal river which, by its periodlcal lnundations, fertllizes a country surrounded throughout a great part of lts course by sandy deserts. The waters begin to rise in June, and they subside in September. - See Eaypr. From time Inmenorial the Egypilans have made use of canala for the purpose of extending the inuntatlons. The rise of the Nile appears due to the periodical rains which full in the tropical regions of Afrlia from June to September. In Upper Egypt the swelling of the rlver amomnts to about 30 fect, and at Cuiro to 24 feet, perpendleular.

Ning-po, a city of Chlna, prevince of Che-kiang, and one of the tive ports rocently opened to forcign trade, on the Takia, or Ning-po liver, tho mouth of which is dlrectly opposite Chusan, 95 miles onst-southeast of llang-chow-foo, on a tongue of land at the intlux of an alduent into the river, here crossed by a luridge of boata; lat. $29^{\circ} 54^{\prime}$ N., long. $121^{\circ} \$ 2^{\prime} 30^{\prime \prime} \mathrm{E}$. Population estimated at between $\because(00,060$ and 300,000 . The city, six miles in circumference, inclosed by walls 25 feet In helght, aul entered by six gites, is surraunled by n fine fluin covered with villages and water-courses. It has well-supplied shops, a temple of large size, hexagonal tower 100 feet high; a missionary hownital, opened In 18.13; an active trade in junk-luilding, and a large manufacture of silks fur export to lapant. It has been reported that about bio junks come to it annually from Shang-tung and Leao-tong with oil, provisiuns, fruits, caps, cordafe, horms, drugs, rice, and silk; 560 from Fooklen and Ilai-nan with sugar, alum, pepper, black tea, indige, salt, riee, and dye-wouds; from Canton and the Straits some vessels; and from the interior about 4000 small eraft yearly; the total imports being estimated at of, 650,000 annually. It exports large quantities of wood and charcoal to Shang-hai, the trade of which port It has crippled, from heing by sevcral days nearer to the green-tea districts. It was taken by the IJritish, without resistance, in 1841 , whell was captured a ponderuas bell, now in the British Masenm.

Nitrio Acid, Aquafortis (F'r., Acide Nitrique; Germ., Nulpetersaure), exists, in combination with the bases potash, soda, lime, magnesia, fir both the mineral and vegetable kingilonis. 'Ihis acid is never found insulated. It was distilled fromsalepetre so long ago as the 13 th century by igniting that salt, mixed with copperas or clay, iu a retort. Nitric acid is generated when a mixture of uxygen and nitrogen gases, confined over water or an alkaline sulution, has a suries of electrical explosiona passed through it. In this way the salubrisus atmosphere may be converted into corrosive aquafortis. When a littlo hyilrogen is introduced into the mixed gases, standing over water, the chomical agency of the electricity becomes more intense, and the achl is more rapidly formed from its elements, with the production of some nitrute of ammonia.

Noble, an uncient money of account, containing six shillings and eightpence sterling, or in linited states currency equivalent to one dollar and sixty econts.

North America lies between the $16 i \mathrm{~h}$ degree of north latitulo and the Aretic Usecn. It is more irregular in form than South America, lont of greater unlform breaith, larger in area, and more deeply findentell with gulfy, bays, and inlets. Two extcusive elevatiuns or meuntain ridges extend near and parallel, the one to its east and the other to its west coast. Between these is a vast plain, the largest in the world, stretching from the gialf of Mexico to the Aretie

Ocean. In this plain are situated the groat lakes of North America, and through it tow the rlvers Mlissisalppi, the Mackenzle, and the St. Lawrente, the one forming a southern, the other a northern, and the thisd min castern drain for its superfluous watera. Its coast inleutations and Inlots are Ballin's Bay aud Iludson's Bay on the north; the Gulf of St. Lawrence on the elast coast; the (iulf of Mexico on the south; the Gulfs of Califurnia and Geurgia, and Cook's Inlet, on the west. The ceast of North America la very extensive, cixtending In an Irregular the from Davia's Stralt to the lilarida Channel about 4800 miles, and from the latter ulonns the Inland sea to Tchuantepec about 3000. The nhole length on the Paclfic side to Beinring'y Stralt is about 10,000 miles. The extent of the nerth auil nertheast shores cun not probably be less than 3000 nites. The entire extent will thus be 22,800 milles. 'Ihe most remarkable physical characteristles of North America aro lts andy deserts, treeleas steppes, and prairies; the first stretch along the hase of the Rocky Mlountains to the 4 lat degree of north iatitude, iaving an average breadth of 200 to 500 miles. The stepies form another cheerless and extensive region in the northern part of the continent. The prairies or savannas, peculiar characteristies of North America, are chicfly in the Mississipui Valley: They conalst of extensive and generally Irregular tracts without trees, covered in the spring with bright verdure, intermingled with frugrant flowers. A vast extent is also occupited hy forests, comprising probably nat less than 600,000 square miles.

Afountains.-Of these there are four prineipal systems in North America: the Oregon or Locky Monit-alins-a continuation of the Andes-t the Sierra Nevada or Snowy Motntuina of California, mergiug in its passage northward into the coast range, a., ${ }^{\text {b }}$ the Alleghanies ar Appalachian range, extending northeust, paral. lel with the coast. The Rocky Mlountain range is a continuation of the Andes, forming the elevated talile. land passing eentrally through Mexlco; thence tretiting north, divide the waters enteriny the lacilie and Atlantic; Oceans, and continte to the Arelic coast. Several peaks rise above the line of perpetual snows. The Sierra Nevadn of California and coast range ex. tend nearly parallel with the liocky Moontain range, and are connected with the latter by several transverse ritges. The Alleghany range atretches along the castern portion of the continent. It rises in the gently. undulating ridge dividing the waters of the 'Ionnessec from those flowing into the Mississiph and the liulf of Mexico, and trending across the ceuntry in the same gencral direction from southwest to the northeast, terminates In the hea!!!nud of Guspe.

Rivers and Jales.-The principal rivers aro the Mississl $\quad 1 \mathrm{l}$, with lis alluent the Missouri, anl the it. lawrence. The first is the largest river in North America, and one of the greatest on the earth, ocruyyingr, with its trimataries, the whole of tho sonthern portiun of the great central basin of Norlh Anuri a. It hus its origin in the junction of streams formed on the eastern lecllvity of the Racky Mountains, between lat. $42^{\circ}$ and $50^{\circ}$ N., and enters into the sea in the tiulf of Mexico in lat. $29^{\circ} \mathrm{N}$. Its whele course, which is from north to south, is calculated to exreril 14n) miles. I'he St. Lawrence rises under the name of the St. louls, in lat. $47^{\circ} 45^{\prime}$ N., long. $93^{\circ} \mathrm{W}$. ; entering Lake Superior, it lluss a southeast and a northeast course, and enters the Gulf of St. lawrence at Cape Giaspe, where it has expanded to one hundred miles in width. Tho Mackenzie issues from the Great slave Lake, from which it tlows nearly due north, und enters the Arctic Sea, lat. $69^{\circ}$ I0' N. In the nomtier and magnitude of its lakes North America is unequaled. They form one of its most uoted features, sand in conjunction with its rivers present a medium of commercial Intercourse wholly unsurpassed. The principal are Jakes Suırior, Mithiran, Muron, Eric, anl that.
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rio, which tegether cover an area of 100,000 square lty of the Alfeghanies. The coal-fields are of prodig. inilea. Holiuwing tae eliain of lakes which crosses the country in a northwestern direction, there occur Lakes Wiunipeg, Woolasten, Deer Lake, Athabasca, Great Slave lake, and Great Bear Lake. 'I'he Great Salt Lake in Utah, and Mono Lake and Lake Chapela in Mexicu. There are, beaidee these, many smaller yet consideraile bedies of water, viz., St. Clair, midway between Lake Iluren and Eirie; the Lake of tha Wooda, between Lakes Superior and Wlnuipeg; Neppissing, Simeoo, Champlalis, and many others of leaser magnitude.

Ishends.-In the Atlantic Ocean the principal aro Newfoundland, Antleostl, Yrince Edward Island, and Caje lireton, all lying at the emleuchure of the St. Lawrence; Nantucket, Long Island; the Bahame Islands, of the coast of the Carellnas; and the Columbian Archifelago, comprising the Iolands of Cuba, IJayti, Jamaieu, Porto Rico, Santa Cruz, Antigua, Gundaloupe, MartIniqne, St. Lucia, Barbadnes, St. Vincent, 'Tobsgo, Trinidad, and other small lalands. On the nurthwest coast the principal are the Californla gronp; Vaniouver, Queen Charlotte, Prince of Wales, Sitka, and Almiraity Islands; and on the extreme northwest the Aleutian group. In the Arctic Oceaut there are a vast number of islandr of which but little is yet known. Geology, Mineralogy, etc.-A remarkable analogy exista in the structure of the land in North Amerlca and Gentral and Northern Eirope. Gneiss, mica, schist, anil granite prevail in white areas In the Alleghnnies, on the Atlantic slope and the northorn latituie of the American continent, and in the high and middle latitudes tho silurian strata extend over 2000 miles. Crystulline and Silurian rocks fortn the aubatratum of Mexico, fur the meat part covered with Plutenic and voleanic formations and secondary limestone. The Rocky Hountains aro mostly silurian, except the castern ridye, which is of strntified crystalline recks, amygdaloid, and nncient volcanic productions. The coast range has the same character, with immense tracts of volcanie rocks, both ancient and modern, especially obsinlian. In North America volcanic action Is entirely conlined to the coast and high land along the Pacitic. The principal minerals are gold, silver, copper, iron, leai, nul coal. The first three are found In greatest abundance in Mexice, where there are nearly 3000 mines of gold and silver alone. Since 18.18 the great fich for gold gathering has leen Callfornia, where large quantitics have been obtained, and both silver and quirksilver have been found to abound. The silver supplied by the Dexican veins is extracted from a grest variety of ninerala, pure or native silver being of comparatively rare occurrence. The principal deposits of goll in the Vilted States besides Californin
ious extent, the Appalachlan stretching without interruption 720 miles, whith a maxlmum breadth of $\mathbf{2 8 0}$, and cicupying an area of 63,000 aquare miles. The IIttsburg seam, ten feet thlck, exposed on the banks of the Monongahela, extends horlzentally 225 mi?ea in length and 100 in lreadth, and covers an area of 14,000 aquare milles. Bealdes the coal-fields named, there are various others of great extent in dlfferent parts of North America, Including New Brunswick, Nova Scotia, and Vanceuver Island. Iron is also extensively worked. Salt la widely diffused throughout the continent.

Climate.-The predominating character of the cli. mate of North America is Intense cold, although in seme parts an oppresalve heat prevails during a portlon of the summer. Above the 50th degree of istltude the cold is so savere as to render the country all but unlnhabltalile, whlle frosts occasionally occur an low down as the 30th degree of latitule. In winter a keen and plercing northwest wind prevails throughout all North Amerlca, adding greatly to the rigor of the northern elimste, and carrying Ita chilling influence into the more southerly regions. The transitions from cold to hot, or from whater to summer, are very sudden, especially in Canala. Among the causes of a lower temperature than oltalna in Western Europe may be mentioned the small portlon of the continent lying in thu terrid zone, the Rocky Mlountain range, and also the Sierra Nevada mountains near the Pacific Occan, prevent the warm winds from :he Pacitic penetrating the interior; the great expansion of the Jand north and northeast, and the alinost level plain In those directions, allow full scope for the plercing Aretic blasts. The nairowness of the Gulf Streain, and the prevailing winds taking the same general course, curry away from this continent the hot circumambient air, a source of warmth to Western Lurope; and the cold polar oceanic current brings down the leehergs of Spitzbergen and Greenland to the shores of Labrador and Newfoundland.
The territorial limits of the United States include that portion of the continent of North America, extending from the Atlantic te the l'acific Ocean, which is bounded hy the British pessessions on the north, and by the Gulf of Mexico and the Mexican Republic on tbe South.

The superficial area of the Union, according to a computatien made liy the Topograplical Bureau at the ciose of 1853 , and subsequently reviewed and amended, amounted on the first of January, 1854, to tro millions nine hundred and thirty-six thousand, cne hundred and sirty-six square miles, being somewhat more than one third of the area of the continent of North Amer. ica.

Anra of Norta Amraioa, exclesife of the West Inmes.


- Accoriling to Jiathis esthnate of the area of North Anerica, Another estimate gives New Britain but $1,800,000$ square miles.
$\dagger$ th'oltoch. The Inte fansdian ccnans gives 242,482 square m!les as the arca over which jorisdictian factually exteaded. t tilitert gives 002, bin kilometres carres, or 371,611 square miles,
\& freculand, from present information, would nppear to tie a tritateral isiand, 1500 mites long and 600 miles th fta grestest bresdth. Ita nrea, therefore, can not be greater than we state above. Guibert gives the area of Danish America 3801 equare milcs, and M'Culloch only 171, meaning onty liat portion which has been explorod.
|f The arca of the continent of North Ainerica in vartonnly estimsted by geogrspbers at from five to seven millons of square miltes, liuyot ("Earth and Man") estimates it st $5,472,000$, and that of Europe at $2,688,000$, exclusively of islands.

The trenty of 1854 with Mexice scitles the henniaries of the two repullics as follows: "Retaining the same dividing-lime between the two Californias as al-
ready defined and estahlished according to the 5th article of the treaty of Guadalupe 1lidalgo, the limits hetween the two Republics shall be as follows: Begin-
ning in the Gaif of Mexieo, three leagues from land, it is frequently very fertile. The natural growth of opposite the mouth of tha Bio Grande, as provided in thas Sth artiele of the treaty of Guadalupe Hidalgo: thence, as deflned in the saill artiele, up the middle of that river to the point where the paraliel of $81^{\circ} \mathbf{4 7}^{\prime}$ nerth latitudo eroses tho aama; thonee due west one hundred milan; thence south to the parillel of $31^{\circ} 20^{\prime}$ north latitude ; thonce along the said paraliol of $81^{\circ}$ $20^{\prime}$ to the 11th meridian of hagitude west of Greenwich; thence in a straight line to a point on the Colorado River, twenty English miles below the Junction of the Gile and Coiorado Bivers ; thonce up the iniddle of the said River Colorado, until it interrects the presout tine between the United States and Mexico."

For early history, ete., of North America, see Newo England SIagazine, vil. 169; Christian Review, xiv. 6t0; North American Review, Ixxili. 210 (F. Howes).
North Carolina lios betwoen $33^{\circ} 50^{\prime}$ and $36^{\circ} 30^{\prime}$ N. Lat., and between $75^{\circ} 45^{\prime}$ and $84^{\circ} \mathrm{W}$. long. from Greenwich, and between $0^{\circ} 20^{\prime} \mathrm{W}$., and $1^{\circ} 33^{\prime} \mathrm{E}$. long. from Washington. Area, 45,500 square miles. P'opulation in 1790, 398,754; in 1800, 478,103; in 1810, 655,500; in 1820, 638,829; in 1830, 788,470; in 1840, 763,419 ; and in $1850,868,903$.
Physical Featuren, etc.-Along the entire coast of this state there is a ridge of eand separated from tho main land in some places by narrow, and in othor places by broad sounds and bays. The passages or iolete through it are shaliow and dangerous, Ocracoke Inlet being the only one through which veasels pass. Capes IIatteras and Lookont are projecting poinie in this belt, and off them, particularly the former, is the most dangerous navigation on the coast of the United Statea. Cape Fear is on an island off the mouth of Cape Fear River. For 60 or 80 miles from tho shore the country is lovel, the streams sluggish, and thero are many awamps and marshes. The soll is sandy and poor, excepting on the margina of the streains, where
this region in moatly the pitch-pina. This tree alford tar, pitch, turpentine, and lumber, whieh constitute an linportant part of the exporta of the State. In the swampe rice of a fine quality in raised. Baek of the Hat country, and extending to tho lower fallis of the rivers, is a beit of land about 40 milloe wide, of a modd erately uneven surface, a sandy soll, and of which the pitch-pina is the prevaling natural growth.

Throughout the State Indian corn is raised, and in some parta considerable cotton. In the low country, grapes, piums, blackberries, and atrawherries grow spontaneously; and on the hintorvales canes grow luxuriantly, the leaves of which continuing green during winter furnish food for cattle. In the elevated country oak, walrut, Ilme, and cherry trees of a large growth abound. Principal minerals coal, iron, and gold, It la the only State in the Union where every article enumerated in the cenaua ia produced.
Ricera.-Tho prineipal rivers aro the Chowsn, 400 milos long, navigable for amall vossela 80 miles ; Joan. oke, Pamlico, navigable for 30 miles ; Tar, Neuse, Cape Foar, the largest river in the State, 280 milies long, with eleven feet of wator to Wilmington; the Yadkin, which forme a part of the Great Pedoe in Sonth Carolina.
The principal places in the State are, Raleigh the caplal, Newbern, Wilmington, Fayettoville, Edenton, Elizabeth City, Beaufort, and Chariotte. On January 1st, 1850, there were three railroads, with 631 miles of track linished and in operation. Exports, 1852, valined at $\mathbf{e} 576,397$. Imports, same year, $\$ 300,488$. Tunnago of the State, 1853, 56,376 tons. The tirst permanent settlement in this State was on the eastern bank of the Chowan River, about 1660, by enigrants, who, in consequence of religious persecution, fled from Nansemond, Virginia. The constitution of the Unitel States was adopted in ec venticn November sezth, 1789. Yeas, 193; nays, 75.
 yrey Oct. 1,1820 , to Jcle t, 1860.

| Yeare ending | Erports. |  |  | imports. | Tonange Clanred |  | Distriel Tobnage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeeliv. | Foveiga. | Total. | Total. | Amerlean. | Foreign. | Regittered. | Enrolled end Licensed. |
| 8ept. 31, 1821....... | \$400, 94 |  | \%410,944 | \$200,673 | 37.343 | 109 | 13,376 | 10,043 |
| 18:9....... | 685,95t | .... | \$55.951 | 25S, 761 | 80360 | 1,808 | .... | .... |
| 1485. ...... | 482,417 | .... | 482, 417 | 183,158 | 24,716 | 909 | ... | ... |
| 18.4. | 6-38,733 | -* | 658,733 | 465,896 | 41, 44! | 4,447 | * | **. |
| 13.5.... | 658,390 | , | 653, evo | 311.3015 | 41,1515 | 8,454 | . . | *... |
| 1820. | 5*1,749 |  | 641,741 | 367, 045 | 45684 | 3,569 | .... | ' $\cdot$. |
| 1827....... | 447,089 | 2151 | 44,237 | 278.791 | 26,093 | 3,164 | . | .... |
| 1824....... | $5 \div 2,498$ | 1243 | $5: 3,747$ | 268,615 | 44,036 | 1,858 | .... | . |
| 1829. | 604608 | 783 | 664.610 | 283,847 | 51.948 | 1.01\% | . $\cdot$ | * |
|  | 358,000 |  | 399,333 | 221,952 | 30,602 | 1,772 | . . | . $\cdot$. |
| Total... | \$5,126,815 | \$4183 | 45,129,003 | * $\#, 545,8.6$ | 311,963 | 21,53-4 | -* | ...' |
| Sept. 80, 1831....... | \$340.973 | \$167 | \$341,140 | \$196,956 | $8 \mathrm{8a}, 450$ | 1,900 | 16,277 | 11,960 |
| 183y....... | 838.846 | 3795 | 348,041 | 215,184 | 28,272 | 3,418 | .... | .... |
| 1833....... | 432,986 | 4) | 483,085 | 108,763 | 37, 004 | 4.9\%5 | * | .... |
| 1834. | 471.46 | .... | 471.403 | 222,472 | 36,041 | 4.489 | .... | .... |
| 1835. | 819,387 |  | 319.827 | 981,981 | 82.641 | 2.278 | . $\cdot$. | .... |
| 1836. | 423,415 | 1436 | 429,881 | 197,116 | 81,864 | 6.968 | .... | .... |
| 1897....... | 648,878 | 2019 | 051.705 | 271,623 | 88.685 | 4,645 | * $\cdot$ | . |
| 1839. | 644,95\% | 871 | 645,924 | 290,405 | 20,54 | 3,496 | . . . | .... |
| 1839....... | 420,934 |  | 427.926 | 299,293 | 48,515 | 7,505 | ... | . . . |
| 1540...... | 357,484 | .... | 887.484 | 858,532 | 88.130 | 8,029 | . $\cdot$. | .... |
| Total... | \$4,230,609 | \$9820 | \$4,249,223 | \$2,315,660 | 305,577. | 43,146 | '*' | . $\cdot$. |
| Sept, 60, 1841....... | \$393,056 | . ${ }^{\text {a }}$ | \$ 883,056 | \$220,360 | 39,529 | 8,194 | 10,0\%9 | 17,623 |
| 1449....... | 844,650 | .... | 844,050 | 157,404 | 38,113 | 2,599 | .... | .... |
| 9 mos, 1443*..... | 171,049 | * | 171,009 | 110,976 | 30,411 | 1,292 | . $\cdot$. | *... |
| June 30, 1844....... | 498,401 | .... | 298,481 | 800, 142 | 85,476 | 4,068 | , | .. |
| 1845...... | 379,961 |  | 879,960 | 830,470 | 39,757 | 5,170 | .... | .... |
| 1846. | 414.898 | ... | 414398 | 242,859 | 28,471 | 3,791 | ... | .... |
| 1847... | 994,919 | *** | 284,919 | 142.394 | 31,347 | 8,449 | . . . | .... |
| 1848...... | 340,024 | *... | 344,024 | 105,814 | 37.383 | 4,322 | . . . | . . . |
| 1849...... | 270,076 | -* | 270,078 | 113,146 | 26,030 | 8,830 | *** | .... |
| 1850. | 416,501 | .... | 416,50t | 323,6\%2 | 801739 | 11,403 | . . . | . ... |
| Total... | \$ $3,3018,089$ |  | \$3,303,063 | \$1,978,247 | 246,603 | 42,247 | -•* | .... |
| Juae 36, 1851....... | \$426,749 | \$1347 | \$431,005 | \$206,931 | 28,420 | 13,903 | 18,790 | 32,983 |
| 1858 ...... | 578,276 | 4123 | 576,399 | 800,489 | 40,089 | 18,061 | .... | .... |
| 1863. | 814.149 | .... | 814.143 | 211,239 | 29,298 | 8,611 | .... | .... |
| 1854. | 801.597 | . ${ }^{\prime}$ | 891.807 | 112,833 | 20, 081 | 5,:51 | .... | . ${ }^{\prime}$ |
| 1850........ | 489,818 876.174 | - | 483.814 | 243,043 | 30,793 | 4.918 | . $\cdot$. | . $\cdot$. |
| 1804....... | 876,174 | ... | 360,174 | 274.040 | 27,87 1 | 4,297 | .... |  |

- Nino month to June 30 , and tiscal year begina July 1,1949 .

Prin River, seuther termint which, терея 1 The im time hi comne 1991 to on the I luence (hirrty-fi) trade, harbor dange duviling finest $\mathbf{r}$ building The tol Americn Americe riere, 1.

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 a north Cortere English aged b compan. "Yeliov sage." $£ 20,000$ modifie elther 1 one of For the belour, 1 were kn west pat the Inve in the January high lat other la tho 3 3) convicti then la out on his vier (73 ${ }^{\circ} 31^{\prime}$ vation neath 1 Allantl The mm Polar Intellig pubish to lagg sirt sider th G. Bac Captai amined the con Captain officers $1553 . \mathrm{st}$ 1576. si 1585. C 1504. B. 1012. 1 1610. 111612. 81

## NOR

Principal Ports.-Beaufert, at the mouth of Newport River, is famons as poesessing thu finest harbor on the outhern Atlantle sea-hoarl. [t will he the eastern terminue of the Atlantio and Nurth Carolina ra!froad, which, when bullf, will open to its commeree an immense interior region, hitherto isolated from the coast. The impediment in the growth of this place up to this time has been in the want of Internal facilities for commerce. The tonnage of Beanfort, in 1856, was 1991 tons. Wilmington, elty, port of entry, situated on the left bank of Cape Fear River, just below the conliuence of the nort heast and northwest hranchen, alout thirty-five miles from the sea. It is well situated for trade, but the location is accounted unhealihy. The harbor admita vesseis of $\mathbf{3 0 0}$ tons, but the entranco has a dangerous shonl. Opposito the town are two islands, dividing the river into three channels. They affiord the finest rice-ficids in the State. In 1819, two hundred buildings were destroyed by fire, a loss of $\$ 1,000,000$. Tho tonnage in 1856 was 21,420 tons. -Seo Nerth American Rerienc, xxiv. 168; xii. 218 (J. Spainks); American Journal of Srience, xili. a36; Southern Berieer, i. 235 ; De Bow's Reriew, il. 80, 105.
Northweat Passage. The atienpt to discover a northweat passage was mado ly a Porluguese named Cortereal, about a.d. 1500 . It was atiempted by the Euglish to 1553; and the profect was greatiy encouraged hy Queen Elizabeth in 1585, in whleh year a company was associated in Londion, and whe ealled the "Fellowship for tho Discovery of the Northwest Pnssago." From 1745 until 1818, Parllament offered C 20,000 for this discovery. In 1818, the rewnel was moditied ly proposing that $£ 5000$ should to paid when either $110^{\circ}, 120^{\circ}$, or $130^{\circ} \mathrm{W}$. long. should bo passed : one of which payments was mado to Sir E. P'nery. For their Inhors in tho voyages enumerated in the list below, l'arry, Frankiin, Ross, Back, and Richardsen, were knighited. The honor of completing the northwest passago ls due to Captain M'Clure, who sailed in the Inrestigator In compnny with Commodore Colilinsnn In the Enterprise, in search of Sir Jolin Franklin, January 20, 1850. On September 6 he discoveret high land, which he named Baring's Lanul; ou the 9th other land, whith he named after Prince Albert ; on the 30th tho ship was frozen in. Entertaining a strong conviction that the waters in which the Investigntor then lay cemmunientel with Barrow's Siraits, ho set out on October 21 , with a few men in a sledgo, to test his views. On Octoler 26 he reached Point Russel ( ${ }^{\prime} 3^{\circ}$ in' N. lat. $114^{\circ} 14^{\prime} \mathrm{W}$. long.), where from an elevation of 600 feet he naw Parry or Melvitie Sound beneath them. Tho strait connecting the Pacilic and Atlantic Oceans he named after the l'rince of Wales. Tho Incestigator was the first ship which traversed the Polar Sea from Belring's Strnits to Baring Islonil. Intelligence of this diseovery was brought to Engiamd by Commodore Ingiefield, and the admirnity chart was pullished October 14, 1853. Captain M'Chure returned to Sigiand September, 1854. On Juno 19, 1855, a sint commiltee of tho Hiouso of Commons was appointed, on the motion of Mr. W. Mackinnon, to consitler the elaims of M'Clure and his companions. Sir G. Back, Sir James Ross, Sir R. T. Murelison, and Capthins M'Cluro, Keilett, and Collinson, were examined. The report was recelved July 20, in which the committee recommend that $f 0000$ be paid to Captain M'Clure, and $\mathcal{C} 5000$ be distributed hetween the officers and crew.
1553. Sir Ilugh Whlloughbrin expedition to find a northwest phassage to China, ealled from the Thamos, May 20.
1576. Sir Martin Frohliher'h attempt to And a northweat paasnge to China.
1585. Captaln Davia'a expedition to flad a northwent passage. 1594. Barente's expedition.
1602. Weymouth and Kilght's.
1010. Hudwn's voyagen ; the last uadertaken (sec II $u$ dson's Bay.)
1652 SIr Thomas Button's
1610. Mafin'u.-Ste Baghn's Bay.
1631. F'oxa's expedition.
[A number of anterprises undertaken by various cenatries followed.]
1742. MIddiaton'm expedtiton.
1746. Moore's and Smith'a.
1760. Hearne'a land expefition.
1778. Captain Yhippa, afterward lord Mulgrave, his expedttion.

## 1776. Cuptain Cook In the Resolution and Diecovery, July.

1789. Meckenatu's expedition.
1790. Captala Dunoan'a voyage.
1791. The Discovery, Captain Vanconver, returned from a veyage of uurvey and discuvery on the nerthweat conat of America, Septembar 24.
1792. Leoutenant Kotzebne's expedilon, Oetober.
1793. Captain Buchan'a and Lieutenant Franklin'o expedition in the Dorothea and Trent.
1794. Captala Hoss nind Lentenant Parry, In the Isabella and Alexander.
1795. Llentenants Parry and Liddon, In the Ifecla and Griper, May 4.
1796. They return to Ieltb, November 8.
1797. Capinine Parry and Lyon, in tha Fury and Hecia, May 8.
1798. Captain P'arry'a third expedition with the .IEcla, May 8.
1799. Captains Franklin and Lyon, ufter having attempted a tand ex, adition, agaln call frotn Liverpooi, Fub, 10.
1800. Captaln Parry, again in tho Hecta, salla from Deptford, March 25.
1801. And returna, October 0.
1802. Cuptain Ross arrived at Hulf, on hta return from hls arctio expedition, after an ubsence of four years, and when all hope of tise return had been nearly abandoned, vetuber is.
1803. Captoln Back and hia conspaniona arrived at Liverpool from thede peritona Aretic Land Expedition, after having viatted the Great Fish River, and examined Its course to the Polar Seas, september 8.
1804. Captain Back satted from Chatham in oomnand of Hia Majeaty's ahip Terror, on an explortng adveature to Wager ltiver. [Captuta Back, in the month of Docenther, 1835 , was awarded, by the Geographical Soelety, the king'a annual premium for hla polar diacoveries and enterpriae, June 21.]
1805. Dease and Slmps:n traverse the intervening space between the discoveries of Ross and Parry, and eatubliah that there da a northweat passage, Ootober.
1sth. Sir Joha Frankiln and Cuptata Crozler, In the E'rebus and Terror, leave Eingland, May 24.
1806. Captaln Ross returned from an uasuccesaful expedition In mearch of Frankitn.
1807. Another cxpedtion (ona ment out by Lady Franklin) In aearch of Str John Frunklli, conaiating of two vensels, satted from Englord, April-May.
1808. Still wnother, consiating of twe vessels, the Advance und Rescue, therally purchawed for the purpose by Ilenry Grinnelt, a New York merchant, und mannod at Governmeat cost from the Untted Statea navy, uader command of Lleutenant Du Haven, aafled from New York, May.
1809. Commanders Collinson and M'Ciure, in tha Enterprise and Inveatigntor, enited eastward in search of SIr Joln Franklin, Junuary 20.
1810. Northwcst Passage diacovered by M'Clure, October 26. 1853. The second American Arctio Expedition left New York In search of Sir John Frank!In, and for the purposen of science, May 31.
1811. M'Clure returned to England In October, 1854, and ColItnson in May.
-See A merican Journal of Science, x. 138 (Isanc Lea); North American Review, Ixix. 1. (Force); Hunt'a Merchant's Magnzine, iii. 52; Edinburyh Reviev; xxx. 1, xlviii. 423; American Quarterly, iii. 505; Quarterly Reriew, xvi. 145, xxi. 213, xxv. 175, x xx. 231, |vi. 1.

Norway, kingdom of (Swed. Nörrige, Ger. Norwegen), a country of Northern Europe, united to the crown of Sweden, and forming the northwestern part of tho Scandinavien peninsula, capital Christiana. It exlends from Cape IIndesnnes, lat. $57^{\circ} 57^{\prime} 8^{\prime \prime}$, to the North Cape, lat. $71^{\circ} 10^{\prime} 3^{\prime \prime}$ N., and betweea iong. $4^{\circ} 50^{\prime}$ and $31^{\circ} 15^{\prime}$ E. The mountains of Norway contain rich minerals ; but, from the difficulty of transport and the want of fuel, mining industry is but little developed. The only mines in operation are those of silver, copper, Iron, cobalt, and chrome. The chief product is iron,
the mines of which are sltuated moatly in the Gulf of Chrietiana; the silver niins of Konsberg is at present one of the richest in Eiurope, and, next to the copper uine of Rorana, the most important in the kingdom.

Manufactures, properly so called, scarcely exlst in Norway. Brandy distilleries and saw-mills are the only extensive branches cf industry; next to these are forges and metal founderles, the produce of which is exported $\ln$ a raw state, except whut is uaed in the manufacture of arms at Königslerg, and in the mannfactures of iron ware and mails. The manufacture of cloth, liaen, and cotton, as well as the prepuration of skins and Jeather, are almost entirely domeatic. The other manufactures comprise those of glass, paper, oil, gullnowder, soap, tobaceo, and sugar refining. The principal forests are In the interior; the timber is felled in antumn and winter, and is conveyed over the snow to the coast. Welland is now the chief market for Norweglan timber. Fish is exported from all the towns wi the west consi, but llergen is the chicf entrepot. The most impertant branchea of this trade are 'Iricd fish and salted herrings. The export of mineral products is lees than might be expected, from the unmber of mines; the priacipsl are iron, copper, and sllver. The chief imports are salt, grahis, and celonial prodnce. Commerce in the interior of the country is grently impeded for want of means of commmalcation; none of the rivers are navigalle except near their months. Good roads exist only betweon the towns of the south coast and the principal valleys in Nordlund and Finmark; the usual communication is by nea. Amon; the numerous islands on the west cuast, there are violent and irregular currents, which render the coast navigation dangerous. Among these is the celebrated Maclstrem, or Moskenas-Strom, the danger front which laan been greatly exaggerated, since it can at nearly all times be passed over even by open bonts. Regular communications have tuccesslvely been establisheri between the principal towns of the coast from Christiann to Hammerfest, and steam vessela ply in the Gulf of Christiana, and on the lakes of Miousen and Tyrifiorl. Norway has a national discount banlr, established $1 \times 17$, which bas the exclusivi right of issuing paree money.

Commeacr or Nobway in 1s5\%.

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| :---: | :---: | :---: | :---: | :---: |
|  | Vemela. | Cummercial lastes. | Vemela | Comprercial lastes |
| Sweden | 569 | 8,772 | 872 | :069-4 |
| Ilussla | 66.5 | 11,768 | 50\% | $: 7.271$ |
| Prassia | 291 | 5,504 | 345 | 05.1 |
| Mecktenberg ..... | 6 | 157 | 10 | 915 |
| Lubec . . . . . . . . . . | 4 | 191 | 4 | 51 |
| Denmark . . . . . . | 8,675 | 47.497 | 3.50\% | 46.247 |
| Altorit. . . . . . . . . . | 129 | 3.611 | 67 | 1.103 |
| liamburg . . . . . . | $8: 1$ | 3,31: | 19 | 565 |
| Ilremen.......... | 107 | 3,39.7 | 02 | 1.751 |
| Oldenburg | 64 | 1,6,5 | 28 | 616 |
| Ifsnaver......... | 249 | 5,504 | 2in | 5.713 |
| Netherlands...... | 1,014 | 02,984 | 1,011 | 6:1,164 |
| Metginm . . . . . . . | 51 | 2.666 | 61 | 12,108 |
| Greal Britaln .... | 2,077 | 180,244 | 1.818 | 120.7m) |
| France............ | 941 | 08,673 | 1,183 | 74.771 |
| Spaln . . . . . . . . . . | 7. | 4:60 | 128 | 5512 |
| Hortugal . . . . . . . . | 149 | 9,367 | 4 | 2.0 |
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| Austria .. |  |  | 8 | 158 |
| Turkey . . . . . . . . . | 5 | 37.2 | 4 | 19.5 |
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| fotula . . . . . . . . . | 3 | 218 | 4 | 248 |
| West Indlus. |  |  | 6 | 179 |
| flrazil | 6 | 505 | 3 | 292 |
| Auntralla. |  |  | 4 | 198 |
| Trinldad | 1 | 170 | . |  |
| Java. . . . . ....... | 2 | 304 | . |  |
| Haltic Sen. |  |  | 20 | $1.6{ }^{\prime \prime} 1$ |
| Perta northweat. . . | 26 | 751 | 89 | 1, 1.46 |
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| O: whitch f londed. | 4.217 | 111, 615 | 0.9n9 | 33:4,7:4 |
| were In bafu: | 5,83! | 262,4, ${ }^{2}$ | 401 | : 55.403 |

- Laste = two tore.

Owing to the dificulty of tranaport, all the seats of industry, and the only towns, are on the coast, and chictly on the Gulf of Christiana. Ship-bailding is actlvely carried on in the ports. In the Middle Ages, the commerce of Norway consiated exclusively in the exportation of fish, and this is atill the mest limportant article of trade. Next te thls is the export of timber, which was commenced by the Duteh in the sixteenth century; and, lastly, the products of the mines and metal forges. The timber experted annually ameunts to 200,000 lastes, value $1,685,000$ specie dellars.

Norway possesses nearly the same netural advantagea as Sweden. The inhabitants are chiefiy employed in the breeding of horses, sheep, goats, and the reindeer; cultivating small farms, fishing, mining, and such other oceupntions as a country richin its furests and mherals, and enjoylug a favorable position foc commeree, usually atfords. Ilistorians represent the ancient navigation and trade of Norway as being in a highly flourishing condition, especially when its towns, in the twelfth contury, jolned the Ilanseatic Lear;uc. As early as 1217, England concluded a treaty (the tirsi she ever made with a fureign power) witi Norway, stipulating an entire reciprocity of trade between the two countries. Tho trade of Norway has always consisted of the interchange of the produce of her foresis, of her copper and lron mines, and of her tisheries, for such articles as she required from foreign countries. The principal sea-ports are Bergen, Trondheim, Christima, Hammerfest, and its ontport Wardahums. Denmark occupies the tirst rank in the foreign trade of Norway. So much of its trade pasaes through the perts of this country, particularly Altona, that Demmark may he jusily considered the commercial entrepot of Noriray. Its conmercial relatione with nearly all thn countries of Europe are conductcd throught these perts; and it was not until during the recent troubles in the duchies of Demmark that Norway munifested any diaposition to export direct from the producing country. The maritime industry of the Norweglans constitutes the commercind bond which unites them with Denmack. Swe then, on the other hanl, being separated from the nore populons and Industrious divisiona of Norway by mountahous and sterile territories, necessarity confines her commercial relations with the sister hingdom to the sunthern frontier or the const; and, as their principal productions are generally similar, these relptions ary not ausceptiblo of any great develupment.

The llanse Towns have long been the principal entrepits fur the commercial movements of the nurth of Durope. The relations of llamburg with Norwayare, ceen at this day, considerable; but for the pasi few years they have been stationary, with ruther a deireaslug tendency. With Eugland, on the other hand, the trule of Nornay fo becoming more importan ever: year. This is tuainly owing to the liberal conmercial bystem of the former country, under which Nurnay is cuabled to conpete with Irlitish colunlal possessinns, in America, la mapplying the British markets with the varied prol' ctlons of her foreats. Franco anil Ilulland chietly import lito the marketa of Norway culonial 0 : raw produce; but nolthor of thosa conntries hiad, ia Norweglan markets, a pretitable exchange fur their manufuctures: llolland, because she has but fi'w : and lirance, for the ruason that her works of art and taste are tou costly, and perhapa not vory well adapted to ment the wanis of a people whose colil and inhospitable climate, as, well as their maritiure occupatione, would seem to demand the coarser qualities of manufachares. From offlcial documenta recently published, it appars that in $18 t 8$ the population of Norway was $1,2(1),(100)$ souls; their merchant marine combed $8 \cdot 1001$ vessels, measurlng an aggregate of 210,000 tons, and employing 1ti,5\%11 persons as allicers and crews. This would give to Norway one vesacl for every $\mathbf{3 5 2}$ inhaliftants, and | make every seventy-third sulject a mailur. At the
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asme perlod, the total merchant marine of France consisted of 14,235 vessela, measuring an aggregate of 670,000 tona.
With the United States the trade of Norway is chlefly indirect. Tobacco and cotton are the principal artlelea of American produce whien enter into the consumption and manufactures of the Norweglans. The restrictlve character of the tariff of Norway, however, like that of her sister kingdom, and the fallacious princlples on which her fiscal and commerelal legislation has been so long maintained, must ever prove an insaperable obstade to the expansion of her foreign trade, and the consequent development of her vast internal resources. Su long as Norway adhores to the now generally obsolete dea that the beat way to raise revenue and relleve the land-owner is to levy high dutles nn al' goods imported into the country, so long will ber relations with furcign countries be limited to the exchange of such articles of necessity an can not be elsewhere procured. The decline whlch her iron trade has experienced during the few years past, both in England and the United States, will necessarily compel the govermment of Swedea and Norway to look for a market in France; and it is unterstood that the latter government is not averse to sucl, amelioration of ber tariff as will open her markis to this grent staple of Sweden and Norway, liy a material reduction of her present seventy per cent, duty on iron. The only equivalent, however, which could satisfy Jrance for so liberal a concession would be a total ehange in the Swedish and Norwegian tariffs, by which hes own manufactures conld enter the ports of the united kingdom, and find a prolitable as well as a ready market. Nor could such a change in any ranner have an infurious effeet upon the manafacturing industry of either of theso countries, as the great demand would be for auch heavy and coarse manufactures as are most needed in so northern a latitude, and which never huve been, and perhaps never wlll bo, successfully manufacturod in Sweden or Norway-at least, to any extent approximating the great consumption of the kingdem. Suek a reault would extend its benefits to other countries 'icaides France; and if, In addition te a remoditication of the Swedlsh and Norwegian tariffs in respect of manufactures, the present exorbitant cent-per-cent. dutles on American tobacco were liberully reduced, the trade between the United States and Sweten and Norway would be materially benefited, and exports and imports, direct between the two countries, largely augmented.

The Norwegian tariff liffers, in many easential particulars, from that of Sweden. Its range is conalderably lower, and, owing to this faet, and to the advantafes resulting from different welghts, it will be found (for instance) that tobacco blades may be imported into Nurway at a rate nearly 88.3 per cent. less than into Sweden. The oppressive system of tietitious zaluation, in practice in the Swedlsh custom-houses, is unknown in the sister kugrlom; and, besldes, greater cousideration is shown to the poorer inhabitants of remote prove inces. At llrodö and Trounsobe, In the northern part of Norway, may articles are admitted at half rates of duty; and at llammerfest and other remote ports the duty is alfogether remitted. This consideration is not shown to the inhubitanta of far-off porinces in Sweden; indeed, in distriets no further off than Dalecarlia many neccsaries of life, which the country can not supply to them, must be purchased, if at all, by the poorer jease antry, with the adillional costs of inlsmi: transportation and the coast navigation of the Gulf of I thias. The tariff now in operation cane in force on Ja: mary 1, 1805 and will expire on the 31at Deeember, 1857. The duties on tobacco have been raiked nearly to the level of those of Swedon. The latier, upon tobacco blades, is still one cent per ponnd higher. The angmentation of the duty on this staple of the United States was, doubtless, designed as an adilitional argument in any negot!ations whieh inight be proprosed by the governinent of

Sweden ant Norway relative to this iron dutics of the United States.
'The following brief summary ia presented oi the new tarifi. It will ghow the duties levied on certain American produce by the old and new Norwegisn tariffs:
Tobacco.-(Stem and blade), raised from 5 to 6 skillings per lb. 'The skilling is nearly equivalent to one cent.
Rice.-Unchanged; namely, 80 skillings per harrel (In husk), or $1 \frac{1}{2}$ skillings per llu., withoat husk or ground.

Cotton.-Raw, unchanged; one-half skilling per pound.

Maize, unground,-Luwered from 72 skillings to 16 skillings per toende (barrel of nearly four lushels).

Maize, ground.-Lowered from 16 skillings to 7 t sklllings jer lispund ( $17 \cdot 6$ lbs. avoirdupois).

IVheat.-Uuchanged; 72 skillings per barrel (toenile).

Flou:-16 skillinga per lispund.
The prineipnl ports of Norway are Christiana, Bergen, and Hunmeriest, or Alten Hammerfas , the chief port of Finmark. Christiana is a tleep s a-port, hav. ing at all seasons from six to seven futhoms depath of water close to the quay. It is the capital of Norway, and has some few fabries of woolen, glass, hardware, soap, leather, cordage, tobacco, ete. The deals of this port have ever been celolirated. Its 'rade lias flourished as far back as 1792, in which year the number of ships arrived was 521 , of which 518 cleared with cargoes of deals. Bergen has a safe and deep harhor closa to the town, lut a pilot is necessary for vessels entering or departing, on account of the numerous rocks. It has a few inanufactories of tobaceo and carthen-w are, several rope-works and distllleries, ship-yards. forges, and other establishments of ordinary handiesaft. Its fisheries, however, are lis chief resource, and its foreign trado is principally contined to Iamburg. Ilamuerfest has an extensive trade, chiefly with England, through the port of IIamburg. Its exports are copper, dried stock-fish, sslted fish, fish-oil, rein-deer skins, buckskins, walrus hides and teeth, feathers, fox and other shins, ete. Fimmark has always enjoyed $n$ high digree of commercial prosjerity. Its revenues execed its expenditures by upward of two millions of doliars. Its chlef wealth depends upon its tisheries, a source of remunerative indusiry that never fails. For centuries back, observes Macgregor, not a aingle example can be given of $n$ total filure. The value of these tisheries may be estimated from the faet thint in five years, ending with $184 \cdot 1$, the produce of cod, seth, and halibut was about 500,000 tons, and 20,000 linrrels of oi!, independently of what was taken by the Russians.

Cuarse cottens nud woolens are well adapted for the markits of Norway, more especinlly of linmark; but the contmereial privileges reserved to Russla, by treaty, have hitherto secured to that power the monopioly of this trade. Her linena, raven'soduck, and variens other manufuetures, nre ulnitted tree into Finmark; while duties, varying from 50 to 100 per cent. on the cost priee, aro Interposed on sinilar manufactures of other forelgn conntries.

Were cot!ons and woolens admittel even at $n$ moderate dinty, Amorienn nud llritish manufactures of that descripion would soou supersede the almost general use of lussian falirics.

The present condition of the trade of Norwny may be grathered from the following summary: Nuviber of vessels from ull conntries entered in 1850,8542 , measuring in the aggregato $1,17,1,501$ tons; of these there wre Norweginn, 5318 vessela, of 881,320 tons. From the linited States there arrived but nine vessels-seven earrying 2654 tons of merehandise, and two beling in ballast-all under the Norweglan flag. The prinelpal comutries of departure of nearly all the others were Enghnd, Ilolland, and Prussia.

Durlag the same yoar, there eleared from Norweglan porta 8479 vessels, weasuring $1,182,132$ tons. Of these
thore were destined for the Unlted States 31 veasels, floating 18,178 tons of merchandise; 30 being under the Norweglan flag, and one being forelgn. From these figures, tt will be seen that there arrived from Norway in the Euited Statea 31 vesaels, carrying 13,178 tons of Norweglan producta, againat nino cleared from the Uulted States for Norway with American producta to the amount of 2654 tons; or a ditference of 22 vessels and 10,524 tons of merchandian againat the United Statea in the direct trade with Norway. Ihe reatrictive tariff regulations of the latter country will readily account for this great lnequality. In 1850 , Norway imported upward of $1,700,000 \mathrm{lbs}$. of cotton. In $185 \%$, the total importation of cotton amounted in value $t$. 1,927,560 franca; viz.: from Great Britain, $1,071,200$ francs, irom the United States, 650,700 francs; from ohler places, 205,660 francs; making a total of $1,927,560$ frnmes, of $8: 266,23640$. In 1850 , there were imported into Norway $3,000,000 \mathrm{lba}$ of tohacco, $8,000,000 \mathrm{lh} 8$. of sugar, $6,500,000 \mathrm{lbs}$ of cotice. During the same yeur the effective merchant marine of Norway consisted of-

| Vessels of | Number | Tous. | Crews. |
| :---: | :---: | :---: | :---: |
| Linder 28 tous | 816 | 13,2482 | 1,703 |
| lrous 2s toms to $71 . .$. | 1301 | 03,242 | 4,4818 |
| From if tolis to 177... | 617 | 60, 07t | 3.475 |
| From 177 tons to 354.. | 489 | 128.87: | 3,475 |
| From 35 4 tons and over | 475 | 285,677 | 5.64t5 |
| Torat in 185. | 2093 | b0atitut | 19.0877 |
| Tolat tn 1835. | 2427 | 218 242 | 18.445 |
| Total in thas. | 2274 | 16.7 .018 | 11.879 |

Fir the comp rative statment of the commerre of the Cpitcd Statis with sicelen and Norway, cshibiting the rudue of exports to und imports firm each country, and the fonmeye of . Imericon ani $y$ y suedish and Norwegion rosels arricing fiom anc: departing to euch country, daring the gears desigmated, see Swknow.-Lidinburgh Rerierc, Ixv. 21, xxii. 145, xxiii. 7!; Westminster Reriew, xxvii. 164; Horth British Review, ix. 39; Quarterly Rectie, ii. 104 ; Fraser, xxiii. 4in; Almerican (Lturterdj Register, xiv. 119 (Liev. Dr. lialur); IluNr's Merchunt's Magazine, xvi. 138 .

Notaries Public. The origin of that class of pablic otherers now called notares public may be traced as far back as the ancient Roman Republic, although their functicns now are ditferent. W. find, at the time of the liepublic, seribe and librarii, wio were pulidic secretario. The private secretaries were called ederptores, and also mearii, if they wero short-hand writers, which servico was frequently performed ly slaves. The public secretaries wero those whom the authorities of state appointel and paid to assist them in their duties of oflice, and they appear to havo corresponded to our present actuaries and secrotaries. It does not appear, however, that legal documents were drawn up by public functionarics resembling our notaries public. During the Empire the pulslic secretaries facreased both in number and importance. They ufpear to have been secretaries working In the cabinct of the Eimperor, In distinct depurtmeats, and they had an overscer, called magister scriniorum. Distinet, however, from these persons ware thom who misy he compared to our present notaries pulnc, and who ware called tabullions. It seems that what even at the present day may le seen in Italian eltios was already customary in the early days of anclent ltome: namely, that in the public market-place, or formm, scribes offered their serviees to persous who wauted to have letters written or tocuments drawn of,

This class of persons were called tabeliunues firenses, or persone publice. They occupied themselves with drawiag up legul instruacints and documents, and other writhugs (likelli) or statements, to lee preanted to the courts of law, or otheranthorities of state. It ajpears, from a "constitution" of Dioclethan, that a tarift of fees was established for them. The number of tohellionca constantly increasel They then furmed them-
selves into a guild or corporation (schola), under a prealding otheer callad primicerius. The state author:ties began, more and more, to exerclse surveillanco over them, which even went oo far that the magiatrates dotermined whether a pet zon ahould be admitted into, or an unworthy person be removed from, thls guild of tabelliones. 'Thesa persons prepared all kinds of legal documents and papera, but they atlll carried on their business in tho public market-place. It was soon foumd necessary, for judlelal purposes, to define by law what should be the requialies of such notarial acts and writings to make them legal evilenee. It had hecome a usage, in important matters, to have witnesses also attest the papers drawu up by these public seribes or $1 n-$ belliones, and it was finally required by law that three witnesses should attest a docnment, In case the principals cond write, and tre witnesses If the parties could not write. It was, moreover, repuired that the notary (tabelio) should be prosent in person at the drawing up of the document, and also bfix hls slgnature and the date of execution.

Iuring the Empire another class of officers, called tabulurii, came up in the eltles. Thelr functions resemDled somewhat our archivarles and anditors. They also made out certain clocuments, and these bore sometimes the names both on a tabellio and a tabulurius; but at a later period both names aro used as syonymons. Under the Trankish kluga Roman institutions were imitated. In the imperial bureanx the emperers needed and employed persons for drawin, "\% ments and conuteraigning them. Whese rilicets ese enlled referendarii, concelurrii, and notarii. The chief of these oflieers was ealled nrehinuturius or summus noturius, but at a later period cancellarius, as a more honorable tille. The Frankish kings, as early as the year 80:i, appointed these officers, and imsued laws to pre$v$ vut the abuse of their power. It became later the solu prerogative of the kings to appoint these netnrics, but by degrees the l'opes of Rome also assumr same right ; and we find in documents notaries i. I who were appointed by princes and blshops, and even by clolsters. The legal powers of notaries during the Middle Ages, and their couditlon as a distiuct class of otheers, are distinctly seen In the Italiun cities. They aeted either by authorlty of the Emperor or that of the l'ope, and were engaged for drawing fill the various logal ilocuments, and especially last wills and testaments, whidh were received in all the courts of law as full proof. They were formed Into a guild, called rolleginm, and had their own prefecte, called consules. A candidate for admission into this college had to undergo an examlation. Minute and strict rules for the drawing up of Instrumente, and their attestation, were preseribed. The stuity of notarial finctions was reduced to rules, aud notarial sehools were established in many cities.

Notaries came to be regaried at an early peried as a kind of judges (judex chartularius), nul $n$ jractice uraw up ainong them of inserting in tonds, or ather documents of indelitedness, a power for the creditur of taking out execution, hy application to the court, in case of non-fultillment of the contract, whid laid the fommation of the so-called "executory promess," which prevails still in the Civil Jaw countrles, and which corresponda somewlat to the warrant of altoracy to confess juilgment in the İnglish law. Wo shalli see that the forelgn law on bills of exchange on the Continent of liurope gives this right of "rxecutery process" to the craditor of these mercantile lustriments, and thus strengthens the security of the ereditor.

France.--In Frmee the notaries have always jlaved an infortant part in her jutieial lnstitutions, an I they do so still. The king regarded it as his prorogetive to appoint them, but the popes also arregated this power, and the lords of provinces (spigneura) nssumed it likewise. They were regarild there as juge ordinaire, and inserted In their documents thia esectory fower or
summary execution (execution parde). The basis of the present rights and dutles of notarles in France was jaid by the law of 1791 , which recognized no longer any royal notaries, but ouly notaries pablic, appointed by the gencral government. The law of the cleventh year of the Republic recognized them as publio officers, appointed for the purpose of drawing up all papere and contracts which, elther according to express laws or the will of parties, are to have the effect of public documents, and of fixing the dates thereof, of holding in safe-keeping thase acts, and of naking out coples of them for the uee of the parties concerned. All docnments inado out in the presence of two notaries, or of one notary and two witnesses, and attested by them, recoive full credence in all the courts of law, and are executory throughout the land. The original (minute) of the act remains in the hands of tho notary, and copies are allowed to be given only to the interested parti, ', unless specially empowered by the courts. The law points out many cases in which the presence of a notary nnd his attestation of instruments are essentinl; e. g., with testaments, donations, marriage contracts, protests, etc. In most cases it is left to tho choice of parties to employ a notary in the making out of instrunents and documents. Bit the courts often appoint them, to undertako the part of mediatorin come judicial proceedings; for instance, in cases of divorce, or in making out inventories, or in dividing and distributing property and estates, or in taking and moking up accounts, like the Masters in Chancery in linglish law. Tho notaries are appointed for life, and can be removed only by a judleial decision. By their official position they become the advisers in families and the cosfictants of them. They become the mediators in disputes between tho parties, and particularly in regulating and settling estates, and in the distribution of property.

The Jaw of the seventh year of the Republie requires that all acts and documents made ont by notarios be registered within ten days, the fees for which aro very ligh. Hence it otten happens that the notary must advance the unoney for the registration, and this obliges lim to have sums of money always at his disposal. Thus notaries havo gradually come to deal in money affairs in general, by louning and investing money, and procuring money for borrowers. lience it is that persons of property lutrust their money and property to the hands of notarics, as being the ilttest persons to invest It safely and udvantugeously. The great influence which they thereby must acquire in familif 3 and in all classes of society is manifest; and this great power could not hat leud to great abuses. An ordinance of 1843 prohilited notaries, under hoavy penalties, from entering into stock speculations, from acting as moneybrokers, trom investing money intrusted to them in their own names, etc. 'I'ho regnisites for hecoming in notary in liranee are, that the cundidate be a French citizen, twenty-hve years of ago, and that he has served as clerk with a notary for six years. But no man without property cin oxpect to obtain a place as notury, because he is obliged to buy, often for an enormous price (which in l'arls often amounts to from 200,000 to 300,000 france, in smaller towns to 100,000 francs, and in wnall commones to 10,000 franes), from a notary who is ahout to retire, or from the heirs of a deceased motary, a study- loom or othico (itude), with the acts and docmants belonging to it; for without such an oflice the mere appoistment of notary is of litto value. There are niso estublished by law in France notarial chambers, which consist of a number of deputies, chosen liy the notaries, who regulate the discipline among them, decide on the admisalon of canclidates, atjust disputes which may arise among themselves, and hear and decide on the complaints of third porsons against noturies, and the punishments of delinquont notaries.
Italy.-In Italy tho Jronch aystem of noliries has
been followed in Ita main features. In Germany, however, the notaries occupy but a subordinate position in most states, and it has been now almost generally established by lav that only persons who have st died law for severe'. years can be appointed as notaries.
England.-In England, notaries were known as public officers before the Norman Conquest, and at a very early period thoy were employed to attest and authenticate instruments of moment and solemulty. But whatever their duties and functions may have been in former times, at present they aro described to be, by Richard Brooke, in his treatise on the office of a notary public of Eingland, as follows: "In Englnnd a notary is a public officer of tho clivil and canen law, who derives his faculty or authority to practice from tho Court of Facuities of the Archbishop of Canterbury, in London, the chlef officer of which is the Master of tho Faculties, to whom applications are made for the admission, or removal under any special circumatances, of notaries. In the Institutes of the Laws of England the Court of Faculties is stated to be 'a court, although it holdeth no plea of controversic (like the Court of Audience next before). It belongeth to the archbishop, and his officer is called Magister ad Facultates.'" The functions and pewers of a notary in England are, to draw and prepare deeds relating to real and personal property, to note and protest bills of exchange, to prepare acts of honor, to authenticate and certify examined copies of documents, to prepare and attest instruments golng nbroad, to recelve the affidavits or deelarations of mariners and masters of ships, and to draw up their protests, and to solennize all other notarial acts. "The expression notarial act," says Mr. Brooke, "is one which has a technical meaning, and it seems generally considered to signify the act of authenticating or certifying some document or circumstance by a written instrument, under the signature and official senl of a notary, or of authenticating or certifying as a notary some fact or circumstance by a written instrument, under his siguature only." The English notaries havo always considered themselves entitled to nclminister oaths, affidavits, and affirmations, as within the powers and functions of a notary; and the net of 5th and 6th William IV. has placed it beyond dispute. The requisitions for admission to the Faculty of Notaries in England are, an apprenticeship or clerkship of five years with a notary, a certlificate from two notaries certlfying to the candidate's skill und problty, and that he is a proper person to liecome a notury. Upon due proof of these facts, the Master of Faculties will admit lijm upon his taking the prescribed oaths, which are the cath of allegiance, the oath of supremacy, the oath of due scrvico under the articles of clerkship and for the faithful exerelse of the oflico of notary. A notary is llable to he s! ruck oif the Roll of Faculties for any malpractice or misconduct in hils office, on a complaiut made to the Master of the Fueultles, and supported by allidavit or other proof.

United Stater.-In the Énited States the duties aud functions of notaries resemble those of the same offleers in lingland. 'They are appolnted by the respective governors of the States for a limited number of years, or durlng good hehavior, and derive their powers by the statute laws of the States; und in eases where theso lnws do not specify their powers - as, for instance, in Massachusetts-lt inust be presumed that all the powers whieh, by general usage, the custom of merchants, and law of nations are generally exercised by these officers, are also vested is them. Wo may state their general and enstomary functions to be, to demand acceptance and payment of foreign and inland bills of exchange and promissory notes, and to protest tho sa:ne for non-acceptance and non-payment; to note und draw up alip proteats, and all other protesta which ure customary accoriling to the usage of merchants; and to exerclise such other powers and ilutles as by the law of nations, and according to commercial usage, or
by the laws of eny other atate, government, or country, may be performed by notariea public. But although notaries publie are generally consldered as accredited oflicers in other countrles, and affidavits aworn before and instruments authenticatel by them are reeeived in evidence in foreign courto, it is required by foreign courts that the consuls of the respectivo foreign states in which the document is to be used certify to the fact that tho person whose algnatura and senl aro affixed is a notury public duly appointed. This is, however, not necessary in a proteat for the non-acceptance or non-payment of a bill of exchange. The laws of the ditierent Statea of the Uuion, in some instances, give some peculiar powers to their notaries, and bence the taws of each State must be consulted in regard to them. The principal functions of an American notary are, to protest bills of exchange and promlssory notes on their being dishonored, and, ua a part of this function, to present and demnnd payment of these mercantile instruments. Although the notaries with us generally give notice of the dishonor of bills and notes to antecedent parties, it is not their duty to do so, unless made ao by statute, or they undertake so to do as a part of their duty; and then they aro liable for any negligence in the discharge of this duty.-Sce Manual for Noturies, 8vo. pp. 2:0, New York, 1857.

Notes, Promissory. See Bankino und Banks.
Nova Scotia (l'r. . I culia), a British proviuce, forming a peninsulit, connected with the main land by an Isthmus only 8 uiles broud, having the Ihy of Fuudy on the one side, and Northumberland struit on the other. It hies, inclnding Cape Ireton Island, between lat. $43^{\circ} 25^{\prime}$ and $46^{\circ}$ N., ant long. $59^{\circ} 45^{\prime}$ and $66^{\circ} 30^{\prime}$ W., and is bounded north by Northumberland Strait, which separates it from l'rince Edwarl Island, northenst by the Gut of Causean, towiag between it and the island of C'ape Breton (which forms a part of the government of Nova Scotiu), south and southeast by the Atlantle Ocean, weat by the Bay of Fundy, and nortlwest hy New IIrunswick. Area, 18,746 stuare milhes.

Its southeast coast is remarkable for the number and capracity of its hurbors, there leing no fewer than twelve ports capalile of recoiving ships of the line, and fourteen of sulficient dupih fur merehantmen, between IlalIfax ard Cupe Cansean, a elistance of not more than 110) miles. The surfuce of Nova Scotha seldom rises to a height exceeding 600 feet above the level of the sea. A idigu of high land extends through the peninsula in a darection cast to west, and, with less prominent hills and undulations, fives a pleasing variety to the seenery. The principal rivers of the province are the Anuspolis and shubenecadie; the latter rises in Grathl Lake, IIalifax Ceunty, and, after a rapid and circuitous course of over 80 miles, enters Coleepuid Hay; by means of a canal this river forma a navigable coamunieation from IIalifax harbor to the Bay of Fundy. It is navigable for some clistance. The rise and fall of the tide at the mouth is about 50 feet. The AnnapoIfs, after a course of 75 miles, In which it recoives the usters of Moose and Bear rivers, enters Annapolis Bay. It is uavicuble for large vessels 20 mileq above Aunapol:.. At l'icton, the East, West, aud Middle rivers, all three navigable for large vessels, euter the harbor. The Avon recelves the waters of the St. Croix, Kennetcook, and several others, and empties Itself into the llay of Mines ; it is navigatle to Whndsor. The La Have, Mersey, and Medway; the Shelhurne (which forms the fine harbor of that name); (l:a Clyde, one of the most beautiful streams of Nova Scotla; the Tusket and its mumeronn tributaries ; the St. Mary, which, at Its embonchure, forms the fine harbor of St. Mary ; the Maccav, Nappao, and Giaspereau; the Muequedeboit, Sale, and lordan ; these form but a fow of nnnierous atreams of Nova Scotin. The tide rises with agtonishing rapidity in the llay of Mines to the height of $\overline{55}$ foet, while on the south shore and in the Gulf of St. Lawrence It dues not rise more than 6 feet. There
are but few large lakes; the largest is Lake Rosignol, about 30 miles iu length; Lake George is another shect of water of considerablesize, and the entire peainsula is dotted over with innumerable small lakes. The minea and minerala of Nova Scotia, though but imperfectly explored, aro known to bo valuable. Giranite, trap, and clay-alate rocks predomlate. The most abundent variety la the gray granie, which prevalls along the shore, and is woll adapted for inill-stonos. Clay slate, of tine quality, is of extensive formation In the eastern section of the provlnce, and graywacke alate along beth shores of Chedahucto Bay, Several extenalve and Leautiful grottoes are to be found on different parts of the const; and grindatonea of superior quallity are obtuined from a stratum of sandstone, found between the coal and limestone. Coal, and iron in comblnation with it, abounds in many places. Copper ore alao exists, but the attempts to work it have been hitherto unsuceessful; gypsum is plentiful, anl furmishes an active sad protitable trade. Tho soils of Nova Scotia aro various; along the south ahore the granite forms the basis, extendling in many places 20 miles into the interior. This region is the least fertile, but there are elsewhere extensivo alluvial tracts producing the most abundant crops. Mlany tine fertile districts, also, are met with on the north coast, along the banks of rivers and the heads of bays. Tho climate of Nova Scotia is affected by its almost insular position, and is characterized ly a remarkable salubrity. The aprings are tedious, but the summer heats beling for a brief season exeessive, vegetation is singularly rapid, and the autumn is de. lightful. Tho therumeter rangen from $18^{\circ}$ to $70^{\circ}$. It is estimated that about $7,000,000$ acres are still corered with primeval forests. There were in this provinee in 1851, 40,1012 acres of diked land, and 790,310 aeres of other hmproved land.

Live Stock.- Horses, 28,789; neat cattle, 154,857; milch cown, 86,856 ; shee $1,282,180$; awine, $51,5: 3$.

Agricultural I'rolucts, etc.-Wheat, 297,157 bushels produced; rye, 61,438 ; Indian corn, 37,175 ; onts, $1,1384,437$; peas and beans, 21,638 ; barley, $4: 46,037$; buckwheat, 170,$310 ;$ potatoes, $1,986,789$; pounds of butter made, $3,613,890$; of cheese, 652,069; of maple sughr, 110,441 ; hay, 287,837 tons made; grass seetls, 3ow bushels; and were made 80,976 gallons of malt and disthlled liguors. Nova Scotia, however, dees not yet supply ber population with bread, cven ingood ceusons; large importations of tine flour being yearly made from the United States. The apple orchards of the westeru ceunties are very productive. Apples and cider are annually exportesl, and the domentic supply is cheap and abundant. Cattle and sheep are raised in considerable numbers, and are exported both to lice Itrumswick and Newfoundland; but the breeds aro inferior, and little attention is pald to their improvement. Tho cod abd haddock tisheries are actively prosecuted all along the south coast. Mackerel and herrings ure also taken in great quantities; but the salmon tishing has greatly fallen off, from the erection of grist and saw mills on thos atreams. The tisheries employed, in I 411,812 vessela, with an aggregate of $4: 3,133$ tons, manned by 3681 mea, and 5161 tonts, manneth liy fitis men; the eateh amounted to $166^{\circ}$ harrels of salmon, 1531 of sharl, 100,017 of mackerel, $6: 1,200$ of herriags, and 518 lonrrels of alowives; tutal value of fisheries, © 217,220 ; and there were manutactured I $89,2 \mathrm{zin}$ lurrele of tishooil, valued at $£ 16,76 \mathrm{i}$. Several attempts hure been made to prosecuto tho whale any suat fist"rien, but hitherto whith no great success. The manufactures of Nova Scotia are yet but very limited. Coarse cloths, called "homespums," sre made, and are generally worn by tho farmers, tishermen, ete. Thero were in this provinco, in 1851,81 woolen fuctorien, cmployling 114 pernous, and 11,096 hand-looms, producing 119, bies yards of fulled cluth, $\mathbf{7} 90,101$ yards not fulled,
 founderles, cuploying $13 \times$ persons, making cattinga, cte.,

- Roaignol, 10ther sheet peninaula is The minea Imperfectly anite, trap, st abundant $s$ along the Clay slate, the castern 3 along both ve and Leare paris of the are oltained ten the coal tion with it e exists, but 0 unsucecssactive and are various; to lasis, ex the interior. re elsewhere 18t abundant re met with vers and the ia is sffected acterized ly tedious, but m excerssive, utumm is de$18^{\circ}$ to $70^{\circ}$. are still corin this provand 79,810
to the amount of $£ 8121$; $\mathbf{8 0 8}$ grist-milla, 1153 saw-millls, 237 tannerics, and 10 factoriea moved by ateam power. Cash value of agricultural iniplaments manufactured, ill,640.

The houses of Nova Scotia are moatly constructed of cimber, excepting in Hallíax and the larger towns, where sorne good stona and brick houses are th be seen; yet stone for buildiog abounds in the province -_rranite of the fineat quallty on the aouth coast, freestunc oll along the north shore; and excellent slate in the central region.

The foreign trade of Nova Scotia was very limfted previous to 1824 ; since that period It has oxtended to the Baltic, Mediterranean, China, Mauritius, East Indies, the Drazils, and tho Havana. The total amount of importa at IIalifax and the outports, in 1852, was $\$ 5,309,894$, of which $\$ 1,445,043$ were from the United States. The exports durhig the same period ausountelt to $\$ 3,925,227$, of which $\$ 941,607$ were to the United States. Of these the princlpal artlclea were-mackerel, valued at $\$ 280,145$; salmon, $\$ 30,080$; other fish, dry sul pickled, $\$ 218,693$; skins and fura, $\$ 8165$; molasses, $\$ 4625$; potatoes, $\$ 4162$; sugar, $\$ 3000$; cordwood, 833,990 ; zoals, l'letou, $\$ 1$ lol,215; coala, Sldney, $\$ 3,983$; fypsum, $\$ 32,823$; frecatone and grindatones, 84500 ; oil, lith, $\$ 18,915$. The number of vessels that enterel and cleared during the year were, 72 to Great 13ritain; 1757 to Brltish colonies; 11,429 to the United States; other countries, $\mathbf{1 5 8}$. Total tonnage, $\mathbf{3 8 3 , 4 0 0}$ tons.

The population of Nova Scotia is now chiefly compesed of the descendants of the English, Irish, and the Seotch. The western and midland counties are principally occupied by the dezcenelants of the loyalists, mostly of Einglish extraction. The county of Limenlurgh is inhabited by a race sprung from a body of Germsn and Swisa I'rotestants whe emigrated from Rotterdam in 1753. There aro also aeveral aettlements of French Acadians. The [ndinns are still a diatinet people, but there are only a few hundreds of them left in the provioce.

The following statement exhibits the deacription and volue of imports and exports to and from the United States and Nova Scotla, cluring the yeara 1852 anl 1853 , respectively. For the convenience of enlculation the $\mathbf{£}$ is e timated at

Imputs frem Nora Scotia, 18052.-Coal, fish, gypsum, lamber and plank, ataves, spars, etc., wood aul bark, potatoes, turnips, miscellancous. I'otal value, $\$ 1,280,246$.

Ejports to Nora Scotia.-Beef, pork, hooks and atationery; breat and biscuit, burning tluid, corn, corn meal, cotton manufaetures, drugs and medicines, flour (of rye and whent), hardware, rice, tobarco, wheat, miscellancous. Totul value, $1,739,216$. Showing a balanes in faver of the United States of $\$ 449,970$.
Inports from Nova Scotia, 18is.-L'rinelpal articles the sume ns in 1852 . Total value, $\$ 1,389,731$.
Expents to Nioras Scotia.-l'rincipal articles tho anme as for 1852. Total value, $\$ 2,079,516$.

The preceling taliles exhibit the course of trade between the linited States and Nova Scotia during the perions indicated. Tho following are introlneed to show the propertionate value of supplies furnished to that province ly the United states, compared with the value of imports from the mo her country, from 1849 to 1803 , hoth years inelusive

| Vears. | Creat Oritala. |  | Thited states. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | li. perts from. | Exports ta. | Imy arts (rust, | Exports 10. |
| 18.9 | \$1.481,06\% | \$260,785 | \$1,761.785 | \$ 404.425 |
| 180 | 1,5922,020 | 262,045 | 1,612,5i5 | 089.165 |
| $1 \times 51$ | 2,138,485 | 142,245 | 1,990,46\% | 736425 |
| 1502 | 2,147, 261 | 813.360 | 1,739,2.0 | 1,243,250 |
| 1853 | 2,358,240 | 6t1, 130 | 2,079,517 | 1,359,7.3 |
| Total. | \$10,016,5.1 | \$1,4 4,015 | \$88,657, 102 | \$5,297, 94 |



A glance at the preceding tablea wlll suggeat the inferences which they are deslgned to corvey.

In reference to the coal trade of Nova Scotia, Conaul General Andrewa, in his report on the "Trade and Commerce of the Britlah North American Colonies," says: "The princlpal exportation of coals from Nova Scotia and Cape Breton is to porta in Maseachuaetta and Rhode Ieland, with a small quantlity to New York. Many Amerlcas vesaeis In thia trade, eapecially alnce the change in the navigation lawa, obtain frelghts for Nova Scotla, Nawfoundiand, the French Island of St. Peter, Prince Edward's Ialsud; and tho New Brunswick porta on the Gulf of St. Lawrence, and lead with coal as their raturn cargo. One hundred chaldrona of coal, I'jeton meaaure, are equal to 120 chaldrons, lioston measure. The nsual freight from Pleton to Boston is 8275 per chaldron, Boston measure. To this must be added insurance, 2 per cent., and commission, $2 \frac{1}{2}$ per cent. Anthraelte coal does not exlst in any of tho colonies; and they bld falr to become conauwers of Pennsylvania anthraeite, the importation of which has already commenced to aome extent $\ln$ New Brunswick for ateamboats and founderica. Under liberal arraugements on both sidea, the conammption of anthracite coal would greatly Increase in the colonies, and even in Nova Scotia, it being for many purposes better fitted and more economical than the bitumlaous coal of that colony."

Cord or firewood is largely exported from the porta along the coast to the United Statea, at a cost last year of $\$ 2$ per cord. Thia year nons has been shipped for less than 8250 , and latterly $\$ 3$ per cord ; retail price at Halliax, 1853, $\% 50$ to $\$ 360 ; 1854, \$ 4$ to $\$ 450$. Wood knees for ship-building have been shipped in somo quantities at 82 each for sizes averaging eight inches, and a reduction of 20 cents for each inch under: and a like addition for each inch over, the average. Snwed lumber, in small quantities, has been shipped, bnt none prior to 30th Jane, 185.4. Many cargoes of potatoes were shipped from the western ports, costing frow 40 to 60 cents $\mathfrak{p}$ er bushel.

Insursnce during the year to ports from Virginia to Maine averago one per cent. ; R half per cent. additional is charged in the winter montha to Pennsylvania and farther south. Freights to perts from Maine to Virginla range from 25 to 50 cents per barrel. A commisslon of $2 \frac{1}{2}$ per cent. is usually charged.

The usual mode of selling ls by private contract on terms generally of three montha' credit; sometlmea a longer credit is allowed; cash psyments only when specially provided for. Public anction is a favorite mode at this port. Brekers are sometimes used, but it Is ar excoption to the usual mode.

The par of exchange is $4 \%$ per cent. ; the Mexican and Spanizh dollar leing corrent by an act of the provinclal Legislature (ehapter 83 Revised Statutea), at 6s. $2 \frac{1}{2} d$, or $\$ 14$ each. The rate of exchange with the United States during the year rangea from 2 to $8 \frac{1}{2}$ per cent. There are no internal taxes.

Kemuncration for personal services in commerce and trate ranges from $\mathcal{L} 40$ to $£ 150$ per annmm. Mechanics, say house carpenters, joiners, etc., from July 1, 1853, to June 1, 1854, nlnety cents to a dollar per day; after dune 1,1854 , they received $\$ 150$ a day. Shipwrights, to December 1, 1853, $\$ 150$; from December 1, 1853, to 1st July, 1854, $\$ 175$ to $\$ 2$ per day, Day laberers, up to dune 1, 1851 , viere paid 60 , and sometimes 70 ecuta n day. Since the 1st June, 185J, they have rucrived \$1 a day.-See North American Reriew, xlx, 127 (J. Sraltks), xxx. 121 (C. W. U'口ルAs); Hestminster Reriew, xix. 300; A merican Journal of sisience, xiv. $305, \mathrm{xv}, 132,301$, $x \times x .330$.

Nova Zembla (properly Novaia Zemlia, "new laml'), un insular reglon In the Arctic Ocean, considered to be compriaed in liurope, and dependent on the liussian govermment of Archangel, between lat. $70^{\circ}$ 30 and $76^{\circ} .10^{\circ}$ N., and long. $59^{\circ}$ and $66^{\circ}$ E. Length es-

## NUT

timated at 470 miles, and average breadth at 56 miles. It consiats of two islands, eeparated by the channel Matotshkin-shar. Surface on the western side rises generally to 2000 feet, and in some places to from 3200 to 8500 feet above the sea; but the eastern shores are comparatively low and barren. Black clay-slate and IImestone are the principal constituent rocks, as In the Urul chaln, of which Nova Zembla may be conaldered an insular continuation. Its conets are frequented by walrus hunters in aummer, bat nowhere permanently inhablted. Subterranean stone tabyrinthe of great antiquity have been discoverod here.

Nut, or EIasel-nut (Germ, Haselnusse ; Fr. Noisettes, A relines; It. Naccinole, Arelans; Sp. A vellanas; Port. Avellias; Lat. A cellanat, the fruit of difierent species of Coryli, or hazels. The kernels have a mild, farinaceous, oily taste, agreeable to most palates. A kind of checoiate has leen prepared from them; and they have sometimes been made into bread. The expressed oil of hazel-nuts ls littie inferior to that of almonds. Besides those raised at home, we Import nuts from ditferent parts of France, Portugal, and Spain, but principally from the latter. The Spanish nuts in the highest estimation, though sold under the name of Barcelona nuts, are nol really shlpped at that clty, but at Tarragona, a little more to the sonth. Mr. Inglis says that the annual average export of nuts from Tarragona is from 25,000 to 30,000 bags, of four to the ton.

Nuts (Ground) (Arachis hypogrea), known in French commerce as "arachides," in America as peanuts, and in Africa as Dfandulim, the frult of a papllionaceous plant, rising to the height of about 15 luches, being very like the field pea, with yeliow flowers. The branches, after flowering, bend down till they touch the ground, into which they work themselves, and upon them grow the pods that contain the nuts. When the nuts are rije the plant dies. It ls then pulied up, and the nuta which adhere to the twigs are collected. The pods, which aro of an elongated ligure, atwout three quarters of an inch in length, snd half an inch in circumforence, and brittic, usually contain two nnts, but sometimes only one, and very rarely three. They are elliptical at one end and flattened at the other. Ground-nuts are grown in light, sancly soila in most troplcal countrics. Thuy have been used ns food from time immemorlal in Africa, Indle, Brazil, and other parts both of South and North America. The best are raised on the banks of the Hiver Gambia, where they are extensively grown in large fields, the ground belng jrepared for their reception by the natives after the rude fashion of the country. The plant is very prolific; it is also sald to be highly exhaustive of the soil, though this is perhaps questionable. Ground-nute yield large quantities of oil; and with. in the last 20 years they have begun to be grow'n in Africa as an articie of commerce, and are now largely exported for crushing. A mill for expressing oil from thein was constructed in London lin 1885. But the French Government having a few years after imposed high duties on mont descriptions of oil seede, the oilcrushers of Marseilles and other towns endeavored to find out seeds not included in the tariff; or less heavily taxed than the others. They were thus led to import aruchides or ground-nuts, which they found to answer extremely well. France has, in consequence, become the great market for this peculiar product. The exports from the Ganbia, which in 1835 did not exceed 47 tons, had increased in 1851 to not less than about 12,900 toas. Of this quantity about 800 tons went to the United States (where they are eaten at dessert, roasted, as are chestunt elsewhere), 700 tous to Engiand, and the rest to France, prinipally to Marseilles. The total inports of arachides Juto F'rance in 1851 amounted, according to the oflicial returns, to $16,472,562$ kllogrammen, or 16,180 tons.

Nuts are ulso exported from the Rio Grando, the

Rio Nonez, and from Slerra Leone, and the adjoining rivers. And though there are no accounts of the exaet quantities sent from each, it is belleved that thelr aggregate amount is fully equal to the exporta from the Gambia. Within the last three or four years conshlerable quantlties have been silpped froin the Senegal River. 'The oll expressed from the nute differs in quality and price aceording to the care wlth which it is refined. That made in London, which is equal to fine olive oil, sold. in 1858, at from $\mathbf{f} \mathbf{6 0}$ to $\mathbf{\Sigma 6 2}$ a ton. In Franco the oll is principally used in the manufacture of soap; and bolng inferior to the sormer, is only worth from e4s to \&48 a ton. Besides leing used for the like purposes as other oll in food, In the woolen manufacture, and in lamps, the oll or ground-nute is sald to be especially well fittod for lubricating heary machinery, Including the locomotive onglnes on rallways. The Belplans use it for this latter purpose in preference to all other oils. Ground-nute are worth at present (September, 1853) from 389 francs to 890 francs per 1000 kilogrammes ( n ton) in Marselles; $£ 13$ 15s. a ton in London; and from $\dot{£} 9$ to $\boldsymbol{£ 1 0}$ a ton delivered to a French ship in the Gambia. Slerra Leone nute bring from $£ 1$ to $£ 2$ less than those from the Gambla.
Nutmeg (Ger. Muskatennüese; Du. Muskaït; Fr. Muscades, Nuix muscudes; It. Noce muscata; Sp. Mos. cada; Aralı, Jowalteib; Sans. Jitiphaln; Malay, Buahpala), the fruit of the genuine nutineg-tree (ifyristica Moschata), a nutive of the Moluceas, lut which has been transplanted to Sumatra, Penang, etc. An Inferiur and long-shaped nutmeg is cotnmon in Borneo; but the fruit nowhere attains to the same perfection as in the Molucens. if the several varicties of the tree, that denominated tho Queen Nutineg, which bears a small, round fruit, is the best. The kernel, or proper nutineg, is of a roundish oval form, marked on the outside with many vermicular furrows, within of a fleshy, farinaceous substance, varlegated whitish and hay., Nutmegs are frequently punctured and boiled, in order to obtain the cescutial oll, the orifice being afterward closed: but the frand is casily detected by the lightness of the nutineg.-Ticomsos's Ihispensatory; Aiss1.1E's Materia Indica. Nutmegs should the chosen large, round, heavy, and firm, of a lightish gray color on the outside, and the inside beautifuliy marbied, of a strong frogrant smell, warm aromatic taste, ami a ftat, oily booly. They are very anbject to he wormcaten. The best manner of packing them is in dry chunam. The oblong kind, and the smaller oues, ahouid be rejected. 15 cwt . are allowed to a ton.Malavis's (hrient. Com. The dried produce of a nut-ineg-tree consists of nutmeg, mace (which sce), and shell. Supposing the whole produce to be divited lnto 100 parts, thero are 13 f of mace, 33 f of shell, and 53 f of nutmeg. In the ancient commerce, and down to tho establishment of the Dutch monopoly, nutmegs wero always sold and exported in the shelf. The natives, whenever tho commerce is left to their nanagement, continne the pactlce, which la strongly recommended ly Mr. Crawfurd.-Eiastern Archipelago, vol. ili. p. $3 \pm 6$.

Tho jealous policy of tho Dutch has reduced the trade in nutmegs to a mere trifle, compared to what it would otherwise have been. They have, in on far at lenst as it was possible, exerted themselves to exterminate the nutmeg plants every where except in Hands. The aboriginal Inhalitants of this Island have heen ex. patriated, and the land parceled amony sellers from Holland, under the name of purk-kefpers. These persons have about 2000 slaves, who cultlsate and prepare the nutmegs. The prices peid liy the cultivator are all fixed by Government; and it deserves to be mertloned, as affording one of the most striking fllastrations of the rulnous elfeets ef monopoly, that tho fixed price which the Government is now obllged to pay for notinegs is five times greater than the price at which they bought them when the trule tras firee! We can not
conceive as that scandalo lished a possesslc the Ban and 160, dans l'In that the nutmeg some of have al useful $p$ crable coolen. of bring restoral tho nut factitlou iii. p. $\ddagger$

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allyolning of the ex-
that their ports from years conie Senegal Inquality la reflned. olive oil, rance tha soap ; and purposes re, and in cially well uding tho ans uso it other eils. ber, 1853) ammes ( n and from the Gannless than
conceive how so enllghtened and liberal a Govemment as that of Holland should contlinue to tolerate such scandalous abasos, more especially since it has established a free system in Amboyna, Java, and Ita other possesslons. M. Tamminck estlmates the produce of the Banda Islands at about 600,000 pounds of nutmegs, and 160,000 pounds of mace,-Possessions Neerlandaises daus l'Inde A rchipelagique, iii. 283. Durlng the period that the English had possession of the Spice Islanda, nutmeg plants wero carriad to Penang, Boncoolen, and somo of the West India islands. Ia the lateor they have altogother failed, at least as far as respecte any useful purposo; but very good nutmegs, and in consldcrable quantities, are now raised at l'enang and Bencoolen. Mr. Crawfurd, however, alleges that the cost of briuging thom to market ia there so high, that tho restoration of a free culture in the native country of tho nutmeg would instantly destroy thl3 unstablo and factitious branch of industry.-Eiastern 4 rehipelago, vol. iii. p. 409. See American Journal nf science, xil. 322.

Statenent aifowine tin Impoath of Nutmeas into tie
(nitbo Etates fon the feat ending dona 30,1850 .

| Whence imported. | Pounds. | Vatuo. |
| :---: | :---: | :---: |
| Itaniburg . . . . . . . . . . . . . . . . . . | 1,275 | \$351 |
| Itolland.... . . . . . . . . . . . . . . . . | 269,209 | 163,5,99 |
| Wutch Weat Indies | 3,974 | 1,908 |
| Dutch East Indlea . . . . . . . . . . . . | 37,513 | 18.520 |
| 13elghum . . . . . . . . . . . . . . . . . . . | 11,473 | ¢ 52.2 |
| England . . . . . . . . . . . . . . . . . . | 67,0:3 | 41,763 |
| Britlsh Weat Indles............. | 453 | 157 |
| Itritish East Iodiea | 193,831 | 85,504 |
| France on the Atiantic......... | 18,509 | 9,94t |
| Harif . . . . . . . . . . . . . . . . . . . . . | 1 15 | 01 |
| China. . . . . . . . . . . . . . . . . . . . . . | 400 | 233 |
| Total. | 694,818 | \$326,133 |

Nutria, or Neutria, the commercial names for the skins of Ayy potamus Bonarienyis (Commerson), tho Coypous of Molina, and tho Queiya of D'Azara. In lirance, tho skins were, and perhaps still are, sold under the name of rucomila; but in England they are luportel as nutria skins-deriving their appellation most probably from some supposed similarity of the animal which produces them, in nppearance and habits, to the otter, the Spanish name for which is nutrin. Indece, Nolima speaks of the coypou as a spiecies of water rat, of the slzo and color of tho otter. Witria fur is largely used in the hat manufacture, and has become within the last 15 or 20 years an article of very coasiderable commercial impertance. The imports
fluctuate considerably. In 1841 they amounted to 1,125,212 skins; bnt in some years they are much less; and In 1840 amounted to only 242,733. Those entered for home consumption pay a duty of 1s. per 100 skins. They are princlpally brought from tho Rio de la Plata. -See Fur Trade.
The coypou or quoiya is a native of South America, very common in the provinces of Chlli, Buenos Ayrea, and Tucuman, but more rare in Paraguay. In slze it is leas than the beaver which it resembles in many polnts. The head is large and depressed, the ears small and rounded, the neck stout and short, the muzzle sharper than that of the beaver, and the whiskers very long and stlff. There are, as $\ln$ the beaver, two incisor teeth, and elghteen molar, above and belowtwenty teeth in all. Tho llimbs are short. The fore feet have each five fingere not webbed, the thumb being very small: the hind feet have the same number of toea; tha great toe and three next toes leing joined by a web which extends to their enils, and the little toe being free, hut elged with a membrane on its inner side. The naiis are compressed, long, crooked, snd sharp. The tail, unlike that of the beaver, is long, round, and halry; but the hairs are not numerous, and permit the sealy texture of the skin in this part to be seen. The back is of a brownish red, which becomes redder onothe flanks; tho belly ls of a dirty red. The eliges of the lipe and extremity of the nuzzle are white. Like the beaver, the coypou is furnished with two kinds of fur; viz., the long, ruddy halr which gives the tone of color, and the brownish osh-culored fur at its base, which, like the down of the beaver, is of much importance in hat-making, and the cause of the animul's conmercial value. The coypou is casily domesticated, and its mamers in enftivity are very mild.

Nux Vomica (Fr. Noix Vomique; Ilind. Kaachla), the fruit of a species of Strychnos, growing in various places in the East Indies. The fruit is about the size of an orange, covered with a smooth, crustaceous, yellow bark, and filled with a fleshy pulp, in which are imbedded several orbicular, flatted seeds, about threo quarters of an lich in diameter. Nux vomiea is inodorous, and has a very bitter, acrid taste, which remains long on tho palato. It is known a, a very virulent poison. A susplcion has, however, been entertained that it has been used ln porter breweries; but its introduction into them is prohilited under hesvy penalties.-Tromson'a Dispensatory, etc.

Oak (Ger. Eiche; Du. Eik; Dan. Eeg; Swed. Ek; Fr. Chene; It. Quercia; Sp. Rable, Curballo; Port. Roble, Curbulho; Russ. Dub; l'ol. Dab; Lat. Quercus; Aral. Butut). There are several varieties of this valuable tree; but the common lisgish oak ( (luercus robur) ciaims precedence of every other. The knotty oak of England, the "unwedgeable und gmarled oak," as Shakspeare called $i t$, whon eut down at a proper age (from 50 to 70 years), is the best timber known. Some timber is harder, some more difficult to rend, and some less capmble of being breken across, but none contains all tho three qualities in so great and equal proportions; nud thus, for at oncu supporting a weight, resisting a strain, and not splintering ly a camnon slıot, the timber of tho ouk is superior to every other.
A fine oak is ollo of the nost picturesque of trees; it conveys to the mind assuciations of great strength, and of aill but endiess diuration. It stands up agninat the blast, and does ncu tako, like other trees, a twisted form from tho action of the winds. Except the Cedar of Lebanon, no tree is so reminkable for the stoutness of its limbs; they do not exactly spring from the trunk, but divide from it; and thus it is somotimes diflieult to know which is stem and which ia brancle. The twisted branches of tho oak, too, ald greatly to its
beauty; and the horizontal direction of its bougha, spreading over a large surface, completes the idea of its sovereignty over all the trees of tho forest. Even a decaycd oak, sueh as that described by Spenser:

> " dry and dead,

Stili etad with rellipues of its trophies old, Lifing to heaven its aged, hosry head, Whoso foot on earth has got but feeblo hold,"
is strikingly beautiful. To such an oak Lucan compared Pompey in his decline:
"Qualls fruglfero quereus aublemis in agro
Exuvius veteres popull, saerataque gestans Donn ducum; nee jam valtdia radletbus herens, P'ondere fixa auo eat; nudoaque per aëra ramoa Effundena, trunco, non frondibus, eftielt umbram. At quamvis primo nutet casura sub Euro,
Tot circum silvu firmo so robore tollsnt,
Sola tamen coltur."-(Lib. i. Hio. 136.)
The onk is raised from acorns, zown either where the oak is to stand, or in a nursery, whenee the young trees are transplanted. The color of oak wool is a tine brown, and is familiar to every one; it is of difierent shates; that Inclined to red ts the most inferior. The larger transverse septa are in general very distinct, produching benutiful flowera when cut olliquely. Where go, uhd, in ight of lifty cllunate of that it also Midede and this tree are are $\ln$ great ontain moro tion to their called " $\mathrm{V}_{\mathrm{a}}$ f export of in England ace there is tter. They erve as longs es them, as hin quality on this tree ectoría, und Thesa galls zer the fruit sect (Cynips which is en-
opes ate reand Jrawn ; the seams, or prevent-
ne end, and a vessel adth is tipped al which is extrenity, rowers, is sel forward lum their coar in the lade, at thr ut, since iue 5 the vater , ere lo strike the ressel is e direction. the greater water more he side of a lass, whose rests on the rena; !'ort. of grain, the merable ri11 tho et il ri. clinta s. © : , " wheat Ithriwes rthern latiof E:urope. of the peoa any other rarictics of qray, ant " the whit thlo ont is "pland am? a ligher wer variety. a n : lehl of the prod. I the stock
now in general cultivation. Black and gray oata are little cultivated, except in some pleces in the north of Scutland. The red oat is chietly confined to Chenhir:, Derbyshlre, and Staffordahire. A species of naket oats, provinclally called pillar, ls raised in Corn-wall.-Loumon's Eincyclopedia of Agricullure; Bnown's Rural Economy.

The out, when considered in connection wii., the artificial grasses and the nourishment and impnvement it affords to liva atock, may be regarded $r$ one of the most important cropa we produce. Its history is highly interesting, from the circumstance that, while in many portions of Europe, when ground into meal, it forms an important aliment for man, one sort at least has been cultivated from the days of 'lliny' on account of its superior fitness as an article of dlet for the aick. The country of ita origin ls aomewhat uncertain, theugh the mest common variety is said to be Indigenous to the island of Juan Feruandez. Another oat, resemhing the cultivated variety, is algo found growing wikd in California. Thls plant was Introduced into the Nortb Anerican colonles soon after their settlement by the English. It was sown by Gosnold, on the Elizabeth Islands, in 1602 ; cultivated in Newfoundland in 1622, and in Virginia, by Berkeley, prior to 1648.
The oat is a hardy grain, and is suited to climates too hot and too culd either for wheat or rye. Indeed, its flexilility is so great, that it is eulluvated with suecess in Bengal, as low as latituda 25 degrees north, but refuses to yield profitable cropa ns wa approach the equator. It flourishes remarkably well when due regard is paid to the seleclion of varieties, throughort the inhabited parts of Furope, the northern and central portions of Asia, Anstralia, Southern and Northarn Africa, the cultivated regions of nearly all North Ameica, and a large portion of South America.

It this country the growth of the oat is confine! primeipally to the Middle, Western, and Northern Stales. The varisties cultivated are the cemmon white, the linek, the gray, tho imperial, the Iopetown, the Po. lish, the Egyplian, and the potate oat. The yiehd of the common varieties varies from forty to nhety bushels and upward per acre, weighing from twenty-five to fifly pounds to the bushel. The Egyptian oat is cultivated south of Tennessee, which, after being sown in autunnt and fed of by stock in winter and spring, yields from ten to twenty hushels per acre. In the manufacture of mall and spirituous litjuors oats enter hut lighly, and their consumption for this purpose does not exceed sixty thousant bushels annually in the United States. It will be seen by the following exhihit that Now York, Pennsylvania, Ohio, Virginia, sud Illinois are the largest producers of oats, and in the order in which they are here placed.
Probrction of Gats in the l'nited States diting tife

| htetes sid Terri- lunea | $\begin{aligned} & \text { Oatatal. } \\ & \text { nubele } \end{aligned}$ | statoe and Torritories. | $\begin{gathered} \text { Onter } \\ \text { anshels. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Als | 2,966,696 | Missour | $8,278,079$ |
| A k ansas | 056,183 | N. Hmmpshire. | 973.81 |
| Conliforula |  | New Jersey ... | 3,878, 1813 |
| C.inmlia, D. of | 8,134 | Sew York. | 26,652,814 |
| Councetient... | 1,259,738 | North Carolina | 4,059,073 |
| Belaware. | 604, 618 | (1hio... | 13.472,74? |
| Fiforida. | c6,636 | Pennsylvania. . | 21,538, 158 |
| tieorgia | 3,520,04 | Rhode Islanl. | 215.238 |
| thinols | 10, 387,241 | South Carolina | 2,322.155 |
| Indlan | 5,655,614 | Tennessec. . | 7,713,1188 |
| lowa | 1,584, 845 | Texas | 199,017 |
| Kınturk | 2.401,311 | Vermo | 2, 317, 714 |
| 1.4ntisiana | 89,637 | Virbinia | 16,179,144 |
| Hatne., | 2,181,037 | Wisconsin | 3, +14.67) |
| CIaryiand | 2,242,151 | stinnesota | 30, 58 |
| Masmarpus | 1,165, 146 | Naw Mexi | 5 |
| Michigan. | 2, 666, 554 | Uregon | 131,21 |
|  | 1,503,288 | L'tah | 10,900 |
|  |  | Tolal bushels | 1+4i,675, 000 |

The oal, like ryb, never has entered $n$. Th into our forcion commerce, as the domestic consumption has always been nearly equal to the quantity produced. The aunual nverage exports, for several years preceding

1817, were seventy thousand bushels. By the Census returns of 1840 , it will be seen that the total produce of the Unlted States was $123,000,000$ bushels; of 1850 , 146,678,890 bushels.-United States Patent Office Report.

A few years since the oat crop of the Western Statea sold at 30 or 40 centa per bushel. At the present time (October, 1856), owing to the larger number of horsea employed in the West and the East, the price is ateady at 40 to 60 cents in the Weat; and 45 to 50 centa in the States of Nuw England and New Iork.

Observatories. The first is supposed to have been on the top of the temple of Belus, at Babylon. On the tomb of Osymandias, in Fgypt, was another, and lt nontained a golden circle 200 feet in dlameter : thut at Benarea was at least as ancient as these. The lirst $\ln$ authentic hiatory was at Alexandria, ahout 300 n.e. Tho first in modern times was at Cassel, 1561. The Royal Oleservatory at Greenwich was founded by Charles II. A.d. 16:5; and from the merlilian of Greenwich all English astronemers make their calculations.
First modern moridional Instrument, by Copernicus. ... A.D 1640 Firat observalory at Cinssel. 1640 Tycho Bralie's, at Uranibourg 1661 Astronamisal tower at Copenliagen........................... 1670 Royal (French). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1667
 Observatory at Nuremberg. . . . . . . . . . . . . . . . . . . . . . . . . . . . 1678 At trecht.................................................. 1690 Berlin, erected under leciboitz's direction................ 1711 At blogna... 171
At letersburg 17:5
Oxfurd, Dr. Radelifie 1772
Dublin, Dr. Andreies. . ................................................. 1783
Cambridge, England. ............................................... . . . 1824

## Observafories in the United States.

Yale College New 1Iaven, Conn.................... 1829-1830 Williams' ''ellege, Massachusetts..................... 1886-1837 Weslern Reserve College, Iladson, Ohio ......... . 183t-1839 Military Academy, West Yelnt, New Yerk....... 1887-1839 111gh scheol, Philadeiphla, Penasylvania........ . 1840-1842 National Obser:atory, Wauhington, D. C. ......... 1842-1844 Geargetown Colige Observatory, D. C............. . 1843-1844 Cinclnnati Observatory, ohlo. ....................... 1843-1844 Cambridge Observalery, Massachusetts ............. 1845-1847 Sharon Observatory, near Phitpielphla, Pem..... 1846-1846 Tuscaloosa Observatery, Alabama ................. 1843 Tuscaloosa Observatery, Alabama Lewis M. Ithherford's Observatory, New York City Dartmonth College Obsorvatory, New Hampshire Amberst Coilege, Obeervatory, Bassachusetts. Shelbyville, Kentucky.
Dodley OLse rvatory, Aibany, Now York.............. is isis-1856
-See Christian Review, v. 89; North A merican Revicu, viii. 205, Ixix. 143 (B. A. Gouln); American Journei of S'cience, xlvii. 88, xli. N. S. 205; Edinburgh Rerieu, xci. 159 ; Nouthern Literary Messenger, xiv, 4 (Lieutenant Machy), xv. 30-4; l'rofessor Looms's "Recent l'rogress of Astronomy," New York, 1850.

Ooean (Gr. wreuvor.) In Geograpliy, the vast body of water which surrounds the continents, and is the receptacle of all their runniog waters. It is divided by geographers intn five great basins; viz., the Pacilic Ocean (so called by reason of its comparative stillness), which separates Asia from Ancrica, and is the largest of all the basins; 2. The Athantic Ocean, which has Europe and Africa on its castern shore, and America on t's western: 3. The Indian Ocean, which washes the sculh of Asia, and the south-eastern coast of Africa; 4. The Arctic Ocean, which surrounds the north pole; and, 5 . The Artaretic, which surrounds the south pole. Other smaller portions of the great connected body of whter are called seas, of which the Mediterrancan, the German, the Bullic, and Black seas, are the most considerable. The superficial extent of the several grent lnains is not known with any certainty, nor, indeed, can their limita be exactly defined. From the nearest estimation that ean be made of the extent of the continents and principal islands, it is supposed that nearly three-fourths of the whole surface of the globe are covered by water. The Paclic Ocean alone exceeds the whole surface of the dry land.

De whi of the Orman.-If the superficial extent of the ocean ean not be easily ascertained, it will readily
be supposed that its depth is a problem of mach greator dificulty. Tbe bottom appearn, wherever it hat been reached by the aounding-line, to lave simllar inequalitles to those of tho surfice of the land: hence the depth muat be extremely various ; and it might be aupposed from analogy that the greatest depth of the ocean is at least equai to the height of the highest mountaina above ite aurface. Lord Mulgrava found uo bottom in tho North Atlantic Ocean with a sound-ing-line of 4680 feet, and Mr. Scoreaby sounded to the depth of 7200 foot without the lead touching the ground. These experiments ara not altogether to be depended on for the aetermination of sucli great depths; for, the preseure becoming very great, the lead may be drawn out of the perpendicular direction by currents, of which it may encounter more than one, flowing in different directions. Over a great portion of the Atlantic and l'acille oceana no bottom has been found. The depth of the ocean, in general, and the form of the Led on which it rolls, can not, therefure, be determined by experiment. The mathematical theory of the oscitlations of tluids has, however, thrown seme light on the sulyject. Laplace demonstrated that the difference which is indicated by observation between the height of two consecutivo tidea depends on the law of the depth of the sea, and that, but for the influence of accessory circumstances, it would disappear altogether if the depth were constant. It fulluws, therefore, that, since tho difference between the consecutive tides is extremely small, the depth of the sea, taking in a large extent of occan, must be nearly uniform; that is to say, there must be a certain mean depth from which the variations are not considerable.-Me. Cileste, book xiii.

Serel of the Ocean.- Were it not for the disturbing actions of the sun and moon, and of the winds, the level of the ocean would be every where the same, and its surface would have the form determined by the attraction of the whole mass of the carth, combined with the centrifugal foree belonging to its velocity of rotation; that is to say, the surface would the that of an oblate spheroid of revolution. This uniformity, however, can never be established. The tide at overy instant is at ditferent heighta in different parts of the ocean; and therefore the form of the aurfuce, within the limits of the rise and fall of the tides, is variahle. But even if we neglect the alternate rise and fall of the water which constitutes the tides, and take the surface of the ocean at its nean height, it is found by acrurate leveling that all its parts do not coiscile with the surface of the same spleroid. Ciulfs and inland seas, which communicate wilh the ocean hy marrow openings, are alfected according to their position with regard to the prevailing winds. The level of the Ked Sea was found, ly the French engioeers in Ejgypt, to be $32 \frac{f}{}$ feet higher than that of the Mediterrancan, which is supposed to tie a litie lower than the ocean. Ilumboldt concluced, froan ahsers funa made on the Jethmus of J'anama, that the waters of the Gulf of Mexico are about two fret higher than those of the Daritie thenis. The Datic and Wack seas rise lis spring from the great gusntity of river water joured into them, and are lowered in summer liy the joint effects of a small supply und increased evajoration.
( obor of the deem,- The neunl color of the occan is a bluish green, of a darker tint at adistance from land, and clearer coward the shores. According to Mr. Scoreshy, the hue of the Grentand sea varies from ultrammeine blue to olive green, and from the purest transparency to great opacity. The surface of the Moditerrancan, in its upper part, is ald to have at times a purpie titt. In the Gulf of Guinea the sea sometimes appears white; alout the Maldive lslands hack; and near Cndifornia it has a reddish appearance. Various causen co-operate to produce this diveraity of tint. The prevailing thue color may be ascrited to the greater refrangibility of the bilue rays of light,
which, by reason of that property, pasa in greatest abundance through the water. The other colora are ascribed to the existence of vast numbers of minute animaleulas; to marine vegetables at or near the surface; to the color of the soll, the infuaion of earthy subatances; and very frequently the tint la modlifed by tha aspect of the sky. The phosphorescent or ahining appearance of the oceun, which is a common phenomenon, is elso ascribed to animalculae, and to semi-putrescent matter diffused through the water.

Temperature of the Ocean.-. Water hoing a slow conducter of heat, the temperature of the ocean in much more uniform than that of the atmosphero. At a certain distance from the equator, it foliowa, though not very closely, the mean temperature of the corresponiling latitudoa, the aolar action heing greatiy modificd by the exirtence of currents which convey the temperature of one region to another; so that nt nuy place the temperature of the water depends, In sone measure, on the direction of the currents. Within the tropics the mean temperature at the surface is alout $80^{\circ}$ of Fahrenheit, and generally ranges between $77^{\circ}$ and $84^{\circ}$. At great depthe the temperature is probnilly nearly the same under every latitude. In the torrid zone it is found to diminish with the depth; in the pelar meas it increases with the depth; and about the latitude of $70^{\circ}$ it is nearly constant at all depths. But the small number of olseervations whleh have yet been made on this sutject do not intlicete any uniform law, accorling to which the variatluns of temperature at different depths is regnlated.

Saltuess of the Ocean.-.'The ocean holds in solution a variety of saline matters, of which ly far the most abundant is common salt, constituting, in general, about two-thirds of tho whole. The saltness of seawater at purticular places is influenced ly temporary causes-storins, fur example; as well as ly the neighborhood of large rivers, and permanent accumulations of ice. A series of experiments on this suliject were inade somo years ago by the late Dr. Narcet, and the fellowing are the general concluslons which he deduced from them: 1. That the Southern (bean contains nore salt than the Northern Ocean, in the ratho of $1 \cdot 02919$ to $1 \cdot 02$-57. 2. That the mean speeltic \&ravity of seawater near the equator is $1 \cdot 02777$. 3. That there is no notable difference lietween sea-water under diffirent meridians. 4. That there is no satisfactory evidence that the sea at great depths is more salt than at the surface. 5 . That the sea, in general, contains more salt where it is deeprest, and that its snltness is always diminished in the vicinity of large masses of ice. 6 . That small indand sens, though communicating with the ocean, are mucla less salt than the ocran. 7. That the Miditerrancan contains rather inger proporions of salt than the ocean.-Philosephical Pronsactions,
 tionary. The pecoliar hitter taste of spa-water dons not alperear to ludong to it begond a certain depth, anti is ascritied to the veretable pod animnd matler beld in a state of decomposition near the surface,-wiee Thrs,
 Atavachusetts (enarterly, ii. Bu8; American dournal ig


Oceanica. lieogrnphers have divided "Ocanica" iuto three listinct portions; viz., Mhaysia, Ausmalasia, am! "olyuesia. so comparatively bitte is known of its componene parts, that it is onjy pussihh to state the statistics of such roumries ans mont frequently come under the nothe of civilized mations, and this is itone in the annesed uccounts:

1. Maluysia.--' his portion incluies most of the is. ands of the In tian Archipelago, nod has its name from the fact that the Malay race are its most prominent inhahitants. Malayela is nuturally compobed of tive grand divislona.
2. Sumatra, Inva, Hati, Sumbawa, anil about twothirds of the weaterin portion of llorneo as far as $116^{\prime}$
E. long. ; cuast, ant iat. ; 3. T go, Mind and, b. 'I'
I'liase formation
II. $A$ and from Australia Zealund, Iruiand, donia, N llanover seattered
3. $P$ ands sca sia, and the west most app nin or $A$ ands, th Tonga or ands, Co glan, and quesas an wich Ish isolated l'itcairn exceptio Ilolland, tho follo sions : 'I square g populatic is 3,581 , 119,481; Sumatra encies, 5 neo ande lucea IsI depender Total, 1 20,057,6 asia. I the com $\begin{array}{r}\text { Col } \\ \hline \text { New Som } \\ \hline\end{array}$ Victoria south At West Au of th of weol and Viet West A L151,20: South $A$ the aho lia, anl those of ending: ued at o tion allt doublel, er of gol wieh Isi Jution tu ization.
The oxe or 8 jer ing-cous pepulati in 1880 , In 1950 the influ
E. long.; 2. Celelees, with the smaller lalands about ita cuast, and the eastern partion of Horneo up to $3^{\circ} \mathrm{N}$. lat.; 3. The Spice Islands ; 4. The Soo-loo Archipelago, Mindanae, and the northasat coraer of Borneo; and, 5. The Philipplne Islanda.
These several divlatons are pecullar In physical formation, In ellmate, productions, and Inhabitants.
4. Australasia extends from $1^{\circ} \mathrm{N}$. to $55^{\circ} \mathrm{S}$. lat., and from $112^{\circ}$ to $180^{\circ}$ E. leng., and lta components are, Australia or New Llelland, Van Dlemen's Land, New Cealand, l'apua or Naw Gulnea, New Britain, New Irulanil, the Arru Islanda, Selomen Ialands, Now Caledonia, New Habrides, Queen Charlotte'a Islanda, Naw Hhaover, Admiralty Ialands, and many amaller Ialands geattered over the intervening soas.
1II. Polynesia Includes the numeroua groups of islands scattered over the 1'acifio between Asla, Malaysia, and Auatralasia on the west and southwest, and the western coast of America. The following is the most approved classification of these groups: the Bonin or Arzobispo Ialands, the Ladrone or Mariau 1slands, the Caroline Islands, the Feejee lylands, the Tonga or Friandly Ialands, Navlgator's or Samoa Ialands, Cook's or the Ilervey lslands, the Society, Georglan, and Law Islands, the Austral Islands, the Marquesas and Waahingten Islands, the IIa walian or Sandwich Islands, the Kormadec Isles, and scattered and isolated islands, among which are Gambier Islands, Jiteairn Island, ete., etc. The Makysian, with the exception of the Philippine Islands, belong chiefly to Ilolland, and, according to the latest official reports, the following are the statistics of the Dutch possesslons: The superficies of Netherlands India is 27,892 square geegraphical, or 36,887 American miles. The population of Java and Madura, exclusive of the army, is $9,581,130$; viz., Europeans, ete., $1 t, 409$; Chinese, 119,481; other easterns, 27,687; and natives, 9,420,553. Sumatra has $3,430,000$ inhabitnats; Banka and dependencien, $\mathbf{5 0 , 0 0 0 ;}$ Khio and dependeneies, 70,$000 ;$ Borneo and dependencies, $1,200,000$; Celebes, 300,000 ; Molucea Islands and dependencles, 718,500 ; Timer and dependeneics, 800,000 ; Jall and Limbok, $1,205,000$. Total, $10,47 a, 500$. Total population of Dutch India, $20,057,630$. Great llritaln is the thrst power in Australania. Tho statistics of tho following colonies refer to the commencement of the year 1851:

| (elonies, | Poptala- |  | $\mathrm{V}_{\mathrm{n}} \mathrm{l}$ ue of <br> Exploris. |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | \& | $\varepsilon$ |  |
|  | $\left\{\begin{array}{l} 159,000 \\ 7,860 \end{array}\right\}$ | 8 | 2,13,1,500 | 234,215 |
|  | 07,430 |  |  |  |
|  | 5,56 | 32,33t | 22, 131 |  |
| Van | Ti, 1311 | 2i2. |  | 23.051 |

Of the exports, as alove, the following is the value of wool from each colony fin 1850 : Now South Wales and Victoria, $£ 1,614,241$; Sonth Australia, $£ 131,730$;
 \&.til,2ua. The value of minerals, chietly copper, from South Austrulia in the same year was $£ 362,5 \mathrm{Fi} \mathrm{\%}$. Since the ahove returns gold has heen discovered in Australiu, an I the tields have been mere productive than those of California. The quantity yielded in the year ending Buth December, 1852 , was $3,99 x, 321$ ounces, valued at over $£ 15,000,000$, or tion anil every interest lias increased, anil periapa doubled, under the stimulating inbluence of this shower of gold. Among the inlands of I'ulynesia the Sandwich tslunds held the lirst rank, whether viewed in relation to their position, products, population, or civilization. The population In January, 1849, was 80,641. The exeess of deaths over thirths in 1848 had been 6165 , or 8 per cent. Ahout 10,000 died of measles and hoop-ing-cough in 1847-'8. At this rate of mortality the pepulation in 1860 would lee 32,224 ; in 1870, 14,073; in 1880, 6131; in 1890, 2667; and in 1900, only 1162. In 1050 the llawaitan race would be exthect. Such ig tho influence of clvilization on aborigioal races - the
aame throughout America and throughout the world. In 1853 the lslands were visited by amall-pox, and about 3000 diad of the epldemlc. A new cenaaa was taken at the commeacement of 1854 . The extent of the cultivation of augar in these islanda la abown in the annexed tabla:

|  | Aera Culivitid. |  |
| :---: | :---: | :---: |
|  | 1868. | 1888. |
| Libue | 210 | 690 |
| Koton........... | 240 | 650 |
| Makavuo, Mau........................... | ${ }_{325}^{250}$ | 800 800 |
| Hlana................................ | 45 | 130 |
| Walmea, Ilawail | B0 | 50 |
| 1 lto . | 5.0 | 6.0 |
| Total.................. | T050 | 2760 |

Average yield per acre, 2000 lbs. ; average valua, five cente perlib.
The Polynesian of 20th January, 1853, refarring to the year just passed, furnishes tha following relating to the commerce of these Islands:
"Imports.-There ls a large falling off In the value and anount of goods Imported for consumption. The value of goods imported, as compared with previens ycars, is as followa:

- giving as an average of Imports for three yeara, \$1,206,249.
"Exports.-The following comparison of some of the staple exports for the lslands with thoae of former years shows at a glance that the exporta for 1852 do not equal those of 1850, though a large gain on those of 1851 is apparent.

| Blaplas. | 1850. | 1851. | 1858. |
| :---: | :---: | :---: | :---: |
| Nugar. . . . . . pounds. | 751.735 | 721.1130 | 729,877 |
| Syrup . . . . gatlons, | 75.577 | 60.111 | 30,375 |
| Motanses... ${ }^{4}$ | 83,855 | 18.031 | 416100 |
| Coffee. . . . . potinds. | $21.8,428$ | 37. 116 | 117,210 |
| Salt . . . . . . huskes. | 7,652 | 3,769 | 7,118 |

"The custom-heuse receipts in 1850 ameunted to $\$ 121,50673$; in 1851, to 8160,60219 ; and in 18.52 , to \$113,091 93 ; the receipts of the latter year thus shewing a decrease of $\$ 17,51026$ as compared with 1851 , and of $\$ 541480$ as compared with 1850 . The number of merchant-vessels that visited the islands in 1850 was 469 ; In 1851, 446; and in 1852, 235. It is impossible," adds the Polynesina, "to give the number of 'whalers' that have visited the islands in 1852, but the number is about 800 , which is much more than the number in 1851 or $180^{\circ} 0$. It may be added here, in regard to the number of merchant-vessels in 1850 and 1851, that a large propertion of them were small vessels engaged in the potate traile, while in 1852 the vessels have been gencrally of a larger class. Another reason for the large number given In 1850 and 1851 was the fact that vessels more generally then touched at several perts, which would lincrease the number in the custom-house returns, though in fact it should not. The ports belng now more generally known, vessels for produce ge directly to the port where they can oltain their cargoes." In a commercial peint of view, as an entrepit between the western coast of America and Lastern Asia, these lishuds are of the greatest importance; and in view of the vast commeree now springing up in the Pacitle, and which will eventually revoIntionize the tracle of the world, it is possible that the United States may see fit to accept the offer to annex them to the national territory. Already the question las been before Congress.-imerican Statistical Annual.

Odessa, a tlou:ishing sea-pert of Southern Russia, on the northwest coast of the Black Sen, between the rivers Dneister and Bug, in lat. $16^{\circ} 28^{\prime} 54^{\prime \prime}$ N., hong. $30^{\circ} 43^{\prime} 22^{\prime \prime} \mathrm{E}$. Population in 1850, 78,000. The foundations of Odessa were laid so lately as 1792, by order of the Empress Catharine, after tho peace of Jassy. It was intended to serve as an entrepot for the commerce of the Risssian dominions on the Black Sea and the Sea
of Azef, and has In a great measure answered the expectations of ite fonnders. Hy au Imperial ukase, clated the 7th of Fehruary, 1817, It was declared a free port, and the Inhabltants exempted from taxation for thlrty years; alnce which period lia increase has been extremely rapild. The bay or roadutead of Odeass is ex. tensive, the water deep, and the anchorage good, the bottom being fine sand and gravel ; it is, howevor, exposed to the sontheasterly whal, which renders it less safe in winter. The port, which it artlicial, being formed by two molen, one of which projecta to a conalderable diatance linto the sea, is titted to contain abont 300 shlps. It hat also tho advantage of deep water. There ls a eorvenient lazaretto, on the model of that of Marscilies. The want of frealt water used to be the greatest diaadvantage under which the ivhabltanta labored; but this has been obvlated by the construction of a canal, which conveys an abundant anpply of water lnto the town. There are no treea In the vicinity, whleh has, lu consequence, a bleak and arid appearance.

Light-houses. - A light-house has been erected on Cape Fontan, about 6 f nautical miles south of Odessa. The light, which formerly revolved, is now ficed, and is aliout 203 (Russian) feet above the level of the sea. At the diatance of eleven leagnes S.E. by E. +I . from Odessa, on the north end of the long, narrow, low island of Tendra, a llght-house has been erected, of great use to ships approaching (Odessa froin the sonth or west. The iantern la elevated $92 \frac{1}{2}$ (Russlan) feet above the level of the sea. It consists of three reflecting lights, suspended in the form of a triangle, revolving in the space of four nuluutes, so that each lamp arrives at lt maximum of brilliancy after an interval of one minnto, twenty aeconds. Beling also of a red color, this light la readily diatingulshed from Fontan light, and the ot! er lights in the Black Sca. In fuggy weather a bell la kept ringing.-Coulier sur les thares, 2l ed. ; Nonaik's Sailing Lirections for the Mediterronean and Mhack Seas, etc. Not being at the month of any great river, nor having any considerable manufactares, Odesea fo net a port for the exportation of what may be called articles of native growth; but in consejuence of her convenient situation, excellent port, and tho privilegea ahe enjoys, she is, as already remarked, the eniporium where most part of the prolace of Southern Rusnia destined for forcign countries is collected for exportation, and whero moat part of the foreign articles required for heme conaumption are primarily imported. The shallowness of the water at 'raganrog, and the short period during which the Sea of Azof is uavigable, tend to hinder forelgn vessels of considerable burden from entering the Strait of Yenikalé, and occasion the shipment of a coesiderable portion of the prodace bronght down the Don lu lighters to Caffa and Odersa, espocially the latter. All the producta brought down the Dniester, the Ilug, ani the Dnieper are exported front Odessa ; but owing to the difficalt navigation of the first and last mentioned rivers, by far the greater part of the corn brought to Odessa front Podolia, the Ukraine, etc., ls convered to the town In carts drawn by oxen. The roads traversed by these earts are only practicahle at certain seasons of the year ; and nothing would contribute so minch to increase the commerce of the port, and the prosperity of Southern Rnasia, as the opening of improved communications with the interior, whether by removing obstructiona in the channels of the rivers, constructing canals, or railways, or gool common roads. Amolig the articlea of export froms Odessa, corn, especially wheat, occupies, as every one knows, the lifgheat rank; but tallow ia also an important article; rnd next to it are linseed, wool, hidea, copper, war, caviar, potash, beef, furs, cordage, aallcloth, tar, batter, isinglass, etc.
f'orts of the Black Sea, the Sen of Azof, and the Crim-ea.-The importance of the Hlack sea as a channel of Kussian commerce will be easily understood by cast-

Ing an eye over the map of Southern Rusis, and trac. ing the rich and extensive reglons which are tributary to its various ports. The Danubs and lis brenchea, the Dalester, the Bug, Dnieper, Don, and aeveral lesser rivers, empty thelr waters inte the Ilack Sea, Orieasa is altasted on a bay, 80 millea from the mouth of the Dinleater, and 60 from that of the River $D_{n l e p e r . ~}^{\text {a }}$ The bey is secure and aceesslble, and seldom closed by ice. The prort ls protected hy two moles, each extend. Ing 315 fathoms, and raised if feet above the surface of the eea; and, thus formed, It will afford ample pro tection to two hundred large-sized vossels. Akerman Is sltuated near the Black Sea, on tite lagoon on the Dnleper. It la the principal outlet of the produce of (ialicia, Pololla, and llessarabia. The lagoon, or li. man, on whith Akerman is situated, la said to pro duce annually $7,000,000$ poode ( $252,000,000$ pennis) of salt. The jort ia, however, too shallow for vessels drawlig over seven feet of water. Kherson, Nifolalef, and Sevestopol are the remaining princlpal ports of these seas.

The following tahle exhilite the tonnage of Udessa $\ln 1852$ :

| Nationalily, | knimed. |  | Cleared. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vemels. | Tonnafe. | Vemelo. | Tonmagn. |
| Fagland | 214 | 64,601 | $22 \%$ | 0.7.173 |
| Aumiria. | 108 | 68,781 | 206 | 71,501 |
| Beiglum........ | 1 | 240 | 2 | 142 |
| France . . . . . . . | 43 | 7.028 | 42 | 7.04 |
| Greees. | 162 | 43,3.5 | 150 | 4 1,074 |
| Holland....... | 12 | 9,633 | 12 | 2.640 |
| loaian Ialands. | 14 | 2,991 | 13 | $\underline{2} 013$ |
| Simly .......... | 27 | 7.024 | 96 | 6696 |
| Sardinia | 172 | 43,629 | 197 | 18.39 |
| Swrden, etc. ... | 90 | 20,412 | 88 | 20, 406 |
| Tu*an) ....... | 10 | 3,507 | 11 | 4,201 |
| Turkey ........ | 43 | $8,8 \mathrm{nl}$ | 60 | 11,332 |
| Olliersi. | 07 | 20,317 | 113 | 310,110 |
| Total fu 1859.. | 1076 | \%96,767 | 114, | 317,010 |
| Total in 1atil.. | 623 | 172, 770 | 648 | 175,193 |
| Inerease In 18,2 | 45.1 | 124,015 | 47 |  |

The preceding table exhibits a total of 221 vessects (cntered and clearod), with an aggregate of (i4,598 tons, being an licrease over 1851 of 950 vessels, nith an aggregate of 265,286 tons. If to the tignres given In the table is added the coasting trade, viz., $2: 01$ ves sels, with ans aggregate tonnage of 118 , tibe, the total navigation of the port of Olessa, in 1852, will amuunt to 1525 vessels, with an aggregate of $1,0: 11,1231$ tuns, An analysis of the table given to Austria the first rank in the navigation of this port. Total tennage
 tons. Eugland holds tho secend rauk, viz., 1:37,766 tons; then Sardinia, 92,420 tons; Grecee, xil, $6: 17$ tons; Sweden, $\mathbf{d 3 , 0 1 7}$ tons. The augmentation in $1 \times 52$ over 1851 gives Austria 66, 878 tons more ; Englant, 61,531 tons more; Sardinin, 38,977 tous more; and tirece. 13,577 tona more. The steam navigatien of Olessa is maintained by the two 'ines of Constantinople and the Danube. The first mz a thirty-six voyayes (inetween the two points), and the second eighteen, sunualty. The Constantinoplo line conveyed, in 18 ite $_{2} 1: 14$ passeugers; that of the Dannie, 995; making a tual for both lines of 2.29 passengers. The lirst of these transportod to Odessa merchandise and speclo amounting to $5,411,520$ france, and the other 354,620 franes. There was exported to Conatantinople by the first line merchandise valued at $1,669,108$ francs; nul to the ports of the Danube, by the other, murechandise to the amount of $6: 3,796$ francs. Govermment steamers keep up the communieation betwecn the ports of Kherson, Nicolalef, the Crimea, and the C'aucasns. In 1852 thoy made ninety-five voyages from these different points to Odessa, tranaporting passengers and merchandise.
The different steamers which make Odessa their starting-point made, in 1852, 149 voyages, transporting 20,905 passengers, and increhamilise to the amount of $10,705,768$ franca, equal to $\$ 2,000,000$ nearly.

| Comment of Onama. |  |  |
| :---: | :---: | :---: |
|  | Insa. | 1851. |
| Exports. <br> Imporis |  | $\begin{gathered} \text { Vranea } \\ 63,400,024 \\ 99,840,800 \end{gathered}$ |
| Totat, Franea..... | 150,649,476 | [8,089, $3 \cdot 24$ |



The principal imperta in 1851-52 were! raw cotion and cotton yarns, ollve-oil, dye-stais, drugs, metals, wines, and sugar. In 1858 the total value of the foreign trade of Odessa was $\$ 25,953,807$, viz. : exports, \$18,583,203; imports, $97,370,514$. Grains constituted the chief export in 1853. Thus, of the $\$ 26,000,000$ (lin round numbera), grains amounted in value to $\$ 13,000,000 ;$ linseed, wnol, tallow, and cordage covered $85,000,000$. In 1854 this immense trade must have been completely paralyzed, as an official notlfication was published at Odessa on 8d March, 1854, prohibiting the exportation of grains of all kinde, from ali ports of the lliack and Azof Seas, untli the Ist of September following. This prohllition, however, la now removed ; and official returna, when received, will ahow how far the biockade of the linssian ports liy the allied powers affected the trade of the Black Sea. By declaration published at St. Petersburg 7th [19th] April, 1856, all the aucreantile harbors of Itussia are opon to the merchant vessels of neutral countries.

The total value of the trade of the porta of the Sea of Azof (Taganrog, Kertch, Kostoff, Mariopol, and Berdiansk), was, in 1801: imports, 6,902,000 franes; (x.jorts, $27,182,000$ franes.

The imports were chiefiy from Turkey, the Two Sicilies, Ionlan Islands, France, and Greece. The exports were destined to 'Turkey, England, Sardinia, Tuscany, Ionian Isianda, and France. The total value of the trade at the commercial porta of the Crimea (Eupatoris, Balaklava, Theodosia, and Kerteh), in 18E2, was: imports (including apecjo), $1,092,500$ franca; exporta, 654, 500 francs. Total, $1,747,000$ francs.

Comparod with 1851, the importa increased 12 per cent., and exports deereased neariy 60 per cent. Imports conaisted of cottons, raw cotton, coals, oil, and fruits; exports, of wool, raw hides, hutter, caviar, and grains.- Lnited Stutes Commercial Relutzons.

The United States Consui, under date of July 1, 1854, conmunicates the following information: There exists a treaty of commerce between the United Statea and the Imperial Russian government, which was concladed at St. Petershurg on the tith [18tin] liecember, in tho year 1832, and was ratified at Wrashington on the 11th May, 1833, to which the Hussian government abidos with strictnesa. The city and port of Odessa was declared as porto-franeo by a lecree of the imporial government in the yeur 1823 , which was put into execution only on the 15th August, in the your 1824, by which the importation of all kinds of merchandise was allowed, on paying oniy one-fifth of the entire duty paid in other ports of this empire; and thia one-lifth duty was employed to defray the annual expenditure for the beaelit of this city, such as pavements, rotpaths, repairing streets, lights, government buildings, and for the expenses of all the jucal administrations. The importation of all kinde of merchandise is allowed, even those artleles which are prohibited at all other ports of the empire, but they are not allowed to be transported into the interior from hence, as tea, refined sugars, strong spirita, cloths-black and green-printef cottons, silka, and wools. These articlea are to be consumed at Odersa. The term of theso privileges for Olessa expired in the year 1849, hut his majesty the entperor, wishing to favor this city, granted a prolongation of the amme privilegen for a period of five years, which ends on the 14 th August, 1854. During this last period the duty was augmented; inatead of
one-fifth, it is now two-fifthe of the entire duty on the import of any kind of merehandise, whith the exception of tohaceo, rum, and other atrung spirits, on which the entire duty is paid, as at ali other ports of Rursia. Refined angars, tea, and wines, have to pay three-ffths of the entire duty, one-ffth of whieh is deatined for expenses of thla city, and the remainder In favor of government. There doed not exiat at thls port any privilege granted to any nation, in any way, which is denied to citizens of the United States. The only restriction exiating at Odeasa is on ships under French and Neapolitan colors, they not being allowed to import any merchandise from foreign countries to Russla, unless paying 50 per cent. more on the import duty, in comparison to A mericans, or ships of other natlons. Thia differenco on French and Neapolitan vessels exlists by the commercial treaties between the respective powers, ly which it is also prohibited for Rusalan vessela to impert to France or to Naplea merchandise from foreign ports not liussian produce, as the cargo must be, and from a Itussian port. There are no difierences in the charges, or any other dues, on ships of the United States and Russian vessela. A liussian vessel of 150 lasts (equal to 300 tons) pays the same charges as un American of the same sizc. The following atfords a comparative statement :
Lants, 150, at 17-100 per last
S. R. $2580=\$ 1038$

Llght dues

and fees …s, nitom-house charge
The tonna estand inge and ilues are a fixed charge, and establlalied lyy law; the quarantins and custom-house duea are not so. The amonat of the latter charges is generally paid partly for atamp paper, fees, and other trities, which reachea the sum above atated, and which every one pays without opposition, as it is the custom and haa been for many years past, and by which meana busineas la greatly facilitated. It is prohibited by law to reship merchandise from one ship to another, oven if the merchandise reshipped be destined for another liussian port, and no matter under what colors it is brought to this port. The merchandise, belore reahipment, must first be landed and visited by the custonthouse authorities, and the whole amount of duty paid, before permission ean be olstained for such merchandise to be shipped and transported to another Kussian port. But if anch merchandise bo destined for a foreign port, it has to be landed, and after being visited by the custom-houso officera, a certificate to that effect is given to the shippers of the cargo, allewing the reshipment and exportation to a forelgn port. All foreign, as well as American vessels are allowed to share in the coasting trade from one Kussian port to another in the Black Sea or the Sea of Azof. The current cein, weighte, measurea, etc., are the same at Odessa as at St. Pelershurg. The value of a allver ruble is 75 T 980 cents of an American dollar; one pood weight ia 36 English pounds; one arshine mearures 28 English inches; one chetwert of wheat is $5 \geq$ English bushela.

The only cargo exported from hence for Amarica since the lst of July, 1853, consisted of common washed wool, 505 bales, welghing 5972 poods, 23 pounds; and linseed, 1200 chetwerts-the whole shipped on board of an American bark of 380 tons, bound for New York, and clearel from hence on the 10 th November, 1853. The cluty on the cargo amounted to 342.80 silver rubles, or $\$ 257^{\circ} 80$, being on the linseed alone, as there is no duty on the exportation of wools. No insurances have ever taken place here for the United States, but the general custom is to insure in England for America. The custom in purchasing any kind of merchandise for exportation at thls place is to pay ready cash, and without any discount whatever; but in the cale of colonial and other goods imported from abroad sometimes a credit of six or eight months is granted to the buyers. There ia no established rate of exchange here for the United States, but the value of the dolier is

## OFF

nominal at $1 \$$ silver ruble. The amount of duty paid bure on merchandise exported for America during the last perlod smounts to $\$ 257$; bot no import duty was paid here, as no morchandino arrived from America. There is no duty levied in Rusaia by government on produce exported In its new state, or patily nasufactured, or entirely 80 ; the only exiating duty is on raw augars, on whlch the refiaers of Rosain pay an excleo to governmant of ${ }^{60} 00$ silver rubies per pood on the refined augars, or $45_{1} 170$ conts in American carrency. Laborers are generally pald here by tho day, and, the rate not being fixed, fluetoates accorling to the wanta of such men-rialug from $\frac{300}{100}$ to one silver ruble per day; or from $22 \frac{1}{2}$ to 75 cents per day, American currency.

A tribunal of commorce was establishod at Odeasa in 1824, whose jurisdletion extonds over all disputes connacted with trade. Thore is no appeal from ita docislons except to the arinate. There are twelve sworn hrokers, approvod and licensed by the Tribum of Commarce, who havo dr ies appeinted by themselves. They register all trs oue cons, and receive \% per cent. from each party $2 s$ cummission. There is a discoont or loan baus, established in 1828, and marlno and fire insurance societies. Most articles of provision are cheap; and fish, which costs next to nothing, is excellent. Fuel, however, is scarce aud dear. Within the last thirty years, tho Merino breed of nheep has heen oxtensively introduced inte the governments of Taurida, Chersou, and Ekaterinoslov, so that thero has been not only a great increase in the quantity, but also a very declded improvement In the quality, of the wool exported. Corn Trade. -Theprincipal trado of Odessa is with Constantinople, Sinyrna, and other towns in the Levant, Naples, Leghorn, Genoa, Marseilies, etc, "It Is generally atated," says Mr. Jacob (Memoir on the Trule of tha Bluck Sea, in the Appendir to the cetavo edition of Tracts on the Corn 7rade), "thant the supply of Constantinople requires anmually 100,000 quartors of Biack Sea riast. The Greck Islands scarcely, on the average of years, produce aufficlent wheat for their own consumptlon, and in some years require a large supply, which is farnished partly from the neighboring continent, and partly from the llack Sun. The Aalstle coasts of the Turkish Enplre, especlatiy in Anatolia, are nearly in the same predlcament. At times the market of Smyrna ls very favorable for the sale of the corn of Southern Rusia. The isiands of Malta and Gozo produce only about half as much corn as the 120,000 in' abitants require. Sicliy, though it has greatily declined from tos anclent prodnctivencss, has atili a quantlty of grain to aprare for the loss fiuitful parts of fialy in most years, and its wheat enters inte conupetition with that of the 13lack Soa, In the ports of Naples, Genos, aind leghom. Thero aro few yeara in which Tuscany grows a sufficiency of wheat; and its chief jort, Leghorn, being one of those In which ahip, can unload their cargoes of corn, wlthout being detained to perform quarantine, has been at all times a place of teposit for the wheat of the Black Sea. $A$ market at some price may always be fonnd there, as the capitaliats are disposed to parchase, relying on the uncertain productiveness of some adjacent country, in which they may realize a profit at no great distance. Genoa, like leghorn, is a port where wheat ran bo unloaded within the bound of the lazaretto. The country arount it yields but little whest ; and at some perioda it enjoye a traide in that articlo even as far as Sunderiand. This internal demand, and the chance of advantageons re-axportation, induces buch trade in corn. Thery is said to be seldom leas than I(, 000 iuarters in store ut the two ports of Genoa and Leeghorn, and at some periods a far greater qu...ticity. Nice, theugh not having the aame advantageons quarantint regulatiora. and, consequently, not being a dipts frr corn beyond its own dimand, from the nterile soll that surrounde it, requirea every year a large importation
of wheat. That of Slecly and Odeasa creates a compotition in its port, and the government draws a revenue by impoaing a hoavy duty on both. Thoogh the corn lawa of France hava kept the porta closed againat the Introdaction of foreign corn for domestle use, yet it is allowed to bo bonded for re-exportation. From the frequent local and partial acarcities which occor on the castern coast of Spain, at which periods whest is allowed to be lawfolly lmported, and, it la sald, from the facility of its iatroduction by contrsband when not legaily allowed, Marseilles has been a great depd for the whest of the Black Sea. From thence, as also from Gibraltar, where there is generally nomo in store, It can easily be transportod to Spain, to Sardinia, to Corsica, to Tunis, to Tripoll, or wherever scarcity has ereated a beneticial market. Tho coasts of Barbary, though often harlug a surplus of wheat, much of which necasionally assists to feed Portugal, In some sessons have been affected with inost deficient harvests. This was recont:y the case $\ln$ a remarkalyie dogree. Tripoli and Tanis exporionced, in the year 1820, a harvest most miserably ahort, and were aupplied from other conntries." The warchouse rent of corn at Olessa is from eight to ten copecks per chetwert per month. M. De Hagemeister supposes that Turkey and the differeat ports of the Moditerranean requlre, at an average, an annoal supply of $1,400,000$ chetwerts, or about $1,050,000$ quartors, of which $1,0 \cdot 0,000$ chetwerts, or 750,000 quarters, are furnisied hy Southern Russia, and principslly shipped from Odessa. Waliachin and Meldavia aro both very fertile in corn; and were trampuilHity and good order introduced into thom, and the free navigation of the Danube secured, Gulacz and Brailoff nould be wo of the principal European grain-shipping ports. - See tho excellent leport of 11AuFmerstris on the Traule of the Blark Sien, p. 96-114, Engl. Trans Exciuslve of corn, the other articles mentioned as inco ing exported from Wdessa find their wuy to the different markets in tho Mediterranoan. Thuse slipyed for Turkoy are tron, tnilow, sail-cloth, coninge, suchors for ahlpe of war, butter, etc. The exports to Italy and other Luropean countries nre similiar. The imperta. tion of all foreign articies Into tho Russian dominions on the Bisck Sea and the Sen of Azof is conthell to Otessa, Theodosin or Kaffa, and Taganrog. The Import trade is, however, of inferlor lmportance wien compared with the export trade. Tho principal artlicies are sugar and coffer, dye-woods, wino and brandy, cotton stuffs and ysin, woolen and silk manufac. tures, spices, cutlery; oranges, lemons, tigs and other fruit ; lemon-juice, oll, tha and thin plates, dried fruits, paper, ailk, speeie, etc.
Odesan, in addition to its greac and rapidly increas. ing trade with Conntantinople and the comntries on the Mediterrawean, itad, Before the war of 185.t-1855, a censiderable trade with lledout-kale at the mouth of the Thasis, and with Trohizond ani seversl ports on the no:ith coant of the Biack Sea. Georglan and Amenian merchants are aiready conaiderablo purehasers at the leipsin and other German fairs, and civlization is heginning to strike its roots throughout nil the extansIve countriea between the Black Sea and the Caspian. It is proliablo that at no very romote perion the fissls will be frequented by British ships; and thnt merchants, without any enchentress to nid them, and defrending only on tho auperlor cheapness and excellence of their goods, will be hospitabty received in the oncient Colebla, and bear away a richer prize than fell to the lot of Jason and his compeers,-See lirssta.

Ofilng, or Ofiln, in Noutical language, that part of tioc aen, a good distance from shore, where there is deep water ant no need of a pilot to coudnct the ship. Thus if a ship from shore be seoll sailing out to scaward, they say, "She stands for the offing;" and if a ship, having the shure near her, have another a good way without or beyond her, tow ard the sea, they say, "That alilp is In the offing." ih the corn gainst the e, yet it is From the ecur on the heat is ald, from the hen not leép for the also from in store, it ain, to Cor. ty has cre. Barbary, :I of which ne seasons ests. This e. Trijoli a' harvest frem other t Odessa is nonth. M. the clifier. on average, , or about etwerts, or Russia, and la and Mol. - tranquitnd the free nd Brailoff in-shlpping ambeintek ngl. 'Trabe oned as ,nes , the differ. whipreet for o, anchors o Italy and e iorports. tominions contherd to
'ithe im. anee when incipal ar. and brainx manufac. and other ried fruits,

## 1 y increas-

 tries on the Riab, a conputh of the prts on tho and Armerehasers at llization is the extensc Caspias. the Pha1 that mern, and de excelience in the anhan fell te is1.s. re there is the ship. put to scal ;" and if a her a good they say,Oblo, one of the Nnited States, lies between Iat. $38^{\circ} 30^{\prime}$ and $42^{\circ} \mathrm{N}$., and between long. $80^{\circ} 35^{\prime}$ and $84^{\circ}$ $47^{\prime} \mathrm{W}$. It is 210 mites long from north to south, and 200 miles broad. Area, 89,964 square miles. The population in 1790 was 8000 ; in $1800,45.865$; in 1810, 230,760 ; in $1820,581,434$; in $1830,937,637$; In 1840, $1,519,467$; and in $1850,1,980,408$. The land in the interior of the Stato and bordecing on Laika Erio ia geoerally level, and in some places marshy. From one quarter to one third of the State, comprehending the eastern and southeastern parts, bordering on thec Onio River, is gencrally hilly and broken, hut in no part mountainous. On the margin of the Ohio liver and several of its tributaries aro alluvial iunds of great fertility. The valleys of tho Scioto and the Great and Littlo Miami are the most extensive sections of level, rich, and fertiie lands in the State. At the head of the Muskingum River are prairies of considerabie extent, some of which are wet, though generally dry and fertiie. Tho height of land which divides the waters which fali into the Ohio from those which fall into Lake Eric is the most marsiny of any in the State, while the land on the margin of the rivers is generally dry. Wheat may be regarded as the ataplo production of the State, though Indian corn and other grains aro iargely cultivated. It is rich in mineral wealth, iron, coal, lhnestone, marilo, and superior building strice, suind-stonce, etc. There are many valunble saltsprings. There were in this Stato in 1850,9,861,493 acres of land improved, and $8,146,000$ of mimproved land in farms; cash value of farms, $\mathbf{\$ 3 5 8 , 7 5 8 , 6 0 3 ;}$; and the ialue of implements and machinery, $\$ 12,750,585$. Live Stock-hezses, 463,897; asses nad muies, 3423; miich cows, 544,499 ; working oxen, 65,381 ; other cattle, 749,067 ; siteep, $3,942,929$; swine, $1,904,760$. Vaiue of tive sterk, $444,121,741$.

Ayricultural I'roduets, etc.-Whent, 14,487,801 bushels; rye, 425,918; Indian corn, $59,078,695$; oats, $13,172,712$; harluy, 954,358 ; huck wheat, 638,060 ; peas and lenas, 60,168; putatocs, $5,057,760$; sweet potatoes, 187,991. Vnlue of products of th. orchard, $\mathbf{\$ 9 5 , 9 2 1 \text { ; } ; ~ ; ~}$ of the market-gurdens, $\$ 21 s, 004$. Ponnds of butter made, $34,449,379$; of cheese, $20,819,542$; maple sugar, $4,588,209$; moiasses, 197,308 gallons ; beeswax and honey, 804,275 pounds; wool produeed, $10,106,371$; flux, 446,932; slik cocoons, 1552 ; hops, 63,731; tubacco, $10,154,449$; hay, tons of, $1,483,142$; homp, 150 ; ciover-seels, 10:1,197 bushels; other grass seedis, 37,310; flax-seed, 188,880 ; and were made, 48,207 galions of wine. Value of home-made manufactures, $\neq 1,712,196$; of slaughtered animals, $\boldsymbol{\$ 7 , 4 3 9 , 2 4 3}$.

Rivers, efc.-The Ohio River, willeh gives name to the State, washes its entire sonthern border. This river is 1004 miles iong from I ittaburg to its month, ly its various windings, though it is oniy 614 in a direct line.-See Onio Riven. The Muskingmm, the largest river winits fiows entirely in this State, la formed ly the junction of the Tuscarawas nud Walhonding rivers, and enters the Ohic at Minrletta. It ls navigable for boats 100 miles. The Scioto, the second river in magnitude, fiowing entirely within the State, ia abont 200 miles long, and enters the Ohio at Portsmouth. lis largest branch is the Whotstone, or Oientangy, which joins it immediately above Columbus. It in navigable for boats 130 mijes. The Great Niami, a rapid river in the western part of the State ia 100 ailles long, and enters the Ohio in the southwest corner of the State. The Little Miami has a course of eeventy miles, and enters the Ohio sevon miles above Cincinnati. The Maumee, $\mathbf{1 0 0}$ milea long, rises in Indiana, runs through the northwest part of the State, ani enters Iaka Erle at Maumee Bay. It la navigabie for steamboata to Perryshurg, eighteen miles from the lake, and above the rapida ia boatable for a consillerabie distance. The Sandusky rise. its the northem part of tha Stato, and, after a colsise of about eighty mitea, entera Sandusky Bay, aut thence luto Lake Erle.

The Cnychogen rises in the north part of the State, and after a curved course of siaty miles, enters Lake Erie at Cleveland. It tas a number of falls, which furnlsh valuable mill seas. Hesides these there are IInron, Vermillon, Hlack, Grand, and Aghtabula rivers, which enter Lake Erle.

The principal placea are Cincimati, the meiropolia; Columbus, the Capital; Cloveland, Sandusky, Dayton, Spriugfleld, Zanosville, Marietta, and Portsmouth. There were in Vebruary, 1854, sixty-eight banks, with a paid capital of $88,718,366$; in January, 1856, fortysix railroads, of which 2725 miies of track were finished and in operation, and 1578 in course of construction. 'Tonnage of the Stato $\ln 1853,25,632$ tons.

Nfanufuctures, etc.-There were in the State in 1850 elght cotton factories, with a capital invested of $\$ 297,900$, employing 132 males and 260 femnles, producing 280,000 yards of sheetings, etc., and 413,000 pounda of yarn, valuot nt $\$ 304,700 ; 130$ woolen factories, with a capitai of $\$ 870,220$, ensploying 903 males and 208 females, manufacturing $1,374,087$ yarts of cloth, and 65,000 pounds of yarn, valuet at $\$ 1,111,027$; thirtyfive establishments makling pig-iron, with a capital of $\$ 1,503,000$, employing 2415 persons, producing 52,658 tons of pig-iron, etc., and the entire value of products, $\$ 1,255,850 ; 183$ establishments, with a capital of \$2,003,650, employing 2758 persons, and making 37,399 tous of iron castings, etc., valued at $\$ 3,069,250$; cleven establishments, with a capital of $\$ 620,800$, employing 708 persons, manufacturing 14,116 tons of wrought iron, vaitid at $\$ 1,076,192$; 1082 flouring and grist-mills; 1730 saw-milis; 243 printing-offices, 302 newspapers, twenty-eight daily, six tri-weekly, four semi-weokly, 222 weekly, seven semi-monthly, twenty monthly, and ono yeariy publication. Capitai invested in manufactures, $828,612,136$; value of manufacturod articies, \$61,915,036.-Sce I'otr for further information.

Iducational Establishments, etc.-Tho University of Ohio at Athens, the Miami University at Onford, Franklin Coilege at New Athens, the Western leserve Coilege nt Hudson, Kenyon Collego at Gambier, Ciranvillo College at Granvilis, Marietta Collego at Marietta, Oterlin Collego at Oberin, St. Xaver at CincinHati, Ohio Wesleyan University at Delaware, Wittenberg Coliege nt Springticid, Willoughby University at Wiiloughly, Lane Theoiogical Seminary at Cincinnati. There are also theological departmeats at Kenyon, Western Reservo at Hudson, Granville at Granville, Oberlin at Oberlin, Wittenberg at Springfield, and a seminary of the Associata Reformed Clureh at Oxford, Western Rearve Medical Coilcgo at Cleveland, Me!lical Coliege of Ohio at Cincinnati, Medleal College (ilomeopathic) at Cleveland, Starling Medical College at Columbua, and Cincinnati Law Coliege at Cincinnati. The whole havlug, in 1850,3621 students. There were aiso 206 aculemies, 5052 pupiis; 11,661 ac'aools, 484,153 schoiars; 352 libraries-aggregato lumber of voilumes, 186,826 . School fund, $\$ 304,474$.

Ihs first permanent settlement in Ohio was made In 1788 at Maricta. In 1802 Ohio was admitted into the Union.

Tho progress of hanking in the State of Oillo it shown in the following summary :

| Year. | Number of Danls. | Capisal. |
| :---: | :---: | :---: |
| 1806 | 1 | 5,200.000 |
| 1411 | 4 |  |
| tSt5 | 18 | 1,484,000 |
| t8t6 | -1 | 2, $110 \mathrm{t}, 000$ |
| 1820 | 20 | 1,797,000 |
| 1835 | 94 | 6,819,000 |
| 1893 | 88 | 9,247,000 |
| 1810 | 117 | 10,617,000 |
| 18.45 | 8 | 2,171,000 |
| 1850 | 60 | 7,129,400 |
| 1886 | 60 | 6,995, 100 |
| 1807 | 0.1 | $0,808,0000$ |

The frec-banking law of Ohio was adopited in the year 1851, and forms at present a part of the bankling system in operation.
 bom Ocroazr 1, 1820, to July 1, 1856.

| Years onding | Exporta. |  |  | Importa. | Toanage Cleared. |  | Distriet Tomnagn. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentic. | Freoign. | Total. | Total. | Ameriana. | Forvigh. | Raghatered. | Eprolled and Lleensed. |
| Sept. 30, 1821...... | $\cdots 10$ | *... | -i0* | \$12 | ** | -•* | 831 | 746 |
| 1858....... | \$105 | . . . | 8105 | 190 | - | . . . | . | ... |
| 1823....... | .... | .... | . . . | 161 | 81 | * . | *. | . $\cdot$. |
| $18^{1} 4 . . . . .$. | * . $\cdot$ | *..* | *** | *.. | .... | .... | . | . $\cdot$. |
| 1826....... | 1810 | ** | 1810 | . | "8io | ..... | ..... | $\ldots$ |
| 1897....... | 1,810 | . . $*$ | 10 | ..... | .... | .... | ..... | . |
| 1828....... | **** | . | $\cdots$ | … | . $\cdot$ | .... | . | . |
| 1899........ | 2,00 | . | 2004 | 298 | $\cdots$ | 40 | . . . | . . . |
| 1830....... | $\cdots$ | .... | .... | 163 | 66 | 49 | . . . | .... |
| Total. | \$3,910 | * * * | 89,019 | $\$ 818$ | 456 | 43 | -•. | -•• |
| Sept 30, 1831. . . . . . | \$14.728 | . 0 | \$14.788 | \% 817 | 01 | 188 | 120 | 1622 |
| 1832....... | 68.394 | *.. | 58,374 | 12,392 | 209 | 1,541 | ** | . |
| 1838....... | 225,544 | , | 925.644 | 8,353 | 2,041 | 4.128 | -• | .... |
| 1834. | 241.451 |  | 941.451 | 18,767 | 2,009 | 8.756 | . . . | . $\cdot$. |
| 1835....... | 97.001 | $\$ 140$ | 07,201 | 0,803 | 2, 1018 | 4.871 | ** | . |
| 1816. . . . . . | 8,718 | .... | 8.718 | 10.060 | 106 | 2,943 | . $\cdot$ | . . . |
| 1837....... | 132,814 | ...* | 182,844 | 17.747 | 4,249 | 4,624 | . | . |
| 1838. ...... | 189.827 | .... | 180.837 | 12,895 | 1.141 | 2,438 | ** | . |
| 1839. ..... | 95,854 | .... | 95854 | 19,280 | 4716 | 1,957 | . . . | - |
| 1540..... | 901,954 |  | 901,054 | 4,915 | 8,708 | 3,205 | . $\cdot$. | :... |
| Total... | \$2,001,875 | \$140 | \$2,041,815 | \$118,734 | 26,486 | 28,928 | * $\cdot$ • | * |
| Sept. 80, 1841....... | \$798,114 | ... | \$793,114 | \$11.318 | 8,600 | 2,624 | * . ${ }^{\text {a }}$ | 25,111 |
| 1884....... | 899,78R | * | 899,788 | 19,051 | 14,800 | 8596 | * . $\cdot$ | .... |
| 9 mos, $1843^{\circ} \ldots .$. | 120,10 | .... | 120.108 | 10.774 | 1,248 | 5,170 | . | *... |
| Jane 30, 1844...... | 643.856 | .... | 643,856 | 36115 | 2,603 | 14.162 | *..* | ... |
| 18.15.. | 321.114 |  | 3?1,114 | 78.106 | 6,324 | 1,201 | .* | . |
| 1844..... | 858,630 | *.. | 852630 | 102.714 | 6,228 | 4.831 | . | - |
| 1847. | 778,944 | . . . | 778,044 | 00.681 | 7, 144 | 10.823 | . | . . . |
| 1848. | 147,599 | . . . | 147.099 | 180.726 | 7,005 | 6,853 | . . | ... |
| 1859.. | 149.724 |  | 149,724 | 149.839 | 6.957 | 0.821 | . $\cdot$ | . . |
| 1850.. | 817,532 | \$100 | 217.632 | 582,594 | 15,485 | 18,822 | . . . |  |
| Total... | \$4,324,407 | \$100 | \$4,324,507 | \$1,261,208 | 77,085 | 80,803 | - | $\cdots$ |
| Jane 30, 18.51. | \$396.126 |  | \$395. 125 | \$656,331 | 18.780 | 11,868 | . . $*$ | 68,359 |
| 1852 | $35^{.} .514$ | .... | 353,614 | 982.216 | 14.944 | 11,222 | .... | , |
| 1863. | 154,418 |  | 168.418 | 847.760 | 22,030 | 0,939 | .... | .... |
| 1854. | 743,104 | \$1590 | 744.684 | 7!14,082 | 87.004 | 18.234 | . $\cdot$ | . |
| 1855. | 847,143 |  | 847.143 | 600, $05 \times 6$ | 26,879 | 18.890 | . | ... |
| 1856..... | 1,045,0.52 | . $\cdot$. ${ }^{\text {c }}$ | 1,045,052 | 403.473 | 85,252 | 42,676 | . . . |  |

* Nine menths to June 30, and fiscal year legina July 1, 1843.

Fimanoee of the State of Ohio.

| Fiseal Yiears. | Forsign end Domerties stalu Debt. | Aunanal Interest on Etate Debt. | Tarable Properiy of tiate, Real and Pereonel. | $\begin{aligned} & \text { Grose } \\ & \text { Reveouen of } \end{aligned}$ Meto. | Grues sitate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 183.1 | \$4.750,400 | \$205,400 | \$78,014, 526 | \$248,739 | \$298. 33 |
| 184 ..................... | 4,591,66: | 298 6001 | 7 $5,5 \cdot 8.818$ | 281,820 | 277949 |
| 1835. | 4.979 .247 | 291.757 | 94,438,016 | 201,760 | 285865 |
| 1936 | 6.857.833 | 351.470 | (5), 812, 882 | 301,059 | 249.660 |
| 1837 | 6.136,516 | 369, 190 | 01,501,745 | 327.863 | 29.561 |
| 1838. | 6.905,790 | 414,343 | 108,05: 018 | 451.757 | 824,712 |
| 1839 | 10,030,162 | 601.849 | 111,224,107 | 655,905 | 63:.523 |
| 1540 | 14.012,230 | 770,822 | 119,037,461 | 8119,408 | 295,030 |
| 1841 | 15.573, ${ }^{54}$ | 024401 | 1293503,657 | 255 832 | 102, 70 |
| 1848. | 16.947.825 | 1,016,839 | 132,343,835 | 292,924 | 227, 8 ¢i, |
| 1843. | 18.64,321 | 1.120.059 | 183,663,794 | 828,970 | 233.462 |
| 1514. | 19,276,75: | 1,167,444 | 136.148,663 | 871,963 | 209.141 |
| 1945 | 10, 251.180 | 1,140.766 | 144,160,469 | $18 \div 3,456$ | 1,809,087 |
| 1846 | 19.241.009 | $1,184,861)$ | 159,293.139 | 9,081,1184 | 2,038 027 |
| 1847. | 10,233,847 | 1,163,503 | 409.897 .879 | 2,614.785 | 9,8: 7,005 |
| 1843. | 19,173,243 | 1.159,883 | 419,897,230 | 2.474702 | 2,187,194 |
| 1819..................... | 19.020,200 | 1,147.854 | 429,665,629 | 2.811,110 | 2.883 .135 |
| 1850. | $18,744 \mathrm{ML}$ | 1,184. 536 | 439,876.340 | 2.5861568 | 2.961 .501 |
| 1851..................... | 15,64.493 | 923.843 | 462, 148,680 | 2.878 (2)6 | 2.6' 5 ,369 |
| 185? | $15.580,763$ | 810.496 | 807881,011 | 8,014.403 | 2,784, 46 |
| 1853. | 15.218,1:9 | 001.191 | 093.396.848 |  | 4.666 .118 |
| 1854. | $146: 4.9 \times 6$ | 859,036 | $866,990.082$ | $8.715,103$ | 3 3 3.583 |
| 1045. | 14,0)N, 2: 5 | 827.963 | R60 877.984 | 8.6i1.173 | 8,612.644 |
| 1856.................... | $14.4008 .2: 4$ | 890.250 | 840,641,047 | 3689,883 | 8.114 .406 |

Cheinnati, the metropolis of Ohio, capital of Hamil- ally in Auguat, September, and October, and the great-
ton connty, and one of the leading commercial placen west of the Alleghany Mountains. It is situater in 3 the right bank of the Ohio River, 455 millea beluw Iltisoburg, 1 whalles atove New Orleans, and 502 milea fron Washington. It is the largest city of tha Misalesippt Valler, north of New Orlesus, and the fifth in population in the Ľnited States. Population in $\mathbf{1 8 0 0}$, 750 ; in 1810, 2510; in 1830, 24,831; in 1840, 46,338; in 1815, 65,000; in 1850, 115,438 ; in 1853, 160,141 . The Ohio River at Cincinnati is 1800 feet, or about onethird of a mile wide, and ita mean annuai range from low to high water is about fifty feet; the extreme range may be about ten feet mure. Deprestiona are gener- 1389.

Ohio, by the c the Mon western $80^{\circ} \mathbf{9}^{\prime} \mathrm{W}$ in the Ab west, div the south and ente $58^{\prime}$ W. course of direet ed its whol scent of the Ohio width is about eq the Miss great vo square $n$ is rapid! in this r it descer been ob of the pa cend and The cur: miles an when his est wate and the The ave 40 feet; nuti). navigati contluen most in Olean, Gencsee extendia munical West. north a Miamis, are the Cumber gable a stcambo 1000 mi buats to ther ; River, miles, ries, ha: The is estim The ay inches. this, be for une of equal or rapic
Its f whole

From 1 to "cal burg, it on the cel, anc length,

Ohio, a large river of the United States, formed by the confluence of the Alleghsny from the north snd the Monoogahela from the south at Pittsburg, in the western part of Pennsylvania, lat. $40^{\circ} 32^{\prime}$ N. and long. $80^{\circ} \boldsymbol{2}^{\prime}$ W., st the helght of 1133 feet above tide-water in the Atlantic. It proceeds in a direction west-southwest, dividing the states of Virgius, and nentucky on the south from Ohlo, Indiana, and Illinois on the north, and enters the Missisaippi in lat. $87^{\circ} \mathrm{N}$, and long. $88^{\circ}$ 58' W. Its length from Pittsbu "g to its mouth, by the course of the river, is 948 miles; but the distance in a direct course is only 614 miles. It has a descent, in its whole course, of 395 feet, making an average descent of not quite five inches in a mile. The width ef the Ohio varies fron: 400 to 1400 yarda; ita aversge width is 534 yards. "pposito ', Cincindati, which is about equidistant from Fitts1, , to tta confluence wlth the Mississippi, where it is $\therefore \cdot$ : 900 yards wide. The great valloy drained by this river contains over 218,000 square miles, and a populstion of over $5,000,000$, which is rapidly increasing. There are no colsiderable falls in this river excepting at Louisville, Kentucky, where it descends $22 \frac{1}{3}$ feet in two miles. These fslle have been obviated by a csnal around them, which admits of the passage of the largest steamboats; but boats ascend and descend these rapids, when the water is high. The current of the Ohio, when low, does not exceed two miles an hour ; when at a mean height, three miles; and when higher and rising, four or five miles. The highest water oecurs in December, March, May, and June; and the lowest in August, September, and October. The average difference between high and low water ls 40 feet ; its extreme range on record, 64 feet (at Cincinnati). During eight or ten weeks in the winter, the navigation is olstructed by floating ice. Of the two confluents which form the Ohin, the Alleghuny is the most important, being navigabie for boats 260 miles to Olcan, New York, and will hereafter, by means of the Genesee Vallay Canal, terminating at this place, and extending to the Erie Canal, form sn limportant communication hetween the city of New York and the West. The principal tributaries of the Ohio on the north are the Beaver, Muskingum, Scioto, the two Miamis, Whitewster, and Wabash; those on the south are the Kanawha, Sandy, Lickiug, Kentucky, Green, Cumberland, and Tennessec. Some of these aro navigable at high water to a great extent by boats and steamboats. Tho Tennessce is navigable by boats for 1000 miles; the Cumberland is navigable for steambeats to Nashville, and for kecl-boats 300 miles further; the Wabash is navigable for 200 miles; Green River, 200 miles; Kentucky, 150 ; Great Kanawha, $6 t$ miles, to the salt works. The Ohio, with its tributaries, has 5000 miles of nsvigable waters.

The whole fall of the Olio from Pittsburg to Cairo is estimated at 425 feet, and the distance is 977 miles. Tho average fall per mile ts therefore loss than tive inches. The full of the hiver Thames is greater than this, being an average of nearly seven inches per mile for one hundred and eighty miles. Indeed fow rivers of equal length and volums of water have so few fulls or rapids inpeding navigation as the Ohio.

Its fall, however, is not distributed equally over its whole course, as the following table will show ;

|  | Dialance. | Fall. | Avoragen. |
| :---: | :---: | :---: | :---: |
|  | Milea. | Feel. | I achen. |
| from I'ftebing to Wheeling. . | A8 | 71. | 11.77 |
| From Wheeltng to Cinclnuati. | 874 | 189 | 0 |
| From Ciactnmail to Louisville. | 156 | 65 | 4.2 |
| From Loulavilie to rialls. . | 3 | 47 | 100 |
| From Fialis to Evansvilto ..... | 169 | 34 | 285 |
| From livansville to Cialro..... | 187 | 45 | 29 |

From this tahle it will be seen that were it necessary to "canalize" the whole river, from ite mouth to Pittsburg, It would be the urost magnilfeent channel of trado on the face of the globe. No canal was aver constructed, and probably none could be constructed, of equal length, wlth comparatively a little lockage as this.

The Erie Canal has about five times tha lockage in proportion to its length; and thes Pennsyivanla Canal, from Pittsburg to Johnstown, has more than ten times as much. But it should be remembered that It will be unnecessary, for the purpose of making this great improvement, to overcome all this fall of 425 feet by means of locks and dams. A large part of thls whola descent is due to the gentle flow of the rivar, through ihe long pools which make up the most of its distance, and which, in their natural condition, nfford a sufficient depth of water at all seasons of the year for the purposea of navigation. What proportion of this whola fsll of 425 feet is thus due to these pools, which need no improvement, wo are unable to determine; but it must be a very considerable propertion of it, and would leave a compsratively small aggregate to be overcome by locks and dums or wing dsms. It would be unnecessary to construct these dams so high as to flow back the water from one to the other, but only to rise from one of these pools to another, or perhaps, In some cases, to unite one or more of them in one. To reduce the whole river to a series of long levels, as in the construction of eansls, would not be required, sud indeed would be liable to grave oljectlons on the score of health. A depth of about five feet at the lowest stage of water would be all that would be necessary to render the Ohio the most important channel of commerce In the world. This depth could be had without atfecting unfavorsbly the healthfuluess of the river, and would be enough for the first class of steamers which now ply on the river.
'The volume of water in this stream, in an improved condition, would be ample, for ten or eleven months in tho year, to meet the wants of a commerce largo enough to tax to the utuost the capacity of ten cansls equal to the Erie when enlarged; and so favorable is the climate, that the obstructions from ice would be of very short duration, if, indeed, such impediments would ever occur. It is well known thst the Monongahela suffers less inconvenience from iec, in its present condition, than it did before it was Inproved by lucks and dams, and no good reason can be given why the samno results would not follow the improved navigation of the Ohio. That the growing demands of trade in the Great West will imperatively require this great work to bo specdily accomplished, no man who has at all consldered this sulyect can for one moment doult. Saying nothing of the grest staples of agriculture, which already seek our Lastern clties through the valley of the Ohio, snd which will continue to increase in a ratlo that will almost defy cemputstion, there are lmmense resources of undeveloped mincral wealth, whose tonnage will soon exceed that of all the traflic now done upon the river, and npon all the railroads running nearly parallel whth it through the Western Stutes. The vist treasures of conl, iron, and sslt, are there in storo for the scores of millions which will soon Inhabit the rich valley of the Ohio. But admitting that the river, when improved by locks and dams, would impose a heavy expense for lockage, still the actual experes of nsvigation would be far loss than is now inposec. upon it, ill consequence of the ruinous delays and disruptions of business, arising from the sudden risu and full of the river. Though subjected to tolls at the locks, the certainty and regularity with which teansers could make their trips would more than compensato this cxpense. The whole system of passage and frelght would be systematized, and in the afgregate rendered fur less expensive and hazardous. ladeed, in whatever light this grand scheme may be viowed, It ia matter of surpriso that public attention has not been fully directed to it before, and that statesmen should not long ago have urged its paramount tmportance upon the attentlon of Congress.-See article Miasissapri liven.

Oil (Fr. Huile; Germ. Oel; It. Oine; Lat. Oleum; Ruse. Afaslo; Sv. Aceite). The term oil is applied to
designate a number of unetuous liquors, which, when dropped upon paper, sink into it, and make it seem semilitransparent, or give it what ia called a greasy atain. These bodles are very numerous, and have been in common use from time immemorial. Chemists hava divided them into two classea; namely, colatile and fired olls. Oll was ueed for burning in lamps as early as the epoch of Abraham, about 1921 n.c. It was the staplo comenodity of Attlea, and a jar full was the prizo at tho I'anathenrean gamea. It was the cuatoin of tho Jows to anoint with oil persons appointed to high offices, as the priests and kings, Psolm cxxxili. 2; 1 Sam. x. 1, xyi. 13. Tho anointling with this liquid seems also to havo been reckoned a neceasary ingredlent in a festlval dress, Ruth, iil. 3. The fact that oil, If passed through red-hot iron pipen, will be resolved into a combustible gas, was long known to chemista; and after the process of lighting lyy coal-gas was made apparent, Messrs. Taylor and MartIneau contrived apparatus for produelng oil-gas on a large scale.-Haydis.

Wo borrow from Dr. Thomas Thoman the following atatement with respect to these bodies:
I. Volatile Oils, called also essential oils, are distioguished by the followlug properties: 1. Liquid, fften almost as liquid as water, sometimes viscid; 2. Very combustible; 3. An acrid tasto and a strong fragrant odor; 4. Voletilized at a temperature not higher than $212^{\circ}$; 5. Soluble in alcohol, and imperfectly in water; 6. Eraporate withont leaving any atain on paper. By this last test it is easv to discover whether they have leen adultecated witl. any of the tixed oils. Iet a drop of the volatile uil fall upon a sheet of writing-paper, and then apply a gentlo heat to ft ; if it ovaporates without leaving any stain upon the paper, the oll is pure; lut if it leaves a stain upon the paper, It has been contaminated with some fixed oil or other. Volatile oils are almost all olitained from vegetables, and they exist in every part of planis-tho root, the bark, tho wood, the leaves, the Hower, and even the fruit, though they are nerer found in tho sulstance of the cotyledons; whereas tho fixed oils, on tho contrary, are alnost alwaya contained in these bodies. When the volntile oils are contained in great abundanco in planta, they are sometimes obtained by simple expression. This is the case with oil of oranges, of lemons and bergamot; but In general they con only bn obtalned by distillntion. The part of the plait containing the oil is put isto a atill with a quantity of water, whlch is diat ed off hy the application of a moderate heat. The oil cume over aloug with tho water, and awimn upon its surface ; the reveiver. By this procesa are obsained atto oils of peppermint, thyme, lavendor, and a great many othe's, which are prepared and employed by the periumer. Olitors are procured liy tho distillation of recinous bodies. This is the case in particular wilh cil of turpentino; which to oltained by distilling a kind of resinous juice, called turpentine, that exudos from the juniper. Volatile wla pra exceedingly numerous. They have ieen long known; hat as their use in chenistry is but limited, they have not hitherto been subjocted to an accurate chenical investigation. They ditfer greatly ia their properties from each other, but it is imposaible at preaent to give a detailed account of each.

1. 'The greater number of volatile oils are liquid; many, indeed, are as linuid as water, and have none of that uppearance which we usually consider oily. This is the caso with the following; natuely, oil of turjeculine, oranges, jemons, berganut, roses. Othern have the oily viscidity. It varies in them in all degrees. This is the cang with the oils of mace, cardamom, sassafras, eloven, cinnamon. Others havo the property of becoming solid. This is the ease with tho oils of parsley, fennel, anise soed, balm. Others cryatalize by slow evaporation. This is the case with oll of thyme, pejpermint, marjoram. The oll of nutmegs has usually tho conaistence of butter. This is the case also with the oils of hops and of pepper. 2. The coiur
of the volatile oila ia as various as their other properties. A great number are limpid and colorless; as oll of turpentinc, lavendor, rosemary, savine, aniss seed: some are yellow; as apike, berganot : some are brown; as thyme, savory, wormwood: others hlue; as camomily, motherwort: others green; as milfoil, pepper, hops, parsley; wormwood, eajepnt, junlper, sago, valerlan: others, though at first colorlens, beconie yellow or brown by age; as cloves, cinnamon, sassafrns. 3. The odore are so various as to defy all deccription. It ls anfficient to say, that all the fragrance of the vegetable kingdom resites in volatlle oils." Thir taste is acrid, hot, and exceedingly unpleasnnt. 4. Their specfic gravity varies very conalderably, not only in different oils, but even in the same oll in dif. forent clrcumatances. When the volatile oile are beated in the open alr, they evaporate readily, and without elteration diffuso thelr peculiar odors all around; but there is a considerable difference between the different oila in thia respect. When dlstilled in close vessels, they do not ao readily aasume the form of vapor. Hence they lose their odor, become darker in color, and are partly decomposed. Olle do not secin very susceptible of nasuming the gaseous form, unless somo other eubstance, as water, he present.
2. Fixed Oils are distinguikhed by tho following characters: 1. Liquid, or ensily becomo so when exposed to a gentle heat; 2. An unctuous feel; 3. Very combustiblo; 4. A mild taste; 5 . Boiling point not under $600^{\circ} ; 6$. Insolublo In water, and nearly so in alcohol; 7. Leave a greasy stain upon paper.

Thesc oils, which are called fat or expressed oils, nee numerous, and aro obtalned partly from animals and partly from vegetahles, by aimple oxpression. As instances, may bo mentioned whale oll or train oil, obtaincd from the blubber of the whale and from cod: olive ôil, oltalned from the fruit of the olivo; linseed oil and al. mond oil, obtained from linseed and almond kernels. Fixed oila may also be extracted from poppy sceds, hemp seedf, beech mast, and many other vegetable substances.

All these oils diffice from each other In several particulars, but have also many particulars in common.

1. Fixed ofl is usually a lighuld with a certain degree of viscidity, adhering to the sides of the glass veasels in which it is contained, and forming stresks. It ia never perfectly transparelit; has always a certhin degreo of color, most usually yellowish or greenish; its taste is sweet, or nearly insipid. When fresh It has little or no smell.

Thero exist also in tho vegetable kingdom a considrrable number of bodies which, at the ordinary tem. perature of the atnosphere, are solit, and have hitherto been considered as fixed oils, l'alin oil may be mentioned as an example. The various aubstances used in India and Africa ns substitntes for butter, and as unguents, may liku wine be nientioned.
2. All the fixed oils hltherto examined are lighter than water, but they differ greatly froms one another In apectic gravity. The samo difference is ohservalle In different samples of the same oll. Fixed oil, when In the state of vapor, takes fire on the eppreach of an ignited body, and luirns with a yellowish white finme. It is upon thia principle that candles and laups hurn. The tallow or oil is tirst converted into a state of vapor In the wiek; it then takes fire, and supplies a sumicient quantity of heat to convert nore oll into vapor; and this process goes on while any oil remalns. The wick is necessary to present a sufficienlly small quantity of oll at once for the heat to act upen. If the heat wero great enough to keep the wholo oil at a temperature of $600^{\circ}$, no wick would be neeessary, as is obvious from oil catchinge fire npontaneously when it has heen raised to that temperature. When oll in usel in this manner, either In the open alr or in contact with oxygen gas, the only now products ( 'italued are water and narbonic neld. The drying olls are used os tho vehicle of paints and varmishes. Iinseed, nu!, jopiry, and
her proporless; as some are 5 blue ; as lfoil, pepper, ssge, come rolsassafras. seriplion. co of the 8. Their hannt. 4. oll in difare heatd without pund; but different o vessels, r. Hence , and are usceptible ther subwhen ex; 3. Very point not irly en in d oils, are mals nind As in. il, obrain. olive éil, il and al. 1 kernels. eds, henap bstanees. cral paromuton. rlain tethe glass sircaks. or greca. hen fresh

11 a cons tary tomc hithermay be dislances Her, and e lighter anether servalle il, when ch of an fe flamie. ps hurn. uflicient or ; and he wick zuantity the heat emperaohvious in this Ih oxyn wer and
10 vehliv, and
homp-seed oila lolusg to this class. These olls in their natural state possess the property of drying oils, but Imperfectly. To prepare them for the use of tho painter and varnish maker, they are holled for some thme in an Iron pot, and sometimes burned till they beceme vlscid. When they burn for aome thine, their unctuous quallty la much more complotely deatroyed than by any method that has been practiced. Hence it is followed frequently In preparing the drying oils for varaiahes, and always for printers' lnk, which requirea to be as free as posalble from all unetuosity. Nut oil has been found preferablo to all other oils for printers' ink; though the dark color which it acquires darling boiling renders it. not so proper for red ink as for black. Linseed oil is cons! Aared as next after nut oil in thls respect. Other olls cas not be employed, because they can not be sufficiently freed from thair unctuosity. Ink made with them would be apt to come off and smoar the paper while in the hands of tho booklinder, or oven to spread beyoud the mark of tho types and stain the paper yellow.

The kind of oll used for burning in lampa varies, in different parts of tho world, with the sources of supply. Whate oil is used in Great Britain, but seal oll, fish oil, and oils obtained from seeds by pressure are also
largely conaumed. In Paris the oils of rape-seed and of poppy-seed aro used; and in the south of Prance, and in Italy, an inferior klad of olive oil, and also the oil of the earth-nit, are employed. In the latter country a lainp oll ia expresaed from grape-atones. In Piedmont walnut oil ts common; oll of sesamum-scel is burned on the eastern and southern coasta of the Mediterrancen; while in tropical countries cocoa-nut oil, which is solld in the climate of Great Britain, is generally used. In China, the Camellia oleifora is cultivated for the aske of the oll obtained from fta seeds; slao a ahrub, Croton sebiferum, the frult of whlch ylelds a useful oil. In consequence of the deficient supply of tallow during the laie war with Rusais, inquirles havo been set on foot in various parts of tho world as to the seeds and other vegetablo products from which oil may be obtsined, and the result of those inquirice has already shown that many oll-yieldIng substances, not before known In commerce, oxist. The export of olls from the East Indies, especially gingelly, has greatly increased. Plstachio-nut oll is becoming common, as is also ground-nut oil from Africa. All these oils are used for burning in limps.

The following is a list of tho plants whlch yleld the ordinary unctuous oils of commerce:

| No. | Planta. | Hils. | 8, ecific Gravily |
| :---: | :---: | :---: | :---: |
| 1. | Jham uxitatisslinum et prenue. . . . . . . . . . . . D. | IInaseed oll . | $0 \cdot 0347$ |
| 2. | Coryius avolians $\}$. . . . . . . . . . . . . . . . . . . . . . . D. | Nut oll . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 09200 |
| 3. | Juglana regla $\}$. . . . . . . . . . . . . . . . . . . . . . . . $\mathrm{D}_{\text {. }}$ | Nut oll . ${ }^{\text {P }}$ | 0020 |
| 4. | Papaver somnlferum. . . . . . . . . . . . . . . . . . . . . . . . . D. $^{\text {Pr }}$ | Poppy oll . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.9248 |
| 5. | Cannabla sativa. . . . . . . . . . . . . . . . . . . . . . . . . . . S. S $^{\text {c }}$ | Ilemp oll. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.9276 |
| 6. | Sesamutn orjentrie . . . . . . . . . . . . . . . . . . . . G. | Oll of हesamim |  |
| 7. | Olea Europon . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Q. $^{\text {a }}$ | Otive oll .. | 0.9176 09180 |
| 8. | Amygdalus commtulin. . . . . . . . . . . . . . . . . . . . G. $^{\text {a }}$ | Almond 0ll. | 09180 |
| 0. | Guliandina mohrlugn . . . . . . . . . . . . . . . . . . . . | Oll of behon or ben . . . . . . . . . . . . . . . . . . . . . . . |  |
| 111. | ('ucurbita poyo, and melapepo. . . . . . . . . . . . . . D. | Cucuinber oll . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.9231 |
| 11. | Fagus alivattea . . . . . . . . . . . . . . . . . . . . . . . . . G. $^{\text {a }}$ | Beech oll. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $0.02 \% 5$ |
| 12. | Sinupis nigra et arvensia . . . . . . . . . . . . . . . . . . G. $_{\text {d }}$ | Oll of mistard | 0.9160 |
| 13. | Hel anthus annuus et perennla . . . . . . . . . . . . . D. | Oil of sunflower | 0.0262 |
| 14. | irasslea napus et campentrls . . . . . . . . . . . . . . G. | Rape-sced oll . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.0136 |
| 15. | thelnns commnnis . . . . . . . . . . . . . . . . . . . . . . . . I). | Castor oll . | $0 \cdot 301 \mathrm{t}$ |
| 16. | Nicotlana Labseum et rustlea . . . . . . . . . . . . . . D, | Tobacco-soed oll | $0 \cdot 6232$ |
| 17. | I'runus domcaticu. . . . . . . . . . . . . . . . . . . . . . . . G. | I'lum-kernel oll | 0.0127 |
| 18. | Vitis vinlfers. . . . . . . . . . . . . . . . . . . . . . . . . . . D. $^{\text {d }}$ | Crape-sced oll. | 0.9202 |
| 10. | Theobroma cacao . . . . . . . . . . . . . . . . . . . . . . . . d. $^{\text {. }}$ | Butter of cacao | 0.892 |
| 20. | C'oms nuclfora . . . . . . . . . . . . . . . . . . . . . . . . . . 6. | Cocoarinit oll. |  |
| 21. | Cocus butyracea vel avolra elsla . . . . . . . . . . . . (\%. | 1'alm oll | 0.068 |
| 22. | faurus noblits . . . . . . . . . . . . . . . . . . . . . . . . . . G. | Laturel oll . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... |
| 23. | Aracihta liypogara . . . . . . . . . . . . . . . . . . . . . . . . G. | Groand-nut ol. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $\cdots$ |
| 24. | Vaterla Indica . . . . . . . . . . . . . . . . . . . . . . . . . G. $^{\text {. }}$ | I'iner tallow . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.926 |
| 25. | Lesperis malrouslis. . . . . . . . . . . . . . . . . . . . . . D. | Oll of dullenne . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.981 |
| 20. | Myagruin antiva . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {I }}$ | OHL of camellna. . . . . . . . . . . . . . . . . . . . . . . . . . . | $0 \cdot 9858$ |
| 27. | Iteseda luteola. . . . . . . . . . . . . . . . . . . . . . . . . . . . . D. | Oil of weld-80ed . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.03 K |
| 28. | Lepidium satlvinm . . . . . . . . . . . . . . . . . . . . . . . D. | Oli of garden eresses . . . . . . . . . . . . . . . . . . . . . . . | 0.0240 |
| 99. | Atropa bellalonna . . . . . . . . . . . . . . . . . . . . . . D. D. | Oll of deadiy night-mlzade . . . . . . . . . . . . . . . . . . | 0.2250 |
| 30. | Grossyplum Barhadense. . . . . . . . . . . . . . . . . . . D. | Cutton-seed oll . . . . . . . . . . . . . . . . . . . . . . . . . . |  |
| 31. | \|3rasalica eampestrls olcifera.... . . . . . . . . . . . . . G. | Colzn oil . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.9136 |
| 32. | Ilrassica pracox . . . . . . . . . . . . . . . . . . . . . . . . . (i. | Summer rape-sed oll . . . . . . . . . . . . . . . . . . . . . . | 0.9139 |
| 3.3 | liaphanus mativus oleifer . . . . . . . . . . . . . . . . . G. | Oit of radish-sered . . . . . . . . . . . . . . . . . . . . . . . | 0.9157 |
| 34 | Prunis cerasua . . . . . . . . . . . . . . . . . . . . . . . . . . (\%. | ('herry-ntone ofl . . . . . . . . . . . . . . . . . . . . . . . . . . | $0 \cdot 1230$ |
| 11. | i'yrus tnalut. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . fi. | Apple-acod oll . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |
| 31. | Dinongmus Eиropurus . . . . . . . . . . . . . . . . . . . . . . (i. | Splndientree oll . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.9380 |
| 37. | Cornus sangolthen. . . . . . . . . . . . . . . . . . . . . . . . . ( . | Cornil-herry tree oll. . . . . . . . . . . . . . . . . . . . . . |  |
| IJ. | Cypueris agculento. . . . . . . . . . . . . . . . . . . . . . . . I. $^{\text {. }}$ | Oll of the roots of cyper grass.... . . . . . . . . . . . . | $0 \cdot 0180$ |
| 89. | Hyosclanns tigger . . . . . . . . . . . . . . . . . . . . . . . . G. $^{\text {. }}$ | Ifenhane-boedi oll . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.0180 |
| 4. 4 | Focults hlppocastanum . . . . . . . . . . . . . . . . . . 8t. | Iforse-chprtunt ofl . . . . . . . . . . . . . . . . . . . . . . . . . | $0 \cdot 27$ |
| 41. | Pinns abien. . . . . . . . . . . . . . . . . . . . . . . . . . . 11. | Ithetop oil . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $0 \cdot 285$ |

Candia.-A fair erop ur ybeld of olive oll is estimated at two million gallons, and two and a half millions nu atundant erop. Alliough Immenae numbers of ollvetrees were cut down during the "Greek war" and the civil commotion in 18.10, the populatlon is atill insutficient to stlend to them, and the only culture they receive is slightly plowing tho ground on which they shanl. The fritit ls allawed to drop from the tree, when it ls collected hy women nud childron, who recelve for their trouble one-third the quantity thoy collect; If the crop la abumbant, generally one quarter is lost for want of hands to culloct it. In the district of Oprokero the frult is beaten from the trees, evidently to its injury, for it is smeller in that section then in any otiser part of the island. The fruit is collected in hoaps and taken to a wooden mill of very primitive and rough construction, operated by four men. The oil from the first presaure belongs to the owner of the
olives, out of which the government eceives one-tenth ; the mass is again pressel, and one-third quantity, in comparison with the first pressure, is obtalned, although of an inferior quality; this iz divided Into ienths, one of which belongs to the goverument, two dividel among the workmen, and the remainder belongs to the owner of tho mill.

WHAIE OIL
Etatement of the quantities of Oil anb Bone tran-
simpprid at tilk Saniowioh lalanis in 1854 .

| Towhat Comatry. | Semon. | spermoli. | Whate Oll. | Hons. |
| :---: | :---: | :---: | :---: | :---: |
| Unilied States | Spring | $\begin{aligned} & \text { Galionn. } \\ & \hline 0 \mathrm{nomaf} \end{aligned}$ | $\begin{aligned} & \text { Gntlons: } \\ & 257,380 \end{aligned}$ | Ponnds. $: 8.765$ |
| do. | Fati. | 60,449 | 1,268,365 | 76, 2100 |
| do. | do. | 46,674 | 104.700 | 651,241 |
| Bremon..... | do. | , | 10.24 | 28."89 |
| Itavre. | do. | .... | 25,173 | 46,810 |
| Total, 19\%4 |  | 158484 | 1.645 991 | 1.503,44.1 |
| do. 1863 |  | 175,396 | 0,757,348 | 2,020,264 |



|  | Aparm Oil. | Whate 0il. | Whalabona. |
| :---: | :---: | :---: | :---: |
|  | Barralt, | Barrels. | Pounde. |
| New Bedford. . . . . . . | 52,886 | 81,734 | 1,067,400 |
| Falrhaven . .....t.... | 6,6016 | 9,648 | 28,900 |
| Dartmouth | 1.027 | 1,9,9 | 8,400 |
| Weatport ............ | 1,247 | 884 | 1,500 |
| Mattepplaett . . . . . . . | 979 | 888 | , |
| 8lpplean. . . . . . . . . . . | 293 | 82 | .... |
| Dla of New Hedford. | 68,127 | 88,604 | -1,128,800 |
| gandwleh............ | 880 | 141 | 1,009 |
| Falmouth........... | 607 | 2,477 | 18.400 |
| IIolmes'a IIole. . . . . | 288 | 800 | 2,000 |
| Fdgartown . . . . . . . . | 1,927 | 6,171 | 104.800 |
| Nantucket . . . . . . . . . | 6,015 | 7,364 | 57.510 |
| Provincetown ....... | 889 | 2,806 | 4,000 |
| Orleana | 480 | 889 | 8,600 |
| Broston | 879 | 849 | 28,500 |
| Salem.. | 881 | 919 | 1,200 |
| Beverly. . . . . . . . . . . . | 141 | 144 |  |
| Fall River | 80 | 1,944 | 11,600 |
| Warren | 8.073 | 11,909 | 100,000 |
| Newport . . . . . . . . . . . | 700 |  |  |
| New London. . . . . . . | 961 | 81,908 | 249,900 |
| Myalle . . . . . . . . . . . | 181 | 6,148 | 61, 000 |
| 8tonington . . . . . . . . | 290 | 6,307 | 4 4,600 |
| 8ag llarber.......... | 664 | 4,087 | 89.400 |
| Greanport | 675 | 153 | 4,000 |
| Cold 8priog ......... |  | 2,596 | 27,000 |
| New York . . . . . . . . . | 2,083 | 18,997 | 601,200 |
| Total for 1253.... | 80,961 | 127,890 | 2,502, 700 |

Imposta of racil Montin of 1850

|  | eperm Oil. | Whale O11. | Whelebone. |
| :---: | :---: | :---: | :---: |
|  | Barrele. | Barrole. | Pounde. |
| Januriy, no atrivala. | - ${ }^{\text {cos }}$ | $\cdots$ | $10 \cdot 0$ |
| Februpry . . . . . . . . . . | 2,739 | 8,284 | 48.300 |
| March. . . . . . . . . . . . . | 8,074 | 20,907 | 678,900 |
| April . . . . . . . . . . . . . | 9.832 | 49.830 | 838,600 |
| May................. | 18.828 | 52,246 | 418,300 |
| Jurse . . . . . . . . . . . . . | 12,986 | 35.079 | 824,800 |
| July. . . . . . . . . . . . . . | 18,021 | 13,489 | 162,000 |
| Allguak.............. | 5, 677 | 8,115 | 43,000 |
| Septemiver. . . . . . . . | 6,0\%4 | 8.904 | 38,800 |
| Octoher. . . . . . . . . . . . | 3.487 | 2,090 | 8,200 |
| Noveniber . . . . . . . . . | 4.817 | 1,882 | 30,600 |
| Iteember . . . . . . . . | 8,036 | 885 |  |
| Total. | 80,041 | 107,840 | 8,598,710 |

In addition to the above there have been imported into the port of Boston from St. John's, Newfoundland, 3129 barrels seal oll, 124 barrels whale ofl, and 20 barrels sperm oil.

The following tablo gives a summary of the importations of oil and bone Into the United Slates for the past sixieen years:

| Yoars. | Eperm Of. | Whole Oif. | Whalotens. |
| :---: | :---: | :---: | :---: |
|  | Barrele. | Barrela. | Pounds. |
| Importh for 1841. | 15.304 | 247, 348 | 2.000, 000 |
| " 1842... | 165,6,7 | 161,641 | 1,600,000 |
| " 1843.. | 104,965 | 20\%.387 | 2,000 700 |
| " 1444.. | 18.5,614 | 202,047 | 9,1032,445 |
| * 1545.. | 157,017 | 279,730 | 3,167,142 |
| " 1846.. | 95,217 | 207,403 | 2,270,009 |
| 1847.. | 120.753 | 813,160 | 3,841,080 |
| " 1849.. | 107.976 | 281,656 | 8,008,000 |
| 1849 .. | 10,1,944 | 2.84,494 | 9,281, 100 |
| " 1850.. | 22,892 | 900.604 | 8,860,900 |
| 4 1851.. | 90,001 | 324,483 | 8,916,500) |
| * 155\%.. | 18,872 | 84,211 | 1,259 900 |
| 4 1563.. | 103,077 | 280.114 | 5,0,9,800 |
| " 1534 | 76,096 | 819,837 | 3,445 200 |
| " 1855 | 72,049 | 181,016 | 2,707,500 |
| 41460. | 90.041 | 197,890 | 2.604,700 |

Statenent of the ayerage I'ricke of Speam and Wifale IfL aNil Whatemonh for eisteen Igare fagt, at New


| Yearr. | -perts Ofi. | Whale OIf. | Whalebone |
| :---: | :---: | :---: | :---: |
| 14-11............. | 10Na. | mile | 18 c . |
| 1442.............. | 04 | 81 | 191 |
| 18.3............. | 78 | 331 | 23 |
| 14i4............... | 63 | 844 | $5{ }^{5}$ |
| 1845.............. | 904 | 3st | 4) |
| 1846 ............... | 88 | 88. | 384 |
| 1517.............. | 871 | 831 | 84 |
| 1848............... | 1001 | 88 | 301 |
| 1810 ............... | 1689.16 | 989.10 | 318.10 |
| 1850 | 1807.10 | 436.10 | 844.10 |
| 1651 | 127 | 456.16 | 341 |
| 1852, ............ | 1831 | 69 | 601 |
| 1853 | 184 | 88 | 341 |
| 124. | 148\% | 181 | 891.5 |
| 1855 | 1778.10 | $718-10$ | 45t |
| 1856. | 162 | 791 | 68 |


 AND TIE AVEAAGE LUANTITY OF UIL TAKME

| Yoart. | fitip. | Ararate. | Total. |
| :---: | :---: | :---: | :---: |
| 1841. | Namber. 80 | $\begin{aligned} & \text { Berrigh. } \\ & 1412 \end{aligned}$ | - Barrola |
| 1842. . . . . . . . . . . . . . . . . . . | 90 | 1827 | 28.200 |
| 1849.................. | 108 | 1849 | 47.200 |
| 1844. . . . . . . . . . . . . . . . | 170 | 1598 | 140800 |
| 1845. | 948 | 1080 | 250570 |
| 1845. . . . . . . . . . . . . . | 208 | 968 | 250,600 |
| 1848. .................. | 998 | 160 | 268800 |
| 1847.................. . . | 177 | 1059 | 187.44 |
| 1848. ................. | 169 | 1164 | 186,265 |
| 1849. | 186 | 1884 | 840.850 |
| 186. | 144 | 1609 | 248,048 |
| 1851.................... | 188 | 626 | 88,860 |
| 1858.. . . . . . . . . . . . . . | 288 | 1843 | 878,450 |
| 1853. | 938 | 918 | 218,136 |
| 1844. | 288 | T¢4 | 184063 |
| $185 \%$. | 917 | 873 | 189,670 |

In 1856 about 181 ships cruised in the Norlhern Seas, two of which were lost, and three have not been reported during tho season.
 Eax, Janvatry $1,1807$.

|  | Bhlp Aarke. - | Arigt. | Schoouers. | Toanege |
| :---: | :---: | :---: | :---: | :---: |
| New Bedford. ....... | 829 | - | 1 | 111.864 |
| Fairhnven ......... | 47 | $\stackrel{*}{*}$ | 1 | 16.64 |
| Wealport . . . . . . . . . | 14 | 4 | 1 | 3983 |
| Dartmouth......... | 10 |  |  | 2.700 |
| Maltappolsett . . . . . . | 12 | 5 | 1 | 3.650 |
| Eipplcan . . . . . . . . . . | $\because$ | $\cdots$ | 8 | 319 |
| Wareham.......... | 1 | $\cdots$ | . | 374 |
| Die of New ledford | 418 | 9 | 6 | 135,926 |
| gandwlch.......... | - | 1 | * | 165 |
| Falmouth......... | 8 | 1 | . | 1.100 |
| Ilolmesa Ilcle . . . . | 8 | 1 | $\stackrel{\circ}{8}$ | 1,219 |
| kidgartown . . . . . . . | 14 |  | 8 | 496 |
| Nentucket . . . . . . . . | 38 | 1 | 9 | 13620 |
| Provincetown...... | 5 | 4 | 15 | 2,735 |
| tleverly. . . . . . . . . . | 8 | . | . | - 452 |
| Jyynn ............... | 1 |  |  | 329 |
| Orleans . . . . . . . . . . . | 1 | 9 | 1 | 616 |
| Fall River . . . . . . . | 8 | - | $\cdots$ | 710 |
| Warren............. | 15 | . | . | 6,043 |
| Prorldence......... | 1 | . | - | c908 |
| Newport . . .......... | 4 | $\cdots$ | i | 1.206 |
| New london ....... | 50 | 4 | 11 | 18,999 |
| Myrllc. . . . . . . . . . . | 6 | . | .. | 1,940 |
| Stonington ......... | 6 |  | $\dot{\square}$ | 1,949 |
| 8ng llarbor. ....... | 14 | 9 | 2 | 5,261 |
| Gruenport........... | 0 | . | .. | 2,652 |
| (Sold Sprlng. . . . . . . | 6 | $\cdots$ | $\cdots$ | 2,129 |
| Total Jan. 1. 1357 . | 6.3 | 82 | 40 | 204, 209 |

Showing an addition of eiglat ohips, one brig, and cleven schooners, with an addition in the aggregate tonnage of 5068 tons.

Of the above are owned in the State of -

|  | Shipt and Bafke. | Ariga. | $8 \mathrm{Choovers}$. | Toansge. |
| :---: | :---: | :---: | :---: | :---: |
| Masachusetts ..... | 453 | 16 | 97 | $164 \times 32$ |
| Mhodo Isiand . . . . . | 20 | - | ii | 6 HO |
| Connertleul........ | 63 | 4 | 11 | 22.798 |
| Niew York . . . . . . . . | 28 | 8 | 8 | 110.142 |
| Total. . . . . . . . . . | 693 | 22 | 40 | 204.20\% |

The numier of vessels and amount of tonosge employed in the Whale Fishery aince 1844 has been os follows:

| Years. | $\begin{aligned} & \text { Bhlpe } \\ & \text { and } \\ & \text { Baphe } \end{aligned}$ | Arige. | Rehooners. | Tonnegs. |
| :---: | :---: | :---: | :---: | :---: |
| January t, J844.... | 005 | 41 | 9 | $2(10.147$ |
| " 1845.... | 643 | 105 | 17 | $2156{ }^{2} 4$ |
| $41846 \ldots$ | 67\% | 36 | 92 | 8\%3, 149 |
| " 1817.... | 670 | 81 | 21 | 2 La 218 |
| 4184 4 .... | 621 | 29 | 16 | 210.663 |
| " 1849,... | 641 | 21 | 12 | 104,112 |
| $41851 . .$. | 510 | 90 | 13 | 171,154 |
| $41851 . .$. | BO 2 | 84 | 17 | 171,47 |
| 41854. | 604 | 27 | 85 | 198,090 |
| " 1893.... | 809 | 30 | 32 | 2016,256 |
| $41854 . .$. | 608 | 28 | 48 | 208390 |
| 4 1885.... | De4 | 20 | 84 | 100.842 |
| " 1800... | 685 | 81 | 99 | 14,9,141 |

##  <br>  <br> Ani <br> palm-0 <br> years <br> a late <br> gallons <br> in tha



| Whitbar Enportod. | Apormment. |  | Whale and othir Pribh. |  | Lard Onf. |  | oli Cake. <br> Dollam. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oaliom | Dollas. | Gallomat | Doliata | Oalloes. | Dollarn. |  |
| Rusaino Pownemiona In North Amerion ..... | 100 | 176 | 60 | . 120 |  | $\ldots$ |  |
|  | 2,510 | 5,040 |  |  |  |  | ; .... |
| 8weden and Norwsy....................... | 6,704 | 11,170 | 1,284 | 1,001 |  |  | .... |
|  | 1,402 | B,100 |  | .... |  | 70 | 2,977 |
| Daniah West Indien | 1, 80 | -104 | $\ddot{1,7 \% 8}$ | 1,402 | Ti7 | -683* | $\ldots$ |
| Jlambarg . . . . . . . . . . . . . . . . . . . . . . . . . . | 390 | 850 |  |  |  |  |  |
| Hremen. . . . . . . . . . . . . . . . . . . . . . . . . . . . | . | $\ldots$ | 16,482 | 9,080 | 4,942 | 8,564 |  |
| Other German ports. |  |  | 3,368 | 2,18i | 6,000 | 4,772 | .... |
| liotiand ...7.7.1............................... | 674 | 1,297 | 2,806 | 8,824 | 120 | " ${ }^{\text {iona }}$ |  |
| Duich Gulana |  |  | 2,715 | 2,287 |  |  |  |
| Dutch Exat 1ndien. . . . . . . . . . . . . . . . . . . . . . | 120 | 265 | 2,715 | 2, |  |  |  |
| Beiglum ..................................... | 1,659 | 3,242 | …… | $\cdots$ | 4,160 | 8,828 |  |
| England | 407,372 | 853,920 | 131,265 | \%7,839 | 25,177 | 22.026 | 1,074.238 |
| 8colland | 13.880 | 20,178 | 24,857 | 36,817 | 49,383 | 40,822 | 10,795 |
| Canada .............................. | 17,950 | 21,049 | 177,693 | 170.810 | 9, 64 | 9,749 | 980 |
| Othor Briteh North Ameriom Pomsessiona. | 5,600 | 8,800 | 11,787 | 9,722 | 2,876 | 2,392 | 38 |
| British Weat Indies, . . . . . . . . . . . . . . . . . . . | ... |  | 6,715 | 4,880 | 11,4!2 | 10,484 | . 44,035 |
|  | 000 |  | 1,878 | 1,500 | 9,090 | 8,673 | - 150 |
|  | 000 | 1,228 | 1.681 21.160 | b59 14.779 | 606 940 | 607 1,085 | $\cdots$ |
| Britiah Australla Britiah East Indiea | $\cdots$ |  | 21,160 4,601 | 14.779 3,686 | 940 | 1,085 | $\cdots$ |
| Fravee on the Allanlle ............ | 18,215 | 82,640 | 00,885 | 6,714 |  |  | $\cdots$ |
| French North American Possession | .... | .... |  |  | 40 | 40 | .... |
| French Gulana.............................. |  |  | 2,628 | 2,100 |  |  |  |
|  | 168 | 869 1,248 | 128,734 | 88,390 | 4,288 | 4,243 | 2,350 |
| Porto Jizo | -• |  | 4,443 | 3,687 | 4,043 | 8,128 | 300 |
| Cape de Verd Itands. |  | . | 68 | T0 |  |  |  |
| Ilayll............... | 180 | 375 | 3.113 | 2,889 | 51 | 52 |  |
| Mexico . ................................. | 8,917 | 5,861 | 2,166 | 1,004 | 1,006 | 1,41! | .... |
|  | - 28 | ${ }_{48}$ | $\cdots 92$ | $\cdots$ | 10 6,151 | 43 8,027 | $\ldots$ |
| Venezuela | $\ldots$ | 3 | 1,269 | 1,089 | - 775 | 704 | 1,032 |
| Brasil |  |  | 80 | 11 | 83 | 84 | 61 |
| Clth |  |  | 1,874 | 1,784 | 78,944 | 42,777 |  |
| Peru. |  |  | 7,587 | 8,479 | 1,259 | 1,257 |  |
| Sandwich lalands | .... |  | 338 | 843 | .... | .... |  |
| Whalo Fiuheries | ..... | … | 15 | 8 | . $\cdot$. | .... | . $\quad .$. |
| Total year 1355-53. | 640,784 | \$977,005 | 646,004 | \$528,388 | 812,282 | \$101, $2 \sim 2$ | \$1,138,970 |

Statenent ahowing thal Impobte or Olle into the Linitgd Statbe yon the Ieag ending June 30, 1856.

| Wheaca Imported. | Castor. |  | Linseod. |  | Rape need and <br> Hemp edad. |  | Palm. |  | Noat's-foot and ather animal. | $\begin{gathered} \text { Enen- } \\ \text { lalal } \\ \text { Qill. } \end{gathered}$ | $\left.\left\lvert\, \begin{array}{c} \text { Oivo } \\ \text { in } \\ \text { canka. } \end{array}\right.\right]$ | $\begin{gathered} \text { Olive, } \\ \text { in } \\ \text { Bottlos. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gallona. 1 | Valos. | Gallong. | Valup. | Galla, | Value. | Gallana. | Valua. | Value. | Value. | Value. | Value. |
|  |  | $\cdots$ |  | $\dagger$ |  | * |  | ${ }^{6}$ | * | - | - | - |
| Danlsh West Indies .... lismburg | $\cdots$ | . | 885 | 737 |  | 13,244 | 1,615 | 075 | $\cdots$ | 8.004 | * | $\dot{3}, 000$ |
| liamburg <br> Bremen. | . | $\ldots$ | 885 | 737 | 26,618 120 | 13,29'4 | $\cdots$ | $\cdots$ | 8 | 8,064 13,087 | $\ldots$ | 3,000 $\ldots .$. |
| iloliand.. | ..... | $\ldots$ | 8,480 | 6,242 | 05 | 56 |  | $\cdots$ | 5 | 1,050 | $\ldots$ | $\cdots$ |
| Hutch East Indies. |  |  |  |  |  |  | . $\cdot$ |  |  |  |  |  |
| Belginm | $6 \pm 1$ | 805 |  |  | 46 | 25 |  |  |  | 1,020 |  |  |
| Fingiand | 55,685 | 42,130 | 1,691,265 | 1,048,919 | 15,127 | 6,191 | 23,471 | 11,912 | .... | 21,258 | 6,255 | 4,230 |
| Scotiand . | .... | .... | 65 | 61 | .... | $\cdots$ | $\ldots$. | - | .... | . | $\ldots$ | . . . |
| Ireland |  | ... | . $\cdot \cdot$ | . . . | .... | . . . | .... | . $\cdot$. | .... | .... | . . . | . $\cdot$ |
| Gibraliar | . $\cdot$. | ... | . . . | ... | .... | ..... | .... | .... | . . . | . . . |  | .... |
| Mslta.. |  |  |  |  | .... | * | . . . | .... | $\cdots$ |  | 6,010 | 980 |
| Cansds . ${ }^{\text {and......... }}$ | .... | ... | 45 | 25 | .... | , | .... | .... | 244 | 10 | 22 | 280 |
| Otier British N. A. Poeso | .... | $\ldots$ |  | .... | - | . $\cdot$. |  |  | $\cdots$ | 60 | $\cdots$ | .... |
| Hirtish Ioas, in Africa .. | .... | . $\cdot$. | .... | .... | * | .... | 208, 1226 | 77707 | - 97 | - |  | ... |
| Other ports in Africs . . . |  |  | .... | - | . $\cdot$ | .... | 910,659 | 325,752 | 27 | . | ... | .... |
| 13ritiah Austrails ....... |  |  | . $\cdot$. | ... | .... |  | .... | . $\cdot$ | -•* | -791 | . . ${ }^{\text {c }}$ |  |
| Brtish East Indios . .... | 87,315 | 53,837 | 11.47 |  |  |  | ... |  |  | 3.79] | SII |  |
| France on the Alfantic. |  |  | 11,475 | 7,796 | 11,428 | 6,437 | .... | .... | .... | 12.281 | 811 | 68.451 |
| France on the Med'n. |  |  |  | , | - | , | . | - | - | 13, (180) | 18.066 | 249,708 |
| Spain on the Allnntio... |  |  |  |  | . | . | * | . $\cdot$. | . $\cdot$ | 757 | 11,411 |  |
| Spain on tho Med'n..... | .... | . . . | .... |  |  | * | .... | ... | - |  | 13,381 | 1398 |
| Cubs ..... | co |  | . . . | * | . | . . . | .... | ... | . | 85 | 930 | 1,701 |
| lorto Riso | 80 | 64 | * | . | -* | . | .... | ... | . | $\cdots$ |  |  |
| 1'ortugai. | $\ldots$ | .... | $\cdots$ | .... | ... | . . . | . . . | . . . | . | $\cdots$ | 5,648 |  |
| Sardinia |  |  | .... |  | .... | ... | ...' | .... | * | 6, 4 | 5916 | 37,102 |
| Tuscany .... |  | ... |  |  | ... | $\ldots$ | . . . | , . . | . . . | 726 | 8,083 | 25,984 |
| Two Sleillea. |  |  |  |  |  |  |  | ... |  | 17,859 | 13.313 | 398 |
| Atatria ........ |  |  |  |  |  |  |  |  | . . . | 4,599 |  | 77 |
| Turksy in Eutrope . . . . . | $\ldots$ | .... | , | ... | . | . |  | .... | . | , | 3,407 | .... |
| Tarkey in Aaia......... |  |  | . |  | . $\cdot$. | . |  |  | . . . | .... | 832 | - |
| Mexico . . . . . . | 20 | 26 | .... | - | - | . . . |  |  | .... | 9 | .... | *..' |
| Straz If ..... |  | *... | .... | .... | . . . | ... | 55 | 186 | .... | 197 | $\cdots$ | $\ldots$ |
| Chins... |  | , | - | * | . | ... |  |  |  | 20,312 |  | 10 |
| Whate Fialieriea. |  |  |  |  |  |  | 822 | 82 |  |  |  |  |
| TTolal. | 148,681 | 90,371 | 1,712,208 | 1,063,771 | 53,429 | 26, 150 | $1,149,547$ | 416,317 | 276 | 119,489 | 14,103 | 376,340 |

Aninstance of tho demand for oil is manifest in the 1700,000 gailons a year, at an average of thirity-threa palm-oil trade with the west coast of Africa. A few cents a gaition; and with the United States as much yesra ago - probably less than tifteen-paim oil, in more. For lubricating machinery, particuiariy in the west of Africa, was worth a dollar a gallon, and steam factories and on railroada In Great Britain, this a late account from that regian says not one thousand oil is used more than any or all other articles, belng gallons left the conutry in a year. Now the traffic both cheaper and better. There is now a montily iine in that articie with Great Britain aione amounts to of steamers from Southampton to the west coast of Af-
rlea, the Madeira and Canary Irlea, Bristol has fiftyfour ehips In the trade wlih that coast; Iiverpool thirty-flre; and the entire number from Gremt Britain, hoth steamers and sailling vessels, is not lera than one hundred. Some of these are ships of 1000 tons burden. Preaident lloberts, of Liberia, says twenty ship.loads of palan oll go frum Monrovia every year. The import of otls into the United States has beca as follows:

|  | 1830. |  | 1865. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Gallona. | Value, | Gatlons. | Vslue. |
| Whate. | 39,689 | \$19,864 | 103,394 | \$ 86.24 |
| Ollve....... | 91,000 | 65,787 | 124,478 | 88,646 |
| O1fve in bot. |  |  | 88,693 | 516,154 |
| Linmeed .... | 1,169,647 | 487,420 | 1,243.043 | 776,077 |
| Ilape-seed... | 186 | 89 | 45.381 | 26058 |
| I'slin......' | .... | .... | $70.134$ | 905,2t1 |
|  | 1818 | 480, 0 | 6.:34 |  |
| Total.... | 1,205,052 | \$ 586,030 | $2,880,00^{\text {k }}$, 1.5080 .1 | $\begin{array}{r} \text { S. } \begin{array}{r} 5 t, 062 \\ 5,332 \end{array} \\ \hline \end{array}$ |

 whalea, but ond "se what? ........ morty rom the Iritish Jossessions at if ark 112. \$:n. Cive oil in
 French origin. The linseed id , : : 1 ditognth. En -glish.-See Olive: Ort..

Benzole, or Coal Oil, is a new disovery of poviacts; oll from certain klads of bituminous roal. At 'loverport, Kentueky, on the Obio liver, are extensive new works, runing twelve retoris night and day, consumIng from eight to ten tons of coal every twenty-four hours, and producing 750 gallons of crude oil. Re-distiflet, this quantity yields 600 gallons of refined oils; vix., 125 gallous of henzole, 75 of naphtha, 225 of lubrientiog oil, and 175 of ail for illumbating purposen. the...isle neadily sells nt 8150 per galion; lubricuting oil at \&1 25 ; maphtha and hurning at eighty cents. I'reparations are making at Cloverport for the manufacture of a beauiful semi-transparent candle from the substance called "parafline," resembling spermaceti, and which la furmed in pearly ersestals in the dark oils of the tast distillationa after they have coolet, 'The paraline, as remarked by Jrofessor Silliman, Jun., dorn not exist ready formed in the uriginal crude product, but is a result of the high temperature employed in the procesi of distillation, by which the clements are newly arranged. It derives its name from the unalterable nature of the substance under the most jowerful chemian agent. The readumm from the last distillation makes the fis:\% inality of asphaltum, used for
smearing vaulta, eis., aow imported and sold at thit ; dollars perton.

Oll-painting. laintling in which the medlum for usiog the colors is oil. It is sald to have been un. known to the ancients, and not used carlier than the fourteentis century; Its Invention being attributed to John Van Eyck, sometimea called John of Bruges, By hima It was supposed to havo heen innarted to ona Antonio da Messina, who tirst brought it to Veniee. Giovannl Bellini, by a stratagem, got possession of the secret from him, ard then minde it publicly known. Oil-painting has the advontages, above all other moiles, of affording great delicaey of execution, a union and Insensible blending of the colors, and, ahove all, that of imparting great force to its effects. The various colors chiefly used in oil-painting are white-jeal. Cremnltz white, chrome, king's yell sw , Naplea and p $九$. eut yellow, the ochres, Duth's wra, terrs ith Sienna, vellow lake, vermilion, red-lead, Indian and Venctian rell, ise several surts of lake, brown pink, V'andyka brown, burnel and unburned umber, ultrumarine, Prusstan and Antwerp blue, ivory Hack, blue blaek, osphaltum. The princlpal oils are those extracted froin the poppy, nut, and linseed. With the latter, driers are introduced.-See Painta,

Oldenburg, a state of dermany, in the northwest, with the title of Grand Duchy, compesed of threo sep. arate portions: 1st, The Duchy of Oldenlurg, which forms elght-nintlis of the territory. It is surrounded by Ilanover on the cast, south, and west, and bounded north by the North Sea; capital, Odenluurg; 2d. The l'rincipality of Jabeck, or Eutin, inclosed in the Ducby of Holstein (Denmark); and, 3d. The I'rineipality of Hirkenfeld, between Rhenish Prussin and Ilolstein Homburg: capital, llikenfeld. Area, 2421 square miles. L'opulation ln 1852, 28!,923. Oldenhurg lies in tho basin of the North Sea, and is entirely llat. Soil in gencral fertile, but in several places are extensive sand dunes and marshes. Corn raised insulticient for consmmption. Pasturage excellent ; horses, eattic, and sheep extensively reared. Manufactures confined to linen-wcaving and coarse woolens. Revenue (estimated), $18.54,8: 1,000$ thaters; expenses, 959,000 thalers; publie debt, $1,600,000$ thaters. Oldralury, the capital, is situated at the conflux of the llunte with the Ilaaren, vi.ich hero forms a small port, eighy miles wer southwest of Ilamburg. Population, 8229. It is we residence of the Grand Duke. Popmation of circle in $1 \times 52,59,453$.

|  | Entered. |  |  | Clearad. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number. | Tasinge. | Fiquipment. | Sumber. | Tonnagy. | F.quipment. |
| Yreml ant reasele. | 887 | (4.5t1 | [, 619 | 50.5 | 6\% 075 | b, 4 |
| 4,0athag versels ..... | 0871 | 77.:9\% | 13, 77 | \%. 04 | 65, 14.5 | 11.6181 |
| Total ta tS5. | 7735 | 142,896 | 10,446 | 6509 | 135,284 | 17.70\% |
| 1) mestle.......... ........ | B6ta | 64, 164 | 12,539 | Subt | 79,752 | 11,464 |
| Foreign . . . . . . . . . . . . . . . . . . | 2480 | [8,77] | 10.547 | 15108 | 6f.152 | 6.:91 |
| Total to 16:5 . . . . . . . . | $6{ }_{6} 6$ | 131.391 | $17.61 \%$ | 6030 | $12 t .65$ | 13,6! |

Olibanum (Frr. Eincens; Ger. 1 beiranen; It. Olibeno; Arab. Aaoban), a gum-resth, the produce of a large tree (libanus thurifera) growing in Arabia and India. It is imported in chesta, containing each about one cwt., from the Levant and India; the leat comen from the former, and is the produce of Arabia. Gool olibanum is in semfotransparent tears, of a pink color, britule, and admesive when warm. When burned, the otlor is very agrecable; its taste in bitterim, and somewhat purgent and aronatic; it hamen for a long timo with a steady, cloar light, which is not casily extinguinhed, loaving beltind a black (not, whas beensaid, a whitinh) ath. Olibanum is the frankincense (thus) of the ancinuta, and was extensively used by thes in sacriticen. -l'bixy, Nut. Ifist. It hat also been used in the ceremomies of the fireek and Roman churches-Aixabie'n Material Indica; I'romsox'a Chemistry; Kurusen, Antiq. Rum.

Olve, Olives (Fr. oliven; Ger. ohien; It. Paire, olive: Sb. Areituman; l'ort. Azeitomas: lat. (hira'), a fruit ydelliug o large quantity of oil, the produce of the Alea, or olive-tien. The wild oliva in indigenous to Syrla, (ircece, and Afrion, on the lower slopass of Mount Atlan. The cultivatide rgocies krows rpontancously in Syrin, and benstly renred in Spais, Italy, and the suntio of Jrance. it hasaren treen raised in the open air in Fingiand, but it: frnit is saill not to have ripure ed. The fruit is a smooth, oval plum, shout thires quarters of an anch in lengeth, and hulf an inch in diameter: of a deep violet color when ripe, whilish atul tleshy within, hitter and nauseous, hut replete with a blaud oil; covering an oblong, pointed, fouzth nut. Olives intended for preservation are gathereyl lefure they are ripe. Ia picklinf, the ohject in to remove their hitterness, and to preserve then green, hy ims pregnating them with a brine of aronatlzed cea-site;
for this pu wood of th agrevable maliers, ol ceptihlu.
Olive duli. $1:$ s Thu yelio... se Ha ay uld
 fy-1 ,ils Iu. ${ }^{\prime \prime}$, Spa Bey ne iure. 'Th aredia ${ }^{2}$ ely so wide a subjected means of first; a obtained kernels, fruit is no ish taste: has been minous $n$ place, if i no furtie ever, be $p$ years. 1 of poppy ive oll is Franec. containin very supue of Eluren poses. the king Calabria duction. the woole used. !ty to Buglat paliy frot Taranto the name Turkey, titios.
til Tr of Naple southern prising t Taranto: of Taran (Giיja as They are di lavor greatest caricator lipeli sul and, in st perfectly gree by the rock has to pe construe the heat -an al staves, " soakell is

The of belongs t is receiv whogets quantity
for this purpose various mothods are employed. The wood of the olive-tree la beautifolly velied, and has an agreuable amell. It is in great eateera with cablnet matiera, on aceount of the fine polists of which it is susceptillu.

Olive Oil (Ger, Baumol; Fr. Ifuile dolires; It. Olio duli. 1: Sp. Aceite de aceitunas; Lat, Oleam licarum). Then , iva-tree is principally cultivated for tha sake of it. "This is an insinid, in odorous, ?vlo ereenisbyelien enlored, wiacid fluid, unctuoua to the feel, inHaw :ole, Incapable of combly ang with water, and neari. insoluble in alcohol. It is the lightest of all the fix i , jls; and is largely used, particularly in Greece, lu.'; Spaln, 11 France, as an article of food, and in wed' ne and the arta, It is also very extensively w- in England, particularly in the woolen manuiacture. The ripe fruit is gathered in November, and imauedia'ely bruised in a $\mathrm{m}^{\text {| }}$, the , ues of which are set so wide as not to crasn the kernel. The pulp is then subjected to the press in baga made of rushes; and by means of a gentle pressura, the best, or virgin oil, flows first; a second, and afterward a third, quality of oil is obtained by moistening the residunm, breaking the kernels, etc., and increasing the pressure. When the frult is not aufficiently ripe, the recent oil has a bitterish taste; and when too ripe, it is fatty. After the oil has been drawn it deposits r white, tilbrous, and albuminous matter; but when this deposition has taken pluce, if it be put into elcan glass tlasks, it undergoes no further alteration; the eommon oil can not, he:sever, be preecrved in casks above one and a hulf or two years. It is sometimes adulterated by the admixture of poppy oil.-.-Tnomson's Inispensutory. The best olive of is said to be made in the vicinity of Aix, in France. That which is brought from Leghorn, in chesta containing thirty bottlea, or four English gallons, is also very superior; it is known in our markets by the name of Ftorence oil, and is used mostly for culinary purposes. Olive oil is the principal articls of export from the kingdom of Naples. - See Napres. Apulia and Calabria are the provinees most celebrated for ita production. The Apulian is the best, and is preferred by the woolen manufacturers, by whom it is extensively used. By far the largest portion of the olive oil brought to England is in general imported from Italy, principally trom Gallipoli, on the east coast of the Gulf of Taranto (which see), whence it is commonly known by the uame of Gallipoli oil. Dut besides Italy, Spain, Turkey, the Ionian Islands, ete, send us large quantities.
vil Trade of Naples..-The oils of tha kingdom of Naples are produced in Apulia, from Lsari to ita southern extromity, the Capo di leuca, a district comprising tha territories which export from Gallipoli and Taranto; and in Calabria from Rossano, on the Gult of Taranto, across to Gioja. The wholo coast from Gijoja as far as Gaeta is covered with olive-trees. They are also abundunt in the Abruzzi and the Terra di Lavora; but Apulia and Calabria furnish by far the greatest quantity of oil. The principal magazines, or curicatri, for oil, are at Gullipoli and Gioja. Gallipoli suppties England, Holiand, the north of Europe, and, in slart, all those countries that require tho most perfectly purified oil. It is clarified to the highest depree ly merely keeping it in eisterns hoslowed out of the rock on which the town is built. The voyuges it las to perform being long, it is put into casks ao well constructel that it frequently arrives at l'etersbarg in the heat of summer without the least waste or leakuge -an advantage attributed to the seasoning of the atayes, which, before they are pat together, are well soaked in seu-water.

The oil recelved into the cisterna in Gullipoli, either belongs to the proprietor, who buys it of the phanter, or is received $\mathrm{l}_{\mathrm{n}}$ drposit on account of amo other party, who geta a receipt (biglietto di mugazino) aprecitying the quantity of the oil recelved on his account, its quality,
etc. Depoaitors pay at the rate of 20 grani a year for avery salma of oll to the party holding it in deposit, and who is bound to account for it. The caricatori of Bari and Monopoli furniah oils for the conaumption of Upper Italy and Germany, through the medium of Venice and Trieste. They also draw supplies from Ilrindisi and Otranto, The caricatori of Taranto, of Eastern Calabria or Retromarina, and of Western Calabria, the prineipal of which is Gloja, furulsh supplies for Marseilles, etc. But the caricatori now mentioned, having no convenlences for clarilication, produce only the thir, olls used for soap-making. The oils of Sicily, lise thase of Tunls, are too thin to be used singly in the minklng of soap; and, beling ased only for mixing, are liss valuuble than most othera. A full crop of oll in the province of Terra d'Otranto is sapposed to yield about 300,000 salme, or 41,666 tuns. To facilitate transactions, orlers or cedules are circulated, representing quantitles of oil deposited In the provincial caricatori. These orders are negotiable, like bills of exchange, and are indorsed by the intermediate holder, who receivea their value in cash, without, however, becoming liable Cor their due satisfaction. The only reaponsible parties are the drawer and drawee. The latter ls obliged to deliver the oil at sight of the order, or to hold it at the bearer's disposal, till the 10 th of November for :be caricatori of Apulia, and till the 3Ist of Dee,
those of Calabria. If the contract lee for tim from one year to another, the oil ia usuall. the purchaser's command on the 1st of M chases for , 1 uF wherein the are effected by means $n$ " the end of January, on receiving payn: on dis ther: ey; but the cil, as observed above, is not tsan . It a purchaser's disposal before the begin. 1 g oi farch. IIence, in time bargains, the payme: of the money precedes the delivery of the oil mon ...: onth: scarce an instanco is on record of an ..os ; ment of this sort having beell broken, and the ular is as readi)y negotiable as any other security'. In purchases of oil at command, payment likewise precedes the delivery of the article; but in this case the advanco is confined to the tive days necessary to transmit the order to the caricatore where the oil is kept for dellvery. The oil remains in the caricatore under the care and responsibility of the vendor, to be delivered ondemund to the bearer of the order, free of all costs and charges whatever for the first year; but for every successive year from 25 to 30 grains per salma are elinged for keeping, and for renewal of warrunty. (We are intebted for these details to a very valuablo Keport ly Mr. Stecl, British vice-consul at tinllipoli, and to a brochure of N. Millenet, entitled Couy de (Eil sur be Royamme de Naples. Naples, 1832.) Fur the trade in Otiec oit, see article Ons.s.

Olive-tree. The wood of the olive is heary, compact, fine-grained, and brillinat. The sap-wood is white and soft, and the heart-wood hard, brittle, and of a reddish or yellowish tiat, with the pith nearly effaced, as in tho box. It is employed by enbinet-makers to intay the ther species of wool, which are contrasted with it in color, and to form light articles of ornament, such us dressing-cases, snutf-boxes, etc. The wood of the roots, which is agreeably marbled, is pre. ferred to that of the trunk. On account of its hardness and durability, the wood of this tree was anciently used for the hinges of doors; and, before metal becanne common, it whs seleeted by the Greeks for the images of their gods. From its resinous and oleaginous natare, the wood of this tree is oxceedingly conbustible, and barns as well before as after it is dried. There exudes from its wood a gum, which is sometimes sold for gum-clemi. There is also extracted from this tree a substance called olirine. Tho bark contains a bitter principle, and is regarded as tonic and febrifugal. The leaves are astringent.

The olivea are tirst bruisod by a mill-stone, sufil-
cietitly hard as not to break tha kernels, and are then put lite sacks of coarse Ined, foatheragrass, or of wool, and subjected to heavy prossure, by whleh means the most fluld and the bent liquor is forced out, and is called eirgin oil. It la recelved lnto vessels half filled with water, from whleh it is skimmed, and put Into tube, barrels, and boteles for use. Several coaraor kinds of oil are afterward obtalned, hy addlug hot water to the brulsed frult. The beet olive oll is of a bright paleamber coler, withont anell, and bland to the taete. Kept warm, it becomes raneld, and at $38^{\circ}$ Fuhr, It congeals. It is of the same naturo as all mild ex. pressed vegetahle olls $\mid$ of these the most fluld are preferred, and hence the oils of ollves and of almonds are those chletly used in medicine. One of the most eatoemed kInds of oil is that produced at Aix (Huile d'Aix en Provence). Florence oil is also a ine kind, imported froin lewhorn in Hasks surrounded by a kind of network, formed of the leaves of a monocotyledonous plant. These are the kluds of olive oil In most frequent use at the table for salads (hence they are called Salad oils). Lucca ail is imported in jars helding about nineteen gallons each. Gienon oil la a fine kind. Gallipoli oil In imported in casks, and conatitutes the largest porslon of the olive oll imported into England. Sicily oil Is of an inferler quallty. Spaniah oil la the wornt, The foot deposited by elive vil is used for olling machinery, under the name of 1 troppinge of Anoet oil.

Anvother important advantage afforded by this tree is Its fruit In a pickled state. It is gathered unripe, and sutlered to steep in water for some days, and is afterward put into a lye of wator and barila, or kall, with the sabes of olivg-stores, or with lime. It is then put up in earthen boteles, or in barrele, with solt and water, and in this state ly ready for ure. Olives are eaten before, as well as after meala, and are believed to excite appetite and promoto digestion. The finest Lind of prepared fruit is known in conmerce ly the name of Preholines, after one Picholini, an Italian, who first discovered the art of pickllige ollves. The frult of the olive la of a pleasant taste, and is eaten by the modern (irceks during lent, in lit ripe state, without any preparatlun, except with the addition of a litile pepper, salt, and oil. From the value of its products, in a commercial peeint of viow, aside from other considerations, the culture of the olive strongly claims the attention of the American agriculturist, and the trial should be made in every place where les faiture is not certain, and for this purpose young grafted trees of harly and choice varieties should he obtained from Europe, and the formation of nurseries inmediately begun. A porition of Texar, L.oulsisna, the islands of Georgia, and chosen exposures of the interior of the last-named State, st well as of momo of the Western Statex, California, or of Uregon, will be the scene of this species of culturn, if ever attended with succoss in North America.- H Howsw's Truen of America.

Omoium, a term used at the hinglish Stock Iixcharuse, to express the aggregate value of the different stocke in whicha lomn la now usually funded. Thus,
 Jene, $1 k 15$, the emulum conslated of $\mathcal{E} 1303$ per cent. reducsd annuities, $\subset 143$ per cent. consoly, abil $\mathcal{C 1 0} 4$ per cent. annuitiex, for cach $£ 100$ nulwacribed. the lonn was eontrised for on the Isth of Iune, when the pricen of the bove stocka were- 3 par cant. reduced, 51 ; 3 per cent. consols, 55 ; 4 per centa., 00 ; hence the parcels of ittock given for $\mathcal{S 1 0 0}$ advaned, were worth-

which would be the value of the omnium, or 218 BA , per cent. premiam, independently of any discount for prompt payment.

Onfon (Ger. Revicbcl; Fr. Oignon; It. Cipolla; Sp.

Cebolla; Rusa, Luk), a well-known bolbous plant (All. um Cepa, Linn.) caltivated all over Europe and the U. States for cullnary purposea. The Stradurg, Spian. leh, and Portuguese varietles are the most estermed.

Ontario, a lake of New York und Canada, easternmost and smallest in extent of the five great lakes of North America. It is between $48^{\circ} 10^{\prime}$ and $44^{\circ} \mathrm{N}$. Iat., and between $76^{\circ}$ and $88^{\circ} \mathrm{W}$. leng. It recelves Ningara River, the great outlet of the upper lakes, In lis seath western part, and has its outlet by the St. Lawrence River In lte northeastern part, in whleh, Immediutely below the lake, Is the eluster denominated the "T hou. sand Islands." Its shape approaches to a long and narrow elllpse, being 190 miles long, and 65 wide in its wlilest part, and about 480 miles in ciroumference. If is In some places over 600 fect deep, so that its bottorn is conslderably below the level of the Atlantic. Its sur. face is 030 feet below the level of Lake Erie, and 134 ; feet above tide-water. In every part it has suficient depth of water for the laigest vessels. It has many good harbors, and is rarely frozen excepting in shallow parts near the shore. The princlpal rivers which enter It from the southern side are the Genesee, Oswego, and Black rivers, and a large number of creeks. The lay of Quiate is a long and Irregnlar body of water on its eastern part, which receive a considerable rlver, the outlet of several small lakes, and Burlington bay is in its western part, Both these bays are ill Canulu. It hat several linportant places on its shores, tho priacipal of which are Kingston, Toronto, and Coburg, in Canada; and Onwego, Sackett's Harbor, Port Gbesese, or Charlotte, in the United States. It is sulgect to violent storms aud heavy swells. It is comnceted with the Nirie Canal by the Oswego Canal, and from thence the Erie Canal forma a navigable communication with the Hudson liver, a llistance of 209 miles ; and much of the trade of New York for the 'Vest passes through it and through the Welland Cansl, which is 28 miles long, with 27 locks, and admits the passage of the largest vessels which navigate the lakes. This canal commences at Sherbroke, near the mouth of Graod Kiver, on lake Erie, and terminates at loot Dalhotpsie, on Jake Ontarlo, nine milea weat of Niagarn village. Ita entrance being a consiferalle distance west of the outlet of Lake Erie, it is open earlier than the Erie Canal at IUutialo, where the ice uften accumulates In the spring. The Rideau Canal forms a navigable commanication with the Ottawa River, 126 miles. It hus 15 light-houses on the American shore, and 13 on the Canadian side.-Wce Lakes, Commerce of.
Onyx (Grr. Onyx ; Fr. Ouix, Onice; Sp. Onique; Lat. (/ayx). Any stone exhibiting layers of two or more cylurs atrongly contrasted is callod an onyx, as banded jasper, chalcedony, etc., hut more particularly the latter, when it la merked with white, and stratitied with opaque and tranalucent lines. Itat the triental ousx is considered a substance consisting of two or mone layers or bands of distinct and dittercht colors. A sard, or ardobine, liaving a layer of white upon it, would be called an onyx; and according to the namler of layers it would has distinguished as an ony $x$ with three or more bands. Souse of the antique eugravings are upon onyxes of four bands.--Mawn's Treatise in Diamonds, et".

Opal (tier. Opal; Fr. Opale; It. Opalo; Sp. Opulo, Piedra iris; Port. (ppala; lat. (palus), n stone, of which there are bavernl varicties, found in cullerent parts of Enrope, particularly in Llungary, and in the East In. diez, etc. When tirst dug out of the earth it is soft, but it hardena and diminishes in bulk by exposure to the sir. The opal is alwaya amorphous; fracture cone choidal; commonly somewhat transparent. Hariness varies conslderably. Specific gravity from 1.958 to 2.51. Ihe low ness of its specifie gravity in some cases is to bo ascribed to accidental cavities which the stone contains. These ure sometimes illed with drops of water. Some specimens of opal have the property of
ant (Alliad the U. rg, Span. teemed. 1, eastern
 3 Ningars its seuth L.awrence medlately " "Thou. long and vide in its rence. it ts lottom - its sur. and 1341 maficicient has maxy in shallow lich enter wego, and The Bay ater on its river, the Bay is in unda. It the priacioborg, in Genesce subject to cted with om thenee ation with and much s through 88 miles ge of the "his canai of Grand ( j)alhonagara vil. ance wext - than the cumulates plavigabie niles. It and 13 om the numryx with gravings ip. 1 palo, of which purts of thast in. it is soft, posure 10 ture cenHariness 1.928 to the cases the ssone drop of uperty of
enitting various colored rays, with a particular effulgency, when piaced between the eye and the light. The opala which posaess thla property are diatinguishad by iapidarien by the epithet Oriental; and often, by mincratogists, by the epithet nobilis. Thls proparty rendered the stone much eateemed by the ancients.Thouson's Chemistry; see also Plixy, Ifist. Nat. ilib. xxxvii. c. 6, whero there are some very curlona datalis us to thisastone.
Oplum (Ger. Mohneafi; Fr. Opium ; It. Oppio; Sp. and I'ort. Opio; Lat. Opium; Arab. Ufyoom; IIInd. lifeem; Turk. Madjoon), the concrete juice of the white puipy (Papaver sommiforum), which is most probably a native of Asla, though now found growing wild in the southern parts of Europe, and even in Engiand. Opium is chiefly prepared In India, Turkey, and Persia; but the white poppy is extensively calivaied in France and other parts of Europe, on account of its capsuics . id oit the useful bland oil obtained from its seods. It has uso been cuitivated, and opium mado, in England; but thers is very littie prebability of its ever being raised here to any considerable extent. The poppy is an annual plant, with a stalk rising to the beigit of three or four feet; its leaves resemble thoso of the fettuce, and lits flower has the appearance of a tulij. When at its full growth, an incision is mado in the top of the plant, from which there issucs a white milky juice, which soon hardens, and is scraped oll tho piante, and wrought into enkes. In India, these are covered with the petais of the plant to prevent thoir sticking together, and in this aituation are dried, and jacked in chests lined with hides anil covered with guuny, each containiug forty cakes, and weighing two maunds, or 1491 ibe.; they are expertod in this atate to the piaces where the opium is consumed. Turkey opium is in flat pieces, covered with toaves, and the reddish capsules of some species of rumex, which is considered an indication of its goodness, as the inferior kints have none of theas capsules adhering to them. According to Dr. A. T. Thomson, Turkay opium has a peculiar strong, heavy, narcotic odor, and a bitter taste, accompanied by a sensation of acrid heat, or biting on the tongue and lips, if it be well chewed. Its color, whet good, is a reddish brown, or fawn color; its texturo compact and uniform. Its specific gravity is $1 \cdot 336$. When soft, it is tenacious; but when long exposed to the air, it becomes hard, breaks witio a uniform shining fracture, is puiverulent, and afioris a yeliowish brown powder. East Indian opinm has a strong empyrematic smell, but not much of the peculiar narcotic, heavy odor of the Turkey opium; the taste is more bitter, and equaily nauseous, but it has less acrl. mony. it agrecs with the Turkey opium in other sensihe qualities, except that its color is biacker, and its texture fess plastic, although it is as tenacious. Good Turkey opium has been found to yield nearly three times the quantity of moryhia, or of the peculiar principle of the drug, that is yiedded by last Indian opium. Oplum is regarded as bad when it is very soft, greasy, iight, friabie, of an inteusely black color, or mixde with many impuritios. A weak or empyremmatic odor, a siightiy bitter or acrid, or a awcetish taste, or the power of marking a brown or black continnous streak when drawn across paper, are all symptoms of inferior opium.-Ihspensatory. The raising of opium is a very hazardous business; the joppy leing a delicate plant, pecuitarly iable to injury from insecta, wind, haii, or unseasonable rain. The produce seidom agrees with the true avorage, but commonly runs in extremes; whiie one cuitivator is dieappointed, another roaps immense gain. One season does not pay the labor of the euiture; another, pecuiarly fortunate, ellriches ail the cultivators. This cireumstanco is well suited to allure man, ever confident of good fortune.Colenneons's Husbandry of Bengal.

The Opium Trade.-TThis drug ls chiefly grown in British India, where it has long been a strict monop-
y of the govarnment, and also in Persia and Turkey. It was first Imported Into China by tha Portuguese; but up to the year 1708 tho whole quantity importel did not exceed from 100 to 200 chesta annuaily. The East India Company commenced its Importation in 1778-1; and in 1780 small dépots for its sale waro established a little south of Macao. The trade continued to Increase rapidly fi $m$ India untll 1794, when large English shipa found it profitable to anchor near Whampen, for fifteen montha at a time, seling opinm. In 1800 its salo had risen to about 2000 chests ; but rocently its further importation into Ciina was prohibited. Since that period the smugglor succeede the iegal importer ; and al!hough the importation is no longer conducted in the vessels of the East India Compeny, It is extensively cultivated under their monopoly, and sold by them to private traders, by whom it is introduced into the prohibited markets of China.

Consumption and Trade of Opium in China.-Opium is pretty axtensively used, both as a masticatory and in smoking, in Turkey and India; but its great consumption is In China and the surrounding countries, where the habit of smoking it has become almost univorsal. The Chinese hoil or seethe the crude opium; and by this process the Impurtics, resinous and gummy matter, aro separated, and the romaining exitract only is reserved for use. Thus prepared, the drug loses ita orlinary strong and offensive aromatic odor, and has even d fragrant and agreeable perfume. A small ball of It, inserted in a large wooden pipe with some combustible matter, is lighted, and the amnteur proceeds to inhale four or tive whiffs, when he lics down and resigns himself to his dreams, which aro said to have no incor-aiderable resemblance to the sensations produced ty inhaling the oxyd of azote. Those who do not carry the indulgence to excess do not, it is said, experienco any bad effects from it. Nine-teuths of the supplies of opium for the consumption of China have always ijeen dorived from India, a comparatively small quantity only teing derived from Turkey. The trade has always been contrabs.nd, the introduction of the drug hnving been prohibited by the Chinese government. Untij about 1810 the trado had not attracted much attention, or become of any very great importance, but it has since been very greatiy extended, and has been since 1828 of first-rate consequence. The trado was at first carried on at Whampoa, about fifteen miles below Canton; next at Macao, whence it was driven by the exactions of the Portugucse; and thereafter in the Bay of Lintin. Here the opium is kept on board ships, commonly called recelving ships, of which there are often ten or twelve lying togetiser at anchor. But latterly tise trude bas been carried on all niong the southeast coast of Cinina, by means of a species of fastsaiiing vessels called "clippers," built expressiy for the trate and atrongiy armed. The sales ere mostly effected by the English and Americall agents in Canton, who give orilers for the delivery of the opium; which, on producing tise order, is handed over to the Chinese smughter, who comes along sido at night to reccive it. Frequentiy, howover, the amuggler purchases the opium on his own account, paying for it on the spot in sllver; it being a rule of the trado, never departed from, to receive the moncy before the drug is delivered. During the first ten years of the present century the exports of opium from India to Chinn averaged nbout 2500 chesta, of $149 \frac{1}{2}$ jounds each. But after tho introduction of Malwa opium Into the markets of Bombay and Calcutta, the exports began rapidly to increase.

According to the Friend of India of Calcutta, October, 1855 , the opium sales for the five precedinf years were as foliows :


The price paid to the cultivator is about Rs. 240 a chest.

Am Acoount of tua quantified and Palome griguting


 3NT BEavtrict.

| Frem Apell tot to Mareh slat. | Numbecto | Yudort |
| :---: | :---: | :---: |
| 1816-17..................... | 18.210 | 3,607,00) |
| 1817-18...................... | ${ }^{3} 188$ | 3,04, 260 |
| 1819-19...................... | 480 | 4.151 .250 |
| 1819-90....................... | ${ }^{4000}$ | 5.8838000 |
|  | 4,780 | $8.400,800$ |
| 1881-82............... | 4688 | 8.314 .000 |
|  | 8.882 | 7,944.030 |
| 18:3-24...................... | 7..n82 | ${ }^{8} 5151510$ |
| 1844.45 | 8,056 | 7.079 .048 |
| 1820-25..................... | ${ }^{\text {v,022t }}$ | 7,003,206 |
| 1822-97. ................... | 9,903 | 9,0,010,065 |
| 1\% | 13,132 | 19,s3m, 15 |
| 1480-30. | 14,000 | 14, 1068.167 |
| 14311-31. | 18.700 | 11.2.4.263 |
| 1031-32 | 13,508 8989 | ${ }^{10,931,065}$ |
|  | 29,670 11.786 | 15.332 .750 13050.540 |
| 1833-4............................... | l10, 18.68 | 12,605,010 |
| $1835 \cdot 36$ | 10,785 | 12,639,875 |
| 1836-37 | 11,019 | 14.287,830 |
| 1887-39 | \%0,049 | 10,883, 167 |

Confiscation of Vymium is 1839.-Opium bas alwaya been probibiteel ln China, and consequentiy its importation has always been looked upon as a amuggilng opeculation. There would seem, however, to be gooti grounds for thinkiag that the prohibition of the importation of opium was ail along intended to be more apparent than real. At all events, it is certain that the trade grow gradually up, from a amall beginuing, to be one of great extent and value; and it ia contrallictory and absurd to suppose that thin should have been the case bail it encuuntered any conaliderable opposition from the Chinese authorities. But the truth ls, that these functionaries, Instead of opposing the trude, or even merely conniving at it, wore partica to lita teing openly carried on, and received certaln reguiated and large feea on all the oplum that was imported. It has even iwen alleged that a part of these feea foond its way into the Imperial treasury at I'ekin, though that is more doubtful, The appetite for the drug increased with the increasing means of gratifying it; and there appeared to be no assignable limita to the quantity that might be disposed of in the empire. The rapid oxtension of the trade seema at length to have drawn the attention of the court of lekin to the suliject. We doult, however, notwithstanding what has been alleged to the contrery, whether a nense of the injurious conserjuences of the use of the drug had much to do In the matter. This, Indeed, ls a part of the nibject as to which there exieta a great deal of misapprebension; and we are well assured that, provided it be not carrled to excesa, the use of opium la not more injurious than that of wine, brandy, or other atimulants. The alarm of the Chineve government was probably not so much aloout the healith or morais of its ellijecta as about their bullion! They are atill baunted loy the same visionary fears of being drained of a dne supply of geld and silver, that formerly haunted the people of this country. The imports of opium having increased so rapidy na to be no longer halanced by the exports of tea and silk, aycee ailver began also to be exported! The paternal govermment of i'ekin might have toierated what are called the demoralizing effects of opium with stoical indifference, but the exportation of aliver was not a thing to be endured. It is, howaver, only fair to state that the Chinese etatesmen are not all of the school of Mun and Gee, and that some of them appear to have taken an culightened view of tho question, and to have emancipated themselves from the prejudices that stili influence the majority of their colleagucs. The atstesmen in question contendel that, whether the use of the drug were injurious or not, the taste for it was too deeply seatel and too widely ditlused to admit of its effectual prohibition ; and they, therefore, pro-
posed that its importation ahonid be legalized, suljectlig it, at the aane tima, to a hoevy duty. There can not be a doubt that this was the proper mode of deallng with the anlject. In the end, bowever, the gove ornment of Pekin, Inflamenced by unfoundell thearies as to the mischievous effect of the ax port of the preclous metala, cums to a different conclusion, and resolved to put a stop to the traffic. No mooner had this resolution been adopted, than a most extraordinary change appears to have taken place in the conduct of the Chi. nese authorition; and thelr uaual caution acetns to have wholly deserted thom. Thoy now became as precipl. tate and vleluat as they had prevloualy been siow anu circumbpect; and resolved at all hasards to attenipt foreibly to put down the trade. To accomplish this, ail foreigners were, in March, 1839, prohibited from leaving Carton; and compuleory measures were at the same time resorted to for compelling them to deliver up the oplum in their possession. How the alfair might have ended, had the English at Canton been loft to the exereine of their own judgment in this crinis, it la Imposaible to aay; but we have been assecred lyy those on whone atatoments we are disposed to rely, that they wouid most probably have succeeded in getting out of It with comparativaly little loses. Inateail, how. ever, of acting for themnelves, they had to act in obe. dience to the orders of Mr. Elliot, ehief superintendent of the British trade in Canton; and he, while uniler conatraliut, occasioned by confinement to the factory, cemmanded all the opium belonging to British suljeetg to ho given up to him for dellivery to the Chinese nuthorities; declaring, at the same time, that "faili," the aurrender of the anid opium," the British government ahould le free "of all menturea of responsilility or llability in reapect of Britlsh-owned opiam."
We do not presume to offer any opinion as to the necessity or poilcy of this proceeding on the part of the auperintendent; but in consequence thereof, and of the unjustifiable proceedings of the Chinesp, atove 20,000 cheata of oplum were deilvered up to Mr. Niliot by British suljeetn, and ly him to the Chinese authorities; and tho latter, not satisfied with the possession of the opinum, which It was their duty to have phaced in a state of eccurity till the mattera with respect to it should be arrauged, immediately procecded to destroy it! Ilaving succeeded thus fur, the Chinese next inwlated that tho foreign merchants shonld sulserile a bond, pledging thenselvea not to import opiam iutu any part of China; or that, if they did, they were to be justiy liable to the penalty of death. Hut this condition being refused, and no arrangement having been cone to, Mr. Elliot suapended the trade on the 22 l of May. Ore waders do not require to be told that a nar with - tina grew out of these extraordinary proceedings.
Indemaity for the Opium destroyed in China.-'fie question as to the amount of the compensation that should be awarded to the parties who deilvered up the oplum to the auperintendent in China has vince attracted censiderable attention. The merchants contended that they were entitiod to ita cosi , or to the price at whleh it had been invoiced to them, or to above $£ 2,300,000$. It 18 , however, sdmitted ou all hands that the price of opium is exceedingly tloctuating, and that it in influenced In a very ligit degree by varlations in the facilities for smaggling into China. And it was contended by govermment, that suith were the ohatacles thrown in tho way of its clandestine ind portation when the delivery was made in 3839 , that the price of optum had fallen to lese than half its invoice cost, and that supposing the merchants had retained it, they must necesarily have sustained a very liasy loss. llaving taken this view of the matter, goversment proposed that Indennity athouid le made at the rate of $\mathbf{£ 6 4}$ per cheat ( $£ 1,250,000$ in all), teing (though little more than half the sum ciaimed) considersility above the corrent price of opium in Canton previously
to its bel pected, th the whol reasonatil opium ha th owner culties in onder the ing that had inter tion than ference. It should

C'ullica etc. - Opi provinces and in M duetion o lowed to ment. Tt deliver $t$ price of at Company latter ame grown an jocted to lmported duty is to purcinase through 1 consumpt Malwa, is Down to But In th pulille, an on the op territorles elosing th Kurachee etc., enabl duty on rupees ן1e ahout $\overline{5}$. thentic de dia, p. 73 opium is higher th without c Hut a gre tem unde gal and ot the better unfettered duty on Without, difficult monopoly stated by Bengal, p are pecul and that being tem the govor merly, It in the in counts th amounted had inere number o ported fro tinued jr whole, or ahove in), produced of consid

It is ve taken In
to its being dellvered up. As might have been expected, this decislon was much found fault with. On the whole, howaver, wo think It ominently falr and ressomable. No one donbts, though not a pound of the oplum had been dellvared up to Captaln ElHot, that lta owners must, in consequence of the lncreased diffcultes in the way of lte sale, have loat heavily; and, under the clreumatanees, we sea no ground for contendIng that government was bound, because thelr agent had interfered, to place the merchants In a better position than they would have been in but for that Inter ference. ${ }^{-1}$ All that they conld juatly require was, that it should not be permitted to injure them.
L'ullication of Opium in India-Monopoly-Revenue, etc.-Oplum la produced in Bengal, principally in the provinces of Bahar anil Benares, In parts of Bombay, and In Malwa; in Central India. In Bengel tha production of oplam is a monopoly, no person belng allowed to grow the poppy except on account of gevern. ment. Thelatter r ,ake advances to the cultivators, who dellver the entlre produce Into tholr hands at a fixed price of ebout $3 s, 6 d$. per 1 lb . It is afterward sold by the Company for ahout 11s. per 1b., so that the proft of the lster amounts to ahout 7s. 6d. per lb. Oplum may be grown und manufactured in Bonbay; but it is anisjoctel to the name high duty that tis imposed on oplum Imported Into the Presidency. The ohject of this high duty is to "diacourage its production." Government purcinase what lletle fa proluced in Ilombay, snpplying through Ilcensed dealers all that is required for home consumptlon. The poppy is extensively cultivated in Malwa, In Central Indla, and ylelds a large revenuc. Down to 1831, It was produced under a monopoly. But in that year the business was thrown open to the public, and the revenue collected by linposing a duty on the oplum when passing throngh the Company's territories to Bombay. The enpture of Sclnde, by elosing the route for the ainuggling of oplum through Kurachee to the Portuguese settlements of Demunn, etc., enabled a large ndeltion to be made to the transit duty on Malwa opium, whlch was ralsed $\ln 18.17$ to 400 rupees per chest, afforiling a revenue to government of about $\delta s$ s. 8 d. per 1 b .- (We have borrowed these anfthentc details from the Offecal Papers relatlve to India, p. 73-75, publlshed in 1853.) No one doubts that opium is an excellent subject for taxation; and the bigher the rate to which the duty on It can be ralsed without encouraglng smuggling, so much the better, But a great deal has been sald for and agnalnst the system under which the oplum revenue is ralsed in hengal and other parts of India; and perhaps it might be the better pollcy to open the culture of the plant to the unfettered compatition of the puhille, Imposing a high duty on the drug when grown or when expertel. Without, however, entering on the dlscussion of this difficult questien, we may shortly observe that the monopoly does not appear to have tho consequences stated by Mr. Colebrooke; who tells us (Husbandry of Bengal, p. 118) that, except $\ln$ n few altuations that are peculiarly favorable, its culture is unproftahle; and that the peasants engage In it with reluctance, being temptel theroto only the advances made ty the government agents. But if such were the case fermerly, it would seem that elrcumntances havo changel in the interval; for it appenrs from the official nccounts that the production of Bengal opium, which amounted to 17,858 chests of 160 lbs , each in $1840-\mathrm{s} 41$, had increased to abont 30,000 chests in $18 \cdot 18-19$. The number of chests of Malwa opium ( 140 lbs . each) exported from llombay during the same period has conthued pretty stationary at about 16,000 a year. The whole, or nearly the whole, of thls immense supply of above ion, 000 cheste, ls sent to China. Latterly it has produced to the government of India a clear revenue of considerably more than $£ 3,000,000$ sterling a year.
It is very doubtful whether the nse of oplum, when taken in moderate quantitles, be so injurlous as lins
been represented. That It may, llke aplrita and wine, be abused, is shundantly certala; but it has not been ahown that it lis more liable tn abuse than elther of these articles. And tha Chinese, by whom it is prinedpally consumed, are a highly Industrious, sober, fragal people.
It is compited that, had Chlna no silk nor teas to give in part payment fer the opfum consumed In tha Celestial emplre, the draln of apecie during the last 30 y 3 ars would have amounted to $\$ 600,000,000$. It la atated In a memorlal presented to the Emperor of Chlna, on the subject of the oplum trade, that the draln from the imperial treasury, to supply thls deatructive luxury, was,

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From 1829 to 1631.
31.
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4 18 s to 188 H \(40,000,000\)
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The latter sum, it is stated, is about the average annuai outlay at the present time; and It is consldered by an Intelligent commercial correspondent at Macao quite problematical whether the Chinese would have taken more cotton goods and other Imports from the Unlted States and England, had they not expended so much for oplam. The profts of the East Indla Company, who are entltled to whatever of credlt or discredit may atlach to keeplng up this lucrative trade In oplum, are stated at $\$ 18,000,000$ per annum. If the company succeed In opening new markets for the drus (and it is represented that they are establishing retall shops all over the Indlan emplre), they will be amply relmbursel for their diminished importations Into China, since the Imporiatlon of Turkleh opium in American hottoms has so considerably interfered with their previously almost exclusive monopoly of thls trade. It ahould be added, that the importati on of oplum into China, though Illegal, is openly tolerated by the Chlnese officials, and no difficulty Is experienced in finding eash customers for any quantlty lnperted. From 200 chests in 1756, when the traile was legnl, the importation has risen to from 70,000 to 80,000 chests per annum in 1856, when its introduction is prohibited by law. The value of opium imperted in 1756 was alout \$1,000,000; the value at the present day las risen to $840,100,000$. The hasis of foreign exchange with China is as follows: General imports, oplum (which makes alout 30 per cent. of the whole), bullion and specie, or ilrafts on L.ondon.-Commercial Relations of the United States, 1856-'57.

Cultication in the Cuited States.-A varicty of the "Commen" or "Oplum Poppy" (Papaver sommiferum), Indigenous to the warm and temperate parts of Earepe and Asia, from Portugal to Japan, and especially cul. tivated in China, Indin, Turkoy, Egypt, and in 'e Morea, has been introduced inte the United States, and has proved itself susceptlble of casy cultivation on very rich soils, and is well adapted to the climate of the Nildele and Southern States. The flowers of the "Whtte Peppy" ('aparer s. alba), the variety with which the experiment was mule, may be either entlrely white or red, or may be fringod with purple, rose, or llac, variegated and edged with the same colors, but never eccur blue nor yellow, nor mixed with these colors, ench petal being gencrally marked at the bottom with a black or purple spot. The seede are black in the plants having purple flowers, and llght-colored in those which are white; altheugh the seeds of the latter, when of apontaneous growth, are sometimes black. The largest heads, which nre employed for medical or domestic use, are olitained from the singleflowered kind, not only for the purpose of extracting opium, but also on necount of tho bland, escule:! ,if; that is expressed frem the seeds, which are simply emulsive, and contain none of the narcotic prise ipls. Fer the latter purpose, if no other, its culture in thes country is werthy of attention.

With regard to the cultivation of thls plant, nith the riew of oblaining opium, there can be but little
doubt that our clear sky, fervid aummer sun, and heavy dews would greatly favor the production of this article; but how far theso circumstances, in connection with American ingenulty in devising Improved methods for lts extraction, wonld allow us to compete with the chempness of labor in the East, can only be determined by actual trial. Certainly it is an object worthy of puhllc encouragement, as the annual amount of opium Imported into the United States la valned at upward of $\$ 407,000$, a cousiderable portion of whieh might be saved, and therelyy add to our resonrces. Besldes, if we were to rulae a aurplus, it could be went to Chlua In exchange for tea. The successful cultivation of the plant, however, requires the provision of good soll, appropriate manuro, and careful management. The strength of the juice, according to Dr. Butler, of British India, depeads much upon the quantity of moisture of the chmate. A deficiency even of dew prevents the proper flow of the peculiar narcotle, milky juice, which abounds in almost every part of the plant, while an excess, beaides washing off this milk, cansea additional mischief, by separating the soluble from the insoluble parts of this drug. This not only deteriorates its quality, but increases the quantity of moisture, which must afterward be got rid of.

Statmanns mowino the Imponts of Dpicm INTO The Linitan States fon ruit Igar mwdine Jung $30,180^{\circ} 0$,

| Wheace Imported. | Poands. | Value. |
| :---: | :---: | :---: |
| Fingtand | 113,130 | \$272,618 |
| Britiah Fast ludtes. . . . . . . . . . . . | 1.0610 | 4,62A |
| Sardínla. . . . . . . . . . . . . . . . . . . . | 55 | 110 |
| Alutria............... . . . . . . . . . | 1,810 | 2856 |
| Tarkey in Asia . . . . . . . . . . . . . . | 0.457 | 26.5.8 |
| Chlus . . . . . . . . . . . . . . . . . . . . . . . | 32,1682 | 179,368 |
| Total | 157,814 | \$485,846 |

Besides the werks prevlously referred to, we have consulted, in compiling this article, Ansslis's Materia Indica; Minuun's Oriental Commerce; Wilkissos's Commerce of Bengal (J. IR. M'Cullocil); American Almanac, 1411, p. 63; Patent Office Report, 1853 ; IIent's Merchauts' Magazine, II. 386, Iv. 9 (F. Witsiktc. $)_{1} \times x$ ili. 28, 147 ; Eclectic Review, v1. 458 ; Fuasen. xxi. 365 ; Nıles' Register, xxill. 249 ; China llar and Opium Trale; Commercial Relutions of the Linited Shtes, 1856.

Opoponax (Ger. Opponax; Fr. Opppnax; It. Opponaseo; Sp. Opopınaca; Arab. Jawesheer), a guusresin olitained from the I'ustinaca Opopomer, a species of parsnep. It ls a native of the south of liurope aud Asia Minor. The stem rises to the height of four or five feet, with a thjek branched yellow-colored root. The root being wounded, a millky juice llows from then, which, belug dri 1 in the sun, if the opopmax of the shops. It is in lumps of a reddisis yellow color, and white within. Smell peculiar. Taste titeter and acrid. Specific gravity, 1-62s. It is imported from Turkey. Being used only to a small extent in medicile, the consumption is Inconsiderable.-Tuomsos's Chemiatly; Aisstac's Materia Indica.

Oporto, or Porto, a large elty and sea-port of Jortugal, on the north bank of the Douro, alreut two milles from ite mouth, laf. $41^{\circ} 10^{\prime} 30^{\prime \prime}$ N., long. $10^{\circ} 37^{\prime}$ 18 " W. It is a scatutifully situated, well-huilt city, and is supposed to contain, inchuling the suburbs of Villanora and Gaya, on the opmosite bank of the river, ahout 80,000 inhabitants. The harbor uf Opurte is n bar harbor, and coo only be entered, at least by vea sels of censiderable burden, at high water; and It is seliom at any time practicable for veasels clrawing more than sixteen feet. On the north nile of the entrance is the cantle of St. Joso de Foz, whence a ledge u? rocky, sonse of which are at all times above water, extends in a southwest direction. The outernost of these rocks, named Filgueira, which is nlways visible, is left on the left or larboard side on entering. Cabedelo Point, forming the southern extremity of the entrance, is low and sabdy. The har being llable, frous
tho action of the tides, and of sudden awellings or freshes in the rlver, to perpetval alterations, it is exceedingly dangerous for any vessel to attempt crossing it with. out a pllot. Pilots are always on the alert, and ready to offer their services when a vessel comes in sight, unless the weather he so bad that they can not go off. On some fow occasions of this sort, vessels have heen datained for three weeks off the port, wlthout iuaving an opportunity of entering. The chapel of St. Catherine in a llne with ihat of St. Michael leads over the bar. The ordinary rise of spring tides is from ten to twelve feet, and of neaps from six to elght feet. A light-house with a revolviug light, hai ing the lautern 220 fuet above the level of the sea, is erected oll ribing ground about 600 yards north-northwest of St. Joan de Foz. The awellinge of the river, or freahes, as they are called, most commonly occur in spring, and are caused by heavy rain, and by the melting of the snow on the mountains. The rise of water at such times is frequently as much as forty fect; and the rapitity and force of the current are so very great, that no dependence can be placed on anchors in the stream. Fortunately, a fresh aever occurs without prevlous warning; and it is then the practico to moor with a cable madu fast to trees, or stone pillars erected on the shore for that purpose.-For further information as to the harbor of Oporto, seo I'erdy's Sailing Directiona for the Buy of hiscay.

Oporto is the emporium of a large portion of the kingdom of Portugal, and enjoys a pretty considerable foreign commerce. The well-known red wine, thenominated Port, from Ita belug exclusively shipped at this city, forms by far the largest article of export. The exports vary in different years, from about 26,000 to above 40,000 pipes. Englant is much the largest consumer of port. The high discriminating dutics on French whe originally tutroduced port into the liritislı markets, and gave it a preference to which, though an excellent wine, it hatl no just title; this preference tirst generated, and its leng conthuance has since so conflmed the takte for port among the great bulk of the population, that it bids fair to maintain Its ascendency as an after-limer winc, notwithstanding the equalization of the duties. At an average of the ulae years ending with 1851, there were ahipped from Oporto for England 22,861 pipes a year. Next to Englam, Hrazil, liussia, and the north of Eurofe are the prine cipal consumers of port; but it appears, from the subjoined account, that the total experts to them do not anount to a half of those sent to England. The other exports aro cil, oranges, and other fruits, wool, refined sugar, cream of tartar, shamac, leather, cork, etc. The imperts are cern, rice, beef, salt fish, and other articles of provision; sugar, coffec, ute., from Brazit; cotton and woolen goods, hardware, tin plates, etc., from Eisgland; lemp, flax, and deals, from the Daltic, ete. Desides the British masufaetured goods imported into Portugal for the use of the natives, a considerable quantity is deatined for the consumption of Spuin; being smuggled into that country through liragonza and other towna on the frontier.
Vgasela evteasb ant cteaken at imorto in the lco. vonielvan laist bit

| Yeare and Munthe. | Yomele Eatered. |  |  | $V$ vemela cliened |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | National. | For'n. | Tons. | Nutional. | For't. | T, men |
| $1 \mathrm{luly} .$ | 81 | (1) | 10.te | 76 | 29 | [19,196 |
| Augant. | 08 | 84 | 14,145 | 02 | 81 | 13.318 |
| Neptember | 111 | 26 | 12: 47 | 89 | 38 | 15,26) |
| Deloler .. | 8 | 111 | 8.138 | 811 | 19 | [1. H 2 |
| November | 78 | 21 | 18.272 | 75 | 14 | 958 |
| Becember less. | 42 | 21 | 0,146 | 59 | 26 | 11,353 |
| Imanary . . | is | 32 | 11, 548 | 86 | 23 | 10,383 |
| Fehruary | 1 | 3 | 6\%2 | 5 | 3 | 699 |
| March.. | 36 | 48 | 13,3433 | 40 | 63 | 11,450) |
| April..... | 80 | bt | 13.816 | 68 | 45 | 11,104 |
| May .... | 104 | 42 | 10,124 | 85 | 12 | 10,463 |
| Jane... | 78 | 47 | 11.012 | 89 | 3K | 14,49 |
| Total | 825 | 36, | 131.4531 | 755 | $3+1$ | 126.38 |

Exportation of Wing and Beandy in the Eoonomio Year 1854-6\%,-(18 canadas $=1$ almude $=3 \cdot 64$ gellona.)

|  | Plom. | Alma. | Canas |
| :---: | :---: | :---: | :---: |
| Wine-l et quality, for ports In Earopo | 82,298 | 15 | 11 |
| " " 4 "ut of Europe | 1,886 | 10 | 8 |
| ", " Kingdom and of thelends\} | 49 | 11 | 9 |
| " 2d quality, for ports out of Europe | 1,740 | 15 | 7 |
| Brandy-1stquality, for ports in Europe. . |  |  | 10 |
| " 4 " |  | 8 | .. |
| Elogdom and of the | 17 | 12 |  |
| Total. ..................... | 35,697 | 18 | 9 |

Total gailons . . . . . . . . . . . . . . . . . . . . . . . . . 3, 275,069.
Quantity of Puet Wine axpobted fhom Oporto in 1805 ,
and the Countale to whion exiohted.

| Counirial. | Pipes | Alme. | Cana. |
| :---: | :---: | :---: | :---: |
| BraEll. | 9,641 | 18 | 6 |
| Bremen . . . . . . . . . . . . . . . . . . . . | 103 | 26 | 8 |
| Canads. | 605 | 20 | 6 |
| Debmark . . . . . . . . . . . . . . . . . . . . | 436 | 18 | 1 |
| Vaited States. . . . . . . . . . . . . . . . | 683 | 15 | 0 |
| France . . . . . . . . . . . . . . . . . . . . | 27 | 13 | 8 |
| Great Britain . . . . . . . . . . . . . . . . | 26,765 | 11 | 11 |
| 2tamburg. . . . . . . . . . . . . . . . . . | 1,076 | * | 10 |
| Spain ....... . . . . . . . . . . . . . . . | - | 13 | 8 |
| Morocco . . . . . . . . . . . . . . . . . . . | - | 15 | 6 |
| Russia. . . . . . . . . . . . . . . . . . . . | 258 | 3 | 8 |
| Portugal and posmessions . . . . . | 817 | 4 | 8 |
| Sweden. . . . . . . . . . . . . . . . . . . | 288 | 14 | 8 |
| Newfoundiand . . . . . . . . . . . . . . . | 189 | 14 | 9 |
| Total. . . . . . . . . . . . . . . | 34,386 | 12 | 11 |

Totai gelloas
8,152,006.-C. D.
Oranges (Ger. Pomeranzen; Du. Orangen ; Fr. Oranges; It. Afelarance; Sp. Naranjas; Russ. Pomeranezıi; Hind. Narunge; Malay, Simno-manis), the fruit of the orange-tree. The common or sweet orange (Citrus sinensis, or Citrus nobilis), and the Seville, or bitter orsnge (Citrus curuntium), are natives of China; and the Portugueas are entitled to the henor of having transferred the plant to other countrles. Partlcular species of Citrus seem to be indigenous to varlous Eastern countries; but the birth-place of the proper orange may be distinecly traced to China. It is now to be found in our green-houses. Oranges are imported in cheats and boxes, packed separately in paper. The best come from the Azores, Spaln, and Cuba; very good ones are also brougit from Portugal, Italy, Malta, South America, and other places.

The orange trade carried on by this country is of considerable value and importance. Oranges are not much more expensive than most of our superior domestic fruits, while they are, perhaps, the most refreshing and wholesome of those of wariner ellmatea.

The Citrus aurantium, or gelder-frulted orange-tree, under faveral le circumstances, usually attains a height of twenty-five or thirty feet, and is graceful in all Ita parts. The trunk is upright, and branehes into a regular or symmetrical head. The bark of the twigs ls of a soft snid almost translicent green, while that of the truuk sud olider branches is of a delicate ash-grny. The lenves are moderately large, beautifuily shaped, of $n$ fine heaithy green, and shining on the upper siden, while the under sides have a slight appenrance of down. The flowers eccur in little clnsters on the sides of tho tranches, are pleasing in their form, of a delicate white in the sweet oranges, and in the more acid varieties shifhly tinged with plak. In seme plants they have a more powerful odor, and aro, for thi moment, more rich; but in the orange-grove there is $n$ fragrance in the aromin which never autiates nor offends; and as the tree is at one and the asme timo in all stages of its henring-in tiower, in frult just set, and in gelden fruit, anviting the "hand to pall and the palate to taste"- it is haritly possible to concelve or lomagine any olject more delightful. There is something, too, peculiar ln the organization of the fruit of this trec. its rind, or external eovering, is of a spengy texture, containing hut little juice nr anp of any kind in its suistanco; hut the external surface is cevered, or tuberculated with ilitlo glands, which secrete an aerld, volatile oll, very
inflammable, and of a strong, pungent taste. The interlor of the frult is usually divided into from nine to twelve carpels or cells, which contain the pulp, seeds, and juice, and are united by a whitish pellicle or leath. ery ekin, radiating from the centre to the rind, and may essily be soparated without wasting the julce. The seeds are aolitary or several, and are attached te the inner angle of the carpel, and In some varieties are entrely wantlog.
The wood of the orange-tree, when dry, welgbs fortyfour pounds to a cuble foot, is hard, compact, flexible, slightly odoriferous, and In nuaceptible of being pollshed. When recently cut, it is of a yellowish hue, Lat in the course of tine it fades. From its acarclty and small size, it is but little employed in the arts, the only particular uses to which it is applied being to make boxes, dreseing-cases, and other articles of fancy: and in Florida, considerable quantities of straight, young shoots are cnt, and ahlpped in bundles, to be made into walking-cancs.
The fruit of the orange may be obtained fresh in any region of the globe, and at almost every eesson of the year. The aromstic oil and the rind preserve it from the effects both of heat and of cold; and the acridity of the former renders it proof against the attacks of Insects. It is true that oranges decay, like other fruit ; but that does not happen for a long time, if the rind remains unlnjured, and they are kept frum hnmidity, and eo ventilated aa not to ferment. With regard to the quallty of this frult in various places, there appears to be a diveraity of opinlon. Seme consider those of Malta the best; others those of St. Michael's; while others prefer those of Bahja, Havana, or of St. Angustlne.
The Maltese oranges are usually large, the rind thick and epongy, and the glands whlch secrete the volatile oil are prominent. The pulp is red and delicious, attheugh sometimes there ia a trace of bitterness in their taste. They are shipped in boxes of an irregalar size, and are generally packed in shavings or saw-dust.

The St. Michael's oranges are of a smali size, the rind is thin and smooth, the glands omall, which secrete but little volatile oil, the pulp lighit-colered, and of a delielous, sugary taste. They are put up in boxes of three hundred and fifty to four hundred, with each fruit enveloped in paper, or in the huske of maize.
The celebrated Narel oranges of Bahia are of difficult transport to Europn and the United Stater, in consequence of the length of the voyage, and of the humidity und warmth of the climnte through which they have to pass. If they are gathered green, havicver, and suspended in the air alove deck, or at the stern of the vessel, in nettlug, they will endure 'hrough the vaysge.
The flavana oranges a.e usually of a good size, with a moderately rougia rind, and a pulp well fillad with delicious juice. From the shartness of the voyage to nny oi the Ainerican markets, they may he safely transported during the winter months. The fruit is ripe in Cubn at the end of October, and is usually shipped in barrels of two humired and fifty to cour hundred frults in osch, put up loossly, without sny envelopes.
The SI. Augustine oranges are superior, both in size and quality, to those of Cubn or the Mediterranean. They reacmile those of Ilavana in flavor, but are much is $\mathrm{g}_{\mathrm{g}} \mathrm{er}$, and bring from twenty to thisty per cent. more in the New York and Boston markets. Of the smalier dizes, it requires alout three hundred frnits $t^{\prime}$ fill n unrel, but of tha largest ones only one bundred are necessary.

In Eiurope, thu Valencia oranges are eagerly sought after, on necount of their early appenrume, large size, and henutiful color. They are put up in hoxes of two hundred and twenty to two humilred and forty fruite in each, enveloped in hrown paper.

The Sicilian cranyen, and those of the sonth of Italy, may be ragnrded as ncarly of tho same quallty. They:
are of a medium size, with a fine color, and are rather acid in their gavor. Those shipped from Messina are put ap in boxes of two hundred to two hundred and ten fruits in each, and those of Palernio, which mature later, are shipped in boxes of three hundred or more frolta in each. The oranges of Reggis ripen very carly, so much so, that it is not unvesual to send theni away hy the 20th of October. . They are packed in boxes of two hundred and forty fruita in each, and, like most of the oranges of the Mediterranean, are enveloped in paper.
The Provence oranges come to great perfection, and may be classed with those of Genoa. Along the River Var, they have two harvesta of the orange, the first commencing from the 10th to the 15 th of November, when the fruit begina to turn, and continues till the 4th of Desember; the second begins abont the 10th of January, and is prolonged nearly to the end of February. They are put up in boxes of one hundred and twenty to three huodred and sixty fraits in each, according to their size and qualities.
With the Seville oranges may be elassed those of Faro, St. Ubes, Oporto, Andalusia, Malaga, and the bitter oranges of Cuba and Florida. This fruit is usually of a good size, of a beautiful color, but unfit to eat, on account of its bitter favor. Thoge shipped from Seville are put op lu large boxes, of one thousand fruits In each; whilo those of Faro and St. Ules are badly packed in cases of three hundred to three humdred and ility in each. Those of Spain and Portugal are princlpally carried to Eugland and the Baltic, and are enployed in cookery, and In the manufactare of cordials and other aromatic liquors. The essentiol product of the fruit is in the rind or peel; it is cise into quarters, separated from the pulp, and caused to be quickly Iried. It is used in Ifolland in aronatizing a liquor called curacoa.-Browne'y Trees uf A merica.
Importations of Gaanges, J.emons. other giegen Fevit,
AND IRFBERYED FgCIT, INTO TIF UNITEDSTATEB DEGINO


| Whames Imported. | Oranges, Lemben, und E.tmue. | Other green Pruil. | 1'remerved Prufl. |
| :---: | :---: | :---: | :---: |
| Swedinh Weat Indlem. |  | \$4,54t | $\$ 103$ |
| Danish West Indted. | 4 |  | 16 |
| Hambirg |  | 111 | 710 |
| Itremen ......... . . . . . . . . |  | 16.) | 24, |
| Ifolfand. . . . . . . . . . . . . |  | .... | 15 |
| Dutch Culana.......... | 290 |  | 06 |
| 1)utch Fiast Indter........ |  |  | 40 |
| Dingiand................ | 112 | 45 | 723 |
| Scorland................. | . | .... | 16 |
| Canada. . . . . . . . . . . . . |  |  | 13 |
| British N. A. P'orsemalons |  | 011 | 14 |
| Mritink Weat Indiet...... | 0,951 | 28,462 | 988 |
| Irrtish Honduran. . . . . . | 14 | 7.43) |  |
| Hritlah tiulana........ |  | \%0 | 8 |
| Ilritiah Ainntralia ...... | 3 | . . . | . ${ }^{\text {a }}$ |
| Brilith Fiani fudtes...... |  | * $\cdot$ - | 9 |
| Frunce on the dilantle... |  | 83 | 40,740 |
| France on the Mediter'n. | 0,112 | 312 | 1,380 |
| French Wrat Indlen..... | - 23 | 865 | 13 |
| French Gulana . . . . . . . . | 76 |  | 1.397 |
| Xpuin on the Atlanile ... | 52: | 6 | 4*1 |
| Spein on the Mediter'u .. | 51,546 | 1.421 | 1,430 |
| Phllipplne Imiands...... <br> Cuba. | 35,580 | 65,255 | 9 3,080 |
| t'urto Hico ................. | 35,189 $\mathbf{y , 1 1 3}$ | 65,250 860 | 3,080 |
| fortugal .............. | 195 |  | 112 |
| Madelrat . . . . . . . . . . . . . . |  |  | 8 |
| Azores | 6,198 |  |  |
| Bentinia | 30,115 | $\ldots$ | 2.791 |
| Tusany.t.............. | 1.712 | . . . | 51.498 |
| Two Slellies............. | 487,341 | .... | 1,44,8 |
| Turkey in Asfa | $\ldots$ | ... | ${ }_{6}^{6}$ |
| Africa... | 32 |  | 5 |
| Ilayll. . . . . . . . . . . . . . . | 04 | 14 | 270 |
| Mentw . . . . . . . . . . . . . . | 1,218 | 1.08 .4 | 8 |
| (Sentr id Reputbio. . . . . . . . | ! | 1.871 |  |
| Now faranuda . . . . . . . . . . | 83 | $\pm .367$ | 22 |
| Vemezuela. . . . . . . . . . . . . |  | 45 | 13 |
| Jtrasil. . . . . . . . . . . . . . . . . | 271 | +18 | 41 |
|  | 9700 | 1,155 | 101 |
| Nandwluh talands . . . . . . | 2,709 | 1, 215 | - |
| Jagas . . . . . . . . . . . . . . . . . . . . . . . | 916 $9: 1$ | " | 10, 804 |
| Whale Fivheriea | 24.872 | 1,146 | 13,401 |
| Total. . . . . . . . . . . . | \$640,670 | 6117, 41 | \$124.440 |

Orchilla Weed, Orchella, or Archil (Ger. Orseille; Ir. Urseille ; It. Oricello, Orcella; Sp. Orchilla) a whitlsh lichen (Lichen orcellu) found la the Isle of Portland; Lut that which is used is imported froms the Canary and Capa do Verd Islands, Madeira, Barhary, and the Levant. Frons it is obtained the arehil, or orchal, of commorce, which yields a rich purple tincture, fugitive, indeed, hat extremely beauliful. The preparation of orehilla was long a secret, knowis only to the Florentinos and Hollenders; but it is now ex tensively manufactured in Eagland. Orchil is generally sold In the form of cakes, but sometimes in that of moist pulp; it is extensively used by dyers; and in times of scarcity the weed or llohen has sold as high as f 1000 per ton!-Tuomson's Diepensatory.
Ordinary, in Nautical language, denotes the estab. liahmeit of the persons employed by government to take charge of the olips of war which are laid up in the several hathors. These are principally eomposed of the warrant officers of the ships, as the ganner, boatswain, carpenter, deputy porser, and cook. There is, besides, enrollod in the list of the ordinary a crew of laborers, who pasa from ship to ship occasionally, to pump, moor, move, and clean them, whenever it is necessary. The term ndinary is also applied sonietimes to the ships themselves, and it is likewise used to distingulsh the inferior sailors from the most expert and diligent. The latter are rated able on the navy books, and have higher pay than Hose who are rated as ordinary.
Oregon, territory, United States of America, bordering the l'acifie coast, li:s between the parellels of $42^{\circ}$ and $46^{\circ} 10^{\prime} \mathrm{N}$. lat., and west of the Rocky Momitalar. Area, 210,000 square miles. Muel of this territory is monitainons, but it abounds in fertile valleyg. It forms three sections, separated frou each other by nearly parallel ridges, and following the. general di. rection of the coast line. These aeveral sections hase each distinct characteristies of soil, produetions, and elimate. The division extending from the Pueific coast to the Cascalle range has a genial climate throughout the yeur. The valley of the Willamette is exceedingly fertile, the intervales and prairica form the best of furming lands, and the uplands afford good pasturage, nod abound with valuable timber; and there is much fertile land bordering the Shastl and Uuppua rivers. The division hetween the Cascade range and the Blue Mountains hus generally a light sandy soil, but nith many valleys of rich alluvion; altogether said to be a fine grazing region. The pertion lying west of the Hocky Mountaina ford east of tha Blue Mountaina, in extent full one half of the territory, is mostly a rocky and rough country, with sone few narrow valleys of great fertility. In the southeril jortion of the territory gold has been extensively found. Thero wero in Qregon and Washington territoriea in $18.50,132,852$ acres of land improved, and 299,951 of unimproved land in farms. Cabh value of farms, $82,849,1: 0$; and the value of iuplements and machinery', $\oplus 183,+23^{\prime}$. Live Stock: IIorses, 8056 ; asses and mules, 420 ; milch cows, 9127 ; working oxen, 8114 ; other cattle, 21,188 ; sheep. 15,382 ; swine, 60,235 . Value of live stock, $1,866,189$
Agriculural Products, etc -Wheat, 211,913 boshels rye, 106; Indian cort, 2918; oatr, 61,214; peas and hifans, 6566 ; potatoes, 91,326 ; valne of prolucts of the orchard, 81271; produce of market gardens, $\$ 90,211$; pruads of butter made, 211,46.1; of cheese, 3ib,980; molasses, 2.1 sallons; wool, 29,686 pounds produced Rax, 610 ; toluacco, 320; hay, tons of, 373 ; clover and other grass seels, 20 hushels. Value of slanghtered animals, 81t-1,530.-See Census Returns, 1850 .

The Columbia forms its norlh bounclary for a diatance of 300 miles, and the east part is ulaust entircly Iralned hy the south branch, called Suptin or Lewis IRlver, and its trihutaries ; a vury small portion only in the southeast corner is drained liy the head sourves of the liso Culora :o, liere called Groen River; and also hy
(Ger. Or. Orehillu) e lsle of from the Burhary, archil, or rple tincful. The rown ouly s now ex. rețimes in by dyers; ias sold as catory. the estabrnment to $d$ upin the ulposed of ner, loatThere is, a crew of ionally, to aever it is lied someewise used aost expert , the navy - are rated nerica, horparallels of cky Mountof this terriile valleys. ch other by genersl dictions have Ictions, and Pucilic coast throughont exceeding the best of 1 pasturuge, ere is much pqua rivers. od the lillue il, but with said to be a west of the ountains, in stly a ruck valleys of of the terri. here were is unimproved $49,1 i 0$; and e3, +23. Live milech cow 8 , 1,188; sleep. k, $1,866,183$. 913 weskels 1; peas and oducts of the 11\%, $8: 4,211$ ese, 3t,980 a produced i clover and slauythered 8.50. y for a dis. hest eatircly tine er Lewis rtion only in dd suuries of ; and also hy
the Bear River of Great Salt Lake; Unatillah, John Days, and WIllamette rivers enter the Columbia River on the south; and the Shastl or Rogue, Umpqua, Sequatchie, Yaquina, Kllamook, and several sinall atreams enter the Pacific on the west. The principal places are Salem, the capital; Portland, at the head of navigation, Oregon elty, and Astoria. The principal articles of export are lumber and agricultural produce. Tonnage in 1853, 1063 tens. Thero were in the terrltory in 1850, thirty-seven saw-mills employed in the mauifscture of lumber. The fisheries of Oregon are important and valualle. The rivers abound with salmon, especlally the Columbis and the Wiilamette, which are taken in large quantitles below the fall. The hunting and trspplag of the fur-bearing animals hes givei. conployment to a great number of persons, and the rivers and coasts abound with wild fowls. The governor is appointed by the Prealdent of the United States for four years. The Leglslative Assembly is composed of a coancil of nine members, elected for three years, and a Heuse of Representatives of eighteen members, elected annualiy. The elective franchise is enjoyed by every free white male inhabitant twentyone years of age, and a cltizen of the United States.
On the 7th ot Msy, 1792, Captain Rohert Gray, in the ship Columbia, of Boston, diseovered and entered the Columbia River; to which he gave the name of his yessel. He us the first person that eatablished the fact of the existence of this grent river, and this gives to the Uuited States the right of discovery. In 180t-'5, Csptains Lowis and Clarke, under the direction of the gevernment of the United States, explored the country from the mouth ef the Missouri to the mouth of the Colunbia, and spent the winter of 1805-'6 at the month of the Columbis. This exploration of the River Columbia, the first ever made, censtitutes another ground of the ciaim of the United States to the country. In 1808, the Mlssourl Fur Company, at St. Louis, established a trading post beyond the Rocky Mountains, on the head-waters of Lewis River, the first ever fermed on any of the waters of tho Columbia. In 1810, the Pacifie Fur Company, under Juhn Jacob Astor, of New York, was formed; and in 1811, they founded Astoria, at the mouth of the Columbla, as the principal trading post, and proceeded to establish othors In the interior. A little later in the same year, the Northwest Company sent a detachment to form establishments on the Columbia; but when they arrived at the mouth of the river, they found the post occupied. In consequence of the exposure of Astoris ly the war of 1813 , the post was sold out to the Northwest Company. At the close of the war, Astoris was restored, by order of the liritish government, to its origiaal foundere, agreeably to the first artlele of the Treaty of Ghent ; but Britain still persisted In claiming this territory, south to the 42d degree of latitude, until $18+5$. In 18:31, the Iludson's Ilay and Northwest Company, who had previously been rivals, were united, and since that time have greatly extended their establishments in the region of Oregou. It was heid in jeint oecupancy until the treaty of 1815, when Britaln gave up all claims south of the 49th parsllel of north latitude. It was organized with a territorial zovernment in 1848. Tho portion now the Territory of Wushington was set off by an act of Congress, March, 185\%.

Forgion Immorte and Expoats of Orzgon.

| Nears. | Eiporte. |  |  | Import: | Tumnege Cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatle. | Forelign. | Tutal. | Total. | Americ.an. | Foreigo. |
| tx 4 | * 42.707 | \$120 | W ${ }^{4,8} 8$ | \$18,038 | 772 | 281 |
| 1855 | 143,6t2 | ... | 123,0t2 | 0, (696) | 1608 | ... |
| 1450 | 6,234 | $\cdots$ | 6,284 | 2,724 | 348 |  |

Organs. The invention of the organ is attributed to Archimedes, ahout 220 n.c. ; but the fact does not rest on sufficient authorlty. It is also attributed to one Ctesibils, a barber of Alexuatria, about 100 n.c. The ergan was brought to Euroje from the Greek em-
ples, and was first applied to religious devotions in churchea in A.d. 658.-Bellarmine. Organs wers used in the Western churches by Pope Vitallanus in 658.-Amмоnits. It is affirmed that the organ was known in France in the time of Louis L, 815, when one was constructed by an Italla.i priest. St. Jerome mentions an organ with twelve pairs of bellaws, which might have been heard a mile off; and another at Jerusalem whlch might have been heard cn the Monnt of Olives. The organ at Haerlem is one of the largest in Europe; it has 60 stopa and 8000 plpes. At Seville is one with 100 atops and 5300 plpes. The organ at Ansterdam has a set of pipes that imitate a chorus c? human voices.

Orgol. See Argol.
Orinooo, one of the princlpal rivers of South Amerlea, ranking in size and lmportance lmmediately after the Amazon and Plata, north of which former its bssln lies. It rises in the Sierra Nevada, Venezuclan Gulana, winds suceessively west, north, and east, through the centre of the Venezuelan territory, and enters the Atlantic by numerous mouths, in lat. $8^{\circ} 40^{\circ}$ N., and long. $61^{\circ} \mathbf{W}$. Total course estimated at 1600 miles, for more than the latter half of which, or to the raplds of Atares, it is uninterruptedly navigalie. Ares of its basin, 252,000 square miles. It receives numerons large affluents, principal the Meta and Apure, rach having a navigable streem of 500 miles, the Guaviara and Caroni. By the Cassiqulare it has a slngular navigable communication with the Rio Negro and Amazon; and in the upper part of its course are several large cataracts and long rapids. At 200 leagues from the ocean, its breadth is alout three miles; and at the city of Bolivar, between 250 and 300 miles from its mouths, to which place the tláe reaches, It is four miles across, : ind, vhen lowest, 65 fathoms deep. About 100 miles from thee ocean, it separates into a delta of numerous $m$ saths. It rises gradaslly from March to September, yearly, usually from 60 to 70 feet, but in one narrow place to 120 feet. Its banks are clothed with dense forests, which, like its waters, abound wlth animul life. Like ail great rivers, its upper waters separate into several brauches, and it does not appear that the main source lias beon azeortained with any degree of certainty. According to La Cruz d'Oltnedilla, it lssues from a small lake called Ypava, situnted in north latitude $5^{\circ} b^{\prime}$, whenee, by a bend of a splral form, it onters the Lake Parima; but altheugh the existence of this sheet of water has been determined, doubts are entertained whether it may not owe its orlgin only to the temporary overflowing of the river. Fron this lake it is said to issue by two mouth; ; and after a very circuitous route of upward of fifteen hundred miles, including its windings, it flows Into the Atlantic Ocean, opposito the island of Trinidad, by about tifty mouths, seven of which are navigable. The Grand Esca, or principsl month, which is six leagues wide, is sontheast of 'rinidad, is: lat. $8^{\circ} 30^{\prime} \mathrm{N}$. , and long. $59^{\circ} 50^{\prime} \mathrm{W}$.

Orpiment (Ger. Operment; Fr. Orpiment; ft. Orpimento; Sp. Orqpinente; Lat. Auripigmentum), the name usually given to suiphuret of arsenic. When artificially peepared, it is in the form of a fine yellewcolored powder ; but lt lis found nusive in many parts of the world, particulariy in Bohemla, Turkey, China, anil Ava. It is exported from the last two in considerable quantities, and is known in the East liy the name of hartal. Nati $\%$ orpiment is composed of thin piates of a lively geid colcr, intermixed with pieces of a vermilion red, oi a shattery foliaceous texture, tlexible, soft to the touch like tale, and sparkling when broken. Speclfie gravity, $3 \cdot 15$. The inferler kinds are of a desd yellow, inclining to green, and wait the bright appearunce of the best spectmens. Its principal use is as a coloring drug among puinters, hookbladers, ete.-Thomson's Chemistry; Milnern's Orient. Comm,

Ornedew, Oraidue, Manheim or Dutoh Gold (Ger. Flittargold; Du. Klatergoud; Fr. Oripeau, Oliquant ; It. Orpello; Sp. Oropel), an inferior sort of gold leaf, prepared of copper and zinc. It ia mometimes called leaf brass. It ia principally manufactured in Manheim.
Ontrich Feathers. See Featheras.
Oswrego. Oswego is one of the most thriving citles in the Union. With a population of 20,000 , it does as much buainess as many cities of twice its popuiation. The Welland Canal has given it advantagea over even Buffalo, and hence lts trade grows enormously. Its increase has been so ateady that it will continue to grow with every improvensent in the Western States.
The receipts of flour and grain hy lake for three seasors are given as followa:

|  | 1844. | 1855. | 1858. |
| :---: | :---: | :---: | :---: |
| Flonr, barrels | 167,207 | 224,648 | 102,920 |
| grain. |  |  |  |
| Whest, bush | 2,498,333 | 5,365,783 | 8,982,393 |
| Corn, 4 | 2,032,274 | 2,810,909 | 2,830,211 |
| Rye, | 43,215 | 281.021 | 339,508 |
| Barley, " | 101,436 | 172,216 | 110,019 |
| Peas " | -849 | 8t, 160 | 41,410 |
| Oats, " | 323,296 | 288,097 | 169,760 |
| By converting the flonr into wheat, at $\delta$ bushels per barrel, the amount woutd be. | 6,402,908 | 8,909,176 | 12,682,305 |
|  |  |  |  |
|  | 836,335 | 1,123,215 | 814,050 |
| Totals. | 14,429,238 | 10,092,301 | 13,140,95\% |

Showing an increase in 1856 of $6,717,717$ buaheis over 1854, and 3,064,564 bushela over $1855^{\circ}$.
The numual review of ita commerce for 1856 says, of the grain warchouses of Oswego, "There are ten elevators; which are capuble of elovating in the aggregate over 37,000 huahels of grain per hour, and storage room for over teo million bushels." This ls about the aame as Milwauke. There are In Oswego sixteen mills, with eighty-six run of atone, capable of manufaeturing 8600 barreia of tlour a day, or over $1,800,000$ barrela in a year.
Out of Trim, the atate of a shill when she is not properly balanced for the purposea of navigation, which may le occasioncd by a defection: in the rigging or in the stowage of the hold.
Outriggar, a atrong beam of timber, of which there are severai, fixed upon the side of a ship, and projecting fromit, in order to securo the stasts in the act of careening, by counteracting the strain they suffer from the effort of the carcening tackles, which, beIng applied to the mast-head, draw it downuard, so as to act upon the vessel with tha power of a lever, whose fulcrum is in hor centre of gravity. Outrigger is aleo a amail boom, oceasionaliy used in the top to give adtditional security to the top-mast.
Owners of ships. Tho ownership or tith to a ship can be acquired in several waya, as by purchase, building, or cajiture. In regard to the first, it is generally done by a biil of sale, of which there are two kinds: the first is where the ship passes from the builder to the first purchaser, and is calied the grand lill of saie; the second is where the owner of the ship not being the limilder, transfers hin interest to another purchaser. L'pon the death of the owner, his Interesta devolve mion h'vexecusars or hila persuial rupresene tives spacial conditions may be litroduced
 an. wn the , wherty may not have heen eompicted, voradan pay ment of a certain pact of the purchasemonev when a mart of the veneel has 'wen eompieted;
 swid the wille' cata. mat require lisito accept any oth
er.-Abbot. A ship's boal does not constitute a part of a vessel'a ta akle, apparel, furniture, atc.
Property ir. ships la sometimes acquired by capturc. Daring war thipa and private ahipa having letters of marque, are entitied to make prizes. But befere the captore acquire a legal title to auch prizes, it is neces. aary that they s.ould be condemned in the admiralty or other court constituted for that purpose. When this ia done, the captora sre considered to be in the saino situation, with reapect to thom, as if they had buit or purchased them. - See articles Privateris, Lesttena of Marque, Phezes, and Smis and Shifinci.
Oyater, a well-known edible shicll-llsh, belenging to the genua ostrea, occurring in noost parts of the world. The European oyater ( 0. edulis), which furms a considerable articie of trado on the coasta of Eugland and France, is taken by dredging, after which the animals are placed in pits formed for the purpose, furwished with sluices, through which, at apring tiles, the water is auffered to flow. In these receptacles they acquire the green tinge so remarkabla in the European oyster, and which is considered as adding to their value. This color, which at one time was aupposed to be owing to some mineral impregnation, has recently been ascertained to arlae from the confirre, and other marine vegetable matter, on which the animal feets. The oysters brought to the different markets in the United States aro furnished by aeveral species, which It is extremely difficult to discrininate, and are known among the venders and eplcures of this food ly appellationa derived from the places from whence they are brought. The buainess of taking these shell-fish etuploys a great many handa, and no inconsiderable amount of tonnage. In many places oysters are planted, as it is called; that in, large artificial leds are formed in favoralle situations, where they are parmitted to fatten and Increase. The breeding-tinie of oysters is in Aprii or May, from which time to, Iuly or August the oyater 1 are aald to be sick or in the milh. This is known by the appearance of a milky sulstance in the gills. Oyatera attain a size fit for the talle in about a year and a hnif, and are in their prime at three ycars of ago; though what the natural tern of their lives may he, it ia diffeult, if not Impossibie, to determine with any degree of accuracy. Many curious discussions have arisen an to whether oysters possessed the faculty of locomotion. It to well known that, in general, they are firmly attached to stones er to ench other; and it has been stated, and generally helieved, that they wero not endowed with any powers of chang. ing thei. position. From the observations nad experiments of naturalists, however, it appeara that they can move from place to place by suddenly ciosing their ahella, and thus gecting the water contained between them with sufticient force to throw themselver bish ward, or in a lateral direction. Oystera form the basis of many culinary preparations, but are much more digestibie in their raw state than after any mede of cooking them, as this process, in n great measure, deprives them of the nou; lshing antmal jeliy, which forms so large a portion of thelr sulstance. The shell of the oyater is composed of carlonate of lime and suinal matter, and was at one time aupposed to possess pecullar medical properties; hut analysis has shown that the omly advantage of these animal carhonates of lime over these from the mineral kingiom arises from their containing no adimixture of any metalicic subtance. The lime obtalned from the calcination of oyster-shelts, though exceedingly pure and white, is hetter suitedfor work which daes not rr fulre grvat tenarly, as lior phatering rooms, than for the common purposes of building, as it does not corm as luard a compound with anind as the mineral limes.

Pao from t of lat., Mulay widest it narr munics anil, in of $\mathbf{7 0}, 0$ land or though en the ebes, C Okhots It is at priacip Lsidron IIcbrid Sandw besides sand 1 ocean flows then entire rents Japan. rupted trade$26^{\circ} \mathrm{S}$. ever 5 son. Falir. threug canal name In the Behri ver, B tury roy, 1
Cur cd sta graphi the fol rent ol ef the years, its da eccan. is the magn occan
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## P.

Paofic Ooean, a vast watery expanse extending the Gulf of Yedo, where Its maximam velocity, as shown from the Arctic to the Antarctic clecle, through $127^{\circ}$ of lat., and between America on the east, and Aala, the Mulay Archipelago, and Australia on the west. In Its widest part, at the equator, it is 10,000 miles aeross; it narrows especially toward the north, where it eommunicates with the Aretic Oeean by Behrlng's Strait; anul, ineluding the Indian Ocean, it contains upward of $70,000,000$ of square miles, or more than all the dry land on the globe. Its coast line on the American side, though generally bold, is very little breken by inlets; on the Asistic side it ls very irregular; and the Celobes, Chins, and Yellow seas, with the aeas of Japan, Oklotek, and hamtschatka, are inlets of this ocosn. It is studded with a great number of island groups, the principal of which, proceeding from west to east, are the Ladrones, Carolines, Solomon, Queen Charlotte's, New IIcbrides, Feejee, Friendly, Society, Low, Marquesas, Snndwich, and Galapagos lalands, and New Zealand, besides a vast multitude of solitary lslands, reefa, and sand banks. The great equatorial current of this ocesn originates in the Anturctic drifl current, which flows north slong the shores of South America, and then west through the Pacific, where it occuples the eatire space between the tropics. Strong land currents sweep round the shores of East Australis and Jspsn. The northeast trade-wind prevails uninterruptedly between lat. $5^{\circ}$ and $23^{\circ} \mathrm{N}$. ; che southeast trsde-wind commonly blows from the equator to int. $26^{\circ} \mathrm{S}$. ; between them is the region of calms, extending over $5^{\circ}$, and varying in position according to the seasou. Greatest equatorial temperature of Pacilic $88^{\circ} \cdot 5$ Fahr. In lat. $56^{\circ} 26^{\prime}$ the tempersture of the sea throughout its depth is $39^{\circ} \cdot 5 \mathrm{Fahr}$. This occan became first known to Earopeaus in 1513; it received its name from Magnhacus, who sailed across it in 1521. In the 18 th century its different parts were explored by Belsing, Anson, lyron, Bougainville, Cook, Vancouver, Broughton, La Perouse, etc. In the present century by D'Entrecasteaux, Krusonstern, Beechey, Fitzroy, D'Urville, Wilkes, and Sir James Ross.
Current of the Pacific.-Lientenant Bent, of tho United states navy, recently read a paper beforo the Geographical and Statistical Society of New York, of which the fellowing is an abstract, upon "the grent ocean current of the l'acific," corresponding with the Gulf Streani of the Atluntic. The Japanese have known it for many years, and call it the K.rosiao, or Black Stream, from its dark biuc color compared with that of the adjacent ocean. The fountain from which this stream springs is tho great equatorial current of the Pacille, which in maguitude is in proportion to the vast extent of that ocean, when compared with tho Atlantic. Extending from the tropic of Caneer on tho north, to Capricorn, in all prolastility, on the south, it has a wldth of nearly three thousand miles. With a veloclty of from twenty to sixty miles per day, It sweeps to the west ward in uninterrupted grandeur around three-elghths of the eircumference of the globe, until, diverted by the coutinent of Asia, and aplit jnto lanumerable sureams hy the loolynesian Ialunds, it spreads the genial influenee of its warmth over regions of the earth, sume of which, now teeming in prolific abundance, would otherwise be but barren wastes. One of the most remarkable of these offeshoots is the Kuro-Suro, or Japan Strean, which, separuted from the parent country by the luagee Istanils and south end of Formosa, whero its streugth anll character are as deeidedly marked ne those of the Gulf Stream on tho const of Florida. This northwardly course continues to the parallel of $26^{\circ} \mathrm{N}$., when it lears of to the northward and enstward, washing the whole southeastern coast of Japan as far as the Straits of Sangar, and Increasing in strength as it advances, until reaching the chain of dslands to the sonthward of by our observations, ia 80 miles per day. Its average strength from tie aouth end of Formosa to the Straita of Sangar is found to be from 35 to 40 miles per twen-ty-four hours at all seasona that we traversed it.-Scientific Annual, 1857.
The Pacific Trade of the United States. -The whole number of arrivala in the United States from ports in the Pacific doring the year 1856 were 69 ; and in 1855 ,
146. 146.




AT BALTIMORE.
Callao ....................... $\left.14\right|^{\text {Coquimbo........................ } 1}$


at philadelpma
Callao ................... 10| Iquique.................. $\frac{1}{11}$

AT mompole.
Callao............... 6 Total in 1856. ......................................................... ${ }^{6}$
Moston, 14 ; New York, 20; Baltimore, 17; Philodelphia, 11; Norfolk, 6; New London, 1. Total, 69.
Whole number of clearances for the Pacific in 1855 were 237 ; and in 1856, 261, of which there were cleared

| brom moston fon |  |  |
| :---: | :---: | :---: |
| Callfornia. | 34 | W. C. Contral Ameriea |
| Anatralla . . . . . . . . . . . . | 18 | vla Philadelphta ..... |
| Vaiparalso . . . . . . . . . . . . | 16 | Guayaquil . . . . . . . . . . |
| Honoluid . . . . . . . . . . . . . | 5 | Valparsiso via Bt. John. |
| Callao | 8 | Caliso via Siverpool .... |
| Callfornia vla N. York., | 4 | Yalparalso vla Liberia.. |
| Auatraila vla St. Joha .. | 1 | Panama via New York.. |
| New South Waleb | 2 | Australin rin Richmond. |
| Cailao via Iondon...... | 3 | Tahitt.. |
| W. C. Central Americe. | 1 | Total for 1S56. |
| Total for 1865 |  |  |
| ybom new yoak yoa |  |  |
| C'allformla | 7.1 | W, G. Central America . |
| Auatralla. | 19 | Honolulu |
| Valparaiso .............. | 12 | Itquique. |
| Now Souti Walea. . . . . . | 5 | Panama. |
| Ilobart Town | 1 | Acapuleo |
| Total for 1850 |  |  |
| 1855 |  |  |
| yrom baltimoar for |  |  |
| W. C. Central America... |  | Valparaiso |
| Califorila.. | 2 | Valparalso vla Ito |
| Асари保................ | 2 | Arica |
| Total for IS50 |  |  |
| 1855 |  |  |

Boston, 108; New York, 117; Haltimore, 14 ; Philndelphin, $\overline{5}$; New London, 2; llaugor, 1; Charicston, S. C., 1; l'rovidence, 1 ; l'ortlaud, 1 ; Savannal, 1 ; Salem, 1 ; New Orleans. 2. Totnl, 251.

Package, Scavage, Balllage, nnd Portage, were doties eharged in the port of London on the goods imported and exported ly aliens, or ly denizens heing the sons of aliens. During the Dark Ages it was usual to lay hifger duties upon the croods imported or exported by aliens, whether in Iritis! is forelgn ships, than were lald on similar goods whe mported or exported hy matives. lhat according as somider and moro enlarged primeiples prevailed, this illiberal dis-
tinction was gradually modified, and was at length wholly abolishod, in eo far at least as it was of a public character, by the act of 24 Geo. III. The dutles th.us preserved to the city were not vory heavy; but the principlo on which they were imposed was exceadingly objectionable, and their collection was attended with a great deal of trouble and inconvenience. Not belog levied in other places, they operated to the prejudice of the trade of the motropolis. The aet 3 and 4 Will. IV. c. 66, authorized the Lords of the Treasary to purchasc up the dutios in question trom the cily. This was done at an expense of about $£ 140,000$, and the duties were aboliahed.

Packet, in Navigation, meant originaliy a vessel appointed by govornment to carry the mails between the mother country and foreign countries or her own dependencies. It is now used as nearly symonymous with an ordinary veasel, cinefly of amall burden, that freights goods or passengers.-See New Yoric, Pasaengers, and Pont-office.
Pack-horee, a horse employed to carry gools on its back in bundles, called packages or packs. In countries not yet intersected by regular roads this is the only mode of transporting goods from one part to another. In Britain, herses were formerly employed for this purpose, but for these carts and wagons are now substituted. In Spain, inules and asses are still so mimployed, and in Asia a'dl Africa camels and dromedariea.
Padang. This settlement lies on the west coast of Sumatra, and receives ita inports almost exclusively from Java. It has no $d$ reet importations from foreign countrias. Port, harbe, and other commercisi regulations the same as at Java, to the government of which island Padang is subserlin. te. Undar the uperation of high tariff duties, especia liy on American colton goods, the trade between the United States and Padtung is insignificant.

Padater In Navol', ";uage, a rope used to fasten a twat eituer along' . do of the ship to which it belongs, or to some wharf, quay, etc., as occasion requires.
Paints. The coloring substancee or pigmente used in the arts. The following are sone of the principal pigments and coloring substances inclailed in the commercial name of Paints, and coloriag substauces:

Aapheltum,
Bronze Powders,
lifunawick Green,
Bruanwlek Blue,
British Lustre,
Chalk.
Carnolne,
liry Ochre,
Fimery
Emerald Green,
Gum Damar,
Guru Sandrac,
(ium Anlmi,
Gum Copel,
Ivory Ihack.
lanatre,
litharge,
lampbla'k,

Lead, red and white, Mloeral White, Ochre,
Gryd of Zine, etc. $P$ lumhago, Pumlee. atone, P'ainter'a Colors, Palate in Oil, Painte in Oif
Putty Oll, Purtí Green, Bhellac.
Ultramarine,
Yermiltion.
Yenetlan hed, Verdigria,
White OEyd of Zloc. Whillog and Paria White, zinc tralnt.



| Wheoce Imperted. | $\underset{\substack{\text { nfy } \\ \text { Oelire. }}}{\substack{\text { a }}}$ | Bed and White Lead | Whiting and J'aris White. |
| :---: | :---: | :---: | :---: |
|  | Valus. | Value | Valae. |
| IIamhurg. . . . . . . . . . . . . . | .... | \$17 | .... |
| Itremen. . . . . . . . . . | .... | 814 | .... |
| Holland................. |  | 931 |  |
| Prelghinm. . . . . . . . . . . . . . |  | 712 | \%)77 |
| England. . . . . . . . . . . . . . | 22,820 | 130,601 | 21,748 |
| Scotland . . . . . . . . . . . . . | . | 98 | .... |
| Canada................. | 150 | 19 | iois |
| Fraore on the Attantic . | 15,629 | 8,294 | 1,499 |
| France on tha Mediter't.. | 453 | (087 | .... |
| 8pala on the Meditertu.... | - | 92,290 | ..... |
| Toscany | 1,923 |  |  |
| Two Rieltien | 215 | .... |  |
| Tutal............... . | * 41.103 | \$174.125 | \$22,421 |

Exponts of Paints of Fobigan Mantyactume peov tim

| Whilher Exported. | coner | $\begin{aligned} & \text { Red nond } \\ & \text { Whetc } \\ & \text { Lead } \end{aligned}$ | Whiliag and Parin Whik |
| :---: | :---: | :---: | :---: |
| Eogland | Value. | Valua. | Valas. |
| Canada . . . . . . . . . . . . . | \$4950 | 8828 | ¢ |
| Other Britiah N. A. lomat, | .... | 1026 | .... |
| Hayl. .................... | 8 | 94 | .... |
|  | 8 | "i27 | $\cdots$ |
| gand weh Inlande . . . . . . . | .... | 14' 68 | .... |
| Total | $449 \times 3$ | \$6891 | \$408 |

Exposte or Paintu and Vabniga of Dometio Mandyao
 JUNE 30, 1868.

| Whithar Raperiod. | Velve. |
| :---: | :---: |
| Sweden and Norway . . . . . . . . | \$1,201 |
| Dunlat Weat Indles. | 4,186. |
| Ifambus ${ }_{\text {¢ }}$ | 400 |
| Bremen. | 869 |
| Hollend | 80 |
| Dutch Guta | 278 |
| Belgium | 216 |
| England | 4,649 |
| Seotland | 862 |
| Gihrall | 16 |
| Canada | 100.518 |
| Other Britiah North | 8,012 |
| British Weat Indiea | 2,184 |
| British Monduran | $5 \times 2$ |
| British Gulana | 343 |
| British Possemsions in Africa | 2,077 |
| Other ports in Aftiea. | 1.430 |
| Brituh Auatralla | 1,345 |
| liritiah tiant indlea | ${ }^{\text {b }}$ 59 |
| France on the Allantle | 0,760 |
| Franee on the Mediterranoan | 104 |
| Fruach North American Possen | 334 |
| Phillppiae Iniande . . . . . . . | 850 |
| Cuba. | 13.983 |
| Porto kleo | $67!$ |
| Portugal. | 591 |
| Cape de Verd Islands | 43 |
| Two sicillea. | 71 |
| Austrian Tosmesslons in Italy | 60 |
| Hayt1....................... | 4220 |
| Ban I homingo | 46 |
| Mexlco. | 0,618 |
| Central Republic | 135 |
| New Granada .. | 898 |
| Yenesuela. . | 4.218 |
| Brasil . | 2.419 |
| Cruguay, or Claplatioe Rep | 1,9\%9 |
| itisenom Ayrea.............. | 4079 |
| Chill. | 13,876 |
| Pera. | 8,638 |
| Equador | 1:0 |
| gandwleh Islanda. | 4471 |
| thina. | 6.74 |
| Whale Fiblierlea. . | b 6 |
| Total vaiuo... | 217,179 |

Palermo (anclently Panormus), a large city and sea-port, the capital of the noble island of Sicily, on the north coast of which it is situated, the light-inuse being in lat. $38^{\circ} 8^{\prime} 15^{\prime \prime}$ N., long. $13^{\circ} 21^{\prime} 56^{\prime \prime}$ E. Population, 170,000 . The Bay of Palermo is alout five miles in depth, the city being silasted on its soulhwest shore. A line mole, fully a quarter of a mile in length, having a light-house and battery at its extromity, projects in a southerly direction from tho arsensal into nine or ten fathoms water, forming a convenient jort, capable of containing a great number of vessels. This immense work cost aiout $£ 1,000$, w aterling in its constraction; lut the light-house, though a sjlendid structure, is sald to be very Ill lighted. 'There is an inner port, which is reserved for the use of the arsenal. Ships that do not mean to go within the mole may suchor about half a mile from it, in from sixteen to twen-ty-three fathoms, the molo light bearing N.W. I W. A heavy seas sometimes rolls into the hay, hut no dangen need be apprehended by ships properly found in anchors and chatn eables. In going into the liay, it is uccesaasy to keep clear of the nets of tho tunny fishory, for these are so strong and well moured as to le capathe of arresting a ship uniter sail.-Smitis's Sicily, p. 70, and dppend. p. 4.
Imports und Exports.-The great articles of export
from Siclly are, ollve oil, grain, partinularly wheat and barley, sllk, brimatone, wine and brandy, barilla, lemons and oranges, lemon juice, manna, shumac, liaseed, fruit, salted tish, and salt; with argol, liquorice, pum-ice-stone, rags, akins, boney, cotton wool, saffron, etc.
Antoles Expoiftid fiow ant laporited into baldeno in 1852.

| Articlen. |  | पuanticer | Value |
| :---: | :---: | :---: | :---: |
| Argote and cream of tartar. | Cwt. | 7,088 | 211,746 |
| Brimatone... | - | 133,886 | 22,217 |
| Cantliurides . . . . . . . . . . . . | - . |  | 30 |
| Cheeses. . |  | 9,100 | 4.580 |
| Corn, gr <br> Esseners | Pounds. | 20, 420 | 20,6:8 |
| Flsh, stited............... | Cwt. | 3,476 | 4.450 |
| Frilta, dry and pteked .... |  | 2,143 | 8,728 |
| Oranges and lemons....... | Boxes, | 400,63t | 10 it. 508 |
| Linseed. . .................. | Quarters. | 4.417 | 8,834 25.532 |
| Llquoric |  | 14,229 8.550 | 25,532 84.140 |
| Nannh.. | Gshlena | 139.810 | 81.745 |
|  | Cut | 81,700 | 15897 |
| 8humac |  | 28.514 | 309,378 |
| Sklna.. | Number. | 30,100 | 834 |
| Wine nnd spli | llona, | 107,856 | 22,984 |
| Other articles | Value. | .... | 82,000 |
| Total. | \& |  | 608,744 |
| tmpo | pata. |  |  |
| Сосоа ...................... | Cwt. | 409 | 41.145 |
| Coffee . . . . . . . . . . . . . . . . | - | 4,4i6 | 11,20: |
| Indigo. |  |  | 1,430 |
| Pepper .................... |  | 2.208 | 4,476 |
| Rım. . . . . . . . . . . . . . . . . | Gallons. | 1,600 | 820 |
| splces . . . . . . . . . . . . . . . . . | Uwt. |  | 600 |
| Sugars...................... |  | 11,844 | 23,002 |
| Tra | Pounda. | 310 | 60 |
| Woo | Cw | 2,610 | 1.680 |
| Cothons | Irackagez | ${ }^{834}$ | 41,400 |
| Cotton yarn. | Cwt. | 7,108 | 05,032 |
| Cotton and linen.......... | Packages. | 30 | 2,250 |
| Cotton nnd wool........... | - | 86 | 4,480 |
| Earthen-ware asd glase | - | 1,398 | 41,940 |
| Faney goods . . . . . . . . . . . |  | 1110 | 40 Nb |
| Mardwa |  | 488 | 13,847 |
| I.lnen | - | 75 | 6,000 |
| silks |  | 161 | 16,100 |
| Woolena ............ . . . . . . |  | 504 | 50,300 |
| Copper | Cwt. | 10,000 | 2,875 |
| Conis | Tans, | 10,000 | 10,000 |
| Deal boa | Number. | 1,016,197 | 50.850 |
| Drugs and | Packages | 1,27t | 18,710 |
| Flish, cod | Cwt. | 7,750 | 6,813 |
| lierring | Barrela |  | 170 |
| 1 lemp | Cwt. | 476 | 1,904 |
| Ilides. | - | 8,043 | 48,261 |
| Iron. | $\cdots$ | 11,409 | 6.74 |
| Lead |  | 4,900 | 3,775 |
| Lenthe |  | 223 | 4.440 |
| Plteh and t | Barrels, | 639 | 1,978 |
| Saltpetr | Cut. | 444 | 818 |
| Stutionery | Packagea | 140 | 2.141 |
| steel | Cwt. | 1,500 | 1,50x |
| Tin in bar | - | 382 | 1,800 |
| Tin ta pl | - | 926 | 9,092 |
| Tobseco |  | 15850 | 68.400 |
| Wax | - | 3, 172 | 13,704 |
| Wool |  | 205 | 2,350 |
| Other articies | Vatue. | ... | 85.160 |
| Totni . | $\varepsilon$ | . | 816068 |

Wheat is largely exported. It is of a mixed quality, hard, and is generally solld from the pullie magazines, or caricatori, hy mossure, without weight. But the best hard whent, grown In the neighborbood of Palermo, is sold by the salma of 272 rottoli $=476 \mathrm{lbs}$. English; the dlitirence between weight and measure belarp made good by the seller or buyer, as tho ease may be. Wine ls prlnclpally shipped from Marsula; lemons, oranges, and lemon-juice from Messina; salt from Trapant; and harilla from the southern coast. But all the artleles to he found on the coast may, for the most part, be had at l'nlermo ; unless, however, the quantity required be small, it is usually best to ship thom from the ontports, the expenso of their conveyance to l'alermo belng very heavy. The crops of hurilla and shumac come to market in August ; but brimstone, salt, oll, whe, rags, ete., may generally be land ail the year round. The flist shipments of lemons and oranges may be mado in the beginning of November.

Purchases of produce are always pald for in cash, gen-
arally half on making the purchase, and the other arally half on making the purchase, and the other half on dolivery, when in Palermo, and on receiving order for deilivery, on the coast. The imports consist of cotton yarn, wool, and stuffis ; sugar, coffee, cocoa, dye atufis, Iron, earthen-ware, apices, tin, hides, Newfoundland cod, timber for building, etc. The best of the old accounts of the trade of Sicily that we havo met with is contained in Swivnuine'a Travels in the Two Sicilien, 4to ed., vol. Ii. p. 401-413.
Palm (Lat. palma, the hand). An ancient measure of leagth taken from the exteat of the hand. There were two different palms; one corresponding to the leagth of the hand, and the other to the breudth. The Roman palm was about eight and a half Engliah lnches, The English palm is understood to be three inches.

Palm Oil (Ger. Palnol; Fr. Huile de palme, Huile de Senegal; It. Olio di palma; Sp. Aceite de palma) is obtained from the fruit of several species of pulms, but especially from that of the Llais Guineensis, growing on the west coast of Africa, to the south of Fernando Po, and in Brazil. When imported, the oil is about the conaiatence of butter, of a yellowish color, and scarcely any particular taste; by long keeping it becomes rancid, loses its color, which fades to a dirty white, and in this state is to be rejected. It is sometimes imitated with hog's lard, colored with turmeric, and sceated with Florentine iris root. The iuhabitante of the coast of Guinca employ palm oil for the same purposes that we do butter. Our supplies of palm oil are almost wholly derived from the west coast of Afrles, of which it is the ctaple article of export.Lewis's Materia Mfedica; Thomson's Dispensatory.

Candles are nuade of palm oil and cocoa-nut oil, of which many thousend tons per annum are now employed. This modern subst ${ }^{\text {i }-4 \text { inn }}$ of vegetable fat for animal fat is remarkable. tis is is inging Cantral Africa into intinate comme; ;ai rolasons with civilized countries. The paln oil is $\therefore$, Afriea, but it assumes a solid state in a colder climate. The casks containing it have atcann forced into them, by which the oil is meltod and made to flow out; and the oil is thon purified and bleached to various degrees of whiteness, according to the purpose to which it is to be applied. The whitened cakes of pulm oil are cut into slices by a machine ; the alces aro deposited on mats of cocos-nut fibro; tha mate are piled in heaps, with iron platea between them; tho heaps are placed in hydraulic presses, where intenae pressure brings the palm oil to the state of dry, thin cakes. After a Little more purification, the palm oil is fitted for melting, provious to the making of candles.
Imports of Palm orl into tige Unitidy States yoe the
likar minding done 30, 1850.


Palms, called by Limaus, from their nohle and stately appearance, the princes of the vegetable kingdom, are a natural order of arborescent endogens, ehietly inhabiting the tropics, dislinguished by their fleshy; celorless, six-parted flowers, inclosed within spathes; their minute embryo, lying in the midst of albumen, and remote from the hilum ; and rigid, plaited or pinnated inarticulated leaves, sometines cailed fronds. Wine, oil, thax, flour, sugar, and salt, says Ilumboldt, aro the produce of this trile; to which Von Martius adds threal, utonsils, wenpons, food, and habitations. The most common apeeies is the cocoa-nut. Their wombed stema, or spathes, yield in abundance a suc-
charine fuid, known in India by the name of toddy. Tha succulent rind of the daie is a most nutritlous as well as agreeable fruit. Sago is ylelded by the irterior of the trunka of nearly all, except Areca catechu, the well-known pianmg, or betel-not. The fruit of the latter species is remarkable for lta narcotio or intoxicating power. The common canes or ratans of the shojes are the flexible stems of apecies of the geaus Cilamus.

Pampar The name given to nne of the great systema of South American plains, which san scareely, whth propriety, be called deserts, inasnuch as they are covered with luxuriani herbage, and Inhabited by vast herds of wild cattle and droves of herses. The region of the Pampas forms the basins of the Paraguay and La Ilata, and inciudes the vast plains of lluenoe Ayres, extendling froms the foot of the castern ridge of the Andes to the "sen-like Ilata," and stretching southwari into the deserts of l'atagonia. - Tnathle's Physieal Geog maphy. See Quarterly Reriev, $x \times x$., 114 (Poneut Sonthey).

Pamphlet, a small book, usually printed in the c'stavo or duodecimo form, and atitched with paper cover, popularly understood to comprise from fifty to two hundred pages.

Panama, a city and sea-port of New Granaia, or. the Pacitic, thirty-eight miles sontheast from Chagres, lat. $8^{\circ} 56^{\prime} \mathrm{N}$. ; long. $79^{\circ} 31^{\prime} 2^{\prime \prime} \mathrm{W}$. Population, 7000 . It atands on a rocky peninsula, projecting into the bay of Panama, and has an imposing aspect fore the sea. Its streets are well ventilated, and it is suid to be cleaner than most Spanish-American cltles. It is enclrcled byirregular and not very strong fortifications, constructed at different periods. The houses are partly of wood, straw, and other fragile materials; but many are sul. stantinlly built of atone, the larger having court-yards, or patios, in the ofd Spanish style ; and no doubt it has been much improved within the last two or three years. Its roadstead is one of the finest in the vorlit. There are n number of islands a short distance from the mair. land, which afford secure anchornge for ships of any burden, and from which supplies of provisions, including excellent water, may aasily be obtained. The tides dally rise and fall from twenty to twentyaeven feet, s: 'bat it is peculiarly well fitted for the repair and but 'latig of shipa. Previously 101740 , when the trade witt be Pacific first began to be earried on round Cape licrn, Panama was the principal entrepott of trade between Eurog? and Western America. From that periud, however. it fell off; and its decay was peculiarly rapid after tue independence of Seuth America, and the opening: o: the other porta of the I'acific. But since the occupation of California by the Americans, and especially since the discovery of the auriferons deposits in that country, it has again rapidIy increased. And now that a raliway la carrled acrosa the isthans, it will in all probability attain to greater commercial distinction than ever. In the course of the year 1855 aa many as twelve steamers wore employed in the trade between Panama and San Francisco.
There is a treaty of commerce letween the United States and New Granada, the terms of which are comspliod with by New tiranarla, but are Nometlmes broken by the local government of the provinee, which placed a tax npon passenger-carrying vesselx, at the rate of one dollar for each passeuger, which has been recently annulled by tho supreme government of New Branala. The commercial intercourse of the lnited States is nlone dependrnt on the regulations marle ly the general government of New Giranala, which latter, lyy an act of Congress, has made l'anama and other perts on the isthmus free porta of entry slice the 1st of danuary, 1850. There are no privileges permitted to the commeree of other natlons which are denled to the Ithited States, and there are no reatrictions imposed on tha commerce of other natlons other than what are
imposed upen that of the United States. The sum of \$6 40 is collected from each American vessel; viz. $\$ 480$ to the captain of the port, and $\$ 60$ to the interpreter. The aame chargs is made agalnst New fra nadlan vessela, exeept the interpreter'a fee. 'The traus shipment of gooda trom one port to ancther in New Granadia, or to a foreign country, by United States ships, is permitted without restrictions. The curnacy of this country, by a recent law, is established at ten dimea to the dollar. The weights and measures are the same as used in France, but as yet are mot bronght into use in thia country. The French silver, by a law of New Granada, ia mada a legal tender at the raterf twenty centa to the one-frane plece, although, com pared with the value of United Statea silver, it wouk only be worth 18.6 cents. Nuw Granada does not export any thing from here other than a very few hises, and the hmporta of the United States to this placo consist only of coal and provisions for the stcanmers which carry passengers to and from the lsthmua. The lahorer in thin consular juriadietion receives from two to three dollars per day; meci-anics from six to eight dullars per day; and clerks from 81500 to 85000 per annum. There are no pricemenrrent sheets pulilished in this consular jurlsdiction,-Commercial Relations if the Crited States.

Panama, or Darien (Isthmus of), conucets North (or rather Cunirgl) and Sonth America, and is comprised In the republic of New Granada, sec., 1sthmus, ic:mir, $y$ a province bet ween lat. $9^{\circ}$ and $10^{\circ} \mathrm{N}$., and iong. $77^{\circ} 30^{\prime}$ and $81^{\circ} \mathrm{W}$., having nerth the Caribbean Sea end Guif of Darien, and south the Gulf of l'anama, Length, west to east, about 200 miles, average breadth 40 nilles, but in loug. $79^{\circ}$ it is narrowed to less than 30 riles, Surface undulating, the hlll chains which extend thretigh the isthmus, wnitlng the mountain systems of Central and South America, are, near Panawa, not more than 260 feet aliove the level of the Pacific. A great quantity of rain falls; in the months of July, August, and September it rains incessantly. Suil very fertile; producis coosprise flne timber, in great variety, fruits, rice, maize, sugar-cane, coffec, cocoa, caoutchone, vanilla, dyes, drugs, hides, limestone. On its noril! coast are Aspinwall (colony), Puerto-Bello, sud Chagres; on lts seuth slde is I'anama. A vonnection between the Atlantic and Fecific oceans lias tien proposed nt different points of Contıal Ancrica; viz., at Tehuantepec, at Chiquimula, at Nicaragua, and at the narrowest part. where a railroad has been constructed between Aspinwall and Panama.

I'assige across the Istimus of Punama or Darien.Latterly, or since the diacovery of the mineral riches of California, the isthmus has become a great thoroughfare, vast numbers of Individuals having crossed from the pert of Chagres on the Caribbenn Sea to I'anama on the Pacific Ocean, and conversely. The port of Chagres is withln the nonth of the river of that natne, in lat. $9^{\circ} 18^{\prime} 6^{\prime \prime}$ N., long. $55^{\circ} 59^{\prime} 2^{\prime \prime} \mathrm{W}$. A har at the month of the river has only from 10 feet to 12 feet water, though within the bar the river deepens to from four to six fathoms. It is probable that the ba: might be derpened without much difficulty, und a canal might be cut from the bottom of the Bay of Manzanilla to the river, from which it is only three miles distant. A short while ago tho town (if 80 it tuight be called) wss a mere cluster of huts, unhealthy, and without any accommodation for passengers. But having latterly beconse one of the starting-points in the nearest and shortest route from tho east to Califomia, it has been consid. eralily improved. A johnt-stock company was formed In New lork for the construction of a railway from or near Chagres, at the hottom of Manzanila Hay, to Panama, a distance of about 3 or 35 miles. Jhis railway has been completed, and is now in operation. The undertaking reflects great credit on American chterpriso and perseverance. The ditliculties to the overcome were of a very formidable deser,ption, partly from

But it is peet of $\mathbf{i}$ -Tome
But st way wet plain th the isth Atlantic a camal parative little use mini. mit shi longest frow lia can not appears not even mus of merce a which $\mathbf{r}$ westorn And, liy to reach time the tate the

And
propose tons hum $8^{\circ} 5^{\prime} N$. the Gull Savaila, Pacitic.
is said tremity it is pr through cast of $t$ sterliug, a work to all m appear, the cou of Eingla ably ha of Cent miglite ment of proceede esting mus of 1
The resjuect
the uature of the ground, which not unfrequently consisted of deep marshes, but mort from the luxuriance and strength of the vegetation through which it was necessary to penetrate, and the heat, molsture, and unhealthlnese of the elimate. Unluckiiy, the dealre to accomplish their task In the shortest time and at the least expense, tempted tho engineers to execute the work In a very superflcial manner, aubatitutiog brldges, vuaducts, pillars, etc., of wood for those of stone, mortar, and iron. In a country where the decomposition of vegotable matter is so very rapld this was as false and spurious a species of econamy as can well be insagined. Alrealy several milies of the rallway have had to be repairett, or rather reconstructed, by the substltution of lignum ritas and other hard woods for the softer ones that were lirst used. This, however, will do little more than palliate the evil; and there can be no douitt that oventually stone and lron bridges and viaducts will have to be used instead of wooden ones every where along the line. Trains take about four hours in passing from sea to sea; but were the railway properly finished, the passage might be performed in less than half that time. A atation, called Aspinwall, has been erected en Manzanilla Island, in the Caribbean Sea. Hut it ls extremely unhealthy, and there is little prospect of its ever becoming a place of much lmportance. -Toses's Panama Railrıad, Naw York, 1855, passim.
But supposing (which ls not tho case) that this railway were every thing that could be deslred, still it ls plain that the grand desideratum la the carrying acro6s the isthuns of a water comannication between the Atlantic and Pacific oceans. We do not mean by this a canai suitable ouly for conaters, or vessels of comparatively small burden. Such a channel would be of little use, except to the countries contiguous to its termini. What is really wanted is a canal that will admit ships of the largest burden, and bound on the longest voyafics. The advantages that would result from having the isthmus perforated by such a channel can not be easily exaggerated. No other project that appears to be within the limits of possibility, perhnps not even the carrying of a ship canal across the Isthmus of Sucz, would give so great a stiunulus to commerce and navigation. It wonld romove the barrier which renders the navigation between the eastern and western coasts of Amertca so tedious and difficult. And, by doing this, it weuld enable ships from Europe to reach the latter and the lracific in lesa than half the time they de at present, while it would greatly facilitate the voyage to Australia and China.
And a grand project of thls sort is on foot. It is proposed to cat a canal that shall admit ships of 1000 tons hurden and upwaid, between Porto Escoces (lat. $8^{\circ} 5^{\prime}$ N., long. $77^{\circ} 21^{\prime} W^{\prime}$.), near Point Calcdonia, in the Gulf of 1)arien, on the Caribbean Sea, aad the Rio Savana, which falls into the Gulf of San Niguel, on the l'acitic. The intervening space (abeut 38 or 40 miles) is said to be comparatively flat; the ports at each extremity nre easy of accoss, and have deep water; and it is preposed that the comal should be censtructed throughout on the same lovel, and have no locks. The cost of the project is estimated at from 12 to 15 millions sterling. And considering the vast importance of euch a work to the United States, to England, and, indeed, to ali maritime uations, this oxpense, heavy as it may apirear, should be reckoned a subordinate matter. Were the country threugh which it is to pass in the pessession of Emgland or the United States, it would niest prebably have been undertaken. But tho unsettled state of Central America, and tha knetty questions that might eventually arise as to the preperty and management of the eanal, are serious otatacies to its being proceeded with.-See, for ample details on this interesting subject, the work of Dr. Culles, entitled Isthmus of Darien Ship Canal.
The route by which the railroad passes is in every respect the most desirablu for this purpose, and the
means by which the character of the country could be best known, as far as lts topography and the features essentlal to the object in ylew could be seen. It s/as, in fact, the direct means for the accomplishment 'f the purpose. It is supposed that the canal whll br, united with the waters of the Pacific on elther elde 0 ? the elty, and that a channel might be drodged to thi depth of thirty feet, to meet the navigable waters for shipe of large draught. The bay then expends Into an ample harbor, where the winds are eaid never to blow with violence, sufficiently comprehensive for the commeree of the world, and atudded with lalands, convenient for all the great purposes that the condition of things would call for, by the construction of a canal through the 1sthnus.
The lathmus itself seems to present ne sericiss obstacie to science for the construction of a camal. The whoie extent, from the Atlantic to the Pactic, is made up of swamps, hillis, and plalus; and the highest point of land where the rallroad passes is not more than 286 feet above the level of the sea. On the whole route, most if not ail tho hilla through which the canal would pass would be required for embankments over the piains and swamps; and there are no lnsuperable obstacles to plercing the highest part, so as conveniently to make the waters of the Chagres, Oblspo, and Rio Grande available for the wants of a catral. In a climate less unfaverable to the white man, the question of "feaslbility" would not be raised. 't seems to be conceded, from experience, that the Afrienn race alone persiatently Jabor In this cllmate. A few thousand of free blacks might be obtalned from the West India Islands; but thia resource would be inadequate, as was experienced by the operations on the I'anama Rosd. The want of men to labor would seem to be the great obstacle to the successful accomplishenent of a work of so much magnitude.

On the Atlantic side the canal would enter the Bay of Aspinwali. In approaching this polnt, it would pass a fow milles from the Chagres, and enter the bay rear the Biver Mlindl. Mere, it whll be seen, as in the Bay of Panatia, extensive dredging for a chanael to meet the deep water would be necessary. The bay expands for the distance of about five miles, between two headlands, and is open to the sea. A breakwater would the necessary here. With such an one as would afford the necessary protection against the ocenn swell, the Bay of Aspluwall, like the Bay of Panama, would afford ample room for the comenerce of Europe as well as America; and in contemplating these tvo bays with the eye of a seaman, and in reference to the great work in question, it would look as though nature had provided them ${ }^{f} r$ the aspecial convenience of man in his laborious uncurtakings in the extension of commeree, at: ' a place where all nations may meet, iu their varied pursuits on the great highway of the ocean. In a work like that of a cnual throngh the Isthmus of Darien, it is to be supposed that the requirenents of commerce and navigation, in its most extended application, would alone be considered; and, taking this for a standard, a canal two hundred feet whle and tbirty feet deep would seem to be the appropriate timensions. With such an avenue from the Atlantlc, the stormy and distant sas of the South would be abandoned by Europe as well as America, and we should meet there on nentral ground, pursuing with a commen purpese the paths of peace and iulustiy, which by its meana, wa may suppose, would effect a moral revolutien such as the world has never known, and surpsssing in importance that which would be effected in the revolution of the commercial world.
Appended is a paper aulmitted by Colonel G. M. Totten, contalning dimensions and other data for the proposed ship-canal across the Isthmus of Panama:

Dimensims and other Data of the proposed Ship-Canal across the Isthmus of Panama.-Length frem ahore to shore, $45 \frac{1}{2}$ miles. Length from five fathoms vater
in Navy Hay, on the Atlantle, to three fathoms water in J'anama Bay, on the Paciflc, 48 z miles. The prian of water to be 150 feet wlde at the bottom, 270 feet wide at narfice, and 31 feet deep. The locks to be 400 feet in clear length of chamber, and 90 foet in clear wildth. The aummit level will be $\mathbf{1 5 0}$ feet above mean tide of the Atlantio and Paciffe oceans. The suinmit cut will be about four miles long. Tha deepest cutting on thia level will be 136 feet, and i. aver. age depth of the cut will be 49 feet. The Kiv. (!n: red yields an ample napply of water for the can. .. all seasons of the year. The summit level will be nuppllied hy a feeder about twenty-font milea long, which will tap the Rlvet Chagres about twenty-one miles above the town of Cruces, where the level of the river is atiout one hundred and elghty-five feet above mean the, and about thirty-five feet above the summit level. The cost of this canal, including the requlaite harhor improvements at euch ead, will not exceci $\$ 80,000,000$. --Commonoru Pavlitive's Report to the Navy Depuertment, United Statee, 1837.

The following figures will show the comparative distances from New York to San Francisco of the font rontes, exclusive of the land travel:

| Nowtes. | Dherace CB Allatic. | Dutabee oa Parstie. | Todat. |
| :---: | :---: | :---: | :---: |
| Paneme | Miles. 2498, | $\begin{aligned} & \mathrm{Milng} \\ & 87 \mathrm{CO} \end{aligned}$ | $\begin{aligned} & \text { Mifes } \\ & 6147 \end{aligned}$ |
| Nicaragui.............. | 2403 | 2vat | Sunit |
| Itondures . . . . . . . . . | 2102 | 9865 | $4{ }^{\text {a }} 67$ |
| Tehnanteper . . ........ | 2476 | 2805 | 458 t |

The several transit distances, and the total Histances from New lork to San Francisco, are shown by the following table:

| Boutes. | Tranall Distances. | Total Pidances. |
| :---: | :---: | :---: |
|  | Mille | Milea. |
| lanamb. | 51 | 6194 |
| Ntearryug. . . . . . . . . | 137 | 5014 |
| Itoputuras . . . . . . . . . . | 181 | 8128 |
| Telınantepee . . . . . . . | 236 | 4817 |

Papal States. This portion of Italy comprisea an area of 17,210 aquare inllea, and contained In 1850 a population of $3,006,771$ inhablante. The chicf productions of the Papal States are whent, maize, pulse, henup, wine, oil, and tobacco. There are numerous mhes of iron, lead, sulphur, alum, vitriol, and other voleanic products ; but, with the exception of the nalphur mines near Riminl, they are unproductive. The quantity of this articie annually manufactured amounta to about $81,000,010$ pounds. The manufactures of the Pepal Statea comprise allks, leather, gloven, paper, muaicnl stringn, Iron and glass ware, a fow cotton goods (at Kome), crape and sausages (at llologna), and cordage, soap, cream of tartar, and glue. There is no direct irade between the Uulted States and the I'apal Statea-the Intter deriving their stepplies of sotton, sugar, coffee, cocoa, rum, etc., from the porta of fienoa and Trieste. The foreign commerce of these atatea Is conducted chiefr through the porta of Ancona and Civlta Vecchia-the former with the western shores of the Adriatic, and the latter with the Mediterranean ports. The celebrated Roman cemeni is exported from the port of Civita Vecehia.

Foreign Trade.-In 1850, the iurefgn trade of Aneona represented $9,461,000$, viz., imports, $2,976,000$; exports, $1,4 \times 8,000$. This trado was distributed beiween Anstria. England, and its depeusencies in Enrope, these countriea appropriating mon than threefourthe of the whole. Juring the same year the foreiten trade of Civita Vechia amounted to $\mathrm{e} 3,821,928$; viz., imports, $2,929,31 \mathrm{i}$; exports, $892,614$. The conntriea participating in this trado were Franee, Sardinin, England, Holland, and the Two Sicilien. The whole forelgn commerce of the Papal States in 1850 amounted to $19,208,680$; and In 1851 to $20,454,240$. All forign veasels are permitted to engage in the coasting trade of the States on the frayment of the fol-
lowing dues: A cherage, on French, Auatrian, and American vessels, three hajocchi per ton-abont three cents. Korelign vessels pntting into harber, elther for anchorage or through atress of weather, pay half of tha above-named duty,-stee Italy.
Clearance Duty,-For each vessel of from 1 to 149 tons, ten bajoechi (ten centa); and for 160 tons and upward, twenty bajocehl (twenty cents). No versels enjoy an exemption from the custom-house dutien on importa and exporta. These dutle have recently nndergone several reductions, applicable chiefly to articles of necessity; on articles of luxury, in whicle sugar ia included, the duties have been proportionably raised. -Commercial Relations of the United States.

Paper (Cier. and Dn. Pupier; Fr. Ihpier ; It. Carta; Sp. Papel; Hnas. Bumaga; lat. Churra; Arai. Kar Pers. Kaghas). This highly useful subetance to every one knows, thin, flexible, of different colora, lut most commonly white, being used for writing and printing upon, and for various other purposes. it is manufactured of regetable matter reduced to a sort of pulp. The term paper is derlved from the Greek word тanipos, prpyrve, the name of the plant on the inner hark of which (liber, Bijhos, whence eur woril book) the ancients used to write, Paper is made up Into sheets, quirep, and rrams, each quire consisting of twenty-four wheets, and each ream of twenty quires.

Ihisorienl Sketch of Prper. Differince betereen ancient and mondern Poper.-Some of those lenrned and lugenious persons who have inveatlgated the arts of the ancient world have expressed their surprise that the Grecks and Romans, though they posressed an immense number of tooks, and approached very near to printing in the atamping of worde and letters, and aimilar devices, ahould not have discovered the art; the first rude nttempts at typgraphy being kufficiently obvioun, though much tince and contrivance have been required to bring the process to lta present state of perfection. But they should rather, perbapa, have wondered that the more clvilized nations of antiquity did not invent paper, an invention which, it may easily be whown, necessarily preceder that of printing. But thia was an exccedingly difficult task; the more no, that the rast importance of peper could not be appreciateal, or cyen imagined, till after it had been genevaliy introduced. At first, the memory of important evel'ts appenrs to have been handed down ly inscriptions ent on rockn, pllars of atone or marhle, and the wells of edifices; and this primitive usage is atill retained in the monuments in our churches and cemeteriea. In a later, thongh atill very remoto age, men were accustomed to write upon portable surfaces of various kinds. Every liorly knows that the Decalogue was w ritten upon tables of atone; ami Joshua wrote a copy of the law apon the like materials.-Josh. c. viii., v. 32. The Greeks and Homans engraved laws, treatles, contracts, and other important documents, on piates of hrass ; and it is atated that a fire which broke ont in the capitol, in the reign of Vespaslan, consumed alove 3000 such bronze munlments. - Noureau 7 raite de Ifiplomatique, 3. 451. Jut exclosive of plates of this nort, which were necensarily inconvenient, costiy, and guite untit for ordinary use, thin and fiexibie plates of lead and other metais (/us, c. xix., v. 2!, 21), thin pieces of wood, skina, parehment, linen, and a variety of simijar mubatances, were used in writing. Cheajur materials, such as the leav and bark of trees, palans, etc., were also used from a very remote period for the astne furpose: lut leaves (rujprat, ehartir) being, when iry, apt to aplit in the direction of the tibres, it was found to be necessury, in preparing them for wrising, to glue them together, so that the fibres might cross each other In ofpersite dilrections. The texture of the leaf, or sheet, if we may so call it, in thus greaty atrengthencd; and when it ias been smoothed, poi. Ished, and fitted for use, it is less inconvenient and bettep Iooking than might be pupposed. Such, in
fact, la was fol Egyptic consist reed 0 banks which plied t pesea; it has bark h Instrun ments, gitudit portion fer, to and ot Nat. 11 clucida the ful Is cout the $N$ where history greater antiqul point e of De given ume of isfied $w$ papyru putes not ret writtel art, to would Erypt nopoly anticip
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er; by
fact, is the principle on which the paper of the anciente was formed. This, however, which was called Charta Egyptiacn, from the place of ita manufacture, did not conaist of leaves, but of the inner bark of the famous reed or rush, the Cyperus Papyrus, found along the banka of the'Nile, or rather in the pools and ditchea which commanicate with the siver. The ancients applied this useful plant to an immense varisty of purposes; but here we shall only notice that from which it has acquired an immortality of rentown. The inner bark having been divided by a needle or other aharp instrument Into very thin and bread layers or filaments, portions of these were placed side by side longitudinally, and glued together at the enda; another portion being glued eross-wise on the baeka of the latter, to give the page the reqnisite strength. Pliny and other writers have described the procesa (IIist. Nat. lib. xili. c. 11, 12, 13), which has been further elucitated by Ilardouin and other commentators. But the fullest and ablest diacuasion of this curloun aubject is contained in the very learned and elaborate work, the Noureau 7raitd de Diplomatique (i. p. 448-524), where the most interesting partieulara respectlag the history and manufacture of papyrus, as well as of the greater namber of the other writing materiala used in antiquity, havs been collected and set in the clearest point of view.-See aiso tho Dictionnaire Diplumatique of De Vaines, art. Parien, if. 165-174. Bruce has given a summary of the authoritiea in the soventh volume of the octavo edition of his Travels; and, not aatisfed with this, ha attempted to make paper from tho papyrus, in which, not being very auccesaful, he imputes his fallure to errors in the atatements of Pliay; aot reflecting that, had ho endeavored, trusting to written directions, without experience and traditional srt, to make modern paper, or even a pair of shoes, he would most probably have been equally infelicitous. Eyypt enjoyed for a lengthened period a natural monopoly of this valuable articlo, and even attempted, in anticipation of a later policy, by prohibling tho growth of the papyrus, except in certain localities, and limiting its supply, to sell its produce at an artilicially enhanced price!-Ameilion, Commerce des Egypticns, p. 238. But this policy ceased on the conquest of Egypt by the Romans, who, having imported the plant into Rome, succeeded In preparing from it a very superior articic. Pliny enumeratea the various kinds of paper, from the coarsest, which was used, like our brown paper, for packing, to the most expensive and finest. The Jutter, which was made of tho innermost filaments, was of a snowy whiteness; and when properly dressed and polished, was easily written upon. The consumption was very considerable; and being, after the foundation of Alexandria, principnlly made in that city, it formed an important article in her commerce, and furnished employmenc for many workmen and much eapital. Flavius Vopiscus relates that, in the third century, the tyrant Firmus used to say thero was so much paper there, and so large a quantity of the glne or sizo used in its preparation, that he could maintain an army with it: "Tantum habuisse de chartis, ut publices srepe diceret, cxercitum se alere posse papyrd et glutind." We may doubt whether the value of the paper nt present belonging to any aingle city would do the like. Charta Eyyptiaes is very ancient, having, notwithstanding the assertion of Varro and Pliny to the contrary (Ilist. Nat. lib. xiii. cap. 11), been in common use long before the ago of Alexander. This is evident from the atatement of Ilerodotus, who, though ho lived abont a century before that conqueror, tells us that in former times, when papyrus was searce, the Ionians wrote on the skins of goats and sheep, and that that practice continued to be cuatomary among several barbarous nations.-Lib. v. cap. 68.
Though white, amooth, durable, and not ill adapted for writing, ancient paper was not auited for the printer; by reasen of the eloseness of tho grain, it woutd
not have recelved the ink from typea moro kindly than ahavings of wood, and such lika materials; and lta textura was so very brittle that it would have shivered to pieces under the presa. It waa, in truth, an inartlficial masa ("viscera nirea rírentium herbarum"), no great invention or ingenuity being discovered in ita preparation. Modern paper, on the other hand, ia wholly artificial ; and the contrivaneea for lte manufacture are marvelous alike for the sagacity evinced in thelr deaign and their practical efficiency. Like the paper of antiquity, it is formed of the flamente of varloua sorts of vegotable nubatancen, derived principally from the tearing to plecea or pounding cotton and linen rags, and aimilur materiala, mixod with water. Thia procesa is called beating them into pulp; and when examined with a mlcreacops, the floating fildmenta are found to be well fitted for adhering togethar, being jagged and rough, and mixed in overy poaslble way. A portion of this mixture or pulp being, when properly prepared, poured upon moulds or sievea of fine woven wiro, the water is drained off, and the suspended fibrea falling to the bottom, form a layer or shect, which, being consolidated by presaure and dried, becomes paper, ita strength and goodness depending, of course, in a grest measure, on the quality of the rag or other material of which it is made. Paper used to be manufnetured by dipping sieves or frames into the pulp, the pertion of tilaments so lifted up forming the sheet of paper. But tha application of rotary motion to the manufacture has effected n total change in the modo in which it was carried on: instead of dipping the sleves or frames Into tho cistern of pulp, a eircular wab, or round towel of woven wire, revolves horizontally under the vessel (technically called the vat), receives the depesit, conveys it away, and, ly an aljustment of extraordinary delicacy, trans fers it uninjured, though as fragile as a wet cobweb, to a similar revolving towel of felt; thus an endless web of paper is spun, as long, at least, as the machine continues to move and pulp is aupplied.

The pervious and apongy texture of paper make it readily imbibe aad retain the ink impressed on it by types in printing, and tyy the pen in writing; its toughness hinders it from being easily torn; and, in a wellbound book, under favorable circumstances, its duration is indefinite, and, for all practical purposes, eternal! It is true that legal documents are sometimes written or printed on parchinent, which is less liablo to be torn or injured by rubling; the luxury of typography occasionally, also, exhibits n few impressions of a splendid work upon vellum; and it is further true that these substances were used for writing upon by the ancients; but they aro necessarily expensivo, and the cost of either far exceeds the means of the great majority of book buyers-so that it would be attogether unprefitable to cast types, to construct pressea, and to incur the various and lieavy charges of an establishment for printing, unleas we possessed a chenper material on which to print. Almoat all the more ancient and valuable existing Greek nnd Latin manuscripta are written either on parchment or vellum, but generally on the latter. It is singulnr, however, that whilo such is the ense, all or almost all the very old charters nnd diplomas are written on papyrus. Indeed, the learned authors of the Nouveau Traité de Ihiplomatique affirm that no parchment charter has been discovered nuterior to the sisth century.

It nppenrs to be sufficiently established that paper, fnbricated like that now in use, of cotton nud other vegetatle materials, and of ailk, has been mannfactured in China from a very remote epocis-. Voureau Traité de Diplomatique. The Arnh historians stato that similar paper was manufactured in Mecen in tho beginning of the elghth century (Anones, Origine e Progressi d' Ogni I.etteratura, and Ginnox, ix. 379); and most probnbly the modo of its production was then also knewn to the Greeks. It appears to have been


IMAGE EVALUAIION TEST TARGET (MT-3)


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 thew'greet tis quanelity of siver might be imported into India withoits atiofbly affecting' its' value there; 'Wat the irverease of its 'tailue in Furopio, arisitig from'the diminution' of itg 'eopply fowly evontually hindet its
 an TYe'apptehensiotíd fuat wera formerly so very preveIentr etven "mong thee whe shound hive knewn better, in regaid to an imunedfate and heivivy mility the value of 'gola'hare' netw 'in'great 'meature 'whbetded. It afjepeat to' be'now pretty gemerally adfnitted that If a fall' thould 'take place,'it 'will ohly minteote ttosolf by slow degrees; and this ceonclution would appear to be phetty well fotinded. 'IMrrut st's gu onivq onl hal'w?
The suppliea of gold from Auatralla thate fallen of, very greatly ofted 1852: In pioot of thit we athiofin a latatement ty Mri Khthl, of Meltoparne, showing the"
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| 1802 | 3,153,3.19 | '1,005, ${ }^{\text {c }}$ | 7,27,6\%t | 711. | 214,800,799 |
| 150 | 9,274,169 | 1816,190 | 6, ,9a4 34 | 750.in | +11, 788,788 |
| 1654 | , $8.831,494$ | 364,89 | 12,192,694 | 808.1 | d 8,770,49 |

${ }^{11}$ Now anppoing that the suipplies fromithe gold flelda of Nuw Boath Wales' and other parter raised'the total prodted of Australian gold In 1854 to $\$ 00,000,000$, attl that wotid be litth more thap heif the eatiniated produce $(\$ 95,000,000)$ of 1852 ; deoline which wowid go far to check any dowaward teindency, if kich thedre were, In the valus of gold. It is infirned, Indeed, th communicationa from Victoria; that the preduoe of the gold fields in the ourrent year (1850) will exesed their prodvee in' 1854. This; howevar, is doubthul ; hat anpponjuig it to be the ense, and that their proince whonid anrown to $850,000,000$; still thit would be nearly $\$ 25,000,000$ helow its amount in 1852, And theogh it be quits impessible to say whether the yield of the current year (i855) is deatined to incremse or fall off in time to come, our anticipationa are rather in favor of a decline. The grest excitiment of the gold fields hae alveady pretty well subelded, both in Australla and Califomia. They are found to be a lottery with many great prizea; but in which notwithstanding the blanks very fargely predominato, The probublifty, Indeed, noems to be that the deposits of atream gold will in no fengthened period be ecomparatively exhauated $f$ and that gold in future will have to be prinelpaily ohtalned hy the cruahing of quarts rock, in employmerst which If rarely found to be productive of mone thein ordinary profte. The atuply of silver from Mexioe fan now (1850) supposed to amownt to from ete, 000,000 to $880,000,000$ \& yeat. ${ }^{10}$ On the other hand; however, the
bajply of ther prectowin mietaly from Ruadia hasrico

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 oy Proter the Printing.! This gieat englie was of rudel codinetruetion from. the perfod of the ditiovary of the wrt of printing, up to the closetef theisthroentury, wher misny Improvetients weve made $\mathrm{i}^{i}$ ivitlidm Cazvonf a mereer of Iionidon, Mad acpreibeset inp ho Wedt-
 hopie's presdes wiet's in genvril use In' 1806 . , Ihe prifling miachife twis Inventell by Koenig in 1811; and Applegathy followads, The Columhtion prose of Cly. mar was proidiced in 1814 ; innd the Albionc prése, an Improvement ond this Inst, came inito nder a fow years after; Printing 'byt inemys of hateam-machinery : Was firt executad in Bngland a! the Timien offica Londdn, on Monday; November 28, $1014,10 /$ Obwh/fr's ahd Apple. suth'a rolleri for idistritouting tha inlifupon the: typies wore bfought into use in $18170^{\prime}$ Viat mipoovements hive leen mads filthe United Seates writhin sew yeare, thoth ist haind atd ateim preasog! $n$ IThe most
 of Now Yonk. viThelr Iargeat pheasal for newspapers wre oapable of throwing' bfif over 20,000 theita per hour, which ts obinuchin adviance of afy presies in Europe that they have tuphlied oddeivetrom Parisin The presses
 in'the world for book pitating. thee aptidle thookis."
Premegang, the namie given in Erigland to's de-
 Ilinutmaut) are emporvered, in thire of wor; to take noy searfaring men; and obllge them to terve on beard the

 utate of the wind; ete., will parmit w'ahp to cariy;
mistioed! By the prioe of a commoaity it menht its value eatimated in monet; or atimply the quantity of mioney tor which it will exchangein The pitce of a commodlty rised when it fetches more, and falls when it fetches loses troney.
11i 1. Price of maty-produced 'Cowmodities;-The exchangeable value of commodities that fo, their jower of exchanging for or buybig other commodities-dependa, at any given perida, partly on the comparative faellity of their production, and partly on the relation of the aupply and demand. If any two or more commoditien respeetively required the eame muthay of capItal and labor to bring them to market; and if the supply of ench wore adjusted exactly eccording to the cffectual demand-that Is, were they all in suffictent abendande, and no more, to mpply the waute of those able and willing to pay tho outhy upon them; and the ordinary rate of profit at the time-they wonld each fetch the aame price, or exchange for the aame quantity of any other commodity: But If any alngle coninodity aheuta happen to require lese or more capital and labor for ita producion; while the quantity required to produes the otheri continued atatlonary, ita valie, as compared with them; would, in the fret case, fall; and in the wecond, rive; end, eupposing the cost of Ita producthoh not to vary, lte value mighit be fnereased by ofallIng off in the aupply; or by an increase of demend, anil converatly." But it la of impertance to bear in mind that all variationi of prite artalng from any disproportion in the aupply and demand of sinch commodities as may be fively produced in indeginifs quantities are tempenery only; while those that are occationed hy changes
 right coaveyed by patents sometimes iedthblish s valu--abla monepoly fof they, adtble ther infentore of imppapred wethods of perductlon to maintaing during: thie cometanatica of the pitarntir the pevict of ithe igirticle at a tovel whichitnegt be truch higiter thain do iveqiared ito afiond thete the ogdinacyt rato ofiprofiturrThis editantage, howaver, by otimulating imvontion and okeiting toi nev diacoveriea, or, which it is the natieral and apNopriate semandsinetead, of beleg: Majuribusy fo beneficial to, the publicint There ave, neo partial monopoIles, depending ypon aituationj comacetion, fushidn; ett. Thene and othar I inappreciable eifécunstancery, sometimes yccasion stifieranceith 80 periepnt.ior moedi in the priee of the tatbe articie in ahops not very distant fapm each otharv 7 Genestlly apeaking, the supply of moqppolized commoditios is load liable toivary than the atuply of those which are fresely prodnced ; tand their prican arte qummionly more ateady: 'But chere: are varipua aroaptions tol that rule, and dot:these the ebrnithonopoly is enew in The great rariations in the harvests of panticularcountries, and theit average equality throughout, the world, expeses anation whilh shuts foreige cotn out of ite ports ta destructive:ticiasituden of prido, from which it wouldienjoy' oomparative bxemption were' tho pentsopen. Sometimes the expiration of a monopolywia patent, for examplet has oocasioned a sudden and extraordinary lncrease of supply, and consequent fallitof pries; ;etalling, of cousse; a morioup lase on the hollers of large atocks of goode produced undev the monopoly'. to B. Nezp Sources of isuphlyruthe zeffects on prices produoed by the opening of pew marketa, or new tourdes of stupply, sare fapiliss ito every one. in The fall thit has taken place in the price of pepper, and of niost sonts iof commbdities inought frim) Eutopio from the Elast, aince the opening' of the trade in 1814, is a con-
 A An Influence of War on' Pricesin- The effect of war In obetructing the ontdinaty chatinels of commercial interqourse, land ootasloning extreme floctuations in the supply etad price of commbdities, is well knownis In this respect, however, the letter part of the Frenoh war is, perhaps, cutilled to a proveminemce. Englarid then deait with an onomy who had extended hls sway ovar most part of the Continent $q$ and who endeavored; by every means in his powery to shut us out of the Contineatalimarkets: nMr. Toek has given, in his clabozate andivaluable: work on High and Lou Prices, a 'variaty of details which strikingly illustrata the effect that the regulationa theniadopted by tha belligerent powers had on ptices. "f, "Among the meens," says.Mr. Tooke, "devieed by the ingenuity and enterprise of adventurers to elade or overcome the obstadles presentod by the decras of the enemy, one in particular; whioh was resorted to on an extensiva scale, deserves mention, as illustrating in a striking manndr the degred in which those obstades wore calculated to inarease the cont to the consumer.i Several veoseis laden with uigar, coffee, tobecca, cotton twlet, and other valuable commodities, were diepatched from Eugland, at very high rates of freight and inurance, to Salonice, where the goods were landed, and thenee conveyed on mules and horges through Servia and Hungary to Vionns, for the purpose of being dietributed over Germany, and poesibly inte France.: Thus it might happen that the inhabitsute of thst part of the Continent moat contiguous to this country conld not recuive their aupplies from us without an expense of convayanos equivalent to whst it would be if they were removed to the diatance of a searvoyage twice sound the globes hut not aulject to fiscal andipolltical reguletions.".11 And in consequenco of these, and other causee of tha same sort; Mr. Tooks mentions that the price of sugar in France, add other parts of the Continent, during the latter years of tho War, was as. high as bo, and. 6 s . a pound; that cofice rose to 7s. indigo to 18a, and so on. But the aums charged for frelight and Ineurance were the most ex-
traordinary. Mr. Tooke statea that ho has known inatances in which the license, freight, and other charges on account of a vesisel of about 100 tona burden, making a voyage from Calais to London and back, have amounted to the almost incredible anm of $£ 50,000$ ! $\mathbf{A}$ ship, of which the whole cost and outfit did not amiount to $\$ 4000$, earned during the latter period of the war a grose freight of $\mathbf{\Sigma 8 0 , 0 0 0}$ on a voyage from Bordeaux to London and back! The freight of indigo from London to the Continent doea not at present uxceed 1d. a peund; whereas It amounted, at the period referred to, to about 4a, 6d,-High and Low Prices, 2d ed. p. 212.
6. Intuence of Taxes on Prices.-It is unnecessary to dilate on a topio so familiar to every onc. When a tax is laid on a commodity, its price necessarily rises in a correaponding proportion; for otherwise the producers would not obtain the ordinary rate of profit, and would, of course, withdraw from the business. The rise in the price of several of the articles in the annexed tablo is principally to be ascribed to the increase of taxation. These atatements will probably auffice to give our readers a general idea of the principles which determine the value of commodities. To go deeper into the subject would involvo us in diacussions that belong to political economy, and are aniong the most intricate in that science. The influence of speculation on prices must not, however, be passed over in a work of this sort.
6. Influence of Speculation on Pricen,-It very rarely happens that either the actual supply of any species of produce in oxtenalve demand, or the intenalty of that demand, can be exactly measured. Every transaction in which an individual bnys produce in order to aoll it again, is, in fuct, a speculation. Tho buyer anticipates that the demand for the article he has purchased will be such, at some future period, either more or less distant, that he will be able to dispose of it with a profit; and tho success of the speculation depends, it is evident, on the akill with which he has estimated the circunistances that must deterinino the future price of the commodity. It follows, therefore, that in all highly commercial countries, whore merchants are posaessed of large capitals, and where they are left to be guided in the use of them by their own discretion and foresight, the prices of commodities will frequently be very much influenced, not inerely by the actual oceurrence of changes in the aceuatomed relation of the aupplyand demand, but by the anticipation of such changes. It is the business of the merchant to acquaint, himself with overy circumstance affecting the particular description of commodities in which he deals. Ite endeavors to obtain, by meana of an extonalve corrcapondenco, the cariest and most authentic information with respect to every thing that may affect their supply or deinand, or the cost of their production; and if he learned that the suppiy of an articie had failed, or that, owing to changes of fashion, or to the opening of now channels of commerce, the demand for it had been increased, he would most likely bo ulsposed to become a buyer, in anticipation of profiting by the rise of price, which, under the circumstances of the case, could hardly fall of taking place; or, if he were a holder of the articic, he would refuse to part wit'l it, uniess for a higher price than he would previonaly have aceepted. If the inteliigence received by tho merehant had been of a contrary deacription-if, for oxample, ho had learned that tie article was now produced with greater facili$t y$, or that there was a falling off in the demand for $i t$, caused by a change of fashion, or by the shutting up of some of the markets to which it had previousiy been admitted-he would have acteil differentiy; in thin case he would have anticipated a fall of priees, and would oither have declined parchasing the article, except at a reduced rate, or have endeavored to get rid of it, supposing him to be a holder, by offoring it at a lower price. In consequence of these opurations, the prices of commodities, in different places and perioda, are brought
comparatively near to equality. All abrupt tranaltions, from scarcity to abundance, and from abundance to scarcity, are avolded; an excess in one case is made to balance a deficiency in another, and the supply is distributed with a degree of steadiness and regularity that could hardly have been deemed attainable.

It is obvious, from what has now been atated, that those who Indiscriminately condemn all eorts of speculative engagements have never reflected on the cir cumstances incident to the prosecution of overy undertaking. In truth and reality they are all apeculations. Their undertakers must look forward to periods more or less distant ; and their success depends entirely on the sagacity with which they have estimated the probablity of certain events occurring, and the influence which they have aacribed to them. Speculation is, therefore, really only another name for foreaight; and though fortunea have sometimes been made by a lucky hit, the character of a successful speculator is, in the vast majority of instances, due to him only who has akillfully devised the means of effecting the end he bad in view, and who has outstripped his competitors in the judgment with which he has looked into futurity, and appreciated the operation of causes producing distant effects. Even in the securest busineages, such as agriculture and manufactores, there fa, and must be, a great deal of apeculation. An unlooked-for change of season froquently disappoints the apparently reasonable expectations of those who undertake the former; while the equally capricious variations of fashion have to be encountered by those engaged in tho latter; and each is, besides, liable to be affected by legislative onactments, by new discoveries in tho arts, and by an endless variety of circumstances which it is always very difficult, and sometimes quite imposaible, to foresee. On the whole, indeed, the gains of the undertakers are so adjusted that those wlio carry them on obtain, at an average, the common and ordinary rate of profit. But the inequality in the gains of individuais is most commonly very great ; and while the auperior tact, ludustry, or good fortunc of some enable them to realize large fortunes, the want of discernment, the less vigliant attention, or the bad fortune of others, frequently reduces them from the situation of cepitalists to that of laborers.
The great cotion speculation of 1825 took its rise partly and chiefly from a supposed defieiency in the aupply of cotton, partly from an idea that thers was a greatly increased demand for raw cotton in this country and the Continent, and partly from a belief that tho stocks on hand were unusually low. Now it is obvious that the success of those who embarked in this apeculatiou depended entirely on two circumatances: viz., first, that they wero right in the fundamental supposition on which the whole speculation rested, that the supply of cotton was no longer commensurate wi.ll the deuland; and, second, that their competition did not raise the price so ligh as to diminish the conammption by the mannfacturers in too great a degree to enabte them to take off the quantity to be actually hrought to morket. If tho merchants had been well founded in thoir suppositions, and if their competition had not raised the price of cotton too high, the sieculation would certainly have been muccessfui. But, instead of being well founded, the Jypothesis on which the whole thing restod was periactly visionary. There was no deficiency in the supply of cotton, but, on the contrary, a great anperaboudance; and though there had been such a deficiency, the excess to whicil the price wus carrien must biva checked consumption so much as to ocrasion a serious decline. The failing off in the inporta of cotton from America in 1824 seems to have been tite su urce of the delualon. It was suppoaed that this falling off $n$ is not accidental, but that it was a consequence of the $t$ ice of cotton liaving been for a series of years so low as to be inadequate to defray the expenses of ita cultivation. The result shewed
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that this calculation was most erroneous. And besides, in entering on the speculation, no sttention was paid to Egypt and Italy-countries from which only about $1,400,0001 \mathrm{bs}$, of cotton were obtained in 1824 , but from which no less than $23,800,000 \mathrm{lbs}$. were obtained in 1825! This unlooked-for importation was of itself alinost enough to overturn the comblaation of the apecudators; and, coupled with the increased importation from Amorica and other countries, actually occasioned a heavy glut of the market.

The risk to which merchants are exposed when they either aell off any col, modity at a reduced price in anticipation of a fall, or huy at an advanced price in anticipation of a future rise, is a consequenco principally of the extromo difficulty of ascertaining the true state of the fact with respect to the grounds on which an abundant or a deficieat supply, or an increasing or deereasing deniand, may be expected. Rules can here be of no service; every thing depends upon the talent, tact, and knowledge of the party. The queationa to be solvod are all practical ongs, varying in every csso from each other; the skill of the merchant being evincell by the node in which ho conducts his busineas under auch circumstances, or by his sagaelty in discovering coming events, and appreciating their character and the extent of their infinence. Priorlty, hut, above all, accuracy of intelligence, is in such cases of the utmost consequence. Without well-authenticated data to go upoa, every atep taken may only lead to error. The instances, indeed, in which speculations, appareatly contrived with the greateat judgment, have ended in baukruptey and ruin, from a deficiency in this essential requisite, are so very numerous, that every one must he acqualnted with them. Hence the importance of solecting acute and cautlous correspondents; and hence, also, the necessity of maturely weighing their reports, and of endeavoring, by tho aid of information gleaned from every authentic aceessible source, to ascertain how far they may be depended upon. When a few leading merchants purchase in antleipation of an advat: ${ }^{n}$, or sell in anticipation of a fall, the speculation is often pushed beyond all reasonsbla limits by the operations of those who are influenced by imitation only, sud who have never, perhaps, reflected for a moment on the grounde on which a variation of price is anticipated. In speculation, as in most other things, ono individual derives confldence from another. Such an one purchases or selle, not because he has any really accurate information as to tho state of the demand and supply, but because gonie one else has done so hefore him. The original impulse is thus rapidly extended; and even those who are satistied that a speculation, in anticipation of a riso of prices, is unsafe, and that there will be a recoll, nut unfrequently adventure, in the expectstion that they will he ablo to withdraw before the recoil has begun.

It may, we beliove, speaking generally, be laid down as a sound practical rulo to avoin laving any thing to do with a speculation in which many have already engaged. The competition of the speculators seidom fails speedily to render an adventure that might have been originally aafe extremely hazardous, If a commodity happen to be at an unusually reduced price in any particular market, it will rise the moment that lifferent buyers appear in the field; and supposing, on the other hand, that it is fetching an musually high price, it will fall, perhaps, far below the eost of production, as soon as supplies hegin to be joured in by different merchants. Whatever, therefore, may be the success of those who originate a epeculation, those who enter into it at an mivanced period are almost sure to lose. To have been preceded by others ought not, in such matters, to inspire confidence; on the contrary, it ought, unless there be something special in the ease, to induce every conslderate person to deeline interfering with it. T'le maintenance of the freedom of intercourse between different countries, and tho more gen-
eral diffusion of aound instruction, seem to be the only means by which those miscalculations, that are often productive of great national as well as private lose, can be either oby ated or mitigated. The effects coneequent to such improvldent apeculations being alwayo far more injurious to the partica engaged in them than to any other class, the presumption is that they will diminish, both in frequency and force, according as the true principles of commerce come to bo better understood. But, whatever inconvenience may occasionally flow from them, it is abundantly plain that, instead of being lessenod, it would be very much increased, were any restraints imposed on the freedom of adventure. When the attention of many individuals is directed to the same lino of speculation-when they prosecute it aa a business, and are responsiblo in their own private fortunes for any errors they may commit-they acquire a knowledge of the various circumstancea Influencing prices, and give by their combinations a steadiness to them which it is easy to aee could not be attained by any other means. It is material, too, to bear in mind, as was previously stated, that many, perhaps it might be said most, of those who preas so eagerly into the market when any new channel of commerce is opened, or when any considerable rise of price is anticipated, are not merchants, but persons engaged in other busines' s, or living, perhaps, on fixed incomes, who speeulate in the hope of suddenly increasing their fortune. This tendency to gambling seldom fails to break out upon such occasions; but fortunately these are only of comparatively rare occurrence; and in the ordinary course of affairs, mercantile apeculations are left to be conducted hy thuse who are familiar with business, and who, in exerting themselves to equalize the variations of price caused by varistions of climate and of seasons, and to distribute the supply of produce proportionally to tho effective demand, and with so much providence that it may not at any time be wholly exhansted, perform functions that are in the highest degree important and heneficial. They are, it is true, actuated only by a desire to advance their oivn interesta; but the results of their operations ars not less advantageous than those of the agriculturist who gives greater fertility to the soil, or of the mechanist who invents new and more powerful machines.

Those desirous of detailed information as to the prices of commudities in Great Britain, in remoter ages, may consult the elaborate tables in the $3 d$ volume of $\operatorname{Sin} F$. M. Eden's work on the Poor; end the 4th volume of Macibiensox's Annals of Comnerce. Auhutinot's Tables of Ancient Coins, Weights, Measures, Priees, ete., are well known; but the statementa are not much to he depended upon. The Traitd de Métrologie of M. Paucton, 4to, Paris, 1780, is the best work on this curious and diflicult sulyect. See also volumes v. vi. Tоoкк on Prices, Lomion, 1857 ; Huxt's Merchants' Magazine, iii. 305 (IItlonetn); Quarterly Reriew, xxix. 214; American Almanac, 1836, 101; Bankers' Magazine, New York, 1857, 91-9.1.
"Conslderable uncesflucss beging to prevall In Paris at the enormone riae thet hat taken place within the last two years In the prices of food and lodging. It is not only that this stato of things drives away the crowds who a few years ago used to resort to Parta to economize, and rhe spent im. mense sums th that capttal, but, what is of fat more inportance in a sociat and potitical point of vtew, tt ctrates sufferthg, and, consequently, discoutent among the working ciasses. In all the capitala of Europe, there has been of tate a sianiar tendency to an incresse in prteea, partiy caused, no doubt, by the uncertatnty created by the latu war, and by the withdrawal of large numbers of abte-bodied men from the ordinary puraults of agriculturo and industry, to awcit the ranks of 'he standing armisa kept up by the four great nitittary monarohles of France, Russta, Austria, and Prusita. Perhaps, also, the apeculative habits of the preeent generation have had some ehare in producing this resutt."

The above is from a lato London paper. The same remark is pertinent to new circumatances in the Unitod States. The alvanced prices charged for all comnodi-
ties where labor is invelvad in their productlon, and where naw machinery and new appliances can not be used, are unerring reaults of an increased volume of the precious inetals. According to estimates made by statistical writers who have examined the subject critlcally, the increase of the precious matals during the aix yeers, 1851-1856, is fully one-third of that existing in the werld at the end of the year 1850.

The product of gold in California ia thus stated in round numbers:

| Yabrs. | Export. | Marginal Addilion. | Tolal. |
| :---: | :---: | :---: | :---: |
| 1818-49. | \$3,1100,000 | \$806,000 | \$8,866,000 |
| 1850 | 25,000,000 | 2,600,000 | 27,500,000 |
| 1851. | 4t, 250,000 | 4,125,000 | 45,875,000 |
| 1558........ | 68,500,009 | 6,850,000 | 64,850,010 |
| 1858....... | 63.510,000 | 6,250,000 | 68,750,100 |
| 1854........ | 70,600,000 | 7,050,000 | 77,850,000 |
| 1SE5....... | 67,000,000 | 6.700,000 | 78,7110,000 |
| 1856. | 70,000,000 | 7,000,000 | 77,000,000 |
| Total | \$ $\$ 402,810,000$ | \$40,281.000 | \$ $\$ 448,091.000$ |

Product of gold in Culfornia and Australia comUlned:

| Yanas. | Esport. | Marginal Addilion. | Total. |
| :---: | :---: | :---: | :---: |
| 1848-49 | \$8,060,000 | \$8..6,010 | \$8,806,000 |
| 1850 | 2, 000,000 | 2,000 600 | 27,501,000 |
| 1851 | 45,760,000 | 4,576,000 | 60,836,000 |
| 1852 | 107,175,600 | 10,717, 510 | 117,832,500 |
| 1553. | 112,T:5,000 | 11,272,500 | 128, 997.500 |
| 1854 | 115,040,000 | 11,501,000 | 127,204, 100 |
| 18\% | 124,865, 000 | 12,456,500 | 187.021,500 |
| 1850...... | 133,715,000 | 13,871,600 | 147,086,500 |
| Total | \$672.640,000 | \$ 467.244 .000 | \$730,004, 140 |

At the same time, the rate of interest has increased from an average one of 8 and $8 \frac{1}{f}$ to 6 and 7 per cent.; and the active domand for capital throughout Europe, in aupport of heavy undertaklngs abroad and at hone, will probably malntain the current ratea for saine years to cons. We aee no present indications of a plethore of cupitnl.

We think It will appear that a greater risa, pro rata, has taken place in prices within this short period. In cur own country, the prices of market produce, lahor, and materiala requiring lal.ar for their production, have all increased from thirty to tifty, and in some instances to one hundred per cent. In articles of fool in the London markate, the changes in prices between 18511857 are shown in the following summary, which we take from "Tookk's History of Prices, during the y eara 1848-1856," just published la London:

| Arucles. | January, 1851. | January, 1854. | Fab 1837 |
| :---: | :---: | :---: | :---: |
| Coffec | 63 atsa | $63 \mathrm{a} 6 \mathrm{ls}$. | 68 a 6 ? |
| Sugar | 20 a 28\%. | 21 a 65m. | $8 \mathrm{sa}_{41}$ |
| Kum, Jamalca.... | 20 a $32 d$. | 42 a 4kd. | 44 a 411 |
| Trobicco........... | 4t a 10d. | 2ja 8il. | 8 ati |
| Butter |  | $104 \pi-$ | $112 \mathrm{a}-$ |
| Heef (8 lbs ) $^{\text {) }}$ | 28 a 30 | 42. 740 | 10 a 46 |
| Jeef, prinid . ..... | 32 a 30 | 48 a 180 | 48 a 50 |
| Mutton. | 34 a 4\% | 48 a 54 | 48 a 52 |
| Atutton, prime | 44 a 40 | 60 a 51 | 54058 |
| I'ork. | 30 a 42 | 4: 144 | 44 a 52 |
| Sllk, raw, thes. | 0 a 17\%. | 121 a :01 | 10 a 25 |
| Fisx, tons | 38 a 46 | 85 a 52 | 62a- |
| Woot (24) Iba.) ... | $\boldsymbol{1} 4$ a $\rightarrow$ | 151 a 10 | 87 a- |
| Logwood . . . . . . . . | 70 a 80s. | 110 H | 110 a - |
| Seal ofl. | 237 a - | 43 a | 608 - |
| Olive of | 43 a - | 63 n - | 61 a |
| Palmo | $231 \mathrm{a}-$ | 43 a | $47 a-$ |
| Tallow | B6) a- | 60 a- | $62 \pi-$ |
| L.eather, Ibe. | 12 a 2id. | 15 <21 | $24 a 31$ |
| Sall petre, cw t. . . . | $27 \mid$ a 2918. | 27 a 31 | $37 \times 43$ |
| Ashes, l'earl...... | 311431 | 93 a | 45 a - |
| Copper | 581 a- | 126 (t - | 135) a - |
| Iron, tons |  | 48 | 9 a |
| Iron, Swedish | 1119 | 121 a - | 15 5 - |
| Lead, tons. | 171 a- | 23.1 - | 93a- |
| Steet, Swedials | 15 $4=$ | 17+ 1 - | 20 a - |
| Tin, tona.......... | 84 a | 120 a- | 14.3 a |

Thene facte are impertant, as demonstrating the progresslve advance of prices according to the increased bulk of precions metals. The apme result occurred in the ceatury following the dlacovery of pold in America ( $1500-1600$ ), altheugh the increased production was far less than it is now. Ients, wages, family supplies, labor generally-all advanced fully one linndred jer
cerit.; and the probability is that an equal (or greates) ratio of increase will talse plece between 1850 and 1860. It is trua that the prowent accumulation of precious metals is diffused among a mneh larger population and over a mere exteaded region of country than in the 16th or 17 th centurias; but similar causes will produce similar results, and labor will secure for Itself a remuneratlon commensurate with the increased expenses of living.

Fluctuations in Prices.-Mr. Tooke, an English writer of some celebrit has lately added two volumes on the pricas of 1848-io56. From these volumes (published in London in 1857) we extract the following suminary view of the changes in prices since the discoverica of gold in California,

Summary of Conclusions with Reference to the Prices of Commodities and State of Trade, 1848-66.-W ithout attempting to Include in a sumimary of concluslons all the inferences which arise froin this survey of the past few years, we present the following statements as setting forth those resulta which are bent establislied and most Impertant, viz.: That as regards thë great articles of import, such as celonlal and tropical produce and cominodities largely employed in thls country as raw materials of manufacture, the course of prices during the nine years, 1848-'56, may be described in general terms, as follows, viz.: During 1848 and 1849 there was a general, and, in suveral important instances, a strong tendency to luwer prices: that in 1850, nartly in consequence of larger consumption and partly in consequence of actual or arprehended failures of supply, pricea sensibly, and, in some cases, matcrlally advanced; that in 1851 thero was again an extensive and severo decline, attributable almost wholly to excess of supply; that in 1852 there wisa a manifrst tendency toward recovery; that in the firat nine months of 1853 the upward tenclancy of the previous year reached its higheat polnt, establishing and maintaining for nine monthe a range of prices considerably ligher than had prevalled for $n$ long period; that from the autumn of 1853 to the cluse of $185-$, there was a sensible reaction from the prevlous high rates, except as regards some of the articles immediately affected by operations, or the commissariat consumptien of the war; and that in 1855 and 1850 the markets were quict and tirm, exhlbitlng only such fluctuations as arese out of ordinary changes in supply and demand. In a future part we shall inquiro how far the fluctuations of frices now referred to were connected with the influx of the new gold.

That the first effecta of the California discoveries of 1848 were felt in England in 1850 and 1851, and nani. fested themselves in the Increased demand for lritioh and foreign artlcles suitable for the export trale to the Unlted States; that the same effect 3 were still mute seusibly felt in the course of 1852; that in 18.3 the consumption of British goods in California and the United States generally had become ao large nud rupid as to counteract almost entitely, as regardy Euglund, any prejudicial eftect upon the balance of trade of the vast imports of grain, rendered secessary l y the serious fallure in these islands of the harvest of ix53; that the same large Ainerican demand for British exjorts continued throngh 1854 and 1855 , and had prevailed through 1856, interrupted lut casually by the extensive failures and discredit which prevailed in the United States and California dtring portions of the years 1854 and 1855 ; and that, as the general result of the trade between Fingland and the V'nited States since 1850, tha abaorptlen of Britisl exports either in Callforma itself or in those regions of the Nurth Ameriean continent to whleh the supplies of C'alifornis gold are chiefly bent in the first instance, has increased so rapidly as to render necessary a constant and large eransmission of tho precions metals from America to England.

Tinat the effects of the Australian discoveriss of the
sammer of 1851 were felt in this conntry in a striking manner varly in the following year ( $\mathbf{1 8 5 \%}$ ), manifeating themeelves in a sudden and large expansion of the atream of emigration from these islands, and in a sud. den and large expanaion in the shipment of nearly all descriptions of columodities; that the demand for ahip hence arising could not, in the then condition of the mercintile marine, be readily supplied; ana the consequence was an enormous increase of the rates of freight, and a demand for new ships so urgent, that conaidershly higher wages were at once conceded in all the ship-building tradea; that the same urgent demands for Australia continned in the early part of 1853, were considerably mioderated in 1854, atiil more reduced in 1855 , but in 1856 were again marked by considerable activity. That the movernent for hlyher wages aaccessfaliy commenced in the autamn of 1852 ; in the ahip-huilding trades became almost universal $\ln$ the first half of $180 \mathbf{8}$; and previous to September, in that year, had led to a very general aildition of from 12 to 20 per cent. to the wages curront in 1851; but that the effect of the bad harvest of 1853 , the war of 1854-'55, and the glut of the Australian msrikets, was to produce a considerable reaction from this advance, especially io. the factory districts. That the firat and immediate affect of tha high prices of colonial and other imported orticles in 1852 and 1853 , and of the high prices and large demand for manufactured goods in the same years, was to occasion vigorous efforts and a largo expenditure of capital, with a view to opening up new fields of aupply, and creatiug extended means of production ; and that it is principally to the operstion of these causes that the steady and frequently declining course of prices since 1853 is to be attributed.

That as far as trustworthy evidence can be obtained, there are no facts in the exparience of the last nine years which justify the conclusion that in England the fluctuation of prices, the course of trade, or the increased demand for goods arising out of the large exports to America and Australia, were immediately preceded by or connected with changea in the amount of the aggregate outstanding circulation of bank-notes. in other worda, all the ovidence available to us points distinctiy and uniformly to the conclusion that the fiuctuations of the bank-note circulation were determined and regulated by the consequences flowing from previous applications of capital and credit in particular motjes. That further, in a great number of specific iastances, it can be shown conclusively that fluctuations of price of the most important kind, and in the lnrgest markets of England, took place either without the occurrence of any change whatever in the bank-note circulation or contemporaneoasly with the occar rence of a change the precise opposite of that which on a priori grounds, or on the grounds on which the currency theory is bailt, would have been expected to precede or accompany the particular alteration in the markets.

That neither is thero any suci coincidence between variations in the rato of interest and variations in the markets hur produce, as to justify the infereace of a direct connection between them in the relation of cause suld effect. That the firat effect of the gold discoveries on the financial condition of England was the remarkable and : 'olonged tepression in the rates of intercst and discount, which prevailed durlng the twelvemonth preceding the spring of 1858; that this effect on the rate of interest was the immediate consequence of an excessive accumulation, principally in the Bank of Engiand, of the early remittances from California and Australia; and that the influence proluced by these accumulatious on opinion and credit was grestly extended and aggravated by tie maintenance at the Bank of England of a rate of discount so low as 2 per cent., from April, 1852, to January, 1858. That the rise of the rate of discount which cominenced in Janusry, 1853, and has been maintained during the subsequent three years, is to be traced in its origin and continu-
ance to extended demand for capital for the purpose of new, distant, and coatly onterprises, directed either to the construction of publie works, to the extenaion of old and introduction of new processes, or to the exploration of new flelds for the aupply of commodities; and that, $\theta 0$ far as we can judge from recent experience, the absorption of capital for these and other objacts becomen more rapid and extenalve wlth every suc. ceeding year.

That the interruption to the trade of England oceasloned by the Russian war of 1854-'55 was comparatively slight, and for four roasons, viz.: 1. Becauae the theatre of war was in a remote part of the east of Europe; 2. Because the enemy had practicaliy no navy that could moleat our commerce; 3. Because the raw materials previoualy obtained from Russia atill continued to arrive through neatral ports or were readily replaced by imports from lndia and eleewhero; and 4, lastly, because tho invention of the telegraph, the existence of steam, and the enormone resources of our mercantile marine and postal aervices, enable us to accompliah in a faw weeks' operations what, at the commancement of the century, would have occupied a long earice of months. That further, in addition to and far more powerful than any of the five causen just enumerated, was the effect of the continued influx of gold during 1854 and 1855 -but eapeciaily during the latter portion of 1855, in averting from England nnd from France the extreme financial pressure and peril which, in the absence of that influx, must inevitably have been preduced by the necessity of providing largo and constant remittances of gold to the seat of war; and must inovitably have placed entireiy out of question the maintenance of the restrintions of the Bank Chart Act of 1844, and perhaps have even imperiled the maintenance of the act of 1819.

That during the years 1848 and 1849, and part of 1850, the losaes and cliacredit which fell with crushing force on a large portion of the middle classea involveil in the railway expenditure, did, heyond question, prodace some important effect in limiting the consumption of commoditios. That, on the other hand, it was a direct consequence of the railway expenditure of the years 1848,1849 , and 1800 , that the working classes wero provided with fair employment during a period of interrupted trade, and it was also a direct consequence of the cheapnesse of food, and the low range of general prices which prevailed to the year 1852, that the working classes were able to command, by means of their wages, a larger amount of sustenance and comfort than had been within their reach probably at any former period of the century.-Tooke's History of Prices, 1857.

Price-current, $n$ list or enumeration of the various articles of merchandise, with their prices, the duties (if any) payable thercon when imported or exported, with the drawbacks occasionaliy allowed upon their exportation, etc. Lists of this description are published periodically, generally once or twice a week, in most great conmercial cities and towns.-For examplea, bee the articles Genoa, Havre, Tineste, etc. in this work.

Pride of China. The Melia azedarach, or Pride of Chinn, is supposed to have been originally a native of I'ersia, where it was known as long ago as the year 980, by Avicenna, an Arabian physician, who noticed the venomous principle which resldes in its fruit; but some otaniats are of the opinion that it is also indigenous to Florida and the United States, or at least has become so from habit; for it is found there growing wild in the forests, aind attains its fullest magnitude. It is propagated for ornament or use in all the warm countries of the civilized world. It is also cultivated in conservatorios in the temperate and colder parts of Europe and Aniorica, and even there it often flowers, and ripens its fruit.

Properties and Uses.-The wood of the azedarach is
of a reddish color, and la organizad in the dietrisation of its fibres similar to those of tha ash. It is sufficiently atrong and durable to be eusployed in eivll archteoture, and ls adapted to varlous unce in the mechanic arts. It has already been empicyed for pullaya, which in Einrope are uaualiy madn of elm, and in america of ash. It is anid to make good fuel. Tho fleshy part of the frult, lika that of the olive, ylelds a fixod oil, which is litter, and is considered as antheimintic, and a narcotic stimulant. The leaves are univerasily used in Indla for poultices, and both the flowers and seeds are atmulnat. The berries, though sald by the Arablan physiclan, Avicenna, to be poisonons, and the pulp of wilch was mixed with grease, for the purpose of killing rats and dogs, ame often eaten by chilidren in the South whithout injurious effects. According to Mr. Royle, however, tho fruit is censidered at polsonous when used in large doses. The bark of the root, when green, has a bitter, nauseous taste, yleiding lis virtues to boilling water, and may be employed an a cathartic or ometle, and la considered as an offielent vermifige, and also may bo used with advantago in Intermittents. In Persia, an olntment la made, for the cure of aome cutancoue eruptlons, by mulling the leaves with lard. It is also said that a kind of toddy is obtalned by fermenting the sap of young and vigorons trece. The nata are often bored by monks, and strung lnto beads. Hence the names of Bead-tree, and /aternostri di San Domenico.-Browns's Trees of Ameriaa.

Primage and Average. Primage la a charge in addition to the frelght. It was originally intended as a gratuity to the captain for his partleular care of the goods, and is sometimes called hat-money ; but it now belongs to the owners or frelghters by charter-party of the vessel, unless by special agreement the whole or portion of it is assigned to the captain. It is collected with the freight. The rate or manner of makling thls charge depende chiefly upon the custom of the department of trade in which the ship is eagaged. Very commonly lt is a rate, as 5,10 , or even 15 per cent., upon the amount of the freight. In some trades it is a rate per hogshead, etc., and in some cases it is not allowed, the word primage being canceled or omitted, and the words in full beling added to the stipulated rate $0^{0}{ }^{0}$ the freight, as has been noticed in speaking of the forms of bllis of lading. The average referred to in the bill of lading is the llability to general contributlon for making good any damage which has been occasioned by any step necessary for general preservation. This forms what is called a "general average," and the notice of it is introduced into the bill of lading to nvoid any doult as to llability on the part of the consignee or elaimant of the goods.-See InburanceShipa, and Suliping.

Prince Edward. Island. Lat. N. $46^{\circ}$ and $47^{\circ}$ $10^{\circ}$; long. W. $62^{\circ}$ and $65^{\circ}$; area, 2181 pquare milies; length alout 135 miles; and lireadth from 4 to 34 mlles.

The island of Prince Edward, formerly calied St. John's, is situated in a recess, on the west side of the Gulf of St. Lawrence, and is aeparated from New Itrunswick and Nove Scotia by tho Strait of Northumberiand, whleh at lis narrowest part is only nine milles wide. Capltal, Charlote-Town. The colony is divided Into three counties: viz., Queen's, 15,425 ; Prince, 15,142; King's, 32,111; and Ite total population in 1848 was 62,678 .
The population at several periode was as follows:

| 1802 | 20,67t |
| :---: | :---: |
| 1920 | 22,600 |
| 1837 | 28,206 |
| 1833 | 39,176 |
| 1841 | 47,033 |
| 1848 | 62,078 |

The quantity of arable land under cuitlivation was 216,389 acren ; and the whole quantity of land oecupied was as foliowa: Held ln fee-simple by occupants, 280,649 acres; under lease, 330,293 acres; by written demise,

31,812 acren; by varbal agreement, 88,786 acrea; and by squatters, 65,434 acres. The crope represented in tha census of the anme year conalated of ; wheat, 219,787 buehela ; barlay, 76,521 busheis; onta, 746,383 bushels; potatoes, 781,575 bushels; turnips, 153,083 buabiels; clover-seed, 14,000 pounds ; and hay, 45,128 tons. The liveatock on the isiand was as followat Ilorses, 12,845; neat cattle, 49,810; aheep, 92,875; and hogn, 19,683. The Induatrial establishmenta were embraced under the following branches: 18 breweries and distilieries, 116 grist-milla, 27 carding-mills, 130 saw-mills, and 246 threshing-machinee. The commerce of the island in 1851 is exhlbted jn the following abatract:
Exporta, including 89 reasele, 15,721 tona, int $\$ 16$ per ton; $1,4,47,2 z 4$ foct, and 6318 plecea, boarda and deale; nlingleen 290,777 M: oath, 800.095 quintola: plekled fish, 8024 barrelof oymern. 4371 buahela, and a varsety of other produetm, an timber, scannliog, knees, otc., valued in aff
at .........................................
Imports, including ahlp-chandiery, which
la exported agnin in the buliding and
rgging of ohipa, and not entimated in
the value of the ohippleg...............\$88s,785 Leas-aty for ihtp-shandlory............... 62,884
$\$ 007,950$

Total commerco. $\qquad$ 475,571 $\$ 1,183,264$ The ahlpping employed in this commerce was as follows:

|  | Enimaneos. |  | Clearaneto. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vomelle. | Tome. | $V \mathrm{tapls}$. | Toas. |
| Great Britaia. . . . . . . | 18 | 4,140 | 45 | 11051 |
| Ifritsh cotonles . . . . . | 470 | 18.04: | 488 | 20.374 |
| Untted states.......... | 48 | 8,724 | 86 | 6,427 |
| Other countries. | 8 | 87 | 2 | 11 |
| Total in 1851...... | 688 | 84.918 | 681 | 41.823 |
| Total in 1850...... | 657 | 25.017 | 638 | 41828 |

The number of seamen inward, In 1850, wes 208:, and in 1851, 2370; outward, in 1800,2801 ; end in 1851, 3631.
The following compares the value of the imports and experts for three years:

|  | 184. | 1839. | 1811. |
| :---: | :---: | :---: | :---: |
| Imports | \$576,040 | *630,476 | \$475 871 |
| Exports . . . . . . . . . . . | :82,775 | 828, 489 | 6117.359 |
| Total.. | \$848,815 | \$.56,404 | \$1.083. 260 |

The exports of 1851 include the value of vessels solld to Great Britaln and Newfoundiand, amounting to $\$ 251,536$, which is not included in eliter 1849 or 3850 . In 1849 there were bullt in the colony 88 vessels, 15,902 tons; and in 1850, 93 vessels, 14,801 tons, valued at $\$ 16$ per ton. The total value of articies, the growth, produce, or manufacture of tho United States, imported in 1853, was 877,858 , the whole of which, oxcept to the value of 83200 , were carried in British bottoms. In 1850 the value of the same description of artieles imported was only 842,113. The wide difference between the two years arlses from the fact that in 1851 the duties on jmporta were greatiy reduced from the rates of the preceding year. With the hlgh rates of duties of 1850 , ouly $\$ 6420$ was received on artleles of American production; whlle in 1851, with diminished rates, the distles were increased to 14,020 . The articles experted to the United States In 1851 were as follows: llarley, 17,929 bushels ; boards and planks, 12,000 fcet ; iron, 60 ewt. ; cattle, 9 head ; firewood, 20 cordz; dry fish, 650. quintals ; plckied fish, 1780 barrels; hard wool, 74 tons ; horses, 3; hackmatack knees, 2215; oats, 222,109 bushels; potatoes, 45,942 bushels; turnips, 6000 thushels; and wool, 1700 pounds. The value of the foregolng, with the value of sundry other articles not enumerated, amounted together to $\$ 119,236$. The value of similar articies exported in 1850 was only ©55,886. On the 31st December, 1850, the number of veasela owned and reglatered in Prince Vidward Island was 310, of the burden of 27,932 tons. On the 31at December, 1851, the vessels owned and registered numbered 823, of tho burden of 81,410 tons. Prince

Edward Island has valuable fisherles in the Gulf of St. Lawrence, and in the Stralt.

Prince Edward Island la ohlefly an agricultnral colony. : Ship-building, however, is carried on to a conslderable extent; and now shipa have already become a prominent article of export. In the yeara 1840, 1850, and 1851, there were built in the lslend, for tale in Great Britain, Nowfoundland, or wherever elae they might find a profitable market, 270 vassels, with en aggregate of 45,948 tons; giving an annual average of 90 veasels, and 15,815 tons.

|  | 1849. | 180. | 1861. |
| :---: | :---: | :---: | :---: |
| Exports to United States .. | \$82,4t1 | \$ ${ }^{10} 885$ | C119,28i |
| Importa from Untted Etatee | 82.580 | 41,003 | 17,808 |

TONmAGE in 1800.

|  | Vemeolis. | Toun |
| :---: | :---: | :---: |
| Eotered from Unttad States. . . . . . . . . . | 84 | 2578 |
| Cleared for United 8tates. . . . . . . . . . . . . | 49 | 4088 |
| Fintered in 1851 . . . . . . . . . . . . . . . . . . . | 48 | 2724 |
| Cleared in 185t . . . . . . . . . . . . . . . . . . . . . . | 88 | 6427 |

The difference between the imports from the United States in 1850 and 1851 ( $\$ 36,255$ ) is accounted for by the reduction of the duties on importa by colonial act, the bigh duties up to 1851 affecting, to a large extent, the trade with the United States. This reduction of the tarlff of Prince Edward Island not only augmentel the exports from. the United States, but produced a corresponding increase in the imports from that island. Thus, in 1850, the value of experts from Prince Edward Istand to the United States was 855,385 ; in 1851 it amounted to $\$ 119,286$. The trade between the United States and this ialand being now comparetively free, a etill greater Inorease than that exhibited above may be annually expected.

The revenue, expenditures, and public debt of the colony, in 1851, were as followa:

Revenuc.-Customs and imports, $\mathbf{£ 1 7 , 7 6 9 1 8 s . 7 \$ d . ; ~}$ fines and forfeitures, $£ 110$ bs. $1 d$. ; interest on bonds,
 ments, $£ 21651 \mathrm{~s} .7 \mathrm{~d} . ;$ registers, $£ 159 \mathbf{6 s} 2 \frac{1}{2} d_{\text {. }}$; licenscs, $\mathcal{L 4 5 9} 10 \mathrm{~s}$; seizuras, $£ 4498.8 \mathrm{~d}_{\text {; }}$; and fees from Secrstary's office, $£ 29915 \mathrm{~s} .8 \mathrm{~d}$. Total, $£ 22,53814 \mathrm{~s} .91 \mathrm{~d}$., being an average per head of $7 \mathrm{~s} .2 \not 2 d$., or of the net custoins elone, the everage per heal was $5 s, 8 \frac{1}{} d$.

Eixpenditures,-Legislature, $119124 \mathrm{~s}, 4 \frac{1}{2}$.; education, $£ 2851$ 14s. 10d.; agricultural societies, $£ 450$; miscellaneous, £i52 3s, 8 $\frac{1}{2} d$; post-office, $£ 158910 \mathrm{~s}$. 3d. ; salaries, $\mathbf{\mathcal { 3 } 3 1 4 5} 11 \mathrm{~s}$. $11 d_{.}$; compensation to govenument officers, $£ 77416 \mathrm{~s}$; public postages, $£ 5519 \mathrm{~s}$. $3 \mathrm{~h}_{\mathrm{j}}$; enown prosecutions, $£ 793$ 14s. $4 \frac{1}{2} \mathrm{~d}$.; board of health, $£ 42118 \mathrm{~s} .11 \mathrm{~d}$. ; fish bounties, $\mathrm{E} 370 \mathrm{18s} .9 \mathrm{~d}$.; provineial building, £ó 4015 s .8 d .; inquest and shadiac packes, $£ 116$ 11s. 71 d.; printing and stationcry, $£ 794$ 4s. $2 \frac{1}{2}$ d. ; apprehension of deserters, $£ 37814 \mathrm{l}$. $2 d$. ; interest on liabilitios and debentures, $£ 1626$ 4s ; drawbacks, $£ 22016 \mathrm{a} .4 \frac{1}{2} \mathrm{~d}$. ; sundry fees, etc., $£ 17312 \mathrm{~s} .11 \mathrm{~d} . ;$ roads, bridges, and wharves, $£ 59788 \mathrm{~s} .2 \mathrm{~d} . ;$ jails, $£ 610$ 11s. $8 \frac{1}{2} d_{\text {. }}$; small disbursements, $£ 867 \mathrm{7a}$. $2 \frac{1}{2} d$. ; marktes, ciol 1a.8d.; light-house, £17617s. $11 \frac{1}{2} d$.; public works, $f 787 \mathrm{Gs}, 8 \mathrm{~d}$; and buoys and beacons, $£ 650 \mathrm{~s} .8 \mathrm{~d}$. Total, $£ 24,17310 \mathrm{~s}$. $11 \ddagger d$., showing a surplus rf expen'itures amounting to $£ 163416$ s. 2 l . The public debt amounted, in the year above stated, to $£ 17,938$.-AndaEws's Report on Culonial and Lake Trade (Sen. Doc. 112), 1852-'j3; Mahtin's British Colonies (London odition); Report of a Committes (Canadian) on the Income, Eixpenditure, and Debt of British North America (11th June, 1853); U. S. Cumm. Rel., etc.
Printed Croods. The art of callco-printing is of considersble antiquity, and there exist apecimens of Exyptian cotton dyed by figured blocks inany hundrod years old. A similar process has been resorted to even in the Sandwich Islands, where they uso a large leaf as a substitute for the block.-See art. Corron. The copyright of deaigns aecured in Englaud by 2 Vio., 1839.

Printe, impressions on paper, or aome other substance, of engravinga on copper, steel, wood, atons, etc., representing some particular aubject or composition. Prints, like paintinga, embrace overy varlety of aubject; and differ very widely in the manner in which they are engraved. Their prices vary ancording to the style of the engreving, the fineness of its execution, the goodnesu of the impression, its rarity, etc. The art aeema to have taken its rise in the 15 th centary.

Priage, or Butlerage, was a right of taking two tuns of wine from every ship importing into England twenty tuns or more; which was changed by Edward I. into a duty of 2 s , for every tun imported by merchant strangers, and called butlerage, because paid to the king's butler. The term is now fallen into disuse.Blackbtone.

Privateering. In order to encourage privateering, it la usual to allow the owners of private armed vessels to appropriate to themselves the property, or a large portion of the property, they may capture, and to sfford them and the crew other facilities and rewards for honorable and successful efforta. This depends upon the municipal regulations of each partlcular power; and as a necessary preceution against abuse, the owners of privateers are required, hy the ordlnances of the commercial states; to give adequate security that they will conduct the cruise secording to the laws and usages of war and the instructions of the government. and that they will regard the righte of neutrals, and bring their prizes in for adiudication. These checks aro essential to the cheracter and safety of maritime nations. Priveteering, under all the restrictions which have been adopted, is very liable to abnse. The object is not fame or chivalric warfare, but plunder and profit. The discipline of the crews is not apt to he of the highest order, and privateers are often guilty of enormous excesses, and become the scourge of neutral commorce. They are sometimes manned and officered by foreigners, having no permanent connection with the country or interest in its cause. This was a complaint made by the United States in 1819, in relation to irregularities and acte of atrocity committed by private armed vessels saillag under the flag of Buenos Ayres. Under the best regulations, the business tends strongly to blant the sense of private right, and to nourish a lawless and fierce spirlit of rapacity. Efforts have been made from time to time to abolish the practice. In the tresty of amity and commerce between Russia and the United States in 1785, it was atipulated that in case of war neither party should grant commisslons to any private armed vesseia to attack the commerce of the other. But the spirit end policy of maritine warfare will not permit auch generous provisions to provail. That provision was not renewed with the renewal of the treaty. A similar attempt to put an end to the practice was made in the agreement between Sweden and Holland In 1675, int the agreement was not performed. The French Legislature, aoon after the breaking out of the war with Austria in 1792, passed a decree for the total suppression of privateering, but that was a transitory act, and it was soon swept away in the tempest of the revolutlon. The efforts to atop the practice liave been very feeble and fruitless, notwlthstanding that enlightened and onlarged considerations of national policy have shown it to be for the general henefit of mankind to surrender the licentious practice, and to ohstruct as little as possible the freedom and socurity of commercial intercourse among the nations. -Kent's Commentaries. The reader is referred to the North A mericun Review, x. 166 (J. Gallason); Niles's Register, xiv. 129, xvi. Sup. 29; De Bow's Reciew, i. 516. See also Manitims Law, ante, 1321, et seq.

Ietters of Marque and Reprisal "are grantable hy the law of nationd, whenever the subjects of one state are oppressed and injured by those of another, and jniftice is denled by that state to which the oppressor be-
loggs."-Chitty's Comm. Law, vol. ili. page 604. Before granting lettare of margue, government is directed by the 5 IIen. V. e. 7, to require that satisfaotion be made to the juarty aggrieved; and in the event of anch satisfaction not being made within a reasonable perlod, lettera of marque and reprisal may be issued, authorizing the aggrieved party to attack and seize the property of the aggrassor nation, without hazard of being condeunned as a robber or pirate. Such letters are now only lesued to the owners or captalns of privateers during war, or when war has been determined upon. They may be revoked at the pleasure of the sovereign ; and when hostilitiea terminate, they cease to have any effect: Letters of marque and reprisal were first lasued in England by Edward I., for the seizure of the enemy's vessele, and for reprisal and retaliation upon the enemy on the sea.-Rymen's Fodera. They were first granted in 1995.-Baken'a Chrom. They are asually granied in time of war to private armod shipe, and do great michief to the commerce of belligerent nations,-Pow EL.

Privateers, ships of war fitted out by private individuals, to amoy and plunder the public enemy. But before commencing their operations, it is indispensable that they ohtain letters of marque and reprinal from the government whoee subjects they ars, authorizing them to commit hostilities, and that they conform strictly to the rulea laid down for the regulation of their conduct. All privato Individnals attacking others at aca, unless empowered by letters of marque, are to be considered pirates, and in ay be treated as such either by those they attack or by their own government.

Policy of Privaleering.-The policy of this system is very questionable. It seems to be a remnant of that species of private war excreised by all indivfituals in enrly ages, but which gradualiy disappears as society advances. In wars carried on by land, the property of the peaceable inhablants who take no part in the operations of the armies is uniformly protected; and It is difficult to discover any solid grounila why tho same rule should not be followed at sea. I'rivateers rarely attack ships of war. Their object is merely to plunder and deatroy merchantmen. They causo an infinite deal of mischief to individuals, and aggravato all the miseries of war, without having the slightest influence on the result of the conteat. Experience has also shown that it is not possible, whatever precautions may be adopted, to prevent the greatest abusea from being perpetrated by privateers. The wish to amass plander is the only principle by which they are actuated; and nuch being the case, it would be Idle to suppose that they should be very scrupulous about abstaining from excesses. A system of this sort, if it be ever useful, can be so only to nations who have little trade, and who may expect to enrich themselves during war by fitting ont privateers to plunder the merchant ships of their enemies. In all or. $f$ cases it seems to be productive only of mischief; though it is, of course, most injurious to those states that have the greatest mercantile navy. Instead, therefore, of enconraging the practice of privateering, we think that $n$ due regard to the rights and Interests of humanity would suggest to the great powers the expediency of abolishing it altogether. A fow efforta have, indeed, been alresdy made toward this destrable object. Thus It was stipulated in the treaty between Swedion and the Unit ed Provinces, in 1675, that neither party should, in any futuro war, grant letters of marque againat the other. In 1757 Russia abstained from Jlcensing privateers; and in the treaty loetween the United States and Prussia, in 1785, a atipulation was Inserted as to privateers, similnr to the: in the treaty between Sweden and the United Provinces in 1675. But nothing short of a convention and agreement to that effect among the great powers will be able to effect this desirable object.-Mantrens, Fasai concernant les Armateurf, 1794. See Manitime Law, p. 1822, etc.

Prise. Any thing captured by a belligerent using the right of war: in common language, only shipa thus captured, with the property taken in them, are so called. Prises taken in war are condemned by the proper judicaturs in the courts of the eaptors; such condemnation is held to diveat the title of the proprietor and confer a new ownership. In order to give jurladiction to a court of prize, it is deemed necessary, by the law of nations, that the property coptured should be $3 n$ possession of the captors in their own ports, those of an ally, or of a nentral ; but no beltigerent power has a right to capture in the ports of a neutral country, or within a marine league of her shores; nor does a capture made there render the adjudicatlon valid. Sul. ject to capture is hostile property, i. e., the property of parsons domiciled in a hostlle country, and neutral pro, erty contraband of war.--Sec Contranand.
Prize Money.-The money arising from captures made upon the enemy fa djyided into eight equal parts, and is equally distributed by order of government, thus: Capcain to have three-eighths, unless under the direction of a flag officer, who In that case is to have one of the safd three-eighths; captains of marines and land forces, sea licutenants, oic., one-elghth; Ifeutenants of marines, gunners, admirals'secretarles, etc., one-elghth; indshipmen, captain's clerk, ete., one-elghth; ordinary and able seamen, marines, etc., two-eighths. - See Pivateers anil Letteias of Manque.

Prizes.-The right to ail captures veats primarily in the soverelgn, and no finlividual can have any interest In a prize, whether made by a public or private armed vessel, but what he receivea under the grant of the siate. This is a general principle of public jurisprudence, bello parta cedunt reipublice, and the distrilution of the proceeds of prizes dependa upon the regulatJons of each state; and unless the local laws have otherwise provided, the prizes yest in the sovereign. But the general practice, under the laws and ordinances of the belligerent governments, is to distribute the proceeds of captured property, when duly passed upon and condemned as prize (and whether captured by public or private commissioned vessels), among the captors, as a reward for bravery, and a stimulus to exertlon. When a prize is taken at sea, It must be irought with due care into some convenlent port, for adjudication by a competent court; though, strictly spesking, as between the belligerent parties, the titje passes, and is vested when the capture is complete, and that was fermerly held to le complete and perfect when the losttlo was over, and the spes rectperandi was gone. Grotius and many other writers, antl some marine ordinances, as thoso of Louis XIV., and of Congress durIng the Amertcan war, mado twenty-four hours' quiet possession by tho enemy the test of title by caprure. Bynkershoeck says that auch a rule is repugnant to the laws and customs of Ilolland ; and he insists that a firm posscssion at any time vests the f roperty in the captor, and that ships and goods brought infin prosidic do most clearly change the property. Jiut by the modern uaage of nations, nelther the twatyfour hours' possession, nor the bringling the prize infra presidia, is sufficient to change the property in the case of a maritione capture. A judicial inquiry must pass upon the casc, and the present enlightened practice of commercial nations has suijected all such captures to the scrutlny of judicial tribunals, as the only sure way to furnish due pronf that the aelzare was Jawful. The property is not changed In favor of neutral vendee or recaptor, so as to bar the original owner, until a regular sentence of condemnation has been pronounced by some court of competent jurisdiction belonging to the sovereign of the captor; and the purchaser must be Ablo to show documentary ovidence of that fact to support his title, Untll the capture becomes invested with the character of prize by a sentence of condemins. tion, the right of property is in abeyance, or in a state of legal sequestrailon. It can not be alienated or dis.
posed of, but the possession of it by the government of the captor is a truat for the benefit of those who may the ultimately entitled. This salutary ralo, and ons so necessary to eheck irregular conduct and Individual outrage, has been long establiahed In the Engliah admiralty, and It is now evary where recognized as the law and practice of nations.

The condemation muat be pronounced by a prize court of the government of the captor, sittiag either in tite country of the eaptor or of his ally. The prize court of an ally can not condemn. Prize or no prize, is $n$ question belanging exclualvaly to the , ourts of tha country of the captor. The reason of this ruic is sald to be, that the sovereign of the captore has a right to inspect their behavlor, for he is answerabla to other statee for the acts of the captor. The prize court of the captor may sit in t?.e territory of the ally, but it is not lawful for sach a court to act in a neutral territory. Neutral ports are not intended to be auxiliary to the operations of the power of war; and the law of nations has clearly ordained that a prize court of a belligerent capter can not exercise jurlsdiction in a nentral country. I'his probibition resta not merely on the unfitness and danger of making noutrul ports the theatre of hostile proceedings, bat it atands on the ground of the usage of nations. It was for come time aupposed that w grlze court, though sitting in the country of its own govereign, or of hle ally, had no jurisdiction over prizes lying in a neutral port, because the court wavted that posacssion which was deemed easential to the exereise of a jurisdiction in a proceeding in rem. Tho principlo was admitted to be correct by Sir William Seott, in the case of the IIenrick and Mfaria, and he actod upon it in a prior caso. But he considered that the English adulralty had gone too far in supportiug condemnations in England, of prizes abroad in a neutral port, to permit him to recali the vicious practice of the court to the acknowledged priuelple; and the English rala is now detinitively settlen, agreeably to tio oll usage and the practice of other natlons. The Supreme Court of the United States has followod the Englisil rule, and it has held valid tho condemnations, by a beligereut court, of prizes earried into a neutral port, and remaining there. This was deemed the nost convenient practice for neutrals, as well as for tho partice at war; and though the prize was, in fact, within a neutral jurisdiction, it was still to bo deomod under the control, or anb potestate, of the captor.-Kent's Cunnmentaries, vol. j.

Proa, a narrow canoe abont thirty foet long by three feet wide, used in the Ladrone Islands. The lee side is flat, being the mers longitudinal section of the common form, and tho head and atern exactly alike. A. slight francework projecte several feet to windward, bearing a small block of wood like a canoe; this float supports the vessel from oversetting to that side, ws she would otherwiso do, and the framo-work affords aupport for a weight acting against the pressure of the sail. Tho vessel is steered by the paddle at cither end, and moves with grent velocity either backward or forward, being adapted to a aide wind in running between iwo places. The sail is mat, with a boom, upon one mast. Proa is also the name for large boats usod by the Malays, picpolled both by oara and sails.

Produce, Production. See articles Wheat,

## Fuour, cte.

Promiscory Notes. A pronissory noto may be defined to be a written engagement by one person to pay another person, therein named, absolutely aud unconditionaliy, a certain sum of monay at a time specified therein. The definitlon given by Mr. Justico Blackstono ts, that promissory notes, or notes of hand, are a plain and direct engagemont in writing to pay a sam specified at a time limited therein, to a person therein named, or sometimes to his order, or ofton to the bearer at large. Perhape thils definition may be thought faulty in not statiag that the engageneat is to be ab-
solute and uncorititional. Mr. Justice Bayley more suecinctly utatea, that a promissory note is a writton promiae for the prayment of money at all events. Mr. Chancellor Kent followa the detinition of Mr. Justice Bayley; and perhapa cach is open to the objection that. whilo it seeks brevity, it is Incomplote, as it does not state that the promise is made by one person to pay the money to another person apecitiad. Although a promissory note is, in contemplation of law, entitled to all the privileges belonging to such an lustrument by the Commercial Law, as weil as by the Common Law, without being negotiable, yet it la the latter quality whleh gives it its principal importance and value in modorn times, and makes it a circulating credit, so extenaively useful and so generally resortod to in the commerce of tho worll. Promissory notes are now generally made negotiable, ly being atated thereln to be payable to $A$ or order, or to the order of $A$, or to A or bearer, or to the bearer generally. Perhape tho silent but stcady progress in England, from the simple use of the non-negotlable notea, hefore the reign of Queen Anne, to tha present almost niversal negotiability of such instrumenta in our day, ean not bo better expressed than by referring to the languago of Blackstone, where he advorts to the fact that promissory notes ara payablo "to a person therein nained," and then cautiously adds, or "sometimes to his own ordor, or oftener to the bearer." Tise roversa language might be far inore justly used in tho prosent day; and it might be corroctly statod that promissory notes are 10 w generully nerpstiable by being payable to order, or to the benrer : and that they are rarely limited to be payablo onij; :o a particular person namel thoreln. Wo may add in this connection, that the person who makes the note is called tho maker, and the person to whom it ls payable is called tho payee; and when it is negotiable by indorsement, and is indorsed by the payee, he is called the indorser, and tho person to whom the interest is transferred by the indorsement is calied the indorseo. Every indorses is of course deemed the holder, and so ia every person who, hy a transfer of a noto payable to the bearer, becomea entilled thereto. Tho Scottish law seems procisely coincident with the English law as to promissory notes, except so far as respeets the remedial process thereon; thero being some peculiar privileges ann - yed thereto in Scotland.

It acems scarcely nee ssary to point out the distinction between bills of exchange and prumissory notes in their general structure anl character. In a Lill of exchange thero are ordinarily three original parties, the drawer, the payee, and tho irawee, who, after acceptunce, becomes the acceptor. In a promissory note there are but two original parties, the maker and the payee. In a bili of exchango, the acceptor is the primary debtor in the contemplation of law to tho payee; ant tho drawar is but collaterally liable. In a promissory note, the maker is, in contemplation of law, the primary debtor. If a note be negotiable, and is indorsed ly the payee, then there oceurs a striking re. semblanee In the relations of the parties upon loth instrumeuts, althoagh they are not in all respects identical. The indorser of a noto stands in the same relation to the subsequent partios as the drawer of a bill, and the maker of the note is under the aame liabilities as the accepter of a bill.
The origin of promissory notes is quite as obscure ns that of bills of exchange. Thore is no doult that promissory notes in writling (chirographa) wero well known and in use among the Romaus. Of this we have an instance in the Digest ; ab Aulo Augerio Gaius Seius mutuam quandam quantitatem accepit hoc chirographo: ille scripsit, me accepisse, et accepi ab illo mutuos et numeratos decem; quis ei readom Ralendis illis proximis cum suis usuris placitis internos: Quacro, an ex co instrumento usuraz peti possint, et qual Modestinus respondit, si non appareat de quibus usuris conventio facta sit, peti eas non posse. But this instrument never acems
to have been known as a negotiable inetrument among the Romana, or ma a general mediam uset In purchases and sales, with that superadded quality; bat ite nego tiability seems to be excluaively the invention of modem tiniei. Probably the origin of negotiable promisiory notes is somewhat later than that of bilis of exchange, and grew out of the same general causes as the latter, ria., to facilitete the operations of commerce, and to extend the negotiabllity of debta. Mr. Kyi'a remarky on this subject seom st once weil founded and antiofactory, at leat as conjectures. "As commerce," says he, "advanced in its progreas, the multiplicity of Its concerns required, in many Instances, a less complle cated mode of payment than by bills of exchange. A trader, whose situation and circumstances rendered credit from the merchant or manufacturer, who supplled him with goods, absolutely necesaryy, might have mo limiterl a connection with the commereial world at large that he could not easily furnish his ereditor with a bill of exchange on another man. But his own responaibility might be such that his aimple promise ot payment, reduced to v.riting for tho purpose of evidence, might be accepted with equal contidence at a bll on another trader. IIenes, it may reasonably be conjectured, promissory notes were at tirst introduced." Undoultedly negotiable promissory notes were well known upon the continent of Eurepe long before their introduction into Fingiand. They wero probably first hroaght into use in England about the middle of the 17th century, altho:-gh lord Holt has been thought to assign to thein a somewhat later origin. They grem at first to have been called bilis of debt, or lills of credit, Indifferentiy. Indeed, na Lord Mansticld haa observed, there seems much confasion in the "Reporta" in the times of King William and Queen Anne, so that it is difficult, without consulting the reconds, to ateertain whether the aetion arose upon a bill or note, as the words " bili" and "note" were used promiacuously. There was a long struggle in Weatminster Ilall as to the question whether promissory notes wero negotiable or not at the Common Law, for there could be no doubt that they were by the Law Merchant, at least as recognized npon the continent of Europe. Lord IIolt most strenuousiy, and with a pride of opinion not altogether reconcilable with hita sound aense and generally comprehensive views, maintained the negative. The controversy was finally ended by the atatute of 3 and 4 Anne, ch. 9 (1703), (made perpetal by the atatuto of 7 Anne, ch. 25, sec. 8,) which, after reciting that promissory notes had been held not negrotiable, proceeded to enect, "That all notes in writing, inade and signed by any person or persona, body politic or corporate, or by the servant or agent of any corporation, banker, golijamith, merchant, or trader, who is usuaily intrusted by him, her, or them, to nign auch promissory notes for him, her, or them, whereby auch person or persons, body politie and corporate, his, her, or their servant of agent as aforesaid, doth or shall promise to pay to any other person or persons; body politic and corporate, his, her, or theit order, or nnto hearer, any aum of money mentioned in such note; shall bo taken and construed to be, by virtue thereof, due and payable to any auch person or persolis, body politic and corporate, to whom the same is made payable; and also every auch note payable to any person or persons, body politic and corporate, his, her, or their order, shall be assignable or indorsable over, in the aame manner as inland bills of exchange are or may be, according to the costom of merchants; and that the porson or persons, liociy polltic and corporate, to whom'anch sum of money is or shall be by such note made payable, shall and may maintain an action for the asme, in such manner as ho, she, or they might do upon any inland bilis of oxchange, made or drawn according to tine cuntory of merchants, againat the permon or persons, body politic and corpo rate, who, or whose servant or agent as aforesaid, signed the same; and that any person or persons, body politic
and corporate, to whom anch note, that ia payable to any person or personn, body politlo and corjorate, his, her, or their order, is indorsed or aseigned, or the mon ey therein mantioned ordered to be paid by inilorse. ment thereos, ahall and may malntain his, her, or their action for much aum of money; elther againat the per son or perions, body politic and corporate, who, or whome servant or agent as aforealid, signed such note, or against any of the persons that Indorsed the same, in tike manner an in' caneen of inland blili of exchange." In mort of the Staten of America this statute has been etther expreanly adopted by atatute, or recognized as part of their Common Law. A few only have deetred it Inapplicahie to their situation ; and in some States the cireulation of promissory notes athll remains clogged with poeitive restrictions or practical difliculities, which areatly impede their nse, and valne, and circulation. Moat, if not ell commercial nations, have anhzed er. tain privileges, benefits, and adventages to promissory cotes, as they have to bllls of exchange, in order to promote pubilo confidence in them, and thus to insure their circuintion as a medio.al of pecuniary commercial transactions. in England and America they partake in a very high degree of the character of apecialtien, and are deemed to import prima facie, to be founded upon a valuablo conaideration, and may he generally declared on without apecially atating what the portic ular consideration ja; in which eircumatance shey dif fer from other unaealed contracts, whethep written or unwritten. Iletween the original partles the considieration may indeed, is a matter of defense, be inquired into. But where they are negotiable, and in the posseasion of a bowa fide holder for a valurble comsideration, without any notice of any inherent infirmity or vice in their original concoction, they are hinding upon the antecedent partles, and the consideration is not inquirable Into, and becomes immaterial. In Scotiand they are entitled to all the privileges of bilis of exclange, among which, beaides the common privileges in Fingland and Anterica, is the privilege of a summary process to euforee payment upon their ilishonor, differing trom the ordinary proceas. The like summary process is given hy the French law. [And a similar atatute has recently been enacted in England.] Ilejnecclus, in the panages aiready referred to, atates that they are indorsable like hilis of excliange, and are subjeet to the law of preseription, and, in case of dishonor, are open to the sante process and mode of expeution as bilis of exchange.-Stony on I'romissory Nutes. See Bifa of Exchange and Fxchange.

Promontory (I.atin pro, and mons, a mountain). In Geography, point of land, whether high or low is indifferent, projecting into the sea.-See Cark.

Protection, in Ccmmercial legislaticn, means the protecting or bolatering up of certiain branches of ciomeatic inciustry by prohibiting the importation of the produce of auch branches from abread, or loading it, when linported, with heavy dutles. This policy was at one time pniversally prevalent. Bnt its extremely Injurious Influence having been deinonstrated cver and over again, it has been abandoned by all Intelligent ataleamen. And notwlehtanding the powerfil intereste by which it was supported, it lins neariy disappeared from oar laglalation; and it will, no doubt, eventally disappear front the legislaiton of all countrics.

Providence, city, the principal pert of entry, and semi-capital of Rhode Island; situated in $41^{\circ} 49^{\prime} 22^{\prime \prime}$ N. lat., and $\boldsymbol{I 1}^{\circ} 24^{\prime} 48^{\prime \prime}$ W. long. from Greenwith, and $1^{\circ} 28^{\prime} 24^{\prime \prime}$ E: long. from Washington. It is 30 miles north of Newport, 42 miles sonth-southwest from lioston, 70 milea east of Hartford, 173 miles cast of New York, and 396 from Waahington. Population in 1820, 11,767; in 1830,16,832; in 1840,23,171; In 1850, 41,513; In 1854, 50,000. In point of population and wealth Providetice is the second efty In New England. Its present limito contain about nine square milcs. The
compaes portion of the city is built on both aldes of the I'rovidence River, ovor which are constructed two broad and subsiantial wooden bridges, alove which the river expands into a brosd and beautiful cove.

There are in Pruvidence 26 banka, with an aggrogate capital of $810,410,090$; s savinge-bank; three insurance companies, with a capleal of $\mathbf{8 0 0}, \mathbf{0 0 0}$, beaidee several mutual insurance companies without apecitted capital. The manufactures of Providence are extensive. 'The city also contained $\ln 1857,78$ steau-engines, and within 100 rods of the olty line are 12 or 15 more, that for all practical purposes belong here; 50 jewelry eatabliahments, omploying 1400 hands, and yielding ad annoal product of $\$ 2,771,600$; thrae bleaching and dyeing works, einploying 350 hands, and tiniahing $50,980,000$ yards of goods; 22 manufactories of machinary, steam-enginca, bollars, castinge, atc., amploying 2002 hands; 0480 tons of coal; 11,095 tons of pigiron; 9801 tone of other Iron, and producing annualiy 33,800 stoves, $9,000,000$ pounds of nails and spikea, 80 stesm-engines, 220 bollers, $3,584,000$ pounils of nuts, etc., and other articles to the total value of $\$ 2,561,000$; two screw factorles, that ylelil an annual product of $81,086,000$; two lutt factories, that produco $\$ 2 \% j, 000$, and a great varioty of amaller manufactories, yiclding tegether an annual product of $\$ 17,400,000$.
Providence possesses great commerclal facilities, which have been well improved. The harbor, at tha head of Narraganaet Bay, 83 millea from the ocean, is spacious, and has aufficient depth of water for the largest ahips. Somewhat more than 100 veasels belang to tho port. The reglatered tonnage in 1853 was 10,861 tons. Two lines of packets ply regularly to New York, two to Allisny, one to Philadelphia, and one to Baltimore. A railroad 41 miles loug extends from I'rovidenco to Boston, with which it is connected.
Provisions. Uuder this term, taken In Its most extensive sense, in referonce to man, may bo comprised sll those articles used as food ly the inliabitants of this and other countries; hut commerclaily it is understood to comprise only frosh nnd salted hutchers' mest, hains anel hacon, butter and cheese, egge, and a few other articles.
Value of lafe Stook, agoobdino to the Census of 1850, of the United statre.

| 8tatee and Tartitorien. | 8win9. | Valon of Liva stock. | $\begin{gathered} \text { Valuan of } \\ \text { Animaip } \\ \text { alaghhlered. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Alubain | 1,414 540 | \$21,690,000 | \$4,529,000 |
| Arkanma | 836.747 | 6,647,000 | 1,108,000 |
| Callfomla | 2,770 | 3,351,000 | 107,000 |
| Columbla, Distriet of. . | 1,685 | 71,000 | 000 |
| Connoctlcut . . . . . . . . . | 74,478 | 7,467,1000 | 2,202,000 |
| Dela | 30,281 | 1,849,000 | 879,000 |
| Florida | 901,483 | 2,830,000 | 514,000 |
| Georgha | 2,108,017 | 25,7:8,000 | 6,33n,0010 |
| illine | 1,015,1207 | 24,209,001 | 4,972,1000 |
| Indlaos | 2,203,776 | 24,478,000 | 6,007,000 |
| Iow | 323,247 | 3,089,0001 | 821,000 |
| Kentueky | 2,891,163 | 29,061,010 | 6,462,000 |
| Loulsiava | 697,301 | 11,152,000 | 1,458,000 |
| 3 sine | 64.5018 | 9,705,900 | 1,146,000 |
| Maryland | 352,911 | 7,95,7,0101 | 1,954,000 |
| Mansachu | 81.119 | 9,047,000 | 2,500,000 |
| Michlga | 206.817 | 8,015,000 | 1,828,000 |
| Miasiusipp | 1,682,784 | 19,403,000 | 8,636,000 |
| Missouri | 1,702,625 | 19,887,000 | 8,307,000 |
| New Ilamps | 03,487 | 8,871,000 | 1,522,000 |
| New Jersey | 260.871 | 10.679,000 | 2,688,000 |
| New Yor | 1,018, 208 | 73,570,000 | 13,878,000 |
| Nerth | 1,8t2.818 | 17,717,000 | 5,767.000 |
| Ohlo | 1,904,770 | 44,121,000 | 7,439,010 |
| Pennsyivat | 1,041,860 | 41,600,000 | 8,211,001 |
| Hhode fslat | 11.19 .509 | 1,592,000 | 667,000 |
| South Care | 1,035 503 | 16,000,000 | 8,502,000 |
| Tennese | 8,104,800 | 20,478,000 | 6,401,000 |
| Texas. . . . . . . . . . . . . . | 692,1122 | 10,412,100 | 1,116,000 |
| Verınont . . . . . . . . . . . . | 60,206 | 12,643,000 | 1,881,010 |
| Virylnia | 1,829.868 | 38,656,000 | 7,502,000 |
| Wisconsla | 100,276 | 4,807,090 | 020,000 |
| MInnerola 'l'erritory .. | 784 | 192,000 | 2,000 |
| New Mexico 'Territory. | 7,314 | $1.4^{n} 4,000$ | $82,000$ |
| Ordgen Territory . . . . | 80,895 | 1,876,000 | 164,000 |
| Uteh Territory . . . . . | 914 | 646,000 | 67,ti04 |

-See articles liacon, Ponk, Wheat, Floun, etc

Prunes and Prunelloes, a specles of dried plums," of whieh there are many varletles. Tns finest are linportod from Firance, In the south of which this fruit is very abundant. The best prunes are packed in hampers or basketa male of white osiers, welghing from six to ten pounda each; tho second quallty ju quarters, and the third in puncheons.

Prusaia (one of the ZollVerein). The Prusaian territory la not much more than two-fiftha of the size of that of Austria, and the larger portion of it lles within the llimits of the great and comparatively barren plain which extends from tha Bohemian and Carpathian Mountains to tha Baltic Sea. Tho smaller and more fertile part of the Irussian 'orritory, called the Grand Durhy of the Lowar Rhine, lics In the lower part of tho basin of that river, and ls separated from the main bedy $\mathrm{j}_{-}^{-0}$ the kingdom by the Intervention of IIanover, Saxony, and other German states. There are, hesides, several smaller districta scattered in the heart of Germany; and with a territory thus scattered and disjointed, the re. K of Prussia as a great stato has ireen suatained ofly through the superierity of her internal organizncton, and the wary, temperizing, and oven shuffing polley of her government, ferced upon them, indeed, by the defenselosenoss of a kiugdon without natural frontiers, or physical centrality, or a people united ly langnago, aud national feeling, and interest. Agriculture is tho chief occupation of tho people; hut in the Rhenish provinces the cotton, and In Silesia tho linen manufactures, are carried on to a great and increasing extent. Prussia necessarily maintains a larga atanding army, but has no naval power; the king, howover, has recently purchased the port of Jahde from the Frand Duke of Oldenburg for the purpose of a maval station, and haa begun tie formation of a fleet. The kingdom was till recently an abeolute monarchy, but has now raceivad a Constitution.

The first treaty of amity and commerce letween the Uuited States and Prussia was negotiated jı 1785. This was renewed in 1709, and cxpired in 1815. In 1828 a new treaty was coneluded between the two governmeuts, which ts atill in foree. Under the former treatien tho vessels of tho two high contracting parties were rociprocally allowed to import the goods which were of the produce or manufacture of their respective nations. The latter treaty, however, stipulatee entiro reciprocity and freedom of commerce. The vessels of cach nation are allowed to import into the other the productions of their own or of any other country. The direct trade hetwcen the United States and Prussia is, however, very incousiderable. There is acarcely any articlo of American production demanded in Prussia, except tobaceo, rice, and raw cotton; nor is there any bulky article of Prussian preduce wanted in the American marketa.

Vegsels entered and cleqaren.

|  | 1854. |  | 1855, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number. | Tonnage. | Number. | Toons |
| inintered | 474 | 414,803 | 6134 | 611,661 |
| Of whleh were fnution | 2189 | 2:1.048 | 2310 | 24.169 |
| Of whleh were fforelgn. | ${ }^{2} 812$ | 903.165 | 81 | 267, |
| Entered In ballaut...... | 2980 | 274.750 |  |  |
| Cleared loaded | 6976 | 5356 | 6193 |  |
| Of whith were $\begin{aligned} & \text { national } \\ & \text { forelgn. }\end{aligned}$ | 2818 8788 | 2767,740 | 2597 3526 | 272,285 327,965 |
| Cleared in ballast | 98i | 88,443 |  |  |

laports and Exports to ann from tur Inited Statys AND J'ROBE1A, YROM 1850 TO $185^{\circ} 5$, HOTII INCLEESYE.

|  | Years. | Valun of Iniports inla United Siates. | Value of Exporta from Uniled States. |
| :---: | :---: | :---: | :---: |
| 185 |  | \$27.469 | \$98,636 |
| 1851 | . $\cdot$ | 20.548 | 85.913 |
| 185 |  | 21,263 | 98.886 |
| 185: | . . . . | 47.875 | 28,717 |
| 185- | ...... | $47,773$ |  |
| 1856 | . . . . . . . . | 297,814 | 31,263 |

The following statement exhibits the value of ox
ports, the protuce and manufacture of Irussia, to the $\mid$ to 1858 , both inclusive, speclfying the places at which United Stutes during a period of five years, from 1851 suid exporta wero shippod for the United Statea:

| Yeara, | V14- |  |  |  |  |  | Totul. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ilamburs. | 日rumen. | Halland. | Frabce. | Belglam, | Rnglard. |  |
| 136* | \$47.069 | \$474741 | * 16388 | \$088.234 | 事107746 | \$986,008 | \$1, 466,85 |
| 1882........................... | 480848 | 1,410.70s | 47, 346 | 1.043,974 | 449,620 | 1,616,848 | 6.416734 |
| 1853. . . . . . . . . . . . . . . . . . . | 578,900 | 1,040, 1,78 | 81,470 | 1,801,435 | 440,100 | 1.014,485 | 6,7 7,4:1 |
| 1804* . . . . . . . . . . . . . . . . . . . . | 175.021 | t,07 t, 683 | 14.614 | 1,009,116 | 898,717 840.6 .4 | $1,61,184$ $1,942,433$ | 2, 175.20 |
| 1855........................... | 204.714 | 1.082.813 | 67,814 | 1,926,249 | 840,6'4 | 1,942,433 | 7,024, $062 \dagger$ |

- Theso returna aro for the port of New lork only, and for six monthy. The icepartment is not fo possenden of tho reyulaite data to extilite the general trade for these years. The other years, hewever, phwe the gener, in punal vatuo of the utsite data to
indirect trade.

With Great Britain and France, Prussia maintains an active and annually increasing commercial intercourse. This trade ia chiefly conductel through the port of Stettin. In 1852 the general navigation of this port was as follows:
Vearela enteand tin Pont of Stettin in tSEs. Frobs Singladd . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 280 ..... 

- Cnited Statem
- Hussia... ..... 15
- Denmark Totat number of veamets entered ..... 470
Vessels chikaren faum the Poat of stettin in $185 \%$. For Fightand ..... 130
$\because$ France. . ..... 50
30
85
" tuasta. ..... 25
- Itughium ..... 10
$\because$ Sweden.
- Itotisnd ..... $\stackrel{\rightharpoonup}{30}$

From the Vnited States the imports into this port are : rice, ashes, rosin and turpentine, and whate-oil; though, owing to its high price within the past few Years, the article last named has almost ceased to be Imported from the United States. Sugar has alme disappeared from the list of Importa, for the reason that the relineries in the Baltic ports chielly use reet-root sugar.

The value of Imposta from the Unlted States Into this port for the years 1851,1852 , and 1853 , and the duties levied thereon, are thas given In l'rusaian oflicial reports :

| 1851. | \$320.8i0 |  | \$26,100 |
| :---: | :---: | :---: | :---: |
| 1854. | t:4,310 | * | 13.27 |
| 1843. | 79,893 | 4 | 5,920 |

The port of Memel is also the eentre of no inconsiderabla share of the direet trade between the United States and Prussia. From 1st July to 31at December, 180., thero entured this port from the United States, in the Hirect troile, five reasels, measuring an aggresate tonnage of $2: 00^{\circ}$ tons, and floating 8171 bales of cetton, valund at $\$ 411,500$. Outward cargoes consisted of hemp, rope, canvar yarn, mate, bags, and leather.

At tho port $\mathrm{c}^{\circ}$.onigsierg thero arrived from the I'nited Stat. urom 1st July, 1854, to 1at January, 1835, sevell American vessels, flonting zargoes in value 4 898,000 -namely, 9680 bales of cotton, 1700 galions of oil, and 3600 boxen of augar. Outward cargoes consisted of hemp, yarn, bristlea, fenthers, raven's-duck, cordage, horve-hair, sonp, and tallow, to the aggregate


The general forelgn trade of this port is consideraHe. Its exprorts consist of grain, wooleus, silkn, soap, atarch, realing-wax, and refined sugar, its imports, however, largely oxeced in value fits exports. The former in 1061 amounted to ahont $6,000,000$ thalers, while the latter only reached a littic over $4,004,000$.

The harbor of K"onigaherg almites amall vessels oniy; large ships lanil at I'llia, which is also the port of Eibling and liraunsherg:
liantzic is the only romaining port of Prussia in which forign trade is condinted. It la situated on the left bank of the Vistula, thrse and a half milea
from its outlet at Weichsolmunde, and is accessible to vessels drawing from ejght to nine feet water. larger vessols lie in the Neufahrwasser, at the mouth of the river, or In the roada, which afford good anchornge for vessels of any burden. Its exports consist of whrut, ryc, barley, oats, peas, flour, linsecd, rape-seed, hiscuit, provisions, ashes, zinc, bones, timber ${ }_{1}$ staves, hemp, tlax, linens, wool, etc. The importa comprise woolen and silken atuffis, and other manufactured goods; coloulal products, dyes, wiuc, oil, spice, frult, salt, and furs.

At Stettin, port dues aro: Tonnage duty, 14 silver groschon per last, laden, and one half only if in billast. Thia would bo about $\mathbf{1 6} \cdot 1$ centa per ton if inden, and 8.05 cents per ton if in ballast. Pilotage dues, 2 , thalers per 25 lasts, and 15 sllver groschen for every 10 lasts upward. This equals $\$ 1721$ per 60 tons, and $34 \frac{1}{2}$ cents per every 20 tuns upward.

Fort Regulations.-The following regulations apply to all the I'ruscian ports: On a ship arriving in the road or port, the nuater must anbmit to the police regulations of the port, which are made known to him or the officer in command; the master is then required to proceed to the custom-house and deliver a complite manifest of the cargo. This manifest or genernideclaration is required to state clearly if the whole carge is to be entered at the port, nul the part, if any, which is to be carried fartherin the ship; that part to te stated under a special head. Tho merchandise, as per liils of lading, is then entered regularly. The slatements for entry are to be drawn up, specifying the description, welght, measure, or quantity, agreenbly to a zell. tariff for the paynient of duties. Excepting variuus artleles imported in an mpacked state, the follewing measures nre to the adopited: For beer in casks, tuns of 100 l'russian quarts; for wines, brandy, and vinegar, in caska (eimers) of 60 l'russian quarts ; for herrings, harrels; for burned chalk, tuns of 4 I'russian hushels; for all other packed articles, centners of 110 peunds gross welght. If there le several packagen of aimitar articlea, and cach package contalns an equal quantiav, they may be entered together, according to their unmber and slzo, and with a general statement of the contents. If the contenth of the packages vary, it will he necessary to specify the contents of each. The lugiage of passengers must be noted as such in the manifest. If it consist of usual traveling luggage, it will be sufficient to state the several boxes or parceis; lut if it incinde goods, these must be stated according to number and description. The jersonal property of the unster, with the exception of provisions, miust the stated like other goods, but omitting the declaration to a conaignee; aul it mast also be stated In the decharation what are the articien which aro not in the ship's hoha. A form is preaentel to tho mester to fill up as his report. It utuat the liljed up exactly according to this form, and written charly In the Girman language. This deciaration is limiling on the master, anil chils error that may be discovered on tho unlading, or on examination, subjects him to a penalty statei in the customs lawa. If the master has not a report with him, ho may have one propared in the port ly a customs officer; In which case he delivers all his papers to the oflicer, who stamps and numbers then, the lust number being marked as such. The naster, at the same time, infirma tho officer of the goods or loggage
belonging to himself or to passengers, if there be no account of the same; the officer makes out a list thereof, which is signud by the master, and returned, In order to be juserted la the report. If the roport has to be prepared on shore, it must be delivered to the customs ollicers within 24 houre after the arrival of the ship in the road; If not, possession will be taken of the ship at the master's expense. Customs officers may take possession of the ship at once, free of expense. It is required of the master to procure the necesaary information for the report, in the arranged manner, on receipt of the cargo. If he does not so prepare himself, the customs ollicers assume the whole direction of landing the cargo, according to the regular instructions in euch cases. Respecting the ship's provisions, If they consist of articles which pay a consumption daty, a separate report is required In duplicate: one is returned to the mestor after revision, in order that ho may tuke on board an equal quantity of similar provisions when he sails. If he falls in this, or if the sailing is delayed boyond a twelvemonti, the consumption duty must be paid on tha provisions renaining on hand. The master is, however, at liberty to doposit the provisions at tha custom-houss until he sails, suljoct to the consumption duty if uot taken away. Articles not properly forming a part of the cargo are so considered if thoy undoubterliy appertain to the ship's lisventory, and are articles for the use of tho voyoge. Articles which are not considered as such, aro to pay duty if they be sulyect to a consumption tax; or thoy may ba landed, ilt order to be deposited in tho customhouse. If a vessel remains in the road, ant cloes not enter the port, anis only diseharges the cargo into lighters, the consumption of provisions in the rosd is duty free. A report of the provisions is sufficient, and no further control ovar the samo is observed, oxerpt is
particular cates when considered necessary. If the master is bound for anothor ilcatination, and only enters the harbor through distress, then a general inspectlon la only made, in order that no part of the cargo may be disposed of. A report, however, is to he made of the cargo. In cases of shipwreek, on the salvagu of the cargo, the kind and quantity is ascertuined, with the assistance of the regular officers, a:d the cargo shall be placed in aceurlty until furihes cirections are issuod. The cargo of vessels which winter in Prussian ports must be declared without unnecessary delay, In as fur as the chip's papers and the knowledge of the master afford information. An inspection of the outer parts and decks of the vessol, and the stores or articles thereon, takes place at once, and the ports or hatchways of the ship's hold are then locked. Untll the declaration, inspection, and locking up of tho veasel take place, it is watehed at the expenso of tho captain; which guarding, in particular cases, may continuo ns long as the eustoms officers may consiter necessary. Shipe which only anchor la tho roada, and do not enter the port, aro not considered within the control of the custorns officers; they must not, however, hold intercourse with the shoro or the port, without delivering a report and their pnpers. If tho ship remain in tho roads longer than $2 t$ hours after the declaration is made, without ontoring or proceediug to unloud, miless tho one or the other be prevented by stress of weather, then an oflleer repairs to tho ship, cxamines the decks, etc., and locks up tho hatches, etc., of tho hold. To the officers who are on service on board tho vessel, proper malutenance ls to be allowed, the samo as is afforded to travelers of the trading elass. The following table exhibits the forcign commerco of the United States with l'russia for 37 yeors, giving tho domestic and foreign exports, tho imports, and tonnago.


| Yuare endiag | Exports. |  |  | Importa. | Whereof there wan in tuallion and Hpmese. |  | Tonnago eleared |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatic. | Foreignt. | Total | Tothl. | Expport. | Impori. | Anerican. | Yureiga |
| Sept. 30, 1821...... | .... | .... | .... | \$1,890 | .... | .... | $\ldots$ |  |
| 1822....... |  | - | $\cdots$ | .... | .... | ...* | -190 | .... |
| 1823....... | \$7,2488 | * | \$7,836 |  | .... | ... | 120 | ... |
| 1825........ | 4.918 | 12,030 | 17.668 | 21,2\%0 | .... | .... | $\ldots$ | 217 |
| 18:6....... | 18.129 | 3,421 | 18.560 | 107,615 | .... |  | 313 | .... |
| 18:7....... | 8,615 | .... | 8,515 | 30,768 | .... | ... | 166 | . |
| IN24........ | 15,430 | .... | 15,430 | 136, 1014 | .... | .... | 117 | .... |
| 1829....... | 14.411 | .... | 14,41t | 22.935 | . |  | 188 |  |
| 1830....... | 16.611 | .... | 16,5014 | 16,605 | .... | .... | 232 | .... |
| Total... | 447.035 | \$10,639 | \$103,074 | \$3,45,026 | . $\cdot$. | ...' | 1126 | 217 |
| Sept. 30, 1831....... | \$27,043 | .... | \$ 27.043 | \$50,070 | $\ldots$ | $\ldots$ | 387 |  |
| 1812....... | 11.110 |  | 11,116 | 27,927 | .... | .... | 179 | .... |
| 18:13, ...... | 19.812 |  | 12,812 | 124,570 | .... | .... | .... |  |
| 1834. . . . . . | 15,304 | \$3,510 | 18810 | 14,045 | ... | . |  | 200 |
| 1835. | 53.0031 | 2,0*2 | 85, 7.45 | 88,643 | .... | .... | 239 |  |
| 1830....... | 66416 |  | 63.411 | 81,301 | .... | .... | .... | 1,177 |
| 1437........ | 106558 | 33,4:7 | 139,085 | 447,829 | .... | .... |  | 4,025 |
| t834....... | 65, 60 0 | 1,1,8*3 | 81,044 | 0,620 | .... | . | 2411 | 1,433 |
| 1839....... | 2,1,318 | 43,510 | 72,813 | 70,412 |  | $\ldots$ | 810 | 1,194 |
| 1810. | 41,353 | 43,115 | 86,403 | 60, 1104 | $\ldots$ | $\therefore$. | 50 ki | 1,677 |
| Total... | \$430,020 | \$145,017 | \$ 876,146 | \$971,530 | $\ldots$ | . $\cdot \cdot$ | 9307 | 11, 345 |
| Sepl. 30, 1841 ...... . | \$149.211 | \$26.765 | \$175.074 | \$30,119 |  | ... | 517 | 3,348 |
| 1832...... | $149.14 t$ | 7,647 | 156,088 | 18,1192 | .... | .... |  | 4.083 |
| 9 mos., $1543^{\circ} \cdot \ldots .$. | 29., 038 | 18,830 | 241, 8169 |  | .... | .... | 2173 | 1,005 |
| June 30, 1844....... | 104,400 | 23,068 | 218.574 | 12.609 | .... | ...' | 104 | 5.009 |
| 1815...... | 502, 1007 | 63, 114 | 6it. 121 | 31,0s: | .... | .... | 047 | 9,521 |
| 1840....... | 3:3,2010 | 30,0445 | 435.855 | 31.684 | .... | .... | 1170 | 7,275 |
| 1847....... | 182,200 | 19,017 | 202, 100 | 7.1018 | .... | .... | .... | 6.127 |
| 184....... | 145,074 | 15.355 | 160.489 | 98.817 | .... | .... |  | 8,750 |
| 1847....... | 34,703 70.045 | 9,516 | 44,910 | 17.1157 | .... | .... | 240 | 608 |
| 1580, ...... | 70,045 | 27,911 | 08,036 | 27,409 | .... | .... | .... | 4,885 |
| Tutai. . . | \$2,045,8.5 | \$254,164 | \$2,300,063 | \$206, 107 | .... | .... | 5847 | 4 4,436 |
| June 30, 1851....... | \$86,409 | \$5,44 |  | \$0.0,648 |  |  | 184 | 1,6\% 5 |
| 1852....... | 13, 2838 | 153 | 103,380 | 21,203 | .... | .... | 8.5 | 1,8M8 |
| 1823....... | 26,01t | 1,806 | 28,717 | 47,875 | .... | ... | .... | 298 |
| 1854....... |  |  |  | 47,773 | .... | .... | ... | 206 |
| 1858....... | 90,408 | 11.8119 | 31,2ea | 337.814 | .... | .... |  | 1,174 |
| 1896....... | 70,347 30,788 | 9,305 14,311 | 79,762 45,090 | 161.100 80.147 | ..... |  | 908 94 | 1,827 1,884 |

[^36]- Nive montin to June 80 , and the fiecal year from thla time begina July 1.

Prumaian Blue, or Prusalate of.Iron (Ger. Berlinerblau; Fr. Bleu de Pruase, It. A eurro Prustiano, Sp. Azul de Prussia; Russ. Lasor Bexlinekaja), a beautiful deep blue powder, accidentally discovered at Berlin in 1710. It is of considerable importance in the arts, being extenslvely used by painters; it ls mannfactured in this country. Many attempts have been made to render Prussian blue avallabie for the dyeing of broad-cloths, but without much success. The difficulty is to diffuse the color equally over the surface; for, from lis extraordinary vivacity and lastre, the slightest Inequalities atrike and offend the eye. Prussian blue resista the sir and sun extremely well; but It can not be uned in the dyeing of cottons, or any nort of stuff that is to be washed with sonp, as the slkali contained in the soap readily desolven and separates the coloring matter.--Baxoboft on Colors. Blue is a favorite color with the Chinese, and in 1810-11 the imports of Prussian bluo into Canton from England amounted to 1899 piculs, or $253,200 \mathrm{lbs}$. But for some yenra past the Chineso have not imported a single pound welght. The cause of the cessation of the trade deserves to be mentioned. A common Chlnese tailor, who came to England in an East Indiaman, having frequented a manufactory where the drug was prepared, learnel the art of making it; andon his return to China he estublished a similar work there, with such auccesa that tho whole empire is now amply supplied with native Prussian blue! The West has derived many important arts from the East ; but we incline to think that this is the first well-authenticated instance of any art having ever been carried from the Weat to the East by a native of the latter. But $\ln$ all that respecta industry, ingenuity, and fuvention, the Chinese are incomparably superior to every other people to the east of the Indus.
Prussian or German Commercial Union. Next to the efferts of the Irusslan gorernment to diffuse tho blessings of education, their efforts to introduce a free conmercial system Into Germany constltute their best claim to the gratitude and esteem of their own aubjerts, and of the world. Germany, as every one knows, is divided into a vast number of independent, and mostly petty states. Until a very recent period, every one of these states had ita own cus-tom-looses, and its own tariff and revenue laws ; which frequently differed very widely indeed from those of its neightrors. The internal trade of the country was, in consequence, subjected to all those vexstious end muinous restrictions that are usually laid on the intercourse between distant and indepentent states. Each betty state endeavored either to procure a revenne for itself, or to advance its own industry, hy taxing or prohibiting the productions of those by which it was sarrounded; and custons officers and 'ines of customhouses were spread all over the country! Instend of beiag reciprocal and dependent, every thing was separate, independent, and hostile : the conmodites admitted lito Hesse were prohibited in Baden, and these prohilited in Wirtemiterg were almilted into Bavaria. It is admitted that nothing contributes so much to the grow th of induatry and wealth in modern thmes as the perfect freedom of internal industry, and that intimate correspondence among the various parts of the country which reulerg each the best market for the produce of the other. How different would have been our present condition had each county been an Independont state, jealous of those around it, and anxious to exalt itself at their expense! Int, until within these frw years, this was the exact condition of Germany; and, considering the extruordinary ohalacles such a *ate of things opposes to the progress of manufnctures, commeree, and civilizaton, the wouder is, not that they are comparstively back ward in that country, hut that they should be so far advanced as they really are.
lint, thanks to the intelligence sud pemeverance of I'russia, this ami-social systen bas tion 11 well-nigh sup.
pressed; nad the most perfect freedorn of commerce establighed among the great bulk of the Germanle natlons. The disadvantages of tho old system had long been seen and deplored by well-informed men; but so many interests had grown up under Itn protection, and so many deep-rooted prejudices were enlisted in its favor, that its overthrow seemed to be hopeless, or, at all events, exceedingly distant. The address and resolution of the Prussian government, howover, triumphed over every obstacle. Being fully impressed with a strong senae of the many advantages that would result to Pruesia and Germany from the introduction of a free system of internal interconrse, they pursued the measures necessary to bring it about with an earnestness that produced convictlon, and with a determination, coute qui coute, to carry their point.
The first treaties $\ln$ furtherance of thls objeet were negotiated by Prussia with the princlpalitics of Schwarz-burg-Sondershansen and Schwarzhurg-Rudolstadt, in 1818 and 1819, on the principle that there should lie a perfect freedom of commerce between these countries and Prussia; that the dnties on importation, exportation, and transit, in Prassia and the principalities, should be identical; that these should be chargel along the frontler of the dominions of the contracting parties; and that each should particlpate in the produce of such dutios, in proportion to its population. All the treaties subsequently entered Into have been founded on this falr and equitable prineiple: the only exceptions to the perfect freedom of trade in ail the conntries comprlsed within the league or tariff alliance being confined, first, to articles constltuting state incnopoties, as salt and cards, In Prussia; 2d, to articles of native produce, lurdened with a different rate of duty on consampition In one atate from what they pay in another; and, 3d, to articles produced under petents conferring on the patentees certain privileges in the dominions of the states grantling the patents. With theso exceptions, which are not very important, the most perfect frecdom of commerce exists among tho allied states. Since 1818, when the foundationa of the alliance were laid, it lans progressively extended, till it now comprises more than three-fourths of the Germanic states, exclusive of Austria. Ducsi Hesse joined the allianco in 1828, and Electoral Hesse In I831; the kingdomas of Lavaria, Saxony, and Whrtenberg joined it afterwarl, as have Baden, Nassau, and almost all the smaller states thy which it had not been previously joined, with tho exception of Meeklenburg-Schwerin and Meckleularg-Strelitz. But these, with llanover, will he very shortly lucluded in the league. In 1852 tho tarlit alliance comprised-

|  | German Byuare Milos. | $\begin{aligned} & \text { Population } \\ & m \text { i } 1+49 \end{aligned}$ |
| :---: | :---: | :---: |
| Prusala | b189 | 10,660,103 |
| Luxemburg | 47 | 189, in . 1 |
| Bavaria and her detached territories | 131 L | 4 dedem |
| Saxony (Kloglom of ) . . . . . . . . . . . . | 272 | 1,594,431 |
| Wirtemberg and the two Hohenzollerns | 184 | 1.46) |
| Hesse (Biectoral). | 203 | 7.731,544 |
| llesee (Dtehy) and Jlomburg | 124 | b0'2,917 |
| The Tharlugian states. | $2 \cdot 17$ | 1,014,054 |
| Raden (tuchy of) | 276 | 1,364, 599 |
| Bruuswick (luachy of) | 63 | 247.170 |
| Namatu. | 85 | $4 \pm 6881$ |
| Frankfort | 2 | 71.678 |
| Totala. | 8347 | 29,400, 633 |

Throughnut the whole extent of this Immense cometry, from Aix-la-Chapelle, on the confines of the Nitherlands, enstward to Tilsit, on the contines of Russia, and from Stettin and Dantzic, sonthward to Switzarland anil Dlotemia, there is nothing to interrupt the freedom of commerce. A commodity, whether for cunsumption or transit, that has once passed the frontier of tho league, may be subsequently conseyed, withunt let or hiluderance, throughout its whele extent. Insteall of belug confined within the narrow precincty ot their own t"rritories, the products of each separate country of the allance may be sent to every ene else;
so that cach may apply Itself, in preference, to those departments in which it has some natural or acquired advantage; and cach has to depend for its success, not on the miserable resource of customa regulations, but on its sklll and industry. The competition thence arising is most aslutary; and, should the peace of Europe be proserved, we run little risk in saylng that ail sorts of Industry will make more progress among the states comprised within the tariff alliance, during the next ten years, than they dld during the half century prevlous to Its belng organized. An assembly of representstives from tho allied states meets annually, to hear complaints, adjust difficultles, and make such new enactments as may seem to be required. The Prussian tariff has been adopted, with certain moditieations. The duties are received into a common treasury, and are apportioned according to the population of cach of the allied states. In addition to its other advantages, the new system has reduced the cost of cellecting the dutiea to a mero trifle, comparod with its former amount ; and has enabled hundreds of customhouses, and thousands of customs officers, to bs em ployed in the different departments of industry. The existing discrepancy In the weights and measures used in different parts of Germany occasions consilierable inconvenlence; and we are glad to observe that the equalization of weights and measures, and their reluctien to a common standard in all the allied states, is declared to be one of the objects of the league. It is also expressly provided that the tolls, or other charges in licu thereof, shall in all cases, whether they belong to the public or to private individuals, be limited to the sums required to keep the roads in a proper state of repair; and that the tolls existing in Prussia shall be considered as the lighest that are to be levied, and shall not in any case be exceeded.

We are abie to lay before the reader the following extract from a werk printed by order of the House of Representatives, giving an account of the objects to be attained by tho Prussian Commerelal Leugne: "Prussia," it is thero said, "has evidently takon the lead in this wise and important measure, to which the smaller states have gradually acceded. The whole commercial policy of this enilightened power has been distinguished for its Ilberality, being founded on the destre of placing her Intercourse with all nations on the basis of reciprocity. The commoreial league of Germany is intended to carry out this principle, and not to be clirected, as has been sopposed, against any particular nation; as it is well known that I'russia, In her treaties with maritime powers, has invariably adopted tho system of reelprocity, to whatever extent those with whom ahe negotintes are willing to carry it. The estabishment of this community of commercial interests forms n part of the fundamental compact by which the new Germanic Confecieration was created, after the dissolution of the Confederation of the Bhine; to bo subsequently adopted, however, at the option of such of the co-states as should choose to accede to it. Its effects can not fail to promote commorco, and every other branch of industry, as it removes all those vexathous ond endless difliculties which previously obstructed the freedom of intercourse, Navigablo rivers und highways are now opened to tho unfettered use of the German peeple; tho custom and toll houses, with thelr oflicers and barriers, have been withdrawn from the interior, nad the whole intercomunnicntion resembles that of the subjects of any one of the states whthin its own territorles. To these benetits may be adiled the assured prospect of improvement in the thances of the great and smaller sovorehgnties composing the league. This aulvantage will grow out of tho slmpllelty or unlty of the new system, a saving in the cuat of coilection, and from the lncreased consumptlon which renovatel industry and progressivo prosperity so invariably cause."-Ihigest of C'ustoms Laws, vol. III. 1. $\mathbf{2} 27$.

Prussian Duty on C'otons.-T'The duty on cotton goods
being that in which we are most interested, we have taken some pains to ascertain its real influence. This duty amounts to 50 rlx dollars per Prussian quintal on all cotton geods, without respect to quality or price; and, taking the quintal at 118 lbs. avoirdupols, and the rix dollar at 8e., it is equal to $£ 7$ 10s. per 113 lba. Now we have learned from statementa obilgingly furnished to us by a large wholesale house in the city, 1st. That a quintal ( 113 lbs.) of coarse shirting, worth 4d. per yard, contains 497 yards; it consequently costa $\boldsymbol{\Sigma 8}$ 6s., and the Prusaian or tariff alliance duty of $\mathbf{\Sigma 7}$ 10s. on it is, therefore, equivalent to an ad caloram duty of 90 per cent. 2d. That a quintal of superior shirting, worth 1s. a yard, contains $457 \cdot 65$ yards; it consequently costs £22 17s. $\overline{\text { od }}$., making the Prussian duty on such goods 32 h per cent. 8d. That a quintal of printed cottons, worth 1s. 6d. a yard, contains 633 yards; it consequently costs $\mathbf{£ 4 7} \mathbf{0 s}$., making the Prussian dnty on such gooda 153 per cent. 4th. That a quintal of fine printed cottons, worth $2 s .6 d$. a yard, contains 678 yarda; lt consequently costs $\mathcal{1 8 4} \mathbf{1 5 s .}$, making tho Prussign duty on such goosls 83 per cent. It is plain, therefore, that, except on the coarsest and cheapest specles of goods, the Prussian or tariti alliance duty is very far from being oppressive; and, as the value of cosrse goods la principally dependent on the cost of the raw cotton and the wages of labor, being but little influeneed by superiority of machinety, it is not very probable that we should export them largely to Prussia, even wero the duty materially reduced. No doubt, however, it would conduce greatly to the interests of the people comprised within the league, though we do not know that it would sensibly affect ns, wore the dnty assessed on an ad valorem principle, and made 20 or 30 per cent. on all goods; and we should think that this might be done without any material difficulty. The subjoined transiation of the more important clauses of the customs treaty of the $22 d$ of March, 1883, aets the principles on which the alliance is founcled in a clear point of view.

Customs Treaty, concluded the 22d March, 1838, between tha Kings of Bavuria nud Wirtemberg, on the one part ; and the King of Prussla, the l'rince Electoral Co-regent of Ilesse, and the Grand Duke of Hesse on the other part.

1. 'The exlating customs unions between the states above named shall henceforth constitute $n$ general Unlon, unlted by a common system of customs and commeree, embracing all tho countries which are comprised therein.
2. In this general remnion are also comprised the states which have already adhered, either for the whole of their territory, or for a part, to the system of customs and commerce of one or other of the contracting stutes, having regard to their special relations, founded upon the conventions of adhesion concluded with the atatea which have litervened.
III. But there will remain excluded from the general reunion the parts separated from the cuuntries of the contracting states which, becnuse of their sltuation, are not yet inciuded either in the reunion of the Bavarian or Wirtemberg customs, nor in those of Prnssia and IIesse. Nevertheiess, the regulations now in force to facilitate tho commerce of theso territories with the principal country will bo maintained. Other favors of this kind can not he accorded without the unanimous consent of tho contracting stutes.
IV. In the contracting stutes there shali be established unlform laws for the duties of import, of exjurt, and of transit, except sueh modifications as, without hinury to the common ohject, result necessarily from the particular leglslatlon of each contracting state, or from local interests. Thus, exceptions and modidications to the common tariff may take place, as to rates of duties of entry, of export, and of transit (according as the direction of the routes of commorce may require), established upon articles recognized as of minor conse-
quance in extenaive commerce ; provided alwaye, that theso modifications be preferred by separate states, and that they shail not be disadvantageous to tha general interents of the Association. The administration of the duties of import, export, and transit, as well as the organization of the authorities which: are engaged therein, in all the avates of the Ascoclation, ahall be eatablished upon a uniform footing, having regard, bowever, to the particnlar relations existing in those countries. The laws and ordinances which, according to those principles, ought to be uniform in the contract. ing states, and. which are to conatitute tha law of tho tariff and the regulationa of the customs, ahall be consilered as an Integral part of tha present treaty, and shull be publiahed at the same time.
V. There can neither be alterationa, nor additions, nor exceptions, to the acts abova mentioned (Article IV.), but by the unanimons consent of all the contracting parties, and in the form required for the making (confection) of the laws. The preceding appiles equally to all the ordinances which would estalifish, for the adimlnistration of the customs, diapositions entirely different.

V1. Libarty of commerce, and commanity of the receipta of castoms, as regulated by the following articie, will conmence aimultaueously with the operation of the present treaty.
VII. Dating from this apoch, all dutica of import, of export, and of transit ahall cease on tho common fronticr of the Bavaro-Wirteinberg and Prusso-Ilessian customs reunions. All articles of free commerce in one of those territories may be imported freely and withuut duty into all the others, except only as follows:
A. Artleles monopolized by the states (playing-cards anit salt) conformable to Articies IX. and X.
B. Indigenoua articies, now aulject In tive interior of tho contracting states to different dutiea, or excepted from ali duty in one state, and imported into another, and which according to articie II. ought consequentiy to be solject to a duty of compenation.

Finaliy, C. Articles which, without prejudico to patent rithte or conceded privileges in one of the contracting statea, can not be imitated or imported, and ought consequently to be exciuded during the existence of the patents and privileges frum inportation into the atate which has granted thetn.
VIII. Notwithatanding the freedom of commerce, and the exemption from duties, eatablished by Articlo Vil., the transport of articlea of commerce, aubject by the common tariff to dutiea of import or export on the frontiers of tha Association, can not take place between the states of Bavaris and Wirtemberg, and the atates of Prussia, of Electoral Ilesso, or of Grand Ducal Hesse, and reciprocally, except by the public roads, military routes, and navigable rivers. For this purpose there shall be establiahed on the interior fronticrs common bureaus of verification, to which the conductors of merchandiae must, on exhiltiting their licenses, declare what are the articles which they are employed to transport from one territory to another. This disposition will not bo applicalile to retail commerce in raw materials, nor to the petty commerce of tho frontiers or the fairs, nor to the effecte of travelers. I'rocess for the verification of merchandiae will go no fartior than is required for security of the dutiea of compensation,-See Article VII.

XIIf. The contracting parties reclprocally renow their adbesion to the principle that the toils, or other cliarges in licu thereof, shail oniy be sufficient to tiefray the expease of maintenance and rupaira of the ruals, whether the tax be for the state or for private rights. It was thus that has been approved the supplement to the duty of cuatoms, created in Bavaria and Wirtemberg, to replace the sluty of tolla, paving, causeways, bridgea, and generaliy of all unalogous texes. The tolis, etc., now existing in Prussia, accurding to the general tariff of 1828 , shall be consider-
ed as the highest rates, shd ahall not be exceeded in any of the contracting atates.- In accordance with the principle thus announced, the individual'daty for closing the gates of citles shall be abollahed; ss also the duty of paving of causeways, where it still exists; and alt paved roads will be considered as causeways of a deceription liable only to the inty on causeways established ly the general tariff.
XIV. The contractlng governmenta agree to unite their efforts lo introduce into the states a uniform sys. tem of coins, weights, and measures; to commethee immediately the requisite negotiations for this purpose; and, nubsequently, to direct their efforts toward the adoption of uniform custom-house weights. The contracting atates, in the impossibility of establishing this unlformity lefore this treaty goes into operation, agree, for faclitating the forwarding of merchendiae where it had not already been dons, to revise their tariff as to weights and measurea, assuming for a basia the tariffs of the other contracting statea. They will cause such modifications to be published, for the governnent of the public and of their cusiom-houae bureaus. The common tariff (Article IV.) shall be divided into two principal diviaions, according to the system of weights, measures, and moneys of Bavaria, and that of Prussia. The declaration of the weights and measures of articles auliject to duty shall, in Prussia, be according to Prus. aian weights and measures; in Bavaria and Wirtenberg, according to those of Bavaria; and in the two Heases, according to the wefghta and measures there legally eatablished. In expediting cuatom-house acts, tho quantity of merchandise must be expressed acconiing to the two principal divisions of the conmon tari. Until the contracting states agree upon a system of common money, the payment of duties in cach state shall be made in tho asine curreney as in use for pay. ment of its other taxes. But from the present Ilme, the gold and silver coins of all tho contracting states, with the exception of amall money (sheidemunze), shall be received into all the bureaus of receipt of the Association; and for this purpose tables of valuo shail be published.
XV. Tho duties of navigation npon the rivers, comprising therein those which apply to vessels, shall always be mutually acqulted according to the acts of the Congress of Vienna, or of specisi conventions, upon all the rivers to which these regulations apply, unless other determinations be adopted in this resprect. The contracting states agree to enter without delay intonegotiationa for that which particularly regardis the navigation upon the Rhine and the noighboriog stresms, in orier to effect an arrengenent by which the import, export, and transit of the productions of all the states of the Union upon said streams siall be, if not alsolutely free, at least relleved as far as possilite from dutiea of navigation, under the reacrve of charges of r connoisalice. All the advantares granted by one state of the Union to its subjecta, in the exerclse of the mavIgation upon said streama, shall extend equally to the navigation of the other associated atates. Upon the other streams to which neither the acts of the Congress of Vienna, nor any other treaties apply, the duties of navigation shali lie according to the sfeciai regulations of the governmenta interested. Nevertheless, tha subjects of the centracting atatea, their merchandise and vessels, shall throughout be trated on those streans with perfect equailty.
XVI. Dating from the day on which the general eustom-thonse regulations of the Union shall cone into operation, the duties of public stores (fitupes), aud of transiipments (umschlagnechte), which atili exist in the teriftorica heloaging to the Association, shall crase, and no one shall lie liable to forced delay, nor to the dlacharging and storage of his neerchandise, except In cases authurized by the commonn reguiations of the cuatoms or navigation.
XVII. No duties shall be clatued for canala, jocks,
catis
he general
bridgea, ferrlea, cranes, walghlog, and storage; and the establishments destlned to facilitate commerce shall not le allowed rent, except when wotually used. Chargea can not be lucreased; and the subjects of the other contractlig atates ahall be on a perfect equality with the subjects of the countries having those establishments. If the esteblishments for welghing and craues are only used by the custom-houses, no charge shall be made, If the articles have bean previonely welghed at a cus-tom-honse.
XVIII. The contracting atates engage to contlaue their common efforts for the encouragemont cf industry by the adoptlon of uniform rogulations, so the se subjects of esch state may enjoy, as extensively as posslble, the privllege of seeking work and occupation in every other state. From the coming into operatlon of the present treaty, the subjects of any one of the contracting states, trading or seeking employ in the territory of any othar of those states, ahali not bo aubject to any limpost whiol does not oqually affect the nativo similarly employed. Manufacturrera and merehants who are only making purchasea for their trade, or travelers who have no goods with them, but slmply pattorna for the purpose of sollciting commissions, shall not, when thus employed, have any duty to pay in another atate, if autherized to carry on such commores in the state where they have their domilele; or if employed la the sarvice of native manufacturers or merchants. When trading in the merkets and fairs, or when they are selling the produce of the aoil and fabrics, in any one of the states of the Associatlon, tho subjects of the other contracting states shall be treated in all respecta as subjecta of the same states.
XIX. The esa-ports of Prussia shall ho open for commerce to all the subjects of the states of tho Union, on payment of the same dutiea as are pald by Prussian sulijects, and the consuls of the several states in the sea-ports or places of forelga commerce, shall be bound, in cases of need, to assist with their advico and support the subjects of the other contract ${ }^{\text {t.ig }}$ states.
XX. To protect against contrabiand thelr common custom-house system, and to insure the regular payment of the duty of consumption in the luterior, tho contractiog states have coucluded a reciprocal cartel, whicli shall be enforced as soon as possible, but at tho farthest at the same time with the present treaty.
XXI. The community of receipts of the contracting states, stipulated by the present treaty, shall comprehend tho product of duties of entry, of export, and of transit, lo the Prussian states, the kingdoms of Bavaria and Wirtemberg, the Electorate, and tho Grand Duchy of llesse, comprislug thercin thoso countrias which have down to the present time acceded to the custom-houso system of the contracting states. The following are excluded from the community of receipts, and remain reserved for the particular trenetit of the respective governments: 1. The imposts collected in the interior of each state on Indigenous products, comprising therein the compensatory duties reserved in Articie XI. 2. The toll on rivera, to which are appli${ }_{3}$ cable the regulatlons of the acts of the Congress of Vlenna, or spocial conventions.-Article XV. 3. Duties of paving, of causoways, of brldges, of ferrics, of canals, of locks and ports, charges of welghing and atorage, as weli as sinilar receipts, whatover may be their name. 4. 'Ihe fines and contiscations which, bejond the part ullowed to informers, remain the property of each government throughout its territory.
XXII. The prodice of the dutles received into tho common treasury shall be divided anong the states of the Association, in proportion to the population whirh may bo found la the Unlon, suljeet to deduction, 1st. Of the expenses speclfied In Articio XXX.; 2d. Of the restitution of erroneons receipta; 3 d . Of the restoration of dutics and diminutions maile in consequence of apecial common conventions. The pinpulation of overy state which has entered or inay enter Into the

Assoclatlon, by treaty with one or other of the contracting states, under the engagement mada by the latter, to make an aonual contribution for the particlpation of the former to the common revenue of the custema, shall be added to the population of the atatea which nisko thla contributlon. There ahall be made every three yearn, datling from a peribd to be hereafter fixed, an oxact enumeration of the population of the assoclated states: the states shall reciprocally communicate the reaults thereof. ${ }^{\circ}$
XXIII. All restltutions of duties no:, authorized by tho legislation of the customs ahall remain charged to the treasury of tho government which shall have grantod It. Conventlons, hereafter to be concluded, will regulate in what cases almilar restitution may be accorded.
XXIV. In conformity with the object of this associatlon of customs tendlag to facilitate a freer and moro natural commercial Intereourse, the favors accorded for tho payment of custom-houso dutles at ccrtain places in which falrs are held, especially the privileges of nhatement (rabat privilegien), can not be extended to those states of the Association where they do not exlat; on tho contrary, they shall be restricted and abolished as far as possible, regard leing had to tho means of subsistence of tho places heretofore favored, unc to the commercial relation's which they have with foreigners; but others can on no account be granted without the general consent of the contracting parties.
XXXIII. There shall every year, on the 1st day of June, be an assembly of plenipotentiaries of the govermments of tho Union empowered generally to deliberate; and each state may send thither a duly authorized representative. The plenipotentiaries wlll choese from among themselves a president, who, however, shall have no pre-emlnence over tho other members. The first assembly shall bo held at Munich. At the close of each annual assembly, tho place of next meetling will be determined, having reference to the nature of those subjects which will then como under tliscassion.
XXXIV. The assembly of pleripotentiarles will have under its consideration tho following suljects: A. To consider the complaints which may have arisen In any of the states of the Association concerning the execution of the general treaty, of special conventions, of the law, and of custom-house regulations; also of the tariff, when these shail not lave been adjusted during the year hy correspondence between the different ministers. 13. Thic definito reparation among the states of the Union of the total common receipts, hased upon the observations marle by the superior authorities, and verified by the central burcau, as may be rendered necessary by the common interest. ©. To deliberate upon propositions and suggestlons made by the governments for the perfection of the alministration. D. Discusslons upon alterations, demanded by any of the contracting states, in the laws, teriffs, and custom-linuse regulations, as well as in the orgaulzation of the nelministration, and in general upon the development ond perfection of the gencral system of customs and commerce
XXXV. If, $\mathrm{j} \cdot \mathrm{t}$ tho conrse of the Year , when tho plenIpotentiaries aro not in session, extraoriinary incitents shoukl oceur, which require prompt ilecision on the part of the states of the Union, tho contracting parties will consult upon these through their diplomatic agents, or they will order an extra sitting of their plenipotentlarics.

Recent Changes in the German Customs Union.-.Tho discussions in the assomblies of the Leagne have, especlally of late years, heen a good deal Influenced by political considerations. A league, denominated tho Steur-Verein, had been formed in opposition to, or in rivalry with, the Prussian Leagne, by Ilanover, Oldenburg, and Branswick. It was ovident, however, Inasmuch as the interests of these and the other German states were identical, that it would be a great publle ad-

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vantage were these associatlons merged into one., Bnt owing to political, commercial, and financial jealouslet, this desirable object was of very difficult uttalmment. Happily, however, theas difficulties have been surmounted; and a treaty nogotiatod between Hanover and I'russia, on the 7 th of September, 1851, provided for the incorporation, from the 1st of January, 1854, of tho former kingdom, and the other atates facluded in the Steuer-Verein, with the Prussian Union. Some modificatlons have been introducsd by the treaty inte the basis of the League, but they are of littie importance, except the to partlen immediately interested.

Treuty with Austria.-More recertly a great deal of discussion has taken place between $\gamma$ russia and the subordinate German states on the one hand, and Austria on the other, in regard to the formation of a Customs Association which ehould include the lattor; and in order to pave the way for this deairablo consummation, Auatria issued a new tariff on the 25 th of November, 1851, in which she made many important modifications in the prohilitive aystem on which she had previously acted, at the same tline that she established a free commercial Intercourse between Huagary (which had previously a separate customs establishment) and the other states of tho empire. And though this wise and liberal meas-
ure has not yet led to the incorporation of Austria into the Custons Union, it has led to the conclusion of ant extremely important commercial treaty between Aus. tria and Prussia, dated the 10th of February, 1803. The contracting parties engage to suppress, with a few specified exceptions, all prohibitlons against jmporting the products of the one into the territories of the other; they next establiah a completo fruedom of trade between the two countries in all articles of raw produce; and they further atipulate that the duties to be imposed on manufactured products shall be moderate and rpasonablo. It has a variety of other clanses, all of which have a llheral character. The duration of the treaty is limited to 12 yeara; but we have little doubt, shoulid peace be preserved, that the advantages of which it wili be productive will be oo many and 00 great, that long before the expliration of 12 yeara its provisione will be etill further liberalized, and that it will lay the foundationa of a lasting intercourse, of which we can nelther foresee tho extent nor tho beneficial influence.
In consequence of these and other changes the duties in the tariff of the German Cuatoms Union have undergone many modifications. But except on coarse and heavy goods, they continue, speaking generally, to be moderate. We suljoin




| 6 tales. | Impori Duties. |  |  |  | Exporl and Trenall Duties pay. able to earh 8 tute. | Import, Esport, a0. 1 Trunct Thatiea payable to etech state |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Popalation. | Amount $x$ f grose Recelpta. | Anount of nel Korelptr for Distribotiou. | Azooval payable to each Bteto accurdiag to its Population |  |  |
| 1'rusata. . . . . . . . . . . . . . . . . . . . . . . | 10,603,103 | $\begin{aligned} & \text { Thaier: } \\ & \mathbf{1 5 , 0 7 2 , 0 9 9} \end{aligned}$ | $\begin{aligned} & \text { Thalera. } \\ & 14,347,476 \end{aligned}$ | $\begin{aligned} & \text { Thntare } \\ & 11,211,383 \end{aligned}$ | Thalera. 24.208 | Thelera.' $11,455686$ |
| f.uxemburg. . . . . . . . . . . . . . . . . . | 183,793 | 77,114 | $\ddagger 10,4.45$ | 147, 645 | 2,24t | 120, 86 |
| liavaria . . . . . . . . . . . . . . . . . . . . | 4,620,65) | 1,210,5839 | 904,901 | 8,044,540 | 53,463 | 3, 1098,009 |
| Saxony.......................... | 1,894,48t | 2,119.847 | 1,025,287 | $1.274,161$ | 99,730 | 1,813.807 |
| Wirtomberg . . . . . . . . . . . . . . . . . | 1,805,008 | 148,527 | 830, 37 | 1,214.087 | 91,325 | 1,295, 712 |
| Raden............................ | 1,300,530 | C5: 6:5 | 353,482 | 915,115 | 16,010 | 081,455 |
| Tlesme Causel. | 781,081 | 438,046 | 343,256 | 492.051 | 8,041 | 600, 409 |
| flesse IMarmatadt | 802.917 | 412,808 | 492,601 | 580,883 | 10,192 | 500.5 i5 |
| Thuriugian Statea | 1,014,184 | 391,798 | 391.793 | 682,640 | 16.981 | 098,571 |
| trunawlek...... | 247,070 | 390,149 | 229,528 | 116,175 | 8,684 | 16:,70: |
| Nabsall. | 425,636 | 74,8.9 | 71,310 | 286,300 | B,028 | 291,300 |
| Frankfort+ |  | 861,492 | 080,384 | .... | , |  |
| Total. | 20,728,395 | $\begin{array}{r} 22,545,687 \\ \$ \text { Lena } \end{array}$ | $\begin{array}{r} 20,0 \times 3,240 \\ 10,44 b t \end{array}$ | 19,904,796 | 410,344 | $29,405,159$ |
|  |  |  | 19,084.795 |  |  |  |

*The thaler, 69 centa American carrency. 4 Frank fort fa regulated by a specific arrangoment, and not by population. - A apecial payment, by Prusela, on account of the tnton.

Pumice-ston/ (Gor. Binstein; F'r. Pierre pouce; It. Pidina promice; Sp. Piedra pomez; Lat. Pumex), a light, spongy, vitreous stone, found usually in the neighborhood of voleanoes. It is used for polishing metals and marble, and smoothing the surface of wood and pasteboard. It is said to form a good glazo for pottery. The lighter punice-stones swim oi. water, their speeific gravity not exceeding $\mathbf{~ 0 1 4}$. The island of Lipari, in tho Mediterranean, is chiefly formed of punice-stune, and may be said to le tho magazine whenco ali Europe is supplied with this useful article. There are several species of pumice-stones, but those only that are light and spongy are exported.

Puncheon, a messure of capacity for liquids, containing eighty-four gallons, or one-third of a tum.

Putchook. An articie of this namo is imported in considerable quantities from the uorthwest const of India into China, and is regularly quoted in the Canton price-currents. It is the root of a plant that grows abmilantly in Siude. When burned, it yields a fine smoke, and a grateful and diffusive smell. The Chinese beat it into a fine powder, which they burn as inconse in the temples of their gods.--IIamilton's New $\triangle$ ccount of the Eiast Indies.

Pyroligneous Acid (Gr. тvo; Lat. lignum, mood). This term is generally appied to the acid liquor which passes over slong with tar and gaseous products when wood is suljected to destructive distil-
lation. This acid liquor is an tmpure vinegar, from which necoic scld is olitained as follnws: The pyroligneous acid, freed from tar, is saturated with chslk or puwdered slaked lime, filtered and evaporated, by which an impure acetate of lime is obtained; this is gently heated, so as to destroy part of its empyreumstic matter without decomposing the acetic actid; it is then mixed with sulphate of soda, which yields, by double decomposition, sulphato of line and acetate of soda; the acetate of sods is filtered off the sulphate of lime, ovaporated, heated, and redisaolved and crystailized. In this way a pure crystallized acetate of soda is, by proper mmagement, obtained, which is mixed iti a retort or still with a proper proportion of suiphuric ncid, and a gentlo heat applied, which cnuses the strong acetic acid to distill over, and sulphate of soda remains behind. Thls acetic acid is in a high state of concentration; it is lowered by the addltion of water, and if intended for the table or for domestle use, ss a substitute for other forms of vinegar, it is usually colored with a little Lurned sugar. The charcoal which is the residuc of this distillation of wood is of an excellent quality-that emplayed in the manufacture of gunpowder is thus propared. This mantifacture of vinegar is now earried on upon a very iarge scaic, and the greater part of the vinegar used for d"" estic purposes and in the arts, in many of which it is largely consumed, is derived from this source. of sulphucnuses the ate of soda ch state of of water, c use, as a suaily colcoal which of an ex ffacture of facture of scaic, and extic purIs largely

Quadrana, in English momey, the fourth part of a nenny. Before the rolgn of Edward I., the smallent coin wan a derling, or penny marked wlth a erose, by the guidance of which a penny might be cut into halves for a half-penny, or into quarters, or four parts, for farthinge. But, to avoid the fraud of unequal outtinga, that kling ufterward coined half-pence and farthings in distinct round plecea.
Quadrant, In Geometry, the arch of a circle, containing $90^{\circ}$, or the fourth part of the entire periphery. Quadrant also denotes a mathomatieal instrument, of great use in astronomy and navigation, for taking the altitudes of the sun and atars, as elso for taking anglea in surveying. This Inatrament is varioualy contrived, and furnished with different apparatus, according to the various uses it is intended for; but they all Lave this in common, that they conaist of a quarter of a circle, the limb of which is divided into 90 degrees. Some have a plummet suspended from the centre, and are furniahed with sights to look through. . Tie principal and most useful quadrants are the common aurreying quadrant, astronomical quadrant, Adams'a quadrant, Cole's quadrant, Gunter's quadrant, IIadley's quadrant, hotodictical quadrant, Sutton's or Col:ing's quadrant, and the sinicul quadrant.

Quarantine, a regulation by which all communication with individuals, ships, or goods, arriving from places infected with tho plague, or other contagious disense, or supposed to be peculiarly liable to such infection, is intardictod for a certuin definite period. The term is derived from the Italian quaranta, forty, it being generally supposed that if no infectious disease break out within 40 days, or six weeke, no danger need be apprehended from the froe admlasion of the individuals under quarantine. During this period, ton, all the goods, clothes, etc., that might be oupposed capable of retaining the infection are subjected to a process of purification. Thia last operation, which is a most important part of the quarantine syatem, is performed either on board ship, or in establishments denomigated lazarctos.

Policy of Quarantine.-The regulations as to quarantine are entirely precautionary; they have their origin in the telief that various diseases, but eapocially the plague, are conteglous; and aupposing such to bo the case, the propriety of subjecting those coming from an infected or suspected place to a probation is obvious. Indeed, no government could, until the belief in question be proved to be ill-founded, abotain from enforcing precautionary measures, without rendering Itself liable to the charge of having culpably neglected one of its most inportant duties-that of providing, by every means in its power, for the safety of its subjecte. Latterly, however, it has been contended that the plague is never imported-that it is always indigenous; originating in aome peculiar atate of the atmosplere, or in sonething peculiar in the condition of the peoplo; snd that, consequently, quarantine regulatione merely impose a heavy burdin on commerre, without being of any real utility. But chough thero does not soem to be any reason for doubting that infectlous diseases have originated in the way described, the fact that they have, in innumerable instances, been carried from one placo to another, seems to be established beyond all question. Even if the evidence as to the importation of infectious diseases were less decisive than it is, or the opinions of medical men more divided, It would not warrant the repeal of the reastraints on the Intercourse with suspected ports. This ls not a matter in which innovations ahould be rasbly introduced; wherever there is doubt, it is proper to incline to the side of security. In some cases, perhaps, quaranting regulations have been carried to a needless oxtent; but they have more frequently, we believa, been improperly relaxed.

Instiution of Quarantine.-The notion that the plague was imported from the Easi into Europe seems to pave provailed In all agoe. Bot it would appear that the Vonetians were the firat who endeavored to guard againat ito introduction from abroad, by obliging ahipa and individuals from anapected places to perform quarantlae. The regalations upon this snbject were; it is most probable, lesued for the firat time in 1484.- Breckmanx, Ilidory of Inventions. They have since been gradally adopted in every other conntry. Their introduction into England was comparatively late. Various preventlve regulations had been previously enacted, but quarantine was not aystematically enforced till after the alarm occasioned by the dreadful plaguo at Marveilles in 1720. The regnlations then adopted were made conformably to the auggestions of the celebrated Dr. Mead, In his famoua "Discourse concerning Pestilential Contagion."

Lazarettue or Pesthouses aro establishments constrncted to facilltate the performance of quarantine, and particularly the purification of goods. They havo unually a port in which shipe from a suspected place may anchor; and, when perfect, are provided with lodgings for the crews and passengers, where the sick may be separated from the healthy; and with warehouses, where the goods may be deposited; all intercouree between the lazaretto and the surrounding country being, of course, interdicted, except by permission of the authorities. The lazarettos of Leghorn, Genoa, and Marseilles are the most complete of any in Europe. The facilities they afford to navigation are very great; for, as ships from suspected places may dischargo their cargoes in the lazaretto, they are not detained longer than they would be were there no quarantine regulutions. The goods depoaited in the lazaretto, being inspected by the proper officere, and parified, aro then admitted into the market.

Bills of Heallh.-The period of quarsantlie varies, as respects ohips coming from the same place, according to the nature of their bills of bealth. These are documents, or certlficates, signed by the consul or other competent authority in the place which the ship has left, describing its state of health at the time of her clearing out. A clean bill imports that at the time of her sailing no infectioua disorder wes known to exist. A suspected, or, as it is more commonly called, a touched bill, imports that rumors were afloat of an infections disorder, but that it had not actualiy appeared. A foul blll, or the absence of clean bills, imports that the place was infected when the vessel sailed. The daration of the quarantine is regulated by the nature of these inatruments. They soem to have been first issued in the Mediterrancan ports in 1665, and are obvlously of great importance.
By an act of Congress pansed February- 25, 1799, reapecting quarantinc and health laws, it is provided that the quarantines and other restraints required by the health laws of any State, reapecting any vessel arriving in or bound to any port or district, shall be duly observed by the officers of the revenua of the United States, and by the masters and crews of the revenuo cutters, and by the military officers atathoned upon the sea-const; and al auch officers ci the Uuited States aro required faitifully to aid in tho execution of such laws. The secretary is authorized, when a conformity to the quarantlne and iealth la ws requires it , to prolong the terme limited for the entry of vessels, and the report or eutry of their cargoes, and to vary or dispense with any other regulations appliouble to auch reports or entries, provided that no Stato is thus enabled to collect a duty of tonnage or smport without the consent of Congrosen and provided that no part of the cargo be taken out or unladen otherwiee than as by law la allowed. When, by the health lawe of any State,
any vessel arriving within a collection diatriot is prohibited from coming to the port of entry or delivery for such district, and it is required by auch hee lith laws that the cargo of auch vescol may be unlades at aome othor place, the colloctor, atter due report to him of the whole of such oargo, may grant his apsoial permit for unlading, unden the gare ef the aur veyor, or one or more inspectwre, at acese other place where auch health laws permit, and upon the conditions which shall be directed by the Seervtary of the Treasury; or which such collector may jodge expedient for the security of the publio revenne; provided that all the articlen so uniaden shall be deposited at the, riok of the partion concerned in auch warehouses or inclosuren as the collector shall designate, there to remain under the joint euutody of such collector and of the owner, or person having charge of such vessel, until the asme be entirely discharged, and until the goodo no deposited may be anfely removed, without contravening such health law c . And when auch removal nay be allowed, the collector having charge of such goode may grant pormits to the respective owners or consignees, tbeir factors or agents, to receive all goode which thall be entered, and whereof the duties accruing ohall be secured upon the payment by thein of a reasonable rate of storago, which shall be fixed by the Secretary of the Treasury.

Suitable warehouses, with wharves and inclosures, are provided, where goods may be unladen and deposited for any vessel subject to a quarantine, pursuaut to the health laws. Wben, by the provalence of any contagions or epidemical disease in or near the port of entry for any collection disirict, it slall become dangerous or inconvenient for the officern of the revenue to discharge their respective oflices at such port, the secretary, or, iu his absence, the co troller, may authorize the removal of the collector, i id tho other officera employed in his depurtment, to any other mom convenient place avithin or near to auch coliection district, where such officers may exercise the same authority, and are liable to the eame duties, according to existing circumatances, at in such lawful port or district; and of such removal public notice must be given.-Bluxr's Shipmasters' Aswistont.
The quarantine laws of the different States are too volaminous to givo in detail, and therefore there is hero unnexed only a aynopsis of the quarantine law in force in Now York city.
1 ' is the duty of the pilots to hail all vessels enterlng into the port of New York, and find whether they are subject to quarantine; and if they are, to bring them to anchor In tive quarantine grounds; also, to prevent any violation of the quarantine regulationa while they have charge of a vessel, such as communication between a vessel anbject to quarantine and the shore, rtc., and to report all infringements of regulatlons to the health officer.

Vessels arriving at tbe port of New York are sulject to quarsatine as follows: 1st. All vesecie direct from, or touching at any place where yeliow fever, bilious malignant, or other peatilential or lifectious fever existed at the time of their departure, or on board of which, during the voyage, any case of such fover has occurred, arriwing between the 31st day of May and the 1st day of October, shall remain at quaraintine for at least 30 days after arrival, and at least 20 da;s after cargo has been dischargei, and aball perform such further quarantine as the bealth officer shall prescribe. 2d. Ail vessela arriving between the lat day of April and the 1st day of November, exclusive of the abovespecified; all vessels from a foreign port, on board of which, during the voyage, or while at the port of departure, any person has been oick, or from any place in the ordinary pasage from whioh they pass asuth of Cape Ifenlupen, arriving between the 3iat day of May and the lGth day of October;' and all vesaela from any place (including islands) In Asia, Africa, or the Mediterranean, or from any of the West Indian, Bahana, Ber-
muda, or Weotern Islands, or from any place $\ln$ Amerlea, in the ordinary passago from which thny pass south of Georgia, arriving between the 1at day of April and the lat day of Novembor, are a abject to quarantine and othor segulationa, at the health officer may preseribe. The health officer mast boari overy vessel subject to quarantina or visitation linmediately on her arrival, and make hia examination.
The powere of the Board of Health are amplo to protect the port. The regulations are similar to those generally adopted, and include a fine of $\$ \mathbf{2 0 0 0}$, and imprisonment of twelve months, to any master or crew of a vessel that slall refuse to submit to quarantine, and also a fine of \$60 and imprisonment for any violation of quarantine.'

Quarter, the fonth pert of any thing. . As a term of weight It denotes the fourth of a hundred weight, or 28 pounds ; as a dry measure it signifiea the fourth of a chaldrun.

Quarter, that pert of a alk? p'a side which lles toward the stern, or is compreliendod between the aftmest end of the main chaine and the sides of the stern, where it in terminated by tho quarter piecea.

Quarter of a Point, in Navigation, is the fourtis part of tho diatance between two cardinal pointe, which is $2^{\circ} 48^{\prime}$.

Quarter Daya. The daya uaually regarded in En. gland and most Continental countries (but not in Scotiand) as lieglnning the four quarters of tho year. They are, 1. Lady Day. (20̈th of March); 2. Midaummer Day (June 24th); 8. Michaelman Day (Septeniber 29th); und, 4. Chriatman Day (December 25th).

Quarter Deck. The portion of the uppepmest deek of a ship between the main and mizen masts. This is the "parade" in met-of-war.

Quarter Manter; in the Nary, an inferior officer appointed to aseiat the mates in their several dutiee.

Quarters imply the several stations where the officera and erew of a ship of war are poated in time of action.

Quassia (Ger. Quassicnhole; Fr. Boir de quasie; Sp. Leno de quassia), a beautiful tall tree (Quassia amarg), growing in North and South America and tie West Indies. The wood is of a palo yellow color, and ivodorous: Tasto intensely bitter. It affords to water an intensely bitter decoetion, which is occasionaily used in medicine, and was formeriy substituted by some brewers for hops, hut is now probiblted-under scevere poualties. It affords a safe and efficacious fly-water or poison for files. It is believed that it would succeed well in our Southern States, and form a valuabie addition to our forests.

Quebee, the capital of Canadn, and of the Britith posensions in North America, on the nortimest buak of the River St. Lawrence, alout 840 miles from its inouth, in lat. $46^{\circ} 48^{\prime} 49^{\prime \prime} \mathrm{N}$., long. $71^{\circ} 10^{\prime} 45^{\prime \prime} \mathrm{W}$. Population in 1850, 40,233. Quebec is situnted on a ridge, or promontory, formed by the St. Lawrence on the south and west, and the River St. Chariea on the eust. The extremity of this headland, called Capo Diamond, is about 340 feet alove the ievel of the water, and on it the citadel in built. The town extends from tho citadel, priucipaliy in a northesst direction, down to the water; and is, from the difference of elevation, divided into the upper and lower towns. Tho fortitications, which are very atrong, extend across the peninaula, the circuit within them being about two and three quarter miles. Fram their situation many of the streets aro uneven; they are aleo, for tho most part, narrow; but they are either well paved or Macadamized. The greater number of the houses are built of stone, with ahingle roofs. Some of the public buildings are elegant, and well adapted fur their purioses. The hariser, or basio, dies between the town and tis islaud of Orleans. It is safe and commodious: the water is alout 23 fathoms deep, with a tide rising from 17 to 18 feet; and at springufrom 23 to 25 ditto. Que-
beo was fonnded by the French in 1608. In 1629 it Baltio timber, the Importa into Great Britain from was taken by the Engilsh; hut was restored in 1632. Canada and ether parts of British America of red-pine, It was ngain taken by the English under General and of pine and apruce plankn, eppecially the Intter, Wolfe, who fell in the erigagement, in 2750; and was finally ceded to England by the treaty of Paris in 1768. The rapid increase of population in, and of emigration to, Upper Canada has occanloued a proportional Increase of intercourse between Quobeo and Montreal, and the Canadian ports on Lakes Ontarie, Erie, etc. The frat steamboat that plled en tho St. Lawrence was launched in 1812; but there are now a great many steamars, some of them of large barden, employed in the conveyance of goods and pasmengers between Quebeo and Montrealj and in the trade between Quebec and Ifallfix, in Nova Scotla. And by means of the Rileau and Welland cainals, an uninterrupted line of ateam consmunication is formed hetween the Atlantic and Amhurstbarg; one of the remete settlements of Upper Canada, a distance of more than $\mathbf{1 6 0 0}$ mllea; which is now exterided through Lake Huron to the weatern extremity of Lake Superier,' about 700 milee beyond Ant hurstburg; giving to Quobec a command of internal navigation inferior only to that of New Orleane. The navigation at Quiebec closes at the enid of November or begianing of December, and opene in April. Below Quebec the river is seldem frozen over; Dut the masses of floating ice, kopt in constant agitcition by the flux and reflux of the tide, render navigation Impracticablo. The watere of the St. Lawrence are very pure; and in point of depth and mágniture it is one of the nohieat rivers in the world.-Bovicherre's British Dominions in America. Quabeo is a free warehouning port.

The trade of Quebeo is very extenelve. It engrosses, with Montreal, almost the entire trado of the province with the mother country; tho West Indies, etc. Great numbers of omigrants leave England for Canada; hut the larger number subsequently reemigrate to the United States. It has a regular intercourse, by meana of ateamers, with Montreal and other ports higher up the St. Lawrence, and with Hallfax and other ports on the Atlantic. Still, however, it must not be forgotton that in so far as the United Kingdom le concerned, the trade with Canad $\mathbb{A}$ and Quebec is, in aome degree, forcel and factitions, and has not been a source of proft, but the reverse. In former years it was, in fact, mainly a consequence of the discriminating duties laid in British ports on timber from the north of Europe; and but for this preposterous arrangement, the trade between Great Britain and Quebec would have been extremely unimportant. Now, howe ver, some branches of the trade nppear to have sequired a solid footing ; and notwithstanding the reduction of the diseriminating duties in favor of have of late very largely Increased. Excepting timber, furs and ashea are the most important articlen eent from Canada. A conalilerable part of the corn and flour exported from Quabeo ia the growth of the United States. . The prinelpal articlea of import Inlo Canada condist of corn, cottons, woolena, silk, and other manufuctured goode; glase ware, spirits and wines, iron and hardware, augar and tea, eto. The total value of the Imports into Canads (of which, however, by far the largeat portion goes to Montreal) Ir. 1848 amounted to $£ 2,107,164$ curroney ( 242.42 , currency $=20$ s. ateriing). Declared value of British produce and manufactures exported to Canada in $1851, £ 2,451,534$. It is materini, however, to bear in mind that little more than half the imports are paid for by the exports; they aro, in fact, principally paid for by the Treasury at home, ond are to be regarded as the meana sent out by England to pay the troope and meet the other heavy expenses slie has to incur in the preservation of thia unproftable colony.
Agoount of the Numiner of Vebella and tiriz Tonnage Willen agaively at Tils l'obt of Quenro, includino thobe mound fon Montaral, and feom fea, from 1840 To 1850 INCLUEIVK.

| Yasm. | Vemeelis. | Tona. |
| :---: | :---: | :---: |
| 18.46.. | 1448 | 578,104 |
| 1817................... | 1172 | 474545 |
| 1848................... | 1044 | 426,068 |
| 1810................... | 1064 | 431,053 |
| 1850.................. | 1479 | 484.291 |
| 1851................... | 1185 | 595,984 |
| 1852................... | 1155 | 454,102 |
| 1858.................. | 1188 | 632,517 |
| 1854................... | 1815 | 680,328 |
| 1855. | 077 | 846,449 |
| 1856. | 917 | 471,444 |

Among the arrivals in 1856 were the following forcign vessels: 38 Norwegian, aggregate tonnage, 17,730 tons; 15 United Stated, 8596 tons; 8 German, 3015 tong; 6 Prusian, 2056 tons. The total from all countries was 74 vessels, 34,824 tons.
Value of thr Expobts and Imports of Qzeafo and Monteeal.

| Yant. | Eiports. |  | Importa. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Surbec. | Moutrat. | Quabeo. | Monireal. |
| 1841 | 81,747,726 | 2'70,070 | ¢217,910 | L2,063, 135 |
| 1842 | 991,459 | 728,720 | 210,669 | 2,081,106 |
| 1843 | 1,367,051 | 888,109 | 402,227 | 1,980,674 |
| 1844 | 1,480,848 | 754,281 | 655,868 | 2,475,084 |
| 1845 | $8,056,661$ | 720,797 | 712,898 | 2,020,252 |
| 1846 | 1,865,456 | 653,333 | 760,982 | 2,303,008 |
| 1847 | 1,331,390 | 848,983 | T90,917 | 2,063,440 |
| 1843 | 1,357,320 | 391,841 | 026.845 | 1,431,418 |

gtatemant bhowing thin Coins ohibfly in ueg in the Bbitibi Nobti amikioan Colonizg, with their Valege in tie IEbpactive Colonieg, in lhalifax Curaency (Fraotiong oxitted).

| Colna. | Eastern (Lower) Canadn. | Wentern (Upper) Canada. | Nuva Beotia. | New <br> Bruna. whek. | Newfound. land. | Princo Edward Inland. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{gathered} \text { Ifland } \\ \text { Curfeney. } \end{gathered}$ | $\begin{aligned} & \text { Halifax } \\ & \text { Currency. } \end{aligned}$ |
| British soverelgn . . . . . . . . . | $\begin{array}{lll} \varepsilon & i & d \\ 1 & 2 & 2 \end{array}$ | $\begin{array}{lll} f & d \\ 1 & 4 \end{array}$ | $\begin{array}{ll} 9 \\ 1 & 6 \\ \hline \end{array}$ | $\begin{array}{lll} \hline \dot{1} & . & d . \\ 1 & 8 & 3 \end{array}$ | $\underset{\ldots}{E}$ | $\begin{array}{lll} A & d \\ 1 & d & d \end{array}$ | $\begin{array}{lll} 6 & d \\ 1 & d \end{array}$ |
| Hritish guinea.. | $1 \begin{array}{lll}1 & 8 & 4\end{array}$ |  | .... | 134 | .... | ... | 1 |
| American eaglo, colned before July 1, $1894 . . . . . .$. | 2100 | ${ }_{2}^{2} 134$ |  |  |  | *** |  |
| pltto, coined since . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2100 | 2100 | 2100 | 2100 |  | 880 | 2100 |
| Spanish millod doubloons. | 8146 | 8140 | 400 | 8150 | 168 | .... | .... |
| Britlah crown (halfecrown in proportion)........... | 0 0 56 | 000 | $\begin{array}{lll}0 & 6 & 8\end{array}$ | 066 | 0 \% 60 | 0 T 6 | 050 |
| 8hiliting (aixpence in proportion).................... . | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 0 1 13 | - 013 | $\begin{array}{llll}0 & 1 & 1\end{array}$ | 019 | 016 | 011 |
| French crown | $\begin{array}{llll}0 & 5 & 0\end{array}$ | 066 | .... | 056 | .... |  |  |
| Fronch half-orow | 0220 |  |  |  |  |  |  |
| Amarican doilar. | 0 | 050 | 0 \% 0 | 050 | 060 | 063 | 0 \% 0 |
| Spaniah milled doliar. | $0 \begin{array}{lll}0 & 5 & 0\end{array}$ | 050 | 050 | 0 O 0 | 050 | 063 | 050 |
| South American doliar. | $\begin{array}{llll}0 & 5 & 0\end{array}$ | $\ldots$ | 050 | 0 \% 00 | .... | 088 | 060 |
| Mexican dotlar (colned in 1381, 1832, or 1839) ..... | $\begin{array}{llll}0 & 5 & 0\end{array}$ | . $\cdot$ | .... | .... | ... | . $\cdot$ - | .... |
| Platarten . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $\begin{array}{llll}0 & 0 & 10\end{array}$ | . . | . | . | . | . | .... |
| French flve-fraze plece . ...................... | 048 | . $\cdot$. | .... | - | . | $\ldots$ | ... |

Paper Currency.-There ia no established government bank in the province; but there are several private chartered banke, of which the Quebee Bank is the prineipal.-For a complete necount of the trade of the Provinces, see Canadia and Montrein.

Quercitron Bark. The bark of the Quercus nigra, or American oak: it is a highly valuable dyo-stuff, and is used in the production of some of the most durable yellows.-For a more full account of this dye-stuff, see articles Dybs and Oak.

Oufoladiver, or ITeroury, one of the motals, and so fualble that it oan not be reduced to a aolld atate but at a degree of cold equal to forty below aero of Fahrenheit's thermometer. Its ute in refining sliver was discovered A, D. 1540 . There are mines of It in various parts, the chief of which are at Almadar or Almelda, in Spain, and at Udria, in Caralola, In Germany, discovered by accident in 1497. A mine was diecovered at Ceylon in 1797. Quicksilver was congesled in wintor at St. Potershurg in 1759. It was congealed in England hy a chemical proces, without anow or ice, by Mr. Waiker, In 1787. -Sed Mencuay. For notlces of quicksilver minen, 100 Americam Journal of Science, xxvili. 219; IIUNT' Merchando' Magasine, xvlli, 108.

The exports of quicksilver from California, the production of the Californis mines, for three years, were is follown, allowtng tho flaks to hold 75 pounds at a value of 50 eents a pound:

| Yoam. | FTanso. | Velue. |
| :---: | :---: | :---: |
| 1853......................... | 18.800 | \%705,000 |
| 1851............................ | 20,668 | 784,119 |
| 1855............................. | 98,917 | 1,084.857 |
| 15 $\mathbf{x}^{\text {b }}$. . . . . . . . . . . . . . . . . . . . . . | 28,170 | 83t,724 |

The exporta of quilekailver of domestic production from the United Statea, for the year 1856, amonnted to $\$ 831,724$, and was solely from the port of San Francisco. The exports of foreign quicksilver amounted to i16,011 of which \$15,589 was from New York. The impor:z of quickallver for the same time amounted to \&3625, of which $\$ 2649$ was into New Orleans, and tie production of the mines of Mexico.

Quickallver is found in tho largest quantities In Spain and California. Almaden, in Spain, has long been famed for ita minea of this metal, which, accordiing to Bowlen, are the richest in their produce. In China quicksilver la chiefly used in the manufacture of vermilion and other articles of comnerec.

The quantity of gulcksilver produced from the New Almaden mines, Santa Clara county, Callforuia, la about 100 bottles per month, or nearly $1,000,000$ pounda per annum. Tho other quicksilvor mines worthy of note are, one at Huaneavelica, in P'eru; in Ilungary, Transylvania, and the distriet of Deux Ponts, in Germany. There ia a mine of elinabar near Allicunte, and another not far from San Felipe, l: Spain. Mereury has alao been found in China end Japan; and though the amonnt of the produce is onknown, it is belioved to be considerable.

According to Dumas, the following minea yield annually as follows: Almaden, io Spain, from 2,700,000 to $3,456,000$ pounds a voirdupeis; Idria, 648,000 to $1,080,000$ pounds; Il ungary and Tranzyly ania, 75,600 to 97,200 pounds; Deux Ponts, 43,200 to 31,000 pounds; Palatine, 19,440 to 21,600 pounda; Huancavelica, 324,000 pounds. The total annual product, inelading Callfornia, can not Le less than from $6,500,000$ to $7,000,000$ pounda.

Quills (Fr. Plumes à écrire; Ger. Posen, F'eder kiel; It. Ienne de scrivere; Russ. Sticoli; Sp. Canones para escribir), tho hard and strong feather of the wings of geese, ostriches, swans, turkeys, crows, ete., used in writing. They are classified according to tho order in which they are fixed in the wing, the second and third quille being the best. Crow quills are chicfly used for drawing. The goodness of quilla ia judged partly by the size of the barrels, but more by the weight ; hence the denomination of quilis of 14,15 , etc., lotha per mille, each millo consisting of 1200 quills. The quilis of tho porcupine are much employed tiy the Indians in North America as personal ornaments; the quilla are dyed, and the colors appear to be durable; they are applied toth to articles of dress asd household furniture.

Quince-tree. The common qoince (Cydonia rulgarif) is a low tres, celdom exceeding fifteon or twenty: foet in beight, with a crooked stem, and tortuous, rum. bling branchoe. The bark hs smooth and brown, approaching to bleck. The loaves are roundish or ovate; duoky green above, and whitioh underneath. The tlowers, which put fort in England by the middle of April, and in the middle and northern parts of the United Staten in May and June, are large, with the petals pale red or white, and the sepals of the same length as the potale. The fowers are suceeeded by large fruit of a globular, ollong, or pear-shaped form, of a rich yellow or arenge color, when ripe, of an auatere taste, and omitting a pecaliar and rather pleasant amell.

Geugraphy and Histery.-The quince ia supposed th have been originally a native of Sidon, a city of ancient Crote, now the island of Candia ; but it is much more probable that it was only firat lirought Into notice in that elty. It la considered at preeent as indigenous to the eonth of France, particalarly on the borders of the Garonne, and to Germany, on the banka of the Danubo. By some the tree is thought to le Indigenous to Britain; and Phillipa atatea; In his Pomariun Britannicum, that quincea grow in auch sbundance in some parts of the Woalds of Sussex, an to encille private familles to make quince wine in quantities oi from one hundrod to two hundred gallone in a season.
The quince was known to the Greeks and Romans, and both nations held it in high estimation. Columeila says, "Quineea not only yleld pleasure, lut heaith." He apeaks of three kinds-the "Strutbian," the "Must Quince," and the "Orange Quince." Pling meutions many kinds, some growing wild in Italy, and othets in cultivation, so large that they, weighed the boughs on which they grow down to the ground. Ho also says that some were of a green, and others of a golden celor, the latter of which were called chrysomela. The oniy kind that wae eaten raw he atates to have been raised by grafting the large quince upon the atock of a mall variety, cailed struthla. "All kinds of this fruit," continues he, "are grown in boxes, and placed within the walting-chamivers of our great personages, in which mon wrait to salute these personages as they coune firth every morning." It appears from the same author that quinces were used to decorate the images of the gods, which wero placed in aleeping-chambers, round the beda; whence it followa that the Komane did net think that there wan any thing either injurious or unjileasant in thelr smell. He gives directiona for preserving the fruit, by excluding the air from them, or boiling them in honey; or by pluaging them in bolling boner, a practice in use with thia and other fruits ia Genoa at the present day. He also writes much ou the neeiicinal qualities of this fruit. "Quinecs," says he, "when eaten raw, if quito ripe, are good for those whe spit blood, or are troubled with hemorrhage." Tic jnice of raw quinces he states to lie a soverelgn reniedy for the awoilen spleen, the dropsy, and difficulty of taking oreath, particularly to those who can not cenvenientiy breathe except when in an upright position. The flowers of the quince, either fresil or dried, he telis us, are good for indlamed eyes. The root of the tree was used, not only as a medicine, Lat as a charm against screfula.
The wool of the quince, when found of sufficient dimensions, is applied to the purposes of turnery; but from its small size thia tree is almost entirely cultivated for its fruit, or as stocks on which to graft the mountain ash and the pear. In France, however, this tree is sometimes grown for hedgen. The fruit is seldons eaton hy itself, but ia generally preserved in sirap, or is made into marmalade, or is mixed with apples in tarts. -Browns's I'res of i merica.

## R.

Ragis (Da, Lompen, Vodden; Fr. Chifor, Chiffow, Irapeaux; Drilles; Gor. Lumpen; It. Strasci, Strazzo; Rusa. Trppie; Sp. Tropoo, Ilarapos), ahreda or fragments of worn linen, woolen, or cotton cloth. Though commonly held in littlo estimation, rage are of great Importance in the arts, being used for various purposen, but especially in the manufaetare of paper, most of which is entirely prepared from them. A0 the mode in which raga are colliected muat be well known to cvery one, the following statements apply only to the trade in forelgn raga.

Woolen Rage.-Woolen and linen rage are imported in conoiderable quantitien from the continent of Europe, particularly froin Italy and Sleliy. Woolen rage are chiefly used for manure in Engian.w, wopecially in the culture of hopa ; but rags of loose texture, and not too mueh worn or decayed, are unraveled and mixed up with fresh wool in the making of yarn-a practice more favorsble to the cheapness than to the etrength and durability of the fabrics into which this old wool is introduced.

Linen Rags are princlpally imported from Rostock, Bremen, Hamburg, leghorn, Great Britain, Ancena, Messina, Palormo, and Trieste. Their export from Hoiland, Belgium, France, Spain, and Portugal, is strictly prohibited. Tho imported rags are coareer and inferlor in appearance to the Englieh; but, belng almost exelualvely linen, they are atronger, and bear a price dieproportioned to the apparent difference in quality : this dieproportion has been materially augmented alinee the introdaetion of the process of boling the rags in ley, and afterward bleaching them with chlorine, has rendered foroign rage it for making fine paper, and indeed, in some reapects, preferable for that purpose, by their affordi' g greater emrength of texture combined with equal whi iness of color. There is considerable variety in the $a$, pearance of rags from difierent ports; but in general thoee from the north of Europe are darker and atronger than those from the Mediterranean fors. The iatter are chiefly the remaine of outer garmente, and bavo become whltened by exposure to the aun and alr; but since the improvements in bleaching, thia does not enhance their valuo.
Impost of Raes moto man Unitgi Grates fon the Yeaz ENDISU JUNE 80, 1857.

| Whence imported. | Poneds. | Value |
| :---: | :---: | :---: |
| sweden and Norway ........... | 80,800 | 8390 |
| Swedich Wiest Indies . . . . . . . . | 491 | 10 |
| Danixh Weat Indiea ........... | 26,084 | 85 3 |
| Ilambarg . . . . . . . . . . . . . . . . . | 1,011,763 | 30,817 |
| Bremen ......................... | 908,895 | 6,471 |
| Dutch Weat Indien . . . . . . . . . | 178 |  |
| Fingland . . . . . . . . . . . . . . . . . . | 6,005.945 | 147.500 |
| Scotland . . . . . . . . . . . . . . . . . . | 850,084 | 9,302 |
| Malta. . . . . . | 280,878 | 0,139 |
| British North American Posm . | 1,020 | . 28 |
| Itritiah Weat Iodica. ........... | 499,060 | 10,549 |
| Britiah Gulana . . . . . . . . . . . . | 1,940 | 52 |
| France on the Atlavtle........ | 60,428 | 2,991 |
| Canary 1slande. . . . . . . . . . . . . . | 6,574 | 178 |
| Cubs . . . . . . . . . . . . . . . . . . . . | 721,135 | 18,783 |
| Portugal . . . . . . . . . . . . . . . . . . | 6,700 | 211 |
| Sardinta . . . . . . . . . . . . . . . . . . . | 1,578,277 | 61.809 |
| Tuseany .................. . . . . . | 18,907,907 | 656.859 |
| Irapal 8tatem. . . . . . . . . . . . . . . . | 422.960 | 16,080 |
| Two Slcilies. . . . . . . . . . . . . . . . | 6,153,1*0 | 212,208 |
| Austrin . . . . . . . . . . . . . . . . . . . | 2,726,081 | 17,70) |
| Austrian Pobseasiona to Italy.. | 260,906 | 11,108 |
| Tarkey in Europe . . . . . . . . . . | 44,075 | 5010 |
| Turkey in Aala................ | 9.307,781 | 58.428 |
| Egypt........................... | 8,821,056 | 97,970 |
| llayth.......................... | 25,130 | 877 |
| New Granada . . . . . . . . . . . . . . | 688 | 26 |
| Brasil . . . . . . . . . . . . . . . . . . | 681 | 10 |
| Uruguay, or Cisplatine Repub. | 60,071 | 1,206 |
| BuenosAyres, orArgentine Rep. | 91.818 | 1,746 |
| Chif . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 48,887 600 | 747 |
| Totul, 1856-'57 | 44.68!,080 | \$1,498,126 |
| " 1865-56 | 38.787,017 | 1,280, 168 |
| Increase ...... | 3,855,1268 | \$ $\$ 208,957$ |

Rallroad, or Tramroad, a apecies of road having track: or waya formed of iron, atone, or other aolld material, on which the wheels of the carriages paseing along it run. The ohjeet in constructing such roads in, by diminiching the friction, to make a less amount of power adequate either to impel a carriage with a groator velocity; or to urge furward a greator load. The essential requiates of a raliroad are two or more amooth parallel surfaces for the wheele to run upon, and formed and piaced in auch relation as to glvo tho maximum atrength and affety with the minlmum friction. The frietion on a perfectiy level rallroad, properly conatructod, is eatimated to amonnt to from onetenth to one-seventh only of the friction on an ordinary lovel road; so that, supposing the sanie force to be applied in both cases, it would move a weight from 10 to 7 timen as great on the former as on the latter. But if there be a very moderate aseent, such as one foot in fifty, which in an ordinary road would hardly be perceived, a great increase of power on the raliroad la required to overcome the realatance that is thua ocesoloned. The reason is, that the ordinary load on a lerel rallroad is about seven times as great as on a common turnpike road; so that when the force of gravity is brought into operation by an ascending plane, its opposing powor, being proportioned to the load, is seven times as grest as on a common road. Hence the vast importance of baving rallroads either level or as nearly so as possiblo. It la aleo of great importance that raliroads ahould be atraight or at least free from any abrupt enrves. Carriages being kept on the road hy flanges on the wheels, it is obvioua that, where the curves are quick, the friction on the eides of the rails, and consequent retardation, must be very grest.

The great auccens, rapid extenalon, and present necesoity of railroads, are in consequence of the appreciation of the value of time and saving of lubor, which are the characteriatice of the present age. Distance is nowmeasured by the time coneumed in its passage ; and the saving of cost In the carriage of goods is the aggregate of the saving in time and the saving in labor. We can not in the scope of this article give more than a aummary of the hletory of rallroade, and the statistles necesas ry to show the present condition and progress of railroade.
The alm and advantage of railroads may be stated concisely to be, to obtaln with tho minimum expendlture of power the maximum resnit of speed, draught, and safety in the carriage of passengers and freight. To show how this can be done would be to illustrate the whole science of railiodd englineering, and does not come within the compass of this work. It will be sufficlent to ehow the improvement over the age before railroada, and the progress since.the invention of railrosda, we have made up to this tinio. 1st. Ae to opeed. In 1804 a locomotive was conetructed in Wales, that performed the unprecedented feat of drawing ten tons on a tramroad at the rate of five miles an bour. Wood on railroads, in 1825, eays: "Nothing can do more harm to the adoption of rallroade than the promulgation of such nonsense as that we shall see locomotive engines traveling at the rate of $12,16,18$, and 20 milles per hour." Ritchie on rallways, in 1846, says: "An express train on the Great Weatern Railway, drawing 59 tons, has traveled for three hours at the rate of 63 miles per hour." And wo know that the speed of 100 miles per hour has bery obtained several times in tho past few years. In 1778 a contract was made to eatablish a cosec for passengere between Edinburgh and Glasgow, a distance of 44 miles. The cosch was drawn $\mathrm{b}^{-}$ six horses, and the journey between the two piaces, to and fro, was completed in aix days. Even eo recently as the year 1750, the atage-coach from Edinburgh to Glasgow took 86 hours to make the journey. In the
ycar 18.19 the sane journey was made, by a route three mile longer, in ote hour and a half. In the year 1763 there was but one atage-coach bet ween Edinburgh and London. Thle atarted once a month from each of these citles. It tork a fortnight to perform the journey. At the aame epoch the jeurney between London and York required four days. In 1835 there wers aeven comehea started aally between London and Ediaburgh, wblch performed the journey in 48 hours. In 1849 th.r same journey was performed by railway in twelve hours
24. The great increase of draught, or decrease of frictlon, needs but brlof Illustration. It la stated as a result of experimente on the Massachusetts railroads, that the cost of merchandise tranaportation is 8.095 conte per ton per mile, with an average apeed of ten millea an hour. 'The average cost of tranaportation of heavy merchandiae on the improved Macadamized roade of England is 27 cents per mille, with an average apeed of three milles per hour. We aee, therefore, that the cost of transjortation on railroads has been reduced to 11 per cent. of the coat of tranaportation on improved turnpikes, whlle the apeed has been Increaced 233 per cent. at the amme tline. 8 d . As to the increane of safety. On the l'rench railroade, 212 nilea In length, of $1,889,718$ passengers, who traveled 816,945 millea in the first half of 1843, not ons was either killed or wounded, and oaly three aervants injured. Comparing this with the traveling by horsa coachea in the aame region, we find that in aeven years, from 1834 to 1840, 74 persons wero killed, and 2078 wero wounded. Accordlag to Dr. Lardner, the chances of a passeuger meeting with a fatal accideot la travellng one mile on a railroad are $65,363,733$ to 1. And agaln, the chances of his meeting with bodily jujury In the same distance are $8,512,495$ to 1; and also that $366,036,923$ passengers nust travel one mile in order to cause the death of one railroad employe. On comparing the safety of railroad travellag on the roads of New lurk with those of Ureat Britain, it is found that for the last four years there were a greater number of pasangers killed and a lean number Injured upon the roads of New, York, in proportion to the number carried, than upon those of Great Britain. In New York one passenger was killed out of every $1,262,165$ who traveled, one elther injured or killed out of every 341,125. Ona passenger was killed for every $47,104,426$ miles traveled, and one was either injured or killed for every $12,747,142$ miles traveled. Excluding all the accidents growing out of the imprudence and fault of the passengers theniselves, it appears that one was killed out of every $6,310,828$ who traveled, and one was either injured or killed out of every 664,300 . Exxcludiag the accidents caused by thelr own careleseness or limprudence, there was but one passenger hilled for every $235,822,132$ milea traveled, and but out either Injured or killed for every 24,823,382 miles traveled. A vast number more !!ves would have been lost If the same number of passengers bad been conveyed the samo number of malles in ono-horse wagons or in the old-fashloned four-horse coaches.
"There be three things which nake a nation great and prosperous-a fertile soil, busy work-shops, and easy conveyance of mien and things from one place to another."-Bacor. And we can furm some eatlmate from the foregoing, of what share rallroada have had in giriug ua one of these three alements of prosperity.

History. - Woodea rallwaya wera employed an a aubatitute for cummon roads, in the colonies of England early In the 17th century,-Ritciue on Railucay, p. 19. The eailleat record of their exiatence is in the life of the Lord-kerper North, wherein it appears that about tha year 1670 they were used at Newcastle-on-Tyne, for transporting coal from the minea to the river, and enabled one horse tu draw from four to five chaldrons. Subsequeatly these platea were covered with iron; hut the lncroduction of ralls wholly of Iron seems not to have taken place till 1768., Iloannlower's Report to

House of Co nmone in 1811. A projection or flange on the outer slat of the ralis kept the wheels of tha carrisgee upon them. They were called "Tramroails;" and the oljections to them were the great amount of friction againet the side flange and the wood surface of the plate.

In 1789 was conatructed the first public railway in Englanc, at, Loughborough, by Mr. Wililam Jessop; and he introduced east Iron edge-ralie, and whoela with the tlangen cast upon them inateal of on the rail. Tramroads were, however, in use up to 1808. The Arst rallroad built in the United States was In 18:7, from Quincy to a point on Masachusetta llay, three nilies in length, for the purpose of conveying granite to Boatou from the quarries of Quincy. The ralls used were of wood. The firat passenger railroad was the frat 13 milee of the Haltinora and Ohlo in 1830, from Baltimore to Elkridge.

Mailo.-"In 1803 malleable Iron ralle were firat tried, but uot approved of. In 1808 they were introduced into aome coal works of Cumberland, and used with complete auccess."-Gillesiriz on Railuayt.

Since then they have bean formed of a great variety of ahapes. The princlpal are, lst. The flat rail used en branch coal-roails and on roade where horse-power is used, and where economy is considered essential. 2d. The rall called the "hish-bellled," from the rounded profle of Ita under, aide. The form of this rall lis li. dicated by theory as aluiost perfect for atrength; lut on account of the unsteadiaesa, from requiring a high aupport, it la now generally abandoned...3d. The A rail, or inverted $\mathbf{T}$. This rail la adonirably adapted for atrength and security, but is more complex for rolling than the rail commenly In nee, namely, the $\mathbf{x}$ rall inverted, $t$; and has only been used to a moderate oxtent, and principally in England. 4th. The inverted $\bar{E}$ rall, so called, but more like an I in form. This form was foumal by Irofeasor Barlow to possesa the maximum strength from a given quantity of material. This rail is used in Eagland, but ham been found to be deficient in stability. The Tinverted) rall is the one generally used lu this country; and for the facility in roiling, atrength, and stability, Is decidedly the beat form. The weight commonly used is about Go pounda to the yard; but a heavier rall la more eccuemlcal in the end; and the weight of raila has been in. creasing from $3^{5}$ pounda, the weight first uecd, to that of sixty pounds to the yard.

Ralis were firat laid on stone alcepers or blocks, as giving the most solid support ; but this plan has gradualiy been abandoned, ea the want of elasticity was the cause of a rapid destruction to the rolling stock. Longitudinal alecters of wood were alao tried; but after much practica! experience, the present form of transverse wooden alcepers, lalid on broken atone or gravel bed, was adopted as the best foundation, and is now in common use.
Locomotives.-After a full trial of horse-power and statinnary steam-engines, the plan of an enginc, and whict tles present locomotive is In many respects only an improvenent of, was Invented. 'There has heen some controversy as to who should have the credit of the invention. It appears, huwover, that in 1759 Dr . Rohinson, then a student In the Univorsity of Glasgow, suggested to Watt the applicetion of the stcamengine to wheel-carriages; and in 1782, Murdoch, to whom Trevithick was a pupil, made a model ef a ateam-carriage. In 1784 Watt deacribed such an application In his patent.

In 1801 Ollver Evana, of Philadelphia, moved a steam dredging-machine a mile and a half on wheels turned by ite own engine. In 1802 Richard Trevithick, in conjunction with Andrew Vivian, both Cornwall engineers, built and took out the first patent for a tocomotive; and In 1801 Richard Trevithick buile a second locomotive, which on a road in South Wsics drew ten toms at the rate of five miles an hour. It
was many years, however, befor ,iy improvement took piace, owiag chiefly to the imaginary difficulty of getting the locomotive wheols to "blte," or keep from alipping on the ralia, Great lagenulty was brought to task to remedy this imaginary evili and la 1812 a rail with racke or aockets was laid, and an engine with teeth to fit in the rack was built. In 1818 an engino with hind licge was invented to prevent the slippling. Ali theme contrivancen were, however, shown to be useless by the ulscovery in 1814, by setual experlment, that no friction was needed. And in thla same year the first really anceeasful locomotive was invented by George Stephemaon, which ran six milas an hour, and drew 80 tons. Lietle progress was made from this time until 1829, when Kobert Stephenson construeted the "Jocket" onginn, which on triai ran wlth an average speed of 15 miles an hour, and with a maximuin apeed of $29 \frac{1}{2}$ milies an hourd' Since that time jocomotives have been built to run over one bundred miles an hour, and to draw a train of cars up an inclined plane of 600 feet to the uile. The performances of a modern locomotive, in fact, are smoag the most wonderful of ali mechanisms.

Railroud Management.-Although one of the most powerful clements in our prosprity, and in fact now a necessity, it can not be denled that ralirende generally have heen failures conaldered as profitabio Investments to the stockiolders. The business of our railrosds is ample to make them good investment; and therefore there can be but one cause for so general a fallure; namely, unremunerativs toriffs. Occasional instances of bad managoment have taken place, bat it is obvious that this can not be the cause of so general a fallure. 'The gold diacoveries of Cailfornia sind Austrslia havo sdvanced the prices of labur, fuel, etc., from 80 to 50 per cent., and, consequently, the expenditures of ralirosds in a similar ratio. During this time there has been no corresponding inereasc in the tariths of our railroads. 'This, in conneetion with the fact that the depreciation of the rails, roiling stock, eto., have not been aufficiently allowed for, explain the cause; and make s remedy obvious. To show the authority for this atstement, we give the expenditures, etc., on railroads at different periode since their first practical adoption. These show that there was a gradual decrease to 1845, and ainco that time an increase in oxpenditures.

The annual cost of malntalning in operation a wellmanaged road is almost $1 \frac{1}{2}$ cents for cach ton per mile carried over it, and 44 cents for each mile run by all the engines, besides 500 for each mile of roed. If it be likewise a passenger rond, there is to be added threefourthe of a cent per mille for each passenger carried.Cuanless Elaef, Jun., Civil Engineer, Frankiln Instltute, 1842.

The complete average oxpense per train per mile of running on the prineipal roade was estimated

| In the United Stateg, in 1838,* at. . . . . . . . . . . . . . . 100 cente, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Eng |  |  |  |  |  |
| tilica and schenectady Raliroad, 1839 to 1841.... 115 |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  | 4 | ${ }^{4}$ | 1846. | 78 | 4 |
| ${ }^{6}$ | 4 | ${ }^{4}$ | 1847. | 75 | * |
| 4 | ${ }^{6}$ | 4 | 1849. | 70 | 4 |
| " | 4 | 4 | 1849......... | 76 | 4 |
| ${ }^{4}$ | 4 | * | 1860. ${ }^{\text {d }}$. | 74 | 4 |
| 4 | 4 | 4 | 1851. | 76 | ${ }^{+}$ |
| 4 | 4 | 4 | 156). | 77 | 4 |
| 4 | ${ }^{6}$ | 4 | 1853. | 88 | 4 |
| 4 | 4 | ${ }^{6}$ | 1854. | 98 | 4 |
| 14 | 4 | 4 | 1855........ | 105 | ${ }^{*}$ |
| - Chevalier di Geatmee. + Professor Vionolvo. |  |  |  |  |  |

It will be seen fromit this statement that the expenses have been stesdily inoreasing eince 1845. To exbibit tiis more plainly, we give a table showing the gross recelpts and expenses, and also the net receipts of the Massachusetts raliroade for ten years.

| Years, | Toter hoeelipis per Milo rys | Total wipemes per milc run | Fet Revipes per MIlo rues. |
| :---: | :---: | :---: | :---: |
| 1846 . . . . . . | ¢ 18 | 646 | Coel4 83 |
| 1847........ | 9.1501. | 76 | 81 |
| 1843........ | 180 | 76 | 74 |
| 1810 ........ | 1 Dt | 76 | 76 |
| 1850........ | 151 | 7.4 | 78 |
| 186t ........ | 150 | 76 | 74 |
| $1859 . . . . . .$. | 14 | 77 | 07 |
| $1883 . . . . . .$. | 151 | 81 | 70 |
| 1854....... | $15 \%$ | 108 | 53 |
| 16V6........ | 160 | 1 (\% | 14 |

From this it will be genn that the grose reeeipte (or tarlfi) increased only 08 per cent. In ten years, while the net receipts decreaned 23 per cent.; and the expenses increased 44 per cent. This comparisoa holds equaliy true with many of our rallioads.
The following facts regarding eight of the princlpal ralirsads of Massachusette are developed by reporta to the Legislature

1. The cont oi passenger transportation is 1.062 cente per passenger per milis. 2. The cost of merchandiso tranaportation is $\mathbf{8 - 0 9 5}$ cents per ton per mile. 3. In passenger trameportation $41 \cdot 98$ per cent. of the recelpts therefrom are absorbed in expenses. 4. In morchsnilse transportatlon $\$ 89 \cdot 52$ per cent. of the recelpts therffrom are zbsorved in expenses. b. The expenses of raliroads are eimost invariably determined by the weight carried over the rsils. For instance-the 工astern road, upon $v$ ihich yrasenger traffio predominatea, Is operated at an expense of $\mathbf{\$ 3 6 7 0}$ per mile of the length of the road; whlle the Jowell, upon which merchandise traffic predominates, is operated at an expense of $\$ 12,478$. 6. The cost of renewals of Iron upon raliroads is an infailibje index of the magnitude of expenses. For the preceding roasons, the cost of that item on the Esstern road is but $\$ 390$ por mille of the length of the road, while upon the Western it is $\$ 1899$. 7. Of the expenses of railrosds; thirty per cent. are absorbed In maintenance of way, or road bed; twenty per cent. In fuel and oll; twenty per cent. in repnir of engines, tenders, and cars; ton per cent. In spevial freight expenses; and the remsinder in passenger, incidental, and miscelisneous expenses. $\quad \boldsymbol{\sigma}$. The weight of the englues, tenders, and cars upon passenger trains la nine-fold greater than the weight of the passengers. 9. The weight of the engines, tendera, and cars upon freight trains, is scarcely one fold greater than the welght of the merchanulise. 10. For cheapness, railroads can not compete with canals, in transportation of heavy descriptions of merchandise; the cost of carry. ing merchandise upon the Erie Canal ranges from two to sixteen millis per ton per mile; while upon sixteen of the prinelpsi rallways of Now York and Msssachusettis the cost of carrying merchandiae ranges from thirteen to sixty-fiva mills per ton per mile.

It being grantea that the present tariffs nre too low, the remedy, or how to make raliroads more pruitable, is the chief point. We extract from a paper writtea by Charies Ellet, Jun. civil engineer, which eiucidatee a good system.
1at. Fivery yoad should form its own tariff of tolls, based upon its own trade.
2d. In arranging the tariff, let the first step be to ascertain the true cost of transportation upon the particular. road for which the tariff is intembed. The actual cost of transportation is cieariy the minimum limit of admlasible reductions in favor of those oljects of transpertation which are deemed, from motives of policy, most worthy of special $r$ 'couragement. There may be, and ought tc be, material discriminations in every tariff; bot no articie oaght to be conveyed for less than the actual cost of its transportation, falrly made out from the proper experience of the line. Having deternined the true cost of transportation, and sdopted that as a minimum charge, below whleh the toll on no articie
shall be suffered to fall, the company wili be aecured againat one frequent source of linmense extravagance -that of carrying freight for mothing, or less than mothing. With this information in hand, it is practlcable to construct a tariff of espenses, whlch should in every case precede the adoption of a tariff of charges.

8t. The mert arep in the process should be to ascertain the highest charge which each article scill bear.

4th. The true charge for each article and each position, it must be apparent, will be found oomewhere betaroen the actual cost of transportation and the prohibitory charge. The next step in the construction of a toll-sheet shouid then be to form a third tariff, by adding together, for each article and each position, the cost of transportation and the prohititory charge, and taking half thelr sum as a near approximatlon to that charge which will yield the greatest net revenue. let there is no fact better susceptible of the strictest mathematical demonstration than this, that the charges which rill yield the maximum wet rerentuc on railroade doing a miscrllaneous business must be from one to tro cents per tow per mile greater than that which will produce the maximum gross recenuc. If, then, a company ainsa to oltain the greateat possible gross revenue, it can only succeed by a great sacrifice of dividends. In fact, the gross revenue may be enornous, and yet be insufficient to pay thair expenses.

Roiltray Legialation.-Nothwithatanding the vast advantages which the opening of so many new and improved innea of communlcation have conferred on the country, we can not help thinking that these advantagee might have been much greater, and that, in the instance of railway-legislation, the public interests have been overlooked to a degree that is not very exensable. It is, we admit, no easy matter to decide how far the interierence of government ahould be carried In matters of this sort. But, at all events, this much is obvious, that when government la called upon to pass an act authorizing privato partles to excente a railway or other publle work, It is bound to crovide, In as far as practicable, that the publicinterests shail not be prejudiced by such act, and that it should be framed so that it should not, either when passed, or at any futnre period, stand in the way of the public advantage. We believe, however, that a little consideration will serve to satisfy most persons that this Important principle han, in the case of rallways, and indeed of most descriptiona of public works, been, in this country, ail Lut wholly neglected.

Within a few yenrs past the rallway lytereat has besome one of the most important In this country, not only on nccount of the large pecuniary inveatments which have been made therein, but also on account of the effeet which its developinent has had In Increasing the value and changing the relations of property, trade, and commeree, and in modifing the cocial conditions of our people. Thene varied interesta, and the new circumatancea whleh have leen called Into exiatence by the vaet and rapid expansion of the railway syatem, have required additional legal enactorent from time to time, but the same aupervision and restraints of law which are considered neceasary to guard and protect other public intereats have not been imposed upon thia one to an extent commenaurate with lis increasing importance. The railrond corporations, in whleh there is a larger inveatment than in the banke, over which the law exercises supervision, are permitted to control an immense amount of caplial, and intereats of the greateat magnitude, with no other check than ia afforded by an annual atatement of their afthire, notoriously Incorrect, and in many cases made so systemntically, for the purpose of concealling from the stockholders and the pablic violations of law and want cf fidelity to their truate.

One of the best guarantees for the falthful performance of duty that can be given to the public and the atockholders by railirond managers la to render, int fre-
queat intervals, full and accurate atatements of the results of the operations of the worka, and the manner in which these officers have discharged their trusts. It is not difficult to demonstrate that the publication of such ample etatements doee not, in the long run, injure the interests of any corporation, and that it is the most certain security againat malversation in the administration of lts affirs.

Under the General Railroad Act of 1850 each of tice rallroad corporationa In the State of New York is re. quired to make an annnal report to the Stste Enginecr and Surveyor in the form preseribed, showing its finnncial condition and coat, its length, and other characterlatics; the business done during the year and the expense thereof, a atatement of the recelpts and payments, and a llat of aecidenta which have occurred involving injury to life or limb; and this officer is re. quired to arrange the information thus furnished, and submit It, together with the reporte, to the Legislature. -Report of the New York State Eingineer, 1855.
Auatrian Railroade. - The goveriment of Austria has at length conceded to a public company ail the railwaya that have been completed, and those which are to be censtructed, in the Lombardo-Venetian territories, and the Central Italian Rallway. Tha lines alrearly completed by the atate are as follows:


The railways to be conetructed are an follows:


The length of rallwaye completed is equal to 373 Fn gliah milea, and the length of those to he constructed is equal to about 223 Fnglish miles. The Centrai italian Raiiway concession ia for $\mathbf{2 8 0}$ kilometres, so that the entire concession, when complete, wili comprise about 680 English miles of rallway: The atate grauts to the cosapany the free use of the line frem Nebresina to Trieste, with the joint uee of the terminus at Tricste. The company is to pay to the atate for the finished railwaya $30,000,000$ francs, or $£ 2,400,000$; this sum is to he paid in six Installments within a period of six years, or at the rate of about $£ \$ 00,000$ per onnum. Sisoulid the net profits at the end of this term exceed $\bar{i}$ per cent., the company will have to pay an additional sum to the Austrian govermment of $16,500,000$ frames, or e660,000. The Austrian government guarantees 5 per cent. on the whole cap̧ital required, which is estimated at about $250,000,000$ francs, or $\mathbf{2 1 0 , 0 0 0 , 0 0 0}$. For the Central Italian liailroad, the company has a guarantec of $6,500,000$ franca per annum, or more than $6 \frac{1}{\text { pet }}$ cent. on the cajital.
Or the railways in operntion, in progresa, and contemplated in Finstem Europe, a brief notice will suttice.

Russia, carried along ly the tide of iubilic opinion in Europe, found herself compeiled, hy a due regard to the interests of her people, to consecrate a part of her exertions and her capital to tha construction of the new lines of conmunication. An attempt was tirst made to attract private capitalists to these projects, and apecial ailvantages wero otlered to compnities who might be diaposed to undertake the construction of the Ilnes of railway contemplated in Russia. The enuerur, bealdea guaranteeing to the sharcholilers a mininum profit of 4 per cent., proposed to give them gratuitously all the lands of the state through which the rail-
ways should pass, and to place at their diaposal, also, gratuiteusly, the timber and raw materiala necessary for the way and works which might be found upon the spot. It was further propused to permit the importation of rulls and the rolling atock free of duty. Russian proprictors aiso spontaneously came forward, and not only agreed to grant auch portion of tholr land as the railwaye might paas through gratuitoasly, but further to dispossess themselvestemporarily of thelr serfe, and surrendor them to the use of the companios on the sole condition that they should be properiy supported while employed.

13y a apecial ukese, dated February 18, 1842, it was decreed that the rallway which was to unite tho two capitals of St. Petersburg and Moscow should be constructed oxclusively af the expense of the state, in order to retain in the hands of the government, and in the general listerest of the people, a line of communication so Important to the industry and the internal commerce of the empire. The local proprietors equally agreed to surrender to gevernment gratuitously the lands necessary for the works of this line.

The system of railways contenplated in Russin la composed of five principal trunk liaes, one of which, contecting Warsaw whth Cracow, ie completed andi in operation: the langth of thle line is 168 miles. The second will connect Warsaw with St. leteratirg : the extent of this would be, when executel, 683 miles. The third will connect St. Petersiburg with Moscow; this line is in active progress: Its length will be about 400 miles. Besides these, antherization was given to $n$ company, by a ukase dated July, 18.13, to construct a railway for the transport of goods between the Wolga sud the Don, the length of which would toe 105 miles. In the actual excention of this magalficent system of railway commnnieation, tho considerable progresa has been ret made, with the exception of the line nilready mentioned between Waraaw and Cracow.

A short llue of railway connectling St. Peterahurg with Tsarkod-soola, having an analogy to the Greenwheh and Richmond lines, which diverge from London, and the Versailles and St. Germaln lines from Paris, was completed and opened for traffie in April, 1838. The traffic on this Ilne has hitherto amounted to about seven humired passangers per day.

The rallway connecting the Don and tha Wolga was openad for traffie in 1846; but thls line is excluaively for merchandise, and is worked by heras.

In southern Russia a lina of railway la projected between Klef and Odessa, the surveys of which have been made by lelglan englneers; but no progreas in its construction han yet been effected. A railway has been projected also between St. 'eteraburg and Cronstadt, and anether between St. Petersburg and Baltishifort, In Esthonia, to be constructed and worked ly a company wlth a guarautee of $\pm$ per cent. by the government.

In Italy a few short lines of railway only have been executed, connecting the chief atates with neighbering places. They are as follows:

|  |  |
| :---: | :---: |
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In the kingdom of Sardinin railways exist as yet only In prospect. It is intended to carry two lines from Turin, one directed on Genon by Alexandria, and the other on Milan by Vereelli and Novara. The political distractions, however, of tho last two years havo suspended theac projects.

Railroads in Spain.-From returns Intoly mado In Spain to the govermment conecruing the railwaye conceded and at work in that country in 1856, it appeare that the whola of the lines open to the public, including that from Madrid '. Taragossa, conceded to tho Spanish Crédit Mobilier, give a length of 1955 kilomotres (1222 miies). In the concassion granted to that company, of the twe sections of the railroal from Madrid to Valladolld, and from Burgos to tha frontier of France, the first sectlen will leave Madrid, pass by Avila, Arevolo and Medina del Campo, and will stop at Valladolld, whero It will join the aection already traced out from Vallatolid to llurgos.

Railroada in Prussia.-Thu subjoined ls an necount of the progress of railroads in I'russia since 1840 .

| Vears | Learth in Mllea. | Outloy In million Dollura. | Over whole lankth. |  | Recerjts. |  | Avorage Prodit por Cieat. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Pamengara. | low jbe. Merchandise. | Passengera | Merehandite. |  |
| 1819 | 1821 | 101 | (29.411) |  | \$8,7us, $2 z_{i}^{2}$ | \$ $\$ 1.645 .4 \div 7$ | $3 \cdot 5$ |
| 1.50 | 1871 | 100 | 146,273 | 1,331,594 | 4,440,178 | 4, 8188,289 | 405 |
| 1551 | 1082 | 118 | 148,681 | 1,604,825 | 4,629,990 | 4,955,109 | 509 |
| 188. | 2180 | 126 | 14i.817 | 8,171,619 | 4, 00.734 | 6.611,3196 | 6.75 |
| 18.38 | 2826 | 135 | 144.397 | 2,017,401 | 5.48, 61 | 7,821,085 | 6.76 |
| $18: 4$ | 2826 | 141 | 187.144 | 2,180,04 | \$.712.185 | 9,077.251 | 579 |
| 1856 | 2384 | 140 | 148.734 | 3,545,160 | 5,0t9,814 | 18,910\%, 523 | 641 |

The number of passengers has remainel atutionary since 1819, while the receipts for passenger trade have lacreased only in proportion to the length of road. The amount of merchandise transported has, on the contrary, increased three-and-a-half fold; and while in 1819 the reecipts on marchandisu did not equal the receipts from passengers, they amounted in 1855 to more than double the receipts from passenger transport. In $1 \times 49,381,788,585$ hundred pounds were transported over every mile of road; in $\mathbf{1 8 5 5}$ were transported $1, i 42,066,152$ hundred pounds. While the roads have scarcely lnereased one-third in aggregate length, tho transport of merchandise haa Increased live-fold.

The lengthe above attributed to Jrussian ronis extend in some cases heyond the Irussian borders. At the end of 1854 there wore 2230 miles of rallroad in l'russia. At the end of 1855 there were $231: 1$ miles. During the year 1856 about 270 miles of road were ojened in l'russia, so that at present in tho whole I'russian atate there is one milo of railroad to every uine and two thirds equare milles. This, howover, varies in dilfurent provinces-amounting la Rhincland and Weatphalla to $5 \cdot 5$; It Silesia to 7.2 ; in 1lrnudon-
burg and Saxony to $7 \cdot 5$; in Pemeranla, Prussia, and Polund, to $22 \cdot 5$ square mile for every mile of railroad. There are already commencod, and to be completed in 12 ycars, 2600 miles, so that in 12 years Prubsin will contain at loast 5280 miles of railroad, or one mile fr.r every $4 \cdot 3$ square miles. Thore will then be one mille of railrond to every $2 \cdot 3$ square miles in Rhineland and Weatphalia, to every 4 square miles in Silesia, to every 4 square miles in Braudonburg and Saxony, and to every 10 byuare miles in Pomerania, l'osen, nud l'russia. The cost of building these new romis is estimated at about $\$ 168,000,000$, or $\$ 14,000,000$ yearly.

Railronds in France. We extraet the following report on the conditlon and progress of railroads in France during the year 1856, submitted to the Emperor by M. A. Roulier, chief of the Department of Agrieulture, Commeree, and l'ublic Works:
"A resumé of theso figures, whleh Indlente the great Incroase of public contldence, also oxhibits the fact that the cunstruction of the net-work of railroads in France has cost, to thls period, $8,080,000,000$ franes, " of whilch

[^37]2,419,000,000 fell upon the companies, and $661,000,000$ was contributed liy the state. Of this aggregate amount there appears for the yeara 1855 and 1856 the enormeus sum of $919,000,000$ france.
"The net receipts, which in 1847 were ralsed to 22,000 france per kilometre,* suddenly fell in 1848 to 13,600 francs; but since 185̈2, notwithatanding doulle tracks were lati, their marked laerease la showa by the following ligures:
In 185? $\qquad$ 21,000 franca per kilomstre.

* 1854. 

"These returns experienced ln 1885 an exceptional angmenntion, owing to the Liniveral Exhiblion or World's Fair. They reached 30,300 francs ; and if tho amount did not reach that figure the present year (1856), the increase over 1854 is not the less progressive; for the returns for the first three quarters show the net amount of 28,000 franes, at the very lowest, per kilometre.
 feom 1823 ro 1853 .

|  | Actual Cout- |  |  |
| :---: | :---: | :---: | :---: |
|  | To the State. | Totho Companien. | Total. |
| From 1829 to 1893. | Franct, | Frapea. $8,1101,690$ | France. $3,30 \mathrm{~h}, 000$ |
| "4 18.51 to 1841.. | 8,248,740. | 152,097,754 | 175,326,403 |
| $\because$ Jit2 us 1817. | 278,524,477 | 603,411, 585 | 757.965.23\% |
| 4 184 10150 | $2.8,417,147$ | 198,711,089 | 497.138835 |
| "155. 10 184. .. | 51,187.751 | 046,690, 014 | 607.877.815 |
| In 155) | E5, 21016,000 | 4101,416,450 | 48, 6041,485 |
| in 1sto | $221,280,000$ | 458,t699. 113 | $478.850,313$ |
| Total . . . . . . . . . | 700,630,315 | 119,186, 60 s | $3,124,40,913$ |
| l.es recolpts ln) $1 \times 5,-60 . ..)^{3}$ | 45,565, 000 |  | 45,545,000 |
| Gencral tolal. | ग61.305,315 | 19,156, $15 \times$ | $3,0 \leqslant 0,494,973$ |

"It may be interesting and instructive to show as well the propertions in which thu expenses are distributed between the principal periods into which the past, thirty-four years have been divided, as the shure contributed by tho atate during the same periods. The yeare which elapsed between 1823 and $1 \times 30$ were, as respects railroady, an epoch of experhments and trials, to which the companies develed an annual average of 470,000 frances, the atate furnishing no contribution.
"During the twelvo years which aucceeded tho revolution of July, the indecision In regard to the system Hion which railroads were to he constructed, and the smatl share of contidence which these new apeculations Inspired, paralyzed the progress of developunent. This the expenses on the psit of the companies did not esceed an annual average of over $11,330,000$ frunes, while the amount which fell upon the state on a sinilar average was but 270,000 francs. The law of June 11, 1si:, gave the tirst impetus to railroad enterprises. From $1 \times 12$ to $1 \times 17$ the anuual nverage expense wus $85,800,(600$ franes for the companies, and $46,400,000$ for the state. From $184 A_{\text {to }}$ the month of December, 1851, owing to the politioal disturbances, which raached even the sources of credit, the annual average expenses of the company sunk to $30,000,000$ frances, while the mount which fell upon the atate wes raised to $55,000,000$ ench year. Since 18j2, however, when legilimate conlidenee was again restored, and new institutions had inspired in France securlty and hope in the future, a new order of thinge commenced. The annual exprenses of the company auginented in a remarkatile degree, havInge risen to the average of 21 ti, 000,000 francs. The demands upon the treasury dhminiohet no less rapidly, having been reduced by recejpts and relmbursements to the annual sum of $17,000,000$ franes.
"Finally, under the healthy fntinence of the general prosprity and credit, the expenses of the companles reached, in the year $18: 5,430,000,000$ franes, and in $1856,408,000,000$ francs; while those of the state were

[^38]reduced by relmbursements to not more then $80,000,000$ for both years. The résumé of these figurea, whleh are themselves the indlees of tha publle confidence, shows that the net-work of ralifroads in France has cost, up to the present period, $8,080,000,000$ francs, of which the rtate paid $661,000,000$ francs, and the companies $2,419,000,000$. To this aggregate amount the years 1855 and 1856 alone contribated tha onormous amont of $919,000,000$ france.
"The entire length of thls net-work of raliroads nt the commencement of 1857 is 11,250 kilumalres; or opened, 6500 ; in progress of completion, 4750 .
"Length to be comploted in the next ten years:

| 1857. | 068 | kltometres. |
| :---: | :---: | :---: |
| 1858. | 818 | " |
| 1809. | 1107 | 4 |
| 1863. | 234 | * |
| 1861. | 648 | $\cdots$ |
| 1802. | 83 | 4 |
| 1463. | 800 | " |
| 1864. | 236 | 4 |
| 1805. | - | 6 |
| 1866. | 266 | 4 |
| Total | 4750 | 4 |

The following are the latt returns of the gross reecipts of the principal French railwaya from November 11 to November 17, compared with the corresponding week last year:

| Railmatas. | 18 sos. | $1 \times 56$. |
| :---: | :---: | :---: |
| Northern | $\begin{aligned} & \text { Frane } \\ & 1.074 .872 \end{aligned}$ |  |
| Western........................ | -015,1100 |  |
| Grleans | 1,053,070 | 1,185,942 |
| \$trasburg . . . . . . . . . . . . . . . . . . . | 734,620 | 74,8197 |
| Montereau. |  | 42.9\% |
| 1.yo0s.................... | 835,769 | caz, 170 |
| 1.yous to Mtediterrancan..... | B10,361 | 675, (4)7 |
| Grund Centrat............... |  | 43,291 |
| South | 76,218 | 200,432 |

Progress of Railroad buidding in France nnd Cierma-ny.-In Germany the first railroad was opened in the year 1828, and two yeara later in France. The folluw. ing table exhibits the number of geographical miles in operation in both countrics aince 1828 ;

| Vearn. | F'ranee. | Germany. | Fears. | Frunce. | tiemans |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 18:8 | Milea. | Miles. | 1844 | Mila | milea 3 |
| 16:10 | 11 | 0 | 1845 | 1190 | 413 |
| 14322 | 10 | 17 | 1810 | 13.) | \$1! |
| 18.43 | 30 | 17 | 1847 | 210 | 739 |
| 19:5, | 36 | 18 | 1444 | 236 | 833 |
| 1n:16 | 36 | 27 | 1549 | $36{ }^{\text {a }}$ | 019 |
| $18: 37$ | 39 | 81 | 1*50 | 345 | 91:2 |
| 18:3 | 38 | 61 | 1451 | 461 | 10.5 |
| $1 \times 3.1$ | 45 | 75 | 1sid | [01] | 10,49 |
| 1.814 | (a) | 1118 | 1473 | (kid | 1176 |
| 1841 | 74 | 164 | 154 | 619 | 1223 |
| 185: | 74 | 241 | 16\%6 | 783 | 1274 |
| 1-4:3 | 1041 | 261 |  |  |  |

No two countries have the same weights and measwros, theugh the same name to designate them may le uned in many countries. Take the mile measurn, for instance; in Vinglamil and the United States a milo menus 1760 yards; in the Netherlands it is 1013 yarils: whille In Germany it is 10,120 yartls, or nearly six English miles; in France it to 3025 yards; the Scoted mile is 2472 yarils, and the Swedlsh inlle 11,300 yaris.

Raileays of Cirrat hriain.- 1 l the 81 st of lerem-
 dom had actually coat in monoy $30: 1$ millions sterlimp, ani that large ain hati been obtained as follews: viz.,


The average rate of interert pald on the proference share capltal was tib lis. per cent. per shumm: on the loans ralsed, that is on debenture debt, it 138 , per cent. fer annum; and on the ordinary share capital,
£3 28. ceipte were proad is now ing. ing $v$ tem of and ra ment er bny

## RAI

f8 2s, 6d. per cent. per annum. The total grosa receipts of the railwaye of the Unlted Kingdom In 1856 were twenty-thres millions aterling, or something approaching the Intereat of the natlonal debt. The end is now rapidly approachlng of the era of railway making. It hes been golng on fortwenty years with amazing vigor, and lt has covered Great Britain with a 6 ystem of publle roada whlch, for extent, perfection, utillty, and rapldity of execution, leavo far behind the achlovements of any other nation except the United Stater, or any other age In the aame space of tine.

The following table shows the number of railway acts passed in each acsalon of Parliament since 1846, together with the leagth of new lines and amount of capital authorizod by those acts:

| Yearm. | Nomber of Gadlway Acta. | Length of Lina authorized. | Amount of Money authorized to be raised. |
| :---: | :---: | :---: | :---: |
|  |  | Milee. | £132,017,308 |
| 1846......... | 260 100 | 4183 1350 | $2132,016,308$ $30,460,128$ |
| 1847.......... | 100 | 1360 | 30,403,128 |
| 1848.......... | 85 | 371 | 15,274,287 |
| 1849........ | 34 | 16 | 3,911.331 |
| 1850........... | 84 | 8 | 4,115,082 |
| 18.11.......... | 01 | 185 | 9,563,275 |
| 1st5........... | 51 | 24. | 4,333,83! |
| 1553.......... | 106 | 040 | 15,517,601 |
| 1854.......... | T1 | 482 | 9,211,602 |
| 1855.......... | 10 | 363 | 9,192,038 |

Of the 73 acts passed in 1855,53 had reference to the construction of works; the length of new lines authorized by these 53 acts was as follows: viz., 196 miles in England and Walcs, 76 milea in Scotland, and 9 9 miles in Ireland.

The lines anthorized in England and Wales were chielly extensions or hranches connceted with railways alrendy authorized. Tho most inportant were tho following :

The extenaion of the East Kent Railway, from Can-
terbury to Dover. By this line direct rallway communication will be afforded between Dover and the naval and milltary arsenals in North Kent, as also a shorter line between Dover and the metropolia, than is afforded by the Southeastern Railway: The Newtown and Oswestry Kailway deasrves notlce, as forming a link in a llne of railway communication which will probably eventually consect the manufacturing districts with Milford Haven. The Carliale and Silloth Bay Railway ia an extension of the Port Carlisle Railway to a new harbor on the Solway Frith.

Among the llaes authorized in Scotland may he noticed the Glasgow, Dumbarton, and Heleuaburg Rallwuy, proposed to be constructed along the north hank of the Clyde from Glaagow to Helenaburg, and the Bauif, Macduff, and Turiff liailway. The remaining lines were merely ahort branch lines in connection with exlating rallways.

In ireland were authorized an extension of the Dundalk and Ennlakillen Railway to Cavan, and of tho Ulater Railway to Dlonaghan. The Belfast and County Down Railway Company wag authorized to make a line to connect Downpatrick with llelfast. A few other ahort branch lines were also authorized.

Development of Railucay Communication.-The total length of line authorized hy Parlianent down to the end of 1855 amounted to 14,346 miles; hut of this 1495 miles have been abandoncd by subscquent acta or by warrant under the authority of the commissioners of railwaj:s, and conaequently there remain $15, i^{5} 1$ miles for which the parliamentary powers which were obtained have not been repealed. Of these 8280 milea were open nt the end of $180^{5}$; 4571 miles, having reecived the authority of l'arliament, remain unopened.

The following talle exhibits for each year since 1843 the proportions of rallways authorized, opened, and abandoned under the authority of Parliament :

 tie total lenoth of llailway opened for 'ldayfio in facif Seab binof 1843.


From the foregoing tahle we see that there was a general lnerease in the number of miles opened from the year 1844 to the year 1818, when the number reached the maximum. From the year 1818 there was a decreaso, which, though not regular, is aufficiently so to show that Great Iritaln was approxlmating townri a completed systom. The average numberof inlles opened in the twelve yeara from 1844 to 1855 Inclusive, was 690, which la much leas than the average number hullt in the Uniter Statea during the same period.
This length of line lis distributed throughout the United Kingion as follows:


With respect to 2284 miles out of the 4571 miles | been applied to those portione of railway, and that it for which parliamentary powers have been obtained, and which have not yet been opened, the powera for the compulsory purchase of the land and the completion of the works have expired. The proportion in which this is distributed through the several yoars is shown in tho following table:
Table emowing rit Proportion of Rathwat mot open YOK TRAFFIO, AUTIOAIZRD PREVIOUS TO THE END OF 1843 AND IN EACH SGABEGUENT YEAE, AKD WHIOL HAVE NOT HEEN ALAANDONET HY gUBEgquENT AOTE; AND TIE PROPORTION AB TO WHIOI THE TIME ALLOW ED FOB TIIE OOM-
 Wogee has expinmd without the llallways hging oomPLETED, DOWN TO THE END OF $18 \% 6$.

| Years, |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Milen. | Miles. | Milies. |
| Of Ines authorized prevlous to December... 1843 |  |  |  |
|  |  |  |  |
| 1945 | 844 | 258 | 91 |
| 1816 | 14\%0 | 1134 | 816 |
| 147 | 640 | 607 | 78 |
| 1545 | 888 | 257 | 60 |
| Of liaes suthorised in $\left\{\begin{array}{l}184 . \\ 1850 \\ 1851 \\ 185 . \\ 1853 \\ 1854 \\ 1855\end{array}\right.$Total. . .............. | 18 | 18 | - . |
|  | 18 | ** ${ }^{\text {¢ }}$ | 65 |
|  | 08 | 44 | 49 |
|  | 816 | .... | 816 |
|  | 47 | .... | 407 |
|  | 34 | -••* | 853 |
|  | 4571 | 2284 | 2287 |

Cpon 213 miles out of the 2287 miles for tho construction of which parliamentary powers exist, the powers for the compultery purchase of the land havo been allowed to expire without having been exerciecd; nnd this increases, therefore, the numbier of miles which it is not probable will ever be made to 2497 miles.
The tatal amount of money authorized to bo raised by roilway companies, by shares and on loan, to the end of 1855 , amounted to $\mathbf{5 3 7 4 , 9 7 1 , 9 6 6 \text { , of which }}$ $£ 297,583,284$ had been raieed, leaving $£: 5,388,682$ to be raised. There are no meana of ascertaining how much of this sum is apportioned to the miles of railway for which parliamentary powers have expirct, but it may bo assumed approximately that from $£ 30,000,000$ to $£ 40,000,000$ of this amount would have
been applied to those portions of
will not, therefore, be now ralsed.
Of the 8297 mlles open for traffic on the 31st of DC. comber. 1855, the proportion constructed on the narrow gauge, broad gauge, mixed gauge, and Irish gauge, is as followa:

|  | Natrow | ${ }_{\text {Prend }}^{\text {Browd }}$ | Mired |  | tal |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12 Englind | ${ }_{\text {Mileat }}^{\text {Mis }}$ |  | ${ }_{\text {Miober }}^{\text {Milo. }}$ | पller. | Sillea |
| in scothand... | 1092 |  |  | $\cdots$ | 1092 |
| 1n 1relsad.... | 8 |  |  | 879 | 087 |
| Total...... | 6445 | 067 | 208 | 579 | 22:7 |

And by the following table is shown the length of lines open for trafic at the same dates:

|  | Number of Compenie having aingle Lioes. | Narrow Gange. | Brosd Geuge. | Mised Oauge | $\begin{gathered} \text { 1rith } \\ \text { Gauge. } \end{gathered}$ | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| In England | 85 | Mitee. $3004$ | Milec. | Milee: | Milen. | Milees |
| In geutiand | 20 | 5.54 | $\ldots$ |  |  | ist |
| In Ireland. | 21 | 2 | $\ldots$ | $\ldots$ | 569 | 870 |
| Total. | 126 | 13011 | 209 | 72 |  | 2163 |

- Thirty-alne milles of thils length is laid with a second line on a narrow gauge.

From the abovo details it appears that the length of now lines opencd for traffic during the year 1855, ineluding 17 miles of lino lelonging to private individuals, amounted to 243 miles; of these, 235 miles were laid with only one line of rails.

Of the lines opened in 1855, the following arc those which appear to be the most important, viz. :
Tho Hereford, Ross, and Gloncester Railway, a hroadgauge line, which affords to Hereford a more direct communication with the metropolis than it previeusiy possessed.
The Wimbledon and Croydon Rnilway, which affords a commanication to the south of London, between the London and Southwestern and the Southeastern Maiiways, and provides another link in the line of railway communication which encireles the metropolis.

The length of new lino ryported to be in course of construction on the 30th of June, 1855, was 480 niles; of these about 170 miles wero opened beforo the 31 st of December, 1855.
With the view of affording some measure of the comparative progress of railway enterprise, the following table has been prepared, showing the number of mites of railway in course of construction in each year sinco 1848, and the number of persons employed thereon, together with the amnunt of money received, suld the number of miles of railway opened during the year:

| Years. | Lines in ecorme of Construellin. |  |  | $\begin{gathered} \text { During } \\ \text { the } \\ \text { titer. } \end{gathered}$ | Money raised by Nharat and Leend. | Miles of Railuas oppened during: the 3 rat. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Milen. | Number of Persess employed. | Average Number omployed per Milv. |  |  |  |
| Stay 1,1848........................... | 2984 | 188,177 | 0136 |  |  |  |
| Jurie 30, 1849 . . . . . . . . . . . . . . . . . . . . . . . . | 1504 | 108.816 | 010 | 1449 | C09,574,719 | $4{ }^{6}$ |
| dune 49, 1850 . . . . . . . . . . . . . . . . . . . . . . . . | 864 | 98,854 | $68 \cdot 15$ | 155: | 10,622, 67 | 6.5 |
| June 80, 1851, . . . . . . . . . . . . . . . . . . . . . | 734 | 42.968 | 68.49 | 1*゙り | 8,970,181 | $23^{\prime \prime}$ |
| dune 80, 1852 . . . . . . . . . . . . . . . . . . . . . . . . | 788 | 35.035 | $48 \cdot 60$ | 18:2 | 15,924,753 | 446 |
| June 30, 185s . . . . . . . . . . . . . . . . . . . . . . . . . | 659 | 87,704 | 8530 | 1538 | 11, $15 \times .825$ | (23) |
| June 80, 1854. . . . . . . . . . . . . . . . . . . . . . . . . | 899 | 4, 401 | 51.17 | 1.51 | $12.452,3 \% 4$ | 364 |
| June 30, 1855 . . . . . . . . . . . . . . . . . . . . . . | 840 | 85, 1,46 | 4380 | 18.5 | 11.514400 | 64] |

The number of erana employed on the 30th of $\mid$ Tho increase in the number of miles for the whle pe. June, 1855, upon the railways in course of construction aunnunted to 38,516 , being on the average 43.8 per mile. It will be seen from this tablo that the average number of persons emplnyed per mile has gradually decreased sineo 1849. This may be ascriberl to improvements and the employment of ateam-powor in railway construction.
The length of line open for traffic in the Unitod Kingdom on the 30th of June, 1855, was 8116 miles, and the number of persona employed thereon amounted to 97,952 personk, or 12.07 per mile. This, ns apparara from the following table, is a larger number per mile than has been employed In any year since 1 k 48 .

Tho increase in the numbier of miles for the whole perod of elght years, is 98 per cent.


RAI
Emeliah Railway Trafito

|  | 1965, | 1868. | locreme, |
| :---: | :---: | :---: | :---: |
| Total recelpta for goods, passeagera, malls, etc. . . ....... | 2 $21.128,816$ | ,222,9C5,500 | 21,872,185 |
| Length of ratiways open fer traffic, mites............. | 8,240 | 8,760 | 6:30 |
| Average recelpt per) mille open during the yoar .......... | c2,068 | ¢2,750 | 291 |

There is thus aeen to be an increase, not only In the nmount received, but also in the length of railway, and this has been to auch an extent that the receipts per mile are likewise greater; and although the later week3) returns for 1858 did not show ao large an Increase over those of 1855 as those of the earlier portion of the year exhibited, there is still reason to hopo that railway property has now overcoma many of the difficulties by which It was besct, and that it will henceforth yield a return more commensutato wlth the advantagea it has conferred upon the public than has liltherto been the case.

Among the benefits derived from rallways London may reckon the increased importation and diminlshed price of fuel, which lave been the consequence of the better development, as shown by the following return of railway coal traffic:

| 1855. | 1854. |  |
| :---: | :---: | :---: |
|  |  |  |
| $\text { Toon. } 137,635$ | $\begin{gathered} \text { Tone. } \\ 1,240,209 \end{gathered}$ | 108,4 |

But the value of railways in this respect will be better appreciated if the quantities brought in that way aro contrasted with thoas brought by other means of conveyance, for during the same period we find that the canal coal traffic only amounted to

| 1886. | 1858. | e |
| :---: | :---: | :---: |
| Tono. | Tous. | . |
| 24,051 | 25,401 | 750 |

And that the whole amount of gea-borne coals breught into Lonilon in those years did not axceed

| 1888. | 185s. | . |
| :---: | :---: | :---: |
| Tons. <br> 3,016,808 | 8, Tona | 83 4 T,454 |

From which it appeara that the railway coal traffic now benrs a very large proportion to the limportation by sea, and that during 1856 the increase by rail was greater than in 1855, although there was not then the competitlon, for purposes of war, in freights whleh had previously existed; whila the canal traffic is 80 small as scarcely to deserve notice.

The reault, as shown by the following tablo, is that passengers and goolls have changed places as the chief clements in the gross earnings. The early railway managers expected-nnd with reason-that with the railwnys, as with the conches, the pnssengers woull be the main reseurce, and so they were for a few years.

But for the last four years, and the more rapldly as the lines open have extended, the goods traffic has ahot ahead, and year by year bas left the passenger traffic behinil.

ENGLAND AND WALES.
Elont Yeara, 1840-'66. -Grose Reozipts, per Mile open, from faci Clabs of Pabsinorib, and albo tib Receipte per Mtle yo: Goods.

| $\begin{aligned} & \text { Miles } \\ & \text { open. } \end{aligned}$ | Years | Pamengera. |  |  |  | Goods. | $\begin{gathered} \text { Totol } \\ \text { per ssile. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 16. | 8. | 3 d. | Total. ${ }^{\text {P }}$ |  |  |
| Nomber. |  | 5 | ${ }^{\text {c }}$ | c | ${ }_{5}$ | 1 | ${ }_{5}$ |
| 4355 | 1843 | 400 | 518 | 331 | 1255 | 10.0 | 2.45 |
| 4908 | 1850 | 380 | $4!8$ | 321 | 1159 | 1117 | 2316 |
| 5217 | 1551 | 424 | 521 | 378 | 1830 | 1158 | 2483 |
| 5475 | 1853 | 370 | 471 | 350 | 12\%0 | 1037 | 2457 |
| 5730 | 1858 | 408 | 474 | 318 | 1270 | 1.415 | 2694 |
| 5962 | 1854 | 406 | 486 | $40{ }^{\circ}$ | 1324 | $1: 84$ | 2908 |
| 6105 | 1855 | $4(14)$ | $4: 2$ | 4.12 | $13 \cdot 5$ | 1053 | 2978 |
| 63.2 | 1S66 | 411 | 476 | 418 | 1364 | 1751 | 3120 |

Thene tablea incinde the years 1840 and 1850.

But this is not all; for when we come to look closely into the passenger traffic itself, we find tha same continuous and confirmed tendency in the common to supersede in importanca the dear kinds of service. Tho receipts from first-class fares hava barely maintained the level at which they stood elght years ago. The reccipta from aecond-class fares have acriously fallen off; namely, from $\mathbf{£ 5 1 8}$ per milo in 1849 in tha 4355 mlles open, to $\mathbf{£ 4} \mathbf{6} 6$ per milo in 1856, with 6332 miles open. But with the third-class fares a precisely opposite class of changes has taken place. With scarcely a ainglo exception of consequence during the eight years, the receipt per mila from third-class fares has gone on increasing, until, in 1856, the receipt of $£ 448$ per mila is quite 83 per cent. above receipt of $£ 331$ per mile in 1849. The percentage proportions to the total passenger traffic $\ln 1840$ and 1856 of the receipts per mile of the three classes of fares, were ns follows, viz. :


While, thereforo, in 1849 the common kinds of passenger service contributeii a little more than a fourth part of the total passenger reccipts, that proportion had been raised to quite a third part in 1856 ; tha firstciass proportion remaining the same, hut the secondclass proportion falling from 41 to 35 per cent.

But there la mure evldence to be adduced.
Wa have seen in the foregoing table tha gross results per mile of railway open. Let us now examine somewhat mora in detail tha relation between those larger results and the rato of fares and average phyment by each person conveyed, and these further details will be found in the following table, but extending to the five years 1852-56:

Five Yeare, 1S52-'60.-Detaile of the ayeqdoe ledelipts fon l'ashenoza Teafyio.

| Yoara | Firat Class. |  | second class. |  | Third clos. |  | Total. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Averngy } \\ & \text { Payment. } \end{aligned}$ | Averrigo par Mile. | Averago Payment. | $\begin{aligned} & \text { Avergeg } \\ & \text { per Milo. } \end{aligned}$ | $\begin{aligned} & \text { Average } \\ & \text { Paymeat. } \end{aligned}$ | Average per Mile. | $\begin{aligned} & \text { Avergat } \\ & \text { Paymant. } \end{aligned}$ | $\begin{array}{\|l\|} \hline \text { Avorage } \\ \text { per Mile. } \end{array}$ |
| 1859 | ${ }_{54.90}$ | ${ }_{2}^{\text {d }}$. 11 | ${ }_{22}{ }^{\text {d }}$ - 32 | d. ${ }^{\text {d }}$ | $12 \cdot{ }^{\text {d }}$ | d. <br> 0.8 <br>  | 21:30 | ${ }_{1}{ }^{\text {d. }}$. ${ }^{\text {c }}$ |
| 1833 | 51.80 | 2.13 | 20.4) | 1.44 | 12.43 | $0 \cdot 86$ | 20.40 | 132 |
| 1854. | 47~28 | $2 \cdot 10$ | 2088 | 1.42 | $12 \cdot 48$ | $0 \cdot 55$ | 19.92 | 1.29 |
| 185). | 4388 | 2.09 | $20 \cdot 16$ | 1.43 | 12.00 | 088 | 19.20 | $1 * 28$ |
| 186. | 43.30 | 245 | 20.45 | 1.44 | 11.68 | 0.88 | 18.74 | $1 \cdot 22$ |

Nots. - In tha nobve table the columma of "Avemge Payment per Pasaenger" represent the total average aumin paid in each year by each of the paseengers eonveyod. The colnmas of "Avergge Farv per Atile per Passenger" reduee the larger columus to a mere convenient infteagement.

We find here thant the first-class fares have fallen from 2-11d. per mille $\ln 1852$ to $2 \cdot 07 \mathrm{~d}$. per mile in 1856, and average payments of each passenger convoyed from $54 \cdot 96 \mathrm{~d}$. $\ln 1852$ to $43 \cdot 30 \mathrm{~d}$. In 1856 ; but in connection with these reduced fares and amaller individund phyments, we have already geen that the earnings per mile open have somewhet riaen, comparing 1856 with 1852.

In the second class the farea have riaen slightlythat is, from $1 \cdot 43 \mathrm{~d}$. in 1852 to $1 \cdot 44 d$. in 1856 ; and the nveraga paymenta have alightly fallon from $22 \cdot 82 \mathrm{~d}$. to $20 \div 45 d$, but the average earnings per milo have remalned almost unchanged.
In the thlrd class the fares have fallen, and so have the individual payments; but the earninga, as we have already seen, have increased largeiy.

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Wo may venture, then, to infer that, so far as the evidence before us applies, three general conclusions seem to be justitied at this scage of the inquiry, and these conclusiona aro:

1st. That the revenue of railwaya during the last eight years-that is, during the period since the railway system had arrived at maturity in England and Waies-has been derived year by year in a larger proportion from common as distlnguished from dearer kinds of aervice, and especialiy in the rapid relative growth of goods traffle.
2d. That during the anme period a precisely aimilar result has taken place $\ln$ the passenger traffic by increase of receipta from third-elass passengers, and the decline or non-increase of recelpts from tirat and second class passengers.
31. That as regards nearly all classes of passengers, the increaso of passénger traffic per mile of railway has been accompanled by a recluction in the rates of fares, ind also by a reduction in the average payments of ench person conveyed; in other words, a larger revenue has been obtajued by meana of smaller individual contributions.

Railonads in Canada.-The gigantic railway enterprises now in progress in Canada nre intended to ennbrace a railway system traversing neariy the entire length of the province from east to west, with branch feeders running inte the main-trunk line, and carrying ofl traftic to the leading American citios and Atlantie sea-board.

Besides the government aid to thia complete railway system through Canada, theso undertakings are understood to receive substantial support from L'nited States interesta, the great Western country, as well aa the northeastern States of the Union, being directly interested in the suceess of these Canadian lines; more expeditious routes between tha agriculturai districts of the West and their centres of trade being opened up) by them. One of the mest valuable features of these railways to Canada will be their affording the provineo increased facilities of trade during winter, and uninterrupted communication with ocean traffic when inland navigation is closed.
The most important line of this comprehensice railway aystem is the Grand Trunk railway. The entire length of this line, when completed, will be 1112 inlies. Its eastern terminus is at Trols l'istoles, In lower Canada. Thence upwarl it proceeds along the south shore of the St. Lawrerice, passing opposite to Quebec, and, continuing thus west ward, reaches Montreal. Ilefore reaching Montreal, the line effeets a junction at Itichmond, in the eastern townships, with a line of railway to l'ortland, on the Adlantic, in the State of Maine. The part of the tine hetween Montreal and loriland, a distance of 292 miles, is now open. The communication between P'ortland and Quebee was opened in 1854.

At Montreal, one of the mast atupendous atructures of moiern !imes will carry the railway across the fiver St. Lawrence, which is here two miles in width. This glgantic undertaking is now in courso of construction, under the superintendence of Mr. Rohert Stepliensen, whose name is associatein with the well-known Britansnia tnbular bridge. The Vietoria tubuiar bridge of Canain will, however, far surpass Mr. Stejhenson's carlier work. The total span of the arches will he 61 is8 feet, besides piers on cidier side, runnlug into the river, ench about half a mile long. The apan of the centre arch is 360 fect. The number of arches is 25 , and, with the exerption of the centre one, wach has a span of 242 feet. The tule, which is of iron, is 25 feet hilgh and 18 feet wide. The other parts of the work, including the half mile of jiers on either side, are wholly of solid masonry. The height from the water level of the river to the floor of the iron tube will be 60 fect. In order to imjart some illea of the strength of this stupendous work, it may te mentioned that
each buttress is calculated to resist the pressure of 70,000 tons of lee. Tho estimated cost of the Victoria tuhular bridge is atated to be $\$ 7,000,000$.
From Montreal the Grand Trunk line follows the north bank of the St. Lawrence, touching the towns of Cornwall, Prescott, and Brockvilie, to the city of Kingston, on Lake Ontario. Thia distance from Dontreal to Kingston is about 180 miles, about 120 of which, from Montreal to l'rescott, was opened in October, 1855.

A branch dine of 55 miles, connected with this part of the main trunk, was fully completed during 185., from Bytown to Prescott, opposite to the Anerican port of Ogdensburg, where an important contrection has been formed with United States lines of rail. way. Anether line of abont 80 miles was also constructed in connection with this section of the Grand Trunk from Montreal to Kingston. This is ane from Ily town to Montreal, following the course of the Ottawa, and jolning the Grand Trunk at Vauilreil, close to the Ottawa, and to the junctlon of that river with the St. Lawrence.

The Grand Trunk line, procecding westward from Kingston, skirta the shores of lake Ontarlo, passing the Llay of Quinte, through the towns of Belleville, Cobourg, and lort llope to Toronto, the capitai of Upper Canaila. The length of this section of the line, from Kingston to Toronto, is about 200 miles; the lengtr of tha line from Moutreal to Toronto being $3 \times 0$ milcs.

A branch of thila section of the Grand Trunk from Kingston to Toronto, extending to 30 miles from $\mathrm{C}_{0}$ bourg to the town of l'eterborough, on the liver 'Sta abee, was ojened during the year 1856. Another line is also in construction from Bellevilie to l'eterborough. The most important line branching from this maia section of the Grand Trunk, 45 miles of which are al. ready open, is that from Toronto northward, passing Lake Simcoe, and thence continuing to the great Georgian Bay, on Lake Huron. From Toronto the Grand Trunk railway proceeds directly westward through the fertile peninsuia of Upuer Canada, passing the towns of Guelph and Stratford, and terminating at the flourishing town of Sarnia, at the liead of the River St. Clair and southenstern extremity of Lake lluron. The entire length of the Grand Trunk ine, which is now being pushed toward completion, numely, that from St. Thomas, 40 miles beiow Quebec, to Guejpl, ia Upper Canada, was completed in September, $1 \times 56$. The remaining portions of the system will not be so actlvely proceded with. The direct diatance from 'Trus Pistoles to Sarnia is $8: 0$ miles.

At Toronte another important railway system conmences, known as the Great Western. This rallway commences from a joint station at Toronto in comection with the Grand Trank railway, and skirts the hrad of Lake Ontario to Hamilon, a distame of to miles. It thence proceeds west ward through the heart of the settled parts of the great peninsula, sitnated leetween the lakes Ontario, Lirie, atid Inaron, passing through I?rantford, London, and Chatham, nud terminates at Windsor, on the Itiver Detroit, dirertiy opposite to the American rity of Detroit, in the itate of Michigan. At this point an lmportant connection takes place with linited States raliways.
'Ihe Great Western ine, besides its terminus at Ilamilton, dlverges to the Falls of Niagara. The Grent Western rallway is now open from Windsor to !lamilton and Niagara Fulls, a distance of $2: 0$ miles. That jortion of it from Hamilton to Torento, 15 miles in length, was oprned in the vear 1851.

We have now (returning to Lower Canada) to mention the St. Lawrence and Champlaln railway, which conneets the south lank of the St. Lawrence, opposite to Montreal, with the head of Lake Champlain, at Ronse's Peint, a distance of 45 miles. At Ronse's loint this railway comects with the system of railways

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to Albany, Boston, New York, and other parts of tho Unlied States. The Plattsburg railway commences at Cauglinawaga, on the south shore of the St. Lawrence, opposite to Lachine, and runs to the town of Platisburg, on Lake Champlain, a distance of 28 miles. The Nontreal and Lachine rallway, a short line of 9 miles, connects the city of Montreal with the upper pert of the island at the village of Lachine. This rallway, as also a portion of the St. Lawrence and Champlain line, have been in activo operation for soveral years.

The average cost of the construction of rallways in Canada will be about $\$ 17,500$ per milo. The average fares are from two to three cents per mile, according to distanco of journoy. The electric telegraphs in Canada convey messages at much nore moderate charges than in England.
The control of the Post-office of Canada was transferred from imperial to colonial authorities in 1851.
er. The first locomotive engine used weighed but aix tous, and these have been suecessively increased to ten, sixteen, twent $\%$, and twenty-slx tons, whille on some of the frelghting roads engines of furty tors weight (Including the tenders) have been introduced. I'he foregoing llst of changes shows how imperfect a inachine the railread was when many of thein in thla country were first commenced, and how many radical changes have been necessary in the construction of their ways and works. The preaent atate of perfection in the machine renders it probable that new substitutions of lte important and expensive parts will annually become more rare, but yet it may be safely assumed that some expenses of this character will contlnue to accrue and must be provided for in estimating the cost of our railroade or their value as an investment.-Report of the New lork State Einginecr, 1855.

In the conception and construction of our system of railroads there was no well-digested plan in regard to the position of the prinelpal terminl, or the route for the trunk lines, or the mitual relation of the main llnes to each other. Tho result is that tho syatem is imperfect as a whole, though admirablo in many of Its parts. We have many roads huilt only in rivalry to others; some parallel, others having the samo termini. The same expenditnre properly directed would have given us a complete system, with fewer miles constructed, but of a more durable character. The want of plan ls in consequence of our system having been built by States not separated by topographical divisions, and by private eompanies having a vlow more to immedlate prefit than to the future success of and connection with the system. One of the greatest resulting evils is the conatant break of gauge, which makes necessary the frequent transhlpment of both passengors and freight; thereby increasing cost and delay. The gauges ith common use comprise from 4 fect $8 \frac{1}{2}$ inches, the chance width of the first " tram wagon," which the tirst " tramroads" were made to fit ; to 4 fect 10,5 and 6 feet, all empirlcal gauges; and each having respective merits which vere advocated by their introducers. Whatever may have been these claims, it is untortunate that ono was not universally agreed upon; and there is no risk in asserting that even at this dato date the saving in time to passengers and in Injury to frelght during five years would be more than an equivalent for the cost of all necessary changes in the rolling stock, and superstruclure consequent on the adoption of a common gauge. Our railroads have been so much indebted to fortultous circumstances for their position and relation to each other, that the prinelpal claim to a aystem that wo can advance is liased on topographieal divisions. And having this division in view, wo will proceed to describe briefly our railreads as a system.

The oljjects to he gained by our first railroads were to open an ontlet from the ferlile regions of the West, and to get access to the interior as a market for the manufactures of the sea-board. The principal results are the four great trunk lines, which are the boast of the country, and which have done more to develop tho West and enrich the East than wac dreamed by the "enthusiusts" who were followers of Do Witt Clinton. Two of the four trimk lines, the New York ond Erie, and the New York Central railreads, clirected their first slow course to the great American chain of lakes, expecting to be content to end there, and not to cuter into a contest with an inland sea. But with the nid of the frosts of winter, they found thenselves fit rivals, and have extended their lines with such vigor, that the branches of these trunk lines have tapped the Mississippl, and are hastening on to the Pacitic. Their connection with every town and hanlet in the Mississipni valley is the best fourdation for a contlnuation of the progressive prosperity of New York. The other two lines, the lemsylvania Central and the Baltimore and Ohio railroads, had no further aim than to pass the barrier of the Alleghanies, and then receive their pros-
parity from the Ohio River. But a rivor that, accordligg to John Randolphy "was dry half the yoar, and frozen the other hulf," was not a dopendence; and now even the Misaisalppi liver is not a satlefying end. Wo can brietly nay that thene four trunk linem, with their direct connections, constitute the Northern hale of the system. The other aingle roadn, not connections, north of a line of the Ohio valley, however important in themselves, are only local roads.. Seath of the line of the Ohio valley, the Virginia Central and the Charleston and Memphis rallroads, with their direct connectlons, constitute a similar portion of the Southorn half of the railroad aystem. The remaining East and Weat trunk line to be deacribed in the one from Now York eity, in 4 direct line west. This railront, now nearly comploted, is almost a necessity to the passengor truffic, being the shortest route weat from New York city. These roads, in conveying the produce of the Interior to the sea-board, and in opening the Weat for settement, form a much more important part of the aystem than the roads running north and south, and having as their principal business the interchange of the producta of the North and South. The roada, running north and south, are divided by the Alleghany Mountains. The castern half is made up of a trunk road and its branches, running piralles to the sea-coast from Bangor to Mobile, having at prenent but one ahert break in Alabama. The treight business of these roata is necessarily linnited, and condned prineipally to costly freight, as tho co.sting trade in the untural carrier of heavy freight. The passenger businesa is the principal eource of profit; and as theac ronde ran through the noot populous sections of the country, they have umpio eumployment. The trunk road west of the Alleghany Mountains is made up of the Illinois Contral and other roada In the Miesisbippi valley, converging to the mouth of tho Ohio River, added to the yet unthished trunk road from the mouth of the Ohio to Mobile and New Orieans. There roade until ?ately have not been necessary, as the Misalsalppi and Lranches have generally affirded ali the internai communication necessary. Th: interchange of the productiors of tho South nud Weat, and gling rapid communication over the West, mak s thene roads now a necesaity. We can see then, that, netwhestanding the want of unity of action from the first, the aystem ie gradually becomIng more perfect, and that the completion of the trunk lines runuiug weat to the l'acific will not lot ue lose the proud boast that we can now truly make of having the noblest system of internal improvement in the world.

New lork Shate.-The fullowing exhibit of the condition of the railroade in Now York State in in part a synopsis of the roport made to tho New York Legisiaiure in 1855 by the state engineer, and contains many important suggentiona in regard to the future managemeut of our raliroads, coupled with such valuable information as to the condition of the atate aystom.

The returns of the railroud corporations of New York State do not comply with the law in stating the nmount of dejrecistion of the works and rolling stock. The returus of the railronds of Masachusetts, in mont cases, show a small allowance made for the depreciation of tho iron rails, engines, and cars. It is contended by many skiliful managers that if the works and roling stock are kept in thorough repair, they are in as good condition at the end of each ywar as they were at the end of the preceding year, and therefore that there can be no depreciation. The diticulty lies in determining the fuct whether the repairs have been kept up lon this thorough manner. The expense for repairs of tron ralls, nfter allowing for the value of the old material, is equal to the cost of an entire renewal once in fourteen years; that for cross-ties to a renewal once in elght years; for wooden bridges once in ten years; and for wooden stations once in thirty years. This deterioration may be reprosented in antiother form, by atating it as egual to from 2 to $\&$ per cent. andualiy on the whole cost of the road.

Railinosde are also subject to one item of expense which is rarely directly itated; via., the necesanry aubatitucion of improvementa in the way and works before the original ones have been worn out by use. The railroad, considered as a machine, is of recent invention. Its power, eapacity, and endurance have not even yet been fully ascortnined. As the two former are doveloped, the sabstitution of improved forms for increanalng its efficionoy, either in capacity, speed, or economy, becomen necessary, and these subatitutions are more extensive than they are in other machines of older date or use.
The returns of the railrond eorporations show continued large additions every year to the conatruction account of even our oldent and beat built ronds. The reported increase of cont during the year 1855 was chleflyIn consequence of an axtension of the double track, a larger equipment, and atation facillties for the accommodation of the incressed freight traftic. The increaso of the cost of the road on the New York and Erie waa 20 per cent. during the yenrs 1854,1855 , and ou the Central it waa greator than 25 per cent. durIng the same period. The reported carnings and net earnings of these ronds have increased by a much larger percentage than the cost of the roada as above stated, white the reported expenses of operating have increased by about the same percontage as the earnings. The freight earnings have increased more than the passenger earnings ; bu: the nverage receipts per ton per mllo wero less in the year 1855 than the preceding one, eapecially on the Central roud, although the rates of chargos have been increased on both roails, The average receipts per ton per mile for the jear $185 \tilde{H}_{i}$, wero two and a half rents on the Erio, and a littio more than three cenis on the Central, whilo the arerage the preceding yoar on tho latter was nearly three and a half centa. The frelght tariff has been nearly alike on ench of these moads for the last two yenrs; it ia, therefore, ovident that the business of the Eric rond embracea a larger portion than that of the Central of those articles which pay the least rates, and that the latter road has been performing a much larger propartion of ita businese at low rates thia year than fonmerly. On comparing the reported receipts, expenses, and businese of our three princlpal froighting ronds, it will be seen that the paseenger bualuess on the Erie is reported as giving a net proft of 47 per cent., with an avernge charge of one and seven-tentha cents per pas: senpor per mille; on the Central, a net profit of ti per cent., and a charge of one and nine-tenths cents, and on the Northern Railroud a net profit of two per cent., with an average charge of two and eeven-cighths cents per passenger per mile; and that the freight business on the tirst is reported as giving a net profit of 51 per cent., with an arerage charge of tro and six-tenths cents per ton per mille; on the second a net profit of 48 per cent., with nn average charge of three and seventenths cents; and on the third a net profit of 34 per cent., with an average clarge of two and one-fourth cents per ton par mile. The character of the husiness, ths grailea, and other circumbtances of these several ondn, to not furnish nny sufficient renson for these iscrepnncies. The aetunl cost of transportation upun raltroada will prohahly never be accurately determined from their reports, until they have been run a few years with the construction account elosed, and no money borrowed. The expenses of operating the road, as atated in the reports, aro about one and $n$ quarter cents per ton per milto on tho Erie, and one und sixtenths cents on tho Central; but, ss before stated, these reperts cio not show accurately the cost of this service. More reliab, testimony on this sulject is afferded by the recent action of the railroad conventions. At the one held at New York, embracing the officers of the four great lince between the Atlantlc and the Weat, a joint report was submitted ty the superintendents of the several roada, in which they state

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that "experience has proved that the lovest rates at and expenses will sverage about two cents per ton per mile for heavy agricultural producta, three centa for groceries, and four cents for dry goods." At a subscquent convention of the railroad companies of Ohio and Indiaina, simllar rates wero adopted. Tho above charges applied to the business of our two great lines would yield an average of a little less than three cents por ton par mile, and would serve to show that some of the business dono on each of theae roads does not even pny "interest and expenses." Sufficient informıation bias been elicited from the railroads of this and other States, from the setions of the conventions, and from other sources of information, to warrant the belief that a considerabito portiout of the freighting business now dọne by our railroads ylelds no profit st tho present rates, when duc allowance is made for tho increase of espital which it requires for the increased wear and depreciation of tho works, and for the ocenpation of the track to the Injury of tho other business.

The reports of tho yenr 1855 show an increased expense in operating the roads, over that of the precening year. An examination of the reports of a number of railroads in New England and elsewhere, ahows, for the last five years, an annual increaso In their cost of from 2 to 5 per cent. per annum; an Increase in their receipts of from 12 to 20 per cent. ; and an incroaso in their exponses of from 20 to 40 per cent. per annum.

Deductions from the reports of the railroads in the State of New York, 1855, have been made, ahowing the comparativo cost of construction, of maintenance, and of operating each of the roads of the State, and have been arranged as follows :
The total length of road known to be In opera-
tion In New York in 1855 was.................... 27881 miles. If additlon to which there is of aecond track in
operution . . . . . . ...................................... 808 Making a total lengtis of track In operation .... 85264 The wholo length of completod and prujected roadn.
The cajlital atock, as by charters, of 04 roade ( 4436 miles ) in.
(1)................................ \$114,102,20000 The amount of the above mbaribed........ 84,072,507 00 The amonnt of capltal stocli paid in on 88 roads ( 4406 miles) 09,473,45859 The annout of funded deht of $8 \mathbf{3}$ roads...... The amount of floating debt do. $64.230,90742$ $8,504,8184$
The expenditures on the roads which aro completed nre as follows:
For grailing and masonry, 10 roada, $1623 \$$ miles
For bridging 16 roads, 1629 tmfles
$\$ 20,742,6002$
For superytructure, 21 tonds 21001 milles....
For grading, bridging, and superstricture, 21 rouds, 21061 inlfes
 alıops, 22 resda, 2127 miles. . . . . . . . . . . . . .
For land damageanad fences, 22 roads, $2 i 27$ it rur land
milles.
For loconotiver, it ronis, $20 \mathrm{E}_{\mathrm{si}} \mathrm{miles}$.
For care (of ali kinds), 10 romis, $2110 \frac{1}{2}$ tulle.
For onglneoring and ageneles, 93 romis, 2188 ; miles.
Total expendituro for construction and equip- . . . . . . . . . . ment, 23201 mlles
$20,737,8746$
68,822,011 21
$5,042,75087$
9,127.930 99
6,7.18.722 83 $0,720,24312$
3,395,06250
$115,537,19373$
expendiure for the construction and equipuent of 28 roale ( 1600 miles), which are in progress and partly completed, lifcinding thoso which reported in 1405 but not in 1850 .. wich reported in 1500 , but

The number of locomolives in use is.
$13,112,45189$
do. passenger and emigrant ears
do. fryight and baggage cars
The milies run by the passenger trains for the year wita.
Mlles run by frelght traine for the year.
Tolal milles run by trains. . . . . . . . . . . .
Number of paseengers carried in the cars
Number of molles traveled by alf tho
passengers. . . . . ..........................
cars . ......................................
Number of milles, or total movement of
freight ohe mile. . . . . . . . . . . . . .

Aveange Cogt of the Maintenanon of Wat peg Mitit of Hoab."

|  | Total, | Chorged to the Bual. |  |
| :---: | :---: | :---: | :---: |
|  |  | Pagmagors. | Froight. |
| Ttepaliri of road-bed . . . . . . | \$1648 | \$15343 | \$851 64 |
| Iron used for da. . . . . . . . . | 27754 | 8322 | 14000 |
| Repalra of bullding ...... | 65 62 | 2743 | 2918 |
| "4 foncem and grates | 19 11636 | 1172 6461 | $\begin{array}{r} 779 \\ 6487 \end{array}$ |
| тaxes...... | $11+30$ | $0 \cdot 0$ |  |
| Total | \$112840 | \$5 5004 | \$43609 |

Avesatis Cogt of Repaigs of Machinger pat Milf or liont.

|  | Total. | Chatred to the Buedrems of |  |
| :---: | :---: | :---: | :---: |
|  |  | Pumengert. | Froight. |
| Isepualra of enginea.... | \$42763 | \$23784 | \$191 in |
| " cara........ | 35158 | 14590 | 20860 |
| Tootn................. | 3642 | 18.59 | 1649 |
| Ult and wate. . . . . . . | 6505 | 3772 | 2538 |
| Total | \$923 41 | \$43452 | \$48801 |

Averaon Cont of operatino per Milit oy Roan.

|  | Total. | Charged to tha Buslness of |  |
| :---: | :---: | :---: | :---: |
|  |  | Precengers |  |
| Oftice expensem and atattonary | 46088 | \$9598 | \$25 16 |
| Agentr and cierks............. | 24840 | 11631 | 14207 |
| l, bot, loading, and unloading | 21349 |  | 18745 |
| Porters watchmen, and awitchmen $\qquad$ | 16.7 7 | 10040 | 6188 |
| Wood and water atation attendance. . . . . . . . . . . . . . . . | 4150 | 2561 | 1684 |
| Conductors haggago nod brakemen. | 27172 | 14639 | 12234 |
| Enginemen and firemen. ..... | 26803 | 14079 | 18901 |
| Fual, cont and labor of preparing. | 73200 | 39623 | 20212 |
| Ofl and wante for enginem.... | 8987 | 4058 | 8063 |
|  | 6502 | 8365 | 3149 |
| $\left.\begin{array}{c}\text { Lons and damage to goode } \\ \text { and baggage................... }\end{array}\right\}$ | 4047 | 674 | 4033 |
| Damages for Injuries to person | 8606 1936 | $30 \%$ | $\begin{array}{r} 18 \mathrm{Cb} \\ 8 \mathrm{~g} 2 \end{array}$ |
| Ceneral sopruperintendenden . . . . | 12536 | 2807 | $\begin{array}{r}882 \\ 8084 \\ \hline 808\end{array}$ |
| Contingenciea................. | 408 lb | 24218 | 19001 |
| Totul | W2648 66 | \$129484 | \$121290 |

Avehage Coet of Matintenanoz of Watper Miler mun ur the Teaing.

 HY TIE TRAINE.

|  | Total. | Cherued to the Bustaest of |  |
| :---: | :---: | :---: | :---: |
|  |  | Famenkers. | Fraight. |
| Repalra of en | Conts. | Centi. | $\begin{gathered} \text { Conte. } \\ 9998 \end{gathered}$ |
| Repalm cars.... | $7 \cdot 10$ | 4.99 | 10.92 |
| " tools | 0.65 | 0.64 | 0.75 |
| Oil and waste | 119 | 0.07 | 1.81 |
| Triat. | 1785 | 18.44 | 22\% |

Average Cort of Maintenange of Wif dea jabnenoer


|  | Total. | Cherered to the nuaness of |  |
| :---: | :---: | :---: | :---: |
|  |  | Pranangers. | Freight. |
|  | mills. | Mlls. | Mils. |
| Ifepaira of roall-bed..... | 9.4) | $2 \cdot 14$ | $2 \cdot 41$ |
| Ironfur ** | 088 | $0 \cdot 60$ | 071 |
| Sepairs of bulldings .... | $0 \cdot 16$ | $0 \cdot 13$ | $0 \cdot 15$ |
| * fences ...... | $0 \cdot 05$ | 005 | 0 +15 |
| Taxes..... | 034 | $0 \cdot 31$ | 0.07 |
| Total . . . . . . . . . . | 8.37 | 28 r | it 4 |

* Many of the roadn do not givo completo retiorna of tho varioun ltelas of cost of malntenanee of way, repairn of ma chincry, ad operating. The averago cost of earch Item in fuade up from those roada only which liave reported that Item, which witl account for thid apparent discrepancles between the everages of the total cost and the aum of areragea of the cout of each Item.
 Traime.

|  | Toial. | Charged to tha Besinesa of |  |
| :---: | :---: | :---: | :---: |
|  |  | Vasengigra | Freight. |
|  | Conts | Cunta | Cuats |
| Omce aspences and stationery ... |  |  | $1{ }^{1}$ |
| Agcuta and clorke. | 4.82 3.72 | 8.82 2.62 | 80 |
|  | 127 | $1 \cdot 89$ | 1.00 |
| $\left.\begin{array}{l}\text { Portura, watohmen, and ewitch- } \\ \text { men ................................. }\end{array}\right\}$ | $8 \cdot 87$ | 804 | 204 |
| Conduotors, baggage and brakemen | 5.4 | 482 | 0.22 |
| tinginemen and framen........... | 6.45 | 464 | 6818 |
| Fust, cont and tabor of preparing . | 14.4 | 1314 | $16 \cdot 65$ |
| Ofl and wette for englnes ....... | 184 | 165 | $1 \cdot 8$ |
|  | 1-37 | $1 \cdot 16$ | 146 |
|  | 032 | $0 \cdot 18$ | 2.09 |
| Danagea for injuriea to persons.. | 0.69 | 0.78 | 0.38 |
| " to property and cattle | $0 \cdot 25$ | $0 \cdot 18$ | $0 \cdot 43$ |
| General supertntendenco | $1 \cdot 30$ | 010 | 149 |
| Contingoncles, . . . . . . . . . . . . . . . | $8 \cdot 17$ | 7-47 | 0.64 |
| Total | 84.48 | 43.06 | 68.46 |

Avganer tiogt of Repaiba of Macmingry sem Pabarnurg and pra Ton of freight carmigt one Mile.

|  | Tolal. | Charasd to the Hustuesa of |  |
| :---: | :---: | :---: | :---: |
|  |  | Pascengers. | Frembt, |
|  | M114. | Mifle. | M179. |
| Repalrs of enginet...... | 1.27 | $1 \cdot 17$ | 18 |
| * cara ........ | 1.02 | 0.73 | 1.41 |
| "t tools. | $0 \cdot 00$ | 0.08 | $0 \cdot 10$ |
| Oll and wasto .......... | $0 \cdot 16$ | $0 \cdot 14$ | $0 \cdot 18$ |
| Total . . . . . . . . . . . | 2.64 | $2 \cdot 12$ | $31 \%$ |

Avgranz fogt of opprating pgi Pabsfnokr ant per Ton of Frghint oabuien one Mile.

|  | Tutal. | Chargad In the Buelinest of |  |
| :---: | :---: | :---: | :---: |
|  |  | I'easengers. | Freinht. |
|  | Mils. | Milie. | Milin. |
| Office expenmes and stationery ... | 11.15 | () 12 | $0 \cdot 17$ |
| Agents and clerk ${ }^{\text {d }}$. . . . . . . . . . . . . | 0.71 | 0.50 | 080 |
| I.abor, loadlag and unloading... | 057 | 00 2: | 129 |
| l'orture, watchmen, and awitch-\} men $\qquad$ | 0.45 | $0 \cdot 45$ | 0:9 |
| Wood and *ater atatlon attendanch | $0 \cdot 18$ | $0 \cdot 25$ | 014 |
| $\left.\begin{array}{c}\text { Condnctors, baggage and brake- } \\ \text { men . . . . . . . . . . . . . . . . . . . . }\end{array}\right\}$ | 0.81 | 0.71 | 0.87 |
| Enginemen and firemen.......... | 078 | 0.68 | 058 |
| Fuel, coat and labor of preparting. | 208 | 148 | $2 \cdot 13$ |
| Ot1 and wants of engines ....... | $0 \cdot 25$ | 0.24 | 0.5 |
|  | 0-20 | $0 \cdot 17$ | 0.2 |
| $\left.\begin{array}{c}\text { Loses znd damago to goods and } \\ \text { baggage . . .................................... }\end{array}\right\}$ | $0 \cdot 18$ | 013 | 025 |
| lamages for lijurles to persons.. | 000 | $0 \cdot 11$ | 015 |
| * to property and cattlo. | 004 | $0 \cdot 62$ | 016 |
| Grneral auperintendence ........ | 0.18 | $0 \cdot 13$ | 020 |
| Contingencier . . . . . . . . . . . . . . . . | $0 \cdot 5$ | 011 | 085 |
| Total . . . . . . . . . . . . . . . . | 764 | 036 | 565 |

The nverage receipts per mile of road were :


From this we see that the expenses were 50 per cent. of the gross receipts, which is below the average throughout the country.
The expenses of operating the road were 57 per cent. of the whote receipta.

The average receipts per mile run by the trains were as follows :

From passengera
$\$ 182$
frelght ....
48
other sourres.
167
$\$ 907$

And of the cxpenses. .......................... . 097
 ler paspenger or per toa $2: 18$ Fixprnнes.
tha 10 roands, 22525 mile'e tong, the number of passengers carried, as reported, was........... 12,206,71t The actual number of travelers was probably


Comparion of the Returns of several Railroade.-Frons | expenses per mile run ; thereby making it evident that, the atatiatics of the net income and general ect omy of the principal raliroads in New York and Massachusette, we can olucidate many facta of tha greatest importance in railiond manageinent. Among theas may be noticed tise following: The average number of passengers and the number of tons of freight carried each mile run is the same; that is, on an a verage there are delly carried an equal number of pussengers and freight an equal distance on the road. The largest number of passengers carrled each millo run la by the Hudson Hiver Railroad, which has as a rival the best navigabie river in the world. The largest number of tons carried per millo run ls hy the New York and Erle Railroad, which is the principal through freight road for the producte of the West; and this road also ahows the largeat net income per mille. The ratio between the total receipts per mile and tho net income per mila is far from being conatant, or the last from belog dependent on the first. There is, however, a relation between the net income per mille of a road and the expenses per mile; that is, the net income per mile of a railroad bears a very nearly constant ratio to an inverse of the
ceteribus paribus, the interests of the stockholder are advanced more by reducing the expentes per mile run, than hy increasing the business of the road. The receipts for passengers or freight carried per mile le given by adding the expensea and tha net income carriod per mile. It is shown from this comparison that on an average the net Income from passengers carriod per wilie is 50 per cent. of the recelpts, or equal to the expenses; while the net income from freight is only 34 per cent.' of the expeases. From this we see that the tariff of freight aloould be increased 16 per cent., that it slsall be in a just proportion to the passenger tariff.

The tables also show that the net income from paesengera and malls per millo sun is generally greater on the Massachusetta reilroads than on the New York railroadk, and that tho net income from freight per ton per mille is greater on tho New York railroads. The general tarifis are not materlally different in the two States, but the expenses of frelght are fully 50 per cent. greater In Massachusetts than in Now York. The net Income per mile is the greatest on the New York and Erio Railroad, which is a freight road.
gtatistiog of tha Ingoma and Egonomy of the prinoizal Italcroadg in New York and Mabsacidegtta.

| Companles. | Length ta Milen. | Receipts frum Pasengors, Mails, ole. | Recelpts from Freight. | Total Recelpta. | $\begin{aligned} & \text { Yasengrerd } \\ & \text { earried } \\ & \text { each Mill } \\ & \text { run. } \end{aligned}$ | Tons of Frelight carred eseh Mlle rua. | Net Income from Prasen. gere, Mailo, etc. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Yerk Central | 682 | \$3,438,514 | \$2,479,821 | \$5,018,235 | 77 | 68 | \$1,060, 862 |
| New York and Eirle | 404 | 1,920,309 | 3,309,500 | 5,859, 510 | 65 | 80 | 1,039,849 |
| Il udeon Ilver . . . . . . . . . . . . . . . . . | 144 | 1,293,841 | 464,145 | 1,753.050 | 127 | 55 | 465,298 |
| IIarlem...... | 183 | 605,084 | 837,811 | 942,395 | 24 | 39 | 191,4:0 |
| Ogdennburg . . . . . . . . . . . . . . . | 119 | 14', 580 | 410,144 | 590,124 | 20 | 74 | 29,084 |
| Buffalo, Corning, and New York. | 100 | 67.581 | 55,176 | 128,157 | 21 | 83 | 29,645 |
| Watertown and Rome............ | 97 | 168,181 | 222,796 | 8:0,977 | 37 | 85 | 79.834 |
| luffato and New York Clty ...... | 82 | 187,017 | 110,863 | 254.770 | 25 | 02 | 35,330 |
| Hloston and Worceater............ | 69 | 647,397 | 405,4? 9 | 052,706 | 79 | b0 | 303.571 |
| Weatern ......................... | 105 | 838,97t | 924.073 | 1,763,!44 | 87 | 49 | 073.746 |
| Deaten and Provideneo........... | 55 | 229,156 | 214,504 | 543,750 | 65 | 47 | 194,729 |
| Boston and Lowell ., '........... | 28 | 175,844 | 207, 252 | 442,492 | 67 | 65 | 39,649 |
| Old Celony and Fall klver . . . . . | 87 | 427,187 | 222,519 | (144,64,6 | 68 | 37 | 13,3,814 |
| Fitchburg . . . . . . . . . . . . . . . . | 08 | 318,754 | 390.885 | Tu11,039 | 61 | 53 | 145070 |
| Jostora and Malne | 88 | 560,435 | 297,446 | 858,381 | 60 | 68 | 855,083 |
| Eastern | 93 | 473,758 | 105,445 | 679,108 | 52 | 34 | 204,8.6 |
| Totals and averages. . . . . . . | 2879 | \$13,514,00 | \$10,814,419 | \$21,828, 4 40 | 67 | 67 | \$5,648.42: |


| Compealen. | Nel Income from Freight | Total net locomo. | Total Receipta par Mile. | Net Income pire. | Ratio of nel lacome to Receipta from Passeogere, Majle, ate. | Ratio of net Income to Receipte from Freight. | $\begin{gathered} \text { Ne! Inconte } \\ \text { from Paseseagera, } \\ \text { Mait, ete., } \\ \text { per Mile run. } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New York Central. | \$1,179,642 | \$2,830.204 | \$10,170 | \$4863 | $\begin{gathered} \text { Per Ceat. } \\ .48 \end{gathered}$ | $\begin{gathered} \text { Per Cent. } \\ \cdot 48 \end{gathered}$ | $\begin{gathered} \text { Conts. } \\ 77 \end{gathered}$ |
| Now lork and Erlo .............. | 1,682,48. | 2,722,351 | 11,673 | 5807 | -5 | -50 | 69 |
| Ifudion liver | 127,087 | 503,235 | 12.181 | 4119 | -36 | 028 | 77 |
| ILarlem . . . . . . . . . . . . . . . . . . . . . | 133,248 | 894.668 | 7,083 | 94.41 | -82 | - 39 | 25 |
| 1)gdeusburg . . . . . . . . . . . . . . . . . . | 144.760 | 170,850 | 4,053 | 1430 | -19 | -38 | 19 |
| Buftalo, Cornlug, and New York. | 21,107 | 50,752 | 1,231 | 507 | -44 | $\cdot 38$ | 24 |
| Watertown and Rome . . . . . . . . . . | 91,385 | 171.239 | 4.030 | 1765 | -49 | -41 | 52 |
| luffalo and Now York City...... | 16,400 | 52,030 | 2,850 | 406 | -26 | $\cdot 14$ | 13 |
| loaton and Worceater............ | 64,700 | 80.3 .307 | 18,800 | 5184 | . 65 | -14 | 00 |
| Western... | 144,957 | 7:0,703 | 11,393 | 4650 | -68 | -16 | 79 |
| Joston and 1'rovidence . . . . . . . . . | 17,562 | 210,285 | 11,870 | 38.33 | -\%9 | -08 | 85 |
| ISonton and Lowell . . . . . . . . . . . . | 70,917 | 110,405 | 15,803 | 4260 | 43 | - 30 | 24 |
| thd Coleny and Fall liver ...... | .... | .... | 7,407 | .... | -44 | . | 67 |
| Flichburg . . . . . . . . . . . . . . . . . . . | . . . | ... | 10.833 | . $\cdot$. | $\cdot 41$ | . | 12 |
| Iteaten aud Malne. . . . . . . . . . . . |  |  | 10.34! | .... | . 69 | . | 94 |
| Eastern . . . . . . . . . . . . . . . . . . . . . | .... | . . . | 0,2:8 | .... | * 6 | * | 08 |
| Totals and averages. . | 43,565,153 | 89,203,57\% | \$9,120 | +3868 | -49 | $\cdot 34$ | 10 |


| Comparies. | Net Income from <br> Freight per Mifa 7an. | Expenses of Possengers, Mailr, ete., carried one Mile. | Nub Inconie from Passengers, Maila, ete., carried one Mile. | Espientes of Preight per Ton earried one Mile. | Nei Incoune from Freight per Ton curried one Mile. | Nei Inceme frosi Pamen. gers, Maila, ete., per Mile run. | Net Income from <br> Frolght per each Mile rua. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New York Central | $\begin{aligned} & 6 \mathrm{Cla} . \\ & 90 \end{aligned}$ | $\begin{aligned} & \text { t'enta. } \\ & 1.001 \end{aligned}$ | $\begin{aligned} & \text { C'eata. } \\ & 1.007 \end{aligned}$ | $\begin{aligned} & \text { Cents. } \\ & 1.602 \end{aligned}$ | $\begin{aligned} & \text { Centa. } \\ & 1:+53 \end{aligned}$ | Cenis. 77 | $\begin{aligned} & \mathrm{Cts} \\ & 09 \end{aligned}$ |
| New York and Lirlo | 115 | .983 | 1.070 | 1-290 | $1-280$ | 69 | 115 |
| Iludsan liver. | 40 | 1 -085 | 606 | 1.853 | . 705 | 77 | 46 |
| Harlom | 52 | 1.301 | -831 | 2.042 | 1:934 | 25 | 52 |
| Ogdershurg . . . . . . . . . . . . . . . . . | 64 | 2.811 | -676 | 1 5111 | .735 | 10 | 54 |
| Buffale, Corning, and New York. | 38 | 1.487 | $1 \cdot 151$ | $1 * 600$ | $1 \cdot 156$ | 24 | 88 |
| Waterfown and llome.......... | 0.2 | $1 \cdot 674$ | 1.4:8 | 1.603 | $1 \cdot 114$ | 62 | 04 |
| Bufiaio and New York City ....... | 24 | 1.580 | 553 | 2.412 | $\cdot 339$ | 13 | 26 |
| Boston and Worcester............ | 95 | ${ }^{-023}$ | $1 \cdot 150$ | 2.010 | -454 | 20 | 25 |
| Western | 22 | . 924 | $2 \cdot 000$ | 2.414 | $\cdot 449$ | 75 | 22 |
| Beston and I'rovidenee | 10 | $1 \cdot 121$ | 1.623 | 3.807 | .393 | 29 | 16 |
| Soston and Lowell .............. | 68 | $1 \cdot 471$ | -429 | 2.278 | 972 | 24 | 63 |
| Old Colony and Fall River ...... | .. | $1 \cdot 322$ | 1.003 | 6.810 | .... | 67 | . |
| Fltchburg. . ...................... | . | . 971 | 8.41 | $8 \cdot 979$ |  | 52 | * |
| Boslon and Malno ................ | . | . 618 | $1 \cdot 352$ | 3-362 |  | 94 | - |
| Enstern ......................... . | . | $1 \cdot 116$ | 1830 | $4 \cdot 165$ | - .... | 06 | .. |
| Totala and averages. . . . . . . | 60 | 1.008 | 1.055 | 1.680 | 990 | 70 | 66 |





| Railmonda. | Milea. |  | Kquipment. |  | Cont |  |  |  | Ryvanue. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Length. | Fing | $\begin{aligned} & \text { Loea- } \\ & \text { motires. } \end{aligned}$ | ars |  | Fanded | $\begin{gathered} \text { Vinoting } \\ \text { Dobs. } \end{gathered}$ | T | ngo. |  |
| thallusore and Ohlo, Maln Stem | 850 | 380 | 204 | 3333 | \$10,118,9 | \$12,54,040 | \$104,043 | \$23,067,885 | \$1,365,152 | \$2,011,122 |
| Baltimere and, Ohlo, Wachtngton Branch. . | 20 | 30 | 4 |  | 1,650,000 |  | 5,000 | 0 | 0 | 235,844 |
| Ilellefontalne and Iadiana | 18 | 118 | 10 |  | 1,891,635 | 1,214.500 | 20,829 | 8,125,004 | 8,293 |  |
| ('hicago, liurlington, and Qulney .............) | 210 | 210 | 27 |  | 1,47 | 1,240,000 | 282.579 | 2,007,870 | 722,551 |  |
| Chiengo and ilock Inland. | 228 | 229 | 41 |  | 4.0 | 1,971,003 | 114,056 | 6,114,085 | 1,416,3n4 | 5 |
| $\left.\begin{array}{c}\text { Clneltonatl, 11anbltion, } \\ \text { and Dayton .......... }\end{array}\right\}$ | 60 | 60 | 24 | ? | 2,1 | 1,011,000 | (an) 411 | 3,430,341 | 608,271 | :G4,ix 5 |
| $\left.\begin{array}{l}\text { Cleveland, Columbus, } \\ \text { and Cinclunath. ....... }\end{array}\right\}$ | 11 | 141 | 38 |  | 4,517 | 08,400 | 121, 458 | 4,769,878 | 1,290,296 | 732,066 |
| Cteveland and l'tituburg.. | 10.1 | 156 | 24 |  | 2. | 2.750.3 | 233,670 | 5,924,776 | 891.878 | 19 |
| Cleveland and Tol | 221 | 206 | 26 | 475 | 3.329,712 | 3.670.27* | 335,473 | 7,029,463 | 970,471 | 331 |
| Covington and Lexington. | 98 | 99 | . |  | 1,302,304 | 1,611,000 | 469,939 | 8,363,743 |  |  |
| Delaware, lackawanna, and Weatern. .......... $\}$ | 111 | 111 | 30 |  | 3,0 | 2,400,000 | 1, 1063,75 | 0,515,378 | 1,200,108 | 4 |
| Galena and Chlcago. | 250 | 250 | 63 |  | 8.41 | 2,834.330 | 43 | 8.714 | 2,315,797 | 1,262,042 |
| $\left.\begin{array}{c}\text { tireen Bay, Mllwaukle, } \\ \text { and Chlcago.......... }\end{array}\right\}$ | 40 | 40 | $\triangle$ |  |  | 600,000 | 109 | 1,709,062 | 30,026 | 142,\%12 |
| Martford and New llaven. | 78 | 73 |  |  | 2,35 | 944 |  | 8, 294, $00 \times 1$ | 750.704 |  |
| Iladson Kiver | 144 | 144 | 67 |  | 3,759,892 | 8,84?,010 | 408,363 | 13,010.203 | 1,512,088 | (10: 514 |
| tillaola Centra | 704 | 627 | 83 | 1452 | 9,6 | 19,247,000 | 1,559,703 | 24,378,753 | 1,63!,119 |  |
| Indlanapolle and lelle. fontalne. $\qquad$ | 84 | 84 | 10 |  | 634, 187 | 852,000 | 174,269 | 1,800, 410 | 101,888 |  |
| Indlanapolle and Cineinnall. | 110 | 110 | 19 |  |  | 1,396,800 | 250,4 | ,010 | 18,6,4 | 2021,49 |
| 1at Crome and Milwaukle. | 108 | 61 | 12 |  | 1,037,832 | 1,764,000 | 82,181 | 2,0 |  |  |
| 1,1tle Mtam | 84 | 84 | 38 | 60 | 2,981.327 | A28.060 | 193,587 | 4.102 .804 | 078,120 | 311142 |
| Macon and w | 103 | 1183 | 14 | 17 | 1.353,755 | 129,0im |  | 1.4**.75, | 947,940 | 105, $2 \cdot 2$ |
| Marietta and | 259 | 155 | 21 | 274 | 4.330,850 | 7.150, 100 |  | 11,480,55011 | 1190,0s9 |  |
| Mehgan Central | 330 | 33 | 81 | 15 | - |  | 5,180 | 12,420,6it | 2,8is, 321 | 1,306.603 |
| $\left.\begin{array}{l}\text { Michigan Southern and } \\ \text { Northere Indlana.... }\end{array}\right\}$ | 468 | 338 | 74 | 101 | 4,181 | 8. | 400 , | 13,135 | 2,505,630 |  |
| Mllwaukie nnil Misalsalpul | 225 | 125 | 25 |  | 1.2921.4 | 2.347 .300 |  | 4.241 R 28 | 691.241 |  |
| New Albany and 8 | 288 | 288 | 31 | 3:4 | 2.511, 0.4 | 4,744,72 | 804.794 | 7.697 .946 | [30,407. | [89,454 |
| New, lersey Centr | 75 | 34 |  |  | 2.000,000 | 3, $01012,6 \mathrm{MO}$ | 0., 748 | 6,000.748 | 398,4:0 | 151.06 |
| New York Centr |  | 856 | 819 | 2668 | 24,136,681 | 14,763,697 |  | 38,900.5.8 | 7,773,069 | 3.675, $0^{2}$ |
| New York and | 497 | 407 | 203 | 218 | 10,000, 000 | 24,891,040 | 1,144, 607 | 35,0¢ 0969 | 0,249,05\% | 3, 005.650 |
| New York and IIarle | 113 | 13\% | 35 | 817 | 4,217.100 | 6,453,306 | 15,361 | 10,125, 166 | 1,644.893 | $33^{34} 480$ |
| New York and New | 63 | 62 | 23 | 331 | 3,000,000 | 2.215,000 | 73,010 | B,258,4111 | 884.316 | 238 |
| Pana | 41 | 471 |  |  | 4.632 .1000 | $2.468,000$ |  | 7.1010.000 | 1.177.47 | ent. 87746 |
| Pennsyivanla Contral .... | 353 | ${ }_{3}^{208}$ | 118 |  | 12, $3 \times 3,5,525$ | 6,376, 1411 | 1,143,445 | 10.874.621 | 3. 638,3393 | $\begin{aligned} & 1,823,674 \\ & 2,44633 \end{aligned}$ |
| Phitarplphla and treading.- Terre IIate, Alton, and) | 18 | 08 | 141 | 578 | 0,0.4,267 | $8,890,6001$ | 1,430, 827 | 10,525,094 | 4,921,794 | $2,444,433$ |
| Terre liaute, Alton, and <br> St. 1.oula [not official] | 208 | 208 |  |  | 3,250,000 | 4,600,000 | 60,000 | 7,800,000 | 471,000 |  |

Railroal to the Pacific.-The propcsed rallroad to the |han wa now possess, that it la better to give only the Pacific fovolves so many question as to feasibility and atatiatlea that hava up to thila these been obtained, and cost, requiring to deterinine much more accurate dats labetaln from arguments in favor of any route.
 Hmpost of tha smonkras or War

| $\therefore$ Dreeriptios af Rowte. | $\begin{aligned} & \text { Thatanee } \\ & \text { intrughe } \\ & \text { Lise. } \end{aligned}$ | $\left[\begin{array}{c} \text { Dieriann! } \\ \text { bry } \\ \text { Bropece } \\ \text { Howle. } \end{array}\right]$ | $\begin{aligned} & \text { Ium of } \\ & \text { Aecosut end } \\ & \text { Deverat. } \end{aligned}$ | Seatmated | $\begin{array}{\|l\|} \text { Through } \\ \text { arobld } \\ \text { Landu. } \end{array}$ | Through alorifo LsA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mlices. | Milee - | Vooh |  | miles. | milees. |
| 1. Routa near 4tth and 49th parallela, froie St. Paul to Vanceuver | 1455 | 1804 | 18,100 | (130,781,000 | 874 | 1470 |
| a Fixtendon thence to reatul | 45 | 161 | 1,000 | 10,000,000 | 161 | .... |
| 4. Near the 4tat and 42d parallela, via Bouth I'nas from Counell Bluffa to Beniela. | 1410 | 2032 | 20,120 | 116,005,000 | 682 | 1400 |
| 8. Neur tha 88th and 89th parallela, from Weatport to, Han Francleco, by the Coo-obe-to-pa and Tah-ee-s chay-pah Pramea | 1740 | 2080 | 40,030 $\}$ | So great that roed it tm. practleabla. | 620 | 1400 |
| a. Same, from Weatport to gan Francieco by tha Coo-\} che-to-pah and Madeilin Hawsen . . | 1740 | 2200 | 66,514 | do. | 670 | 1620 |
| 4 Near the 35th parallel, from Fort goilit to san Pedru. | 1360 | 1892 | 43,812 | 169,210,285 | 416 | 1476 |
| e. Near the 30 th pamilel, from icit 8 mith to $\sin$ Fran- <br> cilyco. | .... | 2174 | 30,070 | 103,210,265 | $64)$ | 1630 |
| 6. Near the 38d parallel, frosa Fuiton to Ban Prodro...... d. Fulton to San Franelneo................. . . . . . | 1400 1020 | 1619 2039 | 82,784 $4!, 008$ | $08,070,000$ $01.120,000$ | $\begin{aligned} & 408 \\ & 750 \end{aligned}$ | $\begin{aligned} & 1910 \\ & 1280 \end{aligned}$ |


|  | Milee of Fioute elavated |  |  |  |  |  |  |  |  |  | Leagth of level Ronte of equal Workiog Eipetaes. | dummit of bigheat Pate. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| atule. | Laee than 1000 Feel. |  | Belween asd 3000 Feal. | Belween 1 and 4000 Ypol. | $\begin{gathered} \text { Betw een } \\ \text { And bovo } \\ \text { Feat. } \end{gathered}$ | Between smi Feet. | $\left\lvert\, \begin{gathered} \text { Between } \\ \text { a and } 7000 \\ \text { Yeet. } \end{gathered}\right.$ | $\left\lvert\, \begin{gathered} \text { Betw eon } \\ \text { innd Rivo } \\ \text { Weel } \end{gathered}\right.$ | $\begin{aligned} & \text { belw onn } \\ & \text { send porno } \\ & \text { Fgest. } \end{aligned}$ |  |  |  |
| 1 | 470 | 530 | 720 | 130 | 97 | 98 | ... | ... | - | .. | Mile. 2207 | $\begin{aligned} & \mathrm{Fe0t} . \\ & 6,0+1^{\circ} \end{aligned}$ |
| $a$ | 101 | i\% | $\cdots$ | i $\cdot$ | -•* | $\cdots$ | $\cdots$ | iv\% | $\stackrel{*}{*}$ | . | 180 |  |
| 4 | 1819 | 170 | 210 | 160 | 680) | 285 | 270 | 107 | 20 | - | 2583 | 8.373 |
| 3 | 841) | 276 | 100 | 348 | 4014 | 170 | 60 | 185 | 80 | 20 | 8185 | 10,092+ |
| $b$ | 275 | 309 | 100 | 148 | 725 | 284 | 110 | 165 | 80 | 20 | 8360 | 10,032+ |
| 4 | 806 | 847 | 200 | 185 | 160 | 806 | 235 | 95 | . | . | 2816 | 7,472 |
| 0 | *8\% | $\ddot{300}$ | 100 | 170 | $\stackrel{80}{ }$ | 00 | * - | $\cdots$ | - | - | 8187 | - 71 |
| d | 480 | 301 410 | 100 160 | 170 205 | 503 | 10 | - | $\ldots$ | $\cdots$ | - | 2839 2834 | 5,717 |

- Tunnel at elevation of 5210 feet.
+ Tuunel al elevation of 0540 feet.
Rambades in the l'miten Stateh in Janeagy, 185s.

| States. | $\begin{gathered} \text { Number } \\ \text { of } \\ \text { Companiet. } \end{gathered}$ | Length of Linea. |  | tent of Construction and Equipment. | Completed Road seloctly is each Atale. | Milrege openens 18 185\%. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Teral. | Open. |  |  |  |
| Malne . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 14 | Miter. B80 | Mileo. 541 | \$17.069. 677 | $\begin{aligned} & \text { Milew } \\ & \text { d74 } \end{aligned}$ | 89 |
| New Ilampahiro . . . . . . . . . . . . . . . . . . . . . . | 15 | 6:14 | 550 | 17,697,703 | 054 | $\because$ |
| Vermont. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8 | 685 | 821 | $20.528,9.8$ | 066 | 49 |
| Maseechusetim. . . . . . . . . . . . . . . . . . . . . . . . . . | 47 | 1,417 | 1,246 | 63,384310 | 1,215 | 5 |
| Mhede Islend. . . . . . . . . . . . . . . . . . . . . . . . | 12 | 03 | 04 | 2, 686,512 | 111 | . |
| Connecticut. | 11 | 650 | 647 | 24,248,903 | b,5 |  |
| Total elx New England Statea . . . . . . . . | 07 | 6,104 | 3,017 | \$146,806,168 | 3,606 | 13 |
| New York . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 42 | 2,890 | 2,760 | \$108.407.208 | 2,731 | 47 |
| New Jerwey . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 10 | 621 | 509 | 248825,970 | 8,80 | $\cdots$ |
| Pennsylvanla . . . . . . . . . . . . . . . . . . . . . . . . . . | 68 | 3,455 | 2,775 | 10¢1, 166, 609 | 2,605 | 248 |
| Delaware . . . . . . . . . . . . . . . . . . . . . . . . . . . | 3 | 91 | 01 | 1,618,810 | 114 | 8 |
| Maryland . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 10 | 841 | 708 | 44 c.07,831 | 4*9 | 31 |
| Total five Middlo Atlantio States . . . . . | 130 | 7,904 | 6,543 | \$300,876,488 | 6,418 | 328 |
| Virglrila . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 19 | 1,465 | 1.321 | \$37,705,049 | 1,653 | 188 |
| North Carollna . . . . . . . . . . . . . . . . . . . . . . . | 5 | 700 | 675 | 11,126,486 | 606 | * |
| 8outh Carollaa . . . . . . . . . . . . . . . . . . . . . . . | 9 | 074 | 748 | 17,601,944 | 842 | 09 |
| (ieorgia. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 14 | 1,362 | 1,186 | 24.9\%2, 153 | 1,187 | 118 |
| Florlda . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4 | 021 | 128 | 8500,01(1) | 128 | 87 |
| Total five Soutiern Atlantie States. | 51 | b, 0228 | 4,058 | \$ $\$ 14,856,632$ | 4,316 | 412 |
| Alabama. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7 | 1,100 | 088 | \$15.268.771 | 510 | 68 |
| Mlesiselppl | 8 | 404 | 177 | $5.515,009$ $11,032.802$ | 483 | 84 |
|  | 5 | .006 1.605 | 346 147 | $11,032,562$ $\mathbf{8 , 0 0 0 , 0 0 0}$ | 265 147 | 97 |
| Arkansas. . | 1 | 1.614 | 88 | 7,75,000 | -33 | 88 |
| Tenuesser | 9 | 1,116 | 897 | 18,880, 390 | 654 | 244 |
| Kontucky. | 9 | 060 | 806 | 10,197,414 | 819 | 88 |
| Total aeven Suuthwuatern Statea | 44 | 0,053 | 1.438 | \$ $477,123,040$ | 2,446 | 645 |
| Ohlo. | 29 | 3,298 | 2,798 | \$ $106,043,328$ | 2,708 | 63 |
| โndlana. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 16 | 1,451 | 1,231 | 88,801,276 | 1.502 | 119 |
| Micbigan | 5 | 1,025 | 999 | 80,890,853 | 604 | 127 |
| tllinela . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 18 | 2,016 | 2,616 | 86,446,291 | 2,008 | 83 |
| Wleconaln | 10 | 1,962 | 718 | 19,2' 5,843 | 688 | 157 |
| Iown . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 7 | 1,076 | 250 | 0,087,529 | 856 | 89 |
| Mlasonri . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4 | 1,798 | 817 | 19.140,247 | 317 | 127 |
| Total meven Northwentern 8tatea . . . . . . | 83 | 12,226 | 8,085 | \$269,205, 871 | 0,17T | 747 |
| Cullfornia. | 1 | 29 | 22 | 750,000 | 22 | $\cdots$ |
| Grand total | 421 | 35,187 | 25,965 | \$218,146,600 | 25,9+45 | 9205 |

Progress of Railroads ivo the United States.-The fol- 1838 to 1856 incluslve, and also ehows the whole nuntlowing toble oxitilite tho aggregate number of niles ber of miles of railironda in each Stato for the same peof railroads in the United States for every year from riod:

I'boorgef of Railmoadg in the Vnithd Stater.


From an examination of the above table it will be the year $\mathbf{1 8 5 5}$, being an lncrease of $\mathbf{3 4 0 7}$ miles for the found that the construction of railroads has mado year. greater progress in 1856 than in any previous ycar. We add to the last two columna of the following taThe number of miles in operation on the 31st of De- ble the population and wealth of the several States, as cember, 1856 , is $24,4 \pi 6$, ngainst 21,069 at the close of estimated by the Secretary of the Treasury.

Milfe of Ilailgoan in Opreration on the 31gt Decemhrb, 1856.

| Stales. | $1 \times 88$. | 14st. | Jncrease. | Population, 1268. | Wealih, 1950. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Malbe. | . 122 | 442 | 20 | 629808 | \$131, 12\%,180 |
| New llampshire . . . . . . . . . . . . . . . . . | 646 | 6-46 | * | 324,701 | 101, 304,3513 |
| Vermont...... | 616 | 516 | $\cdots$ | 345806 | 01,165, 080 |
| Maseachusetts | 1,207 | 1,25\% | 78 | 1,134,123 | 007.9\%0, 95 |
| Mhode Ialand. | 78 | 85 | 7 | 106,927 |  |
| Conneetleut. | $\mathbf{8 0 6}$ | 601 | r | 401,202 | 208, 759, 831 |
| New York.. | 2,668 | 9,711 | 38 | 8,470,069 | 1, $364,154,685$ |
| New Jersey .. | 448 | 472 | 24 | 569.496 | 179,760,040 |
| Jenusylvania.. | 2,038 | 2,407 | 369 | 2,442, 60 | 1,0:11.781.404 |
| Delaware .. | 84 | 120 | 36 | 117,205 | 30,460,924 |
| Maryland . . . . . . . . . . . . . . . . . . . . . . . | 872 | 878 | 6 | 630.590 | 261,248, 6 titi |
| Virglnla . . . . . . . . . . . . . . . . . . . . . . . | 1,952 | 1,480 | 228 | 1,612,543 | 080,414.897 |
| North Carollina | 48.3 | 612 | 199 | 921,8;2 | 235,603, 272 |
| South Carolina. | 677 | 7106 | 29 | 708, 681 | 309,434,241 |
| (ieorgia........ | 1,602 | 1,062 | 190 | 935,040 | $51610,1160,046)$ |
| Florlda | 26 | 28 | 24 | 1111,725 | 40,461,461 |
| Alabama. | 317 | 454 | 117 | 80.6 .192 | 279,213, 087 |
| dlanimplppl . . . . . . . . . . . . . . . . . . . . . . | 250 | 410 | 105 | 671,049 | 250585.000 |
| Loulsiana . . . . . . . . . . . . . . . . . . . . | 224 | 264 | 42 | 6410, 887 | 270.4 5.5000 |
| Texan.................................... | 56 | 67 | E1 | 600,000 | 240,001, 0\%m) |
| Tennesrec. . . . . . . . . . . . . . . . . . . . . . | 361 | 609 | 143 | 1,042, 470 | 321.776,810 |
| Kentucky . . . . . . . . . . . . . . . . . . . . . . | 198 | 807 | 117 | 1,080.887 | 4 11,006188 |
| dhlo.... | 2,641 | 2,849 | 228 | 2,215.750 | 800.477 .851 |
| Indlana.. | 1,498 | 1,807 | 369 | 1,149,603 | 904, 8\%) $\times$, 414 |
| Mlehfrail | +474 | 601 | 1301 | 509,374 | 114,518.080 |
| IIlnila | 2,125 | 2,534 | 398 | 1,242,017 | 384, 287.4.4 |
| Wlsconsin | 276 | 630 | 384 | C52,109 | 87.6060 .600 |
| Iowa..... | 88 | 284 | 165 | 325,014 | 110,006,009 |
| Mlesourt. | 144 | 15. | 45 | 83.215 | 223.945 .731 |
| Callfornia . . . . . . . . . . . . . . . . . . . . . . | 03 | 23 | - | 845,000 | 105,004. 210 |
| Arkansas. . . . . . . . . . . . . . . . . . . . | 0 | 0 | - | 243,117 | $6-4,240,7: 6$ |
| Territories and glatriet of Columbia. <br> Total | 0 | 0 | . | 308,500 | 70,074.8.7 |
|  | 21,128 | 84,476 | 407 | 20,464,312 | $\begin{aligned} & \$ 9,817,611,072 \\ & 1,600,000,000 \end{aligned}$ |
| Estimated Iner ase of property aince 1850 |  |  |  |  |  |
|  |  |  |  |  | \$11,317,611,472 |

The above table, condensef, presents the following polints:
Mlles opened in five jears ending 18


The greateat progress has lieen made by the elight Western States ; next by the Southern States; while the Northeastorn States have made but trifling addltlons to their pubilic works.


The Secretary of the Treasury has prepared a statement showlng the cost of raliroads in the United Sintes In 1855, from which we make the following summary. IReturns not linving been received from a number of contpanles, these figures nro only approximative.

| Capltaj pald in. | \$433,286,046 |
| :---: | :---: |
| Finded debt. | 203,187,973 |
| Floutlog debt | 40,120,958 |
| Expended in 1855 | \$770,651,877 |
| Required to finish the r | 813, 599.237 |
| Total csitmated eost. | \$1,090,381,114 |
| Mlies fintshed | 19,036 |
| Miles unfialshed | 16,06) |
| Total length | 36,006 |
| leceipts for the year. | .. \$91,182,083 |

According to theso figures, the averago cost per mile would only amount to $\$ 30,000$, whereas experience proves that $\$ 35,000$ is nearer the truth. Assumiug this estimate, the total cost of the 36,000 miles, when finished, would amount to $\$ 1,260,000,000$.

The average cost of a portion of our railroad system has been as follows:

|  | Costing. | Per Mile. |
| :---: | :---: | :---: |
| 30 roads in New York | \$ $\$ 80,000,600)$ | \$16.314 |
| 38 " " Masachusotts. ....... | 60,000,000 | 4.482 |
| 12 " " the south and West . . | 50,000,000 | 45,653 |

It is estimated that at least threc-fourths of the money which has been expended upon railroads in this country has been furnished by our own citizens, and the rewainder (chiefly for bonds) has been obtained from foreign investments.

In conclusion, we may adel, that, in reviewing the progress of rallroads in the United States, their cffect upon the prosperity of tho country, and their future prospects, are much beyond the wildest dreams of the originators of the system. The number of miles built in the first ten years of our railroal history, heginning in the year 1828, was 18.13, of which New York Stato built 18 per cent. The number of miles built in the second ton years, or from 1838 to 1848 , was 3839 , of which New York built 15 per cent. From 1848 to 185t tho number built was 18,794 , of which Now lork buitt 9 per cent. At the present time New York has over 11 per cent of the total length of railroads, and ranks next to Illinois in number of miles. Our railrcall history has had two eras-tho first from 1828 to 18.18, when there was in the number of miles built an average increaso of 268 miles per year; and the second froin 18.18 to 1856 , having an average in aso of 2450 miles per year. In many of tho States the development of the rallroad system is quile equal to the wants of the people; but in many others, Kentucky being the mot notable instanec, it is much less.

The cost of these 26,000 miles of railroad built at the end of the year 1857 is estimated at $\$ 920,000,000$, or an average of $\$ 35,000$ ( $\$ 36,000$ jer mile; and, if the rails had been laid with American Iron, produced hy domestic labor, it would havo been the most produetivo investment tho country over made.

The Raiload Systems of Europe and the United States. -Among the greatest achicvenients are the opening up of new fields of supply, $s$,d the teepening $\overbrace{\text { * ohl chan- }}$ nels of consumption. They have brought into profitable use mines, forests, quarries, arable and grazing tistricts, fisherles, harbors, and rivers, previously inaceessible.

But still greater even than these achlevements are the advantages arising from the cheap and rapid conve;anee of passengers over long tistances. Every enterp.tso ls now carried on with nerhaps ten times as much dispateh, and with ten times less trouble than forty years ago; and the facllity of personal supertntenilence is certainly twonty times greater than it was then. It is not diflicult, therefore, to comprehend that to accelerate oven by a few yoars tho completion in a country of an extensivo system of rallways, is to confer upon te allvantages the real value of which it is Impossible to represent in terms of money; and we shall find, In the considerations connected with this mode of vewing the facts, a correction of many prevalent errors relatlvo to the cost of Engllsh rallways.

Lot us see what was the comparatlve progress whlch,
at the end of 1854 , hat been mado by the countries of Central and Western Europe, and by the United States, In providing themselves with rallways.

Railways.-General summary of the comparativo extent of rallway open at the elose of 1854, in different countries:

| Canatriea. | Aren in English squaro Milen. | No, of Miles of Railwny open la 1854. | Miles of Hail open to each 100 square miles of Area. |
| :---: | :---: | :---: | :---: |
| England and Wales..... | 57,800 | 0,100 | - $16 \cdot 2$ |
| gcotiand................. | 80,240 | 1,040 | 3.5 |
| Irctand . . . . . . . . . . . . . | 31,870 | 900 | $2 \cdot 8$ |
|  | 110, 310 | 8,040 | 15.7 |
| France. . . . . . . . . . . . . . | 205,000 | 2,010 | 1.4 |
| Gerniany . . . . . . . . . . . . | 263,000 | 5,400 | $2 \cdot 0$ |
| Belgium . . . . . . . . . . . . . | 11,000 | 530 | $4 \cdot 8$ |
|  | 484,00\%) | 8,840 | 1.8 |
| Marmachusetts. | 7,800 | 1,300 | $10 \cdot 0$ |
| New York . . . . . . . . . . . . . | 47,000 | 2,700 | $5 \cdot 8$ |
| Ponnsylvanla .......... | 46,000 | 2,010 | 43 |
|  | 100,800 | 6,0.10 | 54 |
| Ohlo.................... | 40,000 | 3,000 | 7.7 |
| 1ndiahr.. . . . . . . . . . . . . | 33,800 | 1.5) 0 | 44 |
| Illinois . . . . . . . . . . . . . . | 55.400 | 2.800 | 5.0 |
|  | 129,200 | 7,800 | 56 |
| Twenty-t wo other States of the Enion | 1.251,000 | 8,200 | 00 |
| Totals. | 2,18 , 0.41 | 32,88) | 1.5 |

It appears by these figures that the only country or State possessing a greater extent of railway (compared with territorial area) than England and Wales was the Stato of Massachusetts; but the area of Massachusetts is only an eighth part the aren of England and Wales.

In I'rance and Germany the progress has been less than a seventh of our own. Even in Belgium, and New York, and Pennsylvanla, the progress has been barely a third of ours. In Scotland the progress has been twice as rapid as in Germany; and if fair allowanco be made for the lake and mountain surface of Seotland, the progress in it will execed the progress of Belglum, and of those Western States of the Union where railways are made with a cheapness and facility unknown any where else.

We may now racapitulate the conelusions which seem to be established by the faets and statements before us, viz.:

1. That of the three hundred millions sterling aetually expended In railways to the close of 1855 , in the United Kingdom, fully oue half, or one humdred and fifty millions sterling, were expented turing the five years, 1816, '47, '48, '49, and '50, and that of the 8300 iniles of railway open and at work at the close of 1855 , fully one half, or 4150 miles, were completed and brought into operation for the first tlme during the tivo years now enumerated.
2. That the consequence of so prodlgious an ontlay in so small a space of the has teen to place tho United Kingiom, but especially England, so fur in advance of other countrles in the possession of an extensive rallway system, that, ailopting the fair test of comparing territorial area with rallway mileage, England has a comparative mileage threo times greater than Belgium, New York, and Pennsylvania, and seven thes greater than France and Germany.
3. That the Introduction on the iargest scale into this country, and in degrees moro limited into other countries, of a change so extensive, ahsolute, and fur.damental in the means of translt, has already led, nod In a short thmo will lead still further, to important modifications in the conditions affecting the supply of and the demand for large classes of commodities-theso modifications tending gencrally to rehuctlons of price, as a consequenco of diminished cost of production or reduced expenses in conyeyance to market.
4. That as regards the 150 milllons sterling oxpended in this country in the five years, $i 8.10$-'in, its opration was to give employment, during periods,
first, of dear food ( $1846-147$ ), and second, of extreme commercial difficulty (1847-48-49), to a body of artisans and others, varyling from upward of a million to half a million of persons.
b. That on the other hand, the calls by the process of which the 150 millions were gradually raised from the middle and wealthier elasses, who were the holders of rallway shares, operated like an income tax, nearly the whole amount of which was provided by the resort to severe economy, or by additional exertions to produce augmented resources.
5. That the retrenchuents and increased exertiona of the contributors of calls, taken in the aggregate, more than counterbalaoced the consumption of the army of laborera employed in railway works, and also tho expenditure for the purpose of those works on imported materials; and hence that even during the five years, 1846-'j0, of an average annual expenditure of thirty millions sterling, the balance of trade was, as a general result, constantly in our favor.
6. That during the five years in question the average annual return yielded by the (say) 200 millions actually oxpended in rallway undertakings was less than 2 per cent. per annum; that beyond the failure of annual return there was a depreciation of market price equal to about 50 per cent. below par value; and that while the ultimate recovery of the country; with comparativo ense, from the effects of so severe a strain, abundantly indicates its resources; still the depression and losses experienced by so large a portion of the middle class during 184t-'50, and even later, may be considered to have been, to some extent, a cause of the dullness of trade and the low range of prices which prevailed during the two or three last years of the peried.
7. That, on the other hand, the cessation after 1850 of an annual heavy demand for calls, the rapict increase of dividends on the capital previously expended, the still more rapid advanco of the narket price of railway stock, abll, more powerful still, the effect upon production and consumption of several thonsand miles of railway communlcation, may be regarded as explaining in some important degree the comparative prosperity and ease which have prevailed since 1851.
8. That tinally, while it is quite true that the railway excitement of 1841 '. 15 was in many respects irrational and disgraceful, and in numerous individual cases the source of crime and ruin, still it enabled this country to pass, almost at one step, and ly a single sharp and effectual effort of self-denial on the part of the middle classes, Intc he possession of the most complete system of railwa, d possessed by any country; that while these railways have cost more to their projoctors than would have been expendeal by less precipitate adventurers, there is no sufficient reason to believe that the inordinate cost falls as a perpetual burden upon the frequenters of the lines; in other worls, that the cost of the line and the rates of toll, which can alone attract customers, have no necessary or close dependence on each other. And hence, that, eccentric and exceptional as may have been, In many cases, the efforts of privato enterprise, as displsyed in the formstion of rallways it. this country, no denial can be given to the broad and beneficisl result. That to private enterprise we are iudelited for being a generation in advance of the rest of Furope as regards cha new means of internal transit.--Tooke's Mistory of Prices.

We glve a syminary slowing the nunher of miles and cost of the railroads of the worh. This summa. ry is of later date than the separste statements given before, und of course shows an increase. There is a discrepancy between the number of mites in operation In Germany, according to the authority of Tooke, and the following. This is explained by the fact that many of the railroads statel by Tooke as leclonging to Germany should be placed in the column of Frenoh and Belgio rallroads.

Tha following table also exhibita the low cost of American rallroads comparod to those of Europe.
Comparative taile of Railiboadg in Opraation,

| Countries. | Eagliah Milex. | Coal In Dollare. | $\begin{gathered} \text { tool } \\ \text { per Mile. } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Lnited 8tates (18:7) | 26, (1.21 | 020,060,000 | \$ 155,400 |
| Great Britatu (185) | 8,267 | $1,4>7,916.420$ | 170,000 |
| France (1856) ...... | 4.0 .8 | 016,118.046 | 158,000 |
| Germany (1855) | 3,213 | 228,0010,000 | 71,000 |
| Prussia (1805) .. | 1,290 | 145,100,090 | 63.1000 |
| Hetgium (t865). | 1,095 | 08,000,000 | 914, 00 |
| Irtitah Provinces | 823 | 41,600,000 | . 50,000 |
| Cuba. | 359 | 16.100,000 | 45, 000 |
| 1'anama | 47 | 7,000,000 | 150,000 |
| South Ameri | 60 | 4,800,000 | 75.100 |
| Russla. | 422 | 42,000,000 | 100,000 |
| Swedeo | 75 | 7,700,000 | 100.000 |
| Itaty. | 170 | 17,000.000 | 100,000 |
| Spain. | 60 | 6,000,000 | 101.010 |
| Africa | 26 | 3,100,000 | 125,100 |
| Itida. | 100 | 15,000,000 | 150,000 |
| Total..... | 46,074 | W6, 605, 23036,415 | \$79.010 |

Raisins (Fr. Raisins secs, ou passes; Ger. Rovinen; It. Uve passe ; Port. I'assas ; Russ. Issum ; Sp. Dasas), the tricd fruit of tha vine. They are produced from varlous species of vines; deriving their names partly from the place where they grow, as Smyrnas, Valencias, ete.; and partly from the speciea of grape of which they are made, as muscatels, blooms, sultanas, ete. Their quality appears, however, to depend nore on the method of their cure than on any thing else. The finest raisins are cured in two methods; either by cutting the stalk of the bunches half through, when the grapes are nearly ripe, and leaving then suspenden on tho vine till the watery part be evaporated, and the sm drics and candies them; or by gathering the grapes when they are fully ripe, and dipping them in a ley made of the ashes of the burned tenirils; after which they are exposed to the sum to dry. Those cured in the tirst way are most estemed, and are denominated ralsins of the sun. The inferior sorts are very often dried in ovens.-Thoman's Disp.

Ruisins are imported in casks, barrels, boxes, and jurs. The finest come in jars and quarter thoxes weighing about 25 lbs . Some of the inferior sorts aro brought to us in mats. Malaga raisins are in the highest estimation. The muscatels from Malaga fetch fully a third more than any other description of raisins.

Tho value of raisins imported Into the United States for the fiscal year $1850-67$ was $\$ 937,460$, viz:

| Whence Imported | Pounda. | Value. |
| :---: | :---: | :---: |
| Fiance on the Medtterranean. | 604.160 |  |
| Spain on the Mediterranean ..... | 14,480, 8 ¢ 1 | 8.6 .770 |
| l'urkey In Asia. | 154,840 | 1.t.63) |
| Chilt | \$31,200 | 6.515 |
| Ath otbers | 159,6.5 | 0,716 |
| Total th 1856-'57 | 15,619, 024 | \$ $\$ 1837.460$ |
| 'Total io 185\%-'56 | 14, 1006,407 | $84.4,210$ |
| Increme . . . . . . . . . . . . . . . . . 1 | 1,303,207 | \$83,241 |

Rake, to. The sea term for incline, and applies to the masts, stem, and stern- $\mu$ ost, ete.; the bowsprit, instead of raking, is said to stecre. Masts generally rake aft, mus in peculiar rigs only forward. The rake of the mast has an influence on the suiling of the vissel, and the masts of seme schooners ruke excessively. The principal effect seema to be to diminish the effect common to all the sails, of depressing the ship's head. To rake a ahip, is to fire into her head or stern in the direction of her lengith, or along her decks. It is similar to what engineera term entilading.

Rake of a Ship, is all that part of her hull which hangs over both ends of her keel. That which is lefore is called the fore-rake or rake forward, and that part which is at the setting on of the stern-post is called the rakeaf or afierward.

Rangoon, a commerclal port and town of the burmese dominions, ahout 26 mites from the sea, on the left bank of the easturn branch of the River Ircawadily, in lat. $16^{\circ} 42^{\prime}$ N., long. $96^{\circ} 20^{\prime} \mathrm{J}$. Tha town and suburbs extend lengthwise about one pile sloug the
bank of tha river, belog about three-fourths of a mile in depth; but the houses are very unequally scattered over this area. The fort, or rather wooden stockade, which contalus the town, properly se celled, is a regular aquare about 14 feet high, composed of heavy beams of teak timber. It appears, from a census taken a short time previously to the commencement of the war in 1824, that tho pepulation was 18,000 , which probably is not far frem ite present amount, though it has heen stated considerably higher. The foreign trade is principally regulated by the treaty between Great Britain and the Court of Ava, 1826.

Kangoon is the chief, and indeed almest the only port of forcign trade in the Burmese dominions, which extend from between the 16 th and 16 th, up to the 26 th and 27 th degrees of N. Iat., and from the 98d to the 98th degrce of E. leng., containing an area of aboot 184,000 square miles, with a pepulation of about $4,000,000$. Its situation is extremely cenveniont for commercial purposes, being situated so near the sea, anl commanding the navigation of the Irrawaddy, which extends to Ava, the capltal, a clistance of nearly 500 niles. Rangoon is accessible to ships of even 1200 tous burden; the navigation, although somewhat intricate, being safe and practicable with the assistance of the ordinary native pilots.

The town has many advantages for ship-building. At neaps the tide rises and falls about 18 feet; and at springs from 25 to 30 feet. The principal teak forests are, at the sane time, at a cemparatively short distance, and thers is a water conveyance for the timber nearly tho whole way. Ship-building has, in fact, been carried on at Rangoen sinve 1786, and in the 38 years before the British captured it thero had been built 111 square-rigged vessels of European constructian, the total burden of which amounted to above 35,000 tons. Several ef these wero of from 800 to 1000 tons. Under the direction of European masters, the Burmese were found to make dexterous and laborious artisuns; in this respect greatly surpassing the uatives of British Indian provinces. There are two consilterable markets, where the ordinary necessarles of life, according to Burmese usage, are cheap and aboudant: these are rice, excellent fish, and poultry.

Joney.-The Burmese currency consists, for small payments, of lead; for larger ones, of gold end silver, Lut chiefly of tho latter. There aro no coins. At every payment the metal must he weighed, and very generally assayed-a rude and very inconvenient state of things. The welghta used in the weighling of money are the same as thoso used on ordinary occasions; tho kyat or tical, and the paiktha or vis, being by far the most frequent. Silver may be considered us the standsrd. Gold is generally held to be about 17 times more valuable than sllver. Tho weighing and assaying of the metals used as currency gives employmont to a class of persons as brokers, money-changers, and assayers. Every new assay costs the owner, if the metal be silver, $2 f$ por cent. $-1 \frac{1}{2}$ jer cent. being the establishod commisslon of the assayers, whlle 1 per cent. is lost, or supposed to le lost, in the operation. If it be ropeated 40 times, it follows that the original amount is wholly absorbel-a fact whleh shows tho enormous waste of metal arlsing out of this rudo substitute for coin.

All grains, pulses, certaln fruits, natron, salt, and lime, are bought and soid by measura: other comnodities by woight.-For an account of the weighta and measures, see article Buam.ah.

Commerce.-A considerable intercourse is carried on between the Burmese and Chinese dovininions by an annual caravan, of which the merchants are all Chinese. The inports from Chins consist of manufactured articles, the chisf export from Burma being cotton wool. The trade with foreign countries seaws is is cerried on with the ports of Chittegeng, Dacca, and Calcutta, in llengal; Madras and Masuilpatam, on the Coromandel
coast; the Nicobar Islands, in the Bay of Bengal; Penang, in the Straits of Malacca; and oceasionally with the Persian and Arabian Gulfs. . The largest trade is with Calcutta, owing te the great consumption of teak timber in the latter, and the facility with whleh she supplles the demand of the Burmese for Indian and British eotton gooda. The articles exported to forelgn conntries from Rangoon are the following: Teak wood, terra Japonlea, or catechu, stick-lac, beeswax, elophants' tecth, raw cetton, orpiment, commonly called in India hurtal, gold, siliver, rubies, sapphires, and horses, or rather the small, hardy pony of the country, which is much estcemed, particnlarly at Madras. By far the most important of these commoditiea is teak tiniber; the quantlty of this wood annually experted is asid to be equal to 7500 full-sized trees, which for the most part consist of what India ship-builders call shinbin, which are planks hewn eut of the log with the adze at an inmenso waste. Tho teak ferests of l'egu are by far the most abundant in Indla. The teak is nowhere to be found in the low alluvial lands to which the tide reaches, but abounds in the high lands beyend its influence. It seems to be very generally disseminated throughout the Burmese dominions. In the territery ceded to the British in Martalan, there are some fine forests, the timbor of which is cat dewn for exportation, and where it is believed that saw-mills have very recontly been established by some Earepean settlers. The most accessible and extensive forests of teak in the Burmese dominions aro in the province of Sarawadi, abeut 150 miles to tho nerth of Rangoon, with which there is a water communication. The principal imports into Burms nre cotton pieco goods from India and Britain, British woolens, iron, steel, quicksilver, copper, cordage, borax, sulphur, gunpowder, saltpetre, fire-arms, coarse percelain, English glasswaro, opium, tobacco, cocos and areca nuts, sugar, and spirits. Of these by far the most important is cotton piece goods. Tho Burmese have few cotton manufactures of their own, and appear, from very early times, to have been furnished with the principal part of their supply from the Coromandel coast. To theso were afterward added the cheaper fabrics of Bengal; and both are now, in a great messure, superseded by British manufactures, the nge of which has spread very rapidly since the opening of the trade in 1814.

Rape, a bienuial plant of the turnip kind (Brassica napus, Linn.), but with a woody fusiform roet scarcely fit to be caton. It is indigenous, flowers In May, and ripens its oceds in July. It is cultivated in many parts of Englanil, partly on account of its seod, which is crushed for oil, and partly for its lenves as food for sheep. The culturo of rape for seed has been mueh oljected to by some, on account of its supposed great exhaustion of the land; lout Mr. Loudon says that, where the seil and preparation are sultable, the afterculture properly attended to, and the straw and offal, instead of being burned, as is the common practice, converted to the purposes of feoling and littering cattlo, it may, in many lastances, be the most proper and advantageous crop that can be employed by tho farmer. The produce, when the plant succeeds well, and the season is favorable for securing the soed, amounts to from 40 to 50 bushels an acre. The seed is crushed in milly construeted for that purpose.-Lounon's Eincyc. of ' Agriculture. See Oni, and Linseen.

Tho value of rape-seed and hemp-seed oil imported into tho United States for the fiseal year 1856-'57 was \$11,601, viz. :

| Countries. | Hualiela, | Value. |
| :---: | :---: | :---: |
| Fugland | 6,768 | 45278 |
| France . . . . . . . . . . . . . . . . . . . . . . . . . | 9,4i1 | D,713 |
| Others. | 076 | 610 |
| Total. | 17,215 | \$11,60t |

Ratans, or Canes, the long slenter shoots of a prickly bush (Culamus rotang, Linn.), ono of the most.

## RED

neeful planta of the Malay penineula and the Eastern islands. They are exported to Bengal, to Europe, and, above all, to China, where they are consamed in Immense quantities. For cane work they should be chosen long, of a bright pala-yellow color, well glazed, and of a amall size; not brittle, or subject to break. They are purchased by the bundlo, which ought to contain 100 ratana, having their onda bent together, and tiod in the middio. In China they are sold by tho picul; which contains from 0 to 12 iundles. Such as are black or dark colored, snap ahort, or from which the glazing flles off on their being hent, should be rejected. When stowed as dounage, they are generaliy allowed to pase free of frelght.-Milnumn's Oriental Commerce, oto. "The ratan," says Mr, Crawfurd, "is the spontancous product of ali the forests of the Archipelago; but exiets in great porfection in those of the lislands of Borneo, Sumatra, and of the Malayan peninsula. Tho finest are produced in the country of the Botaks of Sumatra. The woor-cutter who is inclined to deal in this article proceeds into the forest withont any other instrument than his parang or cleaver, and cuta as much as he is alilo to carry away. The mode of performing the operation is this: he makes a noteh in tho tree at the root of which the ratai is growing, and cutting the latter, atrips off a small portion of the outer bark, and inserta the part that is peeled into the noteh. The ratan now beling pulled through as long as it continues of an cqual slzo, la by this operation neatly and readily freed from its epilermis. When the wood-cutter has obtained by this means frem 300 to 400 ratans-beling as many as an Individual can conveniently carry in their noist and undried statehe sits down, and ties them up in hundies of 100 , each ratan being doubled before belng thus tied up. After drying, they are fit for the market withont further preparation. From this necount of tha small labor expended in bringing them to market, they can be nold at a very cheap ras ${ }^{*}$. The Chinese junks obtain them in Bornco at the low rate of 5 Spanish dollars per 100 bondles, or 5 centa for each 100 ratank, or 27 for $1 d$. The nativea always yond them by Lale; but the European reildents and the Chinese sell them by weight, counting ly piculs. According to their quantity, and the relative atate of supply and demand, the European merchants dispose of them at from $1 \frac{1}{2}$ to $2 \frac{1}{2}$ dollars the picul. In China the price ia usualty abont $3 \frac{1}{2}$ dollara per picul, or 75 per cent. above the avorage prime cost. In Ilengal they are solld by tale, each bundle of about 100 ratans bringing about $20 \frac{1}{2} d$."-Indian A rchipelago, vol. iii. p. 423.
Ratlines, amall lines which traverse the shrouds of a ship horizontally, at regular distances, from the deck upward, forming a variety of ladders whereby to ciinul or to descend from any of the mast-heails.
Razee, a ship of war cut down to a smaller size.
Real, in the Spanish monetary aystem, is of two sorta ; viz., a real of plate, and a real rellow. The former ia a silver coln, varying in valuo from 10 to $12 \frac{1}{2}$ cents. - See Conss. A real vellon is a money of accomint, worth about 5 cents. Formerly, ly authority of Congress, the value of a real of plato was put at 10 cents, and a reai vellon of S pain at 5 cents.
Realejo. The port of Realejo, on the Pacific, Iat. $12^{\circ} 84^{\prime}$ N., long. $80^{\circ} 4^{\prime}$ W., to which it la proposed to bring the cnnal from Lake Leon, is suid to be one of the best that is any where to be met with. The port of Realojo conaists chiefly of a alt-water creck, into which several smali streams of water empty themselves. The entrance is protected ly ant injand about two miles long, which loaves at each end a channel where shipa can enter the harbor, but extending opposite the main land, forming the port in such a manner as to protect it entirely from any wind that could possilily blow, and aleo pntirely breaking the swell whlech entors the onter bay of Couchagua from the ocean. The north eutranco is about a quarter of a mile wide, and that at the mouth
of the island rather narrower, both being entirely free from rocks or hidden dangera, and having in no part lese than five fathome depth of water. At one of these openinge vessels can at ali times enter with a leading wind, from whatever quarter it may blow. The inside consiats of a noble basin of water, nowhere less than four fathoms deep, with a bottom of mud, where two hundred shlps of the line might tio at alt times in the most perfect security. One of the branches of the creek extends inland to within three leagues of the Lake of Leon or Managua. Tho intermediate country is a gentlo slope, whero undoubtedly should enter one of the ends of the canal to connect the Pacific and A Iantic oceans. The ditficultiea to be encountered in crossing the chain of hills between the Lake of Nicaragua and San Juan del Sud wonld he entirely avoided ly bringing the cnnal through the Lake of Leon (conneeted as it is with that of Nicaragua by a river that might be rendered navigable at a moderato cost) into the above-named lranch of the Realejo harbor, thus securing the great advantage of an exceilent harhor at each end of the canal, bealicis many othera which are certainly not to be met with cither at Panama, Tehanatepee, or any other placo. The town of Renlejo is alont two leaguee distent from the part of the cr 'k where vessels lie ; but there is aufficient depth for annail vessels to como within a mile of tho town, and a very little labor would make it nccessible to large alinin: but an enlightened government would probalily prefer moving the town to tho opposite side of the resch, where vessele lie, where there is a site extremely stit'able for the purpose, and where a quay might easily b: erecterl capuble of accommodating any number of ships. In the time of tho Spanish goverument scyeral ves. sels, somo of 300 to 400 tons, were bullt at Reaipjo, where tho wood is very auperior and durable. The port of San Juan del Sud, to which place it was proposed to bring the cenal, reems inferior to Realejo in most respects. The Gulf of Papagayo, where the port is situated, is very difficult to enter for a sailing vessel for five months in the year.-See Ntcabagua and Pasama.

Ream, o quantity of paper. The ream of writingpaper consists of twenty quires, each of twenty-four shects $\boldsymbol{p}$ usually cousistling of elghteen quires of twen$t y$-four sheots cach, and the two outside (or broken) quires of aixteen to twenty sheets each; but the ream of printing-paper, or, as it is sometimes called, the printer's ream, extends to twenty-one and a half quires, or 516 sheets. Two reama of paper mako a bundle.

Recoipt is an acknowledgment in writing of harling received a sum of money, or other valuable consideration. It is a voncher either of an obligation or debt diacharged, or of ono incurred.
Reckoning, in Narigation, the estimated place of a ship, calculated from the rato as determined ly the $\log$, and the courso as determined by thd compass, the place from whleh the vessel started being known. Dend reckoning means tho same as reckoning, due silowance being made for drift, lec-way, currenta, etc.
Red River is the first large river which enters the Mlasiarsippi, 3.11 miles ahovo tis mouth, and risea at about lat. $34^{\circ} \mathrm{N}$. in the Llana Fistacuda, or Grest Staked Hiain. It is formed by several head lranches, and receives several trilntaries, the largest of which are Bine liser and Falso Washita. A greater part of its course is through rich prairies of a red soil, which colora the water of the river, and henee the origin of ita name. Its shorea are covered with grass, and abound with grape-vines, which proluce an excellent fruit. Alout one hundred milea alova Natclitoclies commences what is denominated the Raf, whilliconsiats of a awampy expanaion of the river to the widtin of twenty or thirty milea, and hisa a length of aixty or seventy milles. Tho river divides into a great number of channels, many of which are shaliow, and these channeis have been obstructed by falien trees, brought
down by floods from its upper parts. At a great expense, this raft has been so far removed by the United States government that ateamboate pass through It. Boats sometimes pass the raft by leaving the river above it, In a channel which flowa out of it into some neighboring lake, and following the outlet of this lake until it joins the river below the raff. This raft has been a scrious obstruction, as the river would otherwise be navigable for steambonts four hundred mllea, and the lands on its bordera are highly fertile, and desirable for cultivation for a great distance above the raft. Below the raft, snd four miles above Natchitoches, the whole volume of the river la again united, but very soon divides into many channela, and filis an immense number of bayous and laker that lie parallel to it. In ita lower parts the main channel of the river is narrower than above the raft.

Sed Bea, or Arablan Gulf, an inland sea between Africa and Asia (Arabia), lat. $12^{\circ} 40^{\prime}$ to $30^{\circ} \mathrm{N}$., long. $32^{\circ} 30^{\circ}$ to $43^{\circ} 39^{\prime}$ E. 'Length, northwest to southeast, upward of 1400 miles; breadth varies to nearly 200 miles. At its southern extremity lt communicates with the Indian Ocean by the atrait Bab-al-Mandob. In its northern part it bifurcates into the Gulfs of Suez and Akabah, which inclose the peninsula of Sinai. Depth varies; average about 100 fathons. It abounde with island ond coral reefs, and is supposed by somo to have derived its name from the large quantities of red coral and pink-colored fuci which it vields; while it is more probably derived from the aneient Iduma, "Ses of Edom," or "Red Sca." The country almost every where arcund it is mountainous. The sontheast monsoon blows constantly for eight months of the year, and during the remainder the northwost monsoon. From October to May, whon south wlads prevail, the water rises in the northern part of the sea, which then attains an elevation much higher than the Mediterranean. The navigation is difficuit, owing to budden changes of wind and heavy gales. Principal ports are Mocha, IIodelda, Loheia, Jiddah, anil Yembo on the Arabian side, and Sinez, Kosseir, Suakin, and Massowah on the Egyptian, Nulian, and Danakil coasts.
Reef, a term in navigation. When there is a heavy gale of wind the geamen commionly roll up part of the ssil below, thest by this means it may beconie the narrower, and not draw so much wind; and this contracting or taking up the sall they call a reef, or reefing a sail; so also when a top-mast is sprung, as they call it, that is, when it is cracked, or almost broken in the cap, thay cut off the lower piece that was nearly broken off, and satting the other part, now much shorter, in the step again, they call it a reefed top-mast.
Regatta, a word used originally by the Venctians to signify a grand fete in which the gonduliers contested for superiority in rowing their gondolas; but the term has been adopted into all the modern languages, in which It signlfice a briliiant species of boatrace.

Regiatry, in Commercial narigation, the reglatration or cliroliment of ships at the custom-house, so as to entitlo them to be classed among, and to cryjoy the privileges of national ships.-See Sinps.

Tho United States have initated the pollcy of othor commercial nations in conferring peculiar privilegea upon Anserican-built ships, and owned ly citizons. The clject of the Registry Act ? 3 to encourage our own trade, navigation, and ship-bullding, by granting unusual and excluaive privileges of trade to the fiag of the United States, and by prohlbiting the commonication of those lmmunities to the shipping and mariners of other countries. The provlsions are well calculsted to prevent the commission of fraud upon individuals, as well as to advance the national policy. The registry of vessels at the custom-house, and the memorandums of the transfors, add great security to titlo, and bring the existing state of our navigation and marine
under the vlew of the general government. By these regulations the title can be correctly traced back to Its origin. The acts of Congress of 31st of December, 1792, and 18th February, 1793, constltute the basis of the regulations in this country for the foreign and coasting rade, and for the fisherles of the United States ; and they correspond vary nearly to the provisions of the British statutes in the reign of George III.

Theso acts relate to all shipa employed st sea, which may be divided into five classea : 1. Ships of the United States employed in foreign trade, which are entitled to be registered. 2. Ships of the United States employed in the coasting trade or fiaheriea, which are entitled to be earolled and licensed. 3. Shipe built ont of the United States, but owned by citizens, which are entitled to a ccrtificate of ownership; but if wrecked in the United States and repaired to the extent of threequarters of their value, they may be registered. 4. Ships built in the United States, but owned wholly or partly by foreigners, which are entitled to be recorded. 5. Ships built out of the United States, and owned by foreigners, which are considered allen vessels to ail intents and purposes.-See Kent's Comm., vol. iii.

Vessels actually registered, and vessels duly qualified for carrying on the coasting trade and fisheries, or one of them, are alone denominated and deemed ships or vessels of the United States, entitlod to the benefits and privileges appertaining to such vessels; and they continue to enjoy the anme no longer than they continue to be wholly owned and commanded by a citizen or citizens of the United States. Vessels built within the United States, and vessels captured by citizens in war, and condemned as prizes, or seized and condemned for a breach of revenue lawe, and wholly belonging to citizens, may be registered. No citizen who usually resides in a foreign country can, during such residence, ontitle himself to have registered a ship ownod in whole or in part by him, unless he be a consul, or an agent or partner in asme house of trade or partnership, consisting of citizens actually carrying on trade with the United States. An American vessel, transferred by parcl while at sea to an American citizen, and resold to her original owners on her retnen to port, does not lose her privileges as an American vessel.

If one of two partners obtaln a registry of a vessel by awearing that he and his partner, of the city of New York, are the owners, when in fact his partner is domiciliated abroad, tho vessel is liable to forfelture.

No ships can be registered, or lf reglatered, can bo entitled to the benefit thereof, If owned, in whole or in part, by a naturalized citizen, residing for more than one year in the country from which he originated, or for more than two years in any foreign country, unless he is a consul or public agent. But such ships may be registered ar 3w on a bona fide sale to any citizen resident within the United States.

No registered alifip, which has been seized or captured and condemned by a foreign power, can be registered anew, except regained by the original owner at the time of capture or seizure, or by his executors or ndministrators; but such a ship is deemed a foreign ressel, though purchased or owned by any other citizen. Shipa entitled to be recorded and entitled to the benefits of recorded ships in the United States are ships built In the United States, and belonging wholly or in part to foreigners. Vessels entitled to be enrolled aro vessels of twenty tons or upward, possessing the same quallications and requisites as are made neceasary for registering ships, i, e., they must be built within the United States, and be owned wholly by citizens. If under twenty tons, they are entitied to a license. No ships, unless enrelled and licensed, are deemed entitled to the privileges of American vessela employed in the coasting trade or fisheries; and if any not enrolled or licensed be found engaged in the consting trade or fisheries, having on board any foreign articles or distilled apirits other than sea stores, they are eubject to forfelt-
ure, muless the veasel be at sea at the expiration of the time for which the license was granted; in which case the forfeiture is not incurred, provided the master prove the fact, and deliver his license to the collector of the dlstrict in which he shall first arrive, within forty-elght hours after his arrival:
In the United States no vessels are required to be registered. But to entlitio them to the privilegea of the United States they must be registered; otherwlse they are deemed alien ships. As is before stated, voesels engaged in the coasting trade or fisherles are liable to forfeiture if they have foreign goods on board, unless they are enrolled or licensed.-BLUNT's Shipmasters' Asistant.
It is furthor provided by the act of March 2, 1797, that whenever any vessel is transferred by process of lave, and the register, or cortificate of enroliment or ilcense, is retained by the former owner, a new one miay be oltained upon the usual terms, without the return of the outstanding paper. Vesseis captured and condemned by a foreign powar, or by sale to a foreiguer, whereby there becomes an actual divesture of the title of the American citizen, are to be considered as joreign vessels, and not entitlod to a new register, even though they should afterward become American property, unless the former owner regain his titie, by purchase or otherwise, and then the law allows of the restoration of her American character by a sort of jus postliminii. Every registered or unregistered veseel owned by a citizen of tho United States, and going to a foreign country, and an unregistered vessel, sailing with a gealetter, is entitled to a passport, to be furnished by the collector of the dietrict. But no sea-letter, certifying any vessel to be the property of a citizen of the United States, can be issued, except to ships duly registered, or earolled and licensed, or to vessels wholly owned hy citizens of the United States, and furnished with or entitled to sea-lettors, or other custom-house documents.

The English reglstry acts of 26 Geo. III, and 84 Geo. III. c. 68, required the certificate of regiatry to be truly recited at length in every bill of salo of a British ship to a British subject; otherwlse such bill of sale was declared to be utterly null and vold, to all intents and purposes; and this was held to be necessary, even though the ship was at sea at the time, and the vendee took the grand bill of sale and ponsession of the ship immediately on her arrival in port. The laws of the United States do not go to that rigorous extent; and the ouly consequence of a transfer without a writing containing a recital at length of the certificate of registry is, that the vessel can not le rogistered anew, and sho loses ber privilege as an Ainerican vessel, end becomes sulject to the disabilitics incident to vessels not registered, enrolled, or licensed as the atatote prescribes. But where an American registered vessel was in part sold, by parol, while at spa, to an American citizen, and again resold, by parol, to her original owner on her return into port and befors entry, that transaction was held not to deprive the vessel of her American privileges, or anhject her to foreign daties, for In that case no new register was requisite, It would havo been, except in date, a duplicate of the old one, and perfectly useless.

If a ship be owned by American citizens, and be not documented according to the provisions of be registry acts, is is not liable to any forfeitures or disabilities which are not specially prescribed. The want of a register ls not a ground of forfelture, but the cause only of loss of American privileges. Every veseel, wherev. er bulit, and owned by an American citizen, is entitied to a custom-house document for protection, termed a passport, under the act of June 1, 1706 ; for It applies to "every ship or veasel of the Vnited States going to a.'y foreign country.". As our registry acts do not decl ine void the ale or transfor, and every contract or ac reement for transfer of property in any ship, without an instrument in writing, reciting at large the certif.
cate of registry ; and as they have not prescribed any precise form of indorsement on the certificsto of registry, and rendered it indispensable in every sale, ss was the case ubder the Hritish statutes of 20 Geo. ItI. c. 60, and 84 Geo. III. c. 68, we are happily relleved from many embarrasoing questions which have arisen In the English courts relative to the sale and mortgage of chlps.

There have been great difficulty and some alterna. tion of 'opinion in the English courts In the endeavor to reconcile the strict and positivo provisions of the statute with the princlples of equity, and the good faith and intention of the contracting parties. It has even been a question of much discussion whether the statutes of 26 and 84 Geo. III, had not destroyed the cem-mon-law right of conveying a ship by way of mortgage, like other personal property ; and whether the mortgagee had not a complete titlo leyond the power of redemption after the transfer of the legal title according to the prescribed form of the. Indorsement an the certificate cf registry. The language, in many of the cases, was in favor of the conclusion that there couid be no eqnitable ownership of a ship distinct from the legal title, and that upon a tranafer under the forms of the registry acts the ship becomes the absolute property of the intended mortgagee, and that the termas and the policy of the registry acts were incompatlble with the existence of any equity of redemption. But these opinions or dicta have been met by a series of adjadications which assume the lawa to be otherwise, and that tho registry acts related only to transactlons between vendor and vendee, and to cases of real ownorship; and that an equitable Interest in a ship might exist by operation of law, and by the contrsct of the parties, distinct from the legal eatate; and that, notwithstanding the positive and absolute terms of the indorsoment upon the certificate of register, a mortgsge of a ship is good end valid, according to the law as it existed before the registry acts, provided the rcquisites of the atatutes be complied with. The opinion of Sir Thomsa Plumer, in Thompson va. Smith, contained a very clear and masterly vindication of the validity of the mortgage of a ship consistently with the prescrvation of the forms of the regiatry acts. He effectuaily put to flight the alarming proposition that, since the registry acts, there could be no valld mortgage of a ship; and he insisted that the defeasance annexed to the bill of sale ought to bo fully indorsed as part of the instrument on the certificate of registry, if tho ship be mortgaged in port ; or, if mortgaged while at ses, a copy of the whole transmitted to the custom-house; and that though the defeasance ahould not be noticed in any of the forms adhered to at the office of the customs, and the inatrument should be registered as as absolute blll of ssle, the mortgager's right of redemp. tion wonld not suffer by the omission. But as no such questions can possibly arlse noder the registry acts of Congreas, these diacussiona in tho English courts are noticed only as a curious branch of the Engiish jurisprodence on this subject.

The registry is not a document required by the law of nations as expressive of a ship's national character. The registry acta are to be conaldered as forms of local or munieipal lnatltutions for purposes of pubiic policy. They are imperative only upon the voluntary transfer of parties, and do not apply to transfers by act or operation of law. They are said to be peculiar to Engiand and to tho United States, whose maritimo end uavigation system fs formed upon the molel of tinat of Grest Britain. Bot by various French grainances, betweea 1681 and the era of the new code, it was requisite that all vessels, in order to be entitled to the privileges of Freach vessels, should be built in France, under some vecessary exceptlons, and should beowned ex elusively by Frenclimen, and foreigners were prohlbited from nsvigating under the French flag; and a Frenchman forfeited his privilegen as such owner by anarrying a foreign wife, stom-house; t be notieed e of the castered as an of redempt as no such btry acts of I courts are uglish juriz-

## by the law

 al character. prms of local ublic policy. tary transfer act or operto England and nariga. hat of Great ces, between aisite that all res of French me necessary 5 by Frenchnavigating forfelted his Coreign wife,or residing abroad, unless in connection with a French house. The regiater ls not of iteelf evidence of property, unless it be confirmed by some auxillary circumstance to show that it was made by the nuthority or assent of the person named in it, and who ls sought to be charged as owner. Without prcof to connect the party with the register as being hia direct or adopted act, the register has been held not to be even prima facie evidence to charge a person as owner; and cven then it is not conclusive evideace of ownership. The cases of the Mohawk Insurance Company vs.' Ecifford, decided in the New York Court of Cominon Pleas in 1828, and Ring vs. Franklin, in the Superlor Court of that clty $\ln 1820$, went upen the same ground that the register, atandling in the name of a peraon, did not dotermine the ownership of a vessel, though it might perhaps, be prosumptive evidence In the first instance. An equitable titio in one person might legally exlat consiatently with the docume atary title at the customhouse in another.-Kent's Comm., vol. Ili. p. 196. See articles Tonvage, Sitipeina, etc.

Relleving Tackles. Temporary tackles attached to the end of the tiller In bad weather to assiat the helmsman; and In case of accillent happening to the tiller ropes. Thay are also strong tacklea from the wharf to which the shlp is hove down, pasaed under her bottom and intached to the opposite side, to asaist in righting hor ofterward, as well as to prevent her from oversetting entirely.

Report. In Commercial navigation, a paper delivered by the maters of all ahipe arriving from parta beyond seas to the custom-houae, contaiuing an account of the cargo on board, ete.

Repousse, or Chasing. The repousse work of French silver-emithe, which is equivalent to chasing, is a very remarkable mode of decorating gold aod ailver plate. It is effected entirely by the hammer. The workman has a plain flat sheet of silver to work upon, and before him ts a carefully executed wax model of the article to be produced; the silver plate rests upon a soft bed of pltch or other composition, and with a small hoinmer the workman produces indentations over the surface corresponding with the deviee to be pro duced. A small atecl punch ia employed occaslonally ; and if any of the Indentationa are carried too far, the plate is reversed, and a little counter-hammering applied. Many of the shields, aalvers, diahos, and other articles in the Great Exbibltion, diapluyed fine examples of this kind of work; and there was an equestrian statue of Queen Elizaboth produced almost entirely by thia remarkable procees.

Reprisals. Where the people of one nation have unlawfolly acized and detalned property belonging to another state, the subjects of the latter are authorized, by the law of natione, to indemnify themselves by seizing the property of the subjects of the state aggressing. This is termed making reprisals ; and conımissiona to this effect are issued from the Admiralty.See Phivateeles.

Resin (Gr. $\dot{\text { R }}$ tu $\nu \eta$; from $\beta c \omega$, Iflow). A proximate principle common in tho vegetablo klogdom, the ultimate compor enta of which aro carbon, oxygen, and hydrogen. Therearemany varieties of resln. Their general characters are fuability and inflammability; aslubility In alcohol, lusolubility in water. They are generally separable into two diathet portions by the action of cold and of hot alcohol. They are valuable as ingredients in varnishes, and eeveral of them are uaed in meallcine. They are often naturally blended with modifications of gum, in which case they constitnte the series of gum resins. The specifle gravity of the reains varies between 1.0 and 14 . They become negatively electric by friction. The commoncat resin in ase, usually called rosin, is olbtained by diatllling turpentine: the volutile oll passes over, and the resin remalue in the still.-See Gums and Oris.

Rempondentia, in Commercial luw, significe the
hypothecation of the oargo of a ship, on conditions slmilar to those npon whish the ship and treight may be pledged-the latter belng called a bottomry bond. The security of the carge may, indeed, oe given by the maater of the vessel, in addition to that of the ship and frelght, should the last two be dcemed sufficient security by the lender of tha money ; but, notwithatanding the cargo may in this case form the principal part of the securlty, stlll such loan will be commonly sald to be bottomry; hut is more atrictly on bottomry and respondentia. The right which a master poasesees of thus pledging the cargo is undoubted, and is a natural consequence of the power which la lavested in him of disposing of part of the cargo in case of extreme necesrity, and whieh la to be oxercised by hlm for the benefit, to the beat of his judgment, of all concerned. The master of the ship is not, however, juatlfied in selling the whole of the cargo, for that would defeat the object of the voyage which the repairs are intended to carry into effect; nor is he permitted to hypothecate the cargo without the ship, or without the ship and freight. A hottomry bond may include a respondentia bond, or they may be given aeparately. - Generally all laws applicable to respondentia are equally ao upon bottomry, but the reverae is not in all countries the case. By custom, the holder of the bottomry and reapondentia bond after judgment first recelves the freight and sells the ship, and, if these do not satisfy his claim and the expenses of legal proceedinga, then to have recourse upon the cargo; but this course is not always imperative; he may sell the carge, and leave the shlp and frelght. In ouch case the owners of the veasel are reaponsible for any loss whleh the owners of the cargo may austalo, over and above the proportion of general average cherges on the cargo and tho bottomry promium thereon.

A reapondeatia or bottomry bond ia an assignable instrument, and is usually transmitted to an agent in tha place named as the termination of the voyage, with legal authority for him to receive the money, or institute legal proceedings for enforcing payment. The general sule is, that the power of the master to give bottonry or respondentia bonds exists only after the voyage has commenced, and ia to be exerclsed in aome port where the owner does not regide. Bet it is not indispensable to tho validity of a hypotheoation that the ahip and cargo be in a foreign port. The law looks more to the difficulty of communleation between the master and owner. And a hypothecation may be made In another port of the same country, if communication with the owner is subject to great difficulty and delay. The bottomry or reapondentia hond is to be paid before any prior insurance, and it superseâce a provious mortgage on the ship. If there is more that one bottomry Lond, they take precedence in an inverse order to their dates. The last bond given is entitled to priority of paymeat over all others.

The position taken by Lord Manafield, that the lender on bottomry or respondentia is not liable to contribution in case of general average, has been much and justly questioned. It ia contrary to the maritime law of France, and of other parta of Europe, and in Louisiana there is a decision againat it. It seeme conclusivo that if the lender on bottomry owes the preservation of the socurity of his moncy to any aacrifice of ship or cargo, he should contrlbute to a general average or jetsam. -See Botromry and Respondentia, and Manitime Loans. See also Kext'g Comm. vol. iii. ; Pansona's Maritime Lav.

Revenue nad Dxpenditure. Though not properly velonging to a work of thie sort, we belicva we shall do an acceptable service to our readers by laying before them the following comprehensive Table of the revenue and expenditure of the world, which we have compiled from Leone Levi's Commercial Law... For als exhibit of the revenue and expendlture of the Unitod Stntea from 1789-1857, aee article United States.


| Comatrion | Re mino io Poundo 8terliag. | Expendilury in Pounde Plarling. | Publie Dobitil Potudy Btariling. |
| :---: | :---: | :---: | :---: |
| Austrian Emplro........ | $\begin{gathered} 1351 . \\ 20,817,258 \end{gathered}$ | $87,702,052$ | $\begin{aligned} & 1848-69 \\ & 90,770,665 \end{aligned}$ |
|  |  | Intereat on debt.. $8,108,609$ <br> War............... <br> $10,886,850$ | Bearing interest. $\ldots, 88,170,605$ Add to Jan. 81, 1860 . $18,000,00$ |
|  |  | Commeree . . . . . . 8, 878,675 |  |
|  | July $\mathrm{K}, 1851$. |  July 5, 1851. |  |
| Britioh Emplre .......... | 63,046,209. | 50,012,476 | $787,020,109$ |
|  | Cuntoms. . . . . . 90,068,687 | Interemt on debt . . 28,894,477 |  |
|  | Exclue. . ......, 14, 662,116 Btampa..... 6.4 0.014 |  |  |
|  | Dlrect tax ...... 0,676,10\% | Juntee . . . . . . . . . 1,008,073 | $\cdots 1$ |
|  | $\begin{aligned} & \text { Misoellaneous.. } 1, i 68,890 \\ & \text { 1851-is2 } \end{aligned}$ | Micellaneoua. ... 8,402,210 18\$1-5s. |  |
| France.................. | $65,182,192$ | 57,678,674 | 201,016,02t |
|  |  |  | Consolldated debt ...180,385,036 <br> FTosilng debt ….... 20,629,091 |
|  | $\begin{gathered} 1851 . \\ 14,204,244 \end{gathered}$ | $\begin{gathered} 1851 . \\ 14,581,044 \end{gathered}$ | $\begin{gathered} 1851, \ldots \\ 27,802,689 \end{gathered}$ |
| Prumala.................. | Dirset tax $\ldots . . .8$ 3,054,283 | War............ 4 4,036,808 | General debt......... 23,016,448 |
|  | Indirect tax.... 4, 509,045 | Interout on debt.. 1, 434,185 |  |
|  | Miscellaneoun.. 6,640,087 | Trade $\ldots . . . . . . .$. $1,168,883$ <br> Juatice . . . . . . . $1,858,2: 9$ | $\begin{array}{r} \text { vided for by the } \\ \text { 8tato............... } 1,250,082 \end{array}$ |
|  |  | Miscellaneous.... 6,0 , 6 4,810 | $\left.\begin{array}{c}\text { Treasury bilia wili. } \\ \text { out Interest ..... }\end{array}\right\}$ 8,126,288 |
| Rumalan Emplre ......... | Customs Establiahment, 1848. ..... 4,952,181 |  |  |
|  |  | *................ | 1860 . . . . . . . . . . $63,434,762$ <br> Term. debt, Dutch .. $\quad 5,818,689$ <br> 10. domestlo. . . . . . . 10, |
|  |  |  |  |
|  | $\begin{array}{r} 1856 . \\ \hline 75,918,141 \end{array}$ | $\begin{array}{r} 1850 . \\ \mathbf{\$ 7 2 , 0 4 8}, 702 \end{array}$ | $1850 .$ $\$ 39,060,731$ |
| Unled slateo. . | 1849-'51. | 1819-'51. | 1850. |
| Bavaria .................. | 2,929,143 | 8,152,090 | 12,261,600 |
|  | Direct lax ..... 637,364 | Intereat on debl.. 0188833 |  |
|  | Indireol tax.... 1, ${ }^{\text {a }}$ (23,772 | Army.......... $\quad 111,833$ |  |
|  | Miscellaneone. . 1,068,018 Bodget, $18 \% 0$. 4, 236,432 |  <br> 4. 670,200 | $\text { May 1. } 1850 \text {. }$ |
| Belglum................ |  | Intereat en debti.. 1,430,485 |  |
|  | Cnetome....... 457,410 | War. . . . . . . . . . . 1,0 Oti,ts |  |
|  | Exclve. . . . . . . . . 826,000 | Publie works . . . . 688, 688 |  |
|  | Reginter's tax.. 885,000 | Miscelianeous. . . . 1,634,479 |  |
|  | 1847...... $1,908,353$ | 1845-40 . . . 2,578,412 | 12,210,870 |
| Brazil. .................. |  |  | Internal debt $\ldots 18 \div 3 . \cdots \quad 0,083,896$ |
|  |  |  |  |
| mm | 1893........ 2, 8,2:5,125 | 1853 . . . . . . . . . . \% \% 102,525 | 1880............12,000,000 |
|  | Now about 4,000,000 |  | None. |
| Greece . . . . . . . . . . . . . . | 1850...... 134,200 | 1850........ 791,270 | $1850 . . . . . . . . . .9$ 2,434,340 |
|  |  |  |  |
|  | 1840..... 618,482 | 1840....... . 570,025 | $1840 . . . . . . . . . . .2,468,250$ |
| llolland................. | Budget, 1850. <br> 5,870,540 | $\begin{gathered} \text { Buidget, } 1850 \\ 5,803,628 \end{gathered}$ | $\begin{aligned} & 1860 \\ & 102.569 .484 \end{aligned}$ |
|  | Mreet taxes ... 1,653,838 | Prblle deht..... 8 8,035,838 |  |
|  | Indireet taxes. . $\quad 150,000$ | War........... A70,8:8 |  |
|  | Fxalse......... 1,618,798 | Marine ......... 433.633 |  |
|  | Miscellaneous. ; $1,588,411$ | Miscelfaneous.... 1,414,824 | M1scellaneous . . . . . ${ }_{\text {a }}$ 4,640,3t1 |
| Mexico................ | 1849...... 8, 800,000 | 1849....... . 1,868,600 | 1849 . . . $\because 7.10 .900000000$ |
| Papal Statef. . . . . . . . . . | $\begin{gathered} 1849 . . .1 .0 \text { 1,4is,000 } \\ \text { s0th June, } 1849 \text {. } \end{gathered}$ | $1843 . \ldots . . .1 .1 .650,040$ Juno 20,1849 . | $14,040,000$ |
| Portugna . . . . . . . . . . . . | 2,814,883 | 2,692,300 | 16,332,19t |
|  | 1850......3, 3,030,038 | 1950 . . . . $18.75{ }^{\text {4,410,000 }}$ |  |
| Spain ................... | 11,470,289 | 11,469,075 | 165,180,878 |
|  | Direet taxes . . 3 3,887,800 | War. ............ 3, 184,584 |  |
|  | Indirect taxes. . $\quad 1,805,000$ | Debt . . . . . . . . . . 1,001, 860 | 1 |
|  | Cuatonis ....... 1,782,900 | Clergy........... 1.847,846 |  |
|  | Mincellaneolia.. ©,676,482 | Miscellaneoun.... $5,156,770$ |  |
| Sweden and Norway .... | Sweden........ 883,081 | Sweden.......... 0, 082,060 |  |
|  | Norway . . . . . 588,401 | Norway.......... 589,401 |  |
| Turkey................. | Firlimate . 3, 000,000 |  | 7,600,000 |
| Twa sicliles ............ | 1885..... 4,511,224 | 1850........ . 613,125 | Estimate.......20,000,000 |
| China | $63,984,173$ | .......... |  |
| Colonie. <br> British /tanecssiong. <br> Tidies. $\qquad$ | $\begin{aligned} & 1848-49 . \\ & 17,692,610 \end{aligned}$ | $\begin{aligned} & 1848-49 . \\ & 90,017,339 \end{aligned}$ | $1848 .$ |
| Canada.................. |  |  | 1848 ........... 4, 281,074 |
| Cape of fiood Hopa ..... |  | 1848.......... 818.816 |  |
|  | 1848. | $1848 .$ $252,638$ |  |
| Wettern.................. | 1849, 400,847 18.4 M | $252,638$ |  |
| South ................... | 1848...... 119.023 | 1849........ 80, ${ }^{\text {a }}$ |  |
| Jamalea | 1847 ..... 247,304 | 1847......... 299,09T |  |
| Ceylon ................. | 1349...... 414,785 | 1848........ 431,825 |  |
| Maurtlun $\qquad$ <br> Spanish Pusecsaloms. <br> Cubs....................... <br> Dutch Possemwions. |  |  |  |
|  |  |  |  |
|  |  |  |  |

## RHO

Rhode Imland, one of the United States of America, and the smallest State in the Union, being about 49 mlies long and 28 broad, contalning 1200 square milea, of which 130 la included in Narraganset Bay. Population In 1790 was 88,825 ; in 1800, 69,122 ; in 1810, 76,981; in 1820, 88,059; in 1880, 97,212; $\ln 1840$, 108,830; and ln 1850, 147,545.

Early History.-The country ronnd the Narraganset Bay and to the wost of it is in the first old vorks and mapa generslly named Narragansets, or the Narrayimsett Country. The colonists at Plymouth discovered and entered this oountry alrendy in the firsi years of the existence of their town. Roger Williams was the first aettler in this territory. He and some other dissenters and refugees from Massachusetts founded here the towns of Providence, Newport, and Portsmouth. They nited all in one government in tha year 1648, under the name "Incorporation of Providence Plantations;" or, as they are styled in King Charles First's patent of that year, "Incorporations of Providence Plantations in our Naragansetts Bay, in New England." In the year 1655 Crompell writes to this celony undor the following addreas or title: "To our vell-beloved inhabitants of Rhode Island, together with the rest of the Providence Plantations $;$ " and this, I believe, is the first time that the name Rhode Island is applied to a greater axtent of the territory of a province. As the name of an island it was, however, already for some time in existence.

Origin of the Name.-This isiand, the largest In Narraganaet Bay, was called by the Indluns Aquiday, or Aqueduet, or Aquetneck, which ls said to signify Garden lsland. In the first volume of the Colonial Records, p. 120, in the proceodings of the Generul Court of Dilection, or General Assembly, March, 1644, ts tho following: "It la ordered by this Court, that the Yaland commenly called Aquethneck, shall be from henceforth called the Iale of Rhodes, or Rhode Island." Some ancient authors write the name "Island of Rhodes," and it has been suggested that the name was derived of the old Grecien island of thls namo. It is in this respect a curious fact that already the oid French navigator Verrazano, tho firat modern explorer who touched thls part of the American coast, pronounced the name of Rhodes in connection with this hay. Ho discuvered in these waters an island (aupposed by some to be the island now know.s as Martha's Vineyard), which be compares, in respect to size and appearanco, to tho island of Rhodes, In the Mediterraneun. This was read in Hecklyt, and it is possihle that John Clark and his companions (tho first settlers on Aquetneck) took occasion from this circumatance to name their island. The name was afterward given to the whole country round Narraganaet Bay, which also was sometimes called Rhode Island Buy. In the year 1663 the colonists of that country obtained from Charles I. a charter which incorporated their community under the name of the "Colony of Rho ve Island and Providence Plantations." Tho Narraganaet country, lying south of Wurwick, was also sometimes called The King's Province. The present legral und official namo is stil! Rhode Island and Providence Plantations, but commonly the name is made shorter, State of Rhode Islamd.-J. G. Konl.

Physical Features, ctc.-This Stato on the north and west is hilly and broken, but becomes gradually level toward the sea. The lslands in Narraganset Bay are distinguished by their pleasing and diversified scenery and fertile soil. The c!!mate is healthy, particularly un the islands, whero the sea-breeses have the effect not only of mitlgating tho heat in sumnier, but moderating the cold in whter, and randering the cllmate truiy delightfu!. The rivars, though not large, furnish many fine mill aeats, which are extenaively used for manufacturing purposes. The principal are Pawtucket, Provldence, Pawtuxet, Pawcatuck, and Wood Rivers. Narraganset Bay is a fine body of water,
and contains a number of beautiful and fertile islands. Among them is Rhode Island, which glves name to the State. Iron ore and anthracite coal ara found to some extent; marble, limastone, freestone, and other bullding stone. There were in this State in 1850 , 356,487 acres of land Improved, and 107, 451 of unlmproved land in farms; cash value of farms $817,070,802$, and the value of implements and machinery $8497,201$. Live Stock.-Horses, 6168; milch cows, 28,098 ; working oxen, 8189 ; other cattle, 0375 ; sheep, 44,296 ; swine, 19,500; value of live stock, $91,582,687$.

Agricultural Products, etc.-Wheat, 49 bushels ; ryo, 28,409 ; Indlan corn, 589,201; oats, 215,282; barley, 18,875 ; buck wheat, 1245 ; peas and beana, 0840 ; potatoees, 651,029; value of products of the orchard, $\$ 08,994$; produce of market gardens, 898,298 ; pounds of batter made, 095,070 ; of cheese, 816,508 ; maple sugar, 28 pounds; molasses, 4 gallons; beeswax and honey, 6847 pounde; wool, ponnds produced, 129,692 ; flax, 85 ; hops, 277 ; hay, tons of, 74,818; clover seeds, 1828 bushels; othor grass seeds, 3708 bushels; and were made 1018 gallons of wlne; value of homemade manufactures, $\$ 26,495$; of slaughtered animals, $\$ 667,486$.

Manufactures, etc. - Thera were in the Stato in 1850, 158 cotton factorles, with a capital invested of $\$ 6,675,000$, omploying 4950 malcs aud 5916 females, produclng $96,725,612$ yarls of sheetings, etc., and $1,902,080$ pounds of thread and yurn, valued at $\$ 6,447,120 ; 45$ woolen fuctorles, with a capital of $\$ 1,013,000$, employing 987 males and 771 females, manufacturing $8,612,400$ yards of cloth and 46,000 pounds of yarn, valued at $\$ 2,381,825$; 20 establishments, with a capital of $\$ 428,800$, employing 800 persons, and maklag 8558 tons of castings, otc., valued at $\$ 728,705$; 1 eatablishment, with a capltal of $\$ 208,000$, employing 220 persona, manufacturing 2650 tons of wrought iron, valued at $\$ 222,400 ; 29$ flouring and grist mills, 51 sawmills, 8 tanncries, 20 printing-offices, 5 daily, 2 semiweekly, and 12 weekly publications. Capital invested in munufactures, $\$ 12,923,178$; valuo of manufactured articlea, $\$ 20,000,000$.

The principal places in the State are Providence, city, Newport, each of which is alternately used us the capital, and Bristol. There were ln September, 18557, 100 banks in the State, with a paid capital of $\$ 21,000,000$. There were built and in operation January, 1856, 145 miles of railroads ; tonnage, $1853,41,1$ ä 6 tona.

Principal $y^{\prime}$ orts.- Newport is sltuated on tho sonthwest shore of Khodo Island, twenty-elght miles sonth from Providence, and five miles from the ocean. Tho harbor is one of tho best in the United States, and is well defended. Its aite is beautiful, and of late years it has been much resorted to in the aummer season. Its shlpping is mainly employed in the whaie fieleries and coasting trade: its manufactures are various, and of considerablo extent. The tonnage of Newport in 1856 was 11,646 tons, and in 1857, 12,308 tous.

Providence, a city, and principal port of entry in Rhode Island, situated in lat. $41^{\circ} 49^{\prime} 22^{\prime \prime}$ N., long. $71^{\circ} 24^{\prime} 28^{\prime \prime} \mathrm{W}$. Providenco has great commercial facilitiea, which have been well improved. The harbor is at the head of Narraganset Bay, thirty-threa miles from tho ocean, is spacious, and has safficient depth of water for the largest ships. Tho tounage of Providence was 19,305 tons in 1856, and in 1857, 22,343 tons.

Bristol, between Mount IIepo Bay and Narraganset Bay, has a good harhor, and great facilities for navigation. The tonnage in 1856 was 2902 tons, and in' $1857,15,152$ iens.
The public revenue of Rhode Island for the fiecal yeer ending Aprll 80, 1857, was $\$ 206,400$; viz., direct tax, $\$ 52,407$; tax on banke, $\$ 83,604$; Hicenses of peddlers and auctloneers, $\$ 5221$; insurance companies, $\$ 4320$; from courta, $\$ 10,118$; Interest, $\$ 36,100$; miscellaneous, \$14,634.


|  | Exporic. |  |  | Smporte. | Temantur deamed. |  | Miotinet Tamaro. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dominite, ${ }^{\text {a }}$ | Frowign. | 1. Total, ${ }^{\text {a }}$ |  | Americali. | Foralign. | Meylinorre. | Kiraled and Liteonesed. |
| Nept, 50, $1881 . . .10$ | \$41,305 | $\begin{aligned} & \$ 15,433 \\ & 911,125 \end{aligned}$ | $88$ | $1,10: 92,908$ | $91,314$ | 107 | 28,648 | 1. 10,883 |
| . .ot in 1899....... | - 800,014 | 1 119,600 | - 989,114 | 1,419,958 | 28,80 28,80 | . |  | - $\because \cdots$. |
| 1824, ....... | 800,089 815089 | I.816,417 <br> 159,878 | 816,859 678,467 | 1,988,836 | 1 24.680 | - | ..... | . |
| 1385, ...... | $810,88)$ 808,310 | 169,878 <br> 916,170 | 678,467 $+781,040$ | 1,186,004 | 28,628 28,045 |  |  |  |
| 1897. | 609,177 | - 3203,010 | - 604,188 | - 12 1, 241,888 | 21,303 | $\bigcirc$ |  |  |
| 1588. | 841,075 | - 186,411 | U178,168 | -3 1,228,228 | - 20,800 | 1, |  |  |
| 1829. | 837,408 | 89,9t3 | 8. 0,881 | Rux. 423,811 | 15,681 |  |  |  |
| 1690 | 208,005 | 71,085 | 878, 460 | 101488,756 | 14,004 |  |  | $11 . .$. |
| Total. . | 7, 1 , 77,043 | क ${ }^{2,393}, 83$ | \$7,320,8) | \$11,5j4,808 | 219,800 | 101 |  |  |
| Sept 89, 1891........ | ) 3948,950 | $\therefore 810,915$ | 4307,465 | $1609,161$ | ${ }^{\text {82,787 }}$ ' |  | 24,8i0 | 9,044 |
| , 2.. ${ }_{1833}$......... | 871,050 830,809 | 159,803 154,612 | C34,453 | $\cdots 1.01072,280$ | $\begin{array}{r}180,678 \\ \hline 20,092 \\ \hline\end{array}$ |  |  |  |
| , Whase 1884. | 173 <br> 130,880 | 1. $\begin{array}{r}108,712\end{array}$ | 801,629 | ns 1,481,044 | 20,028 | 180 |  | $\cdots$ |
| - ${ }^{\prime}$ 1885. | 182,se\% | $\mathrm{I}^{7}$. 118.187 | + 1.900,008 | - 607.718 | 20.079 | 768 | $1:$ | I.... |
| , 11.1836. | 218,937 | 10,123 | .15. 849,400 | - $1 / 2000,109$ | 94,484 | 11, 1,19. |  |  |
| (Hw) 1837. | 411,803 <br> 910,005 | 76,45 $91,1: 2$ | 489,258 211,257 | $\begin{array}{r}629,010 \\ \hline 020,019\end{array}$ | 28,584 97 |  | $\cdots$ | .... |
| ., [ - - 1839. | (17 175,909 | (10) 90,426 | +141, 185, 884 | 1 010,431 | 99,885 | 819 |  |  |
| 1540. | +4) 209,008 | 8,083 | - 900,483 | $\cdots \quad 974 \times 34$ | 17,436 | , |  |  |
| Total | \%9, 1338,608 | 61,64 | 4,086, 148 | 85, 007,540 | 287,949 | 3,864 |  |  |
| Sept. $30,1841$. | \$206,210 | \$12,183 | 273,405 | 3839,609 | 20,911 | 187 | 20,168 | 15,021 |
| 9 mos 1843. | 383,437 | 25,267 | 1049,016 | ज11: 828,643 | 19,464 | 720 |  |  |
| 9 mos, $18433^{\circ}$ June 80, 1844 | 108, 938 | $\cdots$ 6S5 | - 105, 817 | - H.1 106, 788 | - 17.645 | 1.t1! ${ }^{\text {al' }}$ |  |  |
| ane 30, 1844. | 267, 608. | 0,176 | (1) 900,77T | W.7649,437, | 15. 17,471 | 4.789 |  |  |
| 184. | 150,141 200,019 |  | $\begin{array}{r}191,032 \\ \hline \quad 924\end{array}$ | 974,330 $-\quad 910,437$ | 14,508 18,257 | - 1196 | -0..en |  |
| 1847. | -1. 191,434 | 1. ${ }^{\text {chers }}$ | 108,860 | 805,489 | 14,505. | - 1,078 | "!. |  |
| 1848 | 915800 | 1, ... 6 6,771 | 14. 881,63t | 851,000 | 119,816 | 3,148 |  |  |
| 1844. | 179,0.31 | 8.461 | 178,168 | 937,478 | 15,5038 | 2,815 |  |  |
| $1850 . .$. Total | 200,290 | 0,1160 | 210,265 | 258,803 | 10,770 | 1,705 |  |  |
| Total | \$2,14),051 | \$88,677 | \$2,217, 538 | \$2,788,155 | $16,43.5$ | 13,425 |  |  |
| Jane 90, 1851. | \$398,404 | \$14,878 | 1. \%897, 777 | *810,680 | … 10,838 | 8,747 | 24, 197 | 13,883 |
| 1854. | 174,115 | The 0,060 | - 1779.175 | (1) $\quad \mathbf{1 1 0 , 6 8 0}$ | 14,016 | 9,018 |  |  |
| 1853 1854. | 802,454 | 8,091 | 810,495 | - 866,116 | 16,30t | 7.017 |  |  |
| 1854. | 428,046 881,287 | $\begin{array}{r}13,485 \\ \hline 14,786\end{array}$ | $\begin{array}{r}\text { 493,181 } \\ \hline-\quad 388.023\end{array}$ | $\begin{gathered} 487,1779 \\ -686,807 \end{gathered}$ | $\begin{aligned} & 17,841 \\ & 17,910 \end{aligned}$ | 7,910 |  |  |
| 1806 | 8.33,94 | 14150 | 401,874 | 845,803 | 16,144 | 6,591 |  |  |
| 1857 | 64,178 | 8,173 | 059,851 | 515,402 | 21,066 | 0,079 |  |  |

Nine months to Juee B0, and the flecal year from this time begina July 1.

Rhodes, a sea-port of Anlatic Turkey, eapital of the island of Rhodes, at its northeast extremity, thirteen milen southeast the nearest promontory of Ania Minor. Lat. of mole $86^{\circ} 26^{\prime} 9^{\prime \prime}$ N., long. $28^{\circ} 18^{\prime}$ E. Population about 15,000 , of whom 8000 are Turks, and 8000 Jews. On the nerthenet side two piers project to inclose a harbor, having in its centre from sixteen to cighiteen feet water, and on itn north side is another port of nearly equal depth.
(Rhubarb (Du. Rhubarber ; Fr. Rhubarbe, Rubawb; 1t. Rabarbaro, Reobarbme; Sp. Rwibarbo; Russ. Reren ; 'Arab. Raveend; Chin. Ta-heang), the root of a plant, a native of China and Tartary. Three varieties of rhutharl are known in the shops; viz.; Ruacian, Turkey, and East Indian or Chinese rhabarb. The first two resemble each other in overy renpect. They are, in fact, the same article, being both derived from Tartary. The portion deatined for the Peteraburg market being selected and sorted at Kiachta, acquires the name of Russian rhubnrb; while the portion that is sent from Tartary to Smyrna and other places in Tarkey is called Turkey rhubarb. The best pleces only are sent to Petersbarg; and according to the contrset with the government, on whose accounk it is bought, nll that is rejected must tre burned; and that which is approved undergnessa necond cleaning before being finally packed up for l'etersburg. The best pieces of Rusaian and Tarkey rhubart are roundish; and perforated with $n$ large hole, of a reddiah or yeilow color on the outside, and when cat or broken exhibit a mottled texture, and alternate streaks of red and gray. Its odor is peculiar, and its tanto nisuseons, bitter, and antringent. It should not lie porous, but rather compact aid heavy. East Indian or Chinese rhuharh is in oblong flat pleces, weldom perforited; has a stronger odor, and is more nauseous to the taste than the other; it is heavier, more compact, breaks emoother, and affords a powder of a
| redider ahade. - Thoman's Dispensatory; Aisslie's Mat. Indina, etc.
Tha palmated rhaharh (Rheum palmatum) is a perennial, native of Rusnla and some parts of Asia, whence the dried root is imported into this country for medicinal purposes. Large quantities of the roots sre also sanually collected for exportation in the Chinese provinces, within the lofty range of the Himalnyas. The best is that which comes ty the wry of Russis, as greater care is taken in the selaction; and, on liss arrival at Kiachta, within the Russlan frontiers, the roots are all curefuliy examined, and the damaged pieces destroyed. This is the fine article of the shops, improporly called "Turkey" rhuberb. That of the best quality occura in small pieces, with a hole in the middle of each, made in the fresh rool, to facilitate the operation of drying. The color ts a lively yellow, streaked with white and red. Its texture is dense, and, when redaced to powder, it is entirely yellow. The Chinese rhabart, called by the natives Ta I/roangor Ilaihoung, ia cultivated chiefly iu the province of Chersec. As imported, it is known hy the name of "Fast Indian" rhubarb, and comes in larger masses, more compact and hard, heavier, less friable, and not so fane in the grain as the othef, and having less of an aromatic flavor. This species has been introduced into England, where it has been extensively cuiltivated; snd there is ilttle doabt, therefore, of its proving perfectly: hardy in many parts of our own country. Large quantities nre onnnally imported, the coat of which might be saved if its cuiture were successfully prosected here, and we might thus add to our productive resources. In the middle and cooler parts of tise C'nited States, the secinn may be nown in March, in a gentle hot-bed, and, when the roots are about an elghth of an Inch in diameter, they may be carefully drawn up, preserving the tap-root, and planted in a flae, rich, sud
give
the
The
deep aoil, but not too mach so, leat the roota : ecome too tlbrous. The largest apecimens of this drug have generally been allowed to grow alx or soven years; the roots are then very large, sometimes weighing from thirty to fifty pounds. The Chinese take up their rhubarb in wintar. Pallina asya that the Tartars take up theirs In April and May; but Forster, in his History of Voyages in the North, with more reason, affirms that the roota are lag up in winter, because they then contain the entire juice and virtue of the plant, as thone taken up in aummer are of a light, spongy texture, and unft for uae. In Tartary, after being thoroughly cleansed, and the amall radiclea cut off, the roots are cut tranaversely into pleces of a moderate size; these are then placed on long tables or boards, and turned three or four times a day, $\ln$ order that the yellow, viscid juice may incorporate with the substance of the root. If this juice be suffered to run uut, the roots hecome light, and of but little value ; and if they are not cut within five or six days after they are dug up, they hecome soft, and rapidly dscay. Four or five days after they aro cut, holes are made through them, and they are hung up to dry, exposed to the air and wind, but sheltered from the sun. Thus in ahout two months the roota are complately cured. The loss of weight in drying is very considerable, seven parta in welght of the green root ylelding only one part of that which Is perfectly dry. The Chinese metliod is somewhat different. They peel the roots, cut them into slices, and dry them on atone slabis, under which fires are kindled; but as this process is not eufficient to dry them perfectly, they make a hole throngh each of the pieces, and suspend them on strings-some say exposed to the sun, while others assert that they are hung in the shade.
Rhumb, a circle on the earth's surface, making a given angle with the meridlan of the place, marking the direction of any object through which it passes. The divisions of the compass card are called rhumbs. -See Mercator's Chabt.
Rhumb Line. In Naval affairs, the track of a ship which cuts all the meridians at the geme angle; called also the loxodromic curre. This being the simplest curve, is the routo unlversally pursued; but a ship sailing on this curve never looks difect for her port until it comes in eight. A great meridian circlo would be the ehortest distance between any two points ; but in order to follow such a circle, the course of the ship would have to be constantly changing, and with such variations as to make it practically impossilile.

Ribbons, or Ribands (Fr. Ruben de Soie; Ger. Rand; It. Nastro di Seta; Sp. Cinta de Seda), a namo given to siliken bands of varioue widths and colors, much used by females for head-dressea and other purposes. They are both plain and figured, and aro sometimes distinguished into sarcenet, satin, etc., according to the manner In which they are made. They are also frequently ornamented by having what is called a pearl edge given to them. Ribbons are woven in pieces, each 35 yards in length. The finest are made entirely of Italian ailk; tho next lo quality, of a mixture of Italiau and Bergal silk; and the commoner sorts, altogether of Bengal silk. The great seat of the manufacture of ribions is Coventry; where they are now made of quality equal to the finest of tho productions of the lyonese weavers: they aro also made at Coagleton, Derby; Macciesfield, Leeh, and other places.-See Siluk.
Rice (Fr. Riz; It. Riso; Arab. Aruz; IInd. Chavel), one of the most valuable of the cereal grasses, the Oryza sutiva of botanists. It is cisised in immense quantities in India, China, and most Eastern countrics; in the West Indies, Central America, and the United States; and in some of the southern countries of Europe. It, in fact, occupies the same place in most intertropical regions as what in the warmee parts of Europe, and oats nnd rye in those more to the nurth.

Yorming, as it does, tha prineipal part of the food of the most civilized and populoua Eastern nationa, it is more extensively consumed than any other apecien of grain. It li light and wholssome, but is aaid to contain lesa of the nutritive priaciple than wheat. When rough, or in ita natural otate in the husk, it is called paddy. There is an immense variety in the quallitiea of rice. That which is prinoipally exported from Bengal has received the namte of cargo rice. It is of a coaree reddish cast, but ta aweet and large grained, and is preferred by the natives to every other sort. It is not kiln-dried, but In parbolled in earthern pots or caldrons, partly to destroy the vegetative principle, so that it mey keep bettor, and partly to facilitate the process of hisking. Patna rics is more ssteemed in Europe tiana any other sort of rice imported from the East. It is small-grained, rather long and wiry, snd remarkably white. But the rice ralsed on the low marshy grounds of South Carolina is unquestionebly very superior to nny brought from any part of ir lia. It mas, perhaps, be werth mentloning that rice, like wheat, oats, and barloy, is not Indigenous to America. It was first ralsed in South Carolina from seeds brought from Madagascar, near the end of the 17th century. Its culture increased so rapidly that in 1724 no fewer than 18,000 tiereen, or berrels, were exported.-Pitkin's Statistice, 1835. According to the returna under the census of 1840, the total annual produce of rice in the United Statea was estimated at $80,841,422$ lbs., whereas under the census of 1850 it was estimated at $215,812,000 \mathrm{llbs}$, or above 06,000 tons, of which 159,030,613 lbs. were raised in Soath Carolina ; and in $1850,213,540,000 \mathrm{llss}$.
The produce of lands naturally or artificlally irrigated li, as far as rice is cuncerned, from five to ten times greater than that of dry land having no command of water ; and hence the vast Importance of irrigation in all countries where this grain is cultivated. But it is worthy of remark that, owing to the not unfrequent occurrence of severe droughts, there is a greater varintion in the crops of rice than in thoee of any other species of grain. Those who, like the Hindoos, depend almost entirely on It for subsistence, are consequently placed in a very precarious situation. There can bo no doubt that famines are at oace more frequent an! severe in Ilindostan than in any other country, Ireland excepted.

Cultivation in the United States.-Kice is the chief food, perhaps, of one-third of the human race; possesses the advantage attending wheat, maize, and other grains, of preserving plenty during the fluctuations of trado; and is also susceptible of cultivation on land too low and molst for the productlon of mest other useful plants. Although cultivated principally within the tropics, it fourishes well beyond, producing even heavier and better filled grain. Like many other plants In common nee, it is never found wild (it is to be understood that tho wild rice, or water oat, Zizanis aquatica, which grows alung the muddy shores of our tide-wat is, is a distinct plant from the common rice, and shonid not be confounded with it), nor is its nativo country known. Linnæus considers it as a native of Ethiopla, while others regard it of Asiatic origin. At the Industrial Exhibition in Londen there were displayed many curioue samples and varieties of rice, grown without irrlgation, at elevations of 3000 to 6000 feet on the Himalayas, where the dampness of the summer months compensates for tho want of artlficial moisture. At the exhibition above alluded to, Americen rice recelved not only honorable mention for its very euperior quality, but tho Carolina rice, exhihited by E. J. Ileriot, was pronounced by the jury "magnificent In eize, color, and clearness," and to it was awarded a prize medal. The jury were free to admit that the American rice, though orlginally brought from the old World, is now much the finest in quality. Tho common variety is cultivated throughout
the torrid sona, whorever there le a plontirul supply of water, and will mature, undor favorable oircumstances, in the Eeatern Continont, as high as the forty-fifth jwrullel of nerth latitude, and as far south as the thirtyujgith. On the Athantic alle of the Wastern Couthnent it will flourish as far north as latisule thirtyeight degrees, and to a rorroesponding parallel south. On tha weatern cosat of America it will grow as far north an forty or more degrees. Ito culture is prinelpally confined to Indla, China, Japan, Ceylon, Madagnsear, Eastern Africa, the nouth of Europe, the south"rn prortiona of the United Stetek, the Spanish Main, Brazil, and the Valisy of Parana and Uruguay.

IBce wan frst Introduced Into Virginia by sir Willlaun Berkeley In 16H7, who recelved half a luahel of seed, from which he ralsed oixteen bushela of excellent rice, most or all of which was nown the following year. It is also atated that a Dutch brig from Madeguacar came to Charleston in 1604, and left about a peek of paddy (rice in the huak) with Governor Thomas Smith, who distributed it atnong his friende for cultivation. Another accouat of its introduction into Carolina is, that Ashiby was encouraged to send a bag of seed ricu to that province, from the crops of which sixty tons were shlpped to Eingiund in 1698. It soon after became the chief staple of the colony. Its culture was introduced into Iouisiana in 1i18, by the "Compaay of the West."

The present culture of rice in the Unlted States is chiefly confined to South Carolina, Georgia, Florida, Alabama, Mississippi, Lauiaiana, and Texas. The yield per aere varies from twenty to sixty buehels, weighing from forty-five to forty-eight pounds when cleaned. Under favorable circumatances, at many a níncty liukhels to an acre have wea raised. Anether variety is cultivated in this country, to a limited extent, calied Cochin-China, dry or monntain rice, from lts adaptation to a dry soil without lrrigation. It will grow reveral degrees further north or south than the Carolina rice, and has been cultivated with success in the northern provinces of China, Ilungary, Westjphalis, Virginia, and Maryland; but the yield is much less than that of the preceding, being only fifteen to twenIy buahels to an acro. It was first litroducel lato Clarieston from Canton, ly John Bradloy Bhake, in 17i2. The amount of rice exported from South Carolina in 1724 was 18,000 Larrela; in 1731, $\mathbf{4 1 , 0 5 7}$ barrels; in 1740, 90,110 barrels; In 1747-'48, sú, 000 barrels; in 1764, 104,682 barrels; in 1760-61, 100,000 barrels; from Savannuh in 1750, 2299 barrela, betides 237 hushels of paddy, or rough rice; in 1760, 3283 harrels, heaides 208 Lushels of padty ; in 1770, 22,120 Larrels, besides 7004 bubhels of paddy; from Philadelphia in 1771, 258,375 pounds. The amount exported from the United States in 1770 was 150,529 luarrela; in 1701, 96,980 tispes; in 1800, 112,036 tierces; in 1810, 131,311 tierces ; in 1820-21, 88,221 tierces; in 1830-31, 116,517 tierces ; in 1840-41, 101,617 tierces ; in 1815-'46, 124,007 tierces; in 184G-'47, 144,127 tien res; in 1850-51, 105,690 ticrees.
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| stater. | Rough Rice. Jbe |
| :---: | :---: |
| Alabmana | 2,812.884 |
| Arkanmaa | 6 6,179 |
| Florida | 1,045,430 |
| Georgh | 83,050. 001 |
| Kenturky | 5,089 |
| Ioulsiana | 4.425,349 |
| Misalamipl | 2,710,406 |
| Missourl | 700 |
| Nath Caro | 5,405, 869 |
| South Cirror | 180,930,013 |
| Tennersee | 258,854 |
| Texas | 38,209 |
| Virgiala | 17,154 |
| Total. | 215,313,097 |

It will be seen from this table that South Carolina produced in 185075 per ceat. ne the total production, and Georgia 18 per cent.

| Fineal Yeamb. | Barrels. | 'Tlertes, | Volue. | (ven, tut jes Ilipree. |
| :---: | :---: | :---: | :---: | :---: |
| 1821............ | . $\cdot$. | 84.7eI | 41,404,307 | \%16 04 |
| 1858. . . . . . . . . . | ....' | ET, 089 | 1,680,489 | 178 |
| 1828. . . . . . . . . . | -.. 0 | 101,305 | 1, 020,945 | 1196 |
| 1824. | .... | 113,299 | 1, AS9,091 | 146 |
| 1825. | *.. ${ }^{\circ}$ | 97,015 | 1,925, 245 | 1084 |
| 1824 | .... | 111,008 | 1,917,445 | 178 |
| 1897. | . $0 \cdot$ | 113,618 | 9,243, 908 | 17 6\% |
| 1824. | ..... | 175,019 | 9,680,696 | 1407 |
| 1899. | .... | 192,023 | 2,514, 870 | 1909 |
| 1830............ | .... | 180,697 | 1,998,824 | 1590 |
| 1531............ |  | 116.517 | 2,016,167 | 1780 |
| 1988. | .... | 120,847 | 0.164,491 | 1769 |
| 1833. . . . . . . . . . | * 1 | 144,163 | $8,74.418$ | 1904 |
| 1914. | .... | 191,486 | \%,192,779 | 1741 |
| 1585............ |  | 119,801 | 9,210, 831 | 10.94 |
| 1836............ | .... | 919,083 | 9,548,100 | 1107 |
| 1937............ | . . . | 106,084 | 9,309,279 | 9176 |
| 1889............. | . . . | 71,043 | 1,721,819 | 2497 |
| 1539............ | . . . | 98,880 | 2,400,109 | 248 |
| 1840............ | . . . | 101,660 | 1,042,670 | 1910 |
| 1441............ | . . . | 101,617 | 2, 0101107 | 19 is |
| 18493........... | . . . | 114,817 | 1,007,396 | 1664 |
| 1843............ | . $\cdot$. | 106,768 | 1,025,786 | 1588 |
| 1844............ | . . . | 114,715 | 9,182,408 | 1680 |
| 1845............. | .... | 119,681 | 3, 100,446 | 1881 |
| 184............ |  | 124,007 | 9, 004,901 | 2068 |
| 1447........... | **. | 144,427 | H,605,806 | 24 fT |
| 1048. | .... | 100,403 | 9,181,894 | 2393 |
| 1849. | . . . | 128,801 | 9, 100,389 | 1894 |
| 180............ | .... | 127,009 | 9,631, 067 | 2071 |
| 1*1. |  | 106,600 | 9,176,027 | 80819 |
| 185\%. |  | 119,733 | 9,470,029 | 2063 |
| 1848............ |  | 67,717 | 1,607,058 | 2448 |
| $1 \times 54$. |  | 105,121 | 2,694, 127 | 2506 |
| 1*5. | 10,774 | 52,620 | 1,717,053 | .... |
| 1856 | E1,084 74.800 | 68,689 64.383 | 2,990,933 | .... |
| 1887. | 74,800 | 64,334 | 0,890,400 | . $\cdot$. |
| Total..... | 175,181 | 4,187,769 | 81.200,888 | 1 |

Fixionts of Rice man tith U'xitfo Statg yog thi leat ExHINO JUNE $30,185 \%$.

| Whliher Eaported. | Tiemes. | Bartele. | Velne. |
| :---: | :---: | :---: | :---: |
| Etuesia on tho fialtic and North Eens . . . . . . . . . . . . | 309 | 95 | \$11,354 |
| I'rumalu. . . . . . . . . . . . . . . . . | 25 | $\cdots$ | 730 |
| NwLden and Norwhy . ..... | 844 |  | 7,568 |
| Awedtsh Weat Indles | 13 | 12 | 519 |
| Itenmark. . . . . . . . . . . . . . | 000 | 12,819 | 50,567 |
| Imanlsh Weat Indles....... | 488 | 921 | 12,18\% |
| 11amhurg | 1.412 | 254 | 49,825 |
| Jirvimen . . . . . . . . . . . . . . . . | 4,458 | . $\cdot$. | 181,285 |
| Ifolland ................ | 1,481 | - . | 89.103 |
| Inatch Went Indlew. |  | 884 | 0.265 |
| Dutch Gulana . . . . . . . . . . | 01 | 110 | 9,369 |
| Itelginm. . . . . . . . . . . . . . . . . | 4,7\%1 | 6,000 | 156,183 |
| England. . . . . . . . . . . . . . . | 11.191 | 16,837 | 732,032 |
| Moutland .... ............ | 1,081 | - | 30,269 |
| Irelard. . . . . . . . . . . . . . . . . | 16 | . . . | 574 |
| Callada ................... | 604 | 30 | 25, 190 |
| Other Itrit. N. Am. 1'omees. | 548 | 161 | 113, 642 |
| Itritinh West indlen....... | 1,484 | 126 | 37,177 |
| 1tritinh 1londuras......... | 228 | 108 | 8.890 |
| 1tritjah fjulana. ........... | ¢0 | - | 600 |
| 13ritsh I'onseas. in Africa. . | -17 | 115 | 1,326 |
| Other porta In Airica. . . . . | 110 | 464 | 11,005 |
| Hritish Auatralis.. . . . . . . . | 70 | 601 | 0,710 |
| Frauce on the Allaitlic.... | 5,189 | .... | 157,498 |
| France on the Mediserran.. | 03 |  | 450 |
| French N. Am. 1'osscamiona | 1 | 10 | 154 |
| French Wrest Indlea. . . . . . | 9 | 283 | 2,839 |
| French Gutana ............ | 54 |  | 1,1,4 |
| Apato on the Atantic...... | 30 | 3,424 | 12,200 |
| C'anary 1mauda . . . . . . . . . | 98889 | \%is | 6\% |
| C'nha | 28,831 | 813 | 641,956 |
| Jorto Rico. . . . . . . . . . . . . . . | 8,920) | 48 | 81, 275 |
| l'ortugal . . . . . . . . . . . . . . . | 80 | 5311 | 6,750 |
| Madelra. ................. | -*.. | 43 | 594 |
| ('ajpe de Verd liands. . . . . | ${ }_{15}$ |  | 178 |
| dzores . . . . . . . . . . . . . . . . . | 15 | 01 | 1,307 |
| \|layll. . . . . . . . . . . . . . . | 185 | 4,737 | $60.45 y$ |
| \$an 1homlogo . . . . . . . . . . . | 8 | 145 | 1,742 |
| Mexleo. ................... |  | 350 | 4,214 |
| dentral Jepublio. . . . . . . . . | - | 49 | 517 |
| New Granada. . . . . . . . . . . | 143 | 1,601 | 20, 678 |
| Venezuela. . . . . . . . . . . . . | 709 | 633 | 90, 662 |
| Itratf. . . . . . . . . . . . . | 505 | 2,161 | 36,861 |
| Uruguay, or C'liplatine Rep. | .... | 8,403 | 66,44 |
| Arypntlae Mepuble ....... |  | 7,409 | 81,494 |
| t'hllf. . . . . . . . . . . . . . . . . . | 1,119 | 8,447 | 135,654 |
|  | 25 | 205 | 5,964 |
| Anndwieh lalanda | 51 | 284 | 3,711 |
|  | ig | 79 | 991 |
| Whate risheries | 11 | 63 | 1,915 |
| Tolat. . . . . . . . . . . . . . | 64,382 | T4,309 | 49,290,400 |

Of these exports, 1856-'57, there was exportud from the following ports,


Rice Paper. This sutstance ls sald to be a memfrane of the Arfocargus incisa, or breal-fruit tree. It is brought from Chins in smull pleces, dyod of various eolors, and is used an a muteriai for painting upon, and for the manufucture of several fancy and ornamental articles. It is sometluen erroneously stated to be prepurel from rice.-See Papten.

Richmond, city and port of entry, and capital of Henrico county, and of the State of Virginia, is situated on James IRiver, at the fulls, at the head of tidewater, nnd is in $37^{\circ} 30^{\circ}$ N. lat., and $77^{\circ} 81^{\prime}$ W. long. from Greenwich, and $0^{\circ} 27^{\prime}$ W. long. from Washington. It is 23 uilles north from Petersburg, and 117 south ly weat from Washington. The population in 1800 was 8727 ; in 1810, 0785 ; in 1820, 12,067; in 1830,10,060; in 18.10, 20,153; la 1850, 27,670; and in 185., 80,000. It is beautifully located on the west side of the river, Vetween 50 and 60 miles above City Point, and 150 miles above the month of the river.

Four lines of raliroad here connect, viz., Bichmond, Fredericksburg, and Potomae; Richniond and Petorsburg; the Central Railroall of Virginia; and the Danville Ruilrosd; and here terminatea the James River and Kanawhi Canal. Vesseis drawing 10 feet of water come to Ilockets, about a mile below the centro of the eity; and those drawing 15 feet, to Warwiek, three miles helow the city. The fulls in James Hiver nro obviated by the cansl, and above them it is nuvigablo for boats 220 miles. Reguiar ilnes of packets connect the city with New York and other places, und it is connected by steamboats to Norfolk. The prinelpal articles of exportation are wheat, flour, and tolsacco. The exports amount to aloout $\$ 3,000,000$ annuully. The tomiage of the port in 1853 was 11,460 tons. The manufactures of Richnmond are also extensive.

Riding, in Nacal affairs, is the state of a ship's being retained in a partieular stution by means of one or more cables with their snehors, which for this purpose are sunk into the bottom of tise soa, etc., in order to provent the vessel from being driven at the merey of the wind or current. A rope is sald to ride when one of the turns by which it is wound about the capstan or windlass lies over another, ao as to interrupt the operatlon of wearing.

Riding Athwart, the position of a ship which lies aeross the direction of wind and tlde, when the former is so strong as to prevent her from falling into the current of the iatter.

Riding between the Wind and the Tide, tho gitustion of a vessel at anchor when the wind and tide act upon her in direct opposition, In such a manner as to destroy the effort of each other upon her hall; so that she is in a manner balanced between their reciprocal force, and rides without the least strain on her cables. When a ship does not fabor heavily, or feel a great strain when anchorcd in an open road or bay, she la said to ride essy. On the contrary, when ahe pitches violently into the sen, so ne to strain her csbios, maste, or hull, it is called riding hard, and the vessel is termed a bail roader.

Riga, s city of European Russia, the capital of Livonia, on the Dunu, about 9 miles from the sea, Int. $56^{\circ}$ $56^{\prime} 5^{\prime \prime} \mathrm{N}$. , long. $24^{\circ} 0^{\prime} 4^{\prime \prime} \mathrm{E}$. l'opulation in 1842 , excluding garrison, 60,000 . A light-house has been ereeted on Fort Comet, on the western side of the nouth of the river. It has two lights: the first, eiovuted about 104 feet (English) above the level of the sea, may be seen, under favorable clrcumatances, at the distance of 4 leagues; and the eecond, elevated abont $24 \frac{1}{2}$ feet, may be seen at the distance of 21 leagues.

Tha bar at the meuth of the riveeshas usually frose 12 to 13 feet water; and vesmols drawing more than this frequently load and unload part of thair cargoea by mesuy of ilghters at Holderas, a smali town on the went side of the river, noar ita mouth. There is a fair-way beacon without the bar, in $\overline{5}$ fathoms water; and withIn, the channel is buoyed with black and white buoya I the biack being feft on the right or starboard side when entering, and the white on the larboard. Vessels bound for liges take pilots at Bolderam, who carry them to their anchorage. No ballast is allow ed to be discharged, except at Poderague. Reguiations an to clearing, etc., similar to those at I'eterabarg,-Cowlier zur les Phares, 2d odlt. I and Regulatione published by the Rusian Authoritices.

Trade, - Owing to its advuntageous aitnation near the mouth of a great navigabie river, the trade of ligga is very extensive; being, of the Russian towns on the Baitie, in this respect second only to Petersburg. - The trade is ehiefly carried on by foreign merchante, partleuiarly by the Engliah. The principal exports are flux and hemp, linseed and hemp seed, timber, corn, tohacco, hides, wool, tallow, etc.; the inportes are salt, mugar, cotfee, and groceries of all sorta, herrings, indigo, dye-woods, cotton and cotton twist, silks, wines, ete. The must trade is extenaive. The burghers of Riga send persons who are called mast brokers into the provinces to mark the trees, which are purchased atanding. They grow mostly in the districts which border on the Dnieper, are sent up that river to a lendingplace, transported 80 versts to the Duna, when, being formed into rafts of frum 50 to 200 pieces, they descend the stream to High. The tree which prodnces the largest masts is the Scotch fir. Those pleces which are from 18 to 25 inches in diameter sre called musts; nuder those dimensions, spars, or, in England, Norway masts, because Norway exports no trees more than 18 inches in diameter. Grest skill is required in distlnguishing those masta that are sound from those which are in the least internally decnyed. They are usually from 70 to 80 feet in length. The hest kind of fiax ohipped from Riga is grown in White Russin, and is called Drıana rakitzer; its color is very white, and the threade long, fine, and loose, but it has sometimes thack spots ; the next quality, coming from the province of Trockic, in Lithuania, is called Lithuanian rakitzer, and is very little inferior to Drusna, but its color is a little brown; of this kind the best sort is Thlesenhausen. The best kind of Courland flax shipped from liga is Marienburg; that grown in Livonia is inferior. Thero are two klnds of lineced; that of the last crop, which is ueed for sowing; and that of former yeara, for crushing. To prevent deceptlon, the year of its growth is stamped on the barrel by sworn inspectors (brackers). Hemp seed is mostly shipped for Ilolland.

Afoney.-For the money's of Riga, see Petensnutig.
Weights and Mensures.-The commercisl pound is divided into 2 marks, or 32 loths ; and also into halves, quarters, ete. It contuins 6452 English grains. Hence 100 ibs , of Riga $=92 \cdot 17 \mathrm{lbs}$ avoirlupois $=41 \cdot 8 \mathrm{kilog}$. $=$ 86.32 lbs of llamburg $=84 \cdot 64 \mathrm{ils}$, of Amsterdam. The lisponnd $=20 \mathrm{lbs}$. the sinippound $=20$ lispounds. The loof is the messure for grain : 48 Joofs $=1$ last of wheat, barley, or linsecd ; 45 loofs $=1$ last of rye ; and 60 lonfs $=1$ last of osts, mait, and beans. Aecording to Kelly, the loof $=1.9375$ Winehester bushel ; and, consequently, the last of wheat $=11.625$ quarters. Nelkenbrecher does net value the loof quito so high as Kelly. The fuder, the messure for liquids, is divided into 6 ahms, 24 ankers, 120 quarts, or 720 stoofs. The anker $=10$ English wine gallons. The foot of Riga $=10.79 \mathrm{Ea}-$ glish inches. The ell $=2$ feet ; the clafter $=6$ feet.

Like most of the rivers falling into the Baltic, the Duns has a bar, varying, sceording to eeasons, from 12 to 15 feet of water. Large vessels usually discharge and take in their cargoes either at the roads or in the Bolderaa harbor, near the month of the river,
by means of well-ceered lighters. The linseed, flax, hemp, and wool of this port have always been held In higher repute than those exported from any other port In Rusila. The graln shipped from Riga is the prodnee of White Russia, the Ukraine, Poland, Coarland, Livonia, Esthonia, Sunolensk, Minsk, Lithuania, cic. The navigation of Riga may be seen from the follow. ing returns for a series of years:

|  | Vragrls Extraid. |
| :---: | :---: |
| In 1900 | 867 |
| 1810 | .... 400 |
| 1819 | .... 1800 |
| 1849 | . 1504 |
| 1840 | . 1884 |
| 1803 | 1917 |

Value of 1 mports into the port of Riga $\ln 1840 ., 19,338,000$ Value of exporta " " " .. 61,420,000
This port, like Odessa, derives its principal wealth from its export trado. In 1850 the total value of exports reached $61,426,000$ francs. The importa during the same year were only $19,335,000$ francs. The following table exhlblts, in francs, the cominercial movemente of Rigy, and the share assigned to aach country; In the year 1850:

| Counirion. | Impors. | Bxports. | Total. |
| :---: | :---: | :---: | :---: |
| Eugland | 4,084,0M1 | 35,339,000 | 41, 823, (160 |
| France. | 2,757,000 | 6,908,000 | 9,720,000 |
| Ifolland | 756,000 | 8,187,000 | 6,943,000 |
| Ihanme Tev | 4,42,000 | 1,955,000 | 6,397,000 |
| Helginm | 84,000 | 5,098,000 | 6,722,000 |
| Sweden and Norway. | 1,219,000 | 1,825,000 | 3, 044,000 |
| \|Cnited Ntates ........ | 9,904,006 |  | 2,904,000 |
| Portugal | 1,373,090 | 864,009 | 2,237,000 |
| Venmark | 215,000 | 1,481,000 | 1,648,000 |
| Spala. | 108,010 | 6219,000 | 782,000 |
| cither countrion | 409,000 | 625,000 | 1,092, 100 |
| Total fraves. |  |  | 80,761,090 |

From the preceling talle it will be seen that, of the whole trade of Miga, England lisa 50 per cent. ; France upwnrd of 12 per cent. ; ILolland, and the three llanse Towns, each 8 per cent. The principal imports in 1850 were-


The principal exports were-
 Ilemp (to England more than one half). Themer (chiefly to Fingland and Holland). Gralne 7,879,0M0
" $6,160,000$
$\begin{array}{lll}\text { Flax } \rightarrow+e \mathrm{ed} \text {, for meed (one half to England) . } \quad \text { ( } & \mathbf{3}, 791,000\end{array}$
Aecount of the quantifith of tie imingipal Aaticlea


|  | Toallimuntries. |  |
| :---: | :---: | :---: |
|  | 1 W51. | 11538. |
| Flax, lat mort. . . . . . . . . . . . tonn $^{\text {a }}$ | 17,814 | 21,2291 |
| bito, 2.1 eort. . . . . . . . . . . . ." | 7,292 | 8.0011 |
| Ditto, 301 ant | 1,499 | 2,406 |
| Ditto, colitha | 924 | 647 |
| Total of fiax. | 27,829 | 33,987 |
| Byne hem | 0,318 | 7,645 |
| Onts not ditw.............. ${ }^{\text {a }}$ | 8,299 | 3,410] |
| P'oan thito .................. " | 3,492 | 4,010 |
| H1mp codllia. | 058 | 6051 |
| Total of hemp | 11,967 | 15,727 |
| Tallow . . . . . . . . . . . . . . . . . . . . " | $9{ }^{9}$ | 71 |
|  | 26 | 13. |
| l1ye. . . . . . . . . . . . . . . . . . . . qrs. $_{\text {\% }}$ | 124,941 | 191,501 |
| bsarley .... ......... . . . . . . | 83,16 | 38,435 |
| (rana. | 92,705 | 1,309 |
| Now lny tinwell . . . . . . . . . . . . Ind. | 129,429 | 104,906 |
| Crunding linacei. . . i. . . . . qqu. | 111.134 | 97, $5 \% 8$ |
| Hempeeed | 19,109 | 4.42318 |
| Itrala . . . . . . . . . . . . . . . . . . pleyes | 486,301 | 804,645 |
| Tlinber.................... | 188,875 | 97,300 |
| Mante ..................... | 4,944 | 177 |
| Weinncol loge and vatwood. | 8,067 | 7,123 |
| Ilpe and hoghhead ataven.. " | 706,780 | 180,312 |
| Tolal value in A. Ita Total value in drilinr |  |  |

Total amount of exports from England to this port in 1850, 4,984,000 franca, or $\$ 927,000$.

Total amount of exporta from Kiga to England, ©6,578,054.

The merchandlse imported into England from Ruaaia la such, chiefly, as Kussla only can aupply-at least in euch quantitles as to meet the oxtenslve demande of the mannfacturers of Great Britaln. It consiste princlpally of articies of firat necessity in manufactures, auch an hemp and flax seed for oil and calture, The merchandise supplled to Kuenia (at the port of Riga) from othor countries conaiets chlefly of augar, coffee, sult, wines, apirituous liquors, tobaceo, and cotton tiysuen. In reforence to the latter article, such ls the extraordinary actlvity of Ruasian manufacturing industry, supported as it is by a high tariff on manufactured articles, that, had not the war intervened, she woutd probably be now independent of other natiuns ay reBpects cotton yarns.

The total tonnage which entered and cleared at the port of Riga in 1850, as already shown, was 397,895 tons. Of this total, 180,004 tons were under the English flag, or within a figure of 50 per cent. on the whole; while the Russian flag covered only 61,894 tuns, or 15 per cent. on the whule. The value of flax-secd for cul. ture, exported from this port from 1840 to 1850 , was $\$ 7,000,000$; of which England recelved, in the aggregate, one-third. The remuining two-thlrde were sent to Helglum, Pruasia, Hanse Towne, Sweden and Norway, France, and the Unlted Statea. The nuvigation movements at thia port fur 1858 were as follows:

$$
\text { Port or Rioa.-Navioation in } 1803 .
$$

| Nationalliy, | No. of Vpmesin entered. | No, of Vosembeleared. |
| :---: | :---: | :---: |
| Finglinh . . . . . . . . . . . | 870 | 370 |
| Ithanlan. . . . . . . . . . | 200 | 206 |
| Melgian . . . . | 10 | 10 |
| Hanoverlan . . . . . . . . | 170 | 170 |
| Dinteli. . . . . . . . . . . . . . | 244 | 244 |
| Frenrh. . . . . . . . . . . . . | 55 | 85 |
| Spanlsh. . . . . . . . . . . | 181 | 1 |
| (9anlah | 181 | 141 |
| Swedlah. . . . . . . . . . . . | 991 | 991 |
| I'rusmlan . . . . . . . . . . . | 169 | 169 |
| Mecklonbirg . . . . . . . | 183 | 180 |
| (bldenhurg . . . . . . . . . | 87 | 87 |
| Fortagnesat. . . . . . . . . | 6 | 6 |
| Ilambritghan . . . . . . . | 7 | 7 |
| diniricats . . . . . . . . . | 2 | 2 |

The oflicial paper, from which the preceding talle is oxtracted, furnishes ulno interesting fucte retative to the hemptrade of this port. Tho following extract is Iranklated from this document:
"Hemp is usually sold by the producers in the interior to morchants who visit their eatatea for the jurpese of ajeculation. 'They make their contracts generuily let ween April and October. The time of dilivery is atipulated for, and from 5 to 10 per cent. on 'fie pur-chase-nuncy is palil down in cosh. The unr and aver. ape quantity of hemp thus brought to the sarket of Liga amounts to about seven millions 'f fírucs. At Riga there are aurvegurn' uffices entul)lished, wate the hemp brought for aale is aubjected to the atrintest exami ation, and is ranked, according to quality, Nos. I, 2, or 3. Should the problineers he dikentinfied with the actlon of the survey ors at liga, they have the right of appeal to St. Peternburg." - Nee articlen Itrasp and liuseia for particular information.

Rigging of a Ehip, a general nmme given to all the ropes employed to support the mats, aul to extind or reduce the salla, or arrange them to the dingwition of the wind. The former, whleh are usel tumatain the masta, remaln uaually in a fixel ponition, nual are called starding rigging; such are thon mirouls, stny н, und haketays. The latter, whose offlec is to manage the s.ils, by communlenting with varlens blocke or pulliva, situated in different partn of the thaste, yarila, hiromis, ete., are comprehended ln the genvral terni rumuing rigging; such are the braces, slicets, halliards, clew-lines, and brails.

Ring, an ornament of gold and silver, of a circular | patents and orders of princes were sealed with their figure, and usurlly worn on the finger. The antiquity. of rings is known from Scripture and profane authora. Judah left his ring or signet with Tamar. When Pharaoh committed the governuent of all Egypt to Joseph, he took his ring from his finger and gave it to Joseph. After the victory which the Isruelites obtalned over the Mldianitee, they offered to the Lord the rings, the bracelete, and the golden necklaces, and the goiden aur-ringe, that they had taken from the enemy. The Iareelitish women wore rings, not only on their fingers, but also in thoir nostrils and their ears. St. James diatinguishes a man of dignity by the ring of gold which ha wore on his finger. At the return of the prodigal son, his father orders him to be dressed in a new suit of clothee, and to have a ring put upon hie finger. The ring ohiefly nas usod to seal with. The
inge or aignets ; and it was this that secured to them their authority and reapect. The eplscopal ring, which makes a part of the pontifical apparatua, and is esteemed a pledge of the spiritual marriage between the bishop and hile Church, was used at a remate period. The fourth counoil of Toledo, held in 633, appointe that a bishop condemned by one council, und found afterward innocent by a second, shall be restored by giving him the ring, staff, etc.
Rio de Jaiaoiro, the capital of Brazil, on the Atlantic, in lat. $22^{\circ} 54^{\prime} 15^{\prime \prime} \mathrm{S}$., long. $48^{\circ} 15^{\prime} 50^{\prime \prime} \mathrm{W}$. Population, : , 000. The harbor of Rio is one of the finest in the world, both as ryepecta capaciousness and security for all sorts of veseels. In coning from the northeast it is usual to make Cape Frio, in lit. $23^{\circ} 1^{\prime}$ $18^{\prime \prime}$ S., long. $42^{\circ} 3^{\prime} 19^{\prime \prime} \mathrm{W}$., being nbout 4 leagues


Reforences to Pan,-A. Tha do Catunduba. 11. Fort de Bt. Jono. C. Morro do Flamongo. D. Pontn do Calhabouco. E. Fort da tha das Cobras. F. tha doe tation, O, Fort da Boa Viagom.
nearly east of Rio. The entrance to the harbor is marked by a remarkable hill in the form of a sugarloaf, 900 feet high, close to ite weat side ; whlle on the east, or oppdaite side of the bay, at the distance of about $1 \frac{\mathrm{milfe}}{\mathrm{i}}$, s the fort of Santa Cruz. But the woodcut in the preceding page, taken from a chart pnbliahed by order of the Brazilian authorities, gives a mach better idea of thls noble hartor than comld be obtained from any description.

Harbor.-Vessels bonnd for Rio, coming from the north, should, after rounding Cape Frio, steer due west, keeping about 8 leaguea from the coast, until they come withln 5 or 6 miles of the Iha Raza, or Flat Island, lying aimost'due south from the mouth of the harbor, at the distance of about 3 leagues. A light-bouse, the lantern of which is aaid to be elevated nearly 800 feet above the level of the sea, was erected on this island in 1829. The light is a revolving one, finiahing its revolutlon in 3 minutes, and exhibiting alternately a white and $\pi$ red light. There is also a llght-house in the fort of Santa Cruz, the light of whlch ta fixed, and elevated about 50 feet above the level of the sea. -Coulier sur les Phares, $3 d$ ed. Having got within 5 or 6 miles of the llha Raza, ahipa may enter by day or by night, the doted line in the cut markiag the fair-way into the harbor. There are no pilots to be met with; and as there are no hidden dangere of any kind, their services are not wanted. On entering, vesseis murt pass within hail of Fort Santa Cruz, to be ready to enswer any questions that may be pat to tham. They ti:en proceed to Fort Viiganhon, below or opposite to which they must bring to, or come to anchor, allowing no boata to come along side but those of the government until ihey have received pratique, when they will be permitted to proceed to the usuai place of anchorage for the merchant shipping. The sea-breeze generally sets in about 11 A.m., and lasta till about sunset. It is atrong enough to enable ships to cevercome the elb. High water at full, and change at 2 in the afternoon.

Anchorage Dues.-1. From and aftar 1st July, 1852, the anchorage duty npon vessela trading bet ween foreign ports and tho ports of Brazil will be reduced to 300 reis the ton ; and the same clasis of duty now levied upon coasting vessela shall be aloolished. 2. That part of the provialons of April 20, July 20, and November 15,1844 , which has not been altered by this decree will continue in force.

Money; Weights, and Measures.-All payments are made in paper money, which has been over-issued, and is excessively depreciated. But In ordinary casas tie par of exchange may now be assumed at about 31d. aierling per patriotic doller, of 1620 reis paper. Weights and long measures are the same ns those of Lisbon, the arroha being $32 t$ lbs. avolrdupois; but measures of capacity are difterent, a medida being equal to -5954 imperiul gallon, and an alqulere to $1 \cdot 11$ ditto.

Trade.-The trade of Rio is extensive, and has $\ln$ creased rapldly of late years. It is now by far tho greatest mart for the export of coffec. The shipments of this important article, which in 1830 amounted to 896,785 bags, have increased with sach unexumpled rapidity, that in 1848 they amounted to $1,710,707$ bags, that is (taking the bag at 160 lbs .), to $278,713,120$ lbs., or 122,193 tons; belng about equal to all the exporta of coffee from ail the other porta $\ln$ the world. It has not, however, heen so large since. Sugar was formerly an important artlcle of export from Kio, bot latterly it has repldy decreased, and oply tenornted to 5979 cases ( 13 ewt . each) in 1849 . It ${ }^{\circ} \mathrm{proms}$ ? , however, that here, as in Cuba and other places, the late low prices of coffee may have produced a reaction in favor of sugar, the exports of the latter having risen in 1850 to 13,047 cases. The other great articles of export from Rio are hides, rice, tobecco, rum, tapivea, ipecacuan'sa, manloc or manihot, flour, and other inferior articles. The export of cotton has entirely ceased; and that of gold, diamonils, etc., is "notly elandestlne. Diamonda are principally export : 1 in Bahla. We sabjoin an


| Yraru | Coffee. | suger. | Hiden | Iforns. | Rosewood. | Leather. | Riva. | Hum. | Tobecso | Ipeeseunaha. | Tapiese. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8.ga. | Crneas | Na | No | Loge end Plenke. | Nides. | Bage | Pipes. | Holla. | sercons. | Hatrel |
| 1547 | 1,639,234 | 8,426 | 267,238 | 450,783 | 0,4.7 | 5,00 | 19,741 | 3,983 | 24,403 | 470 | 1.914 |
| 1848 | $1,710,57^{\circ}$ | 6,713 | 331,583 | 269, 191 | 16,364 | 10,254 | 9,712 | 2,863 | 23,144 | 033 | 1,532 |
| 1849 | 1,460,410 | 5,865 | 301,98\% | 378,707 | 29,2! ${ }^{\text {2 }}$ | 10,746 | 20,707 | 4,380 | 25.487 | 186 | 0,4040 |
| 1850 | 1,340,058 | 12,047 | 900,033 | 268, 060 | 26,382 | 17,617 | 24.248 | 3,816 | 23,440 | 127 | 16,0153 |
| 1651 | 1,846,213 | 7,824 | 147,29\% | 2160,049 | $36,50{ }^{\text {i }}$ | 12,774 | 8,229 | 3,898 | 28,756 | 641 | 17,737 |
| 184\% | 1,90t,130 | 12,510 | 125,739 | 176,098 | 25,309 | 3,085 | 8,449 | 1,952 | 32,246 | 201 | 10,94) |

The principal article of import consists of cotton goods, the value of which amounts to full one-third of the total value of the imports. Next to cottons are woolen, linen, and silk manofactures; wines, jowelry, and lron-mongery; flour, meat, fish, butter, and other articles of provision ; spirita, salt, enrthen-ware, paper, and a host of articles. The importation of readymade furniture from tha Unitel States is alsu extersive
About 56 per cent. of the entlre commerce of Brazll passea through the port of Rio de Janeiro. Hi'her is conveyed, from all the ports on the coast, from Bahln almost to the frontiers of the Argentine Repubiic, all the irroduce intended for exportation or home consumptlon. Farina, leans, becon, dried and salt meat, hides, horns, tallow, rice, tobacco, sugar, coffee, cotton-in a word, all the proluce and manafuctires of the different provinces are made tributary, either by land or water conveyance, to the weulth and cominercial greatness of the Brazitian metropolis. A numervas fleet of vesacla la employed in the coasting trade, in supipiying the d:ferent ports along the const with the various productions of the will and industry of Ameriea and Euroie. The chief forelgn exports from Rio do Janeiro are-coffee (mure than half of the whole golng to the Cinitell States), sugar, cotton, hiden, tobacco, otter ${ }^{*} k i n g$, otc.
Tonnage employed in the trade of 1841 : Total vesselc, 1i05, of 416,000 tens-of which, from and to the

United States, there were 289 vessels, of 77,000 tons. Tounage, etc., of 18.41, compared with that of 18.10:


The increuse of the foreign commarce of Rio de Janelro is better illuatrated by the following returns:

Commercial Movement of hio on Janeiro iv litb.

| Causiries. | $\begin{aligned} & \text { In purts of } \\ & \text { Rıo. } \end{aligned}$ | Ss porta from Nio. | Total tranes. |
| :---: | :---: | :---: | :---: |
| Fingland sud J'ouncxalons. . | 62,960,000 | 24,289, 000 | $77,100,1 \mathrm{~mm}$ |
| Cnited Statex.............. | 20,440,400 | 34, 766,000 | 58, 199, 00 Nm |
| France. | 20, 220,1000 | 9,500, 14 MO | 30, $0312,0 \mathrm{KN}$ |
| llanee Te | $5,020,000$ | 13,330, 000 | 14,33, $3,6 \mathrm{~h} 0$ |
| I'grtugal . . . . . . . . . . . . . . . . | 8.920,000 | 6,960, 0000 | $15,870,000$ |
| Npgin . . . . . . . . . . . . . . . . . | 4,710,000 | 1,030,000 | 6, $3.408,1000$ |
| Pwftrerland | 4,490,000 |  | 4. 490,000 |
| lleditum ............ | 2,070,000 | 4,380,000 | 3,6090, $10 \times 0$ |
| I'ruguay and I.s Plata.... | 2,180,000 | 1,580, 000 | $3,760,4 \mathrm{mas}$ |
| Narillala | 2,100,000 | 9,000,000 | 4.1000,1060 |
| Nwedea and Norway | 1,740,000 | 2,710,000 |  |

Africa, Austria, Denmark, Turkey, Russia, the Two Sleilies, Prussia, Netherlands, Chlll, and other countries, participate in this forelgn trade to an extent ranging in value from $0,000,000$ franea $t 0,4,000,000$ each, making tha total trade for
 1445. $\qquad$ $230,810,006$
Incteanc over 1845., 19,8 w10,000 $=45,044,510$
$=\frac{3,694,240}{}$

All foreign nations shared equally in the large angmentation which the returna of 1846 exhibit over thoge of 1845. Some of the causes that contributed to this increase have been already adverted to. The true cause, however, to which all others are but anxiliary, is the admitted capacity of Brazil to multiply her staple productions, particularly coffee, to the fullest extent of the foreign demand, if she will only avail herself of the abnndant reaources with which nature has so bountifully supplled' her.
The quantity of coffee exported increased $23,764,000$ kilogrammes (of $2 \cdot 20$ lbs. avoirdupois). Sugar, on the other hand, diminished $8,098,000$ kilogrammee. The exports of coffee during the year 1846 were:

| Fingland. . . . . . . . . . . . . . . . | ilogrammes | 99,000,000 |
| :---: | :---: | :---: |
| Lnited States . . . . . . . . . . . . | 6 | 88,000,000 |
| Ilanme Towns | 4 | 10,000,000 |
| Austria. | 4 | 6,000,000 |
| France | 4 | 4,000,000 |
| 1elginm. . . . . . . . . . . . . . . | 4 | 8,000,000 |
| Swelon and Nerway. | 4 | 2,500,000 |
| Deamark........... | " | 8,400,000 |
| Portugal. | 4 | 1,600,000 |
| jursila. | 6 | 1,000,000 |
| Other countries. | 4 | 1,600,000 |
| Total value. . 81,000,000 francs | 6 | 108,000,000 |

The course of exchange, which varied from 313 to 374 reas per franc, ruled in 1346 at 835 reas per franc, or $18 \cdot 6$ cento-equal to 55 ceats per 1000 reas. The following table gives the number of vessels, and their tonnage, engaged in the trade of 1846, with the countries whence they camo:

| Commiries wheaes. | No. of Vemels. | Tonnage. |
| :---: | :---: | :---: |
| Itrazilian porta. . . . . . . . . . . . . . | 72 | 15,601) |
| United States . . . . . . . . . . . . . . | 366 | -5,600 |
| Fingland and l'opacesiona ...... | 415 | 89,700 |
| 1a llata and lirugusy ........ | 197 | 45,504 |
| lortugal . . . . . . . . . . . . . . . . . | 218 | 44,500 |
| Africa | 140 | 28,800 |
| Jlanse Towns . . . . . . . . . . . . . . . . | 07 | 23,300 |
| Spals . . . . . . . . . . . . . . . . . . . . . | 108 | 20,400 |
| France . . . . . . . . . . . . . . . . . . . . . | 95 | 19,080 |
| Auntria. | 46 | 9,300 |
| Belgium. . . . . . . . . . . . . . . . . . . . | 88 | 8,000 |
| Sardinta. . . . . . . . . . . . . . . . . . . | 88 | 6,700 |
| Chllf. . . . . . . . . . . . . . . . . . . . . | 28 | 6,850 |
| Jenmark. .................... | 28 | 5,650 |
| Sweden and Norway . . . . . . . . . . | 21 | 4,260 |
| Other conntrles . . . . . . . . . . . . . . | 80 | 17,460 |
| Total in 1846. <br> Io. In 1845 . | $\begin{aligned} & 1967 \\ & 1768 \end{aligned}$ | $\begin{aligned} & 440,040 \\ & 689,070 \end{aligned}$ |

Tonnsge to and from the United States in 1846: vesseis 366, of 05,600 tons. Tonnage in 1843: vessels 328, of 76,900 tons. Increase $\ln 1846$ over 1843, vessels 88, tonnage 18,700.

> Scmmagy of tir Trady of Rio da Jangino in 1848.
> $\begin{aligned} & \text { Total lmporta. . . . . . . . . . . . . . . . . . . . . } \\ & \text { 134,000,000 franes. } \\ & \text { Total exports . . . . . . . . . . . . . . . . }\end{aligned}$
> Total Importe and exports. $203,580,1500$

Tonnage, etc. - Entered, 213,900 tons; cleared, 191,200 tons ; totai, 405,100 tons, of which from and to the


Course of exchange at Rio de Janeiro in 1848: 359 reas per franc, or 50 cents (neariy) per milires.
The navigation of the port of Rio de Janeiro in 1851 is exhibited in the following table:

| Arbivale. |  |  |
| :---: | :---: | :---: |
| Ailivala fromi foraiga Porta. | Vemels. Tons. |  |
| With cargo for port. | 847 | 237,667 |
| Othor deatinations . . . . . . . . . . . . . . . . | 51 | 16,189 |
| On way to Callfornla. . . . . . . . . . . . . . . | 28 | 10,428 |
| In bellatt for forelgn couatres. ......... | 167 |  |
| In hallant for home porta . . . . . . . . . . . . . | 17 | 8,470 |
| Total in 1951. | 1810 |  |
| Total in 1850 . . . . . . . . . . . . . . . . . . . , | 1080 | 264,616 |



The leading articles lmported in 1851 were as follows: Cottons, 42,560 , woolens, 5488 , linens, 5695 , silks, 1088, and mixed goods, 1263 packages; codfish, 54,602 quintals ; coals, 42,007 tons ; ale and porter, 23,704 barrels ; flour, 283,893 burrels ; candlea, sperm, 90, composition, 6052, and tallow, 25,561 boxea; wines, Portugal, 14,033, Mediterranean, 7644, and Bordeaux, 4421 pipes ; butter, 25,561 firkins ; cordage 5480 coils, etc. The produce of the country exported in the aame year consisted of : Coffee, 2,033,743 lagg; hides, 147,296; sugar, 7824 casee; rum, 3892 pipes; rice, 8229 bags ; horns, 256,949 ; tohacco, 28,755 rolls (of 96 Ibs. each) ; rosewood, 36,547 pieces ; half-tanned , hides, 12,744 ; tapioca, 17,737 barrels, etc. The arrivals coastwieg in 1851 were 1935 ssil vessels, and 309 steamers, with an aggregate of 221,647 tons; and the departures were 1863 sail vessele, and 880 steamers, with an aggregate of 225,002 tons. The total imports and exports of the empire in 1851 exhibit an increase of 33 per cent. over the average of the four preceding years. Could Brazil be induced to abolish the heavy export duties which sho levles on her staple productions, the increase would largely exceed this figure. The article of coffee alone would in a short perior fully make up for any deficiency in her reveuue caused by the abolition of these duties, in the increased demand for that article for foreign marketa. Besides, the stimulus which would in consequence be imparted to that branch of agricultural labor would present sin incldental benefit which could hardly escape the observation of a sagaclous legialator.

The subjuined figures show the amount of export duties levied at Rio de Janeiro from 1846 to 1851. [Milres $=55$ to 56 cents United States currency.]


Statenenta inllgteative of the Thade of lio in 1850. Leading Arlicles ianorted.

Quantities.

 briative Silage thkeroy absioned to eacll korkion Nation.

| Countriwe. | Vovemels eatared. |  | Imports, | Exporta, | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Voracie | Trens. | Fimaes | Franes, | Frones. |
| Linited States. | 524 | 184,000 | (1) $27,680,000$ | 67,6411,060 | 05,8811100 |
| Great Hritain and Possessions | 370 | 124,000 | 11. $60,610,000$ | 22,690,000 | $83,300,400$ |
| I'ortugal | 151 | 30,600 | - 10,806, 600 | 5,8013,000 | 18,190,000 |
| France. . | 134 | 89,000. | 29,830,000 | 10,540,000 | 89,874,000 |
| Liruguay | 122 | 31,210 | 8,080,000 | 2,6911,040 | 4,710,01H |
| Argentine Republio . . . . . . . . . . . . . . . . . . . . . . . . . . | 08 | 20,150 | 8,247,000 | 3,120,000 | 6,70n, (1) 0 |
| Denmark . . . . . . . | - 91 | 25,5\% | 1,4,90,000 | 4,390,000 | 5,049,000 |
| Anstria | 77 | 20,743 | 8,000,000 | 6,601,000 | $8,490,000$ |
| Ifanse Towna | 74 | 20,200 | 7,440,000 | 18,100,000 | 10,540,000) |
| Spala. | 08 | 19,40) | 3,980,000 | 200,000 | $4,189,000$ |
| Jruseia | 69 | 19,104 | 970,000 | 1,160,000 | 2,1311,0M |
| Belgium | 60 | 16,400 | 5,910,0w | 7,180,600 | $18,199,040$ |
| Other countriea | \$10 | 157, 130 | 0,400,010 | 33,930,000. | 83,530,000 |
| Tolal. | 2348 | 692,42a | 160, $5161,6 M 1$ | 166,000, 0 NKO | 332,460,000 |

Aocoent or tin Cofybe nximatyt frox lio dit Janhiso
 Baga or 10) sotus

| Yeann. 1 | nay ${ }^{\text {a }}$. | Yeors. 1 | Baga. | Yeatis, | Dagn. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1581 | 105,836 | 1881 | -44,249 | 1841 | 1,013,915 |
| 1823 | 153,049 | 1832 | 478,050 | 1848 | 1,179,781 |
| 1828 | 184,904 | 1833 | 508,105 | 1848 | 1,250,528 |
| 1824 | 924,000 , | 1834 | 589,117 | 1844 | 1,960,431 |
| 1825 | 182,610. | 1835 | 697,165 | 1845 | 1,908, 1068 |
| 1823 | 200,000 | 1836 | 704,385 | 1840 | 1,611,090 |
| 1827 | 350, 900 | 1837 | 029,734 | 1847 | 1,630,234 |
| 1828 | 800,147 | 1888 | 781,651 | 1848 | 1,710,679 |
| 1829 | 375,107 | 1839 | 871,785 | 1849 | 1,460,41) |
| 1830 | 301, 785 | 1840 | 1,063, 801 | 1850 | 1,3150,008 |

Compagative Sitationent omowing the inwand Navigation of Rio in daneibo in tite Irath $1 S 51$ and $18 \% 2$.

| Fomern Plate. | Voment. | Vemetia. |
| :---: | :---: | :---: |
|  | 1651. | 1959. |
| Tnited States. | 3010 | 2545 |
| Great Ifritaln. | 217 | 223 |
| Portugal . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 104 | 00 |
| Ilanse Trwns . . . . . . . . . . . . . . . . . . . . . . | 011 | 12 |
| Sweden and Norway ........... . . . . . . . . . | 114 | 79 |
| France. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 78 | 65 |
| Denmark | 79 | 67 |
| Spain. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 80 | 14 |
| gardiala . . .................................. | 48 | 44 |
| Belgium . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 80 | 80 |
| Autria . . . . . . . . . . . . . . . . . . . . . . . . . . | 36 | 25 |
| flolland. . . . . . . . . . . . . . . . . . . . . . . . . . . | 11 | 17 |
| Prussia | 10 | 18 |
| liugaia. | 20 | 11 |
| 1)ther cotintries. | 46 | 90 |
| Total. . . . . . . . | 1210 | 1199 |
|  |  |  |
| Total. . . . . . . . . . . . . . . . . . . . . . | 2001 |  |

The total value of the commercial movementa at the port of Rio de Jsneiro in 1852 was 353,000,000 france -equal to $067,070,000$; showing a large increase over the trade of the preceding year. Of the above total there was for imports $\mathbf{1 8 0}, 000,000$ francs, and for exporte 173,000,000 frsncs. The following condensed sumnary shows the trade of the priacipal commercial countriea with Rio daring this year: Great Brituin und possessions, $74,000,000$ francs; imports consisted chiefly of cottons, woolens, provisions, hardware, coal, etc. France, $34,000,0$ : 0 francs ; imports-liquors, tissues, cutlery, articles of fashion, etc. United States, $23,000,000$ francs ; imports - provisiona, stores, etc. Portugal, $14,500,000$ france; linports - wines, provislons, etc. LIanse Tcwns, $11,0 \% 0,000$ franes ; importe -syeneral cargoes. Buenos Ayrea and Montevideo, $5,000,000$ francs ; imports-provisions, skins, etc. The exports of Rio de Janelro this year were in value :


According to the official report of the custom-houas of Rio de Janeiro, there was exported from that port to the United Statea, up to 30th June of this year (1852), 952,489 hagn of coffee, of 160 lbs . each-making in all $152,398,240$ ibs. The total qusntity of coffee exported the oame year is atated to have been $1,896,600$ baga,
or 303,457,440 lus. The quantity sent to the United States was thus distributed:

| Now Orleans | 846,202 bege. |  |
| :---: | :---: | :---: |
| New York | 200,179 | 号 |
| Taltinnore | 207, 702 | 4 |
| Phlladelphin | 81,125 | 4 |
| Charleston. | 25,739 | 4 |
| $130 s t o n$. | 11,758 | " |
| Moblle. | 11,201 | 4 |
| Savanoah | 4,869 | 14 |
| San Francisco | 4,011 | 4 |
| Total. | 988,480 | 4 |

The following table exhibits the exports of coffee, in baga, from llrazil to New Orleana, from 1842 to 1852, both Inclueive:

| 942 | 198,210 |
| :---: | :---: |
|  |  |
|  | 161 1,114 |
|  | 167,000 |
| 1846 | 216,131 |
| 1847 | 210, 111 |
| 184 | 239,371 |
| 1840 | ${ }^{290,123}$ |
| 1850 | 229, 113 |
| 1352 | 346,262 |

It is staterl that the first importation of coffeo into New Orleans direct from Brazil took pluce in 1835; and that from that year to 1840, or during a period of six years, the quantity thus directly imported from Brazil did not exceed 44,000 bags; while in the year 1840 alone there were received at that pert from cula 91,000 bags. Cuba, however, has now almost enlirely ceased to export coffee-has ceased, at leust, to any conaiderable extent.
Compalativa Statement altowina thit Quaktitike of top-
 mitit inchisive.


These returns show great uniformity, and go toprove that the trade of Ria Janeiro in the grest staple of Brazil has attained for the tine ita maxiumm. The exports to New Orleans for the same period, however, show in progressive increuse.

From official publications received as these pages go to press, it appears that the general forcign comainere of Brazil in 1854 was unusually prosperous. The agricultural productions of the empine, the chief husis of Its foreign trade, exceeded those of the preceding year, the returna for the port of Rio de Janeiro reaching as high as $338,000,000$ france; showing an excety over those of the preceding year of $13,000,000$ francs. The total numher of veasela that entered the port of hio de Janeiro in 1854 was 1064, and in 1855, 1285 ; whille in 1853 there enterell only 1054 vessels; showing an incrense for 1854 of 10 , and for 1855 of 231 vessels aver 1853. The following stutement shows how the navigation of this port was distributed in $1 \times 53$ und 1854:

| Nallonatuy. | No. of Vemels. |  |
| :---: | :---: | :---: |
|  | 1888. | 1854. |
| Linlted Stater. . . . . . . . . . . . . . . . . . . . . . . . . | 279 | 881 |
| Englatd . . . . . . . . . . . . . . . . . . . . . . . . . . . | 204 | 200 |
| Portugal . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 123 | 123 |
| Fradce. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6 | 63 |
| Ilsate T'owns . . . . . . . . . . . . . . . . . . . . . . . . | $\cdot 3$ | 08 |
| Spain . . ... . . . . . . . . . . . . . . . . . . . . . . . . | 43 | 41 |
| Sweden and Norway . . . . . . . . . . . . . . . . . . | 72 | 44 |
| Moaterldeo. . . . . . . . . . . . . . . . . . . . . . . . . . | 28 | 87 |
| Huenoa Ayres. . . . . . . . . . . . . . . . . . . . . . . . . | 18 | 43 |
| Belgium. . . . . . . . . . . . . . . . . . . . . . . . . . . | 36 | 38 |
| Denmark. . . . . . . . . . . . . . . . . . . . . . . . . . . | 61 | 92 |
| Sardlala . . . . . . . . . . . . . . . . . . . . . . . . . . | 12 | 10 |

For many years the United Ststes occupied the first rank in tha usvigation of Rio de Jsneiro. It will be perceived from the preceding table that England claims the precedence in 1854, a fact which is sttributed to the falling off in that year in the importation of fluur from the United Stntes. The new line of steamers, established in $\mathbf{1 8 5 3}$ between Liverpool and Ria de Janeiro, touching at the same places as the Southampten line-namely, Lisbon, Madeira, Teneriffe, St. Vincent, Pernambuco, and Babia - netwithgtandin ${ }_{6}$ the fosrs as to its success, continued, $\ln 1854$, its monthly service with activity and profit. Besides these two lines of steamers, a company, composed of Brazilian and Portfiguese merchants, has established a line between Lisbon and Rio, touching at the same points; but this line had in 1854 but oue steamer in service, the voyages of which, however, proved very successful.
The port of Rio de Janeiro is becoming yearly mere important as the contre of South Atlantic commerce. The number and toanage of vessels which entered in 1855 were augmented a third when comparel with 1845, and more than a half ever the numher and tonnage of vessels in 1835. From 1850 to 1854 the average increase during the five years was nearly a lifth. The following statement exhibits this progressive movement:


Thes figures exhibit the results of foreign navigation only. The coasting trade is shown as follows:

| Yeasu. | Yessels. | Tons, |
| :---: | :---: | :---: |
| 1885................................... | 1929 | 115,117 |
| 1St5..................................... | $26: 12$ | 168,872 |
| Average 1850-64 . . . . . . . . . . . . . . . . . . . | 2390 | 230,228 |
| 1855......... | 31168 | 318.229 |

- The eniployment of etcambeats in the navigation of Rio de Janeiro is yearly extending. In 1845 the number of steambonts engared in the trade of the port of Rio was 239. In 1855 the number reached 431. Fourteen compunies, owning thirty-nine steambonts, with in aggregate of 2428 horse power, kee, up the communlcations between Rlo de Janeiro and the other maritime towns of the emplre. There are also four towboats, with un aggregate of 187 horse power. The following tabular statenent exhibite the value of leading importations lnto Rio de Janciro in 1805:

| 1st.-Mmbeninninge |  |  |
| :---: | :---: | :---: |
| Liquors, wines, tea, etc. . . . . . . . . . . . . . . 17,000, 000 franes, |  |  |
| l'rovislons, flour, butter, ste. . . . . . . . . . . . . | 24, 1600,000 |  |
| Lamp-oll, fat, tallow, si | 4,000,000 | * |
| liatters' warea, dry ,oode, laces, fancy ware, ptc. | 0,000, 020 | 4 |
| Tlisules of cotton ... | 31,00,0,010 | " |
| 4 wool | 7, (000,000 | 1 |
| * llne | $8,604,000$ | 4 |
| l'aper, books, ete. | 4,000,000 | 4 |
| Skins and leather, shoes, etc., eadidery, ete. | 4,100,000 | 4 |
| liroom wares, whllow warea, woody, furnlture, ete. | $8,000,000$ | 4 |
| Pottery wrres, percelaln, ete. | 3,014,900 | 4 |
| Watelies, Jewelry, hariware, ete. . . . . . . . . | 10, 1 KN\%,010) | 16 |
| Coal, metals, manufactured and wrought, ete. | 11,000,000 | 6 |
| Saltputre, powder, arms, вea-stores....... | 6,400,406) | " |
| Sutudries . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 19,000,000 | 16 |



As regards tho export trado of Rio de Janeiro in 1854, the returns it hand are not so minute. Of coffee, hicwever, the chief article of export from the Brazillian market, there were exported this year 1,987,632 bags, weighing an nggregate of $318,021,120$ lus., of which 899,900 bags, or $143,984,000 \mathrm{lbs}$., were sent to the United Ststes. The quantity exported the previous year wss $1,687,663$ bags, or $262,026,080 \mathrm{lhs}$. The quantity of sugar exported was less than that of 1805 -nmmely, 5905 hhds. and 1739 barrels.

The following resume exhibits the total results of 1854:

|  | Iniporta. | Exports, | Totnl. |
| :---: | :---: | :---: | :---: |
| Vaine ln 185 | $\begin{aligned} & \text { Frances. } \\ & 171,000,1000 \end{aligned}$ | $\begin{gathered} \text { Franes } \\ 167,100: 1,000 \end{gathered}$ | $\begin{aligned} & \text { Frene. } \\ & 335,(H), 0.00 \end{aligned}$ |
| Value ln 1853. | 104,0010, 060 | 161,000,060 | 325,000,0\% |
| Inerease In 180 | 7,0100,600 | 6, 1900, 060 | 13,900,00) |

The total flour imports at Rio for 1856 were 317,404 barrels, of which 301,729 barrels were frem the United States. Of this amount 101,716 barrels were shipped coastwise or re-exported after reaching Rio.
Totat import, 1557
Stock in all hands jannary $i, \dddot{18} \mathbf{1 8 6} \ldots \ldots . .$.
Sllpped constrife and re-experted, 1850.
$\frac{80,1000}{\substack{151,7161 \\ 03,000}} 307,474$
Conkumption of $15 \% 0$. $\qquad$
The imports of flour from nll sources last year exceed those of the preceding year 16,536 barrels, while the imports from the United States show an increase for the same period of 74,423 barrels. In fact, tho talies for ten years show a somewhat irregular but decisive transfer of the flour trade almost entirely to tho hunds of the United States.
The total exports of ceffeu from Rio for the year 1856 show as follows :

| To the lintted States. | 1,109,131 bag. |
| :---: | :---: |
| To Fiurope | 839,885 |
| To other peints, | 47,120 |
| Total. | 2,000,136 |
| Exp |  |
| To the Cnited States. | 1,100,135 bugst |
| To liurope | 1,242,326 ${ }^{\text {a }}$ |
| bilewi | 24,849 |
| Total. | 2,490,809 |
| Lar |  |
| To the United Stater. | 801,706 lings. |
| To dinrope | 1,064,189 * |
| Elsewher | 37,3I9 " |
| 'Total. | 1,903,706 |

The totsl exports of sugar for 1856 were: Cnses, 2364; harrels, 25,581; showing a decrease from the preceding year of $2: 181$ cases and 12,155 barrols. The export of hides fer 1856 was 64,861 pieces, showing a large decline from the two preceiling years.

Of the coffee exports to the United States in 1856,

Baltimore received 188,011 bngs; New York, 362,248; who are employed in the mechanic trades, in commer. Phitadeiphia, 01,985; Boston, 5001 ; und New Orieans, $404,502$.
The foreign commercial arrivals in 1856 number 1050 vessels, of 335,886 tons, of which thirty-two waro from Bultimore, thirty from Now York, twenty-eight from Richmond, fifteen from New Orleans, fourteen from Boston, oleven from Philadelphia, two from Charieston, two from the Rio Grande, and one from Wilmington. The number of foreign departures in 1856 was 906 vesseis, of 426,908 tons, of which 640 wero with produce, 34 with foreign merclannilise, 140 with their inward cargoes, and 182 in ballust proceeded to other ports of the empire. The coanting trado out ward was conducted, exclusively of 303 steamboata, by 2226 vessels, of 253,736 tons burlen. The coasting trade invard was conducted by 2222 aailing veasela and 305 steumboats, of 276,967 tons.
The revenue collected at the custom-house of Bio exhilits an increase corresponding with that of the import trado of this port. This is shown by the following comparative statement of receipts :
1835. $\qquad$ 3,583,000 miltreas.
180. $\qquad$ $8,1+9,1000$
The last year (1855) does not exhibit the maximum. This wre roached in 1852, the amount that year exceeding $14,775,600$ milrens, or over $\$ 7,000,000$.
Immigration.-The immigration returns of Rio furnish the following statistics:

| Yeans. | tinterest. | İeparted. |
| :---: | :---: | :---: |
| 121 | V, 505 | 154: |
| 1* | 6,871 | 1997 |
| 14.1 | 0,645 | 1981 |
| 1864 | 8,07.3 | 173 |
| Aggregato | 34,763 | 7151 |
| Annual average. | S,603 | 1796 |

The immigrants are very generally Portuguevo,


| Yearreading | Exporie |  |  | lmpors. | Wherror there was in |  | Tonnage cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sommic. | Forrime. | Total. | Total. | Kipat | Impori. | mineric | mikn. |
| , 31, 1321 | ¢ | ${ }^{\mathbf{4} 406.412}$ | \$1,381,700 | \$6155,126 | \$150,909 | \$19,850 | 22,264 | 314 |
| 1524 | 1,217,411 | 246, 1818 | 1,463,929 | 1,480,5017 | . | 71.803 | 29,301 | 643 |
| 1823 | 1,1462,249 | 279,141 | 1,941,390 | 1,24, ${ }^{\text {a }}$, 10 | 8,015 | 46.915 | 22.616 |  |
| 1 sed | 1,699,7\% | cre, 180 | 2,311,904 | 2,074,1:19 | 8., 214 | 218.792 | 38,445 | in |
| 1825. | 1,041,2931 | T52,458 | 2,493,784 | 2,150,307 | 18,343 | 107, 18 s | 33,138 |  |
| 1826 | 1,507,34 | 003,40:5 | 2,2001,340 | 9,100,07s | 119,030 | 104,771 | 34,372 | 1,103 |
| 1827 | 1, +88, 433 | 37T,373 | 1,813, ${ }^{1064}$ | 2,000,971 | 1,585 | 292,932 | 37,703 | '391 |
| 1818. | 1,505,509 | 480,906 | 1,988.716 |  | $\xrightarrow{13,189}$ | 181.974 | 4i, 114 |  |
| $1530 .$. | $\begin{aligned} & 1,510,2 t h 1 \\ & 1,6 k i, 990 \end{aligned}$ | $\begin{aligned} & 419,667 \\ & 242,23, \end{aligned}$ | $\begin{aligned} & 1,920,927 \\ & 1,849,99 \end{aligned}$ | $\begin{aligned} & 2,6 i s, 4 i z \\ & 2,4+1,460 \end{aligned}$ | $\begin{gathered} 83,612 \\ 1,170 \end{gathered}$ | $\begin{gathered} 74,490 \\ 84,0: 5 \end{gathered}$ | $\begin{aligned} & 41,488 \\ & 4,450 \end{aligned}$ | 6 A |
| Totat... | \$14,2616,533 | [4,811,939 | -18,708,772 | \$111, 874,163 | F6is, 1106 | 234,809 | 343,68\% | 4,0.3 |
| 1931 | \$1,682,193 | \$423,002 | \$2,070,0 | \$2,375, 8 | \$2t6,355 | 823,44 | 36,9.2 | 203 |
| 1792 | 1,2:99,177 | 88.717 | 2,04.704 | 3,8,90, 8 , 5 | 381,013 | 20,871 | [30, 439 | Bsti |
| 183. | 2,444.585 | 797.546 | 3,972,101 | 8,08, ,63 | 150,4+4 | 11,458 | 4.795 | 1,017 |
| 1894. | 1,536.197 | 473.204 | 2,010, 354 |  | C40, 0 , 4 | 31,735 | 37,0:2 | 1:147 |
|  | 1,914,991 | 59,463 | 2,609,060 | 5,074,464 | 949,931 | 06,008 | 31,26:3 | 2.54 |
| 153 | 1,732,7! | 1,382.195 | 8,494,034 | 7,210, 11:0 | yen, 92.4 | 6! 14 | 48,543 | 3.1112 |
| 1537 | 1,901,217 | 41,902 | 1.743,209 | 4,9017,583 | 83,531 | 410,107 | 19,676 | 4,107 |
| 12 | 2,40,487 | $504 \times 298$ | 8.027, 194 | 3,191,234 | 200,706 | 129,22] | 80,6,3, | 1,601 |
| 1539 | 2,133,997 | (40).4.4.4 | 2,607\%,45 | D, 254c:405 | 134,427 | d, 8: 8. | 33,431 | 3,143 |
| 154 | 2,146,503 | 36.111 | 2. $6,5 \mathrm{~m}, 1674$ | 4,127,2.6 | 102,174 | 14,522 | 34,18' | 1,764 |
| Totat | \$14,164,4*) | 76,565,907 | +24, 610,395 | +47, 274.404 | \$2,637, 8. 6 | *343,816 | 361,779 | 19,944 |
| Sepl. 30, 1941. | \$2, 041,991 | 475.9\%9 | 43,517,273 | \$ $7,302,053$ | \$258, 803 | 821,852 | 47.634 | 8,101 |
| 154. | 2,205,611 | 375,981 | 2.641.502 | 8,144,814 | 81.74 | ten, 14.4 | 38, 318 | 2,643 |
| 9 mom, 14t3* | 1,504,51 | 223,604 | 1,793,204 | B, 477 , ith | 22.40 .1 | 50, 3.4 | $82, \mathrm{CGH}$ | t, 3.5 |
| June 30, 184. | 9,440,418 | 4 8 , 314 | 2,514,2:9 | B, 883 , 8008 | 142,20.5 | 98,60: | 46,250 | is, 14 |
| 1945 | 2,413,507 | +24,983 | 2,487, 60 | 0, ¢a, 5,51 | \| 81.151 | 7.477 | 11754 | 2.167 |
| 14.5 | 2,754,013 | 949,983 | 8,143, 3 \% | Iti4i,son | 235,0.1 | 2,462 | 44,026 | 4,689 |
| 1947 | 2,4um 9,938 | 37il, 8.40 | 2, $48.3,774$ | 7,01:8,160 | 14, 24 | 26.6 5 | 30,291 | 8,95 |
|  | 3,108,730 | 279,099 | 3,374,434 | 7,192,648 | 118,052 | 17,508 | 8\%, 2 Ml | 0,1066 |
| 1819. | 2,934,390 | 204,597 | B,102 | 8, 34,106 | 117,604 | 0,381 | 80, 3, 35 | 0,0,34 |
| $1500 .$. | 2,723,768 | 473,347 | 3.197,11.4 | 0,324,429 | 279,490 | 2,160 | 6, 113 | 8,56is |
| Toth | 425 534,964 | *3,791,1960 | -2, 8 , 20,9463 | \$415: 16,939 | \$1,028, 066 | $\$ 21624$ | 40,465 | 81.716 |
| 20, 1591 | *3, 128,960 | \$623,9An | \$3.750.1036 | \$11,525,304 | \$40,202 |  |  |  |
| 152 | 2,7*2,179 | 239,973 | 8, 2121,442 | 12,231,29, | 151,4 413 | 14.317 | 5.454 | 3,19 |
|  | ${ }^{3,734,1!90} 4$ | 200,254 | 3, $3,941.44$ | 14.417, 101 | 899,02? | 80, 0 | $0{ }^{6}$ | 0.168 |
| 155 | 3.973,219 | ${ }_{2 S 9,0 \times 5}$ | $4,4610,243$ | 15,21\%, 25 | 141,525 | 1,412 | \%3, 646 | 2,64 |
| 1250 | 4.8:8, 125 | 2416,779 | 5,04,104 | 19,2020,05\% | 233.5\%3 |  | 7.1,250 | 2,900 |
| 1857. | 6,206, 10M | 271,041 | 5,545,207 | 2t,4位,733 | 146,599 |  | \$4,1212 | 3,156 |

cial pursuits, as domestics, etc. Some hundreds ars aent to the new colonies, where thay constitute almost the only aid which Brazilian agriculture receives annually from foreigners. There arrived in 1851 and in 1852 a large number of German settlers, engaged in Europe by the agents of the colonial directora. On their arrival those colonists became dissatisfied, and hence German immigration has nimost entirely ceased. In 1851, there arrived of this class of immigrants 2958 persons; in 1852, 1347 persona; in 1853, 349 persons; and in 1854 , only 295.

General Remarks.-On the 80th of April, 1854, the first railroad in Brazil was thrown open to the public, the inauguration taking place in the presence of their Imperial Majesties, and an inmense concourse of the leading personages of the empire. The general navigation and commereo of the southern provinces, as weil ns the gencial trade batween them and tho United Statea, are decreasing; owing, it in alieged, to the settlement of the difficuities that exieted on the River Plata. The more liberai tariff, buth on importe and axports, attracte a large buik of the trade of these provinces to that quarter. A treaty betwcen the Coited States andi Brazil is regarded as the only meana of pronoting the general commerce and navigation between the two countries. There exists no commercial treaty between the United States and Brazil; but Brazilian vessels, with their cargoes, are admitted on an equal footing with vessels of tie Vnited States as respects tonnage and import duties, nud nil other charges.

The ports of Brazil open to direct foreign trade are: Para, Maranham, Parnahila, Fortaleza (Ceara), Amcaty (Ceara), Rio Grande North, Parahiba, Permambuco, Maceyo (Alagoas), Lnnangeiras (Sergipe), Bahia, Fspirito Santo, Rio de Janeiro, Santoa, Paranagua, St. Catherine, Rio Grande, Siso Borga (R. G. South), Porto Alegro (R. G. Sonth).


Anchomage Dues.- $\mathbf{0 0 0}$ reas (about $16 \boldsymbol{f}$ cents) per ton of Brazilian measurement. Vessels arriving und departing in ballast pay only half anchorage; and those calling merely for supplies cre exempt from anchorage duty. Vessela which make more than two voyages to ports of Brazil during a $t$ welvemonth are exempt from the payment of anchorage dues on nll voyages over that number within the same year; veasels, therefore, pay no more than 600 reas annually ( 384 cents), be the number of voyages what it may. For passpoits to loave, from 4 to 8 milreas (from $\$ 222$ to $\$ 44$ ); for pilotage inward 80 milrcas ( $\$ 1667$ ), but no obligation to take pillots inward; for pilotage outward 70 milreas ( $\$ 3888$ ), and for canoe-hire, 6 milreas ( 83 38). No vessel is allowed to lesve port without a pllot, nor to get under weigh aftor aunset, or before sunrise. Hospital money, 4 milreas on the vessel (say $\$ 222$ ), and 640 reas (or about 36 cents) for eich of the crew. The chargo for stamps varies, being not less than \$1. A consular return irom Pernambuce, ender date of Jnnuary, 1865, gives each specific item of charges upon an American bark of 200 tons burden which entered that port laden with flour, and leaving with a carge of sugar. The total, inward and outward, including the charges for lighterage, labor, cranenge, etc., which are uot on government account, amounted to $\overline{\boldsymbol{\phi}} 57145$. Of this there was piid on government account $\$ 19245-$ the remainder belenging to the other class of charges.

Tariff:-The market prices in Brazil are taken ns the besia for the duties finfosed by the present tariff. The dispatch by inveice will take placa when the goods imported have no fixed duties in the tariff, or when they are aubject only to a tax for warehousing and clearing out.

For the diapateh of goods subject to ad ralorem duties the merchant or consignee is obliged to show a declaration stating the prices of his goods, and the original invoice duly certified. In want of the original invoice may be presented two certificates by two brokers, or, in the absence of brokers, of two merchants of the place, ahowing the current pricea of tha goods.
The value of the goods subject to ad colorem duties will be that of the Irazilian market, ns before asid; deductions made of the respiective chities, or the valuo of the original invoice, with the addition of 10 per cent. -United States Cum. Relations.

Remarks on the Trade of Brazil.-This vast empira comprehends the great enstern section of South America. Its length from north to suuth is computed at about 2600 miles, and its greatest breadth at 2540 miles. The entire area comprises about $2,973,400$ square miles, or over ten times the aren of Texns, and alout seventy times that of Portugal. The climata is generally favorable to agricultural pursuits, the soil being fertile, and in many parts of the enplire, particularly in the provinees, abrunding with valmable mineral resourcea. The ataple productions of Brazil are such as must necessurily attract an extenslve fureign trale; though it is stated that anterior to 1809 she lad no direct interconrse with other nations-the mother comitry, under the policy which dictated her colonial system, exciuding from the ports of her extensive colony all foreign flaga. The dangers which menaced, and the domestic troubles which ngitated Portugal at this period, rosulted in the flight of the royal family to Brazil. With the court were introduced new tastes, now idens, nud a more litieral poliey in regard to foreign interceurse. Tho ports of Brazil were at once opened to foreign commerce, and since that period the culture of the staple productions has kept pace with the increased demands of foreign markets. The grent staple of lirazil is coffeo, though vegetnbles, fruits, wheat, barloy, rieo, maize, and tohaceo are extensively producel in the southern or temperuto provinces; whiiie within the tropies the chief produstions are mandioca, rice, hannanas, plantains, beans, sweet potathes, ceffee, augar, cotton, and cocon-the last four for
exportation. The forests supply the very best timber for ship-building, and almost every variety of wood for cabinet-work and dyeing purposes; among the latter, Brazil-wood, ronewood, and Campeachy-wood are important articles of commerce. Travelera who have minately explored tha interior of Brazil deacribe no less than 219 varieties of timber, and many of them largely enter into the commercial resources and domestie wealth of thot empire. Since the acknowledgment of its independence, the cominercial regulations of Brazil have been marked by e spirit of liborality and of freedom from unnocesanry and exclusive restrictions. The duties on imports and exports are bnsed upon the valuation pirinciple, and are designed solely with a view to supply the necessary revenues for the support of the government ; and the port, pilot, and other navigation charges aeldon exceed the actual requirements of a just and liberal intercourse with foreign notions. Indeed, the cammercial policy of Brazil seems eminently adapted to a conntry of auch boundless extent and so spausaly populated, fis labor is suro to find a remunerative reward, in whatever modo it may seek tc develop the oxhnustless rasources of tho empire, In the free competition to which it invites the enterprise and exchanges of forelgn nations. The entire population amounts to alout six millions-being two persons to the square mile; of which at least three-ffiths are blacks. Tha commercial treaties negotiated by the government of lrazil with forcign countries are generally bnaed upon the principle of reciprocity. That with the United Stntes was concluded December 12, 1828, and established between the two countries freedom of commerce and entire reciprocity of trade und navigation-certnin specinl favors being reserved to Portugal, owing to the former relations between that country and Brazil. This treaty contained the usual stipulation requiring twelve months' natice to he given by either party desiring to terminute the same; and such notice having been given by the government of Brazil, and the twolva nontha having expired, tho treaty is no longer of force. The commercial relations between the two countries were, however, placed upon n footing of similar reciprocity to that guaranteed by the treaty, by virtue of tire proclamation of the l'resident of the United States, bearing dute November 4, 1847, issued conformably to the provisions of an act of Congress passed on tho 2th duy of May, 1828.

As the trule letween the two countries is placed much on the same footing of reciprocity as that guaranteed by the treaty, it is deemed not irrelevant to present a aynopsis of the provisions of that treaty, so far as thoy relate to commerce.
The contracting paties are plaeed on the footing of the most favored nation in rexpect to commerce and navigntion, tho relatiens between Portugal and Brazil excepted. Free commercial intercourse, on the linsis of perfect equality aud reelproelty het ween the citizens and sulyjects of the two countries, is estallished, the coasting trado being reserved by ench govermment to its own flag. The vessels of both countries nre placed on the same footing in the ports of each, as to the importation, exportntion, or re-exportation of foreign goods, from or to any foreign country; the United States agreeing to consider a vessel ns brazilian when the proprietor nod enptain nro subjects of Brazil and tho papers are in legal form. The contracting parties agree that no higher or ether duties shall be iniposed on the importation of any articles, the produce or manupactures of either country, into the ports of the other, than are or shall be payable on the like artleles, being the produce or manufactures of nny other foreign country; and export duties shall be the same in each to the ports of the other as when the nrtieles are experted to any other foreign country'. It is ngreed that it shall be wholly free for all nerehants, commanders of ships, and other citizens or subjects of both countries, to managa themselves thelr own business in all the prorts
and places subject to the jurisdiction of each other, as well with respect to the consignment and sale of their goods and merchandise by wholesale or retail, as with respect to the loading, unloading, and sending off thitr ships; they being in all these cases to be treated ae citizens or subjects of the country in which they reside, or, at least, to be placed on a footing with the subjecta or eltizens of the most favored nation. Vessels in distreas, pursued by pirates or enemles, etc., belonging to either of the contracting parties, to be received and protected in the ports, rivera, bays, etc., of the other.
Foreign Commerce of Brazil.-From official documents, it appeara that of the whole commerce of Brazil, Rio de Janelro holds 56 per cent. ; Bahia 12 per cent.; Pernambuco 12 per cent.; Alagoas, Santo I'aulo, and Santo Pedro do Sul, 8 per cent.; Para, Nuranham, and Sunta Catarina, eachl 4 per cent. The species of merchandise which constitutes the leading imports Irto Drizil are cottuns; of which Rio de Janeiro, Balia, and l'ernambuco usually recelve in value abont $\$ 7,000,(16)$; woolens about $\$ 1 \rho 0 C 0, M_{1}, n ;$ silks, $88,0 \% 0,000$. Aftes theno rank next :a commercial importance provisiens, toor (the great buik of whleh cones from tha United States); wines and other liquors; metals, cruce and manufactured; watcher, jewelry, arme, s.smuaition, etc. etc. The principal oxports are coffee (which is shipleed from Riv) nud suggr, (princlpally from datia and P'ernambuco). Fill a moiety of the former goes to the United State3, and the latter chiefly to England, Trieste, and the H.nno Towns. The precioua metals next follow in the mand of exports ; then dlamonds, skins (utter), hide s, estion, and tobacco. The two last, ss well an sugar, though not to so great an extent, are either stationary or de eliuing, as respects the quantities annually cxported.

The fcllowing comparative statements give tie figures for two ycars, 1801 and 1852:

|  | 1851. | 1852. |
| :---: | :---: | :---: |
| Injuorta | \$42,300,000 | \$ $434,200,000$ |
| lixporta | 31,920,000 | 39,650,000 |
| l'otal. | \$ $\$ 4,220,000$ | \$08, 880,000 |

The proportion which the United States had in the trude of these two years, appenr as follows: Exports, 1851, 36 per ceat. ; 1 $\times 52$ 2, 37 per cent. Imports, 1851, 12 per cent.; 1852, 9 per cent.

|  | 1851. | 120. |
| :---: | :---: | :---: |
|  | Pranea. | Trase. |
| Fagland | $60,000,000$ | 74,000,000 |
| France. | 99,000,000 | 88,000,000 |
| United Sta | 97,000,000 | 24,000,000 |
| Masae Tow | 8,000,000 | 12,000,000 |
| 13elgiam | 6,000,000 | 8,000,000 |
| Seliglum | 6,000,000 | 8,000,000 |


|  | 1851. | 1439 |
| :---: | :---: | :---: |
| Coffer . . . . . . . . . . . . . . . . . . . | Franes. $132,000,000$ | $\begin{aligned} & \text { Pranen. } \\ & 1 t 0,000,000 \end{aligned}$ |
| 8ugar . . . . . . . . . . . . . . . . . . . | 8,000,000 | 6,000,000 |
| Ildies . . . . . . . . . . . . . . . . . . . | 8,000, 1000 | 1,000,000 |
| Wood, . . . . . . . . . . . . . . . . . | 8,000,000 | 1,000,000 |

Amalyais or Expoata (ay (eetertias).

|  | 1851. | 1862. |
| :---: | :---: | :---: |
| United States | Pranca, $68,000,000$ | $\begin{aligned} & \text { Franes. } \\ & 71,000,000 \end{aligned}$ |
| Fingtand. | 26,000,000 | 23,000,000 |
| llanse 'row | 12,000,000 | 8,000,000) |
| France | 11,000,000 | 12,000,000 |
| Jlelgitm. . . . . . . . . . . . . . . | 7,000,000 | $8,000,000$ |
| Atatria... | $8,000,000$ | 7,000,000 |

The French official report, from which the preceding pummary la derived, states the; there were recelved from the United States 230,000 barrels of fleur, and from Europe 80,000 barrels; of which 15,000 barrels were shlpped from Marsellles, sud the remsinder fiom Trleste and Antwerp. Ilutter, ealt, dried beef from the I'lata, gin, dried and preserved fruits, flsh-eil, lin: reed oil, \&c., malntained the figures of the preceding year; but in the articles of leetr, soap, wax and otler cirn'les, tea, nnd codfish, there was a diminution. 'T:re following statement shows the relative share assignei to each country in the general importation of 1852:

|  | Importa, | Exports. |
| :---: | :---: | :---: |
| Great Irit | 39,100 | 12,000) |
| France | 18,100 | 12,0M6) |
| Calted Stater | 13,100 | 38,090 |
| Germany, Belgium, IIolland, and $k$ wltzerland. | 19,100 | 25,000 |
| Iortugai, Spalu, nnd Italy....... | 12,100 | 13,140) |

The following tabular statemont will be interesting as exbiblting the custom-house revenueu of Prazil for the periods designated, and the sources whence derived. The present value of the rea in Unitcd States currevey is, 1000 reas or 1 milrea $=55$ cents.

| Fiseat Y ears. | DEties or |  |  |  | Toual. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Iniport. | Eipport. | Narlgation. | Internal and fixirnordlaary. |  |
| 1547. 60. | $17, \text { R30, } 029,000$ | $\begin{gathered} \text { 8eer, } 000 \\ 3.751,453,000 \end{gathered}$ | $\begin{gathered} \text { Rease } \\ 845,590 \end{gathered}$ | $2,125,817 \\| 000$ | $\text { 24,081, } 59 y, 0 \rightarrow 0$ |
| 1502-51. | 20, 471,2621000 | 4,70t, 0 ¢ 6000 | 515,5811000 | -,237, 125000 | 27,930,1644 090 |
| 155t \% 52 | 24,793,0 60.000 | 4,527,172 000 | 546,1441000 | -, 365,810+1000 | 32,23. 582,040 |
| Increare in isiz over 185t | 4,321,784:000 |  | 31,363, 000 | 124,685 1000 | 4,302, $: 04$ (100 |
| At ithe pert of 1theinnciro in 16ish-'52 | 14,0.4,506:000 | 2, $255,2483,060$ | 288, 6451000 | 1,788,3471000 | $15,660,74000$ |

Coffe..-Coffeo is the leqding staple of Brazil. For merly, ald fur many years, Sau Domingo was the souree from which Europe slerived lts supplies of this article-the quantity exported frum that inland at unf tize having reached as high as $\mathbf{i 7}, 000,000 \mathrm{lbs}$; sud hail not the revolution broken out in 1792, it was es ${ }^{+1}$ mated that thero wonld havo been exported chat year nbout $84,000,000 \mathrm{lbs}$. That event, comil ned with uther olvious causpa, proluced a toal ceasation in the sup plies from thls source. Being driven fron: St. Demin$\mathrm{p}^{\text {on }}$, the culture of coffee at once bryme a leading branch of indastry in Cuba, Jansiea, Surinam, and Java, and war at a subsequent perion lutroduced viit: ?nuch success into Drazil. After the filght of John VI. isom Portugal to Brazil, in 1808-'9, the port of lito de Juneino was giened to forelgn trade, ond coffee enon became one of the leading staples of export. At that period the anmal erop dim not eaceed 30,000 , bage, of $4,800,000 \mathrm{lba}$. In 1820 it r cheà as algh as 1001,000 latgs, or $16,000,00 \mathrm{c} 1 \mathrm{bs}$. In 1817 and 1391 the sup, ly was so mnull, that in the market ©f lamion it ruse as ligh as $37 \frac{1}{3}$ centa per lb . This of course stlmulated its cultivation in Brazil. The rain of San

Domingo transferred, alao, the cultare of indigo to Mritish India, and it. roltare was at the same period abandoned in Brazil. Previously to the revolution in llayti there was exported from that island $76 \times 33,319$ lise.; in 1818 the $\cdot x$ ports fell to alvout $26,00 \mathrm{r}$ in lis.s. and now they do,$\cdots+$ exceed thisty-flive in furty milllons. Hix 1834, the year in which the enaancipation act went lato effect, Jamulca exportel to linghud $18,268,888$ lhs. of coffee; five yarrs later, the ruatityhad fallen to $9,423,197 \mathrm{lbs}$. The decline in thu cultivatior of coffee in thls istand, and the unrestrictel suppl: of African olave labor in Brazil, combined to glive a pewerful impulse to its cu'ture in ihat enipire. Hence, in 1830, the erop reacher ne high us 404,1000 Lags, or $\$ 1,000,000 \mathrm{llis}$. The coffee-growing districts in Hra"il are divlect into Serra Abaxo (beluw the mbuntaius) and Serra Acima (above the mountainy). Tife cost of transporing the coflee from the phatation to mariet is about 2 cents per It.; and the actual cost of production is stated to be about $4 \frac{1}{5}$ ceats per ib. The quantity producel in che eupire, year hy year, is nos officially ascertained; I ut it has been approximated witit sullicient exactuess fur pructieal jurposes.

Coffee was first Imported into the Inited States perted Into the United Stutes from Brazll, ard the from Brazil In 1800, the first Importation consisting of 1809 bagr. From 1809 to 1849 the lmports of coffee Into the Unlted Ststes had Incressed from 1809 bags to over $100,000,000$ libs.; and in 1855 It renchod as high as $135,369,388 \mathrm{lbs}$. The following comparative tabular statement shows the quantiti of ceffee im-
quantitles of flour exported from the United States to Brazil, with the totul annual values of each respectIvely' and the current price of flour per barrel, and of coffee per lb., for each yeur, for a period of eleven years - from 18.44 to 1854 , both lncluslve, showing a greater rate of lincroase in coffee over flour:

| Years, | Coffee to V . S . from Brasil. | Values. | Flour from V . 8 . to Bramil. | Valuea. | Vatue of Coflee per lb. | Value of Flour perbbl. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Dollara, | Earrels. | Dollars. | Centa. | Dels, Cth. |
| 1844. | 95,291,484 | 5,802,901 | 288,181 | 1,498,413 | $6 \frac{1}{4}$ | $518 \frac{1}{6}$ |
| 1845. | 78,553,616 | 4,401,269 | 209,845 | 1,083,318 | $5 \frac{3}{6}$ | $516 \%$ |
| 1846. | 97,535,697 | 6,964,513 | 296,460 | 1,675,756 | 68 | $565 \frac{1}{4}$ |
| 1847. | 94,916,629 | 5,673, 690 | 254,800 | 1,562,979 | 5 | $614 \frac{1}{2}$ |
| 1848 | 110,927,284 | 「,969,993 | 294,816 | 1,952,212 | 07 | 6 12\% |
| 1849 | 122,581,183 | 6,776,727 | 314,808 | 1,885,203 | 0\% | 5.384 |
| 1850 | 90,319,511 | 7,422,608 | 292,464 | 1,649,696 | $8 \frac{1}{5}$ | 564 |
| 1851 | 107,578,257 | 8,881,105 | 369,975 | 2,021,631 | 8. | 5467 |
| 1852 | 138,156,506 | 10,064,740 | 345,025 | 1,63, 285 | $7 \%$ | 4 72 $\frac{1}{2}$ |
| 1853. | 153,338,464 | 11,844,414 | 433,843 | 2,434,187 | 73 | $5^{5} 61 \frac{1}{13}$ |
| 1854. | 116,794,773 | 10,329,092 | 315,319 | 2,417,685 | $8 \frac{3}{4}$ | 7664 |

Sugar.-A glance at the preceding tables will show in Brazil in respect to tho slave-trade is seen in the that ceffee is the great ataple export of Brazil to the following table, compiled from an American authority : United States, the produce of which is most steadily and rapidy advancing. The aupply will doubtless always be equal to the demand, owing, in a great measure, to the facility and comparatively small expeyse attending its production; while the culture of sugar and cotton depends on contingencles, both temporary and permanent, which nust materiully affect the quantities annually produced. These contlngencies may be briefly stated. The culture of sugar depends as much on the sclence of the manufacturer as on the capital and labor of the planter. Before it can reach the market of Rio, or of any of the other ports of the empire, It requires a vast expenditure of labor, the most assiduous attention, and an outlay of cupital that absorlss fully one half, if not more, of the gross yield. llesides, the abolition of the slave-trade, and the sevelity with which the present laws of Brazil punish those detected in that traffic, must produce deelded effects upon the production of those staples in tho culture of which slave labor is indispensable.
A French work on statistics, recently published, furnlshes the following data relative to the present number of slaves in Brazil: From a publication mado in 1843 by Mr. Saturnino de Souza e Olivelra, chief officer of the customs in Brazil, the number of slaves has been computed at threo millions, who are thus divided as to empleyment :

Slafre in Brazil.
Employed on the estates.
2,500,000
Donsentics .................................. 100,0000
Illred out, and others......................... Y . $^{\prime} 0,000$
Total. $\qquad$ $\overline{3,000,000}$
The operation of the presents rigid measures in foreo


The figures for 1851 evidence the vigilance of tis government in the detection of those engaged in this traffic. It may be remarked, that of the 8287 given for 1851,1006 were recaptured by tho Brazilian cruis. ers, and dectared free.
llow long, under thoso circunistances, sugar and cotton shall continue to lie classed among the staples of Irazil, is scarcely left to conjecture.
Quaxtities and Valezs of Suoar imported into the L'niter states yron Brazil.


Cotton.-As regards the cultivation of cotton, it is well known that several inguperable drawbacke to its extension exist in Brazil. Among these may be named tho ravages of insects, the peculiarities of the climate, and the expense and difficulties attendant upon it transportation from the interior to the coast. Miny years ago, it was abcertained in Brazil that the cotton-plant will not flourish near to the sen, and the plantations have, in consequence, receded further inland, ns well to avold this difficulty as to beek new and fresher lands.
Tabllar Statempnt showino the Quantitieg og Cotton empoated from Brazil to Grkat Britain prom the Yeal
 buiphied ybon offiolal Data-blanks indionting tits angenge of saildonati.

|  | Yenrs. | Grent Mritatia | France. | speln. | Portugni. | Helgium. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1.bin. | I,bs. | 1.bs. | Lbs. | Lbs. |
| 1840. | . $\cdot$ | 12.77!, 171 | . $\cdot$. | .... | . . . | $\cdots$ |
| 1841. |  | 16,671,348 | . $\cdot$ | *** | **' | * $\cdot$ |
| 1942. |  | 15,229, 828 | * | .... | ... | $\cdots$ |
| 1843. |  | 18,645,123 | . . . | *. $\cdot$ | ** | .... |
| 154. |  | 21,084,744 | -••* | .... | . . . | .... |
| 1842. |  | 20, 157,033 | -•** | . . . | . . . | *.. |
| 1846. |  | 14, 746,921 | .... | . . . | * . ${ }^{\text {c }}$ | . $\cdot$. |
| 1847. |  | $13: 166,1122$ | . . . | . . . | . . . | $\cdots$ |
| 1843. |  | 19,971,078 | .... |  | . $\cdot$ |  |
| 18 (1). |  | 30,735,133 | . | 882,004 | ... | $14,690$ |
| 185'). |  | 30,290, 988 | 12980 | .... | .... | None. |
| 1851. | .... | 10,889,104 | 1,232,000 |  |  | None. None, |
| 195\%. |  | 20,51) 0,144 | 080.517 | 2,201.576 | 1,5,16,286 | None, |
| IS54. |  | 10,703,60: | 287,802 | 2,2n1,2\% | 2,07\%,60 | 10,901 |
| 1565 |  | 21,577,953 | 400,000 | .... | 1,707,445 | - |
|  | . ................................ . . . . | $3319,031,011$ $21,031.239$ | $\cdots$ | $\ldots$ | $\ldots$ | $\cdots$ |

The exportationa of cotton from Braaii in 1843-'44 and 1858-'54 are atated b.- Brazilian official authorities as followa:

| In 1858--64. . . . . . . . . . . . . . . . . . . . | 88,420,820 pounds. |
| :---: | :---: |
| 1n 1843-44. . . . . . . . . . . . . . . . . . . | 26,065,160 |
| tnerease in ten yearn ......... | 2,304,160 |

In 1851-'52 the exportation amounted to $31,983,050$ Lhis., of which quantity Great Britain received 26,881,201 Ibs., Spain 2,291,578 lbs., Portugal 1,896,286 lbs., and France 889,048 libs. Of the total exportations in 1852 -'b3, Great Britain received, as appenrs from the same nuthoritles, 22,5i5,122 lbs., Spain 2,351,279 lhnsa Portugal 2,673,766 lbs., and France 543,611 lhs. The exports to Great Britain from Brazil began in 1781; and from that period to the preaent time the large bulkat leant four-ffths-of Brazillan grown cotton goes to that kingdom,-Comm. Rel. U. S.

The conmerce of Brazil has sustained grent injury from the. wretched state of the currency und of the finances; the vaiue of the former, which consist almont wholly of paper, being excenalvely depreciated and liabie to extreme fluctuations, and the ravenue being inadequate to meet the expendituro. latteriy, however, vigorous efforts have been made to increase the revenue; and it is hoped that in the event of the Innnces being placed on a better footing, measures may also be taken to improve the currency. We subjoin an account of the debt, etc., of the emplre in 1851 : Forefign delht. $\qquad$ harat funded debt, $02,370,000,000$ reir, at exchange Treasury bilin sflust, about $\mathbf{2}, \ldots, 000,000,000$ rels, at exchnago 23d.

6,187,000 exchace 2 ad .

7,540,000 Entimatert amouot of noted in cliculation (mperer money) throughout the empire, $50,010,000,000$ rels

240,000 6,700,000 E2i $\overline{21}, \mathbf{6 0 7},(0+1)$
or, in round numbers, the debts and liabilities of Brazil may lie stated at $£ 20,500,000$ sterimg. The for rign capitai in tho empire is computed to le about s10, 000,000 ateriing.
"The duantity of precious atones shipped la no: very consideratile. In most cases they, se sent to a fosing narket $\mid$ being, in fact, moro valuable in Brazli than in London or Paris. Aquamarines (see Jenyr.) of a very large nizo have been found. In January, 1811, one was found in tho Riberao das Americanas, near the diamond district, which weighen 15 lbs ; nnd in the same place, in the October following, one was discovered weighing 4 lios. Topazes of fine quality, but seldom largo, amethysts and chrysolites, are also articles of exportation; and at times nome tine njecimens of these gems are to be met with in tho jewelers' shops. Ccrrectiy epeaking, there are no trading ecmpanies in Lio do Janeiro; there is a society for etfectIng maritime assurances, hut no other. The Bank of Brazil has hud very extunsive concessiona made in its favor, and ought to be in a $f$ riwhing etate. It has power of issuing notes; and uli iisputed moneys and property of the ileceased sind alsent (mortese anzentes) must be piaced in its hands, and 2 per cent. jer annum charged for thy care and trouble. This, in addition to the interest which migit be olstained for the doposit, would alone, in an active uercantile country, form no inconsiderable sevenue. Specie is prohitited from heing carried coantwise; merchants who wish to deposit cash in one of tho northern ports, where the lurgest purchases are mado, are therefore forced to tako hand biils, and pey a premium for them, varying from 3 to 5 jeer cent. Somo enormous capitais have theen amassed; but generaliy the sieculations of the native unerchants are comfucted on a very linited acale. The legal rate of interest is 6 per cent.; but money can seldom be olstained under 12."-Caznctevugtis Trarrla in South A merica, vol. i. p. 58-59.

River. A river is a current of fresh water flowing in a bed or channel from its monrce to the sea. The term is appropi ted to a conslderabie collection of
waters formed ly the conflux of two or more brooks, which deliver into its channel the anited streams of several vivulets, which have coliected the supplles of several rills trickling down from numberless springs, and the torrents which carry off from the sloping grounds the surplus of every shower.

Rivers form one of the chief features of the surface of this globe, serving us voiders of all that is immediately redundant in our rains and springa, und also as boundaries and barriern, and even as highwaya, and in many countries as plentiful store-houses. They also fertilize our soll by laying ujon our warm banks the richest mould, brought from the high mountaina, where it would have remained uselcsa for want of genial heat.

Riz Dollax ( $n$ corruption of German rrichsthaler, or dollar of the empire). A sllver coin of different values in tifferent countries.-See Coins. By authority of Congress, the value of a rix dollar of Denimark is iut at 100 cente, and the rix dollar of Bremen at ift cents.

Road, in Narigation, a hay or place of anchorage, at some distance from the shore, whither vessels occasionally repair to receive inteiligence, orders, or nec ensary supplies, or to walt for a fair wind. The excellence of a road consists in its being protected from the reigning winds and the aweil of the sea, in having a good anchoring-ground, and being at a competent distance from the shore. Those whieh are not sufficiently protected are termed open roads.

Roads, pathways formed through the country with more or less art and care, for facilitating the transit of individuals, carriages, etc., between different piluces. They are of every variety of form-from rude, narrow, rugged, and unformed paths, carried over mountuis, interrupted ly every petty rlvulet, and almost imprac. ticablo to any but foot-passengers, to smooth, broad, nnd lovel ways, formed of solld materials, winding round or cut throngh momutains, and carried ever swanps and rivers at an imumense expense, and ndnitting of the oasy passage of carriages and of all sorts of gools. The laying out of improved roads, and their construction, forms an linportant part of what is denominated the acience of civil engineering. But us it would be quite foreign to our purpose to enter into any details as to the formation of roads, we shall sutisfy ourselves witi laying liefore the reader the following stntements as to their importunce in a commercial joint of view.

Importance and L'tility of improred Roads.-Next to tho introduction of monoy, and weights and measures, the formation ef good roads and bridges gives the greatest facility to commerce, nnd contributes more 10 werfully, perhap, than nny tiling else to the progress of ..provement. They havo been denominated national veins and arteries; and the latter are not more indispensable to the existence of Individmals than inproved commanicutions are to a hoalthy state of the public economy. It wero vain to uttempt to point out in detail tive various udvantages derived from the easy means of communication. There is not a single district that is nut indebted to othera for a jurgo part of its supplies, evell of some of the bulkient commorlities. Hesides the coals, metuls, minerais, timber, corn, etc., conveyed from one part of the empire to another by sea, inmense quantities are conveyed from place to placo in the laterior ly roads and cminals; and overy improvement edfected in the means of conveyance has obviously the sane effect upon the cost of commoditien that have to be couvryed, as an inprovement in the methods hy which they are raised or manufactured. Wherever the means of internal commanication ure deficient in a country, the inhabitants must unavoidably disperse themseives over the surfaco. Cities wero originuily founded by individuais congregating nore, perhajis, for the snke of mutual defense and protection than for any ether cause. But in countries whore goal government is estabiished, and property is secure, men reart to cities uniy from a sense of tie advantages they afford. The
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acaie on which butiness is conducted in them presents facilities that can not be elsewhere afforded for making a fortune; and the extent to which the aubdivision of empioymenta is carried opena a field for the exercise of all sorta of talent; at the same time that it improves and perfecta ail aorts of arta, whether aubaervient to industrious or acientifio pursuits, or to those of pleasure and dissipation. It is this that attracta the aapiring, the induatrious, the gay, and the profligate, to citiesthat fills them with the best and the worat part of the species. The compotition that takea place in a great tuwn, the excitement that is constantily kept up, the collision of so many minds brought into immediate contact, and all endeavoring to outsirip oach other in their respective departmenta, develops all the resources of the human mind, and renders a great clty a perpetually radiating focus of intelligence and invention. There are, however, conaiderable clogs upon the continued increase of cities. The food and fuel made use of by the inhabitants, nud the raw products on which their industry is to be exerted, must all como from the country; and according as the size of a city increases, the distances from which its supplios have to be brought hecome so much the greater, that uitimately the cost of their conveyiance may be so great as to halance or exced the peculiar advantages resulting from a resldence in town. Ilence the impossibility of a large or even a considerable city existing any where without possessing extenaive meana of communication either with the aurrcunding country or with other countries; and hence, too, the expianation of the apparently singular fact, of almost all large cities having been founded on or near the sea, or a navigable river.

The influence that the growth of a large town has upon agricuiture is great and ath cking. "In the neighborhood," saya Paloy, " of trading towns, and in those districts which carry on a communicution with tho markets of trading towns, the husbandmen are busy and skiliful, the peasantry laborious; the land is munuged to the best advantage, and double the quanticy of corn or herbage (articles which are uitimately converted into human provision) raised from it, of whut the same soil yields in remoter and more neglected parts of the country. Wherever a thriving sanufactory finds means to establish itself, a now vegetation springs up around it. I belleve it is true that agriculture never arrives at any considerabie, much less at its highest, degree of perfection, when it is not connected with trade; that is, when the demand for the produce is not increaged by the consumption of trading cities."-Moral Philosophy, hook vi, c. 11. But the fact of their being mainly conducive to the growth of cities is not the oniy advantage which improved roads confer upon agricuiture. Without their aid it would be impossible to carry to distant piaces sufficient auprplies of such buiky and heavy articles as lime, mari, sheils, and other manures necessary to give fuxurianco to the crups of rich soils, and to render those tiat are pour productive. Not only, too, would inferior roads lessen the market fur furm produce, and consequently the quantity ruised, fut a larger proportional number of inorses or other cattle would be required to convey the diminished produce to market. It is plain, therefore, that good roads are boti directly and indirectly a jrime source of agricuitural improvement; directiy; by increasing the quantity and reducing the cost of manure, aud by increasing the quantity and reducing the cost of conveying farm produce to market; and indirectiy, by providing for the growth and indefinite extension of cities and towns, that is, of the marketa for agricuitural prodnce. Increased speed of conveyance is one of the principal advantages that have resulted from the formation of good roads, the invention of steam-packets, etc. Suppose that it takes two days to travel by an uneven, ili-made road between any two places, and that, by improving tho road, tho journey may be nccomplished in one day ; the effect is the same
as if the distance ware reduced one half; and there is not only a great saving of time to travelers, but also a great saving of coat, from the more apeedy conveyance of commodities. This latter is a point of much more imporiance than is commonly supposed. It is not posaible to form any correct entimate of the value of the products that are constantly in the act of being carried from place to place. It is certain, however, that it is very great; and every addltional facility of conveyance, by bringing auch products more rapidly to their deatination, and enabling them to be sooner applied to the purposen for which they ara intended, renders large quantities of capital availabie for induatrious purposea that would otherwise be locked up.--See articles IAilroads and Canals.

Rolling. In Naral language, the lateral osciliation of a vessel. This motion, whieh is often very great when the vessel is running before the sea, endangers the masts, strains the sidea, and loosens the decks at the water-ways; it is aiso liabie to cause the guns to break adrift. When the contre of gravity is too low, the oscillations begin and end violentiy. The changes in the stowage necessury to modify the nature or extent of the roll are made by seamen from experimontal knowiedge.

Rolling Taokle. A tackle or puliey hooked to the weather quarter of a yard, and to a lashing or strap round the mast near the alings or parrel of the yard. The object of it is to keep the yard constantiy o cer to leeward, thereby depriving it of play and friction when the ship roils to windward.

Rope consists of hemp, hair, etc., spun into thick yarn, of which several strings aro twisted together by means of $a$ wheel. When mado very smali, it is calied a cord; and when very thick, a cable. Ali the different kinds of this manufacture, from a fishing-line or whip-cord to the cable of a first-rutn ship of war, go by the geaeral name of cordage.-Siee Cable.

Roses (Oil, Esaence, or Attar of), an oil obtoined by distilling tho leaves of damask roses. It is limpid, of a light orange coior, and has an extremely grateful and jowerful perfume. This, which is tho most expensive article of Oriental luxury, used to be principally made at Tunis and Ghazipore, in India. But though it be still very extensively produced at theso piaces, and more especinily at tho latter, what may be calied the foreign demand for the oil is now almost wholiy supplied by the districts of Eski Zara and Ilassansik, in liulgaria. There tho culture of roses is carried on upon a very large scale. Inasmuch, howover, us it is said to require about 300,000 roses to yieid an ounce of oil, tho quantity produced does not exceed 4500 lbs . in a good, and 3000 lbs . in an ordinary year. The genuine article fetches an enormous price; and is in consequenco very generally, or rather, we shouid say, uniformiy aduiterated. When the aduiteration is effected by means of the oil of geraniums and other fine volutile oils, tho fraud is not easiiy detected oxcept by connwisseurs, unless the foreign matter be in excess. Sometimes it is alioged that attar of roses inas been sold as genuino when above 80 per cent. of other oils was mixed up with it. That which is hawked about tho streets of Constantinopio and Smyrua is sejdom any thing letter than oiive oii scented with roses. Some of the more expert dealers in the article will tell within 2 per cent. the foreign oil in any parcel given them to examine. The valuo of the exports of this curious product from Turkey bas been estimated at from $\$ 400,000$ to $\$ 500,000$ a year,-Blangui, Voyage en Julgarie; II unt's Merch. Mag.

Rose-wood (Ger. Rosenholz; Fr. Bois du rose, de Rhode; It. Legno rodie; Sp. Leno de rosa; Port. Páo de rosado) is produced in Brazil; the Canary Islands; in Siam, whence it is protty largely exported by the Chinese ; and in other places. It is in the highest esteem as a fancy wood. The width of the log imported into thia country averages about 22 inches, 80 that

It must be the proince of a large troe. Rose-wood has alightly Wtterish, somewhat puigent, balsamile taste, and fragrant amell, whence ita name. It ahould be chosen sound, heary, of the deepest color, In tha largent piecen that can loe procured, and of the most Irregelar, knotty grain. The small, Hght-colored, and large ahivered plecen should be rejected. The more diatluct the darker parte are from the purple red, whleh forms the ground, the mone is the wood esteemed. I la uaually cut Into veneers of nine to an inch.-min nunx's Orient. Comwn., ete,

Rosin. This aubotance is olitained from different peclew of fir; as the Pinua abies, aydvestric, Larix, balsamea. It ia well known that a realnoua juice exudea from the I'inus sylreatris, or cummon Scotch fir, whleh hardens Inte tears. The same exudatlon appears in the Pinus abies, or apruce fir. These teare conatitute the antistance called thus, or frankincense. When a portion of the bark la atripped of these trees, a liquid juice flows out, which gradually hardens. The juice has ohtalned different names, according to the plant from which it comes. The Pinus sylvestris ylelds common turpentine; the larix, Venlce turpentine (mee Tunirentise); the baloamea, bulaam of Canada. All these julees, which are commonly distinguished by the name of turpentine, are considered as composed of two ingredients ; namely, oll of turpentine and rosln. When the turpentine ia diatilled, the oll comes over, and the roaln remains belind. When the distllation is contlaued to dryness, the residuum is known by the name of common rosin, or colophonium ; but when water is mlxed with it while yet tuld ind incorporated by viokent agitatlon, the mass in call ad yellow rosin. During winter, the wounde made in the fir-trees become incrusted with a white, brittle subatance, called barras or calipot, conslating of roain united to a amall portion of oil. The yellow rosin, made by melting and agitating thls aulsstance In water, is preferred for most purposes, becsuse It is more ductile, owlng, probably, to its still containIng some oil. The uses of rosin are numerous and well known.-Tnomaon's Chemindry. See Naval Stores.

Rostock, the prinelpal elty of the (irand Duchy of Mecklenburg Schwerin, on the Warnow, about 9 miles above where it falls into the Baltle, lat. $51^{\circ} \mathrm{N}$., long. $12^{\circ} 12^{\prime}$ E. I'opulation In 1837, 18,067. A large falr for merchandise la annually held at Whitsuntide; and there are wool falra at other scasons of the year. Ite outport of Hostock ls at Warnemunde, at the mouth of the Warnow. The depth of water at the latter varies from 101 to 12 feet; lut when the west pier, now in the courae of being constructed, has been completed, It is expected that the depth of wates will be from 12 to 14 feet. The depth of water In the river from Warnemunde up to Roatock is usually from 8 to 0 feet ; so that vessels drawlig more than this muat lie lightened to get up to the latter. Rostock has a grood harbor and commodious quays.

Imports.-The princlpal articles of import are sugar, coffie, and other colonial prolucts; cottons, woolens, and harlware, with conl, earthen-ware, salt, Iron, horsea, etc., from England; hemp, flax, tallow, oll, sail-cloth, etc., from Russia; alum, deals, timber, lime, tar, etc., from Sweden ; herrings and fieh oll from Norway ; wins, brandy, molassen, Ilruga, etc., from France; with rice, rrm, grocerien, etc., from Copenhagen and IIamburg. The total value of the Imports by sea may be estimated at abont $\mathbf{~} 250,000$.

Erporta.-'These consist chiefly of very good red wheat, barley, peas, rapeoseed, and a few oats; with wool, rags of a very superior quallty, oil-cake, rapeooll, bones, etc. The erports of wheat amounted In 1840 to 97.660 quartern, and in 1841 to 124,267 . In 1840, the exporta of peas from Hostock only were 9503 quarters ; but from the duchy they amounted to 48,013 quarters ; but at an average thelr export does not exceed from 20,000 to 25,000 quarters. The export of bonce amounted during the sanne year to $1,500,000 \mathrm{los}$.

At an average, the value of the arports may be eatl mated at $\mathbf{2 3 0 0}, 000$.
Shipping.-The port of Roatock In 1840 had- 230 shlpe, of the burden of 86,882 tons, which trade with mont European natlons, the United Statea, and Brazll. In 1885 there entered the port 540 shipm (burden not atated), of whleh 215 belonged to Macklenhurg, 152 (montly mmall eraft) to Denmark, 83 to Swedon, 27 to Ilanover, 18 to Prustia, 12 to Ruesia, 19 to Itolland, 10 to Labeek, 2 to Hamburg, and 1 aach to France and Euglund. It fe only, in fact, when our portn are open to the Importation of foreign corn that IIritiah ahipa are met with in conalderable numbers in the ports of Mlecklenburg.

Port Charyes.-These are the mame on native and privlleged ships, among which are Incloded those of England, France, Amarien, Prusala, Norwsy, etc. The port chargen on a veasel of $\mathbf{1 0 0}$ tons burden are as follow, viz.:

|  | Priviloged. | Not privilegent |
| :---: | :---: | :---: |
|  | Mix libl. Beh. | Mix Doi. Beh. |
| limward with cargo ........... | 10 g | 10 y |
| Gutward ditto . . . . . . . . . . . . | 23 44 | 32 |
| laward in ballant | 12.6 | 19 |
| Ontward ditto | 1936 | 3110 |
| Dito wlthont either. . | 17 32 | 25 42 |

Duties.-These are extremely moderate, On most Imported artlelea they amount to only 3 per cent. ad ralorem. An export duty of about 5 d. per quarter is charged on corn, and of about $4 a, 8 l$. per hhd. on wlue. Wool la not autiject to any daty on export. Gosods imported in vessels not privileged pay 60 per cent. additional on the uliove dutien that ln, they pay $4 \frac{1}{2}$ instead of 3 per cent. ad ealorem.

Wismar, the second sea-port town of Mecklenlurg, at the confluence of the Wiver Stor with the aca, in lat. $53^{\circ} 49^{\prime} 25^{\prime \prime}$ N., long. $11^{\circ} 36^{\prime} 15^{\prime \prime} \mathrm{E}$. Population 11,000. The harbor of Wismar ls commodious and nafe, belng nearly land-locked by the islands of I'uel and Waliseh. Close to the town there is from 8 to kt feet water: in the inner roaila there ia from $12 t_{0} 13$ feet; and in the outer from 16 to 20 feet water. The port charges on a native or privileged veasel of 100 tons amount to about 80 rix dollars. The artleles of import and export are the sume at Wlamar as at Itostork; but owing te the proxlmalty of Labeck, from which Wismar is not mere than 27 miles distant, her foreign trade is comparatively limited. About 35 ships, of the burilen of 4800 tona, belong to thla port. There eleared from It in 1885227 shljse, of which 11 were Inglish. The dutles at Wismar are some what higher than at lostuck, being $4 \frac{1}{1}$ per cent. ad ralorem on colonial products, snd from $4 d$. to $8 d$. per quarter on corn exported. It is belleved, however, that they will shortly be reduced to the Kostock level.

Trade of the Juchies.-Meeklenhurg ls essentialiy an agricultural, wool-growing, grazing, and breeding country. In son places it is aundy and barren; but It is for the mos. art very fertlle, and the erojis and pastures are both luxuriont. IIaving few manufactures, her imports necessarily conslst principally, as already atated, of manufactured giods, and her exports of raw proluce. Owing, however, to the circumstance of the southwestern part of the province being tounded by the Fille, and approaching to within about 80 miles of Hamburg, almoet all the manufactured goois, as well as a very large proportion of the colonial 1 polucts used liy the population ( 550,000 ), are lingorted by way of Hamburg. Hence, in Mecklenhurg, as in I'russia, the direct forelgn trade carried on by the sea frontier forms but a very small part of the entire trade of the country. It is limposslble, however, to form any preclse eatimate of what the latter may amount to. J'robably there is no Furopean country so little fettered by customs regulations as Mecklenburg. The duties on articles hnported hy sea amount only, as ulready atated, to about 3 per cent. ad ralorem; and those entering by the land frontler aro subject merely to a tri-
filigg charge， 1 ，account of toll，of which wa have not zeen any account．It is imposalbie，indeed，that any commercial syatem ean be bottomed on more liberal principles ；and this enlightened policy，and her situa－ tion nuar the mouth of the Eibe，and on the weatern frontier of tha Pruasian league，give to Mecklenburg fur greater importance，an a commerclal state，than is insilicated by the amount of her population or har in－ ternal consumption．
Rotterdam，on the north bank of the Maeae，in lat． $81^{\circ} 85^{\prime} 19^{\prime \prime}$ N．，long． $4^{\circ} 29^{\prime} 14^{\prime \prime}$ E．Population in $1850,82,000$ ？Rotterdam is the ancond commerclal city of liolland．It is more advantageously situated than Austerdum，belng nearer the see $;$ and the canala
，Liverpool，IIull，Leith，Havre，Hamburg，ete．
 colontal l＇monueg－（Fhom tia Monthly Mahket lievew，Januagy 1，1563．）

|  | Imports． | Imports． | tmperts． | Importa． | Importa． | Importa | Importa． | Slocke，sint December． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Coffee，Fiant Indta．．．．．．．．．bagm | $\begin{gathered} 1446 . \\ 334,800 \end{gathered}$ | $\begin{gathered} 1447 . \\ 801,660 \end{gathered}$ | 1848. 82， 7,600 | $\begin{gathered} 1449 . \\ 021,600 \end{gathered}$ | $\begin{gathered} 1480 \\ 244,100 \end{gathered}$ | $\begin{gathered} 1881 . \\ 046.109 \end{gathered}$ | $\begin{gathered} 14019 \\ 800,000 \end{gathered}$ | $1 \times 69$ $139,000$ |
| Coftee，Wieat laula．．．．．．．．． | 24.690 | 87． 520 | － 2,116 | $02 ., 000$ |  | 34.109 | 306，000 |  |
|  | 28,090 2,500 | 81,020 1,696 | 48,16 950 | 10,000 $\mathbf{2 , 0 0 0}$ | 28,190 784 | 25,800 2,0169 | 6,100 8,100 | ．．．．． |
| Tea．．．．．．．．．．．．．．．．．．．．．．gr．cherta | 16，115 | 17，405 | 20，800 | 21，703 | 84，25！） | 90，906 | 31，4069 | $\ddot{8,606}$ |
|  | 111，072 | 147， 60 | 153，200 | 130，4\％ | 111，300 | 138，400 | 325， 000 | 45,700 |
| 10．．．．．．．．．．．．．．．．．．．．．．．．thercen | 2，980 | 3,948 | 3，200 | 2，5\％ | 0，420 | 4，760 | 4，200 | 190 |
| Pepper．．．．．．．．．．．．．．．．．． | 8，620 | 8,710 | 7.761 | 4.850 | \＄1，000 | 8,800 | 6，900 | 7，300 |
| 8 ughr．．．．．．．．．．．．．．tona of 1000 kilogr． | 30，750 | 23，5191 | 34，600 | 34，000 | 37，000 | 45，750 | 29，759 | abt．4，000 |
| （ootton ．．．．．．．．．．．．．．．．balea | 3，2\％ | 2，916 | 7，84 | 9，575 | 8，510 | 7.410 | 14，926 | 8，710 |
| Tobaceo，Maryland．．．．．．．．Shda． | 4，074 | 6，577 | 5,063 | 8，404 | 5，157 | 3， 1993 | 1， 143 | 1，983 |
| 10．Vtrginla．．．．．．．．． | 612 | 1，203 | 63 | 1，0：6 | 1，045 | 514 | 2，184 | 183 |
| Tie．Kentreky．．．．．．．．．＊＊ | 198 | 200 | 683 | 624 | 153 | 787 | 370 | 75 |
| 110．Rtems． | 73 |  | 975 | 2815 | 2.5 | 201 | 117 | ．．． |
| Do，Jsva ．．．．．．．．．．．．．papkagen | 4.807 | 6，609 | 8.544 | $5,80.3$ | 1，215 | 4.785 | 4，130 |  |
| Ifldes，Fast India，．．．．．．．．ploces | 22，154 | 46，188 | 70， $6: 10$ | 44，1072 | 69， 5159 | 91，414 | 73，403 | 22，7！0 |
| Ho，West Indla $\ldots$ ．．．．．． | 7，270 | 5，044 | 500 | 1，100 | 193 | 5，463 | 0，848 | 8，275 |
| ofl，Nouth Sea Whalo．．．．．．beets， | 26， 816 | 21.704 | 22，304 | 22，700 | 1，690 | 15，490 |  | －＊1 |
| Indtgo．．．．．．．．．．．．．．．．．．chita，\＆bxe． | 5,784 | 7，009 | 6，648 | 3，724 | 8，572 | 8，839 | 3，041 | 174 |
| Anhes，U＇ntted 8tatea，pots．．barrels | 8，67\％ | 9，085 | 3，200 | 2，382 | 2， 0006 | 8，180 | \＄109 | 310 |
| Jlo．do．peraris | 898 | 303 | 350 | 291 | 403 | 903 | 619 | 102 |
| flo．sundries．．．．．．．．．．．canks | 20 | 532 | 1，090 | 329 | 1，001 | 712 | 5，172 | 2,047 |

 ANi 1852.

| 81st December． | 雨 | 安 | 意 | 형 | 品号 | 宫要 | 总呂号 | 部豆晋 | 赹嵒 | ct | 呂号号 | 易鹌 |  | $\begin{aligned} & \text { y } \\ & \text { a } \end{aligned}$ |  |  | 晨 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ainiterda | 7，761 | 29，1002 | 5110 | 325 | 490 | 00 | 14 |  |  | $2 \times 1 \times$ | 151） | 143 | 2651 | $2(16)$ | 31 | 251 |  |
| troturdat | B，802 | 8，506 | 945 | 81 | 321 | 01 | 44 | 34 | 22 | 80 | 24 | 30 | 100 | 62 | 23 | 4 | 19 |
| \％Dordrech | 350 | 954 | 11 | 95 | 79 | 204 | 87 | 4 | 15 | 18 | 14 | 20 | 752 | 88 | 52 | － |  |
| ¢ 8chledam．．．．．．．．．．．．．．．．．．．．． |  | 10，007 | 1517 | ．． | ．． | ．． | ． | ． | ．． | ．． | ．． | ．． | ．． | ．． | ．． | ． | $\ldots$ |
| （l）elftahaven ．．．．．．．．．．．．．． | 232 | 730 | 260 |  | $\cdots$ | $\because$ |  |  |  |  |  |  | －． |  |  | ． | ． |
| Total las | 14，203 | 40,270 | 4613 | 501 | 890 | 345 | 05 | 88 | 37 | 3.5 | 189 | 119 | 2502 | 2750 | 10.5 | 254 | 19 |
| S Ampterdan | 10，205 | 81，235 | 71.8 | 287 | 3 |  |  |  |  | 1 | 39 | 12 | 8130 | 2510 |  | 800 | 200 |
| －liotterdam | 5，082 | 7，151 | 57．） | 4.4 | 578 | 33 | 10 | 13 | 6 | 8 | 49 | 24 | 2：5 | 100 | 8 | ， | 27 |
| \％ 2 lordrecht | 080 | 805 8.298 | 11 | 35 | 86 | 01 | 8 | 2 | 2 | 12 | 12 | 12 | 1414 | $1: 5$ | ．． | ．． | ． |
| －Achledam． | 130 | 8，238 | 507 | － | ． | ．$\cdot$ | ．$\cdot$ | $\cdots$ | $\cdots$ | $\cdots$ | ． | ． | ． | $\cdots$ | $\cdots$ | ． | $\cdots$ |
| Total lasta． |  |  | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  | ． | ． |  |  |  | $\cdots$ |  | $\cdots$ | ． |
| Total lasta | 16，923 | 38，214 | 1915 |  | 1482 | 04 | 18 | 16 | 8 | 87 | 62 | 4 | 183．） | 2806 | 8 | 303 | 997 |
| Amsterd | 0，490 | 18，300 | 700 | 19 | 180 |  |  |  |  |  |  | 170 | 3300 | 1760 |  |  |  |
| ai Iotterda | 3， 1.41 | （0，48） | 140 | 121 | 089 | 2 | 13 | 28, | 8 | 07 | 0 | 8. | $\xrightarrow{238}$ | 208 | 3 | $\ldots$ | 10 |
| 12 Wordrech | 278 | 83） |  | 118 | 85 | 28 | 03 | 2 | 2 | ．． | ．． | 15 | 1577 | 212 | ．． |  | 21 |
| － $\begin{aligned} & \text { Selifidam．．．} \\ & \text { Indftshaven }\end{aligned}$ | 1 | 1，114 | 70 | ． | $\cdots$ | $\cdots$ | － | $\cdots$ | $\cdots$ | ． |  | $\cdots$ | － | ． | ． |  | ． |
| Total last | 10，835 | 35，0，15 | 1852 | 0\％9 | 1754 | 28 | 81 | 8） | 11 | 67 | 11） | 271 | b107 | 2196 | 11 | ．． | 31 |

－See Holland and Amstehbim．
－The stoeks in Amsteriam inciade the qunntities on haod at \％anndam．

Rouble，a Russian coin．（For the silver roullo， see Conss，division Russian；the value of the paper roulile is variable．）Ily the official valuation of tho paper rouble，in the puyment of taxes，a few years since，one silver rouble was equal to three roubles six－ ty copecks paper．Ily authority of Congress，the value of the Russian ronble formerly was fixed at 75 cents．

Rouge（Fr．Fard）．The only cosmetic which can he applied without injury to brighten n lady＇s conn－ plexion is that preparefl，by the following process， from safflower（Carthamus tinctorius）．The flowers， ufter being washed with pure water till it comes off colorless，are dried，pulverized，and digestel with a weak solution of cryatals of soda，which assumes there－ by a yellow color．Into this liquor a quantity of finely－ carded white cotton wool is planged，und then sa much lemen juice or pure vinegar is added as to supersaturate
the sola．The coloring matter is disengaged，and fulls down in an impalpable powder upon tho cotton fila－ ments．The cottun，after being washed in cold water， to remove some yellow coloring partinles，is to be treat－ ed with a fresh solution of carbonate of soda，which takes up the red coloring matter in a stute of purity： Hefore precipitating this pigment a second time by the acid of lemons，some soft powdered tale should be laid in the bottom of the vessel，for the purpose of alsorb－ ing tho fine ronge，in proportion as it is separated from the earbonate of soda，which now holds it dissolved． The colored mixture must be finally triturated with a few drops of olive oil，in order to make it smooth and marrowy．Upon the fineness of the tale，and the pro－ portion of the safflower preclpitate which it contains， depend the beauty and value of the cosmetic．The rouge of the above second precipitation is received
sometimes upon bits of fine-twisted woolen stuff, called crepons, which ladiee rub upon their cheeks.

Row', to propel a boat by oars. Rowing is reckoned the most favorabie application of human strength ; the whole force is, however, not effective on the oar, us the part inside the actual fulerum, which is in the water, acts as a back water. Some nations take short strokes, which they rise up in making; a long stroke sitting, to sny the least, auves much exertion. As the theory of rowing involves the resistance of fulds, It is necessarily defective.

Royal, in Naval affairs, the sail above the top-gallant sail. The term royrd is also applied, in artillery, to a kind of small mortar.

Royal Exchange, London. The foundation of the original editice was laid by Sir Thomas Gresham, June $\mathrm{T}, 1566$, en the site of the ancient Tun prison. Queen Elizabett isited this Exchange in January, 1571, abll by the sound of trumpets her h wald named it the Royal Exchanon.-Hume. This grard fabric was totally destroyeod : The great fire $\ln 1660$, jurecleely a century after its .an icana. Charles Il. laid the foundatlon of the next edifice, October 23, 1667, which was completed by Mr. IItw kesmoo, a pupil of Sir Christopher Wren, in slout three years; and it was repuired and beatatified in 1769. This last also became a prey to a destructive fire, January 10,1838 , and was burned to the ground, with a number of public oftices and adjolning houses. The new Royal Exchange, commenced in 1840, under the direction of Mr. Tite, was opened by the queen in state, accompanled by lier ministers and a grand civic processlon, October 28, 1844.

Ruby, a precious stone, verjं highly esteemed; but under this name a variety of minerals have not unfrequently been sold, whlch differ casentially in their characters. The Oriental ruby is, in fact, a red variety of the sapphire. When perfect, its coior is a cochlneal red, presenting a richness of hue the most exquisito sud aurivaled: it is, however, in general more or less pale, and often mired with blue: hence it occurs rose red, peach-blossom red, and lilse blue, pasuing Into the amethyst. It is harder than any sther minciral, except the diamond. Easily frangitle. Specific gravity from 3.916 to 4.283. Infosible befors the blowpipe. Oriental rubies of 10 carats are extremely 1 are aind valuable. One of 22 grains was sold for $£ 1 \mathrm{c} 0$. Rubies in lots, Indian cut, or sinail sizud, and of different qualities, are at all times to ix hau, and sell at from 15s. to 65s. a carat; lut a perfect atono of a carat, or 6 grains, may be leemed rare, and falls little short of the value of the diamond: nay, in some cases, rubies ef 2,3, n' 4 carsts, If rery fine, are moch searcer, and even mors valuable than diamonds of equal welght. The finest ruby In Engiund, or peohaps in Europe, is in the collection of the late Mr. Hope, the author of "Anastasius." There are two other species of ruby, the spinelle and Baiais. When perfect, the spiaelle Is a gem of great value and scarcity. Its color is a fine full carmine or ruse red, but it never presents that rici, mellow thige that attends the Oriental ruhy. It is also inferior to the latter in hardness and speclfic gravity. Stones of 3 carats snd upwsed are very rare and valuable.

The hichis ruby is a pale variety of the spinelle. It varies in color from light red to yellowish red. Though not bo rare as the spinelle, it la by no means common. It is much admired for its agreeable tinge of color; und, when pure and perfect, fetches a very high price, though considerably less than the other varieties. Rulilea are not found in suy considerable quantity except in Ava.-Mane on Diamond; Thox son'z Chrmisry.

Rudder. A necvy flat plecu or frame of wood, hung upon the stern-post by means of pint es and gucgreons, for the gurpoes of steering the shif. The rudder is turned round the aterm-post as an axla, bjo the tiller, which enter the rudder-hesd. In vessels
drawing much water the rudder in aeep and narrow; in fiat-bottomed veasels it is shallow and broad. Wher carrled to a conskderable breadth, as in the Chinese vessela, it is pierced with holes, which preserves an increased leverage with a diminished direct resiatance from the water. When the rudder is broken off by the alip getting aground, or by a heavy sea, a temporary one is made lyy a topmast and other apers placed paraliel, and loaded at the bottom with plgs and ballast, and confined to the atern-post by hawsers leading on each side of the keel.

Rudder Coat.-A covering of tarred canvas loosely put round the rudder-head to keep the water from entering by the aperture, while it admits of the rudder being turned freely round.

Rudder Pendents,-Strong pleces of rope ending in chains, by which the rudder, if unshipped, is held to the ship's quarter.

Ruclder Shock.-A piece of wood fitting between the head of the rudder and tho rudder-bole, to prevent the play of the rudder in case of the tiller belng removed.

Rum, a well-known and highly eateemed spirituous liquor imported from ths West Indles, of which it forms one of the staple products. It is obtained by means of fermentation and distillation from molasses, the refuse of the cane juice, and portions of the cane, afier the sugar liss been extracted. The flavor and taste peculiar to rum are desived from the easentlal oils carried over in distiilation. When the distillatlon has been carelessly performed, the spirit contalins so large a quantity of the grosser and less volatile part of the oil ae to te unfit for use till it hes attained a considersble age. When it is well rectlied, it mellows turach sooner. Rum of a brownish transparent color, smooth olly taste, strong body and consistence, good age, and well kept, is the best. That which is clear and limpid, and hes a hot pungent taste, is either too new, sixed with other spirits. Jamalca run is the first in joint of quality; the Leeward Island $r \cdot m$, as it is cailed, being always inferior to it, both in flavor, strength, and value. The price of the latter is usually 20 per cent. below that of the former. It is customary, in some of the West Indis Islands, to put slleed jineapples in puncheons of rum: thls gives the spirit the flavor of the fruit; and hence the deaignation pineapple rum. Kum is also proluced $\ln$ snd imported from the Mauritius and the liast Indles; but tiat of the latter Is riore nearly allied to errack than to getuine rum.

We know nothing about the origin of the word rum. or the time at whlch the manufacture of the splrit commenced. At present the manufacture is chietiy carried on In the islands belonging to Great Britain. Ir. Ure states that in Jamaica tite wort ls made by adding together 120 gallond of molasses, 1000 gailons of the spent wash of a former distillatlou, 720 gallons of the skimmings of the sugar toilers, and 160 gallons of water; so that there is in the wort nearly 12 per cent. of solid saccharins matter. Other proportions, however, are used, bringing the proportion of anccharine matter up to nearly 15 per cent. ; as, for instance, 100 gallons of mola-ses, 300 gallons of akimuings, 200 gal . lons of spent wash, and 400 gallons of water. The proportions vary in almost every estate, so that ay certain rule can be laid down. The fermentation is in general conductad very slowly (ajparently very unnecersarily so), occupying from nine to fourteen days. The asccharine matter is, thoreforo, very inaperfectly converted into alcohol, and the yield of spirit is usually so low as 116 gallons of proof-spirit for every $1: 00 \mathrm{gai}$. lens of wash. On some eatatea, and depending on the price of sugar in the market, the greater proportion of the sugar is converted tinto rum; and the sane imperfect fermentation being followed, the average yield is said to be only 240 galluns of rum for every three hogsheads of augar, whereas the proportion ought to be very nearly duuble. It ly from the skimmings, which
are rich in aroma, that the pecnliar flavor of rum is de- | foreign wares, than to native enterprise, for their origin rived; for it is a curioos fact that augar and molasses distilled in this country yield a spirit entirely deatitute of all rum flavor, and in nothing distinguishable from the ordinary apirit derived from graln. Any depth of color may be given to the rum by the addition of molasses or caromel, though it is commonly but ermneously stated that the color of the rum is derived from the oak casks.-See Spinita and Wine.

The manufacture of rum entirely of sugar or molasses is not carried on in Great Britain. The number of gallons of rum manufactured in Great Britain during the year ending January 5, 1854, of a mixture of sugar or molasses with unmalted grain, was as follows:


Expobth of Rum fron the Unejed States for the Yeas endino Jung 80, 185 T .

| Whithor exported. | Splrita Irom Molabess. |  |
| :---: | :---: | :---: |
|  | Gathoxir. | Dollars. |
| Danish Weat Indtes. | 2,96\% | 1,048 |
| 11 mmburg | 200 | 00 |
| Bremen | 13,087 | 0,417 |
| E.ngland | 6,270 | 8,135 |
| Glbrattar | 43,426 | 20,740 |
| Malta | 109,924 | 57,024 |
| P'ritinh North Amer, loseesslons.. | 103,103 | 100,700 |
| Britsh West Indies............... | 17,352 | 0,705 |
| liritish llonduraa | 5,552 | 4,504 |
| Britinh l'ossesslons in Afri | 140,836 | 72,140 |
| Britlsh Australla . . . . . . . . . . . . . . | 9,452 | 0,81:) |
| France on the Atlsnlte | 108,458 | 74,35) |
| Franee on the Mediterranean. | 137,835 | 88,753 |
| French Yortit Amer. 1'ossesalons. . | 50,104 | 24,415 |
| P-enen W゙est Indles. . . . . . . . . . . . | 8,431 | 3, ${ }^{(6) 5}$ |
| Camary lslands | 8109 | 857 |
| Cuba . . . . . . . . . . . . . . . . . . . . . | 800 | 15.5 |
| Mateir | 4,201 | 1,96 |
| ('sje do Verd Islands . . . . . . . . . . . | 27,135 | 12,162 |
| Sardinta | 41,764 | 25,34 |
| Two SIcillea | 5,647 | 3,237 |
| Anstria | 85,448 | 17.757 |
| Turkey In Enropa | 323,824 | 146,832 |
| Turkey In Asia | 233,654 | 110,17\% |
| Porta in Africa | 826,063 | 32.373 |
| llayti.. | 1,087 | 86 |
| New (iranads | 5,283 | 2,038 |
| Truguny, or Claplatine Jlepublic. . | 25,491 | 11,648 |
| Argentiae Hepublo . . . . . . . . . . . . | 0,156 | 8,750 |
| Lhills. | 2,04 | 1,271 |
| J'eru | 1,251 | 663 |
| Saudwich latands | 80 | 50 |
| Total. | 2,375,403 | 1,216,43: |

Rupee, a silver coin current in the East Indies, equal to from 50 to 60 cents. liy anthority of Congress, the value of tho rupee of British India was fixed at $44 \frac{1}{2}$ cents, and the sicca rupes of Bengal and the rupee of Bombay at 50 cents.
Russia. Thls extensive empire comprises the whelo northern portion of the esstern hemisphere, from the froutiers of Posen and the Gulf of Bothula on the west, to tho Pacific Ocean and Behring's Straits on che casi, It inchudes the greater part of the ancient 'ingilom of loland, Finland, Astrakhan, and Kazan, conquered from the Tartars; the Crimea, Iittlo Tartary, Bessarabia, and a portion of Moldavia, taken from t'urkey.

The lusslan empiro embraces nearly one-half cf the surface of Burope. It chiefly consists of an enormous plain, boing littic divorsified by rising ground, except toward the Urals and the Caucasus in the south and east, and in the province of Finland in he northwest. The northern part of the country is a coll and barren region of heatha and marahes ; the ceutral provinces aro rich and fertile; the southern, ware steppea, or brassy, sandy, and salt plains, which afford, however, in their hollows, along tho river-courses, phundatee of "xcellent pasturage for enttle and horsea. The population is chiefly agricultural or nomadio; anil the manafactures that aro to bo foind in some places nre inure indehted to the fostering care of the government, und the high import dutie*, or absolute prohibition of
and continuance. Russia is an immense military power, so far as that depends on the numbers of her armies; but the want of national wealth is such \& drawback on military enterprise as sho has not yet becn able to overcome.
The origin of the Rassians as a distinct branch of the Slavonians is a moot point among archæologista. They scem to have borne at one time the name of Antes, consisting of several tribes that formed a sort of confederation. In the 9th century, Ruric the Varangian established himself in Novgorod the Great; and his successors, extending their dominion by conquest, cstuhlished their capital at Kieff, where the dynasty reached the zenith of its power under Vladimir the Great, who introduced Christianity among his subjects, according to the creed and ritual of the Greek Church, A.D. 983 . His empire was subsequently overthrown by the Poles and Lithuanians, and the greater part of it remained eubject to Poland till the accession of the house of Romanoff. The eastern provinces beyond the Unieper were conquered by Tartars, and remained under their dominion till the 16th century. The city of Moscow was founded by Andrey I. in A.D. 1156. In the middle of the 15 th century, Ivan Vassiliwitz, Duke of Moscovy, recovered his independence, and having subdued a number of petty chieftains, and added the duchles of Tver and Novgorod to his dominions, assumed the title of Grand Duke. His grandson, of the same name, subdued the Tartar kingdoms of Kazan and Astrakhan, and assumed the title of Czar ar Great King.

During the last three centaries the successive dakes and czars of Moscovy and emperors of all the Russias have foliowed the same policy of extending their dominions hy every possible means, fair or foul. They have now declured themselves the heads and protectors of all the Slavonic races, and of the orthodox Greek Church, and seem to make no secret of their deep-laid project of unscrupulous aggrandizement. Their vaat dominlon now extends in length through $202^{\circ}$ of longitude, and in breadth through $38^{\circ}$ of latitudo, and is supposed to contain about $65,000,000$ of inhabitants, of whom five-sixths are in Europe.

The following is believed to be a correct estimate of the extent and population of this vast empiro:

| Natural Divisions. | Area in Engllsh square milen. | Population in 1S52. |
| :---: | :---: | :---: |
| Treat liussia | 328,781 | 211,413,871 |
| Littlo liuskia | 160, 141 | 11,75, , 06 |
| New Rnasia. | 96,430 | 8,257),012 |
| Whito Rumeja | 70,3\% | 2,137,436 |
| Western provinces | 47,096 | 2,870,017 |
| latite provincea | 30,610 | 1,701,007 |
| Northern provinces | \$36,226 | 1,420,6.? |
| Irat provincea | 447,759 | 10,770,181 |
| Cosanck distri | 323,776 | 1,150,736 |
| Poland. | 4,2,30 | 5,150,543 |
| P'alan | 135, 803 | 1,416,199) |
| Totat in Europe | 2,022,4is | 03,012,140 |
| Caucastan province | 86,578 | 2,850,006) |
| Went silmerla ... | 2,681,147 | 3,500, 8 ma |
| Last Sllberla | 2,122,006 | 237,0040 |
| Anerican porscadona. | 371.1150 | 61,4610) |
| Total extra Enropea | $5,2641,175$ | 6,649,100 |
| Grand fotal. | 7,2S3,653 | 0),060,146 |

Tho rivers of Russia are ucreliy divided into tive groups or systems, correspond:ng to the seas in which they havo their embeuchures; viz., the Arctic Ocean, the Baitic Sen, tho Black Sen, the Caspian Sea, and the Paciffc Ocean. The first division comprises the Dwina, Mezen, nud Petchora, in Lurope; the Oli, Jenisoi, ant Lena, with nunerous other small rivers, in Asia: the three last have n courso of from 2000 to 2500 miles. The rivers which fall into the Baltic, though possesslng much inore commercial importance to lussia, are of inferior magnitude. The princlpal are-tho Neva, which has St. Petershurg at its mouth, the Dana, and the Nicmen. Tho rivers which fall juto the Black Sen aro of
equal importance with thosa just named, and exceed them in length of course and velume of water. The princlpal among these aro the Dnlester, Dnieper, Bug, Don, and Kuban. The Velgs, in the basin of' the Caspian Sea, is the largest and mest important of the rivers of Russia. This extensive river has its sources in the government of Twer, about 180 miles south by east frem St. Petersburg. Its course is about 1000 leagues, while that of the Danuie is only about 450 . It is of vaet importance to the intel :al commerce of Russia. Its affluents, which are connected by aeveral canals with the Neva, establish a communication between the Caspian and the Baltic, White, and Black seas. Twe other rivers-the Ural and the Emba-have their embouchures in the Casplan Sea.

Sfaples.-The producta of Ruasia vary with the difference of soil and climate. Cereals of every kind are raised in great abunciance; but rye, being the cemmen food of the peasantry, is produced in much greater quuntities than any other sort of grain. The most productive provinces are Orel, Kasan, Nijnl Novgorod, Penza, Tambov, and Kursk. The total annual production of grains in European Russia (including P'oland) may be estirated in ordins y years at $1,495,000,000$ bushels, at a value of about si20,416,665. Flax and hemp are also extensively cultivated, and constitute a leading export of Russia. Tobacco is cultivated in the southern provinces, aud of late yeara much attention has been given to the cultivatien of beet-root. In 1848, the quantity of sugar manufactured from this article was estimated at $82,240,000 \mathrm{lbs}$. Tallow and wool are alse important articles in the export trade of Russia; of the latter, tre exports amount aunually to about $18,000,000$ lbs. The climate of Russia is not, however, well adapted to the productien of fine wool; and allbough much attention has been given to the improvement of the breed of abeep, Russia can net enter into competition with Australia in supplying fereign markets with thls article. The quantity of wool furnished by the Cape of Good Hepe colony, from 1840 to 1852 inclusive, was $48,859,748$ lbs. ; furnished by Australia in same period, $256,008,415 \mathrm{llm}$; hy Cape colony, in 1852, 7,772,505 lbe. ; by Austrulia, in 180̆2,

82,500,000 libs.; namber of sheep In Cape colony, 4,496,000; number of goats in Caye celony, $1,093,000$; number of sheep in Russia in Europe, 35,666,698; number of goats in Rusia In Europe, 1,188,173.
Manufactures.-The manufactures of Russia are not generally in a very advanced condition. In some departments of manufacturing industry, however, Russil oxcels all other countries. Every attempt $f$ initste her leathor, especlally such as is used for book sunding purposes, has proved a failure ; and Russin sill continues to onjny, as sho doubtless ever will, an undisputed monopoly' in supplying foreign markets with this valuable production. Her glase manufactures are also highly eeteemed. Single plates have beon manufuctured at the St. Petersburg glass-works which have readily sold for $\$ 3000$. Her other manufactures are sail-cleth, cerdage and canvas, tick, felt, mats, potaehen, sonp, candles, caviar, isingluss, spirits, and some miner articles for demestic consumption. The colton manufactures of Russia have made rapid progress during the past twenty years; and, instead of the vust quantities of cotton yarne formerly imported, she now imports largely of the raw material. In 1832 the quantity of raw cntton - Imported was 116,000 poods ( $4,176,000 \mathrm{lba}$.) ; in 1852 it agcended to $1,748,000$ poods ( $62,928,000 \mathrm{lbs}$.), of which she received from the United States $\mathbf{1 0 , 4 7 5 , 1 6 8} \mathrm{ibs}$. The total manufactures of Russla empley $6,1064,700$ pernons, of which number $4,500,000$ are engaged in the manufacture of flax and lemp. The totul annual value of Kussian manufactures is estimated at about $486,000,000$ silver roubies ( $\$ 364,000,000$ ). Moscow is the grand centre of this branch of industrial pursuits, and is inhabited almost exclusively by manufacturers and artisane.
The following tahle, translated from Russian official returns, will exhihit tho number and character of ma:ufacteries $\ln$ Russia, the number of werknen eminioyed, and the quantity and value of their productions, in the year 1852. It is proper to remark, thast the tuble gives enly the principal manufuctures which enter into the export trade of Russia. Those consumed in tie country, and numeroun miner masufactures, are omitted in tho following sumnary:
hlchblan Mantfautcaeb, yto.

| Denombination of Manafaeturen. | Nunther of Facturies. | Quantities manufactured. | Valum of Mann faclures in sil. ver Roubles. | Namber of Worknen. |
| :---: | :---: | :---: | :---: | :---: |
| Manifactarea of wootena (elotis) | 414 |  cloths: 12,844 pooxist of w colen yarn. | 19,12,4833 | 80,43 |
| Manufactures of woolens (tinaen). | 130 | 801,709 pleces anil $1,691,014$ architaca of woolen $\mathrm{ih}^{\text {a }}$. | 1, 12., | 8, |
| Manafacturem of colton yarns, |  | nuea : 8800 poode of yarn...................... | 8,231,457 | 13, 800 |
| thrond, ete. | 5 | $1,130,826$ poold of cotton thread, 88,150 plecen and 85,500 a rechlues of Hander. | 33 | \% 6 |
| Manufactures of cottonadea | 44) | 3,770,089 pleca $8,8,764,881$ arelinea, 18,317 doaen tinauea, and tiz3o prools of thread |  |  |
| Dyelng factorles | 34) | 6,785, 988 nrehlnes. $4,411,007$ pleces, $23,4^{\prime \prime} 0$ tozen, 160,986 pooila | 15,425,334 | 25, 867 |
| Factorien for wenving | 112 | 275, 196 pleces, 170,044 archinen, 1056 dozen thesues, |  |  |
| Manufactures of silike anil lirocades. | 638 | 1800 proda of thread. <br> 反,302,00才 nrehines, $1,270,101$ plecees, 8601 dozen of liskues, 888 pookla of silk thread. | 2,2390 $8,679,969$ | 12,450 15,682 |
| Manufacturen of cablea | 143 | 7:7, 844 poods . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,940,042 | 3,403 |
| Sannfacturea of pajur |  | 1,S83,305 reams, 50,484 poods, 710,134 wheetr, 40,000 packages of uastebonrit . | 3,028,976 | 14,942 |
| Manufacturen of tobacco | 345 | 182, 132 pooxin of tobaero, $205,025,250$ plecthe, 451, Kis loxes and packagen of elgarn anil clgarettas. |  |  |
| Founderies anil forgrat. . . . . . . . . | 115 |  provin of tron, and 39,731 poome of elexl. | 4,687,005 $8,6: 6,019$ | 4,861 27,679 |
| Sanufactares of hatiwarv. | 283 | $2,53^{n}, \cdots 9$ poodi, 223,810 plecen, and 5370 archines ah be whe whe | 2,254,219 | 12,n+4 |
| Manufe tures of empper. | 143 | 133,02a poods and 1,201,102 pleces. . . . . . . . . . . . . . . | 1,1846, 015 | 4, 24 |
| Manafactures of chuml | 109 |  | 2, 200,402 | 2,61: |
| Mannfacturea of moap. | 203 | 514,143 pooda | 1,22 12122 | tht |
| Yanufartures of nugar. | 804 | $2,418,238$ pooin of nugar, and 143,830 poodn of atrin | 14,815,013 | 45,311 |
| Nianufactures of glasa and cryatala | 13.) | $45,524,810$ plecen of glame diahem, piatea, ate., 88,014 covern, and 150,080 platew or sheeta of glans. . . . . | 8,387, 808 | 11.6 Rin |
| Tallow faclories | 634 | 2,14, \%R poodn. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $5,20,601$ | 4.811 |
| Canille fretorl | 48 | 1,174, 858 poode | 4,409.44 | 2. 2148 |
| Whx-candis fact | 15 | 24.68 pooda. | 1,57, $1, \mathrm{~m}$ | 1,264 |
| Taunerie | 2,032 | 4,250,321 pleces | 3, 124,74 | 14,515 |
| 0 Other | 3,148 |  | 111,043, 681 | 61,74 |
| Total | 10,389 |  | 161, 151,409 | 470, 141 |
| Total in tS51..... | 10,129 |  | 151,380,5060 | 465,116 |

The large manufacturing establishments are located iu the government of Moscow. The 1244 factories of this government give employment to 114,628 workmen, the annunl value of whose productions amounts to $\& 33,148,606$. In the gevernment of St. Petersburg there are 477 fuctories, mploying 24,681 workmen; annual value of productions, $\$ 24,728,565$. Before the commencement of the late European war, the foreign commerce of tils vast empire was very extensive. In 1852 the imports reached the sum of $114,778,829$ ailver roubles, and the exprorta amounted to $100,864,052$ siiver roubles. This trads gave employment to 17,162 vessels, measuring an aggregate of $1,659,200$ lasts.* Previous to the war, tha exports of Ruasia from the ports of th: Alach Ione amonuted to $80,000,000$ busheis of grain ar- ..._ly. There is no official or reliable information. ut iand which would indicate the diminution which Russian trade has experienced from the blockading measures of the allied powera. It is certain that not half the usual quantity of hemp, flax, and tallow can pass from the territories of Ruesia. There is at all times a considerable overland trade bcrose Prussia, but the heavy expenses attending the trunsportation of merchandise over this route muet necessarily confine its consmmption to the wealthier classes. The value of coffee, salt, sugar, stc., has been augmented to the most exorhitant figure; and these enhanced prices, with the expenses of land transportation superadded, must, in the event c: prolonged hostilities, $\dagger$ drive these articles out of general use altogether. These are, however, but the nuavoidable effecta of war; and as the phiianthropist must hope that peace ehall soon return, and the channels of commerce be again reopened, so the commerciai statistician must regard these interraptions to the peacefu' 'rade of the world as bat temporary and unflxed, and treat only of the permanent commercial regulations, and relations with foreign nations, of such countries as may come within the scope of his official duties. The commercial relations of the United States with Russia are regulated by the treaty of October 6 [18], 1832. Its stipulations provide for entire reciprocity and perfect commercial equality between the two couniries. It has been observed in good faith by both governments, and lta provisions and spirit fuithfully adhered to. The principal articles of export from Russia are tallow, grain, hemp, and flax ; timber; potashes; lesther ; fox, hare, and squirrel skins; canvas and coarse linen ; cordage, caviare, wax, leinglass; furs, tar, etc. The principal imports are sugar, cotton, cotton stuffs and yarns ; machinery for mllls, factories, etc.; hardwares and iron; coffee, Indigo, and other dye-stuffs ; woolens, oils, spices, wine, tea, lead, tin, cosi, and salt; linens, siiks, etc. The principul porta for foreign commerce are St. Petersburg and Riga, on the Baltic; Archangel, on the White Sea; Ketch and Taganrog, on the Ses of Azof; and Aetrukhan and Bnku, on the Caepian. The interior commerce of the empire has its principal entrepôt at Moscow ; and Kiachta is the centre of the trade with China. This trade with Chins is strictiy one of barter. The interchange takes place at the town named above, lying on the Sulenga, and at some distance from the great lako Haikal. The Russian merchandise and wares are here ior osited In warehouses, which are visited by the Chinese merchanta, with whom the interchange is effected.
None (anys McCulioch, in a work pubiighed in 1854) but native Ruseians are allowed to engage in the internal trade of the country; and hence a foreigner who imports goods into Ruesis must sell them to Russians only, and at the port where they arrive. The merchants engaged in the foreign trade are mostly foreigners, of whom the Engilsh are the princlpal. Every Ruselan carrying on trade muet be a burgher, and have hie name registered in the Burghers' Book. These

[^39]burghers aro diviced inte three gailds. Foreign merchants or gueste are permitted to enroli their nsmes in the city register, on the payment of from $\$ 900$ to $\$ 950$ per annum. The Journal of the Manufactures of the Empire, 1846, publiehed in Ruesia, gives the following information relative to these guilds:


Declared capital of those engaged in cummerce:

| Firsi guild. | \$0,675,000 |
| :---: | :---: |
| Second gulld | 10,273,500 |
| Third gulld. . . . . . . . . . . . . . . . . . . . . . . | 66,691,800 |
| Declared capltal of forelgn merehants . . | 382,500 |
| Total capital Inveated in trado | \$87,022,800 |

In the whois of European Russia nbout $7,000,000$ tchetwerts of grain are employed in the distillation of $64,000,000$ vedros ( $208,000,000$ imperial gallone) of brandy, nearly all for home consumption.
The tarlff regulations of Ruseia have during the past few years undergone several modifications. Under the tariff of 1841, the duties on most kinds of manufactures were equivalent to a prohibition. This tariff was entireiy remodeled in 1850; and In June, 1854, various other alterations and changes wero made, reducing still lower the duties prescribed by the tariff of 1800. These alterations and reductions are given down to the 23d June, 1854, the date of the last change in the Rusalan tariff; for which see Tariffs of Northern Europe, "Russia," Purt II. Prior to the year 1850, there was a separate tariff for Poland; but the imperial ukase, promulgating the tariff of 1850 , observes, in referenco to this kingdom: "In our constant solicitude for tho promotion of commerce and industry, we have jndged it expedient, with a vew to facilitate the interior, as well ns the exterior, relations between our faithful subjects of the emplre of Russia and the kingdom of Poland, to establish a uniform tariff of customa applicablo to the empire and kingdom alike, and to anppress the customs-line which has heretofore separated them." The only other separate turiff now in force in Ruasis is that which appiies to tho ports of the Biack Sea. For the purpose of comparison with subsequent tables, giving the commercial movements of Russia for lacer periods, the following table is annexed, exhibiting tho total commerce of tho empire with foreign countries, by land and sea, from 1832 to 1842, both Inclusive:

| Yonts. | lapports. | Exporta. | Total. |
| :---: | :---: | :---: | :---: |
|  | Franca. | Franca. | Franea |
| 1839. . . . . | 110,387,000 | 255,0,14, 000 | 446,08t,000 |
| 1833..... | 211,984,000 | 285,153,000 | 477,187,000 |
| 1834. | 240, $0.44,000$ | 243,491, 000 | 483,445,000 |
| 1835...... | 245,5-42,000 | $23,720,000$ | 485,2841,000 |
| 1836 | 261,87!, 000 | 804.003, 000 | 605,888,000 |
| 1837 ..... | 277,062,000 | 280,85\%,000 | 657,217,000 |
| 1838.. ... | $273,2100,000$ | 810,018,000 | 00, $, 918,000$ |
| 1831...... | 274,375,000 | 871,843,000 | 643,218,900 |
| 1949...... | 300,706,000 | 324,307,000 | 625,078, 000 |
| 1841...... | 317,7t8,000 | 845,529,000 | 603,247,000 |
| 1849..... | 838,000,000 | 881,100,000 | 06, 01000,000 |

If to the total for 1841 we add for specie inported, and the commerce of Poland and Finland, neither of which is included In the above table-about $100,000,000$ francs in ali - we shali have for that year a general total of neariy $\mathbf{7 6 0 , 0 0 0 , 0 0 0}$ of francs, or $\$ 141,860,000$. A comparison of the Russiat official reports from 1832-'83 (annual average) to 1842 , ne above condensed, shows that the general commerce of Russia has increased; viz., imports $4 f$ _ $z$ cent., exports 22 per cent.
Revenue from cuatoms and other sources is $1839,105,400,000$ $\because \quad " \quad 4 \quad 4 \quad 1840,161,420,000$

The amounts drrived from the diffarent branches of customs in 1841 were,



The following table exhibits in detail the principal fureign merchandise entering into the lmport trade of Russia, and also the value or quantities imported, in the years 1849, 1850, and 1851:

| Deac | 1849. | Inso. | 1861 |
| :---: | :---: | :---: | :---: |
| Coffee........... poods | 231,147 | 188, 196 | 228,8013 |
|  | 9,038,\%58 | 1,979,931 |  |
|  | ca |  |  |
| Winen and other liquors, value lo...... roublem |  | 8,09 |  |
| Fruits .......... | 8,462,5+1 | 8,012,198 | 8,045,119 |
| Cotton, raw .... poods | 1,554,919 | 1,200,738 | 1,812,956 |
| Cotton, whlte npma | 279,108 | 108,903 | 133,1765 |
| Dye-ntufis . . . . . roubl | 5,491,609 | 6,458,77T | 800,044 |
| Bilk............ pood | 16,894 | 15.618 | 11,091 |
| Wool | 60,8 | 61,290 |  |
| Tiesues, or woven goode: Of cotton. . . roublen | 4,448,349 | 8,999,515 | 4,486,981 |
| Of sllk.... ${ }^{\text {c }}$ | 4,448,007 | 4,288,187 | 4,466,911 |
| Of | 579,041 | 587,998 | 969,043 |
| Of | 2,201,688 | 1,988,705 | 1,788,904 |
| Machlne | 9,587,271 | 2.074,805 | 2,888,110 |

The augmentation which the official returns of Russia exhibis in cottons, dye-stuffe, wool, machinery, and tools, evince the progressive condition of Russian manufactures. It has already been shown that in 1832 the quantity of raw cotton imported into Russis was only 116,600 poods ; ln 1851 it reached 1,312,356 poods ; and in 1852 it ascended to $1,-48,000$ poods of 36 lbs . aach. In 1845 the importation of cotton yarma (chiefly from Englaud) reached 606,045 poods ; in 1851 this amount fell to 138,065 poods, making a difference of 467,080 poods, or $16,847,280$ lbs. The activity and progress of the cotton manufactures of Russin explain this great Calling off ir the quantity of cotton yarns imported, as the amnual diminution of the letter will be found to be proportionatr to the annual augmentation in the quantity af the former. An analysis of the returns of trade between Ruseia and the United States will also ahow an increase in this quantities of raw cotton imported by the forner, corresponding with the diminished importation of colton yame; our raw cotton suppiying to a great extent the different faciories in Russia. The following table, compied from the United Statee offirial authorities, exhibits tha cuantities and value of this atapie exported to Rusvia diryet from the United States:

| Yoars. | Cotton espurted to Rueda frum United Btaten. | Velan. |
| :---: | :---: | :---: |
| 154 | 9,76\%,768 16m. | \$2+1,454 |
| 1850 | 4,938,705 " | 641,222 |
| 1851 | 10, 1084,448 | 1,297,164 |
| 15.52 | 10,475,169 ${ }^{4}$ | 1104,346 |
| 1553 | 21,288, 1013 " | 2,254,345 |
| 1554 | 2,914:104 " | 301,293 |
| 15:5.. | 448,837 | 49,847 |

The war was formally dec!nred Mareh 31, 1804
The diminished quantity exportan to Pusaia in 1854 shows the effect of the war on the direct trade between the two countries. This, however, can be more fully shown by the following comparative suble, exhibiting the general trade between the two countries in 1853, 1854, and 1855 :
Total Valeio of nombatio Pbonece rxpouted moos the


An analysis of the foregoing figures will show that the dutien nmennt to about $88+$ per cent. on the totai value of importo. The following table exhibits the total value of products exported from Russia in European comnierce from 1811 to 1850 , and the share assigned to each country t

Cotton absorbed $\$ 48,647$ of this lasic sum. Besidea the domestic produce exported to Rusiia in 1855, there was also exported foreign produco to the ameunt of *20,414.

In 1854, exports to Russia from the United States consisted principally of two nrticles: Rice, $\$ 21,723$ in value ; and cotton, 8301,293 .

In 1853 we sent-Spermaceti oil, $\$ 7160$; lumber, 81485 ; dye-stuffs, 8648 ; hems and bacon, 9441 ; shipbread, 88268 ; rice, $\$ 5564$; cetton, $\mathbf{2 2 , 2 5 4 , 3 4 5 \text { ; tobacco, }}$ Leaf, 914,109 ; tobscco, manufactured, $\$ 1164$; sundries, \$18,991 ; total, $\{2,813,175$.

Wo here give the rxport trade of Russia for the years 1850 and 1851. The table includes oniy the principal articles exported, which are usually denominated Ruceian staples:
Exipots of principal Staples phom Rubsia in 1850 and 1851.

| Artielen. | 1850. | 1851. |
| :---: | :---: | :---: |
| Cora. . . . . . . . . . . . . ilver roubles. | 19,207,158 | 19,393,291 |
| Thed hlden.......... " | 1,052,829 | 1,298,121 |
| Haw hides.......... " | 1,054,626 | 838.693 |
| Flax................ poods. | 4,3017,618 | 8,013,784 |
| llemp ............. | 9,728,933 | 3, 0402422 |
| Tlimber . . . . . . . . . . . . roubler. | 8,797,576 | 3,519,203 |
| Copper . . . . . . . . . . pooda. | 114,976 | 110,905 |
| Iron................ * | T6T,050 | 748,054 |
| Pntash............. | 477,598 | 507,330 |
| Tallow............ | 3,313,873 | 2,908,438 |
| Ilemp and tinseed... tehetwerts.* | 1,065,173 | 968,744 |
| Wool . . . . . . . . . . poodn. | 611,069 | 479, 174 |
| IIrintlea . . . . . . . . . . " | 83,858 | 74, 1775 |

## ble.

The foreign trado of Russis, though interrupted in its usual course in 1854 by the war, still exhibits eensiderable importance, as is shown ly the following summary of official returns :

Total Exioats.


Fxpomy of Corn (Goln and Silfar) in 185t $\dagger$
To Europe frmm linmpla proper .......... $96,48,434$

Total. . . . . . . . . . . . . . . . . . . . . . . . . .
Total 1mpenta
Fron Europe Into liusia proper . . . . . . $\$ 33,630,902$


Impoats of Coin (fidld and 8ingen) froy ahmoad.


T'Jtal
$\overline{\$ 4,826,014}$
Trade soư Finland. The exports of mercinndise to

- Tehetwert-nearly alx brohela.
+ A eupreme ukano of Fiviuary 27, 1854, prohblted the exportalion of golld colo. Slivur cola has been exported only by nippomantera, carrlura, aull pammeagera, in the quadtiles Illowed by law.

Finland amounted to $61,481,022$; the importa from thence amounted to $\$ 248,691$.

The trade beyond the Caucaaus, in 1854, was confined to Persia. The total Imports amounted to $\$ 2,845,965$; exports, 8378,207 ; total trans-Caucasian trade, $88,024,262$.

The value of goods imported at the port of Aatrakhan w6s $\$ 784,742$; of whlch raw cotton amounted to 138,183 silver roables, or $\$ 103,638$.

The total trade on the frontlers of Orenburg and Slberia, in 1854, amonnted to: Imports, $\$ 3,890,0 \mathbf{7 1}$; exports, $82,415,270$ : total, $\$ 6,305,841$.

Trade of Kiachta. *..Total amount of goods taken by the Chinese, $84,880,104$; heling woolena, $\$ 1,875,875$; cottons, $41,145,620$; llnen goods, 8119,991 ; jowelry (gold snd silver), 9745,966 ; furs, $\$ 185,997$; dresaed skins, and red leather, $\mathbf{\$ 7 2 , 8 3 0 ;}$ miscellaneoua, \$234,325.

Exports or Wool yrox Rusela.

| Exports or Wool rrox Rusbi |  |  |  |  |  | From 1800 to 1913, average anmual exportation, 19,813 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| " 181 | to 1323, |  |  |  |  | 35,173 |
| " 182 | to 1533, | " | " | " |  | 11,546 |
| 14 183 | to 1897, | " | 16 | " |  | 10,100 |
|  | to 1841, | " | " | 6 |  | 75,050 |
| In 1941, | erage an | aual | tat |  |  | 36,181 |
| In 1S45, |  |  |  |  |  | 33,583 |
| in 154, | 6 | " | " |  |  | 1,036 |
| In 1580, | " | " | " |  |  | 17,062 |

M. de Tegoborski glvea the following arcount of the exports of flax and heup from Russia from 1822 downward:

| Years. | Flax and Codilla of Flas. | Hemp and Cordila of llemp. | Total of Flas and Homp. |
| :---: | :---: | :---: | :---: |
|  | Pooth.-Arerago of foor Yeare. | Poods,-Averago of four Years. | Trooln,-A verage of four Yienra. |
| 1828-1920 | 1,906,641 | 2,938,673 | 4,845,314 |
| 1527-1331 | 2,530,175 | 2,520,095 | 5,060,073 |
| 1982-1836 | 2,499,022 | 8,1065,420 | 5,565,342 |
| 188i-1841 | 9,126,5.7 | 3,200,817 | 0,380,324 |
| 1542-1846 | 5,663,706 | 2,802,419 | 6,466,175 |
| 1847-1550 | 4,616,755 | 2,810,781 | 7,486,593 |

The total custom-honse recelpta at Kiachta were $\$ 2,146,778$.

Total tonnage at the different perts In 1354: entered, 226,774 lasts ; cleared, $268,477$.

The amounts of duties in 1854 were as follows:
On importa and exports, and tonongo dutics $\$ 13, \$ 31,521$
Dutien for benefit of various elties . . . . . . . . . . 202,628
Exelse on Crimean aalt . .
For bridge on the Neva . . . . . . . . . . . . .................... 105, 823
Wareheuse and storago duttes. . . . . . . . . . . . . . . . . . . $1+0,6+8$
For the Odessas Lycerm . . . . . . . . . . . . . . . . . . . . . . . 17,
Total . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 14,14,4,465$
In the kingdom of Poland the custom-house receipts amounted to $\$ 993,978$.

The Asiatic commerce of Russin centres at three principal points. Kiachta, at which place the operitions with Clina are conducted, is the most limportant of these. Considerable trade la also proseeuted with the Tartars in Central Asia. Astrukhen, on the Caspian Sen, is the entrepot for thla trade. The land route is from Astrakhan, through a barren and desert country, to Khiva. Stam vessels are now establighed between Novgorod, Astrukhan, the Caucaaian provinces, and Persia,

In 1854 a a steam navigation company was organizel at Astrakhen for the purpose of opening a regular steam communleation between the ports of the Caspinn Sea. Up to 1852 there were but $a$ few small gevernment steamers employed on the waters of the Casplan. The steamers of this new company will offer abundant facilities for commercial movements. Not being obliged to wintor at Astrukhan, they can be kept aflout the entiro year, and thus maintain rogular communications, not only with the trans-Caucasian ports of Russia and the eastern ports of the Caspian, but also with the l'ersian coast.

- This trade in exelusively a trade of barter with the chit-

In 1848 the entire commerce of Russia with Asla is thus aummed up in official returns :


If to the above we add the Enropean commerce of Ruasla, we shall have for that year nearly $710,000,000$ francs, or $\$ 132,060,000$.

The general navigation of Rusaia, for a aeries of years, is found in official returns, as followa:

| Ports of | Veweli eatered. |  |  |  | Femels oloared. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1845. | 1848. | 1847. | 1848. | 1845 | 1846 | 1847 | 18 |
| Baltic se | 51815 | 3766 | 0,231 | 3038 | 2940 | 8710 | 6,241 | 302 |
| White Ser..... |  | 801 | 824 | 830 | 588 | 807 | 822 | 827 |
| Black and Asof |  |  | 4,201 | 28 | 2229 | $2 \div 32$ | 231 | 2685 |
| Caspian sea | 121 | 116 | 110 | 161 | 140 | 184 | 130 | 102 |
| Total. | 5320 | 7125 | 11,360 | 6401 | $\overline{5940}$ | 7218 | 11424 | 0197 |
| Laden. | 8037 | 2930 | 3,163 | 3010 | $\overline{6512}$ | 71028 | 10,108 | 5486 |
| In balias | 2889 | 4195 | 8,308 | 3391 | 128 | 185 | 456 | 711 |

Entrreo ant Ciparmi.

|  | 18.3 | 18.46. | 1847 | 2848. |
| :---: | :---: | :---: | :---: | :---: |
| Veas | 5,026 | 7,125 | 11,366 | 6,401 |
| Vess | 5,940 | 7, 2 '3 | 11,424 | 0,197 |
| T | 11,866 | 14,838 | ¢ 21.10 | 12,598 |
| Tonnage ente | 567,702 | 654,236 | 968,034 | 061 |
| Tonnago elear | 572,511 | 072,364 | 909,284 | 688,997 |
| Total | 1,140,613 | 1,327, 100 | 1,967,313 | ,250,537 |

Tho preceding figurea demonstrate the lnereasing actlvity of Russian maritime commerce. It is proper to observe, however, that the years of 1846 and 1847 are exceptlonal, as the commerce of these years was simulated by circumatances which were, happily, of a tranalent character; and they can not, therefore, form a basis for legitimate comparison. The movements in grain alone, In 1847, augmented Ruaslan exports upward of $\mathbf{6 4 0 , 0 0 0}$ tons, equivalent to an Increase of 50 per cer


The greatest number of ships were English and Rus. sian, viz. : of the former thero arrived 1875 ; and of the latter, 1019. Of ships arrived inder other flags were. Turkish, 978; Dutch, 586; Greek, 444 ; Swedish, 866 ; Mecklenburg, 329 ; Russian, 299 ; Danish, 223; Sardiniun, 210 ; Austrisn, 191 ; a.id of otier nations, 80 ?.

These arrivals and departures were thus distributed in 1852:

| Porte of | Arrivod. | Tleared. |
| :---: | :---: | :---: |
| The Baltle, . . . . . . . . . . . . . . . . | 3627 | 3507 |
| Tho White Sea . . . . . . . . . . . . . | 827 | 845 |
| The 13lack and Azof Sess...... | 8099 | 8389 |
| The Casplan Sen . . . . . . . . . . . . | 272 | 200 |
| Total | 8655 | 8507 |

The following table exhiblta tho nutional character of the vessels arrived:

| Natooality. | No. of Vensela, | Nationalily. | No. of |
| :---: | :---: | :---: | :---: |
| Fing | 2020 | Anstria. | 333 |
| 1tusgin | 112\% | 1'rusia | 880 |
| Turkoy. | 1072 | Donmark... | 801 |
| Grceco. | 660 | Mecklenburg | 291 |
| lieliand | 513 | Ilnnover... | 969 |
| Sweden. | 470 | France.. | 186 |
| Yardinia.... | 453 | thiter counlr | 493 |

Exporta and Inpoats won 1854-(Value in Silver Roubles.)

|  | Experts. | lapporla. |
| :---: | :---: | :---: |
|  | Aubles d'ATR | Bublen d'arg 4.904 .535 |
| Iy liu Furopean frontier of the empire | $44,075,498$ | $44,000,535$ |
| The kingiom of Poland | 9,908,018 | 15,001,887 |
| The frontlers of Asla. | 1,1105,028 | 881,687 |
| 1 tnland. | 04, 337,081 | 70,358,608 |

Navioation mob 1854.

| Portu of | Veesels. |  |
| :---: | :---: | :---: |
|  | Arrived. | Deparied. |
| The 13aitte. | 473 | 403 |
| The Wintte Sca | 055 | 747 |
| The Black Sea. | 1183 | 1409 |
| The Casplan sea. | 181 | 211 |
| Totst. | 2522 | 2830 |

Steam Vavigation.-The steam navigation of Russia has largely increased since 1850. In that year there visited the port of Cronatadt 82 eteamers, viz.: From L.ondon, 8 ; IIull, 13 ; Dunkjrk, 7 ; Lăbeek, 26 ; Stettin, 24; Kiel, 2; Havre, 2 ; Total, 82. Two steamers maintain a regular communleation between Riga, Ilull, and Stettin, maki.s monthly, sometines somi-month ly, trips. The frigate-built steamers the Odessa, the Crimea, and the Odessa and Kherson, make annually 33 trips between Odesss and Constantinople, and tine steamer Peter the Great 19 between Odessa and Galatz. Regulsr communication is also kept up between St. Peteraburg and the ports of Finland and of the Baltic; also between Odessa, Kherson, Nicolaief, and other ports in the sonth of Russia. These steamers usually make 104 voyages yearly. Two steamers connect the ports of the Sea of Azof; and commnnication lietween the ports of Russia and those of Persia is regularly maintained by national ateamers. The prospectus of the new Russian Steam Navigation and Trafic Company, the statuten of which received the emperor's sanction on the $3 d$ of August, is puhlished very conspicuously in the Journal de St. Petersburg. This company; which, by the extent of its resources, and by its importance to "the regeneration of the internal and foreign trade of Southern Russin," is regarded as one likely to take rank above all other existing Kusslan companies, will have a capital of six millions of roables to begin with, divided into 20,000 shares of 300 roubles cach. At a future period this capital may be raised to nine millions, by the creation of 10,000 new shares, if agreed to liy a get.eral meeting of shareholders. By the 25 th statute of the company, none but Kussian suljects are capable of holding shares, the laws of the empire prohibiting any foreig iers from taking part in the coasting trade between the Sen of Azof and the Russian Black Ses ports, which is an essential part of the company's undertaking. Like the Russian American Company, it is to be placed under the apecial protection of the imperial government. The objecta of its eatabilishment are defined as being " the development of the trade of Southern Russia, and of the commercial an well as the postal communicatious by steambrats between that part of the eupire and foreign countries."

The company is bound to keep up certain lines of communication. Het ween Odessa sud Constantinople, Athos, Sinyrna, Mhodes, Beyrout, Jaffa, and Alexamdria, ita steamboats are to ply three timea a month, as will as between Odessa, the Sea of Azof, and the C:cassian coast. If it slould bo deemed advisable, boats from Odessa may toueh at the ports of the Crimen, and also at those of the Anstolian coant, befure proceeding to Const intinople, or a line may be established from Odessa, taking in Galatz sud the ports of tho l'rincipalities, and ending at Constantinople.

The company sre bound, moreover, to provide for eighteen voyages in the year from Odessa to Trieate, calling at Constantinople, Syria, the Ionian Islea, and Ancona, as well as for elghteen voyages in the year from Odessa to Marselles, stopping at Constantinopie, the L'iraus, Mesaina, Naples, Leghorn, und Genoa.

The goverpment will cede to the company, at a price to be fixed by valuation, all the ateamboats belonging to the department which has conducted hitherto tha postal and commercial intercourse between the difieront porta of Now Russia, together with the wharves, warehouses, and stores belonging to that department.

The company is to be aided by the government with a subvention, calculated at 60 much per mile, allowed upon the voyage actually made by the compans's vessels. This allowance during the first ten yesrs will be at the rate of 5 roubles 22 kopecks for the levant voyages, 3 roublea 404 kopecks for the Marseilles, and 4 ronbles $7 t$ kopecks for the Trieste voyages; the ullowance for the Black Sea trips will be somewhat lower. After the first ten years the subsidy will decrease reguiarly in each year. Above thia mileage, an annual grant of 64,000 roubles is secured during twenty years.
Commerce with the trans-Caucasian Provinces and on the Caspian Sen.-The trade with the trans-Caucasian countries consists in the importation of Asiatic produce, for which European and colonial merchandise is sent in return. Silk is the principal article of import from this region, and is chiefly deatined for European markets. The transit through Persia, of merchandise destined for the trans-Caucasian countries, is becoming more active each aucceeding year. The establishment of regular steam packets on the Black Sea, ss well as the steamboats belonging to the Volga Steamboat Company, have contributed to make Astrakhan a place of considerable inportance to Russian commerce. The yearly increasing commerce of this port attests the importance of these lines of communication. In $1 \times 56$ tizere was received from trans-Caucasian countries merchandise valued at 954,625 silver ronbles, showing an increase over the imports of the precieding year of 290,432 roubles. This sugmentation is 40 be attributed to the incrensed demand for the silk 0 ! these countries. In 1850 this artiele alone covered 232,$1 ; 0$ ruibles, while the quantity in market in 1849 mached only 69,840. The imports into Astrakhan in 1850 amounted to 453,039 roubles, against 139,094 roublea in 1849 .
From Russian official statistics for 1853, the following extracts are translated :
"The josition of Astrakhan on the Volga, the convenience of its port, and its proximity to the Caspian Sea, are the chief founclations of its commercial importance. The advantage of water transpertation of merchandise over land conveyance, draws to this market the larger bulk of all the trade of the neightoring territury. The imports and exports of Astrakan are thus given for 1853:

> Exportn. ..........................1,190,149 stiver roubtes.
> Exports.
> Total. $\frac{1,478,637}{1,515}$
"This sum is, however, largely angmented, if we add the amonnt of the internal trade, or trade with the neighboring provinces of Astrakhan. Official returns show this trade to inave been in $1853,28,666,732$ fruncs or $\mathbf{8 , 4 4 6 , 7 9 0}$ dellars. The imports at Astrakhan are silk, cottons, dry fruits, and sundries. The exjorts are cutton tissucs, fron, gruins, copper, sugar, tea, ond hides."

Commerce by the Lines of Orenburg and Siberia.The commercin) rovements of Rusaia with ('entral Asia are prosecuted with much ectivity. The value of merchandise exchanged with the Tartars of this por tion of Asia in 1850 reached nearly $6,000,000$ roubles, showing an increase over the total trade of 18.19 of 600,000 roubles. The prineipal injports were ten ( 19,070 joods), which passed through the westeru frontiers of China, smounting in value to 512,482 nubles (equal to b0 cents grer pound nearly). In 185 I this trade maintained still greater sctivity. The value of merchandise imported across the lines of Orenlourg and Siberia reached 31 millions of ruables; and the exchangea, consisting of cotton and woolen cluths, louf.
sugar, raw and tanned hides, amounted to 2,746,822 roubles. This exhibite an increase over 1850, viz.:

| Imports from ('hina by the Prontterd of Oren- | Sliver Roubles. |
| :---: | :---: |
| burg and slberia .. | 210,404 |
| Exports to Chlaa by the frontiers of Orenburg and Silberia. | 3,602,602 |

The principal imports were black and other tens ( $755,830 \mathrm{lbs}$. , valued at $\$ 437,891$, or nearly 58 cents per pound), raw and spun cotton, etc.

Commerce with China at Kiachta in 1851.-This trade, as already remarked, is atrictly a barter of nerchandise. It takes place from the 6th of Fehruary to the Gth of April each year. In 1851 the export trade consisted of woolen clotha, value $3,267,053$ silver roubles ; cotton cloths, value $1,193,713$ silver roubles; Russian leather, 240,933 silver roubles; corals, 259,527 silver mubles; making a total of $4,901,226$ roubles, or $83,720,920$. The imports (merchandise received in barter) were teas ( 122,839 cheats and 26,289 amall packages). For the Interior of Ruseia there were Juported at Kiachta 121,249 half cheats, and 30,849 small packages of tea. The duties levied on theso imports at tise Kiatcha custom-house amounted to $4,685,433$ roubles, or $\$ 3,504,076$; an excess of $\$ 280,560$ over the receints of 1850 , and of $\$ 615,225$ over those of 1849 . The duties, cost of transportntion, and other incidental expenses between Kiachta and Moscow, nmount to about 100 per cent. on the original cost. This would nake the cost price of tea in Moscow 81 per pound. The profit, however, is realized on the merchandise bartered, on which high and arhitrary prices are usually fixed. The tea in small packages is consumed in Siberia.

Offichal returns, received since the aioove was prepared, afford materials for bringing down a report of trade at this important point to a later period. From these it appears that the number of chests of tea (black and green) deposited by the Chineso merchants at Kiatcha during the trading senson of 1852 reached 100,000 . There also arrived 1000 packages for consumption in Siberin. The number of pounds per chest varies; they average, however, ubout 60 lbs . to a chest of llack tea, and about 90 lbs . to the chest of family tea. Besides tea, the Chinese nlso exchange sugar and sugar-candy; hut those articles are usually consumed ir the vicinity of Kiachta.

Of lnte years the Russian tradera have derived immense profits from the barter of velvets and velveteens, which are in great demand among the Chinese.

Tho trade of 1853 prosented some novel festures. The announcement that 180,000 chests of tea wero in transitu for Klachta throw the market, at this point, into the greatest confusion. The merchants received wcekly adrjces as to the state of the market at Moscow, and the great decline which teas had experienced at that time left no alternative to tho merchants, in view of the heavy arrivals of teas daily expocted, than to raise the prices of Russinn merchandise 50 per cent. Any other course would have anniliilated the profitable trade se long carried on at this place. The arrivnls, however, did not exceed 67,000 chests, and tho market maintained its usual tranquillity.

General Summary.-The following summary of the navigation of the different ports of Russia, In 1851 and 1852, is alstracted from official returns:

| 18\%\%.-V'easets arrived. | 7,325 |
| :---: | :---: |
| * 4 cleared. | 7,848 |
| Total tonnage, fast | 700,300 |
| 1852.-Veanels arrived | 8,05\% |
| $4{ }^{4}$ cleared. | 8,507 |
| Totat tonnage, fast | 708,900 |

Navigation of the Volga in 1852.-The importations at Rybinak, hy the Volga, in 1852, reached in value $875,449,000$ francs, and the exportations $101,621,000$ francs. The excess of exports over imports is explained by the faot that Rybingk exports by watar only, and imports by land ns well as by water. The returns of imports by land are inaccersible to the etat-
istician; but it la supposed that they would equalize the values of the imports and exports of this inarket. Rybinok la one of the most important markete in the interior of Russia. In the import trade there are employed 32 ateamboata belonging to the Volga-Kama Steamboat Company ; 681 canal-hoats ; and 3141 barks, flat-boats, etc., propelled by sails and oars.
The export trade of Rybinsk (i.e., the re-exportation of merchandise) employs: By the Volga, 3765 vessols of - 11 kintla; Mologa, 1ä7y; Sheksna, 2221; total, 765.

Steam Company of the Volga.-Frmm the report of the general meoting of this company, held 2ith February [11th Ma mh ], 1852, the information is gleaned, that the company was organlzed in 1843 with a capital of $1,300,000$ raubles ( $\$ 975,000$ ), divided into $620{ }^{\prime}$ shares of 2.50 roubles ( 818780 ) each; that it now owns (in 1852) five iron steamers, which navigate the Volga; namely, the Sampson and the Herculec, each of 77; the Kama, of 50 ; the Volga, of 42 ; and the Oka, of 17 horse-power. Besides these, the company owns ninoteen barks and threo large bateaux. The capital invested In property (vegacls, etc.) amounts to $1,200,000$ roubles ( $\$ 900,000$ ). In 1852 the company received for freights 334,805 mubles 90 kopecks ( 6251,104421 ), besides 3215 roubles 60 kopecks ( $\$ 241170$ ) interest on capital invested, which brings up their total receipts to 338,021 roubles 50 kopecks ( $\$ 253,516121$ ).

 Net recelpts duriog the ycur ... $155, \stackrel{153}{ } \quad 05=110,237$ 2si This net amount was thus distributed:
To stockholdera, at 20 roubles per Roubloe. Kopecks. nollars. Cis.



Extra Duties.-In addition to the rates given in the tariff, special duties are levied for tho benefit of citios, etc., as follows:

At the I'ort of Archangel.-For the benefit of the town, $\frac{1}{2}$ per cent. on the value of all imports and exports.

At Odessa.-For the lencfit of the town: On wheat exported hy sea, 1 cent per 53 bushels. For the benefit of the lyceum, 1 名 cent per 59 buahele, on all kinds of corn exported.

At the Port of Taganrog.-For tho bencfit of the city : On all merchundise passing through the scales, imported, $\frac{1}{6}$ cent per 36 lbs . Exported, $\frac{3}{16}$ cent per 36 libs. On wines imported, ${ }^{3}$ cent per 24 gullens.
At the Port of Mariopol.-For the benefit of the city : Imports, \& cent per pood, dry messure; it cent per pood, liquid measure.

St. Petersburg.-lor the bridge on the Neva: On all imports, 2 per cent. on amount of duties.

Moscow.-For a sinnilar purpose to the foregoing: Ou oll imports via St. Petersburg, 2 per cent. on amount of duties.

Tho custom-houses of St. Petershurg, Archangel, and Riga nliow foreign goods, imported by privileged merchants, to remain in hond without paying duty, or to be re-exported, during twelve months; if imported by others, six months.

Progress of Cotton Manufactures in Russia.-It has already been remurked, that the manufacture of cotton in the Russian empire is progressing with extraordinary activity. Tho nunber of spindles in Russia excecils 850,000 , producing annually upwurd of $10,800,000 \mathrm{lbs}$. of cotton ynrns. The manufacture of cotton velvets, especially, is becoming highly import-

[^40]ant $t_{0}$ the direct trade between the Uniter, States and Rusnia, the raw material being almost exclusively supfiled, either in the direct or indirect trade, by the former couniry. Formerly eotton velveta were supplied to the Chineae oxcinsirely by the British. The Chiseae now prefer the Ruasian manufncture; hence it has become a leading staple of barter at the Russiofrontier markets of China.

No foreign nation is allowed to particlpate in tho cossting or Internal trade of Russia-Ordinance, September 9,1845 . The treaties between liassa and other maritime statea all contain the same terms as that botween Russia and the United Stat 3 of December 18, 1832 ; viz., the veasels of friendly nationa, with cargoes In liallast, are to be regaried quite $2 a$ the domentic, as to export or inport, Ex, to port of sile dutles, or


 from the United Stat- a $6,1+1$, tageously imported cc on, ins:+4, $a^{\prime} n^{2}$ ice.

The following table exhltits the quentitios of raw and spun cotton Imported into Rubsia during the years designnted:

| Years. | Hew Cothon, | Collon Twista. |  |
| :---: | :---: | :---: | :---: |
|  |  | White. | Colored. |
|  | Kilogrammen. ${ }^{\text {a }}$ | Kiloma smmen. | Kllorrammen. |
| 1846.......... | 11,863,000 | 8,12¢ ${ }^{1} 00$ | D1,the |
| 1847........... | 14, 119,000 | 6,732,000 | 57,060 |
| 1949............ | 80,171,000 | 6,825,000 | 66,000 |
| 194. ........... | 25, 471,001 | 4,679,909 | 67,000 |
| 1580........... | -10,610,000 | 9,765,000 | S0,0m) |
| Total | 91,203,000 | $25,648,100$ | 981,060 |
| Abotual nverage\| | 18,2088,600 | $6,704,400$ | (6, 21215 |

The Importa of raw cotton from the United $\mathrm{Sta}^{4}$. to Russia for lesignated perings have already be a given, and it has been noticed that the Itrilution if cot ton twista is in a ratio coiresponding with the aug. ncontation in che importation of raw cotton. lielow Is annexed a table, exhibiting the direct trade and navigation between the Unitel States and Russia durIng the years dealgnated.-Comm. Rel. U.S.


| Vearl ending | Fixporte |  |  | Imports. | Whereof there wat in Hollion and Npecie. |  | Toannge eleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Uumestic. | Poreig: | Total. | Total. | Eivpors. | Impert. | Anverican. | Forgigh |
| Svit. 30, 1521....... | \$127.931 | 8600,965 | \$ 629.9514 | 81, 854,1104 |  |  | 4.521 |  |
| 1589....... | 177.261 | 861,820 | 529,081 | 3,30)7,328 | . . . | \$800 | 4,825 | - |
| 1323. | 51,035 | 5.7,009 | 648,784 | 9,268,717 | . . . | 1,300 | 2.771 |  |
| 1894. | 02, 76 | 13.1,215 | 231,081 | $2.200,663$ | . . . | .... | 2,201 | . |
| 1825. | ¢0, 131 | 232,21) | 287,401 | 2,001, 111 |  | ... | 3,279 |  |
| 1326. | 11,041 | 163,604 | 114,044 | 9,017,169 |  | *** | 1,946 |  |
| 1527. | 45,5 60 | 336,734 | 3s2,2+4 | 9,0183,174 |  | .... | 3,60; | 117 |
| 1588. | 10902\% | 341,573 | 450,405 | 2,753,362 | \$13,558 | . $\cdot$, | 2.755 | 2 EU |
| 1539. | 51.094 | 834. 042 | 386,224 | $2.218,605$ | 10,213 | . $\cdot$. | $29_{4}{ }^{4} 43$ |  |
| 1830. | $45 . \pm 61$ | 351,114 | 4tb,bit | 1,621,809 | 28,700 | . ... | 3,4!2 | 23: |
| Total. | \$7.7,413 | $43,368,860$ | \$4,138,274 | \$23,027,070 | \$52,466 | 52,300 | 31,212 | $63{ }^{\circ}$ |
| Satt, $50,1431 . . . .$. | \$114,559 | \$347,914 | \$462.766 | \$1,408,398 | \$00,423 |  | 4,310 |  |
| 1832........ | 121,11.4 | 461.808 | 652,082 | 3, 251,858 | N2, 1,83 | \$3,000 | 3, 147 | 321 |
| 1833. | 293,734 | 480,071 | 703,50\% | 2,772, $\mathrm{N} \times \mathrm{x}$ | $85,4+4$ | 4,192 | 5.403 |  |
| 1834. | 168,697 | 162,067 | $330,6.14$ | 9, 605, 840 | 1,540 | .... | 4,979 | 300 |
| 1835. | 231,607 | 3)3,840 | 685,47 | 2,305,245 | 6,177 | *** | 3,424 | 5.5 |
| 1504. | 320,283 | 544,730 | 111,013 | 9,778,004 | 12,000 |  | 6,106 | 1,119 |
| 1837. | 144, 3137 | 1,162,652 | 1,306,759 | 2,816,116 | 3,000 | 4,000 | 6,644 | 4.14 |
| 1838. | $35.3,047$ | 05, 24.2 | $1,10+9,2=9$ | 1,898,396 | 7,070 | $\pm .000$ | \%,258 | 128 |
| 1875. | 438,587 | 404,859 | 1,232,243 | 2,843,894 | 1,856 | 60 | 8, 5.40 | $8{ }^{1}$ |
| 1540. | 234,824 | 984.625 | 1,103,481 | 2,679,427 | 0,23! | .... | 6.018 | 477 |
| Total... | 42, ${ }^{2} 68,75$ | 45,981,308 | $49,340,125$ | \$25,053,209 | \$234,690 | \$10,242 | 67,0001 | 7.606 |
| Scul. $00,1841 . . . . .$. | $\$ 146,118$ | *5\%0,611 | \$1,025,72. | $4.3,717,49$ |  | * $\cdot \cdot$ | 7,405 | \$0S |
| (1) 1892....... | 816,036 | 520.667 | 8,16,593 | 1. $\% 100190$ | +4.4.79 |  | 6,001 | 1.609 |
|  | $30.4,46$ | 16,296 | 386, 793 | 742,8018 | 686 | $\$ 8, k^{+1}$ | 4,183 | 211 |
| 3иnе 30, 184 | 414.82] | 140,8,99 | [85,414 | 1,05.1, +19 | 1,123 | .... | 6,305 | 1,481 |
| 1756...... | 636,885 | 150,428 | 727,837 | 1.492,269 | .... | . $\cdot$. | 9,10:1 | 1. $\% 06$ |
| 1*46. .... | 68x, 358 | 97.079 | C82,467 | 1,576,044 | .... |  | 5,4'11 | 1, 518 |
| 1847....... | 626,354 | 184,119 | T70,450 | 224,673 | . ${ }^{\text {. }}$ | . $\cdot$ | 4.185 | 1,803 |
| 1849....... | 1,057, 8 832 | 109, 509 | 1,156, 1310 | $1,819,084$ | *** | \% 4 | 10,508 | 343 |
| 1540......... | 837,687 666,435 | 107,947 198,506 | $1,12 \%, 104$ $804, j 41$ | 841,238 $1,511,572$ | .... | 74 | 10,319 5,049 | 1,873 |
| Tretal. | ¢0, 037,603 | \$2,034, 206 | \$5, 67 7, 238 | +13, 127 , 66\% | \$6,724 | 43,475 | 67,24i | 15,346 |
| June 30, 15:1 .... | * $1,465,704$ | \$ 14508 | 8. 011,029 | \$1.309.7188 |  | -** | 9.241 | 3,28) |
| 142....... | 1,661.748 | 1.78,739 | 1,201, 489 | 1,681.620 |  | . | 10,006 | 9,045 |
| 1563. | Y, 313,175 | 143.478 | 2,416,623 | 1,278, 1801 | . . . | . . . | 11,105 | 5, 2.7 |
| 1804. | 335,521 | 143,0.6 | 480,616 | 1,84,235 |  |  | 3,891 | $1.4 \times 5$ |
| 1855. | 48, 149 | 90,414 | 6, 3 , 34 | $2501,5 \times 15$ | . . |  | 9.583 |  |
| 1856, | 600,1\%3 | 206, 258 | 6 86.406 | 331, 818 |  |  | 6,720 | (50) |
| 1357. . . . . . | 4,4i4,842 | $2 \mathrm{5}, 485$ | 4,78, ,991 | 1,619,420 | . . . | . . . | 27,979 | 5, 50 |

## " Nine monthe to Juoe 30, nad the fiacal year four thita time begine July $l$.

Principal Ports.--Odessa, a nen-port of southern Rusris, on the northwest const of tho Black Sea, bet ween the rivers Dniester and Bug, in lat. $46^{\circ} 28^{\prime} 51^{\prime \prime} \mathrm{N}$., long. $30^{\circ} 43^{\prime} 22^{\prime \prime} \mathrm{F}$. The bay or roadstead of Odesen is extensive, tho wuter is deep, and the anchorage fo froxl-the bottom leeing fine snd and gravel; it is, bowover, exposed to the southensterly winds, which remer it less safe in winter. The port, which is artin ficial, being formed of two molef, one of which projects a considerahle distance into the sea, and has deep wat ter, with room for three hundred shipn.

St. Betersburg, the capital of Runsia, siluated at the confluence of the River Neva with the eantern extremity of the Gulf of Finland, in lat. $59^{\circ} 56^{\prime} 23^{\prime \prime} \mathrm{N}$., long. $80^{\circ} 18^{\prime} 45^{\prime \prime}$ E. Cronstadt, situnted on a amail infand about twenty miles west ot St. l'etershurg, may in some
meaaure lhe considered as the port of the latter. Al mont all vessels bound for St. Petersburg touch here. and those drawing nhove elight feet of water load and unload at Cronstadi-the gaods leing conveyed to the city in lighters. The water to Cronstadt is ample. there lining from twenty-four to thirty-six feet of walet
Rassian Possessions in America. - The territory be longing to the Itessinn Americaan Company comprehenis the northwestern protion of North America, extending from Dehring's Straits enstwned to the meridian of Mt. Bt. Filias, along loth the Arctic and Paelfic oceana, and from that monntain nouthward nlong the voast chain of hille till it touches the coast in $5 \mathrm{w}^{\circ} 40^{\circ}$ N. lat., forming an aren of 354,000 square miies. The Alentian Islanls, though comprised in the Asintic government of Irkutsk, may be cor 'dered ns belonging to
this re saclatic ed fron trading jacent Emper charter tal and c'ik, b thon go gel, wh sian dos only a. and inh of their py only the cup $57^{\circ} 30$
some 10 warehou under $t$ anthorit papuiati or 70,000 country to Canto ral suppl pany. a year, a deciline o Californi British le for hunti Shippil ing in Fi increasin country, last yeare especially paid by fo sels, To land, the terials an and aro $t$ be import provemen been intro adopted.
For abl icy, camn Rusisia, see Magazine 131, $1 \times \mathrm{vi}$. Reviero, xl Merchante 616 ; Nort

Russ! Britain for first incor tioned by and 11 W subject de shall be ac admitted i tirely as a the compa
Russia
It. Cuojo , Sp. Nhuscou denaminat mation said manufnetur ried ou in Moscaw an a strongly a powerful
this region. The settlemen's originated with an association of merchauts, formied at Irkutak, who obtained from the Emperor Proul the exclusive privilege of treding for peltries in the Aleutian Islands and adjacent coasts. This rivilege was extende. by the Emperor Alexander over all Hassian Ame, ica, and the charter was repewed 'y Nicholss w 1849. The cap!tal and priscipul factory was irst tatablished at Kow a'ik, but the increasin scarcity of sea otters led the thon governur to lay the foundation of New Archat. gel, which has a .Jw become the chlef deput. The Fris. sian dnminion over the vast solitudes of the interfor is only t. minal: the interior, indeed, is a terra stoogni'a, und inhabited by tribes who scarcely kusw the name of their lords. At the present day the Russians occupy oniy the isla is on hib coast. New Archangel, the cupital, is siluated on the island of Sitka, in lat. $57^{\circ} 30^{\prime}$ N., and long. $135^{\circ} 13^{\prime} \mathrm{W}$. It is a town of some 1000 inhabitante, and contalns the Boarda and warehouses of the company. The whole country is nuder the surveillance of a governor, who derives his anthority from the company at Irkutsk. The total popuistion of Russian America is catimated at 60,001$)$ or 70,000 , including aborigines. The commerce of this country is chiefly confined to the exportation of furs to Canton, and the import of provisions and agrioultural supplies from the Puget's Sound Agricultural Company. It is of little value, being less than $\$ 300,000$ a year, and is constantly declining, consequent on the decline of the seal and otter. Bodega, on the coast of California, was formerly a Russian settlement. The British lease the continental part of Russian America for hunting purposes.
Shipping and ship-huilding are considerably increasing in Finiand. The causes are to be sought in the increasing commerce and the general prosperity of the country, in the high prices which have been puid in the last years for the principal exports-wood articlesespecially in Southern Europe, and in the high freights paid by foreigners for the employment of Finnish vessels. To encourage shipping and ship-building in Finland, the Russian government has allowed that all materiala and articles which are used in ship-builthing, and are to be had cheaper in foreign countries, may be inported into Finland freo of duty. Ancrican improvements in ship-building have, in part, already been introduced, and will probably be more generally adopted.-Comm, Rel. U. S.
For able aticies on the conmerce, commercial policy, commercial strength, mines, resources, etc., of Kussia, see Blackwood's Magazine, liii. 807 ; Bankers' Magazine, ii. 278; Quarterly Review, lxxvii. 188, xix. 131, Ixvi. 218; Journal of Science, iii. 153; Ėdinburgh Review, xl. 476 (Jeffrey), xaili. 340, 1xxix. ; 1lunt's Merchante' Magazine, v. 297 (F. Wilabton), x. 207 ; Living Age, xxiv. 529 ; American Whig Review, xil'. 616 ; North American Review, xxvii. xxx.
Russia Company, a reguluted company in Great Britain fur conducting the trade with Russia. It was firat incorporated by clarter of Philip and Mary, sanctioned by act of Parliament in 1566 . The statute 10 and 11 Wiiliam III., oh. G, enacts, that every British subject desiring admission into ' e Russie Company shall be admitted on paying $£ 5$; and every individual admitted into the company conducts his business entirely as a privata adventurer, or as he would do were the company abolished.
Russia Jeather (Fr. Cuir de Russie; Ger. Juften; lt. Cnojo di Russia; Pol. Jachta; Russ. Juft, Youft; Sp. Wuscovia), the tanned hides of oxen and other kine, denominated by the Russians youfts, or $j u f f s-a$ desig. nation said to be derived from their being generaliy manufactured in pairs. The business of tanning is carried on in most towns of the empire, but principally at Moscow and St. Petersburg. Russia leather is seft, has a strongly prominent grain, \& great deul of lustre, and a powerful and peculiar odor. It is principally either
red or Msck: the former is the best, and is largely used in this and other countries in took-binding ; for which parpose it is euperior to overy other material. The black is, however, in very extensive demand in Rnssia, large quantities being mude up into boots and shees. The process followed by the Russians in the preperation of this valuable conmedity has been frequently described; but notwithatanding this circumstance, and the fact that foreigners have repeatediy engaged in the business in Russia, with the intention of making themaelves masters of its details, and undertaking it at home, the efforts made to iutroduce the manufacture into other countries have hitherto entirely fuiled. One of the best tests of genuine Bussia loather is its throwing out a strong odor of burned hide upon being rubhed a little.-Ricand, Traite Général du Commerco, tome i. p. 275, ed, 1781.
We extract from Mr. Borrisow's work on the Commerce of St. Petersburg the following details with respect to this article: Russia leather forms one of the priacipal export commodities of St. Petersburg. But since the ports of the Black Sea have heen opened, the exports of leather from this port have considerably de reased; Italy, the principal consumer, supplyin $\because$ it 0 , ants from Odessa and Taganrog more easily, r. ... $\%$ ar expeditiously than from St. Petersburg. ich eport:ttion from the latter is to Irussia. 's. 196 F :- ${ }^{\text {d }}$ Englana. Frankfort-on-the-Maine ar juic:, igreat
 account of the fairs held in they: al $1, \frac{3}{6}$ ara never bought on contract, but alwo: un $2 l_{\text {a }}$ pos at cash prices. It nevertheiess often brinea sat gents-in order to secure a lot of juffe, in : a ce. . .ins sam in advance, and settle for the an: $\cdots$, at ine first market prices ; no prices beitrg tixed io s. in as of Jannary, February, Diarch, and sometin. - vrit A pril. Juffs are assorted or bracked when recciv 1 , according to their diferent qualities, into Gave, Rusval, Malja, and Domashna. The three first aorts are again divided into heary and light Gave, heary and light Rosval, etc. Domashna is the worst, and censequently the oheapest cort. It often happens that jufts are bought unassorted, and then the prices are regulated according as the quantity of Domashna cortainod in the lot is greater or less. Persons well acquainted with the nature of Russia leather prefer purchasing it in this state. Juffs are sold by the pood, which consists, as it is commonly expressed, of $4,4 \frac{1}{4}, 4 \frac{1}{3}, 5 \frac{1}{4}$, and $5 \frac{1}{3}$ hides. By this is understood, that so many hides make a pood, cnlculated upon the whele lot; and it is to be observed that the lightest juffs are esteemed the best in quality. Heavy juffs, or those of 4 and $4 \frac{1}{2}$ hides, are shipped for 1taly: the Germans, on the contrary, profer tho lighter sort. Juffs are packed in rolis, each containing 10 hides; and from 10 to 15 of those rolls are packed together in a bundlic, which is well socured by thick mutting. There are red, white, and black juffs; but the red are uost in demand. Their goolness is determined by their being of a high red color, of equal size, and unmixed with emnll hides: they must also be free from holes, well stretched, and equally thin. In a wellfinished iot no thick head or feet parts should be found. If spots resembling flowers are seen on the red hides, it is an additional sign of their good quality, and they are then called bloomed juffs. The inside should be clean, soft, and winte, and, when taken in the hand, shonld feel clastic. The best connoisseura of Russia leather can nearly determine the quality by the smell alone. Great attention must be paid, in shipping juffe, to secure them from being wetted, as damp air alone is sufficient to injure them. Sixty rolls of jufts make a last; 88 peods net weight, when shipped for Italy, make a last; and 44 noods a ton. The exports of juffs from Russia in 18.41 amounted to 177,838 poods, and 150,951 pleces, worth together $1,538,191$ silver roubles.

Rye (Ger. Rogken, Rocken; Du. Rog, Rogge; Fr.

Seigle; It. Segale, Segaln; Sp. Centeno; Russ. Roseh, Sel, Jar; Lat. Secalo), according to some, is a native of Crete; but it is very doultful if it can now be found wild in any country. It has leen cuitivated from time innemorial, and is considered as coming nearer in its properties to wheat than any other grain. It is more common than wheat in many parts of kurope, leing ab more certain crop, and requiring lest culture and manure. It is the bread cerm of Germany and Kusein.Lounon's Eincye. of Agriculture.
lye is supposed by mome authoritien to be a nativo of the Caapian Cnucasian desert $\mid$ and has been cuitivated in the north of Europe and Asia from time intmemorial, where it constitutes an importunt articie of human subaiatence, heing generally mixed with Lariey or wheat. Ita introduction into western Europe is of comparatively recent date, as no mention in made of it In the Oriue Sanitatis, puliisked nt Augaburg in 1485, which treats at leagth of barley, millet, oats, and wheat.

The production of rye has decreased $4,457,000$ bushels in the uggregate; but in New lork it is greater than in 18.10 by about 40 per cent. Pennsyjvania, which is the largest prollicer, has falien off from $6,613,373$ to $4,805,160$ buthels. Perhaps the generul diminution in the guantity of this grain now produced may be accommed for by iupposing a corresponding decline in the demand for distilling purposes, to which a large part of the crop is epplied
Expoeta op Rtk anginall Gainn pmon that ivitmb Stateb jor tifr 'iear endino dexf Mo, 1SK6.


Wye was cultivated in the North American culonies mon after their nettlement by the Englinh. Gorges speales of it as growing in Nova Scotia in 1622, as well ta of bariey und wheat. Plantagenet enumerates it among the productions of North Virginia (New England) in 1 G18, and nlludes to the mixing of it with
maize in the formation of bread. It wha also cultivated in South Virginia by Sir William Berkeley previoua to that year.

Geogruphically, rye and barley associate with one another, and grow upon soils the mont analogous, and in aituations alike exposed. It is cultivaiad for lrend in corthern Asia, and all over the continent of Eurpe, partioulariy in Ruable, Norway, Donmark, Sweden, Germany, anil Joliand; in the latter of which it is much eniployed in the manufacture of gin. It in alao grown to some extent in England, Scotiand, and Wales. In this country it ia principaliy restricted to the Middle and Eiatern States, but ite culture is giving jiface to more profitable erops.

The threa leading varietlea cuitivnted in the United States are the Spring, Winter, and Southern, the latter differing fron the others only from diagimilirity of cij mate. The yicid varies from 10 to 30 , or more, bushels per acre, weighing from 48 to 56 liss, to the bushel.

This grain has never entered largely into our foreign commerce, as tio home consumption for a long perioi nenriy kejt pace with the aupply. The amount exported from the United States in 1801 was 392,276 bushels; in 1812, 82,705 buahele; in 1813, 140,136 busheis. In 1820-'21 there were exported 23,523 bar reis of rye flaur ; in 1830-'31, 19,100 barrela ; in 1810 ' $41,44,031$ barreis; in 1846 -' $16,88,530$ barreis; in 1846-'47, 48,892 barrols; in 1850-'51, 44,152 barrels.

During the year ending June 1. 1850 , there were consumed, of rye, alout $2,144,000$ buabeis in the manufacture of mait and spirituous liquors.

According to the census returne of 1840 , the product of the country was $18,6 \cdot 15,567$ bushels; in 1850 , $14,188,637$ bublels. Of this amount there was exportted from New lork $\$ 2,022,383$.
l'aishcction of live iv tife I'niten Statea von the liearg 1540 And 1850.

| Natee asad Turriopres. | 1440. | 1850 |
| :---: | :---: | :---: |
|  | Buahels: | Bushets |
| Alahama | b1,02s | 11,201 |
| Arkanpa | 0,219 | 8,047 |
| Columbla, 1 | 5,091 | b, 510 |
| Comneetlat | 787,424 | 690, 083 |
| Delawaro | 32, 5446 | S,066 |
| Florda | 315 | 1,152 |
| Cimrgla. | 60,6:3 | 58, $\mathrm{T}_{6}$ ( $)$ |
| Llturin | 84,1!7 | 83,364 |
| Iadian | 32:101 | 78,702 |
| lown | 3.7 .2 | 19,616 |
| Kenturky | 1,321.383 | 413, (17) |
| S.onishana. | 1,812 | $4 i 5$ |
| Maino | 137.1441 | 112,016 |
| Maryladit. | 72:4,577 | 240,014 |
| Vamachuselt | 636,014 | 44, 091 |
| Milugan | 34,296 | 14.51 |
| M Lsisulpy | 11,44 | 1,4046 |
| Mlssouri. . | 68,6ik | 44,268 |
| Xew llampshir | 304.145 | 14,1,17 |
| New Jersey | 1,865,420 | 1.26, ${ }^{\text {did }}$ |
| New York. | 2,979,883 | 4,148, 14.2 |
| Nurlh Carolina | 213,071 | 22:,013 |
|  | 814,265 | 405,9ts |
| Pennatvania | 0,613,673 | 4, 005.14 in |
| Rhoede Imland | 34.b:1 | 26.443 |
| south C'arollna | 44,715 | 43,7:00 |
| Tenncesee | 304,320 | 80,137 |
| Texas |  | 3,140 |
| Vermont | 280,983 | 176,933 |
| Virginla | 1,402,739 | 48,1431 |
| Wiscrasin | 1,465 | 81.258 |
| 它需 Minnerota . . . . . . . . . . . . . . . | ..... | $1{ }_{10}^{104}$ |
| \% tivah.. |  | 219 |
| Tolal. . . . . . . . . . . . . . . . . 1 | 18, Sx, Mit 7 | 14,1ay, 13 |

Ryots. The name given to the cultivators of the soil of Jindostan, who hold their land by a lease which is considered us jerpetuai, and at a rate fixed by oncicat surveys and valuationa,
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Gable (Ger. Zobel; Fr. Zibelline; 1t. Zibellino; Kuks. Sohol), an animal of the weanel tribe, found in the northern parta of Aslatle Rusia and Ainerlea, hunted for the sake of lta fur. Ita color la generally of a deep glossy brown, and sometimes of a lino glossy black, which is most esteemed. Sable sking have sometimes, though very rarely, been found yellow, and white. The fluer norts of the fur of sables aro very acarce and dear. A single skin of the darker color, though not abovo four inches broat, has been valued as high as 60 . The sabio (Mustela zibellina, Llnn.) is principally a nativo of the northern regions of Asial it is hunted and klllod for the Russian markst, either by a single ball, a blunt arrow, or traps, by exiles or soldlers sent for that purpose, in the deserts of Siboria. The skin is in the highest peefection froun Nevember to Fobruary, A nearly allied animal, called the "fisher," Inhabits North Amerlea, and is similarly sought after and destroyed for Its fur.-Sec Fun Tbadi.

Gaddles (Fr. Selles; Ger. Sattel; It. Selle; Russ. Sülla; Sp. Selles), seats adapted to horses' backa, for the convenience of the riter.

Bafllower, or Bastard Eaffron (Ger. Saffor; Du, Safther, Basterd Saffran; Fr. Cartame, Saffran baturd; 1t. Zaffrone; Sp. Aluzor, Azafian bastardo; liuss. Polr rooi, Prostoi schafran), the flower of an annoal plant (Carthamus tinctorius, Linn.) growing in India, Egypt, Anerica, and some of the warmser parts of Europe. It is not easily ilistinguished from saffron by tho eye, but it has nothing uf its smell or taste Tho tlowers, which are sometimes sold under the name of saffranon, are the only parts employed in dyelng. They yield two sorts of coloring matter: uno soluble in water, and producing a yellow of tut littlo beauty; the other is resinous, and best dissolved by the fixed alknlies: it is this last which alone renders safilower so valuable in dyeing; as it aflords a red color excectlug in delicacy and beauty, as lt does in costliness, any which can be obtained even from cochincal, thuugh much infcrior to the lattor in durnbllty. Tho color of saftlower will not bear the action uf soap, nor even that of the sun and alr for a long tlme; and being very costly, it is principally einployed for imitating upon silk the fino scarlet (ponccau of the French) and rose colors dyed with cochincal upon woolen cloth.

The fine rose color of safllower, extracted by erystallized sola, precipltated by cltric acd, then slowly dried, and ground with the purest tale, produces the beautiful rouge known by the name of rouge régetale. Saffiower should be chosen in fiakes of a bright plink color, and of a smell somowhat resembling tobacco. That which is in powder, dark-colored, or oily, ought to be rejected.-llasscicuulst's Voyages, Engl. ed. p. 352; Bancrort's Permanent Colors, vol. i. p. 280-289; MituUns's Orient. Commerce.

Bafiron (Gor. Saffran; Du. Safran; It. Zafferano; Sp. Saffron; Fr. Azafian; Russ. Sckafran), a sort of cake prejared from tho stiguas, with a proportlon of tho style, of a perennial bulbous plant (Crocus sativus, Linn.). When good, saffron lias a sweetish, penctrating, diffusivo odor; a warm, pungent, bitterish tasto; and a rich, deep orange-red color. It should be chosen fresh, in elose, tough, compact cakes, moderately moist, and possessing in an obvlous degreo all the above-mentioned qunlities. Tho not staining the fingors, the making them oily, und its being of a whltish ycllow or blackisli color, indicate that it is ball, or too old. Snffron is used in medicine and in tho arts; but in England the consumption seems to be diminishing. It is employed to color butter and cheese, and also ly painters and dyers.-Tromson's Ihepensatory; Lovnox's Eincyclopedia of Agriculture.

Bagapenum (Arab. Sugbenu), a conereto gumresin, the produce of als unknown Perslan plant. It

Is Imported from Alexandria, Smyma, etc. It has an odor of garlle, and a hot, acrld, bittorish tasto. It is in agglutlnatud a pe or inasses, of an olive or brownlah yellow coler, sllghtly translucent, and hreaking with a horny fracture. It softens and la tenacleus between the fingers, melta at a low heat, and burns with a crackliag nolse and white flame, giving ont abundanco of sinoke, and leaving behind a llght spongy charcoal. It ls used only In meillelne.-'Tr:omson's Diepensatory.

Eago (Malay Sagn; Jav, Sagu), a speclea of meal, the produce oi' a palin (Metroxylon Sayu) indigenous to and abundant In such of the Eastern Islande as produce splees, where it supplies a princlpal part of the furinaceous food of tha inhabltants. It ie produced in China, Japan, Molucea, and the South Sea Islands. The tree, when at maturity, is about 30 feet high, and from 18 to 22 Inches fu dlameter. Before the formation of the fruit, the stem conslsta of an external wall about two inches thlek, the whole interlor belng fillod up with a sort of spongy medullary matter. When the tree attalns to maturlty, and the frult la formed, the stem ls quite hollow. Being cut down at a proper period, tho medullary part ls extracted from the trunk, and reduced to a powder like saw-that. The filmments are next separated by washlng. The meal is then laid to dry ; and, belng made Into cakes and baked, is eaten by tho lalanders. For exportation, tho finest sago meal is mixed with winter, and the paste rubbel into smal grains of tho size and form ot coriander seeds. Thls la the species principally bronght to England, for whleh market it shonld be chosen of a redilish hue, and readily dissolving In hot water Into a fine jelly. Within these faw years, however, a process has been invented by the Chluese for rellining asgo, so as to give it a fine pearly lustre; and the sago so cured is in tho highest estimation in all tho markets. It is a light, wholesome, nutritlous food. It is sent from the Islands whore it is grown to Singapore, where it is granulated and bleached by the Chinese. The export trade to Elurope and India fs now principally confined to that set-tlement.-Ainslik'a Mat. Indica; Crawford'a East. Archipelago; Bell's Review of the Commerce of Bengal.

Gahara, or the Great Desert (Arab, Zahra), a vast reglon of norihern Afrlca, extending between lat. $16^{\circ}$ and $33^{\circ} \mathrm{N}$., and long. $17^{\circ} \mathrm{W}$., and $23^{\circ} 10^{\prime} \mathrm{E}$. Bounded east by Egypt and Nubla, south by Senegambia and Nigrltia, west by tho Atlantic, and north by Barbary. It consists of an elevated table-land, covered with large block sof stone, hard-baked carth, gravel, and loose sanil; and in many places it is incrusted with salt. It is the grentest desert on tho glohe, but numereus oases and habitablo spots are scattered over its surface, the largest of which are Gadames and Tuat. It is trnversed in many directlons liy caravan rontes; travelers on which undergo the most intense suflerings from thlist, and from exposuro to the simoom, or hot, dry wind from the south and east, which usually lasts 10 or 12 hours: during its continuance the uir ls impregnated with finu snnd, nut tho sun is bnrely perceptible. Kain appears to fall in torrents at intervals of 5,10 , or 20 yenrs, and many places of tho desert bear evidence of lts action even for a much longer period. The heat is excessivo turing the summer, but in whinter the evenings are cool, nad durligg night frequently cold. Palm-trees grow on the borders of the Sahara, and the chicf products of its oases are dates and gums.

Bail, in Narigation, an assemblage of severnl breadths of eanvas sewed togother by the lists, and edged round with cord, fastened to the yarils of a ship to make it drive before the wlnd. Tho edges of the cloths or pieces of which a sail is composed are gencrally sewed togethew with a doulle scam, and the whole is skirted round the edges with a cord, called the bolt-repe. Although the form of sails is extremely different, they
are all, nevertheless, trianguiar or quadrilateral ifgures ; or, in other words, their surfaces are contained either between three or four sides. The former of these are somstimee spread by a yard, as lateen sails, and otherwise by a atay, as atay-aaila, or by a mant, as shoniler-uf-mution aails; in ail which casea the foremost loech or edgo is attached to the sald yard, mast, or stay, tirroughout Its whole length. The latter, or these whicin are fonr-sided, are either extended by yards, as the principal yards of a ship; or by yards and booma, as the studding-sails, drivers, ring-tails, and ail thome saila which are set occasionaliy; or by gafis and booma, us the mainsails of sloops and brigantines.

Sail is almo a name applied to any vessel seen at a distance under sail, and is equivalont to ship.

To set sail, is to unfurl aud expand the saila upon their respective yarda and atays, in order to begln the aetion of salling.

To make aail, is to spread an additlonal quartity of sail, so as to increase the ship's velocity.

To shorten sail, is to reduce or take in part oi the sails, with an intention to diminish the ahjp's velocity.

To strike aail, is to lower it suddenly. This is partieularly used in saluting or doing homage to a superior furce, or to one whom the law of nations acknowieriges as superior in certuin regions.-See Bluxt's Coast JiLut; Illest's Ship-mastor's Assistant, New York, 1807 ; Bow pitch's Narigution.

Bailing, tho movernent by which a vessel ia wafted aloug the surface of the water by the action of the wind upon her salls. When a ship changes her state of reat to that of ravtion, as in advaucing out of a harbor, or from her station at anchor, she acquires motion very gradualiy, as a body which arriven not at a certain velocity till after an intinito repetition of the action of lts woigit. The first impression of the wind greatiy affects its velocity, because the reaistance of the water might destroy it: since the velocity being but amall at first, the reastance of water which depende upon it will be very feebie. But as the ship increases ber motion, the force of the wind on the sails wili le dininished; and, on the contrary, the reaistance of the water on the bow will accumniate in proportion to the veiocity with which the vessel advances. Thus the repetition of the degrees of forco, which tho action of tho sall adds to the motion of tho ship, is perpetuaily decreasing; while the new degrees added to the effort of resistance on the bow are always angmenting. The velocity is then accelerated in proportlon as the quantily added is greater than that which is sultracted; but when the two powers become equal, when the impression of tho wiad on tho sails has lost so much of its force as only to act in proportion to tido upposite impulse of resistance on the bow, the ship will then aequire no adilitional velocity, but continne to saij with a constant, uniform motion. The great weight of the ship may, indeed, prevent her from acquiring the greatest velocity; but when abo has attained it, she will advance by her own intrinsic motion, wil hout gaining any new degree of velocity, or lessening what ahe has acquired. She moves then by her own pmper force in racuo, without being afterward aubject either to the effort of the wind on tho sails, or to the resistance of the water on tho bow. If at any time the inspulsion of the water on the bow should deatroy any part of the velocity, the efliort of the wind on the sails wili revive it so that the motion wili continuo the eame. It must, however, be observed, that this state will only subsist when these two powers act upon each other in direct opposition, otherwise they will mutualiy destroy one another. The whole theory of working shipe depends upon this countor action, and the perfect equality which should subsist between the effort of the wind and the Impulaion of the water.
The effect of asilling is produced by a judicious arrangement of the sails in tho direction of tho wind. Accordingly, the various model of eailing are derived
from the different tegrees and situations of the wind with regard to the course of the vessei.

Satiling niso implies a particular mode of navigation, which is formed on the prineiples and regniated by the Jaws of trigonometry. Hence we any, Plaln Saliing, Mereator's, Midille-iatituile, I'arallei, and Great-circio Sailing.

Baint Ohriatopher, or Baint Eitt's, one of the Hritish. Weat Indla Isiandin, leeward group; Int. (Fort Smith) $17^{\prime \prime} 18^{\prime} 7^{\prime \prime}$ N., long. $60^{\circ} 42^{\prime} 9^{\prime \prime} \mathrm{W}$. length, northwest to southeast, 20 miles; breadth, 5 miles. Area, 68 square milies. Popniation about 25,000 . The soil is partleuiariy adapted to sugar.

Staple Productions.-Sugar, rum, molassea, nrrowroot, fruits, and vegetabies. The Unlted Stater export to thls isiand, and the other iaiands which compose this conaular diatriet, flour, grain, lumber (prinel. pally piteh-pine), and provision of ali kinds. American tonnage employed in the trade with this island in 1853: ${ }^{11}$ vessels, with an aggregate tonnage of 5070 . There are no lritish vessels regularly engaged cither in the foreign or consting trade of this jaland. Hence American ships are frequently chartared to convey sugar, molasees, and other products to England, where, by reason of a protective duty on foreign similar profweta, they find the lest market. In addition to the staples of this island, United States vessels export large quantitiea of old motais (as brass, iron, copper, lead) and hides. A large portion of the revenue of this inland is derived from en export duty on its ataple jrminctious.

Fort Kegulations.-All vessels on entering pay a tonnage duty of 36 cents per ton, and a fee of $i+$ to the colonial seeretary. There is no pllotago tax, as the port of St. Christopher is open and free from ali olstacles, such as reeff, cte. The official returns for six monthn, from 1st July to 81si December, 1854, wlil suffleiently exhitht the extent of trade between the United Staten and St. Chrintopher.

Gaint Croix, the southernmost and largest of the Virgin Islands, andi the most important of the Dacish possessions. Areu, 100 square milics. P'opulation (1845), $25,600$.

Tho commereial intercourse between thia isiand and tho United States depends partly on the mother country, and parily on local legialation fixed for the time. There aro 110 privileges allowed other countries which are no. allowed the United States. Goods may be reohipre. in American vessels. The money currenty passiag, heor is dollars anil cents. Danish weight is about 10 per cent. beavier than liuglish. The trade to this island is now leas than one-third of what it was lefore the emancipation. Oftentimes iliere is not on American vessel in port for monthe together. The supplics como generally through St. Themas, which is a freo port, and yet under the same government.-For Geology of St. Croix, ace Silliman's Journ. xxxv. 64. Amgaioan l'modece impertid bigeot into the laland of

| Articlea, | 1681. | 1859. | 1 sas , |
| :---: | :---: | :---: | :---: |
| Corn meat. . . . . . . . punch'na | 3,1093 | 3,740 | 4,064 |
| Corn ment. . . . . . . . . barrels. | 6:6 | 83i) | 45 |
| Superfine flonr..... " | 3 mO | 3,240 | 3,150 |
| Brend............. ${ }^{\text {a }}$ | 240 | 210 | 190 |
| theef. | 60 | 74 | 30 |
| Pork. . . . . . . . . . . . ${ }^{\text {a }}$ | 110 | 800 | 610 |
| Herrings ........... " | 320 | 410 | 280 |
| sult fish........... esska. | 250 | ${ }_{16}^{27}$ | 810 |
| Rye flomr. . . . . . . . . . barrels | 134 | 168 | 210 |
| 1hed oak ntaves . . . . | 231,040 | 246, $\mathrm{MHO}_{6}$ | 260,000 |
| White osk slaves... ... | 140,000 | 120,000 | 110,000 |
| White pine tamber feet. | 1.607,000 | 1,760,000 | ,720,000 |
| litich plise lomber. " | (310,000, | 185,040 | , 968,0000 |
|  | 2,316,000 14 | 1, $280,000{ }_{0}$ | $0^{00}$ |
| Maten. . . . . . . . . . . . | 150 | 105 | 150 |
| Kegs of natts ...... " | 70 | 15 | 78 |
| Weod hoopn . . . . . . . | 210,000 | ¢50,000 | £80,060] |

PRoducti or tan igland aspoatan to tie Umited bratma, 1851-63.

| Artialea, | 151. | $185 \%$ | 1451 |
| :---: | :---: | :---: | :---: |
| Sugar . ........ hograligads. | 11663 | 806 | 1067 |
| Sugar .......... barrela, | 1159 | 788 | 75 |
| Prum. . . . . . . . . . puncheons. | 1922 | 910 | 1531 |

Saint Efelena, an ialand in the sonth Atiantic Ocean, belonging to Great Britain, aboat 800 milea southeast from Ascenaion, and nearly 1200 iniles from the coast of Lower Guinea. Lat. of obeervatory, $15^{\circ} 65^{\prime}$ S., iong. $5^{\circ} 44^{\prime}$ E. Area, 30,300 acrea. Population in 1850,7000 , of whom nearly one-half were whites. It is of volcanio origin, and conaista of rugged mountaina, interspersed with numerous ravines, in one of which, on its northwest abore, is Janiss Town, the residence of the principal suthoritiea. Its centre is a table-land, with an sievation of 1500 feet, but from which esveral mountain sise to a greater elevation, Dlann'a Peak being 2700 feet. Climate mild. Mean temperaturn of year, $61^{\circ} \cdot 3$; winter, $58^{\circ} \cdot 4$; summer, $03^{\circ} \cdot 8$. The island is watered by nunerons brooke, and about a fift part of its surface is fertile, yielding the products beth of European anil troplcul countriss. Goats are plentiful in the uplands; but supplies of provisions are mostly procured from abrend, the island tying in the homeward track of ahlpa returning from India. St. Helena is chiefly noted as the place of exile of Napoloon Bonaparte, whose rosidence, Longwood, was on the elevated plateau of the interior. He lived there from 1816 till his decease, May 5th, 1821.
The Unitad States have a consul resident at this isiand, which is frequently visited by our ships to and from Asia, Iudia, Cape of Good Ilope, ete. By act of 3 and 4 Willism IV. the island of St. Holena, and all forts, facteries, and publle edlfices, were vested in His Majesty, and the island shall bo governed hy orders in council.
The average aggregate values of imports at thits island from the United States are: For the jear 1851, 86420 ; for the year 1852, 88377; for the ycar 1853, 830,809 ; for the six months ending B0th June, 1854, \$12,25t. Value of oil and whalebone transhipped by Anierican vessels to the United States, \$16,525. There are no privileges permitted to the comuncree of other nations which are denied to the United States; but, on the other hand, thero aro privileges granted solely to vessels of tho United States, such as the reduction of custom charges on the transhipment of oil, whalelone, and cupty oil casks, as por proclamation of September, 1853, and the remission of port charges to whaling veseels calling here withis three months after their first arrival, as per notice of July, 1854, which accommodations have had their effect in the incrense of the Ansorican fleet at this port. The port charges are levied alike on all foreign vessels as on British. There are no charges on national vessels, elther British or foreign, and all are alike furnished with water freo of charge. There is no Chamber of Cominerce, and tho rates of exchango depend on the parties egreelng; generally, howover, they ane private bills, and are taken at par ; the commisaariat, however, charges $1 \frac{1}{2}$ por cent. There are no duties oxcept on wines, spirits, and beer; only a wharfage tax on all gooda landed from Great Britain or any forelgn country. There are no pricc-current sheets issued, the market boing unstable; and the supplies from abread (almost entirely from England) being irregular, ovory thing, as a general thing, bears a high valuc. The American whaling flect, after once entering this port and paying the custom fees, may return to the island at any timo within three months, for veater or any other supplies whatsocter, without being subject to the payment a accond time of the tonnage or other custom fees; and that every facility will be given for the accommodation of the fleet.
Baint Johns, a sea-port, and capltal of the island and British colony of Nowfoundland, North America, near the extrenity of the mosteastern of the numerous
peninsulas whleh project from the eastern portion of the isiand; lat. $47^{\circ} 33^{\prime} 6^{\prime \prime}$ N.; long. $32^{\circ} 43^{\prime} \mathrm{W}$. Population in 1850, 19,000; In 1852, 21,000 (renident), 6000 fishermen. T'he trade ce St. Johns consiate chicfly in supplying the fishermen, most of whom are Roman Catholien, with clothing, provisiona, and flahlug and hunting gear. The harber of St. Johns is excellent, although narrow at the entranco; the channel, from point to polat, being only 300 fathoms wide. Tho tide rises 5 fest, neap-tides $8 \frac{2}{2}$ feet, but very irreguiarly, being much infiuenced by the winds. Goods may be transhipped in United States vessels to amy place out of this colony without restriction of any sort. The weights and measures are the same as in England. The monays are in a great degree the same, nemely; soverelgns, with Spanish and Mexican dollars, which, however, aro now fust disappearing. The currrent value of the sovercign is 24 shillinga, equal to 8480 , and of the doliar 5 shillings, or 100 cents.
The nvorage wholesale prices of the exports to the United States since July 1, 1853, have heen as follows: Seal oil, 60 cents per gallon; cod oil, 65 cents per gnllon; codifsh, 8260 per quintal; herrings, 8240 per harrel. Salmon, not quoted above, varies from 182 to 820 generally for the tierce of 310 pounds. These articies are rarely sold at retail in thls market. Tho nverago raio of exchange was 4 to 5 per cent. discount from this colony to the United States. The true par of exchange is 2 per cent. Tho duatea nre on imports from all countrles allke, as follows : Bread, 6 cents per bag of 112 lbs.; flour, 35 cents per barrel; pork, 72 cents per barrel; beef, 48 cents per barrel; butter, 48 conts por cwt. ; manufactured tobacco, 4 cents per lb . ; tea, 0 cents per ib . On all unenumerated goods 5 pier cent. ad ralorem; and in this port an additional duty is levied of 10 per cent. on the duties above.

Baint Lawrence river, UnIted States and Canalla, forms the outtct of the great lakes Superior, Huron, Michigan, Eric, and Ontario, and, after a course of mere than 2000 mlles, flows inte the Gulf of St. Lawrence. It forms the bonndary, with tho nilddlo of the lakes through which it passes, between the United States and Canada, until it arrives at tho 45th degres of north lat. It has different names in different parts of its course. From its mouth to Lake Ontario it is cailed the St. Lawrence; between Lakes Ontario and Erio, Nlagnra River ; between Lakes Erio and St. Clair, Detroit River; between Lakes St. Clair and Huren, St. Clalr River; and betwcen Lakes Huren and Superior, St. Mary's River. It is navignblo for ships of the line $\mathbf{4 0 0} \mathrm{mlles}$, to Qucbec; and for sh es of 600 tons to Montreal. The distance from Montreal to Lako Ontario is uearly 200 miles. From Quebec to Montreal it has an nverage brendth of two milcs. At its mouth, tho Gulf, from Capo Rosier to Mingau settieinent, in Labrador, is 105 uiles in length. The cievation from thto-water to Lake Ontario (exceeding two hundred feet) is overcome by seven canals of varieus leagthe, from 12 miles to one inlie (but in the aggregate only forty-one miles of canal), haviag lecks two hundred feet in length between the gates, and forty-five feet in width, with an exenvated trunk fron. ons handred to one hundred and forty wido on the wate-siarface, and a depth of ten feet water. From Lake Ontario to Lake Erie an elevation of three hundred and thirty feet is surmounted by a cannl twenty-eight miles in length, with about thirty eat stone locks one \%me: dred and fifty foet long, by twenty-six and a laif ieet wide, designed for propeliers and sail cra! Theso locks will pass a craft of abont fivo hundreet tous surden, while those on the St. Lawrenco have a cepacity doublo thls amount. The total cost of thi, uat igation may be set down at $812,000,000$. The \$it. Iswrence Conal was designed for paddic-steamers, which aro required as tugs, or to ascend ngainst tho chirrent; but from the magnitudo of tho rnplis, and their regular inclination, tho ald of the locks is not required in de-
scending the river. At some of the rapids there are olstacles preventing the descent of deeply-laden craft, but the govermment are about to givo the main channel In all the raptils $n$ depth of ten feet water, when the whole descending trado by steam will keep the river, leaving the cmuals to the useending craft.-Nee Cumada and Montheial.

The relative position of the Unlted States and Great Britaln in ruspect to the navigation of the great northem lakes and tho River St. Lawrence, nppears to he similar to that of the United States and Spain, proviously to the cessation of Louisiana and liorida, in respect to the Missisalpyi; the United States being in possession of the southern shores of the lakes, and the River St. Lawrence to the point where tho northern houndary line strikes the river; and Great Brituin of the northern shores of the takes, and the river in its whole extent to the sen, as well as of the southern banks of the river, from the latitude of $45^{\circ}$ to its mouth. The claim of the prople of the United States of a right to navigate the St. Lawrence to and from the sen was, in 1826, the sulject of diseussion between the American and British govermments.
The navigation of the continuous waters of the United States and Canala is provided for int the following artictes of the treaty of June $\overline{5}, 1854$ : The third article, whose operation miny be affected at the will of the Americun government, by a suspension of this privllege, as atipulated for in the fourth article, on tho part of Grent Ilritaln, provides for 5 rechprocal trade, free of duty, between the United States and the British colonies, in the articles of their respective growth and proluce, as enumerated in the schedule thereto anmexed.
"It is agreed that the citizens and inhabitants of the Inited States shall have the right to navigate the Rlver St. Lawrence and the canals in Canada, used as the urrans of communication between the great lakes and the Atlantic Ocenn, with their vessels, boats, and crafts, as fully and frecly as the subjects of lher Mritannic Majesty, subject only to the same tolls and other nssassments as now aro or may hereafter be exacted of Iler Majesty's said suhjeets; it being understool, however, that the British government retains the rlght of suspending this privilege, on giving tho notice thereof to the government of the Cnited States.
"It is further agreed, that if at any time the llritish government dould exerclse the said reserved right, the government of the Conited States shall have the right of suspendi'g, if it think fit, the operation of $\mathbf{A r t i c l o} 3$, of the present trenty, in so fur as the provines of Canalla Is affected therely, for so long as the suspension of the free navigation of the liver St. Lawrence or the canals may continue.
"It is further agreed, that British suljects shall have the right freely to navigate Lake Michigan with their ressels, boats, and crafts, to long as the privilege of navigating the River St. Lawrence, seeured to the Americaus hy the above clause of tho present article shall continie; nad the government of the linited States furiler cagages to urge ujon the State governments to secure to the subjects of Jler liritamic Majesty the use of the several State canals on terms of etpunlity with ihe inhonbitants of the Luited States,"Wusntws's International Lau', For correspondenee on unvigntion of St, Lawrince, seo Americun Amual Registor, i1. 1.7; ; Nuses's Register, xxxiii. 111.

Saint Louis, city, Missouri, cupital of St, Louis county, is sitated on the right bank of the Mississippi, in lat. $3 x^{\prime}{ }^{\prime \prime} 5^{\prime} 28^{\prime \prime}$ N., und long. $90^{\circ} 15^{\prime} 10^{\prime \prime}$ W. from Greenwith, nut is one of the largest and nost flourishing cities in the great valley of the Misslssiphi. It is 1290 inites above New Orleans, and 1350 miles above the mouth of the river, About 180 mikes aouth of the clty the Ohio comes in to the Great Father of Waters, from its castern sources in the Alleghanies, after a course of 1000 miles, while a short dintance above its mou'h the Cumberland and the Tennesse pour their
streams iato Ia Belle Itivlere. To the northward, 17 miles, the Misaourl pours out lts turbid stresm into the Mississlippl, and the waters flow down to the very front of. the city, before the elear waters of the Mississippi yield themselves to the embraces of the great rivers of the West, coming down from the anows of the Rocky Mountaius 2000 milea away. At a distanea of 33 miles to the northward, the Iltinoig-now conneeted with the takes by tho Illinois and Dlichigan Canal-comes in from the northeast, and is navigated by St. Louis hoats as far as the junction of the canal and river at La Snile, 290 miles from St. Louis. St. Louis is the centre of a great railroad system, radiating to all parts of the Union. The system, as at preaent planned, may be stated as followa: The Paelfle Road with Its branches. This road runs froms St. louis to the Nerrimae River; tho main line then crosses the dlvide between the Merriinac nud the Missouri to Jefferson City, the eapital of the Stato; thonce leaving the river, It runs direetly to the mouth: of the Kansas River, to be extended to the Pacilic, through the great chain of the Roeky Mountains. This road is 311.60 milles in length, and is finished to Jefferaon City. The Ohio and Mississippi Railroail, from Cincianati to St. Loule, was opened in 1857, 336 miles in length.

The steamboat tonnage of this city will appear from tho following table. For the year ending June 30 , 1853, the following cities stood entered on the hooks of tho custond-house, as fullowa :

| Citien. | 1830. | 1851. | 1853. |
| :---: | :---: | :---: | :---: |
| Nt. Ionis. . . . . . . . . . . . | 24,965 | 8.4,04\% | $45,6 \pm$ |
| Ctucinnati | 16,906 | 14,187 | [11, ! $!1$ |
| Nasliville . . . . . . . . . . . . | 3,70 | 3,667 | 8.414 |
| L.oulsville. . . . . . . . . . . | 14,8:0 | 12,90\% | $14,160^{\circ}$ |

thus ahowing an inerease at the rate of 11,000 tons per year. For tho yunr ending December 31, 1853, the sugne landed at St. Louis was 50,774 hhds., 15,993 bbls., $\mathbf{4 6}, 257$ boxes and bags; molasses, 51,0933 bhls. and hheds. For this artielo St. Louls is the great central supply mart. Hy the government returns, nll the sugar shipped from New Orteans for $\mathbf{1 8 5 \%}$ was 60,793 hhils., and $6 \mathrm{ha}^{3}$ tbls., while St. Louis imported $50,7 \mathrm{ta}$ hhlas., and $13,993 \mathrm{bbls}$. The whole limports of coffec into the Unlted States in 1853 were $199,089,823$ lis., nud of this St. Louia imported $16,714,720$, or abunt onetwelfth. To show the business of the yeurs 185:-1857, we give the receipts of eertain articles:

| Asticles. | 1552. | 1838. | 1657. |
| :---: | :---: | :---: | :---: |
| tobacco . . . . . . . lihts, | 14.153 | 10,11t: | 6.106 |
| * . . . . . . boxes | 12,886 | 10,624 | 12,111 |
| Jimp . . . . . . . . . iarrels. | 49,122 | 13,500 | 7. 4850 |
| 1eatl . . . . . . . . jigg. | 409,814 | 42,218 | 16, 5in |
| l'lour . . . . . . . imrrels, | 131,384 | 2011,203 | 345.061 |
| Wheat . . . . . . . Junhels | 1,601, 546 | 2,077, ${ }^{2} 27$ | 2. $80 \mathrm{~m} . \mathrm{W} \mathrm{NO}$ |
| Corn . . . . . . . . . maeks. | 344.740 | 454, 112 | 1.843, k 0 |
| thats. | 2ar3, 081 | 444, 162 | Cs s.imb |
| ttarley and mait | 47,204 | 62, 84 $0^{6}$ | 111, $5 \mathrm{M}, \mathrm{t}$ |
| Pork . . . . . . . . . . bble nod tes, | $61,3 \mathrm{Mm}_{4}$ | 78,354 | 110,000 |
| Lard . . . . . . . " " | 44.515 | (5,11:8 | (th. 0 M 09 |
| ". .......... kegs, otc. | 11.815 | 16,849 | 15.040 |
| Whitrky ...... Imrrels. | 46,446 | 61,207 | t:5, (040) |
| Illdes ..... ... | 67,148 | 101.841) | 126.600 |
| Itagatrg . . . . . . pleces. | 8,680 | 2,826 |  |
| Itale roge. . . . . dolin. | 42,121 | 64,4831 | 4.00 mm |

Hour manufnctured at St. l.auis in 1851, d08, 009 hits. ; 1852, 383,181 hbls. ; 185:', 165,076 bbls. ; to this must The adted receipts hy wagons from country mills, $80,2: 0$ burrela, maklag the sum totul of the flour manufactured unt brought to St. Louis, 737,499 bareels. The flour manufactured In St. Louis in the year 1806 was be 8,000 harrels; and in 1857, 6f:, 000 . Thre are sixtern flourmills within the limfts of the city. The number of steamboat arrivals in 1857 was $3 t \dot{5}$, with no nggregate tonnge of 964,700 tons. Forelgn goods imported in Nt. Lents for the year ending December \%1:

|  | 1861. | 1569. | 433. |
| :---: | :---: | :---: | :---: |
| (inode, ete | \$874,672 88 | \$1,039,473 00 | \$1, 4th, 45140 |
| Dutlen | 239,818 69 | 240,10855 | 156, 616 44 |

-See Dismasiaju Riven. ry front slssippi ivers of Rocky 33 miles with the omes in als lionts a Salle, ntre of $a$ of the may be ranches. e River; 1e Merriapital of rectly to do the 7 Mountad is finississippi pened in boaks of

Baint Petersburg, the modern metropolls of the Russian empire, situated at the confluence of the River Neva with the eatern extremity of the Gulf of Finlend, in lat. $59^{\circ} 56^{\prime} 25^{\prime \prime}$ N., long. $50^{\circ} 18 z^{\prime}$ E. Population, 480,000 . Thls flourishing elluporlum was founded by Peter the Great, whose nume it bears, $\ln 1703$. In the same year, the flrst merchant ship that ever appuared on the Neva arrived from Molisnd; and the czar, to mark his sense of tho valuc of such visitors, treated the eaptain and crew with the greatcst hospitallty, and leaded them with presents. In 1714, 16 ships arrlvod at St. Petersburg; In 1730 the number had increased to 180; and so rapid has been the progreas of commerce and civilization In Ruseia sis ce that period, that at present from 1200 to 1500 sh ps annually enter and clear out from St. Petershurg! It is much to be regretted that, although favorable to commerce, the situation of St. Petersburg is in other respects far from good. The ground on which lt etands is very low and swampy; it has on ditferont ocessions sustained great injury from Inundations; and the country round is, gencrally speaking, a morsss and forest, so that almost every thing required for the culsistence of the inhashitants must bo brought from a distance. No one less bold and daring than Peter the Great would have thought of selecting such a situation for the metropolis of his empire; and none possessed of less power and resolution could have succeeded in overcoming the all but iusuperabie olistueles which the nature of the conntry opposed to the completion of his gigantic schemes.

Cronstadt, situated on a small island about 20 miles west of St. Petersburg, may, in some measure, be considered as the port of the latter. Almost all vessels bound for St. l'etersburr touch there; and those drawing alove 8 feet water load and unload at Cronstadt; the goods being conveyed from and to tho city in lighters, the charges of which vary aecording to the demand at the time. 'The merchants' harbor at Cronstalt is fitted to contain about 600 ships; but it is exposed to the westerly winds. Cronstadt is strongly fortitied, and is the principal station of the Rassian fleet. Vessels bound for St. Petersburg must pass by the narrow channel to the south of the island, commanded by the fortilleations of Cronstadt on the ono side, ant of Cronslot on the other.

Money.-Accomits are kept at St. Petersburg, and throughout Russia, in soubles of 100 copecks.

The only gold coin nt present struck is tho $\frac{1}{8} \mathrm{im}$ perial, or 3 -rouble pieca, $=16$ s. sterling very nearly. The silver rouble, worth 3 s .23 l . sterling very nearly, was deelared, by a ukase issued in 1839 , to be worth 34 paper roubles.

But another ukase, issued on the 14th June, 1843, directs that the old bank-note roubles in circulation, amounting to the sum of $595,766,310$, being equal, at the exchange of $3 \frac{1}{2}$, to $170,221,803$ silver ronbles, should be called in, and replaced by an iseuo of $170,221,000$ billets du credit, to bo exehangeable at tho pleasure of the holder for silver roubles. This is a most important regulation, and if it be fully carried out, the distinction between silver and paper roubles will dismppear; at the same time that additional security will be given to all sorts of industrious undertakiugs, and to tho eredit of the govermment.

Weights and Measures.-Tho Russian weights are the same for rold, silver, and merehmulise : viz., 3 Soltnicks $=1$ Loth. $\quad 41$ Pounds $=1$ Pood.
3! Loths =1 P'onnd. 10 P'euds $=1$ Uorkovitz.
The Russian pound contains, aecording to Kelly, $6318 \cdot 5$ Euglish grains. Hence 100 Hbs . Linssian $=$ $90 \cdot 26$ 16s. avoirdupois $=40.93 \mathrm{kileg}$. The pood $=36$ Ibs. $10 \% .11$ Irs., but amongr merchants it is reekoned $=36 \mathrm{lbs}$. Aecording to Nelken'brecher, 100 lbs . liussian $=90.19 \mathrm{lbs}$, avoirdupols $=40.9 \mathrm{kilog} .=82.8 \mathrm{lbs}$. of Amsterdam $=8 \cdot 4 \cdot 4$ of Ilamburg.

The principal measure for cora is tha chetwert, diviled luto 2 osains, 4 pojocks, 8 chetwericks, or 6.1 ger-
nltz. The chetwert $=5.75$ imperial bushels. Henco 100 chetwerts $=72 \cdot 12$ lmperial quarters.

| In liquid measure, | 8 Wedros $=1$ Anker. |
| :---: | :---: |
| 11 T'sharky = 1 Krashka. | ${ }_{2} 0$ Ankery $=1$ Oxioft $=1$ Oxhoft. |
| 8 Krashka $=1$ Wedro. | ${ }^{2}$ Oxinoft $=1$ Pipe. |
| 40 Wodros $=1$ Sorokovy. | In long measure, |
| The Wedro $=8!$ Englieh | 16 Wershok $=1$ Areheen. |
| 18t Bottles $=1$ Wodr | $\begin{aligned} & 3 \text { Arsheen } \equiv 1 \text { Sushe0. } \\ & \text { 500 Sashen } 1 \text { Vornt. } \end{aligned}$ |

1 sashen $=7$ English feet. 1 arsheen $=28$ English inches. 100 Russian feet $=114 \frac{1}{2}$ English feet. The verst, or Russian mile, $=5$ furlongs 12 poles. The English inch and foot aro used throughout Russia, chlefly, however, in the measuring of timber. - li L ly's Cambist, art. Russia; Nelkenanecien, trcibiel Unitersel.

The following regulations for the importation of foreign goods are strletly enforced. All goods imported must be accompanled by the fellowing documents:

1. The declaration of the captain, aecording to the form ordered by the custom-hoaso.
2. An attestation from the Russian consul, and, where there is no consul, from the custom-house of the place, of the quantity and quality of the goods, and a declaration that they are not the produce, manufacture, or property of an enemy's country.
3. Bills of lading of all goods, in which the weight, measure, or quantity of each package must be specified. In caso the bills of lading are not exactly after this regulation, the goods pay double duty as a fine. In ease more is found than specified in tho bill of lading, the surplus is confiseated: if less is found, the duty must be paid on the quantity specilled. Of winc, it is not sufficient to specity the number of pipes or hogsheads only, but also their contents in gallons, etc. Of lemons, the number in eaeh box must be specified. Of manufnetured groods, the measure of each pieco must be speeified, and the number of pieces in each bale. It is indifferent whother the gross or the net weight be specilied. If the packages be all of tho same weight, measure, or contents, a general specification will do; ns , for example, 100 easks alum, of 17 lispound each. Of dye-woods the weight of the whole need only be mentioned. Of goods of sinall bulk, ns pepper, etc., it is sufficient to state the weight of every fire or ten bales, but with specification of the numbers. There must not beany erasures or llots in the bill of lading. All goods not aceompanied by these dlocuments, or where tue doeuments are not aceording to the n'ove regulations, will be sent baek. Bills of lading may be mado out either to some house or to order.

Tha following charges have been fixed by the merchants of St. Petersburg:
Commalssion on sales and porehgses
Per Ct.
lixtra charges on alt goois.

Brokerage en sales and purehases.
Dite on bilis. . ..................... .
D) tito on frelght, juer ton, 60 copecss.

Stamps . . . . dinarges on ....................
Charges oll ditty, paid
Intto, paid otitward.
(Jomuntssion for collecting frei
Commission for conceting freight, or average iaward
( Commission for procuring frelght ontward
For elearmiecs, 40 roubtes.
Huos to be pald to the Church, 10 roubles each vessed. Cíearlug of ships of or ander


Tare on Gools exported, as fixed by the Custom-house.
Dry Goods.

| Par Cl. |
| :--- |
| $\ldots$ |

In burrels or chests. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10
II backs . . . . . . .
In maks, or packs made of mata...................................... 8
Exet; t Museovy leathor, of which is deducted. . . . . . . . . . . 5
Wivit Goods.
Per Cl.
Press d caviare. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8



Moist Goods imported．－The following ars somo of the tares apeeified in the tarlff：

Bills drawn in Russia，and payatile after clate，are allowed 10 days＇grace；but if payahle at right， 3 days only．Sundays and holidays are included in both cases． The Julian calendar，or old stylo，is still retained throughout lanssia．This is 12 days later than the new style；and in leap－－vears， 13 days，after the month of Feliruary．

Port Churges．－The regular charges which shipshave to pay at the ports of St．Petersburg and Cronstadt compriso tho fullowing fixed dues and expenses；viz．， lastage，passes，clearing at Cronstadt，address mones； St．1＇etersburg and Cronstadt elaureh money，Cronstadt expedition and allowance to the Russin Cempany＇s agent，for all which a charge is made in the ship＇a ac－ count in one sum，proportionally to the ship＇s register tonazire，according to the following scale：viz．，

| Tons Regiter． | sir．Roab． | Toma Rozitor． |  |
| :---: | :---: | :---: | :---: |
| For 61. | ， | For 392 toid． |  |
|  |  | 34 |  |
|  |  | － 3022 to |  |
| 10：10 121 | 6is | $3 \times 2$ |  |
| $1{ }^{124}$ to 141 | it 0 | 402 to |  |
| 120 to 161 | ： 14 | ＋22 to． 44 | 178 |
| 102 to 1 | ¢45 | 442 to 401 | 17511 |
| $1 \times 2 \mathrm{to} 201$ | 92. | 4tix to，tw | ix |
| 202 to 221 | 214 | 452tucout |  |
| 22n tue 41 | 19298 | s02 1 5 5 1 | 19：3 14 |
| ， |  | toratos |  |
| 62 to 201 | 11514 | 51210 |  |
| 4－16301 | 14314 | ：6， | 214 |
| 302\％ |  |  |  |

Trade，etc．－St．l＇etersturg has the most extensivo furcign trate of any city in the north of Europe．This arises from its lowing the only great maritime ontlet on the solf of lumanal，and from tis vast aul various conmmitications with the interior of the conntry．Few comutriea have such an extent of intermal navigation aa Lessia．The irom and furs of Sileria，and the tess of thima，are received at St．I＇etershurg ly rivers and canals ria the Caspian；liut owing to the great ills． tance of those comtries，and the short period of the year during whic the rivers anel canals are navigalide， they tuke three years in theirt nusit．Immense quan－ tifles of georls are also conveged durlug winter opon the ice，ins sledgen，to the dilfirent ports，and to the neareat pristans，or phaces in the hiterior where barka are buith for rhar or ranal navigaton，They nre put on board in an：belpation of the poriend of sailing，that the harks may be ready to take atlvantage of the hith water，hy toathg down with the current an soou as the anow anll hee beghin to melt．The cargoes carried up the river itto the interior during summer are princh－
pally conveyed to thelr ultinata destinatlons by the sledge roads during winter．The convegance by the latter is generally the most expedtilious；and lt ，as well as the internal conveyance by water，la performed at a very moderate oxpense．Tha barka that come from the interior are mostly of a very rude construction， llat－botomed，and seldoin drawing mora than 20 or 30 inchos wator．When they arrlve at their destination， they are sold or broken up for fire－wood．Theso that leave the ports for the interior are of a superior descrip－ tion，nud nre comparatlvely few in number；the com－ moditles imported heing at an avernge，of much greater value relativoly to their bulk and welght than those that are exported．

Principal Articles of Export．－The prinelpal articles of export are tallow，hemp，and fax；gralu，particu－ larly wheat；linseed，timber，copper；hldes，potashes， bristlee，hemp－seed oil，furs，leather；fox，hare，and squirrel skins；canvas and coaroo linen，cordage，cav－ iare，wax，isinglass，quills，tar，etc．Tallow，both for eandlea and sonp，is more largely exported from this than from any other port in the Baltic or elsewhere， and is an artlele of great commercinal importance．－See Tais．ow．llemp is of good quality，though inferior to that of Riga：it is assorted，aceording to its quality， into clean，or firsta；outshot，or seconda；and half－clean， or thirds．The first sort should he quite clean，anil freo from spills；the second la less so；and the third or half－clean，eontnins a still greater portion of spilks， and is，besides，of mixed qualities and colors．Thusian Hax is much estecmed for the length of its fitire；it is maturally brownish，lout hecomes very white after the tirst bleaching．Threo qualities are distinguished：iz．， 12 head， 9 head，and 6 head．Iron of gool qualty， and preferable to that from the other Russian ports，is of two kinds，old and new sables，the former heing the best．It used to be exported in conaiderable q⿴囗十⺝刂土ti－ ties；but the shipments are now much reduced．
Commerce．－The total value of the exports of st．
 A considerable nugmentation was experienced in cer－ tain deseriptions of merehandise．The quantities of woel and copper more than tripled，and of wheat and thax－seed oil more than doubled the quantities exported during the year 18010．J＇otashes increased 50 per cent．： on the other hamil，oats terreasell $\frac{8}{3}$ ．peltries $\frac{3}{3}$ ，iron $\frac{1}{2}$ ． tallow 25，per cent．；thas－sced，hemp，and woven goods more than 10 per cent．Sugar，tolacco，salt，wines， silk，and cotton yarns also fell much helow the usual importstions．An nugmentation，however，was noted in the lmportation of fruits，rice，raw cotton，and（ham－ pagne wine．
Notwithstanding a beary expenditure was appliwd ly the Russinn government to the improvement of st． betersturg as the commercial emporium of hinssia． atill，owing to the namerons dilliculties ancountrent． and the severity of the climate allowing the six mombe in the year for the contimanee of these work，the re－ sult ly no means realizell the expectations of the gon－ erument．The consergience was，that the low water－ in the rivers，ami the almost total ahseace of water in tho canals，kept lack the produce namally foruaried from the literior．It was net notil towaril the cult of duly that the trate of is．lefershurg exhilited any briskness．Luring the momth of May，several liritid vesels arrived and cleared in hallasi；lime in the lat－ ter part of Jitly and Angust frelght oflered in great nhmblane，althongh the nerivals were numbons．From thia pieriod the trade continued unusmally hriok，mutil early in November，when the navigation closed．

Suljoined is a statement of the prineipal exports from st．l＇ctershurg in 1N52：
Tallow．To Eugtand
．．1，86，1，909 jumla．

31 rouldea 71 kopecka per berkuwitz $=7$ centa per lb．，oearly．


Pricea ranged at 0,10 , and 12 roublea per pood $=\$ 075$, $\$ 750$, and $\$ 9$ per 36 pounds, or $18 \mathrm{k}, 20 \frac{5}{6}$, and 25 cents per pound.
The foregolng were the princlpal exports from St. Petersburg in 1852, and they aro given $\ln$ detail, inasmuch as they constitute, together with iron, copper, timber grains, Russlan leather, quills, etc., tho leading ataples of this great commerctal emporium.

Narigation of the Nera in 1852.-The following table exhibits the navigation of the Neva (i. e. of St. P'elersburg and Cronstadt) In 1852:

| Nationality. | Vonsels. | Tonnaga. | Por Centage on the Whole. |
| :---: | :---: | :---: | :---: |
| Engttah | 1151 | 320,448 | B4.22 |
| Russlan | 222 | 62,570 | 1059 |
| Prusalan | 205 | 44,300 | $7 \cdot 50$ |
| Dutch. | 365 | 38,915 | 6.58 |
| Unlted Statea., | 06 | 27,294 | $4 \cdot 68$ |
| Swedlsh: | :3 | 16,862 | $2 \cdot 85$ |
| Danlsh.. | 182 | 16,290 | 2.76 |
| French . | 113 | 13.013 | $2 \cdot 35$ |
| Sardlntan. | 42 | 11.612 | 196 |
| Norwegian | 84 | 0,2,6 | 1.57 |
| Lübeck. | 60 | 7,1186 | $1 \% 0$ |
| ltanoverlan. . | 118 | 7.155 | 120 |
| Mectilenharg. | 8 | 6,244 | $1 \cdot 04$ |
| Otdenburg | 64 | 5.740 | $\cdot 97$ |
| Bremen .. | 10 | 1,608 | $-27$ |
| Ilamburg. | 14 | 1,536 | 26 |
| Lortugreso | 2 | 272 | 04 |
| Total | . | ... | 10000 |

It is proper to observe that tho percentage is predieated upon the actual entries. Seventy-six of tho vessels nele ded in tho tablo wintered at St. Petersharg, and do not, of course, enter into the calculation. These were:

| lingllsh,............... 21 | Labeek. |
| :---: | :---: |
| Bremen............... ! | Norweglan............ ${ }^{2}$ |
| Dnntsh ................. 0 | lrı.seinin.............. 3 |
| Prench ................ 1 | Russian................ |
| Hanoveriam........... ${ }^{2}$ | Swedlst . . . . . . . . . . . 3 |
| Duteh . . . . . . . . . . . . . 24 | Total vesorls.... $\overline{70}$ |
| Aggregate tonnage | 03! |

-C. D. For further information seo Liring Age, ii. 317 ; South. Lit. Messengcr, xv. 427; Democratic Review, xi. 151 ; Brilish aml Foreign Reries, viii. 33; BlackWool's Mayazine, $1 \times x$. 151 ; Foveign Qurterly, xxviii. 39s. For an account of the commercial poliey of Russia and the general statisties of trade, see Ressin.

Gaint Thomas, a Danish West india Island, Virgin group, threo miles west of St. Johns. Lalitude of west extremity, $18^{\circ} 20^{\prime} \mathrm{N}$., long. $64^{\circ} 5 j^{\prime} \mathrm{W}$. Area, 13 syuare miles. Population (1847), 12,800. Soil poor. The prineipal products are sugar and cotton.

The commerchal intercourse of the Vinited States with this island is depentont parly on the action of Demmark, and partly on tho celonial government. The present commercial regutations aro not fixed for a detinite period, but may be changet at any timo by the recommendation of tho colonial council, approved by the Ministry anl: King of Denmark. There is, however, no chango emtemplanal. By the existing laws and regulations, all nations, including tho mother country, are placed on the same footing in their commerciat intercousso with this island, except as to the tonage duties oa vessels enturing and clearing at this purt, which ati: : on all European veseels, 45 cents per ton; un all uthers, ineluding American, 19 cents. The distinction is probably mate to enconrage the introduction of provisions, rather than the dry goods, farey urticles, and licquors imported from Europe. Tho translipment In vessels of the United States of goods to ports in Denmurk, tho Danish colouies, or to a foreign port, is permitted withont any privileges or restrletions not granted to or imposel on Damish vessels, or tho vessols of any other nations. The moneys, weighta,
and measures known and in common use in thim island are the same aa those establlahed by the supreme law of the mother country, yet the geld and silver coins of the United States and the denbleens of Mexico are also in common use; the latter is worth 616 . The notes of the "Dank of St. Thomas" (a private institution not incorporated) and the netes of the Colonial Bank, lasued in $\$ 5, \mathbf{9} 10, \$ 50$, and $\$ 100$, redeemable in gold and silver, according to the standard value of the currency of the United Stutes, form also a considerc. be part of the colonial cireulation.

The navigation between the United Statea and St. Thomas, as ahown by Consular Retorns, was: entered in 1851, 375 vessels, 71,410 tons; cleared, 366 vessels, 69,847 tons; tetal, 741 vessels, 141,257 tons. Entered in 185:, 368 vessels, 69,490 tons ; cleared, 361 vessels, 68,451 tons; to:al, 829 vessels, 137,941 tons.
Fogeion Impohtationi at Et. Thomas, from Aphil 1, 1853, To Maroll 31, 18 H


St. Thomas is the central station for packets lu generat, and for the steam communication between Southampton and the West Inlies.

Bal Ammoniac. The manufacture of this salt may be traced to the remotest era. Its name la derived from Anmonia, or the temple of Jupiter Ammon, In Figy pt, near to which the salt was originally made. Sal ammoninc exists ready formed in several animal products. The dung and urine of camels contain a suflicient quantity to have rendered its extraction from them a protitable Egyptian art in former times, in oriter to supply Euroje with the article. In that part of Africa, fuel thetige very scarce, recourse is had to the dung of theac animats, which is dricd for that purpose by piastering it upen the walls.

Balep, a spacies of jowier prejured from the dried roots of a plant of the orrhis kind (Orehis maseuld, Linn). That whtch is inported from India is in white wai pleces, hard, clear, and pelluchd, without smeli, nud ansting like tragaranth. As mu article of diet, it is said to be light, himed. and untritious.- Ansume's Mat. Indica; Mnhtns's Oriantal Commerce.

Galmon (lier. Lacke, Sulm; Fr. Nouncm; II. Sermone, Nalnmone; Sp. Salmon; linss. Lemgot. Jhivexrellent fish is too well khown to repuire any description. It is found only in northern seas, Ielng inknown in the Mediterranean and cher warm regions. In this conntry it is an article of muli value and importance. It is said to be exccedimply abumbant fin Jajan nut K, metachitha.

Mot Mritain.-Sulh salmon as are taken in estuarles or ri et are, of course, the property of these to whom the whaties or rivers belong, the tisheries in them freamently letting for very large sums; but of late very -a 10!lon aide quantitien of sol ton have bern taken in

 natle" where the consumption is immense, has hern Whane 700 mrineij ally then lied from the Sonth rivers. The Tweed fistsery is the tirst, in point of magnitude, - st." in th. klugion; the take is sometimes quite

taken by a alngle sweep of the net! Salmon aredispatched l:s ateamers or fast-salling vessels from the Spey, the Tay, the Tweed, and other Scotch rivers, ior Lomion, p.icked in ice, by which means they are preserved quite fresh. When the aeason is at lis height, and the catc.' greater than can lee taken off freah, it is salted, pleklec., or drled, for winter censumption at heme, and for fo.eign markets. Formerly, auch part of the Scotch salmon as was not consumed at heme was plekled and kitted after leejng bolled, and was in tihis state sent up to london under the naine of Neweastie salmen ; but the present method of disposing of the tish has so ralsed its value, as to have nearly deprived ali but the richer inhabltants in the envirous of the fishery of the use of solmen. There are considerable fisherics in some of the Irish and Engliah rivera, but Inferier to these of Scotland. The Scotch salmon fisheries seem to have nttained their maximum value toward the end of the last war, when the fisherles in the T'weed were let for from $£ 15,000$ to $£ 18,000$ a y ear! and those of tite Tay, Dee, Spey; etc., were proportionally valuable. But the value of the Scotch salmoin fisheries has, sicaking generally, declinea greatly of late years; in conse. quence, partly and principally, of a diminished supply of fish in the rivers, but In some degree, also, from tho greater facility of the communication hetwer'n lunton and Liverpool, and the consequent importation of irish salmen into the Jondon marketa, - Gencral Riport if Scotland, vol. III. p. 327.

This tishery in Canada, at the present tims, is very smail. In 1786, however, the export was censilerable. In parts of the country where, in former years, life eatch was large, a fow barrele of pickled animon mily were shipped In 18.48. In the Gulf of St. lawrence there were once extensive eatablishments for the jrosecution of this business; but some have been l,roken up, and etherd have become unprofitalile. Streams that half a century ngo afforded suffictent for domestic consumption, sind thousands of barrels for export, now yield only hundreds of harrels, and the quantity is rapLily dlminishting.
Nora Scotia.-The loynlists, who went to this colony at the preace of 1783 , depended very much upon this tishery, and carricd it on to nivantage. The quantity of salmon experted for some yeara was sumficient to purchinse many ariticles of comfors, and to save them at times from the miseries of pressing want. The sabuon has entirely disappeared in some parts of the celony, and has censed to be plentiful In all of its rivers aid streans. The export of salmon canght in the culeny is not latge. The whole protuce of the fishery in laj appears to have been liut 1669 barrels.

Nerfoundlund.-The fishery is still worlhy of attentien, an reference to the nccompanying statisties will sjow. The export in $1 \times 43$ was even largur than in 181.
 mude a vogage to Havis's Straits in the ship 11 held in 1:29, and who visited the const a second time in liox, found sabuon very abundant. In Salmon livor loth he and his men caught many while wailigg, and with their hands. 'fing took all they fiad salt to cure, and one that measured four feet ten indies in length. Atkins's accomm, afler his retors, beems to have insciuced no attention to the fishery on the part of his lasmamen. In $1 \times 11$ the exports amombed to 230 tierces of the pickled fish, of the value of eith, tiont.

New Mrunsteick:-The logalista and other enrly setthers fo:m the nal.non in almost every river ani ntream in the colony. At present it is never suen in sone, is becoming scarce in mont, and is of immortuncs as an articlo of export in the St, dotms alont.

Tho satch at Salmon Palls, in the Si. troix, thirty years ago, was cwo hundrui in a day, on the ascrage for threm montis in a ycar. A person standing on a "jam of logs" caught there at one limu ome bundred and righteen with a dijerme ; onl a boy tiften years

oll took about five hundred in a seacon. But such has been tha daclino, that it is sald only two hendred were taken during the entire year of 1850 by all who engaged in the bualueas on the river. It is stated that the dams erected across tha river have producel this change in tha fishory, and faets appear to suetain the position. The fow aalmon that now appear in thu Orumocto, the Nashwaak, the Maduxnakeag, and the Mispech, aa well as in Emerson's and Garlner's creeks, in Great Sahmon River and Goose Creek, la attributed to tho samo cause. In two or three of the streams of minor siza, whera no obstructions oxist, and where the water is not muddy, the pursuit is still attended with some success and jrolit.

In some othor places, the fishery, but for tho wanton and lawless destruction of the fish, without reference to its condition or tha seasen of the year, might be carried on advantageously.
To the people of the city of St. Johna the annmal cateh of salmon is a source of galn. The tisheries of the harbor, by a provision in the city charter, belong to tho citizens, or "freemen." The fishing grounils or stations aro lotted out, and sold at auctlon every year for the benefit of those who are entitlod to them uider the charter. The practical tishermen are the purchasers. The lots are of unequal value. and some merely nominal. The number of salmen taken at St. Johns in 18.0 was estimatod at 32,000 , which sold, whether large or small, at the contract price of one dollar each-except a small part for city consumption-to bo packed in ice and sent to Jloston. Drift-nets and weirs are usel in the fishery, though the former aro prohibited by law. Fishormen deprocate tho nse of toreh and spear; but both are sometimes seen in the hands of lumberers and gentlemen sporters. I'ho salmon is found on the Eit. delus, two hundred miles from the sea, and on several of its tributaries nearer to the ocean. On the Nerepis, one of its branches, on which no mill-tams have been erected, there is a fishery of note-from 1500 to 2000 being taken annually.

It will be seen that the exportation of cured salmon from New Branswick ceased entirely in 1818-ilhe whole cateh, not required for consumption, having been packed in ice, and shipped fresl.
statistics of tile s.lamon fisilery.
Exports from Canapa.

| Years. | Picklod. |  |  | smoked. |
| :---: | :---: | :---: | :---: | :---: |
|  | Tierens. | Marrela. | klts. | Number. |
| 1783............... | . $\cdot$. | - . | * | 304 |
| 1784................ | $\ldots$ | ... | $\cdots$ | 2:1 |
| 1780................ | 1 100 | $\cdots$ | $\cdots$ | 248 |
| 18.4. | 348 | 193 | 47 | -• |
| 18,18. . . . . . . . . . . . . . | :49 | 111 | -* | . $\cdot$. |
| 1843............... | 268 | 120 | . | . |
| 1818.. | 70 | 23 | . | . |

Fxpobts from Newfouningad.

| Years. | Pichled. |  |
| :---: | :---: | :---: |
|  | Tlercex. | Value. |
| 1814...................... | 20.0 | \$45, 0.14 |
| 1834 . . . . . . . . . . . . . . . . . . . | 44118 | (0, 1.51 |
| $18: 39$. | 9425 | 55,460 |
| 1840. | 3799 | 64,6!5 |
| 1111 ......................... | $36+2$ | 61. 610 |
| 1842 . . . . . . . . . . . . . . . . . . . . . | 4715 | 6S.3.0 |
| 1843 ..... . . . . . . . . . . . . . . . | 4053 | 61,080 |
| 184t . . . . . . . . . . . . . . . . . . . . | 6753 | 0: $0.7: 5$ |
| 1845 . . . . . . . . . . . . . . . . . . . | 1545 | 63,970 |
| 1-47 . . . . . . . . . . . . . . . . . | 4976 | 4,911) |
| 1548. | 3822 | .... |
| 1449 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 691 t | . . . ${ }^{\text {a }}$ |
| 1850 . . . . . . . . . . . . . . . . . . . . . | 105. | * $\cdot$ • |



Cary Baeton, Phodiof.


| Years. | Pirkled. |  | mmoked. | Frosh. |
| :---: | :---: | :---: | :---: | :---: |
|  | Uarrels. | Kıts. | Number. | Nambar. |
| 18t9.................. | $36 \%$ |  | ... |  |
| 1622................ | $\cdots$ | 2.71 | $\cdots$ | . $\cdot$. |
| 1897................. | 814 | 2092 | 2,655 | . |
| 1828. | 295 | 1745 | 2,181 | . . . |
| 1829............... . . | 489 | 2791 | 5,795 | ... |
| t830. . . . . . . . . . . . . . | 1776 | 2035 | 5,353 | .... |
| 1831. | 1199 | 2,97 | 4,812 | . . . |
| 1832................ | 102 | 2947 | 4.8 .7 | . |
| 1838................. | 652 | 21.61 | 3,708 | *.. |
| 1834................ | 100 | 1965 | 4.5006 | . . . |
| 1835................ | 83 | 5278 | 0,476 | .... |
| 1836................ | 30 | 4050 | B,964 | . $\cdot$. |
| 1837................ | 1843 | 1120 | 6,073 | .... |
| 1838................. | 930 | 8201 | .... | .... |
| 1839................ | 1400 | 5500 | 10,20t | . . |
| 1840................ | 1804 | 2276 | 1,059 | . |
| 184t............... | 1525 | $26 \% 3$ | 4,853 | .... |
| 1842................ | 2810 | 1232 | 1,858 | - |
| 1843. . . . . . . . . . . . | 2155 | 855 | 109 | ... |
| 1844................ | 2479 | 6119 | 436 | . |
| 1845. | 202 t | 1261 | -80 | ... |
| 18410 | 1311 | 15.9 | 20 | ... |
| 1847. . . . . . . . . . . . | 24.40 | 170 | 2,24? | . . |
| 1843. . . . . . . . . . . . . | 2175 | *.. | 5,460 |  |
| 1850. ............... | . . . | . ${ }^{\text {a }}$ | .... | 32,0010* |

for sonno years, but tho quantity ean onty be conjectured.
Imports ant lixports, Nova Scotia.

| Yegra. |  | linjurts. |  | Esports. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | . | narrels. | Tinrces. | Narrels, | Tiarces. |
| 1755.. |  |  | . | 2550 | $\cdots$ |
| 1845. |  | 425 | $\cdots$ | 8053 | . $\cdot$ |
| 1846. |  | +745 | $\cdots$ | 6118 | $\ldots$ |
| 1547. |  | 37.6 | 208 | 5.86 | 538 |
| 1818. |  | 3219 | 82 | 2011 | 49 |
| 1849. |  |  | . . . | 60.5 |  |
| 1530.. |  | .... | ** | 6112* | 340 |

* I'rum Italifax rtone.


## --Sniness' American Fisheries

Ealonica, a largo city and sea-port of European Turkey, at tho northesst extremity of the gulf of the sume name, lat. $40^{\circ} 38^{\prime} 47^{\prime \prime}$ N., long. $22^{\circ} 57^{\prime} 13^{\prime \prime}$ E. l'opulation estimated at 60,000 to $7 j^{j} v i .0$.
'lhis eity, originally called 'Therma, anil afterward Thessalonica, is celebrated both in sacred and profane history: It was visited by St. l'aul, who has adilressed two of his epistles to the Thessaloninns. In the days of its prosperity it had an amphitheatre, an extensive hippodrome, numerous temples and trinmphal arches, tho ruins of which sufficiently attest its ancient aplen-der.-Clahike's Travels, vii. 441-478, 8vo ed.

Jeing the principal emporium of Macedonia, Salonica has nlways had a considerable trade; and to this circumstanco may be ascribed lts continued and comparatively prosperous oxistence, notwithstanding the many vicissitudes it has mudergone.

Thero ls $n o$ port at Salonica, but there is excellent anchorage in the roals opposite to the town. The access to then is by 10 means difficult, and pilots aro seldom empluyed. Vessels anchor very near the walls of the town, though it is pradent not to come too cleso in, owing to the number of small craft at anchor. The dejth of water a cable's length from the shore varies from $3 \frac{1}{2}$ to $d$, and at two eubles' length from 7 to 8 fathoms, whence to Cape Carabourum it varies from 12 to 17 fathoms. Thero is very little rise. Owing to thu rivers which empty themselves into tho Gulf, tho currents setting out are at times atrong, and In light whits suflicient to imperle the way of tho vessel. Next to Constantinople, Salunica is the most inportant port of Turkey in Europe. In 1850 its maritime commerco renched upward of $\$ 3,500,000$; viz., about $\$ 2,000,000$ for imports, and $\$ 1,500,000$ for exports.

The foreign trade of this port is chiefly engrossed by the Jritich and French llags 'The imports consisi chiefty of chenp cottons and $w$ :r'e ${ }^{\prime}$ cloths, and varlous other manufactures. Its exp aro wheat, barley, maize, timber, wool, aponge, raw silk, wins, sesamam seed, tobacco, and staves. Colonial produco and manufactured goods are aupplied to this port-the former
from second and third hands-by England and Austria. Thero is nothing to prevent the Cnited States from participating in the trade in this species of merehnndlso. Neither Austrla nor Eingland could competo with this country in supplying the vast guantities of colonial produce, and the cheap white and printed cottons, which are requirod for consumption in this market. In niddltion to the suppllea needed for the tinily wants of 60,000 to $\mathbf{7 5 , 0 0 0}$ Inhalitante, Saloniea furnishes largo quaritities of colonial and manufaetured goods for tho yearly fairs of Parlepi, I. 'cen, and Seres, where the antes aro always made for cash. The high priec of Frencb cotton and woolen cloths will nlways preclude tho merchants of Franee from succeseful competition in this branch of trade; and the heavy oxpenser attending the circuitous trado through Marseilles, Smyrun, Constantinople, Trieste, and Venice, would necessarily favor direct exportation from the United States. The prices at Snlonicn are alwnys from 10 to 18 per cent. higher than nt Constantinople or Smyria.

The gross retarns of trade at the port of Salonien for the year ending December 31, 185 h, show a considernble increase in the import trade, viz. :

$$
\begin{aligned}
& \text { Velue of importa in } 1854 . \ldots . . . . . . . . . . \\
& { }^{7} \mathrm{n} \text { IS53. } \\
& 2,856.36 \\
& \text { Inerease. . . . . . . . . . . . . . . . . . . . . . . . \$12, } 470
\end{aligned}
$$

Ibut the returise ox ibibit a still more consilerable in crease in the value of the outward trade, viz. ;

This large incrense, boih in the inward and outward trade with tho port of Sale nica, may te erarded as an avidence of the limproving tate of the conntry.

The navigation returns for the same jeriods exhibit the following resul'

|  | Tears. loward. | Dutwaril. |
| :---: | :---: | :---: |
| $10^{\text {a }}$, | $\begin{aligned} & \text { Tons. } \\ & 113,4!9 \end{aligned}$ | $\begin{gathered} \text { T } 11.767 \end{gathered}$ |
| 1544. | 79, 545 | 81,192 |
| $!$ | 33673 | 30,605 |

Brithah manufret'这and produce tmported direct... $\$: 6,5,375$ itidirect.

D: 1.450
 Total ex fortes to Great lititain . ................... 27,810

A British authority, reforring to thia trnde, says: "A demand fur llritish cotton manufneturea of all descriptions daily increases, and overy year there is some new outlet of sufllicient importance for the establishmest of agenciea in the interior by the importers at Salunica; hence the prospect of an increase of the ithpurt trade in proportion to the increasing value of the export trade. The Austrian ant Suxon manufacturers have again turned their attention to this part of 'Iurkey, and are sending larger parcols of tow cotton goods."

The above extract is worthy the attencion of those engrged in trade with Turkisli perts.
firpors.-Owing mainly to the Hellenic inrasion, considerable delay was ocrasioned in getting in the crops in 1 A 51 , and, consequently, the supply of grain at sialonica was not equal to tho demand. Little was tone in wools and cottons, the prices having averaged too high a rate for European markets. The trate in silk was considerablo; hut, owing to the rive in tho price for labor and fire-wood, several of the silk factors preferred rending the silk-perds to France and to the Italian perts, to Irawing the raw silk at salonjca.-L'. S, Cum, llelations.

Balt (Ger. Salz; Du. Zout ; Fr. Sel; It. Sale; Sp. Snl; 1tuss. Sol; Lat. Ainl; Arab. Jelh; Chin. I'en; lliml. Nimmuck; l'er. Nun), the chlorib of adiu, of modern chemists, has leen known and ln wommon use as a seamoner and preserver of food from the carlieat ages. Immense massers of it are found in thim and many other countries, which reguire only to be dug
ont and reduced to powider In thint atate it is called rock-salt. The water of the oe an also contains a great deal of salt; to which, indeed, it owes its tasto, anil the power which it possesses of re lating freezing till cooled down to $28^{\circ} \cdot 5$. When thlo 'vater is suffecently ovapornted, tho salt precipitates in crystals. This is the common process by which it is obtained in many countries. There aro various processes by whic'. it may be obtainod quite pure. Common salt usually erystajlizea in culve. Its taste is nniversally known, and is what is strictly denorilinated salt. Its apeclfic gravity fa $2 \cdot 125$. It is soluhitu in $8 \cdot 82$ timea its weight of colid water, nod in $2 \cdot 76$ tlmea fta welght of boiling water.Tuomson's Chemistry.
llesides fts vast utility in seasoning food, and preser fing meat both for domestic consumption and during the longest royages, and in furnishing muriatic acid aid soda, salt forms a glaze for coarso pottery, by heing throw' finto the oven where it is baked; it inprovea the witieness nad clearness of glass; it gives hardness to ava;'; in melting metals it preserves their surface from calcination, hy defending them from the air, and is employed with advantage in some nssays; It is used ne a mordant, and for improving certain colurs; aud enters more or less into many other processes of the arts. Many contradictory atntements have been mate ns to the use of snlt as a manure. Prolinbly it may loe advantageous in aome situations, nud not in others.

Nalt , Nines, Springs, etc,-The principal salt-mines are at W'elitska in l'olami, Catalonín in Spain, Altemonte in Calalria, Loowur in Ilungary, in many pluces in Asin and Africa, and in Cheshire in England. The mhes at Wielitska nre upon n very large scale; but the statements that lave frequently heen jublished, of their containing villages ibhnbited by colonics of minere who never saw the light, are altogether without foumdation. These mines have been wrompht for more than 610 yenrs.-Coxe's Tiracels in the. Forth of Aurope, vil. i. 149, svo ed.
The salt-mines in the nelghtorhoorl of Northwich, in Cheshire, England, ure very extensive. They have been wrought since 1650 ; nid the guantity of salt obtaincel from them is greater, proliably, than is ohtained from any other salt-mines in the world. In its solit form, when duk from the mine, Cheshire salt is net sutheiently pure for use. To purify it, it is dissolvel in sea-water, from which it is nfternarl sepurated by evaporation nud crystallization. The greater part of this salt is exported. Salt oprings ore met with in aeveral countrics. Those in Cheshire and Worester. shire furuish a large projertion of the sale mate usc of in (ireat Itritain. The brine, being fimmed up from very deep wella, is evapornted in wrought-iron pats frotil 90 to :to fect square and 10 or 12 inches deç. placed over $n$ furnace. Most of the salt used in Suotland, prevlous to the rupent of the duty, was obtained by the evaporation of sen-water nearly in the way now mentioned: lnt moat purt of the Scotch salt-w orks have since been relinguished.

In wamm countries, salt is oltained ly the eraperation of aca-nater ly the hent of the am; num the cryse tuls of salt mave in this way are bors purfert and phrer, from the greater alowness of tha process. French salt is manufactured in this mote, and it has always treen fa considerable damand.

Thaties on Salt. - In atrient Rome, sale wns stiljected to a ilnty (rectigul sulinarum; are licasan, Jissertatio de lectiynlibus /(p. Rum. c. 6); and it has been heavily taxed in most modern states. The gabelle, or code of salt laws, formerly established in lrasee, was most oppressive. Frem 4000 to 8000 persons are calculated to have been seltt ammally to prison aml the galleys for othenses connected with thees laws, the severity of which lad no ineonsideraile share in bringing alsmet the levo-lution.-Yor vi's Trarela in firunce, vol. i. p. 598, In lingland duties upon salt were impused in the reign of

Willam III. In 1798 they amounted to $5 a$. a bushel; but were subsequently increased to 15s, a bushel, or about thirty times the cost of the salt! So exorbitant a duty was productive of the worst effects; and occasioned, by its magnitute, and the regulations for allowing sult cluty free to the fisheries a vast deal of smuggling. The opinion of the public and of the House of Commons having been strongly pronounced against the tax, it was inally repenled in 1823.

The duty on salt imported into the United States is 15 per cent. by the act of March 3,1857.

United States.--The following eompreheusive account of the manufacture and consumption of salt In this country was written in answer to a request for the statistical infermation it contains, for the use of a committee of the British Purlinment. Its auther is a prombnent salt merchant of New York, and thoroughly conversant with the subject :

New Yonk, April 28, 1857.
Deati Sin,-1 have recelved your letter of the 20th instant, in which yeu selirit infermation respecting the manufacture of salt, the quantity mude in the United States at each of the works, the rate of freight to the principul perts, the toll paid on domestic and also on foreigu salt on oor State canals, etc.
'The interest I feel in the sult trade of this country prompts $m e$ to take some pains to give you the required information. Yet the short time I have had since the receipt of your letter precludes me from answering your several inquiries with perfect satisfaction to myself in regard to their accuracy.

1 will, bowever, venture to give you the following statistics, which, from the lest information I have been able to oltain, I believe to be mainly correct:

Estimated Quantity of Salit manufactureid in tue
United States tea Annum.

In the Stato of Massachusettr (mortly in vata buitt atong the nea-shore).

Bushel.

In the Stato of New lork (Onondaga County),


In the state of VIrglaia Kanawha and Kings
Workb)..
46,00 )
6,000,000
900,000
$3,500,000$
250,000
500,1600
$1,000,000$
50,000
10,000
20,000
100,000
$\overline{12,876,000}$
here are salt lakes in the United States territeries -one in the southwesterly part of Texas and one or more in Utah-where salt of good quality is foond in great abundance. Nearly nll of the salt manufactured in the United States is made by bolling, oxcepting what is made in Massachusetts, Filorida, and the Solar Works nt Onendaga. The amount of salt munnfactured at the Solar Works of Onondaga in 1856 was 709,391 bushels. The amount of salt manafactured in kettles in Onondlaga in 1855 was $5,258,419$ bughels. When the works (ut Onondagn) are generally running, they require $3,000,000$ gatlons of brine daily, and the supply is not less than $2,000,000$ rallens per day for six months. The annual report of V. W. Simitl, Eiser, the State Superintendent of the Onondaga salt sprimgs, which I hurewith hand you, furnishes valanble information iu regard to the manafacture of salt, the sallne deposits within our State, and such other general information pertaining to this necessary articlo of animnl subsistence, as to render it one of the most accurnte and interesting public docaments publlshed in our cemntry.

The wells in the Virglnia aalt springe are about 900 feet tleep. The wells at Pomeroy and West Columbin are from 1000 to 1200 feet deop. The estimated quantity eiforeifn salt consumed in the Unitod States and territories is abeat $13,500,000$ bushels per annum. The amovit of salt consumed in tho United States (for va-
rlous uses) is about sixty pounds to each inhabitant. The consumption in France ls estlmated at 21 各 pounds; in Great Britain at 25 pounds for each inhabitant. The cost of manufacturing salt by bolling in Onondaga, as per estimate, during five consecutive yesrs, sverages abeut $\$ 1$ per barrel of 280 poonds. The freight charged on our canals on domestic salt, in barrels of 280 poumde ench, from Onondaga to Buffalo, 198 miles, is about 15 cents per barrel over the toll pald to the State, which is one mill on 1000 pounds per mile in the canals. To Oswego, 35 miles, the freight is about six cents per barrel over the toll.

The freight on foreign and domestic salt from Albeny to Buffale, 364 miles, is about $\$ 3$ per ton (of 2000 pounds) over the tell. Frelght from Albany to Oswego, about 209 miles, is 82 per ton over toll. The freight from Naw York city to Oswego and Butfale eia Albany is precisely the same as though shipped at Abbany, although 148 miles farther.

The toll on foreign salt on our State canals is five mills on 1000 pounds per mile. The freight on a barrel of salt from Oswego to the principal ports on Lake Erlc (average distance about 450 miles) is 12 cents per barrel. The freight to the principal ports on Lake Michigan, distance about 1000 miles, is 95 cents per harrel. The freight from ports on lake lirie (aay Cleveland and Toledo) to the Ohio Hiver and Cincinnati is 50 cents per barrel. The freight from Chicago to the Mississippi River and St. Lonis is 50 cents per barrel. The minimum price of salt at the Ononlagn werks in 1849, '50, and '51 was from 70 to 90 cents per barrel ; in 1852 , $\$ 1$ per harrel ; in 1853, $\$ 112$; in 1854, 8125 ; ln 1855, 8130 ; anc'. in 1856, $\$ 140$ per barrul. The solar salt cests about the same price to manufacturers as toiled salt. The solar salt weighs nbout 70 pounts to the 1 ks I (mensure). The hoilet salt welghs about 56 "'re.fy io the hushel, varying, however, necording te :... 'on of the kettles, to a weight consitlerably alove ...tu aso considerably below this stuudari. The duty paid to the State of New York on salt mannfactured at Onondaga is always reckoned on 56 peunds (the statute bushel), and covers the expense incurred by the State for pomping up the water and delivering it to the premises of the munufacturers.

A salt block at Onondaga, of the largest size, is made of brick about 12 to 15 feet wide, foor to five feet high, and ferming two parallel arches, extending the whole length of the block. Over and within the top of theso arches are placed common cast-iron kettles, helding about 50 to $\% 0$ gallons of brine, placed elose together in two rows the whole length of the arehes. A fire luilt in the menth of the arches passes under each kettle lnto a chimney, luilt generally 50 to 150 feet high, averaging from 50 to 70 kettles in each hlock. A siugle block with one row of kettles is about half of this widlh. The quantity of salt made in one of these double blocks in the year (say elght months) averages 20,000 to 25,000 buslicls of 56 pounds. The cost of a bushel of sult produced at Kanawha is about $17 \frac{1}{2}$ cents. The price of freight on a sack $0^{*}$ Liverpool salt from New Orleans to Lonisville ayerges about 35 cents per sack. A good portion of the coarse, hard salt imported into the United States from the most southerly islands of the West India greap is kiln-dried, elcansed, gronnel very finc, and put in small phekages for collnary or dairy use. The nmount of coarse and fine salt imported into the United States from forelgn countries for the year ending June 30, 1850 , was $15,405,864$ bushiels. The amount of domestic salt exported during the year ending Junc 30, 1850, was $688,40 \%$ hushels. The amount of foreign salt exported cluting the year ending June 30, 1856, was 126,427 bushels.

Yours, truly, Samuei. Hotading.
Patents were issued by the United States Patent Office in 1850-1. For improvement in nppuratus for evaporsting salt. 2. Improvement in apparatus for solar salt evaporation. B. Improvement in salt evaporators.


| Statee. | Nanibor | Capital. | Rewmaterial. | Handa amployed |  | A rerage yoerly Wayce |  | Ansedal Prouluet in Huahels. | Value. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Male. | Female. | Mals. | Temalo. |  |  |
| Connecticut. | 1 | 14,000 | \$4,000 | 1 | 1 | \$164 | \$14 | 40,000 | *5. |
| Florida | 1 | 19,000) |  | 6 | 2 | 1,410 | 889 |  | Qump |
| Ittinola . . | 1 | 2,500 | 2,010 | 8 |  | 721 |  | 20,000 | 6.0948 |
| Kentucky...... | 12 | 121,480 | 17,009 | 163 | 9 | 16.896 | 432 | 946,010 | 57.825 |
| Malne . . . . . . . | 3 | 8,100 | 7,225 | 4 |  | 1,080 |  | .... | 9, 4 (t) |
| Mnsmarhnsetta., | 9 | 411,400 | 60,000 | 29 | 7 | 8,084 | 1092 |  | 03,450) |
| New Vo'k..... | 192 | 819,050 | 631,955 | 873 | . | 990,376 | .... | 4,560,010 | 999,31\% |
| Otho . .......... | 3) | 188,700 | 85,093 | 167 | . | 49,096 | .... | 0310, 850 | 182, 248 |
| 1'ennmylvanla.. | 47 | Jes. 260 | 5T,149 | 219 |  | 65,020 |  | 019.100 | 206, \%ill |
| Texan. | 2 | 8.475 | 1,750 | 15 | 1 | 2,280 | 72 | 8,000 | 8,914) |
| Virginia | 40 | 3,200,900 | 234,623 | 1230 | 6T | 817,136 | 7761 | 3,479, 8911 | 700,466 |
| Total. | 84) | \$2,641, 895 | \$1,05t, 425 | 2690 | 87 | \$744.132 | 40728 | 0,703,541 | \$2,2527 15 |



| T. | Year endiny June ${ }^{\text {a }}$, |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1888 |  | 1844 |  | 1 N 35. |  |
|  | Aehara. | Vriue | Mushela | Value. | Bunhels. | Value |
|  | $\begin{array}{r} 0110.45 \\ 7,572 \\ \end{array}$ | $\begin{array}{r} \$ 115,666 \\ 4,063 \end{array}$ | $\begin{gathered} 639,16420 \\ 17,625 \end{gathered}$ | $\begin{array}{r} 8152,87 t \\ 6,155 \end{array}$ | $\begin{array}{r} 529,1413 \\ 8,070 \end{array}$ | $\$ 152,516$ 3,56:3 |
| Tutat....................... | $516,8.7$ | W ${ }_{\text {W }}$ (18, 229 | 648.185 | \$150,026 | Wib,07d | \$106,070 |



|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| From | 1261 |  | ISS6. |  | 1805 |  |
|  | Borheila. | Value. | Buab. It | Vnue. | Buaheli. | Valve |
| Fingiand | 6,013, 204 | \$78.712 | 7, 1190,470 | \$1, $104 \mathrm{ni}, 102$ | 8,844,219 | \$1.210, $2 \mathrm{~L} \times \mathrm{x}$ |
| Mritsh Wrat tndlea | 1.734.864 | 169,796 | 1,843,166 | 207.345 | 1,161,74 | 274.886 |
| Other placen | 1.718 .913 | 101,424 | 1,214,231 | 113.309 | 2, 564240 | 239.32\% |
| Toutal. | 10, mi6, $0^{3} 1$ |  | 10,155,376 | \$1,310,935 | 12.926, 234 | \$1.71×.980 |

Iixponta of Radt of lomestio I'Rohtition fitom the


| Whither exporter. | Buthela. | Volue. |
| :---: | :---: | :---: |
| Asiutic Hensata | 912 | \$ 91 |
| Janish Weat Indlea | 1.311 | U52 |
| C'muada. | 50.54 | 171.006 |
| Wher liritint Ni, Auerican bome. | 9.1F:4 | 2,\%4! |
| Irlash West Indien | 414 | 2ts |
| Itritish Anstrulla . . . . . . . . . . . . | 12,000 | 4,951 |
| French lituma | 7 | 4 |
| fiula | 30,4t50 | 8,501 |
| Now (iranada | 125 | 180 |
| ¢hllt ........... | 6,914) | 1,563 |
| Sandwleh lalanda | 6,405 | 1.323 |
| Total. | 560.651 | क्ष10 10.649 |

Infobtit \&altintotion I'miten Stateafontif ligan Esitive Jeng 50, IN')

| WV ence tupported | Aushels. | Value. |
| :---: | :---: | :---: |
| 11antin: ent lndien . . . . . . . . . | 2,624 | -6\%4 |
| Itrenten | 70 | 15 |
| Hutch West Indlea | 174,562 | 31,794 |
| Finglsnd . . . . . . . . . . . . . . . . . . | 12,890,664 | $1,6 \times 1.84$ |
| Ireland. . . . . . . . . . . . . . . . . . . . | 74.053 | 7,744 |
| Matta. . . . . . . . . . . . . . . . . . . . | 14.562 | 1.6801 |
| tanada | 191.\%98 | 30.900 |
| Thicer flritiah N. Amer, I'uss. . | 9,904 | 1,806 |
| Ifritish Weat Indten. . . . . . . . . | 1,638,691 | 183, Ma 9 |
| Hritwh Honduras | 1,040 | 271 |
| Itritish liviana | 6,422 | 1.tres |
| Franco on the Atantle. | 34150 | 2.654 |
| Franee on the Medtrerrameat.. | \$31.914 | 10,050.6 |
| French West Indlefl. . . . . . . . | 40,188 | 2,969 |
| Apails un the Allantle.......... | 1,604.714 | 79,641 |
| Epalit on the Mediterrancan... |  | 43,46\% |
| lorto kíco . . . . . . . . . . . . . . . . | 1,348 | $\because+1$ |
| jortugal | 93,143 | 14.017 |
| Vape do lierd falmudn.......... | 18.925 | 1.45 |
| Azores......................... | $5, \%$ | 118 |
| Kardinia . . . . . . . . . . . . . . . . . | 183, \% \% 9 | 17.466 |
| Tran Elelilien. . . . . . . . . . . . . . | 7T3, 002 | 65.145 |
| jorts th Afriem ... . . . . . . . . . . | 23,.640 | 1.044 |
| Mexico.......................... | 76.760 | 15.319 |
| Venezuela | 6.537 | 1, 270 |
| Santwich tilanda | 10, 26.6 | 47 T |
| China. . . . . . . . . . . . . . . . . . . . | 26,607 | 1.E\%1 |
| Total. | 17.185.701 | \$2.032.543 |

The whola amount of ralt inspected on the Onondaga nalt aprings during the yenr lxbit was $5,9 t \mathrm{~s}, \mathrm{x} 10$ bundels. Thin is about $1: 20,000$ bunheln nhort of the fin*pection of 1855 , but excecdn, however, that of any jre. vous year, leing lim, 000 more bunbels than were returned in : whis. In the ordinary course of evente, considering the increase of population in the Wentern mark. cts "r Unominga malt, and the addithonal facilitien of
trampportation constantly brought linto use, the inspection for 1856, according to the offieinl lieporta, ought to bave reached $6,500,00: 1$ binshels. Tho two prifui, al causes prolucing the deflecency uay be found in a more stringrate atate of the money inarket during the whole season, and in the enhancement of the price of salt at the works. $\$ 140$ per harsel in 1856 against 4120 in 1850. The amount of malt actually manufacturel in 18its, and either sold and shipped or remalning in oriplnal hands, Is considerably in excess of the mamfacture of any former year. The inspection Indicates very accurately the amount of alea, as no more is inspected during the manufacturing season than what is required to lill orders. The arrivals of Ononduga nult at towe. ge in 1xiti wero 3,483,967 bushels, agmiest $5,0,39,593$ in 18:5)-an increano of 411,344 bushels. The arrivals at Buflalo in 18.06 wero $1,0 \mathrm{k} 1,767$ busheds, ngalnst
 arrivals at all the lake porta 19 I 450 , compared with those in $1 \times 50$, whow a decrease oi 211 , it in hushels.

Baltjetre, or Nitrate of Potash (Ger. Saltpeter: Fr. Nitre, Nelpelre; It. Nitm, Nalnitro; Sy. Nitr, SuLiare; Rusa. sienitra; Iat. Nitrum; Arah, L'blir; llind. Showh ), a ault well known in commerce, nud nf great lmportanco. It may be regarded hoth as a natural and an artilicial production; being found on the surfuce of the moll in many parta of Indin, Egypt, Italy, cte.; but in theae and other placen all that is known in commerce ln oltalned by an artiticial process, ir by lixiviating earth that has heen furmed into nitre beels. The saltpetre conaumed in Foggland is brooght from letugal In an impure state, but erystallized, in bapy, each containing litit tha. Saltpetre furms the princtpal ingredient in the manufncture of gunpowider, and is used in varloun arta. It is almo uf great utility in the commeree of India, from its furnisting $n$ linte amount of tead weight for the shipplng engitged in it. Snltpet re proseases considerable antiargitic pawir. That wheh in of the leent quality and well relined is in long, transparent cryataln; its tante in sharp, hitterish, and coolhig; it thames much when thrown upon burning coala : it is very trittle ; specific gravity, 196 B . It is not altered by exposure to the air.
lseckmann contenda, in a long and claborate dissertaion (Hist, of /nvent.), that the rncients were mac* quainted with maltpetre, and that their wirmm was really an alkaline salt. Bu* as saltpetre is proluced
nuturally in considerabis quentities in Egypt, it is diflicult to suppose that they could be entirely lignerant of it, though it would appear that they had contonnded it with other things. It has been known in the East from a very emily period. Heck:tann concurs in opinlen with those who believe that gunpowder was Invented in India, and brought by the Saracens from Africa to the Eurepeans, who improved its manufacture, and made it avallable for warlike purposes.

The Mammoth Cave In Kentucky was used as a placo fer the manufacture of saltpetre daring the war of 1812. The soil in the cave is thoroughly impregnated with saltpetre; but in consequence of the difficulty of transportation, the manafacture has been abandoned.
Imioata on Sai,tpetar into tiff Initfon Etatfe foh tim S'eas minina iune 80, $185 \%$.

| Wheace imported. | Crade. |  | Retined, or partly felimed. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounts. $394,(141$ | Vatue. $\$ 443,660$ | $\begin{gathered} \text { dound } \\ 3 \in 16 \end{gathered}$ | $\begin{aligned} & \text { Vulue. } \\ & \$ 190 \end{aligned}$ |
| 1ritins Fiast tndtes..... | 23,933,708 | t,068,207 |  | $\because$ |
| France oa thi Athatlo. | 149,460 | 5,992 | 1326 | 147 |
| New firmanda. . . . . . . . . |  | $\cdot$ | 427 | 25 |
| 1razil. . . . . . . . . . . . . . | 61,308 | 4,170 | .... | . |
| ( hill . | 1,475,920 | 31.426 | .... | - |
| Total. | 26,314,437 | +1,156, 163 | 4819 | \$3162 |

Of this amount there was reeexported the following quantity. There were no exports of saltpetre of dodiestle proluction.
Foaklon Expuats of faltpreter from tif Ifiten Statia fou the Ytal aniona Juna 30, 1850 .

| Whither experted. | Crude. |  | Hefined. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ernada. | Value. | pounda | Vinlue. |
| Tismbarg | , 6000,000 | 469,233 | 994,670 | \$27,629 |
| Vingland...... | 3,763,000 | 296,688 | 1,531,589 | 09,275 |
| other places... | 650,008 | 43,949 | 105,683 | 4,802 |
| Tetal | 5,769,008 | \$412,769 | 1,831,94t | \$131.705 |

Salvage, as the term is now understood, is an allowance or compensation made to those by whose exertions shlps or gools have been savod from the dangers of the seas, fire, pirates, or enemies.

The propriety and justice of making euch an allowance cuust be obvious to every ons. It was allowed by the litws of Rholes, Oleron, and Wisby ; and in this respect they have been followed by all modem maritime states. At common law, the party who has aaved the geods of another from loss or any imminent peril has a lien upon them, and may retain them in his possession tal payment of a reasonable salvage.

Salrage upon Losses by Perils of the S'ea.-In fixing the rats of salvage, regard is usually had, not only to the labor and peril ineurred by the salvors, but also to the situation in which they may huppen to stand in respect of the property saved, to the promptitule and alacrity manifested by them, and to the value of the ship and cargo, as well as the dagree of danger irom which they wero reseued. Sometimes as largo a proportion as a half of the property saved has been allowed as salvage; and in others not more than a tenth.

J'arties entitled to salvage are all those who have contributed to the safety, cither by personal exertions or by sammary sacrifice, provided it did not fall within the course of thelr regular duty to make the exertions or saerifice. Thus neither the master nor seamen of the ship in danger have any title to it ; nor have any passengers for any ordinary assistance they may give; but it is not the duty of passengers to remuin on hearil in time of danger, nor to lnear any responsibility by undertaking the management of the slip; and if by doing the one or the other they contribute to the safety of the ship, they may be entitled to salvage.

If, before the service is rendered, a bargain is made for the amoent to be paid for the assistance, this amount settles the cinim for salvage; so if $t$ wo ships enil as consorts, as is customary with whaling ships, on the terms of rendering each other mutual assistance, nuither can claim salvage for assistance rendered to the other.

All the officers and crew of a British ship are under
obligations to asalat ships in distress; they are, nevertheless, to recelve salvage for their aerv ces, sulyjet to the condlitions expressed $\ln$ the Britho statutes. The owners, also, of a ship which has sroved another are, besides being remunerated for stores or other matters contributed, or injury done to their ship, entitled to salvage for the detention of theit ship, the risk of vaeating their insui nee, etc.-See Suipriva.

The salvage is to be paid by those who would have borne the loss had there been no assistance, in the propertion to the henetit they have received. If the ship was in the course of earning freight, the freight must contribute. The wearing apparel, etc., of the master and crew are nut liable for salvage.

The aubject of salvage was largely discussed in our courts in a case of recapture. The 1istrict Court of New York allowed as salvage ons half the valus of the ship. The Circuit Court reversed the deeree, and denied all aalvage, The Supreme Court of the United States corrscted both decrees, and allowed one sixth part of the net value, after deducting the charges. The court in that case admitted the rule to be, that a neutral vessel, captured by a belligerent, was entitled to be dlscharged without paying sulvage, on the ground that no beneticial service was thereby rendered, as the neutral, acting properly, would of course be discharged by the courts of the novereign of the captor; and they adnitted Jikewise the exeeption to the rule when belligerent eaptors and courts were notorious for their unprinclpled rapacity. This rule and the exception have been frequently dechared in the English admiralty. The rule of British jurisprudence in respect to recaptored property of British subjects to allies, until it appears that they act upon a less liberal principle, and then the allies are treated according to their own measure of jastice. 'i he same rule has been adopted by statute in this country, and is founded on the immovable busis of reciprocal justice. Though the contract of seamen be not dissolved hy shipwreck, and it bo their duty to remain und lator to preserve the wreek and fragments of the ship and eargo, yet they may bo entitleil to recompense, by way of salvage, for their peculiur services. Tho wages recovered in the case of shipwreck are in the nature of salvage, and form a lien on the property saved. The character of seumen creates no incapacity to assumse that of salvors; and were it otherwise, it would be mischievons to the interests of commerce, inconsistent with natural equity, and would be tempting the unfort unate mariner to ohtain ly plunder and embezzieuent, in a common calamity, what ho ought to possess upon principles of justice. Tho allowance of salrage in such cases is and ought to be liie ral; not less, in any case, than the wages would have amounted to; and even an additional recompense should be made in cases of extraordinary dunger and distinguished gallantry, when the servies was mueh enhanced by the preservation of life, and the great value of the property at stake.-Kens's Commentaries, vol. iii.-Siee Insinance.

Sample, small quantity of a commodity exhibited at public or privite sales, as a specimen. Sugars, wool, spirits, wino, coffee, and indeed most apecies of merchandise, are sold hy sample. If an article be not, at an average, equal to the smmple hy which it is sold, the buyer nay cancel the enntract, and return the artiele to the seller,

Sandal-wood, the wood of a treo (Santalum allum, Linn.) laving somewhat the appearance of a large myrtle. It is of a deep yellow celor, and yields an agreeable perfume. The tree, when cut down, is usually about nine inches in diameter at the root, but sometimes considerully more. After being felled, it is barked, cut into billets, and buried in a diy place for about a couple of months, during which time the white ants eat off the outer wood, without touching the heart, which is the sandal. It is then taken up and sorted, according to the size of the billets. 'ibe teeper the
color, and the nearer the root, the higher in the perfrume. Reject aueh pieces as are of a pale color, small, decayed, or have white wood about them; and take enpecinl care that it be not mixed with wood renembling mandal, but withsut its perfume. - Milacus's Orient. Commerce.

Sandal-woat is extensively empioyed F , the Hindoos as a perfume in their funeral cerer \%1. © but the Cbinese are its princtpal consumers. nanufacture it into fans, and small artieles of furnuture, and use it, when ground into powder, as a cosmetic. During the year ending the 3int of December, 1848, there were importel by British vensels into Canton 20,732 plenls of sanilai-wood, valued at ${ }_{\psi} 207,400$; and the Imports in some years nee more than twiee this amount. The average importation into Caleutta is about 200 tons a year. It grows principally in Malabar, in the mounthir.ous country nt a little distanse from the low aenaconst ; in Timor; and in the Fejee Islands in the South Sea. Calcut ta is princlpaliy eupplied frem Malalar, while China derives the larger portion of her supplies frum 'limer and the other isiands. It is seldem lurought to Europe, except by individuals for their own use, or as presents for their friends.- Bena.'s Eirtemal Cimmen of Bengal; Cenwyons'a /adian Archipelago.
Sandals, a niecies of slippers worn by the ancient Jews, (irecks, and Lomans. 'They consisted of a solo with a hollow part at one extreme, to emilrace the ankle ami leave the upper part of the foot lure. Origmally amulais wero mato of leather; the they afterward lrecame articlea of great luxury, helng made of gohi, silver, or other preclons stuff, und most heauthfully ornamented.
Siudarach, a resinous aubatence, commenly inet with in lonse granules a littic larger than a pea, of a whitinh yellow color, brittle, intamminde, of a resinous smell, and aerid, aromatie taste. It exubes, it in wnid, in warm ellmates, from erack a and iacisions in the common Juniper loush, It la used as n varniph, dissolved in spirits of wine.-Arsm.ıe's Mat. Indicu.
San Domingo. The ohl Spanish part of the baland of San Domingo, or the Lominican Republic, embiracos the territory as seltied by the treaty of linits between Spmin and I ranee in 1777. Aceording to thoso limits. its area would comprise nhout two-thirds of the whoh inland, or over $18,(x) 0$ square miles. The popuintions of the republic reaches nhout 120,500 sonta, compused of Spaniards, creoles, and hlacks. The population, however, is stated hy some authoritien ta exeecd 250,000 ; hut this is prohally ton larige. The nutural productions of the repulite are ull kinds of valuable wood, copper, iron, salt, eonl, etc. Its moil is very fertile, but its climate is unhealliy, and ot certain seasons exceedingly fatal to foreif: .ers. The chief staples of the repablic nre mahogany, lignum-vites, dye-woots, tobacco, honey, and hides. The iniports from the l'nited Statem consist of ansorte! cargoes, thour, ete.; liut most nsualiy our vessels enter the ports of the repmbiie in ballast.
The tariff of dutien is based upon a fixed value aselgneil to each class of merchandise, on which a duty of 25 per cent. in leviel. The gen ral seope of these dutien may te illustrated by selecthog from the latest tariff the article of flour. The tariff valuation of this article fa 85 per barrel of from 175 to 200 lis. ; the tuty on which, at 25 per cent., would he $\S 1 \pm 5$. These dutien are permanent (so long as the tariff continnes unaltercel), and are in no manner dependent on the luctuation of prices. The tonnage duty on American vessels is 81 per tory in port, and so centa ${ }^{\circ} \times \mathrm{r}$ ton for tha cuast, heing 50 per cent, more than in charged on the vesseis of such nations an have recognized the independence of the repubile, or have entered Into treaties with its government. The effect of this, as well as of other discriminations against the Annerican flag, ham been to give to the flagn of treaty nations, especialiy to that of (ireat liritain, a large share of the carrying
trade hetween the United Statea and tho Deminican Lepublic. In 1804 a treaty of amity, commerce, an: navigation was agreed mpon and executed liy plenipotentlaries of the two governments duly appointed for that purpose; but, oljectlons being made to some of Ita stipulations ty the Iominican legislature, it was not contirmed. An amendinent, defning the rights of Irominican eitizens in the United Stater, was propused, to which the commissioner of the Unlted States ohjected, and thus the matter is understood to stand at the present time. The following tabular statements exhibit the trade and navigation of the Dominican Republic during a period of four years, ending with 1852 , tugeth or with an analy:is of the trade and navigation of each of the ports, Sun Domingo and Porto Plata, dr" - the year last designated:
Tgain and Navigation of the tominican Retebile.

|  | Versel |  | Vomen |  | Impora. | Exporta |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 184 | 24 | 90, $1 \times 2$ | 210 | 14,139 | 42 c |  |
|  | 27 | 20, 103 | 2 n 9 | 2n,29 | 762,370 |  |
|  | 27 | 24,4: | 243 |  |  |  |
| \$2. | 324 | 30,055 | 298 |  | ,213, |  |

 two l'ogth of Nan llomivgo and l'oato l'iata in the. AHOVR GENERAL TAMLR.

Arrivala.

| Venns. | Sort of Kan Wenungo. |  |  | Porto Plata |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ao. of Vemalis. | Tonnage | Valuea. | $\mathrm{N}_{\mathrm{ob}}$ af Virmats. | Tonnage. | Talues |
| 1419 | 130 | 12,428 | \$140,545 | - 118 | 7, 6ibl | +124, 124 |
| $1 \mathrm{RHO}^{\text {\% }}$ | 1.17 | 15,273 | 430.1344 | 125 | 7,130 | 831.64) |
| 1451. | 128 | 14.272 | 869,741 | 151 | 11,177 | 6Mi, 0 ded |
| 1852. | 162 | 19,375 | 662,685 | 112 | 10,680 | 50.60 |

1):earticem.

| Vemre | Turl of Ean DMaingo. |  |  | Porto Plata |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No of | Tonnake. | V'alues. | No of Vrmanta. | Tonamge | Valuan |
| 1811. | 1t5 | 9,4i3 | \$271, 625 | 101 | 4,276 | \$3tide $\overline{4}$ |
| 1851... | 148 | 10,417 | 521,145 | 120 | 6, 84, | (02), 511 |
| 1851.... | 119 | 12,914 | 394, 0105 | 112 | 8,80.4 | 839,320 |
| 1\%\%2.... | 140 | 18,409 | 710,285 | 18.8 | 11,441 | 015,375 |

Fobegn Tlabe of San tominge, 1052.

| Nationality. | Arrivala. |  |  | Depuartures. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of Yaneils. | TonDage. | Iavelee values of C'arineea. | No. of Vesmelt. | Tunnage. | Invorpy velues in Paremen |
| dititan | 88 | 5,975 | \$78,841 | 83 | 5,375 | \$341,925 |
| Irominicas.. | 27 | 137 | 145, 6161 | 6 | 389 9 | 3, ${ }^{2}$ H |
| Fimbrli..... | 30 | 6, 6.27 | 2b, Mn | 30 | $5,6 \mathrm{hin}$ | 150,300) |
| IJanlu. | 41 | 1,633 | 911,800 | 18 | 1,793 | 47.510 |
| lutch | 90 | f,108 | 83.450 | 24 | 1,320) | 40.400 |
| Abur rian | 15 | 3,260 | 65,3164 | 14 | 2,050, | 57, (120) |
| Itallsth...... | 1 | 1.0481 | 1) 3 , 901 | 3 | 6.5 | 15, $4 \times 0$ |
| tlamlurg ... | 2 | 259 | b, 0 ¢ 513 | 2 | 3R21 | 17.16 LH |
| I'rimalao.... | 9 | 536 | 20, 854 | 2 | 534 | 13,710 |
| Vionratlelan. | 9 | 971 | 845 | 1 | 22 | 3.51 |
| Spaulalı.... | 1 | 134 | (4) | 1 | 134 | 2,390 |
| Swudsh..... | 1 | 612 | - . . | 1 | 312 | 5,140 |
| Total | 162 | , ,975 | 642,65 | 140 | ,40 | K1,25 |

Fobrion Thate of lorto I'lata, inge.

| Noitonallty. | Amivata |  |  | Daparta es. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No of vencein | Tonnage. | lavoles veluen of ('arscoes. | No. of Veswis. | $\begin{aligned} & \text { Ton. } \\ & \text { Eayn. } \end{aligned}$ | Invilan - aluen of Chyty |
| 【irlimjo. | 82 | 3,247 | +129,510 | 80 | 3,740 | 110.610 |
| "ntilals | 24 | 5. 0.05 | 106,210 | 24 | 1.9181 | 134, 315 |
| Ifrinurn | 0 | 1,604 | 119, $0: 0$ | 11 | 2.1032 | 316, 415 |
| Amrrican | 8 | 1.121 | 91,800 | 11 | 1.44 | \$1.14\% |
| luteh | 8 | 74 | 27,100 | 6 | 618 | 17.4.4 |
| Ifamilurg . . . | 7 | 1, ${ }^{(1+1)}$ | 26,150 | 0 | 406 | 19.6im) |
| ( Hldenburg . . | 9 | 1. | 41,060 |  | 816 | 54.485 |
| Sardinlan... | 1 | 207 | 45,0,00 | 4 | 459 | $45,5 \times 0$ |
| Haboverlan | 1 | 78 |  | 1 | \% | 1980 |
| \% wedtin | 1 | 195 | 6,000 | 8 | 47 | 65,375 |
| $t$ reurli. | 1 | 149 |  | 1 | 148 | 20, 280 |
| frurtarimese . . | 1 | 149 | .... | ; | - | $\cdots$ |
| Stuatish . . . . | 1 | 45 |  | 1 | $4{ }^{4}$ | -3 |
| tominkent . | 10 | $14 \frac{1}{4}$ | 3S5 | 10 | 81 | 45 |
| Tota | 168 | 10,040 | \$590,955 | 153 | 11,41 | $15,4 \%$ |

The following is n summary of the trade het ween the Enited States und the port of San Domingoduring the last six months of 18ist, viz.:

Number of veaseis entered and cleared 28 , with at
aggregate of 2520 tons ; of these, four entered in ballast, and ten with assorted cargoes. The homeward cargoen consiated of mahogany, lignum-vitee, hides, and heney, and amounted in value to $\mathbf{6 6 , 2 7 0}$. During the same period there entered six vessels under liritish colors, measuring in all 518 tons: one French vessel of 139 tons; one Danish of 125 tons, and one Dominican of 68 tons; total number of forelgn vessels (exclusive of Amerlcan) nine, with an nggregate tonnage of 850 tons. During the first six months of 1855 there entered and cleared 40 vessels from the United States (under the Aunerican flag), measuring in the aggregate 3375 tons; of these, 13 entered in ballast, and 7 with assorted cargoes, Including one laden in part with fiour. Value of cargoes, inwarl, $\$ 27,650$; value of cargoes, homeward, 84, fiGt. Llomeward cargoes consisted of mahngany, lignum-viter, satin-wood, fustic, hildes, and honey.

The commerce of San Domingo with the United States for the year 1857 was as follows:


The latest revision of the Dominican tariff bears date 18 th June, 1853. The valuation of several articles, including domestlc cottons, boys' slooes, ete., lins heen reduced; while in a few others, including woinen's shoes, there is an incrense-on the latter article from ${ }^{57}$ to $\$ 8$ per dozen, which will ralse the duty from $\$ 175$ to $\$ 2$ per dozen. The finnncial and politicul difficulties now experienced in the Dominican Republic can hardly fail to he felt in the general move:nents of its forelgn commerce.
The reader is referred to the article Ilarti for the comparative statement of the cominerce of the Lnited States with the island of San Domingo-embracing the empire of IIayti and the Dominienn lepullic-exhibiting the value of exports to aul imports from each country, und the tonnage of Amerlcan and forelgn vessels arriving from and leparting to each country, durlng the years designated.

A Dominican vessel arriving in the United States from a port in the Dominican Republic is liable to a tonnage duty of $\$ 1$ per ton, that being the rluty imposed on the tonnage of vessels of the Unitel Stntes arriving in sald republic; hut the cargo is not liable to a discriminating duty of 10 per cent., no such duty leeIng levied by the Dominican Republic on the cargocs of United States vessels arriving in the ports of that republic. - See IIayti. For Political lelations of England with San Domingo, see Fuaseis's Mag. xlii. 133 ; same artlcle, Living Age, xxvii. 126; Edinburgh Review, xvii. 372.

Bandwich Islands. A group of eleven islands In the l'acific Occan. They were discovered ly Captain Cook in 1778. Many voyagers report that the natural enpacity of the natives seems in no respect below the common standard of mankind. It was in one of these islands that this illustrious circummavigator fell a victim to the sudden rceentiment of the natives, Feb. 14, 1779. Tamehamcha, chief of Itawnii, becomes king of the group, 1800. Nihoriho, his son, sueceeds him, 1819. Idolatry abolished, 1819. Jihoriho and his queen died In England, 1824. Knnikenouli, 20 years of age, king, 1824. Nission estnbllished by the American Ilourl, 1820 . In 1832 there were 900 schools and 50,000 pupils in the islands. Trenty with the French, made with admiral Dupetit-Thouars, 1837. Another, cuforcing the introduction of Cutholic missionaries, etc., 1839. Tamehameha III. becomes king, Dr. G. P'. Judd, an Anserican, prime minister. In 1831 there were 14 ships, 2630 tons, belonging to the is!-sinds-which are Important to the United States ns a whaling station.

This remote but interesting group is situated in the
midint of the Pacific Ocean, in about lat. $21^{\circ} \mathrm{N}$., and long. $157^{\circ} \mathrm{W}$. It comprises elght Inhabited and four uninhabited Islands, Owhyhee, where Captain Cook was kllled, belng the most considerable. They are of volcanle formation, and mountainous, som of the peaks rising in Owhybee to thetween 13,000 and 14,000 feet in height ! The population in 1847 is sald to have ainounted to above 112,000 , of which nenrly 40,000 belongel to Owhyhee. Hut it is a curious fact that the native population has been rapldly decreasing for some years past, and does not now probably exceed a third part of lts amount at the epoch of their discovery. The Islanders are honorably distinguished among tho Polynevian nations ly the advancea thet have made lis civlllzation; and partlcularly by thelr progress in manufactures, navigation, and commerce. Christinnlty was introduced by the American missionaries in 1820, and ls now the religion of the state; schools lave heen established, churches have been built, and the forms of religion are pretty well ohserved. Enropean usages have become fastionable; and the costume of the better classes, women as well as nien, closely resembles that of the Americans.

The following table exhibits the population of the princlpal islands, according to the census of December, 1853:

| Lelanda. | Nativer. | Foroiknera | Putn! |
| :---: | :---: | :---: | :---: |
| llawall ................ | 44,193 | 259 | 24.401 |
| Manl . . . . . . . . . . . . . . . | 17.420 | 24 | 15,4it |
| Molokal. . . . . . . . . . . . . | 3,605 | 42 | 3,6)7 |
| l.anai. ................. | 809 |  | 599 |
| Gath................... | 17,915 | 1311 | 19,120 |
| Katal . . . . . . . . . . . . . . | 6,726 | 20. | 6,090 |
| S ${ }^{\text {Lhhan................ }}$ | 796 | ... | 790 |
| Tntal............... | 71,118 | 2120 | 73.229 |

The staple exports of the islands are: Sugar, molusses, sirup, coffee, goat-skins, sweet potatoes, wool, hides, salt, tallow, beef, pulu,* and arrow-root. Agriculture has made but little progress, anil will never, probably, occupy the natives to any great extent. There nre many excellent tracts suitable for the production of coffee, wheat, vines, etc. ; but the means of subsiatence are so easily procured, that the inhabitants liave but few Inducements, even did they not lack the Industry and enterprise, to become extensive agrienlturists.

There are large tracts of good grazing land scattered throughout the island, and the growth of cattle is a leading. perhaps the most profitnble, branch of agricultural industry. There are also mumerous sheep runges, on which are tended nbout 12,000 sheep; but the hisiness is not encouraging.

The eminently alvantageous position of the Sundwheh Ishnids, lying on the great route letween Americn and China, invited nt an early period the cuterprise and cnpital of several European and American settlers, and led to the establishment of a gomowhat active trade. They constitute a common centre between the three principal whaling grounds of the Northern Pacific-one on the equator, the other near Jupan, nud the third toward the Behring Sea.

The principal port is Honolulu, on the south side of the island of Woahoo, in lnt. $21^{\circ} 18^{\prime} 8^{\prime \prime}$ N., long. $157^{\circ} 55^{\prime} \mathrm{W}$. l'opulation about 8500 , of whom alout $1: 00$ are Englishmen, Amerleans, and other foreigners. The harhor, to which the place owes nll its importance, has a narrow entrance, but it is ansy of access at all times of the tide to vessels not drawing more than 18 feet water. The har at its month leing narrow, and composed of soft eoral, it might casil! be made nccesslble even for line-of-bsttle ships.

Commercial relations between the United States and the Sandwich Islands had existed for many years before the treaty of 1849. As far back as 1832, when the native populntion of the islands nmounted to 130,315 (nearly double its present number), it appeare that the

* A nallve producton used for beds and pillowe.



## IMAGE EVALUATION TEST TARGET (MT-3)



Photographic Sciences Corporation

soon after introduced into Europe, hat it is doubtful whether this were done by the Arabians or Greeks. The mode of fabricmting paper from cotion and other vegetahle materials belng once discovered, lts fahrication from linen rage waa a comparatively easy, and in Europe, where cotton was then extremely scarce, an all but necessary step. It is singular, however, that we have no poaltive information eicher as to the country where, or the epoch when, paper from rags began to be msnufactured in Europe. Mais on ne peut reculer son invention plus tard, qu'au Treizieme siccle, ni son usage ordinaire au-delis du Quatorzieme. - Nouveau Trait, etc., i. 524. In fact, Egyptian psper, or paper made of papyrus in the manner described above, continued to be partially employed down to the middle of the eleventh century, though parchment was then the principal material used in writing. It is curious to observe how very shartly the introduction of paper preceded the invention of printing, to which, indeed, as already seen, it was an indispensahle preIlminary. Muratorl attributes the ignorance of the barbarous ages principelly to the scarcity and high price of paper, and the superior intelligence of modern times to its abundance and cheapness. - Andmes, $i$. 200. And whatever opinion may be entertained as to the first part of this statement, there can be no question that the latter is perfectly well founded.

Not only are we in the dark as to the history of modern paper, but we are unable to make any very satisfectory conjectural estlmate of the mode In which it was invented. It is all but certaln that tho invention must have been suggested by accident, or by ohserving the effects produced by the accidental drying of triturated vegetable maiter, or $\ln$ some such way; and that the hint thus afforded was gradual!y improved upon, It is not posstble to Imagine that the invention should heve been wholly the result of design; for we can not conceive how any one without any previous knowledge should have proposed to himself to produce paper by pounding rage, or other vegetable matter, mixing the mass in water, and then pressing and drying the deposit. But, without indulging in unprofitable conjectures, it is at all events certain that, however and by whomsoever discovered, no invention has been of groater importance. Chartas usu maxime humanitas vita constet et memoria.- Pliny, Mist. Nat. lib. xlil. cap. 11. The proceases by which the most worthlees and vilest materiele are converted into auch admirable substances as paper and glass are probably the greatest triamphs of haman talent and ingenulty. They have more than realized the dreams of the alchemists, and have heen incomparably more advautageous than if we had become acquainted with a means of transmating the inferior metals into gold.

In 1813, Dr. Colquhoun estimated the valne of psper annually produced in Great Britain at $£ 2,000,000$; bat Mr. Stevenson, an Incomparahly better authority upon such eubjects, estlmated It at only half thls sum. From information obtained from those engaged in the trade, we incllne to think that the total annual value of the paper manufactured in the United Kingdom, exclusive of the daty, may at present amount to about $£ 1,600,010$ or $£ 1,700,000$. There are about 700 papermills In Engiand, and from 70 to 80 in Seotland. The number in lreland is but inconsiderable. Of these mills, we believe, very few have iately been unemployed. It was formerly customary to collect the rage used in the manafacture into large heaps, in order that, by their heating and fementation, they mlght be the more easily reduced to filaments. But this injured tho rage; and it is now the practice to teer thein to pleces, without any such preparation, by poworful machines constructed for the purpose. Daring the present centary this manufactare las been algnally promoted by the combined Influence of science, ingenulty, and mechanical skill. These heve been nuccessfully exerted In the preparation of the pulp; the converalon of the pulp

Into paper, and the proviaion of materials; and in none has their influence been more remarkable than In the last. This ds evident from the fact that, while the munufacture has been more than doubled since 1820 , the demand for Continental rags and other foreign materials has actually been rednced withln that time, in consequence of the immense home supply we derive from substances prevlously regarded as worthless, and treated as refuse. The oweepings of cotton and flax mills, owing to the gresse and dirt with which they are mlxed up, were, until wlthin these few years, of no value whatever, except as manure. The chemical and mechanical processes by which these materials are purlfied, whitened, and made svailable for the production of paper, without their strength being impalred, are not only exceedingly interesting in themselves, but are of great nationallmportance; and, by reduclng the cost of paper, havs done ten times more to lower the price of books, and diffase literature, than all the efforts of all the socleties that ever existed.

The first idea of a machine for converting pulp into paper originated in France, the inventor being un ingenious workman of the name of Louis Robert. A model of thls machine was brought to England by M. Leger Dldot; and though at first it was far from givIng an asearsnce of success, it sufficed to induce Eaglish capitalists and engincers, particularly Mr. Donkin, to follow up the scheme; and In the course of a fow years they brought it to a blgh degree of perfection.

The following tabular statement exhiblte the aggregate quantities, values, and prices per pound of raga imported into the United States from all countries, distinguishing in a separate column the quantities received frem Italy during a period of ten consecutive years, from 1846 to 1855:

| Years. | $\begin{array}{\|c\|} \hline \text { Ragn imporit } \\ \text { ed from on } \\ \text { E'ountries } \\ \hline \end{array}$ | $\begin{aligned} & \text { Ragn } \\ & \text { imported } \\ & \text { from Itoly. } \end{aligned}$ | Aggrogate | $\left\|\begin{array}{c} \text { Priec } \\ \text { per } \\ \text { pound. } \end{array}\right\|$ |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Pounde } \\ & 0,807,700 \end{aligned}$ |  | Dollars. Dolat | Centi. |
| ${ }_{1847}^{1846 . .}$ |  |  |  |  |
| 1848 | 17.014,687 | 13,803,030 | 626136 | $3{ }^{3}$ |
| 1849 | 14,941,236 | 11,000,608 | 824437 | -51 |
| 1860. | 20,096,875 | 15,861,266 | 747,157 | 8.01 |
| 1851 | 26,004, 701 | 18,512,678 | 902,870 | 0.46 |
| 1852 | 18,288,458 | 18,220,670 | 622,870 | 342 |
| 1853 | 22,700,000 | 14.171,202 | 085,465 | 431 |
| 1854 | 82,61:, 753 | 24,240,999 | 1,607,826 | $8 \div 1$ |
| 185 | 40,013,510 | 28,048,612 | 1,224.413 | (1) |
| Aggregato | 203, 888,718 | 148,300,165 | \$7,388,721 |  |
| Ann, average. | 20,488,871 | 14,830,015i | 732,87: |  |

From the preceding table it will bo seen that during the decennial period ending with 1855 the aggregato quantity of rags imported into tho United States from all parts was $200,631,954$ lhs., while the aggregate quantity received from Italy reached as hlgh as $148,300,15 \mathrm{ja}$ lhs. The annual average for the perlod designeted will, however, furnish a more statistical basis for ascertainIng tho relative Importance of Italy compared with ali other conutries as tise principal source of supply upen which tho United States must rely, with any degree of cortainty, for an article the consumption of which Is so rapldy increasing thero; oven during the past year, an alarming deficlency of the manufactured material was seriously approhended by the conductors of our periodical and nowspnper journals. The average annual quantity imported into tiie United States from all countrios during the period designated was $20,988,871 \mathrm{lbs}$; the average anmual quantlity receiced. from Italy was $14,880,015 \mathrm{lbs}$. Thus It is siown that instead of one-fifth Italy uctually furnishes nearly two-thirds of all the raga limported linto the United States.-Ses Raga.

The consumption of paper in the United States is equal to that of France and England combined. In other words, the $28,000,000$ inhabitants of the United States consame as much paper as the $64,000,000 \mathrm{in}$ hahitante of France and England. This is very near- than in sile the e 1820, gama ime, in derive :ss, and nd flax hèy are no valcal and are puduction red, are but are the cost he price fiorts of rert. A d by M. om givluce En[r. Donrrse of a p perfec
ly correct. The atstistics, however, will prove intereating. The number of paper - mills in operation in England in 1885 was 750, and the annusi value of the paper manufactured reachad as high as $\$ 8,000,000$. At that period, however, the manufacture of paper was burdened with an excise duty amounting to more than thres times as much as the total wages of the hands employed in making it, and the qnantity annually produced did not exceed $50,000,000 \mathrm{lbs}$. of first-class and $16,000,000 \mathrm{lba}$ of second-class paper, requiring a supply of about $100,000,000 \mathrm{liss}$. of rags.

Improvements in machinery and mode of manufisoture, and the appllcation of steam, have reduced the number of mille in Great Britain and Ireland to 380, according to the latest statietical returns; while the quantity of rags annually consumed has risen to $201,600,000 \mathrm{lhs}$., or over 100 per cent. We have compiled from a recent, though in this country a rare Dabiin publication on atatiatles, the following tabular statement, showing the quantity of paper manufactured, consumed, and exported In Great Britain for a period of nine years, ending with 1854:
Comparativa Statenent erowing the Quantities oy
Pafri manticotured, coneunid, and exportid in


| Yeam. | Poundr of Papar manntictured a Gresl Britala | Ponadi of Paper retnined for Conginmplion In Great Hritaln. | Founds of Paper esported from Groal Eritaln |
| :---: | :---: | :---: | :---: |
| 1846 | 127,400,000 | 128,600,000 | 4,888,000 |
| 1847 | 121,900,000 ' | 116,100,000 | 5,852,030 |
| 1843 | 121,800,000 | 116,600,000 | $\therefore 5,180,000$ |
| 1841 | 182,100,000 | 189,100,000 | 6,068,000 |
| 1850 | 141,000,000 | 188200.000 | 7,762,000 |
| 1851 | 160,900,010 | 148.5]0,000 | 8,305,000 |
| 1859 | 154,470,000 | 147, 100,000 | 7,328,900 |
| 1858 | 177,600,000 | 164,300,000 | 13,290,400 |
| 1354 | 177,800,000 | 161,700,000 | 16,112,000 |

France turns into paper annually about $235,200,000$ lbs. of rags, producing about $156,800,000 \mathrm{lbs}$. of paper. In the United States there are 750 paper-mills, which work up each year about $405,000,000$ lbs. of rags. Assuming (the asual estimate) that $1 \frac{1}{} \mathbf{l b}$. of raga yields 1 lb. of paper, we have the foliowing comparative statement for the United Statos, and France and Great Britain combined:

|  | $\begin{gathered} \text { Ponode of } \\ \text { Bago natually } \\ \text { consomed } \end{gathered}$ | $\begin{gathered} \text { Pooonds of } \\ \text { Papor Annoaly } \\ \text { manufaclared. } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: |
| Itted 8 | 400,000,010 | 970,000,000 | 10.80 |
| Greal Britain and France combined) | 436,800,000 | 291,200,000 | $4 \cdot 5$ |

From this statement it appcars that the United States consumes $31,800,000 \mathrm{lbs}$. of rage, and manufactares $21,200,000 \mathrm{lbs}$. of paper, lese than Great Britain and France combined, while the quantity of paper msaufactured per capita of the population of the former is mure than doublo thnt assigned to the combined population of the two latter. The quantity of paper imported in Great Britain and France and addod to
the stock for consamptlori might vary alightly, bat not materialiy, the above reaults. The preceding statement, however, omits the quantities annually imported and exported by each of the countriea respectively, items without which no calculation as to consumption can be accurately made. The importation of paper of all klnds fnto France in 1858 did not exceed 837,104 lba., while the experts amounted to $17,053,657$ lbs. This gives an excess of exports over imports to be supplied from the stock of demestic manufacture, of $16,716,553 \mathrm{lbs}$. Deduct this from $166,800,000 \mathrm{lbs}$., the quantity manufactured, and we have left for consumption $140,088,447 \mathrm{lbs}$., or $3 \cdot 89 \mathrm{lbs}$. per capita of the popolation.
During the same year there were imported into England, according to the Report on Trade and Navigation, $909,250 \mathrm{lbs}$. of paper. The report gives this quantity for the last six moaths of the year only; assuming that the importation during the first six montha was equal to that for the last as above given, and the total importation would reach, say 200,000 lbs. The quantity exported, we havo seen, was $13,296,874$ lbs., leaving an excess of exports over imports of $13,696,874$ lbs. Recent and important improvements have been made, by the use of refuse tanned leather, bark of the cottonstaik, pulp from the fibres of endogenoua plante, as raw materials for the manufacture of paper.--Scientific $A \mathrm{nn}$. Exports of Papar and Stationert of Domigtio ManuFAOTURE FHOM THE UMHED STATEA YOE THR YEAR ENDING J tre $=80,1556$.


Importe or Pafea and Mantyaotuaeg of Pafei into tag United Btateg for tife Yeag endino June 30, 1856.

| Whence lexported. | $\begin{aligned} & \text { Papier } \\ & \text { Mnch } \end{aligned}$ Articien. | Paper Hangioge. |  | Paper and Manufac. toras of. | Blank Bookt. | Wrillog Paper. | Gheathing Papar. | Miaylug Corda. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hanburg | \$771 | \$1,441 | \$6.10 | \$2,089 | $\$ 458$ | \$89,361 |  | \$293 |
| Bramen ....................... | 5,469 | 1,474 | 6,405 | 17,432 | 954 | $14,777$ | $\ldots$ | 489 |
| Holiand. Relgium. | 52 238 | 4,004 8,006 | 141 | 4,084 2,430 | ${ }_{2}^{2}$ | 711 | *... | 83 |
| Eogiand. | 0,285 | 8,006 56,650 | 7,412 | - $\mathbf{6 2 , 4 3 0}$ | 141 6,801 | 72,410 08,868 | ..... | 8,516 |
| Scoiland. | 0,285 | 56,650 | 7,412 | 62,047 | 6,801 88 | 08,868 | .. | 2,382 $\ldots \ldots$ |
| Gibrailsr . . . . . . . . . . . . . . . . . | 49 | .... | 10 |  | $\cdots$ |  | .... | ..... |
| Briliah Weat Indiea........... | ..... | .... | 10 | 4 | .... | 15 | - | .... |
| Britiah Fatil Indlea. .... | ..... | ..... | 12 | " ${ }^{\prime} 9$ | $\cdots$ | 12 | , $\cdot$. | .... |
| France on the Allantlo ....... | 0,187 | 181,360 | 21,328 | 34,519 | $\ddot{8,0 \% 8}$ | 109,384 | .... | 9,845 |
| France on the Moditerranean. Bpain on the Mediterranean. | - | . | . | 18 | .... |  | ..... |  |
| Cuhs........................ | $\ldots$ | ..... | - 887 | "̈27 | ... | 1,188 | \$ $\mathbf{6} 58.80$ | 493 895 |
| Bardinia. Tuacany. | , | .... |  |  | ..... | 6,498 |  |  |
| Now Graunde.......... . . . . . . . . . , | $\ldots$ | $\ldots$ | 100 287 | 383 | 109 |  | .... | $\cdots$ |
| Chil .......................... | .... | .... | 286 | 8,886 | 109 | 088 | .... | 267 878 |
| Peru . . . . . | . | ... | ${ }^{\prime}{ }^{\text {B }}$ |  | $\ldots$ | 668 | $\ldots$ | Bto |
| China |  | 48 |  | 6,078 | 994 | 4 |  | 68 |
| Total value... | 320,061 | 8288, ${ }^{\text {877 }}$ | - 36,700 | \$185,107 |  | \$272,010 | \$6880 | \$10.677 |

Paper Boxes.-The manufacture of boxes from paper, or rather pasteboard, han become a very large one, from the custom of so many manufacturera selling their goods in these boxes. It is said that in Paria four thousand pernona are employed in this trade alone. The trade is divided into six branches.. The first comprises the most elaborately-finished and ornamented boxet, for the display of artificlal flowera, rich velveta, ribbona, allks, trimmings, modale, miniatures, and corbeilles for weding presents. The second class conalate of boxes and small ornaments for confectionera. The third kind are used for packing toye and trinkets of small aize. The fourth klod are for perfumery, fans, glovea, etc. The fift comprises large boxea for shawle and ribbons for exportation. The aixth are pill-boxes, wafer-boxes, and others of the smallest kind. The French productione in this department of manufacturee are superior to any other In neatnese of execution and taste of ornameutation.

- Chinese Paper.-The Chinese make a filamentoua kind of paper much maperior to ancient papyrua; it obtains In England the name of rice-paper; but sufficlent is now known of it to show that this is by no meana a correct deaigaation. Dr. Livingstone introduced Chinese rice-paper in England about half a century ago; it had great favor as a material for artlficial fiowers. It was many yases afterward that information was obtained concerning the mode adopted by the Chineae ln making these small but very expenelve sheets of paper. 'There is a leguminous plant growing in China and Iodia, the stem of which is cut into pieces eight or ten Inches lo length; and these are cut by tho Chinese into one continuous spiral film, on the same principle as the modern mole of vencer cutting, but by the dexterous use of hand-tools. These lamlam, being apread out and pressed flat, form thin sheets, which, after being dyed and otherwise prepared, constitute the rice-paper of the Chinese.

The same ingenlous people make paper of bamboo. The bemboo atoma, when about three or four fnehes thlek, are cut into pieces four or five inches long. Thesc, when softened In water, are washed, cut into filaments, dried and bleached In the sun, boiled, beaten to a pulp, and made into thln sheets of paper. This is truly paper, which the former examples are not; and tho art must have made a considerable adrance before such a methol could have suggested itself.

Paper-hangings.-Stamped paper for this purpose was first made in Spain and llolland about A.b. 1555. Made of veivet and fioss for hauging apartments, about 1620. The manufacture of thls kind of paper rapidly improved in Great Britsin from early ln tho eighteenth century; and it has now been brought to great perfection. Since this important and elegant substitute for the anclent "bangings" of tapeatry or cloth came into uee about 200 years ago, the manufacture hes undergone a gradual succession of Improvements, and has now resched a aigh state of beanty and perfection. The patterns on these papers are sometimes produced by stencil plates, but more commonly by blocke, each color leing laid on by a separato block cut ln wood or metal upon a plain or tinted ground. Tho patterns aro sometimes printed in varnish or size, and gilt or copper leaf applied; or bisulphuret of tin (aurum musinum) is dusted over so as to adhere to the pattern; and In what are called flock papers, dyed wools minced into powder are atmilarly applied. Powdered steatite, or French chalk, is used to produco the peculiar glosa known under the name of satin. Striped papers are sometimes made by passing tho paper rapidly under a trough, which has parallel slits in its bottoun through which the color is delivered; and a number of other very Ingenious and beautiful contrivances have lately been applied in this fraportant tranch of art. Tho inventlon of the paper machlne, by which any length of paper may be obtained, effected a great change in paper-hangings, which could formeriy only be printed
upon separate sheets, and were much more luconven. lent to priat as well as to apply to the wallos.
Prapior-maohe, anme given to articles manafactured of the pulp of paper, or of old paper ground up into a pulp, bleached, if necessary, and moulded into various forma. This artlole has lately been uesd upan an extensive acale. for the mapufacture of mouldings, rosette4, and other architectural ormaments; pilasters, capitals, and even figures as large as life, have also been made of it. It is 1 lghter , more durable, and leas brittle and liable to damage than placter, and admits of being colured, gllt, or otherwlee ornamented. Another article sometimes goes under the came name which is more like pastelionrd, conaisting of aheets of paper pasted or glued and powerfully pressed together, so an to aequlre, when dry, the hardnesa of Loard, and yet to admit, while moist, of curvature and flexure: tertraye, waiters, miffl-boxeq, and simillar articles are thus propared, and afterward;carefully covered by Japan or other varnishes, andioften beantifully ornamented by figures or landscapes and other dovices, etc., occaaionally inlaid with mother of pearl. A mlxture of sulphate of Iron, quickllme, and glue, or white of egg, with the pulp for papler-mache, rendera it to a greater extent water-proof $\}$ and the further addition of berax and phosphato of sode contributes to make it almest fre-proof. The chief papier-mache manufactory in England is that of Bielefeld, in. Wellington Strect, Strend, who has recently publlshed a concise histery of tho manufacture; embelished with numerous Illustrations. : There are manufactories of papier-macho goods now establlshed In Massachnsetts, For theim. ports of artleles of papier-mache, see Papen.
Para, or Belem, a gea-port city of Brazil, capital of the province, 70 miles from the Atlantle, latitude of Fort St. Pedro $1^{\circ} 28^{\prime} \mathrm{S}$., long. $48^{\circ} 80^{\prime} 5^{\prime \prime} \mathrm{W}$. Populat' $\Omega$ catlmated at 10,000 , mostly of European descent. It stands on elevated greund, on the south shore of the Bsy of Guajuara, on the right bank of the Para, or Tacailtins, and has a fine appearance from the river. Chicf edifices, the governor's palace, cathedral, several other charches, convents, barracks, arsensl, eplscopal palace and seminary, formerly a Jesulta' college; a prisen, and an unfinished theatre. Vessels of large draft can lle near tho eity, and the cocos, caoutchoue, isinglass, rice, and drugs, exported from Brazll aro chicfly from Para. It has also a trade in cotton, vanills, annatte, dyenwoods, honey, wax, and a great variety of other vegetable and animal products. The trade is mestiy with Llverpool, London, Barbedoes, Cayenne, and the North American and other Braziliau ports. The Eirer Para, bounding the islapd of Marajo southward, extends between long. $48^{\circ} 10^{\prime}$ and $50^{\circ} 40^{\prime} \mathrm{W}$., receives the $\mathrm{T}_{0}$ cantins and Annapu from the south, and is connected northwestward with tho Amazon.

Para enjoys an advantago possessed by no other seaport town in Brazil-that of an unobstructed intercourse by water wleh the interior. The commerclal reseurces of this province, and the admirable trading position of the eity, are unsurpassed; but inhahitants are wautIng to develop these elements of commerce and civilization. In 1840, some American eltizens estublished several saw-mills at Maguery, In the viclnity of Para; but whother they met with better success than did the Glasgow merchants, whose property to the amount of $\$ 350,000$ was pillaged in the same place during s revolt in 1835, has not been aseertained. The cotten of Para has been higlily prized. Caoutchouc, the use of which was first discovered In 1735 by French academiciaus sent to Brazil to mako aatronomical observations, is abundant, and is sxtenslvely manufactured Into shoes, etc. Wero this articlo admitted inte the United States, as in England, free of duty, it would become one of the staplo exports to thie country. A well-infornied American merchant, reslding nt Para, addressed a ietter on this subject to ono of the officers
of Lleutennnt LIerndon's expeditlon to tho Anuzon, and admits ated. Aname nanie of sheets of id together, board, and exure: teales are thus l by Japan srnamented , etc., accemlxture of hite of egg, to a greater on of borax e It almost ufactory in ton Strect, cise history cerous tilus-apicr-mache For theim. , latitude of Popular in
descent. II re of the Bay 8, or Tacallver. Chisf everal other copal palace e; a prison, ge drsft call ac, isinglass, chiefly from lia, sninatto, iety of other de is mostly nne, and the - The liviver ard, extend eives the Tois comnected
no other sea. d intercourse ciai resources ling position nts are weutce and civili$n$ established nily of Para; ess than did o the amount acc riuring a The cottou houc, the use rench acaleical ubservananufacturei tted inte the uty, it would country. A ing at Pars,
of the officers the Amazoa,
urging the dlasdvantages under which American commerce labors, an compared with that of Great Britain, in the caoutchouc trade.-Sec "Letter from the Secretary of the Treasury, transmitting copy of circular let. ter end replies thereto, in reference to the Tariff, March 8, 1854.n ${ }^{\text {n }}$ This article is now becoming the chlef etaple of the province of Para'; and so various and multiform are the uses to which it is applicable, both in the arte and in domestio economy -80 important as an article of commerce hap it alresily become, that, even agsinst the import duty of 10 per cent. in the United States, It constitutea almost 50 per cent. of our trade with Para, The following statement exhibite the quantities of Indie-rabber Imported from Para into the Uaited States during the years deslgnated:


The exports from Pars to foreign countries consist of caoutchouc, cotton, rice, castor-oll, copaiva, anisesced oll, cocos, clovee, cinnamon, hides, horns, isinglass, Peruvian bark, etc. From 1816 to 1827, the exports from this, province averaged sinually $\$ 850,131$. The following summary exhilits the total tra, ${ }^{\prime}$, of Para for 1845: Inward-Vessels, 69; tonnage, 11,136; value of cargoes, $\$ 95,040 ;$ of which there entered from the United Statos: Vessels; 28; tonnage, 8920 ; value of cargoes, $\$ 236,200$. Cleared to all countriesFessels, 70 ; tonnage, 11,445 ; value of cargoes, $\$ 737$,52j. To the United States-Vesscls, 27; Conouge, 3628 ; value of cargoes; $\$ 261,620$. In this province, the sugar and coffce plantatione do not produce sufficlent for home consumption, and supplics are usually imported from the nelgbboring provinces. The innports from foreign countries consist of cotton goods, sllks, hardware, wines, spirits, salt, flour, salt prov:sions, gunpowder, etc. The only manufactures are ordinary cotton cloths for sacks and hammocks, and Indis-ruhber shoes; but these manufactures seem not to thrive, from a want of skill to direct them.
Total Number or Veasela, with this Tonncaom, enoaged in tha Teade between Para and Fobigon Countriss, and Value or Exports and Importg, eto. IN 1848 AND 1850.

| 1846. | Vemolit: | Tona. | Fradin. |
| :---: | :---: | :---: | :---: |
| Entered........ | 89 | 12,828 | Imports, 8,206,000 |
| Cleared......... | 88 | 12,029 | Exports, 4,881,000 |
| vnlered......... | 98 | 16,877 | Imports, $6.109,000$ |
| Gleared........ | 02 | 10,483 | Exports, 7,462,000 |

Staple Productione of Para, aelatively coneidrmed, hith rebpect to the quantities anneahiy ixpoetid:


The above are the leading exports from Para; but, besides these, the province produces varions kinds of timber admirabiy adapted for ship-building purposes, and a great variety of textile plants, medicinal drugs, and dye-woods of the richest qualities. The present population of Para is about 205,000, though the provInce is said to be capable of maintaining some mifitions of inhabitants. With such a population, its natural resources might be more fully doveloped, and Para thus placed, in point of position and commercial importance, in the very first rank of Brazilian ports.Commercial Relations with the United States.
Paraguay, a repablic or consulahip of South America, extends from lat. $21^{\circ}$ to $27^{\circ} 20^{\prime}$ S., and long. $64^{\circ}$ to $58^{\circ} 40^{\prime} \mathrm{W}$. The space thus inclosed forms a very compact territory, nearly in the ehape of a parallelogram, about 430 milies long, north to south, with an average
breadth of about 200 miles, and contains an area of abr'it 86,000 square miles. . Population 300,000 . Capltal, Asuncion. The name Parageay at one time was used in a very extensive sense, 80 as to include the whole of the immense regions of South Americe, between 1at. $16^{\circ}$ S., and the Strait of Magellan, and between Cbill and Poru on'the west, sind Brazil on the esat, riow confined to the republic properly so called. On the north the limits of this state with Brazil are not definitely settled, but in other directions it hse the advantage of great natural boundaries; the Paraua on the eact and south, and its tribitary the Paraguay on the west. ${ }^{\prime \prime}$ The whole surface thius belongs to the busins of these two rivers, a mountaln range of conelder. able elevatlon atretchling between them north to south, so as to form their water-shed; and eend the draiuage In opposite directions, but nesrly in equal portions. The dietance of the water-shed from the river scarcely any where exiceeds 100 miles, and bence the tribntaries by which the drainage is conveyed are more remarkable for their number than their magnitude. By far the largest is the Tibimari, which, owing to an eastern bend in the water-shed, has its couree considerably prelonged, and being angmented by several large afflu ents from the north, becomes a noble atream before it reaches the Paraguay. The surface is mountainous in the centre, and also in the northegst, where a ramiflcation, known by the name of the Sierra de Maracay, or Cordillers de Maracara, breaks off from the central chaln, and proceeding east to the banks of the Parsna, interrupts the navigation of that river, and forme one of the most remarksble cataracts in the world.
Paragusy is one of the fincet countries in the world. It is aimost inclosed by rivers, and the interior is also bountifully watered. The exterlor waters are navigable, and constitute the great avenues which are destince to besome the highwaye of the commerce of a magnificent interior country. Unlike the open countries aurrounding it, Paraguay is well wooded, and smong its treer are many valuabie in the arts and manufactures. It also abounds in medicinal producta, as rhubarb, sarsaparilia, jalsp, sassafras, dragon'e blood, copaive, nux vomica, liquorice, ginger, etc., all of the finest quaiity. Of dye-stuffi, too, there is an immense variety; as cochineal, indigo, vegetable vermilion, saffron, etc. Many of the forest trees yield vaiuable gums, and they comprise some of the most dellcions perfumes and Incense that can be imagined. Othere, again, are like amber, hard, brittle, and insolvble in water. The seringa, or rubber-tree, the prodnct of which is now almost a monopoly with Para, and also the palosanto, which produces the gum guiacum, crowd the forests, and the eweet-flavored vanilia is abundant. Upon the hilla the celebrated yerba maté flourishes luxiuriantly. The cultivated producte are sugar-csie, cotton, tobacco, rice, mandioca, Indian corn, eto. On the piains thousends of cattie range, sand large quantities of hides, hair, horns, bones, tallow, etc., sre iost for want of transportation. The country is not celebrated for ite minerals; but in ail that constitutes an agricultural country, rich lands, a fine climate, and abundance of water, it has no equal. Hitbrito, however, it has been shut out from the woild by the arbitrary will of despotiam; and its future commerce can only be measured from its resources and facilities. The recent revofutions in the states of the Plata have opened the nagnificent rivers of this country, and there is certainty no further impediment to commercial enterprise.

This etate, formerly a proviuce of Buenos Ayres, withdrew from the connection in 1811, and the Span-ish-A merican revolution breaking out about that date secured it from molestation. 'The policy of its rulers has been the excluslon of foreigners from the country, and under Dr. Francia, so ceiebrated in connection with lits annsla, the utmost despotism was exercised. The tyrant dying in 1840 the government was changed in its character, and a mere liberal policy obtained,
and uitimately it has becone in form an elective ropublic. As oarly as 1842, Paraguay acceded to the opening of its rivers to foreign commerce; but until the overthrow of Roass, the tyrant of Buenos Ayres, who axercised authority ovar the estuary of the Plata, the concession, was of no value. The successors of Rosas have now fully conceded free ingreas and egresa with the ees. These important revolutions in the policy of the two conntries will eventpate in the dee velopment of the vast resourcea of the southeastern and middle portions of South America-countries which are unsurpassed in agrioultural wealth and valuable commercial ataples. For further information, see American Statiatical A mnual; American Whig Review, vi. 245 (U.S. Conaul Hophina); North A merican Review, xxyl. 444 (A. H. Evesert) ; Dublin Univeraity, xii. 474 ; Quarterly Review, $x \times$ vi. 277.

The commercial policy of Paraguay, however, is not of that liberal character to attract foreign merchanta to its ports. In addition to the expense of purchasing atamped paper, by means of which every official transaction in the republic is conducted, and without which foreign merchants can not enter the markets, the internal taxes are such as to discourage efforts to develop the resources of the country, and, aa a consequence, to oppress its commercial industry. The aggregate of these taxes bearing apecially upon commerce is atated to amount to 26 per cent. on the value of every article sent to market. They consial of diezmos (tithea), 10 per cent. ; export duty, 10 per cent. ; and on rent of lande (almost whelly owned by the atate, and fixed at a high valuation) 6 per cent. If to this be added an import duty of 20 per cent. on almost every article which the United States could send to the markets of Paraguay, it can be readily consprehended why the name of this republic does not appear among those of other foreign nations the detaile of whose commerce are ininutely set forth in the annual Report on Cominerce and Navigation, prepared by the Department of the Treasury of the United States. The " atampa," to which alluaion has been made, ara djvided into cight classes: those of the first clase cost 25 cents; of the second, $87 \frac{1}{2}$ cents; of the third, 1 ; of the fourth; 82 ; of the fith, 86 ; of the sixth, 88 ; of the seventh, 16; of the eighth, 826. Permission to discharge or to losd a vessel of 21 tons, or 2000 tons, can only be obtained on a stamp of this last description; so that to unload a cargo valued at $\$ 100$ will coat $\$ 26$ all the same as if it were worth 100,000 ; and in like manner as to taking cargo on board. The forelgn trade of Paraguay is conducted chiefly through the ports of the Argentine Confederation, eapecialiy that of Buenos Ayres, and those of the Republic of Uruguay. The exports consist of yerbs mate (with which the hills of the country are literally covered), tobaceo, cigare, wooda, hides, hair, leather, molasses, rum, white starch, mandioca, peanuts, beans, and oranges ; of which latter article not lese than 30,000 bushels are said to be exported per month. The exporte from the United Statea which would moat readily find a market in Paraguay are cotton domestica, calicoes, plain cloth, clocks, boota and shoes, gunpowder and shot, aaddlery, and agricultural implements.

If the navigation of the River Vermejo, an affluent of the Paraguay, were opened to forcign commerce, or were even permitted to the Argentine flag, the United States would, it is belleved, soon enjoy the entire foreign trade of the upper provincea of the Argentine Confcderation. This privilege, however, If refused by the government of Paragusy, notwithatanding the River Yermejo, In its entire course, liee within the territories of the sister republic. Hitherto a selfish and illiberal policy excluded foreign vessela from the port of Alluuquerque, a place 1600 miles above Asuncion, the capital of Yaraguay, in the Brazilian province of Matto Grosso, which the government of that empire has declared open to the comumerce of the world. Brazilian vessels were not permitted to dencend the Rlver Paraguay, which
takea its rise in thia province, nor are foreign vessela allowed to ascend higher than the city of Asuncion; thua cutting off all trade wlth the richest portions of Bolivia and the fertlle province of Matto Groseo, in Brasil. The claim of Paraguay to exercise juriadiction over both banks of this river, by prohibiting ite navigation above Asuncion, and by closing the navigation of the Vermajo, both to the citizens of the Argentine Republic and to forejgners, has never been admitted.

A treaty between Paraguay and Brazil was duly aigned and ratified Jnne 14, 1858, by which it is stipulated that the watere of the Upper Paraguay shall henceforth be open to general mavigation and commerce. This will bring not only the produce of the Brazilian province of Matto Grosso, but alac the agricultural anć mineral wealth of Bolivia, to an Atlantic market The value of these mineral resources may be inferred from the fact that there ars atated to exiat in thla reglon opward of a thousand valuable mines unworked, it having been found impossible hitherte to conver machinery thither, across the mountains, from the Pacific cosst. A highway to the spot is now opened from the Atlantlc, as broad as the Minsisaippi, end equally accesaible. The rich province of Matto Grosso, with its diamonds, gold, silver, and copper, le also brought In connection $v$ 'th the good and nontiguoas sea-ports, Buenos Ayres and Montevideo, by vie Paraguay River ; and Cujaha, Its copltal; in the centre of the mining diatricts, can easily be reached from Asurcion. Dianantino, alout two handred miles from Cajaba, sends its produce to Santarem, on the Amazon, and thence to Para. This tedious and circuitous rdute is now superseded, as tho Paragnay connects theso markets with the eatuary of the Plata. A Paraguayan journal, "La Nacional," of Auguat 11, 1856, publishes the subjoined regulations: "All vessels froms foreign ports to the Brazilias ports above shall take pilots at Aaunclon, Concepcion, the junction of the Apa, and Olimpo. The vessela that descend that river fron the upper Pa raguay are obliged to take pilota from Olimpo, the junction of the Apa, and Concepcion; and the wagea of the said pilots are to be agreed upon at the captain of the port's bureen in Asuncion."

In 1858, the United States ateamer Water Witch, of 400 tons burden, and nine feet draught, was dispatched, under the command of Lieutenant Thomas J . Fage, to make an exploration and survey of the tributariee of the River La Plata. The results of this expedition will, doubtless, contribute in an eminent degree to the advancement of commerce and the promotion of science. The navigation of the Paraguay River, whlch empties into the Parana at the distance from Buenoa Ayres of 800 miles, was extended to the parallel of $18^{\circ}$ south latitude; making the eutire distance of the rivers Parana and Paragusy, through which this small sea-steamer had passed from Buenos Ayres to Corumlus (an interior military post of Brazil), equal to about 1700 miles. There is no doubt that the navigation of the Paraguay, during the sesson of high water, could have been carried by the Water IF'itch to a still greater extent; but at the time of this explorstion sny further ascent was prohibited by Brazil. Permission was, however, subaequently granted by the imperial government, but refused by that of Paraguey; The expedition was thue restricted to a more limited exploration of the upper waters of thie river than had been anticipated. It is to be hoped that the time is not far diatent when ail such prohibitions will be removed, and this interesting region of unknown country brought to the knowledge of the world.

The navigation of the Paraguay has thus been extended beyond Aauncion, to the distance of 650 mlies . This fact has induced the Brazilian government to avail itself of thia Important chananal of communication, by ateam, with her north western privince, Matto Grasso, in which is found the most valua ble diamond reglon of the ompire.
(n vestols launclon; ortions of Iromen, In riadiction ; ite navlavigation Argentine admitted. was duly it is atipu;uay shall and comuce of the the agria Atlantle eea may be to exist in mincs uniltherto to :ains, from now opensalppi, and tto Grosso, er, is also nontiguoss + wite Paracentre of rom Asunfrom Cue Amazon, Ifous route rects theso 'aragusyey , publishes ons foreign ke pilots at Apa, and er froun the om Olimpo, 1 ; and the pon at the Thomes J. $f$ the tribuof this exeminent dethe promoParaguay he distance nded to the entire dis $y$, through min Buenos of Brazil), bit that the son of high er Witch to his explarsby Brazil. nted by the Parggusy ore limited or then had tho time is wlll be rewn country

An expedition was dlspatched by the French govcrnment, a few years alnce, for the exploration of the Parana and Paraguay rivers; and the followlng passage In translated from a report made in March, 1865 , by Captain Picard, to whose charge it had been committed:" When we consider the excellent means of communication which nature bas opened to the provincee of the Argentine Confederation and the Republic of Paraguay, we can not but regret to see them unemployed and deserted. The absence of population, continual civll war, and the administratlve policy of Para gusy, have, so far, been the chief obstacles to progress. Let us Indulge the hope that tho day ls not diatant when the aspect of things will change, and these magnlficent countries will flourish under the bleasings of a more advanced civllization."
Parsguay can hardly be aald to possess a merchant marine. In 1851 there were distrihuted, between the two ports of Asuncion and Villa del Pilar, 12 vessele, averaginge each abont 42 tons. In 1852 there were 11 of the same description, and In 1853 only 9 . Beaides thees, there lo one brig belongling to the government, which is sald to monopolize almost excluaively the ccmmerce of the state. The forelgn veseels engeged fia the trade of Paragasy In 1852 were 81, with an uggregste of 4582 tona, from the Argentine provinces :outh, below the Paraguay River, and three American vissels, tonnage not known. All theas vessels trade with the ports of Aeuncion and Villa del Pller, which, with the port of Encarnaclon, on the Parana, were alone open to forelgn commerce. There is no treaty between the United States and Paraguay. With England a treaty was ratified November 2, 1853, by the eecond srticle of whlch the Republic of Paraguay concedes to the merchant flag of Great Britain the free navigation of the River Paraguay as far as Aeuncion, the capital of the republic, and of the right side of the Parana, from where it belonge to her, as far as the city of Encaroscion. It stipulates, also, that British subjects shall be at liberty, with their ahipe and cargoes, freely and securely to come to, and to leave, all the places and ports of the sald territoriea; hlre houses and warehouses; and trade In all kInds of produce, manufactures, and merchandise of lawful commerce, subject to the usages and establlshed customs of the country: also, that they may dlscharge the whole or part of their cargo at the ports of Pilar and where commerce with other nations may be permitted, or proceed with the whole or part of their cargo to the port of Asuncion, sccording sa the captain, owner, or other duly authorized person shall deem expedlent; and that, In the same manner, shall be treated and considered auch Paraguayan citizens se shall arrive at the ports of Great Britain with cargoes in Paraguayan or Britlah veesels.

There is an American company established In Paraguay, under a charter from the State of Rhode Island, which has been engaged In commercisl operations for soms time, under the title of "The United States and Paraguay Navigation Company." The chief object of this compsny is to lntroduce steam navigation on the rivers of Paraguay; but how far it has progressed in the accomplishment of thla olject, information is not it hand. The only direct trade, however, yet opened between the United Statea and this republic consists of some shipments of clgars and samples of wood made by this company. All othor artlcles of Paraguayan produco which reach the United States come throu, h the ports of Buenos Ayres or Montevideo, and are Included in the custom-house returne to the Treasury Department of exports from the republics to which these places respectlvely belong.

The government of Paraguay pute forth no atatistics relstive to the commerclal movemente of tho republic, and it ls said to be quite Impossible to obtaln Information on the subject from its adminlstrative officlals. Complete commercial statistics, which may be viowed as strictly acourate, can not, therefore, be looked for in
this DIgest ; but the subjoined statements, derived from a Memolr prepared In 1858 by M. L. Geofroy, an attach6 of the miesion extraordinary sent by France to the Plata and Paraguay, are, no doubt, reliable, so far as they extend.
 1852.

Tobaco0-299,000 arrobec, at 12 reala (or \$t 80 ) yer arrobe of 25 poanda ......................... \$343,000 437,000 Hides-Dry, 140,000, at 10 reals each. . . . . . . . . . . . " Tanned, 85,000 at $\$ 3$ enoh.. 125,000 Wood-Cedar, 60,000 yerde, at 4 reale 105,000 "1 Cabinet, alloop-10ed of 7000 to 8000 arrobea
 Cigare 0000000 arrobas, at 6 reale per arroba. Cigars-2,0 25,000
6,000 6,000
4,800 4,800
15,000 4,000 1,250 Sundry product, Wh per 1000 (a boxea of 100).. aril cargoes), common wood (Urander and I pacho), eto. cottory cargoon of oraoges, maize, pulse, 82 each in, 1,00 arrobais tiger-akins, 000, at $\$_{2}^{2}$ each; ladis rubber, otter-iking, hammocks, beaketr, eto 1 fringed napkina, lace, eto. . . . . . . Total.
that the above total might be Increased at least one-third, could exact statements be obtalned. If we add the export dutles of 10 and 6 per cent. on the articles exported-yerba and wood, which are government monopolies, and are exempt from duty, being excepted, and whlch would amount to abont 870,000 -and $\$ 20,000$ in sllver, exported in contraband, and $\$ 10,000$ for sundry charges-we have $1,500,000$, or an amount equal to the value of imports during the same period. Indeed, ouch is the scarcity of money in circulation, that the trade is necesearily one of barter; so that the flgures whlch represent the value of imports may also, generally, give the value of exports.

Measures.- The arrobs equals 25 lbs.; the cubic vara about $20 \frac{1}{2}$ cuble feet; the pesada 36 lbs ; the almude about three-fourths of a bushel; the asumbre about one quart ; the frasco about half a gallon; the fanega about four bushels. It may be observed, that these donominatlons of weight and measure represent different quantities in different countries, and even in the aame countries, as regards different articles.
Imports and Expouts of Abungion prom 1851 to 1854.

| Y ${ }_{\text {sinat }}$ | tmports. | Exports. | Total. | Duties patd. |
| :---: | :---: | :---: | :---: | :---: |
| 1851 | No data. | \$341,380 | No dnta. | No data. |
| 1852 | \$549,153 | 474,409 | \$1,014,649 | \$123,276 |
| 1863 | 496,658 | 691,982 | 1,008.640 | 56,564 |
| 1854 | 885,623 | 777,467 | 1,362,980 | 123,289 |

Among tho Importations of 1854, tisenes and wines hold the first rank, or, rather, they constitute fourfifths of the total value of imports.
Navigation.-Transportation by land being extremely difficult, the commercial movements already anslyzed were effected by water-by the Paraguay, an affluent of the Parana. From the opening of the port of Asuncion In July, 1851, to December, 1852, there arrived about 120 sloops, of 6000 arrobas, on an average, for each. A cargo of 7000 arrobes equals 60 tons, which would give an average of from 40 to 80 tons for each vessel. From January 1, to Fehruary 28, 1853, there arrived at Asuncion 80 Sardinian vessels. These vessels, the owners of which, or the grester part of them, were Sardinlans, sailed under the Uruguayan or Paraguayan flag. There arrived also, up to March 10, 1853, at this port, 19 sloops. In 1854 there arrived 160 merchant vessele, averaglng each 50 tons burden. Of these, 2 were Britioh, 81 were under the flag of the republic, 116 belonged to the Argentine Confederation, and 11 to Uruguay.
The customs tariff of Paraguay, now in force in that republic, is that promulgated by n decree given at Asunclon, Jsnuary 2, 1846.-Commercial Relations of the United States.

Parallels of Latitude, on tho Terrestrial Sphere, are small circles parallel to the equator; bnt ln the Celeatlal Sphere they are parallel to the enllptlc.

Parmmaribo, the capital town of Dutch Gulana, on the west bank of the Surinam, five milles from its mouth in the Aclantic, lat. $5^{\circ} 40^{\prime}$ N., long. $50^{\circ} 22^{\prime}$ W. Estimated population, $2 n 000$, mostly blacks. It is regularly and wéil bailt; streets unpaved, but ornamented with rows of tamarind and orange trees ; and It has Lutheran, Calvinistic, Roman Cathelic, and English churches, Portuguese and German.Jowish synagoguea, and is the centre of the trade of the colony. Fort Zeelandia, north of the town, is the residence of the governor. In a hospital for lepers, on the right bank of the Coppename, 450 patients are maintalned at the expenie of the colony. The Kwatta Canal, began in 1846, is the firet pabllo work executed by free laborers.

Paramo (sometimes rendered, though, incorreetly, by decert or heath). The name given in South America to a meuntainous district covered with'stunted trees, exposed to the winds, and in which a damp cold perpetually prevails. Uadr $r$ the torrid sone the Paramos are generally from 10,000 to 12,000 feet in height. Snow often falls on them, but remaine only a few hours ; in;which respect they are distinguislied from the Nerados, which enter the limits of perpetaal snow. The Paramos are almost constantly enveloped in a cold, thick fog 1 so that when a thick, mall ruin falls, accompanied with a depression of the temperature, they say at B. oota, or at Mexice, cas un paramito. Hence has been formed the provincial word am-paramarae-to be as cold as if one were on a paramo. -Hemioldt's Pers: Nar. 11. p. 262.
Paraange, a Persian measure of length; according to Herodotus, equal to $\mathbf{8 0}$ stadia, and (reekoning elght stadia to the English mille) equal to at English miles. The length of the parasang was reckoned differently by different authors; and auch are the discrepant estimates of the ancients that some have assigued it the length of 60 stadia. The word is supposed to be derived from the Persian seng, algnifying a stone.
Parcel, a term indifferently applied to amall packages of wares, and to large lots of goods. In this latter sense, 20 hogoheads of sugar or tuore, if bought at one price, or in a single lot, are denominated "a parcel of sugar."
Parcels, Bill of, an account of the Items compos: ing a parcel.
Parohment and Vellum. The former consista of the skins of sheep and goats, and the latter of those of calves, prepared in such a mainer as to render them suitable for being written upon, for covering books, and other purpasee. The consumption of theso articles is very considerable. In this and most other countrios it is customary to use thom instead of paper in the drawing op of a great variety of deeds and other logat instruments. They are also extensively used, especially in Italy, in the binding of books. The finest coples of the magnificent classics. which issued from the Dutch presses in the 17th century, and the early part of the 18th, were all bound in vellum. Parchment is coarser than vellum, and not so well adapted for writing upon. The qualities of both articles differ very widely ; so much so that tho best parchment is preferable to inferior or even middlling vellum. The goodness of oach depends partly on tho quallity of the gling of whleh they are made, and partly, and indeed in a very high degree, on the care and sklli wifh which they are manufactured.
The history of these articlee is Involved in some obscurity. Varro and Pliny (Hist, Nat. lib: xili. cap. 11), who have been generally followed, state that they were originally manufactured at Pergamus, in Abia Minor, the capital city of Eumenes II., one of Alexander's successors, during the reign of that prince; and that parchment owes to this circumstance its classical name of charta Pergumena. But thera seems to be littie if any foundation for this statement. We have seen, in the preceding article on paper, that Herodotas,
who flourished rather inore than a century befory Alexander the Great, states distinctly that, prevlouoly to his era, when paper (charta; Egypricoa) was scarce, the Ionians were accustomed to write on the skins of sheep and poats, and that' that practice was then followed (viz.y in his time) by several barbarous nations. -Lib. v. cap. 58. And it is all bat certain, seeing that the practice of writing on skins had beep in use for at least 21 centurios, and probabiy much more, proviously to the era of Eumenes, that their' preparation would, in the course of that lengthened period, be so much improvad as to render them littio difforent from parchment. It is probable, ladoed, that their manufucture may have been improved in. Pergamus; but wn incline to think that parchment owea its name rather to the extensive demand for it in that city, in consequence of Eumenea having amessed a large and valuable library, than to any thing elee.? He was, in fact, compelled to uso parchmeyt and vellum in the copying of books, as bls contemporary Ptolemy Philadelphus had prohibited the exportation of paper.--Pisyy, ubi supra. The scarclty of parchment during the Middie Ages, and in antecedient times, led to the practice of obliterating the writing on old parchments; by rubbing them with pumice-stone, immersing them in boiling water, and such like devices ; and there can be no menner of doubt that the prevalence of this pratice hes been most injurious to literature; and that it hes most probably occesioned the total destruotion of somo of the noblest chefodicurre of antiquity. In the Middle Ages, these were erased that room might be madef for some worthlese treatise on scholestic theology or logic! Sometimes, however, it happens that the ancient writing la not so much obliterated but that it may still be read; and to that circumatance the receat diacovery of a portion of Cicero's treatise $D_{0}$ Republica le to be ascribed. It bsd been efficed to make room for a commentary of St. Augnetine on the Paalms. Parchments that have been erased in this way are celled Palimpsesta (from $\pi a \lambda_{1 \nu}$, again, and $\psi a \omega$, to efface or clean), or repeatedly cleaned parchmento $;$ bocause they have been repeatedly cleaned, renewed, or prepared for writhg upon. If the learned world is ever to be gratified by the recovery of the lost cemedies of Mensander, or the lost booke of Polybius, Livy, and Tacitus, it will most probally be by finding them under some homily or such like trash--Nouveau Traite de Diplomatique; Dim de Vaines.
Parls (anc. Lutetia Parisioram), the capital of France, and, after London, the largeet and $m$ s.st populous city in Europe; lat. (observatory) $48^{\circ} 50^{\prime} 122^{\prime \prime}$ N., long. $79^{\circ} 23^{\prime} 02^{\prime \prime}$ E. from the national observatory, Washington, and long. $2^{\circ} 20^{\prime} 30^{\prime \prime}$ E. from London. Population in 1851, 1,021,580. Situatcd 193 feet above the level of the sea, on both bides and on two isiands of the Seine; 111 miles from ite mouth. It has rceently , and at the expense of about $\$ 100,000,000$, been surrounded with fortifications, consisting of a wall 33 feet In height, bastioned and terraced, lined with a fosse about 20 feet deep, and embracing both banks of the Seine, with a continuons inclosure, and of outworks composed of 14 detached forts. These fortificationa take in much of the aubarbs, and even of the surrounding country; but the proper limits of the town are traced by an intorior wall, erected at a much earlis date, for fiscal purposes. - In thin, wall are 50 gates or barriers, which form the proper entrances of Paris, and at which the octroi, or daties on goods brought into it, are levied. Many of these barriers are magnificent stracturea. Among others may be epecified the Barrlère de Neuilly, conelsting of two pavilions, and having in front the eplendid triumphal arch De l'Etoile; the Barriores तe Vincennee, de St, Martin, de F'ontainebleau, do Reully, de Chartres, and do Passy. Ontaide the barriers and their connectiag wall is a large zove, finely planted; which nearly makes the circuit of the town, and forms an excelient, though not very
muehf Outer Bouler sisting therou of tree has be sione, and or equal. The rectior nearly don. amali and fo and a extent walks of pro tions, en sul all of bridge one of Ma es onl that $k$
its tal but th of tob and co of the in the ted at fiee, $t$ jewel ets, fir article ticles shawl ers, co mente al pro ucts o gation tarmo half 0 ports, of mB Paris estim and $t$ For Maga: Licing 182;
fors Alexvlounly to tas scarce; 10 skina of athen fol ua nations. ain, seeing reep in ase more, prerepicration Hod, be so ferent from helr manuamus; but name rathity, in conge and valvas, $\mathrm{In}_{\mathrm{n}}$ fact, he copying iliadelphus PLuny, ubi the Middis practice of by rubbing in hoiling be no msnraotlee has it has most of soms of the Middle e made for sy or logic! acent writnay still be $t$ diacovery ica is to be room for a 18. Parchare called in efface or -cause they repared for to be grat-- Mensader, citus, it will eliomily or tique; Dtm
capital of m.st popu$50^{\prime}: 2^{\prime \prime} \mathrm{N}$. bservatory, m London. 3 feet sbove two islinds has recent-- been surwall 33 feet vith a fogse anks of the outworks ortifications - surraunde town are uch earlier 50 gates or f Paris, and ight into it, magnificent sd the Bars , and hav3e l'Etceils ; - Fontainosasy. Ont 1 is a large the circuit h not very
muoh frequented, promenade. It recelves the name of Outer Boulovards, to distinguinh tliem from the Inner Boulavardo, which form a aimilar internal aoine, consisting, in their fiaest parts, of a magnifiomt ceatral thoroughfare, bounded on either aide with a doable row of trees, under which a broad and olevated pathway has been formed, and lined by elegant shops and mansions, tie whole forming a icene of animated gnyety sad splendor which no other capital in Lurope can equal. Whang an a selne travernes the eity in a weat-northweat direction, and has a modiam breadth of aboat 450 feet, pearly one-thled less than that of the Thames at London. It is shallow, and navigable only by barges and small steamers. Its quany sre built of solld macoary; and form large terracee; with a roadway in the centre, and a footpath on el ther side, gemerally planted. Thay extend about 11 mlles, and, in addition to the aplendid walks which they afford, serve the limportant pturpose of protecting the lower parts of the city from inuindetions, from which, previounly to these erectlons, it uften suffiered. The number of bridges is twenty-seven, all of stone, with the exception of seven suapension bridges, three of a combination of atone and iron; and one of wood.
Manufactures and Trade.-The government possesses only two properly manufacturing establishmentsthat known by the name of the Gobelina, celobrated for its tapestry and carpets, madej however, not for sale, but the supply of the palaces, and for presenta ; and that of tobaceo, which the government holds as a monopoly, and carries on in a vast entallishment on the south side of the Seine, producing about a fifth of all the enuff used in the kingdom, and yielding an annual proft eatimated at $\$ 14,000,000$. In the other branches, whioh are fiee, the most important manufactures are articles of jewelry and precious metala; ebony and ivory trinkets, fine hardware, paper-hangings, aaddlery, and other articles in leather; cablnet-work, carriages, various articles of dress, silk and woolen tissaes, particulerly shawls and cerpets; lace, embroldery, artificial fiowors, combs, mechines, mathematieal and optical instruments, types, books, engravings, refined sugar, ohemical producte, etc. The value of all tha induatrial products of Paris in 1847 was, after a very careful investlgation, estimated at $\$ 292,725,070$. In 1848, during the turmoil of the last revolution, they fell to less than one half of what they were before. The value of the exports, composed almont entirely of the above artioles of manufacture, was declared at the cinstom-house of Paris to amount in valne, in 1850 , to $\$ 11,095,945$. The estimated revenue of the city for 1852 was $\$ 0,308,680$; and the expenditure $\$ 9,703,630$--Ses artiels France: For commerce, etc., of Paris; see Hunt'a Merchants' Magazine, xviil. 60; Quartorly Reciev, Ixxviii. 146; Living Age, ii. 404, xiii. 219; Foreign Quarterly, xxxi. 182; Edinburgh Review, lxxxv. 89; Comm. Rel. U. S.
The commercial intercoure between the Unlted States and this consular district depends on the regulations of the custom laws of the empire, and on the local legislation of the elty of Paris, by which octroi duties are levied on many articles brought into the city, whether fereign or domestic, but cepecially on spirits and articles of subsistence. These regulations sre fixed, and reat only on the contingency of alteration by legislative enaetment. There are some privileges accorded to Spaln by aneient treaties which will be found set forth in the Code des Douanes, Code MFaritime, and the Tarif des Droits. We are not a ware of any privileges accorded to the commerce of othor nations and denied to the. United States, or of any important restrictions.' The books referred to above give full information, in tabular atatements, on this question. The transhipment-of goods belongs to the coasting trade, and, by law, only French vessels are entitled to engage in this tredo. Fuli information will be found upon this point in the Code Maritime.
 Sales of goods are made npon cash or upon orders,
with credits from thirty days to six months: Commission housea are in the hablit of advancing for many of their customers.-Seo Tarif des Droits, Regulations des Dovanes, and Statistique Induatriel.
Parrel. In Naval language, the collar of greased rope, or tracks, by which the yard is confined to the mast, while it slides up and down lt.
Partnerthip. A partnershlp is an agreement between two or more to share in the proflt and loss of the use and appllcation of their capital, labor, and skill, in some lawful business, whether one supplles capital, and another zkill and labor, or each both labor and capltal. The benefits of a nnion of the mpana and advantages of different persons for the conduct of a brench of bueiness, in many instances, are too obvious and common to need illustration. A partnershlp is not constituted merely by an interest of different parties in the same thing, but it depends on a participation of profits and joint liability to loss. And yet there are some exceptions to thle rule, for it has been held that seamel shlpping on shares in' a shipping voyage are not copartners with the owners. And so, where a certain share or commisslon is allowed to a elerk or agent, depending on the success of the businees or amount of prefits, in addition to his other compensatlon; It has been held, in many cases, not to make hlm a copartier. It is difficuli to point out the criterion by which cascs of this description are distinguiehed from those of copartnership; and same of them look more like an exception of cases whlch strictly come within the deflintion of copartnership. A question has been made whether joint owners of a shlp are copartners, and the general doctrine is that they are not so; and yet it is generally held that each one is liahle for the whole amount of repalrs and expenditures In the navigation of the ship; but atill the ownership is not joint, for, in the case of the decease of one, the property in the whole shlp does not survive to the others, as would be the case if it were partnershlp properts; but the property is held in common, each part-owner having a distinct title to his share; and one part-owner can not, merely as such, convey a title to the whole ship, or to any share except his own. As to the share of each partner in the profits, or his liability for losses, if there is no agreement on this subject, all the partners stand upon an eqnal footing.

As to the objects of copartnership, they are not confined to commerce, though most frequent in that branch of Indastry, but may embrace manufncturing, the carrying on of any mechanic art, agriculture, the practice of law or medicine, and, in short, every lawful branch of business. . Copartnership is more usnally formed by a written agreement; and by some codes and in regard to certain copartnerships, formal atipulations are required by law in order to constitute a copartnership. This is not a general rule, however, forlin many branches of business parties may agree orelly for a participation In profit and loss. These associations are divided into different classes, distlnguished by their objeets, and the extent of the linbility of each particr. The Roman law allowed of general copartnerships, extending the communlty of property, and joint pront and loss, not only to the business puraned, but elso to all acquisitions by either party, whether by legacy, inhertance, gift, or as the fruits of industry. By that law, and so by the laws of France, Spaln, Lonisiana, and other codes derived from the Roman law, a man and his wife may
be eopartnere ; and, in making the marriage contrict, the kind and extent of copartnership is as rued upon the form of the atipulation for this purpose being particularly polnted out by the Irench code. It was betweion the partien to the marriago contract that the general copartnerahipa above-mentioned were moot frequentiy formed. In thia respect, however, the Romen law, and those codes derived principally from it, leave the parties at liberty to agree npon a univeral copartaership or a limited one, or a saparate property.

Copartnershipa ase usually oonfined to the prosecution of a particular braneh of buainess, and it very oftea happens that each copartner is concerned in other branches: The term general copartnerahiy is also applled to one formed for trade generaliy; or businesa generally, withont limitations; but where t-ajoint interest extenda only to a particular concern, as, for inalance, the froighting of a ship, it is called a apecial copartnership. And so a partnership is, calied ypecial Then the parties enter into atipulations modifying and restraining the right and powere of the members, inutead of leaving them to the operation of the lawa genorally appilicable to auch astociationa; and this is the tuan meaning of anch copartnerthips. Another doecription in that of limited copartnerships, $m$ which one or more partners put in a certsin amount of capital, which is liable for the contracts of the tim; but beyond thla the party or partiea are not liable. This cort of partnership is particulariy provided for in the Freach code, and is not nnfrequent in France. It it a very usefnl provision of the law that allows of such associations, for it enables persona of fortune, anil retired from buaineas, to put a part of their capital at riak in trade, without riskiag their whole property; and it accordingly operatea very favorably upon the enterprise of the community; for a young man who has only his talents and indusiry to put into a concern can thus more easily obtain the capical necessary to give bie activity and caterprise scope, and every community ought to open all practicabic channela for the intellectual and phyrical exertions of its members. This apecies of copartnership has accordingly been partially introduced into the United States, being provided for in the code of Louisiana, which is modeled on the French code, and having been introduced also into the lews of New, York by a statate, the provisions of which were clotely copied from the French code-the first instance (as Chancelior Kent remarka in his Commentaries) in which any other forelgn law than the English had been adopted in the particular atructure and provisions of an American atatute, in those States of whose codes the English law is the basis. This species of partnerships has also been anthorized by atatute in Massachusetts, Rhode Isiand, Connecticut, Vermont, How Jersey, Pennsylvala, Maryland, South Carolina, Georgla, AJabema, Florido Mississippi, Indiana, and Michigan. We will now pruseed to a more extended account of limited partnershipa.
The condition of a limited partnership is that the name of the perion whose liublity is thue llinited must be used in the firm, and particular provisions are made as to paying in the amount of capital stipilated; and snother suitable provision in such case is the provision for some registry by which it may appear to those who wish to make the Inquiry what amount auch partner pays in. Some partnerahipe are secret ; that is, some one agrees, upon terms, to share profits with osteasible partners without any notice to the public of hie being a mumber of the firm. Each partner has a joint interest in the whole personal property, and, unless the articiés atipulate otherwise, may trapafer lic.

Each portner may also bind the whole firm by his contract made in the course of the business of the firm, unless it be otherwise agreed between them; and even when it is otherwise agreed, still, if a party with whoni s partner contracto has a legal right, from the manner in which the joint affaira are managed, to prosume that
e partaer is suthorised to oontrect for and to blad his cepartnars in regard to the anldeat of any contrect, the firm will be buend by arch contract. Bue if the party coatracted with has notice that, by the articies of oo. pertnarahip, a partner has not anthority to make a contract, the company will set be bound by it, so if a partnor contracta, in the partaorthip name, ia a manner Which the party contracted with knowe is not within the bualnesa of the firm-ase if he makes a negotinbie note in the name of the firm for hio own separate dsbe -the contract will not biad the firm to the party thus contracted with; beat atill, if thie coatract, being traseferable in its nature, and holding oot on the face of it the responsibillity of the whole firm, is negotiated to these who have so notice that the paper was made for the private accommodation of the partner who signed the partnerahip name, the company will be bound in respect to such asaignee; that is, the firm having given notice to the world that they are copartnera in a certain branch of husiness, every one has a right to presume that all acte done by each of them in regard to it are authorized by the terma of their contract, or the circumatances of the case, pnleas he has notica to the contrary. But certain acts are not anthorized by the genaral powers of copartuers, and those no one partuer can be preaumed to have power to do; at, for intisnee, one partaor is not merely, as ouch, anthorised to make a deed in the name of the other, or to act as his attorney; and he can not, accordingly, convey land helonging to the members of the company ; for, though it may have been acquired and paid for with the property of the frm, yet whan acquired, it holongs to the mombers in common, if the titio be in them ail, and anch member can himself convey oniy hla ahare; and in order to the conveyence of that of another, he muat bespecially empowered. But a partner may release a delht due to the firm if it be done fairiy, and without collusion between him and the dobtor. It has been heid, however, that one partaer can not by deed aubmit a question to arbitration. A partnership may be dissolved by its own limitation, the death, bankruptey, or insanity of a member, or by the breaking out of a war between the countries to which the members belong.

A question is also made whether a member may dis solve the copartnership voluntarily. before the time for which it was formed expires, and the opinion seems to be that he may do so by giving sufficient notice to thin effect; and this seems to be necessarily incidient to new associetions; for, though he would, in such cese, bo answerable to bis copartuers for the breach of his agreement, yet it would be exceedingly ineonvenient if a partner were irrevocably bound to give his copartnen the right of hie credit, and of disposing of his property, after all hie confidence in them had ceased. In case of mismanagement by any partner having chsrge of the partnership effecte, to that the other partners are lisblo to be materialiy injured, they may make application to a Court of Chancery to appoint a receiver to take charge of the concerns of the company, and wind up its affairs, in case the partnership has already besn dissolved, or in case there appears sufficient reason to dissolve it. But where there is no ground for such application to a Court of Chancory, and the company is dissolved liy the death of one partmer, the joint propcrty will aurvive to the other partner, who mey disposs of it, and collect and pay the delits of the concern, snd will be liable to account to the personal representatives of the decensed partner for his proportion of the surpius property. In case of the decease of a partner, his personal representative do not become copartncrs with the curviving partaers, but the affairs of the concern must le settied with reference to the time of the desth of the deceased partner:-E. A.

Limited Partnerahip in New York.-1. According to the Revised Statutes of the State of New York, limited partnership for transaction of any mercantilo, mechanical, or manufacturing huiness within the State may
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be formed of two or more pertena; but the provisions of the act will not authorize any awch partaerahip for the parpose of banking or making insurance. 2. Such parinerahips may conalat of ons or more parsons, who shall be called goneral partners, and who ahall be joint ly and asveraliy reuponalblo, as general partnert now ara by law; and one or more persons who ahall contribute, in actual cash payments, a apecifio aum as capltal to the common atock, who shall be celled apecial partners, and who shall not be Hiable for the debte of the partnarship beyond the fund ee contributed by him or them to the capi'al. 8. The ganeral partaern only thall be authoriaed to transact businean and aign for the partnership, and to biad the same. 4. The percous desirous of iorming auch partnerahip ahall make, and eoveraliy sign, a certificate, which shall contain: I. The name or flrm under which auch partnerahip ia to be condacted. II. The general nature of the buainess to be transacted. III. The names of all the general and apecial partnersinterested therein, diatiagniahling which are general and which are apecial partners, and their respective places of realdence. IV. The amount of capital which each apecial partner shall have contribnted to the common atock. V. The period at which the partnership is to commence, and the period at which it shall terminate, 5 . The certificate shall be acknowledged by the several persons aigning the ame, before the Chancellor, a Justice of the Supreme Court, a Circuit Judge, or a Judge of the County Courta; and auch acknowledgment shall be made and cartified in the same manner as the acknowledgment of conveyance it land. 6. The certilicate so acknowjedgad and certified shall be flled ln the office of the clerk of the county in which the principal place of business of the partnership shall be aituated, and thali also be recorded by him at large in a book to be kept for the purpoee, open to publie inspection. If the partnership shall have places of buainess altuated in different countiea, a tranacript of the certificate, and of the acknowledgment thereof, duly certified by the clerk in whose office it shall be filed, under his official eeal, whall be flled and recorded in like manner in the office of the clerk of every auch county. 7. At the time of fling the original certificate, with the ovideuce of the acknowledgment thereof, as before deacribed, an affidavit of one or more of the general partners ahall also bo fled in the ame office, stating that the sums apecified in the certificate to have been contributed by each of the apecial partmers to the common stock have been actually and in good falth paid ln cash. 8. No auch partnership shall be deemed to have been formed until a certificate shall have been made, acknowledged, filed, and recorded, nor until an affidavit shall have been filed, as above directed ; and if any false atatement be made in such certlficate or affldavit, all the persona interestedi in auch partnership shall be llable for all the ongagements thereof as general partners. 9. The partners ehall publish tho terms of the partnerehip, when registered, for at least six weeka immediately after such registry, in two newspapers, to be dealgnated by the clerk of the county in which such registry ahall be mado, and to be published in the senate district In which their businesss shall Le carried on; and if auch publication bo not made, the partnership shall be deenied general. 10. Affidavits of the publication of such notice, by the printers of the newapapers in which the same shall be publisheed, may be filed with the clerk directing the same, and shall ho evidence of the facts therein contalned. 11. Every renewal or continuance of such partnership beyond the time originally fixed for ite duration shall be certified, acknowledged, and recorded, and an affidavit of a general partner be made aud filed, and notice be given in the manner herein required for jts original formation; and every such partnership which olisil be otherwise renowed or continued shall be deemed a general partnerthip.: 12. Every altaration which shall be made in the names of the partners, in the nature of
the businese, or in the eapital or aharas thereof, or in any other matter apecified in the ortginal certifleato, shall be deemed a dissolution of the partnership; and every auch partaerahlp whioh ohall is any manner be carried on after any auch alteration shail have beea made, shall be deemed $n$ gemeral partnemhip; misess renowed as a apecial partierahip, according to the prorisions of last section. 18. Thy busiaws of the partnerehip shall be conducted under a firm, in which the names of the genoral partners only shall be inserted, without the addition of the word "Company," or any other genaral term; and if the name of any apecial partner ahall be uned in auch firm, with hls privity, he shell be deemed a general partnar. $\dot{2}$ 14. Suits in relation to the buainess of the partnaruhip. may bo brought and condueted by and againat the genoral partnern, in tho tame maninsr as is there ware no apecial partneru. 15. No part of the aum which any opecial partner ahall have contributed to the capital took ahall be withdrawn by him, or paid and transferred to him, in the shape of dividenda, profit, or otherwise, at any time during the continuance of the partnership; bnt any partner may annually receive lawful interent on the aum so contributed by hind, if the payment of auch interest shall not reduce the original amount of auch capital; and If, after the payment of ouch Intereat, any profits thall reramin to be divided, he may also receiva his portion of auch profits. 16. If it whali appear that, $r_{y}$ the payment of interest or $p$ ofita to any special partner, the original capital has been reducsd, the partnor reselving the tame ahall be bound to restore the amount neceseary to make good his ahare of capltal with intereat. 17. A apecial partner may, from time to time, examine into the atate and progress of the partnership concerns, and may advise as to their management; hut he ahall not transact any businees on account of the partnershlp, nor be employed for that purpose as agent, attorney, or othervise. If he shall interfere contrary to these provisione, he shall be deemed a general partner. 18. The general partners ahall be llable to account to each other, and to the opecial partners, for thelr management of the concern, both in law and equity, as other partners now are by law. 19. Every partner who ahall ba guilty of any fraud in the affairs of ti partnership shall be liable civilly to the party injurtu to the extent of the daminge, and shall also be liable to an indictment for a misdenceanor, punishable by fine or imprisomment, or both, in the discretion of the court by which te whall be tried. 20. Every sale, assignn. ant, or transfer of nny of the property or effecta of euch partnership, made by euch partnarthip when ineol vent, or in contemplation of insolvency, or after, or in contemplation of the insolvency of any partner, with the intent of giving a prefert:ce to any ereditor of such partnerahlp or insulvent partner, over other creditors of such partnership, and every judgment conferred, lien created, or security given by auch partnerahip under the like circumstances, and with the like intent, shall be void, as against the creditors of such partuership. 21. Every such sale, assignment, or transfer of any of the pruperty or effects of a gener. al or special partner, made by auch general or apecial partner when insolvent, or in contemplation of insolyency, or after, or in contemplation of the inavivency of the partnership, with the intent of giving to any creditor of his own, or of the parnership, a preference over creditors of the partnership, and every judgment conferred, lien created, or aecurity glven by any such partner under the like ciroumstancen, and with the like intent, ohall be void, as againat the creditors of the partnersiip. 22. Every epecial partner who shali rlolate any provision of the two last precedlng aections, and who shall concur in end asaent to any such violstion by the partnership, or by any individual partner, shall be liable as a general partner. 93. In case of the incolvency or bankruptoy of the partnerahip, no special partner shall, under any circumatancea, be allowed to
claim, wa creditor wats the olalime of all the other croditors of the pertmorohip shall bo astiofled. 24. No diceolution of nuch partinarohlp by the sote of the parties abali take place provious to the time apoeifiod in the certificate of fin formstion, or ta the certilicite of its ronewal, natil a pettoe ol such diecolution shall have been fited and recorded in the clork'h offiee in which the original certiticato was recorded, and published once in ench week for four. weoke is a mowopapor priated in each of tie counties where the partnemhip may hove places of buelocea, and in the state papera-Lzoive Lzvi's Commercial Lave of the World.
Analyuie of the gonernl Law of Partwerohidod-Partnermhip in Groat Britaln is a cortreet antirely free, and subject to no furmalitios; it belongs to the partios themeives to reguiate the conditions; the law is mieseIy circumacribed in protecting the righte of third parties, and to spe themp reapected /" Partnership in common law is divided into thrwo clewes-aniversal, genonal, and limited oc apecial. They are also divided into privato partnershipa and publio companiet, 'I Publio companien are dividel into molncorporated companioi or associationa, and incorporated compenies, and corporatione chartarod by goverument. By the law of Seotland partnorolipe are divided idto ordinaty partnerohipa, jointrotock companies, and publio companien. In the first the firm is a distince pernon at law; and the partners, altuough jointly and severally liabjo for all the defits and contracto of the firm, aro so ac guarantors of the frm: This ia general paitnerahip. Special partnership is one contracted for a partleular brapeh of businesa.
There are principles connected with the law which are identical in every conntry; namely, that all members of an ostenuible partnerobip, or in colleetive name; are responr'hise in solidum; but diferevices appear in pointa regarding the continuation or ceseation of partnership affur the deceace of one of the partaers. Thua in Pruscia or Frankfort, the hairs continue the partnership until the end of the year, and If they do not give potice of their retirement, or if thay are not excluded by the other partnera, they do not cease to form part of t .
In France partnerabip ends of full right at tho inatant of the death of a partuer, unlese by contrary agreament this last regulation has been generaliy adopted. It is the same for that hy: which the profte distributod among partners are not to be returued to the partnership fund, whatever may happen afterwari, unless there be fraud, and the provision is added, that a partner who brings in only his labor can not, in any case, return the dividenda which te has received.
$y$ Almost overy lagilation exicept that of Great Britain recognizee the existence of three kinds of commercial partnerahipe. 1at. Oatensible partnersinips (in coliectivo name); 2d. Partnershlps in con:mandids; Bd. Anonymons partnerahipu, tiv :

The Portuguese code speoifiea each kind of partnership, indicatiug their rules at some length. In effect, besides the pertnership anonymous, dornant, or secrot, and in collectivo name, that of capital and labor is made prominent $;$ in this case the partner with capital alone ia responsible beyond hia investment, in consequence of which the law characterizes this aseociation as inregular. Then come partnerships in participation, with limitod or unlimited capital, called Pareeria, either for an indivisible object, or for a determinate end; but in all casea it is necessary that it should refer to $a$ commercial operation, and that there be at least one merchant either dormant or ostensible. There are in this code some regulationa worthy of being noted; pamely, that a contract which woold free the provider of funds from all obligations, when be has a share in the profits, ia nuli, buit then he becomos an intereated, party, and nol a partmer. A contraot is deelared asurious which shouid allow to a lender of money the profits besides the interests, withoat subjocting him to the lossen,
which is rery proper and just I becauee the principlo of equality ough to govern, above all, matters of part. nerobipi conecquencily this last elause ought to bo annulled if it exioted. In general, a minor, even not a trader, may not be a partnery ibat he hes power to make une of the privilege of restitution in case of lose. If, at hie coming of age, ha has not declared that he wiohes to retire, he becomes reaponalble for all further aeto of the partnership.
It in mone escontial in partnership in collective hame that the partnore should all be repponailibe in colidum. In this the Datch code Is equal in all pointe to the French codes but the former code contains a derogation from this rule aspprising at first, becanse It enya that a colleotive partner, who has become commandi. tairv is not responsiole in colidmn. $r$ ye resson of this extraordinary regalation is founded upon the ussge which parmites the contimuation of ancient commercial housee, known under the namen of thelr founders, although thase have otlll their capital inveisted in them; true it is thas third parties ought to have heen acguainted with it hy the liquidation of the preceding hoses, or by the publieation of the diesolution.
In the Spanloh code there is a reguiation different from any othar legialation in matter of conatitation of anonymous partsershipa, by inuljecting the artieles, nof to the exemination of the government, but of the tribtunale of commerce. The spanieh code and that of Portugal preserfbe a measure the eame is that of the Code Napoleon, which consista in making interests to run in fall right, on the investmenta of the partners, from the day in which they ought to be made. With rogard to the nomination of managers of partnership, in Franes the lav hat no provision for It. In Wortemberg and in Spain, when the manager is nominated by the articlea, ft is allowed, should his action he injurious to the interests of the company, to add snothor member. In Rnssia it is prohibltec' to confer hy the articlea the mansgement of the partnership on certain partiec for all its daration and without a renewal. Ail legiaintion is silent upon the intereats of the capital invested by the shareholders. It is, in fact, clear that an inveatment of funds in a partnerahip is not an employment, but a sum beatowed for mere operations, and which can only allow to raise sums on the realised profite, either every year, or at the time when balance-sheata are drawn op according to law, or at any other time, periodieal or not. But in Hungary the "commanditaires," Improperly called partners, because they are then only consldered as lenders of money, may stipulate for interests beyond the legal rate which the other partners ought to pay, even if they ahoold suffer losses. It is the same in Prussia.
With regard to the emission of shares and thelt transforenco, the Hungarian codo cortalns very Im. portant regulationa. It says that all persons may buy sharea, but it proscribes shares to the bearer-a regulation which was reproduced in the Rossian code snd in the Wortemberg code. It saya also that no linvest. ment of capital can be made nor interests claimed before the constitution of tho pertnership, and that only when all ohares are aileposed of the thareholders may establish the articies." Lastly, there is the remarkable regulation, that when the majority of sharcholders have voted for a change or modification in the articles, of a nature to alter the object of the partncrship, the minority have power to retire.
The Rueslan code prescribee several very curlous messures. The sale of shares, or premises of shares on credit, is prohilited. A portion of the profits must be taken to constitute a reservo fund; the unrecluimed dividend, after ten years, is innted to the social fund, or may be divided among the other shareholdcrs. Lastly, if the directora are divlded in their deliberstions, the dissenting minority may exact that mention be made of their opinion in the verbal process. The same code indicates the mode of terminating diaputes:
betwee conimen blerato alway foreed equall errted Warte Hungs shali b if it re they al nals. . duce tl among dinia In Eot determ partice the for ed by decree
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between shareholders or directors they may, with their consent, be ducided by the genersl nienting, or by arUitrators; when third parties are concorned, it ntande always with the tribunal of arbitrament to decide as a foreou jurisdiotion. In France the sama, olause is equally procise. But veifous modera legisiations laserted reguiations igginast this mude; thise the cede of Wartonibors permite partios to derogate from itif the Hungariap code saya that diapution among partnors shail be brougit before the Tribunal of Commerce; and if it regerds bille of oxechange, or in case of insolvanoy, thoy shall be adjudicated upon by the ordinary tribunali. The Lombardo-Venetian code does not reproduce the section of the Erench code, celliod On Digyutes among Parners., The recent codes of Nacaau and Sardinia do not contain any ragulation on this matter. In Eogiand, when a reference is depending, made, or deternined, it may be a bar; but the agreement of the partien does not ount ofther courts ol law ar equity, as the former will not allow their juriadietion to be oust od by any private arrangement, ard equity will not docrea a apacilio perfornmace thereof.
The law of merchants differs fromy the commen law in the power of binding a partner by deed.
Lord Kenyon sald, in Harrison v. Vackson, 7. 8. B. 210: "The law on merchante is part of the law of the land, and in morcantile transactions it nevar was doubted but that one pariner might bind the rest. But the power of binding each other by deed is now for the flrat time insiated on. A general partnership agreement, though under seal, does not anthorize the partners to execute deeds for emoh other, unlesin a particular power be given for that purpose. Xet in common law a partner hes power to bind his zopartner by deed."
Alchough, in the worde of Hobart, C. J., "The custem of merchants le part of the common law of the United Kingdom, of whioh the judges ought to take notice ; and If any doubt arise to them about their custom, they may aend for the merchanta to know their custom, as they may send for the citizens to know their jaw ;" yet, on the other band, Lord Ifolt saye; "Wo take notice of the laws of merchants that are general, not of those that are particular usagos."-Seo Weatminster Review, xx. 68 ; American Quarterly Review, xix. 48; HuNT'a M, "vhanta' Magasine, xxiv. 66, xxxill. 457, xxxv. 720. See also Leons Levi's Commercial Law of the World, 4to; London, 1861 ; and Krat's Commenturies, vol. ilil:
Partners of the Mants, the wood-work round the mast at the deck, to strengthen and support the dock agninat the pressure of the mast. The term is also appiled to the simillar supports round the capetan and pumps.
Partridge Wood, a variegated wood imported from Martinityue; It is said to be the produce of the Ueitteria coccinea.
Pamsengers, in Commercial narigation, are Individuals conveyed for hire from one place to snother on board ship. Passage ships are thoso peoullariy appropriated to the conveyance of passengers. Passage ships are generally placed under certain regulations; and the extent to which emigration is now carried renders it of the utmost limportance that these regulations shouid be carefuliy compiled. The greater number of emigrants are in humble plfer fow among them know any thing of ships, or of the precautions necessary to insure a safe and comfortable voyage; they aro aloo, for the most part, poor, and exceedlagiy anxious to economize, so that they seldom hesitate to embark in any ship, however unfit for the conveyance of passengers, or inadequately farnished with provisions, if it be cheap. Uaprinoipled masters and owners have not been slow to take advantage of this ; and in ordet to preveat the fraude that would otherwies be practioed on the unwary; It has been found indiepenabble to lay down some general regulations as to the number of
pasaengars to be taken on buerd ohips sif comparsed with tholr tonnage; the quantity of water and provi. slons as compared with tho passengera, oto. But thsa is no very maay tank. If the limitations be too strict, that is, if comparativoly fow pascongers may be oarried, ox $\Psi$ the stock of provislons to be put on board be elther unnecassarily large or expensive, the cost of eme igration is proportlonally onhancod, and an artificin! and ceilous impedimint is thrown in the way of what ahould be made as essy as pooulbls, consiatent with seo ourity. But, on the other hand, if too many passengers be allowed, their health is Jiable to suffer ; and shoulis the supply of provialona be inadequate, or the quality bad, the mest sorious consequences may onsue.
In conie raspects passengers may be considered as a portion of the crew. Thay may be called on by the master or commander of the ship, in ease of finminent dnager either from teunpest or enemies, to lend their analatp ace for the general mafely; and in the event of thr'. Ueclining, rasy be punished for disobedience.
principle has been recognized in : esveral cases; but an the autherity arises out of the neceasity of the cave, it muat be exercised atrictiy within the limits of that necessity,-Boyce $\dot{\mathbf{v}}$. Badoliffe, 1 Campbell, bs: A passenger is not, horever, bound to remain on board the ship in the hour of danger, but may quit it if he lave an epportunity; and he is not required to take upon himself any respontibility as to the conduct of the ship. If ho Ineur any responalbility, and perform eise traordinary services in relleving a veesel in distreas, he is entitled to a corresponding reward. The goods of. passengers contribute to general average.-AnBort on 4, Lave of Shipping.
Passenger Act of tise United States.-It is made the duty of the Secretary of State, by the second paragraph of the 18th seetion of the act approved 3d of Merch, 1855, to give: notiee, In the ports of Europe and eleewhere, of the provisicns of the act to regulate the oarriage of passengers in steamships and other vetsels.
The specinl sttention of United States consular offcere is callod to this act, end aliao to the insiructions which have been issued by the Treasury Department in reference to it. It will be observed that, while this act prescribes spacas of cortain oiear super8cial feet of deck to each passenger (other than cabin passengers), it morcover fixes a maximm, by restricting the number of such passengers allowed to be carried in any such vessel in the proportion of one to every two tons of said vessel's tonnage measurement, excluding childron under the ago of one year in the compatation, and computing two children over one and uncier elght years of ago as one passenger. It fnilows; that though a vessel might afford elear apaces of the dimensions ludiested for a greater number of passengers than one to evory two tons of her tonnago, meseurement, yet if the number shall exceed that aliowed by her tonnago messurement the penalties imposed by the law would attach; or if her tonnage mensurement should aliow a greater number of passengers than according to the ciear spaces prescribed by law the could carry, yet if the number ehall exceed that allowed by the clear spaces prescribed by law the penaities imposed by the law wouid equally attach. In other words, the one ralo, as to the number of passengers a vessel is entitied to carry, is a limitation upon the other. The tonnage of each vessel, according to custom-house measurement, must, therefore, be ascertained; as well as the measurement of tha spaces allotted to pasisengers, in order to determine tho number of passengers sbe is entitled to carry.
In order to determine the number of passengers a vessel is entitited to carry in accordance with the spaces prescribed by this atot, the height between decks must be measured, not from the bottom edge of the carlines or deck beams, but from the under surfice of the upper deck to tho top fioor below; and no space bhall be con-
aidered available for passengers that has not, when meacured in this manner, the height called for by the law, as the case may be; nor shall any opace in the vessel of a less width than four feet be messured; provided, however, If the vessel shail, in accordance with the provisions of the first section of this act, carry any portion of her cargo, or any other article or articies, on any of the decks, cabias, or other places appropriated for the use of passengers, in lockere or inciosares prepared for the purpose, the height between decks shall be measured from the bottom edge of the carifines; or deck beams, to the upper surface of said lockers or inclosed spaces, which shall be deemed and taken to be the deck or platform from which measurement shall be made for all the parposes of thic aot, and the apaces occupled by said lockere or inclosed spaces shail be deducted from the spaces allowable for the use of passengers. For example : the spacea in the maln and poop decks, or platforme, and in the deck houses, if any there be, will be $16 \times 6=96$ feet; lower deck, $18 \times 6=108$ feet; two-deck vessels, $14 \times 7 \frac{1}{2}=105$ feet. The oncumbering by merehandise or storea, not the personal baggage of the passengers, except in lockers or inclosures prepared for the purpose, of any part of the apace occupied by the passeagers, will vitiate the whole space, unless the part so encumbered be et, arated from that so occupied by a substantial bulkhead. The deck or piatform inust be of a permanent nature, fiush, and impervious to the water.

Pagsport, a warrant of protection and authority to travel, granted to persons moving from place to place by the competent officer. The word appears to be derived from the maritime usage of some Continent: al countries of giving similar authorities from the admiral of a neval station to vessels leaving harbors within his jurisdictlon, As passports are not required in our own coantry, the only spreies known to our travelers is that of foreign passports, which, for traveling on the continent of Europe, are usually made out by the resident minister or consul of the country he intends first to viait, or by the State Department. They are subject to eisa, or inspection; by the proper authorities at the place where the traveler disembarks, and also at other places where he may reach, according to the police regulatione of each particular country, and on pasaing the frontiers of states. Austria is, we believe, the oniy European state which at thia time requires absolutely the visa of an embassador or minister of her own for travelers entering her domains by land. In France, and in many Continental countries, home passports are necessary for the native traveler. According to the letter of the French law (since 1796), $n$ Fronchman can not pass the limits of the canton in w+". he is domiciled without a juseport ; but in prac..e it is not required within the extent of the department. Legaliy spaaking, the strict formalities of an internel passport in Irance require the direction of a journey to be specified, and its exact execution attested by the visas and aignatures of the police anthorities at every place mentioned in it; and these laws are, from their severity, so incapabie of complete execution, that it is a common saying that no man but a rogue is ever entirely en regle with respect to his passport, suspiclous characters being usnally the most particular in their attention to formalities, for fear of detention. A Frenchman traveling without a properly-authenticated paseport is liable to arrest and datention for a period not exceeding a month. The fees fixed in France are two francs for a passport to travel at home, and ten to go abroad.

By the twenty-first section of the act of August 18, 1856, the Secretary of State of the United States is authorized to grant and issue passporta, and cause passports to be granted, issued, and verified in foreign oountries by auch diplomatie or consuiar officers of the United States, and ander anch rules at the Preaident ahail designate and prescribe, for and on hehalf of the Unit.
ed States, and no other pernon shall grant, iasue, or verify any such passport ; hor shall any pasaport be granted or inaued to or verifled for any other persons than citicens of the United States; nor shall any charge be made for granting, isauing, or verifying any passport, except in a foreiga country; and in any case the fee allowed therefor shall not exceed the sum of one dollar, nor shall any such charge be made for more than one such verification in any foreign country ; and if any person acting or cialming to act in any office or capacity under the United States, or any of the States of the United States, who shalf not be lawfully authorized so to do, shall grant, iseiue, or verify 'any passport, or othor instrument in the nature of a pasaport, to or for any citizen of the United States, or to or for any person olaiming to be or designated as such in such paseport or verification; or if any coneviar officer who shali be authorized to grant, fesue, or verify passports, shall knowingly and willingly grant, ieeue, or verify any such pasaport to or for any person not a citizen of the United Citates, the person so offending shall be deemed and taken to be guilty of a misdemeanor, and on conviction thereof shall be imprisoned not exceeding one year, or fined in a sum not to exceed five hundred dollars, or both ; and may be charged, proceeded againat, tried, convicted, and dealt with therafor in the district where he may be arrested or in cnstody. It is likewise made the duty of all persons who shall be authorized, pureuant to the provisions of the act, to grant, issue, or verify passports, to make return of the same to the Secretary of State $;$ and such returns shall speeify the names and all other particulari of the persons to whom the same shall be granted, issued, or verified, at embraced in such passport.

From the foregoing provisions of the act it will be seen that passports can only be issuea by the Secretary of Sta:e, and such diplomatic and consuiar officers of the Unlted States in foreign countries as he may expressly authorise, and they can be granted to citizens of the United States only. Passporte will be grsuted by the Secretary of State, and by the diplomatic representatives of the United States in foreign countries, free of charge; but when issued by a consul generai or consul, the fee of one dollar, as preseribed in these instructions, is to be collected in overy case. As passports granted by the Secretary of State secure to the bearera facilitiea from foraign governments not accorded to those iasued by dipiomatic officers, consuls general, or consuls, it will always be to the interest of travelers to procure their passports before leaving the United States, and this course is earnestly recommended by the Department of State. In any country where thero is a dipiomatic representative of the United States, no consul general or consul is authorized to issue passports, except in the absence of such representative from the place of his legation." Whenever ha may be so ahsent, authority is given to consuls general and consuls only to issue passports; but in all cases the said consule general or consuls, as the case msy be, wili report to the Department of State the names of the persons to whoin passports have been issued by them, together with the evidence of thielr being eitizent of the United States, and a copy of the same report will be forwarded to the legation of the United States, if there be any in the country. In case there should be no diplomatio representative accredited to the country in which a conaul general or consul may reside, then these officore are authorized to grant paesporta, having regard to the general instructiona to conauiar officers in referenco thereto; they will transmit, in ail cases, to the Department of State the Information in regard to citizenship required by this section.

Whenever a foreign government shall require the visa of a pasport of any citieon of the United States, it ahali be given by the consular officer of the United States at the place where it is demanded, and he ahail, for each paseport so risaed, eollect and account for the
fee prea port th ifter b any vio ports courtes and ot thereof to full muat C natare to perm United of need so doin sentati the seal and cor plicatio the Un must fil and aie ed and United iy knov lief the cant be granted tion, or of whic consul cant is or by fe to state relation
issne, or port be persons hall any any case im of one lore than ad if any or cspacorized so t, or oth or for any $y$ perion passport chall be rits, shall erify any en of the - deemed d on coneding one Idred dol1 against, se district a likewise athorized, ant, issue, me to the pecify the s to whom ed , at cm
fee prescribed in these instructions, noting on the passport that this has been done; and no charge shall thereafter be made by any officer of the United States for any visa of that pasport in the same conntry. Passports are granted upon the ground of international courtesy, and as affording avidence to the diplomatic and other agents in foreign countries that the bearer thereof is a citizen of the United States, and entitled to full protection as such. A passport, in proper form, must contain a description of the bearer, with his signatare; it must also request all whom it may concern to permit the bearer thereof, being a citizep of the United States, anfely and freely to pase, and, in' cape of need, to give him all lawful ald and protection while so doing. It must be aigned by the diplomatic representative, consul general, or consul, and sealed with the sanl of the legation or copsulata. Consuls general and consuls are expressly Instructed that when an application is made for' a passport by a native citizen of the United States, before granting it, the applicant must file in the consulate an affidavit stating that fact, and slso his age and place of birth; this must be signed and aworn to by himself and one other citizen of the United States named therein, to whoin he is personally known, and to the beat of whose knowledge and belief the declaration made by him is true. If the appllcant be a naturalized citizen, a passport can only be granted upon his exhibiting a certificate of naturalization, or a certified copy thereof; an authenticated copy of which must be transmitted by the consul general or consul to the Department of State. When the appllcant is accompanied by his wife, children, or servants, or by femalce under his protection, it will be sufficient to state the names and ages of auch persons and their reintionship to the appllcant.

## UNITED STATES CONSULAR PASSPORT.

## Conhmlaym of tay Unityd Statie of Amerion.

To afl to whom these jreseota shall come, greeting:

| staluro, | States of America for $\qquad$ and the de- |
| :---: | :---: |
| Forchondr | pendencies thereof, hereby requeat |
| ETOM, | whom tt may concern, to permit safoly |
| Noen, | freely to pass, |
|  | United States, and in case of need to give |
|  | bim alt lawful atd and protection. |
|  | Given under my hend and the seal of the |
| Hoir, | sulato, at _ |
| Comploxioe, | of A, A.D. 18, and in the |
| Faes, | year of the independence of the United States $\qquad$ |

Pante (Fr. patte). In Gcm Sculpture, a prepsration of giass, calcined cryatal, lead, and other iagredients, for imitsting gems. This art was well known to the ancients, and, after being long lost, was restored, at the end of the fifteenth century, by a Mllaneee painter. Some modern artists heve sacceeded in obtelning a composition possossing a hard, fine, and brilliant lustre or appesrance ; but pastes, or mock diamonds, as they are called, depend most for brilisisncy on the art dispisyed in setting the foil or tinsel bohind them. Soveral recipee have beon given by M. Fontanlen; hut the most useful, and that generally employed for the production of artiffisil diamonds, is the following: Take of litharge 20 parts, of silex 12, of nitre 4, of borax 4, and of wilte sreenic 2 parts. Theae ingredients are to be woll mixed together in a cruciblo and melted; the fused metal is thrown into water; and should any of the lead employed be reduced to the metalic state, it hecomes separated by this process, and the glass is remeltod for use. For the finer kinds, rock crystai is ased instead of fint or sand, as it occurs in a much purer state; $i$. o., more free from the sdmixture of metallic oxyds, which give to vitreous compounda their different colore. In place of the above,

Loynel recommends the following ingredients to form a compound having the same, apecifio gravity at the Oriental diamond, and on this account considered, anperior, as it more aearly approachen the gem with rogard to lita refraotiye and disperalve powera; but, like the former, it requires to be kept fac oome two or three days in a fused state, in order to expel the superaband. ant alkall and to perfoct the refining. A moderate de gree of heat fuses it. . The following is ite composition: Take of white sand purified by belng washed, firat ln muriatio acid and afterward in pure water until all traces of acid ara removed, 100 parts; red oxyd of lead (minium) 150 parta; calcined potach 80 to 85 parts; calcined borax 10 ; and oxyd of arsenic 1 part.-Ssee the Polytechnic Journal for July, 1841. . The term paste is also applied to the earthy.mixture for pottery and porcelain; also to dough, and to the solution of starch or wheat flour, made by first mixing it with a proper portlon of cold water, and then adding boiling water under constant atirring, so as to form an even solution. Alum is often added to paste to etrengthen it.-Brande's Dictionary.
Pantel (Lat. pastillus). In painting a crayon formed with any color and gum water, for painting on paper or parchment. The great defect of this mode of painting is its want of durability
Patents. A patent, according to the definition of Mr. Philps, is a grant by the State of the exclusive privilege of making, ueing, and vending, and authorizing othere to make, use, and vend, an invention. $\tau y$.
The firat act of Congress on thie subject was passed April 10th, 1790, and it aathorized the Secretary of State, the Secretary of War, and the Attorney General, or any two of them, to grant patents for such new inventions and discoveries as they siould deem aufficiontly neefol and important. That act extended equally to aliens, and the board exercisod the power of refusing patents for want of novelty or utility. This act wae repealed, and a new act passed on the 21at February 1798. It confined patents to the citizens of the United States, and they were to bo granted by the Secrotary of State, subject to the revision of tho Attornoy General. Tho act gave no power to the Secretery of State to refuse a patent for want of novelty or uscfulnesa, and the granting of the patent bezame a mere ministerial duty. The priviloge of suing out a patent was, by the act of 17th April, 1800, extended to alicne of two yeare' realdence in the Unitrd States. The act of July 13th, 1832, only required the alien to be a resident at the time of the application, and to have declared his intention, according to law, to become a citizen.

But as every person was entitled to take ont a patent, onsomplying with the prescribed terms, without any material inquiry, at least at the Patent Office, respecting the usefulness and importance of the inveution or improvement, a great many worthless and frsudulent patente were issued, and the value of the privilege was degraded, and in a great degree deatroyed. It became necessary to give a new organization to the Patent Office, and to elevate its character, and confer upon It more efficient $p$ swer. This was done by the act of Congress of July 4th, 1836, which repealed all former lavs on the aubject, and re-cnacted the patent aystom with essentiol improvements. A Pstent Office is now attached to the Interior Department, and a commissioner of petents appointed. Applicetione for patenta are to be made in writing to the commissioner, by any persons haring discovered or invented any new snd useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before his diecovery or Invention thereof, and not at the time of his applicstion for a patent tn public use or on sale, with his consent or allowance, as the ioventor or diacoverer. The applicant muat dellver a written dencription of his invention
or discovery, and of the mannor and process of making, constructing, using and compocinding the iame, in foll, clear, and oxact terms, avolding tunecessary prolixity, so as to enable hay porson skilied in the art or acience to which it sppetraina, or la moot nearly conuected, to make; construct, compound, and une the same; and he mast, in the case of a machine; fuliy oxplain the principle and the application of it, by which it may be distinguished from other Inventions; and he must particuluriy apeoify the part, improvement, or comblation which he oluims as his own invention or discovery. He must accompany the same with drawings ind written references, where the nature of the case admitio of drawings of apecimena of ingredients, and of the comporition of matter aufficient in quamtity for the purpose of experiment, where the invention or discovery is of a composition of matter. He nuist likewise furriish a model of his livention, in cases which admit of reprosentation by model. Ttie applicant also must make onth or affirmation that ho believes he is the original and firut inventor: or discoverer of the art, machine, composition, or improvement for which he sollicits a patent, and that he does not know or believe that the same was over before knewn or insed, and he must further state of what country he is a eitizen.

If the applicant be a citisen, or an alien of one year'a residence, he fa to pay to the Treasury of the United States $\$ 30$; and if a British subject; 500 ; and all other appicicants, 8300 . The original and true inventor is not to be deprived of the right to a patent for bis invention, by reason of his having proviously taken ont letters patent therefor in a foreign coontry, and the same having been published at any time within six months next preceding the filing of his specification and drawiug. The executors and administraters of persons dying before a patent is taken out, reay apply and take it out in trust for the heirs or devisees, on due complinnce with the terms of the statute. Patents are assignable, and may be granted in whole or in part by writing, to be recorded in the Patent Office. If invalid by reason of defective opecifications, or by claiming too much, the patent may be surrendered, and a new patent taken out for the noexpired period, provided the error did not arise froin any fraudulent intention. If the patentee be an alien, he forfeits his exelusive right, If he fails for elghteen montha from the date of the phtent to continue on sale to the public on reasonable terms the invention or discovery covered by the patent. The patentee does not lose his patent if it satisfactorily appears to the court, that at the time of his application he believed himself to be the first inventor or discoverer of the thing patented, thongh the invention or discovery, or any part thereof, had been before known or ased in a forelgn country; provided it doee not appear that the same, or any substantis] part thereof, bad before been patented or described in any printed publication.

These are the principul existing statute provisions on the satject, and though the act of Congress of 1836 has made considerable alterations in the pre-existing iswe reapeeting the erganization of the Patent Office, and the limitations on the granting of patents, yet the eseential and established doctrines concerning pntents heretofore declared in the decisions of the courts remain unaffected. The aet of 1793 declared that ilmply ehanging the form or the proportions of any machine or compooition of matter in any degree was not a discovery. And also, that the person who had discovered an impmeinent in the principle of any machine, or in the process of any composition of matter, might oltain a patent for such improvement, but that he could not therely make, use, or vend the original discovery, nor could the firet inventor use the improvement. These declaratory provisions are omitted in the lav of 1836, e.d I presume the construction was considered to be necensarily the same without the provision. In an age distinguished for an active and ar-
dent spirit of improvement in the arts of agriculture and manufuctures, and in the matchinety of every kind applied to their use, the doctrine of putent rights has attracted much discassion, and become a suibject of deep interiet both here and in Ebiope:-Kent's Commentarite, vol. it p. 488 ; DuNiAr's Digent Lavor U. S.
Patreas, or Patritise, a sea-port In the northwest corner of the Morea, near thie entrance of the Gulf of Lepanto, lat. $88^{\circ} 14^{\prime} 25^{\prime \prime} \mathrm{N}$, long, $21^{\circ} 40^{\prime} 20^{\prime \prime} \mathrm{E}$. Population" varionsly estimated from" 7000 to 8000 . The port lies a little to the northward of the town; but the part fionting it is unsafe, and exposied to heary seas, particulurly in winter. Vessele, therefore, go a Hittie farther up the galf, where there is a mole or quay, and where they can lie clone to the wharf. Patras has - more extensive trade than any other port of Greece. The principal exports are currante, oil, valonia, vine, raw silk, raw cotion, wool, skins, wax, etc. Of these, enrrants are by far the most important. ${ }^{\text {:3 }}$ The fruit is larger, and freer from sund and gravel, than that of the Ionian Islands. They are shipped in caskis of various sizes; but as the weight of the cask is included in thast of the fruit, it is said to be, for the moit' part, heavier and stranger than nccessary. "Morea currants are preferrid in most countries, except England; but'there the currants of Zante sre hald in equal, or perheps greater, estimstion. The export of currants from Ps. tras may average from 70,000 to $80,000 \mathrm{cw}$ ts. a year; but the produce of the crop rairies extremely in different seasons. Latterly the culture of currants in the Morea hine heen very greatly extended. Owing to the increase of their quantity, their prico has been nuch reduced: But their coltivation weold notwithstandIng be extremely profitable were it not for the extraordinary risks by which it to sttended. It is seldom, indeed, that the entire crop can to housed without serious damage ; and very frequently it in all bot entirely loat. Thie was the case with the crop of 1852, the loss of which occasioned mach distress. The erops of oil, the next great article of export from Patras, are, if possible, still more fluctuating than those of currants. The importe at Patras, an at the other Greek ports, coneist principally of sugar, coffee, and other coloniai products; plain and printed cotton staffe, woolen goods, salted fish, iron, tin plates, hardware, cosl, cordage, hemp, deals, etc. Imported articles are brought principaily from the Ionian Islands, Malta, Venice, Ieg. horn, Marseillee, and Trlaste; but, from the want if authentic details, it is quite imposilible to form any securato estimate of their amount either as respects $\mathrm{P}_{6}$ tras or any other Greek port.
Conmerce.-The Greeks have particularly distin. guisiced themselves ly the spirit, and success with whloh thoy have engaged in naval and mercuntile ellterprises. Their commerce, next to their freedom, was the grand source of the prosperity of Athens, Corinti, and other Greek cities of antiquity. Apd in this reopect the modern Greeks have been no unsuccessful imitators of their illustrious progenltors. The great articles of expert from Greece consist of currants, silk, fign, wool, ollve oil, valonia, wine, sponge, wax, tobacco, etc.; the prineipal Imports being manufactured cotton and woolen goods, corn, with a great variety of subordinsto articlen, principaily from England, but partly also from France and Germany. The mercastiie navy of Gresce was estimated In 1850 at 4000 vessels, of the aggregate birden of 150,000 tous, emploging about 30,000 seamen. Tho Greeks have, in fact, attained to the distinetion of being the carriere, factors, and traders of the Levant.

The advantage resulting to Greece from her being the aeat of extensive trade is not so great as might have been antieipsted. The import and export trade of the country is subjected to many troublesome reguIatlons; there are no reads, which, however, are less wanted here than in most other countries. Slanufactures on a large scale can not hies enid to exist, the bulk

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of the populet'on, but little removed from barbariom, using only those made at home; agriculture ia also in the moat backward condition, and is almont wholly curried on under the metayep syatem, 1 Still, however, some improvements are taking place, especiaily in the islands 1 and it is probable that the progress toward a better atate of thingaivili be gradublly accelerated. It is deeply to be regretted that Candie, or Crete, was not either added to the naw kingdom of Greece, or made independent, We can not heip connidering it as disyraceful to the Christian nations of Europe; that this famous island, where Enropean civilization first struck its roots, should be conaigned to the barbarians by whom it is now' iaid wasta. It is as well entitied to the favorable consideration of England, France, and Russia, as any part of Continontal Greece; and we hope that measuree may yet be devised for reacuing it from the atrocious deapotism by which it has been so loag weighed down.-Dee Grimecs. For Commerce, etc., of Modern Greace, see Living Age, ii. 657; Nrtes'a Reginter, xxiv: 842 (Danial Webstere'a Epeech); Hust'a Merchaints' Magazine, vii. 109; De Bow'a Reciev, xili. 134 ; Demooratic Review, viii. 204 (Grorger Sumner):
Patterns are speeimena oreamples of commodities, transunitted by manufacturers to their correapondents, or cerried from town to town by travelera, in search of orders.
Pawnbrokers and Pawnbroking. A pawnbroker is a specien of bainker, who advances money, at a certain rate of interest, upon aecurity of gooda deposited in his hends; having power to sell the goods, if the prinuipal sum and the interest thereon be not paid within apecified time. The origin of berrowing money by means of pledges deposited with lenders is referred, as a regular trade, to Peronsa, in Italy, abont A.d. 1458 ; and aoon afterward in England. The business of pawnirokers was regulated 80 Geo. II., 1756. Licenses were issued 24 Geo. III., 1783. In London there are 334 pawnbrokers; and in Engiand, exelnsively of London, 1127.

Advantagea and Disudeantages of Pawobroking.-The pratice of impledging or pawaing goods, in order to raise iogns, is one that must necessarily.always exist in civilized societies, and is in many cases productive of advantage to the parties. But it la a practice that is axtremeiy liable to abuse. By far the largest proportion of the bona fide borrowera of money on pawn consist of the lowest and most indigent classes; and ware the lendere not subjected to any species of regulation, adventage might be taken (as, indeed, $1 t$ is frequently taken, in despite of every precantion) of their necessities, to suijject them to the most grievous extortion. But, besides those whoge wanta compel them to resort to pawnbrokers, there is another class, who have recourse to them in order to get rid of the property they have unlawfully acquired. Not only, therefore, are pawnbrokers instrumental in relieviag the presaing and urgent necessities of the poor, but they may also, even witaout intendiag it, become the moat efficient allies of thicver and swindiers, by affording them ready and convenient outlets for the disposal of their ill-gotten gaios. The polioy of giving legislative protection to a business soliable to abuse has been doubted by meny. But thongh it were ouppressed by lew, it wonld al waye realiy exist. An individuai ponsessed of property which he may neither be abie nor willing to dispose of, may be reduced to a state of extreme difficuity ; and in such case, what can be more convenient or advantagcous for him than to get a loan upon a deposit of such property, under coudition that if lie repay the loan and the interest upon it within a certain period, the preperty will be roturned? it It is said, indeed, that the facilities of raising money in thia way foster habits of imprudence; that the firat resort for aid to s pawnbroker alinost always lesde to a second; and that it is
impossible so to reguiste the business as to provent
the ignorant and the necessitous from being piundered. That this atatement, though axaggerated, is to a certain extent true, no one can deny. : On the other hand, howered, the capacity of ohtaining auppliea on aeposita of goods; by affording the means of meeting preacing oxigencies, in eofar fonds to prevent crime, and to promote the security of property; and it would seem as If the desire to redeem property in pawn would be one of the most powerfal motivea to industry and economy. At the same timic, too, it must be borne in mind that it is not possible; do what you will, to :prevent those who are poor and uniastruoted from borrowiag ; and that they mhat in all case obtalif loans at a great sacrifice, and be lisble to be imposed upon. But the fair presumption is, that there is fesal ahance of any itmproper advantage being taken of thers by a livensed pawnbroker than by a private and irresponsible individual: Although, however, the businesi had all the inconveniencea, without any portion whatever of thie good which really beiongs to it, it would be to no purpose to attempt ite suppression. It is visionary to imagite that those who have property will submit to be reduced to the extremity of want, without endeavoring to raise money upon it. : Any attempt to put down pawnbroking wouid merely drive respectable persons from the trade, and throw :ic entirely into the handa of those who have neither property nor'character to fose. And hence the object of a wise Legislature ought not to be to aboilah what muet always exist, but to endeavor, so far at least as is possible, to free it from abuse, by enacting such regulationa as may appear to be best calcuiated to prevent the ignorant and the unwary from becoming the prey of swindlera, and to facilitate the discnvery of stolen property.

Obligations under which Pawnbrokers should be placed. - For thls purpose it aeems indispensable that the interest charged by pawnbrokera should lie linnited; that they ahonld be obliged to give a receipt for the articlea pledged, and to retain them for a reasonable time before selling them; that the snle; when it does take placo, should be by public anction, or in such a way as may give the artleles the best chance for being sold at a fair price; and that the excess of price, if there be any, after deducting the amonnt advenced, and the interest and expenses of sale; should be paid over to the original owner of the goods. To prevent pawnbrokers from becoming the rocaivera of stolen goods, they should bo liable to penalties for making sdvances to any indi vidual unable to give a satisfactory account of the mode in which he became possessed of the property be is desirous to pewn ; the officers of police shonld at all times have free access to their premises; and they should be obliged earefully to deseribe and advertise the property they offer for sale.
Law as to Paunbrokers.--It may appesr slingalar that pawnbrokers sliould bardly have been named in any legislntive anactment till after the middle of last century: It was enacted by the 30 Geo . II. that a duplicate or receipt should be given for goods pawned, and that such as were pawned for any sum less than $£ 10$ might be recovered any time within two years on payment of the principal and interest; but the rate of intorest was not fixed.

Of the pledgs of Mortgags and Chattels.-There is a material diatinction to be noticed between a pledge and a mortgage. A pledge, or pawn, is a deposit of goods redeemablo on certsin torms, and either with or with ont a fixed period of redemption. Delivery accompanies a pledge, and is essentiai to its validity. The geaeral property does not pass, as in the case of a mortgage, and the pawnoe has oniy a apecial property. If no time of redemption be fixed by the contract, the pawner may redeem at any tima; und thongh a day of payment be fixed, ho may redeam after the day. He has hia whole lifetime to rednem, provided the pawnoe doea not cali upon him to redeem, as he has a right to do at any time, in his diserction, if no time for redemption
be flxed; and if no such call be made; the reprenentativee of the pawner may sedeem after his'death. A early. as the time of Glanville, these just and plaim principloe of the law of pledget ware esmentially recognised, and it was declared, that if the pledge wae not redeemed hy the time appointed; the creditor might have recoure to the law; and compel the pawner to redeam by a given day; or be forever foreclosed wad berred of his right.! And if no time of redomption was fixed; the creditor might call upon. the debtor at any time, by legal procese; to redeem or lose hls pledge. The distinction between a pawn and mortgage of chattels is equally well sattied in the English and Amorican law; end a mortgage of goode differs from a plodge and pawn in this, that the former is a coaveyancs of the title upon conditiony and it ibecome an absolinte interast at law, if not redeomod by a given time, and it migy be valid in certain cases withont actoal delivery. According to the civil law; a pledge conld not be sold without judicial sanction, unlese there was apecial agreement to this effect; and this is, doabtless, the law at this day in most parts of Europe. The French Civil Code has adopted the law of Constantino, by which even an agreement at the time of the original contract of loan, that if the dehtor did not pay at the day, the pledge should be absolntely forfoited; and become the property of the ereditor, was declared to be void. While on this aubject of pledges, it may be proper further to observe, that the pawnee, by bill in chancery, may bar the dobtor's right of redemption and have the chattels sold. This has been done frequently in the case of stock bonds, piato, or other personal property pledged for the payment of debt. But wiehont any bill to redeem, the creditor, on a pledge or mortgage of chattels, may sell at anction, on giving reasonable opportunity to the debtor to redeem, and apprising him of the time and place of ealo; and this is the mose convenient and amal practice. ㅇ.. While the dobtor's tight in the pledge remains unextinguished, his interest is liable to be sold on execntion; and the purchaser, like any other purchaser or aseigued of the intorest of the pawner, succoeds to all his rights, and becomes ontitled to redeem. -iSes Kexr's Commentaries, vol. iv.
r. Ilaly, France, efe. -The practice of advancing money to the poor, either with or withont interest, seeme to have bean occasionally followed in antlquity.- Becxmanx, vol. iil. Bat the first public establighments of this port were founded in Italy, under the name of Monti di Piete, in the 14th and 15th conturies. As it was $t o o n$ found to be impossible to procure the means of aupporting auch establishraents from voluntary contribntions, a bull for allowing intereat to be charged upon the losns made to the poor was issued by Leo X. in 1521. These eatablishments, though differing in many respects, have universally for their object to prolect the needy from the risk of being plundered by tho irrespensible individuala to whom their necessities might oblige them to resort, by accommodating them with loans on comparatively reasonable torms. And though their practice has not, in all instances, correaponded with the professions they have made, there seerus no reason to doubt that they have been, speaking generally, of essential nervice to the poor. From Italy these, ostablishments have gradually spread over the Continent. The Mont de Rield, in Paris, was eatablished by a royal ordinance in 1777 ; and after being deatroyed by the Revolation, was again opened in 1797. In 1804 it olbtained a monopoly of the hasineas of pawnbroking in the capital. Losin are made by this establishment upon deposits of anch grode es can be preserved, to the amount of two-thirde of the estimated value of ali goods other than gold and silver, and to four-fifths of the value of the latter. No loan is for less than 8 franca. The advances are made for a year, but the borrower may renew the ongegement. Interent is fixed at the rate of one per cent. per month.

The Mont de Pidd has genorally in depoeits from

600,000 to 650,000 articiet, worth from twolve million to thirteen million frances The expense of managbment amoante to from 60 to 66 rentimes tor oach articie; $\mathbf{0}$ that a loan of 8 franca never defraye the oxpenses it adcmione, and the profits are wholly dorived from those that exceed 6 friment At an average the profte amount to sbont 280,000 irance; of which only about 166,009 are derived fronts loand upon deposif, about 126,000 being the prodece of other funde at the diaposal of the company. In tome reipecte, yarticuJarly the lownems of interest apon omall loaing, and the greater vigliance exercieed with respect to the reception of etolen geods; the Mont de Plied has an advantage over the pawnbroking sutabliebments in this country. Is. It may bu donbted, however, whather it is; on the whole, 80 well fitted to attaln its objocts: The litnitation of the loans to 8 francs would be folt to be a merions grievance here, and it can hardly be otherwise in France; nor is it to be supposed that the mervante of a great public establishment will be no ready to asaist poor persona, having none but inferior articles to offer in security, al private individnals anxious to get business. And such, in point of fact, is found to be the case, not in Paria only, but in all those parte of the Continent where the businees of pawnbroking is confned to a fow establishmental And hence; though the question be not free from difficulty, it would seem that, were the modifications already suggeeted adopted, oar syatem would be the best of any. "For further information with respeot to this curions and it terosting subject, the reader is referred to the Traith es. la Bienfaiaamee Publique of Degerando, ifi. 1-65; besides givo ing a anceinct hiatorical notice of Monts do Pithet the learned anther han discussed most part of the knotty questions connected with the proper organization of these eetablishments, and with their influence on socioty, with equal angacity and ability. - See Bankers' Magazine, New : York, Auguet, 1850, p. 170 ; August, 1852, p. 124 (Sir F. Hrad); Standard Lih. Cy. London, 1848.

Peach-tree (Amypdalus perrica). It is not certain in what part of the globe the peach-tree was originaliy produced; for although we have eariy acconnts of fts baing brought to Europe from Perata, it does net follow from thence that it was one of the natural productions of that country. Pliny relates that it had been atated to have possessed vonomous qualities, and that its fruit was cent into Egypt by the kinga of Porvia, by way of revenge, to poison the natives; bnt he treats this stery as a mere fable, and considers it the moat harmless fruit in the world; that it had the most juice, and the least amell of any fruit; and yot caused thirat to those who ate of it. He expresely atates that it was imported by the Romana from Persia; but whether it was indigenous to that country, or cent thither from a region still nearer to the equator, we have no information. He sdde that it was not long siuce peaches werv known in Rome, and that there was great diffienlty in rearing them. . He also informs us that this tree was brought from Egypt to the Isle of Rhodes, where it could never be made to produce fruit; and from thence to Italy. He sayk, moreover, that it was not a common fruit either in Gresce or Natolia. : No mention; however, is made of it by Cato. Pownall, in hie Roman Prooinces, makes it a Phocean importation to Marseilles; and evidently it was cultivated in France at an carly period, as Oolumella, in his account of this fruit, asys:
"Those of mall wise to ripen make great haste; Bach as great Gaul bestows, oboervis due time and senson, not toe esriy, mer too tata."
The peach is acid to have been. first cultivated in Britain about tha midile of the 16 th century. Gerard deseribes several varieties of it as growing in his garden, in 1597. Tueser montions it in his list of fraits in 1572 ; and in all probability it wall introduced when the lomane had possecsion of that conntry.

The peach was introdiced into North America by
the first of the 16 cultivate with sue trees, In land, Vir tion is pa lent qual planter to and or n dle Staten greatest ; in the op Vermont so delicio it is also to, in Ca quality is Florida, if well cul to a large Mississip same Iatit indigenou of foreign before the vicinity and othe pesch is numerous fine quali American abundane speaks in fruit, whi neighborh dea; and as an art those mo ried from la Plata, seen peac eat perfect siderabln they grew quantities use, and by cattle,
The wo roseate h owing to is but litt! tries whe tained, ho ployed fo color may Its leaves low color, soms, and poisonous sugar con tritious, a preserved it is slight tities it is taken tou When ate relaxatíve for the 8 The lave liquorist, have also fatal conse they shou prescrvat! other kind in the ind
the first European settlers, probably toward the close of the 16th or eariy in the 17 th century, where it is cultivated in extensive plancations, which often grow with such lusturiance as to resemble forente of other trees. In New Jereey, Pennsyivania, Delaware, MaryJand, Virginia, and several other States, much attention is paid to its eultare, and the fruit is of an.excelleat quality. It is no uncommon circumstance for a planter to posesese a pesch orchard containing one thonsand or more of standard trees. It is ouly ir the Middie States of the. Union where this fruit ary ses at the greatest perfection." In favoralile eemsons, it matures in the open alr as far north aa Maine, Now Hampohire, Vermont, and the Falls of Niagara; but ite puip te not so delicious as when grown some degrees farther south; it is also trained against walls at Montreal and Toronto, in Canade, where, in some reasons, fruit of a fine quality is obtained. In the Carollnas, Georgia, and Fiorida, the trees make much foliage and wood; still, if well cultivated and properly pruned, tho fruit growa to s large size, and is julcy and well flavored. On the Mississippi, particularly in Louiaiana, which lies in the game intitade as that part of Aais where this species is indigenoue, it grows apontaneously, but is regarded as of foreign origin, having been introdaced from Spain before that river was explored by the French. 4 In the vjeinity of Boston, Salem, New York, Philsdelphia, and other populous cities of the United. States, the pesch is reared againat walls and in hot-houses by numerous opulent citizens, and fruit of a large size and fine quality is produced. In some other parts of the American continent It also readily grows, and in great sbundance. Sir Francis Head, in his Rough Nctes, speake in raptures of the bearty and luxuriance of this fruit; which was ecattered over the corn-fields in the neighborhood of Mendoza, on the east side of the Andes; and the same traveler noticed dried peaches used as an article of food on che more eiovated parts of those mountains, to which they must have been carried from the plains below. On the banks of Rio de ls Piata, from Mentevideo to Buenos Ayres, we have seen peach-trees growing spontaneously in the greatest perfection, and in such abundance as to ferm a considersble portion of the fuel of the provinces in which they grew. The frult there is of a fine quality, large quantities of which are annually dried for domentic use, snd the chief part of the remainder is consumed by cattle, or is suffered to decsy upon the ground.

The wood of the pesch-tree is hard, compact, of a roseate hue, and is susceptible of a fine polish; but owing to its Inferior size and comparative scarcity, it is but little used in the arte, or for fuel, except in countries where other kinds of wood are rarc. When obtained, however, of suitable dimenaiens, it may be employed for similar purposes as that of tho slmend. A coior may aleo be extractod from ic called rose-pink. Its leaves yield, by distilation, a volatile oll of a yellow color, containing hydrocysnic acid. Its bark, bios80 ms , and keruels of the fruit, slso posacss the samio poisonous property. From the quantity of gum and sugar contained in the delicious pulp, the peach is nutritious, sud is omployed as a desaert, both fresin and preserved. From the malic acid contained in its juies, it is slightly refrigerant, and if eaton in moderate quantities it is generaliy considered as wholosons; but if teken tou freeiy it is liable to diserder the bowels. When atewed with sugar, it may be given as a mild relaxative to convalescents. The kernels may be used fer the same purpose as thoee of the bitter almond. The leaves are sometimes employsd by the cook, the liquorist, and the confectioner, for flavoring, and they have aiso been substituted for Chinese toa; but, as fatai consequonces have sometimes followed these uses, they should be looked upon. with precsution. Tho preservation of pesches, plums, cherries, apricote, and other kinds of fruit In sirup occupies a prominent rank in the induatry and commerce of Fraueo and of Ma-
jorea, and doubtlase could be profitably carried on in those parts of the United States whero these fruits are cultivated in abundence, To, those who, are desirous of eutering Into the businese on an extensive acale, we would recommend the Nouveas. Manuel du Limoma dier, du Glacier, du Chocolatier, et du Confiseur, par MM. Cardelli, Lionnet-Clémandot, et Julia de Fontenelle; published at Paris in 1838 ; or, what would be still better, the employment of ain intelligent confiseur who is prectically acquainted with all its manipula tions.-Beowne's. Trees of Americas.

1. Pealc, a nama given to the upper corner of those sails whioh are extended by agaff; or by a yard which cromaes the mast obliquely, as the mizzen-yard of a ship, the maln-yard of a byiander, eto. The upper extremity of these yards and gaffs is also denominated the peak.

Peax-tree (Pyrus Communit). The common peartree is Indigenous to Europe, Weatern Asis, the Himalayas, and to China; but not to Africa nor Americs. It is found wild in most of the counties of Britain, as far north as Forfarshire; on the continent of Furope, from Swoden to the Mediterranean; and in Aaia, as far east as Chins and Japan. It is alwaye found on a dry soll, and more frequently on plains than on hille or mountains; and solitary, or Ja amall groupe, rather than in woods and forests. The varieties cultivated for their fruit sncceed both in the temperate and transition zones of tho two hemiapheres, and It hs. 1 been remarked that this tree, as weli as the apple anci the cherry, will grow in the open air wherever the oak will thrive.

The wood of the common pear-tree is heavy, otrong, compact, of a fine grain, and slightly tinged with red. In common with that of all the Rosacea, it is liable to have its natural color changed by ateeping in water, which, therefore, ought to be avoided when intended for particular purposes in the arta. When green, it weighs nearly elghty pounds to a cubic foot, and from forty-nine to fifty-three pounds when dry. , According to Du Hamel, it is, next to the true aervice (lyrua sorbus), the best woed that can be employed in woodengraving, for which purpose, hewever, it is far inferior to that of the box. Yet it is allowed to be very hard and homogeneous, casy to cut, and, when perfectiy dry, is not liable either to crack or warp. For the coarser kiaús of engraving, such as large plans or diagrains, show-bills, etc., it serves a very good purpose. When it can be obtained, In Europe, it is much used by turuers and pattern-makers; alao for joiners' tools; snd, as it can readily be atained, it is sometimes made into various articles, dyed black, in imitation of ebony. As fuel, the wood of this tree ls excelient, producing s vivid and durable fiame, accompanied by an intense heat. According to Withering, the leaves afford a yellow dye, and may. be empleyed to impart a greenish shade to blue eloths. But the most important uses of the pear-tree are thoae which arise from its fruit. When ripe, it is employed at the table as a dossert, either row, stewed, or presea . ad in sirup, and occaalonally it is used in tarts. In most of the countries where it grows this fruit is very generally dried in ovens, or in the aun, in which atate, when stewed, it le excelient, either as a substitute for puddings and pice, or as forming part of the dessert.

Another purpose to which the pear is applied lis for making perry. It is extensively cultivated for this oljeget in various parts of Britain, France, snd Germany, where the trecs are sometimes planted in rows eighteen or twenty yards spart, in order to admit a free accoss of light and air. Perry is made in the same manner as cider. The pears should be gathered haforo they begin to fall, and should be ground as soon after as possible. Should the perry not be sufficiently clear, when racked off, it may bo fined in the usual manner of clarlfying cider, by lainglase, In the proportion of about lialf an ounce to a barrel. The kinda of pears
used for making this llqnor in Herefordshire are auch as have an austere juice, as the "Squash," the "Oldfield," the "Barland," the "Hnff-cap," the "Sack," the "Red," and the "Longland" varieties. Pears were coneidered by the Romans as an antluete to the effect of eating poiooneus mushroomes and up to the present tims perty in aaid to be the best remedy that can be omployed for the same purpose. In Britain and France an agreeable wine is made from a mixture of crabapples and pears, which in the latter country is called piquette. Pears, in general, produce fietuleacy, and consequently are tefit for weak atomacha; but when they are quite ripe, and contain a aweet juice, they seldom prove nexious, nuless eaten to excess. Pears that are to be kept for winter use ahould hang as long on the trees as the atate of the weather will admit. They should then be kept in heaps, in an open, dry situation, for about ten days, then wiped with a dry woolen cioth, and, lastly, packed up close from the air and moisture. But to keep the fruit in its greateat perfection, small earthen jars may be selected about the size of the pear, which should be packed separately, in clean oat ehaff or wheaten bran, then tied down with olled paper or akin, and cemented tight with wax or pitch. These jars should then be packed in a cask, chest, or mome ether secure place, with their bottoms upward, where they ahould remain until required for nse.-Browns'a Trees of America.

Pearl-ath. See Potasi.
Pearly (Du. Pacrion; Fr. Perlew; Ger, Perlen; It. Perle; Lat. Margarites ; Ruas. Shemptschug, Perlis; Sp. Perlae; Arab. Looloo; Cyng. Mootoo; Ilind. Mootic), are well-known globular concretions fouad in severai s, ecies of shell-fiah, but particularly the mother-of-pearl c, ster (Comehas margarilifera, Linn.). Pearis should bo chosen round, of a bright, translucent, ailvery whiteness, free from stains end roughness. Heving these qualities, the largest are of course the mest valuable. The larger ones have frequently the shape of a pear; and when these are otherwise perfect, they are in great demand for ear-rings. Ceylnn pearis are most esteemod in Iingland. The formation of the pearl has einbarrassed both ancient and modern naturalists te explain, and has given oecasion to a number of vain and absurd hypotheses. M. Rísumur, in 1717, alleged that pearls are formed like other atones in animais. An ancient pearl was valued hy Pliny at $\mathbf{£ 8 0 , 0 0 0}$ sterling. One which was brought, in 1574 , to Philip II., of the size of a pigeon's egg, was valued at 14,400 dacata, eqúal to $£ 13,996$. A pearl spoken of by Boetius, named the Incomparable, weighed thirty carate, equal to five pennyweights, and was about the size of a muscadine pear. The pearl mentioned hy Tavernier as being in poasesaion of the Emperor of Persia was purchased of an Arab in 1633, and is valued at a oum equal to $£ 110,400$. Haydn.

Value of Pearls.-Pearis were in the highest possible estimation in ancient Rome, and bere an enormous price. Jrincipium culmenque onnium rerum pretii, margarita tenent.-P1iny, Jist. Nat. Their price in mod. ern times has very much dectined; partiy, no doubt, from changes of manners and fashions, but more probably from the admirable imitations of pearls that may be olbtained at co very low prico. According to Mr. Milburn, a handsome neeklace of Ceyion pearis, amailer than a large pea, costa from $£ 170$ to $\mathbf{f 3 0 0}$; but one of pearls about the size of peppercorns may be had for 215. The pearls in the former sell ot a guines each, and thoas in the latter at about $1 s .6 \mathrm{c}$. When the pearls dwindle to the size of sinall shat, they are deneminated seed pearls, and are of little value. They are mostly sent to Chins. One of the most remarkable pearls of which we have any authentic account was bought by Tavernler at Catifa, in Arabia, a fishery famolls in the daya of Pliny, for the enormous anm of $£ 110,000$ ! It is pear-shaped, regular, and without blemish, The diameter is " 68 inch at the large." part,
and the length from two to three inches.: Mueh difference of opinlen has exlated among naturalista with respect to the production of pearla in the oyster; but it seeme now to be generally believed that it is the result of dhease, and ls formed in the same manner as besoar (ese Beyoar), pearle, like it, consiaing of nuccesuive coats apread with perfect regularity romad a foreign mucleus. In fact, the Chinese throw inte a species of thell-fish (mytilus cygneus, or awan muscle), when It opens, five or alx very minate mother-of-pearl beada strung on a thread; and in the course of a year they are found covered with a pearly crust, which perfectiy resemblea the real pearl.-Milaburn's Oriental Commerce; Ainsliz's Materia /edica.
4 Pead Fibleries.-The pearl eyster in fished in various parts of the world, partlcularly on the weat ceest ef Ceyion; at Tuticoreen, in the province of Tinnevelley, on the conat of Coromandel ; at the Bahrein Islanda, in the Gulf of Peraia; at the Sooloo Islands; off the coast of Algiers; off St. Margarita, or Pearl Islands, in the West Indies, and other places on the coast of Colombia; and in the Bay of Panama, in the South Sea. Pearls have sonnetimes been feund on the Scetch coast, and in various ether places. The pearl tiahery of Tuticoreen is monopolized by the East India Company, and that of Ceylon by government. But these monopolies are of no value; as in neither case dees the sum for which the fishery is let equal the expenges ineurred in guerding, surveying, and managing the banks. It $\mathrm{I}_{\mathrm{a}}$, therefore, sufficiently obvioue that this system ougat to be abolished, and every one allowed to fiah on paying a moderato lieense duty. The fear of exisusting the banks ls quite ludicrous. The fishery would be sbandoned as unprofitable long before the breed of oyaters had been injuriously diminished; and in a few years it wonld be as productive as ever. Besides giving freah life to the fishery, the sbolition of tie monopoly would put an end to some very oppressive regulations enected by the Dntch mere than a century ago.

Persian Gulf.-The mest extensive pearl fisheries are those on the several banke not far distant from the island of Balirein, on the weat side of the Peraian Gulf, in lat. $26^{\circ} 50^{\prime} \mathrm{N}$;; long- $51^{\circ} 10^{\prime} \mathrm{E} . ;$ but peari oysters are found along the whele of the Aralisn const, and round elmost all the islands of the Gulf. Such as are fished in the ses near the islands of Kar-rak- and Corgo contain pearle said to be of a superie: color and deacription. They are formed of eight layers or folds, while othera have only five, but the wster is too deep to make fishing for them either very profitable or easy. Beaides, the entire monopoly of the fishery is in the hands of the Sheik of Bushire, whe seems to consider these islands as his immediate pioperty. "The fishing eeason is divided into two portions -the one cailed the short and culd, the other the iang and hot. In the cooler weather of the nonth of June, diving is practiced along the coast in shallow water; but it is not until the intensely hot months of July, August, and September, that tive Bahrein banks are mueh frequented. The water on them is about sevell fathoms deep, and the divers are inuch inconvenienced when it is cold; indeed; they can do littie when it is not as warm as the ajr, and it frequently becomes even more 86 in the hottest months of the summer. When they dive, they compress the nostrils tightly with a small piece of horn, which keeps the water out, and etuff their ears with beeswax for the same purpose. They attach a net to their waiats, to contain the oysters ; and aid their deacent hy means of a stone, which they hoid by a rope attaehed to a hoat, and shake it when they wish to be drawn up. From what $i$ couid learn, two minutes may be considered as rather above the average time of their remaining under water. Aithough severe labor, and very exhausting at the time, diving is net considered partlcularly injurious to the constitution; even old men practice it. $A$ persoa
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usual
faver times stoma to slee At Br pearl c240, rein n Khym as mu or $£ 3$ pearl priaci deal 1 at Ba mate native seeme ficult measu boats, an enc parts used 1 oraam used $t$ or ele stenes excep from $t$ joon much stimul pearl 1500, of who on the the gr eat.
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the Gy xpenses inaging the is that this ne allowed The fear The bish. $g$ befere tho lehed; and ever. Belition of the oppressive n a ceatury orl fisheries nt frem the the Perslan ; but pesrl lie Arabisn f the Gulf. nds of Kerf a superion f eight layat the water very profitpoly of the uslice, who ediate piopwo portions ner the long ath of June, low water; lis ef July, bsuks are about sevelu onvenienced when it is conses even ier. When hitly with ${ }^{3}$ er out, and we purpose.
hin the oystone, which nd sliske It hat 1 could ather above water. Alat the time, rione to the A person
usually dives from twelve to fifteen times day in favorable weathery but when otherwise, three or four times only, Tha work is performed on an empty atomach. When the dlver becomes fatigued, he goes to sleep, and does not oat until he has slept aome time. At Bahrein alone the annual amount produced by the pearl fiahery may be reckoned at from $£ 200,000$ to $\boldsymbol{£} 240,000$. If to thls the purchasea made by the Bahrein merchants or agents at Aboottabee Sharga, Rag-ul Khymack, eto., be added, which may amount to half as much more, there will be a total of about $\mathbf{\& 8 0 0 , 0 0 0}$ or $\mathbf{£ 8 6 0 , 0 0 0 ;}$; hut thls is calculated to include the whole pearl trade of the Gulf; for it ls belleved that all the principal merchants of India, Arabla, and Peraia who desl in pearls make their parchases, through agents, at Bahrein. I have not admitted In the above estimate much more than ome-riath of the amount some native merchants have atated it to be, as a good deal seemed to be matter of guess or opinion, and it is difficult to get at facts. My own estimate is in aome measure checked by the eatlmatod profite of the small bosts. But even the aum which I have estimated is an enormons annual value for an article found in other parts of the world as well as here, and which is never used in lta best and most valuable atato except as an ornament. Iarge quantitles of the seed pearls are used throughout Asia in the composition of majoons, or olectuaries, to form which all kinds of preclous stenes are occasionally mixed, after being peunded, exceptlag, Indeed, dlamonds; these belng considered, frem their hardness, as utterly indigestible. The majoon in which there la a larga quantlity of pearls, is much sought for and valued, on account of Its aupposed stimulating and restorative qualltles. The Bahrein pearl fishery boats are reckoned to amount to about 1500 , and the trade is in the hands of merchants, some of whom possess conclderable capital. Thay bear hard on the producers or fishere, and even those who make the greateat exertions in diving, hardly ha re food to eat. Tise merchant advances some money to the fishermsin at cent. per cent,, and s portion of dates, rice, and other necessary articles, all at the supplicr's own price; be also lets a boat to them, for which ho gets one share of the gross profits of all tivat is fished; and, finally, he purchases the pearls nearly at his own price, for the unhappy fishermen are generally in hls dobt, and therefore at his mercy."-Mfanuscript Notes communicated by Bfajor D. Wi lson, lute political Resident at Bushire.

The fishery at Algiers was farmed by an English associstion in 1826, but we are ignorant of their success. The pearl fisheries on the coast of Colombla were at one time of very great valuc. In 1587 upward of 697 llis. of pearls are sald to hsve been imported into Seville. Phllip IL. had ona from St. Margarita which welghed 250 carats, and was valued at 150,000 delisrs. But for many years past the Colomblan penrl fisheries have been of comparatively littie impertance. Daring the mania for joint-stock companies, in 1825, two were formed; olle, on a large scais, for prosecuting the pearl fishery on tho coast of Colombia; and anotieer, vit a smaller scale, for prosecuting it in the Bay of Panama and the Pacifie. Both wero abandened In 182. Tie best fishery ground is said to be in from six to elght fathoms water. The divers continue under water from a minute to a minute sud a half, or at most two minutes. They lave a sack or bag fastened to the neck, in whleh they bring un the eystere. The exertion is extremely violent; and the divers aro unhealthy and short-lived.-Fur further information, see IIunr's Mferchanta' Magazine, $x$ vili. 505.

Pearl shells, commonly called Mother-of-pearl shells, are imported from varione parte of the East, and conaist principaily of the shells of the pearl oyster from the Gulf of Persia and other places, particularly the Sooloo Islsnds, situato between Borneo and the Phllip-
plnes the ahores of whloh afford the largest and fineat shells hitherto discovered. On the inalde the ahell is beautifully polished, and of the whiteness and water of pearl itself: it has the same lustre on the outside, after the exteraal lamine have been removed. Moth-or-of-pearl ahella are extensively ased in the arts, particularly in inlald work; and in the manvfacture of handlen for knives, buttons, toys, anuff-boxes, etc, The Chinese manufacture them into beads, fish, connters, spoons, otc. ; giviag them a finish to which European artists have not been able to attain. Shells for the European market ahenld be ohosen of the larg, st alse, of a beantliful pearly lustre, thick and even, and free from stalns. Reject such as are small, cracked or liroken, or have lumpy on them." When stowed loose as dunnage, they are sometlmes allowed to pass free of frelght.-Milsunn'a Oriontal Commerce. The Imports during the three years ending wich 1842 amounted, at an average, to about $050,000 \mathrm{lbs}$ a year.

Artificial Pearls.-These are small glubules or pearshaped $s_{5}$ heroids of thin glass, perforated with two opposite holes, through which they are strung, and mnunted into necklaces, etc., like real pearl ornaments. They must not oaly be whito and brllliant, but exhlbit the iridescent reflections of mother-0f-pearl. The liquor employed to imitate tho pearly lustre is called the essencs of the Euast (essence d' Orient), which is prepared by throwing lato water of ammonla the brilliant scales, or ratier the lamello, separated by washing and frictlon, of the acalos of a small river fish, the blay, called in French ableite. These scales digested in ammonia, having acquired a degree of softness and flexlbillty which allow of thelr application to the inner suriaces of the glass globules, they are introduced by suction of the liquor containing them in suspeasion. The ammonia is volatilized in the act of drying the globules. It is said that some manufacturera employ ammonia merely to prevent the altcration of the scales; that when they wish to make use of them, they suspend them in a well-claritied solution of isinglass, then pour a drop of the mixture into each bead, and spread It round the inner surface. It is doultful whether, by this method, the eame lustre and play of colore can be oltained as by the former. It seema, moreover, to be of importance for the success of the imitation, that the globules be formed of a bluish, opalescent, very thin glass, containing but llttle potash and oxyd of lead. In every manufactory of artiticla, pearls there must be some workmen possessed of great eznerience and dexterity. The French are supposed to ezcel Ir this ingenions branch of Industry. False pearls were invented In the time of Catherine de Medicis, by a person of the name of Jaquin. Thay are made of small globules of glass, blown by the ordinary lamp. Tho pearly lustre is communiested by introducing by means of a blewpipo a sinall quantity of nacreous substances obtained from the surface of the scale of a omall fish very commen in the Seine and the Rhine, and also in the Thames. This aubstance preserved with sal ammoniac in a liquid state is commonly sold under the name of "Oriental essence." After having covered the inside of the pearl with thls liquid, a coating of wax is added, which is colored to the required thade. The manufacture of pearls is principally carried on in the department of the Seine in France. There are also manufactorles in Germany and Italy, but to a amall extent. In Germany, or rather Saxony, a cheap but inferior quality Is manufactured. The globe of glass forming the pearl in inferlor ones being very thin, and coated with wax, they break on the slightest pressurc. They are knewn by the name of German fish pearls. Italy also manufactures pearls by a method borrowed from the Chinese; they are known under the name of Roman pearls, and a very good imitetlon of natural ones: they have on their outaide a ceating of the nacreeus liquid. The Chinese pearls are made of a kind of gum, and are covered likewies with the asme liquid. In the year

1084 a Freneh artisan diacevered an opsline flass of a nacreous or pearly ccior, very heavy and fusibse, which gave to the beads the different woights and varied forma found among real pearist gun instend of wax is now used to fili them; by which they attain a high degree of tranaparencr; and the ghassy appearance has been Intely obviated by the use of the vapor of hydro-fuotic acid. Thia acta lu buch a mianter as to denden the surface, and remove Its otherwise glaring look.-Uke's Dictiomaty.

Peas (Gor. Erbeen ; Fr. Pois ; It. Piselli, Risi; Sp. Pesoles, Guieances ; Rnss, (ioroch). The pes in one of the most eateemed of the leguminous or puise piants. There are many varleties; but the common garden pea (Piam adirwm), and the common gray or fleld jea (Pisum arvense), are the most generally cultivated; being reared in large quantities in all parts of the country. But since the Introduction of the drill husluandry, the culture of the pea as a fleld-crop has been to a considerable extent superseded by the bean. Sometimes, hovever, it la drilied along with the iatter; fer, being a climbing piant, it attacises itself to the bean, $s 0$ as to admit the ground being hoed, at tho same tlme thet the free admission of air about its roota promotes ite growth. It is not possible to framo any estinuete of the consumption of peas. The field pea is now hardIy ever manufactured into meal for the purpose of being made lnto bread, as was formerly the case in many parts of the country; but there is reason to think that the garden pea ia now more extensively used than ever. -Lounon's Encyclopedia of Agricalture; Brown on Rural Affairs.

Varions kinds of ulse, from the facility with which they are produced ir almost evary country of the glohe, and the highly nutritive propertles whith they usuaily possess, have been a favorite food for man and enimais ameng all natlens, and in every age of the world. Thus we find that the Athenians eniployed sodden beans in their feasts dedicated to Apolio, and that tho Romans presented them as an oblation in their solemn sacrifice called Fiabaria. Pliny informs us that they offered bean-meal cakes to certain guds and goddenses in these anclent rites and ceremonies; and Lempriere states that bscon was added to beans in the offerings to Caina, not so much to gratify the palate of that goddess as to represent the simplicity of their ancestors. The bean came originally from the East, and was caltivated in Egypt and Barbary in the earilest ages of which we have any records. It was brought into Spain and Portugal In the eariy part of the elghth century, whence some of the beat varieties were introduced inte other parts of Enrope, and finally into the United States. The first beans Introduced from Europe into the British North American colonies were by Captain Gasnold, in 1602, who planted them on the Ellzabeth Ialands, near the coast of Massachuaetts, where they flourlshed weil. They were also cultivated in Newfoundinnd as eariy as 1622 ; in New Netheriands in 1644; and in Virginia prior to 1648. French, Indian, or kidney beans were extensively cultivated by the Indians of New York and New England long before their aettlement by the whites; and both beans and peas (calavances), of various hues, wero cnitivated by the natives of Virglinia prlor to the first landing of Captain John Smith. Among these were embraced the celebrated cow-pea (Phaseolus), or Indian pen, at present so extensively caltivated at the South for feeding stoek, as well as for the purposes of naking into fodder, and for plowing under, like clover, as n fallow crop.

The varleties of heans at present cultivated in the United States, as field and garden crops, are too numerous to admit of repetition in thls report. For field culture, thir common small white, the red-eyed China, the turtie-soup, the Nohawk, and the refugee are preferred; for gerden cuiture, the Mohewk, the eariy slx-weeks, the eariy Valentlne, the yellow sixwecks, the biack Vaientine, the royal white kiduey,
tho Carolina, or Sewee, the cranberry, the London hortieultarai, and the Duteh easobknife. The ylald usually varies from thirty to alxty bushels per acre; weighing alxty-three peunds to the bubliol. The common pea is aupponed to hate been Indigenous to tho South. of Europe, and wan cultivited both by tine Greaks and Remans. Its Intruduction into the British North American colonies probably dites back to the early perieds of their settelement by Europeanis, as it is onnmerated in several Inntances among the culkivated products of thls country by"our carly historians. The cultivation of the pea io fiold crop is principaliy confined to the Middle, Esieiern, and Weaterni States, the varietien of which are disilngulshed as the early and the late ripening. The early varietles are generaliy smali and dark-colored, among which the gray and grass are the most common. The yleld varies from twenty-five to forty bushels per acre, weighing aixty-four pounds to the buchel.- The marrow-fats are among the rlchest of the field peas, which ard much preferred for good lands. The amall yellow are thought to be best for peorer solls. A very prollfio "bush pea" is cultivated in the Sonthern States, bearing podas six or seven Inches in length, which hang in clustera, and are flled with fine white peas, much esteemed for the table, either green or dry. The amount of peas exporter from Savannah in 1755 was 400 bushels; in 1770, 601 bushels; froin Charleston, in 1754, 9162 bushels; from North Carolina, in 1753, 10,000 busheis; aunually from Firginia, before the Kevolutlon, 5000 bushels; annually from the United Stalen, tweht: years preceding 1817, 90,000 bushels. The amount of beans annually exported during the last-named period, from 80,000 to 40,000 bushels.--Patent Office Riport.
Peat, a well-known inflammable substance, employed in many parte of the world as fuel. There are two species of pest. The first is a yellowish brown or black peat, found in moorish grounds in Scosland, IIolland, and Germany. When fresh, it is of a viscid conslatence, but hardens by exposure to the air. It consista, according to Kirwan, of elay mixed with calcareous earth and pyrites; sometimes, alse, it contains cominon salt. While soft, it is fermed inte obiong pleces for fuel, after the pyritaceous and atony matters are soparated from it. Jy distiliation, It yields water, acid, oll, and volatile alkall, the ashes containing a small proportion of fixed alkali, and being either whits or red, according to the proportion of pyrites contained in the substa.ıce. The oll which is oltained from peat has a very pungent taate, and en empyreumatic smell, less fetid than that of animal sulastances, but more so than that of mineral bitumens. It congeals in the cold into a pitchy mass, whlch llquefles in a smail heat; it readliy catches fire from a candic, lut burns less vehemently then other olls, and immediately goes out upon remaving the axternal fiame; and in rectifiad spirit of wine it dlasoives elmost totaily into a dark, brownlsh red ilquer. The second apecies is found near Newbury, in Berkshire. In the Philosophical Transactions for the year 1767, we have an acceant of this species, the subatance of which is as foliows: Peat is a compoaltion of the branches, twigs, leaves, and roots of trees, with grase, straw, plants, and weeds, which having isin long in water, is formed into a mass aoft enough to be cut through with a sharp spade. The color ls a biackish brown, and it is used in many places for fuel. There is a stratum of thla peat on each side of the Kennet, near Newbury, in Berks, which is from about a quarter to half a mile in width, and many miles in jength. The depth below the surface of the ground is trom one foot to eight. Great numbers of entire trees are found lyiug irregularly in the true peat. These are chiefly oaks, alders, wiflows, and fra, and appear to have been torn up by the roots; many horses' heads, and bones of severai kinds of deer, the horns of the antelope, the heade and tusks of boars, and the heads uf beavers, are also found Imbeddod in it.

Peols, a dry measure for grain, puleo, eto. The standard, or imperiai peek, contains two gallens, or 50450 cnbic fnches. " Four peoka make a bushel, and four bushela a coomb.-See Weights and Menaures.
Peoulation, the cerm, in the Roman law, for the embeaziement of publie money belanging aither to the government or to communities. Under peculation, also, was comprised the adulteration of gold, ailver, or any metal belonging to government. Connected with it, by a law, of the dictator, Casar, were the crimen de renduis (if a person had received public money for a particular purpose, and did not apply it for the saine), and the sacrilegium (the theft or misappropriation of money or other thizga asered to a god). In most governments the embezalement of publie anoney by public officers is severely punished. Peculation and treason were, by the French charter of 1814, the only crimes for which a miniater was impeachable.-E. A.
Pellitory, the roet of a perennial plant' nthemit pyrethrum), a native of the Levant, Barbary, and the south of Europe. The roet is long, tapering, about the thickness of the finger, with a browaieh cuticle. It is imjorted packed in bales, somstimes mixed with other roots, from which, however, it is eacily distinguished. It is inodorous. When chewed, it seems at first to be insipid, hut after a few secoads it excites a glowing beat, add a pricking sensation on the tongue and lips, which romains for 10 or 12 minutes. The pieces break with a short, reainous fracture; the transverse section prasenting a thick, brown bark, studded with black, shining pointe, and a pale yellow radiated inside. It is used in medicine as a atimulant.-Tnomson's Dispencatory.

Peltry is the name given to the sking of different kinds of widd animals found in high northern latitudes, particularly in North America, such as the beaver, sable, waif, bear, etc. Wisen the akins of such animsls havo received no preparation they are termed peltry; but when the inner side has been tanned by an aluminous procesa they are denominated furs.

Panoils (Ger. Pinsel; Du. Pinseelen; Fr. Pinceaux; It. Pennelli; Sp. Pinceles). . The word pencil is used in two senses. It signities either a small hair brush emplayed by paiaters in oil and water colors-they are of various kinds, and made of various materials, some being formed of the bristles of the boar and others of camel's hair, the down of swans, etc.-or a sleader cylinder, of black-lead or plumbaga, either naked or in closed in a wooden case, for drawing black lines upon paper. Thee last sort, which is the one to be considered liere, corresponds nearly to the Freach term crayon, though thia includes aiso pencils made of differentlycolored earthy compositions. The hest black-lead pencils of this country are formed of slender perallelopipelis, cut out by a saw from sonnd pieces of plumbago, which have been previously calcined in close vessels at a bright red heat. These parallelopipeds are generally inclosed in cases made of cedar wood, though of late years they are also used alone, in peculiar pencil-cases, ancier the name of ever-pointed pencils, provided with an iron wire and seraw, to protrude a minute portion of the plumbage beyond the tubular metallic case, in proportion as it is wanted.

Pondant, or Pennant, a sort of long and narrow banner displayed from the mast-head of a ship-of-war, and uauslly teriniasting in two ends or points, called the suallow's tail. It denotes that the vessel is in actual service. Broad pendant is a kind of flag terminating in one or two points, used to diatinguish the chief of a squadron. Pendant is also a short plece of rope, fixed on each side, under the shrouds, upon the heads of the main and foremasts.

Penknives (Germ. Federmesser; Fr. Canifs; It. Temperini; Sp. Corta plumas), small knives, too well known te need any partleular deseription, used in making and mending pens. The best penknives are manufactured in London and Sheffield.

Penneylvania, one of the central United Staten, liea between $89^{\circ} 48^{\prime}$ and $42^{\circ} \mathrm{N}$. lat., and between $74^{\circ}$ and $80^{\circ} 40^{\circ} \mathrm{W}$. long. It is 307 milea long and 180 broad, containing 47,000 aquare miles. Population in 1700 was 434,878; in 1800, 602,545; in 1810, 810,001; in $1820,1,040,818$; in $1880,1,347,672$; in 1810, $1,724,033_{1}$ and in 1850, 2,811,786. The Alleghany Mountaina cross the State from southweat to northeast, and there are many amalier ranges on each side of the principal ridge and parallel to it . The southeastern and northweetern parts of the State are elther level or moderataly hilly. The an'l is generally fertile, and much of it is of a superior quality, the best land on the southeast is on both sides of the Susquehana. Between the head-waters of the Alleghany and Lake Erie the soil is very fertlle. . The anthracite coal region la immense. The Mauch Chunk, Schuylkill, and Lyken'a Valiey coal-field extenda from the Lehigh River acrose the head-waters of the Schuylkill, and is 65 miles in length, with an average breadth of fiva miles. The Lackawanaa coal-feld extends from Carbondaie, on the Lackawannock, to 10 miles bolow Wilkesbarre, on the Susquehanna. The Shamokin field has been less explored. Iron ore existe in nearly every county, and in the vicinity of Pittsburgh vast quantities are manufacturcd. Beds of copper and lead exist, snd quarries of marble and buildingratone abound. There are in the south part valuable mineral springs. There were in the State, in 1850, $8,628,619$ acres of, improved and 0,291,728 acree of unimproved land in farms; cash value of farms, $8407,876,099$; and the value of implements and machinery, 814,722,541. Live Stock.-Horses, 350,898 ; asses and mules, 2250 ; milch cows, 530,224 ; working oxen, 61,527 ; other cattle, 562,105 ; sheep, $1,822,357$; swine, $1,040,366$; total value of live stock, © $41,500,053$.

Early History of Pennsylcania.--The territory of this State was, before tho ycar 1681, for the greater part comprised under the name Northern Virginia, and ofter 1616 under the name of New England. When Penn, in the year 1681, obtained from Charles II. a grant of a great tract of land, between $40^{\circ}$ and $42^{\circ} \mathrm{N}$. lat., he himself wished to give to it the name of New Wales ; but the king, agninst Penn's wish, called it, in honor of Penn, Pennsyluania. The name is to be found for the first time in the King's charter of the 4th of March, of the year 1681. In the year 1682 Penn, desirons of approaching his province to the sea-cosst, bought from the Duke of York the whole tract of land and gettlements along the west sido of Delaware Bay, the socalled three lower counties. This tract of land remained, however, in connection with Pennsylvania only until the year 1776, when the inhabitants of these lands declared themsel ves independent and founded the State of Delaware. By this the State of Pennsylvenia was again excluded from the sea-coasts, and as a nearly entirely inland State the history of its limits is not of a great Interest for our hydrographical researches.-J. G. Koul.

The Delaware River washes the entire eastern border of the State, and is navigable for ships to Philadelphin. The Lehigh, after a course of 75 miles, enters it at Easton. The Schuylkill, 130 miles long, unites with it aix miles below Philadelphia. The Susquehanns is a large river, which rises in New York, tiows seuth through thls State, nnd enters the Chesapeake Bay in Maryland. It is much obstructed by falls and rapids. The Juniats rises among the Alleghany Mountains, and, after a course of 180 miles, enters the Susquebanne 11 miles above Harrisburg. The Alleghany River, 400 miles long, from the north, and the Monongahela, 800 miles long, unite at Pittsburgh, and form the Ohio. The Youghiogheny is a small river which flows into the Monongahela.

Agricultural Products.-. Wheat, 15,367,691 bushels; rye, $4,805,160$ bushels; Indian corn, 19,835,214 bushels; oats, 21,538,156 bushels; barley, 165,584 bushels ;
buokwheat, 2,183,602 buchela; pers and beana, 65,201 buahele; potatoes, $5,080,752$ buahels; aweet potatoes, 62,172 busiole. Value of products of the orehard, © 723,889 ; produce of market gardena, 8684,714 . Pounde of butter made, $39,878,418$; of choese, $2,505,084$; maple augar, $2,326,525 ;$ molasces, 50,652 gallons ; beeewax and honey, 800,509 pounde; wool, ponads produced, 4,481, Ji0 ; flax, 630, BU7 ; silk coccona, 288 ; hopa, 22,088 ; to bacco, 012,651 ; hay, tons of, $1,842,050$; hemp, 4t tons; clover seeds, 125,080 buehels; other graes seeds, 68,013 buahela; fax soed, 41,728 bushels ; and were made, 25,600 gallens of wine. Value of hoimemade manufactares, 4749,132 ; value of slaughtered animile, 88,219,848,-Cenous Report, 1850.

Manufactures.-Thero were in the State in 1800, 186 cotton factories, with a capital Invoated of $1,671,015$, employing 4283 malen and 4374 females, produclng $59,632,000$ yards of aheeting, etc.; $5,808,561$ pounds of yarn, valued at $\$ 5,812,128 ; 254$ woolen factorisa, with a capital investad of $\mathbf{1 1 , 7 7 8 , 2 6 8}$, employing 1747 malee and 753 females, manufacturing articien valued at $\$ 2,703,409 ; 178$ entablithmonts making pig iron, with a capital invested of $88,857,525$, employing 9264 percons, producing 822,752 tona pig iron, etc., valued at $\$ 6,170,625$; 320 estallishments, with a capital of $\$ 3,422,024$, onploying 4783 persons, and making 57,810 tons of castlags, elc., valued at $\$ 5,854,881 ; 131$ estabb lishmenta, wilh a capital of $\$ 7,620,066$, employing 671 persons, mallufaeturing 182,506 tons of wrought iron, valued at $88,002,907$; 2880 tlouring and grist mills, 2986 aaw milla, 1640 tanneries; 103 printing-otticen, 328 newapapera, 25 daily, three tri-weekly, one semiweekly, 275 weekly, eight semi-monthly, 12 monthly, and two quarterly publications. Capital invented in nanufactures, $991,462,210$; value of manufactured articles, $\mathbf{1 5 4 , 0 4 4 , 6 9 8}$.

Camale.-The State of Pennaylvania as early as the
year 1791 Initiated a aystom of Inland watar commanication. Wiliiam Pemn, it is said, first concoived the idea. In 1792 two companiea were forsed, to build the Schuylkill and Susquehanna, and Delaware and Sebuylkili canala. Thoy conatructed fifeean miles and abandoned the work. In 1821 the enterprine was renewod, and completed in 1827, when other worke wers atarted, and nearly all tha present canale authorieod and thioir routen surveyed. The State has now 848 miles of canala, which cost $124,168,000$, aecurding te an entimiate conoldered to be under rathor than above the mark. Private companies have buill 485 milee of csnal, costing $\mathbf{2 1 , 9 5 5 , 0 0 0}$. The Statg has therefore 1838 miles of canal, costing upward of $818,000,000$. Besides these it has 2164 miles of rallrend, which cost soma \$58,000,000. The totale of these important improvementa added together, maike 8497 milien, and their cost foots up $104,000,000$.. Their valwe to the Stac is not represented by their cost, for without them Pennaylvania would be a wilderneas. They unite her to the Great Weat, to the soutbern part of our State, and to the great metropolis; and enable her to aend ber coal and iron to distant marts, anriching her beyond eatimate.
The following is prosented as a comparisen of the anthracile coal trade of Penneyivania for two years:

|  | 1855. | 1860. |
| :---: | :---: | :---: |
|  | F/m | Tose |
| Reching kil | 2.218 |  |
| Pine Grove. | 110650 | 170.154 |
| L.tue Sehuyli ili | 487,050. | 451,514 |
| Lehlgh. | 1,274,956 | 1.86\% 888 |
| Lackawunnt | 1,059.605 | 1,107,513 |
| W yoming | 150,000 | 519,000 |
| 8hamokin. | 189,500 | 120,600 |
| i.jken's Valley <br> Scraton | 112,000 | $\begin{aligned} & 100,000 \\ & \mathbf{1 0 0} \end{aligned}$ |
| Total. | 6,026,283 | 7,258,591 |

 tajot Tonnaloe in 1821, 1831, 1811, And 1861.

| Years onding | Exparts. |  |  | tmport. | Teanage elaerrod. |  | Distriter Tomogro. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domatie | Vervis. | Total. | Total. | Amorlean. | Farolem. | Aogintered. | Earallied end |
| Sept. 80, 1881. | \$2832.837 | \$7.009, 380 | \$7,871.767 | \$5,188.062 | 69.436 | 8,611 | 09,205 | 25,081 |
| 1829. | 3,675,147 | 5,472,605 | 9,047,802 | 11,874,170* | 10,846 | 6.745 | , |  |
| 1823 | 8,139,809 | 6,477, 389 | 9,617,199 | 18,099,710 | 75,030 | 5.893 |  |  |
| 1824. | 3,182,094 | 6,182,199 | 9,364 898 | 11.565,691 | 76.681 | 6 \%is |  |  |
| 1825 | 8.986, 138 | 7,383,849 | 11,269,981 | 15,041,707 | 82435 | 2,985 |  | ... |
| 1828 | 8,158,111 | 5,173,011 | 8.831,749 | 18.651,779 | 09,444 | 446 |  | ...' |
| 1897 | 8,891,290 | 4,184.537 | 7,5i5,838 | 11,218, 3 35 | 68,763 | 4,007 |  |  |
| 1828 | 8,118,001 | 8,085, 170 | 6,051,481 | 12,884,488 | 61,819 | B,880 |  |  |
| 1829 | 2,011,158 | 1,479,183 | 4,009.985 | 10,100,162 | 82,841 | 4.025 |  |  |
| 1830. | 2,924,452 | 1,867. 341 | 4,991,793 | 8,702,122 | 63,029 | 4.870 |  |  |
| Total | \$31,873,789 | \$45,168,616 | \$77,032,098 | 117,088,685 | 600,867 | 40,616 | .... | ... |
| Septe 80, 1831. | 33,584,909 | \$1,919,411 | (6,518,718 | \$12,124,058 | 65,140 | 7.E5 6 | 81,908 | 29,928 |
| 1832. | 2,008,901 | 1,577.075 | 8,518.066 | 10,678 359 | 46,726 | 14,181 |  | .... |
| 1838. | 8,671,900 | 1,407.651 | 4,078,951 | 10,451,250 | 49,100 | 22,378 |  | $\cdots$ |
| 1834. | 2,031, 008 | 1,967,943 | 8,980,549 | 10,479,268 | 48,411 | 16,288 | .... | .... |
| 1835. | 8.416 .099 | 1,323,176 | 8,790,275 | 18,889,087 | 57,488 | 10,985 | ... | .... |
| 1836 | 2,627,651 | 1,843,904 | 8,971,655 | 15,063, 833 | 49,870 | 14,849 |  | . $\cdot$. |
| 1837. | 9,605,712 | 1,275.887 | 3.841. 5093 | 11,080,111 | 45.186 | 18,284 |  | ... |
| 1838 | 2,481,643 | 995018 | ${ }^{\text {c }}$ 477, 151 | 9,360.871 | 75.849 | 8,369 |  |  |
| 1899 | 4,148,211 | 1,151,204 | 5,209,415 | 16,060,718 | C4.818 | 18,881 |  |  |
| 1840 | 5,786,460 | 1,108,689 | 6,820,145 | 8,464,852 | 79,288 | 11,840 | . $0 \cdot 0$ | .... |
| Tot | 330,282,003 | \$18,965,648 | \$44,247,810 | \$116,747,208 | 671,266 | 108,989 | ... |  |
| Sept. 30, 1841. | \$4.404.863 | \$747,63s | \$5.157,501 | \$10.846 6*8 | 74,201 | 0,829 | 52,967 | 07,140 |
| 1842. | 8,299,814 | 476,018 | 8.710,7:7 | 7,385 858 | 65,203 | 18,718 | .... |  |
| 9 mion, $1843^{\circ}$ | 2,071,045 | 288,043 | 2,854.948 | y, 7610,6130 | 41,673 | 8,890 | ... | .... |
| June 30, 1844... | 8,280,027 | $870,22.9$ | 3 538,256 | 7,217,407 | 70,050 | 8,687 | ...* | .... |
| 1845. | 8,129,078 | 444085 | 3.674,963 | 8.15 ${ }^{1}, 278$ | 93, 971 | 12,987 | $\ldots$ | .... |
| 1848. | $4.167,918$ $8.268,811$ | 808,037 | 4751,010 | 7.989.896 | T7,299 | 7,627 85,218 | :... | .... |
| 1848. | 5,488,800 | $3 \times 1.024$ | 8, 732,388 | 12,147.084 | T7, 870 | 20,218 | .... |  |
| 1849. | 4 350,872 | 42,641 | 5,843,481 | 10,645,500 | 983 | 27,008 |  |  |
| 1850. | 4,040,464 | 458,142 | 4,601,006 | 12,066,164 | 81,876 | 30.849 | ....: ${ }^{\text {. }}$ |  |
| Tota | 748,916,901 | \$4,845,350 | 雨4T,600,801 | \$88,306,83\% | 756, 573 | 170,662 |  |  |
| June 80, 1851. | \$5,101.969 | 304,067 | \$5.856,086 | \$14.109.701 | 102,128 | 38,051 | 00,4 5 | 214,048 |
| 1852 | 5,522.449 | 316.122 | 5,828 671 | 14.786,917 | 90,051 | 48,481 |  | .... |
| 1853. | 0,256,9:9 | 272,767 | 6 5.7,998 | 18,834,410 | 101,029 | 57,656 |  |  |
| 1854. | 9,846.810 | 2675 | 10, 144,416 | 91,350, 808 | 180,647 | 5867 |  |  |
| - 1855 | 6, 885.126 | 289, 218 | 6,774,838 | 14,009,085 | 114,968 | 86,720 | . $\cdot$. | - |
| 1856... | T,048,408 | 189,164 | 1,232,572 | 10,690,045 | 111,087 | 81,245 | $\cdots$ | .... |

- Nine moathe to June 20 , and fiscal year begina July 1, 18sk. ware an W, and of the 1 castle, 1 can not the belo bay for Cape M south kept par in mani tons. Erie, Isie Ba has one entrane water is boats en on the lat. $42^{\circ}$ above tl of $14 \frac{1}{4}$ bay; vi cominer Magazin viek, $\mathbf{x l}$ аzina, $x$ See also and Ral
Pem
This wa Suxon a that It derives 1 ancient silver c reat am den, Sp equal in one ahil cuse, eq the Firs indented parted, called $h$ things, o indentu pence a peuny grains This pe of these became ling was except part of into the metal i Philade from bo decided golll in and iss ремиies in the afford to occurat
"Since ny of 1 .950 th thousan the silv gree fro of the

Philadelphia, near the confluence of the rivers Deleware and Sohuylkill, In lat. $39^{\circ} 67^{\prime}$ N., long. $75^{\circ} 10^{\prime}$ W., and near the head of the Dolawave Bay. Veasols of the largent burden accend the river as far as Newcontle, but those drawing above 18 or 20 feet of water can not reach Philedelphis, on socount of a bar a littie beiow the city. The ontrance to the magnilleent bay fermed by the embonchure of the Delaware has Cape May on the north, and Cape IIeniopen on Its south side. The commeroe of Phitadelphis hus not kept pace with her growth in other reapeets, especially In insautactures. The tonnage In 1856 was 197, 228 tons.-See Philadelfifia.

Erie, port of eatry, is beantifully situnted on Pretque Isle Bay, on Lake Erie, or ere one mile square, and has one of the beat harbers on the lake, the ohamnel or eatrance to which han Iately been much improved; the water ia from 11 to 20 feet deep, and the largest steambosta enter without diffioulty. There is a light-house on the wat dide of the entrance of Presque Isle Bay, lat. $42^{\circ} 8^{\prime} 14^{\prime \prime}$ N. ; shows a fixed light, elevated 88 foet above the aurfuce of the lake, and viaible for a distance of $14 \frac{1}{8}$ miles. The beacon is on the east side of the bay ; viaible 8 miles.-For further information of the commerce and recources of Pennsyivania, see Bankers' Sngazine, New York, 1851-1856; North A merican Review, xlii. 241 (C. Cualing); Hunt's Merchants' Magazine, x. 808, xii. 237; Dr Bow'a Revieno, xil. 476. See alse articles Delaware Hiver-Coat-Cakals and Railhoads.

Penny, formerly a silver, but now a copfar coin. This was the first ailver coln atruck in England by our Saxon ancestors, being the 240 th part of their pound; so that its weight was about 22 grains Troy. Camden derives the word foom the Latin, pecunia, money. The aacient Engiish renny, penig, or pening, was the first silver coin stru i in England, nay, the oniy one current among our laxon anceators, as is agreed by Camden, Spelman, Hickes, and others. The penny was equal in weight to our threepence ; five of tivem made oas shilling or sciliing Saxon, and 80 s mark or mancuse, equal to 7s. 6d, Titl the time of King Edward the First, the penny was struck with a oross, no deeply indented into it thet it baight be easily broken, and parted, on eccasion, into two parts, which were thence called half-pennies, or into four, which were called fourthings, or furthings. But that $i$ ace coined It without indenture, instend of which he first struck round helfpence and farthinga. . He also reduced the weight of a penoy to a standard, ortoring that it should weigh 32 grsias of wheat, taken ont of the middio of the ear. This penny was called the peuny sterling; and, as 20 of these pence were to weigh an ounce, the penny thus becamc a weight as weil as a coin. The peany sterling was long diaused as a coin, snd was scarcely known, except as a meney of account, containing the twelfth part of a shiling; but latteriy it has been introduced inte the Britieh current coia.--See Post-office.

To ascertain the, as yet unknown, quality of the metal in ths old British penny, the chicf assayers in Philadetphia were addressed, to procure information from books of roference or actual assay. The anawer decided: "The ancients intended fine silver and pure gotd In their coins, refined them as weli as they could, and issued them for fine metal. But the old silver pennies of Britaln are now so few and expensive-one in the mint coliection coat seven doilars-we can not sfford to assay them." As this point was essential for accurate calculation, Mr. DuBoia added, in a postscript, "Since writing the above I have assayed a sliver penny of Withiam the Conqueror. It gives a fineness of $\cdot 950$ theusandths, and coatsins gold equal to $\cdot 009$ thousandths.". This trial shows an alloy of some base metal exceeding 040 thousandths ( 040 ) contained in the silver ;isnny, diminishing its atandard in that degree from .,", of perfect purity. "The Mint remedy" of the United States, regarded to be a necessary aliow-
ance for casmal deviatlons in the quality of aliver pieces, can not exceed 008 thousandiths, instead of 040 , on each side the standard. It ls net now propesed at mints to have the coins of the highest quality, but the rula or atandard of purity, ordered by law, muat be exect, both in fiae metal and alloy. By recent proof with wheat corn muasure, the woight of the oid peing may have varied from five grains in the red to eight grala in the white wheat. The modern "allowence" for variation in quantity is one-fourth or one-half a grain, In a coin approaching the value of the AngloNorman periny. The allver penny of old time-the only money except ringa known to the native Britons -was at once a coin, a weight, and a measure. Its character of purity checked and ruled the velues of all moneys, weights, and measuras reprasented by or deduced from it. Sach values do not depend solely on weight ner sololy upon fineness, but on their combined powers, the product of both. The keymtone of the socalled "syatem" of 1266 was conceived to be "the weight of the silver penny sterling." But defective quality cansed this " keystone" to crumblo. The superstracture erected upon auch foundation failed, because metallurgical irreguiarity was not checked by metrical exactness. The measures were fauity throughout" weighed in the bolances, they were both found wanting." The bases for calculation in this ancient seale being ineccurate, no truth could be elicited by any lncrease of numbers-or quantities in progression. Some of the ailver pennies of the early Britons were nearly divided by the impression of a cross, through the middie on the reverse, $s 0$ they could be broken into halfpennies, and again into quarters, csilied "fourthiags," or farthings. This practlee of simple division had continued until silver half-pennies and farthings wera specially coined by King John, In 1185-first in Ireland, whore his principal Mint was. During the latter part of the reign of Henry the Third, of England, "a penny" of fine gold was ordered of the value of twenty pennics of silver. The word "penny" had its derivation from the French "denier," the "denarius" of the Latins. The French title, shortened into "denny" by the Normans, was easily changed on the English tongue to "penny"-at that time a common term for money in general, of whatever metal it might be. Goiden deniers, coined spariugly in France, bearing the figure of a lamb, were called deniers d'agneau, or moutons d'or. During the religns of the eariy Norman kings, their rents, though reserved in money, were answered in cattic, corn, and other provisious, because money was then acarce among the people. Coins of gold, named "nobles d'or," were first issucd from the British Mint by Edward the Third, In 1344; but with so much difficulty that it was thought necessary to order by law, "no one ohould be obliged to receive them." It was decided to prove the standard of the silver penny of our remote ancestry, by the approval of English and other contemporaries, in wheat corn grains from "the Ofd Nerth State of Carollna." Six different growths of the crop of 1856, inteaded for seed and consumption, sclected in October from two prominent varietics, the red and the white, choosing grains of average quality, but perfect fullness, were antagonized by a pennyweight Troy of the purest silver, specialiy prepared from solution, for assays of goid. No two asmples of thirty-two wheat corn grains were found of tho aame weight. Of early red-May wheat-from thirty-eight to forty and forty-three corns wero required to balance the sil .er piece, while of white wheat from tweaty-eight to thirty-five end thirty-six grains eflected the sams purpose, showing a disproportion equal to fifteen wheat grains in the aix porcels; that is, from tw nty-eight to forty-three corne-a deviation in the value of a silver penny equivalent to nearly one half the standard weight. An act of Henry the Third, in 1266, explains the primitive Initials of these ancient British, Gallic, and German atandards, to all which one commen deri-
vation Is imputed. "By consent of the whole reair.?, the msacure of the king was made, that is to say, an Bingliah penny of sllver, called satorling, round, and wichout my ellpping, shall wulgh thirty-two wheat cornm, taken from the middle of ths ear.' And twenty pence of elliver do make one ounce. 'And twilvs ounces of sliver do make one pound. And eight poends of allvar do makn a gallon of wias. And eight gallone of wine do make a london bushel, whleh in the elghth part of a quarter." Thls general arrangement for monsy welghte and measures wan that of the Kastern nations, by whlch Rurope had been overrun. The term "easterlin" of the Norman French was transmuted on the Engliah tongue, firat to "eantering," and Anally to "sterliag."-Report of Dr. J. II. Ginnos, United Statea Mint, North Curolina, See Pound.

Ponny-Poest. Nirat set up in London and ite suburbe by a Mr. Murray, upholsterer, A.b. 1681. Mr. Murray afterward assigned hla laterest in the undertaking to Mr. Dockwra, a merchant, 1683 ; but on a trial at the King'a Bench bar In the reign of Charles II., was adjudged to belong to the Duke of York as a branch of the general post, and was thereupon annexed to tha revenue of the orown.-Drlatunr, 1690. Thia Inatltutlon was conslderutly improved In and round London, July, 1794, et aeq., and was made a twopenny-post. A penny-post was first eot up In Dublin in 1774,-See Postapifice.

Pennywelght, a Troy weight, containing twentyfour grains, each grain welghing a grain of wheat, gathered out of the mlidile of the ear and well dried. The name took its rlse from the circumstance that thls wat anclently the weight of one of our silver pennies.

Pons (Fr, Plumes à écrire; Ger. Achreibfedern; It. Penne da Scrivere; Rues. Pera Stwoli), weil-known instrumente for writing, usuaily formed of the quilis of the gooes, awan, or some other Brd. Metaillo pens havo been occaslonally employed for a lengthened period; but it is only withln thees few yeara that they havo been extensively introduced. They are now, howerer, manufactured in vast quantlilea, ar:d of an immense variety of forms. But though they have muperseded to a very concilershle extent the use of quilia, snd have some pecullar advantages, It does not appear poaslble to give them tha elantleity of the quill, nor to fit them so weil for quick and easy writling on common deecriptions of paper. Quille are suld to have been firat used for pens in A.n. B58; but some any not before 635. Quills are for the most part plucked with great eruelty from llving geese; and all persons, from convenience, economy, adi feeling, ought to prefer metailic pens, whleh came into use In 1880.-l'mileips.
.- For the manufacture of steel pens the best metal, inade from Dannemora or hoop (1.) iron, is selected and laminated Into alips about three feet'long and four inches broad, of a thlckneas corresponding to the desired utiffness and flexibiity of the pena. These slips are subjected to tha action of a stamping-press. somewhat similar to that for making buttons. Tive polnt deetined for the nib Is next intraduced into an sppropriate gauged hola of a little machine, and pressed Into the meni-cylindrical shspe; where it is also pierced with the middle slit, and the lateral ones, provided the latter are to be given. The pens are now cleaned, by being tossed about smong each other, in a tin cyllnder, about three feet long, and nine inches in diameter; which is suspended at each end upon joints to two cranks, formed one on each of two shafts. The cyilinder, by the rotation of a fly-wheel, scting opon the crank-shafty, fo made to deacribe auch revolutions as agitate the pens la all directions, and pollsh them by mutual attrition. In the course of four hours several thousund pens may be finished upon thls machlne. When steel pens have beed punched out of the afftened sheet of steel by the approprista tool, fasiloned In the deslred form, and hardened by ignition In an oven and audden quenching lo cold water, they are best tempered
by belag heated to the requisite apring siaatiolty In an oil buth. The heat of thls bath is naually judged of by the appearance to the eye; but thle point should be corrsctly determined by a thermometer, according to the acale; and then the pene would acquire dofinite degree of flexihility or otilmess, adapted to the wants and wishes of the conaumera. ${ }^{\text {a }}$. They are at present tempered too often at random.
 Whevee Freoal, Yyall mindine Jone 00, t805. It.
Whased lmporiod.
Fingland .
France.
Valuois
1110.087
8,029
76 - Total valus . . . . . . . . . . . . . . . . . . . . . . . $\overline{\text { ItB, } 105}$

Pepper (Pr. Poiver ; Ger: Pfefler; Du. Prper ; It. Prpe; Sp. Pimienta; Russ. Perez; Lat. Piper), the berry or fruit of diffrent species of planta, having an aromatle, extremely hot, pungent taste, ueed In seasoning, etc. The following sorta of pepper are met with in commerce I Rlack Pepper (Fr. Poitre; Ger. Schwarzen pfoffer; Jt: Prpe neyro; 8p. Pimienta; 8ans. Merchn; Hind. Gol-mirch; Malay, Iada; Jav. Marihn), the rrult of a creeplng plant (Piper nigrum), one of the jepper genus, of which there are upward of 80 species, It is coltlvated extensively In India, Slam, tha Fastern tslands, etc. It requires the snpport of other trees, to whleh it resilly adtheres. It climba to the helght of 20 feet, but is sald to bear iest when reatralaed to the height of 12 feet. It legins to pruduce at about the thlrd year, and in In perfection at the seventh; continnes In this atate for three or foor years; and dechnea for about as many more, until it ceases to be worth kerping. The frilt growa abundantly from all the lorancien, in long amali clusters of from 20 to 50 graina; when ripe, it is of a bright rod color. After being guthered, It is spread on mata la the san, when it loses its red color, and becomes black and shriveled as wo see it. The grainn are separsted from the staiks by hand rubblug. That which has been gathered at the proper period shrivels the least; but if plucked too soon, it will become broken and dusty in its removal from place to place. The vine produces two crepsin the year; but the sessons are subject to great lrregalarities. Pepper should be chosen of a pungent aromatle odor, an extremely hot and acrid taste, in large gralns, firm, sound, and with fow wrinkles-for of these it slways has some. Keject that which Is shriveled, or amall gralned, or which on being rubbeil will break to pieces. In point of quality, the pepper of Malsiar is ueually reckoned the best; bat there is no material difierence between it and that of Sumatra, and the other islands. In the market of lBengal, where ticy acat on equal terins, the produce of Malabar ls generaily about two per cent. hlgher than the other. In Firope there is generally a difference of $d d$. per $1 b$. In favor of Mulabar; but in Chlns they are lield in equal estimation. Black pepper sold ground is said to be often adulterated with burned crust of bread.

Whits Pepper is made by blansbing the fineat graius of the common black pepper by ateeping them for a while in water, and then gently rabbing them, so as to remove tha dark outer cont. It is milder than the other, and is much prized by the Chinese; but very little is imported into England.

Cayemne Pepper ls the produce of severs] varictles of the Capsicum, cn annual plant, a native of both the Indles. The best is brought from the West Indies ready prepared, and is made from the Capsicum baccatum (bird pepper). It has an aromatle, extremely pengent, acrimonious taste, settlag the mouth, as it were, on fre, and the impresalon remaining long on the palste. It is sometlmes adulterated with muriate of soda; and sometlmes wlth a very deieterious aubstance, the red exyd of lead; but this fraud may be detected by its weight, and by chemical testa.

Long Pepper.-Thls apecies is the produce of a peres-
nial ( $P$ The frul fore gatl importon hall ine tenacly The roo the H1a of pepp ниим's.
Thomse
Trad over Ku origina! vant; the Eas article 0 effect of cally di vate tra covered wholly very gr to mark does not to in 18

Supp' with rea Singapo John Ct compete product Immedit atrange value from ab whicl $n$ $5^{\circ}$ S. Within Malaya cast cos the islat 168,000 belag se $18,000 \mathrm{P}$ of Sumis first twe nually. nation const, a recent of Trum of Clua 83,000; Analab 20,000; import are ex Sumst large k East It tons. of Euro to Euro China.
dional,
Island
greates
produc
plculs.
Malace situated and Lin brough
21,000
nlal (Piper longum), no nuva of Malabar and Bengai. Tha frult is hottent in ite inmmatore state, and le thervfore gathered while green, aod dried is the sen. It in ionported in antire aplicen, which are about one and a half inch long. It has weak aromatie odor; an intenacly Hary, pungent tante, and a dark gray color, 'lise ruot of long pepper in a fuvorite medicine among the Hindoos. The quantition of the last three apecien of pepper imported are quite Inconalderabla, $\rightarrow$ Mit unun's Oriental Commereof Anmele's Materia Jndica; 'Tiomson's Diopeneatory, etc.

Trade in Pepper.-J'epper is extenalvely used, all over Eucope and the East, as a condiment. It was originally imported Into England by way of the Levaint ; and for many yeara after the eatabliahment of the East India Company it formed the most Important articte of their linports. An nothing has the beneficial effect of opening the inilian trade been so unequivocally displayed as in the inatance of pepper. Tha private tradera have resorted to naw markets, and discovered new sources of aupply, which had hitherto been wholly anexplored $\mid$ so that there ban been not only a very great iscrease in the quantity of pepper brought to market, but also a very great fall in its price, which does not now oxceed a third part of what it amoanted to in 18141

Supply of Pepper.-The following Inatructivg detalla with respect to the supply of pepper are taken from the Singapors Chroniele, tw :rhich they were contributed by John Crawfurd, Eaq., than whom there can be no more competent authority as to such anljecta. Of all the products of the Eastern Islands, and of the countries imnediately in their nelghborhood, in domand among atrangers, black pepper is the most Important, both in value and quantity. The pepper countries oxtend from about the long. of $06^{\circ}$ to that of $115^{\circ} \mathrm{E}$., beyond which no pepper is to be found; and they reach from $5^{\circ} \mathrm{S}$. lat. to about $12^{\circ} \mathrm{N}$., where it again ceases. Within these limits we have Sumatra, Borneo, the Maluyan peninsula, and certain countriea lylag on the oast coast of the Gulf of Slam. The whole produce of the istand of Sumatra in estimated not to fall short of 168,000 piculs of 133 I Ibs, each; the southweat coast being ssid to produce 150,000 , and tho northesst coast 18,000 picula. The pepper porta on the northeast coast of Sumatra are Lankat and Delll, with Sardang. 'The first two produce 15,000 pleuls, and the latter 8000 an nually. The cultivation is carried on by tho Batta nation In the interior. The ports on the southwest coast, and the amount of their produce, as given in a recent estimate, are as follows : viz., port and district of Trumah, 40,000; district of Pulo Dua, 4000; ditto of Clust, 30,000 ; coest from Tampat Tuan to Susu, 83,000 ; port of Susu, 1000 ; Kualla Batta, 20,000; Andabu, 2000 ; districte to the north of Analabu, 20,000 ; making in all, 150,000 piculs. Here it is of importance to remark that the culture and production are extremely tructuating. During the last pepper season, there obtalned cargoes on the wost const of Sumatra, 27 American ships, six country traders, four large French shipa, besidon the ships belonging to the East India Company, whleh generally tako away 500 tons. Nearly the whole of this trade is in the hands of Europeans or Americans; tho pepper finds its way to Europe, to America, and in a small proportion to China. The northenst coast of Sumatra, from Pedier down to the Carimons, fe estimated, as already mentioned, to produce 18,000 piculs. Prince of Wales Isiand is the principal depot for this, from whence the greatest part Is exported to India and China. The produce of Prince of Wales Islend Itself is about $15,0 \mathrm{~m}$ plculs. Of the islands at the mouth of the Straite or Malacea and Singapore, Blagtang, on which Rhlo is situated, and adjacent islands, produce 10,000 picula; and Lingga about 2000. - A large proportion of thls is brought to Singapore, which exported last year about 21,000 piculs; some part to Bengal and China, but
prinelpally to Xarope direct, in free traderk. The weat cosat of the Malayan peninaula produces no pepper, with the exeeption of about 4000 plenil afforded by the verfitory of Malacea On the east coast of the peninmula, the production of pepper is very considerable. The perte of Pateni and Calsntan-chiofly the latter -yleld ahowt 16,000 pleule annually, and Tringanu mbout 8000 . ${ }^{\prime}$ A portion of thin is brought to Singapore and Ponang ; but we belleve the greater proportion gees difect to China in junkt, of whieh three large ones frequent Triuganu annually, and one Calantan. The Amerienna, too, oceasionally viale these porta. "In the yeaf 1821, three vessels of conalderable hurden obtalned eargoes. The east coast of the Galf of Slam, from the jat. of $10 f^{\circ}$ to that of $121^{\circ} \mathrm{N}$., affords an extenalve produce of pepper. Thie coant in mearcely known, even Ly name, to the triders of Europe. The principal porta here are Chantibun, Tungyal, Pongsom, and Karapop-the firat two being under the dominion of Stam, and the latter under that of Kamboja. The whole produce is estimated at not lesa than 60,000 pleula ; 40,000 of whleh are brought at ones to the capital of Slain as tribute to the king, and the whole finde It way to Chins In Junks. It remains only to eatimate the produce of the taland of Borneo. The whole produce of Bornen is estimated at about 20,000 pleuls; of which a large ahare is carried to China direct in junks, some by Portuguese vessels; and about 7000 piculs are now amnually brought by the native craft of the country Itself to Eingspore in tho coun. of that free trade which is happlly flourishing at thia aettlement. The data which have been atated will enable us to eatimate the whole production of the Malayan Archipelago, Including that of the peninsula of Malacea, and that of the enat coast of the Galf of Siam, at 308,000 pleuls $;$ and as there It no other part of the world that affords pepper, excepting the western coast of the peninsula of India, and this afforda but 80,000 plevis, or less than one-tenth part of what the placea we have enumerated produce, ve have, accordingly, at one view the whole production of the earth, being 388,000 pleuln, or $45,066,666$ lbs. avolrdupois. Tho average price of pepper has been lately aloont nine Spanisla dollars a plenl ; so that ihe whole value drawn into Indla from Curope, China, and the New World, on account of this single commodity, is $8,042,000$ dollars. The quantly given In this statement may appear enormans; but If meted out to the whole popalation of the globe, or to $1,000,000,000$ of people, It would be found that the average annual consumption of an Individual woold amount to no moro than 323 grains. Mr. Crawfurd has more recently anpplied a roviaed eatimate of the annual production of pepper as follows:
8umatra (weat coast) . . . . . . . . . . . . . . . . . . . $80,(400,000$


Majabar. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $4,060,000$
Totat. . . . . . . . . . . . . . . . . . . . . . . . . . $50,000,400$
Imports of Peppen into the C'nited Ftateg fon tha Year endino junt 30th, 1856 ,

| Whenee imported | Pepper, black. |  | Popper, red. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounde. | Value. | Pounds. | Value |
|  | 640 | \$86 |  |  |
| fifland.. |  |  | 010 | \$60 |
| Dutch West Iodtes | 777,717 | 88,004 |  |  |
| Dutch East Indles | 2,292,271 | 108,967 | 17,8 | 1138 |
| England | 9,224 | 655 | 4,250 | 205 |
| Britth West Indes.... | .... |  | 703 | 110 |
| British Posa, in Africa.. |  |  | 23.337 | 771 |
| British Fast Indies | 3,628,961 | 169,180 | 5,466 | 416 |
| France - the Atlanto. | 60 |  |  |  |
| Spain on the Atlantie... |  |  | 33,144 | 1359 |
| Cuba . . . . . . . . . . . . . . | 1,285 | 197 | 700 | 4 |
| Ports in | 27,154 | 555 |  | 1897 |
| Mexico | 500 | 29 | 3t, | 1687 |
|  | 6,787,809 | \$313.5\% | 118,741 | \$6849 |

Perch, or Rod, u long mensure, $16 \frac{1}{2}$ feat in length.See Veights and Mkasuleb.

Ferfume (Fr. purfum), a term used to denote the volatile eflluvia from any boty affecting the organ of aiaelling, or the substance emitting those efluvia. Perfumes were in genaral use among the ancients (see the Quarterly Review, vol. xxiii.); and in France, Germany, Spain, and Portugal, and even, though not to so considerabie an extent, in liugland, they are regarded alinost as necessaries. In general they are made of musk, anbergris, civet, rose, and cedar woods, orange tlowers, jessamines, jouquils, tuberosas, and other odorlferous tiowers. Aromatic druga, such as storax, frankincense, benzoin, cloves, ete., onter into the conposition of a perfune; and many perfumes are composed of aromatle herbs or leaves, as lavender, marjoram, sage, thyme, etc.

Perfumery. Many of the wares coming under this name were known to the ancients, and the Seriptures abound with instances of the use of incenses and perfumes. No such trado as a perfomer was known in Scotland in 1763.-Cueecir. A stamp tax was laid on various articles of perfumery in England, and the vender was obliged to take out a license, in 1786. At the corner of Beaufort Buildings, in the Strand, resided Lilly the perfumer, mentionedin the Spectator.-Leign.

Some of the most exquisite of perfumes are obtained from the most offensive sulstances. In olden times the most delicate perfumes were distilled from flowers, whose names they bore; but ohemistry has ahown how to obtain them from other sources. To give one example, a peculiarly fetid oil, called fuacl-oil, is formed during the making of brandy and whisky. Now this loathsome oil, by a particular mode of treatment, is made to yichl the fragrant oil of poars; by another process, oil of apples; ant by others, ont of gropes and oil of cognac. The oil of pine-rpples is produced frou augar and putrid cheese. The oil of bitter almonds is a resultant from aquafortis and the otieusive oils from gas tar. The dainty eau de mille fleurs is made from the drainage of cow-houses. Ant in all these cases, there is not the same kind of framl which is practiced in ordinary alolterations; for though the perfumes are not aetually, in the present state of things, produced from the flowers und fruits which give them their nomes, yet they are renlly identical, or nearly so, in chemical compesition with the original perfumes; nature mixes the ingrediente in one case, man in the other, but the ingredients are the ssme. The passion for prerfumes is increasing. Britlsh Indinand Europe consume atwout 150,400 gullous of handkerchicf otors yearly; and the English revenue from ean de Cologne is about 8000 pounds sterling a year. The total revenue from imported perfumes in Eingland is estimated at afont $£(1,000$ sterling per annmi. The largest revenues of the astates on the borders of the Mediterranean are those which proreed from the sale of the orange blossoms and l'arma violets. The house of Faguer, 83 line de Blehelien, and many of the other perfumers of Jarls, pay a yearly sum, varying from 10 to 30,000 franes, to the proprictors, for their whole crop of orange blossoms or violets. The plens de citriomiar of f'agter is one of the favorite and most delightful oders used for scenting the pocket bandkerchief.

Periodical Publications. These, as the name implies, are pulications which appear at tixed periods or stated intervais, and consequently include newspapers, montlily and other magazines, quarterly reviews, and journals, and all such books as appear at monthly or other intervals. Ilut the term "periodical publications" is usually understood in a more conflned sense, or as comprising only magozines and such political, literary, and seientific jouraals as appear at reguler intervals, without including newspapera or works published In parts. Even when thus restricted, this Is a very extensive und important department of literature. No doubt a vast deal of trash gets into jrint by
the agency of magazines that might not otherwise see the light; but mest part of these publlcations contain at the same time some superlor articlea; and a few are ably conductad and embrace a wida range of topics. Since the establiahment of the Edinburgh Review in 1802, the quarterly journals, eapecially those that embrace pulitica and literature, have risen to great eminence, and have had a powerful influence over the publie nind. At present, however, and for seme the past, the Influence of this class of journals has been declining. An ably conducted dally paper is, at this monent, by far the most powerful engine the press can bring into the field.-See Newwpapers. For further informailon refer to American A/manac, 1835, p. 97, 256, 1836, 1. 92; North American Reviere, xxxix. 277 (.1. G. 'Halfiey) ; Southern Literary Messenger, 11.893; Westminsfer Leriew, i. 206, ii. 463; Edinburgh Retiew, xxxviii. 349; Awerican Quarterly Observer, iii. $1: 15$.

Pernambuco Province. This is one of the most important provinces in Brazil. It abounds with many sood harbors, and poesesses an exceedingly fertite soil. lts chief ataples ars sugar, cotton, and hides. Of these its averuge annual exporta from 1840 to 1845 were ss follows : Sugar, 34,174 tona; cotton, 82,279 bags ( 160 Hhs. cach) ; hides, $\mathbf{7 2}, 500$. The city of Pernamfuce maintuins the third rank in the empire. There are in this province about six hundred "cugenhos," or sugar estates, each covering ubout one equare league. On euch engenho are produced annually about fifty cases of white, shi, ive of brown, or muscovado sugar-or forty tons of the former, and four and a half tons of the lutter-equal to aliont 24,000 tons of white, ano 2550 tons of brown, for the whole province. The province is cstimated to bo capable of ylelding 896,800 tons of white, and 40,800 tons of miscovade sogar. Imports from the United States conslst chiefly of cotton domestics. Fsbrics of this kind, thirty yards in length, and tweuty-aeven to twenty-eight linches In whelth, are in demand, and bring much better prices than similar goods from England. Of late years the manufacturers of Lancashire liave imitated these cloths, and have succeeded in sharing ths advantages which the American article had secured. In printed cottons Manchester and Glasgow almest monopollze the markets of Pernuinboco. The quallity as well as the chenpuess of their goods have secured this privilege. The inportation of butter, hitherto almost exclusively in the hands of the French, might be advantageously shared by the citizens of the United States.


The production of cotton has diminished, owing mainly to the expense attending its transportation to market; but the production of angar has incruasel. lirom 1828 to 1831 , the averago amunal export was 1,507,389 arrobas, and in the years 1841 to $184 t$ it was nugmented to $2,083,212$ nrrobas ; heing an annual iserense of $475,8: 3$ arrobas, or $6797 \frac{33}{2}$ tous. The nume ber of hides exported during the two perlots of fotr years abowenamed lucreased in a atill grenter ratio than sugar. Jrom 1828 to 18 ill the ammal average export was 60,272 lides; and during the latter four ycara, from 1811 to 1841 , the same average augmented
 crease of 62,301 hides. It has already been otiserved that if the export duty levied upon the produce of Irazil transmitted to foreign purts were medified or repenled, a vast augmentation in agricultural productions wonld unquestionably follow. While an export duty of tan per cent. on the weekly average pitico of white, dno The prov396,800 tons uggar. linly of cotton Is in length, widtb, are han similar inufacturers e, and have Ithe Ameras Manches. markets of heapness of The import. vely in the usly shared
gugar continuobe, zed a slmilar duty on cotton, coffee, tobucco, rum, hides, and, with one or two unimportant exceptions, on all other artleles produced in the country, the produeing intereats must remain erippled, and expertations either continue to be stationary or decreaso. The cotton and sugar-growing districts suffer most under these heavy taxes upon their industry and capital. The planters are obliged to carry cotton and sugar to Pernambuco by hurse conveyance, a distance of frem twenty to one hundred leagues, dinring the dry season, when food and water are ditifeult to bo obtained. These charges are such, in addition to those imposed by law, that when tho planter reachea inarket his cetton hardly yialds him net four cents per $\mathbf{l b}$. And so with his sugar, and all other heavy produce.
The navlgation and trade of Pernambuco in 1815 stood as follows: Inward from all nations--Vessels, 242 ; tonnage, 49,796 ; value of cargoes, $84,136,075$. Of which from the United States: Vessels, 35 ; tonnage, 6117 ; value of cargoes, $\$ 602,075$. Outward to all nations-Vessels, 226 ; tomnage, 48,539 ; value of cargoes, $\$ 4,567,870$. Of which to the United States : Vessels, 19 ; tonnage, 3216 ; value of eargoes, 8283,160 . During the year 1845 two United States vessels went south with eargoes; two were sold, and four remained in port. 'lhis will, to a certaln extent, aecount for the difference between the values of importe and exports to and from the United States, as above shown.

The vessels from the United States inported as follows :

| Cottons | 1018 packages. |
| :---: | :---: |
| 8idks. | $3{ }^{3}$ |
| Wootens |  |
| Flour. | 018 bar |
| No. | 648 half-barrels. |

And on return voyage home, exported-

$$
\begin{gathered}
\text { 8ugar. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . } \\
\text { घ0, 104 berrels. } \\
\text { 26,410 bage. . . . . . . . . . . . . . . . . . . . . . . . . . . . . }
\end{gathered}
$$

Total quantity of sugar produced and entered in the market of Pernambuco in the years 1844 nnd 1845 :

Of which were sent, in 1815, to the United States $184,41^{\circ}$ arrobas 26 lbs. = (at 32 Jbs, to arroba) $5,901,344$ llis.

IFides.-Total number exported to all countries: In $1814,124,0.1$; in $18.55,163,935$. Of which to the United States, 10,888.

Total Exyohth of Cotton, Suoar, and IIides fron PraNamheco yrom 1828 to 1545, dotil inelidgive.

| Yeara. | Cotton. | Sugat | Hidee. |
| :---: | :---: | :---: | :---: |
|  | Ulays | Arrobas. | Number. |
| 1829. | 71,485 | 1,460,1228 | 52,444 |
| 1529. | 64,823) | 1.418, 334 | 46,573 |
| 1830. | 61,151 | 1,705614 | 65,489 |
| 1831. | 63,157 | 1,300,08! | 76,584 |
| 18.12. | 31.5*0 | 1,518,300 | 66,656 |
| 1883. | 53,604 | 1,301,1112 | 84.743 |
| 1834. | 42,7!99 | 854,089 | 80,350 |
| 1835. | \$2,142 | 1,583, 8: 8 | 91,498 |
| 1886. | 62,833 | 1,824,342 | 90.701 |
| 1837. | 48,847 | 1,4511,420 | 93,771 |
| 1839............... | 00,648 | 1,750,981 | 105,851 |
| 1835. .............. | 89, 173 | 1,878.675 | 111,052 |
| 1840.............. | 35,843 | 2,101,108 | 182,903 |
| 1841.............. | 26,1910 | 2,261,609 | 1150.414.4 |
| 18.12. | 21,857 | 1,906,986 | 125,2?0 |
| 1843. | 85,906 | 2,017,522 | 104,428 |
| 154. | 41,385 | 2,146,68, | 124.074 |
| 18i5. . . . . . . . . . . | 213,502 | 2,565,824 | 103,9:5 |

Number of vessels to and from the United States in Pernambuco in 1846: Vessels, 117 , of 30,801 tons.
Vales of lmporta from and Exponts to ali. Countmes.

| Import | Franee, ${ }^{24,567,000}$ | 1848. |
| :---: | :---: | :---: |
| Exporta. | 20,327,000 | 10,85t,000 |

Value of imports and exports from the United States in 1845 : Imjorts, $1,928,000$ francs ; exports, $6.41,000$ francs ; total, $2,560,000$ franes.

Pronuets mxpontrid to ahi, Countriks in 1946, omptarmb
-_ hith 1sti. in filangos.

| eare. | singar. | IIden. | Coilion | rata |
| :---: | :---: | :---: | :---: | :---: |
| 1840 | 15,107,000 | $2,750,000$ | 1,165,006) |  |
| 181 | 17,478,000 | 1,124,000 | 1,336,016 | \$2,000 |

From the preceding table It will be geen that the market at Pernambuce was moro brisk in 1817 than during the preceding year. Sugar is the leading artiele in this market, and is exported to England, Trieste, Geuoa, Portugal, the north of Europe, and to the United States. The total exports of sugar from Brazil are thus distributed throughout the ports of the empire. The exports for 1846 are taken as a busis for ealculation :

|  | $K$ Klo. | Pounda |
| :---: | :---: | :---: |
| Babla. | 62,447,000 | 187,388,400 |
| Pernambuoo. | 40,570,000 | 8.1,254,000 |
| 1kio do Janalro. | 8,214,000 | 7,9:12, 8 נ0 |
| Total kllo and pounds. | 111,201,000 | 256,680,200 |

Export of Suoar from Pernamieco from 1852 to 1854.

| Exporled 10 | -52. | $1589 \cdot 33$ | 183s.'3 |
| :---: | :---: | :---: | :---: |
|  | Tons. | Tona | Tous |
| Great Britaln | 11,838 | 15,000 | 18,505 |
| Franca-Nantea |  |  | 1,27\% |
| llavr | 1,104 | 855 | 3018 |
| " Marselltea | 2,277 | 8,709 | 2.75\% |
| Northern Liarope | 1,416 | 2,046 | 1,663 |
| Genos | 1,720 | 4,324 | 2,545 |
| Trieste . . . . . . . . . | 6315 | 0,97! | 2.426 |
| Glbraltar (for a murket). | $3 \mathrm{ct2}$ | 4,744 | 3.044 |
| Portugal and possesslons | 65.1 | 4,053 | 2.075 |
| United States.. | 6,595 | 10,487 | 2,7:8 |
| La diata | 2,604 | 3,144 | 4,205 |
| Valparulso | 684 | 1,349 | 1,901 |
| Australa.. |  |  | 6 |
| Brazillan porta | 6,274 | 5,510 | 6.003 |
| Tot | 47.150 | 64, 42? | 61,549 |

The sugar produced in the province of Permambuco amounts to about 80,000 toms a year, of which $\mathbf{C 0 , 0 0 0}$ are exported to forelgn countries, 5000 coastwise, and 15,000 are retained for heme consumption. There are about 1000 eugenhes or sugar estates, 257 of which have been established within the last ten years. They average in extent about two square miles, and their crops vary from 200 tons as a maximum to 30 as a minimum; or at an average of about 75 tons each. Very few eugenhos possess 150 slares, and the smallest not more than 10 or 12 ; the average number of slaves employed on each eugenho is about 50 , so that 50,000 mny he said to be her employed in sugar enltivation. They aro badly treated and hard worked.
Pernambu... has many of the privileges of a sovereign state; it las its own president, provincial and munieipal eliambers, Jevies a portion of its own taxes, and maintains a militia which ean not be removed from the province. It sends four senators and fifteen representatives to we imperial government - elected, tho former for life, and the latter for four years, by almost universal but indircet suffrage, The imperial revenue levied within the province in 1849-'0n amomnted to $\mathcal{L} 542,423$; in $1850-61$ to $£ 690,526$; and as these sums are derived chiefly from imports nad exports, and no additional duties have been imposed, the incrense is a proof of its commercial prosperity. The details of the latter year's general revenue wero as follows:
 Total E6901,526

In 1841 the receipt of imperial taxes from the province of l'ermambueo amounted to only $£ 278,85211 \mathrm{~s}$. 2 d .; so that in the course of ten years it has nearly trebled. Provincial taxes are levled upon sugar, coftee, tobacco, eattle, horses, spirits, paskports, licenses for potteries, saw-mills, cigar shops, auetiens, etc.; upon houses, legacles, inlseritnnces, slaves, the tolls of bridges, ete., ete. Total amount in $18500^{\circ} \cdot \mathbf{b 1}, \mathbf{£ 1 7 3 , 9 9}$ 's. The municipal
taxes are derived from the stamping of weights and measures, licenses to public housea, and places of entertainment, etc. They amounted in 18:0-'51 to 128,650 reals, or $£ 12,50611 \mathrm{~s}$. $3 d^{2}$., maklng the total taxation of the province as follows :

| Imperiat taxes. | 1090,526 |
| :---: | :---: |
| Provinctal .. | 173,907 |
| Municipal. | 12,506 |
| Total. | 2877, 030 |

Of these sums nearly two-thirds are expended by the imperial government; and to thia is chlefly to be attriluted the many attempts which have been mada by Pernambuce to free heraelf froin the imperial connectlon; and if the weight of a country's taxation may Le judged of by its relation to the number of its inhabitants, the province of l'ernamluce is as heavily taxed as most Eurepean atates. The population of the province of Pernainbuco amounted, accerding to the last census, to 606,036 ; of these 143,102 are white, and 463,834 colored; viz., 4078 Indiana, 322,685 mulattoes, and $137,0 \overline{1} 1$ blacks. 506,702 were free, and 106,234 are slaves ; 315,719 males, and 291,157 feinales. But the population must have incressed considerably of lato years.
Pernambuco, a city and sca-port of Brazil, infe. rier only to Rlo Jancire and Bahia in commercial importnnce ; capitai of the province of its own name, on the Atlantic, at the mouth of the Capabaribe, 210 miles northeast from Bahla; latitude of light-house, $8^{\circ} 3$ $2 \mathbf{F i n}^{\prime \prime}$ S. ; longitude, $34^{\circ}{ }^{\circ} 52 \mathrm{~W}$. Population estinated in 1852 at 100,000 . It consists of the separate towns of Olinda, Recife, Boa-Vista, and St. Antonio: the first of which is on the main land, and the others lie south from it on a succession of low sandy banks, separated by salt-water creeks and different arms of the river, but connected with each other by two bridges. Recife, or Pernambuco proper, the most southerly, about feur miles senthwest from Olinda, is defended by the principal forts, and comprises the dock-yard and the large merchants' warehousces. In St. Antonio are the governer's palace, formerly the Jesults' convent ; the treasury, tewn-hull, prison, bsrracks, with convents, churches, and several good squares. A long embankment connects this town with the maln land. Bea-VIstn is extensive, but irregularly laid out; it has one handsome strect, and comprises the resilences of many of the richer inhabitants of the city, with gardens, various churches and convents, etc. Olinda, though beautifully situated, is in a state of decay, having been deserted by many of its population for Recifo and the other parts of the city. The liarbor of Pernambuco is defended from the swell of the ocean by an extensive reef(rerift), which, according to Koster, centinues along the whole coast from Maranham, at a variable distance from the shore, and has numberless breaks, through which shlps approach the land. Thls reef, which is sald to be of coral, "is scarcely sixteen feet broad at top; it slopes off more rapidily than the Plymeuth breakwater, to a great depth on the outside, and is perpendlcular within to many fathoms."-Gbaibas, in Modern Traveler, xxx., 228. This natural breakwater forms the harbor; for though at high-water the waves beat over it, they strike the quays and buildings of the town with diminished force. Along the sandy neck of land hetween Olinda and Boa-Vista, however, which is not covered by the recf, the surf is very violent; hut the harbor itself is quite aafe for vessels that are wellfound and well-meored. It conslsts of $t$ wo parts-the Poco, capable of receiving vessels of 400 tons and upward, entered across a bar on which there are from seventeen to thirty feet of water, and the Mosqueiras. much better protected than the former, but on the bar of which there are but acven fect of water at ebb-tide. Vessels trading with Pernambuco should not, however, draw more than from ten to twelve feet of water.Buant's Imerican Coast Pilo, 519 . The harlor is defended by several strong military works, the prineipal
being the stone forts of Do Buraco and Do Brum. The light.house, on a reef at the entrance to the harbor, has a revolving light.-See Province of Peinambico; also Bnazil.

Foreign vessels are not allowed to engage in the consting trade, but they can load here for any foreign port. Vessels from the United Statea can diseliarge part of their cargo, and, If leaired, they can proceed on with the remainder to Bahis, Rio de Janciro, etc.

There are no insurance otfices bere, all husiness of that kind being done either In the Unlted States or England. With funds in hand, a commisslon of $2 \frac{1}{2}$ per cent. is charged. Vessels are generally chartered botk ways, arriving with flour, the charterer stipulating for a return cargo of sugar. Vessels coming out on their own account have been chartered hack this season as low as 60 cents a bag of 160 lus. Usually, hewever, the frelght ranges from 80 centa to $\$ 1$ per bag. There is no buainess done in exchange between this port and the United States, except the few whalers' drafts that are purchused nt from two to twelve per cent. discount. The value of the milreis is geverned by the state of ex. clange on England. The principal articles imported fromi the United States are fiour and tea. The former pays a duty of 3 milreis ( $\$ 160$ ) per barrel, and the latter pays 600 rels ( 30 cents) per 1 ll ; hams pay 60 reis ( 3 centa) per lb.; tobacco pays 180 rels ( 9 cents) per lb. Sugar and hides are the only articles of expert worth mentioning. Sugar pays an export duty of eight per cent. The export duty on hides is ten per cent. on a valuation fixed weekly by a committee appointed for the purpose. The only articles on which this goveriment levies a consumers' tax ure, all spirituous and malt liquors, eigars, tobacce, soap, and snuff. Wines and liquers pay $1 \frac{1}{2}$ cents a canada ( $1 \frac{3}{3}$ gallons); ib cents, in addition to thls, is levied on each pipe for whist the decree terms "charitable purposes." Cigars pay 56 cents per 1000 ; tobacco, 1 cent per 1 lb . ; sosp, 14 cents per 1b. This tax affects the United States only in tobacco and snutf.-Consular Returns for the L'nited States, 1854.

Perry, a fermented liquer made from pears, in ibe snme manner as cider from apples. The pears best fitted for producing this liquor are exceedingly harsh and tart ; but it is itself pleasant and wholesome.-See Ciden; Pealis.
Peru, a repullic of South America, between lat. $3^{3}$ $25^{\prime}$ and $21^{\circ} 48^{\prime}$ S., and long. $68^{\circ}$ and $81^{\circ} 20^{\prime} \mathrm{W}$. Ares, 520,000 square miles. P'eru is beunded north by Ecuador, east by Brazil, southeast and south by ilolivia, nod west by the Pacific Ocean. Its coast reaches from the month of the Rio Tumber to that of the L.on, 1240 miles ; capital, Lima. All the menntains of Peruf form part of tho great chain (cordillers) of the Andes. From Porco, in Bolivia, it is separated into two chnme-that of Ancumar, whlch runs from the cast between thr provinces of Carabaya and Azangaro, in the depnrtment of Puno, and that which runs to the west through Tarna, Moqucgua, and Arequipa. Both remnite afterwarilnear the city of Cusco, and ngain separate, the one running to the east of the provinees of IIunnta und Taraa, and the other to the west of those of Castrovireym, lluancavelica, nall IInarochirl, reuniting themselves again in P'raco. Jrom Pasco three chama detach thrmselves -the enstern between the Rie Guallaga ann the l'achitea, the central ene between the Gusllaga and the Upper Maranion, and the weatern one hetween the latter and the coast of Trujillo and Paita. These several chains reunite in the prownce of Loja, in Ecuador. The direction of these chains of mountains determmes the great valleys of the interior of Poru. Tho lakes most notable in Peru are those of Titicaca, between the departments of Puno and Ja Paz, the latter In Dolivia; of Vraos to the south of the city of Cuzco; of l'leyes or $I$ unln ; and of Iauricocha, in the department of Jumla. Lake Titicaca has a perlphery of ninety leagues, and that of Juiln of tun lengues. The other two are
snaller. its lirit into the dero (an Paria, in flow, sol zon, and into the quitcpee lon, Klm се, Tam are the? of Amaz allaga, Apurita cral resc haustibl in the m precions tin, iron under th portant try are warmer cr. Pot tivated, inal plai the expt forests. ous to tl or 12,00 inces. the utur bear), al los, etc. tho mos aro indi, succeede tho mon mate, th The wod The poli ments, " partmen prowince governa is in cl Preside charge of the parishe. ments a

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age in the my foreign discharge proceed on o, etc. juslness of ates or Enof $2 \frac{1}{2}$ per rtered botb ulating for ut on their 8 seasoll is , however, ag. There is port and drafts that t. discount. state of exes iniported 'he former ind the laty 60 reis ( 3 nts) per lb . port worth of eight per eent. on a pointed fur his gevern. rituous and fff. Wines allons); 56 pe for what Cigars pay ap, $1 \&$ cents only in tonited States,
ears, inl the pears best lugly barsh some.-See
ween lat. $3^{3}$ W. Ares, th by Ecuaby Belivia, eaches from e loa, 1240 f Peruform neles. From hams-that rn the prov: partment of ugh Tacna, erwarlnear one rumbing Traraa, and yma, tluanclues again themselres mil the l'a aga and the veent the lathese several in Ecuader. tletermues The lakes between the $r$ in Belivis; ; of l'leyes partment of hety leagues, ther two are
smaller. In that of Lauricocha the Rio Marañon has its birth; In that of Junin, the Rio Jauja, which runs into the Ucayall; and in that of Titicaca, the Desaguadero (angllee, outlet), which empties into the Lake of laria, in the Republic of Bolivla. The rivers of Peru flow, some to the Pacific. Ocean, others into the Amszon, and others into Lake Tltleaca. These that empty into the Paelfic aro the Tumbez, Chira, Sechura, Jequitepeque, Saña, Viru, Santa, Patavilca, Huaura, Chlllon, Kimac, Mala, Cañete, Peaco, Ocoña, Camana, Quilea, Tambo, and Loa; and those flowiag to the Amazon are the Tungaragua or Marañon, which takes the name of Amazon at ita conflueace wlth the Ueayall, the Guallaga, the Ueayali (formed by the rivers Pachitea, Apurimac, and Beni), and the Rio Yavari. The mincral resources of Peru, like those of Mexico, are inexhaustible. The very name of the country is assoeiated in the mind with ideas of gold and silver. Besldes the precious metale, however, the country produces copper, tin, Iron, coal, saltpetro, etc., lo abundance-the latter, under the name of nitrate of soda, has become an important expert. The agricultural staples of the country are sugar, rice, tohaceo, ete., which grow in the warmer situations ; the vine, wheat, etc., in the milder. Petatoes are cultivated lis all parts, Maize is cultivated, and is the common diet of the prople. Medicinal plants, drugs, and dye-stuffs form a large part of the experts, and aome of the hard woots abound in the furests. The Cinchona, or Peruvian bark, is indigenous to tha country: it grows at the clovation of 10,000 or 12,000 feet, and abounds most in the northern provinces. Among the wild animals of l'eru are the puma, the uturunca (a species of tiger), the acumari (a black bear), and great varieties of deer, will bears, armadillos, etc. The llama, alpaca, gnauco, vicuñ, ete., are the mest valuable animals. Four varieties of condor aro indigenous. Of acelimated animals the sheep has succeeded best, and goats, hogs, etc., thrive well. In the mountains cattle and horses fird a congenial climate, but on the const speedily pine and die away. The wool of l'eru is among the best in the markets. The political divisions of Peru consist of eleven departments, and two provinces called "littorales." The rtepartments are subdivided into sixty-one provinces, the provinces into distriets, and theso into parishes. The government, civil and economical, of each department is in charge of a Prefect, dependent directly on the President of the Republic; that of the provinces is in charge of Sub-prefecte, dependent on the l'refects; that of the districts is in eharge of Governors, and that of parishes is in charge of Sulb-governors. Tho departments ami the population in 1852 were as follows:

| Departmenta. | Population. | Capitals. |
| :---: | :---: | :---: |
| Amazonas . ....... | 43.074. | ( Ihnchapoyas. |
| Anench . | $219,145$. | linariz. |
| Arertulpa | 119310. | Arequipa. |
| Ayacticho. | 132.921 | tlumanga. |
| (inzeo | 349,718 | Cusco. |
| Inumeavelica | 70.117 | dluancavelica. |
| Junlo. | 222.919 | Eerro do Pasco. |
| 1, lbertad | 0091,503 | Trujillo. |
| Jima | (5), 811 | Ilma. |
| Moqucgar | 61.432 | Tuena. |
| ]'uno. | 285,601 | I'uno. |
| lrorfucia Litorat de Callno | S, 1515 |  |
| Jroviacia lítoral de l'lura. | 70.8382 |  |

The most castern parts of the ilepartments of Amnzenas, Junin, Ayacucho, and Cuzeo have not been well explored, and are inhubited by diverse trilses of savage Indians, for whose civilization ditferent missions have beell established, and to whom belongs entirely all the teritory to the cast of tha Ueayali, and whero the Irefeets of the departmente above-named do not exercise their authority.

I'cru is an integral republie. The Constitution, which was finally settled in 1839, recognizes legislative, julleial, and executive powers entirely separate and independent of each other. The legislative power is vested in a Sonate and Assembly, chosen by the peo-
ple through electoral colleges; the deputies are apportioned in the ratio of one to every 20,900 inhabitants. The judiciary is appointed by the Preaident, and juigea are not removable except for cause. The Constitution providea for aub-judlciaries, having separate quallfications, for departments, districts, towns, and parishes. The executl ve power Is delegated to a President, whose term is alx years. There is no Vice-president, but the President of the Executive Councll supplies the placo of President in case of the removal, inability, or death of that officer. The Council conslsts of tha Ministers and members of the Senate. The establlshed religion is the Roman Catholic. The Church is presided over by an Archbishop and several sufiragans. It is immensely rich. The Inquisition has besn entirely abolished throughout the Republic.

Peru was conquered in 1532 by the Spanlards, under Pizarro and Almagro, and remained a colony of Spain for nearly thres liundred yeara. The independence of the comtry was proclaimed at Lima, 28th July, $18 \% 1$. Since that period the following parties have exercised aupreme power: General San Martin, to 21st September, 1822; thence a "Junta Gubernativa," composed of General Lamar and Sefiora Saluzar-y-baquijuno and Alvarado; thence General Don José de la Kiva Aguero, as President, to July, 1828; thence José Bernardo Tagle; thence General Simon Bolivar, to July, 1835 ; thence a "Council of Government," to the end of 1826 ; thence General Bolivar, as President ; thence General Lamar, as Constitutional President, to June, 1829 ; thence General Gamarra, to 1833; thence General Orbegoso; thence Gensral Salaberry, as "Supreme Chicf," to 1886; thence General Santa Cruz, to 20th January, 1839; thence General Gainarra, to Noveinber, 1841 ; thence Señor Menenilez, to August, 1812; thence Vidal, Figuerola, and Vivanco, suecessively, to 184]; thence Menenilez (restored), to 1st A pril, 1845 ; thence General Ramon Castilla, to 1st April, 1851; and thence Geueral Rutino Eehenique. the present President.

The following is a statement of the publie debt of Peru, as given by Scfior E. Escobar de Bedoya, attaché to the Legation of Peru at Paris, 26th October, 1853 :
Loans on the fours-nnd-a-half in
England
England
. $\$ 13,000,000 \quad £ 2,600,000$
Lonns on the thres per conts. in En.


Debt to the Republes of Old Co-
fumbla................................
Total
$\qquad$
$150,300,000$
The deposits of Chincha alone are worth three hundred millions of clollars (piastres). The Chinclia and Lobos Islands, of the coasts of Peru, are of immense value to the country, on account of their guano deposits. This substance is the most potent of fertilizers, nud untll lately the islands above-named were the only sources whence it was terived. Aecording to a report made by Sener Villa in 1812, the deposita in these islands were estimated to be $16,632,280$ tons. Assuming the consumplion to bo 300,000 tons a year, valued at $\$ 20$ a ton, it would produce: $86,000,000$ anmually, and require 160 years for its total consumption. This resonree has been on efficient alil to the matlonal treasury, and has made Peru the most upparently prosperous of all the South American republics. The exports in 1852 amounted to 220,500 tons- 32,000 of which went to the United States, and the remainder to France and En-gland.-See article Guano.

According to a treaty between Peru and the United States signed July, 1857, it is agreed that the permission to the whale ships of the Uuited States by the treaty of 1851 , to barter or sell their supplies and goods to the value of two hundred dollars, ad ralorem, without being obliged to pay port or tonnage dues or other imposte, should not be understood to compreheud every kind of merelandise without limitation, hut those only that whale ships are usually provided with for their long
veyages. That in the said exemption from duties of every kind are lncluded the following articles in addltlon to the produce of their fiehery, viz., white unbleached domestics, white bleached domestics, wide cotton clothe, blue drills, twilled cottons, shirting stripes, ticking, cotton, prints, shirtings, sailors' clothing of all kinds, soap, slush, boots, sloea, and brogans, axes, hatchets, hiscnit of every klnd, flour, lard, butter, rum, Lreef, pork, spermaceti and composition candles, canvas, rope, tebacco.
The principal ports of Peru are Paita, San José, Huanchaco, Callso, Jalay, Arica, and Iquique. These are ports of entry for forelgn commerce. There are other ports open to the ceasting trade, and for the exportation of the produce of the country. Theee are Ylo, Chala, Pisco, Huacho, Casma, Pacaamayo, and Tumber, and the small harbors of Sechure, Samane, Santa, Supe, Huarmes, Echenique, Chancay, Aneen, Cerro, Azul, Chinca, Canchto, Nasca, Qullea, Cocetea, Morro do Sama, and Pisaque.
The commercial relations of the United Statea with Peru are regulated by the treaty already cited, bearIng date July 26, 1851, and by auch decrees and erders as are issued from time to time by the Supreme Goverument of that republic. The treaty guarantees entire liberty of commerce and navigation, and perfect reciprocity between the flags of the twe comntries in the ports of the ether.
The trade between the two nations (Peruvian guano excepted) is not, however, very extensive, as appoara from the efficial returns of the United Statea Treasury Department. Before ontering into the detaila of the cenmerce between the United States and Peru, the fellowing summary of the genernl foreign trade of that repulific is given, with a vew to show the relative rank held by the United States and other nations In that trale. The figures are derived from the official returns of the Peravian government for the years 1851 from all natione, nod in 1851 and 1853 from the United States. -See Commercial Relutions of United States.

## Importa inso Pebe in 185t-1853.

| Articlen. | 1881. | 1681. | 1883. |
| :---: | :---: | :---: | :---: |
| Fuxtiles of silk. | \$758,075 | \$1,155 | \$.82 |
| Textles of linerp. | 294, 743 | 13,083 | 6,0t5 |
| Texliles of colton | 2,254.343 | 252.667 | 208,190 |
| Textiles of wool. | 2,4 ${ }^{\prime}$, 8,846 | 11,004 | 780 |
| Gold and silver ware. . | S60, 378 | 82,422 | 270 |
| Fruits | 30,5in | 614 | 61 |
| 1'rovisions | 6:3.545 | 68,900 | 115,600 |
| Tituber | 146885 | 11,504 | 10,405 |
| Furntture | 105,063 | 34,200 | 40,901 |
| Wines and flumors.... | 170, 269 | 2,6,20 | 1,615 |
| Sundrles. $/$......... | 2,403,552 | 99,002 | 132,306 |
| reuly-made clothing. . | , | $\cdots$ | 618 |
| Total, 3 yenrs | \$9.447,465 | \$518,042 | \$086,024 |

Rubeme of Importe from all. Natione uy Perts.

| Jorts. | IRS1. | 1333. |
| :---: | :---: | :---: |
| Callao....................... | \$ 1 , 317,920 | \$6,070,4 4 |
| Arlca......................... | 891,693 | S60, 170 |
| Islay . . . . . . . . . . . . . . . . . . . . | 1,376,492 | 1,454,358 |
| II aspeliaco . . . . . . . . . . . . . . . | 830,208 | $2 \% .740$ |
| Ran José. . . . . . . . . . . . . . . . . | 236.430 | 180.7:18 |
| Jralta.......................... | 284,678 | 253,418 |
| Loreto. . . . . . . . . . . . . . . . . . . . | .... | 26,494 |
| Total. . . . . . . . . . . . . . . | 4i, 417.465 | \$ ${ }^{3}, 037,808$ |

Cixionts fnom J'eif to the I'nited Statrs.

| Ariclea. | 1461. | 1852. | 1883. |
| :---: | :---: | :---: | :---: |
| Cotton | 紻,419 | \$6,804 |  |
| I'ascarllin. . . . . . . | 41,361 | 80 | 11.840 |
| IItres. . . . . . . . . . . | 231 | 1.031 | 2,481 |
| 1Inta..... | $\cdots$ | 13,065 | 6(1) |
| Sundries | 5,972 | 75 | 6643 |
| F'rulta | 1941 | -••• |  |
| Ginstio............ | 1,722.105 | 1,088,280 | 4,713,680 |
| Whol. | 20,736 | 17.724 | 69,020 |
| Giold............... | 4,104 | 57,579 |  |
| Silver.............. | B048 | 10,010 | 8,644 |
| Tobneco . . . . . . . . . | 8,048 | -9.900 | \%6"904 |
| Saitjuelrn........... Jrovimiona . . . . | 31,100 | 88,000 23,664 | 86,904 1.088 |
| Tolal, 3 years. | \$1,830,410 | \$1,268,748 | \$4,8!18,850 |



| Years. | fimports. | Exporis. |
| :---: | :---: | :---: |
| 1851........................ | \$9,447,465 | \$18,085,715 |
| 1852, . . . . . . . . . . . . . . . . . . . | 9,316,942 | 10,178,216 |
| 1853........................ | 0,087,8.18 | 16,883,680 |
| Total................. | \$27, $\overline{5} 51,0016$ | \$40, 142,562 |

Balance of foreign trade in faver of Peru, during these three years, $\Phi 12,200,956$; making on ananal aver. age in favor of Peru of $\$ 4,096,085$. The number of vesaels employed In the steam navigation of Peru is: six steamelhipa belouging to the British mail line, which ply semi-monthly between Valparalse and Panama. The aggregate tonnage of thene six steamers ia 8506 tons. There is alse a seventh steamer of 500 tens on the same line. One Pernvian ateamer, of $2: 0$ tons burden, coasta regularly hetween Callao and Vslparaiso. The two latter are screw-prepellers; the other nix have paddle-wheela. The merchant marine of Peru in 185\% consisted of nine ahips, with an aggregate of 3194 tous; ten barks, measuring In all 4156 tons; and eight brigs, of 1681 tons; making a total of twentaeven vesself, with an aggregate of 9031 tons. The tutal numher of Peruvlan veasels employed in the ceasting trade during the same year was 141, with an aggregate of 14,705 tons. The number of seamen engaged In this service is abent 4000 , of which 2150 are natives, and 285 citizens of the United States- 1250 being employed in the fereign trade, and 2750 in the coasting trade. The talles on next page, tranacribed from French official authorities (the dollars having been reduced to franes by multiplying by 5), exhibit in desail the general import and export trade of Peru in 1803.

Callao is the chief port in Pern for foreign commerce. The aggregate tonnage of Peruvian vessels, belonging te and employed in foreign trate at Calla, in 1852, was 67 vessels, measuring an aggregate of 15,031 tons; in the ceasting trade the number of vessels was 181 , with a tounage of 17,705 tens; mesking a total of 248 vessels, and 32,736 tons. Hesides the above, there were employed, during the same year, at the port of Plsce, six ressels of 1200 tons sgigregate; and at the port of Inache (hoth perta being in the cenanlar district of Callao), eight vessels, with an negregate of 400 tons; making a tetal in both perts of 1600 tonc. The total number of Peruvian vessels which entered at Callao (in ferelgn trade) in 1852 was 150, with a tomare of 19,478 tons; and the number cleared, 157 vessels, with a tonuage of 19,326 tons. The number and tonnage of United States vessels which entered Callino durlug the same year was: vessels, 69 ; tomage, 27,360 tons; and the number and tonnage of those cleared was: vessels, 56 ; fonnage, 23,160 tons. The following comparative table shows the rauk which the Inited States hell, relatively with olher forigu mations, in the navigution of this port in 1852, including 13ritish mail steumships:

| Nationality. | binlered. |  | Cleared. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Veavels. | Tonk. | Vesreir | 'Toal. |
| Inlted Statca.... | (6) | 27,640 | \$0 |  |
| Engllah . . . . . . . . | 210 | 108,(00) | 260 | 1blioth |
| Frenel. . . . . . . . . . | 42 | 16,000 | 32 | 16,20il |
| Spanishi . . . . . . . . | 43 | 3,500 | 11 | 4,000 |
| ltalian........... | 17 | 0.50 | 90 |  |
| tremman. . . . . . . . | 06 | 13,80\% | 81 | 12.400 |
| thllan . . . . . . . | 411 | 4,49;) | 4.) | 4. 400 |
| (thers | 20 | 4.000 | 20 | 6 KO |

The following statement exlibits the number and tonnage of C'nitel States vessels which enterel nt CabIno during the years specifiled:

| Vears. | Vecsele. | Toun. |
| :---: | :---: | :---: |
| 1-62. | 0.1 | 23, |
| 1858.......................... | 23: | 10:1.n21 |
| 1854......................... | 240 | 169.5is |

The general features of commercial transactions at Callno, and at the perts of Perin gencrally, are set forth in a communicutlon of late date from the censul of the

Prix por Exporis. 18,085,715 $10,178,210$
$16,858,630$ $40,142,562$

## eru, during

 nnual avernumber of of Peru is: mail line, so and l'anlx steanners amer of 500 amer, of 250 ao and Val8 ; the other trine of Pera fgregate of 6 tons; and 1 of twenty8. The trisl the coasting in an aggrenen engaged I are natives, jo being entthe coasting scribed frota ing been reibit in detail ru in 1853. foreign comvian vessels, le at Callao, aggregate of mber of vesons; making liesides the ame year, at is aghregste; ag in the conith an negreports of 160 els which err-852 was 150 nuber cleared, The numwhich entered 69) ; tonnage, age of those 0 tons. The nk which the $r$ foreign na52 , inchuding
? $\%$
184,1000
16,200 16.200
4.000 5,3010
12.4911
4 12.4 .410
4.400 0 nit nomber and itered at Cal.

## Tean.

24, 3ie
150.821
168.6.39



United States at that port, as follows; "The most valuable of the articles importel into this consulate aro asserted merehandises from England, France, Italy, the United States, Chill, Spain, and Equador; viz., Cotton, linens, silks, wines, hardware, otc. From the United States, domestic cottons, furniture, lumber, provisons, ete. The oxport trade of Peru consiats chiefly of guano, which is sent to England, tho United States, France, and Spain, and in smaller quantities to Italy, India, and tho West Indies. Tho export was forced daring the revolution, and a diminution lias taken place under the present government, owing to over-supplies in Europe and the United States, and a wish on the part of Peru to raiso the price of this article abroad to its consumers. It is valued on board tho ships at the lslands where laden at $\$ 5$ per ton-that is, at the cost attending its shipment. The average rate of freights to the United States during the year past (18is) has been $\$ 22$ per ton of 22.10 liss. This much of the product of gunno goes into the hands of our ship-owners, who carry neariy all of it to the United States, and part of it to other plaees, from Callao and the Cbincha Islands. No prohilitions exist, in firet, upon imports; but arms and munitions of war are difficult of introdnction luring revolutions. Powder is strietly prohibited. The general trade regulations are liberal. Goods lic in bend at the option of tho merchant; paying only, after the first month, storage and labor, until entered for consmpution, or elso exported abroad, and then no elarges forther. There are at present no differcutial or liseriminating dutics on any foreign vessels or coods. A quarantine exists in the case of coolies from China, who usually arrive sick; and this district, during the last three years, has becons suliject to fatal epldomic fevers, etc. Cnited States capital is cmployed iu the
ice trade, and in repuiring ships; in the humbler trades, and in commerce, and upon the public works. The English at present enjoy the largest alare of the import and export trade; but the activity and intelligence of all commercial nations are occupied in seeking a shere, and the tendency is gradually toward a more equal participation.

Crude wools aro largely exported; but the high duty on them in the United States throws nearly all that trado into Europe, mostly to England, where wool is free under the tariff. Of late they have been paying good profits. This remark applies nlso to the barks of Peru, and to copper. Tho bar silver exported all goes to England, because there is no direct steam communication with the United States. Somo supplies of wheat, Hour, and other ngricultural products begin to be imported into this consular district from California, such ns barley, potutoes, etc. ; and about 2500 tlasks of quieksilver, valued nt nearly \$t00,000, have been imported during this last quarter. Whale ships, while cruising, calt at times for refreshments, and to change their erews. The agricultural industry of ate country has been ohstructed by the liberation of the slaves in 1855, to replace whom Chineso coulies are being imported. Such laborers are also now being employed by the government at the Chincha gunno islands, near l'isco. 'The army of Peru employs about 7000 Cholo half-breed Indian soldiers, the tendeney of which polity is to hinder population. There is a pereeptibla increase in the number of Americans in this consulate-seamen, artisans, and tradesmen, who come to reside. Nitrate of soda is largely exported-at least a million and a lialf of quintala annually, valued at $\$ 2$ per 100 lbs ; a considerathe part of which goes to the United States. Dry and salted hides, and straw
hats, are exported in small quantities. The circulatlug currency of Peru, representling sllver, and now the only monay in common uaa, is below the nominal atandard about three-eightha, or $87 \frac{1}{2}$ per cent. The rate of exchange fluctuates from five to fifteen per cent. on the dollar. The dollar of Perru, In invoices of export to the Unlted States, is now naually valued at from 80 to 85 cents of United States currency. The Peruvian dollar, of pure silver, not in clrculation, is worth about $87 t$ cents of Unlted States currency. Gold coins of P'ern are not now scen in common use. Patriot doubloons pass current at $\$ 17$, and of late are worth 3 per cent. premium, and but few to be obtained."

Paita.-The chief staples of export from the port of Palta are straw (Panama) hats and Peruvlan bark. The exports consiat chiefly of cotton manufactures, of iron, and assorted aundrles. The official navigation returing for this port, for a period later than 1852, are not at hand. There entered from all foreign nations In that year 185 veasels, with an aggregate of $61,62 \cdot 4$ tons; of which there were from tho United States 42 vessels, measuring an aggregate of 10,256 tons. The direct trade between the United States and this port is llmitel, owing to the facilities afforded in the coasting trade between this polist and Callao.
Arica.-The staple exports from the port of Arlca are tin, copper ore, Peruvlan bark, and alpace wool. With the exception of the latter, all these exports are of Bolivian produce. Indeed, the port of Arica is merely a transit port for Bolivian preduce and trale. Owing, hovever, to some ins:inderstanding bet ween the governments of Peru and Bolivia, which resulted in the imposition by the former, in 1853, of 40 per cent. duty on the produce of the lutter pasaling through this port, this transit trade is now conducted through the port of Cobija (Port La Mar), the only pert open for foreign commerce in Bolivia. The imports from the United States are cotton domeatics, blue drills, chairs, and shoes, on which last-named article a duty of 40 per cent. is levied.

Iquique. -Thia port possesses a harbor safe and commodious, and is well protected by the island of Iquique from the heavy swells whleh, in the winter season, set in frour the southwest. With the exception of a few months during the late revolution in Peru, up to the month of July, 1855, when it was declared n puerto mayor, Iquique ranked as a puerto nenor, ulth seme extra privileges. The province of Iquique ia the great centre of the nitrate of solh trade, and to this article alone it owes its present position. Out of a population of about 15,000 feur-tifi hs are more or less interested in this trade. At the works, the nitrate of seda varies in value from $81 \nmid$ cents to $\$ 106$ of carriage to the coast varies from 688 cents to 931 cents per quintal. The average rate paid for the article placed on the beach is $\$ 175$ per quintal; and this price gives the makers a pretit of $9 \frac{2}{8}$ cents per quintal.

Nitrate of soda is alwaya sold deliverable along side the ship's launch, outside the aurf. The merchant has to bag and embark it, which costs him about $21 \frac{1}{3}$ cents per quintal. Selling it, therefore, at $\$ 18 \frac{-1}{2}$, would yield him a protit of 158 centa per quintal.

Nitrate of soda is used in the manufacture of sulphuric and nitric acids, and as a fertilizer. Between 1820 and 1830, attempts were made to export it to the Uuited States and England, but the cargoes were unaalaile. Soon afterward, however, ita value became knew, and at this the the quantity annually exported reaches nearly $1,500,000$ quintals, valued at about $\$ 12 \mathrm{~s}$ to $\$ 2$ per 100 lbs . The following statement will show the total amount of nitrate of soda exported since 1830, when tho trade began:

| 1880 to 1834 , inclusive |  | Quintals. | 361,385 |
| :---: | :---: | :---: | :---: |
| 1835 to 1830, " |  | 4 | 701,849 |
| 1849 to 1844, ${ }^{4}$ |  | 14 | 1,602,300 |
| 1845 to 1849, " |  | ${ }^{4}$ | 8,004, 055 |
| 1850 to 1855, " |  | 4 | 3,260,478 |
| Total |  | 11 | 80.6.103 |

QUANTITIES OF NITAATI OF EODA, IN QUINTALE, EXPOATET YROM 1850 TO 1854 , HOTL INCLESIVE, AND THE COUNTAIKB TO WHON BKPORTED.

| Comatrise. | 1550 | 1851. | 1863. | 1867. | 1854. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Avotratia |  |  | *.. |  | 7,000 |
| Belginm . . . . |  | 6,447 | .... |  |  |
| Calffornia... |  |  |  | 1000 | 6,242 |
| chill......... | 4,965 | 3,180 | 8,346 | 12,000 | 14,085 |
| France....... | 87,827 | 151,88t | 00,801 | \$50,423 | 08416 |
| Germany..... | 33,690 | 44,67t | 4.4 .627 | 188,208 | 89.0419 |
| Great Britaia. | 304,459 | 271,137 | 360,703 | 406,301 | 4 ${ }^{\prime} 11,6 i 5$ |
| Itolland | 40,64* | 20.912 | 7,570 |  | 14,691 |
| ILaly......... | 10,054 | 7,800 |  | 10,200 | .... |
| Spsin ........ | .... | . . . |  | 16,138 | .... |
| Sweden ...... United States. |  |  | 4.700 88.486 |  |  |
| United Stater. West Indies.. | 25. | 84,136 0.700 | 38,436 2,257 | 68,682 | 48,525 |
| Peru (Nortti). | $\dot{3} 042$ | 8,178 | 6,0;0 | 1,495 | 1,198 |
| For ordera |  | 69,807 | 20,647 | 23, 665 | 11,418 |
| Total. | 519,879 | 60.007 | 663,276 | 806,532 | 719,879 |

Before Iquique was constituted a puerto mayor, foreign ressels from any foreign port could call and anchor, provided their cargoes consisted of nothing but the following articles: P'eas, beans, lentils, Indian cern, wheat, barley, nuts, raisins, almonds, cocoa-nuts, flour, bran, biscuit, n.acnroni, frangallo, chococa, dried potatoes, fat, butter, tallow, lard, jerked beef, cheese, livo and dead stock, salted meats, and all kinds of vegetablea and roots, candles and soap, lire-wood, timber for building, coala, bricks, iron, atcel, nails, tools for mincs, emply sucks, twine, machines for making nitrate or distilling water. It is now open to general commerce, and will necessarily hecome a port of much inportance. Heing the most windward of the Peruvian ports, vessels proceeding from the south, having other gbors on board than those above specificd, wero obliged to go to Arlca, the first puerto mayor, and, after dispatching at the custom-kouse there, beat back again te Imnique, at a cost of from five to tifteen days' ailing. The consequence of this restriction wa, that but few vessela entered this port with cargoes dircet from forcign countries. Another advantage to be derived from making Iquique a puerto mayor is, that it will open a transit trade into Belivia, and thus render this port an entrepot for an extensive trade with that republic. The distance to Putosl is much less-less, it is stated by three or four days' journey, than ly the way of Colija. The mules would only have to travel fifteen leagues without water, and the pass in the Cordillera is equally as favorable as by the latter route.

Tumbez.-No vessels except whale ships are allowed to enter at this port. The privileges to which American whalers are entitled ly the twelfth artlcle of the treaty of Peru with the Unitel States, have already been stated. The market of Tumbez is supplied diefly by Americnn whale ships, which usually hmport smail quantities of American manufactured goouls, flour, ett. Other foreign whale ships must conform to the general regulations of commerce, which allow them to anchor, provided they have on board only the products of the tishery, previsions and supplies necessary for the use of the vessel and crew, and to sell oil and randles to any amome, in exchange for provisions, frec of import duty. The following summary exhithts the nunber and tomage of Amerimu whaling vessels which arrived it the port of 'Tumbez, from August, 185, to June 30th, 1855 :

| Years. | Nunber of Veseste. | Tins. |
| :---: | :---: | :---: |
| 1452.... | 29 | i,71i |
| 1453. | 17 | 17:39 |
| 18.4. | 0.4 | 19,042 |
| tobs (tirst six monthe). | 32 | 0.710 |

-L'nited states Commercial Relations.
No deposits of grano which will at all compare with those of l'eru seem as yet to have been discorcred, although r:ost extensive explorations have been prosecuted; nor has science yet succeaded, though inventive akill bas been tasked to the utmost, in mannfucturing a aulsstitute whiclı would superaedo the use or lower the price of the Peruvian fertilizer.-See Givaso.

## $A$

 exists Peru, rticle of the ave ulready plied chicfly mport small Is, flour, ete. the gencral 11 to unchor, duets of the for the use d catudles to ce of import the nutube s which ar 1st, $185 \%$, to
## Ti.3in <br> 17.:79 <br> 19.042

9.740



* Nine months to Jone 50, and the fiscsi year from thita time beging July 1.

A treaty of frlendship, commerce, and navlgation exists between the United States and the Republic of Peru, the terms of which treaty are adhered to in good ".ith at the ports of Peru; and although questions sometimes arise in police cases regarding seamen belonging to American vessels, the authoritiea assist readily in arranging such questions as they occur. The present existing regulatlons are fixed and detinite as regards commeree. Changes in parts of these regulations aro made by deerees issued by the President and Congress, when that body is in session, and by the President and Councll of Stato during the recess of Congress, as required by the public exigencies. At present (August, 1855) the government is undergoing the process of a revision of its fundamental laws, now being made by a convention of deputies eleeted from all sections of the country, and holding its sessions in the hall of Congress at the city of Lima. There are no privileges permitted to the commerce of other nations which are denied or not allowed to the United States. There are no restrictions imposed on the commerce of other nations and not on that of the United States. But a line of eight fine British steamers, carrying the mails and running botween the perts of I'sama and Talcahuano, under the provisiens of a postal convention existing between Great Britain and P'ern, aro exempted from all tomange duties and port eharges whatsoever in the ports of Pern, in consilueration for the transmission of the mails of Peru to and from the various ports of Pera at which they touch in making passages to and from Talcahuano and Panams. The whaling vessels of the United States, also, are allowel certain privileges in the port of Tumbez anil all the open ports of Peru, in virtue of the treaty how existing. Some question has been made by Peru as to whether this privilege should allow whalo ships to avail themselves of its provisions in one port only, while on a cruise, or at each or any port or ports, and overy time they visit such port or other port or ports of Pern. The amount of the port eharges made upon the vessels of the United States in the ports of leru is as follows, namely: Tonunge duty, 25 cents per
ton ; anchorage fee, $\$ 8$ on vessels to Callao only; anchorage fee on vessels to Callao and the Chincha Islands is $\$ 1$ more, making $\$ 12$; inspector's feo, $\$ 425$; custom-house fee, $\$ 125$. The various stamped papers cost from $\$ 5$ to $\$ 12$, aecording to tho operations inade by the vessel. Thero are no light-house dues nor any light-houses, and no hospital money is exaeted. The tonnage duty is only payablo In one port, and only onec in six months. There are no pilots nor any pilot system in Peru-the naturo of the ports rendering pilots unnecessary. National vessels that measuro less than 200 tous do not pay any toonage duty, but pay the other port charges. National vessels over 200 tona register pay 25 cents per ton, being the same duty that the vessels of all nations are mado subject to. Tho lino of eight British mail steamers is exemptel from all port charges whatsoever, under the conditions of the postal convention now exlsting between Great Britain and Peru. The transhipment of goods is permitted in the vessels of the United States, either to another port in Pern or to a foreign port. This privilege is allowed also to the vessels of all nations. By the Reglumento de Commercio for 1852, the latest yet published, it is allowed to vessels of all nations to take coastwise, from one open port (mayor) to another, any foreign goods in bond; that is, which have not paid duty; for examplo, from Arica or Isly to Callao. It is also allowed to take tho productions of I'ern, and any foreign merchandise free of duty, in the same manner, from any port to another port or ports in Pera. All vessels may go loaded with free goods, and tho pro ductions of l'eru, not only from one open port to another, but from an open port to a minor port (menor), or from a minor port to an open port (mayor), or in any manner. Vessels of all nations aro permitted to go to the port Iquique, to load with nitrato of soda and other artlcles, and also to proceed from Callao to the Chincha Islanda to load with guano.

The moneys, weights, and measures, known and in common use in Peru, are thoso of Spain, having remained the saine as when Peru was a colony of Spain.

The difference between the vara and the yard in the cuatom-house is eight per cent, adiitional, the vara being about 33 inches of the Engliah yard of 36 inches. The gresa and dozen are the same aa $\ln$ the United Statew. The galion of oil, of wine, and of apirits, are each taken at 7it pounds to the gallon. Tha fanega is an arbitrary ideal ineasure, and is regulated by weight; namely, one fanega of wheat is 185 pounds; one fanega of miliet is 180 pounds; ono fanega of beana la 182 pounds; one fanega of pess la 182 pounda; one fanega of corn is 156 pounds; one fanega of Lima beans is 150 prounds; one fanega of taliow is 180 pounds. Ilut these measures do net come into use in foreign intercourse, or in any large transactions. There is no measure of bulk in use, such as a bushel or a gallon; articles measured in buahela or in gailona In the United States are sold by the pound or quintal of 100 pounds in Peru. Tho difference between the pound ani quintal (of 100 pounds) of Peru and those quantities in tho Unted States is two per cent., the pound of Spain and Jeru being two per cent. heavier than tho pound avoirdupois of the United Statea and England.

Insurance to the United States, one and a half to two per cent. Freight, $\$ 27$ to $\$ 30$ por ton of 2240 pounda, guano, delivered; and the same price on 40 cubic feet measurement of other articles. Commission, two and a half to five per cent. on the invoice. Cash in all cases on exports. Average rato of exchange, five to seven per cent. premlum for a bili on the United States, and eight to ten per cent. on United States currency. The true par of exchange is: Specie, six to ten per cent. premium; by exchange, six to seven per cent. Bils, six to seven per cent. premium; by the carrency, ten per ceat. No duty is charged on merchandise exported. No intermil or other taxes are levied on exports, Guano belonge to the government and people of leazu, and is sold by itaclf.

| Priors | F Exports. | Whalenole Price. |
| :---: | :---: | :---: |
| Guano frod, tho Chhelin IElands.. | Per ton of 2240 Jbs . | Whalenale Prico. |
|  |  |  |
| Nitrate of sodn, a bort of saltpetr. | Per 100 lbs . | \$t 25 |
| Hides, ox aud cow | Fiach.. | 200 |
| Bark, Perusian. | 1'er 100 Ibs. | 4060 |
| Tin, bloek | " | 1300 |
| Hinta, straw | Dozen. | 12 00, etc. |
| Horns, ox and cow | 1000.... | 21000 |
| Wool, sheep' | 100 lbs | 1216 |
| Chocolate | " | 1400 |
| Vanilla | Pound. | 600 to 8700 |
| Balsam . . . . . . . . . . . . . . |  | 150 |

Peruvian Bark. The trees yielding l'eruvian bark, which grow at an elevation of 7000 to 8000 fect on the Andes, have for a long series of years been feiled for the sake of their bark, and no pains were taken to replace them. Feors have been naturally entertained that ere long the supply of bark, and consequently of quininc, would fail. Efforts have consequently been mado to transplant the tree into countrics where it is aupposed the climate would be suitalic. Dr. Royle has taken measures for introducing Cinchnaa Calisaya, or the yellow-bark tree, into the higher rigions of india; and of late years the Dutch goverr ent have employed Mr. Haskkarl to tranapert piate fivaious species of cinchona from South America to Java and other parts of the Dutch East Indles. These attenpts have been auccessful; and tho reperts in regard to the growth of the plant are such as to lead to tho expectation that cre long the Peruvian bark trees will be scattered over extensivo districts, and will thus be saved from destruction.-Edin. New Phil. Journ., No. 9.
Pewter (Ger, Zinn, Zinngeisserzinn; Fr. Ltain; It. Stagno; Sp. Estano, Peltre; Russ, Olouo), a factitious metal used in making plates, dishes, and other domestic utensila. It is a compound, the hasis of which is tin. The best sort consists of tin alloyed with about one-t wentieth or leas of copper, or other metallic bodies, as the experience of the workmen has shown to he most conducive to the improvement of its hardness and
celor, such as lead, zlnc, biamuth, and antimony. Thera are three aorts of pewter, distingulshed by tho names of plate, triffe, and ley pewter. The lirst was furmerly much used for plates and dlahes; of the second are made the pints, quarts, and other measures for beer; and of the ley-pewter, wine measures and large meatures. A fine pewter ls made, according to Aiken, by fusing together 100 parts of tin, 8 of antimony, 1 of biamuth, and 4 of copper. The nee of those additions to tin is to harden it and preserve its color; and a good pewter, when clean and polished, has a silvery lustre, and does not readily tarnisi. Common pewter, of which mensures and pewter pots are made, is an alloy of lead and tin.
Philadelphia, the metropolia of Pennsylvania, and the second city in the United States of America in papulation and in manufactures, is in lat. $89^{\circ} 56^{\prime} 39^{\prime \prime} \mathrm{N}$., and long. $75^{\circ} 10^{\prime} 54^{\prime \prime} \mathrm{W}$., 130 miles from Washington, and 87 from New York. Population in 1800 was 70,287 ; in 1810, 96,287; in 1820, 119,325; in 1880, 167,325; in $1840,258,037$; in 1850, 408,762; and in 1854, 480,000. It is situated between the Delaware and Schuylkill rivers, five miles above their junction, and extends from the ono to the other. Tho rivers beus ding it lie about two milies apart in the narrowest place. The city is 100 miles distant from the ocean by the course of the Deiaware. Its prineipai harbor is on the cast, or Delaware River side, where ahipr come up, and its foreign commereo centres. Philidelphia has an extensive foreign, and a still greater domestle trade; by means of railroads and canala it possessea facilities for communication with a great extent of country. The city is built upon a plain rising gradually from the Delaware on the east, and the Schuyikill on the west, to the height of ahout 65 feet above the surfuce of the rivers at highest water. The portion most densely built upon has an outline of about ten miles, and extends along the Delsware River fiva miles. Pliladelphia is laid out with great regularity, the streets, with lut few exceptions, crossing cach other at right angles. High Street, extending from river to river, and Bread Street, which extends south and north from Penn Square, are very wide and spacious thoroughfares; the other strects are, many of them, neat and elcanly kept. The public huildings are geverally tasty and well built editices, and the private residences hare a neat and cheerful appearance. It was surveyed aad laid out in 1682 hy Timmas Holmes; the ground selected was claimed by three Swedes by the name of Swenson, who held a title to it oltained of the Dutch Governor of New York in 1664. This claim was purchased by Penn.-Harper's and Lippincott's Gazetters.

Manufaetures.-This branch of the industry of Philadelphin is very important both as regaris value and extent. The vicinity aloomds with water-power of great magnitude, and conl is obtained at an casy and cheap rate, so that steam can be applied as a motive pewer to a great advantage over other places, and which has been made extensively availahle. Machinery, locomotives, hardware, sugar-refinlng, cordage, and a variety of wares are preduced here.-Census Report, 1850.
Capitat, investrip, the Number of hande emploved, and the Valetr of the anneal l'romegt of this libaneil or Inicatay, in tile City and Gounty of 1 hibadelyita dutano tha jeab gading June 30, 18\%o.

| Distitits. | Capifal invested. | Hande emplld. |  | $\begin{aligned} & \text { Annual } \\ & \text { Produets. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Mates: | Fem. |  |
| Phitadelphia Clty. | \$13.207, 68 | 17,020 | 10016 | *26. 309.265 |
| Northern Liberties. | 3,922, 251 | 4.463 | 1181 | 7,0173,023 |
| Spring Crsiden. | $2,913.45$ | 4.3:6 | 851 | \$. 366,781 |
| Kenslugton | 3,755,711 | 0,7:3 | 18:0 | 10,093,904 |
| Sout...wark | 2,171,065 | 2.050 | ${ }^{167}$ | 3,734.73 |
| Moyamenaing | 530,304 | 1,974 | [88 | 1,290.901 |
| Townshasx, et | 7, 237.350 | 6,705 | 2378 | 10,437,34 |
| Tot | 3.73 |  |  | 4, 114, 12 |

Coal Trade, ete.--The coal trade during the year 1853 amounted In value to over $\$ 10,000,000$, and the quantity brought to market about $6,000,000$ tons. The
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nished as formerly ad aro made eer ; and of easures. A $y$ fusing toismuth, and to $\operatorname{tin}$ is to ood pewter, re, and does which measof lead and ylvania, and erica $\ln$ popWashington, O was 70,287; , 167,325 ; in $854,480,000$. d Schuylkill and extends ul ding it lie place. The y the course on the east, oup, and its has an exlle trade; by facilities for muntry. The ally from the lon the west, surfuce of the most deneely ailes, and ex. :8. Ihiladel. e strects, with right angles. er, and Broad h from l'cun horoughfares; t and cleanly Ily tasty sad lences have 8 surveyed and be ground sethe name of of the Dutch laim was purtt's Ciazefteers. lustry of Philrds value and -power of greas asy and cheap motive power and which has inery, locomoand a varicty rort, 1850.
mmployen, asd this prancil or 1 HiA.Aㄹ..vita
${ }_{\text {Prodocter }}^{\text {Annual }}$ +20.310,265 7,1173,123 8.376,731 10,453,904 3,734.334 1,293,201 $10,237,348$ $\$ 64,11+112$ F the year 1853 and the quan0 tons. The
commerce of Phlladelphis is rapidly on the increase, amounting in valne the aame yaar to $14,500,000$, and employing a tonnage of 252,451 tons. In 1854 there was a line of first-cluse ateamelipe and four lines of anil-ing-vessels plylng between thls port and Liverpool; two steamshipe to Charleaton, South Carolina ; ons to lichmond, Virginia, via Norfolk and Petersburg; one to Boston; one to Hartford; two to Now York; and one to lialtimore. These veesela were aubatantial and well built, and most of them constructed in thla clty. The total number of steamshipa, ships, barks, brlgs, schooners, barges, etc., enterlng the port during the year 1856, was 27,044 .-See Coal; Coinage.

The following railroads centre hare: The Camden ant Amboy; Philadelphia and Trenton, connecting with the New Jersey; the Camden and Atlentle; Philadelphis and Germantown; Philsdelphia, Rsading, ant Pottsville; the Great Central Railrond of Pennsylvania, with lts extenslve connectlons; Philadelphia and Westchester; Philadolphia, Wilmington, and Baltimore; etc. The Schuylkill Navigation Canal, 108 miles long, extends to Port Carbon; and the Chesapeake and Delaware Canal, 14 mllea long, extending from the Delaware River at Delawsro city to Back Creek, Maryland. These great arterica of traflic contribute much to the trade of Philaitelphla.

The city, as consolldated by the act of January, 1854, cmbraces a territory $23 \frac{2}{2}$ miles long, and $5 \frac{1}{2}$ average breadth, coextensive with the county. It is divided into $2 t$ wards, and is governed by a mayor, elected for two ysars, a select council of 24 members for the anme periol, and a common council of 72 menbers, elected annually.

Phlladelphia was first survoyed and regulated in 1632. It had previously been in possession of the Swedes, some of whom csme into the country borderling on Delaware Bay as early aa 1627. It was named after a city in Asla Minor, and the plan is said to have been suggeated by that of ancient Babylon, and sccording to the original design of William Penn, its originsl founder and proprietor, was designed to have equaled that ancient espital in oxtent; but the idea was soon absandoned, and the chsrter of 1701 restricted it to the boundsries of tho late city proper. Penn's country residence was at Pennsburg Manor, above Bristol, in which was a large Hall of Audience, where he held treaties with the Indians; and the oak armchair in which he sat is now in the Pennsylvania llospital. The first Congress assembled in Phlladelphia September 5th, 1774, and adopted a declaration of rights; on July 4th, 1776, the Declarstion of Independence; in the sutumn of 1776 retirsil to Baltimore; September 26th, 1777, the city fell into the hands of the British, who occupied it until the 18 th of June following. May 17th, 1787, a convention met here, and in September 17th, following, agreed on a Constitution for the United Stateg, when it becamo the seat of Government of the Unlted States until 1800.
Harbor, light-houses, l'ilotage, etc. - Vessels of the largest burden ascend the river as far as Neweastle, lut those drawing above 18 or 20 fect water can not reach Thiladelphia on account of a bar a littlo below the city. The entrance to the magnificent bay formed by the emhouchuro of the Delaware, has Cape May on its north, and Cape Ilenlopen on its south side. The former, in lat. $38^{\circ} 57^{\prime}$ N., long. $75^{\circ} 47^{\prime} 45^{\prime \prime} \mathrm{W}$., is a sandy healland, rising abont 12 feet above the level of the sea. It has recently been surmounted by a light-house 60 feet In height. The light revolves once a minute; an eclipse of 50 seconds being succeedel by a brilliant fiash of 10 aeconds. It is seen in clear weather from 20 to 25 miles off. Cape IIenlopen, marking the southorn boundary of tho bay, is in lat. $38^{\circ} 47^{\prime} \mathrm{N}$., long. $75^{\circ} 4^{\prime} 45^{\prime \prime} \mathrm{W}$. A little south from it is a hill, elevsted about 60 feet feet above the level of the sea; and on it is erected a light-house 72 feet In height, furnished with a powerful fixed llght visible in cleal weath-
er ten leagues off. To the north of this principal light, and clone to the extremity of the Cape, a second Ilghthouse has been conatructed, 36 feet above the level of the see, which is also furnizhed with a fixed light, which may be seen about alx lesgues off. The channel for large ahipa is between Cape Honlopen and the hanka cslled the Overfalla. The navigatlon la, however, a little difficult, and it is compulsory on shlpa to take pllots. The latter frequently board them at aea; but, if not, as soon as a ahlp comes hetween the Capes, ahe must holst the signal for a pllot, and heave to as soon as one offers to come on board.
Pailadglpita to tha Ongan.-Digtanogs, in Statuts
 to tha capeg, hy the ubial, 8tbanmoat diannel, ag lali down on tug chart or the Delawaes uy the U'mited States Coast yuavgy.

From Phladelphia (Markel Street Wharf) to Milea Fort Miftitn landing (broad off in channel).......... 88.5 $\begin{array}{llll}\text { Cheater landing } \\ \text { Marcus Ilook landing } & \text { " } & \because & \ldots \ldots \ldots . . \\ 201.4\end{array}$

 Ner Cantle, railroad wharf (broad off in channel)... 84 $\begin{array}{llllll}\text { Delawara Ctty Isnding } & \text { " } & \text { " } & \ldots & 806\end{array}$

 Laton's Polnt " "... .............. 51 6. 8


Ledge LIght Iloat.................................................. 76 1-4
Buoy of the Lower (qr.) .................................. 83 5-8
Bnoy of the Brown.................................................... 89 1-16
Breakwater............................................................... 1028 8-8
Cape 1 fonlopen ........................................
Cape May fandtog, by olianne east of
Wrports of Breadstuffs,-The sanexed statemont shows the quantity and value of breade:uffs exported from Philadelphia to foreign ports during 1855 and 1856:

|  | 1856. |  | 1856. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quanlity | Volue. | Qunatily. | Velae. |
| Flour .... Barrels. | 218,197 | \$1,902,618 | 343,835 | $\$ 2,400,115$ |
| Corn meal " | 15,1c8 | 435,204 | 91,249 | 200,400 |
| Rye monl. | 12,75.7 | 80,238 | 16,298 | 68,612 |
| Wheat ... Bushols. | 226.071 | 451.921 | 662,888 | 1,049,7i7 |
| Corn ..... | 680,252 | 683,782 | 1,093,621 | 711,090 |
| Ryy, Oats, etc. | .... | 57,897 | $\ldots$ | 232,435 |
| Totsl |  | \$ $\$ 3,6 \mathrm{i} 7,507$ | .... | \$4,733,836 |

These figures show a marked difference in the prices of breadstuffs in the years specified, as follows:

|  | Average Prico 1655. | Average Price 1850. |
| :---: | :---: | :---: |
| Flour........ | \$8 99\% per barrel. | \$690 per berrel. |
| Corn Meal | $457 \%$ | $318 t \quad 4$ |
| Ryo Mcal .... | 076 | 421 " |
| Wheat....... Corn ....... | 1091 per bushel. | $151{ }_{6+1}$ per bushel. |

It will be observed also that, had the articles enumerated brought the prices in 1856 that were paid for them in 1855, the value of breadstuffs experted in 1856 would have aggregated $86,123,216$ instead of $84,753,336$, the real cost.

Receipts of Catte in Philalelphia.-The following tabular statement presents the number of cattle received here during each of the last twelve years, with the exception of the large number brought in by butchers, of which no account can bo obtuined:

| Years. | neeves. | Cow: | 8 wine. | Sbuep. | Tolel. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 18.45 | 51.298 | 1885 | 20,465 | 66,948 | 163,500 |
| 1846 | 47,5'10 | 14.480 | 18.670 | 55,810 | 130,400 |
| 1847 | 50.270 | 16.700 | 22,450 | 57,800 | 147.220 |
| 1848 | 67,211 | 14,108 | 47,690 | 76,820 | 2015,829 |
| 1843 | 68, 120 | 14;320 | 46,700 | 77.110 | 200,250 |
| 1850 | 68,750 | 15,120 | 46,900 | 82.500 | 218,27A |
| 1851 | 03, 100 | 15.407 | 40,700 | 83,000 | 215.260 |
| 1852 | T1,200 | 14.420 | 49.200 | 81.200 | 216,020 |
| 1858 | 71.900 | 15,100 | 8,300 | 72,300 | 212,600 |
| 1854 | 73,400 | 15,35) | 78.000 | 61,000 | 227,750 |
| 185: | 55,2.1) | 11.630 | 65.319 | 132,500 | 264.530 |
| 1850 | 61,078 | 12.000 | 103,350 | 240,700 | 418,928 |

Tho following tabie shews the measurement of graia, |ast sixteen yeara. This statement, of course, does not seeds, aalt, anil coal, in Phlladelphia, annually, for tha $\mid$ inclute all the receipts of grain, seeds, etc, at this port.

| Years. | Wheet. | Com. | Rya. | Barley: | Oefm. | sepdas. | Beans. | Ble. Coel. | sali. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1841 | 407.2.181 | 781, 2781 | 61, it1t | 4,830 | 167, 608t | 19,704 | 80401 | 118,1c8 | 8.6.132 |
| 1849 | 462,770 | 412,951 | 86.334 | 85,678t | 194,808 | \$5.198 | 1616t | 9,048 | 15t,250 |
| 1848 | 634,384t | 518,6i1 | 68, OH 18 | 20.018 | 878.7181 | 97,7731 | 15801 | 181,009 | 174.194t |
| 1944 | 526,067t | 640,459 | 95,227t | 58,600 | 875,578 | 48,258 | 1402 | 17,000 | 217.815 |
| 1845 | 709.6024 | 768,4841 | 85,807 | 44,6901 | 857,077 | 81,484 | 8980\% | 281.838 | 146.461 |
| 1816 | 988.943 | 625,178 | 80,829 | 40,898 | 8512,948 | 15,804 | 1895 | 348.861 | 287,463 |
| 1847 | 947,5.8 | 1,098,204 | 75,079 | 83,210 | 309,171 | 7,588 | 076 | 248,760 | 246,488 |
| 1849 | 793,044 4 | 1,302,3181 | 46,9001 | 62,554t | 897,732\% | 9,776 | 469 | 357.827 | 200,474 |
| 184) | 945,465 | 1,289,102 | 44,446 | 27,049 | 494,316 | 7,090 | 1270 | 235009 | 451,157 |
| 1850 | 1,108,9.6 | 1,168,646 | 68,905 | 74,428 | 4)1,306 | 5.961 | 1808 | 100,896 | 178.719 |
| 18.51 | 1,05 ),083 | 1,978,491 | 89,219 | 41,459 | 359,066 | 8,708 | 288 | CSY, 809 | 242,017 |
| 1852 | 977,544 | $790,190+$ | 50, 637 | 87,112 | 427,039 | 29,774 | .... | 61,767 | 168,008 |
| 185 ${ }^{183}$ | 950,839 | 967,5147 | 49,063 | 81,260 | 407,520 | 11541 | . . . | ...00 | 17.870 |
| 1854 | 781,383 | 1,182,178 | 41,4961 | 39,706 | 278,846 | 18,040 | . ... | 600 | 5914 |
| 1855 | 1,046,096 | 1,438,4.48 | 147,889 | 01,918 | 686,824 | 416 | ..+* | 6,004 | .... |
| 1856 | 1,001,601 | 1,601,699 | 2 23, $^{389}$ | 84,802 | 406,540 | 020 | .... | $\ldots$ | .... |


| Yeart. | Forsign. | Consiwien. | Toicl. |
| :---: | :---: | :---: | :---: |
| 1831 ....... | 179.409 | No return. | 132.499 |
| 1832 | 178.761 | 61,000 | 224,821 |
| 1883 ....... | 63,456 | 84,003 | 148,078 |
| 1834 | 98,601 | 81,879 | 145,576 |
| 1937 . . . . . . | 197,057 | 20,166 | 147,293 |
| 1898...... | 06,853 | 29, 7 T9 | 125,225 |
| 1839. | 184.208 | 83,90\% | 148,118 |
| 1840 ....... | 147.626 | 13,050 | 140.576 |
| $1841 . .$. | 143.4.47 | 14,084 | 157,524 |
| 1842....... | 123,074 | 19,670 | 149.244 |
| 1813....... | 84,609 | 8,870 | 09,979 |
| $1844 \ldots .$. | 127,032 | 19,0:2 | 140,724 |
| 1845 | 90,725 | 8,756 | 99,280 |
| 1846 | 61.815 | 17.742 | 09,657 |
| 1847 | 76,139 | T5,818 | 151,057 |
| 1849 | 62,414 | 72,800 | 124,714 |
| 1849....... | 102.698 | 89.284 | 190,028 |
| 1850 | 103,884 | 47,701 | 151,073 |
| 1851 | 134,245 | 85.727 | 109,953 |
| 185: | 180,154 | 37,154 | 167,908 |
| 1853 | 119,977 | 24,434 | 14,4,11 |
| 1854 | 1745.7 | 10,451 | 195,048 |
| 1955 | 188,102 | 19,300 | 168,409 |
| 1856 | 109,755 | 0.809 | 111,104 |

Fongion Ifine importein into l'illianelfilia in 1866.

|  | Number. | Balen. |
| :---: | :---: | :---: |
| Huenos Ayres mind Lagusyra ....... | 74,849 | .... |
| Brazl1 . . . . . . . . . . . . . . . . . . . . . . . . . | 18.216 | ... |
| 8panish Jaln . . . . . . . . . . . . . . . . . . | 4.772 | .... |
| Africa . . . . . . . . . . . . . . . . . . . . . . . . . . | 6.840 | .... |
| Total. . . . . . . . . . . . . . . | 309,350 | $\cdots$ |
| Celcutta, kipm. . . . . . . . . . . . . . . . . . |  | 50 |
| Total coautwlse........ | 9,300 | BS! |

The following is the aggregate exports from Philadelfhia to foreign ports in 1856:

| Couniries. | Domeatic. | Forvicra. | Totet. |
| :---: | :---: | :---: | :---: |
| Swedinh Went 1ndlea.. | \$81,971 | \$3,410 | \$81, 183 |
| 1raniali Weat Indics ... | 66,911 | 416 | 67,327 |
| Inritiah Fint Indles . . . . | 878 | 2,682 | 8.010 |
| Belghum | 20,097 | .... | 26,0:7 |
| Bremen. . . . . . . . . . . . . | fi4.415 |  | 34, 115 |
| Eingland | 8,651,212 | 18,1698 | 3,877,278 |
| Canada. . . . . . . . . . . . | 3,972 | 21.786 | 48,763 |
| Otherllr. N. A. Colonlen | 849,3:8 | 8,931 | 858,251 |
| Cuba | T19,4097 | 21,111 | 814,008 |
| British Weat Indlen | 742622 | 0,399 | 749.021 |
| 1ritlsh Gulana. . . . . . . | 134:89 |  | 194.540 |
| Africa. | 28.404 | 291 | 28,744 |
| French West Indles | 1.200 |  | 1.260 |
| 1'orto llico | 18.605 | 152 | 19,847 |
| 1laytl . $\because . . . . . . . .$. | 79,439 | 1,490 | 80,920 |
| Central lifpuhile and <br> New Granada..... | 14,000 |  | 11,000 |
| Venezuela . . . . . . . . . . | 617,947 |  | 617.974 |
| Irazils. | 450,031 | 62,911 | 512,945 |
| 18. Ayrea \& Montevideo | 105,101 | 2,3.4 | 107.425 |
| Sandwleh 1atanda . . . . | 102,055 | 0,029 | 103,034 |
| France | 131,279 | 4,817 | 136,000 |
| Colomblan porte . . . . . . | .... | 19,172 | 19,17S |
| Mexlco . . . . . . . . . . . . . . |  | 7.947 | 7.947 |
| Msdelra | 6,300 | .... | 6,860 |
| 11olland | 41,5'8 | .... | 41,5'8 |
| 1lamburg. . . . . . . . . . | 10,568 |  | 10,6018 |
| Glbraltar | 13,757 |  | 13,75T |
| Tolal. | \$7,711,285 | \$188,802 | \$7,809, 077 |

The following is a comparatlvo statement of some of the princlpai erticles of produce exported from the port of Philadelphia to forcign ports for the years 1855-56:

|  | 1865. | 1868. |
| :---: | :---: | :---: |
| Flonr, barrela. . . . . . . . . . . . | 220, 79 | 342,035 |
| Whent, buahels. . . . . . . . . . . | 9ne 099 | 684,012 |
| Corn, bushole. . . . . . . . . . . . | 485,807 | 1,057.283 |
| (:orn mesl, barrels . . . . . . . . | 98,973 | 92,803 |
| Rye meal, ".... | 19,460 | 15,3147 |
| Rye, bushela.................. | 43,769 | 838869 |
| Phip-bread, barrels ........ | 21,856 | 26,426 |
| 1tice, therces . . . . . . . . . . . . . | 2,129 | 4637 |
| Ifeef, tlerces and barrela.. . | 6615 | 7.15 |
|  | 7,872 | $11.141^{\circ}$ |
| Hutier, ponnde............... | 844,689 | 44.9 OMM |
| Cheses, " . . . . . . . . . . . | 889,004 | 089.7112 |
| Naval mores, barrols ....... | 28,083 | 14617 |
| Oll, gallons. . . . . . . . . . . . . . | 39,129 | 61.86 |
| 1'eas and beana, bushols.... | - | 10,422 |
| l.srd, poundm. . . . . . . . . . . . . | 1,900,798 | 1,934,080 |
| Coal, tons. . . . . . . . . . . . . . . . | 19,095 | 13,987 |
| Tallow, pounds . . . . . . . . . . . | 706,7in | 301,463 |
| Candles, " ............ | 504514 | 709, 146 |
| Soap, "1 ............. | 1,089,001 | 1,254,086 |
|  | 4,\%10,616 | 4,988,716 |
| Bark, hhids. . . . . . . . . . . . . . | 651 | 1,373 |

Cash Duties.-The following is an official statement of the amount of cash duties received at the customhouse at this port during the past three years:


The following is an official statement of the value of exports from the diatrlet of Philadelphia from 179t to 1816. For subsequent trado ace ante, p. 1510.

| Yearr. | Foreign. | Domentie. | Total. |
| :---: | :---: | :---: | :---: |
| 1721 | .... | \$3.436.098 | \$3.439,093 |
| 1782 |  | 8,820 668 | 8.844, 662 |
| 1793 |  | 6,158,830 | 6.1588311 |
| 17.4 |  | 6,013,002 | 0.613,142 |
| 17!5 |  | 11,518,260 | 11.515.281 |
| 17: 6 |  | 17,513.866 | 17.513,866 |
| 1797 |  | 11,446,241 | 11.440991 |
| 1793 |  | 8,215,408 | $8.915,443$ |
| 1799 |  | 12,431,067 | 12,431, 67 |
| 18100 |  | 11,949,676 |  |
| 1801 |  | 17,438, 108 | $17+38,183$ |
| 1802 |  | 12.672,475 | 12,6:7.475 |
| 1808 | \$ $8,104.496$ | 7.525710 | 11,0314,206 |
| 12'4 | 6851.444 | 11,080,157 | 17, $8 \times 1,091$ |
| 1515 | 9,397,012 | 13,702,250 | 29159,64 |
| 1806 | 18,609,389 | 17,674,702 | 31,894.041 |
| 1517 | 12,0065,128 | 10,904,744 | 28,919872 |
| 1908 | 2,046,913 | 4019,830 | $6,9615,1: 3$ |
| 1908 | 4.810.893 | 9,049.241 | 13,860,124 |
| 1810 | 0,241.704 | 10.9:3,3!8 | 17,405. 162 |
| 1811. | 3,865,670 | 5,091,447 | 3, 50, $0^{1}, 117$ |
| 1812 | 1,319,203 | $4,061,457$ | $5,973,180$ |
| 1819 | 927,494 | 8,847,825 | 3, ${ }^{\text {\% }}$ \%,117 |
| 1814. |  |  |  |
| 18t5 ........ | 1,024368 | 8,600.551 | 4,599,969 |
| 1 sio | 2,709,917 | 4,486,329 | 7.196 .246 |
| Total | \$68, 457,861 | \$287.290.818 | \$317,081,47 | thin port.


|  |  |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
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|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

 842,035 044.012 1,057.283

02,603
15,347
238 868
26,426
4637
11.141.
41.141
989.7112
089.7112
61.815

10,422
1,934,686
13,367
891,463
709,146 1.201 .054
4.988 .710 1,373

## ial statement

 the custemears :
of the valt hia from 1791 D. 1510.
$\$ 3.430,003$
8. 8.4
6.051831
$6.013,102$
11.518 .266
$17.513,866$
11.448291
$8.915,413$
12,431,!67
$11, \because 49,679$
17438,193
12.677 .475

11, 0310,216
$17,981,611$
$29159,0-6$
31.844 .634
28.919872
6. $960,1: 13$
13.860,124
17. 195.169
P. $140 \mathrm{tan}, 117$

5,973, 56
8,077,177
4. 539,919

7,196,246 $\$ 317,011,44$





| Yeams. | Forelgn. | Coaniw ise. | Total. |
| :---: | :---: | :---: | :---: |
| 1885......... | 484 | 1,106 | 1.670 |
| 182t1........... | 48 A | 1,19\% | 1.677 |
| 1827 ........... | 468 | 1,320 | 1,780 |
| 1828........... | 459 | 1,247 | 1,897 |
| 1620........... | 814 | 2,210 | 2,684 |
| 1834. . . . . . . . . | 418 | 8,287 | 0,702 |
| 18', . . . . . . . . . | bi6 | 8,202 | 3,658 |
| 1832.......... | 428 | 8,840 | 3,877 |
| 1838.......... | 474 | 2,578 | 8,047 |
| 18.4.......... | 490 | 2,080 | 5,116 |
| 1836........... | 489 | 8,573 | 4.009 |
| 1836........... | 421 | 8,764 | 4.185 |
| 18.37.......... | 409 | 7,774 | 8,185 |
| 1278.......... | 464 | 10,860 | 11,894 |
| 1830........... | 521 | 11,183 | 11,700 |

 1NO THM YiAhg 1848,1849 , AND 1850.

|  | 1848. | 1840. | 1860. |
| :---: | :---: | :---: | :---: |
| Whlpa................... | 101 | 115 | 106 |
| liarky. . . . . . . . . . . . . . . | 863 | 825 | 848 |
| Itrigs . . . . . . . . . . . . . . . . | Oit | 888 | 834 |
| Schooncrs. . . . . . . . . . . . | B,007 | 6,480 | 7,681 |
| gloops . . . . . . . . . . . . . . . | 8,029 | 4,496 | 5,200 |
| Steamern. . . . . . . . . . . . . | 444 | 061 | 1,043 |
| Jlarges. . . . . . . . . . . . . . . | 3,265 | 8,68d | 8,850 |
| Boata................... | 0,800 | 8,528 | $8,4 \leq 0$ |
| Total. | 24,483 | 25,106 | 27,55\% |

Comparativg Btatexgnt oy tity Nuxbet of Vembrls, Hongion ANlb Coastwimin, which uavia amivab at L'ullapiliplia butumo Fifie YiAhe


The following are abstracts of tha vessels entered and cleared at the port of Philadelphia, from and to forelgn ports, during the year euding June $30 \mathrm{th}, 1856$ from which it sppears that the total number of veseels entered under the American flag during the year was 452, and the tonuage 198,253 tona, belng an increase of 82 vessels and 8432 tons ovar tha year 1855. The total number of veasela entered under forelgn flaga was 125 , and the tonnage 37,696 tons, an Increane of 10 vessele and 17,497 tobs over 1855 ; making a total Increase over the preceding year of 42 vessels and 25,929 tona. The total number of vessels cleared under the Amerjcan flag was 304, and the tonnage 110,581 tons, a decrease of 22 vessels and 7849 tonnage under 1855 ; and the total number of veseels sleared under foreign flage was 127, and the tonnage 28,409 tons, an increase of nine vessela and 18,362 tons, making a total decrease from that of the preceding year of 13 vossels, and an increane of 513 tons. See Pennsylyania.

| anтansb. |  |  |  |  | clanked. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counities. | Flag, Amariean. |  | Flan, Yorelgn. |  | Counirles. | Flog, Americen. |  | Flak, Foreign. |  |
|  | No. of Vomels. | $\begin{aligned} & \text { Too- } \\ & \text { nage. } \end{aligned}$ | No, of Vessele | $\begin{aligned} & \text { Ton- } \\ & \text { nage. } \end{aligned}$ |  | No. of Venerle. | Tonnage. | No. of Vamela. | Ton. nage. |
| Swedlali West Indlea. . . | 2 | 2.7 | . | - | Swodiah West Indica. ... | 6 | 1,400 |  |  |
| Inanish Weet Indlen...... | 8 | 404 | 1 | 101 | Danish West Indies..... | 2 | 788 | 3 | 518 |
| Hremen. . . . . . . . . . . . . . . | - | $\cdots$ | B | 4,382 | 1lamburg ............... | .. | . | 1 | 251 |
| IIolland.................. | 1 | 187 | 1 | 134 | 1remen . . . . . . . . . . . . . . . |  |  | 3 | 1,528 |
| England. . . . . . . . . . . . . . | 08 | 60,847 | 10 | 21,057 | liolland................ | 1 | 600 | 1 | 218 |
| 8cotland . . . . . . . . . . . . . | 8 | 536 | $\cdots$ |  | Dutch West Indles..... |  | $\cdots$ | 1 | 144 |
| Ireland . . . . . . . . . . . . . . | 1 | 795 | 8 | 8,050 | Belglum . . . . . . . . . . . . . | 1 | 457 | 1 | 290 |
| Britiah N. A. Pesmesalons. | 55 | 10,198 | 25 | 2,470 | Englatad ................ | 46 | 42,086 | 17 | 20,1:5 |
| Hritlsh West Indles..... | 37 | 8,774 | 28 | 2,003 | Scotland . . . . . . . . . . . . . | 1 | 8119 | 1 | 283 |
| Mritish Ifendurak....... | 1 | 176 | . | .... | Ireland. . . . . . . . . . . . . . . | 5 | 2,681 | 0 | 3,148 |
| British Gulans . . . . . . . | 1 | 418 | . | . | fitbraltar . . . . . . . . . . . . . | 1 | 194 | i |  |
| Britisit 1'oss, in Africa .. | 2 | 870 | . | .... | C'anada . . . . . . . . . . . . . | 2 | 1.435 | 1 | 335 |
| Brithah East Indles...... | 1 | 1,35.3 | - | . . . | Other British N. A. Posa, | 10 | 6,116 | 68 | 7,176 |
| France on the Atlantle . | 8 | 2,666 | 3 | 752 | Britleh West Indies. . . . | 6.5 | 11,736 | 10 | 1,816 |
| France on tho Mediter't. | 1 | 336 |  | ... | Itritish Gulana ......... | 6 | 2,114 | 1 | 118 |
| Spain on the Mediter'n.. | 1 | 177 | 8 | 325 | British Poss, in Africa .. | 2 | 870 | . | .... |
| Cuba. . | 138 | 80.076 | 6 | 1,068 | Hritiab East Indies ..... | 1 | 781 |  |  |
| 1'orto Mico . . . . . . . . . . . | 11 | 2,5.8 | 6 | 928 | France on the Atlantic.. | 0 | 1,043 | 2 | 480 |
| Cape de Verde. . . . . . . . . | 1 | 107 | 1 | 138 | France on the Med'n.... | 8 | 687 | . | .... |
| Asorea. . . . . . . . . . . . . . . | 1 | 118 | . | $\cdots$ | French West Indlea..... | 1 | 247 | . | .... |
| Berdinia . . . . . . . . . . . . . | 1 | b74 | 1 | 819 | 1'hilippine Jelande ...... | 1 | 847 | $\stackrel{*}{*}$ |  |
| Tugeany . . . . . . . . . . . . . . | ${ }^{6}$ | 1,082 |  |  | Cuba.................... | 82 | 10,762 | 5 | 1,17s |
| Siclly . . . . . . . . . . . . . . | 16 | 5,124 | 8 | 1,887 | 1porto Rico... . . . . . . . . . | 8 | 58 | . | 1,173 |
| Ilayti . . . . . . . . . . . . . . . . | 18 | 2,943 | 2 | 183 | Madelra. . . . . . . . . . . . . . | 1 | 197 |  |  |
| Mexico.................. | 1 | 213 | $\ldots$ | .... | Ilayt1............... . . . . | 7 | 1,848 | 1 | 175 |
| New Granada............ | 1 | ${ }^{233}$ | - | $\cdots$ | Central Republic ........ | 1 | $8: 5$ | - |  |
| Venezuela. . . . . . . . . . . . | 81 | 6,153 | 1 | 136 | New Granada, . . . . . . . . | 1 | 1569 | 8 | 684 |
| Itrazil. .................. | 82 | 8,054 | 1 | 218 | Venezuela............... | 25 | 6,727 | $\cdots$ | . $\cdot$ |
| Chill. | 11 |  | . | .... | Braz11. . . . . . . . . . . . . . . | 25 | 6, 228 | . | . |
| Peru.... | 11 | 18,286 | $\ldots$ | . | Crugusy . . . . . . . . . . . . | 2 <br> 8 | 4.48 | . | ... |
| Ecuader. | 8 | 8.6 | - ${ }^{\text {a }}$ | .... | Buenos Ayrus. . . . . . . . . . | 3 | 1,8188 | $\cdots$ |  |
| Tolal . . . . . . . . . . . | 453 | 160,657 | 1:5 | 67,636 | Total. | B04 | 1110.681 | 127 | B8,4061 |

Philippine Islands, a large and important group in the Asiatic Archlpelago, forming its nortl:crn division, and next to Cuba the most valuable colonial posseasion of Spain, chiefly between lat. $5^{\circ} 32^{\prime}$ and $19^{\circ} 38^{\prime}$ N., and leng. $117^{\circ}$ and $127^{\circ}$ E., having north and east the Pacifle Ocean, west the China Sea, and south tho seas of Scoloo and Cclebes. There are at least 1200 islands, great and small. Principal islants, Luzon, Mindano, and Palawan, sith Mindoro, Panay, Marindiquo, Negros, Zohu, Bohol, Leyte, Samar, Masbate, and niany of less size. 'Total area estimated at 120,000 square miles. The Spanish dominion la stated to extend over only 52,148 sq. miles. Population, in 1850, 3,815,878, consisting of Europeans, native whites, the Papuan negro race, and independent tribes, Malay Indiane, half castes, and Chinese. The islands are of volcanic formation, and contain a chain of active volcanoes. Earthquakes also are of frequent occurrence. The group is within the range of the monsoons, and violent hurricanes are common. From May to September the
western conats aro deluged with rain, while the October monsoon brings rain to the castern coasta, at other seasons dry. The high temperature and abundance of moisture produce a luxuriant vegetation; so that they are capable of yielding all kinds of colonial, nad probably European produce. Rice, millet, maize, sugar, indigo, hemp, tobacco, coffee, and cotton, are raised; and sago, cocoa-nuts, banazas, cinaman, betel, numerous fine fruits, and timber for ship-building are among the products. Buffaloes and most of the domestie animals common in Europe are reared. There are no predaceous quadrupeds; the enyman is found in the rivers. Pearls, pearl-oyster shell, the sca-slug, edible birts' nests, and sapan-wood, are important articles of ex port henco to China. Domestic weaving is pretty generally carried on by the females, and straw hats, cigar cares, and earthen-wares, are mado; but the chicf manufacture is that of "Government Manilln" cigars, which oceupies 2000 hands at a royal fnctory in Manilla. The w retched colonial policy of Old Spain oxcluded all for-

## PHI

eign ships and Chinese nettiers from these lalands, and the traile with the Spaniah deminion in America was also contined to that condacted annaally by alogle ship. But auch reatrictiona have vanlahed alnce the revolution, and the colony is now making commensurate progresa toward proaperity. In 1842, 149 shipa, aggregate burden 46,869 tons, entered, and $162 \mathrm{~d} \cdot .$, burden 50,226, cleared, at the different ports, Imports amounted in value to $\mathbf{5 0 0 0} \mathbf{0 8 0}$, one-third from England, and more than another thilrd from China, the Iniled States, and Britiah India, Exporta amounted in value to $\mathbf{2 0 7 4}, \mathbf{1 6 0}$, chiafly sent to Fingland, Spain, the United States, Cbina, and Auatralia. Manilla (which ace) is the principal neat of the trade, and aleo the seat of the government, it being the reaidence of the eaptain genoral. In each of the larger Isiands is a lieutenant govornor; and each of the 30 provincea, governed by an ulcalde, is divided into pueblos, or communes. The lloman Catholic religion has beell extenaively diffused among the Maiaypopulation. Public revenue iadorived chiefly from duties on exports and imports, the tobacco monopoly, and a capltation tax, which in 1887 was paid by $1,305,142$ adults, of whom 901,924 belongel to the island Luzon. Armed force amounta to about 7000 men, one-tenth Spaniards, and the reat Malaya. Theas islanda were discovered by Magalhaens in 1521, and settled liy the Spaniards in the reign of Philip Il., after whom they were named.

The commerciai intercourse generally is under the laws and regulations of the mother comntry, but, in fact, Is in some degree dependent upon the local authority, the power being with the governor to order the departure from the colony of any person who may become obnoxions to himscif or his goverament. The regulations are fixed for an findefinite time; amendmenta are conatautly proposed, and, for several years past, a total reviaion of the tariff of duties on forcign produce has been, from tlme to time, diacussed. Any such changes, though they may bo proposed and discussed in Manilla, can only be made law by the homo govermment. In fact, the reins are held vory tightly in Madrid, and the governor general is constantly mede to feel his dependence upon the minister in power. Citizens of the L'nited States enjoy the privileges of all other foruigners. There is no distinction made in the privileges or reatrict:.ans permitted or imposed on the commerco of foreugn issions. The port charges consist of tonnege dues, river-cleanir.g dues, and light dues. Tho tonnage dues aro 25 centa per ton register, if the vess. 1 discharges or takea in cargo; and one-half, or $12 \frac{1}{2}$ cents per ton, if she departs without having liroke balk or received cargo. A vessel may land specle withont being sabjected to the full ducs. The river dues, for the support of a mud-boat, are : on a vessel discharging and loading any cargo, 61 cents per ton; entering in ballast and sailing whth cargo, or rice rersa, $3 \frac{1}{8}$ centa per ton; entering wleli cargo and aailing with same, 3 conts per ton; entering and sailing in ballast, nothing. The light dues are, on all foreign vesacls, $6 \frac{1}{4}$ cents per ton regiater.' Spanish vessels pay one half these rates. The transhipment of goods is atrictly prohibited. In order to effect a tranahipment, the goods must be entered in deposit, actually brought on shore to the eustom-house, and then shlpped umier fresh doeumente from deposit. There is but one port, this of Manilla, open to foreign ahipping, and foreigners are excluded from ell fiternal and coasting trade.

The moneys, weights, and measures in common use in Manilla are authorized by the iaws of Spain, hut can not be aaid to correspond with those of the mother country, Inasmuch as in Spain the weight and neasurea are not the same throughout the kingdom. The moneys current hare aro specie only. Of gold, the doubloon of Spain, Mexico, and the republics of South America, of full weight, is current at \$16. The smaller coins-halves, quarters, and eighths-at their proportlonate valuo. Of silver, the dollar of Spain, Mex-
ico, and the other South American republics, of full welght, is current at 1 United Staten currency, The reintiva amaller coina pass at their reiative value. Copper coin is of three sizes; I cuarto, 2 cuartos, and 4 cuartoa; 160 cuartoa are eqnal to a dollar. Aeco'nt are kept by Spanish merchants in dollara, realu, and cuarton; 20 cuartos equal I real; 8 reala equal I dollar. Forelguera generaily keep their accounts in dollars and cents. The value of these coins is abont the same in the United States as here; but not belog tixed by the United States iaws, there ja a fluctuation whlch can not he reduced to regular itmith.

The weights in common use are pleuls, quintala, arrobas, and pounda. The pound is atoont is per cent. heaviur than that of the United States. 25 poumls cqual 1 arroba, or, at the United States atinndard, about $25 \frac{1}{2}$ pounds ; 4 arrobas $=1$ quintal $=101 ; \mathrm{ilise}^{2} ; 5 \frac{1}{2}$ ar. robas $=1$ pical $=140 \mathrm{ibd}$. The measures are long meas-ure-inches, feet, yards, fathoma, miles, and leagurs. I2 inches make 1 foot; 8 fect make one yard; 2 yarda make 1 fathom; 1111 fathoms and 0 linches make $t$ mile; 8 miles make one league. The yaril (or yara) in use here is about 38 inches of the United Stntes. Grain is usually sold In the country by the cavan. tapatanes equal 1 chupo ; 8 chupos equal 1 ganto; 25 gantos equal 1 cavan. These differ, however, in the different provinces. In Manilla, a cavan of rice welghs 127 ibs ; of cottee, about 52 its ; of wheat, shout 1 is lbs. A tinaja of oll contains 16 gantos; of wine, 17 gantos.

Tho rate of insurance to the United States from Manilla is charged 3 to $3 \frac{1}{2}$ per cent. ; but littic is thone, howevor, there lieing but one local insurance office with a trifling capitai, the policiea issucd by which contain so many exceptions as to make them of very little value. The shipments of produco to the United States are cosered ly Insurance made in the United States or in England. Frelghts vary constantly, being governed by the supply of tonnage and quantity of produce walting shipment. At present, 200 per ton of 40 cubic feet of henp and other measurement goods, and 余\} 2 or क्षे3 per ton of 22.10 pounds of aingar, are current. These are comsidered full rates. Commission to charged $2 \frac{1}{2}$ per cent. on all purchases for the United States. When s broker is employed he is paid a trokerage commission of $6 \frac{1}{2}$ cents per pienl on bemp, $6 \frac{1}{2}$ per picul on sugar, $3 \$$ centa per pieul on rice, and on other articles as may - agreed upon. All articles of produce are tought for cash, and paid for on delivery. Oftentlmes paymest is made in part before delivery, and in the hemp trade the advances made are very large. The rate of exehange bet ween thls and the United States Is net quoted, there being no transactions in the regular course of trude. All exchango tranactions per American acceunt (and the greater portion of the exports to the United States is paid for in bills) are made through lingland, tills being drawn here on Lonton bankers, by virtus of credlts granted thy the lankers themselves in l.ondon, or by their egents in the United States. The average rate of exchange during the past ycar has been, for billa on London, drawn at six months' sight, bs. $02 d$. per dolliar. The par of exchange is abiont $4 x .2 d$., the same as in the United States; the currency In silver teing ahout equivalent that of one commery with the other. The flollar current here, being of the Mexican und South American currency, is werth one hundred cents in the United Statea.

Duties on exports are, en hemp, 2 per cent.; on tortoise shell, mother-of-peari shell, and ratans, 1 per cent. (these three articles last named are, in fact, not productions of this island, but brought from the Soeloo Ialands, and pay 1 per cent. import dut.y); all other artleles, 3 per cent. On all Imports direct from the United States, 14 per cent. There are no internal taxes of any kind on produce. The rates of wages in agricultural pursuita are very low, generally paid in produce sufficing for the aubsiatence of the laborer, and diffeult
to be r 50 cent or evea 25 ceat bay th Iatior I: L'nited done b: hly wit Si'als. riew, v The ment, gar, sa hidee, tortois rics, ai elry, The! Sut Lof
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For
islands 11 dolier. loliara and e name in sed liy the which can intuls, arper cent. 25 pounds art, ahout 8. ; abl arlong measd leagues. 1; 2 yards cs make 1 or vars) in ea. Grain 11. 4 ари. canto ; 95 rer, in the rice weighs ahout 150 f wine, 17 a from $\mathrm{Ma}_{\mathrm{a}}$ le is thone, office wih ich contain ittle value. tes are cor8 or in En. overned ly ace waiting uhic feet of 4 12 or - These are rged $2 \frac{1}{2}$ per 4. When a commission l on sugar, cies es may liought for es payment hemp trade rate of exnot quoted, $r$ course of can account the United th Fingisnd, b, by virtue ves in lonates. The ar has been, s' sight, 58 . 1out $4 s .2 d$., icy in silver ry with the he Mexicsn ne hundred
to be reduced to a money mtandard. Artimans obtain 50 cents per tiny, and if expert workmen an hagh as ${ }^{\circ} 1$, or even 150 per day, Lalurera in and about Maniia, 25 cente to $37 \frac{1}{\text { a centa per day. On board ahips In tie }}$ bay they are paid $62 \frac{1}{3}$ centa per day. At these ratee iabor is much dearer than in the Atlentic eities of the Inited States-the quantity and quality of the work dione by a Manilia workman comparing very unfavoraHy with that of a man in Now York.-See Manilla, Sipin. For further informallon refer to Quarterly Reriew, vii. 235, xvli. 530, xxxv. 323.

The chief exports from Manllas (the aoat of govarnment, and tise chlef port of the lalands) are hemp, mugar, sapan-wood, cigars, cordage, indigo, coffee, rice, hides, mother-of-pearl shell, almacige, grasa-cloth, and tortoise-sheii. The principul imports are cotton fabries, siiks, woolenr, jhaberdabery, drugs, clocka, Jeweiry, etc.

The leading exports to the United States in 1844 were: Sugar. . . . . . . . . . . . . . . franca $1,0,000=\$ 206.200$


Inpomta and Expemta or fin futhiptine Iblambsim 184.

| Countrice | Imperta. | Kiperse. | Total. |
| :---: | :---: | :---: | :---: |
| Chins | $\begin{aligned} & \text { Prange } \\ & 8,044,000 \end{aligned}$ | Vranes. <br> $6.8 \times 8.000$ | Franeq. <br> 14, 447.000 |
| Hiogtsnd | 4,284,000 |  |  |
| Stograpor | 4,975,600 | 476,000 | 4,851,000 |
| Unised Bta | 1,122,000 | 3,346,000 | 4,457,000 |
| Hpals. | 1,6t8,050 | 2,970,000 | 3,088,000 |
| Javie and Mol | 1,112,000 | 6\%\%,000 | 1,730,000 |
| Australla .. | 249,000 | 026,000 | 1,274,000 |
| Frat Indlen. | 14t,010 | 08J,600 | 1,1柘,000 |
| France. | 200,000 | 401,000 | 751000 |
| Sonton Iutes | 8411,010 | 281,000 | 691,010 |
| Bolgtum . . | (100,004 | 8114,000 | 413,000 |
| Ilanme Towns, | 82,000 | 330,000 | 362.000 |
| Cippe of Giod llope | 267,000 |  | 267,000 |
| Buat | 23,040 | $\ldots$ | 13,000 |
| Totsi francs. . . . . 1vole at 10 c. per fr. | $\begin{array}{r} 22,368,000 \\ 4,240,1,20 \end{array}$ | $\begin{array}{r} 19,933,(100 \\ 3,673,270 \end{array}$ | $\begin{gathered} 41,701,1001 \\ 7,0.3,100 \end{gathered}$ |

Imports. - National commerce, 8125,011 ; foreign commerce, $83,174,325$; imports for deposit, 8718,681 . Esports.-Nationai commerce, $83,834,069_{;}$foreign commerce, $\$ 338,204$; exports Prom deposit, $\$ 436,638$. Total imports, $84,010,007$; total exports, $\$ 1,608,911$.

The Manilia picul is estimated at 133 f lbs.

QUANTITLE OF If 184 to 1853.

| HEMP. |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 184 | 1845. | 844. | 1841. | 1848. | ? 818. | 1850. | 1881 | 1662. | 1853. |
| 3othe Cnited States. | 89,182 | 1.6288 | 92,406 | 300,285 | 123,040 | 113,404 | 102,194 | 148,13.1 | 220.614 | 204585 |
| To Europe . . . . . . . . . . | B, 084 | 7,2122 | 16,500 | 16,739 | 20,643 | 39,043 | 21,216 | 30,815 | 27,748 | 16,934 |
| L'cuta [139 tba, anch] | O5, 11 ill | 102.4 .10 | 110,196 | 117,024 | 148,683 | 153,302 | 193,410 | 173,988 | 248,267 | 221,5ts |
| avasit. |  |  |  |  |  |  |  |  |  |  |
|  | 90, 1146 | 72,100 | 35, ${ }^{3050}$ | V1,4.6 | 77,3.in | 84.128 | 964 ${ }^{6}$ | 1116,412 | 144.14.) | $1941: 5$ |
| To Entrope............ | 127,421 | 108, 1000 | 176, 2,18 | 111,447 | 68,402 | 184,839 | 211.774 | 127,7:6 | 123,7:2 | 108,922 |
| Picuis [t33\} lbs, each] | 217.5.6 | 175,160 | 211.259 | $2+2,8 \leqslant 2$ | 145,788 | 273,961 | 2401,255 | $244,187^{-}$ | :04,032 | $803.117^{-}$ |

The average price of hemp at Manills is from $\boldsymbol{e n}_{7}$ to 8706$\}$ per picul, though $\ln 185 t-55$ it ascended as high as $\$ 10$, owing to the Eastern war. The average price of sugar is $\$ 3 \quad 37 \frac{1}{2}$.

The preceding table shows that the quantity of hemp exported from Manilia to the United States In 1853 suounted to 201,584 piculs $=27,277,866$ pounds; and the quantity of sugar to 194,195 piculs $=25,802,667$ pounds. The following condensed summary exhibits the total export trade from Manilia to the United States during the same year: Hamp, 201,584 piculs; sugar, 104,195 piculs; jndigo, 9050 quintals; sapan-wood, 8002 piculs; coffee. 1724 piculs; mother-of-pearl shell, 712 pieuis; hidn cuttings, 3201 pieula; ratans, $\mathbf{7 6 3}$ piculs; hides, 4,886 piculs, grass-cloth, 19,598 piculs; gam slmaciga, 2556 piculs; tortoise-shell, 214 catties; cigara, 148 thousand. The merchandise above specified was floated in 41 vessels; of which 21 cleared for New York, 17 for Boston, 2 for Salem, and 1 for Philsdelphia. The preceding summary exhibits the general character of the imports into the United States from the Philippine Islanda. In the official reports published at Manilia the trade with San Francisco is given separately from that with the United States. During the year under review (1853), the exports to Caiifornia consisted of: Sugar, 3976 piculs; coftee, 7546 piculs; rice, 16,876 piculs; cordage, 2285 piculs; cigars, 812 thousand; paddy, 2949 cavanas; panocha, 1818 baskata; Indian corn, 8922 lbs. ; garlic, 46 piculs; lime, 78 cavanas; hats, 1200 . The total exports from Manilia to ali countries in 1853 were: Sugar, 566,371 picuis; hemp, 222,089 piculs; sapan-wood, 81,963 pictuls; rice, 303,902 pieuls; cordage, 12,119 piculs; coffee, 18,080 piculs ; cigars, 79,311 thousand; indigo, 9123 quintais; mother-of-pearl, 2040 piculs; hides, 5874 piculs; hide cuttings, 8697 piculs. In cotton goods (the principal import of the Philippine Islands) England and the United States are the chief competitors.

Formerly, if the master of a reasel tonching at these islands deaired to ship native sailors, he was obliged to give his bond for their return to Manilis This, it is
obvious, was but a mero matter of form, and hence but few of the saliors thus taken eway ever returned. After the aliscovery of gold in Caiifornia, it was found extremeiy difficuit to procure sailors at any of the Malayian islands; and this difficulty was increased by a new regulation at the Philippines, which requires the consignee to sign the captain's bond for the return of such sailors as should be shipped at Manilia This the consignees are, in most cases, unwiling to do. Ilence the :xide between the United States and the Philippines remains so long stationary. For a number of years the United States has enjoyed about one fifth of the entire trade of the islands. Were this difficulty in regard to the employment of native sailors removed, this one fifth of the trade would in a short time ascend to one half.

In ship-building at Manilia, the timber used ls all the growth of the country. The timbers and knees are of "molare;" planking above water is of " manyachapuy," and below of " banaba" in the northern provinces, and "bntitinan" in the south; dock beams, molare, or "dougon;" keel of dougon, and waterways of the same. Ali these woods are very excellent, and, if well sensoned before using, are very durable. The molare is a hard, close-grained, strong wood, but is very heavy; dougon is next in value, and the mangachapuy ranke third. There are many other kinds of wood which are used, according to the caprice of bulders. The cost where grown is trlffing, but if brought to Manilla the addition of freight makes it expensive. The preservation or seasoning of ship-timber is not attended to here; and there are no depositories of ahtip-timber, properiy speaking, though it may always be had in sufficient quantities for repairs to vesseia frequenting the ialands.

Port-charges.--Vessels arriving in ballast, and not breaking bulk, pay $12 \frac{1}{2}$ cents per ton (register tonnage). If cargo ls landed or stripped, 25 cents per ton. Mudmachine, $6 t$ cents per ton; light-house dues, of cente per ton. Spanish vessels pay only one half of the above rates.-United States Commercial Relations.

Coymaber of tif Leitid Statea with Manilla and Pimlippige Ialanda, frox Ootober 1, 1820, to Jelt 1, 1856.

| Yeara endiog | Exporta, |  |  | 1 mporta. | Whereof there was in Ballion and specte. |  | Tonnsge clezred. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Homestic. | Foreign. | Tolal. | Total | Enport. | Import. | $\Delta$ marican. | Foreign |
| Bept, 3u, 1821....... | \$1,859 | \$209,484 | \$211,828 | \$114,861 | \$100,000 | * | 632 | . $\cdot$. |
| 1822....... | $\cdots$ | 11,799 | 11,799 |  |  | $\ldots$ | 370 | .... |
| 1823. | 6,440 | 41,978 | 46,724 | 158,285 |  |  | 370 | . . . |
| 1824, | 8,958 | 210,603 | 219,620 | 153,472 | 186,000 | \$3,000 | 804 | , |
| 1825. | 23,169 | 185, $59-4$ | 208,728 | 229,371 | 122,500 | 10,500 | 8,007 | 110 |
| 1826....... | 14,138 | 63,207 | 72,840 | 848,975 | 80,000 | 12,215 | 724 | *** |
| 1827....... | 10 | 141838 | 181780 | 180,818 | 101000 | 26,685 | 809 | .... |
| 1828. | 19,914 | 141.838 | 181,702 | 60,881 | 101,000 | .... | 809 | . $\cdot$. |
| 1829........ | 10,804 89,129 | 66,430 64,539 | 77,282 93,668 | 209,206 384,837 | 20,082 $\ldots$ | 16,248 | 604 41,8 | . $\cdot$ |
| Total... | \$122,913 | \$980,168 | \$1,108,081 | \$1,810,051 | \$009,632 | \$88,648 | 7,828 | 119 |
| Sept. 30, 1831....... | \$15,004 | \$18,330 | \$32,824 | \$348,996 | \$3,000 | \$1,820 | 249 | . |
| 1802\%... ... | 20,906 | 113,414 | 184,320 | 332,230 | 68,000 | 114 | 1,286 | . . |
| 1833. | 1,021 | 8.370 | 9,397 | 514,498 | .... | . $\cdot$. | 9.4 | . |
| 1834. | 3,662 | 12,257 | 15,019 | 283,665 |  | -* | 222 | . $\cdot$. |
| 1835. | 88.947 | 60,162 | 89,099 | 418,815 | 48,000 | A05 | 1,072 | .... |
| 1836. | 7,881 | 62,072 | 60,083 | 808,330 | 15,000 | 405 | 1,908 | . |
| 1837...... |  |  |  | 1,346,486 |  | .... |  | . $\cdot$ |
| 1888. | 03,214 | 149,808 | 242,517 | 3S6,628 | 148,400 |  | 1,780 | ... |
| 1839. | 98,5:3 | 38,285 | 188,808 | 876,477 | 80,200 | 1,020 | 1,874 | . . . |
| 1540. | 90,539 | 80,927 | 121,618 | 450,251 | 80,000 | . ... | 810 | .... |
| Tulal. | \$370,247 | \$472,186 | \$842,433 | \$5,746,244 | \$338,600 | \$ 2,505 | 10,094 | -•• |
| 8ept. 80, 1841....... | \$75,450 | \$187,336 | \$262,786 | \$733,900 | \$165.344 | . . . | 3,754 | . $\cdot$ |
| 1842,...... | 835,732 | 100,444 | 330,176 | 772,372 | 94,630 | . . . | 4,797 | ... |
| 9 mos., 1843*...... | 67,743 | 54,435 | 112,148 | 409,290 | 48,040 | . . . | 1491 | . . |
| June 30, 1844....... | 91,709 | 131,2:8 | 222,997 | 704,811 | 120,385 | . . . | 6,283 | . $\cdot$. |
| 1845....... | 119,203 | 35,315 | 164,578 | 633,050 | 81,200 | .... | 8,230 | . 1. |
| 1846. | 100,054 | 0,285 | 110,239 | 865,866 | 9,008 | .... | 8,030 | . $\cdot$ |
| 1847. | 32.450 | 44,760 | 77,240 | 494,460 | 4,760 |  | 8,189 | . |
| 1848. | 36.949 | 18,543 | 80,492 | 1,197,027 | 10,382 | 8.820 | 3.318 | ... |
| 1849. | 187,868 | 8,660 | 140837 | 1,127,114 | - | 5,182 | 8828 |  |
| 1860.. | 16.817 | 1,450 | 18,267 | 1,836,866 | .... | 4,423 | 3,165 | 2992 |
| Totat. . . | \$906,026 | \$ 586,46 | \$1,401,490 | \$8,294,367 | \$532,521 | 8t8,1:5 | 95,983 | 2092 |
| June 30, 1851. | \$12554 | \$7,000 | \$1n9,644 | \$1.254,688 | \$2,200 | 192 | 16,134 | $4 \times 05$ |
| 1852 | 211.791 | 9,927 | 201,718 | 1,5224.040 | .... | 823 | 11,089 | 6362 |
| 1853. | 64,375 | 1,000 | 65375 | 2,465, 683 |  | . . . | 90,408 | 24103 |
| 1854. | 27.852 | 40,65) | 74502 | 2,965,282 | 42,n22 | 100 | 10,745 | 843 |
| 1855....... | 94, 263 | 83,708 | 177.911 | 28867.441 | 188,490 | 100,485 | 12.430 | 6010 |
| 18:6....... | 20463 | 64, 68: | 2010.857 | 2,026,870 | 127,308 | ...: | 21.680 | 363 |

- Nino months to June 30, and fiscal year begins July $1,1 \times 43$.

Phosphorus, a кubatance of a light amber color, and semi-transparent; but, when carefully prepared, nearly colorlesa and transparent. When kept aome time, it becomes opaque externally, and has then a great reaemblance to white wax. It may be cut with a knife, or twisted to pieces with the fingers. It is insoluble in water; lts specific gravity is 1.77 . When exposed to the atmosphere, it emits a white smoke, and Is luminous in the dark. When heated to $148^{\circ}$ it takes fire, and burns with a very bright flame. When phosphorus is inflamed in oxygen, the light and heat are incomparably more intense-the former dazzling the eye, and the latter crucking the glass vessol.-Tномsos's Chemistry.
Piano-forte. Invented by J. C Schroeder, of Dresden, in 1717. He presented a model of his invention to the court of Saxony; and some time after, G. Silverman, a musical-Instrument maker, bega.. to manufacture pianofortes with considerable suceess The invention has also been ascribed to an instrumentmaker of Florence. The squaro piano-forte was first made by Freiderica, an organ-huilder of Saxony, about 1758. Piano-fartes wero made in London by M. Zumpio, a German, 1766, and have been since greatly Improved by others here. They are now extensively manufactured In Boston, Now York, Philalelphia, Ihaitimore, Albany, Buffalo, Cincinnati, thicago, and St. Louia, and other cities of the United States.-F'Fr "OrIgin of the Piane-forte" seo Weatminater Rerive, $x \times x i l$. 306

Plastres, or Dcllars, Spanish and American silver colns in very extensivo circulation. They are uned In Spuin, Italy, Turkey, South Ainerlea, the East Indies, etc., varying in value in every country,-See Corss.
Pickles are varlous kInds of vegetables and fruits preserved in vinegar The sulstances are firat well cleaned with water, then steeped for some time in brine,
and afterward transferred to bottles, which are filled up with good vinegar. Certain frulta, like walnt , require to be pickled with sealding-hot vinegnr; others, as red-cablage, with cold vinegar; but onlons, to preserve their whiteness, with distllled vinegar. Wood vinegar is never used ly the princlpal pickle-manofacturers, but the lest malt or white-whe vinegar, No. 22 or 24 . Kitchener says that, by parhoiling the pickles in brine, they will be ready in half the time of what they require when done cold. Cabbage, however, cauliflowers, nand such articles, would thereby becone flaliby, and lose that crispness which many people relish. When removed from the brine, they should be cooled, drained, and even dried, before beits put into the vinegar. To assiat the preservation of pirkles, a portion of salt ls also addal, and likewise, to give Havor, various spices, anch as long gepper, black pepper, white pepper, allspice, ginger, cloves, mace, garlle, mustard, horseradish, shallots, capsicun. When the spices are bruised they are most eflicaclous, but they are apt to render the pickle turtid and disedlored. The flavoring ingredients of Indian plekle are Curry powder milxed with a large proportion of mustarid and garlic Green peaches are sald to make the best imtation of the Indian mango.
Pilchards, fishtes closely resembling the common herring, but amaller, and at tho same time thicker and rounder. They are rarely found on the Ilritish shores, except on the consts of Cornwall and Devon, particularly the former, where they are taken in great numbers from the midd!e of July to the end of Novemiter, or even the middlie of December. It is a snying of the Cornlah fishermen, that the pllchard is the least fish in size, moat in number, and greateat for galn, taken from the sea.
Pilchard Fishery.-Thls is carried on along the British couats of Comwall and Devon, from tho Bolt IIead in the latter, round by the Land'a End to I'adatow sad

Bossi
Ives, make of Ju bat th vemb or by mer. oms i ing other. boat
tho se assist gener be tal of fish the castin ed for practi gentl same
by me loaded on the er , na in mo
howes sist in fish a shore. once But th but se at at sceide catclı heals, gle fis break quant take nuinl mana lengel the c the sa are st thoug the ne ss ths cellar heaps betwe forab nude an av to a horsh mer, in the This der ti fuse il ns ma float are ca chiter welgh the w reduc cafk, playe the tla

Bossiney in the former. Its principal seata are St. Ives, Mount's Bay, and Mevagiseey. The fish usually make their appearance $\ln$ vast shoals in the early pnrt of July, and disappear about the middle of October; but they aometlmes reappear In large quantlties in November and December. They are taken either by seines or by drift-nets, but princlpally, perhaps, by the former. A selne is a net, varying from 200 to 300 fathoms in length, and from 10 to $14 \frac{1}{2}$ feet in depth, having cork buoys on one edge and lead welghts on the other. Three boats are attached to each aelne, viz., a boat (seine-boat) of about 15 tons burden, for carrying the seine; another (fullower) of ahout the samo size, to assist in mooring it; and a smaller boat (lurker) for general purposes. The number of hands empioyed in these three boats varies from about 18 to 18, but may be taken at an average at about 16. When the shoals of fish ceme so near the shore that the water is about the depth of the scine, it is employed to encircle them; the fishermen belng directed to the preper place for casting or shooting the nets by peraons (huers) stationed for that purpose on the cliffs and in the boate. The practice is to row the bost with the seine on board gently round the shoal; and the selne being, at the snme time, thrown gradually into the water, assumes, by means of its buoys and weights, a vertical position, its loaded edgo being at the bottom, and the other floating on the surface. Its two ends are then fastened together, nnsl, being brought into a convenient situation, it is inoored by small anchors or grapnels; sennetimes, however, one or two smaller seines are cmployed to assist in securing the fish. At low water the inclosed fish are taken out by a tuch-net, and carried to the shorc. A slingle seine has been known to inclose at once as many as 4200 hogsheads ( 1200 tons) of fish! But this was the greatest quantity ever taken, and it is but seldoin that as many as 1200 hogsheads are caught at a tine. The "take," in fact, depends on so many sceidental circumstances, that while one seine may catch and cure in a eeasen from 1000 to 2000 loggsheads, others in the neighborhood may not get a single fish. In some places tho tides are so strong as to break the seines and set the fish at liberty. When the quantity inclosed is large, it $\mathbf{r}$-uires several days to take them out, as they must no. be removed in greator numbers than those who salt them can conveniently manage. Drift-ncts are usually about half a mile in length, ly about $4 \frac{1}{2}$ fathoms in depth; they nre shot in the epen sea, and entangle the fish in their meshes in the same way as the herring-nets. The fish thus taken are snit to be superior to those taken by the seine, though it be doubtful, from thelr being strangled in the nets, whether they are so good for curing. As soon ss the fish are breught on sloore, they are carried to cellars or warchouses, where they are piled In large heaps, having a sufficlent quantity of salt interspersed between inc 1 -ers. Having remained in this atate fer about 35 days, they aro, after bu ing carcfully washed nud eleaned, packed in hogshends, each contalalng, nt nu average, about 2600 fish; they are then subjected to a pressure sufficient to extract the oli, of which ench hogsheal yields, provided the fish be caught in mummer, about three gallons; but those that nre taken late In the season do not yield abovo half this quantity. This oil usually sells for from 12 to 15 per cent. inder the price of brow: seal eil. The broken and refuse ilsh and salt aro sold to the farmers, nud are used as nanure with excellent effect. The skimmings which Hoat on the water in whlch the pilcharde nre washed sre called dregs, and aro chlefly sold as greaso for inachinuery. The fresh fish in a hogshend of pilchards welgh nbout 6 owt., and the salt about $3 \frac{1}{2}$ ewt. ; but the weight of the hogshead when oured and pressed is reduced to about $4 \frac{1}{c}$ cwt.; includling the weight of the cask, from 20 to 24 lbs. Four-lifhs of the pereons employed on shore in the salting, euring, packing, otc., of the lish are women.-Dr. J'Anis's Guide to Mount's Bay.

Pilots and Pilotage. The name of pilot or atcersman ls applled either to a particular officer, serving on board a ship during the course of a voyage, and having charge of the helm and the ship's route; or to a person taken on board at any particular place, for the purpose of conducting a ship through a river, road, or channel, or from or inte a port. Masters and mates of merchant vessels, after having passed an examination before legally constituted authorities, and possesslug a certificato to that effect, may pilot their own vesscla within the prescribed llmits for whlch they havo passed, without being liable to any penalty. In all other cases, when a master is by law subject to a penalty for not taking a pilot, he is bound to do ao when ho has the opportunlty; and after the pilot is taken on hoard, the master has no longer any command of the ship, ner is he reeponsible for the management of her while she continucs In the distrlet for which the pilot is autherized to act. When beyond that district, the master again resumes the government of the vessel, the pilot being then no longer linile, although for his own convenience he may still remain on board. In such case he is ouly to be considered as a passenger, and is not entitled to any remuncration for whatever service ho may choose to perform on the voyage, beyond that for which he wns originally engaged; but should he remain on board nt the request of ths master, he is entitled, besides his pilotage, to a further remuncration per day or por month, according te the rules of the respective ports, from the dny when he has passed the limits of his license to the day of his return to the port from whicl he was taken on board. If a master of a vessel in any district within which pilots are appointed to act (usually denominated "Pilots' Water") should, except under the circumstanees before stated, refuse the service of a pilot uffering to come on Loard, he immediately renders hilmself liable to his owners, freightars, or insurers for any damage that mny occur to the vessel or cargo, arising from the want of such service. When the law does not cempel a mnster to take a pilot on board, nad he nevertheless, of his own discretion, chooses to de so, the pilot is considered to be the servant of the owners, who under such circumstances would be responsible to strangers for the management of the ship during the tlme he continued in charge. If the inaster at a forcign port attempt to obtain a pilot and fail, and then, in the excrelse of his best discretion, endeaver to enter the port and fail, the insurer ts not discharged. If the vessel approach a port in the night, he must make signsls for a pilot, and wait a reasonable tlime for one; and if he nttempt to enter the port without one, except in case of extreme necessity, the insurers are discharged. Pilotage constitutes a llen upen the vessel, and may be prosecuted in admiralty. But the pilot must be employed by some person rightfully in possession of the vessel. $\dot{A}$ pilot can not recover for plloting into an encmy's pert.

Grint Britain.-Under most charter partles, with the oxception of those made for vessels in the ceal trade in England, the charge for pilotage is paid by the charterers. Many ports enjoy sepnrate and distinct jurisdictiens for the nppointment and government of pilots, and the regulations of the rates of pilotage. These jurisdlctions are exercised by cerporations and other bodics, the privileges of which have been granted either by anclent charters or by prrlinmentary. Among the minny corporations so established, the most important are those of the Trinity IIouse of Deptford Strand, whose jurisdiction is the most extensive; and of the Trinity Houses of IIull and Newcastle. The bodies nre authorized within their disiricts to determine the qualifications of pilots, license them, mnke regulations for thelr government, fix nnd alter pilotage rates, and arrange the limite of the pilotage illstricte, suth' 'ct, however, to the special provislons contnined in the Merchants' Shippling Aet of 185t. The regulations of which are given in summary, as follows:

It is questionable whether the Trinity House may rovoke a pilot's license without besring him; but if, after hearing him, it revoko his license, Its decision ia biading. 'The application of the Merchants' Slipping Act of $185 \pm$ applies oaly to the United Kingdom.
Powers of Pillutage Authorities.-Every pllotage anthority shall retain all powers and jurisdiction which it now possesses, ao far, and only so far, an they are consistent with the provision of the geveral act. Every pilotage authority has the power to exempt ships from being compelled to employ pllots; also to license pilota; to inake regulatlone as to pilot-boats; to make regulations for the government of pilota; to alter rates of pilotage; to limilt pilotage districts-all belag within their district.
R'ower of Appeal to Board of Trade,-If the greater number of qualitied pilots belonging to any port, or the local marine board, or any number of owners of ahips, mastors or insurere, consider themselves aggrieved by any regulations euforeed by the pilotage uuthority, they may appeal to the Board of Trade; and tho consequent decision shall be deemed conclusive.

Spain.- No ono can be a pilut or officer of a merchant ship without baving obtained a license. In case of docouse, absence, or illnesa of the captain, the pilot takes his place, and lncurs all hise reaponsilility. The pilot can not change the course, unleas the captain agrees to it. In case of difference of opinion, the pilot shall explain bis reasons to the other officers; and if the captain persisto in his orders, tho pilot shall onter his protest in the navigation trook.
Hussia.-The pilot should look after the vessol, tho embarkation and dobarkation of merchandise, keep a registry of all that passes on hoard and of tho ouservatlons. He owee obedience only to the captain, and should nover quit the vessel when the captain is absent uuless forced to do so.
Portugal.-The pilot who from ignorance, negligence, or design, lesce, or exposes a vessel to damage, is bound to repair her, and is llablo to be rovoked and pursucd by criminal process.

United States,-An act of Congress authorizen all Statee to make their own pilotage laws, and questions under these laws are cognizable in the State courts. No ono can act as pilot, and ciaim the compeneation allowed by law for the service, unless duly ajpointed. And ho should always have with him his commission, which usually deaignates the largest veasel ho may pilot, or that which draws the most water. If a pilot offers himself to a ship that has no pilot, and is cntering or leaving a harbor, and has not reached certain geogrs. cal limits, the shlip muat pay hint pilotage feee, whether hle services arc acceptel or not. As aoon as tho pilot stands on deek be has command of the ship. But it remains the master's daty and power, in case of obvious and certain disability, or dangerous ignorance or error, to disobey the pilot, and diapossess him of his authority. If a ship neglect to take a pilot when it should and can do so, the owners witl be answeraile in dainages to shippers and others for any loss whicit may be caused by auch negleet or refusal. Pilots aro answerabie for any damare reaulting from their own negligenes or default, and have been lield ot-cetly to this liability. The owner is simo liable on general prinelples for tho defandt of the pilot, who is his servant.
The lawa passed by tho United States concerning pllats are comprehended in tho following: August 7, : $: 89-$ "That ail pilots in tho bays, Inleta, rivera, harbora, and ports of the United States ahail contlnue to be reguiated in conformity with the existlng lawa of the Statea reapectively wherein auch pilote may be, or with such laws as the Statea may reapectiveiy hareafter enact for the purpose, until further provision ahall be made by Congress." March 2, 1837-" That it shall be lawful for the mater or commander of any yeasel coming lnto or going out of any port sltuated upon
waters which are the boundary between two States, to employ any pilot duly licensed or authorized by the lawa of either of the States bounded ou the sald waters, to pliot sald vossels to or from sald port; any law, usage, or custom to the contrary notwithatanding."
Maine- - Pilots are appointed by the Governor and Conncil upon the recommendation of a majority of the ship-owners and masters in the port for which they are appointed. Bonds are required to tho amonnt of $\$ 5000$ for the falthful discharge of the duties, and the pilots are liable for damages from neglect or unakillfulnesa. Any master may pilot his own vessel.

New Hampshire:-The appointment of pilots is the same as in Maine. Pilote must tako charge of vessela drawing over nine feet, except coasting veseels. Bonds for $\$ 1000$ are required for a faithful performance of duties. Masters may pilot their vessels when outwerd bound, and pay no pliotage. Bat vessels inward bound nust pay half pilotage if they refuse a pilot, unless the versel be within the lighthouse before a pilot offers, in which ease no pilotage is due unlese a pilot is employed. The Governor and Council regulate the fees for pilotage, and euspend or removo pilots for misconduct.

Massachusetts.-The Governor appointe pilots, except for the ports of Boston, where two commissioners, and New Bedford, where five commiseioners, have the appointing power. The pllote give bonds for $\$ 2000$ for the faithful performance of their duties. All ves sels, except fishing-vessels and consting veseels of less than two hundred tona, and vessela trading within the State lismite, are bound to employ pliots or pay fuli pilotage, unless no pilots offer lefore veasels have arnivel withln the following limita : viz., within the chops of the harbore of Salem, Marblehead, or Gloucester; within the garnet of Plymouth harbor, or within the bar of any barrel harbor, or withiu the entrance of Boston harbor, being a line drawn from Hariing Rocks to the Outer Graves, and thence to Nahant Head. In such caee tho master may refuee pilot.

Neo York,-In this State, Sandy Hook pilots are appointed and regulated by the Pilot Commiseioners, who are chosen by the Underwriters and Chumber of Commerce. Ileli Gate pilots are appointed by the Governor, and ouhject to the reguiations of the Port Wardena.

The ratos of pilotage in and out of New York are sa follows: For vessels drawing
 14 to 18 feel....
18 to $2 t$ feet....
21 feet or mom.

| $n$ nord, | $\$ 244$ |
| :---: | :---: |
| $\because$ | 806 |
| $\because$ | 809 |
| $"$ | 431 |



New Jersey.-Sandy Hook pilots for tho ports of Jorsey City, Nowark, and Perth Amboy are appointed liy commlasioners. The regulations do not differ materially from those emacted in regard to the New York piints.

Pennsylvania.-Pilots for Philadelphis are appointed by a lloard of Werdens. There are threa classes of pilots: the tirst for veasels of any description; the second for vessela drawing lese than twelve feet; the third for vessels drawing less than nine feet. Unilicensed pilots are aubject to fino and imprisonment. New Jorsey and Delaware pilota have power to act without a special licenec. The firat quallied pilot that offers is entitled to take charge of the vissel. A second or thlrd grade pilot may aet unleas a superior pilot offors hofore the vesael passes lieedy lsland. Coasting veasela pay no haif pilotage.

Delaware.-Vessele of 75 tone and upward, unless owned in Deluware, muat take a pllot or pay half pilotage.

Maryland,-Pilote for the Cheapeake Bay sro appointed by a Pilvt Iloard. I'llota are divided into the oame classes as in Pennayivanla. Pilots muat take the nearest veseel to ahore, or $\ln$ the mont distress. Foreign vessela must take a pilot, if one offers, or pay full pilotage.

States, to d loy tha sald waany lsw, ding." ernor and liy of the I they are $t$ of $\$ 5000$ tie pilots illfulness. of verseis 5. Bonds mance of outward ard bound unless the tofters, in employ. 10 fees for isconduct. vilots, exliesioners, , have the for $\$ 2000$ All ves. tels of less within the ay full pive arrivel chops of ter; withthe ber of of Boston reks to the In such

Virginia.-Pilots are appointed by a Board. "Pllots are livided into three elasses, es in Ponnsylvanla. Vesesels other then ooasters muat take a pilot or pay full pilotage.
North Carolina.--Pilots are appointed by commissloners for each port. Vessels pay full pilotage when refusing a pllot.

South Carolina_-Pilots are appolnted by commissioners. Pilots who bring vessels into port are entltled to carry them out. Vessels pay full pilotage to the first pilot offering, whether bls services are accepted or not.

Alabama.-milots are llcensed by the harbor-master and port wardens. Vessels pay half pilotage, if pilot is not accepted.

Louintiana.-The barbor-master and port warden of New Orleans appoint pilots. There are no river pilots. Vessels pay half pilotago to the pllot if hils servioes are not accepted. If the Ballze, or regular pilots, carry the vessal to New Orleans, the compensation is a matter of agreement.

Florida.-Pilots are appointed by Pilot Commis. sioners. Vessels pay half pilotage, refasing a pllot, If outward bound, and full pilotage whon Ir:zard bound. -Sec Kent'a Cummentoriea, vol. iii. ; Pahsons's Mercantile Lavo; Mercantile and Maritime Guide; Blunt's Shipmaster's Assistant.

Pimento, Allspioe, or Jamaioa Pepper (Fr. Poivre de Janaique; Ger. Nelkenpfeffer; It. Pinenti), the frult of the Mfyrtus pinenta, a beautiful tree which grows in great plenty on the hills on the north side of Jamaica. The berries are spherical, and, when ripe, of a blaek or dark purple color. But, as the pulp is in this state moist and glutlnous, the berries are plueked when green; and being exposed in the aun to dry, they lose their green color, and become of a reddish brown. Thay are packed In bags and hogsheads for the European market. The more fragrent and emaller they are, the better are they accounted. Thay bave an aronstic, agreeable odor, resembling that of a mlxturo of cinnamon, cloves, and nutmegs, with the warm, pungent taste of the clove. Pimento ls used in modicine, bat its principal use is in the seasoning of soups and other dishes. "The returns," says Mr. Bryan Edwards, "from a pimento walk In a favorable season are prodigious. A single tree has heen known to yield 150 pounds of the raw fruit, or 100 pounds of the dried spice, there being commonly a loes in weight of onethird in curing; but this, like many other of the minor productions, is exccedingly uncertaln, and perhaps a very plenteous crop occurs but once in five years. The price in the market, as may be aupposed, fluctuates nccordingly; but tta average for some years past may be set down at 14 cents per pound."-Vol. ii. p. 872, ed. 1819.

Imports of Pindito into tif Timited Statea yoa tile Year zimine junzi 3.til, 1856.

| Whance importad. | Pounde. | Volne. |
| :---: | :---: | :---: |
| llamburg. | 91,5.19 | \$8,240 |
| Britsh N. A. Poasessions | 18,714 | 1.225 |
| Briush Weat Indies .... | 4,766,309 | 337,617 |
| Spain ev the Meditor'h. | ${ }^{375}$ | ${ }^{36}$ |
| Cuba.................. | 15,741 | 1.017 |
| Stexioo................ | $\begin{array}{r}\text { 43,31t } \\ \hline 070\end{array}$ | 3,797 |
| Totale. | 4,900,028 | \$520 122 |

Pin, in Commerce, a Hitle necessary instrument, made of brass wire, chlefly used by wotnen In adjusting their dress. When the wire in received in tho manufactory, it is wound off from one wheel to another, and passed through a clrole of a amaller disinoter in a piece of iron. Being thus reduced to its proper slze, it is astraightened by drawing it between iron plins fixed in a bourd in a rigeng mannor. It is afterward cut inte lengths of about four yards, and then into smaller pleces, every length beling suffloient for aix pins. Fach end of theve is ground to a point by boys, each of whom sita with two small grindstones before him,
turned by a wheel. Taklog np a handful, he applies the wires to the coarsest of the two stenes, moving' them round, that the points may not become fat. $\cdot$ He then givea them a smoother and a sharper polut on the other stone.- A lad of twelve years of age can point 16,000 in an hour. When the wire la pointed a pin is taken off from esch end, till it in cut into slx pieces. The head ie made solid by the present process; but by the old methed it is a separate piece, and is miade as follows: One plece of wire is with rapldity drawn round another, and the interior one being drawn out, leaves a hollow tube botween the clrcumvolutions. It ls then cut iy shears, every two turns of the wire formlag one head. These are softened by throwing them into iron pana, and placing them in a furnace till thay are red hot. As eoon as they are cold they are distributed to children, who sit with anvlls and hammers bofore them. These they work with their feet, by means of a lathe. They take up one of the lengths, and thrust the blunt end into a quantity of heads which lie before tham; then catchlng one at the extremity, they apply it lmmedlately to the anvil' and bammer, and by a motlon or two of the foot the point and head are fixed together, in much less time than can be deacribed, and with a dexterity that can only be acquirod by practlee. The pina are thrown into a copper, contsining a solution of tin and wine lees. Here they remain for some tlme, and when taken out their brass color has becomo changed to a dull white. In order to give them a polish, thoy are now put into a tub containing a quantity of bran, which is set in motion by turning a shaft that runs through its centre; and thus, by means of friction, the pina become eatirely bright. They are now separated from the bran, which is performed by a mode exactly similar to the winnowing of corn ; the bran flying off, and leaving the pla bebind it fit for sale.-E. A.
The manufacture of plas thas commenced in the United States between 1812 and 1820. Among tho irst eatablished were those at Bellevue and Greenwich, New York. Mr. Lemuel William Wright, of Massachusetta, obtalned patents in the United States and in England, and commenced the manufacture at Lambeth, London. John J. Howe obtained patents In 1882-1834, in the UnIted States and In England, and established the Howe Manufacturing Company in New York, which was afterward renoved to Birmingham, Connecticut. Mr. Semuel Slocum obtaiaed another pitent, and in 1838 eatabllshed a manufactory of pins at Poughkeepsie, New York. The "American Pin Company" has been established for some years at Waterbury, Connecticut, and is the leading manufactory of the kind In the United States. The Improvements proluced In the United States have been for several years adopted in England and other parts of Europe. -Seo American Journal of Science, xxxvlii. 209; Il unt's Merchants' Magazine, xxv. 641; Economy of Manufactures, by Babnaoe.
Valez of Impoate of ling into tife linitin Statige wot tile 'iear xnding June Jetil, 1850.



Pinchbeok (Ger. Tomback; Du. Tombak; Fr. Tam. bne, Similor; It. Tombaceo; Sp. Tambac, Tumbaya), n name given to one of the maisy initatlons of gold. Hy melting zlnc In various proportlons with copper or brass, some alloys result, the colers of which approach more or lens to that of gold. This composition is frequently employed as a sulistltuto for gold, In the formation of watch-cuses, and rarious other artleles of a like doseription. Pluchiock is sometimes calied Tambao, and sometimes Similor, and Petit-or.

Pine, or Pir, a apecies of forest tree, next, if not superior, to the oak, in point of atility and value. There are above twenty species of pine. They do not bear flat leaves, but a species of spinee, which, however, are real leavea. They are moatly, though not all, avergreens; but the appearance of the tree, as well sa the quality of the timber, varies with the species, and also with the eituation in which it growe. Generally speaking, the timber is hardest and beat in exposed cold aituations, and where its growth is slow.

Scotch pine (Pinus alvestris) is a native of the Scotch mountains, and of moat northern parts of Europe; beIng common in Russia, Denmark, Sweden, Norway, and Lapiand. It is atraight, abruptly branched, rising in favorable uituations to the height of eighty or ninety feet, and being from three to four feat in diameter. It is at perfection when aeventy or eighty yeara old. The color of the wood differs considerably; it is generally of a reddish yellow, or of a honey yellow, of various degrees of brightness. It has no larger transverse septa, and It has a strong resinous odor and taste. In the best timber tho annual rings aro thin, not exceeding $\frac{1}{10}$ th of an lnch in thickneas; the dark parta of the rings of a bright reddish color; the wood hard and dry to the fecl, neither leaving a woolly burface after the aaw, nor filling lts teeth with reain. The beat Norway is the finest of this kind, and the best Riga and Memel are not much inferior. The inferior sorts have thick annual rings in aomo the dark parts of the ring are of a honey yellow, the wood heavy, and filled with a soft resinous matter, feels clammy, and chokes tho saw. Timber of this kind is not durable, nor fit for bearing strains. In some inferior species the wood ia spongy, containa less resinous matter, and presents a woolly surface after the saw. Swedieh timber is often of this kind. Scotch fir is the most durable of the pino species. It was the opinion of the celebrated Mr. Brindley, "that red Riga deal, or plne wood, would endure as long as oak in all situations." Its lightnesa and atiffnesa render it auperior to any other material for beama, glrders, joists, rafters, ete. I't is much uged in joiners' work, as it la moro easily wrought, stands better, is mach cheaper, and is nearly, it not quite, as durablo as oak. Scotch fir is exported from Norway and Sweden, under the name of red-rood. Norway exports no trees above eighteen inches diameter, consequently there is much sap-wood; but tho heart-wood is both stronger and more durable than that of larger trees from other aituations. Riga exports a considerable quantity under the name of masts and spars: pieces froms elghteen to twenty-five inches dlameter are called masts, and are uaually seventy or eighty fect in length; those of less than oighteen lisches diameter are called ppars. Vellow deals and planks are imported from varions parts of Norway, Sweclen, Prussia, Runsia, etc. Tar, pitch, and turpentine are obtained from the Scoteh fir.-See these titles. When tho tree hns attained to a proper age It is not injured by the extraction of these products.

Spruce Pine.-Of this there are three apecies-the Norway spruce, or $P$ inus abies; white spruce, or I'inus alla; ind blaek spruce, or Pinue nigra. These are noWe trees, rising in straight stems from 150 to 200 feet In height. They yield the thmber known by the name of whife fir, or deal, from ita always being imported in sleals or planks. Deals iniported from Christiana are In the lighest estimation. - See Curistiana. The trees aro ueually cut into threo lengths, generally of abont twelve feet each, and are afterward elit into deals by aaw-mills, each length ylelding three deala. The Norway opruce thrives very well in Britain, and produces tlmber little inferior to tho foreign ; it is somewhat softer, and the knots are extremely hard. The white sprnce, or Pinus alba, is brought from British Nortls America. The wood is not so reninous as the Norway npruce; it is tougher, Ilghter, and more liable to twist in drying. The black spruce, or linus
nigra, is also an American tree ; bat it is not much imported into England. The black and white apruce derive their namea from the color of the bark, the wood of both being of the aame color. The color of apruce fir, or white deal, is yellowiah or brownish white; the hurd part of the annual ring a darker shade of the aame color. It often has a sllky Justre, especially in the American and British grown kinds. Each annual ring consists of two parta; the one hard, the other softer. The knots are generally very hard. The clear and etraight-grained kjads are often tough, but not very difficult to work, and stand extremely well when properly seasoned. White deal, as Imported, ohrinks about toth part in becoming quite dry.

Weymouth Pine, or White Pine (Pinue strobus), is a nativo of North America. It is one of the largeat and most useful of the American trees, and makes excellent masta; but it is not durable, nor fit for large timliers, being very subject to dry-rot. It has a peculiar odor,

The commercial value of pine la greater than that of any other wood, and it forms a large proportion of the lumber trade. The Northeastern States are supplled principally hy Maine. The Middle States olitsin their supplles from Michigan, New York, and Western Pennsylvania; the Northwestern States from Wes ern Pennsylvania, Virginia, and Wiaconsin.-See Dumaka Trade.

Larch (Iinus larix). There are three species of thls valuable tree-oue European, and two American. The variety from the Italian Alpe is the most esteemed, and lasa lately been extensively introduced into plantations in Great Britain. It is a straight and lofty tred, of rapid growth. A tree aoventy-nine years of age was cut down at Blair Athol in 1817, which contained 252 cubic feet of timber; and one of eighty years of age, nt Dunkeld, measured 300 cuble feet. The mean size of the trunk of the larch may be taken at 45 feet in length, and 83 incles diameter. The wood of the European larch la generally of a honey yellow color, the hard part of the annual rings of a redder cast ; sometimea it is brownish white. In common with the other specles of pine, each annal ring consista of a hard and a soft part. It generally has a silky Justre; its color is browner than that of the Scoteh pine, and it is much tougher. It is more difficult to work than liga or Memel timber, but the surfaco ia better when onca it is obtained. It bears driving bolte arid naile better than any other apecies of resinous wood. When perfectly dry it atands well, but it warpa much in seasoning. It is in all situationa extremely durable. It is uscful for every purpose of building, whether external or internal; it makes excellent ahip timber, masts, losts, pos, a rails, antl furniture. It is peculiarly adapted for flooring bosrds, in aituatlons where there is much wear, and for stair-enses; in thu latter, fits fint color, when rubled with oil, ia much preferabla to that of the black oalea stair-cases to bo seen in aomo old mansions. It is well adapted for cloors, shutters, and the like; sud, from the beautiful color of its wood when varnighed, painting is not neccssary:-(Wo have abstracted these jarticulars from Mr. Tuengoin's excellent work, The Irinciples of Carpentry, p. 209-217.)

Pine-apple, or Ananas, though a tropical fruit, is now extensively cultivated in hot-houses and gardens, and is well known to every one. When of a gooid sort and healthy, it is the most luseious, and periaps the bent fruit that is produced; and, when carefully cultivated, ia superior, in point of quality, to that produced in the West Indice.

Pink, a ressel masted and rigged like other shipa, only that this is bullt with a round atern, the bends and ribe compasming so that her ribs bulge out very much. This renders the plaks difficult to be bonrded, and also enaliles them to carry great burdens, for which purpose they are often used.

Pinnace, a nmall vessel used at sen, with a muspe stern, having salle and oars, and carrying three mast,
chiefiy
uien, et
carry t the pin

Pint liquids. tio mea two sor I'wo pi tles ag contain Pip nearly) 210 lm the size of wine wine ga i40; of port, it lons, an contain Pip shire, a manufa bleachi Pip the onl nament of Dant lecting The mo the ma pipes a mouth-I where $t$ Prussia There $u$ tion fou lectivel to expl by the is incap mark of Meer procure Greece, the cley Pesth. position occasion ing. 0 by dipp substan tion. ' owing t and han of pari conside for usin employ called nowder, or with cll to th These schaum bowls il carved
Pira
and vio
would a or delet powerin be only They a mies of
tlons gi
chisfly employed to obtain intelligence, and to land mien, etc. One of the boats of a man-of-war, used to earry the officera to and from the shore, is also called the pinnace.

Pint, a measure used chlefly in the measuring of liquida. The word is High Dutch, aad signifies a little measure of wine. The Englioh plnt used to be of twe sorts: the one for wine, the other for beer and ale. Two pints make a quart ; two quarts a pottle ; two pottles a gallea, etc. The pint, imperial llquid measure, contains $34 \cdot 659$ cuble inches.
Pipe, a wine measure, usually containing 105 (very nearly) imperial, or 126 wine gallons. Two plpes, or 210 imperial gallons, make a tun. But, in practice, the size of the pipe varles according to the deacription of wine it contain. This a pipe of port contains 188 wiae gullons ; of aherry, 130 ; of Lisbon and Buccllas, 140 ; of Madeira, 110 ; and of Vidonia, 120. The plipe of pert, It is to be observed, is seldom accurately 138 gallens, and it ia usual to charge what the veesel actually containg.

Pipe-ciay, a species of clay ahounding in Devonshire, and other parts of England, employed in the manufacture of varlous sorts of earthen-ware, and in bleaching.

Pipes, Amber (In Turkey). Prussia is almost the only country by which amber is furnished for ornamsutel purposes. M. Von Roy, an amber merchsnt, of Dantzig, ia sald to have been twenty-five years collecting the splendid specinuens whish he now possesses. The most extensive use of this elegant material is for the manufacture of the mouth-pieces of meerschaum pipes and hookahs. Up to the present day amber mouth-pleces continue in great request in the East, where they fetch very high prices; and almost all the Prussian ainber is sold to the Turks for menufacturing. There were in the Turkish department of the Exhibltien four amber mouth-pleces for pipes, which ware collectively worth $£ 1000$. It may scrve in some measure to explain the peculiar favor which anber is held in by the Turks, that there is a current belief that amber is Incapnale of trananitting Infection; it is deemed a mark of politeness to hand ant amber pipe to a stranger.

Meerschaums.-The cley of which these are insde is procured chiefly in Asia Minor, but also in Spain, Greece, end Moravia. The manufacture of pipes from the clay is carried on with especial care at Vienna and Pesth. The meerschaun is soaked in a liquefied compesition of wax, oil, and fat, the absorption of which eccasious the colors asaumed by the plpe after smoking. Occasionally the bowls are artlficially stalned by dipping them in a solution of copperas and other substances before the appllication of the wax composition. The carving of the bowls is often difficult work, owing to the occurrence of a kind of clay inixed up with and harder than the meerschunm. The large quantity of parings left In roughing out the bowls would entail considerable loss, unless some process had been devised fer using them. This has been done; the parings are employed in making the kind of meerschamm bowls called masa-bowls. The parings are ground to $n$ flue powder, boiled in water, and moulded Into blocks, with or withont the addition of clay. The blocks are allowed to dry, and then a pipe-bowl is fashioned from each. These bowls are distinguished from the real meerschaum chiefly by being rather heavier. Meerschaum bowts have been produced so large and so elaborately earved us to be velued at five hundred dollara ench.
Piracy censists in committing those aets of robbery and violence upon the seas that, if committed upon land, would amount to a felony. Pirates hold no commission or delegated authority from any soveraign or state, cmpowering them to attack others. They cpn, therefore, be only regarded in the light of robbers or assassins. They are, as Clcero has truly stated, the common enemies of all (communes hostes omnium); and the law of nathens gives io every one the right to pursue and exterm.
inats them withont any provious declaration of war; but it le not allowed to kill them without trlal, except In bettle. Those who surrender, or are taken prisoners, must be brought before the proper magistrates, and dealt with according to law. By the anclent common law of England, piracy, If commltted by a subject, was held to be a apecius of treason, being contrary to his natural allegiance; and, by an alien, to be felony only; but alnce the statute of treasons (25 Edw. III. c, 2) it is held to be only felony In a aubject. Formerly thls offense was only cognizable by the admlralty courts, whlch proceed by the rulea of the civil law; but it beIng inconsistent with the liberties of the nation that any man's Ilfe should be taken away unless by the judgment of his peers, the statute 28 Hen. VIII. c. 15 , estahlished a new jurisdiction for this purpose, which proceeds according to the course of cemmon law. It was formerly a questlon whether the Algerlaes, and other African statcs, should be consldered plratea; but, however exceptlonable their conduct might have been on many occasions, and however hostile their pollcy might be to the intarests of humanity, still, as they had been subjected to what may be called regular governmenta, and had been admitted to enter into treaties with other powers, they could not be treated as piratee. Pirates having no right to make conquests, or to seize upon what helongs to others, capture by them does not divest the owner of hls property. At an early period of English history a law was made for the restltution of property taken by pirates, if found within the realm, whether belonging to atrangers or Englishmen; but any foreigner suing upon this statute must prove that at the time of the capture his own sovereign and the sovereign of the captor were in mutual amity ; for it is held that piracy can not be committed by the subjects of states at war with each other. Piracy was almost universally practiced in the Heroic Ages. Instead of being estecmed lnfumous, it was supposed to be honor-able.-Lat'ocinium maris glorice habebatur.-Jus'rinian, lib. xliil. Menelaus, in the Odyssey, does not hesitate to inform his guests, who edmired his riches, that they were the fruit of his piratlcal expeditions (lib. iv. ver. 90); and such, incleed, was the way in which most of the Greek princes amassed great wealth.-Goguet, Origin of Laws. The prevalence of this piratical spirit in these early ages may, perhaps, be explained by the infinite number of small, independent states into which the country was divided, and the violent animosity constantly subsisting emong them. In this way ferocious and predatory halits were universally ditlused and kept alive; and it is not to be supposed that those who wore at all times liable to be attacked by hosts of enemles should very accurately examine the grounds upon which they attacked others. Accoving, however, as a more lmproved aystem of government grew np, Greece, nnd a few states, as Athens, Corinth, etc., had attained to listinction by their naval power, piracy was made a capital offense; hut though repressed, it was never entirely put down. Cllicia was at all times the great strong-hold of the pirntes of antiquity: and in consequence of the decline of the maritime forecs of Athens, Rhodes, etc., which had kept them in check, they increased so much In numbers and audacity as to insult the majesty of Rome hersclf; so that it became necessary to send Pompey against them, with a large fleet and army, and more extensive powers than had been ever previonsly conferred on any Loman general.
During the anarchy of the Middle Ages, when every baron considered himself a sort of independent prince, entitled to make war on others, plracy was universally practiced. The famous Hanseatic league was formed chiefly for the purpose of protecting the ships of the confedcrated cities from tho attacks of the pirstes by which tho Baltle was then infested. The nuisance was not finally abated ln Europe till the feudal system had been subverted, and the ascentency of the law every
where secured. In more modern times, some of the smaller West Judia islands have been the great resort of pirates: latterly, however, they bave been driven from most of their haunts in that quarter. They are still not unfrequently met with in the Indian seas east of Sumatra.-M'Celloch's Com. Dict.

Piracy, is robbery, or a forclble dopredation on the high seas, without lawful anthority; and done animo furandi, and in the splrit and Intention of universal hostlity. It is the same oflense at sea with robbery on land; and all the writers on the law of aations, and on the marithae luw of Europe, agree in this definition of piracy. Pirates have been regarded by all civilized nations as the enemien of the haman race, and the most atroclous violators of tho universal law of soclety. They are every where pursued and panlahed with death; and the severity with which the law has animadverted upon this crime arisea from its enormity and denger, the cruelty that accompanles it, the necessity of cheoking it, the difficulty of deteotion, and the facility with which robberiea may be committed upon pacilic traders in the solizudes of the ocean. Every nation has a right to attack and exterminate them withous any declaration of war; for though pirates may form a loose and temporary association aniong themselves, and reeatablish In some degree those lawe of justico which they have violated with the rest of the world, yet they are not coneidered as a national body, or entitied to the laws of war, as olte of the cominunity of nations. They scquire no rights by conquent; and the law of nations, and the municipal law of every country, authorize the truc owner to reclaim his property taken by piratee, whereever it can be found, and they do not recognize any ttele to be derived from an act of plracy. The prindple that a pirutis ef latronibus capla dominium non mutant, is the received opinion of ancient civilians and modern writers on general jurlsprudence, and the same doctrine was maintained in the Engliah courts of common la w prior to the great modern improvementa mado in the sclence of the law of nations.
By the Constitution of the United Stater, Congress is authorized to define and punish plracies and felonles committed on the high aeas, and offensee agalnst the law of nations. In pursusnce of the authorlty It was declared, by the act of Congress of April 80, 1790, c. 9 , sec. 8 , that murder or robbery committed on the high seas, or in any river, harbor, or bay, out of the jurisdjetion of any particular state, or any other offense, which, if committed within the body of a county, would, by the laws of the United States, be punishable wilth death, should he adjudged to be piracy or felony, and punishable with death. It was further declared, that if any captain or marlner should piratically or feloniously run away with any vessel, or any goods or merchandise to the value of tifty dollars, or should yielil up any such vessel voluntarily to pirates; or if any seaman should forclbly endeavor to linder bis commander frem defending the ship or goods committed to hls irust, or should make a revolt in the ship, every such offender should tse adjudged a plrate and felon, and be punirhable with death And by the act of March 3, 1819, c. 76, sec. 5, Congrese declared, that If any such person on the high scas should conimit the crime of piracy as defined by the law of nations, he should, on convletion, suffer death. Trisect was but temporary In ita llnitation, and has expired; but it was again declared, and essentially to the rame effect, by the act of Congress, 15 th of May, 1820, c. 113, sec. 3, that If any person upon the high seas, or in any open roadstead or bay or river, where the sea ebbin and flows, commits the crime of robbery, in or upon any vessel, or the lading thereof, or the crew, he shali be adjudged a pirate. So if any person, engaged in any piratical enterprise, or belongiog to the crew of any plratical veanel, should land and commit robbery on ahore, auch an offender shall also be adjudged a pirate. The atatute in this respect seenis to be oniy deciaratory of the
law of nations; and upon the doctrine of the case of Lind $v$. Rodney, such plunder and robbery ashore by the crew, and whith the uld of veesels, is a marine case, and of admiralty jurladiction. The statute further declared, that the above proviaion was not to be construed to deprive any partleular State of lta jurisdletion over such otleases when committed withlin the body of a county, or to authorize the courts of the Unlted States to try any auch offenders, after convietion or acquittance, for the same offense in a State court.

There can be no doubt of the right of Congress to pase laws praishing piratee, though thoy may be forelgnera, ind may have cominitted no partlcular offense against the Unlted States, $6=$ It is of no importance, for the purpose of giving jurladiction, on whom or whem a piratical act has been committed. A pirate, who is one ly the law of natlons, may be tried and punlshed In any country where ho may be found, for he is reputed to be out of the protection of all laws and privilages. Tha statute of any government may declare an offense coinmitted on board its own veasels to be piracy, and sach offense will be punlahable excluslvely by che natlon which passes the statute. Bet piracy, under the law of natlons, is an offense againat all nations, and punishabla by all.-Kent'a Commentaries, vol 1.
ISability of Insurers.-Thers can be no plracy or robbery without vlolenco; but thls is not necessary to constitute the crime of theft. Piracy and robbery are most nsually committed by strangere to the ship; they may, however, be committed by the crew; and the insurers are anawerable for such loss, unleas it arise from the fault of the owner. If theft be committed by the crew, we ahould still hold the Ineurera liable. Thia may be doubtful; but insurers regard it as at least posslble, and provide agalnat it by the phrase, "assailling thleves." This excludes theft without violenee, and perhaps all thoft by those lawfuliy on boart the vessel, as a part of the shlp's company. If, after shlpwreck, the property is atolen, the insurcrs are liahle, and would probably be so if there were no insurance against theft, if thla was a direct effect of the wrecking.-Parsona's Mrercantils Luw. The suljects of plrates and plracy have been discuassed in the followIng works • Nilks's Register, x vili. 275, xxxii. 302, xx. $59, \mathrm{xxvll} .391, \mathrm{xxv} .15 \overline{7}, \mathrm{xx} \times 1 \mathrm{l} .138, \mathrm{x}$ xili. 211 ; Ilent's Aferchonta' Magazine, xiil. 450, 526, xlv. 89 ; Edinburgh Revien, $1 \times \mathrm{v}$ III 33, xxvl. 449; Littei.L's Museum, xxv. 337, xxvl. 266.

Pistachia, or Pistachio Nuts (Ger. Pistaschen; Du. Pist ayes; Fr I'istarhes; It. Pistacchi, Fustucchi; Sp. Alfocigos; Lat. Pistaciox), the frult of the Mistachia vera, a kind of turpentine-tree. It grows naturally in Arabla, Perafa, and Syria; also in Slelly, whence the nute are annually bronght to us. They are oblong sad pointed, about the size and shape of a filbert, inciuding a kernel of a pale greenleh color, covered with a yellowish or reddish skin. They have a plessant, sweetlsh, unctuous taste, resambling that of aweet almonds; their principal difference from which consists in their having a greater degrec of aweetness, accompranied with a ilght grateful flavor, and In leing more olly. Pistachias Imported from the East are superior to those ralsed in Hurope.-Lewis's Mfateria Med.

Pistols. These are the smallest sort of firc-arms, carried sometimes on the saddle-bow, sometimes in a girdie round the walst, sometimes in the pocket, etc.Paribon. The pletol was first used ly the cavalry of Eugland, $\ln 1444$.

The insnufacture of guns and platols in the United States has become an aotlve one. Colt's licvolvers have acquired a reputation throughont Europe and South America, as well as the Unlted Statce. Ills principal factory is locsted near Hartford, Connecticut. "It ls so well ordered, so complete, so striking in its reanita, that all engaged In manufacturo may jearn something from It; it is in itself one large machine, well oiled too, which takes in at one enil a shapeless
the case of $y$ ashore by marine cate, efurther deit to be conjuriadiction the body of Jnited States in or aç̧uitmay be foricular offense pertance, for $9 m$ or when s Irate, who is and punished for he is rews and privia decisre an Is to be piraxclusiveiy by at piracy, unt all nstions, aries, vol $\mathbf{j}$. no piracy or necessary to d robbery are he ship; they ; and the innlees it arise se committ?d surers iiable. gard it as at $y$ the phrase, $t$ withent vilawfulty on ompsny. If, e insuress are e were ne in. effect of the The subjects in the foliow. xxii. 302, xx. 211; ilunt's 0 ; Edinburgh Museum, xxy.

## r. Pistaschen;

 ki, Festurchi; the Jistachia , natursliy in , whence the re oblong and ert, inciuding d with a yelasant, sweeteet slmonds: sists in their ni,anied with e oily. Pisrior to thoseof fire-arms, metimes in a pocket, etc. to cavalry of
n the Cnited 's levolvers Europe snd States. liis Connecticut. riking in its msy leam ge niachiae, a sliapeless
ump of iron, and a piece of wood, and puts ont at the other a veautifully finisined arm which you may load and fire six balls from separately in three-quarters of a minuta, after a certain amoant of practiee. In each pistel there are fifty-tiree distinct pieces, inclading fourtean screws, and for the formation of these forty or forty-ive eeparate machinas co-operate, hammering, milling, cutting, driliting, punching, rifing, and shaving; all put into motion by a galion of water 'in a vioient perspiration;' in other werds, a twenty-horse power teameengine. Some of the machincs ara especially besutiful: look at that for rifling the ? in mrels, for example, with the brush to keap the cutters clean; and the ene near it for driliing the six chambers around the central boring in the aolid cylinder, where accuracy is so indispensable. That regular irregularity, the eccentric, plays a: important part in this, as it does in the hammering machine below-the machine patented by Rider. In one week they turned out 525 perfect pistols here, and there are the means for making 800 or 900 a week, if it wure necessary to do so."-London Builder.

Pistois were flrst used by the Germans: Bellay mentions them in the year 1544. In the tinie or Francis I, and under Henry II, the German horsemen, des reiters, were called pistoliers. The derivation of this term is uncurtain. Frisch conjectures that it may have arisen from pistilio or stiopo, because pistols used to have large knobs on the handies. Daniel and others think that the name comes from Pistoja, in Tuscany, where they were firat manufactured. . He says he saw an old pistol that, with the exception of the ramrod, was all iron. During the latter part of the last century many ingenious persons directed their attention to the improvement of firc-arms, with a view to simplify their construction, to render them more effective, and to combine safety with celerity in firing. One of the most marked advancements was effected by $\mathbf{M r}$ Heary Nock, and patented by him in England in 1787. Previous to this the breeching or plug of a gun was a soiid lump of iron, acrewed into one end of the bsarrel, the tench-hele being drilled through the side of the bsrrel above it. Another most marked improvement was the introduction and adaptation of fulminating powder, fur igniting the charge in the ehamber of the breech; and fur which the Rev. Mr. Forsyth obtained a patent in Great Britain, in 1807. The perfection of a proper fulminating powder was long a matter of great difficuity. Other cinanges were anggested, but not of a practical kind. One made by Mr. F. H. Collier, of Beston, Massachusetts, in 1818 ; and another by 3ir. Wheeler, of Boston, in 1819.

The first valuable improvements made by Colonel Samuel Colt, of Connecticut, in the construction of the pistel, were made public in the year 1835. The original conception of Colonel Colt in regard to fire-arms was the combination of a number of long barrels to rotate upon a spindie, by the act of cocking the Jock, in the same manner that they have since been made by others who ciaim to hate originated the plan; but as objections arosn from the weight and bulk of the arm, in his study to obviate them, the iciea of a singie barrel and a chambered breeeh suggested itself to him. Aithougi without the pecuniary means of then practically testing his convictions, he made a emall wooden model of his conception, wilich he possesses at the present day. He then assiduously pursued his calling as a scientific lecturer, and from its rewards procured the aid to manufacture specimen arms, which in their practical resulta exceeded eveu his most sanguine expectatiens; and in 1835 he received his first patent from the Government of the United States.

Colonel Colt's first mannfactory of firc-arms was lecated at Paterzon, New Jersey, in the vear 1836, with a capital of $\$ 800,000$. This continuat in operation untli the year $18: 2$, when it was relinquished as unprofitable. The Florida war of 1837-'38 created a
damand for, and gave practical demonstration of the great value of, the repeating fire-arme patented by him. They were also nsed with great effect in the Texan revelution and war; and afterward in the war with Mexico (18i6-47), when a contract was made by him with the government for the supply of one thoueand of the improved arms. A temporary manufactory was established for this purpose at Whitneyville, Connecticut. This was succeeded by the present extensive factory at or near Hartford, on the Connecticut River, which was finished and In euccessful operation in the year 185s, with a capital of $81,250,000$. These buildings present a front of 500 feet. The repeating principle has also been succesmfully applied by Cojonel Colt to rifies and carbines, sevaral varieties of witich are constanily in the course of completion in the armory. Lately the demand for the sporting rifie has increased wonderfally, which increase will, no doubt, be much augnented as their superiority is more generaliy practically demonstrated by our hardy backwoodsmen; and the day is not distant when regiments of riffemen will be equipped with Colt's revolvers.

Within the last year still another style of pistol has been introduced. It is called "Colt's new Model," and by some it is preferred to either of the others. Undoubtedly this is a matter of fancy with the party osing the arm, as in some cases individuals yet prefer Colt's first to any arin that was ever manufactured. The arms are of several sizes, and weigh as follows:
The mitttary rifle, barrel 36 inehes fit Poundh Ouncen. ted with Improved buyonet......... 11 . 8 Sporting riffe, barrel from is to 60 tnches averace. The army or holster pistol.
The navy or belt pistol.
The poeket pistol, barrei 6 inche.
The poeket plistol, barrel 5 inchea
The poekot pistol, barrel 5 inehea
The pooket platot, barret 4 inelica


These are kinds that are constantly in the course of construction; of course many other varietics are made by special order.

Of the improved pistel, over 138,000 had been manufactured here up to Janunry, 1857. Nearly elght hundred men are ordinarily employed in this work alone. This result is the fruit of a market for arms, not contined to the United States, but extending over both the Americas; more or less to the Indies, East and West; to Egypt-oven to distant Australia; to remote Asintic tribes assembled at the great fairs of Novgorod; and over Europe generally, but especially to England. IIere the arms of Colonej Colt, first introduced in splendil style through the World's Fair, were warmly wejcomed, and led to the speedy establishment in Londen of an extensive armery for their manufacture, and to their rapid adoption inte the British army and naval service.-United States Mfagazine, March, 1857. See Fine-Aums.
Pitcairn's Island. A small solitary island in the Pacifle Ocean, seen by Cook in 1773, and noted for bcing colonized by ten mutincers from the ship Bounty, Captain Bligh, in 1789, from witich time till 1814 they (or rather their descendants) remained here unknown. Soll fertile, but porcus, and rather defective in water; well wooded, and ci, mate healthful; thermometer ranging frem $59^{\circ}$ to $89^{\circ}$ Fahr. l'revailing winds sonthwest and cast-southeast, but it is beyond the limits of the regular trade-winds. It is surrennded by rocky shores, and has only ene accessible landingplace at Boanty Bay. The cocea-nut, plantain, banana, and bread-fruit trecs flourish, hibiseus, or cloth tree, banyan-trec, orange, and others; and the potate, sweet potato, yams, weter-melons, pumpkin, taro, sugar cane, ginger, turmeric, tobacco, tea-plant, and maize, are cultivated. The island contained no indigenous quadrupeds, but geats, hega, and poultry have been imported. In 1790 this island was resorted to by the mutinecrs of the Bounty, consisting of nine British sailors, six native Tahitian men, and twelve women.

In consequr nce of various diacords and massacres, at the end of ten years there remsined only one Englishman, Adams, the Tahitian females, and nineteen children, their offipring. Under the superintendence of this man the children wers elucated and traiasd up to habits of iaduatry and morality. In 1825 Captain Beechey found a most Interesting and Intelligent colony of sixty-six persens. In 1831, by the somewhat imprudent sanction of the British goverument, the colony, numbering eighty-seven persons, was transferred to Tahlti. After remaining five months there, and losing twelve of their number by death, the colony, at their own aollicitation, were again reinstated in their native island. In 1840 the popuiation amounted to 75 males and 74 females, in ail 149 ; of these, three were Englishmen, one a native Tahitian woman, the only remaining female of the original migration, and the remainder were natives of the island. They live chiefly on yams, potatoes, and other vegetables, which they raise by their own lator. From the ramains of burialgrounds, the island would appear to hava been occupied by inhabitants at a peried antececient to the viait of the mutineers of tho Bounty. It was seen by Carteret in 1767, and named by him after one of him officers.

Pitch (Ger. Pech; Fr. Poix, Brai; It. Pece; Sp. $P e z$, Ross. Smola gustija), the residuum which remains on inspissating tar, or boiling it down to dryness. It is extensively used inship-buiidiug, and for other pur-poses.-See Navat. Stores.

Pittaburgh, city, port of entry, and capital of Alleghany county, Penusylvania, la situated at the contux of the Alieghany and Monongabela rivers, where they form the Ohio, which is here a quarter of a mile wide. It is in $40^{\circ} 32^{\prime} \mathrm{N}$. lat., and $80^{\circ} 2^{\prime} \mathrm{W}$. long., 357 m . ria Pennsyivania Raiiroad from Phiiadelphia, 247 westnorthweat of IIarrisburg, 226 from Washington, D. C., and 2044 above New Orleans by the course of the river. Population in 1810, 4768; in 1820, $\mathbf{7 2 4 8}$; in 1830, 12,568; in 18.10, 21,115; in 1800, 16,601 ; in 1854, the city and immediate vicinity estinsated at 110,000 . It was originally lnid out on the northeast bank of the Menongabeia, after the medel of Pliiadielphia, with streets runniag parallel with the rivers, and others crossing them at right angles. The streets on the Alleghany are laid out on a similar plan, and bence a short distance from the Alieghany the old and new atreets meet in obique dircetiona. The Alleghany River is spanned by three bridges, which, with seversl ateam ferries, connect the city with tise suburba. The Pennsylvania Canal crossea the river by an aqueduct, and there is a suspension-bridge over the Monongaheia.

As a menufacturing city, I'ittsburgh is second in the State only to Hhiladelphia. In 1850 it had thirteen roling-milis, with a capital of $\$ 5,000,000$, employiug 2500 hands, consuming 60,000 tons of jig metal, and producing annualiy bar iron and nails to the value of $\$ 4,000,000$; thirty large founderies, with an aggregate cajital of $\$ 2,000,000$, and 2500 hands, using 20,000 tons of pig iron, anil yiclding articles valued at $\mathbf{2 , 0 0 0 , 0 0 0}$ annualiy; two eatablishmenta for manufacturing locks, latches, coffee milis, scaies, and other iron casting, employing 500 ibunds, and a capital of $\$ 250,000$, using 1200 tons metai, and producing annually to the vaiue of $\$ 3,000,000$; tive large cotton factories-capital © $1,500,000$, hands 1560 , cotton consumed 15,000 bales, and products valued at upward of $\$ 1,500,000$ annaally ; eight flint-glass manufactories-capital $\$ 300,000$, hands 500, and producing various articles of glass, in the manufactore of which 150 tons lead and 200 tona of pearlash are used, to the value of $\$ 100,000$ smnually; seven phisl furnaces and eleven window-glass factorics-capital $\$ 250,000$, hands 600 , and amual producta $\$ 600,000$; one soda-ash factory, employing $\%$ hands, and producing annually 1500 tens; one copper-smelting house, producing 600 tons refined copper annuslly, valued at $\$ 380$ per ton; one rolling-mill, producing annusliy 300 tons sheatiing and brazier's copper; five white-jead
factories - capital $\$ 100,000$, hands 60 , and producing 150,000 kegs nnanaliy, worth 200,000 . There are also a number of manufactories of the amaller sizes of iron, several extensive manufactoriea of axes, hatchets, spring-stcel, steel springe, axles, anvila, vices, milis, eross-cut and other sawa, gan barrela, shovels, spades, forks, hoes, cut tacks, brads, etc. The products of the manufactures in the aggregate are valued at between $\$ 50,000,000$ and $\$ 60,000,000$ annually. There are cossuned about $12,000,000$ lishels of coal annualiy, werth © 600,000 , and an equal quantity is experted frem the city, giving employment coastantly to 4000 hands.

Plains. In Geegraphy, the genersi term for ali those parts of the dry land which can not properly be called mountainous, and which compose by far the greater part of the earth's surface. . Piaina have different physical appearances according to their geographical position, and the pecullar characteristics of cuch have procured for them different names; thus we have the steppes of Asia, the deserts of Africa, the pampss of South America, and the pralries or savannas of North Anserica. See these different ferms.

Plane, a forest tree, of which there are two species; the Oriental plane (Platanus Orientalis), and the Occidental jlane (Platanue Occidentalis). The Oriental piane is a native of the Levant, and other Eastern countries, and is considered one of the finest of trees. It grows te about 60 feet in height, and has been knewn to exceed eigitt feet in diameter. Ite wood is much like beech, but more tigured, and is used for furniture and such like articles. The Occidental plane is a native of North America, and is one of the largest of the American trees, being sometimes more thas 12 fect in diameter. The wood of the Oecidental plane is harder than that of the Oriental. It is very durable in water. The tree known by the nan'e of plane in England is the sycamore, or great maple (A cer pseudo-platanus). It is a large tree, grows quickly, avd atands the seaspray better than most trees. The timber is very close and compact, casily wrought, and not linble cither te splinter or warp. It is gencraily of a browaish white or yellowiah white color, and sonctimes it is very hesutifully curied and mottled. In this stute it takes a tine polish, and beara varniahing weil. It is chietiy used in the manufacture of saddle-trees, wooden dishes, and a variety of artieles of furniture and machinery. When kept ilry, and protected from werms, it is pretty durabie; but it is quite as liable as beech to be attacked by them.-Tnethiold, p. 196.
Plane Bailing, in Nacigation, ls the are of determining the ship's piace, on the supposition that she is moving on a plane, or that the surface of the ocean is plane instead of being spherical. On account of the magnitude of the terrestrinl radius, this supposition may be adopted for short distancea without leading to grest errors; and it affords great facilitiea in calcuiation, for the place of the sitip is feund by the soiution of a rightangled plane triangle. The part of the meridian between the ship and the paraliel of latitude of the place whence she doparted forms tise perpendicular of the trlangle; the distance on the paraliel between the pisce of departure and the foot of tine perpendicalar is the base of the triangle (tecinnically called the departure); and the distance sailed is the liypothenuse. The angle ot the sisip is cailed the coursa, and the other scute angle the comptement of the course. Now, of these four things, the perpendicular, the departure, the distance seijed, and the courac, any two being given, the triangle car be iaid down on the chart, and ail the other parts of it found.-See Navioation.

Planks (Ger, and Du. I'lanken; Da, Jlanker; Sw. I'lankor; Fr. I'lanches, Bora'ages ; Russ. Tolstüle olosku), thick atrong boarils, cut from varivus kinda of wood, eapeclally oak and pine. Planks are asually of the thickness of from 1 inch to 4. They are exported is large quantities from the northern parts of Europe, purticulariy from the perts of Chriatiann, Dantzic, Arch- ucts of the thetween re are con. illy, worth drom the hande. rm for ail roperly be sy far the lave differ. geograph. ics of each us we have be pampas vannas of
vo apecies; $d$ the 0 oci-- Oriental er Eastern st of trees. seen known d is much furniture ne is a nagest of the 12 feet in e ia harder is in water. Engisnd is o-platanus). ds the seavery ciose le either to vaish white very beautakes a tine hielly used dishes, and ery. When retty durathacked by arc of deons that she f the ocean ount of the osicion may ng to great ulation, for of a righteridian heof the place ular of the In the place ular is the lepartare); The angie ther scute $v$, of these re, the dis given,
nd ail the anker: Sw. cille olosku), y of woed, aliy of the xported is urope, partzic, Arch-
angel, Patershurg, Narva, Reval, Riga, and Memel, as well as frum several partw of North America.- - Ses


Plantain, or Banana, the pulpy fruit of the Muea paradisiaca, an herbaceous plant, extonsively oultivated in nost inter-tropical coustitios, but espocially is Mexieg. It is not, dike mont other frults, used merely as an occasionial luxary, but is rather on ostablished saticle of subsister ro. Being long and extensively cuitivated, it has diverged into numerous varieties, the fruit of whioh differs matorially in elve; flavor; and color. If That of some is not above two or thres inohes long; while that of others is not much short of a foot ; some sorts are aweet, and of a flavor not unilke nor iuferior to that of good mellow pear; but the largor kind are, for the moat part, coarae : and farinaceous. The latter are eithar used freeh or dried in the isun, in wiuch latter stato they are occasionally ground into meal and made into bread. In Mexico the sweetor sorts are frequently pressed and dried, an:figs are in Europe; and, while they are not very inferior to the last-mentioned frult, they are infinitely cheaper. "I doubt," says M. Humboldt, "whether there be any other plant that produces eo great a quantity of nutritive aubatance in so small a space. Jight or nine months after tha sucker is planted, it begins to dovelop its cluster. The frult may be gathered in the tenth and eleventh month. $n$ When the stalk is cut, there is alwaya found, among the numerous ahoots that have taken root; a sprout (pimpollo), which, being 2-8ds the height of its pareat plant, bears fruit three months latcr. Thus a plantation of bananas perpetustos itself, without requiring any eare on the part of man, further than to cut the atalks when the fruit has ripened, and to atir the earth gently once or twice a year about the roots. A piece of grount of 100 square metres of surface will contain from 30 to 40 plants, During the courso of a year this same plece of grourid, neckoning the weight of the eluster at from 15 to 20 kilog. only, will yield 2000 kilog., or more than 4000 lbs., of nutritive subatance. I What a difference between this product and that of the cereas graasea in most parts of Europe! The same extent of land planted with wheat would not produce nbeve 30 lbs ., and not mere than 90 lbs , of rotatocs.: Hence the product of the banana ia to that of wheat as 183 to 1 , and to that of potatoes as 44 to 1. "-Essmi sur la Nouvello Neprigno. The banana forms:a principal part of the food of the people of Mexico; and the apathy and indolence of the natives in the tierras oclientes, or hot regions, has been ascribed, and probably with good reason, to the facility witit which it supplies them with subsistence. It is by no means in auch extensive use in tropical Asia, and comes nowhere in it into compatition with corn 8 an article of food.
Plastrac, or Plaister, in building, a composition of lime, aunctimes with aand, or other substance, to parget or cover the nudities of building.

Plaster of Paris, a preparation of several species of gypsum duy near Montmartre, a village in the neighborhood of Paris, and hence the name. The best sort is hard, white, sinining, and marbly, iving known by the aame of plastemstone, or parget of Montmartre. It wili neither give fire with atcel, nor ferment with squifortis; but it calcines very freely and readily into a fine plaster, the use of which in building and casting statues is wrll known.
Plata (hio De Ia), or the Plato River, one of the great rivers, or rather a great eatuary of South America, in tho Argentine Republic, formed by the junction of the Parana and Uruguay rivers, in lst. $34^{\circ}$ S., long. $58^{\circ} 80^{\circ}$ W., its baein lying south of those of the Amazon, Tocantins, and San Franclsco, and its namereus tributaries draining most part of the Plata, Paraguay, and Uruguay territories, with considerahle portions of Bolivia and Brazil. : The estuary resulting from their union is 200 miies in length northwest to
southesat; snd whe o It joins the Atlantio Ocean, is 170 mile acrosa foetween Maldonado and Cape 8t, Antonio) f its cenuis being abont lat. $85^{\circ} 30^{\prime} \mathrm{S} . \boldsymbol{y}^{\prime}$ long. $56^{\circ}$ W ${ }_{i}$ ils Its muddy waters can be traced in the ocean 200 miles from its mouth. :The total length of the Hata and the Paragury has been estimated at nesrly 2500 milleaf and from the ocean to the island of Aplpe In the Parana, at least 1280 miles, there is a continuous and eafe navigation for vessele of 800 tohs. The Agutpehy, an afflueat of the Paraguay neur lat. $15^{\circ} 40^{\prime} \mathrm{B}$., long. $39^{\circ} 20^{\prime}$ W., ia separated only by a portage of three miles from the Alegre, a tributary of the Guapore, and were a canal to be made to connect the two streams, a complete aystam of internsl navigation' throughout nearly sll South America would exiat.-Ses Paraovat.

Plate, the denomination usually given to gold and silver wrought into articles of housohold furniture. ${ }^{\text {rl }}$ It appears from Portis's Progreso of the Nation, 111. 25, that the annual consumption of siiver plate has inereased from about $800,000 \mathrm{oz}$. at the commencement of the century, to about $1,050,000 \mathrm{oz}$. at present. Most persone may, perhsps, be Inclined to think that this is not so great an incresse as might have been auticipated from the increase of wealth and popniation. But It should be borne in mind that thia account refers only to articles of standard silver and gold, and that the great consumption of the precious metals consiats in plated and gilt articles, which are now made of a very superior quality. Owing also to the fact of old plate boing hold in the greatast estimation, but little of it is melted down to be remanafactured, so that the principal consumption is by new families.-See Gocd and Puectous Mexals.

Platina, a metal which, in respect of scarcity, beanty, ductility, and indestructibility, is hardly inferior to gold, was unknown in Europe till about the middle of last century, when it began to be imported in amall quantities from South America. It has aince been digcovered in Fistremadura in Spain, and more recently in the Ural Mountains in Asistic Rusais, where it is now raiaed in very considerable quantitles. Plating is of a white color, like silver, but not so bright, and has no tasto or smell. Ita hardness is intermediate between copper and iron. Its apecific gravity is about $21 \cdot \delta$, that of gold beling 19.3 ; so that it is the heaviest hody with which we are acquainted. It is exccedingly ductile and malleable; It nay be hammered out. into very thin plates, and drawn into wires not exceeding 1-1940th of an inch in diameter. In these properties it is probabiy inferior to gold, but it aeems to surpass all the otiner metals. Its tenacity is such, that a wire of platina 0.078 inch in dlameter is capable of supporting a weight of $\mathbf{2 7 4 . 3 1} \mathrm{lbs}$. avoirdupois without breakiog. It is ono of the most infusible of ail metals; but pieces of it may be welded together without difficulty when heated to whiteness. It is not in the amailest degree altered by the action of air or water.-Tuonson's Chemistry. The late Dr. Woilaston discovered a method of fusing platina, and, consequently, of rendering it easily availabic in the arts. The Russians have within these few years issued platina coins of the value of 3,6 , and 20 aliver roubles. Platina first began to le an object of attention in Russia in 1824, when 1 pood 33 lts. wero collected. In 1836 the produce amounted to 138 poods 42 lbs . In 1831 a piace of native platina was discovered at Demidoff's gold mines, weighing 29 liss. $2 \frac{1}{2}$ zolt.-Official Statements published by the Russian government.

Plating. The art of covering copper and other metala with silver or gold: it is effected in various ways. Sometimes the silver is attached to and rolled out with the copper hy pressure; sometimes the one metal is precipitated from its solutions upon the other; and of late manufacturers have avsiled themselves of elec-tro-chemical decomposition for the purpose.

Platinum (so called from the Spanish word plats,
ailror; on account of ite coler), a metal of a white color, exceedingly ductile, malieable, and difficult of fusion. It is the heaviest subatance known, lts speeific gravity being 21-6. It undergoes no change from air or moisture, and is not attacked by any of the pare acids; it is dissolved by chlorine and nitro-miuriatic acid, and is oxydized at high temperatures by pure potassa and lithia. It is only found in South Ameries and in the Uralian Mountains: it is usuaily In small grains of a metailio luatre, associsted or combined with paliadium, rhodium, iridium, and ormium ; and with copper, iron, lead, titanlum, chromium, gold, and vilver; it is also usualiy mixed with slluvial Band. The particles are seldom so large an a small pea, but sometimes lumps have beon fuund of the size of a hazel-uut to that of a pigeon's egg. In 1826, It was first discovered in a rein associated with gold by Boussingault, in the province of Antioquia, in South America. When a perfectly clean surfuce of platinum is presented to a mixture of hydrogen and oxygengus, it has the extraordinary property of causing them to cumbine so as to form water, and often with such rapidity as to render the metal red hot : spongy platinum, as it is ueually called, obtained by heating the amnomio-muriate of platinum, is most effective in producing this extraordinary result; and a jet of hydrogen directed upon it may be inflamed by the metal thus ignited, a property which has been aiplied to the construction of convenient inat ruments for procuring a ligitt. The equivaleat of platinum is about 98. It is precipitated from its nitro-muriatic aolution by as ammoniac, which throws it down in the form of a yellow powder, composed of bichioride of piatinum and aal ammoniac.

Platting, slips of bast, canc, straw, etc., woven or plaited for making into hats, etc.

Plumbago. Sec Black-lead.
Plums, the fruit of the Prunus domestica, are too weli known to require any description. They were introduced into England in the 15 th century, and are cultivated fil all parts of the country. There are said to be nearly 300 varieties of plums.

Plum-tree (Prunus domeatica). The Prunue domestica appears to be more widely diffused in its original lecality than the apricot. It is believed to be indig* enous to the south of Russia, Caucasus, the Ilimalayas, and to many parts of Earope. In England, and in some parts of the Unitcd States, it ls sometimes found in hedges, but never truly wild. This species end many of i ss varieties are cultivated for ornament, or their fruit, in ail the temperate countrics of the habitable glowe. Faulkner, in his Keneington, makes the plum \& native of Asia, and an introduction into Europe of the Crusaders. Gough, in his British Topography, says that lord Cromwell introduced tho Perdrigon plum into England in the tlme of IIeary VII. The introduction of this tree into the United States dates back to the earliest periods of their settlements. Several valuable and lnteresting varieties have originated in this country, among which the Bolmsr or Washington pium stands conspicuous. The parent tree la said to have been purchased in a market in New York, about the end of the last century. It remained barren for several years, till, during a violent storm of thunder, the entire trank was severed to the earth by lightning, and destroyed. The part remaining in the ground afterward threw up beveral vigorous shoots, which were allowed to remain and finaliy produce fruit. Trees of this varicty were firat aent to England in 1819, to Mr. Robert Iarclay, of Bury Hill; and several others were sent to the London Horticultural Society in 1821, by Dr. Hosack, of New York. The wood of the Prunus domestica is hard, close, compact, beautifully veined, and susceptible of a fine polish. When dry, it weighs from forty to fifty poundis to a culic foot, according to the age and growth of the tree. Its texture is silky, and when washed with lime-water its color is heightened, and may be pre-
served by the application of varmith or wax. Unfortunately for tilis iree, Its wood is sometimes rotten at the heart. In France and Germuny it is much sougit after by turners, cabinet-nakers, and the manufacturers of musicai instruments. The leavea are sometimes given to cattle for forage. The use of the fruit in domestic economy fur dessert, and for making tarts and puddinge, is weli known. In France plums are principally used dry or preserved, and enter extenaively into commerce. The kinds usually employed for pre. serving are the Brignole, the prune d'Ast, the 1'erdrigoa blanc, the prane d'Agen, and the Ste. Catherine. In warm countries plums or prunea are dried on hurdles by solar hest; but in cold climates artilicial heat is employed; the froit being exposed to the hent of an oven and to that of the sun on aiternate deys, Thible pruses are prepared from the larger kinds of plums, as the green-gage, and Ste. Catherine; those employed in medicine from the Ste, Juiienne. The former have a very oweet and agreeable taste, and the latter are somewhat austere. Fresh, ripe plums, taken in moderate quantities, are regarded as nutritire and wholeaome; but in large quantities they readily disorder the beweis; and when immature, they atill modre easily excite ill effecta. The medicinal prunes ars enuployed as an agrecable, mild laxative for children, and are given during convaleacence from febrile and inflammatory disorders in adults.-Browss's Trees of A merica.

Pluah (Fr. Panne, Peluchs; Germ. IVollsammet, I'luseh) ie a textile fabric, having a sort of velvet nap or shag upon cyeside. It is composed regularily of a woof of a single woolen thread, and a two-fold warp, the one wool of two threads twisted, the other goat's or camel's hair. There are also several sorts of plush made entirely of worsted. It is manufactured, like velvet, in a loom with three treadles; two of which separate and depress the woolen warp, and the third raises the hair-warp, whereupon the weaver, throwing the sliuttie, passes the woof between the woolen and hair warp; afterward, iaying a braas broach or needia under that of the hair, he cuts it with a knife (bee Fustian) destined for that use, running its fine, slender point along in the hoilow of the guide-broach, to the end of a piece extended upon a table. Thus the surface of thie plush receives its velvety appearance. This stuff is also made of cotton and silk.

Plymouth, a aca-port of England, on the east side of a peninsula between the rivers Plym and Tamar, at the heaid of Plymouth Sound; latitude of Mount Wise, $50^{\circ} 22^{\prime}$ N., long. $4^{\circ} 10^{\prime} 2^{\prime \prime} \mathrm{W}$. The port of Plymonth is distinguiahed for its capacity and security; it is capable of containing 2000 sail, and is one of the best harbers in the world. It consists of three divisions: Suttonport, adjoining the town; Catwater, formed by an estuary of the Plym ; and the Bay of Hamoaze. At the mouth of these harbors the great bay of Piymouth Sound forms an excellent roadstead, which is new completely secure by the erection of the breakwater across the entrance. This is an isolated mole at the entrsnce of the Sound 5100 feet long, and opposing a barrier to the heary swell of the Atlontic. The found is three miliss long and four miles wide, and forms the harbor of Davenport and Plymouth.
Point net is a atyle of iace formerly mach in vegue, but now auperseded by the bebhin-net manufacture.Ses L.ace.

Points of the Compass. In Geography and Navigation, the joints of diviaion of tise circio reprecenting the horizon, or of the compass card over which the magnetic needle is suspended. A diameter of the circle being drawn to represent the meridian, or north and south directions, and another at right angies to it to represent the directions east and west, the circle is thus divided into four quarters, each of which is subdivided into eight equal parte, so thst the wiole circle is divided into thirty-two equal parts; and the poiats

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Unforrottell at ch aougit onufactur. ometimes rult in dotarta and are prinxtenslvely ed for preho I'erdrldried on artlifisl the heat nate days. klnds of ine; those nne. The taate, and ipe plums, nutritive ey resdily they still nal prunes re for chll rom febrile -Browns's

Vollsammet, velvet nap pularly of a fold warp, ther goat'a ts of pluesh tured, like 0 of which d the third r, throwing woolen and h or needle knlfe (ses fine, slen--broach, to Thue the ppearance.
he east side Tamar, at ount Wise, Plymouth rrity ; it is of the best dlvisions: formed by mosze. At Plymeuth s now comrater across he entrance a barrier to nil is three the harbor ufacture.rcie repreover which eter of the n, or north angles to it he circle le ich ls subhole circle the polats
of diviaion are termed the polnts of the compate. Each has a particular name, Indicating lta place with reference to the four princlpal or cardinal points; namely, the north, south, east, and weat points.-See Compass.
Polar Bea, North. We aro now able to draw with nearly geographlcal accuracy tho boundaries of the North Polar Sea, A very large portion of the northern shores of Europo, Asia, and Atsorica, which circumseribe it, have been visited, and the position of most of their bays, headlands, and rivers, geograpliceally ascertained. By caating our eye over the North Polar chart, it will be seen that the Polar Sea of that hemiephere ls an immonse clrcular basin, which colnmunicates with the two groat oceans of the world-tine Atlantic and the Paclic - by two channels, the one separatiog America from Europe, and the other Amerlca from Asia. It will be seon that few pointe of the coasts of Europe and Asia, which occupy a full half of the circumacrlbing circle, extend much beyond the 70th parallel of latitudo; and all these polnts have been passed by water, though at different polnts and by different persons, with the single exception of the Cape Cevero Vastochnoi, which on the charts is made to extend to the latltude $75 \frac{1}{2}^{\circ}$. The northern const of America, with Old Greenland, and the two channels above mentioned, complete the circle, America extending sbout $80^{\circ}$ of longitude, or juat two nlathe of the whole circle; and of this portlon the whole coast has now been ascertalned, with tho oxceptlon of that part which llea between Cape Turuagaln of Franklln, and the land at the bottom of Prince Regent's Inlet, which the gentlemen of the IIndson's Bay Company are now (1838) exploring. This belng accomplished, wo shall havo the whole line of the northern coast of America completed. We may, therefore, state that the avorage of the degree of latitude of this cosst ls about the same as, or rather lower than, that of Europe and Asia, anu the extent of tho North Polar Sea may bo considered as about 2100 geographical miles in dlameter, or T200 in circumference. The interlor or central parts of thls sea are very littlo known. Several ialands are scsttered over lte southern extremities, the largest of which is OId Greenlend, whose northern limit has not yet been passed; tho others are, Spitzbergen, Nova Zembla, the lelands of Liaknov, or, as eome have been pleased to call them, New Siboria; the North Georgian Islamis of I'arry, and those which form the weetern lands of Buffin's Bay, to which may be added the Boothia Felix of Ross, which there Is no doubt is an is]and. Besides thesc, there are a number of amall alluvial islands, formed at the nouths of the several rlvers of the two continents; but whether any, or what number of lslands may exlst nearer to the Pole, we must of course remaln ignorant till the Polar Sea has been further explored.

For the little which ls known of this soa, we aro indebted to that spirit of dlecovery which showed itself iumediately after a passage to the East Indles brd been effected round the Cape of Good Hope; not so much, it is irue, for the sake of geographicsl discovery as that of shorteniag the pasaage by sea to tho enstern parts of the world. It was olvvlous that if a ship could proceed from the Atlantic to the Paclicic on a great circle of the sphere, or nearly so, the distanco, compared with the circuitous passage round Southern Africa or Southern America, would be prodlglonsly shortened. The voyage of Columbus had that object; but it was soon discovered that, from the Straite of Magelhaens to the Gulf of St. Lawrence there was an uninterrupted continuity of land. Of the northern regions the informstlon obtained has been scanty and discouraging for such an enterprise. One of the Scandiaavian plrates had, indeed, been driven hy stress of weather, as early as the middle of the 9 th century, upon an lsland to the northwest, to which, from its appesrance, he gave the name of Snowland, which was afterward changed to that of Iceland, by the leader of the Nor-
weglan colonists who took refuge on that inhospitable spot ; but it was not till more than a century after this that Eric Randa diacovered the southern part of Old Greenland, and there are ground for bellevlag that in the year 1001 some of those colonista discovered New. foundland and the coast of Labrador.

Of the South Polar Sea little or nothing may be anid to be kunwn. Captain Cook, In the years 1778 and 1774, croased the antarctlc clrcie in fire places only ; in lougltude $80 \mathrm{f}^{\circ}$ east, where he advanced to latltude $67 \frac{1}{2}$, and met with fields and detached pleces of ice; In longitudes $101^{\circ}$ and $110^{\circ}$ west, between which he proceeded to latltude $71^{\circ} 10^{\prime}$ south, tho farthest progrese made by hlun toward the South Pole, where he was atopped, or at least dcemed it prudent to return, on account of the flelds and mountalns of lice which were scattered over the surface of the aea; and in longltudes $186^{\circ}$ and $148^{\circ}$ west, bet weon which he descended to latltude $68^{\circ}$, and saw many float.ang ice islands. There are, therefore, stlll romalaing about 340 degrecs of longltude in which the antarctlc circlo has not been crossed, and full half the clrcumference of the globe which has not been visited lower to the southward than the parallel of $60^{\circ}$ south latitude.
Mr. Weidell, a master In tho navy, proceeded some three degrecs farthor south than Cook; and elnce that, two ships of Mr. Enderby discovered a lons tract of land, the extent of which they did not determine.

There was llttle doubt of the existence of high land In the South Polnr Sea, though Cook diecovered nono beyond the Southern Thule, or Sandwlch Land, on the parallel of $60^{\circ}$. Without high, precipitous land, those largo icebergs which ho met with floating among the fields of ice could not havo been formed; the hummocks of lee, occasioned by the agitation of the sea, and the meeting of the fields or flaws in oppusite directlons, seldom rise to the helght of twelve or fifteen feet above the sufface. Tho llussians, indeed, on a recent voyage of discovery, aro said to havo fallen in with many islands about the 70th parallel of lstitude. They also clrcumnavigated the Sandwleh Land, which was left undetermined by Cook, and conjectured that it might be a part of the grest Southern ContInent, which occupled so much attentlon of the geographers and philosophers of the last century. Thls idea was renewed by the recent discovery of a very considerable extent of land to the southward of Cape Horn, in latltudo $63^{\circ}$, and seen extending from longitude $85^{\circ}$ to $65^{\circ}$ west. As tho esstern extremity had not been seen, and the wInding of the coast was to northeast, it was conjectured that it might unlte with the Southern Thule of Cook, and form the long-sought-for Southern Continent. It ls sald, however, that the Russians have also circumnavigsted this land, and that it is composed of a great cluster of islands.

The land In question has been called South Shetland, but it is no hitw discovery. In the account of the voyage of the fire ships of Rotterdam, undicr the command of Jacob Mshn and Simon de Cordes, to the South Seas, In the year 1599, it is stated that, on approaching the Stralt of Magelhaens, the yacht commanded by Dirk Gherritz was separated from all the other shlps, and was carried lyy tempestuous weather to the south of tho Stralt, to $64^{\circ}$ sonth latltude, where they discovered a high country, with mountains, which were covered with snow, llke the land of Norway. Thls land of Gherrita was marked on some of the old charts, but discontlnued on the more modern ones, from the uncertalaty of Its position with regard to longitu .e. There can be no doubt of ite identity with the modern South Shetland. It answered to the descriptlon of the mountains of Norway, covered with snow, and is wholly barren, having neither tree nor shrub of any klnd. It is unnecessary to say that it ls uninhsbited, there being no such people in the southern hemisphere as the Esquimaux ; and it may be remarked, that no haman beings are found In the Sonthern Ocean below the 55 th

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parallel of latitucle, and nons beyond the 50th, except | on I'atagonia and Tlurra del Fuego. On the shorea, the meals and moe hormes, which had remainad from the Creation undistarbed, were ao numeroas, that on the first notice of the rediscovery, a whole tleet of veasele fror. Aingland and North America crowded thither on apeculation; but the loas of several from tempestuune westher, and a dangerous navigation, and the ileatruetion and alami of the ohjecta of their cupidlty, will probably cause it, for aone tione at least, to remain as much a land of devolation as it had been before.

For an account of Polar Sea expeditions, aee Anctre Ochan. Refer to Paray's l'oyaged Frianklin's kixpeditions, etc. $;$ American Journal of Science, xvi. 124 ; Wenminuter Review, xxzi. 278; American Quarterly Heview, Iv. 215 ; Blackwood'a Sfagazine, it. 368, iv. 157 Eclectic Mngazme, xil. 43, xx. 60, xix. 414; Ndinbuygh Review, xivili. \$28, 1xi. 223,1xill. 151; Quorterly Review, xxvill. 872 , xxxvil. 523 , xxxvili. 835, Ivi. 161, Ixvi. 218; North British Review, xvi. 236, xxiv. 10B, 275, 453, $\times x \times i .291$, $\times x \times v i .45,241$; Lieing Age, $\times x v$. 18, xxvi. 572, xx. 289 ; Fuabea'a Nagazine, xxxvili. 603 ; Dx How'a Review, xili.' 1.

Pollcy of Insuranoe, or Assurance, of shlps, is a contract or convention by which a person takea upon himseif the riske of a sea-voyage, ohilging himself to make good, in part or in whole, the loeses and damages that may befall the vessel, ite equipuge, tackle, vioiualing, lading, etc., olther from tempests, shipwrecks, pirstes, fire, war, reprisele, in considoration of a certaln sum, more or less accurding to the risk; which sum is paid down to the aseurer by the assuree upan hia signing the policy.-mee I naerance.

Polyneada ("many islanda") Includes the multitute of lalands scattered over the Pacifio Ocean, and comprehenda a belt ehiefly within $80^{\circ}$ on each side of the equator, and from longitude $135^{\circ}$ E. to $135^{\circ} \mathrm{W}$. Including New Zealand, the boundary extends south of the equator to lat. $47^{\circ} \mathrm{S}$. The lalande are diatributed into numerous groupe, and these groups, of an elongated form, have a general direction from northweat to southeast, and are composed of one or more larger islands, and numerous amaller ones. The principal groupa to the north of the equator are the Pelew, Ladrone, or Mariane, Caroline, Radack, Marshali, Gilbert, and Sandwich Ialandis. South of the equatoare New Ireland, New Hebrides, New Britain, Feejeo, Frlendly, Nevigator's, Solomon's, Soclety, Mendana or Marquesas, Low Archipelago, Couk's, Austral, and othor minor gronps, beaides numerona detached falsads, as Easter and liteairn islands. With the exception of Hawall, tha largest islund of Polynesia, the most considerable of the others range from 20 to 60 and 100 milee In circumference, while many do not oxceed a mile or two in length. These islands are all, moro or less, of coral formation; the Low Archipelago, Soclety Isiands, Marshall, and Cerolinea, presenting the regular stoll form, with circular reofs and lagoons. The Friendly, New Helrides, Solomon's, and Sandwich Islands, preeent fringed reefa, and have active voleanocs; summits of mountains varying from 2000 to 13,000 feet. In the lower coral islands tho elevations do not exceed $\mathbf{6 0 0}$ feet. In the stoll coral islands, Darwin hes aupposed that a depression of surfaco is taking place, and that the volcanic islanda are either stationary or rising. From the great predominance of ocean, the temperature of Polynesia is comparatively moderate, tho climate delightful and selubrions. Mean amual temperature of Sandwich Islands $77^{\circ}$; temperature of Soclety Islands, $70^{\circ}$ to $80^{\circ}$, and rarely $90^{\circ}$, Fahrenheit. The aoutheast tropical winds generally prevall, but northwest and southwest winds are not unconmon. Horricanes are rare, and earthquakes slight and not of frequent occurrence. The refreahing coolnese of the trade-winds, and is regular hut not execsaive supply of molature, are favorable to a luxuriant vegotation. Soil in the valleys and in the river coursea a rich volcanic
mould; on the mountains lese fertile: Boih vegetable and animal prociuetionm are limited na to riomber of specied. In the lalanda of the middle and eastern divisiona not more than 600 apecies of plunts are found. Thia number ingreusen toward the weat and notthweat. The hread-frnit, peculler to thim region, the cocoa, lignana, plantain, banyun, Eugar-cane, ynm; and cottonplunt, puper-mulberty; and a species of cheatnut, are indigenous. Other trees and plants of tropical climatea heve been Introducad and flourish; and ntrow-root, aweet potatoes, the common potato, and maize, are now reared abondantly. ${ }^{3}$ There are aeveral timber trees; eapecially esndal-wood; a few splces, and otnamental fowera, which, howover, hava little odor or decided color. 'The ialands were' all remarkally deficient in animals, thus indicating their isolated nnd conrpara. tivaly recent orighin. Tuptle report in great numbers to many localitiea, and fish are pleniliful on the coasts. Several epecies of whales, the cachalet or sperm whale, Cape whale, humpback, and blackflah, nre pecollar to the aeas of the Pacifle, and their capture hus veen tho chief inducement forabipe viliting these regions. Oxen have been int roduced from New Sonth Wules, and thrive well; and harses from South Americs. The natives of Polynesja are in general a well-furmed, tall, active, and intelligent people. There are two distinct races, one apparently of Malay origin, by far the most numerons and Intellectual, and spread over all Central and Eaatern I'olynesia, and apesking one comimon langnago, though varying in dialecta. 'The other a negro or l'apuan race, with negro features and color, und crisyed mop-like hair, growing in aepa pate tufts, speaking a distinct language, and exhiblting an intellect of ar. inferiop graile, prowslly the first settlers of the islands, and now confined to the western jart of Polynesis, and Inhabiting partly or wholly New Guinea, New Brlesin, New Ireland, the Solomon lslands, New Calcdonia, New IIebrides, and part of the Ladrone [s]. ands. Some of the weatern islands, as the Ladrones, were discovered by Magelhaens in 1621 , the Marquesas by Mendafia in 1595 ; lut it whe not till 1767 that Wallis, and sulssequently Cook, explored and degcribed the leading islanda of thle region. Soon after this, missionaries began to settle in the isjands; and after many discouragements at laat have succeeded in promoting Christianity and civilization in some of the principal islands; though cannibalism and aavage ferocity still prevail in the majority. The populat lon of these islande varica continually from ware, migrations, and oceasional pestilonce. Tahiti and some others, when first discovered, wero conjectured to be greatly more zopuluns thun at present, but no proper data cxist fur athording even en approximation to the real nmubers. Probably the popalntion of the whole of lolynesia does not oxceed one million or one million and a hslf. - Hathere's Gazetteer.

Pomegranate (Ger. Granatijpfel; Ft. Girer des; It. Granati, Melagrani; Sp. Granadas), the fruit of the pornegrnaste-tree (f'unica granatum). This itre, which grows to the height of 15 or 20 feet, appears to be a native of Persia, whence it has been conveycd, on the one side, to Sonthern Burope, and on the other to the tropical parts of Asia, und eventually to the New World. The fruit is n pulpy, mony-seeded berry, the size of an orange, covered with a thick, brown, coriaceous rind. The pulp hus $n$ reddish color, and a pleasant sub-itid taste. The valuo of the fruit depends on the smallness of the seed and the largeness of the pulp. The finest, called by the Persians badenn, or seedless, is imported into India from Cabui and Candahar, where the pomegranate grows In perfection. The tree thrives all the way to the equator: Iut within the tropics the fruit is hardly fit for use. The pomegranates brought to market from the sonth of Europe and the West lndies are very inferior to those of Persia.

The Punica granatum. is 'n tree, in magnitude and ligneous character, bearing considerable resenblance
to the thoray planta tsitss

The ais, Js been dies, layas, grows It forn seeds I lees po under are al tbroup India, quallt chante pomeg the vid utility with 1 Easter must is men tho Ph the lo
The rot th posses: tries 1 gratef quite soft th ling aw howev somed gent, the $p$ flower: gent. gent $p$ ica, as used a black parts of mor the riu gent, employ the roo well $k$ Drs. 1 of the may fa des."
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it ja th the Co N, II were $]$ compri le; M territo lation ucta ay and co \$373,0 tern dl－ found． thwest． ycoa，hre 1 cotion－ nut，are climates ow－root， are now er trees， amentsi decided icient in ：ompsra－ nombers conats． m whate， seallar to been the s．Oxen nd thrive o natlves 1 ；active． ict races， most nu． 1 Central mon lan－ $r$ a negro olor，and ts，apdak－ trlleet of of the tsl－ olynesis， 1ea，New New Cat． Irone 【st－ Ladrones， Jarquesas that Wat－ cribed the this，mils． fter many roneting he princl－ e ferocity n of these lons，and ers，when atly more cxist fut numbers． lolynesis d a half．
to the cemmon hawtisern．In a wild atite it forms a thorny buah；but when cultivatod la gardens and in plantailous，uniez taverable circumatanees，it often at－ talise a hoight of 15 or 20 feet．

The Puaiea gramatam in Indigenous to Barbary，Per． aia，Japan，and varioua parte of Asta；and has long been naturalized in the somth ef Europe，the Went In－ dies，Msxico，and in South America，if in the IIIma－ fayas，Mr．Royle Iuforms us that the poraegranate grows widd，and also that is is planted near viliagen． It forms quite a wood in Blakaniesan，whence the dried seeds are exported for medical nse．The famonn seed－ deap pomegranatoa are grown in the rich gardena lying uader the anowy hills noar the River Oaubal．T They are also described as delicious about Haiglabad，and tbroughout Pereia．＂Though grown in most parta of Indla，＂says．Mr．Royle，＂large quantitiea，of superior quality，are yearly brought down by the nor them mer－ chants from Caubul，Caslimere，and Boodurwar．＂The pemegranato－tree，which partakes of the antiquity of the vine，the fig，and the olive－mand which，a point of utility，is suinbered with the grain－bearing plants，and with boney，sll conalltuting the princlpal food of the Eastern nations，in the early stages of civilization－ must ponsesa no amall degree of hlatorical interent．It Is meationed by Theophrastus under the name of roa； the Phoeniclana cailed It sida；the Greeks egtinos；and the Romans，according to Pliny，malus punica．
The general diffusion of the pomegranate through－ sot the cllmatea aulted to its growth；implles that it possessea highly valuable propertice．In hot coun－ tries its utblity is inconteatable；for its jaico is most grateful to the painte，and aseuages thirst in a degree yuite peculiar to it，from its pleasant acid－－an acld so soft that it may，in truth，be said to be＂full of melt－ ing awectnoss，＂as Moone expresses himself．The pulp， however，which incloses the aeeds，is sometlmes acid， somelimes aweet；and in some cases vivous，astrin－ gent，and always refreshing．A sirup is made from the pulp by the druggists，at well as from the dried flowers，which la employed as an astringont and deler－ gent．The rind of the fruit，on sccount of its astrin－ gent properties，is semetimes empleyed in materia med－ ica，as well as in the veterinary art．．It has also been used as a subatitute for galls，in the manufacture of black ink，and la said to be still employed in oomo parts of Germany in dyeing teather red，in imlitation of morocco．In the Ilimalayes，Mr．Hoyle informa us， the rind of the fruit，called naspal，＂being very astrin－ gent，is used in medicine，as well as in dyeing．The employment by the natives of India of the lark of the root for the expulaion of the tape－worm，being now well known，sinoo the subject was communicated by Drs．Hamilton and Fleming，ia a romarkable instance of the oblivion into which even a valuable medicine may fall，as this property was well known to Dloscori－ des．＂Lord Bacon recommends the juice of pomegran－ ates es good for liver complainta；and Dr．Woodvillo saya it is preferable to that of oranges in casea of fever． From the flowers，whe the addition of alum，there may be obtained a fine ned ink．The flowers，also，were for－ merly used to dye cloth a light red．－Browns＇s Triees of America．

Ponce．See Ponto Rico．
Pondicherry．The name of Pondicherry is made to Include all the French posseenions in India，because it ie the most considorable of them．It is situated on the Coromandel coast of IIimdostan，in fatitude $11^{\circ}$ B7＇$^{\prime}$ N．Its population in 1836 was 62,127 ；of whom 606 were Europeans．${ }^{\text {F The French posuessions in India }}$ comprise also Chandarnagore，Karikal，In the Carnat－ Ic；Mahé，in Malibar；Yaneon，in Oriesa；with the territory attached to each．＇．，These have a total popu－ lation of 166,000 ，of whom 1000 are whites．T The prod－ ucte are rice，grain，cocoannte，betel，Indigo，twbacco， and cotton．T The annalal value of the imperts is about $\$ 373,000$ ，and of the experta about $\$ 1,200,000$ ．The
trade，nearly all being at Pondicherry，is with the Cor－ omandel cosst，Inle of lieurhon，the Mautitius，and Senegal．Pordlcherry would have been a commerclal polnt of great magnitude but for the changea of owner－ ship；oecaslened by the frequent wara of Franee and England．The law of the 17th May，1826，provides that the distinction between the French and forelgn factorios in Indla shall be suppressed in the inriff，and that merchandiae from any of these aetilementa shall pay to other dutles thati are imposed on the asme ar－ ticlea brought frem the French settlements．

Poplar（Ger．Pappel，Pappelhaum；Dn．Irpelier； Fr．Peuplier；It．Iioppa；Sp．Alame；Lat．Populus）． Of the poplar（Populus of botanists）there are about 15 apecies described．In most favorabie slituations the white ．poplar growa with great raplality；aometinea sending forth sheots $\mathbf{1 0}$ fect long in a single acase $\boldsymbol{y}$ ． Tho wood is aeft，and not very durable unless＇kep，t dry；but it le light，not apt either to awell or shrink， and easily wrought．，The Lombardy poplar grows rapidiy，and shoots in a completo apire to a great height；Its tlmber does not difier materially from that of the white poplar．It is very light，snd is therefore well adapted for the manufacture of packing－cases． None of the apecles is fit for large tlmbers．－Treid－ colvis Principles of Carpentry；Vrgetable Substances， Library of Entertaining Knowbedge．

Population．It would be guito inconsistent with the objects and llmits of this work to attempt giving In thie piace eny explanation of the laws which regu－ late the progress of popalation．However，as it is fre－ quently of importance la commercial questions，and in others affecting commercial interests，to be able to com－ pare the conanmption of an aricle with the population， we belleve we aball gratify our readera by laying be－ fore them the following Thble；showlng thd compnra－ tive population of the principal commercial ceuntries of the world：

| Countries． | Fopntation． |
| :---: | :---: |
| Austrian Empirc，1842．． | 35，730，112 |
|  | Austria．．．．．．．．．．．．．．． $98,062,501$ |
|  | Inngary．．．．．．．．．．．．．．． Lombardy nid venice．． $4,803,289$ |
| Britiah Empire．．．．．．．．． |  |
|  |  |
|  |  |
|  |  |
|  | Coloniea．．5，224，477 ． 11 |
|  |  |
|  | Africa．．．．．．．．．．．．．．． 411.463 |
|  | Auatralia ．．．．．．．．．．．．．．．．－ 409,000 |
|  | Asia．．．．．．．．．．．．．．．．1，051，350 |
|  | Eигоре．．．．．．．．．．．．．． 41,403 |
| France， $18 \pm$ | $85,400,486$ <br> Colonten，184t，739，490，Viz． |
| 1 | Arin ．．．．．．．．．．．l．t．167，700 |
|  | Africa and Algeria．．．． 9 972，469 |
|  | West Indlen．．．．．．．．．$\ldots$ ． 258,089 |
|  | N．abd E．Amorica．．．．． 23,318 |
|  |  |
| Prussia，1849．．．．．．．．．．． | 16，391，187 |
|  |  |
|  | Jews．．．．．．．．．．．．．．．．．．． 214,867 |
| Rusalan Empiro，1846．．． | 60，008，315 |
| 硡 | European Ruania ．． 1 t．．．．64，099，300 |
|  | Trans－Caveaslan．．．．．．．2，043，000 |
| 1 | Ameriean ．．．．．．．．．．．．${ }^{\text {a }}$（1，000 |
|  | Poland．．．．．．．．．．．．．． 4 4，857， 700 |
|  |  |
| nited States，1851．．． | Whtto．．．．．．．．．．．．．．．19，656，202 |
| 14， 1 ． | Eree colored．．．．．．．．．．．． 418,573 |
| Bavaria，1847．．．．．．．．．． |  |
|  |  |
|  | 1＇rotentants．．．．．．．．．．．．．：1，181，216 |
|  |  |
| Relghum， 1849 | 4，353，090 |
| Brazil， 1850 | 5，180，009 |
| \％f of 16 | now 0 to $7,000,000$ |
| Deamark， 1845. |  |
| 11．951号 | Denmark proper．，$\cdot, \ldots$ ．．． $1,407,760$ |
| （rict ex enomuth |  |


ra, under the percelain of ia; very lita curiosity. beauty seen IIng lts higa tables of the pean artists infermation manufacturntory, vian m a French , mako him. bject. The veatigations the way for Eurepe. It has been fauctlens; but of European rance, in the French gesough ، "able orkmanship resden, ia of ead of exelucture of artihe rich, the es in prefer: tho middle g articles at , and cheap. pprovements e genius and d. Thisexto fortuitens tient investispense in achim artists ew upon the hjects of his signal presoly as an in. tions, nud as ent in olhers, velfare of his eries of Staf. flimsy as te ir forms and nly wretehed f scenes and llut such xertiens and rares of that neral use in roouls, which pettery has oughout the is where the ont forelgner. whect, says: the aivant. ctien of fire, beanty and ef ite price, Il so universrahurg, from n , and irem Fraure, ene we, Spain, and vessels al the centlthe dreount (1)NEn's C'yespeet to the Aife. The

British porcelain manufacture is principally carried on at the potteries in Staffordohire, and at Worcester, Derby, Colebrook Dale, and other places.
M.rrhine C'upa,-It was long a prevalent oplnion amoug moders eritics that the tasa murrhina, so fameus in Roman history, were formed of porcelain. Pompey was the first who brought them to Kems from the East, abeut 64 yeare before the Christlan era. They were used as drinking-cups, and fetched enormous pricea; Nero having given, according to the commen method of fiterpreting, $£ 58,000$ for a single cup! The extravagance of the purchaser may, in thls instance, be suppesed to have increased the price; so that the dogree of estimation in which these cups were beid may be mic: 9 at urately inferred from the fact that, of all the rich speils of Alexandria, Augustus was content to select one for his share.-Surtonius, lib. il, c. 71. Pliny (lib. xxxvii. c. 2) sajs they were mado in l'ersia, particularly in Karamania. But thoee whe contend they were China-ware, chiefly found on the following line of Propertius:

Murrheaque in Purthis pocula coora poots.-Lib. Iv.
In despitc, howover, of thls apparently decialve anthority, Le Bland and Larelver have, In two very learned dinsertatlons (Mfimoires de Littérat. tom. sllii.), which Dr. Rebertson has icelared are quite satisfactery, endeavored to preve that the vasa murrhina were formet of transparent stone, dug out of the earth in some Eastern provinces, and that they were Imitated in vessels of colored glass.-Robertson's Disquisition on India, neto 39. Dr. Vlucent 'Commerce and Navigation of the Ancients, vol. ii. p. $72 i s$ ) inclines to the oppesite opinion; but the welght of authority is evidently on the other side. At all events, it la plain that if the murrhine eups were really porcelain, it had been exceetingly scarce at Reme, as their price would otherwise have been comparatlvely moderate. But it is mest prehable that the ancients were wholly unacquainted with this article; which, Indeed, was but litthe known in Europe till ufter the discevery of the route to India hy the Cape of Goot Hope. For some tarther tetails on this question, ste Kinmivaif, Antiq. Rom. Jib. iv. c. 3.-See American Jounal of Science, xxvi. 233; American Monthly Review, il. 117.



| Years. | Forelign Importationa. | Foreign <br> Eisports. | Dontestic Exports. |
| :---: | :---: | :---: | :---: |
| 18411. | \$2, 1780.2 .11 | \$03,754 | \$10,1159 |
| 1841................ | 1,630,450 | 61,571 | 6,787 |
| 1812................. | 1,057,1/31 | 37,0:0 | 7,618 |
| 1813................. | $5 \times 8038$ | 26,378 | 2,907 |
| 1844. | 1,633.438 | 27,289 | 4.884 |
| 1845.................. | 4,439,615 | 29,701 | 7,8:3 |
| 1846. | 2,525,349 | 63,403 | 6,52i |
| 1847................. | 2,212,241 | 32,690 | 4.758 |
| 1848................ | 2,982,994 | 36,148 | 8,518 |
| 1541. | 2,261,331 | 89,144 | 10,032 |
| 185). | 2,601,393 | 42,24i |  |
| 1851. | 3,340 022 | 41,109 | 23,490 |
| 1852................ | 3,441.095 | 21,834 | 18.510 |
| 1453. | $8,178,18.3$ | 16183 | 53,485 |
| 1854................. | 4187.691 | 65,125 | 3:4, 307 |
| 1855. | 3,717,670 | 73,492 | 38, 1117 |
| 1950. | 0,347,584 | 40,09\% | 46,506 |
| Average. . . . . . | \$2.540,772 | \$40,723 | $\$ 18+0$ |

In consequence of a change in the fiseal your in 1843, but nine mouths are represented in that year.
Pork, tho fesh of the hog. Saltel and pickled pork forms a cor iderable article of export to tho West Inlies and other ilaces.
The exports of pork from the U. States for the year ending June 30, 1857, were from the follewing ports :

|  | Barrele. | Value. |
| :---: | :---: | :---: |
| linslan.. | 22,783 | \$471.889 |
| New York ............ | 64468 | 1,180.475 |
| luatlmore . ., ......... | 12,218 | 220.376 |
| Whiner porls. | 44.389 | 1001, 77 |
| Tolal. | 143,850 | \$2,800807 |

Table exilihting tif Quantities and Valut of Pobe, bacon, and hasd expogemp faom the Cined stated to Gibeat baitain, fiom 1630 to 1855 , hotit 1 eage in. clusive.

| Yaars. | Pork. | Hams add Bacon. | Lard. | Valua |
| :---: | :---: | :---: | :---: | :---: |
|  | Barrela. | Pounde | Puunds. | Dollarn |
| 1830 | 2,200 | 1,646 | .... | 20,832 |
| $183 t$ | 130 | 2,865 | . . . | 1,883 |
| 1838 | 2,700 | 608 |  | 29,378 |
| 1833 | 321 | 7.430 | 600 | 10,907 |
| 1834 | . $\cdot$ | 4,004 | .... | 418 |
| 1835 | 18 | 1,815 | .... | 845 |
| 1838 | .... | 11,461 | . $\cdot$. | 1,263 |
| 1. | .... | 400 | .... | 40 |
| 1838 |  | 607 | ... | 88 |
| 1833 | 10 | 150 | .... | 241 |
| 1840 | -7* | 1,061 |  | 115 |
| 1841 | 4,709 | 20,304 | 441,305 | 80,374 |
| 1542 | 6,000 | 180,274 | 3,431,732 | 287,028 |
| 1843 | 3,230 | 656,398 | 4,509,484 | 306,403 |
| 1844 | 10,281) | 360,18! | 8,076,805 | 643,705 |
| 1845 | 14,140 | \$6,00\% | 6 687,075 | 4.7,040 |
| 1843 | 13,001 | 530, 26 | 8,211,389 | 768, 226 |
| 1847 | 78.840 | 14,907 105 | 17,708.770 | 3,4i1,507 |
| 1848 | 87,760 | 29.21 3,468 | 27,768,84t | 5,283,259 |
| 1847 | 111,385 | 6\%, 1, 0,465 | $21,88,265$ | 6,482,194 |
| 1860 | 44,63i | 37 d77,769 | -i,092,501 | 4,381,036 |
| 1851 | 19,55 | 14,72., 169 | 6,629,783 | 1,687.851 |
| 1858 | 1,688 | 8,207,048 | 8.070,124 | 1,075.299 |
| 185\% | 17,150 | 18,207.373 | 4,725,186 | 2,530,004 |
| 1854 | 43, 604 | 88,8.0,7.7 | 26,716,14t | 6,103,894 |
| 1855 | * 51,663 | 30,240,161 | 15.649,922 | $5,916,180$ |

* 5670 iferces ware also experted in 1855.

Exports of l'ork faem the Vnited States for the Yeab ENDINO JUNE 30, 186 J.

| Whithar exported. | Tierces. | Barrela | Valne. |
| :---: | :---: | :---: | :---: |
| 8wedon and Norway .... | ... | 611 | \$975 |
| Swedlsh West Indles.... | . . . | 1:5 | 2,634 |
| Danlah Weat Indies. |  | 2,429 | 40,742 |
| lamburg | . $\cdot$ | 92 | 520 |
| 1 tremen. |  | 170 | 2,819 |
| Holland. | 3 | 43 | 745 |
| Duteh Wert Indies..... . | .... | 339 | 4,351 |
| Duteh Griana. . . . . . . . | . . . | 1,7517 | 33,049 |
| 1)utch East Indles..... . | .... | 25 | 413 |
| Belglum. . . . . . . . . . . . . . |  | 1,401 | 24,806 |
| lingland . . . . . . . . . . . . | $43 \pm 6$ | 27.832 | 641,8:9 |
| Scotland | .... | 794 | 11,654 |
| Gibraltar |  | 295 | 3.073 |
| Malta. | . $\cdot$. | 362 | 7,144 |
| Cinnada |  | 50,418 | 897,116 |
| Other lritislı N. A. 2 'oss, | $\cdots$ | B0, 855 | 524,380 |
| 13ritish West Indles..... | 34 | 23, 15.5 | 415,219 |
| Mritish llonduras . . . . . . |  | 4,428 | 71,658 |
| Irtelsh Gulana . . . . . . . . | . . . | 11,723 | 185,420 |
| Litish l'oss. ill Afriea.. | . $\cdot$ | 5506 | 0,707 |
| Other peris in Atrica ... |  | 637 | 10,457 |
| Mritish Australia ....... | 119 | 1,872 | 51,147 |
| New Zealand........... | * | 887 | 6,100 |
| British East lydies...... | .... | 155 | 2,48t |
| France on the Attantie.. | ... | 29.123 | 604,138 |
| France on the Mediler'n. | .... | 83, 656 | 670,820 |
| French N. A. 1'ossesslons | ... |  | T,715 |
| French Weat Indies .... | ... | 505 | 9,687 |
| French Gulaua......... | ... | 621 | 12,745 |
| Spaln on the Atlantic . | .... | 42 | 02 t |
| Spain en tho Mediter**. | . | 10 | 146 |
| Canary Jslands......... | . ${ }^{\circ}$ | 30 | 540 |
| lhilippine Jslands...... | $\ldots$ | 75 | 1,175 |
| Ćuba . . . . . . . . . . . . . . |  | 4,321 | 76,755 |
| Porto lteo . . . . . . . . . . . . | . $\cdot$. | 3,715 | 05,820 |
| Portagal .............. |  | 14 | 810 |
| Cape do Verd 1slands ... | .... | 40 | 307 |
| Sardlnia . . . . . . . . . . . | .... | 3,204 | 51,053 |
| Austrlan l'ose In Italy.. | .... | 24 | [1822 |
| Turkey in Eturope . . . . . | ... | 8.264 | 01,063 |
| llaytl.................. | ... | 17,887 | 345,038 |
|  |  | 83 | 735 |
| Mexleo . . . . . . . . . . . . . . | 8 | $\bullet$ | $(6)$ |
| Central ltepublle. . . . . . . | .... | 270 | 3,977 |
| New Ciranada , .......... | .... | 2,004 | 34,873 |
| Venezuela............. |  | 375 | 11,401 |
| 13razil . . . . . . . . . . . . . . |  | 82 | 1,1168 |
| (Hilif. . . . . . . . . . . . . . . |  | 2,77, | 44,44) |
| l'grit. . . . . . . . . . . . . . . . |  | 248 | 4,680 |
| Kandwich Istanda ....... |  | 453 | 7,824 |
| China. |  | 2,818 | 46,888 |
| Whaln liaheries |  | 1.511 | 21,053 |
| T'etal. | 1184 | 274.60.1 | \$6,1120,940 |

## -Sce Puovisions.

Pork Trude of the West.-The Cincinnati lrice Current contains returus of the pork trade from all the principal peints in tho West for the seasens of 1855-'56,
and $1856-$-57. The following is a reeapitulation by States of the number of hegs packed :

| Staten. | $1855-65$. | 1866-67. |
| :---: | :---: | :---: |
| Otho | 633,697 | 483, 048 |
| Kentucky . . . . . . . . . . . . . . . . | 428,834 | 349,212 |
| Indiama' | 452,531 | 816,629 |
| Itinota. | 481,258 | 863,202 |
| Nifissouri | 189,903 | 148,244 |
| Iowa. . . | 172,378 | 105,822 |
| Tennessee | 62,401) | 42,811 |
| Wtseons | 39,000 | 15.000 |
| Grand totala | $8,489,602$ $3,818,468$ | 1,818,468 |
| Total deficioney, 1857. | 614.034 |  |

Port, a harbor, river, or haven, fermed either by natore or art to recelve and shelter shippiag from the sterms and waves of the open sea. Artitieial ports are those which are either formed by throwing 'a streng moond or rampart across tho harber's mouth to some island or rock, or erecting two long barriers, which stretch from the land on each side like arms or the horns of a crescent, and nearly inclose the haven. Tho former of these are called mole-heads, and the latter piers.
Port is also a name given on some occaslons to the larbeard or left side of the ship, as in the followine instances. Thus it is said, "The ship heels to port;" that is, stoops or inclines to tho larbeard slde. "Top the yard to port," the order to make the larboard extromity of a yard higher than the other. "Port the helm," the order to put the helm over the larboard side the vessel. In all these sonses this phrase appears intended to prevent any mistakes happening from the similerity of sounds in the werds starboard and larboard, particularly when they relate to the helm, where a misapprehension might be attended $w$ : th very dangerous consequences.

Ports, the embrasures or openings in tho side of a ship of war, wherein the artillery is ranged in battery upon the tecks abovo and below.

Port-au-Prince, the capital of IIayti, or St. Domiugo, in lat. $18^{\circ} 33^{\prime} 42^{\prime \prime} \mathrm{N}$., long. $72^{\circ} 22^{\prime} 11^{\prime \prime} \mathrm{W}$. Popuation variously estimated, pwobally from 18,000 to 20,000 . It is situated on the west cosst of the island, at the bottom of a large and deep gulf. It wns founded in $1 \mathbf{7 4 9}$; since which, vith few intervals, it has been tha eapital of lirench St. Demingo, as it is now of the entlo island. It is partially fortlied; the harbor being protected by a battery on a amull lsland nt a little distance from the shore. The country round Is low and marshy; and the heat In the summermentha being excessive, the climate is then oxccedingly unhealthy. The buildings are principally of wood, and seldoni exceed two atories in hoight. The entrance to the harbor is between White lsland and the seuthern shore. The depth of water varies from about 18 fect at elb to about 21 feet at full tide. It la customary, lut not compulsery, to employ a pilot in entering the harbor. They are alwaye oh the look-out. Ships moor head and atern, nt from 100 to 500 yards from shore; loading and molording by means of boatr, as there are noither docks nor quays to assist these operations. The larbor is perfectly aafe, except durlng hurricancs, whiell may be expected from Augunt to November. The comnerco of l'ort-au-Prince is carried on by various classes of persons. The lmperts from Vurope and America are principally consignell to Jitropean and North Americun enmmission houses, besides a fow Itaytien establishments. The eapital is one of the ports to which foreign merchants are confined by the law of patenta; bat they are reatrleted by heavy penalties to a wholesale business with Haytiens, and to a minimmm amount of gooda. Of course they can not deal with the consumers, but with the natise retailera, who are chiefly women, styled "merchanden;" these employ hucksters, also women, whe traverse the country, attend the marketa, and five an necomit of their transactions to their emplogers, elther every even-

Jing, onee a week, or once a month, according to their eharaeter for integrity.

This clty, being the capital of tha emplre, centralizes the large bulk of Haytien foreign commerce. It is true that lesa than a third of the vessels ongaged in this foreign commerce depart from its ports with full eargoes; but thie ia owing to the fact that it is unable to supply sufficient exports; and the Jaws of Hayti permit foreign veasels, after unloading at the first port, to proceed to others to make up their cargoes. The gencral navigation from 1846 to 1850 comprised, arrivals and departures, 1448 vessels, with an aggregate of 219,810 tons, or an annual average of, 290 vessels of 43,962 tons. The flags whioh enter into the forcign trate of thls pert are, the United States, French, English, Danish, Belgiun, Hamburgian, and Bremen. Notwithstanding the great efforts made by Great liritain and France in 1847 and 1848 to ameliorate the commereial and agricultural condltion of Hayti, its general commerce, during the five years ending with 1850 , deelined at least thirty-three per cent. 'W hen compared with the preceding tive years. Its Europan commeree, more especially, is yearly declining, while its general trade with the United States has largely increased. The number of Ameriean vessels entered aud cleared during the last six months of 1854 was 122 , with an average of 200 tods each. Total value of ear-
 lumber, and dry goorin. l'sijoes homeward consisted of logwood, eoffec, and homp, the value of which is omitted in the official returus. Assuming the nqrigation between the Inited States and this port to have been as active the firat six montha of 1854 as the last, the tigures for the wholo year would stand thus: 'lotal number of Amerlean vessels entered and cleared at Port-au-Prince in 185.4, 244. Official returus give as the total for 1852, 210; 18* 189 ; which aloows an increase for each successive : ....-Commercial Relations of the U'nited States.

Port Aux Cayes, a sea-port of Hayti, is one of the most impertant of the empire. In 1850 there ontered and cleored 372 vessels, measuring an aggregate of 50,574 tons. The city is generully reputed one of the most pregressive in the Island, and is theo capitsl of the sonthern penlusula of Mayti; the best irrigatel and most fertile province in the empire. Here, sa in the other perts, the United States holds the first commercial rank. The chief imports from the l'aited States are provisions, of which the consunption is heuvy. During the jast two or three years Aluericsa merchants have also imported domestic cottons and manufacturea of cotton, generally in such quantities, and with such suecess, as to have already disheartenedsil forelgn competitlon. The French authority (Comonerve Aixterieur) \&ays, in refercnee to this singular snccess of Ameriean merchants In this ns in the other markets of Ilayti: "This speciea of merchandine (American cottons) is in high repute for its exeellent quality. It is superior to that manufactured In England, and is sold at a lower llgrese." Frauce supplies a small quan. tity of wioen, oils, and fabries of Marsellles nut Paris. Consters plying hetween St. Thomas, Curaçoa, and Jamaiea, impert amall packeges of Luropean wares, and some provisions, for which they gencrally find a ready market. 'The quantity of eoffee amminlly exported from Aux Cayes is entlmated at between four and tive million pounda. Furing good neasons this Gigure rises to six million pounds. In thia total, how. ever, aro included considerable quantliles imported constwise from the nolghbnringi porth. The district proper of Aux Cayen fuppling hut littlo eoties, the primeipal article of enlt ore being the sugar-eane, the produce of whleh, first converted into slrup, then nanufactured into rum, tatha, ete., suppliea the greater part of the islami with spirltuens lifuors. Campeche-wood (logwool), the produce of which is consideraliln, supplice an export trade of $20,000,000 \mathrm{lbs}$. erce. It is engaged in rts with full it is unable of Hayti perfirst port, to 8. The gensed, arrivala ggregate of 00 vessels of the foreign French, Ennd Bromen. $y$ Great liritrate the com(i, its general lith 1850, de en compared ropean comug, while its as largely ia8 entered and 854 was 122 , value of earof provisions, ard consisted I of which is $g$ the narigaport to liave it as the last, d thus: Total ad eleared at turas give as alows an incial Relations yti, is one of 1850 there enan aggregate puted one of is tl:o capital best irrigated
Here, as in the first cemn the I'nited nsumption is ars American c cottons and ch quentities, sheartenedall ity (Commerre lar success of ther murkets se (American t quality. It gland, ind is a small quarles and l'arls. Curacon, and opean wares, nerally find a aunumilly exbetween four seamons this iie total, hewthes imported 'The district le coties, the gar-enue, the p , theu паane greater part mupechr-wool fiernhle, sup-

Imports into Aux Cayes, 1850.-From the Uniter Statos, $\$ 266,106$; Great llritain, $\mathbf{~} 246,480$; lirance, 839,432 ; IIanse. Towns, $\$ 29,0074$; othar countries, 898j8; total, \$591,510.

Porte, the Bublime. The official title of the governmeat of tha Ottuman empire: said to be derlved from a gate of the palace at Broussa, the original metropolis of that ampirc, callad Bâb Humayoor, the subline gata.

Porter, a liquor brewed from ianlt, part of which has been mora highly dried than that used for ale. It is hopped in tha same way as ale; and lts deep color is tinally given to it either lyy burned sugar, which usually goes under the name of coloring, or, more legitimately, by roasted or parched malt. Porter was first brewed in $1: 22$. The malt liquor previonsly drunk conaisted of three kiuds-ale, heer, and "twopenny ;" and a mixture of eithle of these kinds was a favorite beverage under the nam3 of "half-and-half;" or a mixture was drunk called "three threads," consisting of equal portions of each oit the above kinds of liquor, for a draught of which the publioan had to go to threa ditferent caske. About 1722, Harwood, a London brewer, commenced brewing a malt liquor which was intendel to unite the flavers of als and beer, or ale, leeer, and "twopenny;" and, having succeeded, he called his liquor "entire," or "entira butt," n name intended to lntimato that it was drawa from one cask or butt only. A mixture of nle or porter, drawn from different casks, is very commonly lrunk lul London at the present time. Harwood'a liquor obtained the name of porter from its consumption by porters and laborera. From 1;22 to 1761, the retail price of porter in London was $3 d$. per pot, when it was raised to $3 \frac{1}{2} d$., at which it continued till 1790. It has never been higher than $6 d$.

Porter's Anchor. This anchor is an English patent, and is axteusively used at Southampton, and other Euglish porta. Ita peculiarity consists in giving to the arms and flukes a freedom of motion romed a pivot or fulerum at the end of tha shank, thus departing at onco from the rigidity usunlly observed in the constructiou of anchors. The arms and flukea aro forged wholly independent of the shank, and have a hole drilled transvorsely through the centre ior tha reception of the iron bolt which counects them with tho shank. The effect of this construction of a awlvel nnchor is, that when ona fluks enters the grouad the other necessurily falls dowr upon tha aliank, thereby avoiding the danger incident to tho upward projection of a aharp point. The objects llasigned to bo attained by this new construction are said to be mainly the two following : the avoidanco of the conaequence of what is called "fouling," by the cable passiog over the exposed fluke of the anchor when tha veasel is awinging in a side way; and the aveilance of injury to the vessel itaelf in the event of falling on i.er anchor.

Porters and Porterage. Porters are persons employet to carry mesagges or parcels, etc.-See Callmens.
Portlana, city, port of entry, and capitnl, Cumberland county, Naine, is situatod on a peninsula at the western extremity of Casco ISay, 60 miles sonth-southwest of Augusta. It is 105 mlles from Ilosten, via the Eastern Lailroad, aad 111 via lleston and Maine, and 904 from Montrenl, dia the Atlantic and St. Lawrence lailroail, and the Kenuebeo and Portland, and the Androscoggin and Kamnabec, conneoting it with Augusta aud with Waterville. Lat. (Mount Joy), $43^{\circ} 30^{\prime} 63^{\prime \prime}$ N., aud long. $70^{\circ} 18^{\prime} 81^{\prime \prime}$ W. from Greenwich, nad $7^{\circ}$ $49^{\prime} 14^{\prime \prime} \mathrm{E}$, from Washington. Population in 1800, 11677 ; in 18t0, 7169 ; in 1820, 11, 581 ; in 1830, 12,601; in 18.10 , 15,318 ; in $1850,20,815$; and in 185-4, 25,010. The peninsula projects castwardly into the bay about three miles, and has an avarage ivilth of three-fourthe of a mile, forming throughons its entlre leugth an elevated ridge, which, infand, ises into considerable hilla, presenting a very beautiful appearance. The ro wera
in 1856 seven banka, with an aggregate capital of $\$ 2,000,000$; an insurance offica; an extensive establishmeat maklng locomotives and rallroad cara, employing 175 persona; threa iron founderics, three braas funderlea, six machlne shops, three edge-tool factories, a chaln-cable factory, an axtensiva sperm-oil factory, two plane factorles, two piano-forte factorics, two tannerias, aix lumber-yards, fiva ship-building establishmenta, 295 stores of various kinds, and many manufaotures of small wares; ten printing-offices, issuing two dally, two tri-weekly, nina weekly, and one semimonthly, publication. Capltal employed in manufactures $\mathrm{ln} 1850, \$ 761,850$; value of manufactured articles, $\$ 2,168,290$.

Tha harbor ia capaclous and safe, and among the best in the linited States. It is pretected by islands from the violence of atorms, is seldom obatracted by 100, has a good entrance, aud la defended by forta Preble and Scammel, the former garrisoned by United States artillery. At the eastern extrenity of the city is a tower, 70 feet high, erected for the parpose of obacrving veasels at sea, and furnishad with slgnals. The harbor is connected by the Cumberland and Oxford Canal, $20 \frac{1}{2}$ miles long, with Sebago Pond, and thenco with Long Pond, ctc. Tho Atiantic and St. Lawrence Railroad, or, as it is now ealled In Canadu, the Grand Trank Railrond, waa commenced In 1844, and is now complete to Montreal. Through thls avenuc pasa $n$ large propertlon of the products of the North and Wast for shipment to Europe and clsewhere. The fordign commerge of the city is chlefiy with the West Indies and Euro ${ }^{-}$e. Its clicef exports are lumber, ice, fish, provisions, ete. The coasting trade is principally with Boston, and during the summer a steamboat pllea daily to that city. Tonnage in 1853, 104,350 tons. Portland was formerly a port of Falmouth, and 130 houses, constituting two-thiris of tha village, ware burned by the British in October, 1775. It was incorperated onder its present name in 1780, and received a eity charter in 1832 . It was formerly the capitel of the State of Maine,
Port Louis, or IJorthwest Port, the caplal of tho Nauritlas, at the bottom of a triangular bay, the entrance to which is rather difficult, in lat. $20^{\circ} 9^{\prime} 56^{\prime \prime}$ 8., long. $67^{\circ} 28^{\prime} 41^{\prime \prime}$ E. Every vessel appronching the harbor must holat her flag and fire : wo gons; if in the nlght, a light must be shown, when a pllot comes on board and stecrs tho ship to the entrance of the port. It is a very convenient port for carcening and repalring, but provlsions of all sorts are dear. In the hurricane months the anchorage In Port Louis is not good, and it can then only accominodate a vory few v"ssels. The houses arg low, and prinelpally bnilt of wood. The town and harbor :.,e pretty atrongly fortified. Almost all tho foreign trade of tho island is carried on here.

Porto Rico (San Juan de), the capital of tho valunble Spaulsh island of the same name, on the nurth side of the islant, on a peninsula jolned to the main land by a narrow isthmus, lat. $18^{\circ} 29^{\prime} 10^{\prime \prime} \mathrm{N}$., long. $66^{\circ} 7^{\prime} 2^{\prime \prime} \mathrm{W}$. Tho fortlicatlons are very st rong. 'The town, which stands on a pretty atee decl vity, is well built, clean, and coutains nenrly 80,000 inhabitents.

Harbor.-Tha harbor of Porto Rleo has a atriking resomblance to that of Havena, to which it is hut lltthe inferior. The entrance to lt , about 300 fathoms in width, has the Moro Castle on Its east slde, and is deferded on the west aide by forts creeted on twe small isla. .ls. Within, the harbor expande Into a capaciens basill, the depth of water varying from five to $\mathrm{A} \mid \mathrm{x}$ and soven fathoms. On the side opposito to the town there are extensl re and banks; but the entrance to the port, as well as the port itself, is unobstructed by any bar or shallow.

Porto Rioo, Island $n f$, lies in the sance latltude as Jemaica. Though the smallest of the greater Antilles, it is of very conalderable size. Its ferm la that of a pazallelegrain, being about 110 miles in length from
east to west, with a mean breadth of about 88 , containing an area of 8750 square miles. Surface pleasantly diversified with hills and valleys; soil generally fertile. It has, however, anffered much from hurricanes; these of 1742 and 1825 laving been particularly deatructlve. Since the breaking $n p$ of the old Spanish coloulal aysatem, the pregress of Porto Rlco has hardly been lesa rapld than that of Cuba. Her population, which In 1778 was eatlmated at 80,650 , amounted, according to a census taken In 1836 , to 357,086 , of whom 188,869 were whites, and only 41,818 slaves. It is obvieus from this statement that a large proportion of the free inhabltants are colored; but the law knowa no distinction between the white and the colored roturier; and thls circumstance, as well as the whitea being in the habit of freely Intermixing with peopla of coler, has prevented the growth of those prejudices and deep-rooted antipathles that prevail between the white and the black and celored population in the United States, and in the Engllsh and French islanda. The pepulation is now (1853) probably above 500,000 .

Porte Rico was discovered by Columbus in 1493, at which perlod it is said to have had a population of 800,000 souls. In 1509 it was lavaded by the Spaniards from St. Domingo, and in a few years the natives were exterminated. The island was explored and conquered by Ponce de Leon, the discoverer of Florlda, while prosecuting hls veyage in search of the foumtain of perpetual youth. Although, daring the past fifteen years, agricnltura has made great progress on the island of Porto Rico, there yet remalns, owing chlefiy to the want of labor and good roads, a considerable portion of it uncultivated. Immease plains, which, if planted with the sugar-cane, wonld reward labor most bountifally, are yet lying untouched by the hand of clvllization or colture, because canals are wanting, through which the water by which they are now lnundated could be drawn off. The islund abounds in excellent timber, but as yet it has yielded no profit to the inhabitants. There are also different kinds of the mere valuable woods for cabinet-makers, such as the acajou, polysander, etc.; but they still repose undisturbed ainidst the raviaes of the mountains. A remedy for these evils miglit be found in Immigration; but it has ever been the policy of the government to discourage the introduction and sittlement of foreigners. The laws to that end have been puiticularly severe in regard to all forelgners, especially to those not professing the Roman Catholic relig on. Every foreigner arrlving in l'orto liico is compelled, before landlng, to give some responsible resident as surety for his good behavier. After alx menths he muat either domiciliate or leave the lsland. Shond he select the former alternative, he must embrace the liemon Catholic faith, the only religion tolerated. An intelligent traveler, who lived for some time on the island, glves the following lnformation relative to the laws under whleh soreigners could become denizens:
" I'revious to the year 1828 strangers were required to produce the most undoubted evidence of belng Roman Cathollics, In order to become domiciled ; and having satisfied the authorities on this point, they were farther obliged, after five years' residence, to becomo naturalizel. lefere a stranger would the permitted to land, he must glve security for good politleal and moral conduet; and supposing that he could gratify the requirements of the law lit all these porticulars; such were the jealonsy and illiberality of the government, that few could be induced to remain In a country where no prospect of saceess appeared. Ia 1828, however, the leniency and more liberal pollcy of Don Miguel La Tone, the Captaln-general, ly relaxing the rigor of former requirements, contributed greatly in removing the lmpediments to the settlement of ferelgners on the Island. La Tone strictly carried out the spirlt of the Real Cedule of $\mathbf{1 8 1 5}$, having for its object the encouragement of agriculture and commerce in the Spanish
colenles. Thas the domicilio was procured by pajilng a trifling sum of mency, and by the $a_{1} p$ plr.unt coniblyIng with certain formalities. A censiderable whims. gration was the immediate effect of these measures of La Tone. Lured by the anperior fertllity of the soil, and the llberal pelley of hls adminlstration, planters from the nelghboring lalands of St . Crolx and St. Thomas sold their estates, and brought their capital and slaves into Porto Rlce. Their example was followed by averal plantera from the windward British and French islands. Thus seconded by foreign enterprise and forelgn capltal, the Island has conthued to prosper in a most extraordlnary degree slnee 1828. But notwithstanding thla rapid improvement, and the continued augmentation of its staple experts, thls inprovement would have been greater, and the exports considerably latger, but for the oppressive duties upon all articles of necessary consumption, and the frequent heavy exactions made by the government toward the support of the war in spoin. 'these causes, by diminishlug the profits of the planters, have prevented them from extending their estates. Hence the progress which has been maile in the cultivation of the soil is due rather te the centlnued Influx of new settlers with their important capital, than to the prosperity or in. creased Industry of the old."

The alave population is almest the only preducing power on the island; but this is so totally inadequate to the wants of the planters, that they are frequeatly obliged to procure additlonal help from Cuba. This, however, greatly angments their expenses, alnce a ro. bust and good-werklng slave, who in Porto Rict may be valued at $\$ 150$, can not be purchased in Caba for less than $\$ 600$. Sugar and coffiee are the staple productions; while tebacco, hides, woods, cotton, fruit, and rum form nlso a part, though to no conslderath extent, of the exports. Tohacco is cultivated entirely by free laber. The five principal commercial perts of Porto Rico are San Juan (the capltel of the is'and), Arecibo, Mayagüez, Ponce, and Guayama.

San Juan, or St. John.-Although pessessing a mag. nificent port, consldered one of the best on the islani, San Juan is net the first commercinl place, as the products exported thence are of a very inferlor quality. Of the sugar shipped from this port, as well as from the other ports of the Island, the United States recelve more than two-thirils of the whole. But a small quantity goes to lingland, and also, though rarely, to France. From the United States are imperted codfish and other salt fish; salt meat, hoards, lumber, hoops, staves, and butter; from Eng'md, beilers for the manufacture of sugar, machinery, small quantities of iron, and heavy supplles of earthen-ware. Spanish vessels take in cargoes at St. Thomas, and discharge at Sun Juan, thereby avoiding the duty applicalle to all vessels from all other adjacent forelgn perts, in the ports of Porto Rlco. Gencrally speaking, the whole island of St. Thomas ls but a great entrepôt of European and American manufactures destined for the markets of Cuba and Porto Rlco-a fact shown by the large amount of impertatlons from St. Thomas into heth these islands. The exports from San Juan in 1853 consisted of $11,369,304$ pounds of sugar ; 5803 hogsheads of molasses; 376 hogsheads of rum; and 910,966 pounds of ceffee. It Is to be regretted that the port of Sin Juan, one of tho best and salest of the Island, shemid be kept in so deplerable a condition. Six or seven years agn, a vessel drawing 16 to 18 fret water could take in of full cargo at the wharf; at present, a ship of the same tomnage can receive only three-fourths of her carge, nad is compelled to leave the wharf in order to get into water deep enough to take in the balance.

Arecibo, or Areibo,-During the last cight yenrs the commerclal condition of thls port has been highly prosperous. The imports and experts have greally lacreased; splenild manslons have been erected, and aeveral commerdal honsea establlshed. The harbor,
howev pelled during tire fr times or. seldon lobs of same logrsh to 15,0 of tith yards. of tob amell
d by pajijng ant combly. rable numi. measures of - of the soil, ion, planters oix and St. their capital ple was folward British oreign entercontinued to sinco 1828. rent, and the orts, this lmthe exports d duties upon the frequent vard the sup. by diminish. vented them the progress of the soil is settlers with perity or in-
ly producing y inailequate re frequently Caba. This, ss, since ₹ rorto Rico may 1 in Cuba for he staple procotton, fruit, conslderable vated entirely rcial ports of f the is! and), on the island, e, as the prod. erior quality. well as from ted States reButa amsll ugh rarely, to mported codpards, lumber, id, boilers for all quantities are. Spsnish and discharge applicalle to n ports, in the ng, the whole epot of EuroIf for the markn by the large into both these 1853 consisted sheads of mo066 peunds of $t$ of $S \geq b$, Junn, hould be kept ven years ngo A take in a full the same tonr cargo, nnd is get into water
ight years the n highly pros-- greatly inerected, and The hastber,
however, is so totally unprotected that veasels aro compelled to auchor in a very wido berth, and frequently, during the prevalence of north winds, are forced to retire from the shore and put out to sea. They sometimes recelve cargoes under sail, without casting anchor. Accidents are, in consequence, 80 frequent, that setdom does a year pass withoat having to record the loss of ono or more vessels. Imports are nearly tho same as at San Juan; the exports comprlae about 10,000 hogrsheads of sugar, 3000 of molasses, 1000 of rum, 14,000 to 15,00 quintals of coffee, and a considerable quantity of timber for Spaln, to be used in the Spanish shipyards. Arecibo also exports considerablo quantities of tobacco to Germany, the Unltel States, and Cuba, amoming la tho whole to about 2,500,000 pounds.

Mayagüez, or Mayaguas.-Thls is tho most lmportant port on the island. It possesses large capital, and contalns several costly and fine dwellings. Rapidly rebuilt after the great conflagration by which it was destroyed in 1841, Mayaguez has gained lin prosperity ; having been before that disaster but an inconsiderable village, it has now become the most important city on the island. The surrounding district produces large quantities of coffee, though since 1840 there has been a sensible diminution in that article. For that yeur the exports amounted to 80,000 quintals, while in 1853 they fell to 43,500 quintals. The coffee of Mayaguez stands in such high repute in Aincrica and Gerinany that purchascs are frequently mado in advance of the crop. Hence comes also tho best sugar of tho island, which is mostly imported in American bottoms into the United States. In 1853 thero arrived 83 American vessels of 13,272 tons, carrying freight to the value of $\$ 223,600$; and there cleared 76 , of $12,680 \frac{1}{2}$ tons, taking cargoes worth $\$ 460,013$. The molasses from this port is always of the best quality, and much sought after by American and English shippers. Besides coffoo, in 1853 there were exported $165 \frac{1}{2}$ hogsheads of rum, 8221 hogsheads of molasses, $20,766,033$ pounds of sugar, but only 4463 pounds of tohacco, showing a decrease, compared with the preceding year, of over 50,000 pounds. Thero were, besides, 1000 hogsheads of rum mixed with tabasoo pepper (malagueta), a preparation constituting now a new and profitablo branch of domestic industry. Imports from the United States and England are generally similar to tho imports into San Juan. Within the past few yoars a considerable number of planters, of moderate capital, have engaged in tho cultivation of cocos with perfect success. A few quintals of it sold to Spanish merchants have found a ready uppreciation at Barcelona, and the article is cousidered equal to the cocoa of Caraccas. It is quite probable that, in the course of a few years, cocoa will bo largely exported from Mayaguez, and thus supply the deficit caused by tho diminution in tho exportation of coffee. In addition to the products already specified, Mayaguez exports also considerable quantities of oranges, citrons, and other fruits to the United States.

Ponce.-This port is almost as important, in a commereisl point of view, as Mnyagitez. In 1853 it exported even more sagar and molassos than the latter. But the long droughts frequently destroy entiro crops-no rain fulling, oftentimes, for tive or six successive months. Notwith tanding, by dint of incessant labor, and by meuns fartificial Irrigation, tho industrious planter often succeeds in partially overcoming this drawback, and in securing a passablo harvest. Like Mayagüez, lonce possesses aome few vessels, which make regular voyages to and from Spaln. In 1853 the exports consisted of $27,804,269$ pounds of sugar, 13,161 hogsheads of molasses, $1,876,249$ pounds of cotfee, 72 hogrsheads of rum, and some hides. This trade employed 90 vessels from the United States, carrying 15,616 tons, and entering with cargoes of the valuo of $\$ 173,168$; and 80 vessels of 15,208 tons, clearing wlth cargoes in value \$684,662.

Guayama.-The drought, which affects this district
even more e2varely than Ponce, is the chlef cause of its commercial decadence. Many of the inhabitants have abandoned their eatablishments, and gone with their slaves to seek, in the interlor of the islund, a cllmate mere congenial to the culture of the sugar-canc. The sugar of Guayama shows a fino grain and good color for refinery. In 1853 there entered the port 85 Amerlcan vessels, having an aggregate of 15,471 tons, importling in value 8205,153 ; and cleared 83 , of 14,873 tons, exporting a value of $\$ 192,338$. The total exports of eugar during the saine year were $21,920,511$ pounds : of molasses, 11,618 hogsheads; of coffee, 806,683 pounds; and of tobacco, 101,862 pounds.

Mayaguez, Ponce, and Guayama are the three places on the island which possess the greatest number of steam-engincs, and machines for the manufacture of sugar. This remark applies in a special manner to Mayaguez, the climate of which is particularly favorable to the development of labor. In 1800 thero were put up here ten machines of from 10 to 16 horse-power each. The exportation of rum is not in proportion to that of sugar, owing to the largo consumption of that article on the island.

Among the secondary ports of tho lsland, Aguadilia and Humacao are tho most considerable. In 1853 the former exported $8,092,302$ pounds of sugar, 2,438,788 pounds of coffee, 649 hogsheads of inolasses, and 469,956 pounds of tobacco. The latter, in tho same year, exported $4,183,233$ pounds of sugar, 100,000 pounds of coffee, 1676 hogsheads of molasses, and only 11,220 pounda of tobacco, against 28,300 the preceding year. The great bulk of the coffee shipped from these two ports goes to Trieste, Genoa, and IIamburg. Germuny also takes from these ports a considerable quantity of tobacco.

Fajardo and Naguaba have some trade with the French West Iudies, with St. Thomas and St. Croix, consisting chiefly in an exchange of live animals and provisions for tho imports irom those islands. Their sugar, however, amounting annually to ahout 5000 hogsheads, is almost exclusively sent to the United States.

Sugar.-Previously to $18: 0$ scarcely enongh augar was produced for tho consumption of the island. According to official statements, the quantity exported from all parts of tho isiund of Porto Rico in 1839 amounted to $69,245,783$ pounds, valued at $\$ 2,423,602$; while in 1853 the quantity of sugar exported amountod to $110,605,859$ pounds, valued at $\$ 3,318,175$, showing an increaso in fourteen years of over tifty per cent. Tho United States alone received in 1853 74,710,336 pounds, valued at $\$ 2,244,3 \theta 9$, or over two-thirds of the whole quantity exported.

Coffee.-The quantity exported in 1839 was $8.538,302$ lbs., valued at $\$ 853,000$; and $\ln 1849,8,615.311 \mathrm{lbs} .$, valued at $\$ 516,918$. In 1853 it amounted to $11,580,604$ tbs., valued at $\$ 694,836$. Despite this seeming in. crease, it is a well-known fact that the cultivation of coffee is on the decline. Tho llanseatic citiea receive nearly one half of tho whole exportation of coffee, while tho United States take but an inconsiderable quantity.

Molasse3.-In 1839 there were exported $3,311,7197$ gallous, of the value of $\$ 496,759$; in $1849,4,328,135 \frac{1}{2}$ gallons, valued at $\$ 649,220$; and in $1853,46,6303$ hogsheads, valued at $\$ 466,307$. The United States received of the quantity exported in 1853 to the value of $\$ 363,612$, nearly three-fourths of the total exportation.

Cotton.-The cultivntion of cotton declines yearly, and has becomo at this timo insigniticant. In 1839 thero were exported $1,183,973$ lbs., valued at $\$ 189,435$; while in 1850 tho whole amount did not exceed 280,505 lbs., valued at $\$ 28,056$.

Rum.--'Tho value of rum exported in 1839 was $\$ 16,241$; and in $1853, \$ 17,106$. Tho exportation of this article bears no proportion to that of molasses, as rum is immoderately consumed by the common people on the island.

POR
1548
POR
Valuge of tue painulpal Amticles ixportid into Pobto kioo, 1848-1868, -[Mado up from the "Buianzas Generales,"]

| Artloles. | 1848. | 8849. | 18 \% 0. | 1851. | S62. | 1853. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Olive 0 | \$80,01950 | \$404, 28980 | ( 880.10715 | * 79,26010 | \$001,032 63 | \$122,707 07 |
| Liqudds. . . . . . . . . . . . . . . . . . . | 1118,038 04 | 157,250 70 | 2-8,188 07 | 286,43100 | 840,863 17 | 248,909 68 |
| Meats . ......................... | 71,712 40 | 06.57529 | 83,27870 | 02,007 1 t | 01,724 16 | 07,218 07 |
| Bupices | 5,467 42 | 6,450 50 | 14,057 40 | 14,805 22 | -15,539 18 | 10,65734 |
| Frulta, e | 79, 184 56 | 27.88848 | 29,158 49 | 50,672 74 | 50,021 86 | 43,840 01 |
| Hlee.... | 38,0430 26 | 43, 59831 | 49.88787 | 1 $: 488,80478$ | 145,408 68 | 63, 86575 |
| Ceremala, elc. ..................... | 5. 8,9\%s 91 | 680,41598 | 688,809 82 | 1,004, 31902 | 1,198,148 28 | 602,701 40 |
| Lard and buller. . . . . . . . . . . . | 84,14912 | 80,733 98 | 88,16884 | 74,07174 | 1,91.65870 | 09,675 31 |
| Cheese | 27,814 76 | $25,1 ¢ 373$ | 80,0:37 76 | 45,88960 | 67. 01458 | 33,837 50 |
| Flah. | 846,002 00 | 80 $\$ 484$ 4t | 496,000 0t | 881,209 51 | 402,239 21 | ' 1949,05309 |
| Other ed | 110,98603 | 112,764 09 | 116,620 4\% | 104,067 40 | 166,43104 | . 185,732 t6 |
| Cotton | 021,310 87 | 755,257 33 | 651,10534 | 0. 5,50514 | $509,20 t 52$ | 677.84181 |
| Woolen | 82,01403 | 49,2:1 84 | 4T,244 04 | 50,5:14 30 | 48,744 18 | 75,77\% 62 |
| Llnen | 308,4411 65 | 44,60903 | 910,18ı17 | 263,58229 | 267.4511 22 | 852.494 05 |
| Silk | 68,8:40 44 | 04, 67508 | 62, 18008 | 8,645 88 | 03,850 40 | 74,496 16 |
| Tobneco | 199,92918 | 148, 18001 | 18565084 | 212.05d 45 | 188,440 21 | , 124, 574 6 |
| skins alld | 72.40163 | 68, 13087 | 85.14914 | 121,44016 | 134,141 93 | 10040483 |
| , Woed | 283,860 06 | $211,1116+2$ | 916,291 80 | 387,189 61 | 254,94798 | $216.80 \% 15$ |
| Metal, | 24.12660 | 82, 18888 | 24,019 34 | 85.44671 | T1,738 1.5 | 12, 17423 |
| Gla | 12,024 147 | $15: 8304$ | 20,820 16 | 14,74711 | 32,157 23 | 25,273 74 |
| Jron nill | 36.50536 | 68, 275 | 68,170 51 | 51,279 36 | 42.29498 | 34, 127136 |
| Iron waro. . . . . . . . . . . . . . . . . | 19,05: 48 | 28,23850 | 35,493 67 | 42,445 57 | 65,17966 | 36,353 21 |
| Mechlaes, rand parts thoreof,? for sugar mınufactories. ... $\}$ | 0,855 12 | 18,833 28 | 24,583 44 | 27,739.16 | 21,166 48 | $\cdots 15,20752$ |
| Agrieultural implements. . . . . | 22,17405 | 22,761 95 | 23.583 30 | 49,122 87 | -1) 89,709 05 |  |
| Roap......................... | 127,431 30 | 13438910 | 112,488 75 | 156, 88100 | 215,040 85 | 07.81210 |
| Medicine | 83,209 89 | 8388740 | 31,055 88 | 20,57470 | 30,6:7 56 | 86.14061 |
| Finruitur | 61,888 02 | 44.17347 | 44,14602 | 45,756 97 | 84,48808 | 94.50864 |
| 1'erfume | 12,44815 | 18,306 61 | 15,028 08 | 17.84500 | 95, 16770 | 25,0629 00 |
| Candles | $40.65 \pm 15$ | 16,806 63 | 62,078 40 | 65, 25789 | 08,945 98 | $48,017 \text { is }$ |
| Gold unil sllv | 294, 1 t600 | 0t2,15500 | 740.00250 | 763.47525 | 302,281 00 | 735,636 55 |
| Tolal | 44,469,75162 | \$2,181,65389 | \$4, 2222,02193 | b0,07:1,87002 | \$6,298,30505 | 5,385,91036 |

*Tho "Balanza" glves thle sum as $\$ 107,257$ 31, whitoh lo an crror.

Previously to 1815, Porto Rico, being exeluded from all direct intercourse with other conntries, excepthg Old Spain, was either stationary or but slowly progressive, the entlre value of the exports in that year having amounted to only $\mathbf{i 5}, 274$ dollars! But at that epoeh a royal decree appeured, which exempted the trate between Spain and the Spanish colonies and Porto lleo from all duties for tificen years; and sho was then also permitted to carry on a free trade, under rea-
sonalle dutles, with other countries. In consequence proncipally of these wise and liberal measures, hut partly also of a considerable lmmilgration of rich Spanish colonists from South Ameriea, Porto Rico has latterly made raphd progress. Great improvements linve been effected In the police and internal adminis tration, and roads have been constructed tn all parts of the island. The exports of domestle produce from the U. S. for the fiseal ycar $1856-57$ were $\$ 1,783,429$.

General coniarative Statement of the Anount and Chapacter of the conmpice of hobto Rico phom 1 gis to 1858.--(From tho "thanzus Geverales.")

| Years. | IMPORTATION INTO PORTO Bico. |  |  |  | EXPORTATION YRON POKTO Dico. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nallomai Produeta. | Forelan Producto. |  | Total Imports. | For the national Trade, | For tha foretga Trade. |  | Tatal Experte. |
|  | In Bpanish Vemelingenerally). | In Spanish Vescela. | In foreign Versolis. |  | Inspantah Vesceln (gamerally), | Jo Spapish Vemela. | In foreign Yeself. |  |
| 1848 | \$1,148,079 | \$1.7. 3.370 | \$1.518.301 | (4,4,409,751 | 5607,820 | \$288816 | 44.695,500 | \$5,515, 130 |
| 1890 | 1.011,000 | 2,310,032 | 1,051,0510) | 4,18t,598 | 464.128 | 487. 529 | 4,700,410 | 0.452 .37 |
| 1850 | 1,460961 | 1,874.483 | 1,185.579 | 3.2y2.039 | 288.010 | 271.840 | 5,32t.542 | 6.877.319 |
| 1851 | 1,842.717 | 2,210,1092 | 2,3\%1,089 | 6,073,970 | 5062,451 | 280.840 | 4,1118,682 | B. 761.914 |
| 1852 | 2,080,047 | 2,122,784 | 2,144,603 | 0,298, 3.5 | 409,61\$ | 34!1,718 | 3,8!3,002 | 4,66:n39 |
| 1858. | 1,411,004 | 2,104,375 | 1,780,630 | 8,835,910 | 440,4016 | 33640 | 4,5:8,831 | 5,299.397 |

 base at l'orto tilco.-[From the " Balanzrs dielterules."]

| Yeara. | Duties recelved. |  |  | Vemelas entered. |  | Vemela rimared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | On importa | On Exports. | Total. | Nuniter. | Teunaga. | Number. | Tonnage. |
| 1848... | \$579.374 | $\$ 161.464$ | \$1,0:4,299 | 1075 | 118.910 | 1129 | 128,450 |
| 1849... | 82:.603 | 159.698 | t,082,307 | 1095 | 124,851 | 1126 | 120,50 |
| 18\%0.. | 1.011 .478 | 177.509 | 1,18:, 0001 | 1206 | 132.040 | 1179 | 131,76i |
| 1851... | 1,041 685 | 24.848 | 1.0030,418 | 1324 | 180598 | 1209 | 154.04? |
| 18522. . | 1,248.045 | 81,077 | 1.250.178 | 1454 | 175, 236 | 1652 | 168.766 |
| 1853... | 1,12, 0,244 | 81,641 | 1,451,85i | 1337 | 151,663 | 1226 | 164.817 |

The tonnage of American vessels arriving in 1853 at $\mid$ sels. The ports mostly vlsited by Anerican vesels Porto Rico amounted to 67,180 , ir nearly one half of the total tonnage of the island, double that of all the were: Mayagnez, 07 vessels; Ponce, 69 vessids; Gupynma, 50 vessols; and Porto Rico (San Jumn), 45 vesSpanish, and nearly triple that of all the Eogllsh ves- sels.


| Years. | guardiente. | Cotion. | Cofte. | 8 gigar. | गlinem. | 'robacce. | Molanten. | Mack Cattle. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Horahends. | Prounda. | Poanda. | Pound $1019 \times 7$ |  |  | Callens. 8.867. 174 | Jlend. 4313 |
| 1848 | 181\% | 18845 | 11.613,174 | $101,2 \times 7,4$ | 745 8R1 | $2,4,4.449$ | 8.867. 174 | $4313$ $87(10)$ |
| 1849 | 12411 | 804.152 | 8.015,311 | 100,744, it71 | \$19.0714 | 2, 430,51414 | 4,328,134 1 | 87190 |
| 1885 | 87)1 | 241.5741 | 11.783.684 | 112,124,489 | 51472 | 9.073, 298 | 4,005,313 | 4.176 |
| 1851 | $817 \%$ | M66 6Rt | 12,111.971 | 118,410,5104 | 639706 | 6.478154 | 4.827.858 | $\mathrm{OlN}^{10+20}$ |
| 186\% | 1184 | 218.792 | 1 t .871 .763 | $\begin{array}{r}03 \\ 11081,905,806 \\ \hline\end{array}$ |  | 6.509,7811 | $8,387,7601$ $4,806,223$ | 6424 6019 |
| 1843 | C4st | 280,54\% |  | 110.005,859 | 577,2nt | 3,743.47 | 4,806,223 | 6019 |

The foreign Antilles, and among then especially St. |ready observed, may be considered merely as an enThomas and St. Croix, lave the largeot amonut of the Irepot for Europenin nud American manufactures, servimporis into Porto Rico. indeed, the former, as al- ing the Spanisla merchauts, from its proximity to the

Spanis dise. the tirs more receive of cll t article The ex to 82,3 holds the fot since tl and th citles t differer ping as Torn and of nationa vesse's

Compar ISDI
OFA
Sisars.

1845
1816
1847
1849
1849
1819
1819
15150
1451
1858
14.3

1854

Amer
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ican ves
and Por
chandis
tonnage from cal emption of Span Cuba an ing in $p$ laden w
tioll of $s$
and nay
sectien
as surpl
from the
goes of
of the 1
Tuna
Magasin
Port
Channel
at the $n$
lat. $50^{\circ}$
excels ev
ness, an
where 11
ships of
contain
Spuithead
can cont:
other ma
tent. T
cuted, as

## POR

Spanish: Weat Indles, as a market for nll the merchandise. It will bo seen that the United States occupy the ilrst ranl: as regarde the amount of exporta, taking mote than ono half of the total exportations. "They receive two-thirds of all the sugar, and three-fourtha of cll the molasses exported; these being the principul articies ontcriag into the export trade of Porto Hico. The exportation to the United States amounted In 1853 to $\$ 2,340,000$, chiefly for suggr ant molassea. Spain holds the soeond rank in importations into, and only the fourth ss reapects exportations frein, Porto Rico; since the forelgn Antilies Import more into the island, and the United Statea, England, and the Hanseatic cities take more from it, than does Spain, despits all differential suties in her favor, both as respecta shipping and trade.

Tonnage Dutise.-Ships entering the ports of the isl ant of lorto Rico will pay, If forelgn, $\$ 1$ the ton; if aationai, $37 \frac{1}{3}$ conts the ton, as per regiater. National vesse's bringing full enrgoes of coald will jay no ton-
nage dutiea, although the number of tons be lesa than indicated by their regiater; forelgn veasels will, however, pay 50 cents per ton, in compliance with the royal decree of December 28,1848 . But whenever a ahlp, cither natlenal or forelgn, brings other eargo beaides coals, no matter whether tho coals be equal to, or more tban, the amount of her tonnage, she will pay the tonnage duty in accordance with aaid decrec. Veasels loaded with coala only are exempted from local duties with the single exception of the fee (\$23) to the captain of the port for ontering and clearing. National or foreign vessola elitering the ports will pay, In addjtion to the duties speelifed, $12 \frac{1}{2}$ cents per ton, as per regiater, for the parpose of deepening the harbor. Vessels arriving in the harbor of San Jusn, under whatever circumstances, or for whatever purpose, will pay 12$\}$ eents per ton for dredging and keeping the port navignlile. National vessels to or frem the island of St. Thoinas will pay, at whatever port, the tonuage duties applicable to tha flag.

Comparatife Statement of the Comperoe detwen the [inited Stateg and Pomto lioo, and otime Spanisil West lndigs (exceit C'UuA), exilhitino tue Valoe of bxiortg to and Importe from eacit Cognthy, and tie Tonnaor of Ayeatcan and foreion Vegsela arbivino from and depanting to each Country, during tif iears degiaNATED.

| resra. | commsacm. |  |  |  | navieation. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value of Exports from United States. |  |  | Valua of lopporta Into the United Btates. | American Tonnaga. |  | Forel gu Tunanga. |  |
|  | Domentie Product. | Foralga Produce, | Toial. |  | Entered ihe United Staten. | Clenred from the United Staten. | Entared the United 8tates. | Clanared from the United SIntes. |
| 195 | \$688,149 | \$2i,775 | \$708, 024 | \$3,026,258 | 51,150 | 98.675 | 629 | 689 |
| 1816 | 675,44t | 25,905 | 701,346 | 2,277,110 | 61,204 | 36,053 | 487 | 1373 |
| 1847 | 825,079 | 33,585 | 8.59,064 | 2,141,920 | 38,063 | 26,767 | 1,746 | 1870 |
| 1848 | 861.722 | 37,012 | 838,784 | 2,106,290 | 45,438 | 35,24t | 513 | 1150 |
| 1819 | 683,292 | 33,234 | 550.526 | 1,904,861 | 47,534 | 25.870 | 2,192 | 3908 |
| 1556 | 816,062 | 93,591 | 909, (th) | 2,067,866 | 41,768 | 30,744 | 3,174 | 3108 |
| 150 | 061,4:0 | 67.209 | 1,018,610 | 2,480,320 | 48,356 | 36,326 | 7,874 | 6013 |
| 1859 | 1,016,563 | 39,542 | 1,055,105 | 8,701,223 | 68,555 | 35,010 | 12,061 | 4544 |
| 1503 | 810,411 | 54,143 | 884,554 | 2,810,936 | 47.8188 | 30,815 | 15,844 | 9420 |
| 185\% 4 | 090,886 | 60,957 | 1,051,88:1 | 2,850,363 | 52,228 | 81,014 | 8.710 | 8528 |
| 1505 | 1,144,58t | 38,987 | 1,183,518 | 2,475,9:8 | 48,249 | 34,190 | 7,830 | 5598 |

American vessels entering ports in tho ialands of Cuba nud Porto Rico in ballast are not subjeeted to the payment of any towage duty whatever; and American vessels entering the forta in the islands of Cuba and Porto Rico, with cargoea of any description of merchandise whatsoever, are exompted from any charge of tonngge duty, if such vessela export or convey therefrom cargoes of molassea taken in at said ports. Exetnption, therefore, from the liability to tonnage duty of Spanish vriascls coming froin ports in the islanda of Cuba and Y'urto Rico is oxtendet to such vossels arriving in ports of the United States, elther in ballast or laden with molasses taken in at any of tho aaid porta, togetier with such quantity of fresh fruit, the proluction of suid islands, as may be deaned by the collector and naval oflice:, under the provisions of the forty-tifth section of tles act of 2 d Marel, $\mathbf{1 7 9 0}$, to to admissible as surplus stores: provided the said vessels dejont from the United States in ballast, or with their cargoes of molasses, or cargoes of the staple productions of the United Stutes.mSee Commercial Relutions with the United States; Manual for United States Consuls; TurnieliL's Cuba and Porto Rico; llunt's Merchants Maga:ine, x. 327.
Portsmouth, a sea-port of England, In the English Chinamel, on the western side of the island of Portsen, at the month of the bay called Portsmoutl IIarbor, lat. $50^{\circ} 47^{\prime}$ N., long. $1^{\circ} 6^{\prime} \mathrm{W}$. Portsmouth 11 arbor excels every other in Great Britain in depth, capaciousness, and sccurity. At its entrance the harbor is very nevrow, but soon expninds into a grent wilth. Every where the anchorage is good, the depth sufficient for ships of any size, and in extent alnoat sufficient to contain the whole English navy. The roadstead of Spithead, between Portsmouth and the Isle of Wight, can contan 1000 sail with security. Ship-building and other manufactures are carried on to a considernble extent. The cod und other fisheries are actively presecuted, and l'ortsmouth has considerable foreign and
coasting trade. The toanage of the port in 1853 was 26,645 tona.

Portugal (Lusitania), a country of southwestern Europe, forming the western portion of the Iberlan peninsula, and aituated between lat. $36^{\circ} 57^{\prime}$ and $42^{\circ} 8^{\prime} \mathrm{N}$., and long. $6^{\circ} 15^{\prime}$ and $9^{\circ} 32^{\prime}$ W., bounded east and north by Spain, south and west by the Atlantic Ocean. Capital, Lishon. Length, north to mouth, $\mathbf{3 6 8}$ milca; breadth, 80 to 140 miles; and there ure few pasaable roada. Wheat, barley, oata, fax, and hemp are cultivatod in the elevated tracts; rice in the lowlands; olivea, oranges, lemons, citrons, figs, and almonds in the central and bouthern provinces; and at the southern extromity, the American aloe, the date, and other troplcal plants. The cultivation of the vine is the most important branch of industry, and the produce of the vincyards watered by the upper Douro, termed port, Is the ataple export. There are extenaive foresta of oak in the north, chestnut in the centre, and the sea-pine, kermes, and cork in the south. The olive oil is of inferior quality. Mules and nsses are the chief beasta of burden; oxell are used for draught in the provinces. Cattlo and sheep are reared in considerable numbers, but the wool is not of fine quality. Goats and hogn are numerous, and fish ahomd in the rivers and on the coasts. Iron, marble, ant salt are the chlef mineral products; the mines of tin, lead, and antitnony are not worked. There are numeroua salt marahos on the coust, and 200 mineral apringa ase enumerated. The mannfactures are very limited, ehiefly arms and porcelain at Lishon, woolens at Portalegre and Fundao, cot-ton-spinuing at Thomar, jewelry and trinkets at Lisbon and Oporto, glass at Marinha-Granne, paper at Alemquer, allka at Brnganza and at Campo-Grande, near Lishon. Liabon, the capital of Portugal, is the principal port, and ia situated on the north bank of the River Tagus, the oliservatory of the fort being in lat. $38^{\circ} 42^{\prime} 24^{\prime \prime}$ N., long. $9^{\circ} 5^{\prime} 50^{\prime \prime} \mathrm{W}$. Pophlation, about 240,000 . The harbor, or rather road, of Lisbon is one

## POR

of the finest in the world, and the quays are at once cenveniant and besutiful. Fort St. Jullan marks the northern entrance of the Tagus. It is built on a ateep, projecting rock. There ia a light-house in the centre, 120 feet c.bove the level of the sea. At the mouth of the Tagus are two large banka, called the North and South Cachopa. There are two channela for entering the river - the north or little, and the south or great channel. On the middle of the South Cachop, about 1\& mille from Fort St. Julian, is the Buglo fort and lightheuse, the latter belog 68 feet in height. The least depth of water in the north chananal, on the bar, is four fathems, and iu the south six. The only danger in enteriog the part arisce from the atrength of the tide, the ebb runaing down at the rate of aeven niles an hour ; and after heavy raina the difficulty of entering is considerably augmented. The trade of the country is mootly conducted by the English and other foreigners. The population and extent of Portugal are ehown by the following atatisties, taken in 1855:

> Population. 3,500,000
> Extent in equary miles 34,600
> Conmunga. . . . . . . . . . 260

The greal foumtain of wealth in Portugal is in its vineyards; nad yet, under the system of polltical econouny practiced by the govemment of that kingdem, wind can not be either grown, made, or exported, exeept under heavy restrictions and imposts. Until within the past few years, there was not sufficient corn grown in the few agriculturel districts for the necessities of tho country; still, corn is classed amung its ataples, and ita importation frmon forcign countries prohibited, unless when, from any causo, the home supplies aro inadequate to meet the demands for consumptien. The foilowing official return exhibits the entire agricultural resources of Pertugal for the year 1851, nnd, with the exception of corn, the supply of which is constant?: fluctuating, may lse regarded as a fair index of the average yearly agricultural wealth of this kingdom:

| Anticles | Quantitio. | Amount |
| :---: | :---: | :---: |
| Com | Molos | 1,180,737 |
| Beans (puise). |  | 178812 |
| R1e8...................... |  | 12,238 |
|  |  | 406,100 |
| Waluots, filkerts, siments, and chestants |  | 37,640 |
| Flgs....................... | Arobsa....... | 338,700 |
| carob beans. .............. |  | 244,160 |
| Oranges and lemon | Thouannd.... | 3010,000 |
| Catle. | Heads........ | 5.788.712 |
| Wine (Maluro a verde) | Ptpes......... | 787.800 |
| Alto-Dourn port. |  | 109.000 |
| Oive olt. |  | 43.638 |
| Woo | Arojas | 837.689 |
| silk | Pounde | 815140 |
| Honey | Amba | 59,137 |
| Bet swax.. |  | 25,616 |

The moie is equivalent to 22.30 bushels. The arola equala 32 ive.
In 1831 Portugal imported 553.740 alquieres ( $\mathrm{er}^{\prime}$ ? equal to 82 lbs .) of grain; i,et veen 1846 and 1851 sl: exported, as appears froun 'her official statistics, about $1,800,000$ alquiere from Caminha, and about $4,00 \mathrm{M}, 000$ alquiere from Via 7a; making a total of nearly $6,000,000$ alquieres, c. $1,00,000$ alquieres per annuin; or an expertati, $n$ of about $t$ wice as much as she formerly imported. With this brief refere, ice to the natural capabilitien and agricultural resources of Yortugal, the laws and regulaicicas under which that kingdom conducts its toreign cominerce, the cha' acter and extent of that commeree, and the deacriction of merchasdise which conatitutes the laid'ng articles of exchanges eapecially between Portapz: and the United states, will next considered. Fir a long period the comroercial relations of the United States with J'ertugal were regulated by such nets of legisiation as tho Portuguase governmeat thought proper to adopt, with no other check ther the countervailing legislation of the United Statee. Under thia system the direct trade
between the two countriea in national vessels, laden with the produce and manufactures of either, was al. lowed on terme of full reciprocity; but the indirect trada was fottered by discriminations and restrictions, and by the countervailing duties to which they gave rise, until the treaty of commerce and navigation entered into between the two countrice in 1840 placed their trade on a basis of entire reciprocity. This treaty atipulates that vessela of elther country arriving la the porta of the other shall be put on the footing of nation. al vessels; that no other or higher duties ahall le lev. ied on the produce or manufactures of either country, when imported into the other, than on similar produce, etc., of other foreign countries ; that the same duties shall bo levied on anch importations, whether In Ameriean or Pertugueae vessela; that all favora granted by either party to other nationa shall become commen to both; anil that Amorican vessels shall pay no lugher duties of export in the ports of Portugal than national vessels. This treaty is declared to be in force for six yenrs, a d further, untll the end of one year after either party shall have given notice to the other to terminate the same: no such notice haviug been given by elther party, commercial relations between the two countrles are atill governed by its proviaione.

Under the stipulation equalizing American and Portuguese ressels with respact to dircet importations, the American flag enjoyed, during a brief period after the ratification of the treaty, apecinl advantages ever the vessela of other foreign nationa. This was the result of a law passed by tha Cortes in 1837 wefore tho treaty was alopted), by which a deduction of fifteen per cent. on alt dutiea was allowed on merchandise limported in national bottoms. This ineasure, although it had gives a great impulse to the national shipping of Portugst, and largely augmented importations in Anecrican bot toms, was found to exercise a disastrous effect on the publie treasury, diminishing the revenue from that souree about $\$ 300,000$ annually. It was consequentiy alollshed; and after the 15tt. January, 1842, ail foreign vessels wero equalized, in this respect, with the national flag. Notwith standing Portugal possesses natural advantages and resources which inight enable her to rank among the most important trading conntrice in Europe, her commerce with foreign nations, and partleularly with the United States, has dwindleit dewn to the mere sladow of what it was in lormer times; nor can much lope be inci:nged of a speedy cominercial regeneration of this kingden so long as her present restrictive and prohibitory regulationses. ist, and her unsurpasseci natural resources remain onder their present partial and iniperfect systen of development. The dismemhermet: of Bruzil from the kinglom of Portugal (1820) would seem to mark the A iod of the greatest decline in her commerce with the United States. This can be hest iilustrated iy giving the official returns for ("a equal periods preceding and following tilis evert, a. centrasting the resulta.
Exponts from th: fi, ited St.itha o fortegal and le. eENDENOIRE, 1810-1832.

| Years. | Ameunt. | Viers. | Ameun:. |
| :---: | :---: | :---: | :---: |
| 1810 | \$7,670,210 | 1822 | ( 497,006 |
| 1811....... | 11,966,150 | 1823 | 2+6,658 |
| 1812...... | 9,3851, 6:0 | 1824 | 518, 836 |
| \%813...... | 10,6579,28 | 1825 | 408.161) |
| 1814 | \$71.609 | 1826 | 313,062 |
| 1815 | 之.281,101 | 1827 | 857.370 |
| 1816 | 2,270.889 | 1828 | 991,614 |
| ISI\% | 1,434,8!8 | 1828 | 392911 |
| 1815...... | 2,8.8,177 | 1890 | 270,459 |
| 1819 | 8,263,5<6 | 1831 | 2994,343 |
| 1820 | 1,325,75t | 1832 | 2216,249 |
| Total ... | \$524,0, 6,298 | Tutal | S0, 706,45 |

Shewing a failing off in the titel amonuts, during the eleven years compared, of $\$ 18,941,5.06$, or, in the averuge annual amonuts, of $\$ 4,449,255$. It is proper, however, to remark, that the trade with Irazil absorbed more than a muiety of the totai amount of the exports frum 1810 tn 18:20. The geneial trade of l'ortugat with
Tot

[^41]1843....

The wh valued at of the crop into the 1 30, 1856, $62,583 \mathrm{gal}$
It thus gal to all imports fr of experta The gener States and past twent tionary, at regulation: ing the pa gal has mas ify its entir effeets that ures to thi encourage tions whic nations. ally reduce ation havi exporta to frst step $t$ the increas over the pr fourths of lowing tal, States cust Exporta 0

Comit
Great Bri Inttod Sto Brazil. Australla. llamburg Canads... lugsia. Bremen Newfornd Yrussla. . Frussia. France. Toliant ppain
Sweden.

Tot
Experts

The suby igntion of C
all foreign countries has aiso declined during the past half century, in a ratio of neariy one-third in exports and one half in imports, This witl be seen f.om the following comparison of Imporis and exports, for a series of years within the above-named period:

| Ytars. | Impors. | Exporte. | Total |
| :---: | :---: | :---: | :---: |
| 1801. | ¢14.171,780 | 881,879,789 | \$55,061, 510 |
| 1816. | 22,387,430 | 20,228,885 | 42,560,815 |
| 1530. | 16,104,000 | 13,085,010 | 30,279,500 |
| 1844 | 12,232,530 | 8,220,065 | 20,608,105 |
| 1848.. | 18,606,210 | 10,679,430 | 24,186,640 |

Navigation Ritulune of Ponquoal yoe tha Year iges.

| Countritor. | Antival. | Tonnaga | Craw. | Clanrances. | Toanage. | Craw. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Portugal ..................................... | 8447 | 815,768 | 45,349 | 677 | 810,894 | 45,752 |
| Fingland . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1145 | 109,697 | 11,255 | 1228 | 100,074 | 13,888 |
| Spain ........ ...... . . . . . . . . . . ................ | 917 | 11,806 | 6,287 | 052 | 10,095 | 6,881 |
| Sweden . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 219 | 40,828 | 2,107 | 217 | 42,446 | 2,088 |
| Vinited Statern .................................. | 136 | 87,647 | 2,649 | 126 | 84,925 | 2,582 |
| Fratice. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 98 | 11,74t | 791 | 96 | 11, est | 750 |
| Netherlandf..................................... | 90 | 9,840 | 621 | 88 | 8.700 | 616 |
| ituitria . ......................................... | 286 | 67.240 | 8,801 | 810 | \$0,125 | 8,194 |
| Totst . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8388 | 643,883 | 71,560 | 8787 | 685,412 | 74,200 |

Commerer in 1852 and 1853.

| Yakra. | Importa. | Exporta. |
| :---: | :---: | :---: |
| 1852. | $\begin{aligned} & \text { Pranea. } \\ & 88,200,070 \end{aligned}$ | Pranea. $18,179,875$ |
| 1853........................ | 86,846,560 | 21,902,0 $0^{2}$ |

The wines which, at the exportation of 1853 , were valued at $6,186,680$ france, were not put in the account of the crop of 1852. The imports of wine from Madeira into the United States for the fiscal year ending Junc 30, 1856, were 23,649 gallons ; and from Portugal, 62,583 galions.

It thus appears that in 1818 the exports from Portugal to all nationa were only about one-thirl, and the imports from all nations about one half of the amount of exports and imports in 1801, or half a century ago. The general movementa of trade between tho United States and Portugal have varied so little during the past twenty years that they may be regarded na stationary, at least so long as the existling commorcial regulations remain unchanged in both countries. I)uring the past ycar, however, the government of Portugal has manifested some disjosition to review and modify its entire system ot comnercial policy ; and the good effects that have already succeeded the initiatory measures to this end, already adopted, will, it is believed, encourage it to removo altogether the onerous reatrictions which have so long fettered its trado wit's foreign nations. In 1853 the export duty on wine was materially reduced, and equallzed to all nations (a dlscrimin. ation having been mado, before that period, between exports to Europe and America); and the effect of this first atep toward a more liberal policy is evidenced in the increasod exportation of that great atapio in 1853 over the preceding year, to an amount excceding threefourths of the whole. This will be seen from the following table. The pipe is estimated at the United States custom-house at about $113 \frac{1}{2}$ galions:
Exporte of Wing, Baandy, etc, thom the port of Orobto in the Yeade 852 and 1853.

| Countries. | 1852. | Countries. | 1863. |
| :---: | :---: | :---: | :---: |
| Great Britain | $\begin{gathered} \text { Procs } \\ 19,219 \end{gathered}$ | Great iritnln ..... | $\begin{aligned} & \text { Pipes } \\ & 46,834 \end{aligned}$ |
| L'nited States | 4,462 | Australia . . . . . . . . | 2,531 |
| Brayll ... | 2,833 | Unfted States..... | 1,658 |
| Australla.......... | 2,001 | Canada..... .... | 1,008 |
| llamburg......... | 917 | Ilamburg ........ | 923 |
| Canada............. | 002 | Brazli............ | 748 |
| Russta.. | 878 | Russla............. | 681 |
| Breamon ........... | 250 | Denmark.......... | 455 |
| Newforndlaud .... | 156 | Portuguese poss'ns. | 957 |
| Hrussha . . . . . . . . . . | 119 | İremen. . . . . . . . . . | 489 |
| France., ......... | 16 | Sweden. . . . . . . . . . | 215 |
| Ilolland. . | 21 | Newfoundlaud .... | 163 |
| Spain ............. | 2 | Prısвla.......... | 114 |
| Sweilgu. . . . . . . . . | 298 | Prance . . . . . . . . . | 15 |
|  |  | 1folland . . . . . . . . . | 9 |
|  |  | Epaln . . . . . . . . . . | 1 |
| Total. | 81,499 | Tote | 05,819 |
| Experts in 1853.. ................... 05,818 ptpes. 1859, . . . . . . . . . . . . . . . . . . . 81,409 |  |  |  |
|  |  |  |  |
| Exeess in 1853 over 1852. . . . . . $\overline{\mathbf{2 4 , 8 1 4}}$ |  |  |  |

The subjoined statements of the commerce and navigation of Oporto during the Portuguese fanancial year

1854-55, and the movementa in wines and brandy the same period, are mado up from returns of the United States consul at that port.

Alterations lately made in the Portuguese Tarif (1853). - Broadeloths have been reduced 12 per cent. Kaw silk now pays only two-fiftha of tho former duty. On satins, gros-de-Naples, etc., a reduction of nearly 54 per eent. has been made. Flax has been raised to 42 cents per quilntal of 128 pounds, being an advance of 200 per cent. In Jinens, and goods of cotton and linen, as woll as woolens, no great alteration has been made. In gray cloths and white shirtinge there haa been a reduction of about 12 per cent. Ale pays about onethird of the old duties. Wine, which heretofore paid an import luty of about $\$ 266$ per pipe, has been reduced to alout one-fifth of that amount. The export duty on port has been reduced and equalized to all the world. Pinnos, which formerly paid from $\$ 48$ to $\$ 192$ each, accoriling to size, now pay $\$ 24$ each, regardless of size. Formerly, no tea could be importod except in national vessels; the duty being, from Portuguese territories, about 1s. 9 d . English (42 cents), and from other paizs $4 s .3 d$. per pound, equal to $\$ 102$. Now tea may be imported indirectly, in national or foreign bottoma; Portuguese vessels atill enjoying the usual discrlminations over forcign vessels engaged in the indirect trade. It is believed that Portugal has no treaty with any nation equalizing foreign vessels to national vessels in the indirect trade. If so, all foreign flags are equally subject, with those of tho United States, to an additional daty of 20 per cent. when importing goods not the produce of the country to which they beiong. The chief difficulty which forcign merchants have to encounter, in selecting a cargo for the Portugueso market, arisce from the complicated and alnost uninteliigible terms in which tho tariff of that country estimates the value of merchandise. Cottons, linens, and in many instances, even fluids, are estimated by the pound; and, owing to the great varicty of specific articles under any particular genua, and the great differonce in their respectivo prices, it were next to impossible to say, oven approximatoly, what duty is assigned to all or any of the descriptions of merchandise which usually make up a mixed cargo. Cotton, for instance, is thus classed in the tariff of 1852: raw, per 101 pounds, $2 \frac{8}{\operatorname{con}}$ ces (which ia plain enougi); manufactured, from 6 cents to 70 centa per pound (which is not). Siould an American merchant desire to ship, to Lisbon or Oporto a cargo of such American produce as would be most likely to find a ready market in exchangu for the wines or fruits of Portagal, he would naturally turn to the Portuguese tariff, to ascertain tho import duty on such descriptions of merchandise as he could most proftally send. The articlu of cotton manufactures, it has been shown, would probahiy afford some oxercise to his skill; but let him select a cargo of tobaceo. The Portuguese tariff informs him that it is admitted only when sold to government contractors; but ine is left in the dark with respect to the preciso duty to which it ia sulyect. If he has a correspondent
nt $O$ ，arto or Jiahon，he will inform him that the daty on tobacea is axilitraty，and deperads on the torms of the partionlar bargain the may make with the govern－ ment contraotors，＇after his cargo shall havo penclied port．

- Thin complex clasalfication of the Portaguese tariff Induced some Britleh merchanta，a feer yeare aince，to

|  | 144新 | Devies th Port －yneos Money： | Role |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Cotton bleachad or dyed，under 40，per pohud ．．．t．．．．．．． |  |  |  |
| Whek of candlas，under 40 ，per pound |  |  | cis |
| White coltons with giazed tiaish，is th |  |  | $\therefore$ 策 |
| Cottons woven with dyed threads，up to 16 ，pep pound |  | $200$ |  |
| Cotton dreases，ahawles，or bandzerefisimy to 16 tiretat |  | 400 |  |
| White cambrica 81 thresde or upward，per pulind．is |  | $100^{\circ}$ |  |
| Colored cambrio dyed in the plece，per pound |  | $800$ | $10760$ |
| Colored cambrio ft shawls，handkorehiefa，dresses，or other | $r$ ghspen per pound．．．．．．．．．．．．． | 400 | 88 |

${ }^{2}$ The duties on the different descripilons of cotton goods vary from 16 （oh colored velveteents）to 96 （ou atriped nankeuns，plain）per cent．Notwithatanding the enormous daties or＇cottona which the above table Indicates，the manafictires of Portugal，of this dencrip－ tlon of merchandise，are conflned to some roarse and very Inferior descriptlon of woolens，and a few comion cottons and thene．Still，while that ecslo of dutlea continues，cotton tissues can never become a proftable medium of exchange between the two countries．There is no reason，however，why the United Siates could
not compete with Brazil in supplying the markets of Porfugnt with sagar，rice，rum，timber；and other arth． clas which have been herelofore chiefly imported from that country．The rice of Carolina la far superior 10 Brazllian，and yet Portugal consumes annually of the lattar upward of $40,000,000$ poundery Brazil supplies the Portuguese market，aanuality with augar to the amount of from one and a half to two millitons of dol． lars．Both these articles pan now be exported from the United States to Portugal on the came termo is from Brazil．


| Yems onal |  |  |  | Importul $5^{\text {P }}$ | is Ballhe | －p． | 1）Toceage | pared． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Yems endr | Domentie | Foroiga | at． | Totalel： | Export | $\cdots$ Impert． | Amerieun | Onilgn． |
| Sept 30，1821． | \＄147，78 | － 466 | S147，763 | －$\quad .8350,1 \overline{16}$ |  | \＄140，7\％ | 6，100 |  |
| 1822． | 102，955 | 18，555 | 1 121，400 | 423，663 | \＄14，000 | ，\％Whs 800 i | \％ 8.489 |  |
| ，i：uj 1823．．．．．．． | 48，077 ${ }^{\circ}$ | ${ }^{500}$ ． | \％48，377 | 181，004 |  | 1） $\mathrm{c}_{\mathbf{1 8}}^{\mathbf{1 8}, 087}$ | 1，479 | 1，081 |
| 1824．．．．．． | 27．945 | 5，168 | － 89.482 | ：ry 949,804 | （1） 190 | ［ 28,745 | 8，441 | 152 |
| 1825．．．．．． | 110，018 | 8,834 | $\left\lvert\, \begin{aligned} & 112,830 \\ & 100.483 \end{aligned}\right.$ |  |  | $15,160$ | 8，24t | 723 |
|  | 89,045 116,108 | 638 620 | $1.100,483$ <br> 116,393 | $\begin{array}{r}848,989 \\ \hline 68.091\end{array}$ | 00 | Hi 89.605 | ，6，436 | .... |
| $t$ ， 14 1329． | 71，010 | 1，164 | $\begin{array}{r}15 \\ \hline 78,174\end{array}$ | 112，650 |  | 2，000 |  | 017 |
| ＋1（\％） 182 | 49，088 | 1693 | 42，716 | 2BT， 581 |  | 13，885 | 2，307 |  |
| 1830 | 43，403 | 1，803 | 46，811 | 165．88t． |  | 8,164 | 2，243 | 184 |
|  | ＋\＄9，4，562 | 1.266 | 3，5，828 | ． $82.550,0031$ | － | ） | －16，423 | 2，757 |
| \＄8pt，80，1831． | \＄39．149 | \＄2，863 | $\therefore$ \％ 41,805 | － 124446 |  | \＄4，746 | 1，598 |  |
| ifent 1832. | 1148.268 |  |  | ＂19 194，816＂ |  | 1，000 | ，1，177 | 600 |
| Traty 1883 | i +78.310 | 5：1， 5,830 | ₹ 1178,649 | $\text { (1 } 170,189$ | \＄4，100 | $\cdots{ }^{-1005}$ | － 9.135 | 1，0：5 |
| $\begin{aligned} & 1884 \\ & 1985 \end{aligned}$ | $\begin{array}{r}182,512 \\ \hline 169.703\end{array}$ | $\begin{gathered} 16,643 \\ 107,002 \end{gathered}$ | （fit $\begin{array}{r}50,125 \\ 270,305\end{array}$ | $\begin{gathered} 915,309 \\ 5-77.074 \end{gathered}$ |  | \％ 11.018 | $\begin{array}{r}19,824 \\ \hline 5.627\end{array}$ | 1058 680 |
| $\begin{aligned} & 1895 \\ & 1836 \end{aligned}$ | ［i） 102,703 | 107，602 | ［ $\begin{array}{r}\text { 270，306 } \\ 81,582\end{array}$ | 547．074 | 18，260 | 97 | ［f 5，627 | 689 |
| 1837 | ，124．687 | $18,0 \% 8$ 17,088 | （I）141，460 | － $\begin{array}{r}218,278 \\ \hline 187.043\end{array}$ |  | 15，440 | 6 |  |
| 1838 | 10，67，970 | －8，093 | （）76．063 | － 288864 | － 0,000 | 1．．98，077．1 | （1） 9,929 | 1，041 |
| 1899 | 57，711 | 6，093 | $11.65,804$ | －597，778 | －6，000 | （5）${ }^{\text {17，177 }}$＋ | $\cdots 8.061$ | 2,095 |
| 184 | 97，841 | 8，724 | 108，065 | 249，884 |  | 3，053 | 8.851 | 557 |
| Sty 1 whe Total | \＄780，663 | \＄182，400 | \＄716，103 | \％${ }^{2}, 753,176$ | \＄40，892 | 9 | 47，462 | 18，251 |
| Sept，20，1841 | \＄114，448 | 1 \＄87．381 | 8181．704 | \＄296，568 |  | 87 | ${ }_{\text {I }}{ }^{\prime} l_{4,801}$ | 729 |
| ， 1842 | 78，723 | is 1，088 | ．74，111 | 142587 |  | if 5， $0+16$ | $8.80 \%$ | 757 |
| －mos． $1849^{\circ}$ | In 60，0．6 | 1，5098 | 60，681 | 44，718 |  | 518 | 8557 | 543 |
| Jutue 80，1844． | 3i．99，60\％ | $\therefore 8,565$ | $108,118$ | （x） 100.705 | \＄$\because \because \cdot$ | $3,889{ }^{-1}$ | 二 7.743 | 178 |
| $15$ | －124850 | ${ }^{4} 5,419$ | 189，769 | 290，003 |  | 1，216 | 5，803 | 950 |
| $14.2+18.187$ | ． 1108.816 | 8,453 | 104，769 | 378，259 | \＄2，500， |  | 4，815 | 1.874 |
| 14：＋ 71847 ． | －4i1 6A， 803 | 1.855 | 69，928 | 289.930 |  | 9．872 | 2，637 | 1.683 |
| 2．i＜ 1846. | 119，260 | 9，885 | 115，244 | $214,783$ |  | M：8，844 | 6，842 | 5，418 |
| $184)$ | 169.781 | $6,27.3$ | 175，064 | $829.231$ |  | ． 510 | 4.887 | 6，0\％3 |
| 1550．，．．．． | 172，978 | 5，236 | 178．214 | 859,703 |  |  | 2， 176 | 7.531 |
| Total．．． | 81，075， 233 | \＄43，819 | \＄1，181，845 | ，610，8．4 | \＄2．600 | \＄40，64t | 44，216 | 24，049 |
| June 80，1851． | \＄167．349 | ¢4，908 | \＄172，838 | 1807，148 |  |  | 2，4\％ | 5，170 |
| 1852. | 2． 4,061 | 4，189 | 298，198 | 260，884 |  | \＄860 | 6，3177 | 6，989 |
| 18.38 | 223，051， | 20，559 | 250．203 | ＜ 411.155 | \＄2，000 | 3）：．．． | 5.476 | 8，606 |
| 1874 | 127，150 | 23，715 | 150，865 | －248，4x 2 | 200 |  | 2，868 | 6，094 |
| （＊） 185 | 270.718 | 24，867 | 995，583 | 188，007 |  |  | \＄， 670 | 9，808 |
| $18 \div$ | 844，008 | 84，101 | 379．149 | 257， 160 | 830 |  | 6，282 | 5，743 |

－Nine montha to June 80，nind the fiseal year from thls timo begine July 1.

The tonnage employed in the above trade was：

|  | 1883. | 1864. | 1885. |
| :---: | :---: | :---: | :---: |
|  | Tonte | Tapes | Tona， |
| Americats | 8，790 | 4.020 | 12，083 |
| ．Foreigu ．．．．．．．．．．．．．． | 14．689 | 10，106 | 16，373 |
| ＋Total． | 28，459 | 14，126 | 98，455 |

The exporte from the Unitod States to Portagal con－ siat of whale oil，whalebone，aperm candles，staves and
headings，beef，pork，rice，tolasceo，linseed oil，soap nalls，manufacturea of Iron，and sundries．The im－ ports，as taken from the United Etates Treasury re－ turas，are wool，wines，vinegar，dried fruit，ssit，corks and cork－tree bark，marlie，alheet and bar lead，copper， and sundries．
The exports from the United States to Portugal for the facal year $1856-157$ included $\$ 56,489$ of uamsnufac－ tured cotton，and $\$ 121,359$ of tobacco．

The to consting． euch， Y in the eos number ： ing－trade

## Operto ，

Vlatia．．
Fliguelra
Aveiro．
Aveino
Cannlube
Caninhe
Vila de
Fereigr trade，anc the flag States un the vessel treaties a elan，Sw Belglon， Hsnoverf ed．${ }^{\text {：}}$ Goo the vessol cent．whe

Ealling ia Leden wit Porlugal Laden with In sil case Entering 1 cept in o With full 0 With wine， With other Contribubic An sdd tonnege a der treaty tional vese exchange Steamers vessels． both．Ev have two seif，and ennsul at manifest， aum equa！ ble being of the dut －United Portugu merous set River Cac The chicf ando；and some trad these selll from the 1 lic eottons States，gu following tween the six month： Number of with an ag ward，\＄ 6 of cargoes From a United St of 1855 app icen vessel longing to Their carg flour，rum， of inward
2. The tennage of the conating-vessela employed in the coastlog-trade of lirazil varies from 40 to 420 tens each. Forelgn veseels are not allowed to particlpate In the conating-trade. We annex a Trable showing the number and tonnage of vessels employed in the coast-ing-trade of Portugal in 1852.

| ${ }^{+}$Porta. | Number of Vompla, | Tomenge. |
| :---: | :---: | :---: |
| Oporto . . . . . . . . . . . | 868 | 95,518 |
| Viana .................... | 128 | 8,271 |
| Flguelrs..........e.t...... | 10. | 15,060 |
| Avelro | 153 | 7,910 |
|  | 15 | 1,412 |
| Villa de Conde b ¢ . . . . . | 8 | 101 |
| Esposeada . . . . . . . . ...... | 4 | 120 |

Forelgn vessels are allowed to enter Into the forelgn trade, and pay the same tonnage dues as those bearing the flag of Portugal, to wit: Veasels of the United States under the treaty of 26th of August, 1840; alao the vessals of the following conntries under different treaties and conventions, Dutch, Danlsh, British, Prusslan, Swedlah and Norweglan, Russlan, Brazlilan, Belglan, LIanse Towns, French, Papal States, and Haneverian: : 'The Indirect trade ls, however, excepted. ${ }^{\text {c }}$ Goode not the product of the country from which the vessel salis are llable to an extra duty of 20 per cent. when brought to Portugal in forelgn ships.
 Saliing In baliast, or not fully laden, per ton....
Leden with malt, olive oll, or wine, produce of Leden with
$0=28$ Portugal.
$50=53.5$
Laden with other produce of Portugal............................... $=164.5$ Ia alt tases when re-exporting forelgn goods.... $850=28$ Entering in ballath, and saliting to baliat (ox-
cept in casen of diatrotm)..................... $250 n=28$
With full cargo of gralu. prodice of 1'ortagal.. $250=23$
With wlac, kait, or oll.e ofl......................
With other Portuguene produco.................... 100 $=28$
Coutribation to remove the bar in the port of
Oporto........................................... $100=11$ 1-5
An additional tax of 15 per cent. on the amount of tonnage and bar-dues is also exacted in Tporto. Under treaty, American vessels are cqualized with national vessela as to these duties. Contributions for the exchange building, five reas $=$ one half cent, nearly. Steamers pay two-fifthe less tonnarge duos than salling vessels. The contribution for the bar is the same for both. Every captain of a merchant-vcasel is bound to have two manifceta of the same tenor, slgned by himself, and certified by the Portuguese consul or vicoconsul at the port of departure. Goods omltted in his manifest, or of a different description, have to pay a sum equal to the value of the goods. Goods adinicsible being omitted, a fine equal to double the amount of the duties, and custom-honse charges and imposts. - U'nited States Commercial Relations.

Portuguese Settlements. - The Portuguese havo nitmerous settlements lin Weatern Africa, situated on the River Caches, the St. Domingo, and the Rio Grande. The chiof settlement In Gulnea is on tho jeland of Loaado; and in Benguela, that of St. Philip. There is soms trade earried on between tho United States and these settlements, especially at Loando. The exports from the United States to this point consist of domestie cottons, flour, and speele; imports to the United States, gum-copsl, palm-oll, ivory, hides, etc. The following summary, exhibiting the general trado between the United States and Loando, during the first six months of 1854 , Is derived from a consular return : Number of American vessels arrived and clenred, 10, with an aggregate of 2218 tons. Vnlue of cargoce inward, $\$ 65,000$; discharged at Loando, $\$ 13,000$. Value of eargoes outward, $\$ 22,000$.

From a return of later date, the trade between the United States and Loando, for the last three months of 1855 appears to have been carried on Ly five American vessets, of some 200 tons each-three of them bolenging to Salem, Massschueette, and two to New York. Their cargoes Inward, Innded, conslated of dry goods, flour, rum, ete., to the value of $\$ 24,200$; the totai valne of inward cargoes being $\$ 61,500$; end their eargoes

[^42]outward, of palm-oll, guin-copal, Ivory, copper ore, etc.; to the value of $\$ 07,100$. Eish of thene vessels touched at Ambriz. Indeed, vessel trading to Loando uausl. Iy touch at Ambriz and Ambrizatte, where they hava agents, to whose consignment they land part of their cargoes, and take In such produce an may be in waltIng. They then touch at Loundo, and leave part of thelr remaining cargoes; then they inake for Benguela, where they uaually remaln from 40 to 60 daya, to close their ssles, and take on bosrd gum-copal and Ivory. On thelr homeward royage they agaln touch at Ambria and Losndo, at which places they complete their cargoes of gums, paim-oll, Ivory, hides, and coffee.

At Ambria there are now two Amerlean, two English, ono French, and a number of Portuguese factories. Ileretofore the only duty pald at this jert was a small tribute to the native king, for the privilege of trading. Kecent movements Indicate a deaign on the part of the I'ortuguese government to establiah a regular cuatom-house, and charge import and export dutles. The claim of l'ortugal is predlcated on Its alleged title to some copper mines in the interior, which can be reached only through this port. The little kingdom of Ambriz is too weak to resist the pretenslons of the Portuguese ; and however novel this claim may appear to more civillzed natlons than the little negro kingdom of Ambriz, there is official informsition to the effect that, Instead of free trade, Unlted States commerce wlll probably hereafter encounter at thls point the burdensome restrlctions of Portugueae commercial legislntion.

The once flourlshing and vast colonles of the Portaguese were, befure tho year 1850, reduced to the followIng territories:

| telands. | Population in 1850. |
| :---: | :---: |
| Madelra nnd Porto Santo.................. 108.464 |  |
| Eaatern Azores | 97,330 |
| Contral | 69,887 |
| Weatern. | 68,391 |
|  | 843,572 |
| Verd Islands.aton. |  |
| Cape Verd Ialanda............................ <br> Coast of Gulnen, Blesao, otc. | 80,738 4,270 |
| 8t. Thoman, Princee, | 12,758 |
| Angola, Bonguela, and dependencles | 583,127 |
| Mozamblque and dependeacies ........... | 300,000 |
|  | 912,888 |
| Gon, Saluto, Berdez, etc. (now conqueats) |  |
| Goa, Saluto, Berdez, etc. (now eonqueats) | 363.788 |
| Town of Damao | 83.159 |
| Town of Dlu . . . . . . . . . . . . . . . . . . . . . . . . . | 10.765 |
|  | 407,712 |
| coranta and omina. |  |
| Mslande of Timo......... |  |
| 1slande of Timor, Solor, | $\frac{018,300}{947,88 i}$ |

For commerce, etc., of Portugal, refor to IMalbi'g Essay on Portugal; Buovantos's Letters on Portugal; Hodoe's Portuguese Expeditions; Miss Pannok's Letters; IIunt's Merchants' Magazine, lx. 366 (Wiartos); Quarterly Reriew, xli. 184 (Soutuey); American Annual Register, viii. 213 (J. Q. Abasis). On the wine country of Portugal, see Frasen's Magazine, xxxvi. 302.

Postage-Post-office. Postage is the duty or charge impused on letters or pareels conveyed by post; the post-offico being the establishment by which auch letters or pareels are conveyed. Wo propese, in the present artiele, to divido and treat tho subject under the following heads:
I. Sketch of early Postsl Affairs. II. The first Nstional Post-offiee. III. The Britlsh I'ost-offico. IV. Introduction of cheap Postage. V. Postal Statistics, and Rates of Postage in other Countries. VI. History of the United States Post-oflice. VII. The present Condition and future Prospects of the United States Post-office.

The post-office, as It exista to-day, is essentially a modern institution. Some wrlters have traced the orlglu of the Posr to a very early period in the pollt-
ed oil, soap, es. The lmTreasury ret, salt, corks
lead, copper,

Portugal for
unmanufac-
teal tintory of the world. They find the origin of the word poat in the Latin posirm, as applied to the poatal couriors whe were placed or poated at certain intervala or atations on the route over which lettere or meseagea ware convayed. Herodotur, Xenophon, and other anciont historians, epeak of postal couriers that wore employed by kinga, rulern, and commanders of armien. In Parsia, in the time of Cyrus, atations were hept at regular Intervals along the principal highwaya of the country, and messagen were forwaried for the governmant by courlery, who acted an post-riders. In the Homan empire, in the time of Jullus Casar, and daring the relgn of Auguatus, a similar method of communication was kept up between the central government and the principal military atations. Marco Polo tella us, and his narrative is confirmed by other travelers, that Kublal Khan, the Eimperor of Tartary, had regular pont eatebltshmente throughout his vast empire. Thia was in the 13th century. In his narrative we find the followiog, which is particularly intereating, as giving an acconnt of a regular rost among a comparaUively barbaroug people, that was quite equal to the postal eatablishmenta of many modern Chriatian nationat "From the city of Kanbalu there are many roads leading to the difierent provincee, and upon each of these, that is to aay, upon every great high road, at the distance of 25 or 10 miles, accordingly as the towns happen to be altuated, there are atations, with houses of ar ismmodation for travelers, called yamb or posthou t.j." [These are mansiones equorum; in the Chinese language tchon, and In the Persian marhileh.] "These are large and handsome buildings, having well-furnished apartmente, hung with silk, and provided wlth every thing suitable to persons of rank. Even kinga may be lodged at these stations in a becoming manner, as every article required may be obtalned from the towns and strong places in the vicinity; and for some of them the conrt makes regular provision. At each station 400 good horses are kept in constant reauliness, in order that all messengers going and coming upon the husinesa of the Grand Khan, and all embassadora may have relaya, and, leaving their jaded horeea, be supplied with fresh ones. Even in mountainous districts, remote from the great roada, where there are no villages, and the towna are far fistant from each other, his majesty has equally caused buildinge of the same kind to be ewected, furnished with every thing neceasary, and provided with the usual eatablishment of horses. Ile sends people to dwell upon the spot, in order to cultivate the land, and attend to the service of the post ; by which means large villagea are formed. In consequence of these regulations, embasadors to the court and royal messengers go and return through every proviace and kingdom of the empire with th, greatest convedience and facillit."

Thia la a picture of a very complete postal establisument. The Incas of Pern, in the 16 th century, had a aimilar system of postal couriers to keep up communication between different parts of the country. There was a aystem of postal cominnnication In France as early as the time of Charlemagne, and used principalIy for the conveyance of government diapatehes. Louis XI. also employed postal couriers. "A permanent establishment of messengers for the conveyance of letters was attached to the University of Paria from the beginning of the 13th century, and indeed was net abolished until the year $\mathbf{1 7 1 9}$, long after a general poat had been settled In France. Other universities were similarly provided. Sometimes powerfil or opulent individuala eatablished posta for mercantile purposes, and the convenience of a particular district."-Encyclopaedia Britannica. The date of the first regular post establishment in modern time was not far from the year 1497. There is a general coincidence in point of time of a number of leading diacoveries, conquesto, inventions, and improvements. Printing was invented In 144t. Constantinople was taken by the Ottomans,
he Grecka iriven from the Eaat, and the Turkish em. pire founded in 1483. Pootal couriere ware employed in Great Britain es eariy as 1464, Printing wan intro. duced Into Eingland in 1474. The kingiom of Spain wat eatablished by the naion of Aragon and Cantile, In 1479. The Cape of Good Hope was discovered in 1486, and America In 1492. The poat-offiee was established in Germany about the year 1497. Africa was circumnavigated in 1488. The Reformation com. menced in ibl7. A ayatem of punctnatlon by marks and pausea was introduced in 1520. IIungary was united to Auatria in 1621 . Magellan completed tha first circumnavigation of the globe In 15\%2. The aso tronomical ayatem of Copernicua was proclaimed in 1032. In India, as early an 1600, a syatem of foot-posta was eatabliahed by Akbar, the head of the Mogul em. pire. Indian runners, noted for their apeed, were employad, and one measenger, without relief, we are toid, would often travel from 80 to 90 milea in a day.
15. The firat Nutional Ibot-afice,-The Arst reguiar pont-offico was estabilahed by Maximilian, omperor of Germany, near the clowe of the 1 bth century-abont the year 1497. At the head of thia poat eatablishment the emperor placed Francia, prince of Tharn and Taxia, the firut post master-general mentioned in history. This establishment, originally atarted like all other gevernment posta as a general errand-hoy and measage-bearer of government, soon lecame a powerful monopoly, and claimed the sole right of transmitting the correepond. ence of the people. From the time of ita foundation to the preaent doy the German post eatabliahment hat been held as a hereditary fief or property by the princes of the house of Thurn and Taxis. It has been a subject of frequent discussion whether postal business should be entirely carried on by government. There are argumente on both sides, and many against it can le found in the history of this Gemnan postai union. The Catholic religion being the religion of the state, Proteatanta mada frequent and just complaints against the suppression and violation of correapondence in the cause of political tyranny and religious intolerance. Wo are informed that this was one of the direct eauses of the Thirty Years' War. Lamoral, prince of Thum and Taxis, a mliltary leader (Catholic) an well as post-naster-general, by the assistance of hia allies defeated and dispersed the Protestant Union nuder Frederick, the Elector Palatine. This wan followed by the "Mas. sacre of Prague," the "herrible persecution of all malcontents,"the "banishment of thirty thousand Protestant families, and the total auppression of the Protestant religion." In this work the poat-office was nsed as a machine for annoyance, espionage, persecution and warlike conquest. The very same postal concern is this day a atumbling-block and a sorioua impediment in the way of cheap postage between nations on the westFrance, Great Britain and the United States-and people living in the eastern part of Etrope. But the house of Thurn and Taxia own the poet, poeket large profits, are deaf to all considerationa of public geod, and insiat on the very higheat paying (transit) rates of postage.
III. The British Post-office.-The Post-office of Grest Britain, at once the most efficient, economical, and profItable of modern times, has a moet interesting history. We find mention of poatal couriers employed by government as early as the reign of King John. He summoned his barons to form the Parliament by fasaing " letters patent." During this reign state accounts exhibit frequent itema of charge for the carriage of letters. In the time of Edward II., there were fixed posts or stationa where horses were kept for post-riders. In 1481, Edward IV., during hla wars with Scotiand, establiahed, as atated by Gale, certain posta, twenty miles apart, where the riders relleved one another, and in thia way conveyed lettern onn hundred miles a day. Long before there was any account of a national postoffice, wo meet with the auperscription of letters,
"heste Eliabe chiaf po an to hi Amo Britain particul embave land (\$ the viel senger, to relle burgh, callod ' handa o ters tha cused to fer th "which had kep cipherin they eon George he hath wick, be IIe adds thas cou taken by him wit notable a latere One of ashore n the card he (" thr (the Pop temporal to be his James th the Incen land that execution istratien quoth he punish hi

The la Beaton ad and othe Andrews, packet," death-wa eariy hou cattle wa a his or of thia $p$ violation ${ }^{3}$ pestma and whos the relgn with "th all packe was fille, Quester, lamation and Scotl properly affice." wes Poatn London to In 1644 t master-ge Cromwell an act pas land, and shall be o the Postm ler of the ostal union. of the atate, ints sgainst dence in the intolerance. Airect causea ce of Thurn well as posties defeater r Fredenick $y$ the "Mas. $h$ of all mal and Prutest. e Proteatant as uned us a ion end war. icern is this liment in th the west-es-ond peo e. Bot the pocket large public goal ransit) rates

## ffice of Grest

 cal, and profting histary. yed by gov-Ile sumb$t$ by issuing ato accounts carriage of were fixed r post-riders. th Scotland, osts, twenty another, and miles a day. ational postof letters,
"haste, ponte haste." In is81, during the roign of Eliaaboth, Camdon staten that Thomas Randolph waa chiff pootinaster of England, but nothing is mentloned the to his functlona as a tranamitter of letters.

Among the early recorda of pontal aftain in Great Britaln are various accounta of the violation of latters, particularly in the relgn of Hepry VIII. The Einglich ambasnador at the Court of Jamen V., Kiag of Scotland (Sir Iivph Sadler), given numerone inatancen of the violation of letters by Cardinal Beaton. Ons messenger, a eoldjer from Berwlck-on-Tweed, was amployed to relieve the courler from the south on his way to Edinburgh, with dispatcies for the ombatsador. He waa callod "the pest." While on the way, he fell inte the hasds of Beaton's omisaries, and they meized the lot ters that were addressed to Sir Ralph Sadier, and refused to give them up. They were finally delivered, after they had been kept some day , and opened; "which," an Sir Ralph says, " being in cipher, they had kept the longer to prove their cunning in tite deciphering of them, which (as I eredibly am informed) they could do." A letter from the Barl of Angns, "Sir George Dougias hath to convey by pont, and will, as tho hath written to me, ride himself therewith to Berwick, because he dare trunt no other man to earry lt." IIe adds, "it is much sdo to convey lettert safely in thas country." One messenger of King Henry wes taken by the cardinal's party, who "threatoned to hang hini with all his leiters sbout his neck." But on two notable occesiona the wily eardinal-the Pope's legatua it latere in Scotland-had the tablea turned upon him. One of his own courlers was shlpwrecked and cast ashore near Bamborough Castle, was captured, and by the cardinal's letters found on him, it appeared that he ("through the anthority of the Bishop of Rome") (the Pope) intended to get all power, apiritual and temporal, from the King of Scotland, while profesaing to be his friend. King Henry reported this to King James through bla enibassador. When ho heard it, the incensed monarch said, "whatsoever he be in Scotland that we may know, doth nat his duty both in the execution of God's lawi above ali, and alao in the ministration of Indifferent justice to our lleges; by God," quoth he, "If we may know him, we shall not lett to puaish him, be he spiritual or temporal."

The last notable act of thls kind was when Cardinal Beaton sent Norman Lenlie, son of the Earl of Rothes, and others, to Edinburgh, from his strong-hoid at St. Andrews. Suspecting foul play, they "fingered the packet," and found they were the bearers of their own death-warrants. They retarned by night, and at a very early hour in the morning, while the draw-bridge of the caatie was lowered, rushed In and atahbed the cardinal in his own room. The journals and correspondence of this period contain various other Instances of the violation of correspondence. The earliest mention of a postmaster, who had the charge of correspondenco, and whose duties and privileges were defined, was in the reign of James I. of England. He was charged witi " the sole taking up, sending and conveying of sll packets and letters intu foreign parts." The office was filled by Mathew le Quector, and by Mathew le Quester, his son. In 1635 King Charies iasued a proclamation "for settling of the letter-office of England and Scotland." "This," maye an English writer, "may properly be regarded as the origin of the British Poatoftice." By royal command, Thomas Witherings, Esq-, was Postmaster-general. Posts were established from Londou to the Continent, and to Scotland and Ireiand. in 1644 the Parliament made Edmund Prideaux Post-master-general, and he estahlished a weekly mail. Cromwell made important improvements. Ife had an act passed " to settle the postage of England, Scotland, and ireland." By this it was enacted that "there shall be ono General Post-office, and one officer styled the Postmaster-general of England, and the comptroller of the Pont-office." This officer was to have the
"horsing" of all persons "riding In poat." The rates of pontage wore fixed, and all otter persons forbidden to " ant up or Imploy any foot-postr, horse-poste, or pacyuet-boata." The postage of a letter sighty miles from London was two penee aterilngi above that diso tance, In England, three pence ; to Scotland, four pence and to Ireland, six pence. Double lettere were double thece rates. The post-riders were required to ride seven miles an hour in summer and five in winter. Cromwell farmed the pont-oilice out for $\mathbf{C 1 0 , 0 0 0}$ a year; and on the reatoration of Charles II., in $\mathbf{1 0 6 0}$, the office was rented for $\mathcal{2 1 , 5 0 0}$ a year. : In 1668 the entire profite were settled on the king'n brother, the Duke of York (afterward King James 11.), and his helra male. In 1685, by an order in conndil, a post-office was entabHished on this continent "for the better correspondence between the colonies of America."
During the reign of James II., William Dockwra set up a local ayatem of letter and parcel diatribution in London. IIe was allowed to contlaue It for several years, until it proved profitable, and then his local letter aystem was seized under pretonse that it encroachel upon the royal prerogative. In the more modern hilst tory of the post-office there are paraliel cases. In 1688 an act was passed for the est.ablishment of a Goneral Post-office In Scotland. In 1698 King William made a grant of the wholo revennes of this office to SIr Robert Sinclair, with a subsidy besides of $£ 300$ a year. Even at this rate Sir Robert found It a losing busineas, enil threw it up. In 1710 ( 0 Anne, ch. 10) an act was passed that may be considered the charter of tho British Post-office. This act established a General Postoffice throughout Great Britaln and Ireland, the North American colonies, and the West Iniles. It was nil put under the control of one officer, atyled her Majesty'n Postmaster-genersl. The act provided for one chiof letter-office In Edinhurgh, one In Dublin, one in New York, and others in the West Indies. For a considerable perlod after the act of 1710 , there were no relays of post-horses, one man or boy, and a horae, accomplishing an entlre journey like the one frem Aberdeen to Edinhurgh, traveling by day and stopping at night. Up to $\mathbf{1 7 6 8}$ there was only a tri-weekly mail from Londion to Edinburgh. That year the trips were increased to five times a week. The time required for the mall-coach to go between the two cities was from eighty-two to eighty-five inours. Until 1788, there was no direct mail from London to Glasgow. It ia inatructive to note the progress in the income of the British post-office for a period of two hundred years. The net and gross income of the British post-offico nt different periods will be seen in the following talik, the last columa giving the groas income in United States currency, reckoning five dollars to the pound sterling:

| Years. | Nel Revenue. | Grome Reeelpta. | Grome Reesipte. |
| :---: | :---: | :---: | :---: |
| 1053.......... | \$10,000 | .... | .... |
| 1668.......... | 21,600 | . . . | . |
| 1685.......... | 65,000 |  |  |
| 1096.......... | 67,282 | 290,440 | \$452,200 |
| 1711.......... | 00,223 | 111,426 | 657,1811 |
| 1754.......... | 97,365 | 210,663 | 1,053.815 |
| 1760.......... | 83.493 | 280,146 | 1,150,780 |
| 1770.......... | 156,062 | 805,015 | 1,525,076 |
| 1780........... | 186,409 | 418,869 | 2,094,310 |
| 1790.......... | 831,170 | 571,863 | 2,85, ,615 |
| 1800.......... | 720,081 | 1,083,950 | 5,419,750 |
| 1810.......... | 1,188,889 | 1,855,746 | 9,278.730 |
| 1820.......... | 1,885,498 | 9,191,562 | 10,957,810 |
| 1830.......... | 1,804,020 | 2,207,481 | 11,897,405 |
| 1840.......... | 500.789 | 1,85, ,466 | 6,797,280 |
| 1815.......... | 761,982 | 1,887,576 | 9,487,880 |
| 1850.......... | 808.898 | 9,264,684 | 11,828,480 |
| 1855.......... | 1,065,056 | 2,716,420 | 12,582,100 |
| 1856...... | 1,207,725 | 2,867,904 | 14,889,770 |

The first year of penny postage was in 1840.
To give the differant ratee of postago that have been levied at various periods since the act of Qusen Anne would require a long tabular statement. In 1710 the clasge for a single letter from London to Fdinhurgh,
and from London to Dublin, wia sixpence. Iu England the rates wore three, or four pence, according to distance; In Scotland, two, three, or four pence, and in Ireland two or four peace. The rates were altered ${ }_{3}$ and generally increased in amount and also in number, in each of tho three kingdoms-and without anlformity In either two-in 1765, 1784, 1797, 1801, 1805, and 1812, and in Ireland in 1813 and 1814. From two or three rates in 1710, they went on inereasing in number until they reached the cllmax of absurdity and inconvenience in twelve different rates in England and Scotland, in 1812, and thlrteen rates in Ireland, In 1814. In Scotland, in 1813, an additional half-penny was levied on all letters that were conveyed In mail-coaches. These alsurd, complicnted, troublesome, and multifarious rates of postage remained on the statute books until they were blown from existence by the relluetion of all rates to one ut**rm charge of a peuny, through the exertions of Mr. Howland Hill, in 1840.

The next great improvement in the mail service of liseat Britaln was the intıoduction of mail coaches, in 1784. This was pincipally accomplished by the exextions of Jir. John Palmer. Like mest new improvements, it was the projoct of an outslder, Mr. Palmer not belng an officer of the post-office, but the manager of a provincial theatre. That extraordinary fatali'y usual in such cases took possesston of nearly all prominent offleials; and the Postmaster-general, members of Parliament, and other dignitaries, denounced the scheme as prepostorous, undignilied, and imprneticable. The projector was pronounced a visionary zealot, and as unreliable as a madman. It appeured to Mr. Palmer that when passenger coaches traveled regularly over the principal roads at a much more rapid rate than the horse-posts usually did, the mails could, with advantage, be transported by them. At this day wo can searcely see tangible grounds for a violent opposition to n plan to ndopt the swiftest and most reliable conayance for the mails, except in that afficial jealousy, which never bears a rival near tho throne, or that resents the assumption of an outsider in presunsing to know any thing better than the servant of routino who is pald to carry or a concern that he feels no interest in improving. The mails were transferred to stagecoaches, all tha opponents of the plan were put to shame, and Mr. Jolm Palmer received from the 'Treasury tho aum of $\pm 50,000$, and an annuity of $\mathbf{5 3 0} \mathbf{3 0}$ a rear for life, for the benelits he had conferred on tho nation in augmenting tho national fncome, and increasing the facilities for correspondence.
IV. Introduction of ('heap l'ostage.-Mr. Rowland IIill, an English country geutleman, in no way connected whth the govermment or the P'ost-offlee, set to work, in 1836, to devise a plan to effect somo permanent finprovements in the regulation nnd management of the postal establishment. Ile fomme by referring to the official records of the l'ost-offiee !epartment, that while the population, the lusiness of the conntry, and all branches of the mationnl income (the post excepted) had grently lacreased during the precoding twenty years, tho revenne and business of the post-othee had with some tluctuations, netually decreasel. Jle conspared the postal income to the revenue derived from atage-coaches, a branch of husiness thnt aforctet a good index to the prosperity of the conntry. The following table exhlbits at one view a comparison of the revente from stage-conches, with the net postal income; nud a column showing what the net revenue of the postofice woulth have heen in $1833^{\circ}$ had the receipts kept fice with the re:enue fre 11 cosched:

| Tees. | Revenue inom Btaye: coaches. | $\begin{gathered} \text { ravase } \\ \text { jent } \\ \text { feni. } \end{gathered}$ | $\begin{gathered} \text { Nol } \\ \text { Poat-office } \end{gathered}$ Rever de. | Hevenue which would base bees. | Cons: paralive L.ons. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Tals | 5217.6it |  | 21,90\% [17 | ¢1,007, 213 |  |
| 1831 | 273.477 | 25 | 1, 29.647 | 1.910 .000 | C4(31,45\% |
| 185 | 302.131 | 131 | 1.176.210 | 2040,0001 | W14,781 |
| 1s\% | 4185.18 | 92 | 1,617,952 |  | 1,472,148 |
| 18\% 16 | 409,4117 | $1: 8$ | 1,510,800 | 3,400,000 | 2,00\%2,700 |

Bejeving that tho leglimate demand for the coyveyance of letters and distribution of correspondence had increasel as fast as that for the conveyance of persons and parcels, It was evldent that, In effect, there was a lose in post-office revenue, amounting to $£ 2,000,000$. These facta and others were first submitted privately to the govermment, and In 1837 to the publle, in a pamphlet, entitled "Post-offica Reform, lts Importance and Practicability." It was recelved with great favor, and in a short tlme passed through three editions. The author came to the following conclusions: He demonstrated clearly that the aetual cost of conveying a let. ter by coach in the mail from London to Eillnburgh400 miles-was only one-thirty-sixth part of a penny. It must be evident that the actual difference of expense between transporting a letter ono mile and delvering it, and carrying one four hundred miles to he delivered, dit: not justlfy a different rate of charge. He came to the conclusion that the large nost of distrlhuting letters was the result of complex arrange ments in tho post-office, arising from many rates of postage. That these complex arrangements would be avoided if postage were charged, without regard to distance, at a vimons rate. That all letters should be charged by weight, those reckoned as slugle letters that, did notoxceed half an ounce each. That the uniform charge for letters, including their delivery, should be one penny. That this rate of charge wonld afford the greatest facilitles to the public, put a stop to correspondence through privato channels, and eventusliy prove the most profitable to the government. That with the simplicity and economy of arrangement at tending the uniform chargo of a penny, there would be but little more expense attending a four-fold inerease of correspondence than ther ss with the then mumer. ous rates of postage. Thint the effect of a uniform penny rate would be to increase corrsspondence "In all probability at least five-and-a quarter fold." [ $\operatorname{In} 1850$ the number of letters In the kingdom $(478,893,808)$ bat increased more than six-fold beyond the number in 1839 (then $\mathbf{T} 5,907,572$ ), the last year of the eld rates.] That the necessary cost of primary distrlbution, instend of leing 81 hundredths of a penny, as it was uncler the numerons rates of postage, would only ho 32 hundredths of a penny, the difference, 52 hundredths of a penny, arising from the expenslveness of the arrangements, the excessive charges, and the consequent restrietion of corresjondence. That the secondary distribution of iettors (the delivory) ought to be untaxtil, so as not in any desree to interfire with the slmplleity of arrangements attending a uniform and low rate.

A verification of Mr. Jlill's predictions, almost amounting to propheey, has been established by the working of the system. In lifs pamphlet, published in 16:3, he predleted that tho increase of correspondence, and the attendant economy of management that wrud result fron a uniform rato of n peuny, "would allord a probable net revenue"-that in, in a reasonalile time"of $\mathbf{\Sigma 1 , 2 7 8 , 0 0 0 . " ~ I n ~} 1856$ the net revenue was exact$1 y £ 1,208,725$. One statement will show the great ceonomy of management under a miform rate of postage. Taking the cost of carrying on the liritish postal ostablishment (transportation excepted) in $18: 7$, hefore there was uniform postage, and in 1859 (with the uniform eharge of $n$ penny), aud looking nlso at the numher of letters at each period, we consee what the hamiling, sorting, distriloution, und delivery amounts to per lunired or per thousand letters. The following in the oflicial record:

| Years. | Kxpense of Matriliation. | Number of l.e16er. | Exprnee uf each 1000 1.otten. |
| :---: | :---: | :---: | :---: |
| 18331 1584. | $\begin{aligned} & \$ 2,5 \times 11,359 \\ & 3,2361,195 \end{aligned}$ | $\begin{aligned} & 12,4761,096^{\circ} \\ & 443,649,1101 \end{aligned}$ | $\begin{gathered} \$ 311 \\ 7 \end{gathered}$ |

- This number Ineluded hoth franked and paid fetters Omitting freo letters, the unmber was $75,607,572$.

By the efforts of Mr. Wnllace, M. P. for Greenock, Loril Ashburton, nud ethers, a parliamontary commit-
tee wat the ext all clas in two mony, tion. all gres and the and pro entirely So farf posed -viz., opposed present to be a the pos cidation fice bee weight ever :h mates $t$ writerand the the Exc office" ber of 3 $38,000 \mathrm{n}$ adoptiol abolishe the Tre all singl ny post uary, 18

The revenue sponden the uni Mr. Rov favor of has lenge not, and all lette whether welghin are at or not prep fused or the Rety due may mesns shects t fectually to refusq writing 30 near more th paid bet In $G$ there at letter o printed delivere possible printed pressed reveals opened. or sever post vil) tera are almost ularly "deall," cor mon ent ba.
ally in espondence nce of perthere way C $2,000,000$. I privately nblle, in a mportance rreat favor, lons. The He demen$y \operatorname{lng}$ a let. linburghof a penny. nce of exhle and de. miles to be of charge. nost of dis$x$ arrangeay rates of ts would be gard to dismhonld be agle letters hat the unicry, sheuld onld afforil stop to coreventuslly ent. That gement sh re would be ld incresse hen numer. form penny in all probIn 1856 the (08) had inber in 1839 iters.] That istend of heuler the nuhundredths of n penny, angenients, estriction of ution of lets not in any rangements ms, almost shed ly the published in espondence, $t$ that wruid uld ntford a able timewas exact$v$ the great rate of postritinh pestal 18:7, before Ith the min nt the numsnt the handounts to per owing is the
tee was appolnted: and after numerous sittiags, and the examination of nearly a hundred witnesses frem all classes and ranks of soclety, they made their report in twe formldable blue-books, giving the entire testimony, and a great mase of official statistical information. It la a fact worth mentioning in this place that all great postal improvements, loth in Great Britain and the Unit: A States, were commenced, carried on, and prosecuted to a succeasful termination, by citizens entirely uncoanceted with the postal estabiishment. So far from deriving aid from those who would be supposed to pessess the ability and dispesition to afford it -viz., these in the pest-oftice-they hava nniformly opposed all reforms. It was aingularly true in the present inquiry. "It was fonnd, by the commission, te be a matter of the greatest difficulty to extract from the post-cflice any Information necessary for the elucidation of the inquiry." "Not only has the post-office been utterly barren of improvement iteelf, but its weight is thrown Into the opposite acale." "Whensver the pest-office attempted to give facts and estimates to combat Mr. Hill"-to quote from an eminent writer--" it was found that Mr. Hill was alwaye right, and the pest-office always wrong." A Chancellor of the Exchequer described the "gentlemen of the postoffice" as "unwilling herses." Petitions to the number of 320 , from 262 different places, and bearing over 38,000 names, were sent to Parliament, asking for the bideption of Mr. Hill's plan. In 1830 franking was abelished, and an act passed authorizing the lords of the Treasury to adopt a uniform rate of one penny ou sll single let izs, without regard to distance. The penny pestage went into operation on the 5th day of Jaauary, 1840.

The efficial reports of the Post-office, shewing the revenue and expenditure, and the amount of correspendence, comprise the best eulogy of the principle of the uniform penny rate. It is no dispuragement to Mr. Rowland Hill to say that, whilo he was onco in faver of riepayment of postage being compulsory, he lass long einco receded from that idea. Prepayment is net, and never has been, compnisory in Ureat Britain, nll letters being forwarded to the persons addressed, whether prepald or net, with the exception of letters weighing over four eunces; and these, if not prepaid, are at onee opened and returned to the writer. Letters not prepaid are charged double; and auch letters, if refused er net dellvered, are returned to the writer from the Returaed-letter office, and the double postage then due may be collected by compulsory process. By this means the distribution of circulars and advertising sheets through the mails, without prepayment, is effectually prevented. In Grent Britain it is customary to refuse ull unpaid matter unless a name or the handwriting on the outside shows who the sender is; and se near universal is prepayment $c_{i}$ all postage, that more than $98 \frac{1}{2}$ per cent. of all letters have their postage paid before mailing.

In Great Britain there is no Dead-letter offlee, and there are no "lead" letters. There is a "Returnedletter effice," and all letters, and even papers and printed packages, that have not, for any reason, been delivered aro at once opened or sxamined, and, where possible, recurned to the senders. When the name is printed or writtan on the outside of the letter, or impressed in the seal, or where a coat of arms or device reveals the writer, the letter or package la returned unopened. As there is n letter delivery by carrlers daily, or several times a day, at almost every post-otfice and pest village, refused, misdirected, or other "stray" letters are at once known, and, by the above regnlatiens, almost all letters that $\ln$ other countries (and perticularly in the United States) would be pronomiced "dead," and cosciamned to a hopeless imprisonment for menths, rind then, perhapa, to bo burned, are hero sent har: io the writers and rightful ownern, and usually in less than a week from the dny they aro mailed.

The practice now is to dispatch every letter on the day it is received at tho Returned-letter office. The laet annual report (1857) says: "By rccent arrangemeuts, returned letters are sent back to the writers much more quick'y than formerly ; every such letter (except from abroad) being now opened [where necessary], redirected and reposted on the day of its arrival at the Re-turned-letter office. The number of letters retnrned to the writers last year ( 1856 ), owing to failure in the attempts to dellver them, was nearly the same as in the previous year-viz., sbout $2,400,000$, or about 1 in 200 of the whole number of letters posted. Owing to the same canse, about 550,000 newspapers, also, were nndelivered, being about 1 in 129 of the whole number."

In the case of letters that can not be delivered, even though by the fault of the writers, the British post-office is ouppesed to bo just as much the servant of the people as in the case of letters when originally mailed and correctly addressed, and every such letter is looked upon as a piece of property, to be sent to tho person addressed, when possible, and when not, returned to the owner. All letters and packages that are prepaid, when returned, are delivered to tie eenders without any charge; and when not prepaid, double poatage is exacted. With such system, simplicity, and facility is the returning of letters carried on, that each elerk returne two hundred per day.

The principle and operation of the British Pennypostage system is this: A minimum rate of postage is sought for that shall not he an exorlitant charge for the emallest packages the shortest distances, and this postage is paid by a stamp. Now the object is to make this stamp cover as large a number and variety of pack-ages-written and printed-ss possible. Each letter is called a "single" letter that does not exceed half an ounce in weight, and each packago of printed matternewspapers, circulars, hand-bills, pamphlets, or books -done up open at the ends or sides, Is considered "single" up to four ounces. Here is the value, convenience, aimplicity, and utility of unifors pestage, both to the public at large, and to these who handle, sert, rate, and attend to the letters and mails. Drop-letters, or more properly local letters-for they are not permitted to "drop" and become "dead"-and all local mail matter, is charged at the same rate as these that are transported five hundred miles. The consequence is readily ssen. The penny stamp covers almost all-more than nineteen-twenticths-the packages that are mailed. A letter not weighing over half an ounce, local or otherwise, a newspaper, painphlet, or other printed package, not weighing over a quarter of a pound, have the postage prepaid by the all-powerful, all-cenvenient, niversal, uniform penny stamp. Then la larger packages the rates aro not ent up so fine as to be inconvenient to either the citizen or tha postmaster. Letters from half an ounce to an ounce are two postages, and after the first ounce each ounce or fraction of an ounce in excess is reckoned as two postages, In printed matter, after the first half pound, the reek. oning is made by half pounds; each half pound, or fraction of a half pound, being charged two postages -two pence. All the Items in thie rimplicity and unlformity of arrangement save a vast amoint of tlme and trouble to the peuple, and the clerks and postmasters, in a uation that writes and sends by mail annually nearly six hundred million lettere and printed packages, particularly as each letter and printed package has to go through from tonr to eight different processes or operations In the hands of the citizen, and from fifteen to twenty after it gets into the post-office. Would any other syatem but one that conbinos so much wisdom, economy, convenience, simplicity, uniformity, and ntilIty, bring mearly six hundred million letters and packages through the post-ofllee in a single year? A record of the business, and the revenucs and eorrespondence of the post-office of the kingdom for a few years, will do something toward answering the question.

BTATIBTICS OF TIE BRITIBH POBT-OFFICLin-[Reduced to Unitea States Currency.]
 dekine a akerga of Yeara, oommenoina witil 18t5, and endina wita 1860.


The money columna give the amounta in United States currency, caiculating five dollare to the pound sterling. It will be seen that the groas and net revenue of the post-office for twonty years, from 1815 to 1885, actualiy declined. Then there were twelve or fourteen rates of postage for letters, averaging about six and a half pence sterling ( 13 cents) a letter. With a reduction to the uniform rate of a penny-less than one-sixth of the former rates-the postal revenue more than recovered in eleven years, while the number of iutters sent by mall annualiy increased from $75,007,572$ in 1839, to $478,893,803$ in 1856 . The remittances of money, in money orders, inereased from a million and a half in 1839, to fifty-nine millions in 1856. To mako a direct comparizon between the use of the post-offico in Great Britaia and in the United States, it mny be stated that, after a careful catimate, the number of letters sent through the post-office in this country aince 1789, to 1856, jnclusive-a perlod of sixty-seven years -has Imeen 1,652,104,648, while in Great Britain, in the yeare $1853,1854,1855$, and 1856 , the number of letters was $1,789,016,769$; or mere ill that country in four yearn, with low and uniform postage, tian in thia country alnce the formation of the government, now nearly threequarters of a century! During ten yeara -from 1847 to $\mathbf{1 8 5 6}$, incluaive-the population of London alone sent by post $920,527,039$ letters, or moro than in the entire United States during the same perl-
od; the latter numbering $888,527,549!$ But in Great Iritain there was one uniform rate for letters, and one uniform scala by welght for printed matter, while in this country there are three ratea of postage on letters, and on printed matter, from a small newspaper to a large book, the number of rates is almost one tiousand! Under the post-office system of Great lyritain there is a free-letter delivery, a safe way of remittugg money by money orders, tisat ia ued to the extent of about aixty inillions a year, aidd one low rate of postage that hrings an annual income of over fourteen millions of dollars. In the United Stated the postage is higber; there is no uniformity, no letter delivery, and no inoney order aystem, and our population searcely pay seven millions in postage. The people of Grest lbritain can acarcely one half of them read or write, and yot they write and send by mail alnıest $500,000,000$ letters in a year.

The population of the United Stetes, numivering just about the same as Great Britain, and nearly nill sble to read and write, only write and send by mail $131,000,000$ letters in a year. Are further facts and illustrations neceasary to ahow the auperierity of the Britisi postal oystem, or tho relative merits of the "uniform postage" and the "complex postage" bystems?
The corrcapondence between Great Britaln nnd sereral of her colonles, and foreign countries, lor the year 1866, will be seen in the following table:
 foneign Countrisg.

|  | Lettere Oalward. | J, ititers Inward. | $\begin{gathered} \ln w a r d \\ \text { Mnd } \\ \text { Oulward. } \end{gathered}$ | Nawapapen and Bocha: Outward. | Nawapapers and boula Inward. | $\begin{aligned} & \text { Iaward } \\ & \text { and } \\ & \text { Outvord. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Africm, Weat const of. | 24,800 | 28,83] | Dt, 183 | 88,894 | 4,032 | 27816 |
| Anatralla. | 018,783 |  |  | 1,844,466 |  | $\cdots$ |
| 13elglumb . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 8. 5,811 | 250.5 c 4 | 676.875 | 202,741 | 185.460 | 3 Ss 2041 |
| Brazlia . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 00,258 | 80, 176 | 148,328 | 123,4418 | 60,084 | 183,49? |
| Bremen | 57, 166 | 40.898 | 100.74'4 | 18,608 |  |  |
| Clanada | 308,284 | 306.015 | 755,100 | 908,028 | 424,416 | 1,382.444 |
| Ceyton. | 28,722 | 87,042 | 60,204 | 114,084 | 22,122 | 130,20u |
| East Indien; viz, Bombn, talcutta, Madras, Aden, Penang, and singapuï. | 610,482 | 047,800 | 1,958,882 | 970,068 | 280,487 | 1,193,855 |
| France . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,184,916 | 2,021,610 | 4,206 520 | 718,97\% | 614,804 | 1,332.6m1 |
| Germen İontal Únlo | 911.067 | 645,145 | 1, 0477.102 | 586,988 | 184,380 | 371.845 |
| Ilamburg . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 38K,446 | 257,049 | 643,004 | 140.642 | 127.868 | 277.400 |
| Iloliand . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2383138 | 170.827 | 418,459 | 81,686 | 44.808 | 1:0,4 41 |
| Jlong Kong . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 78.528 | T8,228 | 159,750 | 105,030 | 6'1,928 | 165,368 |
| Manritius . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {a }}$ | 20,730 | 16,540 | 87,200 | 48,104 | 26,250 | 60,414 |
| Mediferranean, Including Malta, Alexandria, end Ionlan Ialanda. | 984,786 | 175,006 | 400,848 | 02,809 | 9,420 | 142,222 |
| Spain and Portugalit vig., Jiabon, Oporto, and Cibraltar. | 171,846 | 164,088 | 685, 034 | 75,412 | 4,860 | 80,263 |
| 8weden . .............................................. | 26,015 | 17.253 | 43,1408 | 4.75 | 8,264 | 8,040 |
| Lialted Statea. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,738,745 | 1,647,064 | 8,280,709 | 1,063.58 | 872,604 | 1,036, 248 |
| Weat Indtes and I'meific. . . . . . . . . . . . . . . . . . . . . . | 828,716 | 281,700 | 604,416 | 572,412 | 192,406 | 604,909 |

[^43]The total amount of correspondence in each of the in L.ondon for seventeen years, is exhibited in the fole three kingdoms, as well as the local and other letters lowing table:

 COMPLETA IEAR subsequent thereto,-[ Pranked or F'ree letters marked *.]

| Yoars. | Coontry Otices. | London Districi esclualva of Locel Lattern. | Locelitied In London Disiriet. | Toin! in England and Wales. | $\begin{aligned} & \text { Total } \\ & \text { Io } \\ & \text { Ircland. } \end{aligned}$ |  | Total In United Kingdom. | locrease per Ceot on that previous Year. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 183. |  | .... |  | 59,982.520 | 8,801,4107 | 7,628,148 | 75,0107.572 | . $\cdot$ |
| 1930. |  |  |  | ${ }^{-5,172,284}$ | ${ }^{\bullet} 1,054,508$ | *336, 82 | -6,563,024 |  |
| 1849..... | 88,071,308 | 23,650.835 | 20.372,882 | 182,008.525 | 18.210,642 | 18,554,167 | 168,768,344 | 1221 |
| 1841...... | 113,305,677 | 27,006.742 | 23,108,722 | 104,471.121 | 20,794,297 | 21,234.772 | 198,500,191 | $10 \%$ |
| 1842. | 111,116,48: | 29,255,282 | $23.839,042$ | 169,890,713 | $22.328,164$ | 22,215,783 | 208.474,451 | 16 |
| 1843. | 117,704,474 | 30,918.743 | 24,881,410 | 173,4114 697 | 28,482,463 | 23.473.216 | $220,45: 1,306$ | 54 |
| 184. | 191,0 6.028 | 39,675. 098 | 26080,400 | 18,3,652,419 | 25, 037,188 | 26,502,477 | 242,091,654 | 0\% |
| ! 5is | 147.227,431 | 36,047,711 | 80,828,486 | 214,1A8.628 | 28,587,463 | 48.060,168 | 271,410.789 | 18 |
| 154* | 162624,024 | 30,993,481 | 88.261,000 | 235,878,755 | 82,572,047 | 81.135,060 | 299,586 762 | 101 |
| 14. | 175028,407 | 43,757,540 | 84631,917 | 253,411,762 | 95,473,316 | 33.261,163 | 322,146,243 | 71 |
| 1843...... | 180,716,102 | 45,091,153 | 88,672,747 | 260,380,002 | 31,837,481 | -33.508, 101 | 328,830,184 | 2 |
| 1849...... | 187.382,829 | 45,845,683 | 38,060,848 | 267,188 410 | 35,403,113 | 94.748878 | 837,399,199 | 21 |
| 1*50..... | 192,503,028 | 4-2,856,170 | 88.89784 | 276.252 642 | 35,988 95 | 35427.544 | 847,063,071 | 27 |
| 1551....... | 119, '640,304 | 47,819,499 | 40,685,952 | 288,151.755 | 35, 183,782 | 36512,649 | 360.647,187 | 4 |
| 1852...... | 212,083, 723 | 51,171,423 | 40,408,207 | 304205,363 | 37,449,053 | 37,843,182 | 379,501,499 | 5 |
| 1853...... | 2, $2.5044,177$ | $54,402,0.3$ | 42,818.314 | 329,722,514 | 40,419,665 | 40,675,310 | 410, S17.493 | 84 |
| 1854. | 254,028,067 | 67,186,159 | 46.101,567 | 358,300.630 | 41,284,506 | 44.114.009 | 413,449,301 | 8 |
| 1855...... | 268,087,837 | 59,647,043 | 45.844, 63 | 863, 630.340 | 41.832,884 | $45853,0.2$ | 456.216.176 | 24 |
| 1556....... | 275,458,8こ4 | 64,901,321 | 47,894,718 | 358.309.853 | 41,851,0118 | 48,232,942 | 4i8,8:3,803 | 4t |

Cogtal Statigtlos of Twenty-five heading Cities and Towns of Great Rritaing giving tife numuer of Pybgons employed, and the l'ogtal lievenur, looal i:xpengeg, and Money hemittel in honey Ubjerg.

| Cllies. | Population. | Clarka, Subpostmantora, Recaivari, ete. | Leitercarrier. | Loeal Eispenses. | Pcotal Rávepar. |  | Manay Orders. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1855. | 1856. | lesued. | Paid. |
| london. | 2,3132.380 | 1397 | 1385 | 2215,043 |  | £834,027 | E $2,202,229$ | £3, 396,679 |
| Llverpool . . . . . . . . . . . . . . | 375,055 | 147 | 82 | 14,029 | 02.842 | 100, 379 | 858,646 | 3010,874 |
| Manchester . . . . . . . . . . . . | 816,213 | 160 | 123 | 12,705 | $78.1 \pm 1$ | 95301 | 325,020 | 686,809 |
| Glasgow | 329,097 | 123 | 134 | 10,090 | 57,783 | 63.411 | 153,810 | 192,199 |
| Edinhurg | 160,302 | 82 | 74 | 11,043 | 41,922 | 56.270 | 128,271 | 205,283 |
| Dublin . . . . . . . . . . . . . . | 268,361 | 124 | 109 | 10,930 | 48.410 | 05.103 | 266, 043 | 210,053 |
| Hirmlugham............. | 232, 541 | 00 | 6-4 | 7,364 | 35.695 | 48849 | 102,443 | 805.374 |
| Brislol. . . . . . . . . . . . . | 137.528 | 119 | 53 | 6.158 | 28,510 | 2,3,007 | 132,477 | 208,289 |
| Leeds. | 273,013 | 98 | 42 | 5,123 | 11,525 | 21,433 | 110,485 | 140,229 |
| Newcastlu . . . . . . . . . . . . . | 87.784 | 51 | 25 | 2,083 | 18,484 | 10,647 | 97,230 | 83,302 |
| 11u1l . . . . . . . . . . . . . . . . | 84.690 | 67 | 40 | 3,900 | 16,575 | 16,940 | 07,192 | 118,395 |
| Sheffleld | 185,810 | 46 | 22 | 2,64: | 14,509 | 14.782 | 83,604 | 13.457 |
| lath. | 54,241) | 82 | 47 | 8,366 | 13,765 | 14,984 | 78,04 | 72,907 |
| Bradford . . . . . . . . . . . . . | 149.5-4 | 37 | 25 | 1,864 | 11,824 | 13,136 | 45,032 | 41,228 |
| Ilclfust . . . . . . . . . . . . . . . | 100,300 | 39 | 20 | 1,969 | 10,35 2 | 19,122 | 41,506 | 44,375 |
| Expter . . . . . . . . . . . . . . . . | 40,689 | 69 | 30 | 2,807 | 10,118 | 11.015 | 05.899 | 77,995 |
| Norwleh. | 08.105 | 81 | 41 | 2,893 | 11,22.1 | 11,870 | 50,822 | 61,737 |
| Southanpton . . . . . . . . . . | 35,905 | 54 | 24 | 2,614 | 12,223 | 11,085 | 76,90t | 70,714 |
| Nottingham ............. | 67,407 | 52 | 28 | 2,216 | 10,528 | 11,960 | 80,727 | 66,701 |
| Aberdeen . . . . . . . . . . . . . | 71,073 | 53 | 90 | 1,707 | 10.018 | 11,190 | 82,509 | 42,426 |
| 1Portsmouth | 72,096 | 13 | 16 | 1,687 | 10,858 | 10,8.94 | 90,655 | 70,043 |
| 1'lymoalh. | 52,221 | 29 | 19 | 1,767 | 10,194 | 10,2:1 | 64,115 | 67,649 |
| Wolverhamplon ........ | 119,749 | 23 | 14 | 1,3:36 | S.080 | 8,750 | 50,213 | 33,437 |
| Verby . . . . . . . . . . . . . . . . | 40,009 | 44 | 20 | 2,171 | 8.202 | 8.657 | 40,445 | 43,194 |
| Lelcester . . . . . . . . . . . . . . | 60,634 | 27 | 23 | 1,649 | 7,227 | 7,853 | 47,089 | 45,189 |

The rate of letter-pastage between Great Britain and |two hundred pounds sterling each, ir annual profits, each of her colonies-over forty in number-is sixpence sterling, except to the Cape of Good Hope, Nstal, Labuan, Gambia, Island of Ascension, Falkland 1shands, and Vanconver's Island. A book-post, for the transaission of every species of printed matter, has also been established with the most of the colonice. The abeve table exhibits at one viow the population, annual postal revenuc, loeal post expenses-fir rent of post-ofilces, salaries, ete., not transportation-amount of money remitted by money orders in a year, tergther with (secead column of figures) the number of ilerks, postmasters, sub-postmasters, and letter-receivers, and (third coluons) the number of town and rural lotter-carriers $\operatorname{In}$ (and around) twenty-five of the leading eities and tewns of Great Britain. The population is from tho eensus of 1851 , the lecal expenses and number of persons employed, for the year 185.1 , the money orders for 1850 , and the postal revenue for both 1855 and 1850.

Tho British meney order system is one of the most impertant adjuncts to the post-office. This was first started as a private enterprise by certain officers of the post-office, ill the year 1792 . The commission charged was elght-pence to the pound sterling, makhig the whole bualness complicated and expensive. The conserguenco wae, it afforded little profit to the projectors, and but very trifing accommolation to the pullic. The three officers engiged in it received less than
the entire commissions amounting in a year to less than four thousand pounds. August 13th, 1838, the money-order office was attached to the post-offieo, and the officers compensated for their rights. At first the commissions were put at six-pence sterling for all orders less than two pounds, aul one and six-peneo for orders between two and five pounds. These cemmissions were reduced on the 20 th of November, 1840, to six-pence and three-pence respectlvely, No order is granted for more than five pounds. The number of persons employed in the money-order office at first was three. This was in 1838 . In 1841 there were thirtyseven, and now in the money-order office in London alone there are nearly two hundred. We have seen in a inble on a previous page [1558] the vast increas in the money-order business in the kingdom. In 1839 the number of orders was less than two hunired thousand, and the amount of money emitted about $\$ 1,5 \% 0,000$. In 1856 the number of orders had inereased to over six millions in number, and the amount in a year to about eixty million dollars. The money order is a draft fiom ono postmaster on another, and is paid at sight, In specie, to the person in whose favor it Is drawn. $\therefore$ is as anfe as a duplicate bsuk cheok before it is endursed, and if proper care is used in remiltting it; if it get lost or stolen, it will be impossible for any but the . Mrhtful owner to obtain the money on ft , even by committing forgery, as a casual finder
will not know the name of the person in whose favorit is drawn. It ts safe to aay that not one money order in five hundred thousand geta appropriated by the wrong person. All post-offices are not money-order othees.

There are in the United Kingdom 10,866 poat-offices. Of these 845 are head poat-offices, and 10,021 sub-postoffices. The number of post-offices where money orders are bought and sold is 2095 . The net protit on money orders during aeveral yeara was as follows In 1849, £322; in 1851, £7437; in 1854, £16,167; and in $1856, £ 22,674$. The commisalona averaged leas than one per cent.

One vast auperiority of the British Post-office consists in the facilitles for rapld delivery and local diatribution in citles and towna. The postage on each local letter being one penny, the eame as for lettera the longeat distance, there ls a very large profit on the local distribution of letters, admittling that the carriers deliver eyery thing "free" that comes from other places. The clear protits on the local diseribution of letters in London alone, after deducting the entire expense of letter-carriers, recelvers, and mail-men, ls over $\$ 900,000$ a year. It will then be seen that the term "frec-letter delivery" is a misnomer. By the figurea in a tuble on a previous page it will be seen that the number of local letters in London annually is over fortyseven millions. I'he machinery for the local diatribution of letters $\ln$ London consists of about 1400 lettercarxiers, one or two score of mail-men, with horse and cart, and about 500 sub-poatmasters and letter-receivers. In all the densely populated parts of London there are hourly deliveries through the day, and more than four-fiftha of tho Arst morning delivery is accomplished between the hours of soven and a quarter past nine. Nore than one half la done before nine o'elock. In addition to the "receiving-houses," where atamps can be purehased and letters can be posted at all hours of nlght and clay, thero are now in use a large number of "letter-pillars" of east iron. These convenient ieceptacles of lettera lave given great satisfaction, ant are rapidly coning into use in cities, towns, and country districts. Thers ia but one assignable cause for the extensive use, large income, and great profit, of the British I'ost-office. The charges are simple, uniform, and Jow ; the accommodationa numerous, ond the teilveries rapld and punctual. The estimated number
of book packagea that passed through the British Post. offiew in 1856 was $3,000,000$, the newspapera $71,000,000$ and the lettera $478,893,803$, being a total number of 552,893,803 packagea. This is probably one helf of the entire number aent by mail in the civilized world.

The peraonnel of the Post-office of tho United Kingdom la as follows:
Pontmater-general, Duke of Argylo...................
Secretary of the l'ost-offlee, liowland 1111, Esq.
Absistant secretaries,
Seeretaries for Scotland and Ireland
Surveyors. .
Heade of Departnente, etc.
Mall guarda.
Matigual
Cherka.
204
Letter-carricrand me.......................
1,573
Poatmasters and recelvers.
Total. 10,866
........................... 28,139
The expenses of the British Post-office for 1856 wero as follows:
Salarica, wagea, etc.
Ilereditary penalons

Buildings.
Mall conveyance hy railwa
Conveyance by concher, etc. 10,363 Conveyanco by water... Manufucture of postage atamps
Miscellaneous ...............

Iscellaneoos. $\qquad$
Total.
It is an lnvaria and loost-oftice the shall aubmit to a rigid examination, to ace if they possess the neceasary qualifications. Letter-carriers and sorters must be hetween the ages of 17 and 27 at the date of their origimal appointment, and shall undergo an examination by a physicisn to set if they possess the requisite health and atrength. Wages and salaries are not exorbitant, but none are discharged except for some fault or derelietion of daty; and after a certaia number of years of faithful service, they are nermitted to retire on a pension, amounting to from one third to twe thirds of their salnry, according to the length of time they have served.

We will close our account of the post-offices of Great Britain by giving the revenue and expenditure, the rates of postage, and the various improvementa lntroduced into the post-offices of the princip: I British colonies since the introduction of the penny postage into England in 1840. The revenne and expenses in each case are for 1854, exeept for Canada; which is for 18 ä.

| Cotoalea. | Nature and Date of Improvementa. | Rinta or Rates of Letrer Pontage. | Revenue. | Espeamea. |
| :---: | :---: | :---: | :---: | :---: |
| Barbadoes. | Iniand poat (1852), uniform poatage and stamyla. . | Cesta $2$ | \$13,205 | 49,250 |
| Canada. | leduced postage (1851) end prostage stamps...... | 1 to 5 | 357, 5.5 | 611,465 |
| Cerion.. | Iteduced portage (1846). . . . . . . . . . . . . . . . . . . . . . . . | 2, 3, 6, 9, nnd 12 | 33,95: | 42.955 |
| Gold const. . . . . . . . . . . . . | 1'ost establtaher In $1868 . . . . . . . . . . . . . . . . . . . . . . . .$. | 12, 15, and 24 |  |  |
| Iudia. | Vufform postage and postage stamp (1864-65) .. | $11$ | 1,375, 635 | 1,516,280 |
| Jeinaica | Charge by wright tnstead of picces (lS43)......... | $8,12,16,23$, and 24 | 6\%), 041 ) | 50.410 |
| Msutitiun | Instrict pont-ofices and postage ntampis . . . . . . . . | , 4 | 2,915 | 4,910 |
| Ner Brunswick | 1teduced joostage and pontage itampa (1851)...... | 6 | 40,650 | 51,145 |
| Ninwfundlend | Inland poste ( 1602 ), and untform pontagn (t868).. | 5 | 1.810 | 3,620 |
| New Suath Wale | lReduced postage and pontage atamps (1851-64).. | 2 and 4 | 120, 635 | 201,665 |
| N3w Zesland | Iniform postage and postage stamps ........... | 4 | 11,045 | 11.561 |
| Nova 8cotla | Reduced portage and wostage stamps (1561-66) .. | 11 and 5 | 27.330 | 10.585 |
| Trime Edward'a Isiand. . | Uniform postage (185i)..................... . . . . . . . | 4 | 4.715 | 10.455 |
| Bouth A cistralin. . . . . . . . | l'niform pontage t1854\%............................. | 4 | 87.385 | 47,740 |
| Tasmanta | Iteduced postage and pratage ntamps (1851-53) . . | 2 nud 4 | 40,0640 | 81.455 |
| Trinidad | I'niform jonlage and pertage stamps (1851)...... | $2$ | 7.665 | 9,2:3 |
| Victorla. | Iteduced rates and pontage Etampa (IS80)....... | 4 nud 8 | 834.745 | \%29.3\% |
| Weatern Australia | ledoced postage nud postuge stampm (ls5z'64) . . | 2 and 4 | $7,181)$ | 19,265 |
| Total............... |  | ........ | \$2.0407.445 | +4,439,215 |

Nearly or quite all of the improvements introduced into the colonial post-oflices appear to be the direet reault of the suceess of the penny postoge in Great liritain. It will be seen that many of them cling to the old absurdity of a number of ratea, all entallhig great inconvenience ou every person that mails a detiet; amd greatly multiplying the operations and iucreasing the labor and expense in the pestofllices.
V. Potal Statistica, and Rutca of Postage in other Countries.-There ars certain peculiarities and features of interest ia many of the Continental post-oflices of Eu-
rope that deserve notice, leaving the prominent statisties to be given In tabular form. In the German Postal Union, in Prussia, Switzerland, Spain, and some other countrien, the posi-oflice undertakes the carriage of passengera and small pareels as well as letters and wail mutter. In thly spucies of traffic the government does not hold an absolute monopoly, but, liko stage proprictora that get the mail contract, they are enaHed to nold an untue competition with all outsiders, resalting front their alvantages as mail carriers. In ucarly ill tiee Contlnental citles the govennuent post
makes ness.
The Contin charge at 10 m of lotte poatal The ha States, Britain Austria Hameth and six is used cany; aighths Brunsw ounce s equival Kingrle
by the
tensive soon co will ad system clpal n By insi ters, th authori there I adopte seale ro much light, ago in gle up charge one cen consitle unber of te half of cd werld. ted King-
makes tha dellvery of letters a part of the postal busl- | Spanish islands were considered slngle up to five-sixness.
The absurditlea in some of the postal systems of the Continental stntes conaist generally of a varied scale of charges, and the adoptlen of so low a standard of welght tis to make a great deal of uaeless labor in the rating of letters, besides puttling other states that enter into postal rolations with them to serious inconvenience. The half-ounce scala for letters is $\ln$ use $\operatorname{In}$ the United States, Peru, New Granada, Equador, Brazil, Grent Britaiu, Spain, Holland, Dermark, Iceland, Prusala; Austria, Baden, Bavaria, Frankfort-on-the-Maine, Hu:ahurg, Hanover, Labeck, Saxony, Würtemberg, and sixte 11 British colonies. The quarter-ounce acale Is uscel only in Franec, Swltzerland, Sardinia, and Tuscany; while a welght equivalent to one-third or threeeighiths of an ounce is used In Portugal, Belginm, and Brunswiek. Russia, Chill, and Bremen, adopt the ounce scale for eingle lettera, Sweden a weight that is equivalent to about five-eighths of an ounce, and the Kingdon of Naples atill uses the old plan of charging by the shoet. The half-ounce scale being in such extensive use, is it too much to expect that the time may soon conse when all the principal commercial intions will adopt that atandard, whent waiting for a ..nform gystem of weights and measures? France is the principal nation now in the way of such an arrangement. By lusisting on a quarter-ounce aenle for foreign letters, that government puis the publie and the postal authorities of other nations to great inconvenience, and there is nothing galned by It . Such a rato can be adopted as will prove remunerativo, and by having a seale relucithe to greater convenlence and simplicity, muelr labor is saved. To see thls in the most striking light, let us look at the former rates in use a few yeare ago in Spain. Domestic letters were conaidered single up to six-sixteenths of an ounce, and the postage charged was one real ( 5 cents), with tha addition of one cent for each eighth of an oonce beyond the velght considered as sliggle. Then all letters sent to the
teenths of an ounce, and charged thirty-five cents, wlth the addition of ten cents for every blxteenth of an ounce boyond! Is not thls excessive fineness as ab-aurd-except in degree-as it would be to welgh and reckon by the single graln? This old atisurdicy and Inconvenience in welghing and rating letters in Spaln has been swept away by the adoption of the regular half-onnco seale. In Great Britain, up to two ounces, there are hut three rates of postage for letters, while ln the United States there are nine rates. When will the convenlence and economy of simplicity In the arrangement of matters hrving such a vast detall as postal operations be elearly understood by the nations? Let us look at one fact. There are passing through the British Post-office in a year, in round numbers, five hundred million ( $500,000,000$ ) letters, and each one of these, in the various processes of sorting, rating, stamplng, mailing, and delivery, goes through not far from twenty (not less) distinet processes, bes:des what is done In bulk, like welghing and transportation. This is by the employés of the Post-office, Independent of all the eare and lahor of tho public in eonsidering the vaious charges, rates, weights, and arljustiment of differences. Here, then, are ien thousand million-let us see how it will look in figures, $10,000,000,000$-different and distinet handlings anil processes of separate letters, each of them consuming and requiring more or less time, toil, talent, and care; and every useless or nceded operation, turn, or thought, bestowed on a letter in its passage through the mill in Great Britain entalls at once an additionul five hundred million ( $500,000,000$ ) processes or operations on the postal laborers annually! Will these who make laws for the post-office think of these things? Will it, need it, any longer bo a matter of wonder that the annuil correspondence of Great Britain has inereased from 75 million letters to ahout 300 millions; that It ls all done for a peuny $n$ letter, and that about one half of the reveuue from this bource is clenr profit?

Postal. Bevence and Expenges of different Nations at mpfriment Pemiong, tooetiea witn tie Numben of Ratre of l'obtage on sin -Le lestreas, with thosp liates at the leresent lime (as neat as it oan deg gtateb from an
 in Cents, and the Revenuz and Dxppenge in loohiabs.

| Countrles, | belter Poatage. | Number of Ratea. | Daia. | Poatal Revenue. | Tosial Eixpenset. | Date. | Postal Revenue. | Pootal Expensea. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Austria | Cents. $211071$ | 3 | 1841 | \$3,153.400 | \$2,080. 315 | 1863 | \$4,634, 025 | \$4,109,300 |
| Ifaden | 21 to 71 | 8 | 1841 | 458.570 | 346,570 | 1853 | 481,515 | 374,015 |
| Bavaria | 24 to 5 | 2 | 1842 | 351,170 |  | 18:3 | $3 \times 8.240$ |  |
| Beiglum. . . . . . . . . . . . . . . . . | 2104 | 8 | 1849 | 688,095 | 303,060 | 1852 | T00,35 5 | 832.840 |
| Brazil . . . . . . . . . . . . . . . . . . . | 31 | 1 | 1848 | 10,980 | 82,405 | 1851 | 114,385) | 151,510 |
| 13remen. | 2103 | 2 |  |  |  | 1853 | 6,000 | 250 |
| Brunswlek | 11 to 3 | 3 | 1849 | 83,745 | 64,315 | 1852 | 105,060 | 74,700 |
| Chill | 5 | 1 | -•.. |  |  | 1853 | 70.45 | 45545 |
| Doumark | 2 | 1 | 1841 | 347,780 | 271,010 | 1853 | 354,815 | 36.025 |
| Equador. | 12 to 30 | 4 | -••• |  |  | $18: 2$ | 12,475 | 11,140 |
| France. | 2 to 4 | 2 | i3i7 | 10,659,135 | 7,005,405 | 1853 | 9,321,90) | 0,023,925 |
| Frankfort. | 1 to $7 t$ | 4 |  |  |  |  |  |  |
| Grent Itritala | 2 | 1 | 1810 | 7,797,332 | 4,209,B85 | 1856 | 14,330,760 | 8,301,145 |
| Itamburg. | 21 to 71 | 3 | 1851 | 8! 730 | 16.585 | 1853 | 41.045 | 15,810 |
| Janover.. |  | 1 | 1849 | 178,810 | 02,350 | 1852 | 15i,00 | 60,200 |
| Hollanil | 2 to 6 | 3 | 1849 | 802,735 | 109,635 | 1852 | - 0,085 | 311,905 |
| Iceland. | Freo | 1 | .... | .... | .... | - |  |  |
| Lsüheck | 21 1071 | 3 | . . . | .... | .... | 1852 | 22,085 | 13,105 |
| Naples. | 2104 | 8 |  |  | .... |  |  | *.. |
| New Granada | 8 2012 | 2 | $18^{\prime} 0$ | 83,380 |  | 1853 | 101,625 | $\cdots$ |
| Oldenburg | 24 20 3 | 2 | 1351 | 133,030 | 6-1,650 | 1852 | 61,805 | 60,600 |
| Peru ... | 6 to 48 | 6 |  |  |  | 1853 | 83.000 | 38.000 |
| Portugal | 9t | 1 |  |  |  | 1853 | 184.510 | 188.375 |
| 1'russia. | 2110 I | 3 | 18.43 | 5,615.130 | 4,479,220 | 1843 | 0,427,080 | 5.60555 |
| Russia. | 8 | 1 | 1842 | 3,3.7.745 | 1,819,040 | 1859 | 3, 565,490 | 2,419.810 |
| Bardinla | 4 | 1 | $185 \%$ | 0: 5,080 | 835, 190 | 1892 | 4 42.2530 | 398,435 |
| Saxoliy | 1 to 41 | 3 | 1849 | 688.780 | 338,185 | 1852 | 667,885 | 433,370 |
| Spain. | 5 | 1 | 1844 | 1,271,000 | 703,1100 | 1852 | 1,031,8.0 | 1,041, 550 |
| 8weden. | 2 to 10 | 9 | 1839 | 200,090 | 220,600 | 1852 | 331,440 | 8 21.440 |
| 8wizzeriand | 1 to 3 | 8 | 1800 | 1,035,734 | 890,130 | 1852 | 1,312,025 | 012420 |
| Tuacany. | 24 | 1 | 1589 | 152,075 | 70,5 5 | 18.2 | 205,545 | 14.415 |
| United States. | 1 to 10 | 3 | 1840 | 4,543,523 | 4,719,246 | 1850 | 7,6\%0,822 | 10,497,808 |
| Wartemberg. | 1 to 4 | 8 | .... | .... | .... | 1852 | 884,860 | 371.435 |

Nearly all of the European (continental) nations $\mid$ financial results of the different postsl systems can not inake It a part of their postal business to transport pas-- be given. The total annual revenue of the post-offices sengers and parcels as well as malls. In conseque.,eo of thls arrangement, an accurate comparison of the on the Contlnent of liurope, at the latest dates glven above, ameunted to $\$ 32,403,40 \overline{\text {-p }}$ probably one thlrd
of this being for goods and passengern-and the total annual expenses to $\$ 24,362,450$. The post-offiees of South Anerica had an annual revenue of 8368,890 , with expensea to the anount of $\$ 249,235$. If we ase sume that one gross third of the postal revenue and expenses on the Continent of Europa are on account of passenger and parcel traftic, we shall be able to make the following summary statement of the postal affairs of different nations and different parts of the world; the figures standing exclusively for the legitimate postal trafic-letters, papers, and printed documents:

| Natioas | Revenue. | Experaee |
| :---: | :---: | :---: |
| Great Britain | \$14,931, 770 | 48,30t, 145 |
| Hritish Colontes ............ | 8,497,490 | 3,146,290 |
| United States . . . . . . . . . . . . | 7,620,822 | 10,407,668 |
| Total | \$24,458,012 | \$ $21,865,243$ |
| Continental Europe | \$21,006,270 | \$16,241,688 |
| South America.... | - 336,890 | 240,235 |
| Total | \$21, 1843,160 | \$16,410,868 |
| Grand total.......... | \$46,401,172 | 438,946,111 |

If we add to the above the one third of the postal revenue of European countries that was deducted for parcel and passenger traffic, we shall have tho sum of \$57,201,307 as the total annual revenue of all the postoffices in the world (that wo have given above), and $\$ 46,466,928$ as the totai annual expeases. Of the legitimate postal traffic- letters and printed mattermore than one half of the revenue is in the United States, Great Britain, and the British colonica.

A fair estimate of the anount of letter correspondence may be arrived at hy the foliowing catculation; The ratea of poatage in Great Inritain being much low-
er than in most other countries, we may assume that one dollar of revenue in that country represents as many letters as twn dollars throughont the rest of the world. The annual postal revenue of Great Britain is $\$ 14,339,770$; of the British Colonies, $\$ 2,497,420$; and of the rest of the world, $\$ 20,563,982$. From thls we conclude that the correspondence by mail in Great Britain and the british colonies amounts to rathar more than the correspondence in all the other nations referred to. The correapondence through British poat-offices anounts to about $500,000,000$ letters annually, andincluding this number-in all the nations under consideration, not far from $1,000,000,000$. In this calculation, of course, we do not include China, Turkey, ant other countries, of which no statistles are given. Of the tifty-one nations and colonies mentioned in the preceding and a former table (page 1560), thirty-six adopt the half-ounce scale for letters. T'en of the nations and nine Britlsla colonies have uniform postage, $u$ hite in one only (Iceland) the postage is frre, the entire expense being defrayed from the national treasury.

The following table has been complled to show the getual and conparative amount of money paid in postages in each of soven different countries, during the same year (1853), along with the population, and col. unns, also, showing the cost of each thousand letters, together with the number of letters in a year, the number for each thousand persons, and the money paid annually (on the average) by each thousand persons. The last line gives the same atatistics for Great Iritain for 1839, the year before the penny poatage was established. Except this last, the statistice are all for the year 1853:

| Countries. | Popnialion. | Postal Revenue. | Putal Expenets. | Number of Letters. | Cous of 1000 Letters. | Revenue per 1090 Perbons. | Letters per 1000 Periont |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Switzerisnd | 2392.640 | \$447,672 | \$ 841,028 | 10.773.6ะ ${ }^{\text {d }}$ | \$23 | $\$ 187$ | 8.230 |
| Holtand | 3,050,691 | 288, 162 | 156,784 | 18,849.869 | 28 | 94 | 4.867 |
| Helgium . . . . . . . . . . . . . . . . . . . | 4,426,202 | 75.5,648 | 327, 118 | 11.521,9\%s | C6 | 171 | 2,603 |
| Spain.. | 18,486,218 | 1,281,761 | 1,095, 398 | 30,775,'s8 | 42 | 94 | 2.209 |
| Frunce. | 35,783,170 | 1,321,p60 | 6,023,925 | 157,010,6,93 | 48 | 260 | 4,102 |
| United 8tates | 2:1.191,876 | 6,140,724 | 7,982,757 | 102,189, 14: | 38 | 266 | 4,404 |
| Cireat tiritain | $27.833,501$ | 12,572,039 | 7,009,399 | 410,817,489 | 81 | 462 | 14,7ti0 |
| Great Bittain, $1839 . . . . . .$. . | 215,488,910 | 11,953, 318 | 3,784,997 | 88,4710,596 | 145 | 443 | 3,065 |

In those countries where the post-office engages in passenger and parcel traffic, the revenue has, in the above table, been given onjy for the letters and maii matter.

V1. Mistury of the United States Post-office.-IIaving taken a rajid survey of the postal affinirs of other countries and other times, we will glance at the progress and condition of tine pst-oflice in the United States. Probably the earliest mention of a legal post in the British colonies of North America is found in the General Court records of Massachusetts in 1639. We tind It there recorded as follows: "It is ordered that notico be given, that Richard Fairbanks, his housa in Hoston, is the place appointed for all letters whlch are brought from beyond the seas, or are to be sent thither, are to be left with him; and ho is to take care that they aro to le dellvered or sent according to the directions; and he is allowed for every letter $1 d$. , and must answer all miscarriages through his own neglect in this kind, provided that no man be compelled to hoving his own letters except he please." In 1667 , in consequence of the uncertainty and luss attending correspondence, a petition was signed by some twenty persons, "To the Monorable Gencral Court, now sitting in Boston." That petition set forth that "several of us belite innsible of the loss of letters, whereby merchants, especially with their friends and empioyers in foreign parts, are greatly damnitied; many times the letters are inputed and thrown upor the exchange, so that those who will may take them up; no person, without some satisface tion, leing wiiling to trouble their houses therewith," ote., etc. They then request that the honorable court "will deputo some mete person to take in and convey letters according to directions." After due deliberation, they did "make choice of Mr. John Ilaywari, the
scrivencr, to be the man." There are no records to show how long Johu Ilayward kept his office, or what amount of busineas he alid. In 1657, tise colony of Virginia passed a law reçuiring each plantation to provide a messenger to convey the government dispatches as they arrived, each planter in succession sending a messenger to the next, and so on to the final destination. The penalty for neglecting this duty was a hogshead of tobacco. In Jtirit Governor Lovelace, of New York, established "a post to goo monthly" from New York city to lloston and hack. 'This purported to be in olvdience to his Majesty's commands, "who enjoynes sll inis subjects in their distinct colonys to enter into a strict allyance and correspondency with each other, os likewise for the advancement of negotiation, trade, and civill commerce, and for the speedy intelligence and dispatch of athyres." It gave notice that a messenger would start on the tirst of January, 1673, and that "If any, therefore, have nuy small letters or portable goods to be conveyed to Llartfori, Connecticatt, Boston, or nay other parts on the road, they shail be carpfully delivered according to the directions, by a sworne mrssenger and post, who is purposely empiojed in that affayre. In tha interim, those that bee disposed to send letters, lett them bring them te the Secretary's office, where, in a lockt box, they shall be preserved till the messenger callis for them. All persons paying the post before the bagg be sealed up." The mails at this period dil not appear to have a very rapid transit. The post-ilhers set out from New York and lloston simultancously, on Monday morning, and on the Saturday evening following, they met at the half-way house, Saybrook, Connecticut, where they exchanged mails, and each wended his way back, arrisiog on Saturday of the following week. At the present time, resents as est of the Britain is 20 ; and of is we con. at Britain nore than 8 referred 108t-offices lly, andmiler conthls calcuirkey, and iven. Of in the pre--six adept he nations age, while entire ex. bury. show the id in post. luring the a , and col. nd letters, ; the num. y paid an. sons. The Britain for stablished. year 1853:

Letten par
to00 Pervons.
8.239
4.367

2,603
2.219
4.192
4.404 14,260 3,025
records to ce, or what ony of Vir. to provide patches as ling a meslestination, a hogshead New York, New York pe in olerioynes sll hter into $n$ Is other, as trnde, and igence and messenger , and that ir portable icott, Bosull be carp. $y$ a sworne red in that isposed to Secretary's preserved bus paying re mails at iul transit. nd Beston " 1 the Sat-linlf-way exchanged riving on 'sent time,

Instead of two weeks being requiled, and as semimonthly mail only, tho malls are transported between Buston and Now lork three times a day, each way, in from eight to eleven hours; two weeks belug aniple tims to convey the malls from New York to Copenhagen, Denmark, to Marselles, Berlin, Vienna, or Trieste. It is shrewdly suspected that the fatherly care exhibited by King Charles for a muil servica, and a "strlct allyance and correspondency" between the American colonies, was with an eye to the proita, which all went to a member of the royal fainily.

In 1683 Willam Penn established a post-office In l'ennsylvania, and appointed Henry Waddy postmaster. The mails were sent to the principal tovens in Pennsylvanla, and to the neighboring colonies, once a week, the times of departure belng regularly published "on the meeting-houso door and other public places." Postal affials in the colonics roceived marked attention in England, in 1685, on the accession of Klng James, who owned the Post, and put the profits in hls own privy purse, and an order in comncil was made "for the better correspondence between the Colonies of America." In 1686 an order was mado in Now York that all letters coming from beyond sea should be dolivered at the custom-house. The postage was "fourpence half-penny for a single letter, and nine-pence for every packett or double letter," "one half of the money to be given to the poor," under the direction of the Captain-general and the Council, and the other half to the oflicers of the custom-housc.

In 1601-'92 Thomas Neal, by letters patent, was appointed Poatmaster-general, with authority to erect post-offices in the American colonics. It appears, however, that he did not aet hlmself, but appeinted Colonel Andrew Llamilton, of New Jersey; Postmastorgeneral for all the colonies. In 1692, by the recommendation of Colonel Hamilton, the Common Council established a post-office in New York city. It was located in Brondway, opposite the end of Beaver Street. The rates of postage were, for eighty miles or under, four-pence half-penny; from New York to Phlladelphia, nine-pence; and to Virginia, twelve-pence. The cxpense, however, was found grently to exceed the income. For ten years there was no regular Post further east than Boaton, or further west than Philadelphia. Lord Cornbury wrote home, in 1704, saylng "there is no other Post upon all this continent. If i have any letter to send to Virglnla or to Maryland, I must either send an express, who is often retarded for want of boats to cross those great rivers they must gr over, or else for want of horses; or else 1 must send them by some passengers who are golng thithor. The least I have known any express to take hence to Virginla has been three weekg." At this poriod tho mail was carricd twice a month in stage-coaches, between loston and New York and Philadelphia; and from New York to Albany by a foot-post, onco a month. In 1732 a General l'ost-office was establiahed in Vlrginla, and a post-oflice in each ceunty. In 1736 there was a weekly mail from Phlladelphia to Now York and Boston. In 1737 Colonel Spottswood, formerly Governor of Virginia, appears to have been Postmaster-general, and he appointed Benjamin Franiclin postmaster at Philadelphia. The following is an ndvertisement from Frankilin's newspaper at this period:
"October 27, 1737.-Notice is hereby given, that the l'ost-office of Philadelphice is now kept at B. Franklis's, in Market Street, and that IIenry Pratt is appointed riding postmaster for all stages between Philadelphia and Newport, in Virginia, who sets out about the beginning of each month, and returns in twenty-four days, by whom gentlemen, merchants, and others, may have their letters carefally convayed, and business faithfully transacted, he having giren good security for the same to the Honorable Colonel Spottswood, Postmastergeneral of all his Majesty's dominions in America."

Culonel Spottawcod died $\ln$ 1753, and the home
government appointed Franklin as hls san.sessor, and he held the office for twenty-one years, tlli 1774, when the dlfficultes occurring between the colonles and the mother country, Franklln was unceremonlously turned out of office. IIe sympathized too strongly with the people of the colonies in thelr wrongs, hardships, and oppressione to be a fit instrument of the crown. IIo la not the last or the only instance of a postmsster losing hls office for polltical opinions. During Franklin's administration of the Colonial Posts, numerous improvements wers made. At one tlme he took his own conveyance, and, in cumpany with his daugliter, made a journey of several hundred miles, visiting all the principal post-offices In l'ennsylvania, New Jersey, New York, and New England. With that sttention to details which alwaya marks the man of large business capaclty, he set ahout making numerous reforms in the administration of the Post. He had as associate or assistant, Mr. WIlllam Ilunter. By the terms of thelr appointment they were to have six hundred pounds a year, prorided they could get it! Franklin, in giving an account of the Post-oflice during his admlnistration of its affairs, after ho had been turned ont of the office by George the Third, makes the following pithy summary:
"The American Post-office had hitherto (i.e., before 1753) never paid any thing to that of Britain. We were to have six bundred pounds a year between us, If we conld nake that sum out of the profits of the office. To do this, a variety of improvements were necessary; some of these were inevitably, in the beglnning, expensive; so that in the first four years the office became above nine hundred pounds in debt to us. But it soon after began to repay us; and before I was displaced hy a freak of the minister's, we had brought it to yicld three tlmes as much clear revenue to the crown as the Post-office in Ireland. Since that imprudent transaction, they havo reccived from itnot ono farthing !"

The practice of sending newspapers in exchange, free, dates from Franklin's administration of the Colonial Post-office. He was editor and publisher of a newspaper, and he received his exchanges free, and accorded the sume privilege to other journals. The philosopher undoubtedly soon recovered his equanimity after that "freak of the minister's," for though he suffered officlal decapitation, he was soon after reinstated in office by a more competent authority, being unanimously appointed Postmaster-genernl of tho Culted Colonies by the Continental Congress. In 1776 he vacated tho office, on belng appointed embassadlor to France. On the 7 th of November of that year, Richard Bache was appointed to the office. IIe held the place for a little over five years, and on the 28th of January, 1782, Ebenezer Hazard was appolnted Postmaster-general, and renained in office until the adoption of the Constitution, in 1789, when Samuel Osgood was appointed. The different incumbents of the office of Postmaster-general since the Revolutionary war broke out were as follows:

Benjamin Franklin, in 1775; Richard Bache, 1776; Ebenezer Hazard, 1782; Samuel Osgood, 1789; Timothy Pickering, 1791 ; Joseph Habersham, 1795 ; Gidcon Granger, 1802; Return J. Meigs, 1814; Join M'Lean, 1823; William T. Barry, 1829; Amos Kendall, 1835 ; John M. Niles, 1840 ; Francis Granger, March, 1841 ; Charles A. Wickliffe, September, 1841; Cave Johnson, 1845; Jacob Collainer, 1849 ; Nathan K. Hall, 1850; Samuel D. IIubbard, 1852; James Camplell, 1853; and Aaron V. Drown, in 1857.
The rates of postage from 1776 to 1816 were from 7 to 33 cents, according to distance. In 1816 the rates were fixed hy act of Congress at $6 \frac{1}{4}, 10,12 \frac{1}{2}, 18 \frac{3}{3}$, and 25 cents for each slngle letter, according to distance. These rates remained till the act of 1845 , which established the balf-ounce scale for single letters, and ixed the rates at five and ten cents.

The act of March 3, 18jl, establithes the following | of time after they fail or miacarrys. The neage of our
rates: one cent for drop letters, three centa for all singlu letters (hali ounce), for evory diatance not over three thousand milea, when prep:aid, and flve centa if not prepaid; and double these rates when over three Hiousand miles. The law of 1855 fixed the rates at one cent for drop? etters, three cents for letters all distances under three thousand miles, and ten cents when over that distance, and all to he prepaid, or retained and sent to the dead-letter office. This law went into ojeration, as far as it was fonud practicable, on the first of April, $185 \overline{5}$. difter the firat of January, 18066, all lettere were required to be prepaid by alamps. In March, 1850 , s law was passed making prepayment compulsary on ail transient printed matter; and this law went into eset a the 1st of April, 1856. The incici cnicneen a it ir, 4 nsistencies of the law making

th:... . 2 unch. I thousund dallare, nearly all lit: . ... urned o the writers in a brief period government is in strong contrast to that of Great Brit. ain, where all dead ur returned letters aro sent to their writers at once.

It ls inatructive to obnerve the progresp of our " nstal correspondence beyond the increase of populatic 7 ani the augmentation of almost all other national mestic Iransactiona. During cach period of ten. nis, from 1790 to $\mathbf{1 8 5 0}$, the average increase of the $\mathrm{pos}_{\text {, ' }}$ 'a tion of the country lias heen 04 per cent., the ex, arts 42 per cent., the expenses of government 96 per $\&$ nt., Post-ollice revenue 120 per cent., and corresp ch ence uy mall 140 per cent. Thus, whlle the populn. T of the country has increased in cixty years aeven-iold, letter correapondenee has increased four hundied and forty fold. nr aixty-throt. liwes as fast an the population. it 1790, the letters sent by mail in the United satas were estlmated at 265,545 ; and in 1856 131,450,409. The following table gives, for a peried

Statiktica of the Inited Etatea lobt-officio.

| Yea\% | $\begin{aligned} & 5 \text { prest. } \\ & \text { opficen } \end{aligned}$ | $\begin{gathered} \text { Citer of } \\ \text { Arcad } \end{gathered}$ | tirpeure of Tramportation. | $\begin{gathered} \text { Tutal } \\ \text { Expleaices } \end{gathered}$ | Kevenue. | Number of Letters. | Population | Letteri for esch Permon. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1790. | $7 \overline{5}$ | \% 615 | 422.181 | \$32,149 | 437,435 | $2 \mathrm{ze5}, 515$ | 3,130,000 | 0067 |
| 1791. | 5.) | 1,406 | 23.2 .3 | 36.697 | 40.294 | 3.405 | , | .... |
| 17:22. | 195 | 5.618 | 32, 731 | 14.531 | 67.444 | 472,108 |  |  |
| 1793...... | $2(1)$ | 6,042 | 44,734 | 72040 | 104.747 | 7 m 9.929 |  |  |
| 1794. | 45.1 | 11, 84 | 63,006 | 89.073 | 128.947 | 902,629 | . $\cdot$. |  |
| 179. | 453 | 13.207 | 75,359 | 117,593 | 160,620 | 1,124,340 |  |  |
| 1790. | 468 | 13,217 | 81,481 | 131,652 | 1! 6,1067 | 1,368.409 |  |  |
| 1797. | Sost | 16.183 | 89,352 | 150,114 | 213.9! 8 | 1,407,480 |  |  |
| 1798. | 633 | 16.150 | 1117.014 | 179.184 | 2:12,077 | 1,6331,839 |  |  |
| 1599. | 677 | 16,180 | 31945 | 188,038 | 264.849 | 1,853,922 |  |  |
| 180. | ${ }^{103}$ | 20.517 | 128.64 | $213.00^{4}$ | 230,804 | 1,960,6:8 | 5,300,600 | 0.9\% |
| 1801. | 1,025 | 22,309 | 152.450 | 2NK, 181 | 309,443 | 2.243,101 | - | .. |
| 180. | 1.114 | 25,315 | 174.671 | 281,016 | 327,045 | 2,289,315 |  |  |
| 3913. | 1,25 | 25, 315 | 205,110 | $3 \mathrm{Sa} 2 \mathrm{SC4}$ | 351,523 | 2.462.761 |  |  |
| 1504. | 1.46 | 29,500 | 20585 | 3:7. 502 | 389,450 | 2,i20,150 |  |  |
| 18.5 | 1.508 | 31,016 | 239,6:5 | 377,367 | 421,373 | 2,949, 战1 |  |  |
| 1800. | 1,7:0 | 33.431 | 260,083 | 417,284 | 443,106 | 3,122, 12 |  |  |
| 120\%. | $1 . \times 4$ | 33,455 | 232, 51 | 453, 65 \% | 478.863 | 3,351,841 |  |  |
| 188. | 1,944 | 84.0 \% | 305.493 | 401, $2: 8$ | 400,5e4 | 3,228,048 |  |  |
| 1509. | 2.112 | 81.085 | 332,917 | 499.112 | 578,634 | 3.546,439 |  |  |
| 1810. | 2.30 | $384 \%$ | 327.066 | 4.5.569 | 651,68 | 8,861,789 | 7,24),000 | 0533 |
| 311 | 2.403 | 340,1116 | 310.100 | 483, 099 | 687,247 | 4,110,i29 |  |  |
| 1812. | 2610 | 39,378 | 3417.626 | 549.165 | [49,203 | 4,644,4i6 |  |  |
| 1813. | $274)$ | 3., 849 | 439,559 | (81,012 | 713,155 | $4,922$. (ES |  | , |
| 1914. | 2.870 | 41.736 | 475.602 | 727,106 | 730,350 | 5, 112,80 |  | ., |
| 1315. | 8.000 | 43, 06 | 487,7\%11 | 748,121 | 1,043,045 | 7.301 .456 | .... |  |
| 18.0 | 3.200 | $48: 76$ | (21,40 | 804.022 | 961,782 | 6,732,474 | .... |  |
| 1817. | 345 | 51.800 | $\mathrm{SCO}_{6 \times 159}$ | 110,515 | 1,0022.173 | $8.023,784$ |  |  |
| 1818...... | 3.618 | 50.473 | 66.611 | 1, 035,504 | 3,130,.85 | 9,041,880 |  |  |
| 181\%. | 4.0 | 67.594 | 717,881 | 1,117,661 | 1,204,737 | 0,097, 890 |  |  |
| 1 $1 \times 20$. | 4.500 | $\because 4.492$ | 752.46 | 1,160,020 | 1,111.0:7 | $8.895,415$ | 9,1.38,040 | $09.3{ }^{1}$ |
| 1581. | 4,65) | T8 80\% | 815 cisi | 1,182.923 | 1,060,658 | $8,453,244$ |  |  |
| 1822. | 4.769 | 8.763 | T8808 | 1,107.872 | 1,117,4!0 | $8.1815: 20$ | .... | $\ldots$ |
| 18.3. | 5,043 | 84, 8450 | [67,4t4 | 1,169,890 | 1,114345 | 8.914,700 | .... |  |
| 18.4. | 5.182 | 84860 | 76\% 639 | 1.169, 19. | 1,161,812 | 9,254,496 |  |  |
| 1595. | 6,67\% | 94.05 | $785,6.10$ | 1,296.594 | 1,202,061 | 19,016,488 |  |  |
| 1825. | 6,150 | 9105 | F4, 100 | 1.309 .816 | 1, 5 , 8,417 | 11,110,336 | .... | .... |
| 15.7 | 7,100.3 | 105.336 | 942.545 | 1,873,239 | 1,473,551 | 11,7*9,4^8 | .... | $\ldots$ |
| 18.S. | 7, crit | 114.59 | 1,086,314 | 1,623,3893 | 1,558,184 | 12,785,1078 |  |  |
| 1823. | 8,130 | 114,789 | 1,183,616 | 1,782,133 | 1,707,41; | 13, t :50,344 |  |  |
| 1830. | 8.451 | 115,176 | 1,74,014 | 1,932,718 | 1,450,653 | 13,801,664 | 12,800,000 | 10.3 |
| 1831. | 8,681 | 118,6a0 | 1,258,9026 | 1,930,123 | 1,997.81: | 17,09?,818 | .... | .... |
| 1832. | 0,205 | 104.46: | 1,452, 207 | 2,266, 112 | 2.254570 | 20, 327, 180 |  |  |
| 1533. | 10.1:7 | 119,0:6 | 1,834 081 | 2,980,415 | 2,610,609 | 48,48,8.89 |  |  |
| 1531. | 10.1 ¢\% | 112,5\% | 1.922,431 | 2, 094,501 | 2.823,707 | 25, 443, $3: 3$ | .... |  |
| 1835. | 10, 010 | 112,774 | 1,719,007 | 4,757,350 | 2,993.657 | $20.442,013$ |  |  |
| 1836. | 11,0.1 | 118,20.8 | 1.683,002 | 9,755,624 | 8.398,405 | 30.588,005 |  |  |
| 1537. | 14,667 | 141,242 | 2,081,750 | 3,308,42y | 4,160,6 5 | 36,540,445 |  |  |
| 1839. | 12. 519 | $1^{2} 48: 8$ | 6, 134,308 | 4,6:1,837 | 4,235,078 | 83,115,748 |  |  |
| 1539. | 12,780 | 133,094 | 3,501,122 | 4,651.718 | 4477,614 | 40.298,5 Lh |  |  |
| 184. | 13.448 | 153.7:9 | 3,213,043 | 4718.236 | 4,643.622 | 40.891 .063 | 17,069,000 | 2325 |
| 1841. | 13,778 | 154,046 | 3,034,814 | 4 49:, 528 | 4,4,7,7:6 | 39,609,634 |  |  |
| 1842. | 12.33 | 149.783 | 4,1,92,100 | 5.674.752 | 5,049.507 | 45, 245, 503 | .... | ... |
| 1843. | 13,814 | 142, 24, ${ }^{\text {a }}$ | $2,88,512$ | $4.37475 \%$ | 42:6,225 | 38,006,025 |  |  |
| 1544. | 14.10.3 | 14.687 | 2,98?, 447 | 4.296,513 | 4,237,289 | 39, 185,592 |  |  |
| 1845. | 14,193 | 143,944 | 2,8, 8,6;00 | 4320.733 | 4.476,84\% | 89,969,979 |  |  |
| 1846 | 14.601 | 140,679 | 2,507,4035 | 4,084,3:32 | 4,189,190 | \$1.879 781 |  |  |
| 1917. | 15,746 | 153,819 | 2.47048 .6 | 3,971,275 | 4,013.117 | 47,485, ${ }^{\text {a }}$, |  |  |
| 1819. | 16,159 | 103,219 | 2,448,760 | 4,320,85) | 4.101.078 | $5 \%, 364.819$ |  |  |
| $1 \times 4$. | 16,447 | 167, 103 | 2.494, 0.8 | 4.459 .049 | 4705.176 | 69,157,862 |  |  |
| 1850. | 18, 117 | 178.672 | 8,1095, 9.74 | $5.212,5 \mathrm{~cm}$ | B, 051,071 | 69.424,453 | 23,192,000 | 29.4 |
| 15.51. | 3:17!6 | 196,290 | 4, 116.683 | 6,024 504 | 0,727,867 | 83,062.785 | .... | .... |
| 155. | 20901 | 214,284 | 4.130,907 | $8,108.459$ | 6,523,082 | 68,790, 5.2 |  |  |
| 1883. | 22830 | 217,743 | 478.005 | 7,092,767 | 5.140,724 | 102, 139, 148 |  |  |
| 1654. | 23148 | 219, 818 | 4,823 785 | $8.577,44$ | $6,688.587$ | 119,684,418 |  |  |
| 1855. | 24416 | 227,9018 | 6000335 | 0,168 842 | $7.8 * 6.17 \%$ | 120,723,425 |  |  |
| $18^{\circ} 6$. | :5.505 | 239,642 | 6.705 .630 | 10,407,869 | 7.050,532 | 131,400,40) | 28,000, 000 | 4008 |
| Total.... | . | $\ldots$ | 490,2:5,38.J | \$1E5, $460,52.6$ | \$148,887,649 | 1,6i,2,10t 64s | -.... | - $\cdot$. |

The 1856, $\mathbf{w}$ The lerat then $8 . a$

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VII.

Unuted previous and the 1830-4 date of increase econom. country enco inc 478 mill bui iill necessar show cle
IIIIIthe Post reductio up to thr thereaft
all from prosperi reductlo confiden that the
kept pa been ma at Brit. to their
ir netal lis 7 ani

The total 'umber of mall rontea on tha 80th of June, 1856, way 7972 , and the number of contractors 6372. Tha leagth of routes and annual amount of transportations and as follows:

| K izd of Eprviee. | Lsagth of routas | Annual Trunspertation. | $\begin{aligned} & \text { Cosi } \\ & \text { per Milo. } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
|  | M! ${ }^{\text {ana }}$ | dilea. | Cus. ${ }^{\text {a }}$ |
| 8 temmbot. | 14, 155 | 4,240,170 | 203 |
| Raltrond. | 20.323 | 21.809 .496 | 100 |
| Soac' | 60, 453 | 13,1.4,001 | 70 |
| laferlor grades | 153, 016 | 26. 13,440 | 50 |
| Total millee | 230,442 | 7:.0.47,857 |  |

The revenue and expenditures of the Post-office, and the items of which they wer's eomposed, for the jears 18.5 and 1856, were as iollows:


|  | 1855. | 1055. |
| :---: | :---: | :---: |
| Transportatlou of toe mits ... | \$0,070,335 | \$5,7t5, 640 |
| Compensation to postmasters... | 2,135,335 | 2,102,831 |
| Pay of post-affice clerke........ | 702,017 | 759,081 |
| P'ay of letter-carriers............ | 143,813 | 162,015 |
| Dopredations and apectal agents | 04,454 | 03,502 |
| Ship, steamboat, and way letters | 18,706 | 17,013 |
| Adverllaing . . . . . . . . . . . . . . . . | 75,457 | 6460.3 |
| Blanka. | 91,138 | 48,5,3 |
| Mail baga . . . . . . . . . . . . . . . . | 61,480 16.173 | 48,9]6 |
| Mall lacks, keys, and stampe ... | 16,173 | 11,687 81,027 |
| Vrapping-paper . . . . . . . . . . . . . | 45,467 | 81,027 20,706 |
| Poalage stampa. . . . . . . . . . . . . . | 11,90. | 20,706 |
| stamped envoloper . . . . . . . . . . . | 40,035 | 64,680 |
| t)ffice furniture . . . . . . . . . . . . . . | 5,250 | 5,000 |
| Ollictal letters.. | 8 | .... |
| Repayment for dead lettors. . . . | 7 | ... |
| l'eatage stanips rodeened...... | 10 | . |
| l'atent padloek . . . . . . . . . . . . . . | 5,000 |  |
| Mscellaneolls paynients........ | 103,011 | 200,050 |
| Bulance padel Creat Britain ..... | 802,800 | .... |
| Halance pald Bremen ........... | 13,465 |  |
| Halance due Great Britaln...... | 71),623 | 23,849 |
| Balance due Bremen . . . . . . . . . . | 6,130 | 8.633 |
| Bad debte . . . . . . . . . . . . . . . . . . | .... | 2,58: |
| Total oxpenses.. | \$10,041,005 | \$10,407,868 |

Mevence of the Cinted States Poet-opylel.

|  | 1958. | 1856. |
| :---: | :---: | :---: |
| Better postage . . . . . . . . . . . . . . . . | \$3,234,650 | \$1.751.707 |
| Stamps sold . . . . . . . . . . . . . . . . . | 2,511,318 | 4, 235,446 |
| l'ostege on printed matter...... | 633,928 | 632,746 |
| L.eltec carriers . . . . . . . . . . . . . . . | 143,313 | 162.016 |
| Dead letters | 4,076 | 8.083 |
| Registered lutters. . . . . . . . . . . . . | -•.. | 31,406 |
| Finea. | 25 | 70 |
| Emaluments returned. | 77,03 | 7.1.300 |
| Extra compensation overchargod | 23,330 | 14,716 |
| Llalanee dus by l'russia . . . . . . . | 03.604 |  |
| Miscellaneons receipus. . . . . . . . . | 7,753 | 5,513 |
| Appraprlatlan for gov'ut. jostage | 700,000 | 700,000 |
| Total revenue | \$7,411,830 | \$7.63, 822 |

V11. The present Condtion and future Prospects of the Inted States Postoffice.-lirom the official figures given previously, we aee that while the correspondence ly mail and the postal revenue actually decreased during twenty years of high postage in Grent Britain-ending with 1835-the revenue and correspondeace hoth, from the date of low and uniform postage, in 1840, has greatly increased-the latter six hundred per cent. The vast economy in the management of the Post-office in that country is seen in the fact that while the correspondence fnercased from 75 millions of letters in 1840, to 478 milhons in $1856^{\circ}-a t$ least six-fold-the expense was bui little more than doubled. Had it been deemed necessary, but few figures would have been required to show elearly-what was demonstrated by Mr. Liowland IIll-that the alight diminution in the net revenue of the Post-office in Great Iritain, consequent to the great reduction of postage in 18.10 , was far more than malle up to the national treasury, during each and every year thereafter, in other branches of national income, und all from the direct and sole causo of the activity and prosperity of all businosa interests, engendered by a reduclion in the rates of postage. We beliere, and are confident that it is susceptible of a clear demonstration, that the principal reasons why our Post-office has not kept pace with the advanelng spirit of the ane, and been made as efficlent as the post in several other conn-
trles, are the following: In the first place, soveral popular fullacies have leen engendered and hept up by offielal post-office reporte: Again, the official heada of thls important department, for the last fifteen years, have almost imvariably thrown their official and personal influence ngainst all the great Improvements urgently demanded by the people; and In carrying out this opposition, several of these officers have exhibited an unwarrantable interference with the legislation of the country. All of the prineipal improvements liave been accomplished, not through their ald, but In the face of thelr opposition. The annual reports of the Postmaster-general, since 1852, have declared and attempted to prove that the legltinate revenue of the Post-office his been lesa than its legitlmate expenditures, while the contrary has been the fact, as must be evident when we have a complete view of the premises. The true state of the case is-and thls is the important matter that has been overlooked-the Post-office has performed u large amount of labor, and consequently been put to great expense, without any clear record or any alequate return.

The payment for and on a-sount of letters and documents trausported an ${ }^{1}$ ileilvered by the Post-olfice for the govermuent-i $\quad \therefore \quad, 00,000$-is entirely inadequate to the s. see ormed. To show the amoont of "frar" es $11:$ : aent from Washington alone, the follos. itew.. $\cdots$ glven in an ofricial

 tives, as the unt of ciescription of mail matter for one month - 'aus $\quad, \quad \pm 5 \%$.

Frae Mall 3'. tter froy Wabuington son one Month.

|  | Weigh. | Postage. |
| :---: | :---: | :---: |
| Letters from nawirbers of Congress ..... | Pounds. |  |
|  | 3,410 | ${ }^{\$ 10,064}$ |
| Letters from Departmenta | 7,065 | 6,782 |
| Newspapere (numbering 1,10,020) | 111,002 | 11,100 |
| Total for one menth (prepald rates). | 815,021 | \$103,607 |
| For twolve months "* "* | 0,580,242 | 1,602,087 |
| Postage for twelve months, If not prepald |  | 3,158,890 |

The newspapers wero not counted, but weighed; and as the newrpapers of the country average about one and a balf ounces each, these have been considered as averaging ten papers to a pound. The postmaster expressed it as his opinlon that the free matter durlng that month, of which lie gave the results, was less than the avernge quantity. The amount given would make about 5000 tons of "free" matter in a year, from the post-office of the city of Washington alone; or an average for ench week-day of fifteen tors. Looking at thls $\$ 1,602,087$ due by goverument at prepnid rates, for the postage on free matter, outward only, from the city of Washington alone, ln a year, it would ba a very moderate estimate that should put the pestage of the governnent, at the rate the citizen prys, at $92,500,000$ annually. If we look at the revenue and expenses of the Post-effice for ten years, and see what appropriations were made for tha free matter transported for govcrnment, we shall see whether the Post-office actually supported itself or not.

| Searo. | $\begin{gathered} \text { Postal } \\ \text { Expencer. } \end{gathered}$ | Revenve Pootage | Appropriations that were niade. | Appropriabons tial phoula have |
| :---: | :---: | :---: | :---: | :---: |
| 1847. | \$3,971,275 | \$2, 70.059 | \$304,448 | \$5.500,00J |
| 1848. | 4,826,850 | 4.161,079 |  | 2,570,000 |
| 1849 | 4.4i9,049 | 4,525,176 | 200,000 | 2,500,000 |
| 1850. | 0,212,063 | 5,352,07t | 20.140 | 2,500,000 |
| 1581. | 6,024,600 | 6, 51.078 | 875,88) | 2,500,000 |
| 1838 | 7,108,459 | 6,032,637 | 1,741,445 | 2,500,000 |
| 18.33. | 7,083,757 | 5,240,724 | 700,000 | 2,500,000 |
| 18.4. | 8,672,424 | 6, 083,6i\% | 700,000 | 2,500,000 |
| 135 | 10,044,0:6 | 0,71, 830 | \%00,000 | 2,500,000 |
| 186 | 10,407,868 | 1,020,822 | 700,000 | 2,500,000 |
| Total | 808,190,10 | 54.014,652 | \$6,6ı0, 78 | 5,910,000 |

That the Post-oflice dld not support itself from the postage paid by citlzens during thic last ten years, and
also aupport the burden of all the "franked" matter thrown on it by government, is avident from the above figares. The "official" statement is, that the ontire poatal revenue for ten yeara was $\$ 39,041,484$, and the expenditures ${ }^{68}, 186,197$; therefore there was a "deficiency," ehowing that the Poat-office did not aupport itseif by $\$ 8,494,763$. But the reality in thia. At the rates of postage now levied, the cost of transporting and dellvering the letters and documents for the citlzens and the government, for ten years, was as foilowa: Postage duc and puid by eltizens for ten yearn. . $\mathbf{* 5 4 , 0 1 4 , 0 5 2}$ Portage due (but not all paid) by goverumeat... 25,000,000
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . $\$ 72,014,0502$ Expenses of the yout-omee for tea yeari......... 6s, 136,107 Post-office earnings exceeded the expenses by. ., $\$ t 0,878,405$
It la clearly evident that eny attempt to show whether our Post-office supporta Itself under the present la wa, regulationa, ratea of poatage and mamagement, must begin by showiug what are ita legitimate expensea and what its legltimate Income. Tho theory and practice of our law-makers is in strong contrast to the action of the members of the British P'arliament in 1839 and 1840, at the tims of the agitation and adoption of the penny postago. They at once abolished and renounced the frarking privilege, on the principie that oflicers of the government could as weil aford to pay their own postage as private citizens; that thoy wero In that case put to far less troublo to frank and send documents for others, and tist all postage necessary for carrying on the business of tho government should be charged to the Treasury, like all other national or government expenses. In reality, we to not know the amount of expenses and burdens that fall ou the Post-office, and yet the head of that Depar:ment has tuken upon himself to say that its income is not sufficient for its legitimate support. If a merchant or man of business were to know the precise amount of income that he actually received, whise he was Ignorant of a large portion of his expenditures, would he, or could he, conduct and manage his affaire with prudence, judgment, and economy? It is a paraliel case with our I'ont-office, burdened as it ic annually with five thousand tons of franked matter.
The history of our Poat-office for the last sixteen years diacloses the following facts: Letter postago has been raduced from a scale of five rates, running from six to iwenty-five cents, and averagiag, perhaps, thirteen or fourteen cents a letter ; first (ln 1845) to five and ten, and next (in 1801) to three, five, and six cents, and lastiy (in 18:5) to three and ten cents; and yet there has been no sensible diminution of the postal receipts, taking one vear with another. Taking the yearly increase of the postal revenue for a number of yenra before the first reduction as a criterion, the recelpts of the P'ost-office in 185.3 and 1856 were us large, if nut larger than they would have been ander the old raton. And yet the postage on each separate letter sveragas less than one third the clarge previous to 1445. I3y the side of that fact it may be stated here that in the postal history of all nationa there is no inatance on record where a seduction of postage, however great, has benn followed by any perament reduction of the postal revenuc. In public as in private aftioirs, the inhabitants of a country extend their patroage juat in proportion to the lusiuess and economical fucilitiea afforded them.

After the successful introduction of penny pastage fnto Great Britaln in 1840, the citizens of the United States commenced holdiag pulific meatings and petitioning Congress for a roduction of ratea, and other postal improvements. The pressure and agitation were kept up from 1841 to 1845 , and during that perind the Post-master-general-the Hun. Charien A. Wicklifth-used avery exertion, and brought every infinence, official and parsonal, to defeat the measure. With all this uncalled.for interferenco with the wishes of the people and the legislation of the country by an executivo of-
flcer, the blll reducing poatage to the two rates of five and ten recite was paseed, and want into operation In 1845. The incumbent of thls office from 1858 to 1857 -James Camphell-made overy possible aftort not only to defeat the wishes of the people in having the rates of postage reduced and made unlform, but to raiee the then exiating prepaid rase of letter poatage from three to five cents, and to double all the rates on printed matter. These ineasures were introduced in a kill, at the solisitation of the Iostmaster-peneral, by the chalrman of the House Committee, and at once defeated, recelviag only the mall minority of thirty-slx votes.

The efforts mado by the Postmaster-general to raise the rates were auccessful in Increasing the postage from si $x$ to ten cente on all letters that are tranaported over 8000 milles.

It may bo uncharitable to hat that cur auteamen have heretofore pald so little attention to the postal aubject as to be unacqualnted wlth lta detalla, though it is unqueationably true that this branch of government has not received the attention that ita importance fomands. In examining the postal auhject wa can not arrive at correct results by any syatem of generalizatlon, or by wholesale comparisons. It is a queation of cietall, of calculatlon, and of fact, in which certain cardinal principles can not be lgnored or lost sight of. It is true that the peoplo of Great Britain write many more letters than the peoplo of the United States; and it is equally true that thlis is the consequence of receiring a far greater amount of postal accominodation for the money they pay. It is eminently true that the large and profitable amount of correspondence passing through the Ilritish I'ost-office is the direct remul' of low and $v$ niform postage, combined with the great facilities for collecting, distributing, and delivering letters and other mall matter in cities and large towns. While we have populous citles with varled interests that require an Immenso local correspondence, our postal nffalrs are conducted in the same manner that they were In the first yeara of the Repobllc. Except by the labors of private partles, who are allowed to deliver lettera fromi the post-office, and levy a tax fer the service, or to set up private post-offices of their own, for the collection and diatribution of mall matter, we have harilly an improvement or facillty for diatributing letters in citlea to-day that did not exlat seventy years ago. People who write letters may carry or send them to the post-office, and those to whom they are addressed havo the privilego of ealling for the same and taking them out. Except through and by the labors of the privato postinan and carrierf, we, as a people, seem to be aware that the greatest want and the most profitsble field for postal facllities is $\ln$ and about our large citles and towns. In the country the distance betwren post-affices may bo reckoned by miles, but in jarge clties the legitimate wante of the people are not inet except by having deliveries many times a day, and places for obtaining stamps and mailing letters at every one or two hundred yards. The relative postal wants of the residents of different elty and country districts, and the extent to which those wants are met, in this country and in Great Britain, may be seen by the fige ure representing the average number of letters writtea by each person in a year, in the various locallies. Ths figures relatlng to the annual correspondence in this country are in whole numbers and decimals.


The

These figurea are not supposed to be exact, but they are a very near approxlmation to the precise number, arrived at by a close oalculation, hased on the relative population and postal lineoma. The following otatement exhlblts the annual correspondence per personin whole numbera-In different localltien In Great Britaln :

Connespondinom in Gheay Dmitain.

Diftaranl Loesallite
Iettern

Throughout the Kingdom. - 17

Fingland alona. . 23
Averuge in olties. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 45
In London., ... 48
These results are very difiorent from what wa see in this country. They all go to establishone clear, iadisputable fact. They prove beyond question that the people of cities write from five to twonty times ae
many letters as the residents of conntry diatricta. And as we know that a very large portlon of tha Inhabitanta of cities ar. $I$ towna are minors, paupers, vagrants, and lgnorant persons, It la clear that tho adult male busin as population have oceasion to write from a hundred to thousand letters each per annum. We know, from the habits and wants of the population In rural districts, that the adult persons who are engaged in agricultural and mechanieal purouits do not uaually carry on one-forlieth part as anerch correspondence as the mercanille clanses in elties. Bearing these facts in mind, and remembering that there are from sla to twelve deliveries a dny In all parts of London, with over five hundred recelving houses and letter-pillars whers fetters enn the malled-averaging one for every second block or square tiroughout the city-bearing these facts in mind, we need not be surprised at the widely difierent resulte In that coantry and this, as conveyed in the fellowling authentic figures:

Anndal Nemarr of Letteas in mifygbent focalitire.

| Yasm. | Londen Loral Lettern. | London Mail Letters. | Total B-anion Lelters | Tolel in tha Cinted States. | Tutal io Greal Britain. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1847.................................. | 84,840,817 | 43,757,510 | 78,388,457 | $47,685,157$ | 162,146,243 |
| 1848............. . . . . . . . . . . . . . . . . | 83,678,747 | 45,901, 163 | T0,603, 000 | D2, 804,810 | 5:8,830,184 |
| 1843. | 83,180,898 | 45,845,683 | 79,800,081 | 60,150,862 | 337,399, 199 |
| 1851. . . . . . . . . . . . . . . . . . . . . . . . . . . . | 38,887,881 | 4,856,170 | 80, 74, 014 | 60,420,452 | 847,069,071 |
| 1851. | 40,585,058 | 47,815,439 | $83,405,451$ | 83,252,785 | 361,647,187 |
| 1852. . . . . . . . . . . . . . . . . . . . . . . . . . . | 40,403,207 | 61,171,428 | \$1,574,030 | 06,7c0,924 | 379,501, 109 |
| 1853. | 42,816,814 | 64,402,183 | 07,218,887 | 102,189,148 | 410,817,489 |
| 1854. | 40, 191,501 | $67,186,15$. | 108,877,728 | 110,60 4,418 | 4-43,049, 101 |
| 1865. | 45,844,963 | 60, 047,540 | $115,492,612$ | 120,723,425 | 450,216,170 |
| 1530. | 47, 804,708 | 64,501,321 | 112,88in,024 | 131,450,409 | 478,303,803 |
| Total. . . . . . . . . . . . . . . . . . . . . | 414,885,819 | 616,6ik, 520 | \$20,627,139 | $858,527.614$ | 3,604,676,102 |

We ree by the above that the peoplo of Iondon alone (leas than two and a belf millions) have written and sent through the post more letters in the last ten years than all the people in the United States, whilo the popolation of Great Britaln-about tho same as in the Uoited States-havo written almost five times as many as the people of this country. Wo musi seck for a solutien of this in the far greater postal facilities in the United Kingdom, partlcularly In cities, than in this country. See the gigantic results of $n$ good local post in Loudon. There are almost one hali' as many letters written sud malled in London, for ilstribution in the city (local letters, a0o first column in the preceding table), as are written in a year by all the people in America! Could we get at the results of our local distribution of letters, we should find that the number of letters written in our cities, and distrlbuted by the govermment post in the plece where written-"drop letters," as wo vory appropriately call thein-we should find that they were only abont one-fortieth or one-fiftieth part as many as in the cities of Great Britaln. In other words, the aetlve business population of our cities write about as many lettere to go through the mails to a distanee, as the same population do of that class of letters in eltios in England; but of locai letters, for distribution In the city where they aro written, only abont one-fortleth part as many.
It is as easily shown that the local eorrespondence of cities is nuch more profitable to the I'ost-office than correspondence that is conveyed hundreds of miles, as it is to demonstrate that the correspondence of eities is of more importance and of greater amount than the correspondence of rinal districts. The whole secret of accommodating the people with a good ciry post, and making it profitable at the bame time, consists in hav-
ing our means allaptel to our wants. The mnils are sent over the rontes between New York and lBoston three thmes a day, twice $n$ dny from New Yoris to Wasinington, once a day from C'tarleston to New Orleans, onee a week betreen some small country villages, once a fortnight from Now York to San Frnncisco, and once a month frem Missourl to Grent Salt Lake City. By the very same rule, and for the same reasons, there should be a local distribution of letters in large cities like New York, Boston, and Philatelphla, from six to twelvo times a day. The very term "free-letter delivery," as applied to the local distribution of letters in English clties, is a mlanomer. It does not exist, nor is it asked for in this country. The local distribution of letters in the citles and towns of Great Britain amounts to just this: One unlform rate of postage is fixed on all singlo lofters-local and otherwise-without regard to distance, and this postage-one penny sterling-pays for trsnsporting the letter to the end of the route; and this, in cltles and towns, means to the door of the person addressed. It unquestionably eosts a slade less to circulate and deliver letters in n eitythose that are mailod there for dellvery-than it does to transport them hundreds of miles, and then deliver them. The actual result is this: the large number ofloeal letters in cities, at the postage of one penny for each, pays all the expense of collection and delivery-wages of receivers, mail-men and letter carriers-whlle theso persons coilect and deliver all letters that are to go and that come from out of town, wlthout any extra charge, and then the profit on theso local letters alone -admitting that the letters from a distance are delivered "free"-is very large. The following table, made up from the official report of the year 1854, needs no explanstion :

Looal toabegrondenoe in febtain i'itife in Great Britain, witil the Fixpenge of Colleevion and Delivgay.

| Cilles, | Nuaber of Letters in tha Maila. | h.seal Cireulaiton or Mrop Lettors. | Grone Reveaue from Local Cirentation. | Wagee of Letter carrient and Recsivers | Not Profit On Local Cireolation. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1andon. | 67,186,159 | 46,101,509 | \$1,385,747 | \$761.5117 | \$324,087 |
| I.tverpool | 0,145, 502 | 7,3901,044 | 221,701 | 27,035 | 194,666 |
| Mancheste | 10,088,55\% | 8,149,560 | 244,487 | 38,245 | 206,262 |
| Dubiln | 0,592,534 | 5, 390,184 | 150, ${ }^{374}$ | 88,940 | 120,034 |
| Edinbarg | 4,208,094 | 8,401,670 | 102,050 | 80,060 | 81,990 |
| Bristol | 4,381,410 | 8,543,816 | 106,314 | 15,855 | 90,459 |
| Total. | 91,605,561 | 74,005,781 | \$2,220,178 | \$901,8\%5 | \$1,018,348 |

The total mumber of letter receivera and letter carrlera in the United Kingdem, In 180.1, with the gross amount of their salaries, was a followa :

|  | Number. | Bulartes. |
| :---: | :---: | :---: |
| I-atier recelvers In the Kinsdom ... | 4.280 | \$230,74: |
| Letter carpiers in cities and towah. . | 4,315 | 804,5is |
| Letter carriers in rural dimerlets | 4.326 | 601, 210 |
| Total. | 13, 190 | \$1,643,677 |

Looking at the resulte in the two tables given above, we find that tha money recelved for posiage on the lucal lettere, in alx eitlea only, amounted to a larger sun than the entire cost of letter carriors and letter recelvers thronghout the united Kligdom of Great Britaln and Ireland! And we may mention, in this connection, that the rural letter earriers penetiate all the country districts of tireat liritain, the carriors in their walks geing from three to six milles from every villago post-oflee, at least onet a day.

The gigantio resulta shown in the English Dost-ofice are due to three or four aimple princtples. There is one uniform rate of postage on all single letters-those welghligg not to exceed half tun ontec-and this same rate also pays the postage on all pareels of printed matter-dons up in packages open at the ends-so that with one kind of stamp the citizen prepays more than nineteen-twenticths of all the packages he puta in the post-office. There is in every elty and villige a letter dellvery by cerriers, from two to twelve timen a day, with convenient places at every one or two hundrod yaris for posting letters and parcels. Thero la a system of renitting money by mail, through money orders ordrafts, for small suns, between all tho prineipsl postoflices ; and the money-order husiuess, like the uniform postage, la baned on so simple and economleal a system, and is carried on with such satisfactory results, that there ls cumbined the greatest convenience and smillest cost to the citizen, and the largest economy of management to the l'ont-oflice othiclals.

It is useless to say that the businesa of collecting and distributing letters in a city In Europe is any ditierent process, and involves any different principles, from that of distributing letters hero; fur it is not true. And certainly, so fat as correspondenco is concerned, our social and cumnercial wants are like those of the restdenta of Louden, Manclenter, l'aris, and Berlin. Conld we get at tho amennt of letter distribution done by privato parties in our large citica, it would be found that thero is a far greater correspontance carrled on outside of, than througla the post. And yet theru is no regularity, unifornity, safety, or system, and with all the multifarious appliances, we aro wretehedle: nerved, as every one knows. Philadelphia has repcri .' through the government Poat-otlice a leas correspondereve-or at least a amaller postal revenue-in proportion to popirlation, than any other large cityin Anerica. There a private individual carries on a very protitable and extenslvo aystem of city letter diatribution. 'the faet is, and it can not be dinguised, that our Post-oftice, being an exclusive goverument function, for long distances, should not alluw privato parties to carry it on for short distancea in cities. We cither wanl an etheient uniform gotermment l'oat-oflice over the entire coustry, or it should be abolished altogether, or d'arown open to private parties. Wo make the Post-office perform nearly three million dollars' worth of labor for the government., and appropriate for the same out of the Treasury less than a quarter of that sum, and then the government allows private parties to step in and set up a post In the very localities where a good prostal establishment is most needed, anil where it can be made the most protitable. With any thing like a critleal examination of our postal establishment, and to a person of any sagacity, it is clearly evident that in the lucalities where a post is most needed-lar se citiesand where it would pay the best, there our poat is most notoriously inefficient. The poatal establighment labora under the following prominent disalvantages:

Hirat. It performa a large amount of service for the govermment withont adequite compensation, Secont, Thers la not a uniform rate of postage, and the labinr and expense of conducting the pestal business is thereby grently inereased. Third. The correapontence of the country has never heen stlinulated and increased by low and uniform postage ani tho bent postal facilitica. Fourth. Our local correspontence in citicnthe most protitable bushesa of tha poatal entabilishment, when on a correet hasis-labors under every disadvantage, belog the canse, and juatly, of conntunt cem. plaint on the part of the eiticens. fïth. In all the large eltles, In consequence of the Irregularlty, unecrtalnty, sal Inconvenicnces of the Nathonal l'estoflle, prlvate posts earry off a large share of tho bushess.

If the above premises are correet, the remedies nee nelther hard to tind or diflleult to carry out. Fitul the amount of matter that is sent "free" by governmeat departments, offleers anil members of Congrean, and luve a sum paid or appropriated from some yuarter sumfient to meet it . Then make one rate of portage, so low that lt will not be exorbitant for single letters and the smallest packages for the shortest distances, and let thia rute pay as many descriptlons and slzen of written and printed packets an possllile. Abolish all private posta in citlem, and make a government pose that is adequate to the wasts of the citizens. It may be safely promised that a convenlent, reliable, economleal, punetual, and rapld distribution of letters in our cities will meet with all that encouragement and that extensive use that attends a good post in liuropeon eltles. Send all tetters and. printed packagestprhaps up to a certain amount, say four or elght just. ages In one parcel, as is dene In Great Itritaln-whecher they are prepalel or not, ant if not prepait, charge llouble poatage. Make a moneyorder system for remitting money in sums not exceeding twenty or twen-ty-ilve dollars; at first between all the larger offices, extending it as it becomes known and understool. Return all "dead" and refused letters to the writers, and enforec the payment of such postages as have not been prepald.

The question of the most profitable rate or rates of poatage may be discussed and examined for years, and We areforced to one conclumion; and that is, that there is no convenient, economical, or Just syatem withont unifonmity. The truth is, several of our rates of postage are too low, not allowing a falr compenation, and others are too high. Onr rate of one cent for drop letters or local letters, one cent for printed circulars, and one cent for transient newspapera, are all too low. They are not compensating; and if ralsed to two cents the charge would not be consldered hilgh, provideri alt letters of half an ounco welght, and printed packages up to four ounces, could be sent any and every dis. tance for the samo sum. We want a twoecent rate of pootage, with a tworent postage stamp, and a total abolition of all of the oncocent rates and stamps, nuil the threceent rates and stamps. It shoulit be the minimum; that is, no letter or transient packuge shoukd be mailed or sent the shortest distance for less than this at:n. We would pay with this two-cent stamp our city or drop letters-and that should include dulivery by a carrier, as carriers ahould work for salaries, and deliver every thing in cities without extra charin--our letters for all distances in the United States, all circtr lars, and all packages of printtitl matter, up to four onnces in wi.yht, that are done up open at tho ends. Is it not reasonable to suppose that there would be a sufficient increase in letters for elty circulation, and to go to a distance, nlong with the increase of price of postage on drop letters, on printed circulars, and on tranaient nownjapers, to make up for the luss on the threement letters, and the few letters that now pay ten cents? Anl we must hear in mind that one of the greatest argumenta for a uniform rate of postuge is the aimplicity, economy, and chcapmess that it effects in Secund the labing is theredence of inervased tal freiti1 citlesevery llis. tait com(ut alithe $y$, uncer. ostooflice isiness. edies are Filul line vermment ress, and e guarter f partage, gle letters distances and sizes Abolish verument zens. It , relinble of letters ment nud a l:urape Mes ligh pust-1-n hethid, charge m for re. ; or twener ofllees, oorl. Re iters, and not been
$r$ rates of cears, and that there 1 without rates of rensation, t for drop circulars, 1 too low. wo cents, wided ali puckages very dis. it rate of I a tutal IIIPs, mini I lie the ce shoukd than this anp our ddivery ries, and rytinour all circthe ends. ould be a an, and to price of , and on s on the e of the ge is the frects in
carrying on the pontal business. Twlee the number amounted to thirty dollars fer each thousand lettera, of workers, with a change to a unlform rate, will suffice for an incrense of letters six-fold. We have givon the exact official figures, showing that the mere handling, sorting, dilatribution, and dellvery of lettern (sll expenses except transpertation) In Great Britaln
when there were several rates; and but seven dollars -less than one-fourth what it cest fermerly-with a uniform peatage. Uniformity of postage is the first requiaite of the British, as it is of every other postal system where It has been trled.

Pospal gtatigtice of tue diypmannt Etatwo.

| tates. | Poetal Ravinue, 19st. | Revanue par 1000 Parmovn. | $\begin{gathered} \text { Number } \\ \text { of Leftert, } \\ \text { inse } \end{gathered}$ | $\begin{gathered} \text { Loltert } \\ \text { per } 1000 \text {, } \\ 1805 \text {. } \\ \hline \end{gathered}$ |  | Propertion of Expenses to Receipta. | Podial Rivenue, Postage adiled. | Proporition of Expeneea to Meealipts. | $\begin{gathered} \text { Cuet } \\ \text { pefter. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Masswehusette . . . . . | 4057,052 | \$47\% | 11,382,071 | 10,028 | 685, 883 | 60 | \$769,280 | 69 | C. m. |
| Conneetleut . . . . . . . | 190, 124 | 476 | 3,849,907 | 9,700 | 175,181 | 02 | 968,480) | 04 | 90 |
| New Yerk........... | 1,430,100 | 411 | 29,250,048, | 8,492 | 1,087,316 | 72 | 1,981,100 | 52 | 16 |
| Callfernla.......... | 26h, 015 | 791 | $2,769,854$ | 8,260 | 248,714 | 101 | 408,514 | 74 | 48 |
| Rhade Inland........ | 62,5 48 | 875 | 1,974,287 | T,080 | 89.844 | 68 | 80,27t | 46 | 14 |
| luwa. ............... | 117, 415 | 850 | 9,304,988 | 7,141 | 108,818 | 184 | 161,978 | 95 | 90 |
| Sew Itampahiro.... | 100,000 | 304 | 9,037, 450 | 6.260 | 00, 943 | 100 | 187,900 | 12 | 94 |
| Mlehigan ........... | 168, 188 | 307 | $8,182,144$ | 6,252 | 232,887 | 149 | 9:5,454 | 108 | 42 |
| Yormont ............ | 96,689 | 997 | 1,969,980 | 6,058 | 117,831 | 189 | 193,814 | 89 | 27 |
| Wiscomaln. . . . . . . . . | 149,678 | 271 | 8,049, 586 | 5,585 | 170,364 | 114 | 4103,478 | 84 | 26 |
| 111!nota ............. | 833,620 | 268 | 6,797,370 | 5,463 | 663, 887 | 186 | 480,259 | 120 | 84 |
| Malne.............. | 152,710 | 845 | 3,111,403 | 4,187 | 170,745 | 112 | 210,661 | 81 | 24 |
| 1'ennsyivania ...... | 501,220 | 983 | 12,045, 848 | 4,787 | 823,796 | 89 | 816,688 | 84 | 19 |
| Ohle.......... .... | 451,707 | 914 | 9,908,84il | 4,184 | 670,096 | 151 | 623,163 | 108 | 82 |
| New Jerney ........ | 107,738 | 189 | $2,106,117$ <br> $8.492,400$ | 3,852 | 199,838 | 128 | 148,624 | 89 | 97 |
| Itadlana ............. | 171,410 | 149 | 8,492,400 | 3,037 | 803,972 | 177 | 236,482 | 129 | 30 |
| l'actie. Territuriem .. | 14,048 | 842 | 146,812 | 8,681 | 88,175 | 272 | 19,070 | 196 | 59 |
| Other Teritorles ... | 32,97\% | 168 | 671,988 | 3.810 | 112,285 | 340 | 45,496 | 247 | 74 |
| Total, North . . . | 84,967,083 | +300 | 98,650,874 | 6.124 | \$5,186,003 | 104 | \$6,880,37\% | 75 | 98 |
| D'strlet of Columbla | 49,731 | 74t | 801,000 | 15,101 | 88,161 | 67 | 00,320 | 63 | 18 |
| Maryland . . . . . . . . . | 187, 104 | 232 | 8.819,166 | 5,056 | 203,471 | 141 | 208,109 | 102 | 31 |
| Loulakana. . . . . . . . | 168,579 | 273 | 8,882,864 | 6, 050 | 871,411 | 227 | 225,1057 | 105 | 50 |
| Welawaro . . . . . . . . | 19,648 | 808 | 400,3201 | 4,127 | 19,477 | 100 | 27,103 | 74 | 48 |
| Florlda . . . . . . . . . . | 20,608 | 181 | -408,674 | 8,681 | 105,866 | 527 | 27,070 | 382 | 115 |
| Misperirl ............ | 141,765 | 168 | 9,888,463 | 8,484 | 287,973 | 209 | 195,605 | 147 | 41 |
| (reorgla............. | 140,070 | 150 | 2,853,868 | 8,058 | 828,406 | 483 | 103,224 | 169 | 51 |
| Virgiala . . . . . . . . . | 218,090 | 144 | 4,443,494, | 9,036 | 418,098 | 190 | 300885 | 137 | 41 |
| Texas.............. | 68,005 | 186 | 1,885, 9 , 74. | 2.771 | 251, 538 | 370 | 03,812 | 283 | 80 |
| Alabsma. | 109,228 | 181 | 2,220,414 | 8,065 | 324,868 | 297 | 350,675 | 810 | 65 |
| South Ciarolina | 91,808 | 189 | 1,87),449 | 9,84! | 970,487 | 294 | 126,84] | 214 | 64 |
| Kentucky . . . . . . . . . | 121, 7108 | 111 | 9,471,001 | 8,274 | 224,428 | 185 | 167, 848 | 184 | 40 |
| Mistisslppl . . . . . . . . | 74,144 47.832 | 111 | 1,516, 665 | 2,257 2,240 | 244,108 | 834 | 102,702 | 848 610 | ${ }_{18}^{78}$ |
| Arkansaa.. . . . . . . . . . . | 101,485 | 110 | 2,067,716 | 2,240 1,893 | 294,177 198,108 | 818 196 | 88,304 189,099 | 610 141 | 188 48 |
| Nerth Lurollna .... | 71,887 | 78 | 1,464,668 | 1,1589 | 206,008 | 257 | 00,168 | 209 | 64 |
| Total, South ..... | \$1,600,308 | \$144 | 81,709,085 | 8,135 | (93.748,313 | 241 | \$2,140,919 | 114 | 62 |
| Grand total | 0,687,022 | 844 | 131,450,409 | 4,875 | 8,071,132 | 186 | 9,487,022 | 99 | 30 |

By distributiag $\$ 2,500,000-$ the supposed cost of transporting the "frankel" matter for government, instead of $\$ 700,000$, the sum now paid-among the different States, in tho proportions of their present postal revenue, the revonue of each Stato would tien be as seen in the last column but two. In the columin of postal expenses the complete amount of expenses is not quite all stated, but all is given that is get down under the head of each State, in tho official Report of the. Department. If tho entire sum were given, it would uet alter this comparative statement, or much atfeet the general result. We see by this-the last column lut one-that only 50 per cent, of the postal revenue of Massachusetts is used In expenses for that State, 52 per cent. in New York, and so on with the old, the thickly-settled, and the commercial States, while Texas $\$ 268$ is expended for every $\$ 100 \mathrm{re}-$ celved, and in Arkanaas 9610 to $\$ 100$ of revenue. The sums here given as the expenses of each State cre not supposed to be the exset amounts required for all the pestal expenses within the State-as sometintes a mail route runs through several States, and the expenses of mail transportation over it all falls on or is set down to the State where the route conmmences. But as theso routes generally commence at the East or North, and run West or Southwest, the largest show of expenses is mado in the States farthest east. We do not claim as a literal fact that the ontire expense of each letter mailed in the State of Massachusetts (sce last oolumn of table) amounts, on the average, to one cent five milils, and those in Arkansas to just eighteen cents three mills; but it is a fact that when the amount of correapondence, the postal revenue, and the postal expenses of each and every State are all fairly conaidered, the proportlon of money 6G
received in postage in each State is, to each letter mailed in that State, as here given. We know that letters starting in New York sometimes go to Arkansaa, Texas, Florida, or New Mexieo, and we do not claim that the exact proportion of money due on eteh letter mailed In each State can be elearly adjusted, and should be charged to each eltizen yesicirg in the State. But -and here lies one great arg anent for a vnifonm and a Low rate of postage-we do know, by tho preceding authentic figures, that the expense of transporilng and distributing letters differs very widely in each Stato; and the general rule is, that the newer, the more apiarsely settled, and the less commercial the State, the larger the proportlon of expenses to receipts. To illustrate this in a very striking light, let us compare the postal expenses and reeelpts, and the amount of correspondence in the two States of New York and Massachusette, with tho amount in all of the Southern States and tho region west of the Mississippi Rlver. They stand as follows:

| Localition. | $\begin{array}{\|c\|} \hline \text { Numbar of } \\ \text { Letters. } \\ \hline \end{array}$ | Poetal Reverine | $\begin{gathered} \text { Poofal } \\ \text { Expenues. } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| $\left.\begin{array}{l}\text { Now York and Mansa-\} } \\ \text { ehusetts ............. }\end{array}\right\}$ |  |  |  |
| Seuthern Statea and west of Mlasisslppl River... |  |  |  |

While the amount of corrasmontence, and the portal revenue in New York and Miscsehusette, exceed al aonth of the Potomac and Ohic, and west of the M $\mathrm{t}, 23 \mathrm{~s}$ sippl, the expenaea are lecis than one-thirs Agcid, let us divide the Union into three seetiens, exHing them the Nertheast, the Middle, and the Sonthvestern sectlons, and see the comparative amount of revenue, expensea, letters, cost per $\mathbf{1 0 , 0 0}$, letters, and per slrgie
lotter; The Northeast ection comprisas New England, fineluding also Missouri and California; the SouthNew York, New Jersey, and Peansylvania ; the Middle section, from Delaware to the southern boundary of Virginia and Tennessee, and.west to the Missisolppi,

| Tout Seetiont of Uhe Urion! | Poothl Revesut. | Number of Letters. | Postal Expentes. | Coai per 10,000 Letter. | atogio Teiter |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Northeast section ............ | 3,205,683 | 67,145,120 | \$2,082,68: | \$400 | ${ }_{1}^{4} 8$ |
| stiddle section | 2,478,161 | 47,801,813 | 8,798,637 | 794 |  |
| Sonthwest ${ }^{\text {e }}$ | 813,948 | 10,444, 077 | 2,480,914 | 1514 | 67 |
| Firat two | 5,773,694 | 115,006,332 | 6,481, 318 | 9. 604 | 24 |
| Last two | 8,202,089 | 64,305,289 | 6,288,451 | 978 | 41 |
| Grand total.............. | 6,587,62\% | 101,450,409 | 8.471,132 | 682 | 30 |

From these facts we see and know that the expense of transporting and distributing letters is nut in proportlon to the distance they are carried. We see that all of tho letters circulated from Nelne, on the caat, to Tennessee an d Missourl, throughout our northeastern and midulle actions, Involve an average expensetransportation and every thing included-of two centa four mills a letter. It coata moro to send and tako care of $n$ latter that goes tifty or a hundred miles in Florida, Arkansas, or 'lexas, than it does to take one from Purtland, Maine, to Mlemphis, from Boston to St. Loais, or from New York to New Orkeans.

Now our Southern brethren will do us the eredit to believe that we propose nothing sectionn), nothing narrow, and nothing partial. Every single fuct, figure, and circumstance goes to prove, beyond all cavil, that correspondence ia carried on to a fur greater extent in the thiekly-settied soeial and commercial districts of the North and East, than at tho south and Weat. The people in these districts write the largest share of the letters, and pay by far the largest ahare of the poatage, whitle with them postal expenses are comparatively light. Wero there two nadiona placed in the relative posltions of New York aud Now Eugland on the one ham, and Mississippi, Lonisinna, and the States of the South and Southwest on the other, the one eould have a self-supporting mail syatem, at a uniform rate of postage, nut to exceed one-quarter what would bo rechired in the other. In tho State of Now York alone are written annanlly $29,259,943$ letters, whild in all of the States south of the Potomac and Ohio Kivers, Misaouri, Arkansas, and Texas included, tha number is but 31, 090,035 . The city of Nuw York alone contributes one-tenth of the jostal reveune of the uation, and writes one-tenth of the letters, being a larger proportion than is contributed by every State that bordors on the Gulf of Dexico.
'lhese aro facta, and they aro not held up as a reproanh, but to illustrate the linancial condition of our postal system, and io al.ow that a good, nu active, and an economical postal eatablishment is of vast inportance in large towns, citica, and thickly-sented and commercial diatricts. Tho propla in thoso localities where many letters are written, where correspondence is the life-blood of the comsuercial aul social aystem, feel that they have a right to ask that a postal systemi ahall be adapted to the wants of thase on whom its aupport principally falls. We, as a people residing in cities and thickly-settled States, ask for not oute single privilege or one charge for sorvice that ia not to be accorded to the lonely aettler of New Atexico or the planter of Texas, under the same circnmatances, but we do ask for a uniform rate of letter postage of just two cents for all diatsnces; and the faets given in thls artlele-and they challenge examination for theirgeneral correctucse-these facts clearly prove, beyond a doult, that this rate will be ample to defray the expenses of all, except, perhapa, in somo forest frontiers or thiuly-nettled regions; and there any extra ex-pense-if there is any-should fall on the entire treasury of the nation, tuscead of heing levied es a partial, a special, and an unjust tax on the Induatrious active classes, who make extensive use of the prost-otlice.

We want and need a convenient nunsbr of receivinghouses and lutter-pillais in our citiee, after the plan of
the distribution system in England. Theae "receiv. ing-houses" do not require to be sub-postroffices, or officis for the delivery of letters, but oaly for the teception of letters and the sale of stamps. Under these circumatances, a very small salary and a small commission on the sale of stampe, is anfficient to coupensate the receiver.

Therights of the eitizen are not atteniled to in this couniry in the managensent of "dead letters." In this case we have only to look at the satisfactory and just method allopted in Greut Britain. There there is no "Dend-letter Office," but there is a "Returnedletter Office." Sottcra aro not reportel " dead" except they are nnonymous, or when, from other circunstances, the owner can not be found. There, with the great bulk of the letters, a rapid and secure methol of returning "misearriad" lotters to the writers is adopted, ly means of which every letter is returnel on the very day it arrives at the Retumed-letter Office. It is done so expeditionsly, that a clerk returns 200 per day, and $1200 \ln$ a week. At thia rate all of our "doad letters" could le returned, at a cost to the nation of Juss than one hundred thousand dollars. With a syatem of letter delivery in cities and towns, the refused or miscurried letters conld usually be sent to the Departmeot and returned to the writers, in from one to three weeks of the date of mailing. In England, letters that misearry usually get baek to the writers within a week of the date of mailing. Oftentimes these dead or nisearried letters would he of great advantage to the writer, particularly in informing him that his letter hall not reached its destination. On the face of it wonld be written usually, as is praeticed in lingland, the canse of its non-delivery.
Auy person who will give it an examination will see that we liave at this time a most troublesome, perplexing, and absurd system of rates; and it must, we think, be quite as clear that, in a tinancial anil economical point of viuw, our proposed scale of rates is satisfretory, simple, cconomical, and adapted to aur wants. - See 'hankers' Magazine, New York, vol. vii., Novemler and December, $180^{2} \overline{7}$. On the United States Postage Syatem, refer to New Einglander, vl. 398 (1.eavitt). i. 352 (Hacon); Ilunt's Merchants' Magatine, ix. 436 , ii. 522 (F. U. J. Smitil), x. 250 (W. II. Mactay), x. 27 (J. M. Whiton), $1 i$, 263 ( 13. Batms); Nues's kg . ister, xxxvi. xxxvii, and yoars $1830,18: 34,1835$; lemocratic Retiew, vi. 177; De How's Reris, lii., v., xil: Horeign Postal Sygtem, refer to Fuases, x viil. 250: Neto Einglumd, vi. $1 \dot{\omega} 3 ;$ Westminster Revieh, $\mathrm{xx}, \mathrm{fll}$, xxix 225, xxxiii. 401; (uarterly Rarin $r$, $1 \times x \times v i . .37$, 1xiv. 282; Foreign Quarterly, xili. 397 ; British and Foreign Reriere, viii. 451; Living Age, ii. 407; Edinburgh Review, 1xx. 80 .
Post Entry. When goods are weighed or measuresl, and the merchant has got an account thereof at the custom-house, and thals his entry, alroady made. too amall, ho must make n post or additional entry for the surpluage, In the same manner as the first was done. As a merchant is always In time, prior to the clearing of the rossel, to make hila post, he shonld take care not to over-enter, to avoid as well ti:a advance, as the troulle of getting lack the overplus. ilowever, if this be the case, and an over-entry has been nade, and more paid or bonded for customs than the goods
the: Sonth. If 8tatos, the This is the

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30 pese "receiv. 38t-6ffices, or Iy for the reUnder these a small comit to compen.
led to in this letters." In isfactery and There there " Keturneddead" except ther circunt. rere, with the ecure methol ue writers is 8 returned on -letter Office. : returns 200 ate nill of our ost to the na. ollara. With towns, the re. be sent to the In from one to Eugland, let. 0 the writers Oftentinacs of of great adforming hims tion. On the a practiced in
mination will thlesome, perd it nust, we 1 and econom. rates is satiosto our wanas. - vii., Noven1 States 1oss. 13 (1.e.a vitt) azine, ix, 436 , Mactiay), $x$. Nures's Reg. 4, $1 \times 33 ; 1 \mathrm{lkm}-$ c, iii., $v$, xii : o, xviil. 230; Ixxxvi:, 3 ; British and i. 107 ; F:din.
hled or meas. Int thereof at Iready made. inal entry for the first was , priar to the e should take nadvance, ss ilowever, - been inade, an the groods
realiy landed amount to, the land-walter and anrveyor must signify the same, upon osth made, and subacribed by the person ao over-entered, that neither he, nor any other person, to his knowiedge, had any of the said gools over-entered on board the said ship, or any where landed the aame without payment of custom; which oath must be attested by the collector or controiler, or their deputies, who then compute tho duties, and set down on the back of the certificate, first in worda at length, and then in figures, the several sums to be paicl.
Potash (Da. Potaske; Fr. Potasse; Ger. Pottcesche; It. Potucsa, Pol. Potasz; Russ. Potasch). If vegetables be burned, th: whes fixiviated, and the solution boiled to dryness in tion vessels, tho mass left behind is the potash of comnerce-the impure carhonate of potasa of chemists. It is intenaely alkaline, solid, and colored brown hy the adinixture of a sinall pertion of vegetable inflammable matter, which generally becomes meist. Whon potash is calcined in a reverberstory furnaco, tho coloring matter is destroyed, it asaumes a spongy texture, and a whitish pearly lustre; whenco It is denominated pearlash. The latter generaily contains from 60 to 83 or 84 per cent. of pure carbonate of potass. Tho asbos of those vegetables only which grow at a distance from tho sea are employed in the manufactare of potash. LIerbaceous plants yicid the largest portion, and shrubs moro than trees. It is princlpaily manufacturod in America, Russia, nnd Poiand, tho vast forests of which furnish an inexhaustible supply of ashes.
In some portions of the Unitod States and Canatla, where timber is an incumbrance upon the soil, it is felled, pilel up in pyramids, and burned, solely with a view to the manufacture of potashes. Tho ashes ars put into wooden cisterns, having a plug at the bottom of one of the sides under a false bottom; a moderato quantity of water is then poured on the mass, and somo quicklime is stirred in . After standing for a few hours, so as to take up tho solublo matter, tho clear liquor is drawn off, ovaporated to dryness in Iron pota, and finally fused at a red heat into compact masses, which are gray on the outside and pink-colored within. Pearlash is prepared by caloining potaohes upon a reverberatory hearth, till the whole carbonaceous matter, and tho greater part of the sulphur, be dissipated; then lixiviating tho mass in a cistern having a falso bottom covared with straw, evaporating the clear lyo to dryness in flat iron pana, and stirring it toward the ead into wlite lumpy granulations. All kinda of vogetables do not yield the same proportion of potassa. The more succulent tho plant, the more does it afford; for it is only in the juicen that the vegetable salts reside, which are converted by incineration into slkaline matter. Horbaceous weeds are more productivo of potash than the graminiferous species, or shrubs, and these than trees; and for a liko reason twige and leaves are moro productivo than timber. But plants in all eases are richest in alkallne salta when they have arrived at maturity. Tho soil in which they grow also influences the quantity of saline matter.
The following tnble exhibita tho average product in potassa of severnl plants, according to the rescarches of Vauquelin, Pertuis, Kirwan, and De Saussure:

| In 1000 parta. | Potaseal | In 1000 parts. | Potase. |
| :---: | :---: | :---: | :---: |
| Plta or fir. | 0.45 | Dry betedi bark. | 60 |
| Popiar. | 0.75 | Forn | 0.26 |
| Trefoll | 075 | Largo Iu | 7.22 |
| Ilepelhwo | 145 | Stalk of malzo | 17.50 |
|  | 1 D3 | Jean statks... | 20.00 |
| Bexwoed | . $2 \cdot 26$ | Hastard ohamon |  |
| Whllow | 285 | themis cotula, | ) 19.60 |
| Elm and mapl | 3.00 | Stuftower stalk | $20 \sim 0$ |
| Wheat straw | $3 \cdot 9$ | Commen nettle | $2 \mathrm{2} \cdot 13$ |
| Barls of oak tw | 4.20 | Vetch plant | $27 \cdot 51$ |
| Thittea.. | 510 | Thistlea In tult | 85.37 |
| Flax stems | .. 500 | Dry straw of wh |  |
| Smbil rush | 808 | fore earing . . | 47.00 |
| Vine ahoots | 850 | Wermwood. | 73.00 |
| Marloy mtraw. | . 5.80 | Funitory .. | 20.00 |

Stalks of tobacco, potatoes, cheatnute, cheatnut huaks, broom, heath, furze, tansy, sorrel, vine leavas, beet leaves, orach, and many other planta, abound in potash ealts. In Burgundy, the well-known cendres graveles are made by incinerating the lees of wine pressed into cakes, and dried in the sun : the ashea contain fully 16 .per cent. of potassa.
Expoats of Por and I'eari Abris yrom thi Cintred
bTatra for tue year enoino June 30, 1856.

| Exported from | Tome | Value. |
| :---: | :---: | :---: |
| Portiand | 1 | \$113 |
| Salsim. | 1 | 85 |
| New York. | ${ }_{3882}^{21}$ | ${ }_{420}^{20,488}$ |
| Total | \%3\% | \$129,428 |

Potatoes (Ger. Kartoffeln; Du. Aarduppelen; Fr. Ponmes de terre ; It. Patate, Pomi witerra; Sp. Patatas munchegas; Russ. Jabloki sendenie), the roots of the Solanua tuberosum, of innumerable varieties, and too well known to require any description.
Historical Notice.-The common Engilish or Irish potato (Solanum tuberosum), so extensivoly cultivated throughout unost of the temperate countrios of the civilized globe, contributing, as it does, to the necessitica of a large portion of the human race, as weli as to tho nourishment and fattening of atock, is regarded as of bat litule leas importance in our nationai economy than maize, wheat, or rice. It has been found in an indigonous atate in Chili, on the mountains near Vaiparaiso and Mendoza; also near Montevideo, Lima, Quito, as weil as in Santa Fó de Bogota, and more recently in Mexico, on che flanks of the Orizaba.
Ths history of this plant, in connection with that of the sweet potato, is involved in obscurity, as the accounts of their introduction into Europe are somewhat conflicting, and often thay uppear to be confounded with ons another. The common kind was doubtless introduced into Spain in the early part of the 16th century, from the neighborhood of Quito, where as well as in all Spsnish countries, the tubers are known as papas. The tirst published account of it we find on record is in la Cronica del Peru, by Pedrı de Cieca, printed at Soville in 1553, in which it is described, and illustrated by an eagraving. Trom Spain it sppears to have found its way into Italy, where it assumed the anme name as the truffle. It was reatived by Clusius, at Vienna, in 1598, in wlicze time it apread rapidly in ths south of Europo, and even into Germany. To England it is said to havo found its way hy a different route, having been brnught trom Virginia by Raloigh's coloniats in 1586, which would seem inuprobahis, as it was unknown in North America at that time, either wild or cultivated; and, besides, Gough, in inis edition of Camden's Britanma, says it was tirst plantel by Sir Walter Kaleigh on his estate at Youghall, near Cork, and that it was cultivated in Iroland hefore its value was known in England. Gerard, in his Ilerbal, published in 1597, gives a tigure of this plant, under the name of Batata Virginiana, to distinguish it from tho sweet potato, Butata edulie, and recommends the root to be caten an a "delicate dish," but not as a common food. "The sweet potato," says Sir Josoph Bariks, "was used in England as a delicacy iong before the introduction of our potatoes; it was imported in considerable quantitios from Spaiu and tho Canaries, and was supposod to possess the power of restoring decajed vigor." It is celated that the common potato was accidentally introduced into England from ireland at a period somowhat earlier than that noticed by Gerard, in consequence of the wrecking of a vessel on the colast of Lancoahire, which had a quantity on board. In 1663, the Royal Society of England tcok measures for encoursging the cultivation of illis vegetablo, with the visw of preventing famine. Notwithstandlug ite utillty as a food hecame better known, ao high charecter waa attached to i ; and the writere on gardening toward tho end of the 17th century,
n handred years or more after its introduction，treated of it rather indifferently．＂They are much used in Ireland and Amerlca as bread，＂says one author，＂and may be propagated with advantage to poor people．＂ The famous nurserymen，London and Wise，dld not conslder it worthy of notice in their Complete Gardener， published in 1719．But lta nse gradually apread，as ita excellences became better understood．It waa near the milddle of the last century before it was general－ ly known either lu Britain or North America，aince which it has been most extensively cultivated．The perlod of the introduction of tha common potato inte the British North American colonies is not precisely known．
The culture of this plant extenda through the whole of ist，rope，a large portion of Asia，Australia，the aouth－ ern and northern parts of Afrlca，and the adjacent isl－ ands．On the American contincnt，with the exception of some sectiona of the torrid zone，the culture of thia root extends from Labrador on the east，and Nootkn Sound on the wert，to Cape IIorn．It resista more ef－ fectually than the cereals the frosts of the North．In this country it is principally confined to the Northern， Middle，and Western States，where，from the coolness nf the elimate，it acquires a farinaceous consistence highly condurive to the support of aulasal life．It has never been extensively cultivated in Florida，Alabana， Miasissippl，nor Louisiana－perhaps from the grenter facility of raising the sweet potato，its more tropical rival．Ita perfection，however，depends as much upou the soll as on the cillunte in which it growa；for in the red loem on the banka of Bayon Bruf，in Louisiana， where the land is now，it is stated that tubera are pro－ duced as large，aavory，and as free from water as any raised In other parts of the world．The asme may be said of those grown at Bermuda，Madeira，the Cana－ rics，and numerons other ocean isles，The chicf vari－ eties cultivated in the Northern States are tion Carter， the kidneyn，the pink－eyes，the Mercer，the orange，the Sault St．Marie，the Merino，and the Western red；in the Middle and Western Staten，the Mercer，the Inrg red or Merino，the orange，and the Western red．The yield varies from 50 to 400 buakels and upward per acre，but generally it is below 200 bushels．Within the last ten ycara an alarming disense，or＂rot，＂has attacked the abers of this plant abont the the they are fully grown．It has not only oppeared in nearly every part of our own country，but has apreal dismay at times througheut Great liritain and Ireland，ant has been felt more or less seriously in every quarter of the giobe．To the greater uneertainty attending its cultivation of late years，from this cause，must be at－ tributed the deficiency of the crop of $184!$ as compared with that of $\mathbf{1 8 3 9}$ ．This is one of the four agricultural products whieh，by the present census，appears smaller than it wat ten yenrs since．

Swret fotato．－The aweet potato（Ratata edulis）is a native of the East Indlen，and of Intertropical America， and was the＂potato＂of the oll English writers in the early part of the 14 th century．It was dountens in－ troducel into Carolina，Georgia，and Virgiola，noon aft－ er their settlement hy the Eurepeann，Preing mentioned as one of the eultimated profucts of those colonies an early as the year 1648．It arowa In excessive almant－ ance throughout the Southers States，and as far north as New Jersey and the southern part of Michigan． The varieties cultivated are the purple，the red，the ycllow，an＇the white，the former of which is confined to the Soutl．The amount of aweet jotatoen exported from Louth Carolina in 1747－＇48 was 700 lushels；that of the common poitato exported from the Irsited States in $\mathbf{3 8 2 0 - 2 1}, 90,889$ humhels；in 1880－91， 112,875 lush－ els；in 1840－41，1201，045 lushels ；in 1850－51，106，842 Inshels．According to the cenaua roturns ef 1840 ，the quantity of potatoes of all marts ralned in the I＇nion was 108,298, imio buslicls；of $1850,104,055,989$ bushels， of which $88,259,196$ bushels were sweet．

| ataten and Territorien． | Irioh and Sweot Potatioe． |  |
| :---: | :---: | :---: |
|  | 1840 | 1850, |
|  | 日nghelo． | Bushels |
| Alabama | 1，708．350 | 8，721，20\％ |
| Arkanmas |  |  |
| Columbla，Diotrict of． |  | 10，\％ 2 |
| Connecticut | 3，414，238 | 31，159 |
| Delaware | 204， 712 | 8 Br, iso |
| Florida | 204.617 | 765， 6 S 4 |
| Georgla | 1，201．366 | 7.213 .5015 |
| Illinols | 2，625， 52.00 | 2，672，2：4 |
| Indlana | 1，525，704 | 2，284，14 |
| Jown． | 204003 | 28.4 .36 |
| Kentucky | 1，055，066 | 2，4011，666 |
| Lonisiana | 834341 | 1，524，15： |
| Malne． | 10，802， 810 | 3．536．（4） |
| Maryland | 1，030，438 | 973，932 |
| Maspachuse | 5，385，452 | 3.505 .304. |
| Michigan． | 2， 1460,205 | 2，361，144 |
| Misslssl ppl | 1，630，100 | ［1，0103，277 |
| Mlseouri | 783.708 | 1，274，511 |
| New llampal | 6．206，606 | 4．804，419 |
| New Jerscy． | 2，072，069 | 3．75， 460 |
| New York | 60，123．614 | 15．403，1097 |
| North Carolio | 2，009，239 | 6.716 .047 |
| Ohto | $5.805,021$ | 5．245， 860 |
| Pennsy）vania． | 9，595 603 | 8，03：2，904 |
| Rhude Ieland | 911.973 | 651.629 |
| Sonth Carollin． | 2，698．313 | 4478 ， 63 |
| Tennessee | 1，904，370 | 3，ctisea |
| Texam． |  | 1，426，093 |
| Vermont | 8，809，751 | 4，1911，014 |
|  | 2，944，060 | 3．189，5：07 |
| Wluconsin | 415，608 | 1，402，9\％ |
| MInnosota Territury | ．．．． | 21.34 |
| New Mexico Territor |  |  |
| Orckon Territory ． |  | 91.306 |
| ＇tah Territory ． | － | 41029 |
| Total． | 108．15＊，101 | 105．11 18 |

fixpots of l＇otatoga from tha linited statfa for the． tear endinu ilune 30， 15063 ．

| Whither exported． | Harrela． | Välu |
| :---: | :---: | :---: |
| Itusslan l＇ustessiona in N．America． | 41 | \％20 |
| Ewchtah West Indies． | 5 | 11 |
| Hanish Wext Indles ．．．．．．．．．．．．．． | 1，164 | 2，7\％ |
| Bremen．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 |  |
| Dutch West Indies ．．．．．．．．．．．．．．．．．． | 4010 | 1，184 |
| Dutch tiutana | 80 | $13 \%$ |
| England | 7 | 10 |
| C＇anatia | 6，164 | 5，6116 |
| Other liritial Xorth American P＇oss． | 230 | 3， 29 |
| British Weat Indles．．．．．．．．．．．．．．．．．． | 17，240 | 32，910 |
| Britsh Ifonduran．． | 192 | 44： |
| British Guana | 3，472 | 6.035 |
| French Weat Ind | 989 | 1，i－5 |
| Cuba | 43，582 | 82，910 |
| l＇orto lice | 5，1s， | 9.113 |
| Madelra | 100 | 2：n |
| Turkey In Asla | 100 | ？in |
| Jorta In Africa | 20 | ， |
| Haytl．．．．．．．．． | 184 | 4，54 |
| Gail lromingo | 125 | 9＋4 |
| Minxico ．．． | 7111 | 1．7ni |
| Contral Repubile | 10． | 83 |
| New（iranada | 6 （3） | 1，44 |
| Venozucis | 6 | 1，\％＇ |
| （hill | 1311 | 11： |
| 1 ＇ers． | 205 | \％an |
| Sanduleh Isjauds | 115 | $1.23 \%$ |
| （ hina | 111 | 1，3：4 |
| Whato Fishert＇s | ：49 | 0.0 |
| Total． | Stちば |  |

Imants of Potatofa into tith t＇vited fitatix yo：the lear rempand dine bu，lemit


Potol in two br the Alle its whol Marylan Chessupe l＇eint by a mile a It is nav in Wash below t structed Lasb，C＇
Poun In Enght avoirdul dupoia w $5-60 \mathrm{gra}$ antl the on times shilling ter was Peachit cisely kn to an At （arioir de sixteen as sevent ers＇May weight o divited glo－Saxo The snm pound，w and the mans as change， made to ranged ！ end of th William， weights remain o Queen gland，to formerly the sixt Elizabet erally re ＂Sterlin vided int ro，in Bg ing tha goldsmit ahout th Eastorlin Mint．ly began to also reilu ute of 12 ey，weig censent serm to weights of each ther whe weights things n ued．＂ ures hein hleir qua coin of t becruse of it，wit ry 18. （
rese no
of the $v$

Potomao River, in Maryland and Virginia, rises in two branches, the north and the south, in and near the Alleghany Mountnins, and forms, through nearly its whole course, the boundary between Virginia and Maryland. It is about 300 miles long, nud enters Chesapeake Bny letween l'oint Lookout and Smith's l'oint by a mouth ten miles wide. At Alexandria it is a milo nud a quarter wido, 290 miles from tho ocean. It is navigable for ships of the lino to the navy-yard in Washington, 300 miles from the sea, and three miles below tho head of tide-water. Above this it is obstructed by numerous falls and rapids. - See Manihand, Chesaideake.

Pound (Lat. pondus, weight), a measure of weight. In England two different pounds are used-the pound avoirdupois, and the pound Troy. Tho pound avoirdupois welghs 7000 grains Troy, and the pound Troy 5760 grains. The former is divided into 16 ounces, uud the lntter into 12. The pound sterling was in Saxon times, ahout A.1. 671, a pound 'Troy of silver, sud a shilling was its twentiech part; consecquently the latter was threo times as large as it is at present. lesachsa. Tho value of the Roman pondo is not precisely known, though some suppose it was equivalent to an Attic mina, or $£ 34 s .7 d$. Our avoirdupois weight (utoir det poids) came from the French, and contains sisteen onnees; $i t$ is in proportion to our Troy weiglat as seventeen to fourteen.-Cinaminens; see nlso Bankers' Magazine, December, 1857, 456-45i. An ohl pound weight of geographical signifiennee, named liasterling, divided into twelvo ounces, was in uso among the An-flo-Saxons some centuries hefore the Norman Conquest. The snume weight, ealled the Tower, nnil the Moneyers' pound, was styled by early lirench writers the Ronan nud the Rochelle pound ; also known among tio Garmans as the Cologne pound. A simple syster of exchange, by which a pound of silver money, in tale, was male to equal a pound in gross weight, had been nrranged by Charles the Great, in lirance, towarl the end of the eighth century. In Britain, under the lirst William, of Normandy, an orilinance declared, "The weights and measures throughout the kingdom shall remain as our worthy predecessors have established." Queen Eliznbeth oriered the ounco of silver, in England, to be cut into sixty penilies; so that the penny, formerly the twenticth of an ounce, thenceforth became the sixtieth part! From the termination of Queen Elizabeth's reign tho cevinnge of Euglish silver lata generally retained a purity of 925 thousandths, called the "Sterling Standard." Another pound weight, ulso divided into twelve ounces, had been brought from. Cniro, in ligypt, to Troyes of Champagne, in l'ranee, during the Crusndes. Carried into Englnnd by foreign goldsmiths, lombard merehanta, possibly from Veme, about the year 1490 , it gradually superseded tho oil Easterling weights, and found aceess Into the Itritish Slint, ly decision of IIenry V11I. In 1543 this king began to delase the fineness of the silver coins, und also relueed their standard welght. The lBritish statute of 1266 established two common measures for money, weights, Iry and wet quantities, with presumed consent of tho people and approval by the king, which sem to renter "wheat and silver money the two weights of the halnnee, the natural tests and standartis "f ench other." Unfortunately for such decision, neither whent eorn grains nor sllver are by nature exact weights suited for a standard, " $n$ rule by which other things may be correetly compared, adjusted, and valued." "the neeredited proportions of these old measures being accessible an ntempt has been made to test their quantlies. Edward IV., in 1.14i, struek a golit coin of the value of ten shillings, numed sum "angel," hecause such all inuge was represented upon the face of it, with the likeness of a ship on the reverse. Itenry IV. ( 1483 to $: 50!1$ ) intruduced "tho sovereigu," or "rose nothe," of groll "Tho guinea," designed to he of the ralue of twenty shillings, but requiring subse-
quent correction, was not oriained till the relgn of Charles 11, in England. In 1821 a committee of the Royal Soclety, to whom the matter had been referred, proposed, and lt was so decided, by act of George IV., in 1824, 1st. That the parliamentary standard yard, made by Bird, in 1760, be henceforth the legal staudard of the British empire; 2d. That the parliamentaxy standard Troy pound weight, made in 1758, continuo unaltered; Bd. That seven thousand grsins be deelared to constituto the pound-weight avoirdupois, now ealled the British imperial pound. By act of Congress of the United States, in 1828, "the brass Troy pound weight, procured by tho Minister of the United States at London, in the year i.827, for tho use of the Mint, shall be the standard of the Mint of the United States, conformably to which the coinage thereof shall bo regulated." Yet we possess three several standing weights for coinaye accounts, each one derived from a distinct unitary, measure taken from as many different nations. 1st. We have a Troy standard for quantities, from Britain ; 2d. A metrical standard for qualities, from Fwanco; 3d. An avoirdupois standard for proportons, from Spain. The sole remnant retained trom the originsl seale of tho mother country being the Troy ounce, now divided and multiplied decimally. - Report of Dr. J. H. Gimuses of tho United States Mint, North Carolina. See Penvy.

Pratique. The writing or liceuse of this name was originally addressed ly the Southern nations to the ports of Italy to which vessels wero bound, and signified that the ship so lieensed came from a place or conntry in a healthy state, and no way infected with the plague or other contagious disease. The pratique is now ealled a bill of health, and is still of tho same intent and import.-Asies.

Precious Metals, a designation frequently applied to gold and silver. We have given, under the articles Gols and Silven, a short account of esch metal; and we now proposo laying before the reader some detaila with respect to their supply and consumption. To entor fully lnto this interesting and difficult subject would require a ling essay, or rather a large velume. Mir. Jncol publisied in 1831 an "Historical Inguiry Int's the Production and Consumption of the Preclous Metals," in which ho takes up tho subject at the earliest period, and continues it to the abovo epoch. And though far fror i being so learned, complete, or satisfnetory as might havo been oxpocted, this work contains a good deal of valuable information, and deserves the attention of those who take an interest in such inquiries. But within the isst fivo or six years the subjeet has aequired an interest and importanee with which it was not previously invested.

Supply of the Precioas Metals. - Since tho discovery of Amerien, the far greater part of the sur plies of gold nul si'ver have been derived from thint continent. Jreviously io the publiention of IImmbolde's grent work, "Eissai Politique sur la Noutelle Espagne," several estimates, somo of them framed by individuals of great :ntelligence, wero in elreulation, of the quantitios of gold and silver imported from Amerien. They, however, differed widely from each other, and were all fransed from comparatively limited sources of information. Ilumboldt brought these estimntes together as follows:

| Authom. | Eproctie. | Dollars. |
| :---: | :---: | :---: |
| Txtariz | 1442-1724 | 3.636,0014,000 |
| sulorzano | 1492-1428 | 1,500,000,000 |
| Moncula | 1492-1545 | 2,000,000,000 |
| Navareto | 1516-1617 | 1,536,1000,0017 |
| Jaynal. | 1492-1780 | 6,154,000,000 |
| Itolvertson | 1402-1776 | 8,800,000,000 |
| Neeker. | 1703-175 | $344,000,1000$ |
| Gerboux | 1724-1800 | 1,6i0, 000,000 |
| The Author of the Recherches) stir le Cominerce, Amaterdam, 1779 $\qquad$ | 1492-1776 | 5,072,000,000 |

- Eisati sur la tiouvelle Enzagne, tomo III.
llut these have been wholly superseded by the more
extenaive and laborionas investgations of Humboldt. the exporta to Europes And making every ellowance Thls illuastrions traveler, beesidea being acque int od with all that had been written on the aulject, and having reatly actess to official sourcen of informstloi: unknown to the writers already alluded to, was well sersed in the theory and practice of mining, and critic ally examined soveral of tho most celebrated mines. lig was, therefore, thoomparably better qualified for foristug correet conclusions as to the past and present prodnctiveness of the mines than any of those who had hitherto speculated on the pubject. Llis statements have, indeed, been a ceused of exaggeration; and we ineline to think that thero aro grounde for belleving that this charge is, in some measure, well founded, particularly as respects the accounts of the profits made by mining, and of the extent to which the supplies of the precious metals may be increased. But this criticisin applies, if at all, in a very inferior degree to the aecounts Humboldt has given of the tetal protuce of the mines, mid
for the imperfection inseparablo from such investigaLions, it is etill true that the stalements in queation, and the inquiriea on which they are founded, are amer:g the most valuable contributions that havo been made to statistical science. According to Humbolut, the annual average supplies of the precious metala derived from Ainerion have been as follows :

-Ensat our la Nouvelle Eapaonc, ill.
The following is liumbokit' estimate of the annual produce of the mines of America at the commencement of the 19th century:

|  | Gold. |  | Sllvar. |  | Value of the Gold and Silver in Dollurs. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Iolitical Diviaions. | Mapka of Castita | 4tloge | Marle of tiantile. | Ellogat |  |
|  | 7, ${ }^{10} 0$ | 1,603 | 2,888,820 | 617,512 | 23,004,040 |
| Vicerruyalty of Peru ... | 3,400 | 782 | 611,030 | 140,478 | 6,:40, 000 |
| Captain-generalship of Chill. | 12,212 | 2,807 | 20,700 | 0,827 | 2,060,000 |
| Fice-royalty of Buenos Ayres | 2,200 | 608 | 481,830 | 110,764 | 4,850,000 |
| Vlee-royatty of New Graviada | 50.505 | 4.714 | .... | .... | 2,100,000 |
| brazil....... | 29,900 | 6,673 | - | $\cdots$ | 4,3010,400 |
| Total | -5,217 | 17,29t | 3,460,840 | 7r6,6st | 48,500, 0200 |

Ilumbolds further estimated the annual produce of the liuropean miacs of Ilungary. Saxony, etc., and those of Norhhern Asia, at the rause period, at about $\mathrm{El}, 060,000$ more. The quantidy of gold produced in America at the beginuing of tho century was to the quantity of silver as 1 to 46 ; in Earepe the proportions were as 1 to 40 . The value of equal quantities of gold and eilver were then in the proportion of 15 or $15 \frac{1}{2}$ to 1. From 1800 to 1810 the yield of tho American mines continued to lucrease; and their produce, and that of the European and Russian mines, wan then probalily rather above than below $\$ 55,040,000$. But in the lastmentioned ycar the contest began which terminated in the dissolution of the comection between Spain and her American colonies. The convulsions and insecurity arising out of this atruggle-the proseription of the old Spanish families, to whom tho mines pringipally belonged, who repaired, with the wrocks of their fortunes, some to Cubn, some to Spain, and some to Horleaux aud the sonth of France-caused the abandoninent of several of the miues, and an extraordinary falling off in the amount of their profuce. 'I here aro no means of estimating the prerise oxtent of this decline; but according to Jacol, who collected and compared all the existing infomation on the sulject, the total average produce of the American mines, inclusivo of Ilraxil, during the twenty yeara ending with 1829, may ber estimated at $\$ 20,000,000$ a year; being less than half their produce at the beginning of the cen-tury!-dacon on Itecious Aetals. It has, huwever, been aupposed that Jaxol, ratier exaggerated the fuiling off. And, at all ovents, the supplies of bullion obtained from Mexico and south Auterica began, soun after the publication of his work (1831), to lucreams; and, notwithstanding the anarchy to which they have rontinued to be a prey, that inerease has been maintalued down to the year $1 \times 53$. It appears from the returns sent home lyy the lbritish consuls that the coinage of gold and silver in the Mexican mints amounted in $1817^{7}$ to $816,923,948$, and in 1814 to $\geqslant 19,5 \times 16,-5 \cdot$. Put it is well known that consideralle guantitics of these metuls are rised and exported from Mexico without ikeing bren,, , to the minas to be ceviuod. Aud taking thin ite:a noto account, wo shall not, perhaps, to very wide of the mark if we estimate the entire produce of the N'er an mines in 1847 and $18+8$ at atout 19 and 2 $1 \frac{1}{2}$ mil.' min of dollsra, of which from 17 to $20 \frac{2}{2}$ millions were in allver. In 1842, Mr. B. H. Wilson, eunsul ina
l'era, estimated the produce of the Peruvian mines at alout $\$ 5,210,000$ a year. - Parliamentary Paper, $\mathrm{N}_{0}$. 176, Sossion 1848 . And it has siuco increnesu to $\$ 6,500,000$ or $\$ 7,000,000$. The produce of the Dulitiun mines is usually cetimated at abont balf the produce of those of leru. In $180^{5} 0$ the produco of the Chilian mines, accordiag to the official returns, ameunted to \$7,0:0,G7̈1.-A anucire de I'F.conomie Politique, 1853.

Birkmyre's esthate of the production of the precious metals in $18 / 6$ and 1850 , tho nuost elaborate and ral. mable of any hitherto puhlished, appeared in the loudon Times of the 19th May, 1851. We auljoin senie of its principal portiens.
"The quantities of goll and silver produced at the under-meationed epachas were:
" In 1801 the qumutity of pure gold produce! in Allerica was 46,331 lus.; inl Europe and Northen Asia (exclusive of Chii a mmil Japan), 4,916 1 ls . ; tetal produce, $51,217 \mathrm{llss}=\mathbf{=}=55,910$ llis. Itritish staudard gold $=$ £2,612,200.

In 1846 the quantity of pure gold proluced ia Anorica was $2 \overline{5}, 503$ lis. ; in Europe, Africa, and Asia (exclusive of China and Japan), 89, 171 lbs ; totul proluee, $114,644 \mathrm{lbs}$. $=125,108 \mathrm{lua}$. British standard gold= £ $5,816,721$.
"In 1850 the quanticy of puro gole prolucel in America was $261,761 \mathrm{lhs}$; in Eureje, Africa, and Asia (exclusire of China and Japan), 101,219 Jus, thal produce, $36 \mathrm{G}, 969$ lus. $=399,217$ liss. liritish standarl bold $=£ 18,654,322$.
"The alowe quantitiea are probsbly less than the actual production. The duties on gold in liussia on the produce of the private mines are heavy, varyiut from 12 to 24 per cent.; in Austria they amement to 10 per cent., in lirazit to 5 per cent., and are underatound to lead to a great deal of amuggling. In other coun. tries, such an the Luited States, where there are no duties, the gold and silver stated in the table are only the quantities lnought to the mints to be coivel, there be. ing uo means of determining the quantity used in jewelry and other arts ant manufactures."
The exhnustion of the precieus metals in manufactures and the arta throughout Luropo and the Dinited States probally $y$ exceecis the ordinary estimates. It is known that in Eingland alone the weekly consumption of fine gold is equivalent to 600 ounces-used hargely in gilling metale by the electrotype and the watergildlug processes.

 horsia; ihe latter two teais after the Dibcovery.

| Countrien. | 184a. |  |  | 1850. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gold. | Sitver. | Total. | Golu. | Silver. | Total. |
| Calfurnia |  |  |  | 212,000,000 | 268,088 | 212,002.088 |
| Culted states.. :,$\ldots .$. | 237, 3 | £1,804 | 2239,230 | 115,430 | 11.444 | 126,874 |
| Mexico ...... . . . . . . . . . . . . . . . . | 249,763 | B,457,630 | 8,716,773 | 882,901 | 6,683,888 | ' $6,766,234 \prime$ |
|  | 252,407 | -42,929 | . 2005,836 | 25.407 | 43,929 | 295,836 |
| trern................... ........... | ${ }_{60} 98.241$ | 1, 0000,583 | 1,096,821 | 90,24t | 1,000,683 | 1,096,824 |
| Thollvia | ${ }_{145}$ | -40,191 | 90,648 | 60, 607 | 460,191 | 620,648 |
| (shthil. | 200,871 | $\begin{array}{r}297,029 \\ \hline 2,003\end{array}$ | $\stackrel{4}{961,814}$ | 148,685 280,068 | - 297.020 | 442, 614 |
| Total of North and Sou | 21,301,560 | \&5,201,619 | 2'0,508,179 | £13,341,989 | 57,259,8.4 | . $220,601,813$ |
| Russia. . | 23,414,407 | £167,531 | 23,682,25s | 24,175,860 | 2171,317 | £4,347,477 |
| Norway | .... ${ }_{\text {K7 }}$ | 32,340 | 82, 818 |  | 85,607 | 35,607 |
| North Germany | 857 | 138,022 | 168,879 | 357 | 138,022 | 138,370 |
| saxany ............................. |  | 198,200 | 108,200 |  | 198,200 | 108,200 |
| Anstria , . . . . . . . . . . . . . . . . . . . . . . |  | 282,054 | 665,404 |  | 280,971 |  |
| P'ledmont | 17,841 $\mathbf{8 , 4 8 8}$ | 227,499 | 26,285 | $\begin{array}{r}3 \\ \hline\end{array} \begin{array}{r}17,811 \\ 8,498\end{array}$ | 7,444 440,210 | 25,285 442,705 |
| Spatn .......... | 8,408 | 227,499 109,089 | 229,097 109,989 | 7) $\quad 9,498$ | 440,210 160,000 | 442,703 100,600 |
| United Klugdom | 203,900 | 109,089 | 109,989 204,950 | 203,50¢ | 360,000 1,050 | 160,090 204,956 |
| Africa Borne | 805,900 | 1,684 | 807,484 | 805, 850 | 1,58.4 | 307, 484 |
| Ava. | 100,000 | 517 | 100,517 | 100,000 | 517 | 100,517 |
| Matuer | 72.240 | 374 | 72.614 | 72,240 | 37. | 72,014 |
| Sumalr | 63,710 | 830 | 64,049 | 63,719 | 334 | 64,049 |
| Anuam or 'ouqutu. | 30,585 | 63.400 83,000 | 84,015 88,975 | 30,655 | 63,460 83,000 | \$1,045 |
| Varlous eonutries* | [0,976 | 33,000 | 83,975 | 50,075 | 63,000 | 83,975 |
| Total of Europe, Africa, and Asia... Totat of North and Sonth America.. | $\begin{array}{r} 2 \cdot, 915,1!2 \\ 1,301,560 \end{array}$ | $\begin{array}{r} \times 1,251,806 \\ 5,261,019 \end{array}$ | $\begin{gathered} \mathbf{~} 5.799,498 \\ 6,563,179 \end{gathered}$ | $\begin{aligned} & \mathcal{E 5 , 3 1 2 , 5 3 3} \\ & 13,341,989 \end{aligned}$ | $\begin{array}{r} x 1,545,592 \\ 7,250,824 \end{array}$ | $\begin{aligned} & \mathcal{E 0 . 8 4 0 , 9 7 5} \\ & 20,601,819 \end{aligned}$ |
| Grand total. | 25,840,752 | 20,516,925 | \&12,362,677 | 218,664,52.3 | Q8,758,416 | 227,442,758 |

' Excluaivo of Ching and Japan, which produce largo quantlies of gold and sllver, the amount of whleh is quito unknown to Europeans,

Same small portlon of tho quantities exported to bigyt was probably detained in that country or forwarded to Australia. But by far the greater part, perhaps not less tban nineteen-twentieths of tho whole, was destinod for, and went to, Iadia. But although hudia did not, for several years prior to 1850 , derivo any considerablo supply of bullion from Europe, sho drew during that period largo supplies from China. This was a consequence of the vast increasa in the importations of opiun into the lattor. With the exception of tea and silk, China has fow nativo products, other than the precious motals, fit for foreign markets. And the exports of the former being not much more than sullicient to pay for the products sent to her from Liurope and Amorica, a vory considorable part of the cotton and opium importod from India is paid for In bullion, the increased exports of which are said to have latterly brought serious ditficulties. It appears, fol example, that at an uyorago of the seventeen years ending with 1850-'ol, the annnal value of the merchandise pxported from India to China amonuted to $\mathbf{x t , 5 6 t , 4 0 0}$ a year, and that of the marohandiso imported to oply £643,210, leaving a balance of no less than $£ 3,921,190$ a year to be paid in bullion, and in drates on London and other places indebied to China. The following tahle, which is deduced from the account compiled by the Indian custom-house, shows the balance between tho importation and exportstion of Iressure into and from India, tor 17 years, 18:5-'0l. Since 1851 this enrrent of goldand sllverfrom Europe has largely increased, swelling thas hoards of treasure in China und Iadia.

Accognt of the Imports and Fixports of Traabure into


| Years. | Imports. | Exports. | Excess of limports. |
| :---: | :---: | :---: | :---: |
| 1434-50 | 21,8: $\mathbf{3}^{1} 1123$ | 2114,741 | (1,608,252 |
| 1835-' P \% | 2,140,465 | 108, 1149 | 4,038,353 |
| 1836-37 | 8,030,147 | 203,034 | 1,772,2933 |
| 1837-33 | 2,610,101 | 311, 0 Cot | 2,299,445 |
| 1838.35 | 3,010,920 | 547,046 | 2,008,014 |
| 1899-40 | 1, $0.45,264$ | 470,523 | 1,474, 74t |
| 1840-41 | 1,780,253 | 346,480 | 1,419,707 |
| 1841-42 | 1,841, $3^{\prime \prime}$ | 515,070 | 1,326,259 |
| 1812-94 | $3,443,248$ | 215,797 | 3,227,495 |
| 1843-44 | 4794.079 | 746,070 | 4,048 602 |
| 1841-45 | 3,752,478 | 1,103,840 | 2,645,538 |
| 1845-45 | $2,405,169$ | 810,1028 | 679,931 |
| 1816-47 | 2,939,022 | 713,870 | - 2226,1022 |
| 18.47-48 | 1,078,391 | 1.4:6,088 | 517,3\%3 |
| 1849-49 | 4,204,503 | 2,689,7 68 | 1,604,760 |
| 1840..'60 | 3.506,807 | 971,244 | 2,426,562 |
| 1850-'5i | 8,511,509 | 511,289 | 3,270,6:0 |

Total excess of imports. . ................... $831,427,905$
Now it appears from this table that the imports of bullion into India during tho soveuteen years ending with $1850-51$, oxceoded the oxprorts by the gross sum of $£ 36,427,905$, being at the rate of $£ 2,142,818$ a year. Tho following tables show the countries from which tho bullion imported into Iudia during the four years ending with $1850-$ '01 was derived, and those to which the bullion exportod was sent.

The accumulations of gold from California and Australia have created a strong desire for India and China goods, for which specio must be paid in lieu of donestic goods or produce from Laghand or tho Linited States.

Trearvaf impobted into lniha from 1847-48 to 185j-'51.

| Where from, | 1847-49. | 1848-49. | 1849-180. | 1850-91. |
| :---: | :---: | :---: | :---: | :---: |
| United Kiugdom | Etb, 04.9 | 230,364 | £26,6! 9 | 2603, 1230 |
| dfrica.......... | 12,630 | 14,496 | 10,435 | 13, 5 W |
| Ausples | 11,8:0 | 18,125 | 0,949 | 0,736 |
| Arablan and t'erslan | 335,2\%8 | B>8,310 | 405,180 | 472,092 |
| Gape of Giood liope |  | 200 | 1,110 | 2.814 |
| Ceylon....... | 67,424 | c5,867 | 109,145 | 871,363 |
| Elhun.. | 1,036, 843 | 3,109,002 | 2,326,917 | 1,845,284 |
| Fmanen.... | 2,090 |  |  | 18,378 |
|  | 84,321 | 162,531 | 807 $80,60 t$ | 188, 284 |
| Pegu.. | 42,031 | 64,412 | 84,902 | 70,800 |
| Prnang, Slugapore, nnil Malaeen | 204,00, | 3:10, 910 | 239,604 | 149,216 |
| sommranee .... | 141 | 598 |  |  |
| Sucz | 4.080 | 24,006 | 82,150 | $210,803$ |
| Sumait | .... | 1,200 |  |  |
| Totni. | 21,073,301 | 24,204, 513 | 43,306,307 | ¢3, 811,809 |



| Where lo. | 1818. | 1848.40. | 18499'50. | 1850-31, |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 21,403,804 | 1118,488 ${ }^{\circ}$ | 210,193 |
| Africa. ..... ....................................................... | 7,892 | 15,405 | 10,221 | 0.811 |
| Aıserica . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 5,450 | 2,235 |  | 700 |
| Arabtan and jerstan Cinfs. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 87,162 | 69,270 | 60,400 | 46,040 |
| Batavin and Jnva . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... |  |  | 2,156 |
| Cape of Good 1tope. ..................... . . . . . . . . . . . . . . . . . . . . | 90909 | 1,047 | ${ }^{6} 864$ | ${ }^{2} 700$ |
| Ceylon <br> China | 294,0008 32,498 | $\mathrm{CSI}_{\substack{\text {,4it } \\ 588}}$ | 261,828 00,661 | 259,248 21,000 |
| France | 3,488 | 04 | 0,600 | 21,000 |
| Java . ............... |  |  | 30 |  |
| Mauritise and Hourboa | 172,323 | 112,094 | 210,583 | $25,2+4$ |
| Malta nnd Gibraltar . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ${ }^{31}$ | 400 300 | … | jon |
| New sonth Wales. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 80.131 | 65.164 | 80,239 | 142,404 |
| j'enang, Blngapore, and Maiaecr . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 33,295 | 15,398 | 28,681 | 26,24\% |
| Sonmeanee $\qquad$ <br> Sucz. | - 690 | 78,208 | 183 24,268 | 4, 689 |
| Total..................................................... | 21.420,0138 | x $2,2.836743$ | 2:71.244 | (f,41,283 |

It appears from these tables that China furnished two-thirds or more of all the bullion imported in.o India during the four years ending with 1850-'51: : il that till the last-mentioned year the imports from l:uropo were quite inconsiderable, and greatly en ceeded by the exporta to it. Chiua, indeed, has been long known to be both an importer and an exporter of bullion. But it is only within the last few years, or since the importations of opium became no inmenso, that $h$ rexports of bullion have become so very large as to m . ke them productive of much inconvenience. The imp orts of bullion into India from the Inlted States hav, till recently, been too inconsiderable to deserve notis: A direct intercourse has now been commenced betwi in San Francisco and the eastern hemisphere; but hi, herto all shipments of hullion to India and China on / merican accuiat havo been made through London. Luring the year ending the 30th June, 1852, the Amorienna sent gold and silver to the amount of
, 127,379 to England. Hut though the value of ceir imports from India nad China during that year amounted to $811,818,991$, while that of their exports thither amounted to only $\hat{3}, 2627$, tian, they did not send to either a single dollar or a single dollar's worth of gold or silver direct from Ameriea.-Rfjort on Commerce and Narigation of the L'nited stutes for 185!, $p$. 36, et seq.

But uader such cireumstances there will lie a eorros sponding inerease of demand in India for the bullion of Australia and America. Indced, tho probability seems to be, from the late extraordinary importation of bullion from Liurope, that the supply from China and clsewhere, notwithstanding its magnitude, had not sufticed fully to mect the wants of India. And independent of this circumstance, it is plain that a slight fall in the value of bullion in other countries would render it a still more advantageous artlele of export to India. Aul taking the vast extent and population of the peninsula into account, and the habit, universally prevalent in it, of hourding the precions metals, it is impossible to say, supposing the treasure-current to continue in set in an easterly direction, how great $n$ quautity of hullion might he thrown upon the markets of Indla and tio aljacent countries before any very sensible reduction of its value was manifented. It is diflicult satisfactorily to account for the extraordinary exportation of bulition to India in $1 \times 50-\mathbf{D}^{2} 2$. Mlost probally It has been owing partly to circumstances connected with the demand for it in India, mud partly to those peculiar to its supply in Fingland and the
 of the annual imports from India and China connists of remittances on account of the East Intla Company's homa charges. But indepencently of this item, the imports of Indian and Chinese goods into Vingland and tho Cnitell States Hal a laterly been so very great, that they have left a balance to be defraved by the export of specie. Most prulably, also, the oceupation of the l'unjalı has oceasinned a demand for additional supplies of currency for that province, while consiter-
able quantities would be wanted for the llurmese expedition. The refusal to receive gold tis phyment of revenne, though ita influence has been exaggerated, lias no doubt contributed to bring about the same result, or to inerease the demand for silver in India. And it further appenrs that the balances of treasure belonging to the Indian government in its ditlerent treaauries throughout India have lately increased to an inconvenient extent, or to alout 16 millions nter. ling, when from 8 to 10 millions would suftice for r ery purpose of regularity and security. Hat measires aro nuw (1853) in progress connected with the liquida. tion of a portion of the Indian delit which will set free a conalderable portion of this aurplus treasure; and will thus have the donble effect of diminishing or stopping the demand for silver in India, and of enal ling the country to avail itself of the serviees of the capital which has been abstracted from the great work of pro-duction.-.See an ablo article in the Efonomist, 3il Jecember, 18:53. It would also seem that while cireumstanees were oceluring In India which account for the origin of the drain for bullion to thut quarter and its continuance, thero was simultaneonsly an excess of silver in America nnd Europe, oceasioned hy the substitution of gold for that metal in the eurrencies of the United States and of France. And such being the case, the renewed exportation of hullion to the East appears to be sufficiently acconnted for, and to have been almost a matter of course.

In aldition to the Inereased product in the American mines, thero has been within the last twenty years an extraordinary increase in the produce of the kussoAsiatie mines and washings, or rather of the latter. In 1810, for example, the pmiluce of the Siberian golt washings was estimated at only of poods; whereas it had increased in 1840 to nbove 2.10 poods, and in $3 \times 17$ to no fewer than 1:16A poods. In addition to the washinge t'e I'ral mines yield from 310 to 320 poods cokd. The produce from both sources amounted in INTï, ar:corling to the officlal returns, to 17.11 poods. inut it has not heen so great since, heing in


The ofiel il authoritles nserihe this falling off to the exhansion of the deposits, null the unskillfaluess of those engaged in the basiness. Hut it is dotubtful whether the falling off be not more apparent than real, and whether it be not oceasioned by the enomons taxes which lisve heen juposed of late years on the gold obtalned from the whshings. The principal tax varies according to the produce, being $f$ per cent, on washings that yield from 1 to 2 joods per ammm, increasInfy by varlous steps till It amounts to 82 per cent. an these which yiehl 50 poods. And there are other dathes which, though lebs in anount, are of the same oppressive character.

These exorbitant duties have, no doubt, tended to lessen the produce of the washings. It is, lowever,
all but certaln that their principal gffect has been to defeat theniselves by templing the partles concerned to adopt every means by which they milght be evaded; and the notorlous corruptlon of the Rusalan revenue officers renders this comparstlvely easy. Parhaps, under the circumstances, we may not be far wrong in supposing hat from a third part to a half of tho produce of the washings is exempted from the duty. But taking It at a third, and aupposing the taxed produce of the washings to have amounted in 1851 to 1117 poods, the real produce would be 1489 poods; to which if we add 315 poods for the praduce of the minea of the Oural, the aggregate total would amount to 1804 poods. And this, equal to 72,160 lbs. Troy, makes over $1818,905,000$.

There has also been of late a considerable increase in the yleld of the Spanish mlues, which is ut present supposed to amount to from $\$ 2,250,000$ to $\$ 2,500,000$ a year. Including the silver ralsed in Russia and elsewhere, and that obtalned from the refining of lead, the produce of which in the United Kingdom exceeds $\$ 1,000,000$ a year (see ILeAD), tho total annual production of the precious metals In Europo may be roughly estimated at about $\$ 7,500,000$. On the whole, therefore, it would seem (excluding the produce of the Californian and Australian gold tields) that the aggregate production of the precious metals in Europe, Americu, and Asiatle Russia, may be supposed to havo amounted in 1850-'51 (and it is probably alsout the same at present, 1803 ) to $\$ 70,425,000$, being about $\$ 15,000,000$ greater than their production in 1810 , when the American mines had attained their maximum degree of productiveness. Notwlthstanding the large addition made to the supply of gold by the Siberian washings, it appears to have been nearly balenced by tho excess of silver produced In America and elsewhere. And the old proportion of about 15 to 1 between the values of gold and silver dees not appear to have been sensibly atlected previously to the discovery of the auriferous deposits in California and Australia.

Supplies of Gold from Culifornia and Australia.-But the discovery of these deposits threatens to bring about a most material change in the real, and perhaps also in the comparative values of the precious metals; and is, ituleed, among tho most remarkablo events of which economical history has preserved any account. Tho gold is found in the debris of the quartz rocks in which it had been imbedded, sometimes in grains and flakes, and sometimes in lumps (nuggets), of varying, but occasionally of considerable magnitude. In some localities it is comparatively abundant; and the yield, both in Califoruia and Australia, is quite umprecedented, and such as would not previously have been conceived possible. The Califormian deposits were discovered late in May or early in June, 1818 ; and notwithstanding the remoteness of the country, and the fact of its being almost destitute of inhabitants, ahove 5000 persons we:e attracted to the spot by the ond of the season, who are supposed to have realized above $£ 5,000,000$. The news of the discovery and of the unexampled richness of the gold fields laving spread on all sides with electrical rapidity, oceasioned an extraordinary influx of inmigrunts from most parts of the world into California. The supplies of gold attained to an unexampled magnitude; eities rose in the wilderness as if by enchantment; tho great llay of San Franciseo, which lad hitherto been entirely deserted, was crowded with ships and steamers from the most distant countries; and Californin is now one of the States of the Union, with a population of from 250,000 to 300,000 .-See articles Golid, California, and Prices, for the production of gold up to tho prosent timo.
In addition to the regular shipments, very large amounts, of which to account is taken, ars conveyer away from Califormia by parties returning to Mexico, to the Eastern States, Europe, and China. Of these various estimates have been made; but the prevalent opinion in the best-informed quarters seem to he that,
when they are included, and allowance ls also made for the quantity retained at home, the total yleld of gold In California in 1852 may be moderately reckoned at from $\$ 40,000,000$ to $\$ 50,000,000$.

But vast as it certalnly is, thls production is exceeded by that of Australia. The deposits in the latter were not discovered till 1851. And they are so very rich, and tha Influx of immigrants has been so extraordinary, that the gold fields of Victoria only are estlmated to have produced in 1852 no fewer than $4,247,657$ oz., which, taken at the rate of $\$ 18$ an oz. gives a gross amount of $\mathbf{8 7 6 , 4 5 7 , 8 2 6 - ( S t a t e m e n t ~ b y ~ M r . ~ K h u l l , ~ o f ~}$ Melbourne); to whleh, adding $\$ 15,000,000$ for the estimated produce of the Sydney or New Sourlb Wales gold fields, the total produce of the continent will amount to $\$ 91,457,826$. On the whole, therefore, the present annual supply of gold and silver may be estimated at about $£ 47,000,000$ or $\$ 209,905,000$; viz.,

| America (except Callfornia) | \$43,500, 000 |
| :---: | :---: |
| Europe | 7,500,019 |
| Russo-Aslatic provinces | 18,015,000 |
| Callfornia | 45,040,000 |
| Australi | $95.0 \times 10,100$ |
| Totat | 099,905,000 |

Consumption of the Precious Mfetals,-In order to form a reasonable conjecture in regard to the probable in luence of this vast supply of the precions metals, it is necessary to inquire into their uses and probable consumption. And this inquiry, we regret to say, is atill more difficult, and more likely to be infected with errors, than the inquiry in regard to their production. The precious metals are used as coin or currency to faeilituto excharges; as wealth which may be conveniently kept or hoarded; and they aro used in the arts, as plate, ic gilding, etc. The quantities employed : , l:kwo functions are very large indeed. They va : "10" "er, in different countries and periods with the i ances peculiar to each; such, for example, as the greater or less abmondance of paper money, and the degree in which the use of coins is lessened by tho various devices resorted to for economizing currency the fashion, as to plate and furniture; the feeling of security at the time; and a number of other circumstances, all liable to great and sometimes sudden changes. The gold and silver employed in Great Britain as currency, and in the customary reserves in the hands of the bankers, is supposed to amount to at least \$200,000,000. In France the precious metals employed in the same way probably amount to double that sum, or to $\$ 400,000,000$. The amount in the United States employed for the same purposes may be stated at $\$ 275,000,000$. And we believe that we may estinuate the entire sum employed as currency in Enrope, Ameriva (North and Sonth), Australia, the Capo of Good Ilope, and Algerin, at about $\$ 1,900,000,000$. It would bo inconsistent with the objects of this anicle, and with the limits within which it must be confined, to engage in a diseussion of the numerous, and often conflicting, statements and details on which this estimate has been founded. Some in formation with respect to it may be found is Chevalier's valualle treatise De la Monnaie (p. 326, etc.), Paris, 1850 ; in Stirling's Gold Diseoveries, j. 182 ; in the learned and excellent tract of Tegolonrski, Essai de la Découverte des Gites Auriferes en Californie et en Australie, etc., p. 65 ; and in a host of other publications. The precious metals in cireulation in Russia in the early part of 1851 were estimated in the Petersburg Gazette (October 12, 1802) at $326,000,000$ routhles, equal, at 80 cents per rouhle, to $\$ 260,000,000$. The greater part ( $190,000,000$ roubles) of this currency consisted of gold. Now, supposing this sum to be employed, os above stated, as currency, we have first to nifuire into its probable wear and tear and loss, and then into the probable rate of its increase. And taking into account the extraordinary extension of navigation, and the proportional risk of loss from shipwreck and other casualties, we are disposel to think that the
annual wear aurl tear and lose of coin may be esifmated / produce of tha mines previougly to the mupplies from at about 11 fer ceat. of the eatire mass of the cutrenoy, which, taking the lattor at $81,900,000,000$, would ameunt to $\$ 28,500,000$ a year. It is ditheult to form any probable entimate of the rata at which the tultion used as curroncy may be Hkely to inorease, oupproaluyg its value vot to fell oft. Hut considering tho exiremely raphl lacrease of retinement and population in most parts of the civilized world, and especially in America and Australia, we scarcely think thet wo shall be exaggerating If we estimate this increase at 3 per cent.; which on $\$ 1,900,000,000$ would ameunt to $\$ 57,000,000$ a year. It is impossible, bowever, supponing this estlmate not to the very wide of the mark at present, to conjecture how long the currener wlil go on Inereasing in this ratio. It may, indeed, be safely taken for graated that the sphere of civilizailon und commerce is destined rapidly to axpand. But their exparsion will, no doubi, be accompanied with various contrivances for economizing the uss of metallic uoney, se that the quantity of it in einvulation can hardly be supposed to iscrease for any vory lengthened period at the rate atated above. If it did, It would absorl, an inmmense supply of eold. In barbarous conatries, and in those enterlag on the cereer of civituation, the coins afleat muy increase at the rnte of 3 or 5 per cent., or more. But in countries which nro more ad. vanced lts inerease will be less, poshot ', than even 1 per cont.

It is equally alffienlt to acquire any satiffactory information in regard to the quautity of bullion consumed in the arts. Jacob estima* its amosnt in Europe and Anerica, in 1850 , at about $\$ 29,500,000$ a year. This eatimate was in various respects wide of the mark, and it was, un the whele, considerably under the true anount. And supposis!g the consuanption of the precious metals in the arts to have amounted to $32 \frac{1}{2}$ or 85 million dollars in 1830, it must now be much greuter. There has every where, but mone espeeially in England, America, Germany, and Russia, been an extraordinary increase of popuiation and weallh during the last twenty-seven yeurs. And the taste for plate, splendid furniture, and luxarious accomnodations of all sorts, has certainly increased in at least an equal degree. It ls well klown that specuJatora and those who rapidly athaln to aituence are the principal buyers of phite and other costly articles. And taking these and otiser eircumstances into account, we are disposed to eooclua that the exjenditure of bullion in the arts in Europe, Ancrica, and. Iustralis can not at present ( 1853 ) be under, if it do not exceed, 70 million dullars a year. But of this a portion, catimated at about one-fifth or 20 per cent., is supposed to be obtained from the fusion of old plate, the burning of Jace, picture frames, etc. And hence, if we deduct from the 70 million dollars nsed in the arts 20 per cent. for the old bullion, we have $\$ 56,000,000$ for the total quantity of the snyplies from the mines annually dieposed of in this way; a considerable portion of which, includiag that nsed in the gilding of rooms, books, harness, buttons, ete., can never be agnain recovered or applied to any useful purpose. This quantity, hovever great it may appear to be, will bo increased with ths increase of population, and the spread of relinement and the arts; and it will also be certainly increased by any thing like a contiderable fall in the value of bullion. Hence it would appear, putting these items together, that the regular annual consumption of bullion as currency and in the arta amounts to atout $\& 1 \cdot 11,500, t) 00$; viz,,

| Wear nad tear, and 10 | \$:8,500,000 |
| :---: | :---: |
| tnervams of currency. | 67,000,000 |
| Cined in lize arts | (00,000,000 |
| Total | \$141,800,000 |

It may be naid, perhaps, that these estimates mnst he exaggerated, imanmuch as the sum which, it appears from them, is annually consumud exceeds the entire

Callfornia and Australia, But while we ndmit the fact to be a stated, we deny the inferenee which is attempted to be drawn from it.' The trath is, that while the discovery of the Califorwinn and Australian cleponits has added in so great a degroe to the supply of bullion, It has aleo addel very laryely to its conammption. It has given an uaparalleind stimulus to emigration and cotnmerce. The riss of wuges and prices consequent on these extraordinary mutations, and on the increased exports of produce which they have oceasioned, is matrIng ifself felt in the Linited States ae well as in Lumpe; nal hnro, conseq̧uently, as well as there, a greater supply of bullion will be required to sarve as currency. Aidd while this lulluence is operating on the one hani, on the other the awarms of purvenua who are returning from the gold ticlds, wlth pockets ainfled with the prod. uce of all sorts of successful alventures, are cvery where contributieg to increase the demand for ali sorts of thing, but especially for plate, jowelry, and other ostentatioua linery.

Exportution of Gold and Silver to the East.--Ilesides the conntries already mentiened, there is a vast pertion of the earth's surface, including 'Turkny in Aaja, Persia, Hintuatan, China, und other Fastern terrioories, into which bullion has been largely imported from the re. motert era. Humbolilt eatimated chat, of the entire produce of the American mines at the beglaning of this century, amountling, as already sean, to $\$ 48,500,000$, no less than $\% 25,500,000$ were sent to Asin, $\$ 17,500,000$ by the Cape of Good Ilope, $\$ 1,000,000$ by the leevant, anil $4,000,000$ through the Russian frontier. Probably, however, this estimato was $n$ good deal beyoud the marl: " IIumbolat, cela n'est plue doutenx, estimait trep haut la valeur cis l'or et de l'argent, qui s'écoulaient an commencement de ce siècle d'Europe en Asio, et portaient trop bas la déperilition qu'ils éprouvaient, dans la méme temps, par io frottement et leur converaion en oljets dorfevrerle ot de bijouterie."-Inupu. node de la Monmaie, ete., i. p. 35. There is no longer, wo believe, any doubt in regard to the accuracy of the latter purt of this otatement ; and it is pretty generally supposed that the tirst part is also well founded. lint sonse years age this immense drain began to diminish, and in i832 and $183^{2}$ it actually aet in an opposite djrection. Slnce then it has fluctuated, aometimes inelining to the one side, and sonsetlines to the uther. With the eveoprion, however, of the bullion received by Finglandin payment of the $\$ 21,000,000$ dine hy China, under the treaty of 18.42 , there was net for some years any very decided movement of bullion from Eurepe to the East, or from the Eust to Europe, though, on the wholo, the imports inte the latter appear to have exceeded the oxperts; at Jeast, this was certainl! tho case during the live years from 1844-45 to $18.18-19$, both inclusive. lint vary recently, or within the last four years ( $1850-$ - 03 ) the drain for bullion for the Eist has eet in with renewed force; so mach 50 , that in $i \$ 52$ no frwer than $12,655,393$ oz. ollver were shipped from the United Kingdom for India and Egypt.

This continued process of export of gold and silver is attributell hy sonie writers to the excessive use of paper noney, wherely the latter supersedes in commercial channels the use of the former. "There can be wo doubt that the ultimate effect of a purely specie curreucy (or a paper currency baseal entirely on specie) would be in the highest degree heneticial to all departments of indusiry and coterpise. It is a currency that can not fluctuate. It may expand with the increased quantity of the promious metals, but there is hardly a possiblity of its contraeling ; and its expansion must take place by the operation of couses which opurate eçually throughout the civilized world."-North interican lieriew, January, 1858.

The foll swing table shows the oxport of coin and Inllion from Great Hritain to the East during each of the $\mathbf{1 0}$ years eniling with $185 z$.

## from ch is at－ at while deporits bullion， lon．It tion and hsequent ，is metk－ Eurspe； ater sup． urroney． ne hand， eturning he prod－ re every alis sorts <br> －Besides pertion a，Persia， ries，into h the re． 10 entire ng of this $\nabla, 500,1000$ Levant， cond the estinait sécoulai－ 1 Asio，et conver． －lupay． a longer， cy ot the cenerally d．llut limlnish， rosite di－ tines in－ se other． received y China， we years ：urope to ，on the have ex－ inly the $181 \mathrm{~K}-19$ the last the Fast $4 \ln 1+52$ ped Íroin

1 silver is of paper mencrcial in be no ecie cur－ specle） I dejart－ ncy that neressed hardly a ien must operale ？ esch of

 COIN，AND HETWEEN COIN AND BUILION．

| 1 Constrim＂1 il ${ }^{2}$ | Yaka． | British Goid Cula． | Yorajgn Gold Coin． | of Chold． | Urituh Stiver Coin | Foraiga Silver Coin． | 8ilivar Bullion． | Tokal of sllyer． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| To the Britisi，Posmossions in ludla． | 1843 | $\begin{aligned} & \text { bundes } \\ & 7.877 \end{aligned}$ | Oances． ．．． | $\begin{aligned} & \text { Ouoses. } \\ & 7,877 \end{aligned}$ | $\begin{aligned} & \text { Ouncol, } \\ & 18,180 \end{aligned}$ | $\begin{aligned} & \text { Oubrea } \\ & 122,450 \end{aligned}$ | Ounces． 833，770 | $\begin{aligned} & \text { Oanees } \\ & 404,409 \end{aligned}$ |
|  | ， 1341 | 6.944 | ．．．＇${ }^{\text {¢ }}$ | ${ }_{11} 8,044$ |  | 122，40 |  |  |
|  | 1815 |  |  | 1） 115 | －．．＊ |  |  |  |
|  | 1816 | 12514 |  | ${ }^{11}$ 2，619 | －， | $\therefore \quad 800$ | $\cdots$ | 800 |
|  | 1847 | $2.014{ }^{\text {，}}$ |  | 2，014 |  | ${ }^{359}$ |  | 853 |
|  | 1848 18.19 | 1，468 | －•• | 1，208 | 1，28t | 12，850 |  | 14，137 |
|  | 1819 1850 | （6，624 | 1．$\because \because$ | 0，029 ${ }^{\text {0，}}$ | 1＇920 | －103，820 | 184，000 | 328，746 |
|  | 1851 | 5，155 |  | 5，155 |  | $\bigcirc 197,620$ | 145，823 | 483，4．3 |
|  | 1585 | －16，856 |  | 16，356 | 77，090 | 620，864 | 872，803 | 1，083，7．17 |
|  | 1843 1844 | ＂ | $\cdots$ | ．．．．． | ．．．．． | 601,207 208,828 | 1， | 661,217 26.528 |
|  | 1844 | ， 19104 ． | $\ldots$ | ．．．． |  | 208，828 | ．．． | 26.1 187,014 |
| T0 Chins．．．．．．．．．．．．．．．．． | 1845 |  |  |  |  | 167．64 20.403 |  | 187,014 20,414 |
|  | 1850． | 1，01\％ | ．．． | 1，017 | 00 | 62，010 |  | 64，460 |
|  | 1551 | 34 |  | 84 |  | 38，800 | 8，600 | 4T， 300 |
|  | 1432 |  |  |  | 800 |  |  | 800 |
|  | 1843 | 2，600 | ＊ | 2，500 |  | 16，000 | ． | 15，000 |
|  | － 1814 | 1.40 |  | 40 | \＄4，000 | 000 |  | 40，600 |
|  | 1815 | － 250 |  | 263 | 4.200 | 7,000 | ．．． | 11，200 |
|  | 1846 | 3，180 |  | 8.180 | $\cdots$ |  |  |  |
|  | 1847 | 12，546 | 200 | 12．743 | 2，500 | 4 4 $\mathbf{9 , 0 0 0}$ | ．．．． | 11，600 |
| To Egypt．．．．．．．．．．．．．．．．．．．．． | 1848 | 2，4\％0 |  | 2，420 |  | － 19 |  |  |
|  | 1810 | \％ 921 |  | 1121 | 14，010 | 40，000 |  | 64，600 |
|  | 1850 | 13.919 |  | 13，019 | 105，289 | 141，177 | 145，483 | 391，045 |
|  | 1851 | T0，497 |  | 70， 437 | 126.423 | 2，319，649 | 8，818，299 | 6，254，347 |
| 1（1） | 1374 | 62，341 | 152. | （32， 4113 | 140，763 | C，O6it．013． | 2， 5630,240 | 11，671，636 |

GO＇D，SILVER，AND BANK－NOTES IN THE U．S． Stafement of the Amodnt of Golid and Silver gupponto THE IN CIRUULATION，OE THF AMOUNT EUPHOBED TO BR IA THE JIANE $s_{1}$ of THE WHOLE AMOUNT EUPPOBED TO HE IN fuE（＇OUNTBY，AND ON THE AMOUNT OF EANK－NOTES IN Ctraclation in mifinernt leaigs，adoorthing to the AlTHOHTIEH qLoted in tue Four－NOTES．

| Xeurs． | Specio in Cilrealatiot． | Epecio <br> In the <br> Banks． | Tolal of specie in the Country． | Bank－noter 10. Circulation |
| :---: | :---: | :---: | :---: | :---: |
|  | Millona． | Milioum． | Milions． | Miltiona． |
| 1790＊．．．． | ．．．． | ＊．．${ }^{\text {c }}$ | 0 | 21 |
| 17：1＊．．．． | ．．．． | ．．．． | 16 | 9 |
| 1792＊．．．． | ．．．． | ． | 15 | 111 |
| 1790＊．．．． | ． | ． | 80 | 11 |
| 1794＊．．．． | ．$*$ | ．．．． | 214 | 11.0 |
| 170\％＊．．．． | ＊ | ．$\cdot$ ． | 10 | 11 |
| 1706＊．．．． | ．．． | ．$*$ | 161 | 104 |
| 1507＊．．．． | ．．．． | ＊ | 16 | 10 |
| 1798＊．．．． | ．．．． | ．．． | 14 | 0 |
| 1799＊．．．． | ．．．． | ＊ 4 | 17 | 10 |
| $1900^{\circ} \ldots$. | ＊．．＊ | ．$\cdot$ ． | 1if | 108 |
| 1801＊．．．． | ．．．． | ．．．． | 17 | － 11 |
| 1808＊．．． | ．$\cdot$. | ．．． | 104 | 10 |
| 1803＊．．．． | ．．．． | ．．．． | 16 | 11 |
| 1504＊＊．．． | ．．．${ }^{\text {c }}$ | ．．．$\cdot$ | －17 | 14 |
| 1ヶп5＊．．．． | ．$\cdot$ ． | ．$\cdot$ | 15 | 15 |
| 1906＊＊．．． | ．．． | ． | 184 | 17 |
| 1507＊．．．． | － |  | 20 | 18 |
| 1s11t．．．．． | ．．． | 154 | ．．．． | 2.3 to 30 |
| 1815 $+\ldots$. | i | 17 |  | 45 to 47 |
| 1816†．．．．． | 71. | 19 | $26]$ | 08 to 70 |
| 18：0 $\dagger . . .$. | ＊＊＊ | 109 | $\therefore$ ． | 44.3 |
| 1930t．．．． | 10 | 2．2．1 | $32 \cdot 1$ | 61 |
| 1234＊．．．． | ．．． | ．．．． | ．．．． | 94 |
| 18358．．．． | － |  |  | 103 |
| 18：101 ．．．．． | 25 | 41 | 65 | 1410 |
| 153ial．．．．． | 85 | 38 | 73 | 149 |
| 15388 ．．．． | 621 | 35 | S74 | 116 |
| 18394．．．．． | 42 | 45 | 87. | 135 |
| 18401．．．． | 60 | 63 | 83 | 107 |
| 1841＊＊．．． | 85 to 45 | 15 | 70 to 89 | 107 |
| 1842．．．．． | ．${ }^{\circ}$ | 2 4 4 | ．．．． | 83.7 |
| 1843．．．．． | $\cdots$ | 331 | ＊${ }^{\circ}$ | 685 |
| 1544＋t．．． | 50 | 5） | 100 | 76 |
| 18454．．．． | 52 | 41 | D0 | 80 |
| 1846t | 65 | 44 | 07 | 1651 |
| 1847\％．．．． | 85 | $3{ }^{3}$ | 120 | $105 \frac{1}{2}$ |
| 1846析．．．． | 66 | 41 | 110 | 1251 |
| 1840\＃．．．． | 77 | 43 | 120 | 114.7 |
| 15504．．．． | 109 | 45 | 154 | 181 |
| 1551生．．．． | 135 | 4 | 1：0 | 165 |
| 1852＋4．．．． | $\cdots{ }^{\prime}$ | ．．．． | 204 | ．．． |
| 1859tt ．．． | ．． | $\cdots$ | 280 |  |
| 18．44\％．．． | 111 | 10 | 250 | 2146 |
| 1S5\％t，．．． | ．．．．． | 54 | ．．．． | 157 |

 al Reporis，Ireasury lijort IVoonucar．Ii llazapd， Commercial Renister．Govar，Journal of Danking， $\dagger \dagger$ Ilent，Merohanto Mugazine．\＃Bistimates．
The amounts of specio in the banks and of bank－ notes in circulation from 1835 to 1855，inolusive，havo
be a taken from the annual treasury reports on the condition of the banks．The amount of speclo sup－ posed to be in circulution in difierent years is accord－ ing to tho authorities quoted．The estimates aro from Doc． 34 （p．280），appoaded to the Report on Finances of Decomber 4,1804 ，except that for 1850 ，which has been completed from data moro iutely receivod．
Amount of Comage of Golid and Siluer pextie U＇mited


Wo give annoxed a statement showing the move－ ment of specie from the United States since the year 1820；also the amount that gocs to England．It should be noticed that wo do not send our specie to England to pay debts to that country，for tho balance of trade be－ iween lho two countries from 1820 to 1856 was $\$ 5,000,000$ in favor of tho United States．Wo send throrgh En－ gland specic to pay our excessivo limportations of for－ elgn manufactured goods from the Continent，and to pay for tens and other foreign productions．The aggro－ gato loss of specio to this country in the decades since 1820 has been ae follows：


## PRE





| Yoar ending | Exporia to Xagland. | $\begin{gathered} \text { Imporis } \\ \text { from } \\ \text { England. } \\ \hline \end{gathered}$ | Total Ex. porta from the $U$, A . | Total importitnto tha U. s . |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Sept. 30, 1921.. | 1,933 5 | 645, 0.09 | $\left\|\begin{array}{c} 10,47,469 \\ 10,411 \\ 1020 \end{array}\right\|$ |  |
| 1824 | 75. | 93, 924 | t0,8(0, 181) | 8,660,8 16 |
| 1823 |  | 2842, $32 \times 2$ | 6,372,937 | 5,064, 5186 |
| 18.4 |  | 149,104 | 7,014.NS | 8, 370,935 |
| 18.5 | 309,200 | 82,848 | 8.932.034 | 6,150,765 |
| 1824 | 698,07i | 122, 216 | 4,744 883 | 6,8810,466 |
| 1327 | 200, 101 | 34,111 | 8,014,880 | 8, 151, 134 |
| 182 | 2,552,2149 | 20,472 | 8, 243,470 | 7,481,74t |
| 1 | 678,833] | 310,820 | 4,024,420 | 7,4193,612 |
| 1830 | 112,284 | 144,231 | $2,178,773$ | $8,155,264$ |
| Total..... | 8,247,342 | 1,621,670 | 71,673 434 | 6.14 |
| pt. 30, 183 | 1,615,643 | 130,830 | 9.014,981 | 7,305.945 |
| 1832. | 1,112,203 | 83,08.3 | 6. $6541,9+1$ | 5,907,604 |
| 1838. | 24 | 31.808 | 2,811,70t | T,070,364 |
| 1s:4 | 230 | 6,806, 613 | 2,076.754 | 17,014,682 |
| $3 \times 36$ | 34.0187 | 1,303,438 | 8.4i7.7i5 | 13,131,447 |
| 1836 | 2,50: | 2,322.920 | 4,324,334 | 13,490, 881 |
| 18:17 | 1,883,774 | 110,29: | 5076,24 | 10.0t6,414 |
| 1838 | 10, $18{ }^{\circ}$ | 9,1000, 246 | 3, 5018,446 | 17,747,118 |
| 1831.. | 3, 148,490 | 1,4:0, (6) $!$ | 8,720.743 | 5,506.176 |
| 1540.. | 1.283, 780 | 808.806 | $8,417,814$ | 8,852.813 |
| ta | 12,100,62 | 2t, 027, | 10,4,40 | 7,40.,2: 6 |
| Sept. 37, 1841. | 3,018,187 | 680,630 | 10,084,832 | 4989.633 |
| $15+2 .$. | 1,702,74 | 205,919 | 4,8t3.539 | 4 t 87.016 |
| $\text { mos, } 1813^{\circ}$ |  | (4,305,74 | 1,54,791 | $28.390,609$ |
| June $60,1841 .$. | 85,706 | 1,131,960 | 6,454, 214 | 5, 830.420 |
| 1845.. | 3,673, 137 | 180.823 | 8,600,405 | 4,070.242 |
| 18.43 | 973, 1 te | 482,711 | 3,905,46\% | 3,771,782 |
| $14 \%$ | 8,05: | 19,812,930 | 1,007,024 | 24,121,280 |
| 145 | 9,318,683 | 1,916,952 | 15, 541,616 | $0.3610,224$ |
| 1519 | 764.0:7 | 2.671,792 | 5,404,654 | 0,65t.240 |
| 18 | 2,834,159 | 627,260 | 629 | 4.829,7!2 |
| Total. | $27,078,4088$ | 41,316,40t | 65,010,921 | 86,90 |
| a 3), 185 | 17.097.031 | 1,095,667 | 20,472,752 | 6,453,602 |
| 1853. | 24,302, 294 | 1,487,48 | 42, 674,133 | र. 5108.044 |
| 1453.. | 18,631,900 | 24, $7 \times 16$ | 97,480, 675 | 4.201 .38. |
| 1554.. | 27,920, 2 \% ${ }^{\text {a }}$ | 85, 156 | 41,281,604 | 6,758 5 m |
| 1505 | 47,058,615 | 107,464 | 66,247,340 | $8,1859,512$ |
| $15^{5} 6$. | 34.161, 1692 | 421.47 t | 45,745,485 | 4,207,03? |
| 1857. | 50, 590,266 | 4.100, 054 | 69, 313,928 | 12,46t, 9 99 |

- Xine montits to June 30, and the fiscal year from thif the begins duly 1.
burying of Gold and Silrer.-It is aingular that, in estimating the consumption of roja and silver, Jacob did not make nay allusion to the 1 ractico which has uniformily prevailed in all countries liarassed loy intesting commotions, or exposed to forelgn invasion, of burying treasure in the earth. Of the hoarda so ileposited, a very considerable portion has been altogetier lost; and there can be no doubt that this has lieen one of the principal meana ly which the stock of the precious metals has been kept down to its present level. Every one is a ware that during the Midele Ages treasuredroce, or money dug from the ground by chance tinders, belonged to the Crown, and formed no inconsideralle part of the reyal revenue of England and other countries. The practice has always prevailed in Turkey, P'crsia, India, China, and gencrally In all parts of the East. The extortion practiced on the inhabitants, and the want of ali eesurity, make them look upon the moncy they have hidden as their only wealth, the oniy thing which they can really cali their own. "In India," saya Mr. Luke Scrafion, "the Llindoos lury their money under ground, often with such secreey as not to trust their own childien with the knowledge of it; and it: is amazing what they will suffer rather than betray it. When thelr tyrants have tried all manner of corporal punlabmenta on them, they threaten to defle them; but even that often fails; for, resentment prevailing over the love of life, they frequently rip up thio bowels, or poison themselves, and carry the necret to their graves. And the sums lost in this manner in some measure account why the silver of India does not appear to increase, though there are auch quantities montiuually coming into it, and none going out."-On the Gorernment of Hindoztan, p. 16,
etc.; see also Bernizr, Voyage de Mogol, Amsterdam, 1710, 1. p. 209.
The comparative securlty now enjoyed by the IIIndoos must iatterly have iessened tinia practlce. But a habit so prevalent and ao deeply rooted ia nut easliy eradicated; and though the illegal exactions of thelr rulera be curbed or put an end to, there is in many parta of India a great deal of robbery and Insecturly. At ali events, the practice of burying treasure ia still very general in It; and at this moment it prevalls to a great extent throughout ali the vast countrles which stretch from the Adriatle to the Chinese Sea. We have been assured by persons well qualified to form an opinion that the stimulus glven to the lurying of treasure by the inteatine motions now prevaient in China must have alrendy cocasloned the disappearnnce of full 20 or 25 millions stering! And the previons statements confirm in some measure this estimate. Jut we must not imagino that the burying of treasure is confined to the East. Wherever property la insceure, it is invariably resorted to. Wakefleld tells us that it ued to be common in Ireland (Account of Ireland, i. 593 ) ; and we are informed that it continues to this day to be pretty prevalent in that country. It has niwhys been acted on to $n$ considersible extent in liussin, Germany, Italy, and France; and In the latter, turing the revolutionary anarchy, immenso sums were buried, of which it is abundantly certain a large proportion will never be resuscitated. The wars and convulsions by which Europe was desolated for more than 20 years mado the practice bo carried to a great leight in al parts of the Continent, and withdrew in this way fiom circulation a very considerable part of the increased produce of the mines.-Storcir, Economic Politique, i. $2: 1$, Paris, 1823. And large aums are atill, ne doubt, disposed of in the same way.

Gieneral Remarks.-These statements, how imperfect soever, are suthicient to show that the field over which the precious metals are spread is so immense, and the demand for them so great and varions, snd so likely to increase, that it Is not ensy to imagine that their vilue can be speedily reduced, at least in any sensibie degree. Nevertheless, if we be warronted in eatimating ns alove the present supply at $8235,000,000$ a year, and their consumption (including an allowance for the increasing stock of coin) at $\$ 1 \cdot 11,500,000 n$ year, it would be jdlo to suppose that this excess of $\$ 93,500,000$ beyoud the existing demahd should he speedily holanced, or that it should not in the end occasion a serious decline in their value. But much, or rather every thing, will depend on the continuance of the supply; and here we have nothing to go upon but the merest conjecture. The probnbility, indeed, would secm to the that the supply both from Culifornia and Australin wial increase for some conslderable time to come. Vast, however, as is the area over which the goid deposits are scattered in theso countries, still there can be little or no deult that they will gradually bu exhausted. The pepulation attracted to the "diggings" is already so great, while (in Australla, at all ovents) it is increasing so rapidly, and is so thoroughly imbned with the auri acra fames, that it bida fair ln no very long time to rific all the richest beds. And supposing that they are elther wholiy, or to a considerablo degrec, exhausted 't may be doubtful whether the gold obtaised by a more aborious search, or by crushing quartz rocks, will yield more than a reasonable profit on the capital employed, if so much.

In all speculations in regard to the probable future supply of gotd it should be carcfully berne in mind that any considerable fail in its valuo would unnveldably check its production, and, consequentis, tend to leasen or prevent its further fall. It ls piain, for example, that a decline of 10 per cent. in the vaiue of goid would, cateria paribus, occasion the abandonment of all those mines, diggings, wushlngs, cte., which onily yiold a net profit of that amount. We are aware that,

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imperfect ver which e, and the likely to heir vnius ie degree. fas aliove and their e increas would be 30 theyoud lanced, or us decline ling, will diere we onjecture. that the liocreass wever, as scattered ne cloubt e popuis so great, easing so the auri g time to that they exhaustined by a oeks, will pital ent-
he future in mind unareid, tend to , for exvalue of donment lich ouly are that,
owing to the production of goid, an at present carried on, having more of a gambling character than pertains to most brancies of industry, the prinelple now atated would not operate as ajeedily as might perhaps be anticipated. But of its ultimate operation there can be ne question. And it may, therefore, be laid down that any reduction in the value of geld which ts not accompanied by a corresponding improvement in the methoda of its production lnevitably tends to correct itself, or to check or hinder its further reduction. It is idie, therefore, where so much is uncortain, and indeed altogether unknown, to attempt to draw any conciusions entitied to much attantion with reapect to the probable future supply of the precious metais. But auppesing it to go on for a few years as at present, or not muteriaily to deciine, and that their vaius is in consequence gradualiy reduced, there is no good ground for upprehending that this reduction will have any injurieus reaults. If it take piace, it wili be alow, and wili not suddeniy aflect the incomes or the pesition of individuals. And we have eisewhere endeavored to show that the changes which, undar thes: conditions, may be uitimately effected by a decline in the value of builion, wiil, in a national peint of view, be eminently desirabio and ben-eflciai.-Trentiss on T'uxation, 2d cd., p. 375-387; see aiso an abie article In the American Review for October, $\mathbf{1 8 5 2}$. We have acen nothing to induce us to change or modify in any degree this opinion. Seme stress inas been inid on the circumstanco of the sums payabis under lifo insurances faling in value with a decrease in the value of money. But the great majority of people are, and all may bo, insured in mutual insurance offices, and may provido ly proper investments against less. No full witinin the compass of probability is likely seriousiy to affect the existing race of annultants. And those who are now buying annuities know what they may expect, nnd their heirs wili have them only to blame if they do not gnard against probable contingencies.

Substitution of Gold for Silver.-The production of goid has very iargely increased since 1818 , as compared with that of silver ; and if this state of things ro on, tho value of silver, measured in gold, can havdly foil gradually to rise. But it is by no means cleur that it wili go on. The supplies of silver are increasing in most parts of the world, particularly in Mexice and Europe. And the increased supplies of quicksiiver obtained from California and other jolaces wili powerfully contribute stili further to augment the suppies of silver. It is aiso to be observed that a comparatively inconsideruble rise in tie vulue of silver as compared with gold is sufficient, mesess prevented by legisiative enuctments, to make the latter be used in preference to the former in the currency of those countries in which both metals are legal tender. Ilitherto botio gold and sitver coins have been iegal tender in the United States, France, and some other countries. Ibut when such is the case the value of the colus in respect to each other has to be fixed by authority, that is, it has to be ebacted that debts may be discharged by puyments either of goid or silver money at the rate of so many doliars to the eagle, francs to the Nupoicon d'or, sliillings to tho sovereipn, and so on, as laid down in the Mint valuations of the dillerent countrics. And we have aiready explained (art. Coins) that, however correct at the periods when they are made, these valuations speedily become incorrect; and that whenever such is the case, it is for every body's advantage to make all payments in tho metal which happens to be overvalued as compared with the other. And hence (as seen in the articio referred to) the use of goid as money in preference to siiver in England, and of silver in preference te gold in France and the United States.

In accordance with these stntements, it would seem that the change which has taken piace in the relative values of gold and silver, thengh not very appreciabic, is quite enough te make the former be employed in-
stead of the latter in all countrien where they are equaily legal tender. In 1849, for example, the geld colned In France amounted to oniy 27,109, 060 francs, whereas in 1801 it ameunted to $285,237,280$ franca! In the United States the coinage of gold has increased in a semewhat similar ratio, having risen from $89,007,76 \mathrm{~L}$ in 1840 to $862,614,492$ in 1851, and to $852,846,187$ in 1852. There ia, therefore, every probability that in no long thme goid coin will be used in these two countries in ali considerabie paymenta which are not effected by meana of notes or checks. This substitution of goid for allve;; whiie it materially enlarges the tiold for the employment of the former, propertlonaily narrows that for the employment of the latter. And hence a very considerable permanent increase may be made to the comparative supply of gold without its valus, measured in ailver, being materiaily atlected. In the end, no doubt, the values of both matals wiil be proportioned, independently of varlations of demand, to the respective coats of thelr production. But beforo this equalization can take place, they nust be distributed among the vatious countries of the world according to tho circumstances peculiar to each, including therein the novel condlions of their supply.

In lloiland and India that substitution of goid for silver coin, which is taking piace in the United States and liranee, has been hindered by the intervention of government, whleh has decicied that silver only sinali bo legai tender. In Iloliand this was effected by laws passed in 1847 and 1849, and in India by enactmenta in 1835 and 18502 . The value of the geld coin that was consequentiy liberated in Iloiland has been estimated at alwout $172,000,000$ tlorins, a considerable portion of which has been absorbed in the now geld currency of France. We may add that the additional quantity of sifer reyuired through the cessation of goid as currency for the supply of the Duteh mints, slightly affected tho prico of the former, which afterward feil to neariy lts old levei.

In Indin, where wages have always been very low, the greut bulk of the coin in circuiation has consisted of silver; and in 1835 it was made the only legal tender. But though not legal tender, gold coins continued to circulate in India; and a proclamation issued in 1841 directed them to be received at the public treasurles. Littie nttention was paid to this measure at the time; but after the discovery of the goid depesits in Anstralia, it becane obvions, if geld coins continued to be reccived by the pullic departments, that eventualiy nono else would bo paid into them; and tbat sifver would cease to be employed except in petty payments. This contingency nppears to liave alarmed the covernment; and notice was accordingly given on the 22 d of December, 1852 , thut from and after the 1st of January next (18503) gold coins would not lie received on accomint of taxes or other payments due to the public. Silver has, consequently, again become in fact, as well as in law, the sole legai tender of India. A grood deal of controversy has taken place in regard to this measurc. It is plain, however, that by continuing to act on tho proclamation of 1841 , government wonld have jractically set aside the law of 1835 , which made silver the onily jegal tender; and would thus have made itself responsible for all the losses that might in consequence havo resuited to individuals, while it would also have become liable to the risk of having its own revenues reluced by the unticipated fall in the value of gold. No doubt, therefore, the repeai of the proclamatlon referred to was consistent with geod faith, and in some degree aiso with sound poiicy. At the same time, we regret that the situation of affairs in India should have been shei as to require that an attempt should be made to exciude goid from the circulation. Most likely it would otherwise have absorbed considerable supplies of that metal ; and we inclina to tinink, for the reasons previousiy stated, that it will do so, notwithstanding itsexclusion from the pubilic treas-


IMAGE EVALUATION TEST TARGET (MT-3)


Photographic Sciences Corporation
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United States imported thence produce to the value of $\$ 920$ ．In 1833 it amounted to 1094 ；in 1887 to ©6601；in 1840 to $\mathbf{8 6}, 298$ ；and in 1841 to 847,630 ． The tonnage omployed was，in 1885， 682 tons $;$ in 1836， 1418 tona；in 1887， 1574 tons ；in 1841， 1048 tone ；in 1842， 1809 tond；in 1848， 1813 tone；and in 1844， 8217 tons－all Amerioan．

It is only within a few years，hewever，that the trade of the Sandwich Islands with the United Seatee has ascumed any considerable importance．The great wealth and rapidly increasing trade of California，to－ gother with the facilities which this group，from tes goo－ graphical position，has always，as already intimated， been onabied to afford to whaling ohips，both as a re－ cruiting etation and as regards the general aupplies which such vessels require during their long cruisea in distant latitudes，have recently given to these iel－ ands a commercial importance which，under other cir－ cumstances，might not have been reached for a century to come．The etapies of the island have now a market in California，close at hand，and the communications with the Atiantic const huve become regular and fre－ quent．

Owing to the prevalence of the smail－pox，which first made its appearance in the month of May，1858，and spread with such fatal malignity throughout the group as to carry off nearly 8000 victime，the trade of that year was languld；the markets were overatocked，and prices were，consequently，low and unremunerative．

The retail trade，especially，ohared in this general atagnation．The whaling fleet of 1853 was about equal to that of 1852，though，geaerally，the results of the latter year were not equal to those of the former．The average catch of the Ochotsk fleet was over 1600 bar－ rela，while in the Arctic esas the yieid did not average more than 680 barrels．Freights also ruled low，and the demande for the productions of the islands for the markets of California were amell，owing chiefly to the fact that the almost nomiual difference in prices be－ tween the two places procluded all hope of realizing any profits after the payment of duties．

The following summary of the recent commerce of the Sandwich Islands has boen compiled from thn latent and most anthentic sources ：

The total emount of imports for 1853 exceeded those of 1852 by $\mathbf{8 5 2 2 , 0 8 2 6 4 .}$ ．From the United Stales they amounted to $\$ 954,91998$ ，being more than three fourtis of the whnle amow＇imported．The importe for four years，from 1850 to 1858，both inclusive，were al fol－ Jowe：
1850.
\＄1，ก85， 15975
1851
$1,823,82168$
759,86864
1853
$1,231,95113$

Glving an average for the four years of $¢ 1,225,17502$ ．
The amount of imports for 1853 exceeded the aver－ age of the past four years by $\mathbf{4 5 6 , 7 7 6} 16$.

COMPARISON FOR FOUR YEARS．

## Forerom Exproata．



The revenue derived from itoports was as follows：


The arrivals were as follows：


The following oummary exblbits the general com－ merce of the Sandwich Iolands during the year 1854， as condensed from the report of the collector general of customs ：
 Analtata of Exponts．
Value of forelgn goois exported $\quad$ ． 3. Valuo furnished as aupplies，152，075 00

Total．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．$\frac{844,020 ~ 70}{\$ 888,12207}$
Statzinent biowing tin prinoipal Expobts in 1854 cen－ PARED WITH THOEE DF 1859

| Exporie | 1833 | 1854． | Incromen． | Decrease． |
| :---: | :---: | :---: | :---: | :---: |
| Sugar．．．．．．．．pounds | 634，965 | 681，777 |  | 53,178 |
| Slrup ．．．．．．．．gallons | 18，244 | 28.618 | 10，209 |  |
| Molstses ．．．．．． 4 | 58，448 | 41，879 |  | 16，509 |
| 8alt ．．．．．．．．．barrels | 3，609 | 5，041 | 1，532 | ．．．． |
| Coffee．．．．．．．．pounds | 60，503 | 91，000 | 40，584 | ． |
| Ilden．．．．．．．pleces | 1.741 | 8.006 | 1，265 | ．．．． |
| Goat skins ．．．${ }^{\text {a }}$ | 15，600 | 16，890 | 11，800 | ＇ 10 |
| Tallow ．．．．．．．ponnda | 16，452 | 15，405 |  | 1，047 |
| Arrow－root．．．＊ | ．．．． | 6，166 | 6，160 | ．．．． |

Gtatement of tif Quantitiss of Oif and Bone than－ Bllliphb in 1854．

|  | Reason | －perm 0i1． | Wale 0i． | Hone |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Oallones | Gall | Pounds |
| Ited Slates． | Np | 4， 301 | 20t， 380 |  |
|  |  | 60，449 | 1，968，865 | 752，339 |
| ${ }^{4}$ |  | 46，674 | 104，760 | 654，241 |
| Bremen |  |  | 10，244 | 20，299 |
| llavro． |  |  | 25,172 | 46，810 |
| Tota |  | 156，4．4 | 1，605，421 | 1，608，449 |

The toxal number of vensela of war at Honolula dur－ ing 1854 was 25 ，carrying an aggregate of 675 guns； of which number 6 were American， 9 British，aud 7 French．

Of inerchant vessele at the Ilawalian Islands during the year 1854，the total number was 148，measuring ia the aggregate 47,288 tons；of which there were，

Amerlean，103－meanuring． $\qquad$ 83,442
4,758
tons．
Britheh，
T－
The total nitmber of whaling veseele at the ports of the Hawailen Islands during 1854 was 565 ；of which there were American 534，Bremen 8，snd French 22.

The returns from the port of Hilo for the year 1854 exhibit the following commercial movement ：
Total vaine of imports

Furnlahed an aupplien tr． 32 whalore at
an overcharge of $\$ 225$ oach．．．．．．．．．．18，450 00
22，973 31
The transhipments from the port of Ilile during the year wrere as follows：
Aperm oll
20,806 gallons．
Whale oll 114，263
Whalebone．．．．．．．．．．．．．．．．．．．．．．． $92,0 \tau 4$ ponnds．

Whaling vessela at the port of Hllo in 1854：
American， 80 vesoin－meanuring ．．．．．．${ }^{29}, 808$ tons．
Freneh，
Total．． 89 ${ }^{2}$＂

The following eondensed tabular atatement, made up from reliable sources, exhibits the general trado of the Sand wich Islands from 1852 to 1855, distinguishing importa from the United States from those from other countries:

| (1) Yearm. | Valoe nf Imports, |  | Value of Eaports. |
| :---: | :---: | :---: | :---: |
|  | Promall Cosationes. | From Ualted states. |  |
| -1852................. | \$76, 969 | \$411,488 |  |
| 1853..................... | 1,281,96t | 954,919 | 466,772 |
| 18.54. | 1,316,787 | 1,028,851 | 865,123 |
| 1865. | 1,306,856 | 790,574 | 572,602 |
| Annual average | \$1,188,241 | \$797,488 | \$1565,793 |

According to the returns made to the United States Treasury Department, the total value of exports to the Sandwich Ielands for the year ending June 80, 1855, was $\$ 1,125,622$, of which $\$ 929,671$ was for domestic products, and only $\$ 195,951$ for foreign prodncts. From the same authority it appeare that the imports into the United States from the Sandwich Islands for the same year amounted to $\$ 442,899$. The carrying trado between the two countries is almost exclusively in tho hands of American shippers. Of the totsl exports of domestic produce as given above ( $\$ 929,671$ ), there was borne in United Statea bottoms \$928,458, while there was only $\$ 1218$ carried under ali foreign flags. Of the total tonnage that entered the United States from these ialands in 1855 ( 25,009 tons), 24,807 were under the flag of the United States. More thun three-fourths of the exports of the Sandwich Ielands gu to the United States, either on the Atlantic or Pacific side, and the statemente already given show the proportion of the imports into the islands from the United States. Of the 468 whalers that touched at the isiands in 1855, 436 bore the flag of the United States, 20 were French, and 8 Hawailian. Of the 108
merchant veasels that entered the Hawaiian ports the same year, 129 were American, while there were only 8 under the British, and 1 under the French flag. Among the latest acts passed by the Hawailan Legislatare relating to commerce, which has been pablished in the officiai organ of that government; is one prohibiting the importation and eale of opium.
: A considerable trade has aprung up between WashIngton Territory and the Sandwich Islands. Foar vessels have been for some time regularly and constantly engaged in this trade, carrying (especially from Obhu) sugar, coffee, molasses, salt products of the islands, as well as foreign merchandise from the different warehousea; and bringing back, in return, lumber, shingles, ahip-timber, spars, salmon, coals, etc. This trade has had the effect of entiroly driving from the market the traffio previously carried on by the Hudson Bay Company betwoen Honolulu and Vancouver's Island; "for; althongh," saya a recent Britieh official report' on the Sandwich Ialands, "Vancouver's 1eland possesees superior natural advantages over Washington Territory with respect to her ports and several of her productions, on the other hand, the American settlers, not being bound by any conditions that can not be easily fulfilled, their energy and private enterprieo are unshackled."
A steam-mill, having two engines, one of eighty and the other of forty horse power, has been erected at the mouth of IIood's Canel, and head of the Straits of Fuca, opposite Vancouver's Island, for mannfacturing lumber, shinglea, lathe, and planed, grooved, and tongued boards. This mill supplien the Honolulu and the San Francisco markets. Other and similar milla have been put up; and the business continues profitable, though compettion is increasing. For an account of the lumber trada via San Francisco, see San Francisco.

Comparative Statement of the Commeron of tue Cnitrd States witil the Sanidifoif Ishandg, exifibiting tur Valur of Exponts to and Impogta from racil Codntry, and tur Tonnagie of Amebican and foakion Vegsele abrivind from and depanting to bach Country juaind tir Ykabg imbignated.

| Years. | COMmABCE. |  |  |  | navigation. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Velua of Exports. |  |  | Volue of Im portn | Amertcan Tonnage. |  | Foreign Tonangd |  |
|  | Domestis Produra. | Fareign Produch. | Total |  | Entered Che United Staten, | Cleared from the United 8iates. | Entered the United Btaten. | Cleared from the Unitad Slaten. |
| 1845.... | . . . | . $\cdot$. | -•** | \$1,000 |  |  |  |  |
| 1846...... | $\ldots$ | .... | .... | 243, 134 | 608 | 1,377 | 231 | $\ldots$ |
| 1847............. |  | .... | .... | 21,089 | 769 | 1,078 | .... | . $\cdot$ |
| 1849.............. | . . . | .... | .... | 0,508 | 1,488 | 470 | $\ldots$ | . |
| 1849.............. | . . . | .... | . . . | 43,875 | 8,221 | 8,066 |  |  |
| 1850....... ...... |  | - |  | 04,474 | 0,267 | 81,623 | $4,1: 8$ | 11,970 |
| 185t. . . . . . . . . . . | .... | \$381 | \$981 | 16,62 | 18,932 | 36,396 | 3,215 | 12,0N/8 |
| 1859. | .... |  |  | 5,989 | 12,814 | 18,624 | 6,047 | 6,673 |
| 1888. ............ | , | 20,406 | 83,406 | 16,675 | 18,111 | 20,260 | 8,914 | 4,118 |
| 1854.............. | - | 55,871 | 55,891 | 119,130 | 22,297 | 19,835 | 1,451 | 1,417 |
| 1856............. | \$02n,67t | 195,961 | 1,125,622 | 442,80 | 24, 817 | 19,811 | . 202 | 2,2011 |
| 1856.. | 793,058 | 126,847 | 919,405 | 249,704 | 17,774 | 17,650 | 1,092 | 1,817 |
| 1807.............. | 803,084 | 144,849 | 047,483 | 204,416 | 16,742 | 16,951 | 187 | 187 |

The proportion which the United States had in the total trade of the islands in 1856 ls shown by the following:

|  | Espports. | Imparta. | Tatal. |
| :---: | :---: | :---: | :---: |
| Tolal 4 rade. | \$070,824 | \$1,151,422 | \$1,822,240 |
| With the United States | 249,704 | 019,4,6 | 1,160,110 |

From this exhibit we find that in 1856, 80 per cent. of the imports into the Sandwich Ielands wore from the United States, snd that 37 per cent. of the experto were to the United States. The balance of trade in favor of the United States for the samo year was 4669,700.

On the whole, the statistics published for $\mathbf{1 8 5 6}$ show the traile of the iolands in a more favorable and healthy cmidition than those of any previous year since 1850 . The number of merchant and whaling veesels visiting the islunds during the year hae been lese, and the 1 m portations into the lalands were $\$ 230,000$ less, while the exports show an increase of about $\$ 100,000$ for the year.

According to the tables published by the Collector General, the importations during 1856 are ahown to be 81,151,422; the exports at only half that amount, or
\$583,544, omitting the sum of $\$ 87,280$, which is atated to be the produce of vessels bearing the Hawaiian flag. The total exports appear as $\$ 670,824$.
ln estimating the "supplies" furnished to whale ships for the year 1855, it is estimated that each whale ship took, on an average, $\$ 275$ worth of supplies, or island produce.

In examining the table of domestic exports, it will be observed that the exportation of staple products has not increased rapidly, though the sum total of domestics exported in 1856 ls much in advance of previous years, excepting only the "potuto year," 1850, which apparent incresse is owing somewhat to the different ostimates of the supplies furnished to whale shipe. We give a comparison of some of our staple exports for four years:

| Exporn. | 1848. | 1 mso | 1885. | 1885. |
| :---: | :---: | :---: | :---: | :---: |
| (1als. of molassee and alrup Pounds of sagar <br> Orangem... <br> coffeo | 28,974 | 41,235 | 38,304 |  |
|  | ${ }_{68,1985}$ | ${ }_{88,281}$ |  |  |
|  | , | $\mathrm{SO}_{0}$,0041 | 25,9461 |  |
|  |  | 81,4 | 1nB,700 |  |

The domestic consumption of sngar as well as coffee
in the islands has been greater during the past than in former years. It is supposed that the amount of augar produced the past year la at least 500 tons, about one half of which has been exported. Of coffee the prochuce has been not less than 800,000 libs. Only a small portion appears above as having been exported. But of both sugar and eoffee the whaling fleet will yearly require larger supplles, as they leave home with smallor
atocks, owing to the high rates these article command In the 8tates.

The recelpts at the customs for 1856 show a falling off of about $\$ 35,000$ frem those of 1855 , which is accounted for In part by the decrease ln the Importation of goods ( $\$ 230,000$ ) and apirits ( 8600 galls.), and theso items show sbout the same falling off as the number of whaling and merchant vessels visiting the group.

Comparativa View of tife Commerge of tir Sandwion 7slanda for ten Yeare, from tiz Ybar 1847 to tie Yeab 1850, uivino ties Totala por baoh Yeak.

| Vears. | Total Importa. | Total Experta. | Domealis Prodoce - raported | Porelign Paoduce esported | Total Cusloot house Recelpta | Oil and Bone Lranshipped. |  |  | No. of National Vemsals. | Maychant Vensels. |  | No of eotries of Whalera. | $\begin{gathered} \text { Oallows of } \\ \text { Ypints } \\ \text { consunaed. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Gale of Bperm. | Gants. of Whale. | Pounde of Bohe. |  |  | Toessols. |  |  |
| 1847 | \$710, | (1) | \$240.018 | \$ $10,2,268$ |  |  |  |  | 4 | 75 |  | + | 1 |
| 1848. | 646,619 | 300,870 | 268,819 | 88, 651 | 55,608 |  |  |  |  | 90 |  | 254 | 8,443 |
| 1849. | 729,789 | 477,845 | 279,743 | 108, 109 | 83,231 |  |  |  | 18 | 180 |  | 274 | b,717 |
| 195). | 1,035,058 | 783, 150 | 536,522 | 246,529 | 191,600 |  |  |  | 12 | 469 | 90,804 | 287 | 8,252 |
| 1851. | 1,823,821 | 091,2t | 319,823 | 881,412 | 160,602 | 104, 862 | 909,379 | 169,051 | 7 | 446 | 87,020 | 220 | 9,500 |
| 1852. | 75.1,868 | 638,895 | 257,261 | 881,142 | 118,091 | 178,490 | 1,189,738 | 3,153,951 | 3 | 235 | 61,065 | 519* | 14,150 |
| 1853. | 1,411,975 | 472,996 | 281,599 | 181,807 | 155,640 | 175,896 | 8,787,848 | 2,020,204 | 7 | 211 | 6,451 | $538{ }^{\circ}$ | 18,123 |
| 1854. | 1,590,837 | -85, 122 | 274, 1229 | 311,092 | 152,125 | 156,484 | 1,683,922 | 1,479,678 | 16 | 125 | 47,288 | $525^{\circ}$ | 17,637 |
| 1555. | 1,383,160 | 572,601 | 274,741 | 207,859 | 158,411 | 109,308 | t,486,810 | 827,054 | 18 | 154 | 51,804 | $468{ }^{\circ}$ | 18,319 |
| 1366. | 1,15t,492 | 070,824 | 406,278 | 204,545 | 123,171 | 121,294 | 1,641,579 | 1,974,048 | 9 | 12 | 48,218 | $806{ }^{\circ}$ | 14,779 |

- Theso figures give the number of different entries of whaters at the varions ports-some of the vessels cotering at three, four, and even five ports duriog the year. The actual aumber of different whalera duriog 1858 will dot exceed 240 .

Ports of Eintry.-The following are the only porta of entry in the Sandwich Ielands, viz. : for veasels of all deacriptions, Honolulu (Oahu), Lahsina (Maui), Hilo, Kealakeakua, and Kawaihae (llawaii), and Walmea (Kaual); and for whalers, and vessels of war only, Ilanalei (Kauai).
Port Charges on Merchant Vessels.-At Honolulu.Tonnage dues, fifteen cents per ton reglster; pilotage, one dollur per foot each way; or half-pilotage if no pilot la employed; health certificate, one dollar; buoys, two dollars; harbor-master, three dollars; clearance, one dollar ; pilot for anchoring a vessel outside which does not enter tho harbor, ten dollars.

At Lahaina.-Tonnage dues the same as at llonolulu; boarding officera, five dollars; lights, one dollur; canal, if used, two dollars; clearance, one dollar.

At /lilo.-Tonnage duos, pilotage, health certillcute, und clearance, the same as at Honolulu.

At Kealakeakwa.-Tonnage dues the same as nt Hooolulu; boarding officer, five dollars; clenrance, one dollar.

At Kavaihae (IInwaii), and Waimen (Kauai), the same as at Kealakeakua. Any vessol, having paid the tonnage duea at one port, complied with all the port regulations, and obtained in clearance from the collector, may go to either or all of the other ports of entry, without paying ony additional tonnage dues during the rame voyuge.

Privileges to Whale Ships. Whale ships are allowed to land goods to the value of $\& 200$ freo of duty, and $\$ 1000$ worth additional, subject to a duty of 5 per cent. ad ralorem, without being llable to phy any tonnage dues; but if they land more than 81200 worth (including the $\boldsymbol{\$} 200$ worth free of duty), they are eubjects to the nawe charges and lin:. litles as nerchant vessels.--See Witale Fibiferies.

I'naltirs, Restrictions, efc.-Any master of a whale ship who shall fall to produee hls permit when called for is liable to a fine of not less than $\$ 10$, or more than $\$ 50$, to be imponed by tho collector. Any vessel having cargo on ioard intended for a foreign port, or apirits in eargo or stores, und touching at a place not a port of entry, withont a permit from a collector, is Hablo to pay double tonnage dues. Oil, whalebono, or nny other nutielo of merehandise, landed or tranabipped without a permit, is linhlo to seizure or conffecetion. Seamen ore not allowed to be diseharged at any of the ports of theso lalands, except Honolulu and lahaina. It is not lawful to discharge aenmen at any of the ports of the islands without the written consent of tho governor. Ilonolulu and lahaina are the only ports at which native aeamen nre allowed to he shipped, and at these places only with the consent of the governor.
-See United States Com. Relations ; Stewart's Journal; Ilunt's Merchants' Magazine, xvil. 33, xvil. 316, xxlv. 185 ; North American Reviet, li. 508, xxvi. 59 (Evarts), lv. 193 (R. II. Dasa); Chriatian Eraminer; xix. 244 ; De Bow's Review, xilil. 457.

Eandy Eook, Middletown township, Monmonth countr, New Jersey, is a aandy beach extending north from Old Shrewabury Inlet und the south point of the Highlanda of Navesink, five miles, and is from lialf a mile to a mile wide. It incloses Sandy Hook Bay The llghta are on the north part. The Sundy Hook lights consist of the main light, and two beacons placed In position, for ronges of channels. The main light is in lat. $46^{\circ} 27^{\prime} 42^{\prime \prime} \mathrm{N}$., long. $73^{\circ} 59^{\prime} 48^{\prime \prime} \mathrm{W}$. from Greenwich, England.

I,ight-ship.-A light-ship, palnted red, of nbout 950 tons burden, and showing two lights, Js anchored off Sandy Hook. The forward light is 30 feet nhove the deck, and tho nfter one 40 feet. She is also provided with a bell of 800 pounds weight, whlch will the rung in thick weather. She is placed $\ln 13$ fathoms water. Sandy IIook light-house bears from the light-8hip west by north, distant $6 \frac{8}{8}$ miles; Ilighland llght-house, westsouthwest, distunt 7 miles.

Highlands of Navesink.-Navesink hills, on which two light-houses are built, extend northwest and southeast, abont aouthwest from Sundy Ilook, on the Atlantlc Ocean to Rariton Bay. Tho correct altitudes of tho following places, which present themselves to mariners as thoy approach them, ore: Mount Mitchell, the highest point of Navesink, Monmouth county, New Jersey, 282 fect; Tompkins' Hill, on Staten Island, 307 feet; Hempstead IIII, Queen's county, Long Island, 319 feet.

Ilighland Lights.--On the Hlghlands of Navesink there are two light-houses bearing north $23^{\circ} \mathrm{W}$., and south $23^{\circ} \mathrm{E}$., from ench other distant 100 yurds. 'The southern light ls a rovolving one, on tho Pressel plan; it is 248 feet above the lovel of the sen. Tho northorn light is a fixed light, 2.16 fect 7 inches alove the sea.
Ledge South Sandy $H o o k$--On this reef there are but 9 feet of wnter. The northern light on the Ilighlands, a little open to the enstwurl of the southern one, lends right on the reef. This ledge ls south half east from Sandy Ilook light, 7 miles distant, und about if millo from tho whore, nnd on which tho ship Jlilliam Thompson struck.

Oil Epot.- Vast-southenat 18 mlle from Sandy IJook light is the Oil Sjot, having only 10 feet of water in one spot at low water. It ls of $n$ triangular shape, and about holf a mile on each sido in exteut. The nlong-shore channel la inside of it.

False Hook. -14 mile east, a little northeriy, from Sandy Hook light, there is a smali shoal spot, wlth only 12 feet water upon it at low water. It is the remalns of the eld False Hook.

New York Harbor.-There are four channals over New York bar. The first ls that along and parallel to the Jersey shore, inside of the Outer Middie. The second ls the South Channel, between the Black Can Buoy, No. 1, and the Red Can Buoy, No. 2. The third is the Main Shlp-channel, between the Red Can Buoy, No. 2, and the Biack Nun Buoy, No. 1. The fourth is Gedney's Channel, berween the Black Nun Buoy, No. 1, and the Red Nun Buoy, No. 2. Thls channel runs weat by north, and Is used by our largest class ehlps of war. -Blunt's Coast Pilot.
During the year 1857 the Fest beacon at Sandy look, the foundation of which had been undermined by the sea, was removed to a secure position by order of the Light-house Board, a now screen erected, and the main light-house fitted with a new lantern and a third order lens. Gedney's Channal into Now York Bay having two feet more water than the old channels, was unknown nitli a fow years siace. The knowledge of this channel is owing to the operations of the Coast Survey. Had the true depth of thls channel been known in 1778, the French fleet under Count D'Estalng would have passed into the bay and taken the assembled British naval force.-Coast Survey Report, 1854 ; Light-house Report, 1857.
San Francisco, a city and sea-port of the United States, in California, on the south promontory, divlding the great bay of San Francisco from the Pacific, inside the bay, and a short wny to the south of its en trance. The latter, now called the Golden Gate, little more than a mile in width, has on its south side an old Spanish fort, or mesidio, in iat. $37^{\circ} 48^{\prime} 80^{\prime \prime} \mathrm{N}$., long. $122^{\circ} 27^{\prime} 23^{\prime \prime} \mathrm{W}$. Having passed the fort, the course to the town is nearly east from three to four miles, and then south and west about as much more. The city is situated at the bottom of $a$ bay, skirted by extensive fiats, some of which are now being formed into docks. Its growth has been quite extraordinary. In the early part of 1848 it consisted only of a few rude cabins; whereas it has now an exchange, a theatre, a custom-house, sundry churehes and other public buildings, with great numbers of private houses, many of which are of wood, but many also of adobe (sun-dried) and burned bricks, with a vast number of attached tents and booths. And whilo such is the metamorphosis on shore, her waters, which were formerly quite deserted are crowded with ships and steamers from all parts of the world! San Francisco is Indebted, as every one knows, for this ail but miraculous transformation to the discovery of gold deposits in the beds of the tributaries of the San Joaquin and Sacramento rivers, whlch fall into her bay, and in the quartz of the contlguous mountains. Such, however, are the advantages of her situation, and the fertility of the adjacent country, that the exhaustion of the goid deposits, though it might check for a while, would not permanently affect the growth of the city, or the extent of her trade. To obvhate the shallowness of the wator close to the town, A wharf 2300 feet in length has already been projected into the bay, and to it all sorts of vessels are safoly moored. The construction of extenslve docks has also been commenced; and every effort is being made to provide the accommodation necessary for the rapidly increasing trade of tire town.

San Francisco stands on a sandy level ; and during tho wet season, when it is most crowded, the strects were at first mare puddles, into which carriages sunk to the axies; whlle in the dry season the amoyance from dust was all but intolerable. But these inconvenionces have been to a grest extent obvlated by ilvorit $g$ the streets, or covering them with stout pianke, n process which has been carried to a great extent, and has had the most compiate success Thc city has suf-
fored much from fires, by which, indeed, It bas repeatedly been lald waste. Thase, however, have been speedily repalred; and in a fow weeks no traces are seen of the mo.t deatructive conflagratlons. According, however, as houses of brick or-stone are substituted for those of wood and for tents, fires will become lesa frequent and less destructive.

The population of San Frencisco is the most motley that can be imagined; for, though Americans predomInate, a large admixture is to be seen of adventurers from all parts of the world. Gamhling is very prevalent ; and is, perhaps, carried on to a greater extent here, during the ralny' season, than in any other place either of the New or the Old World. But this is the natural result of the clrcamstances ander which the population has been brought together; and the passion will no doubt abate as the circumstances in which it originated change or lose their Influence. Iynchlaw has been here reduced to a system, and carried to n greater extent than any where else; and, despite the gross abuses to which it unavoidably leads, it is the general opinion that it could not have been dispensed with. A sense of its necessity has led, not only to its being adoptcd, but to its baing generally approved.

Nowhere in the world is there 80 grent a disparity between the sexes as in San Francisco, there being at least "rom three to five men for one woman. But this disparity is gradually lessening, and with it some of the worst features in the present condition of the population. The population of the city differs widely at different periods, being crowded in the wet, and comparatively desertod in the dry season. Though by far the largest and most Important town in the State, it is not its capltal. That distinction has been conferred on San José in consequence of its more central situntion.

The Bay of San Franclsco, thongh, as already stated, it has a narrow entrance, expands within into ono of the noblest basins that is any where to be met with, having a const line of about 275 miles. The town has already become the seat of a very extensive trade, and will most likely be the grand emporium of tho vast territory belonging to the United States on the Pacific. The trade with Chlna, Australla, the Eastern Archipelago, and the Polynesian Islands, is even now very extensive, and several ships have been fitted out for the whale-fishery. At present, however, the principal trade of the city is with Panama on the one hand, and Oregon on tho other; bringing immigrants and ail sorts of manufactured goods from the former, and corn and other raw produce from the latter. But she has also an extensive trade with Chill, the eastern portion of the United States, and with Europe by Cape llorn. The linportation of many sorts of products has been completely overdone, and some varietios of manufactured goods might, in 1853 and 1854, bo bought in San Francisco ns chenp as in Liverpool or liarro. This, however, ls a specles of miscalculation incldent to the opening of ail new markets, and will speedily correct itself. Gold bullion, with small but increasing quantities of quicksiiver, and hides, have hitherto been the all but exclusive articles of export.

The subjolned tabular form gives at a comprehenslve glance the amounts of tho nssessmetit: together with the rates of taxation of the city alil county of San Franclsco, for eight fiscal yoars, since tise firut organization of the local governnent, viz.:

| Flueai 'eors | $\left\|\begin{array}{c} \text { Rate of } \\ \text { Thxalion } \\ \text { berciant. } \end{array}\right\|$ | Amount of Asemements. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Improve. ments. | Pereonal Property. |  |
|  |  |  |  |  |  |
|  |  | 16,840,064 | In pe | 4, |  |
| 18 | 10 |  | ditto |  | 14,010,003 |
| 1858- ${ }^{\text {P }}$ | 441 | 15,076,350 | ditto | 2,805, 8 |  |
| 1853-1 | 389 | 17,889, ${ }^{5}$ | 6,158,300 | 4,852,101 |  |
|  |  | 10,765,285 | 0,150,935 | 5,837,00 |  |
| 1S55- ${ }^{\text {d }}$ | 3851 | 18 | 8,894,925 |  |  |
| 1856-67 | 230 | 17,827,617 | 8,345,607 | 4.104 |  |
| 1857 | 230 | 16,106,8 |  |  |  |

SAN
 duatwo the Jikab 1800 .

Araivals, Yifab 1856.

| From | Men. | Women. | Childron. | Totat. |
| :---: | :---: | :---: | :---: | :---: |
| Pranama | 11,264 | 4026 | 19.48 | 17,288 |
| San Juar | 8,144 | 888 | 121 | 4.148 |
| United Statem porta direet | ¢ 28 | 11 |  | 899 |
| Cbina.. | 6,819 | 19 |  | 5,883 |
| Great Brit | 13 | 11 |  | 24 |
| France. | 106 | 22 | 3 | 131 |
| Hamburg | 130 | 65 |  | 195 |
| Peru. | 7 | 2 | .... | 9 |
| Chill. | 40 | 18 |  | 64 |
| Sandwleh Jaiandn | 418 | 12 | 4 | 493 |
| Other Pacific Is | 18 |  |  | 18 |
| Australia. | 188 | 87 |  | 225 |
| Mexlco | 161 | 63 |  | 234 |
| Rusmlan Poss., N. W. Const | 45 | 1 | 1 | 47 |
| Other ports. . . . . . . . . . . . | 68 | 14 | 3 | 79 |
| Total .......... | 20,940 | 6244 | 2081 | 28,265 |


| For | Men. | Women | Cbildren | Totel. |
| :---: | :---: | :---: | :---: | :---: |
| I'nnama. | 12.256 | 768 | 450 | 12,469 |
| Sian Juan. .. | 4,849 | 268 | 198 | 6,310 |
| Cnited States ports direct | 10 | 4 | ...' | 14 |
| zandwich Ialands . . . . . . . | 218 | 84 | 8 | 241 |
| Other Iraclic Ialande. . . . . | 17 | 8 | .... | 20 |
| thlas | 8,214 | 9 | .... | B,283 |
| Pera | 129 | 7 | .... | 196 |
| Auatralis. | 412 | 75 | .... | 487 |
| Mexlco | 479 | 121 | .... | 000 |
| Chill. | 9.18 | 60 | ... | 859 |
| Other ports. | $3)$ | 5 |  | 44 |
| Total. . . . . . ...... | 20.9010 | 1348 | 646 | 22,1103 |

Recapittlation, Year isbo.

|  | Meu | Women. | Chldren | Total |
| :---: | :---: | :---: | :---: | :---: |
| Total nrriva | 20, $=17$ | 524 | 2081 | 28,265 |
| Total departur | 20,909 | 1348 | 646 | 22,508 |
| Excen of arriva | 31 | 3890 | 1435 | 5,362 |

Showing a net gain of population from arrivals ly sea, during the yesr 1856 , of 6362 souls. This is a very unfavorable exhibit, and we regret to make it public. During the last six months of the year the departures were 927 souls in excess of the srrivals. It is, however, the clase of population that we are losing which is the worst feature. During the last half of 1856, the departures of male adults for the Atlantic States were 2634 in excess of the arrively.

The population has recelved a atrong reinforcement during the past year by immigration over the plains. Early in the season oxaggerated extinates were made of the extent of this immigration, as well as of the quantity of stock tiant would be driveri over; but we do not overestimato the number when we say that fully 8000 persons ware added to the permanent popuiation of the State by the overinnd route during the past yenr, and that they brought with them 25,000 to 80,000 head of horned cattie. This is the character of populatlon that the State needs, and if Congress would nuthorize the construetion of a wagon read over the plains, we should see 50,000 people ranualiy leaving the Valley of the Misaissipui to mako their homes on the l'acille slope of the locky Mountains. As matters nre now. with virtuaily but one line of communication with the Atinntic coast, we need Induige in no brilliant hopen of the alvancement of California in population of the right stainp.-San Francisco Price Current.

Since the preceding was written, Congress passed an act under date Felruary 17, 1857, entitied "An Act for the construction of a wiggn road from Fort Kear. ney, via the South l'ass of the lecky Dountains and Great Salt lako Valley, to the eastern portion of the State of California;" 2. For a rosd from Fil l'aso, on the IKio Grande, to Fort Yuma, at the month of the (illa; 3. For a roal from Fort Defiance, in New Mexico, to the Colorado.

The following table will rinw the excess of arrivaln over departures, and aleo those which have gained dur. ing the year 1856, together with the nuounte of our gain and loss:

| Ameivala at Pamama. | L.ose. |  |
| :---: | :---: | :---: |
| Panama |  |  |
| Chloa |  | 2115 |
| gandwich Jelands |  | 240 |
| Other P'aolfic Jai | 7 |  |
| Chill. | 288 |  |
| Mexico | 869 |  |
| France, |  | 181 |
| liamburg |  | 115 |
| Auntralla..... | 262 |  |
| United states polte direc Peru. . . . . . . . . . . . | 187 | 28 |
| Great Britain |  | 24 |
| Other ports | .$^{\prime}{ }^{\prime}$ | 82 |
| Toial . . | 8210 | 7577 |
| Balauce in favor of Callfor |  | 036 |
| Expont or Qutos |  |  |
| To Mexico |  | $\begin{aligned} & \text { Flankn. } \\ & 851 ; \end{aligned}$ |
| To China |  | 1151 |
| To New jork |  | T500 |
|  |  | 1507 |

Of the exports in 1856, 18,541 flaaka were destined to Mexico; 4526 flasks to Peru; 8009 flasks to China: 2414 flaske to New York; and 250 flaske to Austrilia. The total value exported, accoriling to the customhouse books, was $\$ 883,185$.
Oferations or the Unifed Etatig Beanen Mint at San Franoleco tubing the Yeab 1856.

| Gold, onncee sllver, | $\begin{aligned} & \text { nepacitat } \\ & 1,640,665 \end{aligned}$ |
| :---: | :---: |
|  | 61,878 68 |
| Gold coin. | \$25,146,400 00 |
| Gold bars | 3,047,0f1] 30 |
| Gold bars, | 122,1bl 65 |
| Sllver coln. | 184, 1 (16) 10 |
| Sllver ber | 25,348 30 |
| Total co | \$28,624, 83 [ 2.3 |

Exports of Treasure.-Statement of the amount and deatination of treasure exported from San Francisco during the jear 1856.

| To New | \$39,705,294 |
| :---: | :---: |
| To Eugland | 8,666, $2 \mathrm{~S}: 1$ |
| To China. | 1,308,45\% |
| To l'suama | 25:1,269 |
| To Sandwich lalands | 241, 4. ${ }^{2} 1$ |
| To Manllia | 1:13,265 |
| To New Orleans | 13n,0\% |
| To l'eru. | 6. 750 |
| To Anutrulia | 64,513 |
| To Calcutta. | 47.19 |
| To ('hilli. . . . . . . . . . . . . . . . . . . . . . | 11,318 |
| To Cowta Ihica | 9, HOCO |
| To Socluty Ialands. . . . . . . . . . . . . . . . . . . | 5,300 |
| Tatal shlpnimita of treasure $\ln 1856 .$. | $\begin{array}{r} \$ 511,6917,434 \\ 45,182,631 \end{array}$ |
| Increasu in 1856....................... | $545,514,>13$ |

Gols I'momet of Califobnia, 1850. - Actual Simpents prom san fibanctaoo.
To New York and New Orleann, for Atlanile

Other foretgn ports. 824,125
Total maniferted \$F,644, 244
Atlantle passungers catimated
Colned at Branch Mlot ......... \$2si, 440,4100
Of whel included in alipmenta $17,060,1019$
$8,146,46$
Total eatmated production of gold ....... $\$ 61,4,0,360$
Comparative Proucot por thafr leans.

|  | $1 \times 34$. | 1/3,35 |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  | 17,5 |  |
|  | \%, 14 |  |  |
| Drlt. | 2,5 | 8, |  |
|  |  |  |  |
| Of the annual product of the gold mines aud placers of the Sitate, it in diffleuit, alno, to speak with any positive iegree of accuracy. In the fire of May, 1851, sltnost the entire records of the cuatom-house were destroyed, together with a vant quentity of the looks and prapers of mercantlle houses, so that wo can oniy stata |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

the recorded amounts exported by the mall steamers and other vessels slace that epoch, which wore as follows, necording to official data :

Egtimated Paonter or the Minis of Califoenia binge

| Previonsly to 188 f , manmed from stantig. tics of the Unlted States Mint. ....... | $69,915,000$ |
| :---: | :---: |
| 1851. | 46,088,000 |
| 1859. | 45,779,000 |
| 1853, ......... . . . . . . . . . . . . . . . . . . . . . | 54,848,000 |
| 1894. | 61,499,000 |
| 1855. | 45,183,000 |
| 1856. | 60,697,400 |
| 1857. . . . . . ........................... | 60,048,000 |
| Add probable amount in hands of pamens. | "AM: |
| gers, 6 years, $\$ 10,000,060$ per anmum. | 60,000,900 |
| Totni. . . . . . . . . . . . . . . . . . . . . . . . . | 38,100,600 |

In the foregoing estimate no sccount ia taken of the amount of uncoined gold in the hands of miners, or lying ca general deposit with the various express agents snd bankers It is the oplnion of those who have made inquiries on the subject, that the amount thus retalaed in the country is fully up to three millions of dollars. Nor is the amoont shipred by sailing vessels lnciuded, an omission caused by our inability to ascertaln the proportion which diust benrs to coin in such shipments. The shipments of treasure to China, Manilla, Caicutta, Valparaiso, and. Honolulu, the prosent year, amount to about $\$ 853,00 \%$.

It would be a difflcuit task to ascertain the total vaiue of foreign goods imported and consumed in this region, as a gieat part are previously imported at the esstward, and do not require to be specifically ontered in cur custom house. In atating, therefore, the amount of our direct importation of foreign gooda, for the year ending the 1st of October last, at $\$ 7,490,000$, we merely do ao en pasaant, without reference to the actual consumption. If wo were to form an opinion of our lmperts from the amount of our aunual exporta, both of produce and gold, we ahould say that the former would nmount te at loast $\$ 36,000,000$, which forms nearly the whole basis of our trade.
'Ihe following is a comparative atatement of the exports from San Francisco for the years 1855 and 1856 :


In estimating, 88 we have done, the imports at only $\$ 36,000,000$, or two-thirds the amount of our exportatious, we presume the remaining $\$ 18,000.000$ to have been absorbed by the rents and other revenues of absentees; by the interost on foreign capitel ; and by the remittances of miners and others to their absent famiiies, as well as those of others whose entire esrnings nre sent out of the country. These are mere apeculative views and opinions, but, in the absence of positive dats, they may not bo deemed unworthy of applica-tion,--San Francisco Price Current.
Value of Expobte otifer tilan Treabuta fron gaf Fban. claco during tis Iear ending Degentuer 31, 1850.

| Ausiralla | \$1,123,367 |
| :---: | :---: |
| New York | 1,118,600 |
| Mexico | 781,059 |
| Peru. | 887,69\% |
| Bandwich Islands | 943,808 |
| China | 939,941 |
| Rusalan l'ostessions | 127,910 |
| Chlli | 116,787 |
| Soclely talands | 61,819 |
| New Granada. | 43,126 |
| Porte in the Proifio. | 85,458 |
| Venconver's Island | 23,370 |
| Corta Rlca. | 18,000 |
| East Iudles | 2,760 |
| Nicaragun | 9,480 |
| Total exportation in 1856 | $\begin{array}{r} \$ 4,270,614 \\ 4,877,619 \end{array}$ |
| lixcese in favor of 1856 | \$417,005 |

The exports of lumber in 1856 were $8,900,000$ feet.
 HEMER 81, 1850.

Fliote.

| Whilthar exported. | ]asrrela. | Cmes. | Hf. Smeka. | Or. Bentra. |
| :---: | :---: | :---: | :---: | :---: |
| Auntralis. | $23{ }^{10}$ | $\cdots$ | 8990 | 287,434 |
| Aonpuloo | ¢0 |  |  | 4,000 |
| Chins.. | 1205 | 86 | 1896 | 7,202 |
| Callao. |  |  | 1000 | 1,980 |
| Honolulu, | 161 | 991 | 1185 | 5,820 |
| Mexico |  |  | 50 | 159 |
| Kusuian Pousemiong | 86 | - | 100 | 40 |
| San Quentln | 10 | !... | .... | 80 |
| Tahlil...... | 101 | .... | .... | 2,670 |
| Vagcouver's laland |  | .... | .... | 880 |
| Total | $802 n$ | 327 | 7081 | 260,114 |
| Wheat |  |  | .baga | 4,438 |
| Barley |  |  |  | 4,758 |
| Oata. |  |  |  | 18,339 5,830 |
| Potaloen |  |  | baga | 6,830 |

 pubing the Yeab endino Setptembee $80,1860$.

|  | Value | Dutie |
| :---: | :---: | :---: |
| Merchandise in bond on 1st Uet, 1856 | \$328,09 | $\$ 8$ |
| liecelved in warehouse imported from foreiga porta |  |  |
| Do. tranaported in bond from the porth of New York, Bonton, Phlladelphia, and Now Orleans. | 428,730 | 178,002 |
|  | 42,652,325 | \$4,029,605 |
| Wthdrawn from warehone for consumpilon |  |  |
| Do. for export |  |  |
| o. for transportation to the New York and Boston ... |  |  |
| Yemainlag in warehouse on the soth of September, 1856. | 784,460 | 315,102 |
|  | \$2,058,825 | \$1,02] |
| mported from forelgn ports, dntles pald. $\qquad$ | \$3,884,243 | \$1 |
| lithdrawn from warehouse for cousumption. |  |  |
| "Free" merchandise imported from forelgny ports | 2,221 |  |
| Total valne of foroign merchandise thrown upon the market | \$7 |  |
| Totst datles collected |  | 41 |

We copy from the San Francisco Price Current the following atatistics for the year 1856, to which we add the aggregates for the year 1857:

Statruent of tims Number or Vasbele, with tueib Tonnaff, abatving at and meparting from tire Port of San Francibco during tul Year 1860.

| Arrivsla from | No. of Vomela. | Tons. |
| :---: | :---: | :---: |
| Atianill domestio ports | 128 | 147,370 |
| Paelfic domestlo porta.. | 1034 | 188,149 |
| Panama. | 26 | 49,003 |
| China | 43 | 87.110 |
| Nlearagna | 18 | 15.674 |
| Great Britain | 21 | 11,729 |
| Sandwich Isian | 31 | 6,688 |
| France | 18 | 7,019 |
| Mexico | 38 | 6,531 |
| Batavia. | 9 | 8,401 |
| Islanda in the Praeific | 22 | 2,528 |
| Rto de Janeiro | 6 | 2,040 |
| Russinn Poseeasions, Nor | 5 | 2,527 |
| Manllia... | 7 | 2,031 |
| Whaling voysge | 18 | 2.879 |
| IIamburg.. | 7 | 2,815 |
| Chth . . . . | 11 | 8,085 |
| Peru | 7 | 879 |
| Auatralla | 11 | 3,875 |
| Brlish North America. | 1 | 537 |
| Japan . . . . . . . . . | 2 | 300 |
| Vancouver's Islaud. | 2 | 278 |
| Calculta. | 1 | 587 |
| Costa Rica | 1 | 182 |
| Totsi. | 14.5 | 440,016 |

Rrcapitulatton fob the Yrabe 1850-185\%.
 $\begin{array}{lllll}\text { American vesseis arrived from domeallo ports.. } & 1102 & 287,510 \\ \text { " } & \text { forelga ports... } & 168 & 109,019\end{array}$ Foreign vessels arrived from foreign ports. ... $\begin{array}{llll}\text { whaling voyges } & 113 & 2,879 \\ 30,608\end{array}$ Total, 1850
Tots1, 1857
1583

| Tepartaree for | $\begin{aligned} & \text { Ne. of } \\ & \text { Vaseole. } \end{aligned}$ | Tome. |
| :---: | :---: | :---: |
| Paelifo domeatlo porta . . . . . . . . . . . . . | 860 | 18\%,456 |
| China ... | 79 | 79,784 |
| Peru. | 59 | 84,578 |
| 1'anama | 26 | 60,097 |
| Calcutts. | 97 | 98,887 |
| Nicaragua | 16 | 18,068 |
| Manilis. | 19 | 17,690 |
| Sandwich Ielande | 42 | 10,606 |
| Auetralia. | 89 | 11, 658 |
| Mexico... | 48. | 8,878 |
| Rusian Posnesslons, Northivent Coant | . 9 | 4.797 |
| Atlaptle domentio porta . . . . . . . . . . . . | 7 | 0,002 |
| Whalling royagev. . ..................... | 18 | 8,885 |
| Chill . . . . . . . . . . . . . . . . . . . . . . . . . | 21 | 8, 612 |
| Batavia. . . . . . . . . . . . . . . . . . . . . . . | 8 | 1,254 |
| 1alanda in the pradifo | 15 | 1,971 |
| Vanconver's faland. | 5 | 688 |
| Conta Riea . . . . . . . . . . . . . . . . . . . . . | 8 | 341 |
| Wauritin\%. ... ........................... | 1 | 255 |
| Slngapore . . . . . . . . . . . . . . . . . . . . . . . | 8 | 1,460 |
| France . . . . . . . . . . . . . . . . . . . . . . . . | 1 | 900 |
| Total. . . . . . . .......i. . . . . ...... | 1288 | 413.807 |

Reoapitthation fon this Yean 1806.
American vessels departod for domentio porta. . 886 148. 181 $\begin{array}{rlll}4 & 4 & 4 & \text { foreign portin... } 888 \\ 4 & 4 & 45 & 411 \\ 4 & 4 & \text { Whaling voyage } & 19 \\ 3,855\end{array}$

## Total

 domentic portu... ${ }^{1} \frac{1}{5}$The tonnage arriving during the three years below steted was an follows:

| Arrived in 1 | Vemens. | Toms. 549.756 |
| :---: | :---: | :---: |
| 41854. | 689 | 409, 114 |
| 41855. | 894 | 412,086 |

The tonnage entering from eastern domestle ports in 1853 was 260,045 tons; in 1854 it was 153,318 tons; and in 1855, 144,484 tons. The arrivals of the past year from New York are in the proportion of two tons to one from Boston, the actual fignres being 89,051 tons from New York against 45,601 tons from Bowton.

The tonnage from all quarters arriving in San Francisco in 1856 comprised 1455 vessels of 440,015 tons agalnet 1520 vessels of 517,019 tons in 1855. The decrease has been $\ln$ domestic coast and foreign trade, the tonnage entered from domestic Atlantlic ports being somewbat larger than in 1855. The following figurea illustrate this:

| Arrived. | Fromi dorientic Aliantie l'orto. | From dinaeatic Pacife t'onta | From inneyn Icerts. |
| :---: | :---: | :---: | :---: |
| 1855 | $\begin{aligned} & \text { Tond } \\ & 14,810 \end{aligned}$ | $\begin{aligned} & \text { Tone } \\ & 15: 9,635 \end{aligned}$ | $117,092$ |
| 1850 | 147,371 | 13S, 149 | 14, 617 |
| Increase in 1854.. Decrease in 185\% | 1,606) | 6t,496 | 27,45 |

The tonnage eutered from domestic Atlantic ports in 1853 was 260,045 tons; in 1854, 153,313 tons, in 1855, 147,870 tons; and In 1856, 149,370 tons. Thus it appeare that the inporta from that quarter have hardly decreased since 1854. The great falling off in trade is more apparent than real, as in the tonnage entering in 1855 were included the ocean steumers erriving from Benleia, and in the table of 1856 they arn excluded. Undoubtedly, however, the coasting trado has fallen off 20,000 to 30.000 tons, compared with 1855 , which la owing to the decreased shipments of lumber from the North.
The imports this past year from Greut Brituin oxhibit a fulling off of ncar 60 per cent. compared with thoso of 1854 . The tonnage entered for four years past was es follows:

|  | 85.934 tona | 1865 ......... 96.608 tona. |
| :---: | :---: | :---: |
|  | 22,11: | 1850 . . . . . . . 11,729 " |

From the continent of Europe there entered in 1855, 13,242 tons against 10,434 tons in 1856 .
With Ching the trado shows a consilerable increaso -tho tonnage entered in 1856 being $\mathbf{2 7 , 1 1 0}$ tons agsinst 17,206 tons in 1865. The clearances to that country have little connection with trade, anil therefore there is no need of making comparisons with previons years.

The exports have been upon a larger scale to Australis in the year 1858 than to any other country. Tho tonnage movemant for three yeara was as follows:

Pntered.
tone 6,864 Departed . . . . . . . . . . . . . . . . . 4 , $10,902 \quad 16,718 \quad 18,508$
With the Sandwich Islands the tride for the years 1854-'56 was as followa:


The increase noticeabln in the tonnage departing for the lalanda in 1850 was caused by a larger number of clippers than usual going thithor to frelght oil home.
With the other Pacifio Islavds trade since 1854 bas ranged at follows:


The tonnage movement for the three fullowing years with Mexico was as follows:


| To | Treamara : | Marchandate acod Produca. |
| :---: | :---: | :---: |
| Naw York | *80,887,778 | \$2,168,000 |
| Engiand. | 0,941,743 |  |
| China | 2,908,204 | 313,896 |
| New Orle | 244,000 |  |
| l'anama | 410.489 | -... |
| Manilia,. | 278,000 | 7,143 |
| Calculta. | 34,996 41.500 |  |
| Mexico ..................... | 41,500 | 144,055 |
| Sandwreh Islands . . . . . . . . Ansiralia . . . . . . . . . . | 80,803 32,000 | 9\%5.200 |
| llavana | 80,000 | 31,6 |
| Chill. | 83,779 | $10 \% 609$ |
| Other ports | 105,30) | 8.479 |
| Ruspian I'onvenslone, Atmerica | .... | 105, 158 |
| Jeru . . . . . . . . . . . . . . . . . | .... | 183,710 |
| Soclety laiands............. | . . . | 61,5i6 |
| Vancouver's Inland. Ean Balvador | $\ldots$ | 30,147 |
| Total for yea | \$48,976,097 | \$4, $929,763^{-}$ |
| Treasure. | い3, | 43,976,697 |
| Grand total......... . | .... | \$53,306, $46 \overline{5}$ |

Higoapitulatiox of tur Valiea of Freiohta to San Fras. onsco pon vie Yean 1857.


Statement of tife tonnage znthane the Poer of San Fennciece humina tilk fovrtil Quartai of 1857, amb tile Totala for the tean isot,

| Asrivals frous | No. ol vesoll. | Tona. | $\left\|\begin{array}{c} \text { Yessele } \\ 1853 . \end{array}\right\|$ | Tuns. 1831. |
| :---: | :---: | :---: | :---: | :---: |
| d | 18 | 21.798 | (10) | 10 |
| fracifo domestic porta | 818 | 48,048 | 1233 | 162,136 |
| l'anama | 6 | 8,785 | 24 | 40,960 |
| San Juan del 8ur, Nicaragua. | $\because$ |  | 2 | 1.bl6 |
| Gireat Britain . . . . . . . . . . . . . . | 1 | 617 | 24 | 16! 9.92 |
| France. | 4 | 8,090 | 18 | 8.3 矿 |
| 1 famburg | 1 | 769 | 9 | 3,448 |
| Bremen . . . . . . . . . . . . . . . . . . . | . |  | 9 | 914 |
| Terts. |  |  | 8 | 9 |
| Mexjen. | 12 | 1,804 | 48 | 6,102 |
| Sandwich Island | 4 |  | 17 | 3,401 |
| Society lalamila |  | 1,060 | 12 | 1,61i |
| Whaling voysge | 1 | 1.46 | 8 | 1.504 |
| lio de danelro. | 1 | 8500 | 4 | 1,3t3 |
| Ilusian l'oespgelona in Ame | 8 | 180 | 8 | 3, 293 |
| luasia in Asfa. | 1 | 160 | d | 28, |
| Mantlia | 2 | 1,008 | 8 | 3,3:41 |
| China | 6 | 3,608 | 31 | 23.824 |
| Itatavia | 1 | \%73 | 4 | 1,260 |
| Vancouver's Iala | 8 | 452 | 0 | 91: |
| Stam. .. | 1 | 828 |  | ,511 |
| Slognpore |  |  | 1 | 29 |
| Anstralia | 8 | 1,138 | 13 | 4,783 |
| Malaga |  |  | 2 | $6{ }_{6} 4$ |
| Conta Ric |  | ... | 8 | $6 i 1$ |
| Chili. |  |  | 5 | 1.000 |
| C'alcut | 1 | 469 | 3 | 1,090 |
| Jombock, Inteh Vay | - | .... | 1 | 428 |
| Toial | 879 | 8,802 | 1063 | 477,566 |

Tonmage Morement of the Port of Alan Francisco．－ The arrivala from all quartern during thu yeain 1806－＇67 have boen as follows：


Tho tonnage arriving from domestio Allantio ：rts during the past year exhibits a large falling off when compared with that of 1856－that from domestio cosst ports an equally large increase，and that from foreign ports a falling off of abont 10 per cent．compared with 1856．The following an the figures：

| Arrived | $\begin{aligned} & \text { Pium namentic } \\ & \text { Allatio Porta } \end{aligned}$ | $\begin{gathered} \text { From domantic } \\ \text { Conal Ports. } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { From Iorelga } \\ & \text { Ports. } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| 1856 ．．．． | $\begin{aligned} & \text { Tone 7 } \\ & 149,870 \end{aligned}$ | $\begin{aligned} & \text { Toun } \\ & 138,149 \end{aligned}$ | $\begin{aligned} & \text { Tonat } \\ & 141,617 \end{aligned}$ |
| 1867 | 109， 025 | 182，030 | 184，41 |
| Decrease in 1987. | 39，845 |  | 15，176 |
| Increase in 1857．． | 1） | 43，887 | ．．．． |

The tonnage from homu Atlantio ports in 1858 was 260,045 tons，being more than two and a half times larger than in 1857；the arrivals of 1854，＇55，and＇56 averaged ubout 150.000 tons．From Great Britain the tonnage arriving in 1857 wae 16,992 tone against 11，729 tona in 1856，exhibiting an increase of neariy 50 per cent．，hat a decrease compared with preceding years． From the continent of Europe there entered in 1857， 12，681 tons againet 10,484 tons in 1856．＂With China the import trade shows a slight falling off compared with 1856，the totaia being 23，824 tons againat 27.110 tons．The trade with Auetralia，as indicated by the tonnage arriving and departing for the past four years et San Francisco，has been as follows：


The arrivals from the Sandwich Isiands are the best index of the direct trade with that country（a number of the clearances thence being veseels to freight oil to the Eastern Statea），and for the last feur years have been as followa：

$$
\begin{aligned}
& \text { 1854.......... } \\
& \text { tone } 8,497 \mid 1856 . \\
& \text { tons } 0,093 \\
& \text { 1855. ......... } 410,361 \text { 1857............. } 4 \text {. } 8,900
\end{aligned}
$$

It will thus he meen that the trade with the iglands since 1855 has falien off nearly two－thirds．In like manner as with the Sandwich Islands，the srrivals from the west coast of Mexico indicate the traite proper between the two countries，and for the past four yarr havo been us followe：

These figures indicate a healthful and gratifying in－ crease in the trade with Maxico，which is destined in the future to become of very great inportance．The ton－ nage movement during the past year indicates that the imports from the Eastern Statea and foreign countriea were about 18 per cent．leas than in 1856，and althoagh making，as a genoral thing，a nearer approach than over before to being adapted to the wants of the mark－ et，have yet in many important reepecta been of the meat exceseive cheracter，and have resulted in heavy ioses to those interested in them

Export Trude of San Francesco．－The prominert item in exports of course is，and will continue to bo for many yeare，the product of the minee．The ex－ ports of treasure in 1857，as compared with those of the preceding years of which we have any record stands thus：

| In 1861 | ＊．4，412 |  |
| :---: | :---: | :---: |
| In 1858 | 45，174，000 | In 1550．．．．．\＄0，69 4，434 |
| In 1853 | 54，1065，000 | In 1857．．．．${ }^{(9,859,0 S ~}$ ） |
| 10． 1854 | \＄1，429，000 |  |

The exports in 1857，when compared with those of 1856，show a smali fulling off compared with those of 1855．There is a large item connected with the ex－ ports of last year which in reality has no bearing one way or another on the product of gold in this State．

We refor to the shipmonts of treasure to China and Manilla. In 1857 the axports to those polints ware \$3,272,164, almost whelly made up of doubloona and dollars received from Mexico. San Francisco Imported in 1887 3,168,711 in apecle, nearly all of which came from Maxico, and went from here to China and tha East Indles. More gold every year goes to Englend direct, and loes to Naw York; the figuroa for five years past show the change in thio respect:

| uportest it | 1858 Epported to Eegland, 689 |
| :---: | :---: |
|  | 1884.......... 8,78t,080 |
| 1855......... 88,790,64 | 1856......... 5,184,166 |
| 1860......... $39,765,294$ | $1856 . \ldots . . . . .8$ 8,686,990 |
| 1857. ........ $85,287,778$ | 1807......... $9,847,748$ |

The Light-heuse Beard Report for 1857 atatea that "the ateam tender authorized by Congress in 1856, and built at the Philedelphia navy yard, will reach Sa: Francisco probabily early in the year 1858. The presence of this vessel will serve the economical purpose of transporting anpplies, materials, and workinen for building and repairing thio light-houses, and also, in case of incursione of the Indians from the Britioh dominione la the Straita of Fuca and vielnity, to protect the keepers and citieens in that quarter against their attacks. Representations have beon made that a light ls necesanry between the bays of Monterey and San Francleco, and one on Mare Ieland, In San Prancisco Bay. The latter is receminended mainily in conalderation of the diffleulties at night in approaching the nevy yard and Benicia."

Pory Charges.--Pilotage outaide Farralones, 110 ; inside Farralones, 68 per foot ; tonnage dues, 4 cents per ton; dockage. 3 to 6 cente per ton per day; stevedore's charges, 75 conts perton; shipping inen, 05 each; ballast, rough atone, 225 per ton; cobble stone, 275 ; sand, 4150 . Water, 1 t cente per galion. Day labor,


Exchange.-On Atlantic States, aight, 3 per cent.; England, alght, 一d. at 47d. per dullar ; France, sight, 480 frs.

Money.-Scarce at 2 to 4 per cent. on good security. Doubloons very scarce, and wanted- 7 per cent. premium. Mexlcan doilars, dc. de. 7 per cent. premlum.

Rate of Inverest on Money.-By all act passod March 13, 1850, the rate of interept on money was fixed at 10 per cent. where there was no special contract; but "parties may agree in writing for the payment of any rate of interest whatever on money due, or to become due on any contract. Any judgment rendered on such contract shall conform thereto, and shall bear tho interest agreed upon."

Ban ITrancisoo (Bay of), California. One of the best barbors of the l'acific Oceati. The entrance is very remarkable, bold, and rocky; a mile wide and 4 milies in length, with deep water and no obatructiona. It then expande into an exteusive bay, in which lie several inlands ; that of San Angelo ls the largest and highest, and covered with vegetation to jts very top. TEe next in size are Yerba Buena and Al:- cras. The Bay of San Francisco is 36 miles in length oy an average of $6 \ln$ width. A large portion of its southern, eastern, and nerthern shores is boriered by extensive and wide mud-fiats, preventing the landing, at low water, of even a boat; so nucis so, that the eastern shore may be sald to be inaccessible fur a distance of 30 miles; and this luppediment prevents it from ever beconing useful, except by $t$ 'e construction of extengive artiticial works. On the north it is bounded by the Straits of San Pablo, which divide it from the bay of that name. The Bay of San l'ablo is nearly circular, about 10 miles in dianneter, the largeat segment of which is a mud-flat, with but a few fect of water over it. On the east side lies the channel, with a sufficiont depth of water for large vesels, leading to the Straits of Karquines, at the mouth of the Sacramento River. On the western side of the Bay of San Francisco, from the Straits of San Pablo, for a distance of 15 miles,
the country is broken and mountalnons, and the shores rocky and indented by smail bays. These obatructious reduoe this extenalve hay very much in alze, and it becomes still more to when the safoty anil convenlonce of vessals is taken luto consideration; indoed, with the deesp water, crose-tidee, and exposed sifuations, there are but two safe anchorages, viz., San Francieco and Sausalito. The Bay of San Francieco has been celehratod, from the tinse of its firat discovery, as one of the finest in the world, and is juatly entitied to that charactor, oven under the seaman'a, view of a mere barbor.
Ban Juan, or \$t, John (sea-port of Porto Rleo), Although posseasing a magnificent port, consldered one of the best on the island, San Juan ia not the firat cominereial place, as the products exported thence are of a very inforior quallity. Of the augar shilpped from thls port, as well as from the other ports of the island the Jnited States receives mere than two-thirds of the whole. But a amall quantity goes to England, and also, though rarely, to France. From the United States are imported codfich and other calt fish; salt meat, boarda, lumber, hoopa, ataven, and butter; from England, boilers for the manufacture of sugar, ma chinery, amall quantities of iron, and heavy nuppiles of earthen-waro. Spanish vessols take in cargoes at 8t. Thomas, and discharge at San Juan, thereby avoiding the duty applicable to all vessela from all other adja. cent foraign ports, in the ports of Porto Rico. Generally speaking, the whole Iuland of St. Thomas is but a great entrepôt of European and American manufactures destined for the markets of Cuba and Perto Rico -a fact shown by the large amount of importations from St. Thomas loto both these islanda. The aanual exports from San Juan in 1853 conaisted of $11,360,304$ liks. of sugar; 8808 hhds. of molasses; 876 hhds. of rum; and $910,966 \mathrm{lbs}$, of coffee. It is to be regretted that the port of San Juan, one of the best and safest of the island, thould be kept in to deplerable a condition. Six or seven years aga, a vessel drawing 16 to 18 feet water could take $\ln$ a full cargo at the wharf; at present a ship of the same tonnage can receive only threefourths of her cargo, and is compelled to leave the wharf in order to get into water deep encugh to take In the balance.
Ban Juan de Nioaragua (peewdo Greytown), s sca-port town of Nicaragua, Central America, at the mouth of the San Juan, in the Carilhbean Sen, lat. $10^{\circ}$ $55^{\prime}$ N., long. $83^{\circ} 43^{\prime}$ W. It is stated to have the best port on this const between Cape Gracias is Dios and the Boco del Toro, and to be much more healthy than Chagres. It has an export trade in hides, indigo, and coln, brought down the San Juan In boats from Granada. It was almost entirely destroyed by Captain Hollins, in comnand of the frlgato Cyase, July, 1831, to obtaln redrese for an insult to the Amorican eavoy to Central Amerjea.--See Nicaragua.
Ean Juan del Sul, a port of Nicaragua, Central America, on the Pacific Ocean, 24 iniles southwest from Nicaragua, snd the marltime harbor nearest to that city. Lat. $11^{\circ} 15^{\prime} 37^{\prime \prime}$ N., leng. $85^{\circ} 52^{\prime} 56^{\prime \prime}$ W. it has a good (amall) harbor, aurrounded by high land, except on the southwest by south, whare it lies open to the ocean. It ls one of the proposed termini of the canal from Lake Nicaragua.
Ean Ealvador. This is the amallest of the Central Aruerican states, embracing but 7500 square miks, and la separated from Nicaragua by the Bay of Con chagua. The soil is in many places exceedingly fertile, but the country ia generaliy hilly and mountainous. Indian corn, cotton, coffee, and varisua kinds of vegetable produce, an cultivated to some extent. The most important article of cuitivation, and, indeed, the chief staple of San Salvador, is indigo, which grows in great perfoction and abundance. Near the coast, the lands of Acajutla and Libertad produce the article known in commerco as the balsam of Pera, of which
about $20,000 \mathrm{lbs}$, if the annual yield. The iah Itante ditpiny much ingenuity in the manufecture of an artide of female drese, celled by the natives relosas, which in much used in Central America and Mesico. San Salvador has a coast line along the Pacifie of about 150 miles, with the ports of Acajutla and Libertad, and within the Bay of Conchagua the axcellent harbor of La Union. Commercial relations between the United States and San Salvador are regulated by treaty of Janvary 2, 1850: This treaty is bused upon the principle of the most favered nation, and stipulates for rece iprocity of cemmerce and equality of flag, without any diacrimination as respeeta the origin of eargoes.

Eapan-wood is chtained from a specied of the sume tree that yielde the Braull-wood (Cesalpinia Sapan, Linn.). "It is a middie-sized forest tree, indigenous to Slam, Pegu, the Ph!lippine Iolands, otc. ${ }^{\text {. }}$ It has been employed for dycing in the greater part of Asia for many centuries. IV found its way into Europe some time before the discovery of America। and the imperts are now yery conalderable. "Its celoring matter differs but little from that of Brasil-wood, but the beat sapan-wood does not yleld more than half the quantity that may be obtained from an equal weight of Jrasil-wood, and the color is not quite so bright.Banchorts on Colors, vol. 31. p. 829.

Sapphire (Ger. Sapphir; Du. Saffiersteen; Fr. Saphir: It. Zaffiro; Sp. Safiro, Safir ; Russ. Jachant; Lat. sapphirus), a precleus stone in very high eatimation. Colors blus and red; also gray, white, green and yellow. It occurs In blunt-edged pleces, in roundish pebblea, and erystallized. Varles from traneparent to translucent. Refracta double. After diamend, it is tha hardest substance in nature. The blue variety, or sapphire; is harder than the ruby, or red veriety. Brittle; specifio gravity 4 to $4 \cdot 2$. It is feund in Bohemia, Saxeny, France, etc.; but the red sapphire, or Oriental ruby, is not found in any considerable quantities any where except in Ava. Next to diamond, sapphire is the meat valuable of the gems. The white and pale blue varietien, by expoeure te heat, become snow-white, and; when cut, exhibit so high a degree of lustre that they are used in place of diamonds. The most highly prized verieties are the crimson and carmine red; theee are the Oriental ruby of the jeweler the next is anpphire; and last, the yellow or Oriental topaz. The asterias, or atar-stone, is a very beautiful variety, in which the coler la generally of a reddish violet, snd the form a rhomboid, with truncated apicee, which exhibit an opalescent lustre.

Garcooolla, a sub-viseld, sweetioh, and somewhat nauseous gum reain. It is brought from Arabia and Persia in small grains of a pale yellow color: the whitest, as being the freaheat, ia preferred. It ia but acldom imported.-Mis.nons's Orient. Com.

Bardines, or Bardinias (Ger. Sardellen ; Fr. Sardines; 1t. Sardine; Sp. Sardinas), a species of flah of the herring tribe, but smaller. Tioy are taken in considerable quantities on our ceasts, and are exceedingly plentiful on the eeasts of Algarve in Portugal, Andalusia and Granada in Spain, and along the shores of Itaiy. The small sardines caught on the coast of Provence, in France, are esteemed the best. From 1000 to 1200 fishing emacks are engaged in catching theee fish on the coast of Brittany, from June to the middle of October. The French frequentiy cure them in red brine; and, when thus prepared, designate them anchoisees, or anchoried sardines. These are packed in vessels previously employed for bolding wine, and exparted to the Levant. When perfectly fresh, aardines are accounted excellent fiel; but if kept for any time, they entirely lose their faver, and become quite Inaipld.

Consumption of Sardinet in the United States.-The Impertation of arrilines into the United States is increasing every year. Tha fleherie commence ebout the middle of May, and last until about the middle of October. The quantlics consumed aro enormous.

Each evening, upon the retnra of the fishing omacks, thay can bo bought for a fow cents per deven i they are an impertant part of the food of the poorer classes. These fish are better, and have a flavor, when put up in oll, whleh they otherwiee have not. They are found in great plenty from the coast of Brotagne to the month of the Garonne. La Rochelle la the principal depot cor the Bohery. The quantity exported to the United Stateu in 1862 was 60,840 kilogrammes; in 1858 the quantity way 76,787 kilogrammea; in 1854 the quantity was estimated at 100,000 kilogrammes, and of this more than one half, strange to any, was for California -Letter to the Dep. of State.

Elardinit. The whole area of thil kingdom, including Piedmont, Savoy, and Genom, and the idland of Sardin's, is estimated at 28,229 aquare milen, containing a population, In 1852, of ovar $5,000,000$, viz. the contineutal states 18,994 square miles, population $4,500,000$; and the ialand of Sardinia 2235 square miles, population 500,000.
The chief ataples of this kingdom are raw silk, rice, maize, wheat, chestnuts, wines, olives and oliveoll, fige, oranges, and citrens. In the island of Surdinia the productions are maize, wheat, hemp, ailk, beana, and other pulse vegetablea. There are aeveral extencive vineyards, though the wines are not in much repute in foreign markets. Piedmont la considered the most productive part of the continental kingdom, and usually exporte ita surplus preduce for the consumption of Genoa, Nice, and the reglons along the ceast. Silk is one of the most profitable productione.* The ollive and vine are extensivoly cultivate '; wheat and Indiars corn are also grown; the latter of which, mixed ith roas!ed chestnuts, constitutes the chief fooc cc the rural inhabitants. The miverals of the country are valuable, censlsting of iron, cepper, lead, manganese, and colualt ; but, owing to bad roads and the lack of capital, they are not worked. The aalt aprings and mines of alabaster, marhle, and slate, recelve the protection of the government, and their produete constitute some of the chjef exports of Sardinia. The exportation of marble alone to the United States amonnts annually in value to about $\$ 15,000$. The manufactures consist of ailks, velveta, and other ailk stuffs, stockinga, commen linens and woolens, and the product of the tanneries; but, with the exception of ailka, fow of these manufacturea are exported. The chidef ports are Genoa, "pezzia, and Nice, on the con tinent, and Cagliari, or obe ieland of Sardinia. Genoa is a free pert, in which goods may be warehoused or re-exported free of duty. It ia the chlef outlet of the Mediterranean for the manufactures of Switzerland, Lombardy, and Piedmont

In 1815 the republie of Genea whe ceded to the King of Sardinia, with the express stipulation that " the free port of Genoa shall be re-eatabliahed, with the regu'a tiona which exiated under the anclent ovvernment. Every facility shall be given by the king to the transit through his atates of merchandise from that free pert. under auch restrictions as his majeaty shall judge expedient for preventing the said merchandise being ;' lieitly sold or consunied in the interior. It shall be subject only to the usual moierate duty." The commercial relationa of the United States with Sardinia are regulated by treaty. Frior to the ratification of thia treaty (November 26, 1838), the commerce of the United States with this kingdom was conducted excluaively under foreign flags. Indeed, until within a recent period, the commercial system of the Sardinian government was directly epposed to the principle of free intercourse. The treaty with the United State guarantees entire reciprocity and perfect equality with the Sardinian tiag in the direet and indirect trade. The following are the etipulations of this treaty which relate to cemmerce:

- Pledmont and Lombariy produce more raw allk than all the rest of the wortd together.

Parfect reciprocity of commerce and navigation betweon the two countries, inhabitante of the one enjoyling in the other all the privileges of aubjects or cltb sons. Veasels in thoir reppective ports to anjoy the amme peivileges, and to pay no hugher duties or charges than national veseela. Ali commodities and merchandise, the produce of the soll or industry of thin United Staten, or of any other country, which mey be legally imported into Sardinian ports in Sarilinian voscela, unay also be imported by Amorican voseels, and pay no hlgher duties. Sardinian vescel to enjoy the same privileges in the ports of the United Statea, The name principle extended to all exporta from oither country. The vemsels of enoh country may entar the port: of the cther with eargoen from any foreign couthtry whatever. Any duty or rentriction impoeed on the vaseels or merchandise of the one country in the other to be axtended to the vessels or merchandise of all nations. Coasting trade reserved to national veaeels. Special favora to any other nation to be enjoyed by the contracting parties reapectivaly. Vescela of either conntry forced into the ports of the other by atcoas of weather to be exempted from port chargea,

Article 9 atipulates tree transit from the port of Genow across Piedmont, except for salt, gmppowder, und manufactured tobaceo.

Cagliari, the capital of Sardiaia, on the northeast shore of a spacious bay on the south coast of the island, lat. $39^{\circ} 12^{\prime} 18^{\prime} \mathrm{N} .$, long. $9^{\circ} 7^{\prime} 44^{\prime \prime} \mathrm{E}$. Population in 1850 entimated at 80,000 . The eity atands on a ribing ground, and has an impoaing effeet from the sea. The public buildincs and churches are numerous, aml sonse of them oplendid; but the atreets are frr the mont part narrow, eteep, and filthy. The Gulf of Cagliari extends from Pula on the west, to Cape Carlonark on the east, a diatance of about twenty four miles across, and about twelve in depth, with grod anchorage every where after getting into soundings. A molo projects from the Pratique office, and shipe usuali, lie about one mille southwest by south from It, in eix or eight fachoms water, on an excellent bottom of mud. There is a very convenieat pier harior at the south angle of the tower wall, capaile of conteining fourteen or aixteen vesseis of a tolerable aine, beaides small craf. Altogether Cagliari in one of the best and safest ports in the Mediterranean. Vessels belouging to Bardinin are admitted by treaty' into the ports of the United Staten on the same terma no American vessels, with the produce or manufactures of their own or any other country:-See Cagliari.

Other uaual provisions respecting the appointment of consule, etc., are made ; and, in a neparate articie, his Sardinian majesty continues the differential dutjen in favor of Sardinian ahips on the Jmportation of wheat, oliveoil, and wine, from the ports of the Black Sea, Adriatic, and Mediterranean, as far went as Cape Trafalgar. Thls separate clause is explained by the fact that the grain, oll, and wine trade, carried on with the ports of the Mediterranean, has alwaya been the chief source of the commercial ptomperity of Genon. On the 12th July, 1850, this differential position was aban. doned, and American veasela can aow engage in the grain-carrying trade, as well as in all other kinda of commerce, between Genoa and other ports within the Mediterranean and Black seas, on terms of perfect equality with Gencese vessels. The separats artlele has, therefore, become a dead letter.

Gienoa is the only port in Sardinia much frequented by United States vesseia. The port chargea are: For juilotage, according todranght ; anchorage, 30 centimes* jur ton; quarantine dues, 8 centimes per ton each day; lonard of health fees, 40 centimes per ton; measurement charges, according to size of vessel.

The shipping frequenting the port of Cagilarl, on the Inland of Sardinis, has conslderobly increased dur-

[^44]Ing the pant ten years. This is owing to the shelter and refuge it afforde in atormy weather, and to the facllition it offors for obtaining all neconamy aupplies.

This may be men from the following atatement, ahowiag the number and tonnage of vasselis of all nations that have viriced this port since 1845 ;

| Yoan. | No. of Vemela |  |
| :---: | :---: | :---: |
| 186............................. | 418 | 82, 503 |
| 1817. . . . . . . . . . . . . . . . . . . . . . . | 434 | 49,043 |
| 184. . . . . . . . . . . . . . . . . . . . . . . | 409 | 64,303 |
| 184). . . . . . . . . . . . . . . . . . . . . . . . | 601 | T1,051 |
| 1880. . . . . . . . . . . . . . . . . . . . . . . . | 407 | 6., 852 |
| 1851. . . . . . . . . . . . . . . . . . . . . . . . . | 640 | 86,947 |
| 1889. . . . . . . . . . . . . . . . . . . . . . . . | 807 | 61.440 |
| 1888, . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {. }}$ | 689 | 88,755 |
| 1884.............................. ${ }^{\text {d }}$ | 808 | 146,439 |

The chiof articlos of Amerioan produce cobsumed in Sardinis are collon and tobacco The former is free, and on the latter the duty is "reserved," It being a govermment monopoly. Whaleboze, refined augar rum, puinta, aid other minor articlea, are also expert. ed from the United Statea to Sarsinia, hut to no con. siderablo amount.
The following table axhibitg the quantity and value of cutton and cobacco exported from the Ualtel Statss to Sardinia frme 1850 to 1855, both years incluaive:

| Veara. | Cation. | Vehama. | Tabeofo | Tasees |
| :---: | :---: | :---: | :---: | :---: |
|  |  | \$152.910 | Hhate. |  |
| 1851. | 1,00,180 | \$162,910 |  | \$0,293 |
| 1859.. | 8,508, 823 | 416,482 | 8414 | 178 |
| 1858. | 1,020,025 | 168,429 | 119 | 341,170 |
| 1854 | 1,045,372 | 147,402 | 06 |  |
| 1365. | 14,777,765 | 1,288,387 | $8: 311$ | 383,245 |

Imports into the Uaited Statos from Sardinin ennsist chiefly of flax, olive-oil, rags, silik. piece goods, red wines, woul (unmanufactured), marble, and manufacturee of wool. Marble ia the most valuable article oncelved, amounting annually to upward of $\$ 30,000$

Almont all the trade of Sardinla is carried on by atrangera; and even the fiah on Ite coast and in it harbore are caught by Siclilians, Neapolitans. Tascans, and Genbese Grain is the principal article of export In good years, the exports from the whoie leland may amount to 400,000 atarelli, or about 500,000 bushels of wheat, 200,000 atarelli of bariey, 6000 atarelli of maize, 100,000 starelll of beana, 200,000 starelli of peas, und 1000 atarell of leatiln. The cuiture of vines is grada. ally becoming of more Importance; and alout 3500 Catalan plpes are oxported, principally from Alghero and Ogliastro. Choese is an Important object in the rural economy of Sardinia, and considerable quantilijes are exported. Salt is a royal monopoly, and affords a cuasiderablo revenue. Untll recently, Sweden drew almoxt all her aupplles of this important necessary from Sardinia, and it continues to be exported in consider. alle quantities. Flax, ilnseed, hiles, oill, saffron, rags, alquifonx, etc., are among the articles of export. The tunny and coral fisheries employ a good many hands; but, an already observod, they are almost wholly managed by foreigners.

 COLNTEIES IN 184!, 1550 , AND 1851.

| Artiplear. | Qiamatios. |  |  |
| :---: | :---: | :---: | :---: |
|  | 14.9 | 1930. | 1015 |
| Tharlla . . . . . . . . . . . . .owth. | 868 | 427 | 2 |
| J3oned . . . . . . . . . . . . . . . . . | 8,626 | 0,263 |  |
| Hullocks. . . . . . . . . . . . . . No. | 9,758 | 1,431 | 911 |
| Chivea ... . . . . . . . . . . . . ${ }^{\prime \prime}$ | 70 | 日3 | 19 |
| Cheese . . . . . . . . . . . . . . .cwtu. | 29,680 | 25, 106 | 24,98 |
| C'ork-wood. . . . . . . . . . . ${ }^{\text {b }}$ | 2,168 | 6,789 | 3, 51: |
| Cown, sleerr, and bulda. No. | 674 | 458 | 304 |
| Fintwood . . . . . . . . . . . .cwts. | 8,788 | 1, $\mathrm{OH} \times 3$ | 677 |
| Frult, freah. . . . . . . . . . ** | 732 | 858 | 11 |
| Coats, mheep, and lambs. No. | 238 | 594 | 237 |
| (irdin . . . . . . . . . . . . . . .ewts. | 1,728 | 507 | 2,4'4 |
| Lexd oro ................ | 8,741 | 4,9:06 | 16,477 |
| (1lve-oll . . . . . . . . . .imp. galla. | \$5,390 | 4) |  |
| Ektn . . ..............cewta. | 17,664 | 41,097 | 1,691) |
| Timber, oak. . . . . . . . . .val. Itre | 10,820 | 609 | 67,719 |
| T'unny the . . . . . . . . . . . cwta, | 9.8199 | 2,04t | 8,839 |
| W'ine . . . . . . . . . . Imp. galls.\| | 47,701 | 200,412 | 19,743 |

## SAR

Almont every art:cla of drese, whethar for tha gentry or tha pen santry, in imported. Boap, ntationary, glase, earthen-ware, and furniture, an wel: an augur, coffee, drusa, atc., aro also mupplied by forelgners ; and notwithstanding the Bards possees many rich miner, mev. eral of which were auccesafuily Frought in antiquity, they import all their iron and ateel. The only manufacturea cerried on in the island are those of gunpow. der, salt, tobacco, and woolen caps. isut salt, of which the export may be estimated at 14,000 or 15,000 tons a year, is excinded from the preceding table, on which, Indeed, but little rellance can be placed.

Theae statements nufficiently ahow that the commerce of Sardinia is very far from boing what might naturally be expected from her extent, fortiltty, admb rablesituation, and the excelience of her many harbors.

The following aummary presenta a general viow of the forelgn commoree of Sardiuia)


Of these there were under the American flag:


The trade of the kingdom in 1858 amounted In value to $833,942,000$ france ( $963,448,080$ ) imports ; and $220,630,000$ francs ( $\$ 41,010,700$ ) exports. In 1852 the direct trade between the United States and Sardinia amounted to $7,725,802$ frenes ( $\$ 1,477,818$ 78). In 1853 it reached as high as $18,891,561$ france $(2,689,896)$. showing an increase of nearly 100 per cent.

The entire trade, compared with that of 1852, shows an increase of $21,600,000$ fruncs on imports, and of $5,500,000$ france on exporta. The Imports comprise in values (in round numbers) as follows: Cotton, $34,000,000$ fruncs ; colonial or trane-Atiantic produce, $25,000,000$; corn, $22,300,000$ : allks, $20,000,000$; woolens, $18,000,000$, eto. The exports comprise: Silks, $43,000,000$ francs ; wine and oll, $10,000,000$ franes ; riee, $8,000,000$; cattle, $4,000,000$, etc.

Tha countries with which Pledmont carriea on tho largest trade are as foliowe:

Imports.
France Tranca. France . . . . . . . . . 48,000,000 France. . . Pranca. Eagland . . . . . . . . . $89,000,000$ Eingland . . . . . . . . . $8,5100,000$ Ewilzerland . . . . . 14,600,000 switzerland . . . . . . 18,000,000 Austria. . . . . . . . . . . 10,000,000 Autria . . . . . . . . . . . $10.000,160,000$ lustia. ........... $17,000,000$ Kussia ............ 163,000
The customs' revenue amounted in the year 1853 to \$3,464,472.

Bardinian official roturne show an Importation of raw cotton; disect from the United States, for 1858, of about $02,000,000$ in valua; and it is cupposed that while of tha remalnder some nndoabtedty came from Algeria, the grenter part came indireetly from the Unitod Statea, through England, Holland, ote. If, however, these Barilinian retatns are compared with those prepared by the United Staten Trenaury Depart ment, it will appear that the direct importation of cotton from tine United States must be, ase it nnqueetionably is, iargely ovementimated; while the indinect importation from English, Duteh, and other European ports la much below the actual quantities given. Thas the value of cotton exported from the United States to Sardinia in 1853, 49 per United States Report on Commgree and Nevigation, was only $\mathbf{8 1 5 0 , 4 2 2 \text { ; and in 1852, }}$ \$418, 982 i making for both yeare the sum of $\$ 578,40$; or a litt:: more than one-fourth of the value given In the Sardinimn retarns for 1858 alone. The following summary prosents as accurste a statement of the cotton trado of Sardinla as can be derived from a comparison of the off ' Ial reports of the Earopean countrien whence cott." - re-exported, and of the United States, with the off. al returns of the Sardinian government. The countries given are not the only, but the prinelpal countries, whence Sardinis impo-ts cotton:
Iounds of Cofton inmontrin into बagdinia ron tim pous


| Years. | Great Britain. | Frenes. | United atates. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| 1\%51.... | 9,742,820 | Mo data. | 2,106,100 | 4,873,429 |
| 1559..... | 2,928,203 | 3,497,889 | 5,608,828 | 11,814,420) |
| 1808..... | 3,800,884 | 1,48.1,829 | 1,380,025 | 6,479,218 |
| 1854. | 8,821,323 | 1,107,841 | 1,045,872 | 6,574,641 |
| A verage | 3,105,880 | 8,081,519 | 9,744,339 | 6,404,150 |

The ralirned facilitien afforded at the port of Genna for the trausuaision of merchandise to the interior of Itaiy, Switzeriand, eto., have already produced a marked effect on the cotton trade of that port. It has been shown that the total quantity of cotton exported from the United Statea to Sardinis was, in 1851, 2,136,000 lbs. ; in $1852,5,568,828$ lbe. ; in 1858, 1,629,025 lbe. ; in 1864, 1,645,372 lhs. In 1855 the exportation reachol $14,777,765 \mathrm{lbe}$., of which the port of Genoa received $10,085,600 \mathrm{lbs}$; and on official document received from Gonos gives the quantity recelved at this port from tho United States, in American vessels alone, the Ifrst aix months of 1856, at $12,164,000$ ibs.-C. D.

Money, Weights, and Measures.-Accounts are kept in lire, reall, and soldi. 6 soldi $=1$ real $=41 d$. 4 reall $=1$ lira $=1 \mathrm{e} .6 \mathrm{~d} . ; 10$ reall $=1$ scudo $=8 \mathrm{~s}, 9 \mathrm{~d}$. The paper money consiets of notes for 5,10 , and 20 ecudi. Farm produce and the coarser metals are weighed by the peai diferro: 12 Sardinian oz. $=1 \mathrm{lb} .=14 \mathrm{oz} . ~ \measuredangle d r$. avoirdupois; 26 lbs, $=1$ rubbo; 4 rubbi $=1$ cantaro: $=$ 93 lbs. 8 dr. avoirdupois. The starello or corn measure is equivalent to 1 bushal $1 \frac{1}{4}$ peck English. The palm $=10 \frac{1}{3}$ English inches.


| Yeorv eading | Exporta. |  |  | Imperts. | Whereof there was in Dullion and Specio. |  | Tonnage cloared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dramestic. | Forelgn. | Total. | Total. | Esport. | Impori. | American. | Foraign. |
| Sept. 30, 1841........ | -47,000 | .... | -47,000 | . . . | *** | .... |  |  |
| 1849,...... | 40,208 | .... | 40,208 | .... | :. | .... | 1,105 | 773 |
| 9 mos., 1843*. . . . . . | 108,021 | .... | 109,001 | . . . | .... | . . . | 1,951 | 260 |
| June 30, 1844........ | 92,522 |  | 93,529 | 1006) | - | ii900 | 4,395 | 1,081 |
| 1845....... | 102,897 | 188,970 | 198,797 | 10,85) | . . . | 11,200 | 4,398 | 1,411 |
| 1846...... | 288,289 | ' 16.976 | 284,269 | 997 | .... | , | 9,865 | 1,191 |
| 1847....... | 689,239 | 16,870 | 647,108 | 287 | - | . | 10,235 | 8,313 |
| 1848...... | 176,083 460,050 | 18,889 21,414 | 198,979 | 99\% | - | 9070 | 9,168 | 1,988 |
| 1850.. | 170,704 | 80,130 | 256,900 | 4, 205 | - | ,2 | 19,897 7,791 | 4,843 6,300 |
| Total. . | 82,171,460 | 6170,755 | 8,348,216 | 702,890 | * $\cdot$. | \$43,460 | 61,981 | 21,663 |
| Juae 30, 1881........ | 4310,898 | -19,401 | 4830,989 | \%2,802 | -** | . . . | 6,741 | 8,479 |
| 1858..... | 733,909 | 49,988 | 811,475 | T4,001 | * $\cdot$. | .... | 13,443 | 6.669 |
| 1853...... | 196,830 | 27,986 | 923,306 | 171,693 | .... | . . . | 11,981 | 7,018 |
| 1854........ | 188,806 | 8,020. | 180,325 | 85,676 | .... |  | 10,088 | 8,946 |
| 1855........ | 1,839,183 | 148,844 | 1,989, 080 | 817,989 | . . . | 42,000 | 16,754 | 4.597 |
| 1856....... | 8,143,977 | 60,901 | 2,904,038 | 317,179 |  | .... | 17,058 | 3,501 |

- Nine monthe to Jana BO, and the fiscal year from this time begins July 1.

Earionyre, a precioua atone, a varioty of chslcedony. The ancients selected this aubstance to ongrave upon, no donbt, from ite possessing two peculiar and necessary qualitios: via., hardness and tonacity, by which it is capable of receiving the finest touch or otroke of the tool without chipping, and showing the art of the eegraver to the highest perfection.-Maws on Diamonds.
Sareaparilla (Ger. Sarsaparille; Vr. Salepareille; It. Saleapariglia; Sp. Zarsaparilla), the root of the Smilax Sarsuparilla, a plant growing in South America and the West Indies. It is inuported in bales. It is known in the London market by the names of Lisbon, Ilonduras, and Veru Cruz, but it is alsu brought from Jamaica. 'The ILisbon root, which la the produce of lirazil, has a reddish or dark brown cuticle, is futernally farinaceous, and more free from fibre than the other kinds: the Honduras has a dirty brown, nnd sometimes whitish, eutlele; it is more fibrous, and has more ligneous matter than the Lision and Vera Cruz. It is in long, slender twigs, covered with it wrinkled brown cuticle, and has a small, woody heart. The Jamaica differs from the others, in huving a deep red cusicle of a close texture, and the red color purtially diffrsed through the ligacous part. The root is inoderous, and has a mucilaginoun, very slightity bitter taste: the bark is the only useful part of the plant; the ligneous part being tastaless, inert, wrody fibre.Thomson's Dispensatory.

Bassafras (Ger, and Fr. Sassafras ; It. Sassafraso, ; Sp. Sassafras), apecies of laurel (Laurus Sasma fras, Linn.), a nstlve of the southern parts of North Ameriea, Cochln-China, and several of the Indian islands. Sussufras wood, root, and bark have a fragrant odor, and a aweetish aromatic taste. The wool is of a brownish white color; and the bark ferruginous within, spongy, and divisible Into lsyers. Their sensible qualities and virtues depend on an essential oil, which may be olitained separate by distilling the chips or the bark with water. It is very f.agrant, hot, and penetrating to the taste, of a pale yellow coior, and heavier than water. It is used only in the materia medica.-Tuomson's Diepensatory.

Satin (Eng., Fr., and Germ.) is the name of a silk etuff first imported from Chins, which ls distinguished by its very smooth, polished, and glosny surface. It is woven upon a loom with at least dive-leaved healds or heddles, and as many corresponding treddles. These are so mounted as to rise and full four at a time, raising snd depressing aiternately four yarns of the warp, acrons the whule of which the weft is thrown by the ohuttle, so us to produce a uniform smooth texture, instead of the checkered work resulting from intermediate dec $18 s a t i o n s$, as in common webs. Satins are woven with the glossy or right side undermust, because the four-fifthe. the warp, which are always loft there during it. .ction of the healds, serve to support the shuttle $i_{1}$, its race. Were they woven in the reverse way, the scanty fifth part of tae warp threads could either not support, or would be too much worn by the shuttle.

Saunders (Red) (Arab. Sundal-ahmer; Hind. Ruchut-chundum), the wood of a lofty tree ( Iterocarpus santalinus) Indigeneus to various parta of India, Ceylon, Timor, etc. The wood is brought to liurope in lillets, which are very heavy, and sink in water. It is oxtremely hard, of a tine grain, anil a liright garnet red color, whith lirightens on exposure to the uir. It is employed to dye lasting redidish brown colors on wool. It yieids its coloring matter to ether and aicohel, but not to water.-Tiomson's Ihiquensatory; Banchort on Colors, vol. il. p. 236.

Eavannah, city, jort of entry, and capital of Chntham eounly, Georgia, is situated on the right hank of the Ravanaah River, 17 miles from its mouth. It is In $82^{\circ} 4^{\prime} 56^{\prime \prime} \mathrm{N}$. Lut., and $81^{\circ} \mathbf{y}^{\prime} 18^{\prime \prime} \mathrm{W}$. long. from Greenwich, and $4^{\circ} 10^{\prime} \mathrm{W}$. from Washington. It is

118 milos southwest from Churleaton, 128 miles southeast from Auguatu, 158 miles east-southeast from $\mathbf{~ M i i - ~}$ ledgeville, 662 milee south by west from Washington. The population in 1810 was 6105 ; in 1820,7523 ; in 1880, 7776; in 1840, 11,214; $\ln$. 1850, 15,812; in 1854, 10,000. This city was founded in 1783 by Gen. eral Jsmes Ogiethorpe and others. It was taken by the British in 1778, but they abandoned it in 1782. On the 10th of January, 1820, 468 buildings were burned, occasioning a loss of property amountling to $94,000,000$; bat it bas been rebuilt with additional beauty. There are in Savunnah eight banks, sggregate capital $4,000,000$; four printing-offices, issuing throe dulliy and one weekly newapaper. Capital employed in manufactures, $1850, \$ 180,550$; value of manufactured articlea, 256,250. Savanasin ls the port for nn extenalve region, rich in agricultural and mineral wealth, and by the immense extent of railroad converging to this point (ubout 1200 miles) wili undoubtedly be the port of the Southern Atlentie coast. The cetton slipped from Savannuh for the years 1856-'57 amounted to 827,658 bales.--See Georgia.
The recent construction of raiironds from Savannsh westwardly has an lupertant bearing, present and prospective, upon the commerce of Savannal. Those in operation in 1857 are as follows:


These roads connect either direetly or indirectly with 800 miles of railroad in l'ennesees.

Baxe-Meintngen (one of the Zoll-Verein). The general trade between this duchy and the Unitel States is Increasing. Iler manufisctures are deservediy in high repute, and are chiefly deatined for the America. market. They consist of leather, wooien and cetton stuffe, musical instruments, toys of every description, cbina, glass, fron, atune, and willow wrres, slute peacils, marbles, nails, drugs, colors, wooken wares, etc.
This duchy is rich in mineral productions, snd min. ing is pursued with considerable activity. Iron, copper, cont, alum, vitriol, marble, and salt are extensiveIy produced, and enter largely inte the exports of the duchy. Exports for the United States are trunsported either to Bremen, IIamburg, Antwerp, Rotterdana, er Ilavre.

The following statement exhibits the value of exports, the produce and manufacture of Saxe-Meinh. gen, to the Unitel States, durlug a jeriod of five years, from 1851 to 1855 , both inclusive, specifying the countries through which said exports were niripied for the United Stutes:

| Vears. | Via |  |  | Total. |
| :---: | :---: | :---: | :---: | :---: |
|  | Ifamburg. | Hremen. | Trames. |  |
| 1451 |  | \$20,4*3 |  |  |
| 1852 | \$743 | 100, $6 \times 25$ | +2823 | 43, 2 ? 619 |
| 1853 | 6818 | 40,962 |  | 41.5411 |
| 1854 | 94\% | 10,3148 | .... | 114,415 |
| 1806 | .... | 6,171 | . | (i, 1i1 |

The exports from the United States to this iuchy conslat of tobacco, rice, brondstuffs, cotton, and masnufactures of India-rubber, etc. The soil, owing to the vast foresta and mountuins which cover sa much of its surface, is not favorable to agricultural jursuits; hence breudatuffs form a inrge ltem of injorts from foreign countries.

Baxony (one of the Zoll-Verein). This kingiom lies In the centre of Gernuuly, and though the soil in generally fortile In groin, ani is cultivated with the greatest care, the quantity ralsed, even in the bext harveats, is not moro than sufficient for the consumption of the inhabitants. Wheat, rye, outs, hariey; nud potatoes are the general crops.
Saxony ia rich in mines of Iron, lead, copper, cobalt,
bismuth, antimony, and ooal ; consequently we find that mining and manufuctures occupy the princlpal portion of its nearly, 2,000,000 inhabltants. There are upward of 800 mines in active operation, the centre of which is at Frelburg. Friut ls extensively cultivated, and exoclient wine is produced from the vineyards of the Elbe. The forests, which cover one-fourth of the gurface, furnish fine timber, which is floated down the Elbe to Hamburg. The chief manufactures of Saxuny are those of cotton, in the spianing of which the latest improvementa have been introduced.* The other chief branches of manufacturing industry are linen aud woolen weaving, stocking-making, and the fine porcelain of Meisson, known it commerce aa Dresden china. Dresden and Leipsio are the commercial
marts of Saxony. Annual falrs are held in these cities, which are attended by vast concourses of people from most of the countries of Europe and Western Asia. Lelpsto ls the great emporiuin of the book trude of Germany ; and In both these cities manufactures, particularly in ailk and woolen fabrics, jewelry, musical and scientifio instruments, artiticial flowers, etc,, are carried to the very highest atate of perfertion. Leipaic communicates by railroad with Drosden, and the trade of the latter le conducted up and down the Elbe.

The following statement exhibits the value of exports, the produce and manufactures of Saxony, to the United States, during a period of five years, from 1851 to 1855, both inclusive, specifying the countries through which said exports were shipped for the United States I

| Yoars. | via |  |  |  |  |  | Tolal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | llambury. | Breniea. | Ilolland. | France. | Helgium. | Eogland. |  |
| 1851.......................... | \$115,259 | \$0:13,008 |  | \$89,301 | \$8,833 | \$ $\$ 66,765$ | \$856,9210t |
| 1682 . . . . . . . . . . . . . . . . . . . . . . . | -351,364 | 1,0501,388 | \$422\% | 151,916 | 12,131 | 143,1100 | 2,313,394 |
| 1853. | 375,406 | 1,657,9276 | 2104 | 181,649 | 9,949 | 156,214 | 2,382,451 |
| 1354 | 231,655 | 045,352 | 0187 | 18,414 | 11,345 | 170,595 | 1,511,708 |
| 1850 | 381,281 | 2,013,110 | 0437 | 114,745 | 25,303 | 108,915 | 2,711,591 |

## $t$ Thean figures are for tho po.t of New lork ouly, and for six montis. No returna are at land for the general trade.

Scammony (Gcr. Skammonien; Fr. Scammonée; It. Scummonea; Sj1. Escamonea), a gum-resin, the produce of a species of convolvulus, or creeper plant, which grows abuadantly in Syria. When an incision is mads into the roots, they yield a milky juice, which beling kent, grows hard, and is the scammony of tio shops. It ls imported from Aleppo in what aro called drums, weighing from 75 to 125 lbs . each; and from Smyrna in cokes like wux, pucked in chests. The former in light and friabie, nud is considered the best; that from Smyrna is more compact and ponderoua, less friuble, and fullor of impurities. It has a peculiar heavy odor, not unlike that of old choese, and a bitterish, slightly acrid taste. The color is blackish or bluish gray; changing to dirty white, or lathering when the surface is rubbed with a wet finger. Its specific gravity is 1.235 . It is very liable to be aduiterated; and when of a dark color, heavy, and splintery, it ought to lo rejected. It is used only in medicine.Thomson's Dispensatory.
Schooner, in Nautica! language, a small vessel with two masts, whose mainsuil and foresall are suspenied from gaffs, reaching from the mnst toward the stern, and stretched out below by booms, und whose foremost ends are hooked to an iron, whlch clasps the mant so as to turn therein ns upon an axis, when the after eads are swung from one aide of the vessel to the other.

Ecotland, the northorn portion of Great Britaln, extends in its main land from lat. $54^{\circ} 38^{\prime}$ to $58^{\circ} 41^{\prime}$ N ., and long. $1^{\circ} 45^{\prime}$ to $6^{\circ} 14^{\prime} \mathrm{W}$., and, including its islands, to lat. $60^{\circ} 50^{\circ} \mathrm{N}$., and long. $8^{\circ} 35^{\prime} \mathrm{W}$.

Scotlund is separated fron England by a waving line of the Cheviot Hills in the centre, ly the Tweed, which enters the rea at Berwick, on the east, and ly the Solway Firth on the west. Its eastern shores are washed by tho North Sef, and its western by the Atlantie. It is of an oblong, irregular form, extending longitudinally due north und south 280 miles, and varying in breadth from 175 to 100,50 , and 30 miles. Area, 31,324 square miles, or $20,047,462$ ucres, $6-9$ acre to a person, 92 persons to $n$ square mile. Population in 1801, 1,500,068; in 1841, 2,620,18.1; in 1851, 2,888,742. For Manufacturing Districts, etc., of Scotlund, sce Blackwood's Magazine, 1. 659, Ixv. 152 ; London Quarterly Reviev, 1xxxil. 187. For Scottish Fisheries, ave Iondon Quarterly Review, Ixix. 226 ; North British Rerien, 1. 326.
The relative commerce of the three lesding Scotch ports, compared with the leading ports of Enginnd and Irelanil, is shown in the following table, showing the

[^45]declared value of British and Irish produce and manufactures exportod to foreign countries for cacle year, from 1851 to 1855 :

| Scorliand. |  |  |  |
| :---: | :---: | :---: | :---: |
| Venrs. | Ginegev*. | I, eith | Greenock. |
| 1861.... | CB,491, 000 | 2381,230 | E4)1,9061 |
| 1852. | 0,570,300 | 491,200 | 418,600 |
| 1853 | 4,908,600 | 57\%,000 | 437,500 |
| 1854. | 4,005,500 | K27,600 | 104,500 |
| 1855. | 3,016,500 | 630,500 | 452,900 |
| Enoland. |  |  |  |
| Yoars. | l, oadon. | Liverpool. | Hull. |
| 1551. | S14,489,400 | 237,918,000 | (10,120,40 |
| 18 R | 15,802,100 | 38,409,500 | 0,8344.200 |
| 1853. | 22,921 1,060 | 47,102,100 | 10,788,700 |
| 1854. | 23,331,200 | 40,719,160 | 10,003,100 |
| 185\%. | 20,915,500 | 40,393,410 | 10,679,000 |
| Imelanil. |  |  |  |
| Years. | Cork. | Belfand. | Dotiln. |
| 1851..... | 2101,400 | S60, 100 | 450,000 |
| 1852. | 141,000 | 04,500 | 75,100 |
| 1853. | 129,600 | 35,900 | 29,800 |
| 1854. | 149,000 | 28,700 | 41,400 |
| 185\%..... | 108,600 | 73,100 | 28,800 |

In Scotland there were in 1854-'5 forty-six savingsbanks. The progress of tiese useful institutions is indicated by tho following summary of Scotland, and of Great Britain and Ireland:

| Years. | No. of Daukt. | $\begin{gathered} \text { No. of } \\ \text { Accounde. } \end{gathered}$ | Amoent of Depoita. Scotland. | 8avings 1heresit. United Kingtom |
| :---: | :---: | :---: | :---: | :---: |
| 1850-51. | 43 | 105, 101 | 21,488, 777 | 130, 577,654 |
| 1851-58 | 47 | 111,200 | 1,646,215 | 81,754.201 |
| 1802-'53 | 45 | 110,113 | 1,837,108 | 33,362,260 |
| 1583-64 | 40 | 118,002 | 1,931,098 | 33,730,080 |
| 1505-165 | 46 |  | 2,011,473 | 34,201,721 |

Railrays,-The progress of the railway system in Scotland has not lieen rapid. Tho following table exflhlts tho number of niles, capital raised per mile, and number of jnssengors jer mile:

| I'aars. | No, of Milen. | $\begin{aligned} & \text { Capital raised } \\ & \text { f, mip Mile. } \end{aligned}$ | Keceizhayar Moliadier Аивии. |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Front | From Goode. |
| 1844............. | 745 | 225,054 | 20, $0 \times 0$ | ES18 |
| 185).............. | (102 | 27,012 | 064 | 710 |
| 1851.............. | 057 | 39,001 | 049 | 8511 |
| 1859............... | 970 | 20,476 | 0103 | 958 |
| 1853............... | 987 | 29,604 | 713 | $107 \%$ |
| 1854.............. | 1019 | 2:1,748 | 743 | 12111 |
| 1865..... ........ | 1060 | 29, 580 | 740 | 187 |

-Sce articles Gimat Buitain and Ghasgow for an extendell account of the trule and Amances of Scotland. On the following page there ls presenterl a tabuiar statement of the foreign commerce of the United Statea with Scotland for a series of twenty-seven years, showing the exports, foreign und domestic, tho linports, and tho tonnage cleared.

Commeroz of the Cinifed Statra with Sootiand, fhom October 1, 1820, to July 1, 1857.

| Years ending | Esports. |  |  | lopports. | Whereof thare wan in Bultion and Bpacie. |  | Tonnage cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doaseatic. | Forelig. | Total. | Total. | Exjorl. | Impert. | Aliericen. | Foreigu. |
| Sept, 30, 1821. . . . . . | \$1,415,443 | \$18,683 | \$1,410,131 | \$1,220,039 | .... |  | 4,015 | 0,220 |
| 1822....... | - 1,015,505 | 10,987 | 1,620,552 | 1,8:11,310 | ... | \$2,100 | 7,207 | 6,117, |
| 1823....... | - 1,158,405 | 10,104 | 1,168,539 | 1,080,138 | ... | 3,000 | 4,617 | 8,220 |
| 1884....... | 1,190,219 | 14,682 | 1,210,851 | 1,008,540 | ... | - | 3,175 | 6,880 |
| 1885....... | 1,09.1,526 | 7.057 | 1,707,183 | 1,824,464 | . . . | 1,700 | 7,253 | 2,982 |
| 1886....... | 572,894 | 2,952 | , 575,840 | 1,0916,772 | . . . | 800 | 2,850 | 2,762 |
| 1827....... | 1,330,103 | 7027 | 1,830,160 | 1,088,191 | . . | 600 | 7,8\%6 | 7,521 |
| 1898. . . . . | 959,660 | 7,927 | 067,487 | 1,183,081 | . . . | . . . | 8,429 | R,002 |
| 1899. | 8:9,315 | 19,498 | D14,808 | 1,004,215 | . $\cdot$. | . . . | 9,604 | 7,0,9 |
| 1830... | 1,445,211 | 3,438 | 1,468,699 | 1,382,841 |  | .... | 6,913 | 7,707 |
| Tota | (\$12,314,402 | \$90,923 | \$12,396,325 | \$12,805,535 | * . . | \$7,300 | 48,264 | 62,005 |
| Sept. 30,1831. | \$1,185,142 | \$5,567 | 1,190,700 | \$1,477,830 | *** | . . | 6,318 | 0,102 |
| 1832....... | 1,125,808 | 80, 864 | 1,140,702 | 1,580,812 | .... |  | 8,982 | 9,410 |
| 1833....... | 1,186,469 | 21,065 | 1,207,627 | 1,025,229 | .... | \$500 | 2,523 | 9,860 |
| 1834....... | 2,344,735 | 28,789 | 2,373,574 | 1,409,030 | .... | 3,900 | 6,655 | 13,444 |
| 1835. | 2,830,073 | 10,850 | 2,840, 02.1 | 1,639,643 | ** | 16,800 | 6,810 | 31.886 |
| 1836. | 2,344, 080 | 744 | 2,950,294 | 8,375,890 | . . . | 8,300 | 4,630 | 10,409 |
| 1537....... | 8,441,211 | 12,906 | 3,453,807 | 1,188,410 | ... | 4,060 | 12,641 | 7,924 |
| 1838....... | 1,635,203 | 10,776 | 1,005,979 | 694,405 | . . . | .... | 9,4,7 | 0,3ヶ7 |
| 1839. | 1,025,832 | 1,256 | 1,027,083 | 160,183 |  |  | 2,321 | 5,409 |
| 1540. | 2,1122,630 | 28,304 | 2,050, $1+40$ | 525,217 | . . . | 8,000 | 10,704 | 10,433 |
| Total... | \$10,106,805 | *140,804 | $\$ 10,387,60 \mathrm{~J}$ | \$13,253,923 | * . | \$31,560 | 60,060 | 91,482 |
| Sopt. 30, 1841. . . . . . | \$1,920,506 | \$15.918 | \$1,085,824 | \$850,987 | $\cdots$ | \$1,312 | T,414 | 8,717 |
| 1842. . . . . | 1,542, 735 | 80,279 | 1,003,014 | 6\%5,050 | ** |  | 6,840 | 10,045 |
| $9 \mathrm{mon},{ }^{\text {a }}$ 1543*. | 2,363,354 | 14,657 | 2,878,011 | 128,846 | .... |  | 12704 | 13,843 |
| Jute 30, 18.4. . . . . . | 1,036,591 | 10,583 | 1,903,473 | 527,230 | .... | T,260 | 7,84 | 18.4.48 |
| 1845. | 2,011,874 | 5-4,936 | 2,666,810 | 709,187 | .... | .... | 14,732 | 20,810 |
| 1846. | 1,649,330 | 45,416 | 1,687,743 | 1,29n,083 | . . . |  | 9, 547 | 13,143 |
| 1847. | 8,645, 410 | 102,013 | 3,807,473 | 1,837,014 | * | 69,605 | 25,815 | 15,630 |
| 1848. | 2, 4*5, 4: 6 | 88,418 | 8,493,844 | 1,606, $0^{\prime \prime} 4$ | . . . | 7,210 | 14,1:5 | 17,10,6 |
| 1849. | 3, $0^{3}+4,900$ | 68,478 | 3,008,432 | 1,959,390 | .... |  | 21,032 | 24, 414 |
| 1550. | 3,021,740 | 183,070 | 3,205,41! | 2,746,070 | . . . | ... | 15,75. | 17,276 |
| Tetal... | \$24 60\%,970 | \$650,070 | \$25,340,046 | \$12,30, 9093 | *** | \$85,347 | 134,017 | 160,508 |
| June 30, 1551. | \$3,811,903 | \$201,987 | \$4,072,940 | \$2,099,7t0 |  |  | 18,508 | 29.947 |
| 1559....... | 2,441,143 | 230,635 | 9,071,753 | 2,355,047 |  |  | 19.846 | 22,24 |
| 1253. | 4,446,825 | 154,789 | 4,041,544 | 4,337,060 | .... | .... | 27,734 | 82, Cl 2 |
| 1554. | 3,097,662 | 190,330 | 3,297,199 | $5,820,46.1$ |  |  | 22,019 | 23,003 |
| 1855. | 2,306,751 | 114,489 | 2,421,240 | 8,! 54, 594 | . . . | . . | 13,074 | 19,103 |
| 1506. | 8,890, 376 | 20,163 | 9,306,544 | 4,131,516 |  |  | 20,235 | 24,9i5 |
| 1557....... | 4,671,837 | 32,181 | 4,704,01s | 7,216,111 | ... | . $\cdot$. | 33,982 | $4)^{1}, 622$ |

[^46]Bcud, the name given by eeamen to loose, vapory clouds driven switly along by the winds. To scud, gigniftes to run directly beforo the wind in a gale. As tho olject is to keep before the nen, the foresail or fore topssili is set : the latter or the main topsail is often necessary, as the foresail is often becalmed from the height of the waves.

Scudo. See Conss.
Scull, un oar, so short that one can work a pair. It most generally implies an oar placed over the stern of a boat, and worked from side to side; the blado, which is turned diagoaally, being always in the water. In Chhas, where the method is well understood, large boats are impellod by a single scull with considerable velocity.

Sculptures, figures cut in stone, metal, or other solid substance, representing or lescribing some real or imagionary olject. The art of the sculptor, or statuary, was carried to the highest pitch of exceilence in ancient Greece. Fortunately, several of the works of the Grecian sculptors lave heen preserved, and serve at once to stimulate and direct the genius of modern artists. Models are casts or representations of sculptures.

Ecuppers are pipes of lead inserted in openings bored from the deck through the sides of a ahip, to carry the water off from the deck to the sea. To avoid the inconvenience of having the acuppers broken by the working of the ship, each is formed of two pipes, one of which is pansed upward to the ileck through the opening in the ship's side, and having its lower end nailet en the outside planking; the other, which is of manaller diameter, after being woolded on the outside with fiannel dipped in taliow, is dussed downward into the lower pipe, throngh the opening in the deck, and its upper end secured on the plank of the deck. In order to prevent the entrance of wasas by these scup-
pers when the ship is inclined, valves of metal are placed over the external outer ends, which close with the pressure of the external water. In morchant vessels, lenther pipes, called scupper hoses, are sometimes nailed round the opening for the same purpose. Sometimes acuppera are only leaden pipes passed tilrough the ship's side, and turned and fastened at esch end.

Bcuttles, in a ship, holes in the decks, either for air or as passages to the store-rooms; also openings in a ship's side for the admission of air. If, in order to sink a ship, a holo be eut in her bottom, she is said, in Nautical languoge, to be scuttled.

Bea. The jurisdiction over the sess las long been a question of difficulty and of doubtful right. Grotius published his Mare Liberum agsinst the Portuguese claim to an exclusive trade to the Indies through the South Atlantic and Indian oceans, and he proves the sea is not capalle of private dominion. Ile vindicates the free navigation of the seas, sull the right of commeree, and exposes the absurdity of the l'ortuguese claim. Selden's Mare Clausum was written io answer to the doctrine of Grotius, and he undertook to prove, by the laws, usages, and opinions of all natious, uncient and modern, that the aea was capable of private dominion. He asserted that the English had long cisimed and enjoyed a supremacy over tha surrounding and narrow seas. Itynkershoiek concedes to Seiden much of his argument, and admita that private dominim mas be exercised over adjoining seas; but denies the right of the Fingliah on the ground of a want of uninterrupted possession.

The claim of dominion to close or narrow seas is still sabject to discussion. As far as a nation can conveniently occupy, and that occupancy is acquired by prior possessiun or treaty, the jurisdiction is exelusive. Navigable rivere which flow through a territory, and the sea-coast adjoining it, and the navigable waters
included in baye, and between headlands and arme of the sea, belong to the people of the adjoining territory, as being necessary to the safety of the nation, and to the undisturbed use of the neigboring shores. The open sea is not capable of being possessed as private property. The free use of the ocean for navigation and fishing is commen to all mankind, and the public juriste generally and explicitly deny the main ocean can ever be appropriated. The subjects of all nations meet there, in time of peace, on a footing of entire equality and independeace. No nation has any right or jurisdiction at ses, except it he over the persons of its own subjecte, in its own private and public vessels; and se far territorial jurisdictlon may be considered or preserved as portlons of its territory, and persons on board are protected and governed by the law of the country to which the vessels belong. They may be punished for offenses against the municipal laws of the State, committed on beard of its public and private vessels at gea, and on hoard of its public vessels in foreign ports. This jurisdiction is confined to the ship; and ne ship has a right to prohibit the approach of ariother at sea, or to draw round her a line of territorial jurisdiction, within which no other is at liberty to intrude. Every vessel has a right, in time of peace, to consult its own safety and convenience, and to parsue its own conrse and business without being disturbed, when it does not violate the rights of othere. As to narrow seas and waters approaching the land, there have been many and sharp controversies among European nations concerning the claim of exclusive dominion. The questions arieing on this claim are not very clearly defined and settled, and extravagunt pretensions are occasionally put forward. ***Puffendorf admits that in a narrow sea the deminion of it may lelong to the sovereigus of the adjoining shores. Vattel, also, lays down the position that the various uses to which the sea contiguous to the coast may be applied, render it justly the sulject of property. * * * Chitty, in his werk on Commercial Law, has entered into an elaborate vindication of the British title to the four seas sorreunding the British Islands, and known by the name of British Seas, and, consequently, to the excluslve right of fiehing and of centrolling the navigation of fereigners thoreill. * * * On tho other hand, Sir William. Scott did not treat the claim of territory to contiguous portions of the sea with much indulgence. He suld the general inclination of the law was against it; for in the sea, out of the reuch of cannon shot, universal law was presumed, in like manuer as a commen use in rivers flowing through conterminous states was presumed; and yet in both cases there might exist a peculiar property excludiag the universal or common use.-Kint's Com, vol. i.
The United States have recognized the general limitatien of a marine league, or a cannen-shot diatance; but considerlug the contour of our coast, the law of nations would justify, and it would not be unreasonable for us to cluim, the control of the waters from Cape Ann to Cape Cod, and from Nantucket to Montauk Point, and frow that point to tho Capes of the Delaware, and from tho South Cape of Florida to some point on our coast west of the mouth of the Mississippi.
Seal (Lat. Sigillum), a atone, plece of metal, or othor selld substance, generally round or elliptical, on which is eagraved the arms, crest, name, device, ctc., of some state, prince, public body, or private individual. It is employed as ustamp to make an inpression on seuling-wax: thereby authentleating public acts, deeds, etc., or to close letters or packets. Sesls were very curly invented, and much learning has been employed in tracing their history, and explaining the figures upon them. See particularly the work of Hopкınce, De Sigillorum Prisco el Noto Jure, 4to, $16+2$.
Seal-fishery. The seal, an ampliblous animal, of which there are many varieties, is found in vast numbers in the seas round Spitzbergen, and on the
coasts of Labrador and Newfoundland. Seals are principally humted for their oil and skins. Whan taken in the epring of the year, when they are fatteet, a fullgrown seal will yield from 8 to 12 gallons of oil, and a emall one from 4 to 5 gallons. The oil, when extracted before putrefaction has commenced, is beautifully transparent, fres from smell, and not unpleasant in its taste. The skin, when tanned, is extensively employed in the making of shoes ; and, when dressed with the hair on, servee for the covering of trunks, etc.-For an account of the Imports of seal skins, see article Funs.

To the Eequimaux the seal is of as much importance as bread to a Europenn. Its flesh forms their most neual food; the fat is partly dressed for eating, and partly consumed in their lamps; the liver, when fried, is esteemed, even among sailors, as an agresable dish. Tho skin, which the Esquimsux dress by processes peculiar to themselvee, is made water-proof. With the hair off, it is used as coverings, instead of planks, for their boats, and as outer garnents for themselves; shlelded with which, they can invert themselves and canoes in the water, without getting their bodies wet. It serves aleo for coverings for their tents, and for varieus other purposes. The jackets and trowsers made of seal skin by the Esquimanx are in grest request among the whale-fishers for preserving them from oil and wet.-Sconesny's Arctic Regions, vol. I. p. 510 Seals in fine weather prefer the ice to the water, and vast herds of them are frequently found lying on the field ice; the places whcre they are met with being thence calied "seal meadows." The seal hunters endeavor to surprise them while sleeping, and to intercept their retreat to the water. They attack them with muekets and bludgeons, but principally the latter, they belng easily dispatched by a blow on the nese. The ssalfishery has long been prosecuted to a conslderable extent in the Northern geas by shlps from the Elbe and the Weser. But very few ships have been sent out for sealing only from England, though occasionally some of the whale-shipe have taken large quantities of senls. Latterly, however, the seal-fishery has been prosecuted on a large scale, and with extraordinary euccess, by vessels of from 60 to 120 tons each, having crews of from 16 to 30 men, fitted out frem the ports of Nowfoundland, Nova Scotia, etc. The buelness is attended with a good deal of risk, and instances frequently occur of the vessels being crushed to pieces by the collision of the fields of ice. We borrew the following detuils from Mr. Bliss's tract on the Trade, Statistics, eic., of Canada and North A merican Possessions:
"There is another department of the colonial fishery which has originated within no distant period, and is now of great extent and importance. The large fields of ice which, in the months of March and April, drift southward from the l'olar seas, are accompanied by many herds of esele; these are found sleeping in what are called the seal mendows of the ice, and are there attacked and slaughtered in vast numbers. For thls purpose the fishers of New foundland, from which island these vojages are principally made, without waiting till the return of spring shall have opened their harbors, saw channels through the ice for their vassels, and set sail in quest of those drifting fields, through the openings of which they work a passage, attended with great difficultics and dangers, till they encounter their prey on the seal meadows. This bold and hazardous enterprise seems well compensated by its success. The number of seals thus taken ls almost incredible, and is greatly on the incresse" (p. 70).-Living Age, xxvil. 186. See articles Fisheries, Oils, Newfoundland, and Lamrador; see also M'Gaecon's British America, 2l edit., and Sabine's American Fisheries. There is a good account of the seal in Laing's Voyage to Apilzbergen.

Sealing-wax (Ger. Siegellack; Fr. Cire d'Espagne, Cire d cacheter; It. Cera Lacca, Cera di Spagna; Sp. Lacre; Russ. Surgutsch), the wax used for sealing
letters, legal instruments, etc. It is a composition of gum-lac, multed and incorporated with resin, and afterward colored with some pigment, as vermilion, verditer, ivory black, etc.
The Hindoos from time immemorial have posseased the resin lac, and were long accustomed to ube it for uealing manuscripts before it was known In Europe. It was firot imported from the East into Venice, and then into Spain ; in which country sealing-wax became the object of a considerable commerce, under the name of Spanish wax.
If sheil-lac be compounded into mealing-wax immediately after it has been separated by fusion from the palest qualities of stiek or seed lac, it then forms a better and less brittle article than when the ahell-lac io fused a aecond time. Hence sealing-wax rightly prepared in the East Indies, deserves a preference over what can be mado in other countries, where the lac is not indigenous. Sheil-jac can be restored in some dogree, however, to a plastic and tenacious state by moltling it with a very small portion of turpentine. The paleat shell-lao is to be selected for bright-colored seal-ing-wax, the dark kind being reservel for black.
Seamen, the individuals engaged in navigating shipa, barges, etc., upon the high seas. Those employed for this purpose upon rivers, lakes, or canals are denominated watermen
Of the Rights and Duties of Seamen.-The seamen employed in the merchant service are made eubject to special regulations prescribed by acts of Congress. Shipping articles are contracta in writhng or in print, declaring the voyage and the tarm of time for which the seamen are shipped, and when they are to render themaelves on bourd; and the articles nre to be signed by every seaman or mariner on all voyages from the United States to a foreign port ; and, in certaln cases, to a port in another State other than an adjuining one. If there be no auch contract, the master is lwund to pay every seaman who performs the voyage the highest wagea given at the port for a aimilar voynge within the next three preceding monthes, besides forfeiting fur every seaman a penalty of twenty dollars.

The seamen are made subject to forfeitures if they do not render themseives on board to the contract, or if they desert the service; and they are liable to summary imprisonmeat for denertion, and to be detained until the ship, be ready to sail. If the mate and a majority of the crew, after the voyage is begon, but before the vessel has left the iand, deem the vessel unsafe, or not duly provided, nad shall require an exsuination of the ship, the master must proceed to, or stop at, the nearest or moat convenient port, where an inquiry is to be made, and the master and crew must couform to the judgment of the experienced persong selected by the district judge, or a justice of the peace. If the complaint shall appear to have been without foundation, the expenses nad reasonable damages to have been ascertained by the judge or jubtice are to be deducted from the wages of the seamen. Hut if the vessel to found or made seaworthy, and the seamen whall refuse to proceed on the voyage, they are sutjected to imprisomment until they pay donthe the advance made to them on the shipping contract. Fishermen engaged in the fisheries are lialle to like ponaities for desertion ; and the fishiag contract must the in writing eignefl ty the shipper and the fishermen, and countersigned ly the owner.

The articies do not determine exclusively who are the owners, and the seamen may prove by other docunents the reai and reaponaible ownern. The object of the articiea is toplace th. crew of a fishing vessel upon a footing with seamen in the merchant service, and to make them liable to the sume restrictiona, and entitied to the same remedies. Provision is made for the prompt recovery of seamen's wages, of which onethird is due at evary port at which the veseel shall unboad and dellver her cargo befure the voyage be ended;
and at the end of the voyage the seamen may proceed In the District Conrt by admiralty process againet the ohip, If the wages be not pald within ten days after they are discharged. The seamen having like cause of complaint, may all join in one suit, and they may proceed against the vessel within the ten days, if she be about to proceed to sea; bnt this remedy in rem does not deprive the aeamen of their remedy at com. mon law for the recovery of their wages.

Every shlp belonging to a citizon of the United States, of the burden of 150 tone or upward, and navigated by six or more peraons, and bound from any port in the United States to any port in the West In. dies, shall he provided with a medicine-chest, properly sapplied with fresh and eound medlecines; and, if bound on a voyage across the Atlantic Ocean, with requieite stores of water, and salted meat, and wholesome shipbread, well secnred under deck. A fund shall be raised out of the mariners' wages earned on board of any vesael of the United Statea, and he paid by the master to the collector of the port, on entry from a forelgn port, at the rate of twenty cente per month for every seaman. The liko assessment is to be made and pald on the new enrollment and ilcenee for carrying on the coasting trade, and also by persons navigating boats and rafte on the Mlaslesippi. The moneys so raised are to le expended for the temporary relief of sick and disabled aeamen in hospitala and other proper institutions established for such purpose; and the surplus moneys, when sufficlently accumulated, shall be spiphied to the orection of nurine hospitala for the accommodation of sick and disabled senmen. The hospitals, ss far us it can be done with convenience, are to receive sick foreign seamen on a charge of seventy-five cints per day, to be paid by the master of the foreign veasel.

And to relieve Anerican seamen who may he found destituto in foreign places, it is the duty of the Anerican consuls and commercial agenta to provide for those who may be found destitute within their consalar districts, and for their passagee to some port in the United States, in a reasonable manner, at the expense of tho United States; and American vessels are hound to take such seamen on board at the request of the consul, but not exceeding two men to every hundred tons burden of the ship, And transport theni to the Cnited States on such terms, not exceeding $\$ 10$ for each person, as may be agreed on. So, if an American vessel be sold in a foreign port, and her company dischurged, or a seaman bo discharged with his consent, the inster must pay to the consul or commercial agent three montha' pay over and above the wages then due for every such reaman. twothinds of which is to he paid over to every aemman so discharged, upon his engagement on bourd of any vessel to return to the laited States, and the remaining third to be retained for the purpose of creating a fund for the maintenance and return of deatitnto American seamen in such foreign ports.
The master is personally responsihie in damages for any injary or loss to the ehip or cargo liy reason of his negligence or misconduct. He has authority to imprison, and also inflict reasonable corporeal punishment, upon a seaman for disobedience to rensoushle commands, or for disorderly, riotous, or ineolent conduct. If the correction le excessive or unjuatilisble, the seaman is sure to recoive compensation for damages on his return to port in an action at common law. And it must be an extreme case that will juntify $n$ oraster to contine a seaman in a comnion jaili in a foreign port. He can not do it as a punishment, but only by way of precaution under existing circumstanees. The master may alao confine a passenger who refusea to submit to the necessary discipine of the ship. The master hat aiso the right to discharge a seaman for just causes, and put him aahore in a foreign country; but the causen must be not alight, but aggravated ; such as habitual disoledience, mutinous conduct, theft, or
habitual drunkenness; and be is responsihle in dam. ages if he discharge him without just cause. This power of discharge extends to the mate and subordinate officers as well as the seamen. But it would require a case of flagrant disobedience, or gross negligence, or palpable want of skill, to authorize a captain to displace a mate, who is generally chosen with the consent of the owners, and with a view to the better safsty of the ship and the security of their property.

The master must receive back a seaman whom be has discharged, if he reports and offers to return to his duty and make satisfaction; and if the master refuses, or the seaman has been unduly discharged, he may follow the ship, and recover his wages for the voyage, and his expenses for his return. The master subjects his:self to fine and imprisonment if, without justifisble cause, he maliciously force an officer or mariner on shore while abroad, or leaves him behind in any foreign port or place, or refuses to bring home those whom he took out, and are in a condition and willing to return. The expense of curing a sick seaman in the course of the voyage is a charge upon the ship in the nsture of additional wages during sickness.
The act of Congress requires that in seamen's shipping articles the voyage and the term of time for which the seamen may have shipped be specified. The regulation relates to voyages from a port in the United States, and It does not apply to a voyage commencing from a foreign port to the United States. The voyage within the attention of the statute means one having a definite commencement and end. The terminus a quo and the terminus ad quein must ho stated precisely; and in a case of general adventure the term of service must be specified. A voyage from New York to the Curacos and elsewhere means, in shipping articles, a voyage from New York to Curacos, and the word elsewhere is rejected as being vold for uncertainty. Seamen in the merchant service are usually hired at a certain sum, either by the month or for the voyage. In the fishing trade the seamen usmally serve under tin engagement to receive a portion of the profits of the adventure. The share or profits of the voyage are a subetitute for regular wages, and the act of Congress (19th June, 1813) extends the admiralty jurisdiction to the cognizance of auits for shares in whallng voyages in the sanue form and manner ins in ordinary cases of wages in the merchant service. Every seaman engriged to servo on board a ship ts bound, from the nature and terms of the contract, to do his duty in the service to the utmost of his abllity; and, thereforo, a promise made by the master when the ship is in distress, to pay extra wagee as an inducement to extraordianry exertion, is illegal and void. It would be the same if some of the crew had deserted, or wero sick, or dead, or peculiar efforts becume requisite; for the general engagement of the seamen is to do all they can for the good of the service under all the emergencies of the voyage.

A seaman is entitled to his whole wages for the voyage, even though he be unable to render his service ly slekness or bodlly injury happening in the course of the voyage, and whlle he was in the performance of his duty. Ile will equally be entitled to his wages to the end of his voynge when wrongfully diselurged by the maeter in the course of it. The marine law distingulshes letween the cases in which seamen's services are not rendered in consequence of a peril of the sea, and in which they are not rendered hy reason of some iilegal uet, or misconduct, or frand, of the master or owner interrupting und destroying the voyage. In the latter cases the seamen are entitied to their wages. If a seamm be wrongfully discharged on the voynge, the voyage is then ended with respect to him, and he is entitled to aue for his full wages for the voynge.

Frelght is the mether of wages, and If no freighi be earned no wages are due; but the frelght must not be lost by the fraud or wrongful act of the master. The
rule applies to cases of loss of freight by a peril of the sea. Seamen's wages in trading voyagea are due pro rata itineris. If the seaman dies on the voyage, it was decided in the Circult or District Court of the United States in Pennsylvania that the representatives were ontitled to full wages to the end of the voyage; and on the other hand, In the Distriet Conit of South Carolina and Massachusetts, it was decided that fuil wages by marine law meant only full wages up to the death of the mariner. As the payment of wages depends, in general, upon the earning of freight, if a ship delivers her outward cargo, and perishes on her return voyage, and the outward freight be earned, the sep.men's wages on the outward voyrage are consequently due.

By the custom of merchants, seamen's wages are due at every dellivering port, and their wages are not affected, without their 日pecial agreement, by any stipulation between the owners and the charterers, making the voyages ont and home one entire voyage, and the freight to depend on the accomplishment of the entlre voyage out and in. The owners may waive or modify their claim to freight as they please, but their acts can not deprive the seamen, without their consent, of the rights belonging to them by the general prineiples of the marine law. They are entitled to wages not only when the owner earns frelght, but when, uniess for his own act, he may earn it. The wages are due by an arrival at a port of destination, when no cargo is on board, or when the owner chooses to bring the cargo back again, and when the port of deatination be not, in fact, the port of delivery. Even if the ship perishes on the outward voynge, yet, if part of the outward freight has been paid, the seamen are entitled to wagea in propertion to the amount of the freight advanced, for there is an inseparable connection between freight and wages. In case of capture, the seamen taken prisoners by the captor and detalned are entitled to their wages for the whole voynge, if the same be nfterward performed, with a ratable dedetion for the expenses of anlvage. The same is the case of a vessel cuptured and afterward ransomed, and enabled to arrive at her port of destination. In the case of shipwreck, if any proportion of froight be paid for the cargo saved, wages of seamen are to be paid in the same proportion.

Mariners are bound to contribute ont of their wages for embezzlements of the cargo, or injuries produced by the misconduct of any of the crow. But the circumstances mast be such as to fix the wrong upon some of the crew; and then, if the individual bo unknown, those of the crew upon whom the presumption of guilt resta stand ne sureties for each ether, and they must contribute ratably to the loss. Where the embezzlement has arisen from the fault, fraud, cenaivsnce, or negligence of any of the crew, they are bound to contribute to the reparation of the loss, in proportion to their wages. Where no reasonable presumption is shown against their innocence, the loss must be borne exclusively by the owner or master.

In case of shipwreck, sind there be relics or materials of the ship saved, tho seamen by whese exertions part of a vessel had been saved are allowed the payment of their wages, as far as the fragments of the materials would form in fund, although there was no freight earned by the owners. But in such cases where the voyage is broken up by vis major, and no frelght earned, no wages eo nomine are duo; and the equitable clain whlch seamen may have upon the remains of tho wreek is rather a clalin to salvage than a title to wages. Wages in such cases would bo contrary to the principle of marine law-that freight is the mether of wages, and tine safety of the ship the mether of freight. If, however, the seamen abanden the wreck of a ship, ns being a hopeless case, and without the intention of returuing to possess and anve it, they lose their lien or privllege for any equitable compensatlon, whether as wages or salvage-their claim is extinguished; and
though other persons may possers the property which had been derelict, it belongs to the original owner, burdened for their claim for salvage.
By the act of Congress, one-third of seamen's wagea is due at the port whire the ahip uniades and dolivore her cargo, ualose there be an exprese stipulation to the contrary; and when the voyage is ended, and the cargo or ballast is fully discharged, the wages are due, and If not pald withtn ten daya thereafter, admiralty process may be inatituted. But there is no flxed period of time within which marinere muat proceed to enforce lien for wages. It does not, like other liens, depend upon possession. The seamen need not libel the versel at the intormediate port at which thoy are diocharged. They may disregard bottomary bonds, and pursue thelr liens for wagee afterwan, aven against a aubsequent bonafids purchacer. It followi the shlp and Ite proceeds, intc whose hands eoverer they may come by title or purchase. Their demand for wages takes procedence of bottomry bonds, and is proferred to all other demands. Their ciaim is a macred. lien, and as long as a single plank of the ship remains the sailor is entitled, as against all othor persons, to the proceeds as a security for his wages. The seamens' lien exists to the extent of the whole compenaation due them. There is no difference between the cave of a vessel melzed abroad, and restored in apocle or in value; the llon reattaches to the thing, and to whetever la substituted for it. Desertion from the ship without just cause, or the justifiahle discharge of a seaman by the master for bad conduct, will work a forfelture of the wagee previously earned. Desertlon is accompanied with a forfeilure of all the wages that are doe; and whatever unjustlfiable conduct will warrant the act of the master in discharging a seaman during the voyage, will equally deprive the seaman of his wages. Hut the forfeiture is saved if the seaman repenta, makea com-
pensation or offer of amenda, and ts rentored to his dety.
The master has power to remilt a forfolture, and the penalty of forfelture is not applied to silght faults, olther of negleet or disobedience. There must either be an habitual negloct, or ásobedience; or druikenness, or alee a siagle act of gross dishomenty, or some other act of a hoinous and aggravated natars, to juatify the discharging a soaman in a forelgn port, or tho forfeiture of wages ; nor will the adminalty coarts, except in case of groat atrocity, visit the offenses of moamen with the accumulated load of forfeltare of wages and compenaation in damagse, : They ntop at thio forfelture of wages antecedontly sarned; and in the application of forfelture the advance wages are mide a charge on the forfelted wages, but the hoapital money la apportioned ratably on the wagee for the whole voyage. If the seaman quits the ship Involuntarily, or is driven ashore by reason of cruel usage, and for personal safety, the wages are not forfilted. On the other hand, it is the duty of the seamen to ablde by the vessel as long as reasonahle hope remaine; and if they desert the khip under circumstances of danger or diatress from perils of the mea, when their prosence and oxertions might have prevented damage, or restored the ship to mafety, they forfeit their wages, and are anewerable In dam. ages. And even when a seaman might well have been discharged in the course of the voyage for gross misbehavior, if the mastor refuses to discharge him, and leaves him in imprisonment abroed, he will in that ease be entitled to his wages until his roturn to the United States, after deducting from the claim his time of im-prisonment.-Leone Levi's Com. Law of the World, rol. II. p. 226. See Mercawtile Guide, Londoh, Avo; Am. Whig Rev., ii. 230. Ilc ipitals for Seamen, see Newo Eingland Revien, 1il. 481; Huxt's Merchants' Mag., xi. 844, xi. 230 (J. H. Lanman).

Statinent of Regity and Clagetication of Expanditeres of tua Maring Ilobptital Fitid of the United 8ratrs poe sate fibcal yane knding Jung $80,185 \%$.

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| Kenlucky . . . . . . . . . | 25 | 23 | 12,186 | 8,754 | 1,048 | . . . | . 4 | 1,121 | 241 |  | 17,2042 | 1,045 |
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Relief of Destitute Seamen.-By the fourth sectlon of $\mid$ at the expense of the United States, subject to such the act of Congress, 28th Februsy, 1803, it is made |instruction as the Secretary of State shall give; und the duty of consular officers to provide for the mariners of the Linited States who may he found destitute within their districts sufficient subniatence and passage to the United States, in the most reasonable manner, the section also provides for the manner in which such mariners are to be transported to the United States. If any seaman happens at a United States consulate, not from dischargo from a vessel, but from shipwreck
or otherwise, the same must be atated eccordingly, with the time he artived at the consulate, $s 0$ that the return will show how and when each relioved seaman happened there. And if no oxtra rages are received, the reasons why such wages have $n$. been received should appear from the return, or other accompanying papers.
When American seamen are discharged in any port from sickness or any other cause, the three months' extra wages ahould invariably be exacted as required by the acte of February 28, 1803, and of August 18, 1856. The three months' oxtra wages are to be credited in consular accounte, and the two-thirds thereof are not to be paid to seamen until they shall have ongaged on board some veasol to return to the United States; and then only when no disbursemente shall have been made on their account. Expenses incurred for them are first to be paid, and the balance only, if sny, to be raturned them. On payment of the two months' extra wages to seamen, consular officere will take and forward receipte with their accounts. Whenever a ship or vessel belonging to a citizen of the United States is seld in a foreign conntry, and her company discharged, or when a seaman or mariner, a citizen of the United States, is with his own consent discharged in a foreign country, it is the duty of the master or commander to produce to the coneular officer the certified list of his ship's company, and pay to such consular officer for every seaman or mariner so discharged, being designated on such list as a citizen of the United States, three months' pay, over and above the wages which may then be dae to such mariner or seaman; two-thirds thereof to be paid by such conenlar officer to each seaman or mariner so discharged, upon his engagement on board of any vessel to return to the United States, and the other remaining third to be retained for the purpose of creating a fund for the payment of the passages of seamen or mariners, citizens of the United States, who may be desirous of returning to the United States, and for the maintenance of destitute American seamen.

Whenever any seamsn or mariner of any vessel of the United States deserts anch vessei, the master or commsnder of the veasel is required to note the fact and date of the desertion on the list of the crew, and to have the same officialiy authenticated at the port or piace of the consulate or commercial agency first visited by the vessel after such desertion. If the desertion shail have occurred in a foreign country, or if, in anch case, the vessei ehall not visit any place where there is any consulate or commercial agency before her return to the United States, or if the desertion shall have occurred in the United Stutee, the fact and time of desertion shali be officialiy authenticated before a notary public immediately at the first port or place where such vessel urrives after the desertion. Ali wages that may be due to such seaman or mariner, and whatever interest he may have in the cargo of auch vessel, shaii be forfeited to and become the property of the United States, and paid over for their use to the coliector of the port where the crew of such vessel are accounted for as soon as the same can be ascertained, first deducting therefrom any expense which may necessarily have been incurred on account of such vessel in consequence of such desertion. In eettling the account of such wages or interest, no aliowance or deduction siali be made, except for moneye actuaily paid, or goods at a fair price supplied, or expenses incurred to or for auch seaman or mariner, any raceipt or voucher from or arrangement with such seaman or mariner to tile contrary notwithstanding.

Upon the application of any seaman or mariner for a discharge, if it shall appear to the consular officer that he is entitled to his discharge under any act of Coagress, or according to the general principles or usages of maritime law as recognized in tie United States, he is required to discharge such seaman or mariner, and require from the master or commander of
the ship or vessel from which ouch diecharge shall be made the payment of three montha' extra wages, as provided by the act approved February 28, 1808; and it ahall be the duty of auch mastor or commander to pay the asme, and no auch paymont, or any part thereof, thall be romitted in any case, axcept such as are mentioned in the preceding suction, and isi cases of wrecked or stranded ships or vassels, or ships or vessels condemned as unfit for sorvice, when no payment of extra wages ehall be required. The extra wages required to be paid by the foregoing clanse of this section are applicable to the same purposes and in the same manner as is directed by the act approved February. 28,1808 , in regard to the oxtra wages required to be paid by that act.

* If the first officer, or any officer and a majority of the crew, of any vessel make complaint in writing that she is in an unsuitable condition to go to sea, because she is leaky, or insufficiently supplied with sails, rigging, anchors, or any other equipment, or that the crew is insufficient to man her, or that her provisions, stores, and supplies are not, or have not been daring the royage, sufficient and wholesome, thereupon, in any of these or like cases, the consular officer of the port is required to appoint tro disinterested competent practical men, acquainted with maritime sffairs, to examine into the causes of complaint, who must, in their report, state what defects and deficiencies, if any, they find to be well founded, as well as what, in their judgment, ought to be done to put the vessel in order for the continuance of her voyage.

By the 4th section of the act of February 28, 1808, all masters and commanders of vessels beionging to citizens of the United States, and bound to some port of the same, are required and onjoined to take on board their ships or vesseis, at the request of the consular officers, such American seamen as may be found In their districts reapectively, and to transport them to the port in the United States to which such ships or vessele may be bound, on such torms, net exceeding ton dollars for esch person, as may be agreed npon between the said masters and consular officers. And the :aid seamen shail, if able, be bound to do duty on board such ships or vesseis according to their several ablilties. To ensble the master of the veseel to obtais the payment specified, the consnlar officer will give him a certificate, stating the names of the seamen placed on board, and the amount to be paid for their passage; on which, upen the arrivai of the vessel in a port of the United States, an indorsement must be made by the collector of the customs at such pert, stating that such eeamen have arrived in said vessel in his district. When the certificate so indorsed is received at the Treasury Department, the amount will be paid to its holder. No master or cantain of any ship or vessei is obliged to take a grenter number than two men to every one inundred tons burden of the said ship or vessel on any one voyage.

Wages of Seamen.-The genoral ruie in regard to the wages of seamen is, that such wages on board of merchant ships are payable out of the earnings for froight; and if ne freight is earned, by reason of the perils of the sea or capture by the enomy, and not by the fault or negicet of the master or owner, no wages are due. The maxim that "freight is the mother of wages" is a formula which, though it has obtained general curreney, is to be carefuily 2 arutinized in its application. A distinction is to de mado between those accidents by which tho voyage is interrupted and the freight lost, without the fauit of the owner or nusster, and other causes arising from the acts of the owner or master. If the voyage or freight be lost by the negligence, fraud, or misconduct of the owner or master, or voluntarily abandoned by them; if tise owner has contracted for ireight upen terms or contingencies differing from the general rulos of the maritime low; or, if he haa chartered his ship to toke a freight at a
forelgn port, and none is to be earned on the outward voyage-in all these casea the mariner is entitical to wages, notwithatanding no freight has acorued. Whoms freight is, or might be, earned, wagee are duc for the full period of employnent in the ahip's service, whother the freight is actually received by the owner or not. No private contract between the owner and the shipper, with regard to freight, can affect the right to wagen, ".
If the vessel and cargo are lost on the outward voyage, before any freight is earned, and no part of eithor is saved hy the crew, the wages of the sesmen are also lost, and the original contraot thovefor is annulied, but the advance wages are not in auch case to be returned. If. the vesael is.loot on the homeward voyage, and freight has been, or might have been, by the geaeral principles of law, earned to an out ward port, the wages for the ontward voyage to that port are deemed to have beeu earned. No abatement is to be made from the wagee in case of the freight belag partially loet or diminiahed by maritime aceidents or perils. If freight is earned, whether it be large or amall, the whole wages, which are deemed to have been earned, are to be pald without deduction. When the vessel fo tont between Intermediate porte, the wages are to be caloulated up to the last port of the delivery or receipt of cargo, and for half the time that the ship lies there. Where a voyage is divided ly various ports of dellivery, a claim for proportioaal wages attaches at each of snch ports of delivery upon safo arrival; and all attempts to evade or iavade that titie, by renunciations obtained from the mariners without any conalderation, by collateral boade, or by contracte inserted in the body of the shipping articles, not ususl, not fa $y$ explained to these illiterate and inexperienced persons, ara irnffectual and vold.

Prucection and Care of Seamen.-It ls provided by the 10th section of the ect of July 20, 1840, that the crew of any vessel shall have the fallest liberty to lay their complaints before the consular officer In any foreign port, and ehall in no respect be reetrained or hindered therein by the master or any officer, unless some sufficient and valid objection exist against their ianding; in which case, if any mariner desire to see the consular officer, it shall be the duty of the master to acquaint hiln witi it forthwith, statiag the resson why the mariner is not permitted to land, and that he is desired to come on board; wherenpon it ahall be the daty of such officer to repair on board and inguire into the causes of the complaint, and proceed therein as the act directs.

Desertion.-In countries with which the Unfted States have stipulations by treaty or convention to anthorize it, or where it is permitted by the local authorities, consolar officers may apprebend deserters as fugitives from justice, and imprison them until required by their commander.-Consular Regulations, United States, 1856.

For further information upon the rights and duties of semmen, se articles Ayfreiohtment, Charter-party, Comsehce, Insuance, Shipping, etc. See also Kint's Com. vol.iii. p. 231; Pansons's Mercantile Lavo, p. $3 \times \overline{5}$; Dunlap's Digeat of the laws of the U. S.

Seaworthy, a term applied to a ship, indicating that sho is in every respect fit for her voyage. It is provided in ali charter-partiee that the vessel chartered shall be "tight, stanch, snd strong, well appareied, furnished with an adequate number of men and mariners, tackie, provisions, etc." If the ship bo insuffcient in any of these particulars, the owners, though ignorant of the circumetance, will be liable for whatever damage may, in cobsequence, be done to the goods of the merchant; and if an iasurance have been effected upon her, it will be void. Bat whether the condition of seaworthiness be expressed in the charter-party or not, it is always implied. "In every contrect," eaid Lord Elleaborough," between a person holding himself forth as the owner of a lighter or vessei ready to carry goods for hire, and the porson putting goods
on board, or employing his veesel or lighter for that purpose, it is $\boldsymbol{n}$ term of the contract on the part of the lighterman or carrler implied by lawi that hin veisel to tight, and fit for the purpose for which the offers and holde it forth to the pablio ; it is the Immediate foundation and subatratum of the contract that it is so. The lavo presumes a promise to that effect on the part of the carrior, woithout any aetual proof; and overy reason of oonnd poiley and publio con venlence requires that it thould be so.".
A ship is not seaworthy unless she be provided with all the documents or papers necessary for the manifeatation of the ahip and cargo. Neither is the seaworthy, If, daring war, the be not supplied with the sailis required to facilitate her escape from an enemy. "It is not sufficient to defest the liability of the owner that he did not know that the shlp was not seaworthy, for he onght to havo known that the wae so at the time he chartered her. The sufficiency of the chip is the foundation of the contract between the parties, and a shlp not capable of conveying the goods in a proper state is a fallure of the condition precedent to the whole contract. The seaworthiness of the ship is not a question of fraud or good Intention, but it is a positive stipniation that the ship shall bo so; and therefore, although the owner may himself have been decelved by the ship-builder, repairer, otc., If the vessel be, in fact, unseaworthy, have an insufficient bottom or ansound timbers, it is a breach of a preiminary condition, and is fatal, as such, to the contract."-Hour's Lato of Shipping. It is only necessary, to guarantee the owners from lose, that the ahip should be seaworthy at the time of her departare. She may ceaso to be so in a few bours, and yet they may not be liable. The question to be decided in such cases always is, whether the ship's disability aroso from any defect existing in her befors her departure, or from a cause which occasioned it aftercard. But if a ahlp, within a day or two of her departure, become leaky or founder at sea, or be obliged to put back, without any visibie or adequate cause to produce such an effect-such as the starting of a plank or other accident, to which the best ships are liable, and which no human pruderice can prevent--the fair presumption is that she was not seaworthy when she ssiled; and it wili be inenmbent on the owners to show that she was seaworthy at that time. They are liable for damage oceasioned by every injary arising from any original defect in the ship, or from bad stowage; but they are not liable for any injary axiaing from the aet of God, tho king's enemies, or the perils of the sea.

It is further to be observed, that how perfect noever a ship may be, yet If, from tho natere of her construction, or any other cause, she be incapabie of performing the proposed voyage, with the proposed cargo on board, she fs not seaworthy. She must be in all respects fit for the trade in which she is meant to be employed. And it is a wholesome rule that the owners ahould be held to a pretty strict proof of this. It has been already observed that any defect in point of seaworthiness invalidates an insurunce upon a silip. There is not onily an expresa but an implied warranty in every poliey that the ship shall be "tight, stanch, and strong, ete.;" and the reason of this is plain. The insurer undertakes to indemnify the insured against the extraordinary and unforeseen perils of the sea; and it would be absurd to suppose that any man would insure against those perils, but in confidence that the ship is in a condition to encounter the ordinary perils to which every ship must be exposed in the usual course of the proposed voyage.
"In many ports certain equipments would now be coneidered easential which at an earlier period were not customary on the same voyages. Seaworthiness Is to be messured by the standsrd in the ports of the country to wheh the veseel belongs, rather than that In the port or conntry where the insurance was made. * * A veseel may be seaworthy whilo lying in port
for the purposes to which ahe io to be there applised, whon ahe would not befor the voyage, and ohe may be seaworthy for one voyage and not for another. It is anfilient if she be seaworthy for the voyage when she salls. The general ruia is, that the vessel muat be seaworthy at the commencement of the riak, whatever that risk may be, in order to make the policy attach and charge the insurer. It was heid, in the case of Wier va, Aberdeen, that thongh a alip be unseaworthy at the commencement of the riak, yet, if the defect be cared before a loss, a subsequent loas is recoverable under the policy. The argument of Lord Tenterden in favor of this doctrine is verf weighty, but a doubt seems to have been thrown over its solldity by tho Supreme Court of the United Statea.-See M'Lamahan vs. The Universal Inourance Co. ;" Kent's Com. vol. iii. p. 864.

For further information apon this subjoct tho reader is roferred to the able and excellent work of Chiefjustice A bbot (Lord Touterden) on the Law of Shipping, part ili.; Holt on Shipping, part III.; Mr. Sergeant Marsilalli on Insurance; Kent's Comm. vol. iii. ; and Parsons's Mercantila Law.

Beeds, in Commerce, the grains of several apecies of gramina. Those of most importance are clover eeed, flsx or linseed, hemp seed, rape seed, mustard seed, ete.; for which see the respective articics.

Segarn, or Cigars. See Tonacco.
Beizure, in Commerce, the arrest of aome merchandiso, movable, or other matter, olthor in consequence of some law, or some express order of the sovereign. Contraband goods, those fraudulently entered, or landed without entering at all, or at wrong places, aro subject to seizure.

Bonegal and Dependencies. Gorée is tho only port which foreign vessels are permitted to enter. Vessela of tho United States pay a duty of 187 centa per ton. By decree of January 6, 1855, foreign vessels visiting Gorée are aubjeot to a duty of 50 centincs per ton, about one half of a franc, or $9 \cdot 3$ cents. They are upos an equal footing with those of France in respect to navigation duties. Up to 1831, the exportation of gum Senegal was limited to France. By a royal ordinance of that year it is permitted to bo exported to all countries from the port of Goré only. Merchandise of every kind and of every production (Guineas or Indinblue cloths excepted) can be limported into or exported from the islaud of Goreo by versela of all nations, free of duty.

The name Sencgal is derived from the great river of that namo, and includes several emali French colonies, embracing a number of Iittlo islanda, and a strip of the main land between tho Senegal and Ganibia rivers. It is divided into a northern and a aouthern arrondisaement. Tho total nativo popuiation of these settlementa amounted in 1836 to upward of 18,000 . They are all Mohammedan and blacks. The soll of the islands is very poor. Tho maln land, not near tho shore, is fertile, and covered with foresta. Tho climato is sultry, and extremely unliealthy. Tho rainy season lasts from June to Octoher, and breeds fatal diseases. Geld is found near the sources of the Senegal, but attempts to form settlements there have proved abortive. Salt is quite abundant. The vegetable products are varied and luxuriant. Thero mey be found the gigantic jalnt, the gum, mimosas, ebony, cotton, indigo, coffee, amnatto, olives, hemp, eassia, sweet potatoes, millet, maize, etc. Tho wild animals are the elephant, lion, hippopotamus, boar, buffiaio, tigor-cat, dcer, and an insmense variety of birds. Oxen; gonts, mules, horses, nud asses are used for domestic purpoees, and shoep and hogs are bred.
The articles of export are raw hides, wax, elephant teeth, guin Senegal, cabinet woods, and gold. The value of the exporta, including goods re-exported, is nbout $1,300,000$; and the value of the imports is about $\$ 2,350,000$. The Importe are chiefly linen and cotton
goode, ready-made clothing, brandy, liquors, winea, and some provialons.

- Benna (Fr. Sénd; Gorm. Sennablater: It. Senna; Sp. Sen ; Lat. Casoia Senma ; Arab. Suna). The plant (Cassia Semna) which ylelda the leavea known in commeroe and the materia medica by the name of senna is an annual, a native of Upper Egypt, and Bernou in Central Africa. The genna, after being collected in Upper Egypt, is packed up in bales and aent to Boullac, where it is mixed with other leaves, come of which ara nearly equailly good, while othere are very inferior. After being mixed, it is repacked in bales at Alexandria, and sent to Europe. A great deal of eenna is imported from Calcutta and Bombay, under the name of Eaat India senna; but it is originally brought to them from Ara-bia.-Tnomson's Diopensatory. Senna ia very extensively used in medicinc.

Sequ .., a gold coin atruck at Vonice, and In several parts of the Grand Seignlor'a dominions. In Turkey it is called dahob, or piece of gold, and, ascording to Volney, ia in value about 8s. 6d. aterling. It variea, however, conaiderably in its valuo in different countrics. At Venice it is equal to about 0 s. 2d. sterting.

Bewing Machines, a recent French invention for atitching. The piece of cloth is lald down flat upon a cushion; the seamatress who works the machine aits at a kind of lathe, on which the cushion is laid, and works a treadle with her foot; st each movement of the treadle a needle deacenda vertically and pierces tho cloth, carrying with it a thresd; the needle lias a small hook or notch on one side, which eatches and bringa up a thread on it return from the hole; and thus, two or three hundred times in a ininute, a thread becomes interiaced in tho manner of "chain-stitch," or "tambour work." The machine, which coste twenty or thirty guineas, can embroider as much cloth in an hour as an embroidereas can complete in a day. Another French machine, by M. Seneachal, of Paris, is more complex in ita conatruction, and is intended for sewing coarso cloth. Great Ingenuity is shown in the arrangement of the several parts; the machine piercea its own holes, insorts its own thread, tightens the thread after insertion, and shifts the cloth aa the work advances, at the rute of forty or fifty atitches a minnte. Barlow's (English) patent stitching machine for making articlos of dress: two distinct threads are used, one at the front and the other at the back of the fabric, so that each stitch forms an independent fastening. Judking's (Engliah) sewing machine, aaid to be "suited to sewing either a circlo, curve, or atraight line, at the rate of 500 stitches per minute." There are racks or toothed arms employed, straight or curved, according to the shape of the work to be done; there are two threada, one in a reel and one in a shuttle; and a necdlo very ingeniously entangles theso threada one in another, tirrough the heles pierced in tho cloth. Tho United States have also contributed to ' $\mathbf{h}_{1}$ ) class of macbines. Of Morey's sewing machino, made at Boaten, the following cheracter is given: "By a very" simplo process, straight and curvilinear seams are sewn in cotton, linen, or woolen cloth with great rapidity. With one attendent, it will accomplish the work of five seamstresses; it is easily wrought, is not liable to get out of repair, and is readily applicable to almost every variety of plain stitch. In the large ready-made clothIng eatablishments in the United States it is universaliy used." Among the most preminent patents now in uso in this conntry are Grover and Baker's, Wheeler and Wilson's, and Singer's.
Bextant (Lat. sextane, the sixth part; tho limb of the instrument being the sixth part of a complete circie), an instrument for measuring the angular distances of objeots by refiection. The aextant is capable of very general application; but it la chiefly used as a nautical instrument for meanaring the altitndes of celestial objects, and their apparent angular diatances. It is an instrument of the utmoat importance in naviga.

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tion. The sextant is used in the manner of a quadrant, and contains sixty degreet, or the aixth part of a circle. It is for taking the altitude of the planets, atc. Invented by the celebrated Tycho Brahe, at Augburg, in 1650. - Vixcs'a Astronomy. The Arabian astronomers under the callife are said to have had a sextant of fifty-nine feet nime inchen radius, about A.D. 095.-Aailv.

Bhagreen(Ger. Schagrin; It. Chagrin; Russ. Schagrim Schayren), a kind of grained leathar, used for various purposes in the arts. It is oxtensively manufactured at Aatraklsan, in Russia.-Ses Toosk'a Russia, vol. ili. p. 403.

Bhallop, or Eloop, ia a light versel, with only a small mainuast or foremast, and lug-ails to huul up and let down on occusion. Shallopa are comnonly good sailers, and aro therefore often used as tenders upon mels-of-war.

Shammy,or Chamal.) Ieather (Ger. Sümischleder; Fr. Chamois; It. Camoscio; Russ. Smochanüi, Noshi), a klal of leather dressed in oil, or tanned, and much esteemed for its softness, pliancy, and capalility of bearing soup without hurt. The real shammy is propared of the skin of the chamoia goat. But leather prepared from the akins of the common goat, kid, and sheep is frequently substituted in its stead.
ghanghai, a city and river port of China, province of Kiang-su, oll the Woosung Liver, 40 milea by water from tho sca, and 169 miles east-southeast from Nankin; lat. $31^{\circ} 12^{\prime} \mathrm{N}$., long. $120^{\circ} 53^{\prime} \mathrm{E}$. I'opulation estimated at from $115,000 \pm 0135,000$. It otands in a level and well-cultivated plain, producing gool crops of cotton, rice, and wheat. Inmediately outaide the wall by which it is inclosed are several populous suburbs. Strects narrow and filthy. Foundling hospitals, teagardena, and vast jce-houses, are the objecta most worthy of notice in the city. It has a Mint, with manufactures of sillk, vegetable oils, and oll-cake (of which vast quantities are annually sent into the interior), iron ware, glass, paper, ivory ware, etc. This is the most northeriy of the tive Chinese ports opened to foreigners by the treaty of 1842, and, excepting Canton, it is also the most important. The river, which insy be navigated by ships of 450 or 500 tons for a considerable distance above the town, crosses the Grand Canal, so that Shanghai is an entrepôt for all the vast and fertile country traversed by the canal, and by the great rivers, including the liang-tee-Kiang and the Iloang-1Io, with which it is connected. Hence the present importance of the emporlum, and hence. also, the Indefinite extension to which ita forelgn trade wiil probsibly cittain. Its inland and coasting trades are loth very extenaive. It is said to be annually visited by from 5000 to 6000 canal and river boats, some from very great distances, and hy 1500 or 1600 coasting junks. The province of Kiang-su, in which Shanghai is situated, proluces great quantities of silk; and besides supplying most part of the northern provinces of the empire, the shipments of silk to the forelgner are greater from this than from any other port. It is also well situated for the export of both green and black teas. Atnong the other exports are gold and silver, with oil and oll-cake, camphor, drugs, porcelain, cotton, cassla, alum, gypsum, coal, etc. Of the imports opium is by far the greatest ; and at leaet 20,000 chests of Bombay (Malwa) and I'atia opium are now annually disposed of in this market ; which, supposing the chest to be worth 8500 , will represent an aggregate suin of $\$ 10,000,000$ or $£ 2,200,000$ sterling, for which payment is almost invariably made in the precious metals! Sugar is extenaively imported from Furmosa, Canton, the Phillppines, ete.; cotton atuffs, woolens, iron, etc., from England; with aandal-wood, birdsnestr, biche de mer, and other producta of the Eastern Archipelago, etc. The inhabitants of Shanghai are much more hospitablo and better dlaposed toward forelgners than those of Canton; and strangers
unay travel for miles into the interior all round the city with perfect security. Within the last four or five yeare, some very fina brick housea have been built by foreign merchants in the auburbs,-Parl. Reports, etc.

Commerce wi/h the United States.-The commercial reiations of the United States with China are regulated by the atipulations of the treaty of July 8, 1844. A treaty, slinitar in all its leading provisions, was negotiated with Great Britain In 1812, and a tariff of cluties on inporta and exports, and dutien on tonnage, are made a part of both these treatice. Formerly, foreigu intercourse, as already remarked, was confined to Cal: toln, and hitber were brought from the distant parts of the empire teas, illks, and other leading staples of China. Trado was invariably conducted through the intervention of hong merchants, who were licensed agents of the government, and answerable to it for all duties of import, export, and other chargea accruing on the vessel, the affairs of which they managed. This system was adopted ae a precautionary measure for securing the dutiea and other dues levied on foreign vessels; but the treatiea reforred to containing ample stipulations respecting this sulyject, the agency of the hong merchants has been alolished, and their dutics tranaferred to the consuls of the nations to which the vessels respectively belong. The treaty between the United States and Chlua guarantees the same commercial advantagea and privilegea to the citizens of the United States that are or shall bo conceded to the citizens of any other foreign power. Fees and charges of every kind not compreliended in the treaty are aloolished. Irade ls permitted to the five ports of Kwang. chow, Amoy; Foochow, Ningpo, and Shenghai, anu from either of the sald porte to any other of them; but it is prohilited to any other ports in the empire, er along the coasts thereof, under a penalty of confiscation of veasel and cargo. Trade is subject to no restrictions es to origin or nature of cargo, or port of departure, with the exception of the article opiunn, which is declared contraband. Captains, on entering, are required to deposit their papera with the consul of their nation, who wili notify the proper local authority of the asme and tonnage of the vessel, oames of the crew, and nature of eargo. Tonnuge duty is fixed at 5 maces (eques to 74 cents) per ton, If the vessel is over 150 tons burden; 160 tons or under, 1 mace (equal to 14.8 cents) per ton. Before cargo can be landed, a permit must be obtained froms the local authority, under a penalty of © 500 and forfeiture of geods so landed.

Standards of weighte and measures aro to he aupplied by the Chinese government to the cousuls of the different natious, to secure uniformity, and prevent confusion in measures and weights of merchandise. The former limitation of forelgn trade to hong merchants, appointed by the governnant, is aholished; and citizens of the United States are permitted to trade with any and all subjects of China, without distinction. The privilege is conceded of reeexporting into any other port ally merchandise imported into any one of the five ports, without leing sulject to any sdditional duty, provided the full duty was paid when first imported, and the goods remaiu with their original marks unchanged; but this privilcge must be apecially applied for through the American consul. The other provisiona of the treaty apply mostly to the privileges, and duties, and police regulations, applicable to the consuls, merchants, and citizens of the United States at the five ports. Shipping dues, formerly charged on the measurement of the ship's length and breadth, at so much per chang, and all the old charges of messurement, entrance, and port clearance fees, daily and mouthly fees, ete., aro also abollshed by this treaty; and the tonnage duty on the registered tonnage of the vessel, specified in the precading synopsia, is substituted in lieu thercof. Commercial relations between the United States and Chinn date from a period as early as 1784. In the month of February of that ycar,

The other the privileges, licabie to the United States rly charged on ud breadth, at res of neasureces, daily and $y$ this treaty; tonnage of the psis, is substiations betweed mi a period as ry of that year,

It appears that the Einpreas of Chima, a ship of 860 tons, alled from New York for Canten, and returned the following year with a rich and valuable cargo. The success, as well as the novelty of this adventure, attracted nolittie attention throughout the ceuntry. The ensuing year another voyage was made, in a amall vessel of only 84 tons burden, with equal auccess. Merchants were soon induced to engage in an enterprise which promised the most flattering resulta ; and as early as 1789, five years aftor the American flag had flrat entered the Chincse seas, fifteen American ships arrived at Canton. Such was the origin of en extensive and profitable trade between the United States and the Celestial empire.

Tha geographical ponition, excellent shipping facillties, and proximity to the fertle valley of $\mathrm{V}_{\text {ang-tse- }}$ Kiang, would aeem to polnt to Shanghal as a port pos$t$ essing pre-eminent advantages, which, when fully developed, must makeit a fourishing and primary station. The follewing extrect in relation to the trade of Shanghal is from an official communication addressed to the Department of State, dated Shanghal, August 7, 1855 : "It will be observed that the expert trade for the first six menths of $185 \%$ has more than doubled any previous one; and, Inasmuch as the business season is just openIng, It may safely be inferred that the value of exports for this yesr will be about double that of any previous one. The disorganizel state of the rest of the empire, the equal and regular levy duties at this port, and its superior geographical poaition, are the main causes of the concentration of trade at this point. The imports have been small, because it has required some time to dispose of the enormous quantities which had collected st this port during the perlod the city was in poesession of the rebels. That impertant branch of our trade will now, I believe, revive; and if our government will but vigorously and prudently zourish tho facilities now enjoyed at this port a com terce may be developed rivaling Calcutta in import ance, and superior to any other port in the East. The great valley of the Yang-tse-Kiang is the commercial tield, and this port is the entrepôt. The greatest privileges conceivabio might be obtained at all the other ports, and yet one half of such facilities at thls port would be productive of more advantage than could by any possibility be derived from all the other ports combined. Foo-chow will in time be a pert of some importance for thr purchase of a few black teas, but no more. Amo and Ningpo never have furnished any thing worthy of notice ; and Canton was only a port of trade, because the Chinese had been in the habit of going there to trade with foreigners when there were no other ports open. But the difficulty created by the rebellion has diverted the great mass of the trade from its ancient and out-of-the-way channel, and concentrated it here. And new that the Chineso find Shanghai to bo nearer to their tea and silk dlatricts than Canton, and that they ca: often get better prices, and always as good as at Canton, they will abandon their old and loug routo to a pert of sale, and will continue to concentrate at Shanghai. This they have dono last year, as well as the present; and already they have made contracts on next year's produce, deliverable at this port."
In another and later commanication, it is stated that property in heuses and lands, to the value of a mililon of dollers, is owned by American citizens in Shanghai.

Navigation and Trade.-The number and tonnago of American yessels, inward and outward, at the port of Shanghel, for the years deaignated, were a follows:

| Xaarr. | Inward. |  | Oulward. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vamala, | Tonamge. | Vaseele. | Taunage. |
| 1849 | 24 | 0,826 | 24 | 9,877 |
| 1850 | 87 | 18,308 | 34 | 14,464 |
| 1851. | 64 | 27,634 | 88 | 26,097 |
| 1852. | 68 | 38,790 | 70 | 40,592 |

hal duriog the frat aix mentla of $1355^{\circ}$ was 28 , with an aggregate tonnage of 27,480.

The cargoes inward conslsted of stone coal, sugar, drills, general merchandise, and assorted cargoes, auitable for the Chinese markete, valued at 268,907 . The cargoes outward were chlefly allk and tea, valued at 4,480,198. Of the vesaela inward, there were from the Atlantle perta direct, 2, with an aggregate of 1235 tons; and from the l'aclie ports 13 , with an aggregate of 13,839 tons. The following is a summary of the navigation and tracle of the port of Shanghal with the United States during the last six months of 1855:

Number of American vessels entered, 67 ; measurIng 27,262 tons. Number of American vessels entered from Atlantie ports, 4 ; measuring 1589 tnns. Number of American vessels entered from Pacific ports, 10; measuring 10,632 tona. Number of American vessels entered from foreign ports, 30; meaeuring 18,000 tons. The returns de net gire the ports of departure of aeven of the American vessels entered. The number of American vessels cleared from the port of Shanghai during the ame period was 57 ; aggregate tonnage, 80,5t2 tons. Of these, 13 veseels, all frelghted with tea and sijk, proceeded direct to New York, and the remainder to foreign ports.

During the same period, the duties paid by the Amerjean flag to the authoritles at Slianghai were:


Tetal dntles of import, export, and tornage. . . $\overline{\$ 728,44:}$
The following statement exhibits the total tonnage of vessels at the port of Shanghal during the last six monthe of 1855 :

| British....... | 42,965 | ons, | Swedtah..... | 833 | (1) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Untted States | 27,262 | 4 | 8pantah...... | 1,163 | ${ }^{4}$ |
| Dantah. | 1,895 | ${ }^{4}$ | 1'ortugr | 1,126 | 4 |
| 17ambu | 1,828 | 46 | Stamese | 1,845 | ${ }^{6}$ |
| 1)ubeh | 3,827 | 4 | Peruvian | 704 | 4 |
| Bramen | 654 | * | Total | 2,468 | ${ }^{4}$ |

The following is a summary statement showing the quantity of teas exported from Shanghai to the United States during the last six months of 1855 :

| Black tes. | 280,442 pounds. |
| :---: | :---: |
| Green tea | 14,511,354 4 |
| Tota | 14,800,746 4 |

## All exported in 16 Aincrican vessels:

The following is a summary atatement showing tho quantitics of teas exported from Shanghal to all countries during the last slx months of 1855:


SUMMART 8tatexint gilowina tirg QUANTITIEA of Raw Nilk, Silk Pleqn Goods, efo. exiorted -hom Shanoifal TO THK UNITED STATES (NEW YORK) DURINO THE LAGT 8. Montus of 1855 .

| Articles. | Creses. | Pieuls. | Catilen. |
| :---: | :---: | :---: | :---: |
| Jaw sltu ...................... | 729 | 5.6 | 92 |
| Silk plece groods . . . . . . . . . . . . | 1880 | ... | . |
| Nankeens . . . . . . . . . . . . . . . . . . | 40 | ** | . |
| Straw brald . . . . . . . . . . . . . . . | 25 |  |  |
| Khuberb ....................... | 629 | 379 | 57 |
| Fans . . . . . . . | 10 | . | . |

Quantitieg of Raw Silk mxpobthd from tile Poft of Silanohal durino til: ,AgT bix. Montite of igen.

|  | Raw. | Thrown. | Coarse. | Total. |
| :---: | :---: | :---: | :---: | :---: |
| To London............ | $\begin{aligned} & \text { B. log. } \\ & 20,882 \end{aligned}$ | $\begin{aligned} & \text { Reles. } \\ & 1848 \end{aligned}$ | $\begin{aligned} & \text { Bales. } \\ & \text { 619 } \end{aligned}$ | $\begin{aligned} & \text { Bales. } \\ & 22,609 \end{aligned}$ |
| 1.Iverpool. . . . . . . . | 1,376 | 833 | 8 | 1.712 |
| Hong Kong | 8,278 | 2495 | 23 | 6,796 |
| Total. | 24,980 | 4676 | 545 | 30,207 |

- Tael $=10$ mace $=100$ candareons $=1000$ cash $=\$ 148$ Untted Statos curroncy.

The total trade of Bhanghal during the period deafenated in the foregolug atatements wat thus diatribated.

| Veneplo | Importe. | Kapertes |
| :---: | :---: | :---: |
| liritiah. ..... .................... | 141 | 189 |
| A metican......................... | DI | 55 |
| Bremanh. . . . . . . . . . . . . . . . . . . . . | 9 | 1 |
| - Jealah . . ....... ... . . . . . . . . . . . | 6 | 7 |
| Duteh ........................... | 8 | 11 |
| IIamburg.e....................... | 11 | 11 |
| Peruvian ........................ | 3 | 3 |
| 1'ortugneme ....... . . . . . . . . . . . . . | 6 | 6 |
| Slamem ........................... | 4 | 3 |
| Spanish.......................... | 5 | 6 |
| 8wediah ..................... | 9 | 9 |
| TJtal....................... | 245 | 843 |

Total valua of the trade of Shanghal during the laat six monthe of 1855 : Imports, $2,812,0191$ exports, *501,786. Total trade, $93,313,305$. During the last six monthe of 1855 great improvements were mada in the navigation of the lliver Woosung, on which the port of Shanghai la aituated, and, from having been one of the most dangerous of access in the Pacific, it has been made one of the asfeat and easiest. The ax. pense of the work $(\mathbf{6} 20,000)$ was iefrayed by the Chl nese authoritice. A ayatem of pilot regulations, agreed upon by the consule of the United States, Great Britain, and France, was ratificd by the superintendent of customs, and is as follows:
Pilot Regulations,-The following rulea and regulations for the government of piluts, native and foreign, at the pert of Shanghal are herely jssued and made binding by his excellency Chasu, superintendent of customs, in communication with the conaule of the three trenty powers:
lat. A beard shali be appointed by the three consuls, sanctloned by his oxcellency Chaou, consisting of not less than three, nor more than five shipmanters, with whom a naval officer shall be aesociated, if required, before whom all persons wishing to become pliots shali appear for examination.
2 d . A certificale of competency from a majority of said board being deposited at his consulate, shali entitle the person therein named to a license as a pilot. In all cases where the nationality of the applieant is other than one of those nations in treaty with China, his certiflcate from the board of examiners must be deposited with the senlor conaul, who will obtaln for him the necessary license.
3d. Every pilot-boat is to heist a red and white flag horizental, on which the number of hia boat shall appear in black.

4th. The rates of pilotace ahall be by the water the ship draws, viz.: from Gutalaff, es per foot; from beacon-shlp, ther foot; from any point outside Woosung, but liside beacon-ship, \&8 00 per foot; from Woosung to Shanghai, 3 per foot. The same rates of pilutage aro aliowed fur vessels outward hound.

5th. Every pilot, on boarding a ship, shall proluce, for the inspection of the master, his license as a piiot.
6th. All persons acting as piiots witbout a license, as hereinbefore prescritiel, shall havo no claim for services rendered, and shall bo dealt with by their own consnls, according to law, for vielating these regulatlons; and all sucis cases not coming withintha jurisdiction of the three treaty consule aro to be referred to the local Chinese autherities.

Th. [ilots shali be responsible for the faithful and complete discharge of their duty; and any misconduct, elther from ignorance, Incopacity, willful neglect, or otherwine, being known, shali enlail a forfeiture of the offender's license, in addition to any other liability lie say have incurred by the laws of his own country.

8th. The foregoing regulations to take effect on and nfter the 10th day of December, 1855.

General Regulations,-The general regulations under which forsign trade la conducted at the five porte of Canton, Amoy, Fooechow-foo, Ningpo, and Shanghal, are such as are usually prescribed in all well-regulated
ports, and are suhfect to aus h modifications, under the treaties, as the conauls of tr i three nations, via. i England, France, and the United States, may from time to time fix and determine. These regulatione provide amply for all the wants of toreign commarce, and guari agginst eatortion, unnecesaary delay, or capricivus emliarrasemente, either on the part of Chineee officials, or the eaptalua or other officern of vessels trating at any of the five porta. To givs proper annetlon to, and en. force the due observance of these regulations, the consuls of the three nations, In Chinese jortu, are inveuted with judicial as well ae with the ordinary consular powers, by virtue of which they are enabled to exact atrict conformity to auch provisions and regulations as they may deam neceseary in the maintenance of geoi order and the falthfui fultiliment of treaty obligations. Prior to 1843, as before noted, it was the custom, when foreign vessela entered the poit of Canton, that a Chinese houg merchant atood security for her, and that all dutle and charges were paid through auch security merclant. But the eoveral treation having provided for the abolition of thia security syatem, the consuls of the different treaty nations are now subatlituted as security for the vessels of their reapective nations $\mathrm{cn}-$ tering any of the five ports. IIence one of the reasons why the powers of coneuls in China should le ample, and these offieers invested with full powern to conisol the shipping of their respective nations.

During the recent troables In China, forelgn commerce at the port of Shanghal war conolderably Intermpted, and the custom-houac at this port was abandoned by the Chincee officisls, who organized In lien thereof two other cuatom-houses In the interier. An arrangement was subsequently entered into between the conanls of the three treaty powera and the Chibese anthorltice, by virtue of which these cuatom-houses were auppressed, and foreign commeree was again coaducted under tite usual regulations.

It way be here observed that the five porta pertsin to different provincial juriadictions, having different local administrations, and not unfrequently different commercial regulatlons. It is by no means rare to sce, notwlthstaming the trenties apply to ali in commen, privileges enjoyed at one which are strietly interdicted at another-perhaps at the other four. Thins, in 1855 , it is atated that rice was exported to the ameust of 30,000 piculs (each $138 \$$ libs.) to a vestel, free, too, ef all export or other daty, save a dowceur of 200 or 800 doliars to some aubordinate; while the expertation of thia article Ia not only forbidden at Shanghai, but the death-penalty is Inflicted on auch of tite Chinese as are detected in violating the prohilition. The same observation applies to the emigration of coolies, which is tolerated at Amoy, but strictiy forbidden at the other ports. So the importation of opium, as already stated, though illegal, ls openly tolerated by Chiness officials.

Thes state of the currency at this port has for some time attracted attention.

A letter from the United States consul at Shanghai, under date of June - 0,1855 , staten as follows:
"The rate of exchange here has exceeded that of Canton from 25 to 30 per cent., olthough the dintance betucen the iwo $\mathrm{l}_{\mathrm{s}}$ but 800 nilles, and of casy and certain cemmunicution. Inder ordinary financial rulem, the difforenco of exchange between the two placea Ia regulated by the cost of tmaportabetween the two piacea in regulated by the cost of tanaporas.
Hon, the Insprance, and asight per cent. for brokerage. Whn, the insurance, and a sight per cent. for brokerage.
While 21 per ennt. would be allierul allowance on these Itemn between this yort and Canton, and liong Kong, yet exchange has varied frem 25 to 30 per cent. againet tilat port,
"Chlua han no currency but copper cabb-one of whileh la equal to the nixteen-hundredth part of a dollar. All large transactiona, therefore, are nade in pore sliver, denominated by the chinese bycee, which is measured in tacis, or a melght equivalent, when at jar, to $\$ 188$ pectacl. When the foreign trade became impoitant in Chlan, forelgn dollars were introduced; and, on account of their superlor qualitien as a drenlatiog medlam over the ponderoua aycee, became quite popuiar, and were universaily adopted. The Carolus dollar ris the Arst adopted; sfterward the Iolivian, Jeruvian, Chllian, and Mexican: bat tho Carolua havlng been first : introduced, the Chiticese formed a prejudice in ita faror to the extent
of a diseount of 10 per cent, on all othere, When this port was frit epened, tha Criaese received the mexican in a pre-
 raders here the mame prefudice which extated where they came from, and the Carotua eradually rose in value, and the other dotiars sank, untif tha aigarence hat become 85 or 80 per cent., which le equivatemt almost to an ontire excluaten from circuiation. This reault was chiofly brought about by the native brokers, in oonduaction with a how forolga commearelal houmes at this port, whe have ohtalaed the exclualve control of afl the Carmiua dollare that are made. The Spanfin government have fong since diccontinued their (moue, bat they are made at Canton, in Indie, and in Merico, though not ae pure an tha originat dollar.
"Thua ihla prejudice tn faver of the Curolna has been fosterad by a fnw commeretal heusea, untit the evil consequent u pon IImited currency, and oad which is bocomiag lemand leas every year, in almont beyond a remedy. The loager it ha perriltied to exiat, the more vexatioua will its remedy become. The Carolus dellar ta carried Into the Interior to pay for teas and aitik, and never returns, thus each year renders the amoust of circutating medium teas and leas The Carolus doilar ta the atandard, and, therefore, as it deoreanea in quantlty, exchange rimes The sotne heusee which have the control of the Carolna dellar alme dtecount sll hllis of exchange, and thas hoid the entire comenercial machinery of blia port at their contron. They diacount bilts of exchanys a whatover rates thay piease to tix at Canton and alt the other ports in China. The foreign doliara at present cireniate, aocording to treaty, with reference to thelr parity in allver a compared with aycee; but here a diatinciion la kept up to favor of the Carolua far above its retative value in pure allyer, and againat aflothor dollarn far below thelra, thusex change at thle port rutes from 25 to 30 por ceot, above any other port lo China.
"The United Stato aro great consumers of green toa, and this port auppllea it. The censumer pays this extraordinnry exchage on the price of ten, and thise the agent here, and the importer at home, can feel no internat in amellornaing the condition of the exchanges, an it is not their lown fut, on the contrary, as they new have control of all the elrculating medlum, it le to their advantage and intereat to let it remain mo.
"I have thue briefly endeavored to aliow, fime, that the enor meua difference of excliange al this port over any other in Chlos in produced by a combination of native and forelgn merchanta; and, necend, that as the United States take near ly all the green toms exported from the empire, which are al purohased at this port, and an the consumer must in the end pay all chargea on the imported article, thenfore the cousumers of the United Statea are the aufferoris to the fult ex. tent of this exorbitant exchange. Entertaining the convictlon that it ta the duty of an efficer to guard and protect the Intereets of theese whom he has the honer to reproment, eupeclally when theme intereata are guaranteed by the lawe and trcaties of the land, and not to permit the advantegee of a me lect few to be develeped at the expecto of the many, I will now jroceed to lay before the honorable secretary of state the course I thave puraucd in giviug fult effect to the treaty of the United states with China in the matter of the currency. To remedy the groat evil which exlsta at this port in relation to the currency, there appeared to be bet two ways: Firat, a combination among the merchanta that they weuld pay and recelve all dolismalike, zo far as their intrinsio value should be the tame. Fecond, the enactment of regulations by the Chineme anthorities, whioh weuld place and dellari on an equality, by their agreeling to receive them alike for all gevernment dues The Armi was impossithle in a community where ali are morchanta possessed of as many different inter eate, and therefore to the eecoud 1 gave $m y$ attention. The manaer in whioh I presented this subject, and carried it through to an ectual assay of the varous dollare, may be futly examined by roference to the entire correspondence which I have the henor herawith to inclose. The amsay as made here differe buts slightly from that made at Canton: and as there la an allowance of 1 i per cent. for differenco of scales, It la more then msde up.

The whole examinstiou of the subject proved most satisfactery to his excellency the Inipertal cullerter of custome and hile excetiency has asked for twenty dayg to refer the matter to hls supertors, prler to carrylog it into practica operatlon. I have thereforo given notico to his exceltency thist on and after the 12th of July next Aizerican merchanta shall be altewed to discharge all their treaty obligations at this port in forelga money, at the rate as ascertained by actual assay on the 4 th lnatant. Grest resilite will inevitr bty follow the adoption of this mesaure. Exchange will decifne 25 or 30 per cent.-that, too, just at the opering of the business geason-and witl assimilate with that at Canton, plua the cost of transportation, atc., etc. The circulating me dinm will be in the greateat abundance. The importer in the Ualted statea will. throigh his agent hero, ruallize more money on his bille of exchange, conmequently he call purchame more tese and alliks; and, finalif, at the conaumera par tlicipate milike in the advantages and diandvantages, they will be enabled to purchase teas and sllks aubject to the same reduatlon In price which the Importer has enjoyed."

Currency.-Tho only legal coin of China is the copper cash, worth the fifteenth part of a cont ; though by
utipulations of the ireaty of 1844 the syoes is recelved in payment of duties. The sycee fluctuates in price with the value of aliver. The shea is worth about meventy dollars. In 1853 the American merciannta re. alding at Shanghal aditreased a memorial to the United Staten commiseloner in China, setting forth the great inconvenience to which mercantile Interesta in China were suhjected by the absence of an adequato circulating medium between the two extremes above named, and invoking the commiasioner's aid in establiahing a national Mint in that empire. To the succens of auch a measure the sanction and co-operation of the Chinese government are indispenasble. The treaty of 1844 provides that, ahould exjerlence show that any modifications herealter become requisite in those parts which relate to commerce and navigation, the two governmente will, at the explration of twelve years from the dato thereof, treat amicably concerning the ame, by the means of suitable persons appointed to conduct auch negotiation. The time dosignated will soon arrive; and should such modifications as the treaty contemplates become a subject of negotintion, the question of a national Mint, and of the currency generally, will douistess, demand the attention of the United States Commissioner. At Shanghal an attempt has been mado by the fureign consuls to cause an official substitution of the Mexican for the Carolus doliar as the money of account.-Cum. Rrl. U. S.

From official tables it is shown, 1at. That, until tho year 1850, Canton was the principal port for tea, bit in that year Shanghai exported 50 per cent.; and of ailk, three-fourths of the whole export was from Shanghai. 2d. That the trade of Shanglaci continued to increase over that of Canton, and even Foo-chow, which derlves all its tratie from this emporium, until the year 1855, when Shanghai exported in tea about 80 per cent. more than both Canton and Foo-chow, and in ailk almost the entire amount was furnished at Shanghai. 8d. That the grand increase of the forcign trade for twelve years is an average per annum of about 3 per cent. 4th. That the increase of silk for exportation has been, on the grand aggregate, at the rate of 8 per cent. per annam for the past eleven ycars.

It appears also, 1st. That the trade of the United States in China has increased in the lapt ten years 17 per cent. per annum. 2d. That since the year 1848 the porta of Canton and Shanghal have changed conimercial positions, the latter having exported more tea the last year to the United States than the whole tradu amounted to when Canton was the only port opened. 8i. That Foo-chow is now a port of more cominerco with the United States than Canton, and ranks next to the most important, Shanghai. 4th. That the trado in silk to the United Siates has developed immensely; and as this port is the great emprium for that commodity, it will probably furnish more trade than all the othors combined. Dth. That for the past year tho port of Shanghai has furnished more than thrac-fourths of the American trade in ten, and all tho silk.

Up to the year 1858, excinal.ge was stcady at from 15 to 21 per cent., but the change which followod, and the variableness whioh is marked, arose from the fact that the city of Shanghal being taken by the rebels on the 7 th Suptember, 1853 , many large josses were incurred by the wealthy Chinese, which, creating embarrassment, engendered a lack of confidence and trust, so that money became scarce and exchange began to rise. About this time foreigners hegan to impose the belicf on the native Chinese that the Carolus dollar was the most valuable, and at the same time secured the monopoly of ail obtainable over the world, and have since been having the Mexican reetamped with the Carolus des. This latter coir sloes not pase well, as it is too new to the : ainese; but the old and genuine Carolus doliars are simost exhausted, and, indeed, are becoming less and less every year, while just in proportion to the aupply or demand exchange riees or falls.

Exponta or Tea to alh Nations from China, Fhom J vni 30,1650 , TO JUNE 30,1855 , xOT $2 \times 0 L$ UDINO TUE UXITED States

| Exported from | Vamars. | Pounds. |
| :---: | :---: | :---: |
| Canton | 1850-51 | 42,2114.000 |
| 8hanghal . . . . . . . . . . . . . . . . | 1560-* 6 t | 21,816,100 |
| Canton . . . . . . . . . . . . . . . . . . | 1851-62 | 35,617,200 |
| Skanghal | 1851-53 | 20,520,000 |
| Canton | 1852-53 | 82,327,600 |
| 8langhal . . . . . . . . . . . . . . . . . | 1832-*3 | 40,078 600 |
| ('anton . . . . . . . . . . . . . . . . . . | 1853.3. 4 | 45,181,200 |
| Foo-eliow | 1883-0. 4 | 6,143,010 |
| Shanghal | 1853-54 | 25,043,700 |
| Canton | 1854-'55 | 16,123,800 |
| Foo-chow | 1854-65 | 19,612,800 |
| Shanghnt . . . . . . . . . . . . . . . . | 1854-55 | 80,878,400 |

Exporth of Tea and 8ifk to the Inithd Statith from C'IINA, WITH THR t'rohobtion feom fhazoilai, fob a Praton of trin Jigaza.

| Year ending Jabe 30. | Total Amount of Tan from China. | Ten asporled from Shaoghat alone. | sili anported from 8hanghal. |
| :---: | :---: | :---: | :---: |
| 1846. | $\begin{aligned} & \text { Pouode. } \\ & 20,762, b \times 8 \end{aligned}$ | Pounds, | Bales. |
| 1846. | 18,509,254 | . $\cdot$. | . $\cdot$ |
| 1847. | 18,171,625 |  | .... |
| 1848. | 10, 888,640 | 1,741,787 | - |
| 1840. | 18,672,800 | 2,941,338 | 75 |
| 1850. | $21.75 i .810$ | 6,623,748 | 415 |
| 1851. | 28,760,800 | 11,065, 640 | 250 |
| $18 \% 2$. | 34 384,000 | 18,000,001 | 298 |
| 1553.. | 40,974,500 | 22,100,800 | 584 |
| 1854... | \% 7.867 .500 | 16,712,400 | 1074 |

Statement of Importa into finisa phom the I'niteb dtatea in tue leaze $185 \%$.

| Merohandise | Canton | Whanghal | Total. |
| :---: | :---: | :---: | :---: |
| American drili...., plecen. | 232,240 | 842.115 | 874, 861 |
| American aheeting " | 42,095 | 89.015 | 130,110 |
| Amerlean jeanam. .. " | \$11, 116 | 64,280 | 104.306 |
| Cochincal . . . . . . . parcele, | 23,980 |  | 23,956 |
| Ellver.............tollars. | 122,300 |  | 122,310 |
| Epelter . . . . . . . . . . parcels. $\{$ | ${ }^{6} 90,424$ | 840 | -90,424 1840 |
|  | -1,125,421 | 17.84? | - $1,125,421$ |
| IRar.............. |  | - | +17.843 |
| \#inseng. . . . . . . . ${ }^{\text {a }}$ | 209.872 | .... | 209.272 |
| F!our . . . . . . . . . . . Marreis | 8,059 | .... |  |
| lleef . . . . . . . . . . . | 200 | .... | 200 |
| lork . . . . . . . . . . . " | 200 |  | 200 |
| Clocka . . . . . . . . . pleces. | 114 |  | 114 |
| bluards. . . . . . . . . . . feet. |  | 18,6.7 | 18,627 |
| Tohacco. . . . . . . . . pounds, | 0.942 | .... | 5.942 |
| Ciold . . . . . . . . . . . .oances | 1500 | -... | +600 |
| Cold . . . . . . . . . . . . Oances | 18,300 | .... | 18,301 |
| Cheere . . . . . . . . . . pounds | 1,000 | .... | \$,000 |
| tilasaware . . . . . . . boxes. | 203 |  | 208 |
| Sperm candles . . . pounds. | 1,001) | ..... | 1,000 |
| - l'ounde. t | cuis. |  | $\ddagger$ Colus. |

Statement of Eiftonta prom Ciminatotme United Statea

| fireen teas. . . . . . . . poundn. Black tean ......... <br> Slik flece gooda. . . plices. <br> Ciape shawla ..... <br> (irass etoth . . ..... <br> Nankeens. . . . . . . . boxus. <br> Peart tuttons $\qquad$ <br> liamphor . . . . . . . . . <br> Vermilion ......... <br> ( 11 , carsia ......... <br> Oll. snle. ........ <br> Swectmeats. <br> Chlua ware. <br> Fire-r rackers $\qquad$ <br> C'asula . . . . . . . . . . . parcels. <br> Maillug . . . . . . . . . . rolls. <br> Fand and screctil. , boape, <br> Aplit ratana . . . . . . . hundlea. <br> Raw silk . . . . . . . . . parcila. <br> Mhuluarb. . . . . . . . . . bonce. <br> Lacquered ware... <br> Tin......................pnrcels. |
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| Cantua. | Shanghal. | Total. |
| :---: | :---: | :---: |
| 8.118 .42 | 19 | 840.400 |
| 328972 |  |  |

 | $0,024,834$ | $8,1138,000$ | $12,057,834$ |
| ---: | ---: | ---: |
| 84,708 | 40,868 | 125,576 |
| 306,208 | $\ldots$. | 805,203 |

| 305,298 | - | 805,203 |
| :---: | :---: | :---: |
| 4.127 | ... | 4,12T |
| 100 | ... | 100 |
| 69 | ... | 39 |
| 1,644 | * | 1,644 |
| 18t | . | $1: 11$ |
| 4122 | - | 402 |
| 9,190 | 200 | 0,890 |
| 2,000 |  | 2,010 |
| 2041,588 | 10,909 | 209: 52 |
| \$,407 | 2,105 | 11,602 |
| 00,016 | .... | 60,044 |
| 9,948 | .... | 0,948 |
| 4.967 |  | 4,567 |
| 749 | 436 | 1,185 |
| 917 | .... | 817 |
| 097 | . . . | 037 |
| 842 |  | 842 |
| 87 |  | 81 |

The commerce of China is conducted on the basia of impor as, opium, and credita on London. The imports are a triffe; opium is about 30 per cent., and the difference is made up by a direct drain on Europe In pure silver and some dollara; the former is caat into oycee, or pure ailver ingots, and rarely, if ever, leaven the empire, as it is atrictly forbiddes by the lawe.-See Cuisa, Caxton.

Sharicn' Fins form a regular article of trade to Chlun, and are collocted for thia purpose ln every country from the eastern shore of Africa to New Guinea. In the Canton Price-currents they are as regularly quoted as tes oriopium; and the price of late yeare has been, accorilling to quality, from $\$ 15$ to \$ 18 per picul, equal to from 500 . to 60 s. per cwt .
Shawle (Ger. Schalen; Fr. Chals, Chales; It. Sha. vali; Sp. Schacalos), articles of fine wool, silk, or wool and silk, manufactured after the fashion of a larga handkerchlef, used in female dress. The finest ehawls are imported from India, where they are hlghly csteemed, and cost from $\$ 250$ to $\$ 1500$.

Cashmere Shavels.-The shawl manufacture is believed to have originated th the valley of Cashmore, the ancient Caspira, in the northwest of India, between lat. $34^{\circ}$ and $85^{\circ} \mathrm{N}$., and long. $78^{\circ}$ and $76^{\circ} \mathrm{E}$. Though not so flourisbling as it once was, tho manufacture is atill proseeuted in this province to a very considerable extent. The shawls aro the very best that are made, possessing unequaled finencsa, delicacy, and warmth. They are formed of the inner hair of a variety of the common goat (Cupra hircus), reared on tho cold, dry tuble-land of Thibet, elovated from 14,000 to 16,000 feet abovo the level of the sea. The goat thrives aufficiently well in many other countries; but in the aultry plains of Hlindostan it has harilly noore hair than a greyhound; and though in higher latitudes tho hair is more abundant, it is for the nost part shagey and coarse. It is only in the intensely cold and dry climato of Thibet that it yields the peculiarly soft woolly hair that constitutea the mate cial of tho Indian aliawl. Wo do not, therefore, suppose that the offorta to noturalize the i.swl-goat in Franee will turn out well. On the contrary, we believe the chances of success would be about equal wore an attempt made to breed beavers in a hot country, without water, or camels in a moist country, free from heat and drought. The inner or fine wool ts covered over and protected by a quantity of long ebaggy hair, which it, of course, carefully separated from it before it is manufactured. The genulne shawl-wool has been im. ported into Europe, and tho finest Edinburgh and Paisley shawls have been produced from it. But it must be adnitted that shawls have nowhere been made that can come, as respects quality, into successful compelition with those of Cashmere. The manufacture bas been establishet at Delhi and Lalore for some years; but, notwithatanding it is carried on by vative Cashmerians, and though the material employed be quite the same, the fabrics are said to want the fincness of those made in Caslamere, and to have a degenerated, coarse appearence. It is difficult to account for this superiority. It has been ascribed to some peculiar quality of the weter in the valley of Cashmere; but it is most probally $\begin{gathered}\text { owing to a varicly of circumstances, }\end{gathered}$ which, though each may appear of littie importance, collectively give a character to the manufacture.
The following details as to the manufacture of Cashmero shawly have been extracted from an Engliil paper published at Delhi: "The great mart for the wool of which shawls are mailo is at Kilghet, which is said to be a depeadency of Ladak, and situated 20 days' journey from the northern honndaries of Cashmere, There are two kinds of itt that which can be readily dyed is white; the other sort is of an ashy color, which being with ilfficulty changed, or, at least, improved ly art, is geaerally woven of its natural hue. About 2 lls . of etther are oltained from a single goat oncea year, Aflar the down has been carefully separated from the hairs, it is repeatedly washed with rice starch. This process is reckoned important; and it is to the quality of the water of their valley that the Cashmerians attribute the peculiar and inimitaile fineness of the fabrica produced there. At Kilghet the best raw wool is aold for about one rupee a pound. Hy the preparation and washing referred to, it loses one hail, and the remainder being spun, three rupees' weight of

the thread is considered worth one rupee. Shawls are miade of various forms, sizes, and borders, which are wrought separstely, with the view of adapting them to the different markets. Those senit is Trurkey used to bs of the softest and most delleste texture. Carpets and counterpanes are fabricated of the hair or coarser part of tha wool. From a variety of causes, among others the destruction of the Janizaries, who dressed much in shawle, tho loss of reysilty in Cabul, and the ruined finances of Lucknow, It ls certain that the demand for this elegant commodity has greatly declined of late yaars. Under the Mogul einperors, Cashmere found work for 30,000 shawl-looms. In the time of the Afghan kings, tho number decreased to 18,000 . There are nownot mere than 6000 employed. We should attribute little of this diminution to the sale of English imitations among the Asiatic nations. When these counterfeits first appeared, the pretty patterns and brilliancy of the colors took the fancy of some; but their great Inferiority in the softness and warmth which mark the genuine ahawl noon caused the new article to be neglected. The average value of shawls exported from Cashmere amounts annually to $1,800,000$ rupees. Ranjeet Singh took two-thirds in kind as part of the grose revenue of the province, which was about 25 lacs a year. He ia said to have sold threa-fourths of what he thus received, and to have kept the remainder for his own court. Of those dieposed of by hlm and left for snle in the valley, aeven lacs' worth went to Hombay and Western India; three to llindostan, chiefly Oude; hall a lac each to Calcutte, Cabul, IIerat, and Balk, whence some were carried to neighboring countrics. A curioua calculation of the successive oxactions, from Cashmere to Bombay Inclusive, which magnify the price of shawls, is herewlth sulijoined.
"Actual Cost fon Matenialb and Laibon in makino a jain of kerl guawla.


Total. . . . . . . . . . . . . . . . . . . . . .
On sale and Importation to Cashmore
314
On tho thread
$\mathrm{S}_{4}$
White the fabric la in the loom. 1250
Fees to chowdrica, brokers, assessors, etc.
Total amount of dutlea in Cashmere.......... $\overline{17118}$
Dutles from Cashmere to Amritsir..................... 126
" " Amritsir to Bombay
at Bombay .................. $\qquad$
819 19 12
Total from Kllgthet to Bombay, 17118 and $85 \mathrm{~J} 2 \mathrm{t}=252301$
1'rlme cost ................................................. 83714
I'roportion of cartiage . 018
Insurance.
Total cost
A pair of such shawls might acll for 500 rupees a Amritsir, and in liombsy for 900 . The amount of the importa, and the sams levied by each government, will appear more in relief if stated as they afiect a cemellond in Its progress. It consists of fourteen and a half cutcia maunds, and contains, at an average, 2000 shawls of different klnds, valued, on reaching Bombay, at 28,500 Furrikabad rupees.
"'lhe govermment of Lahore exacte Furrukabad rupees, 15646 ; Patialah, 610 ; llikeneer, 430 ; Joudpore, 1214 ; Bhownuggur, 200 ; total levied Ly native princes, 18000 ; Bombay, 10 per cent. (ad valorcm) $28500 . "$

It is not as yet generally known that the Thibet goat, from whose wool the famous Cashmere shawls ara made, has been introduced successfully lito the United States. This enterprising undertaking was achieved a few years since, after many difficulties, by Dr. J, B. Davis, of Columbla, South Carolina, at that time employed by the Ottoman Porte in experimenting on the growth of cotton in the Sultan's dominions. Dr. Davis aucceeded, at vast expense, in securing
eleven of the pure breed, which, on his way home, he exhibited in London and Paria. Bince that period, the goat has been introduced from Sonth Carolina into Tennessee, where it is sald to thrive. The value of a flock may be estimated from the fact that no real Thibet goat has ever been sold for lesa than $\$ 1000$. This enormous price, moreover, is not a speculative one, for no fleeced snimal has wool of such fineness, softneas, and durabillty. The wool of all the Thibet goats in Tennessee, for example, has been engaged at New York this year at $\$ 850$ per pound, the purchasers designing to send it to Paisley, in Scotland, In ordor to be mannfactared into shawla.

The prices paid for the real Cablimere shawls, or those woven in India, have sometimes been almost fabvlous. A full-slzed shawl, such as is called In America a "long shawl," ordinarily commands in Paris or London from $\$ 500$ to $\$ 5000$, according to the qualityScarfs and square shawls, being smaller, sell for less. It is a mistake, however, to suppose that all these shawls aro manufactured in India In the shape in which they are sold here. Generally, indeed, the centres and borders come out separstely, and are put together afterward in aizes, and often patterns, to suit purchasers. Moreover, a larga portion of the shawls sold as real India ones are actually made in France, for the Thibet gost was introduced into that country more than thilrty years age, and the Caghmere shnwls initated with considerable skill. Judges of the articlo pretent to say, however, that the real India ahawl can be detected by its having a less evenly woven web, as also from its brighter colors. It is likewise said that the borier of the genuine Cashmero shawls is invarlably woven in small pleces, which are afterward sewed together, as the whole border is subsequently sewn on to the centre. But other authoritios deny that. skill of India is insufficlent to broche a shawl ; in other words, to weave the border and centre in ono piece, or run the pattern of tho former over the lattor.

Notwlthatanding the successful imitation of these shawls, fashion and luxury still prefer the apparently original. Just as laces, woven by hand, bring a price more than fivo times as great as the aame pattern woven by machinery, so a Cashmere shawl, known to have come from India, will fetch vastly more than the cleverest lmitation. Probably, however, this is not all. Persons famillar with both tho article and the imita tion asaert that the former is aofter than the latter, and that this softness arises partly from the way the thread is spun, and partly becanse the Thibet gust, when exported from its native hills, sensibly deterlorates. There is alse a shawl popu rly known as the French Cashmera, which is an initation of the imitation ; but this has none or very little of the wool of the imported Thibet goat. Tho animal frem which this valuable fleece is taken is a hardy creatura, at least in its original locality; and their tine curled wool lies close to the akin, just as the under hair of the common goat lies under the upper hair.
The importation of shawle, mannfactured all or in part from wool, into tho United Stntes for the year ending June 30, 1857, was as followa:

| hence imported. | $\mathrm{V}_{4}$ |
| :---: | :---: |
|  |  |
| Eugland | 732,449 |
| Scotinnd | 332,058 |
| France | 883.973 |
| Chilna | 86,204 |
| Other places. | 63,160 |
| Total. | 2,240,35 |

-Sce Cashmere, Cottun Manufactures, Wool.
Bheathing. The covering laid on the ship's bottom to defend it from the worms. Sheets of thin copper nailed on with copper nails constitutes, at present, the sheathing of all the better kinils of vessels. Lead has been used; and large-heeded iron nails, called scupper nalls, sire used atill for the same purpose on the bottoms of old hulks, piles, etc. Zinc and different
compositions have been proposed as subatituted for copper; and Sir H. Davy logenlously suggeated the applicatlon of pleces of alne or Iron upon difierent parta of the copper aurfuce, which by the action of the acewater render the latter metal electro-negative, and capable, therefore, of resiating the oxidizing and corrosive agencles of the subatancea held in solution. The plecea of iron or of zlac so applied have been properly called protectors; but by occasioning the preclpitation of earthy matters upon the copper, while they effectually profect if, they render lits aurface favorable to the adhesion of weeds, barnacles, etc., and sometimes to such an extent as to interfere with the passage of the ship through the water: upon such grounds, Sir Humsphrey's valuable suggestion has been neglected. When vessels are laid up in dock the protectors are in auccessful use. Sheathing formerly was conposed of thin fir boards. By a recent applleation of electrotyping, plates of sheet-iron are covered with a surface of cepper which effectually protects the iron from oxidation. Iron bolts are also similarly electrotyped.

Sheep (Ger. Schafe; Fr. Brebis, Bêtes à laine, Moutons; It. Pecore; Sp. Pecora, Oefjas; Ruas. Owzü; Lat. Ores). Of the domestic animals betonging to Great Irituin, abcep, with the exception of horses, and perhapa cattle, are by far the most important. They can be reared in situations and upon soils where other animala would not live. They afford a large supply of food, and one of the principal materiala of clothing. Wool has long been a staple commodity of this country, and its manufacture employa an immense namber of people. "The dressed skln," says Mr. Pennant, "forms different parta of our apparel, and ia used for covers of books. The entrails, properly prepared and twisted, serve for strings for various musical instruments. The bones, caleined (like other bones, in gencral), form materials for tests for the retiner. The milk is thicker than that of cows, and consequently yielda a greater quantlty of butter and elieese; and in some places is so rich, that it will not produce the cheese without a mixture of water to make it part from the whey. The dung is a remarkably rich manure insomuch that the folding of sheep is become too useful a branch of husbandry for the farmer to neglect. 'Io conclude: whether we consider the advantages that reault frou thia animal to Individuaia in particular, or to these kingdoms in general, we may, wlth Columella, consider this, in one sense, as the tirst of the domeatic quadrupeds,"-Pexnant's British Zoology.
There was between 1840 and 1850 an increase of $2,309,108$ ln the number of sheep In tho United States. It will be useful to observe with aome closeness the progress of sheep-breeding in different parts of the country. We percelve that in New lingland there han ocourred a renarkable decrease in their number. There were in that division of the Unien in $1840,3,811,307$; in 1850 the ummer had deelined to $2,164,462$; being a decrease of $1,646, n 05$, or 45 per cent. In the five Atlantic Middle States, New York, New Jersey, Pennaylvalia, Delaware, and Maryland, there was a decrease from $7,402,851$ to $5,641,891$, equal to $1,761,460$, or about 2e2 percent. In l'ennsylvania there was a gain, however, during this puriod, of 155,010 sheep. We see that while there has been a poritive diminution of $3,408,000$ In the States ahove named, there has been an augmentation of $5,717,60 \mathrm{~s}$ in those south of Maryland and weat of New York. Ohio has gained thont largely, having leecn returned as pasturing in 1840, 2,02s, 101 ; and in $1850,3,912,929$; an increase of $1,914,524$, or nearly $3(0)$ per cent. In each of the States sonth and west of the lines ahove indicated, there has been a very large proportional increase in thin kind of stock, anil there is reasonable ground for the opinlon that the hilly lands of Virginla, North and South Carolina, Tennessee, and the prairies of illinois, Iowa, and 'Jexas, will prove hlghly favorable for the rearing of sheep for their wool and pelts.

New Mexlco has the extraordlnary number of 377,271 aheep-more than slx to each lahabliant; proving the soil and elimate of that terrltory to be well adapted to this deacriptlon of stock, and giving promise of a large addlition from that quarter to the supply of wool. The importance of fosterlng this great branch of national production la ahown by the fact, as assumed by an intelligent writer on the aubject, that our population annually conaumea an amount of wool equal to seven pounds for each person. If this estinate be evell an approxlmation to correctness, wo are yet very far short of prodncing a quantity adequale to the wants of the country; and it la equally clear that we possese an amount of unemployed land adapted to grazing, sufliclent to support flocka numereus enough to clothe the people of the world. The kinds of sheep mest songht for are the pore-blooded Merinos, the Saxons, the Cots. wolils, the Leicentershires, the Oxfordahlres, and the South Downs. The Mferinos (including the Kamibonillets), the Cotswolds, the Lelcestershires, the Oxtordshires, and the Saxons, aro the most highly prized for their wool. The South Downs are particularly es. teemed for the excellence of thoir flesh, and their wool is valuable for many purposes on account of the facility with which lt can be w rought.-U. S. Patent (lfice Report. Nee Sirawls and Wool.
Sheer. The curve which the line of ports or of the deck presents to the eye when vlewing the side of the ahip. When these lines are straight, or thes extremities do not rise, as is mest usual, the shij, is said to have a atraight sheel.

Sheer Hulk.-A hulk permanently fitted with sheers for masting and dismastling ships.

Sheers.-I'wo masts or spara lashed together st or near the head, and raised to a vertical position, for the purpose of lifring tho masts into or out of vessels.

Bheet. Tho rope attached to the altermost or lec. wardmest clew or corner of a sail, to extend it to the wind. In the square sails above the courses, the ropes attachell to both clews nre called sheets: in all other cases the weathermost one ls called $a$ tack.

Bheet Anchor. The thirl of the four large anch. ors gencrally carried ly a ship.

Sherry. A Spanlsh wine mado from the grapes of Xeres, in Andalusia. Genulno sherry la n ricli, dry wine, containing from 20 to 23 per cent. of alcohol: there are many varietles, and it is extensively imitated and arlulterated.-See Wing.

Bhilling. An linglish silver coln, equal to twelve. pence, or the twentieth part of a pound. Freherus derivea the Saxon scilling, whence our shilling, from a corruption of siliqua; proving the derivation by several texts of law, and, anong others, hy the twenty-sixth law, Je annuis legatis. SkInner deduces it from the Saxon srild, "shield," hy reason of the escutcheos of arms which it han upon it. Ilshop llooper derives it from the Arabic acheele, signifying a weight; but others. with greater probnhility, deduce lt from the latin $n$ cilicus, which signitied in that langnage a tumeter of an ounce, or the forty-eighth prort of a Roman pround. In contirmation of this etymology, It is allegeel that the shilling kept its original signilication, and bore the same jroportion to the Saxon pound as sicilicus did to the Roman and the Greek, lelng exactly the forty. eighth part of a Saxon pound.
llowever, the Saxon law reckons the pound la the round number at fifty shillings, lut they renlly coineil ont of it only forty-elght. The value of the shilling was ifve-pence, but it was reduced to four-pence alsive a century before the ( $n$ nquest ; for several of the Saxon laws, made in Athelstan's relign, ohlige us to take this estimate. 'I'lus it continued to the Norman times, as one of the Conqueror's laws sufficiently ascertains; and it seems to liave breen the common coin ly which the English paymenta were adjusted. After the Conquest, the French solituas of twelve-pence, which was in use among the Normans, was called hy the Einglish
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 ally coined the shilling ence above of the Sax. us to take man times, ascertains; n by which er the Conhich was in he Englishname of shllling; and the Saxon shllling of four-pence took a Normsn name, and was called the groat, or great coin, becsuse it was the largest English coln then known in England. It was the opinjon of bishopa Fleetwood and Gibson, and of the antiquaries in general, that, though the method of reckoning by pounds, marks, and shillings, as well as by pence nad farthings, bad been in constunt use even from the Saxon times, long before the Norman Conquest, there was never auch a coln in England as either a pound or a mark, nor any ahilling, till the yrur 1504 or 1505, when a few ailver shillings or twelve-pences were coined, which have long aince been solely confined to the cabinets of collectors. Mr. Clarke combats this oplnion, alleging that aome coins mentioued by Mr. Folkes, under Edward the First, were probably Saxon ahlllings new minted, and that Archbishop Elfric expressly says that the Saxons had three numes for thelr money-mancusea, shillings, and pennies. He also urges the different value of the Saxon shilling at different times, and its uniform proportion to the pound, as an argument that their shilling was a coin; and the testimony of the Saxon Gospels, in which the word we have translated pieces of silver is rendered shillings, which, he says, they would hardly have dose if there had been no such coin as a shilling then in use. Accordingly, the Saxons expressed their shilling in Latin by siclus and argenteus. He further adds, that the Saxon shilling was never expressed by soïdus till after the Norman settlements in England; and howsoever it altered during the long period that clapsed from the Conquest to the time of Heury the Seventh, it was the most constant donomination of money in all payments, though it was then only a species of account, or the twentieth part of the pound sterling; and when it was agsin revived as a coin, it lessened gradually as the pound sterling lessened, from the 28th of Ldward the Third to the 43d of Elizabeth.

In the year 10060 there was a peculiar sort of shilling struck in Ireland, of the value of nine-pence English, which passed in Ireland for twelve-pence. The motto on the reverse was, Posui Deum adjutorem meum. Eightytwo of these shillings, according to Malynes, went to the pound. They weighed, therefore, twenty grains one fourth each, which is sonsewhat heavier in proportion than the English shilliag of that time, slxty-two of which went to the pound, each weighing nincty-t wo grains sevell-eighths; and the Irish shilling being valued at the Tower at nine-pence Engliah, that ia, one fourth part less than the English shilling, it should therefore proportionally weigh one fourth part less, and its full weight be somewhat more than sixt y-two grains. But some of them found at this time, thongh much worn, weighed sixty-nine grains. In 1598 five different pieces of mency of this kind were struck in England for the service of the kingdom of Ireland. These were shillings to be current in Ireland at twelve-pence each, half-shillings to be current at six-pence, and quartershillings at three-pence. Fennies and hnlf-pennies wero also struck of the sumo kind, and sent over for the payment of tho army in Ireland. Tho money thus coincd was of a very base mixture of copper and silver; and two years after there were more pieces of the same kinds struck for the same service, which were atill worse; the former being three ounces of silver to nine ounces of copper, and the latter onlly two onnces eighteon pennyweights to nine ounces two pennyweights of the alloy.

The Dutch, Flemlsh, and Germans have Jikewlse their shilling, called schelin, schilling, and scalin; lint these, not being of the same welght or fineness with the English shilling, are not curreat at the same value. The English shilliug is worth about twenty-three French sols; those of Holland and Germany about eleven sols and a half; those of Flanders about nine. The Dutch shillinga aro also called sols de gros, becauso equal to twelve gros. The Danes have copper shil.
lings worth about one fourth'of a farthing sterling E. B. See Coing.

Ehip-money was first lovied A.D. 1007, and caused great commotiona. This impost being illegally levied by Charles the First in 1634, led to the Revolution. He assessed London in seven ahips, of 4000 tons and 1560 men; Yorkshire in two ships of 600 tons, or £12,000; Bristol in one ship of 100 tons; Lancashire in one ahip of 400 tons. The trial of the patriet Hampden for refusing to pay the tax, which he at first solely opposed, took place in 1638. Ship-money was included in a redrees of grievances, in 1641. Ilampden recelved a wound in a skirmish with Prince Rupert, and died June 24, 1643.

Ships. Nautical men apply the term ship to distinguish a vessel having three masta, each consisting of a lower mast, a topmast, and top-gallant mast, with their appropriate rigging. In familiar language, it is usually employed to distinguish any large vessel, however rigged; bat it is also frequently used as a general designation for all vessels navigated with sails; and it is in this sense that we now employ it.

Merchant Ships.-IIt is hardly possible to divide merchant ships into classes, at least with any degree of precision. Their size, shape, the mode of their rigging, etc., depend net merely on the particular trade for which they are destined, hut on the varying tastes and fancies of their owners. In the articles Cinaiterenparty, Fineight, Masten, Ownens, Seamen, Seawontiry, etc., the law with respect to ships and shipowners, in their capacity of carriers or public servants, and the reciprocul duties and obligations of the masters and crews, is pretty fully expounded.

Ship-building.-Tho art is attributed to the Egyptians, as the first inventors, the first ahip (probably a galley) being brought from Egypt to Greece, hy Danaus, 1485 n.c.- Heain. The tirst donble-decked ship was built by the Tyrians, 786 n.c.-Lenalet. The first double-deck vessel built in England was of 1000 tons hurden, by order of Henry VII., 1509 ; it was called the Great IIarry, and cost $£ 14,000$.-Stow. Before this time, 24 -gun ships were the largest in the British navy, and these had no port-holes, the gime being on the upper decks only. Port-holes and other improvements wero invented by Descharges, a Freach builder at Brest, In the reign of Louis XII., about 1500. Ship-building was first treated as a science by Hoste, 1696. A 74-gun ship was put upon the stocks at Van Diemen's Land, to be aheathed with India-rubber, 1829. -Haydn. For articles on ship-building, see Quarterly Reviev, vol. jii. 28, xl. 227, xi1. 444 ; Anal. Mag., i. 263, vi. 450; IIvnt's Merchants' Mag., xi. 11, xviii. 172.

State of Shipping fnterest.-The complaints which were so frequent some years since in regard to the shippling interest have now wholly ceased. Most probsbly they never had any very goed foundation; but whether that were so or not, this interest hos been for some thme past in a peculisrly prosperous condition. This has beeen occasioned partly and principully by the gold discoveries in California and Australia, or rather by the unprecedented stimulus which they have given to emigration and commerce. It is not, therefore, to be supposed that the existing state of things, as respects the shipping interest, can be permanent ; for while, on the one linnd, the advantages resulting from emigration with gradunlly diminish, on the other the supply of slips will be angmented in proportion to the greater demnnd for their services. However, it is all but certain that the commerce of the world is destined to ln erease for a long time to come; and our mercantilo navy will, no doubt, continte to reallze n full and fair share of the arlvantages resulting from this extension of trade.

Some very important changes have been made of late years, and are yot in progress, in the construction of ships. Thay are now bult of a much larger aizo than formerly, of finer models, and wlth a power of
salling of which no juat idea could previoualy have been formed. Ships of $\mathbf{2 0 0 0}$ tona burden are now reckoned only of little more than a misdium size; and those of 2300 and 2500 tons and upward are every day becoming more and more common. It fa probable, Indeed, that in this, as In moat other things, we shall run from one extremie Into another; and that from belog too small, our ships for distant voyages wlll become too large and unwliddy. This, however, ia a polnt whlch experience only can aettle, and to that it may safely be left. Iron ships are also, as previously stated, beglnning to be extensively constructed; and shlps aro now frequently fitted out with screws and steameengines, to be used only as a subsidlary power in calms, and against contrary winds.

Most sorts of short passage traffic are now carried on by steamers; and it is probable that in the end they will engross the greater part of the coasting trade of most countries, and of the trade between forelgn countries adjacent to each other. But the improved class of sailing ships have little to fear from the competition of steamers in all the more distant branches of trade. For general statistiee in regard to the number of ships and amount of tonnage, see articlea Steam Navigation and Tonnage

Shipping, Iawis of.-Under the gencral heads of Affreightment, Cilanten-party, Billa of Lading, Caniafins, Cghlision, Commerce, Masters, Mabitime Laife, legerstay, Sea mex, ctc. (ree lndex), particular information has been glven concerning the laws of shipping. We wlll, therefore, lnthis article only give a synopsis of the gencral lswa regulating ships and shipping.

Title to Vessels.-The tltle of a ship, unless acquired by capture, passes by writing. A bill of sale is the proper record of title to a ship, and one whleh the maritime courts of all nations will look for and, in their ordinary practice, require. In Scotland, a written conveyance of property in ships has, by custom, become necessary : and in England a statute requires it with regard to British suhjects. In this country, possession of a ship and sets of ownerghip are presumptive erldence without the aid of docomentary proof, and will hold good untll destroyed by contrary proof, and a sale with delivery of a ship, wlthout a bill of sale or written Instrument of any kind, will be good at law. But the presumptive title from possession can easily be destroyed; and the general rulu is that no persen can convey whe has no title, and the fact of possession does not give title. The master of a shlp has no authority to sell, unless in a case of necessity. It is generally, thengh not universally, consldered that a sale by order of an admiralty court in a foreign port, by a petition of the master on the ground of unseaworthiness, is valid. The capture by a public enemy divests the title from the original owner after a regular condemmation liy a prize court. Upon the sale of s ship in port, delivery of poasession ls requisite to perfect the title. If the vessel is at sea at the time of sale, possession must take place upon arrival at port.
liability of Ocner.-The owner is persouslly liable as owner for necessaries furnished and repairs made to a ship by order of the master. It has been a disputed question whether the mortgagee of a ship ls liable before taking possession. The welght of the American decisions decides that he is net liable for repairs procured on the order of the master, If not upon the credit of the mortgagee, and if the same was not in recejpt of the freight. When the vessel is at sea, the lisbility of the mortgagee for wages, ete., resolves itself Into the question of his possession. The lisbility of the charterer or freighter under similar circumstances also depends upon the question of temporary ownership by their use of the vessel.

Cuatom-house Documenta.--The Unlted Staten have followed the policy of other commercial nationa in give ing peculiar privileges upon American-built vessela
owned by our own citlzena. Thls is obtained by a registry of vessels (ses article Reaistry), and which provislon is intended to encourage our own trade, navigation, and ahlp-bailding. The regiatry of all vessels at the custom-house, and the records of the transfers also, add great security to the titles. No veasel ls to be deemed as belonging to the United States, and entliled to the privileges of one, unless registered and whelly owned and cemmanded by a eltizen of the United States.

Part Ouners.-The several part owners of a ship are tenants in common, and not partners. Each has hls undivlded interest, and when one is appointed to msnage the concerns of the ship he is called the slolp's lusband. If there be no definite agreement among the owners as to the employment of the ship, the majority in value may employ the shlp, whille the admiralty conrt secures the interests of the minority from injury. Thls practice is dictated by the commonscnse view that "shlps were made to plow the ocean, and not to rot by the wall." The court takes a security from the majority to a sum equal to the shures of the minorlty, either to bring back the shlp or pay the minority the value of their shares, and $\ln$ this case the ship ssils wholly at the profit or risk of the majority. The distlnction between prirt owners and partners may be stated thus: Part ownership is but a tenancy in common, and as such a part owner can only ecll his undivided right, and can give title only to such; but a partner has implled authority over the joint property. A vessel may be held fin partnership, but is not unless by agreement.-See Kкst's Comm., vel. Jil.

Carriage of Goods.- When the ship is hired and the esrgo laden on board, the duties of the owner, and of his agent, the master, arise in respect to the commencement, pragress, and termination of the voyage. When the voyage is ready, the master is bonnd to sail as soon as the wind and the tide permit, but he ought not to set out in very tempestuous weather. If, by the charter-party, the vessel fs to sail ly a given day, the master must do it, unless prevented by necessity; and if there be an understanding to sail with convoy, he is bound to go to the place of rendezvoins, and place himself inder the protection and control of the convey, nud continue, as far as possible, under that protection duriag his course. Ile ls bound, llkewise, to obtsin the necessary ssiling instructions for the convoy ; but these covenants to sail with the tirst fair wind and with convoy, are not condltions precedent to the recovery of freight, and a breach of them only goes to the question of damages. The master is bound, likewise, to proceed to the port of delivery without delay, and without eny unnecessary deviation from the direct and usual course. If he covenants to go to a loading port by a given time, he must do it or ablde the forfelture; and if he be forced by perils ont of his regular course, he must regain it with as little delay as possible. Nothing lut some just and necessary cause, as to avold a storm, or pirates. or enemies, or to procnre requisite supplies or repairs, or to relieve a ship in distress, wIll justify a deviation from the regular course of the voyage. If he deriates unnecessarily from the usual course, and the cargo be injured by tempests during the deviation, it is a sufficient proximate cause of the loss to entitle the freighter to recover; though If It conld he sliown that the same loss not only might but mist have happened if there had not been any devintion, the conclusion night be otherwise. Nor has the eaptain any authority to substitute another voyage in the place of the one agreel between the owner and frelghter of the ship. Such a power is altogether beyond the scope of his authority as master. In case of necessity, as where the ship is wrecked, or otherwise disabled in the course of the voyage, and can not he repaired, under the circumstances, wlthout too great delay snd expense, the master may procure snother competent vesal to carry on the cargo and ae ve hils freight. If othor mana
to form procur it, and entitle port of and lo trust, at the in the the dul lire it cretion curgo, bind it hypotl the col with $t$ new sh acl , an freight becom freight be ar repairs the fuc the na perishe endure worth to go counte carge perativ or ace tance, a ssfe voyage over th which and prt able w paptur render demna hibitin tion of
led by a d which n trade, ry of all s of the let. No e United $e$, unics ed by a
ff a ship Each lias ppointed alled the greement the ship, witle the minority commonhe ocean, es a sect: ahares of r pay the a cass the majority. thers may enaney in ly sell hls such; but property. not uniess er, and of :ommenceye. When to sail gs ought not If, ly the n day, the ssity ; and nvoy, he is place himonroy, and tion during the necesthese cove. th convor: ' of freight. uestion of to proceed ithout eny 3ual course. given time, ie be forced t regain it it some just or pirates. or repairs, a deviation he deviates he earga be it is a suffihe frelghter at the same ted if there n might be rity to subone agreed hip. Such of his autwhere the the ceurse , under the id expense, nt vessel to othar moans
to forward the cargo can be procured, the master must procure them or lose his freight; and if he offers to do it, aud the froighter will not consent, he will then be entitled to his full freight. The master must act in port of necessity for the best interest of all concerned, nod the has the power and discretion adequate to the trust, and requisite for the safe delivery of the cargo st the port of destination. If there be another vessel in the same or in a contiguous port which can be had, the dity is clear and imperative upon the master to hire it ; but still the master is to exercise a sound dige cretion adapted to the case. He may transmit the curgo, if he has the means, or let it remaln. He may bind it fer repairs to the ship. He may sell part, or hypothecate the whole. If he hires another vessel for the completion of the voysge, he may chsrge the cargo with the increased freigitt arising from the hire of the new ship. The master may refuse to bire another vejsel, ant insist on repsiring his own; and whether the freighter be bound to walt for the time to repair, or becomes entitled to her goods without any charge of freight, will depend apon circumstances. What may be a reasonabie time for the merchant to wait for the repairs can not be defined, and must be governed by the facts applicable to the place and the time, and to the nature and condition of the eargo. A cargo of a perishable nature may be so deterlorated as not to endure the delsy for repairs, or to be too unfit and worthiess to be carried on. The captain is not bound to go to a distance to procure another vessel, and encounter serious inprediments in tise way of putting tho cargo on bosrd another vessol. His duty is only luperative when another vessel can be had in the same or a contiguous port, or at one within a reasonable distance, and there be no great difficulties in the way of a ssfe reshipment of the cargo. In the course of the voysge, the master is bound to take all possible care over the cargo; and he is responsible for every injury which might have been prevented by human foresighit and prudence, and competent naval skill. He is chargenble with the most exact diligence. If the ship be esptured during the voyage, the master is bound to render his exertions to rescue the property from condemnstion, by interposing his neutral claims, and exlibiting all the documents in his power for tie protectien of the cargo.

Of the Delivery of the Goods at the Port of Destination. -On the arrival of the ship at the place of destination, the cargo is to bo delivered to the consignce, or to the order of the shipper, on the production of the bill of lading and payment of the freight. The cargo is bound to the slip as well as the ship to the cargo; bitt the master con not detain the goods on board the ship until the freight be paid, for the merchant ought to have an opportunity to examine the condition of them previous to payment. Delivery at the wharf (where there are no speclai directions to the contrary) discharges the master. But there must be a delivery at the wharf to some person authorized to recaive the goods, or due previeus notiee must have been given to the conaignee of the time and place of delivery; and the master can not discharge himself by leaving them naked and exposed at the wharf. Ilis responsibility wili continue until there is actual delivery, or some act which is equivalent, or a substituto for it, unloss the owner of tice goods or his agent had previously assumed tho charge of the goods; or at least until tite consignee has had notice of the place and time of delivery, and the goods have been duiy separated and designed for his use. When thero are conflicting claims between consigner and eonsignee, or consigner and the assignes of the consignes, if the consignee has fsiled, he ought to deliper to the claimant on behalf of the consignee; and if the consignee has assigned the bill of isding, and the rights of the consignee be atill interposed and coutested, it is safost for the master to depasit the goods wilh some bailee, until the rights of the claimants are
set tled, as they can always be upon a bill of interpleader in chancery to be filed by the master. Having made a consigament, the consignee or seller bas not an ninlimised power to vary it at pleasure. He may do It only for the purpose of protecting himself agaiast the insolvency of the buyer or consignec.

Responsibility of the Ship-owner.-Tho cases that will excuse the ownera and masters for the non-delivery of the cargo must he eventa falling within the meaning of one of the expressions, act of God and public enemiss; or they must arise from aome event expressly provided for in the charter-party. Water-carriers aro liable as common carriers in ali the atrictness and extent of the common-law rule, unless the loss happens by means of one of the excepted perils. A loss by lightning is within the exception of the act of God; but a loss by fire proceeding from any other caase ls chargeable upon the ship-owner. The moment the goods are transferred from the ship or lighter to the warehouse, this extraordinary responsibility ends.

If a rock or a saud-bar be generally known, and the ship be not forced npon it by adverse winds or tempests, the loss is to be Imputed to the fault of the master. But if the ship be forced upon such shallow by winds or tempests, or if the bar was occasioned by a recent and sudden collection of sand in a place where ships could before sail with safety, the loss is to be attributed to n peril of the sea. A statute in Massachusetts, passed in 1818, and re-enacted in 1895, limits the responsibility of owners for the scts of the master and mariners to the value of the ship and freight, but otherwise the owner is bound for the whole amount of the injury done by the master or crew.

Duties of the Shippers.--The duties of the charterer are to use the ship in a lawful manner, nnd for the purpose for which it was let. If the freighter puts on board prohibited or contraband goods, hy means whereof the ship is subjected to detention and forfeiture, he must answer to the ship-owner for the consequences of the act. And if the merchant declines to lade the ship according to contract, or to furnish a return cargo, as he had engaged to clo, he must render in damages due compensation for the loss.

Payment of Freight.-Freight, in its original and more common acceptation, means the hire which is carned for the transportation of goods, but in its more extensive sense it is appied to all rewards for compensation paid for the use of ships. If the liring be of the whois slip, or for an entire part of her for the voyage, the merchant must pay the freight theugh he toes not fully lade the ship. But if he agrees to pay in proportion to tise amount of the goods put on board, and dues not sgree to provide a whole cargo, the owner can demand payment for the cargo actually shipped. If the merchant agrees to furnish a return cargo, and he furnishes none, and lets the ship return in bailast, be must make compensation to the amount of the freight.-Leone Levi's Com. Law of the World.

Analysis of the General Law of Shipping.-The sale of ships in Great Britain must be made by a bill of ssle containing a recital of the certificate of registry. In France, Spain, and Sardinia, it must be made by public deed. In Hollund the deed is transferred into a public register. Ali British subjects are authorized to possess shares in ships in Great Britain. In Spain foreigners not natursiized can not acquire the ownership of ships. In Russia this right is limited to merchants of the first and second guild. Part owners are tenants in common with cach other of their respective shares in Great lbritain. Lach ship's hushand may sell his share, but he should give preference to his part owners at equal price, provided they pay the price within three days: Spsin, Prussia, Russia, Denmark, and Sweden. The respensibility of ship-owners for the acts of the captain is unlimited in Prussia and Spain, provided It be proved that such expenses turned to the ndivantage of the vessela. In Great Britain the own-
ere are reaponslule where the expenditure la for necessaries. In Portugal obligations are not binding beyond the value of the ship and freigit. In France owners may relieve themselves from such obligations by the aliandonment of ship and freight. In Russia the ship's huaband is responaible only to the value of the ship. In the Two Sicilies, Sardinia, Jioliand, Grecee, and Hayti, the same reatriction la admitted. In the United States the seamen are not paid If the ohip and freight have been loat; but thelr wagea are preferred to bottumry bond on the ship and frelght preserved.-See Ownens of Surs. In Franco the same law prevalla.

Ships' Propers, the papers or docnments required for the manifestation of the property of the ahip and cargo, etc. They are of two sorts; viz., 1st, those required by the law of a particular country-ae the certificate of registry, license, charter-party, bills of lading, bili of health, ctc. (seo theae titles), required by tise law of lingland to be on board British ahips; and, 2d, thoae required by the law of nationa to be on beard neutral ships, to vindicate their title to that character. Mr. Sergeant Marshali, following Hubner (De la Saisis des Bitimens Neutres, 1. 241-252), has given the following deseription of the latter class of documents:

1. The I'ussport, Sea Bricf, or Sea Letter.-This is a jermission from the neutral state to the captain or master of the shilp to preceed on the voyage proposed, anti usuaily contains his name and realdence; the name, property, description, tonnage, and deatination of the ship; the nature and quantity of the cargo, the place whence it comea, and its destination; with such other matters as the practice of tho piace requires. Jhis document is indispensably necessary for the safety of every neutral ship. Hubner snys that it ia the only paper rigorously insisted en by the Barbary corsairs; by the production of which alone their friends are protected trom insult.
2. The I'roufs of Property.-These ought to show that the ship really belongs to the suljecta of a neutral state. If ahe appear to elther belligerent to have been built In the enemy's country, proof is generally required that she was purchased by the neutral before, or captured and legally condemned and sold to the neutral after, the declnration of war; and in the latter case the bill of sale, properly authentleated, ought to be produced. Ilubner admits that these proofs are so easential to every neutral vessel, for the prevention of frands, that such as sail withont them have no reason to complain if they the interrupted in their voyages, and their neutrality disputed.
3. The Juster-roll.-This, which the French call rôle dequipage, contains the names, nges, quaility, place of residence, and, above nli, the place of birth, of every persen of the ship's company. This document is of great use in ascertaining a ship's neutrality. It must naturally excite a strong auspicioo, if the innjority of the crew to found to consist of foreigners; still more, if they lo natives of the enemy'a country.-See Sesmis:,
4. The Charter-party.-Where tbe ship is chartered, this instrument serves to anthenticate many of the facts ont which the truth of her neutrality must rest, nud should therefore be always found on board chartered ships.- See Affreithtiment and Chahten-paity.
5. The Bills of lading.-lly these the cnptain acknowledges the recelpt of the goods specitled therein, and promises to deliver them to the consignee or inis order. Uf these there are uaually soveral duplicates; one of which is kept by the captain, one by the shipper of the goods, and one transmi'sed to the consignee. This inatrument, being only th. evidence of a private transaction between the owner of the goods and the captain, does net carry with it the mame degree of authenticity as the charter-party.-See bills of Ladinc.
6. The Invoices.-'These contain the particulars and prices of each parcel of goorls, with the amount of the freight, duties, and other charges thereon, which are
uanally tranomitted from the abippers to their factors or conaignees. These invoicsa prove by whom the goods were shipped, and to whom censigned. They carry with them, however, but little authenticity, be ing easily fabricated where fraud is inteuded.
7. The Log-book, or Ship's Journal.--Thia containa a minute account of the shlp's course, with a ahort history of every occurrence during the vuyage. If this be faithfully kept, it will throw great light on the question of newtrality; if it be in any respect fabricated, the fraud may lo general to eaaily detected.
8. The Bill of Ilealth.-This is a certifleate, properly authenticated, that the shlp comes from a place where no contaglous distemper prevails; and that none of tho crew, at the time of her departure, were infected with any such diaorder. It is generaily found on board ships coming from tho Ievant, or from the coast of Barbary, where the plagne so frequently prevails.
A ship using false or aimulated papers is liable to confiacation.-Manailall on Insurance.

The reciprocal Duties of Consular Officers and Masters of American Vessels.- By an act of the Congress of the United Statea, approved Feloruary 28, 1803, It is in substance directed that every master of an American vessel shall, on his arrival at a foreign port, deposit hls reglster, aca-letter, and Mediterranean passport, with the consalar oflicer of the United States, if there be one at the port, under a penalty of $\$ 500$, which the consular ofticer may recover in his own naine for the use of the United States. Whenever a clearanco from the proper officer of the port shall be produced to the consular officer, he ahall deliver up all the ship's papere, provided the master shall have complied with the provisions of the above-mentioned act, and those of the 28th aectlon of the act of Augnst 18, 1856. Where vesaels merely touch at a foreigu port to try the market, or are aceidentally driven into such fort, and make no formal entry, it does not conatitute an "arrit al" within the meaning of the act, and the ship's papers cas not be required by the consul.
As aome doubt bea arlsen in regard to what constitutes an "arrival," attention is particulariy called to the following extract from an opinlon of the Supreme Court of the United States: "Our vlew, then, is, that the term arriral, aa used in this act, must be construed according to the sulyect-matter, the object of the provision, and the expressiona in other sections of this act, and in other like acts; and that according to nil theze, a vessel putting into a foreign port to get informstion, and getting it without geing at all to the upper barbor or wharves, and not entering, or repairing, or breahing huik, or discharging seamen, or being bound homeward, so as to take scamen, or needing the aid of the consul In any respect, but leaving the port in a few hours; not doing any of these, nor being reguired to, and duly entering and delivering her cargo at a neighboring port, where it had been sold, and there depositing her papers with the vice-consul, can not be said to have arrived at the first port, so as to come within the spirit of the penal provislon as to depositing her papers with tho consul. So far as regarda precedents on this matter, the actual decision of one court and the opinions of two Attorneys General are in favor of our condusion."

Vessels accidentally driven into a port are not required to deposit their papers with the consular oticer, unlese formai entry be afterward made, or consular services required. It is atated in the opinion of the Attorney-general of October 17, 1853, that the body of the accond acetion of the act of 1803 contemplates an arrival at a foreign port, with a clearance from the proper officer of the port. It la the production of the elearance to the conaular officer which gives to the master the right to demand a return of the ship'o pis pera, and limposes on the conaul the duty of returning them. The proviso to the sectlon allows the cunsular officer, notwithstandling tho clearance from the proper
officer o tain req which a lleer for monthe charged of the al and the offcer, United

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If this the ques. aluricated,
officer of the port, to detain the ohip's papora until certnin requirements of law shall have been complied with: which are the payment of the fees dne the consular offleer for his aervices; the payment to him of three months' pay, additional to wages due, for every dischargel seaman who ls deaignated on the certified list of the ship's company as a citlzen of the United States : and the taking on board, at the request of the consular offeer, of destltate mariners for transportation to the United States.
This right of the consnlar officer attaches to the register and other papers when they shall have been lawfully deposited with him; but the statuto does not compel the deposit for the parpose of giving the right of detention. Neither the section of the act which regarls discharged aeamen, nor that which provides for distressed seamen, nor the regulation as to consular fees, reguires a deposit of the register and other papers, although the former makes it the dety of the master to exhibit to the consul a certified list of the ship's company. And tho proviso above cited does not enlarge the scope of the other provisions of law as to the deposit of the papers; it only releases the consul from the duty, which would otherwiee be imperativo upon him, of returning the papers upon the exhlbition of the clearance alone.

By the first section of the act of 1803, It is made the duty of the consular officer, limmediately on the arrival of an American vessel, should the master neglect to deliver his ship's papers, as ho is direeted 'y law, to inform him of the necessity of so doing, by showing him the law that requires it, and apprising him of the penalty he will incur by refusal or neglect. If he fail to comply, a certificate of the fact, under the consalar seal, must be Immediately sent to the Department of State, giving a description of the vessel, the port to which she belongs, where bound, and the nsual residence of the nuster. In sueb a case, $i t$ is clesirahle that the consul should send some other evitence of the arrival and departure of the delinquent master with his vessel besides that of his own certiticate, as it has been held that such evidence of $2 y$ fact is not sufficient, unless expressly or impliedly made so by statute.

Whenever the master shall produce tho clearance of his vessel, and shali have complied with the directions of the acts above mentioned, having fulfilied every lawful requisition of the consul and of the local autherities, the consul shall, withont delay, deliver up the papers, with a consular certificate, under seal, of the time of such delivery, ani inake an entry of the like perlod in his consular record.

Before a clearance is granted to any American vessel bound on a foreign voyage, the master thereof is required to deliver to the collector of the eustoms a list, containing the names, places of birth and residence, and a deserlption of the persons who compoee his ship's company, to which list the oath or affirmation of the eaptain is to be annexed, that It contains the names of his erew, together with the places of thelr blrth and residence, as far as he can ascertain them; a certified copy, written in a miform hand, withont erasures or interlineations, must be delivered to the master by the collector, for which he is entitled to recelve from the master the sum of twenty-five cents. The said master must then enter into bonl, with suffieient security, in the sum of $\$ 400$ dollars, to exhiblt the aforesaid certified copy of the list to the firat boarding-officer at the first port in the United States at which he ehall arrlve on his return thereto, and then and there also to produce the persons named thereln to the said boardingofficer, whose duty it is to examine the men with such list, and to report the samo to the collector.

Ily the act of Congress, August 18, 1856, it is made the luty of every master and commander of a ship or vessel of the United States, whenever he shall have oceasion for any consular or other official service which any consular officer of the United States shall be au-
thorized by law or usage offcially to perform, and for which any fees shall bo allowed by the sald rates or tariffs of fees as aforesaid, to apply to such one of the said officers to perform the servico as may then be officially In chargo of the consulate or commercial agen-

## gIIIP'S DAILY JOLRNAL.

In which, on the daposit of the ship's register and paycrs, shall be recorded, for exampie, as follows:


Notr-Should any of the seamen or martners havo dled nt sen, or have been lost overboard, on the passage, the faet wilt be reporied at once by the master, and a note thereof made opposite to the name of such person so deecased or loet; as, for example. see Stoward. Should any acamen or mariner bo discharged, or desert, a almilar note of the fact must be mado opposite to such deserter's or dlacharged seaman's naine; as, for example, aee Carpenter and Cook. In case any aeaman or mariner has taken the nume of any other acaman or nariner, who may have deserted or otherwlao absented himseif, after the clearing of the veasel, In the United States or elsewhere, anch seaman or mariner's correet and proper name must be entered opposite tho nama of the seaman or mariner so deserting or absenting himself; as, for example, sec boatswain. And In the eved tof the scaman or mariner's taking the name of another seamon or mariner as aforesald, entering the hospltal, belng diseharged, or deserting, the order to tho hospltal, certficate of discharge or desertion, and consubar returns must contain the namo of asid seaman or mariner no taking the place of the absconding seaman; as, for example, sec Boatawain.
masine nots of paoteat.
Consulate of the linilet States of America,
Port of $\longrightarrow$.
On this __ day of _ in the year of our loond elghteen hundred and $\qquad$ before me, consul of the United Slatea of Americn for $\qquad$ and lio dependenelea thereof, personally appeared $\qquad$ $\longrightarrow$, master of tho ship or vesael called the of tho burden of $\longrightarrow$ tons or thereabout, nnd declared that on tha $\longrightarrow$ day of $\longrightarrow$ last past, ho salled in and with the snid shlip from tho port of $\longrightarrow$, laden with $\xrightarrow{ }$, and arrived In the uald ahlp at - $\qquad$ , on Chere insert the day and hour]; and having experienced boisterous and tempestuoas woather on tho voysgo
bereby enters thia Note of Protast accordiugly, to servo and avall him hereafter if found necessary.

Attested:
Master.
A B, Coneal.

SH1P
 $\square$ 18—

Consulate of the Cnilled States of Amerion, Port of

By thia pubife instrument of deciaration and protest, be it known and made manifent nnto all to whom there presents ahall come or may concerm, that on thu day of , one thousand elght hundred and
before me, $\qquad$ , and connul of the United States of Amarica for $\qquad$ and $\qquad$ chip or ressel calied the $\qquad$ , of - $\qquad$ master of the - - of the burden
$\qquad$ tons, or thereabout, then iying in this port of Cargo, who dniy noted and entered with me the said conaui hia protest, for the naea and purposos heroafter mentioned; and new, on this day, to wit, the day of the date horeof, before me, the said consul, sgain comes the said ——_, and requires mo to extend thls proteat; and together with tho eald ——— also cume A I, mate, G II, earpenter, K L. and M O, reamen, of ond belonging to the sald ahip, ali of whom being ly mo duly aworn on the Ifoly Evangelists of Aimighty God, did severally voinntarily, freeiy, and solemaly derlace, depose, and atate an followa, that ia to say: That theme appearers, on the ___ day of _-_. in their capaetties aforesald, salied in and with the said - from the port of -_- laden with ——_ and tound to the port of - ; that the said ship wan then tight, stanch, and atrong; had her eargo well and suffielently atowed and wecured; had her hatehes well calked and wecured; wat well and sufficientiy manned, victuaied, and mirnished with all thinga neednif and nec. emary for a vessel is the merchant service, and particularly for the voyage sbe was about to undertake; that cllere insert narrative of the facta of the voyage as they eccurred, with fuli and minute partienlara, with dates, latitude, longitude, itc.]
And these said appearera, upon their oaths aforesald, do further declare and say: That during the sald voyago they, together with the others of the sald ship's company, used their utmost endearors to prowerve the cald and cargo from all manner of loss, damage, or injury. Wherefore the said $\qquad$ master, 3ath protested, as by the es presenta I, the sald consul, at his apeela Intance and recuest, do publicly and solimniy protest, againat afi and every person and persone whom it doth or may concern, and agalnet the winds, ant waves, and biliows of the seas, sud againat all and every sceldent, matter, and thing, had and met with on sforesaid, whereby, and by reason whereof, the mald -_or cargo al ready has, or hereafter shall appear to have anfered or muatalaed damage or injury. And do deciare that ail loses, damages conts, charges, and experses that havo happened to the alid ——or eargo, or welther, are, and ought to be borna by those to whom the aane by right may appertain by way of average or otherwise, tho ame having oceurred as beforo mentioned, and not by or through the insuffielency of the said -_, her tackio or apparel, or defauit or negiect of this appearer, bia of ficers, or any of hla mariners
Thus dono and proteated in the port of ___ day of ..... In the year of our Lord one thou. and elgit hundred and -
In teatimony whereof these appearers have hereunto subscribed their names, and I, the sald conanl, bave granted to the sald mas-
$\left\{\begin{array}{c}\text { GraL Of } \\ \text { OLE }\end{array}\right\}$ ter this publio inatrument, under my
Tue ooxevl. hand and the ecal of tilis consuiate to serve and avall him and all others whom it doth or may eonecrn, as need
Master. and occasion may require.
A B, Hate.
Q II, Carpenter.
K In, Seaman.
MO, do.
Shipwrecks. See Wrecks.
Shoal, in the Sea language, denotes a place where the water is shallow ; and likewise a great quantity of fishes, such as a shoal of herrings.

Shoes (Du. Schoenen ; Fr. Souliers; Ger. Schuhe; It. Scarpe; Russ. Baschmaki; Sp. Zapatos), articles of clothing that are universally worm, and require no
description. The shoe manufacture is of great value and importance.

Boos and Shoe Trade.-The ennual value of boota and shoes manufactured in Massachusetts is estlmated at $\$ 37,000,000$, exceeding any othar branch of manufacture, The demand for boots and shoen for years past has been fully equal to the production, and the trade generally of Boaton has been quite up to expectatlon. The high pricas of leather and all kinds of stock have induced manufacturers to work very eautlously, and they have turned out no more goole than were actually wanted. The trade opened in January last with a good demand and a firm market, and the purchases generally were at an advance of about 5 per cent. Early in Feliruary the trade was materially checked by the ice ombargo South and Weat, whleh completely closed river and harbor navigation, and prevented the forwarding of goods. The opening of navigation In March led to an active demand, and throughout March and April the husineas was quite actlve, luyers from the South and Weat completely clearing the market of all desirable goods, the Spring trade closing quite satisfactorily.
The high cost of etock the past yeent has also been quite a check on the production, keeping it within the limits of the demand; and the same policy is likely to control the operatlons of manufactnrers the comin; ycar. For soma months past the quantity of goods turned out has been comparatively smail, aud the supply on the market for Spring sales will not be likel. to exceed the actusl wants of the trade. The quantity of boots and shoea cleared at the custom-house has beea as folliows:

| Vears. | Quanily | Years. | Quanlity |
| :---: | :---: | :---: | :---: |
| 1847. | 72,4\%4 | 1854.. | 195,29 |
| 184 | 79,119 | 1858. | 220,133 |
| 144. | 101,371 | 1854. | . 196,411 |
| 1450. | 147,769 | 185\%. | 204,601 |
| 1851. | 153,412 | JS50. | 2:4, |

A lnrge portion of the supplios for the West are for warded by raitroat, and are of course not included in the alove atatement.

In one county alone of Masbachusetts (Essex) the annual product of boots and shoea in 1855, according to the consus, was over $\$ 12,000,000$. As this is the lesding trade of the State, we enumerate the product of each county :

| llarnstabie. | \$10,900 |
| :---: | :---: |
| herkshlre. | 1110,800 |
| Mrintol | 415,000 |
| Dukea. | 3,000 |
| Fagex | 12, 19\%, (3) |
| Franklin | 62,300 |
| liampden | 184.100 |
| Middlerex | 0,502, 100 |
| Namtuck | 10,3m4 |
| Norfolk | 4,05i,900 |
| Jampahire | 60,490 |
| Plymonth | 4. 868,109 |
| Suffolk | [93,906) |
| Worees | 7.857,309 |
| Total valun of bonta and phoes . . . . . . . $\$ 37.4$, 0 , (hev) <br> Leatier, tanned and curried . . . . . . . . . . $10,134,4103$ <br> Fatent enameled isnther. .............. 1,2 it,900 |  |
|  |  |
|  |  |

In the immeriate vicinity of Boston there are manufactures to the extont of nt least $\$ 150,000,000$ annunlly; and of thia $t^{\prime}$.. value added to the raw inaterial by labor can not be less than $\$ 75,000,000$. In addition, the foreign dry goods, groceries, drugs, hardware, and a multipilicity of other articles sold there, swell the trade of Boston to nearly or quite a hundred millions more. Of manufactures, the first in hmportance are domestic cottons; and of ahout fifty millions manufnctured annually, they send to foreign countrics lesm than two militons, or 4 per cent. Ono half of these go to the west coast of South America, the eust coast of South America, and the Central American Staten, while the West Indies receive less than 220,000 worth of cotton manufactures from 13oston In a year. The truda of Boston with Cuba during tho fiscal year ending Juna

80, 1856, stood as followes: Value of imports, $8,683,226$; exports, $1,044,859$.
Expoata of Domeatio Boota and 8mone faom tifa United Etates yon tha Ygas ending Jume 30, 185 t.

| Whithar erported. | Paire | :Value. |
| :---: | :---: | :---: |
|  | 696 | \$4,460 |
| Itusslnn 1'oseges, in North America. | 480 | 1.060 |
| Danlsh Weat Indiet. . . . . . . . . . . . . | 6,283 | 6,957 |
| Ilamburg. . . . . . . . . . . . . . . . . . . . . . | 4,000 | 8,900 |
| Dutch Went Indles. . . . . . . . . . . . . . . | 880 | 1,272 |
| Dutch Ghlana ...................... | 86 | 110 |
| Fingland............................... | 4510 | 7.480 |
| Canaria. . . . . . . . . . . . . . . . . . . . . . . | 226,623 | 855,044 |
| Other Iritiah North American Pows. | 111,888 | 118,180 |
| British Weat Indies . . . . . . . . . . . . . . | 8,643 | 11,860 |
| lirilsh Honduras . . . . . . . . . . . . . . . | 0,223 | 18,420 |
| Sritish Girlana. . . . . . . . . . . . . . . . . | 400 | 271 |
| Itritiah Passesatons in Africs ........ | 1,75) | 1,020 |
| (sther porta in Sfrica . . . . . . . . . . . . . | 7, 680 | 6,409 |
| lirltich Autralia. . . . . . . . . . . . . . . . | 00,612 | 140,465 |
| French North American Posseaslons | 24 | c. |
| Cuba | 8.180 | 10.75\% |
| Porte Rlco | 1,715 | 1,707 |
| Cape de Verd Ialanda................ | 154 | 102 |
| Jlaytl . . . . . . . . . . . . . . . . . . . . . . . | 7,677 | 10,685 |
| San Demliggo . . . . . . . . . . . . . . . . . . . | 5.2 | 264 |
| Mexleo... | 1,602 | 2,768 |
| Central Republle . . . . . . . . . . . . . . . . . | 1.840 | 1.705 |
| New Granada . . . . . . . . . . . . . . . . . . . . | 7.123 | 10,598 |
| Venezuela . . . . . . . . . . . . . . . . . . . . . . . | 5.074 | 8.074 |
| Ifrazll. | 1,729 | 1,186 |
| [ruguny, or Cisplatine Hepublio ... | 400 | 500 |
| Argentine Republle. . . . . . . . . . . . . . . | 14,800 | 14,972 |
| Chill . | 10.618 | 15,545 |
| Peru . . . . . . . . . . . . . . . . . . . . . . . . . . . | 6.217 | 0,433 |
| Sandwich Islanda | 41,811 | 4,000 |
| Other islands In the Paclice......... | 1,309 | 1,422 |
| China . . . . . . . . . . . . . . . . . . . . . . . . | 400 | 620 |
| Whale-flaheries........ | 1,570 | 2,145 |
| Total, 185T. | 661, 601 | \$918,915 |
| Total, 1866...................... | 688,149 | 1,060,067 |
| Necrease. | 121.648 | \$246,07\% |

Imports of loots and Shoze into tne Unityd Stateg FOn Tik lean endino June $90,1857$.

| Whence Inported. | Bootn and shoes of Lealher. |  | Houts and 8hoen other than liealher. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Palfa. | Volus, | Palm. | Value. |
| thamburg . . . . . . . . . . . . . | 1,309 | 48,221 | 8.640 | \$1,129 |
| Itrenien | 17,702 | 14,112 | 12,256 | 6,431 |
| tiolland | 42 | 125 | 12,24 | 00 |
| Beigium . . . . . . . . . . . . . . | 25 | 74 | 1,17.3 | 411 |
| Eingland . . . . . . . . . . . . . . | 26,810 | 62,062 | 4,110 | 2,102 |
| Scotland |  | 12 |  |  |
| Canada................. | 8,2:9 | 2,038 | 11 | 27 |
| Other Britioh N. A. Poss, | 605 | 357 | 48 | 148 |
| liritish Weat Indies . . . . | 145 | 332 | . ${ }^{\text {a }}$ | . ${ }^{\text {. }}$ |
| lirltibh Fiast Indica. . . . . . |  |  | - 8 | - 20 |
| France en the Atlantle.. | 25,554 | 38,573 | 10,029 | 5,220 |
| France on the Mlediter'n. | 100 | 119 | 10,020 | , 2 |
| t'uha.... | 18 | 37 | $\cdots$ |  |
| 8ardinla. . .............. |  |  | 31 | 25 |
| New Granada . . . . . . . . . | B,007 | 5,873 |  |  |
| Brazil . . . .................... Nandwieh Ibiandn. | 30 | - 95 | 8,153 | 3,3.5 |
| China |  |  | $29, \mathrm{Bin}$ | 12,6!4 |
| Tetal. . . . . . . . | 78,2(6) | 127,451 | 77,7s7 | \$30,595 |

Shola. There is a slagular substance manufactured in Inclia from the cellular, pith-like atems of the hedyarrum lagenarium. It closely resembles in nppearance the Chinesa rice-paper, and is considered to be well adapted to various purposes in the arts. The shola is wrought In Indla into life-buoys, boxes, bottle-cases, hata, and numerous other arteles. From its looselycellular structure, it is a very bad conductor of heat, and this, together with its lightness, admirally fits it for the manufacture of hats. It is also advantageously fitted for purposes of ornament, as it may readily be made to present all the appearnnce of ivory.
Bhore, a placo which is washed by the gen or by some large river. Count Marsigll divides the seashore into three portlons: the first of which is that tract of land whieh the sea just reachas in storme and high tides, hut which it never covers; the second part of the shore ia that which is covered in high tides and storms, but is dry at other timea; and the third is the descent from this, and is always covered with water. The first part is only a contlnuation of the continent, and suffers no alteratlon from the neighborhood of the
sea, except that it is readered fit for the growth of nome plants, and wholly unfit for that of others, by the saline ateame and impregnatloas ; and it is rearcely to be conceived by any but those who have olbserved it how far on land tha affects of the gea can reach, so as to make the earth proper for plants which wili not grow whthout this infiuence; there being eeveral plants frequeatly fouad upon high bllis and dry placee at three, four, and more miles from the see, whieh yet would not grow unless in the neighborhood of it, nor will they ever bo found elsewhere.

The second part or portion of the shore is much moro uffected by the sea than the former, heing frequently washed and beaten by it. It productions are rendered salt by the water, and it is covered with sand or with the fragmenta of shells in the form of sand, and In some placee with a tartareus matter deposited from the water. The color of this whole extent of ground Is usually dusky and dull, especially whare there aro rocks and stones covered with a allmy matter.

The third part of the shore is more affected by the asa than either of the others; and it is covered with a uniform cruat of the true nature of the bottons of the sea, except that planty and animals have their residence in it, and the decayeci parts of these alter it a little.-See Gulf Stnram and Ocean.

Bhumao, or Sumach (Ger. Schmack, Sumach; Fr. Sumac, Roure, Roux; It. Sommaco; Sp. Zumaque; Ruas, Sumak). Common shumac (Rhus coriaria) is a ahrub that grows naturally in Syria, Palestine, Spaln, and Portugal. That which is cultiveted in Italy, and Is improperly called young fustic, is the Rhus cotinus. It ls cultivated with great care: its shoots are cut down every year quite to the root; and, after belng driod, they are chipped or reduced to powder by a mill, and thus prepared for the purposes of dyelng and tanning. The shumac cultivated in the neighborhood of Montpellier is called redoul or rowdo. Shumes may be conaidered of good quality when its odor is strong, color of a livaly grean, is well ground, and free from atalks. Italian shumae is used in djeling a full high yellow, approaching to the orange, upon wool or cloth; but the color is fugitive. Common ahumac is useful for drab and dove colors in calico-printing, and is also capable of dyeing black.-Banchort on Colors.
Biam. This extenslve kingdom, in the sontheastern part of Asia, occupies the central part of Farther India, and has on its west the Dritish Teasarin provinces and the Bay of Bengal; on the north and northwest, Burmah and the free Laos country; on the east, Anam; and on the south, a coast line of 1470 miles along the Gulf of Siam. Its area has been differently estimated: some authors extending it to 294, 7 ij square miles, of which there are assigned to Siam ${ }^{*}$ proper 141,175 square milles; 20,420 to Cambodia; 108,645 to the tributary Laos; and 24,480 to the Malay provinces. Crawford, however, who scems to hava enjoyed the most favorable opportunities of correctly eatlmating the extent of Siam, fixes its area at 190,000 square miles.

Tho same authority eatimates the population at 2,790,500, in 1822; but the American commissioner, who negotiated the commercial treaty with Siam on the part of the United States in 1832, gives an estimate for that period as followa :

| Shamera. | 1,600,000 |
| :---: | :---: |
| Inea | 1,200,000 |
| Malays | 920,000 |
| Chlnese | \$00,000 |
|  | 3,020,000 |

All anthora concur in representing Siam as one of the most fertile and delightful countrlea in the East, nnd capable, when its immense resources are more fully developed, of sustalning an extensive and valuablo forelgn trade. No other country eastward of the Cape of Good Hope abounds more plentifully in all the productions sulted for foreign commerce; and it is found
to be no less diatinguiahed for the great variety of its mineral than it is acknowladged to be for ita vegotabla productiona. The largeat-nised vessela are bullt annually in Siam.? Some of the Chinese Junks, the conatruction of which forma an important feature in the trade with Chins, measars 1000 tons burden. $n$ The timbera are of a hard wood, called by the natives marbao, and the piank are of the tinest teak in the world.

Among the large rivera of \&lam, through which the internal and foreign trade of the kinglom in conducted, the Menam is the meatimportant, aa pervaling the graater part of the kingdem, and almost monopoliziug ita trade and navigation. On this river is aituated llangkok, which has long been the great centre of the commerce of the kingdom, inland, coustwias, and foreign. The principal articlea brought down thia river from the higher provinces are rles and paddy, cotton, teak-limber, aapan-wood, lac, Lenzoin, ivory, aud beeawax ; while the diatricts east and weat of the Menan furniah gamboge, cardamoma, and sugar; and the Malay provincea contribute to the trade of Bangkok tin, ainc, cotton, atc. The foreign trade ia conducted chiefly with the southern porta of Anam, Java, Singapore, Pulo-Penang, and occasionally with British India, the United Stater, and Great Britain. The moat extenslve foreign trade of Siam Is with China; this trade employs from 200 to 200 junka annualiy, having an aggregate burden of about 25,000 tons, nootly built in Siam by the Chinese. These junka make one voyage annually, leaving the Menam in Junc, and returning in December. The exports to the United States and to Europe comprise augar, pepper, lac, benzoin, gamboge, tin, cardamoms, ivory, horns, and hidea, with other articlea of minor importance. For theae they receive all kinds of textile fabrics, shawls, cotton umbrellas, iron and ateel gooda, ateel bars, lead and apelter, earthen and glass ware, ail kinda of hardware and cotlery; with fire-arms, nuskettlints, etc. Formerly the British trade wfh Siam was carried on under treatien with the East Intia Company. Duty was levied on the ship, and amounted to about $\$ 1000$ per fathom on the $v$ ith of the vessel. The length, draught, or tonnage was not regarded; there was no import or export duty; all duties and tolis were inerged in the charge on the ship,

On the 20th of March, 1833, a treaty of amity and commerce was concluded between the King of Siam and the United Statea by Mr. Roberta, who had been sent thither for that purpose; ratifications were exchanged at Bangkok, April 14, 1836, and the proclamation of the President gave it effect in the United States June 24, 1837. By this treaty citizena of the United Statea are permitted to enter and depart from any port of the kingdom with cargoes of whatever description, and to bny, sell, and exchange, without qualification or reatriction, except that they are not to aell munitions of war to any other person than the king, or to import epiunt or export rice. The only charge to be exacted from American vessels is a measurement duty of 1700 ticals or bats for every fathom of $i 8$ American inches in breadeh, upon ships aelling merchaudise, and of 1500 ticals or bats per fathom on these purchasing cargoes with specie; the measurement to be made in the inlddle of the vessel's length upon the single deck; or if there be more than one deck, then upon the lower one; but no charge is to be made upon a vessel entering merely to refit, or for rofresiment, or to iuquire the state of the market. In casc of a reduction of the dutlea upon the vessela of any foreign nation, the same reduction is to be made in favor of those of the United States. American debtors, who ahall have henestly brought forward and sold all their property for the payment of their debts, aro not to bo proceeded against for the balance remaining due after the application of the proceeds of such sale. Merchants trading to Siam ahall obey the lawa and customs of the country; and if they wish to rent
houses, thoy ahall rent the kinge factories, and pay the cuatomary rent therefor. The king's officers may take account of goods brought on shore, but no dutlea shall be levied thereon. In case of shipwreck of on Amarican veasel on the Slanese coast, the persons eseaping ahall be hospitably entertained, and the property saved ahall be reatored to the owners ; and if a vessel of the United Statea aball be eaptured by piratea, and brought into a Siamese port, the persons on board shall be set at liberty, and the property restored to thie rigatful proprietors. If the privilege aliali hereafter be granted to any foreign nation, other than tive l'ortuguese, to have conaula reaident in the kIngilom, the samo privilege ahall be extended to the United States.

With a few exceptiona, thia treaty is a mere transcript, as regarda ita conimercial atipulations, of the treaties of Slum with the liritish East India Company. Anterior to the period of ita concluaion, quite a number of American vessela had viaited that kingdom, and it was supposed that the treaty would open an extensive trade between Siam and the United States. Quite the contrary, however, has proved to be the case; for it is stated that not a aingle cargo has aince been shipped under the flag of the United Staten. In 1850 a speciai cominissioner was sent by the governmeut of the United Statea to Siam for the purpose of negotiating a new treaty, but without aucceas. A similar reault followed the efforta of Sir J. Brooke, British envoy, who had been specially deputed to proceed to Sliam for the same object. Since that periol, however, and very recently (April, 1855), Sir J. Howring, for the Jritish governinent, haa aucceeded in negotiating a new and much more favorable treaty than the one which it supersedes with the Siamese kingdom. Efforts are now in progresa on the part of the United States to negrotiate a new conimercial treaty with this kingdom; but until auch treaty shall have been formed, the United Staten, being entitled, by Articlo 4th of the treaty of 1833, to any dimination of duties payable by foreign vessela granted at any future time to any ether nation, can, of course, avail itself in that regarl, as well as reapecting the appointment of consuls, of the Britiah treaty of 1855.

Of the gencral trade and commereial relations of Sian with nations but little, comparatively, is with gertainty known. The following summary respecting the principal producta of that kingdonn, and their commercial importance, is made up chlefly from British otticiai returns of recent date:

Sugar is looked upon as the principal return for British importo. Its cultivation as an article of commerce originated in the enterprise of Chineso settles in the year 1810. In 1822 it had reached 60,000 piculs, or 3700 tons; in $1835,185,000$ piculs, or 15,295 tons, At this period tho trade in sugar received a severe check, in consequence of the king monoptlizing the entire trade in liss own hands, and flxing his own prices both for tho producer and foreign purchaser. The preaent king has discontinued the traffic carried on by his predecessor, and cultivators are once more free to sell to any customer. The munufacture, however, atili remalns burdened with various taxes, which keep up the cost of production, and check lemand, so that 80,000 piculs (say 5000 to 6000 tons) are now spoken of as an average crop. The land-tax on suyar plantations is one tical per square of twenty fathems, which, under favorahle circumstances, will yield fons piculs. Thia would amount, on production, to one salung ( 15 cents) per picol ( $138 \frac{1}{\mathrm{j}}$ lios.); and the duty which is levied on sugar, on Its passage to Jangkok, is exactly double the amount of the land-tax, the payment of which, under the new treaty, will free it from any further charge on exportation. Siamese sutgar is much eateemed for ita whiteneas and fine atrong grain, and as the greater portion of the valiey of the Menam, the area of which has been eatimated at 22,000 square miles, is atated to be well adapted is the growtil of tha
cano, admit Ric period uaual of thil dea $b$ that t posith for ho the In will, i of Arr this as Earop ish jri per ce United cver, Arraca ucts as article paid f is state is one Salt.
from th the Gu of prod (61 con Englis! in Sian above-1 to $\$ 48$ ton. I tiating reduetic its pric tho Sia ments

Teal. consides
when fed kok. both in

Sapa
wood re
to 6000
levied
being f
value; commis.
lessent t1
tien of
Rose-
in Slam pore. former
$l^{\prime}$ 'pp el nt on when $n$ ministra vine, or to all e amounti cherk to piculs w irst of stnted, its form States in dies 3,30 Cotton fit for th reached but owin commiss
cane, it is aupposed that the annual angar crop would admit of very materinl increase.
Rice.-The extreme facility of irrigation, and the periodical inundations of the Menans, supply with unusual certaiaty the fertility necessary for the growth of this cereal. Hitherto its exportation was forbidden by law ; but under the new treaty it is stipulated that thie prohibition ahall oniy be enforced In times of noaitive scarcity. The demand for this articie, both for home and Oriental consumption, is conatantly on the lucrease; and there is every preapeet that Siam will, in the course of time, rival the British province of Arracan (in the Bengal presidency) in supplying this articlo for the markets of China, Australia, and burope. The annual exportation of rice in this British province is now raised to 120,000 tons-neariy 800 per cent. over the total exportation of rice from the United States in 1855. The trade with Slam, how: ever, will always have thia aivantage over that with Arracan, that in the former rice and all other products are given in exchange for manufactures and other articies of trade; whilo in the latter the exporta ere paid for in bullion. Forty times the amount of seed is stated as the average yiold; and the ordinary price is one tical ( 01 cents) per 138 lbs.

Salt.-This article is oltained of excellent quaiity from the extenaive mud-fiata which line the head of tin Gulf of Siam, and at so cheap a rate that the cost of production does not exceed from one to two ticals ( 61 conts to $\$ 122$ ) per koyan of 25 picula, or 8400 ibs. English. Salt is, however, a special object of taxation in Siam; and the duty of $\$ 3 \mathbf{6 0}$ per koyan raises the above-mentioned price to seven or cight ticals (84 27 to $\$ 488$ ) per koyan, equal to about 8288 to $\$ 336$ per ton. The Britiah commisaioner endeavored, in negotinting the late treaty, but ineffectually, to obtain a reluction of this high duty. It is, notwithatanding its pricu in market, in much demend at Singapore; and the Siamese government have withdrawn all impediments bitherto existing to its ahipment.

Teak,-The teak forests of Siam are situated at some considerable distance up the Menam, and the trees, when feiled, are flosted down in large rafts to Bangkok. There is alwaya a briak demand for this articie, both in the markets of China and Singapore.

Sapan-scood.-The annual exportation of this dyewood reaches from 80,000 to 100,000 piculs (from 5000 to 6000 tons). Ilitherto the Siamese government have levied a tax of rne tical per picul on sapan-wood, heing from üù to more than 100 per cent. upon its value; and it was with great diffieulty that the British commissioner persuaded the Sianoese authorities to lessen this tax to $2 \frac{1}{2}$ salungs per pieui--being a reduction of more than one-third upon the old rate.

Rose-ucood and Ebony,-These woods are abundant in Siam, aud are largely shipped to China and Singapere. The export duty bas been reduced one-third of former rates.

I'pper.-The prod'action of this article had reached at one time more than $9,000,000 \mathrm{Jbs}$. per annum, when an oppressive tax, imposed ly the present administration of Siam, of one catty of pepper on every vine, or abont 8 per cent. on tho produce, in addition to an export duty of one tical ( 61 cents) per picul, amounting to the same pereentage, caused such a cherk to the cultivation, that last year only 20,000 piculs were brought to market. The removal of the tirst of these taxes, now ngreed to, will acrve, it is stated, to restore the growth of this useful spice to its former flourishing condition. In 1855 the United States imported from the British and Dutch East Indies $3,301,460 \mathrm{lbs}$, of hlack pepper, valued at $\$ 171,008$.

Cotton.-A Aove the line of the inundated tracts, land fit for the cultivation of cotton alrounds. The crop has reached as high as 140,000 picuia ( 8330 tons) in a year; lut owing to various causes, some of which the British commissioner has succeeded in removing, it is thought
that its culture will be again encouraged, and its exportation i. reased.
silk,-Thie product has been largely grown in the rich diatriet of Kocat, and the crop has reached 1500 piculs per annum-valued at 150,000 ; but the larger markets of China being so ciose at band, the silk of Siam will probably never assume mnch importance in the forelgn trade of the kingdom.

Jemp,-This mrticle hoids out much interest to forelgn traders. Its growth in Siam ia only just becoming known, and it ie particularly recommended on account of ita great otrength, and its glossy and silky texture, which would allow of its beling woven up into silk fabrics. Its noderate price- 10 ticals ( 8010 ) per picul-will enable it to compete aucceasfully with that of Manilla.

The following liat will be found to contain all the manufactures which are nost suited to Slamese consumption: White and gray long cloths; white and gray madapo!lana;' white and gray camlirics; white and gray jaconets; book lappets ; velvets, plain and figured ; checked fancy muslins; American drills; cotton umbrellas; figured long cloths; dyed cambrics; dyed long cloths; prints, chintzes, furnitures, and neutrais; Siam chowls, or dresses; Turkey red cioth; gray cetton twist ; Turkey red twist; imperial red and blue twist : long ells; ladies' cloth; Spanish stripes; merinos of assorted colors; canvas; iron, steel, lead, spelter; carthen-ware, assorted; glass ware and lamps, assorted; mukkets, gun-locks; brimstone, beeswex; cowries, flint-stone, musket-flints, etc.
The importa from India and China are even more variod, and consist of almost every article of manuficture, trifling or important, produced in those countries; these being required not only to meet the tastes and requirements of the Siamese, but also to supply the wants of the natives of India and China, many of whom are domiciled in Siam. The statistics of the trade of Slam are but meagre. The following table exhluits the number and tonnage of ships which left the port of Bangkok for China and Singapore, from April 1, to August 31, 1855 :


## -U. S. Comh Relations.

Sicily, or Two Sicilies. The kingdom of the Two Sicliics comprises the nncient realm of Naples and the isiand of Sicily. Naples proper embracea an area of 81,350 square miles, and, by the census of 1854 , contnins a population of $6,843,355$ inhabitants. Its productions are of the most valuable and varied kind; and it only requires good ronds to carry the preduce of tha soll to market, and security cnil encourngement under the government, to render the Neapolitan dominions among the most profitably productive in Europe. The chlef products are corn, wine, olive-oil, cotton, flax, hemp, liquorice-paste, silk, and wool.

The annual crop of wheat is between $00 r^{\prime} \mathrm{d} 80 \mathrm{mili}-$ ion busheis. and the yenrly consumption is about 40 million busheis. The nnnual produce of Indian corn is nbout 40 mililon bushels. The yearly protuction of wine ia about 400,000 pijees, the greater part of which is consumed at home. About 13,000 pipes are made into brandy near Naples, und frem 250 to 300 tons of argol und cream of tartar are prepared for foreign markets. About 70,000 tons of olive-oil are expreased yearly, half of which is exported to foreign markets. The quantity of catton rajsed annually in the continentai part of the kingdom amounts to about two million pounds. In Sirily the cuitivation is greater than in Naples. The annual produce of raw silk is about $1,000,000$ lhs., of which cne half is consumed is the factorics of the kingdom.

There are wo specles of wheat raised in the kingdom of the Two Sicilies-the soft, of which the best quality
(s) 'reed is made $\ddagger$ and the hard wheat, chlefly employwd in the preparation of macaroni. The principal exports of Naples propar are, ollve-oil, ailk, homp, wool, wine, grain, macaroni, and coral ; Importa, colonial and manufactured goods, iron, and cutlery.

Irior to the ratiflication of the treaty lietween the United Statea and the Liagrom of the Two Sicilien, of December 1, 1845, the cunmerce between the two countries was chiefly lidirect. Ilaving no commerclal treaty, the United States flug bad to contend agginat high duties, an examption of 10 per cent. in favor of Britinh and French vensels employed in the direct trade, and the extreme rigor of quarantine regulations. The indirect trade was carried on through leghorn and the French Mediterranean ports, and was necemarily fettered with the incumbrances and burdens incident to a circuitous route. Neapolitan morchandise was taken on board American ships In these ports; while coloniat goods destined for the marketa of the Sicilien were sold to the French and Tuscan merchants, on whose accuunt they were shipped to their destination, or sold direct to Neapolitan traders, by whom they were introduced under the $\mathbf{1 0}$ per eant. diacrimination. Tho retallatory duties of import and tonnage levied on the Sicilian tlag ia the linited $\mathrm{S}^{\text {b }}$ "tes virtually excluded their vessels from our ports, and the coneequence was that the trade between the twe countries becane exceediagly limited. Indeed, in returns of the forelgn trade and navigation of the Two Sicilles for a period of three years (1839, 1840, and 18-11), but a single American vessel appears to have entered or cleared at the ports of that kingdom.

The treaty of 1845, whleh went into fiect July 24, 1846, provides that there wiall exist between the two countriea reciprocal literty of commerce and navigation; that no higher duties shall be imposed on importations into either country of articles from the other than from any other eountry; that favors granted by either party to other nations shall be common to the other; that thero shall be equaiization of duties, etc., on imports and exports, on vessels of either country, as also of tonnage, harbor, and light-house duties; that the stipulstions of the treaty shall not apply to the coasting trads; and that no preference shall to given by either party to lmportations on account of the national character of veasels in which imported. The treaty to be in force ten years, with the usual twelve months' notice for its termination.

By a convention ratified July 14, 1855, two principles were recognized between the two countries as permancat and immutable, to wit: 1st. That the effects or goods belonging to citizens or aubjects of a power or state at war are frou from capture and confiscation when found on board of neutral vessels, except articies contraband of war ; und, 2d. That the property of neutrals on board an enemy's vessel is not subject to confiscation, unless contraband of war.

In 1852 the commerce of the continental part of the kingdom of the Two Sicilies is thus given: Imports, , $12,372,363$; exports, $\$ 10,943,831$; total, $\$ 23,316,194$.

The trade represented ty the jreceding tigures passed exclusively through the custom-houses, and does not comprise the movements at the general entrepoit of liriadisi, nor the translujument in the roads. The principal foreign powers which particlpated in the commercial movements of 1853 were England, France, Austria, Sardinia, the Papal States, and Tuscany ; and next in the order of importance were Ilolland, Sweden, Russia, Spain, Greece, the Ionian Islands, Irazil, and the United States. The value of merchandise imported into the continental part of the kingdom, it is seen sbove, amounted to $612,372,363$. This is the value of maritine commerce with foreign mations only. The coasting trade batween the different ports of the kingslom would largely augment this total, but no returns of this trade are accessible. Of the importa, sugar, coffee, and trans-Atlantic produce are chiefly supplied
by England. Marreilles aluo furnishes amall quantitiss of sugar and coffee from Kranch colonles; but, owing to their superior quality and high price, they are uot mach in demand. The sugars from Holland, boing lower priced, find a readier market. Besides theso sources of aupply, several Neapolitan vassels have for some yoars past kept up a direct intercourse between tho port of Naples and Brasll. There seems no reason why the United States shnuld not compete with En. gland, IIolland, France, and even Genou, in aupply. ing these trans-Atlantie necassaries to the kingdom of the Two Sicilias ; nor why the carrying trado In these articlen from the countries of production, or from the bonded warehouses of the United States, could not be mado as profitalile to American as tu British, Dutch, French, or even to Genoese vessels. Geaua is a free port, and the dues for pilotage, anchorabe, and quarantine are light.-See Saninivia.

The subjoined statement exhibits the quantities and values of sugar and coffee respectively, oxported from the United Staten to the kingdom of the 'T'wo Siclies, during a period of five yearb, from 1831 to 1855 , both inclusive, made up from the annual reports of the Sec. retary of the Treasury on Commerce and Navigation; followed liy in statement exhibiting the quantities and values of the same articles exported to all countries; and a third exhibiting the quantities and values of cotton and tobacco exported to the Two Sicilies during the same period:

| Yeara. | Sukap: |  | Cofee, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Puasto. | Valion | Pounda. | Values |
| 1851. |  |  | 34,278 | \$3, 34 |
| 1852. | .... | .... | 81,328 | 4,419 |
| 1853. | .... | .... | 01,327 | 7,667 |
| $\begin{aligned} & 1854 . \\ & 1850 . \end{aligned}$ | 302, 9,0 | quati | 1,830,0064 | 170,354 |




| Yeam. | Contion |  | Tubareve |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounils. | Valuen. | Pounds. | Salurs. |
| Is5t........ |  |  | 192, 10.9 | \$10,3m |
| 18883. |  |  | 208,000 | 16,019 |
| 1853. | 1,003, 015 | \$4.6,219 | 22,000 | 2, 14t |
| 1854. | 827, 110 | 31,033 | 1,292,0100 | 133,532 |
| 1855. | 1,289, 4:2 | 118.734 | 9n, man | 24, 124 |
| Aggregate. | 2,634, 716 | +4887, 674 | 1,6,17,(M0) | \$186, 914 |
| Average . | 874, 2:15 | 70, 191 | 3ing. 4 Nm | 37,361 |

The following are the chief ataples which the Two Sicilies draw from tho United Statea: Tobacco, cutton, rum, flour, naval atores, ets Of these there were ex. prorted iu 1854 and 1855 in vastie as follows:


In exchange for these staples and for miscelitneous cargoes, our ships return honie laden with wincs, drugs, fruits, feathers, anchovies, oil, auljhur, silks, corks, and rags ; of which latter article were imported in 1804 , direct from the Sicilies, 3,140,718 lbs., of the value of $\$ 90,424$. Under $t^{t}$ e treaty of 18.15 Sicillan and Vnited States vessels are equalized in the ports of the tro countries, when laden with the produce and manufactures of the country to which the vessels helong. The direct trade is, therefore, ílead from the restrictions amd incumbrances with which it was cloggel prior to that period, and the commerce between the two countries has in consequence largely increased. The exports from the United States of its staples alone amount now annually to between $\$ 250,000$ and $\$ 300,000$, more than one half of which is ahipped under the United States tlag. By a royal decree bearing date 18th December, 1854, the privileges which apply to the direct trade with the Twe Sicilies have been equally extended to the indirect trade in finvor of those nutious which have
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commercial treaties with the kingdom of the Slelliea, when they shall have granted like favors to the flag of the Two Slelles.

Uniler the operation of the treaty already referred to, and of the liberal privileges conceded by this decree, the commerce of the IJnited States with the Two Sleilies is increasing. The totai ralue of exports from the Siciliea to the United Statea in 1845 was $\$ 630,000$. In 1884 they reached nearly $\$ 1,000,000$, and in 1855 they aseunded to $1,718,949$. In 1845 the United Staten exported to tice Sicilies its own ataples to the amount
 1855. The totul trade in 1855 wan $42,370,425$, against $81,219,861$ in 1854, and 9034,725 in 1845.

The jort chargea in the Two Sleilica are $3 \frac{1}{8}$ cente per ton on equalized renseln, and 32 cents per ton on these non-equalized. Ilesidea the tonnage duty there are sundry miner chargea, Including cuatom-honae visit, entrance and clearance charges, ete., nmonnting in the aggregato io 8375 per vessel on entrance; and on cleurance, including compensation to lirokers, $\$ 510$. The quarantine regulations require a payment of $\& 5$ for ohtaining the requisite pratique. Should the veasel le aubject to quarantine, the chargea aro largely augmented. In orier to obtain free entrance, it is necessary to exhihit a clean hiil of henlth, signed hy the Neapolitan consul nt the port of clearance. It wouid seem, however, that vessels Inden with cotton or other "suscejtibje" merchandise have olways to modergo quarantine,* whleh is exceedingly atrict if during the voyage alckness chanced to prevall on board.

The following is a condensed summary of the latest quarantine regulations in force at the different ports of the Two Sicilies. Thicse regulatlons are revised annualiy, lut the general principles on which they are basedi remain unaitered:
"Vessels proceeding from New Orieans, or any port of Louisiana, shali be excluded whenever they come unprovided witis a certificate algned by the royal consui at the port of departure, attesting that the yeliow fever did not exist in that State, either at the period of saling or twenty diays prior to the same.
"The jlaces supposed to be infected by yellow fever are the Argentine nud Paraguaian republica, Demerara, Peru, Costa Firma, Guif of Mexico, Mississippi, Great and Little Antilles, and Savannah.
"The places suspected of yeliow fever are Santa Martha in Columbia, Chili, Guayann (except Demerara), Ohio and Missouri, Vera Cruz, and ports of the United States, except as above."

The certificate of the Sicillan consul is indiapensable to be adimitted to pratiquo; but even with such protection the quaruntine regulntions are oppressive and uncertain, especiaily if any sickness has occurred on board during the voyage.

Pilotuge.-Vessels arriving at Napies are seldom under the necessity of taking pilots, and hence tisero is no fixed regulation respecting them. Shouid a pilot, however, be required, one can at nli times be found among the fishermen on the coast, with whom the captain must make the best bargain he can.

The principal ports are Naples, sitnated on a bay of the samo name, havlng a commodious harbor, and good anchorage for any sized vesseis to load and discharge cargoes; nnd in Sicily proper, Palermo and Messina.
'lhe forcign trade of Naples is aimost exciusively in possession of English merchants. The returns for 1855 usaign two-thirds of this trade to the English flag, and the other third to the Neapolitan and other flagg. Some twenty or thirty vessels from the nortit of Europe arrive annuaily with stock-fish, crushed augar, etc., from iIolland. lingiand employa annually in the trade with Naples about one hundred and thirty vesseis of small size, from one to two hundred tons each, beaidea a line of steamers, which regulariy touch at thia port, to and - See Consular Returne, "Nsples, Na 30, December 30,
from Livarpool. The faclition which theee metnarners furniah for execnting orders sultable for the Noupolitan market prosent the mont serious obatacle to a direct trade with the United Staten. The privilege of the Indirect trade, however, lately conceded to the Amerlean flag, may tend to Incrase the commarcial interconrse lietwuen the two countries.

The imporsa from Great Britaln In 1855 umounted In quantity to 81,900 tens, which at $40 s$. $(9960)$ per ton gave to British alippers on freight alone the sum of ©335,040, beaidea 10 per cent. jirimnge. The value of these Imports was ectimated ut $\mathcal{\Sigma B , 0 0 0 , 0 0 0 \text { , or }}$ $\$ 15,000,000$.

The exports from Naples to Great Britaln were entimated at 15,500 tons, and the value at about $\$ 7,800,000$ :

Bealdea the disadivantage aiready reforred to, under which American vesaels would have to compete with Engilisis in the trade of Napies, the quarantine regula. tionil are wuch as to render any enterprise in that trade on the part of American ohippers uncertain ind hazardous. heae rugulationa, an already observed, are revised annually, and provide that, under the most favoralie circumstances, a certificate from the Sicllian consul at the port of departure ls indiapenaable to be admitted to free protique.
A few facts relative to currency and exchange at Messina, communicated to tho Stato Department under dute of October 20, 1853, iy the United States consui at that port, are aulijoined:
"It is customary to draw, for ail transactlons with the United States, on Parls or London, and occaslonaily on Miarscilies, Ilamburg, or Genom. American coin, goid and ailver, is, and inas heen for some tlme, at a discount of $f$ m 10 to 15 per cent.
"The oniy kind of Spanish doliar current here ia the piliar dioijar, and is at an advance of about 4 per cent.
"Exchangea are very unfavorable, and far belqu the rates of former years. London, 1088 graina per $\boldsymbol{f}$; Paria und Marscilies, $41 \frac{8}{6}$ graina per franc; Lyons, 41?, and Genoa 42 grains per frane; Leghorn, $85 \frac{1}{2}$ gralns per liro ${ }^{\text {g }}$ Amsterdam, 888 graina per florin; ilamburg, 78 grains per mark-banco.
"The Sicilian ounce is two deliara and a half, or 30 lires, or 600 grains Sicillan currency."

Island af Sicily.-Thils island has an area of 10,656 equare miles, and a population of $2,208,892$ inhabitants. Since lts annexation to the kingdom of Naples in 1786, it has oxperienced much of the evils of absenteeism. The revenue, except that pertion of it which ia pald to the Neapoitan employes who reside on the island, is drained off to he spent in enriching the metropolitan court. In this rospect Siclly in some degree resembles Ireland. The resources which might be beneficially expended in making ronds and other improvements, indispensable to tho proper development of the industry of the island and the growth of its commerce, are squandered in cther countries by an absentee nobility.*

Wheat and hariey are exported in small quantities. Other chief crops are beans, puise, maize, rice, oliveoii, oranges, lomons, almonds, and other fruit ; petatoes, tobacco, flux, hemp, sumach, liquorice, and manna. In the northeast part of the isiand silk is produced, and it Is woven at Catania; and in the weatern part 30,000 pipes of wine nre annualiy made, of which about 20,000 are exported from Marsaia. Sulphur is aiso a jeading staple of the island of Sicily. It is found in tertiary formations, and its production is annually increasing. From 1838 to 1842 a monopoly in the export of sulphur was granted hy the Neapoiitan government to a French mercantile firm ; Lut so vigorous was the resiatance of the British government, that in 1842 the monopoly was suppressed. Since that period the

[^47]trade in this article has been annually Increasing. These aulphur mines hrve been explorel and worked for more than three hundred years, but it was not mintil chemical science bad pointed out the various uses to which sulphur can be applied that ita exportation had risen to any great importance. There nre now about 150 mines worked in an area of 2700 miles, though the most productlve mines are confined to Favarn. Sommatirio, Gallizzi, and Riesi.
Mr. Macgregor gives some interesting statistlcs nf the sulphur trade of the island of Sicily, from whic) It appears that in 1838 the nmount on hand was 80,000 quintals; on tho 1st August, 1840, it had risen to $\mathbf{C 8 0 , 0 0 0}$ quintals; in 1841 it reached 830,000 quintals ; and in 1842 it stood as high ns $1,100,000$ quintals.

There entered the ports of the island of Sicily in 1843,1435 vessels of 211,000 tons; of which from the United States there were 9 of 2500 tons; and during the same year there cleared from Sicilian ports 1427 vessels of 256,000 tons; of which from the United States there were 80 vessels, messuring 22,600 tons.

The value of imports and exports during the same year was:


Vessels helonging to the Two Sicilies aro admitted into the ports of the United States on the same terms as American vessels only when laden with tho home produce or home manufactures.
Commerce and Navioation op the Simitrs with foregin

| Couniries. | Importa. France. | Exporia. France. | Cleared. |  |
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|  |  |  | Vesereta | Tount |
| Anetria | 5,206,304 | 453, 306 | 859 | 59,301 |
| Ponmark |  |  | 1 | $1{ }^{\text {a }}$, 3 |
| Modena . |  |  | 3 | 4tio |
| Roman Stales. | 74,618 | 600,167 | 577 | 23,420 |
| Spain ....... | 3,734,826 |  | 6 |  |
| United States | 1,2083,210 | 547.477 | 17 | 8,153 |
| Franc | 10,283, 445 | 14,752,417 | 395 |  |
| Great 1 | $11.144,644$ | 12,007,694 | 200 | 43, 4,0 |
| Greece | 1,100 1,804 | 79,605 | 12 | 1,2:38 |
| Holland | 4,276,207 | 250,171 | 14 | 2,727 |
| 1osian 1slands....... |  |  | 61 | 3.213 |
| Sweden and Norway.. | 541000 |  | ${ }^{6}$ | 1,525 |
| Rıssia | 20,2*2,407 | 275,733 | 12 | 3,214 |
| Tuseany | 3,023,807 | 3, $9.919,1386$ | 65 | 5 5, 8 (120 |
| Turkey. | 2,768,2(4) | 130,702 | 20 | 5,178 |
| Sardinta | 2,460,871 | 3,006,88: | 254 | 36, 40 |
| 1 1russia | .... | .... | 2 | $77^{\circ}$ |
| Tunla All oth |  | 66,504 | 10 | 1,036 |
| Total | 80,270,47 | \|31,717,73:1 | 254 | 2,7,6:1 |
| Siltreiso in 1554. |  |  |  |  |
|  |  | Tonn |  |  |
| Twa Slcilled |  | ... $\begin{gathered}\text { 2, } \\ \text { 2,131 }\end{gathered}$ |  |  |
| Total. |  | 12, 5, 14 |  |  |

Fobeton Conmeref of tif L'nited Statza with Sicily, from Octoben 1, 1930, m Jeif 1, 1857.

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|  | Domentic. | Foraigin. | Total. | Tounl. | Exiort. | Iupon. | Americun. | Fovergn. |
| Fept. 39, 1831...... | \% 2,366 |  | \$2,463 |  | .... | .... | 378 |  |
| 1832...... | 3,088 |  | 3,188 | \$150,017 | .... | .... | .... | 432 |
| 1533. | 6, 128 | \$2,947 | 0,043 | 165.714 | ... | .... | .... | 370 |
| 1834....... | 4, MH | $\cdots$ | 4,1030 | 254.966 | . $\cdot \cdot$ |  | 901 | 311 |
|  | 17,373 $146,1 \times 3$ | 10,894 49,714 | - 28.258 | 274,548 6429090 | $\ldots$ | 6608 | 1,204 1,457 | 1,249 |
| 1837. | 18,020 | 5,875 | 24,497 | 411 ,959 |  |  | 1,2!50 | 2.148 |
| 1835. | 25,502 | 21, 813 | 47,345 | 345,362 | $\ldots$ | 23,600 | 1,012 | 1, 4.4 |
| 1831. | 132,462 | 84,607 | 277,00.1 | 592, 51 |  |  | 2,233 | 2.293 |
| 1840... | 303,217 | 33,1123 | 337,140 | 649,525) |  | 500 | 1,000 | 3.176 |
| Tolal. | \$713,027 | \$200,758 | \$028,785 | 83,403.732 | $\ldots$ | \$21,705 | 8,620 | $14, \sqrt{3}$ |
| sept. 30, 1841.. | \$474,479 | -11,809 | 846,939 | \$5:98,057 | $\ldots$ | ( 14,800 | 1,913 | 3,568 |
| 1542. | 237.861 | 198,797 | 433,65* | 589,419 |  | tir) | 1,263 | 3,116 |
| 9 mos. ${ }^{184} 43^{*}$. | 32,508 | 81,971 | 84,42:1 | 169.0664 |  | 4,703 | 665 | tiv |
| June 33, 184.... | 75,624 | 278,612 | 354,316 | 402,733 | $\ldots$ | .... | 1,045 | 3.296 |
| 1445...... | 70,625 | 334,667 | 4140,292 | $53.9,44^{18}$ | $\ldots$ | .... | 45 | 2, 123 |
| $18+6$. | 319.441 | 295,391 | 617,832 | 613.295 |  | .... | 76 | 4,319 |
| 184i... | 6,6,8:9 | 7,218 | 64,117 | (4) , 088 |  |  | 1,423 | 40 |
| 1844. | 17,754 | 9,075 | 20, $2 \times 9$ | 613,029 | $\cdots$ | 4,526 | 924 | 399 |
| 141. | 94,359 | 4,854 | 29.913 | 530,24 |  |  | 1,953 | 979 |
| 1450. | 60,577 | 13,024 | 63,611 | 829,629 | $\ldots$ | 22,625 | 3,326 | 1.633 |
| Totat. | - $1,36410,165$ | 81,246,181 | 62,565,34) | 85,324,531 | $\ldots$ | ¢ 40,811 | 13,533 | 41,417 |
| dune 30, 1551...... | 811,743 | 88,193 | \$47,930 | \$895,924 |  | - $\cdot$. | 2,844 | 1,916 |
| 1s59..... | 65,649 | 10,910 | 64,539 | 606,541 |  |  | 6,400 | 3,187 |
| 1583. | 13,1347 | 24,819 | 155,185 | ${ }_{0}^{803.351}$ | $\ldots$ | *20,010 |  |  |
| 1855. | 207, 814 | 413,646 | 651,470 | 1,715,949 |  | 4,80 | 4, | 3,123 3,44 |
| 1501. | 003,574 | 75, 1:5 | 379, 71 | 1,488,500 |  | , | 1,642 | 1.621 |
| 1857..... | 1,033,95t | 68, 16, | 1,152, 120 | 1,575,903 |  | .... | 5,364 | 3,119 |

- Nine monthe to Juac 30, a ad the fiseal year from that 1 we begina suly 1.

Irincipal Port--Palermo, anciently Panermus, a |ing northwest threc-quarters west. A hearyseasomelarge city, and sea-port, the capital of the noble island times rolls into the bay, but no danger neel be appeof Sielly, on the north coast of which it is situated, the hended by ships properly fanm in unehors and chain light-house being in Int. $38^{\circ} 8^{\prime} 16^{\prime \prime}$ N., long. $13^{\circ} 21^{\prime}$ $66^{\prime \prime}$ E. Population, 170,0\%0. The Bny of l'alermo in about flve miles in depth, the city being siluated on its sonthwest shore. A tine mole, fully one quarter of a mile in length, laving a light-house and bittery at its extremity, projecting in a southerly direction from the arsenal into nine or ten fathoms of water, forming a convenient port, cupable of containing a great aumber of vessels. This inmiense work cost about $£ 1,000,000$ sterling in its construction; but the light-house, though a splendid atructure, is sald to be vary ill lighted. There is an inner port, which is reserved for the nae of the arsenal. Ships that do not mean to go within the mole may anchor shout half a mile from it, in from 16 to 23 fathoms, mole light hearcables. In going into the bay it is neces ary to keep clear of the nets of the tumy fishery, for thesp are so strong and well moored as to bo cajable of arresting a ship uader sail.
Afoney.-Since 1818 the coins of Sicily have heen the anme ns those of Naples, their mames only differIng. The ducat $=3$. $5 \cdot 2 d$. sterling, is subdivided into 1100 lajocehi and 10 pidecioli; but aceounts are still generally kejt fin onclo, sarie, and grani: 20 grani= 1 taro; 30 tari $=1$ oncia; the oncia $=4$ ducats; and 1 carlino of Najles $=1$ taro of Sielly. The Spanish dollar is current nt 12 tarl 8 grani.

Weights,-100 Sicilian pounds of 12 ounces $=90$ lbs. uvolriupuis $=85 \cdot 11 \mathrm{lhs}$. Troy $=31 \% 6$ kilog. $=6 \mathrm{l} \cdot 23 \mathrm{lbs}$. of $A$ msterdant $=\mathbf{6 5} \cdot \mathbf{5 8} \mathrm{lbs}$, of IIamburg.

Sierra Leone, an English settlement, near the mouth of the river of the same name, on the west coast of Africa, lat. $8^{\circ} 30^{\prime} \mathrm{N}$., long. $13^{\circ} 5^{\prime} \mathrm{W}$. This colony was founded partly as a commereial establishment, but more from motives of humnnity. It was intended to consist prineipally of free blacks, who, being instructed in the Christian religion, and in the arts of Europe, should become, as it were, a foeus whence civilization might be diffused among tho surrounding tribes. About 1200 frea negroes, who, having joined the royal standard in the American war, were obliged, at the termlnation of that contest, to triko refuge in Neva Scotia, wero conveyed thither in 1792. To these were afterwnrl added the Msroons from Jamaica; and sinea the legal abolition of the slave-trade, the negroes taken in the captured vessels, and liberated by the mixed commission courts, have been carried to the colony. The total population of the colony in 1850 ameunted to about 55,500 , all black or celored, with the exception of about 100 whites.

Success of the Eifforts to cicilize the Blacks.-Great eflorts have been mate to introduce order and industrious habits among these persons. Wo are sorry, however, to be obliged to add that these efforts, though prosecuted at an enormous expense of blood and treasure, have been signally unsuceessful. Thero is, no donbt, some discrepancy in the aceounts of the progress male by the blacks. It is, however, sufficiently clear that it has been very ineonsiderable, and we do not think that nny other result could be rationally anticipated. Their laziness has been londly complained of, but without reason. Men are not industrious without a motive; and most of those motlves that stimulate all classes in colter climates to engage in laborious employments are unknown to the indolent inhabitants of this burning region, where clothing is of little importance, where sufficient supplies of food may be obtained with compnratively little exertion, and where more than half the necessaries and conveniences of Europeans would be positive incumbrances. And had it been otherwise, what progress could a colony be expected to make into which thero have been annually impl 'od crowds of liberated negroes, most of whom are barbarians in the lowest stare of civilization?
Influence of the Colony upon the illicit Slave-trude.As a means of checking the prevalence of the illicit slave-trade, the establishment of a colony at Sierra leone has heen worse than useless. The trade is principally earried on with the countrles round the Blght of Biafra and the Blght of Benin, many hundred miles distant from Sierrn Leone; and the mortallty in the eaptured ships during their voynge to the tatter is often very great. The truth is that this trafle will never be effectually put down otherwise than by the great powris deelaring it to be piracy, and treating those engaged in it, wherever and by whomsoever they may be found, as sen robbers or pirates. Such a declaration would be quite cenformalle to the apirit of the deelnration put $f$ th by the Congress of Vierin $\ln$ 1824.See Slaye-thade. But the jeulousies with respect to the right of visitntlon and search are so very great, that it is exceedingly doubtful whether the minitme powers will ever be brought to concur In any declaration of the kind now nlluded to; unless, however, something of this sert he done, we rpprehend there are but sleuler gromiss for supposing that the trade will be specdily suppressed

Climate of Sierra Leone.-The soll in the vielnity of Sierra Leoue seems to be but of indifferent fertility, and the ellmate is about the most destruetive that enn be imagined. The mortality among the Africans sent to it seems unusually grent, and among the whites it Is quilte execssive. Duch as we destro the improvement of tho blacks, we protest ngainst its being attempted by sending our countrymen to certalin destruction in this most pestiferous of nll pestifereus phees. It would seem, too, that it is quite unneces-
sary, and that blacks may be empleyed to fill tha omcial situations in the colony. But if otherwise, it should be unconditionally abandened.

Commerce.-Commercially considered, Sierra Leone appears to quite as little advantage as in other polnts of view. Palm-oil is the great article of export from the west ceast of Africa; and by far the largest portion of it is furnished by the coast to the west and qouth of the Rio Volta, many hundred miles from Sierra Leone. We doubt, indeed, whether the commerce with the latter will ever be of much importance. At nlt events, we hardly think that it can be expected materially to increase if it be conducted in the way in which it is affirmed that the intercourse with the literated n-groes is at present coaducted.-Reports on Colonial Possessions, 1851, p. 175. If there he not some mistake or exaggeration in the atatement now referred to, nothing can be conceived more disgrnceful. Should it, howover, be ascertained that an establishment is really required for the advantageous prosecution of the trade to Western Afriea, it is abundantly obvicus that it should be placed inuch farther to the south than Sierra Leone. The island of Fernando Po has been sug. gested for this purpose; but after the dear-bought experience we have already had, it is to be hoped that nothing will be done with respeet to it without mature consideration.

Account showino tie Vatum of the varioge Articleg, the (ihowtit, l'rodece, anib Manufagture of the Col. ony and West Coagt of Afuioa, bilomteid from Sienta LRONE DUANG EACN OF TIIE learg FROM 1848 TO $15 \delta 0$, 1NCTUSIVE.

| Articles. | 1848. | 1849. | 1850. |
| :---: | :---: | :---: | :---: |
|  | ¢ | 5 | E |
| Arrow-root | 478 | 492 | 618 |
| Heesw | 281 | 089 | 1,082 |
| 1 lennl-seed | 60 | 130 | 417 |
| 13ar-wood |  | 16 | 225 |
| Csin-wood | 3,292 | 8,277 | 4,466 |
| Coffeo | 83 | 66 | 9,288 |
| Gum copai | 250 | 1,244 | 1,071 |
| Ground-nut | 13,025 | 7.089 | 17.867 |
| * | 646 | 1,99t | 2,945 |
| Ginger . . . . | 22,132 | 10,142 | 11,818 |
| Ithes (dry and satted), leopard and goal skins | 11,491 | 0,259 | 10,832 |
| Ivory . . . . . . . . . . . . . . . . . . . . . . . | 1,769 | 8,555 | 15,586 |
| Ox horms . . . . . . . . . . . . . . . . . . | b1 |  | 17 |
| Jeppers and Cayunno pepper.... | 2,978 | 2,031 | 4,721 |
| 1'nim oll............... | 11,859 | 48,276 | 24,0\%0 |
| nuts $\qquad$ <br> t 011 | .... | 1,604 | 439 840 |
| Hee (elean and rough) | 528 | .... | 64! |
| Teak timber .......... | 26,336 | 25,45: | 11,649 |
| Sundries, ineluding curiositles, $\}$ <br> mats, ete. . . . . . . . . . . . . . . . . . ) | 2 | 27 | 55 |
| Total . . . . . . . . . | D5 bt5 | 111,330 | 123,145 |

The total value of the exports of Dritish produce and masufacture to the west coast of Africa amounted in 1851 to $£ 658,934$; but of that amount only $£ 94,546$ went to Sierrn Leone. The value of the experts from the latter to the United Kingdomi during the ten years ending with 1850 amounted to $£ 63,290$ a year. The only manufacturo that can be sald to exist lat the colon. is the expression of the oil from the ground-nut by menns of machinery,-See Nuts, Grocnd. In 1850, 122 ships entered tho river, of which 27 were from England.

Colonial Expenses.-The pecuniary expenses ocessloncd to Grent Britain ly this colony, nud the unsuccessful efforts to suppress the foreign slnve-trado, have been nltogether ennrmous. Mr. Keith Douglas is reported to havo stnted In the IIouse of Commens, in July, 1831, that " down to the year 1824 the cinil expenses of Sierrn Leone amounted to $£ 2,268,000$; and that the same expenses had ameunted, from 1824 to 1830 , to $£ 1,082,000$. The naval expenses, from 1807 to 1824 , hail been $£ 1,630,000$. The inyments to Spain and Portugal, to induce them to relinquish the slavetrade, amounted to $£ 1,230,000$. The expenses on account of captured slaves were $\pm 533,092$. The expenses ineurred on account of the mixed cominission courts
wero $£ 198,000$. Altogether this establishment lisd cost Grent Britain nearly $£ 8,000,000$ !" The prodigality of this expenditure is ummatehod, except by its uselessness. It is doubtful whether it has prevented a single African from being dragged into slavery, or conferred the smallest real advantago on Africa. It, however, enabled the kings of Spuin and Portugal to turn their mercenary homanity to good account.-For further details with respect to Siorra Leone and tho trade of Western Africa, see the Report of the Select Committes of the House of Commons on the West Coast of'Africa, Sess. 1842, nul the Path. I'rper for 1851.

The trade hetween the United States and the whoia of Afriea is most jusignificant in comprarison with that fretween England and simply the western coast ; and it is a fact especially deserving of nttention, with reference to Liberia, that for some timo past, while the importations from England are lncreasing, from the United States they are diminishing, particulsrly cotton goods. It is estimated that there are not less than one hundrel ships regularly trading between tho lhitish ports and the coast of Africa, while a regular line of steamers plies between England and Liberia and other settlements on tho coast. In atdition, it is now proposed to send a steamer up tho Niger River each season for the encouragement of emigrants and the protection of traders; to seeure a free port at Fernamdo Po, by a commercial treaty with Spain, or in sume other convenient locality, as an entreput for British merclıant ships; to maintain the African equadron in its former state of efficiency, and to make Sictra Leone a free port. The following tables show the relative importance of British and Ancrican trade with Africa:
Tife Thade of the IVitrd States with Africa derino
the nine Yeale ening Jenx sin, 1857.

| Years. | kisporis. | Inipurts. | Total. |
| :---: | :---: | :---: | :---: |
| 1519 ........... | \$704. 411 | \$ 405,742 | \$1,204, 103 |
| 1851 . . . . . . . . . | 75, 2,260 | 524,422 | 1,283, 116.3 |
| 1851 | 1,340,64 | 1, t6it, 16is | 2, $6 \cdot 3,840$ |
| 1852 | 1,244.141 | 1, 57.605 | $2,303.798$ |
| 1853 | 1,610.483 | 1,201.980 | 2, 613,419 |
| 1551 | , 8r4, 972 | 1,ast, im | 3,191,632 |
| 185\% | 1,375,045 | 1,337, 5.7 | 2,713,482 |
| 1854 | 1.795.419 | 1,105, 507 | 2, 461,276 |
| 1857 | 2,481,74 | 1,521,665 | $4,004,411$ |

The amount of tonagge cleared from the Luited States was as fullows:

| Vear anding Juna 30. | 'Tanama cleared. |  |
| :---: | :---: | :---: |
|  | American. | Forelgn. |
| 1stor. | 18.077 | 1475 |
| 1, 57. | 22,640 | $74 \%$ |

The following returns to Parliament (ns publlinhed by the Londun Shipping and Mereantile (iazette) show the increase of exports by Grent "itain to the west coast of Africa, and of imports fron. , te same const:

| Years. | Exporis. | limports. | Total. |
| :---: | :---: | :---: | :---: |
| 18\%. |  | Lins.thas | 41,245,827 |
| 183, 1. | (6)4, in 3 | 79.4 .810 | 1,440,35\% |
| 185\%. | 630,725 | 707, 124 | 1,240,740 |
| $15 \%{ }^{1} 10$ | 001.412 | 749.378 | 1, 1200,715 |
| 1454.. | 109, sm: | Wen, fi84 | 1.564.44:1 |

This is independent of the lritish colonies of Slerra I.eone, the trade of which amomuted in 1851 to $\$ 1,121,865$, nud of the Iritish pessesslons on the Goln Coast nut the liver Giamhia, amounting to $81,617,285$ more; and of thoso at the Cane of Good Hope and In South Afrien, swclling the anount $\$ 8,383,090$ more ; making in nll nn aggregate of over $823,000,000$ in 1854 for the western coast of Africa entirc. - Sfe Ih.ackwootis Mayaziue, xxili. 63, xll. 693; Mlonthly Rclier, exxiii. 188; IIust's Merchants' Jfagazine, xv. 502: E:linburgh Revicu, lii. Bj5.

Bilk (Lat. Sericum, from Sires, the supposed ancient name of the Chinese), a fine glossy threarl or filament aqua by various species of caterpillars or larva of the phulirna genus. Of these the Phalena athas produces the greatest quantity; but the Phalarna bombyx is that commonly employed for this purpose io

Europe. The silk-worm, in its caterpillar state, which msy be considered as the first stage of its existence, after aequiring its full growth (about three inches in length), proceeds to inclose itself in an oval-shaped bult or cocoon, whteh is formed by sn exceedingly slender und long filmment of line yellow silk, emitted from the stomach of the inseet preparatory to its assuming the shupe of the chrysalis or moth. In this latter stage, after emancipating itself from lts silken prison, it seeks its mate, which has undergone a similar trnnsformation; and in two or three days afterward, the female having deposited her eggs (from 30 w to 500 in number), both inseets terminste their existence. According to Reaumur, the phalena is not the only insect that affords this naterial-several species of the aranea, or spider, iuclose their eggs in very fine silk.

Raw silk is proluced by the operation of winding off ot tho same time several of the balls or cocoons (which are immersed in hot water to soften the naturn gum on the filament) on a common reel, thereby ferming one smooth even threat. When tho skein is dry, it is taken from the reel and made up into hanks; but before it is fit for weaving, and in order to enuble it to undergo the process of dyeing without furring up or separating tho tibres, it is converted into one of three forms, viz., singles, tram, or organzins.

Singles (a collective nomn) is formed of one of the reeled threads being twisted, in ordor to give it strength and firmness.

Tram is formed of two or moro threads twisted together. In this state it is commonly used in weaving. as the shoot or weft.

Throtes silli is formed of two, three, or nuere singles, according to the substance required, being twisted to gether in a contrary direction to that in which the singles of which it is composed are twisted. This process is termed orgunizing, and the silk so twisted organzine. The art of throwing was originally contined to Italy, where it was kept n secret for a long periol. Stow says it was known in England since the bth of Queen Elizabeth. " when it was gaiued from the strangers;" mud in that year ( 1062 ) the silk throwsters of the metropolis were united into a fellowshij. They were incorporated in the year 1629, but the art continued to be very imperfect in that country until 1719.

Datcs of the Introlurtion of silk:-Wrought silk was brought from Persia to Greeco 325 n.c. Known at liome in 'Iiberius's time, when a lnw passed in the Sennte prohibiting the use of plate of massy gold, sad also forbidding men to debsso themeelves lyy wearing silk, lit only for women. Ileliogabalus first wore a garment of silk A.v. 220. Silk was at lirst of the same value with gold, weight for weight, sud was thought to grow in the snme manner as cotton ot trees, Silk-worms were hrought from Indin to liurupe in the 6th century. Charlemagne sent Offa, king of Mercia, a present of two silken vesta A.1. $\mathbf{7 8 0}$. The manufncture was enconraged ly loger, king of cibily, at l'alermo, 1130, when the Siciliams not only bred the silk-worms, but spun und weaved the silk. The mantfacture sprend into Italy and Spain, and aloo into the south of lirance, a little before the reign of limelis 1. . about 1510 ; and Ilenry IV. bropagated mulberry-tres and silk-worme throughout the Kinglom, lasi. In Einghand silk mantles were worn by some noblemen's ladies at a hall nt Kenilworth Castle, 1286 . Silk was worn by the Emglish clergy in 1534 . Manufucturai in lighland in 1604, and broad silk wove from raw sib in $16: 20$. liirst attenupt to introduce tho silk culture into tho Ancrican colonies by James I., yeur $16 \% 2$. Hrought to perfection by tho French refugees in Lardon at spitalfields, 168s. A silk-tlirewing mill was made in Englaml, and fixed up at Derby, by Sir Thomas Lombe, merchant of London, moveled from the original mill then in the King of Sardinia's dominions, about 1714.-LIaron.
te, which xistence, inches in al-shaped ccedingly k, emitted to its as. In this its silken one a sim. lays after. (from 30 h heir existis not the ral species 1 very line of winding or cocoons he natural reby formein is dry, lanks; but enable it rring $u p$ or ne of three
one of the it strength
t wisted ton weaving.
ore singles, twistel to which the 'lhis pron twisted or. ly contined ong periol. the Sth of n the stranssters of the They were $t$ continued 1719. ght silk was Known at ssed in the sy gold, sad ly wearing irst wore a tirst of the nt, and was 3 cetton on pa to liurope fria, king of . $8 \mathbf{8} 0$. The ug of sijeily, aly b red the The mantulso into the flimucis l., lberry-tnes , 1589 . ln neblemen's Silk was anufartared rom raw silh silk culture , year 162 ? rees in Lonlg mill was rby, by Sir odeled from rdiuia's do-

IIstorical Sketch.-'The art of rearing silk-worms, of noraveling the threads spun by them, and manufacturing the latter into articles of dress and ernament, seems to have been first practiced by the Chinese. Virgil is the carliest of the Roman writers who has been supposed to allude to the production of silk in China, and the teras he employs show how little was then known at Rome of the real nature of the article:
"Vodleraque ut follls depectant tenata Seres."-Georg. Ibb. fi. In. 1:2l.

But it may be doubted whether Virgil do not in this line refer to cotton rather than silk. Pliny, however, has distinctly described the formation of silk by the bombyx.--Hist. Nat. It is uneertain when it first began to be introduced at Rome; but it was most probably in the age of Pompey and Julius Casar-the latter of whem displayed a profusion of silks in some of the magnificent theatrical spectacles with which ho sought to conciliate and amuse the people. Owing principally, no doult, to the great distance of China from Rome, and to the difficulties $\ln$ the way of the interceurse with that country, which was carried on by land in caravans whose route lay through the Persian empire, and partly, perhaps, to the high price of silk in China, its cost, when it arrived at Rome, was very grent; so much so that a given weight of silk was sometimes sold for an equal weight of gold; at first it was only used by a few ladies eminent for their rank and opulenee. In the beginning of the reign of Tl berins, a law was passed, ne vestis serica viros fralaret -that no man ehould disgrace himself by wearing a silken garment.-Tacitus, Annal. But the profligate Heliogabalus despised this law, and was the first of the Roman emperors who were a dress compesed wholly of silk (holosericum). The example onee set, the custom of wearing silk soon became general among the wealthy citizens of Rome, and throughout the provinces. According as the demand for the article increased, efforts were made to import larger quantities; and the price ecems to have progressively declined from the reign of Aurellan. That this must have been the case is obvious from the statement of Ammianus Mareellinus, that silk was in his time (nnno 370) very generally worn, even by the lowest classes. Nericum ad usuon antehac nobiliunt, munc ctiam infimorum sine ulli discretione proficiens,-1.ib, xviii.

Chinn continued to draw considerable sums from the Roman empire ln return for silk, now becomo indisjensable to the Western World, till the 6th century. Alout the year 500, two I'ersian monks, who had long resided in China and made thenselves acquainted with the mode of rearing the sllk-worm, encouraged by the gifts und promises of Justinian, succeeded in carrying the eggs of the insect to Constantinople. Under thelr direction they were hatched and fed; they lived and laiored in a foreign cllmate; n sufficient number of butterlies was sared to propagate the race, and mul-berry-trees were planted to afford nourishment to the rising generations. A new and impurtant branch of industry was thus established in lurope, Experience and retlection gradually corrected the errors of a new attempt; aul the Sogloite embassadors acknowledged in the sncceeding relgn that the Romans were not inferior to the natives of China in the education of the insects and the mannfacture of silk.-Ginnon, Decline and Full. Greece, particularly the P'eloponnesus, was carly distinguished by the reariag of silk-worms, and ly the skill and success with which the luhabitants of Thebes, Corinth, and Argos carried on the manufncture. Until the 12 th century, Greece continued to be the only Europem country in which these arts were practiced: but the forces of Roger, king of Sielly, havlag in 1147 sacked Corinth, Athens, and Thebes, carrled off large numbers of the inhabitants to Palermo, who int reduced the culture of the worm und the manufacture of silk into Sicily. Firom this island the arts spread into Italy; and Venice, Milan, Forence, Lueca, cte., were
soon after distinguislsed for their auccess in raising sillc-worms, and for the extent and beauty of thelr manufactures of silk.-Ginbon, vol. x. p. 110 ; Biographie Universelle, art. Roaen II. The silk manufacture was introduced into France in 1480, Louis XI. having invited workmen from Italy, who established themselves in Tours. The manufacture was not begun at Lyons till about 1520, when Francis 1., having got possession of Milan, prevailed on some artisens of the latter city to establish themselves, under his protection, in the former. Nearly at the same period the rearing of silk-worms began to be successfully prosecuted in Provence and other provinces of the south of lirance. Henry IV. rewarded sueh of the carly manufacturers as had supported and pursuod the trade for twelve years with patents of nobility.

One circumstance distinguishes silk from the other three great sources of textile fabrics; viz., the silk is already a continuous illament before it reaches the hands of the manufacturer; wherens eotton, wool, and flax are all short in the fibre; and these fibres have to bo combincd end to ent by spinning. The little silk-worm, intent upon making a warm habitation for himself, wraps or builds around him a cocoon or small egg-shaped hellow envelope, filbricated of one vory long and exquisitely-fine filnment of silk. This filament the silk growers-whether in Italy, Turkey, China, or Indis (these being the chicf silk-producing countries)-unwind by various ingenious means; and many filaments are then combined into one to form a thread sufficiently strong to form into lanks or skeins. Such silk is called raw silk, and in this state most of our supply is obtained. It thence follows that the twisting and spiming machinery differs from that enployed for the other three kinds of fibre mentioned above. The silk is transferred from hanks to reels, round which it is wound. It is twisted, and wound, and doubled, and wound again, and transferred from one machine to another, until there is sufficient thickness to form a thread for wenving or for sewing, and sufficient twist to give it strength.

A document of particular interest has been publishcd, showing the arrivals of raw silk in Great Britain in cach of the fifteen years from 1842 to 1856 inclusive. The entire figures are too extended for insertion, but the following abstract embodies the princlpal points of interest. The most remarkable feature is that, whilo Clina sent to Great Britain only 180,124 lbs. in 1842, the supply furnished by her ansounted to 4,576,706 lbs. in 1854 , and in 1856 was $3,723,693$ lhs., not withstandIng the shipment of a large portion of her erop direct to France in consequence of the failure in that country. The next most important imports are those of Egypt. Fifteen years back-nnmely, in 1842-the quantity thence was 1 lh , and in 1856 lt was $2,51 \mathrm{~s}, 356 \mathrm{lbs}$. The Finst Indian supply has gradually declined, the crops In Bengal for the pnst few years having been unsatis. factory. From lirance, in 1842, Great Mritain obtalaed $1,156,498$ lbs., and in 1856 only $157,559 \mathrm{lbs}$. So far from having any to spare, the Frenel manufucturers were compelled to draw upon the stocks In other coumtries. The imports from Italy have been similarly affected. Those from Turkey liavo also diminished, but thls is to he nttributed to the French demand. Among the countrics that Great Britain has drawn upon are the United States, hut the amall quantitles obtained must have been of Chinese growth. The supplles from IIolland and Belglom, it is also assumed, nust have come originally elther from the Indian Arehipelago or France. It nppears that the largest Importution ever known was in 1854, when the total was $7,5 \mathrm{Bin}, 407 \mathrm{lbs}$. Last year, lowever, It was almost as great, and, ns prices have advanced in the two years more than 50 per cent., the meney value was proportionately beyond all former precedent.

The following is an oticial summary of the British importations of raw silks for the years 1852-1856:

Impoats of Raw Silke into tha Untiad Kinodom foa maeit Yrae, 1859, 1889, 1864, 1855, 1850.

| From | 1859. | 1953. | 1854. | 1856. | 1886. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| l'russla. | Prunds. | Pounds. | Pounds. | Pounds. 12,100 | Pounds |
| Hsnse Towns | 2,023 | 9,715 | 1,700 | 13,351 | 1,6is |
| Itolland..... | 271,089 | 182,997 | 155,774 | 95,972 | 91,915 |
| Helginm | 7,416 | 12,181 | 14,049 | 10,54! | 2,544 |
| France | 172,005 | 275,160 | 148,195 | 139,070 | 157, bis |
| sardiuia. | B819 | . 588 | - 010 | 7 | 689 |
| Tastany.. | 8,819 | 2,283 | 610 | 734 | 801 |
| Papal l'erritorles. | 8,680 | ${ }^{367}$ | 4,324 |  |  |
| Naples and sicily | 26,411 | 10,204 | 10,478 | 10,822 | 1.950 |
| Anstrian Italy | 773 | 116 |  | 810 | 1.609 |
| Malta . . . . | 09,049 | 09,242 | 139,186 | 60,050 | 02,453 |
| (irecea | 875 | 6,707 |  |  |  |
| Turkey l'ropur. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 570,123 | 621,461 | 213.766 | 153,892 | 197.062 |
| Syria and lalestias. . . . . . . . . . . . . . . . . . . . . . . . . . . | 14,464 | 8,6bl | 13,797 | 4,997 | 6,1925 |
| Egypt. . ${ }^{\text {c...... }}$ | 011,408 | 1,863,308 | 1,539,746 | 772,698 | 2,514,856 |
| British East lndles | 1,335,480 | 538,502 | 1996,729 | 884,004 | 610,422 |
| Thina. | 2,418,943 | 2,938,047 | 4,576,706 | 4,436,862 | 3,723.013 |
| Luited States | 0.948 | 2,180 | 17,067 | 15,652 | 4,830 |
| Other ports. | 18,859 | 910 | 2,735 | 500 | 1,7t3 |
| Total. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ${ }^{\text {a }}$ | 0,832,061 | 0,480,724 | 7,533,407 | 6,618,862 | 7,383,672 |

An dccotnt ghowing the Qeantitifs ann mediarfi Valtes of lheitigi manteacucard sitik (inotig exportzit from the I'nited Kinghom in tife Yigabs 1850, 1851, and 1852, EESPECTIYELY, ANI) AIDGTVY:NA TIL COUNTBIRS TO Whin the gine werd sent, and the Vabees of thoak GENT TO EACll

| Counities to which eaporied | 1830. | 14.1 | 1*52. |
| :---: | :---: | :---: | :---: |
| 1ilisula | < 4,679 | 47,422 | (26,799 |
| llanseatic Town | 1 25,639 | 132,73:1 | 179,530 |
| llollant | 48.543 | 51,445 | 114,030 |
| lielgium. | 29.837 | 33,013 | 41,247 |
| Chanbel 1ulanda | 7, 007 | 0,559 | 14, 75 |
| France | 176,450 | 160,011 | 257,055 |
| Portugal, Azores, and Madeira. | 1,163 | 2,545 | 11,043 |
| Spain and Canariea ...... | 9,091 | 9,049 | 12,351 |
| Gilbraitar. . . . . . . . . . . . . | 3,389 | 3,741 | 5,502 |
| 1taly | 45,786 | 47,030 | 40,304 |
| Turkey | 12,801 | 7,17* | 6,702 |
| Egypt. | 11,103 | 11,772 | 6.406 |
| liritiah south Africa. . .... | 11,445 | 0,193 | 13,721 |
| Britlath liast Indies. | 11.747 | 10,021 | 8,096 |
| Britinh Auntralia. | 54,376 | 688,736 | 117,113 |
| Uritish N. Amer. Coioniea | 162, $4: 1$ | 130,161 | 82,071 |
| Iritish Veat Indies | 25,635 | 29,4.32 | 1 14,071 |
| Forcign West Iadioy | 17,249 | 25,301 | 23,545 |
| Inited staters. | 416.433 | 4 $5 \times, 268$ | 46-4,070 |
| Mexico | 3,423 | 9,250 | 2,942 |
| Central America | 807 | 2,984 | 1,693 |
| New liranada, Veaczaela, ctc. | 3,498 | 3,070 | 4,5i4 |
| Itraail. | 14.2.36 | 23,624 | 94,709 |
| I'ruguay | 2,798 | 4,833 | 12,412 |
| Huenus Ayt | 11,11.4 | 4,6i5 | 22,606 |
| Chili | 33.342 | 29, 103 | 13,782 |
| lera | 19, 1146 | 24,369 | 19,193 |
| All uther commtr | 10,464 | 13,75 | 6, 648 |
| Total... . | 55,041 | 120,76 | , 0201,800 |

The silk exported from Conton consists of two leadiag varieties, known in commerce ly the names of Canton and Nankin. The first, which is raised principally in the province of Canton, is divided inte five sorts. The Nankin silk, proluced in the province of Kiangaan, is divided into two sorts, known in commerce by the names of Tantlee and Tuysaam. It is very auperior to the othor, and usually fetclea more than doublo its price. Bast India nativo silk comes wholly from Hengal. About the year 1760, the East India Compony introduced the Italian mosle of reeling silk, which was productive of a very great improvement in the quality of the urticle; lat we nre not aware that any subsequent improvement has been effectel. The silk goods lrought from Inilia are nut only inferiur, in point of quality, to these of Europe, but also to those of Chinn. Turkey wilk whilly consinted, some yeara back, of what is termed long reel and short reel bratia, a ralher coarse deacription, suited to few buyers, and chiefly used in the riblon trade of Coventry; but of late it has lieen insported of a very far asperior texture and quality, coming successfully iuto competitioa with Italian and Chius silk. The qualities now known as 1 rutian may be classell as follows ; viz., long reel l,rutia, short reel brutia, long reei Meatup (being a finer tiread than common bratia), short reel

Mestup, Selo (a finer sort, generally in loose skeins) Demirdask (a superior kind). At Brassa, the seat of the silk trade in Asia Minor, it is now sold by the oke of 400 drams, and not by the teffee of 616 drams, as formerly: the teffee is, however, still used at Constantinople. The pluins of Brussa and the adjacent villages produce different qualities, varying considerably in size, color, and quality. The village of Demirdask produces tho finest, owing to the care tuken ty the nutives in selecting the best cocoons, and attending curefully to the evenness of the thread threnghout the process of reeling; consequently this description commands a high price, and is approved by our throwsters.

The water of this place is considered favorable to the brightness and glocsiness of the silk, hy which it may be distinguished from that of Hrussa. The silk at Brussa is taken by the country people in small parcels to tho lechestar or customs, where it pays duty. The proprictor, wilh a hroker, then takes it to the silk bazar, where it is handel round to the different stands and sold to the highest bidder, resembling in this respect the mode of selling the orea in Cornwull to the diffierent smelters.

Thus a pers... luying saveral okes at a time, assont as well as be can the different qualities for packing. It is generally bought by speculators for the Constantinople market, and is forwarded to Ghemlek on cumels for shipment per stcamers to Constantinople, where it finds its way to the Mizam, or some broker's romm, where it is sold to the different merchants. The fibet longs are mostly lought for the Freuch and Russian: markets, geucrally the lutter. The loug reels are going out of uso in this conutry, as the more nodern naschinery is not adapted to its use.
The prices of silk at Brussa in Septenber, 1842, were:


Cogts ant ('narorg ov gil.k not'int at libegsa and gilitpll at Congtantinople for lonimn.
One rame 44 teffers = 710 oker 60 drams, at $\$ 21680 .$. § 95 , 167 l'arklug chargee and commination. C'arriage from liruana to Constantiaople..
tanes on gold ment to limiasa.
1Hilla, laillag, and petty expenmes..... $\$ 28$ 1.7 per)
Inward duty, 70 okia 00 drame, at oke or ew,
\&18, and 7,0ns theroon.............. 131 perct.)
Fxjort Aity, TI akn'g Gu Irame, at $\$ 6$, and 7,0 II therem
Corriage of monay, I per cent.
Conetantincile commianton, $3,9 \% 0$

Disconut and chargea in Landon 9 s. $3 \%$. $-18 s .9 d$

By far the greater part of the raw and thrown silk that comes from France is not the growth of that country, but of Italy; being principally conveyed by the canal of Languedoc and the Garonne to Bordeaux, whence It is shipped for England. So much is this the ense, that it appeara from the official accounts published by the French government, that while the aggregate quantity of the French and foreign raw and thrown silk ex ported from France in 1841 amounted to 1,074,144 kilograms, the portion which was of French origin amounted to only 12,294 kilograms l-Aclministration des Douanes, 18.11, p. 241.

We have lefore us an interesting report on the production of siis, submitted to the Acsdemy of Sclences by M. Dımas, to whom was referred a paper on the subject dravn up by M. André Jean, one of the most experienced silk growers, and for some time engaged with the most commendable perseverance and sigmal euccess in the ir provement of the different varietios of silk-worms. The observations of the learned nuthor of the report are based unainly upon the important fact that the production of cocoons in France has climinished from $26,000,000$ of kilograma (about $58,500,000$ llis.) in 1853 to $7,500,000$ (about 16,700,000) in 1856. To comprehend in its proper light the full effect of similar diminutions, in view of a continued nul constantly mereasing consumption, we must Inquire what are the limits to which th production of silk extends? The aggregate productlon of sllk in the world may be estimated at n value of at least $1,000,000,000$ francs, or nearly $\quad \$ 200,000,000$. Of this sum n little over ouethird is assigned to Europe, and the balance to Asia.


If these figures are accurate, must we not conclude from them that the aggregato quantity of silk nyail. able in commercial movemonta is exceedingly limited, and that a general uneasiness in tho silk markets must result from any failure in the cocooneries of Italy, where one-fourth of all the silk in the world is produeed, or in those even of France, which yield about one-tenth of the whole production? The falling off in the production of cocoons in France, which we have already indicated, would represent $n$ diminution in valuo of from $100,000,000$ of francs to $25,000,000$ had the price of cocoons remained the same at both perlods-namely, 1853 and 1856. But the movements of commerce have been so powerless in replacing the doficit of $19,000,000$ of kilograms (nearly $42,750,000$ pounds), that the price has advanced from 4 francs 50 centimes ( 84 cents) to 8 france ( $\$ 119$ ) per kilogram ( 2.20 lhs.), so that the loss falls equally upon the producer and the consumer. Foi the exports of sllk from China, see articles Cuins, Canton, and Silanehiai.
silk Mfanufactur in the United States.-The introduction of silk culture into the North American colonies dates hack to the first settlement of Virginiu. Jumes I., who wss anxious to promote this branch of industry, several times urged the "London Company" to encourage the growth of mulberry-trees, and uddressed a letter to them on the subjoct $\ln 1622$, conveyIng strict injunctions that they should use every exertion for this purpose, and stmulated the colonists to apply themselves diligently and promptly to the breed-
|ing of silk-worms, and the eatablishment of silk works, bestowing their labors rather in producing this rich commodity than to the growth of tobacco-an article to which his majesty had recorded and published his violent aversion. The company thus incited, showed much zeal in their endeavors to accomplish the king's wishes. A considerabli number of mulberry-trees was planted; but little silk was producerd, owin'; to difficulties involved by thelr dissolution soon after. In about the year 1651 the rearing of silk-worms ngain became a subject of interest in Virginia, and premiume were offered for its encouragement; but it does not appear that the business was ever prosecuted to any extent. The silk culture was introduced into Louieiana In 1718 by the "Company of the West." In the infant settlement of Georgia, in 1732, a piece of ground belonging to government was allotted as a nursery plantation for white mulberry-trees, and the nttention of some of the settlers was soon engeged in renring silk-worms. In 1726 a quantity of raw silk was raised in that colony, which was manufactured into a piece of stuff, and presented to the queen.

In 1749 an act of Parliament was passed for encouraging the growth of silk in Georgia nnd Carolina, exempting the producer from the payment of duties on importation into London. A bounty was also offered for the production of silk, and a mun named Ortolengi, from Ituly, was employed to instruct the colonists in the Italian mode of management. A few years beforo the Revolution considerable quantities of raw nuterial hegan to be raised, which was said to be equal, in somo cases, to the best Piedmont silk, and worked with less waste than the Chinese article.

In Carolina the cultnre was undertaken by the small firmers. In 1766 the IIouse of Assembly of this provinee voted the sum of $£ 1000$ towarl the establishment of a silk flature at Charleston, under the direction of Mr. Gilbert.

In Counecticut, attention was first directed to the rearing of silk-worms in 1760. Dr. Asjinwall, of Mansfield, from motives of patriotism, used his hest exertions to introduce thls importinnt branch of rural ceonomy. Ile succeeded in forming extensive nurscries of the mulberry at New IIaven, Long Island, Pennsylvania, and other places. Ilalf an ounco of mulbery seeds was sent to each parish in tho colony, with such directions as his knowledge of the bisiness enabled him to impart. In 1783 the Legislature of Connecticut passed an act granting a bounty on mutherry-trees and raw silk. It may here be stated to tho honor of Connecticut that she is the only Stato in the Union which has continued the buainess without anspension, nnd probably has produced more silk, from the time of her conumencement up to the year 1830, than all the other States.

In the year 1769, on the recommendation of Dr. Franklin, through the American Philosophical Society, n filature of raw silk was established in Philadelphia, ly private subseriptlon, and placed under tho direction of an litelligent and skillful I'renchman, who, it is said, proluced samples of reeled silk not inferior in quality to the best from France and Ituly. In 1771 the managers purchnsed 2300 lbs , of cocoons-ill the product of Penusylvanin, New Jersey, and Delaware. The enterprise was interrupted by the Revolution. A similar undertaking was again nttemptel in Philadelphia ia 1830, under the supervision of NI. J. D'llomergue, nad cocoons were brought in abundance to the establishment from various parts of the conntry, and so continued for some time afterwarl ; but for want of capital the enterprise failed.

In about the year 1831 the project of rearing silkworms and estallishing filatures of silk was renewed in varlous paris of the Union, and the subject was deemed to lis of so much importance, that it not onlyattracted the attention of Congress, but afterward recelved encouragement from the Legislatures of several

States，by hounties offered for all the raw silk produced within their limita for certain periods of time．The business soon began to be prosecuted with extreme ar－ dor，and cuntinued for several yours，resulting in the establishment of several nurserice of mulberry－trees， and ending in the downfall of the famous＂Morus Mnlticaulis speculation，＂in 1845.

The amount of raw silk exported from Geergia In 1750 was 118 lbs ； $\ln 1755,138 \mathrm{lbs}$ ；in $1760,558 \mathrm{lbs}$ ； In 1766, more than $20,000 \mathrm{lbs} ; \ln 1770,290 \mathrm{lbs}$ ．From South Carolina，In 1772，4i5 libs．In the year 1760， there were raised on Silk llope Plantation，in South Carolina， 630 lbe．of cocoons；in Mansfield，Connecti－ cut，in 1793， 265 lbs ．of raw silk；in $1827,2430 \mathrm{lbs}$ ．； In 1831，10，000 1bs．；in Connecticut，in 1844，176，210 lis．；in the United States，the same year， 396,790 the．

A remarkablo circumstance is said to have occurred in the silk factory of M．Garibalili，at Cromona．It is stated that in this fuctory a quantity of silk－worms， instead of forming tho cocoon as usual，actually wove a kind of silk ribbon，of the breadth of un linch and the length of twelve feet．－Year－Book of Facts， 1857.

According to the census returns of 1840，the amount of silk cocoons raised in the United Statee was $61,5 \mathbf{0}_{2}$ lhs．；of $1850,10,843$ liss．From the above it is obvious that the－wrduction of cocoons has decrensed，sinco 18．10，46，4 thes；and aince $18+4,382,027$ liss．


Importationg，Jisportationg，and hoye Congexition df ponelon Silk ；poafion Importations，Exportationa，ayd



| Years． |  | Utamanafacturel Sllk． |  |  | Mnnofacinzes of Silk． |  |  | Total home Consumpition of Importationa of Slik and the Manafacturen of sidk in the Inited Siatea． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Foreliga Pmourtations | Foreign Exportationn． | $\begin{gathered} 11 \text { vove } \\ \text { Connampition. } \end{gathered}$ | Forrign Iomportations． | $\begin{gathered} \text { Yureign } \\ \text { Exportations. } \end{gathered}$ | Hoble Consumpilinn． |  |
| 84 |  | 5234.235 | 42 \％${ }^{4}, 298$ | \＄4：3，990 | \＄1，601， 222 | \＄1，015，532 | － $8.6,85,990$ | \＄ $3,6119,486$ |
| $184 t$ |  | 254， 1 ㄴ | 2 27,114 | 26，083 | 17， 3000,705 | 3515，264 | 14，04，4，5：11 | 14，971，520 |
| 1842 |  | 38.408 | 420 | 32，583 | 10．44，341 | 205,159 | $0,179,152$ | 9，2 11,764 |
| 1543 |  | 63， 2519 | 3，054 | 49，997 | 2，662，087 | 206， 777 | 2，455，310 | 2，50：1，307 |
| 1844 |  | 172，453 | 7．103 | 105，551 | 8，310，711 | 240，834 | $8,170,473$ | 8，245，724 |
| 1845 |  | 208．154 | 4，312 | 204，092 | 9，731，764 | 2．10，272 | 9，485，524 | 9，485！， 4118 |
| 156 |  | 216,647 | 21，4099 | 192，644 | 11，667，685 | 195， 51.1 | 10，171，9．6 | 10，604，54 |
| 15.7 |  | 25,046 | 8.1395 | $2+1,701$ | 14，733，37 t | 584.163 | 11，949，198 | 11，64，9，8 |
| 1844 |  | $35+4,073$ | 19,488 | 385， 115 | 14．043，033 | 340，858 | 14，202，780 | 14，697．895 |
| 1844 |  | 384，585 | 85.515 | 382.020 | 18，791，2：4 | 388，072 | 13，402，600 | 13，731，680 |
| 157 |  | 401，385 | 7，403 | 398.977 | 17， 6139,432 | 352， 937 | 17．2＞0，987 | 17，630，964 |
| 18.1 |  | 4 | 43，846 | 412，643 | $25,777,945$ | M10，169 | 25，277，077 | $25,689,726$ |
| $1 \times 5 \pm$ |  | 378.747 | T，143 | 371,604 | 21，051，752 | （004， $\mathrm{s}^{(0)}$ | 21，041．897 | 21，418，5101 |
| 1601 |  | 799，931 | 243 | 722，04？ | $30,424,886$ | 607，2994 | 29，827，5＇m | $311,550,241$ |
| 14.4 |  | 1，009．38！ | 7.969 | 1，091，493 | $34,016,431$ | 848，tis 4 | 43，8533， 477 | $34,9+45,110$ |
| 18゙と。 |  | 751．617 | 71，122 | 641，495， | 24，316， 5 564 | 915，135 | $23,404,421$ | $24,144,116$ |
| 145］ |  | （191，234 | 4.285 | 9814079 | 30，226，532 | 876.613 | 2： 20 C00．019 | 30，631， 1948 |
|  | y average．．．． | ＋409，4\％ | 941，720 | \＄$\$ 19395127$ | 1417，092，074 | 4 $410,4+4$ | ＋16， 1624,330 | ＊16，信B， 267 |

The following is the comprative tofal receipts of foreign silk goods at all the prorts of tho l＇nital States during the rears 1804，1850，1856：

|  | 1 \％． |  | \＄88． |
| :---: | :---: | :---: | :---: |
| Raw al | \＄1，085，261 | 4749，251 | \＄921，234 |
| Silk pilme growis． | 25，2：04： 219 | 21，06， 1,467 | $25,260,651$ |
| Ilomery and article＇ | 1，001．200 | 45003 | 8 |
| S．wIng allk ．．．．．．．．．． | 832，801 | 199，220 | 250， 138 |
| Silks，tamburred or em－ hroidered | 1，183，209 | 800,900 | 1，500，0011 |
| Ellk hata and bonnets．． | 116，139 | 110，586 | 102， 897 |
| Nlik flora | 14，1789 | 0.366 | 111，498 |
| Molting clotha． | 48，419， | Pin， 98.4 | 78，146 |
| Silk and worterd | 1．54， 1084 | 1，123，938 | 1，335，247 |
| －llke undivelful | 6．727，${ }^{\text {a }}$ ， 6 | 3， $4 \times 0,116$ | 3，974，974 |
| Total tmp．allk | ＋36．460，205 | ＋27．052，012 | ＋34，053，018 |

By the liritish tarif，knubs or husks of ailk and
wasto silk，raw and thrown silk，dyed，single or tram silk，dyed organzine or crapee silk，may be imported duty freo ；manufactures of silk genorally 15 per cent． ad ralerem．

The following tallo exhibits the population，con－ sumption of imported silk，and the allotment per capita thereof；consumption of imported manufactures of silk，anil the per capita thereof，and the tetal home con－ sumption of importatlons of silk and manufactures of silk in tho United States，with the allotment per capita thereof for tho years 1840，1850，and 1855；also，the production of silk in the Unitod States，and the allot－ ment per capita thereof，and the total consumption of joreign and domestic silk and foreign manufactures of silk in the Enited States，and the allotment per capita thereof，for tho years 1840 and 1850：

| United Mlatus． | 145） | 1950， | 1855. |
| :---: | :---: | :---: | :---: |
| I＇copalathen． | 17，009，553 | 23，17，876 | $4.7 .180,817$ |
| t＇onamopilion of imported raw ullk．．．．．．．．．．．．．．．．．．．．． | \＄33．990 60 | \＄343，977 10 |  |
| Alfotment pur enpita threof ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 20 | 161 | 20， 250 |
|  | 8，685，400 0n | 17，286，087 00 | 23， $14.4,491$ on |
| Altotin．per caplta therof ．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ${ }^{60} 30$ | 17，080，7440 | 41 31 |
| Ilome consinmplion of Imported raw and manufnetured nilk．．．．． | 8，610，086 010 | 17，050，04． 00 | 24，14t，ithi 010 |
| Allotinatht per capita throrof ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | （0）PO） | 10843 | $\text { (i) } 5581$ |
| l＇roduction of silk in the thitad States．．．．．．．．．．．．．．．．．．．．．． | 61，658 00 | 10，843 00 | （） |
| Allotiment prre caplta thereof ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | $\left.8,681,63^{\prime}\right)^{36}$ | （001，807 00 | ．．．．．．．． |
|  | $8,081,08)$ 5756 | $17,001,817$ 715 20 | ．．．．．．．．．．． |



Imports of Sile into tif United Statbs foa tita Year endino Jung 30, 1865.

| Whanea imporied. | Ptiea Goods. | llonemy and Brticlea mindo on Pramies. | Sewlog Silk. | Hate and Honnata. | Meoofaciures not opeetfiad. | Floss. | Raw. | $\underset{\substack{\text { Boltiog } \\ \text { Clolhas. }}}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Danish Went Indies.. | \$211 |  |  |  |  |  |  |  |
| Hamburg............ | 108,331 | \$23,024 | \$105 |  | \$54,174 | \$1702 | \$106 |  |
| Bremeni. .................... | 1,132,220 | 0-4,886 | 0,463 | \$843 | 874,961 | 846 | 2,053 | \$3,933 |
| liolland . . . . . . . . . . . . . . . . . . | 160,170 ${ }^{17}$ | 3,979 |  | [20 | 72 <br> 37,414 | $\cdots$ | .... |  |
| 3ingland. | 7,805,499 | 503,130 | 106,820 | 19,594 | 3,477,070 | $\underline{20,0054}$ | 614,437 | $107 \%{ }^{10} 10$ |
| Scotiand. | 10,641 | 8,540 | 104 | 819 | 21,837 | .... | .... | .... |
| Cannds . . . . . . . . . . . . . | 723 | $\cdots{ }^{\text {. }}$ | 8 | 12 | 1,015 | .... | .... |  |
| Britisi Weat lodtes . . . . . . ${ }^{\text {Prish }}$ | 6,783 | 24 | ... | .... | \%,690 | $\ldots$ | $\ldots$ |  |
| Frauee on the Alfantic. ..... | 12,032,309 | 294,0019 | 81,601 | 127,636 | 1,434,167 | 1,700 | 1,2i3 | $\ddot{30} 9$ |
| France on tho Medterrancen |  | .... | .... | 1,259 | 69 | .... | .... | .... |
| Spain on the Atindtic........ | 1,734 | $\ldots$ | 74 | .... | $\cdots$ | .. | . | . $\cdot$. |
| (tanin on the Mediterranean. | 1,164 | $\ldots$ | 74 | $\ldots$ | 124 | . | .... | .. |
| S'uba......... | 1,478 | $\ldots$ | 000 | $\ldots$ | 840 | … | .... |  |
| Mardinin. | 831 | .... |  | .... |  |  |  |  |
| Tureamy .... | 168 | .... | 11 | .... | Sst | .... | ...' | ...' |
| Two Sicilica | .... | $\ldots$ | 135 | $\ldots$ |  | ...' | .... | .... |
| Anstris ......... | . $\cdot$. | $\ldots$ | $\ldots$ | ... |  | .... | $\ldots$ | $\cdots$ |
| jeggpt . . . . . . |  |  |  |  |  |  |  | $\ldots$ |
| New Granada | 114,713 | 1,097 | 492 | 1,777 | 31,943 |  |  |  |
| lirazil... | 15 | ... | $\ldots$ | .... |  | 73 |  | . |
| Fenador Chios.. | 634,407 | $\ldots$ | $\ddot{8,4 i 1}$ | ..... | 3,070 | 20s | 435,027 |  |
| Total.. | \$22,007,369 | \$839,299 | \$211,723 | \$151,192 | \$44,4+2,522 | \$80,012 | \$ 8033,784 | 407,092 |

Foamian Exponta of Sile from tif Uinitad States poa tieg Yeab endino Jone 30, 1857.

| Whither esported. | Pleeo Goods. | Jloskery ond articles minde on Framen. | Sewing sllk. | Ilata noul Llonsets. | Manufnctures nol epecified. | Flons. | Raw. | Bilk and Worated Pieec tionds. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Danish Weat Indea . . . . . . . | 4585 | .... | . $\cdot$. | . | . $\cdot \cdots$ | $\cdots$ | . . . | .... |
| linmburg . . . . . . . . . . . . . . . . | 1,525 | . . $\cdot$ | . $\cdot$ | $\cdots$ | . $\cdot$. | . $\cdot$. |  | . . $\cdot$ |
| Ifremen. . . . . . . . . . . . . . . . . . |  | .... | .... | .... | . . . | . $\cdot$. | \$ $\$ 1000$ | .... |
| Dutch West Indles | 1,185 | .... | * | .... |  | .... | . . . | . ${ }^{\prime}$ |
| fingland . . . . . . . . . . . . . . . . . | 226 | .... | $\cdots$ | . | \$3,486 | . . . | ... | . . |
| tannda. . . . . . . . . . . . . . . . | 210 | .... | \$15 | . | 30,914 | . $\cdot$. | . . . | . . . |
| Iritish N. Amer. Possesslons | 3,130 | . . . | .... | * $\cdot$ | 2,75\% | .... | . . . | . . . |
| British lloaduras. . . . . . . . . | 2,180 | .... | .... | . ... |  | . . . |  |  |
| Frnuce on the Athatle. . .... | 1,000 |  | ... | . $\cdot$ | 839 | -*'* | 3103 | . $\cdot$ |
| Cuba . . . . . . . . . . . . . . . . . . | 1,915 | \$444 | . | $\ldots$ | .... | . . . | .... | . . . |
| I'orto Ifico . . . . . . . . . . . . . . . | 505 | .... | - | $\cdots$ | .... | .... | . $\cdot$ | . . . |
| Cspe de Verd Islands. ....... | $\cdots$ | .... | .... | $\$ 67$ | - | .... | . | .... |
| Azores . . . . . . . . . . . . . . . . | 344 | .... | . | -* | $\ldots$ | - | . | . ${ }^{\text {d }}$ |
| Sardinia . . . . . . . . . . . . . . . . | 100 | .... | . . . | .... | .... | .... | . $\cdot$ | . |
| Torts in Africa . . . . . . . . . . . . | 000 | .... | .... | . | - | . . $\cdot$ | *** | .... |
| Itaytl. . . . . . . . . . . . . . . . . . | 2,260 |  |  |  |  |  | . $\cdot$ |  |
| Mexico . . . . . ............... | 27,173 | 1807 | 0001 | 065 | 0,504 | \$205 | . $\cdot$ | \$1169 |
| Central Republic..... .... | 2,1313 | *... | - | ...' | -•• | .... | . $\cdot \cdot$ | . |
| New Granada... | 13,381 | .... | 63 | ${ }^{\prime}$ | $\cdots$ | .... | . $\cdot$ | . . . |
| Veneruela . . . . . . . . . . . . | 204 | .... | .... | . . . | 083 | .... | .... | . . . |
| Uruguay, or Cisplatine Rep. |  | . $\cdot$. | .... | .... | 1,400 | . | . . . | . |
| Chitj . . . . . . . . . . . . . . . . . . | 28,475 | . . . | . | - | 2, 125 | . | ... | . . . |
| Fandwleh Jolands. . . . . . . . . . . . . | $\ddot{\mathbf{3}, 057}$ | - | ..... | $\ldots$ | 2, 2,252 | $\cdots$ | ... | ... |
| China ........ | 489 |  | ... |  |  | .... | ... |  |
| Total. . . . . . . . . . . . . . . | 401,153 | \$1751 | \$ 46135 | \$732 | \$57,204 | \$ 215 | \$4163 | \$1169 |

-See North Amer. Rev., xxvii. 438 (Wala.enstein); Amer. Quart., x. 38i5; Westm. Rev., xvi. 425, xvii. 241, xviii. 1, 228 ; De Bow's Rev., v. 32.4, 411; Edinb. Rev., xliii. 76; Вцack wood's May., xviii. 736, xxv. 685.
silk-cotton. A beautiful eilky kind of cotton is obtainel from the Borrbus und other trees; it is short and remarkably elastic, and would bo very largely usel were it not fragile and tender. Tho Hindoos spin it into a loose, conrse, warm kind of cloth. In Europe it has not yet been much employed; but in America a method has heen discovered of upplying it as a covering for so-called silk hats, for which it is said to be admirably alapted. As thico is an almost boundless supply of the trees yielding theso delicate fibres, there may here be a great manufacture in tho future.

Eilver (Ger. Silber; Du. Zilver; Da. Nalv, Swed. silfver; Fr. Argent; It. Argento; Sp. Plata; Port. Prata; Russ. Serctro; Pol. Srebro; Lat. Argentum; Gr. $u_{1}$ y yopos; Arab. Fuzzeh), a metal of a the white color, without eithor taste or emell; being in peint of brilliancy inferior to none of the metallic borlies, if we except polished stecl. It is softer than copper, hut harder than gold. When melted Its specific gravity is 10.474 ; when huminered, $10 \cdot 51$. In mullentility it is inferior to none of the metals, if we except goid. It may be beaten out inta loavos only pouroo of an inch thick. lte ductility is oqually romurkable: it may be drawn
out into wire much finer than a human halr; so fine indeed, that a single grain of silver may bo extended aloont 400 feot in length. Its tenacity is such, that a wiro of sllver 0.078 inch in diameter is capable of supporting a weight of $187 \cdot 13$ liss. avoirdupois withont breuking. Silver is easily alloyed with copper by fusion. The compound is hurder and more sonorous than silver, and retains its white color even when the proportion of copper exceels ono half. The hardness is at a maximmu when the copper amounts to one-fifth of the silver. The standard or sterling silver of Britain, of which coin is made, is a compound of 121 parts silver and 1 copper. Its speelfic gravity is $10^{\circ} 2$. Tho apecific gravity of Paris standaril silver, composed of 137 parts silver and 7 copper, is $10 \cdot 175$. The French silver coin during the old govermment was not nearly so fine, being composed of 261 parts silver und 27 copper, or 9 g parts silvor to 1 part copper. The Austrian silver coin contains $\frac{13}{2 / 3}$ of copper. The silver coin of tho ancients wus nearly pure, and appears not to have been mixed with alloy.-Tromson's Chemistry.
The most productive silver mines are in Americn, particularly in Mexico and Peru. There are also silver mines in Hungnry, Saxony, Spain, and other parts of Earope, and in Asiatic Russin.-See Purcious Metals.
Besiles being used as a coin, or money, silver is ex-
tensively employed in the arts. The value of the silver plate annually manufactured is very considernble. Large quantitlea are also used In plating. silver oxista in most parts of the world, and is fonnd mixed with other ores in varlous mines in Great Britaln. The silver mines of Sonth America are far the rachest. A mine was discovered in the district of La I P az in 1660 , which wus so rich that the silver of it was often cut with a chisel. In 1749 one mass of silver, weighing 370 lbs., was sent to Spain. From a mine in Norway a piece of silver was dug, and sent to the loyul Museum ut Copenhugen, weighing 560 llse., and worth c1680. In England silver plute and vossels were tirst used by Wilfrid, a Northumberland hishop, a lofty and mulitions man, A.D. 709.-Tynenti's Ilist. of Eugland. Silver knives, spoons, and cups wero great luxuries in 1300.

Silver Coin. Silver was first coined by the lydians, some say; others, by I'hidon of Argos, 869 u.c. At Rome it was first colned by Fabius I'ictor, 269 u.c. Used in llritaln 25 n.c. The Saxons colned silver pennjes, which wero 298 grains weight. In 1302 the penny was yet the largest silvor coin in England.- See Suluinges, ete., and Corn.

The scarcity of silver in Western Europe, Including Great Britain, and in this country, has given rise to the question, "Where does the silver go?" In connection with this question, we make the following extract from a paper read by Prof. I. 11. Walsh, of the Dublin University:

At the time when Pliny termed it the sink of the precious metals, silver was a favorite article of export to the biast. It has continued so sinee, but tho trade of late has assumed an extraordinary magnitude. In the five years prior to 1850 over $\$ 110,000,060$ worth of silver have heen exported to tho Fast through Finghand alone, and from other countries a similar movement has heen in operation. The export in 1825 was 832,000, 000 , and this year ( 1856 ) it is proceding at tho rate of over $-45,000,000$ per unnum, judging from the returns that have been published for the tirst four months. ['nlike the old movement, tho present ean not be permanent. The former was seldom more than might le accounted for as the distribution of silver to some of its chief consumers-the nations of the Fastaccording us new supplies were raised elsewhere. It was, in tart, the ordinary movement from the producer to the consumer. Ilumboldt estimated the ammal production of silver in Mexico nt $\mathbf{1 , 1 8 4 , 0 0 0} \mathbf{~ J b s}$., or aloout $\$ 25,000,000$.

But now silver goes fuster to the liast than it is produced throughout the world. Jlence the process can not be permanent, but must come to an end as soon ns the redist ribution of the old stock has been effected; for the annual production of sil ver isonly alsut $\% 10,000,400$; and since the export to the Enst through Eingland alone is at tho rute of over $840,000,000$, it follows that it can not the the new supplies of silver which meet that domand and all others for the same metul, but that there must tie some auxillary fund to lie drawn upon. Such a fund is furnished by a cessation in the demand for silver in several conntries which leforo employed it most largely, but now uso gold insteal. Silver, which used to be coined in France and the United States at an average rate of $\$ 20,000,000$ per annum, is now little enpluyed, while much of the ohd coin of that metal is metted down and exportel. In France, it is suid that in one year ( $18^{\circ} 3$ ) so much as $f 60,000,000$ were disposed of in this manner, and that the operation has been sinco proceeding at a still is reater rate. In Nextwo there are eight or nine mints, one of which is national, laviog one general law of colnage, but ladependent of each other, and subject to no general contrul. There are some characteristic differences in rebpect to grsdes of fineness and aceuracy, but they seem not suflicient to call for a distinction, us the only external meuns of identifying is in the mint mark.

Silivik of dompette Paencotion, incluthino Silvea pabtyn
 Unitron Statge, ite Ifanancips, and the abeay deyier, New ghek, fhow daneary, 1941, to dene 30, 1857 (that for 1857 ueina aix monthe onle, to June 30 ).

| Vparn. | $V_{\text {alua }}$ | Vpars. | Vatur. |
| :---: | :---: | :---: | :---: |
| 141. | (4,3*1 | 1850). | 420, $2 \times 5$ |
| 1442. | 15,453 | 18\%t. | 3S9,471 |
| 1843. | 8,641 | 1 N | 414,4:4 |
| 194 | 30,847 | 1 sin . | 417,479 |
| 14.45 | 4.769 | 154. | $328, t: 0$ |
| 1446 | 3,146 | + | 333,05;1 |
| 1447 | 6,407 | 180 | 321,039 |
| $18+$ | 6,191 | 1557 | 127.253 |
| 18 | 89,112 |  | 2,7141,729 |

Statement of Amoent of Shivea coinpi at the Mint of tife tinited ntates, and the biancel Mints at san I banclaco and Nkw orbikane, thike the hot or frioacsay 21, 1553 (818 Mostus only, 1567).

| Yrars. | Mint of tha T'nited Staten, Phitaitelphla. |  ciero. | Uranch Mint, Nuw Orleama | Tetal. |
| :---: | :---: | :---: | :---: | :---: |
| 1483. | \$7,517,16t |  | \$1,137,16116 |  |
| 154 | 8,373,270 |  | 3,246,040 | 8,064, 27.11 |
| 1855. | 1,419,170 | \$104.075 | 1,918,(14) | 3,541,245 |
| 1456. |  | 177, 18 Mm | 1,744,000 | $5,135,240$ |
| 1867. | 1,427,000 | [91),1100 |  | 1,477.1610 |
| Total. | * $\$ 14,961,841$ | \$341,1775 | \$8,045, (40) | -27,3 |

Silicer Minez of Mexico.-It ls not generally known in this country that tho silver minos of Mexico, which yichled to tho Spaniards, hetween the conquest by Cortez and their expulsion by the Mexicans in $1 \times 2 i$, $22,028,000,000$, as shown by the records of the Nints, have sinee that jeriod steadly and rupidy increased their product, until from an annual yleld of about $\$ 20,100,000$ it has risen, according to some nuthorities, to upward of $\& 10,000,000$ in 1856 . We have no oflicial datia "poon which to affirm or deny this. This vast product is from the working of a very small number of mines, whilo that portion of Mexico north of latitude $24^{\circ}$, and on our own frontier, which, aecording to Haron IIumboldt and others, contains the richest rains -uften beginuing near the surface, and ahove waterlevel, and somethes yielding vast quantities of pure native silver-havo lain for many years entirel unworked mind neglected. This has been in consequence of the insbility of the few Mexicans scattered over those regions to cone with the wild $A$ pache and Cammuche Indians, who have held free scope there until wilhina few years past. 'Jhey are now kept out from the states near tho lower part of the Rlo Grande by tho filting up of the comntry, and liy the vicinity of our newly-estahlished military jousts. Up to this time the only forcigners who have "wailed themselves of the opportunities of annussing fortunes from these mines are the linglish, and a few Germans; and they have confined themselves principally to the poorer veins of the thickly-settled Contral and Southern parts of Mexico. Jut they are now meeting witb the rewards of their enterprise.

Recently, several companies have been formed in the United States for working mines in Northern Mexico and Arizona. One of these is composed, in part. of oflicers of our army, who have geen and exabined the localities, and some of whon have resigned theit commissions for the purpose of devoting their time to tho opening of these mines. Those in Arizomin are so far distant, and in a country so uncultivated anif so beset by Indisna, that it may be the work of time and of much expense to overcome these obstacles. llat that American enterprise will finally overcome them none can doulit. On the Jower Rio Girande, however, in the state of Nuevo Jeon, within forty-live miles of steamboat navigation, and but forty-five miles from the Texas line, and but fonir days' sail from New Orieans, are sume of the richest mines In the Repי'ilie of Mexico. One of these is being reojened by a very' strong New York company, called the Vallicillio, ind with good prospects of large returns.-Letler from Sto Mexico. See artides Mexico, Pafchoin Metals, and Conss for more oxtended information in regarl to the production of silver.

The product of ellver at dlfferent periods of the present century is estlmuted as follows :


In regard to the production of silver ln Mexice, it nppeurs that the amount of colnage in that country in 1851 was $\$ 23,166,000$, of which $\$ 2,004,000$ was in sil ver. From the year 1690 to 1800 the production of the gold and silver mines of Mexico is estimated at $\$ 1,351,000,000$, and from 1800 to 1856 at $\$ 160,000,000$, us the production of the silver mines alone.

Singapore, an island and British settlement at the eastern extremity of the Straits of Mulacea, the town heing in lat. $1^{\circ} 17^{\prime} 22^{\prime \prime}$ N., long. $103^{\circ} 51^{\prime} 45^{\prime \prime}$ F. The island is of an elliptical form, about 27 miles in its grentest leugth, nnd 11 In breadth, contuining an estimated areu of 275 agnare miles. Hut the whole Iritish settlement embraces a circumference of above 120 miles; in which are included about 50 desert islets, and the seas and straits within 10 miles of the coast of the principal island. The latter is separated from the main land liy a strait of the same nano, of small breadth throughout, and scarcely, indeed, a quarter of a mile wite in lts narrowest part, which, in the early peried of Europeun navigation, was the thoroughfare between India nnd China. But the grand commerciul highway between the eastern and western portions of maritime Asia now passes nlong the south side of the ishnd, on which the town is built, between it and a chain of desert islands about 9 miles distant; the safest and most convenient channel being so near to the island that ships in passing and repassing come close to the ruals. The town is wholly indelited for its rapid rise and growing importance to its position on this strait. This has rentered it not merely a convenient entrepsot for the trade between the Western World and India on the one hand, and China on the other, but nlso for that between the former and the Eastern Archipelago, the Philippines, etc. It is situated on a river, or rather salt ereek, navigable by lighters about three quarters of a mile from the sea. Ships lio in the roads, or open harbor, at the distance of from 1 to 2 miles from town, aecording to their draught of water. The ussistance of a number of convenient llyhters, which are always in readiness, enables them to load or unload, with searcely eny interruption, throughout the year. The creek is accessible to the lighters, and the gootis nre taken in and discharged at convenient quays, at the cloors of the principal warehouses.

The climate of Singapore, though hot, is healthy. Falrenheit's thermometer ranges from $71^{\circ}$ to $89^{\circ}$. Being only about 80 miles from the equator, there is, of course, very little vnriety In the seasons. There is neither summer nor winter; and evas the periodical ralns are short, nul not very weil marked-moderate showers of ratin fulling for about 150 days each year. The suttlement of Singaporo was formed in February, 1819, and its sovereignty and property, in their present extent, confirmed to the Britlsh government in 1825, by a convention with the King of the Netherlands, and a treaty with the Malay princes to whom it belonged. I'revlously to its being taken possession of by the English, it had been inhabited for about eight years by a colony of Malays, half fishermen and hulf pirntes. When the first census was taten in January, 182., the pepulation was found to amount to 10,683 . In 1828 it had increased to 15,834 , in both cases exelusive of troops, cump followers, Indian conviets, and a floating population of nhout 3000 . In 1837 it amounted to 29,4184 , of whom 13,749 were Chinese settlers, and 9132 Malays, the Europeans being but few in number; nud at present (1853) the population exceeds 50,000 , of whom ubout half are Chineso.

The principal merchants and agents are Engllshmen, of whom also there are a fow shop-keepers, auctloneers, etc. There are also some respectablo Chinese merchants; and the bulk of the ahop-keepers, with the most valuable part of the laboring population, consist of Chinese. About 5000 adult males arrive annually from Chlua by the junks, about 1000 of whom remain at Singapore, the rest dispersing themselves among the nelghboring Dutch, English, and Malay settlements. The boatmen are chiefly natives of the Coromundel coust ; and the Malays employ themselves ns fishermen, in cutting timber, and in supplying the settlement with the rude produce of the nelghborhoot. There are good daily markets, open at all hours, and well supplied with vegetables, fruits, graln, fish, pork, and green turtle-the latter the cheapest animal food that can be proctured. Thero are no export or import duties, nor anchorage, harber, light-honse dues, or any fees; but a register la kept of all exports and imports. Reports must be made to the master attendant by the masters of vessels, and involcee delivered to the superIntendent of imports and exports. Though there are nelther duties on imports or exports, nor on the ships frequenting the port, the revenne of Singapore amount ed in 1842-43 to 509,000 rupees, while its expenditure, clvil and military, amounted to only 494,029 rupees.

United States Consular Returns from Singapore, Jan. 1,1855.-The commercial interconrse of the United States with this consular distrlet is governed partly by general acts of the Parliament of Great Ilritain, and partly by special legislation of the East Indla Company, through the governor and council at Calcutta. The present port regulations are aupposed to bo fixed, being for un indefinite poriod. Singapore is a free port, and the privileges permitted to commerce, as well as the restrictions imposed on lt, are applicable, without distinction of flag, to all nutions alike. There aro no other port cherges than tho Pedra Branea or Straits llght dues, which are three cents per reglstered ton on merchant vessels. National vessels of all countries are exempt from this tnx. The transhipment of goods to any other port in the East India Company's possession, or to any foreign port, is freely permitted to vessels of the United States, but without any special privlleges or restrictions. The moneys, weights, and measures known and in common use at Singapore, are neither those of the mother country nor those made use of in the continental possessions of the East India Company. Merchants keep their aecounts in Spunish dollars, divided into one hundred parts, called cents, precisely as in our federal currency. Fractional parts of thls cent are also coined, and are much in use; these are the half cent and the quarter cent, the latter being called a pie, or pice. The post-office, however, and all other offices of the British East Indian government, keep accounts only in rupees, annas, and pice.

Moneys.-4 pice mako 1 cent; $2 \frac{5}{8}$ cents make 1 numa; 16 annas make 1 company's rupee (marked $K$ ); 100,900 rupees make 1 lac; 100 lacs mako 1 erore. The company's rapee, which is here meant, is valued at 45 eents at Calcutta, whllo here it is now current at only 42 cents. Besides this coin, there is tho old Sicca rupee (now nenrly obaclete), worth here 45 cents, and the Java rupee, wbich is just now fluetuating at 35 to 36 cents.

Weights.-Measures of eapacity aro rarely used, nud then only with eertain articles, auch ns tobaceo; even oils and other fluids being sold by weight. Tho denominations of the weights used in Singapore are taken both frum the Maluys and the Chinese. In naming and redueing them to the United standard value, I omit all those which are not employed comnercially with and by foreign resldents:

16 tacls make 1 catty. (The catty is 1 lb .5 oz .5 g grs . avoirdupols, or if ib.)
100 cathes make 1 Chitucse picul marked ( 1 l. or Pls.) $=1334$ lbs. avoirdippois.
2 Malay picula make 1 char.
40 Chiaese picuis make 1 koyan (or coyan).

The Malay eatty weigha 24 Spanish, and the Chinone catty welgha 3221 Spanish; hence 15 eattlea MaIny $=16$ catties Chinene. 13y the Malay, or grenter pleul, merchenta purchase pepper, tin, ete., from the native vessela, but sell by the Chinene or lazar plenl of $1 a 3+$ lbs. avolrdupois. Rice la mold by the koyan of 40 pls. ; salt by the same measure, but wolghe now 52 pleuls ; gold anil sllvor thrend by a partleular catty of 336 welght; golil dust by the bunkal, whleh weighs \% $2=8: 12$ grs. 'lroy; Java tobaceo la aeld by the corge of 40 baskets; Indla plece geods by the corge of 20 pieces; wheat and grain by the bag, eontaining 2 liengal mannds (the maund ia $61 \frac{1}{\frac{1}{c} \text { catties). }}$

Freight.- The rates at which shlpe are freighted or chartered depend on tho demand for tonnage and the supply ; on the kind of cargo to be trunsported, and on the saillug qualitios of the vessela. These very so greatly that it is imposslble to givo them even approximately. At the present time, for miscellaneons Strilta' prowiuce, shippers are paying $\$ 18$ (6) $\$ 20$ per ton of 50 feet to Now York or Boaton.

C'ommianions.- Whilo tha trading ships of all other nations pay the uniform commiasions of $\mathbf{1 0}$ per cent. (as eatablishod by the Bingapore Chamber of Comunerce), which include expenses of overy sort for purchasing or selling, a special exception ls mado for whit is culled the "Ameriean trade," meaning that of tho United Statee. The establishod chargea on thia are: Commissions on sales of goods or purchase of prodinec, free of risk, either in sales or on advances on produce, 21 per cent. (Both of these are guaranteed for an extm - + per cent., or 5 per cent. in all.) On negotiating billa of oxchange, 1 per cent. Other husinosa on the usual terms. Interest on all moneys advanced is at the rato of 12 per ecut. per annum, but on dishursements on account of ships while in port, 5 per eent. Added to these expenses are boat and cooly hire and warehousing, the charges for which differ whely, being govemed by circumatancea.

The imports from the Linited States, in comparison with the exports thither, are of tribling amonint. I thewfore state the modes and terma of purchase, an woll as those of aule. Sales of imports are effecterl in the usual manner by private arrangement with the buyer, and sometimes also by publie auction. The terms are, eash down.

I'urchase of ('argo.-This is tone by private cont ract (never at public sales) by the house to which the master of the vessel is consigned; the sald honso buying the gouds from either the native or from the Chinese dealers, who are what is commercially styled the "firat hands."

Sinhara. The sinhara, or wator-nut (Trapa i), is a native of the Cashmere, but grows abundantly in the lakes near the eapital, especially in the Wurlor lake, and yields an average return of $\mathbf{1 0 , 0 0 0 , 0 0 0 ~ l b s . ~ o f ~}$ nuts a year. They are scooled up from the bottom of the lake in small nets, and afford employment to the inhermen for meveral months. Theso nuts constituto almost the only food of at least 30,000 persons for ilve months in the year. When extracted from the shell, they are eaten raw, boiled, roasted, fried, or dressed in various ways, after being reduced to flour.

Binope, a town of Asia Minor, on the south const of the llinck Soa, lat. $42^{\circ} 2^{\prime} 30^{\prime \prime} \mathrm{N} .$, long. $35^{\circ} 9^{\prime} 45^{\prime \prime}$ i:. I'opulation uncertain, probably from 8000 to 10,000 . Sinope is situated on a low narrow isthmus, connecting the high rocky promontory of Ada with the main land. Its port, which is the liest on thls coart, on the wuth side of the town, is protectorl from the north and northeast gales by the isthmus and promontory already mentioned. Ships anchor within a third of a mile of the town, in frum 13 to $\mathbf{1 7}$ fathoms; or nearer to it, in from 5 to 7 fathoms. There is a roadstead on the north side of the lathnus, but it is open and exposed. Sinope is one of the princlpal atations of the Turkish fleet; and there aro docks and arsenals for ita
accommodation and outfit. Its exports are Inconsliderable, the principal being timber, salt, cordage, fish oll, etc. In ancient timea Sinope was a city of great wealth, magnitude, and importnnee. It wan the birthplace of Diogenos the Cynie; and Mithridates made it the caplal of hla ilominions, After lts conquest by the Romana under Lueullus, it became the seat of a colony, and continued for a leagthened period to enjoy a good deal of consderation. Should clvilization and the arta onec more revive in the ancient Pontus, and tho other countries to tho mouth of the Black Sen, the excellence of its port could not fall to restoro to Sinope somo portion of its former grandeur. Even now a conalderable Intercourso la beginnlng to take place with the countries east and south of Sinope. Dlarbeker on tho Tigris, In lat. $87^{\circ} 54^{\prime}$ N., long. $39^{\circ} 53^{\prime} 45^{\prime \prime} \mathrm{E}$. , is ono of tho prinelpel seats of Eastern commerce; nud caravans set out regularly from it for Aleppo, Smyrna, and Constantinople: but any one who consilts a map of Asla Minor, and of the contlguous countries, will see at once that Treblzond and the nelghboring ports on the southeast coast of the llack Sea are the natural channels through which Armenla, Koordistun, and the northweatern parts of Persia may hest maintain an intercourso wlth Europe. For further partlcularg as to Simope, see Tornxpront, Voyage du Levant, and Nume's Sailing IVirections for the Black Sea.

Blains. The term is applled in commercial lin. grage to the skins of those animals-ns deer, goats, klis, lambs, etc.-which, when prepared, are used in the lighter works of book-binding, the manufacture of gloven, parchment, ete.; while the term bldes is applied to the skins of the ox, horse, etc.; which, when tanned, are used in the manufacture of shoes, harness, and other henvy and strong artleles. Lamb and khd skins are principally used in tho glove manufacture; 120 skins being supposed to produce, at an average, 18 dozen paits of gioven.-.Sec limes and Leatimis.

Glate (Roof) (fier. Schiefer; Fr. Ardoise; It. In. magna, Iastm; Spl. Pizarra), a fossil or compact stone (argillaceous schistus) that may be readily split into even, amooth, thin laminae. There are several varistles of this valuable mineral, the prevalling colors being gray, hlue, and brown. lut the tints are very various; and slates nre often marked with streaks of a different color from the ground. Slate is principally used in the covering of honses, for wheh purpose it is infinltely superior to thateh or tlles, and ls far less expensive than lead. Good roofing slate should not absorh water; and lt should be so compact as not to he decomponed by the netlon of the atinosphere. When properly selected, roof slates aro of ninost perpetual duratlon; but those which are apongy ard imbilie molsture speedily get covered with mass, and require, at no very distant period, to be renewed.

Blaves and Blave-trade. A slave, in the ordinary senso of the term, Is an Individual at the alsolute disposal of ancther, who has a right to emplos and treat lim as he pleases. But the state of slavery is susceptible of innumerallo nodifientions; and it has been usual, In most countries where it has been long established, to limit in varlous ways the power of the master over the slave. The slave-trade is, of course, the business of thoso who deal in slaves. A great deal of learning has been employed In trating the history of slavery, though the suliject is still far from exhausted. It seems most probablo that lt orighally grew out of a state of war. In rude, uneivilized eommunities, where the passion of revenge acyuires a strength tuk uown in more advanced states of soclety; captives taken in war are adjulged to belong to the victors, who may either put them to tho sword or reduce them to a state of servitude. In antlquity the ldeas of war und slavery were inseparable. l'rohably lin very remote ages prisoners were most commonly put to death; but the selfish graduslly predomlnated over the more passionate feelinga, and for many ages it was usual to reduce thent
nshlerish oll, great 9 birthnaiso it lest by at of $n$ o enjoy on anil lea, the Sinope , eker on " E., is ; and myrna, 3 п map will see rorts ar nattrai and the tain an ulars as int, and
to the condlition of slaves; being either soll by their captors to others, or employed by them as they might think fit. The practice of reducing men to a state of slavery, having once t:egun, was extended in varlous ways. The progeny of slavos or of women ln a atato of alavery were slaves; men born free might seil themselves aa slaves; and parnts had authority, in Julaa and liome, to dispose of their children for the same pur-pose.-Micifaklis on the Laws of Moses, II. 168, Engl. ed. It was the law of Rome, und of meat other ancient states, that the persons of debtors who had contructed obligations which they could not dischargo should become the property of their creditora. "Servi," asys dustinian, "auten aut nascuntur aut fiunt: nascuntur ex ancillis nostris, jiunt aut jure gentium, id est ex captivitate ; ant jure civili, cum liber homo major riginti an-nos al pretiam participunduan sese venundari pasus est." --Instit., lit. i. tit. 3.

The African place-trade was commenced by the Portugueso in ladiz. It was, howover, but of trifing extent till tho commencement of the 16 th century. In consequence, however, of the rapid destruction of tho Indians employed in the mines of St. Domingo or IIajti , Charles V. huthorized, In 1517, tho intruduction into the islund of African slaves from the estublishments of the Portuguese on tho coast of Guinea. The concurrence of tho emperor was ohtained by the intercesaiun of the celebratel Las Casaa, bishop of Chiapa, who labored to protect the Indians by enslaving tho Africans; though, as the latter wero certainly more vigorous and capable of bearlng fatigue than the former, the measuro was not in reality go contr idictory as it would at first stght appear to be,-lioneletson's /Iist, A merica. The inportation of negroes into the West Indies and America, having once begun, grajually increased, until the traffic becamo of great extent and importance. Sir John IIawkins was the first Englishman who engrged In It; and such was the ardor with which our countrymen followed his example, that thoy exported from Africa more than 300,000 f ives het ween the years 1680 and 1700 ; and hetween 1700 and $1786,610,000$ Africans wero inported into Jamaica only; to which adding the importa into the other islands ond the continental colonies, and those who died on their passage, the number carried from Africa will appear immense.bryan Edwalida, Hiat. Wegt Indies. The importatione by other nations, particularly the French and l'ortuguese, were also very great. We may, howover, shortly observe that there can be no doubt that slavery has always existed in Africa; and it is sufficiently well known that previously to the commencement of the traffic auch of the cajtives tuken in war as could not be advantageously employed as alaves were most commonly put to death-cannibalism, the exposure of infants, and humnn sacrifices being then also very frequent. The slave-trade, by opening a ready and jrolitable market for slaves, assisted in putting an cnd to
theso enormilties, though it be, at the samse time, true that the "esire of profiting by their sale has tempted the petty princes to make war on each other for the chance of making captivea, and lins given a stimulua to man-stealing und other atrocities.-Geog. Dict. art. Africa. But thoso who inquire dispassionntely Into the aubject will probably conse to the conclusion that, instead of being injured, the silaves have galned by be ing carried frem the Old to the New World. Spenking generully, the negroes aro in the loweat stato of abasement, poasessing merely the rudiments of the most in dispensable arts, a prey to the vilest superatition and tyranny, without any tincture of learning, and with little or no regard for the futire. The circumstances under which they are placed in their native land moy, perhaps, uccount for the low stute in which we find them; but, howover explmined, the genuine negroes of Africa are admitted, sven hy thoso least inclined to depreciate them, to be for the most prart "either feroclons saviges, or stupht, sensual, and indolent."-Piucitand, History of Man, ii. $33 \mathrm{sH}, \mathrm{Bd} \mathrm{ed}$.

Abolition of Slarery,-The year 1883 was menornble for the abolition of slavery throughout the British colonies. In enaeting this celebrsted statute, Parliament endeavored to reconcile the opparently conficting claims of hamanity and justlce, by providing for the emancipation of the alaves without prejudice to the just rights and claima of their proprictors. This was effected by assigning to the latter the 8 mm of tuenty millions sterling, which wns distrihuted among them on thelr complying with the provislons of the act. This is, perhaps, the grenteat pecunlary sacrifico ever voluntarily made by any nation in vindiention of the right of property. Juit it was not too grent for the oljject in view; for had that right been violated in this instance, a precedent would havo heen set for its violation in others, and the consequences would have been most disastrous. The measure, in fact, reflects quite as much creclit on the wisdom and honesty as on the generosity of the llritish nation. Thls celebrated statute cnacted that slavery should cense in all British colonial possesaions on the 1at of August, 1834 ; when the slaves ware to becomo apprenticed laborers, their finul and complete omancipution taking place partly on the 1st of August, 1838, and partly on the 1st of August, 1840. I But n clumor having been raiscl ngainst the durntion of the cyprenticeship, its period was shortened, and tho backs became universally freo in 1838

Distribution of Slare Compensation.-The commissioners for tho apportionment of tho $£ 20,000,000$ granted by Parliament as compensntion to slave owners, under the act 3 and 4 Wtll. IV., cap. 73 , issued the following table, showing the average value of $n$ alave in ench col. ony; the nuinber of alnvos in each; the totnl value of the slaves, supposing the annual valuo of each were realized; and the proportion of the $£ 20,000,000$ received by each colony.

| Colony. | . | A verage Value of a Slave froma 1899 to 1N30. | Number of Slavee by the lent Registralion. | Relative Value of ise sloves. | Proporion of the E9ne 000,1000 to which eat licolony ts entutled |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bermada |  | $\begin{array}{c:c} x \\ 27 & d \\ 112 \end{array}$ | 4,203 | ${ }_{114,507}^{\text {¢ }}$ | $50,584$ |
| Hatiamas |  | 2018 14 | 9,705 | 990,573 | 128,340 |
| Jamaica |  | 44 is 21 | 311,042 | 13,951,139 | 6,161,927 |
| lionduras |  | 120471 | 1, D20 | 230, 844 | 101,058 |
| Vtrgin 1slands |  | 311011 | 5,102 | 165,143 | 72,040 |
| Antigua . |  | 3212101 | 20,637 | 904, 108 | 425,806 |
| Monlserrat |  | 3617101 | 6,345 | 234,466 | 103,62S |
| Nevis |  | 308111 | 8,722 | 341,503 | 151,007 |
| 8t. Chrtatopher's. |  | 30819 | 20,6t0 | 750,840 | 381,630 |
| Dominien... |  | 4387 | 14,384 | 624,715 | 275,923 |
| Barbadoes |  | 47131 | 82,807 | 3,897,276 | 1,721,345 |
| Grenada, |  | 6000 | 23,536 | 1,395,684 | 616,444 |
| St. Viaceat's. |  | 5868 | 22,907 | 1,341,491 | 692,508 |
| Totago. |  | 4512 of | 11,021 | 629,041 | 234,164 |
| St. Lucla |  | 56187 | 13,348 | 759,890 | 335,627 |
| Trindard. |  | 1054 bt | 22,350 | 2,352,655 | 1,039,110 |
| British Gulsns. |  | 11411 | 84,915 | 9,729,047 | 4,247, 117 |
| Cape of Good 11ope |  | 73 9 11 | 38,427 | 2,824,224 | 1,247,401 |
| Maurittus... |  | 60148 | 08,613 | 4,783,153 | 2,112,632 |
| Totat. |  |  | 7S0,903 | 45,281,738 | 20,000,000 |

Dr. Llvingatone, who la acknowlealgeil as leing conversant upon subjecta affecting the shave-trade, may: " I have thus ventured to atate my conviction in faver of our present aystem, formed as it was from personal observation, and in the teeth of a strong binu to the contrary, that you may, necording to your custom, and If you shonld tieen it alvisable, give thila to your readors by way of helping them to both slilee of the question. It is not to be supposed for a noment that the present ayatem of coerclon will reault in a rallienl cure of the evil. The cultiration by the Africuns on their own soil of the rau" moterinla of our manyfactures, and the inAlucace of Chriatian cicilization alone will effict a jermunent suppreanion of the slareatrade. But all hope of this must be given יpi if the coust tribes are to to hounded on hy the Eumpeans to hunt down the defenseless inland inhabitanta, on the abaurd pretense of promoting 'free emigration.' It is no mere true that Africans take dellght in bunting, huying, ard seiling each other than that the linglish glory in hangiag themselves in November. I know that this is the case throughout the interior, anil I was aorry at the enuae of a different state of things on the borders of elvillzation. But we are lgnorunt of the aources whence atatements such as that referred to ariso. From meoting it In various quarters, and more erpecially in the mouths of slavehulders, or would-te slave employers, 1 am incilned to think that both It and that about the inefficioncy of Iler Majenty's erulsers have had their orlgin in thone who aro, directly or indirectly, abettors of slavery, and that they are promulgatel by many who, like myself, hal not the means of testing their truth."

Pussing over the intervul from the periot when the slavo-trado was declared to be piracy to the year 18.40 , we find that tho number Introduced into Brazil from that year to $1 \times 51$, inclusive, was 848,601 , or a little more than 30,000 a year. During the same period the number imported into Cuba amounted to an average of about 6010 a year. The following tables show the importations into Brazil and Cuba from 1851 to 18i-4:


For the four years from 1851 to $185-$, inclusive, this gives an average importation into both countries of something over 34,000 a year. As perhaps not more than threc-fourths of the whole number was reported to the mixed commission, the yearly average for thls periol may be set down at 15,000 . From the year 180.1 there were very few, if any, slaves lmorted into Iirazil, in consequence of the laus passed by the government of that country against the traffic. The slavetrade ls now malaly, if not wholly, carried on with Cuba, which imports about 20,000 slaves every year ; which, added to the total of the trade with both IIrazil and Cuba since the year 1850, gives the wverage number importel every year, up, to the present time, st about 30,000 . If the profit realized on the purchase of one slave amounts, as we have shown in the followIng tables, to sil65, the total profits of one year's trade will therefore he about $\$ 11,000,000$.

As a curious exhibit, we give the statistica showing the estimatell part which this country takes in this nefarious traffle. It is eatlmated that in the port of New York alone about twelve vessels are fitted out overy year for the slave-trade, and that lloston and Ihaltimore furniah esch about the same nunber, making a fleet of thirty-six vessels all engaged in a commerce at which the best feeling's of our nature revolt. If to these bo
udded the nlavers fitted out in other Eastern porta lee. arden Iloston, we will have a total of about forty, whleh is rather under than over the actuai number. Faldh diaver reglaters from 160 to 250 tous, and coata, when realy for sea, with proviaions, slave equipments, and overy thing necesmary for a successful trip, about $\boldsymbol{\psi}^{\prime} \times(0) 0$. Here, to start with, we have a capitul of 9320,000 , the greater part of which ls contrllouted by Northern men. The expensen of Ittting out, und of the trip to and frum the coant of Africa, may te entimated as follows:
Coat of firty atavirn runily for ana
4320,900

rag.....

Captafin' and acumen's wagen for the voyagy
120,161
Amunat pishif fur argroes noll the conast of Africs, ai

* 15 a bead, stiow ing $6(6)$ to each veasel.
t'ort charges aud suctel money patil at the quace of
 each negro, atlowing a dimitnition of 160 ta ench reasel liy death ou the panage.. Total. .
From this eatimate it will be aeen that the amount of capital required to tit out a fieet of alavers is aluut \$1,500,000, ulon which the profts are so immense as almost to surpass bellef. In a single voyago of this Ileet 21, th0 human belngs are carried off from different polnts on the slave coast ; a wl of theae 40N0, or une sixth of the whole number, beeome victlms to the horrors of the mildle parange, leaving 20,0 tho fit for market. For each of these the traler olitalns an average of sinn, making a tutal for tho whole 20,000 of $\$ 10,000,000$. Now, if we estimate the number of trips male by eadi vescel In a year at two, we will have this lnereasel to Q $20,000,000$. Fach ressel, it is true, can make three, and eometlmes funt trips, but as ame of them are deatroyed after the ilrst voyage, wo have placed the number at the lowest estimate. Tho expenses and profits of the alave-trade for a singlo year compare as follows:
$\begin{aligned} & \text { Total cxpechasen of two voyaged } \\ & \text { Totat recetpen of ditto }\end{aligned}$
$\$ 2,000,000$
Irofita

The laws of Congress on the subject of the slavetrado wero passed March 22, 1701; May 10, 1800 ; February 28, 1803; Marelı 2, 1807; April 20, 181N; March 3, 1819; May 15, 1820; Marela 3, 1 stil; September 20, 1850. Conventions on the suliject of the alave-itade were held July 12, 18222; Novemier 13, 1826, with lirazil ; Norch $2,1 \times 27$; August $9,1 \times 22$. Hy the act of Murch 2:, 1794, the slave-trade was prohibited. The act of May $10,1 \times 00$, applicd to foreigners residing in tho United States, and torbid eftizens from being engoged in foreign ships in the slave-trade. lyy the art of March : 2 , mañ, veswels with slaves on loard wure to he forft ited, the naval furces to be cmpluyed to enforce the act. By the act of $\Lambda_{p r i l}: 0,181 N$, the importation of negroes, or persuins of color, "to be held to servico or labor," wan prohibited. Hy the act of March 3 , ins?, the naval ships woull send to the linited States, for confincation, uny ships detected in the slave-trado; a Imonty was offered of $\xi_{2} 25$ for each negro captured and delivered to the l'nited States Marnhal. By the act of May $15,18 \leq 0$, the shave-trado was dechareal to 10 piracy, and my citizen deteded in the trade shom sumfer death. Dy the ut of September $20,1 \times 50$, the slave-trade in the District of Columbia was prohibited; no slave to be brought into the Jistrict for sale as merehandise; and all mave deputs to be broken up.

For discussions on slavery and slave-trale, seo For. Quart., xxxiv. 101; Nuth. Quart., xix. 111, xxi. 249; Liring Age, xiv. 23 , x vi. 509; Eilinh. Rtr., viii. 885 , xli. 195, xil. 355, v. 209 (Ibatethisu), x. 196, xxxsiii. 1fix, xxxix. 118; Weatm. Rev., xxxiv. 125; Hhwheroud, Iv. 781 ; 1 mer, Itmanar, 1841 ; North A imer. lit., xli.
 $2: 18.1$, viil. 122, ix.; South. Lit. Mess., ix. 7sti, vii. Ïs $^{2}$.

Cowlie Trade. -This trade has ajrung up since vigorous efforts have been made to sulpress the slave-trule proper. Although theoretically the coolie trade prom-
lsed benefita to both planters and coolle, yet practlcally it la only another form of the slava-trade.

The truth uttered by a lata number of the California Chronicle In the following paragraph is but too true:
"We hear of these wretched belngs dying on their passage from Canton to Callao of hunger, thirst, and foul disense angendered by close confinement, without air or nutriment, In the holds of ehips; we liear of these unfortunates murdering one another in tha agony of thelr suffering; and yet, although the thlug is plain and palpablo before our very eyea, the clilized, the Christlan world shruga lts shoulders, exclalins 'horrlble,' und leaves the helpless croatures to their fate."

In oxtenuatlon of the guilt incurred, It ia alleged that the partles concerued have a contract with the coolles ; but in effect the deluded victim ls a slave, aud not the faintest diwn of hope Illumines hia dark horizan. Numerous Inıportant and Incontrovertible facta have been brought to the attention of our government hy means of the " measage from the President of the United States communicating laformation in regard to the shave and coolle trade," presented to the Houso of lepresentatives one year ago.

Mr. Parker, United States Minister to ChIna, wroto to Mr. Marcy on the 12th of February, 1850, that the followlng shipments of coolles had been made during the year 1855 from Swatow, an lllegal port oven fur legal trade:

|  | 8hym | Tonnas ${ }^{\text {e }}$ | Coosten. |
| :---: | :---: | :---: | :---: |
| Amprican |  | 0,602 | 8050 |
| Ifritisti. |  | 8,82t | 1938 |
| Chiltan | 1 | 5000 | 250 |
| deruvlan | 3 | 1,960 | 1 150 |
| Totat | 13 | 12,773 | 6353 |

Mr. Parker also stated, from official Information, that the number of mules imported as coolics from Calcutta and Madrus, from 18.15 to 1852, linto British Giulana and Trinidud, was 1700 ; and he suggested "the necessity of specific instructions emanating from the Nayy Department to our men-of-war on the China station, authorizing them to resort to illegal ports, and to examine such vessela as do, and ascertuln that they do not offeud ugainst law, and to muke them accountahie If they do." danaury, 1856, Mr. C. D. Mugford, at Hong Kong, notitied Mr. Parker that he was agent fir one of the most respectable firms in the United States, who had mado a contruct with the Brazilian sovernment for sending to Rlo de Janciro some 2000 Chinese, and that part of them had beon shipped, but the tirm referred to were ready to alilde by the tociaion of the governments of the United States or China as regards the legality of the trade. Suhsequently, Mr. larker addressed a public notitleation calling on eltizens of the United States to dosist from this lrregular and imnoral truffic.
The evidence constantly accumulating to show the horrible character of this trade calls still more loudly for its speedy suppression. The Lowdon Times recently published a decply interesting communication on this subject, fon which we extract the following:
"The testimony of Sir John Bowring to the lamentable coudition of the Chinese emigrant can not bat recall to most of our readers' minds the disclosures mude a few weeks ago at the Thames Police Court in London with respect to the condition of tho coolies on hoard the ship Duke of Portland, on her voyage from llong Koug to Ilavana. It will be remembered that on the occasion referred to the master of the vessel made the confession that ons hundred and thlrty-t wo of the emigrants, all of whom had been tuken on board, ho said, in good health, had died between Ilong Kong and llavana. Ite had 'had as many as two hundred invalids at one tlme,' and 'many more had died after they had landed in Cuba.' His log-book contained laily, and more than daily, entries of death. The magistrate said 'he had heserd of the horrors of the middle passage whea the odious slave-trade was in

5 R
exlatence, but he never heard of any thing like thla.' The counsel sald, 'It ta most horitule. Chinamen are brought from China to wurk on plantations, and thla is the result. The Engllah flag is diagrased ly such a traflic.' The captain confessed, ${ }^{1}$ It is a dreadful traffle, and quite tlme it was put an ead to." Yet thia wus but an aceldental diselosure of a system whith was only casually brought to light la this instance hy the magistrate's inspection of the log-book in a sult of wages.
"I have myaelf, when In IIavana, heard accounta and witnessed sceuca connected with this traffle which are perfectly appalling. In aome lastances the proportion of dead to liviug at the concluaion of the voyuge has been as high as two hundred of the one for every three hundred of the other. In March, 1858, tho Britlsh slilp Gertrude arrived at Havana with a cargo of 198 Chilnamen, and in a noto appended to tho return we read, ' of tha Gertrude's 162 died.'
"Such are the horrors of this second slave-trade during the pasaage. When he arrives at his destination, in the majority of instances, the coolle tivds that his misery has but commenced. I have seen examplea of considerate trearment, and consequently of comparative convort ; but these are unhappily rare. On arrlving at Jlavana, after passing the quarantine, the coolie, if he survive is transferred to the highest bidder, who places him upon his plantation alide by alde with his slavea. llis term of service is eight jeesrs ; his labor as hard as his master thinks he can sustaln. He receives a small payment moathly, which makes has condition hy a few dollars preferable to that of the slave. Ila ls exposed to the same toil, watched by the same overseer, with whlp in hand and sword at hia side, as the mave.
"On the other hand, his position la worse than that of his slave companion, lnasmuch as his muster's interest ia him terminates after eight years. In proportion as the terin of service appronches its explration, the motive for retaining the coolio in lifo decreases. The slave's lifs is usually worked out, as the Cuban planters have themselves confessed to me, in ten years of full work. The Chinese coolie, as every one who has lived on the Cuban plantations knows, reaches his end on an averago after a very much shorter term of labor. Agaln, the Chinamna docs not hear the tropical hent with the easo with which the negro endures it."

Sloop, a vessel of one mast, the mainsai] of which is attached to a gaff above, to a hoom balow, and to the mast on its foremost edge; different from a cutter by having a fixed bowsprit and a jib-stay. It is also a general namo for ships of war below the slze of frigates.
Smack, a vessel with one mast, commonly rigged ns a sloop, and used in the coasting trade, or aa a tendor in the royal nuvy. Tho vessels of thle name that have long plied between leith and London are well known, and have always been noted for their security.

Smaltz, or Bmalt (Ger. Schmalz; Du. Smalt; Fr. Smalt ; It. Smalto azzurro, Smaltino; Sp. Esmalte, Azul azur; Rass. Lasor), an oxyl of colnlt, melted with siliceous earth and potash. It is a sort of glass, of a beautiful deep hlue color; and being ground very fine, is known by the name of powder blue. The color of smaltz is not affected by tire; and it is consequently in great demand in the painting of earthen-ware. It is also eurployed in the coloring of paper, and for other purposes in the arts. Beckmann has proved that the process used in the preparation of smaltz was invented about the end of the 15 th or the beginaing of the 16 th century; aul that the blue glass of the ancients owes its color, not to the presence of cobalt or amaltz, but to that of iron,--Ilist. of Inventions, vol. ii., art. Conalt.

Smuggling, the offense of importing prohibited articles, or of defrauding the revenus by the introduction of articles into consumption, without paying the duties chargeable upon them. It may be committed indifferently either upon the excise or customs revenue.

This crime, which occupies so prominent a place in the criminul legislation of all modern states, is wholly the result of vicieus commercial and financlal legislation. It is the fruit either of prohibitions of importation, or of oppressively high dutiee. It does not originate in any depravity linherent in man, but in the folly and Ignorance of leglslators. A prohilition against lm porting a commodity does not take away the taste for it ; and the imposition of a high duty on any article cecasions a unlversul desiro to escape or evade its payment. Hence the rise and occupation of the smuggler. The risk of being detected in the clandestine introluction of conmodities under any system ot fiscal regulations muy always be valued at a cortain average rate; and wherever the duties exceed this rate, sinuggling immediately takes place. Now there are plainly hut two ways of checking thls practice-either the temptatien to smuggle inust be diminished hy lowering the duties, or the difleulties in the way of amuggling must be increased. The first is obviously the more natural ard efficient inethed of effectling the object in view ; hut the second has been most genendly resorted to, even in cases where the duties were quite excessive, Geveruments have uniformly alnest consuiced the persons employed in the collection of the revenus with respect to the best mode of rendering taxes effectual; theugh it is clear that the interesta, prejudices, and peculiur habits of such persens utterly disqualify them from forming a sound opinion on such a suljeet. They cun not recommend a reduction of duties as a means of repressing smuggling and increasing revel ue, without acknowledging their own incapucity to detect and defeat illicit practices; and the result has been that, instead of uascribing the prevalence of smuggling to its true causes, the oflicers of customs and excise nave aluost universally ascribed it th some defect in the laws, or ir the mode of adminlatering them, and have proposed reprossing it by new regrlatlons, and by increasing the number and aeverity of the penalties affecting the smoggler. As might have leen expected, these atteupts have, in the great majority of cases, proved signsily unsuccessful. And it has lieen Invariably found that no vigilance on the part of the rovenne eflicers, and no soverity of punishment, can prevent the smaggling of such commedities us are either jrohilited or leaded with oppressive duties. The mmgfier is generally a popular charater; and whatever the law may declare on the suljeet, it is ludierones to expect that the bulk of society should ever be brought to think that those who furnish thean with cheal brandy, geneva, tobacco, ete., are gullty of any very heinous offense.
"To pretend," says Dr. Suith, "to have any scruple alout buying smuggled goods, though a manifest encouragement to the violation of th revenue lawn, und to the perjury which almost always attends it, would in most countries ba regardel es ope of those pedantic pieces of hypucrisy which, instead of galaing eredit with any boily, seem only to expowe the person who affects to practice them to the suspicion of being a greater knave than most of his neighbors. liy thly indulgence of the poolic, the smaggler is often encouraged to continue a trade which the if thas taught to conxider as, in some measure, hnocent ; and when the theverity of the revenue laws hs ready to fall upom him, he is frequently disjosed to defend with violence whit ho has been accustomed to regard as his juat property; und from being at lirst rather improdent than criminial, the at hast too often becomes one of the mort deterinthed violators of the laws ot sceiety."- It'eallh of Nations, p. 406. To create by means of high dutiex min everwhelming temptation to induige in crime, and then to punish men for indulging in it, is a promeding completely sulversive of every principle of justice it revolts the natural feelings of the prople, and teaches them to feel an interent in the worst characters-for such smugglers generally sre-to esponse their canse
and avenge their wrongs. A punishment which is not proportloned to the offense, and whlel dees not carry the sanctlon of public opinion along with it, can never be productive of any good effect. The true way to put down smaggling is to render it unprotitable-to diminizh the temptation to engage in It; and this is not to be done by surrounding the coasts with cordons of troops, by the multiplication of oathe and penalties, and making the country the theatre of feroclous and bloody contests in the field, and of perjury und chicanery In the courts of law; but by repealing prohibitions, and redacing duties, so that thelr collectlon may be enforced with a moderate degree of vigilumee; and that thd forfelture of the article may he a sublicicut penalty upon the smuggler. It is in this, and in this only, that we inust seek for an effectual eheck to illicit tratieking. Whenever the profits of the fair trader become nearly equal to those of the smuggler, the latter is furced to abandon his hazardous protession. But so long as prohilitions or eppressively high duties ure kept up, or, which is, in fuet, the same thing, so long as high bounties are held out to encourage the allventurous, the needy, and the profligate, to enter on this career, we may be assured that armies of customs officers, backed by the utmest severity of the revenus laws, will he insufticlent to hinder them.

The penalty for amuggling ln this country is fixed by tho act of Congress, August 30, 18.12, as follows: That if any person shall knowingly und willfully, with intent to defruad the revenue of the United States, smuggle or clundestinely introduce into the Cuited States any goods, wares, or merchandise, sulbect to duty by law, and which should have been invoical, without paying or accounting for the duty; or shall make out, or pass, or attempt to puss throngh the cus-tom-louse, any falke, forged, or fraudulent invoice, every such person, his, her, or their uiders and alettors, shall be deened guity of a mistemeanor, and, wa conviction, shall be thed In any aun not excerling tive thousani dollars, or Imprisonment for any tern not exceeding two years, or beth, at the discrection of the court.

Smyrna, a large eity and sea-port of A siatic Turker, on the western sille of Asla Minor, lat. $33^{\circ} 25^{\prime} 336^{\prime \prime \prime}$ N., long. $27^{\circ} 6^{\prime} 45^{\prime \prime}$ W. 1'opulation probally aheut 120,000 , of whom 60,000 may be Turks, 40,000 tireeks, and the remainder Armenians, Jranks, lews, etc. Smyrna is sltuated at the lotiom of a deep gulf. the entrance to which lies leetween the mand in lytilene on the north, and Cape Carabourun, in lat. "\$ ${ }^{\circ} 41^{\prime}$ $10^{\prime \prime}$ N., hong. $26^{\circ} 21^{\prime}$ E., on the south. The passag Letween Jancw's Castle on the south annl the opposite samd-lonk is narrow; but there is from nine to ter fathoms water, with a blue clay bottom. Merchant ships unchor alirenst of the city in from seven to cight fithoms ; but the water is so deep that they may come close to the qunys. The inbat, or sealrecese, hows from morning till evening, and is always waital for ly ships going up to the city. There is excelleat anchorage in must parts of the gulf, merely avoiliug the shoals on the north side. Smyrnat is a place of great antiquity. The excellence of its port, and its adnirable situation, have mate ic be several tines rebuilt, after being destroyed by earthyuakes. On appromeling it from the sea, it has the apmorame of an umphitheatre: the cuatle is at the lack of the town, which it commanls, on the top of the hill; lant it is in a state of decay, and could oppowe no resistance to ar invaling force. The interine of the city dues nut correspond to it extermal upparance: the streds being for the mowt part narrow, dirty, and ill pavell. Owing to the want of clemiliness, and of all morts of procontions on the purt of the 'Turks, Suy.rna is frequently visited by the plague. In 1814 , from $60,(00)$ ta 60, ,ivio of the inhatitants are said to have been ent "fl by ihiw irvalful seourge. The trade of this city is mume patensive tham that of any other in the Turkish empiry. Tho
caravans from Persia are chlefly composed of Armenians. They arrive and depart at fixed periods, which are nearly identical with those of the arrival and departure of most of tho forelgn shlpe frequenting the port. llargains are principally nffected by Jew brokers, many of whom have amassed conslderable fortunes. Thn princlpal articles of import conslst of train, furs, Iron, butter, etc., from Odesss and Taganrog; and of cotton stuffa and twist, silk and woolen goods, coffee, sugar, cochineal, and dye-woods, iron, tin and tin plates, rum, brandy, paper, cheese, glass, wine, etc., from Great Britaln, France, Italy; the United itates, etc. The exports consist princlpally of nudder, which is the most valuahle artlele, dried fruits, valonia, opium, silk, wool, box-wood, emerystone, sponge, lrugs, yeliow berries, ollve oil Tur sy carpets, galls, wax, copper, haro sklns, goats' wool etc. - F'or further details, see article Tunker, nnd Tocnsefont, loyage au Levan, tome li. ; Macuill's Trarels in Turkey, vol. I.
Qcantitika and Valueb of the Abticles bxported moon smulena in 1851.

| Articles. | Total Quastilies ex. purted. | Total Value of Exports. |
| :---: | :---: | :---: |
| Almonds . . . . . . . . . . . . . . qila. | 1,247 | piantres. 875, 550 |
| lurley . . . . . . . . . . . . . . . . . klio. | 13, 609 | 122,4740 |
| Herswax . . . . . . . . . . . . . . - \|lys. | 733 | $82.4,6 \pm 0$ |
| Honus . . . . . . . . . . . . . . . . 4 | 8,3rn | 208,750 |
| Box-wond................. | 64,-84 | 1,556,1060 |
| Iroken glass. . . . . . . . . . . ${ }^{\text {" }}$ | 212 | 18,456 |
| Ifultock and lamb sklos. . $\left\{\begin{array}{l}\text { balea } \\ \mathrm{a}^{\text {thr. }} .\end{array}\right.$ | $\left.\begin{array}{r}173 \\ 0.498\end{array}\right\}$ | 3,117,000 |
| Crarpeta . . . . . . . . . . . . . . . bales | 627 | 1,301,500 |
| Cotton. . . . . . . . . . . . . . . . | 11,712 | 9,820,450 |
|  | ${ }_{179} 317$ | 898, 630 |
| Bricd frilts (lates, ete.) ....qlis. | $\left.\begin{array}{r} 179,073 \\ 17,425 \end{array}\right\}$ | 24,101,890 |
| 1rugn . . . . . . . . . . . . . . . . . . .enses | 011 | 182,759 |
|  | 32,700 | 4,1788,000 |
| Jimury stones . . . . . . . . . . . . 4 | 45,070 | 2,470,180 |
| lisurnce of mones. . . . . . . . . . comers | 32 | 1,680,014) |
| lillh gorts wool . . . . . . . . . . .niles | 1,201 | 4,0619,100 |
| Gimma . . . . . . . . . . . . . . . . . .enmes | 1, 110 | 1,488, 800 |
| Hare sklns . . . . . . . . . . . . . bnates | ${ }^{298}$ | 1, 2100,000 |
|  | 1,972 1,964 | 84,010 |
| l.eedhes . . . . . . . . . . . . . . . esaes | 1,057 | 2,002,500 |
| lifuorlee. . ................ * | 10 | 6,500 |
| liquors . . . . . . . . . . . . . . it | 50 | 27,500 |
| " rumi. . . . . . . . . . . . bibls. | 389 | 59,200 |
| Madiler root . . . . . . . . . . . " | 60,784 | 30,258,000 |
| Waize and millet. . . . . . . . . kilo. | 113,050 | 1,451,230 |
| Mastlc. . . . . . . . . . . . . . . . . blis. | 3 | 47,000 |
| Sut-galts. . . . . . . . . . . . . . .nncks | 331 | 40,400 |
| Suts . . . . . . . . . . . . . . . . . .atis. | 3,840 | 258,450 |
| Meaglnous sceds . . . . . . . . . klio. | 8,8:16 | 249,010 |
| (lliva ull. . . . . . . . . . . . . . . . .gtin. | 135 | 91,4:30 |
| "¢й1и* . . . . . . . . . . . . . .cst* | 9,294 | 13,356,400 |
| l'oppy meeds . . . . . . . . . . . . . pmeks | 1.011 | 241,350 |
| Imotalora milo. | 5,815, |  |
| I'rovislona . . . . . . . . . . . . - blis. | $\begin{gathered} \therefore, 620 \\ 20.4) \end{gathered}$ | 294,100 |
| lings . . . . . . . . . . . . . . . . . . bnie's | 1.542 | 184,000 |
| Hadix saporntia. . . . . . . . . canus | 764 | 177,0:00 |
| Salep. . . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { " } \\ \text { bble, }\end{array}\right.$ | $105 \%$ $10 \%$ | 290,000 |
| Fenhinuny . . . . . . . . . . . . entes | 200 | 605, 010 |
| Silk and cnesonn . . . . . . . . . . inalea | 684 | 2,135,100 |
| Siap, to Ambrker. . . . . . . . . camen | 44 | 18,4 ${ }^{1} 0$ |
| Sporigies . . . . . . . . . . . . . . . . " | 3,372 | 10,083,4140 |
| Stune's. . . . . . . . . . . . . . . . . . plueers | 104,900 | 150, 200 |
| Storax . . . . . . . . . . . . . . . hble. | 116 | 25,981 |
| T'erre d'Ambre . . . . . . . . . . qtha. | 1,940 | 44,5001 |
| Tobasco . . . . . . . . . . . . . . $\left\{\begin{array}{l}\text { cundes } \\ \text { bils. }\end{array}\right.$ | 527 | 804,700 |
| Valunila . . . . . . . . . . . . . . .qtia. | 209,012 | 17,041,130 |
| Varlous articles. . . . . . . . \{ \{ $\begin{aligned} & \text { earea } \\ & \text { bila. }\end{aligned}$ | $\left.\begin{array}{c} 1,225 \\ 1.6 \end{array}\right\}$ | t-46,800 |
| Whent. . . . . . . . . . . . . . . . . kilo. | 15,0:1 | 270, 40 |
|  | 11, 196 | 478,400 |
| Winen . . . . . . . . . . . . . . . . . . . Mhan. | 1,623 | 2, 7 mm |
| Wool. . . . . . . . . . . . . . . . . . . bnles | 14, 047 | 10, 5 : 2,1140 |
| Veltow berricy . . . . . . . . . . . . anckn | 2,670 | $3,004,600$ |
| 'Totel exporta from Smyrns. | .... | 161,070,620 |

- oplum, 2121 casea. Of this 713 aro large, nal go to En'und; 1408 are small, add go direct to China via ligypt.

In hils Lettres sur la Turquie, the well-Informed M. Thicinl estimates the valuo of the Inports into Smyrmn in 1851 at $28,173,060$ francs, nod that of the exports at

30,682,000 francs. The coasting trade, as that between Smyrna, Constantinople, Syria, Alexandria, and the Levant generally; is usually denominated, is almosi entlrely In the hands of the Greeks, and is very extensive, Excluding Greeks, the port is annually visited by from 550 to 600 forelgn shlps. Uhiclni reckons the value of the Imports of English and Swiss cottons at above $14,000,000$ francs ; the other leading articles of imports are Engllsh and German woolens, French silks, and colonial products.

The weights and measures are the sams in thls elty as at Constantinople, with an exception of a small differenca on some of the welghts. The principal weight in Smyrna is the oke, which is of two different weights. The oke used in retall is of 400 drams, and In wholesale of 380 . The wholesale oke beling also known as oke of 400 drams, in order to draw a distinction between the two, we will call the first, the oke of 400 drams, "real ;veight," and the other, the oke of $40 r$ dtams, "nominal weight." The only oke known in Constantinople is tiat of 400 drams, "real weigi t." At Smyrna, 400 drams, " nominal weight," av" $=1$ oke; 45 okes $=1 C u$ rotoli $=1$ kintal or kartar.

At Constantinople, 400 drams, "real weight," are $=$ 1 oke; 44 okes $=100$ rotoli $=1$ kintal or kantar.
'Thus, 100 kintals of iron lought at Constantinople will ronder here 102 货 5 kintals, if weighed by two ac. curate steelyurds in looth pluces; but as they are genernlly very imperfectly made, the difference varies from 1 to $1 \frac{1}{2}$ per cent. Generully, however, 100 kln tals of Constantinople render here from 102 $\frac{1}{2}$ to $104 \frac{1}{2}$.

General Remarks.-Exports are generally sold for c :sh, and pryment is made on the first Saturday following the day of sule. It sometimes occurs, however, that one half of the money is paid the first, and tf.s other half the succeeding suturduy; hut for this purposo a special ngreement is generally necessary before concluding the purchase. The term of paynent is seldom extended to a third Saturday. The internal duty is alwnys puid ty the seller, and Is included In the prices of commodities. The exporter has no other tax to pay than the export duty. Box-wood, canary seed, hemp seed, and terra umbra, are generally sold free on board, which comprises export duty, porterage, and shipping charges. Weighing, meusuring, and all othor charges, are paid by the exporter. The insuranco is nlmost exclusively efiected in the United States for goods to tho States. The freaght for figs, raisins, gums, nut-galls, yellow herries, aud valonla, is made payable in pounds sterling (䰻84 per pound sterling). Some housos charge a half per cent. for storage, some one per cent., and others charge n, storage at all; but when they do, they netunlly bay for one.

Cnwashed Wool.- llesides all the charges on unwnshed wool, a loss of welght must be added, arising from the picking anl nasorting, which generally varies from 8 to 5 per cent. Tlio export duty shown in this statement is for Anatolia, lioumelia, and Constantinople wool, which are the kinds generally exported to the Initell States. The duty upon the wool of Syria, 'Tripoli (larlury), Ilagdad, and the adjoining country; is of $80 \cdot 1097$ per 100 pounds. 13,085 bales, washed null unwushed wool, have been exported to the United States during the period mentloned in this statement, representing an amount of $\$ 598,178$. No sales of commorities took plnce durlng the months at which tho price is left hank in this statement. On all such comm onltles where the price ls left open In the colnmu of " retail prices," little or no consumptlon exists.

Lerches.-Leeches are a monopoly, and two European houses of this city lave the exclusive right of exporting them, or to sell thein in the market.

Sponges.- The price of this article varles considernhly: that of common sponges, called "chemuches," after they hud been prepared for shipment, varled from $\% 15$ to $\$ 27$ per 100 lhs, , and that of the sponges from $\$ 105$ to $\% 600$ per 100 th . The former are shipped in
bales, and are the kind most exported to tha United States, and the latter in casea. They are generally bought in the lump from on board the boats which bring them from the neighboring islands by the exporters, who wash them, throw off the asnd, and otherwise prepare thom for ahipment ; consequently their price per weiglit depends on the quantity of sand, stones, etc., chey may contain, and can only be ascertnined after this operation has been gone through. The purchase of this article requires considerable skill, and oftentimes the most experienced dealera are much deceived, so much so that a differance in price of 20 to 25 per cent., more or less, ls regarded as as matter of no grest moment. Besides the commoditios noted in this statement, 2677 biles of rags and 70 tons of emery stones have also been exported to the United States; but botr of these articles are a monopoly, and are only exported by two houses of Smyrna. The trade between Smyma and the United States la generally carried on with Boston and New York, but princinally with the former place.--United States Consul at Smyr$n \boldsymbol{n}$, November 4, 185. For further information, see Com. Relat. United States; Living Age, x. 201, xxviil. 167; IIınt's Merchants' Magazine, xxv. 452 (F. W. Holland).
Snuff (Gcrm. Schnupflaback; Fr. Tabac en poudre; It. Tabacco ada naso; Sp. Tabaco de polvo; Russ, Nosowoi tabak), a powder in very general use as an errhine. Tobaceo is tho usual basle of snuff; but small quantities of other articles are frequently adled to 1 t, to vary its pungency, flavor, seent, etc. Though substantially the same, the kinds and names of snuff aro infinite, and nre perpetually changing There are, however, three jrincipal sorts. the first, granulated; tho second, en impalpable powder; and tho third. the bran or coarse furt remaining after sifting the second sort. U'uless taken in excess, no bad consequences result from its use.-S.Se Tomacco.

Snufiboxes aro made of every variety of puttern, nud of a: endless varicty of materials. We only mention them bere for the purpose of giving the following details, net elsewhere to be met with, with respect to tho manufacture of Laurencekirk or Ayrshiro boxes. These are made of wool, ndmirably jointed, painted, $\cdot$ 'id varnished. These beautiful boxes were lirst manulactured at the village of Lavzencekirk, in Kincardinethire, abot: 60 years sime. The original inventor was a cripple hardly possessed of the power of locomotion. Insteal of curtains, hils bed (ratheracurious work-slepp) was surrounded with benches and receptacles for tools, in the contrivance and use of which he diseovered the utmest ingenuity. Instead of taking out a patent, the inventor confided his secret to a joiner in the same village, who in a few years amassed consideralle property, while the other died, as ho had lived, in the greatr.t poverty. The great difliculty of the renufacture lies in the formation of the hhige, whict, in a genuine hex, is so delicately made as hardly to be visible. Peculiar, or, an they are called, secret tools, are required in its formation; and though greatly improved by time mul expericuce, the mystery attached to their prejaration is still so studiously kept up that the workment ( mploged in one bhop are debarrel having any communication with those employed in nuother.

Snuff-taking. This practice took its rise ln E゙nfland from the captures made of vast quantitios of
 The prize of tho forces having been sent home and mold, the vice soon obtained from which the rev. nue miv draws, with tubaceo, considerably more than © $1,000,000$ per annum. In the ywar ending Jantury $\therefore$. 185: there were imperte $\mathrm{i} 5,000,000 \mathrm{ibs}$. of tobareo and snuff, of which $36,400,000 \mathrm{lly}$, were entercal for lame consumption,-See Tohacto.

Boap (Ger Srife; Fr. Sucon; 1t. Supone ; Spr. Jahen; lluss . Juho; Lat. Supe). This article was tiuperfectly known to the anciests. Tho tirst express men-
tion of It occura in Pliny and Galen ; and the former declares it to bo an invention of the Gaula, though he prefers tho German to the Gallic soap. In remote periods clothea were clennsed by being rubbed or atamped upon in water. Nausicaa and her attendanta, Homer vells us, washed thelra by treading upen them with their feot in plta of water.-Odyssey, book vl. Tho mantfacture of soap begnan in London in 1524, before which time it was supplied by Bristol at one penny per pound. -Hayds. The soap met with in commerce is generally divided into two sorts, hand and soft: the former is made of sods and tallow or oil, and the latter of potash and similar oily matters. Soap made of taliow and sod. las a whitish coler, and is, thorefore, sometimes denominated white soap; but it is usual for soapmakers, in order to lower tho prico of tho article, to mix a considersbls portion of rosin with the tallow; this mixturo forms the common yellow aoap of this country. Sosp made of tallow, etc., and potsah dees not assume a solid form; its consistenco is never greater than that of hog's lard. The properties of soft soap as a detergent do net difier materialiy frem those of hard soap, but it is not noarly so convenient to use. Tho alkali employed by the ancient Gaula and Germans in the formation of soap was potash - hence we seo why it was described by tho Romans as an uuguent. The oil employed for making soft sonp in this country is whale oil. A littlo tallow is also added, which, by a peculiar management, is dispersed through the soap in line white spots. The soap mude in comutries whin produce olive oil, as the south of Franco, Italy, and Spain, is preferalile to tho soap of this comntry, which is usualiy manufactured from grease, taliow, etc.Tuomson's Chemistry.

The use of soup as a detergent ls well krown; it masy, in fact, be considered as a necessary of life. Its consumptic itr most civilized comtries is immense. Pliny luforms us that soap was first invented by the Gauls; that it was compored of tallow and ashes; and that tio tierman seap was reckoned the best.-lib. xviii.

Bociety Islands. These islands, lying in the Pacitic Ocean, between lat. $16^{\circ}$ and $18^{\circ}$ S., and long. $145^{\circ}$ and $155^{\circ} \mathrm{N}^{\circ}$., are under the protectorate of the French government. The princlpal islamis of the group are Tahiti, Fimeo, Hunheine, Raiatea, lonu-hona, Ta fua, an Meura. Papiete, the enpital of Tohiti, is much resorted to by American nad other whalers. The exports consist of oranges, pearl-shell, arrow-root, cocosnut oil, and other nutive products of minor commercial Importanee. Theintercourse between the l'nited Statcs and these lslands has increased with our rapidy-increasing relations with Valparnise, ('allao, l'anama, the Samlwich Islanils, Australia, and China. In 180 there entered the port of Tahiti isi vessels under the l'nited Sintes tiag, mensurimg in all Stite toms. Vnder ali obler thags there entered 111 vessels, with an aghregate of 12,817 tons. There are uo import duties charged at tho Society Islands, except upon spirituons lipuors nod wines, null on tire-nrms and munitions of war. Th the last-mamed articles these duties mmount to $a$ pobibition. 'These islands are muler a ditherent aystem of commercini legishation fron, that whid ohtenins in the other french eolonial settements. No distinctions are recognized as to any forifign conntriss, or as to any foreign or domestic purts, with respert to ratering or clearing forvign vessels, with cargen's or in hallast. As regards alcolmic and other heverapes, American vessuls are placed on the anme footing as lirench vassels as to duty, while those of ether mations pay doulde import duties. Ihis tlistinetion is regulated ly arrele Nu. 65, of May $8,18.33$. The ports open to foreign vessela are l'apicte and Taunoa, nt Tahitl; and l'apetoai, at Meura. No forcign vessel is permitted without a special permission, or is urgent necessity, to muchor in any other jerta of the islands sulject to the French protectorate. Otienders are liablo to a fine of from lem
, former ough ha note pestaniped Houner ith their - manute which r pound. is genere foraler ar of potf tallow re, somefor soaprtiele, to tallow; his coundoes not $r$ greater It soap ss of of hard se. The rwans in see why ant. The ountry is rich, by a he soap in ries whinh Italy, anc. ry, which w, etc.ntown; it life. its immense, ted ty the shes; and rest.-l.ib.
ing in the , and lons. ate of the f the group -lona, Taiti, is much

The ex. roet, cucuboumercial itel States rapitly in.
anama
$\ln 188^{2}$ under the ns, ['nder h an agzteies crargel ous lipyors f war. On It ton pm "ut aystem olitaina in listiactions If an to any ciltering or rallast. As ericall ve:whel vessels dowlde inld he arme forcign vesA Papetoai, without a o auchor ia the lirench of from 1 on
to 500 francs. The coasting trade of tho islands belonging to Franee is reserved exclusively to vessela carrying the French or protectorate flag. Tha penalty for violating this reatriction la, for the first offense, a fine of from 1000 to 2000 franes, and, in case of repetition, double that aum. Every captain must, withln twenty-four hours after his arrival, present to the director of customs his manifest, with a detailed statement of the ammunition and arms of every kind, and also of tha liquors, which, being subject to import dutios, can not be landed without the authorization of tha director of customa. Those who infringe this regulation are liable to a fino of from 50 to 400 franes. Making a false declaration respecting prohibited goods, or those tha sale of which is restricted, is puaished by a fine of from 1000 to 5000 francs.
When vessels hare on board prohilited goods, spirits, arms, or ammunition, intended only for their own consumption or the defense of the shlp, captnins must present to the director of cuatoms a delsiled declaration of such kinds of stores within twenty-four hours after their arrival. The sale of munitions of war, powder, saltpetre, projoctiles, nuskets, arms of any kind, is prohibited, except under apecial permission from tho commissioner of the empire; and should any goods of this klad be attempted to be fraudulently landed, they will be confiscated, in addiltion to the fine imposed by the police regulations. All spirits or liquera which may be attempted to bo fraudulently landed are liable to confiscation, as well as the bont conveying them; nad the captain, who is held responsible for all goods which may be on board, under whatever conditions, is liable to a fine of from 5000 to 10,000 frnncs. All goods admitted to entry in the French establishments of Oceania may be sold on board, provided they be not sold by retail. To effect sales of this kind, howaver, a licease of the first elass must be previously oltained, payable in advance, and for a period of threa months. Sales of eargoes may also he effected on shore, by opening a store for that purpose, for which a similar license must be obtained, and for the samo period. Wines nad liquors, however, must be sold exclusively on ahore, either through the medium of a consiguee, or by the captain or his ngent, having first procured tho necessary liceusc. Captains of vessels, whenaver the length of their stay permits, must give notice of their departure it the post-office forty-eight hours beforehand; and when it is desired that a vessel should remain in port less than forty-eight hours, notice to that effact must he given on the day of arrival. If any of tho fines specified in the foregoing regulations ahould not be paid within five days, at the farthest, from tho date of condemnation, or satisfactory accurity not he tendered, a part or the whole of the cargo will be sold, or the vessel itself be retained, to liquidata the debt.-Com. Relut. U. S.

## Soda. See Almain.

Solder, Sodder, or Soder, a mestallic or mineral composition used in soldering or jolning together other metais. Solders are made of gold, silver, copper, tin, bismuth, and lead. In the composition there must he some of the metnl that is to he soldered mixed with some higher and finer metals. Goldsmiths usually make four kinds of solder, viz.: solder of eight, where to seven parts of allver there is one of brass or copper; solder of six, where only a sixth part is copper; solder of four, and solder of three. It is the mixturs of copper in the solder that munks raised plate come always cheaper than fiat.

Sound Dues. Under the head of Dexmank the reader will find a full history of this fiteresting conmereinl question, and also statistics ilhastrating tha proportional interest whlel every nation had in the aboliahment of the sound dues. Since the article Dessmank was in type the final trenties (ineluding that of the United States here gelveri) neeeasary for the adjustment of this question havo been signed. Wo here an-
nex, as $n$ supplement to this question, the treaty be tween the United States and Denmark, year 1857. We also give a table ahowing the pro rata division of tho indemnity which each nation agrees to pay Denmark.

On the 4th Januar, 1856, a meeting of the Miaisters of Austria, Beigium, France, Holland, Prassia, Spain, and Sweden, and a Commissioner from Russia, met at Copenhagen to consider the disputed queation. On the 17th of February another meeting of the Comnission took place, when the same states were represented, with the addition of a delegate from Oldenburg. At this meeting a memorandum was presented, in which Denmark offered to aecept aa a compensation for the abolition of the soand dues, a sum of $35,000,000$ rix dollars (about $£ 3,888,888$ ), which is about fifteen and a half years' purchase of $2,248,579$ rix dollars, the avcraga net revenue from the dues during the nina years of peace-1842 to 1847, and 1851 to 1853. Each state interested in the commerce of the Baltic to be responsible for the sum only which is assigued to $i t$, but the offer to be binding on Denmark, on its acceptance by all the states whoso representatives have taken part in the negotiation. This proposal has been accepted, as will be seen by the following treaty between the United States and Denmark (see next page).
In the annexed table, showing the pro rata amounts to be paid by each nation for the abolishment of the sound dues, it will be seen that Great Britain, Russin, and Prussia pay over 68 per cent. of the total; and that the first and second pay 56 per cent. of the total. The shara apportioned to the United States is only 2 per cent., while the trade of thia country would appear to be about 6 per cent. of the whole.

Table showino tile fro hata Division ef the Indemnity to lienmark for the amolighment of the sodnd Deen to ue paid hy eaci Nation.

| Counirien. | R1x Dollarn, | Per Cent. |
| :---: | :---: | :---: |
| Denmark | 1,122,078 | $3 \cdot 21$ |
| Sweden | 1,500,508 | 445 |
| Russta | 0,759,093 | 27.80 |
| Prussla | 4,440,027 | 12.60 |
| Meeklenburg. | 873,668 | $1 \cdot 07$ |
| Läbeek . . . . | 162,996 | 0.29 |
| The Baltie In general. . . . . . . . . . | 231,909 | 0.66 |
| Norway. . . . . . . . . . . . . . . . . . . . . | 687.225 | 131 |
| IIamhurg . . . . . . . . . . . . . . . . . . . | 107,012 | $0 \cdot 31$ |
| Bremen. . . . . . . . . . . . . . . . . . . . | 218,583 | 069 |
| Oldenburg | 28,127 | 0.08 |
| Ilanover.. | 183,357 | 0.35 |
| Great Britatn | 10,120, 555 | 28.00 |
| Netherlands | 1,408,060 | 402 |
| lielglum | 301,455 | 0.86 |
| Franco. | 1,2t9,003 | $3 \cdot 48$ |
| Spaln.. | 1,020,016 | $2 \cdot 1$ |
| Fortiggnl. . . . . . . . . . . . . . . . . . . | 274,828 | 0.77 |
| Sardinia. | 22,028 | $0 \cdot 06$ |
| Tuscany | 26,106 | 0.05 |
| Two Siclites. | 229,013 | $0 \cdot 65$ |
| Austria. | 20,434 | 0.08 |
| Greece. | 1,401 | 0.00 |
| Turkey | 35,025 | 0.10 |
| Lnited Statea | 717,890 | 2.03 |
| Mexlco | 6,537 | $0 \cdot 02$ |
| St. Domingo . . . . . . . . . . . . . . . . . . | 13,050 | 0.04 |
| Yenezucla . . . . . . . . . . . . . . . . | 6,837 | $0 \cdot 0 \cdot$ |
| New Granada | 3,200 | $0 \cdot 01$ |
| Urtgray. . . . . . . . . . . . . . . . . . . | 1,307 | $0 \cdot 60$ |
| 1,a l'lata. | 3,269 | 0.01 |
| Brazil. | 506,295 | $1 \cdot 45$ |
| Peru . . . . . . . . . . . . . . . . . . . . . . | 430 | 0.00 |
| Bıenos Ayres . . . . . . . . . . . . . . . . | 16 | $0 \times 16$ |
| Chill ............................ | 368 | $0 \cdot 00$ |
| Chlin | 3, ${ }^{3}$,69 | 0.01 |
| Other eountriea | 360,008 | 1.0 |
| Total. | 35,000,000 | 10000 |

As to the basis of the contribution, It would have been just to have taken the q.antity of goods carried, or duties paid, by the ships of eneh nation through the Sound and the Belt as determining the proportlons respectively to bo pald to the capitalization of tho dues. But this proportion has not ln every casa been carried out, as may be seen by comparing the foregoing table with the following, which exhluits the duties paid by overy nation.

| Countrice. | Ealled from Baltic. |  | Entered into liallic. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Averege } \\ & \text { Oum. } \\ & 185 \mathrm{t}-63 . \end{aligned}$ | $\begin{gathered} \text { Per Cement } \\ \text { of the } \\ \text { whole } \\ \text { Amount. } \end{gathered}$ | $\begin{aligned} & \text { A varage } \\ & \text { Sung } \\ & \text { t } 851-63 \end{aligned}$ |  |
| Unlted States..... | $\begin{array}{\|r\|} \hline \text { Rix Doilt. } \\ 860 \end{array}$ | 0.503 | $\left\|\begin{array}{\|cc\|} \hline \text { Rir } & \text { Donl. } \\ & 976 \end{array}\right\|$ | 0.682 |
| Beigium. | 72 | $0 \times 150$ | 60 | 0.047 |
| Bremen | 260 | $0 \cdot 18:$ | 259 | 0.183 |
| Denmar | 11,182 | $7 \cdot 700$ | 12,353 | 8.753 |
| Great Bri | 34,762 | 24:326 | 35,750 | $25 \cdot 300$ |
| France | 2,630 | 1.770 | 2,524 | 1.771 |
| tirceee . . . . . . . . . . . . . . . | .$^{6}$ | 0.004 |  | 0004 |
| IIanbarg | 645 | 0.451 | 451 | 0.319 |
| lianover | 5,388 | 3.736 | 4,925 | 3.488 |
| The Netherland | 14,3188 | 10.038 | 14,462 | $10 \cdot 244$ |
| Italy (Naplea) | 366 | 0.256 | ${ }^{3116}$ | 0.28 t |
| Lübeck | 1,102 | 0.773 | 1.020 | $0 \cdot 721$ |
| Mecklenburg | 8,210 | 6.738 | 7,284 | 5159 |
| Norway | 19,326 | 13.523 | 17,056 | 12.718 |
| Oldenbur | 1,439 | 1.007 | 1,511 | $1 \cdot 113$ |
| Portugal | 46 | 0.032 | 5 | $0 \cdot 039$ |
| 1'tussla | 21.033 | 15.348 | 21,450 | $15 \cdot 198$ |
| ltassia | 8,467 | 5.925 | 7,683 | 5.371 |
| Spaln | 24 | 0.017 | 23 | 0.010 |
| Sweden | 12,051 | $8 \cdot 435$ | 12,137 | 8.85 |
| Auatria.................... | c | 0004 |  | 0.004 |
| Thuenos Ayred. ...... |  |  | 0 | 0.004 |
| Peru | 6 | 0004 | 5 | 0.004 |
| Tuscany | 6 | 0004 | 7 | 0.000 |
| Total | 142,908 | 1464 60 | 141,181 | 100000 |

A Iroctirmation. - Wheress a convention between tho trill. ed States of America and hia Majesty the King of Denmark, for the discontinuance of the Sound duen, was concluded and algned by their reapective plenipotentiarics at Washington, on the 11th day of April, 1857, which convenilon is as follow's:

The Cnlted State of America and bla Majoaty the King of Denmark, being desirona to terminato amicably the differesces which have ariacn between them in regard to tho tolla levied by Denmark on American vessela and their cargoes passing through the Sonnd and Beits, and commonly colled the Sound dues, havo resolved to conclude a convention for that purpose, and have named as thelr plenipotentiaries, that is to say, the President of the Linted States, Lewia Casa Secretary of State of the United States, and hia Majesty the Kjug of Denmark, Torben Bihie, Fsquilre, Knight of the Dannebrog, and decorated with the Cross of Ilonor of the same order, his sald Majeaty'a Charge d'Affairee near the government of the Inited states, who, after having conmunleated to each other their fulf powers in due form, have agreed to and aigned tho following articlea:

Artiele I. 11 ia Najeaty the Klag of Denmark declares entire freedem of tha navigation of the Sound and tho Beits in favor of American veaseia and thelr cargoes from and forevor after the day when this convonllon shall go into effect as hereinafter provlded. And it is hereby agreed that American ressels and their cargoea, after that day, ehall not be subject to any chargea whatever in passiog the Sound or the Belts, or to any delention in the sald watera; and both governments will concur, If occasion should recpuiro it, In taklog measures to prevent abueo of the free liag of the Cinited statea tiy the shipping of other nations wheh shall not have secured the same freedom and exemption from charges enJoyed by that of the United States.
Article II. 1 IIa Danial Majeaty further engagea that the passagen of the found and Beits shall contlinge to be IIghted and booyed na heretofore, withoul any eharge upon American vessejo or thelr cargoea on passing tho Sound and tho theits, and that the present establiahmenta of Danish pliota in these waters shall continue to be malataines by Denmark. His Damiah Majesty agreen to makn such additiona and insprovementa in regard to tho lighta, buoym, and piliot entabilshmenta In theme waters an elrenmatances anel the increasing trado of the Bailic may require. 1le further engagen that no charge shall be made, in consequence of such additions and Improvements, on American shipe and their cargoea paseling througit the somud and the Belts.
It is underatood, bowever, to be optional for the mastera of American vessefa either to empioy in the anid waters inanlah pllote, at reasonabio rates fiacil by the baniah government, or to navigate thelr vessels withonl sach assiatance.

Article III. In consideration of the foragolng agreementa und atipulation on the fiart of Irenmark, wherehy the tree and unincumbered novigation of American veasela through the Sonnd and the Beita is forever arcured, the Linited Staten agree to pay to the government of Denrairk, once for ail, the sum of meven hundred and neventeen thousand dight handred and twenly-nine rix doliarm, or lis equisajent, three hundred and aluety throe thousand and eleven dollara lu tinited Statem
curroncy, at London, on the day when tho sald conventlon ahall go into full offect, as hereln afterward provided.
Article IV. It is furiher agreed that any other or further privileges, righta, or advantagea whleh may have been or nay be granted by Denmark to the commerce and navlgation of any other nation at the Sound and Relts, or on her cuasta and In her harbors, with reference to the tranalt by land through Danjah torritory of merchandise helonging to tho eltizens ar unbjecta of such nation, alrall also bo fulliy oxtouded ta, and anjoyed by, the eltizena of the Vinted Stales, and by their vessela and property in thrt quarter.
Article V. Tho gencral convention of frlendahyp, commerec, and navigation, concluded between tho United Btates and his Mnjesty the King of Denmark, on the 2ath of Aprii, 1826, land which was abrogated on the 15th of April, 1850, ant the proviaiona contained in each and alf of its artleics, the sth article alone exceptod, alohl, after tho ratificalion of thls pres. ent conventlon, again hecome binding npon the lnited Sitates and Denmark; it being, however, understood that a year's notlee shall auffice for the abrogation of the stipulations of the sald convention henuy renewed.
Article F'I. The present convention ahall take effect as 600 n as the lawa to cerry lt Into operation shall bo paased by the governmenta of tho contracting parties, and tho sum stipuhited to be paid by tho l'nlled states shall be recelved by . tentered to Denmark : and for tho fulfiliment of these purposes a period nol exceeding twelvo months from the elgalug of this convention alall be allowed.
But if, in tho interval, an earlier dny thall be fived upon and carrled Into effect fur a free navigation through the sound and lielta in favor of any other power or powers, the samo shall simuitancoualy be exlended to the vessels of tho tinited Statea and their cargoca, in anticipation of the payment of the aum stipuiatal In Article MII. ; It being understood, however, that In that event tho government of the United States shall also pay to that of Denmark 4 per cent. Int.rect on the yaid anin from the day the sald inmually ahall have gone Into operation untll tho princlpel shall have been paid as aforesaid.
Artich VII. Tho preaent convention shall be duly ratified, and the exchango of raliffeations ohali take phaco in Wash. ington withln ten months from the date bereof, or souncr if practicabic.
In falth whercof the reapectivo plenipotentiarien linve aigued the present convoutlon, in daplicato, and havo thereunto affixed their scels.
Done at Washington thia 11th day of April, in the year of our Lord ono thonsand elght hundred and tifty-geven, and of the Indopendence of tho Linlted Statea the elglity first.
$\begin{array}{ll}\text { Lemir Caha. } & \text { [bral] } \\ \text { Tobien Itille. } & \text { (beale] }\end{array}$
And whoreas the sald convontion has beea duly ratificd oa both parta, and the renpective ratlifationa of the bame wero exchanged In the clty of Waahington on the 12th Instant by Lewia Cass, Beeretary of State of the I'nited states, and W. de Raakioff, Lila Daniah Majesty'a Chargú d'Affaires and Con-sul-generai in tho L'uited states, on tho purt of their respect. Ive governments:
Nuw, thereforo, be It known that I, James Ruchanan, Pres. Ident of the T'nited States of Amerifa, liave cansed the salil convention to be made puhile, to the end that the wime and every clause and article thereof may he obaerved and fulfilted with good faith by tho United States and the eitlzens thereof. In wilness whereof I have hereanto set my hand and caused the aeal of tho I'nited statea to bo allixed.
Dono in the eity of Wastington, thia 13 th day of Jamary, in the year of our Lord ono thousand eight han-
[BEat.] dred and fifty eight, and of tho independence of tho Unlted Statea the elghty-second.

Janes Buehanan.

## By the President:

## L.ewis Cabes, Secretary of Stat.

Bounding, the operntion of trying the depth of the sea, and the nature of the bettom, by means of a plummet sunk frem a ship to the botlem. There are two plummets used for this purpose, ote of which is called the hamd-leat, weighing about eight or nine peunds; and the other the deeposea lead, which weighs from twenty-fiva to thirly pounds; and beth are shaped like the frustum of a cone or pyramil. T'he furner is used in shallow waters, and on appreaching the land after a sen-voyaye. Accordingly, the lines need for this purpose are called the deep-sca lend line, und the hund-beall line. The hand-lead line, which is nsmally twenly fathoms in iength, is marked at every tuv or threu fathoms ; so that the deptl! of the water may bo

## mventlon

 $r$ on or may on waygation of caste and thirough ttizens or d to, and by their
ascertained either in the day or night. At the depth of two or three fathoms thero are marks of black leather; at live fathoms there is a white rag; at seven, a red rag, at ten, black leather; at thirteen, black leath' ; at fifeeen, a white rag; and at seventoen, a red rag.
Sountung with the hand-lead, which hy seamen is called heaving the lead, ls generally performed by a man who stands in the maia chains to windward. IIaving the line quito ready to run out without interruption, he holds it nearly at the distance of a futhom from the plummet; and having swong the latter Lackward and forward three or four times, in order to acquire the greater velocity, he swings it round his head, and thence 80 far forward as is necessary; so that by the lead's sinkligg while the ship advances the line may be alnost perpendicular when it reaches the bottom. The person sounding then proclalms the depth of the water, in a kind of song resembling the cries of hawkers in a city. Thus, if the mark of live fathoms is close to the surface of the water, he calls, "By the mark five;" and as there is no mark at four, six, eight, etc., he estimates those numbers, and calls, "By the dip four," etc.; if he jniges it to be a quarter or a half more than any part' cular number, he calls, "And a quarter five," "and a half four," etc. If he conceives the depth to be three quarters more than a particular number, he calls it a quarter less than the next: thus, nt four fathoms and three fourths he calls, "A quarter less five."
The deep-sea lead is marked with two knots at twenty fathoms, three at thirty, and foor at forty, and so on to the end. It is also marked with a single knot in the middle of each interval.

Until the commencement of the plan of deep-sea soundinge, as now conducted in the navy of the United States, the bottom of the sea was nlmost entirely unknown to us.

It has been proven that the system of deep-sea soundings formerly in use was not accurate. This was simply letting down a lead, until by a shock the line became slack; but it was found that the line would run on without end, being dragged out by under-currents, and thit beyond a certain depth no shock was felt.

The plan of deep-sea soundings now in practice in our navy was sugges'ed by Lieutenant Maury, and has been successful principally from the adoption of a lead invented by Lieutenant J. M. Brooke, U.S.N.

This method is to take a cannen-ball, bored through the middle, and a wire inserted; and so arranged that when it tuaches bottom the ball elips off, and the wire with the line is drawn up. The wiro has a cap at the encl, with some adhesive matter to nttach particles of the bottom. The line is prepared for the purpose, so as to bear tho weight, and yet of small resistance in sinking. Experiment has proven that while the plumwet is sinking the line runs out at an increasing rate per minute; and by observing when the rato becones cunstant, we get the depth, as a current would draw nt a constant speed.
Mr. Maury gives this law of descent:
2 m .21 s . as an average thme of desecnt from 400 to 500 faths $9 \mathrm{ml} .264{ }^{2}$

Lieutenant Walsh, of the Unlted States sehooner Fancy, reported a cast with the deen-sea lead of thirtyfour thousand feet without a bott m . His soundingline wus au iron wire more than e.even miles in length. Lieuteuant Ilerryman, of the United States brig Dolphin, reported another unsuccessful at:empt to fathom mild-ocean with a line thlrty-nlne thousand feet in length. Cuptain Dedham, of Her liritannle Majesty's ship /Ierald, reported bottom at the depth of forty-six thousand feet ; and Lieutenant J. P. Parker, of the United States frigate Congress, afterward, in attempting to sound near the same place, let go hls plummet, aml saw a line fifty thousant feet long run after it as
though the hottem had not been reached. The last three attempts were mado according to the plan mentloned above. For further interesting items we refer to Mauny's Physical Geography of the Sea.-See Athantic Ocean.

Soundings for the Atlantic Telegraph.-The result of aese soundings has been to establish the hypothesis of Lleutenant Msury, of a submarine platean from the Newfoundland Banks nearly to the coast of Irelaad. We extract portions of the report of Lleutenant 0 . H. Berryman, U.S.N., to the Secretary of the Navy, givIng an account of the experimental soundings made by him in the United States steamer Arctic, to corroborate the existence of this platesu.

## 

"Leaving New York on the night of July 18, 1 atcered dlrectly for St. Johns, whore I arrlved on the 29th. Taking in coal by the 3lat, 1 ailled for Ireland, and commanced soundIng as near on the Great Circlo as possibie, passing the north end of tho 'Grand Banks' in fatitoda $48^{\circ} 34^{\prime}$ N., and one hundred and twenty fathome wnter, although the best charts I have un board record one hundred aud fifty-four. This difference I attribate to tha moda of taking soundiags at the time that aurvey was made. At intervala of thirty, forty, sixty, and oae hundred miles, wo sounded, all attended with complete success, but frequenly Involving many hours, both night and day, of great suapense and hard work, loatgg sometimes two or three thousand fathoms of line, soundleg apparatus and all.
"The great piateau became eo apparent in the middle of the ocean, and our fuel being conalderably reduced, I determined to Increasa the intervala between the positions, to enable me to reach the ceast of Irelaed with enough soundings to complete a line entirely across. This was accomplished on the 22d of Auguat, and I arrived in tho harbor of Queenstewa with only a few bushels of coal on board.
"Temperatures were taken hourly at the surface, and at twenty fathoms every four heurs. Attempts were made to obtrin them at the bottom and at different depths, but the results were so worthless, owing to aome derangement of the thermometers, that I ohandoned takiog them, as they interfored very much with the more important object of sounding and obtaining bottom. On one occealon two were sent to tho bottom in very deep wator, and ene indicated a temperature of twenty-one degrees, the other twonty-foor degrees, On examining and comparing the rest of tha thermometers, I found them all differing from each other so much, and some of the handa belng broken, I was aure that they could nat be used with any proper results.
"Corrents were experienced to the castward, from nine to fifteen milles in each twenty-four hours, between the Grand Banks and those of Ireland. No good opportunitles for obsorving under-currenta occurred, there being always either too much wind or a high sea. None appeared to atfect our aoundings very much -60 little, Indeed, that frequently the slack line would he celled or kinked upon the bottom, shewing piainly that it reached the bottom without the asalatance of the lead-detormining in my own mind that, however others may think, the cable or wire of the lightest kind will here reach the bottom moat certalinly.
"Onig ono of tho sounding apparatus winlch was used remains, and is sent to the departmont for inapection, it beling somewhat different, we belleve, from any heretofore usedbelug an association of Brooke's and Mnasey's, with a weight or lead of my own adoption.
"Tha llne used In sounding was that obtained from Boston, which proved indifferent, and was all expended before reachIng Irciand, and wa had to resort to two parta of smaller lino furnashed at the navy-ynrd. Having eighty thousand fathoms of the smaller alze tine on recla, we had it made up into one of about four thousand, and we found it decidedly the best that we have yet used, it belug very strong and small.
"On both sides the interest taken in this great enterpiae is very great, and it is whth every batlafaction that I can atate that tho navy of the United States ia particularly recognized as having promptly and efficiently executed tho preliminary and importunt survey for mo atupendous a work as laying a telegraphte cable of three theusand milen long across ae ocean upward of two thousand fathoms decp, and nearly seventeen handred milea wide."-O. M. Brabyman, C. S. N.

For a full statement of the results of these soundings In determining the proposed line of the cable of the Atlantic submarine telegraph, and for the statistics concerning this line, see article Tedegraph.

Abetract of dhef sea soundinge axd texprabtcraze With taik latitudag and lonoituder，mady on doabd Commandino U．1I．ligaryman tinited States Nave betwern Newrotinhand and legland，Adacet， 1850.

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| 2 | 17 | 150 | 48 no | 5141 | 30.48 | 06 | 49 | 51 | 47 |
| 8 | 17 | 98 | 4818 | 5180 | 89.38 | 02 | 49 | 47 | 45 |
| 4 | 19 | 85 | 4927 | 51153 | 80.34 | 63 | 49 | 47 | 47 |
| 5 | 19 | 120 | 4340 | 5036 | $80 \cdot 41$ | 64 | 10 | 47 | 44 |
| 0 | 23 | 870 | 4851 | 5005 | 30.18 | 08 | 60 | 48 | 42 |
| 7 | 24 | 461 | 49 t2 | 4942 | 29.84 | 03 | 54 | 54 | 00 |
| 8 | 30 | 742 | 4330 | 4905 | $30 \cdot 15$ | 63 | 5 4 | 52 | 50 |
| 9 | 23 | 1050 | 4940 | 48 39 | 30． 25 | 63 | 68 | 5.3 | 51 |
| 10 | 60 | 1590 | 4047 | 4143 | 30.68 | 68 | 59 | 60 | 63 |
| 11 | 39 | 1327 | 4940 | 4554 | 30－29 | 64 | 15 | 56 | 55 |
| 12 | 42 | 1627 | 4950 | 4148 | 30.20 | （i） | 59 | 59 | 60 |
| 18 | 84 | 1400 | ¢0 16 | 4303 | $8 \mathrm{Bl}-10$ | 61 | 55 | （2） | 53 |
| 14 | 83 | 1500 | 50） 03 | 4026 | $80 \cdot 18$ | 68 | 55 | 65 | 54 |
| 15 | 77 | 1564 | 60 20 | 3s 00 | 90－13 | 69 | 57 | 56 | 010 |
| 10 | 6 ？ | 16 mo | 818 | 3715 | 30.08 | 60 | 55 | 57 | 56 |
| 17 | \＄6 | 1050 | 5103 | 3550 | 29.89 | 09 | 58 | 57 | 67 |
| 18 | 64 | 1680 | 5115 | 8108 | 29.83 | 6.1 | 55 | 56 | 57 |
| 10 | 72 | 2070 | 5133 | 3220 | $29 \cdot 77$ | 68 | 67 | 6T | 57 |
| 20 | 116 | 2100 | 5224 | 8916 | 29.19 | 07 | 50 | 10 | 68 |
| 21 | 72 | 1830 | 5226 | 2718 | 3006 | 63 | 180 | 60 | 67 |
| 22 | 35 | 19：0 | 5． 20 | 2130 | $30 \cdot 15$ | 71 | 59 | 69 | 89 |
| 23 | 83 | 1813 | 5202 | 2451 | $30 \cdot 10$ | 68 | 87 | 57 | 58 |
| 24 | 90 | 105） | 5145 | 2223 | 30.15 | 60 | 00 | 60 | 62 |
| 25 | 49 | 15：10 | 5145 | 2119 | 29.94 | 74 | 50 | 60 | 62 |
| 26 | 41 | 1513 | 5150 | 2012 | $29-90$ | 71 | 59 | 60 | 01 |
| 27 | 60 | 1750 | 5148 | 19.31 | 29.90 | 72 | 61 | 62 | 60 |
| 28 | 60 | 1905 | 5201 | 1706 | $29 \cdot 183$ | 70 | 05 | 65 | 62 |
| 20 | 111 | 1513 | 5205 | 1454 | 29.63 | 0. | 59 | 60 | 50 |
| 30 | 89 | 4111 | 5208 | 1502 | $20 \cdot 75$ | 71 | 6） | 61 | 62 |
| 31 | 06 | 285 | 5143 | 1344 | 30.48 | 60 | 62 | 62 | 01 |
| 32 | 10 | 410 | 5152 | 1316 | 3064 | 68 | 65 | 60 | 01 |
| 33 | 31 | 717 | 5154 | 1227 | 30.05 | 71 | 53 | 59 | 61 |
| 94 | 39 | 114 | 5141 | 1121 | $30 \cdot 18$ | 69 | 59 | 61 | 68 |

Norz－The bonisdinga in thin tablo aro placed in tio order
South America．Tho southern portion of the American continent extends from Polnt Gallenas，in lat． $12^{\circ} 30^{\circ}$ ，to Cape Horn，in lat． $56^{\circ} 30^{\prime}$ ．The oxtent of const that it offers to the Caribbean Sea and tho At－ lantic is estimated at 11,000 miles ；and tho const wash－ ed by the lacitic，it is stated lyy tho latest geographical authority，has an approximate continuity of 5800 miles． It the southern extremity there is a group of mount－ ninous islants，seprated from the main land by the Straits of Magellan，and forming the Archipelago of Torra del Facgo，or＂Land of Fire；＂so called from tho number of fires which its diseoverer，Magellan，saw aloug its coast at utght，supposed to havo been volcanic． Thls archipelago，with its barren islands and roeks， must，however，be considered as the termination of the contincut．Immediately north lies the vast and almost minnhabited country of Patagonia；while on the east， at a distanco of from 300 to 400 miles in the South At lantic，lie the Falkland group of islands．
The vast region known geographically as Patagonia extends from the liver Negro，lat． $39^{2}$ ，to the Straits of Magellam，lat．bit ${ }^{\circ}$ S．，a distance of about 970 miles
length，with a breadth varying from 200 to 420 miles． It comprises two diatlnet phyaical reglons，differing in surface and climate－the one lying on tho west side of tho Andes，tho other on tho east，and called，respect－ Ively，Eastern and Western Patagonin．The formor is elalmed ly the Argeatino Republle to the Stralts of Magelian，and the latter by Chili，down to Capo Horn． Both sectiona are as yet，however，inhabited by abo－ rlginal races，with the exception of a Chilian settlement at Port Famine，and on tho Straits of Mngellan．This diviston of Patagonia is comprised in the Chilian prov－ Ince of Chlloe，which is composed of tho arelipelago of that namo；that of Chonos，of the most suntinern islands，and that part of the continent which extends from Rio Negro，and as faz sonth as Capo Horn．On the eastern dlvision there are several ports，among which are，Gallegos，in $51^{\circ} 38^{\prime}$ ；Sunta Cruz，in $50^{\circ} 7^{\prime}$ ； Sau Jullan，in $49^{\circ} 12^{\prime}$ ；Desire，In $47^{\circ}{ }^{\circ}{ }^{\prime}$ ；Nuevo Golfo， In $43^{\circ}$ ；and San Antonio，in $41^{\circ}$ south．The fow tribes of aboriginal Indians that ：nhabit this inhospitable re－ gion subsist upon the products of thelr fishery．The princlpal object of Chill in colonizing Port Fanine，on tho Straits，was to keep fin check theso nomadic tribes， though tho colony has also been used for penal pur－ poses．Cape IIorn is uninhabited．
The South American continent has on its Pacific coast no large rivers．On tho Atlantic，however，are the Amazon，the Orinoco，and the Plata，and a number of others，whiel，though not so large as those named， are equal in size，if not superior，to even the largest rivers in Europe．The Amazon is the largest tiver on tho globe．Its principal trihutaries vary in length from 1000 to 1800 miles，while the central stream is $4000 \mathrm{~m} / \mathrm{les}$ long，anil is navigablo 2200 miles from the sea．Peru，Bolivia，and Chill are tho great mineral sites of South America，and prodnco chiefly silver，but also some gold and other metals，espectally copper， wheh is very abundent in Chili．Tho most distion gnishing feature in tho vegetation of South $A_{\text {merica }}$ is the prodlglous forests，which cuver about two－thirds of the whole surface．Fruits of nimost every variety abound，and indigo，coffec，sugar－cane，maize，and the eocoa－treo aro anong tho chief products．The cultiva－ tion of the tea－tree has been attempted In Brazil，though it is beliceed without success；but yerver matte，from which is prepared the customary beverage of one hali of tho peulusula，grows in tho greatest abundance in Paraguny．Spain and Portugal wero severally the original coloulsts of South America－the former fomil． ing tho states of Venezuela，New Granala，Holivia， Peru，Claili，the Argentine Republle，Uruguay，and Paraguay ；and the latter tho vast empire of Brazil．
Tho South American states all achic ved their inde－ pendenco between tho years 1810 and 1825．These states，together with the colonics and other regions comprised In Sonth America，with their respective arcas，population，capitals，etc．，ars exlibited in the following talle，derived from tho latest geographical authority；though，as regards the striet aecuracy of the fibures given，the same remark applies that is male with reference to similar tables respeeting Mexico atd the Central American states：

| stales，ole． | Area th Bquere Milen． | Population． | Piopulation to Myuare Mile． | Copitals． | Population． |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New Granada． | 621，949 | 2，313， $11 / 4$ | 423 | 1kgrota．．．．．．．．．．．．．．． | 45106 |
| Venerula． | 496，712 | 1，149，336 | $2 \cdot 69$ | Caraccas ．．．．．．．．．．．．．．． |  |
| Fenador． | 287．033 | 6． $5_{6}$ ， 610 | $2 \cdot 32$ | tuito ．．．．．．．．．．．．．．．．． | （ti），（wh） |
| tiulana，Itritisti．．．．．．．．．．．．．．．．．．．．．．．． | 196．1091 | 127.165 | $1 \cdot 33$ | Georgelowh．．．．．．．．．．．．．．． | Uh．9014 |
| ＂thiteli．．．．．．．．．．．．．．．．．．．．．． | 60， 6105 | 61，01： | 102 | 1＇aramaraibo ．．．．．．．．．．．． | 14 （i） $0^{3}$ |
| ＂Frunels | 27， 50 | 2．2．1110 | 083 | Cayenne．．．．．．．．．．．．．．． | b， $010 \cdot 4$ |
| 1hrazll ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 2， 073,449 | 6，065， 160 | $2 \cdot 4$ | Lǐu Janelro ．．．．．．．．．．．．． | \％6ti， 010 |
| I＇eru．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 4！4， 126 | 8，115，493 | 4.24 | I．Ima．．．．．．．．．．．．．．．．． | J0t，004 |
| dulltia． | 473,498 | 1，$+17.10 n)$ | 8.40 | Whuritisuca | 26， $1 \mathrm{~m} / 0$ |
| r thill． | 24＇1， 08.2 | 1，133．80\％ | － 403 | Fantiagn．．．．．．．．．．．．．．．． | －s， 140 |
| Argentine Itrpulite ．．．．．．．．．．．．．．．．．． | TRG，MK） | 764．0）（6） | 047 | Ituenoa Ayren ．．．．．．．．．．． | 1104， $01 \times 1$ |
| 1＇sraguay ．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 72．104 | 810.6000 | $4 \cdot 16$ | Asumelon ．．．．．．．．．．．．．．．．．．．． | 18，inn |
| U＇rugray ．．．．．．．．．．．．．．．．．． | 213，519 | 120．600 | $1 \cdot 63$ | Montridea | 16，14．6 |
| Jutaronla，east of Andes ．．．．．．．．．．．．． | 210，069 | 300 | （1） 6 | purt standey | 314 |
| Falk hint latand ．．．．．．．．．．．．．．．．． | 1，267 | （1） | 119 | Port Stanley ．．．．．．．．． | 814 |
| Total | 6， 682.441 | 10，114，3， 21 | $2 \cdot 41$ |  | －＇$\cdot \stackrel{ }{ }$ |

In the population given in the third column, no account is taken of the uncivilized Indian races, which probably number between $1,000,000$ and $1,200,000$ souls. These are foand chlofly in the great plalns of the Orinoco, Amazon, and Parana. The relative rank of the South Amerlcan states, as regards their commercial intercourso with the United

States, may be inferred from the subjolned comparative statement, exhibiting the values of exports to each country from the United States, and of imports from each country lnto tho United States, during a perlod of four years, from 1852 to 1855, incluslve; made up from United States Treasury reports for sald years:

| Sooth Amorican Statos. | 1804. |  | 1855. |  | 1886. |  | 1887. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Exporta. | Imports. | Exporin. | Importh. | Exporta. | Imports. | Exports. | Importa. |
| lraztt | \$4,239,941 | \$14,110,387 | \$4,20t,273 | \$15,218,9065 | \$5,094,9018 | \$19,262,657 | \$5, 545,207 | \$21,460,733 |
| Chitt . . . . . . . . . . . . . | 2,198,269 | 3,982,167 | 3,426,207 | 3,818,800 | 2,807,743 | 2,407,819 | 2,907,186 | 0,742.489 |
| Yonezuala ......... | 1, 200,883 | 8,072,649 | 1,228,449 | 3,616,869 | 1,712,774 | 4,202,692 | 1,427,578 | 8,860,518 |
| Argeutine Republto. . | 761,725 | 2,144,971 | 969,427 | 2,545,087 | 1,250,803 | 2,322,181 | 1,318,897 | 2,784,478 |
| Poru ................ | 6S6,155 | 1,005,406 | 870.546 | 597,018 | 1,244,233 | 217,759 | 517,932 | 205,747 |
| Uruguay ........... | 512,957 | 457,17! | 422,174 | 242,709 | 551.899 | 801,080 | 1,000,172 | 8C8,407 |
| Ecuador . . . . . . . . . . | . | 57,034 | 60,092 | 12,603 | **. | ... | . $\cdot$ | . . |

-Com. Relat. U. S. For a complete exhibit of tho commerce of each country, sec articles ander tl e proper heuds.-Sco North Amer. Rev., xil. 432 (E. Elehett), xix. 158 (J. Slparks); Westm. Rev., vi. 202; Edinb. Rev., xliii. 299 ; Dr ISow's Rev., vi. 3 ; Foreign Quart. Rev., xvlii. 455; Christ. Rev., xvi. 321 ; Quart. Rev., xxxii. 125; Southern Quart. Rev., xli. 330; Dem. Rev., i. and ii.--See article Anemica.

Southampton, a parlianentary and municipal borough, sea-prort town, and county of England, in the southern part of the county IIants, oceupying a peninsula between the mouths of the Test and Itchin rlvers, at the head of Southampton water, 12 miles south-southwosi from Winchester, on the southwestern railroad, 72 miles southwest from London. Latitudo of Saint Michacl's spire, $50^{\circ} 54^{\prime} \mathrm{N}$., long. $1^{\circ} 24^{\prime} 2^{\prime \prime} \mathrm{W}$. Pojulation in $1851,35,305$. The now docks on the oast of the town, epened in 1842, have an area of 208 aeres, and have admitted steamers of more than 700 tons burden. The West India, Mediterranean, and other mails, have their station here, and tho town communicates by steamers with all the ports of South England, the Channel islands, Ireland, and by railroad with London, and ail the centre of England. The port extends from near Portsmouth to Christehureh. IIere are some manufactures of silks and earpets, but ship-bullding and general commerce are the chief sources of wealth. Sonthampton is now the point of departure of the steamers for Aloxandria (sce ante, p. 20), and a stopplng-place for tise steamers between IBremen and New York.

South Carolina, one of tho Southern United States, is situated between $32^{\circ} 2^{\prime}$ and $35^{\circ} 10^{\prime} \mathrm{N}$. lat., and between $78^{\circ} 24^{\prime}$ and $83^{\circ} 30^{\prime} \mathrm{W}$. long. It is 200 miles long and 125 broad, containing 58,000 stpare miles. The population in 1790 was $2 \mathbf{2 0 , 0 0 0} ; \ln 1800$, 345,591 ; in 1810, 415,115; in 1820, $002,7.11$; in 1830, 581,458; in 1840, 591,398; and in 1850, 668,507.

Fimly Ifistory.- When the Spaniards, under Vasquez Ayllon ( 1520 and 1526), arrived on the coasts of what we now call Carolina, and more especially South Carolina, they heard here of a geat 'adlan ting and country, hoth called Chicora or Chicoria, and they applied that Indian name for some time to this conntry; without, however, giving to it very alistinct limits. The country was also sometimes called after its discoverer, Tierre del Licenciado Ayllon, or, shorter, Tierra de Ayllon, often also eorrupted to Terra de Aullon. Under this name tho Spaniarils comprehended sometimes a very great iart of North America, sometimes not more than this province.

French Cluims.-It is curious enough that the French nhso, when they ( 1004 ) arrived at the locality of Ayllon's activity, licard again of an Indian king and country of that name. In their ears it somnded, however, like Chicola or Chionole. Aftr. tho French navigation to these regions wo hes. the conntry sometimes designated ly the Freneh themselves with the namo $L a$ Floride Frangoise, and other nations also called it French Florila. Tho Spanlards, of course, always considered it as a part of their Spanish Florida. The French built on their Riviere May (St. Mateo or St.

John's River) a fort, which thoy called Fort Carolino or Carolina. Sonse map-makers and geographers applied this name, as an appellation of a country or territory, to tho whole reglon. So we see, for Instance, on a map of Nortin America by Cornclius a Judreis (1503), tho whola Frepch Florida called Carolina, in honor of Charles LX., king of France. It is curious that the same namo was aftorward given to the some locality in honor of an English king.

English Settements.-The English, since their settlements at Roanoke, comprehended the whole territory of Carolina uncler thoir widely-extended name of Virginia, after 1583. This grant had, however, very slight consequences. The country was not settled, not taken possession of, not even surveyed or explored. In the year 1063 Charles II. made annther grant of all the lands between the 36th and 37th degrees of north latitude to Edward, earl of Clarendon, and some other lords and gentlemen, and this tract was again enlled, In his honor, Carolina; so that wo may say we have three kings as golfathers to this province-Charles IX. of France, Charles I. and Charles II. of Eagland. I3y a second more ample charter of the 24th of March, 1667, Charles II. extended the houndaries of Carolina from nortli latitude $20^{\circ}$ to $36^{\circ} 30^{\prime}$, and from east to west "until the Pacitic Ocean." The country was divilled into two great counties-a northern one, called the county of Albemarle, and a southern one, called Clarendon county.
In this same year (1667) William Sayle, the appointed Governor of Carolina, explored and surveyed the whole coast of the provinee, entering all the rivers and making astronomical observations. He no doult, also, procurod a map of tho country to be made, hut unlappily this map is not preserved for us Probally the results of this first good survey of tho consts of Corolina were not then made known to the world at largo; for wo find still, on the edition of Champlain's maps of the year 16:7, along the coasts of Carolina, this inseription. "Terre non encore bien découverte continente a la Fhorida" (a land not yet well discovered is conneeted with Florida).

In the year 1729 the whole great province was divided lnto North and Sonth Carolina, and as the dividing point on tho coast was fixod a small inlet to the west of Cape Fear, called Little River Inlet. In the year 1733 the provlnce of Georgia was detached as a separate governuent of tho old Territory of Carolina, and tho southern houndaries of this latter were fixed at the mouth of the Savannah River, and within theso boundaries the name of Carolina has been proscribed ever since. Accorling to what we stated, wo may in a certaln degree consider the names of Wingandacoa, Weapemeoc, Ould Virginin, Albemarle county, as old particular designations for North Curolina; and tho name of Chicora, Terra de Ayllon, Florida Francoise, Clarendon county, as particular apjellations applied to South Carolina.-I. G. Kom.. Sre Noutir Cabolina.
I'hysical Features, etc.-The sen-coast is hordered with a series of islands, between which and the shore thero is $n$ very convenient navigation. The main land is
naturally divided into the lowar and upper country. pounds produced, 487,233; cotton, 800,901; flax, 33.3; The low country extenis from eighty to ove hundred miles from the sea-coast, and is coverell with extensive forests of pine, callel pine barrens, interspersed with marshes and swamps of a rich soil. The banks of the large rivers and the ereeks of this region are borlered with a belt of excellent land, prolucing cotton and Itidian corn in abumdance. The marshes and swamps in this district make tine rice plantations. The staple productlons of tho State are cotton and rice, great quantities of which are exported. Rice is extensively cultivated where the land can be irrigated by the tide or the overflowing of the rivers. The seaishuml cotten produced on the islands along the shores is of a superior quality, and is in great demand. Gold, tron, granite, and marble, aro the principal minerals.

There wero in this Stato in 1850, 4,072,651 acres of land impeoved, and 12,140,019 acres of unimproved lund in farms. Cash valye of farms, $882,431,684$; nnd the value of implements and machinery was $\$ 1,130,351$. The number of live ftock was-horses, $97,17 \mathrm{~L}$; nsses and mules, $3 i, 48: 3$; milch cows, 193,244 ; working oxen, 20,507 ; other chitte, 5133,1215 ; sheep, 285,651 ; swine, 1,065,503: aggregate valuc, $815,060,015$.

Agricultural tioducts, elc.-Wha, W, 1,066,2:7 bushels; rye, 13,790; Indian sern, $16,2,1,451$; bnck wheat, 283; onts, 2,322,105; barley, 458:3; pens, 1,026,900; petatoes, $1: 6,494$; sweel potates, $4,337,469$; rice, 159,930,613 pounds ; pulue of prodects of the orehari, \$35,105; prucluce of market gardens, 847,286 ; pounis of hutter made, 2,981,8i0; of checse, 49r0; sugar, hizl hogsheads; maplo-sugar, ${ }^{2} 00$ pounds; molasses, 15,901 gallons; leeswax and honey, 916,281 pounds; weol,
silk cocoons, 123; hops, 26 pounds: tobacco, 74,285 ; hay, tons of, 20,925 ; clover sceds, 376 bushels ; other grass seeds, 30 ; Hax-seed, 55 bushels; wine, 5880 gallons. Value of home-made manufactures, $\mathbf{8 9 0 9 , 5 2 5 ;}$ and of slaughtered animals, $\$ 1,302,637$.

The Great Pellee River, 150 miles long, rises in Nerth Carolina, and runs through the eastern part of the siate. It is navigable for sloops 130 miles. The Santee, fermed by the junction of the Wateree and the Congaree, rises in North Carolina, and has a sloop navigation for abeut 130 milles. The Saluda is a branch of the Congare. The Edisto is navigable for large boats 100 miles. The Savannah washes the whole southwest berder of the State, and is a noble strean. 'There are several mualler rivers, among which are Cooper, Ashley, and Combahee.

Manufictures, etc.-There were in the State in 1850, 13 cotton factories, with a capital invested of 8778,1001 employing 371 males anil $6{ }^{2} 2$ females, producing gools valued at \$it2;220; 6 establishments with a capitul of $\$ 185,700$, employing 155 persons, and making i:28i ons of castings, etc., valued at \$87.683; 287 Ilourin, aul grist mills, 118 saw-mills, 107 tamuerins, 41 print. ing-onlees, 45 newspapers - 7 daily, 4 tri-weekly, ? semi-weekly, 24 weckly, 1 hi-monthly, 5 monthly, mad 1 quarticly publication. Cupltal investal in mas. ufactures, $80,040,50 \overline{3}$; value of manufuetured articles, $56,200,84 \mathrm{f}$.

In dune, 1 s:56, there were 9 railroarls, witis 816 miles of onalhis isbel aud in operation, and 37.1 miles in course of sonstryetion. There were 11; banks and 2 branches, with a ene! capitul of $\$ 14,0 ; 3,580$.



| Yeart ending | Exproris. |  |  | Inymete. | Tominust clenred. |  | Whetriel Tontias. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatic. | Foreign. | Total. | Tutal. | Aneerican, | Foreign. | Regintered. | $\begin{gathered} \text { Einrotindaind } \\ \text { 1.ceurboul. } \end{gathered}$ |
| S01. 30, 1921 | \$1, 376. 515 | \$.38.9410 | 4, $7,060.611$ | \$3,147, 118 | 4, 3.82 | 12.55 | 16,249 | 17.10! |
| 182\%. | 7,136,366 | 129,68\% | T. ${ }^{1} 60,283$ | 2,488, $6 \times 80$ | 14,5! 4 | 15,237 | . |  |
| 1323 | 8,671, 04, | Y24,810 | $6.818,814$ | 2,419, 101 | b-4,6:17 | 24.04\% | . $\cdot$. | . . $\cdot$ |
| $18: 24$. | 7, 832, 113 | 900,361 | 8,034.083 | $2,160,1 \times 5$ | 61, 4102 | 19,hiv | . |  |
| 18 告. | 11. 516.45 | 180,267 | 11,056, 743 | 1.802,207 |  | 17.188 |  |  |
| $1)^{2} 6$. | 7, 418.966 | 81, 1171 | 7.504,120 | 4, 534,483 | 63, 8.26 | 18.314 | - | . |
| 15.17. | - 18.159 .496 | 13n,405 | 8,322,501 | 1, 13 4, 1106 | 68, $\mathrm{S}^{2}-4$ | 94.66) | .... |  |
| 928. | 6 518.500 | 42,142 | C.550,712 | 1,212,148 | 47, 5150 | 25,6\%6 |  |  |
| 1829. | $8.134,176$ | - 40.910 | 8.156 .580 | 1,129,019 | 10, 1337 | 24.4.2 |  |  |
| 1830....... | 7,5911,821 | 46.210 | T,627, 10.31 | 1,164.4.619 | 52,406 | 210.405 |  |  |
| Total... | \$76,200,5:6 | \$1.411.79\% | \$ 5 5, 640, 5.5 | \$18, 17.6154 | \$60, 145 | $20 \times 5.713$ | ' $\cdot \cdots$ | $\cdots$ |
| Sept. 30, 1531....... | +6.529.005 | \$46,006 | \$ 6.5 \% \%, 001 | \$1.989, 163 | 48.426 | 99.01 h | b, 812 | 9.030 |
| 183\%...... | 7,685, 833 | 141. 699 | 7,7, $0,7.31$ | 1, 218.785 | 47.4.3 | 41,8:6 | $\cdots$ |  |
| 1433. | 8,337, 518 | 968.813 | 8,494.325 | $1.517 .74 \%$ | 4,010, | 83,472 | $\cdots \cdot$ | -... |
| 1 1sis. | 11,119, 5105 | $83.21 i$ | 11.207.7ĭ | 1.757.247 | (60) 847 | (4, 40\% | $\cdots$ | . |
| Jxitio. | 17.224, 29, ${ }^{1}$ | 31:i, 15 | 11, $36 \times, 1180$ | 1,4118.5 | $44^{2} 7103$ | 82, 176 | *.. | . . . |
| 1*: 6 . | 10,432.07 | 201.619 | 13.054,371 | $240 t .841$ |  | 3\%, 10,6 | * ' $\cdot$. | . |
| 14.37...... | 11.138.953 | 81.169 | 11,2\% 4.161 | 2, b10, 5 W | 49,609 | 31.254 | . . . |  |
| $1 \mathrm{~S}^{1} \mathrm{~N}$ | 11.017.8. 1 | $24.67 \%$ | 11.0.42.061 | 2,318,7:1 | 37, ${ }^{4}+2$ | 27.5 ind | . |  |
| 1548 | 10.81888 | C6, 604 | 10,1256,4:6 | 5,081, 117 | 81.824 | 20,62\% | . . . | . ... |
| $18+6$. | 9,! 81,646 | $8{ }^{\circ}, 703$ | 10,036,70) | $2,002,5 \% 0$ | 4. 2,1190 | $26.4 \%$ |  |  |
| Totat... | \$100), $\times 3.791$ | 4 $4 . \therefore 06$ ! | \$101, $0,6,443$ | $4-10,424,43$ | 6, i, 759 | 350,070 | - | -••* |
| Sipt. 30, 15+1 | \$*.171.20\% | \$81.876 | \$8.0:8,284 | \$1.857.631 | 63.467 | \%จ, 116 | 12,8\% ${ }^{3}$ | 11.41 |
| 1:42....... | 754375 | 17.324 | 5.54\%, 123 |  | (i1.138 | 34,018 | , | .... |
| 0 mos., In $1.3^{\prime} \ldots . .$. | 7. 54.102 | 6, 6i, | E, 560,503 | 1, 2.2. 618 | 71.400 | 4.1.191! | , | .... |
| Junc 30, $1 \times 44 \ldots . .$. | $7.429,505$ | 3.607 | 7.43.3, 28 ? | 1.1.1,515 | 4!, 40) | 4,902t | . . . | . |
| 1515...... | 8.384 .770 | 8,878 | $8.810,438$ | 1.153 .159 | *11,768 | 83.619 | .... |  |
| liv6...... | (i, 3.9.8:5 | 18.50 .42 | $6.483 .47 \%$ | (10: 0 , 41 | [ $14, \ldots\}$; | 27.679 | '. | .... |
| 1-ti...... | 10,4:8,116 | 3,971 | 16,133817 | $\therefore$, 500,65 | (A) ${ }^{\prime \prime}$, +2: 1 | 411.742 | . | .... |
| 144. ...... | Q,4181,917 |  | 8,051,017 | $1.453,29$ | 8.1.4.34 | 42, (1)\% | ... |  |
| 148.3...... | D, e9 \% 97, | t, 3619 | 4, 7101.17 | 1,1756\% | 82, 739 | :19.111] | .... |  |
| 1-311. . . . . | 11,440 592 | [119 | 11,447,80). | 1,4323,75 | 72.282 | \$1,8.89 |  |  |
| Total... | \% M, 07i4, 6ial | \$ 53.970 | \$96,1 $1.63: 3$ | \$13, 561, 2 ¢1 | tink 3.7 | 411,98\% | - . | . . |
| June 30, 165] ...... | \$15 316.57\% |  | \$15, 310.6574 | \$2.051.312 | 41.344i | \% ${ }^{172}$ |  | 15** |
| 18.2 | $11.670,021$ |  | 11.070081 | 2,175.01.4 | 81, 0.81 | \$3.2:2t |  | .... |
| ixis. | 15.4100 .469 |  | 15, $4100,46 \%$ | 1.718.517 | It, 3fin | 01, 5161 |  | .. |
| 1 \%rt. | $: 1820.308$ | \$12.608 | 11. 598.1011 | 1,711.85 |  | 31, +10 |  | ... |
| $18 \% 5$ | 12.6949, 110 | 1, 200 |  | 1,988:-4] | $1165 \% \mathrm{~L}$ | :15.614 |  | ... |
| 14. | 17.358, 944 | 2,281 | $18.91010,849$ | 1, Whi, 2in | 114,06.5 | +1.2.5 | . . . | ... |
| 147. | 16,927,434 | 12,900 | 16.140,403 | 2,019,7>6 | 06, 有, 2 | 47.369 |  |  |

Principul Porta.-Charleston, lat. $32^{\circ} 47^{\prime \prime} \mathrm{N}$. , lows.| the entrance to the harhor there is a sumd lar, of ahmat
 Ashley and Cowner rivers, has a spactons harber. At of the chamels can only be useal by mhip of large ten-
cotton, 800,901 ; flax, 333 . ; pounds: tobacco, 74,28j; $r$ seeds, 376 bushels ; other 65 bushela; wine, 5880 galto manufactures, $\$ 909,505$; , $81,302,637$.
$\$ 50$ miles long, rises in North the eastern part of tho State. 0 miles. The Santee, formel eree and the Congarec, rises a sloop navigation for about a branch of the Congame. - Inrge boats $\mathbf{1 0 0}$ miles. Tho le southwest border of the 11. There are several small: Cooper, Asiley, and Com.
re were in the State in 1800 cnpital invested of $\$ 778,600$ "2 females, producing goods blehments with a capital of pursons, and making iesis ed at $\$ 87.683 ; 287$ thouring ills, 107 tamertns, 41 priut-- 7 daily, 4 tri-weekly, 1 bi-monthly, 5 monthy, n. Capltal invest in in ma, lue of manufactured articles
re 9 railroalls, with 816 miles ntinu, nmi $37-1$ miles in cours re 16 banks and 2 brauches, ,073,580.

LY 1,1557, ghowing al.go th

| real. | Watriet Tuntungr. |  |
| :---: | :---: | :---: |
| reign. | Aegiatered. | Finroliniland l. teenemed. |
| 9.55 | 16,449 | 1i.1U? |
| 5.237 | - | .... |
| 4.149 | *. | .... |
| 8, 673 | . . . | .... |
| 7.181 | .... | . ... |
| 8.819 | . . . | .... |
| 4.bint | . . . | . $\cdot$. |
| 3, 210 | - | . $\cdot$ • |
| 1. 413 | * $\cdot$ | . ... |
| 11.40\% | . . . $\cdot$ | .... |
| -7, 713 | * $\cdot \cdots$ | $\cdots$ |
| 9.015 | 6, 80\% | 9.044 |
| 11.8 .6 | . . $\cdot$ | .... |
| 15, 77 | . . . | .... |
| 11, f0\% | . $\cdot$. | .... |
| 33.47\% | $\cdots$ | .... |
| 65, 0:, 6 | $\cdots$ | .... |
| 3.250 | . . . | .... |
| 27.nitl | - | . . . |
| [0,62] | . . | .... |
| $45,4 \%$ | .... |  |
| 10,070 | - | . $\cdot$. |
| 9,716 | 12,858 | 11.441 |
| 54,11:4 | .... | .... |
| 1.1.391 | . . . | .... |
| 14.926 | . . . | . |
| 13.01: | ...* | $\cdots$ |
| $\cdot 7.579$ | - | .... |
| 41, 7142 | $\cdots$ | . . . |
| [1, | . . . | .... |
| [1, 4,1] | . . . | .... |
| $[1,8,0$ | . . . | . $\cdot$. |
| $(10,017$ | - . | . $\cdot$. |
| $\cdots, 172$ | ... | 15.7 |
| 93.2\%t | -••• | .... |
|  |  | . |
| [41,402] | . . . | .... |
| 1t. 414 | . | ... |
| (1.40\%) | . . . | .... |
| 17,9:4) |  |  |

suly 1.

- Herere is a samel lar, of ahout -ing nevomati chabumels. Tiree be used by hlig of large ton.
nage; one, the ships' clannel, has a depth of water of twelve feet at obb-tile, and irom saventeen to twenty nt flood-tide. Ships always take a pilot, on account of shifting sands, and are moored along side wharves in eufety inside the harlior. It is the chlef commercial emporium of the State, and the largest shipping port on the Atiantio beiow llalthore. The ehief exports are cotton anti rice. It is connected with the inter:s: by the South Carolinn nad the Northeastern rallroads. The tonnage of Charleston, in 1856, was 59,128 tona.

Beanfort, on the west alde of Port Royal Rlver, an inlet of the Allantic, and sixteen miles from the sea, lus a good barbor, but on account of a bar nit its month only small vessels can enter it. It has little or no commerce. The tonnage in 1856 was only 110 tons.-mpor further particulars as to South Carolina, see Southern (Zurt. Rer., xviii. 66, xs. 273, 298, iv. 247 (Sıs318); IN: llow's Rev., viii. 2t, xi. 123; Nurth American Rev. xiii. 1-13.

South Bea Bubble. Tinis destruclive speculatien was commenced In 1710, and the company incorporated by statute in 1716 . The bubhie, which ruined thensands of familles, exploded in 1820 , and the directors' estates, to the value of $\mathbb{E} 2,014,000$ sterling, were scized in 17el. Mr. Knight, the cashier, absconded with $\mathcal{E 1 0 0 , 0 0 0 ; \text { but he compounded the frand }}$ for $\mathbf{£ 1 0 , 0 0 0 , ~ a n d ~ r e t u r n e d ~ t o ~ E n g l a n d ~ i n ~} 1743$. A] most nll the wealthy persons in the kingdom had become stock-jobbers nutispeculators in this unfortunate scheme. The artifices of the directors lind raised the shares, originally of $£ 100$, to the enormous price of fltol - See Clamifs Mackay's Mistory of Modern Manias; Bankers' Magazine, N. Y.

South Bea Duties. The British net of the $y$ Ann, c. 21, establishing the South Sea Company, conveyed to them the exclnsive privilege of trading to the Pacifie Ocenn, and along the east coast of America, from the Orinoco to Cape IIorn.

Sovereign (the Coin). The name of an ancient as well as a modern English gold coin. In Henry I.'s reign, $n$ coin of this denomination was issued, of the valuo of twenty-two shilings, and one twenty-fourth part of the weight of a pound of gold. In 34 IIenry VIII., sovereigos wero coined of tho value of twenty shillings, which afterwarl ( 4 noll 6 Edward VI.) passed for twenty-four and thirty shilings. 13y 56 Geerge III., soverelgus of the new goll coinago were directed to pass for twenty shilings, nud they were issued from tho Mint the same year (1816), and have since mainthined the same value.

Sovereignty of the Seas. The claim of England is of very muenent dnte. Arthur was the tirst who assumel the soverelgnty of ihe seas for Britain, and Alfred afterward supported this right. The sovereignty of Engiand over the lbritish seas was maintained hy Selden, and mensures were taken by government in consetuence, 8 Charles I., in 1633. The Dutch, after the death of Charles I., made some attempts to obtain it, but were roughly treated by thake mul other almirals. Linsain end other powers of the North armed, to avoid search, sin 1780; again in 1800,-11ayts.

Soy, is speuses of sauce prepured in China nad Japan from a small bean, the produce of the Jolichos apja. It is caten with fish mul other articles. It should be chosen of a good flawer, not too salt nor too sweet, of a kond thick consistence, a brown culor, and char: when slaken in a flass, it should lenve n cont on the surface, of a bright yeliowish brown color; if it do not, it is of an inferior kind, and should be rejected. dapall soy is deemed superior to the Chinese. It is worth, fa boud, from six to seven shillings sterling n gallon. It is believed to be exteosively counterfeited. -Murumen's Orient, Com.

Spain, or Espana (iberia, IIispania), n untry of southwestern Furope, oceapying the greater part of the Iberian peninsula, and often termed collopuially "the Ieninsula," extending between lat. $30^{\circ} 1^{\prime}$ and
$43^{\circ} 45^{\prime} \mathrm{N}$. , and long. $3^{\circ} 20^{\prime} \mathrm{E}$., and $9^{\circ} 21^{\prime} \mathrm{W}$., bounded north by the Bay of Biscay and by the Pyrenees, whleh separato It from France, east by the Mediterrancan, south by the Mediterranenn and the Strait of Glbraltar, and west by Portughl and the Atlantic Ocean.
Spain is rich in minerals, especially mercury, Jron, copper, atsd lead. The celebrated golit and silver mines of the time of the llomans have long been alsandoned, but mercury is extracted in great abundance from the mines of Almaden. Lead forms an important branch of mining intustry. Coal Is found chiefty in the Asturias; copper, tin, zinc, antimony, arsenic, and colnit, are common, and rock-salt is abundant in tho hilis of Cardoua. The principal rivers of Spaill are, from north to soath, the Ter, Llobregat, Ebro. Guadalaviar, Jucar, and Segara, flowing cast to the Mediterranenn. The Minho, Douro, Tagns, Guadiana, and Guadalquivir, flowing mostly through Portugal west and south to the Atlantic. Few of these are navigable, and those only for small boats near their meuths.

Spanish Cuionies.-The principal are Cuba, Puerto Rico, and some smaller islands in America; the Plitlppine and Marrianne Islands in the Pacittc, the Canary Islands in tho Atlantic, Fernando I'o and the Island of Annaion in the Gulf of Guinea, and Centa, Gomern, and Melilla in Barbary.-For a fuil account of the Colonies, see articles under these heads.

The Prblic Debt of Spain.-The following is an official relurn of the state of the pablis debt of Spain on the 30th of June, 1855 :

Tirec per cent. stock, payalle to bearer, and inscriptions transferable and non-trameferable (internal)
Dito given as guarantees for loana and con-
tracts.
ilto deferred.
681,011,644
543,012,000

inito deferred (oreign)
713,514,910
Consolldated bouds and other laternal stock, bearing 4 per cont. interest.

316,978,400

FIve per cent, stock and Inseriptions, trainsfer.
able and non-transferable
85,509,402
134,178,119
331,201,480
Certificates of current debt at 5 per cent. ia puper (Certificaciones de dénda corriente al 5 por 100 á prpel).
Non-cousolidated bonds
Lamings lrovilopales
IIonda pryablo to bearer of relecmablo debt 21] cluss.
Irovislonal dopuinents frinio............................. den corrionte à 5 por 100 á papel.
 dind (denda sin interes).
Inserlptions of active debt, ri per cent.......... Inscriptiona of linglish clains, 5 per cent. .. iltto in favor of Frencl treasury.... . . . . . Ditto Vilted States.
Foreigit passive debt
Inseriptiona of old forelgn $B$ per cent dicist . . Ditto foreien 3 per centy of 1831 ..... (icin Actlons of nstlonal tosn of $18: 1$
Certaficates of prrmium on tire Laffitto loan. Dr ferred debt of 1881 , without interest
13 unds payable to bearer of foreign redermuble leit, 2 d elass.
Cap, itale recognized to the owners of inv tithee tertilizates of ditto, and interest. on the sanme lroprietor $₹$ of quitrenta of the order of St. John of Jerusaiem
Interests of tho inseription in favor of tho Frenel treasury

01,400

Capitailzabie internt at 8 jer cent.
Interesta of $\$$ and 5 per ceat. debt, home nid foreiph.

495, 303,238
$90,847,622$ 56,857,888

205,400,000
129,652,652
357,328,678 $14,260,000$ $\$ 0,000$ $275,265,123$ 12,010,000 $33,504,000$
79, 552,000
$1,756,138$
$3,7 \pi 4,001$
2,301,300
$122,310,000$
970,904000
115,075,725
39,675,288

Interest in japer of tho 5 per cent current beht Ifonda issued for porsonal rervices (lat class). State paper lssucd for raltwny undertakings (acoiones de ferro curriles) ...................... Lonns (by decrees and inwz) of $1833_{4}$ 1S41, 1S50, 1851, and 1558.
183.760, 514
$38,7 \pm 6,167$
15,648,6:3
407,040,714 43,986,124
$192,200,000)$

Treasury bllis, preferable, with interest. Witto non-preforalie .... ......... 1htto, prefershie, withont interest.

102,580,004 12,251,984 $42,601,670$
Ditto, preferable, withont ..... . . Total Reals, 1555

14!, 870
. . . . . . . . . . . . . . . . . . . $13,580,460,110$
The same report states that the total amount of redeemnblo debt, inciuding lst and 20 class, parchased
since the law of 1851 to the end of June, 1855 , was $934,935,271$ reala, and coat the atato $67,10^{\prime}, 134$ reala.

The climate of Spaln varies exceedingiy with eleva(ion and prosition; it is warm on the coasts; the tablelands are exposed to great heat in summer, and extreme cold in winter. The soil is generally fertile, excopt in the elovated and arld diatricts of the central provincus; the chlef crops aro wheat, malze, barley, rico, hemp, and flax. The amount of corn is often insufficient for home consumption. The winos of Spmin are unch esteemed; the princlpal growths are those of Xeres (sherry), Rota, Malaga, Alicante, Malvasia, and Val do l'enas; the other products aro soda (from marine plants), honey, wax, and silk, the latter very abundant in tho southeastern provinces. In tho south ern provinces tho sugar-cane and cotton have been acclimatized, and thero the orange and cltron grow In great ahnadanco. The best building timber grows in the northern coast; the cork-tree, the kermes oak, and the shumac-tree, yield valuablo products. The horses of Andalusia are celcbrated ; the mules ant asses are remarkuble for beanty and sizo. Cattle aro of good breeds. The ruce of sheep called the merlno ylelds a great quautity of oxcellont wool; their exportation has always been prohlbited, their pasturage is regnlated by ancient laws, and their number is reckoned at five or six millions.

Comnerce.-There is not at this time, nor has thero ever been, a commerclal treaty between the government of the United States and that of Spaln. Hut two treatics of any kind have been negotiated between tho two governments-one purporting to be "A treaty of friendslipp, limits, nal navigntion," signed Oetober 2:', 17.50 ; the other, "A treaty of amity; settlement; and limits," February 22, 1821.

In regard to navigation, the first-mentloned ireaty provided chiefly for a state of war, and preseribed the lumunities anil privileges to which the vessels of each should be entitled, in such a contingency, in the ports, harbors, bays, etc., of the other.

By articie 1st, the contracting partica agreo that there shall be a firm and invlolable peace and sincero friendship, between his Catholic Majesty, his suceessors and subjects, and the United States and their citizens, without exception of persons or places.-Art. 7 . The citiaens and subjects, vessels and effects, of cach of the parties, not to be liable to embargo or detention for any military expedition, or other public or private purpose, by either party--.1rt. 13. In the event of a war between the contracting parties, the merchants residing in the dominions of either to be allowed one year from the deelarntion of war to removo thelr effects.Art. 18. Ships of war of cither pasty, when exoreis ing right of search, to remsin out of cannon-shot, and to board with two or three inen only; and having seen passport, not to molest In any mamer, uor force to quit her intended course, tho vessel so visited. Art. 19. Consuls to be reciproeally established, and to be entithed to the privileges and powers cujoyed by those of the most favorel nations.-Irt. 22 (lst section). The two contracting parties to givo in future to their mutual conmeree all the extension and favor which the advantages of toth countries may require.

The treaty of 1810, so far as it relates to navigation, contirms all the forcgoing stipulations of the treaty of 1795 ; and as no immit was assigned to the duration of that treaty, those stipulations are still in fores, and, with subsequent acts of legislaton, regulate the intercourse, mavigation, and commerce between the Linited States and its eitizens, and the Kiug of Spain, his successors and anbjecta, between whom it is agreed "there shall ho a llm and inviolable peace and sincere frienclship, without exception of persuns or places." The commerce between the Ünted States and Spain, thongh at ali times employing but a limited capital, commonced at a period long anterior to the Aucrican Itevolution. The British-American colonists we. permitted, by act of

Parliament, to enrry on $n$ direct trade in all articlen, except tobacco and naval stores, with countrles south of Capo Finlsterre. This trado consisted principally In exporting from the colonica lumber, Inths, and other produce (tobaceo and naval atores excepted), and In bringing home roturn cargoes of wine, salt, frulta, and other proluctiona of the Spnnlsh peninaula.

After the peace of 1783, a more unrestricted trade was openell between the two countries; but, owing to tho prohibition on tobacco (a policy adopted for the pur pose of encouraging the growth of that article in the Spanish colonlal possessions), and the high protectivo dutles on most of the other learling staples of the L'nited States, the trado could not havo reallzed any hope of profitable investment, or given much encouragoment to conmercial entorpriac. The wines, frults, olive oll, salt, brandios, barllla, silks, and wools of Spaln, would constitute a protitable and an onsy exchange for the productlons of the United States, partlcularly lrenclstuffa, tobacco, and cotton, If that country conlid le induced to relax a aystem of restrictive pollcy which his never realized tho benefits it was designed to sceure, and has virtually rendered Spain, to a great extent, commorcinlly isolnted from the other untlons of tho earth. Her legislation in regarl to commereial intercourse with foreign countries would seem to be based upon the principlo of possessing and securing within herself all tho advantages of an extenslve commerce, nud all the menns of lixury, wealth, and power-a principlo which, however gratifying to natlonal vanity it may be in theory, needs no other proof of lis utter lmpracticabiltty, if not of its inevitably perniclous consequences, than a reference to what is known of the bistory of Japan or China, or oven to the conmercial condition of Spain herself during the last half century. She has ever maintained and exercised the right to bo tho sole arhiter of her commercial regulations, nud, as such, permits no foreign interference with her poliey of excludlng from her ports the produce of the industry and soll of other uations. Two features stand prominently forvard ln this exclusive and restrletive syssan : the first, the exclusion of commotitics from any country, oxcept her coloulal empire, especially lefore its disumberment and consequent liminution; and, secondly, by compelling the latter to consume no manufacturet articles except those of Sjain, with the view that all the precious metals ahonh be sent to the mother country, where they would remnin if no foreign therchandiso wns admitted. Notwithstanding these precautions, the precious metnls wero drained off' to forcign countrles, ill exchange for the enormous contrsband importations smaggled Into Sprin, hy way of the Hasquo provincea, through lortugal ; hy why of the Mediterrancan; and also oven, as they wore, and are to the present iny, by way of Gibraltar. Ihesites, an extensive contrabiand trade with tho Spanish settlements in Cuba and South America was cnrricil on by the Britislt-American colonics, thus itrnining off elarge portion of the precions metals, which it was the policy of the mother country to monopslize, nt a cost so fatal to her commercial prosperity. This contraband trate was, however, arrested, and after a short time lotall. suppressed, by the vigilanes of the gharde-rovtits stitioned by Sjain along the consta, and by the indiscrimInate seizure of all British coloninl vessels found near the shores of the Npanlsh colonies.

The trade with Spain of Inte yenrs exhibits in a most striking nanner the pernicious etfect of a system of commercial intercourse which, however will it may have fultilled its ends when Mexico, the West Indiers, the South American republics, and the Spanish l'olynesian lslands all poured their united treasures iato the lap of Spaln, and thus rendered her to n ecrtain extent independent of other nations, has long since proved to ho the most sorious, if not the only, ofstncle to her regaining the prond and prominent josition she once beld in tho family of nations. The difference in the antount
of exports between the periods of 1834 and 1854 is attrlbutnole to the partial rolaxation of the reatrictlve system within the past few years, particularly the modlifeatlous which the tariff has undergone since $[849$; but the great dlsproportion between imports and exports, resulting in mo large a balance against Spain, shows that the prohibitions and restrietions are as yet lut partially abated.

Of the article of tolseco, about $6,000,0,0 \mathrm{lbs}$ is smuggled annually from Gibraltar into Spsin, and about $4,000,000 \mathrm{lbs}$. is exported from the same depuét to Oran, Algiers, Malta, sud other places. Spaln, In the fece of this coatraband, still maintalne her royal tobacco monopoly. Exclusivo of the tobaeco amuggled into Spain froal Glbraitar, it is smugglad along the whole north and weat coasta of Spain. The extension of the Spanish customs to the sea-consts and ports of Biecny in $18+4$ has not diminished, but, it is asserted, has greatly lacreased, the contraband trade. - Maconedon. parts 13 nud 14, p. 95 .

Notwithstanding the apparently satisfactory results, the commerco of tha United States with Spain, in Amerienn bottoms, ia perceptibly decllning. Various causes conspire to this result, among which may be regarded as the most prominent the enormous differential dutles imposed on linports under all foreign fliggs, and the discrlminating thutles of port and navigation, amounting to 100 par cent. on American vessels in favor of national, and what is styled "privileged vessels;" or, in other words, the vessels of nearly all other forelgn natlons. Besldes, American vessela are frequently exposed to local restrietlons (doubtless unauthorized by the government) In the diflerent ports, to whleh they must either quletly submit, or incur all the expense, lelay, and trouble of protesting agalust the aetion of -ficials whose powor in such cases is as unllmitet as lts oxercisela arbltrary and oppreselvo. Vessels of the following nations are ascortalned to be of this clnss : England, France, II olland, Portugal, Inssia, Prussia, Sardinia, Belgiam, llamburg, Sweten and Norway, Tuscany, Bremen, Papal States, Denmark, Brazll, Eecuador, Läboek, Ilanover, Mecklenburg, Oldenburg, and Slelly.
This has been a subject of frequent complnint on the part of Ameriean captalas, but thas far wlthout obtnining relicf. The United States consul at Malaga, under late of April 3, 1851, adverting to this subject, says: "Althongh subject to the Central Board at Madrid, [quarautine regulations] are almost entirely under the control of the local bonrd of this city, * * ordering vessels off to lazarctios, * * * in the face of clean bills of health certified by Spanish consuls, upon mero reports, without any official information to warrant sach extrnordinary measures."

The following table will show, approximately, to what extent the direct trade between the United States and Spain has fallen off within the past few years. Most of this trade is carried on through the port of Maluga.
Tonnagr of dmprioan Virsel.s fenterfd at tie Pont of
Malaga in tife yollowino Tieabs.

| Years. | Tons. | Yeara. | Tona |
| :---: | :---: | :---: | :---: |
| 1846 | 35,:74 | 1850. | 16,600 |
| 1847. | . 18,283 | 1851 | 11,018 |
| 1848 | 15,093 | 1552. | 12,010 |
| 1519 | 13, 6 \% | 1853 | 11 |

The falling off in tounnge which the above table exhibits is, however, perfectly reconcilable with the comparative tables for 1854 and 1832, when wo take into consideration tho fact that at least one-third of the exports to the United States is carried by privileged vessels; and even national vessels, notwithstanding the discriminating daty of 10 per cent. to which they are subjeet in the ports of the United States, participute largely in this carrying trade, for the purpose of returning with cargoes of cotton for Malaga and Bareelona, or with codilish from Newfoundland.
The great artlcles of export from Spain consist (exclusive of silk manufactures) of raw products. Of these
wine, olivo oil, wool, fruits of various kinds, lead, quickallver, brandy, cork - wood, salt, raw allk, wheat, etc., are the mosc important, and are almost all susceptible of an indefinlte increave.
The great articlea of import are colonial producta obtalnel prineipally from Cuba, Porto RIco, ete.; cot tons aud cotton wool; linens, and hemp and flax; woolens; alted flsh; hardware, glass, and earthenware; timber, rice, hides, butter and cheese, etc. Subjoined ls
An Aodount of the Valtea of the minelpal Aaticles of Native i'monvor exportid brox Spain in iste, hiowino algo tir propogtional Vaiug of racif abtiohe.

| Artueles in the Order of their tenportanea. | Volue in Beale Vellon | Aurount per Cient. of 'Total valun. |
| :---: | :---: | :---: |
| Wine, wherry . . . . . . . . . . . . | 71,830,620 |  |
| * common . . . . . . . . . . | 22,761, 768 | .... |
| 4 M Malaga . . . . . . . . . | 4,102,791 | .... |
| Totat wino...... | 106,754,179 | 22.76 |
| Ollve-oll . . . . . . . . . . . . . . | 40,797,047 | 9.05 |
| Floar | 313,860,952 | 7.85 |
| Qulckaliver . . . . . . . . . . . . | 36,236,840 | $7 \cdot 71$ |
| lead....................... | 32,561,014 | 694 |
| Itaisins | $20,7+5,848$ | 6.85 |
| Wool ...................... | 14,330,281 | $3 \cdot 16$ |
| Coln | 13,302,062 | $2 \cdot 84$ |
| Cork-wood . . . . . . . . . . . . . . | 18,181,455 | \& 81 |
| Brandy ...................... | 12,022,000 | $2 \cdot 76$ |
| Cochtneal . . . . . . . . . . . . . | 11,287,008 | $2 \cdot 46$ |
| Silver In bars.............. | 10,004,603 | $2 \cdot 13$ |
| Salt. | 0,041.327 | $2 \cdot 11$ |
| Nuts...................... | 5,724,629 | $1 \cdot 22$ |
| Sosp ........................ | 5,530,453 | $1 \cdot 17$ |
| 81lk. . . . . . . . . . . . . . . . . . . | 4,165,485 | 0.88 |
| IIfquarice. . . . . . . . . . . . . . . | 3,477,235 | 0.74 |
| Almonda . . . . . . . . . . . . . | 3,4+1,964 | 0.74 |
| Vranges . . . . . . . . . . . . . . . . . | 3.816 .3110 | 0.78 |
| Silk goods................. | 2,750,472 | 0.58 |
| Safiroa | $2.717,595$ | 0.57 |
| Ilfdes............... . . . . . . | 2,577,448 | 0.54 |
| Iron....................... | 2,220,1405 | 0.47 |
| Woolen gooda. . . . . . . . . . . | 2,139,5t9 | $0 \cdot 10$ |
| Whont . . . . . . . . . . . . . . . . | 1,965,844 | 0.42 |
| Shoes. | 1,1122,570 | 0.41 |
| Pastas. | 1,830,029 | $0 \cdot 40$ |
| Malze. | 1,656,215 | 0.85 |
| Cattlo . . . . . . . . | 1,60],708 | $0 \cdot 34$ |
| Garbanzos, or chlek-pen... | 1,600,248 | 0.34 |
| Garden stuff . . . . . . . . . . . . | 1,508,122 | $0 \cdot 32$ |
| White paper. | 1,479,278 | 0.32 |
| Books...................... | 1,446,014 | $0 \cdot 30$ |
| R1ce. . . . . . . . . . . . . . . . . . | 1,858,94! | $0 \cdot 29$ |
| Sejge mattings, etc. ...... | 1,3441,253 | 0.23 |
| Lomons . . . . . . . . . . . . . . . | 1,209,705 | 0.26 |
| 8ausages . . . . . . . . . . . . . . . | 1,177,724 | 025 |
| Hempen yarn.............. | 1,156,446 | 024 |
| Oil of almonds. . . . . . . . . . . | 1,046,548 | $0 \cdot 24$ |
| Kldney beans. ............. | 1.087,036 | 0.23 |
| Sugar . . . . . . . . . . . . . . . | 1,044.879 | $0 \cdot 2$ |
| Salted codfish. . . . . . . . . . . | \$10,7c8 | 0.20 |
| Grajpes . . . . . . . . . . . . . . . . | 012,769 | $0 \cdot 10$ |
| All other artleles. . . . . . . . . . | 30,726,000 | 0.56 |
| Total................. | 469,010,1117 | 10000 |

The importance of the trade that Spain formerly carried on with her vast possessions in the New World was at all times much exaggerated; ant she, in truth, was little better than an ngent in the business, the greater part of the goods sent on Spanish bottoms to the colonies being, in reality, the property of forcign merchants. Spain, notwithstanding the emancipation of Mexico and South America, has still nome very valuable colonics; and, if nothing else can, tho astonishing progress made by Cuba and Porto Rico since the abolition of the prolibitive system, should satisfy her of its ruinots tendency.

New Organization of Ports.--By royal tlecree of February 28,1854 , a new orgsnization is made of the customs service by land and sea, the principal features of which it may be intereating to the mercantile interests of the United States in have noted. As regards the sea, It divides the service into four classes. Tho first class comprises importation, exportation, re-exportation, coasting-trade, and all other commercial operations in the ports of Alicante, Almeria, Barcelona, Bl] boa, Cadiz, Carthngena, Palma de Majorca, San Sebastian, Santander, Seville, Tarragona, and Vigo. In the second class, comprising the ports of Carril, Palo-
mas, and IRivadeo, the fimportation of cotton tisaues is not to be permittel. In the ports of the third class, comprising those of seventeen provincen, only certain specitled artleles, prineipally raw materials, are to be imported and exported; and in those of the funrth elass, comprising sixteen provinces and the lialearlo Isles, only coasting-trate operations and exports are to be allowed. As rogands the limnd, it is divided into three classea, and the regulations are framed solety wlth a viow to prevent smugglligg. They do hot, however, posesss sufficient Interest fur linaertion here at length.

The principal ports are, Alicant, a sea-port In Valencia, lat. $88^{\circ} 20^{\prime} 41^{\prime \prime}$ N., long. $30^{\prime} \mathrm{W}$. The harbor is open and spacibus, between Cape in Ia IIuerta on the northeast, and Isla l'lans on the gonth, diftant from each other about ten milles. Ships of conalderablife burden moor from one-fourth to one mile from shore, In from 30 to 40 feet of water; they ure exposed to all winds from the eat-northenat to sonth by west; but the bidilngeground is gool, and there ls no Instance of a sbip havlag been drivea from her moorings in the past twenty years.

Hareelena, the principal tuwn of Spain on the MedIterrancan, In lat. $41^{\circ} 22^{\prime} \mathrm{N}$., and long. $2^{\circ} 10^{\prime} \mathrm{E}$. The liartior is naturally bad, and ls formed by mole or jetty. The depth of water within the molo is from 18 to 20 feet: but there is $n$ bar between the mole and Monjui, anil which has frequently not more than ten foef. Vessels inside the molv are safe, Large ressels have lo anchor outsite, aml are much incommoded by the winds.
llilbao, semetimes Incorreetly written Dellioa, a seaport la the Ilay of Illscay.
Cadlz, the priucipal commerelal city and sca-port of Spaln, on its bouthweatern coast, on the rocky nud elevated extremity of a narrow, low peninsula, or tongue of land, profecting from the lsla de leon N.N.W. about $4 \frac{1}{2}$ nanticul miles. It Is surrounded on all shiles except the sonth-where it jeins tho laud-by tho sea, and is very atrongly fortiled. Fopulation in 18:17, $5 \times, 525$. It is well built, and has at a tistance a very striking appearance. The tower or light-houso of St. Seloastian stands on the western side of the city, being in lat. $36^{\circ} 31^{\prime} 5^{\prime \prime} \mathbf{N}$., long. $6^{\circ} 18^{\prime}$ be" W. It is a most censpicuous object to vessels approaching from the At lantic. The light, which is $1 / 2$ feet high, is of great brilliancy, revelves once a minute, and in fatr weather may be seen more than six leagues off.

Bay of Calliz,-The entrance to this noble basin lies between the city and the town and promontory of Rota, hearing northwest by north, distant about $1 \frac{1}{3}$ leagnea The hay ls of very great extent, affording in mont places good anchorage. The port is on the eastern side of the city, where a largu mole bas been constructed.

By a roval order of January 3, 1852, it was decreed that all foreign vessels belonging to countries where Spanish vessels are placed on the same footing os nationsl, with respect to port ducs and charges, ahould enjoy a like privilege in the ports ef Spain and arljncent lalands; but, practically, this deeree was not permitted to apply to vessels of the United States, ant they continued subject to doublo the nomont of such dues and eharges paid by other forelyn and the national vessels. The reason for the non-folfillment of this provision, as reapecta this cotatry, was the refasal of the government of the United States to recoive sessels in its porta on equal terms from Cuba and Porte lico; and the government of Spain refused to accede to auch rondition, as it desired to secure this benelit tor its marine, from wheresoever her vessels might proced. On the 16th of June, 1854, however, the Amerlean minister at Mailrld was oflicially informed liy the Spanish Minister of Stato that her Majeaty the Queen hat been pleased to commanil that American vessels "be censidcred in the peninsula and adjacent islands like national oues, as regaris the dutics of port and navigation, in
reciprocity for what is practiced with the Spanish vossels procecelling from the same places In the United States, and with reference to the sane dutien." Tha official notification added, that correapouding opders had been given, "under data of the lith Inst., to the general direetion of cuatom-houses and tarifis," to curry linto effect the dispositions of this order.

The effect of the above-rected royal orter will he to place American shlpphing on an equality, as reapecta the duties of port and nuvligation, with national and privileged vessels, and thus ruciprocate the terms on whlch Spanish veasela hava lieen admitted into the port, of the United States since 1852. Should thia to followed up by a liberal modifleation, or an entire aloulttion, of tha enermons diacriminating duties levied on foreign lmports in tho ports of Spaln, the commerdal Intercourse between the two countries would soon become a source of ludustrial dovelopment and natlonal presperity, equally beneficial sull prelleabie to ench. The quarunthe regulations of Spain have alwaya been complicated and vexatioua, They were aimpllifed, however, hy a sanltary tarlif, promulgated December, 1855, a tranalation of which is subjoined,

TABIFF of g.anitaity neties exicter in tue

Ainfrance Iutifs.-Coasting vesxels of more than twenty tons burilen will pay one quarter of a real per ton for the round voyago.

Vessels jruceeding from the ports of the Mediterranean and othor ports of Eiurope, juefuding the coast of Africa to the parallel ef the Canary Ialands, will piay one half of a real per ton for the round veyage.

Vessels from other jlaces will pay one real jer ton each voyage.

Quaramine Dutien,-Vensels of every dlass will pay one quarter of a real jer ton each day they are sulject to quarantine, whether in actual lazarettos or mudergo ing observation.

Iazaretto /buties.-The fee for each person in the lazo aretto will be four reals per diem.

Merchandiso aulyect to puriflcation will pay as follows:
The elothing and baggage of each of the erew ..... \& reale The etothing and bagitge of each passenger. 10 tlites of cows jer $100 . .$. ............................. 6 Fine aklos. 6 ". Fhe sk108..................................................... smatl anlmalk, per Jut, ........................... l'enthera, goana'-hair, soft halr, wool, cetton, hemp, aul Max, per quintal
Iargu Itve monlmula such as horsos ani mulea, each small animale, cach

Cortiticutes of Jealth shatl le made ont, anul legally attestell, free of charge.
liegulations.-Vessela in quarmitine defray all tho expenses attending the diacharge of merchutulise, its trausfer to the sheils and work-huuses, and Its puritication. They, in like manner, pay as an allitional duty, the expenses attending the aj leation of hyplene mensures, which must be employeu erefuro the ileparture or arrival of the embarkations, at the regulations linpose, or as the condition of the ressel may regairt. During all the incilents of quarantine, every possible racility is to be aftorded to vessels, no expense: Inein' permitted without the knowledge or consent of the captain, agent, or consiguee. All persons who jurform quarantine in the lazaretos defray all the neessary expenses, innsmuch as the four reals per diem which is exacted from each is ouly the fee for restilence.

Where Spanish vessels are nbont to depart from $n$ port of tho L'nited states with any goots, wares, or merchandise, for any ilsatinatlon other than some port or place In the falands of C'ula or l'orto Rico, the hand nnil security repuired by the 3 sel section of the act of 30th dane, 1834, are exacted In all such cases, befure allowing clearance or departure of the veasels.

A Spanish vessel leaving $n$ jort of Spain for a port In C'iba, lint, not linding there a satisfactory market,
proceeling, without trenking alk or takling in any gools at ald Island, to a port in the Unlted States, would not on entry be subjected to any other or hilgher duties of tonnage or lmposts than slie would be if illrect from a port of Spaln to the Unlted States; the voyage, under tha circumatances, belng regarded as continuous.

## Commanon of grain in tilk YGar lishe

| C'ouatries | Impurts. | E.xpurta. |
| :---: | :---: | :---: |
| susora. | Neala | Huata, |
| Auntria. | 1,040, 027 | 8i4, bl3 |
| lletglum . . ${ }^{\text {a }}$. | 2,915,839 | 8,848, 715 |
| Iremen and 1lamburg. . . . | 4,404, 4018 | 14,611,450 |
| Nardlnia, . . . . . . . . . . . . . . . . | 4,727,877 | 20,454, 825 |
| Jrenimark. . . . . . . . . . . . . . . | 310,309 | 10,085,536 |
| Two slellles . . . . . . . . . . . . . | 42,160 | 1,410, 4, ${ }^{2}$ |
| Jtoman States.. . . . . . . . . . . | 8.0111,4\% | 877.162 |
| France . . . . . . . . . . . . . . . . . | 178,580,270 | 238,421.957 |
| Netherlands . . . . . . . . . . . . . . | 3.821.031 | 4.610,02\% |
| Fingland. . . . . . . . . . . . . . . . | 108,824, 612 | C05.220.302 |
| Jortıgal ... . . . . . . . . . . . . . | 6,027,270 | 31,01.5, 7 H2 |
| 1rusila. . . . . . . . . . . . . . . . . . | 1182,5019 | 7,408,274 |
| litmia ..................... | 1.183,700 | 2,000,181 |
| Awedon. | 24,083,380 | 4,2i6,887 |
| 'Tuwany . . . . . . . . . . . . . . . . | 2,105,316 | 18,578,205 |
| Turkey. . . . . . . . . . . . . . . . |  | 6,600,021 |
| Gircal liritaln . . . . . . . . . . . . | 57,050,509 | 14,819,880 |
| Tolal................ | $4: 2,214,010$ | 65:,6tin,003 |
| Ihilipplnta ............... | 25, 269,166 | 7,6\%1,804 |
| Binglinis Pormesslona. . . . . . | 0.5ch | 2,101,20t |
| Zahz! Mar . . . . . . . . . . . . . . | 872, ${ }^{2011}$ |  |
| Totnl. $\qquad$ afatca. | 2(1, 108,3!8 | 9,732,628 |
| Alglers . . . . . . . . . . . . . . . . . | ais 4.260 | 7.071,208 |
| jikypt . . . . . . . . . . . . . . . . . | 1.971,749 | +10,160 |
| Marocco nnd Tunin. . . . . . . | 21s, 6 ra | 679,819 |
| I'otlughenultosseanlous.... | 132,000 | 76,848 |
| Total. | \%,640,676 | 8,648, 0605 |
| Cinba and liorto illco...... | 148.516.282 | 161.013.480 |
| Itrazll. | 4,396.762 | 13.4190.489 |
| Chllt . . . . . . . . . . . . . . . . . . | 2\%2 (880) | 7,785.872 |
| Prewador | 12, 142, 2336 | 811,000 |
| Inited Statew | 111,728,880 | 67,312, 2101 |
| (fintemala . . . . . . . . . . . . . | 2,611,390 | 7, 0,150 |
| Mexico.. | 006, 170 | 7,124,092 |
| New Granada | 20,040 |  |
| Juru | 8,054,520 | 8,623,2\%4 |
| Jllo do 1'laca | 10,5155,391 | 32, 380.4164 |
| truguny | 745,064 | 6,816,604 |
| Yeneztiels. | 27,118,037 | 1,430,047 |
| Manisli Colonlea |  | \$11,037 |
| Franch Colonjes |  | 16,000 |
| English Colontea | 13,323,698 | 6,968,840 |
| Total................ | 742,5ik, 261 | 204,463.034 |
| Crand tolnl, Reals... | 813,485, 24 | 193, 6122,783 |


|  | Nitiomed. |  | Clmarod. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Veverla. | Tumen. | Vesaela. | Tuna. |
| 1953 \{linuled | cuns | 705, 141 | 0787 | 0291,6m1 |
| 18s0 \{ In ballast ... | 204\% | 180, 85i7 | 1041 | 134, 130 |
| Total. | 8146 | 981,977 | 68.8 | 787,811 |
| 1864 \{ landrd ..... | 6173 | 761 545 | 7876 | 828.817 |
| 1804 (It bullant... | 2474 | 810.410 | 016 | 45, 1126 |
| Total. . | $1 / 47$ | 1.16.3.till | 81172 | 124,223 |

The marline aervice of Spuin $\ln 1855$ consisted of four vesvela of the llue, nine frigntes, elght corvettes, tifteen Lrigs of the Ilrst, and four of the necond elass; fiva schooners, alx sloope, forty steamers, nnd three hunilrell and nhineteen smaller craft, mounting in all 1250 ordinary, and 280 swivel guns.
The Imports lato and exports from Spala for the year 1856 are shown as folluws:


From thls exhllit we sea that in the aggregate thero was a deelided decrease in the trade of Spmin in the year 1856 over thut of 1850.
Statement ahowing the Amerlean merchant vessels which arrived at Cadiz In live years, 18.19 to 1853 ln clusivo:

| Years. | Veseelt. | Men. | Tona. |
| :---: | :---: | :---: | :---: |
| 1849 |  | 801 | 24.1310 |
| 18ix). | 47 | 10, 7 | 17.493 |
| 165! | 46 | 014 | 18,65.1 |
| 1852 | 46 | 674 | 21,117 |
| 1353 | 80 | 879 | 11.407 |
|  | 932 | 8124 | 92,140 |

Ancrlenn and oither forelgn vessels can only trate between Spuin and other countries; they can not pirrticlpate in any Spaansh coasting, domestic, or Internal traile.
Tho navigation and trude bet ween the Unitel States and Spala does not Increase. The tariff of Spain excludes most of the staple artieles of the United States, such as grain, brendstuffis, rice, tolaceo, ete., the prinelpinl article of import from the United States being undressed ouk staves for wine-canks. In oriler to promote navigntion and trude hetween the two countries, it is necessary that high dutles, prohithlions, and restrictive mensures on hoth sldes should cease.




| Yeara. | commench. |  |  |  | Navimatina. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Falue of Eisjorts. |  |  | Vnlue of Imports. | American Tunnaze. |  | Fibrelun Toonage. |  |
|  | llonzentic I'rodure, | Foreign Promicea. | Total. |  | Fintereal lase I'nited statea. | Thared Irom I'nlied staten. | Finterind the l'nited Stulen. | Theared fram Cuited Stotes. |
| 18.5 | 1t 46.2031 | \$1.4, intil | \$.311.704 | \$1,75,87? | 31.403 | 14,134 | 16, 74 | 2.115 |
| 5840 | 644,904 | 01,84i | ( 603,746 | 1,0:49,74 | 27,181 | 10.242 | 6.12\% | 8.1!8 |
| 1847 | 2,046,716 | 05, $1: 18$ | $2.102,654$ | 1,8.77, 179 | 87,133 | 20, $8^{\prime \prime} 6$ | 14.079 | 17.800 |
| 1818. | 2,386,141 | 21,147 | 2,4117,788 | 2,429,639 | 43,4i7\% | 25, 278 | 10.849 | 44,63\% |
| $1 \times 19$ | 1,941,203 | 60, 62, | 2,0n4,831 | 2.485,210 | 38,710 | 27,684 | 11,497 | 30 1542 |
| 1850. | 3, 5 ? $+1,362$ | 131,028 | 4,131,200 | 3.004,484 | 4:797 | 97,585 | 30,004 | 48,849 |
| 161 | 5:55,128 | 151,180 | 5,700,314 | 3,444, 173 | 85.483 | 4),151 | 28.432 | 61416 |
| 35* | $3,446,0 \times 10$ | 15:417 | 8,517. 4117 | 3 366.388 | 37:108 | 99, $1+74$ | 22.403 | 5,3,1829 |
| 18930 | 4,642, 740 | 51, 549 | 4,694,688 | 4, 648,629 | 47,369 | 40.012 | 24,:72 | 47,97 |
| 1451. | 4, (55),191 | T-. 2 $^{\prime \prime} 4$ | 4.728.075 | $8,19.3,458$ | 45, 04 | 88.924 | 10,051) | 41.281 |
| 1855. | 4.702.25)2 | 441,1i]2 | D, 148,8it |  | 61.000 | [15,709 | 3ti,687 | 43.308 |

A Summait of the Amount of National. Tonnage, ant of the Numhen of faficient geamen rnganen in the ('om-


| niniriets. | (Hticers, Manlarn, ibiota, ele. | Activa Soainet. | Namber of Vamela over 400 Tons. | $\begin{aligned} & \text { Number of } \\ & \text { Vesseln fram } \\ & 2(9) \text { to } 4 n 0 \text { Tons. } \end{aligned}$ | Number of Fipanels from AD to 900 Truns. | Number of Vesnels from 20 to 80 Tons. | veasetr of Foreign build. | Stenmers. | Yeesels bailding, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (adiz....... | 2,176 | 1:1.161 | 4 | 95 | 02 | 318 | 89 | 12 | 13 |
| Ferrol . . . . . | $\mathrm{n}, 202$ | 22,110 | 11 | 74 | 342 | 4.4 | 18 | 5 | 62 |
| ('arthagena. | 7,774 | 20, 817 | 15 | 119 | $8 \checkmark 0$ | 1198 | 28 | 0 | 19 |
| Ilavana..... | 610 | 2,05: | 7 | 80 | 00 | 295 | 389 | 20 | 23 |
| Manllar.... | 93 | 17,77: | 8 | 10 | 84 | $1 \because 11$ | 10 | . | . |
| Toln]. | 13,841 | 75.538 | 45 | 463 | 967 | 1449\% | 484 | 40 | 157 |

Notr.-In thly resume tho senmen, tonnage, ete, of the province of Perto lice sre emitted; and there are some omisstuas also in the jrovinees of Vaseongrdos, Platifijines, ete.


| Years endiak | Kxporta. |  |  | Imporic. | Whareof there was is Bultion and 8 pectio. |  | Tondege cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentie. | Foreiga. | Total. | Total. | Export. | Impor: | Amorican | Foreign. |
| Sept 30, 18:21...... | \$324,703 | \$189,800 | \$ 514.014 | \$265, 026 |  | \$21,200 | 8,014 |  |
| 18:2...... | 116,270 | 17,742 | 181.012 | 3122,635 | \$3,030 | 3.500 | 3,079 | i77 |
| 1823. | 180 ! 46 | 65,606 | 190,032 | 6188,487 |  | 5,509 | 4,628 |  |
| 1824. | 140,436 | 390,434 | 600,870 | 259.500 | .... | 01,094 | 6.184 | $\ldots$ |
| 1825. | 78,615 | 82, 322 | 150,237 | 24.664 |  | 800 | 2,345 |  |
| 1826. | 71,313 | 22,2:7 | 93,54] | 882,719 |  | 2,390 | 3,6:0 | 435 |
| 1527. | 74,701 | 47.178 | 121,989 | 154.385 |  | 2,300 | 2,245 |  |
| 1828. | 40.946 | 190,953 | 249,8:9 | 210.684 | 83,000 | 245 | 2,839 | 760 |
| 1829. | 545,763 | 139,782 | 685,485 | 327,409 | 50,000 | 14,450 | 18,719 | 1,550 |
| 1830. | 038,050 | 01,027 | 600,283 | 461,267 | ..... | 25,475 | 0,987 |  |
| Total... | \$2,057,622 | \$1,248,181 | \$3,340,803 | \$3,075,785 | \$86,030 | \$167,920 | D5,650 | 2,1012 |
| Sept. 30, 1831. | \$235.594 | \$63,499 | \$299,012 | \$506,072 | \$4.010 | \$10,430 | 4,508 | 1,068 |
| - 18:32. | 302,584 | 44.691 | 347,265 | 677,483 | 2,050 | 9,029 | 6.033 | 2,003 |
| 1833. | 291.619 | 24,571 | 226.1913 | 337,794 | 1,821 | 34.48 | 5,723 | 1,6,17 |
| 1834. | 202,744 | 20,033 | 227,777 | 640, 869 | 9,045 | 2,491 | 6,130 | 1,524 |
| 185s. | 430,984 | 87,23) | 818.214 | 403,069 | 70,412 | 2,329 | 0.247 | 1,411 |
| 1830. | 604, $9: 9$ | 46.289 | 051,249 | 743,793 | 26,214 | 3,400 | 5.171 | 4,0:1 |
| 1837. | 230,693 | 40,750 | 276,849 | 4i5, 487 | 15,050 | 10, 4.5 | 2,724 | b,853 |
| 1838 | 137,40* | 12,470 | 149,875 | 2.34, 2100 | 12,839 | 78,760 | 6,561 | 1,637 |
| 1589. | 816,14 | 32,014 | 348.15 | 263,198 | 3. 5.29 |  | 15,129 | 1,017 |
| 1940. | 137,835 | 5,889 | 148,6゙i | 2:0,815 | 1,570 | 8,7\% | 11,16t | 2.419 |
| Total. | \$2,749,927 | \$338,42:10 | \$8,188,22ij | \$4,468,570 | \$151, 61 | \$191,480 | 72,022 | 23,070 |
| Sept. $00,1841 . . . . .$. | \$ ${ }^{\prime} 03,95$ | \$17,822 | \$221,145 | \$100,727 | \$12,020 | \$3.200 | 7,555 | 1,474 |
| 1842. | 323, 292 | 1,260 | 334.422 | 79,735 |  | 1,842 | 11.656 | 2,8,8 |
| 9 mos. $1843^{\circ}$. | 60, 100 | 240 | 64, 370 | 49.029 |  | 7.196 | 2,209 | 808 |
| June 39, 1844....... | 669,631 | 23,808 | 6.3,439 | 2:2,127 | 11,743 | 6.148 | 10,427 | 135 |
| 1845. | 271,233 | 550 | 271.781 | 117.153 |  | 1.870 | 6.528 | 672 |
| 1546. | 845.448 |  | 315,442 | 147,863 |  | $4.05{ }^{\circ}$ | 6,758 | 2.571 |
| 1847. | 770,748 | 10,115 | 7000.863 | 27.404 | 0,500 | $55,6{ }^{5} 2$ | 0.085 | 1,1i4 |
| 1848. | 547.697 |  | 697.397 | 277,105 |  | 65.429 | 12,026 | 2,2115 |
| 1849. | 169,071 | 81,479 | 2100.559 | 813,490 | 28.157 | 24,413 | 17,243 | 20:4 |
| 1550. | 600,659 | 28,663 | 684,217 | 880, 181 | 27,613 | .... | 13,709 | 10.633 |
| Total. | \$81,916,226 | \$113,72 | \$4,429,998 | \$2,081,023 | *06,033 | \$ $15.1,345$ | 18,084 | 24,008 |
| June 30, 1551. | \$053, 713 | \$1.475 | \$959,594 | 9451,797 |  | ... | 14,683 | 12,4-4 |
| 185\% | 49x,314 | -14,208 | 526.522 | 84:,096 | \$25,700 |  | 10,463 | 8,104 |
| 15 5k. | 631,494 | 15,551 | 647, 045 | 6355.041 | 13,681 | 92, 960 | 10,768 | 6, 29 |
| 1544. | 1,394, 344 |  | 1.300,34 | 6418,544 | $\ldots$ | 14,09\% | 8.949 | 3, 164 |
| 1545. | 1,189,158 | 151,177 | 1,240,275 | 615,1411 | ... | .... | 2-2ty | 8.879 |
| 1880. | 1,417,944 | 10,303 | 1,448.955 | [82,095 |  |  | 18, 2.23 | 7.817 |
| 1857... | 9,1002, 1097 | 13.882 | 2,975,979 | 692.988 | .... | 2,800 | 28,011 | 10,425 |

Of the changes in the commercial policy of Spain the following particutare, furnished by the United States consul at Cadiz, wlll be found intoresting :

## "Ocromen $8,1865$.

"The Queen's decree of the 30th, and order therron of the Ist of July of the present yenr, was issued, catabliaing a Junta constiltina de aranceles, or a board of cooaultation io celation to cuetom-houae tariffs, regulationa, and ail mattera relating to importn and exports, with extensive powers, and determinitug their attributions. Thu object of thia beard is seciared to be to discuss and propose to the m?alster of the hacionda all roforms which they way conceive ought to bo mado in the custom-houns tariffs, and to occupy themselves with and direct oll the procecdiugs which may be found with respect to the undorstand'ng of the oame, their application nd modification; as aino with reapect to the rechamatione of foreign powers, and those which ought to be made on the part of Spain, with reapect to tho agreemonta and treatice of havigation or commerce, and any other affalr whatever relaive to the mercantile legislation. This Junta de aranceles is to be a corporation inucpendent in all pointa of any ther office of the state; and as auch is clothed with the same facultics, privileges, and pre-eminences which beiong to the other directive centres of the ministry of the hacienda, of a permensnt character. Tho junta is cmpowered, in the performance of Ite dutles, to comunnteate directiy with, and clalm from, Spanieh coasuia tu foreiga countriea, governors, and provernors of provincea, adminiatrators of custom-houses, juntas of commerce, economical societies, etc., and any other anthoritice, offices, and corporations whitover, alt datu they may conceive necessary frr the exccution of the husiness committed to them. Copies of this decreo and order are herewith, detaliing at iength the persone composing the junta, add the mode in which they are to prococd. This beard now organized, and fo expected to make a report pending the aext sesslon of the "Ortes It is presumed that tacy wifi reconmend the favorirg of navigation onder the Spaniah lieg; the admission of tertain kinds of cotton ananufacturce, and other articlea now prohibited; together with on angmentalton of two militions of doltars in the custom-house rovcoue on Iraports ; alse the maintenance of the present monopolics of tobacco, salt, stamped paper, and the dutles payabto therean."
Moneys, Weights, and Measures.-The welghts and measures are tho established ones of Castile; the arroba of solids being considered of 25 pounds. of 16 ounces to the pound; and of liquids, 32 cuartidas, except in the article of elive-oil, which will be deemed a solid. The quintal will be of 100 pounds, and the ton of 20 quintals. The yard will bo of 36 inches. The moncy is the real de cellon, which is divided into 100 parts, called entimes.

Aoncys.-The real vellon is valued at tho customhause of the Unlted States at 5 conts; 20 real vellons $=\$ 1$; tho real of plate is double tha real vellon $=10$
cents; 1 hard dollar $=12 \frac{1}{4}$ dollar of exchange $=10$ reals of new plate $=108$ of old plate $=20$ reals velion $=170$ quarters $=361 \nmid$ maravedis of old plate $=680$ reals veldou $=\$ 103$.

Goll Coirage.-The last date that we have noticed of the long-continued doubloon seriea of Peninsular colnagn was 1824. The half doubloon of that year weighed 0.433 ounce, 865 fine; value, $\$ 775$. The new gold coin is a piece of 100 reals, weighing 0.268 ounce, 896 fine, 84963.

Silver Coinage.-The principal coin (not the largest) seems to be the pleeo of 4 reals, or pistareen, which before 1837 was of the weight $0 \cdot 189$ ounce; fineness, 810 ; value, 20.7 cents. The standards havo been lately changed, and the new platareen weighs $0 \cdot 166$ ounce, fineness, 899 ; value, 20.3 cents. There is also a large piece of 20 reals (dollar), worth $101 \cdot 5$ cents; and pieces of $10,4,2$, and 1 real in proportion.-United Stutes Mint Report, 1857.

1Veights.-Gold and Silver Weight.-Gold and silver are weighed by the Castilian mark of 50 cestellanos, 403 tomines, or 4800 grains.

Apothecaries' Weight.-The apothecsries' weight is the Castilian, but the ounce is divided into 8 drachmss, 2.4 escrupulos, 48 obolos, 144 caracteres, or 576 grains.

Commercial Weight.-One commercial pound is equal to 2 marks (Castilian), or 16 ounces. One commercial ounce $=8$ drachmas $=16$ adarmes $=576$ grains. One quintal of 4 arrobas, or 100 pounds,$=101 \cdot 44$ pounds nvoirdupois, or 46 kilograms. One atroba $=25$ pounds 7 ounces.

Measures,-Dry Afeasure.-Corn, salt, and other dry articles are mcasured by the cahiz. One cahiz $=12$ fanegas; one fanega $=12$ celemines. The celemine has various subdivisions, as $\frac{1}{2}, \frac{1}{3}$, $\frac{1}{2}$, ete. Tho fanega measures 43223 Spanish, or 3439 English cubic inches, and is equivaleut to $1 \cdot 55$ English imperial bushels. Five fancgas are nearly equal to ono quarter Engllsh.

Wine Measure.-One arroba of wine measures 4245 English imporiul gallons. One arroba of oil, $3 \frac{1}{5} \mathrm{En}$ glish gallons. One botta $=30$ arrobss of wine, or 38 of oil. Tho botta contains 1271 English gallons, and the pipe 114 English gallons.

Long Measurc.-Ono Spanish foot $=12$ pulgadas, or 144 lincs, and is equivalent to $11 \cdot 128$ Englisl inches, or 0.2826 of a French metre. One palmo, of 9 pulgadas, or 12 dedos, $=8 \frac{1}{3}$ English inches. One vara, or 4 palmos, $=33.384$ English inches, or 0.847 of a metre. One braza $=2$ varas, or 6 fect. One passo $=5$ feet. One estadal $=4$ varas, or 12 feet. One cuerda $=81$ varas, or $25 \frac{1}{2}$ fect.
doberon Commerol of the Lnited Statee witif Sparibit Amemican Coloniege (incledino Mezico), faom Octonea 1, 1820, to Seitemuea 30, 1824

| Vears ending | Esports. |  |  | Imperts. . | Whereof thore was lo Bullion and Specte. |  | Tonnage cleated. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hamestie. | Foreign. | Totel. | Tutal. | Esporl. | Import. | Americay. | Foreign. |
| Sept. 30,1821. | \$4.18,176 | \$529, 5459 | \$1,037,746 | \$1,114,11: | \$54,898 | \$129, 162 | 13,208 | 28. |
| 1ヵ2゙, | 1,502,70\% | 1.828,280 | C, 421,1103 | 2,5 $2,2,38$ | 57,698 | 601,117 | S1,747 | 864 |
| 1523. | 1,372, 026 | $8,229,347$ | $4,601,573$ | 4,842,803 | - | 1,9513,418 | 83,112 | 105 |
| :8:4. | 2.8:7, 5: 1 | 1,040,060 | 7.808.457 | 6,780.760 | . ${ }^{\text {c. }}$ | 3,6\%4,800 | 61,65! | 1054 |
| Tot | (13, 3100,0410 | 11,624, 14, | \$16.929,148 | \$ $616,266,377$ | \$112,591 | \$0,415,795 | 139,718 | 2200 |



| Veats ending | Esports. |  |  | Importa. | Whereof there was in Bullion and Specte. |  | Tonnage cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentio | Foreign. | Tolal. | Toral. | Fixport. | limporl. | American. | Foreign. |
| Nept. 90, 1837....... | \$797, 812 | \$210,810 | \$1,007,928 | \$16, 3 , 384 | \$1,700 |  | 12,484 | 1,042 |
| 1838....... | 1,028,818 | 219,062 | 1,247,880 | 115,7t8 | 825 |  | 28,1:5 | 807 |
| 1889. | 1,579,065 | 308,017 | 1,087,082 | 818,116 | .... | \$17,409 | 48,503 | 1,008 |
| 1841. | 037,072 | 281.199 | 1,218,471 | 809,847 | . $\cdot$. | 05,062 | 41.177 | 030 |
| 1841. | 510.055 | ! $122,04 \mathrm{t}$ | 808,990 | 300,024 | .... | 65, 688 | 32,838 | 18 |
| 1842. | 878,078 | 127.961 | 406,020 | 480, 892 | .... | 25,510 | 24,910 | 1,860 |
| $9 \mathrm{mos}, 1843 \dagger . . . . .$. | 100,2.10 | 37.713 | 142,003 | 445,300 | . . . | 17,174 | 16,185 | 927 |
| Junt 50, 1841....... | 190,447 | 81,101 | 277,548 | 678, 051 | . | 10,114 | 20,065 | 1,770 |
| 1845....... | 210,780 | 153,056 | 863,792 | 756,324 | ... | 40,427 | 18,980 | 2,221 |
| 1816.. | 250240 | 228,363 | 473,603 | 188,089 | . $\cdot$. | 10,000 | 28,204 | 3.245 |
| Total... | \$6,700,16.3 | 81, 344,110 | 87,634,282 | \$ $4.880,815$ | \$2,525 | \$248, 083 | 271,302 | 12,681 |

*The commerec of Texan from 1846, when it beame one of the United States, may be found under the head of Texas; and the commerce of Mexico, since lia lindependesce, under the liead of Mexico

+ Nino muntia to June 50 , and the fisesl yea: from this time begine July 1 .
 1857.

| Yearn eoding | Exparts. |  |  | $1 \mathrm{mports}$. | Wheref there was is Uulion and 8pecto. |  | Tonnage clearen, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeolic. | Foroign | Tolal | Total. | Export. | Import | Anericen. | Forsign |
| Sept. 30, 1821....... | \$175,217 | \$33,644 | \$208,521 | \$626.616 |  | \$12.757 | 11,134 | .... |
| Sept $00,1822 . . . .$. | 160,435 | 7,618 | 158,041 | 983, 617 | .... | -35,629 | 10,450 | 号 |
| 1823. | 251,038 | 25.495 | 281,528 | 818,076 | .... | 29,738 | 8,409 | 1,1:8 |
| 18.44. | $806,8,56$ | 233,718 | 610,614 | 8503,636 |  | 8,895 | 6,088 | 180 |
| 1825. | 216,102 | 82,156 | 238,258 | 7,18,617 |  | 5,609 | 6,969 | 75 |
| 1826. | 210,858 | 12.166 | 223,526 | - 771,770 |  | 7.811 | 6,879 |  |
| 1827. | 215,153 | 10.68 | 2:8,519 | ¢ 69,612 | \$ $=1000$ | 13,700 | 7,104 | 603 |
| 1828. | 222,101 | 16,077 | 297,86s | 1,129,130 | 1,950 | 8,440 | 7,843 | $3: 3$ |
| 1829. | 209,780 | 88.900 | 24.9,680 | 8.3,832 | 31,505 | 8.6 : 4 | 11,051 | 216 |
| 1830. | 245,636 | 27,523 | 273.169 | 1,307,149 | 21.650 | 7.718 | 8,764 | 421 |
| Total. | ( $2,211,804$ | \$447,710 | \$2, 63.1,014 | \$ $1,089,174$ | \$ ${ }^{\text {b }}$, 165 | \$127,137 | 62,931 | 3,014 |
| Sept. 30, 1831....... | 8261,891 | \$583, 245 | \$ 815,046 | \$t.680, 1156 | \$ $\mathbf{3 5 . 6 8 3}$ | \$16,173 | 8,279 | 1,0\%1 |
| 1832...... | 322,509 | 72,552 | 805,111 | 1,8*0,182 | 4!,360 | 8,127 | 9,348 | 717 |
| 1833. | 893,992 | 27.398 | 421,390 | 1,870,344 | 7,000 | 8,998 | 18,88.). | 219 |
| 1834. | 431,805 | 69,722 | 491.627 | 2,240,413 | 11,050 | 11.160 | 15,769. | 741 |
| 1835. | 6813,0is | 01,082 | 677,657 | 2,364,170 | 70,900 | 15,256 | 21.140 | 12 |
| 1836. | 604, 559 | 658.19 | 660, 458 | 8,200,043 | 47,086 | 8,6:10 | 22.079 | 483 |
| 1537. | 517.738 | $52,1.89$ | -69,916 | 2,45t,082 | 42,823 | 69,125 | 17,07t | 1.10\% |
| 1838. | 692,56S | 80,484 | 723.05] | 2,636,152 | 30,4"3 | 33,783 | 10.538 | 9,416 |
| 1839. | 770,049 | 87,343 | 801.307 | 8,742,569 | 115,207 | 23.144 | 22, 647 | 1.16) |
| 1540. | 1711,4.0 | 89,203 | 799.625 | 1,898,738 | 31.278 | 40,005 | 24,569 | 0 CR |
| Tutal... | \$ $0,350,660$ | \% 63.610 | \$5,420,182 | \$ $28,4220,803$ | \$131,004 | \$284,656 | 172,197 | 8,546 |
| 1S41..... | \$721,8:5 |  | \$749,439 | \$2,560,020 | \$28,923 | \$17,799 | 80,123 | 720 |
| 1849..... | 6111.813 | 10,718 | 030, 891 | 2,517,001 | 12,707 | 68.457 | 29,606 | 1,1i4 |
| $9 \mathrm{mos}, 1849^{\circ} \ldots .$. | 442,034 | 14,881 | - 453,4245 | 1,076,1:5 | 1,872 | 47,943 | 18,301 | 8411 |
| June $80,18+4 . . . .$. | 630,003 | 6,177 | 042,139 | 2,428,202 | 4,058 | 27,021 | 28,143 | 683 |
| 1445. | $63^{8}, 149$ | 20.735 | 705,9:4 | 2,026,258 | 11,008 | 63,4.3 | 25.675 | $6 \%$ |
| 1846....... | 675,41t | 25,905 | 701,846 | 2,277,110 | 15,05t | 02,679 | 87,056 | 1,3\% |
| 1317....... | 895,079 | 83,483 | 85, 10064 | 2,141,1429 | 21.391 | 14,157 | 20.787 | 1,37.1 |
| 1843. | 801,722 | 87.019 | 833,731 | 2,100,204 | 21.556 | 941, 919 | 35,241 | 1.150 |
| 18.19. | 623.998 | 32.231 | 150,300 | 1,964,801 | 28.145 | 27,664 | 28.870 | 88.8 |
| 155.1 | 510,0032 | 1.3.5.1 | C0, 6053 | 2,0i67, $8 \mathbf{i d}$ | 88,764 | 2,660 | 30.744 | 2.103 |
| Total... | \$6,741, 290 | \$308,805 | \$7,050,204 | \$21,162, 603 | \$234, 016 | \$340,6\%2 | 263,451 | 14.917 |
| June 30, 185t. . . . . . | \$961,410 | \$47,240 | \$1,018,6t0 | \$2,480,329 | \$79,40) | \$3.45 | 10, 320 | 6.013 |
| 1852........ | 1,015.8463 | 8.), $3+12$ | 1,065, 115 | 8,001,223 | 51.511 | 20,27i | 35,011) | b,irt |
| 1858. | 816,4]1 | 64,143 | $8045{ }^{51} 4$ | 2,800,0,6 | 47,95.7 | 18,016 | 30,815 | 9,423 |
| 1854. | 9901,886 | 80097 | 1, $0151.8<8$ | 2,850, 9813 | 143, 7.0 | 19,179 | 31,014 | 4,3,3 |
| 1855. | 1,144,481 | 88,087 | 1,183, 618 | 2,475,0!8 | 36.100 | 23,625 | 34.100 | 5,59 |
| 1856. | 1,099),840 | 43,12) | 1,142, 7:4 | 3.570.0063 | 24.251 | 14.7161 | R3, 61 | 1,1940 |
| 1557 | 1,783,449 | 15,2.0.15 | 1, 95,174 | 5,748.60) | 14:3, 4 ! 6 | $6{ }_{6} 8$ | 137,433 | 3, 5 \% |

* Nine months te Juno 30, and the liscal year from this time beglue July 1 .

Specie (Fr. espice), coin and bullion used as a ctrculating medium in distinction from paper money.-See articles Lhanks, Conss, Puechors Metala, Gold, and Sinven.
Spectacles. An optical instrument, consisting of two lenses set in a frame, for assisting or correcting the defects of imperfect vision. The lenses are convex or concave, according to the nature of the defect to be remedied. In old age the pupil of the eye becomes flat, and the rays of light are consecpuently not refracted sufficiently in passing through it to meet on the retina and produce distinct vision. This defect is remedied by a convex lens, which proluces a slight convergency of the rays befure they enter the ege. Shortsighted people, on the contrary, require concave leuses ; because, in their cave, the Indistinctness of vixion proreeds from too great a curvature of the pupil, which causes the rays to meet in a point before they reach the retina-a defect which is remedied lyy giving the rays a silght divergency before they enter the eyc. Spectacles were unknown to the antients. They are generally supposed to have been invented in the 13th century, by Alexandir de Spha, a menk of Fiorence, in Italy, alout A.11, 1:85.,-fien. Hidt. They were invented by loger llacon, accorting to Jr. l'lott, atoont 12x0. Some affirm that tho real inventor was Salvino; and Mr. Manal gives proofs in favor of Salvine In his Treatise on Spectucles.-llarins.
Spelter, a name frequently given to Zive; whirh sec.
Epermaceti (Ger. Wallrath; Fr. Bltme de Du'eine, Sperme de Baleine; It. Spermaceti; Sp. Riperma de DilIma; liuss. Spermazet), a product ohtnined from the lirath of the physter macrocephetus, a species of whate Inhablting the Southern Ocean. The brain belug dug out from the cavily of tho hend, the ofl $\mathrm{i}_{\mathrm{s}}$ separated from
it by dripping. The residue is crude spernaceti, of which an ordinary-sized whale will yield twelve barrels. It then concretes into a white, crystallized, britte, semitransparent, unctuous substance, nenrly inolorous and insipis. On being cut into stmall pieces it assumes a tlaky aspect. It is very heavy, ita specific gravily beins; 9 433. It is used hin tho manatucture of candics, in medicine, etc.
Spices (Ger. Spezereyen; 1)u. Sprceryen; Ir. Lp iceriss, Epices; It. Npezj, Spezieric ; Sp. Ezpecius, beppo cerias; Port. Especiaria; Russ. I'rianüe hor nja). V'nder this denomination are included all thesa vegelable preductions which are fragrant to the smell and pungent to the palate; such as cloves, ginger, nutnerbs, allypice, etc.

The ordinary apices which are used in housekeepint, and are sold by the grocer are pepper (wlite, thach. and caymue), mustard, ginger, nutmegs, natre, pimint or allspice, clores, cinnamon, and carsia. All of theer spices are inore or less pungent to the taste and stintulatimg to the stonsuch, and are used as maditions b. foom, not as food itself. For these gualities they do penil upon an esaential oit in most cases, varyint in "zeh particular case. l'epper, howesor, has a nitrsenized principle, simitar in composition to thein and calfin, und ealled piperin.

Pepper is the proluce of two alled plants (known as Piper niyrum and lomyum), and the part used is the berry, dried in the sun. Nack and white pelper are boolh obtained from the herry of liprer niyrum; the former behg the entire berry, gromul, white the lithe consists of the leerry deprived of its utter covering, er husk, lefore it is reduced to powder. hong 1 "Hper is not greond, and is not much used in the present day. Pepper-corns, being these herrics, are imported from Penang, Malabar, and Sumatra. The best are those nodore:1s and It assumes a ic gravity be of eaudles, in
which are not too amall, nor too much shrunk in drying, but which feel heavy in the hand, and siak in water. In looking at a section, the outer part, which is black, or reddish black, is easily diztinguished from tha inner or central, which is more or less white, and brittle, hard toward the exterior, and sift anis powdery toward the centre. In separating these parts, as for the purpose of procuring the white pepier, an innar reddish covering remains attached to the internal white structure, and this being ground up with it, is faintly indicsted in the puro white pepper-pov-der by small reddish specks. The active propertips of this spice dupead upon an acrud resin, an essential oil, and a substance before alluded to, called piperin. The outer cortical part contains the rein. in it iner coat lies the oil, and withia the internci or ace structure is tie piperin.

Popper, both black and white, 18 adnlteratod with a varicty of articlas-as, the flour of linsced, mustard, wheat, sago, and arrow-root. Pepper-dust, alsu, being the sweepings of the floors of warehouses, and known as P.D., is largely used in making up low-priced pepper. Powiered cayenne is likewise said to be used, but, sccording to Dr. Hassall, not to any extent. Chemistry and our natural senses are greatly at fault in detecting these adulterations; and the microscope is the chief means upon which reliance can be placod, and, as is proved, a very sufficient one.

Cayenne pepper is composod of the pods of several species of copsicum, which is an annual herbaceous plant, a native of America, cultivated in the West and East Indies, and to some extent in the United States. Ench pad is made up of three parts, an outer skin, an maer parenchymatous substance, and a quantity of small seeds. All theso are ground op to constitute the pepper sold as cayenne, but it is to the first that it chiefly owes its pungent taste. It contains a very active principle which is called eapsicin, and of which a very minute quantity, even as little as half a grain, diffused tlroughout a room will set a whole party of peopla sneezing. This pepper is far mors subject to adulterntions than black and white pepper, and is in fact searcely ever free from mixture either with redlead, red-ochre, or common salt-four ouly out of nina-ty-eight samples examined by Dr. IIassall being perfectly genuine; thirteen presented red-lend, often in poisonous quantities, and in saven Venetinn-red, redochre, or lrick-dust, were found. Six of the samples coutaned sult in large quantities, with rice and coloring mater, and in the same mumber also appeared rice mixed with turmeric and eayenne, and colored with red-leal or some ferruginous earth. It is said that this pepper is often lmported in a ground state, and therefore a good deal of this sophistication is due to foreign roguery. The mineral ingredients are easily detected by chemical means, ns red-led, vermition, etc.; hat for the most of the other articles the nid of the mieroscope is again requirel. With a knowledge of the dificulty in detecting adnlterations, it behooves us all to deal for out peppers only with those who are of high characier and standing in the trade; but as our senses tell us pretty clenrly the strength of the spice, and ns all the ndulterations of black and white pepper are toler. tily immocent, no harm ncerues, except to the purse, from the substitution of a weak spice for n strong onc. In the case, however, of cavenne pepler, the presence of red-led, vermillon, or other minernl coloring matter is of serions importance, and should be cautiunsly avoided by a careful dealing with henest trudeamen,-Ste Cayenne and Peiperi.

Mustord is obtnincd from the plants known ns the black and white mustard plant (Sinapis nigra and alba). The former of these has smooth seed-vessels, and redHish or hlackish-brown seeds, which are very pungent; While the latter las rongh or hairy pods nnd yellow seeds, less pungent than those of the Hack mustaril. The seeds of the llack mustarl are compased of cel-
lulnse matter, containing in addition a voiatile and a fixed oil of mustard; also, two peculiar substances known as my ronic acid and myrocene, all of which are doficient in white mustard seed. The fixed oil exists in the seed, but the volatile oil is formed in the same manner as the essential oil of bitter slmonds; by the joint action of water, and a pecullar coagulable albuminoua matter, called mynocene, upon a substance very imperfectly known, which is termed nyronic acid. This acid has no smell, and is not volatile, but is Eitter to the taste, and contains sulphur and nitrogen. Heat cosgulates myrocene, which is necessary to the formatlon of the essential oil, and hence mustard should always be mixed with hat water to develop its pongent powers properly.

Adulterstion in this article seems to be the rule, and a pretty invariable one; for in no single case did Dr. Hassall find pure mustard seed sold in London. The nature of the admixture was in nearly all cases tho same, genuine mustard being mare or less mixed with wheston flour, and colored with turmeric. Even in the case of an article which was specially sent up from Newcastle-nn-Tyne as a perfectly pure specimen, a very small quantity of turmeric was discovered, which the manufacturer sfterward candidly admitted was added to the mustard for the purpose of heightening its color. This admissian must be highly gratifying to the Lancet Commissioners, as the quantity was only two aunces in fifty-six pounds, or one part in 448 . In parchasing mustard, there is no guide short of the microscope but the palate, as the full power is not developed until the flaur is mixed with hot water. The adulterations are, however, only of impertance as far as the money-value is concerned, as the turmeric is innocent enough of all other mischief. Most people can judge of the strength of this spice when it is used, and they may therefore readily take this as their guide in dealing with their grocer for future orders.

Ginger is cultivated in Asia, Africa, and the tropical parts of Americn, and is the root of the Zingiber officinale, a perennial plant, of which the stem reaches to the height of three or four feet. The roots are dug up at the end of the first year; they are well washed, and then they ara stripped of their outer skin, or left as they are, constituting in this way the two primary divislons of ginger into coated and uncoated; in addition to which, It is sometimes iniported from Jsmaica in a green state, preserved in jars with sirup. The two tirst divisions are sold either in the state in which they are Imported, or finely gromed, and sifted with great care. Ginger owes its pungency to a volatile oil, with an acrid resin, which are contained in it, and mixed up with other vegetable substances, as gum, starch, and woody fibre. Ground ginger contains all the elementary principles of the root. It is adulterated with wheat tlour, sago, potato flour, cayenne pepper, mustard lusks, and turmeric powder, none of which are prejudicial to health, and the fraud is only on the pocket.

Nutmegs and Mace are both obtalned trom the nut-meg-tree, of which there are three species-Myristica fragrans, M. fatua, and M. malabarica. Together they are the fruit of the tree, which is similar in apfenrance to a pear-tres, and produces a fruit nbout tho diza of $n$ peach but slaped like $n$ pear, and smooth externally. Tlia outer tieshy part of this is the perlcarp, and this when ripe sepnates into two longitudinal sections, within which lies the seed proper, or nutmeg, inclosed in two coats, vesides the muce, which tills up the spaco between theso and the pericarp. The tree known to botnnists as Mryristica fragrams, is cultivnted in the Molucea Islands, as well as in Java, Sumatra, Singapore, Penang, the island of llourbon, Bengnl, Madagascar, and the West Indies; and these trees produce the true nutmeg of comm- co, which is rount, and of a strong aromatic finvor and sn: sll. A second and Inferior kind, called the vild or false nutmeg, is olitained from the Mfyristica fatua and \& : mala-
barica, growing in a wild atate; and they may be distinguiahed from the true nutoseg by being longer and paler than it. Mace is also true or vild, according as it is obtained from either kind of nutmeg-tree. As imported into this country, the true mace is of a golden or orange yellow, transparent and horny. Faise or wild mace is of a dark red color, and deficient In flavor and smell. The nutmeg, as well as the mace, contains a fixed, and also a volatile oil, as well as starch and woody matter.
Adulteration.-It might readily be supposed, ns these spices are not powdered, but aro sold as imported, that no adulteration could poasibly be practlced; and it appears, in reality, that very little is attenipted. The oniy fraud is found to consist in the abstraction of the volatile oll by distillation, which deprives the nutmeg and mace of their chief favor and utiitty as apices. In order to preserve the nutmeg from insects, it is often soaked in lime water, or covered with powdered lime; but this does not seem to be a fraud, but rather a proservative. It therefore need not be guarded against, but the presence of the full complement of oil should, if possiblo, be insured. This can only be done in practice by attending to the flavor and smell, und compnring them with the recognized genuine article. The shape is a good guide to the true nutmeg, and purchasers shouid always select those of a round form, avoiding those which are like dates in appearance, or even at all elongated beyon : a vory slight departure from the true circle.
Pimento, or Allopire, also called Jamaica pepper, is the berry of a tree bearing the first name, and growing in the West Indies, from which it is imported in bags. There are two quaiitice of $i t$, but only one is extensively used in this country.

I'imento, like most other spices, owes its qualities as a coniiment to its cacentlal oil, which is centained in considerable quantitiea in the berries mixed with gummy and resinous matter, nastringent extract and fatty oii. This essential oii is readily obtained by distillation. The adulterntion of this spice is so trilling ns scarcely to require alinding to; and as the price of pimento at present it the London market is from $4 \frac{1}{d}$. to 41 d. per 16. , with a duty of $5 s$. per cowt., the retailers make a fair prefit in sellingt it at $8 l$. and need not have recourse to adulteration.-Sce framesto.

Cloves ; m the liower-'unds of the Caryophillus aromaticus, whic is grown in tho Molucea Islands, Sumatra, the 'launtius, Ilcurlon. Cayenne, Martinipur, and St. Vincent Thes' present, a peculiar oblong up;earnnee, tou well known to need minute descripition, with $n$ pungent and ammatic taste, which is highly agreeable to most people. Like the other apices, cloves contain an essential oil, besides risin, tarnin, and wooly fibre. The cil is extracted in considerabie quantities, and
sold aeparately for various purposes. Tho wholealo price is from $4 \frac{1}{2} \mathrm{~d}$. to 1 s .2 d . per 1 lb ; and the duty being 2d. per 1 lb ., together with tho retalier's profit, bring them up to the retaii price of 1 s . for liourbon and Cayenne, 1s. 4d. for superior Bourbon, and 2s, for Penang clovea.

Cinnamon and Cassia are the bark of two species of Cinnamonum; that producing the former bearing the speciflc name Zaylanicum. The cinnamon-tree is cultivated chiefly in Ceylon, but sparingly in Bombay, Malabar, and Java. The bark, as sohd, is peeled from the threeoyear old branches, and dried in the sun; and its quality varies conslderably, but its external characters are generally pretty nearly the same. Cassia, or the bark of the C'innamonum cassia, is brought from China, Nalabar, Bombny, and the Mauritins; lt resenibics the true cinnmmon in favor, though less detieate and not 80 aweet, and attended with a certain degree of bitterness. It is constantly substituted for cinnamon, and it is necessary, therefore, to endenvor to distinguish the one from the otier by our ordinary senses, if possible.

The bark of cinnamon is not much thicier thin drawing-paper, and breaks with an uneven margin, showing a coarse arrangement of its fibres. It also consists of several concentric layers of bark, one wiliin the other. These are called quills, and are of a paie brown, with a sweet aromatic tristo, unaccompanied by any bitterness or astringency.

Cassia bark is considerably thicker and coarser, and has a short fracture and smooth edge. It has generai. ly only one, or at most two quilis, within the external one; and the taste is a coarse linitation of cinnamon, with a strong tendency to leave an astringent bitter on the tongue. By these characters the bark of the ene, when whole, may be distinguisined from the other: but when powdered, the aill of the mieroscope is required to detect the imposition, which is extensively practiced; and, faiiing tinis, the character of the vendor is the only sufeguard. Cassia buds are also innorted.

Ti.e cinnamon of comnerce is chicfly produced in the island of Ceylon, from the Jaurus cinramomi of botanists, the Kooroondoo-gaha of the Singhalese, a plant which appears to have flourished in that island from the earliest period. We learn from Se-iptural history that this spice was employed by the Jlehrews in their reilgious ceremonies; and there can lie littfe dombe that their supplies were deri ved from the Arahian merchants who traded between the Ied Sca and the linst.

Mixed spice, as jmplied by the name, is a compond of the varions ordinary spices, as ginger, pimento, eassin, etc. It is largeiy adiulterated, and can not, therefore, be recommended, nor is its use at nll rejuired, inasmuch as tho cook may in all casea use her own judg. ment to greater advantage.


| Whence imporled. | Mace. |  | Nutmega. |  | rinnammon |  | Cloves. |  | Meppre\%, Blark |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounde, | Value. | Prends. | Valua | Pounde. | Value | Pounds. | Valne | Pounds | Vulue |
| 11nmburg |  |  | $18 \mathrm{Pr7}$ | + +14 |  |  |  |  |  | ...' |
| It oltand. | 5,277 | \$2,68) | 132,53: | 73,94 | 0,339 | \$2,691 | 5,510 | \$2, 60, |  |  |
| Duteh West Indien................. | .... |  | .... | , |  |  |  | ....is | 9,175 | \$145 |
| Dutch Gilana .................... |  |  |  | 94* |  |  | 14,358 | $5{ }^{56}$ |  |  |
| Intel Eisat Indies | 10,8!22 | 6,372 | 49,159 | 29,473 | 11,787 | 1,247 | 10, |  | t,180,0x | 70.154 |
| Helghum |  |  | 8,371 | 4.023 | 2,200 | Bi6 | .... |  |  |  |
| Finglant | 6,317 | 2,105 | 109, 725 | 53,715 | 31,157 | 0,7:1 | .... |  | \%, 993 | 407 |
| Neothand | .... | .... | 3,488 | 1,467 | - | .... | . . . | . $\cdot$. | 1, $3,54.3$ | $40{ }_{4}^{81 .}$ |
| Cannda . . . . . | * $\cdot$. | . . . | 463 | 201 | $\cdots$ |  |  |  |  |  |
| Mrilish Weat Indien. | .... | .... |  | .... | 100 | 23 | $4,10 \mathrm{~s}$ | 108 | 1, 136 | 14 |
| Itritish Jonseadona In Africe | ... | ... |  |  | .... |  |  | ... | 1, 800 | * ${ }^{\prime \prime}$ |
| Itrilish Ausiralia |  |  | 410) | 17.8 |  |  |  |  |  |  |
| Iritiah East Iadlea | 27,789 | 15,785 | 131, 675 | 83, $810 \%$ | 22,1830 | 4,521 | $4 \mathrm{H}^{\circ} \mathrm{E}$ | 048 | 3,6m, 132 | 190, $0^{4}$ |
| France on the Atlantle | , | , | 10,751 | 6, 404 | . | $\ldots$ |  |  |  | ....' |
| Freneti Gulana | $\cdots \cdot$ | . . . | .... |  | . . . | . . . | 10,503 | 475 | $\cdots$ | $\cdots$ |
| Crorto İico | $\cdots$ | $\cdots$ | 208 |  | . $\cdot$. | . $\cdot$. | . . . | $\ldots$ | 4, Ha 9 | $3{ }^{\text {a }}$ |
| Madelra . | . $\cdot$ | . $\cdot$ | 208 | Av | . . . | ... | $\cdots$ | $\ldots$ | - ' ${ }^{0} 0$ | i |
| Afriea.. | . | .... |  |  | .... |  |  | $00,6 i$ |  |  |
| ItsytI . . . . . . . . . . . . . . . . . . . . |  | .... |  |  | ... |  | 1,126,0゙ |  | 3,170 | 169) |
| Huenon Ayreg, or Argentine tirpubs. China. | ' $\cdot$ '' | . . . | 801 2.14 | ${ }_{6}^{659}$ | $\cdots$ | . . . | . . . |  | 8,0in | - W1 |
| Total | 43,27, | 126,764 | 460,440 | $4.67 \%$ | 45, ${ }^{\text {an }}$ | (,-6 CH | 1,168, 2 x ! | (3t5, $313 \%$ | 1.6.43.060 | \$27, $28 i$ | ＇s profit， rbon and s．for Pe－ tring the ee is cul－ Bombay， eled from sun ；and nal char－ Cnssia， ghit from ns；it re－ less dell－ ertalu de． ed for eln－ deavor to ordisary

## elier than

 n margin，It also one with－ c of a paie panied by nurser，and as general－ cexternal cimnamon， at bitter on of the one， other：but is required lvely prac－ o vendor is imported． luced in the mi of botan－ se，a plant island froen ural history ews in their e doubt lhat n merchants ast． a compound imento，cas n not，there－ requirch，in． ar own judg．


Mlark $\$ 14$ 103．3鲇

皆

Imports of Bpige into tify Uxitid Gtatea for the fisoal Year endina June 80，185\％．－Continued．

| Whence imported． | Pepper，Red． |  | Pimento． |  | C＇asia． |  | Ginger，Ground． |  | Ginger，in Root． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounda． | Value． | Pounds． | Valua． | Prands． | Value． | Pounde： | Value． | Pounda， | Value． |
| 110llu |  |  |  |  | 2，523 | \＄272 | ．．．． | $\ldots$ |  |  |
| Dutch West Indics． |  |  | 1，080 | \＄187 |  |  |  |  |  |  |
| Dutch Fisal Indles， |  |  | $\ldots$ | $\ldots$ | 22，059 | 1,046 10,744 | 48 | 3 | 15.300 |  |
|  | 15 | \＄9 | $\ddot{24,980}$ | 2，1192 | 119，870 | 10，744 | 48 | $\$ 3$ | 300 | 34 |
| Britigl Weat Indies． |  |  | 3，445，6i7 | 298，781 | 60 | 4 | izin | 24 | 84，916 | 1，724 |
| Dritish IIonduras ．．．．． |  |  | ．．．． | ．．．． |  | ．．．． | ．．．． | ．．． | 180 |  |
| British 1＇ossessions in A Britsh East Indles．．．．． | 460 | 86 |  | $\ldots$ | 83i4，076 |  | ．．．．． | $\ldots$ | 302,104 836,684 | 10,228 21,734 |
| British East Indles．．．． |  |  |  | ．．．．． | 814,076 85,112 | 30,612 5,265 | …． | ．．．． | 836，084 | 21，734 |
| Spaln on the Moditerrane | 6，380 | 281 |  |  |  |  | ．．．．． |  |  |  |
| Plillippine Islands |  | 681 | $\ldots$ | ．．．． | 42，000 | 0，584 | ．．．．． | $\ldots$ |  | ＊ |
| Cuba． |  | 631 | 135 |  | $\ldots$ | ．．．． | $\ldots$ | $\ldots$ | 13，040 | K5 |
| Porto Africa． | 7，371 | 边 |  |  |  |  |  |  | 168，819 | 4，829 |
| 11 y ${ }^{\text {t }}$ |  |  |  |  |  |  |  |  | 8，700 | 127 |
| Mexico． | 10，074 | 1210 | 8，114 | 431 |  |  |  |  | ．．． |  |
| Chill | 1，200 | 02 | $\ldots$ | ．．．． | ． |  |  |  |  |  |
| Saod | ．．．． | $\ldots$ | ．．．． | ．．．．． | 806.618 | 137，250 |  |  | 865 37,044 | 19 615 |
| Total． | 42，023 | \＄2400 | 3，483，842 | 82＋1，503 | 1，4i2，718 | $\frac{1801,858}{}$ | 1248 | \＄32 | $\frac{31,510,681}{}$ | $\bigcirc$ |

Stiment of the Importa of Spicke into the I＇mited states for the flgcal Jigars endino June 3，15\％6－b7，

| Spices． | 1855－56 |  | 185 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounda． | Value． | Pounds | Value |
| Saco | 44，416 | W23， 0 ： | 4,42 | \＄．0，754 |
| Nutrnega | 504，818 | 320，13： | 450，441． | 264，637 |
| Cisnamon | 8；，218 | 21，14， | 85.234 | 18，8：5 |
| Cloves． | 900，547 | 53，0行 | 1，152，381 | 65，332 |
| Black pepper．．． | 6，737，869 | 813，5\％2 | 4，948．608 | 279，287 |
| Red pepner | 118，741 | 6， 84 | 42，628 | 2，460 |
| Pimento． | 4，006，026 | 252，022 |  | 241，003 |
| Cassla．．． | 1，18：，118 | 103，705 | 1，432，713 | 201，883 |
| Gliger，ground． | 4 | 22，713 | 1，518551 | 32 4,123 |
| Tola | 15，633，4 | 3， | 106.0 | 34， |

Spikenard．This odoriferous plant belongs to the valerian order，and although its fragrance is generally considered unpleasant to Luropean nostrils，it is so much admired by Eastern natives that some of the most esteemed Asiatic perfumes are composed of vale－ rian and spikenard．Tho fragrance of spikenard is frequently mentioned in tho Holy Volume．＂While the king sitteth at his table，my spikenard sendeth forth tho smell thereof．＂＂Thero came a woman hev－ ing an alabaster hox of ointment of spikenard very precious．＂It is nevertheless unknown to Euglish and l＇rench perfumers．－Piesse＇s Art of Perfumery．

Spinning．The art of spinning was aseribed by the ancients to Minerva，the goddess of wisdom，such was their veneration for it．Arcas，king of Areadia，

Acoovnt of the spibituoug and malt hiquors raoduced in the Lnjted gtateg in 1850，ghowino the amodnt of


| 8tatee． | Caplis） inverted． | Quantities and Kinds of Grain，elc．，consumed． |  |  |  |  |  |  | $\begin{gathered} \text { Hends } \\ \text { om. } \\ \text { ploged. } \end{gathered}$ | Quanillies of Cilquor produced． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Barley | Corn． | Rye． | Oata． | Apples． | $\begin{gathered} \text { Mo- } \\ \text { lienes. } \end{gathered}$ | llopa． |  | Ale，ete． | Whinky， ete．t | Rum，etc． |
| Maine | $\begin{gathered} \hline \text { Dollers. } \\ 17,000 \end{gathered}$ | ${ }^{3} \mathbf{3}$ uethele． | Busbols． | Bushels | Hush． | Bushels． | $\begin{gathered} \text { IThds } \\ 2,000 \end{gathered}$ | Tons． | 6 | $\begin{array}{r} \text { Barrela. } \\ 800 \end{array}$ | Gallons． | $\begin{gathered} \text { Gallone. } \\ 220,000 \end{gathered}$ |
| Vermont． | 7，010 | 2，500 |  |  |  |  |  | 1 | 2 |  |  |  |
| Massechusetts． | 467，510 | 80,000 | 10，400 | 20，600． | ．．． |  | 35，130 | 20 | 181 | 25，800 | 120，000 | 3，780，000 |
| Hhodo Island．． | 17，000 | 12，500 |  |  |  |  |  | 6 | 0 | 3，900 |  |  |
| Connectleat．．． | 15，000 |  | 20.000 | 20，410 |  |  | 10 | 2 | 20 |  | 130，000 | 1，200 |
| New Y＇ork． | 2，585，000 | 2，06\％ 250 | 1，647，260 | 009，007 | 0，707 | 60.940 | 24，500 | $5{ }_{51}$ | 1380 | 044.700 | 0，231，700 | 2，458，800 |
| New Jorsey | 412，655 | 103，7001 | 25－，006 | ［8，400 |  | 409，7（0） |  | 42 | 107 | 84，750 | 1，250，630 |  |
| Penneylvanis． | 1，719，960 | ［50，10\％ | 1，483．6：5 | \＄17，180 | 24，700 | 51，200 | 10 | 203 | 9111 | 189， 081 | 0，548，810 | 1，800 |
| Maryland．．．．． | 247， 100 | 76，900 | 160，100 | 64，809 | 400 | ．．．． |  | 25 | 126 | 26，880 | 787,400 | ．．．． |
| Virginia．．．．．． | 100，916 | 20，000 | 250，700 | 62，080 | 450 |  | ．．．． | 14 | 128 | 5，600 | 874，440 | ．．．． |
| Norili Carolina | 21，980 | ．．．． | 64.650 | 4，7（1） | ．．．． | ．．． |  | ．$\cdot$. | 75 | ．．．． | 153，080 | －．．． |
| Soulif Carolina | 3，475 | ．．．． | 18，110 |  |  | ．．．． |  | ＊ | 33 | ．．．． | 43，000 | ． |
| Ficorgla． | 7， 150 | ．．．． | 90，150 | 2，600 | 1，000 | ．．． |  | ．．． | 16 | ．$\cdot$. | 60，450） |  |
| Alabsma． | 500 |  | ．．．． | ．．．． | $\ldots$ |  | 25 | $\cdots$ | 2 |  | ．．．． | 8,000 |
| 1．onisias． 3. | 8，500 | 10，000 |  |  | ．．．． | $\ldots$ | ．．．． | 10 | 8 | 8，000 |  | $\ldots$ |
| Tennessce | 68.128 | 8，000 | 278.400 | 5，480 | ．．．． |  | ．．． |  | 159 |  | 657，000 | ． |
| Kentueky ．．．． | 168．3\％ | 65，6\％0 | $6{ }^{6} 11,850$ | 30，520 | ．．．． | 6，000 | ．．．． | 18 | 274 | 10，500 | 1，411，745 | $\cdots$ |
| Missorri ．．．．． | 298，900 | 124，410 | 109，20．0 | 24,400 |  |  | ．．．． | 81 | 179 | 44.850 | 039，400 | ．．．． |
| Onio | 1，262，974 | 930， 1050 | 3，54， 140 | 281，750 | 19，500 |  |  | 178 | 1098 | 90， $94 ;$ | 11，865，150 | ．．．． |
| Indilata | 334，1／50 | 118，150 | 1，417，410 | 48，700 | 1，000 | ．．．． | ．．．． | 19 | 297 | 11.005 | 4，039， 900 | $\ldots$ |
| Illinols | 808,4170 | 98，000 | 708，500 | 45.709 | 2，200 |  | ．．．． | 80 | 274 | 27，925 | 2，315，000 | －．．． |
| Miehigin ．．．．． | 130.425 | 82，030 | 212，300 | 10.150 | $\cdots$ | $\cdots$ | ．．．． | 16 | 98 | 10，320 | 600，000 | ．．．． |
| Jowa ．．．．． | 10，500 |  | 61.100 | 7，201 |  | $\ldots$ | ．．． | 9 | 19 |  | 100，600 | ＊．．． |
| Wieconsin ．．．． | 148，700 | 91，020 | 20，901） | 200 |  |  |  | 28 | 98 | 81，820 | 127，000 | ．．．． |
| Now Mtexlco．．． | 7，300 |  | 2，000 | 12，000 | $\ldots$ | ．．．． | ．．．． | ．．．． | 21 |  | 42，000 | ．．．． |
| Utah ：${ }^{\text {c．．．．．}}$ | 8，000 | 1，000 |  |  |  |  |  |  | 8 | ${ }^{3} 800$ | ．．．． | ＊．．． |
| Dis．of Coitamh． | 12，000 | 0，000 | $\cdots$ | … | $\cdots$ | …＇ | … | 2 | 5 | 1，350 | $\cdots$ | $\cdots$ |
| Tolal．．．．． | 8，934，204 | 3，787，196 | 11，007，701｜ | 2，144， 627 | 50，517 | 528，840 | 61，075 | 124 | 5487 | 1，172，024 | 42，135，065 | 8，500，600 |

－Whest．
This Includes high wiaes．


| Whither experted. | Spirita from Grain. |  | Spirita frum Molases. |  | Mpirite from othat Materiale. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gallase. | Value. | Gollona | Value. | Gallona. | Value |
| Russia on the B |  |  |  |  | -1 | \$80 |
| Asiatio Rue | 4,790 | \$5,181 | .... |  |  |  |
| thusalan l'osmesslona in North America........ | 8,013 | 2,260 |  |  | .... | .... |
| Danish Weat Indica. | 12,781 | T,300 | 2,985 | \$1,048 | .... | ... |
| Ilamburg | 8,387 | 4,929 | 200 | 90 |  |  |
| Itremen | 630 | 210 | 12,087 | 0,417 | $\ldots$ | ... |
| Dutch Weat Indle | 14,815 | 8,805 | .... | .... | .... | ... |
| Dutoh Guia | 10 | 105 |  |  |  |  |
| England. | 61.061 | 83,56S | 6,2\%0 | 8,135 | .... |  |
| Scolland. | 3,400 45,302 | 1,875 |  |  |  |  |
| Gitrraltar | 45,302 18,000 | 28,659 8,900 | 42,425 109924 | 20,740 53,024 | $\cdots .400$ | 317 |
| Canada | 25\%.034 | 124,687 | 10,14 |  | 3,230 | 3,0\%0 |
| Other Britiah North American Possession | 65,701 | 40,906 | 163.103 | 100,766 | 10,053 | 61,0:4 |
| Briliah West lndica. | 6,835 | 3,235 | 17,352 | 0,705 | 695 | 521 |
| British Monduras. | 0,180 | 4,724 | 5,052 | $4,50 \mathrm{t}$ | 133 | 158 |
| Aritlah Guiana | 300 | 167 |  |  |  |  |
| British Possenaioris in Afr | 5,929 | 2, $\mathrm{m}^{2} 0$ | 140.836 | 72,140 | 437 | 255 |
| Olhor ports in Afrles. | 100,414 | 37,134 | 820,668 | 304,373 |  |  |
| ${ }^{\text {britich Australla. }}$ | 21,043 | 14.1991 | 9,452 | 0,819 | 2,200 | 1, 1840 |
| Britah East Indles. | 5,040 | 2,191 |  |  | 897 | Sin) |
| France on the Atlantlc. | 830.566 | 621,013 | 118,458 | T4,350 |  |  |
| France on tho Mlediterranean | 368,00. | 220,809 | 157,835 | 88,752 | 16,918 | 13.349 |
| French North American Possosslons | 1,863 | 200 | 50,107 | 24,415 | 6,213 | 2,813 |
| French West linlles... | .... | .... | 8,031 | 3,055 |  |  |
| Spain on the Atlantic |  |  |  |  | 1,841) | 910 |
| Canary Ialanda... |  |  | 800 | ${ }_{8}^{857}$ |  |  |
| Cuba. | 5,658 | 2,850 | 300 | 154 | 146 | 141 |
| 1'orto Rico | 13,943 | 7,780 | .... | ...' | 1,9\% | 845 |
| Mortugal | 40,315 | 25,423 |  |  | .... | .... |
| Madelra ${ }_{\text {Cape do }}$ Vord İ. | 140 | 197 | -4,201 | 12,09\% | $\ldots$ | $\cdots$ |
| Sardinia ........ | 2,360 | 1,i8i | 40,301 | 25,394 | $\cdots$ |  |
| Twe sleliles | 1,810 | 1,087 | 5,647 | 8237 | . $\cdot$. | . |
| Austria. |  |  | 65,443 | 17,757 |  |  |
| Turkey in Europe | 220 | 400 | 823,824 | 140,832 | 8,189 | 6,64 |
| Turkey in Asia... | 410 | 170 | 233,752 | 110,175 | 17,901 | 10,203 |
| Hayth. | 2,171 | 1,n42 | 1,08i | 805 | 46 | 34 |
| Mexico. | 8,414 | 4.814 | .... | .... | .... | ... |
| Central Republio | 8,433 | 2,007 |  | $\cdots$ |  |  |
| New tiranada | 84.889 | 18,34? | 5,253 | 2,683 | 2,007 | 95) |
| Venexuela | 8.549 | 4,870 | . | .... | $\ldots$ | .... |
| Brazll. | 9,150 | 4,6+4 |  |  | .... | .... |
| C'rugusy, or Cipplatine lep | 90,119 | 43,8911 | 27,481 | 11,648 |  |  |
| Argentine Republic | 63,917 | 32,170 | 0,150 $\mathbf{2 , 5 4 4}$ | 1,150 1,271 | 13,960 19,045 | $10,66$ |
| Chill. | 9,982 | 4,499 | 2,564 1,451 | 1,271 | 19,0*5 | 13,\%9 |
| Perut... | $\begin{array}{r}6,924 \\ \hline 83 \\ \hline\end{array}$ | 2,164 | 1,25i |  | 300 | 237 |
| Sandwich Ialinds | 3, 010 | 8, Mit | so | so | 2,2t 3 | 2, 1102 |
| Other inands in the | 636 | 637 | .... | .... | .... | .... |
| China | 99.505 | 11.185 | . | .... | $\ldots$ |  |
| Total. | 2.1177.924 | \$1,248,234 | 2,874,603 | \$1.216,636 | 161.226 | \$124.011 |

Imports of Smbita into tmb I'mitfo Stater for the Iear mindigo Juna 30, 1857.

| Whence imported. | Brandy. |  | Pruen tirain. |  | Yrome cither Matoriola |  | Curriola |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gallont: | Valne. | Gailoas | value. | Gallima | Value. | Gnilloma | Value |
| 8 8weden and Norway .......... |  |  |  |  |  |  | 10 | +15 |
| Danlsh West Indics............ | 100 | 392 |  |  | 282,309 | \$12\%,788 | 113 | 114 |
| Hamburg...... | 1,68, | 2,276 | 23,01:2 | \$11,604 |  |  | 8.15 | 3.514 |
| Hreman. | 571 | 449 | 4.54 | 41339 | 14 | $\begin{array}{r}29 \\ \hline \text { - }\end{array}$ | ${ }^{7.1104}$ | 1,089 |
| Holiand | 2,739 | 2,839 | 1.605,931 | 818,382 | 3,200 | 1,749 | 3,471 | 8, \% 7 |
| Dutch Weat Indiea. | .... | .... | .... | ..... | 4.464 | 8,462 | 92 | \% |
| Duteh Gulana .. | .... | .... | .... |  | 2,854 | 1,445 | .... | .... |
| Hutch East Indies |  |  | 813 | 98 |  |  |  |  |
| Belgium. | 2,663 | 8,011 | 8,81is | 1,925 | 217 | 113 | 1,171 | 1,172 |
| England. . . . . . . . . . . . . . . . . | 18,009 | 82,123 | 93,544 | -5,330 | 0.595 | 6,041 | 1,121 | 1,36 |
| Scotland. | 17,699 | 83,441 | 100, 866 | 184. 189 | 709 | 816 |  | .... |
| Ireland. |  |  | 1.118 | 1,221 |  |  |  |  |
|  | 5,040 | 9,161 | 1.818 | ${ }^{065}$ | 6 |  | \% | 23 |
| ther IIrtish N. American Pross Britab Weat Indias.......... | 45 | ${ }_{1}^{16}$ | ${ }^{262}$ | 150 | 2.467 | 1,0,3 |  |  |
| Britab Went Indiea............ Britah llonduras ........... | 727 | 1,102 | 1,712 | 663 | $\begin{array}{r}117,395 \\ 148 \\ \hline 1\end{array}$ | 63,533 41 | ts | 02 |
| Britiah Gulana . . . . . . . . . . . . . . . | $\ldots$ |  | .. | ..... | 1,168 | 3:0 | $\ldots$ | $\ldots$ |
| Itrisiah Fast Indies. | 15 | 2\% |  | $\ldots$ | 1.60 |  |  | . |
| France en the Athantle ........ | 1,456,191 | 2,432,112 | 04.40 | 20,140 | 24.3 | 206 | 42, 616 | 61, 008 |
| France on the Medilerrancan.. | 1,825 | 2,3:3 |  |  |  | .... | $6,(1+1)$ | 11.660 |
| Spain on tho Atlantle ......... |  |  | .... | .... |  | .... | -270 | , 0 |
| Spain on the Mediterranean ... | 6,907 | 7,251 | .... | .... |  |  | 5,337 | 3.447 |
| Canary lulanda | $\ddot{297}$ | B28 | $\cdots{ }_{6}$ | ' 7 | 12.598 | 5, 807 | 634 | 13 |
| Porto tice | .... | .... |  |  | 8,235 | 4,080 |  |  |
| Mardinia. | .... | ... | . | . $\cdot$. | .... | , | 26 | 342 |
| Tuwany. | .... | .... | $\ldots$ |  | . $\cdot$ | .... | 13 | 12 |
| Irpal sinies |  |  |  | .... |  |  | 404 | 54 |
| $T$ Tos Sirifica | 29 | 6 | .... | .... | 98 | 20 | 83 | -84 |
| Ilayti. | .... | .... | ...' | .... | 9.0 |  | 798 | ist |
| Mexico. |  | $\ldots$ | 317 | 212 | 280 | 8 |  |  |
| New (iranada | 800 | 508 | ... |  |  |  |  |  |
| Yenezuel | .... | .... | .... | ... |  |  | 01 | 42 |
| Prern. |  | .... | .... | . ${ }^{\text {c. }}$ | 71 | 28 | $\stackrel{\square}{5} 2$ | 4 |
| Sandwleh Tulands |  |  | 1,4is | 1, ¢102 |  | ..... |  |  |
| Chine. | $\cdots \cdot$ | .... | 316 | 389 |  |  | 30 | 26 |
| Total. | 1,613,929 | \$2,527,262 | 1,965,037 | \$1,125,160 | 443,405 | \$218, 107 | 67,3i4 | \$02,896 |

Tashe snowino tua Total Numasa of Gallons of Pboofgribit bistilled in Eingland, Scothanm, and Irgland
 $18 \% 4$.

|  | From Malt only | From a Mixture of |  | Total. |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Malt with unmalted Crala. |  |  |
|  | Gallons. | Gailone. 6,3111,660 | Dalloms 989,010 | C, |
| Fing.and . . . . . . |  |  |  | 7,308,670 |
| Scoliand | $6,380,744$ 9,726 | $4.113,58 t$ $8,759,230$ | 915,081 4.005 | $10,859,926$ $8.779,961$ |
| Ireland | 8,720 | 8,100,230 | 4,000 | 8.178,961 |
| Linited Kingdom. | 6,340,440 | [y, 102,471 | 1,608,646 | 26.411 .057 | -See Winv.

Spithead, a celebroted roadstaad, off tho soath coast of Euglaud, county of Hants, between Portsea island and the Islo of Wight. It communicates westward with the Solent and Southampton Water. It is so sccuro from all wiads oxcept the sontheast, as to have ieen termed by sailora "the king's bedchamber," and it is a principal rendezvous of the British navy. I'ortsmouth and liyde are on its opposite sides.

Splicing, among seamen, to join the two ends of a repe together, or to nuite the end of a rope to any part thercof, by interweaving tho strands in a regular manner. There are sevaral methods of splicing, according to the services for which it is intended; all of which are distinguished by particular epithets. The term is also used in architecture.
Splinters, the pieces of a slip's side, masta, decks, etc., which, being knocked off by a shot, acquire great velocity, and frequently do more damaga among tho mon than the shot itself.
Splinter-netting, sennit made Into webs, and nalled upon the inner parts of a ship's aides, to lessen the effect of the splinters.
Sponge (Ger. Schwamm ; Fr. Eponga; It. Spugna Sp. Exponja), a soft, light, very porous, and compressible substance, readily imbibing water, and as readily giving it out again. It is found adhering to rocks, particularly in the Medlterranean Sea, about the islands of tho Archipelago. It was formerly supposed to be a vegetable production, but is now classed among the zoophytes; and analyzed, it yields the samo principles as animal substances $\ln$ general. The inlabitants in several of the Greek Islands have heen trainod from their infancy to dive for sponges. They adhere firmly to the bottom, and are not detached wlthout a good deal of trouble. The extraordinary clearness of the water facilitates tho operations of the divers. Smyrma is the great market for sponga. The price varies from 6 to 16 plastres per oke for ordinary and dirty, and from 80 to 100 piastres per oke for the and picked specimens. Sponge is also fished for in the Red Sea.Une's Dictionary; Savain's Letters on Greece. About 20 miles southeast from Napoli di Romania (Nauplis), in the gulf of that name, is the small town of Cranidi, the inhabitants of whlch are the primcipal sponge-fishers of the Archipelago and Levant. Tho fishery is carried on partly by spearing, and partly by diving; the latter securing the sponge frea from injury, whilch is not tho case with the former. The Cranldiots are most expert dlvera, and anecdotes approaching to the marveloua are tolu of their feats. After the sponge is fiahed up, when perfectly freo from sand, and dry, it is so very light that large pieces of it ars moved with the slightest breath of air. It is customary, however, to Impregnate it with sand. This is done by atringing the apongea together, and laying thein on the sand to allow the ripple of the soa to sluah them with the finest particles. They are then placed in heaps under piles of stones 'which press them closely together, so that thay become when dry hard and flut, and have to be beateu and sifted. But though thia be done, and though they aro aometimes further washed and siftell, they wiil, though apparently quite clean, weigh three or four times thelr orlginal weight! It is, perhaps, need-
lesa to add that thay are alwaya sold by weight. The sponges found on the Florlda coast are vory good, and if the fishery was moro extensively prosecutad would furnith us with our consumption.
Equill (Ger. Meerzwiebel; Fr. Scille, Oignon marin; It. Scilla, Cipolla marina; Sp. Cebolla albarranna), or, as it is sometlimes denominsted, the Sea onion, is a plant with a large bulbous root, which is the only part that is used. It grows spontaneously on sandy shores in Spain and the Levant; whence wo aro annually supplied with the roots. They shoald bo chosen large, plump, fresh, and full of a clammy julce: some are of a reddish color, and otliere white; but no difference is observod in the qualities of the two sorts. The root is very nauseoua, intensely . ster, and acrimonious ; much handied, it ulcerates the skin. The bulbe are brought to market preserved fresh $\ln$ and. The acrimeny of the roots, on whicin their virtue depends, is partially destroyed by drying and long keeping, and ia completely destroyed by exposure to heat above $212^{\circ}$. Squill is one of tho most powerful and useful remerles in the materia medlca.-Luwis'a Materia Med.; Tuomson's Dispensatory.

Stade, a small city of Hanover, on the Schwinge, 22 niles west by north of Hainburg, lat. $53^{\circ} 36^{\prime} 32^{\prime \prime}$ N., long. $9^{\circ} 28^{\prime} 34^{\prime \prime}$ E. It has very little trade ; and would be quite unworthy of notice in a work of this sort, except for the circumstance that a toll or duty, charged by the ttanoverian government on goods conveyed up the Elie to Hamburg, whether for consumption or transit, used to be charged at the castlo of Brunshausen, contiguous to this town. All vessels bound for Hamburg had to heava to (and those of some countries to anchor) fas passing the guard-ship opposite to the castle, and send their papers, inclading manifests, bills of lading, cockets, etc., on shore, that the duty, which was in gencral about $\frac{1}{2}$ per cent. ad valorem, might be computed from them. Thls being done, the ship was allowed to proceed, and the duty was paid at Hamburg.-See Elne. It is remarkable that an obstruction of this sort should have been tolerated for so long a period. Tho datiea fell heavily on certain descriptions of goods, particularly on some manufactured articles; and were, at an average, decidedly lilgher than the duties charged in Hamburg. They are most oljectionable, however, from their requiring many troublesome regulations to be complicd with ; tho unintentional deviation from any one of which exposes the cargo to configcation, anil never fails to occasion a great deal of delay, troublo, and expense. As the principsl part of the foretgn trade of the Elbe is in our hands, we are, of course, principally affected by the Stade toll; and considering the source of the nuisance, it is not a little astonishing it should not have been abated long ago. The aum which the Ifanoverian government derived from the duties is but tritling compared wlth the injury they inflicted on trade; it would, consequently, be good policy for tho former to sell, and for tho government to buy, an exemption from so vexatious a duty ; and few things would do more to extend our trade with Hamburg than the completion of an arrangement of this sort. By an order from the IIanovertan government this daty has been abolished, and vessels are permitted to navigate the Elbe paying ordinary port dues.
Stained Glass. Whens certaln metallic oxyds or chlorids, ground up with proper fluxes, are painted uponglass, their colors fuse linto its surface at a moderate heat, and make durable pictures, whidh aro frequently employed in ornamenting the windows of charches as well as of other public and private buildings. The colors of stalned glass are all transparent, and are therefore to be viewed only by transmitted light. Many metallic pigments, which afford a tino effect when applied cold on canves or paper, are so changed by vitreous fusion as to be quite inapplicable to painting th stained glass.-See Glass.
Stamps, Btamp Acts. Stamps are impres-
sjons made upon paper or parchment by tha goverument or ita officem for the purpose of revenue. They always denote the price of the particular stainp, or, In other words, the tax levied upon a particular inatrument statmped, and sometimes they denote the nature of the instrument itself. If the instrument is written upon gaper, the stamp is linpressed It relief upon the paper itsolf; but to a parchment inatrument the stamp is attached by pasto and a small plece of load, which itself forms part of the impression. These stampe are easily forged, and at varlous timea forgeries of them upon a large scale have been discovered. The Starap Act was one of the main causes of the American iSerolution. In England all commercial paper must, bo stamped to givo it validity. The State of Maryland passed a Stamp Act in 1845 as a source of revenue. liy this act bills of exchange, promi ry notes, $\boldsymbol{b}_{\mathrm{w}}$ - $\mathrm{i}_{3}$, mortgages, and lottery tickets, witu io be e: .i. li The or inary anaual i whit of tiv te
 by the present Ilritish Stamp Act. thr: of exchnige, and notes, drafte, etc ang. to $£ 25 r$; on forolgn bills, from 1 pent. wills, from 10e, to 1270 or more.
Staple, "anciently written estaple, cometh," gaya Lork Coke, " of the French worl estupe, which aignifies a nart or market." It appears to have been used to indicate those marts treth in Greal Britain and nt Bruges, Antwerp, Calais, etc., on the continent, where the prineipal products of a country were sold. Probably, in the first instance, these were held at such places as possessed some convenience of situation for the purpose. Afterward "hey appear to have been conflmed, or others appointed tor the purpose by tho authorities of the country. All merchandise sold for the parpose of exportation was compelled either to he sold at the "staple," or aftexsard brought. them beforo exportation. This was done with the double viow of accommotating the forcign merchants and also enabling the duties on exporiation to be more conveniently and certalnly collected. Afterward the word ataple was applied to the merchundine itself which was sold at the staple. Hons's Cyclopedir.

Starch (tier. Amidan; Fr. Anidon; It. Ammdi, Amilo; Sp. Amidon, Almidon; Iuss. Kruchnal), a substance oblained from vegetables. It has a fine whito color, and is usually conereted in longish masses; it has scarcely any smell, and very litto taste. When kept dry, it continues for a long time uninjured, though expored to the air. It is insolublo in cold water; hat combines with boiling water-forming with it a kind of jelly. It exists chiefly in the white and brittle parts of vegetables, particularly in tuberose roots, and the seeds of the gramineous plants. It may be extracted ly nounding thesn; rts, and agitating them ln cold water, when the parein aymn or tibrous parts wiil first subside; and these being removed, a fine white powder, difluset through the water, will gradually subsild, which is the starch. Or the pounded or graced substance, as the roots of putatoes, neorna, or horse chostnuts, for instance, may be put into a hair sieve, and the Blarch washod through with colil water, leaving the grosser matters behind. Farinaceous seeds may be ground and treated in a similar mamaer. Oily seeds reguire to hnve the oil expressed from them before the farina is extracted.-Thomson's Chem.

Impohto of Ftaecuintothe t'mitrd Stateg yoa yha Yeab Embiva Juns 30, 18.'7.

| Whenee imporked. | Pounde | Tatue, |
| :---: | :---: | :---: |
| Hremen | 471 | \$ 414 |
| ilolland. | 44.8:\% | 1611 |
| Eapland | 1465 | 1010 |
| scotland | 6144 | 3494 |
| Cuba | 1,591 | t 3 |
| Mrxico. | 8,5 51 | 683 |
| Clina. | 1,640 | $4{ }^{4}$ |
| Franco mal Canada | $8 \times 10$ | 2 N |
| Total. | 114.5.3 | 46005 |

Stay, a strong rope from the mast head, leading forward to auppoit it from falling aft. It takes the name of the mast, an the fore-stay, mnin-topmast stay; otc. To stay, means to taek. To be in stays, is to be in the act of tackiag. To miss slays, signities to fail in attempting to tack.

Steam Navigation. The statistics in regerd to the atean narigation of the varitime natlons of the world will be found under the heads of those countries. This artlele, therefore, will belinited, and be comprised under the followlug heads: I. Invention of tl a Sic.amvagine. II. Introduction and Statiatics of Ocean Steam Navigation.

1. Iarention of the Steamengine.-The ateam-engine is the noat important power that the ingenulty of man has yet devised. The first iden of it was surgested by ite Marquis of Worcester, in his Centurs of : isventions, "a way to dive up wate" hy fire." It hoes nol, how-
er, appear that this invel or ever derived any benefit or could interest the publie in favor of his discovery. The following llst inclutes the chronology of the most imprtant inventions and improvements of the sterm. gine.
p.: 's digester finvented.

Rutu I Snvery's enfine conatricteil for ralsing water Dapinaseagino exititited to tho British Toyal Soclety. Atmospheric engine by Snvery abd Newcomen.
Firat Idca of ateam navigatiou set forth in a patent ob. lalaed by Hlull

1691

Wataed by Jlulf ..........................................
Wattes firat patent condensation stemm

newed by p’arllament ..................................
Thomas Pytno proposed tho application of stean in the linited statea
Engined mado to
Fingine made to give a rotary
Watt's expanasivn engine
toublo actlug englines propiosed by jor. Flock
Watt's double ragine constructel and patented
Marquess Jouffroy constructed an eaghe on the sall $1 \mathrm{Fil}_{1}$
Fifh's experimeuts in steam navigation on the pela
vare ..
Oliver Fivansis experinents . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10 , Lamfey experimenta in Viryinla
W. symbigton mado a passage on tho Ċlyde Cunal Chancellor l.lvingaton ballt a ateamer ou tho Jtadson FIrst experiacut on the Thames.
Trevottriek's high pressure locomotive engine ssec liniti-
nuans) first ased
Oliver Evalla's experimicnta in bocomotivo ensinca
fur fand exprimenta in locomotivo enginea an Penngytvanta
Fulton atar!e, a aleamloat on tho iludson Biver, built

by himself, waned The Clermond; engino by boulton
 ture Winand.
The wtemaboats next if oriler in the world were.
The Car of S'iptume. New York
The Itragon
The Richound
Steans power first rad on ralirond hy Blenkinkop steam tersels comatuenced plying on the Clydu (Finar In ELCRopes
Five than veasels in Nocothand
steam ared in priallag fondon Times
First etcall verwel on tho 'Thamien, brought frotu tifago
First upatanr buitt ta Bughand......................
steamer savennah, of $\$ 30$ tona, made the first oceas
royage from New York to 1 .iverpool, in twenty-two day

1810

FIrat steamer in Ireland
1593
1911

Crytaln Johwon ohtalncil ElO omo for making the
tceam voyge to Indla in the Kinterpriot, which arilcal
frem Falmouth August is
Ionnotive ateom-carrisgea on railways at jiverpoil, (Jetaber
foconothres frit used in the I'alted stater on tho mohawk and Hudpon Jtailroad In the Itatimore and ohlo Ratiroad
The Grat thentern arived from liriatol at Now Yurk, and the Siriua from Cork, Ireland, belag thelr first voyages.
Fint steaner on the Cilhard Litho arrived at loston, fourtect days elght honre, July is
-See 11 a run? Ditionury of Datea; bed Feiten.
11. Interkluction and Statistics of Ocean Steam. Vtrighe fiom.-The first ateamer that ever crossed the Atlantic was the Satannak, f'aptain Mosea fiogers-a vessel that was built In New York, in 1818, by Fitchet \& Crocket. The engine was luilt loy Stephen Vail and Danicl iod, the name tas, etc. be in the ail ln atregerd to nas of the countries. omprise Ste.m-
m-engine y of man gested by ventions, not, how oy benefif ilscovery. tho most he steam-
oi New Jersey, It was a paddle-wheol stea ner, of 350 tuly burdon and 90 horse power, and saller! from Now York Murch 29, 1819, to Savannah, Geo:gla, where ahe was owned. She next went to Char'eaton to take the I'resideat, James Monroe, to Savannr h, and from thare, on the 2 is of May, 1810, started for Liverpool, where sho arris i affely in 22 days. She was a full-iraged ship, a " Cast sailer; had stsam us fourteer day of the royd, and by steam alone could moke eight dnots a: ur. Steamboats coming into geaeral uss en rivers, lakes, and coastinge voyages soon after, it seems is li ls singular that ind furthor attempts were made sir aineteen "ars to cross the ocean by steam. The un ri uct of this auccossful voyage seema to have been ir rlooked; the great philosopher, Dionysius Larln $r$, having proved - to his owr atisfaction, at least-tha' atean regsela , ere. concui soose tha Atlantic!

Fiunlly, in Bristol, England-the very port that sent out John and Sobastian C'abot to make the first actual discovery of this continent-a lino of steamora was projectod, and the first vessel, the Sirius, arrived In New York on the 23d of April, 1838. Tho New York papers of that date say, "Myriads of persons erowded the Battory to havo a rlimpse of tho first steam vessel which had crossed the Atlantic frem the British Isles, and arrived safely in port." The London Times had spoken of the project doultfully. "There is really no mistake," sald the Times, "ia shis long-talked-of project of mavigating the Atlantic Ocean by steam. Thero is no iloubt of an intention to make the attempt, and to give the experiment, as anch, a fair trial. 'The Sirius is absolutely getting under welgh for America." Now, nfter a lapse of 20 years, thero are 15 lines of steamers, numbering 46 alips, trading between this coun ' $y$ and Europe; and 37 of these steamers run out of Now York. The earliest vessels-tho Sirius, the Great IV'estern, Royal IVilliam, Cidy of Liverpool, Hritish Queen, and the President-were none of them long in the trme. The line established by the enterprising Samuel Cunnrd, and to this day bearing his name, was started in 18.10 , and was the first permanently successful line of transulantic ateamors ever set afioat. The first Cunarl steamer (tho Britannit) arrived at Boston July 18, 1840.
of the transatlantic steamers cight have been lost. The President, the City of Glasgow, and the Pacific sailed, and, wilh alt on board, "wera never heard of more." 'Tho Aretie was sunk in a eollision with the French stenmer lesta, on the banks of Newfonndland, and but few llves were savod. The Columbia, tho Ilumboldt, the Pranklin, and the City of Philadelphia were all wrecked, but no lives were lost. Since the Sirius sailed from England to Now York, in 1838, not far from 500,000 persous have erossed tho Atlantie by ateamreckoniug both passengers and erews, and tho voyages both ways-and of this number about 1200 have been lost. This, in the doctrine of chances, is about onethirl of 1 per cent., or one voyngo in 300 . W'ith grenter care, with tho lessons of experience, and the
ald of practical selence, the pereeniage of loss will in fature undoubtedly be far less.

In comparing the serew with paddle-wheel steamers, the letter have always been considered the awiftest vessels, and have gonerally made the best time. Screw steamers have many advantages over those with pad-dle-wheels. As war vessels they are more seeure, the propelling power, as well as the most of the machinery, being below t'ie water-line, and out of tho reach of shot. The engine and machinery are less expensive, tako less $f_{i}$ - occupy far less apace, and consequently alford nors room for passengers and frelght. They are not usually as rapid, nor are they as great favorites witti the traveling publie as paddle-wheel atcamers. 'The motion of screw ateamers is more unpleasant than thoso with paddle-wheels ; there belng nothing on tho sldes to balanco and "trim" them, they have a lurching, rolling motion.

The ordianry time mule by the Cunard and Collins paddlewheel steamers between Liverpool and New York has been from 9 to 12 daya. Tho monster steamer /Iimalaya-a British serew steamer of over 5000 tona burden-was sent under steum from Halifax to Southampton in about 9 days. Threo other acrew vesselsthe Eiteu, Lebinon, and Alps-8teamed from Havre New York, respectlvely, in 11 days 17 hours, 13 21 hours, and 13 days 12 hours. Theso passager. not far bolind the 'sual speed of paddle-wheel $\varepsilon$ ' mis. cis.

The following is the record of the various : po transatlantic steamers, and the averago time ce.. ar going both east nnd west, during the yenr id w. 1 ean not bo taken as positive proof of the enr on s* spzed of the difierent lines, for sometimes $c$ : or two
 erage. The Boston branch of the Cunar
longer voyages than the New York line, in cos. qurued of tho delay occasioned by putting into Halum. .

|  |  | Fastern <br> Pastages. | Wentern Разmagel. |
| :---: | :---: | :---: | :---: |
|  |  | Daya. Hrm. | Day. 1 |
| Colllns | Paddle-wheel, | 1203 | 1210 |
| Cimard, New York | ${ }^{6}$ | 1103 | 1222 |
| Cunard, Boston | " | 1112 | 1307 |
| Bremen.. | * | 1412 | 1500 |
| pld liavro | " | 1316 | 1418 |
| llavre (Vanderbilt) | ${ }^{4}$ | 1300 | $11^{17} 00$ |
| Havre (Erench) . ...... | Scrow, | 1500 | 1700 |
| Giasgow | " | 13 0S | $15 \quad 12$ |
| 17umburg | 4 | 1600 | 1514 |

-l'uny Milea's Report on Ocean Steam Navigation.
Great Britain. - To exhibit the oxtent of the ensployment of steam vessels in the British truds to the Mediterrancan, India, and China, wo give a aummary of the steaners owned by tho Peninsular and Oriental Company :

| Number | Bcrew. 21 | Paddlawheel. 11 | Total. 40 |
| :---: | :---: | :---: | :---: |
| Tonnage. | 30,022 | 22,715 | 59,737 |

The following tabular stntement gives a full exhibit of the ocean mall service of Great Britann, now earried on almost exclusively by steanıships:

| Lines. | Namber of Slestmer. | $\begin{aligned} & \text { Jonag } \\ & \text { Power. } \end{aligned}$ | Tonnage. | Number of Men. | $\begin{gathered} \text { Sorvice } \\ \text { commencest. } \end{gathered}$ | How often | Annaal Compensation. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Liverpont and lsio of Man | 4 | 796 | 2.04 .1 | 91 | 1883 | 2 a week | 82,2\%0 |
| Fingiand and Ireiand .... | 4 | 1,294 | 2,403 | 115 | 1850 | 2 a day | 125,1000 |
| Scostand and stettand | 2 | 300 | 850 | 42 | 18.40 | 1 a week | 6,000 |
| Eughand, Spain, and Gibraitar | 4 | 073 | 2,752 | 200 | 1852 | 3 a month | 102,500 |
| Mediterranean, Indis, and Ctin | 83 | 12,850 | 41.053 | 1877 | 1-53 | 2 a month | 1,121,500 |
| lingland and the United States | 0 | 0,418 | 18, 1104 | 922 | 1851 | 1 a week | 866,700 |
| North Amerlea (Coiontai) ... | 2 | 810 | 1,151 | 60 | 1854 | 1 a month | 73,500 |
| Wext Sinlles, Mexico, and 8outh America. | 20 | 0,306 | 29,4*4 | 1667 | 1851 | 3 a month | 1,350,000 |
| Liligland, France, and Leigham........... | 6 | 640 | 1,76i | 10 | 1851 | 1 a day | 77,500 |
| thannet Itands . . . . . . . . . . . . . . . . . . . . | 5 | 797 | 1,852 | 107 | 1848 | 3 a week | 20,000 |
| West Covst of Sonth America | 7 | 2,300 | 5,719 | B78 | 1858 | 2 n month | 145,000 |
| Scotlated nad Orkney ..................... | 1 | 60 | 550 | 16 | 1850 | 1 a day | 0,506 |
| West Coutht of Afrlea....................... | 7 | 850) | 5.051 | 300 | 1852 | 1 a month | 100,250 |
| Sonth America, Manritius, and Calcutta. | 5 | 8,000 | 6,003 | 575 | 1830 | 1 a month | 205,000 |
| Vingland and Australla. . . . . . . . . . . . . . . . . | 4 | 3, 290 | 13,410 | 671 | 1857 | 1 a month | 925,000 |
| Total. ............................. | 121 | 48,281 | 140, 138 | 8137 | .... | . . | +5,114,700* |

* There aro some llaes not hare noticed, wheh awoll the suns to $\$ 5,223,955$.

1. The muil routes from Great Britain to Australia are shown as followa :
The route from Great Britain to her Auntrallan colonies, via tho Cape of Good Hope, incluvies the following distanoes and lengths of paseage :

2. The Sucz and Sligapore ronte is made up as followe:


## 3. The distances hy way of Panaing ara:



The comparative diatances show a decided advantage by the Panama route, and prove that the course of trade from Great Britain to her colonies must evintually tend that way.

The ocean mall steamers of Great Britain run 2,582,231 niles per year, at a total cost to the Admlralty of $£ 1,062,727$, or $\oplus 5,333,980$. The ceean mult steamers of the United States run 735,702 iniles per year, at a total charge on the Post-office Department of $\$ 1,329,738$. The British stemmens run throe and a half times as many uilee as ours do, and recelve for it a pum more than four times as large. The avorage price paid to thelr principal companies, as the West India Royal Mail, the Cunard, the Ausiralian, and the Peninsular and Odental, Including its Mediterranean cousting scrvlee, is 9a. 7d., or 8239 per mile; while the average price paid ty us, or for tho Collins, Ilavre. Bricoest, Aspinwall, and I'anaua, San Francinco and

Oregon, Is $\$ 180 \%$ per mille: The highest sum paid per mille by the Briuah government la' 11 s; 4 td ., or © 831, to the Cuatard Company, 275 to tha Australian, and $\$ 46$ to the West India $;$ and the lowest, fe. 1:d, or 108 t to the Peninsular and Oriental, much of whoes cervice is consting. This is saying nothing of the Jaelto and the African coasting lines, The higheat cum whloh wo pay it to the Collins line, $\$ 10 \frac{1}{2}$ pormile f and the lowent to the Havre, $100 \$$ per mile; while tha sume pald to all of tho other companies range bet little above the last figuret. The lowest rate per mille paid to any of tha Ines endor the contruct was to the Pacifio Mall, $8170 . \cdot$ It must not be forgetten that the low ratee per mille of the Havriand Bremien result from those llines taking the postages afnce their contracts oxpired-a aom by' no means adjasted to the service done. They had ahlpe that they could not let lie Idle. Under their regular contracts the pay per mile of the Bremen Ilne was 828 , and of the Havre $\$ 176 t .91$ Whlle the Hritloh governmant paya to four of her princlpal transmarine services an average of \$2 8c per inile, we pay to tive of oure an average of 8180 only; or but about two-hinle ae much as she does. White our total annasl expenditure for foreign mails is $1,329,783$, a oum by 820,207 leas than that paid to the slogle service of the West Indla Royal Mail Company, that of Great Britain is $\$ 8,883,885$. And while our total income from trantmarlite postages ls $\$ 1,035, \div 40$, a sum but little short of that paid in sabsldy; taking the present Bremen and Havre services at the estlmates of last year for sea and inland postages comblned, the income from the whole transmarine service of Great Britaln, including ocean and inland postage, wes, when the laet report was made In 1853 , $\mathbf{£ 5 8 : , 5 7 3}$, or $82,957,865$; but llttle above half the sum paid in subsidy, and locluding the French, leelglan, and Dutch routes, where the postal yicld was much greater than from the occan lines. The estimntes whoh we present below have heen made with great care from diatances and subindies furnished us by the rellable FIrt Assistant Postmaster-general; Hon. Ilorstio King, from the last report of tha lato Postmastergeteral, ond from the report of the Ilitish Postmas-ten-general, Lort Canning, before noticed. Every Itan is conseruently authentle.

Aneaican Math BqEanieng.

| Liber. | Trija. | Dinancea | Bubsidy. | Grios linetayo. | Totaimiles | Pap per Milo. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Collins. | 20 | 8.100 | \% 8 Sisma | \$414,867 | 114.000 | *3101 |
| Itrerien. | 13 | 3,700 | 128,937 | 128,937 | 96,000 | 194 |
| Havtr | 13 | 3,270 | 88,484 | 88,484 | 85,020 | 100 |
| Aspinwals. | 84 | 81,246 | 990,000 | 139,810 | 163,600 | 1881 |
| s'uific... | 4 | 4,200 | 848,460 | 168,239 | 201,600 | 170 |
| Thavana. | \% | 669 | 01,000. | 6,283 | 32,112 | 1813 |
| Vera l'ruz | 24 | 960 | 29,002 | 6,900 | 43,200 | 64 |
| Total | . | .... | \$1.329. 38 | \$1, 1 B6, 740 | 125,322 | \$t sit averuge. |

 IIBitien Mall Steamame.

| Lines | тrape: | Druatea | Fubaidy. | Ginm Pootagro. | Total Milies | Pay yier Mile |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cana | b2 | B4, 6 \% | 21.8,340 | 2 4 (1i,607 10s. | 304.040 | Lis. $+14 \%$ | \$ |
| Reyal Mali | 24 | 11,402 | - 270,000 | 1(6,90) | 617,20 | 9n. 10\%. | \$2 40 |
| Peninsular and | 24 |  | 244,010 | 178,196 11 | 298,687 | 6s. 11 d . | \$1:81 |
| Australian. | 18 | 14,000 | 183, 0,0 | 83,48t 39 | 336,400 | 11.8 | \$2 is |
| Fermada and tr. Tlomas | 8 | 20.38 | 14,700 |  | 18,000 |  | \$175 |
| Paritua and Ya.jparaitoo. | 24 | 2. 113 | 25,000 | 5,115 | 130,4:4 | 3s. 100. | \$0) 50 |
| Weat Coust Africa..... | 14 | 6,243 | 23,250 | a, 196 Fruncl, Belglan, 2 and yuteli 1 betage. | 14,680 | 2s. 6d. | \$ 621 |
| Chanael Ialands ....... | 146 | 132 | $\cdots$ | ${ }^{710,480} 8$ | 41.184 | . ${ }^{\text {a }}$ | - |
| Holyhead and Kingutan. | 730 | 64 | .... | \} 36,153 0 | 93,440 |  |  |
| Liverpont and lale of Man.......... | 119 | 10 | .... | (10,038 15 | 14,500 |  |  |
| Shettand and Orkneyza | 02 | 200 | . $\cdot .$. | , .... | 20, 600 | .... |  |
| Total. | $\cdots$ | $\ldots$ | E1.061.787 | 1691,678 78 | 2, $2 \times 34.231$ | 1 ln If. | \$ 39 |

## Total average per mile, 82 10\}. Average of four princlpal lines, $\$ 2$ as

- The Yrentnaular and Oriental Company run twice per month between Southamptan and Aloxabdria, and between soez and C'alcutta and illong Kong: twice per incath betweess Marseltiea and Malta i between Blogapora and sydony avery tro montha; and three tlmes pre moath between southanipton and Gibrattar, tonching as Vigo, Oporto, Laboo, and Cabiz,

Il: would hardly be expeoted that the lines of this fuel, wagea, Insurance, otc., are much cheaper there, country should rois at eheaper ratea than those of Great and as they have more paying freights, in their maniBritain, as the prime cost of shipe and their repalrs, factured goods. It only explaina to us, what has al-

## way

 panl those ey, y lagto er
cial
mpaid 1d.,' or Austravest, 6 A, much nothing - The ermile; es range rate per Whs to on result eir con1 to the not let pay per o Hayro to fur rage of erage of as she
forelen ann that yal Mail Unges is In snb services ud postsmarine 1 inland in 1853, he sum lelgian, as much stimates reatcars the reli1. Hors-tminster'ost masery fiten
wayg seemed a myetery, that while the regular comparies in Fingland were making money, ncariy all of those in the United Statea not only had not made monoy, but were embarrsssed more or less, and were selllag their atock at 60 to 80 cents on the dollar.
The history of commercial nations admonishes us that no trading people can long maintain their ascendcncy without using all of the mout approved means of the age for prosecuting trade. Portugal was at one time the most powerful commercial nation of the globe; and at another Holland was the mistress of the seas. But while the latter is now only a fourth-rate commercial power, the former has sunk into olssearity, asd is nearly forgoteen of men. At that time England and France had but a limited forelgn trade, and acarcely any commercial reputation. France could more easily maintain her existonce' without a foreign trade than could England ; and yot her matured manufactures and her products of the aull became so valuable that she sought a forelgn market.' England, on the contrary, had not tarritory enough to remain at home and yet be a great power." She matured an Immense manufise turing aystem, and noeded a market, an well as the raw material; and food for her operatives. "She bugsn to stretch her arms to the outer world, and had made very considerable atride in fureign oommerce side by side with France and the German States, and In the face of the steady young opposition of tho American States.

It is interesting to trace thia rapid progress of steam siace its first applicstion to purposes of mall transport in 1833. An intelligent writer sajs," "The riso and progress of the ocean steam mall aervice of Great Britsin is second in interest to no chapter in the maritime history of the world;" and while we acknowledge a grateful pride in the triumphe of our transatlantle brethren, we mast blash with shame at our dereliction in this great; and eiviliaing, and enrichlng siervice of modern times. The atcam marine of the United States, portal, mereantile, and naval, is to-day so insignificant in extent that we do not feel entirely certain that it is a sufficient nucleus for the growth of a respectalle marjtime power. The fow ships that wa poaseas are among the fleetest and the most comfortable that traverse the ocean, and have excited the admiration of the world wherever they have been seen. But their number is so small, their aervice so limited, their field of operation so contracted, that our large commerce and trivel are dependent, in inost parts of the world, on British steam mail lines for correspondence and transport, or on the slow, irregular, and uncertain communications of sailing vessels. The question here naturally suggests itself: IInve we progreasad in ocean steom navigation in a ratio commensurate with tho Improvements of the age, or of our own linprovement in avery thing else? And has the government of the country afforded to the people the facilities of enterprise and commercial competition which are clearly necessary to enable them to enter the contest on equal terms with other commercial countries?

List of American Ocean Steamers.-The mail service has eight lines, and 21 steamers in commisalon, of 48,027 registered tonnage. Mach of this tonnage belongs to supply-ships, as for Instance those of the Pacific Mail Stcamshlp Company.
Colling Line.-Three steamers, 0727 tonst Adriatic, 4144 tons; Allanttc, 2849 tons; Baltic, 2733 tons
Havrs Line.-Two steamers, 4518 tonsi Arago, 2240 tods; Fulton, 2808 tons.
Fanderbill Bremen Line. - Threo steamers, 6523 tons: North Star; 1867 tons; Ardel, 1896 tons $i$ Vanderbilt, 8360 tona
United States Nail Stoamehip Compary,-81x steamera, 8544 tons: Illindie, 8189 tona; Empire City, 1751 tons; Philadelphia, 1238 tons; Granada, 1008 tons; Mosea Taylor, 1200 tons; Star of the Fest, ehartered, 1172 tins
$\because$ Freifte Nait Steamship Company:- Thirteen stesmers, 15, 421 tons: Golden Gate, 2087 toas; Golden $\mathbf{A g e}, 8280$ tons;
J. L. Slopliens, 8100 tons; Sonora, 1610 tona: Sh Loula, 1021 tons; Punama, 1007 tona; Culfornia, 10s6 tona! Orroon, 1009 tona; Coiumbla, 777 tons; Repulite, 850 totas Northerner, 1010 tons; FYemont, 670 tons ; 1 tb ygo, 158 tona, Charlenlon, Savannah, Key Fest, and Ifavana.-One steamer; tha laabel, 1115 tonk
Now Orleane and Mexico,-Ow, ste mer; the Tenneesee, 1149 tons.

The Coasting Service has alght lines, and 23 steamors, of 24,071 tons regintered tonnage.
Ner Yovk, Ilavana, and Nows Orleann.-Two: The Black ror, 1556 tons; Cahaucba, 1043 tonke $=3$ t00 tons.
New York, Hamana, and Moblle,-One I The Quaker Clty, 1428 tons
New Jork and Savannah,-Four: Alabama, 1261 tons: Florida, 1201 tods: Augusta, 1810 tons; Star of the South (propellar), 900 tonf=4783 tens.
New Jork and Charlcoton.-Four I Colimbia, 1917 tons: Vasheille, 1220 tons; James Adger, 1151 tons; Marion, 962 tone $=4690$ tons.
Nato York and F'irginia-Two: Reanoke, 1071 tona; James. torn, 1800 toneme9371 toas.
${ }^{3}$ Philladelphta and Savannah.-Tro:' Kejue:ns State and State of Georgia, each about 1300 tons $=2600$ tues.
Boeton and Ballimora, Two: Joseph. Whitney, soo tons: Unknown, 800 tons=1 1600 tens.
New Orloans and Tuxas.-Tbe Charles Norgan, Texas, Mes100 , and Atlantic, averaging 600 tons each $=2400$ tons.
New Orleans and Key West.-The General Ruek, 600 tons, and the Calhoun, 400 ton $=1000$ tons.
There are also sevoral propeliers running: between New York and Charleaton, New York aud Portland, and between Phitadoiphla aud the gouth. They are all, however, small, and Irregular ta thelr trade.
Stemmers lying up, 18. Registcred tomage, 24,845 tons.

-Raney's Ocian Post.
The number of transatiantic steamers, the lines running to different ports, and the tonnage, are as follows: Stanmelli Lines bunkino to New. Yogh.

Collins Line, Liverpool (paddle-wheet), Americs 8 , 0,787
Cunard Line, Liverpool British :
Scoteh Line, Giasgow (serew),
Irish Line, Cork
Cuesrd Lae, Isvre
$\begin{array}{cc}4 & \text { Freneh:... } \\ \text { (paddle-wheel), Americin }\end{array}$
French Line, Ilarre
Old Havre Line; IIevre (padde-wheel), Amench...
Old Hevre Line, IIevre
Venderblit Line, Ilavra
10,3060

Independent Line, IIavre
Belgan Tine, Antwerp (ecrow)
BeIglen:
Bromen LIne, Bremen (psddfe-whect), American LIamburg Lae, Hamburg (screw), :Germen." "

Total, running to New York, 12 lines . . . . . 86 Lrverpool and Boston Stramege
Cunard Line, Liverpool (paddtc-w heel), Britisil . .
Livenpool and Purladelpula 8tzameas.
Phitedeiplis Linc, Liverpool (serew), British, ...
HIVERPOOL AND PORTLAND GTRAMERG,
Fortland Line, LJvarpooi (sorew), British . . . . .... $2 \quad 8,000$
Total, besldes New York, 8 lines . . . . . . . . . $\overline{9}$ $\overline{17,1066}$
Grand totit; 15 1tces. ......................... $45 \quad 00,145$
Here we have an aggregate of 15 stoamship lines, comprising 45 steamers of 99,145 tons burden. Of these lines seven ere British, five American; ine German, ane French, and one Belgian. Eight lines (23 steamers) are screw propellers; and seven ( 28 ateamers) are paddle-wheel.-Puwy Mines's Ocean Steam' Navigation.

STE


 OMLEANA, DU日ING TAR VIACAL YRAE ENDINB JUNE MO. 1857.

| Nationatily. | Ports. | Vucami Vosmels. |  |  |  | Salling Vemeis. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Tesmafe. | Number of C'raw Mea, | 300 Home power and apward. |  | Tounage. | Number of Crew. Men. |
|  | Womtont. ... . . . . . . . . . . . . . . |  | 484009 |  |  |  |  |  |
|  | Now Yerk . . . . . . . . . . . . . . . . . . . . . . | -14 | 484,002 | 1478 | +14 | 148 | $\begin{aligned} & 60.821 \\ & \mathbf{5 6 . 9 8 2} \end{aligned}$ | 1417 2400 |
|  | Total............. ... | 14 | $88^{6} \times 1$ | 1479 | 14 | $\$ 06$ | 148,747 | 8808 |
| French . . . . . . . . . . . . . . | Boaton. Vew Yort | $\stackrel{45}{4}$ | 8108 | "i4\% | $\dot{815}$ | 21 | 5147 | 10 |
|  | New Yerk. ..................... <br> New Orleana . . . . . . . . . . . . . . | \$6 | 10,168 8,808 | 818 | \% 5 | 25 8 | 6,049 1,170 | 88.8 |
|  | Total................. | 8 | 8,120 | 766 | 1 | 89 | 6,846 | 829 |
|  | American excest ............. | 6 | 85,984 | 103 | 6 | 176 | 148,606 | 8501 |

- But three vessele were eogaged in making the fourteen tripsi The Fulton, alx royagea; the A rago, alz; and the Vanderbitt, Iwo.
$\dagger$ Of the abova xmount but 7907 tona were aetually emplayed; but by ropeatod tripe (eeo above gote), tha tonnago was increaned to the figure given in tha table.
\% But four vemela engaged, one havilig made two tripa
Of thia amount the actual tonuage wan 4140, for reasons given in note $t$
All far above 800 horse-pewer.
 j197.

| Thairiota | Heximeme | Enralled. |
| :---: | :---: | :---: |
| Passamaquoddy.... Salife. | 1,008 | 1.318 |
| Portand........... ${ }^{\text {. }}$ |  | 1.070 |
| Portamouth........ . N. Hampshlre, | .... | 417 |
| Purington.......... Vermont. |  | 4.441 |
| Boeton. . . . . . . . . . . Masmehusetts. | 1,201 | 7.983 |
| Fall Hiver ......... | . | 7.386 |
| New Bedford. . . . . . |  | 1,821 |
| Nanturket......... | ... | ¢00 |
| Irovidence ........ . Rhode Ialand. | .... | 2,017 |
| Newport.. |  | 285 |
| Middletown........ Connectient. |  | 2.307 |
| New liavec........ | .... | 3, 6007 |
| Champlals.......... Nem York. | .... | 827 |
| Gswego............ |  | 3,715 |
|  | .... | 199 |
| 19.vegatchle....... * | .... | 7.837 |
| Buthalo Creek ...... " | .... | 42,009 |
| Sag 1Iarbor . . . . . . . |  | 124 |
| New York .......... | 09,001 | 111,848 |
| Dunkirk. .......... ${ }^{\text {\% }}$ |  | 8.759 |
| lerth Amboy ....... New Jersey. | .... | 8,746 |
| Surington......... "1 |  | 3,160 |
| Camden ........... | .... | 4.443 |
| Newark............ " | ... | 1.77 |
| Phlladelphia....... Pennaylvania. | .... | 22.367 |
| Iresqua lsle ...... $\quad$ - |  | 3.021 |
| flttaburgh......... | .... | 41.724 |
| Wlimingtoa ....... Delaware. | . | 1.057 |
| New Castle . . . . . . . ${ }^{\text {c }}$ |  | 202 |
| Ballimore. ......... Maryland. | .... | 17,084 |
| Annapolis.......... ${ }^{\text {a }}$ | .... | 150 |
| Georgetown........ Dist. Columb. | $\ldots$ | 8,071 |
| Alexanilrla . . . . . . . Virglula |  | 829 |
| Norfolk............ ${ }^{\text {. }}$ | ... | 2,209 |
| Petershurg. ........ | $\ldots$ | 163 |
| Rtilimond | $\ldots$ | 1.070 |
| Wheelling.......... ${ }^{\text {a }}$ | .... | 10.814 |
| Wathington ....... N. Carollom. | .... | 253 |
| Nembern........... | .... | 127 |
| 17ymouth ......... " |  | 300 |
| Charjeaton......... . 8. Carolina. | 2,218 | 6.618 |
| Savannah.......... Georgla, | .... | 6,:84 |
| Pensgeola. . . . . . . . . . Plorida. | .... | 976 |
| 3t. Mart'a. . . . . . . . . ${ }^{\text {a }}$ |  | 496 |
| Mabile . . . . . . . . . . Alabema |  | 21.008 |
| New Oricant . . . . . . Loulaiana. | 696 | 61.503 |
| Teche ........... " | .... | 2,925 |
| Nashville.......... Tenncasec, | .... | 5.186 |
| Memphla, .......... ${ }^{\text {a }}$ | .... | 6.75 |
| Ioulavitle. . . . . . . . . . Kentucky. | ... | 25,643 |
| Paducah.......... ${ }^{\text {. }}$ " | . | 1.634 |
| \$. Toula. . . . . . . . . . Missourt. | .... | 44,543 |
| Chleago ............ Jininula |  | 7,851 |
| Altod.............. " |  | 156 |
| Gialeon . . . . . . . . . ${ }^{\text {a }}$ | . | 4,:03 |
| Randuaky.......... Ohlo. | .... | ${ }^{903}$ |
| Cuyahoga ......... "1 |  | 15,577 |
| Clinclnatf . . . . . . ${ }^{\text {a }}$ |  | 33,010 |
| Mlaml (Toledo) .... " | . | 118 |
| New Albany ....... Todlana. | ... | 4. 266 |
| Mllwaukle . . . . . . . . Wisconalo. | ...' | 1.945 |
| Mespelt ........... Michigan. | .... | 30,053 |
| Miehilimackinac ... " |  | 1,190 |
| Gaiveaton.......... Teasa, | .... | 3,330 |
| Kaluris ............ ${ }^{\text {a }}$ "* |  | 07 |
| Sun Franclare. . . . . Calllornla. | 12.8 .8 | 11,950 |
| Total tonnage, Junc. 1857. | 84.878 | 618,810 |

 Ntatza fhom 1823 to 185?, inolebive-(irar rimino JUNK *U.)

| Yoam. | Oleamem. | Yoars. | mentmer. |
| :---: | :---: | :---: | :---: |
|  |  | 1841.. | . 74 |
| 1824 | 26 | 1842. | 137 |
| 1825 | 85 | 1848 | ia |
| 1826 | 45 | 1844. | 163 |
| 1827 | 88 | 1845. | 103 |
| 18 ? 8 | as | 1843. | 245 |
| 1829 | 43 | 1847 | 194 |
| 1830 | 37 | 1818. | 175 |
| 1831 | 34 | 1849 | 210 |
| 1839 | 100 | 1850 | 159 |
| 1838 | 65 | 1851 | 233 |
| 1834 | 68 | 1889. | 259 |
| 1835 | 81 | 1853 | 271 |
| 1483 | 124 | 1884. | 291 |
| 1537 | 135 | 1:560. | 253 |
| 1838 | 10 | 1856. | 221 |
| 1839 | 125 | 1867. | 263 |
| 1340.. | . 64 |  |  |

From this exhibit it is upparent that, In point of num. bers, there has been no increase in the atoam-veasels built since the year 1851. If, however, we take into consideration the increased size of the vessels built, or the aggregate tonnage, there has been a healliyy increase corresponding to the grow th of the country.
 in mail thbtaiot of the l'Nited state dobine tur Yeay enting Jonm 80, 155 t.


From the sixth amnual report of the board of aupervising inapeetors of steauper, zasin to the Secretary of the Treasury, we glean the following interesting statiatics:
1)uring the five yenrs from 1848 to 18b2, incluaive, prior to the establishment of the Board of Supervisors, there wero 50 steamboat explosiona, eausing a loss of 1155 liven, and 475 pereons wounded. By other disas. tera during the same period, 416 lives were lost, muislug a total loss of 1571 lives in the five years. Itring the four years from 1854 to $1857_{\text {, inclusive, sabsequent }}$ to the parange of the steamboat law, there have been seven explosions, and 132 lives leat. By other disasters, coltisions, fire, sinking, ete., there have been lost during the same time 214 lives, making a totai loss for the fivo years of 346.

## SIE

By an examination of these statements we find that |management of our squadrens, our nationsl sianding, for five years prior to the pasange of the stemmbont act we have acceunts of the lose of 1671 lives, and for the five years since sald passage the total loss of life on the Western rivers in 840 , leaving a difference of 1226 lives.

The total number of ateamers inspecied during the year in the United States wae 1122, with an aggregate tennage of $\mathbf{4 6 4 , 3 7 0}$ tons. The number of pilote is 2584, and number of engineers 2854 . The total number of passengers carried by liconsed eteamera was $8,610,807$.
gtarkmant anowing tai Tonnage mwpiozen in fyina
 15\% to tus Yinan \$857, InoLvelvi.

| Yeart | Tonnare. | Yeers, | Toanage |
| :---: | :---: | :---: | :---: |
| 1823 | 84,879 | t841. | - 175,044 |
| 1824 | 21,009 | 1842. | - 940,681 |
| 1825 | 28,081 | 1848 | - 986,907 |
| 1826 | 34,068 | 134-8. | . 278,179 |
| 1897 | 40,107 | 1845 | - B46,018 |
| 1828 | 80,4' | 1846 | 847,808 |
| 1823 | 64,086 | 1847 | 404,841 |
| 1880 | 64,471 | 1844. | 427,801 |
| 1881 | 84.435 | 1849 | - 402,804 |
| 1832 | 00,813 | 1850 | D:6,946 |
| 1833 | 101.840 | 1851 | . 888,607 |
| 1894 | 122,815 | 1859 | . 643,240 |
| 1835 | 122.815 | 1853 | 614,007 |
| 1836 | 145,006 | 1854 4 | - 076,607 |
| 1887 | 154,764 | 1565 | 770.285 |
| 1838 | 192,418 | 1866 | . 873.077 |
| 1849 | 204.088 | $185 \%$ | . 706,784 |
| 1840 | 201,830 |  |  |

To show the advantagg which steam communication gives to a growing trado, it may be stated that "from 1840 to 1850 the total imports of Great Britain from Brazill made no increase. In 1853 they had advanced 150 per cent. on 1848; and in 1855 they had ndvanced over 1848-or the avarago of the ten yeare noticodabout 300 per cent. This, however, it nuat be recollected, was in coffee, for re-exportation;-a trade which was loat to our merchants and to our shipping. Her tetal exports to Brazil from $\mathbf{1 8 4 0}$ to $\mathbf{1 8 5 0}$ were siationary at about two and a half million pounds sterling annually. In 1851-the first year after steam by the Royal Mall Company - they advanced 40 per cent.; and in 1854 they had advanced 102 per cent. on 1860 . Thus her exports have doubled in five years, from a stationary point before the establishment of steam mail facilities; whereas ours have been thirteen years in making the samo increase. The total trade between Brazil and Great Britain hns increased in an unprocedented ratio. The combined British imports and exports up to 1850 averaged $£ 3,645,833$ annually; but in 1855 these had reached $£ 8,162,405$. Thus the British trado increased 225 per cent. in fite years after the first line of tteamers was established to Brazil."-Arazil and the Brazilians.

The many instances of our dereliction in the establishment of steam mail faeilities, and the failure to establish locomotive accommodations for our mercliants and other business clssses, call loudly for a change in our affaire, and the establishment of a national steam policy in tie plaec of the accidental and irregular support hitherto givon to tereign ateam cnterprise.
The conclusione which Mr. Rainey arrived at in his late werk on Ocean Steam Navigatien are set forth in a clear summary, which wo give as fellown:

1. That steam maile upon the ocean control the commerce and diplomacy of the world; that they are essential to our commercial and producing country ; that we have not eatablisied the ocean mail facilities cemmensurate with our national ability and the demands of our commerce; and that we to-day are largely dependent on, and tributary to our greatest commercial rival, Great Britain, for the postel facilitics which should be purely national, American, and under our own excluaive centrol.
2. That fast ocean mails are oxceedingly desirable for our commeree, our defenses, our diplomacy, the
and that they are demanded by our people at large.
3. That fast ateamers alone can furnish rapid trangport to the maile $;$ that these ateafiers can not rely on froights; that saliling veasels will ever carry staple freighte at a much lower figure, and sufficiently quickly; that whilh atoam is eminently onceesaful in tho coasting trade, it can not possibly be so in the transatlantio freighting bualness; and that the rapid transit of the mails, and the alower and more deliberate tranapert of freight, is the law of nuture.
4. That high, aclequate mill apeod is entremoly cost$l y$, in the prime construction of vessels, their repairs, and their more numeroun empleyes; that the quantity of fuel conanmed is enormone, and ruinous to nnalded private enterprise; and that thia is clenrly proven both by theory and indispuiable facts, as well an by the concurrent testiniony of the ablest writers on oceun steam navigation.
5. That ocean mail steamers can not llve on their own recelpts; that neither the latest nor the anticipated Improvements in ateam shipping promise any change in this fact ; that self-support is not likely to be attained by increasing the size of steamers; that the propelling power in fast steamers occupies all of the available space not devoted to passengers and exprese freight; and that steumers must be fast to do successfut mail and profitable passenger service.
6. That sailing vessels can not successfully transport the mails; that the propelier can not trensport them as rapidly or mere cilesply than side-wheel vessels; that with any coisiderable economy of fuel and other rumuing expenses, it is but littla faster than the sailing vessel; that to patronize these slov vessels with the mails, the government would unjuatly discriminate againat eailing vessels in the transport of freights; that we ran not in any sense depend on tho vessels of the navy fer the transport of the mails; that individual enterprise can not support fast steamers; and that not even American private enterprise can under any conditiens furnish a sufficiently rapid stcam mall and passenger marine : then it must he conecded,
I. That it is the duty of the gevernment to its people to establish and maintain an extensive, well-organized, and rapid ateam mail marine, for the benetlit of production, commerce, diplomacy, defenses, the public character, and the general interests of all classes; that our people appreciate the importance of commerce, and are willing to pay for liberal postal faeilities; that our trade has greatly suffered for the want of ocean mails; that wo have been forced to neglect many profitable branches of industry, and many large fields of effort; and that there is positively no means of gaining and maintaining commereial ascendency except through an ocoan steam mail system.
II. That the government can discharge the clear and unquestionable duty of catablishing foreign mail facilities only by paying liberal prices for the transport of the mails for a long term of years, by creating and suataining an occan postal sysicm, by legisiating upon it systematically, and by abandoning our slavish dependence upon Great Britain.
III. That the Britigh ocean mail syatem attains greater perfection and extent every year; that instead of becoming self-supperting, it costs the treasury more and more every year; that English atatesmen regard ite benefits as far outwcighing the losses to the Treasury; that so far from abandoning, they are regularly and systematically increasing it ; that it was never regarded by the wholo British public with more favor than at the present time; that it is evidently one of the most enduring institutions of the country; that it necessitates a bimilar American system; that withont it our people are denicd the right and privilege of competition; and that we are thua fer by no means adequately prepared for that competition, or for our own development.

| Elamer. | Eorrico. | Shipm. | Terinnge. |
| :---: | :---: | :---: | :---: |
| Cuacrd, paddle-wheel | İverpool, New York, Boatoc, | 8 | 12,1610 |
| "\% serew....s........................... |  |  | 4,500 |
|  | 8t. Johna and Portland.......... | 8 | 4,800 |
| Fioropean and Amgrican Steambhip Co. ..... | Iremen, Antwerp, Southampton, and New 1 | 4 | 10,000 |
|  | Bremen, Antwerp, Bouthampton, to Braxil. | 4 | 8.100 |
| London and Canada | Iondon and Moptreal. | 4 | 1,870 |
| Liverpool and Ca | Divorpool and quebec | 4 | 6.000 |
| Liverpool, Pbliadelphia, and Ne | Liverpoul and Now York | 4 | 8,700 |
| Clasgow and New York | Glasgow and Naw York | 8 | 6,200 |
| Helgian Trarsptludtio . . . . . . . . . . . . . . . . . . . . | Aatwerp and New York | 4 | 8,800 |
| Jlamhurg and Americ. | Antwerp und Brasll Ifaniburg and New y | 4 | 6,600 7800 |
| Hamburg and Brasilian ${ }^{\text {d }}$ | Hamburg and Hio de Janeiro | 2 | 4.50 |
| Genom and Brazilian.. | Geana and Rdo da Janelio | 4 | $8,00 J$ |
| Royal Mall Cow............................... $\{$ | Bonthampton, West Indies، Central America, and South America. | IS | 21,010 |
|  | Southampton, Pernambuco, ilio, Bahia, |  | 0,820 |
| fraelfio 8team Na | Panama to Valparaiso and latermediate. | 7 | 6,7t9 |
| Penineniar and Oriental Co | Portugal, Spaln, Malta, Alexandria, Kiast Ioclies, Chlna, sod Australe | 59 | 49,410 |
| Eurapean and Anatralian Royal | Southampton, Alexanciria, Suez, | 7 | $15,5 \mathrm{~mm}$ |
| Alsstraliaa Royal Mail Co.. | Transport and oth | 4 | 7, Sim |
| Rotterdam and Mediterranean. | Iotterdam, Leghorn, a | 4 | 1,181) |
| North of Europe Steam Nevigatlull | Africas.. | 4 | 3,269 |
| Selver's . . . . . . . . . . | LIvorpool and Meditorranem <br> Liverpool and Havta |  | 0,004 9,010 |
| Blbby's | Liverpool and Medite | 11 | 11.700 |
| Fowier |  |  | 7, (194) |
| Dizon't | " " ${ }^{\text {" }}$ | 4 | 3,800 |
| Liverpool and Anstralla | LJverpoal and Anstralia |  | 7,000 |
| Leadon and Austra! | London and Australl |  | 7,504 |
| Afrie | Loudoo, Liverpool, and Africa. | 5 | 6,000 |
| Linion Screw | Southampton and Cape of Cood | 8 | 1,509 |
| Luzo- 3 razilieira | Lisbon and lirazil | 4 | 8,040 |
| Alsatrian Lloyda | Very large Meditar: mean kervio |  | Luknown |
| Mesmageries Imperiules. | Mediterrauesm, Hiluck Hea, Levant | 54 |  |
| West Ifartiepout steain Navigation | Ilaricpool, Ilambarg, and 8t. Hete | 6 | " |
| Das: be Steam Navigation | Vienna, Galatz, and Conutantimoplo |  | " |
| Han, nitg and Spauish | Iiariburg, Sonthampton, and alt Ppanish por | 2 | 2.000 |
| East Indin Company | Sues and Indit, and the ifombay Mail linon. | 12 | $11.471^{\prime}$ |
| Spanlih and Cuban | Cerlion liavalta, and Mexico. |  | 9,000 |
| Companhla liraalleir | Ho de Janelro to the Areazon | 7 | $5: 311$ |
| Coilline Company | New York and Liverpoot |  | 3.7.i |
| Havre Steani Navigat | New York, Sonthampton, and llavro | - | 4:54* |
| Coruelius Vanderbitt | New York, Southampten, and Bremen | 3 | 6.8.3 |
| Coited Stater Nail steaniship ( | New Yurk, llavata, Anglawall, sud New |  | Stict |
| FMelfo Matl Steamshlp | Iranania, Californla, alld Eregon | 13 | 16,421 |
| New York and New Orleans | New York, Llarana, and New Orleans | $\stackrel{2}{1}$ | 3,198 |
| New Yerk and Alabama | New York, liavana, and Mohile | 1 | 1,300 |
| Cbarleaten and llavan | Cbarleaton, Key West, and Ila | 1 | 1,115 |
| Savannah 'iteamatulp | Now York and Saranuatz | 4 | 4.793 |
| New York and tharienton Steamship Co. | Now York and Charienton | 4 | 4,640 |
| New liork and Vinginia | Naw York, Norfolk, and Richmon | 2 | 2.371 |
| Philadelphiu aud savau | Phifadelphia nad Savanuah | 2 | 2 , (tin) |
| loston and Baitimore | Boston and Battimor | 2 | 1,600 |
| Tezaa steamahip ('0 | New trleans and tialveut | 4 | 2.46 |
| Southern Stuamehlp | New Orleana and Key We | 2 | 1.146 |
| Micrican steamatip Co. | Now Uricans, Tampiro, and Vera Cris. | 1 | (c) |

- thiliding anoticer stramer of 250 tons for the Brazill Ine.
$\dagger$ These vessels avenige abont $2 t 0$ berse-power each, Tineir tonnage ta large, probably 1200 tons each.

There are several other lines of ocean steamers in Luropo; lut it is almost inpossible to asecrtain any thing definite about them. The list above embraces all fo the most important companies of the world. The lines are continunlly changhg, while the vessels are fassing theto new bands almost every week,--See artiche Tonnage and the United States.

Bteel (Fr. Acier; Gerr. Stahl; It. Icciajo; Lat. Chatyhs; Lhus4, Stal; Spl. Acroo; Swel. Shall), is iren comhinod with a suall portion of earton, and has been for that reason called carbureted iron. The proportion of earbon has not been aseertained with much preciston. It is apposed to amount at an average to $1 \frac{1}{10}$ part. Stecl is mu bard as to be unmallouble while cald; or at leazt it nequires :hat property ly being immersed, whilu ignited, is a cold licpuil; for this immersion, though it has no effect nom iron, aldes greatIy to the buritucsen of steel. It is brittle, rebimas the lile, cuts glass, alforls sparks with that, and refains the magnetic virtue for any length of tiew. It loses this harduess by belng iguiteel, and cooled very alowly. H ia nalieable when ret hot, but scarcely ao when raised to a white hoat. It may be hammered out into much thinner phates than iron. It is more amorous; and ita specifle gravity when hammered ia greater than that of iron-varying from $\overline{7} \%$ to $7 \times \mathrm{M} .4$. Stect is usually divided into three eorth, acteriling to the method in
which it is prepared; as natural sted, steel of cementis. tion, and cast steel. The later is the most valuable of all. as its texture is tho mont compact, and it adnits of the fiucst polish. It is used for razors, surgeons' iostrumenta, and similar purposera. Steel iv chiefly employed la the manufacturn of swords, kuives, mid citting instrunemts of ull sorts used in the arts; for which it is peculiarly adapted by its hardness, and the dineness of the edgo which may be given to it. - See Inos.

Steelyard and Bteelyard Company. A wort nucient instrument, the sh ne that is crmatated hal. ance in the I'entateuch. The statera lomam, or lioman atexyard, is mentioned is sis n.c. The itect. yart Company was a compnay of Iomdon merchants who had the steelyarl assigneil to them hy Itury III. A.1, 12:12. They wore all flemings aml ciermane, and the only exporters, for many yeara after, of the staple commodities of Emgland.-llaym.
Steer, to keep the ship on a given direction. Thls is tone by moving the ruditer hy the tilier, which kat is moved from that side to which the ship's heal is required to be moved.
Bteerage, in apartment before tho great calin, from which it in sepuruted ly a partition or bulk-bead. In merchant shlpa it is gonerally the bubltation of the Inferior officera and crew; but lin ships of war it serves
only as a hall or ante-chamber to the great or captain's oabin.-Steerage ls also used to express the effort of the helm.- stennage-uay lmplles a sufticlent degree of motion communlcated to a shlp for her to become susceptiblo of tho eflects of tho helm in governing her course.
Etem, a circular piece of timber Into wheh tho two sides of a ship are uaited at the fore end; tho lower ead of it is soarfed to the keel, and the bowsprit rests upon its upper end; the ends of the walls and planks of the sides and bottom aro lot into a groove or channel cut in the middle of its aurface from top to bottom. Tho outside of the atem le usually marked with a scale of feet answering to a perpendicular from tho keel. The use of thls scale is to ascortain tho irraught of water.-From stem to atern, from one end of the ahlp to the other.
Steppe (from the Rnssian otep, a dese t; also a dry plain). The steppes of Russla, which are not unliko the landes of Guienno in France, and tho heaths of northern Germany, are in part ansceptible of cultlvation, and thoy afford pasturago for the numorous herds of the nomadio tribes. In the extonsive steppes of Astrakhan, between the Volga and tho Ural, the Calmues and the Nogay Tartara rovo wlth thelr cattle. They produce several sorts of flowers, herbs, and are frequented hy wild goats and hirds.

Sterling, an old pound weight of geographical signiticance, namod Eastorling, divided into twelve ounces, was in uas anong tho Anglo-Saxons eome centuriea before the Norman Conquest. Tho samo weight, called the Tower and tho Monoyers' pound, was atyled by enrly Fronch writers the lioman and the Roehello jound; also known among tho Germans as the Cologne pound. A simple aystem of exchange, by which $n$ pound of silver money, in tale, was made to equal a pound in grose weight. had been arranged by Charles the Great, in France, toward the end of the 8th century. In l3ritain, under the firat William of Normandy, an ordinanco declared "the weights and moasures throughout tho kingdom shall remain as our worthy predecessors have established." An act of IIenry tho Third, in 1266, explains the primitive initials of these ancient British, Gallic, and German standards, to all which one common derivation is imputed. "By cartsunt of the whole realm the measure of the kiug was made, that is to say, an English penny of silvor, called a aterling, round and without any cllpping, shall woigh thirty-t wo wheat corns, taken from the middle of the ear. And twenty penco of silver to make ono ounce; and twelve ounces of silver do mako ono pound; and cight pounda of silver do mako a gallon of wino; and eight gallons of wine do make a London busiel, which is the eighth part of a quarter." This genoral arrangement for noney weights and mensures was that of the Lastern nations, by which Europe had been overrun. The term "Easterling" of the Norman Frenclu was transmuted on the Euglish tongue, first to "Eastorling,"and finally to"Sterling." Anether pound weight, alao divided into twelve ounces, hal heen brought from Cairo, in liprept, to Troces of Chnmpagne, in France, during tho Crusades, Carried into England by forcign gel!anitlis, Lombard merchants, possibly from Venice, ahout tho year 1406 , it gradually supersoded the old Easterling weights, and found access Into tho British Mint by decision of llenry the Bighth. Queen Elizabeth ordered the onnce of silver in Eughand to he cut into slxty pennies, so that tho penny, forming the twentleth of an ounce, thencoforth beeme the sixtleth part. "rom the termlnation of Queen Elizubeth's reign, the colnage of Engllah sifver has generally retalued a purity of 920 thonsandths, ealled the "Sterling standnri,"-See Pounis and Penny. Seo also Bankers' Mfagazine, N. Y., 1856, '67.

CItettin, n eity of Prussia, on the loft hank of the Oher, about 36 milles from Its mouth, in lat. $68^{\circ} 23^{\prime} 20^{\prime \prime}$ N., loug. $14^{\circ} \mathbf{3 3}$ F. it is well built, strongly fortlitid,
ant had in $1846 \cdot$ a population of 42,000. Stettin is tho seat of an extenalve and growling cominerce; and is now, Indeed, the principal port of importation in Prussia. Sho owes this diatinetion mainly to her situatlon. The Oder, which flowe through the centre of the Prussian dominions, is navlgable as far as Ratllor, near the extreme southern beundary of Prussian Silesla; and fa united, by means of canals, with the Viatula, the Elbo, tho Spree, etc. Stettin is, consequently, tho principal emporium oi some very extonsive and flourishlng countries; and is not only the port of Frank-fort-on-the-Oder, Breslau, etc., but alao of Berlin. A rallwey from tho latter to Stettin has been completed. Honcs at tho proper seasons ita wharves aro crowded with lighters that bring down the produce of the different countries traversed by the river, and bring baek colonlal products, and other articlea of foreign growth and manufacture. Veasela of considerablo burden, or those drawing about seven or eight feet water, load and unload, by means of lighters, at the mouth of tho rlver, at Swincmunde, the outport of Stettin, on the cast coast of the isle of Usedom, in lat. $53^{\circ} 55^{\prime} \mathrm{N}$., long. $14^{\circ} 15^{\prime} 15^{\prime \prime}$ E. Formerly thero were not inoro then seven feet water over the bar adjacent to Swinemundo; but the harbor of tho latter has recently been so much improved, by tho constriction of piers and breakwaters, (lredging, ete., thnt it is now the best on ths Prussian coast, and adinits vessels drawing from 18 to 19 feet water. A light-honse his been erected at tho extremity of tho eastern pier. Stettlin is a free port; thint Is, a port into and from which all sorte of goorls may bo imported and re-exported free of duty. Gooda brought through the Sound and imported at Stettin, and entered for homo consumption in tho l'russian states, wero formerly charged with $2 \frac{1}{2}$ per cent. less duty than if they had been imported through any other channel. 'This was intended to reimburse the merchant for tho Sound duties, and to encourage importation by this direct ronte la preferenco to that carried on through IIamburf nad Emiden; but now that tho Sound dues aro abollshed there no longer exists the necessity for tho bounty. There is at Stettin a great wool fair in tho month of June each year.

The Intercourse with the United States is solely dependent on the regulations of tho Zoll-Verein. Thero are no poivlleges in fnvor of any nation which are denied to the United States, nor any restrictions imposed upon the commerce of any other natlons. The moneys, weights, and measures, etc., etc., in the ports of this consular district aro the same as established by the luw of tho mother country. Commission, 2 per cent. l'right-mo rates can be mamed for want of busiacss. lusurance dono in England or tho United States. 1lills at threo months. There are no direct oxchanges with the Unlted States.

Steward, in Naral affairs, is an officer in a ship of war, appointed by the purser to distribute the ditierent species of provisions to the odicers nad erew. The same officer is employed for steamships and all classes ot vessels tor similar purposes.

Stocirholm, the capital city of Sweden, situated at tho junction of the Lake Maelar with an inlet of the linttic, in lat. $59^{\circ} 90^{\prime} 31^{\prime \prime}$ N., long. $17^{\circ}$ bit E.; a wellhuilt, hamlsomo city. Populatlon in 1851, 93,070. Tho entrance to the harbor is intricate and dangerous, and should not be attempted without a pilot; but the larboritself la capacions and excellent, the largest vessels lying in safety close to the quays. Stockhohm jossesses from athird to a half of the foreign trade of Sweden; thut this is contined within comparutively narrow limits. The government lins long been aceustomed to endeavor to promote industry by exciudiug foreign products; latterly, however, this system has been considicrably relaxed, with great advantage to the trade of the country, ant io woll-being of the people. Iron, timber, ans deals form the great articles of export. Swedish tron is of very suparior quality, and is
rather extensively used in Great Britain; the Importa of it amounting in ordinary years to about 16,000 tona exclusive of 600 tona of ateel. In addition to the above leading articles, Stockholm exports pitch, tar, copper, etc. The timber la inferior to that from the southern ports of tiee Baltic. The Imports principally conalat of colonial products, cotion, dye-stuffa, zalt, liritiah manufactured goods, hidas, fish, wine, brandy, wool, fruit, etc. In seasona of acarcity corn ia imported, but It is generally an artlelo of export.

Pibotage.-Vessela hound for Stockholm take a pllot at the amall ialand of Oja. Lands-hort light-house is erected on the southorn extrenity of this laland, in lat. $58^{\circ} 44^{\prime} 30^{\prime \prime}$ N., long. $17^{\circ} 52^{\prime} 15^{\prime \prime} \mathrm{F}$. It is painted white, and is furnished with a llxed light, elevated 158 feet abovo the levcl of the sea, which may be seen under favorable circunatances five leagucs off. Tho algnal for a pilot is a flag at the fore top-mast head, or firing a gun.

The following table exhibits the commercial movements at the port of Stockholm during the year 1851, comparet with the two preceding years:

| leare | Vrzaala entereil | Tonalage. | $\begin{aligned} & \text { Yeseeln } \\ & \text { eleorod } \end{aligned}$ | Tonsage. | Total | Total Tonasga |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1849 | 663 | 70,728 | 791 |  | 1452 | 14, 0,848 |
| 16501 | 71: | 71,8122 | 783 | 77.478 | 1494 | 149,370 |
| 1851 | 851 | 94,213 | 005 | 105,236 | 1750 | 189,454 |

The following table shows the countrica from which the vessels comprised in the foregoing table for 1851 cleared, and to which they sailed:

|  | Countries. | No. of Vemele. | Tonnage. |
| :---: | :---: | :---: | :---: |
| Flnimnd |  | Bid | 44,525 |
| Great 1ri | Italn | 191 | 30,714 |
| Russia |  | 178 | 19,790 |
| Prussin |  | 106 | 12,129 |
| France. |  | 72 | 11,634 |
| l'ortugal |  | 59 | 10.712 |
| lenmark |  | 150 | 0,010 |
| Ниияо То | wna | 120 | 8.434 |
| Norway |  | 93 | 8,414 |
| 13razil |  | 21 | 6.500 |
| Calted St | tates. | 17 | 5,016 |

The following comparative table shows the valnes of imports and exports into and from the prort of Stockholm during ine yeara desiguatel:

| Years. | 1 | Experta. | a. |
| :---: | :---: | :---: | :---: |
| 1549. | ${ }_{21,578,400}$ | maca. <br> 17.142,.0mo | Fmice <br> $85,9210,000$ |
| 1850. | 20, 404,001) | 14,04, 00, | 84,616. 10 |
| 1551 | 23,809,001 | 1 $\ddagger, 014.000$ | 37,523,100 |

Valet ant Ifebebiption of Mefcicamiar imported into, and experted fhom, the loat de ditookholm in 1sit, imports.

| Artielea. | Prabes. |
| :---: | :---: |
| Cereals | 3,421,000 |
| Sugar | 3,481,100 |
| Cotie | 1,353,000 |
| Hish. | 7,363,000 |
| Winea nnd spirits | 1,173,209 |
| Tallow |  |
| jraw silk | 1,019.(004) |
| Tissuea | ..... 2,1+5,010 |
|  | EXPORT8. |
| 1ron aud steel. | . 10,480,000 |
| topper | 1,3:4,140 |
| Pitch and tar | 311,000 |
| Timber and lumber | 187,030 |

The folloving table exhlbits the cunntrles which participated lis the general connmercial movements of 1851, and the value of fmports and exports assifned to each:

| Yanylass. C'ountrias. | Imports. Prasm. | Eiperts. | Tutal. |
| :---: | :---: | :---: | :---: |
| Norway. | 1,607, 100) | 31,4*10 | 1.20, (AG) |
| Jenmark... .. | 8it6,004 | 1,838, (0)0 | 2,413,00k |
| Ituspla.... . . . . | 2,02:3, 14N\% | 248, 009 | 8,160,0mm |
| Finland | 1,0:17, 190 | 1,211,000 | 9,248,00\% |
| J'rusala | 2031, 600 | 9,374, (0) |  |
| Hanse Towna. . | 6,31m, $1 \times 4$ |  | 7,613,00.4 |
| Gireat liritaln.. | 2, $2600,16 \mathrm{ml}$ | 2,597,000 | 6, 15i, 000 |
| Netherlandr. |  | 2N1,0MW1 | \$ $\mathbf{1 7}^{\mathbf{7}, 1001}$ |
| France | 755, (0) | 747.001 | 1,8,32,6001 |
| Purtugal | 431,09: | 717, ¢Ню | 3,18N, 100 |
| Itrazil. | 4,0:6,9 M | 204,0009 | (1825,414) |
| t'nited Staies | Sure.000 | 1,301.090 | 1,605,000 |
| Enat Indiea .... | 1.411,101 | $\mathrm{g}(\mathrm{m}), 0 \times 10$ | 1,834 0.00 |

Beeldes the conatries included in tho preceding ta. be, Stockholm extenda lts commercial tradsactions to Spain, Italy, Austria, Malta and Gibraltar, Mocklenburg, Hanover, Oldenhurg, Belgiun, the Cape of Good Hope, and tho Antlllea.

It may be remarked that during this year tho general commerce of Swoden exhibited an advancing tendency. This was owing, in a great measare, to the liberal policy which characterized the commercial legis. lation of Eagland, dating from January 1, 1850-a policy the whalom of which could not be more appositely illustrated than by the fact that while the tolal trade of Sweden with all forcign nations during this year reachod as high as $65,000,000$ rix dalers, ${ }^{*}$ the trade with England alone covered 14,543,000 rix dalcrs, or niore than one-fourth of the whole.

In 1852 official returns show a slight falling of in the general trado of Stockholm. It will be seen from the annexed table, from Swedish officinl sources, that the entire trade, imports and exports united, represents in value $86,5039,027$, or about $\$ 487,070$ less than the total trade of 1851. This disuinution afficeted imports, especlally grains, fish, and brandica, to the extent of 1,523,494 francs, whilo coffeo and augar increased in value 838,816 francs; and in the export trade it was felt in the falling off the preceling year of $1,014,2 \pi 0$ franca, chiefly on iron, stecl, and copper, while the exportation of timber and pitch Increased over that of 1851. In 1852 a new article of commerco entered into the export trade of Sweden. The metal nickel tigures for the firat tlme in the returns for this year to the amount of 101,520 francs, or $\$ 18,88272$, chielly sent to the Ilanae Towne. Tho navigation of the pert of Stockholm during 1852 presented a total tomnage of 167,686 tons : viz., entered, 81,874 tons ; cleared, 85,812 tons. This is a falling off from $1 \times 01$ of 21,7 788 tons.

Erports.--It is mnnecessary to present a detailed atatement of exports, inssmuch as iron, sted, and cop. per constitute the articles of chief value exported from the port of Stockholin. Other exports consist juriacipally of timber (boarda), pitch, and tar. These amounted In value, in 1852 , to 8107,533 , to which is to be mideld for miscellanteus, not entmerated, $8230,04 \mathrm{~N}$. The total value of iron, stecl, and copper exported in 185 ? was: iron and steel, $\$ 1,747,515$; copper, 8327,213 . Value of iron and steel exported from Stockholm to the linitel statea in 1852 , $8 \times 10^{2}$. (ireat Eritain, the Il anse Towns, and Jenmark occupy tha first rankin the order in which they are given as exporters from Stoekholm. Prussia, Fiulant, l'ortugal, France, and the United States como next.

 Jmponts asid lixpoltg, akbigutively, dering the I bal 1453.

Denerflaion of Murchandim. Imporics.

| Lion of Marchandiso. | Sue it France. |
| :---: | :---: |
|  |  |
| Sugar | 2, 419 (\%H) |
| Corrala |  |
| F'inh | 1.144)(104) |
| Whes amd apirita | sis.0un |
| Tatlow | 1.151.(10) |
| Tisatres |  |
| Haw sllk | Stis, $\mathrm{CHO}_{0}$ |
|  |  |
| Iron and steel | 10, 412.0040 |
| Copprer | 1,siltime |
| Woud and lumb | 241 (14) |
| liteh and tar | 314, $(\mathrm{NM})$ |

During the year 1so3 there was a great scarcity of vessels to carry of the froight to foreign marhete. The unmber that cutcered the port of Stockhohm was ise, with an agrorgate of 76,226 tons; and the munber eleared was ! $22^{\prime \prime}$, with an aggregete of 81,916 tens. 'The total number entered anl cleare! was 1.516 vessels; afo gregate tunage, 158,142 tons. The nmmber of iessels wasgreater, but the tomage was lesa ly 9500 tons than in 18.2 .2.

Money.-Accounts are kept hero, in Gottenburg, and generally throughout Sweden, in paper inonsy, conslating of rix dollars banco, one rix dollar being equal to 48 skillings, and one skilling to 12 rundstycks. The exchange with London is at about 12 rix dollars banco per $\mathcal{E}$, so that the rix dollar is worth about $1 \mathrm{~s}, 8 \mathrm{~d}$. sterling. Rix dollars benco may be exchanged for apecie rix dollars at the rate of $2 f$ the formor for one of the latter. But there are very fow coins, except of copper, in circulation, the currency consisting almost wholly of notma varying from 5 skillings to 500 rix dollars banco.

Weights and Measures.-The victuali or commercial weights are punds, lippunds, and skippunds; 20 punds being equal to 1 lispund, and 20 lispunds $=1$ skippund. 100 Jbs. Swediais cutismercial weight $=937 \mathrm{lbs}$. avoirdupois $=42 \frac{4}{4}$ kilograins $=874 \mathrm{lbs}$, of II amburg.

The iron weights are three-fifths of the victuali, or commercinl weights; 20 marks $=1$ mark pund; 20 mark punds $=1$ mark skippund; and $7 \frac{1}{2}$ sklppunds $=1$ ton English. Ilence 100 punds Swedish iron weight $=75$ Jus. avoirdupois, and 100 lbs . avoirdupois $=133 \frac{1}{3} \mathrm{lbs}$, Swedish iron weight.

In corn measure, 4 quarts $=1$ apann; 2 spann $=1$ tun, or barrol; 1 tun $=1 \frac{1}{b}$ Winchester bushels; a last of rye from liga $=18$ tuns; a last of ryo from Liebau $=19 \frac{1}{2}$ tuns; a last of rye from Stctin $=22 \frac{1}{2}$ tuns; a last of ryo from Strals. wit $=24$ tuns. The tun of 32 kappor contains 46 Winchester bushels.

In liquid measure, 2 stup $=1$ kanna; 15 kannor $=1$ anker; 2 ankers $=1$ cimer; 2 cimers $=1 \mathrm{ahm} ; 1 \frac{1}{2}$ ahın $=1$ oxhoft; 2 oxhoft $=1$ pipe. The pipo $=124 \nmid$ English wine gallons; and, consequently, the ahm $=41 \frac{5}{12}$ Eaglish wine gallons, and 100 kannor $=69 \frac{1}{5}$ Einglish gallons.

The Swedish foot $=11 \cdot 68 \pm$ English inches; the ell, or alua, $=t$ feet ; the fathom $=3$ ells; the rod $=8$ ells.

In estimating by lasts, 1 last of pitch, ashes, etc., $=$ 12 barrels; 1 last of tar, oil, etc., $=13$ tharrels; 1 last of homp, flax, tallow, etc., $=6$ skippunds $; 1$ ton of Liverpool common salt $=7$ tons Swedish.

Port Charges at Stockholm.-The total port charges for a vessel of 500 tons ( 250 lasts) amount to about 827't, incleding all expenses, in and out. For an unprivilegeai vessel this amount is nearly doubled.

Fort Charges at Gothenburg-Tonnage, pilotage, and all other dues and port charges on a vessel of 800 tons, amount at this port to about $\$ 167$,-Com. Relat. U.S.

Stockings, as overy one knows, are coverings for the legs. They are formed of only one thread entwined, so as to form a species of tissue, extremely clastic, and readily ndapting itself to the figure of the part it is employed to cover. 'This tissue can not be called eloth, for it has neither warp nor woof, but it approaches elosely to it ; and for the purpose to which it is applied it is very superior. Silk stockings were first worn by IIenry II. of France, in 1517. In 1560 Queen Elizabeth was presented with $n$ pnir of black silk stockings by her silk-woman, Mrs, Montague, nnd she never wore cloth ones any more.-IIowsith." He adds, "Henry V1ll. wore ordinary cloth hose, oxcept there came from Spain by great chance a pair of silk stockings; for spuin vory early abounded with silk." Edward V1, was presented with a pair of Spanish silk stockings by his merchant, Sir 'thomas Gresham; and the present was then much taken notice of.-IFoweta, Others relato that Williain Rider, a Iondon npprentlec, sceing at the house of on Italian merchant $n$ pair of knit worsted stockings from Mantua, ingeniously macie a pair like them, which ho presented to the Earl of Jemsbroke, the first of the kind made in Fingland, in 150.1.
It is well known that the Romans and other ancient nations had no particular clothing for the legs. During the Middle Ages, however, hose or leggins, unde of eloth, began to be used; and at a later perlod the art of knitting stocilags was discovered. Unlacklly, nothing certain is known ns to the individual by whom, the placu where, or when thts invention was made.

It would appear from this circumstantial account that tho art of knitting stockings, or at least that the first specimens of knit stockings, had been introduced into England from Spain about the middle of the 16th century; and such aeems to have been the general opinion, till an allusion to the practice of knitting, in the pretended poems of Rowley. forged by Chatterton, made the aubject be more carefully investigated. The esult of this investlgation showed clearly that the practice of knitting was well known In England, and had been referred to in aets of Parliament a good many years previously to the period mentionell by Howell. But it had then, moat probably, bcen applied only to the manufacture of woolen atockings; and the general une of cloth hose shows that even these had not been numerous. There is no evidence to ahow whether the art is native to England or has been imported.-See Beckmann's Inventions, article Stockings.

It is singular that the stocking-frame, which, oven in its rudest form, is a very complex and ingenious machine, that could not have been discovered accidentally, but must have been the result of dec ${ }_{F}^{-}$comhination and profound aagacity, shovld have been disenvcred so carly as 1589-before, inf fact, the business of knitting was generally introduct, The inventor of this admirable machine was Mr. William Tee, of Woodborough, in Nottinghamshirc. He attempted to set up an establishment at Calverton, near Nottingham, for the manufacturo of stockings, but met with no success. In this situation he applied to the queen for assistance; but, instead of meeting with that remuneration to which his genius and inventions so well entitled him, he wae discouraged and discountenaneed! It need not, therefore, excite aurprise that Lee aeceptod the invits. tion of IIenry IV. of "ran ee, who, having heard of the inveation, promised him a magnificent reward if he would carry it to Frince. IIenry kept his word, and Lee introduced tho stocking-frame at Ronen with distinguished success; but after the assassination of the king, the concern got into difficulties, and Lee riod in poverty nt Paris. A knowledge of the machine was brought back from France to Rngland by some of the workmen who had emigrated with Lee, and who established themselves in Nottinghamshire, whish still continues to be the principal seat of the manifacture.-See Beckmanv's Inventiona, vol. iv.; and Letters on the L'tility aud Policy of Machines, London, 1780.
Iaports of liosiebt and Artioleg made on Frames into tiea Uniten Stateb fon the Year ending Junf 30, $185 \%$.

| Whenee Imported. | $\begin{aligned} & \text { Cotion } \\ & \text { llosiery. } \end{aligned}$ | Silk Hosiery. | Voolen Hosiery. |
| :---: | :---: | :---: | :---: |
| Ifanbur | \$864,091 | 428,024 | \$37,755 |
| Iremen . . . . . . . . | 1,637,384 | 64,580 | 190,169 |
| Emgland. . . . . . . . | 1,119,985 | 508,130 | 1,372,722 |
| France . . . . . . . . . | 50, 549 | 234,619 | 60,772 |
| Other places . . . . | 37,0ı3 | 13,640 | 64,411 |
| Total year 185\%. | \$4,210,287 | \$539,999 | \$1,740,829 |

-Sce articles Cotron, Sitк, and Wool.
Stock-jobber. It was about the ycar 1688 that the word atock-johtier was first heard in London. In the short space of four yeare a crowd of companies, every one of which held out ter subscribers the hope of immense gains, sprang into existerce; the Insurance Company, the Iaper Comprany, the Lute-string Compaty, the Pearl-flshery Compnay, the Glass-hottle Company, the Alum Company, tho Blythe Conl Company, the Sword-blade Company. There was a Tapestry Company, which would sorn furnish pretty hangings for all the parlor of the middlo class, and for all the bed-chamhers of the higher. There was a Copper Company, which proposed to explore the mines of England, and held out a hope that they would prove not less valuable than those of Potosl. There was a Diving Company, which undertook to bring up precions effecta from shipwrecked vessels, and which announced that it had Jnidl in a stock of wonderful machines resemlilins complete suits of armor. In front of the helmet was a huge glass eye like that of a cyelop; and
out of the crest went a pipe through which the air was to be admitted.

The procese waa exhibited on the Thamea. Fine gentlemen and fina ladies wara invited to the show, were hospitably regaled, and were dellghted by aeeing the divers in their panoply descend Inte the river and return Iaden with old iron and ships' tackie. There was a Greenland Fiahing Company, whlch could not fuil to drive the Dutch whalers and herring busses out of the Northern Ocean. There was a Thaning Company, which promised to furaish leather superior to the best that was brought from 'Turkey or Russia. There was a society which undertook the office of giving gentlemen a liberal education on iow terms, and which assumed the sounding name of the Royal Acedemles Company. In a pompuus advertisement it was announce. that the Directors of the Royal Academies Company had engaged the best masters in every branch of knowledge, and were bout to issue twenty thousand tickets at twenty alillings each.

There was to the a lottery; two thousand prizes were to be drawn; and the fortunate holders of the prize were to be taught, at the charge of the Comprany, Latin, Greek, IIebrew, French, Spanish, conle sections, trigonometry, heraldry, japanniis, fortlfication, brokkeeping, and the art of playing on the theoroho. Some of these companies took large mansions, and printed their advertiservents in gildel letters. Others, leas ostentatious, were content with ink, ned met at coffeehouses in the neighborhood of the lioyal Exchange. Ionathan's and Garraway's were in a constant furment with brokers, buyers, seilers, meetings of directors, meetings of proprietors. Time-bargains soon came into fashion. Extensive comblnations were formed, and monstrens fables were circulated, for the purpose of raising or depressing the price of shares.-Macautay.

Btocks. The public funding systom originated in Venice in the $12 t h$ centary, and was introduced into Florence in the year 1310. The English funding system may be said to have hat its rise in 1tio-'y.l. In the United States the term atocks includes I'nited States funded loans and State loans, and the stocks or shares in various corporations, such as railroal companies, banks, funded tebts of cities, etc.

In Engiand the term stocks is applied mainly to government funded delit-such as consois, llank of England stock, eto.; and the term shares is used when npflied to the capital or joint atock of railroad, banking, and mining companics.-. See artúle Fenos.

The difficulties in which individnais are involved ly th..ir real wants, but oftener hy their unruly passions, are the source of their dehts. The dehts of [European] nations bave not a dithrent origin. When the ordinary resources of a country were insutlicient to carry into effect the private views or impolitic wars of the despots who rujed, or the ministers who directed it, they situply resorted to the expedicut of bsrowing; but when the sums loaned were inadergate to the itscreased expenditure, they had recourse to all ourts of schetnes, decrphione, and contrierners, tho better to delude the lenders, and allure their avarice, Noch is the origin of the Jritish funting system. Among staters, delit may be connidered a nationai disense; and, like other diseases in our day, has made the tour of liurope, anli, ve may add, of many of the now nations of Ancrica.
O.ne set of Britial witess maintain that "deht and
 witho:" " 'tionat dint. The tomestic [i.e., the nutionaly dhas, says one of the highest authorithes (Cin.1!: :
\&



holders ; and thet by thirty milliens of expenditure being in the hands of the stockholders or dissipatore, consumption is highly stimulated." The extinction of the national debt o Great Brltain, in the opinlon of these oconomical writ:rs, would, of course, bring misfortune aad evll. "It would," saga Colquhoin, "be attended with greater it conveniences than at present are experienced."

Anether cless of British vriters, with more truth, with greater force of argument, and with more evidenca of facis, contend that "poverty, misery, and the national debt, are also synonymous and identical terms;" that "taxation incurred to pay its annual interest (swallowing up thirty millions out of sixty millions of revenue, to satisfy the fund-holders), oppresses the people, destroys Industry, and is equal to the curse of heaven on the agriculture, conmerce, and manufactvres of the nation." (McCulloel): "To maintain that this enormous taxation enriches the nation, because it abstracts a portion of ita riches, is both a plain contradiction and an absurdity; taxation being always an engine of destruction to all the productive elasses." "To attribute to the clebt the increase of business, inprovements, etc., during the late war, is an error of the mest miseraile kind. It is to be attributed net to the incresse of llebt, bat to the monopoly of commerec, to the discoveries of Arkwright and Watt, and to various other causes. The nation did not improve trecause of the debt, but in spite of it; as it gave birth to the nefarlous praetice of stoek-jobbing, begetting a spirit of prombling, destructive of public mornls, dispraceful to the na'ioa; and hostile to the pursuit of sober indus. try." "No wagcs, 110 part of the lands, belongs to the stoekhoiders or dissipators; nor was any apecilied property pledged for the greatest part of the debt contracted. The lenders had not at the time any projerty mortgaged to them: consequontly, they can not have nt present more specitied rights than they possessed when they loaned their money. To maintain the contrary is a dangerous and arbitrary assumption." "They aifvanced money when ita value way tepreciated on an average of fifiecn per cent. They never entertained the idea of receiving payuent at par, when the leans were contractel at exceodingly low prices." " ft would the hoth folly and injustice to compel the nation to pay one hundred ounces of gold to the fund-holders, when they loaned less than eighty." "It is equally unj ist to exempt this sort of property from the alteration in value to which every other kind of property in the kiugdom is suljeet : and, consequently, the reduction of the deht-thut miflstone which destroys the industry and vigor of the people, double taxes, and spreads pau. prism, crime, ath wretchedness thronghout the cumb-try-cten be eflected without any vioiation of the poblie faith." "The nation mist not suflir on account of the errors of jart $y$ or ministerial men. The happiness of twruty-four millions of British subjects ought not! 0 he postioned for the sake of an insigniticant portiontwo humired and eighty thousand stockholders."
blefore we enter more filly on the sebject, we have thus dravit a brief summary of the leathing arguments aud opinions of the contending parties for and agaims the exintence of the present IIritish mational deht. It is not dithealt to anticipute the American side of the urgument; but on the opposite side what ean we expect, where the infection of gambling is so strong that Jopre, who knew his countrymen well, dechared -
"Staterman and $p$ viriot ply alik a the stoche: fieresenat buther share alike the box:
 And zuithey tlokes pack carita for half a cr:wn."
In the lidh century, Richard 1. pawnel ile reve. mies of the crown for tho paymen of moneys horroupl to difray the experases of the fanatical compuret of the Holy liaml. Ilonry Jli, pawned the crown jemals and regal ormmenta and rotes of slate. Rdward 1 . borroned mency (o jay the debts of his fatioer, in ordet
to get his soul "out of purgatory," as the record atates. Rlchard II, was deposed for extorting $£ 1,100,000$ sterling, under pretext of borrowing, whinh was never repaid. This was one of the cinef causes of the York and Lancaster wars. In 1846, Edward IIF, ordered a sum of money to be Ient to him. Henry IV. obliged the rich men of the kingdom to lond him money upon the growing taxea. Menry VIII. escapod tho punishment he so justly merited for defrauding his creditors. He compelled Parliament to pass two acts, offering him "all the money he had received in loans;" thus discharging him of all obligationa he had come under, and all suits that might arise thereupon. In money matters in Elizabeth's time, the people insisted upon the payment of the sums advanced to her predecessers -a demand she was wise enough to comply with. Burleigh counseled her to lay the foundation of public credit. The conmonwealth cont racted a large debt : at Cromwell's death It amounted to $£ 2,474,290$. Charles, by closing the exchequer in 1672, defrauded the creditors of the state of the sum of $£ 2,800,000$; but an arraugement took place, by which the sum of $£ 664,226$ was left at an interest of $£ 19,027 \mathbf{1 8 s} .6 d$. This was the origin of the present national debt, and its whole amount before the English Revolution.

In former times, says a Britlsh writer, loans were generally contracted for short periods. It was, moreover, an established practice that the funds assigned for the repayment eliould be sufficient to pey the principal and interest, and that within a certain number of years. The British system, in practice, is quite the reverse. Their ministers are satisfied if they provide for the payment of the interest, without a thought on providing for the discharge of the principal ; or if they do, it is in conformity to the maxim of Linguet and T'erney, "to cancel the capital by a general bankruptcy, in order to briug the state home.". This maxim of Terney and Linguri was praetically adopted in France some centuries ago. Brisaon, in his history, enumerates five national bankruptcies; lut in the financial history of that country may be found a great many more. The new system originated in the republics of Venice and Genor; and being imported by Williain IFI., has been carried by the British to the highest perfection.

After the Irish Revolution, to supply deficiencies, Willhan had recourse to the long annuities which were created in 1692. $£ 881,493$ were ralsed on annuities of 99 years, learing interest at 10 par cent. until 1700 , and at 7 per cent. after that year, with benefit of survivorship for the lives of the nomituees of those who contributed. The short annuities began in 1698. Eight millions was borrowed by this expedient; every subsctiber receiving 14 per cent. for sixteen years, besides a lettery ticket. At this moment the acheme of the Bank of England was centrived by Patterson. The bank loaned Willianm $£ 1,200,000$, at 8 per cent. interest; thus at the very outset taking adpantage of the puble distress, and setting a usurious example to their successors, who, like true Shylocks, have ever since profited by tho example. Chancellor Montague about this period, to aid his sovereign, invented the scheme of issuing exchequer bills. Their issue has been at intervals ever since. The most exorbitant premiums were given for money, and the public debt was greatly increased. Publie credit sunk so low, that out of tive millions granted to carry on a war only two and a half, in Lavenant's opinion, over reached the exchequer. One of the censtituent parts of the funding system is the reluction of interest from the higher to the lower denemination. 'this expedlent, which has played so consjicuous a part In our tlay, was originally resorted to in 1699, when the higher interests were reduced to 6 per cent. It was the destiny of King William's relgn to create, lmprove, and to complote all the essential parts of the funding system as in practice at this day. William left a national debt at the close of his
reign of $£ 16,894, \% 02$. This aum formed the nuclens of the present national debt. (These facts are chlefly collected from British parliamentary history.)

The hlatory of the Stock Exohange a centory ago is its history at the present day. "The centre of jobbing," says a writer of that time, "ja the kingdom of 'Change Alley." The cnormous profits made by the association, the malpractices of the greater part of its members, and the insolence of the richer ones, excited the just alarm of a steady and reflecting nation unaccustomed to auch mancuvrea, and the public writers began to attack their increasing power. "The villainy of atock-jobbing is called a myatery or machine of trade," saya one of these writers. "This destructive hydra, thla new corporation of hell," exclaims another; while one of them gives directions, in order to beslege and bring to surrender "that infamous place, 'Change Alley," "to storm it," etc. Another writer declares that "the general cry against atock-jobbing has been so long, and it has been so justly complained of as a public nuisanice, that these people are hardened in crime; all their art is a mere system of cheat and delusion; their characters are as dirty as their employ. ments; ond the best thing that can be said of them is, that there happen to be two henest men among them." "Their omployment becomes a crime. Thls sat of men are more dangerous than all national enemies abroad." "Exchango Alley is, in fact, as dangereus to the public safety as a magazine of gunpowder to a populous city."

However, all these invectives did not obstruct the progress of the establishment; on the contrary, it became more powerful, and increased in proportion us the government was more extravagant and careless of the public money. It became, in short, an indispensable engine of the government itgelf; but the fatter was compelled, by public opinion against the detested operations of tho Exchange, and in order to keep up appearances, to pass several acts against the very operations and the very gambling it was so deeply, though secretly , fomenting. Avarice, idleness, and the hope of becoming rich in a short time without industry, eluded and evaded all the lawe of British wisdom, and sometimes disregarded even the common law of the land. By a variety of measures has the power of this corporation reached ita present height. Its members have not only become the exclusive masters of the British money market, but have acquired the immenss power of secretly controlling and regulating the funds and money market of all Kurope, and, we may add, all America. No financisl operation whatever can be safely undertaken in any ot those markets without consulting and oltaining the approbation of the Committee of the Stock Exchange. The agents of the Bank of Englant have surpassed their principals. A mere decision of a committee, composed of individuals unknown beyond their own immediate circle, is more powerftu, and will produce moro effect in regard to ony loan or financial measure than all the laws of the sovereigns of Europes put together. Hewever, the inapertance of the Stecis Exchange has somewhat declined since the failure of its gigantic operations on thls side of the Atlantic; and since the immense lesses sustained by the British puillis on that occasion, it has been loss attended; the number of its members being reluced at one time as low as 400 .

Funding System.-The first operation of the funding system, aiter the peace of 1815 , in censequence of the rise of public securities, was to reduce the interest on exchequer billa (1817) from $5 \neq$ to 81 per cent.; and while only three millions wete added to the debt. above twenty-three millions were canceled. The interest of a portion of the public funda was transferred froni a lower to a higher denomination; the? $\boldsymbol{y}^{\circ} \circ$ cent. stock was converted into $3 \frac{1}{2}$ per cent., thereb ith sting a reduction of the debt, by induciug the hold +3 of the former stock to buy in the latter at a higher price. Thus the small sum of $£ 3000$ whs created, while more
than nineteen millions of the national debt were redeemed in 1818. The noxt measure was tha reduction of the five per cents Into fonrs. The bank at that time had thirteen millions in their vanlts; and they increased the circulation by throwlng a large amount of paper into market, and by loweriag the rate of intorest from 5 to 4 per cent. By the union of govcrmment and banklig powers, the enormous sum of $£ 140,250,828$ of 5 per cents was readily converted into $£ 147,263,328$ of 4 per cents, at an annual saving of in terest of $£ 1,222,000$ at a small Increase of capital only, In 1824, 1 per centa to the amount of $£ 76,806,882$ were changed into an equal amount of atock bearing an intorest of 31 per cent. This operation, besidea effoeting an annual saving of $£ 381,034$, had the advantage of naking no addition to the capital of the debt. In $1827, \pm 8,500,000$ of deht wers creatod, while $£ 2,866,528$ were redeemed. In 1828 the sinking fund was destroyed. On the IIth of July, It was enacted that for the future "the amount of the siaking fand be the actual surplus of the revenue over the expenditures." (Came into operation 5th July, 1829.) At that time thera were no surpluses, bat a large defielency of revenue.
But although ono of the three elements of the funding system was thns lost, the antion of that system was not en that account discontin. ied. A prospective operation was contrived in May, 1,30, to transfer Into 3 per cents the fours created at the reduction of the lives in 1822. One of the condill ns was, that the new stock should not be subject to re lemption at any time before January 5,1849 ; and at option was offered to the holders to receive fio of tie new fives, or £100 uf the 3t per cents, for evory $£ 10{ }^{1}$ of 4 per cent annuities. This operation was called pospeetive, bocause the advantage of the plan is, that when the stipuluted term shall have expire." as muth relicf may be ubtained by t'is nation fro"r sy paynient of fio employed in canceling 5 per cents as by tho payment of $£ 100$ when applied to the discharge of 34 per centa, both being redcemable at par: annual eaving u: this step, $\mathbf{£ 7 0 0 , 0 0 0 . ~ I n ~ 1 8 2 9 , ~} £ 4,100,000$ were ereated, and $£ 6,000,000$ reduced; $£ 154,000,000$ were created in $18: 30$, and $£ 168,000,000$ reduced ; but what was the result? The committee of $18: 8$ state, that "in a few years [ sys the 4th report] which preceded the virtual abandonment of the system, ona handred and twenty millions had been added to tha capital of the national debt, while the purehases of the commissioners had fallen so far short of that sum that the unredeemed capital of tho unfunded delit was greater at the eommencement of 1823 than it had leen in $1 \times 18$, hy the sum of twenty-five millions." In 1 א19 twelvemillions, and in 1820 thirteen millions, were unwarrantably taken from the sinking fund. The netual reduction during the peace is, according to the Finance Committeo, who leclare "that the total reduetion effected from 1816 to 1828 in the national debt was ondy three millions and a hulf."

The writer from whom we have abridget the preceding facts concludes: "It appears that this enormons delth (which he states at eight hundred and sixty. four millions) has been chietly raised by means of the Bank and the Stock Exchange, aided by the delurion of the siaking fuid; and that it has been principally expemded in wars, most of them undertaken against the trua interests of the nation, whuse topographical situation reuders her independent of continental broils and fuarrels. Its amount has been immensely increased in time of war, while the reductions effected in time of peace have heen exceedingly limited. In the irst prrionl, of twelve years peace, ten millions wero redaced; in the second, which lasted ten years, only four and a half tillions; and in the last and longest, near thirty years, the mount of reduction has been so witling that it seemes almost incredible. When we cunsider :' vety inoonsiderablo reduction aflected
during ao long an lnterval of peace, the most alarming forebodings arise for the future. Tha Fritls i Leglslature, the economists, and the reflectlng men so numer. ous in England, have in this subject an anbounded field for the moat serious refloctlon." Thes wars were conducted through the ageney of paper money and the funding systom. Pope hais very happlly hit the expediente of the British minlatry in the following lines:
"Bleas'd paper eredit! last and beat supply, That lende corruption lighter wings to fly; Gold Imp'd by thee can compass 'Jardest thingen Can pocket atates-can fatch or siarry kinge; A sinule leay shall waft an anmy cio',
Or shlp off senstea to somo ditant shore."
-Compiled from IIamilton, Bailey, Pebrer, Parliamentary authorities, and on the authority of manuscript tables obtained from the office of the British Controller in London.

Stoppage in Transitu is the seizure by the seller of goods sold on credit, during the course of their passage (transitus) to the buj. . This princtiple is sald to have been establishrd about 1690 in the Court of Chsncery (2 Vern, 203); and it has since been acknowl. edged in the courts of common iaw. The transitus is deflned to be the passage of tho goods to tho place agreed upon by the buyer and seller, or the place at whieh they aro to come into the possession of the buyer. i'his definition does not mean that the term trausitus implies continual motion; goods aro in transitu while they are at rest, if they are still on tha road to the place to which thay have been sent. This doetrino of stoppage in transitu entities a seller, in case of the insolveney or bankruptey of the buyer, to stop the goods ictoro hey come into the buyer's possession. The right of stoppage in transitu is not contined to cases of buying and selling. A factor either at home or abread, if he consigns goods to his principal by the order of the principal, and has got the goods in his own wame or on his own credit, has the same right of stoppage in transitu as if he were the seller of the goods. Questions of stoppgge in transitu somatimes involve difticult points of law. The right of stoppage implies that the roods are in the possession of the seller or facter when he exercises this right. Accordingly, the law of stoppage involves the law of possession of movable thiags. -Bons's C'yclopedia; Ahnotr on Shippiny; Cuoss on Lien aml Stoppage in Transitus; Sminn's Leating Coses; JUusselle's T'reatise on the Laus relating to Factors and Brokers.

If the buyer has in good fuith and for value sold the gools, and indorsed and delivered the bill of lading, this second purchaser holds the goods free from the first seller's right to stop them. Ilut if the goods and bill ara transferred only as a security for a delt due from the first purchaser to the transferee, the ariginal seller may stop the gooils, and hold shem subject to his security, and need pay only the specific advances made on their credst or on that very bill of lading, and not a general indebtedness of the first purelaser to the seconui. The question has been much agitated whether the right of stoppage in transitu was a right to tescind the sale fur non-payment, or only an exten.sur of the common-law lien ot the buyer on tho thing stid fier his price. And it seems now quite well setiled, both in England and in this country, that it is the latter; that is, an extension of the llen. Important cousequences might flow from this cistinction. If the seller, by stopping the goods in transitu, reseinds the sale, he has no further claim for the price, nor any part of it; nor can the buyor, or any one representing him, pay the price and recover the gools against the will of the seller. If, however, he only exercises his right of lien, he holds the goode as the property of tho buyer; and they may be redeened by hinn or his representatives by isying the price for which they are a escurity ; and if not redecued, they become absolutely the seller's, in the sanse way as a juledge might lecomo his; and if he fails
to obtain from them the full price due, he has a claim for the balance upon tha buyer. All of this ia not positiveiy determined by adjudication, but it would acem to be deduciblu from the priveiple that the act of atoppage in transita la oniy the exerciae of a lien on the goods for their price.-PARsons's Mercantile Law, p. 63; see also Kenr's Comm., voi. ii.

Storax. See Balsam,
Stores, Military and Naval, laclude arms, ammunition, ete.-See Naval Stores.

Btores, in Commercial navigation, the onpplies of different articles provided for the aubsiatence and accommodation of the ahip's crew and passengera.

Stranding, In Navigation, the running of a ohip on shore, or on the beach.
It is important to define accurately what shall be deemed a stranding. But this la no easy matter; and much diversity of opinion has been entertained with respect to it. It wauid, however, appear that merely striking aguinat a rock, bank, or shore, is net a atranding; and that, to constitute it, the ship mrat be upon the rock, ete., for some time (how long?). Mr. Justice Park has the following observations on this aubject : "It is not every tauching or striking upon a fixed body in the sea or river that will constitute a stranding Thus Lord Elienborough heid that, in order to eatabiish a stranding, the ship must be stationary; for that mercly atriking on a rock, and remaining there a short tine (as in the case then at the bar, about a minute and a half), and then passing on, though the vessel may have received some injury, is not a stranding. Lord Eijenborough's langusge is important. Ex vi termini stranding means lying on the shore, or aomething analogons to that. To use a vulgar phrase, which has been applied to this subject, if it be touch and go with the ship, tbere is ne stranding. It can not be enough that the ship lie for a few moments on her beain ends. Every striking must necessarily produce a retardation of the shipis motion. If by the force of tine clements sha is ran aground, and beeomes stationary, it is immuterial whether this be on piles, on the muddy bank of a river, or on rocks on the seashore; but a mere striking will not do, whevever that may happen. I can not look to the consequences without considering the causa causans. Thero has been $n$ curiosity in the cases about stranding net ereditable to the law. A little cominoo sense may dispose of them more satisfactorily."

This is the clearest and most satisfactory statement we have met with on this subject; still, however, it is very vague. Lord Ellenborough and Mr. Juatice Park hold thas, to constitute a stranding, the ship must be stationary; but they also held that if she merely remain upon a rock, etc., for a short time, ahe is net to be considered as having been station:ory. Hence every thing turns upen what shail be considered as $n$ short time. And we can not help thinking that it wenld be better, in order to put to rest ail doubts upon the subject, to decide either that every atriking againat a roek, the shore, etc., by which damage is done to the ship, should te considered a stranding ; or that no atriking against a reek, ete., should he considered as such, provided the ship be got off within a sprcified time. Perhaps a tide would be the most proper period that could be tixed. The English insurance companies exclude the words, "or the ship be stranded," from the memo-randum.-See Insuliance [Mabine], Anandonment, and Avepage.

If the sinip be voluntarily stranded, to escape danger from tempest or chase of an enemy, the damages from that act are to be borne by a general average, if the ahip be afterward rocovered and perform her voyage. But if the ship be whoily lost or destroyod by the act of running iber ashors, it ins been a question much discussed, and different opinions maintained, whether the eargo saved war. bound to contribute to bear the loss of the ship. In the United States the general
conclasion seema to be that the lasa la not to be horne by general average of eargo; while the decislens in Europe go to eatabilah the opposite.-Kent's Comm., vol. iii. p. 306. It is understood that the mere atranding. a ship is not of itself to be deemed a total loss, yet it may be attended with circumataneea that will juatify an abandonment, even though the hull of the olip should not be materialiy damaged; if, for inatance, the coat of removal wauid exceed the worth of the ship.See Kesit's Comm., vol. lii. p. 402.
Eturgeon Fishery. The sturgeen is a large, vaiuable, and weil-known fiah, of which there are several species: viz., the atorgeon, properiy so called, or Accipenser sturo; the beluga, or Accipenser huso; the sevruga, or Accipenser stellatus, etc. The sturgeon is pientiful in the North American rivers, and on the southern shores of the Baitic; and is met with in the Mediterranean, etc. But it is found in the greatest abundance on the northern shores of the Caepinn. and in the rivers Woiga and Urai; and there ita fishery empioys a great number of hands, and is an important object of national industry. Owing to the length and strictness of the Lents in the Greek Church, the consumption of fish in Russia is immense; and from its central prosition, and the facilitica afiorded for their conveyance by the Wolga, the producta of the Caspian fisisery, and thase of ita tributary atreams, are easily diatributed over a vast extent of country. Beaides the pickled carcasaes of the fish, caviar is prepared from the roes; and isingiass, of the best quality, from the sounds. Tha cavisr made by the Ural Cossacks is reckoned superior to any other; and toth it and isingiass are exported in considerable quantities. The beiugas are sometimes of a very large size, weighing from 1000 to $15(0 \mathrm{ibs}$, and yield a good deal of oil. The seal-fishery is aiso pretty exter ${ }^{\circ}$. p'v prosecuted in the Caspian. The reader will vicl sotsiled account of the mode in which the fisi Fy: anied on in the Caspian, and in the rivers W0a_: i Ural, in Tooke's Russia.-See Fisilenies.

Sub-treasury. 'The sub-treasnry aystem is one pecuilar to the general government of the United States; whereby the separate and safo-keeping of the public funds is intrusted to special afficers appointed for this purpoes. From the year 1789 to the year 184t the public funds were entrusted as deposits in numerous banking instituticns throughout the Union. The failures of many of these during the years 1837-1842 led to the estabiighment, on the 6th Auguat, 1846, of the Independent Treasury, or Sub-treasury. By this law of Congress, the "rooms prepared and provided in the new treasury building at the seat of government (Washington), for the use of the Treasurer of the United States, his asaistants and clerks, and oecupied by them, and also the fire-proof vauits and safes erected in said rooms for the keeping of the public moneys in the pessession and under the immeuiate control of said treas urer, and such other apartments as are providec for in this act as piacce of deposit of the public mones, are hereby constituted and deciared to be the Treasurv of the United States." The aub-treasuries for the resepfion of the public funds are at Hoston, New York, Philadeiphia, and other cities; generally in the buifdings naed and known as the cnatom-louses. The assistant treasurers receive the following salaries: Boston, $\$ 2500$; New York, $\$ 4000$; Philadelphia, Charicston, New Orlesns, St. Louis, $\$ 2500$ each. After the 1st January, 1847, all duties, taxes, sales of public lands, poatage, and all other revenue, were made payable in gold or silver coin only; and all disbursements by or for acceunt of the Treasury were by law made payable in the same medium.

## Suocory. See Chicony.

Suez Canal. If we compare the mean distance: between the ports of Europe and India, by the Caje of Good Hopo on the one hand, ani by the intended cliannel between the two seas on the other, we ainali find an
onormous difference in favor of this latter ronte. This dlfferenco whil be still greater if we remember that a straight line on the chart of navigation is far from being the shortest diatance from one port to another, and the scaman can orly reach the point for which he is steering h y followiog a certain number of atuccensiva courses, approaching as near as posalble thee are of a great circle. Thus, far from making dizectly for the Cape of Good lfope, vessela leaving Europe or the Atlantic ports of North America, en routa for India, must steer for the Cannries or Azorea, In order to find the trade-winds of the northern hemiephere, to make the coast of Brazil, and sight Cape Frlo, or put into harbor at lio danciro. This is generaliy the route for the Cape of Good Hope, more Justly, perhaps, called the Cape of Storma. They then cross the Aguibas Baoh, reach Hourbon or Mauritus, and front thence eteer for India, following the routes aliowerl by the monscons. Vessels in the Nediterrancan again have to contend with still greater disadvantages. It often tabes them fiftsen days to reach the Straits of Glbraltar, westorly Winda generally prevailing in this quarter, where we also find a rapid tlow of the ocean waters inte the Medlterranean. Thus the voyage to India takes at least Hve months, or five monthe and a half, the voyuges home being rather more direct, without being sensibly shorter. Ships then run nearer to tho Afrlean shere, by reason of the trade-winds of the aonthern hemisphere; the place of call In this case being St. tlelena.

If we now examine the faciities for navigation in the three seas near the Canal of Suez, namely, the Mediterrancan, the Red Sea, and the tiulf of Oman, wo find:

Trat in tha Mediterranean the winds blow from the not th during the greater part of the year, change southeast in the spring, and return to the north, passing by

- weat and northwest.

That nearly the same takea place in the Ined Sea, where the north, which is the prevailing wind, heaps the waters in the direction of Bairelmandel, so that during a calon we observe a current setting northwari, evidently arising from the elevated waters in the south endeavoring to recover their level. Southerly winds generally succeed a altn.

Tha Gulf of Oma' . as two monsoons-tie nort heast monsoon, which gen. $r$ ! ly continues during the winter, and southwest monst $r_{5}$, which lasts during the summer, and is frenuently atormy. The change from one monsoon to the other is there, as elsewhere, accompanied by a series of storms and gales.

The considerable reduction of the tistance of linropean ports from those of India would not be the only advantage to trade from adopting the canal between the two seas; for not oniy would vessels reach their point of destination much aooner, but thoy would find places of anchorage throughout the entire route, and aiso, what is of more importance atill, they would meet with good markets. Tho navigator, after having followed tho unual easy routes of tho Mediterranean, would dispose of part of his cargo in the Canal of Suez, or at Djedita, would purchase ivery at Massarva, Souaken, or Derleera, which he would exchange in India for opium to take to China in exchange for ailk and tea. lie would complete his home eargo in colontal merchandise from Manilla, the Isles of Sunda and Ceylon: in cotton of India and Fgypt: in coffee of Abyssinia or Yemen; the gum of Soudon or Hedjaz; the corn of Lower Egypit, or rice of Damietta; and these numerous operutions, which now require yearn, would be accomplished rapilly and without danger with small capital aod small vessels. In short, by reducing the time necessary for the operationa of commerce, we reduce the general expense.

All aations would take advantage of tha Importance of the trade with India, China, and the istander of the ocean. Trade with the Hed Dea, aithough less consid. erable, deserves attention; but as there is scarcely
any earried on at present, it is very little known, and could only acpuire importance liy tho opening of a canal between the two seas. Tha Red Sea, which is so near to us in a atraight line, becomea far distant when we have to double the Cajo, liabelinandel is as far from us as I'ondicierry, and Souaken as far as Ba. tavia; Sucz, farther atlil, by this route becomes as near as licyrout by the canal; In ahort, the two routes, measured from the Straits of Gibraltar to Sounken, are in the propertien of one to five.

Very fow Ehropean vessels are now met with in the Rec. Sea. Every year we see a few belonging to the Parsecs of Bombay, and manned by lascars. The insternal srade of thla aca is now enrried on by Arabian barks, called dows, or boutres, constructed at ssuez, Djedilo, Kossair, Sonaken, or Morhn, with wood fron, India to Singapere. Theso vessels are of a very small tonnage, are very sharp, and have a handsome sheer; a heavy poop, which hloders thelr working, and lowers it at the stern; they carry one mast, rigging a square sail; this sall sull yard are struck to tho foot when they iay to; about thirty men are required to hoist it agaln, and this operation ean not be petformed in less Lhan half an hour. The tackinge of these ships is as ditlicult as it is dengerous. The dows only sait in the daytime; rluey get ander way about seven o'cloch in the morning, anil till about four in sight of the coast, then anchor 'y a grappling-iron, or run aground on the sand.-Ion!on Savtical Magazine. See also Southern Quarterly Rerifw, ix. 67.

Messis. Conrad, A. Renaut, Megrilli J. M'Leean, and Lieusson, the members of the interational commissiou for cutting a canal through the Isthmus of Sucz, have terminated their Investlgations In Egypt, and given in to the viceroy a irief preliminary report. They found insuperable ohstacles to directing the caral on Alexandria, and unespected facilitles for eatallishing a port in the diulf of l'elusiun. They are therefore minaimously of opinio:s that a direet canal from Suez toward the Gulf of Pulusinm is the only polution of the problem of the junction of the Rul Su'a and the Mediterranesm. "The exccution thercof is ensy, the success certnin, the resulte lmmense for the commerce of the world." The expense of the canni and of the works connected with it will not, it is added, exterd $200,009,000$ francs.

Sugar (Fr. Sucre ; (ier, Zucker; In. Zucchero; Russ. Sachar; Sp. Azucar; Aralb. Sukhir; Molay, Sola; Sans. Sorkorid), a $\quad$ weet granulated substance, ton well known to require any particular descripticn. It is every whore in oxtensive use, and in this country ranks rather amoat; the Indispensabls necessaries of life than among lifxuries. In point of commercial importance, it is acond to very few articies. It is chietiy prepared from the expressed juice of the A iwndo sacchavifere, or augar-cane; but it sa also procured from an immenso variety of other planta, as mapic, beet-root, hireh, paranep, etc.

Speries of Sugar.-The sugar met with in commerce is usually of four sorta; lirown, or muscovado suggr; clayed sugar ; refinet, or loaf sugar ; and sugar-candy. The dilf-rence between one sort of sugar acd nother depends altogether on the different modes in which they are jrepared.

Brourn, or Muscorado Sugar.-The plants or canes being crusbed in a mill, the joice, having passed through a strainer, is collected in the clarifier, where it is tirst oxposed to the action of a gentio fire, after bcing"tempered" (mixed with alkall), for the purpose of facilitating the aeparation of the liquor from its impurities. It is then conveyed into the large evaporating copper, and successively into two others, cach of smaller size: the superintending boiler frecing it during the process from the scum and fecolent matters which rise to the surface. The sirup then reaches the last copper ves. sel, called the "atriklag tache," where it is loijed till sulficiently concentrated to be capable of granulating in the coolor, whence it is transferred witl: the least
possible delay, to prevent charring. Elere it soon reases to ho 4 liquid; sund when fully crystallized, is put into hogsheadn (called "potting"), placed on their cuds in the caring-house, whth scveral apertures in their bottoms, through which the molasses drain into $:$ alstern belew. In this state they remain till properly cured, when the casks are tilied up and prepared for shipment.

Clayed sugar is prepared by taking the julce, as in tite case of muscovado sugar, when bolled to a proper censistency, and pouring it into conical pots with the apex downward. These pota have a hole at the lower extremity, through which the molasses and sirup are allowed to drain. After this drain has continued for some time, a ritratum of molstened clay is spread over the surfaco of the pets; the moisture of which, percolating through the mass, is \{ound to contribute powerfully to its purlfication.
llefined sngar may bo prepared from muscovado or clayed sugar by redissolving tho sugar in vater, and, after boiling it with sone purifylng substances, pouriug it, as before, into conleal pots, whleh aro agala covered with moistened clay. A repetition of this precess produces duuble refined sugar. But a variety of improved processes are now resorted to.

Suyar-candy.-Solutions of brown or clayed augar, beited until they becomo thick, and then removed inte a hot room, form, upon sticks or atrings put into the veskels for that purpose, into crystals or candy.

Mistorical Notice.-The history of augar is involved in a good deal of obscurity. It wrs very lmperfectly known by the Greeke and Rowasa. Theophrastus, who Jived about 320 years before ithe Chrlatian era, the first writer whose works have como down to us by whum it is mentioned, ealls it a sort of "honey extracted from canes or reeds." Strabo states, on tho autherity of Nearchas, Alexander's admiral, that "rueds in India yield honey without bees." Ant Sonoca, who was put to death A.c. G5, alludes to sugar in a way which shows how little was then known respecting it (Epist. 84): Aiunt, says he, inveniri apud fulos mel in arundinuint foliis, quol aut ros illius call, aut ipsius arundinis humor dulcis et pinyuior gignat. Of the ancients, Dioscorides and Pliny have given the most precise description of augar. The former says, it is " $a$ sort of concreted honey, found upon canes, in India and Arabia Felix; it is in consistenco like aalt, and is, like it, brittle between the teeth." And Pliny describes it as "honey collected froin canos, like a gum, white and brittle between the teeth; the largest is of the size of a hazel-nut: it is used in medieine only."-Saccharum at Arabia fert, sed laudatius Indin; est autem mel in arundinibus collectum, gummium modo candidum, dentibus fragile, amplissimum nucis avellane magnitudine, ad medicinas iantum usum.-hib. xii. c. 8. It is evident, from these statements, that the knowledge of the Greeks and Romans with respect to the mode of obtaining sugar was singularly imperfect. They appear to have theught that it was found adhering to the cane, or that it issued from it in the state of juice, and then concreted like gum. Itadeed, Lucan exprossly alludea to Indians near the Ganges-

Quique bibunt tenera dulces ab arundine succos. -Líb. III. t. 237.
But these statements are evidently without foundation. Sugar can not be ebtained tron the cane without the aid of art. It is never found native. Instead of flowing from the plant, it must be forcibly expressed, and then subjected to as variety of processes. It is not, lowever, quite se elear, as has been generally supposed, that the Remans were wholly unacquainted with the mode of procuring sugar. The remarkable line of Statius,

E't quas percoquit Ebusia cannas-Sylv. ILb. 1. v. 15,
has been conjoctured, apparently on geod grounds, to refer to the bolling of tho juice of the cane. But the pas-
sage has been differently read, and is too enigmatical to be mueh cieponded on. Dr. Moseley conjectures, epparently with much probablity, that the sugar described hy Pliny and Dioscorides, as being macte uso of at Jiome, wan engar-candy obtained from China. Th's, indeed, is the only sort of sugar to which thelr deact iption will at all apply. And it would seem that the modus of preparing sugar-candy $h^{\circ}$ j been undersiood and practleed in China from a very remote antiquity; and that large quantities of it have been in all ages exported to India, whence, it is most probable, smali quantitles found their way to Rome.-Treatiss on Sugar. This, ne well as Dr. Moseley's Treatise on Coffes, is a very learned and able work. Europe seems to be indebted to the Saracens not only for the first conslderable supplies of sugar, but for the carlicst example of its manufucture. Having, in the course of the 9 th sentury, conquered Khodes, Cyprus, Slcjly, and Crete, shey introduced into them the sugar-cane, with the cultivation and preparatlon of which they were familiar. It is mentioned by the Venetian historians that their countrymen imported, in the 12th century, sugar from Slelly at a cheaper rate than they could import it from Egypt.- Essai de I'IIstoire du Cummerce de Venise, p. 100. The crusades tended to apread $n$ taste for sugar throughout the Western World; but these can bo no doubt thit it was cultivated, as now stated, in modern Europo anteceilently to the era of tic crusades; and that it was also proviously Importel by the Venctians, Amalphitans, and othera, who carried on a comnereial intercourso from a very remote epoch with Alexandria and other cities in the Levant. It was certainly imported into Venice in 996.

The art of refining sugar, and making what is called loaf-sugar, is said by Dr. Moseley to be a modern European invention, the discovery of a Venctian about the end of the 15 th, or the beginning of the 16 th cen-tury.-Moseley, p. 66. But. this is doubtful, for le Grand D'Ausay lins shown that white, or, as he call 3 it, refined sugar (sucre blancou raffine), had been intreduced into and used in France for more than a century and a half previously to the date nssigned for the discovery of the process of refining in Venlec. But white sugar is not necessarily, as la Grand D'Aussy seems to suppose, refined: it may be merely clayed, likē-Iavana sugar, which is as white as refined sugar. Loaf or lump sugar is unknown in tho East, sugar-candy being the only species of refined augar that is made use of in India, China, etc. The manufacture of sugar-candy is carrled on in Ilindostan, but the process is extremely rude and imperfect. In China, however, it is manufacturod in a very superior manner, and large quantities are exported. When of the beat descriptlon, it is in large white crystals, and is a very beautiful article. Two acrts of sugar-candy are met with at Canton, viz., Clinchow and Canton; the former being the produce of the province of Fokien, and the lntter, as its name implies, of that of Canton. The Chinchew is by far the best, and is abent 50 per cent. dearer than the other. Chineso sugar-candy is extensively consumed by Europeans at the ditferent actilemente throughout the East. The exports of sugar-candy from Canton in 1846 for Britieh India and Australia amounted to 58,584 piculs, or $\$ 296$ tens. Within the last four or five years raw sugar has begun to be rather largely exported from China to England, the shipments for the latter in 13.6 having amounted to 18,620 tons. But the speculation did not turn out well; and it is doubttul whother the sugar of China will be able to withstand the competition of that of Brazil and Cuba.Vie Privde des 'rrangois, ii. 198, ed. 1815. This ougar was imported from Egypt principally by Italians; and the probability is, that the latter were the first Europeans who practiced the art, whieh, however, would appear to have originated in the East. The cane had, as already seen, been introduced into Sicily, and its culture practiced previously to the middle of the 12 th cen.
tury. It also was carried to Spain and cultivated by the Saracens soon after ther obtained a footing in that country. The flrat plantations were at Valencia; but they were afterward exteaded to Granada and Murcia. Mr. Thouas Willoughby, who traveled over the greater part of Spain in 160\%, has given an futersating account of the state of the Spaniah augar plantations, and of the mode of manufacturing the suga:. Ilanta of the augar-caue were carried by the Spaniarda and Portu guese to the Cunary Islands and Madeira, In the early part of tho lith century ; nod it has been asserted by many that these islands furuished the first plants of tho augar-cane that ever grew in America.

Barbadoes is the ohilest settiement of the Englialt in the West Indies. They took possession of it in 1627, and so carly as 1646 begnn to export sugar thesce to Einglanil. The trade of Barbadoes attained its inaximumin in 6 6, furnishing, it is sail, employment, at that poriond, for 400 sail of vessels, avoraging 150 tons burtlen; but this statemene is most probably exaggerated.

Januica was discovered by Columbus in his second voyage, and was tirst occupied by the Spaniards. It was wrested from them by an expedition sent against it by Cronwell in $\mathbf{1 6 5 6}$; and has since contlnued in the possession of the English, forming by far the most valuable on their West Indian colonies. At the time when it was conquered, there were only three smali sugar jlantations upon it. But, in consequence of the influx of English settlers from Llarbadoca and the mother country, fresh plantations were specdily formed, and continued rapidly to increase.

The sugar-cane is eaid to have been first cultivated in Sun Domingo, or Ilayti, in 1506. It succeeded better there than in any other of the Weat Indian lalands. Peter Martyr, in a work published in 1530, states that in 1518 there were 28 sugar-works in San Domiugro, established by the Spaniards. "It is marvelons," aays he, "to consider how alt things increase and prosw per in the inland. 'There are now 28 sugar-presses, wherewith great plenty of sugar is madic. The canes or reeds wherein the sugar groweth are higger and higher than in any other place, ant: are as big as a man's wrist, and higger than the staturo of a man by the half. This is more wonlerful, that whereas in Valencia, in Spain, where a great quantity of angar is mate yearly, whensoever they apply themselves to the greet increase thereof, yet doth every rout bring forth no! past 5 or 6 , or at most 7 of these recds; whereas in San Domingo one root beareth 20, and oftentimes 30. "

Sugar from San Domingo formed, for a lengthened period, the prineipal part of the European aupplies. Previously to its dovastation in 1790 , no fewer than 65,000 tons of augar wero exported from the French portion of the island.

Introduction and Cultiration of the Suyar-cane in America.-Sugar-cane occure in a wild atato on many of tho islands of the I'ucitic, but in no part of the American Continent, notwithstanding a contrary opinion has been expressed. Its coltivation and the manufacturo of sugar were introduced into Europe from the East by the Saracena, soon after their conqueats in the 9th century. It is stated by the Venctian historians, that their countrymen importec. augar from Sicily, in tho 12 th century, at a cheaper rate than they could obtain it from Egypt, where it was then extensive!y mate. The first plantatious in Spain were at Valencia, but they were extended to Granada, Murcia, Portugal, Madeira, and the Canary Islands, as early as the beginuing of the 15 th century. From Gomera, one of these ialands, the sugnt-cane was introduced into the West Indics by Columbus, in his second voyege to Anerica, in 1493. It was cultivated to some oxtent in San Domingo in 1506, where it succeeded better than In any of tho other jaiands. In 1518 there were twen-ty-eight plantations in that colony, established by the Spaniards, where an abundatice of augar was made, whlch for a long period formed the principal part of
the European supplies. Barbadoes, the oldeat English settlement in the West Indies, legan to export sugar in 1646, and in the year 1670 the trade requirod four hundred veasels, averaging 130 tons burden.

The introduction of angar-cane into Florida, 'l'ex. as, California, and Louisiana, probably ilates back to their earlieat settlement by the Spaniards or Frencl.
was not culcivated in the latter, however, as a staple $h_{4}$ " uct before the year 1751, when it was iutroduced . aeverai negroes, by the Jesuits, from San Domingo, They commenced a small plantation on the banks of the Misaiselppl, just above the old city of New Orleans. The year following, others cultivated tho plant, and made some rude attempts at the manufacture of sugar. In 1788 M . Dubreuil established a angar estato on a large scale, and orected the firat sugar-mill in Louisiana, in what is now the lower part of Now Oricaus. Jlis success was followed by other plantations, and in tho year 1765 there was augar enough manufactured for home consumption; and in 1750 it had beconte one of the staple products of the colony. Soon after the Jev. olation, a large number of onterpriaing advonturers emigrated from the United States to Lower Louisiana, whero, among other oljects of industry, they engagel in the cultivation of cane, and by the year 1803 there were no less than eighty-one sugar eatates on the belta alone. Since that period, while the production of canc sugar has been annually jucreasing at the South, the mannfacture of maple-augar bas been oxtenting in tho Nortls and West.

The comnon sugar-cane is a perennial plant, very sensitive to cold, and is therefore restricted in its cultivation to regions bordering on the tropies, whero there is little or no frost. In tho Eastern henispliere its proluction is principally confined to situations favorable to its growth, being between the fortieth parollel of north latitude and a corresponding degree south. On the Atlantic side of the Western Continent it will not thrive beyond the thirty -thirl degree of north latitude and the thirty-fifth purallel aouth. On the l'acific side it will perfect its growth aome fiv : thegrees farther north or south. From the flexibility of this plant, it is lighly probable that it is gradually becoming more harily, and will eventually endure an expos. ure, and yichl a jrotitable return, much farther north, along the borters of the Mississippi and some of its tributaica, than it has hitherto been produced. Ia most parts of Louisiana the canes yicld three ereps from one planting. The first season it is denominated "plant eane," and each of the subsequent growths "rstoons." Ihut sometimes, as on the prairies of Attakspas and Opelousas, and the higher northern rango of its cultivation, it requires to be replanted every year. Within the tropies, as in the West Indies and elsewhere, the ratoens continue to yield abundantly for twelve, fifteen, and even twenty-four years, from the same roots.
The eultivation of this plant is principally' confined to the Wesk Indies, Venezuela, Brazil, Mauritius, Britibh India, China, Japan, tlse Sunda, Jhilipfine, and Sandiwich isiands, and to the southern districts of the United States. The varieties moat cultivated in the latter are the atriped blue, and yellow ribbon, or Jsva; the red riblion, or violet, from Java; the Crede erystalline, or Malabar; the Otalicite, the puride, the yellow, tho purple-handed, and the gra. anes. The quantity of sugar produced on an acre varics from 500 to 3000 lba ., averaging, perhaps, from 800 to $1000 \mathrm{lls}$,

Iltherto the amount of sugar and molasses contsumed in the Linited States has exceeded the quantity produced, consequently there has been no direct occa$\sin$ for their oxportation. In the year 1815 it was estimated that the sugar made on the lanks of the Nissisaippi alone amounted to $10,000,000$ Jbr. In 1818 the entire crop of Loulaiana was only $25,000,000$ Ibs.; in 1850 it had reached the enormous quantity of $226,001,000 \mathrm{Ibs}$., besides about $12,000,000$ galious of
at English ort Eugar uirod four ida, 'l'exback.to or French. as a staple utroduced Domingo. banky of w Orleans. plant, and o of sugar. state on a louisiana, ans. Jis and in tho ctared for tme one of the Rev. Lonisiana, y engaged 1803 there the Delta ion of cane South, the diug in the
plant, very lin its cul. sics, where heurisphere nations faortieth pargree south. ent it kill f north latOn the l'a: degrees lity of this lly lecomall expos* thur nurth, some of its duced. In three crops enominated owths "raof Attakaon range of every year. $s$ and elscndantly for s , from the lly confined ritius, Britippile, and ricts of the ated in the m, or Jsva; Crecle crysde, the yedThe quarsfrom 500 to .000 Jbs . olusses conhe quantity direct ocea15 it was esof the MisIn 1818 00,000 lbs. ; puantity of gallous of
molasses. Aecording to the cenaus of 1840, the amount of cane and maple sugar was $155,100,800 \mathrm{lbs}$, of which 110,047,720 lbs, were ralsed in Louislana. By the census of 1800 the cane sugar made In this country was $247,581,000$ lbe., besldea $9,700,606$ gullons of molasses; maple-sugar, $84,249,8861 \mathrm{lb}$., amountligg to $281,880,886$ llos., showing an increasa in ton years of 126,780,0.7 Ibs.-United States Patent Office Report, 1800.

Aidulteration.-Sugar is an article which is sapeclally liable to adultaration; and its high price during the last fow yeara, coupled with tha ligh duty, has given a powerful stimulus to thia nefarious practice. Perhaps we might not be far from the mark were we to estimate the quantly of forelgn matters intentionally mixed up with sugar, and aold as auch in England, previously to the lata reduction of duties, at 10,000 or 12,000 tons a year! Sago and potato flour aro the articles which have been most oxtenaivoly used for this purpose. When mixed with augar they give it a whiter and finer appearance, and, unless the dose be overdonc, Increaso ita price about 48 . a cwt. It is axtremely difficult to deal with an abuse of this sort. No doubt the fall in the price of augar following the placing of the trade on a proper footing, and the reduction of the duty, have leasened the temptation to adulterate. But they lave not wholly removed it, the materlals employed to adulterata being decidedly cheaper than sagar, however supplied. In this, as in most cases of tho sort, the best security against adulteration is to deal only with grocera of the highest character.

Failure of the Sugar-cane in Louisiana.-The culture of sugar-cane in Louisiana has been suhjeet, from the period of its Introduction in 1751 up to tho preaent time, to certain imfavorable vicissitudes to which it is not linblo in more southern climes. Tho past lias been more marked, perhaps, than any preceding season, both in reapect to tho amount produced and to the diseases and condition or degeneracy of the cane. The spring of 1854 is represented to have been so extraordinarily dry that most of the cuttings put into the ground perished, even after they had vegetated. Indeed, nomo few sectlons only of the sugar-growing parishes were favored even with occaaional vernal showers, and the crops in these sections gavo better promise than those in other parts of tho State. But yet la these the yield wis not abundunt, as the aummer and fall proved otherwise unfavorable to the growth and maturity of the cane ; and many plantera, who had crops of fair appearance, found, upon grinding and boiling, that the actual yield of sugar to the acre was unusunlly small. The plant-cane, upon which the cultivators malaly depend, seems to have been a general failure throughout the State; and the small crop made was mostly saved from the stubbles or ratoons. The accuring of the crop was elso very unfavorable to the planter. At the commencement of the grinding there appeared to ba little or no erystallizable bugar in the juice. The cane was not ripe, and the cold and unusually wet winter, which consequently required a large ainount of fnel for boiling, was a great drawback; so much so that mnny of the planters lost a good portion of thelr crops by not being prepared for these exigencies, while others, rather than grind their immature cane, preferred to let it stand in the fields, cven at the risk of losing a part, and did not commence boiling before the 20th of December.

The detcrioration, or falling off of the crop, has been attributed to presmed causes, one of which is that based upon the thcory of Mr. Knight, of Herefordshirc, in England, in the latter part of the last century, namely, that plants propagated by cuttings, or slips, detcriorato and become extlnet, unless regenerated from tims to time by the production of fresh stocks directly from the reeds. Mr. Knlght, it woukl seem, based his hypothesis upon the fact that certain varietice of the apple in his nelghborhood wero believed to be running through their natural course, and named as instances
the "Golden Pippin" and the "Nonparell." But the particuinr cases thus cited failed to austain his assumption, for the Golden Plppin is believed still to thrivo well at Madeira, on many parta of the Continent of liurope, and in England, as well as the Nonpareil, just as they did in the days of Queen Anne.
The cultivated augar-cane very rarely produceas seeds, although this is said sumetimes to occur even in the Southern States of this Unlon; but it has not been shown that the seeda have vegetated when sown; yet thare is, no doubt, some country in which the course of nature is followed in this respect. Moreover, it has been averred that there in no region in which the cultlvators attempt to resort to thia mode of propagation, their dependence being always and entirely upon the cuttings. The theory, therofore, of the insufficiency of this means of propagating the sugar-cane, is withont tho least foundation, unlesa it can be shown that a gencral tendeney to docay and extinction is manifested in it throughout the globe-a fact that has not been assumed, and that certainly docs not exlat.

That the propagation of plants, by their seeds, is the natural methoi, seems like an infallible proposition; and to the inquiry it naturally suggests respecting their design, if not for this use, it may bo difticult to find a conclusive reply. But the vegetable kingdom presents to the mind of the observer so many apparent anomalice, that tho student who refuses to progresa farther until each in succession is made plain to hls understanding, la not likels to proceed far in this most interesting and profitable j, ursuit.

It is an unfortunate, though very prevalent error, to attribute the diacases of plunta to other than the real causes, since by doing so we deprive ouraelves of tho ability to apply the remedy appropriate to ench case. A deficiency or excess of rain, heat or coid, the elcetric state of the atmosplere, and, what is atill more likely, an unfavorable condition of the soil, doubtless moro or less Induce the disenace or debility of plants; and these may be either local or general. In the case of the augar-cano of Louisiann, for instance, although it is highly desirable to introduce cuttligg of new, and, if posisible, better varictics, than are now cultivated in that State, thero is a probable cause of deterioration to which the attention of planters has not been effectunlly directed. It is known that the continued production of a single species of plont upon almost any soil will evencoally exhanst that soil of those elementa eapecially required as the pabulum of that plant, if those elements be not carefully ascertained and systematically returned. Is not this probably the case with respect to the sugar-fields of Louiaiana? Chemical analyses have shown thit nearly one half of the inorganic matter contained in the cane itself is plosphate of lime, and nearly a fourth silica. The baro statement of this fact must assuredly suggest to every mind a prominent cause of the evil. In the continued culture of augar upon the same lands, as of every thing elso, a judicious syatem of rotation, with n liberal supply of guano, or other animal and phoaphated manure. in connection with a duo aupply of well decomposed vegetablo matter, is casential; and, as has been intimated, the latter must be of the kinds specially indicated.

That there has been $n$ degeneracy In the canc, cansed by exhaustion of the soil, and injudicious rotntion, is obvious, from the fact that the aame lands which have been under cultivation for a long period have yielded more than threo times the amount of augar to the acre in eome years than in others, the productiveness having been in thosa cases in which tha soil was lin its primitive fertllity, or when enriched by guano or other appropriate mnnures. For instance, the British and French West India Islands, some aixty or seventy yeara ago, yiclded from 3000 to 6000 pounds of 8 gar to the acre. At present they do not ylcld a third of this amount without manure. The product in Louisiana,


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formerly，often reached a high as 8000 or 4000 ponnde； and in some cases ovei．to 6000 pounds；but for the last fow years it has often ranged as low as from 600 to 1000 pounde to the aore．According to Commodore Perry，in his＂Expedition to Japan，＂before the intro－ duction of guano into Mauritius，the product of sugar on that island was from 2000 to 2500 pounds to the acre； bat the facrease since the application of this fortilizer has been so extraordinary as to be scarcely credible． In ordinary eeasons the product has been from 6000 to 7000 pounds，and under peculiarly favorable cireum－ stances it has oven reached 8000 pounds to the aore．
The amount of raw angar as a gross produce to tho acre，in several countries of the globe，from good author－ ities，is as follows

| Mauritiua | 6000 pronde． |
| :---: | :---: |
| Brazlt． | \＄000 $\quad 3$ |
| Cubs | 4000 |
| Iste of Bourbon | 3800 ＂ |
| Gutadaloupe | 2000 ＂ |
| Vers Crus | 1900 ＊ |
| Martinique． | 1700 ＂ |
| Bengal． | 1600 ＊ |
| Bt，Domingo | 1100 |
| Loutaiana． | 1000 ＊ |

In order to show the fluctuations of the sugar－crop in Louisiana，we have compiled from our records the annexed statement of the sugar prodnct of Louisiena for the past twenty－three years，showing the amount of each year＇s crop in hogsheads and pounde，with the gross average value per hogehead and total，the pro－ portions taken by Atlaatic ports and Weatern States， and the date of the first receipt of eaoh crop．By this statement it will be ween that the total product of Louisiana from－ 1884 to 1856 inclusive，a period of twenty－three yeara，was $8,972,716$ hogoheads，valued at $\$ 204,181,228$ ，and that of this quantity the Atlantic ports took $1,817,883$ hogshead3，and the Western States $1,974,103$ hogsheade．The crops from 1828 （which is as far back as our estimates extend）to 1883 summed up 281，000 hogsheads；which would make the total product in a period of twenty－seven yeara 4，253，716 hogsheade，or $4,477,668,000$ pounds．We would here remark that up to 1848 the product in hogsheads is estinnated，and 1000 pounds taken as the average weight per hogshead，but for the crop since that date we have taken the figures of Mr．P．A．Champonier，as we find them in his anoual statementa．

| Years． | Total Crop． |  | $\begin{aligned} & \text { Average } \\ & \text { Priot par } \\ & \text { Heguhend. } \end{aligned}$ | Total Value． | Sxporte from Now Oricans． |  | Firat Reeetph of Now Crop |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Esported to Atlantic Ports． |  | $\begin{aligned} & \text { Exporiod to } \\ & \text { Weatorn Stater } \end{aligned}$ |  |
| 1894 | Hoyereade， | Poviada． $100,000,000$ |  |  |  | Hogehemen． | Hogriheads． |  |
| 1894 | $100,0,00$ | $100,000,000$ | \＄60 00 | \＄6，000，000 | $45,600$ | $44,500$ | October 15． |
| 1895 | 30，000 | 30，000，000 | 0000 | 8，700，400 | 1，600 | 23，000 | November 5． |
| 1836 | 70，003 | 70，000，000 | 6000 | 4，200，000 | 86，300 | 36，000 | November 1. |
| 1837 | 65,000 | 65，000，000 | 6950 | 6，002，500 | 24.500 | 82，600 | Novernber 1． |
| 1898 | 10，000 | 70，000，000 | 6850 | 4，875，000 | 26，600 | 82，600 | October 17. |
| 1839 | 115，000 | 115，000，400 | 0000 | 5，750，000 | 42，600 | 68，000 | October 15． |
| 1810 | 87，000 | 87，000，000 | 0609 | 4，785，000 | 38，600 | 46，600 | Oetober 14． |
| $184 t$ | 90，000 | $00,000,000$ | 4000 | 8，600，000 | 28，000 | 60，000 | October 13． |
| 1848 | 140，000 | 140，000，000 | 4960 | 4，760，000 | 88，000 | 60，000 | October 12. |
| 1843 | 100，000 | 100，000，000 | 0000 | 6．000，000 | 34，000 | 52，000 | October 22． |
| 184 | 200,000 | 200，000，000 | 4500 | 9，000，000． | 101，400 | 70.000 | October 3. |
| 1845 | 186，650 | 186，050，000 | 6500 | 10，265，750 | 79，000 | 75000 | October 4. |
| 1846 | 140，000 | 140，003，000 | 7000 | 9，802，000 | 45，500 | 10，000 | October 7. |
| 1847 | 240，000 | 240，000，000 | 4000 | 8，600，000 | 84，000 | 115，000 | October 2. |
| 1848 | 220，000 | 220，000，000 | 4000 | 8，800，000 | 90，000 | 108，000 | October 5. |
| 1849 | 247，923 | 260，709，000 | 5000 | 12，396，150 | 00，100 | 125，000 | October 11. |
| 1850 | 211，803 | 281，104，000 | 6000 | 12，678，180 | 45，000 | 128，000 | Oetaber 17. |
| 1851 | 286，647 | 257，188，000 | 6000 | 11，827，850 | 48，000 | 140，000 | October 19． |
| 1852 | 321.981 | 368，129，000 | 4300 | 15，452，088 | 52，000 | 206，000 | October 0. |
| 1823 | 4－49，824 | 495，150，000 | 3500 | 15，726，340 | 166，000 | 185，000 | October 6. |
| 1854 | 846，630 | 885，726，000 | 5800 | 18，096，0\％0 | 122，000 | 149，000 | October 4. |
| 1855 | 931．487 | 254，503，000 | 7000 | 16，100，590 | 89，138 | 181，087 | Octoher 10. |
| 1856 | 711，970 | 8t，878，000 | 11000 | 8，187，860 | 1，850 | 89，576 | November 3 ， |
| Total． | 8，974，716 | 4，196，608，000 | ．$\cdot$ ．．．． | 204，181，223 | 1，617，883 | 1，974，108 | ．．．．．．．． |

In seeking $\boldsymbol{p}$－emedy for the evil hero complained of in Louisiana，the minds of many have very naturaliy been turned to the project of replenishing tho cane－ fields of that State by the importation of a fresh sup－ ply of cuttings，of such varieties as may be found best euited to the soil and climate．Resort to this means of restoration should be promptly mado on a liberal and extensive acale，so that tho experiment may be thorough，and，if possible，eflectual is its results．An intelligent agent should bo selected for the purpose， well acquainted with the character of the cane，and the nature of the soils and climates in which it grows，as well as with the best modes of packing and transport－ ing it to distant parts，either by land or sea；and， what would add much to his qualifications，oue who is also acquainted practicaliy with the culture of the plant and the manufacture of sugar．
Among the points on this continent from which the cuttings could be obtained might be inatanced the valicy of Aragua，in Venezuela，Britioh Guiana，or somo favorablie tocality on tho cosat of Brazil．On or near the Eastern contineut，porhapa British India or tho islands of Maritius and Java might prove suitable posi－ tions for the procurement of the varietics desired．The agont thus employed ahould be accurately informed or instructod with reference to the soil，cilimate，and elovation alove the sea，of the augar districts of these countries，as well as to the age and heaithiness of tho canes from which the cuttings are to be taken，the parte $x$ the plants from which they are to be obtained，
and the proper seasons of procuring them and deliver－ ing them at some accessible point in the United States near whero tincy are intend do grow．

The varietics of cane which have hitherto been mest cultivated in Louisiana aro the Striped－liuo Ribbon； tho Green Ribion；the Yellow Ribbon，or Java；the Rod Ribbon，or Violet；the Reddish Violet；the Red atripod；tho Creole；Crystalline，or Malabar；the Ota－ heite；the I＇urplo；the Yellow；the Purple－banded； the Gray ；the Grayish White．
The Redatriped canc，which was originally brought from tho Dutch colony of Java，and the Violet or Red－ dish Viobet，which is ouly a variation from tho former， are lesiieved to be the ouly two varietice that wiil gen－ oraliy prosper under the climate of the sugar districts of the Southern States．All tho other descriptions ore too senulive to cold，except in the warmer parts of the delta of the Mississippi，Florida，and Texss．When planted in now ground，it gives a certain anouut of whito canes，or those the outside of which is of a gray－ ish white．When cultivated in oid soii，however，it furnishea a good yiold of violet－red cane．Again，on new ground，a part，say，from one－tenth to one－iffeenth， of the striped cano becomes white，or a dirty grayish white．Thore are also to be found more or less red atripes on aome portions of the stalk，or on the joints； hut all the reat of the atalk is entireiy gray．On oid ground，on the contrary，the red－striped gives red or violet red canes in about the same proportion as sbove． The tendency of this cano to degenerate rapidily is of
tieties
erat
Jub
marksble in every part of America. The other varieties are not so liable to deterlorate. After once degenerating, these canes never recover their original coler. -Patent Office Report, 1855,

Sources whance the Supply of Sugar is derived.-The West Indies, United States, Jsva, Brazil, Bengal, Mauritius, Siam, the Isle de Bonrion, and the Philippines, are the principal sources wheace the supplies required for the European and American markets are derived. The quantities exported in 1857 from these countries, exclusive of molasses, may be estimated as followa:


Consumption of Sugar in the World.-In the aggregate we shall not, perhaps, bo far wrong in cstluating the consumption of exported colonial and tropical sugar for the ycar 1857 as follows:

| The United Kingdom | $\text { Tom. } \quad \text { Tons. }$ |
| :---: | :---: |
| France . . . . . . . . . . . | 165,000 |
| Tho Netheriands, Belgium, Germany, |  |
| Prnasia, Austria, Ilungary, and Austrian Italy, per Duteh porte, doduct- | 125,000 |
| Ing re-exports to Ruseim and other countrics |  |
| Per Ilanse Towne . . . . . . . . . . . . . . . . . | 40,000 |
| Per Antwerp. | 15,000 |
| Per Roatock, Stettin, Königeberg, and other ports on the Beltic, excluding the lmporta from IIollend and the IIanse Towne. . | 16,000 |
| Tricste, Venice, Fiumo, etc............. | 55,000 250,000 |
| Spain .................................... | $\begin{array}{r} 250,000 \\ 50,000 \end{array}$ |
| Portugal . . . . . . . . . . . . . . . . . . . . . . . . . | 10,000 |
| lfusein | 76,000 |
| Denmark and 8weden | 25,000 |
| Italy, 8loily, Mnlta, Turiey, Greece, and the levant generally | 00,000 |
| United States....................... | 435,000 |
| Canada, Anstralia, Cape of Good Hope, ete. | 96,000 |
| Total tond . . . . . . . . . . . . . . . . | 1,580,000 |

In the eatlmate for the United States, the production of cane sugar is included.
Btatement of ten total Quantity of baw and befined
Suoall entragi, yoi liouz Coneumption in Grpaz batrain in racil of tuit five Years endino 185b.

| Yaar ending | ${ }^{T}$ |
| :---: | :---: |
|  | 305,239; dccrease, 8,088 |
| 1554 | 884, 102; increase, 18,883 |
| Juno 30, 1856 | 420,208, incroase 49101 |

The imports have, in a partial degree, corresponded with the fluctuations in consumption, and these tables show, notwithstandiag the large quantitien received from the Continent toward the close of last year, and the earller arrivals from the celonies in the present, that the imperte in the year ending the $\mathbf{3 0 t h}$ June last were nearly 20,000 tons lees than in the preceding twelve monthe.


Averaqu Priorb of Bhown Buoar in the Montis of Jandary, MAzon, MAY, JULY, EEPTEMHER; AND Novemper IN rai Post of Havaik puaino muk follownme TEM Yeasb-Witi the rearly averaqe Valur-friogs in REALs

| Yoars. | Jan. | March. | May. | Joly. | Sept. | Nov. | Aver. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1846 | $6 \frac{9}{10}$ | $5 \frac{3}{8}$ | $5 \frac{3}{8}$ | 51 | 6 | $6 \frac{1}{1}$ | $5 \cdot 86$ |
| 1847 | $5{ }^{8}$ | $6 \frac{1}{2}$ | 63 | $6 \frac{8}{8}$ | 68 | $6 \frac{3}{8}$ | 6.18 |
| 1848 | $5 \frac{8}{8}$, | $5 \frac{3}{4}$ | 88 | 8 | 1 | $5 \frac{1}{4}$ | $4 \cdot 50$ |
| 1849 | 5 | 5 | $5 \frac{2}{5}$ | 53 |  | ${ }^{4}$ | $5 \cdot 61$ |
| 1850 | 5 | 5 | 510 | 5. | 6 | 7 | $5 \cdot 77$ |
| 1851 | $6 \frac{1}{2}$ | $5 \frac{5}{8}$ | 53 | 51 |  | $4 \frac{9}{10}$ | $5 \cdot 37$ |
| 1852 | 45 | 48 | 510 | $5 \frac{3}{4}$ | $5 \frac{1}{3}$ | $5 \frac{1}{2}$ | 5.10 |
| 1853 | $5 \frac{8}{8}$ | $5{ }^{\circ}$ | $5{ }^{1}$ | 5音 | 5 | 5 最 | $5 \cdot 61$ |
| 1854 | $5 \frac{8}{8}$ | $5 \frac{8}{8}$ | $5 \frac{1}{8}$ | $4 \frac{0}{0}$ | $5 \frac{3}{4}$ | $5 \frac{7}{10}$ | $5 \cdot 37$ |
| 1855 | 58 | $5{ }^{3}$ | $5 \frac{3}{4}$ | 6, ${ }^{2}$ | $7 \frac{1}{2}$ | 8 | 8.65 |
| Averago | $5 \cdot 62$ | $5 \cdot 40$ | -30 | $5 \cdot 41$ | 5.81 | 6 | $5 \cdot 60$ |

Consumption in the United States.--The censumption of sugar in the United States has been very variable, and the increase of consumption in the last half-dozen yesrs-since the price has been low-is very great. This will be seen in the following tables. We shall first show the impertation of foreign eugar. In this account we have subtracted from the quantity imported the amount re-axported, so that the statement belew gives the prime quantity inported and used in the country for the years given.

| Years. | Pounda. | Yeart. | Poundr. |
| :---: | :---: | :---: | :---: |
| 1837 | 98,141,352 | 1848. | 244,13!,753 |
| 184 | 110,041,297 | 1850 | 194,483,699 |
| 1842. | 160,863,475 | 1858. | 448,400,644 |
| 18.5 | 90,752,969 | 1856 | 440,000,000 |

It will be seen from this that since 1845 , a period of ten ycars, the importation of sugar has quadrupled.

It will also be seen that from 1887 to 1839, and from 1850 to 1853, in each period, the importation of sugar doubled. There can be no doubt, from the exhibition of the above figures, that the reduction of prices has had great influence on the importation of sugar. Let us now turn from the foreign to the domestic supply; and tirst the production of Louisiana and Texas.

The New Orleans Prics Current furnlshes the number of hogsheads raised in the United States for a series of years. Reducing it to pounds, at 1000 lhs, to the hogshead, we have the following result siace 1837 :

| Years. | Pounds. | Years. | Poan |
| :---: | :---: | :---: | :---: |
| 1881 | 65,000,000 | 1848. | 220,000 |
| 1840. | 87,000,000 | 1850. | 211,808,000 |
| 184 | 140,000,000 | 1868 | 449,824,000 |
| 184 | 186,000,000 | 1855. | 231,427,000 |

We find from the teble that the production of cane sugar has doubled in the last ten years, and quadrupled in fifteen. In additlon to thia, the common maplesugar averagea about thirty millions of peunde per annum.
Now, takiag the aggregate of sugar imperted, and that made in the country, we have the following supply, estimated in pounds, fer auccessive years:


It may safely be assamed that the average consamption of sugar in the United States is now equal to nine hundred millions of pounds per annum. Deducting from the population of the United States three mill. tons of slavee, who prohably use very littlo sagar, we have the consamption of sugar equal to abent 10 lbs.
average for each person. But this consumption of sugar hse actually trebled in ten years! This is certainly a vory extraordinary fact, and indicates a great change in the habits of living among the people of the United States. That it is a real, absolute change in the habits of life, can not be doubted. Let us ahow its magnitnde by comparing the increase of population with the increase of augar:


We then ses that the consumption of augar far outruns the increase of population. In 1840 the consumption of augar was but 16 lbs , per individual. In 1855 it is 40 lbs .

In the period of twelve years, from 1848 to 1854 incinsive, there has been a steady diminution in the price of sugar, but not enough to account for the change we see here. The change of prices in New Orleans sugar has been as follows:

## 

The price of augar to the consumer in the West has diminished much more rapidly than this. The increase of steamboats and the rapld decline of freights has produced a great reduction in the price of tropical prodacts in the West; which has been steadily going on for thirty years. The effect of this, together with the increase of population at the West, has produced an extraordioary inerease in the consumption of sugar, and eapecially in the valley of the Ohio. This increase in the Western States is quite remarkable. We find, by a statement in the New Orleans Price Current, that in twenty years, from 1834 to 1854 , the export of sugar from Now Orieans to the Western States amounted to one million eight hundred thousand hogsheads, or about ninety thousand hogsheads per annum; but when wa examine the detail, we find the average annual increase to be very rapid. Taking the aggregate of each five years, wo have the following reault:


The present consumption of Louisians sagar in the Western States, to which it is carried hy ateamboats, amounts to an avarage of 160,000 hogsheads per annum. This is mainly distributed through the three great distributing points of the Weat-Cincinnati, Louisville, and St, Louis.

Another remarkable fact in the commerce in sugar Is the increase of American refined sugar. At the present tima the amount of refined sugara imported is not hal' what it was twe?ty years since; whilo the amount of sugar exported is four times as much.

Buanty on Eipportation of refined Sugar.-Sugar refined in the United States, the growth and production of any other country, is entitied to an allowance of drawhack equal to the amount of duties paid on the raw aeticle, on due exportation thereof to any foreign port or piace, subject only to the provisions that no drawback shall be aliowed on any exportation when such drawback shall not amount to tweive dollars or more. To entitle the exporter to the benefit of asid allowance of drawbsek, such exporter, at least six hours previous to the putting or lading any of the anid refined sugar on board any vascel or other conveyance for exportation, shall jodge with the collector of the custome, for the district from which auch importation is to be made, an ontry selting forth hia intention to export the same, and describing the marks, numbers, and packages, and designating the place where depos-
ited, and the name of the vessel or other convayance in or by which, and the port or place to which, the aame is intended to be exported. This entry muat be according to form, and, upon presentation, be verified by the oath or affirmation of the owner or agent, or other proper officer of the manufactory in which such augar may have been refined. If any of such sugar, after it shall have been shipped for exportation, shall be unshipped for any purpose whatever, either within the limits of the United States or within four leagues of the coast thereof, or shali be relanded within the United States from on board the vessel wherein the same shall have been laden for exportation, unless the voyage ahall not be proceeded on, or shall be altered from necessity or distress, to save the ship and goods from perishing, which shall be immediately made known to the coljector of the nearest district; then the sugar so unshipped, together with tho vessel, her boats and equipment, siall be forfcited, and may be seized by any off. cer of the customs or inspection.
sugar trade of tile viited states.
Tmmorte into, Friobtg prom, and Consumition of Fob. mign Sugar in tile Unitem States por tirs five i'earg emdino tife 30th of Jung, 1855.-(Fbox Treabely Rif. TORTE.

| Vears. | Imports. | Esports. | Conaumption |
| :---: | :---: | :---: | :---: |
| 1851.. | $\begin{aligned} & \text { Pounda, } \\ & 385,000,000 \end{aligned}$ | $\begin{aligned} & \text { Pounde. } \\ & 6,000,000 \end{aligned}$ | $\begin{aligned} & \text { Pounds. } \\ & 370,000,000 \end{aligned}$ |
| 1852....... | 457,000,000 | 0,000,000 | 448,000,000 |
| 1853....... | 444,000,000 | 18,000,000 | 446,000,000 |
| 1854. | 455,000,000 | 52,000,000 | 403,000,000 |
| 1856. | 473,000,000 | 33,000,000 | 410,000,000 |

Propuct of Suoaf in tha United Statiga-Export and Congumption turgzov.-(From Champonire's asd Theaevat Reports.)

| Yoats. | Producta. | Exporta. | Conaumption |
| :---: | :---: | :---: | :---: |
| 1851. | Pounds. | $\begin{aligned} & \text { Pound } . \\ & 2,000,000 \end{aligned}$ | $\begin{aligned} & \text { Pounds, } \\ & 255,600,000 \end{aligned}$ |
| 1852. | 879,000,000 | 6,000,000 | 873,000,000 |
| 1853. | 503,000,000 | 10,000,000 | 403, 000,000 |
| 1854. | 393,000,000 | 11,000,000 | 382,000,010 |
| 1855. | 263,000,000 | (no data) | 268,040,000 |

Suoar Chop in Texag, 1855.
Crunties.
Number of Brazoria.
Matagorda.
Iogetheada

Whartoll
Fort Bend 920
Total. 8999

Thus Toxas produced in the yoar 1855 a much better crop than the preceding one, say $9,88,900$ pounds againat $7,513,000$ pounds during the jrevious scason.
Exponts of Suoar of Domabtio Pboncetion fboy the


| Diatricta. | Irowa mufar. |  | Ratined Sogar. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounde. | Value. | Poundo. | Taloen. |
|  |  | 180 |  | 1 |
| Passamaquoddy | 850 | 80 |  |  |
| Portiend and Falmouth |  | 40 |  |  |
| Vermont. . ......... | 122,165 | 10,044 | 0,100 | 970 |
| Salem and Beverley ... |  |  | 19.387 | 2.04 |
| Hoston and Charlostown | 16.873 | 1,904 | 1,047,806 | 227,374 |
| New Bedford | 0,510 | 000 | 3, (fun) | $3 \times 0$ |
| Providence |  |  | 7,707 | giou |
| New London | 10.222 | 1,070 |  |  |
| 8tonington | 5,000 | 600 |  |  |
| Genesce. | 86.072 | 8,782 |  |  |
| Oxwego . | 518,342 | 57,342 | 414,006 | 43,44t |
| Niagara. | 160,340 | 14,109 |  |  |
| Buffilo Creek | 20,901 | 2,042 | 28,213 | 3.140 |
| Oswegatchio | 1,600 |  |  |  |
| New York | T2,890 | 6,006 | 82,183 | 6.180 |
| Chemplaln | 802,828 | 01,048 | 0,600 | 1,03: |
| l'hitadetphia | 850 |  | 42.54 | 5. 451 |
| Baltimore. | 290,577 | 24,017 | 687,882 | 63,495 |
| Norfolk |  |  | 400 | 57 |
| Charleaton | 10.85 | ${ }^{78}$ |  |  |
| Now Orle | 10,252 | 2,026 | ${ }_{810}$ | 98 |
| Detrolt. | T,851) | 094 | 37 | 4 |
| Chicago | 021 | 110 |  |  |
| Ban Eranel |  |  | 18,600 | 2,171 |
| Mlaremot | 0,675 | 348 | 4.850 | $\pi 8$ |
| Total.. | 3,100,412 | T0,012 | 3,141,835 | 20 |



| d. | Brown. |  | Whita, elajed, or pow dored. |  | Louf and athor refinel. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounde. | Volnu. | Pounds. | Value. | Pounde. | Valus. |
| Rusalas on the Beltio and North Beas | 261,263 | \$25,788 | 440,415 | (144,042 |  |  |
| Russlan Pomenalons in North Amerien ....... | 26,919 | 1,125 | .... | .... | 65,660 | \%7,040 |
|  | .... | .... | .... | ... | 70,447 | 0,806 |
| Hamburg . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 0.018 | 01 | .... | ... | 5,000 | 548 |
|  | 6,018 1,600 | 198 |  |  | 30,001 |  |
| Dutch West Indes . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1,026,678 | 92,261 | .... |  | 80,001 160,000 | 8,876 17,000 |
| Eagland | 181,888 | 12,309 | 1,600 | 800 |  | 1,000 |
| Malta .... | 40,780 | 8,607 |  |  |  |  |
| Canada..................................... | 8,408,807 | 677,148 | 422 | 47 | B7, 1046 | 6,196 |
| Other British North American Possesaloan .. | 140,394 | 18,025 |  |  | 244,755 | 28,082 |
| Britlsh Weat Indien. . . | 1,150 | 50 | .... |  | 22,203 | 2,509 |
|  |  |  |  |  | 66,484 | 6,779 |
| Britlsh Possessloan in Africa. . . . . . . . . . . . . . | 10,919 | 1,160 | 8,840 | 480 |  |  |
| Other ports In Africa, ................ | 6,843 | 8884 |  | $\cdots$ | 10,472 | 1,515 |
| French North American Possesslons | 05,727 | 8,887 | 1,950 | 254 |  |  |
| Freoch West Indles ....... ................ | $\ldots$ | $\ldots$ | .... | .... | 1,790 | 178 |
| Porto Rlco . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | $\ldots$ | .... | .... | 11,084 | 1,869 |
| Asored . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 2,65t | $\ldots$ | $\ldots$ | 8,830 | 888 |
|  | 83,730 | 7,612 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Hayt1 ....................................... | 2,077 | 244 | 8,485 | 094 | 289,954 | 29,ธั\% |
| San Demlogo | 1,094 | 220 | .... |  | 1,707 | 215 |
| Mexico .................. . . . . . . . . . . . . . . . . |  | ${ }^{0}$ | .... | .... | 6,800 | 611 |
| Central Republio ........................... | 6,850 | 513 | . | . |  |  |
| New Granada | 5,635 | 450 |  |  | 897,038 | 49,688 |
| Veaezuels | .... | .... | .... |  | 13,853 | 1,891 |
|  | .... | .... | .... | .... | 107,713 | 12,409 |
| Uruguny, or Claplatloe Republic ${ }^{\text {a }}$......... | ... | .... | .... | .... | 87,619 | 4,514 |
| Buenos Ayres, or Argeatine Repubila. ....... |  |  | .... | .... | 883,294 | 34,364 |
| Chill | 1,706,54T | 184,18) | .... | .... | 268,246 | 80,664 |
|  | 11,020 | 1,104 | $\ldots$ | .... | 3,287 | +220 |
| China ....... |  |  |  |  | 88080 | 904 |
| Whale-fisherles | 6,000 | 731 | .... | $\ldots$ | 1,500 | 180 |
| Total, year 1858-7. . . . . . . . . . . . . . . | 12,188,659 | \$854,593 | 4,6.712 | \$40,017 | 2,106,430 | \$249,653 |
| From warehouse. ........................... Not from warehouse | $\begin{aligned} & 7,018,866 \\ & \mathbf{8 , 1 6 0 , 3 9 3} \\ & \hline \end{aligned}$ | $\begin{array}{r} 8443,583 \\ 891,060 \end{array}$ | $\begin{array}{r} 8,840 \\ 452,872 \end{array}$ | $\begin{array}{r} \$ 480 \\ 45,587 \end{array}$ | $\begin{array}{r} 978,603 \\ \mathbf{~}, 127,827 \end{array}$ | $\begin{aligned} & \$ 112,114 \\ & 138,739 \end{aligned}$ |

Imports of yoreion Suoan into the Uhitrd Stateg fob tife Year endino June 60, 1867.

| Whenca importod. | Lomf and olhar reßnad. |  | Candy. |  | $\begin{aligned} & \text { Blinp of } \\ & \text { Bagar-cnam. } \end{aligned}$ |  | Brown. |  | White, olayed, or powdered. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Valoe. | Pounia | Volue. | Pounde. | Valan. | Pounds. | Value. | Pounds. | Velue. |
| Swedlsh West Indle | $\cdots$ | $\ldots$ | $\ldots$ | $\ldots$ | *... | . . . | 8,564 | $\$ 200$ | . $\cdot$. | - |
| Danish West Iddles. . . . . . . . . . . . . |  |  |  |  | . | $\ldots$ | 440,083 | 29,811 | ... | .... |
| 11smburg. . . . . . . . . . . . . . . . . . . . | 65,500 | \$7,040 | 530 | \$70 | . | ... | 1,912 | 159 | . |  |
| Bremen . . . . . . . . . . . . . . . . . . . . . . . |  |  | 2,773 | 395 | *** | *** |  | - ${ }^{\text {c }}$ |  |  |
| 1lollgad.. | 271,998 | 20,033 | .... | ..... | .... | . | 325 | 82 | 187,073 | \$81,844 |
| Dutch West Ind | .... | .... | .... | . . . | .... | .... | 375,088 | 23,052 | .... | $\cdots$ |
| Dutch Guians | .... |  |  | .... | .... | .... | 6,363,900 | 203,978 | *** | . |
| Putch East Iadjes |  |  |  |  | .... | .... | 2,520,743 | 186,060 | . | .... |
| Balglam. | 373,305 | 84,232 | 5,423 | 465 | .... | ... | $\cdots$ | 18,00 | . | .... |
| Eagland. | (1) | , | 2,900 | 304 | . | .... | 0,002 | 481 | * . * | $\ldots$ |
| Bcotland. | ... | .... | , | .... | . | . . . | 16,162 | 1,882 | , | .... |
| Ireland. | .... | .... | .... | .... | . $\cdot$ | ... | 800 | 48 | ... | . |
| Canada. . . . . . . . . . . . . . . . . . . . . | .... | .... | - | . | .... | . | 62,729 | 8,044 | . | . |
| Other British N. Am. Possensions. | .... | $\ldots$ | , | , | .... | , | 227,810 | 16,148 | , | , |
| Britloh West Iadles | .... | .... | .... | .... | .... | ... | 17,714,683 | 1,028,662 | .... | .... |
| Britlsh Gulans | .... | .... | .... | $\ldots$ | .... | $\cdots$ | 18,725,408 | 710,440 | .... | .... |
| British East Indios. |  | .... |  |  |  |  | 8,288,686 | 864,6\%0 | .... | .... |
| Fradee on the Atlantio |  | * | 4,570 | 508 | 1,029 | \$53 |  |  | .... | .... |
| France on the Mediterrancan | T,980 | 101 | 4. | .... | 1,020 |  |  |  | .... | .... |
| French West Indes | .... |  | .... | .... |  | .... | 2,500 | 178 | .... | .... |
| French Gulans | .... | .... | - | . | .... | . . . | 420,044 | 14,790 |  | .... |
| Phllippine 1sianda | .... | .... | .... | .... |  | 0is | 21,488,087 | 875,543 |  |  |
| Cubs. ........ . . . . . . . . . . . . . . . . | .... |  | .... | .... | 521 | 83 | 609,518,865 | 83,188,036 | 708,704 | 45,3KE |
| Porto Ripo. . . . . . . . . . . . . . . . . . . . . | .... | .... | $\cdots$ | .... | 87,844 | 1859 | 81,854,2t8 | 4,702,897 | -**00 |  |
| Madclra. . . . . . . . . . . . . . . . . . . . . | .... | .... | 890 | $4{ }^{4}$ | .... | .... |  | .... | 100 | 6 |
| Two Slcliles | $\ldots$ | ..... | 890 | 40 | $\cdots$ | $\ldots$ | 880 | 49 | .... | $\cdots$ |
| Hayll ................................ | ..... | .... | .... | .... | $65,2 \mathrm{~T}_{2}$ | 17\% | 1,084 | 100 | ... | .... |
| Ban Domingo. . . . . . . . . . . . . . . . . . . |  | .... | .... | .... | .... | 17. | 81,960 | 1,658 |  |  |
| Mezico |  |  | ... |  | .... |  | 81,821 | 1,707 | . . . |  |
| Central Republlo .................... | .... | .... | ... | .... | .... | .... | 200 | 10 | . . . | ... |
| Vraezucla. . . . . . . . . . . . . . . . . . . . . | . . . |  | .... |  | ... | . . . | 87,810 | 1,07015 |  |  |
| Brapll. | .... | .... | .... | .... |  |  | 10,101,751 | 1,070,840 | 827,807 | 19,615 |
| Chill . . . . . . . . . . . . . . . . . . . . . . | .... |  | .... | ... | 100 | 59 |  |  |  | , |
| Candwleh lisiands. . . . . . . . . . . . . . . . . . . . . . . . . . . | . |  | 2,287 | 105 | 11,154 | 1006 | 608,489 $0,570,598$ | 46,161 168,821 | .... | * *. |
| Tolal, year 1856-'7. | 718,843 | \$08,000 | 18,853 | \$1887 | 115,420 | \$4284 | 774,031,815 | \$42,614,6C4 | 1,218,1.94 | \$86,820 |

The comparative consumption of sugar in Europe if no other could be had, that the people of the United and America is a aubject of interost. Mr. M'Culloch, the political oconomist, eatinated the consumption of sugar in Great Britain at 24 liss. per individual, and says this is much more then is consumed in France or any part of the continent. At present the consumption in the United States is 40 lbs. per individual; and thus we see it is much greater then in Europe, or probably any part of the worid. This fact is conclusive


| Thom tre damuary to fite Drommana, 1868. |  | Barrala. | $\begin{aligned} & \text { Baxem } \\ & \text { and } \\ & \text { Canen. } \end{aligned}$ | Bagh Mats and Besfote. | Total Tons of 9240 Pouods. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| At | 231,602 | 23, 911 | 108,769 | 209,336 | 171,180 |
| At Jonton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 98,083 | 1,009 | 78,800 | 180,9E5 | 88,8)7 |
| At Phlisdelphie . .................................................................... | 98,068 | 2,081 | 16,294 | 94,95, | 82, 188 |
| At Baltimors . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 28,865 | 8,019 | 18,082 | 8,357 | 19,196 |
| At Now Ortean | 7,028 | 1,063 8,908 | 30,208 | . . . | 11,079 |
| At other ports. | 19,673 | 3,208 | 8,842 |  | 12,882 |
| Total recelp | $\mathbf{8 9 9 , 1 5 1}$ <br> 0.104 | 41,650 | $\begin{array}{r} 264,089 \\ 15,767 \end{array}$ | 401.088 | $\begin{array}{r} 875,662 \\ 5,460 \end{array}$ |
|  | $\begin{array}{r} 844,265 \\ 12.006 \\ \hline \end{array}$ | $\begin{array}{r}\text { \$1,060 } \\ \hline 198\end{array}$ | 279,806 12,914 | $\begin{array}{r} 401,081 \\ 465 \end{array}$ | $\begin{array}{r} 281,619 \\ 9.501 \end{array}$ |
| Dedact atock at all the ports, January | $\begin{array}{r} 831,700 \\ 13,770 \\ \hline \end{array}$ | 41,708 | $\begin{array}{r} 266,894 \\ 46,649 \end{array}$ | $\begin{array}{r} 491,478 \\ 4,600 \\ \hline \end{array}$ | $\begin{array}{r} 274,111 \\ 18819 \\ \hline \end{array}$ |
| Total consumption of forelgn <br> Fbom if Jamoary ro 8firy Decruman, 1851. | 811,030 | \$1,769 | 220,2205 | 487,478 | 256,292 |
| At Now York. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 240,100 | 24,897 | 99,800 | 175, 096 | 101,948 |
| At Boaton . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 24.718 | 1,447 | 80,228 | 9190,863 | 31,720 |
| At Phlladelphla . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 28,639 | 5,178 | 6,380 | 69, 1.81 | 22,802 |
| At Baltimore | 27,889 | 0,506 | 1,561 | 18,304 | 18,480 |
| At New Orlean | 34506 | 1,010 | 14.760 | 8,297 | 20,849 |
| At other prorts . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 24,100 | 8,228 | 3,089 | 1.256 | 14,287 |
| Total recelpta. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 284,768 | 45,450 | 161,168 | 8,989 | $200,180$ |
| Add atock at alf the ports, January 1, 1857 . . . . . . . . . . . . . . . . . . . . . . . . . | $18.770$ |  | 40.669 | 4,000 | 16,8t9 |
| Total aupply | 400,588 | 45,450 | 207.832 | 472,280 | 886,990 |
| Deduct oxports and shlpmenta Inland to Canada from all the ports in 1857 | $30,463$ | 740 | 20,037 | 80,278 | 28,705 |
|  | 8.11 .070 23.460 | 44.718 | $\begin{array}{\|c\|} \hline 181,7115 \\ 18.180 \\ \hline \end{array}$ | $\begin{gathered} 442,0116 \\ 20,312 \end{gathered}$ | 257.214 15,524 |
| Total conmumption of foretgr | $\frac{20,410}{647,670}$ | 44,713 | 108, 6 | 421,704 | 241, |


"The foregoing statistics present in a cleur and concise view the extent of this branch of our commerce for the past ycar. It will be scen that tho total receipta of foreign nnrefined sugar into tho United States, luring the year ending December 31, 1857, were 269,180 tons, against receipts in 1856 of 275,662 tons, and in 1805 of 205,064 tons ; and the quantity of this description taken for consumjtion in 1857 was 211, 765 tons, agalnst 255,292 tous in 1856, and 192,607 tons in 1855, being a decrease in the consumption of foreign in 1857, as compared with 1856, of 13,527 tons, or $5_{\frac{3}{10}}^{3}$ per cent.; while the total consumption of fureign and domestic in 1857 was 280,765 tons, against a total consumption in 1856 of $\mathbf{3 7 8 , 9 6 0}$ tons; in 1855, 374, 752 tons; in 1854, 385,298 tone; in 1853, 372,989 tons; in 1852, 315,217 tons; and in 1851, 288, 485 tons-making a decrease in the total deliverles for consumption in 1857, as compared with 1866, of 97,995 tons, or 258 per cent. If we discard entircly the Melado, etc., the deliciency in the consumption of 1857 will be considerably greater, as it would then stand-Consumption of foreign, 220,644 tons, against a consumption of foreign in 1856 of 255,292 tons, decrease 133 per cent.; or, total consumption of foreign and domestic cane sugar $\ln 1857,259,644$ tons, agaiust a total consumption in 1856 of 378,760 tons, being the large decrease of $31 \frac{48}{180}$ per cent.
"We reduce our estimate of the quanity of augar made from molasses during the past year; the high and very unusual pricea which prevailed during the largeat part of it made the business an unprolitable one. After the heavy declino in the price of molassea.
which took place in October, manufacturing was ra sumed with considerablo vigor, hut not to $n$ suffcient extent to repair the previoua large deficiency. an intelligent observer ontimatea tho quantity of sugar made from molasses in 1857 at 10,300 tous, yiedded from 46,000 hhds. molnsses, against 11,875 tuns, from 53,000 hilds. in 1856; 11,160 tons, from 50,000 hids, in 1855 ; and 14,923 tons, from 66,500 hhds. in 1851 ; if we add to this the product of the maple-tree the past year, say 35,000 tons, and the estimated consumption of Callfornia and Oregon, 6000 tons, would imnke the total consumption of raw sugar in the C'nited States in 1857, 332,065 tons, against a total consunugtion in 1856 of 412,135 tons-making the decreas? in the conaumption of all kinda, sny ${ }^{19} 9_{10}^{42}$ per cent. The quantly of foreign sugar consumed in 1857 by the soveral ports (nut including tho coastwiso receipts, they being embraced in the calculation at the origmel port of entry), was-New York, 142,187 tons; Bloston, 28,111 ; l'hiladelphia, 21,157; 13altimoro, 18,860: New Orleans, 20,448 ; and other ports, 10,993 : total, 241,765 tons.
"A aomewhat novel feature in this trade has heen the large importation during the past year of the articte known as melado, etc., the receipts into the country having reached equal to abont $\mathbf{7 0 , 0 0 0}$ lidids. - say 23,400 tons angar (deducting 50 per cent. from weight, to make them equal to ordinary grades sugar, which, it will be observed, wo have done tiroughout the statement In all cabes of recelpta, stocks, and exporis). We understand, however, that the importation of this article has proved far from lucrative, and the probse
bilitien are that the commerce in these goods for the year now entered npon will be comparatively small.
"Mercantile enterprise seems to have ransacked the 'uttermost parts of the earth' to procure supplies of this artiele, ao essential to the comfort of the human famlly; and not only the 'lighwaya;' but the 'byways' of commerce have been diligently explored, and searce a field left ungleaned; hence we have seen within the twelve-month cargoes and invoices landed here from parts of the globe hitherto scarcely known as angar-produciag countriea.
"The very extraordinary prices that augar has commanded daring the past two or threo years, but eapecialiy the first half of last year, has been the meana of transferring this articie from the catalogue of the necesearies to that of the luxuries of life, and the consumption, as we have seen, has been greatly curtailed. If we add to thia the partial, and in many parts of the country the entire failure of the fruit crope (very large quantities of sugar being usualiy consumed, when fruits are abundant, in the mannfacturs of conserves, jellica, ete.), together with the intense and almoat unparalieled money janic, and rigid economic contraction, which supurvened from early autumn till now, the great diminution in the consumption is readily accounted fo:: Brean, and a few other articles of daily use, aro vary difficult to economize in, at almost any valuation; but the caso ia difierent with sugar-it assumea the character of a iuxary, or necessity, accordiag to its cont.
"A by no meana insignificant cauae aiding the reduction of the conamption of cano sugar in this conntry the past year, may be traced to the unusual, end, we believe, unprecedented yield of sugar made from the maple-tree. The season was one of the most favorable reniembered, extending over a period of nine weeks (three to four weeks belng the usual jength), and the farmers, atimulated by the prices that were current for sugar, labored indefatigably at the anp ketties; and the resuit is, that the product of the United Stetes, the past season, of this deseription of sugar, is set down at 36 (c) 38,000 tons. There are, unfortunately, no reliable data to determine the extent of the crop, but after carefully collating the information in our possession, we have no doubt that the yield was fully up to 35,000 tons-a very important item in our consumption, and contributing in no inconsiderable degree to the relief of the last year's deficieney in the product of the sugarfieids of Louisiana.
"The sangulne expectations that were eatertained by many in the early part of the year with regard to the sorgo, or African and Chinese imphee, have not been ralized. The experiment of cultivating this piant for its sugar properties has been entered into the past season quite extensively in many parts of the country, but, as far as wo can gather, though there have been a few isolated cases of success, the general result has been unsatisfactory. A very fair quality of molasses ins been produced, but there scems to be a difficulty in concentrating and granulating the sirup, owing either to a doficlency of saccharine qualities, or an ignorance in treating the julee of the cane; at all events, wo believe it is generally conceded thet erystallizablo sugar can not be obtained liere from the imphee in sufficient quantities to repay the labor and expense of cultiva: ng it, even when angars rule at a high currency.
"The supply of foreign needed, is governed in agreat mensure by our domestic crop, and hence there is a general intereat felt as to the probabic extent of the yield. In our last annual atatement we said that the Louisiana crop, then coming forward, was estimated at from 80,000 to 120,000 hhds.; the actual out-turn was only 73,976 hhds., ngainst 449,324 hhds. in 1853, the large crop year."-N. Y. Price Current, January, 1858.

The present erop of Louisiana, conecrning which such high expectations were entertained during the
early part of lant year, while yet growing, has again proved a comparative fallure, notwithatanding a larger breadth of land was placed under cultivation. Plantera having been greatly atimulated by the high currency, and having during the fall and winter months of 1858 and 1857, little or no sugar to make, were enabied to place all their laborers into their fields, and put them into a very high state of coltlvation; but a late spring, a dry summer and fall, and a heavy and unexpected frost oceurring on the 20 th November,
appointed their hopes, and the yield will not, aecuading to the best anthorities, exceed 250,000 hhds., and It may not reach that figure. The consumption of the valley of the Mississippl, including New Orleans and neighborhood, with sugars at a moderate price, ls estimated at 150,000 @ $160,000 \mathrm{~h}$ hds. (it has reached 208 (1) 210,000 hhds. when low ratea prevailed), leaving available for shipment to the Gulf and Atlantic ports 80,000 -3 90,000 hhds.

The precelling tables ahow that the reeeipts into this port direct, of foreign unrefined sugar, for the year ending December 31, 1857, were 161,942 , against an import of 171,156 tons in 1856, 126,844 in 1855, and 09,491 in 1854 ; and the quantity of foreign taken from hero for consumption in 1857 was 148,802 tons, against a consumption of Soreign in 1856 of 161,455 ; in 1855, 121,356; and in 1854, 92,500.

The port of New York has received and delivered for conaumption $58 \frac{81}{80}$ per cent. of the whole quantity of foreign inported into the United Statea during the past year.

It having been abcertained at an early period of the season that the crop of Louisiana augar would prove not only deficient, but almost an entire failure, and that the fields of Cuba would scarcely return an average yield, an impetus was immediately given to the foreign trade, seldom if ever before witnessed, and the importation of the first six months was without a parallel in its history. The extreme and unusual pricea soon told, howover, with unerring effect upon the consumption, and the contrast between the departure of the year 1857 and its commencement ia sharply defined; luoyancy, elasticity, and confidence marked the opening months-depression, languor, and timidity the closing ones.

The past year will be long remembered by those engaged in tho sugar trade as one of unparalleled ex citement, great fluctuations, and nu littie disaster, stamping it as far the most eventful one, at least in the present century. The prices of this article, which had been steadily advancing for nearly three years, reached in early summer their maxinum, and the deeline since then has heen rapid and extreme; there are, however, but few interests that have suffered 80 greatly from the effects of tho finaneial hurricane, that has devastated almost the whole commercial worid during the past four monthe, as the one now under review, and the number is also still less that have with stood the storm more bravely; this fact seems to war rant the belief thet the trade resta on a more than ordinary substantial basis. The losacs that have been sustained, though considerable, have fallen in a great measure upon the pianters and speculators of Cuba, on whose account the bulk of the stock here waa lield, and they having during the preceding two years realized farge advances by the rapid appreciation in prices which have ruled in all tho marta of tho worid, and which placed them in a very strong position, have been enalled to support these losses, it is believed, with coisparatively little inconvenience.-I bid.

At the commencement of the year the stock of forcign at this port was 9816 tons, againat a stock of 3049 tone, January 1, 1856. During the early part of the month of January: the demand was quite moderato from the trade, and the refinera being generally engaged, according to cuatom, in making their annual repaira, ete., to their machinery, the business was
mmall; this dullness, however, was poon followed by an being if a 8 cents. The saleo and resaleo for the jncreasad activity. It having been satiofactorily abcertained that the crop of Louisiana would be a very amall one, refiners entered the markot with apirit, and pricea advanced on all kinde $t$ a $\boldsymbol{f}$ of a cent. A firm, buoyant feeling provailed throughout the month, though at the close a folling off in the demand was obsorvable ; full prices were, however, realizod without difficulty, holders having constantly the advantage. On the 13th, the firat arrival of dew crop melado reached here, and solic at 7it cents; and on the 15th, 87 hhds. new Cubm muscuveio arrived, and was placed at 10 (1) $10 \frac{1}{2}$ cents, the opening price the previous year
month were 75 hhds. New Orleans, 4800 hbdu. and 18,600 box es ; Cuba, 1850 hhds. ; Porto Rico, 280 hhds. ; Knglish Ialand, 288 cases and 4328 bags Brazil, and 818 thda. metado.-For further information, see De Bow'e Review, vil. 56 (R. S. M'CulLoch), iii. 244, 294, x. 218, xil. 646, xili. 57,178, iv. 229, 883, bil, v. $349 ;$ Southern Quarterly Review, Iil. 829; North American Review, x1. 415; Edinburgh Review, 1. 426.
The followtigg table showe the range of prices of all gar in Now York ench month, and average value of the various desorlptions of sugar each year, for the past four years:


| Yoars. | Orlaman. | $\begin{gathered} \text { Cubs } \\ \text { Muneovado. } \end{gathered}$ | $\begin{aligned} & \text { Porto } \\ & \text { Hico. } \end{aligned}$ | Havena, whita. | Havana, brown. | Manilla. | $\begin{aligned} & \text { Eraxil, } \\ & \text { whiln. } \end{aligned}$ | $\begin{aligned} & \text { Brazif, } \\ & \text { brown } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} \hline 1854 \\ \hline \text { January..... } \end{aligned}$ |  | 4 | 4 | 6) (a) 7 | of (3) 0 | 41 (c) | Ot (a) |  |
| February | $4{ }^{4} 6$ | 4t (4) 0 | 4t (e) 6 | 0f (a) 1 | ${ }_{5}(2)$ at | 4 (3) | 6is 64 | ${ }^{6}$ ( ${ }^{\text {a }}$ |
| March. | 4 (9) 6 | 4 (c) 6 | 4 (a) 6 | 0f (c) 7 | ${ }_{5}{ }^{\text {a }}$ (a) 8 | 4 (4)6 | $6{ }^{6} 91$ | $6 \stackrel{ }{6}$ - |
| April | $8^{81} 8$ | 38 (a) bt | 4 (6) | 61 (a) 7 | $4{ }^{4}$ (3) 61 | 41 (1) 5 | $6{ }^{6}$ C 61 | 6 - |
| May | $\left.{ }^{8 t}\right)^{5 t}$ | 4 (a) 0 | 4 ¢ 01 | $0{ }^{\circ} \mathrm{C}$ | ${ }_{5}^{5}$ G 0t | 4 4 ${ }^{1}$ | .... |  |
| June | $8{ }^{\text {a }}$ c 51 | 436 | 4 (a) 5 | $61{ }^{6} 7$ | 5 G ot | 4 (9) 5 | .... |  |
| July | Bt $5 t$ | 4 (a) 0 | 4 (c) 한 | $61{ }^{4} 7$ | ${ }_{5}^{5}$ ¢ 01 | 41 (a) 8 |  |  |
| Augu | $4{ }^{6}$ | $4{ }^{4} 5$ | $4{ }^{4} 8$ | 7 (9) | 5 co 6 | 4165 |  |  |
| Septom | $4{ }^{4} 6$ | 1) (a) 0 | 41 a 0 | 7 (a) 7 | 5 (c) 6 | 41 (1) ot |  |  |
| Octobe | $4{ }^{4} 6$ | $40^{8}$ | 5 (त) 01 | 7 (d) 7 | 5 G 1 | 0 (a) of | ... |  |
| Noremb | ${ }_{4}{ }^{\text {a }}$ (3) 6 | 44 (1) ${ }^{\text {a }}$ | ${ }^{5} 6{ }^{5} 968$ | 7 \% \% | $\square^{5} 1$ |  |  |  |
| Decembe | $4{ }^{\text {a }} 6$ | 4 (a) 5 | 416 63 | 7671 | - © 7 | 51 (a) 51 |  |  |
| Average for tha year .. 1855. | \$4.90 | \$4.83 | $5 \cdot 33$ | \$7.00 | \$6. 68 | * 4.02 | \$60 | \$5.00 |
| January...... | $4{ }^{4} 68$ | 4 (a) ${ }^{61}$ | 4t (a) | 8t a 7 | ${ }_{5}$ (a) 07 | ${ }^{51}$ (a) 6 |  | - (6) 6 |
| Februar | 4 ¢ 6 | * ${ }^{4}$ | $40^{6}$ | $6{ }^{6} 1$ | ${ }^{6}$ c) 6 | Bt (a) ot |  | -(a) 51 |
| March | $4{ }^{4}$ | 4 (2) of | $4)^{6} 6$ | 6919 | ${ }^{6}$ (a) 6 | 时 (1) 6 | (G) 6 | - (a) |
| Apri | 4 C ${ }^{8}$ | 41 (a) 61 | 41 a of | $61 \times 1$ | $6_{6} 6$ | of che | Cat of |  |
| May | ${ }^{\text {4t at }}$ of |  |  | 61 C | ${ }^{4 t}$ (1) ${ }^{\text {a }}$ |  | (6) $6 t$ |  |
| July | 6 (a) 0 | ot © 6 | 51 (3) 61 | $7{ }^{1}$ (9) 8 | of (2) 7 |  |  |  |
| Auguat | 51 (a) 8 | $6{ }^{6}$ (a) 7 | 6 (9) 8 | 7 (1) 81 | 0 (9) 8 | 61 ca 61 | -6 7 | (6) 61 |
| Septem | 6it (a) 8 | ${ }^{\text {ot c }}$ 8t | 7 (13) 8 | 84 (n) | $61{ }^{61} 8$ | $6{ }^{61}$ (4) 61 | .... |  |
| Oetober | 61 (6) 8 | $8{ }^{8} 8$ | 01 (3) 81 | 8 (4) 9 | 64 ¢ 81 | $0{ }^{\text {a }}$ (a) - |  |  |
| Nove | ${ }^{8} \mathrm{C}^{81}$ | ${ }^{6}$ (4) 81 | ${ }^{61}$ (a) 8 | ${ }^{8}$ (a) 8! | 64 (a) 8 | 6i (a) 71 |  |  |
| Decem | It (a) | 6t 3 8 | 7 (a) 8 | $8{ }^{8}$ (c) 81 | 7 (a) 8 | 7t (1) |  | -(a) 7 |
| Average for the year .. 1856. | 8025 | \$6.04 | \$6.37 | \$7.66 | \$0.64 | \$0.04 | \$0.46 | 6.77 |
| January | 8 (a) 9 | T ${ }^{8}$ | 7 (a) 8 | $8 \pm$ (a) 01 | 7 (a) 87 | It (a) - |  | it (c) |
| Februa | T1 9 | 7t (9) 8 | 7t © 81 | 0 (a) 01 | 719 9 | 71 (a) - |  | It © |
| March | 7 (a) 9 | 01 (a) 81 | 7 (a) 9 | 0 (a) 01 | 71 (3) 0t | 7 (3) - |  |  |
| April | 6t (a) 8t | 6 (3) 8 | 7 (a) 0 | Of (a) - | 7 (a) 9 | 7t (6) - | .... | $\cdots \cdots{ }^{1}$ |
| May | ${ }^{6}$ (a) $8 t$ | ${ }_{8}^{6} 6^{8} 8$ | $66^{6} 9$ | ${ }_{8} \mathrm{C}_{6} 9$ | 7 (a) 8 | 7 (3) 71 |  | 74 ${ }^{\text {a }}$ |
| June |  |  | $7{ }^{7}$ (1) ${ }_{\text {a }}$ | $\begin{array}{ccc}0 & \text { (a) } & 10 \\ 10 & \text { G } \\ 10\end{array}$ | 7t @ 71 | $81 \times$ |  | 71 (a) 8 |
| Augu | 8 (a) 9t | 8 (a) 9 | $8{ }^{1}$ (a) 10 | 10 - | 8 ¢ ${ }^{\text {a }}$ | $8{ }_{81}{ }^{\text {a }}$ | 10 ®®10t | 81 (a) 51 |
| Septem | 8 (a) 96 | T) ¢ $^{81}$ | 12 (a) 10 | 11 (a) 12 | St a 101 |  | 9t (a) 10 | 8 (1) - |
| Octob | 8 © 10 | 7 (3) ${ }^{\text {d }}$ | 8 a 10 | 11 (a) 12 | $8 t$ (a) 104 | $8{ }^{\circ}$ G ${ }^{\text {a }}$ | Of (1) ot | $8 t$ (i) - |
| N | ${ }_{8}^{8}$ a $10 t$ | 73 (a) 10t | 8 a 101 | 11 (a) 124 | $9{ }^{9} 101$ | 9 (\%) | .... |  |
| D | 8 (a) 11 | 7 (c) 104 | 81 ct 107 | $11+$ (a) $12 i$ | 0 (a) 11 | 8) (1) 9 | ... |  |
| Average for the year .. 1857. | \$8.83 | \$908 | \$5.52 | \$10.23 | \$800 | *8.06 | \$9.83 | \$7 84 |
| January.. | 9 (a) 11 | 8 © $10 t$ | 81 (al 11 | 114 cal 12 | $8 \pm$ cal 11 | 81 (c) 01 |  | - a 91 |
| February | 9) 11 | 81 a 10 | 0 (a) 11 | 18 (a) 12 | 0 (a)11 | - (a) 0t |  | - (a) 9 |
| Marc | .... | 81 (1) 101 | 9 a 11 | 12 (a) 12t | 0 (c) 11 | 0t (a) ot |  | -(a) 91 |
| May | .... | 8) (a) 11 | of (a) 117 | 12 (13 14 | ${ }^{91} 0^{2}$ a 127 | $9 t(10)$ | .... | - (a) ${ }^{\text {a }}$ |
| June |  | 9! (¢) 11 | 10 (19) 12 | $\begin{array}{llll}13 & \text { a } \\ 18\end{array}$ | $10 t$ ¢ 12 | 10t (4) 10 |  | -1/ (a) 10. |
| July |  | 7 (a) 101 | 81 @ 11: | 12 (a) 14 | 91 a 12 | $\bigcirc$ (4) $10 \frac{1}{}$ |  |  |
| Anguat. |  | Bt © 101 | 8 (a) $11 \%$ | 11t (a) 18 | 71 a 11 | 8 ¢ 94 |  |  |
| Septemb |  |  | 7 (a) 101 | $104{ }^{10}$ @ 124 | ${ }^{8}$ @ 11 | - (a) 8 |  |  |
| October |  | ${ }^{6}$ 4) (4) ${ }^{\text {(4) }} 8$ | of (a) bi (a) 0 | ${ }_{\text {che }}^{10}$ @ ${ }^{\text {a }} 11$ |  | at (a) 01 |  |  |
| December | 6t a 81 | 5 (c) It | 6t (a) 88 | 81 (a) 01 | 61 (a) 8t | - (3) $6 t$ |  |  |
| Average for the yea | 秉 904 | \$8* 6 | \$ $\$ .41$ | \$11*7 | 4369 | \$ 68 |  | \$ 74 |

-See Shipping and Commercial Lish, New York.

Beet-root Sugar.--Tho manufecture of sugar from beot-root is cerried on to a very considerable extent in several parts of the Continent, particularly in France and the north of Germany. It began in France during the exclusion of colonial preducts in the reign of Napoieon, and recelved a aovero check at the return of peace, by tho admission of Weat India augars at a ressonable duty. It in probable, indeed, that it wonld long since have been entirely extinguished but for the additions made to the dutics on colonial and forelgn sugars in 1820 and 1822. After the last-mentloned epoch, however, the production of beet-root sugar began rapidly to increase; and such was its progreas, that though, $\ln 1828$, its produco did not exceed
$4,000,000$ kllograma, it amounted in 1838 to $39,199,408$ kilograms.

Up to the middle of the 18th century the caue was the only plant known to contain sugar. In 1747 M . Marggref, director of a departnient of the licyal Academy of Sciences in Borlin, firat called attention to the anccharine subatance in the parsnep, the birch juice, and carrot. At a later period, Parmentier discovered the same ingredient in the composition of corn and chastnuts. But the chemical oxperiments made by these asvana accomplished no prectical reault. Yet, oven heforo Napolcon I. had Impoegd on Europe the principle of absolute prohibtion, the necesaity of a substitute
for the expenaive colonial sugar was urgentiy felt. As
esrly as 1706 the beet-root was analyzed by Aohard In Berlin, who ubtained from 100 lbs , of the raw materiaj 5 lbs. of white augar and three of molasses.
It was only since 1830 that the production of indigenous sugar began to manifeat its inherent atreagth. From three million tons is 1830, it rose to sixty-five millions, or half the consumption of the empire, in 1850, and this was accomplished under the preasare of an impost of from $16+$ to 22 francs per 100 kilograms upon the home manufacture. "The last ten yeara have shown," remarka Mr. Tegoboraky, "that thore is a vitality about the manufacture of beet-root sugar on the continent of Europe which was far from being imagined twenty or thirty yeara ago." Considering that in France it so quickly recovered from the blow deait in 1843, by an impost placing it gradually on a level with the augar of the colonies; that t'a terror then experienced by the French manufacturer, which made him, in many inatancea, abendon hia eatablishments, was now feit by the rival colonists; that in Germany, where the tax of 1842 at firat arreated the home manufacture, it immediately resumed the ascending movement, so that the production of 124,000 centacrs in 1813 had risen to 660,000 in 1849, or quintupled in the short space of six years.

The quantity of crystalizzable augar contained in the cane and beet-root is equally variabie in both, fopending on the quality of the plant, soll and climate, etc. The saccharine substance in the cane varies from 10 to 30 per cent, ; in the beet-root from 5 to 13 . In the former 18 , in the latter 10 per cent. are generally admitted as a fair average. The difference, however, in favor of the cane is, as will be seen presently, equalized in consequence of the advantages attending the manufacturo of augar from beet-root, irreapective of those derived from the culture of the latter. In the cono 90 per cent. is liquid to 10 per cent. solid matter; in the beot-root 05 is liquid to 5 per cent. only of solld filamentous substance. The extraction of juice, by means of the hydraulic press, from the latter exceeds, therefore, by five por cent. the quantity obtained from cane. Of tho 95 per cent. of liquid absolutely contained in the beet-root, from 75 to 85 per cent., on an average, are practically gained by the process of compreasion, while the juice extracted from the cane in the colonies represents only 50 per cent., on an avorage. In Beagal it is no moro than 30, and whern the best appliances are used it does not exceed 60 . Thus, of the 10 per cent. of aaccharine matter, which is absolutely contained in the beet-root, from $7 \frac{1}{2}$ to $8 \frac{1}{2}$ per cent. are realized as sugar, while from the 18 per cent. of tho cane from 10 to 12 per cent. of sugar are realized, and in Bengal only 7. Hence, at this stage of the demonstration of the comparativo value of cane and beetroot, respecting the practical resalts obtained from them, we find the difference already reduced from 9 to 5 , representing their proportion of aaccharine matter, to 12 to $8 \frac{1}{2}$, representing the sugar actualiy realized. The sugar of which wo apeak here is not yet crystal lized. The process of crystallization modifics still further the above difference in favor of the beet-root. Of the $7 \frac{1}{2}$ to $8 \frac{1}{2}$ per cont. of bect-root sugar, the residue, in the form of molasses, has bee dimini 'ed, in consequence of modern improvements, to from $1 \frac{1}{2}$ to $2 \frac{1}{2}$ per cent., which leaves from 6 to 7 per cent. as solid crystallizod and marketable sugar.

The results obtainedi in this respect from cane-juice in the tropical colonies we present in the following table:


The natural apperiority of the cane, thus redaced in the process of manafacturing, is nearly neutralized, when the fact is taken into conalderation that more time is required for the cane to ripen than for the beetroot. According to an accurate eatimato, four crops of the latter can be harveated againat three of cane. M. Stolzel, basing his calculation upon this propartion and the foregoing data, arrives at the final result that, on an average, one hundred pounds of cane yield aix pounds of cryatallized sugar and three pounde of molasses; while, an above stated, one hundred pounds of beat-root yleld from aix to seven pounda of augar, and from one and a half to two and a balf pounds of molasses.

Thoro is, according to the anthority quoted, no difference, thorefore, in the manufacture of augar from beet-root or cane, as regarda tho quantity of the marketable article obtained from an equal weight of either raw material. But then there are several other important subjecta yet to be considered before an opinion can be formed of the relative merits of angar productlon in the tropical colonice and northern and temperate regions. In the first case, the productiveness of each acre of land in the former countriea by far excceds that of the ame aren in the latter. We find the difference illuatrated in two tablea, computed from the best authorities, by M. Stolzel. After a deduction of 15 per cent. for waste in preparing for the press, and asouming a yield of sagar equivalent to 0 per cent. on the remainder, we obtain,

|  | Averagas Crop <br> of Beol.root <br> per Aere. | $\begin{aligned} & \text { Prodncl of } \\ & \text { eryulallisable } \end{aligned}$ fugar. |
| :---: | :---: | :---: |
|  | Contoer. | Pounds. |
| In Austria . | 209 |  |
| In Hohemia | 188 | 1061 |
| In Irusian. . . . . . . . . . . . . . . . . . . . | 298 | 1632 |
| In environa of Heldelberg........ | 191 | 1283 |
| In France (Department of Nord). | 272 | 1827 |
| In Franee (other departments) . . | 170 | 1142 |
| In Frameo (general avarage)..... | 204 | 1870 |

After a deduction made in consideration of the fact above atated, that four creps of beet-root are produced in the same period as three of cane, each acre in the colonies produces,

Cbygtallizable Stoar

| Cbybr | Pounde |
| :---: | :---: |
| In louisiana.... | 1000 |
| In San Domingo | 1066 |
| In İengal | 1626 |
| In Martitque | 1680 |
| In Yora Cruz. | 1880 |
| In Giladaloupe | 2000 |
| In Islu Beurbon | 3368 |
| In Cube | 40 |

Thus the average of all these figures, or the mean annual produce of sugar per acre in the colonies, is 2400 lbs., in Europe 1360 lbs. The proportion is $18 \cdot 10$ in faver of cane, which is still increased by the higher value of land in Europe than in the tropica. The mean price of land per acre, according to authentic statements, is,


The average of the whole is $\boldsymbol{£ 4 0} 17 \mathrm{~s}$. per acre for Europe, and $\boldsymbol{£ 8}$ per acre for the colonics. (The average valuo of farm lands thronghout the United States is, according to the censms of $1850, \$ 1079$; and in the Northern Statea it varies between $\$ 12$ and $\$ 60$.) To show in what manner these advantages of greater pro-
ductiveness of the land, and Its lower price la the colonies, are more than counterbalanced in Europe by tha lower rates of Intereat on the capital required for the purchase of these ianda, and the erection of the factories; the more Intelligent, efficient, and cheaper labor; the greater abundance and cheapneas of the important ltem of fuel; the advantages of a home market; and the accessary prollts derived from the culture of beet-root, In the slape of fodder for cattlis, wo reselve for a coucluding article, together with a review of the practical lnducements offered to the cultivators of beet-root, and the manufacture of augar, by the conditlons of the Northern and Middlo States of the Ualon.

Maple-sugar.-A apecles of maple (Acer saccharisum, Llan.) ylolds a conslderable quantity of sugar. It growa plentifully in the United Statea and In Canada, and in some districts furnishes the inhabltanta with mont of the angar they make use of. Though fuferior both in grala and atrength to that which is produced from the cane, maple-sugar granulatea better than that of the beet-roos, or any other vegetable, the cane excepted. It la produced frons the sap, which is obtaiaed by parforating the troe la the apring to the dopth of about two inchen, and setting a vesael for lta reception. The quantity afforded varies with the tree and the acason. From two to three gallons may be about the dally aycrage yield of a sligle tree; but some trees liave yrelded more than twenty gallons in a day, aud others not more than a pint. The procesa of bolling the juice does not differ materially from what is followed with the cane juice In the Weat Indies. It la necessary that it should be boiled as acon after it is drawn irom the tree as possible. If it be allowed to atand above twenty-four hours, it is apt to undergo the vinous and acetous fermentation, by which its aaccharlne quality is deatroyed.-Botcueste's British America, Timber Trees and Fruita, Library of Entertaining Knowladge. See article Maple-sugar.

Chinese sugar-canc.-This new plant seems to be deatined to take an important postion among our economical prolucts. Its aecds wero aent some six yeara ago from the north of China, by M. de Montigny, to the Geographical Society of Paris. From a cursory examination of a amall field of it, growing at Verrieres la France, In the sutumn of 1854, Mr. 1. J. Browno. then on a mission from the U. S. Patent Office for col leeting agricultural information and produets, was led to infer that, from the peculiarity of the climute in whieh it was growing and its resemblance to Indian corn, it would fourish in any reglon wherover that plant would thrive. From this suurce he obtained some 200 pounds of the seed, which was diatributed in small packages among nembera of Congress, with the vlew of experimenting with it in all parts of the Union, and thereby ascertalining its adaptation to tho soil and climate, and its economical value in tho Cnited States. In numerous instances the results proved highly satisfactory, as it attained the height of , lve or fifteen feet as far north as St. Paul, Minnesota, and inatured Its aeeds at varieus points in Massachusctts, New York, Pennaylvania, and Illinols. The following year, while in France on a almilar mission as above, Nr. Browne obtained aeveral bushels of the seed of this plant, grown from that reputed to have been brought from South Africa by Mr. Leonard Wray, of London, and which has since proved to be idertical with that obtained in 1854.

There appears to be a doubt among many la Europe, as well as In thla country, as to the true botanical name of this plant. N. Louis Vilmorin, a acientific cultivator of Paris, provisionally gave it the name of Holcus saecharatus, which had provloualy been applied to the common liroom-corn, if not to other epecies, or at least varieties, of some allied plant. Ile also conjectured that it might be the Sorghum rulgare (Andropogon sorghum of others), and thought that it might comprehend a variety, as well as Andropogon cafra,
bicola, etc., of Kunth. Mr. Wray, who has devoted mneh time and attention to the cultivation of this plant, with the view of extracting sugar from lt juice, at Cape Natal and other placea, atatea that ln the southeast part of Caffraria thers are at lasat ffteen varieties of ft , eome of them growing to a height of twelve and afteen feet, with stoms as thlek of thoso of the stgar-cane (Sacchartm officinale): M. Vilunorin also says that, In a colloction of soeds eent to the Musum of Natural Illatory at Paris in 1840, hy M. d'Abadre, there were thirty kinds of sorghum, aniong the growth of whioh he recogniaed several plants hurlog atems of a asccharine thavor. Others are of tho oplnion that the common broom-corn (Hokcus atcrharytus), the chocolate or Gulnea corn (Sorghum ruigitre), and the Chinese sugar-cane (Sorghtem aaceharatum), all of which contain more or less saccharine matter, helong co the same apecles, hut aro variations caused by differences of soil and cllmate, or by a diaposition to sport after the manner of Indian corn, and other plants under eultivation. The Chinese sogar-cane illffera from tho othera in containing a far larger proportion of juice, and consequently is more valanble for fodder and other economical uses.

In 1760 a piant analogous to the one In queation was experimented upon at Florence, In Italy, ly lietre Arduino, for the extraetlon of augar; yot it inukt hare been of a very different variety, as he describes its seeds as of a clear hrown color, while those of the Chineae angar-cane are of a shining jet black, and in appearance identical with those of the Surghtm rulgare of the old collection.

Description and Habit of its Groveth.-The Chinese sugar-cane, when cultivated on ordinary land in the United Staten, somewhat after the manner of broomcorn, growa to a leight of from eight to sisteen feet, while in Europe It does not attain more than haif this altitude. Its atems are atralght and smooth, often covered with a white bloom or down, having leaves somewhat flexuous, falling over and greatly resembling in appearance those of Indian corn, tut nore clugant in its fortw. Where cultivated In hills, containing cight or ten atalks each, it puts forth at its top a cunical pinnacle of dense flowera, green at first, but changing into violet shades, and finally into dark purple, at ma. turity. In France, and in the contral and northern sections of tho United Stateo, It has thus far proved an annual; but from observations mate by M. Vilmorin, as well as some experiments in our Southern States, it is conjectured that, from the vigor and fullness of the lower part of the atalks in autumu, by protecting them during the winter, they would protuco new plants the following spring. It stands dearth far better than Indian com, and will resist the efiects of conaiderable frost without lnjury, after the prannicles appear, but not in ith younger and more tender state. If suffered to remaln in the field after tie eceds have ripened and been removed, when the season is sufficiently warm and long, now pannjeles will shoot out st the topmont joints ons or more to cach stalk, and mature a second crop of needs. The average ylela of sced to each panniclo ia at least a gill.

Bulphur, or Brimstone (Fr. Soufre; Ger. Schcefel; It. Zolfo, Sulfo; Sp. Azufre; Aral. K'ibref), a crystallizel, hard, brittle aubstance, commonly of a greonisit yellow color, without any amell, and of a weak though perceptible taste; fts apecific gravity is from 1.9 to $2 \cdot 1$. It hurna with a pale blue finme, and emits a great quantity of pungent, anffocating vapors. In some parta of Italy and Sicily it is dug ap in a state of comparative purity. That which is manufactured in England is obtained hy the roasting of pyrites. It is denominated rough or roll sulphur, f.um its being cast in cylindrieal monlds, and contains 7 per cent. of orpiment. Tho Itallan roll aulphur doea not contain more than 3 per cent. of a simple earth; and is, therefore, in higher eatimation than the Finglish. Whea
ro.a sulphur la purified, It recelves the name of sublimed oulphur, and is in tine form of a luright yellow powder. -Tılomson's Chemietry, ete.

Gumatra, the mont western of the Sunda lslands, Asiatio Archipelago, and, next to Borneo, the largest In the eastern seas, between lat. $b^{\circ} 40^{\prime} N_{n}$, and $6^{\circ} \mathrm{S}$., and 'ong. $05^{\circ} 20^{\prime}$ and $106^{\circ} \mathrm{E}_{1}$, eeparated on the northeast from the Malay penlnaula by the Stralt of Malacea, having east the Java Sea, and the Strait of Sunda separatlug it from the island of Java, on other sldes the Indlan Ocean. Length northweat to southeast 1100 miles; braudth 60 to 240 miles. The area has been estiunated at from 128,000 to 130,000 aquare miles; population $1,437,360$, moatly Malays, but partly of the l'apuan negro race, with Moors in the northwest, and Dutch and other foroiguers. The eastern half of the island is mostly levisl or undulating, and along the coasts thore are many sandy and marahy plains traversed by the Siak, Judrageri, Jambl, Palembang, and other rivers of large size, hut which have been little oxplored by Europeans. Climato in the plains Is lesa oppreasive than might have been expected; at mldday the thernometer usually ranges between $82^{\circ}$ and $85^{\circ}$, sometlmes rising to $88^{\circ}$; but at sunrise not more than $\mathrm{U}^{\circ}$ Fair. Denae foga, thunder-storms, and waterspouts off the const are frequent. Much of the island is ancupied by dense forests. Iroducte consist of rice, sago, millet, cocos-nuts, betel, sugar-cane, an abundance of tropical fruits, turmeric, ginger, coffeo, ratans, scentel wood, teak and other timber, and the European coloaists successfully eultlvate the vine; but the prinelpal articlos of export nro pepper to about threo million pounde yearly, gold dust, copper ore, sulphur, camphor, in tho north ; nutnegs, cloves, and mace, in the Dutch territory of Bencoolen; and coral, benzoln, gutta pereha, tin, in l'alembang and Menankabow; many of which articles aro brought by natives from the interior, and bartered at tho ports for Indian and European manufactured goods. Iron, coal of an inferior quality, and naphtha, are among the mineral products. The inhabitanta luild their houses on posts, and adopt other usages of ultra-Gangetle nations; they manufacture gold and silver filagree work with great skill, also silk and cotton fabries, earthen-wares, armis, and domestic goods generally; from PalomLang, laequored basina, cane boxes, and ratan mats of the best quality are exported to Singapore ; and it le said that cannon were formerly cast at Acheen, in the northwest, which territory is, however, peopled by a race of Moorish descent. Imports, besides manufactured goocis already mentioned, are opium and salt from India, coarse porcclain, iron wures, gold thread from Chins, striped cottons, apices, krises and othor weapons from Java, Colebes, and other islands of the Archipelago. The island ta divided among a number of native states, the chiof boing Acheen, MLenankabow in the contral mountain region, Batak, Siak, Jambi, Palembang, Lampong, along the east from north to south, moatly noder the supremacy of tho Dutch, who possess the aettlements of Bencoolen and Padang, on the western coast.

Eumptuary Iaws. Laws to restraln excess in dress, furniture, eating, etc. Those of Zaleucus ordained that no woman should go attended hy moro than one maid in the atreel, unless sho were drunk; and that she should not wear gold or embroidered apparol, unless she designed to act unchnstely, 450 n.c. -Dtog. Lafrt. This law checked luxury. The Lex Orchia among the Romans limited the guests at feasta, and the number and quality of the dishes at an entertainment; and it also enforced that during supper, which was the chief meal among the Romans, the doors of every houso ahould be left open. The Engllsh sumptuary laws were chiefly in the reigns of Edward III. and Henty VIII.-See Dreas, Lexuity, ete.

Superoargo, a person employed to oversee the cargo or sale of the cargo. The duties of a supercargo aro not apecially regulated by law, hut are dependent
upon special agroemeat between the owners of the cargo and himsclf. Generally the power of a supereargo does not extend beyond the cargo, the master alone being reaponalble, and haa Ita limita in the arrival and departure from trading ports. However extended may be the authority conceded to a eupercargo, such authority must be aubordinate to the common Interest of the vessel and cargo. When the powers of a supercargo extend to the navigation $o_{0}^{\text {a a alilp, they must }}$ be commi:nlcated through the captaln, and have reference only to the destlation of the shlp, and not to the particular management of the ship. Even a supercargo, in cases of necesslty, and acting with discretion, may bind the owners of a ship.-I'otinen, CharteI'artie; Dodson's Admirally Rep., 1. 278. Ses articles Master, Insurance, Simpino.

Buperior, Lake, the largest sheet of fresh water on the face of the globe, and the most remarkable of the great American lakes, not only from its magnitude, but also from the picturesque scenery of Its borders, and the Intereat and value attaching to jta geological features. As a mining region It ls one of the most important in this country, and is rich in veins of metallie copper and sllver, as well as in the ores of those metals. At the prosent moment it may be regarded as the mont valuable mining district in North Amerlca, with the exception only of the gold deposles of California.

Thir great lake is comprised between the 46th and 49th dogrees of north latitude, and the 84th and 92d degrees of longitude, weat of Greenwich. Its greatest length is 100 miles; fis width in the m ! dle is 160 miles, sand its mean depth has been estimated at 900 fect. Its surface is about 600 feet above the level of the Atlantle Ocean, and its bottom la 300 feet below the lovel of the sea. The anclent French Jesult fathers, who first explored and described this great lake, and published an account of it in Paris in 1636, describe the form of its shores as slmilar to that of a bended bow, the northern shore being the are, and the southern the chord, whilo Keweenaw Polnt, projecting from the southern shore to the middle of the lake, is the arrow. This graphic description is illustrated by a map, prepared by them, which displays the geograplical position of its shores with as much fidelity as most of the maps of our day, and proves that those early explorers were perfectly familiar with its shores. The const of Lake $S$ verior is formed of rocks of various kinds and of diffe, ent geological groups. The whole coast of the lake is rock-bound; and in some places mountain masses of considerable elevation rear themselves from the immediate shore, waile mural precipices and beetling erags oppose themselves to the aurges of this mighty lake, and threaten the unfortunate mariner who may be caught in a storm upon a lee-shoro with almost inevitable destruction. Small coves, or boat harbors, are abundantly afforded by the myrlads of indentations upon the rocky coast ; and there are a few good saug harbore for vessels of moderate capacity, such as steamborta, schooners, and the like.

The fisheries of Lake Superlor are of great value to the people living upon the shores of the lake, and of some impertance to the states bordering on the other and lower lakes, and the inland towns near their borders. To the poor Indian the bounties of the great lakes are of vital Importance, for without the fish the native tribes would soon periah. Game hns become exceedingly acarce in these thickly-wooded regions, only a few bears, rabbita, and porcupines, and some partridges, belng found in the woods, and ducks in moderate numbera upon the waters. Agriculture has scarcely begun to tame the wilderness in the vicinity of the copper mines, and the only crops raised are potatoes and $\mathfrak{a}$ few hardy northern esculents. Small cereal grains-such as oats, barley, and rye-will do well here as in Canada; and Indlan corn of the northern varietles, in places not too much exposed to the
chill breezes of the lake, thrives and ripena. Eingliah grassea have not yet been oultivated, but they will undioubtedly thrive as well on the sonth ahore of Lake Superlor as in New Ilrunswick and Nova Scotia. The native graseen are abundant and good, but are limited to small nataral prairiea or to dried-up ponds. The foresta are also flled with excellent tlmber for bullding purposes ; and where the growth ls of mixed trees, auch as anger-maple, yellow blreh, and plnea, the white mut yeilow plaes are of large dimenalona, and furnish grood luncher. - Sae Laxkes, Commeree of.

Eweden (Sverige), a country of northern Europe, forming the east and larger portion of the Scandinavian peninsula, and one of the kingdoms composing the monarchy of Sweden and Norway $\mid$ situated between lat. $55^{\circ} 20^{\prime}$ and $69^{\circ} 10^{\prime} \mathrm{N}$., long. $11^{\circ} 15^{\prime}$ and $24^{\circ} 10^{\prime}$ F., boonded east by the Baltle, the Gulf of Bothnia and Ruania, south by the Baltle, west by Norway, the Kattegat, and the Sound. Capital, Stockholm. The soil is not geaeraliy fertile, and the corn produced was formerly only about two-thirda of that required; but from the great improvements in agrioulture introduced hy the government within the present contury, and the general introduction of the potate, the produce is now adequate to the consumption. Barley is coltivated as fur north as lat. $69^{\circ}$, but the crops frequentiy fail. Rye, hemp, and potatoes are grown to lat. $66^{\circ}$ N. Oata ripen to $63^{\circ} 30^{\prime}$; whoat and hops ceaso to be cuitlvated with advantage beyond lat. $68^{\circ} \mathrm{N}$. Ono-fonrth of the surface la covered with foresta, but the produce of timber is small; much is used for fuel, and maile into charcoal for use in tho mines. There are few woods to the north of lat. $64^{\circ} \mathrm{N}$. The princlpal trees are the pine, fir, and birch. Fiah are abundant on the coast, and in the lakea and rivers; the herring-fishery has freatly declined, but lobaters are exporterl, and salmon is caught in all the principal rivers. The mining districts of Sweden, mostly in the central provinces, extend over 16,000 square miles; the chief proiucts aro irou, which is distributed over nearly all the country, but the best is found in the loon Upsala; the annuai produce of all the mines is about 70,000 ) tona of bar iron. The richest copper mines are at Fahlun; the annual prodnce in all is abont 1000 tons. Gold is not now mought for, and silver la procured only to a amail extent. The other mineral products are cobnlt, lime, coal of inferior quality, and porphyry. Manufactures are chiefly contined to articles of domestio nee; the principal are woolens, angar, tohacco, paper, llnens, cotton (in amall quantity); tanning is an important branch of indnstry. Ship-bnilding is carriedi on to some extent in the ports of the Baltic. Distiliing and brewing are extenalvely prosecuted. The Internal commerce of Sweden is considierable, and Swediah vessels visit most of the Atlantic ports of America, and the Mediterrancan. Government is a constitutional mon-archy.-SCe Nonwar.

The Swedish monarchy, comprising Sweden and Nurway, embraces an arca of 292,104 squaro miles, and contains a population of $1,615,000$ inhahilants, viz. : siteder.-Area, 170,006 mgare milles: poputation, $8,016,530$ .Vorway, - " 122,003

1,323,470
Siveden and Norway havo different constitutions, though they are governod liy the same king. Their commercial regulations, their tariffs of dutles, their laws and revenues, are all separate. Several treatios of peace, amity, and commerce liave been negotiated between the Uuited States and these countriea; the latest, that of July Jth, 1827, being based upon the liberal principle of entire reciprocity, as weil with Sweden and Norway as with the small but flonrlshing colony of St. Bartholomew, in the Weat Indies. Tho following abstract prosents the principal atipulations respecting commerce and navigetion :
The citizens and sulyects of each of the two high contracting parties may, with perfect eecurity for their jersona, vessels, and cargoes, freely enter all the porta,
places, anm. rivers of tbe territories of the other, wher. over forelgn eommerce la permitted. The veacels of both natlona, including those of the islaad of 8t. llartholomew, whether latien or in ballast, to be treated in the porta of each, on thoir eutrance, during their atay, and at their departure, upon the asme footing aa natlonal veasels coming from the asina place, with reapeet to the dutien of tonnage, lighthouses, pllotage, anil port charges, and all other perquiattes, duties, and charges, of whatevor kind, levied lit the name or to the protit of the govermment, the local authoritics, or any private eatablishment whatever. All merchandise of 'every deacription, no matter of what country it may be the produce or manufacture, that may be imported finto either coantry in nntional vessels (or Into Siwcion or Norway In vessels of the isiand of St. Bartholomew), may in litio manner, and without paying othar or higher duties or charges, of whatever kind or deuomi. nation, bo 1 mported in the voraels of tho other full anil perfect reciprocity and equality ln this reapect he Ing estabished. Siniliar reciprocity and equality between the vessels of each of the high contracting partles, Including those of ths island of St. Bartholomew, In respect to exports from elther conntry, fa established. This equality with the national fiag bs applicable to the vessela of the United Statea proceedlng, either Jaden or In ballast, to the colony of St. Bartholotnow, in the West Indies, whether from ports of the klugdem of Sweden and Norway, or from any other place whatsoover, or proceeding from tho said colony, either laden or In baliast, whether iound for Sweden or Norway, or any other place whatever. The coasting trado is reserved by each party to its own flag, reajuectively; the navigation from one port to another in the kingdem. of Sweden and Norway, or between these two ceunt ries, being considered anch ceasting trade as respects Sweden. Duties on the navigation between their respectire territories, including the isiand of St. Lhartholounew, in tho vessels of either, to be no higher or other than those imposel on every other nation; and no prohilitions, restrictlons, or differential duties, of any kind or de. nomination whatsoever, to be established in respect of the products of the soli or Industry of either country, lucluding the ialand of St. Bartholomew, which shall not erjualiy apply to artictes of tike nature, the growith of any other country. The privileges of trausit, and all bounties and drawbacks wilch may be allowed within the territories of one of the high contractio. partles upon the importation or exportation of any article whatover, ahall likewise be allowed on the articles of liko naturo, the products of the soil or industry of the other contracting party, ani on the lupportation or exportation mado in its vessels.

The 11 th and 12th articles exempt from import and navigation dues (jilotage, wharfage, and lightadues ex. cepted) the vessels of eithor party arriving in the ports of the other, not wishing to unloail any part of their cargoes, or perform any act of trade; and the privilege is mutualiy conceded to untond in the ports of either such portions only of their cargoes as the captain or owner may wish, and to depart with tho remainder, without paying ony dutles, imposts, or charges whatsoever, except for that part which shail be lumdet, the proper entrics having been made on tho vessel's manifest. It is understood, however, that all dutics, ithposts, or charges whatsoover, which are or may becomo chargeablo upon the vessela thomseives, inust be pald at the first port where they shall lireak bulk, or unload part of their cargoes; but that such duties, etc., shall not be paitl twice in the ports of the same conntry which enel vessele may afterward wish to enter, unless national vessels be, in such cases, subject to such ulterior duties.

Article 16 stipulates that on direct voyages between the two countries, reepectively, a bili of hesith, granted at the port of departure by an officer having competeds power to that offect, wlll excmpt the vessel from any 8t. Harreated in cir stay, g as na. h reapect and port clargen, he protht y private of every ay be the rted into weden or olomew), othor or denomither ' fult espeet be uality be cting parholomer, tablished. licable to thor laden $0 w$, in tho ngdom of e whatsoher laden iorway, or lvely; the klagdons countrixs, rects Swerespectire slomew, in than those ohilititons, Inif or de. reapect of $r$ country, hich shall he growth ransit, and e allowed ontractins on of any on the arti. or industry nportation
mport and hitalues exn the purts rt of their e privilege s of eithe captain or remainder, rges what tanded. the sel's mani dutics, inor may be. ces, must be ak bulk, or duties, etc. same coun. h to enter, subject to
other quarantine than such af may be necessary for the visit of the heaith officer of the port where auch veasel shali have arrived. Other asatitsry reguiations are mutualiy atipulated between the high contracting parlies, equally liberal and benefleial to commerce. The ireaty of 1788 , no far as lts atipuiations are not inconsistent with the present treaty, is revived; and the usual tweive montha' notlee, after the expiration of nine years from the exchange of raifications, is provided for. A separate article reserves, on the part of Sweden, certain commercial privileges to Finiand, appilieable to the products of that duchy, and of Sweden and Norway, reapectively.
The fisheriee, the mines, and the forests of thin kingdom wero the early sources of Sweulish commerce. Macgregor, in ais Tarlff Regaiations of Sweden, eltes from l'uffeniorf, ono of the counselors of stato to the King of Sweden, the fuliowing pasagege, written in $\mathbf{1 6 8 0}$, relnife to the productions of this kingdom: "Sweden produces more cepperand jron than nny other kingdom in the world, and the mines aro fitted by nature for that purpose, being aurrounded by woode and rivers. There is a silver mine in Westmaniand. Finland brings forth piteh, and tar, and deal; and Wermanland [Carlatadt] good atore of masta. The native commodities of 8 woden aro copper, iron, tar, pitch, masts, deals, hoards, etc. In lieu of which, Sweden receivos from ahroad wine, brandy, salt, apices, cloth, silks, and woolen stuffs, fine linen, French manufactures of ail sorts, furs, paper, and such like; all which, in some years, surpass in valuo the commodities expoited henee. To recompense this, navigation and commerce has been encouraged of late yeara among the natives, and several sorts of mnnufactures aro made, whereof those made of copper, tron, and brass wonld, questionless, turn to the beat account, if thoso artists [blacksmiths and copper-smiths] weroduly encouraged to a 3ttle in this kingiom."

The generni character of the resonrces and foreign commereo of Sweden has undergone but littie change since the forcgoing was writtell. The extort and value have varied eomewhat, but by no means in a ratio corresponding with the more enlightened and the more liberal commercial poliey of the age. This is mainly owing to the restrictive tariff policy, which atill obtains in Sweden, by which duties, equivalent in many eases to netual prohibition, are levied upon many articles of prine necessity, both for Immediate consumption and manufacturing purposes.

Tho following tahle exhibits the general forelgn trade of Sweden during tho year 1854, compared with the generai result for tho preceding years designated:

Navioation of Eweden in 1854.

| Conntries. | Arrived. |  | Cleared. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Vexelo. | D,asts | Veseola. | Lasta. |
| Norway | 1,3106 | \$6,31:0 | 982 | 20,7i4 |
| Fintand . . . . . . . . . . . . . | 1,5\% | 18,007 | 1,4t2 | 15,906 |
| Rutsoin | 87 | 1,201 | 78 | 051 |
| Pruealis | 397 | 17,167 | 896 | 10.470 |
| Heumark | 4,416 | 81.814 | 4,400 | 74,035 |
| Meeklenbiurg .......... | 171 | 7.802 | 142 | 6,963 |
| Jabeek . . . . . . . . . . . . | 619 | 21,251 | 468 | 19,801 |
| Jlamburg ............ | 00 | 4.369 | 83 | 1,763 |
| IIremen . . . . . . . . . . | 84 | 8.173 | 22 | 183 |
| Ilanover \& Oldenburg | 0 | 279 | 5 | 101 |
| Netherlands . . . . . . . . | 81 | 6,935 | 14 | 7.290 |
| Ilelgium. | 27 | 3,840 | 40 | 0.829 |
| Crreat Brit. and Ineland | 1,847 | 125, 411 | 1,778 | 172,623 |
| France................. | 190 | 20.778 | 364 | 40,326 |
| Spain . . . . . . . . . . . . . | 90 | 10.812 | 79 | S,991 |
| Portugat . . . . . . . . . . . | 170 | 17.769 | 82 | 7,256 |
| Italy.................. | 83 | 8,565 | 16 | 2,438 |
| Gilbraltar. . . . . . . . . . . | .... | , | 17 | 2.772 |
| Austria. . . . . . . . . . . . . | .... |  | 2 | 148 |
| Alglers, . . . . . . . . . . . |  |  | 25 | 3,770 |
| United Statea. . . . . . . . | 26 | 6,214 | 85 | B,355 |
| Weat Indle3........... | 10 | 1,258 |  |  |
| Brazll. ................ | 63 | 6,087 | 87 | 4,515 |
| Amerien gonerally .... |  |  | 12 | 2,101 |
| E. Indles and Australla | 18 | 1,940 | 20 | $3,442$ |
| Cape of Good Hope... | .... | $\cdots$ | 27 | 3,617 |
| Total | 10,048 | 418,065 | 10.674 | 422,168 |


| Countios, | in 1864. Ate Dollara Baneo. |  |
| :---: | :---: | :---: |
|  |  |  |
| Norwe | 4,012,010 | 2,241,000 |
| Finiand | 1,483,000 | 276,000 |
| Ruame | cas, IICO | 139,000 |
| 1 rue | 1,105,000 | 2,830,040 |
| 1 2en | 2,027,000 | 7,101,000 |
| Meckian | 32,006 | 448,000 |
| L.ubeek | 19,140,1000 | 4,021,000 |
| Ifamburg | 1,777,000 | 408,000 |
| lirumen. | 421,000 | 821,000 |
| 1 lanovor and Oldenburg . | 1.000 | 38,000 |
| Netherisnds...... | 626,000 | 1,881,000 |
| lielglum | 181,000 | 889,000 |
| Great Britala and 1reland | 2,204,000 | $25.018,1000$ |
| France | 788,090 | 8,1035,000 |
| 8 8paln | 604000 | 1,081,000 |
| Portug | 461,006 | 1,392,000 |
| Italy. | 206,000 | B57,000 |
| Glbraltar | ... | 14,000 |
| Austri |  | 258,000 |
| Almara |  | 882,0u1 |
| United Blatat | 8,250,000 | 9,173,000 |
| Weat Indies. | 601,000 |  |
| Hrasll. | 6,071,000 | 626,000 |
| Anmerion geuerally....... |  | 180,000 |
| Fant lindea - ad Australia | 683,000 | 484,000 |
| Cape of P . Itope..... |  | B15,010 |
| Totı 154. | 52,437,000 | 62,810,000 |
| " 1847........... | 28,040,000 | 80,020,000 |
| " 1846... | 20,600,000 | 24,880,000 |
| 4. 1840. | 18,308,000 | 20,487,000 |
| $\checkmark 1830$. | 11,160,000 | 18,387,000 |
| 1821. | 11,143,000 | 12,161,000 |

Tho preceding table exhibits the following resuita: Jncronse in 1830 over 1821..... 1,183,000 rix dollare banco.

| * | 1840 over 18150.... 14, 288,000 |
| :---: | :---: |
| " | 1840 over 1840..... 6,785,000 |
| * | 1847 over 1846..... 18,480,000 |
| ${ }^{6}$ |  |

Notwithatanding the annual augmentation in tho general foreign commerce of Sweden, which the above summary exbibits, the trade with the United States has been marked with but little variation.

The total trade with tho United States in 1847, according to Swedish official anthorities, amounted In value to $3,341,000 \mathrm{rix}$ dollars banco, or 858,880 rix dollars banco less than 1840, while It oxeeeded that of $1845^{\circ}$ by 779,000 rix dollars banco. In the trade between the United States and Sweden and Norway, there are but comparatively few American vessels employed. Tho following comparative statements will ohow tho proportion between American and foreign (mostiy Swedish and Norwegian) tonnage employed in this trade. A period of ten years, from $18: 5 \mathrm{t}$ to 1854 , is selected, as affording a fair average: American tonnage empioyed in the direct trade between the United States and Swoden and Norwny, from 1845 to 1854, 47,038 tons. Average annual tonnago, 4763.8 tons. Foreign (chiefly Swedish and Norwegian) tomnage employed in the trade between the United States and Siweden and Norsayy, during tho above period, 232,089 tons. Average ailnual tonnage, $23,208.9$ tons, or nearly 500 per cent. of foreign over Aunerican tonnage annually employed in the trade letween the United States and Norway and Swedeu. In 1847 tho imports of Sweden amounted to neariy 11,160,000 dollars (United States currency). Of this sum Swedish and Norwegian vessels floated nearly nine million dollars, or four-fiftias of the whole. The oxports reached tho sum of $\$ 12,276,000$, of which the Swediah flag covored over seven and a half millions, or about three-fifths of the whole.

The following are tho principal colonial products entering into the imports during 1847, in kiiograms of $2 \cdot 20$ ibs. each.


Of the exporte, iron oecupies the next rank to timber. The quantity exported in bars reached 82,212,000 kilograms, or about $185,000,000 \mathrm{lbs}$.

## SWE

Inen（ingluding（iakt and othen Etern）imponted into tire Cinitep Statze fhom swemen and Norway．


The value of iron quite equals the entire value of imports into the United Statos from Sweden for each yenr during the period specifled．The export of iron ore is prohibited．The annual average quantity pro－ luced the last five years is estimated at 300,000 tons． The quantity manufactured during the saine period is stated to have been 140,000 ，and 100,000 tous of bar iron．The annual average of the latter experted was 80,000 tons．The average price of plg－iron in Sweden is 8 rix dollars banco the skeppund $-7 \frac{1}{3}$ skeppunds to the ton，or 24 the ton．The Iron mines of Sweden le－ long to jolnt－stock companles princlpally．About two－ fifthe of the pig－iron ls purchased and manufactured inio bar－Iron by Iron－masters who own no mines；but the remaining three－fifths are manufactured by the com－ panies that own the mines theinselves．The produc－ tion of pig－iron was formerly limited to a certaln spec－ ified quantity，whether the capabilities of the mines and miners would admit of more or not．Under this unwise regulation of the government，which it is said was adoptel to prevent the exhaustion of the fuel of the ilngilom，the coal and foresta，the anaual produc－ tlon never exceeded 90,000 tons．These limitations have for some years been done away with；norls thore at present any limitution，beyond a matter of form，to the manufacture of bar－iron．The following statement， showing the exportation of iron from 1834 to 1849 ，is from Swedish official returns ：


The above exports were destined principally to the following countrles，and in aanual averago quantitice as follows：

| Great Britaln | 33，000 tona． |
| :---: | :---: |
| Lalted statem | 19，850） |
| llenmark | R，150） |
|  |  |

Small quantitles，in the shape of cannon，bomb－ shells，etes，are gent to Norway，Molland，and Den－ mark．The number of blast furnaces in operation in 1850 was 220 ；of worknen employed in mining the ore， 5241 ；of mines，586．The importation of cotton in 1851，nccording＇Swedlish official authoritles，amount－ ed to 7,98 ？，ıba．，againnt $1,832,431$ Jba．in 1841 ，and 794，434．… in 1831．In 1843 these authoritios show an Importation of $2,600,000 \mathrm{lbs}$ ．，against $9,883,572$ lbe． in $1 \times 53$ ，whieh latter amount exceeded that of the im－ portation of 1852 by $1,247,041$ ths．，and that of 1850 by nore than $5,200,000$ Jha．，being the largent of any pre－ ceding vear．In 1848 the amount was $8,074,020$ 1he． The value of cotton mannfactures exported to Sweden in 1850 was $* 46,000$ ，against 87500 only in 1851．It may he well now to inquire into the operation of the tariff of the two countriea respectively upon the lead－ ing staples of each，chiefly with a view to ascortain to what extent the importation of such products contrib． uten to the respective cuntoms revenue of ench conntry． The character of the commercial legislation of the two nations，in its effects upon the importation of staple articles of prime necessity，from each into the other， will hest ahow how far the reciprocity stipulated in the treaty of 1827 has been carrieil into practical operation． This inquiry may lead to useful and obvloun nugges－
tions，especially if it reaults In demonstrating that a poaltive inequallty exlats in practice，under which one government derives fully one－fifth of its entire customs revenue annally from a cent－per－cent．Juty on a lead－ Ing staple of the other，wlthont tendering any compen． sating equivalent for a tax so oppressive．

The inportation of unmanufactured American to－ bacco into Sweden and Norway（including direct and indlrect importations）amounted in 1851 to more than $0,500,000$ lbs．，which，under a duty equal to cent－per－ cent．ad valorem，palil into the Swellith troaeury alout $\$ 330,000$ ，or one－fifth of the whole cuatome rerenue of the kingdom－and this upon the alngle article of to－ bacco；whlle the entire exporta of Sweden and Nor－ way to the United States（amounting to 8967,237 ）paid into the Treasury of the Unlted Statoe，nt $\mathbf{3 0}$ per cent．， but a trifle more than $8200,000 \mathrm{i}$ In the mean time， nearly $\mathbf{4 0 , 0 0 0}$ tons of Swedish and Norweglan shlpping were carrying profitable American frelghts on every sea，while but 4000 tona of United Statea shlpping made single voyages direct to Sweden and Norway．Not． withatanding the most earnent and repeated remon－ strances against these unequal restrictions，and this one－sided reciprocity，no amelloration has yet taken place in the tariff regulatione of $S$ weden．It is true， some reductlons have been admitted in the tariff of 1852 on certain artlcles which enter into American ex－ ports．The duties upon coffee，sugar，arrack，and un－ dressell hides were aeverally reduced $83 t, 25,12 \frac{1}{2}$ ，and $8 \frac{1}{2}$ per cent．，and upon rice in the huak，or paddy， $16 \%$ per cent．But these concessions were clogged to such an extent hy the repeal of the $\mathbf{2 4 t h}$ artlele of the tariff of 1849 ，that American commerce，so far from guiniag any sdvantage by them，will be found，by the siuple process of atriking a balance between the results of the reductions and of the repeal，to he subjected to new and oppressive buriens．The 24 th article，or the dif． ferential clause，appended to the tariff of 1849 ，reduced the duties upon certain merchandise imported and ex－ ported in Swedish or Norwegian vessola，as foltows： Swedish vessols navigating to distant countries will continue to enjoy the advantage of the following re－ duction in dutios of cuatoms and convoy imposta，viz．：

Of 15 per cont．on the probluco and manufactures of count riea situaterl on the continent of America north of the 25th degree of north latitude，or of any of the for－ eign colunlen in the West Indios，if imported direct from thence in Swodlsh elips；and of the like reduc－ tion on Sivedish produce and manufactures exported direct t． $\mathbf{f}$ oreign colonies in the West Indies．

Of 25 per cent．on Swedish produce end manufuc－ tures exported In Swedish ships direct to the is：ad of St．Jartholomew，to places on the cast coust of the cin－ tinent of America south of the 25 th degree of north lat－ itule，or to the Cape of Good IInpe：nad the like re－ duction on the produce and manufact．＇es of those coun－ trice imported ilirect into Swerlen in Swedish vessels．

Of 3 ： 1 per cent．on Swellish proluce and manufic－ tures exported in Swedish ships direct to places no the other aite of the Cape of Gool llope，as also to ports on the other side of Caje Horn；and on the protuce and munufacturen of those ports and phaces imported from thence direct in Swedish whij，Us．Under the treaty， these privlleges apply equally to American vessels．

The effect of the repreal of this article is，that every thing imported fron America，except the articles above enumerated，hus hoen chargeable aince 1at of January； 1853－the day when the repoal took etfect－with duties 15 per cent．higher than before that pericm．The re－ peal of this clause was granted as a concession，to sileue the united and vigorous remontrances of liaglatiland IIolland against the operation of the Swedish tariff regulations．On the article of tnhacco alone the com－ merce of the United States is burdenal with additional duties amounting to $\$ 35,000$ per annum－enough to affect materially the salo of this Ameriean staple in the markets of that country；ant a tritling reduction of
that a one sustoms a lealompen.
duty npon rice is the only acknowledgment which the government of Sweden has yet made of the injustice of these oppressive restrictions. The following table exhihits the working of the existing treaty between the United States and Sweden during the years 1845, 1846, 1847, 1848, and 1849, so far, at least, sa it relates to the commerce between the two countries. It is translated and compiled from Swedish official publica tions:
fivont and beport Tinain of Sweign with tag Uxiteis itatge during tie lears gproifirn.

| Veara. | Imports, |  | Erporta. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Hy American Tonnage. | ny 8wedish Tomage. | Hy Anetican Tominge. | Dy swedish Tonnage. |
| 19.45 | $\begin{gathered} \text { l'er ('ont. } \\ 20 \end{gathered}$ | $\begin{gathered} \text { Pertent. } \\ 51 \end{gathered}$ | $\begin{gathered} \text { P'or cunil. } \\ 8: 1 \end{gathered}$ | Fercent. 65 |
| 1846 | 16 | 50 | 14 | 67 |
| 1847 | 30 | 10 | 12 | 80 |
| 1943 | 20 | 51 | 16 | 50 |
| 19.10 | 17 | 51 | 25 | 15 |

fobacco im monted into swzien, witil tire Phoportion fnom tin United States.

| Venrs. | Total Impests. |  | Wirerl (rom Uniled Staten. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | l.eaf. | stems. | l.anf. | 8 stems. |
|  | Pounds. | pupnds. | Pounils | Jound |
| 1845 | 2,430,000 | 1,1,96,000 | 1,691,000 | 1,166,000 |
| 13.16 | 2,02:,000 | 1, 632,000 | 1,470,000 | 0991,000 |
| 1847 | 1,024,000 | \$11,0n0 | 1,545,000 | 540,000 |
| 18.48 | 2,180,000 | 1,303,090 | 1,462,010 | 0,99,000 |
| 1849 | 2,355,000 | 1,405,000 | 1,440,000 | 1,259,009 |

The fellowing etatement shows the amount of Amer ican tonnage arrived at Swedish ports, and amount of Swedish tonnage arrived at Unired States ports direct from each country, or from foreign nations; also, amount of Swedish tonnago arrived at transatlantic ports from the Unitel Stntes, with full cargoes:

| Amprican Tonnage armived at Swedigif Ports. |  |  |
| :---: | :---: | :---: |
| In 19.65. | 00 |  |
| In 1846. | 1700 | ${ }^{6}$ |
| In 1847 | 1400 | 4 |
| In 184. | 41400 | ${ }^{4}$ |
| In 1849 | 3800 |  |

Swemeif Tonnioe arsived at Amerionn I'ortg.


Subigit Tonnama abriven at Fimotran forts from the linitels states.

| In 1545 | . . . . . 60, 000 | tons. |
| :---: | :---: | :---: |
| In 18.68. | . . . . . . . 16,000 | ${ }^{1}$ |
| In 1947. | . . 61.000 | ${ }^{6}$ |
| In 19+4. | . 53,000 | 4 |
| ItI 131. | 64,000 | " |

According to the laws of Sweden, each triennial Diet proposes n new tariff, which is designed to remnin in forco three years; the king laving, in the mean time, cu. stitutional power to lower, but not to raiso, any du+i s whatever, provided a certain sum be obtained from the custems. The tariff of 1852 continuod in force untii January 1, 1855. In the liet of 1854 many important reduetions were recommended by the committee on revenue, but they declinel recommending any preciso change on totneeo duties. They reforred this subject to the king, to whom s recommendation was made to enter into nogotiations with foreign governments, with a view to obtain reductions upon Swodish produce in exchange for lighter tobncco duties. 'lhose negotiations were understood to refer chiefiy to iron duties in tho Unitel States. Among the reductions proposed by this connmitteo aro the following:
Indlan corn to be rediced from 40 to 10 cents per barrel.
Collon itreail, from 20 to 13 cuuts per pound.
Wesit, from to centa to 1 i eent per pound.
llyw.wonta, from 1 per cent. ad valoremi to free.
Hopea, from 20 to 13 eents per 181 lbe.
sult, from 30 to 14 cents per barret.
Copper, raw, frem $\$ 2$ to 40 centa per 875 ltin
copper, reflied from $\$ 3$ in 4160 per 875 lbo
Copper platea, from it 1335 to $\$ y 70$ per 875 tia.
 Rivant
Troils nad machinary, not epecially enumerated, from 25 to 5 per cent. ad valorem.

The alterations recommended by this committeo were genorally adopterl. After January 1, 1856, the articles prohibited by the tariff of 1855 are to be admitted at a duty equal, generally, to 25 per cent., except ganpowder, pig-iron, and certain kinds of brendy. Tobacco remsina as under the tariff of 1852 , and will doubtless be reserved as a basis for such negotiations as the Swedith government may have in contemplation relative to Iron duties in the United Staies. The prineipsl reductions, though not of great importance to American commerce with Sweden, apply to fire-arms cheese, printed cotton, undyed cotton, yarn, codfish (dried nnd ealted), logwood (made free), Indian corn (committee's rocommendation sdopted), salted mest, smoked or dried do., spermseetl candlos (reduced 50 per cent.), rosin (do.), rice.
Degchiption and Quantities of certain Meroliandige im
fosted into SWeden in tus leaba 1851 and 1852.

|  | rriclea. pound | 1851. | 1858. |
| :---: | :---: | :---: | :---: |
| Suga | 4 | 9 | 93 |
| Ceff |  | 24,700,329 | ,045,752 |
| Cott | ............... | 7, 488.418 | 10,373,014 |
| Toba | stems..... " | 1,448,197 | 1,468,088 |
| Whes | ksnna | 200,033 | 812,155 |

Besides the nrtieles above apecificd, the returns for 1852 show an increase over 1851 in the following doscriptions of merchandise, viz.:


The principal articles of which the importation in 1852 was less than that of 1851 were cocoa, fish (dried and smoked), salt, elicese, spirits of turpentine, tobaceo (lesf and cut), fieli-oil, weol, ete.

The exports of articles of tomestic produce from the United States to Sweden and Norway for the year ending June 30, 1857, may be thus divited: Cotton, $\$ 1,249,042$; tobacco, $\$ 84,871$; other articles, $39,393-$ totnl, $\$ 1,373,306$.

The navigation returns for 1852 show a total of 7303 vessels entered, with an aggregste of 343,693 lusta. Of the total number of vessels, there were Swodish 4164, measuring on aggregate of 133,963 lasts; 1288 vessela, carrying in all 109,272 lasts, under the Norwegian flag ; 550 vessela of 34,025 lasts, belonging to Finland; and 1311 vessels, measuring 66,483 lasts, undor foreign flugs.-Com. Rel. U. S.

Principal Ports,-Gottenburgo, or more properly Göthaborg, on tho aouthwest coast of Sweden, bordering the Cattegat, nenr the mouth of the River Gotha, lat. $57^{\circ} 42^{\prime} 4^{\prime \prime}$ N., long. $11^{\circ} 57^{\prime} 45^{\prime \prime}$ E. Vessels do not come up closo to the city, but lie in the river or liarbor, at a short distance from the shore-goods being conveyed to und from them by lighters. The depth of wuter in the port is $\mathbf{1 7}$ fect, and there is no tide, bar, or slallow.
Stockholm, the capital of Sweden, situnted at the junction of Lake Meler with an inlet into the Baltie. The entrance to tho harbor is intriente and dangerous, and should not be attemnted without a pilot; but the harhor itself is capacious and excellent-the Iargest vessels lying in closo to the qunys.-See Stoceniolar.
Bergen, the first commercial city of Norway, sit uated at the head of a deep bny, in lat, $60^{\circ} 24^{\prime} \mathrm{N}$., and long. $5^{\circ} 20^{\prime}$ E. The bay is inclosed on nll sides by rugged rocks and islands; the wnter is deep, but the entrance to the town is difficult, and needs a pilot

Manvfactures.-The vaiue of manufactures of all kinds at registered factories was: In 1889, $\$ 5,439,123$; in 1846, $87,084,947$; In $1848,48,868,848$; in 1849 ©9,209,899; in 1850, $89,891,072$; in 1851, $99,918,806$, showing an inerease since 1839 of $\widehat{4,474,743 \text {; since }}$ 1846, of $42,828,919$; and since 1849 , of $\$ 073,967$.

| Years anding | Exports. |  |  | Imports. | Whortor Bore weo in |  | Toapage sleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dommenl | Foraly | Total. | Tomil | Xiport. | Import | Pratifa | Amporlemp, |
| Sopt. 80, $1881 . . . .$. | \%154918 | 809.968 | 8917,181 | 278769, 768 |  | \% 10,180 |  |  |
| - 1899....... | 180,411 | 80,910 | 200,091 | $\begin{aligned} & 1,151,788 \\ & 1,19 \end{aligned}$ |  | \%oun | 9,381 | 1,208 |
| 1898 | - 161,037 | 147,191 | 998,999 | 1,017, 49 |  | $\therefore$ 1- 8,000 | Trios,000 | 830 |
| \%5 ${ }^{\text {¢ }}$ | ${ }^{3}$ 108,79\% | 11,008 | 894,769 | - 1008,015 | . | + 78000 | - 9,8889 | 1,560 |
| 1825. | 989,164 | 112,878 | 834, | - 1,1889898 | .... | 8,080 - 8,000 | 8.495 | - 702 |
| 1825 | 186,034 $20 \pm 488$ | 88,489 907,608 | (3) 214.628 | $1,128,236$ $1,016,507$ |  | 8,000 4,406 | 9,053 | ${ }^{1818}$ |
| 1898 | 950,689 | 916,999 | -11,704 | 1,570,788 |  |  | 6,005 | 1,680 |
| 1829. | 198,603 | 196,971 | 94,684 | 1,020,910 |  | 8,010 | ${ }_{211} 9,985$ | 1,114 |
| 1830. | 181,858 | 189,949 | 871,808 | 1,108,110 | 8773 | 1,110 | 8,502 | 9,023 |
| Tot | 61,759,620 | \%1,801,061 | 88,101,684 | 11,407,165 | \$778 | \$27,029 | 80,876 | 12,976 |
| Bopt 80, 188 | \$180 |  |  | \$901,818 |  |  | 39 | 72 |
|  | 814,048 | 15 | 869,418 | 1,097,894 |  |  | 888 | 8,078 |
| 1838 | 944,587 | 70 | 814,949 | 1,108,697 | .... |  | - 1,906 | 2, 898 |
| 1834 | 977,981 | 198 | 405 | 1,079,327 |  | .... | $\begin{array}{r}1 \\ 1,1,437 \\ \hline\end{array}$ | 8,436 |
| 1836 | 628 | 80, 15 | \$18,641 | 1,948,189 | … |  | 1,1026 | 2, 2,09 $\mathbf{2 , 8 0 7}$ |
| 1887 | 211,700 | 208,704 | 490,404 | 1,890,001 |  |  | - 1,881- | 21,034 |
| 1838. | 910,745 | 66, | 977,431 | 854,771 |  | 85,027 | - 1,419 | 1,039 |
| 1839. | 837,000 | 29,608 | 808,6002 | 1,659,684 |  |  | 797 | 2,603 |
| 1840 | 435,009. | 115,104 | 560.898 | 1,217,018 | . |  | 1,118 | 8,936 |
| Tot | \$3,006,981 | \$1,044,459 | \$4,110, | \$11,801,966 |  | \% | 16,447 | 9.1711 |
| Sept. 80,18 | \$563,766 | 188,60 | 8602,919 | \$1,909, | ..... | 9,000 | 2.816 | 8,810 |
| - mos. 184 | 939,048 | 105,970 | 844,918 | 800,034 |  | ....'* | 1,811 | 8, 101 |
| $\left\lvert\, \begin{array}{ll} 0 & \text { moe. } \\ \text { June } 00,184 \\ 184 \end{array}\right.$ | 18,381 | 16,80 19,29 | ${ }^{89} 9$ | 997,866 491,834 |  |  | 180 | 498 |
| Jut 184 | 200,667 | 92,761 | 978,028 | 697,083 |  |  | 340 | 8,243 |
| 1846 | 302,709 | + | 402,889 | 724,803 |  |  |  | 7,7\% |
| 184 |  |  | 480 | 613,608 |  |  |  | 6,203 |
| 184 |  | 58 | 768 | 750,817 731,846 |  |  | 1,681 | 10,843 14,718 |
| , | 609,690 | 61,010 | 790,110 | 1,032,117 |  |  | 101 | 10,43 0,829 0,829 |
| Total. | \$4,004,004 | \$380,167 | \%4,40,171 | ¢7,281,988 |  | \$2,0 | 8.0 | 09,458 |
| une 80, 1851 | 1-0,00 | (191,566 | \% | ¢907,28T |  |  | 1,040 | 9,058 |
| 1859. | 99,840 | 25,379 | 758,10 | 775,448 |  |  | 8,040 | 6,647 |
| $18 \% 3$. | 838,683 | 18,78 | 850,268 | 447,839 |  | .... | 8,917 | 6,153 |
| 185 | ,085,009 | 89,884 | 1,194,09 | 815,178 |  | .... | 4,731 | 4,896 |
| 1806 1868 |  | $98,708$ | 1077,810 $1,910,588$ | 848,900 871,945 | .... | ..... | ,, 401 9,461 | 4,890 8,500 |
| 1867. | 1,879,306 | 97,120 | 1,400,486 | 744,819 | ... | .... | 8,432 | 6,592 |

- Nine monthe to June 30 , and the fincal year from this time begins July 1.

The importation of raw cotton into $\$$ weden in 1851 amounted to $7,989,428$ lbs., beling larger than the importation of the provious year by $8,888,588$ lbs. It was, moreover, the largest quantity over imported in a single year, except in 1848, when the amount was $8,074,020$ Iba. In 1831 the amount imported was 794,434 lbs., and in $1841,1,832,431$ lbe. The amount of cotton twist produced in Swreden ta 1851 was $6,008,081$ lbe. (chiefly No. 26), and was valued at $01,611,777$. In 1860 the quantity was $5,784,832 \mathrm{lh}$. ., end the value $81,270,960$. The amount of cotton cloth manufactared in 1851 was $1,780,000$ Duglish yards, and the number of people employed in registered cotton factories was over 8000. In 1850 the value of erported cotton manufacturee was © $\mathbf{4 6 , 0 0 0}$. In 1851 it decreased to $\mathbf{\$ 7 5 0 0}$. In 1850, imported cotton cloth, $170,000 \mathrm{lhs}$; imported cotton twiet, 898,000 lbs. : total, 1,063,000 lbs. In 1851, imp ported cotton cloth, $195,600 \mathrm{ibs} ;$ imported cotton twist, $1,068,000$ lbs. : total, $1,263,500 \mathrm{ibs}$. Tobaceo was imported in 1851 into $S$ weden to the amount of $4,141,609$ ibe., of which only 42,642 lbs. were manufactared. Of the whole amonnt $2,587,982$ lba. came direet from the United States; the remainder chlefly from German ports. In 1850 the importation was $8,870,809$ line. 41,796 lbs. mazufactared. At 79 tobacco manufactories in the kingdom there were employed, In 1851, 1277 workmen, and the sales were valued at 9647,120 ; consieting of 200,175 lbs. of cigars, $2,750,723$ lbis. of enuff, and $1,632,605 \mathrm{lba}$ of other prepared tobacee; in all $4,688,468$ lba. Tobacco, in mall quantity, and of very bed quality, is grown in the noighborhoed of Stockholm, bet I bolleve in no other part of the kingdom. It should to rumembered that the accompanying table and the foregoing notices of $\$$ wredish woven goods refer only to the regtestered fretorien, and do not exhithit half of the actual mannfactures of the lingdom. None of the homespan clothy are includea, for which, of avery
deacription, the Swedish pessantry are remarkable, and of which, unfortunately, it is impossible to obtain exact accounts of the value or quantity. The province or county mont distinguished for these productions is that of Elfoborg, of which Gottenburg is the market. The home-made manufactures of this province, over and above the amount consumed by its own inbabitante, Fere, In 1850 and 1851 (Inclusive of atockings, quilts, and ribbons), as followa:

| 1850-Cotton stuffi. . . . . . . . . . 4, 848,000 English yards. |  |  |
| :---: | :---: | :---: |
|  | 1.tuen at | 275,200 |
| " | Woolen atuff | 802,170 |
| " | Cotton handkerchle | 1,448,028 pisecs. |
| 1851-Cotton ataffe. . . . . . . . . . 4, 752,000 Einglua |  |  |
| " | Linen atu | 970,890 |
| " | Woolen stufth | 840,161 |
| 3 | Cotton handkerchlefm | 1,088,281 pleces. |

These quantities have olightly diminished of late years, and the registered factories are accordingiy encournged.

The homespun mannfacture of Gefleborg which wore nold In 1849 amounted to $1,428,888$ yards ; those of Westmoreland to 805,883 yards; and those of H (o. land to 162,700 yards.

The prodactions of other provinces are not given reliably; but enough is known to prove that the amount of auch fabrics is considerably greater than that of the regietered manafactures; and their productions, especially of linen cloth, surpasa in darability, and rival in finenees, the beet productions of the factories.

The value of manufactures of all kinds at registered factoriee was: In 1839, $85,489,128$; in 1846, $97,044,947$; In 1850, $89,801,072$; in 1853, $010,151,724$; In 1854, $11,841,618$; and In $1855,414,437,645$. It will be aeen, therefore, that the incriase in ten years has been nearly $77,000,000$ ( 100 per cent.), and in tweive months 22,500,000. The importation of raw cotion into $\$$ weo den in 1855 reached to $14,788,029$ lbs.; In 1858 the
amount was 9,888, b72 lbs.; in $1848,2,000,000$ lbs. ; in
$1881,794,4941 \mathrm{lbs}$; showing an increase in twelve yeara of more than 12,000,000 lbs. The amount of cotton twist produced in 1855, chlefly of a quality under "No. $26, "$ was $10,598,098 \mathrm{lbs}$. , valued at $82,168,625$, exceeding the amount of the preceding year by $2,803,828 \mathrm{lbs}$. The amount of cotton cloth produced does not appear to have been ascertained, as the official report gives the amount indiscriminately with linen. Their joint valne in 1855 was equivalent to $\$ 652,489$, nearily twice great. er than in 1853. In 1845 their value was 188,787 . The importation of unmanufactured tobacco into Sweden in 1855 amounted to $4,532,610$ lbs., being 578,626 lbs, more than in 1854. In 1858 the amount was $4,851,722$ lbs. The importation of manufactured tobacco in 1855 was 55,205 lbs., somewhat more than 10,000 lbs. less than in 1852 . Considerably more than half the tobacco consumed in Sweden is imported directly from the United States. The amount directly from the United States in 1858 was over $\mathbf{8 , 1 0 0 , 0 0 0} \mathrm{lbs}$, The accompanying table is necessarily confined to the returns of registered factories, and, uufortunately, exact sccounts of homespun fabrice, for which this country is remarkable, can not be had. The province most distinguisbed for these productions is that of Elisborg, adjoining the province of Gottenburg. In Elisborg it appears that in 1855 the home-made goods, over and sbove the quantity consumed by its own inhabitants (about 250,000 souls), amounted to $9,047,506$ English yards of cotton cloth, together with $1,568,556$ cotton handkerchiefs. Also, linen fabrics, 259,329 English yards; woolen fabrics, 892,425 English yards; showing an increase in cotton weaving eince 1853 of more than $3,300,000$ English yards. In the province of Gefleborg there were woven by the peasants, in their homes, no iess than 2,077,000 ells (or 1,384,666 English yards) of heary linen. Other districts also are almost
oqually distingaished for cotion and linen homespun fabrice of excellent quality:

 Egtablichimenta

| Apeclen of Manonfecturs. | Na of Factorise. | Ka of <br> OWhars <br> Workmen. | Talge of Mess* Fheturesin Pwodliph niw Dollan.* |
| :---: | :---: | :---: | :---: |
| Cot | 80 | 1,666 | 2,681,923 |
| - Cotton twla | 16 | 5 8,097 | 5,481,669 |
| Woolen olot | - 106 | - 8,884 | 0,875,889 |
| 811. cloth. | 19 | - is 779 | 1,082,468 |
| Ribbon and | 11 | i 101 | 40,540 |
| Sall-cloth |  | 1,176 | 877,741 |
| 8tocking | 18 | i 6609 | 947,509 |
| Calico pr | (2) 81 | , 177 | 178,478 |
| 8uger | 17 | 1+ 907 | 7,869,340 |
| Tobacco . . . . . . . . . . . . . . . . . . | 90 | -1,839 | 2,484,291 |
| Paper | 00 | - 1,350 | 1,108,947 |
| Lesther | 560 | 1,879 | 2;114,061 |
| Dre-ho | 449 | 1,741 | 878,681 |
| Glass | 17 | 1,138 | T69,911 |
| Chin | 2 | 728 | - 414,496 |
| Earth | - 68 | 410 | 168,567 |
| 011. | - 68 | 220. | 1,047,805 |
| Porter. |  | 167 | $\therefore 290,900$ |
| Wex cand | 1 | - ${ }^{3} \mathrm{C}$ | 1ss 291 |
| Stearin. | B | Why 68 | ' 178,600 |
| Soap |  | 81 | 가 814,417 |
| Rope | 28 | 185 | 810,461 |
| Clocks | 133 | 288 | 45,681 |
| Playing cardi. . . . . . . . . . . . | $T$ | 88 | 35,673 |
| Wall pape | 9 |  | - 65,689 |
| Colory and acldy : . . . . . . . . . | 16 | - 56 | 144,892 |
| Cosches . . ................... | 19 | 106 | 139,100 |
| Lncifer matche | 7 | 809 | 126,290 |
| Engines ..................... | 99 | 2,067 | 1,047,712 |
| Various mall manufactures | 680 | 2,586 | 1,298,897 |
| ${ }^{5}$ Total, 1865.. | 2439 | 97,905 | 86,094,114 |

- Nearly equilvalent to 40 oenta American onrrency. --O. S. Conoular Returns, 1857. See articies Cotron, Cotton Manufactures, Iron, Stockholm, and Norway, for additional information on the trade and manufacturea of Sweden.


| Years ending | Exports. |  |  |  | Whereof thera weat in |  | Tonnage eleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domente. | Fareign. | Total. | Total | Export, | Import | Anericeo. | Forelgn. |
| Sept. 30, 1821 | \$507,077 | \$63,149 | \$560,228 | \$611,116 |  | \$292,708 | 20,774 | 888 |
| 1828. | 609,663 | 91,247 | 600,818 | 898,119 |  | 76,683 | 18,938 | 1080 |
| 1888. | , 841,701 | $\cdots 418,369$ | - 260, 683 | 180,808 | . | 44,181 | 8,174 | 854 |
| 1824..... | 204,988 $+109,781$ | $\begin{array}{r}89,687 \\ \hline\end{array}$ | 944,670 | 102,835 | ... | 192.620 | 8,288 | 340 |
| 1825. | 198,781 120,678 | 41,247 23,284 | 295,008 148,367 | 81,702 108,946 |  | 86,658 41,429 | 7.160 | 188 |
| 1827. | 416,829 | 25,014 | 141,836 | 269,1835 |  | 82,020 | 16,977 |  |
| 1828. | 611,584. | 23,616 | 685,200 | 875,995 |  | 109,656 | 86,658 | 635 |
| 1820. | 684,629 | 28,781 | 708,814 | 983,049 |  | 100,741. | 28,246 | 828 |
| 1839. | 602,700 | 97,727 | 690,48? | 250, 690 |  | 157,874 | 10,060 | 884 |
| To | \$4, 108,200 | \$877,124 | \$4,480,414 | \$2,687,635 |  | \$864,105 | 158,116 | 4742 |
| 8opt, 80, 1891 | \$261,987 | \$11,111 | 268,049 | 4218,018 |  | \$111,148 | -7,189 | 659 |
| 1839 | 141,249 | T,478 | 148,727 | 68,410 |  | -29,215 | - 4,651 | 644 |
| 1833. | 100,168 | 6,067 | 106,220 | 82,202 |  | 8,985 | 8,896 | 288 |
| 1834 | 81,040 | 7,909 | 88,948 | 47,814 | \$2400 | 24,499 | 2.619 | 238 |
| 1835 | 72,714 | 18,641 | 80,385 | 81,380 |  | 29,019 | 8,699 | 817 |
| 1586... | 二小. 80,925 | 1,020 | 81,845 | 66,414 |  | 10,009 | 9,069 |  |
| 1837. | , 5488.114 | 8,005 | 87,119 | 68,977 | .... | 97,207 | 8,028 | 84 |
| 1839 | - $\begin{array}{r}\text { 108,202 }\end{array}$ | 4,281 4,130 | 18,441 107,412 | 46,010 18,469 |  | 26,018 8,960 | 1,1045 | 139 |
| 1840. | 98,710 | 8,010 | 108,820 | 107.515 | .... | 40,047 | 1. 2,208 | 189 |
| T0 | \$1,087,674 | is \$81,835 | \$1,149,409 | 694,487 | \$2400 | \$805,869 | -81,476 | 2204 |
| 8opt. 30, 1841 | 05, 184 | \$3,707 | 108,891 | \$19,760 |  | \$13,607 | 8,455 |  |
| 1842 | 129,787 | 8,320 | 188,047 | 28,242 |  | 19,475 | 2,069 | 720 |
|  | 81.888 | 9,846 | $\cdots 88,674$ | ¢ ${ }^{\text {\% }} .61 .818$ |  | 45,893 | - 949 |  |
| June 30, 184 | 63,884 88,880 | 1,360 1,453 | ㄱ * $\begin{array}{r}65,244 \\ 90,381 \\ \hline\end{array}$ | $\begin{array}{r}\text { 28,719 } \\ \hline 19,110\end{array}$ | \$1000 | 29,899 8,478 |  | 141 |
| 1846 . | ! 138,121 | 8,448 | - 141,569 | 6,286 | 1012 | 2,450 | 17 <br> 8,820 | ... |
| 11. 1847. | - 110,009 | 7) 8,069 | \% 118,791 |  |  | 2,40 | 1,607 |  |
| 1848 | 76,498 | . 800 | 10,200 | 18,785 |  | 0,689 | 749,250 | 1 m |
| 1849 | 05,128 | 787 | 05,885 | 15,982 |  | 9,018 | 9,684 | 647 |
| 1850 | 08,170 | 1,100 | 09,842 | 2,103 |  | 500 | 9,454 | 089 |
| Tot | \$996,892 | \$21,990 | \$1,017,858 | ${ }_{17}$ \$107,408 | \$5019 | \$188,284 | 22,004 | 1070 |
| June 80, 1851. | - \%61,167 | ${ }^{2} \times 8$ \% 8745 | 1 l $:$ \$81,902 | 829,001 |  | 10,687 | if 1,810 | ".... |
| , At गt 1859. | 90,802 | (-) 1,008 | -02,796 | 4,284 |  | 8,229 | - 8 2,887 | 198 |
| (1) 1853. | 81,024 | 1,191 | 82,216 <br> 12,41 | 8,876 |  | 4,639 | - 1,186 | $\cdots$ |
| 1854: | $\begin{array}{r}\text { 14 } \\ \hline 12,741 \\ \hline 8,856\end{array}$ | - 1 à่ | 12,741 <br> 1v, | 22,690 82,989 |  | 18,158 16,816 |  |  |
| 1856. | no - 60,702 |  | 60,702 | 10,109 |  | 2,899 | - 1,019 | 86 |
| 1887... | 76,405 | 8,628 | 79,983 | 19,089 | \$206\% | 2, | 1,719 |  |

* Nino monthe to Juse 30, and the flacal year from thite time begins July 1.
them, shall pay the same duties as the merchandise of such nation! under any othor flag it ahall be treated as the merchandise of the country to which the vessel belongs. Th aremaining articles relate to the extra dition of criminals.

By a provision of the Swise conatitution of 1848, raw materiale required for manufactures, as well as for the necessarios of life, are to be admitted at the lewest possilule rate of duty, while the highest import tax they can bear. is to be levied upon articles of luxury. it In all the other governments of Europe, if we except trHanae Towna, tobacco la considered as an article or luxury; and it might be added, In behalf of France and England, as an article of convenience, aleo, for raisIng revenue. In these countries it is, consequently, subjected-in the former to the arbitrary exactions of the regie,* and in the latter to such daties an are almost equivalent to a prehibition. In Swlezerland; hewever, whatever may be the light in whlch they viow tobaceo, whether as an article of luxury or of necessity; it is treated as an article of trade, and admitted at a rate of duty leas for 1104 lbs . than Great Britain charges on the aingle pound. The effect of this liberal treatment of ene of our leading staples is seen in the disproportional quantities, relatively to population, which are sent to these different countries. For example: France, with a population of $36,000,000$, received an annual average of $15,000,000 \mathrm{lbs}$. of American tobacce during a period of three years ( 1851,1852 , and 1853), which gives about one-third of a pound to each person. Great Britain, with a population of $27,000,000$, received an annual average, the aame period, of $20,000,000 \mathrm{lbs}$., or nearly one pound per head; while Switzerland, with a population of $2,400,000$, received more than $7,000,000$ lba., or seme three pounds for each persen.

The manufactures of Switzerland are the chief basia of its trade with foreign countries. As early as the 14th century Zurich became the great emporium and market for Italian products and in iustry ; and Schw ytz and Unterwalden, which, with Zurich, censtituted the three original cantons, ware at that period fumed for their ingenious and industrions hablts. The principal seata of Swiss manufactures at the present day are:

The canton of Neufchatel for printed cottons, lace, jewelry, clocke, watches, and various miner articles. Wine and cheese are alse produced in thia canton. Geneva for watchea, $\dagger$ clocka, jowolry, musical boxes, enameled articles, phileaephical instruments, toels, cutiery, fire-arms, etc. Zurich, Aargau, and Thurgau chiefly for cotton and silk manufactures, woolen goods, straw platting, linens, and various minor articles. St. Gail and part of Appenzel for linens, muslins, cambrics, embroidery, tambouring, etc. Basle chlefly for silk ribbona, having upward of 4000 looms employed in their manufacture. The raw materiala for these manufactures are greatly enhanced in price by the expense of carriage (transit); and bread, flour, and other articles of food cest higher than in most other countries ef Europe. The restrictions on trausit through France and other adjacent countries are a heavy drawback upon the industry of Switzerland; but the proverbial frugality of the people, and the low price of labor, te gether witil the admitted superiority of most of their manufactures ever those of England and France, enable them to compete auccessfully with those countries in forelgn markets.
The commerce of all nations enjoys equal priviloges In Switzerland, but the foderal council is empowered to adopt immediate measnres in case the commerce of Switzeriand ls aubjected to any extraordinary restrictions in other countries; notifying, howaver, such measures to the noxt succeeding federal assernbly. Conaumption duties are levied in elghteen cantens; but

* For an explanation of this term, aee Digcst of France, p. 128.
$\dagger$ It is eatimatod that from (ieneva alone 240,000 watches are annuaily ahipped, via Harre, to the United States.
as they apply to only two articles-namely, wines and alcohelio liquore, neither of which the United States exports to that ceuntry-it is doemed needlens to apecify them. The suppreseion of these dutles, however, affecting as they do one of the staples of France, might be compensated by a melieration in the laws sppllcable to the transitage of Swise manufactures across the territories of France-a result which woold prove highly edvantageons to the commercial relations between the United States and Switzerland.

The whole foroign commerce of Switzerland during the year 1840 ameunted to about $400,000,000$ francs, or $\$ 85,000,000$. Several causes have combined to develop and promote the industrial and commercial prosperity of Switaerland. In a monntainotis conntry, covered with mow duting six or elght montha in the year, the inhabitants have recourse to in-door labor as a mattar of necessity. Besides, their position in the centre of Europe, surronnded on all sides by manufactaring commanities, stimulates their emulation, encouraged ss it la by the facilities which the adjacent markets afford for the supply of raw materials. The people, at once agriculturists and artiaans, and natarally induatrious, find ample scope for constant and profitable empleyruent In these two occupations, and are thus enablea to live on mederate wages. These causes have contributed to the mest remarkable development of industrial purstuits, especially in the northern and western cantons. Witheut dwelling upon minute detaile in regard to the different brenchea of manufactures into which this mechenlcal induatry has entered, the extraordinary success of cotton manufacturea in Switzerland will be briefly considered, as necessarily bearing upon the consumption of ene of the leading staples of the United States. There is, mereever, no branch of industry which mere forcibly illuatrates the energy and mechanical genios of the Swiss than their cotton mannfacturos. In 1830 the republic had in operation 400,000 apindles; in 1840, 750,000; and in 1850, 950,000; the number having more than deubled in twenty years. The cotton-spinnling facteries in the year last named were 200, estimated to produce annually from $18,000,000$ to $20,000,000 \mathrm{lbs}$ of yarn. This progress In cotton manufactures is the more surprising, because of the heavy expense with which the raw material is burdened by translt tells before it can reach the territery of Switzerland. The quentity passed in tranait from Havre for Switzerland in 1883 and 1834 was nearly $6,000,000 \mathrm{lbs}$; in 1843 lt reached nearly $17,000,000 \mathrm{lbs} .$, and constltuted fonr-fifths of all consumed during that year in Switzerland. The entire receipt of cotten that year is put down at $22,000,000 \mathrm{lbs}$.

The following table exhiblte the tetal quantity of raw cotton which.passed through Havre in trangit for Switzerlsnd during a period embracing thirteen yeara:

| Years. | Kilogramm. | Vearn. | Kllogr |
| :---: | :---: | :---: | :---: |
| 1833. | 2,633,000 | 1840 | 000 |
| 1834 | 4,290,000 | 1841 | 7,307,090 |
| 1835. | 4,302,000 | 1842. | 9,830,000 |
| 1830 | 0,480,000 | 1843. | 7,622,000 |
| 1837 | 5,498,000 | 1844 | 7,440,000 |
| 183 | 7,120,000 | 1845. | 0,431,000 |
| 1839 | 4,475, |  |  |

1839. . . . . . . . . . . . . 4, 475,000

In 1851 the Importation of cetton into Switzerland smounted to 27,035 V lbs., of which $18,729,820 \mathrm{lbs}$. were from the U:, +d Statea. According to the Tableau Génernal of rance for the years designated, Switzerland recelved cotten in pounds as followe, in 1851, 1852, and 1858:

|  | 1851. | 1859. | 1856. |
| :---: | :---: | :---: | :---: |
| Through France | 15,816,751 | 15,815,473 | 14,078,257 |
| Of which fiom the Luited 8 tates. | 15,812,161 | 15,765,560 | 14,879,881 |
| From other places.... | 4,690\| | - 49,017 | 98,920 |

A severe restriction on the lmportation of cetton; and alse of tobscce, to Switzerland, as well as on the reception by the United States of Swiss wares and manufactures in return, is, as already mentioned, the
vexations and expensive tranaitage, epecially through France. The oppression of this burden may bo inferred from the fact that the annual average aggregate value of merchandise on which transit tolls are paid, proceeding from 8 witzerinud, was in 1853 nearly $880,000,000$; and the value of that proceeding to that republic more than half as much.

Switzerland sent in tranaitu to France, cotton tissues $t$ the value of nearly $\$ 3,000,000$ in 1852 , and to the value of nearly $\$ 4,000,000$ in 1853 . By the French tariff such fabrics are oxcluded from France for conaumption. Since 1845, Switzeriand, it is stated offcially, has quite auperseded, in the markets of Gormany and Austria, the yarns of $C$ reat Britain.

The following statement shovs the quantitios of cotton received by Switzerland from the United States, and of cotton atuffes sent to the United States from Switzerland, mede up from Swiss efficial sources:

Cotton from tun Uxitzd States to Switzerland.
 Cotton Stcept flou Switherland to tha Cimited statibs.
 1851.
a 1855 Switacrland returned to the United States, In exchange for raw cotton, the same article manufactured, to the value of $\$ 212,700$.
In this branch of industry Switzerland is said to compete auccessfully with France. Her chintzes, and also her embroidered mousselines, are superior to those of Alsace; and if the French markets are closed against their admission under the operation of restrictive tarIffa, they find an ample outlet in the Levant, or ncross the Anstrian territory by the Danube. They also find markets in North and South America, the Barbary States, the East and Weat Indies, in the faire and markets of Central Germany, as well as in the entrepôts of the Hans Towns. The manufacture of tobacco in Switzeriand is stated to amploy 4000 persons, and to produce alout $9,000,000$ pounds, valued at $\$ 1,116,000$. There is inported of the article annually into Switzerland, and produced in the country, as follows:


Of this there is consumed in Switzerland 6,740,502 ibs., of the value of $\$ 558,100$; leaving for exportation $1,091,000$ lhs. ; and if to the value which this latter amount represents to the manufacturer be added wagea of hanila and other expenses of manufacturiag, it is eatimated that the raw tobacco custa the Swiss manufacturer about six cents per pound, while he expects to realize from the salo of the mannfactured articlo about $72 \frac{1}{3}$ cents per pound.
Todacco impoutad into Switzkland dizing a \&rhizs or Yяske.


As American products generaily reach Switzeriand ria Havre, the following tabie is suhjoined, exhibiting the transit trade between France and Switzerland during a period of eight years, ending with 1858:

| Yane. | From Switxerlaod | To Switresland. |
| :---: | :---: | :---: |
| 14.6 | \$13,7/4,090) | \$10,416,5MM |
| 1857. | 14, 230,000 | 9,309,010 |
| 1848. | 16,193,609 | $9,114,000$ |
| 1549. | 18,600,000 | 10,002,000 |
| 1890. | 18,414,000 | 8,929,000 |
| $1 \times 51$. | 18,425,000 | 8,928,000 |
| 1859. | 18,798,000 | 11,846,000 |
| $18 \% 3$. | 26698,000 | 10,788,000 |

It may be inferred from the above statement that the chief obstacle to trade between the United States

[^48]and Switserland is fonnd in the restrictions of transitage, especially over the territories of France. If $\mathrm{S}_{\text {wiss }}$ manufacturere could have their goods destined for the United Statea fina'ly examined and sealed (plombe) at the first French frontier custom-house, then to pass on to their final deatination under the protection of that seal, anopemed, and consequently exempt from the roexamination and repacking which they undergo at each poet, it is believed that the trade with the United Statea would all pass through Havre, instead of seeking, as is the case at present, the more circuitous and expensive routes via Liverpool and other ports. Such a change in the French transit reguiations would reault, also, in an annaal augmentation in the general $\times x$ changes betwoen the United States and Switzeriand. Commercial returna from Switzerland aro necessarily imperfect, owing to the difficulty in procuring requisite statistics from the varions ports through which Swiss merchandise reaches the United States. The exports which passed through the consular district of Basle during the last six months of 1804 for the United States, amounted to $\$ 728,68985$. The total value of merchandise that passed through the consulate at Zu . rich for the United States was:

> In 1888. $\$ 8,800,699$ 4,406,072

The following statement shows the values of tha goole, wares, and merchandise sent from Switzeriand to the United States, covered by invoices authenticated at the consulate of Baele, for the six monthe endiag July 1at, 1855 :

| Sllk goods. | \$980,856 09 |
| :---: | :---: |
| Watches and jowelry. . . . . . . . . . . . . . . . | 89,067 62 |
| Cotton | 24,272 11 |
| Straw | 11,706 17 |
| Medleines | 3,696 20 |
| Checee and apirits . . . . . . . . . . . . . . . . . . | 8,161 26 |
| gilk and woolen | 18,30195 |
| l'sper-hangluga. | 2,980 60 |
| Leathor.... | 33525 |
| Mathematical inatrument | 3036 |
| Cloth | 68450 |
| Machinery . . . . . . . . . . . . . . . . . . . . . . . . | $814)$ |
| Wooden ware | 23 (15) |
| Cutlery | 8143 |
| Total. . . . . . . . . | 637,61+53 |

The following table exhihite the value of imports, the proluce and manufacture of Switzerland, into the United States, during the years ending June, 1853, and 1855 ; to which is added a statement showing the ports from whici said imports were cleared, with the amounts for each, made up from United States official authorities:
Valon of paikoipal, Imponts, tif Peoduck and MaxtpacTCAE OF SWITEEBLAND, INCLUDED IN THE I MPOATATIONS PBOX tife 11 anbe Towne, 11oiland, 13fleith, Faance, and lesGLAND, IHPMMO TIE Yeass Endine JUNE 30 , 1653, asd JUNE BO, 1865.

| Deneription of Merchandise. | Values. | Valuers. |
| :---: | :---: | :---: |
| Manufactares of wool. . . . . . . . . . | $\begin{aligned} & 1 \times 38 . \\ & \$ 16,932 \end{aligned}$ | $1055 .$ |
| t cotton | 323,482 | 2i2.700 |
| 65 stlk, +tc. ........ | 8,301,936 | 4,346,534 |
| 6 flax, lineaf, etc. | 8,352 19,082 | 28.496 |
| 4 bron and ateel .. | 19,082 926 | 28,426 1,150 |
| 46 gold and silver. | 16,449 | 14,810 |
| 64 glaes .. | 157 |  |
| 4t paper, etc. ..... | 72 | 1,354 |
| * wood .......... | 2,704 | 1,304 |
| Watches. | 1,035,714 | 2, $5 \cdot 53,416$ |
| Wateli crystala. | 8, 161 | 23,790 |
| Wearlag apparel . . . . . . . . . . . . | 6,844 | 5,94) |
| 1looks, printed and other........ | 1,348 | 173 |
| 13uttohs. . . . . . . . . . . . . . . . . . . . . . | 445 |  |
| Cheene. | 3,225 | 6,702 |
| Clocka. | 848 | 478 |
| 1)ruga and medtelats . . . . . . . . . . | 01 | 1.668 |
| 11stu and bonnots of straw, etc... | 501.949 | 14.3,8\%3 |
| Mathemsticsí inatruments . . . . . | 1,924 | - 984 |
| Sinefcal boxes. | 3,916 | 7,739 |
| Optical Instruments . . . . . . . . . . . | 9:4 | . $\cdot$ ' |
| Cordtaln . . . . . . . . . . . . . . . . . . . . | 1,086 |  |
| Argol. . . . . . . . . . . . . . . . . . . . . . . . . | … | 6,95\% |
| Total value of Imports. | 86,532,084 | \$67,778, 134 |

Sommat Stationnt milibitte tir Values of tha pin ofial Imlonta, tum l'modeof ard Mantfacture of 8witzbblant, ptaine time J'earb exdleg June 30, 1853, and
 cemine gratiment, witil thr -orta wibncr chazaz.

| Vis the Porth of | 1863. | 1855. |
| :---: | :---: | :---: |
| Hamburg | \$981 | 88,159 |
| Itremen. | 798,849 | 560,168 |
| llolland | 095 | 9,042 |
| lielgium. . . . . . . . . . . . . . . . . . . | 10,015 |  |
| Franet .................... . . . . . . | 2,037,877 | 8,701,004 |
| Fingland | 2,150,324 | 8,405,206 |
| Total. | 4,4,592,084 | \$7,778, 138 |

Imports from the United States Into Switzerland are maile, for the most part, through the customs frontiors of Bern, Soleuro, Basle, and Aargau, bordering on Frunce and the southern part of Germany. Swiss atatistica, especinily such as relate to commerce, are so far behind those of other European governments, ow ing mainly to the geographical position of Switzerland that an approximation only to fixed facts is attempted in the foliowing tables, designed to illustrate the preceding summary of tho trade between the two countriea.
Conmeres of the Unitgd Statrb witit Switarrland, emiracine thi Amounts of tha pgisctral lmpogts anb Expoatb.
ImPogTations into 8witagrtand from tue Linited Statge

| Denonulnation of Meychnndine. | 185]. | 1850. | 1958. |
| :---: | :---: | :---: | :---: |
| Cotlon | $\begin{array}{\|l\|} \hline \text { Seniners. } \\ 184,312 \cdot 4 \end{array}$ | $\begin{aligned} & \text { Tentnern } \\ & 173,320 \end{aligned}$ | $\begin{gathered} \text { Ceninern } \\ 107,653 \end{gathered}$ |
| Dye-stuffa, wood, berries, roots, and herbe.......... | 24,303-2 | 14,464 | 16,294 |
| Grains and vegetablea ....... | 448,6439 | 725,355 | 570, 108 |
| Fish-oll. . . . . . . | 8,060 4 | $8,1100 \cdot 6$ | 8,140 |
| Flour | 141,530-3 | 172,323 | 107,623 |
| Furs. | 197'1 | 137 | 580 |
| IIорA . . . . . . . . . . . . . . . . . . . | $514+8$ | 648 | 618 |
| Lard and tallow . . . . . . . . . . . | 3,958-1 | 4,503 | 2,841 |
| Polash. ..................... | 1,227.6 | 791 | 105 |
| Tobaceo leaf . . . . . . . . . . . . . | 46,218-5 | 40,804 | 51,407 |
| Manufactured cigars . . . . . . . . | 3,405.8 | 3,699, 8 | 4,802 |
| Tar, roein, and pitch . . . . . . | $1,401 \cdot 8$ 8,921 | 8064 8,246 | 897 2,158 |

Exiortationg faom Switzerland to the United Stater.

| Denomiatilion of Marchandies. | 1861. | 1958. | 1858. |
| :---: | :---: | :---: | :---: |
|  | Conninari. | Centrame | Cen |
| Cotlon rtuff | 81, 106 | 87, 178 | 47,805 |
| Cherso . . . . . . . . . . . . . . . . . . . . . | 81,854 | 88,846 | 87,863 |
| Silk Btuffis . . . . . . . . . . . . . . . . . . . | 20,787 | 20,074 | 28,257 |
| Straw twlatlags. . . . . . . . . . . . . . . | 8,787 | 5,080 | 4,465 |
| Watches, including muale-boxes. | 561.8 | 842 | 407 |
| Wooden mannfactures. | 1,859.5 | 1,042 | 1,052 |

The trade between the United States and Switzerland is gradnaliy on tho increase. American flour, which, prior to 1847, never reached that country, is in common uae now, and if reduction can be obtained on the expense of tranaportation through France, or on the Rhine, it may in time become as much in use aa that obtained from the Baltic. During the year 1853 the foliowing amounta of Swiss manufactured articles wers exported to the United Statea, the papers of which passed through this consulate, nine-tenths of which wera manufactured aione in the Canton of Zu rich, which contains a population of but 250,000 :

| silk gooda, | 19,312 | d. |
| :---: | :---: | :---: |
| Cotlons (motliy from Canton St. Galt) | 703,812 |  |
| Straw goods | 72,98) | " |
| Cathollo books, from Convent Einaledel | 15,105 | " |
| Cheese | 8,845 | " |
| Calf-skins, | 10.76 | " |

Miakling a grand total of $\qquad$ $20,133,3.0$ francs.
-Com. Rel. U. S.
Swords were originaliy formed of iron taken from a mountain by the Chineae, 1879 b.c.-Univ. Mist. The sword was one of the eariiest implementa of war. The Roman swords were from twenty to thirty inches long. The broadsword and cimeter are of modern adoption. The sword of state was carried at an English king's coronation by a king of Scotiand, 1194. Damescus steel swords are highly prized, and next the sword of Ferrara steei. The Scotch Highianders were accustomed to procure the latter from the celebrated

- The Swiss ceataer is equivaleat to $110 t$ lbe.
artificer named Andrea di Forrara, and used to call them their Andrew Ferraras. . The broadsword was forbidden to be worn in Edinburgh in 1724.-Hards.

Eydney, the capital of New South Waiea, and of the British settiemente in New Holland, or Auntralia, on: a cove on the south side of Port exackson, about seven milea from its mouth, lat. $88^{\circ} 55^{\prime}$ s., long. $150^{\circ}$ $10^{\prime}$ E. Population in $1840,88,858$, and now (1858) estimated at above 50,000 . Owing to a want of attention at first, the atreets of Bydney were laid ont, and the housea built, according to the views of individuala, without eny fixed or regular plan. But latteriy this defect has been to a considerabie degree remedied in the old streets ; and the new ones are systematicelly laid out. The town covers a great extent of land, almost every house having a conaiderable piece of ground attached to $\mathbf{i t}$. Schoola for the inatruction of poor children have been eatablished, and there are, besidea two establishments dignified with the pompous title of colieges, numerous seminaries, some of them said to be very well conducted, for the education of the middle and npper clasaea. There are several newspapers and other periodical pablicationa.

Sydney is admirably adapted for the capital of a great trading colony. Port Jackson is one of the finest natural basins in the worid. It stretches abont fifteen miles into the country; and has numeroua creeks and baya; the anchorage ia every where excellent, and ships are protected from every wind. The entrance to thia fine bay is between two gigantic cliffs, not quite two miles apart. On the moat southerly, in lat. $88^{\circ}$ $51^{\prime} 80^{\prime \prime}$ S., long. $151^{\circ} 16^{\prime} 80^{\prime \prime}$ E., a light-house has been erected, the lantern of which ia elevated 07 feet above the groand, and about 845 feet above the aea. It is navigable for shipe of any bnrden to the distance of fifteen miles frum its entrance, or seven miles above Sydney, up what ia called the Paramatta River. Shipa come close np to the wharves and stores of the town, their cargoea being hoisted from the ship's hold into the warehouaes. Sydney is conaequently the emporium of all the settiements in this pert of Australia, and has a very extensive trade. Down to the discovery of the gold fielda in 1851, wool was by far the moat important product raised in the colony. The incraase of cattle and sheep, but eapecially the latter, in Anatralia haa in truth been altogether extraordinary. Previousiy to the arrival of the Engilsh eettlera in New South Wales in 1788, neither horie nor cow, sheep nor hog, had ever set foot on the continent. The atock they brought with them was limited in the extreme, consiating only of 7 horses, 7 head of cattle, 29 sheep 19 goats, and 74 pige. And from this late and scanty stock, assisted by a few subaequent importations, have been derived all the vast nnmbers of sheep and other useful animala now to be found in the Australian continent. For a while the rate of increase was comparatively siow. But from 1810 down to 1851, when the revolution occasioned by the goid diacovery affected every branch of industry, the multiplication of sheep and other stock, especially the former, has been rapid beyond all pracedent. This is ahown by the foilowing account of the aheep's wool annally inported from Australia into the United Kingdom aince 1840:

| Vears. | Pounds. | Years. | Poun |
| :---: | :---: | :---: | :---: |
| 1840 | 0,721,423 | 1847. | 26,056.815 |
| 1841 | 19,890,090 | 1849 | 80,034,607 |
| 1842 | 12,05?,671 | 1849 | 35,774,071 |
| 1843 | 17,438,780 | 1850 | 89,018,221 |
| 1844. | 17,580,712 | 1851 | 41,810,197 |
| 1845 | 94, 150,687 | 1858. | 43,197,301 |
| 1810. | 21,865,270 |  |  |

Down to 1851 the colony of New South Wales comprised the extensive province of Port Phillip, now Victoria. But the latter was then separated from the former, and formed into an independent state, with a governor and Legislature of'its own.-See Melbounne.
At the close of December, 1851, the colony of New South Walen (exclusive of Victoria) had a population
of 107,168. It had also, at the same time, 162,057 acrea under erop, 116,897 horses, $1,875,257$ head of oattle, and $7,306,895$ aheap. Daring the same yoar the value of the imports (nootly from Ingiand) amonnted to $81,568,982$, and that of the exports to E1,708,012. The latter comprieed, among othert, the following items, vis. $t$

with neat cattle, flour and bread, bones, soap, cedar, and other woods, eto.
Harbor Dmee, etc.-TThe colonial Legislature has aleo, by an act paseed in 1852, auppreased sll chargen on shipping for harbor dues, lighthouse duen, fees on entaring and elearing, water police dues, ato. Sydney is tharefore really a free port. See articlea Avstraha, Melnournis, and Naw South Walme,

Moneys, Weights, and M/easures.-Accounts ars kept in starling money ; but Spanisb dollars are moat abundant. They pass current at bo. eaeh. The weights and measures are the mame as those of England.

Byra, the ancient Syron, one of the ialands of the Greek Archipelago, whose salubrity and fortility have been celebrated by IIomer (Porz'a Odyadey, book xv. v. 438 , etc.), in the group called the Northern Cyclades, afteen miles west from the greater Delon, its port, on the east side of the island, being in lat. $37^{\circ} 26^{\prime}$ $30^{\prime \prime} \mathrm{N}$., long. $24^{\circ} 57^{\prime} \mathrm{E}$. It is from nine to ten milea in length, by about five in brendth. Though rugged, it is carefully oultivated, and prodnces garden stuffa, wine, olivea, figs, cotton, etce, with a little barley, The population in 1880 was set down by Mr. Urquhart at 4000 ; but wo have been assured that it is at present ( 1853 ) !ittle, if at all, short of $27 \mathbf{2 0 0 .}$

It is indebted for this extraon inary increase of population to the convenience and excelience of its port and its central eituation, which have made it a considerable commercial entroput. Though amall, its harbor is acoenalble to lineof-battle ships. The holding ground is good, and it lias in itg centre abont ten fathoms water. Merchantmen of from 400 to 500 tons burden moor within about 100 yards of the wharves. Winda from the mouthewat round to enat-northeast throw in a heavy swell; but the port is well protected from winds from all other points. A lighthouse, with a revolving light, has been orected on Gaidoro Island, about $1 \frac{1}{2}$ mile southeast from the port. Most part of the trais that formerly centred at Scio is now carried on here; and the island has not only received numerous immigrants from Sclo, but also from many other parts of Greece. Great Iritain and mont Kuropean powers have consuls in Syra; and it is aiso the principal seat of the Protestant missionaries to the Levant. The town in on tha north sile of the harbor. The oldest portion occupiea the summit of a conical-bhaped hill, probably the site of the ecropolis of the ancient city. -sice Tournefont, Vogage du Leeant. But the new streets and houses, of which there are many, come duwn to the water's edge. It has an appearance of great bustic and animation. Its copioas opring of pure fresh water has been eulogized by Cliarke (Trarels). in 1848 no fewer than 468 vessels were registered at Syra, being a greater amount of shipping than belonged to any Greek port.

Byria (wi'h Palestive), a large division of Asiatic Turkey, mostly letween lat. $31^{\circ}$ and $37^{\circ} \mathrm{N}$., and
long. $84^{\circ} 80^{\prime}$ and $40^{\circ} \mathrm{E}$; ; bounded north by the Ams. nhan Mountains, east by the Enphrates and the Arubisn desert, south by Arabja Petrasa, and west by the Mediterranean Sea. Estimated area, 50,000 equare miles. Population ahout $1,865,000$, mostly Muhammedans, 'ut comprising about 345,000 Greek Christisne, 260,000 Maronikea and Roman Catholica, 175,000 Jews, 48,000 Druses, and 17,000 Metualis and Yezldis.- The weat, or coast portion, is mountainous; the east chiefly in elevated plain. After the Dead Sea, the principal lakes are thoee of Tlberlas, or Genesareth, and liulahh, in the valley of the Jordan; some smiller ones exist near Damascus and Antloch. The aurface'being very nneven, the climate and products vary greatly within short distances. Along the coasts the heat is great, and the orange, banana, and date flourish, while the summits of tise mountains are seen covered with snow.: In the north, and on the elevated plain east of the mountalns, the climate is colder, but at Aleppo frosts are seldom severe, and snow rarely lies on the ground for more than a day at a time. The com is nearly ripe early in May; and from June to Sejitem. ber summer heats prevall, unhroken by any rain, though tempered in the west by sea-breezes. It is stated that the country is capable of producing suff. cient to maintain ten times its present popalntion; yet such is the rude method of agriculture, the depressed condition and Insecurity of the rural population, and the nncertainty of taxation and government regula. tions, that in bad years com most frequently be im. ported from Fgypt and elsewhere, Wheat, barley, malzs, millet, lentils, and sesamum, are raised in the plains, principally in tho Haouran, which has alwnys lwen considered the granary of Syria. Cotton nad the mulberry flonrish on tho coast, and silk is produced en the elopes of Iebanon. The cotton annually raised in the south is eotimsted to amount in value to $£ 3 \mathrm{i} 0,000$; and about 1700 cantars of silks, 10,700 cantars of tobaceo, from 8000 to 10,000 cantars of gall-nuts, and 800 cantari of madder roota are annually proluced. Other chief products aro sheepa' wool, olivo-oil, sugar, indigo, scammony, and other gums, saflowel, dates, timber, hides, and skins. Sheep and other lire-stock form, as in antiquity, a chief part of tho wealth of the inhabitants ; and, nll merchandise being conveyel on the hacks of animals, it is estimated that the Irunsit trade employs 80,000 beasts, nni nbout 30,000 drivers. Abont 3500 akes of sponge firhed on the coast are sent to the porta of the Mediterranean annually; other fisheries are comparatively unimportant, as is mining industry. Damascus has abont 4000 looms engaged in the manufacture of silks, ond the same manufacture is carried on to a conaiderable extent in Aleppo. Cotton, ani some woolen fabries, shawls, gold and silver thread stuffs, are also woven there and elsewhere, and the total produce of the looms of Aleppo is estimated at $\boldsymbol{\Sigma 2 5 0 , 0 0 0}$ in annual valuc. Glass, carthen-wares, leather, nud soap, are made in the aiove and other towns; and in Palestine great numbers of religioua ornaments are manufactured for sale. Commerce is greatly imjeded liy the want of roads, those that exirt being mere muie or camel tracka; also lyy the deficieney of good harbors. But as Syria is on the high route from lag. dad, Mosul, aud Erzeroum, to Meccn, caravans annualiy traverse it, bringing gulia, indigo, Mocha coffee, sking, Casiunere shawls, and other Imdian mannfactures, siso the products of Asia Minor, Menopotamia, and l'ersia, which are exchanged licre for European manufacturee and cochincal.

Tac
tandra tandra In fiag tle, an has an musk, ing no

Tacamahac, a reain obtained from the Fagara octandra; and likewise, it is aupposed, from the Populua boleamifera. It comes in large oblong masses wrapped in flag leavas. It is of a light brown color, very brittle, and easily melted when heated. When pure, it has an aromatic amell, betwsen that of lavender and musk, and dissolves completely in alcohol, water having no action upon it.-Tиомsos's Chemistry.
Tack, a rope used to confine the foremost lower corners of the courses and stay-sails in a fixed position when the wind crosses the ship's course obliquely. The same name is also given to the rope employed to pull out the lower corner of a atudding-sall or driver to the extremity of its boom. The mainsali and foresail of a ship are furninheri with a tack on each aide, which is formed of a thick rope tapering to the end, and having a kuot wrought upon the largest end, by which it in firmly retained in the clew of the sail. By this means one tuck is alwaye fastened to windward, st the same tine that the sheet extenda the sail to the leeward.

To tack, to change the course from one board w another, or turn the ship sbout from the sterboard to the lurboard tack in a contrary wind. Thus, a ship being close-hauled on the larboard taik, and turning her prow suddenly to windward, receives the impression of the wind on her head sails, by which she falis off upon the line of the starioard tack. Tacking is also used in a more enlarged aense, to employ that maneuver in navigation by which a thip makes an oblique progression windward in a zigzag direction. This, however, is more usually called beating or turning to windieard.

Tackle, a machine formed by the communication of a rope with an assemblage of blocke, and known in mechanics by the name of pulley. Tackles are used in a ship to raise, remove, or to secure weighty bodies, to support the masts, or to extend the sails and rigging. They are movable as communicating with a runner, or rixed as being hooked in ạn immevable situation; and they are more or less complicated in proportion to the effect which they are intended to produce. The application of the tackle to mechanical purposes is calied hoisting or bovsing. Ground tackie implies the anchora, cables, etc.

Tafferel, the uppermest part of a ship's stern, being a curved piece of wood, and osually ornamented with some device in sculpturo.

Taffeta, one of the earliest species of silken manufacture, more prized formerly than now, woven very smooth and glossy. It was worn by queens, and was first made in England by John Tyce, of Shoreditch, London, 41 Elizabeth, 1598.-STonn's Chron. Taffeta has heen superseded by numerous descriptions of manufacture more estcemed by the female world.Hayd.

Taganrog, a eity of European Ruasia, on the north coast of the Sea of Azof, near the mouth of the River Don, lat. $47^{\circ} 12^{\prime} 48^{\prime \prime}$ N., long. $88^{\circ} 89^{\prime}$ E. Population, 18,000 . It has a naval hospital, a lazaretto, etc.; and there are annual fairs in May, August, and November. Taganrog is a place of considerable commorcial importance. It was intended by its illustrious founder, Peter the Great, to replace Azof, the ancient emporium of the Don, the port of which had become ail but inaccessible; and its whole consequence is derived from this circumstance, or from its being the entrepot of the commerce of the countrics traversed by that great river. The largest portion by far of tiie trade is carried on with Constantinople, Smyrna, and other Turkish ports, but a good deal is also carried on with the Italian and other foreign ports; and there is an extensive coasting trade with Odessa and other Russian ports. In 1852 the exports to fereign countrics comprised, among otiler articles, $1,102,047$ chet-
werts whest, 112,510 ponds tallow, 175,836 poode wool, 26,104 pooda caviare, 846,880 chetwerts linseed, etc. Seeing that Taganrog was built to obviate the difficuities that had to be ancountered by vessels entering the Don, through the shallownees of the water, it night have been supposed that care would be taken to place it in a position in which it should be, in as far as poseible, free from this defect. This important censideration seems, however, to have been to a great degree overlooked. The Gulf of the Don is aeldom navigable by vessels drawing more than from ten to eleven feet water, and even these can not approach within lees than about 700 yards of the town. They are principally loaded by carts, drawn each by a single horse, the expenses being so very considerable that it costs from 120 to 150 copecks to ship a chetwert of wheat. Without, however, altering the position of the town, theee defecte might be obviated with but little diffleulty, by constructing a wooden pier by which vessele in the roads might be sheitered, and from which they might be laden.

It is imposible to form a correct estimate of the future msgnitude of the trade of the See of Azof. No doubt, however, it is very great, being the natural seat of the commerce of some of the most extensive and fertilo countries of Eastern Europe.

Were the navigation of the Don improved, and facilities given to foreigners entering the sea, the exports might be largely increased, even with recent prices, which have been nearly the same as those of Odessa. The harvests in the sonth of Russia fluctuate very greatly. The imports into the Sea of Azof are hut inconsiderable, principally coneisting of Greek wines, oils, dry salteries, and such like articles.
Talc, a apecies of fossil nearly ailied to mica. It is soft, smooth, greasy to the feel, and may be spit into fine plates or leaves, which are flexibie, but not elastic. It has a greenish, whitish, or silver-like luatre. The leaves are transparent, and are used in many parts of India and China, as they were used in ancient Rome (Pliny, Hist. Nat., lib. xxvi.), in windows instead of glass. In Bengal a seer of talc costs about two rupees, and will sometimes yield a dozen panes 12 inches hy 9 , or 10 by 10 , according to the form of the mase, transparent enough to allow ordinary subjects to be seen at twenty or thirty yards' distance. It should be chosen of a beautiful pearl color; but it has, in general, either a yellowish or faint blue tinge. Ite pure tranolucent flakes are frequently used by the Indians for ornamenting the bawbles employed in their ceremonies. Talc is employed in the composition of rouge vegetal. The Romans prepared with it a beautiful blue, by combining it with the coloring fluid of particolar kinds of testacecus animals. The taic brought from the Tyrolese mountains is called in commerce Venetian taic. Several varieties are found in. India and Ceylon. - Thomson's Chemistry; Rees' Cyclopedia; Milnurn's Oriental Commerce; Ainslie's Mat. Indica.
Talent signifies beth a weigat and a coin very common among the anciente, but very different ameng different nations. The common Attic talent of weight contains 60 Attic minee, or 6000 Attic drachme; and weighed, according to Dr. Arbuthnot, 59 lbs. 11 oz . $17 \frac{1}{4} \mathrm{grs}$. English Troy weight. There was another Attic talent, by some suid to consist of 80 , by others of 100 mine. The Egyptian talent was 80 minw ; the Antiochian also 80 ; the Ptolemaic of Cleopatra $80 \frac{9}{5}$ that of Alexandria, 06; and the insular talent, 120. In the valuation of money, the Grecian talent, according to Dr. Arbuthnot, was equal to 60 mine ; or, reckening the mina at $£ 348.7 d_{\text {., }}$ equal to $£ 19315 \mathrm{~s}$. The Syrian talent, in this valuation, consisted of 15 Attic mine, the Ptolemaic of 20, the Antiochian of 60, the

Eubcean of 60, the Babylonio of 70, the greater Attic of 80 , the Tyrian of 80 , the Eginesen of 100 , the Rhiodian of 100, and the Egyptian of 80 mines. There is another talont much more analent, whlch Dr. Arbuthnot calls the Homerie talent of gold, which seeme to have woighed six Attle drachme, or throe Dorioa, a Dorio weighing very little more than a guinea. Aocoriling to the taleat come reckon the treasuse of King Dusid, partloularly that mentioned 1 Chron. xx. 14, which, according to the cummon reckoning, would amount in gold telents to the valoe of $\mathbf{\Sigma 5 4 7 , 6 0 0 , 0 0 0 ,}$ and the ailver to above $£ 342,000$. An David relgned in Judea after the oiege of Troy, it is not improbable but liomer and he might use the same nameral talent of gold. Among the Lomans there were two kinds of talents, the little and the groat taient. The littlo was the cormmon talent; and whenevor they say simply tolentum, thay are to be underatood of this. The little talent was 60 mine or Roman pounds, the inina or pound being estumated at 100 drachmes or denarii. It was also ostimated at twenty-four groat essterces, which amounted to $\mathbf{8 6 0}$. The great talent excesied the lese by one. chird part. Budmus computes that tho littie talent of oliver wan worth $\mathbf{\Sigma 7 5}$ sterling, and tho greater $\mathbf{8 9 9} \mathbf{6 0 . 8 d}$. sterling. The groator of gold was worth $£ 1125$ aterling.

Talent, at a species of money amuig the IIebrewn, was sometimes used for a goid coin, the eame with the shekel of gold, caliod also stater, and weighing only four drachma. Tho liebrewe reckoned by these talents, at we do by pounds, etc. Thua a million of gold, or a million of talents of gold, among thom was a million of shekele, or nummi; the nummus of gold being the same weight with the shekel; viz., 4 drachms. But the Hibbrew talent weight of silver, which they called cicar, was equivalent to that of 3000 shekele, or 113 lbe. 10 oz. 1 dwt. 104 gre. English Tray weight., according to Arbuthnot's computation.-F. B. See Corsm.
Tallow (Fr. Suif; Ger. Talg; It. Seen, Sego; Russ. Salo, toplenoe; Sp. Sebo), animal fat metted and separated from the fibrous matter mixed with it. Its qual3ty depends partly on the animal from which it has ween prepared, but more, perhape, on the care taken in Ito parification. It is firm, brittle, and has a peculiar heavy odor. When para, it is white, tanteless, nand nearly insipid; but the tallow of commerce has usually a yellowish tinge, and is divided, according to the degree of its parity and consisteuce, into candle and sonp taliow. Tellow is an erticle of great importance. It is menufactured into candles and poap, and is extensjively uned in the dressing of leather, and In various processes of the arts. The exports of tallow from Rusain emount, at an average, to about $3,810,000$ poodh, or 137,160,000 libs. а year.-Twaobonski, Yorces Productives de la Ruarie, i. 233. Of this Immense sapply, the export of the largest portion is to lingland; the remainder being exported to Pruseia, France, the lianso Towns, Turkey, ete.
We borrow from the work of Mr. Borrisow, on the commerce of Petarsbarg, the following details with respect to the tallow trade of that city: Tallow is ilivided into different morta; namely, white and yeilow candle tallove, and common and sitherian soap tallow; although it is allowed that the same mort often differs in upality. Tallow is brought to letershurg from the interior; and the best soap tallow from sileria, by various rivers, to the Lake Ladoga, and thence hy the canal of Sehlusselburg to the Neva. Ycllow candle taliew, when good, ahould be elean, dry, harl when broken, and of a fine yellow color throughout. The white candle tallow, when good, is white, irittle, hard, dry, and clean. The best white tallow is brought from Woronesch. As for soap taliow, the more greasy and yellow it is, the letter the quality. That from Siberia is the purest, and commonly fetches a highor price than the other sorts. The exports of tallow
from Petersburg in 1852 amounted to 2,002,101 poods. Formerly the oil and tollow warehousen wore the same, and thie oceanioned great dimfleultion in shipping, be. cause all vessela or lighters taking in tallow o' oil were obliged to haul down to the ambare, and wait in rotution for thoir cargoes. The connequence was, that, when much businoss was doing, a veasel was often detained for several wooks at the ambare before athe could got her cargo on board. Now the tallow and oil warehouses are esparated, and every article hay its own place. Whon a mhipment of tallow is mada, the agent In furniehed by the nelector (bracker) with a sample from each cask. Captaine, in order to obtaih more frelght, usually load mome casks of tallow upon deck; but it is more for the interest of the owner to ayoind this, if poncible, becauee the tollow loses, through the heat of the sun, conalderably, both in woight and quality. One hundred and twenty poods of tallow, gross weight, make a Petersburg last, and 68 poods a ton. The value of the tallow exported from Russia is seld by M. Togoborakl to amount, at an average, to about $8,871,000$ roublea, or about $615,500,000$.
Exiobte of nommatio Tallow pbom the Limited State deano the Yeab expino June 30, 1567 .

| Whither esported. | Pounde. | Valve. |
| :---: | :---: | :---: |
| Danlah Weat Indtes. | 8,760 | \$1.00] |
| Ifambing. | 26,581 | 3,300 |
| Uutch Wert lvdies., ............... | 436 | ${ }_{50}$ |
| Dutel Guiana ...................... | 14,906 | 1,724 |
| Fingland... | 1,773,452 | 205,946 |
| Malta | 1, 9,750) | 369 |
| Catuada, | 1,485,568 | 148,349 |
| ther Itritah North Am. ${ }^{\text {dousesalong }}$ | 5J2, 110 | 00,379 |
| Itrituh Went Iodles ................. | 9,079 | 862 |
| Iritish Ilonduran | 9,700 | 270 |
| Britah Gutana. | 4,071 | 62.4 |
| France on the Atianlte . . . . . . . . . . | 40,000 | 4,84, |
| French North American l'onseswiona Cubn. . . . . . . . . . . . . . . . . . . . | 3,103 885,316 | 10.5362 |
| 1*orto litco, , . . . . . . . . . . . . . . . . . . . | 88.86 | 16,366 |
| Aaorea .... | 1,100 | $\begin{array}{r}1,619 \\ 120 \\ \hline 104\end{array}$ |
| Ilayt1. | 4,050 | (2) 4 |
| Mexico. | 12,132 | 1.305 |
| New Grana | 14,383 | 1.736 |
| Yeaersele | 967,087 | 81.421 |
| chilis. | 576,001 | 60,000 |
| Totnl...................... | 6,0088, 315 | 8032, 969 |

 lear enolma deme 30, 1 185\%.

| Whenee imported. | P'ounds. | Valae. |
| :---: | :---: | :---: |
| Eingland. | 2t,710 | 41,721 |
| 1ritish Weat fndiea | 7,710 | 497 |
| Itritinh loosesalunat in Africa....... | 64 | 69 |
| Britih Frat Indiet . . . . . . . . . . . . . . | 82,420 | 2,001 |
| Mexico. | 974 | 88 |
| 1henum Ayrex, or Argentine liepublic | 16,938 | 1,108 |
| Sabdwleh lulands . . . . . . . . . . . . . . | 86,905 | 6,542 |

Tally Trade, the name given to a system of desiing carried on in london and other large towns, by which ehop-keepers furnish certain articles on credit to their cuastomers, the latter agreeing to pay the stip ulated price by cerain weekly or monthly installments. In London there are alout sixty or seventy tally-shops of note, and from 600 to $\mathbf{C 0 0}$ on a smaller scaje. They are also apread over the country to a consideratje extent, particularly in the manufiacturing districts. The chatomern of the tally-shopi aro mestly women, consisting principally of the wiven of intorers, mechanics, portera, etc., servant girls, and femulos of loose character. Few oniy of the more respectalile classes have been infatuated enough to resort to them.

Tamarinds (Ger. Tamarinden; Fr. Tamarns; lt. and Sp. Tamarindo ; Arab. Umblie; Hind. Tintiri), the frolt of the Tamarindus Indica, a tree which grows in the Eant and West Indies, in Arabia, end Fgypt. In the Weat ladies the pods or frult, being gathered when ripe, and freed from the shelly fragments, are placed in layers in a cask, and holliog airup poured over them, till the cssk be filled; the sirup pervades every part quite lown to the lottom; and when cool, the cask is lieaded for sale. The East India tamarinds are darker
coloh sugar gree the et into $t$ thoul sox's introul to flov that i our 8 There the W ety, d its fru
colored and drier, and are said to be preserved withont augar. When good, tamarinde are free trom any dogree of mustiness ; the seeda are hard, flat, and clean I the atringe tough and entire; and a clean knifa thraat inta them doee not receive any coating of copper. They should be preaerved in elosely-cevored jara.-Тномson's Dispeneatory. 'The tamarlad-tree was very early introluced into England, where it nometimes is known to flower; from which olreumatanee it may be inferred that it would proaper in favorable localities in some of our Southern States, and probaily mature its fruit. There is, perhaps, only one speeces of this genus; bot the West Indian tamarind, believed to be only a variety, differs much from the East Indian, in the form of its fruit and the number of its seeds.

Tampico, or Banta Ana de Tamaulipas, a sen-port town of the Mexican confedoration, department, und 215 milles north-northwest from Vera Crus, on the south shore of the Lake of Ta...t..ec. Popalation, 7000. It is regularly laid out on a slope, and has some gooi dweliings in the old Spanish style, with military and naval hospitals, some publio monumenta, and welisupplied markets. It is better drained and leas unhestity than formerly. Principal exports are specie, hides, tallow, hones, and jerked beef.
impoats into Tinpico foos tun Cintid States, with the gatimated Dutiss.

| Yaars | Amouel of Cargoen. | Dr |
| :---: | :---: | :---: |
| 1851 | \$278,704 | \$265, 278 |
| 1852. | 100,986 | 147,702 |
| 1859. | 849,564 | 089,678 |

The exports hence to the United Statee during the yenr 1837 amounted to $1,283,157$, whereas the returns of the year 1855 only nmount to the sum of 208,571 . In 1834 the total amount of specie from this port was, by officinl returns, $\% 9,165,178$, of which over $\$ 2,000,000$ went to the United States, the balance to Europe. A serious drawback to thu commercial intercourse between this port and the Jnited States is the want of direct ateam conveyancer The geugraphical position of Tampico has many ed antages over any other port in the republic, in consec sence of its proximily to San Luis Potosi, where goolu cati be rent at 60 per cent. less in the charges of freight than from Vera Cruz, and San Luis being the key to all the principal places in the sections of the country whose commerce is supplied with foreign goods, and the spot where the goods meet from the states of Durango, Jalisco, Guannjuato, and Zacatecns, these being the principal mining statee in the republic. There wero twelve arrivals and departures of Einglish packets, bringing to ". mpico 3431 quicksilver flakks, and taking thence cargoes of an ag. gregate velue of $83,459,061$; which, added to the aggregnte value of other ontward cargoes, makes a total of $83,994,772$.
Retybig of Amprioan ant fomkion Tgant at tife Port


| Nations. | Tons. | Value of 3 m ports. | Tuna. | Value of Exporta. |
| :---: | :---: | :---: | :---: | :---: |
| Ameriean vewala | 2.75 | * $2600,36.1$ | 3011 | \$ 008,471 |
| Mexican " | 2704 | 216,700 | 2050 | 61,8m |
| Apanish | $2 \times 5$ | 66,100 | 285 | 26,450 |
| French | 2100 | 530,392 | 9206 |  |
| Englinh | 805 | 488,140 | 895 | 238,000 |
| Danith 4 | 280 | 111.335 | 290 | 100 |
| Total. | 92.3 | \$1,678,024 | 3407 | \$505, 111 |

Tauning. The process of tanning lenther with the bark of trees was enrly practiced by various nations. The use of tan was introduced into these countries from Holisnd by William III., for raising orange-trees. It was discontinued until alout 1710, when enanas were first brought into Fingland. Since then tan has been in general use in gardening. Great lauprovements were made in tanning in 1790, et seq.

Tapeatry, an art of weaving borrowed from the Saracens; and hence its original workers in France were called Sarazinois. The invention of tapestry hangiugs belongs (the date is not mentioned) to the Netheriands.-Gutcctandisi. Manufactured in France
under Henry IV., by artinta Invited from Flanders, 1606. The art was hrought into England by Wulliam Sheldon, and the firgt manufactory of it was established at Mortlake by Sir Yrancis Crane; 17 Jamen I., 1010.-SAlmon. Under Louia XIV. the art of tapertry was much improved In Franee.-Sec Gobelis Tapzetay. Very oarly instanees of making tapeatry are mentioned by the ancient poete, and aleo in Scrip. ture; so that the Saracen manufacture ts a revival of the art. For the tapestry wrought by Matllda of England, see Baykadx, Tapestry, p. 74.

Taploca, a species of starch or white coarse powder derived from the roots of the bitter cassava (Jairopa mamihot), an American plant raised all over South Amerien, but princlpally in Brazll, where it is called mandioc or manioc. The roots of the piant, heing peeled, are aubjected to pressure in a kind of bag made of rushes; the juice which le forced nut by this process being a dendiy poison, and employed nis such by the Indians to poison their arrows. But the residuum, or farinaceous mattar remaining after the expuision of the juice, is perfectly wholesome, and makes excellent bread. Taploca, as atated above, is prepared from this residuam; and being nutritious end easy of digestion, is extensively used in the making of padidings. When dressed, it is not easily distingulshed from sago.

Tar (Fr. Goudron; Ger. Theer ; It. Catrame ; Pol. Smola genta; Russ. Degot, Smola shitkaju; Swed. Tjara), a thiek, black, unctuoua subatance, chiefly obtained from the pline and other turpentine trees, by burning them in a close, smothering heat.
Exponte of Tan from titg Uniten Statib for Tit Ygas ENDINO JOES 30, 1857.

| Whilther exported. | Darreln. | Value. |
| :---: | :---: | :---: |
| Nwedish W est indles | 9 | 4 |
| Danlsh Went Iadiea | B70 | 839 |
| Ilamburg. | 800 | 1,718 |
| ifremea. | 118 | 298 |
| Hoiland | 7,032 | 8,213 |
| Dutch Weet Iadtc | 86 | 210 |
| Dutch Guiana | 870 | 827 |
| Dutch Fast lndies | 723 | 1,012 |
| Eingland. . . . . . | 27,203 | 63,498 |
| Scottand. | 14,742 | 26,630 |
| Gibraitar | 970 | 661 |
| Maita | 130 | 247 |
| Csmada | 2,411 | 9,470 |
| Other British North Am. Ponsesslons | 6,243 | 13,583 |
| Britiah Weat Indlea . . . . . . . . . . . . . | 2,85T | 5,850 |
| Britiah Honduras. | 210 | 608 |
| Mritish Guiama... | 1,478 | 8,158 |
| firitinh P'oaseations in | 805 | 1,087 |
| Mritish Australla...... | โ58 | 1,907 |
| Hritieh East Indlea | 8,388 | 17,929 |
| France ea the Atlantte | 3.722 | 5,033 |
| Franee on the Mediterranean | 1,129 | 2,353 |
| Freach North American l'onseas lons | 189 | 443 |
| Freuch Weat Indics. . . . . . . . . . . . . | 698 | 1,239 |
| French Guiana | 448 | 817 |
| Spain oa the Mediterranean | 1,096 | 2,766 |
| t'anary lalands ............ | 66 | 138 |
| Phtipplne Inlands | 659 | 1,949 |
| tuba. . | 8,215 | 7.511 |
| P'orto litc | 476 | 1,114 |
| Portugal | 285 | 646 |
| Madeíra | 50 | 120 |
| Cape do Verd Jelanda | 76 | 166 |
| Azores ..... | 2910 | 688 |
| Two skilitea ..... | 815 |  |
| Turkey in Europe.. | 150 | 800 |
| Turkey in Aula.. | 400 | 825 |
| iorts in Africa. flayti | 1,873 | 3,011 573 |
| San Domiago. | 230 | 400 |
| Mexico.... | 062 | 2,076 |
| ' 'entral liopublic. | 53 | 181 |
| New Granada.... | 1,294 | 8,570 |
| Venczuela.. | 775 | 1,573 |
| lirastl. | 1. $\mathrm{BRO}^{20}$ | 9, 604 |
| I'ruguay, or Cisplatino liepublie... | 250 | ${ }^{506}$ |
| Argentine Repulile. . . . . . . . . . . . . | 575 479 | 1,399 1,219 |
| l'eril. | 3 mo | 177 |
| Fenad | 250 | 649 |
| Sandwich Ielanda | 839 | 1,109 |
| Wher Lalande in the Jacific. | 26 | 108 |
| China. | 350 | 1,166 |
| Whale-fisherle | 13 | 76 |
| Toial, | : 6.731 | \$2018,610 |

Tar Ia an artio of great commereial Importance. The process followed in makiag it has been deseribed as followa by Dr. Clarke: "The aituation mont favorable to the procens is in a forest near to a marsh or bogi because the roots of the fir, from which tar is princlpally extracted, are alway most productive in owh places. A conical cavity is then made In the ground (generally in the sid of a bank or aloping hili), and the roota of the fir, together with loga anil billets of the sama, being nestly trussed in astuck of the aame conical shope, are let into this cavity. The whole is then covered with turf, to prevent the volatile parts from 'velng dinolpated, which by mease of a heavy wooden mallet, and a wooden stamper, workel separately by two men, la beaten dows and rendered as frm en piastble abuve the wood. The stack of billetn Is then ifindled, and a slow eombustion of the fir taken place, without flame, as In making charcoal. During this combustion the tar exudes; and a caet-iron pan being at the bottom of the funnel, wlth a apout which projects through the side of the bank, barrela are placed beneath this apont to collect the fluld as it comes away, As faot as the barcels are filled they are bunged and ready for immedlate exportation. Irom thin description it will be evldent that the mode of obtaining tar Is hy a kind of distiliation per deacenown ; the turpentine, melced by fire, mixing with the asp and juicen of the fr, while the woed itsolf, becoming charred, is converted into charcoal."
Tare, an abatement or deduction made from the weight of a parcel of goods, on account of the weight of the chest, cssk, lang, etc., lu which they are contuined. Tare is distinguished Into real tare, rustomary tare, and average tare. The firat la the actual welight of the package; the second its supposed welght secording to the practice among merchants ; and the third Is the medium tare, deduced from weighing a few packages, and taking it as the atandarl for the whole. In some commereial cities tares are generally flxed by custom. The prevailing practice, as to all goods that can be unpacked without injury, both at the cuatomhouse and among merchante, la to ascertain the real tare. Sometimes, however, the buyer and seller mske a particular agreement about is.
Tare, Vetoh, or Fitoh, a plant (Vicia sativa, Linn.) that is cultivated principally for its atom and leaves, which are used in the feeting of sheop, horses, and cattle; but partly, also, fur its seed. Dorses thrive better upon tarea than upon cluver and rye grass ; and cows that are fed upon them give most milk. The seed is principally used to the feeding of pigeons and other poultry.

Tariff, or Tarif. First, a list of certain goods, merchandine, etc.; then a liat of duties on Importa or ex. ports of such articles. This word, liko many others used in commerce, is derived from the Italian, in which it is tariffir ; this again, like numerous other expressions relating to commerce and navigation, comes from the Viast. In l'ersian It is tarif; In Arablen the verb arf aignifies to kwour, which in the second form becomes sarif; signifying to make known. The substantive derived from the verb therefore signifies notificution. The principles of a tariff depend upon the commercial policy of the state by which it is framed; and the detalla are constantly fluctuating with the change of intereste, and with the wante of the government or community, or In pursuance of comnnercial treaties with other nations. The British tariff underwent seven important changes bet ween the years 1772 and $1842 ;$ viz., in 1787, in 1809 , in 1819, in 1825 , in 1833, and in 18 s 2 . Finally, on $26 \mathrm{th}_{\mathrm{h}}$ June, 1846, the royal assent wes given to Sir Robert I'eel': noted tariff-a measure which canceled the duties on several hundred articies, and pressed ujon the country the adoption of free trade.

The able report of I. D. Campirell, of the Jlouse of Iegresentatives, 1856, to the Committee of Waya and Means, is a jost and comprehenaive exposition of the
protectiva (not prohibitive) ayotem ; and as such, and as bel' ig the report upon which our preseut tariff was mainly coastructed, we noed not apologian for giving extend ed extracts. The moderately protective tariff le easential in the eariy comunercial and manufacturigg atages of a country. Anl the fact that free trudo may at come future time be advantageona to us does not prove ite present anceesity. It will be seen thit, though generally assonting to tha aoserted fact that the purpoee of revenoe alone can juatify the imposition of dutios, yet the proofs and atatistice given prove too much, and prove to the uuprajulliced reader that duties are not alone neceasary for revenue, but nay be necessary for protection.

Prinolple and Iulicy of the Proposition.-The propristy of the proposed reluction of the tariff of dutles upon imponte In mada by the I'reaident'e annuel meso auke to rest, first, upon the principle that "the purposen of revenue alone can Justify thair impoaition;" and, necond, Ejon the policy of "roilucing the tariff of duties upon limports, as the means of reducing the revenue to the amount annually needed for the prudent and economical administration of public affiaira."

The recommendation of the message, thus enalyzed, affurls a principle which the Iresident contents himself with asying "is so generally conceded, that, is reuljusting the impoat tablea and sehedulea, which unquestionably require essential modificstion, a departure from tho principiea of the present tariff is not onthelpated," and a policy which be does not in any manner undertake to verify or illustrate. It stands in the mesache as a position asoumed without proof, or as too plain to require demonatration.

Revenue limited by Expendidures--Your committee perceive only one sense in which the I'resident's doc. trine concerning the purpose for which import duties may be imposed can be regarded as generally conceded. Inpests empioyed as a measure of taxation must bo conformed to the requirements of the public revenue, or they miss the controlling oljject of their imposition.

Taxes of every ikind must be levied at once up to the necesslties, sid within the limits of governncent expemses; in other woris, the grosa amount of revenue muat be regulated by the demand of the goverament for its current expenses ; and, where foreign inports are selected by the policy of the nation to bear the chief burden of its support, the tax inposed must be determIned in amount by the reguirements of the national tmeasury.

Thus far it is conceded that the purpose of revenue alone can justify thelr luposition; and thus far the doctrine of the message is in accordence with the sentimenta of the American people. Ilut tariffs have other legitimate purposes, and are capable of other and inportant uses, while kept in strict conformity to the requirement ${ }^{2}$ of the national treasury.

Impost syatems of all Niations protectice of their productire Industry.-Our ourn Policy persistenily goremed by this Intention. -The protectlon of the rational industry, by means of duties laid upon foreign imports, is one of the purposes whluh characterize the impost sy-t-ass of all the governmenter of the earth, whose rank entities them to consideration as authorities with us, This policy, since its aloption by the first-class nations, has under sone changes corresponiling to changes of condition, both in Europe and America, but the principle has never been absodoned. Tho Continent of Europe holds it as firmly an ever, and Great Britaia, by worklng it to its utmost capacity of beneficial servlee, has thoroughly justified the theory. Iler experience is ita must perfect domonstration. In the Coited States the doctrine has its clisciples and supporters as numes.‥s and influential as principles, rightly underatood, ever secured among an Intelilgent and patriotic people. In the forty years of controversy to which it has been subjected in thite cuuntry, the opposing theory has never olitained a victury or a concesmion which can

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The nationa people promise The resulter of the : twenty

In any way entitle len adroentes to claim posmension of the field. Fifteen genaral acta of legislation have made as many changes in the dete " 1 of our tariff laves, but none of tham has yielded the inciple of protection, direct or indirect, to our national induntry.
Inuties less than protective, firtetuatione of the Reve onue, and Viciasiluder in the Business of the Country.The eompromise of 1833, of all the general sets of Congrens imposing duties upon imports, alone seems to yiekl prospectively to tha doctrine of a tariff for rev. enue without effeotual lacisiental protection. It ls the only instance of a horizontul rate of duties carried below the folnt of adequate encouragement of our homo inciustry... lut evan under thia act, the level 20 per cent. which lte proviaions contemplated was nat to take effeet untll after the 80th of June, 1842. Till that date the successive reductions of all excess in the rates over 20 per cent, contlaned to wear the discriminating foatures of the protective tariff, which it modified, ulthough the rates ran belew the polnt of protection; and its large fres list decidodly expressed the same Intention. Nine yoars' experience of the operation of this act abundantly manifeated ita unfliness for any of the purposen which a polloy of impoate should anawer. The revenue derived from it declined in fuur years from twenty-nine milliona to eleven; rose again in two years to twenty-three j aunk the next year to thirteen and a halr; and atood three years afterward at elghteen millions. The viejsaltudes in the business of the country, and tho disastera which its monetary intereeta encountered In this period, are well remembered. They are ladioated sufficiontly by the fallowing facte. The price of flour in 1837 was - 1025 per barrel in 1842 it had fallen to $\$ 6$, In 1836 twenty-five mllifiona of dollarn' worth of public lands were sold; in 1842 less than two millions of dollars' worth. In 1836 cotton was at 18.8 cento per Jb., in 18.12 at 8.1 cents per 1 b . The export had in alx years risen one hundred and sixty millions of pounds, and the total value had fallen twenty-three millions of dollars.

The tariff of 1842 was a convulsive reaction of tho national mentiment, awakened by the aufferinge of the people under the operation of the ayatem of the Compromise Aet.

The general bankruptcy of the people whlch had reaulted was reflected by a correaponding bankruptcy of the national treasury. . In 1836 a surplue fund of twenty-eight anillions had been disposed of by orler-

Ing that amount to be deponited whith the States o hut sixicen monthe nfterward the fourth Intalliment of that deposis was arrented liy the necesalitios of the treasury i and In six years from the deta of the act required to relleve the plothora, it wae nfty-four millione in debt !
The single instance of a tariff that looked to rovque only, and had the opportualty to practleally demanatrate lis worklug qualities, thua proved Itealifto bo the only one ever put upen ita trial wholly incapable of aneworing that special intentlon, and at the aame tlme had proved more mischievous to every othar object which the system of import dutien affects, than any other that has ever been attempted.
Sinablibided Principles of our Revenue Byotem.-Your committee, faeling well matisfied that the pollcy of the nation In reapect to all the pointo involved in legislation upon the subject of impori dutien le suffieientily manat font, think it well to atate its principel doctrinen for the service whilh such a statement will reader to the purpoace and objects of this report :

1. The revenve of the government is to be raised from the sulen of publle lande, duties upon limports, and from miscellaneous sourcee, without resorting to internal taxation, direct or indirect.
2. The reyenue to be derivad from import dutlee, amounting in the average, since the foundation of the government, to six-seventhe of the resourcea relied upon, shall be levied under direction of the following priaciplea: 1at. No more money shall be collected than is necessary ior the wanta of the government, economically administered. 2d. The dution shall be imponsed so as to operace as equally as possible throughutut the Union, diacrin 'aating aelther for nor againat any clase, or section, or interest.
1II. Conforming to the objects and limitations of these rules, certain kicida of imports shall be subject to varied rates of duty, and certain othors shall be exompt from duty, in such manner as shall best foater and promote home production and the general welfare of the ration ; taking care to dietribute the protection eo afforded over every intereat of the people as equally as posalble.

Recenue accruing under High and Low Tarift, respectively, in the las thirty-tuo Years,-LLet us seo how either of these points, thut necessary to the valldity of the calculation, is sustained or contradicted by the history of our foreign commerce in the last thirty-two years:

| Years. | $\begin{aligned} & \text { Midiliane } \\ & \text { Dollare. } \end{aligned}$ | Bulen of Land In Thoumnde of Dollarin | Average salmen ber Annume | $\begin{gathered} \text { Militotis } \\ \text { of Dollar } \\ \text { Cestonis. } \end{gathered}$ | A rerago. | Millioun of nollan difference. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1824. | b3t | 9831) |  | (17) |  |  |  |
| 1825. | 664 674 | 1,210 |  | $\left.\begin{array}{l}29 \\ 28+ \\ 28\end{array}\right\}$ | 21\% | $\begin{cases}\text { Juc. } & 8 \\ \text { Jnce } & 8! \\ \text { 8 }\end{cases}$ | Tariff of 1894, from June 30, 1824. |
| 1897. | $\mathrm{DO}^{\circ}$ | 1,405 |  | 101 | 21 | Dee 8 \% |  |
| 1828. | 8 BT | 1,018t | \$2,086,000 | 28t |  | Inc. 8i |  |
| 1889. | 54 | 1,617 | \$2,080,000 | 221 ${ }^{221}$ |  | Dec. |  |
| 1880. | 891 | 8,3294 8,2104 |  | 退22 | 243 | $\begin{cases}\text { Dece } \\ \text { Inc. }\end{cases}$ | Tariff of 1828, frum sept. 1, 1828. |
| 1839. | 75t | 8,023t |  | 281 |  | Inc. 41 |  |
| 1s33. | 831 | 8,967 |  | 29 | $\ldots$ | Inc. | Tariff of 1832, from March 1, 183B, |
| 1834. | 87 | 4,857, |  | 10\% | ... | Dee. 13 | After Dec. 31, 1833, one-tenth ex- |
| 1835. | 122 | 14,757 |  | 196 | .... | Inc. 8f | cesa over 20 per cent. Eeducted. |
| 1888. | 1581 | 24.877 |  | 231 | ... | Inc. 41 | One-tenth more after Dec. 81, 1835. |
| 1897. | 113 | 6,770 |  | 11 | ... | Dec. 121 |  |
| 1838. | 801 1451 | $\left.\begin{array}{l}3,082 \\ 7,0701\end{array}\right\}$ | 7,491,000 | $\left\{\begin{array}{l}18 \\ 98\end{array}\right.$ | .... | Inc. ${ }^{\text {Inc. }}$ | One-teath more after Dec. 81, 1887. |
| 18.40 | 864 | 3,202 |  | 184 | .... | nec. 91 | One-tenth more after Dec, 31, 1839. |
| 1841. | 141 | 1,3654 |  | 144 |  | luc. 1 |  |
| 1848. | 88 | 1,335t |  | 18 | . . $\cdot$ | Inc. ${ }^{\text {b }}$ \} | Itatf of rendue after Dec. 81, 1841. |
| Equal to 1843. | 77 | 1,197 |  | 16 |  | \{lee. ${ }^{2}$ | Remaintig thatf after Juue 30, 1842. |
| 1943-'44. | 096 | 2,060 |  | 126 | 24 | $\left\{\begin{array}{l}\text { Inc. } 10\end{array}\right.$ |  |
| 1844-45. | 105 | 2,077 | 2,01,000 | 275 $\left.{ }^{2764}\right\}$ | 24 | $\left\{\begin{array}{ll}\text { Inc. } & 1 \\ \text { Vec } & 1\end{array}\right\}$ | Tariff of 1842, after Aug. 30, 1842. |
| $1845-40$ | 110 | 2,094t |  | $26+$ |  | Dec. (Dec. 21 |  |
| 1847- 48. | 1403 | 8,828) | 2,500,000 | 91\% | 0 | Tuc. ${ }^{\text {Pre }}$ | Tariff of 1840, after Dec. 1, 1846. |
| 1848-49.. | $189+$ | 1,689) |  | (984) |  | (Dee. 81 |  |
| 1849~'50. | 16.4 | 1,860 ) |  | (391) |  | \{inc. 11\} |  |
| 1850-'51.. | ${ }_{196}^{200 i}$ | 9,358 $\mathbf{8 , 0 4 8}$ | 2,085,000 | (425) | 45t | The. ${ }^{\prime}$ |  |
| 1859-53. | 251 | 1,607 ) |  | (59) |  | SInc. 11\% |  |
| 1833-'54. | 278 2311 | 8,471 | 7,212,000 | (64) | 58. | $\left\{\begin{array}{l}\text { Inc. } \\ \text { Iec. } 11\end{array}\right.$ |  |

Productivenass of the higher and lower Tarifs of thirty-fien Years. Steadiness of the former: Unoteadiness of the latter.-The income from custome, nnder the same tarif, rose from thirteen millions in 1821, to seventeen and a half millious in 1822. Under the tariff of 1824, from 1825 to 1828 , it rose from twenty to twentythrey and a quirser millions ; under that of 1828 , from 1829 to 1832, it rose gradually from twenty-two and a half to twenty-elght and a half millions. Under the Compromise Act of 1833, which reduced the duties under the act of 1832, by biennially deducting one-tenth of the excess over 20 per cent., from and after the 81st of December, 1833, until the 81at of Decomber, 1841, when one half of the remaining excess was struck off, and on the BOth of Jane, 1842, the othor half thereof, the revenue from the castoms rose in the first three years of ite operation from sixteen to twenty-three and a half millions; in the next year, 1837, sank to oleven millions-falling twelve and a half miliions in one year-and rose again $\ln 1839$ to twenty-three milllons, another difference of $t$ wolve millions in two years. In 1840 it ran down nine and a half millions, and in two years more rose four and a half miliions.

The first year of the operation of the tariff of 1842, the customs amounted to no more than sixteen milliona; the three following years it atood very steadily at twenty-six, twonty-seven and a haif, and twentysix and a half millions, reapectively. In the years 1846-47, during eeven montha of which the present tariff was in operation, the caetome foll two and a halif milions; in the following year of famine in Eampe they rose elght millions; in the year 1848-40 they declined three and a half millions, and in the succeeding year increased cleven and a quarter millions. In the year 1850-'b1 they rose again nine and a half millions above the preceding year; in 1851-'b2 they decined one and three-quarter millions; in 1852-'68 they rose eleven and three-quartir millions; in 185s-' 04 they again increased five millione; and in 1854-55 fell eleven millions.

Fluctuations of the Customs, and Tendency to Excess under the same hot-duty Tariff. - In this summary it will be perceived that within the last nine years the revenue from customs has five times varied from tho amounts yielded in the years immediately preceding these several changes, from eight to eleven miliions of dollars. During these nine years the present tariff was in operation, and an unvarying rate of ducies was ch. rged upon the imports. Its changea of productiveness to the revenue have been changes of increase, indeed, but not in any balancing proportion to the naturally increasing expenditure of a growing population; for we find ly statement No. 23, of the Secretary's report, that the consumption of foreign imports, per copita, rowo in the first four years of the period from $\$ 660$ to 10 ; and ties aurplus in the treasury after all ordinary expenditures, and the payment of over forty millions of the public delt benides, is concluaive of this point.

Your committea have not in these statements considered the causes of the great dipparity of the revenues yieided to tho treasury by the differsnt rates of duty levied upon foreign imports. They have been looking simply to the question how far, and to what effect, impost percentagen of themselves affect the revenue. For the proposition presented for their consideration by the 1resident and Secretary embruces no more, either of facts or principles, than the nakoi assumption that the reduction of the percentage of itself must work a reduction of tie revenue.
"Low Duties yield the larger Revenue." The Doctrine and Experience of the I'ast.-That this ductrine is not in accordance with the facts of a large and varied experience, covering and embrucing every variety of conditions which can affect the question, is abundantly manifested by the statistics iresented. Indeod the directly opposite doctrinc has been held by the aulvo-
cates of low duties in ell controversies which the mattor has hitherto undergone. In 1845, pending the dis. onssion which substituted the present reduced tariff for the higher one of 1842, it was argued by the Secretary of the Treasury, in his report of that year, that the larger revenue is produced by the lower ratea of duty. Ile says, "The revenne from ad valorem duties last year oxceeded that realized from specifie duties, although the average of the ad ralorem daties was only 23.57 per cent., and the average of the specific duties $41 \cdot 80$, presenting another strong proof that lower duties inerease the revenue." And again, he says, "While it is impossible to adopt any horizontel scale of duties, or even any'arbitrary maximum, experience proves that, as a general rule, 20 per cent. ad ralarem will yieid the largent revenue."
This principle, which is a sound one, does not apply to either of the extremes of impost rates, for the one may be carried ap to the point which is prohibitory, or near to it, and the other down to that which would be as nearly nugatory, and so both extremes may be made to operate alike apol. the treasury ; but it is true within a comparatively moderate range of difference-that is, within any such difference of percentage ss any advocate of reduction would now undertake to recom. mend.

The facte which our finencial history offors in support of this dectrine are, in general, as conclusive as these following, which your committee select from a muititude for its proof.

Under the tariff of 1842 the - rerage duties apon protected articles was something above 40 per cent.; the average monthly receipts from customs under that act amounted to $\$ 1,991,267$. Under the tariff of 1846 , with its a verage duties below $\mathbf{3 0}$ per cent., the monthly receipte during the first two years of its operation reached the sum of $\$ 2,575,207$.

Mr. Walker, in his roport, December 11, 1848, page 8, says: "As the high duties under the act of 1842 were rapidly substituting the domestic articies, and excluding the foreign rival, the revenue must have declined. From this disastrous conätion we have beer saved by the tariff of 1846, yielding from reduced taxes an average excess, thus far, of more than seven millions of doliars over the average receipts from the teriff of 1842."

Twice under the operation of the Comprenisa Act, once after the second deduction was made upon the rates of the act of 1832, and onco after the third deduction, the revenue from customs rose to the annual average of the high tariff of 1828. And in the year 181?, when its lowest ratee were nearly touched, and the level 20 per cent. was nendy ita maximum, the customa stool higher than in flve of the previous yarrs of its operation, and above the averago of the eight pre. ceding years.

The average annual amount of tho customs yielded by the tariff of 1824 was twenty-ono and a hail millions; of the tariff of 1828, was twenty-four and a fourth millions. In a period of twenty-two years, rising five millions, or 23 per cent. The average of tie first four years of the tariff of 1846 was thirty-three emil a fourth millions-25 per cent. In fuur years; the average of its second four years was fifty-four and three-fourths will. ions; riving in eigit years twenty-seven and a haff millions jeer annum, or 133 per cent.

Thio average annual consumption of foreigu inuports per capita under the tariff of 1824 amounted to 8526 ; under the tariff of 1828,8521 ; uniler that of 1812, to के 20 ; while under the lower tariff of 18.16 , during the four years of its operation previous to the influx of the California gold, the consumption roas to 8650 per capita of the popuiation, and under the very low average duties of the whole period of the comyromise the conaumption stood at $\$ 728$.

These facta show how much more produrtive of rovenue the lower tariffs rates are than those which,
thoug
iting
though considered higher, are set far short of prohib-
 prosperity of the carrying trade.

Causes of larger Revenue from lower Duties. - As a means of lessening the revenue derived from cnstoms, or of lessening its proportion to the publio expenditure, it is thus made spparent, by the facts of a conclusive experience, that a mere reduction of the rates of duty can not be relied upon; but, on the contrary, that the policy has always the directly opposite effect, and this for many obvious reasons.

A reduction of duties induces increased importations of foreign commodities, disturbing our money market by diminishing the available capital, and enhancing its rate of interest to our own manufacturers. The importer obtains command of the market, and to the extent to which the home competition is crippled in the production of snch articles, it opens a vacancy to be supplied by importation, and adds just so much more to the customs as such supply from abroad will yield; and, therefore, so long as the country has the means of purchasing sach increased quantity of foreign goods, su replacing tha home product, the revenues will continue to augment, instead of diminishing, inder the lower rates.

Again, an increased demand for onr breadstuffis and provisions in Europe, occasioned by failure of crops there, will have the effeet, under a low tariff, of indncing large importations, and, consequently, a large enhancement of the customs. In the famine year of 1847 the customs rose eight millions above the receipts of the year immediately preceding; and every deficiency of crops abroad, to the extent to whieh it occurs, muet have a proportionate effect in the same direction.

Again, a large increase in our agricultural and manufacturing products, by affording a surpius for exportation at ony price which will pay transportation, will have a similar effect.

Again, foreign wars, by increasing the demand upon us for provisions, induces a corresponding increase of our importations, and a corresponding angmentation of the revenues resulting from it.

Again, abnndant products of the precious metals, by affording the means of large purchases, operate in the same way.
And again, the system of railroad and other enterprises now in active operation in this conntry, which demand large capital on long credits, bring loans in immense amounts, in the shape of dutiable merchandise, to swell the cnstoms.

All the causes above mentioned, except diminished rates of duty, and great failure of crops abroad, have been in operation upon the customs since the flacal yenr 1849-'50, and we have their combined effect in raising the revenue derived from this source from less than forty to over sixty-four millions of dollars per annum in the spsce of four years.

In the last year they fell off eleven millions, owing to the absence of eome of the canses which we have noticed, but their proiuct atill stood at thirteen millions above that of the year 1849-'50, and neariy six millions above that of 1851-'52.

Alternations of Excess and Deficiency in the Revenue under Duties lower than protective.-Frcm these facts, and the laws of national finance which they ilinstrate, it is olvious that the ratio of percentage imposed apon imports, aeting within a moderato range of differences, is the least influential, and the most likely to deceive expectntion, of all the canses which uaually affect the revennes ariaing from them. But low duties not only disappoint the intention for which they are recommended, in the manner and for the reasons given, but, by their own inherent vices, they are not only liable, but certain, in despite of all modifying influences, ordinary and extraordinnry, to work mischievonaly in the opposite direction-in spasmodic alternations from excess to deficiency.

The first rednction of the duties of the act of 1832 , providel for by the compromise of 1888, took effect on the 1st January, 1834. At the end of that year the public debt was paid off, and there was a balance in the tressury of a little less than nine millions of dollars. In 1885 the revenue from customs and the sale of public lands rose thirteen millione and a half above the receipts from the same eources in the preceding year; and in the year 1886 they rose fourteen and a half millions more; so that at the end of the year 1886 there was s balance in the treasury of forty-six and a half millions. To dispose of thie enormous surplus of public moneys, the act of 23d June, 1836, was passed, directing the deposit of twenty-eight millions with the States. But euch tendency to excess in the syatem of national finances, like the fehrile paroxyams of the human constitntion, apeedily passes into the stage of exhaustion. In 1837 the revenue from public lands and customs fell to eighteen millions, from forty-eight millions the year before; and on the 12th October of that year, the isaue of ten millions of treasury notes was anthorized to supply its deficiency for the services of the government. In 1889 the revenues rose to thirty millions-twelve millions in two years; and in two years more sunk to fifteen and three-fourth millions-another fall of nearly 100 per cent. in two years.

Thus, in the first three years of the Compromise Act We have the whole difference between twenty-one and forty-eight millions of revenue per annum reaulting to the treasury, and in the next five years the atill greater difference of a decline from forty-eight to fifteen and three-quarter millions: Under the operation of the aerond reduction, while the dr' remained the same, the customs fell off from twenty-three and a half to eleven millions; and under the operation of the third reduction, they roee again to twenty-three milionsfluetuations in the revenue which baffled all calculation ond deatroyed all reliance.

Steadiness of the Revenue, and Adjustment to Expenditure, under protective Tariffs.-Under the tariff of 1824 tite revenue varied no moro than from twenty-two to twenty-flve millions in four years; and under that of 1828 from twenty-five to thirty-two miliions by regular increase in four years. Under that of 1842 the clstome rose from the depressed point of eighteen to the steady and adequate one of twenty-seven and $a$ half millions in four yesrs, and the receipts from 'he public lande rnised only from one and a third millions to two millions.
The public expenditures during the three periods of these comparatively high tariffis were very regularly covered by the national income-the firat yielding five mililons, the second four millions, and the last thirteen millions, or from one to three $:$ ililions per annum more than the current ordinary expenses of their respective periods of operation; amounting annually to no more than such halance in the treasury as it is prudent to hold for its incidental uses.

Plethore of the Treasury under the Compromise Act and under the Tariff of 1846.-Under the low tariff of 1833 we have first an enormous surplus in the treasury, then $n$ large deficiency and debt. Under that of 1846 wo have arrived at such a surplus of public moneys as again calls for relief; we have a baiance in the treasury now of nineteen millions, and we are threatened with its augmentation to the smount of thirty millions in a year to come.

It is not intended hy this contrast of the stcadinesa of the revenue nnder the highest tariffs and their happier adaptation to the wanta of the treasury, against the unsteadiness of the income and its maladjuatment to expenditure under the lower tariffs, to espouse the rates of duty of the particular systems cited of the one class, or to condemn the systems of the other by 60 sweeping a generalization ; but they are arrayed here now simply to exhibit their respective workings, as

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the facts and figures of their history present them to us, and that they may serve as data for the inquiry before us.

Your committee are ae well aware, and feel as forcibly as any objector can, that where a number of causes are in existence, and co-operating in the result, eapecially when several of them are inter-dependent, and some of them independent of the others, the difficulty of determining their reapective agencies is great in proportion to the complexity and diversity of the forces at work; bnt such diffioulty, in a matter of the vast importance of that under investigation, only increases the necessity for endeavoring a solntion.

The fluctustions of the national revenue during the operation of the low tariffe, and its steadiness under the higher ones, occurring in a constant connection in the last thirty-five years of our financlsl experience, seem to admit of a clear and instructive explanation.

The following propositions, which embrace the facts involved correctly and sufficiently to cover all the operative canses, jmmediate and collateral, very fully eatisfy the inquiry.

A tariff of duties ranging generally below the point of adequate protection to our home production, induces large importations by the effect of diminished prices, to the extent to which the purchaser's means are relatively increased, and to the further extent of aupplying the vacancy occasioned by withdrawing from the market the amount of commodities of home production which are so excluded.

Effect of low Tariffs upon the Income from the pub. lic lands.-In 1834, the first year of the reduction under the Compromise Act, the imports for consumption rose three and a half millions, and the revenue fell off twelve millions.
In the year 1830 the imports rose again thirty-five millions, and the reventu from them was less by ten miliione than in the year 1833; but nearly fifteen milllons of dollars fiowed into the treasury that year from the sales of the public lande, bringing the total revenue up to the total of 1833, and more than a million above it.

In the following year, 1836, the imports for consumption took another rise of thirty-seven millions; the customs reached within five and a half millions of the higheat point they had ever attained under the preceding tariffs. The jubllic lands rose to the enormous umount of twenty-five millions; and the total revenue of the year stood at eeventeen millions nbove that of 1833-the highest mark of the high tariff years.

Under the lowest of our Tariffs the greatest Excess and the greateat Deficiency of Revenue both reached.For nine yeara before 1834, the public lands had never in any one year yielded quite four millions, and the average was two, or nineteen millions in nine years; but in three years, $1834,{ }^{\prime} 35$, and ' 36 , their product to the treanury was over forty-four millione. The customs for these three years, under the compromise, had failen off from the sum of eighty-one and 8 half millions afforded by the three previons years of the higher tariff, to fifty-nine millions-a reduction of twenty-two. and a half millions; but the rovenue of the treasury, by the addition of thirty-six milions from the pullic lands, above their average previous yield, nmounted to fourteen milions more for theso three years of the compromise than for the three preceding years ; and the proceeds from the eales of lands continued for three years longer to yield ten millions more than their product under any higher tariff which we had before or aince. At the close of the year 1839 these movements had exhausted themselves. The customs for the three following yearn ran down to forty-six milliuns, twenty eight millions below the ordianry expenditures of the period; the lands fell to two millions per annum, and the principal of the pubiic debt contractod in the five preceding years atood at ten millions.

The operation of a tariff of dutien below the point of
protection, with the long run of nine years for its developments, is here fully presented. All the causes which could affect the results bad room and time for their natursl action, and their combined results are openly exhibited.

Its first effect was to nearly double our foreign $\ln$ portations in three yeara. This had the effect, by reduction of prices and glut of the market, of crushing the rival manufacturing indnstry at liome; mills sad work-shops were orippled and closed; the capital and labor driven from them sought employment in agri. culture; the esles of public lands amounted to move than seven-fold the average quantity of any other period of ten years before or ten years afterward; und the term wound up with a general bankruptcy of the national treasury, and of the people, bringing with it a complete political revolution, and compelling a total change in the financial policy of the government.

The fluctuations of revenue under it are strikingly marked by the facts that the income from all sources never afterward rose to within elght millions of that of 1836, until the year 1850-'51, and bad not fullen so low as in the year 1841 since the year 1821 ; it, in fact, touched a point below the receipts into the treasury of the year 1808. Its fluctuations in a period of five years touched both extremes of the revenue of the hiltion, runaing through thirty-four years of change: that is, the revenue had not been so low for twenty: five years hefore the year 18 $\$ 1$, nor so high for fourteen years after 1836.

Greatest Flurtuation in Prices under the lowest Tar-iffs.-The business of the country felt these vieissitudes in our foreign commerce, and answered to them like their echo. Within a period of six years, while this tariff was developing its extremes of change, from 1830 to 1842 , the highest and lowest prises of elghteen years were touched. Cotton, flour, provisions, tobacco, comimodities of all kinds, labor and real estate, went up in price almost in the exact ratio that importations in. creased-that is, to nenriy double the amount of $183 \%$, in 1836; and in 1842, the imports falling to one huif in nmount, so the property, labor, and products of the country stood at half the market value of aix years before. Not an interest of the country on which its national or individual welfare depended, but lad in that brief period undergone convulajons unpuralleled olnce similar canses had resulted in the great busiacss catastrophe of $1820-21$.

Such is the bistory of the policy which abandoned the revenues of the government, and the judustrial interests of the country, to the operation of causes not within its control.

Undue Firpansion of Bank Circulation inseparable from excessive Imports of foreign Mferchandise.--It has been customary with the advocates of low tariff duties to charge the inflation of prices, the rage of speculation, and the resulting revulaions in the business prosperity of the country, to excessive issues of bank paper.

The fact that such overissues always concur with inorlinate rise of prices is remarkablo indeed, and offers a plausiblo explanation of the mischief; but the ether fact, of the invariable concurrence of greatly enhanced pricen and excewsivo hank issues with the reign of low tarifis, comnest theso phenomenn in our financial history in n category of relatione which very clearly shows that they are in their nuture inseparalle. if this be so, the government, which has the direct centrol of one of these agencies in the mischicf, has au indirect but atsolute control over the others, and shoulid exert it.

Fized Ratio of Rank Issues to foreign Imports.-In 1830 the bunk circulation was estimnted by Mr. Gullatin at sixty-one millions; in Aprif, 18i4, the Secretary of the Treasury, Alr. Taney, estimated the circulation nt eighty millions. In the four years, 1830, 1831, 1832, and 1838, which immediately precedel the first reduction under the Compromise Act, the imports con-
sumed amounted to two hundred and ninety-one milllons. At the end of the next five years, 1837, the bank circulation had swollen to one hnndred and fortynine millions, and the imports for consumption for 1834, 1835, 1836, and 1837, to four hundred and eightyone millions. Thus the incrense of the importe amounted to 75 per cent. for the period of four years, and the increase of tho bank circulation to 80 per cent.; and if ra add the increased purchase of public lands of the latter term over the former, we have the propertion of the circulation to the expansion of business speculations induced by the reduced tariff very exactly balnnced.

In May, 1837, the banks, with one consent all over tise Union, suspended specis payments, and did not permanently or offectually resume till the spring of 1842; then their circulation had fallen to eighty-three millions; nor did it rise bigher than eighty-nine millions again during the operation of the tariff of 1842.

Since the year 1846, the increase and decrease of bank circuintlon hold so exact a ratlo to the several instances and rates of increase and diminution of imperts for consumption for each year of the whole period, as involves a direct and unquestionable connection between them.

The tabular atatement appended to this report exhibits the constancy of thls connection for every single year of our finsncial history since 1833, and for periods of years before and aince, in a ratio so nearly mathematical that there seems no doubt of the law which rules the subject, as there is none of the facts which serve to demonstrate it.

It will be seen, by reference to the tabular statements of this repori, how little pewer other causes, which were undoubtedly active in modifying the results, had to disturb the working of that one which is leere nssumed to be the principal. The expansions and contractions of bank credits and issues are certainly Influenced by mony other cnuses, but the fact that they have occurred during the last forty yeare, year by year, in an invariable relation to the fluctuations in the amount of our foreign imports, goes fur to establish the idea that the variations in onr imports rule the fluctuutions in our paper currency; and thls law is, moreover, so energetic that it even overrules the effects naturally expected from the large eupply of gold furnished to the currency from the California mines. For it is ns true ne it is surprising that since 1850, as before, cvery year of incrensed import has been marked by an equifalent increase of bank circulation, and every year of dminished imports has been marked by a diminlshed bank circulntion, correaponding in amount ns nenrly as it ls possible to conceive a primary and ruling cause can operate whilo minor and subordinate ones are also in play.

Lov Tariffs responsible for excessice Bank Issues.That low tariff duties nre responsible for the excess of foreign importation-that these augmented imports induce oxcessive bank issues, and excessive bank issucs awell prices inordinotely, in the series of dependency which is here alleged-is rendered unquestionable, by the fact that these expansions of imports, paper circulation, and prices, never havo occurred when our tarifls were high enough to foster, but always when they were so low us to discourage, home production, nnd to substltute the forelgn commodities for domestic products in our market.

Summary of the Reasons which forbid the Abandonment of protective Duties.-Yonr committee derive from this investigation of the effects of our varied tariff systems upon the revenue the following conclusions:

1. The immediate etfect of dutles below tho rates which protect onr own industry from the rivairy of forelgn commodities of the aame kind, is a proportionate onhancement of such imports, and a corresponding increase of the revenne from oustoms, which eithor appronch, equal, or excecd the revenue from customs of
the higher tariffs; but in all instances is certaln to disappoint any expectation of a reduction of the customs in proportion to the abatement of the rates.
2. The increase of imports consequent upon a reduction of duties below the point of adequate protection drives manufactnring capital and labor into agriculture and trade, and by this means vaatly increases the revenues from the sale of the public lands and from foreign commerce, and thus makee up all deficiency in the customs, and greatly overpasees it, and so tends to a plethora in the treasury, instead of limiting its income and restraining its overflow.
3. The indirect effects of the same policy is to exhaust the sourcea of national and individual prosperity, and hy its reaction to bankrupt the treasury and prostrate the enterprise of the country, leaving debt, public and private, to punish the extravagance which it induced and indulged.

Your committee, therefore, for reasons cogent as these, and many others which depead upon these, but are irrelevant to this issue of mere national finance, would carnestly discourage any' measure which, either in principle or in details, aims at relieving the treasury of its present and prospective surplua by a reduction of the present rates of impost dutics below the point which any branch of our home industry requires for its sccurity and prosperity. To guard egainst any possible misconstruction, it must be observed that by the frcquent allusions of this report to exceseive importations of foreign goods, and the influences drawn trom such excess of importation, the apparent " bolance of trade" against the United States, which the statements of the Tressury Department exhibit for any single year, or for any series or groups of years, is not taken, or intended to any effect or purpose for which the difference in official value between our imports and exports has been used ly either party to the controveray.

The total value or valuation of our importe, as given by the department statements, from the beginning of the government to the 30th June, 1855, amounts to 6983 millions of dollurs; the exports for the same period of domestic and foreign merchandise and specie, to 6170 millions-a difference of 813 millions.

No conclusions whetever are drawn, gither as to effect or amount of effect, from the data which our International account current thus offers, or seeme to offer. The discussion which this point would awaken has been avoided as wholiy unnecessary to the argument of thls report, and possibly inconclusive and uncertain for any purpose. But although the enormous apparent balance against us in the account of our foreign trade he not reliable for the actual difference in our exchangee with the rest of the world, as it probably is net, yet the amount of the national, State, municipal, railroad, lank, aad other corporation atacka and bonds held by forelgaers, should be recsived as a subsisting balunce of debt, resulting from a past balance of trade, which it must represent.

Effcets of the present Tariff upon Wool-growers, Manufacturers, and upon the Revenue.-The tariff of 1846 unhappily raised the duty on all imported wools to 30 per eent., while it reduced the duty on imported flannels and bianketa to 25 and 20 per cent., and on the coarser woolen fabrics to 25 per cent.

Now these low-priced manufactures of wool being the chief in quantity and value of which we were then capable, the business was prostrnted by the premium which that act in effect offered to the forelgn manufucturer ; and the nominal protection of the wool-grower resulted in the ruin of his business, as in that of the cloth-maker. The home market was destroyed for the farmer; in the foreign he could not compete, and the flocks were seat to the slaughter, because tha woolen factories had been sold at auctlon or converted to other services. The effects of this policy on the treasury are seen in the fact that twenty-two millions of the
surplus $\ln$ the treasury, acoumulated $\ln$ the years 1853, 1854, and 1855, have come from customa upon woolens. In 1844 woolens ylelded $\$ 3,813,495$ to the customs, cottons $\$ 4,850,781$; in 1855 woolens ylelded $\$ 6,088,157$, cottens but 3,$823 ; 294$.

The cotton manufucturo was protected; the woolen was abandoned; and while all the intereste dependent upon it have been sacrificed, the revenue hua been infiated at least four millions per annum during the last four years beyond what it would have recelved if the pollcy of the government had been as friendly to it as it has been to tho cotton manufacturer; a striking illustration of the law that the certain method of limiting the amount of taxes is by limiting the amount of imports, by duties adequate to guarding the home-made conmodity against extinguishinent by the forelgn.

Exemption of the coarser and finer Wools from Duty. -Your committee, looking straight af the question of the revenue, therefore, reeommend you to exempt all wools of those qualitios not generally grown ln thls country, costing less than ilfteen and more than fifty cents per pound at the port of entry in the United States, from duty, retaining the existling tariff rate upon the intermediate qualities, and at the aame time to raise the dutles apon all woolen manufactures to the point of adequate protection.

The recommendation to fix the duty upon all such wools as our furmers now produce, or can eatily produce, at 30 per cent., and to raise the duties upon all woolen fabrics into whose manufacture such wool enters, is made for the purpose of opening a market at home for the raw material whleh it can not find slrosd, and diminlshing the customa flowing into the treasury from woolen imports to the extent which such enhanced domestic production will replace them.

Magnitude of the Woolen Interest.-Special consideration to this interest ls here given because of its magnitude, which may bo estimuted ly the fuct that, both in value of the imports and the amount of duty yielded to the treasury, woolen manufactures have been equal to those of iron, greater than cottone, and next $\ln$ importance to silka, during the last ten yoars of our financial history.

The Secretary of the Treasury, notleing the great progress made in the manufucture and production of iron since thes yeas 1840, states the fuct that the American production in the yeur 1850 was $\mathbf{6 6 0 , 4 8 5 , 6 0 5}$, and the foreign import of tho same year only $\$ 16,333,145$, and saye: "The conclueion is inevitable, that the production and manufacture of iron in the United States within a very short period of years will exclude the foreign production and manufacture." Of cotton he says: "That already the Amorican manufacturo is in possession of the bome market as to all coarser fabrics, and leginning succesefully the manufacture of the finer fabrics."

These are the good parts of a policy of protection so moderate that without the help of a number of independent causes, co-operating with the imposed dutles, even these branclies of the lron and cotton manufacture, to which the Secretary's report justly upplles, would not have been sastalned in the past, or given such flattering promisea for the finture. The protection extended to them, and which now appears in thelr prosperity, covers a periol of not mone than fourteen years, and has been efficiently operative for only ubout half of that time; yet, with all favoring lulluences concurring, under a stalsle policy, the enterprise and skill of our manufacturers may in time achlevo a vietory over the competition of cheaper and more abuudint capital and labor abroad.
Depression of the Woolen Interest.-Ilat our woolens have languisbed to the verge of extinction, while these two branchea, of not more than equal importance, have so far prospered. In 1840 we imported for consumpition $\$ 10,000,000$ of woolene und $\$ 18,000,000$ of cottons. In $18: 5$ we lmported fur consumption $\$ 22,000,000$ of wool-
ens and only $\$ 15,500,000$ of cottons, and exported of domestle cottons nesrly $\$ 6,000,000$; in the one case more than doubling our dependence npon forelgn production, and ln the other reducing it, in effect, 27 per ct.
Now we are just as capable of growling wool and nanufacturing it as we are of the corresponding cotton production und manufacture. The territory of the United States, adapted to wool-growing, is as large and as favorable as all Europe ponsesses and devotes to the purpose ; and lf those qualities of the article which we do not or can not profitably cultivate were exempted from duty, and so afforded equally cheap to our own as to the forelgn manufacturer, there is no natural cause in existence to prevent the immediato establishment of woolen fuctories oufficient to open a remuneratlng market for our fariners to an almost unlimited oxtent. Thero are portions of tho United States in which the finest and best wool of the world has alrealy been grown ; and It is possible that this might in time be brought up to supply our entiro demand for sach first quality of staple; but it is certain that all the qualities between the finest and the coarsest could be supplied quite up to the demund of the market within thve ycars from the establishment of an encouraging policy; and Congress is imperatively called upon now to decide whether no vast an interest as this shall be sustained or destroyed.

Protection to the IFool-grower and Manufacturer, or Destruction to one of the three greatest Jranches of American Iudustry.-As the question now stands, moreover, let it not be overlooked that, if tho manufacture shall be relieved of all weight which the duties upon all qualities of wool impose on it, by placing them in the freo list, the wool-growing interests of the country may be eeriously injured. If the manufacture is protected, as it must be by a duty of 30 per cent., the agriculturists will be taxed that much upon all the woolens they must use, while their own interests in the production of the fabrics are destroyed; and if woolens shall not be thus protected, then manufacturer and farmer are both overwhelmed, and the country ls deprived of all shure in one of tho threa greatest branches of human industry.

Tho consumption of woolens is at least equal in value to that of cottons in the United Stutes, and to surrender their production and manufueture to destruction is so nuwise thut it is nut to he supposed pessible to an intelligent people. Let a home nurket for all the wool that esn be profitably produced in this country lie created by a change in tho present tariff which will exenipt the coarsest and tinest qualities from duty, raise the duties on flannels, blankets, and those fabrics which requiro the middling qualities of wool which the United States can supply ubundantly, and farmer and manufacturer will be restoned to that prosperity of which they have been deprived, and tho revenues will ise reduced by the dininution of imports ollected liy the home supply, and all the objects of a just and wise legislation will be equally niet.

Reduction of the Revenue by I'rotection of the W'oolen Manufactures.-The euatoms have risen on woolens in eleven years from $\AA 8,318,495$ to $£ 6,088,157$, while those on cottons have fallen from $\$ 4,850,781$ to $\$ 3,8: 23,284$. Here we have a rato of reduction in the revenue, from this source, which under parallel circomstances would, ly its direct operation, reduce the sunual surphas of the treasury at lenst four millions.

Ald this prolable reduction to the Secretary's estimrte of the dlminution promised ly his proposed free list, and ahout nine millione of diminution in the annual revenue are fairly provided for-live millions inmediately, and four millions just as soon as factories can le built, or those which have been converted from woslen to other manufacturas can be restored; and sheep, which by natural incresso more than double their number every year, can be reared to supply the demand.

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Silks, Revenue from them.-Another and more inmediately effective reduction of the revenues may be made by revising the tariff upon silks, 80 as to reduce the rates upon all qualities and kinds which do not compete with any established production of the artlcle at home.

The imports have risen in value since 1847 from less than twelve to ovor twenty-four millions, and the customs from $\$ 2,838,850$ to $\$ 0,129,583$. In these nine years the total ameunt of duties received into the treasury from manufuctures of silk is $\$ 51,893,871$; while the totul revenue from iron, manufactures of iron, and iron and steel, amount to only $\$ 50,136,942$.

Lsxuries, and the Rule for taxing them.-Silk manufactures stand highest in productiveness to the treasury of all articles enumerated in the tariff schedules. They owe this rank as sources of revenue, lt seems to your committee, mainly to tho misapplication of a general rule which has governed turiff legislation during those periods of finuncial necessity when import duties wero resorted to to supply the treasury's deficiencies, and were felt to be a necessary lncrease of the burdens of taxation for revenue parposes. This rule holds, with some justice, that the wealthy shall contribute more liberally to the national wants than can be fairly demanded of the comparntively poor. Hence the maxim that luxuries should lear tho highest revenuc duties.

When this rule has the cffect of lessening tho burden of taxation upon the poor, it ought to have its operation; but when in iltered circumstances, both of the national fanances and the general condition of the people, it only operates to bar the people of moderate independence from the enjoyment of such luxuries withont affording them a corresponding and compensating rolief from taxation; it takes the character of ministering to the privileges of the rich, and preventing the otherwise possible enjoyment of luxuries by the whole people.

Luxury is a relative term, and must change ite meaning or its npplication with all chnnges of condition in its subjects. Before the year 1832 tea and coffee were treated as luxuries by the previons turiffs, although they were more than aufficiently productive of revenue for all the wants of the government. By the set of that year they were put into the free list, probably because they did not enter into competition with any home production of a sinsilar character and use, and possibly for the additional and equally good reason that a repuhlican Legislature ought, by every legitimate use of the powers intrusted to it, aim at leveling up the comforts and enjoyments of the peopls of every condition to the better and higher that can ly any means be bronght within the reach of their lndustry and nspirations.

The imports of silk manufactures are greatly larger in value overy year than those of wool; their consumption by the people of the United States must, therefore, be not only very large but very general, and whatever can be done to bring them more easily within the means of the whole communlty, which at the same time shall help to relieve the excess of annual revenue and damige no industrial interest of the nilthon, ought to be done.

For the like reasons, troplesl frults, splces, and ether commodities not produced In the United Ststes, or not embraced by, or adapted to, the industriul enterprise of our people, should bo put under the same rule. With a sufficiency of revenue aceruing to the treasury from ther sources, the princlple of free trado in all such commodities should have its utmost npplication in practice.

Reduction of Customs by enlarging the free List, enrouraying Woolens and modifying Duties upon Silhs, sufficient to relieve the bicess of Revenne.-In a judicions modification of the duties upon silks and other luxurles, your committee see a promised reduction of
the revenue, based upon the atatistical dats hefore us, which, taken in connection with the measures already indicated, comes very well op to the amount of diminution demanded by the present and prospectlve exigencles of the treanury.

Cslculatlons of revenue to be yielded by percentages, when the princlpal is of unsettled ameunt, and llable to be disturbed, not only by various other causes, bat by the changes in the rate of dutles adopted upon those calculatlons, are of course uncertain; but where there is nothing else to gulde than estimates so based, they must be taken, and a future experience be left to settle their results into certainties. We can be safely confident that the measures whlch conform to the princlples and laws of the subject will work in the direction Intended, and this is sufficient assurance of correctness to warrant tie trial. In this confidence, corroborated as it is by the teachings of the past, your committee snbmit these suggested changes of the present tariff for adoption.

Our System of Finance unsound and nischierous.The management of the national revenue so as to adjust it fairly to the national expenditure, kceping the pollicy well within the constitutional powers of the goverament, and conforming it at the same time to the movements and interests of our national industry in nll its vast varicties and values, is a problem which has not yet been satlsfactorily solved in the practice of the government. Deficiencies and excesses have alternated in the treasury so rapidly and so largely in our past experience, that Congress is at length fairly driven from the ground of temporary experiments, and compelled to scarch for the principles that naturally rule the subject.

The Policy of Industrial Independence.-If the experience of mistskes teaches any thing clenrly and reliably, our tariff histories are full of evidence that our home affairs can not be safely left to foreign infiuences, and that the accidents which lie in wait for them are not to be prevented by abandoning all legislative care of them. A nation must govern itself, or its nelghbors will; and that for their own purposes and profit. If the United States were exclusively a manufacturing, or as exclusively an agricultural people, absolute free trade would be their policy, and custom-houses an absurdity.

The most extensive trade which they could sttain to with forelgn nations would then le their highest interest, and direct taxation for the support of the government the soundest system of nutional finance.

But our manufactures have now quite reached to the value of our agricultural products. Fifteen hundred millions of dollars per annum is the value of each of these two great classes of productive Labor, according to the estimate of the most reliable authority ; and it is neither in the character nor destiny of this great people to enduro a perpotual dependence upon foreign nutions for the products of skilled industry which they need for every-day consumption. British legislation nimed at restralning us, while we were her colonies, to the production of raw material from her market. If our own system were permitted to drift to the same result, we should, by our own act, voluntarily restore her empire over us in the only particular that is, or ever was, a substantlal olject of her ambltion, and onr Revolution would be a failure in every thing but the boast of politlcal independence.

The despotism of wealth fears no rebellions; predestinated poverty has no independence to assert. lts spirit und its necessities are passire submission. The rights and literties of a nation are declared ln its polltical constitutlon, but their substance is in the industrial independence of the people. True froedom is found only in the commund that men lisve over the reslatance of the forces of nature to their dominion; and a peoplo which achleres the control of thelr own conditions are never the slaves of any other power.

Dependence upon a forelgn people for a market, elther for agricultural or mechanical products, is ladustrial vassalage.

England has made herself the work-shop of the world by a viciously exaggeruted syatem of manufacturing and she depends day by day upon the world's unnatural subuissiou to her aysten for her prosperity.
Turkey abandoned the guardianshlp of her prosperity to foreign dominion, and has aunk from the yauk of a first-rate power in the earth to the very verge of national ruln. Her internal trade ls wholly in tire hauds of forelgn hucketers, as her natlonal integrity is under the guardianship of forelgn soverelgns. A peoplo impoverished by a syatem of the lowest and least remunerative Industry, and degraded in character and spirit by its necessary lgnorance and feelleness, is inevitably at the mercy of its superiora in these respects.

The American people, of the same lineage, equal skIll and enterprise, superior inventlve genins, and holdings a hetter territory by all the difference of lts extent and variety of climate, soil, and commercial relations, as cumpared with Western Europe, can not possibly te held to inferlor and subordinate ladustrial avocations.

The necessary comunand of our welfare, the current disposition of our own affalre, imperatively demand that we shall guand ourselves against all injurious foreiga agencies and influeaces, by a nettled system of self-defense.
Home aml foreign Market for Provisions and Bread-atypls.-The home market for all our products now is at twenty-seven hundred and fifty millions to two hundred and ifty millions; but the corresponding two hundred and fifty nilllons of imports, for which we exchange our surplus, has the power to disturb and distract our currency, domestic exchanges, and domestlc industry, to an extent which puts the treasury of the nation and the prosperity of the people at the mercy of cvery fluctuation in the market of London. Wo must conquer our independence of the meney power of Europe, and we must control our national tinances into conformity with our own necessities. This, it is obvious, can te done only by bracing the home market against all disturbing agencles.

The mischievous error of preferrligg a foreign to the home market for breadstufis and provisions, and seducing the agriculturist into the policy of favoring it, is clearly exposed and coavincingly proved by the fullowing statemeat:
The populatlon of Great Britaln and Ireiand is. . $27,000,000$ American insadatuffe and provistons alipped to the t'nited KIagdom in 1545.
Commumption pereaplis
Workmen emptoyed in making the iron imported frous direal IIritatn in 189s.
llepreaenting in fanditus of five pernons each..... leypeashting in fandiwe of five pernons each....
Three handred sid two thousand five itundred Tiree handred snd two thousand five iundred
and ninety pernong, at fify meven conts each, and nimety permons, at fint meven
worth of pmosiolons and breadatuffis
Three Inaudred and two thoumand five bwadred and nlonty Amerlcans vonld consurme of our provimions and breadetnffi finy dollara cach...
or within a trifle of the whole amonnt taken from us by the $27,000,000$ of Britial people for that year.

To bring the iron lmported in 1855 to the United slates the equivalent of 70 American and 18 forugu vessels wero entirely supported, counting the cargoes both ways. The tomage ef American veasels average 931 tons each, and thay carry crews of 24$\}$ men each, or in all, Americmen, 1563 ; 18 foreign vessels, of 733$\}$ tons carh, and crews of 21 menl each, equal to 390 men. Fach veasel is estimated to nake threo trips in the sear, carrying six cargoen. The rese sels represent a capital equal to 40 per ton.
American capital employed in earcying this tron it Brtion captal fa 13,203 toon of silipping, ai foid..

Tutul capital la the shipplag.
.............. 73,288 mm (50i) 450


## Sumaany of Caritaz.

Britith in production of fron . . . . . . . . . . $\$ 75,000,90$



Stumatir of Baraphtutis and Provigiona.
Consumed by thin Hritith people in maktag tron,

In ahtppiag, $\frac{1,950, \text { at }}{804,640}$. . . . . . . . . . . . . . . . . . . . . . . $\frac{8,750}{\$ 182,226}$
By Americana In shlpplag, 7815 men, at $\$ 50 \ldots . .$.
Total.
4.472, 976

Had the fron been mado in the United Stutes, 302,590 personas would have consumed, et \$50 cach, \$15,129,500.
The result is, that we supported in the importation of forelgn iron, la the year 1855-
Forelgn espitat.
855,660,154
Forelgu people, $304,500$.
American capital .....
American peopie,
isis..
3,255,6/M
American people, $\mathbf{7 8 1 5}$.

4,722,076 And wo losi a market for lireadatuffa nad provi- $\qquad$

The facts and figures of every other kind of inported commoditles which a home proluction would exclude are duta for a slmillar calculetion of loss to the agricultural Intercst of thls country.
International Exchanges. - The surplus provisiens and breadstuffs which wo might produce, after an evenly balanced and independent system of manufucturligg should bo establisheil, would be the legitinate sulject for foreign commeree, contributing to sur necossary exchanges with other matlons, and thus to the generai welfare; but shipped nt such a loss in anount and value, as they must be whilo they are injuliciously denied a home consumption, tho undue amount of their export measures our distanco from a healthy systou, and from the wealth, prosperity, and independence which a true policy would secure to us.

Agricultural home Jarket agninst the foreign. - It Is only the least proiltable of the farmer'n crops whileb will bear distant voyages in search of a market, and all excess which his oxjorts find or make abroad falls back in diminished prices upon the hundred-full stork which he sells at home, sonetines scarcely repairing by the whole net value of the exports the dininatien of price which they reactively inffict upon the domestic market. For his green crops, fruits, and garden stuffe, his poultry, veal, mutton, and dairy products, ho must have a market at home, or he mint abuadon their culture for smle. Ilia land may be made to yield him thilty or forty dollars per acro in transpurtable grain, leas the cost of cultivntion, or he may make its product marketahle aliroad and worth about as nuch by feeding it to atock; hut ho can nelther diversify his crops, nor maintain the fertility of hla land agninst such a system of exhaustion; and, atovo all, he will not be alle to make it yleld three times the value of such crops in those vegetables which, with a well-sustained home market, is easlly effected Thodifference between the market value and the proft of a farm in the Far West, and one of an equal quantity of land aljacent to a large city, illustratea the difference bet ween a market nt hend for all possili,n agricuitural producta, and a forelgn one with an ocean intervening:

The farmer's wool crop has been amply protected for ninu or ten years, so far as a high tariff duty upon imported wool could do, or promise to do it; but his howe narket has been deatroyed by a comntervailing
legielation levelad against the manufacturer. The opportunity of a forelign market could not tempt, as it would not reward, him for his induatry in that direction. If the agriculturists of this country but considered the subject, they would discover that tho market opened to them abroad for the produce of their flelds is no better than for their wool.

In the year 1855 the total exports of breadstuffin and provisions from the United States fell short of thir-ty-nine miliions of dollars. What is this to the crop of the year, worth fifteen hundred millions, that the Amorican farmer should sacrifice the custem of a neighboring blacksmith, shoemaker, or weaver to secure it? In amount it is but the fortieth part of his crop, and ono family next deor to him would consume it nore profitably for him, and with greater certainty of demand. Prices may be high or low under the influence of accidental canses, but the laws of nature and the principles of trado are a safe directory in any combination of circumstances; their bearing upon nutional policy is absolute and unvarying, and they must be obeyod or they will be avenged.
IIarmony of all Industrial Interests, and Adjustment of the best econonical Policy to the Necessity of the national Treasury, - That a harmony of interests naturally and necessarily exists among all the departments of national industry is a fundamental principle in political, as it is in socinl and religious science. It is ono of these first principles which stand incontrovertible as the data of all reasoning upon the policy of human secieties. So far as this inquiry has proceeded, the truth of this principle is clearly supported; and it can not be doי', ted that the other branches of productive and commercial business, not specially considered, mast fall within the rule with an equally hapny accordance. If an integral, self-sustaining, well-balanced relation holds between the manufacturing and agricaltural welfare of the nation, and if the policy which is best for them is also well adjusted to tho requirements of our system of national finance, the truo Interests of the planter, the navigator, and the merchant can not possibly be at war with them.

Cottu. $\boldsymbol{z}$ and Commerce.-It would exceed the limits as well as the proper province of this report, to endeavor a formal demonstration of its doctrino ns it applies to cotton and commerce, and it must, therefore, be forborno; but some general considerations, which may be suggested in its support, will serve to show "the equal operation of the policy throughout the Union, discriminating neither for nor against any class, section, or intcrest," conformably with that maxim of our legislative system which has the dictates of justico and the spirit of the federal constitution for its authorities.

Erport of Gold ; Effects upon the Planting Interest.In the first place, the systom which looks to the industrial independence of the country would neccssarily have the effect of retaining the gold exported to forelgn countries for the purchase of all those commodities which we might advantageously munufacture for ourselves. The two hundred milliona which we have sent abroad within the last six ycurs is an excessive export, ly the amount to which it has diminished tho nccessary home aupply, and raised the rate of interest to its present Inordinato height. Scarcity of capital and extravagant rates of toans leave no interest of the conntry uninjured, except that of tho wealthy moneyholder.

At the place to which money flows it is most abundant and cheapest. The rates in London de not nyerage more than lalf those that are constantly paid in our Atlantic cities, and often stand at one-third, or oven lower.

Capital at 10 per cent. intereat, exposed to the competition of capital at 5 , hee a fearful odds to contend with; but it is abundance against scarcity which is even more disastreus than the difference of rates. A
proaperoua business man may endure heavy Interest, but a small capitsl must encounter the fluctuations of the market witheut relief, and la awsmped in a storm which the heavier craft will ride out under bare polea. From the revulsiena which our menetary affirs periodically auffer from this cauae, no department of production or trade escapea, and the planters are usually the esrliest and aeverest sufferers. They are nost shaken by depression of prices, and by bankruptcy of their customers, from the fact that their induatry is less varied, and the commoditios which they require for constant censumption are less within their reach, when business is embarrassed. They must bring then from abroad, where credit and confidence are not ao easily commanded as at home.

Fixed capitsl commands credit within the country, but mortgages are not negetiabie securities at a distance.

Limit to Exportation of the precious Afttals, - The drain of the precions metais, nnduly induced ly the import of articles which ought to be made nt home, is an ovil of such magnitude, that if thero were not another among the incidents of excessive importation, it would of itself deserve the utmost exertion of legislative powor to correct it. It is utterly from the purpeses of a sound policy to speak of gold as a product of the country, and a commodity of trade, like iron or cotton, while ita export is carried to the extent of crippling business, disturbing the currency, and enormonsly enbancing the rate of interest. However produced or dorived, it is maney to the extent required for the health of the circulation and tho prosperity of business, and any policy which runs the aupply below the demand is suicidai.

Cottcn and Iron Monufactures in the South.-In the next place, the older planting States are not only capablo of tho labor of converting their raw material, both cotion and iron, into at least the coarser fabrics which are conveniently and profitably marketable, lut they aro now under the compulsion of necessity to so far diversify their industry, and so to divert some portion of their labor from the one business which they have been so long helping to depress, and to derive from this change tho better remuneration which the work of conversion affords abore that of production.

Geergia, Virginia, and North Carolins made the experiment of applying a portion of their cheuper labor to the coarser cotton falrics, with a success which promised fairly to give them the home-market in a few years for anch articles; but New England was compelied to dispute this ground with them by the fuilure of the taritf of 1846 , to give the more advanced manufacturers of the Nerth the opportunity of making the finer fabrics in the then existing condition of the enterprise, and the South for the time was thrown back upon her staples and a foreign market for her dependence.

Protective Policy no longer a Party or sectional Ques-tioss.-13ut the spirit of progress, and the change of conditions which nine years have brought with them, have wrought their necessary clinnges in the movements of the whole country, and given us the happy promise of a better union in interesta and policy than wo havo known in the past.

The time and the occasion for harmonizing measures are now upon us, and the fond faith which we hold in the future destiny of the Union warrants the confidence that this great peoplo will show both the wisdom and virtue of a genuine patriotism in the settlement of all their differences.

A common Prosperity corrective of social Strifes. Every section of the Union should be the best judge of its own policy ; at all events, it will determine it for itself; but it is a happy circumstance for the United States that, in the things which work their way determinately into the desting of the nation, there exists so littlo contraricty of ophinion, and se much less difference
of drift, that thern is nething substantial required to be sacrificed by any part of the country for the good of the whole, and very littje even in apeculative opinion to be compronsised to effect an agreement.

Thn peopie may be agitated and divided upon conatitutional, moral, and religious questions, and their diseussion and settlement will have proportionate effect upon the general harmony; but the measures which carry with thein a general prosperity will hereatter, as heretofore, bear them through every strifs, and sceure the geneml welfare.

The prosperity of navigation, forelgn, coastwise, and internal, are necessarily so directly dependent upon the productiveness and wealth of the agricultural and manufacturing buainess of the natlon, that the aimplest iefinition of its functions contains the proof of our proposition. It is the common carrier of all exchanges. Its husiness is proportioned to, as it is depenient upon, produetion, and must grow with all growth, and decline with all diminution of the products demanding its agency.

Relutions of the Trader and the Laborer, and the Compensations of a general I'rogress for all Changes.-A sound political policy looks to a constant diminution of the proportionato number of lintermediates between the provlucer and consumer.

All the modern inprovements in the methods and inatruments of commerce tend to the accompliahment of this great aim. Time, distance, and enat of transportation are in rapld progresa of abridgment, and middlemen are, in corresponding ratio, eliminated by $t^{*}$. process. Yet all these movenents toward a better and directer relation thetween men whose reciprocating induatries requiro laproved conditions of intercourse is found to work as wnll for all the dependent as for the principal functionaries in the world's commerce. Steam has been largely nubstituted for human and lirute jower on the great thoroughfares of trude and travel, hut horses have increased in number and value in direct proportion to the growth of the ageney which threatened to deteriorate them. Wagea and demand for human labor have, in like manner, risen under the auspices of the machinery that now does so mireh of the work which iormerly belonged to them. All the natural labor in the nation beara but a amall proportion to the artificia, whieh has so largely replaced it in production and traneportation; yet that natural labor was never so fully employed ner so well rewarded as now; and the same law holds for every husiness function of society, and every species of employment which has any legitimate place or use in buman life.
Statknent showing the Changes that nave taken prace in or'a Tanjp l'oliter ainge tha fohmation or the conBritt:tion, viz.


Firat 'Tarifi change.
tiebural change.
licureral Geberal Special Cieneral Cieneral General Apreial Rpecial $t 494 \ldots$, March 86,27 , 1912.......otuly 29, 1916.... Fontuary 5, 1819.... March 8 1824.... May 82, 1828. . . . May 19. 18.2........iny 20, $1838 . . .$. Marcis 2,
1841 ... Reptember 1 special Speciad Aperial Apeclal
Rperlal Rperial
(ieneral Cencral sperial Epecelal
Apeelal 1842.... Ankuit 80, freneral 1846....taly so, fieperal 184,.....lanuary 26. 1557.... March 3.

April 29, Gencral.

May 24,
May 29, special.
July 14, finciaral.
March 2, Comp'ae.

Year 1824.-The tarlf change of thin year oreated considerable diseussion and feeling. The duties col. leeted that year were $\$ 17,878,000$, with a propulation of $12,000,000$, or $\$ 180$ to each individual.
1828.-The general change this year was accompanied by a light increase of duties ; vis., $\% 22,681,000$.
1832.-A nother general change took place, followed
by a rapid increase of duties after 1834, vin. :
$\begin{aligned} & \text { Years. } \\ & 1983 .\end{aligned}$
1834.
. . . . . . . . . . . . . . . . . . $\$ 29,488,000$
1815................... 19,397.014
1836. . . . . . . . . . . . . . . . $93,410,000$ \$1 60 per head.

The collapse of 1837 led to a reaction, and the duties diminished for 1837-'88, showing as follows:


Since the latter date the iluties have increased from $\$ 1$ per head to about $\$ 250$ per hend, viz. :


Since the year 1780, the aggregite revenue from all sourees has been $11,886,740,084$, viz.

| rom | 32 |
| :---: | :---: |
| From puill |  |
| From uniacel | 895,510,638 |
| Tota | \$1,898,749,044 |
| Tutal dioburser | 1,837,721,045 |

for a perfod of aixty-elght years; viz., from March 4 , 1789, to June $30,1856$.

By tho Constitution of the United States It is providerl that " no State shall, without the consent of Congress, lay any impost or duties on imports or exporta, except what may be absolutely necessary for executing its inspection laws; antl all such laws shall be sulject to the revision and control of Congress."

The following statement has theen furnished showing the changes from one rate of duty to another, as made by the tariff act of the year 1857 , when applied to the lmportations of the year ending 80th June, 1856:

| Vatuc. Rele, Acl of 1Rss. Rate, Ael of IKSt. $\$ 4,6 \times 2$ from 40 per cent. to 16 per cent. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25,954 | 4 | 30 | * | tu 15 | 4 |
| 277,310 | 4 | 40 | 4 | to 8 | 4 |
| 891,359 | 4 | 30 | 4 | to 8 | 4 |
| 12,652 | ${ }^{4}$ | 25 | 4 | to 8 | 4 |
| 44,024 | 4 | 80 | " 6 | 10.8 | 4 |
| 097,929 | $\because$ | 15 | " | to 8 | 4 |
| 153,276 | $\cdots$ | 25 | " | (1) 4 | 4 |
| 2,205,36) | 4 | 80 | 4 | 104 | 4 |
| 179,170 | " | 15 | 4 | to 4 | 4 |
| 8,3:5,313 | ${ }^{*}$ | 10 | 16 | tu 4 | 4 |
| 1,605,930 | 4 | 30 | 4 | Frue. |  |
| 70.146 | 4 | 25 | 4 | 11 |  |
| 153,7211 | 4 | 90 | ${ }^{6}$ | 4 |  |
| 1,646,715 | 4 | 15 | 4 | 4 |  |
| 1901,779 | * | 10 | 4 | 4 |  |
| 0,620,471 | 4 | 5 | 4 | 4 |  |

The tom of revenue ly additions to the free lirt
 4 pur onnt..
\$1,145,615 00
L.ons of revenue tiy tranafora to tichedule $i_{i}$ or 8 peresent...
$76,335 \%$
oas of revenue by tranafer lo Nehodutiof or
203,2474
15 per cant.
Subjoined is a statement exlibiting the revenue which the importations into the United States, in the year ending woth June, 1856 , would jroduce under the tariff act of 1857 :

* This Incluties an approximation $t a$ silf the changen made hy the new tariff, exerpt flearhed, printed, painterl, and dyed mannfactures of eot ton, and of delaines tranafured frum scherl
 *kfrim, tranaferred from celiedulo $F$, to $\$ 1$ (or 20 ta 19). These changem, ralatigg from a taver to a higher arhechile, worbit io. crease the aggitegate above gives equal to the diffirunce made by the tranafer, and in proportion to the anount of aturbinsportations, whichare not returnid in such a manuer as to bo anparated from other slmilar goods.

| Be bedule. | Value of laporto. | Rale of Duty. | Amoual of Dutien. |
| :---: | :---: | :---: | :---: |
|  | \$4,001,575 | 30 por cent. | \$1,201,479 50 |
|  | 8,062,188 | $311{ }^{10}$ | 9,508,650 40 |
|  | 94, 150, 243 | 24 " | 22,508,213 70 |
|  | 71,074,205 | 19 " | 13, $514,110{ }^{85}$ |
| E. | 85,298,397 | 15 | 5,208,324 55 |
|  | 5,992,347 | 12 " | 707,181 24 |
|  | 0,100,422 | 8 " | 409,883 70 |
| 11,... | 8,653,051 | 4. | 1142, 122 0) |
| Total. | +248,791,0 28 |  | 4 4 7, 330,53060 |

British Tariff-The following are some of the mest important regulations of the British tarlf:

Overpaymenta of duty made in error may be returned, if elaimed within six years after date.

In ease of dispute as to the preper rate of duty, the Importer to deposit the amount of duty der annded, and such deposit shall be deemed the proper duty payable, unless an actien be brought or sommenced within three menths. In the event of such action being deternIned agninst the revenuo, full Indemnity to bo made to the importer.

The Board of Cuatoms may remit or mitigate penalties Incurred through inadvertenee, or non-compliance with oxisting regulations.

The duties on the fellowing goods must be paid on the first importation, and auch goods shall not bo warehoused for home consumption or exportation : viz., cern, grain, meal, and flour, and wood goods from British possessions.
Diamonds, bullion, lebsters, and fresh fish of British taking, may be landed without report or entry ; ne other goods can be unshipped or landed, except with the authority of an officer of the eustoms.

Where ad ralorem goods shull bave heen detained as undervalued, the officers shall give a written notlee of such detention to the person entering the same, and of the value thereef as estimated by them. If such goods be retained for the use of the crown, the value cotered with an addition of 5 per cent., and the duties slready paid on such entry, te le paid to the owner.

Goods not entered, or landed within fourtoen days after the arrival of the ship, may be conveyed to the queen's warehouse; and if the duties and charges due upen such goods be not paid within three menths, they may be aeld, and the overplus, if any, paid to the proprietor.

Bonded goods to bo cleared within five yeare, unless the proprieter desire to re-warehouse them, In which case they shall be examined, and the duties due upon any detieiency ascertained and puid.
If such goods be not cleared or re-warehoused within the said peried, they shall be sold to defray duties and charges.
No person shull export honded goods in any ship of less burden than fifty tons, except to the islands of Guernsey and Jersey, by regular tralers not being of less than forty tens burden.
No drawlack shall le ndiowed on goods of less value than the drawbaek claimed, and all such goods eo entered shall be forfeited, and the person whe caused then to be entered shall forfeit tho sum of $£ 200$.
No tobacco, cigars, or snuff shall lie imperted into the Channel Islands in ships of less than 120 tona burden, nor unless in hegsheads or chests, each containing not less than twe hundred pounds' weight of such tobacee or snuff, ner unless in packages each containing not less than one lundred jounds' weight of such eigars, tebacce, or anuff, not being in any manner separated or divided within such package.
The islund of Malta and its dependencies shall be decmed to the in Europe.
Any person making a false deelaration in nuy document relating to the customs, or answering untruly autherized questions put to hin by the officers of eus$t$ oms, liable to a penalty of $£ 100$.

In case it shall appear that British vessels are subject in any foreign ceuntry to restrictions as to the voyages in whieh they may be engaged, or the articles

Imported or exported, It shall bo lawful for her majesty to Impose similiar restrictions upon the ships of suci foredgn country.

No foreign gooda upon which a higier duty is payable on their importation inte Great Britain than on their importatien inte the Isle of Man, shail, after they have been delivered eut of charge of the eustoms in the said lsle, be ahipped Into Great Britain.

Comparative Tariffs.-The following comparative statement exhibits the gross ameunt of duties recelved upon the principal articles of foreign and colonial merchandise in Great Britaln and France, respectively, during the year 1856, to which we have annexed a celumn showing the gross amount of duties received by the United States upon similar articles during the same year:

| Arlielea. | Oreat Mritaio. | France | Unlted Bratea, |
| :---: | :---: | :---: | :---: |
| Coce | 478,390 | \$540,520 | \$11,807 |
| Cofte | 2,933,820 | 4,010,1220 | 11,878 |
| Whe | 1,027,005 | 897,680 | 509 |
| Oats | 289,205 | 4,010 | 108 |
| Rye. | 7,005 | 905 |  |
| Barley | 183,080 | 3,770 | 318 |
| Indtaa | 447,064 | 18,660 |  |
| Opiom | 10,005 | 2,235 | 87, 169 |
| Rice... | 139,911 | 40,720 |  |
| Casaia !lgnea | 2,875 | 4,620 | 67,880 |
| Cindamor | 1,835 | 1,705 | 6,343 |
| Cloves | 8,945 | 12,049 | 21,23i |
| Mace. | 6,840 | 270 | 9,563 |
| Nutmeg | 58,275 | 3,570 | 180,453 |
| Pepper | 404,445 | 210,405 | 95,820 |
| Pimen | 5,015 | 9.175 | 140,808 |
| Rum | 6,945,095 | 63,090 | 289,404 |
| Sugnr | 25,018,385 | 12,071,060 | 6,720, 108 |
| Tallow | 87,89,285 | 99,315 57,840 | 302 $T, 904$ |
| Tea Watehe. | $\begin{array}{r} 27,691,206 \\ 77,110 \end{array}$ | 57, $\mathbf{7 0 , 2 4 0}$ | 350,075 |

The following comparative statement exhibita the amount of duties paid on the articles specified, in France and the United States, respectlvely, in the year 1856, all of said artieles being admitted free of duty in Groat Britain :

| Artieloa. | Franca. | United Siates. |
| :---: | :---: | :---: |
| Drimetoee | \$43,0065 | \$ $24, \overline{595}$ |
| Cotton, raw | 3,870,115 | Tree. |
| C'ochineal. | 40,895 | 24,905 |
| Indigo... | 124,175 | 106,374 |
| Flax | 245,315 | 19,803 |
| Guano | 146,210 | Free. |
| IIemp | 24, 605 | 653,503 |
| Hitdea | 20,835 | 404,164 |
| Mahogany | 113,210 | 88,049 |
| Iron lu bars. | 125,135 | 1,005,835 |
| Steel, nawrought | 205,605 | 482,747 |
| Iead..... | 295,690 | 505,603 |
| 8pelter | 7,245 | 20.351 |
| Tin ... | 8,030 | 728,061 |
| Oil, whaio | 5,805 | 1,594 |
| Oil, paim. . . . . . . . . . . . . . . . . . . . | 41,575 | 41,681 |
| Olive-oli. . . . . . . . . . . . . . . . . . . . | 429,450 | 141,149 |
| Jleef, malted | 8,230 | 124 |
| Pork, ralted | 6,985 | 124 |
| Qutckstlver | ${ }^{365}$ |  |
| Silk, raw . | 20,153 0,050 | 151,160 |
| Wooi. | 1,638,730 | 496,519 |

The total ameunt of customs duty in France in 1856 was $\$ 30,330,405$, on a tetal value of $\$ 397,955,235$, or 8.87 per cent. on the whole amount ; the total amount in Great Britain was $\$ 131,034,220$; and the tetal amount in the United States was $\$ 64,022,863$. If to tho $\$ 35,830,405$, the amount of customs paid inte the French treasury in 1856, we ndd $\$ 36,416,640$, chiefly realized from the tebacco monopoly, but made up in part alse of the expert duty on wines, we have 871,747,045, or ameunt of customs duties received by the three countries in 1856, as per existing tariffs:
Great Britatn................................
France (ieeluding revenues from tobaceo and
Frapee (ieeluding revenues from tobaceo and
Undted statea.
71,747,045
The foliowing table exhibits the comparntive tariffs of the United States, Great Britain, France, Spaln, Hollsnd, Belgium, and Brazil, in regard to the principal articles exported from the United States.




| Artielote | Valled Btates. Duly, ad valonem. | Great Britain. | Tramea. |  | a |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Guanlity and | Orantily mad Duly: |  | Quantily atad Duty |
|  |  | luly. | In Vroneh Vemala | In for's Vemepins |  |
| UII, sperimwent. " whale asd fiali.... | $\frac{15}{15}$ | Fres | CWt $\quad{ }_{301}$ | 6215 548 | Firew. 48 |
| Pish, dried and amoked | 15 |  | "6 301 | 431 | * |
| Iamber and boands ... | 16 | Ton. ${ }^{\text {¢ }} 242$ | 824 feet. - 10 | 19 | C'uble ell. 020 |
| Maunfnetures of wood . | 84 | $10 \mathrm{jrerct}$. ad val. | 15 per cl. ad val. | 15 p.e.ad val. | 8 perct. ad val. |
| Tar and pltch . . . . ..$_{\text {\% }}$ | 15 | Free. |  |  | Frec. |
| Nkina and fure . . . . . . | 15 |  | 100 pleees. $10 \mathrm{c}$. to 10 | 10c. to 48 | wasp lijer ot sd val. |
| 13eef. | 15 | ${ }^{*}$ | Cwt. 1751 | 104 | 220 1b及 242 |
| Tallow | 8 1 | Cwt. 80 | " 1401 | (175 17 | peret 310 |
| Illden | 4 | Froa. | $4.24 c . t o p 8$ | 481 e. to 1481 | per et. ad ral. |
| feather | 16 |  | $\because \quad 84$ e.to 08 | 49f c. to 1461 | per et, ad vol. |
| Butte | 15 | Cwh 191 | $\because{ }^{4} 9$ | 82 | 220 Iba 121 |
| Cheene | 24 | " 61 | 4 50. 61414 | 5 e. to 161 | 40802 |
| Itort and Baco | 16 | Free. | " 0 \%9 | 365 | 440 0. to M) |
| Lard | 15 |  | 41461 | 1751 | 20 |
| Wool . . . . . . . . . . . ib | 24 | 4 | 20 per et. ad val. | 20 p. e. ad val. | 9.40 libe Free. |
| " leas than 20 c. p.lb. Wheat | Free. <br> 15 | Bunhel. | 80 per nt , ad val. | $30 \mathrm{p}, \mathrm{c}$, ad val . | $\begin{array}{ll}240 \mathrm{lbs} & 902 \\ \text { Tun. } & 1611\end{array}$ |
| fudtan corn aud meal. | 16 | Bune\%. ${ }^{\text {a }}$ | Duty flxed monthly, |  | C. 181 |
| Kye, onta, nind small graln | 15 | $\cdots 8$ | (according to price. |  | $191$ |
| ship liread. . | 16 | Cwh. 9 | Daty asme at the gralni |  | 220 Jbm 181 <br> $18!$  |
|  |  |  | of which It la mant. fuctured. |  | 22 bm |
| Potatoen . . . . . . . . . . . . . | 28 | Frea | CWt 5 | 5 | 3 bualieln. 2 |
| Apples . . . . . . . . . . . . . | 8 | Buahel. | $\because{ }^{4}$ | 108 | ct. ad vai. |
| Hise. | 15 | liwl. 0 | $\cdots$ mete to 501 | 66j c. to 881 | 220 lus. 8 c. to 12 |
| Cotton. . . . . . . . . ....... . <br> " manufactures. | Free. 19 and 94 | Frue. | $95 \text { c. to } 293$ <br> Prohblted. | \$2 441 to 3421 I'rohlbitca. | Free. ct, ad val |
| Tobacco . . . . . . . . . . . | 24 | $\underset{4}{\text { Ponnd. }} \quad$78 <br> 18 |  |  | 220 Jbu ${ }^{29}$ |
| 15 erap-seed | 8 | Frme | (1wty 15 c. to 64 | 501 c. to 79 | Ton. $4+84$ to 1013 |
| Ilemp, man 3 factured. . | 15 | 2 | * \$203 to 84034 | \$308 to 24034 | 990 1 to 6 juer ct. ed val. |
| 8ugar, brown. | 84 84 |  | l'rolililted. | trohlinied. | 220 Ibe. |
| Spirita. | 30 | Giallon. ${ }^{363}$ | 2x gallonm 38 34 | rohijs 38 O9, | Frce. 145 |
| Molasse | 24 | Cwt. 9 | gallom |  | 220 lbe 191 |
| Heer, mle. | 24 | Itarrel. 484 | CWt. 5 | 5 | 892.0 gallong 111 |
| Linseed oll | 15 | Free. | 4241 | 803 | \% 20 |
| Splrits of turpentin | 15 | ${ }^{\prime \prime}$ | " 2411 | $\underline{465}$ | 1 perct. st val. |
| Hiats of fur and allt | 16 | Kach. 24 | Each (fell). 20 |  | 0 jer ct. ad val. |
| Gunpowder.. | 15 | Free. | 1'rohlbited. | 1rohliblted. | 220 bibe $\$ 484$ to 1013 |
| Jloots and silioes. | 84 | 13os. 113 to 380 |  |  | 0 per el. ad ral. |
| Cables sad cordag | 15 | Free. | 10 per Ct. ad val. | 10 p. c. ad val. | 6 per ct. ad val. |
| sialt <br> tead | 15 | ${ }^{\circ}$ | $\lim _{0} \mathrm{t} .$ | $10 \mathrm{c} . \text { to } 97$ | 220 libe, 0 4ti |
| Iron, | 84 | - |  | 43 |  |
| * | 24 | " | 4 0sc. to 137 |  |  |
| * malla - leantio | 24 | C\%t. $010{ }^{61}$ | 1 'robilile ${ }^{\text {a }}$ d. | ]rohblited. | 220 lbs , 30 |
| * other mannfact. . | 46 | ** 61c. to 8 6it | Cot \$106to2425 | 42161509501 | 9wo 1 ard 2 per ct. ad val. |
| Copper and brase .t...0. | Fince. | Cwt. lirce. 248 | " 4 1e. to 489 | 90 <br> ce to 588 <br> 59 <br> 9 | 220 Jba. 10 c 1080 |
| Ilruge and mediclnea.. | 15 |  | " 5 c to 2064 | 5 c, to 2181 |  |
| Wearing apparel...... | 24 | 10 per ct, ad vill. | Aatne an raw malerial. | Iltto. | 0 perect ad val. |
| lookn . . . . . . . . . . . . . | 4 | CWt. 196 | Cwh. 97 c. lu 973 | \$106 to 1062 | 220 Jbr, +03 |
| l'sper, all kinde. ...... | $15 \text { and } 24$ | lound. 5 c. to 6 | " $\quad \$ 783$ to 9834 | 143 to 8100 | 3 to h geret. ad val. |
| Jewolry ... | $24$ | 10 per et. ad val. | $8\}$ or. 4ice to 192 | $\text { sic. to } 211$ | 6 perct. ad val. |
| tilask, fancy | 24 alld 30 15 absd 24 | CWh 242 | $\text { Cwt. } 05 \mathrm{c} . \text { to } 12 \mathrm{ct} \mid$ | \$108 to 12 64 | 100 plecom <br> 6 per ct. ad val. |
| Bullion | Frue. | $\because$ | * 10 | 11 |  |
| Soal. | 84 | ${ }^{6}$ | * Sc, to 5 | 1 c. to 10 |  |
|  | F'ree. | ' | Iroe. | Firec. | 1 per ct. ad val. |
| India ruhber nimafact. | 81 | Hound. 6 | Cwt. 116 | 2 16] | 6 peret. ad val. |
| Cuchnmerated........ | $1 \%$ | Manufactured. <br> 10 perct. ad val. |  |  | 1 per ct. ad val. |
| $\bullet$ | 13 | Jaw. Fire. | . $\cdot . . .1 . . .$. | ......... |  |

From an examination of the comparative duties on differeat articles, we find that the tariff of Great Britain more nearly approaches free trade than any other. The United States and Holland follow next ln orier, and Spain and Brazll are the nearest the other extrememaking, in fact, protection alnost prohilition. There is a great want of uniformity in the tariff charges gencrally, with the exception of those of the United States. In the tarims of Spain and Bazzil the dutlea seem to be levied arbitrarily in regard to home production, etc., and the tariff considered only in reference to the maxlmum duty under which the separate articles will be inported, and the total possible maximum revenue.
In the articles of every-day consumption, such as Hour, provisions, etc., the tariff of Spain shows almost a prohibition, while articies of luxury are admitted on low dutiea.
The commerce of the United States with these conntries in 1857 was in proportion to the total commerce of the country, es foliows:

| ar ending Juna 90, 1547. | Kispurta from Taited states. | imports into United Kistee. | Total. |
| :---: | :---: | :---: | :---: |
| Tireat liritala | \$155,845,754 | \$181,003, 3198 | 3316,48,977 |
| Fran | 38,238,097 | 47,792,827 | b0,031,514 |
| Spala | 10,703,007 | 2,723,016 | 13,406,113 |
| Hollan | 4,107, 77 | 2,401,709 | 0,57t,639 |
| Belginu | 6,614,326 | 5,040,811 | 10,704,637 |
| Brazll | 5,545,207 | 21,40,783 | 97, (n 5 5, 944 |
| Other countri | 112,875,404 | 150,340,299 | 203, 245, 603 |
| Thtal. | 3342, 960,6082 | 4300, 83010,141 | (1723, 250,093 |

From this table It appears that the six conntries of which we luve given a taziff summary bad the foliowIng proportion of the comnierce of this conntry for the tiscal year 1857:

> In the exporta from Inlled Statea fa the limports into
> a the totais commo
> " 60 per ceot
> .....

If we had included the colonies of the above countrien, which have the same tarifi regulations as their mother countries the percentage would have been materially increased.

 Goohb, Wabke, and Mahollanhlan impomthd into the C'nited stateg.


NEW TAlKIF ACT OF THE: UNITED STATHA. an act anducino tux dity on impoata, and gon otuan rutrons.
Be it enarted by the Senate and IIouse of Repreacntative's of the Uniled States of America, in Congress assembled, That on and after the 1st day of July, 1857, ad talorem dutlen ahali be impored, in licu of those now imposed upon goode, warer, and merchandise lioported from throad into tho Linlted Stites, ha follown, viz. :
Upon the articles enumerated in schedules $A$ and 13 of the tarffi act of 1840, a dity of 30 per ceat., and upon thoae enilmerated in Schedulea $t ; 1, E, F, G$, und 11 of said act, the duties of 24 per cent., 19 per cent., 15 per cent., 12 per cent., 8 per cent., and 4 per cent., reapectively, with such exceptions as hereinafter madn; and all articies so imported as aforesald, and not enumerateri in the sand achedules, nor in Scledule $I_{\text {, }}$ hiali pay a duty of 15 per cent.
8no. 2. And be it further enarted, That all mannfacturea composed wholly of catton, which are bleached, printed, painted, or cyed, and de laines, ahalt be transferred to Schedule C.

Japanned leather, or sikins of ail kinds, shall be transfercel to Schedule 1). Ginger, green, ripe, dried, preaerved, or pickled ; ophreys and ochrey earthe, modicinal roota, lenves, gume and roaina in a crodo state, not otherwise provided for; warcs, chemical, earthen or pottery, of a capacity excesding ten gallona, shall be traneferred to schedule E.

Itorate of lime and cedella, or tow of hemp or flax, shall be tranaferred to Schedule F.
Antimony, crude ur regulus of; barks of all kinda, not oth. erwise provided for ; camphor, erude ; cantharidea ; carbonate of aoda ; emery, la lump or pulverixed ; fruita, green, ripe, or Arled; guma, Arable, Burbary, copal, East Iadin, Jeddo, Seaegal, anbstitute, irngacanth, and all other guma and rosina in a crude state; machlaery exclusivo'y designed and expresely Imported for the manufacture of flax and liaen goods; aponges; tin In plates or rheets, galvanized or ungalvanized; woods, namely, cedar, Iignnm vitic, chony, box, granadilin, mahogany, rose-wood, antin-wood, and all cabinet woods, aball be traniferred to Kehedulo (i.

Acide, rectic, bor zole, boracie, eitric, muriatie, white and yeliow, oxalie, pyronigueous and tartaric, and all other acida of every deacription used for ehemical or manufncturing purposea, not otherwise provided for; aloes; amber; ambergris; anfse aced ; annato, roncon of Orieans; arsenje; artjeles not in a crude state, used in dyeing or tanning, not otherwiso provlded for; aeafortida; asplaitum; barilia; bleaching pow. der, or chlortd of fiune; borax, erudo ; boucho leaves; brins. atone, crude, in lulk; cameoa, nooasica, damonds, geme, pearls, rubles, and other precious atonea (not aet); chalk; elny ; cochlneal; cocon, cocoa-nuta, and cocoa-shella; corktree bark ; ercam of tartar ; extract of indigo; extracta and
decoetlons of logwood and other dye woola, net otherwise provided for; extraet of madder; flinh ground; grindetunen ; gutta percha, unmannfactured; Indla rubber in bottlem, olelom, or aheets, uanannfactured; indis rubber, millk of; Indlyo lece spirita; duc sulphur; lastinga, cut in etripe or petterna of the alse and shave for shoes, ellppers, boots, bootees, galtern, or buttone pxetunively, not comilined with India rubber; manufnetures of mohair cteth, allk twint, or other mannfuctures of cleth suitabife for the mazufacture of shoes, cut in silipe or patterna of the sise and shape for ahoes, slippers, boote, booteca, gaiters or buttons exelualvely, not combined wilh Indie rabber: muale printed with llnes, bount or nnbomad ; olls, paltra, teal, and aveoa-nut ; I'randian blae; nota arh; apioes of all kinds; watch materiale and unfalahed parte of watehen ani wond, or poatul, alall bo tranuferred to Mehedule If.
Anc. 8. A wi be li, further enacted, That on and after the 1nt day of July, 155 t, the goedn, warea, aud merchandise mentlomed in selicinle $f$, made part thereof, alall be exempt from duty and entitied to free entry.
sonemole I. All bookn, maps, eharta, mathematical, nalitic. al inatruments, phillowophical apparatua, and all other articlem whatever imported for the une of the Coitued Stalea,
All $p^{*}$ illosophical apparatua, inatrumenta, inmik $n$, mapn, and chartn; afatuen, ntatna:y, bunta and casta of marble, bronze, slabaster, or plater of l'arls; paintlugs and Arawlugs ; etchInga; specinnas of reulpturn; cabinete of colns, medala, gema, and all colleetlous of antliquitis: providat the saine be apeclally imported, in good falth, for the use of any moclety incorporated or eatabllahed for phllonophical or Itterary purposen, or for the enconragement of the ine arta, or for the une or by the order any college, academy, echool, or acmibary of learnlag in the Uaited States ; animal carton (bonitiack); andmaln. living, of all kidda; argol, or crade tartar; artieles in a crude otate used is dyeing or tannlag, not otherwlae provided for.
Bark, l'eruvian; bella, old, sall bell-motal; berrien, notn, fowerr, planta, and vegotabien uned exelumively in dyelng, or In comporing dyee, hut no artlele ahalt le ciassed an auch that has andergane any manufneture; blanuih; bitter apples ; bolting elotha; labiew, burbed, anil loneduat.
Ibokn, mapa, anil charta Iniported by anthority of the Joint Ubrary Committee of congress for the use of the llbrary of Congress: prorided that if in any case a contract shall have been made with any bookeller, Importer, or other person for bookn, mapa, or charta, in which contract the bookseller, lm. porter, or other persen aforesald fhall have pald the duty, or included the duty in aald eontract, In auch cane the dnty ahali not be remitteel; brana in bara and plgs, or when old, and fit only to be remanufactured; lirasll-woul, braalletto, and all other dge-woode In atickn; bullion, gotd and allver; burr otonen, wronght or unwrought, but a mannfactured.
('sbinets of colon, mevlali, and other colleetions of antiquithen ; coffe and ton, when imported direct frem the place of thelr growth or production in Ioverican veseela, or in forelgn veasele entithed by reelprical treaties to he expapt from discriminating datles, tonageg, and other charges; foffie, the growth or production of the powecaslede of tho Netheriandn, imported from the Netheriande in the same manner; colna, gold, allver, and copper ; copper ore: copper, when Imported for the I'nited States Mint; copper, la juga or harn, or when old and fit onty to be remanufactired; cotton; culch.

1 ragon'e-bthool.
Felt, adhesive, for oheathing vessein ; flax, unmanufactured.
Giarden seeds anil all other sevile for agricultural, horilenltaral, medicinal, and unnofacturing purposes, not otherwime provided for ; glane, when old and fit only to be remanufac. tured; groda, warea, and mefchandise, the growth, produce, or mannfactare of the infled states, exported to a forelgu coustry and brought huck to the C'nited Ntates in the name ennilition an when exported, upon which no drawback or bouaty has been allowed : prorided that all regulations to amerertaln the identity thervof, preecribed by exiating lawe, or which may be preseritied by the Socretary of the Treasury, ahall be conoplled with ; guano.

Ifonuehold efferta, old and in unc, of pernons or familife from foreign countrien, if used abroal by them, and not in. tended for any other gurnon or periona, or for aale.

Iee; ivory, unman ufactured ; Junk, old.
IInseed, but not mbirseing flasmeed.
Madder root ; madder, ground or prepared; mapa and charta; modela of Inrentions and other improsements in the arta : procided that no article or artietm shall be decuned a model or improvenent which ean be fitteal for une

Oaknen; oll, apermaerti, whale and other fish, of American fisheries, and all other artictes the produce of such Asheries.
tralnting and statuary ; palm leaf, ummanufactured; peranal and housphold efferta (not merchandiae) of elitzent of the I'nited Sinten dying abroad; planter of I'aris or aulphite of tlone, ungronal ; platl 'a. unmanufaronrit.

Rafs of whatever material, ezcept wool; ratana and reeda, nnmabufacturod.
sheathing copper, but no copper to be conaldered auch and admitted free, cseept in sheets of forty-eight inches long and fonrteen Inches wide, and welghing from fourtevn to thirty. fous ouncen the equare foot 1 nheathing metal, not wholly or in part of tron, ungalvanized; shiugle bolts, and stave boilts, allk, raw, or an Feeled from the cocoon, bot belog doubles, iwited, or advaneed in manufacture in any way; apecimena of natural hitwry, mineratogy, or botany ; aubataneen expres. Iy ued for meanres.
Tin in plese, baro, or blocks; trees, ahrube, hulbe, planta, aud roots, not otherwise provident for.
Wraribg appurel in artual ase, and other personal iffecta (not merchendise) ; profesmiosal books, inuplereenta, Instruments, and toole of trale, oceupation or employment, of prr nons arriving in the Linited statua 1 prooided that this pa, rmption alall not be conatrued to inelade machinery or uther arilelem Imported for une in any manafacturing eatahlialiment, or for male.
Sherp's wool, unmanufactured, of the value of 20 centa pis pound or leas at the port of exportation, and hatr of the al. paes, the goat, and other ilke anlmate, namanufactured: proo riled that any woot of the aheep, or liair of the alpaca, the geat, and othar Hkis animala, whith aholl be imported la atiy other than the orilinary condition, an new and heretofire practhend, or which ehall be changed in lta character for the purpose of ovading the duly, or which shell be reduced in valuo by the intentional adniztare of dirt, or any forelgu autmance, to 20 conts per pound or leas, shall be anbject to pay a duty of 24 per cent. ald valorem, any thing is thita aet to the contrary notwlthatanding.
sma. 4. Anilbe if further enaeled, That all goods, warea, and merchandiao which shall be in the publle atores on tho lat day if Inly aforvasil, alaill be eubject, on entry thereof for conmumption, to ne other duty than if the same had been impuri ed ruapectively after that day.
SEe. 5. Anil te it further cnacted, That on the entry of eny gronde, waren, and merehandine imported on and after thei bol day of July aforosald, the decinion of the eullector of the cam. toma at the port of Inportation and enlry, an to thelr llatility to duty or excmptloa therefrom, ahall be thal and conelnalve agninat the owner, fupporter, conalgnee, or ageut of any fuch gooda, wares, and morchanillac, unlean the owner, lmusiter, conslgnee, or agent shalt, within tea daya after nuch entry, fifo notion to the collector in writing of his dinsatiffact on alith mels decidon, wetllag forth therela diatinetly and eperifirally hle grounds of objection thereto, and whali, withlu thirty days ufter the dote of auch decision, appeal therefrom to the Sre. retary of the Treasury, whone decislun on auch a ppeal alaill be flaal and conclusivo; and thu rald goode, warce, and murchandino ahali be liable to duty or exeupted therefrom accoriling. ly, any act of toagrims to the contrary not eithatandlug, unleas enlt whall be brought whithis thirty dayn after wuch decixdon for any dutlea that may have been pald or may luerenfer be pald on anid gooln, or within thirty days aftur the duties shall have been pald, In easee where anch grods ahali to in loud.


Ne it ena fed ty the Senate and House of Reprenentarimen of the Cinited Statea of Americt, in Congreas asarmbled, 'That the ablitt, aretion of the aet approved July 35,1946 , nad ca . thtient "In aet reduring the duty on imports, and for other purpoman," be emendell an follown:
tre. ". And te it fitither encited, That it whall be lawful fur tho orner, conaignee, or agent of imports whlch have been actually parchaned or procured otherwiso than by pinchase. on entry of the same, to make auch addition in the entry to the oowt or value given in the isvilec an, in him oplation, nay ralso the name to the true market value of nach lmpurts In the prinelpai nuarketa of the evintry whence the fimportanton alinil] have been made; and to adt thereto all costa nod chargor whleh, under exlotiog lawe, would form part of the trie value at the port where the asme may be cutered, upon whell the duthen honuld be aasersed. And It phall lse the duty of the estlector whithin whowe diarict tho samo may be Imparted or entered to eaneo the duthablo value of murla fimporta to be ap. pralsed, entimated, and aeerrtalined, in accorilatice wh the provishuas of eslating lawn; and if the apprabed value thereof shall eseaed by 10 per cent. of more the valuer no declared on the entry, then, in addition to the dutiow himpoed by law on the naine, then shall be levied collected, and patil, a duty of 2n ger cent. ad ralorem on such appraised value: Phorided, neverthelens, That under no cireumataneva shall the duty be assemed upon an amount lews than the lavolce ur enternd value, any taw of Congrean to the contrary notwithatanding.

Approwed Mareh 3. 1857.

## Aba

| Artiolen. | J466, | [635. | Artiles. | 1966 | [1615 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abaysthe; see Con | $\begin{gathered} \text { Portcont } \\ 100 \end{gathered}$ | $\text { Por }{ }_{00}$ | Herley, pearl or halled; see Prarl or IIull. | Pat Cont. | Per Comat. |
| Acetle meld; aee Acden, acetle, | 20 | 4 | ed Barley. | 90 | 16 |
| Acetous Acldi nec Acid, acefoue, pte. | 80 | 15 | Rark, iren; aeo | 30 | 24 |
| Acids of svary deseription used for |  |  | liarr, ateel; see Stael in Dava | 15 | 18 |
| lcal or for manafactariag purposea, nol otherwhe provided for | 90 | 4 | Itare, braen i meen Brase in llars, copper: nee Copper | $\mathbf{5}$ |  |
| Aelda of every deserlption uned for medio- | 20 | 4 | lar, tin; mee Tin in P | 8 | Free. |
| inal purposes or in the fine arts, nol olh. erwles provided for | 90 | 15 | Baryles, zulphate of: see Sulphate of Darytea. | 80 | 15 |
| Sehl, sulyhurle; see Sulphurio Acid..... | 10 | 4 | llankets, and all other srilclee composed of |  |  |
| Athealve felt, otc. 1 wee Foll, adh | Free. | Free. | e, |  |  |
| Atabanter statuary, etc., for nae of collegen, cte ; mee I'hifomophical Apparatus, etc. | Free. | Free. | or wlllow, not otherwhe provided for | $\begin{aligned} & 30 \\ & 80 \end{aligned}$ | 44 |
| Alabanter and apar ornameuta. . . . . . . . . . | 40 | 80 |  |  |  |
| Alabata; ace Argenfl | 80 | 94 |  | 00 | 4 |
| Aleurnogit | 6 | 4 | leane, Vanilla ; wee Va | 20 | 15 |
| Ale, beer, and porter, | 80 | 94 | Iled-aldea ; see Cary | 30 | 24 |
| Alnionda | 40 | 80 | Jleds, fenther ; nee Floss | 95 | 19 |
| Aloen | 90 | 4 |  | 90 | 15 |
| Alut | 90 | 15 | Heer, in canks or betties | 80 | 24 |
| Amber beads ; see Beada | 30 | 94 | Ileenwax | 20 | 15 |
| Amber |  | 4 | Meila, old and | 5 | Froe. |
| Amburgr |  | 4 | lend leather; nee Lea | 20 | 15 |
| Anmonis | 10 | 8 | 1 mascates | 30 | 84 |
| Amianonta, mil; nee Sal Amm | 10 | 8 | Llensoin, or leajamin, gum ; see Ohm Ben- |  |  |
| Anatto, runceu, or Oricans.. | 10 | 4 |  | 30 |  |
| Anchorlea, mardinea, and all other Bnh prenerved $\ln$ oll | 40 | 80 | Henzote actd; ace Acids, acetic, etc. Berries, vegetahles, sod flowers, not otier- | 20 |  |
| Angura, 'Thilbet, and other goata' hair or nothalr, unmanufactured, not otherwiwe provited for | 20 | 15 | wine provided for Berriee, junlper ; ac Berrics, nuth, flowe | $\begin{aligned} & 99 \\ & 20 \end{aligned}$ | 15 |
| nimal carbon; | 20 |  | blea, used exclualvely in dyelag or lo |  |  |
| Aulmal olla ; see Oila, Neat | 80 | 15 | composlng dyea; but no article ahall be |  |  |
| Anlmala, Hving, of | 90 | Free, | classed an anch that has undergone auy |  |  |
| Aubee seed | 90 |  | mantar | 5 | Free |
| Antimony, crime, or regul | 20 | 8 | 1tichromate of potanh; see | 20 | 16 |
| Autlquarlan paper; see Pruper | $B 6$ | 24 | Itimmath | 90 | Free. |
| Authultien, collections of ; aee Philooop at A, maralus, etc. | Free. | Free. | Bitter applea <br> Ifltuminoua anbatances la a crude state; mee | 20 | Free. |
| Anttquitler, collectiona of; see Cabincts of |  |  | Mineral and Dituminous Stube | 20 | 15 |
| Coins, etc. | Free. | Free. | Biack, Fraukfort; afe Prankfort | 20 | $\sigma$ |
| Apparalua for nise of Unlted states; ree |  |  | thack, lvory ; sce Ivory Black | 20 | 15 |
| Booka, Mapa, cte. | Free. | Free. | lilank-looks, bound or unboun | 20 | 15 |
| Apparatua for uae of colleges, etc. ; see Phil- |  |  | Htanketa of all kinda. | 90 | 15 |
| owophical Appar | Free. | 0e. | Bleachlag powder, or chlorid | 10 |  |
| Apparcl ; nee Clothing. ready.m | 30 | 94 | Hlockn, tin; aee Tin in liga, el | 6 | Free. |
| Applea, bitter ; eec bitter App | 20 | Free. | Itloms ; aee Iron in Barn, etc. | 80 | 24 |
| Aralle, Eum; gee Gum Arubio | 10 | 9 | Illue or llomen yltriol, or anlph. of cepper. | 20 | 5 |
| Argent tie, alabata, or German ailver, man- |  |  | Mue, fig; вee Fig Dlue. | 20 | 5 |
| Luactured or unmanufacture | 80 | 24 | Ilue, l'ruadinn; ace Prua | 20 20 |  |
| Arina, flire: ace Mund | 80 |  | Itearde, plankg, staver, lath, scautilig, |  |  |
| . irma, alde; ace Side A | 30 | 24 | apara, hewn aud awed timber, and tim- |  |  |
| Arrack; seo Cordials | 100 | 30 | ber to be used in building | 20 | 15 |
| Arrow-root | 20 | 15 | loeklnga : mee Barizea | 25 |  |
| Arachle | 16 | 4 | Jodlen, hat, of wool; | 20 | 15 |
| Ariclea enhroidered with gold, silver, etc. | 80 | 24 | liologas sausagea. | 30 | 24 |
| Articlea worn by men, women, or chilitren, |  |  | Hholta; see Iron in Bars | 30 |  |
| of whatever materlal composad, made up, |  |  | 1 lelts, ahingle and sta | 20 | ree. |
| or made wbolly or in part by hand | 80 | 24 | 1tolta, copper ; aee Conp | 20 | 15 |
| Arlleles of metal; ace Munufactures | 30 | 24 | Bottlag elotha | 25 | Free. |
| Aricles of leatiter ; mee Mrnufactur | 30 | 84 | Ronu, manufactures of; see Manufactures |  |  |
| Artiples of marble; see Manu | 80 | 24 | of hone . . . . . . . . . . . . . . . . . . . . . . . . . | 80 | 24 |
| Articted of glann ; see Mannfoctur | 30 | 84 | nose black | 90 | Free. |
| Artleles of papler-mach'; nee Manufaetures | 80 | 24 | hone-diu | 20 | re |
| Articles, all, Importel for the use of L'nited States; aee Jookin, Maps, etc. | Free. | Free. | lones and bone tlpa, unmanufactured; aee Horn and Horn Tipe $\qquad$ | 6 |  |
| Artiflem not in a crude atate, uaed in dyelog or tanning, not otherwtae provided for | 20 | 4 | 1boacs, burned bonnete, flats, braldn, etc., used for mak. | 20 | ree. |
| Arttelea in a crude atate, uned ln dyelng or |  |  | lug ; bee Flats, | 80 | 24 |
| tunring, not otherwise provi | 5 | ree. | 1 lonnets composed of certain materials ; aee |  |  |
| Arthlilal flowers or frathers ; mee Feathers | 80 | 24 | Hats and lonne | 30 | 24 |
| Abh, roda ; wes Soda-ash | 10 | 4 | Bookn, mapa, and charta, imported by au. |  |  |
| Asphaltulu. | 20 20 |  | therlty of the jeint llbrary commlttee of |  |  |
| Asacat $\mathrm{k} \mathbf{k} \mathbf{l a}$ | 30 | 24 | Congrena | Frec. | re |
| Allbuson carpeting | ค\% | 24 | Booka, maps, and clista, mathematlcal end |  |  |
| Maron | 20 | 15 | nautical Instruments, phllosopbleal appa- |  |  |
| Matzes, bocklngn, flannela, and floor-elotha, of whatever material componed, not oth. crwine provileal for | 25 | 10 | ratua, and all other arteles whatever, Imported for the use of the United 8tatea. nooky an peramal effects of permona arriving | Frce. | Free. |
| Malaams, conmetles, essencen, extracts, perfumea, pasten, and llactures. | 90 | 24 | In the Lilted States; see Wearing Ap. parel | Frec. | rec. |
| Hananas | 24 | 8 | Books apecially impurted for aocietles; ser |  |  |
| larhary gl | 10 | 8 | Phf fosophicul ipparatus ............ | Free. | ree |
| Itarllia .... .......................... | 10 | 4 |  |  |  |
| lark of the cork-tree, manufactures of ; aee Manifacturen | 30 | 24 | Natural Jistory Bookn, blank; seo Dlank Boo | Frec. | $\begin{array}{r} \text { Free } \\ 15 \end{array}$ |
| Hark of the cork-tree, unmanafacture |  |  | Hooks, printed, magazines, pamphiets, and |  |  |
| cork-tree | 15 | 8 | riodicate, iluatrated newapapers, bound |  |  |
| larkz of all kinda not otherwlse provided for | 20 | 8 | . | 10 | 8 |
| lark | 15 | Free. | Booka la ceurse of prioting and republica- |  |  |
| liart, Quilla | 15 | 18 | tlon ; see Prriodicals.......... | $\begin{aligned} & 20 \\ & 80 \end{aligned}$ | 15 |
| Barley . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 20 | 15 | Boracic acld; see Acids, acetic, e | $20$ |  |

Intifid Gtatis' Tasify:-Continued.

,omet, hraids, chaina, enrla, or ringlets, component part
Braces, attependers, webbing or other fabrica, componed wholly or in part of Indla rubber, not otherwise provided for
Bralds, of halr ; aeo Eraopleta
Bralds, for making hatil or bonnetim ; vee
Flata, Braids, ete. ........................
Braidn, cotton; nee Cbtton Laces, etc.
Brandy, and other opirite dintilled from
graln or other materials
Brams manufacturea of ; sex Minnufactures of Brates.
Brees, in bark or pigy.
Bram, old, and fit only to be remannfact ${ }^{\circ} \mathrm{d}$
Braslen' copper: see Copper in Sheets, etc.
Bracll parte
Iraall-wood, liraxilletto, and all dye-wood in aticks
Bricks; seo Maring and Roofing Tilè, ete. Jirimstone, roll; :e Roll Arimatone.
Brimetono, erude, in bulk
Irintles.
Brad wlodow glakt ; eee Findots Glass.
Bronae liquor
Bronse powder.
Bronze, caste of; see Philomphical Aypanatus, cte.
Bronne, metal, in leaf; see Mefals, ioutch. etc.
Itrooms and brushe of all kinde.
Hrtshes

Buds, rensle ; mos Casois Treds
luilding atoney.
Hulbe ; sce Treea, NArube, etc.
Indllon, gold add filver.
Imrgundy ; ace Wimes
Itargundy pitch.
Itarned starch; see Gum subortitute
Harr atonce, wrought or unwronght, but unmanonfactured
Iusta; sce Philowophical Ajparafua, ete.
Itntter
Ifutwon and huiton-moolds of ail kinds.
Cablset and household furalture.
Cablnete of coins, medals, getas, and ail coilections of antiquilien
Cables and cordage, tarred or intarred
Cadmium
Cake, sntron; see sherron and Sajron Cake Calamine.
Calomel and all other merenrial prepara tone
Cameon, real and imitation ; and moealen real and imitation, when aet in gold, sil. ver, or other metai
Cameos and monaice not set.
Cameon and moesics, Imitatlons thereof, not met.
Camphor, retiond.
Camphor, ernule.
Candlew, aprermacetl; see Apermarefi Can dica.
Candlew, stenrin; see Efentin Clandles
Candlex, tallow; see Tallowe Crndles.
Candlow, wax; wee Waz Candlen
Canca and ailck for waiking, thiohed or unfiniahed
 otherwine provided for.
Cops, hats, muff, and tippets of fur, and all c ther malufinctures of fur, or of which fur nhall be a component miterial
Capm, gioves, legising, mita, wocke, etock. fige, wove shifts and drewer, and all almilar articion made on frames, worn by mpn, women, or childrea, and not other wise provided for
Cepr, gloves, leguina, mita, moekn, etockinge wove shirta anil drawerw, niade on framus, compuned wholly of evelton


| Per Cenh | $\frac{\text { isst. }}{\text { Pat Cent. }}$ |
| :---: | :---: |
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| 80 | 24 |
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| 90 | Free. |
| 80 | i 24 |
| \% 0 | 124 |
| - | 1 |
| 30 | 24 |
| 80 | 24 |
| 4 | 4 |
| 20 | 4 |
| 80 | 24 |
| 80 | 24 |
| 15 | 12 |
| 80 | 9 |
| 80 | 15 |
| 20 | 15 |

L'yifrd Btatis' Tarifys-Continued.

## Article.

Collectlons of antlquities ; ase Philosophic at Apparauks, etc. . ....................... Coins, etc.
colored plass; nee rilaks, colored Colored gater; ree Water Colore
Combs of all kinde
combs of all kinas ...........................
Comftt, awcetmeats, or frult, preserved io mugar, brandy, or molassen....
Common naddlery; nee Saddlery
Commou saddlery; see saddlery …....... Composition tops
cles of furniture............
Compesition beada ; see Beadis.
Compsiltion beadd ; see Beads. .............
Comporition of glase or paste, when set .
Composition of glass or paste, not set .
Confectlonery of all kinds, not otherwise previted for

Gums
Copper articles, veseele, and warea; se Coper artures
Copper bottoms
Copper roilt, bolta, nalla, and spikes.
Copper is sheets or plates, called bragior
copprir and other thents of copper no coppre
Copperas, or green vitriol, or sulph. of iron
Copper, in plgs or bara....................
Copper, when old, and fit only to be reman ofactured.
Copper, when imported for the $\mathbf{U}$. $\mathbf{B}_{\text {. Mint. }}$

Copper colna ; nes Corma
Coral, eut or manufactured
Coral, marine ; see Mitrine Coml, tinman ufictured.
Corthe, cables and cordige. uchenwasser, liquesra, marasehino, ratafia, end ell other plittnowa boverages of a almillar claracter..........
Cords, cotton; sco Cotton Cords
Corks
vork-tree Brı ; нee Manufactures of the Bark of the Cork-tree.
Cork-tree bark
Corn, Indlan; pee Indian Corn
Corn meal, Indian ; nee Indian Corn and Meal
Cosnetics ; see Balsams, Cosmetics, etc. .
Cotton.
Cotton corde, gimpa, and galloons
Cotton, hat bodles of; soe Hat Bodies of Cotton. .
Cotton, enbroldered; ; но Manufactures of Cotton, etc., embroidered.
Cotton, all manufaetnres of, blenched, printed, peinted, or dyed ; see Minufac-
Cotton lacea, cotton innertinga, ootton trimmlag lacea, cotton Incen and bralda....
Then heached, printed, painted, or dyed
Cotton, manufactures of, not otherwiee pro vilted for; see Manufactures of Cotton not athervise provided far.
Cotton, artiolen of, made on frames; gee Caps, Gloven, etc.
-when bleached, printed, painted, or dyed Cotton and sllk, hatters' plush ; ace Hattern IMush.
Cotton velvet lin the plece, composed wholly of cotton; nue belvet in tha Fiece, ete -when bleached, printed, ralnted, or dyed Ctton and alik yeivet in we piece, cotton of ehlef value; nee Velvet in the riece compused of Cotton and Silk, oto.
Court-phaster
'rackern, fire: hoe Fire-crackers
Crayons of all kluds
ream of tartar .......
(rown window glase t nee Hindow Gilans.
rule tartar; seo Arpol
ㅈ…..............
tide articlea for dyeling etc, ; aee Article ryatnis for watches ; see Glans Crystals . Cubebs.
cudher
t'ulm of roal ; neo Coke
Curacoa ; see Cordials
Curla of halr: me Frmectets.
Curled halr for beds ; see Hair, curranta.
Cuilery of sill xiuds
Cutell
Cyllnder window gtann ; se Windou Qlite
Darning needles; sec Needles of etll hinds

## $\frac{1846 .}{\text { Per Cent. }}$

Free.
Tree.
80
80
liree.
80
30

## $\frac{1857 .}{\text { Per Cent. }}$

| Articlea. | 1886. | 1857. |
| :---: | :---: | :---: |
|  | $\begin{gathered} \overline{\text { Par Cent. }} \\ 40 \end{gathered}$ | $\begin{array}{\|c} \hline \text { Por Cent } \\ 8 \end{array}$ |
| Demy paper ; вee Iaper, demiv, etc | 30 | 24 |
| Decoctious of logwood, ete. ; see Exitracta and Decoctions. | 20 | 4 |
|  | 25 | 24 |
| Diamonds, gems, pearla, rublea, and other preclous itones, and imitatione of preclous stonen, when set in gold, sllver, or other metal | + 30 | 24 |
| Diamonds, cameos, mosalcs, gems, pearis, rubles, and other preclons etones, when not set. | 10 |  |
| Dlamonds, carncos, moeales, gems, pearls, rubles, and other preolones stones, imita- |  |  |
| tlons thereef, not set.................... | 10 | 8 |
| Diamonde, glazlers', get or n | 15 | 12 |
| 1 olls, and toye of all kinds. | 80 | 24 |
| Howns of all kinds ; ece Floss Silk | 25 | 19 |
| Uragon'soblood. | 15 | Free. |
| Drawers wove on frames; see Caps, Gloves, etc. | 80 | 24 |
| Drawers wove on frames, wholly of ootton ; nee Caps, Gloves, etc. | 80 | 15 |
| Drawers, when bleached, printed, palnted, or dyed. | 20 | 24 |
| Drawlog paper ; see Ptaper, demy, ete. | 30 | 24 |
| Irawlo ss ; sce Philosoph. Apparatue, etc. | Free. | Free. |
| Dressed and tanued sklas; see Skins, tanned, etc. | 20 | 15 |
| Drled pulp... | 20 | 15 |
| 1ried fish; nee Fish, foreig | 20 | 15 |
| Drugs, medloldal ; nee Medicinat Drugs. | 80 | 15 |
| Duteh metal, In leaf; see Metal, Dutch, eto. | 20 | 15 |
| Wye-weode, extracts and decoctlons of; see Exiracts and Decoctions | 20 | 4 |
| Dye-woods ln atleks ; mee Brazil-wood, etc. | 5 | Free. |
| tye, lac ; see Lac Dy/ .................... | 5 |  |
| Dyelng, artieles used for, not in a crude |  |  |

Free.

Free.

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24
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\begin{array}{r}
15  \tag{30}\\
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8
\end{array}
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${ }^{8} 8$
Free.

Free.

| Free. |
| :---: |
| 80 |

Elephart paper ; see Ptper, demy, etc.... Embroideries of gold, elliver, etc, ; nee Articles embroidered, atc.
Embroldered manufactures of cotton, silik wool, worvted; see Manufactures of Cotcon, etc., embroitered.
Emery, In lump or palverized
Eingraviage or plates, bound or unbound. Euvelopes, paper ; sse Inper Envalopes. Kpauleta, galleens, laces, kDots, ztarn, tas sela, tresese, and wing of gold, allver, or F.ppom ralts; see Salls, Kpwom, etc...... l:ssentlal olla ; ace Oilm, volatile, etc. ..... Vitelilugs ; see 1hilosoph. Apparatus, ete. Beher..
Fxpreened olls ; see Oils, volatile, eto....
Extracta ; see Balaums
Ixtract of indigo.
Extracte and decoctions of logwood and oth
er dye-weedr, not otherwise provided for
Exiract of mather: ..........................
Falirles wholly or in pari of Indla rabber нeo Braces, etc.
Faney loxea; see Payer Boxes.
Fans and firc-acreens of every deacription,
Festhern and flowers, artificial or orna-
eather, and flowers, arlificial or orna-
mental, and path thereof, of whatuver material composed.
Feather-lwas; nee Floes Silks, etc.
Feathers for bein ; aee F'lows Silks, etc....
verldapar. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
Felt, adhesive, for sheathing vessels .....

Unitad Statas' Tarifts-Continued.


Flre-arma; eee Musivets, atc.
Fire-crackers
FYre-sereens: …….....................
Fire-screena; see Fans and Firescreens
Fire-wood; see wood, unmanty actured
Fith, preserved in onf see Anchovies.
ish, forelign, whether freah, amoked, salted, dried, or plekied, not otherwise provided for.
Fish glae, or isinglase
Flah aklne
Fish olta; see Öils, neal's fool, etc.
Flaga, matting, or mate of; see Matting China, etc.
F7nnels; see Baizes, otc.
Flata, hralda, plaite, sparterre and willow equares, used for making hats or bonnet
Flax, manufactures of; see Manufartures of Mlax etc.
Flax, nomanufactured.
Flax, tow of ; see Codilla
Flax-seed.
Flints.
Flint, ground
Ftoor-clothn; nee Raizes, cto
Toor matting aee Matting, Chinc........
Floss sliks, feather-beds, feathers for beda, and downa of all kinds.
Flour, whent; see Hheat and Wheat Fiour
Mour, rye ; mee Itye ani Rye F'lour.
Mour of sulphur
Flowers ; see Fauthern anil Fioosers.
Flowers, used exclusively in dyoing, otc. tee bervies, Nute, etc.
Flowers not otherwise provided for; ace Berries, Vequtableas, eto.
Foolscap paper ; see Paper, deny, etc
Framea and aticks for urubreltan, paranota and nun-shades, finimbed or unfulished.
Frankfort hisek.
Frenoh chalk.

Frelt prep aee
lasace preserved in augar, hrandy, or mo
lasees; wee Comyila
Frult, green, rlpe, or drled
Fullcrs' earth
Fulminaten, or fulminaling powdo.............
Furnitiare, cabinet and household.
Furnlture ; ee Conprowition Table-iop.
Fur manufmetures ; mee Cape, IIata, Muje and Tippets of F'ur.
Fur caps; see Capa, ete, of Fur
Fura, drosed, ou the aktn
Furs, hattera', drezeed or undremed, not on the skin
Fnre, undresed, when on the skin Gialloons, fold, altver, etc. ; see Epaulets. Galloone, cotton; me Cotton Curde, ctc.
Galvanized the platea; see Tin Platen, gat ranized.
Gambore
(isme, prepared; see I'requared Fëgetabies, Meats, etc.
Giarden meeds, and aill other reede for agri. cuitural, horticuttur medlelnal, and manufacturiog purpo. . not otherwine provided for
tielatlo; nee Mamroni, ctc.
(iemls, set ; me DKamonds, etc., sef
(iems; ere Philosophiral Ayparntus, cte. Clems, not set; wee Cameos, etc., not set. .
Gems, Imitations of, wot net; ;ee Dhamond, etc.
(ierman ollver; ;ee Ampentine
German atcet; see Steel in Bara, etc.
till ware; nee I hated and Gilt Hare
Gilmpa, cotton: we Cotton Cerdn, etc
Ginger, ground
filuger, dried, green, ripe, prewerved, or piekied.
tilann, cut.
Cilans, cotorivl, atained, or painted
ti lama erystals for watchen
Ginsent or pebbles for akmactea .
cilara tumblers, plais, moouldef, or preaned, not eut or punted.
Glase, painting on; nee frintinga on chlams.
Ginem, porcelala; wes Itorediin Glass..
(ilase, compraltiona of, eet; see Compoad tions of Glase or /trete, when aef.
(ilane, compoitlons of, not net ; nee Composttions of Alase or Jtuate, wis net.
;iass, window : mee Windone Glane
Ginas, when old, and fit only to be remanufectured

| 84. | $\underline{1857 .}$ |
| :---: | :---: |
| $\begin{aligned} & \text { Por Cent } \\ & 20 \end{aligned}$ | $\begin{gathered} \text { Per Cent. } \\ 15 \end{gathered}$ |
| B0 | 94 |
| 30 | 24 |
| 80 | 24 |
| 80 | 24 |
| 40 | 80 |


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| :---: | :---: | :---: | :---: | :---: |
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Ukigid Statis' Tarifts - Continuad.

| Artielea. | 1846. | 1857. |
| :---: | :---: | :---: |
| Gtazlera' dimmonda, set or not net ; seo Diamond", glaziers | Por Cent. 15 | Por Cent |
| Glanber salte ; see Salle, dyeom, | 20 |  |
| Gloves made on frames; eee Caps, Gloves, etc., made on Frames. | 80 | 24 |
| Gloves, wholly of cotton, made on framen ; see Caps, Gloves, etc., made on Frames. | 20 | 15 |
| Glovea, when bleached, printed, painted, or dyed. | 80 | 24 |
| Glue | 20 |  |
| Glue, fish. . . . . . . . . . . . . . . . . . . . . . . . . | 20 | 5 |
| Goata' halr, manufactures of ; nee Manufartures of Goats' Jaif, ctc. | 25 | 10 |
| Goata' hair, unmanufactured ; see Angora, Thibet, and other Goats' Ilair. | 90 | 15 |
| Gold embrolderles; see Articles embroidered with Gold | 80 | 24 |
| Gold, manufactures of ; вes Manufactures of Brass, etc. | 80 | 24 |
| Gold coln ; eee Cor | ee. | Free. |
| Gold and sllver | 15 |  |
|  | 10 |  |
| Gooda, wares, and merchandise, the growth, produce, or manufacture of the 1 . States, exported to a forelgn esuntry, and brought beck to the U. 8, In the same conditlon at when exported, apon which no drawbeck or bounty has been allowed, provided that all regulations to ascertaln the Identity thereof, preacribed hy existtag lawa, or which may be preacribed hy tho secre. tary of the Treasury, nhall be complled with. $\qquad$ | Free. | Free. |
| Granadilla wood, manufactures of; wee Manufactures of Cedar-teood, etc. ...... | 40 | 30 |
| Granaillia wood, unmannfactured: nee Wiods, ote. | 90 |  |
| Grapen | 30 | 8 |
| Graes bonnete ; see IIata and Bonneta composed of Stranc, etc. | 30 | 4 |
| Grase baskets ; meo Daskets, etc., composed $\vartheta$ Grase, otc. |  | 4 |
| Grase | 25 | 19 |
| (irane, Sieal ; see Jute, etc, rnmutnufarl'd | 25 | 10 |
| Grasa mats and matting; bee Matting, China, etc. | 25 | 18 |
| Greane; | 10 |  |
| Grcen vitriol; seo | 20 | 15 |
| Green tur | 20 | 15 |
| Griudat | 5 |  |
| G romad plater of l'aris ; see Plant. of Itarie | 20 | 15 |
| Gum benkoln, or lienjamin | 30 | 8 |
| Gunte, Arabic, liarhary, copal, East Indla, soncgal, subetitute, tragacanth, and alt other gums and reains to a crude state. . | 10 |  |
| Guano. | Free. | Free. |
| (iunny clo | 20 | 15 |
| Giunpow | 90 | 15 |
| Ciuta percha, una | 20 |  |
| Ilalr, human, etcanned or prepared for une | ${ }^{3}$ | 24 |
| liair of all klnda, uncleaned and vamanit. factured | 10 | 8 |
| liair, goata', unmanufactored; nee Angora, Thibet, and other Goatn' IIair. . | 20 | 15 |
| Hair of the alpaca, the goal, and uther tike animain, in certain conditiona; see llool | 20 | Free. |
| liair, curled, mons, nee-weed, and all other vegetable eubstances used for beds or mattressea | 20 | 15 |
| llair-cloth, hair seatlug, and all other manufacturen of hair not otherwise provided for $\qquad$ | 25 | 10 |
| Hair, hats, etc., of: see llats and Bonnets of Straie, Ilair, etc. | 30 | 24 |
| llair p | 30 | 24 |
| llalr be | 25 | 19 |
| llam | 20 | 15 |
| llarnesa furniture ; see Coarh fiurnin | 30 | 94 |
| Ilata ; mere Hats amd Bonnets, etc.. | 80 | 24 |
| llata, flate, bralia for making; ree Flufs, etc. | 30 | 24 |
| Jlat bolliom of cotton | 80 | 4 |
| diata and bonneth, for nueh, wemen, and chilidren, eomposed of atraw, satlu-stran, chip, grase, julin-licaf, willow, or any other vegetablo subetance, or of halr, whatebone, or other material, not otherwine grovided for. | 10 | 4 |
| llath of wool | 96 | 15 |
| Ilat bodles, tande of wool, or of which wool whall be a component material of edilef value. . | 20 | 15 |
| listtern' pinah, componed of alik and cotton, but of which eotton in the composent material of chief vaine. . <br> Ilearth rugs ; see Carpete. .................... | $\begin{aligned} & 24 \\ & 80 \end{aligned}$ | 15 |

Unitm Statiso Takiffs-Continued.

|  |
| :---: |
| Ilemp <br> llemp |
|  |
| Ilemp |
|  |  |
|  |
| Ilides, and |
| lloney |
| $\begin{aligned} & 110 r n \\ & \text { of } h \end{aligned}$ |
| IIOrns teet |
|  |  |
|  |
| House |
| $1{ }^{3}$ |
| for |
|  |  |
|  |
|  |

1lulled barley ; ece Pearl or Ifulled Barley
lluman hair, cleansed or prepared for use
Ilydrlodate of potash; sie0 Chromate, Bi-
chromate, ete.
Ice...
Illustrated newspapern; nee Books, etc.
Imitstions of wines; see Wines
Imitallons of cameon or mosalica, set; see
Canteos, etc., Act.

monds, etc, set. . ......................
mitatlons of jeweiry ; see Jaceiry . . . . . .
mitations of cameos and mossica, not set nee Canteos and Moxtics, mitations of,
Itultations of diamonde, geme, etc, not aot see Diamonia, imitations of, etc., not set Imitatlone of jet; aee $\sqrt{ }$ Jel and manufact. of Imperlal paper; aee Paper, antiquarian,
 India mibher shoes; eee Shoes wholly of India Ribber
Indle rubber, in bottles, slebs, or sheeta, nnmanufactured
Indla rubber, milk of
Indisa corn and corn meal
Indlgo, extract of ; see Eixtract of Indig.
adigo, extract oi; see sxeract of indigo.
Ingigo. . . . . . . . . . . . . . . . . . . .
Ink sud ink powder
Insertlings, cotton; see Cotton Insertings. Insertlngg, thread; aee Thread Laces, etc. Instrumente, musical ; see Musical Instre-
ments.
I pecacuanhs.
lrldium
Iria, or orrin root.
Jron In bern, bloom, boits, loope, pigs, rode, elals, or other form, not otherwite provilied for
Iron csatligs; see Castinga of Iron
Iron, old or serap; see Old or Serap Iron.
Iron, vessela of, cast; seo Vessels of Cast Iron.
Iron, manufactures of; mee Manufactures of Brass, ete.
I ron, sulphate of ; ace Cogperas, ete.
Iron Ilquor
Islaglass ; see F'ish Glue.
I vory, manufaetures of; wee Manufaetures of Bone, etc. ................................
vory, vegetable, maninfactures of; sec
Ivory, vegetable, mannfactures of; sec Mrmufactures af Bone, etc.
I vory-black.
Ivory, untanufacturod.
I vory nuts, or vegetable Ivory.
Jalsp.
Japauned ware of all kinda, not otlierwiso provided for
Japanned saddlery; Bee Saddlery, comimon, etc.
Japanned lenther or akina of all kinda..
Jeddo ghm ; see Gram Arabic.
Jeddo ghm ; see Gtm
Jellies; nee Mandroni.
Jet, and msnufertures of jet, and imitationa thereof.
Jeweiry, real or imitation.
Julce, licoriec ; see Licorioe Punte, ete
Julce, lemon or Ilme; tee L.emon and Linue Jutee.
Jualper berries.
Jonk, old.
Jute, Sital grass, colr, and othor vegetabie sinbstancep, unmatinfactured, not otherwise providod for.


| 1857. |
| :---: |
| Par Cont. |
| 94 |
| 15 |
| 12 |
| 8 |
| 15 |
| 24 |
| 24 |
| 24 |
| 4 |
| 24 |

Cinttid Etayk' Tabiffu-Continued.

## TAR

Unitid Stateq' Tabrypa-Continued.

Manufactures of thu bark of the cork-tree,
Manufactures of tius bark of the cork-tree,
exeept corks . ............................. Manufactures of bone, sheil, horn, peari, ivory, or vegetable ivory.
Manciactures, articlem, veseela, and wre. not otherwiso provided fur, of brase, copper, gold, iron, lead, pewter, piatina, aft. ver, tin, or other metal, or of which etther of those metala or any other motai shall bo the component material of chief value Manufactures composed wholly of cotton. bleached, printed, painted, or dyed..
Manufactures of cotton, Hace, allk, wool or worated, if embroidered or tamboured in the loom or otherwise, by machinery or with the needle or other process. .....
lenufuctures, articies, vessela, and ware of glass, or of which glase shall be a com ponent nuaterial, not otherwiso provided
Manufactures and articles of leather, or of which ieather thall bo a component part, pot otherwise provided for
tannfactures and articien of mari....... ble paving tiles. and all orror moro advanced ?n mall other marble labus or hlocks in the rongh
Janufactures of paper, or of which ...... is a component material, not papor provided for pier-maches unatures of wood, or of whleh wood is a component part, not otherwiee provided
stanufactures of wool, or of which woo shall be the component material of ehlef value, not otherwise provided for.
Mannfactures of halr ; see llair-cloth, Hair Seating, etc.
Manufactures of fur ; see Chpo. Mate, Müfs. and THypets of PYir, etc.
Manufactures composed wholiy of cotton, not otherwise provided for
Manufactures of goate' halr or mohair, or of which goats 'hair or mohaie shali be a component material, not otherwise provided for
Manufacturen of silik, or of which silik ahail be a component material, not otherw lae provided for
Manufaeturee of wonted, or of which wornted shall be a component material, not otherwlee provided for.
Manufacturee of flax, not othervise provided for.
Manufactures of bemp, not otherwlee proded for
Yanufectures of mohair coo. $\quad$ iii........ cther manufacture of eluth suitalile for the manufacture of shoee, cut in olfps or patterne of the siac and shape for shoes, Ellppers, bootr, bootecs, galiers, or buttons, exclualvely, pot comhined with India rubber
Sanufactures of lasitingn suitailio for shoex boots, boutees, or buttons, exclusively; pee Lastinye.
Manures or mubntances expressly used for
Maps and eharts
Maramehino ; wee Cordinis
Marble, manufactures of; see Manufacture of Marble.
Marble paving tile; mee Nanưacturen of Marbí.
Marthe in the rough alab or block, unmannfactured.
Marine corni, unmanufactured
Marrow ; see Tullowe, Marrene, etc...........
Matting, thina, and other floor matting and mate, nurde of flags, jute, or grase..
Meal, Judion eorn ; mee Indian Kern..
Mente, prepared; wee Imparv! Vegetabiee, Meats, etc.

Medicinal preparation, not otherwive provided for
Medicinal druge, roote, and lewee, in a crude state, Lot otherwine provided for.
Mercurial preparationa ; mee Calomel
Metal embrolderies; see Artictes embritil. ened
Metale, manufacturee of; see Manui.......... of trimes. etc
Motsle, aliver plated; wee Soliver. $\boldsymbol{\text { pulated }}$ Mefala.

| 1846. |
| ---: |
| Por Coon |
| 80 |
| 80 |
|  |
| 80 |
| 80 |
| 80 |
| 80 |

$\frac{1857 .}{\text { Par Cent. }}$
94
24

24
94

| Artielen. | 1846. | 51. |
| :---: | :---: | :---: |
| M | $\left\|\begin{array}{c} \hline \text { Par Cont. } \\ 20 \end{array}\right\|$ | Per Cent. |
| Metala, unmanufactured, not otherwise pro- |  |  |
|  | 20 | 15 |
|  | 20 30 | 15 |
| Mineral | 30 30 | 24 |
| Mineral and bituminous nubetances, in a crudo atate, not otherwise provided for. . | 20 | 15 |
| Mineral kermes . . . . . . . . . . . . . . . . . . . . | 15 | 12 |
| Minerais; see speciniens of Matural history | Free. | Free |
| Mits made on frames ; bee Cape, Glovers, etc. | 80 | , |
| Iite mado on frames, when wholly of cotton ; ace Caps, Gloves, etc. | 20 | 16 |
| When bleaehed, printed, painted, or dyed | 20 | 34 |
| Modele of inventions and nther improve- nienta in the arts, provided that no apticie or articles shall be deemed a model or improvement which can be fitted fur ues. | e. | ree. |
| Mohair and alik twist; see Silk Theied, etc. | 30 | 8.4 |
| Mohair, manufactures of; дee Manufuctures af Goata' Hair etc. |  |  |
| Mol | 30 | 9 |
| Mordmat, patent; see frtent | 20 |  |
| Monsies, real and imitations, when aet; nee Cameos, etc. | 30 | 4 |
| Mosaics, not set; see Cameon, etc, not set. | 10 | 4 |
| Mosalcs, Imitations of, not act ; see Diamonds, etc., not net. | 10 | 8 |
| Moes for beds or mattresses; ;ee Ilair, curied, etc. | 20 |  |
| Moulde, button; eee Button and Button |  |  |
| Muffr ; nee Caps, Mate, Muff, etc.,....... | 31) |  |
| Muriatio acid; see Acids, ace | 20 |  |
| Sualical lnatrumenta of all kinda, and atring for mudical inatrumente, of whipgut, entgut, and ali other atringe of the samo materiai. | 20 | 15 |
| Musie, printed with Ines, bound or un. bound | 10 |  |
| Mueketa, riflen, and other fire-armu........ | 80 | 4 |
| Nisila, coprer ; nee Copper llod | 20 | 15 |
| Natron. | 10 | 8 |
| Natural history, apecimens of; seo specemens, ete. | Free. |  |
| Neat*s-foot oll ; aee Oils, Neat ${ }_{\text {s-foot, }}$ | 20 | 15 |
| Needlea of all kinds, for mewing, darning, or knitting. | 20 | 15 |
| Newspapers, illuatrated ; aco Looks, etc. .. | 10 |  |
| Nick | 6 |  |
| Nitrate of | 20 | 15 |
| Nitrate of soda, refined, etc. ; ece Saltpetre, refined, etc. | 10 | 9 |
| Nitrate of soda, when crude ; see Saltpetre, rhelt crude |  |  |
| Niltrio acid; see Acide, ncetoun, etc........ | 20 |  |
| Nintmegs | 40 |  |
| Nuta, not otherwiue provid | 30 | 2 |
| Nuta, cocos ; вee Crcoa-nuts............... | 20 |  |
| Nats used excluaively in dyeing, ete. ; see Bervies. Nute, ete. |  | Free. |
| Nuta, jvory ; вec livry Ituts. . . . . . . . . . . . . | 5 |  |
| Nut-gaile | 5 | Free. |
| Nux vous | 10 |  |
| Oak | Free. | Free. |
| Onto | 20 | 15 |
| Ochrea and oelirey eartha. ................ | 80 | 15 |
| Oll-eloth of every deecription, of whatever material composed. | 30 | 24 |
| Oils, volatile, eseential, or exprosed, and not otherwiee provided for | 30 | 4 |
| OH, castor ; see Cator Ot ............... | 20 | 15 |
| OII, rpermaceti, whale, and other finh, of American fisheries, and all othrr articien. the produce of nuch fisherien . $\qquad$ | Free. | Ftee. |
| Olla, hemp-sced, linseed, rape-seed, and ail other ofla used in painting; wee Hemp. med Oil, etc. | 20 | 15 |
| Olis, neat's-foot, and other animal oll, apermacett, whale, and other fish oll, the produce of forelgn fisherien. | 90 | 15 |
| ohn, paim, seal, and cocon-nut. | 10 | 4 |
| Oill of vitriol ; sees Sulphuric Acia | 10 | 4 |
| Old or scrap lrun ; mee lrem, odd, et | 30 | 24 |
| Oid pewter; wee treter, shen old | 5 | 4 |
| Olire-oll it caske, other thati anjad ofl .... | 30 | 24 |
| olive eniad oli, and all other olive-oll, not otherw ise provided for. | 80 | 24 |
| Otivet . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 30 | 24 |
| Oplu | 20 | 15 |
| Oranges, lmmons, and ita | 90) | ¢ |
| Orange and lemon peel | 20 | 5 |
| (irleans : dee $A$ ) | 10 | 1 |
| Cornamuntal feathen or flowesn ; mee Feathers. | 80 | 24 |
| Orplment . | 10 | 8 |

Umited Bratwo Tagiffa-Continued.
Orris or Irls root ; eee Iris or Orris Root.

Orler bsakete; see Buskehs composed at Grchen, Ovier, ete..
Osler or wlliow, prepared for basket-makers' use
Oxalic acld; nee Acide, acetic, etc.
Pack-thread see Twines and Pack-thread
luddy; see Rice or Haddy.
l'alntings and statuary
Paintloga on glass.
1'ainted glass; see Gilass, painted
Palate, dry or ground in oll, not otherwise provided for
Iralm leaf, unmsnufactured
Iraim-teaf basketa; see Daukets
Prim-lem l hata; see Mats and Bonnets.
Puim olla; nee Oild, Pulm, etc.
Ismphletw; see Books, printed, etc.
Faper вegars; see Segars, Suuff, etc.
I'aper, nuanufacturea of ; see Manufactures of Paper, etc.
'sper, antlquarlan, demy, drawlag, elephast, footscap imperisl, letter and all phsat, ootscap, imperial, etter, and an
laper boxes, and all other facy boxed...
Iaper envelapee
Japer lianglags
Paper for sereens or firc-boards
Traper, sheathlng; see Sheothing Puper.
l'aper musle, bound or nabound ; see $\dot{J} u$. sic Itsper.
Papler-znachó; see Minvơactures of $\boldsymbol{P a}$ picr-maché.
parcliment.
Itaranols, frames or aticks for; see Frames or Sttcks.
Parasols and sun-shades
Paris white ; gee Whiting or I'tris While.
Paste; sce lialsans
Paste composltions; see Compositions of Glass or Ptaste, when oet
Paste, llcorlce; see Licories fants.
Paste, IrazII ; see Drazil Paste . . . . . . . . . .
Psate compositloas, If not set; see Compositions of Glans or Prate, not net.........
Pastel ; mee Wroad or Pustel
Patent mordant
I'n ving tlies, marbie; aee Manifactures of Marble. .
Paving stonen.
Invlug and roofing tlles and bricks.
Pearls, when set ; see Dianonds, etc, set.
Pearl, manufactires of ; вee Manuftetures of lone, Shell. Pearl, etc. .
Pearl or hulied barley.
learls, not set; see Cameos, Moxaice, Diamonds, Geme, Persls, etc, not set.
Pearls, Imitatlons thereof, not net; see Diamonds, Fearls, etc., imitations thereaf, not wet.
Pearl, mother of
Hebbles for apectacles ; see Glasess on Peb. bles for Spectacles.
J'enclla, halr; see IIair Itncils.
peaclls, lead: see L ead Prencile ..........
Penclth, red-chalk; see Red-chalk Fencila.
Pene, metallic; see Metallic Pens.
lepper.
Perfunes; see Ralormis, etc.
Ierfumed'nonp; zee Sorp, perfurmed.
Periodicals and ather werks in course of printing and republication in the U. S...
Periodicals ; see Booke, printed, ete.......
I'eraohal and household effecta (not mereliandines) of citizens of the United States dying aliroad.
Peruvlas bark; see Dark, Jeruvian . . . . . tures of Branfactures of; aee Mantuac ewter, when old, and fit only to be reman ufactured . . . . . . . . . . . .......................
lckles, eapers, etc. ; вee Caquero, etc.....
lickled fish; see Fish, foreign, whelher fresh, etc...
I'ks, Iros; sea Iron in Bare, etc..
w, lead; seo Lead in 14ige, cce.
J'Les, brans; see Bmos in Bars and Pign.
J'gs, copper ; aeष Copyer in Pigu, etc...
J'ign, thn; see T'in in Pige, stc. .
1'rnento.
1'ine-spules
1'lpee, lesd; see Leaden Pipes, eto.
Pluch
Plteh, lurgundy ; see Z̈urgundi Pitch Isits for bonnets, etc.; see Flats, Braids, IVails, etc. . . . . . . . . . ... . . . . . . . . . . . . . .

## $\stackrel{1}{\mathrm{P} 0}$

 $\frac{18}{P 0 r}$. $\frac{18}{\text { Par }}$

| 1867. |  |
| ---: | ---: |
| Par Cont | - |
| 15 | P1 |
| 24 | 11 |
| 15 | $P$ |
| 4 | $P$ |
| 24 | 1 |
| Free. | $I$ |

United Et:stas Tabirfs-Continued

Unirct Btamas Taniphame Condinued．

## Ringleth of hair ；see Bracelet．

Rode，inon：nee Iron in Bara，etu
Rods，iron；nee Iron in Bard，ett．copper；ses Copper flods，et
Rod，copper ；
oil brimatoa
Roman vitrioi ；see Blise or Roman Vilrio
Romsn censent．

Rooting tilea；nee Finving and Reofing，etc．
Root，Iris or orrls ；see Iris or Orrin fool．
Root，Ileorice；see Licomies Padn，etc．．．．．
Roote，medicinal ；see Medicinal Drugs，etc．
Root，madder；see Madder Root
Roots used excinaively in dyeing；wee Ber－
 tures of Cedar－tivod，ete．
Roes－wood，unmanufictnred t seo Wcode
Rotlen－stone．
Koweon；sю A natio
Rough marble ；see Morble in the rough．
Rubles and Imitations，when aet；see Dia nonde，etc．
Rubles，not net ；see Cameos，eta，nol set．
Rnbles，tultations thereof，not set；see Dia
monds，ete，imitationa thereaf，not nel．．
Ruge ；nee Carpets．
Rye and rye flour
Eaddlery of att kinde，not othervian pro－ vided for．
Saddtery，comnion tinned or japanned
Eaflower．
Raftron and afiron cake
Samo．
Salad oli；see Oilve Salad Öil
Sal ammonla．
Kalmon，proecrved ．．．． whatever name deaignated，not otherwlee whatever ma
saited fish；see $\dot{\text { riah，foreipm，etc．}}$
Saitepetre，or nitrate of soda or potakh，when refined or partially refined．
Saltpetre，or nitrate of soda or potash，when cride．
salt，E．panm，（ilauber，Rochelle，and ail other malts and preparatione of aila，not otherwise provided for
Randlues：see Anchovies．
garsaparitia．
Satia－wood，manofactures of；nce Monu－ farturen of Criar－teood，ela．
gatín－wood，unmanufactured；Bee Hoods．
Eatin strsw hata，bunneta，etc．；see Uaten Bonneln，etc．．．．
Sancen：see Cajrera．
Rarony carpetiog ：see Carput．
Scagitoin tops for tablee，or other articies of furniture
Scanttlog；wee Moardin，etc．
Scrap Iron；pee 1 ron ，old or werep．
Seulpture，spectume of ；seo Thilowoghical App ratue，stc．
gealing－wax
seating，hatr；see Ifatrocloth
gea－weed for heds，mattressem，etc，；nee
Mair，curied，litc．
Beeds；me Garilen Sceads ete．
Beed；lienip－seed，rapreseed；nee Hempr

## dec

Segara，inuff，paper segars，and all other manifactures of tohacco
Senegai gum；see lium A rabir，etc．．．．．．．． Reppin．
Reving siik，in the gum or purtifed
Seving needle：；see sieedles of all dinde
shadducks．．．
Shear ateel；nee Sicel in Bara．
Nleathing pager．
Sheathing copper，hut no copper to be con－ sidered each，and admitted free，except in whects of foriy－elyht lachen long and fourteen laclues wide，and weighing from fourteen to thirty－four onnces the mquare foot
Sheathing mutat，not wholiy or in part of Iron，ungelvanised．
sheathing felt ；see Hrif，adhesive，ctc．．．． Sheep＇wool，on certain conditions ；sue Wioul．
Sheets，iliver－plated nietiol seo Silper－ glated Mefal
shects，enpper：seo Copper in Aheets
Sheete，India rubber；see India liubber． eth
shee $i$ ，lead；ne $\dot{\text { end }}$ in Y igo，etc

| 184. | 1887. |
| :---: | :---: |
| $\begin{gathered} \hline \text { Por Cent. } \\ 80 \end{gathered}$ | Por Cont． |
| 80 | 4 |
| 90 | 15 |
| 90 | 15 |
| 80 | 15 |
| 80 | 15 |
| 80 | 15 |
| 80 | 15 |
| 80 | 15 |
| 90 | 15 |
| 90 | 15 |
| 5 | Free． |
| 5 | Free． |
| 40 | \％1 |
| 80 | ， 8 |
| 10 | 8 |
| 10 | 4 |
| 80 | 16 |
| 80 | 84 |
| 10 | 4 |
| 10 | 8 |
| 8 | 84 |
| 90 | 16 |
| 80 | 24 |
| 20 | 15 |
| 5 | Free． |
| 80 | 15 |
| 80 | 15 |
| 80 | 84 |
| 10 | 8 |
| 80 | 84 |
| 80 | $\mathbf{8}$ |
| 90 | 15 |
| 10 | 8 |
| 5 | 4 |


|  | $\cdots \stackrel{\circ}{\circ}$ | 7\％ | 笑䛚管 | 管名多 |  | 咢 8 | 80 ${ }^{4}$ |
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|  | －${ }^{+0}$ | $\frac{3}{7}$ | －60\％ |  | 40\％ | 09 | 3x ${ }^{2}$ |

## Free．

 Free． Free．

TAR
Unitmd gtaped Tariffi-Condinend.
Spar arnsmonta; see Alabaster and Spar Ormamenta.
Spara; вee Boardo, Planky, ctc............
Sparterre for hats, bonnets, nte. ; eee P'latw, Araids, Spuartoryb, etc. .
Mpectacies, glasses for; see Glasess or Pebblen for Spectantes.
specimens of seuipture; aee Philasophical
Apparatus, etc. . . .................................
Specimons of natural hlstory, mineralory
or botany. . . . . . . . . ..........................
Speiter, unmanufactured; eee Zinc, Spel
ter, nte, tnmanufactured.................
Spernancetl oll ; see Spermaceti, vhale, and other Oils, of A merican fishery.
Spermacetl oli, foreign ; see Near' e-foot, ete.
Spermacetl candtes and tapora
plees of all kinds
Spiken, copper ; ane Copper Roda, etc.
Spirita diatilled from grain; see Brandy.
44 Spirituous beveragea; mee C mdiall ............
44 Spirituous beveragea; mee C mdiall ............
spirits of turpentinc.
Sponges
Spunk.
squitis.
Stalned giasu; aee Gilass, colored, stained or patinted.
Starch
Stars of gold or allver ; ace Epauiets.
Statusry ; soe Palntinge and Statuary
Staves; nec Boarde, I Lanta, etc..
Stave boits; tee Shingle and Stave Bolle.
Stearin candles and tapers.
Steel, not otherwise provided for
Steel, in barn, cast, shear, or German.
Stereotypo plates..
Sticks for waiking ; see Canes, eto. Stieks for umbrellas ; see Frames and S̈ticis for Umbrellas, eto. ..
Stili-bottoms.
Stocklogs made on framea; see Caps. Gloves, etc., made on Frame i. . . . . . . . . . . framea; see Caps, Bannets, etc., wholly iramea; see Caton, made on Brameis, etc., whoity Stockings, when bleached, printed, painted, or dyed. . . . . . . . . . . . . . . . . . . . . . . . . . . Stones, precioun, when eot ; see Diamonda ote., tohen set.
Stones, preclous, when not aet; eee Camosa, ete., not set
Stonee, preelons, imitations thereof, not set; nee Diamonds, etc., imitations of, not set. .
Stones, paving; see raving Stones.
Stoner, butlding; see Building Stones
Stones, burr, unmanufactured; wee Burr
Stones.

Stones. .
Stone-ware; see Furthen, China, and Stone wart. .....
Stones, polishtng ; , wee Pulishing Stones.
Stone, pinmice; see Pumice-gtone.
Stone, ratten ; sed Rotten-atone.
Straw baskats; mee Baskets composed of Grase, Straw, etc.
Straw hate and bonnets; wee Mate and Ronnets composed of Strato, etc. . . . . . . .
8tringn of whipgut or catgut for muaical
inatrimenta; see Mugical Inutrtimients.
Stringe, ali of
Strings, ail other, of the samo materia
seg Afusical Inatruments..............
Gubstancen expressly used for manures
Subet ltute guina or burnod atareh; see Gitm Arabio
sugar of ail kinds
Sugar, sl'ap of; see Sirip of Šugre...... Sulphate of lime, unground; wee Master af
 Sulphato of copper ; see Dlus or Roman Sulphate of iron; see Copperas.
Suiphate of barytes, oruda or refined Sulphate of quinine.
Autphate of sinc; see White Vitriol.
sulphuric seld, or oll of vitriol
Sulphnr, flour of; 500 N'lontr of Sulphitr.
Snlphur, ine; sed Lac Sulghur
Sumse.

Sun-shades, frames and stielan for: sec L'rames and Sticke for Parasols.
Bnapender, whelly or in part of India rub

gweetmental aee Cow:itte.

| 184. | 1857. |
| :---: | :---: |
| Per Cent. | Por C'ent. |
| 40 | 80 |
| 20 | 15 |
| 80 | 84 |
| 80 | 24 |
| Free. | Free. |


\section*{| Iree. | Free. | T |
| ---: | ---: | ---: |
| 20 | 15 | T |
| 80 | 15 | T |
| 40 | 4 | T |}

## Fre

Fre

100
100
20
20
90
80
80
20
30
Free.
Fr

## Free.

15
Free.
15
15


| Artucten. | 194. | 1857. |
| :---: | :---: | :---: |
|  | Per isient Pa | Por Coni. |
| Sirup of aug | 80. | 94 |
| 'Taliow candle | 80 | 10 |
| Tallow, marrow, and all other greaee and soap atocks and aoap atufls, not otherwise provided for $\qquad$ | 10 | 8 |
| Tanned leather; aee | 90 | 15 |
| Tanned and dreaeed akina; sec Skins, and dressed | 20 | 15 |
| Tanning, artiales nued in, not in a crude state, not etherwise provided for ; see Articlea used in Dyeing or Tanning..... | 80 | Free. |
| Tapert, apermaceti; ane Spermacet Candles and Tapers | 20 | 15 |
| Tapers, atearin; see Stearin Candles and Tapers. | 20 | 15 |
| Tepers, wax; see Wax Candies and T'apers | 20 | 15 |
| Tap | 20 | 15 |
|  | 20 | 15 |
| Tartaric acl | 20 |  |
| Tartar, eream of; see Cr | 80 | 4 |
| Tartar, erude; nee Argols | 5 | Free. |
| Taasela of goid, siliver, or other metal; see Epaulets. | 80 | 24 |
| Tea from place of production; see Coffee and Tra | Free. | Fre |
| Tenth, nnmanufactured ; see Hor | 5 | 4 |
| Terne tin, in piates or aheeta | 15 | 8 |
| Terra japonica, catechu, or cutch......... | 10 | Free. |
| Teutenegue in sheeta; eee Zinc, Speller, and Teutenegue, in Sheets. | 15 | 19 |
| Teutenegue, unmanufactured; see Zinc, etc., unmanufactired | 5 |  |
| Thibet goats' hair, unmannfactured: see Angora, Thibet, etc. | 0 | 15 |
| Thrcad lacings and inserting | 89 | 15 |
| Thrown sllk; see Sitk, rav, not more advanced, etc. | 15 | 12 |
| Tilea, marble poving; sen Manufactures of Marble. | 80 | 24 |
| Tlles, rocifing or paving; see Faving and lloofing Tiles. | 20 | 15 |
| Timber, hewn and sewnd; see Boarde. Planks, ote. | 20 | 15 |
| Timber to be used in buitding wharves; neo Boarils, Planki, ete. | 20 | -15 |
| Tin, manufactures of; see Manufactures of Brass, etc. | 30 | 24 |
| Tin in platex or sheets, galvanized or ungalvanized. | 15 |  |
| Tin in pige, bars, or hlocke. . . . . . . . . . . . . | 5 | Free. |
| Tlinned eaddlery; see Sad | 20 | 15 |
| Tincal; see Borax, crude | 25 | 4 |
| 'i inctures; nee Ralsams. | 80 | 84 |
| Tippets of fur ; see Caps, etc., of | 30 | 24 |
| Tobacco, manufactures of ; aee S | 40 |  |
| 'robscco, unmanufactured. | 87 | 4 |
| Tortoiso and other shella, un | 15 |  |
| Tow of hemp or flax ; teo | 15 | 18 |
| Toys; aco Lotls. | 30 | 4 |
| Tragacanth, gum; see Gum A rabio, etc. | - 10 | 5 |
| Tram, sllk; pee Silks, ravo, not more adranced, etc. | - 15 | 12 |
| Treen, shruba, bulbs, planta, and roota, not otherwiso provided for. . | Frec. | Free. |
| Treasen, goid, silver, or other metal; see <br>  | - 30 | 24 |
| Trimmingr, cotton : , rec Cotion $^{\text {a }}$ | - 25 | 10 |
| Tumblera, glase; seo Gluss | 30 | 24 |
| Turkey carpotiog ; вee Carpets........... | 30 | 24 |
| Tnrmeris | - 5 |  |
| Turpentiae, npirits of; see Spirits of Therpentine | . 20 | 16 |
| Turtle, green ; pee Green 7urtle........... | . 20 |  |
| Twines and pack-thread, of whatever materifid eomponed | - 80 | 24 |
| Twist, allk, or ulik end mohair; yee sitk Tuist. | . 80 |  |
| Typo met | 90 |  |
| Typea, new or of | 20 |  |
| l'mibrellas | 8.3 | 24 |
| Cubrelia framea and | 30 |  |
| Upper leather , . . . . . . . . . . . . . . . . . . . . . . . | 20 |  |
| Vanilia beand | 20 |  |
| Vegetahie ivory manufacturad; ace Manufactures of lione, etc. | - 80 |  |
| Vegetable ivory, or ivory nute ; нeп Iv. Nuts | + |  |
| Vegetablea, prepared; ace Irepared l'ege tables. | . 40 |  |
| Vegetable substances used in making hat and bonnots ; see IIats and Bomuets. . . . | tr 30 |  |
| Vegetahle aubatancer, unmanufactured ree Jute. | ; 25 |  |
| Vegetables not otherwise provided for; tee Ilerries, Vactables. | - 90 |  |
| Vegetablo aubstances naed for becis aud mattreanes; вee IIair, curled | d |  |


| Articles. | 1841. | 8857. |
| :---: | :---: | :---: |
|  | Per Cont. | Por Coni. |
| Vegetables used oxcluaively in dycing ; see Herries, Niuts. | 5 | Free. |
| Vellum . . . . . . . . . . . . . . . . . . . . . . . . . . . | 30 |  |
| Velvet in the ploce, consposed whility of cotton | 90 | 15 |
| Velvet, when bleached, printed, palnted, or dyed. | 90 | 24 |
| Velvet in the plece, compoeod of cotton and allk, but of whith cotton is the component material of chlef value............. | 20 | 15 |
| Venethill carpetting see Carpeta ......... | 30 | 84 |
| Verdigris ............................... | 90 | 15 |
| Yermicellt; mee Maca | 80 | 9 |
| Yeruillo | 90 | 15 |
| Vesacls of past imn; see Iron, eash, otc.... | 80 | 24 |
| Vemecha of motal; see Manufactures of Brase, etc. | 80 | 4 |
| Vesaels of glass ; sec Manufaetures of Glase | 39 | 24 |
| Yiapgar. . . . . . . . . . . . . . . . . . . . . . . . . . | 30 | 4 |
| Vitrlol, green; see Copperas . .............. | 20 | 16 |
| Vitilol, white; see Hhite literioh, or sulphate of Zinc | 90 | 19 |
| Vitriol, oil of; nee Sulphuri | 10 | 4 |
| Volatile all ; yee Oils, volatile, | 30 | 4 |
| Wafers | 80 | 14 |
| Wares composed of carthy and minuerai aubelances, not otherwina provided for see burthen, etc. | 80 | 24 |
| Wines, Japasned ; see Japanned Wares. . . | 80 | 24 |
| Wares of metal; see Mantufachures of Brana, cte. | 30 | 24 |
| Wares of giana ; mee Mantuacturea of Glane | 80 | 84 |
| Waren of papler-manch; see Manuactures of Ihypier-maché. | 80 | 24 |
| Wares, phated and gilt ; see Plated and Gitt If lares. | 8 M | 4 |
| Waete, or shoddy. | 5 | 4 |
| Wateher, eryatale for; wee Glase Cryatais for Wiatches. | 30 | $\pm$ |
| Watchex and parta of wateh | 10 |  |
| Wateb materialm and unfinighed parts of watches. | 10 | 4 |
| Waters, mineral ; see Mineral | 30 | 4 |
| Water | 30 | 84 |
| Wax brada; see Beads | 81 | 24 |
| Wax, zealing; act Seading-max | 30 | 24 |
| Wax, brea': ree fiecam | 80 | 15 |
| Wax canilen and tape | 20 |  |
| Wearlng apparil ; ece Clothing, readj-mode, | 80 | 94 |
| Wearing apparel in actual lim', and otber personal effecta not merchandiee, profes. olonal books, Implemicats, Instrumente, and loole of trade, oceupatlon, or employinent, of peraons arriving in the $\mathbf{U}$. stater, provilided that this exemption shatit not be conatrued to fuclude masbinery or other articlea imported for ume in any | Free. | Free. |
| Webbing, compued wholly or tu part of Indla ruiber; sce llareas. | 30 | 24 |
| Weld................ | 5 | Free. |
| Whalebone baskets : wee $b$ | 30 | 24 |
| Whalebone, the jrodues of forign finheries: | 80 | 15 |

-For dincussions on Prolective Tarifi, see North American Reriect, xi. 223 (E. Everett), xxx. 160, xxxil. 127 (A. 11. Evehetr), $x \times x$. 265 , Ixxiii. 90 (Bowex); American Whig Herien, II. ili. (Greblexy), Iv. 215, 410 , iii. 235, v. 313; Edinhurgh Review, Ixxii. 221; Demor cratic Rerier, vii. 341, ix. 329, x. 357 , xiv. 291, 447; Americun Quarteriy Revieu, x. 444, xi. 345; Sotuthern Quarterly Reriete, ii. Sk2, vi, 206, viii. 213; Niths's Reg., vols. xvil., xix., xx., xxi., xxil., xxili., xxiv.; Southern Literary A/enenger, viii. 421. The speeches of Mr. Clay, Mr. Adamn, anil other utateomen, may be found in the volunee of Nitsen's Register.

Tarpauling, a broad piece of canvas well daubed with tar, and ured to cover the hatchwayn of a ship at sea, to prevent the jenetration of the rain or sea-water which may at times rush over the decks.

Partar (Gir. tapraper, infernal; because it is the sediment or dregs of wine), the subatance which concreten upon the inside of winescauks. It in cailed red and white argol, according to the wine from which it is ohtained. When purified it is often called cream of tartar: it is a bitartrate of potash.-Dee Ahosi.,

Tanman, Abel Jameon. History is silent in regard to the early days of this navigator and geograph-

| Artielea. | IMAB. | 1857. |
| :---: | :---: | :---: |
|  | Per Cent. | Per Cout. |
| Whmebose hats and bonnets ; nea IIats and Bionnets. | 80 | 24 |
| Whale oll, forelgn ; ese Oila, Noal'n-Soot, etc. | 20 | 16 |
| Whalo all of American flaherien; see Oils, spermaceth, etc. | Free. | Free. |
| Wheat and wheat flour . . . . . . . . . . . . . . . . | 20 | 15 |
| White acid; see Acidt, acelic, | 20 | 1 |
| White and red lead. | 20 | 15 |
| Whtte, liarlu; nee Whitivg, or Paris White | 20 | 15 |
| White vitriol, or sulphate of aino. . . . . . . . | 90 | 15 |
| Whiling, or Pharin white. . . . . . | 20 | 15 |
| Whllow baskuts ; nee Banlieta . . . . . . . . | 30 | 124 |
| WIllow hats and bonaeta; ece IIate and Bonneta pf Straw, etc. | 80 | 24 |
| Willow qquarea for hate and bonneta; aee Flats. | 80 | 24 |
| WHow prepared for basket-makers une; ees Onier and W'itlow. | 20 | 15 |
| Witon carpellag; see Carpet | 80 | 24 |
| Winitow ginse, broad, crown, or | 20 | 15 |
| Windmor anap; mee soapy....... | 80 | 24 |
| Wines, Burguudy, Champagne, elaret, Madeira, port, uherry, and all other wines and Iniltathous of winee | 40 | 0 |
| Winge of gold, eitver, metal ; mee Eppaideta | 30 | 24 |
| Wead or pastel | 10 |  |
| Wood, minnufacturen of; sea Mantuactures of Wood | 80 | 24 |
| Wood, unmanufactured, not otherwise provided for | 30 | 24 |
| Wood, fire; sen F'ire-wood | 30 | 24 |
| Woodn, cedar, gradadilin, ebony, mahogany, roee - woon, and matle - wood, when manufactured | 40 | 30 |
| Woode, namely, codar, box, ebony, lignnmvitte, granadilla, mahogany, rone-wood, matin-wood, and all other cablnet woode, unmanufectured. | 20 | 8 |
| Woods, dye, extracts or decoctions of ; mee Ertracts and Incoetions. | 20 |  |
| Woode, dye; eee Brazit-cood, aml all other |  |  |
| Dre-troculs ins Stín | 6 | Frec. |
| Wool, manufuelures of; see Manufacturea of I'rol, etc. | 30 | 24 |
| Woal, unmanafactured, not otherwieo provided for. | 30 | 24 |
| Wool costlag 20 ceata or lens per ponu | 81 | Frop. |
| Woolen and worated yern. | 25 | 19 |
| Wool hats: nee Hats of Wool | 20 | 15 |
| Wool hat bodles; eee Ifut Bodies of W'ool. | 20 | \% |
| Woolen Ibataps . . . . . . . . . . . . . . . . . . . | 20 | 15 |
| Worsted manufacturen ; see Manufactures of Worated. | 25 | 19 |
| Worke, foresgn iu courne of repebbication; mee feriodicals. | 20 | 5 |
|  | 20 | 15 |
| Yarn, woolen and worsted; see Koolen and Wirnded Yurn. | 25 | 19 |
| Yellow actd; seo Acida anetic, ele. | 20 |  |
| Tine, nulphate of ; nee White I'itrio | 20 | 15 |
| Zlac, muelter or teutenegue, in sheets.... | 15 | 12 |
| Zinc, apelter, or teuteregue, anmanufactured | 5 | 4 |

ical discoverer. Ife was a IIollander by birth, and appointed by the Dutch East Indla Company to the command of three vensels which they had fitted out at Batavia for the discovery of new countries and a mere extended commerclal power. Tasman sailed September 5, 1642, and the first-fruits of his enterprise wes the discovery of that part of New Halland cailed Yan Diemen's Land, which the navigators made on 2th November. Karly in December they set out again, and on the 13th they first saw the Iklends of New Zealand, on which the natlves succesefuliy opposed his landing. After viwiting several islands in the South Sea, some of which were previously unknown, ine returned to Inatavia, June 15th, 1643, having sailed round the southern hemiephern of the glate. The shortsighted policy of the Dutch Fast India Company prevented the publication of ony account of this voyage, hut a map or chart of the discoveriea of Tamman was preserved at the Stadt Houne at Amaterdam, and some years after I irk Rembranuts published an extrsct from the Journal of this enterprising seaman, of which tater geographical writers have been content to avail themselves. In 185 C a propositiun was made in Fingland to restore to the whole diatriet hitherto (but unjustly)
known as Van Diemen's Land, tha nama of Tasmania, in meritorious honor of its original discoverer.
Tatta, a town in the territory of Sinde, altuated about 60 miles $\ln$ a direet lina from the sea, at a short distance from the western bank of the River Indus, in lat. $24^{\circ} 44^{\prime}$ N., long. $68^{\circ} 17^{\prime} \mathrm{E}$. Population uncertain, probably about 8000 . The streets are narrow and dirty; but the houses, though built of mud, chepped struw, and uimber, are superior to the low huts seen in the adjoining towns and vlilages. Being situated a little above the part where the Indas divides into the two great liranches by which lts waters are poured into the Indian Ocean, it might be supposed thut Tatta would be a place of great trade. But, owing to the unwholesomeness of the climate, the berbarism of the tribes on its banks, and other causes, its commerce has never corresponded with what might have been anticipated, looking at its position on the map. It hud probably attained the scme of its prosperity in the beginning of the 16th century. In 1555 the Portuguesa, by way, as they stated, of avenging the treachery of the King of Sinde, inhumanly mase sacred 8000 of the inhabitants, and burned the town. -Conquốtea des Portugais, tome Iv. p. 183. It is probable that Tutte never fully recovered from this dreadful blow; but Mr. Hamilton mentions that $\ln$ the 17th century it was extensive and populous, possessing much commerce, with msnufactures of silk, worl, and rabinet ware. The decayed state $\ln$ which we now find it has been a consequence of the misgovernment and rupacity of Its present rulers, the Ameors of Sinde, under whose sway it fell more than 50 yeare ago. In 1635 the English established a factory at Tatta, in the view of facilitating the disposal of woolons and other goods in the countries traversed by the Indus; and the building occupied by the factory, though far from magnificent, was recently, if it be not still, the best, not in Tatta only, but in the whole country of Sinde. The chief exports are rice, shawls from Cashmere, oplum from Malwah, hides, ghee, cotton, goats' wool, carpets, drugs, etc. Putchock, an article largely consumed in Chins, is a peculiar export of Sinde. The imports comprise a variety of articles, but the quantities are trifling: they coasist princlpally of spices, dye-stuffs, hardware, tin, lron, etc., broadcloths, English cottons, allks, etc. But at present the trade is quite inconsiderable; and no one could believe, a priori, that the natural emporium of so great a river as the Indus, traversing many cxtensive countries, would cut so insignificant a figure $\ln$ the trading world.

A very well-informed party, Dr. Buist, editor of the Bombay Times, has, in his work on the late expedition into Afghanlstan, made the following olbervations on the trade of the Indns :
"The glowing descriptions of Burnes nppear to have given a very exaggerated idea of the value of the internul traffic of the countries beyond the Indus. It was forgotten that where there was no industry, no manufactures or mineral wealth, no sea-cotst or rivers
to permit exportatlon, there could be little or nothing to give In exchange for lmports; and that the wants of a population purely nomade must at all times be slmple and singularly few. The whole of our commerce with Persia has never exceeded two millions sterling a year, rarely above one; the total of our trade with Afghanistan certainly never exceeded a million annually, and has very rarely amonnted to much more than the half of one. Hesldes this, the Indus in reality was naver closed save by its own dangerous entrances and shallow depth of water. Lord Ellenborough has opened the Indus as far as Mithen Kote; and the Sutiej, in continuation of this, to tho Markunda, where it ceases to lo navigable for the smallest craft. Yet the gross value of the British goods consumed by the countries adjoinling does not at present amount to a quarter of a million sterling, and will not, in all likelihood, be doubled for ten yeurs to come; the expense of muintaining troops between Kurrachee and Bukkur, both stations includsd, exceeding $\boldsymbol{£ 6 0 0 , 0 0 0 ~ a ~ y e a r ; ~ w i t h ~ a ~ l e s s ~ f o r c e ~ i t ~ w o u l d ~ b e ~}$ unwise to think of keeping these stations at all. The great line of traffic was not along but across the Indus, by the Delhi frontier, or parallel to it at a distance of 100 miles, by Sonmeenee and Kelat. The countries beyond the Indus, besides, bave always been open to the free admission of every variety of foreign imports on puying a moderate fixed duty. The chief obstruction in reaching these is Irremediable by treaty, and arises from the attacks of the plundcring tribes in the passes, which can nat be restrained save by the payment of a black wail or subsidy."
The delta of the Indus has little in common with the delta of the Nile, excep: its shape. Not a fourth part of it is cultivated, and its few inhabitauts principally lead a pastoral life. It is overgrown with tamarisks and other wild shrubs; and though intereected by the numerous mouths of the river, its surface is dry snd arid, being almost destitute of fresh water.

Tax (Welsh Tasg; Fr. Taxe; Du. Taxe), a rate or duty laid by government on the income or property of individuals ; an impost, a tribute, or an excise, accordlng to the method of collecting, or the property from which collected. The first taxes levied on the people were by Solon, the first Athenian legislator, 540 B.c. The first class of citizens paid an Attic talent of silver, sbout $\mathbf{£ 5 5}$ sterling. The next was ky Darius, the son of Hystaspes, which was a land-tax by assessment, and deemed so odious that his subjects styled him, by way of derision, "Darius the Trader," 480 b.c.D'Eon's Historie des Finances. Taxes in specie were first introduced In England by Willian I., 1067, and He raised them arbitrarily; yet subsilies in kind, as ln wool, corn, and other products of England, continued till the accession of Richard II., 1377.-H.Hydx.

The following table exhibits the soveral taxes of ali the states of which there are any returns, and shows the aggregate of the taxes of each state, and also of the separate species of tax :

Annual Taxen in tue teitrd statre, 1850.


Adam Smith laye down four general maxime npon the subject of taxation, which are an follows: "1. The mubjecta of every otate ought to contribute toward the eupport of the government as nearly as poselble in proportion to their respective abillties; that fe , in proportion to the revenne which they reepecticaly enjoy under the protection of the etate. 2. The tax which each Indivitual in bound to pay ought to be certain, and not arbtrary. The time of payment, the manner of payment, the quantity to be paid, ought all to be clenr and plain to the contributor, and to every other person. 8. Every tax ought to be levied at the time, or in the manner most likely to be ennveniont for the contrilutor to pay it. 4. Fivery tax ought to be so contrived as toth to take nut and keep out of the poekets of the people as little as possible over and above what it brings into the public treasary of the state."
Tho aubject of taxation ia ably discuased in the Edinburgh Revierr, xxxlii. xc.; Democratic Reviere, xx.; Quarteriy Reriex, xxxv. ; American Quarterly Register, viii. For further articlen, see De Bow's Review, xilif.; Iluxt's Merchanta' Magazine, Iv. ; Somehern Reviere, viii.; North American Rerietr, xix. (Do Poxceav); Wextm. Reriex, xlvi., xl3.
Tea (in one Chinese dinlect, Chra, in another $\mathrm{Tr}_{\mathrm{r}}$; Du. Te; Fr. The; It. Te; Ruse. Tehai; Hind. Cha; Malay, Teh), the lenves of the tree or nhrub (Then riridin, Linn.). The ten-plant ordinarily grows to the height of from three to six feet, and has a general resemblance to the myrtie, as the latter is men in congenial situations in the southern countries of Europe. It is a polyandrous plant, of the natural orier Colemnifere, nud has a white blossons, with yellow style and anthere, not unlike those of a small dog-rowe. The stem is buihy, with numerous branches, and very leafy. The leaves are alternate, on short, thick, channeled footatalks, evergreen, of a longish eliiptic form, with a blunt, notched joint, and aerrated except at the inase. These leaves are the valuable part of the plant. The Camellias, particularly the C'amellia sasanqua, of the same natural family as the tea-tree, and very closely resembling it, are the only planta liable to be confounded with it by a careful observer. The leaven of the particular canieliia just named are, Indeed, often used in some parts of China as a substitate for those of the tea-tree. The effects of ten on the human frame are those of a very mild nareotic; and, like those of many other nareotics taken in amall quantities-oven of opiumitself-they are exhilarating. The green varieties of the piant possess this quality in a higher degree than the black; and $n$ atronger infusion of the former wili, in most constitutions, produce considerahle excitement and wakefulness. Of all nareotice, however, tea is the least pernicious; if, indeed, it he so in any degree, which we very much donbt.

The tea shrub may be described as a very hardy overgreen, growing readily In the open nir, from the equator to the 45 th degree of latitude. For the Jant alxty years it has been reared in this country, without diffleulty, in green-houses ; and thriving plants of it are to be seen in the gardens of Java, Singapore, Malaces, and Penang; all within six degrees of the equator. The climate inost congenial to it, however, seems to be that hetween the 25th and 238 degrees of latitude, judging from the succesn of tts caltivation in China, For the general purposes of commerce, the growth of grod tea is confined to China; and is there restricted to five provincen, or rather parts of provinces; viz., Foklen and Canton, but more particularly the first, for black tea; and Kiang-nan, Klang-si, and Che-kiang, but chiefly the first of these, for green. The tea dintricts all lie between the latitudes junt mentioned, and the 115 th and 122 d degrees of east longitude. However, simont every province of China proiuces more or lena ten, but generally of an Inferlor quality, and for local coneumption only ; or when of a superior quality, like some of the fine wines of France, losing its flavor when
exported. The plant is also extenaively cultivated in japan, Tonquin, and Cochin-China ; and in some of the meuntainous parts of Ava; the people of which country use it largely as a kind of prekle preserved in oill Iolanically considered, the tea-tree is a single apecies ; the green and black, with all the diversities of each, being'mers varieties, like the varieties of the grape, produced by difiorence of climate, null, locality; age of the crop when taken, and modea of preparation for the market. Considered as an object of agricultural produce, the tea-plant beare a close reacmiblance to the vinc. In the husbandry of China, ft may be raid to take the same place which the vine occupien in the monthern countries of Europe. Liske the latter, fts growth fa chiefly confined to hiliy iracta, not suited to the growtit of grain. The solla capalile of producing the finest kinds are within given districte, Jimited and partial. Skill and care, both in husbandry and preparution, are quite as neceneary to the production of good tea an to that of grod wine.

Cultiention.-The best wine is produced only in par. ticalar latituilen, as is the bent tea; although, jerhape, the Iatter is not reatricted to an equal degree. Only the most civilized nations of Europe anll Americn have as yet ancceeded in producing good wines; whlch is also the case in the Eant with tea; for the agricuitural and mannfacturing skill and industry of the Chinese are there unquestionably pre-eminent. These circumstances deserve te be attended to in estimating the difficaities which mnat to encountered in any attempt to propagate the tea-plant in colonial or other prossessions. These difficuities are obvlously very grest, and perhaps all but insuperable. Most of the at tempts hitherto made to raise it in forejgn countries were not, indeed, of a sort from ribich mach was to be expected. Within the lant few yeaw, however, considerable efforts bave been made by the Dutch government of Java to produce tea on the hilin of that islend; and having the easistance of Chinese cultivators from Foklen, who form a considerable part of the emigranta to Java, a degree of snccess has attended them, beyond what might have been expected in ae warm a climate. The Brazilians have made similar efforts; having slso, with the asaistance of Chinese laborers, attempted to propagate the tea shirul, near Hio de Janeira; and a mmall quantity of tolerably good tea has been produced. Hut owing to the high price of labor, and the quantity required in the cultivation and manipulstion of tes, there is no probability, oven were the moli anitable to the plant, that fts culture can be profitably carried on in that country: It may', perhape, ancceed in A ssm , where its cnlture is now being attempted; for inior is there comparatively cieap, and the hilly and tableIands are said to bear a close resemblance to these of the ten districts of Chinn; but we are not asnguine is our expectations ne to the reeult.

Cultiration of the Ter-ptant in the United States.This plant, which has ao long afforded a most grstefu! heverage to militons of people in every civtlizedi conntry of the globe, there is inuch reason to helieve, may be successfully cultivated in favorable situntions snd under proper management, for local consumption, at least, in most, If not all of our Southern States. This was partially realized from an experiment made st Greenville, in the mountainous parts of South CsroIina, by the late Junlus Smith, in 1848 to 1852 . He imported sevaral casee of Black and green tea piants, of Chinese ntock, of from five to seven years' growth, and planted them in the village above named, where they remained about two years. On their removal to a plantation in that vicinity, in March, 1851, Dr. Smith stated that "they' grew reniarkably last summer, and are now filly rooted, with tine large main and collateral mote, with un abiundance of fibirous radicles. They all ntood the snow, eight or nine inches deep unon the level on the 31 of January; and the severe froats of winter, without the allghteat covering or protection,
and without the loos of a single plant. They are now all forming part of the plantation, composed of these recalved from China last June, and a fow pla, ted the flrat week in June, which germinated the 17th of September. All these young plante were thinly envered with straw. Some of them have loet their foliage; othera have not. The stems du not appear to have anstained any injury, The fresh buds are beginaing to shoot. I can net help thinking that we have now demonstrated the adaptation of the tea-plant to thip soll and cllmate of thls country, and succeeded in lta permanent establishment within our borders."

Considering the practlcal bearing this subject has on the economy and agricultural interests of our South. ern States, It is aurprising that a slagle herb, which has proved of sucit universal acceptance, should retain this position in the world for centuries, and yet atill continus to be reatricted in its production almost entiraly to the country of Its origln, although correapondIng regions, with reapect to latitude, elevation above the eea, and other circumetances which modify the climate, are open to its introduction and culture, and the most intelligent, as well as the most enterprising merchants and others have over sought to lenrn every fact connected with its growth and subsecuent preparation. Though regarded, In geueral, as a luxury, and by some even as food, yet It is not an article from which the people of any' country should be deharred. On the contrary, it is the policy in thle case, as well as in most ethers, of every government to gratify the wishes of its people, and to faclitate the acqulsition of this luxury by its economical importation, or, what would be far more desirable, to extend the production to Its own soll. Respecting the expediency of such a measure in this country as thit last named, littie more need be stated than that most of our citizens will have it, and millions of dollara will annually bo paid for lte importation. To the argument which has often been advanced, that the very tow rate of wages in China is the reason why the production of tea has not been encouraged in. this coustry, it may be stated that, with improved machinery und other appliances, facility of transportation, robust and well-ted laborera, and probably with the aid of the Chinamen now in California, there ean be little douht that we can auccesafully compete, at least for local consumptlon, with the primitive utensils, tedious manipulations, and absence of railronds, canals, stean navigation, and even of common roads, of the enfeebled and pourly-fed Asiatics. The cost of the transportstlon of tea in China, say at a distance, upon an average, from the plantations to Canton, the port of shipment, of 800 to 1000 miles, at a waste of from six weeks' to two months' time, whole cargoes being constantly carried upon the backs of porters, is about four cents a pound, or about one-third of its value at the place of its growth. It is suppossble that lu no part of the United States, at a corresponding distance from the sea-board, would the cost of carringe be equal to one-fourth of that sum, or accupy one-tenth of the time. Dr. Jameren, superintendent of the tea plantations of the Fast India Company, on the Ilimalayan Mountains, in his report of 1847 , remarks that the task-work of one laborer is to dress, weed, and keep in order three acres of tea land. In our Middle and Southern States one hand cultivates annuaily, and keeps in order, six acres of cotton, or fifteen of Indian corn. Therefore, assuming the nmount of timo for cultivating the respective crops to be equal, the American laborer would perform moro than double the ameunt of work done by the Ilindoo, which, undoultedly, is about the difference in their physical force.

The tea-plant is not only found in China end Japan, chlefly in a cultivated atate, but is indigenous in the mountalins which separate China from the Burmese territories, especially In Upier Assam, bordering on the province of Yun-nan. It is also cultivated in Nepal, at an clevation of four thousand seven huadred
and eighty-four feet above Bengal, in latitude $27^{\circ}$ $42^{\prime} \mathrm{N}$.

Before proceeding in the inquiry, it would be desirable to aseartain whether ona or several species of the genus Thea yleld the neveral varietied of tea, as thif might explain somo of the diserepancies in the accounts respecting the aoll and clinnate required for lts cultivation, Soma authors, among whom are Mr. Fortune and Dr. Lettsom, who traveled extenelvely in Chira, and had ample opportunities for investigating this sulbject, consider that all the varieties of tea may be obtalned from tha same plant, and that the differences are therefore due to the soil or cllmate, or to the ago of the leaf and the mode of preparation. . Others, on the contrary, are of the opinion that they are produced from at least two distinct speeles, Thea viridis and Thea bohea. There is no doubt, however, that the planté usually known as "Green" and "Black," when cultivated under simllar circumstances, retain permanently their characteristica, and that their leaves, reapectlvely, geuerally reaemble those obtained after infuaing good apecimens of green and black tea. The green-tea-plant, moreover, la much more hardy than the hlack; one of the former having llved twenty years in the open air, near London, and being only killed in the very severe winter of 1887-'38, when the thermometer fell to $4 \frac{1}{1}^{\circ} \mathrm{F}$. Yet, from the great extent of territory over whlch the tea-plant is found, and from the variety of situations in which it is produced, there can be but littie uoubt that it ls grown in very different solls, though thers are, doubtless, certain physical conditions that are best suited to the produc. tion of the finest-flavored teas.

The tea-plant loves to grow in valleya, at the foot of mountaing, and upon the banks of streams, where it enjoys a southern exposure to the aun, though it endures considerable variations of dryness and moisture, aud of heat and cold; for it flourishes in tha climate of Pekia, In latitude $40^{\circ}$, as well as sbout Canton, in $23^{\circ} 8^{\prime} \mathrm{N}$. ; and it is observed that the degree of cold at the former place is nearly as severe in winter es it is in some of our Middle States. The hest tea, however, grows in a mild, temperate climate, the country about Nankin producing a better article than either Pekin or Canton. Mr. Bruce, who traveled in Upper Assam In 1836, describes the tea districts as consisting of little mounds or hlllocks of earth, on which large trees had grown, their roota alone appearing to asye them from being washed away. One thing he observes as worthy of notice, that all the Absam tea grows near water, of which it appears to be very fond, for wherever there is a small stream tea is sure to be found. IIe aubsequently discovered, however, that tea plantations in that country were very extensive, both on the hilis and in the plains. But excessivo moisture, either in the soil or in the air, is not congenial to the growth of the tea-plant, as it is ovident frem its preference for sundy or porous soils, or the moulds, in the moist climate of Assam, but which probably would not be requisite where the climate is dry.

Mr. Fortune, who had frequent opportunities to inspect sume of the most extensive tea districis of Canton, lokein, and Chekiang, atates that the soll of those of the northern provinces is much richer than it is in Quantung. "Tea slirubs," he says, "will not succeed well unless they have a rich sandy lesm to grow hu. The continual gathering of their leaves is very detrimental to their health, and, in fact, ultimately kills them. IIence a principal object with the grower is to keep his bushes in ns robust health as possible; nud this can not be done if the seil be poor. The tea plantations in the north of China are always situat d on the lower and most fertile sides of the hills, and never on the low lands. The shrubs are planted in rows, about four feet apart, and about tha same distance between each row, and look at a diatance like little slirubberies of evergreens. The farms are amall,
ench conalating of from one to four or five acrea; indeed, every farmer has his own little tea garden, the produce of which aupplias the wante of hia family, and the surplus bringe bim in a fow dollars that are spent on the other necensaried of life." In Japan, tea it planted around tho berlers of fielda, without regard to situatlon or soll.
species of Tea.-The teo-plants are ralsed from nuta, or seeds, usually sowin whots they are to remaln. Three or more are dropped luto a hole, and coverad wth earth four or five Inches dieep; these conie up withaut any further trouble, and require litile cu!ture, except that of removing weeds. The leaves are not collected from the sultivated p'anta until they are three years old; and, after growing nine or ten yeare, they are cut down, In order that the young shoots, which will then rise, may afford a greater supply of leaves. The tiest time to guther the tea is while the leaves are amall, yoang, and juicy. The firat gathering usually commences at aisout the end of February, when the leaves are young and unexpanted; the gecond about the leginning of Apri]; and the third In June. The first collection, whirh only consists of fine tender leavea, fis mont esteemed, and is called by us "Iniperial" ten. The secoud ls denominated "Tontajea," or Chlnese tea, because it in infused and imblised after the Chinese mannee. The last gatheringr, which are the coarsest and cheapest of all, are drunk by the people of the lowest class. Besides the three kinds of tea named above, it may be olserved that, hy sorting theme, the varietiea hecome atill further multiplied. The Chinese, luwever, know nothing of "Imperial" tea, "Hlower" tea, and many other names, which in kurope and America serve to distinguish the quality and the price of the article; but, besidea the cominon ten, they distingulah two other kinds, namely, the "Voul" and "Soumlo," which are reserved for people of the first order of society, and for those who are slick. The principal varieties used in Europe and In this country are the "Green" tea, which is the " lling," or common tea of the Chituese, and is gathered in April; the "Voul," or "Vou-tche," delicate kind of "Young Hyson," which differs only from the other in being gathered a few weeks earlier, and consists of the young leaf-Luds just as they begia to unfold; and tha varioun descriptions of "Black" tea, which diminish In quality and value as they are collected later in the season, until they reach the lowest kind, called by as "Bohea," and by the Chinese "Ta-cha," or large tea, on account of the maturity and size of the leaves. The early lesfboik, in spring, being covered with a white, allky down, are gathered to make "Pekse," a corruption of the Canton word Pa-ko, white down. A few days' later growth produces what is sometimes atyled "Dlackleaved Pekoe." The more fleshy and matured leaves constitute "Souchong;" as they grow atill larger and coarser, thoy form "Congo;" and the last and lateat pleking of all is the " Bohen." The variety named nhove, called "Voul," is a scarce and expensive article, and the picking of the leaves in so young a state doen considerable Injory to the plantations. The summer rains, however, which fall coplously atout this season, molaten the earth and alr, and, if the plants are young and vigoroun, they soon push out fresh leaves.
The proces of gathering tea is one of great nicety and importance. Bach leaf is plucked separately from the twig; the handa of the gatherer are kept elean : and in collecting seme of the finer sortn, It has been stated, upon credible authority, that he in otiliged for some weeks previons to aluctain from all groes food, lest his limath or permpiration might injure the flavori to wear fine gloves while at werk, and to lathe two or three times a day daring thie period. In the general harrest seanons, the natives are seen in little family groups on the side of every hill, when the weather is dry, engaged In gathering the tea leaves, which are stripped off rapidly and promiscuously into round
banketa, made for the perpose, of ajplit bamboo or ratan. When a auficient quantity is gathered, it is carried home to the cottage or barn, where the opera. tion of drying in performed. The Chinese dinlike gatbering the leaves on a rainy day for any deacription of tea, and never will do so unless neceanity requires it. Some even pretend to distinguish the teas made on a ralny duy from those maile on a sunny day. The proceas of rolling and drying the leaves, it is stated, can only be learned by actual oxperience ; yet the sy:tem adopted to attain this end is as simple as it is effcacloug. Let it be bome in mind, however, thit the grand object is to expel the molature, and at the anme time to retaln as much as possible of the aromatic and other desirable secretione.

As to the differences of fiavor and color peculiar to the green and black teas, it is well known that, in many Inatances, they are 'produced hy art. In de. seribing the green teas grown in the districts of Cheklang, Mr. Fortune remarke that "It must not ive mapposed that thry are the green tens which are exported. The leaf has a much more natural color, and has little or none of what we call the beautiful bloom upon it, whieh is no mueh admized In Europe and America. There is now no doubt that all theac hlooming green teas, which are manufnetured at Canton, are dyed with Pruasian blue and gypoum, to oult the tastes of the 'forelgn barbarians l' Indeed, the process may be seen any day during the season by those who will give themselves the trouble to meek after It. It is very likely that the same ingredients are also used in dyeing the northern green tean for the foreign market." The Chinese, it is assertel, never use these dyed tesn themnelvea; and certalnly their tante in this respect is more correct than ours. It is not to loe aupposed that the dye employed can produce any very bad effects upon the consumer, for, hall thia been the case, It would have long aince lieen Siscovered. As tu the opinion that green tea owes Its verdure to an Inforeacence acquired from plates of copper, on which It la supposed to be curled or dried, there is no fouadation for the suapleion, as the infustons undergo no change on the addition of volatile alkall, which would ietect the minutent por. tion of copper by turning the liquere thlue. And, be. aldes, the ilrying pans and farnacen used throughout China for this jurpese are sald to be invariably made of sheet-Iron.-I'reme Office Report.

Adulteration of Tev.-It might have been anticipa ted, from the high price of and the high duties in mome countrien or tea, and the fuellity with which it inny be mixed uj) with foreign subatances, that it would not escape adulteration; and the records of the conrts of Justice show that this is the caae, severul dealers having been convicted of thils pernicious practice. The adulteration is usually effeeted either by the intermixture of sloe or ash leaves with fremis teaf, or hy mixing the latter with tea that han lieen already natd. The penalties on such offenses are not specific; and the bent, or rather the only, eccurity on whichian.' reliance can be placed, is to be found in the charscter and respectability of the parties dealing in tea. Even were he infloenced by nothing else, it would be extreme folly in any person earrying on an extensive business to engage in such dishonent practicen, for they can hardly fail of iseing detected; and the ruin of his busineas that would follow auch exposure would far more than balance whatever gaino lie could hope to make by his fraudulent schemes.

Tea Trade in China.-The tea merchants commonly recelve advancen from the priucipal merchants anil other capitalista of Canton; but, with this exception, wre altogether independent of thein; nor have the latter any exclusive privilege or clalos of pre-emption. They are very numserous; thone connected with the green-tea diatricta alone being aiwut four husdred in nmilier. The black-ten merchnnts are less numerous, but more wealthy. The greater part of the tea is
brought to Canton by land carriage or iniand naviga- |other vegetable productiona, ia Injured by keeping, partion, but chiofly by the frat. It fo convoyed by porters; the roads of Chlna, in the southern provinces, not generaily admitting of whoel carriages, and beasta of burden boing very rare. A amall quantity of black tea is brought by sea, but probably anuggled; for this chesper mode of tranaportation is discouraged hy government, which it deprives of the tranait duties levied on inland carrjago. The length of Iand carriage from the principal distriets where the green teas are grown to Canton is probatily not less than 700 miles ; nor that of the hitack tea, over a mountainoua country, less than 200 milisa. The tea merchanta begin to arrive in Canton about the middle of October, and the busy season continues uutil the beglinning of March; being briekeat In November, Deeomber, and January. Tea, for the most part, could, previously to the lato changes, only be hought from the hoog or Ifeensed merchants; but soine of these, the least prosperous in their eireumstances, were supported by wealthy outside merchants, as they are called; and thus the trade was considerably extended. The pricen in the Canton market vary from year to year with the crop, the atock on hand, and the external demand, as in any other articlo and in ar other market. After the season is over, or when the westerly monsoon sets in, during the month of March, and impedes the regular intercourse of forelgoers with China, there is a fall in the price of tea, not only ariaing from this circumstance, but from a eertain depreciation in quality, from the age of the tea; which, like most
ticujarly in a hot and damp elimate.
There seema to be litzie mystery in tha molection and purchase of teas; for the butiness is both aafoly and effectively accompitahad, not only by the supercargoes of the American shipa, hut frequentiy by the mastera; and it was ascertained by the salea at the East India liouse, that thero was no difference between the qualities of the teas purchased by the commanders and officers of the company's shilpa, without assistance from the officers of the factory, and those purchased for the iumpany by the latter. An unusoal degree of good fulth, indeed, appears to be observed on the part of the Chinese merchants with respect to this commodity; for it wat proved before the aeleet committee of the House of Commons, in 1830, that it was the regular practice of the hong merchanta to reeelve back, and return good tea for, any chest or parcel upon which any fraulimight have have been prueticed, which sometimes happens in the conveyance of the teas from Canton on Lonril ship. Such restitution has occasionally been made, even at tho distance of one or two years. The company enjoyed no advantage over other purchasere in the Canton market exeept that which the largest purchaser has in every market, viz., a selection of the teas, on the payment of the same prices as others ; and this advantage they enjoyed only as respects the black teas, the Americnis being the largest purchasers oi green teas.

We herewith suljoin a tabie for calenlating the coat of tea :
 on 100 trocnde pea t'ox.

| Per Piesul. | Kechunge 4s, per bollar- |  | Wrehaoge 4t, 的, per Dol. |  | Eacharke 4e, 4d. per Dol. |  | Esehange 4s. bd. per Mol. |  | Exchange 46. ©d, per Jool. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Per Libs, | Pus Ton. | Per Pound, | Per Toe. | Per Pound. | Por Ton. | Par Poupd. | Per Ton. | Per Pound. | Per'Ton. |
| Teota | Pence. | 42000 | Pence. 10.625 |  | Pence. <br> 10.818 | $\begin{array}{ccc} s & d \\ 45 & 10 & d \end{array}$ | bence. $11 \cdot\left(04^{9}\right.$ | $\begin{array}{llll}40 & 1 & 4 \\ 4\end{array}$ | Pence. $11 \cdot 25,0$ | $\frac{c}{c} \frac{d}{47}$ |
| $20=$ | 10 | 4200 | $10 \cdot 625$ | 4412 is | $10 \cdot 8118$ | $45190$ | $11.044$ | 4076 | $11-250$ | $4750$ |
| $21=$ | 10\} | 420 | 11.156 | 461711 | 11.875 | 47150 | 11.604 | 431310 t | 11.813 | 40123 |
| $22=$ | 11 | 4040 | 11.687 | 4910 | 12.916 | 8010 | $12 \cdot 146$ | 6108 | $12 \cdot 376$ | 51196 |
| $28=$ | 11\% | 4360 | $12 \cdot 219$ | 01410 | 12.459 | 5266 | $12 \cdot 608$ | 4367 | 12486 | 5460 |
| $24=$ | 18 | 5080 | 12.750 | 63110 | 18.000 | 154120 | 13.250 | 55150 | 13.606 | 60140 |
| $25=$ | 124 | 02100 | 18.281 | 551571 | 18.541 | ¢0 176 | $18 \cdot 801$ | 5719 4t | 14.008 | 5318 |
| $80=$ | 13 | 04180 | 18819 | 5808 | 14.089 | 5080 | $14 \cdot 354$ | 6050 | 14.625 | 6180 |
| $87=$ | 18. | 56140 | 14.344 | 69 4 101 | 14.625 | 0186 | 14.06 | 0\% 12 1t | 16.188 | 63150 |
| $28=$ | 14 | 69160 | 14.875 | 6296 | 15.164 | 63140 | 15.458 | 04186 | 15-750 | 0330 |
| $29=$ | 14) | 60180 | $15 \cdot 404$ | 0414 1t | 16.708 | 06100 | 10.016 | 074103 | 10.816 | 08103 |
| $80=$ | 15 | 0300 | 15.937 | 06189 | 10.250 | 6950 | 10562 | 03113 | 16.875 | 70178 |
| $81=$ | 15; | 6580 | 15.469 | $(1934$ | 16791 | 70106 | 17.114 | T1 17 7t | $17 \cdot 438$ | 7349 |
| $88=$ | 18 | 0740 | 17.000 | 1180 | $17 \cdot 838$ | 72100 | 1766 | 7440 | 18.000 | 75180 |
| $83=$ | $16 i$ | 0960 | 17.631 | 7312 7) | 17.876 | 7516 | 18.218 | 7610 42 | $15 \cdot 663$ | 77108 |
| $14=$ | 17 | 7180 | 18.068 | 75178 | $18 \cdot 416$ | 7770 | 18.770 | 78160 | $10 \cdot 125$ | 8066 |
| $85=$ | 17. | 78100 | 18.604 | 781101 | 18.958 | 79146 | 10.323 | 8181 1t | 10.688 | 82130 |
| $86=$ | 18 | 76180 | $10 \cdot 125$ | $80 \quad 6 \quad 6$ | 19500 | 81180 | 10.875 | 838061 | 20.250 | 8510 |
| $87=$ | 1st | 77140 | $10 \cdot 656$ | 8211 11 | $20 \cdot 041$ | 8486 | 20427 | 8516104 | 26.813 | 6788 |
| $88=$ | 10 | 70160 | $20 \cdot 187$ | 84160 | 20.583 | 8090 | 20.979 | $58 \quad 3 \quad 3$ | 21.345 | 60156 |
| $39=$ | 104 | 81186 | 20.719 | 87004 | 21-1:5 | 88146 | 21.031 | 0088 7t | 21.088 | 02.20 |
| $40=$ | 20 | 8100 | 21.260 | $80 \quad 50$ | 81.646 | 9100 | $22 \cdot 083$ | 02150 | 22.500 | 9610 |

Thus, 4s. 31. por dolisr, 1 tacl per picul is equal to $\frac{1}{1}$ d. per jound.

Usual myt Weioift and Meabuegment of a Curbt of diftrafent dequobiptions of Tea.


Consumption of Tea in Europe--Of the Contivental atates, Russia and Holland are the only ones in which the consumption of tea is considerable. In 1818 the imports of tea Into Russia amounted to 253,429 pooda, or $9,123,444$ pounds, in chests, and 116,249 poods in bricks. The former consists almost entirely of the finest varieties of black tea. The consumption of tea in Iloliand amounts to about $3,000,000$ pounds a year, the duty on which varies from $1 \frac{1}{2} d$. to $4_{2} d$. per pound. The consumption of France does not exceed 350,000
pounds. The importations into Humburg vary between $1,500,000$ and $2,000,000$ penuds, tho greater part of which is forwarded to the interior of Germany.
Imports of Train tir United Kinodom in 1551 and 1852.

| Deneriplon of Tea. |  | 1852. Posida. |
| :---: | :---: | :---: |
| Holiea | ,000 |  |
| Congo | 81,055,000 | 49,106,000 |
| louchong | 44,000 | 15,000 |
| Caper plain . | 91.000 | 100,000 |
| Caper $\{$ seented | 1,405,000 | 1,018,000 |
| Souchong, Oolong | 4,792,000 | 2,109,000 |
| Flowery and black leaf pekoe. | 825,000 | 822,000 |
|  | 40,000 | 42,000 |
| Orange pek00 \{scented ........ | \$,444,000 | 2,694,000 |
| Twankay | 116,000 | 341,090 |
| Hyson aki | 49,000 | 88.000 |
| Ityson | 957,090 | 800,000 |
| Young Ily | 2,744,000 | 2,501,000 |
| Imperial. | 409,000 | 393,000 |
| Gunpowder | 4.857,000 | 4,083,000 |
| Sorts and Assam tea | 621,000 | 652,000 |
| For exportation only ........... | $\ldots$ | T,060 |
| Total | 71,000,000 | 64,700,0010 |
| Black. | 02,214, (10) | 65,586,000 |
| Greeo | 0,286,000 | 9,314,000 |

The Tea Trade of the C'nited States.-Tes is the chief article imported from China into the United States. The consumption of the United States nmounts to from
$30,000,000$ to $82,000,000$ pounds a year．Duties on tee used to form one of the largeat Items of American reve－ pue，having in sorue yeare produced $\$ 8,250,000$ ．Their magnitude，however，was justly complained of；and it is probably owing to this clrcumstance that，while the consumption of tea was for several years pretty statlonary in the United States，that of coffee increased with even greater rapidity than，in Englaus＇The Secretary of the＇Ireasury of the United States，in hin Report for 1827，observed＂＂The use of tea has itcome so general throughout the United States，as to ran＇s al－ most as a necessary of life．When to this we add that there is no rival production at home to be fostered by lossening the amount of Its importation，the duty upon it may safely be regarded as too high．Upon some of the variaties of the article it conslderably exceerla 100 per cent．，and is believed to be generally abovo the level which a true pollcy polnts out．A moderate re－ duction of the duty wili lead tu an increased consump－ tion of the article，to an extent that，in all probability； would in the end rather benefit than injure the revenue． Its cendency would be to enlergeour traderndexports to China－a trado of progressive value，as our cottons and other articles of home juroduction（aside from apecie）aro more and more untoring luto it．It would cause more of the trade in teas to centre in our ports $;$ the pres－ ent rate of duty driving sur tea ships not unfrequently to seek their markets in Europe，not in the form of re－ expr rtation，but in the tilrect voyage from China．It would also serve to diminish the risk of the United States losing any portion of a trade so vaiuable，through the poliey and regulations of other nations．＂These judicious suggestions couk，not fail to command atten－ tion；and the flourishing state of the revenue in sub－ sequent years having actmltted of a very great reduc－ tion of duties，those on tea wero wholly repealed．As was to le expected，the consumption has since rapid－ ly increased．The whole imporis from China to the Unitell Stated In $1855^{\circ}$ amounted to $11,048, \% 26$ ，of which tea covered $\{(6,806,463$ ．In 1854 the total ha－ ports reached $10,506,3{ }^{\circ}$ ），of which tea amounted to $\$ 6,515,115$ ；and in $1853,410,573,710$ ，of whleir tea

Estimate，inf tenm＇Wreuht，of Tin quantitiph of Tea

 TIE QUANTITY AIIPREI FOR EACH．

| Coentrice． | Found． |
| :---: | :---: |
| The 1 nited Kinadom | 05，160，000 |
| The Intied staics． | 34，3．7，000 |
| Ansiralla． | 8，8．29，010 |
| Ifollaed | 3，000，040 |
| India | 500，0000 |
| Other jtaces | 2，200，000 |
| Total． | 115，s（xu， 0 （0） |

The exprors of toa to Russia by land amouat to $14,000,000$ or $18,000,000$ pounds a year．

The following tal＇tes adiord a review of the quantitics of tea imported into the L＇nited States frout China since the commencement of that traie，so far as they can be gathervel from various otigial returus

| Vars． | Ponnde． | Yeam． | Poondo． |
| :---: | :---: | :---: | :---: |
| 1200. | 3，047，242 | 150 d. | 4，200， 223 |
| ：391 | 955， 097 | 1308. | 6，4x3，529 |
| $17 C 2$ | 2．8t4， 0 ks | 1504． | 3，622，698 |
| 1768 | 2，009，806 | 1916 | 6，119，44t |
| 1794 | 2，400，014 | ISul． | 6，500，846 |
| 1795 | 2，374，318 | 130 Z. | 5，109，744 |
| 1796 | 2，310，269 | 1stm． | 4，912，648 |
| 1797 | 9，000， 300 | 1500 | 1，432，630 |
| 178 | 1，4901，903 | 1 l 10. | 7，530，457 |
| 1790 | 4，80t．50 | 1511. | 8，048，118 |
| 18100 | 3，997，024 | 1812. | 3，059，089 |
| 18 | 4，056，\％¢0 |  |  |

Dedueting the quantities ascertained to have treen exported from the linited states eluring the alove jee－ riod，we find the average antual consuLaption in the country to have been $3,38 k, 000$ pounds for tweive years， frum 1801 to 1812，Jacluaive．From 1813 to 1890 ，in－ cluslve，the total amount consumed or on haud can alune be given．It approximates very ciosely，how．
evor，the total amount imported during that period，and was as follows ：Teas consumed or on hand， $26,717,917$ pounds；or an average annual quantity of $8,839,740$ pounds．The quantities of teas of all kinds imported into end exported from the United States，from 1821 to 1833，inelusive，together wlth the quantities retained for consumption，are ahown an follows：

| Yount． | Imporved． | Kxported． | Consomed． |
| :---: | :---: | :---: | :---: |
| 18.1 | Prowid． | Pounds． 681,69 | Pouade： |
| 1829 | 0，689，434 | 1，438，846 | 5，316，488 |
| 1823 | 8，410，010 | 1，735，076 | 6，474：184 |
| 1824 | 8，134487 | 1，148，868 | T，785，610 |
| 1828 | 10，209，048 | 9，036，808 | 9，178，749 |
| $18: 2$ | 10，008，000 | 3，095，678 | 8，100，2แ8 |
| 1827 | 5，875．638 | 1，626，417 | 4，249，22！ |
| 1828 | 7，707，487 | 1，417，943 | 6，289．581 |
| 1829 | 6，688，79n | 1，018，948 | B，6t8，447 |
| 18\％0 | $8,609,415$ | 1，730，824 | $6.813,101$ |
| 1831 | 5，182，807 | 626，180 | 4050.681 |
| 1839 | 9，906， 0106 | 1，279，968 | $8,627,344$ |
| 18 | 14．639，829 | 1，712，778 | 12，927，043 |

If from the imports are deducted tho exports for each year，an average annual consumption，for the entire jeriorl，of $7,000,000$ pounds will he glyen．The fullow： ing statement shows the Imports and exports of tea， the quantity remaining on hand or consumed each year from 1834 to 1841，exclualve of 601,319 pounds iupport ed during the entire period from other countries than China

| Yeant | $1 \mathrm{mpporited}$. | Esparted． | Consumed． |
| :---: | :---: | :---: | :---: |
|  |  | Yoanda | 12 col |
| 1884．．．．．．．． | 16．289，977 | 8，481，308 | 19，401，609 |
| 1815．．．．．．．．． | $14,415,678$ | 2， 1182.8686 | 12，032， 716 |
| 1836. | 16，382，114 | 1．8＇6．342 | 14，145，712 |
| 1887. | 16，482，884 | 2，5 18386 | 14，45\％，948 |
| 1878. | 14．418，112 | 2，435，302 | 11，982，910 |
| 1899．．．．．．．．． | 14，049，817 | 1，629，098 | 7．76\％， 6 S |
| 1840．．．．．．．．． | $20.066,585$ | 1，128，496 | 18，883， 14.9 |
| 1841. | 11，500，501 | 660.634 | 10．899， 468 |
| Total． | 119，307，972 | 17，380，665 | t12，047．30\％ |

The preceling table will show that the average an－ nual amount consumed，or retained on hand，during this period，was $12,752,163$ pounds．The following state． ment exhlints the values of all lmports from Chitus into the United States from 1833 to 18.11 ，inclusive，dis． tinguisining the values of teas；together with the num－ ber of vessels ani the donnage employed in the trade：

| Yeare | $\begin{gathered} \text { Nuruber } \\ \text { of Sabeele. } \end{gathered}$ | Tomange． | Value of Imports． | $\begin{aligned} & \text { Tslues if } \\ & \text { Tres. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1533 | 61 | 15，304 | \＄7，511，570 | \＄5，454，603 |
| 1834 | 43 | 15，551 | 7，832，527 | 4．217， $0^{4}$ |
| 1335 | 180 | 13，495 | 5，987，187 | $45.28,86$ |
| 1836 | 43 | 10.415 | 7，344，416 | 6．342，911 |
| 1837 | 43 | 16．164 | 8，965，337 | 5，403，044 |
| 1839 | 19 | 11.814 | 4，704．5：6 | 3． $4.7,166$ |
| 1859 | 19 | 8.832 | 8．148，509 | 2， $4.24,419$ |
| 1841 | 35 | 14.751 | 6，640 822 | 5．$+37,140$ |
| 1811. | 28 | 11．486 | 3，695， 388 | 3．+16.6 ， 45 |
| Total． | 15 | 122，484 | \＄ $06.410,409$ |  |

From the preceding talle it may be ser，that the valae of teas reached annuaily，during the period des． ignated，about $84,698,894$ ，and conatituted 75 jer cent． of the value of the entire imports；while tho trade em－ ployed annually about thirty－five vessels，weraging 390 tons each．The preceding taine is rontinued as fo lows，down to $180^{5}$ ，and exhibits generally the same proportion between the value of tutai imports from China into the United States and the vaiue of teas：

| Veare． | Toansme | Vslues of tmporis． | Values of Tram． |
| :---: | :---: | :---: | :---: |
| $1 \times 48$ | 12，484 | \＄4．104．615 | \＄4 3．2， 104 |
| ［14．43． | 13，451） |  | $3,1715,46$ |
| 1844 | （5，994 | 4981.05 | 4， 175.194 |
| t815． | 21.683 | 7．285．914 | 0， 780,101 |
| 14.6 | 10，443 | 6，5＇3．64！ | 0，02\％ $2,6 \mathrm{hm}$ |
| $18+7$ | 17．75\％ | 6， $0 \times 3,841$ | 4，2\％ 4.4 保 |
| t848． | 24，343 | f． $0 \times 3,406$ | 0，217，111 |
| 1849 | 13，418 | 5 518，785 | 4，177．is8 |
| 18゙ロ！ | 8：1，414 | 6，503，462 | $4,505.740$ |
| 1861 | 88，414 | 7，005，144 | 4，4， 3,642 |
| $1 \mathrm{CH2}$ | 7R，OKS | 10，503，951） | 7，144， 5 （4） |
| 1983 | 92， 4 ¢ 4 | 10，537， 7 to | 8， 174.670 |
|  | 70,426 | \＄0，8001，849 | 8，845，110 |
| 1 ris． | 711,815 | 11，048，726 | $6,406,463$ |

Tra kiforted fbon Ghina to Gurat Bhitain and tan Unitid States，hegreotivziry，yon a Praton or ten
 ＂Culma Mall．＂）

| Years． | To Greal Brinia． | To United 8tates． |
| :---: | :---: | :---: |
|  | Paunda． | Pounds． |
| 1845．．．．．．．．．．．．．．． | 63，670，200 | 90，784，058 |
| 1840．．．．．．．．．．．．．．． | 57， 584,400 | 13，602，288 |
| 1847．．．．．．．．．．．．． | 83，005，000 | 18，171，025 |
| 1848．．．．．．．．．．．．．．． | 47，604，800 | 19，838，640 |
| 1810．．．．．．．．．．．．．．． | 47，242，700 | 18，072，800 |
| 18．00．．．．．．．．．．．．．．． | 63， 061,800 | 21，757，800 |
| 1851．．．．．．．．．．．．．． | 64，020，100 | 28，760，800 |
| 1852．．．．．．．．．．．．．．． | 65，197，200 | 84，834，000 |
| 1868．．．．．．．．．．．．．． | T2．006，100 | 40，074，500 |
| 185t．．．．．．．．．．．．．．． | 77，217，900 | 87，867，000 |

It will le notleed that these atatlatics agree with those given below，the latter being taken from the United States Treasury Reports．

Tea bxportad faon Cm：at Great Buitain，Fahoon， and the Vnitad 8tathe，ybow 1821 to 1840．－（Fiom Fghecil Authoritieb．）

| Ynam． | England． | Franca． | United statoe． | Total． |
| :---: | :---: | :---: | :---: | :---: |
|  | Kllagrama． | Kilograme． | Kllagrama， | Ellugrama， |
| 1821. | \＄3，820，000 | 50，0．15 | 2，288，000 | 16，114，000 |
| 1822. | 12，815，000 | 14，000 | 2，887，000 | 15，816，000 |
| 1823． | 13．078，000 | 15，000 | 3，604，000 | 16，731，00n |
| 1894. | 14，902，000 | 6，000 | 4，010，010 | 18，318，00w |
| 1825. | 13，200，000 | 3，000 | 4，581，000 | 17，790，000 |
| 1826. | 13．428，000 | 154，000 | 4，583，000 | 18，112，000 |
| 1847. | 17，880，000 | 276，000 | 2，64t，000 | 20，803，076 |
| $18 \geq 8$. | 14，706，000 |  | 3，440，006 | 18，168，000 |
| 1829. | 13，74C．090 | 121，003 | 2，968，000 | 10，834，000 |
| 1830. | 14，854，000 | 9，000 | 8，863，600 | 18，226，000 |
| 1831. | 14．242，090 | 287，000 | 2，130，000 | 16，804，000 |
| 1882. | 14，269，000 | 47，060 | 4．492，0011 | 18，708，000 |
| 1839. | 14，427，000 | 384，003 | 6．587，000 | 21，401，000 |
| 1834. | $14.413,100$ | 048.000 | 7，319，000 | 2？，830．000 |
| 1848． | 18，725，000 | 46，000 | 6，482，007 | 25，253，000 |
| 1830. | 21，800，000 | 116，000 | 7，341．000 | 29，277，000 |
| 1837. | 18，426，000 | 85，000 | 7，0：8，000 | 24，080，000 |
| 1838. | 18，187，000 | 124．00N | 6，48\％，004 | 24，790，400 |
| 1889．．．．．． | 17，172，000 | 93，400 | 4，184，000 | 21，449，000 |
| 1810．． | 12，0t0，000 | 204，000 | 9，063，000 | 81，937，000 |

In addition to the foregoing，large quantitlea of tea are exported from China to the Netherlands，IIanso Towns，the Levant，the Metiterrancan，and Russia．To the last－named country there were experted in 1839， 3，412，600 kilograns：and In 1810，3，585，000 kilograms； whicin，added to the totala for 1839 ，will give for that year $24,991,000$ kilograms ；and for $18.10,25,522,000$ kilograms．
＂In the consumption of tea，tha United States rank next to＇ireat llritain．From 1815 to 1834 there wore exported to tho former，for consumption and re－oxporta－ tion， $35,805,000$ kllograms．In $1832,4,028,000 \mathrm{kilo}-$ grams，of which 20,000 kilograms were re－exported． Ir 1833－＇34 the Americans exported from Canton tor Furope $1,014,000$ kilograms．Consumption in the United States has largely lincreased since ten was put on the free list of that country．＂

Tha following is a statement of the exporta of tea from China to the United Statea for ten years，from 18.5 to 1854 ，inclusive：

| Year anding June 30. | Gireen． | Mlark． | Tolal． |
| :---: | :---: | :---: | :---: |
|  | 13818 | －100 |  |
| 1945 | 13，812，099 | 6，1100） 459 | 20，742，608 |
| 1846，in 10 vensels | 14，230，08？ | 4．216，108 | 18，6th2，248 |
| 1847，In 31 | 13，858，132 | 4，318，406 | 18，171，828 |
| 1849，ln 88 | 15，346，0，10 | 3，993，617 | 19，338，047 |
| 1849，（1） 37 | 18，818，701 | 4，854， 300 | 18，1072，840 |
| 1550，in 414 | 14，331，400 | $7.361,4100$ | 21，767，800 |
| 1851，tn 61 | 15，205， 76 | 13，315，100 | 28，760，810 |
| $189 \% . \ln 48$ | 90，987，800 | 18，196，700 | 34，334，000 |
| 1si3，in $78 \quad 4$ | 20，480， 200 | 14，484，7100 | 40，07t．600 |
| $18 i 4$. In 45 | 18，230， 800 | 0，347．200 | 27，807，000 |

For the year ending $\overline{5}$ ne $30,19 \cdot 5$ ，the total number of pounds exported to the＂uited States was $31,515,900$ ， in forty－elght ressels，disticuted among three ports，as follows：

| Canton | Pounds． 2，661，000 |
| :---: | :---: |
| Foo－chow | 5，200，800 |
| stanghal． | 23，053，260 |
| Total，year 185＋＇55 | 31，616，900 |

For the year ending Jans 30，1856，It was $40,247,800$ pounds，in fifty－eight vessels，distributed as follows：

| Canton | Pounda． $8,240,800$ |
| :---: | :---: |
| Foo－chow．． | 10，878，000 |
| Shenghal．．． | 21，127，100 |
| Total，year 1855－＇56 | 40，247，800 |

From July 1，1856，to January 15，1857，the exports to thls country were $16,209,600$ pounds．


The ex：is to Great Britain during the year 1855－＇56 were $91,931,800$ pounds ；und from July 1，1856，to Jan－ uary $15,1857,39,991,400$ pounda．

Exponta of Tha fhom the Unitid 8 iatag．

| To | Your onc＂ 4 E Juna 80. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 184. |  | 1885. |  |
|  | Puunda． | Vate | Pounda． | Valum． |
| Fingland．． | 810，918 | ＊ 4 6，586 | ［1，352， 26 ¢6 | \＄478，691 |
| Br Am．Colonies． | 1，683，653 | 100，480 | 1，179，319 | 284，613 |
| Canade． | 2，340，108 | 166，879 | 2，290 378 | 981，178 |
| Other places | 431，432 | 170，542 | \％ot， 886 | 277，020 |
| Total． | 5，177，196 | \＄1，704， 687 | 5，508，044 | \＄2，010，＋42 |
| Paying duty | 4，418 | 1，107 | 60，660 | 16，047 |
| Total． | 5，181，509 | 91，705， 894 | 6，669，504 | 整2，036，889 |

Importh of Tea into the Cnitid Statig．

| From | Year endling Juna 80. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1854. |  | 1865. |  |
|  | Pounde． | Valua． | Pounda． | Valna． |
| Chlum | 23，68， 1 ，63519 | \＄6．615，115 | 24，360，015 | \＄0，816，403 |
| Other places．．． | 717，247 | 170，018 | 827，200 | 124，528 |
| Total． | 24，306，906 | \＄8，715，726 | 25，203，854 | \＄0，0：0，080 |
| Paylng duly an non－pro－ | 110，806 | 13，＂？ | 120，213 | 43，013 |
| Tot | 24， 417,712 | \＄0，7：2，447 | ［25，838，097 | \＄6，573，909 |

Imponta of Tea inio the Linited States fon the Year BNDINQ JUNR 30，1857，FBOM l＇LACES OTHER THAN TIAT of ita I＇roduotion，and payino Dutiag ath valorem．


Imponte of TEA，the Ghowtil of tha Counteige rxport－ ino it，in＇o the I＇Niten states fob the Ixal endinu JUNE 30，INST．－（FREE OF llett．）

| Whenen Imported． | Ponnd． | Valn |
| :---: | :---: | :---: |
| Outeh liast Indles | 21，103 | \＄8，864 |
| 1ritish East Indles | 793,430 | 135，120 |
| 1＇hlltpptne Ialands | 690 | 114 |
| Chtns | 19，005，283 | 5，018，702 |

In Eugland there nre ecrtain ports where teas may be imported．There are warehouses which may be apl－ proved of for the deposit of teas，and are to ba exclusive－ ly nppropriated to that purposo．No package shall be divided into amnller packages，excapt for tho purpcse of stores，nor shall the mixing of tea of any sort or sorts be permitted in tho warehouses，either for homa con－ sumption or exportation．The peeknges shall be aorted and arranged in the warehouse by the occupler，accord－ ing to theltr respective＂chops＂or＂beds，＂so as to en－ able the officers to selsct from each the required number of packagea for taring，and to ascertain tho propor tare to be allowad on the package therein．

Expoeta of TaA, thit Ganwti of yonhion Coumpheze, baum tue United Statig fon tum Year xiding Junz


| Whthar exporled | Pounde. |  |
| :---: | :---: | :---: |
| Russian Pose. In North America. . | 23,037 | 12,366 |
| 8*edish Weat Indtea............ |  |  |
| 1¢nish West Indiec.............. | 11,500 | 4,235 |
| 1ramburg . . . . . . . . . . . . . . . . . . | 111 | 55 |
| Other German porta . . . . . . . . . . | 18.3 | 07 |
| Dutch Galana. . . . . . . . . . . . . . | 40 | 10 |
| Engiand . . . . . . . . . . . . . . . . . . . | 77.814 | 27,673 |
| Gfbraltar | 860 | 144 |
| Canads | 2,070,112 | 876,661 |
| Other Brtish N. American I'ose. | 1,018,084 | 262,692 |
| British Weat Indlea. | 12,946 | 4,996 |
| British Monduras | 8,480 | 3,600 |
| Britiah Gutang | ${ }^{38}$ | 85 |
| British Poseestions in Africa .... | 188 | 79 |
| Other porta iu Afrien ............ | 8,087 | : 8:9 |
| Hritioh Australia | 9,200 | 2,400 |
| Exanee on the Allantio.......... | 250 | 100 |
| French N. American Possossiona, | 32,307 | 8,686 |
| French Weat Indtes ............. | 850 | 140 |
| Canary Islands. | 000 | 1105 |
| Cuba . . . . . . . . . . . . . . . . . . . . . | 8,489 | 1,700 |
| Porto Rico | 363 | 172 |
| Portugal | 22,383 | 10,199 |
| Madeirn | 1,02i | 684 |
| Cape de Verd lalands............ | 1,068 | 383 |
| Asores. . . . . . . . . . . . . . . . . . . . . . | 21.164 | 10.56: |
| Eardinia | 4.036 | 1.605 |
| Turtey in Europe | 4,060 | 1,060 |
| Turkey in Aain.................. | 1,820 | 019 |
| Itngth............................. | 004 | 270 |
| Mexico . . . . . . . . . . . . . . . . . . . . . | 34,6103 | 9,907 |
| Central Repubite . . . . . . . . . . . . | 108 | 71 |
| New Graneda | 8,827 | 8.764 |
| Venesuela. | 6.471 | 2.44 |
| Ifreall | 232,079 | 123.873 |
| Itruguay, or Claplatine Repubtle. | 23.500 | 8,937 |
| Bues,os Ayres, or Argentine liep.. | 79,709 | 55,324 |
| Chili. ............................ | 50.631 | 12.948 |
| Peru | 4,010 | 1, ${ }^{40}$ |
| Rnadwteh Ialends | 13,244 | 8.728 |
| Chins | 23.000 | 3,877 |
| Whate-fimherie | 4,093 | 1.903 |
| Total. | 3,56i,479 | \%1,4341,218 |
| From ${ }^{\text {w }}$ | 24.037 | \$12.386 |
| Sol from warehouse | 3,846,442 | \$1,417,8itu |

Duiy on Teas.-Tea or coffee, slipped from the country of j roduction, but not for a distinet and apecilic destination to persons or places in the United states, and transhipped at a foreign intermediate port for the inited States, is, on importation, liabic to a duty of 20 per cent. But if originally shipped in nationsl vensels, or vessels placed on that footing by treaty, for a apectic pary and place in the United Statea, from the conntry of production, and so imported inio the l'uited States, these articlea are entidled to free eatry, although a mere tracshipment may have taken place at a foreign intermediate port.
Tea or coffec, entitled to free entry when originally imported into the United States, afterward exported to a foreign port and brought lack as part of the returning cargo of the exporting vessel, not having been landed abrosd, is entified to free entry on ita reimportation under these circunsatances. Tea and coitee, when imported direct from the piace of their growtib or production in American vessels, or in fureign vesselu so entitled by reciprocal treaties, are exeupt from duty.
Cetfee, the product of a possessinn of the Netherlande, imported into the United States i:a a vessel of the Netheriands direct from such ponsessions, or from the Netheriands, is admitted free of dety under the tariff law of 1846, and the tirat artiele of the treaty between the United States and the Netheriands of August $\mathbf{2 6}, \mathbf{1 8 5 2}$. 'Jea or coffee imported direct from the place of lita production, in vessels of the kingiom of l'russic, and of the Hansentle republies of $l$ lainburg, liremen, and Labeck, is placed on the same footing with that imported in American or Duteh vesseis.
Tea or coffee, the production of China. imported rin singapore, is admitted to free entry, if it the sathfactorily shown at the time of entry that lt was Jaden on soard the American imperting vessel from Chinowe woats or junkz in Chinese waters, intended' in good
faith to be conveyed tharein direct to a specified port of the United States, as its ultimate deatination.

Teak Wood, or Indian Oak, the produce of the Tectona grandis, a large forest tree that grows In dry and elevated diatricts in the south of India, the Burman empire, Pegu, Ava, Siam, Java, ete. Teak timber is by far tho beat in the East; it works easily, and, though porous, ia strong and durable; it is easily seesoned, and shrinks very hittle; it is of an oily nature, and therefore does not Injure Iron. Mr. Crawfurd says that in comparing teak and oak together, the useful qualities of the former will be foand to preponderato. "It in equaliy atrong, nnd somewhat more buoyant. Its durability is more uniform and decided; and to insure that durablity it demands leas care and preparation; for it may be put In use almost green from the forest, without danger of dry or wet rot. It is fit to emiurn all climates and alternatlons of climate."--See Tamboold's Principles of Carpentry; Cnawfum's Eastern A rchipelago; Rees' Cyclopadia. The teak of Malabar, produced on the high table-land of tho south of Indis, is deemed the best of any. It is the closest is its inbre, and contains the largeat quantity of oil, being at once the hesviest and the most durable. This species of teak is uaed for the keel, limbers, and such parts of a shlp as aro under water: owlng to its great weight, it is less acitable for the upper works, and is not at all fit for apars. The teak of Java ranks next to thint of lifalabar, and is eapecially suitable for planking. The Rangoon or Burman teak, end that of Sism, is not so elone-grained or darable as the witers. It is, however, the most buoyant, and is therstic. ' 'est fitted for inasta and apars. Nalabar teak is exienaively used in the building-yards of Bombay. Ships built wiaily of it are almost indestructible by ordinary wear and iear, and instances are not rare of their having lasted from 80 to 100 yeare. They are asid to sail indifferently, but this is probably owing as muci to some defect in their construction as to the weight of the timber. Calcutta ships are never whoily bיilt of teak; the timbers and frame-work are niways o . .ve wood, and the planking and deck only of teak. I ne teak of Burma, being conveyed with comparatively littlo diff. culty to the ports of langoon and Maulmain, is the cheapest and most abundant of any ; and It is mainly owing to the facility with which supplies of it are obtained that ship-buliding is now carried on so veryextendively at Naulmain. It is largely exported to Caj. cutta and Madras.--Nee Rancioon. A species of timber called Afriesn teak is exported from the west coast of Africa; but in jwint of fact it is not tenk, sud it is destitate of acveral of its most valuabie propertics. It is, however, for some purposes, a useful species of timber.
Teasel, or Fhillers' Thistle (Ger. Heberilitel, Kratzdistel; Fr. Charton ì carder; It. Carda da rapdare; Sp. Cardeurha, Cardo peinador). This plant, which is cultivated in the north and west of lingiand, is an articio of conaldersbie importance to cluthiers, who employ the erooked awns of the heads for rasing the nap on woolen cloths. For this purpose they are fixed round the peripicery of a farge, broad wheel, agalust which the cloth is helid wilile the machine is curited. In choosing temaela, the preference should be given to those with the largest bur, and mast jwinted, which are generally called made toacels. They are mostly used in preparing and dresaing stockings and covericts; the smaller kind, commonly calied the fulters' or drapers', end nometimen the fomile teasels, are used in the preparation of the flier stufls, ns eleths, rateens, "te.

Tehuantepec, Gulf of, a hay of the Prefic Ocean, Contrsi America, hounded northwest by the state of Oaxaca, nud northenst liy the r"public of Giustemala, lut. $15^{\circ}$ N., iong. $9 j^{\circ}$ to $95^{\circ} \mathrm{W}$. It receives the liver Tehuantefec 10 milea nouth of the town.

The Jothmes of Twhuantrgee, states of Oaxacs, Vers Cruz, and Tabasco, is the farrowest part of the land
separating the Gulf of Moxico from the Pacitc, and la 130 mlias across. It produces mahogany, fustic, logwood, cotton, drugs, cacao, indigo, guin, salt, wlth vsrious klada of grain; and ite uplande sbound with fine pastures. It la traverfed almost throughout by the Aiver Coatzacoalcos. This is one of the places where it has been proposed to unite the Atlantle and Pacific oceans by a canal, of which the river and some lakes would form a part.

This new lnter-oceanic route is by the River Coatzacoalces to Suchil, something over 100 miles from the sea, all tho windings included, thence overland by stage to Ventosa, 130 to 140 mlies; making in all about 240 miles from the Atlantic to the Pacifie, to be accompliahed in a day and a half from the aas. This diatance will be materially dininished-the tiuse stll more so-on completlon of a projected railroad from Minatitlan to Suchil, already surveyed.

From the mouth of the river to Minatitlan, twenty miles, the channel is excellent, capaclous enough for the largest ocean sturamships. The depth of water on the bar at low tide ia 1 s to $\mathbf{1 6}$ feet (Major Barnard says 13), and only one obat uction, a large rock, has been diecovered, and that easily avoidable. From Minatitlan to Suchil the river becomes more difficnlt, and must be traveraed by ateamboata; those contemplated ore, in aize and fashion, not dissimilar from the Cumberland River boate. The Leonora, built in Nen York, and placed on this portion of the river a ahort tlme since, had proved of too large draught. The current is about two milea and a half an hour-from Suchil to Ninatitlan, thirty-six hours. These are the termini of the projected railway, by which, when completed, a distance of 45 miles will be saved.

From Suchil to Ventosa, on the Pacific, 130 to 140 miles, the route is by the newly-made stage-road over a rough, sometimea mountainous country. The heaviest work has been on this end of the road, where also the River Puerta, fordable at times, but high and marshy in the rainy scason, is to be spanned by a bridge a mile and a half in length. Some compensntion ia mada on the other side of the mountain, however, by an old road, which has proved available from Clivela l'ass to the P'acitlc plaln. The time contracted for on the stage-read ia five miles per hour-twenty-six to twenty-elght houra; Latween Mlinatitlan and Suchil the pasaage by steamboat will be from six to eight hours, in all about thitrty-fivo hours, or a day and a half from ocean to oceail. The harbor of Ventusa is good, but a broakwater will be necessary. As to the probable amount of travel and business on the 'Telisantepec road, when in full operation, we have no further information than is already, in varions speculations, bofore the public. The shortest route from England, New York, and New Orleans, to the ports of the I'acific, the most thatering expectations are of course entertained respecting it.

The present population of the territery of Teluantepec is estimated ais 00,000 , descendants, for tho most part, of the original Aztecs. They are gregarious in their habits, living in commmities numbering 3000 to 4000 each, and distant from ench other five to ter. miles. They are ludustrious, kini-hearted, and docile, but very thriftless. The government is, of course, that whleh at any time our mobile Mexican neighbors may chance to have. In general, the rights nud privileged of the old Spanish colonial towns ure fully enjoyed. Titles to lauded property are good, and nlway respected. The town of Minatitlan, thi capital and emporium of the turrltory, has at present a population of about tive hundred. The counuree in the native producta of the country, mahogany, dyewoois, coffee, etc., is large and increasing. The last quarter Mr. P. cleared twelve Antorlcan vessela, averaging 200 tuns each, and the foreign export business was ahout the same. The government, a short time since, appropriated the handsome sum of $\$ 50,000$ for the crece
tion of a new custom-house, the foundation of which Is already laid. On the whole, what with present business and future expectatians, our Tehusntepec neigh. bore are ovidently looking up.-United Sistes Consul at Minatitlan.
"ehuantepec Route,--The following figuree show the distances on the Tehuantepec route from New York to San Francisco:
From Now York to the menth of the Coatzacoalcos ${ }_{2275}^{\text {Mileo. }}$
Transit distance. . .................................... 286
Ventoss to San Francieco
Total 2304

Telegraph. Long before the electric telegraph had been imagined, the art of rapidly conveying intelligeuce from point to point bad occupied the attention of mankind, and various expedients for the accomplishment of this object had been devised. The most primitlve modes of telegraphing were by means of signal-firea, torchea, trampets. More recently, aince the invention of gunpowder, the cannon and aky-rockets havs been used. On the luvention of tha aerlal telegraph, or semaphare, these means were sbandoned.

In the year 1684 Dr. Hooke described a plan for an acrial telegraph, and about 1704 M. Amontons instituted experiments with the same end in view. Howcver, nelther of these plans were carrled into effeet; and it was not until 1794 that the semaphore was actually used. In thnt year an aerial ielegraph, the invention of M. Claude Chappé, was employed for the transmission of irtelllgence between Paris and Lille; the conveyance of a aignal from one of these places to the other occupying only two minntes. Semaphores, mostly modificatlons of the plan of Chappe, ware soon in use throughout Europe-in England, in 1795; Denmark, in 1802; Indla, in 1823; Prussia und Anstria, about 1833; and Russia, in 1839.

This method of telegraphing is still in nse, but is rapidly being auperseded by the electric telegraph. In 1852 the only aerial telegraph lins in England was between Liverpool and Ilolyhesd. This lins now, we believe, been superseded by the establishmert of electric communication between these $t$ wo places.

The cost of working the aerial telegraph was enormous. The line above mentioned cost in the vicinity of $£ 1500$ (about $\$ 7500$ ) per annum; and a similar line, hetween London and Portsmouth, cost $£ 8300$ (about $(16,500)$ per annum.

These telegraphs were necessarlly imperfect; bcing himited in their power of conveying intelligence, exceedingly slow, and liable to total interruption by atorms of rain and snow, fogs and darknesa.

The idea of the employment of electrielty as a means of conveying intelligence to $a$ distance appears to have been long entertained, and experiments to uscertain the practicability of electrical communication between distant places were carly snade by acientific men throughout the civilized world. an 1729 Grey and Wheeler discevered that a current of electriclty could be made to flow through considerable lengths of wire. In 1746 Winckler at Lejpsic, and Le Monnier at Paris, experinented on the same subject of the transmission of the electric current through conducting bodies. In 1747 ] Ir. Watson, in linglaml, repented and extended the'se experiments, aending a current through two mileg of wire and two of earth; sending slocks across the Thames and the New River. Dr. Franklin in 1748, and De lac in 1749, repeated many of these experiments. In addition, experiments bearing more or less on the sulyject of electric telography were made by Lesage in 1774 , Reusser In 1794, Cnvallo in 1795, Betancourt in 1798, Noemmering in 1807, and Prof. Oersted ln 1819.

The first electric telegraph actually applied scema to have been the invention of M. D. F. Salva. IIumbollt says his telegraph was established between Madrid and Aranjuez $\ln 1798-a$ distance of about 26 miles.

In 1816 Francls lionalds, of llammersmith, Engiand, constructed a telegraph of elght miles in length. This
telegraph was one of the best that had then been invented, and was capable of transmitting Intelligence with eor giderable rapidity. In 1828 he urged the importance of his invention for government purposes, writing to Jord Melvilie on the auhject, but without offact.

In 1827 Harrison G. Dyer, an American, constructed a telugraph on Long Ialand, using frictional electricity. The lins was about two milea $\ln$ length.

Previous to 1809 no mode of electric telegraphing capable of any extended nee had been discovered. The principal cause of fallure seems to have been in the employment of frictional electricity, which is, on account of its high intensity, confined with great difficuity to conducting bodiew, rapid and Incontinuous in lta action, and, from its amall quantity, devoid of energetic force.
Soemmering mado a step forvard by hia application of galvaniam to the purpoees of telegraphing. In 1809 he constructed, at Munich, a teiegraphie apparatus, itsling 35 wires. The algnala were made by the decompesition of water in 85 tubes, which were in connection with the 35 wires of the line. Telegrapha employing the pure galvanic force were also invented by Schweigger, De Hacr, R. Sulth (Scotland, about 1843); Bain, 1846; and Morae, 1819.

Bain's was the only telegraph on this principle that was extensively used. He used a very simple apparatus, recetving the galvanic current upon chemicallypropared paper, where it made a light-llue mark. A comblastion of dote conatituted his alphabet. This telegreph was exceedingty rapid, being capalije of tranamitting 1200 lettera par minute. In 1850 about 200 miles of telegraph in Fingland, and 1506 in Anerlea, were worked under Ilain's patents. Jis plan has gone now almoat entireiy out of use, other and better instruments superseding 't.
The property which lightning possesses of reversing or destroying the polee of the natural magnet, and of imparting magnetism to iron, had long been knewn; but not natil 1820 was the fact turned to any useful purpose. Professor Oersted, of Copenhagen, discovered, during 1810, that if a wire charged with efectricity is piaced parallel to a magnetic needle, the needle wili deviate from Its naturai position, tending to assume a position at right angles with the conducting wire; and that thim deviation follews reguiar law. Proceeding on the grounlwork of Professor Oersted, many other discoveries were made by Arago, Aupère, Faraday, Davy, Sturgeon, and I'rofessor Menry.

Arago and Ampere in France, and sir 11. Wavy in England, discovered that a current of electricity woud render ateel magnetic; and Ampere found that ly coiling the wire in the form of a hefix round steet the effeet was greatiy increased. William Sturgeon, of Loundon, in the year 1825, discovered and constructed the electromagnet. The eiectromagnet in one of the most valuable parts of the electric telegraph now in use, and has entered more or less lato nearly every telegraph invented since its tiscovery.

Oersted'a great diwcovery gave a new direction to the sci-nce of electrie telegraphing. Gialvante telegraphs wree, in turn, discarded, and marnetoelectric telegraphes took their place.

Amijere was he tirnt to make nse of Clernted's discovery in teichraptilng. $\mathrm{I}_{1}$ iszo he invented a teife-
 practiontly enrried lato effect.

Baron de Schilling Invented a newtle telograph in 1832, at St. Peteralourg. Ilis instrument hall tive nee. dies, which, by their vilirations to the right or left, $\mathrm{i}_{\mathrm{r}}$ dicated aignala. Ife aftelward improved his instrirrent, using but one needle.

In 183 I Ir. Steiuheit had a telegraphic inatrment working a distance of 12 miles. Hin telegraph of one wire, and cither one or two magnetic needles, as might lie dealred, inade jermanent marks on paper, and alan telegraphed by wound. When writing, his needlea were
furnished with ink-tubes, and by their motiona marks were recorded on paper; when telegraphing by sound, the nsedjea were made to atrike belle of different tones. He used the earth as part of the circult. This was very nearly a perfect instrument, and is infinitely superior to the majority of telegraphic inatruments ainco invented.

June 12, 1887, Messra, Cooke \& Wheatatone, in England, obtained a patent for "improvements in giving algnals and sounding alarms in distant places, by meana of electrie currents tranamitted through metai. Ile circuite." This seems to have keen the first telegraph that was patented in Europe. Cooke \& Wheatstone'a firat telegraph was a needie telegraph. They used five magnetio needlea und five wirea. An ejectromagnet was used to sound an alarm. A second patent, taken out by Cooke only, was issued In April, 1838. These instruments were found to be very imperfect, and after a short trial were abandoned.

A different form of telegraph, the invention of the mame partiea, having lut two needles, haa, until very recentiy, been in general use in England; but the Morse nystem is now being adopted there and upon the Continent.

The last patent taken out by Cooke \& Wheatstene is dated May 6, 1846. Durine the same year an act of Parliament was olstained incorporating "The Electric T'elegraph Company," working these patents.

The needie telegraph ia, comparatively, very siow; the arerage apeed per mesage boing hut 14 words per minute. It is, however, yet extensively used in Eflgiand. Ceoke \& Wheatstone took out a patent in America, but their instrument was never practically used in the United States.

Since Cooke \& Wheatstone's first patent, upward of 40 patents have been taken out in England alone. Very few of the instrumenta since invented are in practical operation.

Morne's Tefrgraph.-In the year 1832 Professur S.F. 1l. Moree tirat conceived the idea of an electric telegraph; and in the year 1835 he had a telegrapit constructed, the basis of his present zimpite and beantiful instrument. In September, 18:37, he exhibited his inatroment at the New York Cniversity, working through 1700 fect of wire.

Morse appiled for a patent in the United States in April, 18iks. This application was afterward withdrawn, and his pacent was not takell out until June, 1840. In $1 \times 42$ he petitioned Congress, who appropriated $\leqslant 30,000$ to his use for the conatruction of a line betwern Washington and Baltimere. In June, 18H, Morse had hia invention in succesmful opieration be tween Washington and Ibaitimore -a dintsuce of 4) miles. Thim was the only tine in the Linited States constructed ander government patronage.

The Morse Eiectre-magnetie 'Telegraph consists mainly of two parts-tise receiving magnet and the registering apparatus. The recoiving magnes is surrounded by tine wire, and is of the horseaboe form. An adjustablo armature is placed before the poles of the receiving magnet. The main circuit prasses unbroken through the receiving magnet to the neat station.

The registering apparatus lias a powerful horse-shee magnet placet vertically. Alove the poles of the magnet is all armature attached to one emp of a movabie fever, on the other end of which is a steef style for the purpose of impressing marks on japror jlaced inmediately absue the ntylo. Intelligence is trans. mitred by means of breaking and ciosing the main circuit. For this purpose a stuali key is rupdored When this key is prossed down, the current passes to the receiving magnet of the distant station, causing the recolving magnet to close the locai circuit. On the local efrcuit being clused, the registering magnet hecomen exclted and attracts the armature downarl. cansing a mark on tho jajer: jiaced above the lever of
the armature. On the circuit being opened ngain by the operator's raising the key, all returns to Its usual quiescent position. Thlsoperation ls performed at every closing and breaking of the circuit. By keeping the key depressed for an instant, a dot is made; if it ls depressed for a longer time, a line. A comblnation of dots and lines forms the telegraphic alnhabet used with this system. The speed of this instrunent ls, in the hands of an expert, about twenty words per minute.

Professor Morse's instrument was for some time the only instrmment In use in this country, and is now used to a greater extent than all other telegraphe combined.

The Howse Telegraph, the lavention of Roysl E. lfouse, differs materiaily from all previously invented telegra; inic instruments, printing messages in the ordinary Roman letters. Directly under a set of keys like thuse of the piano-forte is a shaft inclosed by a cylinder. This shaft is made to revolve rapidly by means of a treadle. The shaft and cylinder are so arranged that tho cylinder can be arrested while the shaft atiil revoives. On one end of this cylinder is a brass wheel having fuurteen teeth. A spring is so arranged, that when the shaft and cylinder revolve it wali alternately strike a tooth of this brass wheel and pass into an open space; thus alternately breaking and closing the electric circuit. On the cylinder two lines of teeth project, fourteen in each line, one for each tooth and each space of the circnit wheel. These teeth are immediately below the keys, so that by pressing down a key the motion of the cylinder is stopped. Ily making the cylinder revolve, the circuit is rapidiy broken and clused, which continues tili at key is depressed. On the key being released, the revolution goes on as before. The electrical pulsations produced by the breaking and closing of the circuit are conveyed to the magnet of the dlstant instrument, each pulsation ennsing the magnet to act.

The type-wheel, a wieel having the letters of the alphabet cut upon it, is made to revolve, but is so checked by an escapement wheel that aty one letter goes forward at a time. This escapement is connected by a lever with the piston of an air-chamber. This piston is caused to move horizontally backward and forward, by means of compressed air admitted alternntely on different sides of the piston. A vaive attached to the magnet regulates the pressure of the air on the piston. Every breaking and closisg of the circuit causes the magnet, plston, and escape to net, so tiant for every time the eircuit is broken or closed the tyle-wheel is advanced one letter. If any letter of the type-wheel is piaced in a certuin position, and the key corresponding to it is depressed, raised, and again depressed, the chrcuit wheel nt the transmitting station and the type-wheel at the recelving station make one revolution, bringing the letter back to its former position. Any other letter is brought into the refuired position by pressing down its key on the keyboard of the instrment. Tho letter tirst brougint into position is the dash. The type-wheel is stopped at the dasi, nfter which the printing goes regularly on as the keys are depressed. Immediately before the typewheei is the press, containing a narrow strip of paper. At the depression of a key the typewwheel stops, sets a crank In motlon, which presses the paper forcibiy against the letter opposite to it on the type-wheei. On the key being alsed, the type-wheel revolves until the depression o auother key, which again uniocks tie press and prints a letter.

The cleetric current is used in this instrument to preserve equal time, that tho letters in one machine may correspond to those In the other. The number of puisstions required to indicate a succession of letters is exceedingly unequal; from a to $b$ requires one, from A to A twenty-eight pulsatlons.
liouse oltained a second patent in December, 1852. The llouse Instrument is used to a limited extent in
this country. It Is stili less used in England, where it is known as Jacol Brett's Telegraph. This iastrument is more rapid than Morse's, printing sccurately frem twenty-five to ttirty words per minute.

The Jfughes Telegraph is the invention of David E: Hughes, of Kentucky, who obtained a patent in 1855 and in 18j8. This, like the House Telegraph, is a printing telegraph, but in principle and in mechsnisms it is tetally unlike that instrument.

The Hughes system of teiegraphing combines not only all the sdvantages of all other existing systems, but rednces the labor which electricity has to perform to thu lowest possible peint. In sll other systems it requires several distinct electrical impulses to form a single letter. In tine House system, which is bueed upon the number of waves sent, the average number of impulses required to determine the intended letter ls seven : in the Morse syatem, which is based upon the number and duration of the waves sent, the average is tirree and a half. To print a letter every closing or breaking oi the circuit, so that every electrical impulse should determine a letter, has long been a desideratum, more particularly since the discovery that it requires an appreciable time to charge a long wire with electricity; sr that on long circuits we should bo obiiged to send a less number of electrical waves in a given time than on a short circuit. On submerged esbles this and other effects are still more marked, reducing the apeed of transmission upward of two-thirls. If every wave, instead of every three waves, produced a letter, it is evident enough that the speed of transmission through the calle would be equal to that of the air-lines with the systems now in use, and that the speed of the air-lines would be increased two-thirts. The IIughes system uses but one electrical impulse per letter, ead by the use of a new and exceedingly sensitive magnet can work on lines of far greater length, and with a rapidity exceeding that of any telegraph now in existence.

To carry out the onc-wave aystem, it is casential that the type-wheels of the different instruments should revolve at precisely the same speed, so that the same ietter on each type-wheel should be opposite a given point at the same time. Ciock-work governed by meane of a pendulum would be too slow for any prac. tical use. Instead of a pendulum, Hughes employs as a governor $n$ vibrating spring. This spring allows the type-wheels to revolve with any desired degree of rapidity. Tiis governor is dependent for its correct action on a law of aconstics, viz., "that a certain number of vibratious per second produces a certain musical toue; and if there are two or more springs of the same tone, they invariably glvo the same number of vibrations per seconci." If these springe by their vibrations are made to unlock an escespement, it foliows that all instruments governed by springs of the same tone must revolve in exactly the same time. The type-wheels, thus goverued, revolve at the rate of 100 rovoiutions per minute, and the average number of letters sent at each revolution being two, it follows that the speed of the instrument is 200 letters per minute, equal to about forty words.
Ithis is about the speed that an ordinary operntor touches the keys, but not by any means the utmost speed of the instrument, as the type-wheels wolld rerolve with undeviating accuracy at a speed of 500 in stead of 100 revolutions per minute.
The magnet of the Hughes instrument, which receives the electric current from the distant station, is a combination of a natural and an electro-magnet. The attractive power of the natural nugnet, exerted through the electro-magnet, holds a small armature in contact with the poles of the electro-magnet. A spring attached to the armature is so adjusted as nearly to pull the armsture away from the poles of the electro-inagnet. The slightest change in pelarity esuses the spring to puil the armsture away from its resting-
place. The armature is reatored to lte place by meana of a lover, which acts upon it at the inatant it is pulled away from the electro-magnet'a polen. This arrangement employa the current of electricity merely to efeet a ailght change in the force by which the armature is held to tha magnet'a poles, and it ia so romarkably seanitive that the mere contact of a piece of zinc against a copper wire has been found amply aufficient to work the magnet. From its sensitivenena it requires scarcely a tenth of the battery-power used by the moat nensitive of other aystems.

Another wonderful and beautiful feature of this Inatrument is its power of writing both waye, sending and receiving messages at the sama inatant over one Bire. This inatrument thus doublea the capacity of the wire, making it do the service of two ; transmitting with certainty and accuracy 200 letters each way per minute, an actual transmission of $\mathbf{4 0 0}$ letters, or 80 words, per minate. This result- Is accomplished by means of a peculiar arrangement of the batteries and magnets, so that the current from the traasmitting atation does not influence its own magnet, while it affects that of the recelving statlon, each magnet thus being placed under control of the distant operator.

The machinery which accomplishes reanlis so astonishing is simple in the extreme. It consists mainly of foar clock-wheels used to turn the type-wheel. These wheela are governed by the vibrating spring before explained. At the moment a current from the distant atation enters the magnet the armature flies off, opens a detent which causes a mmall press to be locked to the wheel-work of the instrument, and then to press a atrip of paper agninst the letter of the type-wheel opposite the press at that instant. A current ia sent upon the line by means of keys arranged like those of a plano, and having the letters of the alphabet engraved upon them. At the moment one of thene keya is depreased the magnet of the receiviag station ia made to act, and the press to print the letter cortesponding to the touched key. The recelving operator haa nothing to do but to tear off the mesanges as they arrive.

This inatrument, after more than ten years of persevering thought and lalor, Is at last perfeeted, and now fuifills all the regulatea of a perfect telegraph Instru-ment-more than realizing ail that has ever been claimed for it by the Inventor. The remarkatile ingenuity, talent, and knowledge of the principies of electrical selence displayed by Professor II uglses, In the invention of his loantiful machino, deservedly place him foremost in the ranks of the laborers in this liranch of art, and justify his clalin of having in vented a telegraph instrument whleh, for speed, neatness, and economy, is without a rival.
The numerous edvantagen that the Hughes instrument possesses over ail other existing syotema, particularly in the matter of apeed and power of working on long elreuits, will probalily give th the preference in the selection of telegraphle machines with which to work the Atlantic Submarine calis. Indeed It may weil be doubted if any other nystem can be made practically avaliabie for that purpose.
The following lirief summary of the telegraph lines of the worlil at the close of the year 1857 will furnish some idea of the Importance of the telegraphic art, and of its claime to public attention:
Cnited Stotes hinve upward of 35,000 milegof telegraph, casployidg a rapilal, an near at ran he amecitained, of $\$ 4,000,000$. The instruments used are the Ilaglies, House, and Morme machines
Ibrifish frownexs have 5000 miles of telegraph, ompiaying a cepital of
Cuba and Mexico have ahort and unrellable Itnea, which are controlled by the governmients.

Singland has about 10,000 miles of telegraph lines-upward of $40,000 \mathrm{mit} \mathrm{m}_{\text {o }}$ of condueting wire-employing a capital eattinated at a million and a haif poonda ateritng. In Fingland the government hee the powar of ordering all governasent usterges to taka precedence of any other commonications,
and wheu deemad nocesmary all telegrapha are required to ha pleced at the eole diapoenal of tho goveromest. Only one laatance of this kiod has occurred; on the occation of the an Helpated chartint riota in Aprit, 1840.
France han 8000 nillea of telegraph la operation, uader the oxelustve centrol of the government.
Beigium han about 650 milies of telegraph ilnem, constracted aded controlled by the goveiument
Germany and Austria hava nearly 10,000 milles of telegraph, controlled by the governmenta
Pruesia has about 4000 millee of telegraph in operation. The wren are mootly underground-controiled by the govemment.
Hothand han $60^{\wedge}$ mtlea of telegraph.
Saxony and Bavarit hare gevernment linea of about 1700 milea.
Italy has 2500 miloo, controlled by Ite different govern. mentu,
Switzerland has 1500 millea, under control of the Federal goverament.
Spain and Portugal bare some 800 miller-controlled by the goveramenta.
Rusota-- Of the namber and extent of Rassan telegraph Insee fittio la known. As near ce can be entimated, they ex. tend over 6000 millea-under government controt.
India han now in operation 6000 millea of telegraph, censtrueten and controlled by the Eaat Indla Company.
Si uscratia has 500 mllea in operallon, add 800 millea ncarily or quite completed.

Recapitelation.


The number of messages pasaing over all lines in the United States is estimated at about $4,000,000$ per annum.

In addition to the land linea, numerous submarine cables have been laid in different parta of the worid. Annexed is a brief account of the different submarine cablea, lengths, when laid, ote.
The first sulmarine cable was laid between Dover, England, and Calais, France, during August, 1850. This cabie wes aboul 24 miles in length. Eiectrical communication between lingland and France ceoitinted uninterrupted for about a month, when the cable was urcken. Upon examination it wan found that the clating of the cabie againat rocks off Cape Gricucz had caused it to part. A second cable was lmmediately relaid, larger and atronger than ita predecessor, wbidi has remained in good working order up to the present time.
In May, 1852, a submarine cable was successfully laid between Holylicaid and Howth, thus connectiag England with Ireiancl. This calie is tit milies in lenth.

During May, 1853, "the Port Patrick and Carrickfergua" cabie, 24 milea in leagth, connecting Scotiand and Ireland, was laid.
In June, 1854, a cable 115 miles in length was leid between Orfordneas, England, and tise Ilague, Ilolland.

A chird cabie, 75 milles in length, was inid in 1852, between Dover and Ostend.

In 1804 cables from Italy to Corsica, thence to Sardisia, were, after much difficulty, successfully laid down, a distance of about 75 miles.
The New Yurk, Newfoundland, and Lomion Tele. graph Cumpany, In 1855 made an attempt to connect the islande of Newfoundiand and Caje llreton. The attempt was unsuccessful. In 1856 another attenipt was made, rcsuiting in complete auccess.
Summary of Submarina Cubles.-The following is a correct taile of the number and length of the submarina calles laid down in different parts of the world:

| Cablen. | Milon. | Wiren | nate. |
| :---: | :---: | :---: | :---: |
| Dover and Calala. | 24 | 4 | 1851 |
| 1)over and Ostend. ...................... | 75 | 6 | 1852 |
| Holyboad and llow th | 65 | 1 | 1858 |
| Eingland and Ifolisend. | 115 | 8 | 1563 |
| Port l'atrick and Donaghadoe. . . . . . . . . | 13 | 0 | 1853 |
| Second cable do., do. | 13 | 6 | 1859 |
| Italy and Corsics . ....................... | 65 | 6 | 1854 |
| Corslea and Sardinia. .................. | 10 | 6 | 1854 |
| Donmark, ncrows the Great Belt....... | 15 | 3 | 1854 |
| Donnuark, acrosest the Little Beit........ | 5 | 3 | 1854 |
| Denmark, acrose tie sound, ........... | 12 | 8 | 1855 |
| Acress the Frith of Forth (Scotland) ... | 4 | 4 | 1855 |
| Varne and Baiaklave (acress the Black: <br> Sea) | 340 | 1 | 1855 |
| Balaklava and Eupatoria .............. | 60 | 1 | 1855 |
| Across tho Danabe, at Shumia ........ | 1 | 1 | 1855 |
| Aoross the Iloogly River.. | 21 | - |  |
| Messlas to Reggio | 5 | 1 | 1856 |
| Acrosk the Gulf of St. Lawrence | 74 | 1 | 1856 |
| Across the Stralta of Northumberland, <br> Princo Edward Islond | 101 | 1 | 1853 |
| Acroses the Bosphorus, at Ke ndili...... | 1 | 1 | 1850 |
| Across ths Gut of Kanso, Ne va Scotia.. | - | 3 | 1856 |
| Slx cables across the mouths of the Denuba, at the Isle of Serpents, each one mile fong and tisving ong conductor | 6 | 6 | 185\% |
| Across the Minalsalppi, at Paduonl. . . . . | 1 | 1 | 1851 |
| From Peterabuig to Cronatadt. . | 10 | 1 | 1850 |
| Across tho St, Lewrence, at quebee ..... | $\cdots$ | 1 | 1853 |
| Acrosa the Soland, Isie of Wigit (Eng.) | 3 9 | 4 | 1855 |
| Smali river crossings . . . . . . . . . . . . | 20 | - | $\cdots$ |
| Total length of aubmarine cahles. . | リ60 |  |  |

The total length of submarine cables laid down is 950 miles, and the length of the condueting wires in ali is 2660 miles. Should the attompt to lay tho great Allautic Submarine Cable next June be successful, the lengtit of calie laid down will be increased to 2564, and the longth of condueting wires to 4075 miles.

The Atlantic Telegraph.-In the year 1856 Cyrus W. Field visited England. The result of his visit was the formation of the Atlantic Telegraph Company, with a capital of $£ 350,000$, for the purpose of connecting Europe witi Ameriea by a submarine telegraph cable. In August, 1857, an attempt was made to lay down the Atlantic Submarine Cablo, resulting in a disastrous failure. The cable was 2500 miles in longth, weighing nearly one ton per mile, eapablo of beasing a direct strain of over five tons without; fracture. The centro of tho callo was formed by geven fine copper wires, $t$ wisted into a cord $\frac{1}{15}$ of an inch thick. This atrand was coated with gutta porcha, forming a small rope of of an inch thick; then coated with hempen twine soaked in pitch and tar; lastly, an oxtornal sheathing of 18 iron wires, each wire belng a strand of eeven finer wires, making in all 126 wirss. The submersion was commonced on the 5 th August, 1857. There wero present the six steamers, Niagara, Agamemmon, Leopard, Susquehanna, Willing, and Mind, intended to assiat in various parts of the operation. The cable camo up from tho isold of the shilp, around a central block, so to the open space above decks; it was there wound round grooved sheaths, geared togetbse by cogs, and tirmly planted on girders. Thence it passed over a fifth sheath, out over tho stern into the soa, sinking by its own weight. A trifling aceident happoned on tho 6th; this was repaired; and on the 11th, 380 miles (statute) had been submerged. The engheer here concluded that thero was too mach "slack" in the cablo's course, and some modification in the machinery was consequently made. This appears to have been badly attended to by a subordinato. The eable saapped, and thus ended tio attempt of 1857 .

But ititle doubt is now entertalned that the year 1858 will see thie great enterprise successfuily aceomplished, and the Atlantic Submarine Cablo a fixed fact.

In regard to the possibllity of any transmission of signe': wlth rapidity sufficlent for preetical use, it may be atated that on the 9 th of October, 1856, a large number of scientific men met at the offices of the Magnetic Telegraph Company, In old Broad Street London, England, to witness the operation of telegraphing through upward of 2000 miles of subterranean and submarina
wires, throngh England, Ireland, and the Irish Sea, connected for this experlment. Signale were sent throughout the entire distanca with rapidity and certalnty, 250 being transmitted per minute. Professor Misse, who was present, wrote us follows: "There can be no queation but that, with a cable contalning a single conducting wire, of a size net exceeding that through which we worked, it would he easy to telegraph from Ireland to Newfoundland at the spoed of at least cight or ten word? per minute. Take it at ten words in the mlnute, and allowing ten words for name and address, we can safely ealculate upon the transmission of a twenty-words' message in three minutes; ${ }^{*}$ * * or fourteen thousand four handred words per day. In one word, the doubts are resolved-the difficulties overcome; success is within our reach; and tho great feat of the century must shortly be accompilshed."

The cost of the telegraph eable has been as foliows:

We learn from the London Times that a prospectas has been issued of a company to complete the long-expected telegraphic communication with British Indian territories. It is to be called the European and Indian Junction Telegraph Company, with a capital of $£ 200,000$, in $£ 10$ shares. The llne selected is the same as that for the Euphrates Railway-namely, from the port of Seleucia, on the Mediterranean, to tho head of the Persian Gulf, fc'lowing the valley of the Euphrates; and it will enanect, on tha one hand, with the Austrian system of telegraphs, which is to be carried to Seleucia, and on the other with a cable to be laid ly the East India Company from the Persian Gulf to the Indian port of Kurrachee. It will, therefore, supply the only link necessary to enable messages to bs transmitted from London to any of the several Presidenciea. Direct pecuniary support is expected from the government and tho East India Company, together with a concession from Turkey, and no call j . to be made until these arrangements shall have been cotnpleted. One half the shares are to be allotted to tho subscribers to the Euplirates Railway, and the other half to the public.

This, in connection witis the proposed construction of a continuous line of railroad from Germany to Calcutta, shows that the trade of the East is gradually assuming moro importanco in the oyes of European capitalists and merehnnts.

Tender, Legal. Legal tender of money varies in different countries. Thus, in England, Bank of England notes (except by the bank itself) and gold aro legal tender for any amount. Silver to the amount of 40 shillings oniy.

In the United States, the gold and silver coina of the United States wero made logal tender by the act of January 18, 1837, viz. : That doliars, half-dollars, quarter-dollars, dimes, and half-dimes, shall be legal tender, according to their nominal value, for any aums whatever; the gold eagle at ten doliars, the half-eagle at five dollnrs, and the quarter-eagle for two and a balf dollars. By the act of 1849 the coinage of the donbl eagle, value twenty dollars, and of the gold dollar, was authorized; both of which are legal tender for any amount.-See Coinage.

Owlng to the reduced weight of the new silver coins authorizod by Congress 3d March, 1851, and 21st Feb. ruary, 1853, they are no longer legal tender except in smali sums, viz. :
Three-cent ploces (Act March, 1851, and 1858) .... 30 cta. Ifsif-dolisrs, 102 gruins each, 21st Feb., 1851..
Quarter-dollarn 96 "
Ilaifer $\quad 88-40$
Ilalf-dimes 10.20

By the act of Februar 7,1857 , "all formor acte autherizing the currency of coreign gold and allver colna, and declaring the same a legal tender in paymeat of debts, are hereby repealed."

In the absence of any apecial agreement, the only payment known to the law is by cash. The tender ahould properly be in cash, and muat be ao, if that ia required. A tender of a larger sum than la due, with a requirement of change or of tho balance, is not good. A lawful tender, and payment of the money into court, la a good defense to an action for the debt. But the creditor may break down thin defense by proving that he demanded the money of the debtor, and the debtor refused to give it, subaequently to the tender,-Parsons on Mfercuntile Laso.

Teneriffo, the largeat island of tho group calied the Canarles, lies between Canary and Gemera. It is of an Irregular ahape, 60 milea $\ln$ length, with an extreme tireatth of 30 miles. Not more than onc-sevonth is cultivable. A chain of mountaina traverses the isiand In the direction of its greatest length, and in the middic of tho broalest part rises the celebrated penk lovally known as the I'lco de Teyde, which, with its aupporta and apurs, oceupies neart, twosin.rils of the whale islund.
The Canary Islan'a a $e$ in the North Atlantic Ocean, between $11,25^{\circ} 10^{\prime}$ and $99^{\circ} 30^{\circ} \mathrm{N}$., and long. $18^{\circ}$ an and $18^{\prime}$ av $W$. The manes of the seven principal
lalands, their reapective area $\ln$ Eagliah aquare milea, and their population in 1835, are given in the follewing table:

| lulanda. | Area. | Population. |
| :---: | :---: | :---: |
| Tenerifto....., | 817 | 85,000 |
| Grand Cianary | 758 | 68,040 |
| Palma | 718 | 88,000 |
| Lanzarote. | 828 | 17,410 |
| Fuertaventura | 826 | 18,801 |
| Comera. | 169 | 11.700 |
| Illermo | 62 | 4,400 |

Formerly the total annual prodico was estimated at about 40,000 pipea, of whlch 25,000 pipes were jorsduced in Tenrriffe. Between 8000 end 9000 plpes were exported. The elidef exports are wine, cochincal, barilia, and orchilla. The inporta cousist of woolen, silk, cotton, and iron manufactures, glass, etc.

Principal Ports.-The porta of Santa Cruz do Tene. riffe, Orotana, Cludad Real do los Palman, Anceiffe de Langarole, Puerto de Cabras, and San Sebasilan, in the Canary Inlands, having been declared freo hy royal decree proclaimed on the 10 th of Oetober, 1852 , and vessels of the United States and their cargoes arriving In said ports leling thus placed on the same foeting with those of Spain, no di criminating duty is levied on Epanisil vessels and their cargoes arriviag from those ports in the ports of the United States; provided that on evory such arrival the req-ired consular certificate be flided with the collector of the port.-See Canakies.


| Yeare ending | Kxperts |  |  | Imports. | Whereof there wna in Bultrui and :perio. |  | Tonnege eleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dodnestit. | Foreign | Total. | Total | Export | Import. | American. | Futeifor |
| Sept 3n, 1821...... | \$74.8.8 | +47,63 ${ }^{4}$ | \$1 13,4 \% | \$24'2, 089 | 27.491 | * | \$1, $141!$ | -62 |
| 1822....... | 85.987 | 23. 1411 | 111,07\% | 241.195 | 3,650 | \$ 470 | 2.849 |  |
| 1888....... | $8 \times 0002$ | 21,*16 | \%, 2,218 | 2413,484 | $\cdots$ | 060 | 2,296 | $\cdots$ |
| 1824...... | 42,9,3 | 20,19 | 69,949 | DS, 379 | 6,707 | 3,C90 | 1,782 | 130 |
| 1938. | 70.380 | 21,87t | ¢1,651 | 16.718 | 6, ${ }^{\text {a }}$ 40 | .... | 3.007 | 11'5 |
| 1926....... | 4.7611 | 41,742 | 64.603 | 173,399 | 4.607 | $\cdots$ | 1.901 |  |
| 1887....... | 46,103 | 34.815 | 85080 | 123.160 | 4.316 | 4,1164 | 9,163 | $\ldots$ |
| 1828. | 33,049 | 8, int | 42,0>0 | 292, 240 | 2,940 | 1,700 | 1.810 | ..... |
| 18:9....... | 42,633 | 23,317 | 60,1511 | 85.283 | 8.105 | .... | 1.714 |  |
| 16310...... | 19,04 | 610 | 10,050 | 09.858 | .... | .... | $7!6$ |  |
| Tolat... | 8516,824 | \$244,445 | 8750, 769 | \$1,615,725 | \$43,32] | * 10,464 | 21, 1137 | 341 |
| Sept 30, 1831...... | 8,4,081 | \$3.441 | \$38.377 | 4155,109 |  |  | 1,418 |  |
| 1934....... | 14,5017 | 7. 4 d 51 | 82,418 | 151, 837 | \$6.975 | \$2,160 | 925 | $\cdots$ |
| 1833....... | 24.313 | 15,855 | 89,664 | 145, 190 | 8,000 | , | 2,343 | $\cdots$ |
| 1834....... | 20,663 | 757 | 21.425 | 149,180 |  | $\cdots$ | 1,896 | 358 |
| 1*5........ | 40, 108 | 12,711 | 52, 906 | 119.8022 | 4.842 | 679 | 2, 181 | 1:4 |
| 1533. | 21,637 | 4.964 | 95,9\%1 | 206, 923 | 2,0 of | 070 | 1.615 | .... |
| 19, | 95.53 | 7,649 | 45, 201 | 24.5.276 | 7.900 | $\because$ | $2,15 \%$ | .... |
| 1535. | 84.619 | 18,686 | [3.305 | 161.806 | 12.640 | 6 \%is | $9.17 \%$ | .... |
| t139. | 10,672 | 11,6019 | 27,611 | 190.785 | 11.65\% | 110 | 1,193 | .... |
| 1850. | 11.816 | 11,573 | 26.4515 | 1301.022 | 0,tk0 | .... | 714 | 366 |
| Totes... | \$3-4, 891 | 994,265 | \$ 40.156 | *1,730,950 | * $6,8,8.0$ | 84, 33 | 18,616 | 1011 |
| Stpt. 30, $184 t . . . . .$. | \$12.990 | \$3,499 | \$16,799 | \&14, C84 | . . . | $\cdots$ | 1,200 |  |
| 9.1818....... | 12.743 | 518 | 18,2tt | 51, 111 | *** | .... | 48 A | 4i3 |
| $9 \mathrm{mos}, 1$ 183**..... | 7, 580 | 3,9\%5 | 11.024 | 16,064 | - |  | $4 \times 6$ |  |
| June 30, t44t...... | 14,493 | 1,042 | 15,53\% | 61,453 | . . . | \$1,000 | Grit | "ï, |
| 1848..... | 8, 408 | $\therefore \times 10$ | 8.895 | P6, 03: | * . . | * $\cdot$ | 467 | $35 \%$ |
| 1846....... | 18,082 15,148 | 4.840 | 17.812 18.148 | 62,0:5 | .... | . . . | 645 | $\cdots \cdot$ |
| 1545....... | 9,921 | 1,8.9 | 11,150 | 45,461 | ... | . . . | *il) | Iis |
| $18: 9$ | 17,880 | 6\%4 | 15,494 | 88,913 |  |  | (19 | 2:5 |
| 1850.. | 20.624 | 6,010 | 0\%503 | 65,428 | \$4,810 | * $\cdot \cdots$ | (47 | 13011 |
| Total... | \$180,06\% | \$51,763 | \$10.0.7\% | 360, ${ }^{6} 70$ | 4,840 | 81,940 | $7.88^{x}$ | \$134 |
| Jane 30, 1351....... | 43, 940 | \$5,6:9 | \$10.179 | \$97,7t8 | 200.000 | ...' | 883 | *i |
| 15:\%....... | 16. 511 | 15 | 10.516 | 5i, 615 | .... |  | 718 | 11.3 |
| 12 L 3. | 93,915 | 1, 640) | 24.215 | \$1.12\%1 | .... | $\$ 400$ | 1.0 Hf | 1** |
| 1836 | 19,:16 | 1 H | 20,1\%0 | 80,505 | . . $*$ | .... | 1.046 | .... |
| 1840 | 43,211 | 2,1 | 46, 298 | 45, 105 | . $\cdot$. | . . | 4.147 | 1336 |
| 1454. | 90, 51 | 2, \%od | 32.146 | 16.704 | . . . |  | $2.3+6$ | 1113 |
| 16:\%....... | +9,427 | 9 F | A99,924 | 44,0065 |  | ... | 9.743 | 10.0) |

* Nine monthir to June $\mathbf{3 0}$, and the fiacel gear frotu this lime boginh July 1.

Tennessee, one of the I'nitel Staies, lies 'retween the rastern part the mountains aro moatly sterile, but
 W. Its mean length is 400 miles, and its mean breach 111 miles, containing \& !000 mqure miles. Populati in in $17^{\circ} 90$ was 35,691 ; In 1800, 705,602 ; in 1819, 261, 727; in JF.0. 422,813; in 1830, 681,90t; in 1820, 829,210, and in 14:00, $1,602,625$. The soil is varlous, but generally fertil.. The weatern part han a dark rich soll; in the middle are great ipuanifies of excelfent land. In
the valleys are very fertile. The cuuntry has a gn at profiaion of nat'f ve timber, joplar, hickory, walnut, enk, beach, aycamore, lucust, cherry, sugar-inaple, rte. Thero are many medicinal plants. The soll produces abuat. antiy cotton and tatraceo, the ataple connnedities of tha State ; alun grain, grans, and fruit. The eastem poptlon f the Slate coutains the principal mineral deposite, anong which are oree of irsn, coppler, lead, ani veds
ofeal abroun There Impro Cash Implen Ilorse 250,45 aheep, $\$ 29,97$ Agn cla; ry barley 369,32 rice, 2 © 52,89 of butt 248 lh gallons $1,364,3$ silk coc lany, bushels were m manufa $\$ 6,401$, The: it is 12 to Flort into the for boat rising ${ }^{1}$ gable f boats 3 tuck y, 6 aton, Ci of tho T in the $w$ sippi, as
of coal. Mineral aprings occur ; graalte and llmestone abound. In the latter formation are many caverns of great extent; sonie have been explored for milles. There were in this State in 1850, 5,175, 173 acres of land impruved, and 18,808,849 unimproved land in farmis. Cash value of tarms, $897,851,212$; and the value of limplemants and machinery, $85,360,210$. Live Stock.-Horses, 270,036; assea and mules, 75,803; mileh cows, 250,450 ; working oxen, 80,255 ; ct er cattle, 414,051; sheep, 811,591 ; swine, $3,104,800$; $v$ 'ue of live stock, 429,978,016.

Agricultural Products, etc.-Wheat, $1,019,880$ bushols; rye, 89,137 ; Indlan corn, $52,276,223$; oats, $7,703,086$; barley, 2737; buckwheat, 19,427; peas and beans, 369,321 ; potatoes, $1,067,844$; aweet potatoes, 2,771,716; rice, $258,854 \mathrm{lls}$, ; value of products of the orchard, \$52,894; proluce of market gardens, 897,183 ; pounda of butter made, $3,139,685$; of cheese, 177,681 ; sugar, 248 hhds.; maple-sugar, 158,557 lbs. ; molasses, 7223 gallons; Leeswax and honey, $1,036,572 \mathrm{lbs}$; wool, 1,3t1, 3781 lbs . produced; cotton, 194,532; flax, 868,131 ; silk cacuons, 1923 ; hops, 1032; tobsceo, 20,148,932 lbs.; hay, $\mathbf{i 4 , 0 0 1}$ tona; hemp, 507 tons; clovor-sceds, 5096 bushels; other grass seeds, 9118 ; flax-seed, 18,901; and were made, 92 gallous of wine; value of home-made manufactures, $\uparrow 3,137,000$; and of slaughtered unimals, $\$ 6,401,000$.
The Tennessee River has ils ehlef source in this Stata; it is 1250 miles long, and is navigable for steamboats to Florence in Alabama, 276 miles above Its eatrance into the Ohio, and from the head of the Muscle Shoals for boats 250 inlles farther. Cumberland River, which, rising in Kentucky, runs mainly in Tennessee; is navigable for steamboats 198 milles to Nash ville, and for boats 300 farther. It enters the Ohio Rlver in Kentucky, 60 miles from the Mississtppl River. The Holston, Clinch, French, Broad, and Hiwassee, are branches of tho Teunessee; Oblon, Farked Deer, und Wolf rivers, in the western part of the State, flow into the Mississiplyi, and are navigable for boats.

Sfanyfactures, ete.-There were in the State in 1850, 33 cottou factorics, with a capital invested of $\$ 66 y, 600$, employ hig 310 males and 581 females, producing 363,250 yards of sheeting, etc., and $2,326,250$ lbs. nf yarn, valued at $\$ 510,624$; four woolen factorics, with a cepital of $\$ 10,500$, employing fifteen males and two females. manufacturing articles valued at $\$ 6310 ; 23$ establishmants making plg-iron, with a capital of $\$ 1,021,400$, employing 1822 persnus, producing 30,420 tona of pigiron, etc., valued at $\$ 670,100 ; 16$ cstabjlshments with a capital of 139,500 , employing 269 persons, and making 3381 tons of castings, etc., valued at $\$ 264,325 ; 42$ establishments with a capital of $\$ 755,050$, employing 786 persons, inanufacturing 10,348 tons of wrought iron, etc., valnod at $\$ 600,018$. Capital hvested in manufuctures, $87,044,144$; value of manufactured articles, $80,413,701$. There wers in this State in 1557,51 hanks aml brauches, with an aggregato cash capital of $810,576,000$; and in January, 1856,15 railroads, with 455 miles of road completed and in operation.

Teredo, or Ship Worm. The tollowinge necount of this worm is from a paper written by James Tarvis, who has been engagel since 1849 di a series of e speriments concerning the teredo or ship worm, by orider of Commodore Smith, chiof of tho Bureau of Yards and Docks. In order to ascertain the lest composition for resistling the attucks of the teredo non wood, ho painted a ramber of blocks and boxes with various com-pounds-some he left unprepared, and some partly painted-and sunk them in Elizabeth River in the month of Aprll. "About tin $12 t h$ June the blocks and Loxes were generally lifted and examined, bat he never was able to dlscover any of the snimalcule (young tevedu) until about the 20th of Juns. At this period of tho year be generally diseo ared minute holes in the wood by the use of a magnifying glass. After this tho creature dally grows ahead, for it has ne powers
of locomotion; it grows like an oyster, and haq a calcarcous or shelly sheathing, whleh adheres to the surface of its burrow."
In Norfolk harbor, Virginla, they grow from six to twelve lnches in length, and from three-eightha to half an Inch in diameter. The wood excavated by one twelve inchea long, in a season, amounted to more than a cubic linch, If in a solid picce. No slgns of the teredo were discovered by him in wood dopasited after. Mr. Jarvis aupposes that the teredo commences to davelap about tha ist of July, and continues until cold weather arrives; in Charleston, South Carolina, and further south, they develop during the whole jear; whereas in the colder blasts, sueh as in the larbors of New End gland, they do but little lnjury, because the worm is feeblo there, belng like a fine thrond. It is believed to be a native of the torid sees. The tered, is not so destructive on piles sunk under water at New York city docks as thase on tho opposito side of the river, on tho Jorsey and Long Island shores; thls is owing, Mr. Jarvis thluks, to the amount of filth carried down in the elty sewers. In Boston, and Portsmauth, Now Ifampshire, harbor piles will stand twenty-five years. One open nail-hole in a sheet of copper upon a vessel's bottom will allow the worm access to pursue its work of destruction. All kinds of wood used in shlp-building are attacked by lt. To secure the bottoms of ships from the salt-water worn, and from caral deposits, Mr. Jarvis recommends puttling three coats of while zinc paint on the dry bottom of the vessel, then capper them; and to make the whole invulnerable, put three moro conts of white zinc paint upon the outer s..rface of the capper. To preserve piles, drive them with the bark on. There is no danger whilo tha bark remains. The barnacle on piles does no injury. Charring is excellent, provided the fissures are well filled with hot coal tar or zine paint, which will be found excellent to keep the shell-fish from the wood where piles may have the bark broken off before being driven.

Terra Japonica, the cominerclal name of catechu (cutch) and gambir. It is stated that it is ohtuined by boiling the wood of the trees of which it is a product. But cutch is also obtained direct from the tree by tapping in the sama way as caoutchouc (India rubher). Terra japonica gives out the largo portion of tannin which it contains more readily than oak bark or most other substances, and is, therefore, preferred by those tannera who work on the quick process. Lutterly, also, it has been extensively used as a dye, producing a brown color.

Texas, the most southern State in the Union, is situnted between lat. $26^{\circ}$ and $36^{\circ} 30^{\circ} \mathrm{N}$., and letiveen long. $94^{\circ}$ and $107^{\circ} \mathrm{W}$. from Greenwich, mad contalns 325,520 square miles.
Liarly Ilistory of Texcs.-Tha regions which we now comprise under the name of Texas, to the northwest of the Gulf of Mexico, were called liy the Spmilsh gorernor of Jamaica, Garay, when his Captain, Pineda (1519), had sailed along them, Irorincia ds A michel. It is a name of the origin of which wo are quite in the dark. Jerhaps, also, the whole northern shore of the Gulf was comprised under it. Thls expression, Prorincia de A michel, was pointed out as the original Indian namo of the land. Bceause it was discovered ly the exertions of Garay, the Spanish geographers, therefore, gavo to it also the Spanish name, Tierra de Garoy (Garay's country), which nama we see on many old maps round the whole northern shore of the Gulf, including Texas. When (about 1521) the King of Spain divided tho discoveries and governments of Cortez and Garay, and put the Rio do las Y'almas as the northern boundary of the government of Mexica, tha countries to tho north were very often called El Gobierno del Rio de los Palmas (the goverument of the Palm Rivar); and this elso inchaded a great part of the countries to tho north. Hecause, however, the offorts of Garay to form a province in the north were
unfortunato, and because all the firat attempta toward the north were elther made from Mexico or from the peninatala of Florida, so theso two namea prevalled, and divided the whole reglon among each other. The great conquerora of the north, Narvaez and De Soto, ontered frot Cuba and from the peninsula of Florida. The aames Provincia Amichel, Tierra Garay, (iobierno del lio de las I'alneas, disappeared soon after, and every thing round the whole Gulf of Moxico, up to the Palma lilver in the west, was comprised under the general name of Florlda. As soon as Mexican travelers traversed the Palma Iliver they conaidored themselves tu be in Floridn. When Moscoso (1642) made hila excursion from the Red liver weatward to the centre of Texas, he found thero innumerable herda of buffaloes, and called thls country, from which he returned to the east, La Procinen de loe V'nqueros (the province of the llerds). Some authors consequently gave that name to what we now call Texas. The Spaniards In Mexico conmonly called all chose wild Indians to the north of the civilized empiro of Montezuma Los Indias braeos (the anvage Indians), or los Chichinecas. The whole conntry north of the Palns River was, therefore, very oftos designated as "the Province of the Chichlimecas, or of the Savage Indians" (las I'rorincia de los Chichimecas, or de los Indios bracos). It was a custona from whicis also grew out the name of the Rio Jravo. When the French, under l.a Salle, arrived on the coasts of Texas (1685), they took possession of it under the name and as a part of their great country, La Nourelle France (New France); which name, according to their notions, covemd as much ground as the name of Florida, according to the Spanish ideas; that la to say, the whole eastern balf of North America The French from thia time considered Texaa to be a part of their dominion an far south as tho ISio Bravo, and called it also Loulsiana, when they had erected their Mississipyi colony after 1699, and had given to it officlally that name after 1712. All their old maps of Lovisiana go as far down as lijo Iravo, and include Texas. Meanwhile the Spaniards had, however, taken actual possession of that province, and gave another name ta it.
Some believe the word Texas to he Indien, and say that when Alonzo de leon, in 16889 , arrived among them he heard them often use the word Texas as a terot of loge or friendship. Othere suppose that the word is Spanish, and that it implles some indication of "the mander of the lindians in constructing or coverIng tente or wigwams." Hot this seems a not wellfounded supposition; for the Spasish word Teja (phur. Tejas) does not appear to have any thing to do with a covering of a tent or wigwam; fincans simply "a tile."—.ies lonat'm, llistory of Teras.
The first Frenchman who prononnced this name, in the year 1719, la llarpe (an officer in lonisiana, well known by his trnvels and writings), received ti evldently through thu Spaniar . He calls the coantry of the Cenis lodians las Z ekas. Bowe old French authors write also la prormese de lastikas. In the year $172 \overline{2}$, for the first fime, a separate "governor for tho province of Texas" alone was nominated; lut this provinco ixtended then only as far south as the Iliver Medina. The southwesterif part of vor present Texas lelonged still for a long white to "the proviuce of Coahuila."-Yo.shtM, 1. 303.

It is supposed that with this eatalilishment of Texas as a new nad separate sovernment for itself (in 1727) was also colncritel an introuluction of a new nameof las Xiueroa Filipivas ( 1 ho new lhilipplnes), given to this governument in benor of King J'hilip V. At least nefther dlarcia uor any other author used this same infore this time, while we afterward tind it repeatedly it official papers und docunents. The old and popular name of has Texas was, however, used besides it. Wo ane both names still on puaps of a very late date; as, for iustance, on a Mexican map of tho
year 1818, Prorincia de Texas o Nuevas Filhpinas (the province of 'Tesas, or the new Phillppines). Until 1R24, the dominion of this name did, however, southward, not reach the Rio llravo. The province of Coahails and of Nuevo Sant Ander took away the wholn southweatern quarter of Texas, as far east and north as tho Rlo Medina and the sources of the Colorado and Brazos. Eastward, toward Loulaiana, the province of Texas and New Philipplacs extended to the nelghbor. bood of the Reil Rlver, and on the phores of the Mexi. can Gulf to the Rio Calcesiu, and sometimes as far as the Merrmentau. In the year 1824, undor the domin. lon of the Mexican lepublic, the old connected jirov. lnces of Coahuila and Texes were again melted together into one atate, uader the name of El Bistudo de Texas y Coahuiln. The southerm part of our Texes, alout the lower Rio Bravo, as lar northeast as the Medlaa lliver, was not yet included in this name. It becamo art of the new created Bistado de Trmatilpas. Sometimes, ant on sonie mape, It was tried at this period to apply to the whole of Texas the name of Fredonia, whieh was the particular name of Austin's colony. This has lieen done, for instance, In that oth. erwles excellent Dietionnaire de Geographic," edited by a society of French geographers. In the year 1896 Coahulla and Texaa were divided again, and Texas becane a scparate nnd indrpendent State, which was (1845) annexed to the United States, and recelved then, after the war of 1846 , its present boundaries. These bounda. ries extend from thila time along the Gulf of Hexico, from the month of the Rio Bravo in the south to the mouth of the Sabina in the east. To show how far and In what manner the toundaries of this name and State were extended towarl the interior does not belong to our hydrographical reaearches,-J. G. Koul.

The genoral aspect of the country la that of a vast Inclined plane, gradually sloplag from the mountains castward to the sea, and traversed by numerous rivers, all having a eoutheast direction. It may bo naturally divided into three reglons; the first, which is level, extends along the coast with a breatith varying from 100 to 30 millos, being narrowest at the aonthwest. The soil of thla region is principally a rich alluvion, with scarcely a stone, and singularly free from stagnant swampa. lload woodands fringe the banks of the rivers, between which are extensive and rich pasture lands. The second division, the largest of the three, is the undulating prairie region whicu extends for 150 or 200 miles farther inland, its while, grassy tracts alternating with others that are thickly timbered. Limestone and sandstone form the common aubstrata of this section. The third, or mountainous region, sitaated prinelpally on the weat and sonthwest, fo. .uing part of the Sierra Madre, or Mexican Alpa, Is hut littio explored. At its remote extremity it consists of an elevated table-lund, resembling the vast steppes of Asia, except in their superior fertility. The nuoutain sidea are elothed with forests, and there are faw, If any districts of conntry of the ame extent as Texas, with se litte unproductive land.

The principal rivers In the State are the Sabine, Neches, Trinitlad, Ilrazos, Colorado, Guadaloupe, San Antonia, Nueces, nul the Rio Girande. The Neches is navigable for sinall steamboats for more than 100 miles, Trinldad lifer for 800 or 400 miles, and the IBrazos for half thet diatance. The Klo Colorato is obstructed by a raft 10 milea from Ita mouth; it will, when removed, be navigatile for atcamboats 200 miles to Austin City. The San Antonia and Neucea are navigable for only a short distance ; lut the 110 Grand del Norte, a notle streain, having a course of 1800 milea, will most probably, though in parts broken by rapids, become hereafter an important commercial channol. Galveston Bay, futo $n$ hich the Trinided flows, is about 85 miles In longth, and from 12 to 18 milea wide. The Gulf of Meaico bounds ita southeantern benicr, on which are many bays and some good harbors. The Texan year
\{a div\} from I Decen aing. luxurl timber and $p$ etc., a "Cros great agricu fection and $w$ plne-a ly. ( and $v$ over Amons ore, II

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June 3
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Tha chlmst! thaler Tha longeat which rises ut of Cire south $t$ late to inglon course beyond junctig Isle of aeross, ness a miles. north, princip Evenlo
from $t$ ent), $V$ anth.
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has be
is divided into wet and dry seasons; the former lasts mines have been wrought In the mountains, and bitufrom December to March, and the latter from March to men and salt are abundant. December. Snow fa aldom seen except on the mountalns. The country is in most parts covered with a Juxuriant native grass, and it is amply supplied with timber, among which are the live oak, white, black, and post oak, hickory, wa!nut, sycamore, caoutchouc, etc., and on the high lands pine and cedar. The "Cross Timbers" are two lines of continuous forests of great extent. Cotton and sugar-cane are the great agricultural staples, both of which attain to great perfection. The grains chlefly cultivated are Indlan corn and wheat. Peaches, melons, figs, oranges, lemons, pine-apples, dates, olives, grapea, etc., grow abundantiy. Great numbers of cattle and horses are reared, and vast herls of buffeloes and wild horses wander over the pralries, while deer and game are abundant. Among lis minerals are coal of a superlor qusilty, iron ore, Ilmestono, granite, elate, gypsum, etc. Silver

Manufuctures, etc.--There were In the State In 1850 one woolen factory, with a capital invested of $\$ 8000$, omploying four males and four fomales, manufactaring 14,000 yards of cloth, etc., valued at 15,$000 ;$ twn establishments with a capital of $\$ 16,000$, employing 35 persons, and making 200 tons of iron castings, etc., velued at $\$ 55,000$; 88 flourlng and grist milis, 89 sawmills, 22 tanncries, 84 printing-offices, threc tri-weekly, two seml-weekly, and 82 कreckly publications. Capital Invested In manafactures, 8613,238 ; value of manufactured aiticles, $81,202,885$.

The principal places in the State aro Austin, the capital, Galveston, Houston, Washington, Matagorda, San Felipe de Austin, San Augustine, Nacogdoehes, San Antonia de Bexar, Corpus Christi, and Brownville. Thern wero, January 1st, 1856, 36 milles of rallroad bullt.
 vaOE IN $18+6$

| Years ending | Exports. |  |  | 1 mupart . | Tonsage clasred. |  | 1).atrice Toonage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic. | Forelgn. | Total. | Tolet. | Ameriean. | Forrign, | Registered. | Enyalled and Liconned. |
| Juae 30, 1846....... | .... | *... | *. . | \$17,206 | 60\% | 2,501) |  |  |
| 1477....... |  |  |  | 40,826 | 117 | 5,097 | 590 | 087 |
| 1848....... | \$12,089 | \$131,521 | \$143, 410 | 04,024 | 770 | $\bigcirc 057$ | . $\cdot$. | -••• |
| 1848....... | 82,70t | 24,0゙SA | 82,701 24,958 | 16,649 26,650 | 1135 | 1, 238 | .... | .... |
| Total... | \$4,380 | \$156,479 | \$25t, 859 | \$189,415 | 2577 | 11,775 | . $\cdot$. | -** |
| June 30, 1351...... | \$75,442 |  | \$75,442 | \$0.4,7t5 | 853 | 1,479 | ... | ... |
| 1852....... | 220,334 | \$483,74t | 713,075 | 77,802 | $2 \times 69$ | 5,190 | . $\cdot$ | . |
| 1853........ | 50,9,918 | 459.763 | 1,029,681 | 281,459 | 27\%t | 6,226 | . | . |
| 18\%4...... | 702,448 | 652,00t | 1,814.449 | 231.423 | 4875 | 4,988 | ... | .... |
| 185\%....... | 094,05] | 222,904 | 916,96t | 249,603 | 4924 | 0,040 | . . . | . . . |
| 18:80...... | 1,252,025 | 089,064 | 104,539 | 321,834 | 7504 | 3,965 | ... | . . |
| 1857....... | 1,491, 5 | $\cdots$ | 1,4!1,375 | 300,7i4 | 6519 | 6,192 | . |  |

-See spanisil Colonirg for commerce prior to the year 1546.

Thaler, a German silver coin, first coined in Joachlusthal, a valley in Bolemia. The value of the thaler is about seventy cents,--See Coins, Germany, and Dolihan.

Thames (Tomesis), the princlpal though not the longest river of England, through the sonth part of which it flows mostly in an easterly direction. It rises under the name oi the Isis, about two miles south of Cirencester, and 876 feet above the sea, flows at first south to near Cricklaile, then east-northeast past Leechlade to near Oxford, and southeast past Oxford, Atingdon, and Wallingford to leading, after which lts course is mostly east ward to Gravesend. A few iniles beyond this it expands into an ectuary, which at its junction with the North Sea at the Nore, between the Iaie of Sheppey and Foulness Point, is fifteen milcs across, and has on its opposite banks the towns Sheerness and Southend. Total course estlmated at 215 miles. At Dorchester it recelves the Thamer from the north, and thenceforth assumes its proper name; other principal afluents are the Churnet, Coln, Wainrush, Evenlode, Cherwell, Colne, Brent, Lea, and Roding from the nerth, and the Colo, Konnet (its chief affluent), Wey, Mole, and some amaller rivere from the gouth. The Mersey joins its estuary at Sheernese. Its basin is of lees aize than that of the Severn, but no river in the world has moro commerclal importance. The tide fiows up it for about eighty miles; it is navigable for ehlps of any burden to Deptford, for vessels of 200 tons to Jondon Bridge, and for barges 180 miles farther, where it la united by the Thames and Severn Cunal with the Severa, below Gloucester; it is also connected wlth all the centre of England by the Oxford and Warwick and Grand Junction Canals, end iy other canals with Bristel, lasingsteke, Arundel, etc. Under the Romana it formed the north boundary of the province of Britannia prima.

The Thames is the richest river in the world. It has been erroneously sald that its name is Isis tlll it arrives at Dorchester, when, being joined by the

Thame or Tame, it asaumes the name of Thames. Whit was the orlgin of this common error can not now be traced : poetical fiction, however, has perpetuated the error, and invested it with a kind of classical sanctity. It was called Thames or Tems beforo it camo near the Thame.-Camiden. The river rose so high at Westminster that the lawyers wero broughit out of the hall in boats, A.D. 1235. Again lt rose to great height, 1786, 1747, 1762, and 1791. The conservation of the Thames was given to the mayors of London, 1489. The Thames was m.dde navigatle to Oxford, 1624. It ebbed and flowed twice in three hours, 1658. Again, three times in four hours, March 22, 1682. Agaln, twice in three hours, November 24, 1777.-See article Trynel.

Thermometer. The invention of this instrument is ascribed to several scientific persons, all about the same time. Galileo, 1597,-Linmi. Invented by Drebbel of Alcmaer, A.d. 1609.-Boenilanye. Invented by Paule Larpi in 1609.-Fcloentio. Invented by Sanctorio in 1610.-Boneleli. Fahrenheit's thermometer was invented ahout 1720 ; and the scale called Reaumur's soon after, 1730. The mode of construction by substituting quicksilver for spirits was invented some years aubsequently.-IIaybs.

Thimble. This simple yet nsefal, and now indispensable appendage to the ladles' work-table, is of Dutch inventlon. The art of making them was brought to England by John Lofting, a mechanic from Holland, whe set up a work-shop at Islington, near London, and practiced the manufacture of them in various metals with proft and success, about 1690.- Hardx.

Thread (Ger. Zwirn; Dn. Garen; Fr. Fil; It. Refe; Sp. Hilo, Torzal; Russ. Nitki), a sntall line made up of a number of flbrea of some vegetable or animal substance, such as fiax, cotton, or silk; whence its names of llnen, cotton, or sllk thread.-See Cotron Manufacture.

TIde Gauge, a mechanical contrivance for registering the state of the tide contlnuonsly at every in-
atant of time. In the Phites. Trems. for 1888, there in a description of very complete evelfregistering machine fur this parpoee, erected at Mristol by Mr. Bunt. Tho principal part are an oight-day elock, which turns a vertical eylinder revolving once in twenty-four howre i wheel, to which an altermate motion is communicated by a thoat rising and falling with the tide, and connected with the wheol by a wirs paoolng over a pulley, and kopt constantly strained by a counterpolee; and amall drum on the eame axis with the wheel, which, by anspending wire, communicates one-olghteenth of the vertical motion of the float to a bar carrying a pencll, whleh deseribes a curve on the cylinder, and therehy marks the fluctuationa, and the time and height of high water.

THdes, the alternate riee and fall of the water of the ocean. The moon is the principal agent in the proinction of the tiden; but they are modifed, both with reppect to their height and the tlmes at which they happen, by the action of the oun. The effect of the planets is inappreciable. Homer is the earlieat profane author who apeake of the tidea. Poaidonlua of Apamea accounted for the tides from the motion of the moon, about 79 a.c. ; and Ceemar apeaks of them in hia fourth book of the Gallic War. The theory of the tldea was first eutisfactorily expiained by Kepler, A.d. 1598; but the honor of a complete explanation of them wae reserved for Sir Isaac Newton, who lald hold of this class of phenomena to prove universal gravitation, about 1683.

The attractive force of a body on a diatant partlele of matter varying lnversely ra the aquare of the diatance, the particles of the rath on the alde next the moon will be attracted with a groater, and those on the oppoaite side with a amaller force, than those which are situated intermediately. The gravitation toward the earth's centre of the particiea neareat the moon will therefore be diminlshed, and consequently, if at liberty to move among themselvea, thoy will riso alove the general level. In like manner, the moon'a attraction on the most dintant particies being lewa than on the central onea, their relative gravitation toward the centre will also be iliminiahed, and the watere will consequently be heaped up on the alide of the esth whleh ls turned away from the moon. Hence, If the earth were at rest, the ocean would take the form of an ohiong spherold, with ita longer axis pasaing through the attracting bouly; and it may be ahown from theory that the spherold would be in equilibrium oniler the influence of the moon's attraction, if the longer semi-axis exceeded the shorter ly about 68 inchea. But in conaequence of the rapid rotation of the earth about its axis, the apherold of equillibrium is never fully formed: for before the watera can take their level, the vertex of the spheroid has shifted its position on the earth'a anrface, In conaequence of which on immensely broad and very flat wave in formed, whleh follows the motions of the moon at some interval of time. In the open sea the tims of high water is, in general, from two to three hours after the moon's trasait over the meridian olther above or below the horizon. The tidal wave, it is to be observed, Is entirely different from a current : the particles of water merely rise and fall; but except when the wave passes over shallowa, or approache the ahore, there in little or no progressive motion.

The waters of the ocean are affected in a mimilar manner by the action of the aun, onder the influence of which they have a tendency to anaume at every instant the form of an elongated apherold; but although the attractive forch of the sun is immensely greater than that of the moon, yet, by reason of the greater sistancw of the ann, the differwice of the effect on pertirles aituated on opposite sides of the earth (on which difference the phenomena depend) is very much lean. The wolar tides are therefore comparatively mall with respect to the lunar tides, and, in fact, are aever per-
colven as diatinet phenomena, but become senulble only from the moditiontions which they produce In the holighte and times of thoee whleh primarily dopend on the meon. At the ayaygies, when the aun and moon come to the moridian togother, the thiles are, ceteris paribes, the highent ; at the quadratures, or when the sun and moon ane $90^{\circ}$ distant, the thes aru least. The formar are called aprong tiles, tha lattor neap tides, Although we are not in possession of datit to onabie un to compete the exact holght olther of the apring or neap thlen, yot their relative holghte in the open ocean probisbly cerreapond very nearly to the elliptioitlen of the spherolds of equillibrium that would be formed under the action of the two bodlea exorted separately. Now the ollipticity of the squeoua spherold formed by the moon'a action is about five feet, and the ellipticity of that formed by the aun's actlon about two feet; therefore, the apring and neap tidea being the aum and difference of the reparate effecte, the sverage apring tide will be to the average neap in the ratio of alrout 7 to 8.
The apparent time of high water at any port, In the afternoon of the day of new or fall moon, is what is usually called the eatabliciment of the port. Mr. Whowell calla thata the vulyar oatablishment, and the mean of all the Intervala of tide and transit for a half Iuantion he terms the corrected eatalliahment. This corrected eatablishment la consequently the Iunitidal Interval correapending to the day on whleh the moon passes the meridian exactly at noon or midnight.

The two tldes immediately following one another, or the tidea of the day and nilght, vary, both in height and time of high water, at any particular place with the diatance of the san and noon from the equator. As the vertex of the tide wave always tends to place itself vertically under the luminary which producen it, It ls evident that, of two consecutive tides, that which happena when the moon is neareat the senitil or nadir wili be greater than the other; and consequently, when the moon'a declination le of the same denomination as the latitude of the place, the the which correaponda to the upper tranait will be greater than the opposite one, and vice reraa, thedlfferencea lieing greatest when the oun and moon are in oppouition, and in opponite tropica. This if called the diurnal inequality, becanse ita cycle is one day; but it variea greatiy at different places, and Ita laws, which appear to be goveraed by local elrcumutancen, are very imperfectiy known.

We have now deacribed the principal phenomena that would toke place were the earth a aphere, and covered entirely with a fluid of uniform depth. But the aetual phenoment of the tides are infinitely more compliented. From the interruption of the land, and the irregular form and depth of the ocean, combined with many other distnrbing circumstances, among which are the inertia of the watery, the friction on the bottem and aides the narrowness and leagth of the channels, the act. 1 of the wind, currents, diference of atmoepherio pressure, etc., great variation takes place in the mean times aud helght of hlyh wuter at places differontiy situated; and the inequalities alwore alluded to, as dependiag on the parallax of the meon, her position with respect to the aun, and the declination of the two bodles, are, in many cuses, altugether obliterated by the effecte of the diaturbing influences, or can only be detected by the calculation and comparison of long eeries of olseervatione.

By remson of these disturhing causea, it becomes a matter of great dificulty to trace the propagation of the tide wave, and the connection of the thles in different parts of the world. In the Philowophicat Transoctione for 1832, Sir John Lubbock publimhed a map of the world, In which he laserted the tinnes of high water at new and full neon at a great number of places on the globe, collected from various sources, an worka on navigation, voyages, salling directions, etc.; and,

In order that the march of the tide wave might be oacilationa produced under the direct agoney of the irnced more re illy, the timee were expreased in Greenwich time an rell as the time of the place. In the same Tramactione for 1888, Mr. Whewell prosecuted thls aubject at greater langth; and avallipg himeelf of a priori considerations, as wail as of a mane of information coilected in the hydrographer's offiee at the Admiralty, Inserted in the map a seriee of cotidat limea, or lines along whioh high water takes place at the mame instant of time. Uut these cotidal linee, as Sit J. Labbock remarks, are antireiy hypothetionf; for wo have few epportunities of detormining the time of high water at a dintance from ite easat, though this is somes times peocible by means of a solitary island, ss St. Heiena.-Lubnock's Etomendary Tratise on the Tides, 1809.

According to Mr. Whewell's deduetions, the general progrese of the great tide wave may be thue described: It is only in the Southern Ocean, between the latitudes of 30 and 70 degrees, that a zone of water exlat. of aufficient extont to aliow of the tide wave heing formed. Suppose, then, a Ine of contemporary thea, or cofidel lines, to be formed in the Indian Ocean, as the theory supposes, teat is to any, in the direction of the meridian, and at a certain distance to the asst ward of the meridian in which the moon is. ' As this tile wave passea the Cape of Good Hope, it sends off a derivative unduiation, whlch advancea northward up the Atlantlc Ocean, preserving ailways a certain proportion of its original magnitude and velocity. In traveling along this ocean the wave aoaumes a curved form, the convex part keeping near the mlddie of the ocean, and abead of the lranches, which, owing to the ahallower water, lag behind on the American and African coasts; so that the cotidal lines have siways a tendency, to make very oblique angles with the shore; and, in fact, run naarly parallel to it for great distances. The main tide, Mr. Whewell conceives, after reaching the Orkneys, will move forward In the sea bonnded by the shores of Norway and Siberia on the one side, and thone of Greeniand and America on the other, wili pass the pole of the earth, and finally end its course on the shores in the nelghborhood of Behriag's Straita. .. It may even propagate its influence through the atraits, and modify the tides of the North Pacific. But a branch tide is sent off from this maln tide into the German Ocean; and this, entering letween the Orkneys and the const of Norway, brings the tide to the east coast of England, and to the coarts of IIolland, Denmark, and Germany. Continuing its course, part of it, at least, passes through the Strait of Dover, and meets in the Britlah Channel the tide from the Atlantic, which arrives on the coust of Europe twelve hours later; hut in passing along the English coast, another part of it is refiected from the projecting iand of Norfolk upon the north coast of Germany, and again meets the tide wave on the ahores of Denmark. Owing to this interference of different tide waves, the tides are almost entirely obliterated on the coast of Jutland, where their place la supplied by continual high water.

In the Pacific Ocean the tides are very amall, but there are not sufficlent observations to determine the forms and progress of the cotidal lines. Off Cape Horn, and round the whole shorn oi Terra del Fuego, from the western extremity of the Strait of Magajhaens to Staten Island, it la very remarkable that the tidul wave, instead of following the moon in its diurnal course, travels to the eastrcard. This, however, is a partial phenomenon; and a little farther to the north of the last-uamed piaces the tidea set to the north and weat. In the Mediterranean and Baltic seas the tides are inconsiderable, but exhibit irregularities for which it is difficult to account. The Indian Ocean appears to have high water on all sides at once, though not in the central parts at the same time.

Since the tides on our coasts are derived from tho
aun and moon. in the Southern Ocean, and require a certain interval of time for thoir transfer, it follows that, in general, the thle is not due to the moon's tres. ait immediately preceding, but is regulated ly the position which the aun and moon had when thay determined the primary tide. The time elapeed between the original formatlon of the tide and its appearance at any place is ealled the age of the tide, and nometimen, After Bernoulli, the retard. On the ahores of Spain and North Americe the tide is day and a half old; in the port of London it appears to be two daya and a half old when it arriven.
Crelocity of the Tide Wave.-In the ppen ocean the orent of the tlde travels with enormous velocity. If the whole aurface were uniformly covered with water, the aummit of the tide wave, being mainly governed by the moon, would every where follow the moon's tranuit at the seme intorval of time, and consequentiy truvel round the earth in a llttle more than twentyfour hours. But the circumference of the earth at the equator being about 25,000 miles, the velocity of prapagation would therefore be ebont 1000 miles per hour. The actual velocity is perhaps nowhere equal to this, and is very different at different places. In latitude $60^{\circ}$ south, whers there is no iaterruption from land (excepting the nerrow promontory of Patagonia), the tlde wave will complete a revolution in a lunar day, and convequently travel at the rate of 670 miles an hour. On examining Mr. Wheweil's mep of cotidal lines, it will be seen that the great tide wave from the Southern Ocean travels from the Cepe of Good Ilope to the Azores in about twelve houra, and from the Azores to the southeramost point of Irelund in three houra more. In the Atlantio the hourly velocity in some cases appears to be $10^{\circ}$ of latitude, or near 700 miles, which is almost equai to the velocity of sound through the air. From the south point of Ireland to the north point of Scotland the time is eight hours, and the velocity, about 160 miles an hour along the shore. On the eastern coast of Britain, and in shallower water, the velocity is less. From Buchanness to Sunderland it is about sivity miles an. honr; from Scarborough to Cromer, thirty-five milies; from the North Foreland to London, thirty miles; from London to Kichinond thirteen milea an hour in that part of the river,-Whewell, Phil. Trawis, 1838 and 1836. It is scarcely necessary to remind the reader that the above velocities refer to the traasmission of the undulation, and are entirely different from the velocity of the current to which the tide wave gives riso in shallow water.

Theory of the Tides.-The theory of the tides, conaidered as a consequence of solar and lunar attraction, was first aketched by Newton in the Principia. In the 36th and 37 th propositions of the third book, he determines the forces of the sun and moon to elevate tise watere of the ocesn, on the supposition that the sea is a fluid of the same density as the earth, covering the whole terreatrial surface, and which takes at every instant the ffgure of equilibrium. He assumes, without demonstration, that this figure is an elongated opheroid. One spherold he supposes to be formed under the sction of the sun, another under the action of the moon; and, by reason of the amallness of their eccentricities, they may be conceived as auperposed the ono on the other. From these suppositions he deduced the general phenomena of tho ebb and flow of the sea; and iy comparing bis theory with observations of the heights of the epring tides made at the mouth of the Avon, near Bristol, be determined the ratio of the attraction of the moon to that of the sun to be nearis: 4.48 to 1 ; whence he deduced the mass of the earth to be to that of the moon as 39.788 to 1 , the density of the sun to that of the oarth as 1 to 4 , and the density of the moon to that of the earth as 11 to 9 . Newton's theory was defective in many points of view, but fifty
years elapsed before is received any improvement．In 1788 the subject of the tides was proposed as i prise question by the French Academy of Sciencer，which gave occasion to the celebrated trmatisea of Daniel Bernoulli，Machaurin，and Euler．Maclaurin＇a Essay is romari $\quad=b l e$ ，as containing a demonstration of the theorem assumed by Newton，that the elliptic apheroid afforde an equilibrium under the action of thr distarb－ ing forces：those of Beraoulli and Ealer，though they furnish no new principle of equal or aimilar import－ ance In point of theory，enter more into detalis，and contain many useful lilustrations．That of Bernoulii indeed，contains a table which has served as the model for all those（not purely emplrical）which have since been formed．The next important atop in the theory of the tides was taken by Laplace，who first treated the sabject as a general question of hydrodynamice， and attempted to dedace the principal phenomena from the equatlons of the motions of fuids．Bat in orde to simplify the equations，which are of a very compli－ cated naturc，he was forced to have recourse to the hypothesic of a flud covering entirely a ．＂herold of a regular aurface，and consequentiy the resulas were far from representing：ntual observations of the tides at any port．The＇© Thomas Young（Ency．Brit．， article Tidess）sxtended Laplace＇s noethul to the more general caue of an ocesn coveris gapart only of the earth＇e surface，and more or less irregular in its form， and attempted also to include in hila calculation the ef fects of hydraulic iriction on the times and magnitudea of the thles．

Influence of Asmospheric Pressure and Winds．－Ben oldes tite numerous causes of irregularity depending on the local circumstances，the tiden are also affected by the state of the atmosphere．At Brest，the height of high water varies inversely as the height of the berometer，and rises more than eight inches for a fall of alont half an inch of the barometer．At Liverpool， u fali of one－tenth of an inch in the barometer corre－ sponds to a rise In the lifiver Mersey of about an inch； and at the London Docks，a fall of one－tenth of an Inch correaponda to a rise In tive Thames of about neven－ tentha of an inch．With a low barometer，the tides muy therefore be expected to bo high，and vice versa， The tide is also lisble to be distortied ay winds．Sir J．Julibock ntates that，in the violent hurricane of January 8，1839，＂there was ne tide at Cainslorongh， which is tweoty－five milea up the Trent－a circum－ atance unknown before．At Salimarsh，only five miles up the Ouse from the ilumber，the tide went on ebbing，and never flowed til the river $\boldsymbol{\kappa}$ an dry in some placen ；while at Ostend，towand which the wind wan thowing，contrary etrects were observed．During atroug northwesterly gales the tide markn high water earlier In the Thamen than otherwine，and does not give mo much water，while the elb－tide runs out late，and marks lower；but upon the galea abating and the weather moderatigg，the thies put In ，and rise much higher while they aiso ren longer before high water is marked，and with more velocily of current ；nor do they run out so leng or so low．－Bhande＇s C＇yclpedia．

The tidal observations of the Pacific conat have can ually led to a detrumination of great scientitic inter－ ent，that of the average depth of the Pacific（Ocean be－ I ween the coasts of Japan and Califurnia．On the 23d of December，14S4，as earthquake oceurred in Japan by which tha town of Simoda，in the ieland of Niphon， was destroyed．From the imperfect accounts which have reached us，it appears that at nine $A . \mathrm{X}_{\text {．on }}$ on that day the aevere shock of an earthyuake wan felt on board the Ruseian frigate Diama，then lying In the har tor of Sinooda．lialf an hour later the ne．cume into the hay in an immense wave thirty feet in lright． overwhelming the town and then receding．Thin ad－ vance and recession oscurred five tim．vand liy $2 \cdot 30$ P．M．all was again quiet．The depth of the sea dur ing thene changes varied from lesa than eight to mone
than forty feet．Upon the same day an extraordiuary rise anil fall of water was observed at Peel＇s Island， one of the Bonin Jelands，and the tide continued to rise and full during the day at fotervale of fifteen min． utea，gradually lessening antil evening．－American Jourwal of Science，Janjary， 1858 ［Prof．Bachk］．
The foilowing table containg tha revised data for the principal tidal elements of a number of polats on the coast of the United States，with additions to the tables published last year，furmished by the discuasions of the tidal observations．These elements are selected from a large number of renults obtained in the progress of the Coast Survey，only thoae atations being reported， sa a general ruie，where the observations extended through at least two lunationa．
Genmal tida tanla ror tar Coabt of tha Unitsu

| thation． | States， | Rloend Fall． |  |  |
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| $\begin{aligned} & \text { Coast from Itortland to } \\ & \text { Nim York: } \end{aligned}$ |  | Feet． | Feet． | Yoet |
| Portlanc．．．．．．．．．．．．．．．． |  | $8 \cdot 8$ | 10.0 | T 6 |
| I＇ortomouth | New Ilampahire | $8 \cdot 6$ | $0 \cdot 8$ | 7．2 |
| Newburyport．．．．．．．．．． | Masmachumetts | $7 \cdot 8$ | $0 \cdot 1$ | $0 \cdot 6$ |
| Galetu ．．．．．．．．．．．．．．． | 110． | $0 \cdot 9$ | $10 \cdot 6$ | 1.6 |
| Honton Light | Do． | $9 \cdot 3$ | 1041 | 8.1 |
| Hoston．．．．．．．．．．．．．．． | Ito． | 104 | $11 \cdot 8$ | 8.5 |
| Nantucket | Do． | $9 \cdot 1$ | 86 | $8 \cdot 6$ |
| Hetrartown．．． | Do． | 20 | $2 \cdot 5$ | 1.3 |
| Holmes＇s IIote | Do． | 1.7 | 1.8 | 1.3 |
| Tarpaniln Cove | To． | $2 \cdot 4$ | $2 \cdot 6$ | $2 \cdot 4$ |
| Wood＇s Ilols，mouth slde． | 11. | 3.9 1.5 | － |  |
| Bird Itand might mid | 170， | 15 |  |  |
| Mrd Ialand I．ght | 10. | $4 \cdot 4$ | $5 \cdot 3$ | 3．5 |
| New lkedford harb | Jo． | $8 \cdot 8$ | $4 \cdot 6$ | $2 \cdot 4$ |
| Newport | Rbode laiand | 8.9 | $4 \cdot 1$ | $3 \cdot 1$ |
| I＇olat Judith | $1{ }^{1} 0$. | $3 \cdot 1$ | $8 \cdot 7$ | $2 \cdot 6$ |
| Moniank lohnt | New York | 20 | 25 | 1.4 |
| Fandy Hook | New Jernoy | 48 | 56 | 40 |
| New lork ．． | New York | 4.3 | $5 \cdot 4$ | $3 \cdot 4$ |
| Lony Inland Nound． |  |  |  |  |
| Wateh 1itll | Hhoulo Iula | 2．7 | 311 |  |
| Stonlagton． | C＇onuerticu | $2 \cdot 3$ | $3 \cdot 4$ | 21 |
| little Ciull Isl | New Vork | $2 \cdot 5$ | 2.9 | $2 \cdot 3$ |
| Now Iondon | Conneetteu | 91 | $8 \cdot 1$ | $8 \cdot 1$ |
| New llaven | Io． |  | －1 4 | $5 \cdot 1$ |
| liridgeport． | Ho． | 65 | 80 | 4．7 |
| lyater lay，long lelaud | New Y＇ork． | 73 | 0.8 | 1 |
| Fand＇a I＇oint | 1\％o． | 77 | 8.3 | 6.4 |
| New Jochella | Ho， | 7.6 | 8.6 | 66 |
| Throg＇s Neck ．．．．．．．．．．．． Const of Nete Jerney． | IJo． | $7 \cdot 3$ | $0 \cdot 2$ | $6 \cdot 1$ |
| （oodd Sphing Inlet．．．．．．． | New Jersey | 44 | 6.4 | 36 |
| Cape May ．．．．．．．．．．． | 110. | 48 | 6.0 | $4 \cdot 3$ |
| Ielasmars Jay and liver． |  | 4 | 60 | 4 |
| flelavare lireakwater | 1）elaware． | 3.5 | $4 \cdot 5$ | 30 |
| Ilighles． | New ieracy | 40 | 6.2 | 30 |
| Fsk lsland Ligh | Ilo． | 64 | 10 | $8 \cdot 1$ |
| Malsuta Inteli | thelaware． | 51 | 64 | 5.6 |
| New raatle． | 110. | $6 \cdot 5$ | 69 | 6.6 |
| I hiladelphla，Navy Yard | Rennaylva | $8 \cdot 1$ | T． 0 | $5-2$ |
| ＂Walnutest．wh． Chemopeake Blay． | IIo． | 5．9 | 6.6 | 6－1 |
| Oid Iralit Comfort． | VIrginla． | 2.5 | 30 | 20 |
| Polnt l．ookots | Maryland | $1 \cdot 4$ | 10 | $10 \cdot 1$ |
| Annapolfa．．．．．．．．．．．． | 110， | 09 | 10 | $0 \cdot 18$ |
| lindkin light．．．．．．．．．． | 110 | 14 | 18 | 0.8 |
| Phattimotat | $1{ }^{1}$ | 18 | 1.5 | 1110 |
| Jamen liver | Vlrglaia． | $2 \cdot 6$ |  |  |

Ia men liver
Kletimnond．．A ．．．．．．．．．．
Cutat of Sorth Carolina
South Cirolina，Gieor． gin，and t＇lorida．
Haltpras Iplet．．．．．．．．．Northt＇arolina $\mathrm{g} \cdot \mathrm{\theta}$ ISembfort．．
Nulthvilie Chiarleaton River Navanash River
Navantiah elty． No．Auruasine （G．Auph Flurdis． Ashd Key Key Went． Tanspa Itay．
Ceder Keys． Ceder keya ．．．．．．．．
Hestrrn Coane． Man Itlego Man l＇edro Kan Luta Ubippo． Muoterey Anlorla


 Tidal Data ny abetetant In F. Hogrtahea, in guablag of tidal Division.


The dopth in channal way varies between 6 and Bf fathoma, \& Subject to frequent changes

[^49]


- Varylng laiween $2 i$ and oif fivt of waler.

Arnge of the Tide.-The differeuce of level between the water causes a very great increase of the range. high and low water is affected lyy varioun caunes, but Hence the very high thdes In the liristol Chanuel, the chiefly by the configuration of the lawd, and In very Ilay of Si. Malo, and the liay of Funily, where the tide different at different places. In ileep inkenils of the is sald to riss somellmes to the height of 100 fet. shure, open in the direction of the the wave, nul grail- Promontories, under certain circumstances, exert an ually conlracting like a funul, the eonvergence of mpomite mentuence, and diminish the the.

Rbioat to tifk Scpleintendent, moo.-Continted.

| Places. | Limita beiweea whioh Depthe are given. |  |  |  |  |  |  | Dale, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Mean, towet of Day. |  | af riog Tides, fowat of Dey.一Mean. |  | apriag Tidee lowed greatast inoellootion. |  |  |
|  |  | Waw. | $\begin{aligned} & \text { High } \\ & \text { Watar. } \end{aligned}$ | Watur. | $\begin{gathered} \text { High } \\ \text { Waler. } \\ \hline \end{gathered}$ | Wown | $\begin{aligned} & \mathrm{High} \\ & \text { Wachr. } \end{aligned}$ |  |
| San Dlego It | Entrance. | $\begin{aligned} & \text { Feel. } \\ & 27.4 \end{aligned}$ | $\begin{aligned} & \text { Feel } \\ & 816 \end{aligned}$ | $\begin{aligned} & \text { Foel. } \\ & 20.3 \end{aligned}$ | $\begin{aligned} & \text { Foet } \\ & 32 \cdot 1 \end{aligned}$ | $\begin{aligned} & \text { Fant. } \\ & 28.8 \end{aligned}$ | $\begin{aligned} & \text { Peal: } \\ & \text { B1.4 } \end{aligned}$ |  |
| Montarey harbor.. | Near Eiciore. | 30 | 83.9 | 29.6 | 84.2 | 28.9 | 88.8 | 1852. |
| San Franclaco harbor .. | On the bar.... | 33 | ${ }^{37}$ | 39.4 | 27.4 | 319 | ${ }^{38.7}$ |  |
|  | At bent wharve | 20 | 24 | 18.6 | 24.4 | 18.9 | 23.7 | $\} 1806$. |
| Inmboldt liay........ | Aata channcl | 20 | 24.7 | $10 \cdot 3$ | 25.3 | 18.7 | 25.1 | 1851. |
| Columbla River ...... . | North channel to Baker's Bay... | $24$ | $365$ |  | 30.9 | 28.7 17.7 | 380.6 |  |
|  | *Eatrance inta nouth chamnel .... | $\begin{aligned} & 19 \\ & 29 \cdot K \end{aligned}$ | $96$ | $\begin{aligned} & 19.4 \\ & 91.8 \end{aligned}$ | $20 . \hat{8}$ | 17.7 | $25 \cdot 6$ | $\} 1862 .$ |
| Shoalwater Bay........ |  | ${ }_{25}^{22 \cdot 5}$ | $20$ | $\begin{aligned} & 21 . \overline{6} \\ & 24.1 \end{aligned}$ |  | $\begin{aligned} & 20.0 \\ & 23.4 \end{aligned}$ |  | 1358. |
| Fulae Dungeness... ... | Sonth channel. . . . . . . . . . . . . . . Harbor anchorage. ${ }^{\text {a }}$. ${ }^{\text {a }}$. . | ${ }_{5}^{25}$ | ${ }_{60}^{31.5}$ | $24 \cdot 1$ | $32$ | $23 \cdot 4$ | 81.5 | 1853. |
| Bellingham lay ....... | Harbor anchorage. | 00 | 67 |  |  | . |  |  |

- Twenty-oute feet may be carried In at mean low water by kceping a little northward nad westward, nearer the breakera of the middke souds, an' \& tho turn, hauling up for Cope Disappotntment.
llanos on man Pige do Fall of Tinse in Lono Imlanis SOUND AND : $2 \cdot$ MAOHES-(DATA TO APRIL, 1853.)

Cabtran Seriss.

| 8 8talions. | P1 | Stefficid Isiand. ......... Fit. 7 . |  |
| :---: | :---: | :---: | :---: |
| Montank l'oint | $2 \cdot 0$ |  |  |
| Polnt Judtih. . | . $3 \cdot 1$ | Inntingtoo 13ay | 7. 6 |
| Heavertatt Ligh | . $4 \cdot 9$ | Great Captain's | 7.3 |
| Stonington | . $2 \cdot 7$ | Oyster Bay |  |
| New London | . $2 \cdot 6$ | Sand's Polnt | 7.7 |
| Sachern's Ilead | . $5 \cdot 3$ | New Rochette | 7.0 |
| New Have | . 5-8 | 'Throg's Neck. | 7.2 |
| Bridgepo | 日. ${ }^{\text {a }}$ |  |  |
|  | Weatran | SErieg. |  |
| Stationa. | Feel. | Slations. | Feel. |
| Sandy llook | $4 \cdot 8$ | Spitfiro l'ot Cove | 63 |
| Goveruor's Isla | 49 | Norlh Brother. . | 7.2 |

Tide-rips.-Near the equator, and especially on this side of it in the Atlantic, mention is msde, in the "abstract log," by almost every observer that passes that way, of "tide-rips," which are a commotion in the water, not unlike that produced by a conflict of tides or of other powerful currents. These "tide-rips" sometines move aloug with a roaring noise, and the inexperienced navigator always expects to find his vessel drifted by them a long way out of hor course; but when he cones to cast up his reckoning the next day at noon, he remarks with surprise that no current has been felt. Tide-rips are usually found in the neighborhood of the equatorial calas--that rogion of constant precipitation. And heace, if eurrents at all-if so, they are very superficial-I have thought they might be streams of rain-water, which old seamen tell us they have dipped up there freah from tho aca, runaing off. This conjecture, however, does not satisfy the phenomenon in sll of its aspects. It is sometimes ilescribed as starting up in a calm, and then approaching the vesael with great waves and a great noise; it acema threatening enough to excite a feeling of apprehension in the minds of seamen, for it looks as if it would daah over their frail hark as it lios wallowing in the sea, and helplessly flapping its sails against the nasts. Captain Diiggins, of the Maria, when bound frum Now York to Brazil, thus describes, in hia abstract log, one of these "tide-ripa," as aeen hy him, 10th October, 1855, in lat. $14^{\circ}$ N., long. $34^{\circ}$ W.: "At three F.M. saw a tide-rip; in the centry, temperature of air $80^{\circ}$, water $81^{\circ}$. From the time it was seen to windward, about three to five miles, until it had passed to leeward out of sight, it wa not five minutea. I should judge it traveied at not lesa than sixty milea jer hour, or as fist as the bores of India. Although ve have passed through several during the night, we do not find they lase aet the ahip to the west ward any; it may bo that they are so soon passel that they have no influonec on the ship, but they certainly beat very hard against the ship's aides, and jarred ber ull over. They are felt even when below, and will wake one out of sleep."Macry's Physicel Geography. For further information ua to 'Tides, refer to Amer. Jour. of Sei, xxxiv. 81, xvi. 78, xx. 205, xliv. 118, xil. (2d geriea) 341 (A. D. Bacue) ; Nouth. Lit. Mess., iv. 747 ; Mass. Quart. Rev., ii. 7 IT ; (Luart. Rev., vi. 74; A nal. Mag., ix. 231.

Tlles (Ger. Dachziegel; Fr. Tuiles; It. Tegole, Embrici; Sp. Tejas ; Russ. Tscherepiza), a sort of thin bricks, dried in kilna, and used in covering and paving different kirds of buildings. The best brick earth only should be made into tilea.

Timber (Ger. Bauholz, Zimmer; Du. Timmerhout; Fr. Bois de charpente, Bois à bâtir; It. Legname da fabbricare; Sp. Madera de construccion; Rass. Ströewoi Cess; Pol. Cembrovina), the term used to express every large tree squared, or capable of being squared, and ftt for being employed in house or ship-building. In the language of the Engliah customs, when a tree is sawn into thin piecea, not above seven inches broad, it is called batten; when above that breadth, such thin pieces are called deal. Wood is the genersi term, compreheading under it timber, dye-woods, fire-wood, etc.
The following are the contents of the loads of different apecies of timber, hewn and unhewn:

| load of | timber, unhewn | 40 cuble fe |
| :---: | :---: | :---: |
|  | square timber. |  |
| " | 1 linch plank. | 600 squaro fcet. |
| " | 1 fach plank | 400 |
| " | 2 tnch plank. | 300 |
| " | $2{ }^{\text {a }}$ loch plank | 249 |
| " | 3 lach plank | 200 |
| * | 3) tnch plank | 170 |
| " | 4 lach plank. | 150 |

30 \& Ruagian standard deala, 12 feet long, if tach thick, 11 tuelies broad, make 1 load of timber.
5S\} Chriathana atandard denis, 11 feet long, $1 \%$ inch tbick, O luchee broad, make 1 load of timber.
53! Dram atanilard deate, 10 feet long, $1 \$$ fnch thick, 9 inches broad, mako 1 load of tmber.
3 Higa loge mako 1 load of timber.
-Sea Lumier Trade.
The annual demand of timber for the British nr.vy, in war, is 60,000 loads, or 40,000 full-grown treea, a ton each, of which thirty-five will stand on an acre; in peace, 82,000 tons, or 48,000 loads. A seventy-four gun ship consumes 3000 loads, or 2000 tons of trees, the producs of fifty-sesen acres in a century. Hence the whole navy consumes 102,600 acres, and 1026 per an-num.--Allevtr. Eingland imports sbout 800,000 loads of timber anuually, exclualvely of masts, yarda, staves, isthwood, etc., together with about $8,000,000$ of deals and deal-ends.-Parl. Ret.

Tw overcane the difficulty of bending timber, a method has boen discovered which, to judge from the accoun's given by the most eminent engineers, hoth of America and England, will be of the grentest service in ship-building and domestic architecture, and in the construction of all pieces of furniture in which it is necessary to employ curved timber. It has been already so employed in the United Statea.

By this invention, which has been patented in America, the strength of the wood ia incrensed at least 75 per cont. at the poiat where atrength is most required. The curve, moreover, never relaxes. The timber, as in the old process, is first suljected to the influence of steam, which softena $t$... whole mass, and puts it in a fit state for tho actlon of a machine. The principlo of
bending, as employed in this new application, is based on end-pressare, which, in condensing and turning at the same time, deatroys the capillary tubes by forcing them into each other. These tubes are only of use when the tree is growing; and their amalgamation increasea the density of the timber, the preseure belng so nicely adjusted that the wood is nelther flattened nor spread, nor is the outer circumference of the wood expanded, though the Inner is contracted. Now the error of the former process, as expounded by competent judges, has arisen from the disintegratlag of the fibre of the wood by expanding the whole mase over a rigid mould: Wood can be more easily compressed than expanded; therefore, it is plain that a process which induces a greater closeness in the component parts of the piece under operation-which, as it were, locks up the whole mass by knitting the fibres together-must augurent the degree of hardness and power of resiatance. The wood thua becomes almost impervious to damp and to the depredations of insects, while its increased density rendera it less liable to take fire; and the present method of cutting and shajing timber being anperseded, a saving of from two to threefourths of the naterial is brought about. The action of the machine throws the cross-gralns into right angles; the knots are compelled to follow the impulse of the bending; the juices are forced out of the cells of the wood, and the cavities are filled up by the interlacing fibres. In the same way, you muy sometiues ace in the iron of which the barrels of muskets aro made a kind $1:$ dark grain which indicates that the particles of the metal, either in the natural formation or in the welding, have been strongly clinched in ono another. The specimens are alwsys greatly valued for their extrnondinary toughnena, as well as for a certain fintastical and mottled beauty.

Another of the good results of this new method is that the wood is reasoned by the amue process as that. which etiects the liending. The seasoning of the word is simply the drying of the juices, and the reduction of the mass to ite minimum size before it is employed, so that there shall be no future warping. But, as we have already shown, the compresaion reaorted to in the American nyntem at once expeis the map; and a few huars are sufticient to convert green timber into thoronghly seasoned wood. Here is an obvious saving of time, and also of money; fur the ordinary mode of xcasoning, ly causing the wood to lle waste for a consideraule periosl, locks up the capital of the trader, nu, of course enluances the price to the purdiaser. lime wese will be saved in another way, in aearching ftri pleces of wood of the proper curve for carrying out certain designs. "Hluw delighted," nays Mr. dervis, ti-s Upited Scates inspector of timixer, "will the shipv.right lo woget clear of the neceasity of searching for cronkei pleces of tirnber! There need no longer be ans: breaklug of bats in the frame, as we have been woint to break the.n. We rhall see mumbers one, two, and thref futtocks, et leant, all in one plece." An Finglinh engineer (Mr. Charles Mayhew) remarks, that one of the advantzgen of the American methol is that, " in its uplicathon to all circular, wreathed, or twisted work, it not only preserves the continuous grain of the word, which is now usunlly and laborionsly done by narruw nliju of vencer alued on cores cut across the grain, with many masightly joints, ill concealel at bent; bit it will materialiy reduce the cont of all rurved work, which now varies aceording to the quickness of the oweep, and will give the artint greater freedom in his dexign, by allowing him to introduce linea which are now coutiounly avoided in orler to provent the cost of thelr execution." Ir. Hroker, Mr. Fiairbairn, Mr. Kennie, Mr. (iallway, civil engineer, and other ominent scientifle men, confirm these judgnents. A sjueciaen of bent oak now lien tefore us, and exhibits a beantiful continuity in the sweepr of tire fibres. Timber-bending has reached a new stage of dovelop-
ment; and it is not too much to antlcipate that it will have conslderable influence on the industrial arts.

THin (Ger. Blech, Weissblech; Fr. Fer blanc; It, Latta, Banda stagnata; Sp. Hoje de lata; Ruso. Blächa, Shest; Arah. Resas ; Sans. Trapu and Ranga), a metal which has a fine white color like silver; and when fresh, its brilliancy is very great. It has a olightly disagreesble taste, and emits a peculiar smell when rubbed. Its hardness is between that of gold and lead. Ita speclic gravity is $7 \cdot 29$. It is very mulleable, tion-foil, or tin leaf, is about $1000^{\text {th }}$ part of au inch thick ; and it might be beat out into leaves as thin again, if such were required for the purposes of art. In ductility and tenacity it is very inferior. A tin wire 0.078 inch in diameter is capable of supporting i. weight of 84.7 pounds only without breaking. Tin is very flexllhe, and producea a orackling noina whon bent. It may be readily alloyed with copper, zinc, etc., forming very valuable compounda.-Tuosson's Chemistry.

The Pheniciana traded with Fingland for this srticle for more than 1100 years before the Christian era. It Is said that this trade first gave them commercis! inportance in the ancient world. Uuder the Suxons, our tin mines appear to have been neglectel; but after the coming in of the Nornians, they produced considerable revenues to the earls of Cornwall, particulariy to Richard, brother of Henry 11I.; a charter and various Immunities were granted by Elmund, Earl Richard's brother, who alno framed the stannary laws, laying a duty on the tin, payable to the earls of Cornwall Edward III. contirmed the thners in their privilpges and crected Cornwall into a duxedonn, wlth which he Invested his son, Edward the Black P'rince, 13:17. Since that time, the heirs aypurent to the crown of England, If eldest кons, have enjoyed it succenalvely. Tin mines were discovered in Germuny, which lessened the value of those in Fingland, till then the onty tin mines in Europe, A.t. 1240.-Anthbition. Discovered in harbary, 1640 ; in Indin, 1740 ; in New Spain, 1782. Fingland exporta at present, on an average, 1500 tons of unwrought tin, hesides mannfactured tin and tinplater, of the value of alwiot $£ 4010$, thoo.

The ores of this meial are foond in comparatively faw places; the principal, and perhaps the onty, (nes are Cornwall, Galicia, Erzzeblrge in Snxeny, Botemia, the Malny eountries, China, and Banca In Anje. I bey are peculiar to primitive roeks, generally in granite, either in veins or heds, nad are orten asanciated with copper nad iron pyrites. Tin is much used as a covering to several other metala: Iron is simned, to prevent its rapid oxydation when exposed to air snd molsture; and the same process fa applied to eoplur, to avoid the injurious effects to which thowe who rre in the habit of employing cooking utensils made of this metal are alwaya liable. The solutions of tin in the nitric, muratic, nitro-sulphuric, nind tartaric neids, are much used is dyelng, an giving a degree of jermanency and finlliancy to neveral colurn, to the obtained ly ibe use of no other mordants with whleth we are at prewent acqualused: tin forms the basis of pewter, in the comjesition of which It in mlloyed with lead; when rulted into thin sheets, it ls called tin-foll, and is upplied, with the adilition of mercury, to cover the surface of plas, thum forming looking-glannes, mirrors, ctc.; uni in combination with suljhur, it conntitutes what iv called musaic arold.-alorec's Chem. Min. 'Jiuplates, known in scotland by the name of whity inem, are npilicalie $\omega$ a great variety of purponen. They are tormed of thin plates of lron dipped into molten tin. The in not only covers the nurface of the lron, hat penetrates It completely, and gives the whole a white color. It is unual to ald alout one-tenth of copper to the tin, to prevent It from forming too thich a coat upon the iron. -Tuomsos's Chemistry.

Sritish Tin Trade. - . he tia mines of Comwati have been worked from a very remote era. Tho voyages
of the Phicnlciana to the Cassiterices, or tin islands, are mentioned liy Herodotus (Hib. III. c. 115), Diodoras Siculus' (lib.' Iv. p. 801, ed. 1804), and Stralo (Geog., lib: mi.). Some difference of opiniton his, findeed, been entertained as to the particular islands to which the Phocniclans appliod the term Cassiterides; but Borlase (Account of the Scilly Islands, p. 72), Larcher (Herodote, tome iil. p. 344, ed. 1802), and the ablest critics, agree that they are the Scllly Islande, and the western extrenity of Corawall. After the destruction of Carthage, the Britlsh tin trule, whlch was alwaya reckoned of peculiar Importanco, was carted on by the merchants of Murselifee, and auhisequently ly the Romans. Besides Britain, Spain Purnished the ancients rith considerable quantitita of tin. "We have no very precise Information as to the ;irpposes to which they applied this metal. It has beesis supposed that the Phemicians, so famons for their purple dyes, were acqualnted with the use of the sofution of tin in nitro-muriatic acid in fixing that color. The best of the ancient mirrore, or spectila, were also made of a mixture of copper and tin; and tin was used in the conting of corper vessels. -Watson's Chenical Essays.
In modern times, the tin mines of Cornwall and Devon have been wrought with varions degrees of energy and success. Queen Elizabeth brought over some German miners, hy whom seme of the processes were Improved. During the civll ware the mines were much neglected. At the commencement of last century, however, the business of mining was carriled on with renewed vigor ; and from 1720 to 1740 the annual proluco wns about 2100 tons. The produce went on gradually lncreasing, tlll it amounted, in the ten years from 1750 to 1800, to 3254 tons a year. During the next fifteen years the produce fell off; and for tho five yenrs ending with 1815 it was always considorably under 3000 tons a yenr. Bat in the last-mentioned yenr a considershle incrense took place; and sinco 1816 the produce has been, with the exception of 1820, alwnys above 3000 tons a year. The a verago produce of the mines in the year 1843 was estimnted at above 5000 toms a year.
Tin, Oriental (Malay, Tima; Hind. Kalar; Siamose, Dibuk; Burmose, Kye-p'i, $\mu$, white copper), in Commercial langruye nisunlly called Bancen tin. It is found lis several provinces of China; but the most extensive, and probably richest tin dlstrict in the world, oxists in the Mnlay countries. This comprehends the whole of the peninsula, from the extreme cape to the fatitude of $14^{\circ}$ on its western side, and to $11^{\circ}$ on its enstern, and comprehends several of the small islands lying in the route leetween the peninsula and Java, ns fur as the latitude of $8^{\circ}$ gonth; so that the whole of this tin district has an extreme length of near 1200 miles. By far the greater number of the mines within theso limits are as yot unwronght and unexplored. It was only in the beginning of last century that tho mines of Banca, the most productive at present worked, wero acellentally discovered. Tho whole tin of the Malay countries is the pmiluce of nlluvial ores, nr what is called in Cornwall "Streati,-work;" and from the abundance in which the mineral has been founcl by the mere washing of the soll, no attempt has hitherto been male nt regular mining, or obtaining tho aro from its rooky matrix. Malay tin, consequently, is grain tin, or tin in a very puro stato; that belug tho species which alluvial ore uniformly produces. The milues, or rather exchyations, are perpendifular pits of from 15 to 25 feet deep; and when the sofl and a superstratum of conimon clay aro removed, the bed containing the ore, consisting of quartz and granitic gravel, is reached. The smini and gravel nre separuted trom the ore by pnssing a stream of water through the whole materials. The ore so obtalimed is preserved in henps, and smeltecd pertodically with charcoal in a tilast furnace. The mine or pit is kept clenr of water ty the Chinese wheel. No cattle are used in any part of the
process, human labor belng had recourse to througbout the whole of ita stages. V te most 1 mperfect part of the process is the smelting. The stream ores of Cornwall, which are generally poor, afford from 65 to 75 per cent. of graln tin; 'whereas,' owing to the ' Imperfection of the process, from those of Banca not more than 55 or 60 are usually obtnined. The difference In the prodace suggested, a iow years ago; the practicability of sendling the ore to England for the parpose of belng amelted; nnd the experiment was tried; but our cuatoma regnlatione not allowing the produce to be honded and re-exported wlthout duty, rendered the scheme abortive.
With very trifing exceptions, the whole tin of the Malny islands is minced and smelved by Chinese settlera; and before their ekill and enterprise were applied to its production, the metal seems to have been oltalined by the Inhabittents of the countries whicl produced it, by processeg harily more ekillful than those by which the precioas metals were procured by the native inhabitants of America prior to the introduction of European sklll and nuachinery. Tho following estimate has heen given of the annual produce of the principal states and placea producing tin:

Diagt Coagt of the Maliy Iemingula.

| . nnk Crylen | Piculs. <br> 5, 1000 |
| :---: | :---: |
| Quedia | 2,(\%) |
| Pern | 3,000 |
| Shiangore | 3,000 |
| Matacea. | 4,000 |
| Totat pi | 17,000 |

West Coabt of tife Malay Penishicla and lalands.


This can be consitcred only as a rough eatimate ; but we helieve it is not far wide of the truth. The ir $t$ considerable port of exportation is Inatavia; from which thero is sent nnnually, either directly or through orders from the Dutch government or the authorities at Banca, 2000 tons. Firom Prince of Wales Islancl there is also a considerable quantity exported; and a smaller one direct to Chian in junks, from several of the untive prorts on the eastern shore of the Malay peninsula. The great marts for the consumption of tin are China, Hindostan, and the continent of Europe. The quality of the different descriptiona of Malay tin, although there may be some inconsiderable difference in the quality of the original ores, scems to be derived chiefly from the greater or less skill with which tho process of amelting is conducted; and this, again, necessarily dependa upen the extent of capital and goodness of the machinery employed. The mining operations of Banca have long been conductel! upon a larger scale, and with more skill, than in any other of the Mulay countries; and, consequently, the metal produced in this is :nd is superior by fror 10 to 12 per cent. : in the market of Canton it is called "old tin," in contradistinction to "new tin," the produce of the other Mnlny countries. Next, in point of quality, to the produce of Banca, aro those of Tringanu and Singkep, which are not more than 5 per cent. inferior to it. The tin of the state of Pera, a considerable part of which is produced by the natives themselves, without Chluese assistance, is the worst, und nanally about 15 per cent. below that of lanca. The native tin of China ls 10 per cent inferior to that of Banen, and is probably block-tin, like the grenter part of that of Cornwall; and, like lt, the produce of regular mining operations, and not alluvlal. The produco of the Chinese mines Is sald of late years to have graatly decreased; probably owing to the grent increase which lias recently taken plice in the produco of the Malay conntrips, and the cheapness and abundance with which
it finds its way to Chins. It should be added, that of late years, and chiefly owing to the very low price and ahundance of German apolter (ainc) in the Indian market, this commodity has occationally been fraudulently mixed with tha. The Chinese brokers of Canton, however, are sufficiently expert to detect the adulteration; and it is belleved that this discreditabio practice has lately ceased. The price of tin, taking the market of Sligapore as the ntandari, has fiuctuated of Inte years from 14 to 20 Spanish dollare per pleul; :qual, at the exchange of 4a. per dollar, to 47a. and ifis. per ewt. At au average of these pricee, the annual valuo of the whole Malay tin will be about $£ 240,000$ per anmum.-Crawfurd's History of the Indian Archipelago; Dr. Ilonsyikld'e M/S. Statistical View of the Island of Banca; Singapore CAronicle; Canton Register, etc.



Exports of vorfion Tin phom thik Yinited States matia y'zal mmmo Jena 30, $\mathbf{1 5 6 7}$.

| Whither axported. | In Pign and Hare. | In Platea and Bheets. | Manufac. turen of, nol aperilised. |
| :---: | :---: | :---: | :---: |
| Canada | \$3939 | \$29,946 | \$14,420 |
| Other Hrtilsh N. A. K'oss. | 57 | 9,325 | .... |
| Itrltinh Weal Indies | $\cdots$ | 830 | . |
| Ilnyti..................... | 690 | 3,541 | 130 |
| Mrxico. . . . . . . . . . . . . . . . | 1474 | 3,010 | . . . |
| New Granadas |  | 274 | . |
| Sandw leh Irlanda | 89 | 2,441 | ... |
| Total. | \$6149 | \$94,907 | C14,650 |
| From warehoume | 1968 | 24,483 | 245 |
| Nol from wrrehouse. . . . . . . | 4885 | 10,474 | 14,205 |

inivuts of Tin and Manceatteres of tin into the linithen


| Whence Imperted. | In Pig: and Hars. | $\begin{aligned} & \text { lo Plates } \\ & \text { and } \\ & \text { Sheets. } \end{aligned}$ | Foil. | $\begin{aligned} & \text { Mhar } \\ & \text { Mana. } \\ & \text { facleres } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 17 araburg | $6,246$ | $2,493$ | 15 | $467$ |
| Hremen. |  |  | 1,1:6 | 3,503 |
| Hollend | 277, 347 | .... | .... | $\cdots$ |
| Dutch Fiast Indles | (65, 5 -34 |  |  |  |
| lkelgium. . . . . . . . . . . . . . | 27,71 | 2,801 | 4.627 | 6,379 |
| Fingland. . . . . . . . . . . . . . | 87,788 | 4,782,763 | 2,753 | 16,490 |
| Sentland. . . . . . . . . . . . . . | 331 | .... | .... | - ${ }^{\text {cis }}$ |
| Crnada. . . . . . . . . . . |  |  | ... | 43 |
| Other Hrithin N. A. Jown. . |  | 1, 027 |  | .... |
| Iriligh Wrat Indten . . . . |  | 236 | 21 | . |
| Hrilluh fiutann.... | 9041 |  | . . . | . . . |
| Pritish Finet lndies. | 491,171 | 19 | $\cdots$ | 1 |
| France on the Atlautle.. | 30,448 | , | 12,830 | 4,940 |
| France on the Mediler'n. |  |  | 5 | $\ldots$ |
| lhilipptne Imlande. . . . . . | 2,007 |  |  | 0 |
| Cuber ..... |  |  |  | 100 |
| New tiranada | d] |  | 66 | .... |
| Hucnos Ayprea. . . . . . . . . . |  | $\cdots$ | .... | . $\cdot$ |
| (7ill....................... | 24,60\% |  | . | . |
| I'eru . . . . . . . . . . . . . . . . | 818 |  |  | 0 |
| Total. | 1.023 .210 | 4,709,539 | 21,4206 | 31,628 |

Tithes are the tenth part of the increase yearly arining and renewing from the profits of lands, the stock upon lands, and the pernonal industry of tho inhabitants, and are offerings puyaile to the Church by law. Under the Jewish aystem, the tenth part of the yearly increase of their gexwis was due to the priests. -Numbers, xviii. 21 ; Deut., xiv. 22 ; Lerit., $x \times x i l$. :30, 32.
In the earliest ages of the Christiun Church, offreiags were made i,y its members at tho altar, at collec. tions, und in other ways; and auch payuents were enjoinedl ly decrees of the Church, and sanetioned ly general usage. For many centuries, however, they were soluntary. Hint when the Church bad Increased
in power, and began to number among its members many who adhered to it because It was the pravalling religion, it was found necesasy to enforce certain fixed contributlons for the support of the ministers of re. ligien. The Church relied upon the example of the Jows, and claimed a tenth. Meanwhile, the conversion of temporal princes to Christlanity, and their zeal in favor of thelr new falth, enabled the Church to obtain the enactment of laws to compel the payment of tithes. In England, the first instance of a, law for the offering of tithes was that of Offa, King of Morcla, toward the end of the 8th centrry. He firat gave the Church a civil right ln tithes, and enabled the clergy to recever them as their legal due. The law of Oifa was at a later period extended to the whole of Enylsnd by Klig Ethelwulph.-Imaeaux on Tithes ; Bous's Cyclopedia.

Tobacco (Da. Tobal; Da. Tabak; Fr. Tabac; Ger. Taback; It. Tabacco; Pol. Tobala; Russ. T'skak; Sp. Tabaco; Arab. Bujerbhang; Ilind. Tumbaikū; Malay, Tambrdcoo), the dried leuves of the Nicoliana tabacum, a plant Indigenous to Annerica, but which succoede very well, and is extensively cultivated in most parts of the Old World. The recent leaves posseas very little odor or taste; but when dried, thoir odor is strong, narcotle, and somewhat fetid; their taste bitter and extremely acrid. When weil cured, they are of a yellowish green color. When distilled, thoy yield an essential oil, on which their virtue depends, and which is said to be a virulent poison. The leavea are used in varlous ways; being chewed, annoked, and grouad and manufactured into anuff. It is in the lust uien. tioned form that tobacco is princlpally used in Great Britain; and though the contrary has been often asserted, its use does not seem to be productivo of any perceptiblo bad consequence.

Historical Sketch.-The taste for tobacco, though apparently aduinisterigg ouly to a frivolous gratitication, has given birth to a most extenaive commerce, and been a powerful spur to industry. veing a native of the New World, its introduction snt. E Europe dates only from the early part of the 16 th century. Seeds of the plant were sent, $\ln \mathbf{1 5 6 0}$, from Portugal to Catherine de' Medicl, by Jean Nicot, the Fronch embarsador in that country, from whom it has received Its lotanleal name. The notion, at one time so general, that the spectic appellation tobacco was derived from its having been imported from Tobago, is now uuiversilly admitted to be without fonudution. Ilumioldt has ahown that tobacco was the term used la the llaytian language to designate the plpe, ur inatrument made use of by the natives in smoking the herb; und the term, having been transferred by the spaniaris from the pipe to the herb itself, has been adopted by the other nations of the aucient world.-Eissai l'olitique sur la Nouvelle Eispagme, vol. iii. p. 50, 2d. ed. Tobace is believed to have been dirat introduced into lingiand by the eettlers who returned, In 1586, frum the colony which it had been attempted to found in Virginia, under the auspices of Sir Waltor Haleigh, in the preceding year. llarriolt, who accompanied this expedition, gives, in his description of Virginia, an account of the tubacco plant, and of the munuer in which it was used by the natives; alding, that the English, during the time they were in Virginia, and since their return homo, were ueeustomed to smoke it affer the fashion of the Indians, "and found many rare and wonderful experiments of the virtue thereof."-llakLeyt, vol. I. p. 75. lalelgh, and other young men of fushiou, having adopted the pructice of snoking, it apreal among the English; an It had previousily apread among tho Spunards, lortugucse, French, aui other conthuental nations. But it made Its greatest progress in England after the foundation of the colony at jamestown, in Virginia, in 1607. The soil of tho coloay being found partlcularly well fitted for the culture of tobacco, considerable quantities wore raised and sest
home ; and the numerous indivldaals interested In the colony contributed to introduce that taste for it which was diffused among all clasees with sstonishing rapidity. James I. attempted, by repeated proclama tions and publications, some of them couched in very strong terms, to restrain the nse of tobacco. But his efforts had very littio effect; and the settiers in Virginis continued to experience a more rapidiy increasing and better demand for tobacco than for any other product of the colony. During tho eariier part of the reign of Charles I., the trade in tobacco was monopolized by the crown. This monopoly was not, however, of long continuance, and totally ceased at the breaking ont of the civil war.

Tobacco plants had been carly introdnced into Engiand, and were found to answer remarkably weli. Their cuitivation was, indeed, prohibited by James, and afterward by Charles, but apparently withont effect. At jength, however, the growing consumption of tobacco having excited the attention of the govern ment financiers, it was seen that, by imposing a duty on its importation, a considerable revenue might be raised; but that, were it allowed to be freely cultivated at home, it wonid be very difficult to collect a duty upon it. In 1643 the Lords and Commons imposed a moderate duty, for the sake of reveane, on plantation tobacco; but instead of directly prohibiting the use of native tobaceo, they burdened it with such a duty as, it wos supposed, wonid occasion its culture to le abandoned. The facility, however, with which the duty was evaded soon satisfled the repubilicun leaders that more vigorons measures were required to stop its cultivation, and consequently to render its importation a source of revenue. Hence, in 1652, in act was passed prohibiting the growth of tobacco in England, and appointing commissioners to see its provtsions carried into effect. This act was confirmed at the Restoration, by the act Charles II., c. 34, which ordered that ali tobacco plantations should be destroyed. These measures were believed at the time to have been principaliy brought about by the solicitations of the pianters; but their real intention was not so much to concllinte or benefit the latter, as to facilitate the collection of a revenue from tobacco; and, considered in this point of view, their policy seems quite unexceptionable.

Nicotiana Tabacum.-It is thought by some that this plant recelved its name from Tabacco, a province of Yucatan, New Spain; others say from the island of Tobago, one of the Caribbees ; and others that it is derived from Tobasco, in the Gulf of Florida. It was first observed at San Domingo, A.d. 1496 ; and was used freely by the Spaniards in Yucatan in 1520. Tohacco was first carried to England in the seventh gear of Elizabeth, 1565, by Sir John Hawkins; but Sir Waiter Raleigh and Sir Francis Drake are also mentioned as having first introduced it in England. According to Stowe's Chronicle, it was manufactored only for exportation for some years. The Pied Bull Inn, at Isiington, was the first house in Engiand where tobacco was smoked. In 1584 a proclamation of the Engilsh government was issued against it. The Star Chamber ordered the duties to be 6s. 10d. per lb., in the year 1614. Its cultivation was prohibited in England by Charles II. The act laying a specific duty on the importation into England was passed 1684. The cultivation was allowed in Ireland about the year 1779. In Anderson's History of Commerce we find that the tax wan increased, and put under the excise in 1789. Varions statutes have been passed by the English government relative to tobacco. The act to revive the act prohihiting the culture of tobacco in Ireland passed 2 Willism IV. (Augast, 1831). The act directing that tobacco grown in Ireland be parchased in order to lts being destroyed, March 24, 1832. The quantity consumed in England in 1791 was 9,500,000 lbs., and in 1829 about $15,000,000 \mathrm{lbs}$. In 1840 the
quantity had reached to $\mathbf{4 0 , 0 0 0 , 0 0 0} \mathbf{l b s}$. In 1854 the quantity imported into Great Britain was abont $85,000,000$ lbs., of which $2,710,000 \mathrm{Jbs}$. were manufac. tured as cigars or enuff, and the rest unmanufacturet.

## -Haydn.

In some countries tobscco is principally, perhaps, used in the form of snuff; in others it is principaily chewed, or again amoked; but, in one form or another, it is every where made use of. So early as 1624, Pope Urban VIII. issued a buil excommunicating those viso smoiked in churchea! Tho practice of smoking was at one time exceedingly provaient in Engiand; but during the reign of George III. it wos well-nigi enperseded, st least among the hlgher and middie clasi $\times n$, by the practice of snuff-taking. Latterly, however, smoking has been extensively revived among both the rich and the poor.

We quote the following statement as to the universality of the use of tobscco from a learned paper on it: "Introduction and Use," in the 22d volume (p. 142) of the Asiatic Journal: "In Spain, France, and Germany, in Holiand, Sweden, Denmark, and Kussia, the practice of smoking tobacco prevalls among the rich and poor, the learned and tho gay. In the United States smoking is often carried to excess. If we pas: to the East, we shall find the practice almost universai. In Turkey the pipe la perpetnaliy In the month; and the most solemn conferences aro generally conciuded with a friendly pipe, employed like the calumet of peace among the Indians. In the Fast Indiea not merely all classes, but both sexes, inhale the fragrant steam the oniy distinction among them consisting in the shape of tho instrument empioyed, and the speeles of the herb amoked. In China the hubit equally prevails; and a modern traveler in that country (Barrow) states, that every Chinese femaie, from the age of elght or nine years, wears, as an appendage to her dresa, a smail siiken purse or poeket to inold tobacco and a pipe, with the use of whicit many of them are not mnacquainted at this tender oge. This prevalence of the practice at an oarly period among the Chinese is appealed to by M. Pallas as an evidence that 'in Asia, and especialiy in China, the use of tobacco for smoking is more ancient than the discovery of the New World.' He adds: 'Among the Chinese, and among the Mongol tribes who had the most intercourge with them, the custom of smoking is so general, so frequent, and has become so indispensuble a luxury; the tobacco purse affixed to their belt so necessary an articie of dress ; the form of the pipes, from which the Dutch seem to bave taken the model of theirs, so original ; and, lastly, the preparation of the yellow leavea, which arc merely rubbed to pieces and then put into the pipe, so peculiar, that they could not possibly derive all this from America by way of Europe; eapecially as India, where the practico of smoking is not so general, intetvenes leetween Persia and China." This, however, is a very doultful proposition. It seems sufficiently eatablished that the tobaceo plant was first brought from Central America (see dute of introduction of tobacco), and it is most probable that it was thence carried to Siam, China, and other Eastern countries. The names given to it in all the languages of the East are obviousiy of European, or rather American, origilu; a fact which seems completely to negative the idea of its belng indigenous to the East.

Tobacco is extensively cultivated in Mexico, but only for home consumption. It might probably, however, were it not for the restrictions under which it is placed, form a considerable articie of export from that country. Under the Spanish government, the tobacco monopoly was one of the principal sources of revenue; rielding from $4,000,000$ to $4,500,000$ dollars, exclusive of the expenses of administration, amounting to about 800,000 dollars. No tobaccu was allowed to be cultivated, except in a fow specified places. Commissioners, or guardas de tabaco, were appointed, whose duty
it was to take caro that all tobacco plantations withnut the privileged diatricts should be destrryed. The govemiment fixed the price at which the oultivators of tobaceo were olliged to sell it to its agents. The ale of the manufacharul tobaeeo was farmed out; and cigars we e not allowent to be sold, except at the royal eatancos. No une was alluyed to uso cigary of his own manufacture. This oppressive monapoly was established in 1764. It has heen continued, from the diticulty of supplying the revenue which it produces, by the revolutionary governmonts.-Ifemboldr, souvelle Lispagne, iii. 49; Ponsyett's Notes on Mexien, noto 116, London ed.
Cuba is celabruted for its tol neeo, partieularly its eigars. These consist of the lea cas, formed into amall rolls, for the purpose of moking. Formerly tieir Inportution into linghand was prolifis:ed; iut they may now be lmported on n"iag an e" "itsa' futy. Ha-
 ly to $1: 1$, , ts cuhis. . Whate wero subjected to the amue
$y$ in "nba ase in
 thrown open. In cunser os wial madom thus given to the business, the picuaction cut "portation of tubnece are both rapilly inereacieg, xize.e. hardy, perhaps, so much as might have been expec.ed, the culture of sugar and coffeo heing for a while reekoned more profitable; that, however, is no longer the case. -Sice Cera for Exports.

L'nited Stutes,-1'revious to the war of Judependence, its culture had apread into Maryland, Carolina, Georgia, and Lovisjana, from which nearly all Europe was supplied; but at present mast of the wovereigns of the Ohl Worh derive a considerable part of their revende from the cultivation of this plant. Indepenient of its production in tha Middle and Southern Staten of the Union, tobacco is extensively cultivated in Mexico, the Spanish Main, Cuba, Bruzil, Trinddad, Sui Domlngo, Turkey, Persia, 1mulia, China, Australia, the Phllippines, and Japan. It has also been raised with suecess in uearly every conntry in E.urope, Ficypt, Algeria, the Cape of Good llope, the Canarios, and numarous other islands in the ocean, Canada, New Brunswick, and on the westarn coast of America. The pribcipal varicties cultivnted in the Linited States are the Virginian, the large-leaved, the dwarf, the Caba, und the commen green tuhace.
In 16\%2 there were raised in Virginia 60,000 lus. The amunst exported from that colony in 1639 was 120,000 Ibs. : annually for ten years precoding 1709, $28,86 \mathrm{f}$, , bif6 lis. ; annully for several yeary preceding the Revolution, 55,000 hogaheals ; in $1750,70,000$ hoggheads; from North Carolina, in 1753, 100 bogs. heads; from Georgin, in $1762,16 \mathrm{ct}, 732 \mathrm{lhs}$. The awount experted from the United Colenies in 1772 Wus $97,599,26$ 168. $4 \ln 1780,17,424,26{ }^{6}$ libs; from the United States, in 1787, 99,041,000 los; in 1791, 201,272 hogsheads, 81,12s lbs. manufactured, and 15,689 1 lth . of snuff; in 1800 , 28, G80 hogshends, $457,713 \mathrm{lbs}$, manufactured, and $41,453 \mathrm{Ibs}$. of snuff; in $1810,84,134$ hogshends, $405,427 \mathrm{Ibs}$ manufactured, sad $46,640 \mathrm{lbs}$. of anuff; in 1820-'21, 66,858 hogsheade, $1,332,949 \mathrm{lbs}$. manufactured, and $44,852 \mathrm{llw}$ of suuff; in 1830-31, 86, 818 hogeheads, $8,633,856 \mathrm{lbs}$ manufactured, and $27.966^{-}$lbs, of snuff; in 1840-1 $11,147,828$ lhugsheads, $7,503,644 \mathrm{JLn}$. manufactured, and $\mathbf{6 4 , 5 5 3} \mathrm{lln}$ of anufi; in $18500-$ ' $51,05,1455$ hognhemis, $7,235,3581 \mathrm{lbs}$ manufactured, and 37,422 lbe. of sulff.
According to the coman returns of 1840 , the amount If toinacco rased in the United States was 219,163,319 Hhs.; of $185^{\circ} 0,199.752,646 \mathrm{ILse}$; showing a decrease in ita culture of $19,410,675$ llm,
Gireat IJritain.-It is assumed lyy Dritish statiatielans that the yearly consumption of whacco lu Great Britain and Ireland amounts to 26,000 tons; aloat one half if which, it is supposed, is smuggled, cwing to the excessive duties (upward o! 1000 jer cent.) leviod on
the artlele under the tariff ayatem of that himform. The quantlty of cigars and anuff imported does not ex. ceed two or three hundred weld ht per annum. The following table, compiled fiom parilarmentary returna, nhows the lmports of tabacee Into the I'nited Kingdoun, ant tha quantities entored at euch port, during the year 1850:

| Porta. | eaf. |  And flyest. | Total. |
| :---: | :---: | :---: | :---: |
| 1 m | T, 7 mas | ${ }_{\text {Taneo }}$ | ${ }^{\text {Toun }}$ |
| $1.1 \mathbf{y}$ erpon | 6, 40 | 146 | \% 4 |
| cilago | 415 | 7 | 4is |
| reith | 201 |  | 200 |
| Routhampton | 143 | KS | $3{ }^{35}$ |
| Other plinees | 15.7 | 6iM |  |

The following rotuin, transmitted to the llouse of Commons, for the yeaz ending Junuary 5, 1853, shows the nnnual consumptlon of tobacco in the United Kingdom, ond luty levied on tho samo:


The following table, exlibiting the oxports of tohaceo from (irent Britain for 1852, will show the quantities and destization of that article suyplied by Bingland to foreign countries, relatively to the quantifies improrted. Tutal quantity imported 15,700 tons, or $35,168,000 \mathrm{lbs}$.


The foregoing table shons that in 1850 there were exported from crent itritain alont $2,602,000 \mathrm{lhs}$, (allowing lovo lis. to the hoghead) out of the $35,16,400$ 16e, imported, showing the amount retalned for conRumption to be $82,566,000$ lis.
QDantitima and Valiue of Tobarco (eaw) Rxpmeten reov
 1930 TU 15055,

| Yara. |  | Value. | Voars. | Qeantity | 100. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Oulam. |  | Hacha. |  |
| 1830. | 90, 211 | 1,682,971 | 1817 | 21,05 | 1, 262,416 |
| 1831. | 26,785 | 1, 242.8334 | $19+1$ | 80, 132 | \%,0010,180 |
| 1532. | [46,493 | 8,94\%.4Mt | 1845 | 24,161 | 1,995,087 |
| $1 \times 88$. | 23,841 | 2.9*) ${ }^{\text {c }}$, 197 | 18413. | 97,943 | \%, 124, 282 |
| 1934. | 3n, dis $^{2}$ | 34) 37.105 | 144\%. | 2.1.75 | 2, 230315 |
| 1835. | 27,649 | 8, 46\%1,43\% | 1819. | 21, 301 | 9.290, 115 |
| 1154. | 97.965 | 4,693,449 | 1841. | 21,100\% | 1,871,127 |
| 1537. | 21.783 | 1,870,408 | 18811. | 31, 112611 | $8,4120,50$ |
| 18.19. | 25,739 | 9.857,201 | 1451. | 23,638 | 3,450, M5\% |
| 1833. | 30,930 | 0.414.4.167 | 1459. | 17.66 | 2, 812.825 |
| 1340. | 97,186 | 8.927, 28.1 | 1868. | 89,230 | $8,438,483$ |
| 18\%1. | 43,141 | 5,114,589 | 1234. | 17,644 | 2,140,44 |
| 144? | 84.909 | 3,81\%,207 | 1850. |  | 3,617,7(0) |

- There vere also oxported canv and balen, faciuded is tho columa of ralue
The duties on imported tolnace yield to the British government over fuur aud a latf miltions atering an-

The
Gavari compa would tions, pasts whero ferent
Havar
tached
princl annun
not $m$
baceo
pit up
put up
Conim
sold an
Fror
except
71 flor
Duriug
cipally
make
pureha
nually. For the fifty veare, from 1801 to 1850 , the aggregate duties collect $d$ nmounted to the emormous sum of one hundred misd fifty million pounts aterling! We annex the queatlies linported, and the duties, at intervals of five y eara:

| Yeara. | Poum ${ }^{\text {a conmunned }}$ | (1) |
| :---: | :---: | :---: |
| 1801. | 10, 104,040 | 21,20才, 100 |
| 1905 | $10^{\sim} 15,140$ | 1,941,0 0 |
| 1810 | $20,5-1,0: 10$ | 2,143, 010 |
| 1815 | 17,955,000 | 2,004,000 |
| 1820 | 15,716, (100) | 3,117,000 |
| 1825 | 18,761,090 | 3,268, ${ }^{\text {n }}$ |
| 1839 | 14,293,040 | 2, 124.4 |
| 1835 | 41,116,000 |  |
| 1849 | 23,400,400 | 8,066896 |
| 18.5 | 2A,101,1000 | 4,245,000 |
| 1850 | 27,134,900 | 4,506, 000 |

The changes in the import dutles were as follows:

| Yents. | Amerleal. | spanith or Purlugives. |
| :---: | :---: | :---: |
| 1801-2 | it |  |
| 1508 | 1 T | 481 |
| 1 S 14 | 181 | 4101 |
| 1815 | 101 | 411 |
| $1 \times 03$ | , 21 | 55 |
| 1719 |  | 411 |
| 1812 | 2 \% | 46 |
| 1813 | 28 | 4111 |
| 1815 | 32 | 515 |
| 1819 | 40 |  |
| 195 | 30 | 60 |
| 1826 |  | 30 |
| 1833 | 28 | 30 |
| 12 | 3 | 30 |

We have no means of escertaining the vnlue of cigers smoked away In the United States annually.

Heten.--The cultivation of tobacco in the (irand Duchy of Baden was commenced in the early part of the present century. It has grently inereased within the last twenty years; and particularly so since the commencement of the exportation of palatinate cigars to the United States, and which oxport trade during the last twelve years has shown a constantly angmenting importance. In the Grand Duchy there are now from 18,000 to 20,000 acres of land devoted to the cultivation of tobacco. It Is particularly the Baden palatinate which yields the most and best; but the cultivation extends to other parts, and even as far as Offenburg, in Ireisgau. The crops of five years differed very much from onch other in regard to quantity, and still more in quality. The last two erops were superior to all others.

| The cro | 105 | 100,000 |  |
| :---: | :---: | :---: | :---: |
| (6) | 1852. | $2(0), 000$ |  |
| " | 1853. | 160, (4)0 | 6 |
| 16 | 1854 | 150,000 | 4 |
| 6 | 1855. | 170.100 | 16 |
| 4 | 1356. | 150,000 | * |

The cultivation and produce of the Pfalz (Rhenish Bavaria) anounts to about half of that of Baden. As compared with other crops, tho cultivation of tobaceo would appear to the traveler to be on very large plantations, but the vast oxteut of tobaeco ground in some paits of the Badish palatinate (as near Seckenheim, where thoy reach for miles) belong to hundreds of different persons, generally speaking, In the Baden and Mavarlan palatinates ; tobacco is cultivated only In dethehed and small jieces of ground; some few of the principal land-owners ralse from 150 to 200 cwt . per annum ; some not more tha: jest. ; and others, again, not more than 3 , and even down to 2 cwt . The to. baceo is not put up in hogsheads, as in America; it is put up in strong bales. The finer sorts and leaf ure pht up In bexes, and exported to Spain, England, etc. Conmon tobacco for inland consumption is mostly sold and dispatched in a loose state.

From 1844 to 1852 the prices of tobacco, with a few exceptions, remained shout tho same; the lowest nt 71 florins, and the highest 15 florins, per 50 kllograms. During the years 1852-'53 the export of cigars, princlpally to the United States, had become so great as to make the cigar manufacturers early and important purchasers. Large porchases were also made for the
regies of France and Austria. The latter alone lought 100,000 cwt., which; of courss, produced a great riso In the market; prices went up from 12 fiorins to 25 florins per 50 kllograms ; and since that period tobacco, like cotton and publie fanda, las become an article of "speculation."

The averago prices for the last five years may be quoted as follows :

| Say for |  | 12 to 22 forins per 50 kllogrnms. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1859. | 7 to 18 | ${ }^{6}$ |  |  |
| 4 | 1553. | 10 to 14 | ${ }^{6}$ | ${ }^{4}$ | 4 |
| " | 1854. | 12 1125 | 14 | os | 16 |
| 14 | 1956. | 10 to 80) | 14 | 4 | 4 |
| ${ }_{6}$ | 1856. | 18 to 42 | " | 4 | 6 |

The whele of the last crop was disposed of lofore the close of the year. Between Curlsruhe and Bruehsal the prices were from 16 to 23 llorins. The firstrate tolutce of the palatinato was sold from 33 to 42 fiorins per 50 kilograms. According to estlmate, about one half of the produce ls manufactured, and the other half exported to England, Spain, and Switzerland, and to Austria nad Frence. It is quite clear that the growing of tobacco is profitable; for it is known that on an nverage it ensts tho planter not over 12 fiorins per 00 kilograms ; and in further evidence of tio fuet is the constantly fincreasing breadth of " + in chavoted to the cultivation of that crop. The tobaeco in the Grand Duehy ef, wot : wrectly ns-
 I have heard the quantity ess" ed a. . 0 owt. per annum.

The present high pricer: town in the face of good crops, aro caused in ,i,*a. int. Wh wy the activo export demand. The shinfry is igs to America, and who have now most, theit $x i f n$ manufactories, are large und ready pure? ors, a i:l for the beat kinds pay high prices. Tho "' "is egie is a very important eustomer, and ttic er-ih régic early last fall contraeted with some of wi.e Jaden clyar manufactories for $100,000, f 00$ of clgars. 'the improved export trade has increased the demand tor tobacco of foreign growth. In Baden and Rhenish Bavaria there are no other taxes on the cultivation of tobacco except land and ground taxes, while the duty on foreign tobacco is,


## -United States Com. Relat.

France, - The revenue derived from the tobaceo monepoly in France, during the first nine months of 1857, reaches the onorntous sum of $127,223,000$ francs, or ubout $\$ 25,44,600$-showing an increase over the revenue derived from the same sourco the corresponding period of 1856 of $7,488,000$ franes, or $\$ 1,497,600$. The inereaso is owing to the larger consumption of tobaceo in France, and would seem to indicate a sieady market for the article in the leading conntrics of Europe. The tobacco monopoly, under the rigie syatem, commenced in France in the year 1811. The following statement will show the amount of revenue derived from this nrticle in quinquennlal periods from that date :




The United States supplies ahont two-fifths of all the tobacco consumed in Europe, and usually from three-fourths to four-fifths of all the tobaeco consumed in France. Were tho monopoly abolished, and our tobaceo admitted at a moderato duty, our exports of the ertcle to France would increase at least ten-fold. The average price of Ameriean tobaceo delivered at the factories of the regie, all expenses included, is estimated as follows:


The profts reallzed by the rdgie, one year with another, average nearly 460 per cent.

Netherlamds.-The cultivation of tobacco in the Netherlands is aubject to no reatrictiona, with the exception of the excie duty, to which, hike all other producta, it is liable. From 1800 to 1900 morgena (equal to 8600 to 8800 acres) are anuually devoted to tobacco. The tobacco land is situated in the provincea of Guilderland, Overyssel, Itrecht, and Zealund. The averuge quantity of tobacco protuced on each morgen is about 4500 lbs . The total crop is estimated at from $8,000,000$ to $9,000,000$ lbs. per annum.-Anmales du Commerce Extírieur, No. 540 . The quantity reserved for home consumption is about $2,000,000$ lber, of which,

$$
\begin{aligned}
& \begin{array}{l}
\text { Smokting tobseco, about . . . . . . . . . . . . . . . . } 800,000 \text { (hativn } \\
\text { Rnuff. . . . . . . . . . . . . . . . . . . . . }
\end{array} \\
& \text { Ruuff. } \\
& \text { Covers for cigarn. . . . . . . . . . . . . . . . . . . . . . . . 400,000 }
\end{aligned}
$$

Besides the above, the Netherlands export to foreign countries about $6,000,000$ lbs. of tobacco:
in the leaf. 8.000,000 Ibs.

Manufartured $\qquad$ $1,10 \times 0,000$ "
The following table shows the annual tobacco export trade of 1lolland:

| Ttue Rhenimh provin | 6s0,600 | kiltogrems. |
| :---: | :---: | :---: |
| Kusala and Greal isiltala | 400,000 |  |
| Sardinia | 250,000 | " |
| Norway and teamart | 90,009 | 4 |
| Naples | 50,000 | " |
| Homan atatea | 10,000 | " |
| Spalu and Portugat | $83,(40)$ | " |

The total quantity of tobaceo grown $\ln$ the Netherlands is distributed as follows:
For the mannfarture of annff and cheving tubaceo. 1,875, man $)$ For elgary and clgar covera ........................... . 1, 775,000
Average price of tho former, from 14 to 32 florins for common; 30 to 90 florinn for the best, per 100 kilo grams. Average price of the latter, from 14 to 32 florins for comnon; 60 to 90 florins for the hest, per 100 kilograms. The planters of Aruhen, and some other districts, have during the paxt few yeurs applied themuelves to the raising of a very ligit, vlear, yelluw tobacco, for cigar eovering, for which they obtain a very high price. For this purpose they employ a very active fertilizer, with a view to the large and rapld growth of the plant, which they dry by the sun with great akill and management. The average quantity of foreign whacco anaualiy imported is from $22,000,000$ to $25,000,000 \mathrm{lbs}$, cliefly from the following filaces:

| Maryland. | 5,000,000 | kilo. | Varinaa. | 120,000 | Illo. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kentucky. | 1,750, 1000 | 4 | Manllla.. | 75,000 | 1 |
| Virgiala | 1,400, 000 | * | Colombila | 30,000 | ${ }^{6}$ |
| divis... | 800, 0 (0) | 4 | Arazil | 30,100 | " |
| Porta lico | 300,000 | 4 | Havins. | 60,000 | 0 |
| Cubue . . . . . | 187,9010 | 16 | Tobacco \&lenu | 145,000 | ${ }^{*}$ |
| San tromingo. | 180,009 | * |  |  |  |

A third part of the tobsacco imported from foreign countries is consumed in the Netherlands, tho other two-thirds are exported. Germany and Belgium rereive the larger portion, which consists altogether of Virginia, Maryland, Kentucky, and some Java tobacco. Hesides the inports above debignated, Mamburg supplien Ilolland annaally with large quantities of tobacco of American growih. The tothaceo manufactoriee in Holland, of the first elass, are numerous. They are chiefly located at Kotterlani and Ansterdam, though many amblar factories are seattered thronghout the provinces. The first-class factories omploy upward of a million of operativen. The avirage consumption of tolbaceo in Hollabd is about two kifograms ( $4 \cdot 408$ has.) for each individual, or $6,000,000 \mathrm{kilograms}$ or apward of $13,000,000$ lbs, for the whole population. Germany offers the principal market for the Dutch tobacco traile, thongh considerable quantities are exported to the Levant, Italy, Austria, Melglum, Denmark, Surinam, etc.-C. D.

Tobaceo in, next to salt, probably the artlcle mont universadly consumed by mea. In one form or an-
other, but most generally in the form of fums or smoke, there is no clinute in which it in not consumed, and no aationality that has nnt adopted It. To put down lts use has equally bafted legialators and moralista ; and, In the worda of Pope on a higher aulject, it may be said to be partaken of "by saint, by savage, and by sage." The eivilized Eurcpean and American nations are tha amalieat consumars of tolaceo of any people, in consequence of its being every where with them an object of heavy taxation, of lte being very generally a foreign commodity or high-priced, beenumg raised in uncongenial climates, and, finally, its being for the most part contined in use to the maie sex.
The duty on the importation of raw tobacco amounts,


## -German Custom Ünion.

Statement "respecting the Tariff Duties, Reatrictiona, Prohibitions, and Cuatom-houes Regulations applicable to American Tobacco, in the principal commercial Countries of E'urope."
Baemen leviea a Turiff Duty of of of 1 per Cent.-Import duty In levied at the rute given on the invoice value, with the addition of freight and insurance charges. All foreign vessels (Amerlcan excepted) must be entered at this port by a licensed ship-broker, the exemption in favor of American venaels having been conceded by the Bremen Semate in 185\%.
Guent Bhitain leviea a Inty of Th Centa per lb., and 5 per Cent, addutional.-Tobace 1 , snuff, and cigars arg prohibited to be Imported into Grent Britain, unless in vessels of not less than 120 tons burden, and into ports upproved by the commissioners of eustoms. These jorts are London, Liverpool, Jriatol, Hull, Lancaster, Cowes, Falmonth, Whitchavm, Mlymouth, Newrastle, Southampton, Ircston, and Swansea, in England; Alserdeen, leith, and Greenock, in Scotiand; and Dublin, Belfast, Galway, Limerick, londonderry, Newry, Sligo, Waterford, Wexford, and Droghedn, in Ireland. Jutiea ulike from all countries and in all fottoms. The consumption of tubacco in the L'nited Kingdom was:

| Senrs. | Conamplion. | Revenue. | Population. | Consump- tlon per Ilend. |
| :---: | :---: | :---: | :---: | :---: |
| 1821 | 15,53\%, 152 | $3,12 \frac{6}{6}, 5 \times 3$ | 21,292,900 | Oulires 11.1 |
| 1831 | 10,689,8.4 | 9,1604,502 | 21,410, 439 | 12.40 |
| 1941 | 29,300,360 | 3,5830,163 | 87,010,672 | 1321 |
| 18 it | 28, 1688.1078 | $4.486,764$ | 27,402,262 | 16:3 |

In 1853 the duty amounted to $\alpha 4,751,880$, or $\$ 23,000,000$.

Fhasck. - Tobacco a Gorermment Monopoly. - In 1629 the first duties on the tohacco trode were nevied. In 1674 Louis XIV, established the first monopoly in Europe. The cultivation of tobaceo is prohihitei except in six departniento. From 1811 to 1852 there were solf: by the government $1,308,838,075$ Itbe., which brought a clear revenue of $\$ 432,243,434$. The exjenses of the admipistrath $n$ were 24 per cunt. ad evalorem. By the terms of the treaty of June 24, 18:2, American produce, if imported direct to France in Vinited States bothoms, is admitted on the paymant of the same duties as apply to similar lmportations from countries out of Europe in French vessels. The origin of the merchandise must, lowever, be duly anhensicated and certified hy the collector st the fort of exportation, and by the French consul. American tohacco is purchased by the conmisaiuners of the rigis for the govermment factories, and is admitted either in French or American vessela free of duty. In foreign vessels the duty is 186 per 100 kilogranms (221 lbs.).

The $n$ cree.

The monopoly wat estabished in 1810 by imperial decree.

Holland levies a Duty of 28 Cemts per 221 lbe,-If imported direct from tha United States, admitted on the aame terms, whether in American or national vessels.

Spain.-Tobacco is a Gocernment Monopoly.-The gross receipta from the tobacco monopoly in the years 1830-'34 were $\$ 4,960,121$, and the net receipts $\$ 3,097,147$. The sold tobacco amounted to $2 \cdot 41 \mathrm{bs}$, per head of the population. The net receipts of 1851 were $88,100,000$. The expenses of the administration amounted to 40 per cent. of the tetal value. Admitted at the port of Malaga in Amorican veasels at a duty of 20 cents, and in Spanish at a duty of 15 cants per lb. The privilege of the tobacco monopoly in Spain is rented to individuals, and yielda a revenue of about $\$ 1,000,000$ to $\$ 0,000,000$ per annum.

Brigium levies a Duty of $\$ 186$ per 221 lbs.-In the direct trade between the United States and Belgium the vessels of both nations aro equalized by treaty. In the indirect or triangular trade there are discriminationa, though frequently auspended by Belgium.

Sardinia.-A Government Monopoly,-The annual revenue can net be calculated, as the Italian atates are grouped in official returns of commerce.

Austhia.-A Government Monopoly.-The monopoly existe aince 1784 . The gain of the government amounts to 76 per cent. ad valorem, The net receipts a: ounted in 1851 to $\$ 8,789,421$, and ln 1853 to $\$ 10,619,1$ 16. The consumption in the whole empiro was, in $1850,34,457,513 \mathrm{lbs}$; in 1851, $54,217,578 \mathrm{lbs}$; in 1852, 61,805,607 lbs, ; in 1853, $57,926,925 \mathrm{lbs}$; in $1854,62,020,333 \mathrm{lbs}$. When imported by permisslun of the government, the duty is $\$ 485$ per $110 \mathrm{lbs} .$, besides $\mathbf{5 7}$ centa per lb. for a license to import.

Sweden levies a Duty of 5 5-6 per lb.-The duty is over 100 per cent., and importations from the United States are diminishing annunlly.

Nonvay levies a Duly of 41 centa per $l b$.-Owing to a difference in the weights snd messures in use in Norway, the duty is about $33 \cdot 3$ per cent. lese than in Swoden.

Poncugal,-A Government Monnpoly. - The raw article for the factorice of the government is derived chiefly from Brazil, about half a million lus. per annum being received from the United Statea.
Stathment mximbiting the Quantities of Amyaioan Tohacoo mxponted from the United Statrb into the Codithifs bisionathd, with tisa Amounth of Dutize 1'AID tiesagon, deting the oommerctal Ykia 1855.


The total recelpts from custom duties in France for one year (1848), according to official returns, were $146,000,000$ fruncs, of which $86,000,000$ were derived from tobacco, nearly all grown in the United States.

The Anstrian empire contains $86,614,397$ Inhabitants. The annual yield (average) of tobacco in Austria is entimated at $79,000,000$ lba. The only places where the plant is permltted te be grown are IIuagary, Galicia, the Tyrol, and Venice. In IIungary it is the lesding ataple, the annual crop reaching as high aa $68,000,000$ los. Of this one-third la sold to the Austrian regie, one-third to foreign countriea, and the remaining third is consumed at home. The average annual importation from the United States is from two and a half to three millions of lbs. T2. a profit of 10 cents on each lb . of raw toluscco, and the snnual revenue to the government is $\$ 7,000,000$.
In the atates compoaing the Zoll-Vorein the annual crop of tobacco is estimated at $55,000,000 \mathrm{lbs}$. The revenue derived from American tobacco is about $\$ 1,800,000$ per annum. The duty on raw tobacco is $\$ 270$ per 110 Ibs., which, if re-exported, enjoya a drawbuck of 2220 per 110 lhs. Tobscco grown within the limits of the Customs Union pays only 40 centa for the eame quantity. The revenues which the government herefrom derives amount to 38 por cent. on the vulue.

Belgium produces anuually about $1,300,000 \mathrm{lbs}$, of tobacco, and importe from $9,000,000$ to $11,000,000 \mathrm{lbs}$.

Ilolland produces from $4,000,000$ to $5,000,000 \mathrm{lba}$., and imports annually from $80,000,000$ to $35,000,000$ lbs. The tobacco factories in this country are atated to give employment to "one mililen operatives."

Bremen imports yesrly from $35,000,000$ to $50,000,000$ Iha, of tobacco, most of which is manufactured in that city and re-exported to foreign markets.

Hamburg imports only from $1,000,000$ to $2,000,000$ Iha. annually, most of which, after beling manufactured, is re-exported.

The annual tobacco crop of Russia is about $25,000,000$ lbs.

The annual consumption of tobacco $\ln$ Spain is about $0,000,000 \mathrm{lba}$, one-third of which is imported for the government farturiea from the United States.

In Portugal the culture of tobacco is prohibited by law.

The quantity of American unmanufactured tobacco annually imported into the principal commercial countries of Europe may be thus stated: For each inhabitant of Grest Britain, 14 ounces; for esch inhabitant of France, 10 ounces; for each Inhabitant of Belgium, 21 lbe. ; for each inhabitant of ILolland, $2 \frac{1}{4} \mathrm{lbs} . ;$ for each inhabitant of the Hanse Towns, 5 lbs. ; for each inhubitant of Hanover, 81 lbs.; for each inhabitant of Mecklenburg Schwerin end Mecklenburg Strelitz, 2 lbs. ; for each inhabitant of the states of the ZollVerein, 1 lb .; for each inhabitant of Russia, $\frac{1}{t}$ ounce; for each Inhabitant of Austria, 1 ounce; for each inhabitant of Spain, 3 ounces; and for each inhabitant of Portugal, $1 \frac{1}{2}$ ounce. The aggregate quantity of tobacco annually raised in these countries (exclusive of their colonies) is about $210,000,000 \mathrm{lbs}$. The aggregate quantity of tobacco raised in the United States in 1850 was $199,752,515$ lbs.-Census of 1850.

The average annual quantity of American tobacco imported into Great Britnin during a priod of three years ( 1851, '52, '53) was $24,543,334 \mathrm{lbs}$, on whici there was levied an avcrage annual duty of $818,554,760$. The average annual quantity imported into France during the same period was $14,690,000 \mathrm{lbs}$; inte Holland, $18,660,000 \mathrm{lbs}$., on which the average annual amount of duty was $\$ 24,915$; into Belgium, $4,824,000$ lbs., on which the average annual ameunt of duty was $\$ 40,600$; and into the Hanse Towns, 38,637,667 lbs., on whlch was paid an average annual ameunt of \$12,643 91 .

The following table shows the average consumption per head of male population over 18 years of age; slso net revenne from tobacco, and tex per head of population. It will be seen that the cuuntries Steuer-Verein, Zoll-Verein, and Belgium, in their respective order, are the largest consumers per hesd of tobacco $;$ and
that Eaggland, the Papal Statos, and Epala, In thelr order, produce the greatent net revenue per head

| Comatrines * | Comburi, ${ }^{\mathrm{Na}}$ Hon. | Nat Rereaum. | Pur Iliond. |
| :---: | :---: | :---: | :---: |
|  | Fompita | (0lora) | Conta. |
| Aluatria | 675 | 6,004,600 | 26 1-3 |
| Zell-Verein . . . . . . . . . . . | $9 \cdot 75$ | 1,462,800 | 51.9 |
| Stenur -Verein (llan-) over and Oldenburgs, now atlded to former) | $12.50$ | 62,100, | 31.20 |
|  | 610 | 75,991,780 | 48 |
| lifuata ... ................ | 2.60 | 1,481, 401 | 41.3 |
| 1'ortugsl. . . . . . . . . . . . . | 3. 51 | 1,520,7(n) | 462.3 |
| Rpaln .................. | 4.75 | 6, $2 \cdot 40,410$ | 482.5 |
| Nardinta ............... | 9.75 | 1,230, 160 | 971.4 |
| 'Tuscany . . . . . . . . . . . . . | 8.60 | 424,304) | 248.10 |
| Papal stated. ........... | 8.00 | 1,496,2361 | 502.5 |
| Two slcules . . . . . . . . . . . . |  | 842,110 | 71.2 |
| Fingland ................ | $4 \cdot 10$ | 21,746,000 | 184.5 |
| Hollamd. ............... | $8 \cdot 85$ | 31,170 |  |
| Ielghim. . . . . . . . . . . . . | 740 | 141, 676 | 8 1-5 |
| Denmark. ............... | 8 ( n ) | (02,44) | 4 1-3 |
| Qweden | 4.37 | 73,430 | 21.3 |
| Norway. | $3 \cdot 41$ | 116,614 | 41.8 |
| l'nllall stutene | 7.th | , | .... |

-Cor. Nutt. Intelligeneer.
Mypothetirally.
According to the United States Census Report, the number of Iba, of tobaces in the year 1850, produced per acre, was as follows: Kentucky, 575 lise, ; Maryland, (650 lise. ; Missouri, 7.75 lbs ; Ohio, 730 lbs ; Tennessee, 7.0 lbas ; Virginia, 660 lbs. The whole number of acres for cultivation of tobacco at the game time was 400,000 , which at un average of $\mathbf{C 0 0}$ Ibe., five nerea would produce $240,000,000$ llss, annually. The grosn product for the eamo year was estimated to ve worth \$13,9世2, (isf, heing about one lualf the duty levied on Great Britain on $97,000,000 \mathrm{lbs}$, only. Every State In the Union produces tobaceo more or less. Delaware, Maine, Rhode Ishund, and Vermont proluce so little that it was not enumerated in the year 1850.

TII: TOBACCO TRADF OF THE UNITEI, STATES.
Imports of Tonacon into the I'nitud Staten for the I'eabs ending Jenk 10, 1553, '54, '55,

|  | Rew siate. |  | Snufire |  | Clgara. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1553. | The | dioliare. | Lbe. | Wolla, |  | irelfar |
| C'uba | 4,2 5,630 | 704,819 | 1,650 | 2N45 | 777,044 | 2,804,680 |
| Otle places | 713,342 | 91,274 | 40,432 | 7,215 | 10-6,413 | 415,315 |
| Total. | 5,048, 572 | 805, 503 | 42,082 | 7,500 | 681,487 | 3,311,625 |
| , nlas. | 4,509,197 | 700,871 | 18,069 | 2,309 | 71,892 | 29 |
| (ith. places | 810, 426 | 0,4,125 | 74,701 | 11,647 | 81,638 | 62.3,907 |
| 'Tatal... 3nas. | $5,362,618$ | 794,8.6 | 92,853 | 14,018 | 153,619 | 8,884,036 |
| cula ..... | 3,713,780 | 523,112 | coo |  | 9 |  |
| (uth. placess | 04, 114 | 90, 64 | 01,75 | 4,674 | 218,710 | 917,544 |
| Tuta | 4,263.104 | 614,076 | 24, 259 | 4,72') | 376,019 | 3,43, 9,907 |


| Jlaw tobacco, 1856 | \$4533,118 | \$40,204 |
| :---: | :---: | :---: |
| Enuf . . . . . . . . | 58 | 4,674 |
| C'lgars | 2,531,459 | 3.434, 497 |
| Tolal. | 3,06-4,018 | \$3,534,036 |

From this we see that, except to a limited extent, all our fureign tolaceo comes from Cuba, and of thle four-fifthe is in cigars.

Szathmint myhiating tim quanzety awd Valut op To.
 alve

| Years. | Hogehvada. | Value. | Averfuga t'ent per Hormhest, |
| :---: | :---: | :---: | :---: |
| 1881.............. | 66,408 | 45,649,902 | \$44 4 |
| 1882.... . . . . . . . . | 83,169 | 6,224,838 | 74 88 |
| 1823.. . . . . . . . . . | 09,400 | 6,292,072 | 63 is |
| 1824. . .'.......... | 77.988 | " 4,865,606 | 638.4 |
| 1885.............. | 74, v84 | $4,16,115,028$ | 8043 |
| 1880.............. | 64,008 | 5,847,218 | 83 ; 48 |
| 1927. | 100,025 | 6,677,123 | $65 \cdot 75$ |
| 1429. . . . . . . . . . . | 96,978 | B,207, 200 | 5178 |
| 1889.............. | 77,131 | - 4,982,074 | 6460 |
| 1880. | 89,810 | 6, $2 \times 8,365$ | 6161 |
| 1881........ ...... | 80,718 | 4,892,348 | 5041 |
| 1898. . . . . . . . . . . | 108, \%n8 | ${ }^{12} 5$ 5,9Mn,769 | 1817 |
| 1888.............. | * ? 88, 153 | 5,755,069 | 6081 |
| 1434. | 87,4711 | 6, 005,8015 | 1400 |
| 1335. | 94,363 | 8, 260,677 | 874 |
| 1838. | 109,042 | 10,055,640 | 0224 |
| 1837. | 100,932 | E,T15,647 | ¢7 83 |
| 1589. | 100, 6018 | 7, Bjy , trye | 7348 |
| 1839. | 78,9,6 | 0,882,943 | 12447 |
| 184)........... | 110,484 | 9,883, 057 | 8272 |
| 1541. | 147,928 | 12,075,743 | 8507 |
| 1849. | 154,710 | 11,540,765 | 6111 |
| 1849.............. | 0.4.454 |  | 4924 |
| 1844............ | 163, 048 | 8,307,255 | 8180 |
| 1845. | 147,109 | T,469,810 | 6075 |
| 1846............. | 147,1998 | 8,478,270 | 6729 |
| 1847.............. | 184,768 | 7,244,086 | 6834 |
| 184\%. | 130,005 | 7,501,129 | 5779 |
| 1947. | 101,621 | 6,804,207 | 6717 |
| 18501. | 145, T: 4 | 0,961,029 | 6549 |
| 18191............. | 165,44 | 9,210,251 | 0000 |
| 1562. | 137,007 | 10,081,988 | 1517 |
| 1853 | 159,843 | 11,910,310 | 7081 |
| 1854. | 126.107 | 10,016,046 | 7414 |
| 1885. | -15x,213 | 18,718,469 | $07.94^{\prime}$ |
| 1 NH. | 116! 68 | 12,221,843. | 10480 |
| 1587. | 160,949 | 181,602,773 | 13940 |
| Tohal. . . . . | 4, lint, 5its | \$301, 191,715 | $\cdots$ |

- In addition to this sxiort of 150,213 hognlueds for the the cal yuar vucing inue 30, 1845 , thery was an empert of 14,618 bales nad 10, mind ensen, the valut of which is Included in the goneral inm of 814,712,438.
Exports of Tobacco fuom tne l'nitmo States foa tha TBat exitno Jene 30.

| Domestic. | 1853. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1thde. | E'amen. | Beles. | Dellara. |
| Tatise To | 34,488 | 1,4+11 | 2,467 | 2,417,780 |
| Ilolland. | 17,184 | 27 | 95 | 1,068,782 |
| England . . . . . . . . . . . . . . | 23,841 | 248 | B 0 | 3,463,193 |
| France.................... | 41, 806 | 2,906 | 879 | $4,113,505$ |
| Hther places . . . . . . . . . . | 80,324 | 8,606 | 0,410 | 9,574.229 |
| Total domeatic. ...... <br> Ferulgn all places | 100,218 | 13,806 | $\begin{array}{\|c\|} 12,918 \\ 1 \\ 181.270 \end{array}$ | $14,712,489$ |
| Ferulgh, au places . . . . . . . <br> Total domentio and forign | $\cdots$ | .. | 131,270 | $14,116$ |
| ex rta, lha... | $\because$ | - | $\cdots$ | 14,726,54 |


| Dont wille. | 1854. |  | 1855. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | llide. | Dollars, | Thate. | Doltare. |
| llanee Towns. | 85, 868 | 4,182,649 | 63,851 | 2,822,34 |
| t1olland. | 25,070 | 1,3D1,396 | 23,38 | 1,110,808 |
| Eingland. | 17,435 | 2,116,724 | 31,296 | 3, 255, 92.3 |
| 1 ranco | 15,162 | 1,359,719 | 16,746 | 1,470,589 |
| Other places . . . . . . . . | 32, 062 | 8,013,720 | 36,001 | 3,020,653 |
| Total domentle... | 120,107 677,006 | $10,016,4446$ 05,016 | $\begin{aligned} & 16,6 \times 3 \\ & 801,447 \end{aligned}$ | $\begin{array}{r} 11,319,314 \\ 84,304 \end{array}$ |
| Tetal dotnesllo and forelgn expurta, lba. | .. | 10,111,184 | .. | 11,413,963 |

chew very mekis grade count The under home and f pelled sirabl cles ir of the one-fo whlle,
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liy, th and of no ot! cultur and at
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moslly
12,000 elgar-11
these
Germa sumpt ably States Ing his and on thirds and on calied sumpt The great own a in Per turers for the comung cigar. their e
ing, su made and fla moder majori comm vana medin branc onr or and fr uce of sumpt cigars thous,
seell-1 State Departmont at Washington, the annual average countries annually take 162,000 hogsheads, leaving produce of the States of Merylanil, Ohio, Virginia, about 40,000 per annum for our home consumption, Tennessee, Kentucky, and Missouri, is estimated at which are manufactared Into fine out, smoking, and

| Domestic. | 1433. |  |  | 1854. |  |  | 1855. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Sung. | Menulat'd. | Yalue. | 8nuti. | Manufori'd. | Yolue. | Rnuff | Manufnet'd | Value |
|  | Lbs, | $2,842,608$ | \$507,804 |  | $1,457,834$ | 304,685 | Libo. | $\frac{1 . b_{0}}{2.104 .419}$ |  |
| Irilish We | 17,112 | 481,917 | 58,789 | 7,773 | 4, 428,35\% | 58,340 | 14,013 | 87R,101 | 42,219 |
| canada. | 7,149 | 1,184,964 | 185,299 | 18,054 | 2,530,323 | 875,165 | 18,810 | 1,858,816 | 341,375 |
| Iritiah An merlcan | 1,4>5 | 1,030,707 | 166,099 | 2,571 | 1,353,382 | 181,009 | d32 | 8, 2,76 \% | 121,5011 |
| Australla | 2.068 | 1,100,858 | 27,475 | 3,718 | 662,418 | 120,914 | 30,181 | 1,139,264 | 2tis,398 |
| Other placea | 11,027 | 8,799,188 | 487,035 | 2,330 | 3,85il, 845 | 516, 124 | T 804 | 3,595, 123 | 4 56,006 |
| Total...... Horelgn, all places | 99,641 | 11,501,012 | $\begin{array}{\|} 81,670,6100 \\ 228,390 \end{array}$ | 86,287 | $\begin{array}{r} 10,978,152 \\ 478,109 \end{array}$ |  | 74,534 | 0,625,232 | $\begin{aligned} & 1,500 \cdot(66) \\ & 112,593 \end{aligned}$ |
| Total domestlo and forelga oxpor |  | $\ldots$ | +1,899,909 | 64,042 | 10,746,851 | 31,750,793 |  | ... | (1,69\%,661 |

Agreeably to official utatements received at the 200,000 hogsheads, of 1200 lbs each, of which foreign
chawing, plug ohewing tobaceo, and snuff. But a of aeed-leaf wrappers ruling at 10 to 15 cente, and very small quantity is now used of these crops for the making of elgars, as the manufacturing of common grades of cigars has almost entirely ceased in this country, for reasona which will be atated hereafter. The average srops of the last fow years have been under the above estimate, the exportations smalier the home consumption for the above uses some what larger; and foreign consumers of these kinds have been compelled to subatitute other furaign tobaccos, not as desirubis to them as our produce, to supply the deficiencies In our deliveries. Thus it will be perceived that of the largent product of tobacco of our own growth but one-fourth is required to supply the home demand, while, if the production conle be doubled, foreign countries would be ready oustomers fur the greatest part of it, as oi" tobacco leaf is of euch pecullar style and qual. lity, that, like cotton, or the leaf tobacco of the island of Cuba, it is indigenous to the soil and elimate, no other soll producing the same; and therefore its culture is confined to certain sections of the country, and attempts in others have proved unsuccessful. Besides the above described sorts of leaf tobaceo, five States of the Union produce a limited quantlty of leaf, mostly used for the manufacture of cigars, namely, Connectieut, New York, Ohio, P'ennsjlvania, and Florida. The average yield in these States has been of late jears as fullows :

| In bannecticut. | 5,000 camen of $\mathbf{3 5 0} \mathbf{1 b}$. cech. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| In New York | 2,000 | ${ }^{4}$ |  |  |
| 18 Ohlo | S,000 | 4 | 4 | 4 |
| 1n l'eanaylvania..... | 2,010 | 16 | ${ }^{4}$ | 46 |
| 1u Florda | 4,000 | ${ }_{6}$ | 4 | ${ }^{6}$ |
| Total. | 14, $0^{\prime} 10$ | 4 | 4 | 4 |

Deduct from the above one quarter, or 4000 cases, of the most inferior grades, called fillicrs, and now used mostly for the cutting of amoking totacco, and it leaves 12,000 cases, or about $4,000,000$ lbs. for the use of the cligar-maker. In former yoars, about one-third of these crops were bought for exportation, chiffly by German buyers; but for the last few years the consumption for the manufacture of cigara has so considerably increased, that of tho produce of the first four Stales very little is exported-our manufacturors puying higher prices than exporters aro willing to give; and only of the crop of Fiorida, about one-half to twothirds is annually exported, leaving from three to three and one half millions of libe. of leai' of our own growth, calied Spanish seed-leaf tobacco, for the home consumption of the cigar manufuctarers.
The manufacturing of cigars, nt prices to rival the foreign fubric, havirg become next to impossible, a great many operutives, who made fair wages for their own and their fumilies' eupport, were forced, in consequence, to turn to other employments, particularly so in Penusylvania and Connecticut. Other manufac. turers gave their attention to bettor grades of cigars, for the purpose of furnishing a medium between the common German and finer and high-priced Havana cigar. The Ament an cigar-mukera, being noted for their excellent work manship and tasty atyle of packing, succeeded in furnishing an article as handsomely made as the fine IIsvana, similiar to it in appearance and flavor, although not of as fine a quality, at a more moderate price than the latter, as palatable to the great majority of amokera, who are disinclined to use the common German fabric, and, finding the genuine Havana too expensive, content themselves with the fair medium, and thus became the great patrons of this branch of trado. This class of cigars are made from onr own seed Jeaf and Florida tobacco for wrappers, alld from Havana, Sagua, Cuba or Yera (all the produce of the isiand of Cuba), for fillera, and now the consumption of this sort reaches 300 to 400 millions of clgars a year, varying in prices from $\$ 12$ to $\$ 22$ per thousand. From 1848 to 1851, five thousand cases of eeed-leaf wrappers amnunlly were sufficient to supply the wants of the cigar-makers for home uee ; the value
fillers 4 to 51 cents; leaving a large surplus for export, princlpally to Germany, to be returned to us as a rival of our own offapring in the shape of low-priced German cigara. Since 1852, almost the entlve crope of seed-leaf totacoo have been manufuctured at honse Into Spanish cigars-prices for seed-leaf wrupperi ranging at 20 to 35 cents, and filiers at 10 to 18 cents per lb., and a corresponding increase in the importation and consumption of lte needful concomitant, the Spanish tobacco from the island of Cuiba, for fillers, has taken place.

The importations of this sort of tobacco were-

| In $1800,25,000 \mathrm{lbw}$; $\mathrm{valu}^{\text {a }}$, $\$ 310,000$, duty pald uuder $\$ 00,000$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| In 1351, 23,000 |  | 275,000 |  | ${ }^{4}$ | 80,000 |
| In 1852, 35,900 | 4 | 420.000 | 4 | * | 120,000 |
| 141853, 85, 100 | 4 | 520,000 | ${ }^{6}$ | 4 | 184,000 |
| In 1854, 48,000 | ${ }^{6}$ | D20,000 | 4 | ${ }^{6}$ | 160,000 |
| In 1855, 45,000 | 4 | 550,000 | ${ }^{6}$ | 6 | 165,000 |
| la 1850, 40,000 | " | 600,000 | 4 | ${ }^{6}$ | 189,000 |

To show the extent of the export of leaf tobacco and cigars from Cuba, a large portion of which is imported inte this country for clgar manufacture and consumption, we give the foliowing statement 1
Quantitier of leaf Tohacoo and Cigara expobtid moom c'uua ybon 1849 to 1804 , hota ingleeives

| Yearn. | $\begin{gathered} \text { T.enl } \\ \text { Tobscen, } \end{gathered}$ | Clgam. | Yeam. | l.maf Tobacea. | Cigara, |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1849. . | $\begin{gathered} \text { Pounda. } \\ 6,975,630 \end{gathered}$ | $\frac{\mathrm{M}}{161,480}$ | 1859.. | $9,787,448$ | $\begin{gathered} \text { d. } \\ 1+2,667 \end{gathered}$ |
| 1849.. | 4,010,133 | 123,720 | 1853. | 8,030,7117 | 237,350 |
| 1850.. | 7,978,148 | 212,040 | 1854.. | 9,808,150 | 251,318 |
| 1851.. | 0,430,501 | 270,313 |  |  |  |

From this we see that the exportation of leaf tobacco from Cubn has been steadily increasing, but not in the sume proportion with the exports of cigars.

Added to this we give the production of tobacco in the island of Porto Rico, only a small portion of which is imported into and used in this country :

| Yean | Pounds. | Yearn. | P0 |
| :---: | :---: | :---: | :---: |
| 1848. | 2,457,449 | 1351. | 6,478,084 |
| 184 | 2,48 4,540 | 1859 | 5,505,709 |
| 1850. | 8,973,308 | 1853 | 8,703,457 |

The fuct has now become incontrovertille, that to sustain this branch of industry, the use of the flner grades of foreign matcrial, to improve the quality of our own product, is indispensable. The census return of 1850 gives the number of tobacconiste and rigarmakers in the United States as 10,823 .

Tomsoco.

| 8talee and Territorica, | 3840. | 1850. |
| :---: | :---: | :---: |
| Aisbama . . . . . . . . . . . . . . . . . . | $\begin{aligned} & \text { Pounda. } \\ & 273,308 \end{aligned}$ | $\begin{aligned} & \text { Potiods, } \\ & 164,090 \end{aligned}$ |
| Arkanama. | 149,433 | C18,936 |
| Callfornls |  | 1,000 |
| Colambla, Disiriet of. . . . . . . . . | 65,500 | 7,500 |
| Connecticut . . | 471,057 | $1,207,024$ |
| Dslaware | 272 |  |
| Flerida. | 75,274 | 095,614 |
| Gaorgia | 162,504 | 423,924 |
| litipola | 664,326 | 841,304 |
| Iudiana. | 1,820,3n6 | 1,044,620 |
| Iowa... | 8,076 | 6,041 |
| Kentucky . . . . . . . . . . . . . . . . . . . | $53,436,009$ | 55,501,106 |
| Louisiana . . . . . . . . . . . . . . . . . | 119,824 | 26,873 |
| Malne. . ....................... | $24,816,30$ |  |
| Maryland . . . . . . . . . . . . . . . . | 24,816,012 | 21,497.497 |
| Matsachuestts . . . . . . . . . . . . . . | 64,555 | 185,246 |
| Mllehigan.. | 1,602 | 1,245 |
| M lasismlppl . . . . . . . . . . . . . . . | 83,471 | 49,960 |
| Miesoari ...................... | 0,007,913 | 17,115,784 |
| New Hampshire . . . . . . . . . . . | 115 | 57 |
| New Jerscy. . . . . . . . . . . . . . . . . . | 1,922 | 810 9 |
| Now York. . . . . . . . . . . . . . . . . . | 10.744 |  |
| North Carolina | 16,772,559 | 11.70.730 |
| Ohlo....... | 5,942,275 | 1* 4K; \6? |
| Peansylvanla. . . . . . . . . . . . . . . | 325,018 | 912,051 |
| Rhode Ialand. . . . . . . . . . . . . . . | ${ }^{3}$ |  |
| Gonth C'erolina | 20, 51, 510 | 29, $\begin{array}{r}74,285 \\ \hline\end{array}$ |
| Tennespee. | 20,550,4:9 | 20,148,932 |
| Texss.... <br> Vemmont. | - \% | 60,807 |
| Vrirginla, ............................ | 65,84i, | $06,503,227$ |
| Wisconyln. . . .................... | 117 | $\cdots$ 1, 1,265 |
|  | *... | $\therefore \begin{array}{r} 8,14 \\ 324 \end{array}$ |
| HS (Utah. . . . . . . . . . . . . . . . . . |  | 167 |
| Total. | $221,195,419$ | 1,3061,063 |



| Stock Int Janumry. | Importa. |  |  |  |  | Dallverien. |  |  |  |  | Hock 81a4 Decernbet. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vlrginic. | $\begin{gathered} \text { New } \\ \text { Orlean. } \end{gathered}$ | Battimore. | Other Porta. | Totat. | Home Ueer | 1ratead. | Export. | Coantwise. | Total, |  |
| 1848... 18,458 | 8263 | 6670 | $\cdots \cdot$ | 83.2 | 10,477 | 4911 | 8357 | 83558 | 9188 | 12,811 |  |
| 1849... 16,119 | 5785 | 6893 | $\cdots$ | 1587 | 13,806 | 4945 | 8971 | 2781 | 2278 | 12,960 | 16,355 |
| 1850... 16,355 | 2182 | 6482 | 1405 | 2507 | 12,556 | 4633 | 9788 | 2018 | 2081 | 11,460 | 17,452 |
| 1851.... 17,432 | 1680. | 8032 | 1224 | 1815 | 10,041 | 5258 | 9889 | 9687 | 2233 | 18,469 | 15,041 |
| 1858... 15,041 | 8067 | 7819 | 1497 | 980 | 13,293 | 5843 | 8591 | 8602 | 3183 | 14,574 | 13,760 |
| 1883... 18,740 | 2789 | 8405 | 650 | 2410 | 14,978 | 4855 | 3128 | 2848 | 8191 | 14,015 | 14,023 |
| 1854... 14.088 | 4420 | 0173 | 1350 | 1003 | 12,955 | 5274 | 3558 | 2658 | 3967 | 14,781 | 12,227 |
| 1855... 12,827 | 5043 | 8917 | 1945 | 882 | 11,087 | 4516 | 3385 | 8430 | 8796 | 18,009 | 20,215 |
| 1856... 10,216 | 6065 | 8878 | 2943 | 676 | 12,945 | 4875 | 8549 | 1002 | 2545 | 12,971 | 10,899 |
| 1857... 10,889 | 3654 | 5208 | 2065 | 1088 | 12,004 | 5070 | 8728 | 2066 | 2501 | 13,356 | 0,539 |

The total annual sales at Liverpool and their distribution were as follows:

|  | 1860. | 1, 151. | 1889. | 1853. | 1854. | 1855. | 1856. | 1637. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For home use | 7,063 | 5,263 | 6,243 | 4,856 | 5,274 | 4,510 | 4.275 | 5.1780 |
| For Iraland and Scotiand | 8,579 | 2,329 | 8,591 | 3,120 | 8,552 | 3,857 | 3,549 | $8^{3}+5$ |
| Coaniwise. | 2,145 | 2,283 | 8,138 | 3,191 | 8,267 | 2,796 | 2,545 | 2, 2 [u1] |
| For exportation | 8,312 | 2,687 | 2,608 | 2,843 | 2,688 | 2,430 | 1,962 | 2,156 |
| Tolal nales | 21,689 | 12,462 | 14,574 | 14,016 | 14,752 | 13,039 | 12,271 | 13,955 |

Drliveaize out of Stoun in 1857.-Liverpoor.

|  | Virginia L.eaf. | $\begin{aligned} & \text { Virgiola } \\ & \text { stemmed. } \end{aligned}$ | $\begin{aligned} & \text { Weatern } \\ & \text { ioesf. } \end{aligned}$ | $\begin{aligned} & \text { Weatarn } \\ & \text { lommed. } \end{aligned}$ | Maryland. | $\begin{array}{\|l} \text { Total lloge: } \\ \text { heads, ele. } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| For home nit | 64) | 9.91 | 254 | 1802 | 2275 | 8, 170 |
| Fur Ireland and Seotland | 1941 | 1125 | 118 | 549 | "8i | 3,728 |
| For constwiae. | 205 | 1131 | 327 | 625 | 153 | 2,511 |
| For exportation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1039 | 48 | 938 | $\ldots$ | 31 | 2,050 |
| Totsi. ............................................ | 3594 | 2595 | 1632 | 3075 | 245.1 | 13,3:5 |

Figtimatid Stoce at liyfrpool on Nale 'xclebiva of that meln in tife Channfle of Congemption.

of Western lemmed

|  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | 4 | 1684 | 4 | 1358 8.7 | ${ }_{6}$ | 829 | ${ }^{6}$ | 1,217 | 4 | 1,123 |  |
| 8297 | 4 |  | 4 | 847 | $\cdots$ | 1147 | 6 | 4,039 | 6 | 2,175 | 6 |
| 773 | 4 | 1221 | " | 523 | 4 | 608 | 4 | 4,732 | ${ }^{6}$ | 5,089 | 4 |
| 7611 | 4 | 8230 | 6 | 8248 | * | 914 | 4 | $\underline{11,565}$ | 4 | 11 |  |

Partiotlaba of heaf and ateverd Tohacco mportrd derino thr labt tre Yearg, and the Stock on Sale at tug Clonk of ract Yrar- Imports.

|  | 188. | 1849. | 1850. | 1851. | 1852. | 1983. | 1854. | 1855. | 1536. | 1857 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| VIrgil ${ }^{\text {a leaf. }}$ | 1,855 | 4,082 | 644 | 1,248 | 1,654 | 1.243 | 1.932 | 3.9 | 4.072 | 9,275 |
| " slemmed | 1,679 | 8,046 | 1,793 | 1,047 | 1,541 | 1.668 | 2,421 | 2,511 | 2,652 | 2,236 |
| Kentucky leaf. | 1,564 | 2,630 | 3,336 | 1,071 | 2,232 | 5,087 | 1,160 | ?,209 | 1,309 | 2,205 |
| Maryland and cta | 5, 6566 $\mathbf{2 9}$ | 4,473 | 6,349 1,436 | 4,568 | 5,878 1,938 | 4,003 | 5,861 | 3, 012 | 2,154 | 3,342 |
| Maryland and | 29 | 64 | 1,436 | 1,243 | 1,938 | 1, 117 | 1,7:1 | 1,303 | 2,644 | 1,943 |
| Total.. | 10,477 | 13,205 | 12,050 | 10,041 | 13,2.3 | 14,278 | 12,015 | 11,087 | 12,045 | 12,004 |

gtocks on mand at liverimol.

|  | 1848. | 1899. | 1850. | 1851. | ase. | 1 Ns . | 1884 | 1835. | $18,6$. | 57, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Virginia lo | 2,852 | 4,1710 | 2,38. | 2,264 | 8.834 | 1,1.19 | 1,638 | 2,178 | 2,631 | 1318 |
| " stem | 3,689 | 2,453 | 8,494 | 1,016 | 1.956 | 1,342 | 1.180 | 1,641 | 1,820 | 14;1 |
| Kentucky lear | 2.225 | 3,12:1 | 4,075 | 8.923 | 2.761 | 4,522 | 1,974 | 516 | 094 | 1:667 |
| " stem | 7,980 | 6,450 | T,940 | 7,642 | 0.779 | 5,816 | 6,440 | 4,060 | 3,410 | 34i3 |
| Maryland, ${ }^{\text {c }}$ | 24 | 61 | 1,203 | 701 | 1.237 | 1,907 | 1,115 | 1,020 | 2,034 | 151 |
| 'Total. | 16,119 | 16,355 | 17,452 | 15,041 | 13,760 | 14,023 | 12,227 | 10,215 | 10,939 | 53 |



| ${ }^{1456}$ | Liverpoal Priceo. | 1355. | 1854. | inst. |
| :---: | :---: | :---: | :---: | :---: |
|  | leaf: |  |  |  |
|  | (ridinary find | Nomin. | 6 (a) Nom. | Non |
|  |  |  |  |  |
| Fituek on 32at lecember.... 30005 belea 23.95 |  |  | 9 (a) 91 | 8liag |
| Greek and T'urkey: $\quad 2458^{1851 .}$ |  | 7 bla | 10 ¢ 1i |  |
|  | Sternmed: |  |  |  |
|  | Onlluary | Nomla. | Nominal. | Kominal. |
| Stock on 31at December... 2459 lmam 5937 |  | フ1as |  |  |
| may the here atated, no important to the export | Fiac | -1¢10 | 14 - | 12 (al3k |
| do of tohacco, and as a specimen of the inequall |  |  | nit |  |
| the tariff dutien on tobncco in Europe, that the Nur- | Middllit | S1a 6 | Bla 91 |  |
| gian tariff, which differs in many essential particu- | Fino | 0] | 110 | 9 (n) 1041 |
| ra from that of Sweden, admits tohacco considerably | trmme (irdina |  |  |  |
| wer; and, owing to this fact, and to the advantages | Midd | 9 | 113 121 | 1 c (a11) |
| ulting from different weights, it is found that to- | Flme | 13 | 13 (a 13) | 12 (a13 |
| coo bladen may be imported into Norway at a rate |  |  |  |  |
| arly $33 \cdot 3$ per cent. less than into Sweden. |  | ${ }_{8}^{61 \times 3)}$ | 8 a <br> 9 81 <br> 18  | 9 (al0 |
| The following table exhiblts the prices current at |  |  | 0 (a) 10 | ${ }_{0}^{0}$ (a)10 |
| erpool, December 31, for the vears 1855, '56, '57 | Gr |  | 816 | 6 (410 |

Swedev
Danish
$\underset{\text { Bremur }}{\text { liambu }}$
Holiand
Diolian
Dutch
Dutch
Belghon
Englan
Bcotlon
Glbralt
Cabada
Canada
1sitigh
Irritigh
IIritigh
Irritish
British
British
British
$\underset{\text { France }}{\substack{\text { British }}}$
France
France
Freneh
Speneh
Philipp
Cuba
Porto R
Two sic
Austria
Turkey
llayti.
layti.
San Do
Merico
Mexico
Central
Central
New
Vedear
Brazil
Chili..
peru..
Chinas.

Exports ting Uni

Russla.. Daniali ix Ilamburg Bremen loiland Dutch W Duteh G:
Relgium lingland Scolland
Gilbraltar Malta.. Canada Iritish
Uritish
Ibritiah II
ltrjtiah G
Hist, lose
ltritleh t:
Franee o
Freach
Spain on
Cubary
Cuba
Cape do
A zorea.
Bardluta
sardluta
Turkey
Turkey
lorts in
llayti..
Mexico.
Central
Vew Grat
19rakil..
Cruguay
Argentine
Chilf....
Chilli. . .
sandwich
Chinn...
Whale-fin
We no
together

Imports of Tonacoo meto the United Srater for the Yeaz midino Jung 30, 1867.

| Whonee imported. | Ubmanofactarod. |  | Snoff. |  | Clgem. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pooad. | Voloé. | Pounds. | Value. | Thousand. | Volue. |
| Bwaden and Norway. | 264 | \$40 |  |  |  |  |
| Danish West Indles . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |  |  | \$87 |
| Inamburg . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,143 $\mathbf{3 2 S , 5 1 4}$ | 478 45,623 | ${ }_{8,086}^{8,320}$ | \$884 | 13,251 | 58,205 |
| Irremen. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 32, 66,045 | 45,623 8,965 | 8,086 8,206 | 11021 | 80,360 85,171 | 275,829 |
| Ilolland <br> Dutch West Indles | 66,045 | 8,965 | 8,206 | 649 $\ldots$ | 65,171 | 103,698 ${ }^{\text {B }}$ |
| Duteh G niana..... |  |  |  | . | 2 | 12 |
| Dutch East Indlea |  |  |  |  | 10 | 88 |
| Belgium | 100,035 | 19,514 | 1,13i | 143 | 198,469 | 600,188 |
| England | 32,074 | 8,705 | 184 | 78 | 536 | 4,009 |
| Scolland.. | . $\cdot$ | . | .... | .... | 74 | 615 |
| Glibraltar | .... | .... | .... |  | 120 | 645 |
| Canada . ${ }_{\text {co. }}$ |  |  |  |  | 37 | ${ }_{6} 643$ |
| Britlph Weat Indies. | 16,861 | 2,310 | 155 | 44 | 10 | 103 |
| Jritish IIonduras. | 14,070 | 974 | $\ldots$ | .... | 69 | 343 |
| British Australia... |  |  |  |  | 1,530 | 5.55 |
| Brilish Fiast Indles. | 31,015 | 824 |  | $\ldots$ |  | 9, 139 |
| France on the Atiantic. | 27,798 | 8,241 | 824 | 321 | 87,879 | 100,43\% |
| Franes on the Mediterranean. . . . . . . . . . . . . . . . . . . . . . |  |  |  | $\ldots$ | 70 | 882 |
| Freneh West Indies . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | $\ldots$ | .... | 1 | 10 |
| Spaln on tho Mediterranean . . . . . . . . . . . . . . . . . . . . . . . . Philippine Islands. . . . . . . . . . . . . . . . . . . . | 980 562,430 |  | $\ldots$ | . |  |  |
| Philippine Itlands. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 562,430 $5,536,680$ | 57,837 972,507 | $\ldots$ | .... | 7,731 133,307 | 60,828 $2,506,743$ |
| Porto Rico | 11,829 | 1,170 |  |  |  | $\begin{array}{r}2,006,873 \\ \hline 18\end{array}$ |
| Two Stclles. | 11, | .... | 25 |  | $\ldots$ |  |
| Austria ........ |  | $\cdots$ | 13 | 6 |  |  |
| Turkey in Asia. | 13,027 | 2,444 | .... |  | 2 | 21 |
| Porls in Africa |  |  | $\ldots$ |  | 8 | 146 |
| JLaytl.................................................. | 276,229 | 42,613 | .... | .... |  |  |
|  | 125,045 117,550 | 15,182 | $\ldots$ | .... | $12$ | 240 |
| Central Repabile | 117,250 | 12,34 |  |  | 120 30 | ${ }^{1,419}$ |
| New Granada . . | 1,142,236 | 155,885 | $\ldots$ |  | 13,547 | 884,630 |
| Venezuela | 150,712 | 19,929 | .... |  | 12 | 82 |
| Brazil | 1,763 | . 260 | $\cdots$ |  | 31 | 44 |
| Chlill. | 19,500 | 1,722 | .... | $\ldots$ | 780 | 3,545 |
| China. | 1,025 | 193 | $\ldots$ | $\ldots$ | 2,3¢8 | 7,339 |
| Totai, year 1850-7. | 8,674,632 | \$1,358,835 | 13,933 | \$2620 | 560,043 | \$4,221,906 |

Exporte of the Manupactubeg of domebtio Tobacco prom Exporte of foneion Tobacco from the Cinited Stateg for the United Stateg for the Yeag ending June 30, 1857.

| Whither exported. | Snuff. |  | Tubacco. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounde. | Value | Pounds. | Value. |
| Rusgia |  |  | 6,099 | \$700 |
| Danish W |  |  | 66,54) | 13,519 |
| 11 amburg | 64 | \$04 | 81,224 | 18,469 |
| Bremen | 120 | 120 | 84,302 | 19,820 |
| IIoliand |  |  | 16,143 | 2,292 |
| Dutch West | 1,300 | 294 | 104,622 | 23.401 |
| Dutch Guiane |  |  | 4,175 | 683 |
| Relghum |  |  | 4,000 | 837 |
| England |  |  | 536,819 | 180,378 |
| Scothand |  |  | 52,131 | B,608 |
| Gidrralt |  |  | 133,235 | 20,8T1 |
| Malta |  |  | 166,359 | 32,042 |
| Camada | 14,560 | 3,607 | 1,471,030 | 303,140 |
| lirltish N. Am. ${ }^{\text {l }}$ 'nssese. | 801 | 13.4 | 1.130,803 | 206,000 |
| Irlish Weat Indles. | 13,588 | 2,743 | 290,835 | 47,508 |
| British IIondu |  |  | 29,102 | 8,205 |
| Brilish Guians |  |  | 39,271 | 3,509 |
| 1 rrit l'ogsess. in Af |  |  | 438,352 | 72,939 |
| Britigh Australin | 10,140 | 1,295 | 1,032,450 | 285,123 |
| Britleh East Indles |  |  | 243,826 | 39,357 |
| Franec on the Atlantle. | 1,290 | 648 | 65,076 | 10,180 |
| France on tho Medter'n | (6\%) | 49 | 71,681 | 11,751 |
| French N. Am. P'onsess. | 725 | 208 | 39,140 | 6,54] |
| Spaln on tha Mediterr'n | 200 | 120 | 10,900 | 689 |
| Canary Islands. ....... |  |  | 27,022 | 3,962 |
| Cula | 06 | 45 | 200, 072 | 82,673 |
| Jorto liteo |  |  | 130,431 | 21,750 |
| Cspe do Verd Islands |  |  | 6,455 | 1,222 |
| Azorcs |  |  | 230 | 30 |
| Eardlut |  |  | 5,051 | 992 |
| Turkey in Europ |  |  | 19,175 | 1,670 |
| Turkey lu Asla | 400 | 04 | 7,817 | 847 |
| l'orts in A fri |  |  | 68,029 | 10,174 |
| LIay th. |  |  | 62,151 | 0,24 |
| Mexico. | 2,577 | 2,003 | 35, ${ }^{4} \times 6$ | 7,140 |
| Central Repuit |  |  | 1,465 | 311 |
| New Granad |  |  | 70, 232 | 11,103 |
| Venezuela |  |  | 07,402 | 14,376 |
| Brazil |  |  | 36,798 | C,403 |
| Crugnay |  |  | 32,433 | 4,520 |
| Argentine |  |  | 16,3133 | 2,003 |
| Chill. | 800 | 100 | 122,301 | 16,936 |
| lerri. |  |  | 19,108 | 4,080 |
| Sandwlcis | 100 |  | 33,188 | 6,214 |
| Whate-fisherie |  |  | 35,082 | 10,1:22 |
| Whate-fisherie | $\cdots$ | $\ldots$ | 16,5i0 | 3,587 |
| 'Tolal, 1858-'?. | B0, 401 | 11,526 | 7,450, 666 | 1,447,027 |

[^50]| Whither exported. | Clgara. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | M. | Viluo. | Pomuds. | Value. |
| Russia | 36 | \$:48 |  |  |
| Asiafle Russla | 64 | 686 | 5,0e0 | 411 |
| Russlan Poss. in N. Am. | 85 | 1,018 | 14,76) | 2,40B |
| Sweden and Norway ... | 49 | 1,40t |  |  |
| Danish West Indles. | 217 | 3,394 |  |  |
| Hamburg | Gt | 1,053 | 280,024 | 49,602 |
| Bremen. | 141 | 2,438 | 651,730 | 126,177 |
| Other (ierman port |  |  |  |  |
| Jolland. | 72 | 1,03, | 51,149 | 8,091 |
| Dateh Weat Indics | 60 | 1,285 |  | ... |
| Dulch Guiana | 38 | 405 |  |  |
| Belgium. | 214 | 3, 719 | 151,391 | 32,003 |
| England. | 281 | 7,047 | 25,153 | 5,025 |
| Scotland | 88 | 1,018 | .... |  |
| Malta |  | 8 B | .... | .... |
| Canada | 1,740 | 33, $1+1$ |  |  |
| British N. Am. Possess. | 183 | 2,217 | 10,400 | 1,689 |
| Pritigh Weat Indies. | 60 | 657 | .... | ... |
| British Jondurar | 40 | 947 | .... |  |
| Irritish Poss. In Africa,. | 24 | 530 | .... | $\ldots$ |
| Britsh Australia... | 651 | 13,585 | .... |  |
| British East Indles | 10 | 107 |  |  |
| France on the Atlantic | 362 | 6,769 | 9,480 | 1,002 |
| France on the Medilter'n | 15 | 230 | .... |  |
| French N. An. Ронвевs. | 11 | 208 | .... | .... |
| French Weat Indles. | 15 | 372 | .... | .... |
| Porio Rlico |  | 1,689 |  |  |
| Poriugal ............. | ${ }^{6}$ | 168 |  |  |
| Capo de Verd Jalands .. | 71 | 527 | 5) | 11 |
| Sardinla . . . . . . . . . . . | 9 | 320 | .... | $\ldots$ |
| Two Sicile | 50 | 781 |  |  |
| Turkey in Furopo | 11 | 159 | .... |  |
| Turkey $\ln$ Asla | 43 | 595 | .... |  |
| Proria in | 121 | 1,752 |  |  |
| Hayli. | 129 | 1,709 | 1,015 | 243 |
| Mexico | 51 | ${ }^{621}$ | 1,500 | 1,449 |
| New Gransd | 402 | 8,499 |  |  |
| Venezue | 1,299 | 32,704 |  |  |
| Prazill | 739 | 20,427 | 3,000 | 507 |
| Trugusy, or Ciapl. Rep. | 113 | 2,908 |  |  |
| Ihuenos Ayres. | 110 | 8,598 |  |  |
| Chill. | 985 | 30,274 | 45,000 | 11,816 |
| Pera | 834 | 17,650 |  |  |
| Sandwich | 1,308 | 16,590 | 500 | 61 |
| China. | 15 | ${ }_{603}^{842}$ |  | $\ldots$ |
| Whate-fist de | 28 | 609 | .... |  |
| 1 otal . | 11,168 | 2227,143 | 1,260,101 | 241,385 |
| From warehouse | 0,241 | 118,7>8 | 852,877 | 164, 618 |
| Not from wavelivuse,... | 4,927 | 108,36T | 397,284 | 75,367 |

Exports of Forkton Tonacoo mine Tin Vinfen ETATEs fon tir Year znnine June $30,1 \% 07$.

| Whilher esported. | Unmamufaetured. ${ }^{\text {and }}$ Rouff. |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Value. | Pounds. 1 | Valun. |
| Iremen | 11,651 | \$1,680 |  | $\because$ |
| Other liermen ports ...... | 818 | 188 |  |  |
| Canadn . . . . . . . . . . . . . . . . | 11,176 | 9,188 | 780 | \$163 |
| Chl11 . . . . . . . . . . . . . . . . . . | 51,283 | 9,760 | $\cdots$ | $\cdots$ |
| Peru. . . . . . . . . . . . . . . . | $\ddot{818}$ | 646 | 000 | 800 |
| Salldwl | 8,80 | 646 | .... | $\therefore$ |
| Tolal. | 77,763 | W14.287 | 1280 | 4303 |
| From warehousa | 78,660 | 18,186 | 500 | 210 |
| Not from whrihorise. | 6,103 | 1,151 | 780 | 103 |

ExHORTS OF UNMANUFACTEAET BOMERTIO TOLACCO PMOM TILE Unitrin states folk tan laak bninno Jena 30, 1857.

| Whither exported. | Hhds. | d | Balsa. | Valus. |
| :---: | :---: | :---: | :---: | :---: |
| Apiatle linmia. |  | 10 |  | 300 |
| linsalan l'ozeera, in |  |  | 40 | 1,200 |
| Swedon und Noreay. | 305 |  | 6 | -4,871 |
| Awedich West Iadles. | ) |  |  | 1,032 |
| Denmark | 63 |  |  | 16,975 |
| Danlwh Wes | 68 | 1 | 174 | 16,013 |
| llambur | 033 | 230 | 326 | 181,780 |
| lremen | 46,044 | 390 | 3,624 | 4,916,3:6 |
| Ifoltand | 27,758 | .. | 190 | 1,909,00S |
| Inuleh We | 15 | . | 25 | 3,036 |
| Huteh Gu | 69 |  | -988 | 7,94! ${ }^{\text {9 }}$ |
| 13elgium . . . . . . . . . . . . . . . . | 6,346 |  | 688 | 004,257 |
| Fingland . . . . . . . . . . . . . . . . | 29,370 | 218 | 02 | $4,6{ }^{5} 4,105$ |
| scofland <br> Ireland | 88 | $\cdots$ |  | $\begin{array}{r} 131,85 \pi \\ 29,47 \end{array}$ |
| Ireland <br> dilbrall | 100 332 | 942 | 8 | 29,47 |
| Malta | $7{ }^{6} 0_{1}$ | 199 | 25 | 110,8 2 |
| C'mada | 811 | $1!181$ | 466 | 181,964 |
| (hlyer liritizh N. A. I'osmens.. | 137 | 13 |  | 28,788 |
| lirltish Weat Indlea | $5{ }^{\text {P401 }}$ | 15 | 831 | 114,019 |
| Iritiuh llonduras | 20 |  | 60 | 6,305 |
| Irithli Jinlana. | 133 | 100 |  | 28,711 |
| Hritleh Porseakiona lat sfrica | 14 | 902 | 120 | 50,976 |
| Irritinh Anstralla . . . . . . . . . | $165^{\prime}$ | 20) | .... | 22,88, |
| Iritinh Fast Iadlez |  | 14 | . | $40^{4}$ |
| France on the Atlan | 10,145 | . . | 40 | 9¢5, 10 |
| France on the Mediterruncan | 1,824 |  | 121 | 348,7tit |
| Frencin N. Amer. lowsesslons, |  |  |  | 16 |
| Frencls West ludh'n . . . . . . . | 630 |  | 24 | 107,888 |
| Frenels tialnua. | 9 |  |  | 20, 177 |
| Epaln on the Atlath | 7,412 | . |  | 1,008.414 |
| Fpaln on the Sheioltrrranean. | 117 | . | .... | 27,5811 |
| Canary lalanila.............. | 20 |  |  | 6,919 |
| Cub | 18 |  |  | 3.212 97.000 |
| Ports 1if | 125 | 5 |  | 27.100 |
| Portapul | 870 |  |  | 121,369 |
| Madeira | 29) |  |  | 4.20 |
| copas de V | 52 | .1 | 02 | 28,471 |
| Fardinia. | 8, 141 |  |  | ¢82,184 |
| Tureany | 2, "3: |  |  | 387.401 |
| Two -lelll | $4.1+4$ | . |  | 875,208 |
| Austria | 1.5) | - |  | 151,105 |
| Antriati l'ownesslons ln lialy | C, 0154 | . |  | 1,4350,893 |
| Turky ln I uropn'.......... | 3 3 | . |  | 8,091 |
| Turkey In Anla | 41 |  | 202 | 14,140 |
| l'orta in Africa | 1,72) | 36 | 984 | 499,1069 |
| llaytl | $8 \mathbf{8}$ | :8 | 8.895 | 07.760 |
| Mexies |  |  | 100) | 9,7.10 |
| Now 1 | 879 |  | 1,1650 | 30, 045 |
| Veneaull | 1, ${ }^{(1)}$ |  | 41 | 28,923 |
| llarall | 81 | $\cdots$ | 9 | 14,409 |
| Iruguay, or of | 5 |  |  | 1,1006 |
| Armatino livjui |  | T\% |  | 1,1025 |
| thill | 3 |  | 1,157 | 23,418 |
|  | 3 |  |  | 302 308 |
|  |  | 170 | 12 | 1,846 |

- Vor articles on tolucen, see $A$ merican Quarterly Reviet, ix. 1/6; lh: llow's Rerirur, xii. fī̄6, 1i. 249, xi.
 isi6. In loliacro trade, nee American Almamai, 1Nili.
Tokay, a lown of northenat llmagary, coblity of Zemplin, on the ryght bank of the Theina, at the influs of the Malrog, 43 niles north-murthwest of Debrecain. I'mpuation, sifou). It is cefelirated as being the entrepuit tor the fammus Tokay wine, produced in the billy tract collel the IIgeralla, in the county of \%empliin, lat. $1 x^{\circ} \mathrm{N}$., latween the lodrug and liernad rivera. The wine of premiler qualiy is bought up for the linperial cellarn, and only the necondary and inferior growthy are exported. Much of the wine soll as

Tokay is produced in other parts of Hungary. In manufacturing the genuino Tokay wine, the dried grapes are carefully separated from the others, and three sorts of wine are produced. The best ls the Easence: thls is the oily juice which runs from the fruit without any pressure. When thls ceasea to ran, the grapes are molstened with common Tokay-must, and trodden out: this gives tho Ausbruch. A second infuaion of Tokay-must on the remuining grapes, pressed by hand, gives the Mászlás (Maeklase).-Dee Henderson on Wines; Hincy. Amer.

Tokens (Bank). These were silver pleces issued by the Bank of Englinnd, of the value of 5s., Jenuary 1, 1798. The Spanish dollar was at first lumpressed with a smnll profile of George III.; It was ptsniped on the neck of the Spanish king. Tokens were raised to the value of $58.6 i l$., November 14, 1811, Bank tokens were a!so current in Irelund, where those issued by the lank of Ireland passed for for, and lesser sums until 1817. They were soon after called in, on the revision of the lritish colnage.

Toll, from the Saxon Tolne; in German Zoll (called in law Latin Telonium und Tolnetun, with many other variations, which may be seen in 1)ucange, all which Latin terms are derived apparently from tihionoor, "eollection of tribute or revenue"). Tollis may be considered a payment in money, or in kind, fixed in amount, made either under a royul graut or under a prescriptive usage, from which the exiatence of kuch "grunt is implied, in considerntion of some service rendered, henefit conferred, or rlght forborne to be exercised ly the party who is entitled to such payment.

An ancient toll may ha claimed by the owner of a part in respect of goods shipped or handed there. Such tolle aro port tolls, more commonly called port durs. The place at which these tolla were set or assessecl was anclently called the Toisey, where, as at the mollern Exclange, the merchants uanally assembled, and whero commercial courts were held.-- Hors's Cyclop.

Marine tolls were first pail liy vessels passing the Stade on the Ellis, A.t. 1109. They were tirst demunded ly the banes of vessels passing the Sound, 1341. Toll-bars in England originated in 1267, in the grunt of a penay for every wagon that pussel through a certain manor; and the first regular toll was collected a few yesrs after for mending the roud in lunden between St. Giles and Temple Bur. Tolls were also gntherell for repuiring the highways of Hohlora lin Lane and Martin's Lane, 1846. Toll-gutes or turnpiken were used in 1663 . Numerous neta relating to tulls und turnpike ronds have been parsed in lireat Britain and the several States of the United Statcs.Haydn.
lyy order of the London Court ot Common Cornaid, the tolls taken at the several hars of the city of lunilin, for tho wagons, carts, ete., not heing the prejerty of a citiz'n of loudon, were abolished lyecember :5, 18:-1. These tolls hat lirought an ambal reveltie of only Ed. on each cart, or alout . EtOOO .

Ton, a welght used in Grent Britain nnel this rountry, usually of 2240 lis., but sometimes of $2010 \mathrm{lts}$. , callest a short ton. By aet of Congreps it is tecided that, unless specified to the contrary, in ton weight is to he underatood as two thousand two hundred and forty Ihs, avoirlupols.-Sre Wenimts and Meascmes.
Tomage, in commercial nurigutiom, the numbur if tune burden that a thip will carry. Tumnage has long teen tun wetheial term, intented ortginally to ixpress the hurden that a ship would carry, in order that the varlous dines and custom, which are levied upon shipping might lat levied acrording to the size of the ver wal, or rather in propmition to her capabiltty of earrying a burien. It has hence arisen that the term "tonnage," as applied to a ship, hat become almost nymymous with that of nize. It la, imiteed, the unly herm used to give an lilea of the magnitade of merclunt whip, which are invariably spoken of according to
their tons tons. N cording t times solt messuren and have portion to far as th to be a co

It is ev sults of $m$ ficiently vessel by quired th is of yrive the dues vessels. of measur or an app may be th either wit phatement will carry tho exnet stowage o portant ar which nake, nig jarious re fixed mea: fect of re: carry the sible meas placement her tonna that it drawing o bie to for necount on would alst tity when great diffic is require tions; anc easily con Ahove all that if eit nage, it w build larg fastenings small in nage wer displacem ment over although and even that it in draughts practically plucement space or opening becaluse $t$ space mu which wil measurem a furm th: shall net

Measur an act of vided that vessel, the appolated the sanne, dieckell, ta the maln
their tonnage, or ae being ships of 50 , of 500 , or of 1000 tons. Not only are all dues and customs levied according to tonnage, but ships are also built, and sometimes sold and bought for a price per ton of their admeasurement; and they are also timbered, fastened, and have their anchors, cables, and hoats, all in proportion to the same datum. Tonnage, therefore, in so far as these considerations are involved, is assumed to be a correct representution of the size of a ship.

It is evident that tonnage may, express eeveral results of measurements, and in each case may be a sufficiently fair criterion of the burden of a merchant vessel by whith to levy dues; becauze all that is roquired thus far, oither on the part of the government a of private interests, or on that of the owner, is, that the dues should be levled in cqual proportion on all vessels. Thus, tonnage may be the product of a series of measurements, intended to oxpress the exact elzo, or an npproximation to the exact rize of the ship, It may be the artual displacement or welght of the shlp, either with or without the carge; it may le the disphecment of the carge, or the dead weight which she will curry to a fixed draught of water; or it may be the exnet cupacity of the space which she has for the stowage of cargo. Yet to each of these there are important ard practical objections. The first, or that by which' . measured bulk of the ship would he the tonmage, nuight be easily ovaded, and would lead to Injurious results; because, as there must necessarily be fixed measuring places, such a law would have the effect of restricting vessels to that shape which would earry the greatest amount of cargo under the least possible measurements at these places. If the actual displacement, either load or light, of a vessel were to be her tonnage, it would be subject to the intonvenience that it could only be calculated correctly from the drawing of the ship, and therefore would bo inapplicable to foreign ships arriviag at our ports, An exact account of the draught of water, either load or light, would also be necessary, which being a variable quantity when the lead druught is involved, and one of great difficulty to be determined when the light draught is required, would present nlmost insuperable objections; and, bosides, the dranght of water is a quantity easily concealed or falsibed for frauduleu' purpeses. Above all objections, huwever, may be reckoned this: that if either the load or the ship represent the tonnage, it would be to the interest of the ship-builder to build large vessels with slight scantling and Inadequate fastenings, that the welght of the vessel might be suall in prupertion to that of the cargo. If the tonnage were to express the difirence between the two displacenents, that is, the excess of the lond displacement over the light, or the dend weight of the loading, although this would be the nost correct in principle, and even mathematically correct, there is the objection that it involves a knowledge of both light and load draughts of water, and is therefore, on thls account, practically, at least, ns objectionable as the whole displueement. Jastly, if the tomange were to be the space or eapaeity for the stowing of cargo, numerous openings would be ufforded for fraudalent evasion; because the manner of mensuring the ship for this space must the dofined, and it is cusy to build space which will not come within the limits of the detined moasurements; or it is casy to build a vessel of such a form that the masurements made et given points shall not give a correct account of her capacity.

Measurement of Tomnage in the United States.-By an act of Congress, passed Mareh 2, 1799, it is provided that, to nscertain the tonnage of any ship or vessel, the survejor, or buch othet jerson ns shall be appointed by the collector of the district to measure the sitme, shall, If the said ship or vessel be denhledecked, take the length thereof frem the fore part of the main stem to the after part of the stern-post above the upper deck, the breadth thereof at the hreadest
part above the main wales, half of which breadth shall Le accounted the depth of auch vessel; and shall then deduct from the longth three-fleths of the breadth, multiplying the remainder by the breadth, and the prodnet by the depth, and shall divide this last product by ninety-five, the quotiont whereof shall be deemed the trus contents or tonnage of such ship or vecesl. And if such ship or vessel be singl6-decked, the surveyor, or other person authorized, shall take the length and breadth as above directed, In respect to a double-decked ship or vessel, shall deduct from the said length, three-fifthe of the breadth, and, taking the depth from the under side of the deck plank to the ceiling in the hold, shall multiply and divide as aforesald, and the quotient shall be deemed the tonnage of such ship or vessel.
METHOD AT PRESENT IN USE AMONG FORELGN NATIONS FOR
COMPUTING THE TONNAGE OF SHIPS.
France.-The three measures of length, breadth, and depth are multiplied together, and the product is dlvided by 94 for the tonnage.

In singlendecked vessels the length is taken from the after part of the stem on deck to the stern-post; the extreme bread $/ \mathrm{h}$ is taken, being measured inside from ceiling to eelling, and the depth from the celling to the under surface of the deck.

In evessels of tiro decks, at Bordentix, the length of the upper deck and that of the keelson is messured, and the mean taken for the length. But at Brest, Marsellies, and Boulogne, the mean of the length on the two decks, from the stem to the stern-post, is taken as the length. The depth of the hold from the ceiling to the under aurface of the lower deck is udded to that of the height between decks, and considered ns the dept a. The extreme inslde breadth is taken in the sane way as in single-decked vessela. At Bordeaux an allowance is sometimes made for the ruke of the stem und stern of the vessels.

At Joulogne, in measuring steamboats, the length of the coal and engine chambers is deducted from the length of the vessel, and her breadth is taken at the fore and aft extremities of the ssme, the mean of which Is considored ne the brenith. The dept? is taken inside the pumps, from the lower surface of the deek, between the timbers. At Brest measures are frequently taken with a string, although contrary to lnw, and an error of seven tons in the tonnage of a catter has been the result.

Gheat Bhitain, See art. Gineat Butain, p. 858.
Spain.-The breadths are measured at the following places: 1st, at the mizzen-mast ; 2d, a few feet abaft the feremast ; 8d, at a point half way between the two former. The heights at which the three breadths are taken at the above places are: 1st, on a level with the deck; 2d, on a level with the uper surface of the leelson; 3 d , at a level half-way between the two former positlons.
To find the area at each eection, the half of the sum of the upper and lower mensurements is added to the middle measurement, and this sum is multiplied ly the helght of one above the other. Then half the areas of the fore ind after seetion is added to that of the middle section, and th's sum is multiplled ly the length which the sections are upart from each other. The reanlt will express in Burgos cubic feet the capacity of tha part cithe hold hetween the fore and after sections, and It atill remalus to add the spaces between these and thes stem and stern-post. The former may he found, witheut any consideralile error, by multiplyIng the area of the foremost section by half Its distance from the stem; and the lutter in the same manner, by multiplying the area of the after section by half its distance from the stera-post. It is evldent that the room occupied by the pumps must be deducted from the foregoing resilt, in order to obtnin the fair quantity of space illed by the cargo.
Ilaviag thus found the capacity of the hold of any
vessel in the above mannor in Burgos cublc feet, it is to be divided hy $417_{7}^{0}$, and the result will be the amount of diaplacement of auch vessel in tons of Burgos measure, because each ton is reckoned equal to 11.8y feet of Burgos.

Pontvanl.-For single-decked ressels, the length is measured from the cabin bulkheads to the forecastle bulkheads. The depth is measured from the upper surface of the keelsen to the under surface of the beams. The extreme breadth of the deck is considered the breadth. The continued product ed these three dimensions will give the contents in cubic feet, which, divided by 57.7206 , gives the tonnage.

Vessels of tre Decks.-In these vessels two distinct operations are made; one for the hold, the other for the middle deck. For the hold: The length is measured froin the heel of the bowaprit to the stern-post. The breadth is tho extreme breadth of the upper deck, deducting two feet. The depth is from the upper ourface of the keelson to the under surface of the beama. For tho middlo deck: The length is conaidered as half of that for the hold, the other half heing allowed for cabins, etc..-tie breadth as before; and for the depth, the height of the midulle deck to the under surface of the heams.

The foregoing is the method adopted at Liabon; but nt Cporto the length of the vessel is taken from the second timber at the lows to the stern-post; the breadth at the wilest part from the inside of each bulwark on the upper deck; and the depth from the upper surface of the keelson, to the lower surface of tha beams of the upper deck at the main hatehway.

If the keelson be more than ordinarily thick, ailowance is made accordingly; and whero there are two decks, the thickness of the lower deck is niso dellucted from the depth. The length is then multiplied lyy the breadth, and the prodinct by the depth. The product is then divided 1 y 96 , the number of Portuguese cutic feet contained in a ton, and the result is the tonnage of the ressel.

Naples.-For ressels trith two decke, the leagth is measured from one end of the veasel to the other, over all. The length is also ineasured from the after part of the stem to the rudder hatch, under the poop. The mean between these two lengths is multiplied by the extreme lireadth of the vessel. The depth is then takea from the bottom of the well to the lower surface of the upper or joop deck; and the above proluct being miltiplied by this depth, and divided by 94 , gives the tonnage.

Fior singledecked cesels, the tonnage is found ly multiplying the ext reme length by the extreme breadth, and the product hy the extreme depth, and divided ly B, as alove.

Nkthentands.-The length is measnred on deck from the stem to the stern-post. For the breadth, the hold is divided into four portions, and two measurements taken at each of the three d!visiona: lat, acroas the keelson, on a level with tho ujper surface, from ceiling to ceiling; 2 d , the greatest lireadth of the hold at each division. The mean of these alx measurements is considered the breadth. The dejths are taken at each of the foregoing joints of division, from the upper surfice of the keeison to the lower aurface of the "ipper deck between the beams, and the mean of : heree three is resumed. The length, breadth, and "epas ox "hen muitiplied together, snd two-thirds of $^{\prime}$ the prethert is consilered as the tonnage. Allowance ©or provisions and water, cablı and shlp's stores, varyins, foth $\overline{1}$, to $\frac{10}{105}$, is dedust t from the depth befor it 14 , yltithied by she lan ; $; 1$ and lireadth.
Xink... A I I rom the deft r part of the stem. the tunstl $\because$ the rhip ia taken to the inner part of tho viesin ,nat D. Dividing ster 1 ngth of the veasel Into :-r equal parta, the lirent is measired at each of tu'f d.vibns. The depth of the vessel, from the
under surince of the upper deck to the keelson, Is taken at the abrive three points of division. Then multiply the length by the mean of the three breadtha, and this product liy the mean of the three depths. The resuit of the forcgoing is divided by 242t, if there he no fractional parts of feet; but if there are, the calculation is made in inchea, and the divisor becomes 822,776, the result thus oltained being the burden of the vessel in wood lasts, of 4000 Nova lbe. each. To reduce these into commerce lasts, one of which ls eqnal to 5200 Neva lbs., it is multiplied by 10, and divided by 18.

Ruasia. - Length of the keel in feet, multiplied hy the extreme breadth over the sheathlng, and the product multiplied again by half the breadth, and divided by 94, gives the number of English tons.

United Statea,-If the veasel be double-decked, the lemgth is taken from the fore part of the main stem to the after part of the stern-post, above the upper deck; the breadih, at the broadest part abovo the main wales, half of which breadth is accounted the depth. From the length three-fifths of the breadth is deducted; the remainder is multiplied by the breadth, and the proiuct by the depth. The last product is divided tyy 95 , und tho quotlent is deemea the true tonnage of such ship or veasel. See page 1855.

If the ship or vessel be single-decked, the length and breadth are taken aa above for a double-decked vessel, and three-fifths of the breadth are deducted from the length. The depth of the hold is taken from the under side of the deck-plank to the ceiling to the hold. These are multipiied and divided as aforesaid, and the quotient is the tonnage. At some places a system of measuring, called carpenter's tonnage, appears to be adopted. The rule is as follows:
For ressels with one deck, multiply the length ly the breaith of the main beam, and the product ly the depth. Divide this second product by 95 . For doubledecked ressfls, take half the breadth of the main bean for the depth, and work as for a single-decked vessel.
At New Orleans, the mode at present in use is to take the length from the stem to the after part of the stern-post, on the deck. Take the greatest lireadth over the main hatch, and the depth from the ceiling of the holit to the lower surface of the deck at the main bateh. From the length deduct three-fifths of the breadth, multipiy the remainder by the actual breadth and depth, and divide by 95 for a vessel with a siagle deck; but if the vessel have a duabio deck, halt the breadth of the beam is consideredi as equivalent to the depth, and is multiplicd accordingly.

Tonnage Duties.-13y an act of Congress, May 31, 1830, it is ordered that no tonnage duties shall he paid by ships or vesrels of the United States, of which the officers and two-thirds of the erew shald he citizens of the Uaited States; and all aets lmposing tonnage duties on such ship are repealed.

Lnder the provisions of the act of the 27th May, 1848, extending privileges to American vessels, hound from one port to another in the Unitel States, touching at a foreign jort for certain purposes, a boud for the return of the seamen and crew list, prescrited by law in cases of vessels brund on a foreign voyage, is required, and tho seamen must ali he accounted fer.

American vesseis, owned by Americans or others, withnut register, are suliject to a tommage dinty of ons dollar per ton, and 10 per cent. additionat doty on the cargo, as forelgn vesseits.

American-buit vesmeln, owned whully or in part ly foreigner:', are sulject to tomnage duty of thirty cents per tom, and 10 jer cent. additional duty on cargo, miless exempt ly treaty.
American vescels, on arrival from foreign prorts, are subject to a tonnage duty of fifty centa per ten, unless the officere and two-thinds of the crew for the whole voyage aro American cltizens.

The discharge of seamen from an American vessel, although by mutual consent, certified by a consul, will
not exern duty incu vided by or being 1 fied by ar All act and vesse the impos that all di foreign n vantage

Tue Tons Trinet Countri Great 11

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Turkey,
8 princ.
Austria.
Russia.
i'rusela.
Itambur
Bremen
Chiti...
Sweden.
Sorway
Denmark
Spatu.
Hrazll. .
Two siet

* Year

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and are $g$
than as as in the able.-Fo under the to the ton States.

Tonti survivorsl itan, with duced it i in 1653 . according nominces annuity $b$ longest his whole an number. the Fren In 1689 a last survi death, at livres for late celebr for $n \in \leq 100$ lust survi him 5300 aged 103 tine was onerous, that this adopted. gland as $n$ gevernmel
not exempt the veasel from the payment of tonnage duty incurred as above. The only exemption provided by law is in cases of sickness, death, desertion, or being mado prisoners of war; which must be certlfied hy an American consul.

All acts hmposing dutles on the tonnage of the shlps and vessels of foreign nations, so far as they relate to the imposition of auch dutles, are repealed; provlded that all discriminating or countervailing duties of such foreign nations, as far as they uperate to the disadvantage of the United States, have been abolished.

TONNAGE STATISTICS.
 trinetipal Countrias and Porte of Cheistendom.

| orintries. |  | 1851. | 1852. | 1885. |
| :---: | :---: | :---: | :---: | :---: |
| tireat llritain | \{ Ent'd. | 7,872,034 | 7,897,447 | 7,528,937 |
| trreat Iiritam | \{ Cl'd. | 8,108,104 | 8,242,702 | t,479,648 |
| [nited States | FEnt'd. | 4,993,440 | 5,292,880 | *7,186,816 |
| Thitec states | \{ $\mathrm{Cl}^{\text {d }}$ d. | 5,130,054 | 5,2i8,105 | 7,070,821 |
| Franco . . . . . | $\left\{\begin{array}{l}\text { bint } \\ \text { cit }\end{array}\right.$ |  |  | $4,1068,781$ |
| Turkey, from | Ent'd. | $2,121,620$ $1,68,325$ | 2,644,785 | 2,307,490 |
| 8 priuc. ports | $\left\{\begin{array}{l}\text { lid. }\end{array}\right.$ | 1,705,468 |  |  |
| Austria. . . . . | \{ bint ${ }^{\circ}$ d. | 493,861 | 1,233,472 | 1,410,400 |
| Alustria. | \{Cl'd. | 4'18,839 | 1, 026,871 | 1,418,715 |
| Russin | \{ Ent'd. | 472,172 | 647,182 | + 453,549 |
|  | Clid. | 611,808 620,378 | 014,194 032,114 | 097,954 |
| Prusula | Cl'd. | 1,078,818 | 737,943 |  |
| 11am | j Ent'd. | 744,530 | 841.689 | 781,816 |
| 17am | Cl'd. | 743,130 | 846,184 | 774,618 |
| Bremen | $\{$ Ent'd. | 243,200 | 4913,634 | - 493,010 |
| Drener | Cl'd. | 302,248 476,674 | 498,756 | * 500,922 |
| Chill | $\left\{\begin{array}{l}\text { Fnt }{ }^{\text {che }} \text { ( }{ }^{\text {Cld }} \text {. }\end{array}\right.$ | 470,614 |  |  |
| Sweden | SEnt'd. | $2: 19,454$ | 274,226 | $\ddagger 200,889$ |
| Sweden | Cl'd. | 270,640 | 338,834 | - 429,384 |
| Nurway | $\left\{\begin{array}{l}\text { Ent'd. } \\ \text { Cl'd. }\end{array}\right.$ | 295,8 46 | 283,310 | $\ddagger$ 481,479 |
|  | Clid. | $464,6) 6$ $8+1,504$ | 580, 841,824 | 820,309 |
| Deamark (pr.) | $\left\{\begin{array}{l}\text { Clid. }\end{array}\right.$ | $3+1,604$ 312,012 | 341,818 324,328 | .... |
|  | Ennt'd. | 316,781 |  |  |
| N1 | Cl'd. | 308,818 |  |  |
| Brazill | Ent'd. | 383,111 | . $\cdot$. | 634,213 |
|  | OHA, | 373,009 3009 | . $\cdot$. |  |
| Two Slctlies | $\left\{\begin{array}{l} \text { Ent }^{*} \mathrm{~d} . \\ \mathrm{Cl}^{*} \mathrm{~d} . \end{array}\right.$ | 300,260 310,909 |  | $\left\lvert\, \begin{aligned} & 920,088 \\ & 297,031 \end{aligned}\right.$ |

* Year ending June 39, 1855. $\dagger 1853 . \$ 1554 . \$ 1855$.

These statistics are the latest that can be obtained, and are given to show the comparative tonnage rather than as nccurute statements. Several discrepancies, as in the case of the tonnage of France, are unavoid-able.-For more accurate atatistica, see the countries under their proper heads. For the statistics in regard to the tonnage of the United States, see article United Staties.

Tontine, a species of life annuity, with benefit of survivorship, so called from Lorenze Tonti, a Neapolitan, with whom the scheme originated, and whe introduced it into lirance, where the first tontine was opened in 1653. The subscribers were dividal into ten classes, accorling to their ages, or were allowed to appoint nominees, whe were so divided; and a proportionate annuity being assigned to each class, theso who lived longest had tho benefit of their survivorship, by the whole annuity being divided among the diminished number. The terms of this tontine mave been in the French Euclycopedie, Finance Dlvition, vel. iii. In 1689 a second tontins was opened in france. Tho last survivor was a widew, who at the period of her death, at the age of 96 , enjoyed an inceme of 73,500 livers for hor original subscription of 300 livres. The late celebrated Mr. Jemings was an original subseriber for a $£ 100$ share in a tontine company; and leing the lust survivor of the sharehelders, his share produced him $£ 306$;ev annum. Ile died worth $£ 2,115,244$, aged 103 years, June 19, 1798. The last French tontine was opened in 1759. They had been found very onerons, and in 1763 the Council of State determined that this sort of ilnancial operation should not be again mlopted. Tentines have oeldem been resorted to in England as a measure of tinance. The last fer which the governrient opened subscriptions wss in 1789. The
terms may be seen In Hamilton's Hist. Pullic Revenue, p. 210. There have been nunierous private tontines in England and in the United States. The Tentlne Bullding, Wall Street, New York, was erected during the years 1792-1794, upon this principle, by an association of merchants. By the constltution under which the assoclation was formed, 203 shares were sulscribed, at $\$ 200 \mathrm{a}$ share, severally depending upon a lifo selectell by each subscriber. T'he old building was razed to the ground in 1855, and was superseded in the bame year by a subatantlal edifice.

Top, a sort of platform surrounding the lower mastherd, from which it projects on all sides llko a scaffold. The principal intention of the top is to extend the angle with the mast, and thereby give edditional support to the latter. The tep Is alse very convenient to contain the materials necessary for extending the small sails, and for fixing and repairing the rigging and machinery with greater expedition. In ships of war the tops are furnished with siwlvels, musketry, and other firs-arms, and are guarded with a fence of hammecks in time of action. Flnally, the top is empleyed as a place for looking out, either in the day or night.-E. A.

Topaz (Ger. Topas; Fr. Topoce; It. Topozio; Sp. Topacio ; Russ. Topas). The name topaz has been restricted by M. Hauny to the stones called by mineralogists Occidental ruby, topaz, and sapphire; which, agreeing in their crystallization and mest of their properties, were arranged under one species hy M. Romé de Lisle. The word topaz, derived from an island in tho Red Sea, where the ancients used to find topazes, was applied by them to a mineral very different from ours. One variety of our topaz they denominated chrysolite. Color, wine yellow. From pale wine yellow it passes into yellowish white, greenish white, mountain green, sky blue; from deep wine yellow into flesh red and crimson red. Speclific gravity from 3.464 to 3.641.-THomsox's Chemistry.

Yellow Topaz. - In speaking of the topaz, a gem of a beautiful yellow color is always aderstoed: it is wine yellow, of different degrees of intensity; and the fuller and deeper the tinge, the more the atone is eateemed. In hardness it ylelds to the spinelle. There ari fow gems more universal favorites than the yellow topaz, when perfect; the rich warm tone of its color, the vivacity of its lustre (which it retains even by the sido of the diumond), and its large size, compared with many others, are characters which deservedly entitle it to distinction; it bears, accordingly, a high price when of gooul quality. It is chiefiy employed for necklaces, ear-drops, bracelets, etc., in suit. No littlo skill and taste are required in cutting and duly propertioning this gem; the table should to perfectly symmetrical, and not too large; the bizel of sufficient depth, and tho collet side should le formed in delicate steps. It works casily on the mill, and the lapiduries are in generul tolerably well acquainted with it; yet it is uncommon to meet with one well cut. The yellow topaz varies in price according to its leauty and perfection. A superlatively tine stone, perfect in color and workmanship, sufficiently large for an armlet, or any other ornament, and weighing nearly 80 carats, was seld for £100. Topazes have become more common since onr intercourse with Brazil ; consequently, they aro less in demand, and lower in price. A fine stono of 60 carats may bo purchased at from $£ 20$ to $£ 35$; and smaller, calculated for ring stones, at from $£ 2$ to $£ 5$, but it is not usual to sell them by weight.

Pink Topaz.-This is made from the yellew, which, when of intense color, is put into tho howl of a tobacce pipe or small crucible, covered with ashes or sand : on the application of a low dezree of heat, it changes its color from a yellow to a be, , if 1 pink. This is performed with Jittle hazaru; a; : $f$ the color produced happens to be fine, the price is much augmented.

Red Topaz. - This beautlful gem, which very seldons occurs naturally, is of a fine crimson color, tinged
with a rich brown it is extremely rare, and generally taken to be a variety of ruby, for which I have seen it offered for sale. Its price, from Its scarclty, is quite capriclous; it has an erquisite pleasing color, vary different from the glare of the antificial plak topaz.

Blue Tupas is also a beautiful gem, of a tiae celestial blue color. It has occurred of considerable magnitude; the finest specimen known I brought in the rough from 13razil; when cut and polished, it welghed nbout $1 \ddagger \mathrm{oz}$. Smaller specimena are not nncommen, and when light-co'rred are often taken for aqua-marinas, from which they may always bo distingulshed by their greater welght and hardness, etc.

White Topaz is familisrly called Minas Noev. It is a beautiful pelincid gem, and is used for bracelets, neeklacea, etc. It possossea greater brllliancy than crystal ; and, from its hardness, has been used to cover paste, etc., and to form doublets."-Mawe on Diamonds.

Top-mast, the sccond division of a mast, or that part next alove tho lower mast. Top-gallant mast, the mast next alsove the top-mast, and is generally the uppermost mast. Top-snils, large sails extenillng across the top-mnst. Top-grallan sails aro extended nlove the top-sail yards, in the same manner as the top-salls are extende above the lower yards.

Tornado (Spanle 1), a violent hurricane or gust of wind, which, arising i uddenly from the shore, veera round to all points of tl. 9 compass, and indeed has been lescribed as blowing $f, \mathrm{~m}$ all joints at once. Tornuloes are usually acco yanled with thunder-atorms, nul nre generally of short turatlon. They are freguent in the Chincse seas and tle West Indies.

Toronto, eity, at one l'me the capuial of Canada, is situated on Torunto lhay, in the township and county of York, Int. $43^{\circ} 32^{\prime} \mathrm{N}$. , long. $79^{\circ} 20^{\prime} \mathrm{W}$. It is 45 siles northeast fro Tamilton, $16 \mathbf{i}$ miles west from Kirgeston, $363 \mathrm{~m} . . . \mathrm{f}$, from Montreal, itil miles from Quebec, and isib3 from ilalifax, Nova Scotia.

The liny is $n$ heantiful sheet of water, separated from the main lesly of Lake Untario, except at its entrance, hy n long narrow strip of sandy beach, tho southwest termination of which is known as "filmultar foine." The city was founded in 1794 ly. Governor Simcoe, and is laid out in the form of $n$ parallelogram, heing alove three miles long by one and a half wide; tho streets, which are straight and wide, intersecting at right augles. The esplanale fronting the hay extends for a distance of two miles. In 1817 the population nnumnted to 1200 ; in 1830 to 2860 ; in 1842 to 15,386 ; in $1 \times 50$ to 25,166 ; in 1852 to 30,763 ; and in 1854 to over 10,000 . The city ia lighted with gas, nall is well sujpplied with water, by companies incorporated for thome purposen.-Ste Thang. From Toronto the cap-
 estahlished at Ottawa, fommerly lityown.

Tortoise-shell (Fr. Ecaille de Tortue; It. Scaglia de Turturugu; Gier. Schilpad; Malay, Sisid dmakurn), the brown and yellow senles of the Testude imbrieata, or tortoise, a native of the troplcal seas. It is extensively used in the manufacture of combs, anuffkoxus, etc., and in inslaying and other ornamental work. The beat tortense-shell is that of the Indian Archipelago: nul the finest of this quarter is olitained on the shores of the Spice Islands and New (ininea. When the finent Weat Indian tortoine-shell ia worth, in the London market, 46as, the fineat Fant Indian is worth 60 s . $\mathfrak{6}$ It. I mher the later name, however, a great deal of inferior ahell im inported, lrought from various parts of the Finst Intiea. The goodness of tortoisewhell dejenda mainly on the thickness and aize of the wales, and in a smaller degree on the clearnens amb lirilliancy of tha colors. liefore the opering of ite isritish intercourse with Indin, the greater part of the tortuise-shell which eventrally found its way to Eurupe was first carried to Canton, which then formed he principal mart for the commolity. It ia atill ant
article of trade from that city; but the Imports and exports are Inconslderabie, Slagapore belng now the chief mart for this artlele. I is price at the latter varies from 750 and 900 to from, 1000 to 1600 dollars per pleul, according to quality.-('Rawpuns's Indimad rehipelago; Sinsapore Chronicle, Canton Register.

Toulou (Telo Martiss), a commercial and important militury and naval port of France, departmer.c of Var, on a fino bay of the Mediterranean, 40 miles southwest fron I)ragulgnan. Lat. (of observatory) $48^{\circ} 7^{\prime} 5^{\prime \prime} \mathrm{N}$., long. $5^{\circ} 56^{\prime} \mathrm{E}$. Pofalntion, 40,000 . Mean teinpera. ture of year, 620.2 ; :vinter, $48^{\circ} .6$; вummer, 76.2 Fahrenheit. It is atrongly fortified, defended hy a double line of bastioned fortifications, and strengthened by forta on the aljacent heights. The Freneh con, sid $r$ it impregnable. It has a tribunal and chmmber of commerce, tribunal of marine, achool of mavigation, comnencial college, and public library. The strects are watered ; $y$ numerous fountalns. A round the har. bor are immeiras magazines and arsenals, ahip-building dieks, rope athi sail-worka, and the bague or conviet prison, ua,nlly oceupled by 4000 to 5000 culprits. Toulon was originally a Roman colony; it was taken ly the constable of Bourbon in 1524, and ly Charles V. in 1536. It was given up to the English in August, 1793; in INecember of the same year It was taken by the French republicans, ifter a memorable siege, luring which Nnpoleon commenced bls military career. Toulon-sur-Arrotur ls a commine and village, department of Snone-ct-Laire, elighteen miles north-nortliwest fromi ('havollea. Population about 1700.

Toys (Ger. Spirlzeug, Speilaachen; Inu. Sperfgied: Fr. Jonets, Simbelots ; It. Trastulli; Sp. Jijes, Juyuetes de nimnos: Russ. Jgruahki) include every tritling srticle made expressly for the amusement of children. How frivolous soever these articles may appear in the entimntion of auperticial observers, their mumbacture employs thousands of hands, and gives brend to many famllies.

Children's toys are brought in immense numbers from the hilly regions of Germany, Austria, and Switzerland. The forests aupply nbundance of timber ${ }^{+}$ very low cost ; and the peasant mountalncers, simple and frupal, employ their lelsure hours and the time of their children in: fabrieating these articles. Dealers are aure to lie found who will drive a trade in these tritlea in sume conntry or other. The Art I'nirn. Jinrnal, a few years ngo, gave some curlous information conceming the better kind of carved German toys: "The thest German toys come from the town of sonineberg, on the southeastern frontior of the forest of Tharingia. It has a pepulation of 4000 Inhalitants, of which the greater part are employed in the trade. The prineipal toy-merchants, numbering about thirty, provide themselves with gools from many hundred ditlerent mukens of common articles, resident in the town and its vielnity; these, again, are furnished liy the urighe boring villagers with the requiaite ronghly-p repared articles in woal, whlch nre fitted up, carved, and painted hy the makers in the town. Every year abont :3, (0.0) cwts. of these goods are expration to almont every part of the world, but the manufactu ars are confinet to the use of wood ar pastelound, or these two materials combined. The hatory from which the iswt tow are derived in that of Adoljh Flojachutann, whe cmploys none but tirst-rate workmen; and it is lateresting to notice the many admiraile proviuctions these muducated artists [rosluce-molela and groupugga of ligures that would cast no ilserelit on the atelier of a lhailey or a Weatmacutt."

Trade, Board of. Spe Boalıs of T1,31н. p. 312.
Trade-winde (so called from their favoring commerce), easterly wimia whleh constantry proviil, with Nlight variatluns, within the tropies. It is a common notion thut the nurtheast trade-wind hows exuctly from the northeast puint nearly to the equator, when it gradually becomes more nud more ensterly, till at
lengt trade. winds nbout a shif every found and, a east, n east $t$
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mous s:
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son's $I$
Gnllatir
length it blows due erst; and so with the seutheast trade. 'I'his notion is, however, erroneous. The tralewinds in the Atlontic and Pacific oceans extend to about $28^{\circ}$ of latitude each side of the equator, so that a ship, after passing $80^{\circ}$; may expect to enter them every day. But, on firet entering them, they will be found to blow from the east, or even a little southerly, snd, as you advance, to draw round gradually to northeast, and even north, at, the oouthern limit of the nertheast trade, where it is commonly represented as being dae east. This limit varies with the position of the sun, reaching, when the sun has a southern declination, to within three or four degrees north latitude; and, as the sun acquires a more northern declination, receding ten or twelve degrees from the equator. At this point the mariner enters the region of calms and variables, as they are called, where the wind has more or less sontherly direction, nnd sometimes blows freshly from the south-sontiswest. This region varies from 150 to 550 miles, and is suhject to heavy rains. On passing this range the southeast trade begins, and is subject to the same phenomena as the northeast. To the nerth and south of the northeast and the southeast trades wester$1 y$ winds will be found generally to prevail, though less regular in the northern than in the southern hemisphere; and it has been remarked that the average of the pasanges made by the Liverpool packets from New York out, for n period of six yenrs, was twenty-three days, and from Liverpool to Now York, that is, from enst to west, thirty-elght days,-E. A. See Wisns.

Trade-winds is a name given to certain remarkable serial currents, on account of thoir sinal ald to navigation. In those parts of the Atlantic and Pacific ocenns which aro remote from the influence of the land, between the limits of aboat $28^{\circ}$ or $80^{\circ}$ north and south latitude, there is a constant ensterly wind. On the north side of the equator it hows from between the north and east, and on the south side frem tho south and east, nccording to the distance from the equator; these winds aro called the northeast and southeast trade-winde, and are the cold currents of air flowing from the poles to the equator, altered in direction by the rotation of the earth upon its axis. The direction and extent of the trade-winds vary with the aeasons of the year, and in different parts of the world their course is entirely altered, the most remarkable modification shown being the monsoons.-Nee Monsoons; also, articles Atlantic Ocean, Gelf Stream, Cenuents, Winds.

Tragacanth, a species of gum, the produco of the Astragnius tragacantha, a thorny shruh growing in Hersia, Crete, and the isinnds of the Levnnt. It exudes about the end of June from the stem and larger branches, and soen dries in the sun. It is inodorous, inpressing a very slightly litter taste as it softens in the month. It has a whitish celor ; is semi-transparent, and in very thin, wrinkled, vermiform pieces; it is brittle, hut not easily pulverized, except in frosty weather, or in a warmed mortar. It should be chosen in long twisted pieces, whito, very clear, and free from all other colors; the brown, and partleularly the hack pieces, shcald be wholly rejected.-Tuomson's Chemistry: 'luomson's Diepensatory; Miluurn's Oriental Commerce.

Treasury Notes. A specius of Treasury Notes, termed Continental currency, was lasned by order of tho Continental Congress. This dopreciated rapidly, and no provision was mado afterward for its redemption by Congress. The amount issned was estimated at $\$ 400,000,000 ; \mathrm{Mr}$. Jefferson calculated that the real value given for theso notes was only $872,000,000$. The assignats of the French Republio during the revolntion were authorized by the National Assembly, in April, 1790. At one period they amounted to the enormous aum of eight millaris of francs $(8,000,000,000)$, or erpivalent to nearly $£ 350,000,000$ sterling. - Als son' a History of Eturope. In May, 1812, Mr. Albert Gallatin, Secretary of the Trensury, recommented the
lesne of Treasury Notes to the extent of $\$ 4,000,000$, repayahle one year after date, and recelvable in the mean time for government dues, and bearing 5 2-5 per cent. interest. Theas were autherizel by act of Congrese, June 80, 1812. Tressury Notes wore also suggested by Mr. A. J. Dallas, Secretary of the Treasury, in January, 1815. He reported that the Treasury would require for the fiscal year $\$ 40,906,124$ in addition to the ordinary revenue (bee Funding Syotem. U, S., p. 607), of which $\$ 15,000,000$ was to be in 'Treusury Notes at 5 2-5 per cent. per annuin (or about $1 \frac{1}{2}$ cent per day for every hundred dollars).

Up to December 4, 1819, the amount iseued was \$36,680,704, viz.

| By act of | 20th June, 1812 | \$ $\mathbf{W}_{5}^{5}, 0000,000$ |
| :---: | :---: | :---: |
| 4 | 25th February, | 6,00n, 090 |
| " | $4 \mathrm{l}_{1}$ Starch, 1814 | 10,060, 6009 |
| " | 20th December, 1814 | $8,1218,490$ |
| ${ }^{4}$ | 24th February, 1815 | $8,302,894$ |

Of this monnt all were redeemed prior to October 1, 1824, except 819,756 . Further issues of Treasury Nutes was made under acts of 12th October, 1837; 21st May, 1838 ; and 2d March, 1839. From the year 1812 to 31st December, 1843, the tetal lisue of Treasury Notes was $884,611,833$, and amount received from loms $898,360,112$, viz. :

| Veate. | Luans, | Trensury Notes. | Tolal. |
| :---: | :---: | :---: | :---: |
| 1812 | \$10,032, \$ 10 | \$ $\$ 2,835,510$ | \$12,937,900 |
| 1513 | 20,089,035 | 6.094, 800 | 20,184,495 |
| 1814 | 15,080,546 | 8,207,30\% | 23,377,911 |
| 1515 | 14,857,423 | 20,406,907 | 85, 204, 820 |
| 1816.......... | 1,357,686 | $8,130,849$ | 9,494,436 |
| 1817.......... | .... | 734,542 | 734, 54 |
| 1819 |  | 8,765 | 8,765 |
| 1819 |  | 2,291 | 2,201 |
| 1820........... | 3,040,000 | 824 | 3,040,82.4 |
| 1821.......... | ".10.900 | 39.4 | b,000,324 |
| 1837 . . . . . . . . . |  | 2,932,989 | 2,992,980 |
| 1838 . . . . . . . . |  | 12,710,820 | 12,710,820 |
| $1539 . . . . . . .$. |  | 3,857,276 | 3,807,276 |
| 1841 |  | $5,584,547$ | $5,5839,547$ |
| 1841 | 5,665,756 | 7,993,560 | 13,650, 317 |
| 1843 | 11,383,405 | $3.425,329$ | 14,509,735 |
| 1543 | 11,853,358 | 1,518, 150 | 13,401,608 |
| Total. | \$198,360,112 | \$84,611,833 | \$182,971, 046 |

Of the issues between 1837 and 1843, there were oatstanding September 30, 1847, 8239,789. Further emissions were authorized by act of Congress, under date of 23d July, 1846, and 28th January, 1847 ; $\$ 10,000,000$ by the act of 1846 , not exceeding 6 per cent. interest ; and $\$ 23,000,000$ by the act of 1847 ; and a further issue by act of December, 1857,

In March, 1858, the bills for the new issuo of Treasury Notes were opened at tho Treasury Department. The result was, that $\$ 2,600,000$ wero taken at rates vnrying at $3 \frac{1}{3}, 3 \frac{9}{4}, 4,4 \frac{4}{4}, 4 \frac{1}{2}$, and $4 \frac{4}{4}$. The remainder of the $5,000,000$ was taken in 5 per cents. Some of the lids were for permanent investment, whlle others were for spaculation.

There is a species of Treasury Notes in commen use in England, known as Exehequer Bills. These were first ereated in the year 1696, $t$ wo years after the incorporation of the Bank of Englaiad. They have been issued annually ever since. These bills bear an interest of $1 d, 1 \frac{1}{2}, 2$ or $2 \frac{1}{4}$ pence per day on ench $£ 100$, equivulent to $1 \frac{1}{3}$ (c) 3 per cent. per annum. Of these lills there were issued in $1852, £ 17,742,800$, nt $11 / d$.; $1853, £ 17,742,500$, at 1 d . (1) $2 d$.; 1854, $£ 16,029,600$, at $21 d . ; 1855, £ 17,183,000$. These are a favorite investment for short periods.-See Excurequen.

In 1708 the Empress Catharine the Second, of Russia, estahlished the Banque d'Asslgnat, to issue government notes payable to bearer. The nmoant at flrst issued was $40,000,000$ of reubles. In 1786 the amount was extended to $100,000,000$, and they soon after rapidly deprecinted.

Treaties, Commercial. By a commercial treaty is meant a treaty between two independent nations, for facilitating, and most commonly also regulating, the commereo carricd on between them. Durine the

Middle Agen, and down, indeed, to a comparatively reeent period, forvignera resident in a country, whether for commercial or other purposes, were foz the most purt suliject to very harsh trsatment. At one time it was usual in England to make allens liable for the debta and crimes of each other; and the practice, formeriy so cemmon, of luying heavier duties on the goods limported and exported by aliena than by Ilritish snbj_cta, fs not oven yet, we grieve to say, altogether abandoned. In France and some other countries, during the 14 th and 15th centurlea, a stranger was incapaijie of bequeathing property by will; and the whole of hils personal as well as real estate, fell, at his denth, to the king or the lont of the barony. This barliarous law was known ly the name of Irwit d'Aubaine, and was not completely aholished in France till a very late period.-Ronehtson's Charles V'., vel, 2. Previously to last century, the laws with reapect to nhipwreck, though infinitely more humane than they had been at a more remote period, were calculated rathor to promote tho interest of the sovereign of the ccintry, or the feudal lends on whese territories chipw secied vessels might be thrown, than those of the upfortunate owners or survivers. The mest serious obstacles wero then also opposed by the prevalent insecurity, and the arhitrary nature of the tolls which the lorde wece in the habit of exacting, for the transit of commeditics through the territories of one state to those of another. The jractice of confiscating shipwrecked property cuntinued in France till 1681, when it was abollshed by an edict of Loula XIV. It was at one time common in Germany, to use the words of N. Bouchand, "pour les predicateurs de prier Dieu en chaire, qu'il se fasse bien des nnufrages sur beurs cútrs?"-Thiorie des Traites do Commerce, p. 118. And the fact that the celehrated jurist Themasius wrote a dissertation in defense of sach prayers, affords, if possible, a still more striking proof of the spirit of the period.

Vnder such eircumstances, it became of much imporcance for commercial states to endeavor to olitaln, by means of treaties, that protection and security for the persons and properties of their sulyects, when abroad, against unjust treatment and vexatious exaction , thich they could not have obtained from the laws ot tom countries in which they might happen to reside. "hus it was atipulated hy Eilward II., in 1325, that the merchants and mariners of Venice should have power to come to Eugland for ten years, with liberty to kell their merchandise and to return home in safety, " ucithout hurring either their persons or goods stopped on account of other jeople's crimaes or debts."-A noenson, anno 1825. The commercinl treatiee negotiated during the $15 \mathrm{th}, 1 \mathrm{th}$, and 17 th conturies, are full of similar conditions; and there can be no doubt that by provid. ing for the security of merchants and seamen when abroad, and suspeniling, with respect to them, the harbarons lawa and practlees then in force, they contributed materinlly to accelerate the progress of commerce and civilization. Commercial treaties were also negotiated at a very early periol for the regulation of neuteral commerce during war, and for defining the articles that should he deemed contraband, or which it should not be lawful for neutral ships to convey or carry to either lelligerent. There are olviously pointa that can only be derided lyy express stipulations,

Instead, however, of confining commerclal treatles to their logitimate and proper purposes-the security of merchants and navigatora, and the faclity of commercial tranmactions-othey very soon legan to be employed as engines for promating the commerce of one country at the expense of another. For more than two centuries, those engaged in framing commercial treaties have princlpally applied themselvea to secure, either by force or adilress, some exclusive advantage in faver of the ships and products of their particular rountries. Hence these compacts are full of regulathus as to the duties to be charged on certalu ertleles,
and the privileges to be enjoyed by certain shlps, according as they were either produced by or belonged to particular countries. It was in the adjustment of theee duties and regulations that the skill of the negothator was chieily put to the test. It was expected that he should be thuroughly acquainted with the state of every branch of isdustry, both in his ow conatry and in the country with which he was negrotiating: and he was to endeavor so to adjust the toritt duties, that these branclee in which his own country was deficient might be benelited, and those in which the othcr was superior might be depressel. The ldea of conducting a negotlation of this sort on a fair priuciple of recipiceity is of very late oricin; success in circums. venting, in overreaching, or ln extorting, from fear or ignorance, zome oppressive, lut at the same time worthless privilege, was long esteemed the only proof of superior talent in negothators.

In an able tract, attributed to Mr. Vden, afterward Jorl Anckland, published in $178^{\circ}$ ( Ihistorical anel Po. litical Remarks on the Toriff' (f the Freneh Treuty), there ls the following outline of the qualificutionk necessary to the negotiator of a conmerclul trenty: " lesides as general knowledge oi the trade and reciprocal interests of the contracting parties, he ought to he precisely acquainted with their several kinds of industry and skill; to discover theiz wants, to calculate their resuurces, nud to weigh with nicety the state of their finunces, ased the proportionute interest of their moncy; nay, further, he shonid he aule to ascertain the comparative populstion and st rength of each country, together with the price and quality hoth of first materials, and also of the lator bestowed upen them: for this purpose he whould inquire into the operations of every class of merchants and munufucturers concemed in the trade; dhould consalt their expectations on each of its several hranches; and collect their hopes and feara on the effect of such a commercial revolution, on the competition of rival nations. A good treaty of commerce, independent of the art of negetiation, is pronounced, by one who well knew the extent and diticulty of the subject, to be a 'master-piece of skici,'"

It is visionary to lmagine that any nation will ever contintio to grant to another any exclusive advantage in her markets, unjeas she olitain what she reckons an equivalent alvantage in tho markew of the other. And if a commercial treaty stipulating for an excluse ive privilage he really and bona fide olserved by the country granting the privilege; we may be sure that the concessions made ly the country in whose favor it is granted ere ufficient fully to cobintervail it. Those who grusp at exclasive privileges in mutlers of this sort, or who attempt to exturt valuable cencessions from the weakness or ignorance of their neighbors, are uniformly defeated in their olject. All really lieneficial commercial trnnasctinas are bottomed on a fair principle of reciprocity; aud that nathon will alwsys flourish most, und have the fonndutions of Ier pros. perity best secured, whe is a unlversal merchonl, and deals with all the world on the same fuir and liberal priniples.

As early as 1783, Mr. Pitt, then Chancellor of the lixchequer, proposed a bill in the British lurliament. lused upon the liberal principle of "admitting to all the ports of the Ilritish dominion Ameriman vessels londed with gools the growth or prodluce of the l'nited Statex, on the ammo termas as Iritisll vessels or goods:" liut the proposition at once startled the fears of the Iritisll merchanta, whe, with the ald of Jood North, Mr. Fox, and Lord shethehd, sucereded in transferring the whole sulbject to the disertion of the king and his council. The consequence was, that morder was inmediately issued, not only excluding American veasels from all participation in the colonlas trade, but prohihiting the exportation from the United States of provislens and fis 1 , even in British bottoms.

[^51]English Treaties. - The tirst formai and written treaty $\mid$ and Spain, 1308.-Annenson. The chtef treatios of the madu by England with any foreign nation was entered into A.j. 1217. The tirst commercial treaty was with the Flemings, 1 Edward, 1272; the aecond with Portugri
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| Wilng, treaty of. . . . . . . . . . . . . . . . 1 | 1561 |
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| Wurtzburg, treaty of . . . . . . . . . . . 1 |  |

Treatics of Commerce and Navigation betucens the Unitel Stules and foreign Nations,-The Untted States has treaties, conventions, or reciprocal regulatiens of commeree and navigation with thirty-eight foreign nations, all of which are in force, either in pur ranco of the stipulations and tekns expressed thereitit respectively, or hy virtue of decrees, royal orders, or other local regulations on the part of foreign governments, on the one side, and of proclumations by the President of the United States on the other. The difficulty of reforring to any partieular treaty, or of ascertaining at a glance the precise character of the commercial regulations of nny particular conntry, is ob-
vieus. With a view, chiefly, to remedy this inconvenience, the following summary of these trealies has be en prepared; and it will enable all interested in the fo. itgn trado of the United States readily to ascertain the footing on which our commerce and navigation are placed in foreign countries with which treatics exist, and the treatment to which the commerce and navigation of such forcign countries, respectively, are entitled in the porta of tha Unitod States.

The following are the forcign countries, arranged in alphabetical order, between which and the United States commercial treaties are now in foree, with the dates of such treaties, respectively:

| Argentine Confederation.......... July 10n | T, 155. |
| :---: | :---: |
| Atuatria . . . . . . . . . . . . . . . . . . . . . . Anguat | $27,1819$. |
| 16elfiuth . . . . . . . . . . . . . . . . . . . . . . Norember | 10, 1845. |
| Itolivin . . . . . . . . . . . . . . . . . . . . . . . November | 30, 1536. |
| Horneo . . . . . . . . . . . . . . . . . . . . . . . June | 23, 15.50 |
| Chlll . . . . . . . . . . . . . . . . . . . . . . . . Mny | 16. 1332. |
| China ............................. duly | 8, 1844. |
| Conta Rica . . . . . . . . . . . . . . . . . . . . Jaly | 10. 185 t . |
| Deninark . . . . . . . . . . . . . . . . . . . Aprit | 26, 18: 6. |
| Ecuador . . . . . . . . . . . . . . . . . . . . . . dtine | 13, 160 |
| France............................ . ${ }^{\text {dune }}$ | 24, 1828. |
| Great İritain ..................... . Jaty | 11, 1815. |
| Cinatemala ........ ............. March | 3.1849. |
| llanover ......................... June | 10, 18443 |
| 1lollatid ...................... . . . Augnst | 26, 1852. |
| Jlanse T'owns, . . . . . . . . . . . . . . . . . . Jlcember | $20,1827$. |
| Japan. . . . . . . . . . . . . . . . . . . . . . . Marelı | 31, 185-4. |
| Meehlenborg Schwerin . . . . . . . . December | 9, 1847. |
| Mexico ........ April 5, 1831, and February | 2, 1843. |


| Moroceo | September 10, 1536. |
| :---: | :---: |
| Muscat | September 21, 1833. |
| New Giranada | December 12, 1346. |
| glatuburg | Marels 10, 1847. |
| J'eru. | July 26, 1551. |
| 1 'ortugal | April 23, 1841. |
| 1'russla | May 1, 1828. |
| 1kussia | Oetober 0,1882. |
| San Salvador | July 2, 1850. |
| Sandwleh 1slands | Deecmber 20, i849. |
| Sardinia | November 26, 1838, |
| Slam | April 14,1836. |
| Sweden and Nor | Jaly 4, 1827. |
| Swilzerland .. | November 9, 8855. |
| Tripoll | Inne 4, 1805. |
| Tunis. | Fobruary 24, 1824. |
| Turkey | May 7.1830. |
| Two Sictit's | Deeember 1,1845. |
| Venczuela. | January 20,1830. |

By virtue of notice from the Unlted States, tho treaty with Denmark "ceased and determined," in accordsnce with the llth article of the same, April 1t, 1856.

On the 24th of May, 1828, an aet was passed ly the Congress of the United States, respoct ${ }^{1-4 g}$ commerce and navigation with forelgn matlons, 1,10 followlog words: "/he' it enacted, efe., That, 11 i. :isfactory evidence being given to the President $\therefore$ atse United Statea, by the government of any foreign nation, that no diseriminating duties of tonuage or impost aro inposed or levied in the ports of the said nation upon vessels wholly belonging to eitizens of the United States, or ujwin the produce, manufactures, or merchandise injrorted in tho same from the United States, or from any foreign coantry, the President is leroby autherized to issue his proclamation, declaring that the forcign diacriminating datles of tonnage nud inupost within the Cnited States are, and shall be, suspented and discontinued, so far as respects the ressels of the suld foreign nation, and the produce, manufactures, or merchandise imported into the United States in the sanes, from the sald forelgn natien, or from any other forcign conntry; the snid suspension to tnke effect from the timo of such nethication being given to the I'resident of the Jnited States, and to continus so loug as tho reciprocal exemption of ressels belonging to citlzens of the Linited States, and their cargoes, as atoresaid, shall bo continued, and no lenger."

Hy virtuo of proclamatiens issned by the l'resident of the Linited States, in accordnnee with the provisions of the law nbove recited, vessels belongines to 'luso cany, Hrazil, and Chili, are aduitted into the ports of tho Thined States on the samo terms as American vessels, with the produce or manufactures of their own, or any wher country; similar reciprocity being granted in those countries, respectively, to vessels and cargoes of the Linited States. Tho dates of the proclamations of the I'resident respecting these countries ato as follows: Tuscany, September 1, 1836; Hracil, November 4, 1817 : Chili, November 1, 1 sto.

By the President's proclamation of June 7,1827 , vessels of the lontifical states are admitted into the ports of the Linited States on the same terms as A merican vessels only when laden with the produce an ! manafietures of said l'ontifical states; and by simiar proclamation of April 20,1847 , French vessels in hallast, or laden with the produce of St. J'ierre and MigueJon, and coming directly from those islands, are treuted iuports of the United itates as national vessels. Likn favors antl privileges are, of course, conceded to vessels of the Lnited States In the I'ontitical states, and at the islands of St. I'ierre ar: : Micuclon, respectively.

Summary of Treatios with the linited Strites.-Arentine Conferleration.--Traties of July 10 and $27,1 \times 03$, both protlasmed Apris 9,1855 . The fornerer relates to the navigntion of the rivers J'arana and Uruguay, and the latter establinhes and regulates frieadship, connmerce, and nuvigation betweea the Argentiae confederation and the tinited States. I) uration of looth undefincd. Luited states vessuls enter all the places aut ports on the rivers Parana anul Vragnay which leloug to the Argentine Confeleracy, and which are open to commeree, on the paymant of the same costom-house duties, larlor, light, police, and pilotage dues that are paid by the vessels of tho most favored nation. This restriction to equality with the vessels of the most favored nation is qualitied and enlarged by the treaty of July 27, 1853 , which equalizes the vessels of the Enited States in all the places, ports, rivern, and territories of the confederation, with tie untional fiag, as to tonnabe, lifht or harhor dues, pilutage, salvage in case of shipwreck, or eny other local charges whatever. Merchandina introduced into any purt of the territories, ports, or places of the Argentine Confederatiou, in vessels of the United states, is treated, in respect of daties ent all other charges, as if imported in national ves-
sels ; and if such merchandise be of the growith, produce, or manufacture of the Inited States, it Is aulyject to no other or higher dutjes than slmilar morchandise, the growth, produce, or manufacture of any other country. In regnrd to oxports, United States yessels enjoy equality, as to drawbucks and bonuties, with the mational flag. The province of I uenos Ayres havlug aeceded from the other jrovinces of the Confederation, decreen have been lasued hy the federal power which afteet, in some respects, the commerelal regulations ef the rejublic. The latest decree of this kind is one improsing heavy diderential daties on forelgu merchats. dise introduced Into the other, or fluvial provinces, through the port of Buenos Ayres. This der s, should it be carried into efleet, will divert from tha, $\quad * t$, heretolore the getheral depot for the trade of the other grove laces, such foreign morehandise as is leatined for the diflerent polnts on the I'nrana and the Uruguay rivers.

Anstria.-Treaty of August 27, 18:29, to continue in force ten years from Felrnary 10, 1831, with the twelve montls' notica stipulation. United States vessels are trented as national vessels, coming from tho same places, in Austrian ports, whether in the dlrect or indirect trude. The aamo duties are charged on importa. thons inte Austrian porta, whether of merchandise the growth, produce, or mumufacture of the United States, or of any other country; and these duties are no higher than on similar merchandise from any other comery. Any favors hereafter granted by elther party to the commerec or navigation of anothe: country to become common to the other party on like conditions. The treaty estallishos perfect equality between the dagrs of the tiwo parties in the ports of each.

Helgium. - Treaty of November 10, 1845, to contiave in force ten years from the $30 t h$ SIareh, 18-16; each party reserving the right to renounco tho treaty after the cxpiration of that period, on giving to the other twelve months' notico of its intention to do so. United States vessels pay the smme duties of tonnage, pllotage, anchor. ate, boys, lighthouses, ch ance, brokerage, and all other charges, as lieldian vessels. Thia equality applies, no niatter whence tho vessel comes. The lichinan governmutut guarantees restitution for any duties levied by IIulland on Enited States vessels navigating the Scheldt. Steam-vessels of the United States engaged in regular asvigation between the United States and lelgium aro exempt from the payment of daties of tomare, anchorage, louys, and light-houses. Vessels of botif purties enjoy, as to coasting trade, equal privilege with the most favored nation. The traty restricts the equality of thags, as to duties, to the direet trade, hut contnins a clanse providing that, "it is well undrestood, 1st. That tho goods slull have been really put on board in the ports from whleh they are declared to have come; 2d. That putting in at an intermediate port by uncoutrollable circumstances, duly proved. does not occasion the forfelture of the advantage allowed to direct importation." In the indirect trale, the tlag of the United States ls placed on an "cquality with the thar of the most favored mation-exerpt the nation of production-as to inmort duics. The in. portations of salt, and of the produce of the national tisheries, are excepted from this equality. A law of the helprian government, of Jume 8,1853 , provides thas "the government, mpowered to allow vessels jrocecding from trans-Atlande comntries, or from a port theyond the Straits of Gibraltar, to touch at an intermediato port, whether for the purpose of receiving orders or carrying on commereinl transactions, by discharging or receiving eargoes." Jhis law, while it reunains ia force, suspends the practical operation of that article of the treaty restricting the equality of lags to the direct trado; under its operation, the llag of the United States is equslized with the Ilelgian flag, whether the vessel proeveds from a port In tho linited States or net.-See Ifrport from Itepurtment of Stat, Lix. Doc. No. 2, 31th Congress, 1st session, j. 130.

Bolier Priends 1856. 1 lamatlo October twelve ona yea Intentio Stater v port of legea, most fa either o ed in th want of mies, be they slin all favo to their eles of portatio importe aro sulj and arti el natic states a commer sale of their re vessels. and was foderate subsequ Bolivin, was ent force, h January freo to t the nuti rivers, empty i of a trea guay, t mado fr
Born 11, 1853 Hood un of the $t$ one doll vossels thls fix dutios sels suls, importa no proh or expo manufar exempt permitt, parts of priviler nations. acquire, in the d

Chine Aprion ed State piration tion, to sary to lating to Vessels ports on Foo-cho ports, us
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Bolirio.-Treaty, or general convention of peace, friendship, commerco, and navigation, of November 18, 1856. Latitications exchanged May 28,1838 , and proclamation of the President of the Unlted States issued October 3 of the same year. To continue in forco twelve yoars from date of ratification, and further, for one year after elther party gives the other notlee of lits intention to renounce it. The vessels of the United States visiting the "coasts or countries of Bolivia" (the port of Cobijn) are placed, as to all charges and privileges, on a footing of equality with the vessels of the most favored nation. Should United States veasels, either of war (public or privato), of trade, or employed 3a tho fishories, whether through stress of weather, wnit of water or provisions, pursuit of piratea or enemics, he foreed into the rivors, bays, or ports of Itolivia. they shall be received and treated with humanity, and nll favor and protection shall be givon to them sultahlo to their respectivo oxigencios. Merchandise and articles of commerce of every kind and description, the importation of which is not prohibited to all other nations, imported in vessels of the United Stutes Into Bolivia, are sulyoct to the samo daties as simllar merchandise and articles importod in the vessols of tho most favored nation. The morchanta nad citizens of the United States are nilowed to manage for themselves all their commercini transactions, whother of consignment and salo of their goods, or with respoct to tho purchase of their return enrgoes, or londing and sending off their vessels. "Ihis convention is stylod the "Peru-Bolivian," and was negotiated when these two republics were confedorated under one govornmont. l'erit having at a subsequent period re-establishod its independenco of Bolivia, disavowed tho convontion, and a now treaty was entered into with that republic. It is still in force, however, es regarts Bolivia. By a decree of Jannary 27, 1853, tho Holivian government dechared free to the commerce and merenutilo navigation of all the nutions of the globe the waters of the navigable rivers, which, tlowing through the torritories of Ibolivia, empty into the Amazon and Paraguay; and, by virtno of a treaty of Juno 14, 1856, between Brazil nnd Paragaay, the navigation of the Upper Paraguay river was made free, and Holivia opened to an Athantic market.

Borneo.-Convention of June 23, 1850, ratitied July 11, 185.--cstablishes perpetual peace, friendship, and food nuderstanding between tho eitizens and subjects of the two contracting parties. No higher dity than one dolinr per registered ton to bo levied on American vossels entoring the ports of tho Sultan of Itornoo; and this fixed duty to be in lion of all other charges or duties whatever. Importations in Unitol States vessels suliject only to the same duties as apply to similar importations in vessols of the most favored nation; and no prohibitions exist, either as respects importations or exportations; tho lattor of which, if the produce or manufacture of tho sultan's dominions, to bo always exempt from daty. Citizens of the United States aro permitted to enter, pass through, and trado in, all purts of the sultan's dominions, and to enjoy ali the privileges granted to the citizens of tho most favored nations. They may also purchase, rent, occupy, and acquiro, in a legal manner, all kinds of property within the dominions of the sultan.

China.-Treaty concluded July 3, 1844, and proclamation made by the President of the United States April 18, 1846 . Not limited as to duration; the United States, however, roserving the right, ofter the expiration of twelve years from the clate of the convention, to open negotiations, should it be deemed necessary to do so, for such modifications in the articles relating to commerco nnd navigation as may be requisite. Vessels of the United States may enter any of tho five ports open to forcign commerce, viz. : Canton, Amoy, Foo-chow-Fu, Ningpo, and Shanghai, but no other ports, under penalty of confiscation of vessel and cargo. When American vossels shall have entered port, otfi-
cers may be sent on board as a guard, at the expense of the custom-house ; and withitn forty-elght hours after a vessel shall have east anchor, the proper officer must deposit the ship's papers in the hands of the Amerlcan consal, who will fortiswith commun! ato to the superintendent of customs the name and tonnage of such vessel, tho names of her men, and the character of the eargo; after which tho superintendont will give a permit for discharging; or, if the master ao desiro, ho mas, within twonty-four hours depart, without break. ling bulk, for another port; lin which case he will not be llable to pay tonnage or other clutice until he proceods to discharge at such other port. Tounage datles to be, on vessels of over 150 tens, 5 mace ( 74 cents) per ton; 150 tols or under, 1 mace ( $14 \frac{4}{\delta}$ conts), puid only at one port. United States vessels may inport and export all kinds of morchandise not prohiblted in the tarlif. No new restrictione or monopolics to be created. Butics to be pald in Sycee silvor or in forelign monoy. Discharging cargo without a permit suljects the captain to n fino of $\$ 500$, and tho contiscation of the goods so landed; but if part of cargo only is landed, duties to he paid on such part only. Goods are not to be transhipped from on board one vessel to another, unless there bo some particular occasion for doing so, which occasion ahall be certified by the consul to the superintendent of customs. Imported Euds, having paid dutjes on their resalo or transit in any part of the empiro, are sutject to tho imposition of no other duty than thoy were accustomed to pay at tho date of the treaty. It is also provided that vossels forced in any way to take refuge in any port other than one of the freo ports, shall receive friendly troatment, and the means of enfety and socurity. The inportation of opiant is prohibited, but a largo contraband trade is regularly carried on in this article throngh the connivanco of Chioeso ofticials. Saitpetro and spelter are government monopolles, nud can ho suld only to the government merchants. litico and other grains nre frec of duty. Should a ditference ariso as to tho valuo of elocks, watches, jewelry, or of other merchandiso on which there is an ad valorem duty, and the partics can not agreo, the quostion may within twenty-four hours, but not afterward, be referred to the consul of tho party interested, to bo adjusted by him and the superintendent of customs.

Chili.-Convention of amity peace, commerce, and $^{\text {a }}$ navigation of May 16, 1832; ratifications exchanged, and proclamation mado $\Lambda$ pril 29,1834 . To continue in forco twelve years from date of exchange of ratiticetions, with tho usual stipulation providing for twelve months' notice after that period. Vessels of the United States are placed on an equal footing in respect of charges and privileges with those of tho most favored nation. Vessels driven into Chilian ports by stress of weather or other compuleory causes, to bo protected, and favored in overy respect, until they are placed in a condition to continuo their voyago. Imports, the produce or manufncture of any country, not prohibited to bo imported, subject to the same dutics, charges, and feos under tho United States flag as when Imported in vesscle of the most favored uation. Citizens and incrchante of tho United States are ellowed to manage for themselves their own commercial operations. All favors granted to the citizens or flag of any other nation to become common, on similar conditions, to the clit. zens and vessels of the United States; exceptions being reserved by Chili in favor of Bolivla, tho Central Ainerican atates, Mexico, Peru, and tho Argentine Confedoration. The government of the republio of Chili notified that of the United States, under date of October 31, 1850, that no other or higher dutics of tonnago or impost would be imposod on vessels of the United States, no matter whenco they came, or of what origin might be their cargoes, than were levled on national vessels under like circuinstances; consequently, the United States flag is now placed on a footing of


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equality, both $\ln$ tha direct-and Indlrect trada, with that of Chili.

Corfa Rica.-Treaty of amity, commerce, and navigation, July 10, 1851. Perpetual amity eatabliahed, and the stipulations relating to navigution and commerce may be abrogated at the expiration of seven years, after the lapse of twelve months from the time that notice to that effect ahall have been given by either party to the uther. Veasels of the United States are placed on an equal footing with nationul vessels in the ports of Costa Rica as to tonnage duties, light or harbor dues, pilotage, salvage in case of damage or shipwreck, or any other local charges. Mail-packets of the United Stutes have liberty freely and securely to come to ali harbors, rivers, and places to which other foreign ahips of the same description are, or may be permitted to come; to enter, anchor, and remain there, and reflt, subject to the lawe and statutes of the country. The coasting trade reserved by each party, respectively, to Ita own flag; and all favors hereafter granted to other nations by either of the two partiea to become common to the other. Importa in United Statea vessels of articles the growth, produce, or manufacture of the United States, to be autject to the aame duties as If imported in national vessela; and these duties to be no higher, nor other than are charged on similar importa the growth, produce, or manufacture of any other foreign country; similar equality of flag as to exports. By a decree of Angust 31, 185́4, the local commercial legislation of Coata Rica was completely remodeled and materially modified. Liberty of commerce to the vessela of ali nations is granted; certain deacriptions of merchandise monojelized by the government, and other descriptions which are prohibited, being specified; among the latter being inciuded rum, firc-arms, and munitions of war, which can be imported only upon special permission; and the former consisting of tobacco, gunpowder, and saltpetre, which can be admitted oniy on government account.

Denmark.-Convention of friendship, commerce, and navigation of April 26, 1826; ratifieci August 10, 1826 ; proclamation made October 14 of the same year. Vessels of the United States permitted to frequent all the coasts and countries of Denmark, no matter whence they may come or how they are laden, on terma of the most perfect equality as to tonnage and other charges, with the national har the coasting trade excepted, which ia reserved by euch contracting party to its own flag. This equality of flags not to apply to the northern possessions of Denmark, viz.: Iceland, the Feroe Islands, and Greenland, nor to the direct navigation between Denmark and the Weat India colonies of his Daniah majesty. In passing the Sound or the lieits, United Statea vessela to pay the smme dues as the most favored nation. United States vessele permitted to import into any part of his Danish majesty's dominions merchandiae, whether of the growth, produce, or manafacture of the United Statea, or of uny foreign country, on the same terms, and with the same privileges as to duties, charges, und fess of every description whatever, as apply to similar imports under the national flag; and should the merchandise be of tha growth, produce, or inanufacture of the United Staten, to the subject to no other or higher duties than similiar merchnndise of any other foreign country. This equaility, however, not to apply to tho Danish possessione of Iceland, the Feroe Isiands, nor to Greenland; nor the flags to be equal in the clirect trade between Irenmark and her West India colonies. Merchandise in United States bottoms to pay at the Sound and lieits the asme duties as similar morehandise in vessels of the most favored nation. In consequence of the onerous, and, as the United Statem think, the iliegal taxes upon the navigation and commeree of the United Staten at the Sound, notice wan given April 14, 1855, in aecordance with the provisiona of articla 11 of the treaty, of the desire of the United States to terminate the anme at the
expiratiun of twelve montha from that date. The treaty accordingly " ceased and determined" April 14, 1856, and the commerce of the United States with Denmark is now unprotected by any treaty atipulations.

Ecuador.-Treuty of Jane 18, 1839 ; ratificstions exchanged April 9, 1842; proclamation made by the l'resident of the United Staten September 28, of the samo year. To continue in force twelve years from the date of ratifications, and after the expiration of that period until the end of one year after either of the parties shall have given notice to the other of its intention to renounce it. Veesels of the United States p'aced on a footing of equality in the ports of Ecuador with the national flag, no matter whence they come, certain privileges in favor of vessels built in tho dock-yard of Guayaquil being reserved; but these privileges also to be accorded to vessele of the United States, should thoy ever be granted to Spain, or to Mexico, or the other Hispano-American republica. Any favors hereafter granted to the commerce or narigation of other conntrice to become common to those of the Uuited Statea. Imports in veasele of the United States, whether of the growth, prodnce, or manufacture of the United States or of any other country, sabject to the same duties and charges as if imported in national vesaels; and merchandise, the growth, produce, or manufacture of the United States, admitted on the same terma as similar merchandise of mny other foreign country. United Statea commerce entitled to any privileges hereafter granted to the commerce of any other foreign nation. In all lawful commerce, whether as respacts imports, exports, duties, drawhacks, etc., the United States flag enjoys an equality with the flag of Eenodor; the consting trade and the reservation in favor of vessels buit at Guayaquii excepted. Such vessels, when under the national flag, are, by decree of August 23, 1845, exempt from tonnage, anchorage, and other port dues, and are entitled to a reduction of 8 per cent. on all produce, merchandise, etc., imported by them, for consumption, into any of tho ports of the republic.

France.-Convention of June 22, 1822, to be in foree for two yoars frem Oetober 1, 1822 ; and efter the expiration of that time, until one of tite purties shall have declared its intention to renounce it; which deciaration shall be made at least six months before it can take offect. Equality of treatment. Tonnage and other navigation dues in French ports upon American vessels, five franes per ton; in United Staten ports upon French vessels, 94 cents per ton. The navigation duty of 94 cents per ton is payable by American vessels, no matter from what port they may have last proceeded; but the equality of treatment as to cargoes with the French fiag is applicahle only when the voy日ge hes been direct, and the origin of the merchandise is attested by certificate from the custom-house at the port of departure, rised by the French consul at such port. In French perts an extra duty on articles of the growth, produce, or manufacture of the United States, imported in American vesseis, at 20 francs per ton of merchaudise; in United Statea ports, upon similar products of France, imported in French vessela, an extra dity at $\$ 375$ jer ton of merchandise ; these extra duties not applicablio in elther country to merchandise of the other destined for transit or re-expertation. Should this convention be continued in furco nfter $t$ wo years, the ndelitional duties, at the expiration of that period, to be reduced one-fourth of their amount, and auccessively from year to yenr, so long an neither nation shali give the six months' notice of its intention to renounce it. Neitier party having given the notice, the additional thuties ceased to exist by the manual reduction of ene-fourth, from October 1, 1827. Isy virtue of a ministeriai deeroe of December 17, 1851, Amerlcan veasela laden with cotion for France may touch at English ports witiont lusing the bencfit of direct importation, provided buik be not broken, and no operation of commerce be transneted. Nivigation and commerce betweon tho Unitod

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States and French coionial poseassions are regulated by the laws and decrees of the French government. American vesseis proceeding direct from the United States in baliaat, or laden with articles the growth or manufacture of their own country, to the isiands St. Pierre and Miquelon, are treated on the sipiac fictiug as national vessels.

Guatsmala.-Convention of peace, amity, cunmmeres, and navigation concluded Marcin 8, 1849, and proclaimed by the President of the United States July 28, 1852. To continue in force twelve years from the date of the exchange of ratifications ; and after that period, for twelve months after either party shall have given notice to the other of its intention to renounce it. Vessels of the United States are admitted into the porte of Guatemala, no matter whence they niay have sailed, on the same terms, as to tonnage and all other navigation ciues, as national vessels. Any favore granted to the navigation of other foreign nations are to become common to that of the United States, on equal conditions. The consting trade reserved by each nation to its own flag. Imports into the porta of Guatemais in vesseis of the United States, whether of articles the produce, growth, or manufacture of the United States, or of any other country, placed on tho same footing, as to duties and all other dues and charges, as similar imports under the nstional flag; and if the articies so innported are of the growth, produce, or manufacture of the United States, they are subject to no higher or other duties than similar articies, the growth, prodace, or msnufacture of any other foreign country. By decree of May 6,1852 , every vessei which shall anchor in the ports of Guatemaia, no mattor whence it may come, is roquired to pay a tonnage duty of twenty-fivo cents per ton of measurement ascertained from her papers. Among the vessels free of this duty arevessels in baliast anchoring for supplies, and discharging no cargo ; vessels of war and regular maii or steampackets not discharging over twenty tons of eargo; and vessels receiving on board, for exportation, produce of the country, execpting cochineal.

Great Britain.-Treaty of July 3, 1815, to continuo in force four years. Continued in force ten years by the 4 th articie of the convention of London, Octoier 20,1818 , and renewed indefinitely April 2,1828 , with an additional articlo containing the usuai stipulation as to tweive montis' notice. "Rociprocity treaty" concludici June 5 , ratified June 9 , and prociaimed by President of the United States September 11, 1854. 'To continue in force ten years from the date at which it went into operstion (1855), with the usual stipuiation as to tweive months' notice after that period. It secures reciprocal freedom of fishery on the coasts of the United States and the British provinces in America, and of trade in raw products. United States vesseis admitted into Britiah ports in Europe on the same footing as nationai vessels. Tho vessels must be built and owned in the United Statea, and navigated by a nasster and a crow three-fourtha of which are citizens of the United States. Vessois of the United States permitted to touci for refreshmente, but not for commerce, in the courso of their voyage to or from tho Britisin territory in India, or to or from the dominions of tho Emiveror of China, at the Cape of Good Hope, tho island of St. Holena, or aucin other places as may bo in the possession of Great Britain, in the African or Indian seas-such vessels being subject, in all that regardis this article, to the laws and regulatione of the British government from time to timo established. Marciandise imported into Britieh ports in United States bottomis must consist of artioles the growth, produce, or manufacturo of the Unitod States; and the same duties are charged, whether imported in United States or British veasels, as on similar produce of any other foreign country. The importation, in American vessels, of tie produetions of any country but the United States, in prohibited. The intercourso between the

Unitod Staies and the British Wesi Indies is not af fected by the tresty. The vessels of the United States are admitted into the British East India possessions on the footing of those of the most favored nation ; that is, they pay the esme tonnage and import duties and other charges as the vessels of such nations; but, when iaden, they must proceed direct to the United States. With the British West Indies the trade was regulated, prior to 1850, by diplomatic agreement. By reciprocity treaty of 1854, a free trado in the raw stsples of tio United Scates and Canada, Newfoundiand, New Brunse wick, Nova Scotia, and Prince Edwerd Isiand, reepectively, is established. By the act 12 and 13 Victoria, chapter 29 , which went into force January 1, 1850, the comprehensive principlo was adopted of admitting into the porte of Grent Britain, and of British possessions, goods of any sort, in a ship of any country, from any part of the world; certain restrictions, deemed necessary either for the safety of the state or for the protection of tho revenue, still remaining in force. American vessels in British ports are, therefore, equslized with British vessels as to tonnage and iniport duties, and all other charges whatever. By circular of the Treasury Department of the United States, October 15, 1849, instructions were issned to custom-house officers and othera interested, as foliours: " 1 . In consequence of the alteration of the British navigation laws, British vessels from British or other foreign ports will (under our existing laws), after the first day of Januery next, be allowed to enter in onr ports with cargoes of the growth, production, or manufacture of any part of the world. 2. Such veesels and their cargoes will be admitted, from and after the date before mentioned, on the same terms as to dutics, imposts and charges, as vessels of the Uuited States and their cargocs. By the act 17 Victoria, chapter 5, the coasting trade of Great Britain is opened to foreign flags, eubject only to the eame regulations as appiy to l ritish vossels engaged in tho same trade.
Hanover.-Treaty of June 10, 1846, to continuo in force twelve years from date; and further, until cither party gives to the other twelve months' notice of its intention to renounce it at the expiration of the period. Vessels of the United States received in Hanoverian ports on the samo terms, as to navigation dues of every description, as national vessels; and, in the navigation of the River Eibe, are equalized with Hanoverian vessels as to the tolio collected at Brunshausen or Stade. Whatever merchandise or produce may be imported in Hanoverian veesels may also be imported in United Statea vessels, on terms of perfect oquality as to duties, irrespective of the country of origin, or whence imported. Tho equaity guaranteed by the treaty extends only to such vessels of the high contracting parties as aro built within their respective territories, or lawfully condemned as prizes of war, or adjudged to be forfeited. It is also atipulated that vesseis of the kingdom of Hanover may select their crews from any of the states of the Germanic Confederation, provided that the masters of each be a subject of the kingdom of Hanover.

Hanss Tourns.-Treaty of December 20, 1827, to continue in force twelve years from date; cither party reserving the right, after the expiration of tint period, to renounce the treaty at the end of twelvo months, after having given notice of its intention to do so. Navigation inties of every description whatever, the same on United States vessels as on national, whether in the direct or indirect trade; and perfeet equality in all other respects. Inports into the ports of the Hanse Towns in vessels of the United States, aubject to the sanie duties, charges, etc., as eimilar imports under the flag of the Hanse Towns. Esch one of the threo Hanseatic towne, IIamburg, Branen, and Lnibeck, agrees separately, and each for itself, to the atipulations of the tresty. IIanseatic vesseis are entitled to equality in the porie of the United Siates with the national flag,

If owned exclusively by a citizen or citizans of any or either of the Hanse Towns, and of which the master ahall also be a citizen of any or either of then, und provided that three-fourthe of the crew shall be citizens or subjecta of any or oither of the said republics or towns, or of any or either of the atates of the Germanic Confederation. This privilege secures to the flag of the llanse Towns a large share of the carrying trade betweon the United States and the German states.

Holland.-Treaty of August 26, 1852, additional to that of Junuary 19,1839 , and substituting for articles 1 and 2 of the latter treaty other articles; and providing that the duration of the new treaty ahall be limited to the term of two years from the date of ratification (Fobruary 25, 1858), with the usual twelvo montha' notice. Vessels of the United States, whencesocvor coming, aro treated in Dutel ports, including also the forelgn posseasions of Holland, as national vessels, with respect to duties of tonnage, harbor duea, lighthouse, pilotage, quarantine, or other port charges of any kind whatever-the coasting trade and notional fisheries being reserved. Entire reciproclty guaraulteed to the tlag of the United States, and perfect equality with the national flag, as to the duties of import and export, both in Dutch ports in Europe and in thoso of Dutch possessions abroad. All differential and diacriminating dutien as respects the flag are abolished. The equality ns to export duties, atipulated in the treaty of $185 \%$, applies only when the vessels of tho United States clear for the same ports as national veascla. Thus the export duty ou cotlee in Java is the same when exported is United States bottons as when exported in Dutch. vessels, when loth havo the aamo dostination; but of the Duteh vessel procecds to Amaterdam, and the United States vessel clears for Boston, the former enjoys a discriminating privllege in respect of the amount of daty.

Jopan.-Treaty concluded March 31, 1804 ; ratificatlons exchanged February 21, 1855 ; and proclauation made by the l'resident of the United States June 22 of the aamo year. American vessela permitted to cuter the ports of Makodade and Simoda, and no other porta of the dapanese ompiro, unless in diatreas, or forced by stress of weather. The only charge for enteringr is for pilotage, the rates of which, for the pert of simoda, are as follows : Vessela drawiug over 18 feet pay $\$ 10$; over 13 , and less thau 18,810 ; under 13, 85. Vessels of the linited States are permitted to exchnuge only gold and silver coin, and articles of goods for other articles of goods, under such regulations as shall be tempornrily established by the Japunese government. Wood, water, provisions, coal, and goods required, can ouly le procured through the agency of Japanese otlicers, nipointed for that purpose. As a means of opening the commerce of Japan, or evon of tho porta opened to American vessels-viz., Siomoda and Makodade -the trenty has proved totully inefticieat. The treaty grants the privilise to ahipwrecked arsons and other citizene of the L'uited States, living temporarily at Simoda, to go where they please within the limits of seven Japanese miles from a small island in the harbor, and at Hakodado within limits hereafter to be defined. "Siving temporarily" has been detined hy the Japaneac authorities to mean "a sojourn of four or five days on ehore." Wood and water, and such supplies as could be had, have been freely sold at pretty good prices; lut permission to traile, in a mereantile sense, has been absolutely rufused. The privileges of this treaty are said to have been recently extended to all matlous.

Mecklenburg Schwerin.-Declaration of aecession to treaty with Ilanover, December 9, 1847, to continue in force until Iune 10, 1858, with the usual twelve months' notice stipulation after that period, and a conditional six montha' notice ly the United States, if a contingeney should occur renderiug it expedient, in the opinton of that govermment, to renounce the treaty. Veasels of
the United States subjoct to the same duties in the ports of the Grand Duchy of Mecklonhurg Schwerin at national vessela; the coasting trade being reserved. This equality applies oniy to vessels built within the respective territories of each party, or lawfally cone demned as prizes of war, or adjudged to be forfeited, etc., and belonging wholly to citizens of each. Importations of articles the growth, produce, or manufacture of the United States, subject to no higher duties than similar articles the growth, preduce, or manufacture of any other foreign country; sich duties to to the same, whether imported in veasela of the United States or in national vessels. This equality is applieable to tho indirect as well as to tho direct trade. Besides the atipulatlons containod in the treaty with Hanover, otlier articlea are added. Import duty on raw cotton and paddy, the produee of the United States, la abolished by the treaty; and naximum rates of inport duty on tobacco, rice, and whale-oll, and for transit on the Ber-lin-Hamburg railroad, are prescribed.
Sfexico.-Treaty of April 5, 1831, revived, as to general atipulations relatiug to commerce and navigation, by article 17 of the treaty of Fehruary 2, 1848, and to continne in force from date of ratification of sald treaty (May 30, 1848) for a period of eight years, with the nsual stipulation providing for twolve montha' notice after that perlod by either party wishing to renounce it. Fessels of the United States may enter all the open ports of the Mexican republic on the same terms, as to tonnage dutioa, light or herbor duea, pilotage, aalvage, nnd all other local charges, as apply to national vessela. The coasting trade is reserved by cach country respectlvely, to its own flag. Linited States vessels may import into Mexican ports merchandise, tho grewth, produce, or manufacture of the United States, on the same terms as if the said merchandiso were im ported under the national flag; the dutiea of import to be no higher or other than levied on similar merchandise, the growth, produce, or manufacture of the most favored nation.

Morocco.-1'reaty concluded Septemher 16, 1836, and proclamation there of made hy the President of the L nited States January 30,1837 ; to continue in force fifty years, with the usual stipulation requiring twelve months' notice after that period by cither party wishing to rerounce it. United States vessels permitted to put inte any ports in the dominions of the Emperor of Meroceo for provisions or other aupplics, without any interruption or molestation, and to put in for repairs, and to land and reload their cargoes, without paying any duty whatever. Should Anerican vessels be east ashore on any part of the coasts of Norocco, either by stress of weather or other cause, to be permitted to remain undisturbed until the commander may thlnk propier to proceed on his voyage. Importations from the Énited State, and American commerce generally, to be on the same footing as those froms Spain, or from the most fuvored nation for the timo being. Masters forbidden to tranajort their cargoes on hoard other vessels. Merchanta of the United States allowed to employ such interpreters and other agents as they shall think proper; and Amcrican citizens permitted to piss and repass tho country and sea-porta whenever they please, without molestation. The tariff' of duties is often arbitrarily raised in Morocco. The general rate is 10 per cent. on importa, excepting cortain sjecitied articles, on which specifle dutiea aro levied. (Tobacco is a monopoly of the government, and the trade is usually rented out at rates reacling as high as 100,000 per annum. Were the trade in this article freed from the pressure of this monopoly, its importation from the United States would be largely increased.)

Mueat.-Treaty of September 21, 1883; I'residents proclanation issued June 24, 1837. Estahlishes perpetual peace het ween the United States and his majesty the Sultan of Mluscat and his dominions. Vessels of the Luited Statea pay 8 per cent. duties on ths car-
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goes landed, to be in full of all dutlas of inport and export, tonnage, license to trade, pilotage, anchorage, or of any other charge whatover. No charge to be pald by Aurerican vesaels entering any of the aultan's ports for the purpose of refitting, or refreshmenta, or to inquire the state of the market. The duties and other charges on conmerce in the dominicoss of the sultan are given under the head of Navigation. Tho articles of muskets, pewder, and halls, can be mold only to the governmeut, in the island of Zanzibar; but in other ports of the sultan's duminion' asid munitions of war may be cold to the hlghest bidder without reatriction. Dutios of tonaage, import and export, license to trade, etc., to be the same for American citizens as for citizens of the most favored nation. The trade between the United States and the dominlors of the Sultan of Muscat, especially the islund of Zanzibar, is yearly increasing. It reaches annually in value about $\$ 1,000,000$, and is carried on chiefly from Salem, Massachusetts. Articles of American manufacture most in demand in the market of Zanzibar are the various descriptions of cotten goods, the annual exportation amocnting to about 6000 bales. . Every facility for commercial opcrations is extendod to American vessels and mercantile houses, and the duties or other chargos never oxceed those stipulated in the treaty.

New Granada.-Treaty of Decomber 12, 1846, to conthuue in furce twenty yoars, unless either party should notlfy the ether, twolve menthsbofore thaexpiration of that period, of its intention to reform any or all of its stipuIations ; and beyond that period, for twelve months after cither shall have given notice of its intention to propese such modificatiens. Vessels of the United States to enter all the ports of New Granada on a footing of entire equality with the vessels of that republic, without regard to the pert or country whence they may have sailed. Should such vessels be driven into the perts of the republic by pirates, enemies, or from stress of weather, to be protected, and all facilities, etc., afforded them; and, unless they romain in port over forty-eight hours, to be exempt from all port or harber charges, pilotage excepted. The coasting trade reservod by each of the contracting parties to its own flag. Duties on imperts and oxports under the United States flay the same as under the national flag; and on articles the growth, produce, or manufacture of the United States, these dutiee net tu be higher or other than are levied upen similar, articlea, the growth, produce, or manufacture of any other foreign country. Merchandise belonging to citizens of the Unitod States, in transit across the Isthmus of Panama, to be free frem import dutics, and subject only to the same tolls that are levled in like cases on merchandise beionging to citizens of New Granada. For the privileges granted on the Isthmus of Panaaja, the United Stutes guarantee to New Graneda the perfect neutrality of that territory, and her eovereignty and righta of property over the same. The stipulations of the treaty respecting commerce have been modified by subsequent decrees of the governinent of New Granada. Those of chief interest provide that the coasting trado shail be thrown open to all flaga, and payment of navigation duties siall be demanded only at one port. Panama, Cartagena, Choco, Buenaventura, and Yumaco, are free ports-no other than navigation duties being charged. More recent enactments, however, impose a tonnage duty of 40 cents per ton on all vessels entoring pert; and a tax of $\$ 3$ per peund on all mail mattor crossing the Isthmus.

Oldenburg.-Declaration of accession of the Grand Duke of Oidenburg to treaty with Hanover, March 10 , 1817. The same stlpulations and prlvileges es are granted under the treaty with Hanover of June 10, 1846. The same privilegea, as respects the commerce of the Uuited States, as are extended to said commerce in IIanuverian ports. The stipulations relative to the Stade and Weser tolls, contalnod In the treaty botween
the United Statea and Hanover, are omitted in the declaration of acceasion by Oldenburg ; this government having no control over, or interest in, sald tolle.
Peru.-Treaty of July 26, 1851; ratifications exchanged the 16th, and proclamation made by President of the United States the 10 th July, 180̈2. To continue in force ten years from date of ratificatlon; and beyond that period, until twelve months shall heve elspsed after elther party shall have given the other notice of its intention to renounce it, No higher or other duties or charges on account of temnage, lighthouses, or harbor dues, pilotage, quarantine, salvage, eto., to bo lovied on United States vessela of 200 tons or upward, than are payable in the same ports on natienal vessels of the same tonnage. The coasting trucle is reserved by each country, reapectively, to its own flag. Imports in vessels of the United Statcs to be subject to the same dutics as similar imports in national vessels; and if of the growth or manufacture of the United States, the duties to be no higher or other then on similar merchandiso the growth or manufacture of any other nation. Like equality of flags as to experts. Slieuld the tariff of Peru be changed se as to augment the dutles of import or export, such change not to apply to United States commerce until the expiration of cight calendar monthe thereafter. Steam-vessels of the Ur ed States, if belenging to a regular line owned by citizens of the United States, to be permitted to navigate the porta of entry of Peru with the aame privilcge as any aasociation or company whatsoever. The treaty provides that whale-ships of the United States shall have access to the port of Tumbez, as well as to the perts of entry of Peru, and may sall from one port to another for the purposes of refreshment and retitting; and elasll be permitted to sell or barter their supplies or goods, including oil, to the amount of $\$ 200$ ad valorem for each vessel, without paying any tonnage or harbor dues, or any duties or imposts upon the articlos so sold or bartered. They shall be permitted, with like exemption from tonnage and harbor duce, to. aell or barter eupplice or goods, incloding oil, to the additional smount of $\$ 1000 \mathrm{ad}$ valorem for each vessel, upon payment, on said additional articles, of the same duties as are paysblo upon llke supplies or goods and oil when inported in the vessels and by the citizons of the most covored nation. A decree of the Peruvian goverament restricts the terms "supplies or goeds, including oil," to articles the produce of the fisheries, and withholds the privilegea of the stipulations of the treaty, above condensed, from all other descriptions of "gooda" or merchandise.

Portugah-Treaty of August 26, 1840; ratifications r zchanged April 23, 1841; and proclamation made . upril 24 of the same year; to continue in force six yeare from date of ratlications; and furthor, until the end of one year after either of the contracting parties shall have given notlce to the other of its intention to renounce lt. Vessels of the United States arriving, either laden or in bsilast, in the porta of Portugal (including Portuguese possesslons), to be treated on an equal footing with national vessels ceming from the saine place, with respect to the duties of tonnage, lighthouse dues, plletage, port charges, and all other tharges whatever. Each party reserves to its ovin tag, respectively, the coastlog trade. On the limporitation inte the kingdom of Portugal and ita possessions, whare forelgn commerce is allowed, in vessels of the United Statce, of any articles the growth, produce, or manufacture of the United States, no other or higher dutles to be levied than on similar articles the growth, produce, or manufacture of any other foreign country; ani?, in all cases of direct importation, the veasels of each country to be equalized in the ports of tho other. Sheuld the indirect trade of any other forelgn country be placed upon the same footlog as the direct trade, similar privileges to be accorded to the Unlted State: on equal condltions. Any favor granted since the date
of the treaty, or which may hereafter be granted by elther of the high contracting partles, as respects commerce and navigation, is to apply to the other party, freely If It has been freely granted, and on similar equivalente where it has been conditional. By virtue of the reciprocity, as It respects navigation, Portugucse vessela are exeinpt from tonnage duty in the ports of the United States. In the Indirect trade wlth Jortugal, inports under the Unlted States fing are subject to difierential duties.

Pruesia.-Trenty of May 1, 1828, to contlana In force twelve yeara, with the usual stlpulation requiring twelve months' notice after that poriod by elther party deairing to renounce lt. United Statea vassela to be treated In Prossian ports, as to the dutles of tonnage, light-houses, pliotare, salvage, and port-charges, as well as to all other duties, fees, or charges whatsoever, as national veasels. The coasting trade reserved to cach conntry. Cargoes under the United States flag, whatever the origin, or whencesoever imported, to be subject to the same dutics and charges oply as if imported under the national tlag. Like equality as to exportationa. Articles the growth, prodice, or manufacture of the United States, to be subject to the same dutles as like articlea the growth, prodice, or manufacture of any other forelgn country. Two traaties of anity and commerce wero antered into between the United States and Pruasia prior to that condensed above -one of July, August, and September, 178i; and the other of July 11, 1799. By article 12 of the treaty of May 1, 1828, the 12th article of the former treaty, and froin the 13 th artlcle to the 24th, incluslve, of the latter, with the exception of the lart, puragraph in artlele 19, are revived, in so far as thay do not affect treaties or conventions concluded by elther party with other powers, during the interval between the expiration of the treaty of 1799 and the commencement of the treaty of 1828. Articles 12 of the treatics of 1785 and 1749, respectively, relate to the principle of free ahlps makIng free goods. In reforence to this polnt, article 12 of the treaty of $18: 28$ provides that, the parties being still desirous to establish bet ween themselves, or in concert with other maritime powers, further provisions to insure just protection and freedom to neutral navigation and commerce, and which may, at the same time, advance the causes of clvilization and humanity, ellgrage again to treat on this subject at some future and convenient period.

Russia.-Treaty of December 6 [18], 1832, to continue in force until January 1, 1839, with the usual atlpulation for twelve montha' netice to renounce it by elther party desiriser to do so. No such notlee havIng been given, the treaty continuea In force. United States vessels arriving In Russian ports, either laden or in ballast, to bo treated on the same footing as national vessels, coming from the snine place, with respect to dutles of tonnage. In regard to light-honse dutlen, pilotage, and port charges, as well as to the fees and perguisites of public officers, and all other duties and charges ievied upon vesseis of commerce, the United States flag ts placed upon the footing of the most favored nation wheth which Russia has no special treaty stipuiating for entire reclprocity. Any favors hereafter granted to the navigation of any other foreign nation, to become common to the United States on similar or equal conditions. All kinds of merchandise and articles of commerce, being the growth, produce, or manufacture of the United States, may be Imported Into Rute sian ports on the same terms as apply to similar artleles the prowluce or manufacture of any other forelgn country ; and, whether the imports be of the growth, produce, or manufacture of the Unlted States, or of any other forcign country, perfect equality is granted with the natlonal flag. Any favor hereafter grantel to the commerce of other foreign nationa to become common to the commerce of the Vinited Statea. Certain special privileges to be retained liy linesia in referenes to com.
merce with Prussia, and Swoden and Norway; but they do not affect the general reciproelty stipulated in the treaty. The treaiy eatablishea entire reclprocity between the flags of the two countrles. July 22, 1854, a treaty was coneluded between Russia and the United Statea, establlshlng the princlple that "free ships make free goods," and containing a stipulation to the eflect that other nations may, by a formal declaration of a dealro to aceept and bo governad by the princlpic, become entited to all the resulting rights and privileges. The Russlan government, under date Novemiser 28 , 18056, offictally algniffes to the government of the United States Ita adhesion to the principles announced in the reply of the latter government to the declarations of the Colngress at Paris, April 16, 1856, In reference to privateering, Tho communleatlou of the representative of the Ruasian government at Washington thus conveys the concirrence of tha cmperor: "Jils majesty entirely concurs in the views of the government of the Unlted States which the Hon. Mr. Marcy Ins Iald down in hils equally lucld as temperate note of the 28th of July. The proposition of the federal government, in the opinion of hls imperlal majesty, descrves so much the more to be taken Into consideration that the honorable Secretary of State argues not for the exclusive Interest of the Unlted States, but for those of the whole of mankind. The underslgned is accorilingly Instructed to notlify the Hon. Mr. Marc; that his minjesty tho emperar accepts, for hia part, the condition under which the United States consent to the $\varepsilon^{2}$ 亿 Iltion of privateering-namely, that the private property of the suljecta nadicitizens of the contracting parthes shall la ilmes of war be respected by their respect. lve naval forces, ns well as by those of all the powers which may join in this declaration."

San Saleador.-Convention concluded January 2, 1850. To continue in foree twenty years, If neither party notify the other twelve months before the expiration of that period of lta desire to reform any of its stipulatlons; and beyond twenty years, until twolve months ahall have clapsed after such notice shall have been given by elther party. Vessels of the United States, 10 matter whence they may have come, or hew laden, to be trented In the ports of San Salvador, is to all dutles of tonnage, light-house, or any other charges of whatsoever denomination or character, as national vessels. From this equality the coasting trade is excepted, which is reserved to the national flay: but should any favors of navigation be granted hereafter to any other foreign nation, it will Immedlately apply to the fiag of the United Statea. Imports Inte San Salvador in vessels of the United States, no matter whence imported oz of what origin, to be sulyect to the same dutles, charges, and fees of every description, as similar importa in vessels of San Salvador; end if these importn conslst of articles the growth, produce, or manufacture of the United States, to bo sulyject to ne ligher or other dutles than aimilar imports, the growth, preduce, or manufacture of any other forelgu nation.

Sandrich Iflands.-Treaty concluded December:0, 1849; ratifications exchangel Angust 24, 1850, sad proclamation maile by the Presldent of the luited States November 9,1850 . Establishes perpetual peace and amity between the United States and the llawalIan Islanils, and provides that the treaty shail continue In force ten years, with the usual stlpulation proviling for twelve montha' notice by eitber party wishing to renounce It after that perlod. United States vessels in direct voyages, If laden, or in respect of any voyage, if in ballast, to pay the same dutles of tonnage, harhor, IIght-honses, pilotage, quarantine, or other navigatlon charges of whatever kind, that are paid ly nationsl vessela. Steam vessels employed In carrying the publie malla of the United States across the Pacific, or from one port to another therein, to lave free uccess to the porta of the Sandwleli Islanis, to retlt, refresh, land passengers and thelr baggage, or for any purpose per-
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taining to the mali service of the United States, without being subject to any of the duties above specili d. Whale-ships of the United States may enter the ports of Hiio, Kealukeakua, and lianalei, and aiso the open ports of Ilenoluiu and Lahaina, exempt from tonnage or inarbor dues of any description, with certain privileges of trade, as set forth herowith. They may also pass fromt port to port of the islands for the purpose of procuring rofreshntents, but may not land their seamen or passongers, except at Honolviu or Lahaina. The privilego of the aame ports ie alao granted to armed vessels of tho United States. Importe of merchendise, the growth, produce, or manufacture of the United States, to be subject to the same duties, whether intported in vesseis of the one country or of the other; and these dutios to be the eame as are levied upon similar merchandiae, tho growth, produce, or manufacture of, or imported from, any othor country. Absolute liberty of trade allowed between the eitizens of the two countrics, without restriction, unless in articies prohibited. Whaling vesseis of tiso United States may trade or bartor thoir supplics or goods, except spirituous iiquors, to the amovit of $\$ 200$ ad valorem for each vassel, without being liable to pay duties therefor; and the further privilege is granted to such vesseis at the porte designated o.bove, and exempt, as therein stated, from tonnago and harbor dues, to trade or barter, except in apirituous liquors, to the further amount of 1000 ad valerem, by paying on the additional goods so traded or bartered the uisual duties levied on similar merehandise imported under tho flag of tho moat favored nation.

Sardinia.-Treaty of November 26, 1853, to continue in force ton years from March 13, 18:39-the date of exchange of ratifications; and, after tho oxpiration of that period, until tweive months ahall have elapsed after either party shall have given notice to the other of its intention to renounco $i t$. Vessele of the United States arriving in Sardinian ports, either iaden or In ballaet, to be treatod, as to the duties of tonnage, lighthouses, piiotage, and port charges, as well as to all tees and charges of whatever kind or denomination, as national vessels coming from the same place. All imports in United States vessels into Sardinian ports to pay the same duties and charges only as if brought in Sardinian veascis. Imports, the growth or manafacture of the United States, to pay the same duties only as like produce of the most favored nation. The "Separate Article" of the treaty, respecting " differential duties," ceased to have effect, by virtue of a law of Sardinia, July 6,1850 . I'reedom of transitage, from and to the port of Genoa, through the territorice of Sardinia, is atipulated by the treaty, with specified exceptions.

Sweden and Norway.--l'reaty of Juiy 4, 1827, reviving certain articles of the troaty of April 3, 1783, together with the $1 \mathrm{st}, 2 \mathrm{~d}$, 4 th, and 5 th separate articles of tire said treaty, and containing additional commorcial stipulations; to continue in force ten ycars, with the usual stipulation requiring twelve months' notice to be given by either party desiring to renounce it, after the expiration of that period. Vessels of the United States proceoding from any port to tho ports of Sweden and Norway, including these of tho island of St. Barthoiomew, laden or in baliast, are treated as national veasels consing from the ame port, as to ali duties of navigation and tonnage. Entire reciprocity and perfect equality, as to import duties and ali other eharges, betiveon tho flag of tho United States and that of Sweden and Norway; and this reciprocity and equality applies, whethor the voyage be direct from the ports of tho Unitod States, or indirect from any other foroign port.

Switzerland. - Convention signed November 25, 1850; ratilications exchanged November 8, 1855; and proclamation made November 9 of the aamo year. To continue in force ten ycars from date of ratification, if neither party gives notice to the other one year before
the expiration of that period; and so on from year to year, untii the expiration of tivelve montha after such netice shall have been given. Imports and exporte to and from Switzeriand take place through the porte and territories of France and other adjacent countries; and the charges of tranaitage, in consequence, are a heavy drawback upon the induetry and commerce of the confederation. This remark applies especialiy to the reetrictions on transitage through France. In ali that relates to the importation, exportation, and trausit of their respective preducts, the United States and the Swisa Confederation to treat each other reciprocally as the most favored nation, uaion of natione, etc. All future commercial privileges granted by either party to any nation, union of nations, atc., immediately to become comonon to the other party on equal conditione. Should differential datiee be catablished in the Swhess Confederacy upon the products of any natlon, the United States to be at liberty to determine the manner of establishing the origin of its own products destined to enter that confederacy. The frontier territory of Swltzeriand is divided into six departments for the collection of cuatoms duties. The central points of these, respectively, aro at Busle, Schatifhausen, Coire, Lugano, Lausanne, and Geneva. No merchandise can be imported or exported, unless iy special license, except through one or otiter of those frontier custom-houses.

Siam.-Treaty of amity and commerce of March 20, 1833 ; ratifications exchanged April 14,1836; and proc. lamation mado by the Presldent of the United States June 24, 1837. Establishes perpetual peace between the United States and Siam, Vessels of the United States entering any port of the Siamose dominiens, and selling or, purchasing corgoes of merchandise, to pay, in lieu of all import and export duties, tonage, license to trade, or any other charges whatsoever, a mensurement duty of 1700 tleals, or bata (equal to $\$ 1037$ ), for every fathom of 78 English inches in breadth upon vessels selling merchandise, and of 1500 ticals (equal to \$915) per fathom, similar measurement, upon vessels purchasing eargoes with epecie. It is prohibited to sell munitions of war to any person except the king, and also to export rice or import opium, the latter being contraband. It is stipulated that if hereafter the duties payable by forelgn vessels be llminlshed in favor of any other nation, the vessels of the United States shall be entitled to like diminution; and should any foreign nation, other than Portugal, to hereafter permitted to have consule in Siam, tho eame privilege shall be accorded to tho United States. United States morchants, desirous of briaging thelr goods on shoro for tratie, must deposit them in the king's factories, paying the customary rent of the conntry therefor. The treaty of 1833 completeiy suspended all commercial operations between the United States and Siam. On a vessel, say of $2 \overline{0}$ feet beam, the duty, at 1700 ticals jer 78 inchea, would amount to $\$ 3988461$ In 1855 (April) a new treaty was negotiated between Great Ilritain and Siam, to the priviteges of which Anerican commerce is entitied by article 4 of the treaty of 1833 between the United States and Siam, This new treaty with Great Britain authorizes that nation to have a resident comsul at Bangkok, after April 6, 18006; and after the same date the measurement duty is to be abolished, and a general import duty of 3 per cent. to be paid in money or kind, at the option of the importer. Disputes as to the value of goods are to be settled hy arbitrators. Opium may be imported fo e, but cen be sold only to the opium farmer or his agent. Export duty apecific.

Tripoli.-Treaty of peace and amity of June 4, 1805, not limited as to duration. Estabiishea a firm, inviolable, and universal peace, and a sincere friendship "on the terms of tho most favored nation," and guarantees to the United States like favors with those horeafter granted to any other nation. Vessels of the United States in the ports of Tripoli to be subject to
the same daties, chargee, and privilegea as the vessel of the most favoreil nation. United States vessels deatined for Tripolitan ports must be provided with proper paspporta; ${ }^{1}$ to examine which, not more than two persens, beeidea the rowers, are allowed to proceed from any Tripolitan man-of-war, or to go on board, unless permitted 80 to do by the Arrerican captain. In ease of distress, Unlted Statea veasels may put In, land nnd re-embark cargo, and repair, wlthout the payment of duties. The commerce between the United States and Tripoli-the protection to be given to Amerfican merehants, mmaters of vessels, and seamen-the right of eatabliahing consule in the regeney of Tripoll, and the privileges, immunities, and juriedictions enjoyed ly such consuls, to be on the aame footling with those of the most favored nation.

Treo Sicilies.-Treaty of December 1, 1846, to be in force ten years from date, elther party reserving the right to terminate it after that poriod, on glving twelve montha' notice of its intention to do so. When importing artieles of the growth or the mannfneture of the United States, Amerienn vessels to be on the same footing as to duties, charges, etc., whth nationnl vessels. Thie equality as to navigation dues applies only in respect of direct voyages if iaden, or of any voyage If In lraliast. Merchant vessels of the United States, forced hy atrese of weathor, or other similar cause, into Sicilian ports, to be exempt from port and tonnage duties, provided no operation of commerce ?4 carried on. The coasting trade is rewerved by each conntry to lts own vessels. The dreet importation of articies of the growth, profluce, or manufaeture of the United States to be subject to tho same dutr, whether imported In vessels of the United States or In those of tho Two Blellies. In the indirect trade, importations ander the flag of the C̈nited States into the ports of the Two Sicilies to lie sulject to differential duties. A ilecree was issued, December 18, 1854, by the King of the Two Siclifirs, extending to the indirect trade of ouch foreign nations as would be willing to recmprocato all the ailvantagea of the national flag. Under the aet of 1R28, prevlously given at length in the artiche Sicisx, page 1714, the government of the United States hes reciprocated the privileges thus granted hy the government of the Two Sicllies $\mid$ and the flag of the United States is therefore equalizel, In Sleillan ports, with the national flag in tho indirect trade.

Thrkey.-Treaty coneluded May 7,1830, and ratified February 2, 1831. Not limited as to duration. Vesaela of the United States to be treated, in frorta of the Ottoman empire, In like manner as vessels of the most favored nation; to have the same literty to pass the canal of tho imperial residence, and to go into and come from tho Black Nea, either lacien or In ballast ; and may be laden with the produce, manafactures, and effecta of the Ottoman empire, except such as aro prohibited, ns well as with those of their own conniry. United States veasels must sail under their own flag, and are prohihited from lending their flige to the ressels of other foreign nations, or to those of the rajahs. Importationa into Ottoman ports in vestels of the United Statea to be anbject to the same dutlea, chargea, ctc., as Importationa under tho flag of the most farored nation. Amerienn merchants eatablished in the stutes of the Sublime l'orte for purposes of commerce, to be at liberty to empioy semsarg-brokers or factors-of any nation or religion; such merchants or other American citizens residing in the Turkish dominions not to be amonable to Turkish tribunale for offonses commltted, but to be tried hy their own minister or consul, and punished accorling to his sentence. IJy virtue of tire most favored-nation atipulation, vessels of the Ottoman Porte are admitted into Unitel States ports on tho amme terme as American vessele. Intles, accordIng to the tariff of the Ottoman Porte, are based upon the ad ralorem principle; and the treaty nations usmally unme commiasioners every five or slx years, who, in
concert with a commiesion named by the Subllme Porte, regulate the "fixed values" of merchandlee imported. The present rates were flxed by a Britlah commission of thle character; and, In regard to many artleles of Amerfcan importation, especially cottons and run, the mode of valuation worke a practical diserimination, which ean be remedied only by the action of an Amerlenn commlesion remodelligg existlng valuations, ns reapecta the mannfactures of the United States.

Tunis.-Treaty of August, 1797, modifled by ennvention of March 26, 1799, and by subsequent triaty of February 24, 1824. Eatablahes perpetual peace ard friendahip betwoen the United States and the Bey of Tunls.: Vessels of the United Btates permilted to en. ter all the porte of the kingiom of Tunis on paying the unaal dutlea which are pald by the vessels of the most favored nations. Should the government of Tanis have need of the services of an Amerlcan vessel not previousIr engaged, it mnst hare the preferenco on paying the same freight that is usual with merchants for the same service. Commerce with Tunis under the United States fing to be conducted on precieely the adme footing, as to import dutles, fees, and all charges whatsocver, as is commerce under the flag of the mont favored nation. American merchants to be permitted to estaillah themselves, transect their own business, or nppolnt their agents, factors, etc., In the territorics belonging to the kingiom of Tunis.

Venezucla.-Treaty of peace, fricnelship, navigution, and commerce, coneluded Jannary 20, 1836; ratified May 81, and proclamation made by President of the United States Juno 30, of the amo year. To conthue in force twelvo years from ciate of ratificatlons; and further, untll elther party gives tweive montins' notice of its intention to renounce It. Vesgels of the Unlted States, no matter whence they come, or with what laden, to bo on a footing with national ressela. The same equality, Inchuding bounties, dutics, and drawbacks, to apply in regard to exportation or re-exportation. Vessels of the United Statee slalpwreeked, foundered, or In any other way damazed, on the coasts, or within the dominiona of Venczucla, to recelve all necessary nasistance and protection. Whatever may be imported la Venezuelan vessels may also be imported In ressels of the United States, and on the samo terms, as to duties and all other charges. The same equality as to exports. Articles, the growth, prodnce, or manufacture of the United States, to be subject In Venczusia to no higher or other dutles than similar artleles, the growth, prodnee, or mannfacture of any other foreign country. All favors hereafter granted to other forelgn nations to apply eqaaliy to the Cnited States on slnalar conditions. The customs, tariffs, and commercial regulations of Venezuela are mitject to frequent, and, oceasionally, onerous changes. The latest of these-that of April 27, 1850 -imposes an extraorllnary contritution upon certain Imports and exports, to take effect frem and after Iuly 1, 185 f. Among the exports thus affected are coffer, cocoa, indigo, hides, quinia. sarsujarilla, dye-wood, ete. The extraordinary import tuty is 20 per cent. on the amount of regular duties, and 15 per cent. on all articles that are Included in the free list, excepting gold and ailver in bars, hullion, or dust, printing-presses, printed books, machinery, etc.--Cm. Relat. U.S.

Treblzond, anclently Trapezus, from its resemblance to a trapeaium, a town of Asia Ninor, on the southeast coast of the IBlack Sen, lat. $40^{\circ} \mathrm{v}^{\prime}$ N.. long. $39^{\circ} 41^{\prime} 52^{\prime \prime}$ F. Population varionsly estimated at from 15,000 to 30,000 . The town ls buite on the declivity of a hill rlaing gently from the sea. It is a place of great antlipuity; ami, from the year 1203 to the tinal suluversion of the Eastern empire liy Mohamried 11 . in the 15th century, was the seat of a dukedom, or, as it was sometimes called, an empire, comprising the country between the l'hasis and the Ilalys. Its fortiticgtions are still of considierable strength, at least for a

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Turkish city. The space iacluded within the walls is employed to connect the planke of the ahip's side and of great extent; bat it is princlpally flled with gardena and groves. The honses are moan in their oustward appearance, and comfortless within. - Tounnefort, Voyags du Levant; Kinnein's Journey through Asia Minor. Trebiaond has two porte, one on the west and one on the east side of a small peninaula, or point of land, projacting a short way into the sea, That on the east la the best sheltercd, and ia the place of anchorage for the largest ships. It is, however, exposed to all but the southeriy gales; but it does not appear that, with ordinary precantion, any danger nced be appreherded. The ground, from one-fourth to half a mile cast from the point, is cleen, and holds extremely well. Ships moor with open hawse to the north, and a good hawser and stream anchor on shore, as a stern-fast. At night the wind slways comes off the innd. Captain Middicton anys that the only bad weather la from the northwest; but that, though the swell be considerable, it does not cause any heavy strain apon the cables.-Nuutical Magazine, vol. il. p. 181.-At Platana, noar Trehizond, and quite as exposed, Turkish vesseis have from time immumorial rode in safety the whole winter; a satisfuctory proof that the danger supposed to be incident to the roads along the coast is wholly visionary.-Ibid.

Trade.-In antiquity, and in more modem timas, previously to the conquest of Constantinople by the Turks, and tise exclusion of all foreign vessels from the Black Sea, Trebizond was the seat of an oxtensive trade. Any one, Indoed, who casts his eyo over a map of Western Asia must be satisiod that this city is the natural eniporium of ali the countries to the sontheast of the Black Sea, from Kars on tho east, round by Diarbeker to Aniasia on the west. Erzeroam, the principal city of Armenia, is only about 185 miles sontisenst from Trebizond. Its merchants aro distinguished by their superior attainments, and by their enterprise and activity. For a lengthened period they derived most part of their supplies of European commodities by way of Smyrns or Constantinople: nothing, however, but the impossibility of obtaining thom at so convenient a port as 'Trebizond could have made thom resort to auch distant markets as those now mentioned; and it may well excite surprise, consldering the period during whieh the Hack Son has been open, that efforts wero not sooner mado to estabiish an intercourso with Armenia, Georgia, and the northwestern parta of Persia, through this channel. We are glad, however, to bavo to atate, that within theae fow yesrs this has been done, and, notwithstanding the difficulties that necessarily attach to every attempt to open new clannels of comineree with somi-civilized nations, the experiment has proved more than ordinarily successful. 'The policy of Russia has, of late years, given to Trebizond an impertance it did not formerly possess. Previously to the 1st of Janusry, 1832, the trade between Europo and Persis, by way of tho Black Sea, prineipaily centred in the lussian port of Redout Knlo, nt the mouth of the Phssis. This was a consequence of the exemption granted in 1822 to the Russian provinces to the south of the Caucasus from the dutjes charged in the other parts of the empire. Jut the cxemption having ceasod at the period referred to, and the trans-Caucasian provinces having beess suijoctedi to tie same dutics as the other provinces, the transit trade to Persia by way of Rodont Kald, Tefils, and the Caspian Sca, almost entirely ceased, and it is now carried on through Trebizond, Erzeroum, and Tabreez. In consequence, the lncrease of trade at Trebizond has been very remarkable.

Of the exports, ailik is by far the most important; and next to it are nuts, saffiron, tobacco, copper, wax, shawls, beana, gails, locches, etc. Their total value was estimated in 1840 at $\mathbf{£ 4 7 9 , 8 7 4}$, of which slik made neariy a half, or $£ 210,080$. See Torker.

Tree-nails, certnin long cyiindrical wooden pins bottom to the corresponding timbers. Thay are superior to spike-nalis or bolis of iron, which are liable to rust and loosen. The thickness of the tree-nails is usually proportioned to the length of the ship, allowing one inch to every hundred feet.

Trees (Age of). Among others mantloned in pn article in the American Almanac for 1838, p. 102, are, the Wallace oak at Eilerslie, Scotland, 700 years. (Some oaks are oupposed to have lived 1500 years.) Oal on estate of James Wadaworth, Gencseo, New York, 500 yenrs. Yew trees at Fonntain's Abbey, England, 1200 years; and in Scotland, said to be 2500 years. Elms, In Switzorland, 885 yenrs. Cedars on Lebanon, 800 years. Olsves, in the Garden of Olivea, Jernsalem, 800 years. Banian, in Hindostan,' 8000 years. Cypresses, at Grenada, 800 years.

Tret. In Commerce, an allowance of 4 lbs . for overy 104 lbs . for the waste which certain kinds of goods are liable to from dust, etc.
Triente, a city and sen-port of the Anstrian dominlons, the capital of a district of Illyria, situated near the northeast extremity of the Gulf of Venice, lat. (of light-house) $45^{\circ} 88^{\prime} 6^{\prime \prime}$ N., long. $18^{\circ} 46^{\prime} 5^{\prime \prime}$ E. Population in 1850-51, of the city only, 50,000 (?), and including the distrlet comprised within the limite of the free port. 82,598 . It is divided isto the old and new towns. The former is built upon elevated ground; the latter, which is lower down, is laid out with greater regularity, and is partly intersected by a canai, into which vessels not drawing more than nine or ten feet water enter to load and nnload. Tha harbor of Trieste, thongh rather limited in size, is easy of access, and convenient. It is protected from southerly gales by the Molo Teresinno, so called frots the Empress Maria Theresi, at the oxtremity of which the now light-house, mentioned below, has been constructed. The port, wlth the mole, forms a crescent one aad a lsalf mile in length, being a continued quay, faced with hewn stones, with stairs and jetties for the convenience of embarkation. On the north side of the port is a dock or harbor, appropriated exclusively for vessels performing quarsntine. It is walled round; and is furuished with botels, warehouses, and every sort of accommodation required for the use of passengers and goods. Ships under 300 tons barden lie close to the quays; those of greater size mooring a little farther oust. The principai defects of the port are, its limited size, and ite being exposed to the north weat wiads, which sometimes blow with much violence, and throw in a henvy sen. The galcs, however, are seldom of long continuance; and the holding ground being grod, when the anchors are backed and proper precantlons taken, no accident occurs. The tide at Trieste is scarcely perceptiblo; but the depth of water is influenced by the wind, being increased by a long-continued sirocco or sontheast wind, and diminiahod by tho prevaience of the enst-northeast wind, known by the name of Bioro. The access to the port is not obstructed by any baror shallow ; and there is good anchorage in the roads, in from 6 to 7 and 10 fathonss water. A good sailing vessel may leat in by night or by day, except it blow hard from the northeast or east-northeast, when sho had better anchor In the Bay of Roses, or Pirano, where slse will ride in perfect safety. Ships bound for Trieste are under no obligation to take pilots; but those entering the port for the first time would do well to take one on making the coast of Istria. Boats are always hovering off Rovigiso; they are not mannod liy regular pilots, bat by fishermen, who, thongh unfit to be trusted with the management of the alip $p_{0}$ know tha bearings of the places and the ts $^{*}$ of water. The fee usually paid thom for pilotage is tw inty dollnrs; in addltion to which, they are eupported at the ship's expense during the performance of quarantine. The lighthouso at the extremity of the Theresian mole is 106 tset (Engl.) high. The light is intermittent ; and may
be seen, mupponing the eye of the observer to be eleva-
ted 12 feet above the lovel of the ees, sbout 12 nautical uilles, or from PIrano on the side of Iatria, and the shoals of Grado on the Itallan conat. A Ilght-liouse has also been erceted on the point of Salvore, bearing from 'Irleste west by south, distant about 18 milies. The lantern is elevated about 103 feet above the level of the sea. From this point Pirano Bay opens, where vessels may anchor in safety in all eorts of weather.

Trieste has no command of internal navigation; but being the most convenient, or rather the only sea-port, not therely of the Illyrlan provinces, but of the Duchy of Austrin, and the creater part of Ilungary, she possesses an extensive commerce. Thia has been lucreased ly the facilitien affiorded to all sorts of mercantlle transactions by the privilege of porto franco conferred on the town, and a considerable extent of contiguous country. Under this franchise, ali goods, with but very few exceptiona, may be himprted into and exported from the city free of all duties whatever. Forelgn products, whell taken for consumptlon from Trieste futo the interior, are sulject to the payment of duties regulated by the Interior tariff of Auatrla. These are very various, consistiug partly of the raw and partly of the manufactured producte of Austrla Proper, Illyria, Dalmatia, Itungary, and Italy; with forelgn articles imported and warehoused. Among the principal articies of raw produce may be specisied corn, chielly wheat and maize, with rice, wlnc, oil, shumac, tebacco, wax, etc.; silk, silk rags and waste, hemp, wool, tlax, Jinen rags, hides, furs, akins, ote. The produce of the mines :rakes an important Item, consiating of quicksilver, cinnabar, iron, leall, copper, brass, litharge, alum, vitriol, etc.; the forests of Carniola furnlsh timber, for ship-building and other purposes, of excellent quality and in great abundance, with staves, cork wood, bex, hoops, tte. ; marble also ranka under this head. Of manufactured articles, the most in cortant are, thrown silk, silk stuffs, printed cottons from Austris and Switzerland, coarse and fine linens, and all sorts of leather. Under thin head are also ranked soap, Venetian treacle, liquors, etc., with joweiry, tools and ntensils of all serts, glass-ware and mirrors, Veuetisn beads, refined sugar, and a host of other articies. Of foreign articies Imported and reshipped, the most insportant are sugar, coffee, and dye-stutfa. Tricate Is also a considerablo depit for all sorts of produce from the Black Sea, Turkey, and Egypt.

Customs Regulations.-The enstom-house at Trieste has nothing whatever to do with the entry, reporting, ete, of vessels. When a ship arrives, she is reported to the health oflice; which publishes a list of arrivala and departures, with a statement of their cargoes, as they appear in the manifests. Shipa are cleared by the same otice, tho masters being assistel by the consuis of the country to which they belong. As soon as a vessel has perforined quarantine, abe loads or unloads without any interference or inspect.. by tho customs officers, or ly any one else. Goods unsusreptible of contagion may be lanci, d during quarantine. lleing a free port, the bonding and warehousing systein is, of course, unknown at Trieste.

Quarantine is strictly enforced at 'Trieste, and the ese tablishments for facilitating its performance sre complete and efficlent. The Board of Health at this port is the central or principal one for the Austrian atates; and malutains an active corresjrondence with all tine principal ports, botil in the Mediterrancan and cisewhere. There are twolazareitos-that calledSt. Teresa, or I azaretto Nuoco, is appropriated to vessels from the I srant and bigypt, which are, for the most part, subjected to the lough or full quarantine of forty days, It is apacious, and properiy guarded; having $=$ antlicient number of military and medical officers and ansiatants; with extensive quays and magazines for honsing and airing goods, i weiling-houses and apartments for resident officers and passengers, etc. It is, in fuct, one of
the most perfect estaolishnienta of the kind in oxistonce. The other, or old (recehio) layaretto, contlgnsengere performing a quarantine of not more than twentyeeight days $\mid$ and, though inforior to tho former, is anfficiently cepacious and oonvenient. The sanitary ofticen, includling that of harber master, are near the centre of the port; where also are moored ves. sela umier observation for a term not oxceedling elght days. Here also are facillties for communicating tiví roce with peraons under guarantine; and apaclous warehouses, with adequate guards and other officers. Jhut, notwithatanding these convenjences, if a reasel arrive having an infectlous malady on board, abe is not al. lowed to enter elther lazaretto at Trieate, but is acnt to an island near Venice, titted out for the purpose, where assistance may he attiorded with less risk of propagating infectic..

Careening, Stores, etc.-Timber at Trlente is exeellent, workmen good, and their wages moderate ; so that It is a very favorable place for careenlug and repalring. Water is very good, but rather searce; so that if a large aupply be required, due notice must be given. Ships aro aerved lis reguiar rotation. Beef la very gooll, but rather bigh priced. Butter and cheese are dear ; and fuel is excesalvely so. On the whole, therefore, 'l'rieste can not be consldered aa a favorabic place for the provisioning of a ship.

Banking.-There are no pulilic Lanka at Trieste. The Bank of Vienna has an oflice here, but it la merely for the exchange of lia notes for cash, or, more frequent. ly, of large notes for amali ones. Theso notes, being guaranteed by chovernment, are legal tender, and a geuecal circulation, but no other company is allowed to isaue notea to ho used as a circulatling medium. There is not, however, any deticiency of currency, Banking busincse is tranascted by private companies, or by Indivilusia, who are sulject to certain regulathons, and are obliged to lay before compotent authority an atteated statement of the capital embarked in their concerns. Their buslucss prinelpally consists in procuring billa of exchange from other places for the use of the merchants of Trieste, or in discounting (in which latter operation they have many private compctitors), at the rate of from 4 to 6 per cent. per annum, accordlag to the nature of the pisper offered, and in proportion to the scarcity or abundance of cash.

The Austrian ofliclal returns of imports from the United States for Trieste alone, it ia seen, exceed the returus for all the Austrian ports, as per Linited States Tressury Keports. More than threc-fourthe ef the foreign commerce of Trieste is carried on slong the shores of the Mediterrancan. The remainder is distributed between England, the United States, Brazil, Mexico, the Antillea, Russia, and the Netherlanils. The tirect trade between the port of Trieste and the tro Americas, the Indies, and China, has within a few years become more actlve, and the tonnage apectally employed by thls inert in such direct trans-Atlantic commerce notsbly augmented, in consequence of the succesaful competition on the part of the states lying on the basin of the Mediterrancan with 'l'rieste for a portion of this trsde.

The average annual value of the general commerce of Trieste during the preceding ten years was: imperts $140,000,000$ francs; and exports $76,000,000$ francs; a total of $216,000,000$ francs.
The figures from 1839 to 1819 show an increase in imports of 70 per cent., and in exports of 8 per cent. The great ditterence between the increased values of total fimports and exporis is accountel for by the fact that but a small propertion of the produce or manufactures of Austria finds its way to foreign countries through the port of Trieste. Most of this kind of merchandise deathed for tho Elast, the Unitel States, and South America, is forwarded by the lower llanube, by the Eilie, and $b_{j}^{-}$IIamburg and Bremen. Besites, this diffurence can not be regarded as an evidence that the
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Tot
balance of trade is so heavily agalnst Trieate, when it is considered that many milliona of dollars are annualiy exponded in the markets of this port by the 70,000 sailors, the 25,000 passengers conveyed by atemmahips, and the 10,000 vessels that yearly arrive there.
It is proposed, and not only with the sanction, bnt under the patronage of the Anatrian government, to construct three first-clasa steamohips to run regularly between. New York and Iriente, Louching at Corfu, Malta, Algiers, Cadiz, and Lisbon. Should thls profect prova auccessful (and the high character of ita originators is a atrong gnarantes of its auccess), its effoct uron the comueroial and political relations of the United States muat be very great. In opening new ehaonols to the industry of the Old World, it will also increaso the demand for the raw produce and manufactures of the Unitce's States. The advaragges of this proposed ateam coris.nunication betwoen Naw York and Tricste will be greaily increased by the completion of about aixty milces of rallrond between Trieate ar ' Vieuna. This, when completed (and the work is in .ctive progress), will connect Trleste with all the principal citlea of Europe, and make it the entrepôt of a larga German trada, It already enjoya steam communication with the Levant, Constantinople, and Alexandria; and, when the propased lino to New York ahall havo been astablished, Tricste will become an extensiva depot for the raw materials of the United States. During the four yames eading with 1853, Naw Yurk received direct from Tricato merchandise to the value of $82,085,282$, and oxported direct to the same place gooda of the value of $\$ 1,550,575$. The following eummary oxhilits the general ioreign trade of Trieste in 1851 compared with that of $\mathbf{1 8 5 0}$, and also the inerates:

| Years. | Imports. | Esporta. | Total. | $\begin{gathered} \text { Imparts } \\ \text { of from } \\ \text { V. States. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{r} \text { Frabect } \\ 225,3.37,000 \end{array}$ | $\begin{aligned} & \text { Fraigec, } \\ & 094,451,000 \end{aligned}$ | $319,788,000$ |  |
| 1850 | 202, 126,000 | 91,347,900 | - $491,473,000$ | 10,647.000 |
| Increa | 29,211,010 | 3.104, (10) | 20.816,000 | 4,041. |

The following table, translated and condensed from Austrian oflicial documonts, will present an interesting statement of the number of American vessels employed in the trade of Trieste from 1842 to 1851, inclusive:

| Yosm. | Venote | Yosif. | Vomele, |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  |  | 1848. |  |
|  |  |  |  |
|  |  |  |  |

During the samo period, the largest number that entered (the Austrian flag excepted) was 8380 vessels, under the Greok fiag; and the smallest, 28 , under the Belgian flag. The relative importance of the fiag of
each vation in the general foreign commeree of Trieute wifl be seen from the fllowing condensed table:
Nuthen of Vegazla, of at, Nattong, whioh abrived at
 185t, AND THE l'moPontion whiou tur Fhan of zaOn neate to tite whote Nomegh.

| Flinga, | Number in ten Yesra. | Proprortion to the whole. |
| :---: | :---: | :---: |
| Aumerian.. | E. 30 | 8.:50 per cent. |
| Oreek..................... | 8883 | 2494 |
| Finglah .................... | 087 | 6.75 - |
| Sleflian, etc. . . . . . . . . . . . | T24 | $5 \cdot 0.4$ |
| Ottoman. . . . . . . . . . . . . . . . | 455 | 850 |
| lontar . | 443 | 9.25 4 |
| United 8tatea............... | 415 | 3-25 |
| 8wedlah, ctc. . . . . . . . . . . . . . | 370 | $2 \cdot 60 \quad \cdots$ |
| Rumian . . . . . . . . . . . . . . . . | 250 | 2.60 - |
| Eardintan. | 280 | $2 \cdot 0$ " |
| French ...................... | 259 | 1.75 4 |
| Daniah . . . . . . . . . . . . . . . . . | 228 | $1 \times 6$ |
| Dutch . . . . . . . . . . . . . . . . . | 229 | 1.25 " |
| Papal 8tatea. . . . . . . . . . . . . . | 212 | 125 " |
| IIanseatic . . . . . . . . . . . . . . . | 126 | 0.90 " |
| Spanlah . .................... | 117 | 0.80 -6 |
| Prusian. . . . . . . . . . . . . . . . | 81 | 0.60 " |
| Others . . . . . . . . . . . . . . . . | 188 | 126 " |

Commabon of Tuieste ix t850.-(Valet in Flouing.)

|  |  |  |
| :---: | :---: | :---: |
| Auatrtan porta | 29,844, 802 | 47,727,308 |
| Forelga porte | 91,027,807 | 01,418,603 |
| Total by nea | $120,980,103$ | 163, 146,410 |
| Total by land. | 32,808,090 | 34,651,722 |

We add a tabular etatement of the commercial movement of that port during a period of ten years:

| Yesta. | shiph. | Tonoage. |
| :---: | :---: | :---: |
| 1846. | 16,183 | 985,514 |
| 1847. | 17,321 | 1,007,93 |
| 1843. | 17,812 | 924,816 |
| $184 \%$. | 20, EK3 | 1,200.258 |
| 1850. | 2t,124 | 1,323,796 |
| 1851. | 24,101 | 1,408,802 |
| 1852. | 27,931 | 1,656,653 |
| 1553. | 29,317 | 1,675.836 |
| 1854. | 26,650 | 1,780,911 |
| 1855. | 21,081 | 1,439,107 |

On comparing the average of the first three yeare of this period with the average of the last threo yeare ( 973,220 against $1,631,663$ ), the increase within so short a space is found to be in the proportion of 68 to 100. Marseillos is far from exhibiting the same rapldity of pregress. The basia of the prosperity of Trieste, besides, is all the moro solld, as it is owing to the increased intercourse both with purely Austrian and foreign ports. The natlonal trade, for instanee, from 1846 to 1848, amounted to $416,7^{\wedge n}$ tons avorage per analm; from 1853 to 1855 it had incr.ased to 854, ,i53tons average per year, or more than doublo. During the years 1850 and 1855, inclusive, the Austrian tonnage entered in and out at Trieste was 6,206,316; foreign, 2,981,928 tons. The trade with Greece, Egypt, ti.9 Levant, and Black Sea, had rlaen from $25 \overline{2}, 741$ tons to 496,394 tons averugo per year during the same period.

Commerde of Trieste and Vbmice for tar Vear 1851.

| Countrles. | Trieste. |  |  |  | Venlce. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Entered. |  | Cloared. |  | Eatered. |  | Cleared. |  |
|  | Veesela. | Tona. | $V$ easels. | Tons. | Vemeela. | Tons. | Veasela. | Tonn. |
| Amerlcan . . .................. | 55 | 26,(H)7 | 56 | 28,481 | 8 | 2,740 | 7 | 2,445 |
| Ilanse Towns.... . . . . . . . . . . . . | 20 | 5,7:3 | 80 | 0,763 | 13 | 2,310 | 19 | 1,967 |
| 13elglan . . . . . . . . . . . . . . . . . | 4 | 67.1 | 5 | 129 | 1 | 155 | 1 | 156 |
| lirkzlian....................... | 2 | 830 | 3 | 990 |  |  |  |  |
| Lianlsh. | 16 | 2,179 | 18 | 2,910 | 4 | 622 | 2 | 854 |
| French. | 16 | 2,203 | 14 | 2,080 | 15 | 1,767 | 16 | 1,757 |
| Greek and Ionian. | 443 | 60,818 | 462 | 62,309 | 127 | 17.811 | 150 | 20,090 |
| English ...................... | 83 | 24,438 | 87 | 24,436 | 86 | 20,103 | 90 | 22,057 |
| Neapolitan . . . . . . . . . . . . . . . | 417 | 41,544 | 440 | 36,603 | 104 | 18,099 | 205 | 22,411 |
| Itolland........................ | 62 | 9,0158 | 61 | 9,536 | 18 | 1,974 | 13 | 1,058 |
| Turkey ..................... | 101 | 21,533 | 234 | 27,724 | 41 | 5,083 | 59 | 7,0'5 |
| Pontlfical 8tates | 397 | 23,819 | 681 | 37,245 | 13 | 2,074 | 12 | 1,820 |
| Portugucse..... | 5 | 1,116 | 5 | 1,234 | 1 | 100 | 1 | -100 |
| Prnsslan. | 10 | 2,194 | 8 | 2,010 | $\ldots$ | . . . | . $\cdot$. | .... |
| Rusglan . . . . . . . . . . . . . . . . . | 2 | 260 | *** |  | i | $\cdots$ | $\cdots$ | -10* |
| Sardlnlan ...................... | 19 | 3,577 | 20 | 3,986 | 13 | 2,104 | 13 | 2,104 |
| 8panlsh: . . . . . . . . . . . . . . . . | 28 | 4,065 | 24 | 5.721 | 4 | 1,227 | 4 | 1,227 |
| Swaden and Norway ........... | 87 | 7,487 | 37 | 9.242 | 26 | 6,033 | 26 | 4,532 |
| Tuscan........................ | 8 | 1,559 | S | 1,363 | 10 | 1,945 | 0 | 1,783 |
| Total ................... | 1,852 | 238,078 | 2,181 | 263,608 | 056 | 82,943 | 032 | 92,385 |
| Austrian ..................... | 11,410 | 624, 025 | 11,112 | 604,438 | 4871 | 888,628 | 48:5 | 883,903 |
| Total, 1854 . . . . . . . . . . . | 13,262 | $802,703$ | 13,203 | 808,089 | 6187 | 471,576 | 5287 | 476,283 |
| Total, 1856 . . . . . . . . . . . | 10,905 | 773,477 | 10,864 | 772,485 | 4831 | 450, 06 ! | 4549 | 406,729 |

The treaty of 1829, between the Unlted States and Austris, establishes as perfect reciprocity of commarcin] intercourse between the two countrles. Its principal atipulations are as followat
There ahull lo, between thil United States ferritories and thuse of Austria, a reciprucal liberty of comnieree and navigation. All the ports, places, and rivers of the territories of alther power, open to forelgn comunece, ahull be open to the iuhabitants of each reapect!vely. Austrian vesasla arriving, elther laden or in ballast, In the rorts of the United States, and, reciprocally, vessels of the United States, elther laden or in ballast, arriving in the ports of Austria, shall be treated, on their entrance, during their atay, and at their departure, upon the same footing as uistonal vosacls coming from the same place, with respect to the duties of toninge, Jight-housen, pliotage, and port charges, of whatever kiad or denomination, Jevied in the name or to the profit of the government, the local auchoritien, or of any private estublishment whatever. All kinds of merchandise, and articles of commerce, either the produce of the soil or of the lndustry of either country; which may lawfully be imported into each reapectively, shall be admitted on payment of the saine datiea susd chargen, of whatever kind or denomination, as are applicable If imported under the national fiag. This equalization of import dutles and other charges to apply to the veasels and cargoes of each country respectiveiy, whether they clear directly from the ports of the counity to which they belong, or from the ports of any other foreign country. The produce or manufacture of elther counti; shall be admitted into the forts of the other on the same terms as the like articles, being the jroduce or manufacture of any other foreign country; and no prohlibition shall be imposed on the iniportation or exportation of any article, the produce or manufacture of either country, to or from the ports of the other, which shall not equatily extend to all other nations. The ressels of both powers, roapectiv ly, shall be adnitted into the ports of either, on the same terms as national vessels, with the produce or manufnctare of their own or of any other country. In exact reciprocity sliall be observed in the ports of the territories of either power, in reapect to the vessuls of the other exportiog or re-exporting merchandise or produce of any country not prohibited; and the same tountien and draw backs shall te aliowed, whether such exportation or re-expertation be inade in sessels of the one party or of the other. The coasting trade is reserved liy each power to its own ressels, reapectively. All favors hereafter granted hy either party, in respect of navigation or commerce, to any wher nation, slasil become commion to the other purty, freely, if it was freely granted to such other, or onl similar terms if it were conditional. The consuls, vice-consuls, agents, and commissioners of each of the high contracting parties shall enjoy, in the ports of the other, the same privileges and powers as those of the most favored nation. The treaty to continue in force for ten yeara, with the usual tweive menths' notice by cither party desiring to terminate it after that time.

Tonnage Ihties.-On the 24th January, 1sít, the central maritime government of Austria issued public notice that from that date the tomage duties in forco at the port of Trieate should be extended to all ports throughout the empire open to commerce. These dutles are regulated hy ordera dated 8 th November, 1815 , and are as fullows:


A mercantile house in Now lork, long engaged in the direct trade between thint port and Trieste, furnishes the following statement of charges on a vessel of 1000 tona hurden, entering the latter port:

C upersge, at 6 zrentsers per ton $\qquad$
Plotsge, st 3 kreutaer per ion
arecte
Ifeelth department upon mrrivel an
Marias lautiuto. Martas lantluto.

Total axpense on a reesel of 1000 tons ...... $\overline{881} 18$
The florin equala 60 kreatzera $=48$ \& cents; conae. quently, tide whole oxpenses amount th $\$ 13637 \mathrm{j}$. Whether veasels take froight for soveral partien, or a single house, the stevedores make the same charges for atowing away the goods. The following are their fees for prineipal merchandise, via. 1 for cotton, 2 fforms per ton; for wool, hemp, fax, oakum, and roots, 1 turin 30 kroutaora per ton. Goods of such weight as raisins (black and red), fige, ollve-oil, ateel, cream of tartar, argol, ete., 80 kreutzers per ton; ragn, grain, sumach, Laurel leavea, tobac:o, yelliow berrice, and Juniper herrien, 1 florin per ton. Goods which are measured, 30 kreutzers per ton measurement. Other articles in the amme proportion. In discharging veasela, the only espenses a:e tho lighters, which are provided by the agents of the vessels, and which are pald for by the receivers of the goods, in accordance with a general tariff, which the proprietora of the ligatera have fixed upon by general consent. The captaina are obllged to put the goode on board the lightere at their own espense. For this purpose hands can at all times be procured at 1 florin 16 kreutzera to 1 florin 80 kreutzers per diem. ( 55 cente to 64 cente). Men-of-war, national as well as foreign, and vesaels putting in from atross of weather, or other necessity (whleh must, however, be verified), and not trananeting any operations of commeree, are ailmitted to entrance, and sllowed to purchase frech provisions and other necespariea, and to take a pilot, exempt from tonnage duties. Tonnage of national vessela to be ascartaiued by their register; of forelgn vessela, by Austrian measurement.

Sanilary Regulations.-These are numerous and complicated; such only are suljoined an relate to vessels coming from all ports of the Anericas, inclading all the ports of the West Inilies: 1. Vessels with clean bills of health to be admitted, with crew and paseengere, immediately on arrival, to free pratique. 2. Veesels with suapicious bills of bealth, such as having touched on their passage at aunpected places, to be aubjected to ten days' quarantine at the lazaretto, for passengers, crewn, and susceptilile goods; and goods not susceptible, to 5 days. 3. Vessels with foul Lills of health to be suljected to fifteen days' quarantine at the lazaretto, for passengers, crews, and susceptible gools; and goods not ausceptible, 10 days. The quarantine charges are very moderate, being, fur entry and departure, upon a elhip of 100 tons and upward (exclusive of 72 cents per diem for wages and food to the gondoller), about 8432 ; quarantine dues upou goods, 6 kreutzera (a little more than $4 \frac{1}{2}$ cents) per 100 dorins value ( 48 (80); and upon susceptibic goods, 4 kreutzers ( 34 cents) per 1000 lbs. weight.

General Fiemarks.-The de velopment of the disitime comnerce of Austria dates hack as far as 18t5, or, rather, from that period down to 18:0; during whieh it grailuaily attained, chiefly by the aid of steatm navigation, a high state of prosperity. The great commercial activity of the empire is principally concentrated at the port of Trieste; Venice and Filume, su far, at least, as it respecta foreign trade, being hut subsidiary to this vast entrepuit. Desides these, Alastria postises onf the Adriatic, 25 prots of accondary rank, which ciaim importance chictly from their extensive coasting trade. The principal of these are Chiuggia, to miles south of Venice; Loviguo, in Istria; Zara, Spalato, and leaguan, in Dalmatia. This city was founded about the middie of ti:e 15 th century, and once enjoged an extensive trade. It still exports manufactures of silk, leather, rosogllo, anchovies, etc. It continued to be a republic under the successive protection of the Greekn, Venetians, and Turks, mitil 1806, when it was
mont. ports free $p$
moreh one ps empir were
ly as n fore the it duties, tahed; certain monop for thi "the I vast establl more tl of 81,0 the em

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tuonopol
towed to
Manufac under th 100 lbs. of 1851 , per llver 2 florins inanufac whale oi cia-ware, tural an ete. D of 1852 , suing ye beferu 18 to bring man Cu libs.; the ner. Sc mitted b for exan $110 \neq \mathrm{Ibs}$. As the $U$ fivored provision siderably ping.

The or ure, the lution of been res commero mission basce, al similatio man Cus for ad $t d$ $110: \mathrm{lbs}$ aholition
erected by Napoleen lito a duchy for Marahal Marmont. Trierte, Venice, and Fiume, with some amall ports on the Croatian shore contiguoua to Flume, are free ports. Yrior to the year 1850, all produce and merchandise of whatever deacription, transported from one part of the Austrian territories into another (the empira being divided by an Internal cuatoma line), were subject to duties of entrance and clearance, equally an if they had been imported from, or exported to, a foreign country. 13y an imperial patent, iasued on the 7 th June, 1850, this line was suppreased, and all dutien, prohibitlons, etc., previously existiog, wore abolinhed; some formalities being reserved in respect to certain articles of which the government retained the inonopoly. In aubuntting to the omperor his projet for this reform, the minister of inance observed, thet "the influence of auch a measure, In consolidating the vast and widely-extended resources of the empire, in establishing Its unity and augmenting ita powor, would more than counterbaiance the inconsiderable reduction of $1,099,110$ which it would cause in the revenues of the emplre."

This tiberal measure was soon after followed by another, equally beneficial to the forelgn commorce ol Aus-tria-namely, the new tariff that weat into operation on tst Fehruary, 1852. In the complicated dotails of this tariff, there were various changes favorablo to American trade. The duty on cotton, although considerahly reduced from former rates, was, prior to the adoption of this tariff, $800^{7}$ g centa per 125.5 lba . The tariff of 1852 reduced it ugain $48 \frac{1}{2}$ cents per 110 libs. for one year, and the year following to about 4 cents per 1104 ibs. Since this iatter period-nancly, January 1, 1854 -the article has been made free. Still later modifications of the Austrian tariff have boen mate, but they do not apply to any of the United Statos staplos of expert. Previously, tohacco was a strict governneent monopoly; under the new tariff, individunls are al. lowed to enter it for their own uso, at reduced rates. Manufuctured, it paid before 1852, $\$ 1940$ per 100 lbs.; under the new tariff, tinis was reduced to $81212 \frac{1}{2}$ per 100 lbs . This duty has been retained in the new taritf of 185 J , with an additional daty, however, of 1 fiorin per livre de Vienua ( $48 \$$ cents), on ommunufactured, and 2 florins 30 kreutzers per livre do Vienna ( $\$ 121$ ), on manufactured. Tho duties were reduced also on riee, whale oll, and tho products of the whale-fishery, wood-eii-ware, tools, implements, and macbinery for agricultural and household purposes, Iadia rubber fabries, etc. During the first year of the operation of the tariff of 1852 , cotton $t$ wists paid $\$ 388$ per 1101 lbs.; the ensuing year this was reduced to $\$ 3$ 39h. The costuer before 1852 was equivalent to 125.5 lhs. ; but, in or ler to bring about a conformity to the centner of the German Customs Union, it was fixed thet year at 1101 ibs, ; that being the weight of the Prussian zoll-centnor. Several articles, when imported by sea, are admitted by the tariff of 1852 at rates atill more moderate; for oxample, alum, In general rated at $22 \$$ cents per $110 \neq \mathrm{lbs}$.. pays only $8 \frac{1}{2}$ cents when brought in by sea. As the United States stand on the footing of the most favored nation, by virtue of the treaty of 1829 , the provisions of the tariff of 1852 have contributed considerably to the employment of Einited States shipping.
'ithe commercial reform of 1852 was , in a great moasure, the result, or rather one of the resulta, of the revolution of 1848 . Immediately after tranquillity hat been restored, tho Haron de Bruck, then minister of commerce, was charged with an administrative commission to prepsre a new tariff upen the following bases, adopted by the Council of Ministers: An assimilation, as nearly as can be, to the tariff of the German Customs Association; the sulostitution of specific for ad valorem duties; the adoption of the quintal of 110: 1bs., as a basis of quantities. On imports: The abolition of prohibitions; adequate protection to aa-
tional inilustry ; a graduating scale of duties on manufactured articles, according to the amount of lebor etrployed thereen; a reduction of all taxes on araicles of frat necessity, elther for manufactures or consumption. On exporta : Batance-dutien (weighing-dues), and all necessary formalitiza as almple as possible ; a substitutlon of protective duties for prohibitions; the abolition of all premiams or drawbacks, unless in cortaln apecified cases. On the proceding busea, the tariff which fias lieen in part considered was submitted to the councll, and had been under consideration several montha, when the treaty of a custeins league lietween Pruasia and IInover permitting no further delay; it was submitted to the emperor, and signed on the 6th day of November, 1851, at the very time that a commercial congrasas, to be composed of delegates from the different German states, was summened to meet at Vienas in January, 18\%.' The imperial patent, which designated the 1st Feliruary, 1852, as tho day on which the new tariff ehould go into effect, contained several orders of a tamporary character. One was an extra duty of 10 per cent. on the ar wegate duties levied un cerlain merchandise bef prohibited. The duty on raw cotton was modifie., and other temporary provislons wore made, which, so far as they concern American trade, have benn already adverted to.

Indeed, tho tariff itself was not deaigned to be permanent. It was tried only as av experiment, and, by limitation, was to expire at the end of October, 1854; tise government being mean while precluded, on the one luand, from raling the dutles on importa for manufacturing purposes, and on the other from reducing them on articles manufactured haif or in whole. At the same time, the export duties on articles of the former class could not 1 a reduced, nor could similar duties on those of the latter be raised. The imperial patent, moreover, contained one notahle provision, viz. the duration of the tariff was to depend on the contingency of a treaty of cominerce (with I'russia) being effected before the period fixed for Its termination. It would shod but littlo light upon the commercial relations of tho Uinited States with Austris to follow up, and recount in this work, the proceedings of the commercial congress assembled at Vienna during the wintor of 1852, or to iccapitulate the resolutions adopted by the delegates of the southern states before presenting themselves at Berlin. It will suffice to say, that on the 19th February, 1853, a treaty was effected between Austria and Prussia, which was acqulesced in by all the other states of tho Zoll-Verein. This treaty, stipulating as it does for largo and reciprocal commercial concessions bctween tho two powers, as a fitting prelude to a general customs league between all the German atates, necessarily led to a revision of the tariff of 1852. This resulted in the adoption of the tariff now in force; to understand which, however, it must bo borne in mind that many of the articies enumerated in that portion of tho tariff, though rated at different duties when coming from foreign countries, aro free when imported by the frontiers of the Germen Association, or coming from the interior of the associated states.

Theso privileged articies aro specifically defined in a supplementul oppendix to the tariff, dated February 10, $180 \cdot 4$, and prefaced in the following terms: "As thio first result of the arrangement entered into at Berlin by tho Eisecutive Commission, conformably to the 23d article of the treaty of commerce and of customs of the 10tin February, 1853, and for the purpose of correcting some erroncous impressions, pulitic notice is given that the foliowing are the true constructions and modifications of the tariff of the 5th December, 1803. Said constructions and moditications shall bo carried ints effect so soon as they are received at the different bureaux of customs." (Then follows the list of artjcles coming under the special provisions of the treaty.)

The causes that compelled the revision of the teriff
of 1852, as well as the adoption of the present tariff (of 1854), are set forth In an articlo which appeared in the officlal journal, published at Vienna, of the 15th Decembor, 1853.
In reforence to the treaty with Prusela, this articlo holds tho following languago: "Other considerations induced a revision of tha tariff of 1852. The treaty with Prussla is the first step in reforming the commerciai policy of the ompire. From it must result, at no very distant day, an Anstro-Gernian Customs Union; and a gencral reduction in tariff dutles is the most fitting prelude to so desirablo an event. Besides, the commerelal trenty of Augast 7, 1852, concluded with Parma and Modena, removea all obstacles to an AustroItalian Customs Union; and thus tho event referred to (an Austro-German Customs Union) would present a guarantee for the prosperity and peace of the contlnent. The changes and modineations whielt could contribute to thls end should eommand our most serious consideration. These are principally such reiluctions in tariff dutles as aro dumanded ly the best interests of commerce-not, however, to an extent that
might in any way prove detrimental to tho industrial resources of tho empire. Succoeding, as It does, a reatrietivo system, in operation for more than half a century, tho tariff of 1852 is atill encuinbered with onerous duties and oppressive restrictions, repugnant to a great association of states accustomed to the most liberai system of eommercial policy. Besldes, the augmented exports of 1852 and 1853 demonstrato the wiso policy of a general reduction of taritf datles, and furnish liicontestable evidence that such a measure will most effectually repair the evils of past commercial legislatlon." The preceding remarks contnin a summary of tho official exposd already referred to, and oxplain thic motives that induced tho general remodification of the Austrian tariff. Tho abolition of the govermment monopoly of tohacco would remove the mest serious and the only reinaining restriction on Amerienn corrmeree. The custome mion with the Germanle atates, so much desired by Austria, will accomplish this, if it should not the effected before that event ehall happen. $-U . S$. Com. Relations. The following is an oxhibit of the commerco of the U. S. with Austria for 37 years:
 то JUL.T t, $18.7 \%$.

| Vaseremating | Kiports. |  |  | Imports. | Wherood theta was la Hullion and 8pacie. |  | Tonnagn clearsd, |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Donnestic, | Foseleg. | Totul. | Tuial. | Eixpors. | (mppori. | Amertean. | Forolan |
| Supt, 30, 18:1 | \$31, ist |  | \$2141. 260 | \$2+n) Ju\% | .... | \$0×, 130 | 1,8:5 | $\ldots$ |
| 1832. | 88,753 | \$316,963 | +7579 | 274,375 |  | 9,20.) | 2,151 | . $\cdot$. |
| 1813. | 20,00\% | \$10,618 | P45315 | 189,137 | - | 13,299 | 6,19 | $\ldots$ |
| 1834. | 6,5.6 | 618,057 | b.4, che $^{\text {; }}$ | 803, 467 | - | 157,717 | 2,185 | .... |
| 1825. | 8.831 | 641,168 | 65: 2 , 4115 | 105, 33. |  | 2,033 | 3,946 | .... |
| 1826. | 13,087 | 273,073 | 287.320 | 103,15:2 |  | 4,000 | 1,879 | ... |
| 1527. | 4:2,671 | 241 123 | $276.79: 1$ | 163.568 | .... | 10,304 | 2,190 | ... |
| 1828. | 110.883 | 205,:25 | 3.4 .454 | 237,379 | , * | - | \$1.048 |  |
| 1824....... | (19, 293 | 240,2.01 | 689,453 | 191,89t | . | 460 | 6,384 | 129 |
| 1830. | 38.80 | 293. 461 | 644.129 | 132, 01:3 | . | 912 | 4.168 | 259 |
| Total. | \$9.7,0.44 | \$4,113, 662 | \$5,160,6\% | \$1,150,475 | $\cdots$ | \$200,08x | 31,6is | dit |
| Sept. 30, 1831. | \$176,501 | \% $0.62,508$ | \$5.72.369 | \$161,002 |  | \$ 1,900 | 4,215 |  |
| 18.12 | 190.911 | 930,755 | 1.186 .488 | 302, 027 | - | , | 6,407 | 1, 10 |
| 1833...... | 143,417 | \$98,447 | 504,461 | 314,611 | . | \%iv | \$1,004 | 1.711] |
| 1831. | 618,619 | 054.723 | 1.73 .7 | 0sun,614 |  | 22,090 | 7.030 | 3.307 |
| 1834. | 818.375 | 841,1889 | 1,202, +1: | 492,667 |  | 4,477 | 6,512 | 2.614 |
| 1836. | 1,138,481 | 824.631 | 1,908,105 | 1,420, 109 | (3, 3100 | 2,300 | 8.944 | 4331 |
| 1837. | 1,233,371 | 378.281 | 1,011,6:1 | 1229,463 | 4 4,100) |  | 2,179 | 14,919 |
| 1894 | 643,783 | 125, 740 | 768, 9.3 | 872.373 | , | 7.919 | 4,974 | 273 |
| 1839. | ง49.544 | 108.671 | 599,219 | 477.53 .1 | . . . | 1,500 | 3,06: | 2.5i4 |
| 1850....... | 1,5011,481 | 196, 564 | 1.781 .621 | 373865 |  |  | 11,588 | 00.1 |
| Total... | (3,494,431 | \$4,650,406 | * 11,634, 247 | +4.753,727 | \$10,459 | +40, 5.6 | 63,132 | 3, 76 |
| sept. 30, 1541....... | 41,258,716 | 822,130 | \$1.311.701 | \$4180)6 |  |  | 10.930 | 1, \% ${ }^{\text {a }}$ |
| 1812...... | 748,179 | 136.626 | 884,70 ${ }^{\prime}$ | \$13,210 | ... |  | 10,6319 | B61 |
| 9 mok. 1843*. | 4.60 .240 | 115.978 | 679.t5x | 72.9\%7 | . . . |  | 8,674 | 1,75\% |
| Juae 30, 1444....... | 1,207, $0^{8}$ | 168.735 | 1,4!6,1221 | 492.049 | . | \$3,098 | $111,6{ }^{1} 7$ | 3.914 |
| 1845...... | 1, 4id, 10 : | 364.775 | 1,801.57\% | 321, 050 | . . . | .... | 15.470 | 3, 109 |
| 1841..... | 1,164, 669 | 366, 143 | 1. 4716.611 | 879.719 | - |  | 12, -02 | 8,841 |
| 1847....... | 1.175375 | 73,918 | 1,245, 2.38 | 185.741 | * | 7,503 | 7. Mbl | 5.50 |
| 1848....... | $1,701,445$ $, 112,489$ | 107,727 4.4 .876 | 1,301, $2 \pm \pm \frac{2}{2}$ | 345. 418 | . . . | 1.867 3.000 | 16, 2.211 | 4.693 |
| 16511........ | 1,129.893 | 1112,111 | 1, 192,14 ) | +172,6 11 | . | ,0 | 11.16 0.464 | 0,468 |
| Total... | \$11,211,303 | \$2, 103,65! | \$13,430, 90\% | *4, 688,1064 | *.'* | \$15, 3 (14 | 10:0,702 | 12, 415 |
| June 30, 185ı. | 4, 965.573 | \$930,804 | \$2,496,40\% | \$730.788 |  | . $\cdot$. | 11),179 | 1331 |
| 18:22 | 2, 4018, 8.31 | $8.9,483$ | 2, 333,414 | \$08, 54 | -* |  | 14,124 | 13,4'N1 |
| 185\%. . . . . | $2,002.481$ | 171,44 | 2, 234.208 | 6:3,607 | , |  | 11, ${ }^{\circ} \mathrm{h}$ | 9,241 |
| 1854 | 1,697.819 | $204{ }^{20} 0$ | 1,903,64, | 741,418 |  | \$147, 7313 | 15,415 | -1/1 |
| 1485....... | 1,2775:7 | 122.271 | 1,349,811 | 4146.498 | . . . | , | 0.517 | 7.10:9 |
| 1856....... | 2,234.753 | 206,1085 | 2. 441.45 | 476511 | . . . |  | 16.916 |  |
| 1875...... | 2, 113.(4). | 292,614 | 2.405 tsl | 小先3ts |  | 24.1006 | 13,181 | 1.614 |

- None montha to 3 une 30, and the fiecal year from thim itine begina July 1.

Trinidad. Trimitat is separated from the min land of south Amerlea by the Gulf of Paria. It is ahout to miles long nat iot miles wide, with an estimated superticial area of 2020 square miles. Capital, D'uerto il'Espana. Trintlad appars at a diotance tike sn humense ridge of rock along its whote morth front; but on entering the Gulf of larla, wne of the mowt magnificent, variegated, richly luxuriant panoramas that nature ever formed is presentel to the eye of the voy:ager. To the east the waves of the mighty trinuco rispute for the empire of the ocean wilh contending bllows, and the lofy montainx of Cumana rise from the horizon in stupentuas majesty; and on the wes! appear the cajen, ineadiands, mountains, hills, valleys,
and plains of Trinhlad, enameled with eternal verdute. The fecundity of the soil, its gignntic vegetation, is benutiful rivirs, enchanting slopes, forests of pilus, groves of eitrons, and herlgen of spices and pretimes, its fine azure skies and clastic ntmosphere, have ead and all combined to crown the isle with the appeliation of "The Indian l'aradise." The ishami is madeni"a section of the opposite continent; tho same strata, the same rocks, fossils, te., aro common to loth. Hs formation is evilently volcanic, and in many parts volcanic action is stifl going on, as Indicated by its mul voleanes and other cognate developments. The precious melals are not founl here, nor indeed are ath othere, exeepl in small yuantilites. Coal is fuond abous

flvon eral | cover |
| :---: | St sels (old), in 18 were 18533, from from 1 tona

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five miles from tho shore. But the most remarkable mineral phenomeaen is the asphaltum, or pitch lake, which covers an area of half a league.

Staples as in the other islands. United Statea vessels nise export heavy quantlties of Iron, brass, lead (old), and hides. Tho imports from the United States in 1853 were $\$ 537,604$, and exports to United States were $\$ 31,483$. Anerican vessels in Port of Spain in 1853, 59 ; tonnage, 11,172 . Imports from United States from 1st January to 30 th June, 1853, $\$ 308,716$; Imports from Ist July to 3Ist December, 1852, \$268,148.
l'ort Regulations.-Upon every ship or vessel of 50 tons and upward, for overy registered ton, 36 cents. Upon every ship or vessel of 25 tons and upward, but under 50 tons, for every ton of registered tomage, 30 cents; and upon every ship or vossel under 25 tons, for every registered ton, 6 conts. Lumber, staves, brieks, slates, shingles, coal, cte., are also sulyject to a small wharfnge duty. Sugar, cocoa, coffee, rum, indigo, ete., are liable to an oxport duty in thls island. Triuidad embraces an area of 1970 sijuaro miles, containing a population of 45,284 .

Trinity EIOuse. Tho full title of thls corporation is,"'The Master, Wardena, and Assistants of the Guild, lraternity, or Brotherhood of tho most Gloriens and Undivided Trinlty, and of Saint Clement, in the Parish of Depiford, Stroud, in the County of Kent" 一 an institution to whoso mombers is intrusted the mmagement of some of the most important Interests of the seamen and shipping of Eingland. The earlier records, togother with tho house of the corporation, were destroyod by tire in 1714; so that tho origin of tho institution can only now bo inferred from usigo and the occasional mention of its purposes in documents of a former period. A similnr society, for the like purposes, was nfterward established at Inall, nud also another nt Newcastle-upon-Tyne in 1537; which threa establishments, says Jlokluyt, were in imitntion of that founded by tho Einperor Charles V, at Seville, in Spain; who, observing the numerous shipwrecks in the voyages to and from tho West. Indies, occasioned by the ignornuce of scamen, established, at the Cusib de Coniratacion, lectures on navigntion, and a pllet-major for the examination of other pilots and mariners; having also direeted beoks to be published on that suliject for tho uso of navigators. According to some authorities the incorporation was founded in tho year 1515. It is probable that with IIenry VII. originated tho scheme, afterward carried into effect by his sen, II enry V1II., of forming efflciont Navy and Almiralty lloards, which then tirst became n separate branch of public service. During the reign of Ilenry V1II. tho arsenals at Woolwieh and Deptford were founded, and the Deptfordyard establishmeat was sulisequently placed under tho direction of the Trluity Ilouse, who likewiso surveyod the nava,, orlislons and stores. The earliest oflleinl document elating to tho Trinity IIonse now extant is a charter of incorporation made by Ienry V[II. in the sixth year of his reign. An exmplification of this charter was gratited by George II., in the third year of hls reign.

The revenue under the management of the Trinity IIouse arises from the dues payable to the corporation on account of light-houses, buoyage and beaconage, and ballustage; and from tho interest of money in the funds, and the rent of freehold property, monounting to uhout $£ 16 i 6,000$ amuunlly, Ititherto by far the greater portion of this large revenue has been expended on pensions to poor disabled semmen, and on the maintename of their widows, orphuns, etc. ; and it is admitted that it has been both judiciously and ecenomically administeres. It is heneeforth, however, to ferm part of the "Mercantlle Marine Fund." The net provides that puymonts now chargeable on tho "fund" tor pensions, ete., may bo commuted. The expenses of lighthouses, ballastage, and beaconago are also to he charged on the "fund," and the rates of toll are to be revised
nod fixod by her majesty in councll. The ballaatage rates under the Trinity House, being $n$ charge peculiar to the Thamea, are to be made peculiarly applicable to servlces performed for the safety ond convenience of the shipping frequenting that river.

Of thia corporntion Lord Palmerston lately remarked, at the annual dinner given by the board of managers, "Thare is, indeed, a unlty of operation between tha government that may have to administer the affairs of thia country and thla body; for it is the function of the Trinlty Corporation to provide pllots for those theussnds of keels that plow the waves that wash our shore; and, on the other hand, to ereet those lights which warn navigators from dangera which thoy would otherwise have to encounter, and whlch point out to them the havens where safety is to be obtalned."-Sec articla Lignt-novses.

Tripang, or Bea Elug (Biche do Mer), a species of lish of the genus IIoluthuria, found chlefly on coral recfs in the Eastern seas, and highly estemed in Chlna, into which country it is imported in large quantities. It is an unseemly-looking substance, of a dirty brown color, lard, rigid, scarcely possessing any power of locomotion, or appenrance of animation. Sometimes the slug is as much as two feet in length, and frem seven to eight inches in circumference, A span in length, and two or three inches in girth, is, however, the ordinary size. Tho quality and value of the fish, however, do not ly any menns depend upen its size, but upon propertles in it neither obvious to nor discerniblo by theso who have net been long and extensively engaged in the trade. In shallow water the animal is taken out by the hand, but in decper water it is sometimes speared. When taken, it is gutted, dried in the sun, and smoked over a woed fire; this being the only preparntiou it receives. The fishery is carried on from tho western shores of New Guinca, and the seuthern shores of Australia, to Ceylon inclusive. Indeed, within the last few years it has been suceessfully prosecuted on the shores of the Mauritius. The whole preduce goos to China. In the market of Macaasar, the grent staple of this fishery, net less than thirty varieties are distinguished, varying in price from five Spanish dollnrs a picul (133z llis.) to fourteen times that prlce, each varlety being distinguished by wellknewn names. The quantlty of tripang sent annually to China from Maenssar is s.bout 7000 piculs, or 8333 ert.; the price usually varying trom 8 dollars a picul to 110 nad 115, according to quality.-Cnawfersis Indian Archipelago, vol. iii. p. 441. There is also a considerable export of tripang from Manilla to Canton. Hesides tripang, fish maics and sharks' fins are exported to China from every maritime country of Indla.

Tripoll. This regency is the most advanced of all the larbary stntes, in civilization. It possesses a vast sea-const, extending 350 leagues, from Tunls to Egypt. With the excoption of where tho desert ineets the sea, near Monktar, the northern or naritime part of Tripoli, for n few miles from the coast, has the same fertility nud productions ns Morocco and Tunis. Its area is es. timnted at 100,000 square milles, with a pppulation of $1,800,000$. Its products aro corn and fruits, in great variety and abundance; also cotton, silk, tobaceo, saffron, madder, and castor-oil. In the interior, semna, dates, and galls are the prlucipal staples. ']ho exports consist of dates, olives, straw mats, eartheis-ware, and other domestic manufactures, partly exported ly sen. and partly disposed of in larter to Bedovin traders. The other munufactures of Tripoli are carpets, thick cloaks, camlets, gonts'-halr sacking, prepared skins, Moroceo leather, and potash. These, tegether with the produce of Central Africa, which ammally arrives in enravans, are exchanged for Furopean sad colonial roads, The principal toade of Tripoll is with Malta, Tunis, and the Levant. The sea-porta are Tripoll, llengnal, and Dermuh, with soveral others of little or no importnnce.

The navlgation and commerce of tho two principal ports, for a series of years, are thus glven by French suthorities: In 1846 there entered, Tיrkish vessels, 108; Greek, 35; Tuscan, 14; Maltese, 14 ; French, 14; Russlan, 4; English, 3 ; Sardinian, I; Austrian and Sicillan, esch, 1. Total, 195 vessels; of which 167 were laden with merehandise valued at $1,8: 2,000$ francs. Daring tha same year there cleared-l'urkish vessels, 78; Greek, 25; Tuscan, 15; Maltese, 18; French, 14 ; English, 3; Rusalan, 2; Sardinian, 2; Austrian and Sicliian, ench, 1. Total, 159 vessels ; of which 121 wore laden with produce valued at 983,000 francs. In the port of Bengazi thera entered the aamo year 142 vessels, of which 113 were laden. Proviaions (chiefly barley) and tobacco aro extensively and profitably imported into Tripoli. This trado is chiefly monopolized hy the Turks, Greeks, and Russians. Tho vessela of these countries trale with the ports of the Levant, carrying to those places eargoes of salt taken on board at Żoura.
Commerciab, Movements of tie Rzagncy of Tripoli in 1551 AND 1854.


Navigntion returns for this port in 1851 aro condensed as follows :

Foreion Tabik of Thipoli in $18: 2$ and 1553.

| Countrice. | Imporis. |  | Exporto |  |
| :---: | :---: | :---: | :---: | :---: |
|  | ISS3. | 1838. | 188). | 1235. |
| Stal | Frabere | Pranca | Franes: | Frenes. |
| Turke ${ }^{\text {a }}$ | 44.1001 | '390, (000) | 1,350,0:40 | t.tit (40) |
| Eyypt | 154.000 | 285,000 | 60,000 | 150)(100) |
| Tunis. | 154,000 | 220,4001 | 3t1,060 | 607, 50.1 |
| Tuscany | 791,060 | 727,000 | 8,77.379 | 86t,1001 |
| France. | 654,000 | 807,000 | 278, 0100 | 614.0w |
| Algais | 4000 |  | 25000 |  |
| troman | 5.000 | 8,000 | -6,000 |  |
| Ausiria | 163, 114 | 789,500 | 4.160 | 5.000 |

The duty exacted in the Tripolitan porta is four piastres per 80 kilogra.ns--equal to shout elght cents per ton. Filots are not often emplove 1 ; when required, the captain of tho port must furnish them free of expense. Quarantine regulations the same as at Constantinople. Notwithstanding Tripoli is tributary to the Ottoman empire, there is a separate treaty between the linited States and that regeney, ratilled Juno 4 , 1805, placing the commerce between the two countries on the footing of the most farored nation. - Com. Rel. C'. s.

Treaties.-By the treaty concluded with Tripoll Juno 4. 1805 , it is stipulated that the consuls and agents of hoth nations, respectively, ahall huve liberty to exercise their religion in their own houses; and those of the same religion shall not be impeded in groing to the consul's house at tho hour of prayer. The consuls shall have liberty and persomal security given them to travel within the territories of each other both by land and sea, and shall not be prevented from going on thard any vessel that they may thlnk proper to visit. They shall have, likewise, the liberty to appoint their own Iragomans and brokers. In case of any ilispute arising between the contracting partien, no appeal shall be made to arms, nor shalt war be declared under any pretext whatever; bot If the consul rexiling at the piace where the dispute shall happen shall not tre alile to settle tho same, the government of the country shall atate its grievances in writing, and transmit it to the other; and the period of twelve ealendar months ahall be allowed for anawers to be returucd, during which time no act of hostlity shall be permittel by either party; and in case the grievancea are not redressed, and a war should be the eveut, the consula and cltizelis or sulbjects of both parties, respectively, shall be permitted to embark, whth their eifects, uncolested, on
bosrd of what vessel or veasola they shall think proper. If any disputes shall ariso hetween citizena of tho United States, or any persons under their protection, such disputes shall be settled by the consul of tho United States in the samo manner as stated above, in Morocco. The sume provision is mado in the treaty with Tripoli, in respect of homicides, as $\ln$ the treaty with Moroceo. The cars of the property of citizens of the United States dying in the regency of Tripoli is to la committed to the care of the consul, unleas otherwise disposed of by will ; and no hinderanco is to bo interposed to the execution of any will that may appear.
"The commercial Intercourso of the United States withln this codsular distriet is dependent solely on the regulations of the mother country. Theso regulations aro set forth In the tariff settled between Turkey and Great Britain on the 31st of October, 1850, and which applies also to the United States, under that clause of our treaty with Turkoy which secures to us all the privileges of "the most favored nations." 'Tho com. merce of the United States with this regency stands on the same footing as that of the most favored nations. It enjoys no exclusivo privileges nor suffers any peculiar reatrictions. There is only a port charge of ahout threo centa the ton, which is levied equally on foreign and national vessels.
"The true par or intrinsic value of the piastre of this country is $12 \frac{1}{2}$ sous, French; but we reckon it at $12!$ cents. The present bey has, however, issued a golil currency, composed of pieces of $100,80,40,20$, and 10 piastres each, which are about 20 per cont. deficient in weight; snd, consequently, in gold money the piastre is worth ouly ten cents. The Christian population tefuse to accept this new gold currency at its nomin.il value, but the arbitrary power of tho bey compels its circulation among his own people, and prices have sdvanced nominally already since ita appearance, withont other apparent cause. Whether absolute power can effect the magical work of maintaining in free circulstion two currencies of the same denominations sud names, bui of different intrinsic values, renains to be seen.
"The lluties on exports to the United States, as to sll other countries, are, on oil, $2 \frac{1}{2}$ plastres the metal, which is about $5 \cdot 08$ gallons, Linited Statey liguid messire. Thus we have $6 \frac{1}{1}$ cente per gallon. This oil is olive. oil, and is of a puality highly esteemed in Europe. The exportation of horses and camels is prohibited, and only allowed as a special favor to individuals or governments. The exportation of grain is generally confined to the bey himself, who consequently makes his own price. A very large portion of the oil is slso exported by the bey. The import duties on goods of tho United States are estalsished at 3 per cent. od valorem by treaty. The intermal taxes on the products of the soil are levied at 10 per eent., but the mamagement of assessors, by assessing the crop in its growing state, frepuently crases the actual tax to exceed this rate. Llesiles, there are octroi duties, more or less heavy, on all nrticles of produce sold in the cities for Consumption."-Com. Rel. $l$. S. See Tueatirs, Com. HELCDS..

Frem Weight, the most ancient of the weights uscd an Scotland; and zough its use is now prolibitel by law, it is stil! occaslonally employed in sont of the rural districts in weighing wool, cheese, lutter, etc. The tron pound was not a welldetined weight, bat waried from twenty-one to twenty-aight ounces avoirilupois.

Trough of the Bea, In .Ifariue language, the surface of water luetween two waves.

Troy Weight, one of the thest ancient of the dif. ferent kinds used in llritain. The pound English T'roy contains twelve ounces, or 5760 grains. It is used in the welghing of gold, silver, and jewels; the cempounding of medicinen; in experiments in natural philosopliy i in comparing different weights with eacheth-
er ; an weight Befo ment 0 of the and gr nge an ngo, or Julius Britain rings, Celts lar mol shores tain on ounco ! an eml chased by the finenes was a : ized co still re carried of coin purpos called ling.
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Cologn in talo by Che der Wi ures, w der his renlin, Euster'
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er ; and is now mado the general standard of English welght in Great Britain and in the Unlted Stutes.

Before tha American Association for the Advancement of Selence in 1857, J. B. Gibbon, Esq., Assayer of the Mint of North Caroline, read a paper on the rise and gradual discontlnuance of Troy weight ln coinage and commerce. No stated that about 1900 years ago, or about ffty-two years before the Christlan era, Jullus Casar had described the Inhabitants of Great Britain and Gaul as making use of brass and iron rings, by weight, for money. Gold-ring money of the Celts was also annually dug up in Ireland; and simllar money was employed by the Scandinavians, on the shores of the laltic. They were multiples of one certain ounce, or integers of its proportions-the word for ounce being claimed as a purely Celtic onc. Recently an embassador wrote from Antwerp that he had purchased a gold chain of Rubens with the links stampel by the goldsmiths of the day to mark their weight and fineness. In South Africa, at the present day, there was a similar omployment of metal rings; and a civil. ized country of antiquity, as appeared from paintings still remaining on walls, employed rings which were carried to Cush or Ethiopia. Another nation had pieces of coin stamped with the likenesses of itlols for the same purpose. The old pound of the Anglo-Saxons was called Easterling, from which eume the modern sterling. In Franco there was a pound called the pound of Rochelle, and the Germans named it the pound of Cologne. A new system, by which the pound of silver in tale was also mate tha pound in gross, was arranged by Charlemagne in the 8th ecatury. In England, under William the Conqueror, it was decreed that measures, weights, etc., should remain as they had been nider hils predecessors. In 1256, by consent of the whole renlm, it was determined that tho silver penny, called Easterling, should be round, and that it should be of the weight taken from the middle of the car. Twenty of these penny-weights were to make an ounce, twenty ounces one pound; eight pounds of silver a gallon of whe; and eight gallons of wine a bushel, the eighth part of a quarter. Troy weight was supposed to have been derived from the Eastern nations, and transmitted first to Troyes, in France, from Calro, during the erusades. Frou Troyes it was carried into England by the goldsmiths, and found favor there under Henry VIII., who began to debase the stamlard fueness of silver coins and to reduce their weight. Hefore this a statute established a common standard by which silver and wheat were assumed to be the natural tests, the one of the other. Unfortunately, neither was exactly saited for the purpose. It had been found by experiment with white and red wheat, forty to forty-three grains wers required to balance a grain of silver, and from twenty-elght to thirty-tive or thirty-six grains of white wheat effected the same thing. In short, grains were not intended to serve as a just measure for perfect comparison, multiplication, or division.

Acting upon the opinion that the laws of physical nature operute uniformly, and that the heavenly bodies are governed hy fixed rules alike applicablo to all matter, while Sir lsaac Newton was Mlaster of the Mint, in the roign of George I., the vibration of a pendulam in the lutitude of London, on a level with the sea, was measured, and the length made to serve as the standard of the linperial yard of (ireat Britain. Welghts have been based upon a stundard arising from a quantity of distilled water at a certain temperature, atul having a certain cuble content. Upon the advice of the Ilouse of Commons, and afterward of a committee of the Royal Soclety, adilressed to the Princs Regent, it was determisted, under George IV., that the stanlard made by Bird in 1760 should be the legal stambard of length in Great llritain; that the pound Troy should be atill continued; and that 7000 grains should be the pound avoirdupois in the British em. pire.

By act of Congress in 1828 it waa determined that the Troy pound procured by the inlaister in London in 1827 ahould be the atandard, In the United States, to regulate the coinage. Yet there were threo atandards still in use in the United States coinage-the standard for quantities from Great Britain, the standard for purity from France, and the standard for proportion from Spain.

In the United States system many changes had been effected in the system in force at the Mint. The Troy ouncs was divided decimally, and the other proportions were diacurded. Tho French gramme used for silver, and the half gramme used for gold, with their thou. sandth perts, had replaced the old carat grains; and the proportion was based upon the dollar-a eredited but erroneous ounce of silver, the sixtcenth part of a pound avoirdupois, divided decimally for account. The act of 1772, which established the Unlted States Mint, was founded on the report of the first Secretary; and notwithstanding many ehanges in the United States, the system there was still subject to the same objectiona as that of England, belng copied from erroncous models, and not founded with scientific accuracy on systematic, uniform, and intelligible viewa, auch as are required for the purposes of coinage, of commerce, of the arts and professions of life, as well in Great Britain as for her colonles, and hy the United States.-See Weigirts.

Truck System, or Store Accoust, a name given to a practice that has prevailés, particularly in the mining and manufacturing dist:icts, of paying the wages of workmen in goods instead of money. The plan has been for the masters to establish warchouses or shops; and the workmen in thelr employment have either got their wages accounted for to them by supplies of goods from such depôts, without receiving any money, or they havs got the money, with a tacit or express understanding that they were to resort to the warehouses or shops of their master for such articles as they were furnished with.

Truffles, a sort of vegetable production, like a moshroom, formed under ground. A few have been found in Northamptonshire; they are pretty ahuadant in Italy, the south of France, and several other countries. They are reckoned a great delicacy. The pátės au truffes d'Angoulime are highly estecmed, and are sent as presents to very distant places. - Rees' Cyclopadia.

Trust and Trustee. A trustee is he who undertakes to discharge a trust, end a cestui qui trust is the person who is entitled to the benefit of a trust. A trust, which is, in fact, a new name given to a use, is dafined hy Lord Coke to be "a confidenea reposed in some other, not lssuing out of the land, but as a thing collateral, annexed in privity to the estate of the land, and to the person touching the land, for which cestui que use has no remedy but by subpena in Chancery."
Tschaik (Turkish ship), is a light galley used on the Danube, and provided with a sail and rudder. The tschaik generally carries from two to twelve guns, and from ten to one hundred men.

Tulips. They came to England from Vienna, A.d. 1578, and have always been among our most csteemed flowers. They became an object of commerce in the 16 th eentury; and it is recorded in the register of the eity of Alcmaer, in Holland, that in the year 1639 , 120 tulips, with the offsets, sold for 90,000 florins; and in particular, that one of them, called the ticeroy, sold for 4203 guilders! The stutes at last put a stop to this extravagant and ruinous passion for flowers. The tulip-trec (Liriodentron tulipifera) was carried to England from America, about 1663.-IHardn.

Tulip-tree (Liriodendron tulipifera), one of the most remarkable of our North Anerican forest trecs. In moat parts of the Uuiled States the tres is known under the name of poplar-tree. The wnod is of a llght color, with a greater specitic gravity than white pine, and is found ia most of the States and Territories. The
qualitios are a moderato resiatance to decay, and aasy manipulation. The principal defect is the liability to shrink and warp. The wood is in common use, on account of its abundance and cheapuess, for the maullfacture of common furniture, shingles, and dry lumber.

Tunis. The state of Tunis possesses nearly the samo nutural advantages of soll and climate as Morocco. In ancient times it was one of the granaries of Rome, aupplying wheat, maize, barley, ollvea, grapes, dates, and other fruits. Tobacco, cotton, and indigo havo recently been introluced as articles of culture, and small quastitios of aaffion and opinm are also raised. The princlpal mannfactures of Tunis are of red caps, exported to all parts of the Mediterranean ; of soap, at Susn chiefly; and of woulen, silk, and linen fabrica, and moroceo leather. The chief tmports by sea are cochinenl, raw silk, coffee, angar, Spanish wool (to make tarbouches, or red capa), wines, speeie, ete. Carsvans artive annually from Central Africa, bringing slavea, senna, ostrich feathers, golil dust, gum, and lvory, which are bartered for manufactured gonds, spicea, and gunpowder; while others, from Constantinople, bring wax, dried skins, cattle, and sheep, in return for muslins and other woven fabrics, Tunis mantlea, coionial produce, essencen, ete.

There are no officlal or relialile data from which the value of the general forelgn export trade of Tunis can at the preseat time ba gathered. The following statement of the average anaual exports is based upon an estimate made by the Frenci consui, and found in Macinegou's Commercid Regulations:

| Olive-oll | $\begin{aligned} & \text { Franea. } \\ & \mathbf{4 . 0 0 0 , 0 0 0} \end{aligned}$ |
| :---: | :---: |
| Weol | 1,5i0,000 |
| Itod caps (tarbouches) | 1.500,000 |
| Other wintens | \$01,000 |
| Wheat and pulse | 280,600 |
| Nuts, dutes, elc. | 90,000) |
| Catile. | 100,000 |
| Aponge | 200,000 |
| Wax | 41,000 |
| lide | 230, $\mathbf{3}$ (1) |
| Senna | 10,000 |
| Buap | 60,000 |
| Elephants toeth and gold dust | 400,000) |

Total average of experts $9,259,000$ francs, or nearly 82,000,000. The principal port is Tunis, situnted on a salt lake, communicating with the sea by a eanal or strait. Large ships anchor in the road or bay. The other chief ports are lliserta, Farina, IIammamet, Sfax, and Gerbis. The commercial relations between the United States and Tunis are regulated hy treaty of February 21, 1821.-Se Theaties, Commencial. No official data aro at hand upon which to hase an estimate of the character or value of the traile between the United States and this regency. There is no direet trale, It is believed, between tho United States and Tunis, commercial movements passing mainly hy way of Maita and Marscilles. Maegregor gives n statement of the imports into and exports from Tumis in 1839, of which the following is a summary:

$$
\begin{aligned}
& \text { Imports } \ldots \ldots \ldots . \\
& \text { Totat....... } \sqrt{3}, 46,040) \text { a } \\
& =\$ 3,306,250
\end{aligned}
$$

In this total the luited States figured for:

| 1 mports from |  |  |  |
| :---: | :---: | :---: | :---: |
| Expurte to T | 206,000 |  |  |
| Tolal. | क/m.904 | ${ }^{*}$ | $=\$ 126,500$ |

In 1812 there entered 311 vessels, with an aggregate of 33,321 tons ; and there cleared 331 vessels, measuring ant aggregate of 33,425 tons. The trale is conducted chietly under the Jlitish, Maltese, French, Neapolitan, Sardinian, Tunisian, and Anstrian tiags. These import wine, spirits, iron, augar, colfee. cotton, beans, and manufactured goods; and enrry back wool, hides, wax, harilla, sponge, oli, aimonda, malted fish, nuts, bones, dates, corn and meai, wax, soap, tissucs of woul, ete., and iecelbers.

[^52]The authority cited gives the navlgation duties in the difierent porta of Trnis as follows:

| trutiea, | Tunis. | Suta Mononallar. | Stax mail Gerlin. |
| :---: | :---: | :---: | :---: |
| Ancluragy duties . | \$26\% | \$1064 | \$1 thit |
| Captain of port tax. |  | 25 | 31. |
| Water tax .......... | 125 | 124 | .... |
| Odaburlit tax ...... | 65 | . | $\ldots$ |
| Total.......... | \$4. 621 | \$1 431 | \$13ii |

Beaides these fixed charges, there are also lincidental expenges peculinr to Tunis, viz. : 1st. All veascla which enter the Goletta Canal for repairs, or for any other purpose, pay an entrance and departure duty of $\$ 5$, nnd 125 besides, daily, if the vessei ls above 50 tons; 2d. A vessel taking in hallast from the lant is taxed 8375 ; Bd. On every vessel which finds itself unsafo In the roadstead, on account of the bad quality of its cable, or from any other reason, and wishes to get nuder the shelter of the inole of the Golettn, a duty of 12 caronbes (183 cents) per ton is imposed so long as it remains there, renewable every six months. Besides this duty; the captnin of the port receives 75 cents. In addition to the foregolng, the following information is condensed from official returns communicated to this Jopartment: The total port charges on entering the Goletta (the harbor of Tunla) amount to 8650 for lights, anchorage, bealth officer, etc., for vessels of over 30 tons; under 80 tons, one half that charge. These eharges npply alike to ali vessels, cither Tunisian or foreign.

Export dutics-inennsiderable, however-are levied upon oil, wool, and soap.

The Import duties on goods and merchandise pre regulated by treaty, and amount to 3 per eent. ${ }^{1}$ Tie artieles from the United States which nsually find a good market in Tunis are run, tobacco, small frelghts of flour, cheap cotton fabrics, provisions, cheese, salt beef, dried beef, hams, plekles, and biseult; but it would not he advisable to risk inrge enrgoes of these articles. The coasting traile is permitted to all foreign vessels, without payiug auy other duty than those named in the tariff. The quarantine regulations are: Quarantine of observintion, fixed at 10 days, is only required 7 or 8 days, though the veasel pays for 10 ; nud when coming from any port in the Meliterrancan, she pays $81: 35$ per day. Hesiles this thx others are bivied, anomiting ln the whole to $8.2562 \frac{1}{2}$. On vessels from tise levant, these taxes, accenting to Mnegregor, are
 These nre the rates at the port of Tumis. At the other ports the quarnntine of oleservation is usualty 10 day; expenses nearly the anme.-Com. Rel. U. . . .

With the exeeption of certain privileges grantal to Great Iritain and Spain, no privileges permitted to the commerce of foreign nations are denied to the United States. By treaty, Great Britnin olitained the privilege of exporting annually for the support of the garrison of Gibraltar, on payment of a duty of 85 per ox (though the thed dnty is 810 ), 2000 oven. Symin. when formidnble, olitained by treaty the following privilcges, vir.: the exportation of oxen on paying a duty of 83 per ox, instend of 410 ; fowis at 15 cents per ducen Instend of 41 ; julse at 60 cents per 12 havhei instead of 90 cents; and a proportionato reduction on all other oatables. These privileges, however, are at present disregnrilel. No reatrietions aro imposed in the commeres of other nations nor on that of the United States.

The port elinrges nud dics levied on vessels of the Cuited States are aimjily the nuchorage dues, whilhare exacted according to the tollunge of the vessel. The U. S. Consui says, " 1 ain led to think that the reetrictions which ohatruct $n$ direct trale with the I'nitei Statea nre the high duties levied in the l'uited stateg on prodnce in generai of this enıntry. If sueh duties were reduced to a tritling nmonnt, as they are in lireat Mritain, a powerful nud salutary intiucnes wonld be the rosult. 'luke, for example, the coarse wool of thio
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It se sometin despite and the and bar at the 1 oil is ol various ent. S In the re The sof estecme and is $r$ are nt S lative any qu:
country, which enters so largely into onr manufactures. Remove entirely, when imported from Moroceo in American bottonis, tho daty from this one article, nud that direct trade which twenty-four yesrs ago existed will agsin spring up. The great market for the wool of Morocco is even now the United States; but our ship-owners derive no lenellt from the demsnd. It finds its way to the United Stntes through Marsellles and Gibraltar, and French and English vessels make a monopoly of the esrrying trade. If, with the oxtra expenses of transhipment, the additional transportation, the extra commissions, insurance, etc., our manufacturers now find it to their interest to purchase largely of the wool of this country, how much greater will be the demand, and consequently the employment, of American vessels, if a direct trade between the United States and Morocco ls brought about? It is true, the expert duties of this country aro liable to sudden fluetuations; but contracts for ecrtaln periods can be made with the sultan, which exempt tho contrncting pirtles from licing affeeted by those fluctuations."-Consiuar Returns U. S. 1854-'55.

Tunis, the eapital of the regency of the samo name, on the northern eonst of Africa, the Goletta fort being in lat. $36^{\circ} 48^{\prime} 30^{\prime \prime}$ N., long. $10^{\circ} 25^{\prime} 45^{\prime \prime}$ E. The Bay of Tunis is somowhat in the form of a horseshoe. Its western extremity, Cape Carthage, is situated about four iniles northeast from the Goletta; and its castern extremity, Cape Znfran, bears from Cape Carthsge east by south, distant about 13 miles. The bay is about 16 miles deep, and has good anehorage all over, in from 10 to 4 fathoms water. It is expesed to the north and northenst gales; but they seldom oecaslon any damage. Tunis lies on the west side of the bay, belng separated from it by a large lagoon, having, where deepest, about 7 feet wnter. The port is at the Goletts, or chnmel, pussing through the nurrow belt of land separating the lagoon from the sen; the entrance to it is by a ennal, in which there is at nll times 15 feet water; and ships may use it on paying a fee of three doliars a day. It is not, however, much resorted to-nll vessels of considernble burden loading nad unloading from their moorings in the bay by means of lighters. The population of Tunls has been varlously estimated; and mny probally amount to 100,000 , being the nost populons of any Afrienn city after Cairo. Tho streets are narrow, unpaved, and filthy. The buildings, theugh of stone, nre menn and poor; and the inhabitants present the picture of poverty and oppression. There is a fort at the foletta of considerable strength.

Trade. - Notwithstanding the various drawbacks arising out of tho nature of the gevernment, and the ignorance and prejudices of tho people, commerce and industry are in $n$ more advanced stnte in Tunds thin In any other part of Northern Africa, Egypt excepted. Though subject to droughts, the climnte is, on the whole, excellent. Tha soil still preserves that exuberant fertility for which it was famous in untlquity.

Non quiequid Lithyels tertt
Forreos arca mosaibus,-(Senzo. in Thyest.)
It seldom receives any other manure than that of sometimes lurning the weeds and stubble; and yet, in despite of its slevenly eulture, the crops are luxuriant; and there is generally a considerable excess of whent and barley for exportation. Corn is principally slipped at the lisertn, about 50 miles west of Tunis. Oliveoil is one of the prineijnal articles of expert. It is of various qualities: some good, and some very indifferent. Susa is said to be the hest place for its shipment. Sonp of an exeelient quality is largely manufactured in the regency. It may be had either soft or in wedges. The soft is made of barilla and pure oil, and is much estecmed. The hard soap is made from the lees of oil, and is reckoned very strong. The prlneipal soap-works are at Susa. Llttle, however, is prepared on a speculative inticipation of a demand for expertation; but any quantity may be lad by contracting for it a few
months before the period when it ls wanted. A sort of woolen skull-caps aro largely exported. They ara in extensive demand all over the Levant, and are nowhere made in such perfeetion as herc. Ivory and gold dust, hides, wax, moroeco leather, sponge, barilla, eoral, dates, astrich feathers, ete., are among the articles of expert. The inuports from Europe consist of woolens, coarse German and Irish linens, cotton stuffs, hardware, sugar, coffee, spices, tin plates, lead, alum, dye-stuffs, wine, sllk, Spanish wool, etc. There is very little direct trsde between Tunis and Englard; but a $\mathrm{g}^{n-1}$ deal is indirectly carried on, through the interVntion of Malta and Gibraltar. Marsellies has prolasbly the largest share of the trade with the regeney. In 1880 there entered the different ports of Tunls 194 ships, of the burden of 20,747 tons, exclusive of those engaged In the trade with the other Afrlcan states and Turkey. Exelusive of the trade by sea, a considerable trade is carried on between Tunis and the interior of Africa, by means of caravans. These import slaves, gold dust, lvory, feathers, drugs, etc. They esrry luack cotton stuffs, linens, hardware, spiees, cochinesl, etc. Naval and military stores imported into Tunis pay no duty. Other articles pay a duty of 3 per cent. ad valorem on a rated tariff. Obstructions arising out of monopolies, etc., are occasionally thrown in the way of exportation; and in general it is necessary, before proceeding to shlp, to obtsin a tiskery, or license to that effect, from the bey. That, however, may be, for the most part, procured without much diffieulty.

Tunnels. The earlicst tunnel for the purpose of internal navigation was executed by M. Riguet, in the reign of Louis XIV., at Beziercs, in France. The first in England was by Mr. Brindley, in the Duke of Bridgewater's nsvigstion, near Ilsnehester, about 1760. Era of the Gravesend Tunnel, 1800-the report upon $1 \mathrm{t}, 1801$. The Thames Tunnel projected by Mr. Brunel in 1823. This last wonderful undertaking was completed and opened for foot passengers March 25, 1843.-Haydn. See Thames Tunnel. The prineipsl railroad tumels in the United States are: 1. On the Dayton Railroad, at Cincinnatl, 10,080 feet in length. 2. Kingwood Tunnel, on the Baltimore and Ohio Railroad, 5000 feet. 3. Blue Ridge Tunnel, on the Virginia Central Railrosd, about 5000 fect. 4. The Hoosac Tunnel, through a granite formation, western portion of Massachusetts (now in progress). 5. On the Kentucky Central Railroad, between Cineinnati and leexington, about 3500 feet. 6. The Bergen Tumel, on the New York and Erie Railrosd, near Jersey City, about 5000 feet (now in progress).

Thames Tunnel.-Projected by Mr. Brunel, to form a communication botween the two sides of the river, at Rotherhithe and Wapping, the most extraordinary construction of ancient or modern times. The shnft was hegun in 1825. At a distanee of 544 feet from the shalt: the first irruption took place, May 18, 1827. The second irruption, by which six workmen perished, January 12, 1828. The length of the tunnel is 1300 feet; its widh is 35 feet; height 20 feet; clenr width of each nrchway, including foot-path, about 14 feet : thickness of enrth benenth the crown of the tunnel and the bed of the river, ahout 15 feet. The tunnel was opened throughout for foot passengers March 25, 18.13.

Turban, the head-dress of many of the Eastern nations, consisting of two parts, a cap and a sash, the latter artfully wrenthed about the head. The ensh of the Turk's turban is white linen; that of the Persians, red woolen. These are the distinguishing marks of their different religions. Lophi, King of Persin, being of the sect of Alf, was the first who assumed the red color, to tlistinguish himself from the Thrks, who are of the sect of Omar.-Mayns.

Turbith, or Turpeth, the eortical part of the root of a species of Convolvulus, brought from ditferent parts of the East Indics. It is a longish root nbont the thickness of the finger, resinous, heavy; of a brownish hue

## TUR

without and whitiah witinin. It is imported cloven in the middic, lengthwise, and the heart or woody matter taken out. The best is ponderous, not wrinkled, easy to.break, and diacovers to the eye a largo quantity of resinous matter. At first it makes an impreasion of sweetness on the taste; but, when chewed for some time, betrays a nauseous acrimeny. It is used in medicine, but enly to a smail extent.-Lewis'e Mfut. Medica.

Thabich (mineral), the name given by chemiata to the sub-sulphate of mercury.

Turbot ( $P$ leuronectes maximus), a well-known and highly estecmed apecies of fish. Considerably juantlties of turbot are now taken on various paris of the coasts of Great Britain, from the Orkners to the Land's End, yet a preference is given in the London markets to those caught by the Duteli. The latter aro said to hava sometimes drawn as moch as $\mathbf{£ 8 0 , 0 0 0}$ in a single year for turbots solld in London.

Turkey. The countries included under the alove general designation of Turkey, the Lovant, cte., ure Turkey (Europenn and Asiatic), tha pachalic or vice. royalty of Egypt, the kingdom of Greece, and the ropublic of the Ionian Iaiands-a grou ${ }^{2}$ in the Meliterrancan, off the west coast of Greece and Epirus, coneisting of seven priacipal and several smaller islands.

The Ottoman empire includes Turkey in Europo, Asia Minor, Syria, Egypt, and the other tributary states in Africa and Asia. Prior to the Greek revolution, Turkey in Europe possessed an extensive maritime fruntier (uearly two-thirls of her boundary), having many excellent sea-ports. The dismemberment of (ireece, and other subsequent political changes, and the cession of Bessarabia and a purt of Moldavin to Russia, have considerably reduced the limits of the dominions of Turkey in Eu ine. In Africa her power is almost annibilated, and even in . Asia her authority ${ }^{\circ}$ is considerably weakened. Algeria has been wrested from her hy France; ligypt merely acknowledges her sovereignty by the payment of an annual tribute; and the Arabians scarecly recognize the sultan as the head of their religion. The iimits und area of the Turkish empire are not exactiy defined, and, consequently, very different estimates have beea formed of the extent and population loth of European and Asiatic Turkey. Tho most recent anthority estimates the area of Turkey in Eurupe at 210,000 sjuare miles, and its population ut about $15,000,000$; and that of Turkey in Asia nt 437,000 sifuare iuiles, with a popalation of aloont $16,000,000$. Turkey in Euroie possesse's a suil remarkably fertile, and a cimate higiny favorable to the problution of the vine, olive, maize, wheat, and rice, vegetables of every deacription, froits, tobacco, hemp, dax, the mulherry, various trees from whicin the most valuable gums are extracted; and in the southern part the sugar-cane and the cotton-tree. To these adid the rich justurages for horses, cattle, and sheep, every variety of game and fish, with a great abundance of mineral riches, together with the geographical position and excelfent harbors of European Turkey, and a general ddea may be formed of her great natural resources. The prineipal species of grain cultivated in European Turkey is Indian corn. life is cultivated along the banks of the Maritza and other marshy tracts in the southern jrovinces, hut not in sufficient quantities f $\boldsymbol{r}$ consumption. The deflciency is supplied by Eggt and Asia Minor.
Turkey in $\mathrm{A}_{\text {ria }}$ jossesses nlmost every natural element of indust rial and commercial greatness; but agriculture is wholly neglected, and j,roductive industry is aitogether unknovin.

Atsout nine-tenthe of the extensive surface of Firyit is aterile and unproductive. The remaining one-tenth, heing irrigated by the averilowings of the Nile, yields the richest and mont luxuriant erops, which, with the varion* commodities that jass through ligent from Arabia, India, and Nubia, form the clements of a large
export trade. The crops of Egypt are wheat, Indian corn, malze, rice, flax, hemp, clover, cotten, Indigo, sugar-cane, tobacco, oranges, and the most delicious fruits.
The sea-ports of Turkey in Enrope are as follows: Constantinople, ons of the safest ports in the world, and capable of affording abeiter to 1200 of the largest class ships ; Salonica, at the bottom of the gulf of that name, an excelient roadetead, and much frequented; and Enos, the port of Adrianople, on the Maritzs, Galiipoll and Rodoato, on the Sea of Marmora; Vama, on the Black Sea; and Ibrahilow, Taultcha, Galatz, and Jassaktchi, on the Danube, are porta of considerable commerciai activity.

On the islund of Canlin there are twe ports, Candia and Canea, but their hurbors are neither commodious ner safe. Beaiden these, there are several other ports, which afford excellent sinclter, and in the posseasion of a more Indastrious anil commerclal people than the Turks would attruct considerable trado.

The sea-ports of Turkey in Asia are Erekli; Scutari, opposite Constantinople; some indifferent ports on the Sea of Marmora; and Smyrna, the principal port of Asia Minor, and the most important in forcign commerce.

In Egypt the sea-ports are Alexandria, Rosetta, Damictta, and Cairo, at the mouths of the Nile; and Suez and Kosscir, on the Red Sea.

The principal exports of Turkey aro wool, goats' hair, cattic, horses, hides, hare-skins, wheat, raw cotton and silk, tobacco, raisins, figs, almonds, mastic and other gums, gall-nuts, vallonea, leeches, honey; wax, saffron, madder, anise seed, linseed, turientine, safflower, orpiment, meerschaum pipes, whetstones, carpets, siik and cotton fabrics, leather, copper, and metaliic wures, with Arabian, Pcrsian, Indian, and Chinese goods.

Next to Constantinoplo, Alrianople and Saionica are the clicf centres of trade; the former, lieing a principal depit for goods brought to Constantinople from Eagland, France, and Italy, supplies all the fairs throughout leoumelia and Bulgarin.

Next to Smyrna, Aleppo is the chief seat of commercial movements in Asia. Caravans bring to tilis mart iearla, slawla, Indian and Chinese goods, from Bussorah and Bagdnal camels from Arabla; cutton stuffs nod thread, moroceo leather, goats' hair, and galls, from the pachaiies of Mosul, Diarickir, Orfa, Aintab, etc. ; furs, gouts' hair, wax, gum-ammoniac, etc., from Asia Minur; ailk, Muchn coffee, soap, scented woods, ambergris, drugs, and pourls, from Syria and Arabia; rice, cotfee, and Eigyptian jroduce, from Latakia; silk manufactures from Brusa and Damasces; European and United States cotton stuffs, woolens, printed musiins, hariware, watches, wronght amber, and fur, from Suyrna nud Constantinople.

The treaty of Adrianople opened the Black Sea to the commerce of the worid, and the passage cf the llosphorus and IIcilespont is free to the fiags of all nations. The importation of ail articles of forcign commerce is admitted at extremely moderate duties. These are only 5 jer cent., viz. : 3 jer cent. on goods when landed, and 2 per cent. on their being admitted to consumption. The luties on exports of native production are 12 jer cent., of which 9 per cent. is paid when the goods arrive at the prort whence they are to be exported, and 3 per cent. in their being shipped. This is a very liberal tarifr; though a reduction of the export duty, even ahoull the import duty of 5 per cent. be raised to 10 or 12, woull reault most favorahly to tio commerec of 'lurkey with foreign countries.

Constantinople. - The harlour of Constantinople is deep, well sheitered, and sufficiently capacious to afford safe anchorage for 1200 of the Jargest-sized ships. Senturi, on the offososite shore of the llosphoras, one mile distant from t'onstantinople, is the place of rendezvous for caravans from l'ersia, Armenia, nad othey
places in Asia that trade with European Turkey. It is also the seat of extensive silk, woc'en, and cotton manufactures.

The only European countries with which the United States could auccessfuliy compete in the trade of this port are Englund and Austria. The vesaels of tise former impert iron, colonial produeo, cotton and woolen tissuea; and from Trieste, Austria sends ulso colonial produce, such as cotton, suggr, moiasses, rum, rice, tobacco, etc., and the various manufactures which sre always found in sbundance in the extensive warehouses of that port. The number of vessels which entered Constantinople in 1852 were: sailing vessels, 9220 ; steau vessels, 599 ; total, 0819. Of these there were from Austria $4 \overline{0} 9$ ssiling veasols; from Great Britain, 584 ; from France, 244 ; from Brazil, 16; and from the United States, $\bar{J}$. The share assigned to these countries respectively, in carrylag the trade of Constantinople during 1852, is thus given: Under the British flag there ontered duriog the year 1687 sailiug vessels, and 66 stean vessels; under the French flag, 236 sailing, and 55 ateam vessels; and under the Austrian flag, 1280 sailing, and 213 steam vesaeis. Under the flug of the United States there arrived five sailing vessels, and one propelled by steam. It is estimated that Constantinople requires annually, for consumption alone, about $6,500,000 \mathrm{lbs}$. of coffee, $1,200,000$ lhs. of sugar, $300,000 \mathrm{lbs}$. of peppor and spice, 2000 pun cheons of rum, and large quantities of cheap cotton goods. These are supplied chiefly from the markets of Western Europe, Alexandria, and North and South America.

Salonica,-Next to Constantinople, Salonica (situated at the bottom of the Gulf of Saionica), the capital of Macedonia, is the most important port of Turkey in Europe. In 1850 its maritime commerce reached upward of $\$ 3,500,000$, viz. : about $\$ 2,000,000$ for imports, and $\$ 1,500,000$ for exjorts. The foreign trade of this port is chiefly engroseed by the British and French flags. The imports consist chiefly of cheup cotton and woolen cioths, and various other manufactures. Its exports are wheat, barley, maize, tlmber, wool, sponge, raw siik, wine, sesamum seed, tobacco, and staves. Colonial produce and manufactured goods are supplied to this port-the former from secend and third hands--by Englund and Austria. There is nothing to prevent the United States from participating in the trade in this species of merchundise. Neither Austria nor Engiand couid compete with this country in supplying the vast quantities of colonlul produce, and the cheap white and printed cottons, which are required for consumption in this anarket. In addition to the supplies needed to meet the daily wants of its 100,000 inhahitants, Salonica furnishes large quantities of colonial and manufactured goods for the yearly fairs of Parlepi, Lucca, and Seres, where the sules are ajways made for cash. The ligh price of French cotton and woolen cloths wiil always preclude the merchants of France from successful competition in this branch of trade; and the heavy expenses attending the circuitous trade through Marseilles, Smyrna, Constantinople, Trieste, and Venice, wonld neces;arily favor direct exportations from the United States. The prices at Salonica are always from 10 to 12 per cont. higher than at Constantinople or Smyrna.
'The navigation returns for the year 1853-'4 exhilit the following resuits:

Inwatd.
Oulward.

This decrease his been principaily under Turkish and Greek flags, thougi tinere has also been a decrease under British, French, and Sardinian flags, but not in the same proportion.

The gross returns of trade at tive port of Snlonica, for the year ending December 31, 1804, show a considerable increase in the import trade, viz.: Value of
imports in 1854, $\$ 3,770,235$; and in 1853, $82,857,765$. But the returns exhibit a stilt more considerable incresse in the value of the outward trade, viz.: Value of exporte in 185-1, $\$ 5,492,080$; and $\ln 1853, \$ 3,470,050$. This large increase, both in the inward and outward trade witi the port of Salonica, may be regarded as an evidence of the improving state of the country.

Gulatz, a town of Moldiavia, Turkey, on the Jeft bank of the Danube, in latitude $45^{\circ} 25^{\prime} \mathrm{N}$., longitude $28^{\circ} \mathrm{E}$. Though at some distance injend, Galatz may he alid to be the port of the Danube. Of the tirree principal mouthe of the river, the Soulinel (or middle) mouth, in latitude $45^{\circ} 10^{\prime} 30^{\prime \prime} \mathrm{N}$., and longltude $20^{\circ} 41^{\prime} 20^{\prime \prime}$ E., is the only one accessibie by vessels of large burden. The depth of water st ita entrance varics from 10 to 14 feet; from the bar up to Galatz there is nowhere less than 18 feet. Lightera are stationed without the bar to partialiy' unjoad large vessels. Vessels of 300 tons burden can lie at the quays.

Commareg of Moldavia in 1855.

| Port of Ciaine | 1 mprrta . | Eapors. |
| :---: | :---: | :---: |
| ly Austria | 42,277,577 | 87,014,269 |
| Total (plast | 43,655,315 | 103,405,239 |

Smyrna.-This port, the chief commercial emporiun of Turkey in Asia, has nn excellent harbor, and ships of large burden can load and diecharge close to the quays. Its principal foreign trade is conducted with Great Britain, Austria, France, and the United States. Its exports consist of silk, raw cotton, carpets, copper, opium, hides, madder, wool, besides goats' hair and skins, vallonea, olive-oil, drugs, gums, sponge, figs, raisins, and nut-galls. Imports comprise coffeo (upward of $6,000,000 \mathrm{lbs}$. annualiy); woolen, cotton, and siik fabrics; metals, raw and manufactured; sugar, indigo, spirits, cochineal, and spices. The following statement shows the quantities and values of wool imported into the United States from Turkey during the five years ending June 30, 1855, together with the aggregate quantities and values of the same from all countries during the same period:

| Years. | Fromt Turkej. |  | From all Countries. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantitiea. | Values. | Qunntilies. | Values. |
| 1851. | 5,238,292 | \$470, $3 \times 5$ | 32,548,491 | \$3,833,157 |
| 1852. | 3,355,320 | 28 1,656 | 18,341,2 8 | 1, 30,711 |
| 1853. | 4,351,25] | 372,012 | 21,505,07: | 2,66, 718 |
| 1554. | 4,300,326 | 400,285 | 20,200,110 | 2,822,195 |
| 185s. | 4,676,747 | 416,222 | 18,534,415 | 2.072,139 |
| Aggregat | 21,081,944 | \$2,017,530 | 111,211,3 | \$13,827,910 |
| Amuat a | 4,3.3,389 | 443,506 | 22,243,875 | 2,645,632 |

From the Argentine repuldic the United States roceives one-third of its raw wool. Next to this country ranks Turkey, in this regard; and the third phace is due to Chili. In 1855 , of the entire quantity Imported, amounting to $\mathbf{1 8 , 5 3 4 , 4 1 5} \mathrm{lbs}$., valued at $\$ 2,072,139$, there came from Turkey $4,676,7 \cdot 17$ lbs., valned at ©. 16,222; of which Turkey in Asla supplied 4,261,250 the., valued nt $\$ 386,305$. The principal imports into Smyrna, in vesscis of the United States, nre coffee, sugar, rum, coarse cottons, spices, and dye-stuffs; for which they carry home, in return, cargoes of wool, opium, copper, fruit, oil of roses, and wine. The navigation of Smyrna is steadily increasing. In 18.10 there entered 969 vessels of all nations, measuring 107,596 tons; of which number there were 23 American vessels, measuring 4304 tons.-See Smyrna.
The commerce of this port duing 1851 rmounted to nearly cieven millions of dollars. This trade was thus distrihuted:

|  | 31,306,563 | ne |
| :---: | :---: | :---: |
| Austria | 13,956,803 |  |
| liranco | 7,954,177 | " |
| Unitod States. | 6,475,045 |  |
| Russia | 2,507,000 |  |
| Holland | 911,108 |  |
| Sardinla | 027,590 | * |
| Tureany | 466,205 | * |
| Belgium. | 184,763 |  |

Beyrout.-Beyrout is the eca-port of Damascus, and
the chlef centre of the trade of Syria. Its importa consiat of musiina, cottons, tin, hardware, cloths, and vurious kinds of manufactures. Its exporta are silk, gails, madder, gums, wine, and olis. The importa at this port in 1851 amounted to about $84,000,000$, zad ita exports to $83,000,000$. Daring the same year there entered and cleared 2354 vessela, measuring an aggregate of 219,277 tona. The commercial movements of the port of Beyrout and its dependent trading towns, Tripoll, Caiffu, nad Jatakin, amounted in 1853 to a tutal of $45,689,142$ france, or an incrense over 1852 of $4,500,000$ francs. The following summary for theso years is taken from French official authorities:
 In $1883, \ldots .$. franen $28,944,740 \quad 91,840,402 \quad 40,649,149$

The tonnage employed in the trale of lieyrout the saine years was: In 1853, 209,861 tons; and in 1852, 241,98 tons. This decreaso is owing to a falling off in tho coasting trado, onpecially in cereals, oecasioned by the short crops of 1853 .

In the general import movement, Engiand holls tho first rank-tiasues, cotton yarn, and cotton gooda generally, being the ehief inmorts from Great IIritain into Syria, Jrance oceupies the second rank; the imports from that country into lieyront in 1853 amounting in value to $3,6 \pi 4,726$ francs. Next to Franec comes Austria. The returns show a value of $6,714,242$ frunes assigned to imports under the Austrian fiag; but these figures include the value of all the merchandise imported in the Aust cian steamers that ply between Consuntinople and Smyrna. The aet ini imports from Austria into lbeyrout amount to about one half of this sums. Trieste furniahes but fittle for the consumpition of Syria. Tho imports into Syria from ti it entrepoit do thit exceed 150,000 francs, and consist of colonial warrs, mad German tissies purchased in the warehouses of that city. Fhypt suppilies Syria, through the port o. .icyront, with grains, especialiy rice, to a value of alnut $2,+16,950$ franes. During the past few years mervantile houses of Ibstom, New York, and PhilaAclphia havo established direct relations with Syria. The washed and unwashed wool of that couniry forms the fania of their operations. In 1 Nat the firet cargo of refined sugar from lloston arrived at Beyrout. The success which has attended this enterprise will most protably lead to an important trate in this deseription of merchandise, in exchange for wool and other syrian products. The chief olistacle to an immediate expansion of this trado mpears to be the duty of 30 jer cent. with which the raw wool is burdened in the Cnited States, leaving but a amall nargin for protit on the importation of this leading proviuct. Llow important this trade with Syria, as well us with Turkey generally, and other wool-prolucing countries might thecone, may te inferred from the following statement of facts. In 18.55 there was imported into the C'nited Staten, as already stated, $18,524,418$ lbs. of wool. The annual production of wool in the Linited States, assumbing that the quantity returneal for 1850 , as per Linited States census, affords a fair arcrage-auounta to $52,516,95!1$ ins. This, added to the quantity importell, pives $71,001,5 \pi+4$ lls. The quantity annualiy oxported reducen thia figure, say, in rointi numbers, to T0,000, (H00 Iba, fur consumption in the different and numerous manufactorion in the Lnited Statea. How much of this is consumed in the manufacture of carpeta tisere is no menns at hand of determining with any ace curacy; the it is matell in a publication of highauthor-ity-the sicirntific imerican-that in the village of

Thompeonville, Connecticut, alone, thore ls used annually in the manufacture of Iirussels, Axminster, and other costiy quailites of carpeting, $10,000,000 \mathrm{lbs}$, of wool, or mnrs than one half the whole quantity im. ported, and one-seventh part of the nggregate quantity mported and grown in the United States.
The value of the foregoling statement of facts will he better understood when it is added that the United Stntes import annuaily-taklng the importations of 1855 as an average-woolen manafactures of various deacriptions to the value of $\mathbf{8} 27,000,000$, of which En. gland furnishes nearly two-thiris. The total number of woolen manufactories in the United States in 1850 was 1559 ; capital luveated, $828,118,650$; ths. of wool consumed, $70,862,869$; value of maw materiai, 202,755,991; handn employed, mnles, 22,678 ; females, 16,574 ; value of products, $48,207,545-$ In which are Ineindel $82,206,052$ yards of cloth, and 4,294,1356 liss. of yarn, hesides blankets, hats, cte. Were tha raw materinl suppitied in aufficlent quantitios, the eensus of 1860 wonld probably add 100 per cent. to the preceding fignres. The forelgn trade of Bejrout is earried on principally by large claks steamers, under the Austrian, French, ond lritish finge, which visit this port regnlarly, and find nlways nbundant frelght, consisting of the prodinets of Syria and the vast region whiels lies lietween Skaneroom and the rivers Eu. phrates and Tigria. The prosperity of Beyrout and the surrounding country is indicated hy the fuct, that while the population was only 8000 in the year $18 \cdot 14$, it is now estimated nt hetween 50,000 and 60,000 . The steamers of the Anstrian LIoyds Company, in March, 1856, are said to have numbered 50 , with 10,000 horse-punver, and a measurement of nearly 30,000 tons. The fonited States consui at that port, writing under date of October 5, 1855, anys: "I lenm, upon the best anthority, that the peopie of this eountry consiler the clotis inan. ufactured in tho Inited Statea anpering in qualite to that of England; but since the pieces of Awerican grods do not uniformly contain the same number of yneds like the Finglish pleces, they are slow to purchase, owing to the pewer of old Idens nnd halits, it would lie of great service to the manufueturers if they understoon this fart, and would regard it."

Candirt.-The conmerce of this island is ennducted throngh the porta of Retino, Canen, and Candia. Its exports consiat chiefly of olive-oll, harley, wheat, wine, raisins, eoteon, finx-meed, almends, Indian eorn, and soap. The agricuttural productions of Candia are es. timated at a value of $18,500,000$ franes jer anumm. tts manufacturea amount in value to ahout $6,0(1) 0,000$ franes, of which sonp rypupristea $4,000,000$, rind coarse elethe for consmmption $2,000,000$ franen. There are on the isiand 47 noap, factories, which yield annually alwut $13,000,200$ thas of anop ; and 3000 oil-presses thactive operation. Ahont 40,000 iths. of silk are prostected annuaily on this isiand, of a quality equal to that of Airianopic.

The imports and exports during a perlod of fout consecutive years were:

|  | Impmis. | E:rport. |
| :---: | :---: | :---: |
| In 18 | 1,1400,105 | - |
| \% 146 | 1,106, (1) | 1,277, +(6) |
| In 1980 | 1,154,215 | 9.60764 |
| In 1s')1 | $614.68 \times 1$ | 879,4i4 |

Tatal number of vesacis arriving in the ports of Candia in 185a, 1174, measuring an aggregate of fanti tons. The imports during the asme year reached \& $1,028,212$, and the exports $£ 1,972,713$, the navigation and commerce of camia for 185.1 and 1855 are Ahown in the subjoined statement :


## TUR

l'binelfal importe into Candia for 1655.

| Ariclen. | goantutien. | Valuen. |
| :---: | :---: | :---: |
| Hutter ..................... .......ewt. | 1641 | \$31,0)40 |
| Jrled codflsh . . . . . . . . . . . . . . . . ${ }^{\text {" }}$ | 4318 | 23,32, |
| Jltden and teather. . . . . . . . . . . . . | .... | 65.441 |
| Jtardwnra.. | ... | 7,600 |
| Furniture . . . |  | 11,8100 |
| Ilerrtnga and sardinen . . . . . . . . . . bbls. | 6870 | 97,084 |
| Jlee |  | 10,040 |
| lhimn............................ | ... | 8,816 |
| Sorla amdi. . . . . . . . . . . . . . . . . . . . | ... | 48,108 |
| Tobacco........................ . . |  | 10,900 |
| (iotlon yara . . . . . . . . . . . . . . . . | . . | 22,100 |
| Jlrowt cottons. . . . . . . . . . . . . . . . |  | 0,000 |
| Sundry manufacturea |  | 411,939 |

Princifal Fxponts from Candia.

| Artiolen. | Quantities. | Valuen. |
| :---: | :---: | :---: |
| Ollve-oll. . . . . . . . . . . . . .ton* | 1,269 | \$244,261 00 |
| Sorap . . . . . . . . . . . . . . . . ewt. | 68,945 | 475,625 84 |
| Sheep aklas. . . . . . . . . . . . . No. | 18,352 | 1,784 49 |
| linw stlk. . . . . . . . . . . . . . pounds | 8,525 | 22,320 00 |
| Cheese . . . . . . . . . . . . . . evt. | 308 | 3,100 00 |
| Orangea nnd temons. . . . . No. | 1,000,000 | 1,800 00 |
| Chenthats . . . . . . . . . . . ewt. | 8,000 | 4, 100000 |

Cundia abounds in prodace adapted to the American market; but the direct trade between the United States and that island is as yot unimportant. So long, indeed, as the present duties of 30 and 40 per cent. are levied on their staple exports of cosrse wool, oltve-oll, soap, etc., it can scarcely be expected that thls trade will increase to any considerable extent. It is stated, in a consular return from Candia, that a reduction of these dutles, as well as of the duty on ruw sllk, would tend to establish a highly respectable and direct AmerIcan intercourse with the ports of Candia, aufficient, probably, to compote with that of Great Britain and France. In consequence of the almost nominal duty upon the leading productions of the island in Great Britain, the commercial Intercour;c with England is fast increasing.

General Remarks on Turkey,-The treaty between the United States nad the Ottoman Porte dates as far back as May 7, 1830. Its preamble, however, declares that it is "not limitcd as to duration," and it consequently regulates the intercourse between the countries at the present time. Its principal commercinl features are-that the merchants of either country, in the provinces, ports, etc., of the other, shail pay the same duties and ether imposts that are paid by the merchants of the most friendly or favored nation ; and that merchant vessels of the United States alhall have liherty to pass the canal of the imperial resldence, and go and come In the Black Sea, in like manner as vessels of the most favered natlon. The tarlff of duties is based on an al ralovem system, viz. : Imperts 5 per cent., and exports 12 per cent., including, as to both, internal duties. The valuo of merchandise may bo revised every four or five years by commissioners on the part of the differont governments, conjointly with agents appointed for that purpose by the Turklsh governuent. The United States huve hitherto appointed no cetumissioners for this adjustment of valuation; and it has been represented to the lopartment that the existing valuation on Britlah merchandise, especially cotton goods and rum, subjects to heavy discriminations similar articles of the United States, owing chiefly to the difference in weight and prices. Since tho return of pence, many improvements, tending to fucilitate and improve the commercial intercourse of Turkoy with forelgn nations, have been completed or projected. Amoug others, the lighthouse system has undergone extensive improvements, and uniform light-dues established for the Besphorus and Wardanelles, viz.: 50 piastres (between $\$ 2$ and \$2 50) tor every 100 tons each strait, or 100 piastres per 100 tons for both, entering, nad the same returning. At Constantinople thore are, properly speaking, ne port charges; but a small fee is required on vessels passing through the Golden Gate to discharge their cargoes.
The idea of connecting the Mediterranean with the

Red Sea by means of a ship canal acrote the lathmus of Suez has long been entertalined. The level of the latter sea is knewn to be higgier than that of the former by thirty-two feet, and the isthmus was at ono thne oubmerged. The levelinga, with a vlew to a canal, which were prosecuted with care daring the occupstion of the French army, have been followed up by the Viceroy of Egypt, and a plan of the work has recently been settled by a European commission of englneera assembled in Paris to discuss the detalla. Thila commiavion has rejected all plans Invelving indirect routes across Egypt, and has adopted the princlple of a direct cutting from Suez to the Mediterranean. The entmance into the Mediterranean, to be called Port Said, will have an inner basin, and the channel will be 1312 feet in breadth. The entrance at the Red Sea, the port of Suez, will also liave an inner basin, and the channel will have a breadth of 084 feet. Capitul sufficient for the accomplishment of this work la sald to have been subscribed, and the work actually commenced. Another canal, which has long been centempla ', but opposed by Russia, as menucing the prosperity of Odessa and her trade in the Black Sea and the Levant, is now considered in a fair way of accomplishment. This canal will be uhent fifty miles in length, connecting the Danube with the Black Sea, and shortening the distance from Constantinople to Vienna some 500 miles, besides obviuting the difficult navigation and the pestilential miasma near the mouths of that river. A charter hus been granted, and a company of capitallists organized.-Com. Rel. U. S.
Consular Officers in Turkey.-In Mohammedun and pagan countries each Christian state asserts for its subjects nore or less of exemption from the authority of the local sovereign. Thus, at the present time, throughout Christendem, the general rule prevails that foreigners are eubject ln all criminal snd in most elvil matters to the local jurisdiction; but in all Mohammedan and pagan atates a different rule prevails.

The treaty between the United States and Turkey provides that "If litigations and disputes should arise between the suljects of the Sublime Porte and citizens of the United States, the parties shall not be heard, nor shall judgment be pronounced, unless the American dragoman be present. Causes in whieh the sum may exceed five hundred piastres shall be sulmitted to the sublime Porte, to be decided according to the laws of equity and justice. Citizens of the United Stutes of America, quictly pursuing their commerce, and not being clarged or convicted of any crime or offense, shall not be molested; and even when they may have committed some offinse, they shall not be arrested and put in prison by the local authorities, but they shall be tried by their minister or consul, and punished according to their offense, following in this respect the nsage observed toward other Franks." Under the existing treaty bet ween tho United States and Turkey, our commerce is placed on the footing of the moat favored nations; thus securing to our merchant vessels the privilege of tradieg to all the pointe of Turkey in Europe, Asia, and Africa, on the same voillions as those granted to the most fsvored nations. Thns our vessela may now trade to the ports of Egypt and Asia Minor, to the Turkish islands of the Archipelago, and to the Otteman ports of Europe, and on the Aslatic share of the Black Sea. This is at once an immense field for the enterprise of our merchants and seamen. Many facilities are thus offered for the extension of our commerce with the nations of the East; and consular offlcers may render important services to their countrymen by collecting all the information in their power in regard to the productions and commeree of these countries, and transmitting it to the State Dopartment, by which it will be published from tlme to time for the general advantage of American citizens. -See articles Congrantinorle, Beyrout, Galatz, and Smyra.


| Yeart ending | Exports, |  |  | tomporta. | Whineof there was in Halilon ead Bpecie. |  | Tounage eleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentic. | Fiotikn. | Tound. | Total. | Expurc. | tamport. | Ammertesia. | Yonoiga. |
| Sephi 30, 1821....... | 40,838 | * 40,407 | \$437,880 | \$392, 0370 |  | *01,878 | 1,393 |  |
| - 1822....... | 0.184 | 400, 197 | 411,321 | 384,077 | \$157,006 | 13,970 | 1,418 |  |
| 1823. | 4,817 | 809,788 | 644,661 | 203,761 | 68,000 | 79,981 | 1,876 |  |
| 1824. | 25,171 | 344, 257 | 400,428 | 411,939 | .... | 48,530 | 2,153 |  |
| 1825. | 34,473 | \$16,501 | 398,084 | 840,709 | . $\cdot$ | 22,040 | 1,817 |  |
| 1890. | 48,897 | 271,438 | 718,335 | 421,039 |  | 4, 1001 | 1,823 |  |
| 1397. | 181,784 | 471,825 | 602, 0100 | 788,129 | 50,000 | 11,587 | 3,109 | . |
| 1884. | 18,814 | 124,501 | 209,041 | 490,533 | .... | 11,405 | 603 |  |
| 1899... | 27,000 | 47,984 | 14,984 | 901, 2315 |  | 484 | 667 |  |
| 1830... | 75,901 | 337,030 | 413,340 | 417,302 | .... | 45,019 | 2,887 | . $\cdot$. |
| Total... | * 401,834 | 43,372,073 | *3,833, 012 | * $6,100,377$ | *275,000 | \$3\%,158 | 17,266 | . $\cdot$. |
| Sept. 30, 1881. | 438,503 | *208,904 | \$336,817 | 4541,609 | \$20,860 | \$0.369 | 2,095 |  |
| 1834....... | 64,722 | 681,886 | 746,008 | 093,649 | 9,100 | 4,8,819 | 4,405 |  |
| 1333. | 167,203 | 618,471 | 605,010 | 780,044 | 20,45t | 8,074 | 4,514 | 203 |
| 1834. | 02,403 | 921,291 | 983,073 | 500,511 | 20,840 | 321 | 4,240 |  |
| 1835. | 69,202 | 210,889 | 200,024 | 397,563 | 2,752 | 7,300 | 3,010 | , |
| 1830. | 99,025 | 534,341 | 634,084 | 976,971 | 23,000 |  | 3.531 |  |
| 1838. | 36,650 | 74,653 | 111.812 | c09, 161 |  | 2,700 | 484 | 1750 |
| 1438. 1839. | 142,44 | 115,401 | 257,906 | 298,593 | 800 | 4.428 | 1.203 | .... |
| 1839. 1840. | 8¢, 3211 | 206,004 | 34,974 | 629, 100 |  | 2,630 | 2,282 |  |
| 1840. | 119,745 | 156,873 | 920.018 | 513,475 | 1,028 | $\ldots$ | 2,187 |  |
| Tota | *877,350 | - $3,184,004$ | -4,088,041 | \$6,940,0\% | \$112,871 | (31,504 | 27,287 | 1062 |
| Sept. 30, 1841. | \$200,034 | \$178,612 | \$380,640 | \$014,879 | \$000 | .... | 2,819 | $\ldots$ |
| 1843. | 125,521 | 70,515 | 20, 2,030 | 370,248 |  |  | 1,815 | ... |
|  | 108,485 | 68,014 | 176,470 | 182, 64.4 | .... | 82,900 | 1.539 |  |
| June 30, 1844....... | 186,13, | 01.243 | 983,384 | 368,868 | .... | 23 | 2,178 |  |
| 1845 | 115,503 | 40,546 | 165,093 | 781,517 | .,. | .... | 1,807 |  |
| 1846. | 120,103 | 73,911 | 200, 103 | 7610,908 |  |  | 3,209 |  |
| 1848. | 61,5to | 65,012 | 127,243 | 517,710 |  | 2,000 | 1,118 |  |
| 1844. | 114,830 | 1t0,94t | 245, 151 | 400,028 | 35,275 | $\ldots$ | 1,100 | 230 |
| 1849. | 193,570 | $85,120$ | 278,016 267,71 | 374,064 801,023 | $\cdots$ | .... | 1,912 | 310 |
| Tot | * 1,431 i, 4 | \$ $\$ 800,4 y^{2}$ | \$2,2:6,777 | \$6,450,180 | \$ 86,176 | \$4,82.3 | 21,739 |  |
|  |  |  |  |  |  |  |  |  |
| June 30, 1851....... | \$102,204 | \$f1,880 | \$227,733 | \$001,236 | ... | $\ldots$ | 4,209 |  |
| 1554....... | 966,425 | 64,971 | 816,106 | bita, 100 | .... | .... | 8,009 | 329 |
| 18\%, | 207,358 | 70,931 | 287,3839 | 727,510 |  |  | 4,865 |  |
| 184. | 210,496 | 105,709 | 325, 108 | S03,114 |  |  | 8,949 | :u1 |
| 18. | 704, 960 | 183,780 | 958, 039 | 7001,899 |  |  | 8,442 | 109 |
| 10\%3. | 1,404,769 | 108,657 | 1,511,425 | 74, 871 |  | .... | 13,4190 | 1845 |

- Nine montin to June 30, and the fiveni year from thia time brgina July $i$.

Turkey Red, a fine and durable red dyed upon the sun's rays, in barrela perforated in tho botom, calico and woolen eloth : the coloring matter used in its production is medder, fut the process for produchig it in perfection is tedious and complicated.-Siee ilas. curt on I'ermanent Colors.

Turmeric, the root of the Curcnna lengrs. It Is exteraally grayish, and internally of a deep lively yellow or saffron color, very hard, and not unlike, either in figure or size, to ginger. That ahould be preferred which is large, new, resinous, difficult to break, and heavy. It is imported from llengal, Java, China, ete. It has a nomewhat uromatic and not very agreenblo rimeli, and a litterish, shightly acrid, but rather warm tuste. It used to be in considerable estimation as a medicine; and is extensively used In India for culinary piurposes, entering into the composition of curry puwier and other articies: in Europe it la oniy nsed as a dyc. It yieids a beautiful bright yellow celor, which, however, is extremely fugitlve, and no means have hitherto been discovered of fixing it. It is sometimes employed to heighten the yellows made with weld, and to give an orange tint to searlet; but the shute imparted by the turmeric soon disappears.Lekwin's Mat. Med.; Baxchort on Culora.
Turpentine (Ger. Turpentin; Fr. Terbenthine; It. Trementina; luss. skipidar: l'ol. Terpentyna). There are several apecies of turpentine, but all of thom posseas the same general and chemical properties.

1. C'ommon Turpentine is a resinous juice which exudes from the Scoteh fir or wild pine (linus sylirstria). The trees which are most exposed to the sun, and have the chickest barks, yield it in the greatest abundance. They legin to produce it when about forty years old. The bark of the tree is wounded and the turpentino flow out in dreps, which fall into a hole, or sort of cup, previously dug at the foot of the tree, holding ahont 1) pint. It la purified ly being exposed to liquefy in
the sun's rays, in barrela perforated in the bottom, through which It filters. In the Southern States the collection of turpentine is chiefly confided to negroes, cach of whom has the charge of from 3000 to 4000 trees. The process lants all the year, ulthough the Inciaions nre not made in the trees tili the middle of Mrich, and the flow of the turpentine generally ceases about the end of October. The boxes are enptied tirg or alx tlmes during the year, and it is estimuted that 250 boxes will produce a barrel welghing 320 lh . Turpentine has a strong, somewlut fragrant odor, and a bitter, disagrecable taste: its consistence is greater than that of honey ; its color dirty yellow; and it is more opaque than the other sorts.
2. Ienire Turpentine is the produce of the larch (Pinus larix). It Is olitained by loring a hale into the henrt of the tree about two fect from $t^{\prime}$ ie ground, and fitting into it n amali tube through which the turpentine howa into vessela prepared for its reception. It is purilied by atraining tlirough clothes or hain rieves. It is inore fluld, having the consistence of new honey, n yellowish color, and is less mpleasani to the smell and taste than the common turpentine. Gienujue Venctian turpentine is principally ohtained from the forests of llaye, ha l'rovence; but much of that to be found in the khops comes from America, and is, perhaps, olipained from a different spectes of fir.
3. Canadian Malsam, or Turpentise, is olitained from incisions in the bark of the linus balsamea, a native of the coldest regions of North Ancrica. It is imported in casks, each containing abotit 1 cwt. It has a etrong, not disagrecable onlor, and a bitterish taste $;$ is trankparent, whitish, and has the consistence of copalva halsam.
4. Chian, or Cyprus Turpentine, is obtalned from the I'stacin terebinthus, a mative of the north of Africa und the south of E.urope, and cultivated in Chios and

Cypru the in stralne eratoly and a consis tenaci turpen mest p turpen be tlise distlll belng , hol), tlon be tial oll dlstilla produe oll, as pentin a brow meited mixing comine table $S$

Expo

## I'runil <br> Swede <br> tlanial Ilamb <br> llamb Jireme <br> Jrems IJollar <br> Ilollar Iluteh <br> Ilutch <br> 13utch 1helgiu <br> lielgiu kingla <br> Sootla <br> Gibral Malta <br> Malta <br> ()ther <br> itritisi <br> Itritish <br> Itritial <br> IIritish <br> |ritish <br> Britiah If <br> Frane <br> Firauce <br> Frenel <br> French <br> Spaln <br> Npala Phillpi <br> ('ulas <br> Porto <br> l'orting <br> Maderfr <br> Sardln <br> 'Torke <br> lorts 1. layti. <br> Mexied <br> Centra <br> New ti <br> Yeueq <br> Itrang I'rugu <br> Argen <br> (hill1. l'eru. <br> lecuad <br> simider <br> orher <br> (hlna, <br> Whate

Tho
State of years, a the nnn gallons, In Nort ried on annual

Cyprus. It flowa out of Inclaions made in the bark of the tree in the month of July, and is subsequently strained and purifed. It has a fragrant odor, a moderatoly warm taste, devold of acrlmony or bitterness, and a white or very pale yellow oolor; it la about as consintent as thick honey, la clear, trensparent, and tenaclous. From lts comparative high price, Chian turpentine is seldom procured genuina, beling for the moet part adulterated either with Venetian or common turpentine. The different species of turpentine may be dissolved in rectified apirit, or pure alcohol; and by diatllatlon they ali give elnilar olls, which, from their being distilled (and not from any resemblance to alcohol), are termed apirit of turpentine. If the distillation be performed with water, the produce is an easential oil, the cominon spirit of turpeniline; and if the diatillution be carried on in a retort without $v$ tir, tho product is more volatlle and pungent-a cuncentrated oil, as It were-and ts called the ethoreal spirit of turpentine. The residunm that is left $\ln$ both cases is a brownish, resinous mass, brittle, capable of belng melted, highly inflammable, insoluble in water, but milxing freely with oila: It is the common roaln of commerce.-Library of Entertaining Knovledge, Vegetable Substances; Thomson's Digpensatory.

Explats of Spinits of TuEpRetine from the liniten htates for tie Year ending Jung $30,1857$.


The manufacture of spirits of turpentine in the Stato of Alubama was commenced within the last eight years, and, although upon a very limited scale at first, the nnnual product has now reached upward of $1,600,000$ gallons, and that of rosin to ahove 130,000 barrels. In North Carolina, where the business has been carried on for a much longer time, it is catimated that the annual product of spirits ar ats to $000,000 \mathrm{barrels}$,
and this would give a realdne of about $3,200,000$ barrele rosin. Upon thit eetimate the valua of the spirits of turpentine annually producod In the State of North Carolina is upward of $\$ 14,000,000-$ nearly equsl to the value of the annual agricultural product of the State of Maryland. Add to this the value of rosin when converted Into oil, which at the present market value wot $\mathrm{d}_{\mathrm{d}}$ be $\$ 19,200,000$, and we find a resource In this natural product of over $883,000,000 \mathrm{ln}$ the Stste of North Carolina alone; and this estimato does not include the tar, pitch, and naphtha, whlch are necessary and merchantable articlea, and would largely increase the amount.

Extoath of Rohin ann Turpenting from tin livitan States for tila Year eminne Jene 30, 1857.

| Whither exported. | Baprela. | Value. |
| :---: | :---: | :---: |
| linala an the Baitlo and North Near | 804 | \$1,190 |
| l'rusaía . . | 11,404 | 81,690 |
| Swedon and Norway . . . . . . . . . . . . . | 108 | 175 |
| Denmark . . . . . . . | 2,005 | 9,591 |
| Danish Weat Indlea. | 45 | 177 |
| liamburg | 47,005 | 102,803 |
| Bremen.. | 28,43; | 51,850 |
| Halland. | 52,457 | 102,750 |
| Duteh Weat Indlea. | 10 | 59 |
| Duteh Guiane | 20 | 49 |
| 1)ntelt East Indles | 175 | 343 |
| Jelglum | 70,154 | 125,957 |
| Fingland | 271,434 | 792,044 |
| Scotland | 32,427 | 77,828 |
| 1 reland | 4,628 | 7,082 |
| Gilbraltar. | 3,44 | 5,044 |
| Malta | 3,659 | 6,240 |
| Canada | 10,020 | 45,183 |
| Other liritigh North A. Joageasiona. | 2,493 | 8,739 |
| Iritlah Weat ladles. . | 432 | 033 |
| Mritiah Gulana | 5 | 8 |
| Hritish Posaeanlons to Afrlcs | 490 | 802 |
| Brilish Australla. . | 6,355 | 11,605 |
| Jritish East Indles. | 0,301 | 12,570 |
| France on the Atlantle | 39,477 | 67,380 |
| Franco on the MedIterranean ..... | 4,723 | 7,721 |
| Frencli North Amerlenn Porscmatona | 10 | 25 |
| Freneli West Indles. | 155 | 2010 |
| Freneh Gulana | 11 | 22 |
| Spala un tho Atlantíe | 1,06.) | 2,243 |
| Spain on the Medilerranean . . . . . . | 1,298 | 2,388 |
| Cansry Islands . . . . . . . . . . . . . . . . | 75 | 105 |
| Cuba... | 1,107 | 3,603 |
| l'orto itlea. | 12 | 21 |
| Portugal | 3,107 | 8,361 |
| Madelra. | 215 | 387 |
| Aardlola | 3,243 | 5,798 |
| Two sleilles | 1,358 | 2,443 |
| Anstrla.... | 8,940 | 7,554 |
| Auntrian Poasemalons In Italy . . . . . | 2,245 | 4,424 |
| Turkey ln Europe : . . . . . . . . . . . . . . | 1,300 | 2,512 |
| Turkey in Asla . . . . . . . . . . . . . . . . . | 1,525 | 3,005 |
| l'orts in Afrlea . . . . . . . . . . . . . . . . . . . | 075 | 1,381 |
| Ilayt1............................... . | 35 | 71 |
| Mexlco. . . . . . . . . . . . . . . . . . . . . . . | 184 | 492 |
| Now (iranada | 5 | 11 |
| Venernels. | 1,027 | 8,515 |
| 1razII. . . . . . . . . . . . . . . . . . . . . | 18,940 | 25,314 |
| Uruguny, or Claplatine Repubile ... | 1,180 | 1,969 |
| Argentlis Repnblle . . . . . . . . . . . . . | 070 | 1,840 |
| Chill. | 2,109 | 4,510 |
| Perit. . . . . . . . . . . . . . . . . . . . . . . . . | 660 | 1,328 |
| Randwleh Islanda . . . . . . . . . . . . . . | 4 | 8 |
| Ithor falanda In the I'aclfie........ | 8 | 80 |
| Chlna. | 25 | 56 |
| Tolal, 1856-'57... | 641,617 | \$ $1,641,562$ |

Oil of Turpentine is the essential oil drawn from turpentine by distillation. There nre two sorts of this oil: the best, red; and the second, white. It is very extensively used by house painters, and in the manufacture of varnisli, etc. The distillers have been charged with using it in the preparation of gin. Oil of turpentine is very often adulterated.
Turpeth Mineral (from its yellow color, which resembles the powdered root of the Convolvulus turpethum), the yellow sub-pergulphate of mercury.
Turquoise (Ger. Tü. .kiss; Fr. Turquoise ; It. Turchina; Sp . Turquesa), a precious stone in considerable estimation. Its color, which is its principal recommendation, is a beantiful celestial blue, which migrates into pals blue, and is sometimies tingel with green. Specific gravity, $3 \cdot 127$. It is destitute of lustre, opaque, and does not admit of a high polish. It is
much worn in necklaces, and evary part of ornamantal jewalry, from the fize of a pin's head to that of an almond; It contranta beautifully, with brillianta or pearle set in tine gold.- Mawn on liomomile. Lieal turquoisen aro excluslvely furnlahed by l'ersia. The minea Whence they are obtalned are aituuted near Nlahapore. They are the property of the err $\mathbf{v n}$, and are farmed to the highest blider. They bring a rent of from $\mathbf{E 2 0 0 0}$ to c2700 a year.-Finasxa'n Truvela on the Shore of the C'aopian.

Turtle. Thla word is used to signify a apeclas of dove (Columbs tu. tur), and alao a genus of Chelonian reptiles (Chelone, Brongn).

Tuscany. The Grand Duchy of Tuacany comprises an area of 8586 aquare miles, anil contained In 1854 a population of $1,815,636$ Inhabitante. Its chlef port ls Leghorn, altuated on the Mediterranean, and ponsessing extensive artificial faclities for commerclal enterpilise; Indeed, the harior la entlrely artificial. Strictly apeaking, 'Iuncany la an agricultural country -the valley of the Amo being generally considered the nost fertlle in liurope. The nystem of culture is, however, lmperfect; and the consequence Is, that the grain raised is insuffielent for home eonsumption. Tuscany has long ticen celelirated for itn mineral productlons. Iron abounds in the island of Elba ; copper, argentlferous lend, sulphur, mercury, alum, coal, narhle, and alabanter are found in different purts of the Grand Ducliy ; and borax is supplied in great abundance from the lorax lagoona of Volterra.
The manufactures of Tuscany are in a highly flourishing condition. These connist of straw-platting and the mannufacture of atraw hath, and manufacturea of allk ; the princlpal reat of this latter branch of industry leing at Flurence, in which elty alone there aro upwarl of 4100 looms. There nre also manufactures of wool, eapecially of woolen cluths and carpeta; manufuctures of lisen, of paper, alabaster, marble, porcelaln, harlwares, and of metal. The Internal taxes levied on every branch of productive Industry throughout the Tuscan territorics have long fetterel the commercial activity of the country. Furniture, machinery, bookn, live stock-ln fact, every article In dally use, has to beur enormous duties. Fivery wulled city has its own system of taxation, so that the manufactures of one town are burdened with opjresslve duties (octroi) liefore they can be admitted fur aale Inte another. Such a zystem necessarily resulta injuriously to the commercial enterprise of 'luscany; and lta effects are jerceptifle in the atagnant condition of the forelgn commerce of that country. The chlef exports
of Tuacany are ofl re-oll, bldes, straw hate, borax, ragh, wool, hemp, potanh, coral, marhle, tallow, curk, Julhl-Ing-timber, and pe ver। and the chilef imports, colonlui produce, sult fish, and IBtithh, German, Swisa, and French innnufactures. The usual exports of tha United States to Tuacany are naval atoren i valua thereof in

 tures not anumerated, to the amnunt of between +2000 and 8000 . In 1865 the exporta of cotton from the United Statea to Tuacany amoungod in valne $H_{0} \& f^{(N)}(1)$ and of tobaceo to 171,621 . Tha Imports of the U'nited Statea from Tuacany are chiefly alik, plece guxin, oliveoll, slmonda, flgn, moap, mall quantities of oplum, nul raga; this lattor articla averaging annually some nix. million pounda.
Thare In no commerclal treaty betwaen the United States and Tuscany; but Amerlcan veasele anjoy perfect equallity, aa reapcets navlgation and import dutics, with the Tuscan fag-similar privilegea having heen granted to the Tuscan flag in the ports of the United States, por I'renldent'a proclamation, Sept. 1, 1886.

The genaral forelgn trade of Leghern $\ln 1851$ was, In imports, $\$ 14,442,800 ;$ and in exports, $10,304,120$. This is a falling off from tha general trade of the preceding year of 9933,720 . Thia diminution in the furelgn trada of Leghorn, which is avery year becoming more and more perceptitils, ts accounted for by the fuct that a large jortion of the extenaive trade with lombardy, Parma, Modena, and the l'outifical ntaten, heretofure the princlpal aource of the commercial prosperity of thin jort, han paased from Leghorn, and is now carried on through the jorts of Genos, 'Irlente; anl Ancona. Bealles, the port of Leghorn has of late years been nuch neglected, and offera nelther inducements nor proper facilities to forelgn flagh. Ships of heavy drunglit can not enter the harbor, especially If laden; and there are no suitalle warehouses, not even for the marble of Carrara, one of the leating exports to the United States. To these cuuses of the decline of the trude of Leghorn is to be added a tux of 3 franes 30 centimes fur every person who goes ashore, should he remaln buc, an hour. The merchant marine of Tuscuny in 1851 comprised 700 vessels, measuring 27,000 tons-averaging less than 40 tons to the vessel. In the year 1849 thero entered the port of leghorn 1282 vessels (exclusive of 457 steamers), of which $? 6$ wore American ; and there clearcd 1189 (exclusive of 154 ateamers), of which 24 were American. In 185 the arrivals were 3418 vessela, of which 23 wero Amerlean.




Quarantine.-The quarantine regulations of Leeghorn are the mout rigorous of any other jwrt in the Mediterrancun. Ships approaching leghorn are visited by two guarils sent from the health office, one of whom alwaya acts as pilot. The mort recent authority in the porsession of the Department on this sulject thus sums up the quarantine regulations of this jort, so far as they relate to vessels arriving from American ports :

Daya sf Quccrantime.-According to cases of auspicion for arrivals from America.

Clean Bilis-Days of Obocration,-Firet division:

| Value of Imports frum Tyorany. | Anierican Tomnage |  | Yoreign Tuntore. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Eintored the } \\ & \text { Onited statem } \\ & \hline \end{aligned}$ | D'Tegred frum the I Nialea | Rintwred the Itulted matere | I'lenared fruth the t' Atsen |
| ...... | 3,3-7 | 34.1 | 1,414 | 2ns |
| . | 8,415 | 1,010 | \$10 | 375 |
|  | B, 3 | 2.004 | 1.6331 |  |
|  | 7,549 | 1,5<6 | 3,36-4 | 604 |
| ...... | 6,101 | 2.537 | 7inis | ¢ 610 |
|  | 5,2111 | 1,0t3 | 4,711 | +4 |
| \$ 210,698 | $11, \mathrm{Man}$ | 1,1042 | 4,1:\% | 295 |
| * 5060,367 | 14, | 2, 192 | 1,220 | 204 |
| 1,152,717 | 12.460 | 2,3in 6 | 4,519 | 3 i |
| 1,709,544 | 10,519 | 2,094 | 8.1012 | 238 |
| 1.504, 7101 | .... |  | 1.963 | 381 |
| 1,260,4 ${ }^{\text {a }}$ ( |  | . | 2.560 |  |

from the equator to the tropic of Cancar ; from lit December to Feliruary inclasive, seven days; from lat March to November Inclusive, ten days; vensilx of war two days less than merchant vessels. berond dlvishon: from the tropic of Cancer to Charlestan inclusively, and from the equator to al! South America, flve days, from 1st lecember to February inclusive; seven days, from 1at March to Novenatier indusive. Third division: from the Unlted States between Charleston and Camada.

Ioubeful Hills of Mealth-IDays of Quarantine,-Laz.
aretto of St. Roch, all seanona, and wherever from, from Ist Decemter to Felruary inclusive, etroteen duys ; from Iat March to Noveniber inclualve, ", iteen days; vessela of war, ten days; without ausceptivie commoditien, rigil, fuurteen daya, from 1st December to February inclunive ; elghteen dayn, from 1at March to November luclusive.

Foul Bills of Heolth-Days of Quarantine,-I Lazaretto of St. Roch, all reasons, and wherever from, twentyfive days ; without susceptible commodities, from 1nt December to February laclusivs, elghteen days; from 1st March to November Inclualve, twenty-five dayal tusceptible commodities, days not given, but time supposed to be arbltrary, and dependent on the contlinuance of auspiclous circumstancos.

Theae regulations are still more rigid when vessels arrive from countries in which the plague has been known to exist. Thene include the 'lurkish Levant, Egypt, and Barbary. When vessels are subjected to a long quarantine, three medical vislts are generally made; and when merely under inspectlon, two. In extraordinary cuses a guard-bont la stationed near the vessel, and paid for at the rate of 64 centa per day. In all cases of assistance from sanitary oflicers, the commandant of the port deterinines the amount of comjeasation. The vessels of all nutions, whether'Tuscan or forelgn, pay the same quarantine c'ues. These dues are, for each asnitary vlsit 80 cents, and $\$ 108$ for the boat conveying tho heulth officer. For oach guard, per day, 58 cente 1 or 48 cante if food ls supplied. Tho tonnage duties mmount to $\$ 1120$ on a aquare-rigged vessel of 200 tens, with an additional charge of $\$ 160$ for overy twenty flve tons over that capacity.-C. D.

Parma embraces an area of 2766 square miles, containing a population in 1804 of 608,784 inhabitants. The chief productions are maize, wheat, fruit, tobucco, and silk. The princlpal manufactures are ailk fabries, iren wares, glaag, oarthell-ware, paper, atraw hats, and gunpowier. Commerclally, Parma possesses but littic interest, her lmportations boing exclusively by lund, and limited to amall quentities of sugar, coffee, und a fow articles of luxury, principally of dress and ormament. Iler exporta are cattle, logs, anusages, aud cheese.

Modena.-This state is of less extent than Parma, and its productions acarcely auflico for the subslatence of the inhabitants. It derivea amo commercial importance from the marble quarries et Carrara, whleh seem to be inexhaustible. The trade of both these statea being inland, and but poorly aupplied with any basis for commercial exchanges, is, of course, very inconsiderable. By treaty of December 4, 1849, the two states of Parma and Modena edopted the tarlff of Austria, and duties are consequently levied at the aame rates and in the same manner as those of that empire.

Lucca.-This little state was annexed to Tuacany October 11, 1847. This took place in virtue of provisions of the Congress of Vienna, when, upon the decease of the Archluchess Maria Louisa, the Duke of Lucea liecume ruler of Parma. The soil is exceedingIy fertile, and tho culture of oil and silk lo acquiring some impertance-the former being generally esteemed the tiest in Italy, and the latter of fair quality. The imports of Lucen, when an independent state, consisted chietly of sugar, cofice, spices, wine and spirits, salt fish, hemp, flax, cotton, wool, and various manufactures. Salt and tolacco wera government monepolies, and their importation on private account was prohibited. The exports were olive-oil, to an nnuunl value of about $\$ 160,000$, and fresh fish, of $\$ 50,000-$ the latter sent chlefly to Leghern from the omall port of Vlareggio. In mannfacturing Industry lucca is suid to surpass beth Purma ard Modene. Silk ts the most important manufacture; and next rank common woolens end cottons, glving employment, in all, it is estimated, to about 6000 persons, chicfly in the city of
Lucca. Lucea.

Son Marino.-Rural industry and the manufucture of slik constitute the chief occupation of this little repubile.

Monaco.-This amall princlpaility, under the protection of Sardinla, by the treaty of November 21), 1815, onjoyn a tine climate, adi producea orangea, lemona, and olivea In ahundance. It has alwo rich panturages und productive firherics. It need only be added respecting these amall states, that auch artleles of their own produce and unnufucture, or of the United States, as are interchanged, are eo blended with the trade of other countries, that any attempt to speclfy the quantitiea or values of each respectively would prove abortive, eves were the amounts sufficiontiy large to warrant the effort.-Ses articles Aubtmia and Thieste.

Tutenag, the name glven in Commercial language to the zinc or speiter of China.-Aes Zinc. This commodity used to be smuggled from China (the exportatlon of unwrought metala from that emplre belng prohlbited) to Ilindostan, the Malay Archlpelago, and nelghboring countries, to ths amount, it is aupposed, of alout 60,000 cwt. a year. In 1820 the Britligh freetraders Introduced German apelter or sino for the first time into the Indien market. In 1826 the importation of tutenag from China Inte Calcutta ceased; and It has now been totally superseded throughout Indle by spelter. Of this latter commenlity there were exported from Great Britain, in 1850, to the East India Company's territories and Coylon, 11,628 cwt., besides the quantitiee furnlshed by IIemburg, Rotterdam, Antwerp, und other Continental ports.

Typhoon, the name given to a violent tornado or liurricane in the Chireas sear.--See Sronms.

Tyre, the prinelpal clty of Phoenicia, and the most celebrated emporiam of the anclent world. Thls fameus city was sltuated on the southeast cosst of the Mediterranean, where tho inconsiderable town of 'Tsour now stunds, in lat. $33^{\circ} 17^{\prime}$ N., leng. $85^{\circ} 14^{\prime} 35^{\prime \prime} \mathrm{E}$. The trade that is at present carried on at $\mathrm{T}_{\text {seur }}$ is too trifling to deserve notlce; bui as this work is Intended to give some account, however imperfect, of the revolutlons in the channela of commercial enterpriee, we may, perhaps, be excused for sulmitting a few etatementa with respect to the commerce carried on by 10 renowned a people as the Tyrlans. Tyre was founded by a colony from Sidon, the most anclent of the Phonician clties. The date of this ovent is not certalnly known, but Larcher supposes it to have been 1690 jears before the Christian era.-Chronologie d'Herodote. It is aingular, that while Homer mentions Sidon, he takes no notice of Tyre, whose glory speedily eclipaed that of the mether city; but this is no conclualve proof that the latter was not then a censideralle emporium. The prophets Isalah, Jereminh, and Ezeklel, who flourished from 700 to 600 years before Christ, represent Tyre as a city of unrivaled wealth, whose "merchants were princes, and her traffickers the honorable of the earth." Orlginally, the clty was built on the main land; but having been besieged for a lengthened period by the Babylonian monarch Ne'puchadnezzar, the inhabltants conveyed themealvea and their goods to an island at a little distance, where a new city was founded, which enjoyed an increased degree of celebrity and commercial prosperity. The old city was, on thint account, entitled l’aletyre, nud the other simply Tyre. The new city continued to fleurish, oxtendlag its colenies and lts commeree on all sides, till it was attacked by Alexander the Great. The resistance made by the Tyrians to that cenqueror ahowed that they had net been enervated by luxury, and that their martial virtues were nowlse inferior to their commercial skill and enterprlas. The overthrow of the Perslan empire was effected with less difficulty than the cajture of this gingle city. 'he victor and net magnanimity to treat the vanquishea' as their heroic conduct deserved. In despite, however, of the cruclties inflicted on the city; she rose again to considerable eminence. But the
foundation of Aloxandria, by diverting the commorce that had formerly centred at Tyre into a now channel, gave her an irreparable blow; and she gradually declined, till, consistently with the denanoiation of the prophet, her palaces have been lovoled with the dust, and she has become "a place for the sprending of nete In the midst of the sea."

Commerce.-Phwnicia was one of the emallost countries of antlquity: It occupied that part of the Syrian conest which atretches from Arndus (the modern Round) on the porth to a little below Tyre on the sonth, a dictance of about 50 leagues. Its breadth was much lesa considermble, being for the moat part bounded by Mount Libanns to tho esst, and Mount Carmel on the south. The anfface of this narrow tract was generally ruggod and monntainona; and the soil in the valleye, though moderately fertile, did not afford sufficient supplios of food to feed the population. Lhanus and ite dependont ridges were, bowever, covered with timber suitable for ohlp-bailding; and besidea Tyre and Sldon, Phconicia possessed the ports of Tripoll, Byblos, Berytus, etc. In this situation, oceupying a country unable to aupply them with sufficient quantities of corn, hemmed in by mountaine, and by powerful and warlike neighbore on the one hand, and having on the other the wide expanse of the Mediterranean, atudded with islands, and surrounded by fertlie countriea, to invite the enterprise of her citizena, they were naturally led to ongage In maritlme and commercial adventures; and became the boldeat and moat experienced marinore, and the greateat discoverers, of ancient timee.

From the remotest antiquity, a conaiderabie trade seems to have been carried on between the Eastern and Western worlds. The epices, drugs, precious atones, and other valuable prodncts of Arabla and India, have alwaya been highly eateemed in Europe, and have been exchanged for the gold and ailver, the tin, wines, etc., of the latter. At the first dawn of authentic history; we find Pheenicis the principal centre of this commerce. Her inhabitants are designated in the early nacred writings by the name of Canaanultes-a term which, in the language of the East, means merchants. The products of Arabis, India, Persia, etc., were originally conveyed to hor by companien of traveling merchants or caravans, which seem to have been constituted in the same way, and to have performed oxactly the same part in the commerce of the East, In the days of Jacob, that they do at present.-Gen. xxxvil. 25, etc. At a later period, however, is the relgns c.' David and Solomon, the Phoonicians, having formed an alliance with the Hebrews, aequired the ports of Elath and Ezion-geber, at the northnast oxtremity of the Red Sea. Here they fitted ont fleets, which traded with the ports on that sea, and probably with those of Southern Arabia, the west const of India, and Ethlopia. The shipe are eald to have visited Ophir; and a great desl of erudition has been expended in attempting to determine the exact situation of that emporiom or country. We agree, however, with Heeren, in thinking that it was not the name of any particular place, but that it was a sort of geueral desigantion given to the couste of Arabia, India, and Af-
rica, bordoring on the Indian Ocean; somowhat In the asme loose way as wa now use the terme East and Went Indies.

The distanos of the Red Sea from Tyre being very considerable, the conveyance of goode from the one to the other by land must have been tedions and expentive. To leseen this inconveniones, the Tyriane, shortly after thay got poscescion of Elath and Exlon-geber, seised apon Rhinoculura, the port in the Mediterranean nearest to the Red Sea. The products of Arabia, India, etc., being carried hither by the most compendious route, wore then put on board ships, and convejed by a briof and eaay vorage to Tyro. If we oxcept the transit by Egypt, this was the shortest and most direct, and for that reason, no doubt, the cheapeat channel by which the commerce between Sonthern Asia and Europe could then be conducted. But it is not believed that the Phoniciana posseased any permanont footing on the Red Sea after the death of Solomon. The want of It doea not, however, seem to have senaibly nffected their trade; and Tyre continued, till the foundation of Alexandria, to be the grand emporinm for Eastern products, with which it was abundantly supplied by caravana from Arabla, the bottom of the Persian Gulf, and from Babylon, by way of Palmyra.
The commerce of the Phuenicians with the countriea bordering on the Mediterranean was atill more extenoive and valuablo. At an eariy period thoy established anttlementa in Cyprua and Rhodes. The former was a very valuable acquiaition, from its proximity, the number of its ports, its fertillty, and the variety of its vegetabie and mineral productiona. Having passed ouccossivoly into Greece, Italy, and Sardinia, they proceeded to explore the southern shores of France and Spain, and the northern shores of Africa. They ofterward adventured upon the Atlantic, and were the first people whose flag was dlaplayed beyond the Pillare of Merculea.
The commerce and navigation of Tyre probably attained thoir maximum from 650 to 550 yeara before Christ. At that period the Tyrians wore the factors and merchants of the civilized world, and they enjoyed an undiepnted pre-eminence in maritime affairs. The prophut Ezeklel (chap. xxvil.) has deecribed in mag. nificent terms the glory of Tyre, and has enumerated several of the most valuable productiona found in her markets, snd the countries whence they were brought. The fir-trees of Senir (Hermon), the cedars of Lebanion, the oaks of Bashan (the country to the ecat of Galilee), the ivory of the Indies, the fine linen of Egypt, and the purple and hyacinth of the isles of Elishah (Peioponnesus), are opecified among the articlea need for her shipe. The inhabitante of Sidon, Arvad (Aradus), Gebel (lyblos), eerved her as marinera and carpenters. Gold, sillver, leed, tin, lron, and veenele of bress; plives, horsos, mulea, sheep, and goats; pearlo, precious stones, and coral ; wheat, baim, honey, oll, apicee, and gums; wine, wool, and silk, are mentioned as being brought into the port of Tyre ty sea, or to its markets by iand, from Syria, Arabia, Damsecus, Greece, Tarshish, and other places, the exact site of which it is difficuit to determine.-See M'Collocu's Com. Diet.

Oltramarine (Ger. Eltramarin; Fr. Blou doutremer ; It. Oluramarino ; Sp. Ultramat' ; Rass. Vltramarin), a very fine blue powder made from the blue parts of lapis lazuli. It has the valuable property of neither fading nor becoming tarnished on exposare to the air or a moderate heat, and on thls acconnt is highly prized by paintera. Owing to its great price, it is very apt to be adolterated. It was introdaced abont the end of the 15 th centary.
Umbrella. Described in early dictionaries as "a portable pent-house to carry in a person's hand, to screen him from violent rain or heat." Umbrelias are very ancient. It appears, by the carvinge at Persepolis, that umbrellas were need at very remote periode by the Eastern princes. Niebuhr, who visited the sonthern part of Arabia, informs us that he saw a great prince of that country retnruing from a mosqne preceded by soma hundreds of soldiers, and that he and each of the princes of his numarous family cansed a large ambrella to be carried by his side. The old china-ware in pantries and cupboards shows the Chinese shaded by an umbrella. It is said that the first person who used an umbrella in the streets of London was the benevolent Jonas Hanway, who died in 1786.-Haydn. Of late years the manufacture of umbrellas has been improved by the nse of steel ribs instead of whalebone. The coveringe sre mainly confined to cotton, sill, gingham, and alpaca.
Exports of Uybrellag and Pamasole of domegtio MantuFAOTURR FAOM THI UNITED STATM FOA THE YRAR END. ImO JUnE 80, 1857.


The exports of umbrellas and parasola of foreign manufacture for the same period were,
To Mexico
. ....... . $\$ 1018$
Total \$1102

Importa or Umbinllab, Pasabolg, akd Son-emadeb, of SILE AND OTHER EINDG, IMTO THE CNITRD Statis yog the


|  | Velue. |
| :---: | :---: |
| Ilamburg........... | 945 |
| Bremen. | 8,970 |
| Heigium | 321 |
| Fingiand | 6,80t |
| Scotiand | 859 |
| Canada | 48 |
| France on the Atiantio | 69,205 |
| Spain on the Mediterranean . | 60 |
| New Granada . . . . . . . . . . | 2,901 |
| Total, year 1556-'6T | \$05,860 |

United Kingdom, a general term by which Great Britain and Ireiand are designated.-See articles Evgland, Giear Britaix, Ineland, and Scotland.

United Etates of Amerioa. Lat. $25^{\circ} \mathbf{2 0}$ and $49^{\circ} \mathrm{N}$. , and long. $07^{\circ} 47^{\prime}$ and $124^{\circ} 80^{\prime} \mathrm{W}$. Length, east and west, about 2600 miles; and breadth, north and sonth, abont 1700 miles. The United States occupy the middie zone of North America. The fronticr of this vast country measures about 10,000 miles in periphery, and of this about 4000 milos are sea-cosat and 1500 leke coast.

The sest of government was established as foliows: At "Philadelphia," Pennaylvania, commencing 5th September, 1774, and 10th May, 1778; at "Baltimoro," Maryland, 20th December, 1778; at "Philadelphla," Pennsylvania, 4th March, 1777; at "Lancaster," Penn-
sylvania, 27th Septomber, 1777; at "York," Pennaylvania, 80th September, 1777; at "Philadelphis," Pemnsylvania, 2d Jaly, 1778; at "Princeton," New Jersey, 80th June, 1783; at "Annapoilis," Maryland, 26th November, 1783; at "Trenton," New Jersey, 1st November, 1784; and st "Naw York Clty," New York, 11th January, 1785; Waahington City, district of CoInmbia, wan first occupiad in 1800.
Physical Features.-The United States are traversed by two ranges of mountaina, the Alleghanies, and the great mountain mass of North America, the Rocky Mountaias. These divide the conntry into three distinct geographical regions; the Atlantic slope, descending from the creat of the Alieghanies to the ocean on the southeast; the great Mississippi Valiey, between the Alleghanies and the Rocky Mountains; and the western declivity, from tha Rocky Mountains to the Pacific. The Alleghanies are a long plateau, crested with several mountain ridges, and groups separated from each other by wide and elevated valieys. Thay commence in Northern Alabama and Georgia, and reach their culminating point in North Caroliaa, where thoy attain an elevation of 6476 feet; thence passing northeasterly in parallel ridges, varying in height from 2000 feet to 6000 feet, and a breadth of from 20 to 100 milica, through Virginia, Pennaylvania, New Jersey, New York, Mssaachusetts, Vermont, New Hampshire, and Eastern Cavada, where they terminate in the bold headland of Capo Gaspe. In New York they reach their highest elevations in the spur branching off northwesterly, known as the Catskill pentains and the Adirondack gronp. In Massachusetu, at Mount Washington. In Vermont it attaias its highest elevation in the Green Monntains, known as the Mansfield Mountain and the Camel's Hump. In New Hampshire, in the White Mountains ; and in Canade, at Mount Logan.
The Rocky Mountains take a much greater breadth, and tho calminating pointa reach the region of eternal snows, rising in the portion pasaing through the United States to the height of 14,000 feat. This is the great mountain range of the continent, traversing it from Cape Horn to the Arctic Ocean, forming the longest continuous monntain mass on the face of the globe. Between this range and the Pacific coast are some minor mountain ridges, whose culmianations in sevaral places rise far above the snow line, and furniah seme active volcanoes.
The Missiasippi River has its entire course in the territory of the repubilc, and the valley drained by it, snd its numerons tributaries, is one of the most fertie tracts on the earth's surface. The moat noted feature of the United States is the alightly incl: ted plain, which extends along the entire Atlantic coast, with a breadth of from 50 to 100 miles in width; beyond this plain commences the hilly country extending to the foot of the Aileghany ridge. The soil of the Atlantic plain is asandy, but in many placcs highly productive; and the hiliy portion has a strong, fertila aoil, capable of supporting a dense population. The Pacific section is traversed by aevoral extensive rivera, and presenta a much diversified surface, with varied and picturesque acenery; but some portions are mere desart wastes. Such is said to be the case with tho great California basin, the water courses of which are lost in the sande and volcanic regions, or enter lakes with no visible outlet.
Lakes.-All the great lskes, with the exception of Michigan and Champlain, lie partiy in Canada, he division line pasting centraily through them, and their connecting streams, for a distance of about 1500 miles. The firat (the most extensive sheat of fresh water on the earth's surface) in the series is Lake Superior, the surplus watere of which, descending through the Strait of St. Marys into Lake Huron, which, with the accu-
muiated waters from Michigan, pass through the St. Clair Strait and Lake, and the Detroit into Lake Erie; whence, passing over the precipice of Niagara, and through Niagara Straite, enter Ontario ; Lake Ontario has its outlet by the magnificent St. Lawrence, through Canadian territory, into the Atlantic Ocean. The following is a tahular statement of the extent of these fresh-wator seas, with their depth and elevation:

| Laken. | $\text { Muan } \text { Langlh. }$ | $\begin{gathered} \text { Mann } \\ \text { greadih. } \end{gathered}$ | Ares | Mear Depth. | Klarallom above 80 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mlies. | $\mathrm{min}^{80}$ | 8q. M11m. | Tout | Feek |
| Superior | $4(\mathrm{kI}$ | 80 | 92,010 | 000 | 509 |
| Michtgan | 320 | 70 | 22,400 | 1000 | 578 |
| Green Bay . . | 100 | 20 | 2,000 | 1000 | 678 |
| Huron...... | 940 | 80 | 20,400 | 1000 | 678 |
| St. Clatr | 20 | 14 | 360 | 20 | 570 |
| Erie......... | 240 | 40 | 9,600 | 84 | 665 |
| Onta | 180 | 36 | 6,300 | 600 | 232 |

Lake Champlain, lylag between New York and Vermont, is 128 milea long, and from 1 to 16 wide, and dischargea its watere through the Sorel into the St. Iawrence. It is computed that these lakes contala 14,000 cubic miles of water-aquantity more thanfive-sevenths of all the fresh wator of the earth. The extent of the conntry drained by them from the northwest angle of Lake Superior to the St. Lawrence, inclading also the ares of the lakes themselves, is estimated at 335,515 square miles.-Ses Lakes, Commerce of.

Rivers.-The water courses of the United States are on an extensive scale, and afford, with tho great artlficial connectiag links, a oystem of inlund navigation unsurpassed. Flrst in order are those of the Atlantic slope, the waters of which enter directly into the ocean; the principsl of these are the Peaobscot, the Keunebec, the Merrimac, the Connecticut, the Mudson, the Delaware, the Susquebsnna, the Potomac, the James, the Cape Fear, the Great Pedee, the Savanaah, the Altamaha, and St. Johns, etc. These are all navigable atreams, some for a great distance inland. Second, the rivers entering the Gulf of Mexico or Sea of Cortez. The Appalachicola, the Mohlle, the immease Mississippl, the Sabine, the Trinity, the Brazoe, the Colorado, and the Kio Grande. The rivers enteriag the Pacific are the Columbla, the Saeramento and San Joaquin, the Colorado, and Giia, the latter two discharging their waters luto the Gulf of California. There are many rivers entering the grest lakes, and also the St. Lawreace, the great artery of Canada.-Siee rirers under proper names.

A remarkabie analogy exiats in the atracture of the land in the United States and Central and Northern Earope. Gneiss, mica, schist, and granite, provail over wide areas in the Alleghanies; and on the Atiantic alope, and in the bigh and middle latitudes of the continent, silurian strats extend over 2000 miles. The Rocky Mountalns, aiso, are mostly siiurian, except the east ridge, which is of stratified cryataliine rocks, amygdaloid, and ancient volcanic productions. The coast range has the ame characteristies, with inmense traets of voleanic rocks, both ancient and modern, chiefly obsidian. In North America volcanic action is entirely confined to the coast and higblends along the Iracific; but within the United States at the present day this action is dormant (with the exception of Mount St. Itelens), although its activity in very apparent both to the north and sonth-to the north in Mount Se. Elias, and to the mouth in the Mexican volcanoes. The prineijal minerala produced in the Unit. ed States are iron, coal, copper, lead, and goid, whith a great number of less importance. Since 1818 the great field of gold gatheriug has been California, where large quantities have been obtained with litlle labor, and both ailver and quickailver abound in the same state. Silver, however, is mostly obtained from the lead and copper mines of the Upper Mississijpi and Lake Superior countrica, where it in found in combl. nation with these metals. The prineipal deposita of gold, otherwise than those of California, occur in tha
primsry rocks between the Fiver Rappshannock, in Virginis, and the Coosa, in Alabsma; hut it has been found in smaller cuantities as far north as Maine. Gold and silver abound also in New Mexico and Weatern Texas, and probably in the Meailla territory. The coal-fields of the States are of prodigious extent. Nearly one-fonrth of the country between the Alleghanies and the Missiasippi is composed of coal-beds; and in Pennsylvania, Maryland, Ohio, Iadlana, and Illinola, coal-mining has become of vast Importance to general industry. The ascertalned areas of the coal fomation in the under-mentioned States are as follows: In Alabama, 8400 square mlles; Georgia, 150 ; Tennessee, 4300; Kentueky, 13,500; Virginia, 21,10: Maryland, 550 ; Ohio, 11,900 ; Indiana, 7790 ; Illinois, 44,000; Pennsylvania, 15,487 ; Michlgan, 5000 ; and Missouri, 6000 i total, 183,132 equare mlies, Coal has also been found on the Pacific slope-in California, Oregon, and Washington-and the mincral will no doubt be found in 'Texas and the adjoining country. As a general remark, it may be atated that the coal east of the higheat Alloghanlea takes the form of anthra. cite, whilo west, and in the valleys of the great central rivers, it ia bituminoua. Iron is equally abundant with coal, and is usually found in juxtaposition with it. The prinelpal seats of iron mining aro Pennsylvania, New Jersey, Ohlo, Mlssoari, Kentucky, and Northorn Michigan; and it is also extenaively mined in Northern New York. Pennsylvania, however, is pro-eminent in this Industry, and produces at least one half the iron mined in the United Statea. Copper is miued chiefly in Northern Michigan, but to a less extent in Conneeticut, New York, Tennessee, Nopth Carolina, etc.; and rich copper mines exist also in New Mexico, near the head of the (iils River. Lend is worked chiefly in Illinois, Wisconsin, and lowa; on the Mississippi, and for many milea around the territory, in which are included Dubuque, Galenn, and Minoral Point ; and In these regions upward of 80,000 tons are annually produced. (With respect to other mineral products refor to the States beverally.)

IIstorical Summary.-Eighteen new States have been admitted into the Union since the confederation of the original thirteen colonies, as follows:

1. Vermont, which formed a part of the territory of New York and New IIampshire, was admitted on the 4th March, 1731.
2. Kentucky, which was formerly a part of Virginis, was admitted on the 1 st June, 1792.
3. Tennessee, formed from the territory ceded to the Unitel States by North Carolina, and which afterward was known as the "Territory south of the Ohio River," wus admitted on the lst June, 1796 .
4. Ohio, the first State fermed from the "Territory northwest of the Ohio liver"-a territory which had been celed to the United States by Virginia and other clainants, and which was erected into a government as eariy ns 1787, was aduitted on the 29th November, 1802.
5. Louisiana, a part of the vast territory of the same name purchased of France hy the United States in 1803, and subsequently known as the Territory of Orleans, was adinitted on the 8 th A pril, 1812.
6. Indianc, the second State formed to the northwest of Ohio, was admitted within its present limits on the 11th December, 1816.
7. Mississippi, which was formed from the territory ceded to the United States by Nouth Carolias and Georgia, was admitted on the i0th December, 1817.
\%. Jllinoie, the third of the Northwestern States, was admitted on the 3d Decenber, 1818.
8. Alabama, the second State formed from the South Carolina and Georgla cessions, was ailmitted on the 14th IVecember, 1819.
9. Maine, originaliy a province of Massachusetts, hut having been jermitted to frame a State fovernment by that State, waa adinitted on the 15th Mlarch, 1820 .
10. Mfissouri, the aecond State formed from the Frunch purchase, was admitted on the 10th Angust, 1821.
11. Arkansas, the third State formed from the Louiaiana cession, was admitted on the 15th June, 1836.
12. Michigan, the fourth Stata formed from the territery northwest of the Ohio River, was admitted on the 26th June, 1887.
13. Florida, which has the same limita as when seded by Spain, was almitted on the 8d March, 1845.
14. Texas, which had been an iadopendent republic for tha ten preceding yeara, was admitted by a joint resolution of both Hlouses of Congreas on the 29th December, 18 k 5.
15. Iowa, the fourth State formed from the Territory of Louisiana, was almitted on the 28th December, 1846.
16. Wisconsin, the fifth State formed from the territory northwest of the Ohio River, was admitted on the 29th May, 1848.

And, 18. California, having been governed as a State for upward of a ycar, was admitted on the 9th December, 1850 ; and though the last, it is by no meens the lenst important of the nembers of tho great confederacy.

Besides theae thirty-one States, which aend ropresentatives to Congreas, in number according to their population, there are aeveral local and dependent governinents, which are styled "Territeries of the United States." Such are the Territories of Oregon, Washington, Ulah, New Mexico, and Minnesota. The Territory of Nebraska ia not yet organized, nor hae the vast territery ael apart for the Indians ally aggregate exiatence, but each Indian nation, within its own linits, is governed by its own lawa.

1. Oregon was erected into a Territory on the 14th August, 1848;
2. Minnesota on the 8d March, 1849 ;
3. Utah; and,
4. New Mexico, on the 9th Scptember, 1850; and,
5. Washingion, originally a part of Oregon, was formed into a acparato Territory at the aession of Congress 1852-'53.

The only Territory new remaining withont local government is that portion of the United States cm braced in the Nebraska country, and the vnst domain extending beyond Minnesota and lowa westward to the Rocky Mountains, and north of the 43d parallel of north latitude. The tide of immigration, however, has already reached to the edge of the wilderneas, and but a few years will elapse before settlement has progressed eufficiently to justify the organization of new governments within theae immense solitudes.

The District of Columbia, or Federal District, is under the immediate anthority of Congrese, and ia not repreaented in that body. It ia the aeat of the General Government.

Area of the United States,-The limits of the United Statea when their independence was achieved (1783) did not exceed $820,68 \mathrm{~J}$ equare milea. Louisiana, purchased from France in 1808, and Fiorida from. Spain in 1819, added respectively an extent of 899,579 and 66,900 square miles. In 1842 and 1846 the Northern houndary was aettled by treatiea with Great Britain, confirming the rights of the United States to 808,052 aquare miles, included in the Territory of Oregon, etc. In 1840 Texas waa annexed, with an ares of 818,000 aquaro miles, and by a treaty soon afterward with Mexico an area of 522,955 additional aquare milea waa incorporated. Thua did the territory of the United Statea double Iteelf in the first twenty yeara of ita exiatence, and thus has it increased over three-fold in leas than aixty years. The figures are given upon the authority of a atatement prepared at the Topographical Burean for the Census office, and annexed.

Tereitouial Inorzase of the United Statis. Territory.
square Milles.
Ares of the United Stater at the peace of 1783 .... $820.680^{*}$ The purchase of Loulslana added (sbout)........... 899,579" (The limits were indefinite; those here assumed are the boundaries of the treaty of 1819, with the exception of Florida and parta of Mississippi and Alabama.)
The acquisition of Florids (treaty of 1819), added 66,000 Admissfon of Texas (Emory's map of 1844)........ 818,300
Oregon treaty . . . . . . . . ..........................
308,052 Oregon treaty Treaty with Mexicot 622,955


Total. . . . . . . . . . . . . . . . . . . . . . . . . . . $2,963,666$
The territorial extent of the republic is, therefore, nearly ten times as large as that of Greal Britain and France combined; three times as large as the whole of France, Britain, Auatria, Pruasia, Spain, Portugal, Belgium, Holland, and Denmark, together; one and a half times as large as the Russian empire in Europe; one-aixth less only than the area covered by the fiftynine or sixty empires, atates, and republica of Europe; of equal extent with the Roman empire, or that of Alexander, neither of which is said to have exceeded $3,000,000$ aquaro milea,-Voltaire, Histoire da Russie.

Considered in lesser divisions, the calculations of the Topegraphical Bureau show the existence of an interior valley drained by the vaters of the Mississippi and its tributarics, neariy as large as the alopes of the Pacific and Atlantic proper together, and one-third larger than the whole domain of the republic upon the adoption of the present Constitution (1789).

Abea of eaon 8lope and Ratio to the total Aera of the United 8tateb.


Thus over two-fifths of the national territory is druined by the Mississippı and ita tributurica, nnd more than one half is embraced in what may be called ita Midelle Region. Ono-fourth of this total area belongs to the Paclic, one-sixth to the Atlantic proper, one-twea-ty-sixth to the Lakee, one-ninth to the Gulf, or oncthird to tho Atlantic, including the Lakes and the Gulf.

From the charts prepared aoine years ago by Colonel Gilpia, of Miasouri, it will be perceived that a circle deacribed from the forks of the Kinanaa River, west of Misaourl, will touch New Orleans and Galveston, or the Gulf frontior, and the 49th parallel of latitude, our
northern boundary, making these points equidistant from the centre. On a larger circle, with the same centre, the points of equidiatance will be San Francisce,

* These ostimates are lower than those usually made. Morse, In his Gazetteer, estimates the area of the Union in 1788 at $1,000,000$ square miles; and Major Stoddard, who took possemalon of Loululana under the treaty and prepared a very valuable history of $1 t$, consldera the area to be $1,307,260$. These, of course, were but vague estimates, subject to after correetion. Agaln, Oregon bas generaliy been estimated at 841,463; Texas, 402,907; Californts, 449,601.-Dz Bow's Industrial Resources, vol. iit.
$t$ The Mesilla valley ta fucluded in the computation.
in Califoraia, Fort Vancouver on the Columbia, in Oregon, Quebec and Boston upon the Atlantic, Hudsona Bay on the extreme north, and Havana, Vera Cruz, and the city of Mexico, on the extreme south. The various great basias, declivities, and table-jands on the continent he estimates as follows: Miselasippi basin, 1,123,100 square mlles; St. Lawrence, 475,400; Hudson'a, Bay, 1,077,200; Mackenzie baain, 898,500; Pacifio declivity, 420,000 ; Atlantic declivity, 270,700 square milles.
Mr. Darby, in bis Geographical Dictionary, gives the following aggregatea: Valley of the Ohio, 200,000 square milles ; Valley of the Miasiesippi preper, 180,000 ; Valiey of the Mlissouri, 600,000 ; and the Valley of the Lower Mississippi, 330,000. Total, 1,210,000 squaro miles.
Lieutenant Maury compares the basins of the OId World with those which are dralned into the Guif of Mexico and Caribbean seas.


Lieutenant Maury remarks, "'ithe area of all the valleys which are drained by tho rivers of Europe which enpty into the Atiantic, all tho valloys that are drained by the rivers of Asla which empty into tbe Iodian Ocean, and of all the valieys that are drained by the rivers of Africa and Europe which empty luto the Mediterranead, does not cover an extent of territory ns great as that included in the valleys drained by the American rivers alone, which discharge themaelvea into one central sea."

Dr. Jatterson, of Pbilactelphia, mado the centre of representative population of the Linion in $18: 10$ in the northwestern extremity of Virginia, and atates that it hasil travelcd weatwaid since 1790 , when it was in Baitimore county, Maryland, 182 miles in very nearly the same parallei of latitude.
The following table will show the area included within the several geographical divisious which are named:
AaEa of thg aeveral ageat Divibiong of tue Unitear STATES.

| Arse lineluded to | Nyuare | Per (ent of Lutal Arve. |
| :---: | :---: | :---: |
| The Ntates | $1.464,100$ | (1) 183 |
| I'le Territoriea. | 1,472,161 | (6) 14 |
| Xon-alaveholding Statea nob Terti-) tories | 612,59\% | $20 \cdot 6$ |
| Slaveloolding states not Terriotipa ... | S 81.506 | 29.60 |
| Vew Fingland stalers . . . . . . . . . . . . . . . | 65,033 | 2-21 |
| Mlddle Staten | 114,024 | 3 t0 |
| 大onthern Siaten | 208, 100 | $8 \cdot 4$ |
| Southwestern State | 474.438 | 18.15 |
| Vorthwentern States . . . . . . . . . . . . . . . | 845,319 | 13.45 |
| Fiast of the Minsielppl . . . . . . . . . . . . | 805,576 | 29.45 |
|  | 1,200,281 | $40 \cdot 58$ |
| Went of the Misainnlpph, .............. | 2070,5:0 | 90.59 |
| North of latitude 380 $30^{\prime}$. . . . . . . . . . . . | 1,970, 177 | $6 i \cdot 10$ |
| toutli of lallinde $166^{\circ} 9^{\prime \prime}$ | (196, 194 | 32.90 |
| Weet of the Rooky Muantaitu. . . . . . . | 870,204, | 9964 |
| Finst uf lhe Rocky Mounialna. . . . . . . . | 2.006, 657 | 71.86 |

The United Statea conniat at the present time (IROS) of thirty-one independene States and nine Territories, incloding the Distriet of Columbia, whose areas will be found in the table amexed, prepared at the Topographicai Bureas. It is tho only official atatement. There wore in 1850 sixteon hundred and twenty coun-
ty divislons included within the organized States and Terrltories, but it is impossibio to give any eatisfactory atatement of their areas. By refereace to the statietical tables of thene countien in the United States Consua Report, it will be found bow liable they are to changes, and aiso what changes were actually effected between 1840 and 1850 .
 Statis.

| Btala or Territory. | Ares la square Miles. | Per Cent. of total Area. | Bank of States, eto., Torritorlelly. |
| :---: | :---: | :---: | :---: |
| Alabama | 50,722 | 178 | 80 |
| Arkansan . . . . . . . . . . . . . . . . | 82,19s | 1.78 | 18 |
| Callformia | 156,980 | 5.32 | 7 |
| Cotumbla, District of....... | 60 | $\cdots$ | 40 |
| Connecticus . . . . . . . . . . . . | 4,674 | $0 \cdot 16$ | 87 |
| Delawara | 2,190 | $0 \cdot 67$ | 88 |
| Florida. | 69,208 | 202 | 13 |
| Georgia | 68,000 | 198 | 14 |
| 1llinold. | 55,403 | 180 | 10 |
| Indlana | 83,809 | $1 \cdot 16$ | 29 |
| Indian Ter. ( S , of Kangas). | T1,127 | $9 \cdot 42$ | 10 |
| Jowa... | 50,914 | 178 | 19 |
| Kannad | 114,708 | $8 \cdot 91$ | 9 |
| Kentucky | 87,680 | 128 | 28 |
| L.outalana . . . . . . . . . . . . . . | 41,250 | 1.40 | 26 |
| Malbe | 31,706 | 108 | 80 |
| Maryland . . . . . . . . . . . . . | 11,124 | 0.88 | 82 |
| Manachusetts . . . . . . . . . . . | T,800 | $0 \cdot 26$ | 86 |
| Michigen . . . . . . . . . . . . . . . . | 58,248 | 101 | 16 |
| Minnesota Territory . . . . . | 100,025 | 565 | 6 |
| MiesissIppl . . . . . . . . . . . . . | 47,156 | 161 | 22 |
| Mimandi. | 67,380, | 0.89 | 11 |
| Vebrask ${ }^{\text {a Territory . . . . . . . }}$ | 835,882 | $11 \cdot 44$ | 1 |
| New llsmpshire .......... | 9,280 | 0.82 | 34 |
| New Mexlco Territory ...... | 207,007 | 7-05 | 4 |
| Naw York . . . . . . . . . . . . . . | 47,000 | $1 \cdot 60$ | 28 |
| New Jerscy. . . . . . . . . . . . . | 8.320 | $0-88$ | 86 |
| North Carolina | 00,704 | 1.73 | 21 |
| Ohlo. | 89,964 | 136 | 27 |
| Oregen Territory . . . . . . . . | 185,080 | 6.30 | 5 |
| Pennaylvanis. . . . . . . . . . . . . | 40,000 | $18 T$ | 21 |
| Whode Island | 1,306 | 0.04 | 89 |
| South Carolins | 29,385 | 101 | 81 |
| Tennewee | 45.600 | 1.55 | 25 |
| Texas. | 237,504 | $8 \cdot 09$ | 3 |
| Utah Territory . . . . . . . . . . | 209,170 | $9 \cdot 17$ | 2 |
| Virginia.. | 61,902 | $2 \cdot 10$ | 12 |
| Vermont | 111,212 | 0.35 | 83 |
| Wanhington Territory..... | 129.029 | 4.19 | 8 |
| Wisconain............... | b3,024 | 1.84 | 17 |
| $\left.\begin{array}{c}\text { Area obtalned by treaty } \\ \text { wlti Mfexico.............. }\end{array}\right\}$ | 27,500 | .... | * |
| Agrregate. . . . . . . . | 2,463,046 | . . | . |

The Territory of Nebraska conatitutes one-ninth, Utah one-eloventh, Texas one-twelfth, New Mexico one-fourteenth, Oregon one-ixxteenth, Missourl and Virginia a littie more than one-fiftieth cach, South Curolina one-hundredth, Maseachusetts one-three hundred and eightieth, and Rhode Island one-two thousand three hundredth part of the nstional area.
In addition to the abovo States, it is proposed to sid to the Union the Statea of Minnesota (the bill for the ndmission having already passed the Senate), Kansas, Oregon (anal, when this territory shall he more developed, a further division of Oregos will take place, siddiog one or more States), Ontouagnon (lacluding the northwestern part of Michijzan, and embraelug territory as iarge in extent as New York State), Nehreska, snd Washington. It is also proposed, when Texas shasli increase sufliciently in population to make a division of that Stato advisahle, te divide it Into cne or two more States. Ratios of representations for Congress, 1790 and 1800, 1 to 33,$000 ; 1810,35,000 ; 1820,40,000$; $1830,47,700 ; 1840,70,6 \times 0 ; 1850,93,420$. Aet of 1850 lixes the number of members at 233 , to which afterward was added 1 for Californin; Massachusetts, Mhode island, Connecticut, Pennaylvania, Marylend, Alabaums. Tennessee, Kentucky, Missonri, Indlana, Texes, South Carolina, and Georgia, 1 member each for isrgest frsetions. Future ratios of apportioninent to be determined by the Secretary of Interior, by dividing the number 233 into wholo representatice population, giving Ststes with largest fractions membere to raske up the total. Menibers from now States admitted ahill be in addition to the 233 untif the next census.

Population, Population to 8quahe Mile, Capitale, and Porulation of Capttala of tifi 8tatia and Tinmitomes OF TMil Unitid 8qatta in the Yeal 1850,

| Statse and Torrilotios. | Popoletion, 1850. |  |  |  | Popalalion to Eqnare Mile. | Caplato. | Population of Capitaln. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Whiten. | Free Colored. | gleven. | Total. |  |  |  |
| Alabama ............. . | 426,514 | 2,265 | 849,844 | 771,029 | 15.8 | Montgomery ........ | 8,728 |
| Arkansag . . . . . . . . . . | 188,189 | 608 | 47,100 | 209,897 | 40 | Little Rock . . . . . . . . | 8,167 |
| Californis............. | 01,035 | 989 |  | 98,507 | 0.6 | gacramento........ | 6,820 |
| Carelins, North . . . . . | 053,028 | 27,463 | 988,684 | 809,089 | $19 \cdot 1$ | Raislgh ............. | 4,518 |
| Carolins, gonth ...... | 274,563 | 8,980 | 384,984 | 488,007 | 23.8 | Columbla.......... | 8,000 |
| Colnmbia, District of. | 87,941 | 10,059 | 8,687 | 51,687 | 10397 | Wamakraron City. | 40,001 |
| Connecticut........... | 388,099 | 7,693 | - ${ }^{\text {coi }}$ | 870,792 | $78 \cdot 1$ | IIartford ........... | 13,565 |
| Delaware . . . . . . . . . . . | 71,169 | 18,078 | 8,290 | 91,532 | $43 \cdot 8$ | Dover. | 4,207 |
| Florida. | 4 7.203 | 989 | 38,810 | 87,445 | 1.5 | Tallahassee ....... | 1,891 |
| Georgla | 521,672 | 2,991 | 891,682 | 906,185 | 16.8 | Codurabue......... | 5,942 |
| Itilinda . . . . . . . . . . . . | 846,034 | 5,430 | .... | 861,470 | $15 \cdot 4$ | 8pringfeld......... | 4,583 |
| Indiana ............. | 077,154 | 11,202 |  | 088,416 | 29.8 | Indimapolia........ | 8,091 |
| Indian Terrltory ..... |  | Inhabited by | bout 110 | 0 Indians, |  |  | $\ldots$ |
| Iowa.................. | 191,891 | 388 |  | 192,814 \| | 88 | Iowa City .......... | 1,682 |
| Kanaas Torritory ..... |  | (Nowhit | habltant | 1850.) |  | Iowa Cit .......... |  |
| Kentueky ............. | 761,418 | 10,011 | 210,881 | 082,405 | $26 \cdot 1$ | Frsakfort .......... | 8,308 |
| Loulsiana . . . . . . . . . . . | 255,401 | 17,142 | 244,809 | 817,702 | $12 \cdot 5$ | Baton Rouge....... | 8,905 |
| Maine . | 58i,818 | 1,856 |  | 588, 189 | 107 | Auguata. . . . . . . . . . | 11,753 |
| Maryland. | 417,043 | 74,728 | 90,866 | 688,084 | 68.0 | Annapolia . . . . . . . . | 8,011 |
| Massachusctts . . . . . . . | 985,450 | 9,004 |  | 994,514 | 187-2 | Boston .............. | 186,881 |
| Mesila Territory ..... | (The papi | ation can n | arceed | 000, ehiefly | Indiats, |  | 12,... |
| Michigan ........... | 395,071 | 2,083 | axcoed | 397,654 | 71 | Langing ............. | 1,229 |
| Minnesets T'erritory . . | 6,038 | 89 | - ${ }^{\text {coin }}$ | 6,077 | 0.0 | 8t. Paul ............ | 1,388 |
| Missisalppl............ | 295,718 | 080 | 809,878 | 606,526 | 12.8 | Jackson ............. | 1,881 |
| Mlssonri . ............ | 682,004 | 2,018 | 87,422 | 482,044 | 10.5 | Jefforson City....... | 8,000 |
| Nebraske Territory ... |  | (No white | nhabitan | n 1850.) |  |  |  |
| New Hampshire....... | 817,456 | 520 | - | 817,976 | 89.6 | Concord........... | 8,576 |
| New Mexico Territory. | 61,525 | . 82 | * | 61,647 | $0 \cdot 3$ | Batita F6́.......... | 4,846 |
| New York . . . . . . . . . . | 3,048,825 | 49,069 | - | 3,097,394 | 67.8 | Albany ............. | 50,768 |
| Now Jersey | 465,509 | 23,810 | 286 | 489,656 | 71.4 | Trenton ............ | 8.481 |
| Ohlo............ | 1,955,900 | 26,279 | *... | 1,980,989 | 49.5 | Columburi. . . . . . . . | 17,882 |
| Oregon Trerritory . . . . . | 12,038 | 65 | ..... | 12,093 | 00 | 8alem.............. | 600 |
| Pennsylvania .. | 2,258,180 | 53,020 |  | 2,811,788 | 49.2 | IIarrisburg ......... | 7,834 |
| Rhodo Islend . | 148,8i5 | 8,670 |  | 147,545 | 122.9 | Providence . . . . . . . | 41,518 |
| Tonnessee... | 750,888 | 6,422 | 289,459 | 1,002,717 | $22 \cdot 8$ | Nashville.......... | 11,498 |
| Texas. | 154,084 | 897 | 68,160 | 212,598 | 0.8 | Austin ............ | 029 |
| Utah TTerritory . . . . . . . | 11,980 | 24 | 26 | 11,880 | $0 \cdot 1$ | Fillmore City...... | 200 |
| Virginla ............. | 894,800 | [4,333 | 472,523 | 1,421,661 | 28.8 | Richmond ......... | 27,570 |
| Vormont . . . . . . . . . . . | 818,402 | 718 | .... | 814, 120 | $89 \cdot 2$ | Montpelier | 2,310 |
| Washington Territory. | 1,049 | 15.3 | .... | 1,201 | 0.0 | Olympia........... | 200 |
| Wisconsin . . . . . . . . . . | 304,756 | 035 | .... | 305,391 | 5.6 | Medinon . . . . . . . . . | 1,871 |
| Total. | 19,653,065 | 434,495 | 8,204,613 | 23,181,870 | 70 | . $\cdot$...... | . . . |

A ogregate Popllation and Density of the Statis and Tebgitobieb of tie Uxited Stateg.

| Staten and Territorles | Populallon. |  |  |  |  |  |  | Denility. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1190. | 1800. | 1810. | 1880. | 1830. | 1840. | 1850. | 1840. | 1850. |
| Alabaune | $\cdots$ |  |  | 127,901 | 309,627 | 590,786 | 771,623 | $11 \cdot 6$ | 15.81 |
| Arkansas. | .... | **. |  | 14,273 | 80,883 | 87,574 | 209,897 | 1.87 | 4.02 |
| Callfornis |  | $\cdots$ | 94 | $\cdots$ |  | $\cdots$ | 92,687 | $\cdots$ | 0.60 |
| Coiumbia, Distriet of. |  | 14,098 | 24,029 | 88,089 | 39,834 | 43,712 | 51,897 | 437-12 | $881 \cdot 45$ |
| Cennecticut .......... | 238,141 | 251,00\% | 262,042 | 2i5,202 | 297,075 | 809,978 | 370,708 | 66-82 | 79.88 |
| Delaware | 59,006 | 64,279 | 72,674 | 72,740 | 70,748 | 79,085 | 91,538 | 38.88 | $43 \cdot 18$ |
| Florida. |  |  |  |  | 34,730 | 64,477 | 87,445 | 0.92 | 1.48 |
| Georgia | 82,548 | 102,101 | 269,482 | 340,087 | 618,823 | 691,398 | 906,185 | 11.08 | 16.82 |
| Illinols. | .... |  | 12,282 | 65,211 | 157,445 | 478,183 | 851,470 | 8.68 | $15 \cdot 37$ |
| Indiana |  | 4,875 | 24,520 | 147,178 | 843,081 | 685,806 | 988,416 | 20.28 | $29 \cdot 24$ |
| Iowa.... |  |  |  |  |  | 48,112 | 182,214 | 0.85 | 8.78 |
| Kentucky . . . . . . . . . . | 78,077 | 220,955 | 406,511 | 664,817 | 087,917 | 779,828 | 982,406 | 20.70 | 28.07 |
| Louisiana . . . . . . . . . . |  |  | 78,656 | 168,407 | 215,789 | 852,411 | 517,762 | $8 \cdot 54$ | $12 \cdot 65$ |
| Maine. . | 98,540 | 151,719 | 228.705 | 298,835 | 809,455 | 801,783 | 883,169 | 15.80 | 18.88 |
| Maryland | 819,728 | 841,649 | 880,548 | 407,850 | 447,040 | 470,010 | 588,084 | $42 \cdot 25$ | $58 \cdot 41$ |
| Massachnsetta | \$78,717 | 498,245 | 472,040 | 528,287 | 010,408 | 787,009 | 894, 614 | \$4.58 | $127 \cdot 60$ |
| Miohigan............. | - |  | 4,762 | 8,896 | 81,689 | 912,207 | 897,654 | 8.77 | 7.07 |
| Mississippi . . . . . . . . . | . | 8,850 | 40,359 | 75,443 | 188,021 | 875,661 | 006,328 | $7 \cdot 97$ | 12.80 |
| Missouri.. |  | .... | 20,845 | 66,086 | 140,455 | 389,702 | 682,044 | $5 \cdot 68$ | 10.12 |
| New Hampsh | 141,899 | 183,782 | 814,360 | 244,101 | 260,828 | 284,514 | 317.076 | 30.67 | 34.26 |
| New Jersey. | 184,189 | 211.949 | 245,565 | 277,575 | 820,823 | 873,304 | 489,555 | 44.87 | 58.84 |
| New York. | 840,120 | 586,756 | 058,049 | 1,872,812 | 1,918,608 | 2,428,921 | 3,097,394 | 51.68 | 6580 |
| North Carolina | 303,751 | 478,108 | 655,500 | 638,829 | 737,857 | T53,419 | 869,089 | 14.88 | 17.14 |
| Ohio . |  | 45.805 | 230,700 | 681,434 | 987,003 | 1,519,467 | 1,980,828 | 88.08 | 49.65 |
| Pennsylvania. . . . . . . | 494,373 | 602,801 | 810,091 | 1,049,458 | 1,948,283 | 1,724,083 | 2,311,780 | 87.48 | 50.28 |
| Rhode Isiand | 69,110 | 09,122 | 77,081 | 89,059 | 97,199 | 108,830 | 147,5:5 | 83.88 | 112.97 |
| South Carolina | 249,079 | 345,691 | 415,115 | 502,741 | 581,185 | 504,308 | 668,507 | $20-28$ | 92.70 |
| Tennessee | 35,791 | 105,602 | 261,727 | 422,818 | 0S1,904 | 829,210 | 1,002,717 | $18 \cdot 18$ | 21.00 0.89 |
| Texas... |  |  |  |  |  |  | 212,592 814,120 |  | 089 80.78 |
| Vermont | 85,410 | 154,406 | 217.713 | 235,784 | 280,652 | 201,948 | 814,120 $1,421,661$ | 28.59 | 80.78 28.17 |
| Virginla | 748,808 | 880,200 | 974,622 | 1,065,379 | 1,211,405 | $1,239,707$ 30,945 | $1,421,661$ 305,891 | 20.21 0.57 | 28.17 5.66 |
| Wisconsin. ... | .... | .... | .... | .... | . . | 30,340 | 0,077 | 0.07 | $0 \cdot \mathrm{C} 4$ |
| New Mexieu Territory | .... | ... |  | * | .... |  | 01,647 |  | 0.80 |
| Orogon Territory .... | .... |  |  |  |  |  | 13,204 |  | 0.07 |
| Utalit Territery ...... | *... |  | . | ... | . | . ${ }^{\circ}$ | 11,380 | .... | $0 \cdot 0$ |
| . |  | $\begin{array}{r} 5,305,037 \\ \text { I, ess } 12 \end{array}$ |  | $\begin{array}{r} 9,638,191 \\ \text { Less } 60 \\ \hline \end{array}$ | 6,818 | 6.100 |  |  |  |
| Total, | 8,029,827 | 5,806,926 | 7,239,814 | 9,638,181 | 12,866,020 | 17,060,493 | 23,191,878 | 8.65 | 790 |

Density of lopchation to Bquagh Mili in tire Uxityo

| Yaars. | Deunily, | Years. | Demalty | Yasm. | Deastiy. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1790. | . 479 | 1820. | . 5.89 | 1850....... 790 |  |
| 1800. | . $0 \cdot 47$ | 1830. | . $7 \cdot 20$ |  |  |
| 1810. | 481 | $18 \pm 0$. | . 0.65 |  |  |

For an explanation of the princlple upoz which the following table may be constructed, see Professor Tucker's Progress of the United Slates, p. 107. By starting with the population of 1790 as a baala, whlch was $3,020,827$, and adding three per cent. for eyery
yoar, making $4,047,721$ for $1791,4,109,162$ for 1792 , and so on for every year until 1850, Mr. Darby, the well-known geographer, arrived at resulte whlch, when compared with tho particular census years, ahowed as follows :

| Yaar. | Earimated. | Coama ${ }^{\circ}$ |
| :---: | :---: | :---: |
| 1819 | 8,281,408 | 8,346,1925 |
| 1810 | 7,046,064 | 7,239,816 |
| 1520 | 9,535,182 | $0,638,181$ |
| $18: 9$ | 12,811,118 | 12,866,020 |
| 1840 | 17,217,706 | 17,069,453 |
| 1860 | 93,138,004 | 23,191,876 |

Agorroatt Populatiox of the Unitren Statma foz macn Yeak paom $17: 0$ to 1860.-(Tus lats phom 1840 to 1850




| Btatet and Territorles. | Farma, Plantation, ete. | Aeres of improved l.and. | Aerea af unimproved Land. | ATareze! <br> Numbep of Aeree to each Fanm. | Canh Filas of Parme. | Value of Parming Implemente end Machinery. | Avarage <br> Vnlue of Farme. | Averege <br> Yolne of <br> Forming <br> Implembats <br> end <br> Mebinery. | Alerage <br> Yolue of <br> Parms, Im- <br> plemiente, ond <br> Mochinery. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabatia | \$1,904 | 4.435 .614 | 7.702 .061 | 289 | (304,023,224 | \$5,125, 443 | \$1533 | \$124 | \$16,5 |
| Arkansas | 17,158 | 781.530 | 1.816 .684 | 146 | 15,265,245 | 1,601,206 | 860 | 90 | 150 |
| Callfornla ........... | 872 | 39,464 | 3,861,531 | 4406 | 8,874,041 | 103,4*8 | 4443 | 118 | 4561 |
| Columbla, ilatrict of.. | 987 | 18,467 | 11,187 | 103 | 1,730,480 | 40, 220 | 64.81 | 161 | 6632 |
| Consueticut . . . . . . . . . | 22,445 | 1,763,178 | 615,701 | 106 | 79.126.422 | 1,832,541 | 3240 | 84 | 3324 |
| 1)elaware | 6,063 | 580, 882 | 375,282 | 154 | 18.8*0,08 1 | 510. 879 | 8114 | 84 | 8199 |
| Florlda | 4,304 | 849,049 | 1,240,240 | 371 | 6,923,109 | 659,795 | 1469 | 153 | 1629 |
| Gleorgla | 51,759 | 0,878,479 | 16,44,900 | 441 | 56, 753,445 | 6,594.150 | 1850 | 114 | 1964 |
| 11Hnoln . . . . . . . . . . . . . | 76,209 | 5.039,545 | 6.997.867 | 154 | 06,133,990 | 6,405,561 | 1261 | 8 | 1245 |
| Indiana................ | 93,996 | 0,046.548 | 7.740 .979 | 136 | 136.885 .173 | 6,704,444 | 1458 | 71 | 1824 |
| lowa | 14,810 | 824.68: | 1.911,382 | 185 | 16,657,567 | 1.172,869 | 1125 | 79 | 1204 |
| Kentuck | 74.777 | 5,96S.270 | 10,981,478 | $2 \times 7$ | 155,021,962 | 6. 1 m9,087 | 2073 | 69 | 2149 |
| Ioulslana | 18.4:2 | 1,5 10,025 | 3,539,018 | 378 | 75, 814,308 | 11,6\%6,938 | 5648 | 863 | 6011 |
| Malne . . . . . . . . . . . . . . . | 46,764) | 2,035,5 6 | 2,515,797 | 97 | 64, 881,743 | 2,284,557 | 1178 | 49 | 1222 |
| Marylanil. | 21,800 | -2,707.905 | 1, 36.445 | 218 | 87, 178, 545 | 2,463,413 | 3:88 | 118 | 4101 |
| Masachunet!s | 84,009 | 2,133,436 | 1,222, 776 | 94 | 109,076,347 | 3,200, 884 | 8202 | 94 | 3296 |
| Michigan. | 84,069 | 1,929,110 | 2,454,790 | 129 | 61,879,446 | 2,891,871 | 1621 | 85 | 1816 |
| Misalsalppl. . . . . . . . . . | 83,900 | 3,444.858 | 7,046,061 | 300 | 64.738,684 | 5,762,927 | 1612 | 150 | 1782 |
| Mirmourf . . . . . . . . . . . . | 04,4,8 | 2,938,425 | 6.794, 245 | 179 | 63,225,548 | 8.981,525 | 1161 | 18 | 1284 |
| New llanpahlre. . . . . . | 29.829 | 2.251,488 | $1.140,926$ | 116 | 65, 245.89T | 2,314.125 | 1890 | 79 | 1069 |
| New Jersey . . . . . . . . . | 28,905 | 1.767.941 | 981,955 | 115 | 120,23T.511 | 4,403,513 | 50 | 15 | 6215 |
| New York ............. | 170.681 | 12,408.984 | 6,710,120 | 118 | 654.646, 648 | 22,094,926 | 9. 50 | 129 | 8379 |
| North Cisrolina. . . . . . | 60,963 | 8,453,975 | 15543,008 | 369 | 67. 891.766 | 8.981,632 | 1192 | 69 | 1261 |
| Ohlo . . . . . . . . . . . . . | 14.3,407 | [1.851,493 | 8.146,060 | 125 | 858, 758.608 | 12.7611.685 | 2498 | ¢8 | 2583 |
| Pennyylvanla . . . . . . . . | 127.575 | 8,6 35.619 | 6,244,789 | 117 | 417,8i8,090 | 14,722,541 | 81177 | 116 | 8312 |
| Khode lsland | 8,324 | 8*6,447 | 197.451 | 103 | 17,070,802 | 4117,201 | 8170 | 02 | 8262 |
| South Cinrollina. | 29,907 | 4.079,551 | 12,145.649 | 641 | $88,431.684$ | 4.186 .851 | 2751 | 188 | 2489 |
| Tenneasca | 72.785 | 5,175,173 | $13,408,849$ | 261 | 97.851,212 | \$,3100,210 | 1845 | 74 | 1119 |
| Tesas | 12,194 | 643.976 | 10, <252,963 | 041 | 16,500,908 | 2,161,704 | 1367 | 170 | 1593 |
| Vermont............... | 29,763 | 2,601,400 | 1.824.413 | 138 | 63,36I. $\mathbf{7} \mathbf{2 7}$ | 2,789,282 | 2129 | 92 | 2891 |
| V'riginla . . . . . . . . . . . . | 77,113 | 10,864, 135 | 15.782,176 | 240 | 216.401,648 | 7.021,778 | 2810 | 91 | 2001 |
| Wisconsin ............ | 20,177 | 1,04\%,499 | 1,93t.150 | 148 | 98,528,5838 | 1,641,568 | 1414 | 81 | 1415 |
| Minnesota Tirrtloty ... | 157 | 5,035 | 28, 846 | 184 | 161,948 | 15,981 | 1031 | 102 | 1133 |
| New Mexico 'lerritory. | 3,750 | 168,2011 | 124.371 | 77 | 1,653,922 | 77,960 | 411 | 21 | 162 |
| Oregon Terrltory. ..... | 1.164 | 132,857 | 290.401. | 372 | 2,849,170 | 183,423 | 2445 | 151 | 260\% |
| U'tigh Terrltory......... | 926 | 16.338 | 80.616 | 61 | 311.719 | 84.9 ms | 337 | 01 | 123 |
| Totsl, 180 . . . . . | 1,449.075 | 3,032,614 | $1 \times 0,5 \leq 8,6000 \mid$ | 213 | 271.575426 | 01,087.649 | \$2\% 56 c | 4105 | \$2302 |

The average number of acres embraced in each improved. In New England about twenty-six acresia farm in the United States 11203 , valued at 22258 , and upon each farm there is an average of 105 in implements and machinery. In Louisians, so complicated is the augar process, the average machinery is $\$ 863$ to the farm. By another table prepared by aections, it would seent that only about one-thirteenth of the whole area of the organized Slates and Territories is Improved, ad about one-elighth more is occuthed and not

The natlonal census was condricted ander the direction of the Secretary of State until the formation of the Department of the Interior (March 8, 1840), when tt was made aubordinate branch of that office. The atatiatics were obtained by the marahals of the district courte prior to 1850, and apecial deputies appointed under them. Several monthe were uaualiy devoted to the labor; and the roturns thas obtained, being subject to the errora arising from changes and removals in the intorim, consequently were not alwaye roliable.
The following is an estimato of the progress of popuIatlon from the year 1860 to the close of the century:

| Vamm Agmregal | Yoara. Arsrogale. | Yaors. Agsteghte. |
| :---: | :---: | :---: |
| 1811.. 88,028,400 | 1875... 47.087,102 | 18811. .. 71,284, 122 |
| 1869.. 82, 083,252 | 1876... 48,490,068 | 1800. . . 73, 382, 185 |
| 1803. . 33,078,928 | 1817... 40,051,052 | 1891... 75.573,699 |
| 1864.. 84,008,825 | 1978... 81,453,291 | 1398... 71,840,844 |
| 1865. . 35,039,281 |  | 1898. .. 80,176.019 |
| 1806.. 86,089,877 | 1880... 54.586,795 | 1804. .. 82,581, CH 4 |
| 1867.. 31,170,058 | 1881... 56,294,899 | 1805... 85,068,784 |
| 1869.. 38,286,083 | 1882.... 57,911,130 | 1891. . . 87,610.547 |
| 1569.. 39,434.669 | 1885.... $59,645,463$ | 1817. .. 90,928, \%63 |
| 1870.. 40,81T, 708 | 1894:... 61,447,916 | 1898... 92, 195, 7:8 |
| 1871.. 41,831,239 | 1855... 63,291,853 | 1890... 08, 783, 799 |
| 1879. . 43,091,582 | 1856... 65,190,102 | 1000... 08,695,512 |
| 1878.. 44.384.064 | 1887... 67,145,917 | 101,063,37\% |
| 1874. . 45,715,686 | 1853... 89,101,294 |  |

> Agriculure.-The following tgble wlil show the rele-
tive number of farmis, and quantity of acres $\ln$ each in the several States and Territorles of the United Statee, as well as tho value of farms and Implements. The unimproved land embraces such as is in occupancy and necessary to the enjoyment of the improved, though not Itself reclaimed. Meadow-lands In all of the States, are therefore regarded Improved.

New
Mldd
South South North Callfo
Ter
a

Alabam Arknon
Callforı Columb Connect Florida Creorgia
IIIInoly Indiana Lowa. .
Kentue Lonisla
Malue. Malne.
Maryla Masaace
Mlchig? Miaslas Mlasunt New
New 11 New
North Ohlo.. lennay
therto Thurio Tenues
Toxas. Texas.
Vermor Virgiut
Wiscon


Aebtodltubal Ratio Tables of tum Statab, 1850

| Sectlonas | Whale Ares in Aerme. | Land lo nace. |  | Proportion of Lasad to 650 to Aroe. |  | NumberFarme. | AvaragiVriagoAgriculturalTmplomeolto oseh Varm. | Average of Aoree to each | $\begin{aligned} & \text { Avarage } \\ & \text { Valabe } \\ & \text { pere } \\ & \text { Aere. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Improred. | Unimproyed. | $\begin{gathered} \text { Im- } \\ \text { proved, } \\ \text { per Cont. } \end{gathered}$ | $\begin{gathered} \text { Uaime } \\ \text { proved } \\ \text { per Cond. } \end{gathered}$ |  |  |  |  |
| Now England | 41,684 | 11,150,634 | 7,216,864 | 2879 | - 17.14 | 167,851 | $77 \cdot 17$ | 10955 | 4087 |
| Middle 8tates. | 78,363, 360 | 28,200,608 | 16.212.717 | 35.72 | $22 \cdot 10$ | 350,203 | $126 \cdot 81$ | 121.08 | 28.17 |
| Sonthern Stater | 165,578,760 | 26,614,289 | 81, 169.878 | 16.07 | 36.04 | 2201,408 | 98.37 | 390.00 | 5.34 |
| Aouthwestern Stat | 151,055,940 | 15,426,780 | 83,772,674 | 10.17 | 22.27 | 179,888 | 103.68 | 278.67 | 6.26 |
| Northwestora 8tates | $253,004,160$ | 82,643,567 | 46,063,790 | 12.00 | 18.68 | \$12,217 | - | 156.41 | 11.39 |
| Cullfornla and organteod Torrltorlea | 629,266,690 | 859,880 | 4,340,214 | 0 | 60 | 6,860 | 07.71 | 053-23 | 189 |
| Texal......... | 153.002,560 | 643,946 | 10.852,868 | 42 | $7 \cdot 14$ | 12,198 | 170.40 | 942,47 | $1 \cdot 44$ |
| T | 1,466,455,6,0 | 118,682,614 | 180, 528,000 | 7.71 | 12.31 | 1,449,1076 | $104 \cdot 61$ | 212.50 | 11.14 |

- Excluaive of Texat and California.



Live Stook upon Fabme and Aorioulteral l'modectione of the States and Trbbitobitb, 1849 and 1960,

| States and Tarritories. | 8wina. |  | Valoe of Live stock. | Value of Aointala alaughtered. | Wheat, | ushela, | Rye, B | chels. | Oats Buabela. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabat | $1,904,840$ | $1,4890 .$ | $\begin{gathered} 1850 . \\ 21,6 i 6,112 \end{gathered}$ | $\frac{1830}{34,823,485}$ | $\begin{aligned} & 1850, \\ & 204,044 \end{aligned}$ | $\begin{aligned} & 1440,0 \\ & 838,052 \end{aligned}$ | $\begin{aligned} & 1450.91 \\ & 17,261 \end{aligned}$ | $\begin{aligned} & 1840 . \\ & 61,008 \end{aligned}$ | $\begin{array}{r} 1880 . \\ 2,906,60 B \end{array}$ |
| Arkau, | 836,727 | 313,058 | 6,647,903 | 1,163,313 | 19!1,633 | 105,879 | 8,047 | 6,210 | 656,183 |
| Californla | 2,776 |  | 3,3\%1,058 | 107,173 | 17,228 |  |  |  |  |
| Columbia, | 1,635 | 4,673 | 71,643 | 9,038 | 17,370 | 12,147 | 5,509 | 5,081 | 184 |
| Connecticu | 76,478 | 131,961 | 7,467,400 | 2,202,260 | 41,762 | 87,009 | 600,393 | 737,424 | 1,258,738 |
| 1 lel | 56,261 | 74,298 | 1,849,281 | 373,065 | 452,511 | 815,165 | 8,006 | 38,546 | 604,518 |
| Flori | 240,453 | 18,680 | 2,810,058 | 514,685 | 1.027 | 412 | 1,152 | 315 | 66,586 |
| Georgia | 2,108,617 | 1,458,755 | 25,723,416 | 6,339,762 | 1,088,634 | 1,801,830 | 53,750 | 60,693 | 3,826,044 |
| $1 \mathrm{llinols}$. | 1,915,907 | 1,495,254 | 24, 209,258 | 4,1172,286 | 9,414,575 | 3,335,803 | 83,964 | 88,197 | 10,087,241 |
| Indla | 2,263,776 | 1,628,6128 | 22,478,555 | 6,507,935 | 6.214,458 | 4,017,375 | 78,702 | 12:9,621 | 5,655, 014 |
| low | 923,247 | 104, 379 | 3,683,275 | 821,164 | 1,5311,581 | 154.603 | 19,916 | 3.792 | 1,524,345 |
| Kentu | 2,891,16:1 | 2,310,518 | 2.1,661,436 | 6,462,518 | 2,142,522 | 4,803,152 | 415,073 | 1,321,373 | 8,201,311 |
| Leoulsiai | 5.17,301 | 323,220 | 11,152,275 | 1,458,990 | 417 | 60 | 475 | 1,812 | 89,687 |
| Malue. | 64,5:8 | 117,386 | 9,745,726 | 1,646,773 | 296,251 | 848,160 | 102,010 | 187,941 | 2,181,087 |
| Maryiand . . . . . . . . . . . . . . . | 352, 911 | 416,943 | 7,197,654 | 1,054,800 | 4,444,680 | 8,845,783 | 226,014 | 723,577 | $2,242,151$ |
| Magnachumetta . . . . . . . . . . . | 81,119 | 143,221 | 9,647,710 | 2,500,824 | 31,211 | 157,023 | 481,021 | 636, 014 | $1,165,146$ |
| Miehigau. | 905,847 | 295,830 | 8,008,734 | 1,323,327 | 4,925,881 | 2,157,108 | 105,871 0,696 | 34,236 | $2,880,056$ |
| Misstanlpy | 1,582, 74, | 1,001,203 | 19,4)3.662 | 3,630, 522 | 137,909 | 196,626 | 11,606 | 11,444 | $1,503,288$ |
| Mlesourt | 1,702,625 | 1,371,161 | 11, $8,877,580$ | $8,367,106$ | 2,481,652 | 1,037,388 | 44,968 | 68,608 | 5,278,079 |
| New 11 mmp | 63,497 | 181,671 | 8,971,901 | 1,529,873 | 185,658 | 422,124 | 183,117 | 309,149 | $\begin{array}{r}973,381 \\ \hline\end{array}$ |
| Now Jersey | 25 4,370 | 261,443 | 10,679,291 | 2,1738,652 | 1,601,100 | 774,203 | 1,255,578 | 1,605,820 | 3, 378,963 |
| New York. | 1,018,8:2 | 1,900,065 | $73,576,490$ | 13,573,883 | $18,121,418$ | 12,286,418 | 4,148,182 | 2,979,323 | 26,552.814 |
| North | 1,812,813 | $1,649,710$ | 17,717,647 | 5,767,866 | 2,180, 102 | 1,904, 855 | 229,568 | 213,971 | 4,052,078 |
| Ohlw | 1,964,770 | 2,099,746 | 44,121,741 | $7.439,248$ | 14,487,351 | 16,571,661 | 425,918 | 814,215 | 13,472,742 |
| Pennaylvanla | 1,040,306 | 1,503,984 | 41,5,0,053 | $8,219,848$ | 15,307,091 | 13,213,077 | 4, 5015,100 | 6,013,873 | 21,538,150 |
| Thurlo Island | 10,50, | 80,657 | 1,512,637 | 667,496 | $1098,4^{\prime \prime}$ | 8,098 | 26,419, | 34,521 | $\begin{array}{r} 215,282 \\ 2.322 .155 \end{array}$ |
| South c'aroll | 1,005,503 | 878,532 | 15,1000,015 | 3,502,637 | 1,060,277 | - 868,354 | 43.790 | 44,738 304,828 | $2,328,165$ |
| Tenuesse | 3,104,300 | 2,926,607 | 29,978,016 | 6,401,765 | 1,619,896 | 4,569,652 | 80,137 3,108 | 304,828 | $\begin{array}{r} 7,703,080 \\ 190,017 \end{array}$ |
| Texas | 612, 622 |  | $10,412,927$ $12,64,228$ | $1,116,187$ $1,801,850$ | 41,780 535,055 |  | 3,108 176,233 |  | $\begin{array}{r} 190,017 \\ 2,307,734 \end{array}$ |
| Vermont | 66,210 | 203,800 | 12,643,228 | 1,861, 850 | 535,065 | 495,800 | 176,233 458,930 | 230,903 $1,498,709$ | $\left\|\begin{array}{r} 2,307,734 \\ 10,170,144 \end{array}\right\|$ |
| Virgiala | 1,829,843 | 1,902,155 | 33,656,650 | 7,502,086 | 11,212,616 | 10, 169,718 | $458,930$ | $\|1,492,709\|$ | $(10,170,144)$ |
| Wiaconsin.. | 15.5, 476 | 61,683 | 4, 3,77,585 | 920,178 | 4,236,131 | 812,116 | 81,253 | 1,065 | $\begin{array}{r} 8,414,672 \\ 80,682 \end{array}$ |
| \% $\left\{\begin{array}{l}\text { Minneso } \\ \text { New Me }\end{array}\right.$ | 734 |  | $\begin{array}{r} 92,859 \\ 1,4 \cap 4,62 ? \end{array}$ | 8,849 82,125 | $\begin{array}{r} 1,491 \\ 196,516 \end{array}$ | - | 125 | . $\cdot$ | $80,682$ |
|  | 30,235 |  | 1,876,199 | 164,530 | 211,948 |  | 109 |  | 61,814 |
| U'tah. | 914 |  | 646,968 | 67,485 | 107,702 | .... | 810 | . ${ }^{\text {a. }}$ | 10,900 |

The annexed tables embrace the returga of agricul- | were rejected altogether for inauficiency. Letters from
tural products according to the census of 1840 and 1850. The quantity of wheat in 1850 ia belioved to be uoderstated, aod the crop was also short. Rough rice Is returned for 1850 , and clean rice for 1840. Corrections have been made in tha cotton and augar returns since the publication of the Quarto Census, pounda having been intended by the enumeratora in many cases where they returned bales or hogsheads. It is impossible to reconcife the hemp and fiax returns of 1810 and 1850 . No doubt la both cases tons and pounda heve often been confousded. In a few of the States, such as Indians and Illinels, the returne of 1850

Kentucky entitied to high credit state the water-rotted hernp for that year to be not a third as much as the census gives, and the dew-rotted to be about 22,000 tona. In this cate the whole hemp crop of 1850 may have reached 85,000 or 40,000 tons, and that of 1840 25,000 to 30,000 tons. By the manufacturing sched. ulea it appears that 18,276 tona hemp were consumed by the manufacturers of Kentucky and Missouri, and by the receipta at the cities of St. Louis, Cincinnati and Now Orleans, with proper deductions, that fourteen or fifteen thousand tons hemp wero exported in the rough to other States.

Aomioultuatr Pronuctions of the States and Thiaitomizs, 1840 and 1850.

| BLalos and Terribortea. | Onta, Buaholo. | Indien Conn, Buabels. |  | trioh and Eweol Potacoee, Buahele. |  |  |  | Borley, Eunhala. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | trish. | Sembl 1 | Toat. | Itroh and Fweli. |  |
|  |  |  |  |  |  |  |  | 1850. |
| Arka |  | 8,803, |  | 338 | - 788,4149 | 881,981 |  |  |
| 析 |  |  |  | 9,992 | 1,000 | 10,919 |  | 712 |
| Colum | 16,701 | 65,230 | 89, 4985 | 20, 202 | 8,457 | 81,789 | 12,085 | 75 |
| Conne | 1,433,909 | 1,985,043 | 1,500,441 | 2,689,745 |  | 2,690,805 | 8,414,938 | ,999 |
| Deta | 9y7,405 | 3,145,642 | 2,009,350 | 840,543 | 65,443. | 805,085 | 900,719 |  |
| Florid | 13,889 | 1,909,809 | 898,974 | 7,828 | 757,298 | 765 | 264,617 |  |
| Georg | 1,614,030 | 30,000,090 | 90,004,192 | 977,379 | 6,086,488 | 7,913,807 | 1,291, 306 | 11,501 |
| 1 titao | 4,089,008 | 57,046,984 | 93,634,211 | 8,514,881 | ${ }^{15} 5.438$ | 8,672, 994 | 9,056, 800 | 10,795 |
| India | ס,031,616 | 52,064,303 | 88,156, 887 | 2,083,337 | 201,711 | 9,985,048 | 1,625,794 | 45,493 |
|  | $916,350$ | $8,068,700$ $8,079,017$ | 1,406,241 | 976,120 |  | 289, | 184,003 |  |
| Coulai | 107,953 | 19,266,373 | B,052,019 | 95, 692 | 1,428,453 | 1,524,085 | 834,841 |  |
| Mald | 1,076,409 | 1,750,056 | 950, 098 | B,420,040 | 1, | 3,438,040 | 10,309,2000 |  |
| Maryl | 3,1624,211 | 10,74,858 | 8, 833,086 | 764,939 | 208,098 | -973, 982 | 1,036,433 |  |
| Masatach | 1,310,630 | 2,345, 000 | 1,809,109 | 3,685,984 |  | 8,585, 884 | 5,355,659 | ,89 |
| Mehig | 9,114,051 | 5,641,490 | 8,977,039 | 8,350, 307 | 1,177 | 2,361,074 | 8, 109,905 | ,24 |
|  | 009,694 | 99,446,559 | 18,161,937 | 961,492 | 4,741,706 | 6,008,977 | 1,830, 100 | 229 |
| Mlano | 9,234,947 | 38,914,597 | 17,339,624 | 989,006 | 835,506 | 1,974,511 | 783,768 | 0,681 |
| New llam | 1,400,114 | 1,573,670 | 1,168,679 | 4,304,919 |  | 4,304,010 | 6,909,606 | 0,250 |
| New Jere | 3,043,524 | 8,750,704 | 4,361,976 | 3,901,936 | 509,016 | 8,715,261 | 2,079,009 | 0,492 |
| New Y | 20,675,847 | 17,868,400 | 10,979,284 | 15,398,368 | 6,029 | 15,403,007 | 30,193,614 | 3, 588,050 |
|  | 3,193,041 | 97,941,051 | 23,803,763 | 690,318 | 5, M9\%, 709 | 0,716,097 | 7,600,939 | 2,785 |
|  | 14,399,103 | 50,018,096 | 83,668,144 | 5,067,769 | 187,091 | 5,248, 700 | 6,810,091 | 354,348 |
| Pennayl | 20,641,819 | 19,835,914 | 14,940,022 | $5,980,782$ | 53,172 | 8,032,00 | 0,535,003 | 105,024 |
| Rhorle | 171,517 | 680,901 | 450,498 | 651,099 |  | 661,020 | 911,973 | 18, $\mathbf{7 5}$ |
| South C | 1,430,909 | 18,971,454 | 14,792,806 |  | 4,387,460 | 4,473,06 | 2,000, 913 | 4,653 |
| Tennese | 7,035,678 | 64, 216,483 | 44,980,188 | 1,067,944 | 9,717,716 | 3,845,600 | 1,904,370 | 2,737 |
| Texas |  | 6,029, 77 |  | 94,645 | 1,839,105 | 1,426,803 |  | 4,770 |
| Virm | 2,229,5 4 | 2,039,306 | 1,119,678 | 4,051,014 |  | $4,951,014$ | $8,500,751$ | 49, 5150 |
| Virgin | 13,451, 64 | 35,984, 819 | 34,577,601 | 1,318,933 | 1,813,634 | 3,180,067 | 2,941,660 | 25,437 |
| Whoco | 4 16.14 | 1,984,970 | 379,959 | 1,409,077 | 879 | 1,402,206 | 110,608 | 209,692 |
| $\pm$ M |  | $16,725$ |  | 21,145 <br> 3 | 2018 | $\begin{array}{\|c\|c\|c\|} 81,346 \\ 8 \end{array}$ |  |  |
| E\{ Oreg |  | 2,918 |  | 91,326 |  | 01,326 |  |  |
| 1 | . | 9,9939 | ... | 43,968 | 60 | 44, 1128 | ... | 1,790 |


| Stames and Territorias. | Barlex, Buabotio. | Duckwheat, Bushalm. |  | Llay, Tons |  | Hopa, Pounde. |  | Clover. teed. | Whor Giran Fieed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabuma |  |  |  |  |  | 270 |  |  |  |
| Arkanam | 760 | 175 | 89 | 3,970 |  | 157 |  | 00 | 430 |
| c'alfornia . |  |  |  | 2,039 |  |  |  |  |  |
| Cotumbla, Dintrict of | ys | 373 | $9 \%$ | 2,279 | 1,331 | is | 98 |  |  |
| Connecticut | 33,753 | 299,297 | 8u3,043 | 510,131 | 498,704 | 654 | 4,573 | 13,941 | 16,629 |
| Delawar | D, 200 | 8,615 | 11,299 | 30,159 | 99,483 | 348 | 740 | 2,525 | 1,403 |
| Ftorida | 39 | 15 |  | 2,510 | 1,197 | 14 |  |  | $g$ |
| Heorgia | 18,979 | 250 | 141 | 93,44 | 16,970 | 201 | 773 | 139 | 428 |
| lilinole | 83,251 | 184,604 | 07,894 | 001,063 | 164,032 | 8,051 | 17,749 | 3.427 | 14,390) |
| Indiana | 24,015 | 149,749 | 40,010 | 413,920 | 179,029 | 92,796 | 38,5:1 | 18,320 | 11,95! |
| Iowa | 783 | 68,516 | 6,219 | 89,005 | 17,953 | 8,242 | 83 | 348 | 2, 10101 |
| Kealuck | 17,491 | 16,097 | 8,109 | 113,747 | 88,306 | 4,303 | 743 | 3,2:0 | 21,441 |
| Loulsiana. |  | 3 |  | 25,753 | 24,051 | 125 | 110 |  | 97 |
| Malne . | 355, 101 | 104,593 | 51,54, | 765,849 | 091,958 | 40,120 | 36,0411 | ก,007 | 0,214 |
| Maryland | 3,634 | 103,671 | 73,666 | 167,050 | 106,06, | 1,970 | 9,357 | 15,217 | 2,561 |
| Massachus | 165,319 | 105,995 | 81,1000 | 651,407 | 609 | 121,535 | 254,745 | 1,019 | 5,145 |
| 3 H chtgat | 197,908 | 472,917 | 113,599 | 404,934 | $19^{\prime}{ }^{15}$ | 10,663 | 11,081 | 10,989 | 9,305 |
| Miselaslp | 1,654 | 1,121 |  | 19,544 | 171 | 473 | 104 | 84 | 63.3 |
| Missin | 9,80t | 23,641 | 15,318 | 116,925 | 49,083 | 4,130 | Ts: | 610 | 4,940 |
| Now llampa | 121,439 | 05,205 | 106,103 | 599,804 | 496,107 | 257,174 | 243,445 | 840 | 8,071 |
| Now Jerney | 11,501 | 874,034 | 850,117 | 40, 5,050 | 334,861 | 2,133 | 4,631 | 28,280 | 63,101 |
| New York | 2,5:0,069 | 8,183,955 | 2,247,985 | 3,729,797 | 3,187,047 | 2,538,499 | 447,2804 | $8 \mathrm{~S}, 283$ | 96, 197 |
| North | 3,574 | 16,704 | 15,901 | 145,053 | 101,363 | 9,246 | 1,108 | 876 | 1,475 |
| Ohto. | 212,44) | 639,000 | 63:1,139 | 1,443,142 | 1,022,037 | 63,731 | 62,105 | 103,197 | 37, 310 |
| Pencaylvania | 20,933 | 2,193,098 | 2,113,742 | 1, $\times 48,070$ | 1,311,644 | 92,088 | 49,481 | 125,0311 | 6:3,913 |
| 1 llode 1sland | 66, 490 | 1,245 | 2,979 | 74,4t8 | 63,449 | 977 | 113 | , 3788 | , 30 |
| South Care | 3,967 | 283 |  | 20,925 | 24,619 | 20 | 93 | 376 |  |
| Tenne | 4,909 | 19,427 | 17,118 | T4,1091 | 31,233 | 1,033 | S50 | 6,004 10 | 9,113 |
| Texas. |  | 53 |  | 8,354 |  |  |  | 710 |  |
| Yermoni | 54.781 | 909,819 | 223,410 | 806,153 369098 | 836.739 | 988,023 <br> 11,500 |  | 20, 787 |  |
| Virgiala... | 87,430 16,069 | 914,998 70,878 | 943,829 10,654 | 369,098 375,662 | 364,708 80,088 | 11,006 16,930 | 10,007 133 | 20,747 | [ 23,488 |
| - Mamala Maneso | 1t,063 | 10,978 |  | 378,602 | 30,038 |  | 135 | , | 6,00 |
| $\stackrel{\square}{5}$ New Me |  | 100 |  |  |  | 8 | . $\cdot$ |  | 92 |
|  | $\ldots$ | 332 | ..... | 4,873 4 | .... | 60 | $\ldots$ | 8 |  |


| States and Torritorion． | Vasue of Orehard Prodank． | $\begin{array}{c\|} \text { Beenwar } \\ \text { and Honey, } \\ \text { Pounds of. } \end{array}$ | Wound nf． | Valen of Poultry． |  | Corde of Wood sold． | Flay． <br> Buab．of． | $\mid \text { Pounde of. }$ | Dow－rotied Homp． Tona． | Watar－rot－ Homp？ Tone． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | $\begin{gathered} 1540, \\ \$ 55,240 \end{gathered}$ | $\begin{aligned} & 1 \mathrm{1ss0} \\ & 897,021 \end{aligned}$ | $\begin{gathered} 1840 ; \\ 25,926 \end{gathered}$ | $\begin{gathered} 1+40, \\ (414,904 \end{gathered}$ | $1,984,120$ | $\begin{aligned} & 1640 \\ & 60,956 \end{aligned}$ | ${ }^{18800} 60$ | 1880 8,921 | 1866. | 1860. |
| Arkanas | 10，086 | 109，888 | 7，079 | 100，408 | 688，817 | 78,608 | 891 | 19，201 | ．．．．． | 180 |
| Csllfornta Wi．．．．．．．．．．． |  |  |  |  | 7，000 |  |  |  | ．$\cdot$ |  |
| Columbla，Dlsiriel of ．．．． | 3,507 0038 | ${ }^{650}$ | ． 44 | 8，002 | 2，076 | 1，287 |  |  | ．． | $\ldots$ |
| Connectieuk．．．．．．．．．．．． | 9816，938 | ．03， 3144 | 8，837 | 178，629 | 102，252 | 160，062 | 708 | 17，098 | ． | ． |
| lielsware ．．．．．．．．．．．．．．． | 98，811 | 41,249 | 1，098 | 47，205 | 88，121 | 67，864 | 904 | 11，174 | ．．．． |  |
| Fiorlda | 1，036 | 18，971 | 75 | 61，007 | 75，599 | 11，948 |  | 160 | ．．．． |  |
| （ieorgla | 156.129 | 782，514 | 10，790 | 44， 628 | 1，898，468 | 67，450 | 629 | 6，387 | $\ldots$ | ． |
| Itinola | 126，750 | 86．1，444 | 29,178 | 809，904 | 1，165，902 | 184，549 | 10，787 | 160，003 |  |  |
| Indiana | 110，005 | 006， 39.1 | 80，647 | 857，004 | 1，581，089 | 183，718 | 36，883 | 684，400 |  |  |
| lowa | 5， 50 | 821，711 | 2，182 | 16，699 | 1，981，999 | 7，304 | 1，969 | 02，600 | ．． | ， |
| Kentucky | 434，935 | 1，158，019 | 88,445 | 636，499 | 9，450，128 | 264，298 | 75，801 | 2，100，116 | 16，432 | 1365 |
| toutaian | 11，769 | 00，701 | 1，019 | 883，65） | 189，288 | 902，867 |  |  |  |  |
| Malna | 149，084 | 180，618 | 8，783 | 198，171 | 618，590 | 806，011 | 590 | 17，081 | ．$\cdot$ | ．$\cdot$ ． |
| Maryland | 105， 740 | 74，808 | 8，674 | 918，765 | 111，828 | 178， 181 | 8，440 | 35，686 | 63 |  |
| Masaachu | 389,177 | 50，508 | 1，196 | 178，167 | 905，388 | 278，009 | T2 | 1，162 |  |  |
| Michigan | 16，078 | 359，239 | 4，538 | 82，780 | 841，947 | 64，498 | 619 | 7，152 |  |  |
| Mlaslamipp | 14，459 | 897，400 | 6，835 | 809,482 | 1，164，020 | 118，423 | 26 | ． 605 | \％ 7 | $\cdots$ |
| MLsmourl．．．．．．．．．．．．．． | 00，873 | 1，298， 179 | 56,461 | 270,647 | 1，614，705 | 81，981 | 18，096 | 647，160 | 15，988 | 60 |
| New 1lampelitrg．．．．．．．．． | 930，87： | 117，140． | 1，845 | 107，098 | 898，450 | 116，258 | 189 | 7，652 |  |  |
| New Jersey | 404，090 | 153，6 14 | 10，061 | 380，068 | 112，781 | 840，002 | 16，525 | 132，965 |  |  |
| New York | 1，701，1035 | 1，755，830 | 52，705 | 1，158，418 | 1，280，833 | 1，069，923 | 67，968 | 940，677 | 1 | 8 |
| North Carol | 888，0：16 | 512，897 | 118,093 | 544，125 | 2，086，522 | 40，084 | 88，1118 | 808， 790 | 86 | 8 |
| Ohlo | 475，971 | 804，295 | 89，96： | 651，108 | 1，719，196 | 972，627 | 188，880 | 446，932 | 100 | 50 |
| Pennsyivania | 618，179 | 889，609 | 38， 107 | 685，801 | 749， 132 | 269，516 | 41，728 | 530，307 | 44 |  |
| Rhode 1sland | 32，003 | 6.347 | 165 | 61，702 | 26，405 | 49，606 |  | 85 |  | $\ldots$ |
| Sonth Carolina | 182，975． | 216，981 | 15，857 | 898，864 | 909，525 | 171，451 | 55 | 383 |  |  |
| Tonnessed | 367， 105 | $1,030,572$ | 50，007 | 606，960 | 8，187，700 | 104，014 | 18，901 | 368，131 | 454 | 141 |
| Texas ．． |  | 380， 825 |  |  | 265，984 |  | 98 | 1，1048 | $\ldots$ | ．$\cdot$ |
| Vermont | 913，944 | 849，499 | 4，660 | 131，678 | 267，710 | 86，899 | 09：2 | \＄0，852 |  | ． |
| Virginia | 705，765 | 880，757 | 65，020 | 754，698 | 2，165，818 | 408，590 | 58，318 | 1，000，459 | 88 | EII |
| Whmconsin ，．．．．．．．．．．．． | 37 | 131，006 | 1，414 | 16，167 | 48，524 | 22，910 | 1，191 | 08，3．8 | ．．．． | ． |
| Minnesota . . . . . . . . . . . | ． | 80 | ．．．． | ．．．． | B，083 | $\cdots$ | ．．．． | ．．．． | ＊$\cdot$ | ． |
| E ${ }_{\text {d }}$ Oregon ．．．．．．．．．．．．． | ．．．． |  | ．．．． | ．+ |  | ．．．． |  | 640 |  | ．．． |
| E L tah．．．．．．．．．．．．． | ．．．＇ | 10 | ． 3. | ．$\cdot$. | 1，332 | ＊＊＊ | 6 | 550 | ．$\cdot$ ． | ．．． |


| Statee and Torritortes． | Bollar and Cheees，Ponnda． |  |  | Statea and Terriorice． | Butter ood Cheese，Pounds． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Buther． | Chomen． | Total． |  | Bntter． | Cheesen， | Total． |
| Alabama | $4,18000$ | $\begin{aligned} & 1850.49 \\ & 81,418 \end{aligned}$ | $\begin{gathered} 1850 \\ 4,040,283 \end{gathered}$ | Mlasourl ．．．．．．．．．． | $7,1850$ | $\begin{aligned} & 1 \mathrm{~A} 50 \\ & 908,679 \end{aligned}$ | $8,1869,9$ |
| Arkanasas． | 1，854， 239 | 80，089 | 1，884，327 | New llampshire．．．．．． | 6，977，060 | 3，193，603 | 10，173，619 |
| Callforula ．．． | 770 | 150 | 1855 | New Jersey | 9，487，210 | 885，750 | 9，858，966 |
| Columbla，blatrict of．． | 14，872 | 1，500 | 16，979 | Now York．．．．．．．．．．．．．． | 79，766，094 | 40，741，418 | 129，507，507 |
| Connectlcut ．．．．．．．．．．． | 6，498，119 | 5，883，977 | 11，861，830 | North Carolina ．．．．．． | 4，146，990 | 95，991 | 4，948，911 |
| Delaware | 1，065，308 | 8，187 | 1，068，496 | Ohlo ．．．．．．．．．．．．．．．．．． | 34，449，379 | 20，819，548 | $55,908,991$ |
| Florlda．．．．．．．．．．．．． | 871，478 | 18，015 | 889．518 | Jenneylvania．．．．．．．．． | 39，878，418 | 2，505，084 | 48，988，459 |
| Gleorgha ．．．．．．．．．．．． | 4，640，659 | 46，978 | 4，637，635 | Rhode taland ．．．．．．．． | 906，670 | 816，508 | 1，919，178 |
| Illinols． | 12，536，543 | 1，278，395 | 13，804，763 | Routh（Tarollya ．．．．．． | 9，981，840 | 4，970 | 9，989，899 |
| Indiana | 12，831，536 | 624，564 | 13，606，099 | Tenncasee ．．．．．．．．．．． | 8，139，655 | 177，081 | 8，817，266 |
| Jowa | 9，171，183 | 209，840 | 9，831，023 | Texas．．．．．．．．．．．．．．．．． | 8，344，900 | 95，999 | 8，440，199 |
| Kentucky ．．．．．．．．．．． | 9，947，623 | 213，054 | 10，161，477 | Vermont ．．．．．．．．．．．． | 12，187，980 | 8，790，834 | $20,858,814$ |
| Louislana ．．．．．．．．．． | 083，069 | 1，057 | 655，026 | Virginia | 11，089，359 | 436，299 | 11，525，061 |
| Maino． | 9，943，811 | 3，434，454 | 11，673，265 | Wiscondin ．．．．．．．．．．．．． | 8，638，740 | 400，283 | 4，084，038 |
| Maryland ．．．．．．．．．．．． | 3，800，100 | 8，975 | 8，810，185 | （Minneaola ．．．．．．．． | 1，100 |  | 1，100 |
| Mandmchuseltm．．．．．．．． | 8，071，370 | 7，088， 149 | 15，15， 51.512 | 華 New Mexico ．．．．．． | 111 | 5，848 | 5，909 |
| Micilgan ．．．．．．．．．．． | 7，005，878 | 1，011，492 | 8，077，871 | 雨\｛ Oregon ．．．．．．．．．． | 811,484 | 86，980 | 848，444 |
| Mlashadippi ．．．．．．．．． | 4，346，234 | 1，21，191 | $4,367,425$ | E Ulah ．．．．．．．．．．． | 88， 309 | 30，098 | 114，307 |


| Etatom and Tarritorlen． | Dew and water－colted llamp，Tons． | $\left\|\begin{array}{c} \text { Henip } \\ \text { and Flex } \\ \text { Tone. } \end{array}\right\|$ | $\begin{gathered} \text { Maple-angar, } \\ \text { Poanda. } \end{gathered}$ | Caoo－sugary <br> Hukaheads of 100 l．ba． | Molneses， Gallons of． | Bogar，Pounde mada． | $\begin{aligned} & \text { Ginaed Cot- } \\ & \text { ton, Balen of } \\ & 400 \text { Pounds. } \end{aligned}$ | Colteo， gathered， Pounda of． | Rongh Rice， Pounds． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alaban | 1850. | $\begin{array}{r} 18+0 . \\ 5 \end{array}$ | 3860. 643 | $1850 .$ $87$ | $\begin{aligned} & 1850 . \\ & 83,438 \end{aligned}$ | $\begin{aligned} & 1840 . \\ & 10,143 \end{aligned}$ | $\begin{gathered} 1860 . \\ 504,490 \end{gathered}$ | $117,138,898$ | $\begin{aligned} & 1850 . \\ & 8,819,969 \end{aligned}$ |
| Arkange | 15 | 1，030\％ | 9，930 |  | －18 | 1，512 | 65，344 | 6，028，048 | 68，179 |
| Counpelle |  | 41t | 00，700 |  | 605 | 51，764 | ， | 8，023， | ， 1 |
| Jelaware． |  | 531 |  |  | 50 |  |  | ． 834 |  |
| Florida． |  | 9 |  | 8，750 | 351，993 | 275，817 | 45，191 | 12，110，583 | 1，075，090 |
| Ireorgla |  | 101 | 50 | 840 | 910，945 | 829，744 | 499，091 | 168，892，390 | 38，950，681 |
| IIIInois． |  | 1，970t | 243.904 | ．．． | 8，354 | 899，818 |  | 200，947 | ．．．． |
| Indlana |  | 9，005 | 2，321，194 |  | 130，325 | 3，787，705 | 14 | 180 |  |
| lowa |  | $318 t$ | 79，407 | 10 | 8，169 | 41，450 |  |  |  |
| Kentucky | 17，757 | 0，909t | 437，406 | 989， 10 | $\begin{array}{r}80,079 \\ \hline 1098177\end{array}$ | 1，877，885 | 178．737 | 159， $\begin{array}{r}091,450 \\ \hline 55,965\end{array}$ | $\begin{array}{r} 5,688 \\ 4,425,349 \end{array}$ |
| Loulalana |  |  | 855 | 226，0ct | 10，981，177 | 119，1147，720 | 178，737 | 152，045，365 | 4，425，349 |
| Maine．．．．． |  | 88 | 93,648 47,740 | ．．．． | 8,167 1,430 | 257,464 96,263 | ．．．． |  | ．．．． |
| Maryland ． | 63 | 483 | 47,740 705,525 | ．．．． | 1,430 4,693 | 36,264 $\mathbf{5 7 9 , 4 8 7}$ | ．... | 0，073 | ．$\cdot$ ． |
| Machlgan．． |  | 7551 | 2，430，794 | ． | 1,603 10,823 | 1，820，784 | －••• | －••＊ |  |
| Misalasipp | 7 | 10 |  | 8 | 19，313 | ， 77 | 484，292 | 109，401，577 | 3，719，856 |
| Missouri | 16，023 | 13，010t | 178，810 |  | 5，686 | 974，853 | ．．．． | 121，122 | 700 |
| New Hainpaline |  | 864 | 1，298， 863 | ．$\cdot$ ． | 0，811 | 1，163，868 | ．$\cdot$. | ．．．． | ．$\cdot$ |
| New Jersay． |  | 2,1651 | 2，197 | ．．．． | 954 | 10，048， 600 | ． | ． |  |
| New York． | － | 1，180 | 10，367，484 | ．．． | 50，639 | 10，048，100 |  |  |  |
| North Carolin | 39 | 9，8791 | 97，982 | ．．．． | 704 | 7，163 | 50， 545 | 61，926，100 | 5，405，808 |
| Otilo． | 153 | 0,0308 | 4，589，900 |  | 197，508 | 6，368，888 | ．．．． | ．．．． |  |
| Pennaylvanla． | 44 | 2，649 | 2，326，535 |  | 53，45］ | 2，205，755 | ．$\cdot$ ． | ．$\cdot$ | － |
| Rhode Isiand． |  | $t$ | 98 $\mathbf{g o 0}$ | 77 |  |  | 800 | 61.7 | 60，980，613 |
| South Car | 505 | 3，344 | 159,1807 | 17 | 7 | 80，009 205,078 | 194，532 | 27， 901,277 | 258，854 |
| Texas． | ， | 3，${ }^{2}$ |  | 7，351 | 441，018 | 203， 01 | 58，072 |  | 88，203 |
| Vermont |  | 201 | 6，840，857 | 7，081 | 6，901 | 4，047，084 |  |  |  |
| Virginia．．．．．．．．．． | 133 | 25，594 | 1，297，605 | ．．．． | 40，329 | 1，641，983 | 8，847 | 8，494，433 | 17，154 |
| Wisconsin． |  | 8 | 610，076 |  | 0，874 | 156，283 | － | ．．．． | ．．．．． |
| $\pm$ M ${ }^{\text {a }}$（nnee |  | ．．．． | 2，960 | ．$\cdot$. |  | ．．．． | ．．．． | ．． | ．．＊ |
| 云\｛ $\begin{aligned} & \text { Now } \\ & \text { Oregor }\end{aligned}$ |  |  | ．．．． | ．．． | 4,236 94 | ． | ．${ }^{\text {a }}$ | ．．．．． | ．．． |
| 参 $\begin{aligned} & \text { Oregon } \\ & \text { Utah．．}\end{aligned}$ | $\ldots$ | ．$\cdot$ ． | $\ldots$ | ．．．． | 68 | ． | $\cdots$ | $\ldots$ | $\ldots$ |



| Staten mod Toritorioe. | $\begin{gathered} \text { Rlees, } \\ \text { Poundi, } \end{gathered}$ | Tobsere, Pousde. |  | Wool, Pbends. |  | $\begin{gathered} \text { milk Ooeocevs, } \\ \text { Pounds. } \end{gathered}$ |  | Whan, 0allone. |  | $\begin{gathered} 40 \text { of } p \\ 0.000 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{aligned} & T 80 . \\ & 167 \end{aligned}$ |  | $1820$ | $\begin{gathered} 14100 \% \end{gathered}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Callfornia |  | 1,000 |  |  |  |  |  | 38,065 |  |  |
| Columbl |  | 7.800 | B6, 60 | 545 | - 707 |  | ©io | 868 | . 25 |  |
| Connect |  | 1,201, 624 | 471,067 | 29,444 | 880,870 | 898 | 17,639 | 4,909 | 9,600 |  |
| Ilielawar |  |  | 974 | 67, 309 | ${ }^{64} 404$ |  | 1,454t | 145 | 329 | 82,116 |
| Florlda |  | 928 | 75,974 | 89,241 | 7.245 | ${ }^{6}$ | 1841 | 10 |  |  |
| cieury | 12,984,792 | 431,094 | 103, 894 | 990,019 | 871,803 | 818 | 2, 2084 | 706 | 8,647 | 1,467,630 |
| 1 llinol | 460 | 841,504 | 604,329 | 2,150,113 | 600,00T | 41 | 1,160 | 9,007 | 474 | 948,1037 |
| dian |  | ,044,620 | 20,308 | 2, 610,297 | 1,237,919 | ${ }_{887} 8$ | 879 | 14,055 | 10,205 | 249,809 |
| lowa |  | 55, 601, |  |  | 1,783,490 | 1981 |  | $8$ |  |  |
| Kentuck | 14,378 | 55,501,193 | $53,436,909$ | $9,207,433$ | 1,783,447 | 1881 | 737 | $8,003$ | 2,209 | ,022,462 |
| aulala | 3,604,634 | $20,778$ | 119,894 | $\text { 100, } 807$ | 49,988 | 29 | 817 |  | 2,494 | 65,190 |
| Malne.. |  |  |  | 1,884,094 | 1,405,001 | 809 | 912 | 724 | 9,210 | 04,307 |
| Maryland |  | 21,407,407 | 94,816,019 | 477,438 | 488,901 | 80 | 2,9904 | 1,411 | 7,685 | 176,060 |
| Mannachu |  | 138,944 | 64,006 | 685,136 | 041.00 |  | 1,741 | 4,688 | 103 | 931,942 |
| Michiygn |  | 1,245 | 1,019 | 2,043,943 | 183 | 108 |  | 1,654 |  | 113,986 |
| Misalenl ${ }^{\text {a }}$ | 77 | 49,980 | 63,471 | 653,019 | 176,196 | 2 | 91 | 407 |  | 698,045 |
| Mlasonrl. |  | 17,113,784 | 2,007,913 | 1,697, 164 | 509,905 | 186 | 70 | 10,8013 |  | 1,149,644 |
| New llamp New Jerse |  | ${ }^{50}$ | 115 | 1,108,4i0 | 1,960,617 | 101 | 4198 | 3.4 | 0.4 | 638,303 |
| New Jerseg Now York |  | 510 | 1,098 | 875,306 | B97, 917 | ${ }^{88}$ | 1,906 | 1,811 | 0.416 | 401, 629 |
| Now York |  | 3,180 | 14 | 10,071,801 | 0,845,996 | 1774 | 1,785t | 9,172 | 6.790 | 4,636,647 |
| North Car | 2,820,38 | 1,994,756 | 16,779,343 | 210,739 | Cew,044 | 989 | 3.014 | 11,054 | 28,769 | 1,413,243 |
| Ohlo ... |  | 10,454,49 | 6,049,975 | 10,19, 1911 | 3,085,915 | 1509 | 4.817 | \$4,207 | 11,528 | 1,183, ${ }^{1} 9317$ |
| Penneyls |  | 012,651 | 820,014 | 4,431,670 | 3,049,564 | 885 | 7,969 | 25,090 | 14,329 | 1,803,099 |
| Rhode ls |  |  |  | 190,693 |  |  | ${ }^{4} 488$ | 1,013 |  | 81,190 |
| Tenth C' | 60, 090,801 |  | 81,019 | 487, 289 | 909,170 | 183 | 8,090 | 0,880 | 643 | 030,709 |
| Tennce | 7,917 | 20,14,939 | 30,500,439 | 1,304,378 | 1,060,239 | 1023 | 1,917 | 08 | 3 | 2,886,601 |
| Tersm... |  |  |  | 8,131.217 | 3,600,235 | 989 | i, $2 \mathbf{2} \mathbf{8} \mathbf{6}$ | $\mathrm{CHO}_{6}$ | 4 | 14,548 |
| Virginia | 8,900 | , | $75,347,100$ | 3,800,765 | 9,638,574 | 617 | 8,101 | 6,415 | 13,011 | ,411,679 |
| Wiaconetin |  | 1,268 | 115 | 203,903 | 6,777 |  |  | 113 |  | 19,667 |
| M |  |  | $\ldots$ |  | .... |  |  |  |  |  |
| Or |  | 3.5 |  | 2 |  |  |  | 2,363 |  |  |
| 12 |  | 19 |  | 9,98\% |  |  |  |  |  |  |



| Otates. | Whest, Buah. | Rya. | Indien Corra, Buah. | $\begin{aligned} & \text { Ostas } \\ & \text { Buab. } \end{aligned}$ | (rieeg, | $\left\lvert\, \begin{gathered} \text { To } \\ \text { beceo, } \\ \text { Pounds. } \end{gathered}\right.$ | $\left\|\begin{array}{c} \text { Boed } \\ \text { Cotion, } \\ \text { Pomede } \end{array}\right\|$ |  | Potefoed <br> Hus | Anced <br> Polan- <br> tove, <br> Bum | $\left\lvert\, \begin{gathered} \text { Bar- } \\ \text { loy. } \\ \text { Buab. } \end{gathered}\right.$ | $\begin{aligned} & \text { Buels. } \\ & \text { Whath } \\ & \text { Buah. } \end{aligned}$ | May, | Hope. | Hemp. dow. roted. | Cuses <br> nufas, Pound. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alabmma | ${ }^{6}$ | $\cdots$ | 16 | 12 | .... | ... | 6\%5 | 18 | C0 | $\underline{910}$ |  |  | $\cdots$ | $\cdots$ | . |  |
| Arkanmat ..... | 10 | $\ldots$ | 99 49 | 18 | $\ldots$ | ... | 100 | . | 85 | 100 | $\cdots$ | $\ddot{0}$ | $\cdots$ | $\ldots$ | ... |  |
| Connectlcut ... | 11 | .. | 49 | 91 90 | ..... | $\ldots$ | $\cdots$ | $\because$ | 85 | $\ldots$ | . | 90 10 | $\because$ | … | $\cdots$ |  |
| Florlis | 15 |  |  |  | is50 | $\ldots$ | 950 | $\cdots$ | j\%\% |  | $\cdots$ | $\cdots$ | $\because$ | $\cdots$ | $\cdots$ | $\because 760$ |
| Georyta | 8 | T | 16 | 19 | .... | $\ldots$ | b00 | 6 | 125 | 400 | $\because$ | \% | $\because$ | $\ldots$ |  |  |
| Illinota | 11 | 14 | 33 83 | ${ }_{90}^{29}$ | $\cdots$ | $\cdots$ | $\cdots$ | $\because$ | 115 | $\cdots$ | 40 | 15 25 | $1+$ | $\cdots$ |  | $\ldots$. |
| Iown. | 14 |  | 84 | 30 | .... |  | $\ldots$ | . | 100 |  |  |  |  | $\ldots$ |  | $\ldots$ |
| Kentucky | 8 | ii | 84 | 19 |  | $\underline{675}$ | ... | $\because$ | 130 | $00^{\circ}$ | $\because$ | $\cdots$ | ii | $\ldots$ | \%is) |  |
| Loulsiana | 10 | ii | ${ }_{9}^{14}$ | 9 | 1+100 | $\cdots$ | 850 | . | 190 | 175 | $\ddot{9}$ | . | $\cdots$ | ... | ... | 1000 |
| Maryland .... | 13 | 18 | 98 | 81 | ... | 030 | $\cdots$ | $\because$ | ${ }_{75}$ | $\ldots$ |  | $\because$ |  | $\ldots$ | $\ldots$ | $\ldots$ |
| Massachnsetta. | 16 | 13 | 31 | 26 | .... | ... | ... | $\because$ | 1 10 | .... | 21 | $\ldots$ | 1 | $\ldots$ |  |  |
| M Mchigan | 10 | .. | 34 | 96 | ... | ... |  |  | 140 | ... | . | 14 | . | $\ldots$ |  |  |
| M laskustppl | 9 | . $\cdot$ | 19 | 19 |  |  | 650 | 13 | 105 | ... | $\cdots$ | .. |  | $\cdots$ |  | . |
| Minsourl ...... | 11 |  | 34 | 96 | ... | 776 | $\ldots$ | . | 110 | ... |  | .. | 1 1 | $\ldots$ | 765 | .. |
| N. Llampahire | 11 | 14 | 30 | 30 | ... | ... | ... | .. | 280 | $\ldots$ | 92 |  | 1 | $\ldots$ | .. | ..... |
| New dersey ... | 11 | 1 | 33 | 96 | $\ldots$ | $\cdots$ | ... | $\cdots$ | 75 | $\ldots$ | 18 | 16 |  |  |  | .... |
| New York..... | ${ }^{12}$ | 17 | 87 | 95 | $\cdots$ | $\cdots$ | ... | . | 100 | $\ldots$ | 25 | 22 | 11 | 960 | $\cdots$ | .... |
| North Carolina. | 14 | ${ }_{25}$ | ${ }_{36}$ | 10 | . $\cdot$ | 730 | $\cdots$ | $\because$ | ${ }_{75}$ | $\ldots$ | $\ddot{80}$ | aio | ii | $\cdots$ | $\ldots$ | $\ldots$ |
| Pennaylvalia.. | 15 | 14 | 20 | 93 |  |  | $\ldots$ |  | 75 | $\ldots$ |  | . | 1 | $\ldots$ |  | $\cdots$ |
| Rharle Imandil. |  | 16 |  | 80 |  |  |  |  | 100 | $\ldots$ | 18 | $\ldots$ | 1 | $\ldots$ |  | .... |
| Soulh Carolloa. | 8 |  | 11 | 19 | 580 |  | 320 | 13 | 10 | $\cdots$ | . . | . | .. | .. |  | .... |
| Tendensee. | 7 | 1 | 91 | 10 |  | 750 | 300 |  | 120 |  |  | .. |  |  |  |  |
| Teras. . | 15 13 | 94 | 90 34 | 26 | . |  | 750 | 20 | 9511 |  | . | 25 | 1 | $\ldots$ | $\ldots$ | ..... |
| Virglala | 1 | , | 14 | 13 |  | 000 | ... |  | 75 |  | $\because$ | 1 | 1 | $\cdots$ |  |  |
| Wiacmalin..... | 14 | . | (2) | 35 | .... | . | $\cdots$ | $\ldots$ | 126 | $\ldots$ | 18 | . |  | $\ldots$ |  | .... |



| Bratee. | No. of Cotton Fiana ratione raision fira Hales and orar. | No of Bugar Platers. | $\begin{aligned} & \text { No of Rien Planta- } \\ & \text { Howa, cech raloing } \\ & \text { Po, 000 Lbe and pvar. } \end{aligned}$ | No. of Tubacro Plian lationa, esech raisiog $300 \mathrm{I} . \mathrm{bn}$. and orer. | No of H omp Maplen. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Alabama | 16,119\% |  |  |  |  |
| Arkanean. | 2,175 | $\cdots$ | $\ldots$ | $\cdots$ | $\ldots$ |
| thorida... | mo | 059 | . | ... | .... |
| tieurgla ................................ | 14,649 | .... | 80 |  |  |
| Kentucky . . . . . . . . . . . . . . . . . . . . . . . . . | ${ }_{4}^{91}$ |  | .... | 5,957 | 3520 |
| Marsinoan . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4,20\% | ins | . | 1,720 | . |
| Mınsissipu1 . . . . . . . . . . . . . . . . . . . . . . . . | 15,110 | $\ldots$ | . $\cdot$ | .... | $\cdots$ |
| Misaonri................................. |  | ..... |  | .... | 4807 |
| liorth Ciarolins . . . . . . . . . . . . . . . . . . . . . | 2,527 | .... | 25 | ... | .... |
| South rarulina, . . . . . . . . . . . . . . . . . . . . | 11,698 | . | 416 | 29 | . |
| Tennessee . . . . . . . . . . . . . . . . . . . . . . . . . . . | 4,043 2,263 | 100 | ..... | 2,215 | ...' |
| Virginia . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 108 | 10. | . | S, 8 iil | .... |
| Total. . . . . . . . . . . . . . . . . . . . . . . . | 74,031 | 2491 | (s) 1 | 15,745 | , 327 |

Th
2681 mak 15,74 Kent ore in taken

## Landa

Indlan
Meado
Is read crop Wheat Onta .. Collon Collon Rye .. Peas an Irish
greet Buekw Tobsee
Sugar
IBarley
Rlce.
Flamp
Orehar
Garder
Other
Impror

Thers are in the Southern States 74,081 cotton plantatlons, lacluding all producers of mora than five balas ; 2681 sugar planters, iacluding the smallest; 651 estates making more than 20,000 poonde of rough rice ench; 15,745 tobaceo eatates of 8000 pounde aach and over, in Kentucky, Tennessea, and Virginla; $83 \pm 7$ homp planters in Kontucky and Missouri. Only such States are taken aa are considered crop States.
 thaid anoval Valeg, acoogine to tha Ginaua or 1850 .

| Aruleles. | Yuanilites. | Velues. |
| :---: | :---: | :---: |
| Indlan corn . . . . . . . . . . . bush | 6'sy, 070,040 | 100,056,000 |
| Wheat. | 100,485,000 | 100,486,000 |
| Colton. . . . . . . . . . . . . . . baled | 9,610,000 | 98,404,000 |
| IIfyy. . . . . . . . . . . . . . . . . tons | 13,385,000 | 06,870,00n |
| Oatm. . . . . . . . . . . . . . . . . bush. | 140,000,000 | 43,970,000 |
| linttor . . . . . . . . . . . . . . . . ibs, | $818,345,000$ | 00,180,000 |
| Cheere. . . . . . . . . . . . . . . . . ${ }^{4}$ | 105,535,000 | 5,248,000 |
| Potatoen, Irish . . . . . . . . . . bunho | 65,707,000 | 20,819,000 |
| Potatoes, aweot. . . . . . . . . ${ }^{4}$ | 88,208,000 | 10,135,000 |
| Wool . . . . . . . . . . . . . . . . . . lba, | 52,500,000 | 10,760,000 |
| Tobacco . . . . . . . . . . . . . . ${ }^{6}$ | 200,000,000 | 18,503,000 |
| Cane-eugar . . . . . . . . . . . . ${ }^{\text {a }}$ hdy. | 937,000 | 12,378,000 |
| Kyo . . . . . . . . . . . . . . . . . . bush. | 14,188,000 | 7,804,000 |
| Orchard producta. . . . . . . . . . . |  | 7,784,000 |
| Buokwhent. . . . . . . . . . . . . buah | $8,056,000$ | 6,970,000 |
| Peas and beans. ......... ${ }^{\text {t }}$ | 9,910,000 | 6,768,000 |
| Markol garden prodactay ...... |  | 5,280,000 |
| Hlemp...................tions | 34,000 | 6,248,000 |
| Rice . . . . . . . . . . . . . . . . . . .lbs. | 215,000,000 | 4,000,000 |
| Parloy . . . . . . . . . . . . . . . . buah. | 6,107,000 | 3,618,000 |
| Molanses . . . . . . . . . . . . . . . pralla. | 13,700,000 | 9,540,000 |
| Bectuax and honoy...... tbe. | 14,959,000 | 9,378,000 |
| Clover-aced . . . . . . . . . . . . . bnsh. | 468,000 | 2,945,000 |
| Maplo-atgar . . . . . . . . . . . Ibs. | 84,253,000 | 1,713,000 |
| Hops . . . . . . . . . . . . . . . . . ${ }^{6}$ | 3,407,000 | 1,284,000 |
| Flax-need . . . . . . . . . . . . hush. | 002,000 | 844,000 |
| Grass meed (beslded clovor) " | 418,000 | 834,000 |
| Flax. . . . . . . . . . . . . . . . . . .lba. | 7,709,000 | 772,000 |
| Wine . . . . . . . . . . . . . . . . . . gralla. | 221,000 | 444,000 |
| Sllk cocoons. . . . . . . . . . . ilis. | 10,800 | 6,000 |
| Live atock over ono year old, annual product. |  | 175,000,000 |
| Anlmals alaughtered |  | 55,000,000 |
| Pouttry on the basls of |  | 13,400,000 |
| Feathora.................... |  | 2,000,000 |
| Milk (not lnclnded ln butter and cheese) |  | 7,000,000 |
| Eggs. |  | B, 000,000 |
| Cord-wood on tho laald of 1840 |  | 30,000,000 |
| Home-made medufactures, one half for agricultural part.... |  | 13,746,000 |
| Susall crope, basts of itbode Ialand for onlotia, carrote, etc. . |  | 5,000,000 |
| Realdaum of cropa, not connumed by etock, corn fodder, colton saed, straw, rice Hour, and ranure. |  | 100,000,000 |
| Cattle, aheep, and pige, ufider one year old. . ................ |  | 60,000,000 |
| Add for orebard and garden products of cttles, not incladed in above-milk, butter, poultry, horses, cown, ctc., lu cltles and towns. |  | 15,400,000 |
| Total agric. products, 1949-'60 |  | 1,200,147,000 |

LAND AOTUALLY OULTIVATED IN TAE EEVEBAL CBONG OV TIE Livityid Statea, $18 \pm 9-100$.
Products.
$81,000,000$
Indjan cor: ................................................. In regarciod improved, and oxctualve of hay crop. .
Wheat
Oata...
$18,000,000$
. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 11,000,000
Colton.
Reas and beans
Irlah potaloes.
Irish potaloee..
Buckwhiest
Tobaceo
Sugar
Harley.
RIce..
Homp.
Flax.
Oreharde.
Gardena.
Vineyarda.
Other products
Improved, but not in actual cultiration
Total improved landa $\qquad$ 118,032,614

We give the eatimatee of the agricultural producte of Lis United States for the year 1855, as furnished in an official form from the Patent-office. Thay can not be regarded as strictly correct, but they are as neariy so as poatilhie. It will be seen that the crop of Indian corn for the year la estimated in value at $\$ 360,000,000$, while the wheat crop is estlmated at only $\$ 247,600,000$. The cotion crop is eatimated at $\$ 136,000,000$, while the hay and fodder crop is satimated at $\$ 160,000,000$.

| Vrempaola Pronvots. |  |  |
| :---: | :---: | :---: |
| Indian corn . . . .buah. | 600,000,000 at \$0 60, . | \$360,000,000 |
| beat ........ ${ }^{1}$ | 166,000,000 .. $180 .$. | 247,000,000 |
|  | 14,0190,000 .. $100 .$. | 14,000,090 |
| Barle | 0,000,000 .. 000. | 6,1440,400 |
|  | 170,000,000 .. 0 49.. | 8,000,000 |
| 1 | $10,000,000 \times 080 .$. | B,000,000 |
| P'olatoes, all sorts " | $110,000,0100.087$. | 11,250,000 |
| Flex-seed ...... 4 | 69,000,000 .. 125 |  |
| Beapas and pras. | 0, $500,000 .$. | 18,000,010) |
| Clover:ndgrasa seed. | 1,000,000 .. 8 00.. | 8, 000,000 |
| Itlee . . . . . . . . . . libn | $200,000,0$ | 0 |
| thugnt (caue) | 606,000,000 .. 007 | 85,350,000 |
| 8ugar (maple | 84,100,000 .. 0 08. . | 2,000,000 |
| оlanmes | 14,000,000 .. $0830 .$. | 4,200, 010 |
| Fine | 2,600,000 .. 100. | 8,600,000 |
| Ilopa | 1,600,000 .. 0 15.. | 625,000 |
| char |  | 00 |
| ardon |  | E0,010,000 |
| Tobacco. | 100,000,000 .. 0 10.. | 119,000,000 |
| Cotton.. | 1,700,010,000 $\cdots 008 .$. | 136,000, 000 |
| Itemp . . . . . . . . tona | 34,500 .. $10000 .$. | 50,000 |
| ax. | $800,000 \ldots 010 .$. |  |
| liay and fodder, tona 1'asturage. | 16,000,000 .. $2000 .$. | $\begin{aligned} & 160,000,000 \\ & 143,000,000 \\ & \hline \end{aligned}$ |
| Tot |  | ,350,550,000 |
| Doybrtio Animals and Antmal Prodeotb. |  |  |
| orned cattle | $\begin{aligned} & \text { Yaluaclon. } \\ & .21,00,0,10, \text { at } \$ 20 \text { each } \end{aligned}$ | Total Value. $\$ 420,000,900$ |
| Ilorsee, asces, | 5,100,000, at \$400 each | 300,000,000 |
| Sheep. | 29,500,000, at $\$ 3$ each | 47,000,000 |
| Swine. | .82,000, 000, at \$ $5^{\text {each }}$ | 100,000,000 |
|  |  | 200,000,000 |
| Slaughtered anl |  | 200,000,000 |
| Butter and cheeso. ... $600,000,000$ <br> 311k (exclueive of |  |  |
| Milk (exclueive of that used for hul- ter and cheeso) .. | $000,000,000 \mathrm{gr}$ | 100 |
| ool.. | 00,000,000 1bs., at 36c. | 21,000,000 |
| Heeswax and honey | 10,000,000 lba. at 15c. | 400,000 |
| sllk cocoons. | 6,000, al \$1. | 6,000 |
| Tuta |  | 405, |

The aggregate for 1857 will, no doubt, prove much larger. It is quite apparent, from the foregolng, that this is an immense country, and that our resources are of vast extent and magnitude.

From offletal statements a comparison is made of the extent to which the various crops are raised in England and Wales and the United States. And from this it appeare that England and Wales together have oniy 10 per cont. of the fallow culture of the United States, and only 33 per cent. of the improved land.

| Articles. | England. | United Sto ten. |
| :---: | :---: | :---: |
| Wheat. | Acrea. <br> 8,807,846 | Acres. <br> $11,040,000$ |
| Oats. | 1,302,782 | 7,500,000 |
| Sye. . . . . . . . . . . . . . . . . . | (2,721 | 1,200,000 |
| 1 rith potatoes | 102,287 | 1,000,000 |
| Peas and boant. | 733,158 | 1,000,000 |
| Tumips. | 2,267,200 | .... |
| Carrots.... | 192,287 |  |
| Indian cora ..... |  | 31,000,000 |
| Barley. | 2,607,776 | 300,000 |
| Cotton . . . . . . . . | .... | 8,000,000 |
| 8 \%eet potatoea | .... | 760,000 600,000 |
| Buck wheat |  | (600,000 |
| Marigolda | $\begin{aligned} & 177,163 \\ & 218,651 \end{aligned}$ | $\cdots$ |
| Total | 11,071,781 | 53,350,000 |
| And the total number of improved lands in gross, etc. | 37,824,015 | 113,012,614 |

From this comparison we can deduce that the United States has about fre times as many acres in cultivation, and, if the same silli in cultivating and sowing wore used, siould bo alile to maintain five times the population, and that without having resource to any more wid lands.




| Yeam. |  | $\begin{gathered} \text { loternal } \\ \text { and divers } \\ \text { Teice. } \end{gathered}$ | Sales of Lead and Miseolla. ตeoun. | Agprogate of Kaesipte. | Choll biek, Foreige toleveotarse and miceol. loneove. | milter Ratablich miesh. | $\begin{gathered} \text { Naval } \\ \text { Entabllelh } \\ \text { meat. } \end{gathered}$ | Agrangute of topendinures. | Debst | Topalation. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1769-91.... | 64,893,418 |  |  | 44 | - | W, \%/6, 618 | 710 | $1,919,640$ | $57,463,47$ |  |
| 1799.... | 2,443,071 | 1208,948 |  | 8,802,014 | 054,907 | 1,4981 604 | $68$ | 1,817,004 | 77, 427, 984 | 4,118, 124 |
| 1798. | 4,205,31404 | 887, 760 |  | 4, 293,019 | 478,450 | 1,287,690 |  | 1,710,070 | (00, 889,014 | 4,300,910 |
| $1794$ | 4,801,0e5 | 874,090 |  | 6,07b, 100 | 706,098. | 8,788,840 | 61,419 | 8, 0000,647$]$ | 78, 4if, 400 | 4,41,972 |
| 1795. | 6,54K, 401 | 337,700 |  | 5,924,216 | 1,847,081 | 9,678,008 | 410,019 | 4,850, 658 | $80,747,641$ |  |
| 1796. | 6, 107.989 | 474,990 | 4, | 7,048,114 |  | 1,474,601 | 974,784 | 8,621,230] | 83, 769,118 | 4,705,604 |
| 1707, | T, 5019,600 | 675,401 | 84,511 | 8,9014, 6Ny | $1,248,104$ | 1,104,006 | 889,689 | 4,883, 001 | 89,04,479 | 4,844,019 |
| 1709. | 7,100,062 | 644,354 | 11,964 | 7,709,38! | 1,111,038 | 3,180,887 | 1,341,848 | 4,6ys, 298 | 79,272, 520 | 4,996,74 ${ }^{5}$ |
| 1790. | 6,610, 4113 | TTP, 180 |  | 1,930,688 | 1,039,899 | 2,582,698 | 8, 20808,082 | 6,440,107 | T $4,404,070$ | $5,146,004$ |
| 1810. |  | 1,643,640 |  | 10,644,907 | 1,387,613 | 9,625,041 | 8,44 4,716 | 7,411, 870 | 82,016,904 | 5,315, 5 , 5 |
| 1801. | 10,760,79 | 1,689,377 | 107,740 | 19,500, 888 | 1,114,768 | 1,765,4I7 | 2,111,424 | 4,081,061 | 8, 038,061 | 6,410,417 |
| 18102. | 18,438,936 | 858,404 | 185, 028 | 13, 355,388 | 1,462,029 | 1,308, 629 | 915.508 | 3, 587,060 | 80, 118,639 | $8,40,174$ |
| 1408 | $10,470,418$ | 887, 1109 | 165,676 | $10,982,163$ | 1,449,030 | 1944,058 | 1,915,231 | 4,002,828 | 75, 607,0866 | 6,Nytidis |
| 1404. | 11,008, 415 | 101,139 | 447, by | 11,681,931 | $8,191,000$ | 1,079,017 | 1,159,838 | 4, 554.585 | 86,497,191 | 6,004,946 |
| 18165. | 12936,447 | 49,981 | 540,194 | 13,590, 118 | 3,764, 888 | 901,153 | 1,697,600 | 6,307, 274 | 92, 314,160 | 6,107,907 |
| 1806. | 14,64T, t98 | 76, 46 | 165,246 | 15,609,800 | 9,801,037 | 1,640,431 | 1,640,641 | 6,081,109 | 75, 728,971 | 6,303, 634 |
| 1497. | 15,845,528 | 4T,784 | 463, 103 | 16,353, 409 | 1,007,407 | 1,64, 611 | 1, 582,004 | 4,084,579 | 60,218,310 | 6,6:16, 240 |
| 1904. | 16,363, 600 | 97.370 | 647,999 | 17,038,859 | 1,488,288 | 8,106, 045 | 1,884,098 | 6,504, 830 | 65, 106, 318 | 6,903,528 |
| 14070 | 7,996,1221 | 11,568 | 442,202 | 7,749,438 | 1,215, 204 | $3,711,100$ | 9,497, 75t | 7,414,679 | 57, 025,1198 | 7,1019.298 |
| 1410. | 8,683,300 | 19, $\times 74$ | 608, 040 | 9,499,737 | 1,101,145 | 9,405,608 | 1,654,24 | 5,811,089 | 63, 178,917 | 7,990,414 |
| 1411. | 13,813,923 | 9,508 | 1,040,988 | 14,1633,493 | 1,307,421 | 8,200,747 | 1,905, 806 | 5,002,004 | 49,005,038 | T,40,9010 |
| 1819. | 8,959,175 | B, 16.2 | 110,48N | 11,074,968 | 1,083,049 | 18,187,046 | 8,900, 366 | $17,129,410$ | 45,900,738 | 7,466,200 |
| 1813. | 13,924,698 | 8,001 | 825, 0 Na | 14, 098,930 | 1,729,436 | 19,900,362 | 6,440,600 | 98,082,807 | 80,069, 883 | 7,N8, 190 |
| 1914. | , 004, 178 | 3,989,442 | $1,185,071$ | 11,017.325 | 2,908, 029 | 90,609,366 | 7,311,921 | 30,187, 086 | 81,497, N46 | $8,11 \%, 710$ |
| 1815. | 7,289, 042 | 6, 141, 733 | 1,9N7,900 | 15,411,634 | 2, 908,871 | 15,314, 100 | 8,660,000) | 96, 053,511 | [10, 1333,646 | 8,1583898 |
| 1816. | 36,306,875 | 9,375,3,44 | 1,717,086 | 47,413, 904 | $2,099,742$ | 16,4i5,419 | 3,108,978 | 93, $373,43 y$ | 187,334,084 | $8,0 \times 10,916$ |
| 1417. | 96, 243,348 | 4,519,248 | 1,901,926 | 32, 784,862 | 3,618,037 | 8,621,075 | 3, 214,598 | $15,454,610$ | 148,401,005 | - , M, 48,312 |
| 1818. | 17,176,345 | 1,210,813 | 9,606, 168 | 21,002,609 | 8, N35,439 | 7,010,140 | 2,883,606 | 18,808,614 | 108,466,694 | 0,102,001 |
| 1510. | $90,983,600$ | 318,944 | 3,974,423 | 23,871,976 | 8,067, 812 | 9,345,481 | 3,847,640 | 10,200,273 | 08,849,048 | 9,804,201 |
| 1524. | 10, 1005,019 | 18T,847 | 1,035,878 | 16,771,831 | 9,522, 0242 | 6,154,618 | 4,387, 1000 | 13, 14, 630 | 91, 135,896 | 0,678,131 |
| 1981. | 13,004,447 | 04,317 | 1,918,984 | 14,815, 290 | 2,423,192 | 5,181,114 | $8,810,243$ | 10,794,474 | 60, $0 \times 7$, 48N | 0,984, 600 |
| 1828. | 17,599,102 | 8 COLT | 1,903,589 | 10,481,901 | 1,907,904 | 5, 1318, 187 | 2,294, 450 | 9,827,042 | 01,641,677 | 10,911,348 |
| 1883 | 19,003,433 | 44,5810 | -016,098 | 90,1040,030 | 8,022,104 | 6,258,296 | 2,503, 716 | 0,784,105 | 90,875,87T | 10,010,6'8 |
| 1824. | 17,874, 326 | 40, 505 | -984,414 | 18,903,400 | 7,106, 818 ms | 6,270,265 | 8,904,02 | 15, 330, 145 |  |  |
| 1895. | ge, Oide, 714 | 98,108 | 1,916,010 | 91,842,906 | 2,749, 544 | B,628,831 | 3,040,084 | 11,410,448) | N3, 7 | 727 |
| 1893. | 93,841,382 | 94,9\%N | 1,343, T65 | 54, 763,345 | 9,600,174 | 6,943,296 | 4,818, 1092 | 13,062, 216 |  | , 168 |
| 1827. | 19,719,283 | 92,518 | 1,446,945 | 91, 230, 641 | 9,814,777 | 5,975,749 | 4,269,81M | 12,984,397 | 73, 967,90 | 1, 7500013 |
| 1829. | 93,200,8244 | 19,011 | 1,018,509 | 94,243,604 | 9,986, 102 | 8,701,208 | 8,018,780 | 18,508,041 | 67,475,04 | 2, 143,753 |
| 1824. | 92,031,966 | 20,835 | 1,617,175 | 24, 224, 274 | 3,0122,214 | 6,250, 030 | 3,309, 745 | 19,651,4*8 | 69, | 697 |
| 1890. | 91, 3892,391 | $99,1+1$ | 2,349,356 | 24,240, 888, | 3,998,416 | 6,759,680 | 8,9331,429 | 13,420, 834 | 48,515,406 | 2,966,0\%0 |
| 1831. | 94,984,443 | 11, +10 | 3,910, ज15 | 87,459,007 | $3,064,340$ | 6,1148,289 | 8,856,183 | 13,909,768 | 30, 193, 192 | 3,434,081 |
| 1834. | 28,405,281 | 18, 422 | 9,623,341 | 31,107, 040 | 4, 674,341 | T,9ng, \&IT | 3,056,370 | 14,514,044 | 84, 329,285 | 13,614,490 |
| 1933. | 20, 039,500 | 3,159 | 3,081,682 | $33,049,344$ | B,081,7N0 | 13,016, 102 | 3,501,957 | 98, 040,298 | 5,101,009 | $4,00+760$ |
| 1834. | 16,214,95] | 4.210 | 4,85f,001 | 21,076,714 | 4,849,779 | 10, 1044,428 | 3,966,94 | 18,420,46t | 4,760,682 | $1,409,350$ |
| 1835. | 19,301, 311 | 14,723 | 4,757,601 | 34,163,431 | $8,790,167$ | 9.420,818 | 3,864, 0989 | 17,006.411 | 37,739 | ,445 |
| 1836. | 93,409,940 | 1,000 | 4,871, 181 | 49,249,919 | 5,388, 311 | 18,460, 110 | 5,906, 768 | y0, 655,244 | 37,513 | 44,344 |
| 1237 | 11,169, 200 | .... | 6,503,640 | 14,089,843 | 5,524,243 | 11,417,974 | 0,452,060 | 31, 098,542 | 1,875 | 0,481,4d |
| 1839 | 16,159, 300 |  | 3,214,144 | 14, 819,084 | 5,066,703 | 10,930,312 | 5,876, 111 | 31,678, 385 | 4, 507,060 | H, 131,067 |
| 1939. | 48,137,928 |  | 7,201,11s | 30,549,444 | 4,904,502 | $14,968,081$ | 6,225, 103 | 25,48N, 647 | 11,943,738 | 513, 629 |
| 1840. | 13,499,509 |  | 3,4y4, $2 \mathrm{~N}, 6$ | 18,993,509 | 6,581, 878 | 11,081,438 | 6,124,456 | 23,3y7, T19 | 0,124 | 1, 1909,433 |
| 1841. | 14,487, 217 |  | 1,470, 2805 | 15,457, 618 | 6,490,481 | 13,704, 8182 | 6, (01, 017 | 96, 196, $8+0$ | 6,737,394 | 7,610,752 |
| 1842.. | 15,187, 009 |  | 1, 140,1023 | 10,643, 1047 | 6,175, 125 | $0,188,469$ | $8,397,949$ | 94,341,837 | 15, 028,430 | 19,14s, 88 |
| 6 mus of 1943 | 7,1046,44 |  | 1,119,442 | $8,006,320$ | 2,805, $2 \times 9$ | $4,168,384$ | 3,679,718 | 10, 048,891 | 9J,098, 053 | 15, 113,479 |
| 1844t | $26,183,571$ |  | 9,820,044 | 98,64,519 | 6,931,747 | R,231,317 | 6,406, m11 | 10,960, 125 | 90,143,904 | \%, w 0,071 |
| 1545 | 91,595, 113 |  | 9,241, 221 | 93,760,124 | 6,608,207 | 9,598,208 |  | 310,040 | 16,941, 6431 | 11,806, 514 |
| 154 | 96,712,665 |  | 9,750,679 | 99,490, 4.47 | 6,763,010 | 13,079,423 | 6,400.8Ló | 20, 213,240 | 94,250, 4465 | 4n,516, $\mathbf{7 1}$ |
| 184tt | 23,747, 964 | ... | 2,598,990 | 26,346,790 | 6,715,654 | 41, $2 \pm 1,0103$ | 7, $133^{4}, 638$ | 50,451,177 | 45, 40.08 , 6 in 9 | 21,154,44 |
| 181 | 31,75T,070 |  | 3,019,679 | $35,486,750$ | 8, 5156,0711 | 27, 220,103 | 9,406, 787 | 49,811,970 | 65, 804, , 401 | 21, 912,493 |
| 1849 | 95,346,734 |  | 2,187, 018 | 81,074,347 | 14, 117,640 | 17,290, 233 | 9, $4 \times 69,818$ | 57,031,067 | 04, 704, 013 | 3,411,315 |
| 15 | $39,604,686$ |  | 3,707,112 | 43, 1755,798 | 14,839,725 | 19,801,704 | $7.9821,310$ | 43,008, 168 | 64, zew, 838 | 3,191,576 |
| 14.51 | 49,017,504 |  | 3,296,412 | 62,312,979 | 17, 879,1467 | 11,811,713 | 8.987, 719 | +8,005,870 | 02, 01510 | 3, 73,717 |
| 1459. | 17, 338,326 |  | 9,758, 030 | 49,729,286 | $17,379,718$ | 13,424, 075 | $8,085.236$ | 48, 207,890 | 07, 5061,305 | 4, 5is, 604 |
| $1463+$ | 69,991,465 |  | 8,406,709 | 61,801T, 574 | 17,175, 7117 | 15,416,820 | 10,821,640 | 43,543, 493 | 60,336, 117 | 5, 218,126 |
| $1854+$ | 64,284,190 |  | 0,385, 014 | 73, 54, 0104 | 25, 1417,378 | $14,342,684$ | 10,764,198 | 51,015, 249 | $4.4075,464$ | $4,141,2 \% 0$ |
| $1 \times 5$ | 53, 1225,194 |  | 11,975,126, | 65,003, 910 | 84, 183,48 | 14,900,665 | 13,981, 541 | 66,365, 398 | 39,969,731 | 6, 517,501 |
| 1850 | 64, 029.863 |  | $0,915,979$ | 73,91*, 111 | 25, 274,38 | 20, 921,024 | $14,071,047$ | 00,172, 402 | $30,003,110$ | 7, $6,5,468$ |
| 1851 | 63,875,005 |  | 4,755,60* | 6s,681,513 | 27,631,129, | 24,080,040 | $12,726,5 \times 6$ | 64,614,9227 | 29, $1 \mathrm{MGA}, 3 \times 1$ | $\mathrm{X}_{1}+1 \mathrm{Nj}, 974$ | and Treaury Notea, nor the annual paymenta on account of the publle debt. + For the ycar euding June 30.

Stathment showino the Amodnt or tag Penlio flelit on
 any the Amount octatanming Nopenuef 17, $155 \%$.

| LJobat. | Publie pebt Joly I, 14st. | Retcomed eines. | Outetanding Nav. 11, 1 mis. |
| :---: | :---: | :---: | :---: |
| 1842 | $8,451,6.44$ | $614.27082$ | $9,891.36411$ |
| 1846 | 24,400 00 | 25.30000 | 8, 8.70000 |
| 1847 | 11,178,5 n0 00 | $1,759,05000$ | 0,412,700 00 |
| 1848. | 10,344,241 90 | 1,435,900 00 | 8,908, 4180 |
| 'd'exan Indemntiy | S, 489, $104+00$ | 28,00000 | 3. 461,00000 |
| Texas debt | $\begin{array}{r} 28,637,57613 \\ 300,6 \div 995 \end{array}$ | $\begin{array}{\|r\|} \hline 3,863,480 \mathrm{B2} \\ 31,60157 \end{array}$ | $\begin{array}{r} 24,674,11091 \\ 865,96342 \end{array}$ |
| Old funded and? unfunded delits | 114,115 84 | .... | 114.118 54 |
| Treasury notes.. | 108.261 64 | 15000 | 107,901 64 |
| Total Nov., 185\%. | 99,060,356 90 | 3,505,232 39 | 5,165,164 61 |

Commerce.-By the Constitution of the United States, it is provided that Congreas shall have power,

1. To lay and collect taxes, duties, inposts, and ea. clses, to pry the debts, and provide for the common defenae and general welfare of the United States; but all clutiea, Imposts, and excises shall be uniform throughout the United Statea; 2, To borrow money on the credit of the United Statea; 3. To regulate consmerce with fureign nations, enil among the several States, and with the Indian tribea; 4. To cstablish a uniform rule of naturalizallon, and uniform laws on the nulject of bankruptcies, throughout the L'nited States; b. To coin money, regulate the value thereof, and of foreign coin, sud fix the standard of weights and messures; 6. To provide for the puilshment of counterfeiting the securitice and current coin of the Laited Stalea; 7. To establish post-ofices and post-roads; 8. To promoto the progress of aclence and uscful arts, ly securing, for Ilmited times, to authors and inventors
the ex discov Suprer and fe agains letters corning suppor that n 13. To rules f and $n$ the mill inaurre

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## Veers. <br> 1847.. <br> $19.4 .$. <br> 184'1... <br> 1951... <br> 1859... <br> 1853. . <br> 1855... <br> 1856. <br> STATEME: <br> ance <br> Woolens Cottons <br> Ifempen Iron, an Sugar llemp, Salt... Cosl...

the exclasive right to their respective writirgs and discoverles ; 9 . To conatitute eribunale $\ln$ ferlor to the Supreme Courts; 10. To define and punith plracien anil felonles conimitted on the high seas, and offenses against the law of natlons; 11. 'To declare war, grant letters of marque and reprisal, and make rules concerning captures on land and water; 12. To raise and support armies; but no appropriation of money to that use shall bo for a longer torm than two years; 13. To provide and maintain a navy; 14. To make rules for the government and regutation of the land and naval forces; 15. To provide for calling forth the militila to execute the laws of the Unlon, supprese insurrections, and repel lavasions.

Constifutional Powers.-The power " to regulato forelgn commerce" enabled the goverument at once to place the whole country upon an equality with foreign nations ; to compel them to abandon their narrow and seliaht poliey toward ua; and to protect our own commerciai Interests agalnst their injurions competitions. The power to regulate commerce "among the severs States," in liko mannor, annihilatod tho causes of domestio feuds and rivalries. It compellod every Stato to regarl the interests of oach as the interests of all;
and thus diffused over all the blessinge of a free, active, and rapld exchange of eummoditias, upon the fonting of perfoet equallty. The worde being general, the sense must be gonoral also, and ombrace atl subljecta comprohended under them, unless thore be some obvlous miselifef, or repugnance to other clauses, to limit them. In the case there is nothing to Justify such a linitation. Commerce undoubtedly is traffic; but it is somothing nore-is in intercoursc. It deacribes thio comnierclal Intercoursa botweon nations and parts of uationa in all its branches, and la regulated by preecribing rules for earrylng on that intercourse.
Tho mind can scarcoly concelve a systom for regulating commerce between natlons which shall oxclute all laws concerning navigation; whleh shall be ailent on the admissien of the vessels of one nation into the porta of another, and bo cenfined to proseribling rules for the conduet of individuala in the actual omployment of buying and selling or barter. It may, thereforo, be sufely affirmed that the terms of the Constitution have at all thmea been understood to Include a power over navigntlon as well as over trade, over in?ercourse ns well as over trafle.--Sronix's Familiar Exposition of the Constitution of the U'nited States.




| Artieles. | 1841. | 1 tas. | 1849. |  | 13sb. |  | 1857. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Velue. | Velue. | Velue. | Dutiea. | Velue. | Dutiea. | Value. | Jutiea. |
| Jron, inanufacturea of Iron, and Iron and steel. $\qquad$ | $8,781,252$ | $12,526,8 \times 4$ | $19,83 \mathrm{t}, 828$ | $4,132,780$ | $99,041,909$ | $6,557,075$ | $23,320,407$ | $6,0: 5,019$ |
| Cant, ghear, Cierman, and ether steel. | 1,186,458 | 1,224,937 | 1,281,198 | 194,698 | 2,538,323 | $\begin{array}{r}\text { 422,740 } \\ \hline 8.010\end{array}$ | 2,683,614 | 437,058 |
| Manufactures of wool. | 11,938,983 | 15,240,983 | 13,714, 1000 | 8,781,813 | 81,981,793 | $8,835,360$ | 31,280,118 | 8, 689,566 |
| 4 " cott | 15, 198,875 | 18,411,589 | 15,754,841. | 3,911,677 | 25,917,0061 | 6,398,740 | 28,085,724 | 8,035,194 |
| 4 allk | 11,733,371 | 14, 513,034 | 13,701,292 | 3,4, 4,488 | 30,220,582 | 7, 604,846 | 97,800,119 | 7,010,190 |
| 4 4 flat. | b,154,837 | $6,624,648$ 658,076 | $5,907,248$ 510,774 | 1,184, 1665 | 17,183, 463 | 2,23, 6,784 | 11,441,542 | 3,289,909 |
| Prandlea .......................... | 694,880 | 658,075 | 519,774 | 108,954 | 953,730 $2,86.1,842$ | 2,459,842 | 619,089 $2,627,242$ | 108,016 <br> $2,527,202$ |
| Wtnea. | 0,877,212 | 0,470, SLT | 8,048,900 | 9,414,670 | 8,704,068 | 2,718,433 | 4,274,205 | 1,703,012 |
| Sugar |  | .... |  |  | 22,638,053 | 6,701,505 | 42,776,501 | 12,832,950 |
| Articles of which wool, cotton, alik, flax, or hemp, ta a component part, but not olanaed with efthor, vie. 1 | 1,065,095 | 2,450,652 | 2,452,299 | 013,078 |  |  |  |  |
| Silk and worated gooda ........... |  |  |  |  | 1,335,247 | 383,511 | 1,580,240 | 395,061 |
| Embrokicrles of wool, cotton, alik, and Itren. | 676,40-4 | 653,222 | 587,590 | 176,277 | 4,604,353 | 1,390,305 | 4,443,175 | 1,332,952 |
| Clothlng, rendy-made, and artleles of wenr | 870,028 | 203,853 | 170,375 | 35,275 | 1,978,844 | 5.9,509 | 1,918,988 | $575,698$ |
| Laces, thread, and Inacrtlingn..... |  |  |  |  | 410,511 | 82,115 | 881,901 | $64,392$ |
| Isces, braldi, etc. | 808,514 | 710,652 | 003,001 | 165,907 | 1,191,010 | $2 \mathrm{~m}, 754$ | 1,120,754 | 282,439 |
| Cordage, untarred, tarred, and cables | 67,509 |  |  | 30,002 | 132,172 | 83,04E | 156,632 |  |
| Twine and pack-tliread ........... | 64,809 | 45, 575 | 94,4178 | 10,313 | 53,821 |  | 00,957 |  |
| Setned . . . . . . . . . . . . . . . . . . . . . . . . | 440 | 602 | 182 | $54$ | $\} \quad 03,821$ | 10,140 | 00, 006 | 17,981 |
| Total. | 68,884,60 | 84,590,334 | $73,467,925$ | 21,040,766 | 166,084,379 | 47, 168, 200 |  | 54,252,081 |




| Vears. | Producl of |  |  |  |  |  | $\begin{gathered} \text { Raw } \\ \text { Produce. } \end{gathered}$ | Specte and Bullian. | Total Valie. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | The Sea. | The Farent. | Antralture. | Tubncea. | Cothen. | Mendfarturem, |  |  |  |
| 1847 | \$3,409,038 | 56, 416,073 | \$488,4511,351 | \$7,242,080 | \$53,416,948 | \$10,951,864 | \$2,102,838 | \$4, 520 | W150,637,414 |
| 1849. | 1,981,903 | 7,059,084 | 87,781,446 | 7, 61,122 | 61,999,294 | 12,754,490 | 1,058,820 | 2,700,412 | 182,904,121 |
| 184.). | 2,547,654 | 6,917,994 | 38,858,204 | 5,804,207 | 60,894,007 | 11,249,877 | 035,178 | $1: 54,874$ | 132,066, 55 |
| 1560. | 2,424,918 | 7,449,508 | $26,547,159$ | 1,101,1023 | 71,934,616 | 15,106,451 | 051,604 | 2,045,1570 | 115,946,912 |
| 1851. | 8,204, $6: 1$ | 7,847,022 | 24,309,216 | 0,210,251 | 112,315,317 | 20,130,907 | 1,437,898 | 18,06!, 680 | 196,497,718 |
| 1852. | 2,282,342 | $7,864,220$ | 26,318,872 | 10,181,283 | 87,465,782 | 18,862,931 | 1,545,707 | 97, 417, 837 | 102, 3188,984 |
| 185\%. | 3,279,413 | 7,915,25) | 33,403,573 | 11,319,319 | 103,456,414 | 22,599,1313 | 1,845,264 | $23,548,6{ }^{3} 5$ | 211,417,007 |
| 1854. | 3,164,4069 | 11, 101,185 | 6T, 114,692 | 10,010,04C | 98,510,220 | $26,84,1611$ | 2,764,781 | 38,204,560 | 25, $3,3104,870$ |
| 1855. | 3,510,394 | 12,803,537 | 44,507,470 | 14,712,468 | 89,143,844 | 28,833,290 | 2,373,317 | 53, 357,418 | 246,708,5583 |
| 1556 | 3, 35 6, 7197 | 10,004, 184 | 77,680,455 | 12,221,843 | 198,382,951 | $30,970,492$ | 3,125,429 | 44,149,279 | 210,536,330 |
| 155 | $3,730,644$ | 14,304,71t | 76,722,096 | 20,260,772 | 131,575,859 | $80,805,120$ | 2,103,105 | 60,078,952 | 838,985,005 |

Statement exiliuiting tile Valefe of oertain Abtteles impobted debing tife Yrabs gnding June; 30, 1854, 155\%, 1850,
 anme Pratodh rebpfotivelot.

| Articlen. | 1854. |  | $1 \mathrm{ES5}$. |  | 1858. |  | 1851. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value. | Dution. | Value. | Dutlen. | Value. | Duilen. | Value. | Duther. |
|  |  |  |  |  |  |  |  |  |
| Woolena | 31,119,654 | 8,829,180 | 22,076,448 | $6,088,157$ | 30,705, 161 | 8,478,659 | 50,848,020 | $8,504,191$ |
| Cottona | 39,477, 104 | $8,153,402$ | $15,142,1233$ | 8, 323,294 | 24,837,504 | 5,948,181 | 28,114,924 | 6,845, 102 |
| Hempen go dis .......... | 28,288,824 | 8, 11,681 | 239,593 $23,945,914$ | $\begin{array}{r}47,019 \\ 7,118,102 \\ \hline\end{array}$ | 208,785 $21,618,719$ | 46,747 $0,401,615$ | 504,214 $23,390,148$ | $\begin{array}{r} 100,848 \\ 0,929,279 \end{array}$ |
| Iron, and manufacturea | 28,288,241 | 8,486,472 | $28,945,914$ $13,284,603$ | $7,118,1108$ $3,085,899$ | $21,618,719$ $21,205,154$ | $0,401,618$ $6,838,644$ | $23,829,148$ $41,596,298$ | $6,929,279$ $12,48,871$ |
| Sugar . . . . . . . . . . . . . . . . . . . | $11,004,1356$ 335,632 | $3,491,197$ $109,08 ?$ | $\begin{array}{r}13,28,4,603 \\ 05,468 \\ \hline\end{array}$ | $3,085,899$ 13,037 | $21,205,15-4$ 3,427 | 6,838,549 | $41,596,288$ 411,662 | $\begin{array}{r} 12,478,871 \\ 129,439 \end{array}$ |
| 11emp, unmanufactured . . . . . . . . | 335,632 $1,290,075$ | 109.089 258,195 | 65,448 $1,093,587$ | 16,037 838,517 | 3,427 $1,054,817$ | 1,028 | 411,602 $2,991,865$ | $598,278$ |
| Coal | -685,020 | 175,777 | 1,833,925 | 268,147 | 597,094 | 119,418 | 760,486 | 230,846 |
| Tota | 106,769,014 | 2,207,398 | 77,930,771 | 21,731,672 | 100,745,11012 | , 8929,052 | 128,050,65\% | 35,710,844 |




| Antiolee | 1880 | 1835. | 1839. | 1835 | 165 | 1 kJ ． | 1886. | 1857 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  | 5，068 | 919，＇688 | 10，021 | 875， 780 | 870，488 | 696， |  |  |
| Chocolate | 9，960 |  |  | 10，2 |  |  |  |  |
| 8plrits from gralu ．．．．．．．．．．．．．．．． | 49，814 |  | 89,787, | $\begin{aligned} & 141,1786 \\ & 899,3810 \end{aligned}$ | 989，919 |  |  |  |
| 8ptrita from other ma |  |  |  |  |  |  |  |  |
| Solasmees | i4，139 | 16,930 | 19，169 | 17，${ }^{\text {c }}$ 92 | 131,048 |  |  | 108，009 |
| $\checkmark$ Vineg |  |  | 19，980 |  |  | 17，281 |  |  |
| Beer，alo， | 290＇다 | $\mathrm{Bi}_{5}$ | 182,897 | H，673 |  |  |  | 48，782 |
| Linaced oll and aptrito of turpenting | 229，741 | 145，410 | 152，887 | 62，960 | 1，084399 | 1，186，739 |  |  |
| Llausolic | stig，025 | 882，930 | $40_{0} 12,138$ | Ti4，${ }^{\text {c }} 6$ | 7⿺辶⿳亠丷厂犬 | 808， | 089，042 | 879，44， |
| Conehes an | ${ }^{96}$ \％729 | 193，914 | 179，45． |  | 944，888 | 901， 170 | 870， 280 | 476，399 |
| Hata． |  | 103，769 |  | ${ }^{\mathbf{8 1}, 981}$ | 110，004 | 177，014 |  |  |
|  | 20，833 | 80， 100 | 61，987 | 4，249 | 68，811 | 64，886 | 31,944 | 5，222 |
| ndlea | 604，9 | 600，782 | 600，004 | 02 | Ses | 1，111，849 | 1，200，764 |  |
| Bnuff and | 043，832 | 1，143，547 | 1，812，029 | 1，671，600 | 1，651 | 1，600，113 |  |  |
|  | 149，038 | 458，838 |  | ．618，709 |  |  | 1，318 | 1，311，700 |
|  | 51, | 62， 0 | 08， 909 | 103， | 194070 | 115 |  | 880，183 |
| Gunpowdor | 19018 | 154，957 | 191，880 | 181,043 | 818，700 | 850 | 64， 074 | 898，24 |
| 8all． | 70，109 | 61，494 |  | 118,720 | 160，036 | 150 |  |  |
|  |  | 11，745 | 18，789 |  | 90，814 |  | 97.018 |  |
| － | 154,91 | 2150,5 | 118.69 |  |  |  |  | 307，918 |
| ＂all manafacturea | 1，677，792 | 1，875，691 | 1，093，9807 | 2，075，294 | 3，479，407 | 3，810，4096 | 8，588，711 |  |
| Copper and brasa，manufact | 105060 | 91，871 | 103， | 108，906 | 2，49， | 630，766 |  |  |
| Medicinal drugs | 334，78） | 351，65S | 203，852 | 327，073 | 454，780 | 788，114 | 1，060，974 | 3s0，100 |
|  |  | 1．000， | 220 | 1，086， | 1，145，786 |  |  |  |
| ＂uncolored | 0，74，417 | 8， 017,576 | 0，139，931 | 8，930，485 | 4，180，149 | 9，007，976 | 4，016，264 | 3，716，33， |
| ＂\％twist y yarn，and liread ．．．． | $\begin{aligned} & 17,405 \\ & 835,438 \end{aligned}$ | $\begin{gathered} 37,200 \\ 035,808 \end{gathered}$ | $\begin{array}{r} 34,718 \\ 571,689 \end{array}$ | $\begin{gathered} 29,634 \\ 789,649 \end{gathered}$ | $\begin{gathered} 41,319 \\ 493,085 \end{gathered}$ | 6，280 | 384，900 |  |
| Ifemp and fax 1 <br> cloth and thread |  |  |  |  |  |  |  |  |
| ＂bagn and all manufactures of | 10，388 | 3ta | 8，154 | 13，8 |  |  | 25，293 |  |
| Weartng a | ${ }^{907}$ | 1，911，${ }^{\text {a }}$ ， | 250，293 | 23， 733 | 93 |  |  | 833，42 |
| Farthen and nious | 15，04 | 3， 3 ， | 18，910 | ${ }_{81} 83,88$ | 84， 898 | 89，119 |  | 84856 |
| mmbe and |  |  |  | 81, |  |  |  |  |
| hoo |  |  |  | ， |  | 10， |  |  |
| Mlliard－tablee and apparalus | 205 | 1，728 | 1，098 | ， 1 | 204 | ， | 2,7 |  |
| Limbrellas，parasols，atad sun－sh | 8，396 | 12，260 | 8，340 | 8，153 | 11，05s |  |  |  |
| Manufacturea of leather and moroceo（not sol |  |  |  |  |  | 1，409，107 | 1，039，03 | 3，812 |
| －a |  |  |  |  |  |  |  |  |
| Fre－mgines nuil | 3， | 1 | 16 | 89 |  |  |  |  |
| Munical lostrum | 91，68 | S5， 10 | 67，793 | 82， | 196，129 | 100 ， |  | 127\％ 4 4 |
| Hookn and map | 119，40 | 153，912 | 217，803 | 149，604 | 187，385 | 307，218 | 902， 10 | 27\％，47 |
| Paper anil stat | 99，606 | 105，064 | 119，535 | 123，912 | 119，839 | 188.687 | 203，018 | 224，705 |
| lota and | ${ }^{678}$ B77 | 100， 133 | 88，369 | 83，000 | 191.8 |  | 917，190 |  |
| Manufectures of | 130，692 | 195，430 | 194，634 | 170，601 | 829，476 | 2046 | 810，39 |  |
| unfecturen | 13.6 | 27，${ }^{1038}$ | ${ }^{93}$ |  | 10，760 | 14.9 | 13，6 | 5,682 |
| anufacturce | 52,510 | 1 | 13，460 | 1 | 16，418 |  | ，${ }^{\text {，}}$ ， 298 | ， 313 |
| anuficturee | 84010 |  | 67，24 |  |  | 106，6 | 162 | 111，493 |
| odd lea | 588 | ，093 | 0，392 | 11，873 | 11 |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Artificial flo | 45，293 | 121，013 | 114738 | 6，397 | 80，471 | 9 |  | 29，170 |
|  | 10，370 | 19，207 | ${ }^{15,085}$ | 27，148 | 33，673 |  | 82， | 48 |
| Artolea nol enun | 8，863，971 | 8，723， 944 | 2，817，600 | 8，788，700 | 4，032，084 | 4，014，488 | 8，56，${ }^{6,9613}$ | 3，292，792 |
| Total | 15，198，451 | 20，186，96 | 28，8 | 27， $\mathbf{6 1 9 , 9 3 0}$ | 30，849，411 | 28，88 | 30，070， 1412 | 20，6 |
| olt aud aliver coin aad bullion．． | 8，046，870 | 18，06， 580 | 37，437，337 | 83，649，085 | 33，234，500 | 63，057，418 | 44，148，979 | ， |
| Totals ．．．．．．．．．．．．．．．．．．． | 17，943，130 | 38，256，547 | 06，300，708 | 40，148，408 | W5，083，977 | 38，700， 117 | 76，110，871 | 8，7，731，619 |

The power of Congress in laying taxes is not necen－
eariiy or naturaily ioconaistent with that of the Scates． Each may lay a tax on the aame propert；without In－ terfering with the action of the other；for taxation is but taking small postione from the mase of property， which is aucoptible of almost Infinite division．In imponing taxes for atate purposes，a state is not doing what Congrese is empowered to do．Congrese is not empowered to tax for those purposen which are within the exclusive province of the Staten．When，then， each goverament exercise：the power of taxation， neither in exorcising the power of the other．But when a Siate proceeds to regulate commerce with for－ eign netions or among the meveral Sitate，it is exer－ cising the very power which is granted to Congresa， and fis doing the very thing which Congress lo author－ ined to do．There is no snalogy，then，between the power of taxation and the power of regulating com－ merce．－Storr．
Domestic Truse．－And Arst，among the States．It is not donbted that the power of Congress extende to the regulation of navigation，and to the coasting trade and fishories，within as well as without any State，
wherever it is connected with the commerce or inter－ courve with any other State，or with foreign nations． It axtends oo the regulation and government of seamen on board ot American shipa，and to conferring privi－ leges upon ahlpa built and ornsed in the United States， in domestic as well as in for－ign trado．It extends to quarantine laws，and pilotage lawa，and wrecks of the sea．It extende as well to the navigation of vemels engaged in carrying passengers，and whelher etesm－ vesmals or of any other descripition，as to the nevigation of vessels engaced in traffic and general coasling busl－ ness．It extends to the laying of embargoss as well on domestic ae on foroign voyagas．It extenda to the construction of light－houses，the placing of buoye and beacons，the removal of abstruction to navigation in creoks，rivers，souncta，and bays，and the cotabilishmen！ of securities to navigation againat the inroads of the ocean．It extende also to the designation of a particulaf port or ports of ontry snd delivery for the purposes of forvign commerce．These powera have beon actusliy exerted by the National Government under a asstem of laws，many of which commenced with the eurly establishment of the Constitution；and thay have con－

## UNI

tinued unquestioned unto our day, if not to the utmost | preferences and privileges ; and sometimes to regulate range of their reach, at least to that of their ordinary application.
Many of the like powera have heen applicd in the regulation of foreign commerce. The connucrial aystem of the United States has also been emplioyed sometimes for the purpose of rovenue; sometimes for the purpose of prohibition; sometimes for the purf ose of retaliation and commercial reciprocity ; sometines to lay embargoes; sometimes to encourage domestic navigation, and tho shipping and mercantile intercst, by bounties, by discriminating duties, and by apecial
intercourse with e view to mere political oljecte, such as to repel aggressions, increase the pressure of war, or vindicate tho rights of neitral sovereignty. In all theae casea the right and duty have been conceded to the National Government by the unequivocal volee of the people. It may be addec, that Congreas have also, from the caricst perigd of the government, applied the same power of regulating commerce for the purposo of encouraging and protecting domestio manufactores, and Cengress have never abandoned the exercise of it for such a purpoes.-Story on the Constitution.
 conguned anNualhy, fuom 1821 to. 1857, inoluaite; the egtimatell lopulation and Congtmition pes Capita.


Forelen Commerer of gaci State and Tebritory, ybom Juiy 1, 1856, to June 80, 1857.

| 8talea. | Valug ov axporys. |  |  |  |  |  | Valus or impoata. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ameriean Prodoce. |  |  | Foreign Produce. |  |  | In American Vensolo. | In formign Veasela. | Tolal. |
|  |  | In foreiga Vessela. | Total. | in Amorican Vemels. | $\left\lvert\, \begin{gathered} \text { In foreign } \\ \text { vesselo. } \end{gathered}\right.$ | Total. |  |  |  |
| Malne . . . . . . | $2,810,517$ | $18.5,637$ | $2,400,188$ | $324,273$ | $412,127$ | $1,316,400$ | $1,852,078$ | $789,254$ | $2,604,888$ |
| New llampalire |  | 1,834 | 1,834 |  |  |  | 9,709 088 | 10,503 | $\begin{array}{r} 17,650 \\ -700 \end{array}$ |
| Vermont . . . . . | 293, 100 |  | 251,009 | -365,401 |  | $\text { joje, } 401$ | $2,700,103$ |  | $2,700,108$ |
| Masancluse | 11,673,033 | 14,098, 128 | 28,572,061 | 2,842,509 | 781,384 | 3,613,453 | 35,016,047 | 11,848,604 | 47,265,341 |
| Rhe e lsland | 6-42,925 | 1,073 | 044, 178 | 8,173 8,817 |  | 8,178 | 460,135 $1,064,819$ | 25,857 51 | 515,492 $1.116,801$ |
| Connecticat New lork. | $1,086,088$ $77,423,356$ |  | 119,084,686 | 8,817 $12,381,414$ |  | [15,605,907 | 101,701,931 | 74,701, $\begin{array}{r}51,082 \\ \hline\end{array}$ | $1,110,801$ $238,498,485$ |
| New Jork. New Jereey | $77,423,356$ 10,613 | 41,719,945 1,571 | $119,117,301$ 18,184 | 12,381,414 | 3,224,683 | 15,605,907 | 161,701,931 | $74,761,654$ 8,867 | $238,498,485$ <br> 8,887 |
| New Jereey | 6,885,732 | 1,140,780 | 7,014,512 | 164,520 | 15,400 | 160, 20 | 14,255,078 | 8,867 $3,600,171$ | $\begin{array}{r} 8,887 \\ 17,855,949 \end{array}$ |
| Delawate. | 117,270 |  | 117,476 |  |  |  | 2,805 |  | 17,8,805 |
| Maryland | 0, 174, 65 5 | 4,330,939 | 13,415,323 | 163,898 | 137,048 | 300,042 | $8,684,843$ | 2,043,305 | 16,1481,208 |
| Disirlet of Colutnbla | -29,735 |  | - 22,735 |  |  |  | 116,133 |  | 116,838 |
| Virgiula. . . | 5,484, 1107 | 1,070,268 | $7,294,330$ | 13,83.4 | 1,405 | 15,379 | 1,203,54T | 820,007 | 1,630,15t |
| North tic.nlln | 889,5122 | - 24.014 | 414,206 |  |  |  | 206,740 | 24,748 $2,9,170$ | $\begin{array}{r}231,4!4 \\ 2,019 \\ \hline 186\end{array}$ |
| Soutir Ca | 10,685,352 | 5,53:1, $6 \times 2$ | 16,197,434 | 8,421 | 10,549 | 12,960 | 1,720,616 | 2,9,170 | $2,019,780$ 719,900 |
| Georyla | 6,110,174 | 4.741,400 | 10, $5178,08.5$ | , |  | , | 581.486 | 197, 1224 | 718,909 |
| 1Florlda. | 2,803,673 | 411,459 | 3,2018,458 | .... |  |  | 898,672 | 21,427 | $881,600$ |
| Alabam | 14,400,506 | 0,175,491 | 20, 576,087 |  | 105 949 | 8488 | 617,780 $29.207,145$ | 91,360 $8.684,822$ | $\begin{array}{r} 709,090 \\ 84,891,067 \end{array}$ |
| Lonislan | 71,470, 119 | 20,064,262 | 01,538,171 | 281,330 | 125, 155 | B50,401 | 22,207,145 | 2,684, 88.2 | $\begin{array}{r} 84,891,061 \\ 207,205 \end{array}$ |
| Ohlo. | 173,905 | T60,024 | 1183,989 |  |  |  | 130,473 | 130 <br> 100 <br> 102 | $\begin{array}{r} 207,805 \\ 1,018,658 \end{array}$ |
| Milehigan. | 81,508 885,108 | $1,405,715$ 136,030 | 1,487,293 | .... | 16,38? | 15,383 | $1,018,458$ 2,480 | B, 400 |  |
| Whecondin | 885,108 | 136,030 | 522,044 $1.555,(090$ | $\cdots$ |  | 308 | 2,480 $10 \%, 835$ | 8,407 218,490 | 6,817 398,824 |
| Ilfinols. | 581,162 | 1,068,934 | 1,555, (19\% | , | 308 | 308 | 10\%,835 | 178,810 | 800,774 |
| Texsa. . . | 989,270 $11,084,403$ | 1,125,816 | 12,471,376 | 1,d23,809 | 601,283 | $2,225,182$ | 4,100,006 | $4,978,840$ | 0,137,414 |
| Oregon Territory | 8,907 |  | 3, 317 |  |  |  | -5,020 |  | 6,090 |
| Waahlngt. Territory | 16,561 |  | 25,845 |  |  |  | 2,103 | 1,504 | 8,717 |
| Mlnuesota 'Territory |  | 61,140 | 61,140 | . | .... |  | $\ldots$ | $\cdots$ | - ... |
| Total, 1856-57. | 438,815, 286 | 100, 10: 2 | 333, 085, 066 | 18,821,603 | 6, 354,954 | 23,975,01 | 0,116,170 | 101,778,071 | $800,890,161$ |

Gummart Statement of thit Value of the Exports of tir Growth, Product, and Manufagtore of the United Btates dueino the Yane miding Juni 30, 1867.

|  | ... $\ldots$ $\ldots$. $\ldots$. $\ldots$ |  | \$3,739,64 |
| :---: | :---: | :---: | :---: |
| Wood: Pronuor or the Fousst. |  |  |  |
| Staves and heading . . . . . . . . . . . . . . . . . . . . . . | \$2,065,980 |  |  |
| ghingles ........... | 212,80\% |  |  |
| Boarda, plank, and scantling | 4,171,686 |  |  |
| llewn timber . . . . . . . . | 516,735 |  |  |
| Other lumber ........... | 638,406 822,754 |  |  |
| Oak bark and other dye .... | 3,169,434 |  |  |
| Naval stores: |  |  |  |
| Thar and pitch........ | $\begin{array}{r} 908,610 \\ 1,644,578 \end{array}$ |  |  |
| Ashes, pot and poari. .... | 690,367 |  |  |
| Ginseng <br> skins and furs | 88,331 $1,116,041$ |  |  |
| Of Animals : Produot or Agmiotltogr |  |  |  |
| Beef..... | \$1,218,34 |  |  |
| Tallow. | 638,286 |  |  |
| Ilidea .. | 624,867 |  |  |
| llorned caltlu | 144,843 |  |  |
| Bntter. . | 603,684 647,423 |  |  |
| Cheese | 647,423 |  |  |
| Pork (pickied) . . . | 2,805,807 |  |  |
| Itams and bacon . | $\begin{aligned} & 4,61,41,49 \\ & 0,144,195 \end{aligned}$ |  |  |
| Wool... | 1,0,007 |  |  |
| 1 10 gn ... | 5,625 |  |  |
| Itarnes | 105,697 |  |  |
| Mules . . | 171,193 92,758 |  |  |
|  |  |  |  |
|  |  |  |  |
| Flonr. . | 25,852,818 |  |  |
| 7ndinn corn. | 5,184,660 |  |  |
| Irdisn meal | 956,791 |  |  |
| Hye meal . . . . . . . . . . . . . . . . . . . . . . . . | 116,838 |  |  |
| Kye, anta, and other amali grain and pulac. | 680,1188 |  |  |
| Blocuit or ship bread | 563,266 |  |  |
| Potatose ... | 900,616 |  |  |
| Apples Ontons | 135,2311 78,048 |  |  |
| R10e... | 2,290,400 |  |  |
|  |  | \$68,333,176 | $75,069,624$$131,575,56)$ |
| Cotton, |  |  |  |
| Tobndeo . . . . . . . . . . . . . |  |  | 20,200,773 |
|  |  |  | 46,402 |
|  |  |  |  |
|  |  |  |  |
| lirown nugar........................ | $\ldots$ | $1 \cdot 0,019$ |  |
| Hopn . . . . . . . . . . . . . . . . . . . . . . . . . | - $\cdot$. | 84,862 |  |
| Mandyaotumpa. |  |  | 600,505 |
| Refined nugar . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | ..... | \$308,20601,083 |  |
| Wax. <br> Chocolato |  |  |  |
| Chocolato <br> *pirita from grain | .... | $\begin{array}{r} 1,032 \\ 1,249,234 \end{array}$ |  |
| spirite from molasess. <br> spiritn from othor materials. | .... | 1,216,625 |  |
|  | $\ldots$ |  |  |
| spirita from othor materiais. <br> Molaseer. | .... | 108, 0103 |  |
|  | $\ldots$ | 30,7-8 |  |
| Heer, ate, porter, and cider in caska,Ster, ale, porter, and cider in botilea |  | 28,733 |  |
|  | .... | 10,9 ${ }^{6}$ |  |
| Sher, ale, prorter, and cider in bottea | .... | 64, 14 |  |
| Mpirime of turpentine. | .... | 741.1443 |  |
|  |  | 871.448 |  |
| Coschea and parta, and ralirosd cara snd parthIlate of fur or nitk. ........................ | .... | 478,394 |  |
|  | . | 180, 114 |  |
| Hats of palm-leal.geddiery . . . . | .... | 78,494 |  |
|  | .... | 45,223 |  |
| Adamanting and other candie | $\ldots$ | $\begin{array}{r}87,748 \\ \hline 67\end{array}$ |  |
|  |  | 030,3035 |  |
| Sant. | ..... | 11,606 |  |
| Tobeoco, mannfactured | .... | 1,447,027 |  |
| Cunpowler . . . . . . . | .... | 8 8,244 |  |
| boute asd al | . $\cdot$. | 497,714 |  |
| Cshlies and cordag |  | 813,146 286,163 |  |
|  |  | 1100,699 |  |
| Lsed. |  | 88,684 |  |
| Iron, ple. . . . . . . . . . . . . . | .... | 53,390 |  |

8ummary Stafbignt of the Value of Exporth, mic.-Continued.

| Manupatumer-Continued. |  |  |  |
| :---: | :---: | :---: | :---: |
| Iron, bar | . | *64,596 | \$17,008,499 |
| Nail | .... | 87:, 387 |  |
| Castings of |  | 289,067 |  |
| Alt ether manufactures of. |  | 4,197,087 |  |
| Copper and brass, and manufnetures |  | 607,054 |  |
| Drugs and medicines . . . . . . . . . |  | 886,909 |  |
| Cotton plece Cooda : |  |  |  |
| Irinted or colered | \$1,785, 686 |  |  |
| White, other than duck | 3,468,230 |  |  |  |
| Duck........ | 252, 109 |  |  |  |
| All ether manufaetures of. | 614,153 |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Brushes of all kinds . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
| Biliard-tabies and apparatus . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |
| Fire-engines . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
| Printing-presses and type . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
| Musical lntruments . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
|  |  |  |  |
| Praper and atatlenery . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
| Paints and varalsh . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
|  |  |  |  |
|  |  |  |  |
| Glass . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 179,960 |  |
|  |  |  |  |
| Pewter and lead. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
| Marble and stone. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 111.403 |  |  |  |
| Bricks and lime . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
|  |  |  |  |
| India rubber, atl ether masufactures of . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  |  |
|  |  |  |  |
|  |  |  |  |  |  |  |
| Coal | $\cdots$ | $\cdots$ | 616,601 |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |  |  |  |
| Articter not enumerated : <br> Manufactured. $\qquad$ <br> Itaw produce. <br> Tetal, year 1850-57 $\qquad$ |  |  |  |
|  | .... | . | $\begin{aligned} & 8,202,728 \\ & 1,268,828 \\ & \hline \end{aligned}$ |
|  |  |  | \$338,985,065 |

Bunmart Statement of the Valef of Goods, Warke, and Merciandise, iMpobted into tilb Enitko diatrs duaine tua piboal lear endino Juna Bo, 1857.

## of Merchendies. <br> Fres of Duty.

Animaia for breed.
Value.
48,345
Gotd.
silyer
Bpecie:
Oeld.
Bilver
Cabinats of coins, medais, and other celtections of antiquities
Models of Inventions and improvements in tha stis.
Toasfae
Coffee...
In piates suited to the sheathing of vessels. Ore
Cotten, uumanufactired
Adhenive fett for sheathing veasela
Paintinga and statuary of American artista
8peclinema of natural histery, cte. .
Bheatioing metal.
Jistiua, mmmanufsctured
liaster, ungreund
Wearing apparet and other peramal offecta of emigranta and ctitens dylag abroad.
old junk and oskumi
Garien recda, treen, shribs, pianta, ete
Garien recda, trees, shribs, pianta, etc. .........
Articies tho produce of tho Linitod states, breugg back
Arlielen apecially importod for phllesophicsi societlen, colleges, stmiaaries of learulug, schoois,
All other articiea not sul...............................
Tetal.

Merchandiff payine Dutirg an valorem.
Manufactures of Wool
pieco gools, including woel and cotten
Shawif of woel, wool and cotton, allk, and
alik and cotton
$11,009,605$
2,240,451

Summary Etatrment of Imports-Continued.

| Apecies of Merchandim. <br> Manufacturea of Weol: | Vatas. |
| :---: | :---: |
| Blankets | \$1,030,978 |
| Ifesiery and artieles made on fram | 1,740,829 |
| Wersted plece goods, including cotton and wersted | 11,865,609 |
| Wooten aud wersted yarn | 198,147 |
| Manufactures not epec | 698,640 |
| Flannels | 105,779 |
| Baizes and bockings | 119,885 |
| Carpeting : |  |
| Witton, Sazony, Aubussen, Bruasela, Turkey, treble ingrained, Venetian, and etber |  |
| Ingralned . . . . . . . . . . . . . . . . . . . . . . . . | 1,784,196 |
| Net specified | P97,094 |
| anufactures of Cotton : |  |
| Itece goods. | 81,441,088 |
| Veivets | 678,294 |
| Cords, gimps, and galie | 813,824 |
| Hosjery and articles made on | 8,810,287 |
| Twlat yarn and thresd | 1,401, 168 |
| Hatters' plush, of silk and | 11,473 |
| Manufactures not speclfied. | 1,729,618 |
| lik and manufactures of slik: |  |
| I'lece goods. | 2?,067,369 |
| Ilalery and urtieles made on frames | 830,200 |
| Sewing sitk. . . . . . . . | 211,723 |
| Ifats and bonn | 151,199 |
| Manufactures not spee | 4,449,599 |
| Floes | 80, 618 |
| Ray | [53,734 |
| Heitling-cleths | 67,009 |
| Silk and wersted piece go | 1,580,946 |
| Goats' hair er mohatr pleee gooda . . . . . . . . . . . . . | 508,908 |
| Madufacturen of Ftax: |  |
| Linene, bleached or unbleached | 75,338 |
| Hosiery, and articies made on fr | 9,019 |
| Manufactures net speelfied . . . . . . . . . . . . . . . | 1,450,292 |
| Manufacturea of llemp: |  |
| 'Ticklenburgs, Oanaburgs, and burlapa. ..... | $180,304$ |
| Articies not speeified | $860,469$ |
| Sall duek, Itusela, Helland, and Ravens.... | 14,180 |
| Cettou bagglug . . . . . . . . . . . . . . . | 14,009 |
| Ciathing : |  |
| Rendy-made . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 847,471 |
| Articles of wear. | 1,571,517 |

Sumyary Statrmint of Imports－Continued． Descripiton of Merehandice．

Thread and insertinga Cotton inaertings，trimmings，lacea，braids， Ctc．
Embrolderies of wool，cotten，alik，and linen
Floor－cloth，patent，painted，etc．
Ollath of all kinda
lastiog and mobalr cloth for shoed and buttona
Gunny eloth and gunny bags
Matting，thlnese and other，of fagn，etc．
Hats，tiapa，Isonnets，Fiats，Itralda，Plaits，etc．： Of leghorn，atraw，chip，grass，etc．
Manufactures of I ron and Steel：
Mnakets and rifiea
Fire－arms not apecifed．
Side arms
Needlea
Cutlery
Other manuficture and wares of，not apeci－ fied
Cap or bonnet wire
Nalla，npiken，tacka，elc．
Chain cables．
Mill naws，croes－cut，and pit bawa
Anchora and parts thereof
Anvila and parts thereof．
Iron，bar
1300 p
Shee
l＇ig ．．．．．．．．．．．
Mallroad
steel－cant，ahear，and German
All other．
Copper，and manufactures of Copper：
In plga，bare，ani old．
wire．
Brazlers
Copper boltoina
Mannfactures of．not specified．
Roda and bolta．．
Nails and apikes
Brass，and manufactures of trass：
In pliga，bares，and old
Wire
Sheet and rolled
Manufacturen of，not apeeided
Tin，and manufacture of＇in ：
In piga and bars
Platea and rheeto
Foll．
Manufactures of，not specitiod
Lead，and manufactures of lead ：
l＇ig，bar，sheet，and old
shot
Pipen ．．．．．．．．．．．．．．．．．．．．．．
Pawter，old．
Manufachures of
Zine，nud ranufacturen of Z̈änc：
In plgat
8herth

| Naila |
| :---: |

spelter
Manufactures of Gold and silver ：
Epauleta，wlogn，lacen，galloons，tressea，las－
Geld and sliver leaion．
Jeweiry，real or lmitationa of
Gems，net．
ntherw ise
Manufacturea of，not apecified
Clazlera＇dlamonda
Clocks
chronomelern
Watehes，and parte of．
Metalilic pena．．
Pens，in prekn and otherwire
Buttons，metat．
All other and button moulds．
Clase，and mannfacturem of Glass ：
sitvered．
Pulnilign on ghas．，porcelain，and colored．
polished plate
Manufacturea of，nol nuecified
Glassware，ent．．
Watch eryalalia
Botclest
i wmijohna
Whadow glana，irond，crown，and cyliader．
Papev，anil manufacturea of f＇aper：
Writing paper．
laying carifa．
＇n pher－machs，articlen and warea of
Paper－hanging．
Paper and fancy broxen
Paper and fancy boxen . . . . . . . . . . . . . . . . . . . . . .

Vntus．
$\mathbf{\$ 3 2 1 , 9 6 1}$
$\mathbf{3 2 1 , 9 6 1}$
$1,1299,754$

Symany gpatement of Inpogts－Conifnued．
Deseription of Morchaodise．
Paper and manufaturea of I＇a por t
Paper，and manufactıren of，not apecified Mlank bookn．

In Engltah．．．．．．．．．．
1年eriodicala and lluatrated newapapera．
periodicntis and other werks in thin conrae of repubiliention
Eagraving
Mathematical Instrumenta
Murical Instruments．
Daguerreotype plater．
Ink and tnk powdera
Ink and tnk powders ．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．
1．eather，and mannfacturea of Ieathor：
Tanned，bend，zole，and apper
Bkina，tanned and dreased
Rkina，tanned and dreased
Skivers．．．．．．．．．
Gloven for men，women，and children
Manufactures of，not spectifed
Wares－china，porcoinin，wartien，and stone．
1 lated or gilt
Japanued
sliver－plated meini
silver or plated witr
Rllver or plated wire ．．．．．．．．．．．．．．．．．．．．．．．
Pratod，braea，or pollithed ateel．．
Furs－undreased on the akin
llattera furs，dressed or undressed，not ou the akin
Dreased on tha nkin
Manufacturea of fur
Wood，manufarturea of
（ablnet and houracheld furniture．
Cedar，mahogeny，rose，and satin－wood
WHIlow
Other manufacturea of
Wood，unmanufactured：
cedar，grenadila，，tahogany，rose，and sntin
Fire－wood and other，not apeceified
Dye－wood tn atick

ivory－manufacturea of
Marbla－manufacturea of
Cnmanufactured
Slurr atonea
Qnickeilvor
liruathen and brooms
Itlack－leas menella
Niatee of als zinda．
ltaw hides and akin．．
thoota and shoes other than leather．
India rubber－manufacturea of．
Inmanufactured
Hair－mianufactures of
Inmanifacture：
Grass cloth．
t＇mbrellas，parnsoln，and aun－ainder of ailik ani other
Cinmanufactured Artlelea：
Flax－sered or tinueed
Augora，＇Thibet，and other goats＇hatr or mo－ hair
Winea in C＇anks：
liturgundy
Madelra
Madelina ．．．．．．．．．．．．．．
lort．

Fayal and other Azores．
Slilly and other Mediterranean．
Auatrin and other of Germany．
Ited wine not enumerated．．
Wine in liotilea：
Iturgundy
thanpague
Bladeira
fort．
CInrut．
All intlevr．
Spirita，fordgn diatilicid：
Irandy．
From grain ．．．．．．．．．．
torilain
Iber，ale，and portur－in carka
In buttrem
lloney．

3，003，594
18，998
18,884 18,884
5,759

## 688，597

 $17,5,084$ 30，497326 84，925
4e4，374
10,768
47,784
$1,006,459$

352，534
Cnmanufactured Articlen：
Flax－serd or thaced ：
Angora，Thithet，and ot

| Sumarit Statemint of Imports-Continued. |  | gumarey Statrment of Inports-Continued, |  |
| :---: | :---: | :---: | :---: |
| Deneriplion of Merchoodise. |  | Deseription of Morchendis. |  |
| Molarecs $\qquad$ | \$8,250,175 | Copper | 80,446 |
| Oil and llone of foreign filling: |  | Verdigria ...... | 9,690 |
|  |  | Brimstone-crid | 162,980 |
| Whate and ot | 17,280 252 | $\underset{\text { Chiorid of }}{ }$ | 12,306 |
| On-olive, in casks |  | Boda ash. | 820,50\% |
| , " in bottfe | 347,300 | 8oda ash. goda, al | $1,084,021$ 86,489 |
| Ctator | 108,502 | Soda, carbonate | 424,024 |
| Linseed | 958,200 | liarila | 81,018 |
| Rape-seed and hemp-4eod | 11,001 | Sulphate of barytes | 48,667 |
| ralm ........ | 337, 881 | Aclds, acetle, etc. | 79,271 |
| Neat'a-foot and other an | 1153 | Vitriel-blue or loma | 6,834 |
| Easentlal olls. . . . . . . . . . . . | 146,879 |  | 98 |
| Tea and coffea from placea other ther |  | Suiphate of quinine | 249,964 |
| their production, and nut treaty atipulations: |  | Licorice-root. Pasto. | $\begin{aligned} & 248,304 \\ & \text { 492,191 } \\ & \text { 898.658 } \end{aligned}$ |
| Teas .......................... | 17,315 | Bark-Peruvian and Quilia | 888,252 |
| Coffe | 89,879 | Other. | 268,600 |
| Cocoa. | 187,016 | Ivery and bone hla | , 289 |
| sugar-brown | 42,014,004 | Oplinm. . . . . . | 468,458 |
| White, elayed, or powdered | 80,820 | Glue....... | 23,671 |
| 10as and other refined. | 68,906 | Gunpowder | 9,688 |
| Candy. | 1,857 | Alum. . | 94,580 |
| Sirup of augar-cane | 1,284 | Tobacco-un manu | 1,858,885 |
| Fruits-aimonds. . | 900,045 | Sauff | 2,026 |
| Currants | 151,418 | Cigara | 4,981,096 |
| Prunes | 108,0194 | Manufactured, otber than anufi | 18,898 |
| Plum | 118,05. | Painta-dry ochre............. | 18,258 |
| Figy | 219,207 | Ked and white leed | 118,076 |
| Date | 17,043 | Whiting and Paris whito | 29,100 |
| Maisina | 037,400 | Lttharge . . . . . . . . . . . . . . | 17,781 |
| Orangee, Vanona, and limea | 64, 544 | Sugar of lead. | 66,795 |
| Other green frilt. | 151,587 | Cordage-tarred | 92,099 |
| Preserved frus | 102,657 | Lintarred | 64,438 |
| Nuts. | 183,144 | Twine and seined. | 69,967 |
| Splees-Mace | 26,754 | Hemp, unmanufaetured | 483, 683 |
| Nutmega | 254,687 | Manilia, sun, and ather hemp | 2,858,891 |
| Cinnamn | 19,805 | Jute, Slsal grase, colr, atc. . | -384,328 |
| Cloves | 65,839 | Codilia, or tow of hemp or flax | 88,620 |
| I'epper, blo | 279,287 | Flax, unmanufactured. | 280,788 |
| ${ }^{3} \mathrm{red}$ | 8,403 | Thaga of all kinds ... | 1,448,295 |
| Pimento | 241,508 |  | 2,088,583 |
| Cassla. | 201,883 | Coal. | 772,668 |
| Glager, gr | 21, BI | Breadstuffi- | 990 |
|  | 44, 123 | marley. | 3,068 |
| Camphor-crud Hefined | 56,814 |  | 110 |
| hefined... |  | Wheat flou | 477 |
| Candica-wax and spermaceti | 9,867 | Rye-meal | 2,070 |
| Stearis . . . . . . . | 62,187 | Oat-meal. | ${ }^{6} 56$ |
| Cheers. | 149,891 |  | 87,572 |
| Soap-perfumed ......... | 81,507 | Flah, dried, smoked, or plekiad: |  |
| Taltow .................. | 139,020 | Drled or amoked | 86,607 |
| Taltow | 12,807 | Snimon | 3,949 |
| Starch... | 6,635 | Mackeret | 144 |
| Arrow-r | 25,751 | Ilerrings and uhad | 49,218 |
| Lsatter | 18,854 | All other. | 4,638 |
| Lard ....... | 480 | Value of merchandisa not enume |  |
| Peef and pork | 8,614 | ceding abstract : |  |
| Hams and oth | 7,204 | At ${ }^{\text {of per cent. }}$ | 1,874,024 |
| Briatles | 289,581 | At 10 per cenl. | 646,016 |
| Saltpetre-crude | 1,156,433 | At 18 per cent. | 1,698 |
| Refined, or partiy refined |  | At 20 per cent. | 3,604,767 |
| Indigo.. | 1,010,509 | At 25 per cent. | 183,493 |
| Woad or pas | 1,201 | At 30 per cent. | 8,264,646 |
| Cochlneal | 440,707 | At 40 per eent. | 641,916 |
| Madder. | 1,876,472 | Paylog dutiea |  |
| Gums-Arahle, Senegal, elc | 143,830 | Free of duty | $\begin{array}{r} 4 \\ 60,729,300 \end{array}$ |
| Other guma | 460,432 94,844 | Total... | \$380,800,141 |

Comnercial Regulations of the L'nited States, compiled from General Regulations of the Treasury Department, anl from other official A uthorities,-Vessels belonging to the following nations are adnitted, ander the provisions of law, Ireatles of commerce and navigation, or conventions, into the ports of the United States, on the same terms as American vessels, with the produce or mannfactures of their own or any other country:

Argentino Confederation, Austria, Belginm, Brazil, Chill, (Denmark,*) Ecuador, Great Brltain, Greece, New Granada, Guatemala, Henover, Hanse Towns (Hamhatg, Bremen, and Labeck), Mecklenhurg Schwerin, sietherlands, Oldenburg, Peru, Prussia, Russia, San Salvador, Sardinia, Sweden and Norway, Tuscany, $T$ wo Sicilies, $\dagger$ Venezuela.

[^53]
## UNI

ble to the law of nature, and extremely conducive to national amity, industry, and happiness. Tite numeroos wante of civilizeci life can oniy be aupplied by mutual exchange between nalions of the peculiar productions of each ; and whu that is fainiliar with the English classics has not dweit with delight on the doscription of the extent and blesainge of English commerce, which Addison has given with such gracefui aimplicity and such enchanting elegance in one of the



| Couelifien. | Value of Kiports. |  |  | Velan of Imports. | Ameriean Tomnaxs. |  | Porelen Tranage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | botnealie Produce. | Pureign Produce. | Total. |  | $\begin{array}{\|c\|} \hline \text { Mifiored } \\ \text { the Uaited } \\ \text { States. } \\ \hline \end{array}$ | Cleored from the U. Biatea | Thitited the Vnited Kintes. | 1 leated from The II, Miales, |
| Kusaia on the Balllo and Norts Seas. . | $4,3 i 6,838$ | $171,40 \mathrm{~B}$ | $4,588,301$ | $1,435,304$ | 12,084 | 25,498 | 1,888 | 8,710 |
| Lueaia on the Hlack kea | 61,174 |  | $6.4,174$ | 48,690 |  | 601 | 027 |  |
| Aslable Russia | 20,0\%7 | 86,912 | 46,981 |  |  |  |  | $880$ |
| Rusalan P'ossestions in North America | 28,775 | 67,302 | 86,137 | 40,400 | 8, 239 | 1,890 | 1,606 | 8,440 |
| Prusal | 30,788 | 14,311 | 45, 0,40 | (16, 127 | 804 | 949 |  | 1,284 |
| Swedon anil Nor | 1,373,310 | 27,1811 | 1,400,488 | 744,818 | 0,701 | 3,438 | T,845 | 5,502 |
| 8wedish. West In | 76,405 | 8,528 | 79,933 | 12,088 | 1,661 | 1,719 | 08 |  |
| Dens | 234,63: |  | 384,68. | 3,800 |  | 880 | 588 | 8,113 |
| Dani ve | 1,41:2, 618 | 97,077 | 1,516, $0: 5$ | 981, 56 | 15,918 | 81,834 | 6,141 | 2,157 |
| Itambur | 3,199,7,18 | 654.417 | 8,854,215 | 4,647, 413 | 7,064 | 7,266 | 86,950 | 40,451 |
| Bremen | 11,082,107 | 361,488 | 11,448,095 | $10,789,529$ | 30,340 | 31,470 | 115,486 | 87,010 |
| Other tierman |  | 197 945 | -107 ${ }^{257}$ | - 848 |  | 95. 245 | 10.147 | $\cdots$ |
| 1 lolland | 8,087,633 | 127,944 | 4,107,877 | 8,400,762 | 20,405 | 25, 2077 | 10,082 | 28,289 |
| Dutch We | 369,517 | 16,779 | 396,294 | 518,254 | 8,861 | 8,061 | 774 | 48\% |
| Duteh Guis | 943,788 | 6,104 | 940,832 | 874,401 | 8,684 | 6, 866 | 1,874 | 806 |
| Dutch Fant | 125,360 | - 108,150 | 248,510 | 1,287,390 | 7,575 | 7,101 | 607 | 1, 120 |
| Belgia | 8,688,028 | 1,950,6.8 | 5,044,320. | 6,060,311 | 36,970 | 49,162 | 16,715 | 14,1054 |
| Englan | 174.528, 121 | 3,169,131 | 177,0.30, 159, | 128,473,629 | 1,047,046 | \$11,188 | 244,888 | 284,692 |
| Scotha | 4,611,887 | 39,181 | 4,744,018 | 7, 716,111 | 31,335 | 88,988 | 63,425 | 49,422 |
| Irelanil | $8,450,614$ | 1,400 | 3,461,614 | 113,453 | 9,710 | 98,406 | 10,675 | 2y, 120 |
| Gibr | 564,314 | 53,065 | 617,379 | 43,058 | 2,505 | 7,006 | 5,138 | 870 |
| M | 284,45s | 80,992 | 317,477 | 114,477 | 14,017 | 2,023 | 8,048 | 1060 |
| Canada | 13,024,718 | 3, 5700,187 | 16,574,809 | 18,291,834 | 1,240,159 | 1,133,684 | 1,105,256 | 1,104, (i50) |
| Other Britlit Xorth Am. Jossegalot | 0,111,405 | 774, 138 | 7,087,597 | 3,882,462 | 188,640 | 311,985 | 1882,719. | 461, 24.4 |
| Britinh Weat Indles | 6,03, 005 | 62,863 | 5,084,918 | 2,663,008 | 75,601) | 106,361 | 84, 134 | 24,970 |
| 1ritish IIond | 425,379 | 84,4,73 | 400,853. | 425,030 | 0,418 | 6,588 | 8,122 | 3, $2 \times 2$ |
| 13ritiah Guls | 1,408,976 | B,61s | 1,009,604 | 818,353, | 9,3185 | 16,372 | 8,716 | 4,187 |
| lirllinh Pods | 879,935 | 7,910 | 687,745 | 098,275 | 8,165 | 10,38\% | 678 | 1,435 |
| Iritish Australia | 3,297,181 | 143,503 | 3,440,684 | 65,632 | 3,016 | 47,231 | 1,800 | 5,587 |
| Hritish Fiast Ind | 804,808 | 113,13, | 977,987 | 10,766, 114 | 109,030 | 63,387 | 4,784 | 6,3\%5 |
| France on the Atian | 35,360,428 | 088,528 | 36,26, $2,0.1$ | 44,718,73 | 108,150 | 2\%8,770 | 36,993 | 80,500 |
| France on the Medllerrancan | 1,858,012 | 88,024 | 1,944,036 | 3,074,054 | 31,014 | 25,318 | 7,780 | 0, 1455 |
| French North American I'osses | 137, 501 | 83,212 | 170,775 | 95,049 |  | 1,835 | 2,134 | 4,607 |
| French Weat Indiea | 780,779 | 1,364 | 731,143 | 6) ${ }^{\text {, }}$, 280 | 6,4208 | 210,828 | 4,52s | 1,906 |
| Freuch Gniana | 8 4,414 | 1,000 | 85,447 | 63,2018 | 1,2908 | 8,147 | .... | , |
| Freneh Finat lndies.... |  | $\ldots$ |  | ... |  | 518 | .... | - ${ }^{\text {cos }}$ |
| Freuch I'omecsslons in Spain on the Atlantle |  |  |  |  | 583 33,118 |  |  | 10196 |
| Spain on the Atlantle.................. | 2,902,097 | 138882 | 9,975,079 | 609,082 | 33,118 | 28,011 | 5,197 | 10,4775 |
| Spalu on the Mediterramuan . . . . . . . . | 7,715,907 | 11,911 | 7,797,118 | 2,000,034 | 97,280 | 91,005 | 20,097 | 67,687 |
| Cansry 1alan | 89,027 | 415 | 8, 9142 | 44,0065 | 3,280 | 8,749 | 1,811 | 1,0\%0 |
| 1 hillpplae | 66,187 | 171,470 | 237,612 | 3,605,763 | 27,729 | 15,579 | 1,764 | 1,478 |
| Cub | D,375,689 | 5, 043,861 | 14,928,443 | 4.5.248, 101 | 684,987 | $500,2 s_{1}$ | 61,308 | 14,298 |
| Porto Itic | 1,783.429 | 152,045 | 1,935,474 | 5,748,600 | 83,172 | 87,638 | 11,012 | 3,050 |
| Portugal | 1,819,007 | 16,398 | 1,685,445 | 429,836 | 7,540 | 10,847 | 4,669 | 18, (x) ${ }^{\text {a }}$ |
| MadeIra | 02,204 | 684 | 82,889 | 84,114 | 651 | 814 | \% 16 | 388 |
| Cape de | 03,108 | 1,365 | 64,503 | 95,905 | 1,601 | 2,662 | 785 | 645 |
| Asore | 02,971 | 17,75s | 80,783 | (01), 859 | 3,916 | 8,090 | 904 | 1,6.9. |
| Serdin | 8,007,001 | 77,007 | 8,185,468 | 217,287 | 9,008 | 15,45y | 7, 51) | 6, 1204 |
| Thacany | 397,41) |  | 337,400 | 1,765,018 | 18,503 | 9,567 | 5,730 | , |
| l'apal Niat |  |  |  | \% 54.679 |  | 815 |  |  |
| Twc Sicllle | 1,013,981 | 68, 063 | 1,152,920 | 1,675,968 | 60.484 | 5,884 | 20,9839 | 8, 110 |
| An | 1,136,217 | 254,727 | 1,388,044 | 306, 068 | 0,342 | 11,102 | 2.115 | J, $0 \cdot 5$ |
| Austrian l'owasslons ln lialy.......... | 1,042,348 | 20,8 00 | 1,079,737 | 85,808 | 9,093 | 6,020 | 934 | 400 |
| gonlan liepublic. |  |  |  | 11,179 | .... | .... | 471 |  |
| Greere |  |  |  | B0, 51.38 |  |  | 182 |  |
| Turkey ln F | 187,975 | 7,899 | 195,364 | 7,406 |  | 2,777 |  |  |
| Tarkey in A | 33 , 800 | 70,770 | 410,282 | 794,445 | 9,958 | 4,774 | 380 |  |
| Hypl. | 28,163 |  | 48,163 | 103, $10 \times$ |  | 350 | 2,783 |  |
| Gher po | 2,308,165 | 176,591 | 2,494,746 | 1, 1021,065 | 14.884 | 98,010 | 675 | 748 |
| llagt . . | 2,216,147 | 319,517 | 2,535, 264 | 2,990, 27.4 | 63,104 | 35,976 | 7,464 | 4,171. |
| Gen lom | 49,953 | 9. 96 | 44,349 | 100,674 | 1,504 | 1,920 | 1, 100 | 418 |
| Mexlco | 8,017,640 | 697, 608 | 3,615,960 | $5,985,867$ | 97,901 | 35,603 | 10, 2080 | 14,804 |
| Ceatral lep | 116,2.59 | 20,742 | 107,021 | 988,060 | 37,001 | 34,779 | 141 | bet |
| Now cira | 1,770, 200 | 287,490 | 2,087,640 | 9,448, 160 | 136,439 | 184,800 | 2,374 | 1,743 |
| "9 | 1,360, 148 | 67,4,90 | 1,427,678 | 8,800, 019 | 94,941 | 17,708 | 8.408 | 9.043 |
|  | 5,268, 106 | 977,041 | 5,545,907 | 91,4M0,788 | 108,900 | 84,719 | 18,248 | 9, 186 |
| Uruguay, or Claplatine liepubl | 976,3711 | 95,902 | 1,0以1,172 | 368,497 | 9,280 | 84,41\% | 241 | 2,027 |
| Duegon Ayres, or Argenllue Repabilc. | 1,202,376 | 111,431 | 1,313,817 | 2,784,478 | 16,378 | 90,680 | 4116 | 1,610 |
| Chllt | 3,478,288 | 433.907 | 2,906,145 | 3,748,459 | 14,379 | 49,787 | 7, 207 | 11, 0107 |
| Per | 447,783 | 88, 199 | 607, 089 | 408,747 | 198,081 | 68,589 | 1,577 | 6,462 |
| Feundor. | 84,546 | 9,630 144,849 | 37,170 | 16,803 | 626 10749 | 1,354 | . ${ }^{187}$ | 147 |
| Pandwicl | 803,084 | 144.849 | 047,498 | \% 804,418 | 16,749 | 16, 10 I | 187 6.987 | 9,490 |
| Chine ... | 2,010,900 | 2,375,230 | 4,306,130 | 8,806,088 | 67,042 | 60,540 | 6,987 | 9,440 |
| Other port in Asla. |  | 19 | 79.982 | 5,660 748 |  |  | 1184 |  |
| Trianda in the J'actio. <br> Whale-finherien | 79,487 $4.6,289$ |  | 79,987 617,248 | 107.180 | 1,048 49,747 | 1,954 | 1,112 | 1,46 |
| Whalc-tirberiet . . . . . . . . . . . . . . . . . . . . . . . . | 4'6,259 | \$1,010 | 517,248 <br> $99,6 \sim 9$ | 107,180 | 4,747 | 87,083 | '* | . $\cdot$ |
| Tatal, year 1806 | 899,606,006 | 23,976,617 | 802,000, 0381 | 900, 9000,141 | 4,721,376 | 4,541,212 | 9,464,946 | $9 \mathrm{M}, 770$ |



| Whance imported. | Value of Morehandice from eseh Couniry. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Froe of Duly. | Poylag Doily. | Total. | $\begin{aligned} & \text { Is Amariese } \\ & \text { Vessele. } \end{aligned}$ | In foreign Vnanila. | From the Domin. luas of teeh Power. |
| Russla on the lialitc and N. Scas | \$65,8:30 | \$1,879,164 | \$1,435,394 | \$1,914,777 | 220,617 | 1510,491 |
| Itussia on the Black Bea........ Russian Possenalona In | 15 | 43,026 40,385 | 43,620 40,410 | 16.234 | $48,626$ | 1,610,421 |
| Russian Poascestong in N. A.... I'runsla. |  | 40,385 66,187 | 40,410 | 16,233 | 24,166 | 6,127 |
| \&weden and Norway | 882 | 744,680 | 74,318 | 460,780 | 294,082 | 60,121 |
| Swedith Weal Indiea | 2,066 | 10,017 | 12,082 | 12,082 |  | 756,894 |
| Denmark |  | 9,809 | 8,809 |  | 8,809 | 285,868 |
| Danlsh West Indles | 46,636 | 234,863 | 231,569 | 307,973 | 73,666 | 200,068 |
| Ifsmburg | 46,323 | 4,611,085 | 4,647,413 | 251,653 | 4,395,760 | 4,647,418 |
| Bremen.. | 183,120 | 10,540,498 | 10,723,523 | 6,414,051 | 5,309,579 | 10,723,528 |
| (ther German portd . . . . . . . . . |  | ${ }^{2} 93983$ | . 2488 |  | 848 | 248 |
| IIolland............. | 221,884 | 2,849,878 | 2,467,769 | 1,435, 614 | 1,084,143 |  |
| Duich Wesd Indle | 7,302 | 510,952 | 519,254 | 430,376 | 37, 973 | 4,849,876 |
| Dutch Gulans | 1,400 | 373,001 | 374,461 | 303,166 | 71,295 | 4,049,876 |
| Duteh Fasi Indles | 830,839 | 451,570 | 1,987,339 | 1,287,379 |  |  |
| belglum. | 4),635 | 5,010,676 | 5,060.811 | 8,006,002 | 1,154,210 | $3,060,311$ |
| lingland. | 5,731,018 | 117,718,517 | 128,473,599 | 81,818,093 | 41,054,606 |  |
| Scailand | 63,070 | $7,168,041$ | 7,916,111 | 1,427,118 | 6,788,998 |  |
| Ireland | 4,318 | 16,135 | 113,4,3 | 82,939 | 81,164 |  |
| Glibraltar | 2,160 | 41,798 | 48,058 | 85,983 | 8,875 |  |
| Malta | 4,484 | 110,053 | 114,477 | 84,760 | 29,717 |  |
| Canada. . . . . . . . . . . . . . . . . | 17,800,737 | 691,037 | 18,231,834 | 0,422,726 | 3,900,109 |  |
| Other lritish N. A. I'ossesalons | 3,635,815 | 136,647 | 8,832,469 | ,64),605 | 3,182,857 | 168,623,083 |
| Irllish Weat Indion . . . . . . . . . . | 437,802 | 8,285,489 | 8,053,608 | 1,924,443 | 729,253 |  |
| Britali llonduras | 10,057 | 378,073 | 435,030 | 830,072 | 44,958 |  |
| 1ritish Guluna. | 1,498 | 816,871 | 818,353 | 695, 844 | 122,509 |  |
| British l'onsesslons in Africa... | 11,026 | 637,240 | 6 38,275 | 681,568 | 16,707 |  |
| Brilsh Anatralla. | 34,241 | 81,301 | 65,038 | 43,232 | 23,400 |  |
| Eritlah East Indlea | 424,408 | 10,341,909 | 10,768,214 | 10,857,413 | 408,801 |  |
| France on the Atlanilo ........ | 2,082,490 | 42,636,36-4 | 44,718,778 | 30,005,4T7 | 14,718,290 |  |
| France on the Mediterranema. . | 61,381 | 3,022,607 | 8,074,054 | 2,817,592 | 556,658 |  |
| French ${ }^{\text {N }}$ Amer. Possomalons | 205 | 94,844 | 05,049 |  | 05,049 | 48,000,853 |
| French Weat Indles. | 81,675 | 8,014 | 67,699 | 0, 0,400 | 229 |  |
| French Gulana | 30,411 | 92,892 | 53,293 | 68,308 |  |  |
| 8paln on the dilantio | 8,632 | 089,290 | 698,082 | 605,299 | 87,693 |  |
| Spaln on tho Mediterranean ... | 20,307 | 2,023,727 | 2,054,084 | 1,315,106 | 734,029 |  |
| Cinnary Islands . . . . . . . . . . . . |  | 44,005 | 44,065 | 36,808 | 7,257 | 7,432,6.56 |
| Hhillpplno Islands . . . . . . . . . | 63,217 | 8,590,540 | 8,653,763 | 9,360,425 | 293,839 | 2,070 |
| Cuba. | 1,025,190 | 44,917,011 | 45,843,101 | 43,059,585 | 2,183,510 |  |
| l'orto litco. | 10,428 | 6,788,172 | 5,743,000 | 4,898,701 | 854,899 |  |
| Portugal | 0,948 | 415,883 | 442, 836 | 90,885 | 323,451 |  |
| Madcirn. | 8 | 84,106 | 34,114 |  | 34,114 |  |
| Cape de Verd Islands .......... | 14,134 | 11,371 | 25,905 | 11,255 | 14,650 | ¢ 383,714 |
| Azorea. . . . . . . . . . . . . . . . . . . . | 89,054 | 17,205 | $50,85$. | 48,436 | 2,008 | $\int *$ |
| Sardinta. | 754 | 216,533 | 217,237 | 78,075 | 138,319 | 217,287 |
| Tusenny | 70,223 | 1,678,713 | 1,755,002 | 1,878,4)7 | 431,505 | 1,765,002 |
| Papal Stakes. | 60 | 64, 613 | 1,54,072 | 1,61,60 | 54,612 | 1,54,612 |
| Two sleltled . . . . . . . . . . . . . . . . | 51,948 | 1,624,011 | 1,675,058 | 1,167,339 | 408,623 | 1,575,053 |
| Atustria . . . . . . . . . . . . . . . . . . | 22,633 | 873,869 | 396,502 | 141,028 | 255,534 | ) 422,365 |
| Anstrian l'osseasions In Italy . . | .... | 25,893 | 25,803 | 28,777 | 3,026 | ) $\quad 42,300$ |
| Ionian Ropubilc. . . . . . . . . . . . . | .... | 11,179 | 11,179 | 11,179 |  | 11,179 |
| Greece. . . . . . . | . . . | 58,538 | 36,533 |  | 36,583 | 50,633 |
| Turkey in Europ | 2.245 | 7,160 | 7,405 | 7,304 |  | ) 731,850 |
| Turkey ln Asla . . . . . . . . . . . . . . | 2,570 | T21,855 | 784,4.45 | 077,083 | 46,408 | \} $\quad 181,800$ |
| Egypi....................... | 181.400 | 105,753 | 106,158 |  | 166,158 | 108,158 |
| Porta In Afrlea. . . . . . . . . . . . . . . | 161,933 | 1,360,730 | 1,621,665 | 1,532,197 | 19,468 | 1,581,605 |
| Haylı . . . . . . . . . . . . . . . . . . . . | 1,550,034 | 730,608 | 9,270,248 | 2,182,75 | 107,492 | 2,290,242 |
| San llemingo. . . . . . . . . . . . . . . | 1,609 | 109,285 | 109,874 | 84,375 | 78,499 | 103,874 |
| Mexico . . . . . . . . . . . . . . . . . | 6,021,831 | 064,560 | 6,985,857 | 3,701,317 | 2,284,540 | 5,085,857 |
| Central liepublic. . . . . . . . . . . . . | 111,037 | 178,423 | 288,060 | 813,688 | 74,178 | 238,060 |
| New Granada. . . . . . . . . . . . . . . | 413,032 | 2,054,237 | $2.468,169$ | 2,423,515 | 44,654 | 2,468, 169 |
| Venczuela. | 1,128,650 | 9,731,068 | 3,300,518 | 9,149,744 | 710,774 | 8,860, 518 |
|  | 18,030,789 | 3,487,975 | 21,400,783 | 19,390,149 | 2,140,584 | 91,400,783 |
| Urugany, or Claplatine Repub. . |  | - 863,297 | 8888,2.)7 | 314,530 $9725 ; 100$ | 63,787 | 868,897 |
| Bugnod Ayres, or Argenline Rep. | 11,048 | 8,773,485 | 8,784,478 | 2,725,100 | 63,304 | 2,784,478 |
| Chill . . . . . . . . . . . . . . . . . . . . . . | 1,305,457 | 2,376,982 | 8,749,439 | 8,096,733 | 645,700 | 8,742,439 |
| Peru... | 107,188 | 101.091 | 208,747 | 177,809 | 30,945 | 908,747 |
| Pcundor. ${ }^{\text {P }}$, .................. | 15,700 |  | 16,803 | 15,808 |  | 15,803 |
| Sandwieli Islands | 67,200 | 187,916 | 904,416 | 100,415 | 14,001 | 204,416 |
| China. . . . . . . . . | 5,628,835 | 2,728,087 | 8,350,032 | 7,805,080 | 491,852 | 8,856,982 |
| Other ports in Asia |  | 5,600 | 5,660 |  | 6,660 | 5,660 |
| Whalc-fisheries . . .i........... | 80,225 | 20,061 | 107,188 | 90,581 | 10,685 | 107,186 |
| Itimends in the Perific........... | .... | 743 | 148 | 748 | 10,825 | 148 |
| 'Cotnl, 1856-57. . . . . . | \$(66,78),306 | \$294, 160,835 | \$360,890,141 | \$253,116,170 | \$101,773,971 | \$360, 890,141 |
| Total, 1856-'53. . . . . . | 66,955,706 | 257,684,930 | 314,639,942 | 249,972,518 | 64,667,430 | 314,630,042 |

From the above tablo wo get a clear exhibit of the direction of our foreign trado as regarda tise imports; making a brief anmmary, we see the proportion borne by the following countrios during the year 1856-'07:


This summary shows that 80 per cent. of the total imports for 1856-'57 was to countrica from which wa imported over 2 per cent. Of the tolal of this 80 per cent. 51 per cent. (ogainst 65 per cent. of oxporta) came from countries on the weat coast of Europe, thereby ahowing a balance of trade in our favor in our commerce with these countries. A aimilar examination of our trade with the East Indlea and countriea in the south of Europe would show a balance of trade agaiost thia cuuntry. The same course of trade is also particulerly to be remarked in regard to Cuha, Brazil, and China; as these three countriea ahow, on an average, an aggregate balance of trade against the United Statea of over fifty militions of dollers.

 notil incluelve.

Valuts of Importe into the Unitrd Stathe feom-

| Yenra. | Groal Britela and Depenileneles. | France mand Dopondancies. | $\begin{gathered} \text { Spala } \\ \text { mad } \\ \text { Dependencies } \end{gathered}$ | Nebherlande and Iberendencies. | $\begin{gathered} \text { aweden } \\ \text { mpd } \\ \text { Dependeneies. } \end{gathered}$ | Denniepk mond Hogrendenelas. | Portugnl nnd Dependmpeios. | Chtpa. | Hanme Tawne. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18 | \$2 1,277,088 | \$ $5,110.1,081$ | 80,656, 788 | \$9,931,272 | \$1, 160.1809 | \$1, 1.418 .731 | \$748,423 | 43,111, 401 | \$0901, 16 |
| 1838. | 39,637, 820 | $7,009,349$ | 12,370,54 | 8,714,169 | 1,544,907 | 2,545,406 | 881,990 | 6. 249,636 | 1,778,7:0 |
| 1828. | 34,1179,578 | 6,605, 348 | 14,293, 5 HI | 9,125,697 | 1,609,0151 | 1,394,538 | 688,685 | 6,611,425 | 1,081,020 |
| 1824 | 31,750,940 | 9,407,412 | 15,807,007 | 9,365, 6225 | 1,101,750 | 8,110,604 | O11, 759 | 5,618,618 | 8.527,830 |
| 1885 | 43,334,819 | 11,335,681 | 9,5136,237 | 9,265,178 | 1,417,198 | 1,539,512 | 788,443 | 7,538, 115 | 9,739,620 |
| 1820. | 89,212,453 | 10,688,834 | 9,623,420 | 2,174,131 | 1,938,18.3 | 8,117,104 | 765,203 | 7,489, 186 | 8,810,1540 |
| 1877. | $8.1,458,374$ | 9,443, 0582 | 8, 1/0, 361 | 1,792,950 | 1,925, 1143 | 9,340, 171 | 651, 101 | $8,617,183$ | 1,098,868 |
| 1828. | 08,511,484 | 10,287,5 65 | 8,167,540 | 1,991, 411 | 1, $0.46,783$ | 2, 374,0106 | 488,005 | $5,339,142$ | 2,641,392 |
| 188.1 | 27,089,032 | 0,1116,476 | 6, 301,374 | 1,617,3.34 | 1, 304140 | 2,048,177 | 697,869 | 4,640,847 | 8,274,275 |
| 1830 | 26,804,984 | A,241,935 | 8,373,681 | 1,356,765 | 1,398,649 | 1,671,218 | 471,643 | 8,h78,141 | 1,274,278 |
| 1881. | 47,953,717 | 14,737,085 | 11,711,201 | 1,651,081 | 1,120,73.1 | 1,658, 210 | 397,800 | 8,083,9116 | 3,493,801 |
| 1832. | 41,4 1 ,, $9 \times 4$ | 12, 754,015 | 10,843,290 | 8,5b9,474 | 1,100,814 | 1,188,708 | 4*5,904 | 6, 844, 1975 | 8,965,096 |
| 1839. | 43,463, 505 | 13, 2689418 | 18, 31.207 | 8,847,341 | 1,200, 819 | 1,106,872 | 800, 117 | T,641,570 | 2,297,720 |
| 1834. | 51, 679,2988 | 17,0, 7,944 | 18,527,4 4 | 9,187, 683 | 1,184,541 | 1,684,369 | $6.10,182$ | 7,8 2, 327 | 3.8FA,850 |
| 1835. |  | 88,312,584 | 15,617,14* | 9,8u8,718 | 1,316,6018 | 1,415,008 | 1,125, 713 | 5,187,187 | 9,941,1143 |
| 1836 | 80,029,915 | 37,033, 985 | 19,345,6 W | $8,801,514$ | 1,919,603 | 1,574,841) | 678,970 | T,424, 16 | 4,094,880 |
| 1837 | 5!,98 4,557 | 29,497,817 | 18,92T,871 | 8,870,828 | 1,468,8is | 1,266, $1 / \mathrm{ml}$ | H28,991 | 8, 1165,887 | 5,642,221 |
| 1839. | 43,051, 181 | 18, 1887,149 | 15,171,394 | 9,1!4,239 | 100.791 | 1,644, 86 | 125,069 | 4,764, 584 | 9,947,868 |
| 1839 | 71,601, 351 | 33,234,110 | 11,270,7,15 | 8,413,220 | 1, $5601,14!$ | 1,046,758 | 1,182,828 | 8,678,5in | 4,847,150 |
| 1840 | (39,130,021 | 17, $0,18,187$ | 14, 111,447 | 2,896,594 | 1,975,454 | 976,078 | 680,484 | 6, $\mathbf{4}^{\prime}$, 8, 24. | 2,621,493 |
| 1841. | 61,099, 838. | 24,187, 444 | 16,314,313 | 8,4 40,417 | 1,290,641 | 1,094,891 | 574,841 | 3,906,398 | 2,443, 104 |
| 1849. | 34,618,043 | 17, 298, 304 | 12,1711,4,98 | 8,2114,520 | 014,170 | 684,391 | 317,684 | 4,084,645 | 2,274,010 |
| 1443. | 28,478,582 | 7,836,187 | 6,181,514 | 815,541 | 978,674 | 485,985 | 71,36' | 4,385,680 | 190,865 |
| 184 | $45,459,129$ | 17,083,418 | 13,7i6, 451 | 9,136,396 | 44, 42.12 | 680,611 | 257, 1115 | 4,981,255 | $\frac{9,188,386}{}$ |
| 154 | 41, 1003,725 | 22, 1060, 914 | 10, 610,544 | 1,697,493 | 640, 0107 | 738,939 | 501,734 | 7,285, 1114 | 2,919,637 |
| 1841. | 49,068,422 | 24,330, 893 | 14,370,433 | 1,971,630 | 730,150 | 788,!27 | 6-47,474 | 6,5 8,881 | $8,141,864$ |
| 1847. | 72,715,311 | 85, 101,417 | 16,881,175 | 8,480,684 | 618,098 | 84T, 298 | 416,1810 | $5,583,34.1$ | 3,522,185 |
| 12 | 63,9.6, 979 | 28,987,791 | 17,889, 307 | 2,176,166 | 704, 012 | 655,855 | 285,877 | $8,1183,410$ | 6,293,280 |
| 1849 | 67,387,983 | 24,453,1069 | 15,111, 097 | 9,307,651 | 757,828 | 358,845 | 414,894 | $5,518,7 \times 6$ | 7,742,864 |
| 185 | 85, 117,507 | 27,636, 205 | 15,964,i49 | 9,739,60 | 1,086,311 | 907,986 | 470,820 | 6,508,439 | 8,787,974 |
| 1851. | 105,823, 1771 | 81,76T, 410 | 92,972,291 | 8,124, $\mathrm{m}_{4} 7$ | 1306.938 | 974,781 | 504,608 | 7,065,144 | 10,008,364 |
| 1859. | 116, 716,830 | 25, 169,439 | 94,223,983 | 8,991, 564 | 779,731 | 203,3r6 | 404,844 | 10, 543,4150 | $8,171,411$ |
| 1853. | 143,210,200 | 3.3,523,199 | 26,081, 820 | 9,549,61! | 454,2018 | 184,47 | 540,698 | 10,578, 710 | 18, $5.3,455$ |
| 1854. | 168,013,0 5 | 35,972,096 | 25,401,339 | -876, 7143 | 587, 769 | 994,141 | 804,169 | 10,606,329 | 10, 66, 998 |
| 195\%. | 122, 374,434 | 81,411,465 | 98,417,445 | $8,513,441$ | 881, 49 | 227,0 4 | 430,411 | 11,048,720 | 12, $0: 0,110$ |
| 1850 | 104.1151,740 | 47,24,4, 18 | 89,482, 710 | $4,615,416$ | 831.437 | 286,103 | 766,944 | 11,454,490 | 14,458,412 |
| 155 T. | $1183,524,028$ | 18, 6000,853 | $57,439,545$ | 4,841,876 | 766,894 | 255,308 | 638,714 | 8,806,632 | 15,971,184 |

VAhete of Imionts into the United States faom-

| Years. | Rusala. | Italy $\dagger$ ¢ | Hayd. | Braxil. | Mexico. | Venezuela, N. Arabade, and E.cuadiow. | Central America. | Argentios Repablle end Trapoey. | ckili. | Iteigiom. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1821. | \$1,854,103 | \$173,463 | 82,940,257 | \$460, 126 | * . | $\ldots$ | ... | .... | ... |  |
| 1842. | 8,307, 387 | 1,542, 1138 | 9,941, 117 | 1,430,567 |  |  |  |  |  |  |
| 1893. | 2,258,777 | [1,311,440 | 2,352, 733 | 1,814,810 |  |  |  |  |  |  |
| 1824. | 2,209,663 | (1,023,437 | 2,447,235 | $9.074,11$ |  |  |  |  |  |  |
| 1885. | 8,037,110 | 1, 4 5 4,1622 | 2,065,323 | 2,108,70T | \$4,044,647 | \$1,987,050 | \$50,780 | \$249,771 | \$245, \%ra |  |
| 1826 | 2,017, 159 | 1,120,749 | 1,511,836 | 9,156,6Ts | 8,916, 18 | 2, 4 Ma, 784 | 204,2711 | big , 689 | 623,948 |  |
| 1827 | 2,086,077 | 1,013,126 | 1,751,30.1 | $8,000,1771$ | 5,231,807 | 1, $5 \times 0,244$ | 251,342 | N0,006 | 184,60.6 |  |
| 1898. | 2,783,362 | 1,607,417 | 2,163,545 | 8,0.17, 722 | 4,414,258 | 1,484,850 | 244.730 | 817,466 | 781, 863 |  |
| 189. | 9,918,495 | 1,400,058 | 1,7.9,909 | 8,635,467 | 6,026,761 | 1,255, 310 | 311,931 | 915, 110 | 410.118 |  |
| 1533. | 1,021,899 | 940,25: | 1,69T, 140 | 2,411,4 401 | 6,285, 241 | 1,190, 4.46 | 3122,83:1 | 1,433,883 | 189, fas ${ }^{1}$ |  |
| 1831. | 1,6193,344 | $1,704,264$ | 1,5*0,578 | 2,875, 889 | $6,166,745$ | 1,217,154 | 1105, 614 | 1298,103 | 413,758 |  |
| 1832. | 3,451,453 | 1,611,746 | 8,059,816 | 3, 5.10,8.45 | 4, 2083,954 | 1,432,182 | 848,310 | 1,060, 171 | 5046883 |  |
| 1833. | 2,TI2,650 | 493, 134 | 1,740,05 | 5,099,613 | $5,402,418$ | 1,424,642 | 267,740 | 1,37T, 117 | 3344,130 | \$139,698 |
| 1834. | 9,505, 84, | 1,489,063 | 2,118,717 | 4,78],969 | $8,4063,1088$ | 1,727,188 | 170,1468 | 1,440,118 | 787,408 | 185,679 |
| 1935. | 9,395, 245 | 1,4)T,'け7\% | 2,347,656 | $5,574,460$ | 9,4,0,440 | 1,1002,764 | 915, 450 | 878,018 | 917,0.8 | 341,5.67 |
| 1336. | 9,778, 254 | 1,970,240 | 1,82*, 111 | 7,210, 10, | 5, 415,811 | 1,1986, 0001 | 116,514 | 1, 063,513 | 811.497 | $4{ }^{215}$ |
| 1837 | 2,810,116 | 1,927, 181 |  | 4,691,8.88 | 5, 034,402 | 1,507,245 | 163, 4123 | 1, 1000,002 | 1,181,1506 | 54], (106) |
| 18. | 1, $098,3+6$ | 944,23v | 1,975,768 | 8,16.1,884 | 3, 2 (4), $7 \times 1$ | 1,016,249 | 165, 1114 | 1, $0230,5: 5$ | 9.34,095 | 2:4,928 |
| 183 | 2.398, 8.14 | 1,152,2.17 | 1,877,049 | 5,212,965 | 3,127,153 | 2,1173,210 | $102,4.45$ | $1,160,040$ | 1,184,641 |  |
| 184 | $2.572,487$ | 1,157,2100 | 1,252,884 | 4,427,2,0 | $4,175,1611$ | 1,578,649 | 180,041 | 757, 464 | 1,610,859 | 974.807 |
| 1841 | 2,817,443 | $1,1021,230$ | 1,809,044 | 6,309,068 | 3,284,017 | $2.156,181$ | 196,011 | 1,957,747 | 1,230,4180 | 374.403 |
| 1841. | 1,360,106 | 2n7,523 | 1,946,997 | 5,1148,814 | 1,1050,698 | 1,720,608 | 124,914 | 2, 417,541 | 841, thes | 619,589 |
| 1843. | 742,819 | 334.504 | 895,441 | 8,947,65* | 9,182,46 | 1,307, 1313 | 132, 167 | 115,241 | 857,056 | 171,645 |
| 1844. | 1,101,419 | 1,010,920 | 1,441,244 | 6,883, 816 | 2,387, 10 Mg | 1,1226,006 | 189.4116 | 1, bib, 165 | $7 \mathrm{Fan}^{3} 378$ | 6:4, 175 |
| 184 | 1,492,202 | (2, 17: 2 47 | 1,836,307 | 6,084,692 | 1,712, 096 | 1,440,1:6 | 65, 409 | 1,771,271 | 1,124, d! ${ }^{\text {a }}$ | 70.508 |
| IS45. | 1,570,4054 | $2,0 \checkmark 2,740$ | 1,511, 902 | 7,441, 518 | 1,454,621 | 1,576,1149, | 116,733 | 625,685 | 1,275, 204 | 510,362 |
| 1947. | 024,673 | 2,014, 2585 | 1,391,590 | 7,096,100 | T40,818 | 1,479,150 | 80, $5 \times 1$ | 854 , (13) | 1,710,003 | 915,325 |
| 184. | 1,313,148 | 2,234,123 | 1,307,174 | 7,992,648 | 1,8*1,247 | 1,438, 1007 | 15,974 | 1,04, 151 | 1, 310,451 | 1,326, 166 i |
| 18.99. | H4),243 | 2,123,473 | 901.784 | 8,4 4 4, 864 | 2,216,719 | 1,1178,600 | (6, 1117 | 1,78,, 751 | 1,817,74.3 | 1,444, $2 \times 3$ |
| 1590. | 1,b11.578 | 2,987,911 | 1,544.771 | $0,824,423$ | 2,135,366 | 2,012,23. | 901,409 | 2,053,877 | 1,790,477 | $2,414,04$ |
| I851. | 1,302, $1 \times 3$ | 2,940,623 | 1,681,969 | 11,525,304 | 1,904, $77!$ | 8, 152, 518 | 14, 856 | 8,9*4,406 | 2,734,74c | 2,377, 630 |
| 1452. | 1,581,62.1 | 2,920,036 | 1,970,672 | 12,231,281 | 1,649,206 | 2,572,301 |  | 2,141,289 | $2, \mathrm{Ml2}, \mathrm{~J} 50$ | 2,14,4,043 |
| 1253 | 1,475,601 | 2,845, 265 | 1,645,024 | $14,517,161$ | 9,107,1165 | 3,169,308 | 5.10,037 | 2,454, 021 | 2, 214, 202 | 2,703, 368 |
| 1851. | 1,541,935 | 3,169,121 | 2,357,258 | 14,110,3V7 | 3,403,190 | 4,602,703 | 2,360, 129 | 2,0 9,180 | 3,933,167 | $3,462,8+1$ |
| 1505 | 8.16,118 ${ }^{\circ}$ | 3,700,4 ${ }^{\text {a }}$ | 2,615, 0251 | 10,218,935 | 8,982,830 | 5,49: 0109 | 984, 403 | 3,747, 896 | 3,518,406 | 3, $3.8,690$ |
| 1580 | 330.801 | 8,441,570. | 1,2154.4P0 | 19,262,657 | 3,505 8,631 | 6,012,015 | 243, ita | 9,498,107 | 9, 407, 9 H | 3, 160,511 |
| 185 | $1,519,420$ | $3,002,914$ | 2,4 40,116 | $[21,461,733]$ | 5, 135,1857 | $6,844,4.0$ | 288,060 | 8,150,770 | 3,742, 420 | 2,060, 211 |

*The figires for 1865 are the sagregate of those givon in "Commerce and Navigatlon" for Itusala on the Ihatic ant North

† Italy, nubsequenty to 1446 , is male to embrace all the liallan stales-siclly, \&ardinia, Tuscany, Trioste, etc.; butafter 1855, It embrace Sardlula, Tuscmoy, I'apal nteten, anil Two slelloe, only.
 gublie), which weas embodiod la former reporta under the magle title, Itayli.

From these tables it appears that the principai in- Towns. The South American states that show an increase in the countrien of Europe was in Greal Britain aud its dependenciea, France and its dependencies, Towns. The South American states that show an inThe countrics in the north of Eurupe generaily show a Spain and its dependeneiea, Belgiun and the Ilanse decrease.

 thi hty-biven congecutivn leabe, from ly21 to 185\%, Hotil inolugive.

Values of Exforfa flom the Unithd Statem to-

| Y ${ }_{\text {arars. }}$ | $\begin{array}{\|c\|} \hline \text { Greal Eritain } \\ \text { and } \\ \text { Dopandancien } \end{array}$ | Yrance and Depondanciow. | Spain and Dejendenclas. | Notherlaode and Dapen dapelam. | Ewadon and Dapeadenelas. | Denmark and Dependunelen. | Portugal and Dependennien, | Chlna. | Hauca Towan, |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$20,522, 578 | \$6,474,713 | \$7,20,, 976 | \$0, 1408,061 | \$77\%,407 | \$2, 327,8*2 | \$435,700 | \$4,929,540 | \$2,182,544 |
| 1822. | 31, 1411,337 | 7,1075, 832 | 8,438,212 | 0,801,334 | 991,434 | 9,414,046 | 427,4'11 | 5,935,368 | 2, 600,015 |
| 1823. | 97,571,000 | 9,508, 024 | 10, 403, 109 | T,761,076 | 508,901 | 1,006,071 | 246,648 | $4,096,1161$ | 3, 113, 4898 |
| 1324. | 28,027,845 | 10,502,304 | 15,307,978 | 3,617,389 | A09,428 | \%,188,209 | 518,836 | 6,311,171 | 1,248,278 |
| 1825. | 44,217,525 | 11,881,324 | 5,921,04) | 5,805,409 | 509,650 | 8,701,038 | 418,160 | 5,570,615 | 3,121,093 |
| 1820. | 28,080,410 | 12, 106,429 | 4,087,061 | 4,704,070 | 359,380 | 2,414,875 | 318,658 | 9,566,644 | $2,116,695$ |
| 18:27. | 89,870,405 | 13,665,350 | 7,221,1001 | 8,826,674 | 850,377 | 9,414,8.29 | 357,270 | 8,864,405 | 0,113,156 |
| 18.8. | 27,020,209 | 12,0, 3,812 | 7,204,627 | 3,488, 35' ${ }^{\text {, }}$ | 1,106, 1054 | 8,848,167 | 201,614 | 1,492,809 | 8,095,2b1 |
| 189:\%. | 28,071,084 | 12,932,314 | 0,383,094 | 4, 022,180 | 957,048 | 9,311,174 | 324,911 | 1,854,802 | 8,277,160 |
| 1830. | 31,447, 881 | 11,806,238 | 6,049,051 | 4, 5628,497 | 961,729 | 9,014, 085 | 274,749 | T48, 1918 | 9,274,880 |
| 1831. | 89,901,37 | 1,882,679 | 5,661,480 | 3,0a6,609 | 540,078 | 2,000,708 | 206,383 | 1,290,885 | 2,5,2,172 |
| 1834. | 87,208,006 | 13,244,698 | 6,4109, 183 | 6,035,463 | 515, 140 | 9,207,651 | 204,213 | 1,260,522 | 4,188,812 |
| 1839. | 30,881,488 | 14,424,538 | 0,606, 041 | 3,566,361 | 420,600 | 1,832, 884 | 442,601 | 1,438,750 | $2,948,206$ |
| 1834. | 50,707,040 | 10,111,418 | $6,2.8,850$ | 4,578,739 | 494,741 | 1,857,114 | 328,403 | 1,011,483 | $4,052,874$ |
| 1835. | 60, 107,134 | 20,938, 0160 | 7, 1410,279 | 4,411,1103 | 602, 603 | 1,780,410 | 521,418 | 1,868,5>11 | B,028,270 |
| 18.36 | 64,487,500 | 21,441, 200 | 8,081,068 | 4,709,167 | T1M, 388 | 9,198,400 | 191,007 | 1,194,204 | $4,8058,882$ |
| $18: 37$ | 61,218,813 | 20,255,344 | 7,014, 002 | 4,285,767 | 507,523 | 1,640,173 | 493,706 | 6814, 021 | 3,754, 0440 |
| 1838. | $58,844,382$ | 13, 4022,413 | 7,084,004 | 3,772,200 | 355,85y | 1,999,927 | 232,131 | 1, 516,942 | 8,201,645 |
| 1939. | 08, 16, $0,03^{2}$ | 18, 924,418 | 7,724,420 | 2,871,239 | 476, 014 | 1,406,840 | 244, 354 | 1,638,001 | 2,801,067 |
| 1841 | 70,420,646 | 22,340,154 | 7,017,1147 | 4, $6-46,085$ | 602,648 | 1,108,500 | 821,256 | 1,1063,466 | 4,198,450 |
| 1841. | 62,376,418 | 29,235,575 | 7,181,414 | 3,288,741 | 771,210 | 087,283 | 340,113 | 1,200,810 | $4,600,716$ |
| 1842. | 52,306, ${ }^{5} 50$ | 18,788,860 | 6,328,205 | 4,970,776 | 477,965 | 1,047,673 | 302,964 | 1,444,397 | 4,564,518 |
| 1843. | 46,901, | 12,472,453 | 8,963,604 | 9,870,894 | 67,762 | 897, 805 | 168.634 | 2,418,058 | 3,2,11,082 |
| 184 | 61,721,870 | 16,133,430 | 6,761,811 | 8,459,395 | 905,345 | 083,156 | 252,170 | 1,756, 41 | 3,660,087 |
| 184 | 01,044,585 | 16,143,024 | 7,791,442 | B,610,602 | 363,007 | 1,130,536 | 24T, 180 | 9,275,995 | 4, ${ }^{1} 45,420$ |
| 18413. | 61,685, 418 | 15,825,451 | 6,702,228 | 2,797,445 | 730,150 | 753,027 | 204, 1776 | 1,331,T41 | 4,018,620 |
| 1847 | 98,913,157 | 19,810,107 | 9,039,424 | 2,403,271 | 588,808 | 1,198,198 | 263.571 | 1884,884 | 4,384,638 |
| 1849. | 91,594,904 | 20,413,1460 | 10,143,235 | 2,504,653 | 745,112 | 1,135,756 | 845,726 | 2, 190,013 | 4,321,735 |
| 1849. | 08,172,839 | 15,781,585 | 7,870,670 | 8,203,47! | 85., 362 | 836,484 | 877, 136 | 1,683,424 | 3,314,030 |
| 185 | 88,488,475 | $20,183,0,44$ | 0,931,840 | 3,571, 6107 | 819,532 | 1,168,598 | 387, 2 : 8 | 1,015,217 | 6,200,622 |
| 1851. | 186,082,774 | $28,4885,214$ | 18,240, 1156 | 1,039, 8.9, | 888,248 | 1,140,086 | 855, 301 | 2,45n,287 | 6,147,447 |
| 1852. | 134, 254, 951 | 24,512,114 | 11,170,153 | 8,230,380 | 8001063 | 1,046,788 | 416,833 | $2,068,17^{7}$ | 6,876,467 |
| 185.3 | 145,053,624 | 97, 044,470 | 11,947, 101 | 2,979, 352 | 894,483 | 1,1157,544 | 417,927 | 3,730,912 | $8,1020,1153$ |
| 1854. | 181,997,258 | 82, 810,841 | 14,832,310 | 3,083, 210 | 1,187, 607 | 1,074.807 | 241,278 | 1,398,088 | 12,030,258 |
| 185) | 178,789,640 | 33,553,179 | 14, 311,974 | 9,953,669 | 1,147,057 | 968,135 | 423,627 | 1,7111,42:31 | 10,163,851 |
| 1853. | 304,126,080 | 43,307,584 | 10,68?, 108 | 4,448,082 | 1,981, 036 | 1,131,016 | 416,944 | 2, 025,287 | 14,234, 811 |
| 1857 | 422,706,358 | 89,326,450 | 27, 889, 5018 | b,077,020 | 1,430,350 | 1,751,224 | 1,338,550 | 4,395,180 | 15,208,465 |

Valueg of Imponts into tag Unitbid Stateg from-

|  | Rumaja. | ltaly. $\dagger$ | Hayth. | Braxil. | Mexico. | Vnnesuale, N. Greanda, and Ecuador. | Cendral America. | Argentine Re- pobllo nad Truğuay. | Chill. | Belg ${ }^{\text {amm. }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $1 \times 21$ | \$4088,894 | \$1, $0.11,667$ | 49,270,601 | 11,481,760 |  |  |  |  |  |  |
| 1829. | 62 0,081 | 1,450,184 | 2, 119,811 | 1,403, 48.9 |  |  |  |  |  |  |
| 1823. | 648,734 | 1,007,00 | 2,378,789 | 1,341,3,90 |  |  |  |  |  |  |
| 1924. | 981,981 | 604,348 | 2,365,155 | 2,301, 904 |  |  |  |  |  |  |
| 1885. | 287,411 | 645,03, | 2,054,615 | 9,393,754 | \$ $6,470,144$ | \$2,239,250 | \$99,522 | \$573,520 | \$921,438 |  |
| 1384. | 174,648 | 591, 21021 | 1,414,4'4 | 9,9(1), 340 | 6,231,050 | 1,9152,072 | 119,774 | 379,840 | 1,447,498 |  |
| 1897 | 382, $2+4$ | 610,221 | 1,331,170 | 1,803,806 | 4,173,267 | 9+4,584 | 224,772 | 151,904 | 1,768,001 |  |
| 1898. | 451,415 | 920,751 | -, 382, 711 | 1,089,705 | 2,886,484 | 884, 524 | 153,272 | 154,228 | 9,620,4012 |  |
| 1829. | 380, 246 | 901,012, | 975,168 | $1,929,927$ | 8,381, 151 | 767,348 | 239,854 | 620,059 | 1,481,134 |  |
| 1889. | 416,575 | 740,360 | 823,17s | 1,843,288 | 4, 337,468 | 490,900 | 250,118 | 629,887 | 1,636,114 |  |
| 1881. | 419,768 | 694,624 | 1,818,875 | 9,176, 045 | 0,178,218 | 658, 149 | 800,497 | 059,770 | 1,309,155 |  |
| 1893. | 689,692 | 687,503 | 1,069,008 | 9,0*)-4, 794 | 3,467,541 | 1,117,024 | 881,807 | 026,365 | 1,221,110 |  |
| 1933 | 703,805 | 872,150 | 1,427,963 | 3,272, 101 | 5,408, 0.01 | 057, 548 | 575,016 | 699,728 | 1,408,940 | \$1,005,011 |
| 1384 | 330,604 | 498,657 | 1,436,062 | 2,050, 351 | 5,205,058 | 795,567 | 184,149 | 971,887 | 1,476,350 | 1,458,642 |
| 1835. | 585,447 | 255,041 | 1,815, 12 | 2,002,650 | 9,020,221 | 1,004,016 | 189,748 | 708,913 | 941, 684 | 749,222 |
| 1881. | 911,013 | 364, 0519 | 1,240,089 | $3,094,1336$ | 6,041,686 | 820, 2 bD | 189,51S | 884,083 | 087.912 | 2,284,060 |
| 1897 | 1,306,738 | 023, $\mathrm{iT7}$ | 1,011,081 | 1,743,218 | 3,880,328 | 1,080, 100 | 157,048 | 978,878 | 1,487,799 | 1,110,587 |
| 1833. | $1,048,289$ | 450,408 | , 010,265 | 2,057, 104 | 2,164,1007 | 724,789 | 243,040 | 290,994 | 1,370,264 | 1,014,051 |
| 1383 | 1,239,246 | 438, ${ }^{\text {a }}$ | 1,122, \%00 | 2,387,455 | 9,187,302 | 750,785 | 916,941 | 485,303 | 1,704,503 | 6 647,010 |
| 18411 | 1,10:,481 | 1,473,100 | 1,027,214 | 2,616,574 | 2,515,341 | 019,128 | 817.048 | 510,000 | 1,729,889 | 2,320, 0555 |
| 1541 | 1,025,729 | 912,318 | 1,105,057 | 9,517,878 | 2, 183, 620 | 872,987 | 140,013 | 818,170 | 1,102,089 | 1,823,882 |
| 18.4 | 888,5.13 | 820, 017 | 309,066 | 2,601,509 | 1,584,248 | 769,086 | 69,4*0 | 681,288 | 1,030,670 | 1,610,684 |
| 1843. | 346,703 | 728,221 | 653,370 | 1,74,2,288 | 1,4i1,037 | 745,45\% | 52,004 | 657,234 | 1,049,403 | 1,170,709 |
| 184 | 605,414 | 571,823 | 1,128,358 | 2,818,258 | 1,794,888 | 656,178 | 156,970 | 960,405 | 1,105,241 | 2,003,801 |
| 1845. | T27,337 | 1,41!, 010 | 1,416,740 | 9,8317,050 | 1,152,331 | 304,107 | 67, 64, | 604, 142 | 1,548,191 | 1,851,078 |
| 1841 . | 6.32,467 | 2,209,1006 | 1,157,148 | 7,441,813 | 1,531,180 | 1,076,497 | 120,858 | 411,329 | 1,748,576 | 2,381,814 |
| 1847. | 750,453) | 3,109,297 | 1,2.15,773 | 9,943,778 | 692,493 | 710,027 | 90,608 | 412, 828 | 1,071,616 | 3,242,557 |
| 1848. | 1,156,010 | 3,295,821 | $1,0: 33,815$ | 8,372,434 | 4,058,436 | 887,681 | 00,378 | 617,650 | $1,924,511$ 2,617 1 | 2,189,935 |
| 1947. | 1,185, ${ }^{1} 14$ | $3,463,3 \leq 7]$ | 602,512 | 3,102,975 | 2,0\%0,888 | 885,418 $8,309,614$ | 186,219 70,109 | 915,891 $1,120,184$ | 2,017,100 | $2,731,307$ $2,543,700$ |
| 1850 | 864,941 | 3,653, 7197 | 1,350, 188 | 3,19T,114 | $2,012,827$ $1,551,753$ | 2,30,, 614 $4,085,946$ | 70,109 $209,3.1$ | 1,120,184 | 1,499,721 | $2,543,760$ $9,802,012$ |
| 1551 | 1,611,691 | 4,740, 1832 | 1,847,290 | $3,769,010$ $3,021,042$ | 1,551,753, | $4,085,547$ $2,369,207$ | 202, 3.11 | $1,129,656$ 002,106 | $1,395,305$ $2,389,13$ | $9,852,012$ $4,203,770$ |
| 1582. | $1,200,480$ $9,456,453$ | $5,408,344$ $19,744,149$ | $1,718,008$ $1,908,933$ | 3,021,042 | $2,28,1,083$ $3,658,824$ | $2,369,207$ 700,997 | 473,518 346,580 | 092,196 $1,180,918$ | $2,389,133$ <br> $8,396,43$ | $4,203,710$ $3,208,593$ |
| 1854. | 480,616 | 4,154,618 | 2,204, 2.25 | 4,230,241 | 3,135,456 | 2,138,18' | 308, 584 | 1,274,682 | 9, 103,25? | 5,016,894 |
| $145 \%$ | 123,4ts* | 3,1 24,899 | \$2,245,052 | $4,261,273$ | $2,029,804$ | 2,351,586 | 1,202,170 | 1,301,599 | 3,493,257 | 3,927,240 |
| 1-50 | 686,40\% | 3,046,72p | 8,206, 480 | 6,094,004 | 3,702,239 | 3,353,006 | 306,021 | 1,811,108 | 2,867,743 | 6,000,628 |
| 1857 | 4,729,881 | 4,625,788 | 2,754,628 | $5,645,207$ | 3,615,206 | 3,502,443 | 187,021 | 2,31!,979 | 2,107,185 | 5,644,326 |

- The figurea for 1355 are the aggregate of thave givoa in "Commerce and Navigatlon" for Rusala on the Ballic and Nortly Seas, on the Black Sea, and In Amorlcan and Aslath kifsla, all cmbraced In prior reporbs inder the alaglo titlo Ruasla.
$t$ Italy, subsequently to 1844, is mado to embrace all the Itallan sistes-siclly, Bardlala, Tuscany, Tricste, ete; but after $185 \%$ It embraces sardlaia, Tuacany, I'apal Stoles, and Two Slelllew, only,
$\ddagger$ llaytl after 1855 embricea the tolala given la "Commerce and Navigatlon" for llayt and San Domlago (Dominican Republic), whleh were cmbodied in former reporta under the sliggle title liayt.

The following tables exhibit in a condensed manner exports and imports of specie, and the tonnage cieared the gross exports and imports from the United States from the United States each year from 1821 to 1857, each year from 1790 to 1821 , inclusivo; also the gross inclusive. The merveloua growth of the foreign trade exports, domestic and forelgn, the gross imports, the of this country can not be more clearly shown.


| Years endian Sept． | Exporta， |  |  |  | Yespe －adlis He；it． 30. | Kipents． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dhaneatie Proaluee． | Voreiga Merehandien． | Total． | Total． |  | Produ | Noruisn Mefohandiae． | Total． | atal． |
| 1790. | 4 t！ | \＄b39， | 4＊9，406， 1501 | ＊ $23,0011,000$ | 18 Nb | \＄41，253，787 | －1， |  |  |
| 1701 | 18，0 m，（0M0 | 512，14．1 | 19，119，141 | 241，900，4010 | 18177 | 44， 0.0 .5 | 61，647，604 | 108，343，16．1 | 12N，5m， 060 |
| 1798. | 19，000，090） | 1，753，0：8 | 40，753，168 | 81，000，000 | 1808 | 11，443，546 |  | 22，430，900 |  |
| 1798. | 24，00 1，001 | 2，101，679 | 20，141，579 | $81.100,000$ | 18：19． | 81，405，719 | 80，797， 831 | 5 $3,2441424,24$ | 5），400，0：10 |
| 174 | 26，500， 000 | 6，524，933 | 83， 028,983 | 34，610，00n | 1810 | 42，3041，676 | 94，391，905 | 04，757，970 | E5，4012，0010 |
| 1705 | 30，500，00： | 8，43． 4,479 | 47，48．1，479 | 09，750，228 | 1811 | \＄5，294，043 | 16，022， 7 （N） | 61，810，888 | 54，40，0，010 |
| 179 | $40,740,9.71$ | 98，800，000 | A7，04， 0107 | $81,4: 16,104$ | 1812 | 70，0：12， 103 | $8,405,187$ | 08，097，986 | 77，040，000 |
| 17 | 90， 800,908 | 97，000，000 | 601，450，900 | 75， 070,416 | 1318 | 25，004，148 | 9，N47，84， | 27，865； 97 |  |
| 1 Tas | 28，537，094 | $83,000,000$ | 61，627，017 | 69，501，714） | 1814 | 6，782， 279 | 145， 160 | 6，${ }^{1} 7,441$ |  |
| 17 | 33，149，582 | 45，593，000 | 78， 365,522 | 74， 0648,143 | 1815 | 45，974，408 | 6，683，350 | 69，657，753 | 118，041， 274 |
| 1800 | 31，840，903 | 89，130，877 | 70， $171,7 \times 1$ | 01，259，748 | 181月． | 64，781，8 16 | 17，138，156 | 81，950，45\％ | 147，녀，（10 |
| 18：11． | 4T，471，204 | 49，641，791 | 94，114，195 | 111，804，511 | 1817. | 68， 818,500 | 10，358， 000 ， | $87,471.4040$ | M， $9 \mathrm{ym}, 000$ |
| 1804 | 30，708，18： | 35，774，971 | 79，493， 160 | 70，333，383 | 1918. | 78，314．477 | 19，426， 008 | 93，$¢ 81,138$ | 191，760，000 |
| 1803 | $49,9105,961$ | 13，594，178 | $65,800,083$ | 04，646，161 | 1819. | 50，976，8：18 | 10，165，083 | 71，142，091 | 87，125，000 |
| 1594. | 41，417，477 | 30，931，597 | 77，199，074 | 85，010，000 | 1820． | $51,6 \times 3,640$ | 18，918，029 | 09，801，60 ${ }^{4}$ | 74，460，000 |
| 1805 | 41，897，002 | 63，170，019 | 06，500，081 | 140，000， 100 | 1821 | 48，671，994 | 21，302，489 | 64，074，382 | 62， 085,744 |

Gengal Statemgnt of the anneal foabion Commblot ind Navioation of hy Unitein 8tates faom Octobra 1,1820, no Jvly 1,1357

| Years endlog | Exporta． |  |  | Imports． | Whereef there wis in Builitom and 8perie． |  | Tonnege eleared． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatie． | Furalign． | Total． |  | Esport． | Inipert． | Amerlea | Porelen． |
| Sept．30，1821．．． | \＄43，671， 83 |  |  |  | \＄10，478， 06$)$ |  |  |  |
| －1828．．．． | 47，374，079 | 49，996，902 | 79，100， 241 |  | 10，810，1\％0 | 3，800，846 |  |  |
| 1828 | 41，155，409 | 47，543，849 | 74，090，030 | 77， 570,207 | 6，1172，987 | 5，0，7，8； 0 | 810.781 | 110，740 |
| 1824. | 50， 84,530 | 25，337， 157 | 75，086，057 | $80,545,0 \mathrm{Mr}$ | 7，014，643 | 8，370， $88 \%$ | 015，278 | 102，052 |
| 1825. | 68，974，745 | 82，510，648 | $90,535,388$ | 96， 040,176 | 8，012，034 | 6， 7500,706 | 9100，366 | O5， 1981 |
| 1826. | 63，055，710 | 24，539，017 | 77，545，842 | 84， 174.477 | 4，704，033 | 6，8R0， 1186 | 063,019 | 00， 417 |
| 1817 | 68，09t，03t | 23，403，106 | $88,824,927$ | 79，494，004 | 8，014，890 | $8,161,130$ | 9190，549 | 181，250 |
| 1823. | 60，009， 369 | 91，5 55，017 | 74，964，081 | 88，509， 824 | 8，943，476 | 7，480，741 | 87,414 | 151，030 |
| 1829 | 65， 500,193 | 16，659，478 | 72， 253,071 | 74，492，694 | 4，024，930 | 7，408， 612 | 944，750 | 1：18， OMS |
| 1830 | b＇$, 462,029$ | 14，387，479 | 73，849，5i88 | 70，570，020 | 2，178，779 |  | OT1，760 | 133，4301 |
| T | \＄$\$ 36,104,918$ | \＄221，6：13，834 | \＄ $765,748,762$ | \＄708，633， 427 | \＄71，073，494 | \＄6．1，1＋4，645 | 7 | ，146，074 |
| ， 1331 | $\$ 61$ | \＄20，093，520 | \＄81， 810,583 | \＄103，101，194 | \＄0，014，9，11 | \＄7，305， 946 |  |  |
| $1 \div 32 .$ | $63$ | 84，039，473 | 87， $170,94.3$ | 101，029， 416 | 6， $65613,3+41$ | 5，9117，54 | 974，865 |  |
| 1933 | 70.317 | 10，922，735 | 00，141，433 | 108， 118,511 | 2，611，701 | t，070，368 | 1，149，100 | 417，039 |
| 1534 | $81,024,102$ | 23，312，811 | 104，330，974 | 190，581，3232 | 2，070，768 | 3T，911，032 | $1,134,020$ | 677．760 |
| 1835 | 101，14？，082 | $20,504,415$ | 121，613，577 | 149，8．5，742 | 0．477，775 | 111，131，447 | 1，410，617 | 039，824 |
| 1834. | 100，916，6816 | $21.746,300$ | 125，663， 040 | 189，980， 0125 | 4，344，330 | $13,4100,883$ | 1，41 5,628 | 071.721 |
| 1837 | $05,604,414$ | 21，84，962 | 117，419，3711 | 140，98：1，217 | b，074，240 | 10，510．414 | 1，206，082 | 756，2 ${ }^{\text {c }}$ |
| 1835 | 96，033， 811 | 19，45， 17.745 | $102,481,610$ | 113，717，406 | \＄，5＇k， 040 | 17．747，110 | 1，408，761 | 6114， 166 |
| 1139 | 108，593，931 | 17，44， 625 | 121， $11.14,410$ | 162，022，132 | 8，770，743 | $5,56,176$ | 1，477，429 |  |
|  | 113，495，034 | 18，194，312 | 182，085，946 | 107，141，bt | 8．417，014 | $8,482,810$ | 1，447，006 | 700,480 |
| Tota | S 498 | 事安 | \＄1，04：2，341，90， | \＄1，309， 070,104 | ＋66，834，898 | \＄107， | 12，734，909 | ，718，470 |
| Sept．30，1541． | \＄106，382， 739 | \＄15，463，091 | \＄191，851，809 | \＄127 | \＄10， 044.332 | \＄1，9 | 1，634，150 |  |
| 1412． | 98， 099,996 | 11，721，533 | 114，691，534 | 100，10\％，087 | 4，813，539 | 4，087，016 | 1，536，481 |  |
| Tune 30，1843＊ | 77，793，733 | 6，6013，617 | $84,840,481$ | 64，753， 790 | 1，5211，701 | 92，800， 850,1 | 1，28, 088 |  |
| 194 | 90，715，179 | $11,484,967$ | 111，201， 046 | 106，4， 5,025 | 5，454，214 | $5,830,429$ | 9，010，124 | 906， 814 |
| 154 | 90，290， 776 | $15,842.830$ | 114，640， 1166 | 117，254， 504 | 8，401， 4 5 |  | 8，0153，077 | 131，2．5 |
| 1946 | 102，141， 838 | 11，344，083 | 1113，488， 516 | 121，691，797 | 8，9015，968 | 8，777，732 | 2，221，028 | （16） 178 |
| 15 | 150，637，444 | 8，011，15s | 159，644， 628 | 146，0－45，038 | 1，907，024 | 24，191，248 | 3，402，398 | 1，176， 415 |
|  |  | 91，132， 315 | 154，1181，406 | 154，998，928 | 15，841，610 | 6，400，224 | 8，401，280 | 1，404，100 |
| 184 | 138，804，065 | 13，088，96\％ | 14，755， 8.80 | 147， 957,489 | 5，404， 648 | 6，6151，240 | 8．753，724 | 1．675， 60.1 |
| 1\＄3．．．． | 136，946，912 | 14， $051,8 \mathrm{~mm}$ | 15t，838，720 | 178，128，318 | 7，5，29，9：4 | 4．628， 732 | 9，643，784 | 1，724，211 |
| Total | \＄1，131， | （120， | \＄1，2010，504， 538 | \＄1，207，763，752 | \＄05，110， $12 \pm 1$ | \＄$\times 1+4,110$ | 40，174，804 | 10，791，249 |
| June 30，1＊51 | \＄196，68） | \＄91，699，293 | \＄218，389，011 | \＄$\$ 16,224,132$ | \＄829，479，75： | \＄5，453， 592 | 8，200，519 | 1，027．394 |
| 1858． | 109，309，984 | 17，281， 988 | 200，659，368 | 219，945，44？ | 49，074，123 | 5，605，144 | 8．8140，5 0 | 9，017．575 |
| 1851 | 918，417 | 17，654，410 | $230,076,157$ | 907，978，647 | 87，490，876 | 4．201，582 | 5，766，789 | 2，298， 700 |
| $18 \%$ | 853 | 24，59， 194 | 978，941，164 | 304，569，581 | 41，481，504 | 6，759，597 | 3，111，872 | $2,107,812$ |
|  | 946 | 98，4－14，993 | 975， 156,846 | 261，408， 520 | $56,947,343$ | 8，653，812 | 4，088，97！ | 2，110，324 |
|  | 310，546，839 | 16，879，578 | 396，004，908 | 314，639， 0.49 | 45，745，485 | 4．207，682 | 4，138， 314 | 2，462，109 |
| 1357. | 334， 085,005 | $23,476.617$ | 362，900，642 | $300,8.50,141$ | 80，136，922 | 12，431，790 | 4，6，1，212 | 2，4i0，170 |

＊Nine montia to Junc 30，and the fiscal yeer from thia time begina July 1.

The following table shows the extent and progress of the Jake tonnage of the United States for the years $1855,1856,1857$ ．This bronch of our shipping has ac－ quired such importance as to require a aeparate state－ ment of its progress and extent．Table of vessels built at the American lake ports in the year 1857，in－ cluding lakea Frie，Ontario，II uron，and Michigan．

|  | 1Ms ${ }^{\text {d }}$ |  | 1456. |  | IRE1． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | Tont． | Na． | Tons． | Na | Tons． |
| stramera．．．． | 3 | 1，0i6 | 3 | 2，006） | 5 | 4，1401 |
| 1＇ropelters．．． | 5 | 4，213 | 22 | 19，755 | 93 | 11，875 |
| Tugn ．．．．．． | 4 | 451 | 5 | 845 | 15 | t，412 |
| 13arks ．．．．．． | 2 | 776 | 5 | 2，439 | 8 | 1，90．4 |
| 11rigs ．．．．．． | 6 | 1，742 | 1 | 434 | 9 | 690 |
| Rehoonters．．． | 105 | 25，752 | 121 | 34，825 | 06 | 88，643 |
| Beown | ．． | ．．．． | ． | ．．．． | ） | 415 |
| Total． | 128 | 87，409 | 157 | 68， 100 | 149 | 48，098 |

This gives our lako tonnage an increase in three years of


The valuo of this new tonnage is as follows：

| Yeara． | Etenm． | 3is． | Tinal． |
| :---: | :---: | :---: | :---: |
| $1 \times 150$ | \＄ 3195.1 MKJ | \＄1，211， 2100 | \＄1，710x， 3 （1） |
| 1850. | 1，182，000 | 1，604，450 | 8，746，400 |
| 1857. | 1，320，200 | 1，423，400 | 2，743，500 |
| Toin | \＄2，847，200 | \＄4，241，050 | S7， $0 \times 8,360$ |

The total tonnage on the lakes in the liull of 1857 was $\mathbf{6 8 8}, 868$ tons，and the value of the aame was $\$ 15,195,100$ ， or nearly forty dollars per ton．



| Cleared for | Abisrican Vemele. |  |  |  | Yoreing Vametla. |  |  |  | Total. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nomber. | Tonaege. | Crewe. |  | Nnm. ber. | Tonnege. | C'rewa. |  | Nombef. | Tunaege | Craws. |  |
|  |  |  | Man. | Haye. |  |  | Mea. | Boye. |  |  | Men. | Boys. |
| Hueria on the lhaltic and Nurth Heas | 34 | 15,4:8 | $648$ | 6 | 9 | 2,716 | 09 | 9 | 45 | 28,214 | 747 | 8 |
| Itusain on the Black Bea...... | 2 | 591 | 26 | $\cdots$ |  |  |  |  | 2 | 601 | 26 |  |
| Aniallo Rıraia ................ | " ${ }^{\prime}$. | $\because \cdots$ | $\cdots$ | ' ${ }^{\prime}$ | 1 | 480 | 13 | ... | 1. | 280 | 13 |  |
| Rusajan I'oam, In N. America.. | ? | 1,390 | 63 | . | 6 | 2,440 | 120 | ... | 9 | 4,830 | 183 |  |
| Priaula, | 9 | 049 | 58 | ... | 4 | 1,334 | 46 |  | 6 | 2,283] | 74 | ... |
| Hwerien and Norway. ......... | 7 | 3.482 | 100 | ... | 16 | 6,5,2 | 104 | . . | E8 | 9,024 | 224 | $\ldots$ |
| Swedish Weut Indies.......... | 10 | 1,710 | 82 | ... |  |  |  | ... | 10 | 1,719 | 82 |  |
| Denmark...................... | 2 | 180 | 27 |  | 7 | 2,118 | 10 |  | 0 | 8.1516 | 1.7 |  |
| Maniah Went | 103 | 21.834 | 839 | 4 | 11 | 2,157 | 01 |  | 114 | 23,101 | 030 | 4 |
| Ilsmburg | 13 | 7,266 | 19, | 1 | 58 | 44,451 | 1,741 | ... | I1 | 63,717 | 1.043 | 1 |
| Ilremen.. | 29 | 81,470 | 1,516 | ... | 145 | B7, 919 | 2,970 |  | 1\%4 | 110,8*9 | 4,516 |  |
| Other German | 1 | 245 | 10 |  | . . . ${ }^{\text {c }}$ | $\cdots$ |  |  | 1 | 245 | 10 | - ${ }^{\text {c }}$ |
| Holinnd. | 43 | 25.207 | 601 | 1 | 5 | 26,282 | 8.5 | 2 | 08 | 51.450 | 1,460 | 8 |
| Dukeh Weat Indios. | 42 | 8.061 | 931 | $\cdots$ | 4 | 485 | m? |  | 46 | 8530 | 301 |  |
| Dutch Gulans | 31 | 6856 | 271 | 8 | 5 | 808 | 41 | $\cdots$ | 34. | 7,002 | 820 | 8 |
| Dutch Eimel Indi | 11 | T, 1191 | 219 |  |  | 1,4:0 | 58 | ... | 15 | B,611 | 277 |  |
| Delginm. | B2 | 40, 10 ? | 1.017 | 1 | 12 | 14,854 | 687 |  | 0.4 | 65,017 | 1,704 | 1 |
| Fingiand | 880 | 011.183 | 22,551 | f.8 | 410 | 888,792 | 13,813 | 67 | 1,278 | 1,200,976 | 85, 864 | 126 |
| Scotiand. | 61 | 38.082 | 010 |  | $4!$ | 49,4.2 | 1,028 | 2 | 110 | 83,404 | 2.808 | 8 |
| Ireland. | 88 | 24406 | 211 | 2 | 60 | 22,090 | 752 | $\ldots$ | 10 | 46,4016 | 1,268 | 8 |
| Clibrattar | 81 | 7.406 | 287 | ... | 4 | 870 | 40 | ... | 85 | 8,776 | 3.7 |  |
| Malla | 8 | 9823 | 76 |  | 4 | 980 | 34 |  | 12 | 2,083 | 110 |  |
| Canada. . . . . . . . . . . . . . . . . | 0, 480 | 1,133684 | 44.0:3 | 416 | 5.310 | 1,104 050 | 60.043 | 1085 | 8,700 | 2,988,234 | 154666 | 1501 |
| Itritish North Amorican Poss. | 848 | 510,9ヶ5 | 6878 | 88 | 8,727 | 461,245 | 23.002 | 20 | 4,:25 | T51, 2310 | 3\%.570 | 57 |
| Britlsh Weat Indten . . . . . . . . . | 057 | 106.961 | 4,237 | 3 | 218 | 22,070 | 1,6.0 | $\ldots$ | T75 | 131,331 | 6.857 | 3 |
| Britidy Ilonduras | 35 | 6,528 | 209 | $\ldots$ | 24 | 8.5051 | 182 | $\ldots$ | 50 | 10,470 | 451 |  |
| Britlsh Guiana.. | 46 | 16,372 | 576 | $\ldots$ | 20 | 4387 | 283 | ... | 05 | 20,750 | 7 C 0 |  |
| Hritish J'owseastong In Africa. . | 66 | 19,320 | 654 | $\ldots$ | 6 | 1,895 | 60 |  | 02 | 21,164 | 728 |  |
| Other ports in Africa. | 89 | 22, 010 | 8.9 | 15 | 2 | 742 | 25 | ... | 90 | 22.752 | 924 | 15 |
| Eritinh Aualralla............... | 70 | 47,231 | 1.818 |  | 14 | 5,547 | 293 |  | 84 | 03.818 | 1,836 |  |
| Bridialt East Indlea............ | 85 | 48, 087 | 1,718 |  | 11 | 0,275 | 204 |  | C 6 | 63,712 | 2.102 | i |
| Franre on the Atlantic........ | 271 | $22 \times 775$ | 6,369 | 57 | 36 | 20.510 | 1,28) |  | 30.7 | 249,256 | T.608 | 67 |
| France on the Mediterranean . | 67 | 25,318, | 800 |  | 20 | 0,056 | 400 | 4 | 87 | 84, 368 | 1,2011 | 4 |
| French North American Pous. | 12 | 1,835 | 72 | 2 | 30 | 4,507 | 220 | $\ldots$ | 42 | 0,432 | - 202 | 2 |
| Freneh Weet Indien. . . . . . . . . | 118 | 20,538 | 822 | 8 | 11 | t,008 | TU | ... | 120 | 22,44.1 | $8{ }^{\text {C }} 8$ | 8 |
| French Gulana | 16 | 3,147 | 187 | 6 |  | .... | .... | ... | 10 | 3,147 | 137 | ¢ |
| Freneh East Indlex. ........... | 1 | 618 | 20 | ... |  | ir | - | ... | 1 | 018 | 20 |  |
| Vrench Possemilons in Africa.. |  |  | 951 | , | 9 | 186 | 11 | ... | 1 | 118 | 11 |  |
| Spain on the Atisntic | 71 | 28,611 | 851 | 1 | 85 | 10,075 | 425 |  | 106 | 38.188 | 1.270 | 1 |
| Spain on the Mediterraneals .. | 65 | 21.005 | 677 | ... | 211 | 67,487, | 2,314 | 1 | 276 | 88,692 | 3,49] | 1 |
| Canary Inianda . . . . . . . . . . . . | 17 | 3.740 | 147 | ... | 4 | 1,090 | . 45 |  | 21 | 4839 | $1: 2$ |  |
| Philippine Islanda . . . . . . . . . . | 18 | 15,87, | 43 |  | 4 | 1,472 | 78 | $\ldots$ | 24 | 17,001 | 415 |  |
| Cuba. . . . . . . . . . . . . . . . . . . | 1,848 | 50,241 | 21,310 | 73 | 60 | 14,2 3 | 705 |  | 1,900 | C04.r 84 | 22,024 | 78 |
| Porto Itleo. . . . . . . . . . . . . . . . . . | 213 | 37,63a | 1,537 | 9 | 21 | 3,650 | 166 | $\ldots$ | 224 | 41,183 | 1,708 | 11 |
| Portugal | 56 | 10,347 | 614 |  | 44 | 12,068 | 447 |  | 100 | 31,410 | 1,061 |  |
| Madelra ....... | 4 | 814 | 03 | ... | B | 52 s | 20 | . . | 7 | 1,242 | 59 |  |
| Cspe de Vord Istanda......... | 12 | 2,612 | 105 | $\ldots$ | 2 | 545 | 27 | ... | 14 | 8,207 | 132 |  |
| Azares . . . . . . . . . . . . . . . . . . . | 12 | 3587 | 136 | 1 | 8 | 1,082 | 111 | $\ldots$ | 20 | 6,171 | 227 | 1 |
| Sardinia. | 27 | 15852 | 404 | $\ldots$ | 16 | 6,027 | 282 | $\ldots$ | 49 | 21.870 | 038 |  |
| Tuscany.... | , | 2,507 | 78 | ... |  | , | .... | $\ldots$ | 4 | 2,567 | 78 | ... |
| Japal States . . . . . . . . . . . . . . . . | , | 310 | 12 | .. |  |  |  | $\ldots$ | 1 | 815 | 12 |  |
| Tro 8icilies | 14 | 6,334 | 163 |  | 11 | 8,119 | 146 | $\ldots$ | 25 | 8.468 | $30 \cdot$ |  |
| Austria.. ..................... | 22 | 11.152 | 311 | 1 | 8 | 1,046 | 82 |  | 25 | 12,147 | 343 | 1 |
| Auslrian Possesslons in Italy. | 10 | 5.020 | 128 | $\ldots$ | 1 | 489 | 10 | ... | 11 | 5.418 | 138 |  |
| Turkey in Europe. . . . . . . . . . | 8 | 2,777 | 108 | ... | .. | .... | . . . | ... | 0 | 2.777 | 105 |  |
| Turkey in Aula | 14 | 4,774 | 167 | ... |  | .... | .... |  | 14 | 4,774 | 167 |  |
| Egypt.. | 1 | - ${ }^{355}$ | 11 | ... |  |  |  |  | 1 | 865 | 111 | $\ldots$ |
| Itayti. . . . . . . . . . . . . . . . . . . . | 221 | 35,076 | 1,548 | ... | 27 | 4,121 | 194 |  | 248 | 40,197 | 1,742 |  |
| San 1)omiogo . . . . . . . . . . . . . . | 11 | 1,120 | 1.75 | i | 6 | 918 | 47 |  | 17 | 2,8:8 | , 122 |  |
| Moxico.... | 104 | 95.598 | 1,617 | 1 | 00 | 14,564 | 004 |  | 200 | 50.072 | 2,521 | 1 |
| Contral Repubt | 87 | 34,779 | 1.670 | ... | 2 | ${ }^{5012}$ | 27 | $\ldots$ | 39 | 85, 281 | 1,647 |  |
| New Granads. . . . . . . . . . . . . . . | 148 | 12489 | 5,718, | . . | 8 | 1,743 | T11 | $\ldots$ | 156 | 1.08 .58 | 5,707 |  |
| Venoruela | 82 | 17,70:3 | 742 |  | 9 | 2,083 | 85 |  | 91 | 19,786 | 827 |  |
| Jirarill. | 281 | 81,712 | 2,094 | 3 | 10 | 8,180 | 189 |  | 201 | 87,8!8 | 3,118 | 8 |
| Uruguay. | 06 | 22.412 | 739 |  | 6 | 2,027 | 71 |  | 72 | 24,439 | 810 |  |
| Buonos Ayres. . . . . . . . . . . . . . . | 73 | 20.630 | 846 | 8 | 4 | 1,805 | 85 |  | 77 | 28, 435 | 901 | $\underline{\square}$ |
| Ctill. . . . . . . . . . . . . . . . . . . . | 02 | 42.166 | 1,148 | ... | 25 | 11,067 | 412 | ... | 87 | 53288 | 1, 65 |  |
| Poru.. | 61 | 68528 | 1,624 | ... | 14 | 0,462 | 259 | ... | 75 | T4,985 | 1,874 |  |
| Eenador.. | 2 | 1,358 | $\underline{889}$ | $\ldots$ |  |  | o | $\ldots$ | 2 | 1,358 | 38 | . . |
| 8andwleb Islanda. | 42 | 10, 1081 | 686 |  | 1 | 187 | 0 | $\ldots$ | $4{ }^{4}$ | 17,128 | 685 | . ${ }^{\text {c }}$ |
| Other Isiands in the l'aclfie... | 7 | 1,354 | 65 | 1 | 0 | 1,496 | 89 |  | 16 | 2,850 | 154 | 1 |
| China. | 88 | 129,54 | 1,562 |  | 20 | 9,480 | 337 | $\cdots$ | 78 | 09.089 | 1800 |  |
| Whale-fighcrles. | 193 | $57.0 \times 3$ | 4,732 | 150 |  |  |  |  | 183 | 57,983 | 4,762 | 150 |
| L'ncertaln places . . . . . . . . . . |  | 281 |  | ... | $\ldots$ | - . . | .... | $\ldots$ | $1)$ | 231 |  | $\ldots$ |
| Total elearances, 1856-"07. Tots1 arrivals, $1856-67 .$. | $\begin{aligned} & 11,194 \\ & 11,304 \end{aligned}$ | $4,580,651$ $4,721,870$ | 154,269 161,062 | 8183 8.3 | $10, i 61$ 11,024 | $2,490,170$ $2,464,046$ | 119.818 | $1+14$ 1240 | 42,403 22,328 | $7,0,11,8 \times 1$ $7,120,310$ | $7+.157$ 277,850 | $\begin{aligned} & 21.75 \\ & 2073 \end{aligned}$ |

The above table gires us a clear exblbit of the na- June 30, 1857, to the principal maritime counlries to thonal eharacter of our carrying trade. A condensed be in the following proportion as to national or foreign summary shows our ce:ports for the fiscal year ending / vessels.

Tonnage cleared phom tife United Stateg, 1856-'St.

| Couotries. | Americon Vemein. | Foralign Vemela. | Conntries. | American Vomeole. | Yoroign Voseolv. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Canads | $\begin{gathered} \text { Toos. } \\ 1,133.684 \end{gathered}$ | $\begin{aligned} & \text { Tona. } \\ & 1,104,059 \end{aligned}$ | Bremen | Tans. 81,470 | Tond. 87,918 |
| England.................... | -011.188 | 389.792 | 8cotiand | 83,083 | 49.428 |
| tuba | 570,241 | 14,293 | Spain | 49.616 | 77,709 |
| British N, American Posa, | 819,985 | 461,245 | China | 50.549 | 1,562 |
| France . . . . . . . . . . . . . . . | 254,058 | 20,655 | Other coul | 866,783 | 248,257 |
| British West Indles........ Now Gramada............ | 1646891 124,809 | 24,970 1,743 | Total. | 4,580,651 | 2,490,170 |


| Tenamge mitared. | Ansaric sn Vemels. |  |  |  | Vorolen Vemeilo. |  |  |  | Tmal American and roroizm. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Numb. } \\ & \text { ber. } \end{aligned}$ | Toss. | crewe. |  | NumbBer. | Tome. | I'rewa. |  | Number. | Ton*. | Crewn, |  |
|  |  |  | Men. | Muya. |  |  | Ман. | Buy |  |  | Mea. | Heye. |
| Mair | 324 | 111,875 | 8,201, | 6 | 679 | 60,291 | 8,601 | 4 | 900 | 171.64. | 6,701 | 10 |
| Naw Itampah | 4 | $7{ }^{7}$ | 83 |  | 411 | 4.968 | 231 | 10 | $4!$ | 5,600 | 844 | 10 |
| Vormont | 819 | 26,404 | 1,487 | $\cdots$ | 6409 | 21,819 | 212 |  | 845 | 47,838 | 9,840 |  |
| Mastachumetta. . . . . . . . . . . . . . | 1.490 | B1M, 116 | 18,634 | 50 | 2,601 | 378,0181 | 18,0, H | 15 | 4,100 | 8i8,7it | 34,196 | 71 |
| Khoditalan | 111 | 92.840 | 1.004 | 5 | B 8 | 0.04" | 404 |  | 167 | 81,498 | 1,470 | 5 |
|  | 123 | - $0^{6}$.05 | 1,4i11 | 91 | 46 | 7.28: | 315 |  | 100 | 98,189 | 1.746 | 91 |
| Naw York. | 6,280 | 2,037,273 | 81,446 | 513 | 6,481 | $1,424,833$ | 71,6211 | 1101 | 10,718! | 3,050,194 | 157,000 | 1014 |
| New Jermey |  |  |  | . . | 17 | 9,148 | 07 | ... | 17 | 2,145 | - 97 | $\cdots$ |
| Tronnaylva | 470 | 153, 44 | 5.102 | ... | 141 | 38,122 | 2,0irs | $\ldots$ | 611 | 190,8A: | 7.104 | $\ldots$ |
| 1relaware. | 8 | $4{ }^{4} 7$ | 17 | . $\cdot$. | $\cdots$ |  |  | $\ldots$ | 8 | 472 | 17 | $\ldots$ |
| Maryland :**. | 414 | 129,118 | 4,159 | - | 182 | 41,282 | 1,8760 | , | 636 | 193,38t | 6,004 | ... |
| 19striet of Colum | $1{ }^{6}$ | 1,207 | 9.19 |  |  |  |  | .. ${ }^{\text {c }}$ | 0.6 | 1,267 | 9.978 |  |
| Vtrglala..... | 100 | 95.835 | 2,616 | 1 | 84 | 17, 12 | 050 | ... | 250 | 113.617 | 8.875 | 1 |
| North Carollan | 113 | 18,966 | 784 |  | 11 | 1,84i | 82 | ... | 124. | 810, 218 | 840 |  |
| gonth Civolina | 109 | H3,205 | 9,820 | 5 | 168 | 44,340, | 2.001 | ... | 350 | 127, 198 | 4.8 .0 | 8 |
| (ieorale | 111 | 4T,851 | 1,135 | . . | 136 | 68,017 | $2.17 h$ | ... | 211 | 115,808 | 8,810 | ... |
| Florlda. | 162 | 60.084 | 2,454 |  | 87 | 6,818 | 35? | 161 | 190 | 04,856 | 2.815 | 91; |
| Alshame | 92 | 104.802 | 1.480 | 183 | 50 | 42,082 | 1,124 | 101 | 112 | 107,484 | 3,016 | 267 |
| Leutsian | 788 | 473.90 m | 13,6012 |  | 392 | 140.816 | 6,485 |  | 1,110. | 613,314 | 14,887 |  |
| Olifo | 24 | 41,808 | 2,081 |  |  | 44, H 1 s | 8,968 |  | 607 | 00,4i4 | 4.89 | $\ldots$ |
| Michiga | 351 | 100.71s | 4.421 | $\cdots$ | 105 | 40,800 | 1, 026 | ... | 619 | 130068 | 5.74 | $\ldots$ |
| Wiscon | 41 | 46,003 | 1,520, |  | 6 | 1,439 | 75 | ... | 47 | 47,612 | 1.604 | $\ldots$ |
| Itinala. | 100 | 10.179 | 2,404 | $\cdots$ | 100 | 27,051 | 1,184 | ... | 20. | 07, 8, 21 | 3,600 | . . |
| Texam... | 9 | 2,148 | 95 | . . | 11 | 4.3083 | 150 |  | 20 | 7.611 | 2+5 |  |
| Callformla.. | 142 | 304, 878 | 4,872 | ... | 130 | 40,75,3 | 2,045 | ... | 277 | 351.029 | 6,937 | ... |
| Oregon Territory. W'ablington Territo | 14 | 810 1.864 | 10 | . |  | 1,140 | - . 03 | $\ldots$ | 18 | $\begin{aligned} & 911 \\ & 9,404 \end{aligned}$ | 121 | ... |
| Toial entered. | 11,304 | 4,721,870 | 161,164 | Nal | 11,024 | 2,461, 9 | 111,797 | 1:411 | 22.324 | 1, 186818 | 2i7. ${ }^{\text {a }}$ | 19 in |
| Total eleared. | 11.138 | 4,541,212 | 154.810 | 813 | 10.030 | 2.490.17\% | 110.867 \| | 1212 | 26,104 | 7071.388 | yT4172 | 2075 |



| Yant endiog Deemember $\mathbf{8 1}_{1}$ | Renlotered Nall Tonnage. | Raroiled and Licenced Bail Tmanare. | Total Tomange. | Vinar endipg December 81. | Kontitered Sall <br> Tonimaze. | Nurollad and Licented tail T, мапनт. | Total Tpanage. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1751 | 1.3,403 | 77,609 | 2111, 516! | $18 \%$ | 8060, 050 | 831.744 | 602, 194 |
| 1190 | 816.284 | 132,183 | 274.877 | 1403 | 697, 107 | 952,015 | 949,174 |
| 1791 | 262, 119 | 139,036 | 502,146 | 1804 .................. |  | 369,874 | 1,042,404 |
| 17.2 | 411.438 | 153,019 | 504.45\% | 180\% | 749.341 | 301.057 | 1,140, 368 |
| 1793 | 317.734 | 153.030 | 620,761 | 1,06 | 8018,2ti5 | 400,4'1 | 1.248, 714 |
| 174 | 478.813 | 189,755 | 028,619 | 18.17 | 818,307 | 480,241 | 1.248, 018 |
| 179. | 523.471 | 218,414 | 747,165 | 1508 | 703.454 | 418,649 | 1.942,5.46 |
| 1796 | 676.793 | 255, 164 | 831,899 | 18150 | 010, 09 | 440.92\% | 1,350),281 |
| 1797 | 597.77 | 279.186 | 976.913 | 1810 | 11-4,269 | 4.3,516 | 1,424.794 |
| 1793 | 003.376 | 994,968 | 818,320] | 1811.................. | 768 852 | 433.600 | 1,262,604 |
| 1799 | 6:22, 197 | 271,212 | 933,40. | 1818 | 760,421 | AYB, 373 | 1,209,907 |
| 180. | 669.021 | 302.671 | 979,492 | 1418 | 074, 563 | 411.776 | 1,166,629 |
| 1801 | 632.941 | 814.670 | 947,577 | 1414.................. | 674,43.) | 481,5it | 1,15 3,210 |



| Yaera. | Magintered Toanegn. | Ravelled Tuphage. | Tetal Tousage. | Begtots rad Tunnage in tha Whale-fishary. | Meam Tonalage. | Proportion of the enrolied Tonunge amployed in the |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | I'nasting Trede. | (ival. fohery, | Mackerel. fishary. | WhaleHahery, |
| 1915 | 8.51, 204 | \$13, $3^{3}$ | 1,8\%8, 1\% |  | $\ldots$ | 4\%, 046 | 24.511 | ... | 1.24 |
| 1916 | 803.75) | 6il.tis | 1,378,218 | $\ldots$ | .... | 479,970 | 37.579 | . | 1168 |
| 1817 | 845.924 | 60, 154 | 1.399,911 | 4.871 | . . . | 491,457 | 63,910 | *.. | 859 |
| 1418 | 616.087 | 619.004 | 1,20.181 | 16,184 |  | ( ) Hific 141 | 5 5, 601 | .... | 614 |
| 1919 | 612,930 | 647.821 | 1.361, 0.61 | 31,700 | .... | 5.3.0.0 ${ }^{\text {a }}$ | 65,044 | .... | 66 |
| 18:0 | 619,104 | 661.114 | 1.280.116 | 85, 801 | *. $\cdot$. | 031,080 | 60, $\mathrm{c}^{4} \mathrm{~s}$ | ... | 1003 |
| 1521 | $619.8) 6$ | 67,1,06: | 1,298,048 | 26.070 |  | 800.43\% | 61, bibl | . . . | 1024 |
| 15:8 | 627.150 | 69\%,549 | 1,624,6 ${ }^{(4)}$ | 45,49 |  | 673,086 | by,403 | . . . | 8134 |
| 1823 | 631.940 | $6.9,644$ | 1,336,665 | 34,919 | 24.879 | Pubi,403 | 87.021 | . . . | 65\% |
| 1824 | 661,973 | 723.140 | 1.300, 163 | 83,165 | 21,400 | D 41.298 | 68.419 | . . . | 180 |
| 1, 5 | 100.787 | 722,3.3 | 1,428,110 | 35,379 | 23,061 | 6n7.278 | 71, 0186 | . $\cdot$. | $\cdots$ |
| 1826 | 737.978 | 790,218 | 1,534,110 | $41.75 \%$ | 34,053 | 666.480 | 63.761 | , | 834 |
| 1827 | 747,170 | 873.437 | 1,0\%0,007 | 45, 065 | 40, 197 | 78.5087 | T4.048 | ... | 348 |
| 1828 | 812.619 | 928, 772 | 1,741,301 | 64,1821 | 80.418 | 759.92L | 74.94i | ... | 180 |
| 18.9 | 650, 142 | 610,6,4 | 1,200,701 | 67,294 | 54,0.6 | 608.853 | 101,796 |  |  |
| 1 can | 576.675 | 616,311 | 1.191.776 | 88.911 | 64,471 | 614.978 | 61.554 | [5.078 | 79.1 |
| 1831 | 69451 | 617,304 | 1.267,816 | 82.810 | 84,485 | 631,788 | 69,97t | $46,9(1)$ | 481 |
| 1432. | 680,983 | $75: 460$ | 1.439,450 | 72,863 | 20,813 | 64!,427 | 84, $1 \times 2$ | 47.420 | 8.7 |
| 1833 | 751,036 | K06,149 | 1,610,140 | 101.188 | 101.819 | 741.198 | 62, 720 | 45,725 | 4 4:4 |
| 1834. | 657,438 | 901,463 | 1.758,907 | 108, 010 | 129.815 | 783,618 | \$4. 403 | 01, 11042 | 364 |
| 1835. | 85.811 | 999,118 | 1,824,941 | 97,640 | 142, 815 | 10:301 | 72, 374 | 64.44) |  |
| 1831 | 897,174 | 084 328 | 1,634.102 | 144,640 | 14.7006 | 873.027 | 6:307 | 64.425 | 1073 |
| 1837 | 810.417 | 1,096,238 | 1,8.6,645 | 127,242 | 154,744 | 966,1980 | 80.501 | 4t, 810 | 2094 |
| 1839 | 822.611 | 1,173,04t | 1.996,6.9 | 119,629 | 188,413 | 1,041.106 | 70,044 | D8,649 | (02\% |
| 1831. | 636.144 | 1,864,284 | 8,024,478 | 131.845 | 964.489 | 1,163,601 | 72, 08 | \% ${ }^{4}, 183$ | 4i4 |
| 1810 | 8 10.764 | 1,480,919 | y, 180, 164 | 131,920 | 901.839 | 1,176.6)4 | 70,004 | :R,260 | ... |
| 1841 | 8.45,403 | 1.184 .919 | 2.130.744 | 187,4cs | 175,098 | $1.107 .06 \%$ | $60 \mathrm{KN1}$ | 11,821 | *: |
| 18t? | 975,354 | 1,117.031 | \%.0.22,390 | 151.612 | 289,661 | 1,045, 763 | 54804 | 16,96 | 377 |
| 1843. | 1,064.815 | 1.149 .407 | 2,1:8,698 | 15, 314 | 288,567 | 1,0i6, 165 | 61, 484 | 11.775 | 143 |
| 1814 | 1,064.744 | 1,211.330 | y, y 20,046 | 168.298 | 873.179 | 1,169, 614 | 85.224 | 16.170 | 121 |
| 1845 | 1, 195.17 | 1.321.929 | \$.417.0.22 | 100.65 | 326,019 | 1,100,693 | 69,8.5 | 21, 113 | 216 |
| 1410 | 1,130.283 | 1.431.78 | 2.562,041 | 18),080 | 847, 693 | 1.299.470 | 72,516 | 36,468 | 44 |
| 1817 | \%.241.819 | 1.507,788 | 8,933,05 | 198.654 | 444.841 | $1.452,628$ | $70.17 \%$ | 31.451 |  |
| 18.48 | $1.36) .886$ | 1.793, 185 | 2,154.441 | 194. 179 | 497,59! | $1.620,088$ | 81.651 | 42,885 | 428 |
| 1441 | 1.434 .941 | 1.996,079 | 8,934,015 | 150,186 | 462.84 | $1.73 n .410$ | 42,970 | 73.893 | - |
| 1850 | 1,085,711 | 1.949.743 | 3.855.451 | 146016 | 605,040 | 1,755,708 | 85,446 | 89.111 | . . . |
| 1851 | 1.724,347 | 2,044,193 | 3.772,439 | 181,64t | 688,207 | 1,854.817 | 87.475 | 60,639 | . ... |
| 1951. | 1,990,449 | 2,238,992 | 4,188,440 | 108.797 | 043,941 | 2,009,021 | 109,669 | 72,516 | . $\cdot$ |
| 1583 | 4.103 .674 | 2.308.336 | 4.407.610 | 198,902 | 514.007 | 9.134.966 | 109,427 | W. M50 | . $\cdot$ |
| 1854 | 43388819 | 4.419,083 | 4804.902 | 181,901 | 676,607 | \$,978,900 | 108,104 | 86, (4) |  |
| 1468. | $2.635,184$ $2.811,402$ | 9,816,864 8.880 .947 | $5,918.001$ 4.871 .658 | 188.178 189.918 | 770,985 | 8,491,104 | 109,927 | 21.624 | 217 |
| 1856 | $2.011,402$ $4.403,957$ | $8.880,247$ 8.476 .870 | $4,811,658$ $4.940,843$ | 189,918 | 678.071 76.784 | \$,211,905 | 95,816 104.579 | 98,188 98,847 | 217 |
| 18.57 | 2.403,987 | 8, 16,870 | $4,240,843$ | , 15, 111 | 700,784 | 8,300,800 | 104,672 | 28,327 | 10 |

 IN 1821，183！，1e41，and 1851.

| States and Territories， | 1081. |  | 1831. |  | 181. |  | IBS］． |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { In Amarican } \\ \text { Vomelh. } \\ \hline \end{array}$ | $\begin{aligned} & \text { In Forelyl } \\ & \text { Vesse lel } \end{aligned}$ | In Aimeriean Vereets． | $\begin{gathered} \text { In Foreling } \\ \text { Voselis. } \end{gathered}$ | In Annericaa Vesesis． | In Vureline | In Americea Vensele． | la Verelau |
| AIn |  |  | 148，320 | 81，115 | 410，364 | 120,401 | 43，710 | 365，710 |
| Cullfornith．．．．．．．．．．．．．．．．．．．．． |  |  |  |  |  |  | 4，402，700． |  |
| Columbla，Mistriob | 898.084 | ．．．． | 180，573 | 12，94\％ | 50，808 | 28， 400 | －81，547 | ＂ 280 |
| Connectleut | 812，091 |  | 415,164 |  | 297， 241 | 9，T48 | 3 $20,8 \% 8$ ， | 24,146 |
| 1belamare | 80， 007 |  | \％1，606 |  | 1.1 Mg | 2，088 |  |  |
| Slorida | 11．831 | 1，440 | 110，160 | 5．514 | 116，712 | 25，401 | 88， 776 | 66，122 |
| Gleorgla | 757，022 | 245， 648 | 4：16，294 | 103，648 | 204， 077 | 143，030 | 404， 477 | 17，070 |
| Illinola | ．．．． | ．．．． | ．．．． | ．．．． | ．．．． |  | 3，409 | 1，048 |
| Indlana | ． 1 |  |  | ．．． | ．．． | －＊＊＊ | 1．754 | ．．．． |
| Kentu | 2，0in， | ， | 5，049，822 |  | 8 |  | 187，406， |  |
| Malne | 072，705 | 7，40！ |  | 10．，10．4 |  | 2，126，2087 | 168，061 | 448，524 |
| Marydand | 7，982，914 | 87.829 | $4.613,897$ | 312， 120 | 6， 248,8413 | 762.447 | 5，602，004 | 083，670 |
| Mamachus | 14，647．778 | 178，0］4 | 18，982．763 | 286，988 | 18，M3n 4 ¢ | 1，482， 511 | 28，117， 834 | 0，597，4！3 |
| Mlohlgan | 15，13． | 18， 244 | 87，293 |  | 107，648 | 102 | 182，140 | －${ }^{\text {a }}$ |
| Misulsuippl |  | ．．．． |  | － |  | ．．．．＊ | 88 | ．＊．． |
| MInnourl．． |  | －$\cdot$. |  | ．．．． | 83，975 |  | 022，035 |  |
| New Hampah | 850．621 | ．．．． | 140，205 | ．．． | 61，885 | 12， 116 | 44，682 | 18，440 |
| Now Jarsey | 17，0643 |  |  |  | － 1.910 | 908 ${ }^{808}$ |  | 1，111 |
| New York． | 21，026，605 | 1，702，611 | 58，017，009 | 3，40，38．4 | 00，688， 7641 | 0，024，070 | 106 5i8， 636 | 14，977， 108 |
| North Ciaro | 2100,073 |  | 156，812 | 0，5：4 | 214，731 | 6， 02010 | 125，078 | 80，0083 |
| Chio． | 14 |  | 153 | 464 | 9，508 | 1，7A5 | 666，4011 | 00，871 |
| Pennuylvani | T，873，0．2 | 285， 838 | 11，623，044 | 600，499 | 9，840， $3^{4,4}$ | b． 6.844 | 11，641，219 | 9，627， 549 |
| Ithode fisind | 1，040， 125 | 8，77．3 | bilw， 161 |  | 888，924 | 5003 | 206，200 | 15．411 |
| Nouth Carollia | 1，787，530 | 1，249，523 | 853，171 | 084，092 | 1，217．025 | 339，4ib | 1，040， 215 | 404，367 |
| Tennewsee．．．．．．．．．．．．．．．．．．．．．．．．．．．． | ．．．． | ．．．． | ．．．．＇ | ．．．． | 7,523 | －•．． | 64,701 62,745 |  |
| Vermont | 10，987 |  | 1015，201 |  | 246,780 |  | 091．568 |  |
| Virginia ．．．．．．． | 046，（0） 4 | 131，580 | 383， 307 | 104，745 | 451，017 | 25，320 | 227.349 | 825，514 |
| Oregon Territory ．．．．．．．．．．．． |  |  |  |  |  | － | 103500 | －$\cdot$ ． |
| Tolal | 5x，1026，304 | 155， 518 | 93， 1162,1111 | 0，220，011 | 1，221，877 | 14．724，3101 | $1.68,216,2$ | 6id |


 ＇Jgabitohike of the L＇nited Statee，fhom 1815 to June 39， 1857 ， 1 NलI．

| Veors． | Nhips日品 Harka． | Mrign． | Sehnow－ ers． | 4loops <br> Canal <br> lhate． | Steamb ers． | Total． | Tolal Tubinage． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1516 | 1：41 | 424 | 631 | 274 | ．． | 1114 | 104， 1324 |
| 1816 | 76 | 128 | 781 | 4：4 | ．．． | 1419 | 131， 3.38 |
| 1517 | 14. | 86 | 659 | 394 | ．．． | 11073 | 80，333 |
| 1818 | 13 | 85 | 428 | 33： | ．．． | 818 | 82，421 |
| 1819 | 68 | 83 | 47.3 | 249 | ．．$\cdot$ | 851 | 70.817 |
| 183＇3 | 21 | 60 | （）I | 153 | ．．． | 634 | 47，184 |
| 1831 | 43 | 89 | 247 | 127 | ．．． | thet | （5） $8{ }^{\circ} 0^{\circ}$ |
| 14：1 | C4 | 131 | （1） | 109 | $\cdots$ | 6.3 | 75，310 |
| 152： | （tis | 127 | 800 |  | 15 | 022 | T5，00T |
| 1831 | 50 | 154 | 1377 | 1：0 | 20 | 781 | 00．680 |
| 12.25 | 1.6 | 197 | 1383 | 183 | 8. | $90^{4} 4$ | 114，097 |
| 18.6 | 71 | 187 | $4 \times 2$ | 927 | 45 | 1012 | 120485 |
| 189\％ | b． 5 | 163 | 164 | 241 | 83 | 194 | 114.342 |
| 1858 | 73 | 109 | 474 | 1：11］ | 83 | $8+4$ | 08，375 |
| 19.9 | 41 | 10 | 685 | 1.15 | 411 | 78.5 | 77，0：8 |
| 153 | 25 | t． 6 | 103 | 116 | 37 | 687 | 55，0，4 |
| 18.1 | 7： | 05 | －116 | 8.4 | 31 | 711 | 83， 103 |
| 15：32 | 182 | 143 | 万， 8 | 129 | $10)$ | 10935 | 144，534 |
| 1535 | 144 | 101 | 145 | 14.5 | 05 | 1184 | 161．626 |
| 18：4 | $0 \cdot$ | 04 | 47 | 190 | 68 | 11.7 | 118．890 |
| 1535 | 25 | 60 | n01 | 100 | 010 | 607 | 46，239 |
| 14，30 | 03 | 0.5 | 441 | 164 | 124 | 8.10 | 118，027 |
| 1837 | 67 | 72 | 6017 | 168 | 115 | 049 | 124，087 |
| 1838 | 00 | T0 | 6，01 | 10.1 | 011 | 8.8 | 113，185 |
| 13：5 | 83 | 8.3 | 41.9 | 123 | 125 | 8：8 | 120，080 |
| 1810 | 97 | 10. | 878 | 2．4 | 61 | 872 | 118，300 |
| 1811 | 114 | 101 | 810 | 11.7 | 78 | 763 | 118，893 |
| 1442 | 116 | b） 1 | 273 | 411 | 137 | 1021 | 129．083 |
| 1543 | 69 | 84 | 138 | 17.3 | 7.1 | 492 | 03，017 |
| 1814 | 73 | 47 | 21.4 | 379 | 109 | 763 | 103， 537 |
| 1－45） | 124 | 87 | 812 | 812 | 163 | 1038 | 140，018 |
| ${ }^{+} 8.46$ | 10.1 | 164 | bi6 | 956 | 225 | 1430 | 189，203 |
| 1.447 | 101 | 163 | 689 | 892 | 108 | 1508 | 243，783 |
| 1.45 | ：51 | 174 | 701 | 5.47 | 175 | 1851 | 018，075 |
| 1319 | 193 | 148 | 183 | 470 | 208 | 1617 | 256，577 |
| 155） | 247 | 117 | 5.7 | 290 | $1: 9$ | 3idn | 272.218 |
| 1551 | 211 | 6.5 | 6.2 | 82.6 | $2: 33$ | 1317 | 218， 03 |
| 1552 | 265 | 70 | \％81 | 2.17 | 260 | 14.14 | 351，493 |
| 1538 | 230 | 05 | 041 | 394 | 271 | 1711 | 425,572 |
| 15．54 | 3．31 | 112 | 631 | 3.6 | 281 | 1774 | 5．3，010 |
| 12\％ | 181 | 126 | 6．5 | 619 | 263 | 2634 | $088.4{ }^{\circ} 0$ |
| $1-56$ | 316 | 103 | 6.4 | 473 | 2 2 1 | 179\％3 | 409.893 |
| 15：7 | 251 | 59 | bith | 354 | 263 | 1431 | 378， 804 |

Nucigation．－Whon our navigation laws were first enacted in 5789 ，the registered tomago of tho United States was secured agninat the protecting navigation laws of other ualiona by countervailing or protecting provisions．Such provisions were，from time to time， oxtended，so as to countervail the prohibitary onact－ ments of the commercial nations with which wo had Intercourso．These commercial restrictions have grad－ In that business wo havo freo trade with slmont all the nations of the earit，only marred by the charge of light－money to our vessels，where we chargo none． The removal of reatrictions，in our commerciai inter－ couren with other mations，in the carrying busineas， bas not been prejudicial to our forelgn commercial marine．The burien of IIght－money；to whleh our tonnage，in tho ports of Grent Britain and olher com－ mercial nations，is sibject，should be removed by nits－ tual agreement，and the tonnage thty now charged on our vessels in the ports of France and some other countries，and on their vessels in our porta，should bo taken off，and port charges equalized．
Nember anil Clabs of Vebegif butbt，and tim Tonnaor THERROF，in RAOH GTATMANI TEBRITORV OV TIIE I NITRD Stateb，iuthine tif leall bviline IUNR 30，in＇t．

| Ataten an 1 Terif turits． |  |  |  |  |  | Total of Vemels | 8 <br> 8 <br> 5 <br>  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Malne | 127 | 21 | 85 | 1 | 1 | 940 | 111．013 |
| N．Ilampshire． | 8 | 1 | $\cdots$ | ． | ． | 0 | 8，718 |
| Vermont ．．．．． |  | ． | 1 | d | － | 1 | 65 |
| Massachusolle． | 68 | 4 | 47 | 2 | 2 | 113 | ［5，411 |
| khode laland．． | 4 | 2 | 8 |  | 2 | 11 | 3，583 |
| Conneelleut ．．． | 1 | 1 | 21 | 13 | 3 | 39 | 5，0411 |
| New York．．．． | 29 | 6 | 70 | 83 | 45 | 297 | 07，82\％ |
| New Jersey ．． |  | $\cdots$ | 42 | 23 | 1 | 09 | 8，042 |
| V＇ennuylvania． | 2 | ． | 26 | 105 | \＄2 | 278 | 34，958 |
| Dolaware ．．．． | 1 | － | 10 | 2 | 10 | 23 | 1，843 |
| Maryland ．．．．． | 16 | 17 | 74 | 1 | 2 | 110 | 20，820 |
| 1）．of Colambla | $\cdots$ | ．． |  | 23 |  | 28 | 1，483 |
| Virglnla ．．．．． | 9 | $\cdots$ | 12 | 4 | 14 | 82 | 3，039 |
| North Carolins | ． | － | 19 | 2 | ．． | 21 | 1，873 |
| South Carolinn | ． | ． | 2 | 4 |  | 6 | 2013 |
| Grorgla ．．．．．．． |  | ． | ． | 1 | 1 | 2 | 107 |
| Florlda． | 1 | ． | 4 | － |  | 6 | 1，833 |
| Alabama | ． | ． | 1 | 1 | 1 | ， | 221 |
| Mtselselppl ．．． | ． | $\ldots$ | 6 | － |  | 0 | 136 |
| Toulsiana．．．． | ． | ． | － | － | 5 | 11 | 920 |
| Tonnessee．．．．． | $\ldots$ | ． | $\ldots$ | ． | 4 | 4 | 1，497 |
| Kentueky ．．．．． | ． | $\cdots$ | $\cdots$ | ． | 28 | 28 | 8，402 |
| M1ssourl ．．．．． | ． | ． |  |  | 10 | 10 | 2，400 |
| Illlnols． |  | $\cdots$ | 8 | 2 | ． | 10 | 2.805 |
| Wisconsin | 1 |  | 9 |  |  | 10 | 2，403 |
| Ohlo． | 1 |  | 31 | 13 | 39 | 84 | 22，665 |
| Mlchigen ．．．．． | 1 | 1 | 14 | 11 | 10 | 87 | 7，441 |
| Callfornla．．．． | ． | ； | 7 | 1 | 9 | 11 | 050 |
| Oregon ．．．．．． |  | 1 | ． | $\cdots$ | $\cdots$ | 1 | 255 |
| Totnl，1857．． | 261 | 58 | 514 | 358 | 203 | 1434 | 378，804 |
| Total，1856．． | 800 | 103 | 6.4 | 470 | 221 | 1.03 | 400.808 |

Tha limited rpace allotted to the article United Statsa in this work preeludeaany attempt to givo moro than the statistice of the production, commerce, and navIgatlon of the United States proper. Undor thelr separate heads are given the imports and exports of every article of comurerce-as Cotron, Bheadnturfg, Ricer, Suanh, Tonaceo, etc.; also the trade of each Individual State under its proper head; and under their proper healls the commercial law asd the latest atatiatics refrirding the United Statea in aubjects-as Conss, Coma. tee, Cinala, Consuls, Ifaihioahb, Tkleomaizi, Sumbing, Tonsmur, ete. To nil of which referenco is made for more particular Information regarding the United States.

Uruguay. This small republic, known alao as the IBanda Uriental, or the Cisplatine Republic, lies on the north coast of the estuary of the kio da la PJata, und contains a population estimnted at 120,000 -the Jeast of a y of the South American States-of which about 16,000 reside at the capital, Montevideo. The soil of Uruguay is fertile, well watered lyy large rivera, and is peculiarly adapted to grazing and agriculture. Animal producta aro the staple donestic exports, and consise prineipally of hides, dry or salted, of hornod cattic and hurses ; tallow, grease, bones, animal carbon, horns, horse-hair, cow-taila, sheep-sklin, and wool.

Thourh there is ne treaty existing letween the United Statea and Uruguay, our commereial intorcourse is on a footing of equality with that of other countries; being favored by no privileges, and being suljected to no regtrictions not common to all other foreign nations. This intercourse is regulated by the egislation of the republic, and during the past few yearg has undergono several liberal and important modilications. D'rior to 1819 , an exorbitant impost of 115 per tharrel was levied on the article of tlour, lly deeree dated April 6:h of that year, this duty was reduced to 6250 per harrel, with a provision that "this impost shall Jast no longer than necessary to pay the delt ineurred on the article of flour, the liquidution of whish shall commence immediately." Hy aubsequent decrees of April. IXis? the export duty on horse-hides, dry or
salted, and tha transit duties upon all marchandise were abolished; and the former duty of 20 cents per hide on ox and cow hidea, iry or salted, was reduces to $7 \frac{1}{2}$ centa per hide. By tho new tarlif, however, of October 11, 1853, now in force, the duty on flour is fixed at 35 per cent.; and all prodnets of the country, and all irreign merchandiso free of import duty, or that has prald such duty on lmportation, are free of duty on Leing exported. The tranat duty ts also abolished. This larlff has teen superseded by another, bearing date July 19, 1856. Tho provislona referred to remain, however, quite the same.

The port regalations are liberal-vegsels belng allowed to remain in pert twelve daya without entering at the custom-house, and to land samples, so as to dispose of a part or the whole of their cargoes. Should they leave within that porlod without effecting a salg, they are subject only to pilotage, health-visit, bill of health, and stamps.
A treaty of commerco and navigation, ete, was rallfied be: ween Eugland and Uruguay, July 17, 1843, which expired toward tho close of 1853 , and was not renowal at the lateat dates from Montevideo. With France a preliminary treaty was concluded Aprll 8, 1836, to conlinue in force until another treaty ahould be agreed upen; or, should none such bo sulisequontly entered into, then to contlaue fifteen years. 'I'ho treaty whilh lingland, now lapsed, was based ujon a principle of reciprocity; und that with France is upon the principle of the most favored natien. The merchant marine of Uruguay, it is helieved, comprises but few, if any, venrels of more than sixty lens burden. It consisls of about 800 vessels of between twenty and fify tons oach, averaging each about six men, or from 1800 to 2000 men in all. These aro mostly engaged in the inIermal and coaating trade, the latter chlefly with lliazil; which trade is also open to foreign vessels, on tho payment of the diseriminating tonnage. Besides tho uhove, there are five vessels, all of foreign construction, under the Uruguayan flag, measurling in the argregato about 1500 tens, which make voyages north of tho equator.


| Vears ending | Eiprort. |  |  | Imports. | Whereof there wae in Hullinu anid Aprecie. |  | Tonnage cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hotimentir. | Forniva. | Total. | Total. | Eispert | lingrort. | Atieriratl | Mornign. |
| *-pt. 30, 18:11. |  | ... |  |  | .... | $\ldots$ | [1\%" | .... |
| 18! | \$3,305 | . . . | 83,325 | . . . |  |  | 14.) | . |
| 18.83 | ... + |  | ... |  | . . . | . . | 1,129 | , |
| 1414...... | . . . | ... | . . . |  | . . . |  | 4,764 | $\cdots$ |
| 1835...... |  | $\ldots$ |  |  | . . . | . .. | 03311 | 140 |
| 18:16 |  |  |  |  | . . . | . $\cdot$ | 5,131 | $\cdots$ |
| 14817. ..... | 7. N 14 |  | 7. M0.4 | \$10.610 |  |  |  | 40 |
| 1818. . . . . . | 6\% 568 | \$94597 | (14.42. | 18,631 | 3040 |  | 3,112 | 1\%0 |
| 18:30.. | 60, 098 | 38302 | 89,400 | 625, 4198 | 7875 |  | 8.514 | :68 |
| 184. | N 2.102 | 67.629 | 119,.630 | 404.4 ks | 31.617 | S6. 50.05 | 8117 | 231 |
| 'Total. | (4183.061 | $\$ 1.54,49_{i}$ | \$ $\$ 10,648$ | \$1,118,9\% | \$49,120 | \$1,807 | $4 \therefore 16.1$ | $1.410{ }^{-3}$ |
| 4.pt. 31, 1811....... | 8140031 | \$10,103 | \$1:06.221 | 8345.834 |  | \$060 | 10.167 |  |
| 182\%....... | 2011.69 | 62.14is | 20bl. Mit | 551.014 | \$10,43: | 4.6 .7 | 14, 15 | 812 |
| 9 mos. \|xtil*...... | 919,876 | 7. 519 | 25.125 | 121.5in | 7403 |  | 6. 454 | : 9. |
| Junc 3), 14.4. | 391,266 | 64.111 | 46:171 |  | 96671 | 20,4,88 | 12.510 | 1,151 |
| istb.... | 141.983 | 16, 1001 | 16i, 136 | 21, 773 | 041.904 |  | 6, 63 | 14 |
| $154 \%$ | 41046 | 16. 598 | 24\%,194 | 20,4ig | 5:16 | 3, that | 5019 | 301 |
| 1817 | 180513 | [0. 3 14 | 2till nild | 112, S 1 ll | $3 \cdot 301$ | 18.6 | 8.500 | Ivd |
| 1515.4. | 280.509 | 4il. 514 | 68.L.72\% | $\sqrt{2} 36,161$ | 4.002 | 4 41 | 11,944 | 4113 |
| 1884....... | 138.635 | 131041 | 147.7:7 | 79,924 | 8 S, ind 0 | .. | 2,345 | 2,4ins |
| 18:'. | 611024 | 1514 | 131,84: |  |  | . $\cdot$. | $86 \%$ | $1.16 \%$ |
| 'Toral... | 54.022, 42, | \$374, 317 | * $5,1.6,163$ | $\pm 1,265,511$ | *117,201 | \$32,5.11 | त1, 240 | 12, $\mathrm{H}_{2}$ |
| 11810930, 1851. | *32, 111 | \$13,0i8 | \$45.780 | \$19.114 | 412,500 | $\ldots$ | 1,3.9 | +1\% |
| 14, | 181, 160 6 | 11,017 | 103.073 | 41,76\% |  | - | \%, 104 | 3, 0 NT |
| 16it. | 2901, $0-8$ | 12,50 | 31\%, 144 | 312, 180 |  |  | 8701 | 136 |
| 14bt..... | 4F9, R5s | (t'.192 | $812.08,7$ | 4\%\%, 170 |  |  | 1781.3 | 1.019 |
| 145....... | 304637 | 27.515 | 122,172 | 44: $71 \times 1$ | 3.201 | . . . | 10, 1068 | B lis |
| 14.4....... | 17.049 | 33.1016 | 851.32. | 811, 020 | 4.333 | . . | 18.784 | bith |
| 18.3 In. | 976, 3 \% | 21, M12 | 1. 6003,1$)^{4}$ | 364,206 |  | . . . | 22,412 | $3_{8} \mathrm{HF}_{5} \mathrm{i}$ |

- Nino montha to Jume 3a, and the fise ! year from this the begtan tuly $\overline{1}$.

In $|\times 5|$, the mumber of vessels under the Linited States in $\mid$ NiII, according to official returns of Iruguay, Stutes lia; which entered the jort of Montwideo was s.venty, with an aggregate tommago of 22,01 tolls; and the number eleared was thirty-nine, with an afgregate tonnage of 12,701 tons. Imjorts from the Unifed consisted of rum, 15:i barrels; spirite of lurpentibe, 2f: harrels; starch, 2506 canks and hoxes; rice, 2149 canks; refined sugar, 1797 easks; coditish, 312 loxess; tubs and buckets, 829 dozen; Btumen, 133 barrds;
cinnamon, 150 boxes; Chinese crackers, $998 \frac{1}{2}$ packages; brooms, 1474 dozon; flour, 19,993 barrels; hams, 2300 ; gin in bottles, 34,438 dozen; gin in demijohus, 31,748; yin in plpes, 200 ; lumber, 3,662,881 reet; chairs, 1655 cases; tolacco (chewing), 1142 bexes; sterrin candles, 1070 bexes.
Ily a decree of Octolser 11, 1853, the government of Uruguay opened to all thags the nuvigation of the rivers und atreams of the republic, on a foeting of equalty with the national flag; which tecree was auperaeded by a brief enactment of Juna 17, 1854, as followa; Ait. 1. Tho navigable rivers and atreama of the repullic are open to the navigation and commerce of all nations. 2. In the navigation of the rivers and streama, foreign vessels are aubjocted to the same regulations of police and of custom-houses with national vesada. The precise meaning of thia act was at lirat in some doubt. It did not expressly declare whs ther or not it was applicable to the port of Montevideo. Upon reference to tho government of Urugaay, however, by the agents of forelgn governmente reaident at that pert, it was announced that the law appllea to the pert of Montevideo.

Usance, a peried of one, tiro, or three months, or of a lixed number of days, after the date of a lill of evchangu, nccording to the custom of ditierent places, betore the bill becomes due. Double or treble usance is doublo or treble tho usual then ; and half usance is half tho the. When a month is divided, the half usance, notwithstundling the dillerences in the lengths of the months, is uniformly lifieen days. Uaances are calculated exclusively of the date of the bill. Bills of exchange drawn at usance are allowod the uaual days of grace, and on the last of the three days ihe bill should be presented for jayment.--Sea Milds of Lixemanae and Excianal.

When a bill is drawn at a certaln number of days after date or after sight, those days aro reckoned exclusive of tlie day on wheh the bill is drawn or acecpted, and inelusive of the day on whieh it fills due. "After sight" is equivalent to "after acceptance;" and with regaril to botes, it means "after presentmont for sight." Hy tho ene:om of trade, in bills and notes, a month is deemed to bo a ealendar or solar month, The irregularity of the despective montha is net taken into the account. If a bill at one montl be drawn on the 31st Janmary, it will he due on the 28th of Febrmary, or 23th if leap-year, and, reekoning the days of grace, will be payable on the Bd of Mareh.
The threo days of graco generally allowed are reckoned extusive of the thy on which the blll falls dne, and haclusive of the last day of grace. When thero are no days of grace, and the bill falls due on a Sunday, Christmas-day, or Gue: Friduy, public fust or Thankggiving-day, or when tice last of the days of graco latyens on such a day, the bill becomes payable on the day preeceling, and if not then paid mast le treated as dishonored. A presentment for payment beforn tho expiration of the days of grace is promature, and will not entitle the holder to charge the nntecedent parties.
Days of grace are allowed on promisgory notes as well us on bills, but they are not allowed un ehecks, or on bills or notes payable on demand.
When a month is the ordinary usance, a half usanco is lifteen slay̧y.

The calculation of the time depends upon the differrut modes of computing time.

All places with which we are in the habit of negotinting bills compute their times as we do (exee, at that loussin ullieres to the old style), by years reckoned i.a a series from the birth of our Saviour, and wided each into (welve months, or 365 (or in every fourth year, 366 )days.

Upon a hill Jrawn at a place using one style, and payable at a place using the other, if the time is to be reckoned from the shate, it shall be computed necording to the atyle of the place at which it was drawn; otherwise arcording to the style of the place where it is pay-
able; and in the former case the date muat be reducad or carried forward to the atyle of the place where the bill is payable o the time reckoned from thence.

Thua, on a Lill dated the lst May, old style, and payable here two mouths after date, the thmo must be computed from the correaponding day of May, new style, viz., May 13th; and on a bill dated 1st of May, new style, and prayable at St. Petershurg iwo monthe after date, irom the corresponding day of April, old atyle, viz., A pril 11Jth.-Lleone Levi's Com. Law of the World, vol. i. p. 24.

Usquebaugh, an Irial, spirituous lif or, compoundel of apirita, raiains, cimmamon, and cloves.

Usury, an illegal rate of intereat or compensation for the nse of money. Usury is generally supposed to ba unequivocally condemned lin the Scrlptarea; but it must be remembered that the present algnification of the term is very different from that in tormer thos, Wu find in Exodus, xxil. 25, "If thou lend money to any of my people that is poor by thee, thou shalt jot bo to him as an esurer, neither shalt then lay apon him usury ;" nud in Levitieus, xxv. 35, "If thy urother be waxen poer * * * * take thou no usur of him or increasc." It will be seen from these ext:acts that the taking of any compensation from the peor ia forbidden, and not a limited rate fa regurded na naury. We apprehend that, in a strict acceptation of the term, 7 per cent. per annum is usury, ua well as the same per cent. a month. In the present time, however, no urguments are needed to prove that money is a merehantablo commodity, and therefore as much a mattor of protit and aulject to fluctuation as other merchandise. Wo will, therefore, confine ouraelves to a short necount of the ctlorts to repeal this relle of a pust age, and the Jaws now in force in the different Statea.

The repeal of the usury lawa in Great Iritain took place August 5 th, 1804, by an act of the british I'urliansont. Such an important change the the commorcial poliey of that country could not have been adopted cither suddenly or without maturu ecnsideration. In fact, the change had been roing on gralually for more than twenty years; and tho advantages of experienco were thus sought from the to time, as the restrictions were, step by step, removel, omit the cummercial eircles of the country thus tinally relieved from the operstion of the former vicious lews. In the year 1833 the first importunt linovation upon tho usury-law jelicy was mado in England.

After four years' triat, it was found that commerclal and manufacturing people of all classes prononnced the new features of the law to be advantageons in their operation to horrowers, if not to lenders. 'The next step was in the year 18:3, when I'urlhment granted further relief by removing the usury restrictions upon ali commercial paper having twelve months or less to mature. 'Ihis would seem to cover the goound butirely, and to furnish all the relief that commercial rireles eould reasomably demand. llut so satisfied were the linglish peoplo amd the English gevernment, that the nsury laws, even in their milhest lorm, were inoperative or projudicial, that, after various petitions and investigations, the total atolishment of these lawe was etleeted on the 5 th August, 185. The hill to this effeet had passed the House of Lords on the 2ith July preceding, aud was fmmediately brought forward in the llouse of Commons, where it was favoualily considered and timally passed. The passage of the hill was atrongly urged in the lleuse of Lurds ly tho Marglis of lamsdowne, by Lord Camphedl, and the lord Chancellor. Lord Ilrougham supported the b.ll, leoth on merenntile and moral groums. The Mariuis of Lanslowne remarked that:
"'The inconvenience whieh had heen found to result from tho operation of the laws against usury has been so many and so great, that notwithstanding atrong prejudices on the subject of usury and usurers, it had been found necessary to relax thase lawa from than to
time. At the time of the commerclal fallures in the years 1886 and 1887, It was found that the greateat relief which was exparienced was the reault of a provisiou which ind been introduced not long previousiy inte the act for the renevila of the Bank charter, enabling the Bank of Engiand to dispense with the uaury laws."

Many people, in their averalon to any moditication of the asary laws, are noder the convietlon that If the price of money is not regulated by isw, they will be compelled to pay an enommoua tax (ranging from $2 \delta$ to 75 per cent. per anaum) on loans of mency. Those whe seriously reflect upon the matier-who have any practical or familiar knowledge of the lawn of irnde-are nnanimous in thelr opinions that all shackles of the kind shouid be permanently removed.
If we examine the nsury laws of the different States, $w$, wlil fipd in all olaberate and stringent enactmenta providing puaishment and penalties for the exercise of every one's inalienable right; namely; that of using their property to the best advantage.
. We give a synopsis of the usury laws of the United States as they are now in force.

| states. <br> Malno | t.egal rat. 6 per et. | Penallies. <br> Loas of excess of loterest and law |
| :---: | :---: | :---: |
| Ifanipshtco. | 4 |  |
| Vermont. ..... | * | Loss of excess of Juterest. |
| Mataschusetts. | * | Loss of three times the whole interest and lat costa. |
| Rhode Island., 0 | * | Loss of excena of fintereat. |
| Conncelleut... 6 | " | Loss of all interest. |
| New York .... 7 | 4 | Forfottire of contris is ant, In crimival action, fine not oxceedling $\$ 1000$, and imprisonment not excoeding six months. |
| New Jersey ... 0 | 4 | Contract vold, and prizelpal and lnterest forfelted. |
| Pennsylvania . 6 | 46 | Princtpal and Interest for felted. |
| Delaware..... 6 | 4 | Psinelpai and interest forfoiled. |
| Maryland..... 6 | 4 | Toss of excess of intere $\downarrow$ t. |
| Virginia . . . . . 6 | 46 | Usurious contracts vold. |
| North Carolina 6 | 4 | Prinolpal and Interest forfeltad; and, if uanry is paid, donble the amount of principal and intorest. |
| Bonth Carbian 7 | 4 | l.oss of interest. |
| Georgis ...... 7 | 4 | Lona of interest. |
| Alabaora...... 8 | ${ }^{4}$ | Luses of interest. |
| Arkansas ..... 0 | - | I rose of Interest, |
| Mlordan . . . . . 6 | $\because$ | Lross of Interent. |
| Itilnois + . . . . . . 6 | ${ }^{\prime}$ | 10 per ceetst. allowed on contrant, and joss of luterest if excesding thin. |
| Indiana. . . . . . 6 | " | Loss of fie thines the interest. |
| Iowa ......... 6 | ${ }^{6}$ | 10 per ent. sllowed on contracts, Forfeitare of eseess of laterent. |
| Kentucky . . . . 0 | * | Irons of Interent. |
| Lavalslnam..... 8 | " | lose of Interest. |
| Mehigran . . . . 7 | " | 10 per cent. nillowed on contracts. Forfelture of exeess of finterest. |
| Minulandppi.... 6 | * | 10 per cent. allowed on contracts. Forfelture of exce-s of Interent. |
| Missourl . . . . . 0 | * | 10 per eent allowed on contracts. Forfelturo of excoss of interest. |
| Ohlo .......... 6 | ** | 10 per cent. sllowed on contracts. Firfilture of execss of futerest. |
| Teonesree. . . 0 | ** | Liable to an Indietment for mindemeanor. Forfelture of unurions Interest, and fined. |
| Tuxas ........ 8 | 4 | 12 per cent. allowed on contracts. Forfelture of all intereat. |
| Wlemndn . . . I? | * | L.oss of interest. |
| Callforula ....l) | * | No penalty. |

From thie synopsis we see that the usury laws of Naw York are tho most rigorous, anul Inelude, in criminal actions, a thas of $\$ 1000$ and imprisomment of aix months; in mercly civil actiona, a forfeiture of contract.

Califuruia la the only State that provide no penalty. The Territories are also net subject to any natury Inws.

No argoment in needed to prove that such alsuri iaws nre cloge on the commercial prosperity of the cound $\gamma$, and that in linancial revulsiona likn the present they effect:sally provent the exerclse of any cons. merclal clasticity, A parall.l could be found by aupposing restrictive laws against selling tlour above ${ }^{3} 5$ per barrel; we would thon run as goord a chance of starving as uur suerchanta do of commercially atarving for waut of money when there la an ahundance around them, but when the legal lateredt does not juy capleal.
lsts ior the riak, -Ses arricles Banks, Commerice, Intenest, etc. For Usury Lawa, Discussions on, etc., see Rdinburgh Review, xxvii. 899 (Defense of); American Quarterly Revisw, xxli. 177, xxi. 145 ; North Amarican Review, $x \times x i x .168$ (A. H. Ever 7 TT) ; Blackwood's Magazine, xxiv. 68; Bankers' Maganine, New York, lv. 581 (Joun Whipple), 688 (J. R. M'Cullooh), v. 781, 842, vill. 845, lx. 241-248 (M ${ }^{4}$ Vickar), 811 ; Huwr's Merehants Magazine, III. 616, v. 40, 110; Dem. Rev., xxvil, 221-328; Quar. Rev., xxxiil, 186.

Utalh, a territory of the Uniter! States, mostly 00 m prised in the Great California Basin, and extending from the crest of the Rocky Mountains on the east to the Slerra Nevada on the west. It has Oregon un the nerth, California on the west, and New Mexico on the south. Area, 208,776 squsre miles. In 1850 It was divided Into aeven crunties, and the nimber of dwell. Ings and population were as follows: Dweliings, 2322; white inhabitants, 11,830 ; free colored, 24 . The counties erected since 1860 aro Deseret, Green River, Miilard, Juab, and Washington.
The easiern portion of Utah is drained by the Colo. rado lliver of the Gulf of Califoruia. Its valley has been butimperfectly explored, but, as far as ourknowledge exists of It a very small portion of it only can be limught into cultivation. Tho rem. ining portion of Utah is comprised In the Great Basin, and forms a distinct and mont pecuilar reg.on. The rivers nil terminate within les Jimits, in lakes with no visible ontlete, Tho Great Sait Lake in nbout 35 miles broad and 70 lone, and the watera contaln more salt than can be hold in solution; hence its borders abound with erystalized. salt, and the bottom of the lake is Incruated with it. Ne living, creature can exist In lts waters. The valieys are susceptlble of cultivation, and are very fertile, where they can be irrigated. Timber, althongh acarce, is very dur:ble. Iron ose exists In the mountrin ridges, and several furnaces are already in operation smelting it. The temperature is more uniform in the Great Salt Iake valiey than on the Atlantio coust; it rarely falls below zero. There is but fittle rain, except on tine mountalns, from March to October.

Thoro wero in this territory, in $1850,16,3 \mathrm{~h} 3$ acres of land improved, and 30,516 of unimproved in farms; cash value of farma $\$ 3 t 1,799$, and the vaiue of fimplements and machinery 88,288 . Live stock-horge, 2429 ; as and mnies, 125 ; milch cows, 4861 ; worklugexen. 5266 ; other cattie, 2.189 ; sheep, 3262 ; swine, 914 ; value of live stock, $\mathbf{\beta}^{2} 546,968$.

Agricultural Products, efe.-Whent, 107,702 lushels produced ; rye, 210; Indlan corn, 8890 ; oats, 10,900 ; bariey, 1799 ; buckwhent, 332 ; peas and benns, 299 ; potatoes, $4 i 1,068$; aweet do, 60 lushels. Value of prod. uce of market gardens, 23,868 ; nounds of lutter made, 83,309 ; of cheese, 30,998 ; motasaca, 68 gallons; beeswax and honey, 10 lbs. ; wool, lbs. produced, $\mathbf{0 2 2}$; flax, 550 ; hepr, 50 ; tobacec, 70 ; tons of hay, $4 \times 05$; clover nceds, 2 hushels; thax-seed, 6 ; value of homemade manufacturea, c 1392 ; of slaughtered animals, $467,980$.

The eapital is Fillmore City, but the Grent Salt Iake City is where tie Iogisinture meets, and it is uiso the resittence of the governor. The other towns are I'aluyra, Sprlugvilie, l'rove, Cedar, P'arewan, Mrutl, Lehi, Ilrownsville, ete.

Utah was a part of Alta California, which was cedell to tho Unitod States at the treaty of Gumbalupe llidalgo Fehruary, 1848. Irevious to the Mexican war this territory was oniy known and occupied by trappers and Indlans. About the time of the opening of the war, the Mormons were driven fron Nanvou, Illinoia, and, after making a temporary snjourn at Council Hinlis, Iowa, they settled in Vtals. They organizel a government under the title of the State of Deserat, but the United States establiahed a torriturial government la 1850, by which the territory is nomiually under sulijection.


Valonia, a species of acorn, forming a very con- United States, and constituteo a leacing article of sidorable artiols of export from the Morea and the Lovant. The more aubstance there is in the huak, or cup of the acorn, the better. It is of a bright drab color, which it preserves so long as it is kept dry: any dampnees Injures it, as it then turns black, and loses both its atrength and value. It is principally used by tanners, and is alwaya in demand. Though a very bulky article, it is uniformly bought and sold by welght. A ship can only take a small proportion of her registered tonnage of valonia, oo that its freight per ton is always hlgh.
Valparaiso, the principal sea-port of Chili, lat. (Fort St. Antonio) $33^{\circ} 1^{\prime} 9^{\prime \prime}$ S., long. $71^{\circ} 41^{\prime} 5^{\prime \prime} \mathrm{W}$. Popnlation perhaps 28,000 or 30,000 . The water in the bay in deep, and it affords secure anchorage, except during northerly gales, to the violen.ce of which it is exposed; but as the holding ground is good, and the pull of the anchor against a stoep hill, accidents seldom occar to shipe properly found in sachors and cables. There is no mole or jetty ; but the water close to the shore is so deep, that it is customary for the smaller class of vessels to carry out an anchor to the northward, and to moor the ship with the stern ashore by another cable made fast to the shore. Large ships lie a litthe farther off, and loed and unload by means of lighters. The best shelter is in that part called the Fisherman's Bay, lying between the castle and fort St. Antonio, where, close to a clear shingle beach, there is 9 fathoms water. : In the very worst weather a landing may be effected in thls part of the bay.- See Minas's Chili and La Plata, i. 440, where there is a plan of Valparaiso. Tho hstbors of Valdivis and Concepcion are much superior to that of Valparsiso; the former being, indeed, not only the best in Chill, but second to fow in any part of the world. But Valparaiso, belng near the capital, Santlago, and being the central depót for the resources of the province, is most frequented. The town is convenlently situsted, at the extremity of a mountainous ridge; most part of the houses belng built either upon its acclivity or in its breaches. Largc quantities of corn and other artcles of provision are shipped hero for Callao and San Francisco, but principaily for the latter.

In Valparalso, the phenomenon of the sea-breeze is finely developed. Valparaiso is situated near the eouthern border of the calm belt of Capricorn when it is at its farthest southern reach, which happens in our late winter and eariy spring-the Southern summer and autumn. This is the dry season, when the sky is singalarly clear and bright. The atmosphere, belng uesrly in a state of equilibrlum, is then ready to obey oven the most feelle impulse, and to hasten toward the place of any, the alightest rarefaralion.

At about ten in the morning the land begins to feel the sun, and there is a movement in the air. By 3 or 4 P.m., the sea-breeze comes rushing in from the southward and westward, and strikes the shipping in the harbor with the force of a gale. Vessels sometimes drag before it , and communication with tho shore is suspended. By $G$ r.s., howevor, tho wind has spent its fury, and thero is a perfoct caln.-Maury's Phys. Geography.

United States.-The United States has ranked next ntter Eagland and France in the foreign trade of Chitif; but, since tho Incorporation of Califorula an a State of tho American Union, the first rank in this trado is now assigned to the United States Bag. This trado consiste in the exportation of cotton textiles, flour, salted provisions, and miscellaneous cargoes. The article of cotton manafacture called tucuyos is much demanded In Chill, and, until lately, Imported from the marufactorica of England exclnsively, is now suppled, by the
trade. Besides chose countrles, Chilli has also considerable trade with several other European and South American nationis. ' From Belglum shè receives elgars, refined sugar, woolens, window-glass, gin, cheese, paper, and books ; from Central America, bastard pearls, hides, indigo, cochineal, sugar, sarsaparilla, dye-woods, cotton, and coffee ; for which she sends in return, from the warehouses of Valparaiso, textles of cotton calicoes. Brazll sends no veseels to the ports of Chill; but there is some trade carried on between the two countries under the Chilisn and forelgn flag." Neither has Mexico any direct trade with Chill; but Hamburgian and English vessels annually supply the port of Mazatlan with valusble cargoes of European merchandise taken on board at Valparaiso. 'Owing to the restrictive character of Mexican commercial regulations, this trade is mostly contraband. Valparaiso is the chief port of transit for the commerce of all the republics of South America. The manufacturing industry of the southern provinces of Chili has mada but little progress. There is but one establishment worthy of being specially noticed-namely, a copper foundery, which at the commencement of $18: 16$ was in active operation ; and from which that year were experted to forelgn countries 4000 quintals of Its productions. The ore wes supplied from tho ports in the northern parts of the republic, and even from the Bolivian port of Cobije. Chili is, however, essentially an agricultural country. Ind pendently of the working of the mines $\mathrm{c}^{f}$ gold, silver, and copper, and the casting of these metals, almost all the mechanical industry of the republic is to be found in the flour-millis, the tanneriss and currying establishments, and the talloring shops, where tho ponchos or mangos aro made. There are, besides theso, some establishments for the mannfacture of candles and common soap. Still, there is but little probability that the manufacturing industry of Chill, at least for a great many years to come, will present any comptition with the manufactured productions imported from Europe and the United States. The revenues of Cbill have augmented in a ratio cqual to the increase of ite commerclal prosperity. Its forelgn debt is yearly curtalled, and the interest on it puld with such punctuslity as to have raised the 6 per cent. stock in London to 108. This debt, contracted during the war of Independence, cousistod originally of a loan raised in England of $£ 1,000,000$. Owing to civil wars, and the generally unsettled state of the country, the debt, with the accrulng interest, soon donbled itself. Under the administration of Secretary Rengifo (in 1830), a compromise was effected with the English creditore, and its terms have since been faithfully adhered to. In 1852 thls delt was reduced to $87,104,000$-one half at 6 per cent., and the remainder at 3. Tho home debt has been reduced to less than $\$ 1,500,000$, bearing 8 per cent. interest. The merchant marino of Chlli has also shared in the general prosperity of the republic. Steam-vessels can at all times obtain coal in the greatest abundanco, and of an excellent quality, from the mines of Talcahuano, and at many points along the coast. With such advantages for the active development of her phyalcal and commercial resources, Chilt has long since drawn to her ports the merchants of the great industrial and commerclal ngtions of the world. Among these, England, France, Germany, and the United States, are the chief competitors for her foreign trsio.
The revenues derived from import duties in 1851 amonnted to $\$ 2,724,718$, of which there was collected at the port of Valparaiso $\$ 2,426,631$. The total amonnt. in 1852 was $\$ 3,465,03877$. The following table exhiblts the quantitles and values of copper, in bars, ex-
ported from Chill to the Usited States, from 1850 to 1855, both inclosive:


In 1852 the imports into Chili reached in value $815,347,332$; and the exporta from Chili amonnted to \$14,087,556. Comparod with the preceding year, imports fall off $\$ 537,640$, while the exports of 1852 show an increase over those of 1851 of $81,941,227$. This perceptible advance in the export trade of Chili in 1852 is attributed to the increased activity in working the copper ininea of Coquimbo and the ailver mines of Copiano, as also to soveral heavy shipments of flour and other producta to California.

The following tabular statement exhibita the number of foreign vessels and their tonnage, and the number of sational vessels, that entered Chilian ports from 1844 to 1851, both inclusive :

| Years. | Voralgn Vemeels. | Tounake. | Chillan Vorsela, |
| :---: | :---: | :---: | :---: |
| 1814. | 1487 | 374,026 | 14.9 |
| 1845. | 1458 | 359,850 | 1480 |
| 1543. | 1523 | 888,567 | 1599 |
| 1847. | 1484 | 860,097 | 1621 |
| 1848. | 1897 | 34, 463 | 1523 ) |
| 1849. | 1777 | (538,259 | 1511 |
| 1850.. | 2599 | 740,425 | 1784 |
| 1851...... | 2351 | 680,185 | 899 |

The number of vessels that cleared in 1850 was 2497 , making an aggregate of (entered and cleared) 5096 vessels, with an aggregate tonnago of $1,4 \cdot 12,425$ tons. The number cleared in 1851 was 2205 , whici, with the 2351 given in the table, makes a total of 4556 vessels, measuring in all $1,233,978$ tons. This shows a falling off in 1851 of 540 vesaels, and 208,417 tons. It will be perceived that the number of national vessels that entered Chilian ports in 1851 is put down in the table at 890. It must not, however, be inferred from this that the merchant marine of Chili actually counts that number of vessels. The figures merely indicate the number of times the national neerchont flag entered Chilian ports duing the year. Still, within the past few years the merchant marine of Chili haa largely Increasel. Staring from 1848, this increase is found to bemof vessels, 100 per cent., and of tonnage over 300 per cent. Thls is shown by the following statoment :

| Yeara. | No. of | Aggregata |
| :---: | :---: | :---: |
| 18 | 115 | 12,028 |
| 1849 | 119 | 20,022 |
| 1850 | . 153 | 27,60t |
| 1851 | 182 | 34,517 |
| $185 \pm$. | 215 | 41,609 |

An official dispatch to the British government from Chili, under date of September 13, 1855, states that the returns of Chilian trade for 1853 and 1854 shows a great increase in both branches of import and export; but that the markets were consideralicy atfected by the high price of proviaions, which commenced in 1854, and centinued up to the date of the dispatch; owing mainIy to the large exportation of wheat to Australia, where it brought as high as $\mathbf{8} \mathbf{8 6}$ per quarter of eight bushels. Wool may be sald to be, after copper, the chief articio of import into the United States from Chili. The following tabuiar statement exhibits the quantities and values of wool imported into the United States from Chili, during the five years ending with Jone 30, 1855, together with the aggregate quantitiea and values of the same imported from all olher countrics for the same period-ss given by United States authorities:

| Yeam. | Frosisilc Countiten. | Valanc. | Frome lihlit. | Valuen. |
| :---: | :---: | :---: | :---: | :---: |
| 18:51 | Pounds. <br> 31848,491 | \$3,833,157 | Bounde. 2109,845 | \$125,650 |
| 1852 | 14,341,208 | 1,930, 711 | 1.863.189 | 109,616 |
| 1RK3 | 2 t .575 S (\%)9 | 2,600,718 | 2.64, 300 | 255, 190 |
| 1884 | ce.2mi 110 | 2,582,145 | 1,857,447 | 161.066 |
| 1865 | 18.514.415 | 2,072,189 | 2,841,902 | 317,604 |

In 1848 a decree was passed by the Chillan governa ment providing for the establishment of a statistical board. Since that period full commercial returns hevo been regalarly published, uader the title of Estadistica Comercial de la Republica de Chile. From these publications the following tables, exhibitiug the general foreign commercial movements of Chili, from 1844 to 1851, have been compiled:
 gign lapost and Export Teade of Chili, tif pain OIPAL COUNTBIAB FARTIOIPATINO THERRTN, AND THW NHAER ABIONED TO EAOM, IN 185t, AND ALBO THE TOTAL TBADE FOA A ygelon or Elour yeaea.

| Franes C | 1 mparta | Exports. |
| :---: | :---: | :---: |
| Franes and colonles | \$1,705.929 | \$661,118 |
| Relgium | 195,879 | 2,405 |
| sloliand | 408,050 | 65,739 |
| Germany | 1,030,853 | 460,155 |
| England end colonies | 4,810,864 | 4,043,290 |
| Denmark ...... |  | 1,390 |
| Swaden and Norway | 5,081 | 8,194 |
| Spain and cotonles ........ | 145,510 | 74,859 |
| I'ortugal. | 18,108 |  |
| Sardinia | 74,410 | 21,309 |
| Chisa. | 299,843 | 42,647 |
| United Stales | 4,504,211 | 8,515,286 |
| Mexico | 23,837 | 7.532 |
| Centrat America | 42,241 | 100, 616 |
| Fcuador. | 180,788 | 49,774 |
| Brazit. | 024817 | 613,893 |
| Peru | 1,010,644 | 1,179,247 |
| Rolivia. | 4,6,988 | 209,002 |
| Uruguay. | 10,852 | 61,215 |
| Argentins Confederitlon. | 170,556 | 46,624 |
| Potynesia.................... | 68,910 | 60,352 |
| New Granada | .. | 225,483 |
| Other countries | .... | 7,802 |
| Tolal year 185t. | \$15,884,172 | \$12,140,301 |
| " 4 1550. | 11,788, 108 | 12,426,269 |
| 4 " 1819. | 10,722,840 | 10.603,447 |
| 4 " 1848. | 8,601,357 | 8,553,595 |
| * 1847. | 10,068,849 | 8,442 055 |
| $\because \quad 41816$. | 10,149,186 | $8,115,288$ |
| $4{ }_{4} 1845$. | 9,104,764 | 7,601, 152 |
| 4 " 1844. | 8,590,674 | 6,487,023 |

Tabulaz comparatiya Statenent moithitino raztious LAR DEBORILTIONE OF THE PRINOIPAL ARTIOLES OV NRRCHANDIEE, AND TIE aESEECTIYR ALUIB TIRAEOF, IMPOATED into tifg lorts of C'Hll yaom 184') to 1551 , motit InOLUSIVE.

| Articles. | 1849. | 1850. | 1851. |
| :---: | :---: | :---: | :---: |
| Ale and porte | \$10,6.77 | \$10,439 | W13,053 |
| Hooka, printed | 22,804 | 20,320 | 35,490 |
| Callcoee | 656,512 | $486.6 \pm 7$ | 516,148 |
| Cassimer | 223.459 | 245714 | 236.574 |
| C'isuire | 35,846 | 32.068 | 29,873 |
| Cloth | 170,501 | 171,217 | 14,4,572 |
| Clothing | 48,029 | 18400 | 19,477 |
| Cool | 340,510 | 253,246 | 2:6,473 |
| Cotton check | 14,628 | 15, 156 | 17,506 |
| " drilling. | 26,446 | 43,276 | 28,603 |
| " handker | 102,950 | 92, 659 | 60, 542 |
| * colored | 66,287 | 60,606 | 9, 17 |
| 3 alrawta | 75,288 | 82.883 | 36, 24 |
| 4. and wool | 71,627 | 101,431 | 118.787 |
| " stlk and wo | 40.1968 | 43,204 | 42,837 |
| " atockings | 56.678 | 62, 483 | (60, 390. |
| " tickinga. | 27.14.6 | 21.401 | 88.498 |
| " threod | 51,51] | 07.045 | 47,1638 |
| 4 unbleac | 681,201 | 475, 008 | 015,8.5 |
| " white | 1,089,038 | 748, 51 | 800,572 |
| - and | 166859 | 160,584 | 153,43 |
| Crrpe shawla | 102,847 | 120.281 | 98, 273 |
| 1ruge and med | 36.881 | 24.454 | 24,481, |
| Farthers-ware . . . . . . . . . . . . . . | 71.292 | 77.885 | P4, 229 |
| 1louschold furniture | 22,870 | 46,689 | 52, $52 \% 1$ |
| Iron, amporlod | 77.335 | 130,737 | 85, 502 |
| Jewetry . . . . . . . . . . . . . . . . . . . | 88.503 | 31, 58 | 119,983 |
| 1.antinga . . . . . . . . . . . . . . . . . | 30, 110 | 12.815 | 16, 4.65 |
| Jiqunors, assorted . . . . . . . . . . . . | 13,978 | 10,469 | 15, 134 |
| Anchinery . . . . . . . . . . . . . . . . | 14,469 | 4, (0)N010 | $3{ }^{3,160}$ |
| 1'ainta... | 17,405 | 10,0015 | 13,647 |
| Rlbbona | 19,404 | 45, 300 | 68,526 |
| Rlea | $70.8-40$ | 50.698 | 68,218 |
| Haddlea | 17,578 | 15, 280 |  |
| Shoes and boota. .............. | 05,857 | 21,288 | 43,778 |
| Hilk ahawla snd handkerchlefn . | 15:9,948 | 302,517 | 162.607 66.427 |
| Soap. | 73,227 | 69,224 | 60, 0,129 |
| Sugnr, refince . . . . . . . . . . . . . | 95,426 | 4, M1, 2001 3361.631 | 603,129 $804,1+1$ |
| * crushed | 226,490 41.878 | 330.031 <br> 21.912 | $800,1+1$ $49,6.8$ |
| Tra...... . . . . . . . . . . . . . . . . . . . . . . . . . . . | 561,760 | 787,240 | 659, 105 |
| Wnoles g | (19,144 | 0 0,714 | 77,018 |
| " ${ }^{\text {aliawla ................ }}$ | 87,421 | 115,073 | 143,801 |

Phinotipal, Articlas op bomestio Produce exported trom tin l'onts of Lilit yrom 1849 to 186t, botit inolveive - rue l'bodueg of the Mines excerted.

| Articien. | 1849. | 1850. | 1851. |
| :---: | :---: | :---: | :---: |
|  | 15,100 | \$353,6.0 | \$ 26,70 |
| Flo | 808,798 | 1,839,606 | t, 514,915 |
| Вінеп | 114, $\mathbf{4} 7$ | T4,962 | 120,18\% |
| larley | 76,910 | 216,888. | 567,406 |
| lieana | 48,6038 | 138,737 | 167,055 |
| Pota | 14.514 | 43.816 | 89,722 |
| N | 65,152 | 40,039 | 78,425 |
| Dried | 72,147 | 79,9t1 | 24,648 |
| Salt b | 20,230 | 16,900 | 21,839 |
| Charqul (drled | 74,308 | 23,643 | 34,858 |
| Cheese | 18,158 | 11,746 | 7,551 |
| Tatlow, | 39,018 | 81,046 | 47,654 |
| Hides | 105,042 | 143,845 | 99,705 |
| Goat, sheop, and chtachitta akina. | 17,754 | 01,201 | 31,807 |
| Woot.... | 64.808 | 83,898 | 104, 801 |
| llams | 8,007 | 3,594 | 500 |
| Assorted provtulo | 60,451 | 80.671 | 18,290 |
| Cords and rope. | 26,014 | 7.278 | 4,853 |
| Itgging for sh | 9888 | $4.610$ | 8,825 |
| Ptanks and | 810,014 | 106, 372 | 29,795 |
| Coat | 4,938 | 7.5.10 | 2,540 |
| Gua | 13,615 | 37.708 | 65,392 |

The princlpal ,orta of Chili open to general foreign trade are Valparslso, Coquimbo, Huasco, Coplabo, Tulcahuano, Constltucion, Valdivla, and Ancud. Vessela from abroad, entering any other than open ports, are lisble to seizure. Under the Chlllan commercial regulations, the cosstlag trade ls prohibited to foreign vessela; but they may diacharge portions of their original cargoes in one or more porte, and load Chilian produce for a forcign pori. The port chargea are as follows: Tonnage dued, 25 cents per ton; light dacs (where light-housos exist), $3 \frac{1}{8}$ cents por ton ; roll anú captain of the port's fees, $\$ 4$; harbor-master's fecs, $\$ 8$. National or foreign vessels of war, national or forcign steamers, whalcoshipa, vessols in distress, or in ballast, or dlscharging under twenty packages, are exempt from tonuago and light dues. When tonuage dues have been jaid at one port, they are not iovled in another.

Commercial relations between the United States and Chili are regulated by the treaty of May 16, 1832ratifications having baen exchanged and proclamation made April 29, 1834. Thia treaty establishes the principle of "the me it favored nation," und contains, besides, a stipulatlon providing thst "free ships make free goods," and the usual guarantees for commercial reciprocity. The duration of the treaty was limited to twelve years; but, by virtue of the twelve-montha' notice clause, it fs still in force. Srbsequent and recent commercial legislation of the Chilian goverament has moditied and eularged the provisions of the treaty of 1834. The princlple of "the most favored nation" is but another name for differential duties between the national flag and that of the country with which such treaty is negotiated. Theso ditferential duties have been defined by Chill in a law bearlng date January 8 , 1834, and by various subsequent enactments. Such duties, however, have been suppressed, under certain limitations, chiefly by a law of July 16,1850 . The following la a translation of this law, ao far as it relates to thla subject:

Art. 1. Are suppressed, and of $n o$ force, articles 15 , 16,17 , and 18 of the law of importation of the 8 th January, 1834. The law defining differential duties. Is also euppressed that sectic of the law of August 7, 1834, by virtue of which aational ressels were excmpted from tonnage dutics, such ressels hereafter heing subjected to the samo dutles as foreitg vessels. 2. The products of the soil and industry, and, in general, artlcles of commerco importod luto Chill for consumption, in bottons under a forcign flag, shatl pay ouly the same dutles as if imported under the national flag. 3. Articles of commerce imported into the republic in vessels of any natlon that shall not have accepted the conditions of reciprocity establlshed by tha present law, will be subject to a surcharge, or extra duty, equel
to that imposed by such nation on merchandise brought into its porta In Chillan vessela. 4. To give effect to the foregoing article, the President of the repulblle shall fix the amount of dlfferentlal duties authorized by the foregoling artlele.
Several decreea have been since lssued regulating the amount of these dlfferential or countervalling duties. Thelr princlpal polnte are: 1. Vessels of natione that have not accepted the reciprocity law of July 16, 1850, shall pay, instead of 25 centa per ton of the vessels' measurement, 75 cents per ton. 2. Merchandise inported In such vessels shall psy, in sddltion to exlating dutles, an additional duty of 6 per cent. ad ralorem. The President of the United States, by his proclamation bearing date November 1, 1850, accepted the reciproclty granted In the above-recited law and decrees, and all restrictions and diacriminations in tho commerclal relatlons of the two countries liave ceased since that period.

The cuatoma ratea of the tariff of Chill are ad ralorem on a fixed valuatlon of the articles of merchandise. By the 8 th chapter, srtlcles 2, 3, and 4, of the Chillan custom-house ordnance, it ls provlded that the tariff of valucs shall be adjusted hy a commission of from five to nine mcrehants and custom-house officiale at Valparaiso, subject to the approval of the government, and the values thus flxed shall be in force ons year without change.-See Cititr.

Value. The exchangeable value of commodities, depends, at any given perlod, partly on the comparative facility of thelr production, and partly on the relation of the supply and demand. If any two or more commoditiea respectively requlred the same outlay of capital and labor to bring them te market, and if the supply of each were adjusted exactly according to the effectual demand; that is, were they sll in sufficient abundance, and no more, to supply the wants of those able and wllling to pay the outloy upon them and the ordinary rate of profit at the time, they would each bring the aame price, or be exchanged for the same quantity of any other commodity. But if any single commodity should happen to require more or less capital and labor for its production, while the quantity requircd to produce the others contlnued stationary, ite value, as compared whth them, would in the first case rise, and in the second fall ; and, supposing the cost of Its productlon not to vary, its value might be increased by a falling off lit the supply, or by sn increase of demand, and conversely. But it is of Importance to bear in mind that all variations in price arising from suy dispropertion in the supply and demand of such commoditles as may be freely produced In indefinite quantities are temporary only; while those that are occasioned by change In the cost of their production are permanent, at least as much so as the cause in which they orlginate. A general mourning occasions $\mathbf{n}$ transient rise in the price of bluok cloth; but, supposing that the fushion of wearlag black were to continue, its price wonld not jermanently vary ; for those who prevlously manufactured bluc and brown cloths, etc., would honceforth manufacture only black cloth; and, the supply being thls way increased to the same extent as the demand, the price would eettlo at its old level. When the price of a freely produced commodity rises or falls, such variation may evldently be occasioned either by something affecting the commodity, or by something affecting the valuo of moncy. But when, instead of being confined to one, tho gencrality of commodities rise or fall, the fair presumption ls that the change is not in them, hut in the monoy witl which they are compared. Exclusive, however, of the commodlties now alluded to, there is a conslderable class whose producere or holders either enjoy $n \mathbf{n}$ abselute or a partial monopoly of the supply. When such is tho case, prices depend entirely or princlpally on tho proportion between the supply and demand, and are not liable to be influenced, or only in a secondary degreo, ly changea in the cost of production.

Prices have been often affected by variations in the cost and supply of gold and siliver, whether arising from the exhaustion of old, or the dlacovery of new mines, improvements in the art of mining, ohanges of fashion, ote. Hence it is that tablea of the prices of commodi. ties, extending for a considerable period, communicate far leas solid information than ia generally supposed, azd, uniess the necessary allowances be made, may lead to the most unfounded conclusions. The real value of any commodity dapends on the quantity of labor required for its production; but supposing that we were to set about inferring this real value, or the ultimate sacritice required to obtain the commodity, from its prles, it might happen (had the quantity of labor required for its production declined, but in a lese degree than the quantity required to produce gold and ailver), when its value would appear to riee when it had really dimlaiahed. When, however, the rate of wages, as well as the price of commodities, is given opon authentic data, a table of prices is valuable, jnasmuch as it shows the extent of the command over the nececsaries and conveniences of life enjoyed by the bulk of the community during the period though which It extends. Those desirous of detailed information as to the prices of commodities in Great Britain in distant times, may consult the elaborate tables in the third volume of Sir F. M. Eues'a work On the Poor, and the fourth volumo of MacPirersox's Anwals of Commerce. Arbutunot's Tables of Ancient Coins, Weights, Measures, Prices, etc., are well known, but the statements are not much to be depended upon. The Traite de Metrologie of M. Paucton (4to, Paris, 1780) is the best work on thia curious and difficult subject. See also Tooke's History of Prices, vols. i.-vi., which is the most complete history of prices extant.-See articles Commencr, Gold, Mener, Pincka, eto.

Vancouver (or, more properly, Quadra and Vancouver) Island, Britlsh North America, between iat. $48^{\circ} 20^{\prime}$ and $51^{\circ}$ N., and long. $123^{\circ}$ and $128^{\circ}$ W., separated from the main land by Queen Charlote Sound and tho Guif of Georgia. Length, northwest to southeast, $\mathbf{3 0 0}$ miles; greatest breadth, $\mathbf{7 5}$ miles. Estimated area, 16,000 squaro miles; and population, 11,463. Surface mountainous, and richly wooded. On its weat coast are Nootka Sound, and many other harbors. This land was named in honor of George Vancouver. This British navigatur was born about 1750. IIo served as inidshipinan under Captain Cook, in hia aecond and third voyages. In 1790 he was appointed to command the expedition to explore the western coast of North America, to ascertain whether any navigable communication existed between the Atluntic and Pacific oceans. Of thia voyage, which occupied from 1790 to 1795, he coinpiled an account, but died before ita entire completion, May 10, 1798. The island is intersected by high mountain ranges, but it has, notwithatanding, a considierable extont of luvel and undulating land susceptible of cuitivation. Suils very various, being priucipaliy, however, of a friable description. The best is a black vegetable mould, producing a most laxuriant vegetation. Climate peculiariy mild; hut in winter the rains, aecompanied with vislent thunder-storms, are heavy, and uimost incessant. The baye, rivers, and adjacent seas, swarm with a variety of fish, including saimon, sturgeon, herriugs, etc., with seals, sca-otters, tortoises, etc., and they are aiso resorted to by whales. The herbors of the island are consequently well situated for carrying on an extensive and profilabie fishery, and well fittei for ship-bailding. The inineral riches of the island have been very imperfectly expiored. Ileds of coal are to be met with In its northeast parts. In various localities the beds have been found cropping out at the anrface, and large supplies have beeh obtained with but little difficulty and little expense. The native inhabitanta subsiat principaliy by hunting and fishing, eapecialiy the latter, and by cultivating the potato.

They are remarkable for indolence and filth; their heads are Aattened when young by artifleial means ; and their lege are ill formed, those of the women being frequently swollen. A settlement established by the English at Nootka Sound in 1788 was $8 \cdot$.pprossed in the following year by the Spaniards, an outrage which nearly occasioned a war with Spain. Since then it has been almost wholly neglected; tlll within these fow years that some establishments have been forined opon it by the IIudson'a Bay Company. Latterly it has been proposed to make it the site of a colony thst ahouid proeecute the seal and whale fishery, for which, as already stated, it is supposed to be peculiarly weil cituaied; and, with a viaw to the realizing of this projoct, it has been mads over to the Hudson's Bay Company, on condition of their establishing a colony within its linits in the course of the five years foliow. ing 1848. Coal ia procured at the settlemant of Nanaimo, where the Hudson's Bay Company have mado a large purchase of land and commenced an extensive coal work. Two valuablo beds of coal, varying from five to eeven fect in thickness, are found within 160 feet of the surface ; the coal ls bituminous, and ia greasly prized for domeatic consumption and for steaning purposes. The produce of these works may be increased, by fincreaslng tha number of hands, to any desirable extent. Another source of wealth and onterprise may bo found in the maguificent ship apars produced on Vancouver'a Island, which, in point of size and comparative atrength, are probably the most valuable in the world, and may bo procured in any number, even were the demand to includo the supply of apars for the whole British navy. The oil exported from this colony is procured from the native tribes inhabiting the weat coast of Vancouver'a Islandi, and is manufactured by thein from tha whale and dog-fish; it is of exceilent quality, and has a high character in California, whero it brings from two to thres ciollars a galion, in consequance of its retainlog its fluidity and burning freely in the coldest weather. It is estimated that a quantity equal to 10,000 galions was purchased from tho nativea of the weat coast last year ; and, censidering the imperfect means they possess for taking the fish and trying out the oil, it is not unreasonabia to propose that with the use of proper means the returns of oil would be greatly increased. The oil trade is carried on by a fuw enterprising individuals who live among the Indians, and collect the article as it is manufaetured by the natives. The number of ships with cargoes which between July 5,1854 , and Juiy 5 , 1850 , entered inward was 25 ; tonnage, 4054. In ballast, 3 ; tonnage, 260. Cleared outward with cargocs, 16 ; tonnage, 2350 . In baliast, 9 ; tonnage, 1353. Pert Vietoria has five vesseis belonging to It, and Vanconver's Islend ls a riaing and flourishlng littlo colony, all the more to be cherished as its peopie aeem to be on good terms with the natives and enconrage then in Industrial pursuits.

Van Diemen's Land, or Tasmania, a iarge ialand boionging to Great Britain, forming part of Australia, lying between lat. $41^{\circ} 20^{\prime}$ and $43^{\circ} 30^{\prime} \mathrm{S}_{4}$ and loug. $144^{\circ} 40^{\prime}$ and $1.18^{\circ} 20^{\prime} \mathrm{W}$. It is aupposed to contain about 27,000 squaro iniles. This lanil was discovered by the 1)ntch navigator Tasman in 1642, and was named in honor of Anthony Van Diemen, at that time governor-general of the Duteli possegsions in the East Irdies; but it is now frequently called Tasmanis, from its discoverer. J'reviousiy to 1798, It was supposed to form part of New lioliand, but it was tien ascertained to bo an isinnd. It was taken jossession of by the British in 1803; and in 1804 Hubart Town, the capital, was founded. The surface is generuily biliy and mountainous; but though none of the land bo of the first quality, there are several moderately fertile plains, and a good deal of the hilly ground is susceptibie of being cuitivated. On the whole, however, it is not supposed that moro than about a third
part of the entire surface of the island can be considered srable; but about s third more may be advantageoualy used as sheep pasture. As compared with Now Holiand, it is wall watered. The cliante, thongh variable, is, generslly speaking, good, and aultable for European constitutions $;$ and it is not exposed to thè tromendous droughts that occasion so much miachief in New South Wales. Wheat is raiecu in considerable quanilties; though wool is at present the atapla produce of the colony. Van Llemen's Land, liko New South Walcs, was originally Intended to serve as a penal colony, and it received between 1828 and 1850 no fower than 58,243 convlets. It has also ruceived, especialiy of late years, large numbers of free settlers. In 1850 the total population of the laland, excluaive of aborigines, who parhape do not axceed 8000 or 4000 , amounted to 70,194 . Of these, 45,916 were free, and 24,188 convicts. For some consideruble time back
great diesatisfactlon was falt by the colonists at the continued importation of convicts ; and latterly very vigorous measures ware taken to affect its sapprecsion. For this purpose it was in 1852-'53 finally abandoned. In truth, after the discovery of the gold-flelds In the adjoining continent, it could no longer be contianed.

Trade of Van Diemen's Land.-Hardware, haberdashery, apparcl, cotteri and linen goods, woolens, malt llquor, spirits, wine, etc., form the principal articles of import. Here, as in New South Wales, wool forma by far the most important article of export ; next, to it is whale-oll, and then follows wheat and flowr, live atock, timber, whalebone, mimosa bark, and various less important articles. The uaual excess of the imports over the exports is sccounted for by the remittances to defray the cost of the convict estsblishment.

Pofulation, Teade, kto, of Vax Diemin'a Land rhom 1830 to t848, bota imolubive

| Years. | Popalation. | Value of Itaporta. | Vaiue ${ }^{\prime}{ }^{\prime}$ Exports. | Bhlpping. |  | Total ardinary sxavenus. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Inward. | Outward. |  |
|  |  | ${ }^{\frac{5}{2}}$ | ${ }_{5}^{2}$ | Tonnage. | Tonjega. |  |
| 1839. . . . . . . . . . . . . . . . . . | 44,12t | 746,887 | 875.165 | 79,283 | 77,606 | 13a,768 |
| 1840. . . . . . . . . . . . . . . . . . . | 46,0067 | 088,366 | 867,007 | 85,081 | 88,701 | 128,210 |
| 1841........................ | 61,409 | 851.981 | 830, 501 | 84,214 | 86,201 | 121,78. |
| 1849. . . . . . . . . . . . . . . . . | 68,902 | 657,453 | 532,509 | 82,933 | 82,866 | 121,785 |
| 1848......................... | , | 705,260 | 439,890 | 92,501 | 88,984 | 110,271 |
| 1814. | .... | 442,983 | 408,790 | 68,402 | 78,750 | 151,186 |
| 1845. . . . . . . . . . . . . . . . . . . | .... | 580,562 | 492, 218 | 78,204 | 71.422 | 128,881 |
| 1846. . . . . . . . . . . . . . . . . | .... | 661,233 | 852,585 | 74,7:5 | 79.430 | 107,086 |
| 1847. . . . . . . . . . . . . . . . . . |  | 724,503 | 0.10,876 | 86,040 | 85,861 | 150,474 |
| 1848.. | 10,104 | 594,154 | 430,281 | 91,853 | 05,989 | 129,645 |

The trade between the United States and Van Diemen's Land commenced in 1834, in which year our exports amounted to $\$ 7120$, and from that period up to 1817 averaged annually upward of 820,000 ; while our imports from that colony during the same period did not exceed an annual sverage amount of $\$ 7000,-$ See article Austradia.

Vanilla, the fruit of the Epidendrum vanilla, a apecies of vins cxtenalvely cultivated in Mexico. It has a trailing stem, not unlike the common tvy, but not so woody, which sttaches itself to siny tree that grows near it. The Indians propagate it Ly planting cuttings at the foot of tress selected for that purpose. It rises to the helght of eighteen or twenty feet; the flowers are of a greenish yaliow color, mixed with white; the fruit is abont eight or ten inches long, of a ycilow coior when gathered, but dark brown or black when imported into Europe; it is wrinkled on the outside, and fuil of a vast number of aeads liks grains of sand, having, when properly prepared, a peculiar and delicious fragrance. It is principally used for mixing with and perfoming chocolate ; and is, on that account, largely lmported finto Spain. Vanilla is principally gathered In the intendancy of Verz Cruz, in Mexico, at Misantla, Collpa, Vacuatla, zind other places. It is collected by the Indians, who sell it to the whites (gente de razon), who prepare it for market. They spread it to dry in the sun for soma hours, then wrap it in woolen cloths to sweat. Like pepper, it changes its color in this operation-becoming almost black. It is finally dr?ed by exposing it to the sun for a day. There are four varietics of vanilla, all differing in price and excellence; viz., the vanilla fina, the zacate, the rezaeate, and the vacura. The best comes frem the forests surrounding the viliage of Zentila, in the intendency of Onxaca. According to Humbeldt, the mean exportation of vanilla from Vera Cruz may amount to from 900 to 1000 miliares, worth at Vera Cruz from 80,000 to $\mathbf{4 0 , 0 0 0}$ dollars. Vesilla is also imported from Brazil, bat it is very aferior. The finest Mexican vanilla is extremely high priced.-Seo IIvmaoldt, Nouvelle Espagne; Poinsett's Notes on Mexico.

Variation of the Compass, the angle which the magnetic ncedle makes with the plane of the true meridian. It is otherwlse called the declination.-.See Compass. For tables showing the variation in a great
number of places, and its progressive, annual, and diurnal changes, see Buewaten's Treatise on Magnetism, 1837, reprinted from the Ejucyclopadia Britannica.

Varnish (Fr, Vernie), a fluld which, when spread thin upon a solid surface, becomes dry, and forms a costing impervious to alr and molsture. Thare are two kinds of varnish, namely, spirit and oil varnishes : rectified alcohol is used for the former; and for the latter fixed and volatile oils, or mixture of the two. The solid substances dissolved in the above menstrua, and which constitute what is termed the body of the varnish, are almost exclusively resinons, and ale chiefly the following: 1. Turpentine, all the varleties of which are employed hy the varnisher: they form an excellent body, and give strength and glossiness at a amall expense; but they do not dry without other additions. 2. Copal, a peculiar resin, very difficult to dissolve, but formiug a hard and durable ingredient. It is generally melted over a gentle firs previous to use. 3. Lac, which gives grest tonghness and hardness; but is often inadmissible, on account of its reddlsh-brown color. 4. Mastic, which yields a tough, hard, brilliant, and colorless varnish. 5. Elemi, a resin of a palo yellow green tint, end a valuable ingredient, on account of its toughness and durabllity. 6. Sandarach, a resin which imparts splendor, but which alone is not durable. 7. A mber, a valuable ingredient, on account of its hardness and durability; but diffienlt of transparent solution, and hence chlefly used in opaque varnishes. 8. Benzoin, added on account of Its fragrancy. 9. Anime, which gives brilliancy and some scent. 10. Gamboge, for yellow varnishes. 11. Dragon's blood, for red varniali. Thess, togather with tarmeric, saffron, and annotta, are chicfly used on account of their color, and to cover brass and copper under the name of lacquers. 12. Caoutchouc: this extracrdinary vegetable product has of late been much employed in a variety of preparations used as varnishes. It is invaluable wherc materials are to be rendered alr-tight, as balloons, for example, and where at the same time flexibllity, and oven elasticity, are required; but tts principal application In this way is in the manufncture of varlous voater-proof articles. 18. Asphaltum, the varietles of which are indispensable in black oil varnishes. In making spirit varnishes, the strongest alcohol of commerce should be nised (of a specific grayity not exceed-

## VEN

ing 820), and its solvent power over aoms of the more intractable resina is eometimes improved by the addition of a little camphor. In order to prevent the agglutination of the resin, it la often requislte to mix it with sanil or pounded glass, by which the surface ls much Increased, and the solvent energy of the aplrit facilltated. The proportions in whielh the several ingredienta are used, and the seloctions for partlcular purposes, are infinltely varions. The following are a few good varniahes, in illuairation of thoir varieties: 1. Spirit Varnish.-Sandarach 4 oa., aeed lao 2 oz., elemi 1oz.; digeat the whole In a quart of moderately warm alcohol, and when dissoived add Venico turpentine 2 oz. 2. Lac Varniah.-Sced lao 8 oz ; dlgest for four days in a warm place with a quart of alcohol, and then atrain through flannel. 3. Turpentins Varnioh.-Mastlc 12 oz., mixed with 5 oz , of poisoded glass, and digested in a quart of cil of turpentino, adding at intervala about half an ounce of camphor in omall pieces. When the mastie is dissolved, add to the warm fluld in ounce and a half of proviously injuefied Venice turpentinc. and atir the whole together. 4. Copal l'arnish.-Copal which has been pieviously rinited by gentle heat 8 oz ., oil of tarpesitine 20 oz . (masara): put the oil into a flask placed in boillng wat ss, and add the powlered copal in amall portions at a time, so that it may be gralually dissolved; let it stand a fow days to clear, and then pour It ott, and If too thick for use. add to it a little warm oil of turpentine. This varniali dries alowly, hut ts very durable.-Seo article Paints.

Vellum, a species of fine parchment.-Sec Pancument.

Felvet, a rich kind of stnff all silk, covered on the outside with a close, short, fine, soft shag, the other side being a very strong, cluse tissue. The nap or sheg, called also the velveting of this atuff, is formed of pait of the threads of the warp, which the workman puio on a long narrow-channeled ruier or needle, which he afterward cuts by drawing a sharp ateel tool along the channel of the needle to the ends of the warp. Fioronce, Genoa, and some other cities of italy, are most noted for the manufacture of velvot. There are cotton velvets manufactured in imitation of the silk ones in England.

Venezuela, a republic of Sonth America; its territory lies chiefly between lat. $2^{\circ}$ and $12^{\circ} \mathrm{N}$., and long. $60^{\circ}$ and $73^{\circ}$ W., having on the eust British Gulana, on the scuth Brazil, on the wost New Granada, and on the north the Caribbean Sea. The chief wealth of Venezuela consists in its rich and extensive pastures, its mines of the precious metals, and of lead, iron, copper, etc, aud its valuable furest timber. The agricultural and other productiz of the couniry which enter into its forcign commerce as articley of export are coffee, cocon, cured bides, indigo, fustic, tobacco, cotton, cattle, nיyles and horses, and specle. These form the basis of the forelign commeres of Vencauela, and are exchanged for tisates of cotton, thread, silk, and rool; flour, provisions, hardware, soap, furniture, glasswere, urandies, wines, etc. Conformably to the law of May 5, 1349, the ports open to foreign commerce ure divided latc three classes, namely : ports open for im portation and exportation; ports open for importation for local consuaption only, and for exportation; , 1 ort open for exportation only. This organization was simplitied by a deereo of April 15, 1854, of which the following is 4 transiation:

Ciudad Bollvar, in the province of tiuiana; La Guayra, In that of Caraccas; I'uerto Cabello, In that of Caraboto; La Veis, in that of Coro; Maracuibo and Warcelona, in the two provinces bearing those nalses, ara deciared ports open to commerce, both for imp taLion and exportation, without any rertriction. Cumana, Carupano, Cariaquito, and Barrancas, in the province of Cumana; Pampatar and Juan Griego, In the province of Matguerita ; Soledad, in the provicce of l'arcelcna; and Cumarebo, in that of Cbro, are declared ports open to commerce for iniportation for local
conaumption only, and for exportation. The customhouses of the ports open for importation for local consumption only can not clear, under a certificato, foreign produce for other ports, open or not to commerce, except the custom-housed of Cumana, Carupano, and Cariaquito, which'are allowed to deliver cockets (certificates of cargo), the two former for the ports of Cariaco and Rio Carlbe, the others for the por:z of Irapa and Yaguarapara.

In the year 1803 the exports of Veljezuela ware eatimated at a value of nearly $\$ 7,000,000$; of this amount La Guayra oxported $\$ 2,500,000$, Cumana and Bareelona $81,600,000$, Maracalbo and Angostura $\$ 1,000,000$, Carupano and the smaller ports the remainter. These amourts are in Venezuelan curreney - In which all values, derived from Veneauelan official sources, are genorally stated. The dollar of the United Statea is equivalent in value to $8131 \frac{2}{8}$ in the present currency of Venozuela. The dolfar of Mexicu, Peru, Chill, Central Amuca, and of Cuba, is that of the United Stntes,

Inteiwal Commerce.-The River Orino ou is :ow navigated as high up as jutrias, In the province of Varinas; and the productions of the tertile countries watered by this magnlieent river are thus added to tto commorcial wealth of the republic. A recent communicathon from Puerto Cabelto affords the following facts: "Several inercantile firms of l'uerto Cabello have applisd for tud oltained from the Congress of Venezucla 2 ebserter for a railioad to run nearty west from that city-5: miles-tc San Felipe, in the province of laarquisimeit. Tho estimated cost Is $\$ 1,400,000$ (United States currencs ), xclusive of land, which, for the most part, will be afforded free of expense. The government gives atl the public land and tlmber which may be renuirec, elther for the road or buitdinge, and acdmilts the tools, iron, etc., froe of duty; subscribes for $\$ 186,916$ of the stock ( $\$ 250,000$ in Venezuelan currency). Tho provinces of Barquisimetc and Curaboio together take 86,290 of the atock. Of the grades, 70 per c.nt. will be bolow 30 feet to the mile, and only 5 per cent, above 50 feet. There will be 15 bridges, estinated to cost $\$ 104,590$. The charter is to continue 40 years as an exclusive privilege, and 40 years more the right of property in the road is guaranteed to the company; after which it reverts to the government. The road must be commenced within two yeara from Ist July, 1855 , and be complated within four years from the date of its commencement. John lougherty; of New York, chief englncer of the road, estimates the amual net licome at $\$ 242,222$. San Fclipo is situated on the: Yarieiu Iliver, and is a commaniling point for the collection of the products of the lnterior. Puerto Cabeile is the best hartior in Vencaueia."

The provinces of Varinas, Apure, and the two Guyanas, are now brought into direct cummunication with the sec: and by the establishment, In 1845, of a line of stearuera under the ausplees of a company from the United Staws, specially charu red by the Venczuelsn fivernment, and by means of the 240 asiling vess ide wito a eapacity of 36,900 tons, whic annualiy asecnd as high a, Angosiura (Ciudud Bolivar), some 250 iniles from the sea, thero is but little room to loubt that Venezaela is alsut to enter upon a career of commer. cial prospority. At presenl, the annuat exports foom A pure and Varhuas consist of dry hildes (abont 100,000), buckskins, coffee, ratton, indigo, cocoa; and irom the latter provicee bet ween $1,000,000$ and $2,000,000$ pounds of tobacco. The valuc of this trade to the United States will im percejived, when is is known that nearly a! the hidi $3 x$ offered in the Venezuetan markets are taken by th.s cuautry.

Ths vaiue of the tolal trade of Venezuela for the fiscal year endinc: June 30, 1845, las alrendy been given. For the year enling December 31, I845, it reached a cotal of $\$ 8,021,040$, and the nurigation emjloyed 3209 veasels, mensui ing in the aggreigals 140,732 tons. ilave apencrucla rom that e of Bar0 (United the most e governhich may 8 , and adacribes for relan curCurabolo grades, 70 and only 5 oridgen, ts0 continue years more teed to the verminent.
years from yesrs from ugherty, of limates the ipe is situnuling poiat ior. Puer-
e two Guy ication with ${ }^{5}$, of a line ay from the Venczuelisn ling vess lis, ally ascend ne 250 miles loubt that of commerxports from out 100,000 ), and from the 0,004 younde the United that nearly marketa are uela for the lready hean 31,1845 , it vigation eme egato 190,738


| Yeara oucing | Eiports. |  |  | tmporis. | Whereof there wan in Builion and 8 precle. |  | Tonnage otoared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domwitio. | Foraign, | Total. | Totat. | Eisport. | liapori. | Anvorioen. | Foralgu. |
| Sept. 10, 1830. | \$418,245 | \$272,738 | \$686, 181 | \$1,082,709 | \$164.482 | \$35,041 | 0,241 | 1,650 |
| 1810. | 654,267 | 22, ,605 | $74.3,572$ | 1,365,100 | 73.057 | 97,521 | 0.856 | 980 |
| Total... | \$67,612 | \$502,84 | \$'~9,863 | \$3,837,868 | \$185,102 | \$62,662 | 18,687 | 2,470 |
| Sept 30, 1841. | \$ 832,410 | \$230,083 | 87: 602 | \$2,018,004 | \$145,717 | \$3,108 | 0,530 | 1,284 |
| Srpl 1813. | 403,9<0 | 164,532 | 6.5 .212 | 1, $1,14,342$ | 71,292 | 47,676 | 9,742 | 8,211 |
|  | 483,077 | 100.4.5 | 63,3,502 | 1,111,960 | 21,083 | 96,816 | 8,030 | 884 |
| June 80, t844....... | 442,491 | 83,741 | 631,292 | 1,428,479 | 45, 338 | 5,059 | 8.835 | 1,889 |
| 1845....... | 685,545 | 12.5088 | 725,180 | 1,268,275 | 152,621 | 10,448 | 10,783 | 1,117 |
| 1846.. | 684,003 | 107, 478 | 781,641 | 1,500,000 | 154,643 | 2,050 | 11,125 | 1,244 |
| 1847. | b71,474 | 43,733 | 615,218 | 1,522,406 | 7,045 | 42,409 | 10,800 | 6\%0 |
| 1845. | 400,230 | 02,709 | 4641,028 | 1,226611 | 88,611 | 73,5:7 | 7,631 | 1,545 |
| 1899. | 431,421 | 100,218 | 697684 | 1,418,096 | 132, 882 | * 8870 | 8,420 | 1,157 |
| 1850. | $6 \% 8,462$ | 340,008 | 1,018,470 | 1,020,247 | 400,430 | 49,780 | 8,600 | 2,6.7 |
| Total. | \$6,108,668 | \$1,625,002 | \$0,684,470 | \$14,8:20,880 | \$1,260,100 | 4885,731 | 10,365 | 15,658 |
| June 30, 1851....... | \$351,779 | \$180,746 | \$1,044,525 | \$2,390,295 | \$ 422,075 | \$86,584 | 14,761 | 2,801 |
| 1864. | 720,024 | 67,983 | 703.418 | 1,181,804 | 04,972 | 28.521 | 11,244 | 8,109 |
| 1843. | 749.859 | 04,068 | 814,527 | 2,017,780 | 207,454 | 11,380 | 12,101 | 1,780 |
| 1854. | 1,131,004 | 69,270 | 1,200,883 | 3,072,649 | 400,8:8 | 56,861 | 12.208 | 4.074 |
| 1855. | 1,152,004 | 70,845 | 1,233,449 | 8,010,809 | 270,464 | 9,085 | 15,057 | 4.369 |
| 1853. | 1,043,021 | 69,159 | 1,712.774 | 4,202 690 | 560,070 | 22,882 | 95,815 | 1,087 |
| 1867.. | 1,96 1,148 | 87,430 | 1,427,5:8 | $8.8011,518$ | 34.100 | 35,148 | 17,708 | 8,183 |

- Nine monthe to June 30, and the fiscal year from this thme begins Juty 1.

Commrror oy Venkzurla in the Yrars 1851-52.

| Countries. | Voweol. |  | Tunnelf. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Entered. | Cleated. | kiptored. | closred. |
| Austria. |  | 8 |  | 474 |
| tielglum | 3 | $\ldots$ | 676 | ... |
| Braelt.. | 1 |  | 203 |  |
| Sardinia | 9 | 10 | 2,015 | 1,815 |
| 11anee 'Towns | 43 | 49 | 14,257 | 11,630 |
| Denmark | 88 | 87 | 0,021 | 3,850 |
| Spuin | 42 | 87 | 6,059 | 11,224 |
| France. | 415 | 18 | 10,112 | 10,670 |
| United State | 124 | 153 | 28,777 | 81,874 |
| Great 1tritain.......... | 515 | 1013 | 23,033 | 81.829 |
| IIayt1 and St. Domingo | $\ldots$ | 2 | .... | 220 |
| Mexico. | ... | 4 |  | 478 |
| Now Granad |  | 1 |  | 22 |
| Netherland | 105 | 175 | 10,507 | 10,788 |
| Other places... | 3 | $\ldots$ | 44 | .... |
| Total 1851-62. | 1163 | 1051 | 100,004 | 113,810 |

Forgion Trady of Venezugla, tily Nationa pagtiotpa. TINO THEREIN, THA SIGARE ABSIGNRD TO BAOU, AND THE Amount of Duties paid iy kacu Flao doaino tue Iear 1854.

| Countries. | Imports. | Exparts. | Import Dullien. |
| :---: | :---: | :---: | :---: |
| United States | \$1,150,4-15 | \$2,421,936 | \$ $\mathbf{4 1 8 , 6 7 0}$ |
| Hanse Towns....... | 783,005 | 1,197,085 | 205,017 |
| Figland.............. | 1,643.819 | 273,982 | 712,870 |
| France . . . . . . . . . . . . | 632,712 | 1,077,572 | 221,254 |
| Denmark. . . . . . . . . | 873.680 | 498,410 | 201,630 |
| Bpain . .............. | 258,679 | 1,078,272 | 95,278 |
| llolland. . . . . . . . . . | 261,531 | 447.1324 | 76,268 |
| Mexico.............. | 2,682 | 14,0,0.10 | 9 |
| Sardinia. | 27,710 | 33,31t | 11,940 |
| Other countries | 27,209 | .... | 8.013 |
| Venezuelan currency Or, in U. | \$5,602,354 $4,248,500$ | $\$ 6,134,814$ $5,328,200$ | $\begin{array}{r} \$ 1,036,043 \\ 1,445,479 \end{array}$ |

During the same year there entered tho differsat posts of Venezuela 262 vessois, measuring an aggreg ate of 11,608 tone; and there clearod 392 veasels, with an afgregate of $17, \mathrm{c}_{\mathrm{s}} 5$ tons-all under the mational flag. Of foreign vessela there entered 494 veasols, measuring in ali 76,760 tons; and thoro cleared 743 vessels, with an aggregate of 98,152 tone-making a total of 1237 vessels, and an aggregate of 174,912 tons, under foroign flags.

The Culture and Exporiation of Cotton.-Notwithstanding many portions of the republic of Vonezucla are well adapted to the cultivation of the cotton-plant, this branch of industry has been gradually doclining duriue the past ten years. This has been attributed principslly to two canses: 18t. The want of roads, or other art ficial means of transpurtation, which reduces the planters to the necessity of employing mules to convey their produce to market; thus ab. bing all the profit which this branch of industry might otherwise realize. 2d. The superior inducements which the cultivation of coffec, cocoa, and other tropleal produce otier, as respects the anonnt of labor bestuwed on their
production, the expense of transportation to market, and the price which such produco usually commands. To these may be added the suporior quality of these latter products, for which Venezuela has nequired a higit reputation in the markots of the world.

All cutton textiles which are consumed in the republic are imported from forclgn countries. From tho 1st July, 1849, to the 80th June, 1950, the total valne of cottons imported amounted to $\$ 258,586$, namely: in national vessels, $\$ 26,464$; and in fureign veasels, 9227,122 . During the aame perind, the exports of raw cotton reached $660,117 \mathrm{lbs}$, valued at $\$ 44,248$, viz. 1 in national vessels, 95,200 l ls. , valued at $\$ 5810$; and in foreign vessels, $564,917 \mathrm{lbs}$., valued at $\$ 38,438$. The ports from which rav cotton was exported in 1849-'50, to gether with tho quantitias esported during that period, were as follows:

| Puerto Cabelio | 461,024 pounds |
| :---: | :---: |
| Maturin. | 98,200 |
| La Grayra . . . . . . . . . . . . . . . . . | 00,608 |
| La Vela. . . . . . . . . . . . . . . . . . . | 4,800 |
| Cludad Bollvar | 2.800 " |
| Jto Coribe. | 2,1100 |

From the above it will be perccived that, out of the fifteen ports of Venezuela, ṇs cotton was exported from nlne; among them veing two of the most importantCumnna and Maracaibo-although the previnces of Cumana and Maracaibo are not only very extensive, but eminently adspted to the cultivation of this e.rticle. The species of cotton cultivated in Veneznela is what lo denominated the long ataplo (black seed) of Louisiana and Geurgia, and was introduced from tho United States.

Commercial Regulations.-All foreign nations enjoy equal commercial privileges in Veneznela. Treaties exiat between the repnblic and most of the governments of Europe and Americn. That wlth the United Stases was ratified May 31, 1836, and was to continue In firce twelve years, with the usual twelve months' notico after that period. Such notice not having been given by either party, its provisions atill continuo in force. This treaty guarantees entire reelprocity and perfect liberty of trade, direct and indireet, between the two republics; and stipulates that all favors to other pations in reppect of commerce and navigation, granted by either party, shall immediately become common to the other. Under the provisions of this treaty, and the commercial legislation of Venezuela, Uuited States vessels enjoy the same priviloges, and are subject to the eane restrictions, as those of all other nations. Amorican trade, however, would, it is thought, reat upon a firmer basis, and inight be greatly extended by a new treaty with that republic, better adapted to the exigenries of present commercial relations than
that of 1836, entered into in the very infancy, political an well an commercial, of Venezuela.

In 1840, foar years after the ratification of this treaty the United Statea exported to that country 20,034 barrels of tour, valued at 147,304 . In 1854 our exporte of that erticle reachod 40,097 barrels, valued at 318,732; showing an lacrease in the quantity and value of that one artlele, which we exchanged for the thdes, coffee, and indigo of Venezuela, of 100 per cent.

The hides imported into the United Staten In 1840 mounted in value to $\mathbf{8 2 8 8 , 3 7 2}$. In 1854 thoy reached as high as $1,623,605$; showing an increase, In that single article of our imports, of over $\mathbf{4 0 0}$ per cent. A more liberal tariff of duties on our fiour and cotton goods in the ports of Venezuela wouid continue to augment still more largely this growing trade. The justice of such a measure will be obvious when it is considered that the prineipal article which the United Staten import from Venezuela (hiden) is subject in our ports to a duty of 5 per cent. only; while the principal article which we furnish in exchange (dour) is taxed in its ports with a duty of $\mathbf{8 4}$ per barrel, which, at a value of from 812 to $\$ 16$ per barrel (its average price in the Veneanelan markets), is equal to 25 act $30 t$ per cent., besides sundry other duties which are superadded before the articie can get into market. These facte are anfficiently suggentive without further comment. Duties are levied on a valuation basia, though many articlea in the tariff are liable to specific duties. Instesd of specifying each oxtra charge separately, these beavy imposts can be best illustrated by an actual case:
Custom duttea on 100 berrela American flour landed at tbe port of La Guayra, at \$4 per barret import

10 por cent. on amount of dutlea on account of late internal war.
I per cent. on amount of duties for wharfage.......
9 per cenan road tax
20 per cent on eggregata amount ; contribation extraerdinary

I per cent. for the new church on \$ $\$ \mathbf{W 7} 00$ Total dutles, extras, elts. \$5

Navioation Deka.


The ton is Venezuelan measurement, generally $12 \frac{1}{2}$ per cent. more than that of the United States. The value of Venezuelan money differs considers ${ }^{*}$, as already noted, from that of the other South American utates, though of the amme denomination. The foliowing are the tegal values of somo of the forelgn colns in circulation in Vonezueia, as fixed by the law of May 30, 1848 :

$$
\begin{aligned}
& \text { One dollar of the Unlted Statea equal to ........ \$1 84\} }
\end{aligned}
$$

$$
\begin{aligned}
& \text { Oee dellar of Mexico equal to ........................... } 1 \text { gtt } \\
& \text { Five-franc plece of France equal to ................ } 1 \text { is } \\
& \text { One ahlling of Great Britaln equal to } \\
& 1312 \\
& \text { One gufnea of Great Britalo equal to. } \\
& 660^{\circ} \\
& \text {-Com. Rel. U. A. }
\end{aligned}
$$

Articlea noted free in the tarifipay, in llen of all extras, 15 per cent. One of tho greatest inipediments heretofore existing to the increase of American trade with Venezuela was tho restriction impored on the tranaitago of American merchandise importe-l expressly for the markets of New Granads. Some years since, Maracailo was declared a place of deposit for such mer-chandise-a messure of the greatest importance to commerce, as nearly half the impo ant that port are destined for San Jose de Cucuta, in New Granada. The privilege thus granted was subsequently rendered nu-
gatory by severe reatrictions and onerons duties. A more liberal decree, however, han very lately been promulgated (Auguat 10, 1856), which must nocensarily largely augment the imports into Venezuela, and thus promote the general commerce of the republic.-Sec articles Caraccas ind la Giayra.

Venice (It. Veneria; Ger. Venedio; ancient, Venetia), a fortified eity of Austrian Italy, formerly the capltal of the republic of that name, on a clunter of small islands toward the northern extremity of the Adriatic, In lat. $45^{\circ} 25^{\prime} 53^{\prime \prime}$ N., long. $12^{\circ} 20^{\circ} 81^{\prime \prime}$ E. Population In 1851 about 123,000. The commerce of Venice, once the most extensive of any European clty, la now comparatively talfing; and tho population is gradually diminiahing both in numbers and in woalth. Iler Importa consist of wheat and other sorts of grain from the adjoining pruvinces of Lombardy and the Biack Sea; olive-oll, prineipally from the Ionian Ialands; cotton atufis and hardware from England; sagar, coffee, and other colonial products from England, the United States, Brazil, etc. $;$ dried fish, dye-stuffs, etc. The exports principally conaist of grain, raw and wrought silk, silk goods, glass warea, books, paper, woolen n.anufactures, fruits, choces, etc., the products of tho adjoining provinces of Italy, and of her own induatry; but her manufactures, so fnmous in the Middle Agea, are now much decayed. The origla of Venice dates from the period of the invasion of Attila in 452, when a number of the inhabitants of Venetia, and other parts of Italy, taking refige in the islands of the Adriatic, formed a confederation to oppose the barbarians. In 697 they elected, as the head of their government, a doge or duke (dux). The Venetian atates formed themselves into a republic In 809 . In 997 they took posgession of the town of Narenta, a nest of pirstes, and thus commenced their maritime power; they afterward subjugated ali the towns of Dalmstia. The crusades were a souree of aggrandizement for Venice. At the end of the $12 t /$ century, the Venetisns made themselvee masters of p: rt of the Morca, Corfu, Cophalonia, and Crete. During two centuries they usmopolized the commerce of India by the route of Egypt ; but they lo.t this on the discovery of the passago by the Cupe of Good Hope. The state aitained the helight of ite prosperity in the 15th contury. It began to deeline at the beginning of tho 16 th centary, and its overthrow was completed by the French in 1797. By the treaty of Presburg in 1805, it was made over, with the provir.ces of the continent, to the kingdom of Italy, and was held by the French till 1814, when ft reverted to Austria. In 1818 the Venctions revoited against the Austrians, and hold the city for seversl months. The government of Venice comprises eight delegations, which benr the names of their capitals: Venice, Padua, Vicenza, Verona, Rovigo, Treviso, Belluno, and Utine. Population in 1850, 2,281,732; do. of provinces, 298,425. The Gulf of Venico is formed by the Adriatic, on the northeast coast of Italy, bounded by the Piave and Brenta.

Iort.-The islands on which Venice is hulit lle within a line of long, low, narrow islanda, running north and south, and inclosing what is termed the lagoon, or' shallows, that surround the elty, and separate it from tho main land. The principal entrance from the aca to the Isgoon is at Malamoceo, about 11 league south from the cit y ; but thereare other, though leas frequented entrances, both to the south und the north of this one. There is a bar outside Malamocco, on which there are not more than 10 feet at high water at spring tidea; but there is a channel between the western point of the bar and the village of San Pletro, which has 16 feet water at aprings, and 14 at neaps. Merehant vessels usualiy moor off the ducal palaco; but sometimes tilcy come into the grand canal which intersects the eity, and sometimes they moor in the wider channel of the Gludecea. Vessels coming from the south for the most part make Pirano or Rovigno; on the cuast of Istria, where they take on board pilots, who carry them to the
bar opposite to Malamoceo. But the employment of Ietrian pilots is quite optional with the master, and is not, as in sometimes represented, a compulsory regufation. When one is taken, the usual fae from l'irano or Rovigno to the bar is $\mathbf{2 0}$ Anstrian dollars. On arriving at the bar, ahipa are conducted acrose it and into port by pilots, whose duty it is to meet them outside, or on the bar, and of whose servicea they must avall themselvea.

Money.-Formerly there were various methods of accounting here; but now accounta are kept, as at Ge nos, in lire Italiane, divided into sentesimi, or 100 th parts. The lira is supposed to be of the same weight, fineness, and, consequently, value, as the franc. Jlut the colins actualiy in circulation, denominsted lire, are respectively equal in value to alout ten cents. The latter are coined by the Austrisn government.

Weights and Measures.-The commercial weighta are here, as at Genoa, of two sorts: the peso sottile and the peso grosso. The French kilogram, called the libra ltaliana, is also sometimes introduced.


The moggio, or measure for corn, is divided into 4 stajo, 16 quarto, or 64 quartaroll. The staja $=2 \cdot 27$ bushcls. The measure for wine, anfora $=4$ bigonzl, or 8 mastelli, or 48 sechil, or 192 bozzo, or 768 quart $\cdot z x i$. It contains 137 English wine gallons. The botta $=j$ bigonzl. Oll is sold by weight or measure. The botta contains 2 mighlaje, or 80 miri of 25 lbs . peso grosso. The miro $=4.028$ English wine gallions. The braccio for woolen $=26.6$ English inches; the bracelo for silks $=24.8$ do. The foot of Venice $=13 \cdot 68$ English inches.

The foreign comnserce of Venico in 1847 amounted in value to $86,500,000$ francs. 'liso revolutionary movements of 1818 , the long siege which it endured, and the suspension of its privileges as a free port, completely paralyzed ite commercial movements. In 1851 these privileges were restored, and the commerce of Venice has again resumed its wonted aciivity.

The imports into the port of Venice in the years 1847 and 1848 were:

$$
\begin{aligned}
& \text { 1847. -Forelgn traports. } \\
& \text { 18:18.-Forolgu Imports. } \\
& \text { 86,484,000 france. }
\end{aligned}
$$

mpoats and Exponte to and


It will thus be seen that the commereial movements of the port of Venlce $\ln 1852$ oxceeded In value the sum of $50,000,000$ francs (nesrly $\$ 10,000,000$ ), and ehow an increase over the totals of 1851 of $17,500,000$ francs. This is to be attributed to the restoration of the commercial franclise of the port-an act of justice which was delayed until the operations of the second half year of 1851 had already commenced.

The following table exhibits the navigation of Venice during the two years under review :
2851. - Total vesscia entered ead clearod 1281 , of 173,714 tonss 1859.-Tots1

1743, of 234,240
The following statement exhiblts the imports and exports to and from Venice in 1858 compared with 1852:

| Yoars. |  | Importa. | Exports. | Total Trade. |
| :---: | :---: | :---: | :---: | :---: |
| 1853 |  | 38,798,700 | 15,614, 200 | 51,403,400 |
| 1852 | " | 35,798,700 | $14.200,300$ | 50,005,000 |
| Incre | " | 3,000,000 | 1,398,400 | 4,398,400 |

The cossting trade during the year 1853, added to the foregoing, figures a total of $20,544,400$ francs, a gainst 19,699,100 francs in 1852. Thus:

Coamfing Tabid on Vimice in the Yeame 1869 and 1858.

| Youmb | fram 10, |  | Tual ${ }^{\text {a }}$ Trede. |
| :---: | :---: | :---: | :---: |
| 1853. | frances 10, 488,400 | 9,046,040 | (21), 646,400 |
| 1862 | 10,417,300 | 9,281,800 | 10,096, 100 |
| Inere | 431,100 | 414,260 | 840,300 |

The navigation of this port in 1858, compared with that of 1852, is thus glven s

Entered.

|  | Cleaned. |
| :---: | :---: |
| Venolit | Tona. |
| 804 | 98,778 187,282 |

During theee yeara it appeara that not a aingle American vessel entered that port, or cleared thence for the United States, This may seem strange when the eye is cant over the following list of leading articles imported into Venice in 1852:

| Cereald. | $\begin{aligned} & \text { Franen. } \\ & 8,148,300 \end{aligned}$ |
| :---: | :---: |
| Oltve-oil | 4,4日1,400 |
| galted fleh | 4,471,500 |
| Coal | 8,784,000 |
| Salt. | 2,490,900 |
| Dried frult | 1,811,500 |
| Twist (all kinda) | 1,959,200 |
| Haw cotton | 1,084,000 |
| Wines and aplrita | 083,900 |
| Iron and ateel. | 801,210 |
| Wex | 704,900 |
| Coffee and cocon | 427,900 |
| Cheese | 003,600 |
| sugar (brown and | 1,484,800 |

From a consular return, dated Vanice, April 24, 1856, it appesrs that there entered that port in November and December, 1855, two Ainerican vessels, measuring respectively 663 and 527 tons, having cleared from Richmond and bound to Palermo, after discharge of cargo, consiating of tobacco, valued at $\mathbf{\text { 年5,000. They }}$ ieft Venice for their destination in ballast. In January nnother American vessel, measuring 248 tons, entered in baliast, and cleared for Conatantinople with a cargo of hay vslued at $\$ 2500$.-Com. Rel. U. S.

Vera Crus, the principal sea-port on the eastern cosst of Mexico; lat. $19^{\circ} 11^{\prime} 52^{\prime \prime}$ N., long. $96^{\circ} 8^{\prime} 45^{\prime \prime}$ W. Population about 16,000. Opposite the town, at the distance of a bout 400 fathoms, is a small island on which le bulit the strong castle of San Juan d'Ulloa, which commands the town. The harhor lies between the town and the eastle, and is exceedingly insecure; the anchorage being so very bad that no vessel is ceasidered safo unless mado fast to rings fixed for the purpose is the castle wall: nor is this always a sufficient protection from the fury of the northerly winde (los nortes), which sometimes blow with tremendous violence. Humboldt mentione, in proof of what is now stated, that a ship of the line, moored by nine cables to the castlo, tore, during a tempest, the brass rings from the wall, and was dashed to pieces on the opposlte shore.-Nourelle Espagne, ed. 2de, iv. 59. Its extreme unhealthiness ts, however, a more serious drawhack upon Vera Criz than the badness of its port. It ts said to be the original seat of the yellow fever. The city is well built, and the streets clean; but it le surrounded by sand hills and ponds of stagnant water, which, within the troplcs, are quite enough to gencrate disease. The inhabitants, and those accustomed to the climate, are not subject to this formidablo disorder; but all strangers, even those from tho Havana and the Wcst India Islands, are liable to the infection. No precsutions can prevent its attack; and many have died at Xalaps, on the road to Mexico, who merely passed through this pestilential spot. During the perlod that the foreign trado of Mexico was carricd on exclusively by tho flota, which eailed periodicaliy from Cadiz, Vera Cruz was celebrated for its fair, held at the arrival of the ships. It was then crowdod with dealers from Mexico and most parts of Spanish Amorica; but the abolition of the system of regular flcets in 1778 proved fatal to thils fair, as well ss to the still more celebrated fair of Porto Belio. A light-house has been erected on the northwest angle of
the Castie of San Juan. The light, which is a revolving one of great power and brilliancy, is elevated 79 fent above the leval of the sea.

For a considerable period after the town of Vera Cruz had thrown off the Spanish yoke, the Castle of San Juan d'Uiloa continued In posmesion of the Spanlarils. Daring this Interva! the commerce of Vera Crua was almost entirely transfurred to the port of Alvarado, 12 leaguen to the southeast. Alvarado is limit apon the left bank of a river of the same name. The bar at the mouth of the river, abont it mille below the town, renders it lnaccenalble for vessela drawIng above 10 or 12 feet water. Large shipe ars obliged to anchor in the roads, where they are exposed to all the violence of the north whind, loailing and ualoading by meana of lighters. Alvarado is supposed, but probatily without much foundation, to be a littie healthier than Vera Crua. The trade has now mostly reverted to its old ehannel.

The commerclal intorcourse of the United States with Vera Cruz depends now solely on the regulationa of the mothar country (i. e., the capital). Locial leglsJation has nothing to do with 1t, except as regards a fow unimportant harbor dues, and municlpal taxes inposed by the "ayuntamiento" (eity counel). The exinting regulations are permanent in name, but may be regarded as temporary in fact, being liable to be changed at any moment by arbitrary decree, or utterly deatroy. eil by "pronunciamento." There are no privilegen permitted the commerce of other nationa whid are dealet to tha United States, nor are there any res e"ctions Imposed on the commerce of other nations and not on that of the United States. It is understood that the Danish commercial treaty in the least favorable to Mexico; but, practically, all nations may be regarded as on an equal footlng. Moxico takes care to make no national dintinctions, but she very frequently sells apecial privilegos to individuels, as in the caser at San Blas, Mata-
moras, and Maxatlan. At Vera Cras an Immonse ainount of raw cotton in being imported from Nuw Orieans, on the payment of about one half the duty indieated by the exieting tarifi-" parmits" to linport that artiele at a greatiy roduced rate having boen granted to favored individuals. The regular duty in tiree cents per pound, but permita can now be bought up at seconil hand at two ceals per pound.

Vord [Cape] Islands. The Cape Verd Ialanda are situated 329 milea weat of Cape Verd, between lat. $14^{\circ} 45^{\prime}$ and $17^{\circ} 13^{\prime}$ N., and long. $82^{\circ} 45^{\prime}$ and $25^{\circ} 25^{\circ}$ W. The Arelipelago conaista of the following ten Iflande: Sal, Boavista, Mayo, Santiago (St, James), the largeat, Forgo, Brava, (irande, Itombo, St. Nicoliae, and St. Luzia; and four Ialets, Branco, Razo, St. VIcente, and St. Antion. Area eatimated at 1680 square milfes. Population in 1850, 86,788. The white popuIation In the whole Archipelago is to the colored an one to twenty. Tho surface of the ialanda is in general mountalineua, and some of their peaks havo a collsiderabla elevation. The voleano of Fugo is 9167 feet in height. The suil is extrenely varlous, but mostly furtile ; the absence of trees and the acarcity of water are the causes of frequent and eevere distress. Chief vegetable products, maizo, riee, and French beans. Coffice, Introduced Ia 1790, has completely aucceeded; the cotton shrub is indigenous; indigo growa wild, and tobaceo Ia cultivated in some of the islands; tropical fruite are alundant. The sugar-cene and the vine are cultivated, but the manufacturo of wine is prohibited. The cllmate of these lislands is much varied by extrente heats and droughts, no rain falling during some periods for three or four years. Hence the population are frequently aubject to dist ress and suffering. Thase visitatlons have, on several occasions during the past fow years, atrongly appealed to the sympathies of the civilized natiuns of the world In behalf of the 87,000 lilhabliants of these islanda,-See article Mexico.


| Yearn mading | Exporth |  |  | 1mports. | Whereof thare was in Bullion and Bpecie. |  | Tonnege eleared |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Downeatie, | Fursigh. | Total. | Tolel. | Espert. | Impoti. | Anerican. | Yorelint |
| Sept 80, 1821....... | \$24,176 | \$ $\mathbf{\$ 7 , 0 5 0}^{4}$ | *29,432 | * 41.0141 |  | \$38,240) | 825 | .... |
| 1822...... | 34,941 | 13,833 | 70,773 | 47,424 | 407,026 | 17,079 | 1,149 | . . |
| 1823....... | 22,065 | 11010 | 83,065 | 50,840 |  | 17,412 | 689 | . . $\cdot$ |
| 1824....... | \$1,019 | 21,065 | 72,894 | 66,806 | 2,277 | 80,149 | 1.781 | 67 |
| 1825..... | 60,072 | 18,967 | 79,039 | 89,692 |  | 82,060 | 2,080 |  |
| 18.6....... | 3:3,693 | 9,2.n | 48,992 | 104. 120 | .... | 91,44 | 7.94 | 124 |
| 1827....... | 80,010 | 24,155 | 104,165 | 77,485 | .... | 24.600 | 2,199 |  |
| 1898. | 67.508 | 9.787 | 17,289 | 82,009 |  | 17,545 | 2,483 |  |
| 1829....... | 685 5 | 18,47\% | 88,0196 | 86,460 |  | 7,003 | 8,269 | 8.1 |
| 1830....... | 50,550 | 7,77, | 38,338 | 83,753 | $\cdots$ | 15.457 | 2,028 | $\ldots$ |
| Total. $\cdot$ | \$ 4 46, $5 \times 8$ | $\$ 160,568$ | \$ $\$ 050.182$ | \$648,525 | \$ $010.8 \times 2$ | \$216,406 | 18,230 | 251 |
| Sept 30, 1831........ | \$ 15.438 | \$13.567 | (43,98) | \$63,643 |  | \$32,327 | 1,200 | 286 |
| 1834...... | 06,859 | 19,437 | 80,235 | 87,716 | \$400 | 27,434 | 8,643 | 162 |
| 1833...... | 162,033 | 44,087 | 207,020 | 89,818 | 1,453 | 11,670 | 6,944 | 810 |
| 1834..... | 79,511 | 25.896 | 105,897 | 40,633 | 1,250 | 80,028 | 8,391 | .... |
| 1885....... | 102.447 | 27.747 | 13n, 187 | 19,795 | 075 | 9,087 | 2,043 | . |
| 1836....... | 67,210 | 8,248 | 75,456 | 13,813 | 4,100 | 0,492 | 8,057 |  |
| 1887. | 186.201 | 27,857 | 164,083 | 38,8 ${ }^{3}$ | 8.035 | 15,6i8 | 8,725 | 2148 |
| 1838....... | 96,941 | 8,023 | 105,874 | 20,17.4 | 809 | 9,396 | 3,294 | $5: 8$ |
| 1889........ | 77.183 | 8.415 | 85,603 | 80,523 | 680 | 4,100 | 8836 | 041 |
| 1816.. | 82,611 | 2,800 | 85,480 | 29,848 | .... | .... | 2,262 | 944 |
| Total... | \$316,875 | \$187,994 | \$1,104,270 | * 401,796 | \$18,248 | \$186,194 | 81,855 | 4876 |
| Sept. 90, 1841....... | \$66,926 | \%13,226 | \$80,152 | \$42,861 | \$5,603 | \$9,300 | 1,996 | . $\cdot$. |
| 1942....... | 103,657 | 11,5.9 | 115.086 | 17,966 | . 800 | 8.704 | 8,210 | $\cdots$ |
| 9 mos., 1843**... | 69,227 | 4,978 | 57,205 | 4713 | .... | 3,209 | 1,302 | 167 |
| June 30, 1844....... | 65,938 | 5.293 | 10, 531 | 4.834 | .... | 8,003 | 1,037 | $3 \times 2$ |
| 1815...... | 50,5,69 | 2,834 | \$3,483 | T,579 | .... | , | 4,266 | 170 |
| 1846...... | $81,0.7$ | ${ }^{77} 885$ | 81.783 | ${ }^{\text {857 }}$ |  |  | 1,004 | 548 |
| 1847....... | 71,084 | 17,849 | 85.932 | 8,309 | 10,000 | 2,200 | 1.708 | ${ }^{9819}$ |
| 1848....... | 101, 7.48 | 6.849 | 108,579 | 225 | 1.00 .1 | .... | 4,0H! | Ench |
| 1847. | 69,647 | 8.815 | 66,468 | 1,853 | 1,575 | .... | 2.714 | 473 |
| 1550. | 47.018 | 8.167 | 49,210 | $\cdots$ | $\cdots$ | *** | 1.886 | 611 |
| Total. . | \$462,141 | \$09,230 | 6721,371 | \$ $\mathbf{\$ 2} \mathbf{8}, 083$ | \$22,378 | \$21,404 | 23,947 | 8420 |
| June 30, 1851....... | \$57,479 | \$9,437 | \$60,913 | -1,850 |  | .... ${ }^{\text {. }}$ | 1,50\% | 710 |
| 1852....... | 01,425 | 0.651 | 64.076 | 18,189 | 4,100 |  | 1,023 | 1153 |
| 1853....... | 28,975 | 1,604 | 84,879 | 41,063 |  | -13,967 | 2,181 | ** |
| 1554. | 30,087 | 2,203 | 82,945 | 8,965 | 810 | 1,000 | 4,201 |  |
| 1855....... | 56,496 | 8,120 | 6.7,816 | 21.900 | 3,418 | 7,000 | 5,743 | 243 |
| 1856....... | 51.415 | 2,994 | 88.709 | 86,910 | 490 | 12.069 | 8,188 | 401 |
| 1857....... | 63,108 | 1,395 | 04,508 | 88,006 |  | 12,010 | 2,063 | 645 |



- In 1812 the Imports fromi the United States amonntel to 857,500 , employing 10 venseia with an ageregato tennage of 1610 tom. An export duty of $\$ 53$ per pipe is levied on wine. The duties on the principal Imports from the United States are as follows:

|  |  |
| :---: | :---: |
| Com, per buahel | 61 |
| Kice, pee pound | 1 |
| Htaves (plpe), per ${ }^{\text {cou }}$ | 100 |
| Staven (hognicad), per | 180 |
| Staves (barret), per 1000 | 75 |
|  |  |

Port chargea in Madeira amount to about 818 on a vessil of any tonnage, for health officer, government visita, and custom.houno fees. - For Weronte and Meabuaka, zee p. 1013.

Verdigris (Ger. Grünapan; Mr. Vertele-gris, Verdet; It. Verderame; Sp. Cardonillo, Verdete, Verde-gria; Russ, Jar), a kind of rust of copper, of a beautiful bluish green color, formed from the corronion of copper by fermented vegetables.

Its apecitie gravity in 1-78. Ita taate ta diagreenbly metalle, and, liko all the compounds into which copper entera, it is polsonous. It was known to the ancients, and various ways of preparing it are deseribed by Pliny. It la very extensively used by painters and In dyeling ; it is also used to some extent in medicine. The best verdligris is made at Montpellier; the wines of Languedoc being partlcularly well puited for corroding copper, and forming this aubstance. It is genorally exported in cakes of about 25 lbs, weight each. It is also manafactured in this country, by means of the refuse of cider, ete. The goodness of verdigris is judged of from the deepness and brightness of its color, ita drynees, and ita forming, when rubbed on the hand with a Ilttle water or anllva, amooth pante, free from grittiness. -Thomsox's Chemistry; Kerg' Cyclopodia.
Inponts of Veamoile into tig Enited States foa the
I rak endina juna 00 , 1857.

| Whenes imported. Ilsmburg | Pound. | Value. $\$ 302$ |
| :---: | :---: | :---: |
| England. | 790 | 195 |
| Briteb Ameitem | 200 | 41 |
| France. | 30,301 | 0097 |
| Spuln... | 220 | 55 |
| Total. | 32,543 | \$.6.0 |

None of this was re-exported, so that the whole may bo set down for home consumption.

Verjuice (Ger. Agrest; Fr. Verjus ; It. Agresto; Sp. Agraz), a klad of harsh, austere vinegar, made of the expressel julee of the wild apple, or crab. The French give this namo to unripo grupes, and to the sour liquer obtalned from them.

Vermioell (Ger, Nuleln; Dı, Meelneepen, Proppen; Fr. Vermicelli; It. Vermicelli, Tayliolini; Sp. Aletrias), a specles of wheaten paste formed Into long, slender, hollow tubes, or threads, used among us in soups, broths, etc.-See Macanoni.

Vermilion. See Cinnabari.
Vermont, one of the United States of America, lics between lat. $42^{\circ} 44^{\prime}$ and $45^{\circ} 00^{\prime} 30^{\prime \prime} \mathrm{N}$., and long. $73^{\circ}$ $20^{\prime}$ W., and contalns an aren of 8000 square miles. Population in 1740, 85,589; in 1800, 154,465; In 1810, 217,805 ; in $1820,235,764$; in $1840,291,948$; and in 1850, 313,611.

Physical F'eatures, ctc.-This State presents a rery considerable variety of surface. It is traversed from north to south by the Green Mountain range, some summits of which rise to a height of 4279 feet above the sea. About the centre of the State they divide into two ridges, the principal of which passes in a north-northeast direction into Canada. Tho Green Mountains are from ten to ffiteen miles wido, much intersected by valleys abounding with aprings and brooks, and are mostly covered with evergreens to their summits, from which they have derived their name. The rivers are inconsiderable; most of those flowing enst are merely small tributaries of the Connecticut; those on the weat alde are larger; and the three principal, viz.,

Lamoille, Missisque, and Winooski, rise ou the sast side of the 1 duclpal nountalir range, which they break through and enter Lake Champlain.

Lake Ciamoloin, a considerable body of water between the States of New York and Vermont, and penetrating for a few millea into Canada. It in 140 miles In length, and from 1 to 10 in breadth, lying nearly north and south; and contains a great number of small islands, noat of which belong to Vermont. The Chanplain Canal, 68 miles in length, connects it with the Ifudnon, and large steamboats and vessols of 100 tome navigate the Jake from ond to end. The seenery along Ita shores la highly pleturesque, and Its watera abound In salmon, salmon-trout, sturgeon, and other flah. Lake Champlain Is navigablo for large veasela, and has aeveral good harbors on the Verment side. It is of tie greateat importance to ${ }^{\text {armont }}$ by giving her facllitles for internal commerce. From the shape of the lake It glves the large amount of conat line and length of navigatlon, and makes up for the deficiency of navigalile rivers. The American commerce of Lake Champlain in 1856 was over 20,000 tons. The climate varies accordling to differences of lovel and other circumatances. It is healthy, although tho winters are severe. The soll Is fertle, but more suitable for pasturage than tillinge. Wool is the staple production; sheep, horses, and cattle aro raised in great numbers; marble, granite, and alnte are abundant, and valuable quarries of each are worked; Jeon ore abounds in several localities throughout the State, and from the sulphuret of iron, In Stratferit and Shrewebury, cepperas is extenslvely manufacturel. Sevoral mineral springs occur.

There wers in this State in $1800,2,601,409$ acres of land improved, and $\$ 1,524,413$ of unimproved in farms ; caeh value of farms, $\$ 68,307,227$, and the value of implements nad machinery, $92,789,282$. Lire Stock.Horses, 01,057; asses and mules, 218; milleh cows, 140,128 ; working oxen, 48,577 ; ot her cattle, 154,143 ; sheep, $1,014,122$; swine, 66,296 ; value of live stock. \$12,043,228.

Agricultural Products, etc.-Wheat, 535,955 bushels; rye, 176,233; Indiun corn, 2,032,890; oats, 2,307,734; barley, 42,150; buck wheat, 209,819; peas and beans, 104,640 ; potatoes, $4,951,014$; value of products of the orchard, $\$ 315,255$; prolluce of market gardens, 818,853 ; pounds of butter made, $12,137,980$; of cheese, $8,720,834$; maple-sugar, $6,349,557$; molasses, 5997 gallons; beeswax and boney, 249,422 lbs.; wool, pounds producel, 3,400,717 ; flax, 20,852; allk cocoons, 268 ; hops, 288,023; tons of hay, 866,153 ; clover seeds, 760 hushels; other grass sceds, 14,936; flaxseed, 030 bushels; and were made 659 gallons of wine. Value of home-made mannfactures, $\$ 267,710$; of slaughtered animals, $\$ 1,861,386$.

Manufactures, etc.-There were in the State in 1850, 11 cotton fuctorles, with a capital Invested of $\$ 197,500$, employing 123 males and 207 females, producing sheetings, etc., valued at 280,300; 96 wooleu factorles, with a capital of $\$ 1,015,175$, employing 800 males and 812 females, manufacturing $3,180,400$ yards of cloth, valued at $\$ 1,820,769$; three establishments making pig-iron, with a capital of $\$ 88,000$, employing 133 persons, producing pig-iron, etc., valued at $\$ 80,000 ; 26$ cetablishments, with a capital of $\$ 200,720$, employing 381 persous, and making 5000 tons of castings, etc., valued at $\$ 460,831 ; 8$ establishments, with a capital of $\$ 62,700$, employing 57 persens, manufacturing 2045 tons of wrought iron, valued at $\$ 168,986$; 83 flouring and grist mills; 321 saw-mills ; 156 tanneriea, with a capital of $\$ 411,150$, employing 897 persons, valued at $\$ 587,466$; 80 priuting-offices; 2 daily, 1 semi-weekly, 81 weekly; and 2 monthly publicatiens. There were on the 1st January, 1856,8 railroade, with 516 miles of road finsished and in operation. Capital employed in manufactures, $\$ 5,001,877$; value of manufactured articles, $\$ 8,570,920$. The principal places in the State are Montpelier, the capital, Burlington, Middlebury, Brattleboro, Norwich, St. Allians, and Castleton.
 Tonnag: in 1821, 1831, 1841, and 1851.

| Yoans eadins | kxparts. |  |  | Importa. | Tonasge eleared. |  | Distriat Tonaage. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dounetle. | Forsign. | Total. | Total. | Ameriean. | Foreign, | Anspitered. | Kiarolled aod Lilcensed. |
| supt. 30, 1821....... | \$263,330 |  | \$268,330 | \$,5.987 | 001 | 40 | . $\cdot$. | 1274 |
| 1882, ...... | 940,916 | \$8,478 | 257,6:4 | 60,890 | 864. | 40 | $\ldots$ | - |
| 1528....... | 236.140 | . . ${ }^{\text {, }}$ | 936,143 | 62,242 | - | . | ... | , |
| 1824....... | 208.208 | .... | 208,2t8 | 181,854 | 605 | 85 | .... | . $*$ |
| 1825....... | 896,160 | .... | 396,166 | 109,021 | 605 | 85 | . | * |
| 1826. | 884,20\% | * | 894,908 | 828,640 | .... | . | .... | . $\cdot$ |
| 1817....... | 1,259,441 | .... | 1,259,441 | 144,078 | ... | .... | ... | . |
| 1828....... | 939,610 | .... | 230,610 | 177,039 | -iioi | . $\cdot$. | * | . . . |
| 1889....... | 808,079 |  | 818,079 | 215,312 140,051 | 24,101 10,290 | . | . ${ }^{\circ}$ | $\cdots$ |
| 1830...... | 659,206 |  | 603,200 | 140,05: | 10,2:0 | $\cdots$ | . . $\cdot$ | . . . |
| Total... | \$5,20\%,618 | ¢0,478 | \$5,211,176 | \$1,305,719 | 46,506 | 140 | * ${ }^{\circ}$ | . $\cdot$ |
| Sept. 30, 1831....... | \$0.6,127 | *** | \$025, 127 | \$166,906 | 20,201 | . $\cdot$. | ** | 877 |
| 1832....... | 849,820 | .... | 849.820 | 214,672 | 14.680 | . | $\cdots$ | . $\cdot$. |
| 1833. | 3it, 399 |  | 377,8.19 | 523,260 | 85.166 | . $\cdot$ | - | . . . |
| 1834....... | $8.34,372$ | .... | 304,372 | 39.3,806 | 85,700 | - | . $\cdot$ | . . $\cdot$ |
| 1835........ | 3:8,151 | .... | 823,151 | 217,803 | 968.88 | .... | .... |  |
| 1820. | 188, 165 | ... | 185.165 | 456,840 | 30,045 | - | . ${ }^{\circ}$ | . |
| 1837........ | 138,693 | .... | 139,608 | 72,449 | 27,011 | - | . | - |
| 1834....... | 132,650 | ... | 182,060 | 258,417 | 88480 | ... | .... | . . |
| 1889....... | 193,836 | - | 108.856 | 418,518 | 44,766 0,085 | . . . | ... | * |
| 1840...... | 805,160 |  | 305,150 | 404,617 | 62.054 | . $\cdot$. | . $\cdot$ | . . . |
| Tolal... | 43,273,413 |  | \$3,273,413 | \$3,320,630 | 424,964 | . $\cdot \cdots$ | . $\cdot$. | $\cdots$ |
| Sept. 30, 1841....... | \$ $\$ 264.1008$ | \$13,384 | \$27 7,987 | \$246,733 | 18,500 | . $\cdot$ | . . . | 4330 |
| 1812....... | 650.2988 | 7,916 | 607,009 | 209,868 |  | . $\cdot$ | $\cdots$ | . $\cdot$. |
| 0 mos, 1843*...... | 141,834 | 28,137 | 109,871 | 88,600 | 15,85, | , | . . . | . |
| June $50,1841 . . . .$. | 106,574 | 216.793 | 413,307 | 47,183 | 56.386 | . | . | . $\cdot$. |
| 18\$5....... | 213.076 | 828.631 | 542,607 | 81,907 | 58.728 | .... | . . . |  |
| 1816....... | 215,816 | 188.604 | 403,829 | 127,223 | 79,766 | .... | . . . | ... |
| 1847. | 231985 | 2\%2,313 | 614,298 | 239,641 | 72,064 | . | . ${ }^{\text {a }}$ | . $\cdot$ |
| 1818. | 905, 203 | 234,833 | 534,102 | 306,105 | 74.416 | - | - | .... |
| 1819....... | 2,9,033 | 388,981 | 688,809 | 147,721 | 97,213 | 324 | . .. | . . |
| 1851....... | 404,749 | 96,157 | 430,006 | 463,019 | 81.073 | 1,7×3 | . . . | . . . |
| To'al... | \$2,817,989 | \$1,715,477 | \$4,633,436 | \$1,407,460 | 0.4,460 | 2,108 | * $\cdot$. | * ${ }^{\circ}$ |
| Jube 30, 1851..... | \$761.719 | \$204 | \$702,016 | \$091.208 | 104, 114 | 17.734 | . | 403.1 |
| 185?... | 216.083 | 17:2.0.5 | 368,113 | 192,5!3 | 42,473 | 14.600 | ** | . $\cdot$ |
| 1853....... | 182.376 | 11.741 | 94, 117 | 184,812 | 14.402 | 6,644 | .... | .... |
| 184.4....... | 810.078 | 1.135160 | 1,485,244 | 247,979 | 29,803 | 10.15 | * | . $\cdot$ |
| 1855....... | 322,044 | 2,578,924 | 2,895,468 | 601,093 | 11, 80 | 8.462 | ... | , |
| 1806....... | 850.617 | 080.843 | 1,081,450 | 1,500,118 | 20, 65 | $19.73 \%$ | .... | . . . |
| 18\%7...... | 2-3,403 | 365,461 | 648.470 | 2,709,133 | 21, 542 | 21,084 | .... | . |

* Nine montha to Jubn in, and the fiscal year from thits the begius Juty 1 .

Burlington, Vermont, is the principal port of the State. Ita commerce hy Lake Ciamplain, on a bay of which the town is built, is important, and its connections by rai'road and steambont afford il every Pacility in its prosecution. The harbor of Burjington ts the beat on the lake, and more vessels nariguting tine lake are owned here than at any other place. It is ensy of access from the north and sonth, and to protect It from the west winds a breakwater 900 feet long was erected. Juniper Island is distant four milies from the wharf, and contains eleven acres of ground. A lighthouse was erected on this island in 1826; it is in the form of s truncated cone, thirty feet highi, eightern fect in dlameter at the base, and lwelve at the top, and is kept lighted at night during the season of navigation, from the middie of April to the ist of December. llurlington bas an extenaive and fertile back country, and the mercantile business of the place amounta to about 41,000,000 annually. Tonnage in 1853,6875 ; in 1856 ic was 7448 tons.

Vensels. See articlea Smin nud Tonsugr.
Victoria (formerly called Australia Felix nnd Port Philip), a British colonial territory, comprising all the part of Australis south of the rivers Mfurrumbigee and Murray, between tat. $34^{\circ}$ and $39^{\circ} \mathrm{S}$., and long. $141^{\circ}$ and $150^{\circ}$ E., having on the northeast New Sonth Wales, on the west the coleng of South Australla, and on the soutio the occan and Hass's Strait, separating it from Tasmania. Area, 98,000 square miles. Population in 1851, 75,315, of which 46,202 were malea, and 31,143 females ; in $1855,300,000$, and of these it is estinated that 5000 are aborigines. The territory derived its former name from the fine bay of Port Phillip, near the centre of its coast line; besides which, here are the inlets iVestern Port. Corver Injet, Lake Klng, Port Feiry, and I'ortiand Bay, most of which afford good anchorage, nul are the seuth of in-
cipient towns. Surface mostly undulating or level, separated into different river basins by hill chains. Temperature at Port Philip ranges from $32^{\circ}$ to $!10^{\circ}$ in $t$ ''e ycar, and may average about $61^{\circ}$ Fahr. Soil more fertile generaliy than in New Sunth Vales, though around the borders are extensive tracts of barren Inul. for about 50 miles from the const the country is aimost overy where of high fertility; there is also much gooi land on the tanks of tite Ilume and llovell; and nithough filtherto the corn raised has been Inadequate for houe consumption, and n supply haa been imported frotis Tasmania, thin colony bills fair to become ethriving agricultural region. Sheep and cattle rearing are, however, the principal occupationa of the popuiation, and in 1851 the live stock in the province emennted to 5,$000 ; 000$ sheep, 16,500 horses, and 340,000 hormed eattle. In the same yenr, 100 acres were pianted wilh vines, and 130 gallons of wine were made, chiefly neaGeelong. Wheat, oats, barley, potatoes, salt from the lakes, pumice-stone, lava, and other volcanic products ainndant in the western platns, nre other chief articles of produce. Seme veina of coal, ar $d$ ores of eopper, lead, and manganese, have been met with near the const; hut few, if any, mines are at present wrought. The principal towns are Nelbourne and Geelong. The coleny was formeriy cailed Austrnlia Felix, and was attached to New South Wales. It was formed into $n$ distinct colony in 1850, under the name of the l'ruvince of Vieloria. It was first settled by the IIritish ahout $18: 31$.

The commercial relations of the Visited States with ihe British possessions in Australia, Now Zealand, and the Caie of Good Hope, are regulated by the orders of the lucal governments, whition the limits preseribed to their authorly by the legislatlon of the Imperial Parilament. 'itie repeal of the British navigation laws atulished all the restrictions uipon foreign commerce, which tefore that period secured to tho lifish merchant the
mono. lly of supplying the markets of these dlatant colonica, The trude ls now open to all flaga, and the vecsels of every nation having conimercial treaties with the mother country can freely and upon equal terms entur in thie race of commerclal competition. Co-operating with thle llberal poliey of the mother coantry, the discovery of gold in some of the Australlan possessions in 1851 contrlinted largely to infuse new commercial life and vigor luto that distapt part of the glabe. Some eatlmata may be formed as to the oxtent of the wonderful advance of these coloniea in commarclal and colonial greatness, the increase of their impoits and exports, and the aupmentation of thelr resources generally, by glancing over tho subjolned atatisties.

In 1843 the value of tha imports of the colony of Victoria was $\$ 1,229,810$; that of their exports, $\$ 1,639,830$. Of this latter suin wool covered nearly $\$ 1,000,000$, all of which was shipped to Great Britain. Value of imsorts in 18.17, $2,188,480$; of whleh $\$ 1,592,120$ wero from Great Britain. Value of oxports in $1847, \$ 3,342,555$; of which wool covered $\$ 2,820,02 i$, dlstributing the balance ( $\% 518,680$ ) bet weon the articlesof beef, pork, horses, horned cattle, and tallow. Number of vessels in 1817, 42:1, with a tomage of $\mathbf{4 7 , 8 8 5}$.

The following tuliles will exhiblt the trade of the colony of Victoria from 1851 to the end of the first lialf of 185 x :

| In the year 1851 | Importa. <br> $\$ 4,329,140$ | $4.1$ |
| :---: | :---: | :---: |
| 18.9 | 17.6:4,425 | 85,685, 375 |
| 150 | 70.473,23\% | 45,412,87) |
| In the half year | 44,780,840 | 24,50\%,400 |

Amount of flour from the United $S^{+}$ntes Importid in 1853, 15,036 tons; and more than one half of the wholo quantity Imported. Amount Imported from the United states in the half year of 185:, 3720 tons ; or more than one-third of all limported.

The total exports from the Uulted States to Australia for tho year entiling June 30, 1857, were as followa:

| Boards | \$214,892 | Tobacs | \$235,128 |
| :---: | :---: | :---: | :---: |
| Manufur, of Wool . | 25t,219 | Heous and ahoca. . | 140,405 |
| Itaco | 111,083 | Other artielea | 1.451.2i |
| Flour | 803,070 | Tetal. | 3,254,1 |

 Jandauy, 185\%, to Siftemure, 1804.

From New York.


Four imesican brigs made the passage ln 90 days, and one sehooner in 91 days. These vessels were laden with tlour, provlslons, lumber, and general cargo. When the market is not overstockod, as was the case in 1853, American flour of the best quality (and none clse need be exported) brlugs from 81560 to $\$ 1680$ per barrel. Twelve dollars can be laid as the tixed market prico for tirat quality flour, at least unth the Australinus pay more attention to agricultural parsuits, which will hardly be the case so loug as they can thd golit nugfits weighing 981 lbs , each. American provisions, lianss, bacon, butter, cheess, beef, perk, preserves, farnlture, wooden housen, earriages, wagons, boots, etc., are much aought for In the markets of Victorla, aid always command remuneratlve prices. The facllitles for discharging and dispatehing ships have greatly inereased within the past year. Hefore that [eriod, 90 days was consklered good dispatch; now from 12 to 30 days is the time; and, Indeed, 30 days is consitered unwarrantably long.

It may be lnteresting, and not altogether inappropri-
ate, to notlee in this place the astonishing production of gold in thls colony, compared with the aggregate ininIng operations In other parts of the world, especlally In Cullfornis. The gold diggings in Vletorla extend from long. $142^{\circ} 85^{\prime}$ to $147^{\circ} 30^{\prime}$, and from lat. $88^{\circ} 20^{\prime}$ to $87^{\circ} 40^{\prime}$, over districts embracing more than 300,600 square miles, or more than hali the aras of the colony. Victosia Gold.
From the end of Aoptember, 1851,
Ouncom.
$4,008,188$
to December 81, $1852 \ldots \ldots \ldots$
From December, 1852, to Docem-
ber, $1868, \ldots . . . . . . . . . . . . .$.
$\left.\begin{array}{l}\text { From December, } 1868 \text {, to Septem: } \\ \text { ber, } 11.54 \text { (by escort only) ....... }\end{array}\right\}, 130,510$
Total. . . . . . . . . . . . . . . . $\overline{8,8 ; 0,0,4)}$
Amosal.
\$88,707,020
60,480, 1080
ber, 1464 (by esc
Total
$22,010,880$
$\overline{\$ 170,807,080}$

Companigon of the Ayeafoe tearly Pgodude or Gold.
Vletoria.
$\$ 60,000,000$
Callfornia 65,000,000
Ruselin (Ural Meuntalue)
Aggregate mmount (annual) of Victoria Calt fornla, and luasslais minea.................. $\}$
$\$ 185,000,000$ -See artieles Austualia and Melnounne.

Vikings, or Bea Kinga, aniong tho Danes or Normans leaders of piratical squadrons, who passed thelr llres in roving the seas in search of spoil and adventures. The younger sons of the Scandinavian kliggs or garls, lanving no inheritance but the ocean, naturally eollected around their atandards the youth of inferlor order, who were equally destltate with themselves. These were the same who in England and Seotland, under the aume of Danes, sud on the continent under that of Normams, at first desulated the maritime coasts, and afterwarl penetrated into the interior of countries, und formed permanent aettlements in their conquests.

Vine. The vine was known to Noah. A colony of vhe-dressers from Phocen, In Ionin, settled at Marseilles, and instructed the South Ganls in tillage, vinedressing, and commerce, ahout 600 b.c. Somo think the vines aro aborlgines of Lauguedoc, Provence, and Sicily, and that they grew spontaneously on tha Mediterranean shores of Italy, Frauce, and Spain. The vine wea carried into Chmmpagne, and part of Germany, A.d. 279. The vine and sugar-cane were flant. ed in Madeira in 1420. It was planted in England in 1552 ; and in the gardens of IIampton-court palace is sn old and eclebrated vine said to surpass any known vlue in Europe.-See Gbaifes and Wine. The fullowing is a tradition in relation to the vine: "When Adsm planted the first vine and left it, Satan approached it, and said, 'Lovely plant! I will cherish thee;' nad thereupon taklug three animals, a lamb, $n$ lion, and a hog, lie slayed them at the root of the tree, and their Meod lass been imbibed liy the fruit to this day. Thus, if you take one gollet of wine, you are cheered by its indluence, yet are mikl and docile as the lamb; if you take two goblets, you become furions, and ravo and belle, liko the llon; nut If you driuk of the third golslet, your reason sinks, ned, like the log, you wallow in the mire."-Asirk. See Wine.

Vinegar (Grr. Fissig; Du. Azyn; Fr. linaigre; lt. Accto; Sp. nud lort. l'inage; Russ. Uhzus; Lat. Acem tum).-See Acid (Ateric), for a description of vinegar. Vincgar was known nesrly ns eoon as wine. The ancients had several kinds of vinegar which they used for trink. The Roman soldiers were aceustomed to take it int thelr marthes. Tho Bible represents Boaz, n rich citizen of Ifethlehem, as providing vinegar for hls reapers, into which they might dip their bread, and kindil: luviting leath to sliare whth them in their repast : hence we may Infer that the harvesters at that period partook of this liquid for their refreshment-a eustom still prevalent In Spain and Italy. It is conjectured that the vinegar which the Roman soldiers oflered to nur Saviour at hils erucifixion was that whileh thoy used for their own drinking. There was, however, a kind of potent vinegar which was net proper for drinking till diluted.

Fixfohts of Vinkeat paom the Unitgd Stata yoe taz Year knding Jung 80, 1857.

|  | Galloma.; | Value. |
| :---: | :---: | :---: |
| Swedish West Indles. | 24.) | 4 |
| Danish West Indtes | 540 | 69 |
| Dutel West Indiea, . | 6,074 | 665 |
| Dutoh Gulann | 401 | 75 |
| Canada. | 63,674 | 8,253 |
| Other Itritish North A | 33,140 | 3,749 |
| [irtish West Indies | 23,837 | 3,318 |
| Imitish Il onduras. | 1,615 | 213 |
| British Guia | 15,560 | 1,669 |
| 13ritish Possesstons | 3,525 | 569 |
| Other ports in Africa | 5.99 | $10 t$ |
| British East Indief., | 1,588 | 894 |
| French West Indtea | 500 | 60 |
| Cuba. | 18.354 | 2,391 |
| Porto | 300 | 68 |
| Ilayti. | 2,86] | 437 |
| Mexteo | 6,860 | 1,085 |
| Contral keprib | 40 | 5 |
| New Granada. | 0,387 | 918 |
| Venozuela. | 800 | 133 |
| Argeatine Repabile | 6,346 | 818 |
| Cuith. . . . . . . . . . | 10,750 | 1,684 |
|  | 15.167 | 2,083 |
| Sandwich Istanda | 2,422 | 485 |
| Chlan. | 2,957 | 808 |
| Whale-fisherte | 7.764 | 734 |
| Total, 1856-57. | 230, 9 | \$30,788 |

There were no Imports of vinegar into the United States for the year 1857.
Viol and Violin. As the lyre of the Greeks was the harp of the moderns, so the viol and viella of the Midde Ages became the molern violin. The vlol was of various sizes formerly, as it is nt present, and was anciently very much in use for chamber airs and songs. That of three strings was introduced Into liurope by the jugglers of the 13th century, $\Delta$ he violin was Invented toward the close of the same century.-Ansé Lencleft. Tha fildle, however, is mentioned as early as A.m. 1200 , in the legendary lifs of St. Christepher. it was introduced linto England, aeme say, by Charles II. ill 1684 .

Virginia, one of the United States of America, lies bet ween lat. $36^{\circ} 33^{\prime}$ and $110^{\circ} 43^{\prime}$ N., and between long. $75^{\circ} 25^{\prime}$ and $83^{\circ} 40^{\prime} \mathrm{W}$. It is 370 miles long, and 200 miles broad at its rreatest breadth, contalning 61,852 squsra miles. Population In $1790,747,610$; in 1800 , 886,$149 ; \ln 1810,074,622$; in 1820, 1,065,366; In 1830, $1,211,272$; In 1840, 1,23., 797 ; and in 1850, 1,421,661.

Early Ilistory.-The coast of the country which we now name Virginia is aaid to have leen known to thin old Northmen. One of them, Gudleif Gudlaugsen, is said to have sailed in the year 1028 so far to the sonth. Ito is supposed to have called the conntry /luitiomonmolend, the land of the Whitemen, which may be considered the oldest and first name under which these reglons became ever knawn to the Enropeans.

The Spaniaris, sinca 1520 , ineluted the land under the names of Terra do Ayllon and Floridn, and the French, slince 156:s, under the name of Nourelle France. The English Inventel the namo Virginia at firat (1583) for the country lying round l'anlico and Albemarle Sound. They composed this name, it is snid, for two reasons: first, because It was tiscovered in the relfy of their Virgin Queen, lilizabeth; and, s scondly, " because the country seemed still to retain tha virgin purity and plenty of the first creation, and the people there the primitive hnocence."

They extended this name at once ovar a great part of the east coast, anil particularly over tho vleinity of Cherapeako llay, which was already discovered from the loanoko settlements, and which wo sue incluted under the name of Virginia on the first map of Virshluls, 1590.

When, since 1606, the Chesnpenke Hay was better explored and settlod, and when lt became the principal centre of the English settlements on the east const, this reglon was, par excellence, ealled Virginla, sometimes Nsw Virginia, while the former settlements anl conntry round Albemarle Somnd, then forsaken, were sometimes (for instance, on s map of Coptain J. Smith) call.
ed Ould Virginla. This was, hownver, more a popular manner of denominatlon. The officlal or legal name of the country was, in the year 1606, by King James I. thus confinad: He called Virginls, or the VIrginlan territory or coast, the whole east coast of North Amerlca, from the thirty-fourth to the forty-fifth degreo of north latitude. Thls whole territory was dlvided by the royal patent into two parts, a northern and a southern. Tha southern commenced In the south at $34^{\circ}$ north latitude, and ended In the morth at about $40^{\circ}$ north latitude. It was called the First Colony, or the Southern Settlements in VIrglnia, of Virginia proper.

When Captain J. Smith and Prince Charles Invented and Introduced (1616) for Northern Virginia the new name of New Enghand, the appellation Southern VirgInia disappeared, and was changed to Virginia.

By the separation of the territories of Maryland (1632), of Carolana (1629), and of Carolina (1668), the name and province of Virginia lest a great deal of their former extension, and recelved at last thelr present linilts, between $88^{\circ}$ and $864^{\circ}$ north latitule, so far as ont coast is concerned. The changes of the boundaries toward the interlor regions have no interest here for иa.-КонL.

Physical Features, etc.-As regnrds surface and soil, this Stato may be divided into four sections. The eastern includes a tract of about 100 to 120 miles in width, and is generally low and level, and in some places marsliy. It has a light sandy soil, mostly covered with pines. West of the line of the head of tilewater the country becomea undulatling and hilly, until it attains one continuous mountain elevation known as the Bluo Rlilge, crossing the eutlre width of the State. The alluvial lands in this tract are for the most part very fertile, those of James River especially being unuswally productiva. Thin third aection includes the valloy between the Blue Ridgo and the Alleghany Mountains. This tract, though in parts liroken by mountains, is generally the mest fertilo and healthy part of the State. The fourth section includes the country between tho Alleghany chnin and the Ohio. This portion, though in many places wild and broken, has a great deal of fine fertile land, and rast deposits of coal, irou, sait, etc. Gold is found in Fluvama and Buckinglame counties aul vicinity; and many valuable $n$ lueral springs exist.

There were in this State in 1850, 10,360,185 acres of land improved; and 15,792,176 unimproved land in farms; cash value of farms, $\$ 216,401,513$; and the value of implements and machinery, $97,0 \pm 1,7 \pi 2$. Live Stork,-llorses, 272,403; asses and mules, 21,483; milch cows, $31 \overline{7}, 619$; working oxen, 89,613 ; other cattle, ti69,137 ; sheep, $1,310,001$; swine, $1,829,843$. Value of tive stock, $\$ 33,656,659$.

Agricultural Products, etc.-Whent, 11,212,616 bushels; rye, 458,920 ; Inlinn corn, $35,224,314$; oats, $10,179,143$; barloy, 25,437 ; buckwheat, 214,808; peas and beans, 521,579 ; potntoes, $1,316,933$; swect potatoes, $1,813,634$; rice, $17,15 \mathrm{l} \mathrm{lbs}$. ; value of products of the orchard, 1777,137 ; produce of market gardens, \$183,017 ; pounds of hutter male, $11,089,359$; of cheese, H40, 292 ; maplesugar, $1,227,665 \mathrm{lis}$; molnsses, 40,322
 llos. rroduced; cotton, $894 ;$; flax, $1,000,450$; silk cocoons, 517; haps, 11,506 lbs.; tobacco, beb,803,227; hay, 369,098 tons; lemp, 88 tons : clover seeds, $2!, 727$ hushels; other grass seeds, 63,428 ; flax-seed, 52,318 bushels; and were mate, $5 \cdot 08$ gallons of wine; value of home-mnde manufactures, $\$ 2,15 i, 312$; of slauglitered nuimals, ® $_{7} 7,502,986$.
livers, ctc.-The Dotomnc lilver separates Virginia from Maryland. James ltiver is the largent which belongs to this State. It is 500 miles In length, and flows from the mountains in the laterior behind the Blue lidige, through which it passes. It is navigalile for sloons 120 miles, and for hoats much further, and
flows into Chesapeake Bay. The Appomatox is 130 |ued at $\$ 690,802$. Total carital inveated in manufacmiles long, and eatera James River 100 miles above Hampton Roads, and is navigablo 12 niles to Petoraburg. Tie Rappahannock, 130 miles long, and navigable 110 miles fur sluopa, risea in the Blue Ridge, and fows into the Ciesapeake. Yorl: liver enters the Cheaspeake 30 miles below the Rappahannock, and ia navigable 40 miles for sii.ps. Tho shonandoah enters the Iotomac juat hefore 'ta paasage through the Blue lildge. Of the rivere weat of the mountaina, the Great Kanawha riacs in North Carolina, jassea tirough this State and enters the Ohio. The Littie Kanawha also flows into the Ohio. The Monongahola rises in thia State, though it rune chiefly ir Pennsylvania. The lower part of Chesaf aiks $\mathrm{E}_{\mathrm{y}}$ "wholly in this State, is 15 miles wide at its mon't. ad entors the Atiantic


Manufactures, etc.-There were in the State in 1850, 24 cotton factorioa, with a capital invested of $\$ 1,893,200$, employing 1148 males and 1578 females, producing articles valued at $\$ 1,438,109 ; 41$ woolen factories, witin a capital of $\$ 324,700$, manufacturing wooien gooda vai-
tures, $\$ 18,108,793$. Value of manufactured articles, \$20,000,000. There were in Januury, 1856, 21 rail. roadd, with 1295 miles of railroad finishocl and in operation, and 1180 in courae of conatruction.
Principal Ports.-Alexandria, 100 miles from the Chesapeake Bay, lat. $38^{\circ} 48^{\prime}$ N., loug. $0^{\circ} 3^{\prime}$ W. frons Washington. It is finely situated on the right hank of the Potomac, which has a depth of water hero sufticient for vessels of the largest class, be:::- about 24 feot at tho wharves, and 40 feet in tho channel. The tonnage in 1856 was 7221 tons. Norfolk, situated on tho Elizabeth River, eight milea from Hampton Roada, Chesapeake Bay, in lat. $37^{\circ} 12^{\prime}$ N., and long. $76^{\circ} 4^{\prime \prime}$ W. Ita harbor is capacioua and deep, easy of access, and safe in all weathers. The Roals are formed by an enlargement of James River at ita mouth, in Chesapeake Bay, and they offer an anchorage unsurpassed in the world. On the opposito side of the river is Portsmouth, in connection with whlch it is the chief naval station of the Union. The tonnage of Norfolk in 1856 was 27,757 tona.

Foagion Commerole of the State of Virginta, from Ootober 1, 1820, to July 1, 1857, showino also the Dibtriot Tonnalatin 182t, 1831, 1841, and isti.

| Yeara eading | Esperta. |  |  | lapports. | Tonnoge eleared. |  | Dietrict Tonetge. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestle. | Fareiga. | Total. | Tolsl. | Amerlan. | Foreign. | Registereil. | Enfolled and lilefnsed. |
| 8ept. 30, 1821. | 48,020,170 | \$58,0411 | \$3,0719.210 | \$1,1784 40 | 33.545 | 6.438 | 12,215 | 4,637 |
| 1822. | 8,200,852 | 7, 647 | 8,217, 680 | 864,102 | 60,122 | 7,413 | .... | ... |
| 1823.. | 4,100,914 | 6,874 | 4.1106,788 | 681.810 | 28,566 | 8,920 | . . . | .... |
| 1824. | 3.276,478 | 1.050 | 3,277,514 | C80,787 | 45.677 | 8,170 | . $\cdot$. | . $*$ |
| 1825. | 4,122,840 | 7,180 | 4.120,520 | 658,569 | 41,310 | 7.60 | . . . | * |
| 1826. | 4,506.077 | 055 | 4,590,732 | 635,438 | 50,784 | 8,06: | .... | .... |
| 1827. | 4,646,737 | 11,201 | 4,657,983 | 431,765 | 58,435 | 7.843 | ... | ... |
| 1828. | 3,324,610 | 15:6) | 3,840,155 | 375,238 | 42,588 | 7,278 | . . . | ... |
| 1829. | 3,783 403 | 3088 | 8,787,481 | 305.352 | 40,620 | 0,771 | . . . | . . . |
| 1830. | 4.7888 .4 | 2.480 | 4791,584 | 405.78: | 43,715 | 4.36.5 | . . . | . |
| Total. | \$35,775,481 | \$4,08,660 | \$38,684,041 | \$ $\$ 6,061,343$ | 410,751 | 73,162 | -** | . ${ }^{\text {. }}$ |
| Septr 30, 1831....... | \$4,140.980 | \$450 | \$4,150,475 | \$48S,522 | 48,710 | 11,879 | 12,380 | 24,0E3 |
| 1832....... | $4.4!3.910$ | 10.784 | 4,610.050 | [53, 839 | と6.753 | 10,283 | .... | .... |
| 1888..... | 4,450,544 | 8.153 | 4.407,657 | 690,391 | 46527 | 21.000 | - | . |
| 1834. | $5.469,840$ | 18.853 | 5,483,1.98 | 837, 8 CK | 40,8C8 | 17.007 | . . . | . . . |
| 1535. | 6. $154,44.5$ | 0,618 | 6, $0.1,1003$ | 691,255 | 43,092 | 13,067 | .... | . |
| 1830...... | 6,044,628 | 148.012. | 6,102, 140 | 1,106,814 | 42,612 | 16.717 | . . . |  |
| 1887. | 8.0.9,110 | $3.094^{\circ}$ | 8.7n2,714 | 813,802 | 20.897 | 16.56 .2 | .... | .... |
| 1838. | 3,977,895 | 8,833 | 8,f66,228 | 577,142 | 18,779 | 9,711 | . . . | .... |
| 1839. | 5,188,424 | 8.772 | 5,187,190 | 013,462 | 41.474 | 7805 | . . . | . . . |
| 1840. | 4.70\%,907 | $8.2 \times 3$ | 4,778,220 | 545,085 | 48.460 | 6,218 | . . . | . . . |
| Total. | \$48,301,516 | \$220,756 | \$48,6:2,271 | \$7,217,4 ${ }^{\text {a }}$ | 426,381 | 141,381 | * $\cdot$. | . $\cdot$. |
| Sept. 30, 1841....... | \$5,0.8.910 | \$1,376 | \$ $\mathbf{L}_{6,680,286}$ | \$377,237 | 53,010 | 9.838 | 18,155 | 32,203 |
| 1842. ..... | 8,745,227 | 5,169 | 3,75, 388 | 316,705 | 45,122 | 10,618 | .... |  |
| 0 mos. . $1843^{*} . . . . .$. | 1,954,510 | 2,085 | 1, 157.165 | 187, 1662 | 34,943 | 4,358 | . . | . . . |
| June 30, 1844.. | 2,923, 938 | 11.041 | 2,942,275 | 967.654 | 44,100 | 7,348 | .... | . . . |
| 1815..... | 2,101.045 | 3,530 | 2,104,1281 | 207.058 | 66,18) | 4,521 | . . . | . |
| 1846.... | 8.528,063 | 836 | $8,529,209$ | 209,004 | 45,571 | 7.108 | . | . . . |
| 1547. | 5045.605 | 12.706 | 5,6 8,374 | 386,127 | 63,110 | 35,172 | . . . | . . . |
| 1818. | 9,078.854 | 1.52 .4 | 3,681,412 | 215,081 | 48420 | 16, 78 | . . . | ... |
| 1440. | 3 360.4:2 | 4,3,1 | 3,343.788 | 241.935 | 18,950 | 10.689 | . . | . . |
| 1850. . | 3.413,158 | 2.488 | 8,415,646 | 4205.9 | 42,091 | 23.867 | . . . | ... |
| Total. | 4 $45,959,909$ | \$53,107 | \$36,043,106 | \$ $2,6.5,4 \mathrm{tiz}$ | 476,442 | 1:9,171 | - . ${ }^{\text {c }}$ | - $\cdot$. |
| June 30, 1851. | \$3.187,444 | \$2,624 | \$3,070,0Cs | \$552,533 | 34.161 | 31.156 | 16,334 | 52462 |
| -1862....... | 2,721,797 | 2,550 | $2.924,607$ | $735,8 \pm 8$ | $87.8 \times 4$ | 29,469 | .... | * |
| 1859. | 3, 1028.601 | 4,400 | 3,806,701 | \% $89.9,004$ | 35,901 | 27,606 30,067 | . | . |
| 1854. . . . . . | 4.752,218 | 1,130 | $4,784,143$ 4399,28 | $1,276,216$ 855,405 | 52,0651 48,790 | 30,467 $\mathbf{2 2 , 9 4 2}$ | . . | . . |
| 1855....... | 4346.420 5.480 .620 | 38.009 5.745 | $4.39,108$ 5,485087 | 092 al | 45,190 43,670 | 24,048 | $\cdots$ | . $\cdot$. |
| 1837. | $7.231,380$ | 15,574 | 7.249,-09 | 1.580,154 | 60,224 | 22,540 | -.. | . $\cdot$ |

* Nino montlis to June $\mathbf{3 0}$, and the fiscal year from this timo begins July 1.

Vitrici. See Corperas.
Vitriol, Oil of: See Acin (Surimume).
importa of Vithioi, into tie t'nited stateb pon the Year endina Juni ho, 1857.

| Whence imported. | Tlue or Roman. |  | Oni of. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Poundr. | Valtie. | I'ounds. | Value. |
| İnmburg . . . . . . | 17,320 | \$ 1051 | 1480 | 4tas |
| Bremen. . . . . . . . | 9,4122 | 715 | 191 | 43 |
| Helglum | 2,040 | 185 | . $\cdot$. $\cdot$ | $\cdots$ |
| England | 60,889 | 5904 | . $\cdot$ | . |
| Canada. | 840 | 16 | . . . | . |
| Jirltali Weat Indiea | 200 | 13 | . . . | $\cdots$ |
| Total...... | 15,010 | \$ $8 \times 34$ | 1471 | \$.8 |

erly so calleci, was ly order of Necho, pharoalh of Egypt, when sune Phenician pilots sailed from Eegypt down tho Arabic Gulf, round what is now called the Cape of Good Ilope, enterod the Mediterrancan hy tho Sitraits of Gibraltar, eoasted along the norll of Afrtca, and at length arrived in Egypt, aftor a mavigation of about three years, $604 \mathrm{n} . \mathrm{c} .-\mathrm{Mh}$ aine, IIknodorcs. The first voyage round the world was made by $n$ shitp, part of a Spanish aquadron whith had been under the conmand of Magellan (who was killod at the Philippine Islands in a skirmish) in 1519-20. The ern of voyages of dlscovery wns the end of tha $18 . .1$ century.-See Commence, llistory of; Pacipic Ocean, etc.

Wagee. The wages of anndry workmen in En gland were first fixed ly act of Parifament, 25 Edward III., 1850. Hay-makora had but one penny a day. Master carpentera, masona, tilerp, and other covesers of houses, had not more than 8d. per day (about 9 d. of the present currency, aterling), and their sarvants $11 d$. -Visar's Slatutes. By the 28 d Heary VI., 1444, the wages of a baillf of husbendry was 23 s , 4 d , per annum, and clothing of the price of bs., with meat and drink; chief hind, carter, or shopbend, 200 . ; clething, $48 .:$ comulon servant of husbandry, $163 . ;$ clothing, $40 d^{2}$ : womanservant, 100 .; ciothing, 4f. . By the 11th Henry VII., 1495, there was a like rate of wages, only with a litcle advance ; as, for inotance, a free mason, master carpenter, rough maeon, brioklayer, master tiier, plumbor, glazier, carver, or joiner, was allowed from Enater to Michaeimas to take 6d. a day, without meat and drink; or with meat and drink, $4 d$; ; from Michaolmas to Easter, to abate Id. A master having under him oix men was allowed 1d. a day extra. The following were the wages of harvest-men in England at different periods:

|  | For Diam. | Yeare | Per Diem. |
| :---: | :---: | :---: | :---: |
| 1850 | 01 | 1741. | . 010. |
| 1460 | 09 | $17 \%$. | 1. |
| 1568 | 4 | 17od. | 1 |
| 1632 | 0 | 1794. | 1 |
| 1635 | 08 | 1800. | 8 |
| 1716 | 09 | 1840. |  |

Walke, the trick of a ship which ahe leaves in the wator. A vessel directly astern of anothor in sald to be in her wake.

Wales, a peninsular portion of South Britain, on Its weat slde, between lai. $7^{\circ} 23^{\prime}$ and $53^{\circ} 26^{\prime}$ N., and lol.g. $2^{\circ}$ i1 $1^{\prime}$ and $5^{\circ} 17^{\prime} W$., having on the east the Engliss countiea of Chester, Salop, Hereford, and Monmouth, and on other sides the Bristol and St. George's channela and the Irish Sea.

Agricuiture is extremely backward. Bariey and oats are the chief gruin raised ; the culture of potatoen and turnips is extending. Farme mostiy small, averaging in South Wales oniy from 50 to 60 acres, where, however, the tenaniry are far better lodged than in the north. "arge nambers of cattle are reared for the English mat nets. The number of sheep in estimated at $1,2^{\prime}, 000$, and the ammarl prodnce of wool at 10,000 packs. A hardy tuall bersed of ponies is reared, especiaily in the countles of Montgomery and Merioneth. The inining interest is highly liaportant. Iron, copper, lead, sliver, olate, lineestone, and in the aouth large quantitien of coal are saised, which last product is extensivoly exported, and uned is. large quantities on the spot for smeiting both Britsh sad foroign ores. In 1840 South Weles had 132 farsaces in operation, consuming annually about $1,436,000$ tons of coal, and producing 505,000 tons of iron; and North Walea 12 furnaces, consuming 110,000 tons of coal, nad producing 26,500 tonn of iron. The princlpal tron-works are at and around Merthyr-Tydvil, Tredegar, Abendare, and Bhuabon; at Swansea large quaititizs of American and other copper ores are reduced. Manufacturea of woolen fabrica, especially of flanoei and hosiery, are very generally pursued in the cottages of the peasantry, particularly in North Wales, where Welshpool is the chief mart for these products. The cotton manufacture has extended into some of the northern counties; and in 1847, 1860 hands were employed in woolen, cotton, and silk factorios. A manufactory of alate articles exists at Bangor. Trade principaliy in the export of mineral prodace, cattie, and woolen grods. Principal ports, Swansea, Newport, Cardiff, Caernarvon, and lleanmaris ; besides which Holyhead is a chief parkat station fur communication with Ireland, and Misford is a naval pori, and the seat of a government dock-yard. -See artieles Evglayu and Gheat Daitain.

Walnute, the frait of the Juglame, or walnuthtree, of which these are aoveral varioties. The walnut is a large, handeome tree, with atroug apreating branches. The frult is a pratty, large, amooth, ovate nut, containling an oily kernel divided into four lobes. .The nut has been always held in high estimation; it was called by the Romane Jovis glane, the acorn or mast of Jove, and hence the name of the tree.
The walnut-tree is indigenous to Peraia and the countries bordering on the Caspisn Soa. Previousiy to the very general introduction of mahogany, the wood of the walnut-tree was generally, and is jet ov. tensively used in making of furniture. . It is much used by turners, and is superior to overy other sort of wood for the mounting of guns. Great numbers of wal-nat-trees are annually coneumed in the Hauto Vienne and other departments of France, in the manufacture of the wooden shoes or clogs used by the peanantry. The zuts are elther gathered when ripe, being seryed up at deaserts without any preparation, or they are plucked green and pickled.-Poiret, Histoire Philosophique des Piances, tome vil. ; ReEs' Cyclopedia, ete.

Wampum (from Wampi or Wompi, eignifying, in the Massachusette Indian language, white, the color of the ahelis most frequent in wampum belte), ahells, or atringe of ahells, used by the American Indiana as money. These, when knited, form a broad belt, which is worn as an ornament or girdle. It in sometimes called wampumpague, or sannpeague, or vampampeague, of which rampum seems to be a contraction.

Wanghees, sometimes called Japan canes, a apecies of cane imported from China. ., They ahould bo chosen pilable, tough, round, and taper; tho knots at regular distances from each other, and the heavier the better. Such as are dark-colored, hadly glazed, and light, shouid be rejected.-Mraurn's Orient. Com. see article Caxe.
Warehousing Bymtem. By this aystem is meant the provisiona made for ledging importel articles in public warehouaes at a reasonable rent, without payment of the duties on importation tili they be withdrawn for homo conaumption. If ro-exported, no duty is claimed.
Expediency and Origin of the Warehousing System It ia laid down by Dr. Smith, in one of hia justly celebrated maxime on the subject of taxatlon, that "every tax onght to he levied at the time and in the manner that if most likely to be convenient for the contributor to pas It."-Wealth of Nations. No one can doubt the soundness of this maxim; and yet it was very strangely neglected, down to 1803, in the management of the castoma. Previousily to this period, the duties on most goods insported had either to be paid at the moment of their importation, or a bond, with sufficient security for their future payment, had to he given to the revenue officers. The hardship and inconvenienee of such a ajatem is obvious. It was often very difficult to find aureties; and the merchant, in orier to raise funda to pay the duties, was frequent!y reduced to the ruinuns necessity of selling his goods limmedlately on their arrivai, when, periaps, the market was airendy glutted. Neither was this the only Inceuvenience that grew out of this aysten ; for the duties huving to be paid ali at once, and not by degrees as the goods were sold for consumptlinn, their price was ruised by the amount of the proft on the capital advanced in payment of the duties; competition, too, was dininished in consequence of the grenter command of funds roquired to carry on trade under such disadvantages; and a few rich individuals were enabled to monopulize the importation of thone commodities I which beavy di: :ien were puyable. The aystem had, besides, an obvions tendoncs to disconrage the carrying trade. It prevented this country from becoming the entrepôt for
foreign produots, by hindering the importation of auch as were not immediately wanted for home consumption; and thus tended to lessen the resort of foreigners to our markets, inasmach as it rendered it difficult, or rather impossible, for them to complete an asaorted cargo. And in addition to all theae cireumstancea, the difficulty of granting a really equivalent drawback to the exporters of auch commodities as had paid duty, opensed a door for the commission of every species of fraud.
Warehousea, in which nnclaimed and honded merchandise shall be stored, will hereafter be knewn and designated aa followa:

1at. Stores owned by the United States, or hired by them, prior to the date of these instrustions, the leases of which have not yet expired or been canceled. All unclaimed gooda must be atored in these stores when there are auch at the port available for the purpose; and they are also to be need for the storage of other foreign merchandise, as hereinafter provided. All the labor in these stores shall be parformed under the superintendence of the offlcer in charge, at the expense of the owner or importer of the merchandise; and all charges for storage, labor, and other expenses accruing on the goods, shall not exceed the regular rates for auch objecta at the port.

Stores of this description will be known and designated as Clasa 1.

2d. Stores in the posassion of an importer and in his eole occupancy, which he may desire to place nnder the customs lock, in addition to his own lock (asid locks to be of a different character), for the purpoee of storing dutiable merchandise imported by himself only.

The entire store shall be appropriated to this solo purpose, under the regulations hereinafter provided; and for the time of the customs officer necessarily required in attendance at such atere, the proprietor shall pay monthly to the collector of tie port a sum equivalent to the pay of such officer. All the labor on goc ds so stored must be performed ly the importer at his own expense, under the supervision of the officer $\ln$ charge. Before any importer shall be permitted to ase his own store for auch purpose, he shall enter into a bond in such sum and with such securities as may be approved by the collector and this Department.

Storos of this description will be known and designated as Class 2.
3d. Storea in the ocoupancy of persons desiring to cugage in the business of atoring dutiablo merchandise under the warehouse aets, and of performing the labor on auch goods, in what is nsually termed the atorage businesa. The lahor performed on the goods in stores of this class shall be under the control and expense of the owner or occupant; and the atore shall be subject to such further rules as this Department may deem neceasary, from time to time, for the safekeeping of the goods and protection of the revenue, and to be discoutinued aa a bonded warehoueo when the publis interest may require. All arrangements as regards the rates of atorege and the price of labor in these stores must be made between the importer and the owner or occupant of the store, and all amounta duo for storage and lahor must be collected by the latter, the colioctor looking only to the aafe custody of the werchandise for the security of the revenne.

Before any person shall be permitted to open a storo of this description, he shall enter into bond in auch sum and with such securitles as may be approved by the collector and this Department.

Unclaimed and soized goods may he stored in this class of stores on the order of the collector; and the proprietor or occupant shall look to the goods for the storage and charges, at the nanal and customary rates, and chall be liable for the safe-keeping of the merchandise as for other storage. The collector ahall give no permit to withdraw such goods withont payment of the legal duties and charges ; and, if sold, shall cause the
storage and charges to be paid ont of the proceeds of the sale.

Stores of this description will be known and desigpated as Class 8 .

These atores ahall be placed in charge of an officer of the customa, nuder the separate and different locks, of the custom-house, and the owner or occupant acting as agent for the importers warehousing their merchandiae in auch storea. Should the amount of baslneas at any oue atore require, in the judgment of the collector, the aervices of more then one officer, the owner or occupant ahall be required to pay monthly anch additional sum aa will be equivalent to the aslary of auch officer or officers.

4th. For the atorage of wood, coal, mahogany, dyewooda, lumber, molasese, sugar in hogeheads and tierces, railroad, pig, and bar iron, anchors, chain cables, and othar articles specially authorized, yards or sheda of suitable construction may be used, to be honded in the manner herein before prescribed. These yards must he inclosed by anhatantial fences not less than twelve feet in height, with gates provided with suitable bars and other fastenings, $s 0$ as to admit of being aecured by customs locks, and must be used excluaively for the slorage of the above-named merchandise, duly entered for warehonslug by the owner or occupant, or for the purpose of general storage of warehoused gooda; the purpose to he set forth in the application, and the bond to be taken accordingly, as in case of warehouses of the second and third classes. The sheds must bo subatantially constructed, with or withont flooring or roofing, as this Department and the collector may require ; and, when required, the roof or exterior shall he covered with slate or metal. The doors and other openings must be provided with auitable fastenings, and be secured by the different and separate locks of the occupant and the cuatoms; and the occupant shall provide a proper room for the use of the officer in charge. Collectors of the cuatoms may order unclature and scized merchandise of the deecription anthorized (when duly eatered), to be deposited in sheds or yards, to be placed in such sheds or yards under the sime regulations and conditlons as are provided for the deposit of unclaimed or selzed gooda in warehouses of Class No. 3.

Sheds and yards of the foregoing deacription will be designated and known as Claga 4.

The owner or lessee of a store occupled for general husiness purposes may nae the cellar or vault of auch store, under the conditions hereinafter prescrihed, as a bonded warehouse of Class 2, for the storage of wines and distilled apirits only, and exclusively of hia own importation.

The entire cellar or vanit shall be appropristed to this purpose, nad shall have no opening or entrance oxcept the ons from the atreet, on which the aeparate and different locks of the customs and the owner or proprietor of the cellar shall be placed; and a hond shall he entered into by the owner eccording to the foregoing form of stores of Class 2.-For articles on Warehousing and Dock System, see Hust's Mferchanta' Magazine, vii., xiv., xv.; De Bow's Rev., l.; Niles's Register, xxxv., xxxvi.

Werp, in weaving, the longitudinal threade of a woven fahric; they are crossed by the transverse threads, or woof. Warp, a rope or hawser employed occasionally to remove a ship from one place to another in a port, road, or river. Hence to uarp is to change the position of a ship by pulling her from one part of a harbor, etc., to some other, by means of warps, which are attached to buoys, to other shipa, to anchore sunk in the bottom, or to certain atstions npon the shors, as poats, rings, trees, etc.

Washington, the capital of the United States of America, ia aituated on the left bank of the Potomac, st ita confluence with the Anacoatia, and at the termination of the Waalangton branch of the Baltimore and

Ohio Railroad. Lat. (of the National Observatory) $88^{\circ}$ $53^{\prime} 39^{\prime \prime} \cdot 3$ N., long. $77^{\circ} 2^{\prime} 48^{\prime \prime} \mathrm{W}$. from Greenwich, Engiand. It ia 295 miles from the ocean by the course of the river, 38 trom Baitimore, and 225 from New York. The popuistion in 1800 was 8210 ; in 1810, 8208 ; in 1820, 13,247; $\ln 1830,18,827 ; \ln 1840,28,864$; In 1850, 45,000 ; and in 1854, 46,000.

The Nary Yard is situated on the "Anacostla," a branch of the Potomac River, at the sonthern termination of Eighth Street, east. It covers an area of about twenty acres, and is inclosed by a subatantial brick wall, having a principal entrance at the foot of Eighth Street, through a handsome arched gateway. The mechanical operations of this establishment are various and extensive, and the akill of the workmen and tho excelience of the materials employed have been antisfactorily tested in every Bea. Anchors of variuus sizes, for the naval service, are mannfactured by the use of two heavy steam-hammers (termed the "Nasmyth Hammer"), one of which weighs 8600 lbs ., the other 2240 lbs. The forges for this roorik are kept in blast by a fan-blower attached to the ateam-engine in the machinist's lepartment. There is also in operation, in the anchor department, a direct action steam-bammer (called the "Kirk IIammer"), in connection with a blast furnace for working up into looms and bars ail the acrap iron of the navy. The massive chain cables are made in another shop, which is provided with a powerful hydrostatic press for testing their atrength. - See articie District of Columata fur comunerce of Washington.

Washington, a territory of the United States of America, lies between lat. $45^{\circ} 25^{\prime}$ N., long. $108^{\circ} 30^{\prime}$ and $124^{3} 30^{\prime} \mathrm{W}$. Area, 113,821 square miles. It is between the Rocky Mountains on the east and the Pacific Ocean on the west, has Oregon on its south border, and the British possessions on the north. The entire popuiation in 1850 was 1201 ; in 1854, estimated at 5000 . It is divided into six counties, viz. : Clirk, Lewis, Pacific, Pierce, Stevens, and Thurston. The country west of the Cascade Range is the only portion yet settled ly a white population; it has a diversified surfuce, and the vaileys bordering the streama have a iuxuriant soil. The streams are small, the Cowiitz and other smali streams entering the Columbia River on the south, the Chickeeies entering Gray 's harbor on the west, and a number of other atreanis entering Puget Sound on tho northwest. Puget Sound, licod's Canal, and Admiraity Indet abound with fine harbors. The Cascade Kange crosses the territory from the south (at the Cascades, on the Columbin River) entirely across it to the north, rising in several peaks alove the snow line, as Mount St. Heiens (an active voicano), Mount Rainier, Mount Boker, etc. East of this range iittle is known of the capabilities of the coantry as an agricultural region, aithough there is no donbt of its being well adapted for stock raising. It is drained by the constituents of the Columbin, cousiuting of Kooskonsky and Pelouse rivers of the Lewis Fork, and Spokane, Okonsgan, Barrier, and Yakima rivers of Clark'i Fork, and Cathilacades enteriag the Coinmbia liver.
The Strait of Juan de Fiuca, including the waters of Admirulty Inlet, liood Canai, and Puget Sound, with tie Arcinipeiago of Arro up to the 49 th paraliel, were ali surveyed by the United States Exploring Expedition. The whole is nnsurpassed by any estuary in the world. They comprise many very fine harbors and safe anciorages, are entirely free from dangers, and cover an area of about 2000 square miles. The conntry by which titese waters are surrounded is remarkabily saiubrious, sud offers every advantage for tho accommodations of a vast conomercial and military matrine, with conveniences for docks, and many sites for towan and cities, at all times well aupplied with water, and capabie of being provided with all needfui aupplies from the surrounring country, whici is well adiapted for agricuiture. This struit is ninety-fivo miles in
length; average, width eleven miles (ontrance eight miles in width); no dangers $e$ ist, and it may be safely navigated throughout. This territory was aeparated from Oregon in the year 1858, and conatituted a separate territory.-HARPER's Gazetteer.

Watohes (Ger: Uhren, Taschenuhren; Fr. Montres; It. Orinofi da tasca, o da saccoccia; Sp. Relojes de faltriquera; Russ. Karmonnie eschasu), portabie machines, generally of a amall size, and round, flat shapo, that messure and indicate the successive portions of time, having for the most part their motions reguiated liy a splral apring. When constructed on the most approved principles, and executed in the lest manner, a watch is not only an exceedingly useful, but a most adinirabie piece of mechanlam. It has exercised the genius and invention of the ciost skilliul mechaulcs, as well an of some of the ablest mathemuticians; for nearly three centuries. And, considering the amailness of its size, its capacity of being curried about uninjured in every variety of position, the number and complexity of its movements, and the extraordinary accuracy with which it represents the auccessive p ; tions of time as determined by the rotation of the earth on its axis, we need not wonder at Dr. Paley having referred to it as a atriking specimen of human ingenuity. Spring watches are constructed nearly on the same prineiple as pendulum clocks. Instead of the penduluin in the latter, a spring is used in the former, the isochronism of the vibrations of which corrects the unequal notions of the balance.

Ilistorical Notice.-The invention of apring watches dates from about the middie of the 16 th century, and has been warmly contested for Haygens- and Hooke. The English writere genernlly incline in favor of the latter. Dr. Hutton says (Mathematical Dictiorury, art. Warcit) that the words "Rol. Hooke inven' $i$, 1658 ," were inscribed on the dial plate of a watch presented to Charles II. in 1675. But Muntuola affitms (IIstoine des Mfathématiques, tome 3i. p. 413, ed. 1803) that iluygens made this "belle ddconverte" in 16056, and presented a spring watch to the states of Holland in 1657. Comparing these statements, it certainiy appears that tho claim of IIuygens to the priority of the discovery is the better established of the two. We do not, however, helieve that either of thoes distinguished persons owed, in this respect, any thing to tine other. The probability secms to be, thut the happy idea of empioying a spring to regulate tio motion of watches occurred to them both nearly at the suma time.

Improvement of Vatches.-Owing to the facility with which the iongitude may bo determined by the aid of accurately going watches, it is of great importance to have them insde as perfect as possible. In this view, liberai premiums havo been given to the makers of the best marine watches, or chronometers. In tihe reign of Queen Anne, Puriiament offored a reward of $£ 20,000$ to any one whe should make a watch, or other instrument capable of determining the longitude st sea, within certain limits. This magnificent premium was awarded, in 1764, to the celebrated John Harrison, for a marino watch, which, iseing tried in a voyage to larbadoes, đeternined its longitude with even more than the required accuracy. Otiner preminms, though of inferior amount, wera subsequently given to Miessrs. Mudge, Arnoid, Farnshaw, etc. Sinee 1822, two prizes, one of $£ 300$ and one of $£ 200$, have been annually given to the makers of the two chronometers adjudged to be the best, after having been subnitted to a tweivemonth's trial at the Royai Observatory at Greenwicin. And to such perfection has the manufacture attained, that some of the chronometers employed by nsvigators, though carried into the mont opposite climates, have not varied to the extent of two seconds in their mean rate of going throughout the year.

Watch Manufacture.-The watch-making business is largeiy csrried on in London; the artists of which have attained to a high degree of excelience in this de-
pertment. .There may be about 14,000 goid end 85,000 silver watches annitally assayed at Goldsmiths' Hall, London (Jacos on the Precious Metals, vol. ii. p. 418), the aggregate value of which is, probably, not much under $£ 60,000$. The manufacture is also carried on to a conelderable extent at Liverpool, Coventry, Fdinburgh, etc. Watch movementa used to he extensively manufactured at Preacot, in Lancashire; but latterly, we believe, the manufacturers have been withdrawlng to Liverpool. On the Continent watches are princlpally manufactured in Paris, Geneva, and in Neufchuttel. Some of the French and Swlse watches, particularly the latter, are excellent; but, generally speaking, they are slight, end inferior to those made in London. l'aris and Geneva watches are largely exported to foreign countries, and are every where In high estimation, particularly among the ladies. Watches impressed with any mark or atamp, appearing to be or to represent any logal British assay mark or atamp, or purporting by any mark or appearance to be of the manafacture of the United Kingdom, or not having the name and place of abode of some foreign maker abroad visible on the frame and also on the face, or not being in a complete state, with all the parts properly fixed in the case, may not be imported into the United Kingdom, even for the purpose of belng warehoused. -8 and 41 Will. IV., c. 52, § 58.

Watches in China.-Large numbers of European watches are imported into China; nnd it may be worth mentioning, as a curious instance of the diversity of tastes, that the Chinese, as well as most other Eastern nations, whn can afford it, uniformily wear watches in pairs ! This sort of extravegance is not, however, confined to watches, but extonds to a variety of other articles. Shawle, for example, are invariably worn in India in pairs of exactly the same pattern; and it is hardly possible, indeed, to find a native dealer who will sell a single shawl.

Watches and Clocks.-Out of thirty-one clock manufactoriea in New England in 1852, four have been destroyed by fire, nine have stopped by failure, and five have stopped manufacturing on account of amall profita. There are still thirteen factories making clocks, but only six of them are running full time, and with a full complement of hands. These six will produce about 95,000 clocks this ycar. The remainilug seven fuctorics will make about 48,000 clocks, so that the total production of clocks this year will not exceed 143,000 .

The Jerome Mannfacturing Company, in 1853 and 1854 , produced each year 444,000 clocks. Thue they must have produced more than an avcrage of one clock per minute. The factory of J. C. Brown, during 1851 and 1852 , isaued from 80,000 to 100,000 clocks annually, making a total from the two establishments of over 600,000 clocks each year. The Ansonia Company mnnufactured about 150,000 last year. Thus it will be seen that all the thirteen fuctories now running will mase hardiy one-fourth of what was produced by three of the large factories now atanding still. The question naturally arises, What shall we do for low-pricod clocks in the future? There is still a large amotint of fancy clocks on hand, but the wooden-frame "ogee" and "sharp-top Gothic" clocks are not being made, and there is comparatively none in the market. The wooden-frame elocks can not be made for the prices that they have been sold at. It is estlmated that nearly half a million of dollers have been lost in aelling clocks under the cost within the last three years. The clocks for exportation have amounted to about one million of dollars annually, which elded us in the exchanges with the old country. As an instance, we know one houne that imports shawls, linen, collars, and lace goods from Scotiand, and makes its exchange in clocks. But if they werv io serd a bill of exchange it would cost them from 7 to 8 per cent.; but aending out clocks at $\delta$ per cent. profit or more, it makes them
at least 13 per cent. on the elocks, which is a paying businese. There are douhtless many similar igents in the exportation of the artlele, which is an edvantage to ourselves; and for this reason we desire to see it fostered, and again take its place among the induatrial products of our conntry.-Bee Hexr's Merchants' Magazine, January, 1857.

The following table shows the value of clocks imported into and exported from the United States during the year ending June 80, 1855, derived from the annual ruport of the Secretal $y$ of the Tressury:


Jmports of Watoiks and Parts of Watciga into tul l'nited Statee yor the Yeab kndino June 30, 1857.

| Whenca Imporied. | Walches and parte of. | Watch Cryutals. |  |
| :---: | :---: | :---: | :---: |
| Rusklan Poss. La N. Amer. . | Value. <br> $\$ 1,020$ | Grome. | Value. |
| Hambusg ............... | 1,272 | $\ldots$ | . $\cdot$. |
| fremen . . . . . . . . . . . . . . . . | 193,029 | . . . | .... |
| tlolland. . . . . . . . . . . . . . . . | 66 | ... |  |
| beigitun. . . . . . . . . . . . . . . . | 15 |  |  |
| Vagiand. . . . . . . . . . . . . . . . | 2,403,593 | 16,480 | \$28,178 |
| scotland. . . . . . . . . . . . . . . . . <br> Cadala | 3,718 303 | .... | .... |
| France. | 1,185,654 | 1,300 | $\ddot{8,9092}$ |
| Coba....... | 1,105,60 | .... | .... |
| New Granada. . . . . . . . . . . | 2,118 | . | ... |
| Venezucla . . . . . . . . . . . . . | 140 | .... | ... |
| Brazil | 1,455 | .... | .... |
| Total, 1850.57. . . . . | \$3,823,039 | 17,820 | \$32,170 |

Water. It may be thought unnecessary, perhaps, to say any thing in a work of this sort with respect to a fiuid 80 well known and eo abundant. But, besides being an indispensable necessary of lifc, water is, In most large cities, an important commercial article. It is in the latter point of view principally that we mean to consider it. Inasmuch, however, as the mede of oupplying different places with water, and its price, necessarily vary in every possible way, we shall limit our remarks on these subjecta to the metropolis only. The few remarks we intend to offer of a general nature will apply Indifferently to any populous place, the aupply of whlch with water occasions a considerable expense.
Quality of Water.-Dr. Ure has made the following statements with respect to the quality of water: "Water," says he, "is a very transparent fluid, posaessing a moderate degree of activity with regard to organized substances, which rendera it friendiy to animal and vegetable life, for both which it is, indeed, indispensably necessary. Hence it acta but slightly on the organs of sense, and is therefore said to havo neither taste nor amell. It appears to possess considerable elssticity, and yields in a perceptible degree to the pressure of alr in the condensing machine. Native water is seldom, if ever, found perfectly pure. The waters that flow within or upon the surface of the earth contain various earthy, saline, metallic, vegetable, or animal particles, according to the substances over or through which they pass. Rain and snow water are much purer than these, although they also contaln whatever floats in the alr, or has been exhaled along with the watery vapors.
"The purity of water may be known by tie following marks or $\mathrm{g}^{\text {roperties of }}$ pure water: 1 . Pure water is lighter than water that is not pure. 2. Pure water is more fluid than water that is not pure. 3. It has no color, smell, or taste. 4. It wets more easily than the

## WAX

waters coutdining metallie and earthy salt 4 , called hard watera, and fels softer when tonched. ©. Soap, or a wolution of soap in aicohol, mixes easily and perfectly with it. G. It is not rendered turill hy adding to it a solurion of gold in aqua regia; or a solution of silver, or of lead, or of morcary, in nltric acid; or a solntion of acetate of lead in water.
"Water was, till modern times, considered as an clementary or simple substance; hut it is now ascertained to be a compound of oxygen and hydrogen."

To evaporate water enough annually from the ocaan to cover the earth, on the average, five feet deer with rain; to transport lt from one zone to ancther; and to preclpitate it in the right places, at saitablo times and
 tmosphericial machine. This wist is eve, Hed,
 of ocean three thousund milea in lver this atmosphere ovaporates a layt of $v$ ixteen feet in lepth. And to hoist ups a clouds, and lower down again all the water in a lidk rixteen feet deej, aud three thousant miloe broad, thd twenty-four thousund long, is the yoarly buriness of this invisible machinery. What a powerful engine is tho atmosphere! and how nicely adjosted must be all the cogs, and wheels, and springs, and compensations of this exqulsite pieco of machinery, that it never wears out nor breaks down, nor fuils to do its work at the right timn and in tho right way!

In his a- nual report to the society (Transactions of the Fombay Geagraphical Saciety from May, 1819, to duguat, 1850, vol. ix.), Dr. Piulst, the secretary, stuten, on the authority of Mr. Laidly, the evaporation at Cal$c$ utta to be "ahout fifteen feet annually; that betweea the Cape and Calcntta it averagea, in October and Novemiver, nearly three-fourths of an inch daily; beI ween $10^{\circ}$ and $20^{\circ}$, In the Jay of Thengal, it was found to exceed an inch daily. Supposing this to le double the averago tbroughout the year, wo should," continues the doctor, "have elghteen feet of evaporation aumu-mlly."-Maviky, Ihys, fieog.

Water for Shipa.-.-Varions improvements lavo been wate in the art of preserving water on loard ships, of these the principal are the charring the insldo of the earks in which the wati. is kept, and the sulstitation of fron taaks for casks. The latter, being made of the required shape, may bo conveniently stowed into any part of the ship. In men-of-war the iron tanks serve as ballaft, the water being brought up by a foreing-jmmp. Wuter is found to preserve better in them than in any other sort of veasel. Drip-stones may be employed with of ald antage in the purification of water. When ve cer is taken on board from a river into which the tide tlows, it should, of course, 1,0 raised at low ebb.-Sice article Aycencer for au sciount of the supply of water In New York fiven by the Croton Aqueduct. She articles Gulf Stutian, Habmobs, Ocran, Tibes, ete.

Water-clocks. The first instruments used to neasure the lapse of time, lalependently of the sunshlne, ware clepaydra, or water-clocks. These were dunst prohahly vessels of water, with a suall hole through the hottom; through this hole the water ran (ut in a certain time jossilly an hour; after which the ressel was again tilled, to be emptied as before, This invention was a manifest improvement on the old smn-dials, wbose perpenticular gmomon guve hours of different length at the varios scasons of the year. something similar to the hour-plass was ocensionally used; and Alfred the Great, probably ignorant of theso methods, allopted the burning of a taper as a measure of time.-IIAy $n$.

Water-line, the boundary of any horizontal secfion of tho loottom of a ship. The uppermost one is afled the load water-line; the lowest the light waterline.

Water-logged, a neutical term, denoting the state of a ship wheu a quantlty of water having been recelved into ti:o hold lyy leuling, etc., she has In a great measure lost her buoyancy, and ylelds to the effect of every wave passing over the deck.

Water-malles, used for grialing corn, invented by Bellsurius, the generul of Justlaian, whilo besieged in Rome by the Goths, A.v. 655. The anclenta purched their corn, and pounded it in mortars. Afterward riilla viere invented, which were turued by ioen und beasts with groat labor; and yet Iliny meutions wheels turned by water.-Haydn.

Water-ways, strong ploces of wood extending mund the ahip, at the junction of the deeks with the y'des, to carry off the water.

Wave. I'lus cominon eause of waves: ; the fricito the wind rion the sulice of tho water. Little de, rea or elovations firt apjear, whleh, by continuance of $t$ to force, gradually increase until thoy become rolling mountains, wbore the winds sweep over a great -. ient of water. In rounding the Cape of Good Ilope,

- as, or rather a swell, aro net with so vaet, that a Low figes and a fow depreselons occupy the extent of a mills. Wut those are not so, troublesome to ships as a short awell with more perpendicular waves. Tho slope in the former is so gentlo that the rising and falling are scarcely felt, while the latter, by the sudden plunging of tho vossel, is often deatructive. The velocity of waves has relation to their magnitude. The large waves just mentioned proceed at the rate of from thirty to forty miles an hour. It is a common orror to suppose that the water itself advances with the speed of the wave; hut, in fact, the form enly ails vances: the substanco, with the exception of a little spray, renains rising and falling in the same phace with the regularity of a pendulum. When a wave, however, reaches a shallow bank or heach, tho water becomes really progressivo; hecause then, as it can not slak directly down, it falls ovor forward. No wave rises more than ten feet alovo the level of tho water, which, with tho ten feet of descent, gives twenty feet for the whole height of the wave above the next depression. A wave coming/against any ohstacle may le dashed up to a nuch grenter elevation.-E. A. See American Jrurnul at'Sciowce, Ix. (IV. Scoresay). Ste also articles Ocean, Tines, Water, etc.
Wax (Ger. Wachs; Fr. Ciere; It. and Sp. Cera; Russ. Wosh), a vegetablo product. Several plants contain wax in such abundunce na to make it wortli while to extruct it from them. llut all that is known in commerce consists of heeswne. The honcy in first pressed from the comb, and the wax is then melted into cakes. It has a slight odor of honey, is insiphl, and of a bright yellow hua. It is brittle, yet soft, and nomowhat unctuous to the touch. It la often adiaterated with earth, jea meal, resin, etc. Tho presence of tho tormer may be suspected when tho cake is very brittle, or when its color laclines more to gray than to yellow; and tho presences of resin may be suspected when tho fracturo nepemrs sunoth and shining, insteal wi being granulated. Wux, when bleached or jurined, is white, perfectly insijdd, inodorous, and somewhit translucent ; it is hartor, less unctuons to the touch, heavier, and hesa fusible than yellow wax. It is sometimea adulterated with tho white oxyd of lead to increase its weight, with white tallow, and with gotato stareh. The tirat is detected by melting tho wax in water, when the oxyd falls to the hottom; the presence of tallow is indlcated by the wax being of a dull opaque white, and wauthig the transparency which distinguisbos furo wax : and starch may bo detected by applying sulphuric acid to tho euspected wax, as the acid carisonizes the starch, withut neting on the wax. - Thomaos's Chemistry, and Ir. A. T. 'Tnomsos's Dispematory.

Beeswax is prepasoć by draining and warhing the honey-comb, which is then melted in bollhig sater,
atralned, and cast futo cakes. Enciith and foreign was are found in the market; tho intter being ehiefly imported from the Baltic, the Levant, and the coast of liarbary. Fresh wax has a pecullar honey-like odr : : its speelfio gravity is 5 s At abr.ut $150^{\circ}$ it $f u=:$ sind at a high temperaturo volatilizes, and buens $v_{i n}$, hright white flane. it is ble "ched uy heing ex,m" win thin slices or riblons ti light, air, and moistute, or more rapidly hy the action of chlorina; but in the ) atter case it does wr answer fer the manufactura of - cadies, which is one of Its prineipal applicatlons. W ic eandles re made by suspending the wicks upon a .as op over the cauldron of melted wax, which 1 . 8. scessively poured over them from a ladio till they nave acquired the proper size, that the candlo consists of a हer! , of lay ars oi wax; the apper end is then shaped, and the lower cut off. Attempts have been made to cast wax candles in monlds, but when thus made they buria irregularly. Bleached or white wax is generally adulterated with more or less spermaceti, and seld at different prices accordingly ; 'n this cuse it has rot the peculiar lutere of pare wax, and is softer and more funible. It is also largely adulterated withs steuria or stearic ach, whien is detected by the odor of fat or tallow which it evolves when highly beated, and by its crumbly texture; it may also be separated to a certain extent by ether or alcohol. Wax is insoluble in water, and searcely acted apon by the acide, so that it forms a good late or cement: boiling alcohol and ether act partially upon it, and deposit the portion whth they had dlssoived, on cooling. Some varietice of yegetable wax appear to contain two distinct primciples, which Dr. Jobn has termed cerin and myricin; the former foluble, and the latter insoluble, in alcohol. Heated with the fixed alkalies, wax forins a diffeultly sotuble soap.
Exiemte of Wax fhon the Cinted States foa the Year embing Jene 30, 1857.

| Whiller expurted. | Pounds. | Vatue. |
| :---: | :---: | :---: |
| Tremer | 10,492 | \$3,114 |
| Jothum | 7,499 | 1,859 |
| Jelginm. | 18,437 | 6,389 |
| Engtand...... . . . . . . . . . . . . . . . . . . . . | 81,598 | 22,100 |
| Gishraltar. . . . . . . . . . . . . . . . . . . . . . . . | 1,046 | 303 |
| Malta. | 1,405 | 400 |
| Canada. | 125 | 8 |
| Franee on tho Atinntio . . . . . . . . . . . . . | 105,277 | 80,362 |
| France on the Mediterranean.......... | 5,000 | 1,606 |
| Spain on the Athantic ................. | 8,475 | 9,367 |
| c'uba. . . . . . . . . . . . . . . . . . . . . . . . . . . | 11,000 | 8,006 |
| Portugal . . . . . . . . . . . . . . . . . . . . . . | 000 | 171 |
| Anstrian joasesstond in Italy .......... | 1,067 | 590 |
| New Granada. . . . . . . . . . . . . . . . . . . . | 12,737 | 5, 179 |
| Venezuela. | +1,906 | 1,772 |
| Irazil. . . . . . . . . . . . . . . . . . . . . . . . | 38,736 | 11,508 |
| јсги. .................................... | 5,120 | 2,048 |
| Sauhwleli Itiands . . . . . . . . . . . . . . . . . . | 48 | 14 |
| chhna. . . . . . . . . . . . . . . . . . . . . . . . | 1,010 | 350 |
| Total, 1856-5\% . . . . . . . . . . . . . . . . | 315,378 | \$91,983 |

Way, the sea term for progress. A ehip in progress is said to have vay upon her; when stationary, to have no way.

Wealth. This is a relative torm ; for as there is only a certain amount of property in a country, bo the possession of a large share by one man is the poverty of others. The instances of wealth :... the early ages are many and most extraordinary. The mightiest cenflagration of wealth on record is that of Sardanapulus, where riches amounting to one thonaand four hundred milhions sterling weredestroyed.-ATuEnfus. Cecilius Isidorus died at Rome possebsed of 411 g slaves, 3600 oxen, 200,000 head of other cattle, and money equal to three milliens sterling, 8 b.c.-Univ. Hist. Dec artieles Banks, Conss, Gond Money, ete.
Wear, to put the ship on the other taok by turning her reund withs her stern to the wind.

Wearing Apparel, generally considered to inclade only the clothes and personal property aetually worn upoa the person, and as such it is ndmitted free of duty into the United States.
measures were provided for the whole kingdom of England by the sherifia of London, 8 Richard I., 1197. A public weighing-machlne was set up in London, and all commodities urdered to be weighed by the clty offieer, called the welgh-master, who was to do justiee bet ween buyer and aeller, statute $8 d$ Pdward II., 1309. -Stowe. The first statute, directing the use of avoirdupois weight, is that of 24 IIenry V1II., 1532.Philosophical Tramsactious, vol. 65, srt. 3. The French adopt the metre of 3.2808 d , or the 10 -millionth part of the distance from the pole to the equutor, ns the standand of measure: and the kilogram, equal to 2265 lbn. avoirdupois, an the standard of weight.-llinvis.

Neither the magnitude nor the weight of any body can be determinel, unless ly comparing it with aome other body selected as a standurd. it is impossible, indeed, to form any idea in respect of mugnitude or weight, except in relation to seme definite space or weight with which we are scqusinted. We say that one artic ${ }^{4}$ weighs 1 lb ., another 2 ths ., a third 3 , and so on; neaning not only that theso weights are to each other as $1,2,3$, ete., but also that the weight or rpecific gravity of the first is equal to tha known and determinate welght denominated a $\mathbf{l b}$., that the sceond is equal to 2 lbs., and so on.

Standards of 1 Veight and Ifeasure.-n-Standands of lineal measure must have been fixed upon at the earliest period, and appear to have consisted prinet, ally of parts of the humun booly-as the cubit, or length of the arm from the elbow to the tip of the middle finger ; the foot; the ulua, arm, or yard; the npun; the digit, or finger; the fathom, or apace from the extremity ef one hand to that of the other, when they are luth extended in opposite directions; the pace, ete. Large spaces were estimated hy meanures formed out of muitiples of the smaller ones; and sometimes in day's journeya, or by the space which it was supposeil an ordinary man might travel in a day, using a reason. nble degree of diligence. But lineal measures can only be used to determine the maguitude of solid bodies; the magnitude of hodies in a lifuid or fluid state has to be determined by what are called measnres of eapmeity. It is probable that, in the infancy of society, shells, or other hellow instruments affurded by nature, were used as standards. But the inaceurary of the conclusions drawa from referring to them must soon have become olvious; and it eariy oceurred that to olitain an accurate measure of liquids nothing nore was necessary than to constitute an artifichi one, tho dimensions, and consequently the capacity, of which should be determined by the lineal measures previously adopted. The determination of tho gravity or sreight of tifferent bodies supposes tho invention of the balance. Nothing is known of the steps which led to its iatroduction; but it was used in the remotest antlquity. It seems probable that, at first, cubes of some cominon tineal measure, as a foot, or the fraction of a foot, formed of enpler, Iron, or some other metal, were used as staninards of weight. When the standard was selected, if it was desired to ascertaln the specifie gravity or weight of any given article, all that was necessary wha to put it into one of the scales of tho laiance, and as many cubes or parts of cubes on tho other as mightit be necessary to counterpoise it. Weights have, howevar, boen frequently derived from grains of corn. Hence in this, and in some other European countrias, the lowest denomination of weight is a grain; and 82 of theso grains are directed, by the ancient statute called Componiio Mensurarum, tu compose a jennyweight, whereof 20 make an ounce, 12 ounces a pound, and so upward.

In avery country in which commercial transactions are extensively carried on, tha importance of having weights and measuren determined by some dixed atandurl becones obvious to every one. But as the size of difforent parts of the human body differs in differert individuals, it is necessary te select sumo durable article
-n metallie rod, for example-of the length of an ordinary cubit, foot, etc., and to make it a ataudard with which all the other cuhits, feet, etc.; nsed in mensuration ahall correapond. These atsindarde have alvays leen preserved with the greatest care: at llome they were kept in tha tample of Jupiter, ani among the Jew their custody was intrusted to the fumily of Aaren.-Pavcton, Métrolngie, p. 223. The priseipal atandards used in the ancient world were the cubit of the Jews, from which their other measures of lingth, eapaeity, and welght were derived; and the foot of the Greeks and Romans. In England, ancient historians tell us that a new, or rather a revived, standard of lineal ineasure was introduced by Ilenry I., who ordered that the ulna, or ancient ell, which corresponds to the modern yard, whould be made of the exact length of his own arni, and that the other measuree of length ahould be raised upon it. This standard has been maintained, without any sensible variation. In 17.12 the Ruyal Socisty had a yard made, from a very careful comparison of the standurd ells or yards of the reigna of Menry V1I. and Elizabeth kept at the Exxchequer. In 1758 an exact copy was made of the loyal Society's yard; and this copy having been oxamined by a eommittee of the Heuse of Commons, and reported by them to be equal to the atandurd yard, it was marked as auch; and this identical yard is declared, by the act 5 Geo. IV., c. 74, to be the standard of lineal measuro in Great Britain.

Uniformity of !raights and Measures.-The confusion and inconvenipnce attending the use of weights and messures of the anme denomination, but of different magnitudes, was early remarked; and there is huriljy a country in which offorts have not been uade to reduce them to the same uniform aystem. Numerous efforta have been made having this elject in view, and enjoining thn use of the samo weights and measures, under very severe penslties. But, owing to the inveteracy of ancient customs, and the difliculty of enforcing now regulations, these statutea have alwoys had a very limited influence, sad the greatest diversity. hsa continued to prevail, excopt in linoui measures.See article Neginial Wrighta and Meabuhes, p. 510.

Inraviable or Nitural Standards,-As tho standards adopted in most countries have been in a great degreo arbitrary, it has long been the opinion of scientific men that, to construct a moro perfeet system of weight; and measurea, nome natural and unchangeable basis should be adojited. It has, indeed, been contended that the menanres of the ancients were deduced from a basis of this sort; and that the stadium always formed an aliquot part of the earth's eircumference, that part differing among difforent nations and uuthors. llot no learning or ingennity can induce any one to helieve what is no obviously ineredible. The ancients had no means of detarmining the earth's circunference with any thing like the aceuracy required to render it the great unit of a system of measures ; and, what is equaily deeisive, nu ancient author ever makes the slightent allusion to any such atandard.

In modern times, however, the idea of seeking for a unit of weight and measure in some unchanging natural object has been practicaily eal ied into effect. The stanclardis that have been usualty proposed for this object have leen some aliquot jart of the quaminut of the meridian, or the jength of a pendutum ribrating seconds in some given latitude. Tho standard of the second pendulum has been in so far adopted into the existing rystem of weights and measures established in Great Britain by the act of 1823, that the length of the standard yard, as compareif with that of a pendulum vibrating seconds in the latitude of London, is specified In the act as fotlows:
"Whereas it has been ascertained by the commissioners appointed by his majesty to inquire into the sulject of welghts and mensurea, that the said yard herely declared to be the imperial standard yard,
when compared with a pendulum vibrating seconds of mean time in the latitude of London, in a vacuum at the level of the sea, is in the proportion of 88 inches to 39 lnches and 1893 ten-thousandth parts of an inch; he it therefore enacted and deciared, that if at any time hereafter the said imperial standard yard shail be lost, or shall be in any manner destroyed, defaced, or otherwise injured, it shall and may be restored by making, under the firection of the Lord Iligh Treasurer, or the commissioners of his mnjesty's treasury of the United Kingdom of Great Britain and Ireland, or any three of them for the time being, a new standard yard, bearing the same proportion to much pendulum as aforeasid, as the alid imperial standard yard beans to such pendulum."
"The brass Troy pound welght procured by the mininter of the United Staten at London $\ln 1827$," was declared by act of Congress, May 10, 1828, to be "the standard Troy pound of the Mint of the United States, conformably to which the colnage thereof shall be regulated." But no direct legislation appears to have taken place in the adoption of any general standards of weiglits and measures. On the 29th of May, 1830, a resolution passed the Senate directing a comparison to be made, under the authority of the Secretary of the Treasury, of the welghts and measures used at the princlpal custom-houses. This comparison was intrusted to a gentloman in every way qualified to undertake $\mathbf{i t}$, the lf cie Professor IIassler, and, ns might have been expectan, great discrepancies were found to exist. The mean, however, corresponded nearly with the standards, as fixed by the English laws previeusly to, and at the epoch of, the Declaratlon of American independence. Dleasures were then taken by the Secretary of the Treasury to have uniform and accurate weights and measures, and authentic standards, made under the immediate personal superintendence of Mr. Hassler, and supplied to all the custom-houses.

While thls was being done, on the 14th June, 1836, a joint resolution of Congress directed the Secretary of tho Treasury "to cause a complete set of all the weights and measures adopted as standards, and now elther made or in the progress of manufacture, for the use of the several custom-houses, and for other purposes, to be delivered to the governor of each State in the Union, or such person as ho may appoint, for the use of the States respectively, to the end that a uniform standard of weights and measures may bo established throughout the United States;" and on the 7th July, 1838, a section in the "act (chap. 169) to provide for the support of the Mlilitary Academy of the Unlted States" provided "that the Secretary of the Treasury cause to be made, under the superintendence of Mr. Hassler, one standard balance for each atate; and, when completed, that he cause them to be delivered to the respective governors for the use of the respectivo States."

The dlatribution of these standard balances, weights snd measures, to the several States has been in a great measure, if not entirely, accomplished. By sn ect of the Legislature of Massachusetts, April 23, 1817, chap. 242 , it is provided that they shall be hereafter used as the sole authorized public standard of weights and measures of this Commonwealth.
The standards of welghts and measures, made in part or in whole under the direction of Mr. Hassier, says Professor Baclie, have the fallowing origin:

1. The actual standard of length is a brass as of 82 inches in length, prepared for the eurvey ${ }^{\circ}$ "he const of the United States, by Troughten, of London, and deposited in the office of weights and measure at Washington.
2. The units of capscity measure are the gallon for liquid, snd the bushel for dry measure. The galion is a vessel containing $58372 \cdot 2$ grains ( 8.3389 lbs. avoirdupois) of the standard pound of distllied water at the temperature of maximum density of water, the vessel
being weighed ln air in which the bsometer in 80 inches at $62^{\circ}$ Fahrenhelt.

The bushel is a measnre containing $548301 \times 89$ standard graing ( $77 \cdot 6274$ )hes, avolrdupoise; of distilled water, at the temperuture of maximum density of water, and barometer 30 inches at $52^{2}$ Fabrenheit.

The gallon is thus the wine gallon of 291 cubic inchen nearly, and the burhel the Wincheater bushel neariy.
3. The atandard of welght was the Troy pound, copled by Captaln Kater, in 1827, from the imperial Troy pound, for the United States Mint, and preserved in that establiahment. The avoirdupois pound is derived from this; lts welght leing greater than that of the Troy pound in the proportlon of 7000 to 5760 ; that is, the avolrdupols pound is equal in welght to 7000 grains Troy.

WEIOHT AND MEABURF GYSTEMS OP THE WOALD.
I. Arrica.-A byssinia.-Weights: I rotl or rottolo $=12$ wakea $=120$ dirhems. Dry Capacity : At Gondar, in the interior, 1 ardeb $=10$ atadega ; at Masuah, on the Red Sea, I ardeb $=24$ madega. The other measures are those of Cairo and Alexandria. There is no knowledge of any local system.

Algeria.-Since the acquisition of this territory by France, the French metricsl system is legalized, and may he expected gradually to come into use. As yet, however, the old usances are zetained.

Weights: The theory appears to be as followa:
24 carob aced $=1$ mitkal or metical, the weight for gold, ete. 8 mitkal $=1$ wakea or ounce.
27 wakea $=1$ rotl khebtr or market pound.
18 wakea 三 18 do. gheddari, for fruttu.
16 whkea $=1$ do. attarl, for aplces.
141 wakea
$=1$ do. feuddi, for silver
100 of each of these rotl $=1$ quintar or cantaro correspondtag.
The values of these denominstions in the Dictionsry are from reported observations, and fall below what world be dorived otherwise by ascending from the netual mitkal. Liquic Capacity is measured by the khoullé and its fractions, $\frac{1}{2}, \frac{1}{t}, \frac{1}{b}$, ete. ; as Dry Capacity, by the saa. Length is measured by two different pic, the Turkish and Arab; the latter of which is used for cloth. Each is subdivided by its rob, or eighth part. There are no itiderary or agrarian measures indlgenous.

Cape of Good Ilope (Colony).-English standards are legalized and used here. The same may be said, it is supposed, of the British colonies in Senegambia and at Sierra Leone, and che smaller establishments on the Gold Coast, as well as of St. Helena and their other islands in the Atlantic. As for Mauritius, on the other side of the continent, that ratains stlll a considersble admixture of its former French usances.

Canary Islauds.-In these islands, the originals of the weights and mensures are from Spain ; and the variations of the actual standards, which (exceept in the case of the vara) seem to be in the sense of degradstion, are not more than occur in continental Spain itself.

Cape Verd Islands.-This Archipelago, as well as the continental territory under the same Governor-Generalship, uses the weights and messures of Portugal. The same may be said of the Dladelra Group under the same domination ; of the Portuguese possessions in Angola and Bengucla; and of the colonies which dwell on the other ocean, along the cossts of Sofala and Mozambique.

Egypt.-The difference between the weights and measures actually used in Cairo and Alexandria, the principal markets of Egypt, is so small as to indicate a common origlana. The great variety which has been stated to exlst among the cantaros (or quintals), according to the various articles intended to be welghed, is probably the result of carelessness or fraud : nor is it clear, as yet, whether this variety' affects the hund-red-weight or the unitary pound. It may be supposed that the weights by which the articles of greateat con-aumption-the necessaries of life-are determined, were
the utandard from which aceldent or negligence has deviated. Weight: 1 cantaro $=36$ okn $\equiv 100 \mathrm{rotl}=$ 14400 drachma. The rotl doen not appeas to be aystematicully sulstivided. The harnela, applied to weighing allk, is ovidently the olk, ander a apecial name. Dry Capacity: 1 andab $=24$ roh. Rength: 1 gasab $=1$ derah. The Turkish pie is generally used for cloths ; it is very littie ionger than the derah, but not correlutive. Agrarian : 400 square gasab $=1$ feddan al riach, or unitary mere.
Guines. - Weight : 1 henda $=2$ benda-ofta $=8$ eggeba $=51$ seron $=8$ piso or uzan $=104$ quinto $=16$ aguirages $=82$ media-tabla $=48$ akey. The last denomination, which is the special woight for gold duat, is only theoretically connected here; its actual value as reported is nearly half a grain lese than the $\mathbf{\$} \mathbf{1}$ of the benda.

Liberia. - This Anglo-American pegru colony at Cape Mesurado, as well an the independent one of Maryinnd at Cape Palmas, uses, It ajay be mupposed, standarls from the United Staten.
Morocco.-All the dependencies of this ompire, along the western coast of Barbary, use the weighta and capacity measures of Spain. There are aevarul indigenous measures of length given in the Dietionsry, but they are without uniformity.

Tripoli.-In this appanage of the Turkish empire, as well as in the dependencies of Fenzan nad Barca, the weights nnd mensures appear to be of European derivation. Weights: 1 cantaro $=100$ rotl $=1600$ uzan $=12800$ termini. The metical, a special weight for gold and ailver, has no connection with the others, unless it be derived in theory from an ancient rotl or pound of 12 uzan or onnces. The actual weight is reported as being exactiy Tof of the Venetian pound, from which it may have orlginated. Liquil Capacily: The mataro for oil is given by galions in the Dictionary ; from its reported weight compared with the average epecific gravity, at ordinary temperatures, of that suistance. Iry Capacity: 1 cafiso $=20$ tileri.

Tunis.-Weight: 1 cantaro $=100$ rotl $=1600$ uzan $=$ 12800 metical or termini. In this aystem, where the same denominations appear to le lighter than the Tripolitan, the metical and uzsn ure apeelfic weights. Liquid Capucity is cleterminel by weight. Iry Capacity: 1 cafiso $=16$ quilia $=132$ saha or zah. Length: 1 pic (woolen) $=1 \frac{1}{1} 5$ pie (silk) $=1 \frac{18}{5}$ pie (linen). But these last proportions appenr altogethor eccidental. In this enumeration, the remaining European settlements, viz., those of France on opposite sides of the continent in Senegumbia and the Isle of Bourben, and those of Denmark and Ilelland in Guinea and Ashantl, have been enitted; partly because the weights and measures of the mother countries would be naturally accepted among the settlers, but chiefly because of the insignificance in popuiation and trade of the actual estshlishments. The insular appanages of the Imam of Muscat (viz., Quiloa, Zanzibur, Socotru, etc.), on the eastern side of the continent, are passed over for similar reasons; whila the native powere, from Morocco through and around to Madagascar, aro too uncivilized or too inaccessible, to have or to yielid any thing of interest in reapect to weights and measures.
II. Anemica.-This continent, for the present purpose, is iest divilied (instead of the usuul distinctions of Nerth, Centrul, and South) iuto Independent and Culonial Aluerica.

Bruzil.-In this empire the originals of weights and measures aro from Portugsi ; and tho sctual standards are in general illentical, though there ure a fow variations, inoth in value and denomination, shown in the Dictionary.

Mayti or San Domingo.-This island, which, in the numerous revolutions of jolicy that it has undergone, has been recently modifled from a republic into a form more absolute, und numinally an empire, retaine the impress of its doulile colonization frem Spain and France, as well as in the numes of localities-on the
weutorn side French, on the eastorn Spanich-as in the weighte and masaurva used there.
Mexico.-Under this repubilic, as well as undar the numerous governments which are continually ahifting or springing up in the territorias of Contral nnd South America, and which it would require a apecial and contemporaneoun researeh to bigmalize and varify, the welghte and neasures of Spein have been throughout and ure atill recognized; with only auch jucal varlations as other causes, besiden the cossution of European control and intercourse with a parent power, might be expected naturally to proluce. Of course, this comprehensive fleld for the influence of the Spanish ayatem does nut incluile vast tegritorien (auch as Patagonia, for instance) which, although clained iy forelgn or demestic powers, are yet, is fact, domineered over by various indigenous tribes, more or lesm nomadic and unclvilized. Of ayntematio welghts and measures in those territories, there are none in modern timen; and ancient enes (such an in Maxice and l'era), which recent revenclises have partially systematized, are omitted, as neither certifin nor of practical application.

United States of A mericu.- Height: 1 Mint or Troy pound $=12$ ounces $=240$ penny $w$ eight $=6760$ grains ; 1 apothecary pound $=12$ ouncea $=96$ drachmin $=288$ scruples $=6760 \mathrm{grains} ; 1$ commercial pound $=16$ aunees $=256$ drams $=7000$ grains; 1 long ton $=20 \mathrm{cwt} .=80$ quarters $=2240$ commercial pounds; 1 short ton $=20$ cwt. $=2000$ commercial pounds. In the actual govermnent atandurds the ounce Troy is divided decinually, down to the roteg part. These weights are identical with those of England. In both countrien, they repose, in fact, upon actaslly existing masses of netal (brass) which havo been individually declared by law to be the uujts of the aystem. In acientific theory, they are aupposed to rest upon a permanent and universal law of Nature-the gravitation of distilled water at a certain temperuture and under a certain atmospheric pressure. And in this aspect, the originution is with the grains; which must be such that 252,458 of these units, in brass, will be in just equilibrium with a chibic inch of distilled water, when the mercury stands at 30 inches in a barometer, and in a thermometer of Fahrenheit at 62 degrees both for the air and for the water. Unfertunately, the expounders of this theory in England used only the gencric term brass, and failed to define tho specific gravity of the metal to be cmployed: the consequence of tilia omission is to leave room for an error of rootor in every attempt to reproduce or compare the results. This is the minimum possible errur: the max ${ }^{\circ}$ atin would be a function of the difference in specific $s$.nvitw between the heaviest and lightest brass that can le :ast.

Liquid Capacity: 1 galion $=2$ half gallens $=4$ quarts $=8$ pinth $=16$ gilla. The gill is not among existing standarda of publio authority, though it is used in commerce. There are other denominations higher than the gallon, such as barrels, hogsheads, pijpes, cte.; but these are only cessels, not measures, and aro aiways gauged and sold by thair actual capacity in galions. The galion, in fact, is almost exactly equivalent to a cylinder 7 inches in diameter and 6 inches high. In theory, it must contain just 231 cubic inches; and, filled with distilled water at the temperature of maximum density (say $39^{\circ} 8$ Fahr.), weighs, according to the official rejoit, at that temperature and at 30 inches of the barometer, $8 \cdot 339$ commerciul or avoirdupois pounds; or more nearly 68372.1754 grains. It is in the temperature ouly that this unit dliffers from the former wine gailon of Great Iritain. The npothecuries use the same gallom, but divide it differentiy, as follows : 1 gallon $=8$ pints $=128$ thid ounces $=1024$ fuid drachms $=61440$ minime (or drops) $=231$ cubic inches. These are graduated meanures; they also use sometimes the following approximste ones from veasels in demestic use: 1 ten-cup $=2$ wine glasses $=8$ tablespoens $=32$ tea-spoous $=4$ fuid ounces.

## WEI

Ihy Capacify: 1 bushel $=2$ half hushols $=4$ pecks $\Rightarrow$ 8 gallons. There aro also in thls, at in the former measure, higher denominatloaa (barrela, sacka, otc.) known in commerce, whose capacity is Intended to be conntant. Thes are, however, alwaya gauged ly the bushel. This bushel is the old Wincheater buahel of England. In fact, it is a cylinder 18.5 laches in dlaimeter, and 8 inches deep. In theory, it mast contaln $2150 \cdot 42$ cuble inches; and holds of distilled water, at the tomperature of maximum density and at 80 Inches of the baremeter, 77.0274 commercial or avolrdapela pounda; or more nearly $543301 \cdot 80$ gralns.

Length : 1 yard $=8$ feet $=36$ inches $=432$ lines $=518$ seconds $=02208$ thirds. In the actual government standards, at the custom-houses, the yard is divided decimally into tenths and hundredths. In the measurement of cloths, muslins, linens, cotton, silk, and in general of what is termed dry goods, the yard only is used; aubulivided into halves, quarters, elghtha, sixteenthe, and half aixteenths. This lowest denomination $=1 \cdot 125$ inch. Surveyors and engineers employ neither the yard nor the inch, but uee the font and its decimal divisions. Architects and artificere reckon by the foot and subdivisions as given above, Nevartheless, the most usual and most recent workman's scules liear the foot divided into inchen, and aighths and sixteenths of an inch. Mariners measure by cable lengths and fathoms : 1 cable length $=120$ fathoms $=2.20$ yards $=720$ feet. The unit of length-the yard, upon whoso subdivisions all the weights and espacity measures repose for verifiention- - 1 s , in fact, derived from ancient urbitrary standards of England. In theory; the inch-the $\frac{1}{16}$ of the yard-is presumed to be contained $80 \cdot 18029$ times In tho length of a pendulom that, in a vacuum and at the level of mid-tide, in the futitude of London, vibrates seconds of mean time.

Itinerary : 1 statute mile $=2$ half miles $=4$ quarter miles $=7 \mathrm{f}$ cable-length $=8$ furlongs $=80$ chains $=320$ perches or poles $=880$ fathoms $=\mathbf{1 7 6 0}$ yards $=5280$ feet $=8000$ links $=68360$ inehes $; 1$ nautical leaguo $=3$ equatorial miles $=8 \cdot 457875$ statute miles. Chaina and links are denominations employed by land-surveyore, thus: 1 chain $=4$ poles $=66$ feet $=100$ links.

Agrarian and Superfirial: 1 square mils $=640$ acres ; 1 acre $=4$ roods $=10$ square chains $=160$ square perchea $=48.10$ square pards $=43560$ square feet; 1 square yard $=0$ square feet $=1206$ square inches. Architecta and builders reckon 1 square $=100$ square feet.

Solid: 1 cubio yard $=27$ cobic feet $=46656$ cubic inchea ; 1 cuble foot $=12$ reduced feet (plank measure) $=1728$ cuble inches; 1 reduced foot (plank measure) $=1$ squaro foot $\times 1$ inch thick $=144$ cubic inches. In practice, all planks and scsutlings less than an inch in thicknoss are reckoned at an jnch. 1 perch of masonry $=1$ perch ( 161 feet) long $\times 1$ foot high $\times 1 \frac{1}{1}$ feet thick $=\mathbf{2 5}$ cubie feet. In fact, the dimensions given for the perch do not result in 25 cubic feet; but this last number has been adopted for convenience. 1 cord of fire-wood $=8$ feet long $\times 4$ fect high $\times 4$ feet deep $=128$ cubic feet.

IJanish Possesaions,-Theae include Greenland, Icelind, and three of the Leewari Islands in the West Indies; viz., Senta Cruz or St. Croix, St. Thomns, and St. John. In all these the weights and measures of Denmark prevail, though in the islands the English longth measures are also used.

Dutch Possessions.- Holland holds on the continant of America, the government of Surinam, whtch inclates nominslly a territory of something less than 10,000 square miles, under the name of Dutch Guiana; on the coast of Venazuela, the islands of Curaçoa and Bonaire, with some lesser islets; and among the Leeward Antilles, St. Eastatius, the south part of St. Martin, and Sabn. In all these, the weights and measures of Ilolland prevell; except in Cureçoa, where the welghts are, in fact, and the length measures, beth in fact and name, those of Spain.

English Pceneasions,-Over the immenae territories of Britiah North America the weights and measures of England are logallzed; but in Lower Canada the French settlers atill use their furmer denominations to a great extent.

In the southern peniaaula, where the general name of English Guiana covers the former Dutch colonien of Larbice, Demerara, and Eseequito, the reckoning ta by the welghta and measures of Holland.

The aettiements in Patagonia and the adjoining Archipelago, made chinfly with a view to the whalefishery, recognize the Engilah atandarda. And as much may ine sald for the Falkland Iales.

Of the numerous lslands and isleta in the Weat Indies, among the Antilles and Lucayan, oniy the chlef ones need be mentioned. The weights and measures of a fow are still traceablo to the source of their earlier colonization.

In the following lalands the Eingliah weights und measures are used: Antigua, the Bahamas, Barbadoes, Barbuda, St. Chrietopher's or St. Kitts, Dominica, Grenada, Jamaica, St. Lucia (Freneh), Montserrat, Nevis, Tobago, Tortols, Trinidad (Spaniah), and St. Vincent.

In the Bermuda Group, English weights and messures are employed. All thase English measures are those before the change In 1825. It would le, therefore, more literal to asy, weights and measures of the United States.

French Possessions.-France bolds on the contlinent only what used in part to be Cayenae, and ls now on the maps as French Gulana; and among the West Indin islands, Martinique, Guedelouje izith its depeadencies, Deseada or Desirado, Marle-galante, and the group of Les Saintes, together with abont two-thirds (on the nerthern side) of St. Murtin.

In Guiana, the new metrical system is legalized; but the older one continues to be used.

St. Martin reckons by the welghts and measures of Holland, and Les Saintes by those of England.

The cthers employ the old French syatem, with some modifications. Thus the former English wine gallon seems to he the standard for liquids, divided as follows : 1 guilon $=2$ pots $=4$ pintes $=8$ chopines $=10$ roquilies $=92$ muces; of ngrarian mensure, 1 carré $=$ 10,000 pas carrés. Besides theso, France owns the isles of St. Plerre and Miquelon, to the senth of Nawfonndland, where the old aystem prevails.

Russian Possessions.-The extensive territories which Russia holds in the northwest corner of America across Behring's Straits are, It may be supposed, under *he domain of Russian customary measures. The establishment which that empire had for nearly forty yeara In Upper California, at Bodega, has been some time since abandoned.

Spanish Possessions. - The magnificent appanage, continental and insular, which Spain formerly held in Americn has now dwindled to the islande of Cuba and Porto Rico, where the weights end measures are still those of Spain.

Sucdiah Possessions.-The only territory of Sweden is the small island of St. Bartholomew or St. Bart's ; which, though originslly colonized from France, has been so long ceded (now nearly seventy years) as to have adopted Swedish weights and measures.
III. Asia.-An-nam.-Weights: 1 quăn $=5$ ta $=10$ binh $=50$ yen $=500$ cân; 1 cân (or pound) $=1 \cdot 6$ nen $=$ 10 luong $=160$ dong $=1000 \mathrm{ly}$. From the ly, the subdivisions are regularly decimal; viz., the beo, hes, châu, huy, trăn, and aj, which last is the ntom or mi:l lonth part of the ly . The most of theso are prirely theoretical, for the hao is itself only 0.06 of a ह.mis, very nesrly.

Capacity: In these there ls no uniformity nue ata thenticity, ench province using difforent measures. In In ue there appears to be the following theoreticic systom: 1 hoc $=10$ dau $=100$ thang $=1000$ hnp $=10000$
thuoc ; 1 thuoc $=1200$ grains of millet $=10 \mathrm{saO} ; 1$ sao (or a handful) $=120$ grains of mlllet; and 1 toat $=250$ grains of millet. The division of the thuoc into 10 sao and $4 \cdot 6875$ tort would seem to indicate two different systems; but as the Tonquin millet and our own are not of the same size, we have no standard of comparison or determinatlon.
Length: There are two thuce or cubits; ono fur general use, the other, which is $\frac{1}{\text { t }}$ longer than the former exclusively for cloths, silks, and other woven fabrics. 1. Mercers'. -1 gon $=10$ that $=30$ truong $=300$ thioe ; 1 thuoc $($ or ell $)=10$ tac $=100$ phan $=1000$ ly. 2. 月uilders', otc. -1 mau $=10690=30 \mathrm{ngu}=100$ thuoe; 1 thuoc (or cubit) $=10 \mathrm{tac}=100 \mathrm{phnn}=1000 \mathrm{ly}$.

Agrarian: This last series is also used by landmeauurers in giving the square content of land. They sometimes use another series (called ruong luc, in contradistinction to the ruong ngu, just given), in which the sao is equal to $16 \frac{1}{2}$ thuoc. The mau is, therefore, 10 per cent. longer in this last serles; and its superficial content, when squared, 21 per cent. greater.
Itinerary: These are very vague and only approximate : $1 \mathrm{dam}=2 \mathrm{ly}=$ rather leas than half a mile.
Birmuh, - Height: 1 vis $=3$ catty $=100$ tical. Length : 1 hanbou $=28$ taim $=50-1$ palgat. Xtinerary : 1 taing $=25^{\circ} 0$ banbou $=7000$ talm. But these are liy no neans certain.

China,-1Height: Amost every thing in China (timher, liquids, live stock, ete.) is sold ly weight, actual or . ominal. 1 shik $=1 \frac{1}{8}$ tam $=4 \mathrm{k}$ wan $=60$ yin $=120$ kan or catty; 1 kan $=16$ leung or tazl $=364$ chu $=3840$ lui $=38400$ shu, or kernels of grain. The weights above the yin are unly nominal and for account; and those below the tael are generally denoted by the adjuncts $l i$, ho, lsin, jut, etc., i. e., one tenth, one hundredth, one thousandth, ete.

Capacity: This is regulated, as before said, ly weight ; the existing dry meastres, which have been adopted for the convenience of conmerce for grain and seeds, vary considerably in consequence of tho irregularity of the material (bamboo) of which they are made. The theory is rupposed to be as follows: 1 ping $=5 ; \mathrm{u}=16$ hok $=: 32$ shik $=80$ tau; 1 tau $=10$ shing $=$ 100 kop $=200$ yeuk $=1060$ chenk $=10000$ chant $=100000$ tsut $=1000000 \mathrm{kwai}=6000000$ unk, or grains of maize. Of all these, there are on'y four actual measures; viz., the tau, the shing, the half-yhing, and the kop. These are also upon two ditjerent modules, distingulshed ly the adjuncts shiand hone; and in proportionate capucity as 100 to 65 respectively. It may the supposed that the latter were intended for $l i$, uid measures; and the: werage contents ure so reduced accordingly In the Dictionary.

Length : 1 yan $=10$ cheung $=100$ chik $=1000$ tsin $=$ 10000 fan . The chik, fixed hy the Mathematical Iloarl at lekin $=13 \cdot 125$ inches; used ly tradesmen in Canton $=14 \cdot 625$ to 14.81 inches; employed hy engineen of public works $=12.7$ liches; and that by which distances are usually measured $=12 \cdot 1$ inches.

Itinerary: 1 t 13.25 fan $=125$ tsin $=0.50$ li or miles; $1 \mathrm{lt}=18: 6$ English fect. This is the count since the Intervention of Eirojean mathematicians at 1'ckin. The former used to be 1 to $=192 \frac{1}{2} \mathrm{li}=\mathbf{7 9 3 0 0} \mathrm{po}=396 \mathbf{a}^{\circ} 00$ chik; $1 \mathrm{li}=1897 \frac{1}{1}$ linglish feet. Some anmbiguity arises from the use of the same worl, li (frohahly from liuropean ignorance of the language in not diseriminating between similar bit not dedentical terms), as a lower neasire, the $\frac{1}{10}$ of the fan. The sume aniblguity extends itself alsa to the following neries.

Agrarian: 1 king $=100$ man $=400 \mathrm{kok}=1000$ fan $=$ 24000 po. lut these are se uncertain that they have not been given.

Solid . Mrasures are products of tho choung, which is generally In this aeries 146 English feet.

Mindostan,--'The weights ani menwures of the indigenous goverminents of thls vust comentry (such as, for instance, Siudh, Nepaul, and the confederated

Sikhs, etc.), are elther too little known or too uncertaln to admit of any system. All that will be done is to give the relatlons of the princlpal measuros in common use, where European domination prevails or European commerce has established itself.

British Possessions: Bombay,-Weight : 1 candy $=$ 20 maunds or mans $=800$ seer $=24000$ pice. Dry Capacity : 1 candy $=8$ para $=128$ adoulie. Calcutta. Weight: 1 maon or mand $=40$ eeer $=640$ chattac $=$ 3200 sleca. Dry Capucity: 1 pullle $=4$ raik $=64$ khoonke $=320$ chattac. Length: 1 haut or covid $=8$ gheria $=72$ juob. Itinerary: 1 cosa $=4000$ haut. Agrarian: 1 biggali $=20$ cottah $=320$ chattack $=6400$ square corid. The chattack ls , in fact, a surface 5 covid in length by 4 covid in width. Madras.W'eight: 1 garé $=20$ candy or barmay $=400$ maund or mann $=3200$ visay; 1 visay $=40$ pollam $=400$ varahun. Diy Capacity: 1 garcó $=80$ pura $=400$ marcal $=3200$ puddy $=25600$ ollock. Liquid Capacity, like the dry, is determined by weight; and the denominations are tho same as in the latter. Agrarian: 1 casseney $=24$ maony $=240$ square covid.

Danish I'oosessions: Serampore and Tranquebar.The welghts and measures here are logally those of Denmark, and by custom those of Calcutta and Madras respectlvely.

French Possessions: Pondichery.-Tho colenial deun minations and diviklons ars ldentical with those of Madrus, although the values aro different.

Portugucse Possrssions: Goa.- Here Portuguese weights and measures are employed.

Japan.- Weight: 1 picul $=100$ catty $=1600$ tael = 16000 mas $=160000$ condurine. The connection of the: other measures is nut known.

Ottoman Asia: Aleppo, Smyma, etc.-The weights and measures liere are so variant, or are rather so mixed up with the units and values of foreign commerce, as nut to admit of satisfuctory classitication.

Persia,- H'right: 1 Latman $=6$ ratel $=300$ dirhem $=600$ mascais. This is the lontman of Tuuris; that of Shiraz, which is twice the value, appears properly to be part of the same system. The other metasures are unsystematic.

Siam. - Weight: 1 picul $=100$ eatty $=2000$ tall $=$ 8000 tical. Dry Capacity: 1 cohi $=40$ resti $=1600$ sat. Lenyth: 1 vouah $=\mathbf{2} \mathrm{ken}=8 \mathrm{ok}$. Itinerary: 1 roĕneng $=2000$ vouah.

1V. Eerons.-Austrian Eimpire: Viena.-Iright: 1 pfund $=2$ mark $=4$ vierling or vierding $=16$ moze $=$ 32 loth $=12 \times$ quent $=512$ pfennig. Apothecaries': 1 $\mathrm{p}_{\text {funl }}=1 \frac{1}{1}$ mark $=12$ unzo $=06$ drachma $=288$ scrupel $=55^{\circ} 50 \mathrm{gran}$. The murk is identical in both series, and $i_{3}$ the unit of gold and silver weight. 1 centher $=5$ steln $=100$ pfund. Liquid Capacity: 1 fuler $=3:$ eimer $=128$ viertel $=1312$ (imperial) mass; 1 mass $=2$ kanne $=4$ scidel $=8$ phlff. Jry Capacity: 1 unth $=30$ metze $=120$ viertel $=2.40$ achtel ; 1 achtel $=2$ utühmassel $=8$ futtermasuel $=16$ lecher $=128$ probmetze. Length: 1 hlafter $=6$ fuss $=72$ zoll $=864$ linie $=1036 \mathrm{~s}$ punkt. Itimerary: 1 maile $=4000$ klafter $=\mathbf{2} 4000$ fuss. Agrarian : 1 joch or jochart $=8$ metze $=586$ nyuare ruthe $=1600$ square klafter $=57600$ square fuss. Prague. - Height: 1 centner $=6$ stein $=120$ pfund. Tho luwer subdivisions are as in Vlenna; but their values, os well as of the terms just given, correspon! witt a lighter pound than tho imperlal standard. Liquil Capacity: 1 fase $=4$ elmer $=128$ pinte $=512$ scidel. Dry C'opacity: 1 atrieh $=1$ viertel $=10$ nassel $=192$ seidel. Agrarian: 1 joch of V'ienna $=2$ strich.
l'enetian Zombordy: Afilan.-I'right: 1'ess grosso: 1 libhra $=4$ quarto $=28$ uncia. Peso sottile: 1 libira $=12$ oncla $=288$ denaro $=$ tion 12 grano. Gold and silver are by the maren, subdlvided as follows: 1 maren $=H$ uncia $=102$ denars $=460^{6}$ grano. Apothecary : 1 llbbra peso sottle $=12$ oncia $=96$ drachma $=288$ serupolo $=6912$ grano. In 1808 the French kilogram, with decimul anhelivitions, was introduced; which is the
new Italian pound or metrical pound of the Dictionary. 1 rubbio $=10$ libbra metrica $=100$ oncis $=1000$ grosso $=10009$ deasro $=100000$ grano. Liquid Capucity: 1 Urenta $=8$ staja $=6$ mias $=12$ quartaro $=16$ bussa $=48$ pinta $=96$ boccale. - Dry Capacity: 1 moggio $=8$ stajo $=16$ starello $=32$ quartaro $=128$ meta $=512$ quartino. In the new metrical system capacity is reckoned as follows: 1 soma $=10$ mina $=100$ pinta $=1000$ coppo. Length: 1 braccio $=12$ oncia $=144$ puuto $=1728$ atomo. New measure in 1803: 1 metro or braccio $=10$ palmo $=100$ dito $=1000$ atomo. Itinerary since 1803: 1 mig lio $=1000$ metro. The old mile of Milsn is not correlative; but appesrs, In theory to be equivalont to 3000 braccio. Agrarian: 1 penica $=24$ tavola $=96$ square cavezzo $=3456$ square piede The piede, or foot, used here is not employed in any oiner part of the system. It seems to have beun orighally $\frac{\text { en }}{4}$ of the braccio. Since 1823: I tornatura $=100$ aquare palmo. The tornatura is identical with the French are. Venice. Weight: Peso grosso: 1 llbbra $=2$ marco $=12$ oncia $=$ 72 asggio $=2304$ carato $=0216$ grano. Peso sottile: 1 libbra $=12$ oncia $=72$ snggio $=1728$ carato $=6912$ grano. The pesogrosso is used ingeneral commereo; the marco and Its subdivisions are for gold and ailver and precious atones; the peso sottile for druge, colors, coffee, tea, sugar, silk, rice, and butter. This last ia estimated at $\frac{12}{19}$ of the former. When used for modicines, it is subdivided as the Austrian apothecary pound. Liquid Capacity: 1 anfora $=4$ bigonzio $=8$ concia or mastello $=48$ secchio $=152$ bozza $=512$ boccalo $=768$ quartuccio ; 1 botta $=5$ bigonzio. Dry Capacity: 1 moggio $=$ 4 stajo or staro $=16$ quarto $=64$ quartarolo. Length: 1 braccio $=2$ piede. This braccio is for woolens, etc. ; that for silk is shorter. Itinerary: 1 miglis $=1000$ passo $=5000$ piede. Agrarian: 1 campo $=640$ tavoln, or square pertica, or aquare cavezzu $=25920$ aquare piede. New measure: 1 migliajo $=1000$ square passo $=20000$ square piede. The metrical welghts and measures, described under Milan, are also employed here as there in all governmental transactions. Otherwise the local measures are still in use. In the other parts of the Austrian dominions, such as Dalmatia, Hungary, Moravia, etc., local systems, if they ever existed, are now only discornible in the names ant values of $n$ few disconnected and apparently arbitrary measures.

Haden.- 13pight : Old measure : 1 pfund $=32$ loth $=128$ quentchen. New mensure : 1 pfand $=10$ zehnling $=100$ centuss $=1000$ pfennig $=10000$ nes. The new ineasure was established $\ln 1810$, when the value of the pfund was taken at $\frac{1}{1}$ kilogram, and a decimal division adopted; but the old division is still retained, and is applied both to the old unit and to the new. The mark of Cologne is cmployed for gold and ailver; and the value and subdivisions of the Ntirnberg apothecary pound for drugs and medlicines. Liquid Capacity: 1 fuder $=10 \mathrm{olm}=100$ stütze $=1000$ mass $=10000$ glas ; 1 ohtn $=\mathbf{1 5}$ decalitres of France. Iry Capacity: 1 zuber $=: 10$ malter $=100$ sester $=1000$ minsslein $=10000$ becher; 1 sester $=15$ decalitres of France. Length: 1 rithe $=10$ fuss $=100$ zull $=1000$ linle $=10000$ punkt; 1 ruihe $=3$ mètres of l'rance. The olll fuss was 3 per cent. shorter, but has been merged into the now one. linerary: 1 meile $=2$ stundon $=88$ kilometres of France. Agrarian: 1 morgen $=4$ viertel or quart $=$ 400 square ruthe $=40000$ aquare fuss. Solid : 1 klafter, for flre-wood $=6$ foct long $\times 6$ feet high $\times 6$ fect deep $=128$ cubic fuss. What la here called deop signilies in every ense the length of the billet or log.

Ravaria.-Weight: 1 pfund $=16$ unze $=32$ loth $=128$ quentchen. A cniform value was established for the unit in 1811, corresponding with the new French welght. The apothecary pound was at the same time defined at $\frac{3 n}{3}$ of the unit, and is divided like the Nornberg apothecary pound. Gold and silver are by tbe mark Cologne. Liquid 'apacity': 1 eimer $=60$ mass. kanne $=240$ quartel. Dry Capacity: 1 scheffol $=6$
metze $=12$ viertel $=48$ massel or achtel $=96$ mäsglein $=102$ dreissiger ; 1 scheffel $=208$ liquid massasanne, in actual content. Length: 1 fuss $=12$ zoll $=144$ linle $=1728$ punht. Th/s unit was established in 1809 , and defined in terms of the old French measure, at 129.58 liynes de Paris. The near approach of this value to 8 decimetres in the new French system alluws the fuss, as is frequently done, to be decimally divided. Thas tho elle of Rhenish Bavaria is 4 fuss of this count, or 12 decimetres of France. Tho legal elle is 2 fuss $10 t$ zoll of the legal value above. Itinerary: 1 meile $=$ 2400 ruthe $=24000$ fuss; 1 meile of Anspach $=2$ stunde $=2880$ ruthe $=28800$ fuss. Agrarian : 1 juchart, morgen, or tagwerk $=400$ square ruthe $=40000$ square fues. Solid: 1 klafter, for fire-wood $=6$ feet long $\times 6$ feet hig i $\times 31$ fcet deep $=126$ cubic fuss. In Rhenish Bavan: generally, the blllets are 4 feet long, which makes the klafter $=144$ cuble fuss. Augsburg: Nürnberg.-Thu denominations and values of local measures retalned In both of these places, and elsewhere in Bavaria, are given in tho Lictionsry. The apothecary weight of Nurnberg, which is general over all Germany for medicines (as the mark of Cologne is for specie), is 是 of the old Nürnberg money pound, whirh last is sivided as follows: 1 pfund $=2$ murk $=16$ unze $=16$ luth $=128$ quart $=512$ pfennig $=8220$ as-ducat. The apothecary pound, as under: 1 pfund $=12$ unze $=96$ drachma $=$ 228 scrupel $=576$ obolus or heller $=5760$ gran.

Belgium,-Weight: Old measure of Brussels. Commercinl: 1 livre or pond $=4$ quarteron $=16$ once $=64$ satin $=128$ gros $=9216$ grains. Specie: 1 livre or pond $=2$ mark $=16$ once $=320$ esterlin $=1280$ felins $=10240$ as $=1$ pond Troy of IIolland. The new weight is the kilogram and its decimal subdivlsions, eatablished since 1816. The apothecaries' unitary pound, subdivided like that of Nürnberg, is, since 1817, 交 of the kilogranı of France; but in this respect there is not entire uniformity. The other measures are all in value corresponding with tho metrical system of lirance, and decimnlly subdivided. Thus the unit for liquida (the $v a t$ ) ind that fur try (the mudde) are each $=100$ litres of France. The unitary el or aune $=1$ metre; the agrarian unit (the vierkantebunder) $=1$ ere of France, or nearly 4 square perches English; the metrical mili or mile $=1$ kilomitro. Other terms remaining from the old systems, but now disconnected, are given in the Dietionary.

Bremen.-Weight : 1 pfund = 2 mark $=16$ unze $=82$ loth $=128$ quentchen $=512$ ort $=498.59$ grammes of France, since 1818. There is another piund used in retnil commerce, which is 6 per cent. lighter than the standard. Gold and silver are welghed by the mark of Cologne, and medicines ly the apothecary pound of Nurnberg. 1 schiffpfund $=20$ liespfund $=290$ pfund; 1 frachitpfund or pfundschwer $=300$ pfund ; 1 centner $=110$ pfund. Liquid Capacity: 1 fuder $=4$ oxhoft $=$ $6 \mathrm{ohm}=24$ anker $=120$ viertel $=270$ atubehen $=1050$ quartier $=4320$ mingel. Dry Capacity: 1 scheffel $=4$ viertel $=16$ spint. $\quad$ Length : 1 ell $-=2$ fuss $=24$ zoll = 240 linle. Surveyors divide the fuss decimally. Itin. evary: 1 ruthe $=2$ g klafter $=8$ elle $=16$ fuss. The usual meile contains 20000 Rhenisli feet. Agrarian: : morgen $=120$ square ruthe $=80720$ square fuss. Solid. : 1 faden $=6$ feet long $\times 6$ feet high $\times 2$ feet deep $=72$ cubic fuss. Fire-wood is also sometimes measured by the reep or reif, a cireular pille $17 \frac{1}{2}$ fuss in circumference, the billets varying from $4 \frac{1}{3}$ to 6 fuss in length. The reif yields from 1 to 2 faden, accordingly.

Brunsacick,-IVeight: 1 pfund $=2$ mark $=32$ loth $=$ 128 quentehen $=512$ pfennig $=1024$ heller; 1 schiffpfund $=20$ lies fund $=280$ pfund. Goid and silver by the mark of Cologree, medlcines by the apothecary puund of Nurnberg. 1 fuder $=4$ oxhoft $=6$ ohm $=240$ stabchen $=960$ c cartler $=1920$ nbssel ; 1 fass of beer $=$ 4 tonn ${ }^{*}=108$ stubehen $=432$ quartior $=864$ nössel ; 1 fuss of mum $=100$ st ahchen $=400$ quartier $=900$ nössel. Dry Cofacity: 1 schuftel $=10$ himt $=40$ vlerfass $=160$
becher or locher. Length: 1 elle $=2$ schuh $=24$ zoll. Itinsrary: 1 ruthe $=8$ elle $=16$ schuh. The usual meilo contains 34424 Rhenish foet. Agrarian: 1 morgen $=120$ aquare ruthe $=60720$ equare schuh.

Cracos. - Weight : 1 funt $=2$ mark $=48$ skoyelec. Apothecary weaght is that of Narmberg. Liquid Cupacity: 1 stangiew $=2$ beczka $=72$ garnioc $=28 \mathrm{kwart}$. Dry Capacity: 1 korzec $=2$ polkorzow $=4$ cwlore $=32$ garcy or garniec. Length: 1 stopa $=12$ calow $=144$ linlow $=1728$ punkt. The other measures are those of Poland.

Denmark.-Weight: 1 pund $=2$ maric $=16$ unze $=32$ lod $=128$ quintin $=512$ ort $; 62$ pund $=$ welght of 1 cublc fod of rain-water at $16 \xi^{\circ}$ centigrade. Gold and silver is waighed by a pund nearly 6 per cent. lighter than, but not aliquot with, the commercial pound, and is subdivided like this last, only more minutely, into 8192 as $=03036$ gran. The royal Mint, however, uses the mark of Cologne. Apothecaries' weight is that of Nurnberg. 1 last $=16 \frac{1}{2}$ skippund $=144 \frac{4}{4}$ wang $=825$ lispund $=433$ bismerpund $=5200$ pund; 1 skippund $=$ 20 lispund $=320$ pund. Liquid Capacity: 1 aam $=4$ anker $=20$ viortel $=40$ stubchen $=77 \frac{1}{2}$ kande $=105$ pot $=620$ pägel. Dry Capacity: 1 toende $=4$ f jerding $=8$ skleppe $=32$ fjerdingkar $=144$ pot. Length : $1 \mathrm{aln}=2$ fod $=24$ tomme $=288$ linie. The forl represents $\frac{12}{8}$ of the pendulum beating seconds, in a vacuum, at the lovel of the sea, under the mean parallel of $45^{\circ}$ north latitude. Itinerary: $1 \mathrm{miil}=2400$ rode $=4000 \mathrm{favn}=$ 12000 aln $=24000$ fod. Agrarian: 1 pflug $=8$ toonde (hartkorn) $=32$ toende (sädeland) $=64$ skieppe $=256$ fjerdingkar $=768$ allum $=8072$ penge $=17920$ square rote $=1792000$ square fort. The measures of Holstein ure chiefly those of Hamburg, and those of Norway differ only locally, net systematically, from the Danish.

France. - Weight: 1 kilogrum $=100$ hectogram $=100$ decagiuai $=1000 \mathrm{gram}=10000$ declgram $=100000$ contlgram $=1000000$ milligram. The unit, or kilogram, is the weight of a culic decimotro of distilled water ot the temperature of maximum density, takea at $4^{\circ}$ centigrade, or $39^{\circ} \cdot 2$ Fahrenheit. 1 tonnenu $=10$ quintal $=100$ myriagrams $=1000$ kilograms. Apothecary weight has rot been so symmetrically and mulformly constructed. In the French pharmaceutical Colex, the gramme has been adopted as the key of the syatem, ond is considered as equivalent to $t$ of the old drachme. The once, habitually of 8 drachmes, is then 32 grams. But as this number is irrational with a decintal divislon, a compromise has been made as follows: 1.1 double livro (kilogram) $=2$ livre $=4$ demilivre $=8$ quarterons (of $\ddagger$ onces) $=1000$ grans. 2. 1 once $=8$ gros, or drachme $=640 \mathrm{grain}=12 \$ 0$ demigrain $=32$ grams, lnstead of $31 \not$ grams, as it inust have been, if the same binary division had 'seen carried through.

Liquid and Dry Capacity: 1 kilolitre $=\mathbf{1 0}$ hectolitre $=100$ decalitre $=1000$ litre $=10000$, lecilitre $=100000$ centilitre $=1000000$ nillilitre. The unit or litre is the cubic decimetre; the kilolitre is therefore a cubic metre. The myrialitro $=心$ kilulitre.

Iength and lhistance: 1 m jrhumetre $=10$ kilometre $=100$ hectometre $=1000$ decametre $=10000$ metre $=$ 100000 declmetre $=1000000$ centimetre $=100000060$ millimetro. The metre, or unit, is assumed to be the tenmillionth of the quadrant, or the forty-millionth of the wholo circumference of tho globe, measured over the poles. The actual value assligned to tt , in apite of the pains taken in the gemetical nid ertiatical operations, is, after nll, owing to the nature of the very operations, to be considered as only n near npproximation. The provisional metre of $170^{\circ}$ is, in fact (as more recent investigations show), nearer the most probable value nimed at chan thas one adopted in the law of 1709. But the utnost error ls only alsout 3010 of the length, or absolutely less than moter of un inch.

Agrarian: 1 liectare $=100$ nre $=10000$ centlare or square metres. 'lhis oart of the system aduits the
same decimal multipllcation and subdivisions as the others in theory; but, in point of fact, the lntermodiate terms havo beon rejocted.

Solid: 1 decastere $=10$ store $=100$ declstere. The stere is the cuble metre; and lts content, therefore, is the same as the capacity of the kllolitre. The terme glven ure all that are retalned in the nomenclature. The names even of the old measures of France having been interdicted slnce 1840 by law, their relatlons and combinations are of no remalning pructlcul interest. Tho terms and values will be found in the Dictlonary.

Franlfort.-Weight: 1 pfund $=2$ mark $=16$ unze $=$ 32 loth $=128$ quentchen $=512$ pfennig $=1024$ lieller. There is also a commercial pound for retail, called silber-pfund, about 8 per cent. Iighter than the former, but ainnilarly divided. Flour and malt aro weighed by a pound of $32 \frac{10}{10}$ loth silber-pfund, meat and butter by 33 loth of tha same system, and fish by one of 35 loth. Gold and silver nro reckoned ly Cologne weight, nnd drugs and medicines by the apothecary pound of Nürnberg. Liquid Capacity: 1 fuder $=6$ ohm $=120$ viertel $=480$ eich-mass $=540$ neu-mass; 1 mass $=4$ schoppen. Dry Capacity: 1 malter or nchtel $=4$ slmmer $=8$ metzo $=16$ sechter $=64$ gescheld $=256$ mässchen or viertel $=1024$ schrott. A malter of wheat weighs from 175 to 190 lhs. flour welght; rye, 165 to 480 Jhs. flour welight ; barley, 150 to 165 lhs. flour weight ; oats, 95 to 110 lbs, flour welght; flour, 143 Hes. flour weight. This includes tho tare of the sack, which is reckoned at 3 flour pounds. Length: 1 werksehuh $=12$ zoll $=144$ linle $; 1$ ruthe $=12 \frac{1}{2}$ werkschuh $=$ 10 feldfuse $=100 \mathrm{zoll}=1000$ linle. Agrarian: 1 hufe $=30$ morgen $=4800$ square ruthe $=480000$ вчиare feldfuss. Solid, fur fire-wood: 1 klafter $=0 \mathrm{~W}$. long $\times 7$ W. high $\times 3$ W. deep $=126$ culic werkschuh; 1 stecken $=3 \frac{1}{}$ werkschuh, culsed $=43$ enhic werkschuh.

Great Britain. - Tho imperial standards adopted since 1825 nltered only the value of the capacity measures. The weights and the long, ngrarinn, and solid measures nre identieal with those of the United States. Cnpacity measures are the same, both for liquids and things ilry. The origination of these is with the gallon, which contains 10 pounds avolrdupois of distitled water at 30 inches of the harumeter and $62^{\circ}$ Fahreabeit loth for the air and the water. Fight of such gallons make the furbel. The old sulndivisions and nomenclature, as far as npplicable, nire retained.

Weight : Troy and apothecary have been given muder the hend Cxiten States. Avolniupois: 1 ton $=20$ hundred-welght $=80$ quarter $=22.10$ pound $=35810$ ounce $=5 \overline{3} 3440$ dram. Wool: 1 last $=12$ sack $=21$ wey $=156$ tod $=812$ кtone $=624$ clove $=4368$ pounl.
Liquid Cupacity: Old wine measure: 1 tum $=2$ pipe $=3$ puncheon $=4$ hogshead $=6$ tierce $=8$ quarter-ciasks $=252$ gallon $=1008$ quart $=2616$ pint. Ohd hecr measure: 1 lutt $=1 \frac{1}{2}$ puncheon $=2$ hogshend $=3$ harrel $=0$ killerkin $=12$ tirkin $=108$ gullon. Alo measure was the aame as to the gallon and its subdivisions; but th: firkin of alo was only 8 gallons, and the hogshead of ale 48 gallons, Instead of 0 and $6 f$ gallons respectively.

Iry Capacity: Old neasure: 1 last $=2$ wey $=10$ quarter $=20$ coom $=80$ bushel $=320$ peek $=610$ gallons $=5120$ pint.

Length: 1 yard $=3$ feet $=36$ linches $=10 \mathrm{x}$ bariny-corn $=432$ line. Thoth measure: 1 French ell $=1$ ! linglinh ell $=1 \frac{1}{2}$ yarl $=2$ Flenilsh ell $=6$ quartcos $=27^{\prime}$ nail $=5 \cdot 1$ Ineh.

Ifambury.- Weight: 1 pfund $=2$ mark $=16$ unze $=$ 32 loth $=128$ quentchen $=012$ prennig. Gohd nud silver ary welphed lyy the merk of Cologne, and medivino by Narnberg npothecary welght. 1 zchiffpfund $=2 \frac{1}{5}$ centner $=20$ Ileapifund $=2 x 0$ pfund. This is sed trelght ; wagon welght Is also calleil achiffifund, lut = 320 pfund. Liquid Capacity: 1 fuder $=1$ oxhoft $=5$ tonne $=0$ alm $=2.4$ miker $=86$ elucr $=\mathbf{1 2 0}$ viertel $=2.10$ stohehen $=480$ kanne $=000$ ( $\quad$ uartier $\Rightarrow 1920$ Ussel ; 1 fass, for whale-oll $=1 ;$ tonne $=7$; stechkanne $=120$
margel $=160$ quartier, Dry Capacity: 1 last, for wheat and grain generally, and seeds $=3$ wispel $=30$ scheffel $=60$ fass $=120$ hinit $=480$ spint ; 1 stock, for oats und barisy $=1+$ last, and similarly subulividert. The seheffel is hardly used; the fass is the principal measure. The iadications of the steelyard used for welghing graln, and quoted in the Prics Current, is upon $1 \frac{1}{4}$ fass of such grain respectively. The estallished weight of the fase ls: of harloy, 68 pfund; beans, 108 pfund; oats, 52 pfund; peas, 100 pfund; rye, 81 pfund; wheat, 86 pfund. Length: 1 elle $=2$ fuss $=24$ zoll $=192$ achtel. Ship-builders, for the measurement of apars, etc., divide the fuss into 3 palu. Englneers anul surveyors use the phenish foot and inch, decimsily divided. Itinerary: 1 meile $=200$ ruths $=24000$ Rhenish fuss. Agrarian: There are two ruthe or perches in land meusure, the marsehruthe equal to 7 ell, and the geestruthe to 8 ell. Oit course, 1 square geestruthe $=1 \frac{130}{8}$ marsehrithe $=256$ square fuss; 1 morgen $=600$ aquare marschruthe $=117600$ squaro fuss. Solid: 1 klafter or faden $=6$ F. long $\times 6$ F. high $\times 2$ F. deep $=88$ g cuhic fuss; 1 messbergerfaden $=6$ F $\mathbf{F}$. long $\times 8 \mathrm{~F}$. high $\times 2 \mathrm{~F}$. deep $=596$ culic fuss.

Hanorer.-Weight: 1 pfund $=2$ mark $=16$ unze $=32$ loth $=128$ quenteher $=512$ örteben. Gold and silver are weighed by th sark of Cologne. The apothecary pound is $\frac{3}{2}$ oi the commercial pfund, suldivided like that of Nürnberg, which last is itself frequontly used. Siquid Capacity: 1 fuder $=4$ oxheft $=6 \mathrm{ahm}=15$ eimer $=24$ anker $=120$ viertel $=240$ stübehen $=480$ kanne $=$ 060 quartier $=1920$ nëssel ; 1 fass for beer $=4$ tonne $=$ 10.1 stülchen $=208$ kanno $=410$ quartier. Dry Capacity: 1 last $=2$ wispel $=16$ malter $=96$ himt $=288$ drittel $=384$ vierfass. Length $: 1$ elle $=2$ fuss $=24$ zell $=$ 192 achtel $=288$ linis. Itinerary: 1 meile (siace 1818) $=1 \cdot 16 \frac{2}{2}$ ruthe $=11700 \mathrm{clle}=25400$ fuss. The old or polizei-meile was $22 \overline{4} 4$ ruthe. Agrarion: 1 mergen of Calenberg $=1 \frac{1}{2}$ droln $=2$ vorling $=120$ square ruthe $=$ $30 \overline{2} 20$ square fuss.

ICsse Cassel. - Weight $: 1$ pfund $=16$ unze $=32$ loth $=128$ quentehen. In retail the pfund of Berlin (which is ahnut 3 per cent. lighter) is employed, subdivided as above. Gold and silver are ly the Cologne; medicine, ete., by the Nürnberg weight. Liquid Capacity: 1 fuder $=6 \mathrm{ohm}=120$ viertel $=480 \mathrm{mass}=1020$ schoppen. Dry Capacity: 1 seheffel $=2$ him $=8$ metze $=$ 32 müsschen. Length: 1 waldfuss or standurd $=12$ zoll $=1.4$ linie. Itinerary: 1 rutho $=7$ elle $=14$ landfuss, or surveyors' foot. The ruthe is sometines divided decimally into 10 fuss, ete. Agrarian: 1 acker $=150$ square ruthe $=29400$ square landfuss. Solid: 1 klufter $=5$ F. long $\times 5$ F. high $\times 6$ F. deop $=150$ cubic waidfuss.
Messe-Darmstadt.-The old woights and measures wero those of Frunkfort. These established in 1821 are as follows: Wreight : 1 pfund $=32$ loth $=128$ quentchen $=512$ richtpfennig $=\$$ kilogram of France. Gold and silvor are still reckoned by tho mark of Cologne, and Narnberg furnishes the apothecary weight. Liquid Cupacity: 1 fuder $:=6$ ohm $=120$ viertel $=400 \mathrm{msss}=$ 1920 sehoppen. The schoppen $=\frac{1}{3}$ litro of Franco. Dry Capacity: I malter $=4$ simuner $=16$ אümpf $=64$ gescheld $=256$ mässchen $=128$ litre of France. Iength 1 klafter $=10$ fuss $=100 \mathrm{zell}=\mathbf{1 0 0 0}$ linio. The fuss is $\ddagger$ metre of Franco; the ello is : metre. Agrarian: 1 mergen $=4$ viertol $=400$ square klafter $=40100$ square fuss. Solid: 1 stecken $=5 \mathrm{~F}$. long $\times 5 \mathrm{~F}$. hith $\times 4 \mathrm{~F}$. deep $=100$ cubic fuss. The old stecken wat $6 \times 6 \times 4$ $=144$ cubic feet, old measure.

Holland.-Since 1816 tho values and divialons of the weights and mensures have been according to the metricul system of France, retaining more or less of the odd nomenclaturo, as will he found under that head.

Ionian Isles.-Since 1817, when the new Constitution of these Isles was ratified by the English Parliament, the standard welghta and measures have beca those of Greatillitain. There atill remair, however, several
detacaed nanaees of Turklsh and Venetian origin, which will be found under their proper heads.
Lübec. - Weight: 1 pfand=2 mark $=16$ unze $=32$ loth $=128$ quentehea $=512$ pfennig. Gold and sllver weight is that of Cologne ; apothecary weight of Nürnherg. The eehiffpfund and tonne are divided as at Hamburg. Liquid Capacity: 1 fuder $=4$ oxheft $=6$ $\mathrm{ahm}=2.1$ anker $=30$ eimer $=120$ viertel $=240$ stühchen $=480$ kanne $=960$ quartier $=1920$ plank $=3840$ ort. Dry Capacity: 1 hast $=8$ drömt $=24$ tonne $=96$ seheffel $=384$ fass. Length $; 1$ elle $=2$ fues $=24$ zoll $=144$ linle $=1728$ punkt. Other usances here are the eame as at Hamburg.

Lucca.-The welghts and messures of this territory are, in systom, the same as those of Tuseany, of which it will hereafter form a part.
Mecklenburg Schverin.-What is under this will also apply to the other Grand Duely of Meeklenburg Strelitz, both of whose systems of welghte and length measures are these of Hamburg; while the capacity measures are, In fuct, those of Lübec.

Modena.-Weight: 1 libsra or lira $=12$ oncia $=192$ ferlino; 1 libbrs, for gold $\varepsilon$ nd siliver $=12$ oneia $=96$ ottava $=102$ ferlino $=1920$ carato $=7680$ grano. Apotheeary : 1 liblra $=12$ oncia $=90$ drachma $=288$ serupolo $=6012$ grano. Liquid Capacity: 1 barile $=20$ iasco $=$ 40 beccale. Dry Capacity : 1 sacco $=2$ stajo. Agrarian : 1 biolea $=72$ tavela $=288$ square cavezzo $=10368$ square piede. The piede of Reggio has the same relations, but a different vulue, with that of Medena, the city. The other measures appear arisitrary.
Ottoman Empire, or Turkey in Europe.-Neither our knowledge nor, perhape, the actual state of weights and measures in this emplie, allow of their being arranged in any eatisfactory, eystematic exhilition ; and the same may l.e said of the modern kingdom of Greece. The value and denominations of isulated units have been given before.
Parma.-Weight : 1 llbbra= $=12$ oncia $=288$ denaro $=6912$ grano. Gold and silver are weighed by the mareo of Milan, or by the new Itulian pound. The apothecary pound is identical with the commercial litbra. The rubblo Is 25 libbra. Liquid Capacity is measured as at Milsn. Dry Capucity: 1 stajo $=2$ mina $=16$ quartsrole. Length: 1 pertica $=6$ bruccio di legno $=72$ oncia $=864$ punto $=10368$ atomc. Agrarian: 1 biolea $=6$ staro $=72$ tavols $=288$ square pertica $=10368$ square braccio.
Portugal.-Weight : 1 arratel $=2$ mareo or maio-arratel $=4$ quarta $=16$ onça $=128$ outava $=384$ escropulo $=9216$ grao. This weight, from the onça down, answers for all purposes. Gold and silver are reckoned by the maree of 8 en ;as, and medicines are weighed by a llibra of 12 onças, which is therefors ${ }^{\text {最 arratel. }} 1$ tonclada $=191$ quintal $=54$ arrela $=1728$ arratel. Liquid Capacity: 1 almude $=2$ slquelto or cantaro $=12$ canada $=24$ meia-canada $=48$ quartilho $=96$ meioquartilho; 1 tonelads $=2$ pipa or beta $=52$ alinude $=$ 10.4 alqueire. Dry Capacity: z moio $=15$ fanga $=60$ alqueire $=120$ meio-nlqueire $=640$ quarto $=480$ eutava $=060$ maquiu or nein-outava. Length: 1 eovado $=3$ palmo da craveira $=24$ polie zada $=36$ dedo $=144$ grao $=288$ linha $=3456$ ponto. The commercial covade, called corado avantrjado, has 243 pollegadas. Ativerary : 1 braca $=1 \mathrm{f}$ passo $=2$ vara $=6$ g pe $=10$ palmo da craveirs; 1 legoa $=3$ milb $:=24$ estadlo. Agrarian: 1 geira $=4840$ square vars.
Prussia.-The weights and measares were reformed here iu 1816. Weight: 1 pfund $=2$ mark $=16$ unze $=$ 32 loth $=128$ quentehen. The unitary pfund is of of a cubie foot of listillell water, weighed, und reduced to a vacuum at the temperature of $15^{\circ}$ Reaumur ( $65{ }^{\circ}{ }^{\circ}$ Fahrenheit). Gold and silver are still reckoned by the mark of Cologne, to which the Prussian mark is consldered as equivalont; and the apothecary pouad, divided like that of Nürnberg, is 号 pfund. 1 sehiffpfund $=3$ centner $=15$ etein $=20$ liesp,fund $=830$ pfund.

Liquid Capacity： 1 fuder $=0$ ohm $=12$ eimer $=24$ anker $=720$ quart $=1440$ össel．The elmer contains 3840 cu － bic zolle or luchea．Dry Capacity： 1 last，for wheat and rye $=4$ wispel $=6$ malter $=72$ scheffel $=288$ viertel $=1152$ metze $=4508$ masschen ； 1 last，for barley and oats $=48$ acheffel．The scheffel is $\frac{1}{5}$ of the eimer in abanlute capacity，or 3072 cublo zolle．Length： 1 fuss （rheinfuss）$=12$ zell $=144$ linie $=1 ; 28$ scrupel．This unit has been established at 139,13 llgnes de Paris． The elle is $25 \frac{1}{3}$ zolle．Itinerary： 1 ruthe $=10$ land－ fuss $=12$ rhelnfuss．The landfuss is also subulivided decimally into $\mathbf{1 0}$ zoll $=\mathbf{1 0 0}$ linis $=\mathbf{1 0 0 0}$ serupel ； 1 post－ meile $=2000$ ruthe $=24000$ rheinfuss．Agrarian： 1 morgen $=180$ square ruthe $=25920$ square rhelnfuss， Solid： 1 L after $=6 \mathrm{~F}$ ．lang $\times 6 \mathrm{~F}$ ．high $\times 3 \mathrm{~F}$ ．deep $=108$ culsie rheinfuss； 1 haufen $=41$ klafter $=18 \mathrm{~F}$ ． long $\times 9 \mathrm{~F}$ ．high $\times 3 \mathrm{~F}$ ．deep $=486$ cutic rheinfuas． The old values and denominationa which aro still re－ tained，as well in the capital as in aeveral principal cities，are given under those heads．
Roman States．－Under this name is intended what has，until recently，been known as the State of the Church．Late events have showi this last titlo to be uncortain．Two principal citles comprehend all thut is systematic in weights and measures．Bolognn．－ Weight： 1 liblura $=12$ oncia $=96$ ottava $=192$ forlino $=$ 1020 carato $=7686$ grano．This welght serves also for gold and nilver，though the new Italian metrical pound （the kilogram）is also employed，as well as the libtria of IRome．In Ferrara，uso is still had of tha riarco of Milan．Apothecary ： 1 libbra $=12$ oncin $=96$ drachma $=288$ serupolo $=6912$ grano．This lihura weighs $11 \frac{1}{6}$ commercial oucie．Liquid Cnpucity： 1 corba $=2$ mezza－ corba $=4$ quarterone or quarterole $=60$ boccale $=240$ foglietta．Dry C＇upucity： 1 corba $=2$ atajo or staro $=$ 8 quartervie $=32$ quarticino or quartuccione．These two corbe are of the snme capacity．Agrarian： 1 tor－ natura $=140 \mathrm{square}$ jertica $=1 \mathrm{f} 000 \mathrm{square}$ pie．Rome． - Height： 1 libbra $=12$ oncia $=288$ denaro $=6912$ grano．The sane weight serves for gold and silver， and for medicine．Liquid Capucity： 1 Lotta $=16$ barilo $=512$ boccale $=2048$ foglietta $=8192$ quartuccio．The harile for oil contains only $\frac{7}{8}$ of tho ubove，or 28 boc－ cale．But oil has a proper measure，viz．； 1 soma $=2$ mastello or pelle $=20$ cugnatcilo $=80$ boccale．Dry Capacity： 1 rubblo $=2$ rubbiatella $=4$ quarta $=8$ quar－ tarella $=12$ staja $=16$ atarello $=22$ scorzo $=88$ quartuc－ cio．Length and Distance： 1 canna（ordinary）$=2$ br cecto $=6$ pió $=8$ paluno $=24$ linea； 1 canna（urchi－ tects＇，etc．$)=-\frac{1}{2}$ pi $\delta=10$ paimo $=120$ oncia $=600$ minuto $=1200$ decimo $; 1$ canna di ara $=1 \frac{1}{2}$ bracelo di ara $=0$ palino di ara； 1 catenu $=10$ atajole $=031$ palmo（archi－ tects＇）．Agre riun： 1 rubbio $=4$ quarta $=7$ pezza $=1$ t seorzo $=32$ quartuccio $=112$ squaro catena $=11200$ square stajolo $=8 ; 0300$ spuare palmo（arciitects＇）．

Russia in Aurope：St．Peteraburg．－I Feight： 1 funt $=12$ lana $=32$ loth $=96$ zolotnic $=9216$ doli．This is ＂sed for gold and silver also，and tho Nurnherg veight ；$y$ apothecarice． 1 packen $=3$ berkowitz $=i 16$ pud $=$ 1200 funt．Liquid Capucity： 1 velro $=4$ twehetwerk

8 osmuschka $=88$ tscharkay．Since 1819 the vedro 100 tsclarkey， 1 savokowaja $=134$ anker $=40$ vedro． ＇ry Cepacity： 1 tschet wert $=2$ osmin $=4$ pajak $=8$ shotiserik $=39$ tschetwe：ku $=64$ garnetz．Length tep：Pins $\leq 10^{\prime 2}$ ）arehine $=2$ stopa $=24$ verschok $=32$ l．dict． $1!/ s$ wiss $i$ ，old measure．Within the last twent：Yown，both the linglish foot and the thine foot bave whise linto uso；and since 1831 the former




 sur in sut or I＇hind nos supposed to be，since 1831， suhon：wat it efors it）Pustion enjoire，of which


Poland had atill its own Leglalature，and which reated upon the French metrical system，is nearly as fol－ lows：Weight： 1 funt $:=16$ lann $=32$ leth $=48$ akeyclec $=128$ drachune $=884$ skivpulow $=0210$ granew $=50688$ granikow $=405504$ mili．grammow．The milligram－ mow la exactly the milligrim of France．The npothe－ cary pound is $358 \frac{1}{2}$ grams oi France，and divided like Nürnberg weight．The old funt of Waraaw proper was $\frac{1}{15}$ lighter；and the old quintal was of 5 kaminleck， or 160 funt．The new kaminleck la of 25 funt．Liquid Capacity： 1 stangiew $=2$ beczka $=50$ garniec $=200$ $k$ wart $i=800$ kwaterkj．The kwarti is the litre of Frnnce，and the beczka，therefore，the hectolltre．For－ merly the beczka was divided into 86 garniec，and 144 k warti．Dry Capacity： 1 korzec $=4$ ewiere $=82$ gar－ niec or garcy $=128 \mathrm{kwartl}=512 \mathrm{kwaterki}$ ．The kwartl is the same for all capacity；and the korzec is，there－ fore， 128 litres of France．Length： 1 lokioc $=2$ stopa $=4$ cwlerc $=24$ calow $=288$ liniow $=5.6$ millimetrow $=576$ millinetre of France ； 1 sznurow $=10$ pretow $=$ 100 precikow $=150$ stopa $=1000$ lawek $=1800$ calow． The precikow la the geometrical fint，used by survey－ ors．Itinerary distancea are measured by the verst of Ruasin， 8 of whilch（ $=29633$ atopa）mnke the unitary league．Agrarian： 1 wloka $=30$ morgow $=90$ square aznurow $=9000$ square pretow $=900000$ square prect－ kow．

Sordinia．－The weights and measures of the island of Sardinln，which can not be called systematic，will bo found in the Dicionary．Duchy of Genoa．－Weight； 1 libbra（peso scarso）$=12$ oncia $=288$ denaro $=6912$ grano．This is the ordinary weight of commerce， which is uned also by apothcearics．The rottolo is 11 libbra．The peso grosso is 10 per cent．heavier than the peso scarso，and has sometimes its rottolu．Goli and silver are weighed by the marce of Turin．The rubbio，or quarter of the centinajo，has 25 libhra in either weigbt．Liquid Capacity： 1 mezzaruola $=2$ barile $=100$ pinta $=180$ amula．Dry Capacity： 1 mina $=8$ quarte $=96$ gonbetta．Lenght： 1 piede liprando $=12$ oneia $=1.14$ junto $=1728$ atomo； .1 piede manuale $=8$ oncia ； 1 canma $=4 \frac{7}{7}$ bracelo $=10$ palmo $=6$ g piede manuale．Hut this last is hypothetical．The land surveyors use a camna of 12 palmo，which is property a canclia．Ilut canne are found of all lengtha，from $\$$ to 12 jualmi．Turin．－I＇cight： 1 libura $=1 \frac{1}{1}$ un roo $=12$ onela $=96$ ottavo $=288$ denaro $=6912$ grano 165889 granettino．For gold and silver the marro is divided as unter： 1 marce $=8$ oneia $=192$ denaro $=$ 1152 carato $=4608$ grano $=110592$ granettino．The apothecury pound is $1 t$ marco，und is divided like the samo welght at Belogna．Liquid Cnpacity： 1 carro $=10$ hrenta $=360$ pinta $=720$ boccale $=1.4 .10$ quartino． Dry Cupheity： 1 sacco $=3$ stajo $=6$ minn $=12$ yartiere $=48$ copello $=960$ cucchlaro．Length：The smalior neasurea are divthed as at Genoa． 1 pertica＝ 2 tra－ buceo $=10 \%$ raso $=12$ piede $\mathrm{lij}_{\mathrm{j}} \mathrm{ran}$ alo． ／tiverary： 1 iniglio $=1800$ tesa $=4: 183 \frac{1}{1}$ piede liprando： $\mathbf{t a} 500$ piche mannale．Agrarian： 1 giornata $=100$ tavola，or square pertica $=400$ squere trabucco $=14400$ square piede li－ pranto．

Sazony．－For the weights and measures of thisking－ dom，where there has heen no recent estabisiment， will bo taken what prevails at Leipsic．lifight：I pfund $=2$ mark $=16$ unze $=32$ loth $=128$ quenticin $516 \mathrm{pfennig}=7680 \mathrm{gran}$ ．Gold and silver are ly the mark of Cologne．Apothecary weight is that of Xörn． berg．The centner，or hundred－weight，consists gen－ eraliy of 110 pfond，but for live steck it is only 102 pfund；that called bergrgericht ut the mines，in 111 pfund；and stahl－gericht，for iren und steed，is 118 pfund．Liquid（＇apecity： 1 fuder $=2$ 亳 fass $=4$ tonmu $=6$ ahut $=12$ eimer $=14$ anker $=756$ kanns $=1612$ niss－ sel $=6048$ quartier．The fuder of Dresden is similary． divided，but la smaller，containing uniy $60^{2} 2$ kame of Leipsic，Dry C＇quacity： 1 wispel $=2$ maiter -2.4 nethef－


1 elle $=2$ fuss $=24$ zoll $=240$ linie. The fusa is also oats $)=400$ square estadale $=48400$ square ple : the esdecimaliy divided. 1 ruthe $=10$ elle $=16$ fuss. Itin- tadale being here hut 11 ple. erary : 1 polizei-meile $=2000$ ruthe $=16000$ elle $=32000$ fuss; 1 pest-meile $=1500$ ruthe $=12000$ olle $=24000$ fuss. Agrarian: 1 morgen $=800$ square ruihe $=76800$ square fuss.

The Two Sicilies.-The weights and meatures of the 1sland of Sicily are glven In the Dictionary, corresponding to the localitlea of Messina, Palerms, and Syrncuse; they are too unsyatematic to be detailed here. What followa belongs properly to the city and district of Naplea. Weight; 1 libbra $=12$ oncia $=360$ trapeso $=7200$ accino. This weight is for gold and silver, for silk, for spices, for drugs and colors. All other articles are welghed by the retolo of 27 libbre, or $33 \frac{1}{\frac{1}{3}}$ oncie. The apothecary unit is the same libbrn, but divided as follows: 1 libbra $=12$ oncia $=120$ drachna $=366$ scrupole $=7200$ accino. Liquid Capacity: 1 carto $=2$ butta $=24$ barile $=14.40$ caraffic ; 1 salma , for eil $=16$ staja $=256$ quarto $=320$ pignata $=1536$ mlsurella. Dry Capacity: 1 carro $=30$ tomolo $=864$ inlsura. Length and Distance: 1 canna $=8$ palmo $=06$ oncia $=480$ mlnato; 1 pertica or passo $=7 \frac{1}{2}$ palmo; 1 miglio $=9331$ passe $=7000$ palmo. Agrarian: 1 moggia $=900$ squave passo $=50625$ squara palmo.

Spain.-The weights and measures given for this kingedom apply especially to Castille, and are recognized nt Mladrid. Censiderable dlfferences in value, and gome also in nomenclature, will be found exlsting in several of the great provinces of Spain ; as, for example, in Valencia, where long comparative independence naturally led to a result of this kind, which is further contributed to elsewhere by the remarkable number of distinct races by which Spain is peopled. 3at these variations are not snfficiently materiul to be detailed here.

IVeight : 1 liors $=2$ marce $=16$ onza $=128$ ochava $=$ 256 ndurme $=768$ tomine $=9216$ grano. Gold and silver are by the same weight; but the marco is the unit, and is divided for gold only, as follows: 1 marco $=50$ castellane $=400$ tomine $=4800$ grano. This division lats been, to be sure, interdicted by law; but it still remains, and is especially exemplified in the former South American dependencles of Spain. In apothecary weight: 1 libra $=1 \frac{1}{2}$ mareo $=12$ onza $=96$ dracma $=\mathbf{2 8 8}$ escrupule $=576$ obole $=1728$ caracter, or quilate $=6912$ grano; 1 tonelada $=20$ quintal $=80$ arroba $=$ 2000 libra; 1 quintal mache $=6$ arroba $=150$ libra. Liquid Capucity: 1 arroha inayor, or cantara= $=1$ quartilia $=8$ azumbre $=32$ quartille $=128$ copa. This arroba, in theory, should contain 35 libras of distilled water, at the ordinary pressure and temperature. The arrob, mener for oil is divided in the same manner, but weighs only 271 libras, as before. Dry' Capacity: 1 cahiz $=12$ fanega $=1.4$ almule, or celemine $=288$ medio $=576$ quartills $=2304$ racion $=9216$ ochuvillo. Length : 1 vara $=3$ pie or tercia $=4$ palmo or quarta $=6$ немma $=36$ pulgada $=48$ dede $=442$ linen $=5184$ punto. Distance: 1 estadal $=2$ estado, tocsa, or braza $=2 \frac{2}{3}$ paso $=4$ varat $=8$ codo $=12$ pic. There is also $n$ formser estadal (before 1801), which still serves ns a basis for an agrarian measure, und $=11$ pie. 1 cuerdn $=84$ vara $=$ 2.l 1 pie $=33$ palmo mayer. lut in Valencia: 1 cuerda 20 brazn $=40$ vara; 1 legua (till 1568) $=3$ milla $=$ 2. estadio $=3000$ pase $=5000$ vara $=15000$ pie; 1 legua (of l'hilip V.) $=7605$ vara $=22815$ pic. This was a leagus of wblch $17 \frac{1}{2}$ were supposed to make a degree, and was directed to be used on thll maps, 1 legua (sinco $\mathbf{1 7 6 6}$ ) $=4800$ pase $=8000$ vara $=24000$ pie. It is by this that the distances aloug the great ronds nre murked. Hut there is ulso a legua frequently used, estimated at 800 cuerla $=6600$ vara $=19800$ pie. Agrarím: 1 yugada $=50$ fanegada $=600$ celemin $=2400$ quartillo $=28800$ square estadale $=460800$ square vars. But In Valencia: 1 yugnda $=6$ cahizada $=86$ fanegada $=7200$ square braza, und la but the $\frac{1}{1} \frac{1}{3}$ nearly of the legal yugada. 1 aranģada (for vineyards and crops of

Siveden.-Weight: 1 skălpund (viktuallewigt) $=16$ untz $=32$ lod $=128$ qwintin $=8848$ as. There are acv. eral commercial pounds in this kingdom, applicable onder dlfferent circumstances and to different articles; but none are commenaurable with the skălpund, except that called jernwigt, or the lron pound, which is 事 of the other. They are all to be found in the Dictionary under the word skeppund, by which multiple, indeed, they are usually counted. Guld and silver is weighed by the mark of Stockholm, which is incommenaurable with the akălpund, but very nearly half of it. It is divided as follows: 1 mark $=8$ untz $=10$ lod $=6-4$ qwintin $=4884$ as. The apothecary pound, or libre $=7416$ as, and is subdivided like the Narnberg pound. 1 skeppund $=20$ liapund $=400$ pund. Liquid Capacity : 1 tunna $=48$ kanna $=06$ stop $=384$ qwarter $=1586$ ort, or jungfru. Lry Ccpacity: 1 tunna $=2$ spann $=4$ halt-spann $=8$ fjerding $=32$ kappe $=50 \mathrm{kan}-$ $\mathrm{na}=112$ stop $=4.18$ qwarter $=1792$ ort. Length: 1 famn $=3 \mathrm{a}$ aln $=6$ fot $=72$ tum $=864$ linie. But in late times the foet is divided decimally for all purposes. 1 stăng $=8 \mathrm{uln}=16 \mathrm{fot} ; 1 \mathrm{mil}=2250$ stăng $=6000 \mathrm{famn}$ $=18000$ aln $=36000$ fot. Agrarian: 1 tunna $=2$ spannland $=4$ laulf-spannland $=8$ fjerding $=32 \mathrm{kapp}-$ land $=56$ kannland $=218 \frac{8}{4}$ v'fuare stăng $=14000$ square $\operatorname{aln}=56000$ square fot. Solid: 1 vedfamn $=6 \mathrm{~F}$. long $\times 6 \mathrm{~F}$. high $\times 3 \mathrm{~F}$. deep $=108$ cubic fut.

Suitzerland.-Nearly every ene of the twenty-two cantons of which this confederation is cempesed appears to present some variety in the valnos, subdivisions, and nomenclature of its weights and incasure. To explain them summarily is impossible; to expose them in detail would occupy a space manifestly disproportionate to their practical interest. What prevails ut Bern, Lucerne, and Zurich (the three legislative capitals, biennially in rotation, of the Swlss confederacy), is all that need he given here. Bern, ... Noight: 1 pfund $=16$ unze $=32$ loth $=128$ quent $=512$ pfennig. This is the ordinary commercial weight ; that for gold and gilver, etc., is divided into 2 marks, and then like the preceding. The mark in this weight is the old mare of France; the ordinary pfund $=17$ ounces poids de marc of France. The apothccary weight is, In fact, about $\frac{1}{8}$ of 1 per cent. lighter than the Nürnberg; it is, no doubt, in theory the same, and is divided sinilarly. Liquid Capacity: 1 landfass $=6$ saum $=24$ eimer or brenter $=600$ mass $=2400$ vierteli $=4800$ becher. Dry Capacity: 1 mûtt $=12$ mäss $=24$ măssli $=48$ imml $=06$ achterli $=192$ sechszehnerli. Lenyth: 1 fuss $=12$ zoll $=144$ linie $=1728$ secunde. The steinbrecher fuss, used for quarrying and building stone $=$ 13 zall. The elle happens to be exactly $\frac{158}{100}$ of the fuss; but this is an accidental coincidenco, as they are net used commensurably. Itinerary: 1 ruthe $=1 \frac{1}{4}$ klufter $=3$ f wald-achritt $=4$ feld-schritt $=10$ fuss. The ordinary Swiss meile is no lenger cemmensurable with any Swiss foet. It seems to have heen originally $26666 \frac{2}{3}$ fuss, for its length would not differ materially from that multiple of the fuss. Agrarian: 1 juchart, or feld acker $=400$ square ruthe $=40000$ square fuss. For woodlant, the juchart is 450 ; fer gardens, 360 ; for meadow land, 350 and 320 ; and, finally, for suburhan mensaration, $312 \frac{1}{2}$ square ruthe. Söti': 1 klafter $=6 \mathrm{~F}$. long $\times 5 \mathrm{~F}$. high $\times 3 \frac{1}{2} \mathrm{~F}$. deep $=108$. did fuss. Lucerne.-Weight: 1 pfund $=36$ loth $=144$ quentchen. This is the division of lucerne proper; but the weights of Zurich are also in use. Gold and silver are weighed by the mark of Zurich; but the npothecary pound Is the old medicinal weight of France. Liquid Capacity: 1 samm $=31$ ohm $=100$ mass $=400^{\circ}$-cheppen $=4000$ prima. Dry Capacity: 1 malter =s .nitit=16 viertel $=32 \mathrm{halh}$-vlertel $=160 \mathrm{jmml}=256$ becief $=2560$ prima. Length: 1 elle $=2$ schah, or rheinfuss. The carpenters' foot (tisehler-schuli) is nearly 3 per cent. shorter; and the huilders' and surveyers' font (feld-schuh) 10
per cent. shorter than the rheinfuss. Other measures are those of Zurich. Zurich. - Weight: 1 pfund $=18$ unze $=36$ loth $=144$ quenten; 1 pfund (of Antorf, for gold and ailver, etc. $)=2$ mark $=10$ unze $=82$ loth $=128$ quent $=512$ pfennig. Thla weight is $\frac{8}{6}$ of the commercial weifht. The apothecary pound la that of Lucerne. Liquid Capacily: 1 elmer. (lauter-mass) $=4$ viertel $=$ $30 \mathrm{kopf}=60$ masa $=120$ qualrtli $=240$ atotzen. The eimer (stadt-muss) for wine in retall is aubdivided in the same munver, but is 10 per cent. amaller. 1 eimer (trübes maas) $=4$ viertel $=32$ kopf $=64$ masa $=128$ qualrtli $=\mathbf{2 5 6}$ stotzen. This elmer (which, as its nama implies, is for wine unrefined, as the lanter-mass iz for fined wina) is $\frac{1}{1} 5$ largar than the lutter. Dry Capacity : 1 malter $=4$ mütt $=16$ viertel $=64$ vierllng $=256$ masseli $=5 \% 6$ immi. The malter for grain generally, and all dry seeds and fruita (glatte frucht), contains $12 \$$ cublic feet; that far oats and for green articles (leguminons growth, rauhe frucht) contains $12 \frac{7}{18}$ culbic feet. Length : 1 fuss $=12$ zoll $=144$ linie $=133$ lignea de Puris. The amme fuss is divided decimally by aurveyors. The nrchitectural foot, si.ace 1820, ia 13 hJo longer, but divided like the orlinary fuss. 1 ruthe $=$ 2 elle $=10$ fras. Agrarian: The or lnary juchart $=$ 400 square suthe $=.1000$ aquare foss. There are also juchart in the anme variety (except the very snallest), and ainilarly applicable as at Bern. Solid: 1 klafter, for fire-wood $=6 \mathrm{I}$. long $\times 6 \mathrm{~F}$. high $: 4 \mathrm{~F}$. deep $=$ 144 cuble fuss. The: $u$ are also klafter c " 72 and 108 cuble fuss, the billets being 2 and 3 feet l ng respectively. The klafter for turf (torb-klafter) ontains 12. korb of 6 cubic fuss, each $=72$ cubic fuss. In 1828 a new system of weights and measures was pro yosed and adopted for the Cantons of Aar:tu, P sic, Bern, Frelburg, Lucerne, Solol'? יrm, aml Van" "ich rested upon the metrical system of Frur e; but, except in the Canton of Vaud, it has not been genernlly carried out.

Tuscany.- IVeight: 1 libbra $=12$ oncia $=06$ drachna $=2 \varepsilon 8$ denaro $=6912$ grano. The same weight anawers for gold and silver, and for apothecary use. The legal centinajo or cantaro (as in all the ceses hitherto not specially mentioned) is 100 libbre; but the cantaro for wool, meat, and salt fish is yet 160 liblire. Liquil Cupacity : 1 barile $=20$ flasco $=40$ boceale $=80$ mezzetta $=160$ quartuceio, weighing 133t libbra; 1 barile for oil, or orcio $=16$ fiasco $=32$ boccale $=04 \mathrm{mez}$ zetta $=128$ quartuccio, weighing 120 Jibbre. The soma for oil is 2 barile. The barile of alcohol, brandy, and rum weighs 120 libbre. Iry Capacity: 1 noggrio $=8$ sacco $=24$ staje $=48 \mathrm{mina}=96$ quarto $=381$ neladella $=768$ mezzelta $=1536$ quartuccio $=3072$ bussole. Length: 1 canna $=4$ braccio $=8$ palmo $=80$ aoldo $=960$ denaro; 1 canna (architecta' and aurveyors') or pertica $=2 \frac{1}{3}$ passetto $=5$ braccio $=10$ palmo $=60$ crazia $=100$ soldo $=300$ quattrino $=1200$ denaro. Jtinerary: 1 ca vezzo $=2$ passo $=6$ braccio; 1 miglio $=566 \frac{1}{2}$ canna (architects') $=2833$ h braccio $=5666{ }^{2}$ palmo. Agrurian: 1 ascato $=10$ stajolo $=13$ estioro $=165$ panoro $=660$ square perica $=16500$ square braccio.

W'ürtenderg.-W'ight: Divided as the Pruasian, from which it differs but slightly in value. Gold and silver are weighed by the mark of Cologne, and medicine by the npothecary weight of Nurnberg. Liquid Capacity: 1 fuder $=6$ cimer $=96$ immi $=960$ mass $=$ 3840 achoppen. Tho eimer is of a different capacity; according as it is for clear or unrefined wine. The latter is nearly $4 \frac{1}{3}$ per cent. iarger than the former. Dry Capacity: 1 acheffel $=8$ simri $=32$ viorliag or viertel 04 achtel $=128$ maxsslein $=256$ ccklein $=1024$ viertelein. Jength: 1 fuss $=10 \mathrm{zoll}=100$ linié $=1000$ punkt. This measure was established in 1806, when the fuss was fixed at 127 lignes de Paris. The elle ia not aliquot with the fuss, being 2141 ligice de Parie. 1 ruthe $=1 \frac{1}{2}:$ after $=10$ fuss. Thia is the modern livision. In. older halits there was $1^{\circ}$, a ruthe of 16 fuss; $2^{\circ}$, one of 12 rhelnfuss; and $3^{\circ}$, one of 15
rheinfuis. These different lengths affected, of oarso the value of the acre. Agrarian: 1 morgen $=4$ viertelinorgen $=384$ square ruthe $=38400$ squace fusa. This is the legal measure, which corresponds in value with the old count of 150 square rathe (of 16 fuss in length) to the morgen. There is also the little morgen (old measure) of 150 square ruthe $(\mathrm{No}, \mathrm{B})=83750$ aquare rheinfusa; and the great morgen (old measure) containing 400 equare ruthe (No. 2) $=5{ }^{\prime} 600$ square rheinfuss. 1 juchart or jauchert $=1 \frac{1}{1}$ caorgen.

The variations in the compatation oi the mile, the gallon, the hhd., and the barrel, are ac great in various conntries, that we give a list by way of comparison. Mils.

| Miglto, alsce 1803... Ansir. Lombardy. 0.6214 miles. |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Mlan ............ | 1.1536 |  |
| 4 ............. | Naple | $1 \cdot 1593$ | 4 |
|  | Rome | 0.0252 | " |
| 4 | Turl | 1.5744 | ${ }^{6}$ |
| 4 | Tuscany | 1.0276 | $\because$ |
| " | Vealce. | $1 \cdot 1397$ | " |
| Mlli | Пenm | $4 \cdot 69$ | " |
| Mijl, old measure. | Holland | 3.6394 | 4 |
| marloc |  | 3-4591 | " |
| " legal, $\dot{\text { Notheri. }}$ | , | 0.0214 | ${ }^{4}$ |
| M11............... | Sweden | ${ }^{6} 68235$ | ${ }^{4}$ |
| "of Norw | Great Brit | 69216 | " |
| " marine |  | $1 \cdot 1428$ | " |
| " | Ircladi | 1-2747 | " |
| " . 1 ............ | Scolland | $1 \cdot 1273$ | " |
|  | Lited statey |  | " |
| of land | Fingiand and L'. S. | 640 n | cres. |
| Milla. | l'ortugal. | 1.27S3 1 |  |
|  |  | $1 \cdot 1507$ |  |
| mills | Spaln | $0 \cdot 8144$ | " |
| mar!ne |  | 1-1530 | " |
| Mitle, old measuro. . | Franeo aud belg. | $1 \cdot 2111$ | " |
| " marino |  | 1-11007 | " |
| 4 metrical | " | 0.6914 |  |
| Galion. |  |  |  |
| 1mperinl, slato 1825.... Great Britaln ..... 1-20min gallona |  |  |  |
| For wlne, Snxon | England, lhet..... |  |  |
| " Rnmford | " 1260.. | 0.3360 | " |
| " Wiachester | " 1200. |  | " |
| 4 Ginldisall. | nfter 1490 | 0-969t | " |
| For ale and beer, 1503.. | IIII 1845 | $1 \cdot 22079$ | " |
| for wlne . . . | Ireland | 00410 | " |
| or Ilquids | Ncotland ......... | $3 \cdot 63100$ |  |
| for wino... | Fi, and W. Indles.. | 1 |  |
| For liqulds. | United statem. . |  |  |
| - or cara, Saxon | England . . | $0 \cdot 12450$ | bush |
| " Itamford. |  | (1-1285) |  |
| " Winchenter.. | " | (1.124 1 |  |
| " Guildhall | " | $0 \cdot 12001$ | " |
| Imperial, since 1825 ... | Great Mritala | 0.12834 |  |
| for corn | United stater | . $0 \cdot 1250$ | * |
| Barrel. |  |  |  |
| For lamp oll. ......... CIncinnall ...... 43 galloos. |  |  |  |
|  |  |  |  |
| For leer, before 1803.. | 4 | $32 \cdot 0$ | " |
| For ale, etc. | ${ }^{4}$ | 310 | 6 |
| l'arcelona wine | Jonion | 304 |  |
| Claret. | * | 2.01 | 4 |
| İinbun | " | 25 |  |
| Madelr | " | 27.5 |  |
| Prort | . | 34\% |  |
| Sherry | " $\quad . . . . . .$. | 32.5 |  |
|  |  |  |  |
|  |  |  |  |
| For find |  |  |  |
| For four | " |  |  |
| For lime |  |  |  |
| For salted provislons |  |  |  |

logsurad.

lor the greater part of the preceding article we aro indelited to the able work of J. 11. Alexander, listr, entitled I'mirersal Dictionary of Weighta and Measures, A ncient and Modern, raluced to the standards of the $U$. $S$. , to which we refor for more extended information.

Ancient Weighte and Mecostres.-This subject is involved in conslderable dificuity, and to enter fully inte it would be quite Inconsistent with our objects and jimits. But the following detulls, abstracted from the best authoritiea, may be nseful to such of our read. ers ae have ocossion to look into the anclent authors.
Tames or vaatoes anolenx Werohts (according to djferent

Scriptuas Mgabuaes or Lenoth.-(Arbuthnot and IIutton.)

| Digit. | $\begin{aligned} & \text { lnches. } \\ & 0 \cdot 7425 \end{aligned}$ |
| :---: | :---: |
| Palm. | 8.97 |
| Span | 8.01 |
|  | English Feel. |
| Lesmer eubit | $1 \cdot 455$ |
| Sacred cublt | 17325 |
| Fathem | $\begin{aligned} & \text { Yarda. } \\ & 2.31 \end{aligned}$ |
| Ezekicl'a reed | $8 \cdot 465$ |
| Arabien pole | $4 \cdot 62$ |
| Schants. | 46.2 |
| Stadlum | 281 |
| Sabbath day's | 155 |
|  | Miles, |
| Eastera ralle | 1.886 |
| 1'erumang. | 4-158 |
| Day's jonraey | 83.264 |

Gagolan Meaburas or Lenati.-(Arbuthnot and IUtton.)

| Dactylos | Inches. |
| :---: | :---: |
| Deton | 3.02187 |
| Dochmos | 3.2137 |
| 1)iehar... | $7 \cdot 65468$ |
| Orthodoro | $83 \cdot 1015$ |
| Splthame. | $9 \cdot 06562$ |
| Pous... | $12 \cdot 0875$ |
| Pour | $\begin{gathered} \text { Engllsh Feet. } \\ 1 * 00720 \end{gathered}$ |
| Pygmo | $1 \cdot 13203$ |
| $\mathrm{I}^{\text {y }}$ gron. | $1 \cdot 25911$ |
| 1'oehya | 1-61093 |
| Orgya | Engliah Paces. 1.00729 |
| Atadlos | 100.7.2916 |
| Enloa | $100 \cdot 72910$ |
| Mllion . | 805.8333 |

Roman Measeaeb of Lenath. - (Arbuthnot and Iutton.)

| Dlgitua transversua | Engllah Inche 0.72595 |
| :---: | :---: |
| Uncia, the onnce. | 0.1967 |
| Paimat minor | 2 -001 |
| 1'ea, the foot. | 11.004 |
| Talmipos | Enclish Feel. 1.20875 |
| Cubltus | 1.4505 |
| Gradus | $2 \cdot 4175$ |
| Paspus. | $\begin{aligned} & \text { Pncer. } \\ & 0.067 \end{aligned}$ |
| Stadlam | 120.575 |
| Miliare . . | 907 |

Roman hay 'ifagcres, -(Arbuthnot and IItiton.)

| 1lemina | Englifh Pinta. 0.5074 |
| :---: | :---: |
| Sextaritus | 1.0149 |
| Modiua. | Englleh Peek. 1.0141 |


|  | Atrio dat Meabubeg, . |
| :---: | :---: |
| Xeates. | Englich Platn. 04908 |
| Chonix. | $1 \cdot 436$ |
| Medimus | Winah. Duahel. 10206 |

Jawigu day Measures (acoording to Josephtus).

| Crachal. | $\underset{\sim}{\text { Englinh Pintu. }}$ |
| :---: | :---: |
| Cab. | 3.874 |
| Gomer.. | $7 \cdot 0152$ |
|  | Engllah Peetr. "1 |
| Seah. | $1 \cdot 4615$ |
| - Hphah | Winch. Duahala. $1 \cdot 0961$ |
| Latech. | $5 \cdot 4307$ |
|  | Quarter. |
| Chomer\} , ................................... | 1.3702 |

Roman Meabicaes for Liquide.-(Arbuthnot and Ifuttom.)

| Hemins. | Engliah Pints. 0.59769 |
| :---: | :---: |
| Sextarlus. | $1 \cdot 10518$ |
| Conglue. | $7 \cdot 1718$ |
| Crna. | Wine Gnlleas. $3 \cdot 5857$ |
| Amphora. | $7 \cdot 1712$ |
| Culens | $\begin{gathered} \text { Hhds. } \\ 2 \cdot 2786 \end{gathered}$ |
| Attio Mragereg Fon Ligutivg, | . 1 |
| Cotylna. | English Pinte. $0 \cdot 6748$ |
| Xeates | 1.1493 |
| Chotus. | $6 \cdot 8900$ |
| Mateotes. | Wine Gall. $10 \cdot 3350$ |

Jzwisu Measuaea fon Ligoids.

| Caph | Englith Pinta. $0 \cdot 8012$ |
| :---: | :---: |
| log. | 1-1488 |
| Cab. | 4.5983 |
| 1710. | Whe Gall. 1.7225 |
| Seah | 3.4450 |
| Bath. | 10.3350 |
| Coron. | Hhds. |

The following table showa the number of pounds of various articlea to a bushel :

| Wheat : | 60 ponnds. | Onlo | g. |
| :---: | :---: | :---: | :---: |
| Corn, shelled | $50{ }^{\circ}$ | Bena8........... 60 | * |
| Corn on the cob. | 70 | 13ran............ 20 | 4 |
| liyo. | B6 | Glover seed. . . . . 64 | 4 |
| Cata | 36 | Tlmothy aeed.... 45 | 4 |
| Burley | 40 | Flax-seed . . . . . . 45 | 4 |
| Buekwheat | 52 " | Itemp-seed . . . . . 45 | 4 |
| Irlsh potatoes. | $60 \quad 4$ | Bhau grasa sced.. 14 | ${ }^{4}$ |
| Swoct potatoes. | 60 " | Dried peaches ... 33 | 4 |

-For further information the reader is referred to the Dict. of Weights and Measures, by J. H. Alexander, 8vo. Balt., 1855 ; Bankers' Magazine, iil. 299 (J. H. Alexander); North American Rev., xlv. (Percival), xiv. (Farrar); Westminster Rev., xvl.; Edinb. Rev., Ixxvii. 121; Hunt's Merchants' Mfagazine, xii. 549, iv. 333, 434 (D. J. Browne); Niles's Register, xiv., xv., xx., xxif., sxx., xl. ; Report of Mr. J. Q. Adams, 8vo.

Weld, or Dyer's Weed (Ger. Wau; Du. Woww, Woute ; Fr. Gaude; It. Guadarella; Lat. Luteola), is an imperfect biennial, with amall fusiform roots, and a leafy atem from one to three feet in height. It is a native of Graat Britain, Italy, atid various parts of Europe; and is cultivated for the sake of lts atalk, flowers, nad leaves, which are employed in the dyeing of yellow, whence its botanical name Reseda luteola. Weld requires the growth of nearly two aummers before it comes to maturity; and the crop is liable to fail from so many causes, and is besides 80 exhausting, that its cultivation is by no means profitable. Weld ls preferred to all other substances in giving the Rively green lemon yellow. It is, however, expensive ; and it is found, when employed in topical dyeing, to degrade and interfere wlth madder colors more than other yellows, and to stain the parts wanted to be kept white. Hence quercitron bark is now employed in calico-printlng, to the almost total exclusion of weld. It is stlll, however, employed in dyeing silk a golden yellow, and in paper-staining-LLoudon's Encyclopoedia.

Weant Indien (Antilla or Antilles), an Archipelago of inlonds which extend from the Gulf of Florida to the Gulf of Paria, und form part of the division Central America, hetween latt. $10^{\circ}$ and $28^{\circ} \mathrm{N}$., and long. $59^{\circ}$ and $85^{\circ}$ W.; bounded on the north and east ly the Atlantic, and on the south by the Caribbean Sen, which separates them from the north coast of South America. The northwest group contains the largeat lelands, or Greater Antilles, as Cuba, San Domingo, Jomalea, and Porto Rico. The other croup, or Ieesser Autillen, stretching from north to south, conelsts of Guadoloupe, Mertinique, Barbadoes, Trinidad, ote. The Bahamas form a third group. The Lesser Antlies, from Porto Rico to the Gulf of Paria, are by some writera zalled the Windward Islande, and the amaller group along the coast of Venezuela, the Leeward Islanda; but in British clarts the Wimirard Islands comprise those between lat. $10^{\circ}$ and $15^{\circ} \mathrm{N}$., and the Leeward those between lat. $15^{\circ}$ and $19^{\circ} \mathrm{N}$.


The total area of the Archipelago is 95,100 aquare miles. l'opulatig:1, $3,684,000$. Tho lesser Antilles are of volcanic origin. Climate of the whole trojicul, but moditied lyy the surrounding ocean and the elevated land of many of tho ielanda. Sugar, coflee, cotton, dye-woots, and spice wre the chief products and exports. Of these islar. its, France possesses Guadaloupe, Martinique, Deseada, Mitrie-Gialante, nad part of St. Martin; to Spain belos $g$ Culia and Porto lico; to Denmark, Sunta Cruz, St. Thomes, and St. John; to Holiand, St. Eustatius, Saba, Curacoa, and part of St. Martin ; to Sweden, St. Bartholomew; Hayti is governed liy rulers chosen from the citizens of cuel of its two governments; Margurita and adjacent ieles helong to the repablic of Venezuela; and Anguilla, Antigun, Rarbudoes, Dominica, Grenada, Jamnien, Montserrut, Nevia, St. Christopher, St. Lueia, St. Vincent, Tohago, Tortola, Trinidad, Mahumas, and Bermndan, belong to Great Britain. Columbus landed on St: Sulvadur, Buhana group, in Oetoler, 1492; nnd the Archipelago, under the orroncous impression, at the time of discovery, that it formed part of Asia, was called tho West Indies.

Particular deseriptions are given under the heads of the various islands, and we shall therefore limit this articie to the statisties of the trado between the United States and the reveral West Indics.

| Areab of the Wyst Inimpe. lolinnds. | Area in Sn . Milse. |
| :---: | :---: |
| San Ihomtugo ......................... | 20, 10.10 |
| Spanish \{ Cula | 42, 283 |
| epamit l orto lico | 3,5(c) |
| Trialdad | y.0y.) |
| a Jamalca. | (1,, 51 |
| $\pm$ i.eeward inlsndn. | 56. |
| F Windward lalaudx | Tis |
| $\square^{\text {¢ }}$ Jatasmas. | B, 53 |
| Turka laland and ('aicoa | 434 |
| French \{Gindaloupe | 631 |
| French $\{$ Starltalque. | 381 |
| Dnteh West Indlew | С10 |
| Daniah Weat Iudien | 192 |
| Swedrh Weat Indles. | 25 |
| Total aquare milea | 61,46 |

British West Imbies.-There are several amall inlands in the Weat India group, but they are, in a commerciul point of viow, too unimportant to require a separate or more apecial notice, being all comprised under нome of the consular diatricts for which full returns of trade, port regulations, etc., are given in the preceding pages. American trade with the W'ost Indies is piaced on un equal footing with that of the most fuvored nutions. Indeed, in some of the lalunds, an in Canada, American vessels aro allowed priviloges that are not zanctioned, if not expressly withheld, by the colonial regulathons of the mother country. In both these divieions of the British North American possessions they are mlanitted, to a certuin extent, to the benefits of the countong trade; thus proving how impossible it is for the mether country to frame commercial regulations adupted, in all reapects, to the wants and necessities of her alonies in distant quarters of the glohe, the effeet, if not the derign, of which would lie to embarrnas uni clog thyir intercourse with the neighboring marketa.
The act of the Imperial Parliament, 13 Victoria, chap. xxix., wees, $4,5,6$, clothes the governor-general of the liast India possensions with umple powers to utmit to the coasting trade, in that purt of the glohe, ail foreign vessels, whenever, in his opinion, the refuirements of commerce or the intereats of her majesty's sul,jects in the East Indies may demand sueh a etrinees. sion. By virtwo of this authority, the coasting trade of thase vast possesslons la now thrown , ien to every flag. A aimilar act in favor of the We:t India and North Anserican possessions would seem to he more imperatively demanded, even as a boun to British subjects in these parta, particulurly in the Weat Indier, where hut few of the staple articles of frod are produced, and such as are imported are necessurily hurdened with the taxes and Imposts ineitent to reshipmeni coastwise, and transportation into the interior, hefore they reach the consumer. Such a measure would be prodoctive of the happiert results; and, while it would impart additi nal stimulus to American enterprine, it would, at tho sone time, cheupen nill the necessuries of life to the North Americun subjects of Great Ilitair, who, b y reason of their geographical proximity and tineir different stuples of trade, are the untural customers of tho United Stutes.
Official returns received at the Department of State represent American comemercial intereourse with the British West Indies grnerally as being on the most satisfuctory footing. Indeed, nothing seems wating to render that intereourse whilly unemiarrassed, sive a moditication, if not a total repeat, of the protective tariff now in force in Great liritain, in faver of some of the stuple prodnctions of these islands.

Danish West Indics.-The colonial pussessions of Denisark are the lairoe 1 lands, Iceland, Greenland, and the islunds of Suntu Cruz, St. Thomas, nul it. Nhan, in the Wert lindies. Trumquchar and Seramnore, In the East Indies, were sold to the English Jinet India Company in 18.to. The extent and piop.ilation of there, in 1850 , were as foliows:

|  | Sq. Miles. | Propulation |
| :---: | :---: | :---: |
| fircoe lalands. | 45 | 8, 14.1 |
| Iceland. | 38,200 | $6011+\mathrm{CH}$ |
| cirvenland. | 3,960 | 1,4011 |
| Werst Indles: |  |  |
| Habla (raz | 74 | 23,720) |
| H. ' homma | 23 | 13,1460 |
| st. John | 21 | 2.2 2 \% |
| Tota | 42,763 | 116,16t |

Dutch West Imlies.-The principai island is Curagno, or Curayoa, in the Caribinem Sea, belonging to the Duteh, of the north coast of Venczucla. Latt. 1:0 N., loag, $69^{\circ} \mathrm{W}$. L.ength, forty miles; lireulth, six to ten miles. Population (1849) of Curacoa and st. Sustache, 26,311 , Shoren ioldi; surface hiilly ; suil unt rich, and deficient in water, yet a good deal of sugar, indigo, tobarco, and maize aro raised. Prit eipul port is Santa Anna, on the southwest side of the ishand, tho entrance to which is nurrow, but the harbor securc.


| Yeara moding | Esporta. |  |  | Imporis. | Whereof there was in Huilian and empealo. |  | Tounage elrared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domostie. | Foralg | Total. | Tut. | Euport | lapperi. | Amoricon. | Foraigo. |
| Sept. 30, 1421 | 9264.038 | $\$ 470$ | \$206, 104 | C.477,840 |  | *8,11,131 | 22,08 ${ }^{\circ}{ }^{-}$ |  |
| 1822....... | 44,601 | 2,64' | 452,141 | 1830,547, | 92,200 | 174,869 | 28,790 |  |
| 1823. | 1.617, 845 | 10,122 | 1,637,161 | 1,844, ${ }^{\text {a }}$, | 7,319 | c20,780 | 88, ${ }^{\prime} \times 11$ | 880084 |
| 1844. | 1,750,7u8 | 80,8145 | 1,771,009 | 2,759,067 | 19,150 | - 28,193 | 81,687 | T,067 |
| 1825 | 1,038,574 | 11,472 | 1,647,040 | 2,437, 1812 | 430 | 038,210 | 98, 1.67 | 6,807 |
| 18211 | 2,073, 371 | 31,931 | 2,110,802 | 2,244,412 | 7,848 | 618,65] | 04,789 | 8,120 |
| 18.47 | cs3, 143 | 7.470 | 6.50,675 | 895,207 |  | 818,380 | 26,74 | 7,753 |
| 1828. | 20,14 | 9.706 | 28,805 | 183,29! | 9,605 | 84,861 | 7,074 | .... |
| $18 \% 9$ | 1,463 | 5,053 | 0,521 | 940,924 | 4,878 | 79,440 | 6,418 | $\ldots$ |
| 1830 | 141 | 1,701 | 1,v01 | 143,67, | 1,761 | 66,736 | 2,895 |  |
| Total. | \$3,008,088 | \$13,835 | *8,601,918 | *11, 1844,716 | \$33,291 | \$4,416, 162 | 447,072 | 98,901 |
| Sept. 30, 1831. | \$1,417,231 | \$28,962 | \$1,441,253 | \$1,303,801 | \$1,690 | 4491,440 | 40,922 | 17,008 |
| $1{ }^{1382}$ | 1,655,419 | 83,83, | 1,48,, 270 | 1,429,437 | 10,879 | 411,894 | 68,760 | 111,357 |
| 1933. | 1,754, 1.15 | 63, 769 | 1,814,0i5 | 1,358,230 | 4,215 | 8811,4, | 64,069 | 21,775 |
| 1894. | 1,694, 103 | 64,43. | 1538,689 | 1,168, 103 | 3,316 | 432,384 | 81,329 | 18,238 |
| 1833. | 1,755,497 | 8L, 810 | 1,838,937 | 1, 151,347 | 7,740 | 448,972 | 61,644 | 16,134 |
| 1836. | 1,743,855 | 97,631 | 1,846,436 | 1,285,287 | 12,062 | 240,228 | 56,295 | 18,276 |
| 1837. | 2,074,708 | 48,960 | 8,118,664 | 1,451,302 | 5,850 | 661,145 | 63,687 | 16,1189 |
| 1838. | 9,08, 034 | 120,215 | 9,200,852 | 1,435,879 | 81.947 | 1,250,705 | 50,76) | 11,245 |
| 1883 | 9,472,833 | 00,64.2 | 2,503,4i5 | 1,441,69 | 80,791 | -879,295 | 76,74) | 11.268 |
| 184 | 2,007,584 | 69,003 | 8,505,684 | 1,049,165 | 5.350 | 652,101 | 78,294 | 13,364 |
| Total | \$11,930,333 | \$075,186 | \$20,074,5:1 | \$12,769, 184 | 52:3, 740 | \$8,001,479 | 614, 2147 | 100,088 |
| Sept. 30, 1841. | \$3,191,093 | \$41,311 | \$3,281,934 | \$855, 122 | \$5,181 | \$271,300 | 01,687 | 18,639 |
| 1818. | 3,204, 846 | 23,3077 | 3,927, 713 | 826,481 | 2,810 | 894,3:0 | S0,691 | 16,670 |
| 9 mos., 1843* | 8,083,301 | 25, 371 | 2,857,180 | 837,836 | 1,780 | 647,407 | 75, 168 | 14,388 |
| June 30, 1811. | 4,114,218 | 91,823 | 4,136,043 | 687,006 | 1,412 | 345,2.14 | 123,601 | 26,364 |
| 1945. | 4,087.5 m | 30,72.) | 4,124,23) | 752,5S0 | 22,345 | 249,74! | 12 1,504 | 28,122 |
| 1843. | 4,915,063 | 32,474 | 4, 147,657 | 833,678 | 4,000 | 342,881 | 124,135 | 23,342 |
| 1847. | 3,178, 953 | 20,14) | 3,109,3.2 | 947482 |  | 474, 167 | 01,900 | 21,172 |
| 1948. | 4,844,133 | 4),347 | 4,384,883 | 1,168,503 | 78,033 | 41.8,254 | 114,848 | 24,410 |
| 184). | 8,185, 334 | 943,0,7 | 4, 138,931 | 107,805 | 212,834 | 22:1,204 | 101,714 | 34,147 |
| 1853. | 3,614,8,3 | 178,044 | 0,731,449 | 1,126,!68 | 119, 11 | 239,182 | 93,883 | 30,071 |
| Total. . | \$37,711,539 | \$622,63.1 | \$38,334, 102 | \$1,024,981 | \$448,962 | \$3,841,825 | -1,083,715 | 246,814 |
| Juao 30, 185t. | \$3,943,530 | \$161,943 | \$4,102,600 | \$1,003,871 | \$5 ${ }^{4,803}$ | \$76,575 | 88,534 | 42,437 |
| 1851. | 8,512,133 | 7.), 150 | 8,502,08) | 1,030,5 57 | 62,50] | 96,161 | 90,470 | 83,1037 |
| 1553. | 4,1058,5]T | 110,081 | 4, 182,619 | 1,044,264 | 2,310 | ${ }^{80,332}$ | 101,8148 | 45,424 |
| 1854. | 4,750,339 | 153,277 | 4, 10,, 675 | 1,120,4,7 | 259,150 | 56,74) | 87,08. | 8 8,878 |
| $15^{5}$, | 4,783,151 | 232,9,2 | 6,021,143 | 1,518,070 | 168,300 | 00,781 | V2,030 | 32,209 |
| 1858. | 4.433, 1418 | 51,644 | 4,434,062 | 8,285,249 | 34,900 | 48,534 | 81,139 | $2.1,480$ |
| 1857. | 5,032,015 | 62,863 | 5,1184,019 | 2,953,6.8 | 180,030 | 51,100 | 106,961 | 24,570 |



| Yeare oodiog | Exports. |  |  | Imports. | Whoreof there was in Bollion and Epecte. |  | Tounoge cleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentic. | Foroign. | Total. | Total. | Eaport. | Import. | Ameriend. | Foreigo |
| Sept, 30, 1331. | \$1,318,2,10 | \$456,49:3 | \$1,8.81,779 | \$1.983,574 | \$14,631 | \$301,564 | 46,209 | 639 |
| 1932. | 1,6.13,474 | 655,253 | 2,231,75) | 2,514,174 |  | 177,659 | 43,288 | 220 |
| 1843. | 1,291,153 | 631,013 | 1,862,104 | 1,390,504 |  | 849,10;7 | 32, 38 | 561 |
| 1824. | 1,14;441 | 698,388 | 1,847,43 | 2,110,666 |  | 531,522 | 96,453 | 926 |
| 1825. | - 1,291,249 | 508,177 | 1,849,425 | 1,48,765 | 50,724 | 156,093 | 37,730 | 712 |
| 18.10. | 1,311,6/4 | 676,001 | 2,007,1005 | 2,007,900 |  | 150,542 | 48,684 | 1,170 |
| 1827. | 1,433,6 1 | 538,1.30 | 2,1011,391 | 2,29,1,84) | 47,350 | 263.918 | 44,353 | 810 |
| 1838 | 4, $4,42,435$ | 609,034 | 2,511,413 | 2,200,123 | 65,209 | 175,007 | 67,992 | 2,411 |
| 1823. | 1,942, 110 | 281,411 | 2,224,411 | 2.058,268 | 61,200 | 154,732 | 56,789 | 1,299 |
| 1933 | 1,638,022 | 220,723 | 1,908,745 | 1,665,834 | 20,187 | 2477.326 | 52,585 | 849 |
| Total. | \$15,905,043 | \$5,836,569 | \$20,014,553 | \$11,744,1w | \$208,351 | \$2,513,764 | 411,889 | 8,890 |
| Sept. 30, 1831. | \$1,421,075 | \$224,5 ${ }^{2}$ | \$1,645,577 | \$1,651,041 | \$40,303 | \$248,479 | 41,730 | 2,703 |
| 1833. | 1,333,464 | 232,341 | 1,075,891 | 1,11,960 | 88,045 | 97, 27 | 83,762 | 3,803 |
| $18: 33$. | 1,27,07) | 207,200 | 1,516,870 | 1,138,700 | 24,793 | 115,783 | 83,042 | 3,518 |
| 1834. | 1,1034,2i33 | 954,818 | 1,439,610 | 1,081, 226 | 12,114 | 83,873 | $8^{8,767}$ | 1,527 |
| 1815. | 1,255,831 | 211,310 | 1,457,106 | 1,282,002 | 27,655 | 71,807 | 3K,176 | 551 |
| 1830. | 1,320,3 2 | 21,1,1032 | 1,530,484 | 1,825,35 | 81,549 | 11,675 | 32,965 | 8,231 |
| 1837. | 1,124,641 | 233,851 | 1,358,432 | 1,164,087 | 18,434 | 23.935 | 31,657 | 5,149 |
| 1835. | 04, 1,703 | 227,417 | 1,177,180 | 1,617,747 | 100,407 | 203,841 | 33,163 | 719 |
| 193). | 1,014,391 | 803.154 | 1,317,535 | 1,405,761 | 105,247 | 49,907 | 33,503 | 8,607 |
| 184. | -18,091 | 180,5i8 | 1,03 1449 | 169,177 | 21,429 | 140,187 | 37,710 | 1.197 |
| Total. | \$11,708,432 | \$2,485,198 | \$14,253,639 | \$13,950, 576 | \$483,606 | \$1,220,464 | 349,1320 | 28,284 |
| Sept. 30, 1541. | \$76),903 | \$ 92.657 | \$852,495 | \$1,075,587 | \$10,031 | \$93,309 | 2.,404 | 427 |
| 1541 | 701,838 | 157,260 | 94,093 | 684,391 | 65,693 | 115,482 | 20,740 | 7100 |
| 9 mos., 184 ${ }^{\text {+ }}$ | 672, 159 | T4,547 | 740,009 | 455,295 | 4,290 | 167,224 | 23,0:30 | 355 |
| dune $80,1844$. | 783,193 | 87, 190 | 870,322 | 924,447 | 11,80 | 109,113 | 2,1,548 | 303 |
| 1845. | 833,58 | 161,926 | 9 $4.4,421$ |  | 67,095 | 32,877 | 25,920 | 1,457 |
| $18+1$ | 05, 0,453 | 163,404 | 1,125,916 | 752, 614 | 100,270 | 91,620 | 27,184 | ${ }_{4}^{1,875}$ |
| 1847. | 8,3n,072 | 152,031 | 081,1108 | S40,749 | 45,000 | 127, 26 | 22,156 |  |
| 1348. | 870,061 | 70,974 | \$59,843 | 535,739 | 34,0,6 | 18, 881 | 25,679 25,577 | 4,065 5,420 |
| 195 | 787,197 | 54,14, 114,918 | 791,341 $981,9: 8$ | 33,141 207,459 | $\begin{array}{r}8,43 \\ 27.1 \\ \hline 180\end{array}$ | 12,379 58,600 | 25,54 10,375 | 5,420 2,600 |
| 195) | $807,4$. | 114,918 | 981,9\%8 | 207,453 | 27.1,880 | 68,600 | 10,375 | 2,050 |
| Total | * $8,118,1]$ | \$1,127,379 | \$9,245,398 | \$6,272, 0102 | \$615,978 | \$930,726 | 253,370 | 21,076 |
| June 30, 19 i | \$002, 197 | \$125,602 | \$1,026,28) | 2235, ${ }^{\text {2 }} 4$ | \$243,580 | \$13,9\%4 | 13,239 | 4,175 |
| 1892. | 810,433 | 120,67 | 931,136 | 1'1,745 | 16, 8887 | 9,143 | 20,4 ${ }^{78} 8$ | 0,681 |
| 1853. | 913,191 | 41,160 | 154,041 | 184.497 | 938,825 | 7,915 | 14,033 | 9,571 |
| 1854 | 929,423 | 34,029 | 9098.950 | 280, ${ }^{144}$ | 235,754 | 8,412 | 22,846 | 7,184 |
| 1855 | 843,111 817,2 | 850.9511 | 838.494 903,811 | 225,318 225,028 | 48, ${ }^{\text {a }}$, 00 | - 22,150 | 24,447 | 6,120 |
| 1357. | 1,419,0i9 | 17,077 | 1,516,65 | 251,559 | 409,046 | 2,250 | 21,834 | 2,157 |

* Nine months to June 30, and the fiscal year from thin time begins July 1.


| Youss onding | Lsports. |  |  | Imports. | Whereof there wan in Bailion and speete. |  | Tupange eies red. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dinmeent. | Vornign. | Total. | Total. | Kapert. | Lapeet. | Ameitran. | Foraian. |
| Sept. 80, 1897. | \%638,200 | \$14,794 | \$603, 448 | * \$61,950 | \$84.960 | *106,576 | 18,228 | 883. |
| 1489 | 921.072 | 107, 704 | 1,078,716 | 1,491,043 | 28,450 | 187,134. | 45, 8 -42 |  |
| 1893. | 655,743 | 157,005 | ( 818,829 | 951, 515 | ${ }^{2} 2,700$ | 06,262 | 16,743 | 1244 |
| 1824 | 881775 | 11.984 | 701,75.) | 977 900, | 8,000 | 84,409 | 19,071 | 1419 |
| 1820 | 401, 1.4 | 78,992 | 574,296 | -4,607 |  | 74,687 | 14,800 |  |
| 1898 | 434,125 | 57,426 | 201, 651 | 4,217 | 8,400 | 87,141 | 12,183 | 611 |
| 1827 | 887, 873 | 44,162 | 481,735 | v10,706 |  | 107, 8111 | 13,374 | 212 |
| 1808 | 415,5i43 | 41,616 | 456,959 | 478,317 | 17 | - 00,018 | 11,508 | 323 |
| 182? | 379,174 | 18,667 | 398,841 | 438, 132 |  | 148,147 | 12,417 | 389 |
| 1880. | 319,4,5 | 44,208 | 361,793 | 986, 60 M | 9,860 | 187,310 | 11,043 | 124 |
| Total. | (88,138,478 | 7857, 798 | \$6,001,271 | *7,401,2.8 | *68,187 | \$1,029,068 | 100,406 | D. 138 |
| Bept. 30, 18.31. | 4 4760885 | \$45,274 | \$416,181 | \$343,790 | \$70 | 578,939 <br> 85,079 | 11,430 | c. 154 |
| 1839. | 3577,520 | 46,444 | 404, 104 | 884, 3 38 |  | 85,079 | 1,011 | $8)$ |
| 1883. | 28N, 205 | 64,083 | 842,243 | 380, 471 |  | 4), 162 | 11,488 | 80 |
| 1844. | 244,654 | 02, 196 | 848,684 | 854,102 |  | 63,494 | 11,246 | 121 |
| 1835. | 310,434 | 84,110 | ¢11.542 | 441,34) | 60,000 | 09, 183 | 3,915 |  |
| 1838. | 416,459 | 67,487 | 373,885 | S21, $\mathrm{max}^{\text {d }}$ | 22,868 | 85, 810 | 3,54 | 923 |
| 1887. | 291,779 | 30, 874 | 828,655 | 419, 107 |  | 49,872 | 6,908 | Min |
| 1788:...... | 904,834 | 48,915 | 9851,146 | 382,501 | 28,400 | 35.815 | 2,948 | 1184 |
| 18190 | 232,042 | 70,975 | 853, 017 | 682,29-4 | 47,625 | 34,760 | 4,4100 | 441 |
| 1845. | 2550,438 | 42,916 | 3142,354 | 396,470 | 18,137 | 88.342 | B,740 | 1168 |
| Total. | \$3,064, 617 | +501,311 | \$8,615,82\% | \$4,191,411 | \$167,130 | \$471,060 | 61,885 | 01183 |
| Hepli. 30, 1841....... | *938,69a | * 4 4, 104 | *332,938 | *500,197 | \$20,604 | \$02,663 | 0,686 | 720 |
| 1845. | 251,050 | 15,081 | 267,231 | 381,270 | 5,465 | 40,084 | 4,954 | 028 |
| mina. $1843^{*}$ | 904,937 | 10,819 | 215,750 | 230.571 |  | 68,804 | 3,794 | 248 |
| Juns 30, 1844. | 808,439 | 19,848 | 329,256 | 386,483 | 942 | 64,280) | 4,981 | 80 |
| 1845... | 804, 04, | 83,704 | $\bigcirc 337,788$ | 868,394 | 17.006 | 27,683 | 6,035 | .... |
| 1846. | 264,647 | 14,5017 | 27! 154 | 398,0513 | 6,832 | 90, 153 | 5,047 |  |
| 1847. | 217,214 | 16,345 | $239,56.1$ | 210,093 | 6,225 | 18,647 | 4,370 | 113 |
| 1849. | 816,016 | 22, 147 | 398,813 | 459,615 | 84 | 99,857 | 7,394 | 891 |
| 1847. | 817,066 | 50,258 | 367,318 | 453,099 | 84,013 | 39,443 | 14,189 | 357 |
| 1850. | 364, 335 | b6,683 | 421,118 | 630,1411 | 41,294 | 43,087 | 0,288 | 161 |
| Total. | \$2,942,732 | \$274,094 | \$3,116,896 | 43,085,509 | \$141,719 | \$484, 116 | 65,007 | 2 SHO |
| Jnne 30, 18kf. | \$360,899 | \$188,089 | \$504,987 | \$572.470 | \$158,541 | \$20,850 | 7,687 | 810 |
| 1854. | 999,079 | 17,76 | 317,445 | 659,581 | 1,804 | 20,097 | 4,477 | 715 |
| 1833. | 981,259 | 18,789 | 970,447 | 4081265 | 4,090 | 18.076 | 5,988 | 410 |
| 184. | 371,380 | 22,015 | 893,445 | 684.979 | 11.425 | 11,019 | 7,925 | 690 |
| 1855 | 832, 640 | 7, $\mathrm{Cl}^{\text {d }}$ | $940,24 \beta$ | 489,91 | 6,200 | 15,941 | 11,298 | 010 |
| 1856...... | 323,651 | 6,329 | 820,089 | 626,875 | 6,500 | 6,874 | 7,816 | fris |
| 1857....... | 860,511 | 16,760 | 386,296 | 518,264 | 7,329 | 4,083 | 8,051 | 45 |



| Years ending | Esporten |  |  | Iniports. | Whereef there wan in Bullion anil specie. |  | Tunnage elanred. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentie. | Paroiga. | rotal. | Total. | Nisport. | Itmpurt. | Amencan. | Fureign |
| डерt. 30, 1891. | \$848,597 | (49,839 | 4836,435 | \$100.66] |  | 486,363 | 43,366 |  |
| 1828. | 915,699 | 42,303 | 1161,402 | 969:mm | \$4,890 | 28,848 | 45,929 |  |
| 1823. | 814.919 | 63,377 | 667.695 | 988.013 | 1,576 | 86.127 | 311,119 | 2,524 |
| 1984. | 7700.015 | \$1.217 | 611,738 | 884, $0 \times 4$ |  | 174,5168 | 30,869 |  |
| 1525. | 987,368 | 74,589 | 1,011, 161 | 848.195 | 8,016 | 100, 988 | 43,659 | 5187 |
| 1826. | 90.185 | 52,45: | 956, 174 | 973,270 | 2,361 | 165, 465 | 48,947 | 4.144 |
| 1897. | 979,6\%7 | 61.158 | 1,040,453 | 121.330 | 4,110 | 293,4144 | 80.001 | 4,536 |
| 1898. | 1,070,437 | 15,334 | 1,04,771 |  | ${ }^{(600)}$ | 9116,903 | 54,648 | 4.137 |
| 18200. | 1,006,687 | 15,768 | 1,072,417 | 777,998 | 8,415 | 246,237 | 65.019 | 4.417 |
| 1580. | 792,241 | 13,699 | 845,783 | 519,685 |  | 267,574 | 47,120 | 4,925 |
| Total, | \$0,010,526 | \$429,164 | \$9,445,694 | 43,62, 723 | \$24,852 | \$1,641,791 | 450, 14.47 | 20,576 |
| Sepl. 30, 1931....... | - 704,833 | \$18,044 | \$717,97\% | \$671,942 | \$3,842 | \$151,124 | 35,834 | 2,254 |
| 18,92....... | C05, 7.3 | 19.183 | 624,975 | 6ix, 857 | 1,123 | ${ }_{152} \mathbf{2}, 116$ | 20,677 | 4.44 |
| 1833. | 613,711 | 24.846 | 639,065 | 511,249 | 4.629 | D8,664 | 27,404 | 0,716 |
| 1834 | 561, 173 | 19,084 | 581,263 | 416,072 | 800 | 70,450 | 26,000 | 5.314 |
| 1835. | 849.463 | 34,383 | 583,322 | 447,203 | 16,829 | 158,163 | \%2, 214 | 2,48\% |
| 1836. | 471.427 | 80, 173 | 502.169 | 417,335 | 18,569 | 112,627 | 12,450 | 2,80 |
| 1937. | 6059, 16.63 | 50,705 | 504,764 | 414,203 | 0.905 | 122,170 | 21,514 | 2,2it |
| 1838 | 430,1049 | 88, 889 | 468.807 | 310,450 | 14,200 | 79,004 | 23,168 | 1,971 |
| 1839 | $8 \times 5,016$ $4 \times 3,535$ | 105,005 | \%11,821 | 703.709 | 83,006 | 48,269 | 84,815 | 1.49 |
| 1840 | 433,535 | 30,65i | 514251 | 335, 251 | 1,404 | 101,423 | 25,619 | 1,2\% |
| Tota | 45,511,496 | \$375,353 | \$0,880,83. | \$4,904, 55 | \$120,639 | \$1,160,016 | 261,419 | 80,1102 |
| Sept. 30, 1841....... | \$391,588 | \$40,96\% | \$422,523 | *108,216 |  | \$09, 9118 | 22,154 | $4{ }^{4}$ |
| 184....... | 495,39] | 23,609 | K19,00\% | 100, 160 |  | 110,261 | 29,790 | 1,1811 |
| 9 mox, 1443* $\ldots$. | 291,409 | 13,109 | 294.436 | 1:35,021 | -4,1506 | 9\%, 1606 | 24,604 | 103 |
| Juhe 80, 1844. | 6st,rime | 35,978 | 617.546 | 874,695 | 6.445 | 206, 765 | 37,875 | 2.263 |
| 145. | 542.455 | 21.64 | 504,114 | 415.1093 | d,490 | 191,3.'4 | 33,140 | 1.294 |
| 1846. | 61,112 | 17.6119 | 63.40191 | 344,236 | ... | 915,431 | 31,998 | 1.761 |
| 1847. | $504 \mathrm{C}, 124$ | 84.182 | 003.164 | 151,366 |  | 114.513 | 22,715 | 2,827 |
| 1849. | 40, ${ }^{1033}$ | 211,571 | 4-9,024 | 127,093 |  | 106,499 | 21,148 | 2.170 |
| 18.18 | 180,731 | 14,267 | 114,406 | 71,403 |  | 39,750 | 7.485 | 2,7i4 |
| 1850 | 209, 373 | 18,291 | 285,668 | 75,684 |  | 63,636 | 11,227 | 211 |
| Tolal. . | \$4,349,503 | \$259,095 | 44,629,4k9 | \$2,006, 818 | \$10,491 | 71,212,323 | 240,74 | 1.1, 3 \% |
| June 39, 1851. | \$289,579 | +20.702 | \$310.2¢1 |  |  |  |  | 871 |
| 1852. | 489.848 | 25.599 | 455,444 | 48,287 |  | 42,702 | 16, $\mathrm{BL}_{5}$ | 2,11! |
| 1853. | ${ }^{382} 818$ | 35,739 | 899,201 | \$2, 349 | \$1,100 | 93.161 | 13.282 | 4.741 |
| 1854. | 051.525 | 60,512 | 012.097 | 1111,055 | T,475 | 37.574 | 13,676 | 0.607 |
| 1885....... 186\%..... | 896,877 472119 | 12,984 | 409,761 | 44,434 |  | 42,537 | 17,287 | 1,672 |
| 1285. | 729,779 | 1,904 | 791,143 |  | 100 | b1, <br> 81,107 <br> 107 | 20,688 | 1,900 |

[^54]

| $\cdots$ Y, Yeern anding | Exporte. |  |  | Importa. | Whereof there wein Builion and Specle. |  | Tonnoge elearad. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domeatic. | Foroilia. | Total. | Total. | Expont. | lmport. | American. | Forigat |
| Bept. 80,1891 | *175, 717 | \$38,614 | \$208, 21 | \% 8238,618 | .... | \$19,787 | 11,134 |  |
| ruis 189. | 1561,485 | 7,606 | 108,041 | 988,867 | .... | 88,629 | 10,650 |  |
| 1818........ | 250,033 | 25,4.6 | 281,698 | 818.076 |  | 22,789 | 8,400 | 1,128 |
| 1824........ | 306,806 216,102 | 233,718 | 540,014 288.268 | 806,098 798.627 |  | $8,8.5$ | 8,008 | 180 |
| 1. 1820. | 910,468 | 12,648 | 293,528 | 770,770 |  | T,841 | 6,879 | 6 |
| 1897. | 918,156 | 10,249 | 928,510 | 965,612 | \$2,000 | 19,760 | 7,114 | $\dot{68}$ |
| 1828. | 292, 101 | 15,677 | 237,848 | 1,124, 130 | 1,900 | 3,446 | T, 1,43 | 323 |
| 1899. | 209,780 | 38,000 | 249,1880 | 8.88,832 | 81,5015 | 8,684 | 11,051 | 2111 |
| - 1830. | 245,038 | 27,529 | 978,15. | 1,307,143 | 21,050 | 7,713 | 8,734 | 440 |
| Total. | \$2,811,804 | \$427,710 | \$2,034,014 | \$9,000, 174 | \$57,105 | (4127,187 | 82,081 | 3,014 |
| sept. 30, 1881. | \$201,801 | \$68,245 | \$315,046 | \$1,680,150 | \$85,683 | *16,178 | 8,272 | 1,051 |
| 1832. | 029,65) | 72,658 | 395, 111 | 1,889,188 | 42,360 | 9,127 | 9,343 | 717 |
| 1833. | 803,(692 | 87,898 | 421,3190 | 1,4070,324 | 7,080 | 8,012 | 13,860 | 219 |
| 1834. | 491,805 | 5:,722 | 411,627 | 2,240,418 | 11,050 | 11,100 | 15,769 | 711 |
| 1835. | 086,095 | 01,022 | 677,657 | 8,904,170 | 70,050 | 16,256 | 21,140 | 172 |
| 1836. | 674,651 | 65,830 | 600,458 | 8,909,048 | 47,080 | 8,600 | 22,070 | 423 |
| 1987. | 617,778 | 62,188 | 669,016 | 2,481,082 | 42,823 | 68,725 | 17,071 | 1,165 |
| 1838. | 602,609 | 30,484 | 723,058 | 8,636,152 | 30,4:8 | 86,783 | 10,588 | 2,406 |
| 1893. | 770,04 | 87,344 | 860,307 | 8,742,547 | 115,2177 | 23.144 | 28,547 | 1,160 |
| 1840 | 770,420 | 20,208 | 700,028 | 1,8:8,732 | 11,272 | 46,6. 6 | 29,569 | 052 |
| Total. | \$6,350,506 | \$660,016 | \$ $\$ 5,020,182$ | \$23,420,603 | \$434,004 | \$284, 6 O5 | 172,187 | 8,906 |
| Bept. 30, 1841. | 8721,845 | \$28,08t | (74), ロa2 | \$2,600,020 | \$28,029 | \$17,709 | 30,129 | 700 |
| 1842. | 610,813 | 10,718 | 600.681 | 8,517,001 | 12,757 | 63,457 | 20,563 | 1,194 |
| 9 mon., $18.43^{\circ}$ | 442,034 | 11,821 | 453,385 | 1,076,125 | 1,872 | 47,149 | - 15,881 | 840 |
| June 30, 1344. | 696,968 | 6,177 | 642,13. | 9,425,9012 | 4,088 | 27,021 | 98.143 | 683 |
| 1845. | 688,14? | 20,775 | 708,4194 | 2,020,253 | 11,608 | 58,453 | 28.575 | 622 |
| 1846. | 075,441 | 25,005 | 701,848 | 9,277,110 | 15,054 | 62, 679 | 30,056 | 1,378 |
| 1847 | 825,070 | 83,085 | 850,004 | 9,141,129 | 21,904 | 14,157 | 26,786 | 1,87, |
| 1849. | 801,722 | 37,012 | 838,734 | 2,106,206 | 21,656 | 29,913 | 85,241 | 1,150 |
| 1949. | 623,2012 | 89,234 | 650,626 | 1,164,861 | 28,005 | 97,664 | 25,810 | ,8,978 |
| 1850. | 816,002 | 98,591 | 90;, 653 | 2,007,866 | 89,758 | 2,600 | 80,744 | 8,108 |
| Tota | \$8,741,390 | \$303,865 | \$7,050,204 | \$21,162,663 | \$294,015 | \$346,692 | 288,401 | 14,017, |
| ne 30, 1851. | \$ 81.410 | \$ 57,200 | \$1,018,010 | [48,480,820 | \$00,000 | \$545 | 86,820 |  |
| 1852. | 1,015,563 | 33, 519 | 1,056, 105 | 8, 001,223 | 61,808 | 26,277 | 85,010 | 5,\% 44 |
| 1883. | 810,411 | 64,143 | 864.654 | 8,800,980 | 47,05T | 18,016 | 30,515 | 8,429 |
| 1854 | 1690,880 | 60,0:7 | 1,051,883 | 2,850,353 | 133,700 | 10,170 | 81.014 | 8,623 |
| 1855. | 1,144,581 | 85, 937 | 1,103,518 | 8,475, 08 | 16,000 | 23,025 | 84,110 | 5,698 |
| 1850. | 1,09:,509 | 43,125 | 1,142,724 | 8,870,068 | 23,250 | 14,700 | 83,064 | 1,090 |
| 1857.... | 1,789,43.1 | 152,045 | 1,995,474 | 8,748,600 | 488,405 | 058 | 87,633 | 3,050 |



| Yoarn andiag | Esparta. |  |  | Imports. | Whomof thera was in Ballon and 8pecie. |  | Tonnage eleared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dumeatic. | Foralign. | Total. | Total. | Export. | Import. | American. | Foralign. |
| \$ept 30, 1821....... | \$507,077 | \$ 43,149 | \$ 5660,2226 | \$811,116 | $\ldots$ | 4212,788 | 20,774 | 888 |
| 1989....... | 661, 546 | 01,247 | 660,813 | 993,119 | . | 78,683 | 16.282 | 1080 |
| 1823. | 241,701 | 18,362 | 280,049 | 185,808 | . . . | 44,181 | 8,174 | 854 |
| 1884........ | 904,983 | 89.087 | 244,670 | 102,896 | .... | 22,520 | 8,203 | 340 |
| 1525. | 199,701 | 41,947 | 235,008 | 81,708 | .... | 36,503 | 7,150 | 139 |
| 1820....... | 120,573 | 23,284 | 143,957 | 103,446 | -• | 40,429 | 4,437 | $\cdots$ |
| 1527....... | 416,828 | 25,014 | 441,830 | 200,635 | , | 82,020 | 10,277 | $\because$ |
| 1888. | 611,594 | 98,616 | 685,200 | 375,008 | .... | 100,0666 | 20,553 | 035 |
| 1823. | 684,523 | 28,701 | 708,814 | 283,040 |  | 100,741 | 28,246 | 828 |
| 1830. | 552,700 | 87,127 | 600,427 | 290,590 | .... | 157,974 | 10,960 | 884 |
| Tota | \$4,103,200 | \$877,124 | 54,480,414 | \$2,837,635 | . $\cdot$. | \$ \$064,105 | 150,116 | 4742 |
| Sept. 30, 1831. | ¢251,037 | \$11,111 | -209,049 | \$218,918 | *** | \$111,148 | 7,180 | 658 |
| , 1838. | 141,249 | 7,478 | 149,727 | 63,410 | .... | 22,215 | 4,651 | 644 |
| 1833....... | 160,163 | 6,057 | 105,240 | 32,209 |  | 8 8,85 | 8,955 | 289 |
| 1834...... | 81,040 | 7,902 | 89,042 | 47,214 | \$2400 | 24,429 | 2,019 | 836 |
| 1885. . . . . | 72,714 | 13,641 | 86,355 | 81,380 | .... | 22,013 | 2,599 | 217 |
| 1830....... | 80,225 | 1,620 | 81,485 | 60,414 | -• | 10,008 | 2,062 | -8i |
| 1837. | 84, 114 | 8,00\% | 87,110 | 05,977 | .... | 27,907 | 2,628 | 84 |
| 1339. | 74.140 | 4,281 | 18,481 | 46,010 | .... | 26,013 | 1,045 | -19 |
| 1839....... | 103,282 | 4,130 | 107,412 | 12.458 | . . . | 3,960 | 9,184 | 199 |
| 184)....... | 98,710 | 8,810 | 102,820 | 57,545) | . . . | 40,947 | 2,203 | 130 |
| Tolal. | \$1,087,674 | 961,335 | 41,149,409 | \$624,497 | $\$ 2400$ | \$305,808 | 31,475 | 2204 |
| Sept. 30, 1841, ...... | \$165,184 | \$3,707 | \$168,891 | \$10,760 | $\cdots$ | \$13,807 | 9,453 | 05 |
| 184!....... | 129,727 | 8,920 | 138, 047 | 23,242 | . . . | 19,476 | 2,663 | 726 |
| 9 mon, $18.433^{\circ}$. | 81,228 | 2,3,46 | 83,574 | 51,818 |  | 45,828 <br> 22,320 | 949 1.478 | -iii |
| June 30, 1814....... | 69,884 88,880 | 1,300 | 65.244 00.899 | 28,710 18,119 | \$1000 | $22,3: 0$ 8,479 | 1,478 | 141 |
| 1845....... | 88,880 198,121 | 1,453 8,448 | 00,899 141,669 | 18,119 5,285 | -1012 | 8,479 8,460 | 8,135 $2,3 \times 9$ | . . . |
| 1947. | 110,002 | 8,000 | 113,721 |  |  |  | 1,007 |  |
| 18485 | 75,4 ${ }^{\prime}$ | 809 | 76,296 | 18,785 | ... | 0,589 | 2,250 | 79 |
| 1840. | 1i5,128 | 787 | 05,865 | 15,082 |  | 9,018 | 9,684 | 847 |
| 1860. | 98,176 | 1,106 | 99,342 | 8,193 |  | 500 | 2,454 | 982 |
| Total. | \$995,892 | \$21,090 | \$1,017,888 | \$167,403 | \$2012 | \$182,984 | $22.10 \cdot 4$ | 1070 |
| June 80, 1861...... | \$61,187 | \$745 | \$61,908 | \$20,001 |  | \$19,657 | 1,319 |  |
| \% 1858....... | 90,818 | 1,989 | 82,786 | 4,284 | - $\cdot$. | 8,g9? | 8,887 | 125 |
| 1859. | 81,024 | 1,191 | 82, 215 | 6,878 | , | 4,539 19 | 1,196 | .... |
| 1854. | 12,741 | . . 01 | 12,741 | 22,600 | .... | 19,156 | ${ }^{867}$ |  |
| \%. 1865....... | 68,856 | 891 | 69,247 | 32,220 | .... | 18,310 | 1,865 | 14.5 |
| $\therefore: \quad 1886 . . . \cdots$ | . 60,708 |  | 60,708 | 10,198 |  | 8,829 | 1,018 | 85 |
| 1897........ | 73,405 | 8,628 | T9,939 | 12,089 | \$2060 | **. | 1,710 |  |

* Nins monthi to June 80 , and the fiecal year from thia time begins July 1.





Photographic Sciences Corporation

## WHA

French Weat Indies.-The following table glves the |ekin, with a layer of fat or blubber, which in a large general trade of France with its colonies, in 1853:

| Colonice. | Impe | E |
| :---: | :---: | :---: |
| Martintque | 65z,411 | 2760,577 |
| Gusdaloupa | 423,656 | 570,434 |
| Buarbos | 851,647 | 6.4,446 |
| Senegrat | 287,2ud | 898,369 |
| Cayaame | 56,898 | 184.044 |
| Indis | 669,743 | 91,884 |
| Atglers | 1,189,304 | 8,895,966 |
| 8t. Plerra and Miqu | 617,081 | 978,687 |
| Istes Mayotte and . | 8,687 | 80,594 |

The trade to Beurbon Island, Gayana, Martinique, and Guadaloupe, out and home, emplojed in 1848, 492 ships; in 1819, 541; in 1850, 486; in 1851, 602; in 1852, 677 ; in 1853, 583. The mean of the six yeare, 563 vessels.
Swedish West In dies.-The ialand of St. Bartholomow is the only possession of the Swodes in America. It bolongs to the Leeward groinp, and is situate centrally in lat. $17^{\circ} 50^{\circ} \mathrm{N}$. , and long. $62^{\circ} 52^{\prime} \mathrm{W}$., distant trelve miles from St. Martin, and abuut thirty from St. Christopher. It is about eight miles long by from two to three miles wide, aud contains an area of about twentyfro square miles. Capital, Gustavia. The island is of ar: irregular shape, and deeply indented by numerous small sandy bays, separated by bold and esteep rocky acclivities, of moderate height. In the lnterior it is hiily, but its loftiest elevations are less than 1000 foet. In most parts it is barren and aterile, but has namerous well-cultivated valleys. It prodaces all the staplos of the West Indies-cotton, sugar, tobacco, indigo, otc., and also lignum vitm and iron-wood. Its only exports are cattle and some salt. Water is searce, and the inhabitants depend for supply on the rains. The oniy harbor is La Carenage, a aafo and commodious one, snd mach frequented. It is on the west aido of the island. Close by Is Gustavia, the prineipat town, s thriving place.-For articles on British Emancipation, British Celonies, etc., see Eelectic Revieno (4th series), iv., ix. ; Christiu 3 Quarterly Spectator, x. ; Yraarr's Magazine, vili.; Edinburgh Rev., xix., xii., xlv., xl.; Quarterly Rev., xxxil., xxxvili. (Sovtiney), xiv.; Westminster Reviev, i.; Blackwood's Mag., xir., xv., xvl., xxxi., xxxiv.f ixiii.
Whalebone, a substance of the nature of hern, adhering in thin parallel laminm to the upper jaw of the whale.' These vary in eize from three to twelve feet in length; the breadth of the largest at the thick ond, where they are attached to the jaw, is about a foot. They are extremely elastic. All above eix feet In length is called size bone. This article was first known in England about the year 1693. It may be worth while to remark, as evincing the ignorance that at one time prevailed with respect to the whale, that, by an oid English feudal isw, the tail of all whales bolonged to the queen, as a perquisite, to furnish her majesty's wardrobe with whalebone l-Brackstore, vol. i. p. 233. The import of whalebone lato the United Ststes for a number of yeurs past has been as followe :

|  | Pounde. |  | Pouads. |
| :---: | :---: | :---: | :---: |
|  | 3,3tt,490 | 1853. | ,800 |
| 1849. | 9,003,1060 | 1803. | 5,659,300 |
| 1947. | 2,38t,101 | 1864. | 3,445,900 |
| 1850. | 9,909,900 | $18{ }^{\text {chem}}$ | 8,797,500 |
| 1801. | 8,616,6.10 | 1856. | 9,587,400 |

-See Whalk-risiteriss. Whalebone first became in use in Europe in the 17th centary.-See p. 390.

Whale - fishery.-Whale (Common), the Balana mysticetus of Linnaus, a marine animal of the cetaceous apecies, and the largest of ali those with which men are acquainted. The whale has, it is affirmed, been found one huudred and aixty feet in length; hut this is most probahiy no exaggeration. In the Northern seas it is at preseat seldom found above sixty feet long: being, however, generaliy killed before it arrives at its full growth, this is no proof that the animal may not formeriy have attained to a much larger size. The bodies of whales are covered, immediately under the
tish is fre a tweive to eighteen inches thick. lin young whatea cais fatty matter resembles hog's lard, but in old ones it is of a reddish color. This is the vaiuable part of the whaie, and the desire to possess it has prompted man to attempt the capture of this mighty animal. The blubber yiehis, by expression, nearly its own weight of a thick, viscid oll (train oil). The common whale is now rarely found, except within the Arctic circle; but at a former period it was not unfrequentIy met with on our coaste. There is a good account of the common whale, and of the manner in which the fishery is carried on, In Mr. Joinn Laing's Voyage to Spitzbergen, one of the chortest, cheapest, and best of the innuinerable books published on this hackneyed subject.

1. The Sperm Whale (the Cachalot or Physeter mac-rocephalus).-The principal species are the black-headed with a dorsal fin, and the round-iteaded without a fin on the back, and with fistula in the snont. This whale is known at a distance by the peculiarity of his "spoutings" or "blowa." He can be easily detected by whelemen, if he happens to be in company with other species of whales. He blows the water or vapor from his nostrila in a single column, to the height, perhaps, of twelve feet, inclining in a forwart direction, in an angle of forty-five degrees with the horizon, and visible for seversl miles. There la also $n$ wonderful regularity as to time in which he "biows," perhaps once in ten minutes. He remaing on the surface of the water from forty-five to sixty miautes, and under water about the same time. Unless the whale is frightoned, whalemen make quite correct calculation as to the chances of overtaking him, or meoting him, or when he will rise to the surface after he has "turned flukes." Whet the aperm whale is near he can be oasily distinguished by the form of his itead, unlike any other variety of whale. Ita head is enormous in buik, being fulity more than one-third of the whole length of its boily, and it ends like an abrupt and ateep promonto$r y$, and so hard for several feet from its front, that it is quite difficuit, if not impossible, for an iron to enter it; as impervious, indeed, to a harpoon as a bale of cotton. Besides, the sperm whale has a hump on his back, which distinguishes him from others. Tbis hump is farther forward than the hump on the finback whale. Sperm whales have been captured from seventy to ninety feet in length, and from thirty to forty-five feet in ircumference round the largest part of their bodies. It is aupposed by whalemen, from their appearance, that they live, or some of them at least, to a great age. Oue writer on tinis subjeot thought that the aperm whaie would attain the age of many hundred years, and even to a thouaand yeara. This, however, is mere conjecture, becsuse there are no dates or facts upun which to foand a correct opinion.

It is supposed, that as the sperm whale advances in age, his head not only retains its ordinary prophortions, and to appearance becomea eniarged, but the truth is, the other parts of his body, especially his extremities, do sctualiy diminish in buik and circumference. In some instances more oli has been taken out of the head of a sperm whale than from the other part of his body. The principal food of the sperm whale is "squid," a moiluscous animial. "This is an animal of ao curious an order as to merit a word of special notice. The principal peculiarity of this molluscous tribe is the possession of powerful tentacula or arms, ranged round the mouth, and provided with suckers, which give them the power of adhering to rocks, or any other sulsstances, with surprising tenacity. Some of this tribe attain to a great size, and, as large na the whale is, will furnith it with no contemptible mouthful. In the gullet of one eperm whale an arm or tentaculum of a seaequid was found meaauring nearly twenty-soven feet long." Whalemen frequently discover large masses or junks of squid floating about, probably torn in pieces
hy whales in their search after food. The flesh of the squid is soft, without boses, and somewhat transpareut, like the common sun-fiah seen ou our shores. It ls said that squid have been seen as large as an ordinury whale. Thls food for the sperm whaie is found in great abundance in the Paciftio seas.
2. The Right Whale.-The whale having this general cognomen beloags to the apecies of Balana mysticetus. There are several varietiea ineluded in this apecies, as we shall hereafter observe, and which are diktinguished liy whalemon both in regard to some exteraal peculiarity as well as the differeat localities where they are usually found. The right whale differs from the sperm in the following particulars: His head is sharper, more pointed-he has no "hump" on his back -the colums of water which he throws up when he "blows" is divided like the tines of a fork, and it rises from his breathing-holes in a perpendicular direstion, from eight to turenty feet. The right whale furnisises the bone (baleen) so much in common use, and called "whalobone." This bone is taken from the mouth and upper jaw of the whale, and is set along laterally in tho inost exact order several Inchos apart, deereasing in lengtin from tiocentre of his mouth, or the arch of his palate, and becoming shorter farther back; while toward the lips the bone tapers away into mere bristles, forming a loose hanging fringe or border. At the botton of this row of bone, where it penetrates the gum, and from eighteen to thirty inches downward, we find a material that resemblos coarse hair, entwining and interlacing the bone, and thus forming a sort of network, and so thiek, that when the whale closes his lips to press out the water the smallest kind of fish are caught in tho meshes, and are unable to escape. Inleed, the edges of the bones or slabs, as they might be termed, are fringed with this coarse hair, and it extends to their extrenitles, as may be seen in the rough state when landed from whaie shlps. The length of the boues or slabs (averago eight feot, longest fourteen feet) vary, in a great measure, according to the sizo of tho fish, though somo varieties of this specles have larger and better bone than others. The value of the bone is enhanced, as a general thing, In proportion to ita length. The principal food of the right whale la $n$ very amall red fish, ealled "brit." - Immense shoals of these fish aro seen on whale grounds, and the water to a great distance, oven for milos, becomes colored with them.

The right wiale does not fight or contend with his mouth or head, as the sperm whalo does, but his means of attack and defense are chiefly in his enormous flukes. Ile will, however, when struck, "root around," as whalemen say, and not unfrequently in this manner upset a boat. This kind of whale, and other varieties distinguished ly the baleen or bone, havo no regular tlme for remaining on the surface of the water after they "breach," nor in remaining under water after they "turn flukes." The length of a large rigitt whalo is about eighty feet, and some have yielded their captors 250 to 300 barrels of oil. Such a whale wouid perhaps weigh not far from eighty tons. The oll of this species of whale ia less valuable tian the sperm. The whalebone, which now has an advanced price in the narket far leyond any previous value attacied to it , is obtained from the mouth of the whale about in proportion of 1000 pounds to 100 harrels of oll.
3. The Finback Whate.-This is a smooth, slim fish -smaller uaually than a right whalo. He is found in nearly all latitudios. Ilo has a "hump" on his back, which distinguisies him from the right whale. Ilis head and inouth are of the same construction. This whale is known by whalemeo, when seen at a suitalile distance, by his "hlows." The column of vapor risea in a single stream, in a vertical or perpendicular direction. This fish is termed Finback, on account of a fin on his back, differing in this particular from all otioer species of whale. The ofl obtained from him is of the same quality as the right-whale oll.
4. Bowhead Whale.-This whale is smooth all over, having no "bonnet on his head," as whalemen say; and as right whales have. Their heada difier In shape somewhat froni other whales, and hence the name Bowhead given to them. This species of whale, so far as known, have never been found except in the Ochotsk Sea aud Arctic Ocean. The Greenland whale, and also the epseiea ealied the great Rorqual, are doubtless includsd in the name, which our, whalensen give to the Boyhead. There are eaveral other varieties of the whale tribe, and difierent names are attached to them, such as the "Scragg," the "Humplack," etc. ; but the foregoing are all tho sinds whether of interest or profit to whalenen,-Rer. Lewis Holmes.
It is probably true, as has been sometimes eontended, that the Norwegians oceasionally captured the whale before any other European nation engaged in so difficult and perilous an enterprise. But the carly efliorts of the Norwegians were not conducted on any systematic plan, and should be regarded only in the same point of view as the fishing expeditions of the Esquiniaux. Tho Biacayans were certainly the first people who prosecuted the whale-fehery as a regular commercial pursuit. They carried it on with vigor and success in the 12th, 13th, and 14th centuries. . In 1388, Edward III. relinquished to Peter de Puyanne a duty of $\mathbf{5 6}$ sterling a whale, laid on those brought into the port of Biarritz, to indemnify him for the extraordinary expenses he had incurred in fitting out, a fleet for the servica of his majesty. This fact proves beyond dispute that the fishery carried on from Biarritz at the perind referred to must have been very considerable indeed; and it was also prosecuted to a greater or less extent from Cibourre, Vieux Boucan, and subaequently from Rochelle and other places.-See Minoire sur l'Antiquité de la Pêche de la Baleine, by Nosl, $12 m o$. Paris, 1795. The whales captured by the Biscajans wero not so large as those that are taken in the Polar seas, and are supposed to have been attracted southward in pursuit of herrings. They were not very productive of oil, but their fleth was used as an article of food, and the whalebone was applied to a variety of useful purposes, and brought a very high priee. This branch of industry ceased long since, and ficm the same cause that has occasioned the cessation of the whele-fishery in many other places-the want of fish. Whether it were that the whales, from a sense of the dangers to which they exposed themselves in coming southward, no longer left the dey Sea, or that the breed had been nearly deatroyed, ceriain it is, that they gradually became less numerous in the Bay of Biscay, and at length ceased almost entiroly to frequent that sea; and the fishers being obliged to pursue their prey upon tho banks of Nowfoundland and the coasts of Iceland, the French fishery rapidly fell off.

The voyages of the Dutch and English to the Northern Oeean, in order, if possible, to liscover a passage through it to India, though they failed of their maln object, laid open the inannte of the whale. The comnanions of Barentz, who discovered Spitzbergen in 1596, and of Hudson, who soon after explered the same seas, represented to their countrymen the amazingnumber of whalos with which they were crowded. Vessels wero in consequence fitted out for the Northern whaletishery by the English and Dutch, the harpooners and a part of the crew being Biesayans. They did not, however, confine their efforts to a fair competition with each other as fishera. The Muscovy Company obtained a moyal charter, prohibiting the ships of all other nations from fishing in the seas round Spitabergen, on pretext of its having been first discovered by Sir Hugh Willoughily. There ean, however, be no doult that Barentz, aid not Sir Hugh, was its original discoverer; though, supposing that the fact had been otherwise, tho attempt to exclude other nstions from the aurrounding seus, on auch a ground, was not one that could be tolerated. The Dutch, who were at the time prompt to
ombark in eviry commercial pursait that gave any hopes of ancoess, eagorly entered on this new carber, and sent ont ehips fitted equally for the parposes of tlshing and of defense against the attacks of others, The Muscovy Company having attempted to vindicate Its pretensions by force, several encounters took place between their shipa and those of the Dutch. The conviction at length became genoral that there was room enongh for all parties in the Northern seas; and in order to avold the chance of coming intd collision with each other, they parceled Spitabergen and the adjacent ocean into districts; which were reapectively assigned to the English, Dutch, Hamburgers, French, Dares, etc.

The Dutch, being thus left to prosecute the fishery without having their attention diverted by hostlle attaoks, speedily acquired a decided superiority over all their competitors. When the Europeans firat began to prosecute the fishery on the coast of Spltzbergen, whales were every where found in vast numbers. Ignorant of the strength and stratagems of the formidable foo by whom they were now assailed, instead of betraying any aymptoms of fear, they turrounded the ships and crowded all the baye. Their capture was in consiequence a compatatively easy task, and many wore killed which it was afterward necessary to abandon, from the ships being already full. While ftsh were thus easily obtained; it was tho practice to boli tho blubber on shore in the Noth, and to fetch home only the oil and whalebone. And perkaps nothing can gire a more vivid idea of the extent and importance of the Dutch fishery in the middle of the 17ch century, than the fact that they constracted a considerable vilinge, the houses of which were' all previously prepared in Holland, on the Isle of Amaterdam', on the northern shore of Spitziergen, to which they gave the appropriate name of Smeerenberg (from ameeren, to melt, and berg, mountaln): This was the grand rendezvous of the Datch whale ships, and was amply provided with boliera, tanks, and every sort of apparatus required for preparing the oll and the bone. But this was not alf. Tha whale f , " were attended with a number of provision shlps, $\quad$ ggoes of which were iunded at Smecrerberg; which aboanded during the busy season with well-furnished shopa, good inns, etc. ; so that many of the conveniences and enjoyments of Amsterdam were found within about eleven degrees of the Pole!, It is particularly mentioned that the saliors and others were every moraing sapplied with what a Dutchman regards as a very great laxury-hot rolls for breakfant. Bativia and Smeerenberg were founded nearly at the ame period, and it was for a considerable time dovited whether the latter was not the more important estab-lishment.-De Resta, Histoire des Paches:
Daring the flourishing rerrod of the Dutch fishery, the quantity of oil made in the North was 80 great that it could not he carried home by the whale ships; and ovory year vesecls were sent out in ballast to assiat in limporting the produce of the fishery'. But :he same cause that had destrojed the fishery of the Biscayans, ruined that which was carried on in the immediate uelghborhood of Spitzbergen. Whales became gradurally less common, and more and more timid and difincult to catch." They retreatell first to the open sons, and thai to the great bauks of ice on the eastern coast of Greenland. When the sits of the fiahery had been thus removed to a very great distance froin Splteker. gea, it was found most economical to mend the blubber direct to IVolland.' 'Smeerenberg was in consequencs totally desertod, and Ita poolition is now with difficuity Aiscoverablo.

1. Bat though very extensive, the Dutch whale-fishery wis mot, Curing the firit thirty jears of its existence, wiry prefitable. This arose frotn the circumatance of the right to carry It on having been conceded, in 1614; wan exolusive company. The expense inseparabie froin auch great desociations, the wastefuiness and unfalthfuinese of their servanta, who were much more in-
tent upon advancing their own Interesta than thooe of tha company, Increased the dutliys so much; that tho returns, great at they were, proved little more than adequate to dofray them, ath the fthery: was confined within far harrower limits thanit would otherwlae have reached. But after varlotis prolongstions of the chan ter of the firat company, and the formation of some new ones, the trade was finally thtown open in' 1642. The effects of this measiure "were most salutary, and afford one of the mont striking examples to be mot' with of the advantages of tree competition. Within a few years the flshery was vastly extended; and though it becane progressively more and more difficult from the growing scarcity of fish, it proved, notwithatanding these disadvantages, more proitable to the private adventurers than it had ever been to the company, ind continued for above a century to be prosecuted with equal energy and success, The famous John de Witt has alluded as follows to this change in the mode of conducting the trade :
"Iu this respect," bays he, "it is worthy of observation, that the authorized Oreenland Company made horetoforo IttHe profit by their fiakery, becaute of the great charge of tetting out their shipat and that the train oll, blabber, and whale fins wore not woll made, handled, or cured; and beb ing hrought hither and put into warehousea, were not sold noon enough, nor to the company's beat ndrantage. Where as, now that every one equips thelr, veswelin at the chespent rate, follow thelr fishing diligently, and manago all carefulIy, the blubber, trals olf, and whale fins are employed for so many usea th everal countriem, that they cinn eell them with that donventency, that though thers ere now fflecrs ahips yor ona that formerly cailed out of Holland on that acconnt, and conseguently each of them could not take mon nany whalen an herotofore, and potwithatandiog the new prohibition of France and other countries to Import these commodities, and though there is greater plenty of them lmported by our sishers-yet those cotntmodittes aro so much ralsed in the value above what thoy were while there was a company, that the common ini habltanate do exerclete that fishery with prosit; to the mueh greater benefit of our country that when it was (under the management of a company) earried on but by a few.'mTrua Intereet of Holland, p. $68,8 \mathrm{yo}$ ed, . London, 1746.

When in its moat flourishing state, toward the year 1680, the Dutch whale-fishery omployed about 260 ships and 14,000 sallors.

The English whale-fishery, like thet of Holland, was originally carried on by an cxclusive association. The Mubcovy Company was, Indeed, speedily driven from the field; lint it was immediately aucceeded by othera that did not prove more fortunate. In 1725 thio South Sea Company embarked iargely In the trade, and prosecuted it for eight years; at the end of whichi; having lost a large sum, they gave tt up.' But the Legisiature, having resoived to aspport the trade, granted, in 1789, a bounty of 20s: a ton to every ship of moro than 200 tons burden angaged in it; but this premium being insufficient, it was raised, in 1749; to 40s. a ton, when a number of ships were fitted out, as much certainly in the inte, "ion of eatching the bounty its of catching fish. Decelved by the prosperons appearance of the fishery, Parliament finagined that It was firmly established, and in 1777 the bounty was reduced to $\mathbf{3 0 s}$. The effect of this redaction ohowed the factitious nature of the trade, the vesscls engaged in it having fallen off in the couree of the next five yeare from 105 to 30 ! To arrest this alarming deciine, the bounty was rained to its old iavel In 1781, and of course the trede was soon restored to lt: previons state of apparent pruaperity. The hosthlitics oceasioned by the American war reinced the Dutch fishery to less than half its previons amount, and gave a proportional extension to that of England. The bounty, which had in consequence become very heavy, was reduced, in 1787, to 00s. a ton; in 1702 it was further reduced to 25e.; ;and in 1795 it was reduced to 20 s, at which sum it continued till 1824 , when it ceased.
'It appeara from accounts given in Marphenson's Annals of Commerce (voi. 13. and iv.), that the total
bonntias paid for the encouragement of the whale-fish-
ery, in the interval between 1760 and 1788 , amounted to no less then $\mathbf{E 1 , 5 7 7 , 9 3 5 . ~ I t ~ w i l l ~ b e ~ s e e n ~ f r o m ~ t h e ~}$ official account which follows, that there are no maans of furnishing any accurate acconnt of the sums paid as bonntles by Great Britaln from the year 1789 to 1813, inclusive; but it is, notwithatanding, abundantly certaln that the total bountios pald during the period from $1 / 89$ to 1824 conaiderably exceeded $\& 1,000,000$.


We have already noticed several changes of the localities in whicin the whale-fiahery has been earrled on at different perlods; and within these few yeare others of the samo $\boldsymbol{z}^{\prime}$ ad have taken place. Tho Duteh itshers first began $t$, frequent Davis'a Straits in 1719; and as the whalea had not hitherto been pursued inte this vast recess, they were found in greator numbers than in the seas round Spitzbergen. From about thls period it was usually resorted to by nbout three-tentha of the Dutch ships. It was not till a comparstively late period that Davis's. Straits began to be.frequented by English whalers; and down to 1820, when Captain Scoreaby published his elaborate and valuable work on the whaletishery, that carried on in the Greenland seas waa hy far the most considerable. But It will be seen from the suljoinod account, that from 1826 down to 1837 the Greenland seas were nearly abandoned. This was principally a consequence of the greater mbundance of whales in Davia's Straita, but it was also in part owing to the various diaceverles made by the expeditions fitted out hy government for cxploring the seas and inlets to the westward of Davis's Straits and Baffin's Bay having made the fishere acquainted with several new and advantageous nituntions for the prosecution of their business. Since 1837, however, the few ships that have been sent out hava gone mostly to the Greenland sens. The aca in Davis'a Straits la lass Incommoded with field-ice than the Greenland and Spitabergen aeas, but it abounda with iceberga; and the fishery, when carrled on In Baffin'e Bay and Lancaster Sound, is more dangerous, perhaps, than any that has hitherto been attempted. The aubjoined table shows how rapidly the Northern fishery declined down to 1842, from which period it continued nearly stationary ciown to 1846, when it revived a little. During the last three yeara there have salled for the Northern fiahery-


It should, howover, be ohserved that tho fiahery is rather for seala than for whales; the value of the produce obtained from the former considerably exceeding the value of that obtaineci from tha latter.

Durtug 1852 England imported 5519 tona opermaceli oll, which weru almast wholly retalaed for conaump-
tion. Daring the same year the imports and exports of train oll were, respectively, 14,500 and 2757 tons.

The import dutiea that in varions countries have been placed npon whalo oil, the prowuct of forelgn fishcries, have operated against the whale-fishery. This may be seen from the following atatement of the du ${ }_{\phi}$ ties now (1857) In force in the princlpal maritime conntries:


Southern Whale-fishery.-This conaists of three dis tinct branchea ; vlz., lst, the catch of the spermaceti whale, which furnishes the valuable substance called apermacetl (see the term); 2d, that of the common black whale of the Southern aeas ; and, 8d, that of the aea-elephant, or Southern walrus. The spermaceti whale (Physeter macrocephalus) is found in all trepical climates, and especially on the coasts of New Zealand and the adjolning seas. The ordinary duration of the voyage of a shtp emplo od in this department of the fishery Is about three years. The common black whale of the Southern seas (Physeter microps) is met with in various places, bat principally on the comat of Brazll, In the bays on the weat coast of Africe, and In some of the baya in New South Wales, Van Diemen's Land, etc. Sea-elephants (intermediate bebween the walros of the Northern seas and the seal) are principally met with in the scas round the islands of Deaolntion, South Georgia, and South Shetland, the coast of California, etc. Vast numbers of these animals are annually captured; vessela frequently load entirely with them; and they are believed to furnish more oil than the common South Ses whale. The ofl of the black whale and that of the soa-elephant are both known in' the market by the name of Sonthern oil, and they are eo very similar that those most versed in the trade can with difficulty distinguish the one from the other. Hence ships commonly engage Indifferently in either fishing, as opportunity offers. The usual duration of the voyage of a ship from England in elther of the last two departments, or In the two combined, varies from twelve to elghteen months.

The South Sea fishery was net prosecuted by the English to any extent till about the beginning of the American war; and as the Amerieans nad already entered on It with viryor and auccess, four American harpoonera were sent jut in each veseel. In 1791 seven-ty-five whale ahips were sent out to the South Sea; but the unmber has not been vo great alnce, and latterly it has been uaprosperous end declining, In consequence prartly of the competition of the colonists in Australia, who aro incomparably better sitnated for the prosecntion of thls branch of Industry, and partly of that of the Americans. The Macrocephalus, or spermaceti whale, is partleularly abundant in the nelghborhood of the Splce Islands ; and Mr. Craw: furd, In his valuable work on the Eastern Archipelago, entered into some datalla to show that the fishery carried on there was of greater importance than the apice trade. Unluckily, however, tho atatements on which Mr. Crawfurd founded his comparisona were entirely erroneove, nelther the shipa nor the men employed amounting to more than one-fifth or one-sixth part of what he represented. We subjoin a atetement of the Southern whale-fishery carried on from Great Britain since 1819 , exhibiting the total number of shipa annually abseat from Great Britaln on wheling expedi. tiona; the total namber of ahipe that annaally return ed to Great Britain; and the annual Imports of sperm and common oll, with the prices of each 1

## WHA



 Prione of EAOE.

| Yearn. | thipe at80. | Thlpe relurised. | Eparm Oll importod. |  |  | Common Olif tmpurted. |  | Priee of sparm © 11 per Tan. | Prion of common Oil per 'Tun | Total Velne of huports. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1819. | 119 | 40 |  | Tuan Bets |  |  |  | ${ }_{65}^{5}$ | $\stackrel{c}{83}$ | 475.835 |
| 1830. | 137 | 89 |  | 4717 |  |  | 1 | 11 | 25 | 818,48) |
| 1821. | 128 | 69 |  | 8606 |  |  |  | $0)$ | 10 | 803.190 |
| 1824. | 118 | 41 |  | 6012 |  |  | 10 | 66 | 88 | 3503, 413 |
|  |  |  | Britich. | Colomial. | Amorlean. | Briteh. | Colonlel. |  |  |  |
| $1828{ }^{\circ}$ | 114 | 87 | 0.911 | 8.0 | , | 1789 | - 668 | 45 | 21 | 383,6 6 |
| 1824. | 96 | 4) | 59:8 | 150 | .... | 148 | 618 419 | 40 | 22 | 273.041 +5048 |
| 1825...................... | 88 | 39 | 4831 | C5 | .... | 1104 | 412 | 45 | 3.1 | : 56488 |
| 1888\| .................... | 78 | 89. | 0635 | 8S8 | .... | 45: | 299 | 85 | 81 | 350.827 |
| 1857. | 89 | 29 | 4170 | $8{ }^{\text {² }}$ | ... | 605 | 474 | 10 | 87 | 867.453 |
| 1828...................... | 88 | 20 | 8218 | 1 16 | . $\cdot$ | 180 | 383 | 10 | 25 | 270.078 |
| 1923. . . . . . ............... | 99 | 26 | 4485 | 8t8 | . | 102 | 478 | 74 | 27 | 408088 |
| 1830. | 104 | 86 | 4.57 | 48 | . . . | 419 | 914 | \% | 43 | 892,040 |
| 183t...................... | - 103 | 27 | 689 | 1570 | . | 194 | 146! | 75 | 43 | 634747 |
| 1832,..................... | 106 | 80 | $60^{6} 76$ | 1589 | $\ldots$ | 40: | 1785 | 01 | 28 | 408801 |
| 1893: | 110 | 10 | 3.51 | 2018 | .... | 290 | 2945 | 62 | 25 | 487, 28.3 |
| 1894. | 99 | 97 | 4081 | 2711 | . | 140 | 284 | 05 | 23 | 498.044 |
| 1845. | 89 | 83 | 5 CB | 2900 | , | 811 | 81817 | 75 | 88 | 689801 |
| 1836. | 83 | 23 | 4485 | ¢ 716 | . ${ }^{\circ}$ | 89 | 4180 | 80 | 88 | 6.7,08 |
| 1837. | 80 | 18 | 8119 | 2601 | *** | 881 | 49.8 | 84 | 45 | 618578 |
| 18,8. | 84 | 21 | 88 fl | 244 | . . . | 20 | 7004 | 84 | 55 | \$21,840 |
| 1839. | 17 | 82 | 4759 | 189! |  | 170 | 6316 | 15 | 85 | 611.880 |
| 184.. | 78 | 16 | 8949 | 1760 | 1718 | 724 | 0270 | 104 | 25 , | 687.542 |
| 1841. | 67 | 20 | 8810 | 1904 | $3!8$ | 101 | 5438 | 88 | 01 | 683418 |
| 1849..................... | 69 | 16 | 2087 | 873 | 117: | .... | 23.7 | 80 | 40 | B64 680 |

The ships for thla end the aucceeding years, as for the prevtous ones, do not Includo colonial shilps, but thoso from Brit ain only.

+ lrom thin year commenced the tmperial ineusuro.

But alnce then tho fishory has rapidly declined, and is now quite Inslgnificant. This is seen from the following account of the ships and their tonnage cleared out for the Southern whale-fiahery, viz. :


French Whale-fishery.-France, which preceded the other natlona of Europa in the whale-fiehery, can hardly be said, for many yeara past, to lave had much share in tt. In 1784 Louis XVI. endeavored to revive the fishery. With this view he fitted out six ships at Dunkirk on his own account, which wero furuished with harpooners and a number of experienced seamen brought at a great expense from Nantncket. The adventure was more successful than could have been reasonably expected, considering the auspices under which It was carried on. Several private Individuais followed the example of his majesty, and in 1790 France hed about forty ships employed in the fishery. The Rev. olutionary war destroyed every vestige of this riaing trade. But since the peace, government has made great efforts for Its renewal; and at present high bounLies aro granted to all veseels fitted cot for the whalofisiorles, but eapecially to those esugaged in the sperm fishery. These, howrever, have not been so successful in forcing shipa into this trade as might liave been allticipated; for it appears from the official accoants that In 1852 tho aggregate burden of the ehips cleared out for the whale-fishery amounted to only 2306 tons.Administration des Douanes, 1852, p. 460 ; M'Culloch's Dict.

American Whale-fithery,-For a lengthened period the Americans huve prosecutod the whale-fishery with greater vigor and auccess than, perhaps, any other people. They commonced it in 1690, and for about flay years found an ample aupply of fish on their own shores. But the whale baviag abandoned them, the American navigators entered with extraordinary ardor Iato the fisherles earried on in the Northern and Southern oceans. From 1778 to 1785 Massachusetts employed ennually 183 vessela, carrying 13,820 tons, in the foriner; aud 121 vessele, carrying 14,026 tons, In the Iatter. Mr. Burke, in hile famous speech on American affilirs in 1774; adverted to this wonderful display of daring entarprise as follows 1 "As to the wealth," said be, "which the colonien have drawn from the sea by thoir fisherien, you had all that matter fully vjened at
your bar. You surely thought these acquistions of value, for they seemed to excite your envy; and yet ine apirit by which that enterprising employment has been exercised onght rether, in my oplnion, to have ralsed eateem and adiniration. And pray, sir, what In the world ls equal te it? Pass by the other parts, and look at the jnanner In which the New England people carry on the whale-fighery. While we follow them among the tremblling mountalna of ice, and behold them penetrating into the deepest frozen recesses of IIudsm's Bay and Davia's Straits; while we are looking for them beneath the Arctic circle, wo hear that thoy have piercod into the opposite region of polar cold-that they are at the antipodes, and engaged under the frozen serpent of the South. Falkland Island, which seemed too remote and too romantic an object for the grasp of national anbition, is but a stage and resing-piace for their victorious industry. Nor is the equinoctlal heat more discouraging to them than the accumulated winter of both poles. We learn that while aome of them draw the line or atrike the harpoon on the cosat of Africa, others run tise iongiturie and puraue their gigantic game along the const of Brazil. No sea but whint is vexed with their fisheries; no climate that is not witness of thelr toiln. Neither the perseverance of Holland nor the activity of France not the dexterous and firm aagacity of English enter-prise-ever carried this most perijous mode of hardy Industry to the extent to which it has been pursued by this recent people-a people who are still In the gristie, and not hardened into munhood."

United States Whate-fiahery.-The first sperm whaio taken by the Nantucket whaiera wan killed by Christupher Hussey. Ite was cruising near the shoro for "right" whales, and was blown oft some distance from tho land by a strong northerly wind, whon he fell in with a school of that species of whale, and killied one and brought it home.

At what date this adventure took place ia not fully ascertained, but it la aupposed that it was not far from 1712. This event imparted new life to the business, for they immediately began to build vessels of about forty tons, to whale out in the "deep," as it was then celled, to distingulah it from "shore whaling." They fittod ihree vessels for six weeke, carried a few hogsheads - sufficiont to contain the blubber of one whale -and tried out the oll after they returned home.

In 1715 there were six vessels engaged in the whal-

Ing busineas-all aloops, from thirty to forty tona burden cach, and which produced an income of nearly \$5000.-Macy'a History of Nan/ucket.

As the enterprise increased more capital was invested, iarger vessela were ballt, louger voyages wero made, and new localition for whales were diacovered.

Fifty yeara later, viz., from 1771 to 1775 , Massachusetts alone employed annually 183 vessels In the North Atlantlo Ocean, and 121 vessels of larger hurden in the South Atlantle Ocean.

The first attempt to estahliah the aperm-whale fishcry from Great Britain was made in 1775. Nino yesrs Iater the French undertook to revivo tho prosecntion of thls business. The klng, Louis XVI., fitted out alx ships himself from Dunkirk, and procured hls experienced harpoonere from Nantucket. Others emulated the example of that monarch; so that hefore the French Rovolution that nation had forty ships in the aervice.
The Revolutionery war of the American colonles, and the wars of the French Revolutlon, nearly destroyed thits flourishing branch of marino enteri,rice in both countries. Just previous to the wer, Massachuestts employed in thls service 300 vessels and 4000 seamen, about half of whom were from Ne,ntucket alono. During that war fifteen veasels belonging to thia island were loat at sea, and 134 were captured by the enemy.

It "as not untll the year 1782-many years after the commencemont of the enterprise In Nuntucket, Caps Cod, Martha's VIncyard, snil other places on the Sound-that the attention of New Bedford was turnel toward the whalc-fishery.
From this date until the present time no permanent obstruction, with the exception of the war of 1812-15, has occurred to impede the gradual and lncreasing intereat given to this enterprise, and which now assumcs commanding commercial importance, and dovelops unrivaled encrgy in Its prosecution.
The whole number of vessels employod in the whalefishery in this conintry, as beforo reported, is 670. Number of ships, 358; barks, 259 ; brigs, 17; schooners, 46. The tonnage msy be put down at 220,000 ; value of property, $\mathrm{nt} \$ 100$ per ton, $\$ 22,000,000$.
The number of sciamen engaged in this business; allowing 30 for cach shij, 24 for a bark, 20 for $n$ brig, and 18 far a schooner, would be more than 20,000 .
The following are the reccipts of the whale-fishery of the United States during tho ycar 1857:

|  | 8hlus and Herka, | Drige. | Schoon- <br> 4. | Aarrala of Snerm. | garrola of Whale, |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New thedford.... | 11.6 | $\cdots$ | 2 | 43, 2 L + ${ }^{\text {d }}$ | 129,657 |
| Falrinven....... | 10 | . | . | 6,481 | 10,722 |
| Dartmonth ..... | 1 | - | ; | 350 | 45 |
| Weatport. ....... | 8 | 1 | 1 | 4.751 | 397 |
| Mattapoisett ..... | 3 | 2 | 1 | 1.778 | 1,769 |
| Stpplean . $\ldots$. . . . |  | . | 8 | 3:6 | 80 |
| 1'olmes's 1loje... | 2 |  |  | $\square 835$ | 8.876 |
| Nantickot........ | 5 | 1 | 1 | 2,857 | 6,879 |
| Edgartown ...... | 9 |  | 1 | 850 | 3397 |
| Prorinceto ${ }^{\text {an.... }}$ | 2 | 1 | 17 | 1,010 | 2,1898 |
| Orleans . . . . . . . . | ... | 2 |  | 108 | 308 |
| Glouceater........ |  | $\cdots$ | 1 | 211 | 20 |
| Beveriy .......... | 1 | . | . | 810 | 30 |
| Lynn. . . . . . . . . . | 1 | . | . | 115 | 2.50) |
| Boston . . . . . . . . . | 2 | . | . | 185 | 147 |
| Fall River. . . . . . | 1 | . | - | 710 | 800 |
| Providence | 1 | . | . | 358 | 5 |
| Warren, 14, 1..... | 8 |  |  | 668 | 8,907 |
| New London..... | 10 | 2 | 1 | 3,570 | 27,295 |
| Celd 8pring ..... | 1 | $\cdots$ | . | 200 | 400 |
| 8tonington ...... | 1 | . | . |  | 2,600 |
| Greenport . . . . . . . | 3 | . | $\cdots$ | 808 | 8,209 |
| Styatto . . . . . . . . . | 8 | . |  | 450 | 4.900 |
| 8ng Ifarbor...... | 3 | $\bullet$ | 1 | 1,457 | 2,100 |
| New York | 4 | . |  | 1,8;6 | 11,203 |
| Total In 1887.. | 184 | 0 | 29 | 77,501 | 225863 |
| Recelpts tn 1850.. | 144 | 17 | 16 | 86,157 | 101.752 |
| " 4851. | 1134 | 24 | 18 | 18.630 | 211,915 |
| $" 418.2$. | 110 | 10 | 27 | 81.891 | 83.28t |
| $"$ "1858.. | 200 | 11 | 29 | 88897 | 241.880 |
| 4 "185i.. | 210 | 8 | 28 | 09,418 | 891,508 |
| 4 "1855.. | 146 | 0 | 80 | 00, 285 | 170.186 |
| 4 "1856.. | 171 | T | 24 | 88,859 | 195.774 |

The Whalemen's Shipping Liet, of Now Bedford, has complied an annual atateinent of the reaulta of the whale-fishery during the year 1857, including the amount of imports and exporta of oll and bone, pricoscurrent, otc. The number of American vesula ennployed in the whale-fishery at present Includes 687 ehipa and barks, 18 hrigs, and 49 zehoonere, making an aggregate of 203,148 tons. Of thla numice there has been $\ln$ the North Pacitio Ocean about 150 shlpa, which is a dininution of 80 aa compared with the fleet employed in that quarter in 1856. But few veasela have been addet to the whaling fleet during the past year, whilo suveral have been withdrawn, and two lost-the Nevton, uf New Bedford, and the Indian Chief, of New London-leaving the aggregate tonnuge some 665 tona lcas than at the leginnling of the year. The quantlty of oil obtolned by 109 ahips, whose arrivals at the Sandwich Islanda have been reported, averagea 808 barrels, whlch is not very much trom the average of the preceding year. In regard to the fleet $\ln$ the Okhotak Sea, tho accounts are somewhat confictingsome vessels have mot whith good success, while othera have done comparatively nothing.

The imports of oil and bone into the United Statee in 1857 wero brought in by 173 ahlps end barks, 38 brigs and schooncrs, of whlch 142 belong to the seven perta ombraced In tho diatrict of New Bedford, and the remainder to various ports east of New York. We annex a comparison of tha Imports since 1850:


It will be seen from the above that the Imports of sperm oil In 1857, as compared wlth 1856, fall short 501 barrols, while the imports of whale oil nro 33,051 barrels in excess of 1856. The increased importation of tho latter during the ycar las arisen ehlefiy from shipmenta via Sandwich Ielanda from veasels which had not completed thelr voyages; and consequently wo look for a dimlinisied import the present year, variously estimated at from 75,000 to 100,000 barrels. Considerable shipments of bone have also arrived in the sane manner, whlch will tend still further to reduce the import of tila article the present year. The atock of sperm oil, whele oll, and whalebono in Importers' and speculators' hands, on the ist of January, 1868, Is given as followa.

|  | Sperm 010 | Whala 015 | Whatrone |
| :---: | :---: | :---: | :---: |
| New Bedford | Barrela. <br> 27,440 | Aarrels. $64,148$ | Pounds. |
| Dertmeuth | 180 |  |  |
| Weatport. | 2.600 | . |  |
| Mettapoisett | 8,409 | 1,260 | 20,800 |
| ${ }^{81 p p l e a n}$ | 630 |  |  |
| New London | 820 | 7,448 | 6,500 |
| Nuntucket.. | 2,300 | 4,700 |  |
| Sag Harbor Edgartown. | $\ldots$ | 2,510 1,000 | $\ldots$ |
| Warren ... | i15 | 8.242 | 17\%800 |
| Boston end Provincetown | 1,450 | 2,255 | 5,000 |
| Myatic ................. | 170 | 5,000 | .... |
| 8tonington . . . . . . . . . . . . |  | 600 |  |
| New York | - 200 | .... | 60,000 |
| Falmouth Newport. | 400 250 | 400 | .... |
| Falt River. | ©S |  |  |
| Beverly. | 290 | 20 |  |
| 1tolmee'a liele | 100 | 600 |  |
| Salem. | 8 | $\therefore$. |  |
| Totel..... | 30,8in | 02.193 | 285.500 |

Tho following is a statement of the exports of oll and whalebone from the Unlled States for two yeara:

| Voom. | Eperm orl. | Whate ofl. | Whatabone. |
| :---: | :---: | :---: | :---: |
| 1856........ |  |  |  |
| 1857 | 37,231 | 17,407 | 1,885,662 |

est The inernused shlpments of oll during 1857, ass dompared with the totalis for 1856, word less the result of an actual forelgo demand than a desire on the part of our importars to suatain the market here by: roducing the stock. The affict, howover, was directly the opposite of what had been anticipated, for,' by overstocking the London martet, prices deolined there very rapidiy, and our home markote were left without the competition rosulting from a domestic and forolgn demand, and prices of oil dealined to a lower point than they have been oinee 1840. The domand for tond, however, has been anuaualiy active, owing to the fashionable propenaity of the ladies to "apread," and the price of thle articlo advanced to a highar polnt in 1867 than was over before known.
We annex acomparison of the avatage prices of operun oll and whalebona for eovanteen years:

| Years: | Eperm Of. | Whals Od. | Whalgbont. |
| :---: | :---: | :---: | :---: |
| 134 | 100 c. | Sul | 10 c . |
| 1842 | 7.041. ${ }^{-7}$ | 81 | 191 |
| 184 | 18 | 889 | 83. |
| 184. | 63 | 84 | 853 |
| 1845 | 901 | 36 |  |
| 1840 | 88 | 92\% | 832 $\cdots$ |
| 1847 | 87\% ? 1 \% | $88 \%$ | 84 " |
| 1348 | 1001 | 26 | 80. |
| 1819 | 1039.10 | 898.10 | 818.10. |
| 1959 | 1207.10 | $491-16$ | 84410 |
| 1881 ................ | 1972.) | 458.16 | $84{ }^{\text {8 }}$ |
| 1853, | 123 , |  | 508 |
| 1853. | 124 | 681 | 34. |
| 1854 | 149 | 581 | 891.5 |
| 1865. | 1778.10 | , 713.10 |  |
| 1856................. | 168 : | 791 | 58 ${ }^{\text {c }}$ |
| 1857.................. | $1884 \ldots$ | 731 | 971 |



| Ports. . ${ }^{\text {at }}$ | Eparmioll | Whale O4. | bama |
| :---: | :---: | :---: | :---: |
| , | - Marrala | Barnota | If Pousdas: |
| New Bedford , . : , + , | 41,108 | -181,308 | 1,250 |
| Falrhaven. | Y 6,5u0 | 17, 1 1t | 103,200 |
| Vartmoth | 1 844 | 1.149 | $r{ }^{2} 5018,100$ |
| Weatpor | T05. | vis 8001 | ชッทッ •** |
| Warelia | 408 , | . 1,619 | (7) 8,000 |
| Sipplean. . . . . . . . . . | $\cdots 800$ | , 68 |  |
| Mattapolsett., .. ${ }^{\text {a }}$. ${ }^{\text {a }}$ | 9,018 | ( 9,148 | 3. 20.7110 |
| Dla of New Bedford. | 61,446 | 149,044 | ( $1,479,660$ |
| Naw London., ${ }^{\text {P..... }}$ | -8, 010 | 28,038 | 89.600 |
| Nanlucket........... | 8,456 | 8,736 | 20, 900 |
| Esg Harbor. . . . . . . | 1,100 | - 6,8t5 | (7) 20,100 |
| Ndigartow | 4 C 1886 | (1) 8,831 | "र. 18,400 |
| Warren ......., dotol. | , 508 | 1-6.069 | उ15. 88,700 |
| Pravincotown'........ | $1,881$ | $9,718$ | if 5,800 |
| Now York | $1,800$ | $11,263$ | (800,300 |
| Greenport ، ........... | $\therefore 509$ | (c) 8299 | 7cy 6,600 |
| Cold 8 priog , . . . . . . | + 901 |  | -1]. 8,100 |
| gtonington Mystlo | (1) 103 ! | 1, 8,060 <br> 1850 | 17,810 14,500 |
| lionton | 191 | $1,806$ | 14,009 10,009 |
| Holmer's Hole | 1925 | : 4.980 | , 0 \% 14.500 |
| Oriasm ............. <br> Fsll River | 1. ${ }^{\text {113, }} 1$ | $\begin{aligned} & 813 \\ & 800 \end{aligned}$ | $7,2,100$ |
| Fell Ifiver. <br> Lynn | 700 108 | $\begin{array}{r} 800 \\ 2,060 \end{array}$ | 7. |
| 1rovidsneo . . . . . . . | 868 | 5 . |  |
| Now llaven. . . . . . . . . | 68 |  |  |
| Philadelplha......... | 94 |  | $\cdots$ |
| Beverty | 840 | $40$ |  |
| Cloneester. . . . . . . . | 20 |  |  |
| Total for 1857. | 18.4411 | 2816,44] | 8,063,850 |

The ie.. orts of oil and whelebone the product of foreign fisheries into the United Statos for the year cndling June 30, 1857, were as follows: Oil, \$17,280; whalobone, \$252; spermaceti, 8.113; total, 817,945 .


| Yoars endlors, |  | Exports. |  | Imperis. | Tonjega doared. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domentio. | Yoreigm. | Total. | Trat. | Amerlén. | Fors 19. |
| Juno 80, 1856................ | W34V, 045 496,268 | \$ $\mathbf{8 2 , 2 9 0}$ |  | 458,067 <br> 107 <br> 189 | 56,744 | 676 |

 UWITH STATES FOR TETE YRAR ENDING JUNR B0, 185 T,

| Whither arported. | Bpermarotioll. |  | Whale and othar Pioh. |  | Whulbbone. |  | Spermacoll. |  | Spermeneticamder |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gallome | Value. | Gallons. | Value. | Pounde. | Value. | Poputa. | Valae. | Poundm | Value. |
| Ruande on the Black Eem | 44 | (6) | . ... | - $\cdot$. | ... | -** |  |  |  |  |
| Pruanta .............. | $\cdots$ | - | \%... | .... | .... | ... | $\cdots$ |  | 180 | \$65 |
| 8 weden snd Norway | 7,018 | 12,00s |  |  |  |  | $\ldots$ |  |  | . |
| Danish West Iodilei | , | .... | 803 | 8702 | 160 | - 86 | , 010 | - ${ }^{\text {a }}$ | 10 | 81 |
| Ifsmburg . . . . . . . . | $\cdots$ |  |  | .... | 711.037 | 464,662 | 6,049 | \$4,265 | 161 | 81 |
| Bramen.. | 440 | 828 |  |  | 884,975 | 198,062 | .... |  | 191 | 71 |
| Ifoiland. | 684 | 1,175 |  |  | 10,107 | E,689 | .... |  | 180 | 02 |
| Duteh 'Weal Ind | .... |  | 4,641 | 8,514 | 100 | 45 | ... |  | 705 | 230 |
| Dutch Gulan |  |  | 648 | 516 |  |  |  |  | 1,072 | 40 |
| Bolgium | 1.638 | 1.8,992 | 80.801 | 20,431 | 2.800 | 1,8006 |  |  | 1,250 | 800 |
| Bingland | 721,837 | 1,078,652 | 46,862 | 95,811 | 977,277 | 197.294 | 67,494 | 99,04: | .... | .... |
| Bookland | 51,74 | 84,641 |  |  |  |  |  | .... |  | .... |
| Qfbraltar . . . |  |  |  |  | 1,517 | 980 |  |  |  |  |
| Canada... | 25.801 | 27,843 | 161,208 | 104,717 | $\ldots$ | .... | $\ldots$ | ... | 20,880 | 8,070 |
| Other British N. | 2, 830 | 3,085 | 10,846 | 9,457 | .... |  |  | - 0 |  |  |
| Britiah Weat Ind | 161 | \$10 | 8,176 | 2.542 | ... | . $\cdot$. | 1,250 | 201 | 055 | 295 |
| British lionduras | 410 |  | 81 | 67 | .... | .... | .... | .... | 86: | 181 |
| Brillah Guiana... | 410 | 401 | 6, 5381 | 4,400 | - 3 | c*in |  | - ${ }^{\circ}$ | .... | $\cdots$ |
| 1ritlah l'oseeselons in Africs. | . . . | .... | 185 | 208 | 900 | 14) | 1,568 | 654 |  |  |
| Other ports in Africe |  |  |  |  | .... | - $\cdot$. | .... | $\cdots$ | 5,814 | 1,084 |
| Britheli Amalralle. |  |  | 6.012 | 4,356 |  |  |  |  |  |  |
| France on the Atlantlo....... | . $\cdot$. | ....* | 10,810 | 0,127 | 027,819 | 435,866 | 8,806 | 1,268 | 810 | 130 |
| France on the Mediterraneani | .... |  | - 0 - |  | 4,145 | 2,643 | .... | . $\cdot$ | $\ldots$ | .... |
| French North American Posa. |  |  | 833 | 287 | .... | .... | .... | . $\cdot$. | . $\cdot$. | - |
| French Gulans... | .... | .... | 3,185 | 2,714 | .... | .... | ... | .... | . | 14 |
| Spain on the Atlantic . . . . . . |  |  | $\ldots$ |  | .... | .... | ... | .... | 350 | 141 |
| Spain on tha Mediterraneen. |  |  |  |  |  |  | . $\cdot$. | . $\cdot$. | 884 | (0) |
| Cuba | 1.951 | 2,877 | 107.889 | 80.409 | 1,160 | 520 | .... | .... | 16,789 | 5,746 |
| Porto Rlco | 432 | 670 | 5,421 | 4,282 | 750 | 8100 | .... | . $\cdot$ | 880 | 302 |
| 1'ortugal | .... | .... | 250 | 182 | 10,508 | 18,831 | .... | ... |  |  |
| Madelra | $\ldots$ | .... | $\ldots$ | .... | 10,008 | 10.1 | $\ldots$ | .... | 450 | 176 |
| S:ape da Verd Inlanda |  |  |  |  |  |  | . . | . $\cdot$ | 817 | 76 |
| $113 y t$ | 150 | . 240 | 5,997 | B,049 |  |  |  |  | 5.680 | 2,650 |
| Mexito .... | 1.863 | 1,487 | 8.886 | 2,440 | 600 | 818 | 740 | 278 | 12,764 | 4.791 |
| Central Republ |  |  | 128 | 121 | . . . | $\ldots$ | . | . . $*$ |  |  |
| New Granada | 361 | 674 | 503 | 398 |  | 37 | .... | .... | 2,028 | 761 |
| Vanturuels | .... | .... | 643 -80 | 682 | 650 1.902 | 372 848 | 110 | 103 |  | $0 \cdot 8$ |
| Argentiae | **. | .... | 80 171 | 107 | 1,202 | 848 | b10 | 163 | 18,712 | 0,803 |
| Chlif. | 8,080 | 3,853 | 6. 685 | 7.129 | ..... |  |  |  | 8,7\%) | 050 |
| Patatar |  |  |  |  | . |  | .... |  | 1,681 | 8 i 2 |
| Sandwleh Indenis. | 100 | 270 | 434 | 608 | ** | . | $\cdots$ | .... | -900 | - |
| Whale-isheriea.............. | ... | $\cdots$ | 977 | \%88 |  | .... | $\ldots$ |  | $\ldots$ | $\ldots$ |
| Total year 1850-6\%...... | 319,091 | \$1,916,888 | 414,496 | -363,845 | 2,0,4,300 | 31,301,322 | 80,987 | 494,91711 | 104,670 | 635,121 |

a. For articies on Whale-finhery, we North Americam Review, xxivili. (J. R. Williams); Hunt's Merchants' Magazi.e, xiv., xvl; Democratic Review, xis. ; Quarferly Review, lxi3.; foreign Quarteriy, vil.; Christian Review, xll.; Living Age, xili.," xiv.; Edinburgh Rotiow, Ixxxvi.

Wharf, a sort of quay, constructed of wood or stone, on the margiri of a roadstead or harbor; along side of which shipa or lighters are brought for the aake of being oonveniantly loaded ot unloaded.
Wharfage, tho fee paid for landing goode on a wharf, or for shipping them of.

Wheat (Ger, Weilzens: Du. Tarwo Du. Horde; Sw. Ifecte; Fr. Nroment, Bled, Blf; It. Grano, Formento; 8p. and Port. Trigo; Busa. Pschentia; Pol. Pazenica), a apecles of bread-corn (Triticum, Linn.), by far the most important of any cultivated in Europe or North America. Wp aro totally ignorant of the conntry Whence this valuable grain was first derived; but it was very early cultivated In Sicily. It is rained in nlmost every: part of the temperate zones, and in some places as high as 2000 feet nbove the level of the saa.,

Wheat Producion of the United States. - Whent, where the soil and climate are adapted to its growth, and the requisite progress has been made in its culture, Is deoidedly preferred to ali other groins, and, next to malze, is the most important crop In the United States, not unly on account of ita general use for bread, but for its safety and convenience for exportation. It ja not known to what country it la indigenous, any more than our other cultivated ceroals, ali of which, no doubt, have been essentially improved by man. . By some, wheat is considered to have been coeval with the creation, as it is known that upward of a thousand years before our era it was cultivated; and a superior variety had been attained. It has steadily followed the progress of civillzation; from the earliest times, in ali countries where It would grow. The introduction of this grain lnto the North Amarican celoniea dates back to the earliest periods of their sottiement by Earopeans. It was first sown, with other grains, on the Elizsbeth Islands, in Massachusetts, by Gospeld, at the time he explered that coast in 1602 . In 1611, wheat, as weil as other grains, was also sown In Virginia; and by the year 1648 there were cultivated many hundred ecres in that colony. Although premiums were offered as an encouragement of its growth in 1651, it was not much cultivated for mere than a century after, in consequence of the inl-directed attention to the culture of tobaceo.

Wheat was introduced into the valley of the Missisaippi by the "Western Company" in 1718, where, from the careless mode of cultivating it by the early settlers, and the sudden alternations of temperature, it would oniy yield from five to cight fold, running to straw and blade without filling the ear.' In 1746, however, the culture had so tar extended, that six hundred harrels of flour were received at New Orleans from the Wabash; and by the year 1750 the French of Illinois ralsed three times as much wheat as they consumed, and large quantities of grain and fiour wero sent to the same place. Prior to the Revolution, the primitive soils of New York, New Jersey, and of New England, appear not to have rewarded the cultivation of this grain much, lf any, beyend the wants of the Inhabltants. Considerabie quantities were raised on the Hudson, end in some parts of New Jersey and Pennsylvania, which were exported to the West Indies, and New Englard, and to Great Britain, France, Portugal, and Spaln, In years of scarcity, previously to 1723.

In 1776 there wis entailed upon this country an enduring calamity, in consequence of the lntroduction of the IIessian or wheat fly, which was suppesed to have been brought from Germeny in some atraw employed in the debarkation of Howe's troops, on the west end of Jong Ialand. From that point this Insect gradualiy spread In various directions, at the rate of
twanty or thirty miles a yemr, and the wheat of the entire 'regions east of the Alieghanies is now more or less infested with the larvis, wa well as in large portions of the States berdering on the Ohio and Mianiaslppi, and on the great lakes; and so great hove been the raveges of these Insects, that the cultivation of this grain in thany places has beent abandoned.
Tha geographical ringe of the whent region In th Eaatern Continant and Anstralia lies priaclpally between the thirtiethiand alxtieth parallel of north latitude, and between the, thirtieth and fortleth degrieed mouth, being chiefly confined to France, Spain, Portugal; Italy; Sieily, Greece, Turkey, Russia, Denmark, Norway, Sweden, Poland, Prussia, Netherlands, Bel gium, Great Britaln, Ireland, Northern and Southern Africa, Tartary, India, China, Australla, Van Diemen's Land, and Japen. Along the Atlantic portion If the Weptern Coditinent it embraces the tracts lying between the thirtieth and fifteth parailels; and In th country westward of the Roeky Mountalns, one of more degrees farther north." Along the west coast of South America, as well as In situaticns within the torrid zone, auficiently elevated above the level of the sea and properly irrigated by natural or artficial means, abundant crops are often produced. The print cipal districts of the Unfted States in which thin 1 m portant grain ia prodiced in the greatest abundasie and forms a leading a + in ! or commerce, embrace the States of New York, New Jersey, Penisylivania, Delaf ware, Maryland, Virginia, Ohio, Kentocky, Michigan Indiana, Illinols, Miseouri, Wisconslu, und Iowa. Th chlef varieties cultivated in the Northern and Easter States are the white fint, tea, Slberian, hald, Blacl Sea, and the Italian spring whest; in the Middle and Weatezn States, the Mediterrancani, the Virginla whit May, the blue stem, the Indiana, the Kentucky whitebearded, the old red chaff, and the Talavera. The yield varies from ten to forty bushels and upward per acre, welghing per bushel from fifty-elght to sixtyoeven pounds. $s$ Within a few years a species of wheat lies been introduced from Egypt, whieh, although it has veen lying dormant two thousand yeurs, promises to be upusually prolific. Another species from Sonth Australia, weighing eeventy pounde to the bushel, has also been introduced.
It appears that on the whole crop of the United Statel there was a gain, during ten years, of $15,645,000$ bushels. The crop of New England decressed from 2,014,000 to $1,090,000$ bashels, exhibiting decline of 924,000 Lushels, and iodlcating that the attention of farmers has been much wlthdrawn from the culture of wheat. Grouping the States from the IIudson to the Potomac, Including the District of Columbia, it appears that they produced In $184935,085,000$ bushels, against 29,936,000 in 1839. (In Virginia there was an Increase of $1,128,004$ bushels.) These Statea embrace the oldest wheatgrowling region of the country, and that In which the soil and cllmate aeem to be adapted to the permanent cuiture of the graln. The incresse of production in the ten yeara has been $6,272,000$ bushels, equal to $17 \cdot 4$ per cent. The area of tilled land in these States is $80,000,000$ acres, only 30 per cent. of the number of acres returned for tho whole United States, while the proportiun of wheat p. oduced is 46 per cent. of the entire crop of the country. In North Carolins there has been an increase of $170,0 \mathrm{CO}$ bushels; but in the Southern States generally there was a considerable decrame. Indiana, Illineis, Michlgan, and Wisconsin contributed to the general aggregate, under the sixth censue, only $9,800,000$ Uusheis; under the last they are shown to heve produced upward of $25,000,000$ buehels, an ameant greater than the whole increase In the United State: for the perlod.-U. S. Patent Offics Report.
As a curious illostration of the floctuations in the price of grain in Great Britain for the last two centurias we give the following table, taken from the Encycl. Britannica.



| Ywam. | he | Dambey. | Onta. | Lya. | Y | , | Harlay, | Uata. | 8ye. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1771. | $906$ |  | $\begin{array}{lll} \hline 6 & 1 & d \\ 0 & 17 & y \end{array}$ | [ 180 | 1818. | $\begin{array}{lll} 6 & 6 & d \\ 6 & 6 & 6 \end{array}$ | $\begin{array}{lll} 6 & 6 & 6 \\ 8 & 6 & 13 \end{array}$ |  |  |
| 1718. | 818 | 1 - 1 | 0168 | 1170 | 1813. | 510 | 9186 | 1186 | 81111 |
| 1718 | 9187 | 102 | 0178 | 114 | 1814. | 8144 | 117 | 168 | 848 |
| 1774. | 9148 |  | 0184 | 1164 | 1818. | 867 | 110 | 1.8.7 | 1181 |
| 17 | 9910 | 10 | 0170 | 11810 | 1816. | 3186 | 11811 | 179 | 861 |
| 1776 | 1196 | 109 | 015 5 | 176 | 1817 | 41611 |  | 1196 | 9198 |
| 177 | - 11 | 111 | 0161 | 1810 | 1818. | 46 | \% 1810 | 1185 | 8164 |
| 1178 | 28 ह | 1 - 4 | 0187 | 192 | 1810. | 8140 | 959 | 18. | 90 |
| 177. | 1148 | 10.1 | 01.5 | 10 | 188.1. | 8710 | 11810 | 169 | -2,0 |
| 1780. | 1160 | $017{ }^{\circ} \mathrm{C}$ | 0 l 4 | 1910 | 1881. | ¢ 161 | 100 | 0106 | 119 |
| 178 | $6^{\prime} 0$ | 017 | 0141 | 178 | 18,3.............. | 267 | 1110 | 0181 | 1010 |
| 1788. | 293 | 138 | 0157 | 1:06 | 1888.............. | 2184 | 1110 | 1911 | 11110 |
| 1183. | 2148 | 1113 | 108 | 1169 | 1824. | B 311 | 116 | 1410 | 110 |
| 1784. | 210 | 188 | 01810 | 1138 | 1826. | 88 | 900 | 188 | 88 |
| 1745. | 981 | 14.9 | 0178 | 1810 | 186 | 218 A | 114 | 163 | 81 |
| 17S6. | 900 | 18 | 018 | 180 | 1887 | 9186 | 1171 | 188 | 20 |
| 1787. | 988 | 184 | 0179 | 18 | 1828............... | 96 | 11810 | 186 | 114 |
| 1783. | 46 | 198 | 0101 | 186 | 1829. | 868 | 119. | 180 | 11410 |
| 1731. | 2190 | 106 | 016 | 110 | 1830. | 88 | 1197 | $1 \leqslant 5$ | 11510 |
| i790. | 214 | 16 | 018 B | 1160 | 3881. | 86 | 1180 | 154 | 910 |
| 1711. | 981 | 1610 | 0181 | 1117 | 1831. | 818 | 1181 | 106 | 1147 |
| 1792. | 230 |  | 0160 | 1010 | 1893. | 21911 | 176 | 0185 | 11211 |
| 1793. | 988 | 111 | 106 | 1109 | 1834. | 968 | 100 | 1011 | 112 |
| 1794. | 9188 | 1110 | 110 | 1175 | 1835. | 110 | 1911 | 190 | 110 |
| 1705. | 8169 | 1175 | 145 | . $\cdot$. | 1836. | ¢ 86 | 11910 | 181 | 118 |
| 1796. | 3187 | 1364 | 1110 | . | 1881 | 81510 | 110 | 181 | 1149 |
| 1701. | 4139 | 178 | 010 |  | 1838. | 847 | 1115 | 196 | 115 |
| 1793. | 91110 | 100 | 013 B |  | 1839. | 3108 | 1100 | 1511 | 88 |
| 17.9 | 390 | 110 | 170 | .... | 1841. | 864 | 1105 | 188 | 117 |
| 180.. | 51810 | 91010 | 1111 |  | 1841. | 844 | 11810 | 1.25 | 110 |
| 1801. | 5196 | 8 8 6 | 1170 |  | 1812 | 8178 | 176 | 0108 | 118 |
| 182 | 5810 | 1384 | 104 | . | 1843 | 2101 | 106 | 0184 | 1107 |
| . 18 sis. | 21810 | 154 | 116 |  | 184 | 2118 | 118 | 107 | 11811 |
| 184. | 893 | 111 11 | $1 \leqslant 3$ |  | 1845 | 91010 | 1118 | 196 | 1196 |
| 1815 | 499 | 96 | 134 | . | 1841. | 2148 | 1188 | 188 | 1180 |
| 18 \% | E 101 | 1188 | 17 i |  | 1847 | 809 | 869 | 188 | 90 |
| 1817. | 8164 | 1104 | 184 |  | 1848. | 910 | 1116 | 10 |  |
| 1808. | 414 |  | 118 |  | 1819. | 948 | 170 | 0170 | $1 \% 8$ |
| 183). | 4174 | 210 | 1115 |  | 18\%0. | 208 | 185 | 010 | 138 |
| 1810. | 505 | 281 | 187 | 2105 | 1551. | 1180 | 1 - 1 | 0187 | 150 |
| 1811 | 4153 | 223 | 117 | 281 | 1851. | 800 | 186 | 0101 |  |

 bbout ooe thirty-becond part targer than the lajter, - Sed Weiontia and Mrameres.

BRIT18It GRAIN TRAIE.



 Paranal

| Yoars. | Whan and Vlour. | Darlay. | Oats and Ontimeal. | Ryo wad Rremani. | Pons and Pbritibal. | Bentin and Bana-minal | Tola! entered | Irdian Corn and Misal. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1835. | Quariore $2+, 864$ | 4 anrtara. $130 . .63$ | Guartern. 170.14 | पuanara. | Muartere. 25,184 | Guartame. | Qearterm. 430500 | Quartars |
| 1818 | 81,107 | $110 \mathrm{Nr2}$ | 97.19T | 18 | 60,093 | 87 7ก3 | 400.007 | .... |
| 1817. | 24,271 | 47,4i5 | 8841424 | $1057 \%$ | 87,015 | 10: 770 | 84.084 |  |
| 188................... | 1,812.476 | 8.103 | 11.079 | 2.517 | 11,018 | 64247 | 1.p90.114 | . $\cdot$. |
| 1831................... | 2.711 .723 | 694,8 11 | 812.781 | 152,152 | $170.2{ }^{\circ} 11$ | 13.501 | $46.5,209$ | ... |
| 1810. | $2,401.45$ | $61!1.841$ | \$17.15, | 1,851 | 150.45\% | 12.517 | $8 \times 24,120$ |  |
| 1841. | 8.41807 | 9 $9.9,837$ | 97.918 | 618 | 112.507 | 267,67 | 8,2 19, 335 | . . |
| 1841. | 2,08 9.646 | 43.7n4 | 20, 437 | 28,510 | 8) 459 | 43, 770 | 8.487 .296 | $\ldots$ |
| 1843. | $9+1521$ | 223543 | 45, 21 | 2.724 | 45.33 | 4570 ? | 1,363.18.1 | 10.995 |
| 1841. | O88 5 5 | 1.030 7i0 | 2939.5 | 2§,7i9 | $100: 176$ | 29.650 | 2,058.350 | 88,711 |
| 1945. | 915015 | 299 ¢10 | 587 484 | 98 | 81.735 | 197.017 | 1.472.150 | 4:985 |
| 1841. | 9.963,0.88 | 404014 | iis 412 | 1.710 | 181.811 | 903, 574 | 4541.890 | $75 \% 009$ |
| 1847. | 4,018,116 | 78.08 i | 1,78s.157 | 253.510 | 10.1, 178 | 476'53 | 8.15 .614 | 4.0 .3 .018 |
| 1343. | 2.103 .75 | 833915 | $87 \times .503$ | 65481 | - 711 | 448714 | 4124.18) | 1.087 .419 |
| 1449. |  | 15489 ? | 107555 | 250,030 | 2.4003 | 4*2,1118 | 0.50 .8 TIW | 2,:55.561 |
| 1851. | 4.84584 |  | 1,183671 | 08.481 | 179.784 | 411.618 | 1.710 .82 I | 1.876.8.9 |
| 1851 | 6,97; 617 | $8{ }^{1637}$ | 1.18364 | 23.012 | 918 67 | 348,514 | 7.716.8 3 | 1.88848 |
| 1852. | $4.13 \div 374$ | 021.001 | 18.2 .278 | 10.570 | 10, $5 \cdot 1$ | 872, 75 | 0.2 7. ${ }^{2} 84$ | 1.471 .199 |
| Totala. . . . . . . . | 41.814.040 | 11,425,600 | 11,354,370 | 133.281 | 2,169 0.8 | 4,10,88, | 73,841,6.2 | $13,3,1,042$ |
| Average annmal con-) aumpinn for she 18: years ending 1853.) | 2,430,720 | 5.3,810 | 030,705 | 61,919 | 121,530 | $2.8,210$ | 4,040,789 | 1,332,1:4 |
| Avera de nonual con-) sumption for the 7 , yeara ending 1852.) | 4,231,185 | 870,756 | 1,102,546 | 0, ,510 | 172,3.3 | 303,360 | 0,060,7:8 | 1,890,101 |

We give here as an interesting statement, and as showing the preaent llberal system of Great tiritain in regard to the Importation of wheat from the Enited Btates, the tariff import du*es on wheat in the principal conntrles that Import from the United States.

## Conniftes.

Import Dutles on Whant.
Anatria . . . . . . . . . ]pre centner ( 10 poundy), 18 f cents.
Belgtam 188 cents 160 220 pounds.
Hraki
Thatil 2l per cent ad valoram.
chill. .......... 25 per cent. nd Filorem when noder $\$ 3$ per
9\& buthele-otherwlee free.
Chinn. $\qquad$ o per cent. ad valorem.
Peru..
TE ceats per fasega of 135 burinels.

Countries.
Francu...




| Counirios. | 1843. | 184 | 1845 | 18 | 1841. | 1848. | 1842 | 1160. | 1081. | 1151 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| R | पuartiars. | Suartors | Guarti. 81 | Quartara | 4anstars. | Quartars | Quativer | Guartesn. | Juaplora, | Quertart. |
|  | 33,6.8 | 144 6 ¢ 6 | Bu, 781 | WU4,850 | 001,087 | 6.8,188 | O,, , , 104 | 6, $3,0,8$ | 6.0,034 | 733, 184 |
| Bweden and Norway . . . . . | ${ }^{678}$ | 10.782 | 7679 | 4188 | 8,647 | 6.846 | 6,4i4 | 二836 |  | 018 |
| Pentants | 09,864 | (1)4, 4 W | 74,170 | 61, 538 | 78,608 | 101,787 | 248.218 | 162.907 | 163,768 | $218.8 \mathrm{~B}$ |
| Prusala | 400,603 | \$51,018 | 424,002 | 840,631 | 403, 612 | 028,100 | 618,690 | 88\% 25 | $\mathrm{COH}_{5} 175$ | $452,962$ |
| atio Towns, Oldenburg, IIamover, and | 120,62t | 108,022 | 155,971 | 120,572 | 154,805 | 632,601 | 408,08: | 830,041 | 904,721 | 110,081 |
| Itollant |  | 1 | 1,814 | 478 | 11 | 163,073 | 8 ${ }^{\text {8,48 }}$ | 243406 |  | 3 |
| Helglux | 8351 | 1.101 | 083 | 8,46-4 | 27.403 | 178.818 | 006,019 | 901,828 | 60,046 | 25,101 |
| France | -8,101 | 44,6i8 | 25,80.4 | 74,744 | 170,25 | 8\%0,010 | 744,023 | 1,143,140 | 1,108,488 | 459,418 |
| gpaln |  | 111 | 4,016 | 74,041 | 24.7011 | 917 | 405 | 9.186 | 115 | 6.321 |
| Italy | 6.900 | 80,980 | 87,403 | 104.250 | $6.4,850$ | 88.170 | 281,530 | 117,328 | 241.852 | 65.1118 |
| Malta. | 8,156 | 6,108 | 4.120 | 11,60.1 | 46,251 | 8, 576 | 0,010 | 10,006 | 10,585 | 17,100 |
| Greece. ................... |  |  | 3,240 | 11,096 |  | , 4,120 | 81,188 | 6,292 | 165 |  |
| Huyph, Wallachla, and Moldavia | 14.809 | 41,700 | 7,080 | 41,637 | 203.750 | 4,340 | 806,64i | 682,7e3 | 878,180 | 583,684 |
| Clape of Gaod IIope. . . . . . |  | 88 |  | 87 | 2 |  |  |  | 1 |  |
| Hritiah Eant Indiea | 3,524 | 2,309 | 1,904 | 831 | 20. | 2.765 | 2,028 | 690 | 22 |  |
| Auatrallap Rettements | 1,2.2 | 4,210 | 14,1086 | 20940 | 13.090, | 5500 | 15.600 | 14 684 | 104 |  |
| Britlals N, Am, Co' viles | 113,416 | 228,000 | 224,80 | 327, 105 | 0987.3 | 180.754 | 148,2i.6 | 84,384 | 129,690 | 110,088 |
| Unlted States of As rien. | 26,0,0 | 8,853 | 03,022 | 803,178 | 1,834,142 | 200.10. | 017.181 | 537, 11931 | $0118: 6$ | $1,231,804$ |
| All other parta | 8,074 | 8 | 2, $12 \times 13$ | 2412 | 10,25 | 11.08 | 9888 | 19,819 | 4650 | $0.872$ |
| Total. | 1,614, 44 | 1.370,202\% | 1.141,0061 | 9.e4t.14 | 4464.757 | .082, 281 | 4,8:4,6,804 | $4 \times 90,2.8$ | 3,8;0412 | 4,144,002 |

Wheat Trade of the Elbe, etc.-Next to Dantzic, the fueding of ulfferent apeciea of adimala, and 2 par Hanburg ia, perhups, the greatest grain market in the north of Europe, being $c$ fepost for large quantitice of Baltic corn, and for the produce of the extensive countries traversed by the Eilbe. The exports of wheat from Hamburg amounted, at an average of the eleven yeare endiag with 1811, to 210,871 quartera a year. The price of wheat is frequently less in Hamburg than in Dantzic; but this lownese of price is altogetber ascribable to the inferiority of the Holstuin and Hanover wheats, which are generally met with in great abundance in Hamburg. Wheat from the Upper Eibe is of a better quality. Bohemian wheat ls occusionally forwarded by the river to Hamburg; but the tharges nttending its conveyance from Prague amount to fuli $15 s$. a quarter, and prevent iss being sent down, excopt when the price is comparatively high. In 1841 the shipments of wheat from Hamburg amounted to 507,400 quarters, of which 460,000 were for England.

French Wheat Trade.-It appears from the accounts given by the Marquis Gurnier, in the last edition of his transiation of the Wealth of Nations, that the price of the hectolite of wheat ut the market of Puris amounted, at an average of the ninetcen years beginuing with 1801 and onding with 1819 , to 20 francs 53 cents, which is equal to 30 francs 80 cents the septier; or, taking the exchange at 25 francs, to 45 s . 6 d. the guarter. Count Chnptui, in his valuable work Sur l'fndustre F'rangoise, pubilshed in 1810, estimates the ordinary average price of wheat threughout France at 18 fruncs the hectolitre, or 42s. 10.l. the quarter. The varions expensee atteniling the finportation of a quarter of French wheat into London may be taken at a mediam at nhout 6s. a quarter. Frunce, however, has very little surpius produce to dispose of; so that it would be impossible for her to export any considerable quantity without occasioning a great ndvance of price.

The mean of the different estimates framed hy Vauban, Quesuny, Expilly, Laveisier, and Arthur Young, gives 61,519,672 septlers, or $32,810,000$ quarters, as the total average growth of the ditferent kinds of grain lis France (Peuchet Statistique Elémentairs). We, hewcyer, took occasion, in a former articie on this subject, to observe that there could not be a doult that this estimato was a great deal too low; and tho mero careful investigations of late French statisticians fully confirm this rem.ork. The annual produce of tha harvest of France was lately (1843) estimated, from returus obtained under official autherity, at 63,508,000 hectolitres of wheat, and $112,958,000$ ditto of other sarts of grain; making in ail 182,517,000 hactolitres, or 62,740,000 imperial quarters. Of thle quantity it is supposed tbat ubout if per cent. is consumed as sead, 10 per cent. in
cent. in distilleries and breweriea.

The foreign grain trade of France waa regulated, tlll within these few years, by a law which forbade exportation, except when the heme pricee were below certain limits, and which restrained and absolutely forbade Impertation, except when they were above certain other limits. The prices regulating importation and expertation difiered in the rifferent districts Into whlch tha kingdom was divided. ' Latterly, however, importatien has been at all times allowed unier gruifuated duties, which, like those recently existing in England, become prohibitory when the prices sink to a certain level. The fronticr departments are divided into four separate districts, the prices in each district goveruing the duilies on importation into It, so that it sometimes happens that grain wnrehoused in a partleular port, where it is not admissilile except under a high duty, has been carricd to another port in anothor district, and sdmitted at a low duty. An officinl announcement is issued on the last day of each month, of whit the duties are to be in each district during the succeeding menth.
Spanish Grain Trade. - Tha exporta $3 n$ of grain from Spain was formerly prohibited under the severest penalties. But in 1820 gralu and four were beth allowed to be freely exported, and in 1823 this privilege was extendel to nli productions (fivios) the growth of the soil. Thero is now, in fact, no ubstacle whintrer, except the expense of carriage, to tho conveyance of grain to the sca-ports, and thenco to the forcigner. Owing, however, to the grain-growlitg provinces being principaliy situatei In the interior, and to the extreme balness of the reads, which renders carrlage to the coast both expensive and difficuit, the exporis aro comparatively trifling : this difficulty of carriugo frequently gives rlse to very great differences of prices at places in all parts of the country only a fow leagues distant.

Grnin Trade of Odessa.-Odessn, on tho Black Sea, is the only pert in southern Europe from which any considerable quantity of grain is exported. We believe, Indeed, that the fertility of the soil in its vicinity has been much exaggerated; but the wheat ahipped at Odessn is principally brought from Volhynia and the Polish provinces to the south of Cracow, t'e aupplies from which are sueceptible of an indafinite increase. Owing to the cataracts in the Dnieper, and the Duiester having a grest number of shaliows, most part of the grain brought to Odesaa comes by innd carringe. The expense of this mede of cenveyance is not, however, nearly so great as inlght be supposed. The carts with grain ard often in parties of 150 ; the oxen are pas.

Gered durlag the alythe, and thoy teles advantage of the pariod whon the peasantry are not ocempled with the harveet, 50 that the charge on aceount of convayance is comparatively trlfing:
Both coft and hard wheat are experted from Odease I but the formart, whloh it by far. the troent sbundant, is only brought to Fogiand, Sappoinig' British wheat to soll at about 600 , Odeases, wheat in good order would not be worth more than 82. fin the London market but it is a curioue fact, that in the Mediterranean the entimation in, thich thay are held is quite the reverme; at Maite, Marmollien, ILoghorn; ©lci, Odema wheal stebes a focidedly highor price than Itritiah wheat.

The hard whiost brought from the Diack Bea comes principally from Tagenrogs, It is a vary fine species of grain; it is full 10 per cent. heavjer then British wheat, and lias leps than half the bran. ${ }^{\text {. }}$ It is used In Italy for inaicing macaroal, vermionlli, and things of that sort $;$. littlo of it has found ita wey to Eogland.
The voyage from Orease to Britain Is of nneertain iuration, bat generaliy vary long. It is eamential to the inpurtation of wheat in a good condition, that it should be made during tie winter months. When the voyage is made in aummer, uniesa the whent be rery ouperior, and be thipped in exonedingly good order, it Is almost sure to heat, and has sometimen, indeed; been infured to such a degree tue to require to be dug from the hold with plckeaxee.. Uniass, therefore, means be devised for leamoning the riak of dimage during the voyage, there is litale; reason to think that Odesan wheat will over be very largely imported into Britais. f The entire expenes of importies a quarter of wheat from Odesse to London may be eatimated at fonn 160. to 18. The exporte of wheat from Odessa, and other ports or the Black Sea, to Constantinople, the Levant, Italy; the eouth of France, ete., have iatterly been very large indeed. In 1846 the exports from Odessa only amounted to 1,279,502 quartorn, and 's 1847 to $2,010,602$ ditto; the lacter being, wo believe, the largest oxpertation that ever took place in a single year from any siagie pert. Owing to the scarcity In England, above 400,000 quarters of the above quantity were ahipped for that country, bot the apeculatlos entalled a heavy loss on the importers. The price free on lhoard at Odenss conaiderabiy exceoded 40, a quarter.-E. B.

Cinited States.-When we see the growth of wheat keeping op with the progrese of popuiation in the oldeat States of the Linion, wo need have no apprehenaion of a decline in the cultivation of this important erop. The amount of floar exported from Now Jersey in 1751 was 6424 barrels; from Philadelphia, in 1752, 125,960 barrels, besides 86,500 bushels of wheat; in 1767, 108,816 barrels, besides 867,800 bushels of wheat; in 1771, 252,744 barrels; from Savanaah, in 1771, 7200 pounds; fron Virginia, for some years annually preceding the Revolution, 800,000 bushels of wheat. The total exporte of flour from the United States in 1701 were 619,681 barrels, besides $1,018,339$ bughels of wheat; in $1800,6033,052$ barrels, besidee 26,853 bushols of wheat; in 1810, 798,481 , barrels, beaides 325,924 bushele of wheat; in $1820-21,1,056,119$ berrels, besides 25,821 3ualiels of whest; in $1830-31,1,806,529$ barrela, booldes 408,910 bushels of wheat; in 1810-'41, 1,515,817 barrels, lealdes 868,585 bushela of wheat ; in 1845-i46, 2,289,476 barrels, beaiden 1,618,795 Lusheis of whoat; in 1816-' $47,4,382,496$ barrels, besides $4,899,951$ busheis of wheat; in 1850-'51, 2,202,335 barrels, besides $1,026,723$ bushele of wheat. According to the ceasus of 1840, the wheat crop of the United Statet amounted to 84,823,272 buahels; in 1849, according to the census of $1850,100,503,899$ bushais, although in some of the largeat wheat-growing Statee the crop of 1849 fell far below the average. The production of the year 1857 is the United States is estimated at about $200,000,000$ of Lushels.

In the State of Ohio, especially, there was great deficiency, as wes made apparent by the returns of the
whent erep for the onouing year, mado in puravanes of an act of the Legialature of that State.' From the almont univeral ruterna of "short crop" by the masd shain, in thit state in 1849, whieh fell below that of $1839,2,000,000$ bushols, and the eeceriaingd orop of 1850 wh are fally catisted that the averape wheat erop of Ohlo would appear 80 per sent. greater than showt by the censue returna. The same causes which opeŕn ated to diminish the wheat crop of Ohio, were not without thelr effects upon that of other States bordering on the uppar portion of thd valloy of the aliagianippl.
it In the Londom exhlbition very littlo wheat whe exhibited equal to that from the United States, espectely Iy that from Geacsee county, in the Stata of New York -a whi, whito variois-to the exbibltor of which e prise medal wes awarded by the Royal Commicelonera, and rocently tranamitted to Mr. Beli by the Proaidonil of the United States, the chairmin of the Americad Executive Committec. The red Mediterranean wheat exhibited from the United Stated attracted miveh ilf tantion. The wheat from South Australla was probe, Uly superior to any exhibited, while mueh from ous own country foll bot little behind, and waa unquestiona ably next In quality.-Patent Office Report.'

 ALeo tus angoaz avaraun jeige op Flovar in mu: Citien of bontox, NEW YOBK, DMilantlpia, HaltiMonn, NZW OnLIAME, AMD ST, LOUYE, FROM 1800 TILL $J_{\text {OXE }}$ Bu, 3560

| Yease. | $\begin{gathered} \text { Kipere } \\ \text { Price. } \end{gathered}$ | Banom. |  | $\begin{aligned} & \text { Philie } \\ & \text { onflice } \end{aligned}$ | Balu. mono. | $\begin{aligned} & \text { N. Or } \\ & \text { hoant. } \end{aligned}$ | TiL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1800 | \$1040 | \$11 60 | \% 0 年 | 8176 | 11148 | $\cdots$ | $\ldots$ |
| 1801 | 1800 | 1810 | 1014 | 1085 | 1149 |  |  |
| 1842 | 200 | 817 | 619 | $0{ }^{1}$ | 700 |  |  |
| 1808 | 100 | 785 | 601 | 615 | . 880 |  |  |
| 1806 | 775 | 897 | 715 | 781 | 738 |  |  |
| 1806 | 1809 | 119 | 960 | 1015 | 1218 | ... |  |
| 1806 | 780 805 | 88 | T 18 | 715 | 783 |  |  |
| 1907 | ¢ 85 | 77 | 070. | T 10 | 780 |  |  |
| 1808 | 600 | 625 | 516 | 680 | 575 |  |  |
| 1800 | 751 | 763 | 079 | 648 | 650 940 |  |  |
| 1810 | 8:6 | 042 | 875 | 987 | 940 |  |  |
| 1811 | $10 \% 0$ | 1049 | 905 | 1040 | 10 \%19 |  |  |
| 1812 | 1075 | 1096 | 908 | 095 | 1019 |  |  |
| 1813 | 1800 | 1407 | 770 | 989 | 1617 | 850 |  |
| 1814 | 1400 | 1457 | 776 | 767 | 850 | 000 |  |
| 1815 | 920 | 895 | 817 | 808 975 | 789 807 | 900 930 |  |
| 1816 | ${ }^{8} 87$ | 940 | 984 | 975 | 867 | 930 |  |
| 1817 | 1475 | 1287 | 1172 | 1218 | 1081 | 1180 |  |
| 1818 | 1025 | 1080 | 948 | 985 | 060 | 1083 |  |
| 1819 | 800 | 770 | 679 | 719 | 656 | 968 |  |
| 1820 | 587 | 65 | 481 | 404 | 408 | 690 |  |
| 1821 | 485 | 448 | 485 | 402 | 464 | 698 |  |
| 1829 | 700 | 094 | 680 | 648 | 638 | 575 |  |
| 1693 1824 188 | 776 | 784 609 | 683 | 500 | 689 685 | 668 625 |  |
| 1826 | $\mathrm{BBT}_{81}$ | 585 | 519 | 500 | 488 | 491 |  |
| 1820 | 585 | 524 | 500 | 409 | 478 | 449 |  |
| 1827 | 800 | 604 | 514 | 597 | 516 | 812 |  |
| 1828 | 060 | 014 | 550 | 599 | 548 | 680 |  |
| 1829 | 500 | $88 i$ | 654 | 695 | 6 9\% | 790 |  |
| 1830 | 725 | 520 | 503 | 483 | 48 | 488 |  |
| 1881 | 562 | 005 | 584 | 582 | 061 | 547 |  |
| 1838 | 587 | 629 | ${ }^{6} 87$ | 508 | 579 | 684 |  |
| 1838 1834 | 550 500 | 611 | 570 607 | 588 | 669 409 | 698 610 | 193 450 |
| 1835 | 010 | 642 | 000 | 575 | 584 | 035 | 085 |
| 1830 | 750 | 880 | 775 | 74 | 992 | 855 | 800 |
| 1837 | 10.85 | 1018 | 960 | 976 | 948 | 010 | 018 |
| 1839 | 900 | 825 | 802 | 181 | 784 | 867 | 787 719 |
| 1839 | 675 | 780 | 740 | 689 | 665 | 6 B7 | 719 |
| 1840 | 587 | 651 | 517 | 522 | 500 | 493 | 498 |
| 1841 | 58.0 | 675 | 589 | 584 | 581 | 538 | 4178 |
| 1849 | 600 | 667 | 507 | 547 | 580 | 46 | 466 375 |
| 1848 | 480 | 487 | 507 | 460 | 46 | 418 | 375 450 |
| 1844 | 4 is | 613 | 401 | 484 | 481 | 44 | 450 |
| 1845 | 451 | 582 | 50 | 460 |  | 483 | 403 400 |
| 1840 | 518 | 568 | 519 | 479 | 468 | 488 | 480 |
| 1847 | 505 | 717 | 680 | 002 | 681 | 60 | [ 498 |
| 1818 | 689 | 643 | 671 | 567 | 563 488 48 |  |  |
| 1849 | ${ }_{6} 85$ | 800 | 496 | 484 497 | 489 489 | 461 | 643 |
| 1850 1851 | 600 477 | 600 685 | 486 410 | 497 488 | 489 418 | 681 400 | 625 488 |
| 1852 | 484 | 520 | 406 | 428 | 426 | 410 | ${ }^{5} 28$ |
| 1858 | 660 | 697 | 581 | 547 | 589 | 548 | 808 809 |
| 1854 | 188 | 925 | 808 | 814 | 818 | 760 | 609 |
| 1850 | 1010 | 1025 | 000 | 002 | 051 | 966 | 738 |

Norz. -The price of flour for New Orleans and 8t, Louls could not be obtalned for eariler years than those rempectively given.

|  |  | Comine. | Prodice. |
| :---: | :---: | :---: | :---: |
| Comatrioe. | P Produce: |  |  |
| Austrian Emplist.. | 1837 ........... 17 81 |  |  |
|  | Whest. . . . . . . . . . . . qmi , 8,460,046 |  | Hye .................9\% $1,008,086$ |
|  |  |  | Oace and make .....qri. 1,244294 |
|  |  | 8relen 4 Norway |  |
| Britahat Emplro... | Whelluach, 1818.0 80,045,000 9 Fra |  | Whens................grin 177,609 |
|  | Wheat. . . . . . . . . . qm IR 18, 18,925,000 |  | Rye ..................q7m 1,881,280 |
|  | Marloy ..............qriz |  |  |
|  |  |  | Hartey . . ...............qran . 1,012,007 |
|  | Value of agrivu | Turkay |  |
| Yrases |  |  | , |
|  | 1840............. 04,788,401775, | Tros siollian. |  |
|  | What.............q7i 80.9897881 | Tro siolina, |  |
|  | Meenim and rya. . . . . qra $18,680,44$ |  | Wheal and malse ...qrac 8,000,000 |
|  | Onta . . . . . . . . . . . . .qra. 10,581,801 |  |  |
|  |  |  | 10,090 |
|  |  |  | ci............978 80, 8000 |
| Pruala | Produetion of wing - .galia $800.2300,008$ |  | Exported Juns $80,1840-150$. |
|  | aln . . . . . . . . . . . . ${ }^{\text {c }}$ 86,874,000 |  |  |
|  |  |  |  |
|  | Dantale ............qrai $\quad \mathbf{8 9 8 , 2 9 7}$ |  |  |
|  | Stettin..............qge | colonisa |  |
| Ruman Empirs... | deal | Indien. |  |
|  |  | Canad | 1847, total value.... $82,676,58$, |
|  | 1818 ............ $54,622,003$ qrah |  |  |
| Unitad Brates ..... | Wheal. ..............4ri 9,8es.992 |  |  |
|  | нуе .................qra 190,788 |  | 4000,730 40,288 |
|  |  |  |  |
|  | 184 qris |  | Buck whout ... 4 4,2,573 86,014 |
|  |  |  |  |
|  |  | Cape of Good Hope |  |
|  |  | Capo or ood Mope |  |
|  | Indian oorm..........gra |  | Tallow ........ . .los 441,438 |
|  | Tobacco produced .... ${ }^{\text {a }}$ 918,1009,000 |  |  |
|  | Prod. of aprioulturo. . 174,617,485 | Now South Walion. |  |
|  | Prod. of live atock $180.05151,550,162$ | Caylou ........... |  |
| Bevrila. .......... | Cotton crop .........bales. $2,205,287$ | 8panlah Poncosa | Coiton.............., ibsm 807,863 |
|  |  |  | Sugar produced .....toum 26n,000 |
| Belglum, 1819..... | Pothtoen..............4ra ${ }^{\text {a,181,818 }}$ |  | Total ralue of ag |
|  | Whoal..............9ra | Dutch Poscestiona, |  |
|  | $\mid$ Barley | Java. . . . . . . . . . |  |
|  | Ont4..................ira ${ }^{\text {ara }}$ 2,819,478 |  |  |
|  | nuheia 51,800 |  | (eanneal...........iba 186, |
| Denmark | Sugar produced . . . . toug , 10,000 | Prodjotion or W | hiat in tha bivzahl btay |
|  |  |  | ( in 1840 And 1850. |
| Denmark. | Euimmate production in Deenianrk ${ }^{\text {a }}$ | statoos and Tor |  |
|  |  | Alabama. |  |
|  | (ers, | Arkan | 100,878 199,639 |
|  |  | Columbla, D | let of.: 18,147 $\quad 17,870$ |
| Esgph, 1834 | lleana and peas. ......qria 499,711 | Conneeclioui | ... 87,000 11,762 |
|  | Whent..............qrs. 830,000 | Delawaro ... | ...... 815,105 482,511 |
|  | Heana .............9re | Floridn... | ...... ${ }^{1812}{ }^{100^{1,097}}$ |
|  | Barloy and maleo ...qrs, 400,000 | Gieorgla. | ..... ${ }_{8}^{1,801,889}$ |
|  | Coton, Ligypliaa....ewt ${ }^{\text {come }}$ | Illinola. |  |
|  | Cotton, forolgn ......owt | Indlana. | , .. 4,040,876 6,9644.458 |
| Greece, 1945...... Hamburg . | Linaced.............qra 87,600 | lowa... |  |
|  | Exported to......tona | Loulatara |  |
|  | Ilanseatie Towas | Malne... | -.... 848,188 990,259 |
| Holland .......... |  | Maryland.. | .... 8, 844,7833 4,494,680 |
|  | 1849, average of nine years, 2,987,876 qri. | Mitehgan | ...... $2,1157,109$ 48,923 $4,925,889$ |
|  | Wheal. . . . . . . . . . . qra. 449.736 | M1asisolppi. | ..... 196,626 187,990 |
|  |  | Minsourl ... |  |
|  |  | Now Jampa |  |
|  |  | New York | 12,988,418 ${ }^{\text {13,121, }}$ |
| Mexico <br> Papal Elatea |  | North Caroil |  |
|  |  | Ohlo.. | 16,571,601 14,487,881 |
|  | 11..................ibm 118,025,000 | Penoeylvanla | 19,213,077 15,367,691 |
| Portugal.......... | Produce, 1849, 8,129,851 qrag grain. | Rhode Ieland | -.. 8,098 ${ }^{\text {4, }}$ |
|  | heat..............qris ${ }^{\text {a80,10 }}$ | South Carolina | .... 068,854 1,006,277 |
|  | Barley ..............9ri. ${ }^{\text {213,386 }}$ | Tennerzoe | 4,609,802 1,018,886 |
|  | , | Vermoio |  |
|  | Mata. .................9ra, $1,66081,814$ | Vlrginia | 10,109,716 11,812,618 |
| Hinf | 125 ara | Wisconain | .: ${ }^{212,116}$ 4,288,131 |
|  | q7im 9,509,878 | Mlanesota Territ | -ry ... $\quad . .1$ |
|  | Indian oom...........9ra $1,615,625$ | New Mexico Te | itory. .... 198,516 |
|  |  | Oregon Terr | 911,943 |
|  | hestnuta...........gri 883,750 | Utail Territory | ..... 107,709 |
|  |  |  | ,613,270 $100,485,841$ |



| Whther exported. ${ }^{\text {Fop }}$ | Wheat. |  | Ftour: |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Buabelo. | Value. | Batrols. | Value. |
| Atiatio Itumia . . . . . . . . . . . . . . . . . . . . . . |  | +.... |  | 8760 |
| Ruscian Pobeomaiona in North America. . . . . . . |  |  | .. 150 | 1,903 |
| 8weden and Norway.v....................... | 110 | 8128 | 1. 979 | 6,845 |
| Dredth Went Indlew . . . . . . . . . . . . |  |  | 4,502 | 80,409 |
| Danish Weet Indlea. . . . . . . . . . . . . . . . . . . . | ... | (1. | 1. 84,788 | 253,649 |
| Hamburg . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 19\%99 | 19079 | 1, ${ }^{\text {bed }}$ | 10,967 |
| Bremen . . . . . . . . . . . . . . . . . . . . . . . . . . . | 12,648 8,000 | 19,479 | 6,201 | 80,228 |
| Dutch west indies . . . . . . . . . . . . . . . . | .... : |  | 13,327 | 104,392 |
|  | ..... | .... | 6,690 | 80,875 |
| Drtch Enat Iodlen, . . . . . . . . . . . . . . . . . . . . . . |  |  | ( " 2,030 | 14.640 |
| Belgium. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 274.659 | 417,591 | 100,088 | 35,710 |
| Engiand.................. . . . . . . . . . . . . . . . | $8,560.081$ $1,019.529$ | -1 = 18.485896 | 1,027,066 | 6,005,769 |
| Iroland. . | 188,963 | 1,232,485 | 22, 272 | $\stackrel{837,149}{154,029}$ |
| Glibratear | 24,936 | 41,698 | 40,391 | 310,157 |
| Malta . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | 478 | 8,798 |
| Canada................................. | 1,653,641 | 1,807,467 | 118,867 | 717,245 |
| Other Britleh North Amorican Popsetaiona... | 149,508 | 221,660 | 4306.281 | 2,881,803 |
| Britiah Weat Indies . . . . . . . . . . . . . . . . . . . . | 14,825 | 23,012 | 24,642 | 1,633,027 |
| Britah Hondnras . . . . . . . . . . . . . . . . . . . . . . |  |  | 15,641 | 96.767 |
| Britah Griana............................. |  |  | 60,017 | 830.778 |
| Britiah Pomemioni in Africs....... . . . . . . . . . | 9,100 | 20,869 | - 10,087 | 183,280 |
| Other porta in Africa ......................... | 1,400 | 2,000 | 10,020 | 75,079 |
| British Anatralla .. | 85,939 | 64,683 | 08,855 | 818,070 |
| Britich Eant Indiet ........................... . | 531 | 1,040 | 2,879 | 24,704 |
| France on the Atiantio . . . . . . . . . . . . . . . . . . . . | 1,146,999 | 1,850,821 | 155,644 | 1,001,50\% |
| Fraoce on tho Mediterranean . . . . . . . . . . . . . | 880,129 | 015,675 | 29,259 | 108,043 |
| Freoch North Ameriean Pomessions. ........ | -'.' | . | 6,894 | 43,469 28168 |
| French Went Indiea . . . . . . . . . . . . . . . . . . . . . . | .... | -••• | - 83,081 | 284,166 |
| French Guiana.............................. | 301, ${ }^{\text {a it }}$ | soïrino | 240 72.881 | 1,862 499,188 |
| 8paln on the Mediterranean .................... | 393,977 | 646,102 | 185,650 | 1,120,717 |
| Canary Jalands ............................... | 4.770 | 7,076 | 2.985 | 15,791 |
| Crba..... | 7,907 | 10,171 | 45,145 | 324,410 |
| Porto Rics . . . . . . . . . . . . . . . . . . . . . . . . . . |  |  | 22,209 | 152,245 |
| Portugal . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 309,802 | 699,080 | 68,671 | 461,148 |
|  | ....' | $\cdots$ | 2,597 | 16,818 4800 |
| A\&ores , ......................................... | $\cdots$ | $\cdots$ | 602 | 8,196 |
| Sardlnla . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 12,103 | 17,476 | 1,785 | 12,006 |
| Two 8lellien .................................. | 249 | 440 | 12,898 | 84,467 |
| Austria.... | .... | .... |  | 90 |
| Turkey in Earope . . . . . . . . . . . . . . . . . . . . . . . | .... | $\ldots$ | 1,168 4,028 | 8,505 |
| Turkey in Asia . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . | $\ldots$ | 4,028 00,029 | 872,615 |
| San Domingo .............................. | . | .... | B56 | 4,224 |
| Mexico . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... |  | 24,083 | 179.085 |
| Central Repnblile . . . . . . . . . . . . . . . . . . . . . . . | . | .... | ${ }^{618}$ | 4.096 |
| New Granada. . . . . . . . . . . . . . . . . . . . . . . . . . . . | . | .... | 16,991 | 126,141 |
| Venequola . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | . | .... | 47,888 | 351,174 |
| Brasil . . . . . . . . . . . . . . . . . . . . . . . . . . . | . | .... | 507,184 | 3,900,407 |
| Uruguay, or Cisplatino Republlo ............. |  |  | 72,901 | 512,471 |
| Argentioe Republic. . . . . . . . . . . . . . . . . | 1,631 | 2,608 | 60,021 6,639 | 878,818 |
|  | .... | $\ldots$ | 1,920 | 15,940 |
| Ecuador .................................... | .... | . | 733 | 5,804 |
| Sandwloh Jsiands . . . . . . . . . . . . . . . . . . . . . . | .... | . $\cdot$. ${ }^{\text {a }}$ | 3,658 | 30,889 |
| Other Lajands in the Pacific . . . . . . . . . . . . . . . | .... | .... | 6.5 | 5.878 |
| China.......... . ...................... | ... | .... | 11.690 | 109,586 |
| Whale-fisheries . . . . . . . . . . . . . . . . . . . . . . . . | $\ldots$ | .... | 2,803 | 17,045 |
| Unoertaid placen. | ... | .... | 4,814 | 29.003 |
| Total, 1856-67....................... | 14, 570,381 | \$82 $2,240,40,867$ | 3,712,003 | \$ $225,8 \times 2,316$ |

Expolts of fozeion Wheat and Flola from tha C'nited gtatha for the 'ieab enihno June $10,186 \%$.

| Whither esported. | heat. |  | Wher far. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Huchels. | Vaine. |  | Value. |
| Fingland | 35,070 | \$ 6,302 | 4b, 885 | \$210,213 |
| Scotland. |  |  | 540 | 1,025 |
| Hriumh N. Am. I'ose. |  |  | 3,355 | 14.449 |
| Sjualn on the Alantic | 6.173 | 11,113 | 00 | 8,100 |
|  | 41,843 | \$67.415 | '0,080 | \$ 238.677 |
| From warchor | 10,6i8 | \$17.1444 | 2.602 | \$10,248 |
| Not from warehouse | 81,105 | 60, 331 | 47,818 | 218,429 |

The imports of wheat into the United States are merely nominal, being, tor the year ending June 30, 1857, as followa:

| Whence imported. | Buahelo. | Velut. |
| :---: | :---: | :---: |
| Ilamburg | 834 | 8 |
| Snndwich Jelands |  | 204 |
| Other plicen | 94 | 27 |
|  | $\overline{\text { c }}$ | \$909 |

Formerly the export of breadstuffs from the United States was principally made up of flonr, but of late years It has been found advantageous to sinip wheat in bulk, eapecially from the interlor grain markets, without trashipmeat; and, as may be seen from the preced-
ing statement, at present tho export of wheat is neariy equal that of flour.

The consumption of tho country, per the census figures of product, popuiation, and export, for the years 1840 and 1850, and the rate of lncreaso in population being known, the reaulta are as follows:

| Yetrs. | Population. | f'onsumption et 34 Bushele. | Actaal Kisport. |
| :---: | :---: | :---: | :---: |
| 1840. | 17,064, that | U4,505,447 | 11.194,0! 8 |
| 1850. | 23,267,720 | 64,182,046 | 8,5:7,017 |
| 1851. | 24,023,916 | 64,483, 296 | 12,948.400 |
| 1852. | 24,780, 306 | 06,780,815 | 18,600,640 |
| 18553. ............. | 25,530,296 | 80, 377,025 | 18,958,940 |
| 1851. | 20,242,456 | 09,023,000 | 28,148,505 |
| 1855. | 27,048,673 | 94,670,365 | 7,821,584 |
| 1800.............. | 27,804,863 | 97,917,020 | 80,000,000 |


| Yesm. | Geed. | Crop. | Price in New York. |
| :---: | :---: | :---: | :---: |
| 1840............ | 8.182, 727 | 84,827,272 | 4544 |
| 1550............... | 11,479,022 | 104,479,823 | 5024 |
| 1851............. | 12,000,000 | 110.032,504 | 6 CB |
| 18:2.............. | 11,699,803 | 117,511, B 04 | 4.37 |
| 1853.............. | 12,800,000 | 121,186,049 | 4.94 |
| 1854............. | 13, 1000,000 | 183,172,285 | $9 \cdot 25$ |
| 1855............... | 13,500,006 | 114,901,080 | 9.50 |
| 18:6......... | 13.600,000 | 140,317, 000 | . $\cdot$ |

Ayount ow Impiax Cong and Conn-Mraig and of Wieat Whisat Flove, and Wheat Sillphgaty sxportid yrom
 YRADS, mach EmDING ON THS 80TH or Jume

| $1^{1}$.in Yearr. | Valus of (torn and to Man uffeluren. | Valus of Whant and its Menuf ceturea. |
| :---: | :---: | :---: |
| 182t. ...................... | \$618,279 | \$4,474,857. |
| 1899. . . . . . . . . . . . . . . . . . . . | 900,006 | 6,287,286 |
| 18>8.......................... | 980,489. | 6,151,437 |
| 1824.......................... | 736,340 | 6,977,255 |
| 1825........................... | 878,078 | 4,466,679 |
| 1898. | 1,007,821 | 4,411,870 |
| 1887. . . . . . . . . . . . . . . . . . . . | 1,022,404 | 4,645,784 |
| 1828.. | 822,858 | 4,484,774 |
| 1829.. | 974,685 | 6,972,920 |
| 1880. | 507,119 | 6,820,008 |
| 1881. | 982,05t | 10,712,201 |
| 1832. | 758,775 | 5,229,809 |
| 1838. | 871,814 | 6.800,157 |
| 1884. | 696,498 | 4,702,037 |
| 1835. . . . . . . . . . . . . . . . . . . . | 1,217,6135 | 4,607,881 |
| 1830. | 725,268 | 8,810,421 |
| 1887........... . . . . . . . . . . . . | 9t1, 6.24 | 8,258,767 |
| 1838. | 864,891 | 8,8i6, 110 |
| 1889. | 794,516 | T,419,282 |
| 184). | 1,043,518 | 12,208,086 |
| $184 t$. | 990,41t | 8,030,568 |
| 1842. | 962,987 | 8,615,731 |
| 1843.......................... | 735,915 | 4,339,414 |
| 1844. | 1,045,037 | 7,648,401 |
| 1845. | 1,053,293 | 6,101,066 |
| 1846.......................... | 2,181,744 | 18,717,839 |
| 1847............................ | 18,698,543 | 82,739,427 |
| 1848. | 6,045,084 | 16,488,380 |
| 1849........................... | 0,185.994 | 18,401,748 |
| 1850.......................... | 4,652, 8:4 | 8,074,488 |
| 1851. | 2,385,415 | 11,804,349 |
| 1852. .......................... | 2,1t4,605 | 14,748,251 |
| 1858............. . . . . . . . . . . . | 2,084,05t | 19,501,817 |
| 1354. | 7,077,258 | 40,618,956 |
| t865. | 8,108,898 | 12,888,987 |
| 1858........................... | 8,798,263 | 45,231,411 |
| \$857. | 6,142,45\% | 48,982,0i31 |

Whip, In ace language, a rope passed through a single block or pulley.
Whirlpool, a vortex, eddy, or gulf, where the water has a circular motion. Whirlpools are produced by the meoting of currenta which run in different directions. Their danger to navigation is well known, but is, perhaps, not equal to the dresd which ssilors entertain of them. Some of the most celebrated are tho Euripus, near the coast of Negropont; tho Charybdis, in the Straits of Sicily; and the Maolatrom, on tho northern cosst of Norwas.

Whirlwind, s revolving column or mass of air, supposed with most probability to be produced by tho mecting of two carrents of air blowing in opposite directions, but ascribed by some to electricity. It is analogous to the whirlpool. When the opposito currente have the asme velocity, the circuiation will be maintained at the same spot; but if the motion of ono of them la more rapid than that of the other, it will transport the whirling motion with its excess of celerity, and a progressive and rotatory motion are thus maintained at tite same time. Whirlwinds generally occur in summer, and aro most violent in tropical countries, where they frequently produco most destructive effects.

Whiaky, a spirit obtained by distillation from corh, augar, or molases, though generally from the former. Whisky is the national spirit, if we may so terin it, of Scotland and Ireland; but that distilied in the former ls genersily reckoned superior to that of the latter.-Sea Spinits. Whisky is a corruption of the Irish word usquebsugh. This ardent spirit mny be manufactured from barley malt alone; from the raw or unmalted barlay mixed with from a third to a ninth of malt ; from a mixture of raw barley, whent, rye, or oats, with from a sixth to a tenth of barioy malt; or from a mixture of raw barley, or big, with sugar; or from sugar or molasaes aione. When barley malt is alone used, the precessea are simple, and the ppirit produced has a more agreoable flavor, and la more esteemed; but, in consequonce of tho heavy duty on malt, distillers have been induced to employ large quantitles of
unmalted grain, and of late years no small proportion of angar and molasses, adding merely onough of malt to induce the chemical conversion of the starch in the unmalted grain into grape augar.
During the germination of barley (as in its conversion into malt) a peculiar subatance is generated in the grain calied diastase, which acta chemically on the atarch of the graln, converting it firat into a kind of gum called dextrine, and then into a aweet aubatance identicel in composition with grape auger. It bas been found that this diastase can convert 2000 parts of atarch into grape sugar; and it is of this valuable property that the distillor avails himbelf when he adds malt to his raw grain. To eave the more expenaive articlo malt, he uses only ao much as experiment has proved will auffice to change the starch of the raw grain into sugar when mixed with it in his mash-tun. The dietiller, therefore, to prepare the asccharine fluid for his operations, has to go tbrough all the processes of brewing before be gets it resdy for the atill.-See article Buewing.

The Manufacture of Whisky.-Cincinnati has become the greatest whisky market in the world, and the Ohio Valley the most important whisky-produclng region with which we are acquainted. The distilleries in the vicinity of Cincinnatiarc on a large acslo, and they are said to exhibit many improvements deviaed by inventive genius. Steam is made to perform nearly all the labor. Few men are employed, and they do little else than look at the machines as they perform the work. Tho quantity of corn consunied in a aingle distillery in Cincinnati is about one tbousand bushela per day, from which about 4000 gallons of whisky are produced. This givea for this single establiahment a consumption of 312,000 bushels of corn per annum, and a production of $1,248,000$ gallons of whisky. Wo have not the data upon which to base an estimate of the quantity of whisky produced in the Ohio Valley. The quantity sold in the Cinclnnati market annually is about 220,000 barrels, or about $9,000,000$ gallons. This is probably not more than one half the production of Ohio and Indiana alone. We presume that tho production ls $18,000,000$ gallona, and find the consumption of corn sveraging four and a half million bushels. It is probable that the production of whisky in the Ohio Valley is $50,000,000$ gallons per annum, involving a consumption of $12,500,000$ bushels of corn, the averaga value of which is $\$ 5,000,000$. The demand for the article is great, and daily increasing.

White Sea. The entrance to the port of Archangel, situated on the right bank of the Dwiaa, about thirty miles from its mouth, is interrupted by a bar, over which vessela drawing more than fourteen feet of water can not pass. Larger shipa discharge and load outside the bar. The trade of Archangel extenda aa far na Siberin, and along the coasts of the White Sea, enst and west. Previous to the founding of St. Petersburg this was the only place of maritime commerce in tho empirc. Siace that period ita trade has considerably declined. The River Dwiaa is connected with the Volga nnd Neva by cansla; but, owing to the rigor of the climate, the port of Archangel ls open only from July to Septemher. Its imports consist of colonial goods, salt, woolens, and hardwares. It 1852 there entered this port 715 vessels, with an aggregsto of 56,922 tons; of which 85 were laden and 630 in ballast. These all cleared with freight. Of the arrivals thero wero under the English flag 273 vessels, with an aggregato tpnnage of 24,297 tons.

| Imports in 1852 | ca. | Archangel. $1,262,000$ | $\begin{gathered} \text { Other Porta. } \\ 201,0010 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Exports in 1858 | ${ }^{4}$ | 20,851,000 | 656,000 |
| Total, year | 4 | 24,103,000 | 757,000 |

Total custom-house receipte from the five ports of the White Sea, in 1852, 984,000 franca. These ports are Archangel, Oneg, Kola, Kemi, Sounaky. The Importe of Archangel consist of dry and salted filh, sugar,

## WIN

wines, and other liquers, salt, and peltries. The exports are flax, linens, linseed, timber, tar, etc.

Wigs. The wig-trade is one of tha most curious connected with manufactures $\ln$ hair. The French aro famous in this department. There is a regular hairharveat in some of the central districts of France; Paris firms send agents into those diatricts in tha apring of the year, who purchass the beautiful trussas which the country maidens havs been cultivating for that purpose: this hair-crop is as much an annual affair as a corn-crop in the fields. The price paid is about threepence (English) per ounce; but the agents usually pay for the hair wlth ribbons, handkerchiefs, and other trinkets, at faira and marksts. Not the least curious feature is, that the agents can distinguish ths hair of one district from that of another not far diatant-an athnographical feat which might puzzle a learned naturalist-and attach a money valua to this differenca. If it bo trua, as is aaserted, that tro hundred thousand pounda' weight of women's hair ia thus anuually sold in the country districts of France, it must bo admitted to form a very aingular kind of commerce. The agents sort und clean the hair, and then diapose of it to the Paris firms at about doubls the former price. Then comes the art of the peruquier to fashion this hair into wigs, perukea, and acnips-some of which command a very high price. Of tho "transparent wigs," tha "ventllating wigs," the " ball white wigs," tha " gos-samer-parting wigs," the "fronts with each hair fixed separately," and other wonders of wig-making, we have been abundantly informed by our atlvertixing peruquiera.

Wind-milis. They are of great antiquity, and some writers state them to be of Roman invention; but certainly we are indebted for the wind-mill to the Saracens. They aro aaid to have been originally lutroduced into Europa by tha knights of St. Jolin, who took the hint from whit they had aeen in the erusades. -Baken. Wind-mills were first known in Spain, France, and Germany, in 1299.-A mmenson. Wind saw-mills were invented by a Dutchman in 1633, when one was erected near the Strand, in London.

Windown. Sec Glass. There were windows in Pompeii, A.I, 79, as is evident from ita ruins. It is certain that windows of some kind were glazed so enrly as the third century, if not before, though the fashion was not introluced until it was done by Bennet, A.D. 633. Windows of glass were used in private houses, but the glass was imported, 1777.-Aninsuson. In Eugland about 6000 houses now have tifty windows and upward in each; about 275,000 have ten wintowa and upward; and 725,000 have seven windows, or less than seven. The window-tax in England was first enacted in order to defray the expense of and defeiency in the re-coinage of gold, 7 Withiam Iil., 1695.

Winds. The prevailing winds in the Caribbean Sen and southern parts of the Gulf of Mexico aro the northeast trade-winds. They bave their offices to perform in the river basins of inter-tropical America, und the rains which they may discharge into the Misaissippi Valicy now and then arcexceptions, not the rule. The winds from the north can not lringe vapors from the great lakes to make rains for the Mississippi, for two reasons: ist. The bnsin of the great lakes roceives frum the atmosphero more water in the shape of rain than they giva lack in the shape of vapor. The St. Lawrence River carries off the excess. 2d. The mean climate of the lake country is colder than that of the Mississipyl Valley, and therefore, as a general rule, the tempuerature of the Mississippi Valley is unfavorable for condensing vapor from that quarter. It can not come from the Atlantic, becanse the greater part of the Mississippi Valley is to the windward of the Atlantic. The winds that blow across this ocean go to Europe with their vapors; and in the I'acific, from the parallels of California down to the equator, the direction of thu wind at the surface is from, not toward,
the hasin of the Miasisslppi. Therefore it seemed to be established with soms degree of probebility, or, if that expression ba too strong, with something like apparent plausibility, that the rain winds of the Mississippi Valley do not, as a general rule, get their vapors from the North Atlantic Ocean, nor from the Gulf of Mexico, nor from the great lakes, nor from that part of the Pacific Ocean over which the northeast tradewinds prevail.

Southeast Trade-winds.-Afibr the northeast trades hava blown out their season, which in India ends in April, the great arid plains of Ceutral Asja, of Tartary, Thibet, sad Mongolia, become heated up; they rarefy tha air of the northeast trades, and cause it to ascend. This rarefaction and ascent, by their denasnd for an indraught, are felt by the air which the southeast tradewinds bring to the equatorial Doldrums of the Indian Ocean: It ruahes over into the northern heniaphere to supply the upward dranght from the heated plains as the southwest monsoons. The forces of diurnal rotation assjat to give these winds their westing. Thus the southeast trades, in certain parts of the Indian Ocean, are converted, during the summer and carly autumn, into south west nonsoena. Thess then coms from the Intian Qcean and Sea of Aralia loaded with moisture, and, striking with it perpenilicularly upon the Ghauts, precipitate upon that narrow atrip of land between thia range and the Arabian Sea an amount of water that is truly astonishing. Ilere, then, ara not only the conditiona for causing more rain, now on the west, now on the east sicle of this momitain range, but the conditions also for the most coplose precipitation. Accorlingly, when we come to consult rain-gauges, and to ask meteorologienl observers in India about the fall of rain, they tell us that on the western slopes of the Ghauts it sometimes reaches the enormous depth of twelva or fifteen inchea in one day. Were the Andes stretched along the eastern instead of the western coast of America, we should have an nmount of precipitation on their eastern slopes that would be truly astonishing; for the water which the Amazon and the other majestic atreama of Sonth America return to the ocean would still be precipitated between the sea-shore and the crest of these mountains. These winds of India then continue their course to the Ilimalaya range as dry winda. In crossing this range, they are sulijected to a lower temperature than that to which they were exposed in crossing the Gihauts. Here they drop more of their molsture in the shape of snow and rain, and then pass over linto the thirsty lands lieyond with scarcely enough vajor in them to make even n cloud. Thence they ascend into the upper air, there to become counter-currenta in the general system of atmosphericui circulation.

Rain-winds ars the winds whieh convey the vapor from the sea, where it is takels up, to other parts of the earth, where it is let down either as snow, haii, or rain. As ngeneral rule the trade-winds may be regarled as the evaporating winds; and when, in the course of their circuit, they are converted into monsoons, or the varialles of either hemispliere, they then generaily becomo also the rain-winds-especially the monsounsfor certain localities. Thus the southwest monsuons of the Imilian Ocenn nre the rain-winds for the west coast of Hindostan. In like manner, the African monsoons of the Atlantic are the winds which feed the springs of the Niger and the Senegal with rains. Epon every water-shed which is drained into the sea, the precipitatlon, for tha whole extent of tho shed sodrained, may be considered as greater than the evaporation, by the annount of water which runs off through the river into the ace. In this view, all rivers may be regarded as immense rain-gnuges, and the volume of water annually discharged ly any one as an expressic. a of the quantity which is annually evaporated trom the sea, carried binck by the winds, and precipitated throughout the whole extent of the valley that is drain-
ed by it. Now, if we knew the rain-winds from the dry, for each locality and sesson generally throughout such a basin, we should be enabled to determine, with some degree of probability at least, as to the part of the ocean from which such rains were evsporated. And thus, notwithstanding ail the eddies caused by mountain chains and other uneven surfaces, we might detect the general ceurse of the atmospherical circulation over the land as well as the sea, and make the general courses of eircuiation In each valley as obvious to the inind of the philosopher as is the current of the Misaissippi, or of any other great river, to his senses.

These investigations ss to the rain-winds at sea indicato that the vapors which suppiy the sources of the Amazon with raln are taken up from the Atlantic Ocean by the nertheast and southeast trade-winds; and many circumstances, some of which have already heen detailed, tend to show that the winds which feed the Nississippi with rains get their vapor in the southeast trade-wind region of the other hemisphere. For instance, we know from observation that the trade-wind regions of the occan, beyond the immediate vicinity of the land, are, for the most part, rainless regions, and that the trado-wind zones may be described, in a hyetographic eense, as the evaporating regions. They also show, or rather indicate, as a general rule, that, leaving the polar limits of the two trade-wind systems, and approaching the nearest pole, the precipitation is groater than the evaporation until the point of maximum cold is reached.

And we know also that, as a general rule, the southeast and northeast trade-winds, which come from a lower and go to a higher temporature, are the evaporatiug winds, i. e., they evaporate more than they precipitaie; while those winds which come from a higher and go to a lower temperature are the rain-winds, i.e., they precipitate more than they evapnrate. That such is the ease, not only do researches indicate, but reasen teaches, and philosophy intimates. These views, therefore, suggest the inquiry as to the sufficiency of the Atlantic, after supplying the sources of the Amazon and its tributaries with their waters, to supply also the sources of the Mississippi and the St. Lawrence, and of all the rivers, great and amali, of Nerth America and Europe. A careful study of the rain-winds, in connection with the Wind and Current Charts, wlll probsbly indieste to us the "springs in the ocean" which supply the vapors for the rains that are carried off by those great rivers. "All the rivers run into the sen; yet the sea is not full; unto the pince from whence the rivers come, thither they return again." - Maunr's Phys. Geag.

Wind-sails, in a ship, nre made of common sailcloth, and are usually twenty-five and thirty feet long secording to the size of the ship, and are of the ferm of a cone ending obtusely. When they are made use of, they are hoisted by ropes to about two-thirds or more of their height, with their bases distended circulariy, and their apex hanging downward in the hatehways of the shlp. Above each of these one of the common exils is so disposed that the greatest part of the air rushing against it is directed into the windsail, and conveyed into the body of the ship, to produce ventilation, ete.

Windward, in aea-language, denotes any thing toward that point from whence tho wind blows, in respect of a ship: thus windward tide is the tide which runs against the wind.

Wine (Ger. Wein; Fr. Vin; It. and Sp. Vine; Port. Finhe; Russ. Wino, Winogradnoe winoe; Lat. Vinum Gr. Oıvos; Arab. Khumr), the fermented juice of the grape, or berries of the vine (Vitis vinifera). The vine is indigenous to Persia and the Levant ; but it is now found in most temperate regions. The limits within which it is cultivated in the northern hemiaphere of the Old Worid vary from nbout $15^{\circ}$ to $48^{\circ}$ and $52^{\circ}$; but in North America it is not cultivated farther
north than $38^{\circ}$ or $40^{\circ}$. It is rarely grown at a greater altitude than 3000 feet. From Asin the vine was introduced into Greece, and thence into Italy. The Phoceans, who founded Marseilles, carried the vine to the south of France; but it is doubtful whether it was introduced into Burgundy till the age of the Antonines. The aucient writers give the most contradietory accounts with respect to the Introduction of the vine into Gaul.-See the learned and excellent work of Le Grand d'Aussy, Vie Prirée des Frangais. The species of Vitis Indigenous to North America is very different from the Vitis vinifera. In favorable seasons the vinc ripens in the open air in England; and in the 11th and 12th centuries considerable quantities of inferior wine were made from native grapes. Vineyserds are now, however, unknown in Great Britain; but the grapes raised in hot-houses, and used in desserte, are excellent. The vine grows in every sort of soil; but that which is light and gravelly seema best suited for the production of fine wines. It ancceeds extremely well in voicanic countrice. The hest wines of Italy aro produced in the neighborhood of Vesuvius; the famous Toksy wine is also made in a volcanie district, as are several of the best French wincs; many parts of the soath of France bearing evident marks of extinet volcanoes. Hermitage is grown among the debris of granite rocks. The inost favorable situstion for a vineyard ls upon a rising ground or hill facing the southeast, and the situation should not bo too confined;

## Bacchus amat colles.

Tho art of expressing and fermenting the juice of the grapo appears to liave been practiced from the remotest antiquity. The sacred writings tell us that Noalh planted a vineyard soon after the deluge (Gen. ix. 20 ); and a modern Latin poet ingeniously represents the vine as a gift from Ileaven, to console mankiad for tho miscries entailed upon them by that grand catastrophe !

> Omnta vastatis ergo quum cernoret arvis
> Desoluta Deus, nobls feltefa vinl
> Dona dedtt; tristes homtnum quo munere fovit Rellqulas, mundl solatus vite rulnam 1

Vanterii Pred. Rusticum, lib. $\mathbf{x}$.
Species of Wine.-There are many varieties of vines; and this circumstance, combined with differences of soil, climate, mode of preparation, etc., oceasions an extreme variety in the species of wine. But between places inmediately contiguous to each other, and where even a careful obearver would hardly remark any difference, the qualities of the wines, though produced by the same species of grape, and trested in the same way, are often very different. A great deal evidently depends upon the aspect of tho vineyard; and it is prolesble that $a$ good deal depends on peculiarities of soil. But whatever may be the enuse, it is certain that there aro wines raised in $n$ few limited districts, such as Tokay, Johonnisberger, Constantia, the best Burgundy, Chanipagne, Claret, ete., that no art or care has hitherto succeeded in producing of equal goodness in other places.

The leading charaeter of wine must be referred to the alcohol which it contains, and upon which its intoxicating powers princlpally depend; not exclusively, however; for some of the lighter wines, if brisk and effervescent, seem to derive from the admixture of carbonie acid a peeuliar exhilarating power not directly proportional to their alcoholic centente. And again, we find other wines, among which eertain Burgundies itand foremost, which are eminently heating, though not very strong. The following table shows the quantity of alcohol (of the apeeific gravity of 825 at $60^{\circ}$ ), by measure, contained in 100 parta by measure of the respectiva wines. Some other vlnous and spirituous liquors have been added, for the purpose of showing the reiation which they bear to wine in the proportion of alcoliol which they contain.

## WIN

## 21. delra ....... 16.40

 0. Sunes........ 15.5 32. Sherata (red) 16.02or Spielt pasa Cent.

ences of the solla in which they are planted, in the exposure of the vineyarda, and in the treatment of the grapes, and the mode of manufacturing the wine. Though the rine grows in every sort of soil, a rising ground, or gently-sloping hill facing the aouth, with a loose, gravelly, or rather volcanic soil, is by far the best situation for a vineyard. It is in auch situatlona that all the finest wines are produced.
It would be useless, in a work of this kind, to attempt characterizing the different aorts of wine used. Port and aherry have long enjoyed a decided preponderance in the markets; and it must be admitted that, when of good quality and eparingly used, they are very unexceptionable wines. But they are often harsh, end have the disadvantage of being atrong and heating, so that they can not be taken, to any thing like oxcese, by most persons with impunity. They are well enough for a glass or two, but they are not wines for conversation or society. It is not probsble, indeed, had it not Lean for the high differential duties with which French winea were so long burdened, that the uee of port and sherry would ever have heen so general ; and aince tho alolition of the difforential duly in 188I, French wines have began gradually, though slowly, to make their way from the higheat, to which they have hitherto been mostly confined, among the middle claases. They are, indeed, superior in almost all respecta to every other variety. The best growths of claret, Champagne, and Burgundy, seon to uuite all the qualitiea required to constitute perfect wines. IIad thoy been knowa in antiquity, we appreicend they would have engrossed most part of the praiso so profusely lavishod on the Pramnlan, Cecuban, Falersian, and othor renowned wines of Greece and Rome.-- Bhande's Dict.

Ancient Wines.-The wines of Lestos and Chios among the Grecks, and the Falervian and Cecuban among tho Romans, have acquired an inmortality of renown. Great nncertainty, however, prevails as to the nature of these wines. Dr. Incuderson thinks that the niost celebrated of them all, tho Falernian, approached, in lis most essential charecters, near to Madeira. In preparing their wincs, the ancienta often inspissated them till they became of the consistence of honey, or even thicker. These were diluted with water previoualy to their heing drunk; and, indeed, the habit of mixing wine with water scems to have pravailed much more in entiquity than in modern times.
Modern Wines.-Tho princlpal wines made use of in England are port, sherry, claret, Champagne, Madeira, hock, Marsala, Cape, etc.

Port, the after-diuner wine, is produced in the province of Upper Douro, in Portural; and is shipped at Oporto, whence its name. When it arrives in England, it is of a dark purple or jnky color ; has a full, rough body, with an astringent litter-aw cet taste, and a atrong fiavor and oilor of brandy. After it has remained somo years longer in the wood, the sweetness, roughness, anil astringency of the flavor abate; but it is only after it has been kept 10 or 15 years ia bottle that the odor of the brandy is completcly subdued, and the genuine aroma of the wine developed. When kept to too great an age, it becomes taway, and loses its peculiar flavor. During the process of melioration, a considerable portion of the extractivo and coloring matter is precipitated on the aidea of the vesacla in the form of crust. In some wines this change occurs much earlier than in others. A large quantity of brandy is always mixed with the wine shipped from Cporto for Fagland. Geauine unmixed port-wine is very rarely met with. We have been so long accuatomed to tho compounded article, that, wero it possible to procure it unmixed, it is dsubtful whether it would be at all suited to our taste. Aecordlag to Mr. Brande's analyais, on which, however, owing to the differences $\ln$ the quality of the wine, no great stress can be laid, port, as used in Engiand, contains about 23 per cent. of alcohul.

Exportation or Wine from Liabon, 1853-1855.

| To what Ports. | 1888. | 1854. | 1855. |
| :---: | :---: | :---: | :---: |
|  | - Plpet. | Plpes. | Plpen. |
| Aalborg. . . . . . . . . . . . . . | .... | ... | 12 |
| Algiers. . . . . . . . . . . . . . | - | $\cdots$ | - 2 |
| Ajuds . . . . . . . . . . . . . . | 9 | ** | $\cdots$ |
| Amsterdem . . . . . . . . . . . | 59 | 10 | 4 |
| Angola . . . . . . . . . . . . . . | 855 | 1.00 | 326 |
| Australla . . . . . . . . . . . . | 763 | 25 |  |
| Bahla............ . . . . . . . . | 3,858 | 2,964 | 8,277 |
| Benguela . . . . . . . . . . . . . | 185 | 88 | 77 |
| Bergen . . . . . . . . . . . . . . | 10 | $\bullet$ | -* |
| Blasau . . . . . . . . . . . . . $\quad$. | 10 | . . . | $\cdots$ |
| Bologne. . . . . . . . . . . . . . | $\cdots$ | -is | $10^{\frac{1}{2}}$ |
| Bristol.. | 48 | 13 | 16 |
| Buonos Ayres . . . . . . . . . . | 80\% | \% | * * |
| Capo Verd . . . . . . . . . . . . | $80 \%$ | -... | 52 |
| Cadiz. . . . . . . . . . . . . . . | * | 2t ${ }^{\text {t }}$ | - |
| Cegra. . . . . . . . . . . . . . . | 47 | $21 \frac{1}{3}$ | .... |
| Clitna. . | 2 | - | .... |
| Copealiagen. . . . . . . . . . . | . . . | 40 | .... |
| Cork..................... | 3 | . . | 83 |
| Cronstadt | 1 | .10 |  |
| Dublla... | 135 | 184 | 693 |
| Elsluore . . . . . . . . . . . . . | 1 | 426 | 54 |
| Genos. | 7 | $B$ | 5 |
| Glbraltar . . | 4 | . | 04 |
| Glaggow . . . . . . . . . . . . . . | 10 | 15 | 6 |
| G09 . . . . . . . . . . . . . . . . . | 118 | 64 | 106 |
| Gothenburg . . . . . . . . . . . | . | 40 | 1) |
| 1[allfax .................. | $\cdots$ | 4 | $\ldots$ |
| llamburg . . . . . . . . . . . . | 726 | 707 | 398 |
| Ilavre ................... | 86 | 18 | B2) |
| Island of Corlsco . . . . . . |  | 7 | . |
| Jersey . . . . . . . . . . . . . . . | B3 |  | . |
| Kragoroe. . . . . . . . . . . . . |  | 1 | . $\cdot$ |
| Lelth . . . . . . . . . . . . . . . . | 8 | $6_{5}$ | . - |
| Liben. . . | 5 | 1 | $\cdots$ |
| Liverpool . ............... | 25:1 | 811 | $87 \%$ |
| London | 1,277 | 1,198 | 808 |
| Macao. | 534 | 208 | 631 |
| Maranhao | 835 | 659 | 806 |
| Mardelllos. . . . . . . . . . . . | 4 | 28 | 83 |
| Mayagao. . . . . . . . . . . . . . | .... | .... | 13 |
| Memel . . . . . . . . . . . . . . . . | - | $\cdots$ | 66 |
| Mozamblque . . . . . . . . . . | 86 | 15 | 54 |
| Mogador... . . . . . . . . . . . | - | ${ }^{1}$ | 1 |
| Montevldeo | 8 | $6{ }^{6}$ | "17 |
| Nantes. . . . . . . . . . . . . . . | 1 | 24 | 17\% |
| Nawcastle.. | 5 |  | - . |
| Newfoundland........... | 9 | 49 | 28 |
| New York. . . . . . . . . . . . . | 1,215 | 102 | 828 |
| Onlm... | .... |  | 9 |
| Ostend. |  | 1 | 51 |
| Pars.................... | 638 | 1,051, | 636 |
| Parahtba. . . . . . . . . . . . | 172 |  |  |
| Pernambuco | 1,987 | 1,710 | 1,060 |
| Petersburg . . . . . . . . . . . . | 668 | .... | ... |
| Plymouth. . . . . . . . . . . | 88 | -* | . . . |
| Peole . . . . . . . . . . . . . . . . | ...* | 1 | . . . |
| Porto Alegre . . . . . . . . . . | 1 | 205 | .... |
| Portimotith . | 1 | 1 | H |
| Quebec. . . . . . . . . . . . . . . . . | .... | ... | 185 |
| Kenders. . . . . . . . . . . . . . | $\cdots$ | . $\cdot$. | 1 |
| R1ga..................... | 158 | .... |  |
| Rlo Grande . . . . . . . . . . . | 908 | 864 | 620 |
| Rio de Janelro. . . . . . . . . | 11,673 | 14,605 | 8,835 |
| Rlo la Plata . . . . . . . . . . . | .... | 13 | .... |
| Rouen . . . . . . . . . . . . . . | 8 | 21 |  |
| gaff . . . . . . . . . . . . . . . . | -... | . | $\pm$ |
| Santos. |  | 39 | .... |
| Sedovey. . . . . . . . . . . . . . . | 457 | 14 | . ${ }^{\text {c }}$ |
| Slugapore . . . . . . . . . . . . . | 10 |  | ... |
| 811g0.............. . . . . | 1 | . 6 | 1 |
| Sodorham. . . . . . . . . . . . . | - 0 | * $\cdot 1$ | 1 |
| gouthampton. . . . . . . . . . | 15 | 251 | 12 |
| Stavanger. . . . . . . . . . . . | - 1 | $\cdots$ | $\cdots$ |
| 8tockbolm . . . . . . . . . . . |  | 1 1 | 284 |
| 8t. Thomas . . . . . . . . . . | 88 | B3 | 22 |
| Toulon ................. | 8 | - | . $\cdot$ |
| Wlaardtugen. . . . . . . . . | 13 | 11 | 1 |
| Total....... | 27.047 | 20,9601 | 17,790\% |

Summary of tne Exportatlon of Ofl. Branda, and Wine HBOM LIABON THE YEARE GPROIFIED.

| Yeara. | Oil. | Brandy. | Wine. |
| :---: | :---: | :---: | :---: |
| 1553. | Plpen. 4206 | Plpen. | Piper. |
| 1654.............................. | 4200 | 88 | 25,046 |
| 1855. | 2523 | 88 | 17,700 |
| Total. | 6988 | 188 | 71,403 |

Oporto Wine Company.-The quality of the wine shipped from Oporto has been materially injured by the monopoly so long enjoyed by the Opurto Wine Compnny. This compsny was origioally founded in

1756, daring the administration of the Marquis Pombal. A certain extent of territory was marked out by its charter as the only dietrict on the Dorro in which wine could be raised for exportation : the absolute disposal of the wines raised in this district was placed in the hands of the company, who were further authorized to fix the prices to be paid for them to the cultivators, to prepere them for exportation, and to fix the price at which they should be eold to foreigners ! It ta obvious that a company with such powers conld not be any thing else than an intolerabie nuisance. What could be more arbitrary.ad anjust than to futerdict the export of all wines raised out of the limita of the company's territory? But even in its own district, ita proceedings were oppresaivo and injurious. The company annually fixed, by a fiet of their own, two rates of prices-one for the rinho dofeitoria, or wine for exportation; the other for vinho de ramo, or wine for home consumption-at which the cultivators were to be paid, whatever might be the quality of their wines! Thay had, therefore, no molive to exert superior skill and ingenuity; but contented themselvea with endeavoring to raise, at the least possible expense, the greatest supply of vinhe de feitoria, for which the company aliowed the highest price. All emulation was thus effectually extinguighed, anc the proprietors who possessed vineyards of a superior quality adulterated their wines with inferior growths, so as to reduce then to the average standard. "In this way," aays Dr. Henderson, "the fincr products of the Douro vintages have remained, in a great measure, unknown to us; and port-wine has come to be considered as a aingle liquer, if I may use the expression, of nearly uniform flavor and strength ; varying, it is true, to a certain extent in quality, but still alwaye approaching to a defiaite atandard, and admitting of few degrees of excellence. The manipulations, the admixtures-in one word, the adulterations-to which the best wines of the Cimo do Vouro are aubjected, have much the same effect as if all the growths of Burgundy were to be mingled in one immense vat, and sent into the world aa the only true Burgundian wine. The deliclous produce of Romanée, Chambertin, and the Clos Vougeout, would disappear, and in their places we ahould find nothing better than a aecond-rate Baaune or Mecon wine."-Ilistory of Ancient and Modern Wines. Not only, however, did the Oporto Wine Company deteriorate the quality, but they also raised the price of their wines to an enormous height. Secured against the competition of their countrymen, and enjoying down to 1831 a nearly absolute monopoly of the British markets for red wines by means of the high duties on those of France, they filled their pockels at our expense. At the very moment when the company were shipping wine for England at $£ 40$ a pipe, they frequently shipped the same wine to other countries at $£ 20$.-Fleetwood Wikliams on the Wine Trade. And the authentic tables published by Balbi show that the price of wine was trebled and quadrupled under the management of this corporation.-Essai Statistique sur le Royaume de Portugal.
It is long since the injurious influence of the company on the commerce of England was distinctly perceived and pointed out. So far back aa 1767, the Board of Trade laid a memorial before his majesty in council, in which they stale, "With respect to many particular regulations of the Oporto Company, which we think justly objected to by the merchants as highly grievous and oppressive, wa have not thought it necessary to entar into a minute description of them, being of opinion that one general and fatal objaction lies against them all; viz., that they ali contribute to establish in the company a monopoly against your majesty's subjects from which by trealy they have a right to be exampted." But notwithstanding this anthoritative exposition of the injury done to the English by this monopoly, and the experience which every subse-
queat jear afforded of its mischievous influenca, such was the inveteracy of ancient prejudice, that it was not till 1831 that we took that step which, had It been taken a century hefore, would have rid ourselves of its evils as well as a host of others, hy equaliaing the duties on French and Portuguese wines, and putting an end to the Injurious preference given to the latter by the Methuen treaty. In 1833 Don Pedro, whose daughter had been ralsed to the Portuguese throne mainly by the intervention of the English, lasued a decree abollshling the Old Oporto Company. And it inight have been supposed that once abated, the nuisance would not heve been again revived. But such was not the case. A new wine company was subsequentiy established, with privijeges little less oppressive than those of the old company. And as the taste for French wine had made little progresa among us in the interval, we auffered from the monopely and adulteratione practiced and sanctioned by the new company, es we had done from those of its predecessor. Its mischievous influence being further aggravated by a heavy export duty on whe shipped to any port in Europe, was latterly ao intolerable, that to defeat it considerable quantities of port were imported by the circultous route of the United States. However, the firm remonstrances of the British government, and the growieg dissatisfaction of the Portuguese themselves, have at length succeeded lit establishing a more equitable and less illiberal eystem. In October 1852, the new company was abolished, equal duties (about 14s. a pipe) were Imposed on all wines exported, and considerable, though not entire, fretdom was given to the trade.-For further details, see article Oromro.
Sherry is of a deep amber color; when good, it has a fine aronatic odor; ita taste is warm, with si. 16 degree of the agreeable bitterness of the peach kernel. When new, it tastes harsh and fiery $;$ it is mellowed by being allowed to remain 4 or 5 years or longer in the wood; but it does not attain to lts full fiavor and perfection untll it be kepl for 15 or 20 years. It is a very atrong wine, contalning about 19 per cent. of alcohol. It is principally producod in the vlelnity of Xeres, not far from Cadiz, in Spain. It ls very exteasively used in England as a dinner wine. Dry sherry, or amontillado, when genuine and old, fetches a very ligh price. Perhaps no wine is so much adulterated as sherry. With the exception of Marsala, the conaumption of sherry has been far more influenced than that of any other wine by the reduction of the duties in 1825 . In 1852 the quantity retained for home consumption amounted to $2,606,857$ gallons, being 458,000 gatlons more than dontle the quantity retained for cousumption at an average of $18: 3$ and 1824.
The province of Valencla, in Spain, produces a great variety of wlaes. Large quantities of a strung, sweetish red wine, called Beaicarlo, from the port whence it is shipped, is exported to Cette. It is thence conveyed, by the Canal of Jagguedoc, to Bordeaux, where it is mixed up with the poorer sorts of the whics of the Glronde, to which it gives color, body, and durability. The I'al de Jeñas, a pleasant red wine of La Mancha, said by Swinburne to be "the inost drinkable, for common use, of any in Spain" (7'ravels in Spain, p. 319, 4to ed.), has probsbily been commended beyond lits deserts. But in whatever estimation it may be held in ita native province, we doubt whether it is ever likely to be acceptable to forelgners. When carried to the cosst, it ia conveyed in guat skina smeared with pitch. This gives it the olor do bota, by which it is disagreeably distinguiahed.

Claret, the term generally used in England, though not in France, to designate the red wines, the produce of the Gironde. Of these, Lafitte, Latour, ChâteauMargaux, and Ifaut-Brion, are so generally and deserredly esteemed, that they always sell at 20 to 30 per cent. higher than any others of the department. The firat-mentioned is the most choice and delicate,
and is characterised by ita silky foftneas on the palate, and lts charming perfume, which partakea of that of the violet and the raspberry. The Latour hes a fuller body, and at the same time a considerable aroma, but wanta the softness of the Lafitte. The Chatean-Mar. ganx, on the other hand, is lighter, and possesses all the delicate quaijties of the Lafitte, except that It has not guite so high a flevor. The Haut-Brion, agaln, has more spirit and body than any of the preceding, but is rough when new, and requires to be kept six or seven yeare int the wood; while the others become fit for bottling in much less time.

Among the second-rate wines, that of Rozan, In the parish of St. Margaux, approaehes in aome respects to the growth of the Chateau-Mergaux; Gorce, In the same territory, is little inferior to Latour; and the vineyards of Leoville, Larose, Bran-Monton, PlehonLongueville, and Calon, in the canton of Pauillac, afford wines of good flavor, which, in favorable years, have much of the excellence of the finer growths, from which, indeed, some of the best cen wlth difficulty be distingulshed. Among the third and fourth class wines are those of Paullee, St. Jullen de Regnsc, St. Eatephe, Canon, St. Emilion, the wines of Maus Medoc, etc. These bave each some distinguishing peculiarity; but it requires a connoisseur to discriminate hetween the cognate varictiea. In good years the quality is very superior. The aroma of the first growthe is aeldom fully developed till efter they have been kept eight or ulne years; but the secondary quallties come to perfectlon a year or two sooner. The color often grows darker as the wine advances in age, in consequence of the deposition of a portion of lta tartar; but when well made, and thoroughly tined, it seldom deposita any crust. See the valualije work of Dr. Hexpenson on Ancient and Modern Wines; and Julhiev, Tr pographie de Vignobles. Berdeaux wines are very rarely exported in a state of purity. We have glven in the article Bondetaux some account of the treatment to which those shipped for England are subjected, and to It we beg to refer the reader.

Champagne-so called from the province of France, of which it is the produce-is one of the most descrved. ly eateemed of the French wines. The winea of Chempagne are divided Inlo the two grand elasses of whita and red wines, and ench of these, again, Into still and sparkling; but there is a grest variety in the flavor of the produco of different vineyards. Sillery is universally allowed to be the best of the stlis wines. It is dry, of a light ainber color, has considerable body, and a charming aroma. "Lecorps" (says M. Jullien), "le spirituoux, le charmant bouquet, et les vertus toniques dont Il est pourvu, lui assurent la priorité sur tous les autres."-Topograpinic de tous les Vignobles. Dr. Ifenderson agrees with Jullien in considering it as one of the wholesomest of the Champagne wines. The sparkling wines are, however, the most popular, at least in England. Of these, the wine of Ay, five leagues south from Rheims, is perhaps the best. It is lighter and sweeter than Sillery, and has an exquisite flavor and aroma. That which mercly creams on the surface (demi-mousseur) is preferred to the full frothing winc (grand-mousscur). Ileing bright, elear, and sparkling, It is es plessing to the eye ns it is grateful to the palate.
> "Cornis micanti coscolor ist vitro
> Latex in auras, gemmeua aspict, Seintiliet exulim; utque dulces Naribus titecebras propinet
> " Buect intestls proditor halitus I
> Ut apuma motas tactes turbido
> Cryataltinum lintia referre Mox oculis properet nitorem."

Hsutvilliers, about foar leagues from Rheims and one from Epernay, used formerly to produce wine that equaled, and sometimes surpassed, the wine of Ay. But it to no longer cultivated with the same care; so that, though ati!! very good, it only ranks in the second
class. The best of the red whes of Champagn are qualifie dans certains pays de suins qui aident a la quathose of Verzy, Verzenay, Msily, Bouzy, and St. Bra ie. "Ile ont une belie coulour, du corps, du spirltueux, et surtout beancoup de finesse, de seve, et de bouquet."Julises. The Cios St. Thlerry, In the vicinlty of Rheims, producss wine whieh, accordlng to Jullien, unites the color and tho aroma of Burgundy to the Ilghtness of Champagne. The province of Champagne produces altogether about $1,100,000$ hectolitres of wine; of which, however, the fineat growths make but a smail part. The principal trade in whe la carrled on at Rhelms, Avise, and Epernay. The vaults in which tho vintages are stored are excavated in a rock of caleareous tufa to the depth of 30 or 40 feet. Those of M. Moet, at Epernay, are the most extensive, and few travelers pass through tho place wlthout going to see them. The briskest wines (grands-mousseux) keep the worst.-Julines.

Burgundy.-The best wines of thls province, though not so popular as those of Champagne, probably because they are very apt to be Injureil by a sea-voyage, enjoy the highest reputation. "In riehncess of fiavor and perfume, and all the more dellcate qualitles of the juice of tho grape, they unquestionably rank as the first in the world; and it was not whithout reason thast the dukes of Burgundy, In former thes, were deslonated as tho princes des bons vins."-Henderson. M. Jullien is not less decided: "Les vlas des premiers crus, lorsqu'ils provlennent d'une bonne annéo, réunissent, dans do justes proportions, toutes les qualites qui constituent les vins parfaits; lle n'ont bescin d'sucun méiange, d'sucune préparatlon pour attendre leur plua haut degré de perfection. Ces opérations, que l'on
lité, sont toufours nulailles aux vins de Bourgogne."
Romsné-Contl, Chamberth, the Cles Vougeôt, and Rlchsbourg, are the most celelrated of the red vines of Burgundy. Chambertin was the favorlte wino of Louis XIV. and of Napoleen. It ie the produce of a vineyard of that name, situated seven miles south from Dijon, and furnlehing each year from 180 to 150 puncheons, from an extent of about 65 acres. It has a fuller body and color, and greater durabillty, than the Romane, with as aroma nearly as fragrant. The white wines of Burguady are less numserous, and, consequently, less generally known, than the others; but they maintain the hlghest rank among French white winee, and are not inferlor to the red either in aroma or flavor. The enllre annual produce of wine in Burgundy and Beaujolals may at present be estimated, at an average, at nearly $3,500,000$ hectolitres, of which about 750,000 suffice for the consumption of the inhabitants. Since the revolution, the cultivation of the vine has been greatly exteaded in the provinco. Many of the new vincyards having necessarlly been planted in comparatlvely unfavorable sttuations, 8 notion has been galning ground that the wines of Burgundy are degeneraling. This, however, is not the case. On the contrary, the quantlty of lons crus, instead of being diminished, has incressed considersily; though, as the supply of inferior wines has Incressed in a still greater degree, the fine wlnes licar a less proportion to the whole than they did previously to the revolution.-Julilien. The principal trade In Burgundyia carrlod on at Dijon, Gevrcy, Châions-sur-Saône, etc. Besides the above, France has a great variety of other excellent wines.
 THOBE OF THE GLAONDS AND THOEE OF OTHER DEPAETMENTB, AND BETWEEN THOBE EEPOETED IN IJABES AND BOTTLRE and arecifting tue quantitike of tuobe gent to gacu Countey and taetib total Value. -(Adminigtration dee DoUANE FOE 1852, p. 241.)

| Countries to which exportad. | Wioe In Canka, |  |  |  | Wine fin Potues. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Of the dironde. |  | Of other Depertments. |  | Of the Glronde. |  | Of other Departmenta. |  |
|  | Quantity. | Value. | Qaantity. | Valae. | Qaantity. | Value. | Quentity. | Value. |
| Fuasia................ | Hectolatien. 242,840 | Frabes. | Hectolitros. 18,649 | Vreace. | Hectolitree. 814 | Fraica. | 1iectolliren. 7.324 | Frades. |
| Sweden . . . . . . . . . . . . | 1,237 |  | 4,643 | ) | 102 |  | 560 |  |
| Norway . . . . . . . . . . . . | 2,514 |  | 2,003 |  | [** |  | . . |  |
| Denmark . . . . . . . . . . | 8,108 |  | 7,720 |  | 154 |  |  |  |
| German League . . . . . | 81,640 |  | 9,183 |  | \$84 |  | 5,609 |  |
| IIolland. . . . . . . . . . . . | 78,192 |  | 14,013 |  | 642 |  |  |  |
| Beiglum . . . . . . . . . . . | 68.365 |  | 82,362 |  | 459 |  | 10.090 |  |
| IIanse Towns. . . . . . . . | 88,680 |  | 65,111 |  | 2,727 |  | 8,900 |  |
| Ilanover . . . . . . . . . . | 14,908 |  | .... |  | .... |  | ... |  |
| Mecklenburg 8eliwerin | 2,535 |  |  |  |  |  |  |  |
| England .............. | 10,174 |  | 10.416 |  | 4,870 |  | 10,355 |  |
| Spaln . . . . . . . . . . . . . . | .... |  | 2,746 |  | 480 |  | 815 |  |
| Austria . . . . . . . . . . . | . . . |  | 0,212 |  | 218 |  | 420 |  |
| Bardinian Slates. . . . . | .... |  | 527,058 |  | .... |  | 1,633 |  |
| The Two 8lcliles . . . . | .... |  |  |  | . |  | 577 |  |
| Tuscany .............. | . $\cdot$. |  | 89,78.7 |  | . . . |  | 438 |  |
| Roman States. . . . . . . . | . . . | , | 7,579 |  | . |  | 306 |  |
| 8witzerland . . . . . . . . . | . . . |  | 126,200 |  | .... |  | 652 |  |
| Titrkey ............... | . . . |  | 8,593 |  | . . |  | 993 |  |
| Egypt . . . . . . . . . . . . . |  |  | 7,430 |  |  |  | 663 |  |
| Algeria................ | 2.807 |  | 407,830 |  | 971 |  | 517 |  |
| Mauritiua . . . . . . . . . | 81,048 |  |  |  | 681 |  |  |  |
| India, Engliah . . . . . . | 3,125 | 20,682,064 | 2,890 | \}38,304,132 | 8,283 | 8,072,010 | 422 | 10,284,658 |
| " Dutch.......... | 3,014 1,642 |  | .... |  | 1,080 |  | . |  |
| Unitud States. . . . . . . . . | 161,070 |  | 6i,204 |  | 24,445 |  | 19,101 |  |
| IIsytl................ |  |  | 8,783 |  |  |  | 657 |  |
| Cuba and Porto Hico.. | 8,139 |  | 2,040 |  | 1,812 |  | 1.660 |  |
| St. Thomas. . . . . . . . . |  |  |  |  | 295 |  | 874 |  |
| Brazil . . . . . . . . . . . . . | 6,207 |  | 42,510 |  |  |  | 6.4 |  |
| Mexico............... | 2,030 |  | .... |  | 4,030 |  | 578 |  |
| Vonezisia....... . . . . . | 1,350 |  | .... |  | 520 |  | 521 |  |
| New Granada ........ |  |  | . . . |  |  |  | 417 |  |
| 1'uri. . . . . . . . . . . . . . . | 3.139 |  | . $\cdot$ |  | 3,200 |  | 916 |  |
| Chill. . . . . . . . . . . . . | 5,674 |  |  |  | 3,097 |  | 770 |  |
| Rio de la Plata....... | 17,157 |  | 20,689 |  | 076 |  |  |  |
| Uruguay.............. | 25,566 |  | 14,765 |  | 1,062 |  | 409 |  |
| Guadaloupe........... | 8,235 |  | 9,535 |  |  |  | ... |  |
| Martinique...... . . . . . | 7,429 |  | 26,904 |  | 288 |  | .... |  |
| IBourbon . . . . . . . . . . . | 86,016 |  | 17,943 |  | 301 |  | . |  |
| Senegal . . . . . . . . . . . . . | 10,216 |  |  |  | . $\cdot$. |  | .... |  |
| Cayenne .............. | 2,794 |  | 9,848 |  | .... |  | . ${ }^{\text {a }}$ |  |
| Flsheries.............. | 1,608 |  | 4,150 |  | .... |  | "0. |  |
| Gitatemala. . . . . . . . . . | 8,879 | ) | 19.021 | ) | $\cdots$ |  | 1.934 |  |
| Totals........... | 680,867 | 20,082,064 | 1,508,605 | 38,364,182 | 66,040 | 8,072,010 | 74,172 | 19,284,658 |

This makes a total export of $2,410,604$ hectolitren, worth $95,403,464$ francs, or $\mathbf{\& 3 , 8 1 6 , 0 0 0 \text { . Abonl ten }}$ years ago the exporta did not exceed $1,600,000$ hectolitrea, so that there has been a large increase in the interval. "And were France to adopt a liberal commercial policy, it is not easy to may to how great an'extent her exporta of wine, in the production of which she is immeasurubly auperior to every other country, might be increased. Exclusive of the above, there were experted from France in the same year 18,968 hectolitres of cins de ligueury, valued at $2,003,836$ francs.

The total produce of the vineyartio of France is eas timated at about $85,000,000$ haetolitrea ( $\mathbf{7 7 0 , 0 0 0 , 0 0 0}$ imp. gailons), worth $540,000,000$ france ( $\mathbf{\$ 2 1 , 6 0 0 , 0 0 0 )}$. We beg to refer the reader to the article Bondzanax for an account of the influence of the French system of commercial poliey on this great department of industry. The question, whether the wines of Champagne or Burgundy were entitled to the preference, was agitated during the reign of Louid XIV, with extraordinary keenuesa. The culebrated Charles Coffin, rector of the University of lleauvais, putsished, during this controveray, the ciassieal ode, partly quoted above, in which Champagne is eulogized, and its superiority vindicated with a spirit, vivacity, and delicacy worthy of the theme. The citizens of Rheims were not ungratefui to the poet, but liberally rewarded him with an appropriate and muniticent donation of the wino he hat so happily panegyrized. Greneau wrute an oxie in praise of liurgundy; wut, unilike jts sulject, it was flat and insipid, and failed to procure any recompense to its author. The different pieces in this amusing controversy were coliected and published in octavo, at Paris, in 1712.-See Le Gmand n'At:ssr; l'ie Prirée des Franfais, and the Biographte C'nicerselle, art. Corfis (Ctianless). Erasmus attributes the resteration of his bealth to his having ilrt...t liberally of Burgundy; ani has eufogized it in the most extravagant terms. An epistlo of his, quoted by Le Grand d'Aussy, showe that Falstaff and he would have spent an evening together more agreeably than might have been supposed: "Le premier qui enseigna l'art de faire ee vin (Bourgogne), ou qui en fit present, ne ideit-il point passer plutut jour noos avoir douné la vie que pour nous avoir gratifié d'une liqueur."-V'ie Prired des Francais.

Bordeaux lintage of $\mathbf{3 8 5 6}$. - The following table exhibits the yield of wine in the Girchde in yeare of full crop, compared with the actual yield of 1856 , and the prices ruling at the close of the year :

wine that has long heen in high eatimation in thit and other countries. Ilants of the vine were conveyed from Crete to Madeira in 1421, and have aucceeded extremely well. There is a considerable difference in the favor and other qualities of the wines of Madeira: the best are produced on the south sile of the liland. Thoagh naturaity atrong, they receive an addition of brandy when racked from the vessels in which thoy have been fermented, and another portion is thrown In previously to their exportation. This is sald to he required to suatain the wine in the liggh temperature to which it is snibjected in its passage to and from India and China, to which large quantitics of it sre sent, it being found that it is meliowed and lis flavor materially improved hy the voyage. It does not, however, necessarily follow that the wines which have maile the longest voyages are always tho beat. Much must obviously depend on the original quality of the wine; and many of the parcels selected to be sent to India nre so inferior, that the wine, when brought to London, docs not rank so high as that which has been imported direct. Ilut. when the parecl sent out has been well chosen, it is vory much matured and improved liy the voynge; and it not only fetehes a higher price, but is in all respecta superior to the direct importations. Most of the adventitions apirit is dissipnted in the course of the Indian voyage.
Madelra winea may be kept for a very Iong period. "Iike the ancient vintages of the Surrentine bills, they are truly formissima vina, retaining their qualities unImpa'redi fo both extremes of climate, suffering no decay, and constently improving as they advance in age. Indeod, they can not be pronounced in condition until they has been kept for ten years in the wood, and afterware allowed to mellow noarly twice that time in bottle; and even then they will hardly have reached the utmost perfection of which they are susceptible. When of good quality, and matured as above described, they lose all their original harshuess, and acquire that agreeable pungency, that bitter sweetishncss, which was so highly prized in the choicest wines of antiquity, uaiting great strength and richnces of flavor with an excecilingly fragrant and diffusible aroma. The nutty taste, which is often very marked, is nut communicated, as some have imagined, hy means of bitter almonds, but is inherent in the wine,"-llempenson.

The wincs of Madeira have latteriy fallen into disrepute in England. Tice growth of the island, when greatest, was very limited-not exceeding 20,000 pipes. of which a considerable quantity went to the West I- . dies and Anserica. Mence, when Madeirs was a f shionable wine in Engiand, every sort of deceptio. was practiced with respect to ${ }^{\text {: }}$ and large quant' ies of spurious trash were disposed of for the genuin vintage of the island. This naturally hrought the wine into discredit, so that sinerry has been for sever al years the fashionable white wine. It is difficult, ho vever, to imagine that adulteration was ever practic.d to a greater oxtent upon Madeira than it is now prac'iced upon sherry. It is not, therefore, inprobable thet a reaction may take place in favor of Madeira. The quantity entered for home consumption in Eugland ir, 1827 amounted to 308,295 galions, whercas the quantity entered for home consumption in 1852 umounted to only 69,730 gallons.

Salmsey, a very rich, luscious species of Madeira, is made from grapes grown on rocky grounds exposed to the full influence of the sun's rays, and allowed to remain on the vine till they are over-ripe. The trade in Madeira wino is carried on at Funchal, the capital of the island, in lat. $32^{\circ} 37^{\prime} \mathrm{N}$. , long. $17^{\circ} 6^{\prime} \mathrm{W}$. Weights and measures same as at Liahon. Madeira is said to have suffered very severely from the disease that has recently attacked the vine.

Teneriffe wine-so called from the island of that name --resembles Mindeira, and is not unfrequently subatituted in its stead; isut it wants the fuli body and rich flavor of the beat growths of Madeira.

German Wines.-The wines of Germany Imported Into England are principally produced on the banka of the Khlne and Moselle. The Rhine wines conatitute a dlatlact order by themsolven. They are drler than the French white wlnes, and are characterized by a dellicato flavor and aroma, called In the country gare, which is quite poculiar to them; and of which it would, therefere, be in valn to attempt the description. A notion prevalla that they are naturally acid, and the inferler kinds, no doubt, are so; but this la not the constant character of the Rhine wines, which In good years have ao perceptible acidity to the taste, at least not more than la common to them with the growths of warmer regions. Thelr chlef distinetlon la thelr extreme durabllity. The wines made in warm, dry yeare are always in great demand, and fetch very high prices. The Johunnisberger stande at the head of the Rhine wlucs. It has a very cholce flavor and perfume, and is characterlzed by an almost total want of acidity. The vineyard la the property of Prince Mctternlch. The Stelnberger ranka next to the Johannlaberger. It is the strongest of all the Khenish whes, and in faverable years has much Havor and dellcacy. The produce of certain vineyards on the banks of the Moselle is of superior quality. The better sorts are clear and dry, with a light, pleasant flavor and high aroma; but they sometimes centract a slaty tasto from the atrata on which they grow. They arrive at maturity in five or six years; thongh, when mado in a favorable season, they will keep twice that time withont experiencing any deterioration,-Hendenson on Wines.

Tokay-so called from a town In II ungary, near which it is prodnced, on the Theiss, 44 miles north-northwest frem Dobreczin. It is the tinest of all the liqueur wines. It conslsts of three varietjes, vlz. : the Essence, flowing spontancously from the ripest grapes, and correapending with tho Mrustum aponts dofluens antequam calcentur ueos of the anclents; the Ausbruch, obtained by pressing the $g$ rapea with. Al.m: new * , of must, heing at the same time poured over .um; and the Maslas, or Inferior variety, produced by pouring a larger quantity of less choice must over the same leerries, and sabjecting them to the actlon of the press. Of these varioties, the first, which is made only in very sinall quantities, is in the highest degree swect and luscions, and is more sought for as a rarity than as being pleasant to the palate. It is on the Ausbruch that the reputation of Tokay depends. Mr. Paget says, "It is sweet, rich, bat not cloying; strong, full-bodied, but mild, bright, and clear; and has a pecallar flavor of most exgulsite dellcacy. I never tasted it in perfection but at private tables, and that only twice; I could then have willingly confessed It the fnest wine in the world." The Maslas, or inferier variety, is a much thinner wine, rather sweet, with a preponderatling flavor of the dried grape. Mr. Paget estimates the entire produce of the Tokay vineyarde in ordinary years at about 250,000 elmers, of about sixteen bottles euch. The best Ausbruch is very dear, and but littlo that is genuine is seen In Englend.-Pagart's Travels in Hungary, i. 481 ; Henderson, p. 228; Jullien, p. 446.

Italian Wines.-The Sicilian white wine called Marsula, from the town (the ancient Lilyboum) whence it is shippod, and near which it is made, is now pretty largely consumed in Eugland; the entries for home conaumption having increased from 79,686 gallens In 1823 to 387,750 in 1852; an extraordinary increase, particularly when It is considered that daring the aame period, the consumption of most sorts of wine has been nearly stationary. Latterly, however, it has been rather decllning. Marsala is a dry wine, the best qualities closely resembling the llghter sorts of Madeira; but the increased demand for it seems to have been owing as much to lis cheepness as to any peculiarity of quality. It is, however, when good, an agreoable dinner wine. Marsala has been bruught to its
present state of perfection and repate by the care and oxertions of two Engliohmen, the Mesprs. Woodhouse, eatablished in Slelly, who have an extensive factory in the neighborhood of Marsala. The wine is ohlpped In large quantlties for America, whence a considerable quantlty ls again conveyed to the West Indles, where It Is not unfreqnently disposed of as real Madelra. With the exceptioa of Mareala, very Ilttle wine elther of Sleily or Italy la Imported Into England. The wines of those countries are, indeed, wlthout perhapa a single exception, very Inferior to thoee of France. The nstives beatow ne care upon the culture of the vine, and their Ignorance, obstinacy, and want of akIII in the proparation of wine, are aaid to he almost incredible. In eome districts, as in Tuscany and parta of Naples, the art liu, no deubt, better understood and practlced than In others; the Montepulciano of the former, aeld, by Redl (Bacco in Toscana), to be dogni cino il re, and the Lacrma Christi of the latter, being the most celebrated varietles. Dut the lacrlma is better known by name than in realit it belng made in omall quantities, and mostly reser ved for the royal cellors.-Henderson. And, desplto the superior quallty of those now mentloned, had net the Falernian, Cecuban, and other iamous anclent wines, been incomparably bettor than the best of those that are at present produced, they never would have elicltet the glowing pancgyrics of IIorace,-M'Cullow's Com, Dict.

Fow things are more striklng to a visltor in Italy from the north of Europe than the stralght rows of troes of all kinds that run through the corn-fielle, at the foot of which vinee are planted, and tralned 00 as to extend in elegant festoona from one tree to another, exhlbiting the pendent clusters of grapes. If the eame mode of training the vines were attempted in the somowhat colder climates of France and Germany, the shade of the trees would prevent the grapes froni rlpening. This effect is not produced in Lombardy, where the berries become ripe, and, when taten, are of good flavor; but the wine produced from them is, in geaeral, of a bad or very indifferent quailty. Though much of the wine is produced from such vines in the corn-fields as are distingnished by the names of Campi Aratici Vitati, or of Campi Arborati Vitati, and from vines plantcil In rows at such a distance from each other as to admit of malzo being grown between them, and called Ronchi; yet in some parts are vinayards properly so called, because, like those of France and Germany, they alone occupy the ground, and are, like them, aupported by props. The best winc is produced from the Ronchi, and more especially from tho vineyards properly so called, in which, however, each vino produces less in quantity than those trained from tree to tree. The amount of prodnce varics greatly accordling to different years, differont districts, end different modes of cultivation. From an approximate estimation made on many farms of various coils, it wonld appear that in the most productive districts the average produce of large vincs tralned to the trees around the cornficlds is from 48 to 52 gallons for 100 vines; and the averago produce of vineyards, properly so colled, from 58 to 65 gallons of wine to the acre.

In Lombardy the wine is generally of a bad quality. Its production is left chlefly to that description of cultlvatore befors notlced under the name of colonists, who exercise little dlscretion and little care, either in the choice of the kind of grapes they plant or in the management of the jaice. Their chicf care is to obtain the largest quantity, without much regard to the flavor or the aptitude of kecping; and commonly, as soon as it is made, they divide it in equal shares with their landlorda. Onc cause to which the inferfority of the wine Is attributed arises from the general predilection in faver of red whe, or, as it is called, Vino Nero, which Is prized according to the darkness of lts color. In order to produce this deep color, the skins of tho grapes are left, In the first part of the process,
to ferment with the juice. Sometimes this is onflered to continue during eight or ten days in a vat before the liquor is drawn off, and nometimes stlll longer, te the longer it continues the darker the wine becomes. The beat wines are produced in the diatrict near Varese, on the sunny alopes of the billa round the lakee of Como and Garda, and In the Val Callepplo, In the province of Bergamo. The winea of the localitios of Sassella and Inferno, In the Valtelline, maintain the anclent renown of the Rhaetian wines, relished by Augnatus and celebrated by Virgil.

The wine of the Venetian provinces 1s, upon the whole, of a much better quality; fis superiority ls owIng to the nature of the soll, to a better shoice of the kinds of grapea that are planted, and to the more careful preparation of their julce. The beat qualltios are produced in the province of Troviso, in the llericl and Euganean Ilills, between Vicenza and I'alua, in somo districta of the province of Udine, and, above a11, ln the province of Verona, well known for its l'alpolicella, the best common wine in the kingdoin.

There is no old wine in the country, except In amall quantities, and in the hanils of a few amateur proprletors. The wine of each vintage le sold In the courso of the following year; and when any of it is kept, even theugh it should not have become, or shown a tendency to become, vinegar, It will aell at a lower price than new wine, because It is milder, and less agreeable to the taste of the consumer.-E. B.

Prevlous to 1851, the annual quantity of wine produced in the kingdom, in a verage years, was 85,837,705 gallons, of whikh $52,823,203$ gallons were producud in the Venetian, and $33,014,502$ in the Lombard provinces. The produce of Lombardy not leing sulticient for the consumptlon of lis population, nearly $4,402,000$ gallons a year more were imported elther from the Venctian provinces, which produced much moro than was required for their own consumption, or from the neighboring states of Modena, Pledmont, and the I'apal territory, according to the respectivo local produce and prices. But since 1851, when the oidium attacked all the vines of the country, the proiloce has ao fearfully diminished, that in $\mathbf{1 8 5 6}$ the goverminent found it necessary to grant a reduction of tha direct land-tax on lands chifliy cultivated with vines, in proportion to the ascertained amount of loss. The whole produce of Iombardy In 1852 was reduced to $11,004,834$ gallons, and that of tho Venetian provlnces, in 1854, to $7,538,311$ gallons of wine. The respeetive loss of each province was as follows :


Hines of Greecs and Cyprus.-The sail in most parta of Greeco and of the Grecian lslands is admirably fitted for the growth of the vine; and in antiquity they produced some of the choicest wines. Ihat the rapacity of the Turks, and the insecurity of person and property that has aiways prevailed under their miserable gov-
ernment, has offectually prevented the careful cultivation of the vine, and has occasioned in many places its total abandonment. It may, however, lie fairly presumed, now that Greece has emanclpated hersolf from the iron yoke of lier oppressors, that the culture of the vine will attract some portion of that attention to which It is juatly ontlited, and that at no d'atant period wine will form on Important article of expert from Greece. Nowhere, perhapa, has the destructlve Influence of Turklsh harbariam and miagoverument been so apparent as In Candla and Cyprus. Whila these two renowned and noble lslands were possessed by the Venotlans they supplled all Europe with the cholcest deasert wines. Bacel affirme that, toward the end of the 16th century, Candla sent annually 200,000 caska of malmany to the Atriatic, whereas at present It bardly produces sufficient to supply the wante of lta fow impoverished Inhalitants.-IIenienson. The wines of Cyprus, partleularly those produced from the vineyard called the Commandery, from Its having belonged to the Knlulits of Malta, were still more highly eatecmed than those of ('rete. In the earllar jart of last century the total produce of the vintage of the island was aupposed to amount to above $2,000,000 \mathrm{gal}$ lona, of which nearly one half was exported; hut now the wine grown and exported does not amount to onetenth part of these quantities! Tha oppression of which they have been the victims has reluced the peasantry to the extrenie of indlgence. The prescit population of the lsland la not supposed to exceed 60,000 -a number insufficient to have peopled one of Its many ancient dities; and small as this number is, It is constantly diminishing lyy the luhabitants avallIng themsolves of every opportunity of emigratling.

Cape IFines.-The famous Constantia wine is the produce of two contlguous farme of that name at the base of Table Mountain, leet ween eight and nine inlles from Cape 'lown. Tha wine is very rlch and luscious, though, according to Henderson, it yielils in point of flavor and aroma to the muscadine wines of Languedoc and Rouasillon. Hut, with this exception, most part of the Cape winee hrought to Fingland have in earthy, disagrecable taste, are often achl, want flavor and aroma , and are, In fact, altogether execrable.
American Wine.-The extent of our territory over which the wine culture may be advantageously diffused has long affordell a auliject of much speculation. It carly attracted the attention of the flrat colonists, who not only attempted to form vineyards of the Furopean vine, but to make wine from our own native grapes. Although the aubject has heen zealonsly and sedulously pursued at various pertoda since, all those dwelling on the easterly half of the continent whe have made trial of the forcign grape have never heen alle to bring thelr designs to perfection; and those who have tested their akill In our native varietles have only met with partial auccess; yet a degree of perseverance and onthusiaam seens to have pervaded all the vetaries of thls delightful pursuit, and a warm and mutual Interchange of vewa and sentinents has exiated among them, which has been comparatively unknown in oth. er species of culture. Although tho operators in recent times, from being interspersed over so great an extent of territory, are congequently more widely sejarated, still the conncoting link, by a frienilly co-operation in ono common cause, may justly and appropriately asaimilate their united exerions to that joyous period in the hiatory of Franee when, during the reign of I'robus, thousands of all ages and sexes united in uno ajontanoous and enthualatio effort for the restorstion of their vineyards. Indeed, when the far grester limits of our dumain are considered, the combined offorts of our fellow-countrymen can not fail to produce effects even more important, from the great extent of their Influence, and eause each section of our reproblic reciprocally to respond to the efforts of others, with all thelr attendant advantages and blessings.
cies, wan foand to contain of per cent. Buchanan
atatos that the proportion of alcohol in the American wines in about the mame as in the wines of France and Geriaany. Brande, lowever, contends that the French Graves wine contaline 13•94, Barsae 13•80, Sauterne 1 $1 \cdot 22$, Rudesheliner of 1800 12:22, and Hock $14 \cdot 37$ par cent. of alcohol.
The prices of American wines may be considered bigh. Ten to twelve bottles of stored atill wine cost from st to 88 , and aparkiling wine brought $\$ 12$ in 1854. Naw wine rangea from 40 centa to 110.

Of the recent territorlal aequisitions of the United States, Callifornia, and Vlonda will probably ere long be ranked among the ozine-producing States. In California the efforis of the old Catholio missionaries to cultivate the grape resulted sathefactorily, and the manufacture of wine froms the ciomeutic grape of Fiorida was also attended with success, Sir John Jluwking reports that is 1694 the mettlera in Florida realized wenty hogshoads of palatabie wine from the antive grape. The gond results which were anticipated from this discovery were, thanka to the political diaturbances in which that colony becamo involved, never realized.

In Canada West, where certain species of wild grapes are very abuadant, the manufacture of wine, recenily introduced, has been sttended with the moat signal auccesa. Buchanan's Journal pronounces it superior to the imported port-wine.-N. Y. Sire. J'ost.

Tho following statement shows the prodnction of wine in the several States of the Unioil In the years 1840 and 1850, according to the censue returns:
 1860. - (C'angef REpiAT.)

| Ataten and torriterles. | inna | JMa |
| :---: | :---: | :---: |
| Alabama ............... | Clin heat. 117 | Gallume. 440 |
| Arkanmat .. ............ | $\cdots$ | 86 |
| c'allfornla ............ | H | 69,056 |
| Colambls, liatriet of.. | 25 | M ${ }^{\text {a }}$ |
| thonneetleut . . . . . . . . . . | 2,403 | 4,209 |
| Lelaware .............. | 898 | 188 |
| Florida. . . . . . . . . . . . . . | - | 10 |
| Genrgta ............... | 8,647 | 794 |
| Illinuls . . . . . . . . . . . . . | 474 | 9,907 |
| Indlana, . . . . . . . . . . . . . | 10,206 | 14,060 |
| Iown ................... |  | 420 |
| Kentuely | 9,200 | 8,008 |
| Itablalana. . . . . . . . . . . . | 8,884 | 15 |
| Maine .................. | 2,236 | 784 |
| Maryland.............. | 7,085 | 1.431 |
| Msamachunelis . . . . . . | 103 | 4,688 |
| Mlelilgan . . . . . . . . . . . | - | 1,64 |
| Mlusientppl. . . . . . . . . . | 19 | 407 |
| Misconrf........t..... | 24 | 10,503 |
| New Ifangahire....... | 94 | 814 |
| New Jeraey . . . . . . . . . | 0.416 | 1,811 |
| New Yiork............. | 0,700 | 0,178 |
| North Carolina. . . . . . | 28,754 | 11,1088 |
| Ohto ................. | 11,524 | 48,207 |
| Pennaylvanla ......... | 14,328 | 20.800 |
| Thede laland ......... | 803 | 1,1118 |
| fluth tiarellaa. . . . . . . | 648 | 5,880 |
| Tennosee . ............ | $6{ }^{6} 3$ | 02 |
| Texas ................. |  | 09 |
| Vermont. . . . . . . . . . . . . | 04 | 609 |
| Virginla............... | 13,011 | 6.403 |
| Wincotimln ............ | , | . 118 |
| New Mexice Territory. | .... | 2,868 |
| Tolats. . . . . ..... | 124.731 | 221,24 |



| Dale. | Madeira |  | Wherry, |  | sielly. |  | Fort. |  | clarst. |  | Ouber ied Wine. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Walluan. | Value. | diallona. | Valun. | Wialluna. | Value. | Gafluns. | Valse. | Endumat | Valus. | Tallonn. | Value. |
| $18.5{ }^{\circ}$ | 3919 | 8. 4.076 | 4.65 | 46.491 | 14,509 | \$4.617 | 38,693 | 事 25.714 | 873,805 | *144,54, |  |  |
| 121. | 16.754 | 30, 508 | 18.0665 | 23,414 | 81,1811 | 15,1400 | $2 \times 3.615$ | 154, 1 TA | 908,109 | 218,239 | 340,887 | \$ 40,146 |
| 1845, | 101,176 | 145,23? | 28.616 | 38,789 | 111,6:0 | 40,033 | 260,508 | 162, 868 | 1,061,804 | 249,638 | 485.85v | 143,210 |
| 1040. | 169,767 | 12\%,8, ${ }^{\text {a }}$ | 26.038 | 41,761 | 800,131 | 74,1)00 | 3t252. | 148, $\mathrm{NOO}_{0}$ | 201,351 | 249,708 | 054,046 | 816,8*1 |
| 1446 ${ }^{19}$ | 117,117 | 128,618 | 14.513 | 20,194 | 21,241 | 8,033 | 80,991 | 02, 251 | 294,433 | 111,4123 | 1,072,689 | 328.814 |
| 1817 | 13,806 | 6. 317 | 17,591 | 64,061 | \$2. 231 | 24, 210 | 8.075 | 8.791 | 601, 0506 | 119,844 | B39,454 | 110,411 |
| 1849. | 44,684 | 21.630 | 815.635 | 109,583 | 100,29] | 67.364 | 501.123 | 170.114 | 1,9 T, 171 | 221,416 | T81,078 | 180, 19.8 |
| 1849. | 143,471 | 165, 302 | 170,7:14 | 123, 610 | 181, 851 | 32, 2111 | 711,298 | 274.760 | 1,012,7(1) | 208, 646 | 904,468 | 221,177 |
| 1810. | 3113, 125 | 160, 006 | 212.002 | 118,062 | 91,143 | 84.883 | 6.6,211 | 305, 354 | 1,910,164 | 267.445 | 1,400,250 | 2t:5,188 |
| 1551. | 169,041 | 116,008 | 250,277 | 1.4.668 | 301,010 | 08,975 | 762.907 | 319,840 | 1,1440,121 | 280,888 | $1,245,201$ | 298,727 |
| 1852. | 216,68? | 108,917 | 168,810 | 97.680 | 91,746 | 24.603 | 614.816 | 240,238 | 2,702.618 | 415,340 | 1,178,816 | 239,350 |
| 1N'? | 226,408 | 105, 6\%9 | 313.048 | 185.813 | 190.905 | 46,794, | 601.791 | 868.005 | 9.033. BCO | 462,827 | 1,374.416 | 377.482 |
| 1354. | 120,341 | 54.251 | 415,248 | 24,028 | 6. 8.811 | 48, 159 | 843,197 | 177,036 | 2,045,474 | 441,105 | 1, 864.885 | 45,0,105 |
| 19\%5..... | 71.919 | 41, 445 | 393,3:8 | 2018.414 | 193,7(1) | 65,369 | 186,461 | 97.087 | $1,371.409$ | 440,681 | 1,519,505 | 460,983 |
| 18.8 | 41,303 | 82,081 | 898.332 | 870,317 | 184,104 | A1,961 | 284,816 | 158,7\%9 | $1,518,018$ | 801,440 | 607, 814 | 2*5,11! |
| 18:37 | 106, 101 | 05 s*0 | 614.644 | 304.060 | $2 \times 1.343$ | $133,4.4$ | 600,210 | 417,564 | 1,897,118 | 06:,4113 | 1,186,293 | b, 60, 027 |


| Dato. | WIPH, GBABPT, ARD GEAN UPIEITS. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Othet whito Wine. |  | Brandy. |  | Grain Eplrits. |  | Other Rpirits. |  | Berer, Alf, and Portes from Eingland. |  | Deer, Ale, and Ponter from Arotiand |  |
|  | dishlume | Value. | Gallona. | Valua. | Gallonse. | Vular. | Gallomal | Value. | Gallon* | Valua. | Giallona. | Sulue. |
| 134.3' | 124, 23. | sta, $200^{\prime}$ | 111, 1.83 | \$1, 6,20\% | 253.18 .1 | \$121.047 | 1156, 3:9 | \$ $322,15,5$ | d 6.612 | 467, 14.8 | 7,423 | \$6,3156 |
| 1414. | 265,414 | 65, 04,0 | $7 \times 2,610$ | 600.0118 | 416,118 | 111,015 | 210,4i7 | 78027 | 117.489 | 102,157 | 10,:186 | 18,412 |
| 1945. | 701,735 | 211.143 | 1,031.314 | 819.450 | 606,311 | 862.613 | 870,494 | 73,057 | 79,312 | 73.729 | 26.711 | 21,244 |
| 1 N 10. | 305, 8016 | 310,241 | [03, 143 | A59,231 | 067.705 | 845.859 | 421.344 | 81, 118 | 117,621 | 110,307 | C8,461 | 89,8.11 |
| 1516t | 618,267 | 290,788 | 881,10* | 356, 451 | 134.323 | 80,013 | 65,477 | 24.802 | 43,140, | 42.157 | 2,181 | 1.645 |
| :sti | 248.482 | 60,831 | 023,310 | bi5,631 | 327,648 | 1480.41 | 160, 747 | B7, H (1) | 132,167 | 67,365 | 15,375 | 86817 |
| 1818. | $840,64 \%$ | 193,3\% ${ }^{\text {a }}$ | 1,370,111 | 1,135.08. | 676,033 | 327.493 | 298,611 | 75.943 | 4 210,1018 | 101,171 | 30,482 | 21.86 |
| 184\%. | 071, 8\% | 210,1\% | 2,061,001 | 1,347.614 | 716, 270 | 897,967 | 5 $42,49:$ | 145,78t | 140.478 | 118.288 | 62,207 | 811.089 |
| 1850. | 1,048,801 | 215, 2143 | 4,145, 802 | 2,069,637] | 751,183 | 861,678 | 330, 10: | 118,770 | 186.735 | 129,657 | 6\% 2800 | 41,7:41 |
| 1851. | 1,085 374 | 208.847 | 3,163, $1 \times 3$ | 2,123,679 | 98.4.417 | 864.204 | 309.914 | 100,85: | 275.318 | 180, 01~ | 89,170 | P0, 730 |
| 1542. | 924, 379 | 105.830 | $2,751,810$ | 1,74\%,720 | 865,301 | 294.381 | 359,673 | 98, 14.46 | 242,838 | 186, 1164 | 110.152 | 07..414 |
| $18 \times 8$. | 1.275,290 | $3 \times 15,24!$ | 3.851,066 | 19,851.408 | 1,060,454 | 1240.18 | 336,477 | 116,901 | 907,420 | 284.347 | 181,857 | T7 414 |
| $15^{*} 1$. | 1,379,4.48 | 360,204 | 2, 152, 316 | \%, \%rE, 841 | 1,107.2\%4 | 544.563 | 39.1.543 | 124,304 | N25.671 | 424,876 | 2711.0044 | $14566{ }^{6} \%$ |
| 1s\%'s. | 139, 364 | 322,25 | $1,024,497$ | 1,479, 362 | $1,1001,012$ | 875, 6811 | 207,572 | 151,378, | 910.252 | 859,060 | 845, 11114 | 184, 15.7 |
| 1506. | 617.188 | 18. 4.499 | $1,718,717$ | 2,8*0,342 | 1,682, 126 | 773,276 | 772,64 | 254,484 | 702, 165 | [04, 1411 | 24,0.4 1815 |  |
| 15.7 | 7!1.417 | 306.739 | 1,513,826, | 2.527,202 | 1, 089.037 1 | 1,125,1601 | 443,405 | 218,907 | 1,048,903 | 619,727 | 875, 760 | 221,816 |

There were no exports of wine of domesile produclion from the United States for the fiscal year 1856-57.

The exporis of forejgn wine from the United Stalea for the year ending June 30,1857 , were as follows:

| Ma | Value. $\$ 6,111$ |
| :---: | :---: |
| Sherry and At, Disear | 11,903 |
| Port | 14,081 |
| Clare | 27,691 |
| Slally | 9.810 |
| Ited wine woenumerated | \$,4.818 |
| White wine unenumernted | 3.646 |
| thampagne | 92,1411 |

Wings. In naval matters, passages aling the sides of the ship between the fore and after cockpit.

Wire. The invention of drawigg wire is nseriled to Rodolyh of Nuremberg, A.b. 1410. Nills for this p,urpose were first set up at Nuremberg in 1563 . The first wire-mill in England was erected at Mortlake, in 1663.-Montrimea. The astonishing ductility, which Is one of the disilnguishing qualitles of gold, is no way more cnnspicuous than in gill wire. A cylioder of 48 ouncess of silver, covered with a coat of gold weighing only one ounce, is usually drawn into a wire two jards
of whiloh only weigh one grain ; so that 98 yarim of the | lakea within Ita borders are Winnebago, Horicon,
wire weigh no more than 49 graing, and onu singie grain of gold covera the whole 98 yarda ; and the thotsandth part of a grain in above one-eighth of an lici long.-lialuar. Elght grains of goid covering a eylinder of silver are commonly drawn into a wire 13,000 feot lung ; yot so perfectly does it cover the silver, that evell a microseope does not discover any appearance of the nilver underneath.-Bovis.

Wieconsin, one of the northwestern United Statea, liea between hut. $42^{\circ} 30^{\prime}$ and $49^{\circ} 30^{\prime} \mathrm{N}$. , and between long. $80^{\circ} 50^{\prime}$ and $96^{\circ} \mathrm{W}$., heling 600 miles long and 150 broad. It contains about $53,1,24$ square millea. I'opulation in 1840, 80,045; in 1845, 150,000; and in 1860, 305, 191 .
'l'he portion south of Green Bay, Fox and Wisconain rivers, la composed of thinhered and prairie lands, with some a wampa and wet prairies, having a vegetable soll from one to two feet deep. North of the Wisconain lifver commences a hilly region, swelling aa it proceeda north into a mountainous country, with a rugged and broken surface, creating many raplds and falls in the streains, and affurding many whll and picturesque views. The northwest part of the State ls covered with immonse forosts of pine and much rough land, especici1. bordering Lake Superior. Oa the rilge dividing the waters flowing north Into lake Suparior, and those flowing south Into tho Mississippi, aro many emall akes, in which flah are ahundant. Bordering on the Missiasippl and Whaconsin rivers the soil lis rich, and tho land gonorally heavily timbered. 'Visconsin It rich In minerals; the great Mississippi lead reglon lies mostly within Its limits; Iron oro of the best quallty exista thordering the sonrces of all the streams entering the Mississlppl, and copper along the shores of Lake Superior; marble, limestone, sandstone, g.psum, and other varlety of minerale abound.
Thers were In this Stato In 1850, 1,015,499 acres of land lmproved, and $1,931,150$ of unimproved land in farins; casli value of farms, $8: 28,528,503$; and the valuo of limpleinents and maclinory, $\$ 1,611,568$. Live Stock. - Horses, 30,179 ; asses and mules, 150 ; milleh cows, 64,339; working oxen, 42,801; other cattlo, 70,203; shoop, 124,896 ; owine, 159,276: value of live stock, 44,897,385.
Agriculturcl Prolucts.-Wheat, 4,280,131 bushels; rye, 81,253; Indian corn, 1,988,979; onts, 3,414,672; barley, 209,692; buck whent, 70,878 ; peas anil beans, 20,657; potatoes, $1,402,077$; sweet potatoes, 879 ; value of products of tho orchard, $\$ 4823$; produce of market gardens, $\$ 32,142$; pouads of buttor made, $3,633,750 ;$ of chcese, 400,283 ; maplo-sugar, 610,076 ; molasses, 9874 gallons; beoswax and honey, $131,005 \mathrm{lbs}$; wool, 253,961; flax, 68,393; hops, 15,930; tobaceo, 1268; hay, tons of, $27 \overline{\mathrm{~T}}, 662$; hemp, 2 ; clovor seods, 483 bushels; other grass seeds, 5003 ; thaxseed, 1101 ; and were made 113 gallens of wine : value of howe-made manufactures, \$43,6-4; of slaugitered aolmals, $8920,178$.

The prlacipai rlvers are the Mississippi, which flows along its western border for a distanes of $2-5$ miles. The Wisconsin has its entire courae within the State, flows centrally, and enters the Mississlppion its western berder. It is navigable to the portage of Fox or Neenah River, where a canal is being mado, which, when completed, with tho contemplated improvements of Fox River, will make a navigable communication between the Mlasissippi and the lakes. Tho Chippowa enters the Mlssissippi farther northwest, and is a large river, and St. Croix River forms a portion of its extreune reatern houndary. Rock River risea and flows partiy in this State. The other prinelpal rivers are the Menomineo on its eastern border, entering Green Bay, and the Montreal, entering Lake Superior; there are also othor small streams entering Lake Superior. Tho Milwaukee, Sheboygan, as well as othors, onter Lake Michigan. The other most noted atreams are the Wolf, Bad Axe, and Black Rlvers. Tho principal

Yaskohong, and the fuar lakea in the south, and many all onea in the north. The prinelpal places in the Stata are Madison, the capltal, Milwaikee, Raclne, Kenosha, Oaaukee, Green Bay, Jameaville, and I'rairia du Chien. There were in January, 1854, four ralire ads In the State, with CH7 miles of road tinished and In operation, and there ware 10 banka with a cash capital of 0600,000

Manufactures, elc.-There wero in the State in 1850, 9 woolen factorien, with a eapital invested of $\mathbf{~ B ~}_{31,225,}$ employing 25 malea, manufacturing 36,000 yarda of cloth and 74,250 lbs. of yarn, valued at 487,$992 ; 1$ astablishment maklag pig-iron, with a capital of 15,000 , employing 60 persons, and making 1000 tous of plgIron, valuerl at $\$ 27,000 ; 15$ estahliahments, with a capltal of 116,350 , omploying 228 persons, producing 1842 tons of castings, etc., valued at 216,195 ; i5 thouring and grlst milla, 412 saw-milla; 34 tanuerien; 42 print-ling-offices, lasuing 0 daily, 5 trl-weekly, 36 weekly, and 1 nonthly publication.
Fobeian Commegon op tab Stats of Wiscomein thon Julr t, 185s, to Julr 1, 1867 .

| Yearn ending | Kxporte. | Lamporia | Tomnage pleared |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Total. | Total. | Asoeriean. | rominn |
| Julle 30, Isim | *30,464 | \$19,174 |  |  |
| 185 | 174,057 | 48, 615 | 8.149 | 0. |
| 15.50 | 845,49? | 27,6.4 | 32,119 | 2710 |
| 1857 | 6\%2.044 | 5.817 | 46.081 | $2 * 16$ |

At the close of the yoar 1857, the number of banks in Wiseonsin hail Increased to 73, with a combined capital of $\% 5,600,000$, and bank-note circulation $83,000,000$, the latter belng secured by a collate.al deposit of Stata stocks.

Woad (Gor. Waid; Dı. Weerle; Fr. Pastel, Guede, Iouéde; It. Guadone, Guado, Glastro; $\mathrm{Sj}_{\mathrm{j}}$. I'asiel, Clasto), the /antis tinctoria of botanists, a biennlal plant, with a fusiform filurous root, and smooth branchy stem, rialng from three to flve fect $\ln$ height. Woad is Indigenoua to most parts of Europe; and was extensively used frem a very remote period, down to tho general introduction of indigo, in the dyeing of blue. It la atill cultivated to a conslderablo extent in France; hut In England its cultivatlon ls chiefly restrleted to a few distrinta In Lincolnshiro. After lieing brised by machinery, to express the watery purt, it is formed Into balls, which forment and fall into a dry powder, which is sold to the dyer. Wond is now seldom employed without a mixture of Indigo. Hy Itself it is Incapable of giving a bright and deop bluo color; but, the color which It does givo is very durable. The best methods of condueting the formentatlon and preparation of woad are still so very Ill understood, that the goodness of any parcel of it can novor be ascertalned till lt be actually used; so that it has the disadvantage of being purchased under the greatest uncertalnty as to lts true valuo. At the proper are, indigo plants yjeld about thirty times as much coloring matter, and of a far suparior quality, as an egnal welght of woad; so that there is no prospoct that any improvement that may be nade in lts preparation will ever render it, either in goodhess or cheapness, a rival of the former.-Lounon's Encyl. of Agriculture; Bancrort on Colors.
Woods. Mr. Holtzaptlel, in his elaborate work on "Turning," gives a very minute deseription and classification of the various kinds of wood used In the arta. He first points out the well-known struetural difference between exogens and endogens, which leads to a aoparation of all kinds of trees into two great groups; all the true woods (as they are sometimes termed) are exogens; whereas the endogens include the grassos, bamboos, palins, etc. In the countries where bainboos and palms ari intligenc. 3, the smaller stems are ueed as tubes fur : ie conveyance of water, and the larger picces as joista, etc. In tho larger kinds of palm, the flbres appear like streaks or wirea linhedded In a substance similar to cement or pith.


|  | Manulcetares af Wood. |  |  |  | Uamanufectared Woof. |  |  |  | Cortas. | Uoman-nfaelored Cork. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wheace Imported. | Cablinel Homenhold Fumiture. | $\begin{aligned} & \text { Coclari } \\ & \text { Mothogay, } \\ & \text { nopotin. } \end{aligned}$ | Wiliow. | OThor Mant. facturve uf. | Ceder, Cren- <br>  hogany, Roes, and satla. | Willaw. | Firowood and ether not apeetiond. | .Dyeweod in Edeh. |  |  |
| Kussian Poss In S. Am... | - | *...' | .... |  | .... | $\cdots$ | (004 | -*. | -•* | * $\cdot$ * |
| Swedan and Norway ..... | .... | . |  | $5{ }^{\text {S }}$ | .... | ...', | ... | . | , | .... |
| Danigh West Indlem . . . . | cinio | \%828 | 5,808 | 61,083 | -60\%11 | $\because 8.87$ | 10 | .... | -114 | $\cdots$ |
| Breman. . . . . . . . . . . . . . . . . . . . | -678 | 007 | 119,240 | 110,896 | 845 | 688 | 10 | -110 | 5,704 | \%88 |
| Hatiand .................. | 788 | .... | 80 | 1,108 | -108 | .... |  |  | .... | .... |
| Dutch Weat Indies ...... | .... | * |  | .... | 605 | .... | 1,741 | 18,186 | .... |  |
| Datch Gulene. . . . . . . . . |  | , | .... | d | .... | .... | BT, | 1,616 | .... | .." |
| thutch Kiat Indies....... | 80 | $\cdots$ | $\cdots$ | 48 | . . . |  | ....' | 790 | .... | .... |
| Heigitum . . . . . . . . . . . . . . | 80 | 841 | 690 | 4.880 |  | 16,032 | .... | 258 |  |  |
| Fingland . . . . . . . . . . . . . . | 1,850 | 4765 | 1,506 | 66,680 | 678 | .... |  | T,898 | 1,700 | 171 |
| Bcotlend . . . . . . . . . . . . . . . |  | 60 | - | 1,040 | - | .... | .... | .... | .... | 508 |
| Ireisnd .................. |  | .... | .... | 118 | .... | .... | .... | .... | 108 | .... |
| Glbrattar: . . . . . . . . . . . . . | or | .... | 18 |  | .... | .... | - 19 | , | 1,498 | .... |
| Canede ................ | 96 | ... | 18 | 26,908 | \% | .... | 1,259 | 9 | *... | 88 |
| Other Brisiah N. A. I'oet. | .... | 60 | $\ldots$ | 3,762 468 | 78 | $\cdots$ | 8 | 1,460 | . . $\cdot$ | 26 |
| British 11 ondrate. |  |  |  |  | 28,881 | .... |  | 27,584 |  |  |
| Britleh Gulana . . . . . . . . . | $\ldots$ | .... | .... | 80 | 111 | .... | 81 | 80 | . | .... |
| Itrilah Pous. In Africa |  | .... |  | $\ldots$ | .... | .... |  | 884 | .... | - |
| (Hher ports in Africa .... | -... | .... | 10 | 066 | .... | .... | 308 | 4,795 | .... | .... |
| Mritimh Auatralla . . |  | -*.* |  |  |  | . . . | 1,488 |  |  |  |
| Hritich Eayt Indies... | 486 |  | 17 | 1,010 |  |  | 160 | 0,144 |  |  |
| France an the Atlanile... | 39,443 | 7,409 | 54,605 | 86,649 | 81,699 | 21,488 | .... | 80 | 26.082 | 11 |
| France on the Mediter'n.. | . | 90 |  | 68 | .... | 208 |  | 9 | 88,009 | 10 |
| French Gulana........... |  | $\ldots$ |  |  | .... | .... | 71 | .... |  |  |
| Spain en the Allantle.... | , ....'* | .... | 11 | 10 | .... | . . . | .... |  | 49.670 | 890 |
| Spain on tha Mediter'n... | - | .... |  | 82 | .... | .... | .... |  | 22,280 | .... |
| Philf In In lands....... | 85 |  | .... | 179 |  | .... |  | 22,181 | .... | .... |
| Cuba . .................... | 252 | 85 |  | 187 | 136,060 | .... | 089 | 6,016 |  |  |
| Prorto Rico . . . . . . . . . . . . | ..... | .... |  | .... | 1,691 | . . . | 780 | 828 |  |  |
| Portuggal . . . . . . . . . . . . . . | .... | . . . |  |  | , | ... | .... |  | 10,366 | 11,674 |
| Madeira . . . . . . . . . . . . . . | .... |  | 91 | 144 | .... | .... | * $\cdot$. | ... | .... | .... |
| Asores. . . . . . . . . . . . . . . |  | 68 |  |  | .... | .... | .... | .... | -109 | .... |
| Sardinin . . . . . . . . . . . . . . | *80 | - | .... | -86 | .... | .... | .... | *** | 102 | - |
| Tuscany . . . . . . . . . . . . . . | 660 | 06 | .... | 7,847 | .... | $\cdots$ | .... | .... | 987 | $\cdots$ |
| Two Sicilies. . . . . . . . . . . . . . . . . | -68 | -••• | - | 18 | - | *. | . $\quad .$. |  | 6.919 | 4.850 |
| Anatria ... . . . . . . . . . . . . | 101 | . | 818 | 14 | .... |  |  |  |  | .... |
| Turtrey in Adia........... | .... | .... | .... | 1,130 |  | . | 595 |  | - | . $\cdot$ |
| JInyth. . . . . . . . . . . . . . . |  |  |  |  | 104,404 | .... | 1,696 | 516815 | .... | . . . |
| Ben Domin ${ }^{\text {c }}$. . . . . . . . . |  |  |  |  | 83,249 | ${ }^{\prime}$ | 9,901 | 9.977 | . $\cdot$ |  |
| Mexlco ..... |  | .... | - $\cdot 1 \cdot$ | 65 | 43,818 | . . . | 181 | 62,219 | . $\cdot$ | . $\cdot$ |
| (lentreil Republia ......... |  | .... |  |  | 861 | ... |  | 6.694 |  | .... |
| Ner Granada. |  |  |  | 1,085 | 201 | . | 1,383 | 29.638 | 258 | .... |
| Veneauele |  |  | .... | 1,463 | 1.959 | ... | 1,785 | 81.022 | .... | . . . |
| Brasil . . . . . . . . . . . . . . . |  |  |  | 639 | 154,846 |  | 1,445 | 9.711 | .... | ... |
| Chilf. . . . ............... |  |  |  | 54 | * | ... | 2,081 | 38,877 | . $\cdot$ | . |
| 8endwleh lelatads . . . . . . Ching. | 2.207 | 17 |  | 18.779 | .... | ... | 985 | *... | ..... | .. |
| Tolal year 18:0-87 | \$4i.6.0 | \$15, 185 | \$176.434 | 4. 0.17 . | \$518,281 | \$11,773 | 623,457 | 13366,048 | \$:0.1, 512 | \$17.092 |

The natives of the Isthmus of Darien plek out tho fibres from some of the palms, and use them es nails; in some specimens they are as hard as rose-wood. Some of the amallest palms are imported into thls country for walking-stleks, under the namen of partidge and Penang canes. Of the four or five hundred varietles of paln-trees known to exint, only a very small number are imported. The palm woods so imported are aparingly employed for calinet and marquetry work, for bllliarll cues, for muff-boxes, etc. The twisted palm walking-stleks are the central stems or midribs of the leaves of the date palm: they are twlated when green, and atretched with heavy weights until they are thoroughly dry. The nut, or fruit, of many of this group of plants is applicable to uses In the arts; auch as the betel-nut or areca-nut, whose sulsstance is made into nechlaces, the tops of walking-stleks, und other small objects; the cocos-nut, whose shell yielde the fibre or colr, now used in England for a great reriety of parposea, anit the hard portion of the ahell, which is turned into cupa, vases, buttons, ote.; the corfullla-nut, the shell of which, lwing hard and close-textured, is turned Into knols of umbrellas and parasols, sinall toys, etc. With ispect to the simple wanta and primitlve arts of the people among whon the palms ansl bamboon grow, the uses of those plants are very numerous ; of the Cocos nucifera, or cocoa-nut palin, for exumple, the truit is eaten, the husk of the nut suppllea colr for cordage, the leavea are used for maklng laskets and mats, the lowar part of the stem yields wood fitted for joists anil other kinds of carpentry, and
dlfferent portiona of the plent are made to yield oil, sugar, paim wine, and arrack.

But it is the exogenous or true woinls which render the moro importani services to man, so far as regards the stem or wood itself. The fibres do not appear to differ in alze or bulk so much as in denaliy and distance: these two last-named differences glve rise to the distinction between harl and aoft woods- the former comprising oak, mahogany, ebony, rosc-wood, ete.; and the latter wlllow, alder, deal, ete. Another classification to that whlch springs from the direction of the fibres; if the annmal or longitudinal fibres be tolerably straight, and very IIttle Interwoven whit the medullary rays or interrupted by knots, the wood becomes elastic and easily rent; such are lance-wood, hickory, ash, etc.; but if the fibres are more crossed and Interlaced, the wood becomes less elastle, and more rigid and tough; such are oak, beech, mahogony, etc.; and If the fibres be entangled to a still greater degree, they produce the non-elastlo, tough, cross-grained woode, such as elm, lignum-vite, etc. Another mode of clasalfication, traced with some minvteness ly Mr. Holtzapifel, is that which is determined by the besaty of the surface presented by woods. The krote, occastoned by the junction of a brench with the stem; the curla, produced by the confused filling $\ln$ of the ppesce between the forks or springings of the branches, as in the yow ; the gnarled appesrance of the roots, formed at the pointa of junction of the rootlets or armia of the root with the body of the root itself, as in waluut wool; the pollard grewthe of the oak and othor trees, which
owe the beauty of their grain to a crowding together and for hydraulic engineering; another group inoludes of the little germs that produce the numerous shoots at the top; the ripple-mark surface, occasioned by a serpentine form of the grsin, as in satin-wood ani sycamore ; the bird's-eye pattern, occasionad by a peeuliar compression of the grain in lsolated spots, as in some kinds of maple; the silver-grain, which results from a marked distinctness in the modullary rays, as in the plane, sycamere, and beech-all give rise to variations In the appearance of the surface of wood, which are tho mainspring of the beauty obsorvable in callaet work. A nother and vory obvious mede of classlfylag woods is in respect to their color.
Mr. Holtzapffel gives a tabular view of all the kinds of wood commonly used in this country. The list incluies nearly eighty species of trees, without naming the varietios of each species. Ho classifics thom according to the aervices which they are calculated to render. One group includes building woods, subdivided into those fitted for ship-building, for house carpentry;
and for hydravlic eaglaering; anouher group inoludee the woods nost useful for machinery and mill-work, subdivided according as the wood is suitable for framework, for rollers, for teeth of wheels, or for foundery patierns; a third group comprises the turnery woods, subdivided into vommon soft woods, hard woods, and Tunbridgo-ware wroods; a fourth group is made up of furmiture woods, acparated into common and best; a Hfth group compriscs ornamental foreign woods; a slxth group consiats of dye-toods, arrsnged according to color; while a miscellaneous group is formen, snbdivided acm cording to the elasticity, the toughness, the even grain, or the durability of the wood. Of course many kinds of wood find a place in two or more of these groups; but the table is valuable, Inasmuch as it brings togethor before the oye the names of all those woods which resemble cachother in some one manufacturing quallty.

The following tables show the exports (distinguishing between domestic and foreigin production) of wood ing between domestic and foreign production) of wood
and ite manufactures for the year ending June 80,1857 :

Expobts of Wood and Mandyadereg of Wood of domegtio Pronuotion phom the United Statre for tum figoal Yikar bidino June 60, 1857.

| Whlther exported. | 8tavea and Heading. |  | Bhinglea. |  | Boarde, Plank, and sceniling. |  | Hewn Timber. | Ocher Luinter. | $\begin{aligned} & \text { Oak Dark and } \\ & \text { olhor nye. } \end{aligned}$ | All manufaoturea of Wood. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | Value. | 3. | Vifue. | M. Feet. | Valus. | Value. | Value. | Value. | Value. |
| Rusula on the Hiack Sea. |  |  |  |  |  |  |  | \$ 2,450 |  |  |
| Aslatle Russla ........... | .... | .... | . | $\cdots$ | .... | ... | .... |  |  | \$ 115 |
| Ruasian Norlh Amorica. . |  |  | 120 | \$426 |  |  |  | 35 |  | 115 |
| Prussla. | ... | $\ldots$ |  | .... |  |  |  |  | \$450 |  |
| Sweden and Norway | $\cdots$ | ... |  |  |  |  | . . . | . $\cdot$. ${ }^{\text {a }}$ | .... | 808 |
| Swedlsh West Indloa. |  |  |  | 22 | 88 | \$ 830 |  |  |  | 88 |
| Dentuark.. | 10 | \$6.7 |  |  | 6 | 77 |  |  |  | 887 |
| Danlsh Weat Iudies. | 648 | 23,678 | 3.350 | 13,349 | T,808 | 142,268 |  | 1, 1,50 |  | 18,818 |
| 1lamburg | 96 | 8,175 |  | , | . 742 | 13,938 |  | 700 | T. 699 | 66,074 |
| Bromen. | 184 | 12,79t |  |  | 087 | 10,640 | \$2,586 | 8.812 | 38.703 | 41.968 |
| IIoliand.. | 1,759 | 98,0055 |  |  | 618 | 0,815 | 12,873 | 70,600 | 36,260 | 10,958 |
| Dutch Weat Indies | 8 | 993 | 30 | 180 | 2,039 | 39,302 | , | , |  | 2.594 |
| 1)utch Galana |  | .... | 20 | 90 | 2,167 | 80,169 | .... | 51 | .... | $1{ }^{\circ}$ |
| 1)utch Bast Indles |  | $\cdots$ |  | .... |  |  | .... | 09 |  | 8, 0 |
| Beigium. | 323 | 24,190 |  |  | 10 | 113 | - 0 | 0.276 | 2,404 | 8,908 |
| England | 2,694 | 105,640 | ... |  | 4,821 | 74,760 | 321,075 | 08,7:3 | 164,260 | 105,721 |
| Scollend. | 245 | 18,250 |  |  | 120 | 1,809 | 45, 410 | 3,007 | 7,610 | 6,876 |
| Ireland | 8,885 | 7,209 | .... | '* | 8,065 | 83,101 | 23,102 | 6,005 |  | 882 |
| Gibraltar . . . . . . . . . . . . . | 147 | 9,460 | .... | . | 30 | 610 | .... | .... | 386 | 4,016 |
| Malta,.................. |  |  |  |  | $8{ }^{5}$ | 108 |  |  |  | 1,200 148,48 |
| Cansda. | 804 | 7,830 | 21,038 | 51,058 | 85,646 | 804,103 | 31,833 | 2,187 | 2,700 | 148,438 |
| Britiah North Amerlea | 239 | 17,659 | 10\% | $2 \cup 6$ | 2,700 | 41,023 | 35,201 | 020 | 284 | 62,609 |
| British West Indiea | 12,675 | 109,810 | 20,664 | 64,040 | 22,668 | 300, 64 | 1,840 | 2.284 | 238 | 45,207 |
| Britiah Monduras |  |  | 053 | B,887 | 945 | 16,022 | ... | 1,004 | 14: | - 18,108 |
| 13ritish Guiann. | 760 | 13,430 |  |  | 4,05: | 68,273 | .... | (5) | .... | 12.496 |
| Britah Poas, In Africa | 618 | 40,784 | 213 | 046 | 1,540 | 34,947 |  | 3,088 | .... | 19,749 |
| Otier ports In Africa..... | 488 | 33,404 | 822 | 2,920 | 1,322 | 22,472 | . $\cdot$. | 12,120 | .... | 23,053 |
| llfiltah Anstraila........ | 27 | 1,560 | $\cdots$ | $\ldots$ | 8,808 | 214,802 | .... | 37,084 | .... | 251,209 |
| Britlah East Indies. . . | 187 | 9,252 |  | .... | 1,848 | 38,090 |  | 14,265 |  | 91,379 |
| France on the Atlantie.. | 8,088 | 146,061 |  | $\ldots$ | 1,785 | 29,712 | 18,041 | 110,829 | 95,985 | 14,401 |
| Frauce on the Mediterr'n | 769 | - 40,163 | $\ldots$ | $\cdots$ | 1,240 | 14,970 | 6,840 | 25,410 | 13,711 | 6,418 |
| Frenoh North America . . | 3 | 488 | 280 | 815 | 107 | 1,076 | $\ldots$. | 818 | .... | 11,061 |
| Fronch West Indles...... | 1,669 | 29, 546 | 0,330 | 17,020 | 16.52] | 217,604 | .... | 174 | .... | 6,065 |
| French Gulana . . . . . . . | 4 4 | 240 | , | 1T,00 | 826 | 6,501 | $\ldots$ | 70 | .... | 2,275 |
| Spain on the Athantie... | 2,576 | 158,617 |  |  | 1,171 | 10,647 | 7.085 |  |  | 1,215 |
| Spalu on the Mediterr'n. | 2,018 | 144,207 |  | . . . | 2,152 | 93, 472 | 7,745 | 8,631 | .... | 1,880 |
| Canary Imanda......... | - | 608 |  | .... | 2,035 | 36,724 | .... | 13,042 | .... | 408 |
| Phillpplne lalanda... |  |  |  |  |  |  |  |  |  | 985 1.675 .248 |
| Cuba. | 7.835 | 661,674 | 8,181 | 7.404 | 68,408 | 876,142 | 5,144 | 138,464 | $20)$ | 1,675,248 |
| Porto Rleo | 21,680 | 114,336 | 2,150 | 14,741 | 4,448 | 117,504 | .... | 0,439 |  | 1. 6.904 |
| 1 'ortugal | 1,136 | 06,460 | 20 | 60 | 331 | 4,500 | . $\cdot *$ | 00 | 11,109 | 6,386 |
| Mateira.............. | .... |  | T |  | 487 78 | 6,399 1,102 | $\ldots$ | -154 | .... | 1,1084 1,008 |
| Cape ds Verd lslands. . . . | 14 | 008 | Ti | 181 | [ 78 | 1,102 | - 711 |  | ..... | 1,008 $\mathbf{2 , 1 3 9}$ |
| Azorea ..................... | 14 85 | 028 9,636 | .. | $\ldots$ | 1, 216 | 16,761 5,100 | 711 | 1,182 | . $*$ | 2,139 1,849 |
| Surdiula ${ }_{\text {Two Sicilea }}$ | 65 972 | 2,686 18,295 | $\ldots$ | * | 270 813 | 5,100 3,088 | ..... | 6,039 | . $\quad .$. | 1,349 5,199 |
| Ausiria ..... |  | 18,200 | ... | . | 21. | 0,08 | .... |  | 300 |  |
| Auskrian Italy |  |  |  |  |  |  |  |  |  | 100 |
| Turkey in Europe |  |  |  |  | 8 | 100 |  |  | ... | 372 |
| Turkey In Asia. |  | 270 |  |  | 37 | 740 |  |  | .... | 1,205 |
| Haytl. | B | 663 | 1,242 | 7,475 | 8,97* | 64,721 |  | 1,203 | .... | 20,260 |
| San Domingo. |  |  | 2,55) | 5.783 | 2,450 | 20,011 | . $\cdot$. |  | .... | 44 |
| Mexico. | 0 | 723 | 1,608 | 1,304 | 2,017 | 88,669 | .... | 5,890 | .... | 21,570 |
| Ceutral Republia. |  |  | 115 | B44 | 274 | 4,8s5 |  | 277 | . $\cdot$. | 2,261 |
| New Granada | 28 | 1,687 | 729 | 3,682 | 1,64, | 32,139 |  | 2,256 | .... | 24,069 |
| Venezuela. | 83 | 1,401 | 100 | 600 | 621 | 12,408 |  |  |  | 15,418 |
| 13razll.... | 56 | 5,298 |  |  | 6,743 | 87,040 | 2,0110 | 3,670 | . $\cdot$. | 42,827 |
| Uruguay . . . . . | 3 | 207 | 168 | 021 | 5,822 | 101,085 | , | T97 | 83 | 8,657 97 |
| Argentine kepublie | 40 | 3.215 | 1,171 | 4218 | 12,966 | 185,074 | . $*$ | 2,501 14,408 | 83 | 27.845 42.675 |
| Chill. . . . . . . . . . . | 260 | 10.514 | (0) | 150 | 9,714 | 207,110 | .... | 14.406 | . . . | 42,0t5 |
| leru.... | 86 | 2,600 | 18 |  | 1,87i | 88,147 | .... | .... | . | 10,064 |
| Geusdur. |  |  | 131 | 815 | ${ }^{8}$ | -106 | .... |  | * | 17,186 |
| Send wieh Iniend |  | 185 | 1,085 | 4,587 | 1,014 | 22,041 | , | 3,574 | .... | 17,185 |
| 14actife Iaianda. . |  |  | 80, | 1,427 | 21 | 488 | . $\cdot$. | 11,010 | .... | 1,006 |
| China...... | 7 | 450 | 460 | ${ }^{4} 425$ | 75 | 2,490 | .... | 1,185 | $\cdots$ | 8,292 104.186 |
| Whalu-fisherien . . . . |  | .... | $\cdots$ | ... | T,018 | 94,528 | .... | . $\cdot$. | $\cdots$ | 124,186 |
| Total, year 1850-57. | 60, 670 | 22,005,080 | 70,440 | \$212,805 | 809,105 | T4, 176,086 | 4610,785 | 038,4013 | 串329,764 | \$8,108,424 |

 ending Juma 80, 1807.

| Whlthin sxported. | Manufactures of Wood. |  |  |  | Unmunifarlored Wood. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\qquad$ | Codar, <br> Mahogeny, <br> Roon, and <br> satin. | Wlllow. | Ohher ManaPrelomen of. |  | Willow. | Fire-wood, sol othyr not apeelfied. | Dsn.wood la stivk. |
| Ruasta on the Irattic and North Soas ... | - | .... | . . . |  | \$4,450 | . $\cdot 1$ | \$2,748 | \$52,918 |
| Ariatic Russia. . . . . . . . . . . . . . . . . . . . . . | .... | ... | $\cdots$ | \$300 |  | $\cdots$ | $\cdots$ |  |
| Fruasia.................................. | .... | .... | .... | * |  | . | . $\cdot$. | 18,090 |
| Sweden and Norvay . . . . . . . . . . . . . . . . | ...' | .... | .... | .... | 4,788 | . | .... | 16.186 |
| Danigh West Indet . . . . . . . . . . . . . . . . | .... | .... | .... | .... |  | . . . $*$ | -** | 036 |
| 11amburg . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | .... | .... | .... | 4,160 | .... | . | 167,815 |
| Bremen. . . . . . . . . . . . . . . . . . . . . . . . . . | .... |  | .... | .... | 28,141 | . . . | ... | 40,527 |
| Holfand | . | . | . $\cdot$. | .... | 10,204 |  | .... | 28,143 |
| Belgam | *.. | , | - |  | 10,640 | ...* |  | 65,432 |
| Fngland . ... . . . . . . . . . . . . . . . . . . . . . . | .... | .... | ... | 4,200 | 51,105 | .... | 123 | 815.759 |
| Scotiand . . . . . . . . . . . . . . . . . . . . . . . . . | .... | . . . | .... | - | ... | .... | . . . . | 0,138 |
| Glibraitar . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | .... | .... | .... | 618 | . . . |  | 6,300 |
| Malta.. | .... |  |  |  | 1,008 | .... | 1,083 | 6,247 |
| C Cands , | ... | $\$ 74$ | \$024 | 8,028 |  | * | 10 | 813 |
| Other British North American Pess.... | .... | $\ldots$ | . $\because$. | 440 | 6,708 | . . $\cdot$ | 619 | 1,510 |
| British Weat Indies . . . . . . . . . . . . . . . . . | .... | .... | . . | .... | , | , | 24 | 0,180 |
| Britiah Anmeralia... | .... | .... | .... | .... |  |  | 2,087 |  |
| Britith East Indies.. |  | - | - | .... | 14,049 | \$8811 | 806 | 6,478 |
| France on the Atlantio. | $\$ 459$ | .... | .... | .... | 1,630 | .... | . . . | 35,728 |
| France on the Mediterrancan. | .... | . $\cdot$. | ... | . $\cdot$. | - $\cdot$ | ... | . $\cdot$ | 20.048 |
| gpain on the Allantic. . . . . . . . . . . . . . . | .... | .... | .... | - | .... | ... | .... | 1,408 |
| Spain on the Mediterrancan ........... | .... | ... ${ }^{\circ}$ | * | . . . | . 0 | . | . . ${ }^{\text {c }}$ | 8,000 |
| Canary Istands. . . . . . . . . . . . . . . . . . . . | .... | ** | .... |  | 136 | ' | .... | 66 |
| Cula. . . . . . . . . . . . . . . . . . . . . . . . . . . . | ... | .... | .... | 23,409 | 9\%\% | . | . | 168 |
| Portugal. . . . . . . . . . . . . . . . . . . . . . . . . | .... | .... | - $\cdot$ | . $\cdot$. | 255 | . | . | 5,294 |
| Axores. . . . . . . . . . . . . . . . . . . . . . . . . . . . | .... | . ${ }^{\circ}$ | , | ... | 2,679 | . . | . | 27 |
| Sardinia | .... | . * | ... | - | 041 | .... | . . . $\cdot$ | 9,380 |
| Two Slctltes. . . . . . . . . . . . . . . . . . . . . . . . |  | .... | .... | .... | 6,529 | ... |  | 4,242 |
| Austria. . . . . . . . . . . . . . . . . . . . . . . . . | - | . . . | .... | . ${ }^{\text {. }}$ | 4,523 | . . . | 2,275 | 53,559 |
| Auatrian Iossesslons In Italy |  | .... | ... | . | .... | ... | .... | 4,275 |
| Turkey tn Europe . . . . . . . . . . . . . . . . . . . | . $\cdot$. | $\cdots$ | . | . . . |  | . $\cdot$ | . $\cdot$ | 614 |
| Turkey tn Aaia, . . . . . . . . . . . . . . . . . . . |  | .... | ... |  | 1,105 | . $\cdot$ | * | 7,143 |
| Mexico . . . . . . . . . . . . . . . . . . . . . . . . . |  | .... | . . . | 1,488 | .... |  | . $\cdot$ | 750 |
| New franada . . . . . . . . . . . . . . . . . . . . . | 1800 | ... | .... | .... | ... | ... | ... |  |
| 1ramall . . . . . . . . . . . . . . . . . . | -..* | . $\cdot$ | - ** | .... | - ${ }^{\text {cos }}$ | . | . $\cdot$ | 78 |
| Uruguay, or Cisplatine Republic ...... | -••• | . | .... |  | 885 | .... | . . . | 214 |
| Buenos Ayres, or Argentine lepublic . . | . . . | - | .... |  | 840 | ... | i80 | 830 |
| Chilf ..... |  | . . . | .... | 1,180 | -** | . $*$ | 160 | .... |
| Shndwheh Isianda . . . . . . . . . . . . . . . . . . . . . . . . . . . | 388 | - | .... | 9 | . $\cdot$. | . $\cdot$. | i*8 | -*.. |
| Whate-fisheries | $\cdots$ | .... | $\ldots$ | i.109 | ... | .... | ,488 | . $\cdot$. |
| Total, year 1856-67. . . . . . . . . . . . | \$2747 | \$74 | 5482 | 435,289 | \$162, 742 | \$.811 | \$12.426 | 4878,148 |
| From warehouve . . ..................... ${ }^{\text {a }}$. | \$274 | - | \$624 | $\begin{array}{r} \$ 17.064 \\ 17.724 \end{array}$ | $\begin{aligned} & \$ 46,448 \\ & 106,314 \end{aligned}$ | $\$ 2811$ $\ldots$ | $\begin{array}{r} \mathbf{4 , 0 6 8} \\ 7,568 \end{array}$ | $\begin{aligned} & \$ 340.818 \\ & 537,334 \end{aligned}$ |

Wool (Ger, Wolle; Du. I'ol; Da. Uld; Swed. Ull; Fr. Laine; It. and Sp. Lana; Port. Lai, Lăa; Russ. IIolna, Scherst; P'ol. Velna; Lat. Lana), a kind of soft hair or down. The term is not very well defined. It is applied both to the fino hair of animals, as sheep, rabbits, some species of goats, the vicuna, ete.; and to fine vegetable fibres, as eoton. In this article, however, we refer only to the wool of sheep-an article which has continued, from the earliest period down to the present day, to be of primary importanee, having always formed the prineipal part of tha elothing of mankind in most temperate regions.
Species of IVool.-It has been eustomary to divide wool into two great classes-long and short wools; and theso again into subordinate classes, according to the fineness of the fibre. Short wool la used in the clath manufacture; and is, therefore, frequently called elothing wool. It may vary in length from one to three or four inches; if it be longer, it recpuires to be cut or broken to prepare it for the manufacture. The felting property of wool is known to every one. The process of hat-making, for example, depends entirely upon it. The wool of which hats are made is neither spun nor woven; but locks of It, bring thoroughly Intermixed and compressed in warm water, cohero and form a solid, tenacions substance.
Cloth and woolen goods are mado from wool possessIng this pmperty; the wool is carded, spun, woven, and then, being put in the fuliing-mill, the process of felting takes place. The strokes of the mill make the fibres cohere ; the piece sulijected to the operation contraeta in length and lreadth, and its texture becomes more compact and uniform. Thin process is essential to the beauty and strength of woolen cloth. Hut tho long wool of whlch stuffs and worsted are made is deprived of its felting properties. This ls done by pase-
ing the wool through heated fron combs, which takes away the lamine or feathery part of the wool, and approximates it to the nature of silk or cotton. Long or combing wool may vary in length from tbree to elght inches. The shorter combing wools are prinsipally used for hone, and are spun softer than the long cemiing wools; the former being nade into wbat is callel hisrd, and tha Jatter into soft worsted yarn. The fineness of the hair or fibre can rarely be estimated, at least fur any useful purpose, except by the wool sorter or dealer, accustomed ly long halit to diseern those minote differences that are quite inappreclable by comthon obaervers. In sorting wools, there are frequemily eight or ten different spocies in a singlo fleece; and if tho best wool of one fleece be not equal to the finest sort, it is thrown to a 2d, 3d, or 4th, or to a still lower sort, of an equal degree of tineness with it. The best In plish short native fiecees, auch as the fine Norfolk and Southdown, are generally divided by the wool-sorter into the following sorts, oll varying in fineness from eseh other: viz. 1. Primo; 2. Choice; 3. Super; 4. Ilead; 5. Jownrights; 6. Seconds ; 7. Fine Alb; 8 . Course Abb; 9. Livery; 10. Short, coarse, or brcech wool. The rolative valne of each varies, according to the greater demand for coarse, fine, or middte cloths.
The sofness of the fibra is a quality of great importance. It is not dependent on the fineness of the fibre; and consists of a peculiar ferl, approathing to that of silk or down. The difference in the value of two pieces of cloth made of two klads of wool equaliy fine, but one distinguished for its softnoss anil the other for the opposito quality, is such, that, with the same process and expense of manufacture, the one will be werth from 20 to 25 per cent. maro than the other. Mr. Bakewell showed that the degree of aoftness depends principally on the nature of the soil on wheh slieep
are fed ; that sheep pastured on chalk districts, or light calcareous soils, usually produce hard wool; while the wool of those that are pasturgd on rich, loamy, argillaceous soils, is aiways distinguished by its sofness. Of the foreign wools, the Saxon is geaeraily softer than the Spanish. Hard woola are all defective in thsir felting preperties. In clothing wool, the color of the fleeco sheuld always approach as much as possible to the pures ${ }^{2}$ white; because anch wool is not only necessary for cloths dressed white, but for ail cloths that are to be liyed bright colors, for which a clear white ground is required to give a due degree of richness and lustre. Some of the English fine-wooled sheep, as the Norfolk and Southdowa, have black or gray faces and legs. In all such sheep there is a tendency to grow gray wool on some part of the body, or to produce senie gray fibres intermixed with the fleece, which renders the wool unfit for many kinds of white goods; for though the black hairs may be too few and minute to be detected by the wool sorter, yet when the cleth is stoved they become visible, forming reddish spots, by which its color is much injured. The IIcrsfordshire sheep, which have white faces, are antirely free from this defect, and yield a fleece without any admixture of gray hairs.

The cloanness of the wool is an important consideration. The Spanish wool, for example, is always scoured after it is shorn; whereas the English wool is only itmparfectly washed on the sheep previously to its being shorn. In consequence, it is said that while a pack of Enghsh clothing wool of 240 lbs . weight will wasta about 70 lbs . in the manufucture, the same quantity of Spanish will not waste more than 48 lbs. Cieanness, therefore, is an object of much importance to the buyer. Before the recent improvements in the spianing of wool by machinery, great length and strength of staple was considsred indispensable in most cembing wools. The fleeces of the long-wooled sheep fed in the rich marshes of Kent and Lincoln used to bs reckoned peculiarly auitable for the purposes of the wool-comber; but the insprovements alluded to have effected a very great change in this respect, and have enabied the manufacturer te substitute short wool of three inches staple in the place of long combing wool, in the preparation of most worsted articles. A great aiteration has, in consequence, taken place in the proportion of long to short wool since 1800; there having been in the interim, according to Mr. Hubbard's calculations, an increase of 132,053 packs in the quantity of the former produced in Eugiand, and a decrease of 72,820 in the quantity of the latter.

Whiteness of fleece is of less importance in the long cembing than in clotiling wool, provided it be free from gray hairs. Sometimes, however, the fioece has a dingy brown color, called a winter stain, which is a sure indication that the wool is not in a thoroughly sound state. Such flaeces are carcfully thrown out by the wool serter, being suitabie only for goods that are to be dyed black. The fineness of heavy combing wool is not of so much consequence as lts other qualities. The Merino or Spanlsh breed of sheop was introduced into England nbout the close of lust century. George III, was a great patron of this breed, which was for sevoral years a very great favorito. But it has been aseertained that, though the fleece does not much degenerate, tho ca:enss, which is naturally iil-formod, and affords compratively little weight of meat, does not improve; and as the farmer, in the kind of sheep which he keeps, must look not only to the produce of wool, but also to tine butcher market, his interest is rather to return to tho native breeds, and to give up the Spaniah sheep. Thoy have, howover, been of cousiderable servica to the flocks of Bugland; having been judiciously crossed with the Sonthdown, Ryelaud, etc.

Dr. Anderson, in a memorial subjoined to the "Report of the Committee of the llighland Society,"proves, from indisputable records, that from the earliest tinues
down to the reign of Queen Elizabeth, the wool of Great Britain was not only superior to that of Spain, but accounted the finest in the universe; and that even in the times of the Romans a manufacture of woolen cloths was established at Winchester for the use of the emperors. In later times, wool was manufactured in England, and is mentioned in A.b. 1185, but not in any quantity until 1331, when the weaving of it was iatroduced by John Kempe and other artianns from Fianders. This was the real origin of the English wool manufactures, Edward Ill., 1331,-Rymer's Foedera. The exportation prohibited, 1337. The exportation of Englisin wool, and the importation of Irish wool into England prohibited, 1696. The non-exportation law repeuled, 1824.-Haydn.

Alpaca Wool.-The alpaca is one among many species of the llama, the wool of which is very beautiful. The first visit of these animais to Europe was an adventurous one. Thirty-six traveled across the whole breadth of Sonth America, from Lima to Buenos Ayres, in 1808, and ware there shlpped to Europe as a present to the Empress Josephine. At Cadiz the poor animals wero ill-treated by a rabbie, and oniy a amall number were uitimately preserved in Spain; thoy never reached Joscphine. By degrees it was found that alpaca wool was longer, softer, nore pliant, and more lustrous than sheep's wool, and the manufacturers of Bradford began to import it for use. Queen Victoria possesses one or two of these animals at Windsor, and some articles of dress were made from the alpaca wool in 1844: one was an apron, catirely of alpaca; another was a striped and figured dress, with silk warp, alpaca weft, and alterna to silk and alpaca figures; a third was a plaid dress, woven with an intermixture of alpaca, silk, aud worsted; while a fourth was a plain black dress, with cotton warp and alpaca waft. Many attempts have been mada to establish the breed of tho alpaca In England, but hitherto the enterprise has not been commercially successful.

- That alpaca wool ia coming extensively into use in England is shown by the imports: in 1836 to 1840 they averaged 7000 bnles per annum; in 1841 to 1845 , the avernge was 13,000 bales; in 1846 to 1850 , more than 20,000.-See Alpaca.

Cashmere Wool.-It is an interesting feature in the modern history of the woelen manufacture, that the wool, or rather hair, of the Cashmere grat is becoming. a favorite material in cloth of the better kind. Not that all the "Cashmeres" of the shops are really Cashmeres; the morals of trade has not yet reached the point when things are called by their right names; and the beentiful Asiatic valley is quito innoceat of the greater part of thoso products which rejoics in tho name of "Cashmeres." Still the high-born and the wealthy occasionaliy purchaso shawls which were really made in that region, and (what is more interesting to us) attempts are being made to naturalize the antmal which produces the beantiful filamentous material in question. The fleece of the Cashmere goat consists of two very different kinds of fibre--one of which is a fine, soft, pliable, rich wool, cqual te the finest laub's wool; while the other, called kemp, is a hard, stiffi, coarse, rough kind of hair. The komp may he used in the manufactr of cearse cloth; but every tibre must be removed before tho fine wool can be empleyed in shawl-making. This removal is very difficuit and tedious, and will be a bar to the spread of tho mannfacture, unless some expeditious system to effect it can he ilevised. Prince Albert has some Casimere goats at Windsor; and some few months before the Great Exhibition was opened he caused the fleeces of thoso gouts to be forwarded to two manufacturing firns, one near leods, and one near Halifax, there to be subjected to manufacturing processes. The soparation of the fine wool from the komp was a slow manipulative process, which many persons undertook voluntarily and pieasurably. Of course the expense which would attend
such a mode of manufacture for ordinary sale would be quite disproportionate to the result obtainod; but the prince'a praisewor thy object was answered by ahowing that the Cashunere goat can be reared, and that the fleecy covering can be wrought into cloth. The articlea produced from the wool in question consiated of a , iece of white cloth, with silk warp and Cashmere weft, woven with a brocaded tigure; a plece of similar character, but dyed; two ahawla made wholly of the Cashmere wool; and a piece of cuaras woolen cloth made from the kemp or halr.-Sed Casumbre.

Nauchamp Merino Wool.-In 1828 M. Graux, a farmor at Mauchamp, in the French department of Aisue, had a lamb which, as it grew up, became remarkablo for the long, moooth, straight, and ailky character of tho fibres of the wool. He reaolved to insore, no far an he could, a perpetuation of these valuable qualitles in the progeny of the lamh. In 1830 he had one ram and one owe whose wool was of thls peculiar kind; in 1831 he had fuur rains and one ewe of the desired kind; and by 1833 the number was much increased. Thenceforward the progeny was very remarkable; some of the lambs, like their mothers, bad the curled elastic wool of ordinary merino aheep; while the others, like their sires, had the long silky wool. As years advanced, M. Graux waa able to oltain a breed of sheep which combined in the wool uearly all the qualitics of the two forner kinds; and thus originated the Mauchamp wool, which now sells lu France for 25 per cent. above the beat merino. It ia fuand to be nearly equal to the real Cashmere wool in flexible delicaey of filire, as a material for Cashmere obawls; and when combined with the real Cashmere, it inaparts a strength in which that wool is deficient.

Deterioration or Change in the Character of British Wool.-It appears to be sufficiently cstablished, by the evidence taken before the House of Lords in 1828, and other authorities, that a cousiderable deterioration, or rather, perhapa, change, has taken place in the quality of British wool, particolarly during the 30 preceding years. The great object of the agriculturist has been to increase the weight of the carcasa and the quantity of the wool; and it seems very difficult, if not quite impossible, to accomplish thia without injuring the tineness of the fiecece. Mr. Culley saym, that the Herefordshire sheep, that produce the fineat wool, are kept lean, and yield $1 \frac{\mathrm{IL}}{}$. each; he adds, "If they be lootter kept, they grow largo and produce thore wool, hat of an liferior quality." Thia would seem to be universally truc. The great extension of the turnip husbandry, and the general introduction of a larger ureed of aheep, appears, in every instance, to havo leascned the value of the fleece. Speaking of the Norfolk fleeeea, Mr. Fison, a wool sorter, bay that 25 years ago the weight was $2 \ddagger$ libe a fleece, amit that now it is 3 lha. or $3 \ddagger$ lhs. But according to a talle furniahed by the same gontleman, containingtro results of hisexperience, Jtappeazs that of 15 tods, or 420 lba., of clothing wool grown in Norfolk in 1790, 200 lls. were prime, while in 1828 the same quantity of Norfolk wool ouly yiehled 14 lba . prime. Tho statements of other witnesses are to the same effect. According to the estimato in Mr. Luccock'a Treatise on Einglish Wood, which has always enjoyed the highest reputation, the produce of ali sorts of wool in Engiand in 1800 was 384,000 packs, of 240 Hs. a pack. Hut Mr. Hubbard, a very litelligent and extensire wool-stapler at Leedn has shown that, sopposing Mr. Luccock's estimate of the number of shoep to be correct, the quantity of wool produced in 1828 could not, owing to tho greater weight of the fleeco, be eatimated at less than 463,109 packs ; and it ls now (1814) believed to amount to fully 600,000 packs. It is, therefore, probable, not withatanding the decline in the price of wool, that, taking into account the greatar weight of the carcass, and the greater welght of the flecee, sheep produce more at present to the farmer than at any former period.

We glve below a atatement of the quantity of the wrool imported inte Great Britaln in fifteen years, from 1810 to 1854, inclusive.

| Yphrt. | Germany. | Australia. | Tolal. |
| :---: | :---: | :---: | :---: |
|  | Poun | Pom | Pounds. |
| 1840 | 21,818,604 | 9,7:5.248 | [. 43,4i6,284 |
| 1841 | 20,059,975 | 12,900, 268 | 50,170,674 |
| 1842 | 15,618,200 | 12,679,951 | 45, 891,039 |
| 1843 | 16,806,443 | 17,488,780 | 49,248, 148 |
| 184 | 51,847,683 | 17,688, 24\% | 65.718 .761 |
| 1845 | 18,484,786 | 24,177,217 | 76,818,755 |
| 1846 | 15,888,706 | 21,780,8-46 | 65, 205, 452 |
| $18+7$ | 12,078,814 | 20,000,815 | 02,5 2.008 |
| 1848 | 14,429,161 | 80, 018,281 | $70,864,847{ }^{\prime}$ |
| 1849 | 14.750,011 | 30,836,171. | 70,768 647 |
| 1850 | 9,168,781 | 30,018,241 | 74.8\%6.718 |
| 1851 | 8,210,236 | +1,810,517 | 83,311.275 |
| 1858 | 12,765,253 | 48, 217, 402 | 98,761,458 |
| 1858 | 11,654,800 | 4i,077,010 | 110,3:6, 549 |
| 1854 | 11,448,513 | $47,489,080$ | 106,121,495 |

An Aooocnt of tif Quantities of Sitrfe and Iamné WOOL, FOREION AND COISONIAL, IMPOMTED INTO GERAT baitain in tun ligal 1Nbi, mistinguibhine tha cousTRIEG FROM WHICG THEX CAME, AND THB,QUANTITIEG BROVOLT FROM EAOLI.


Of late years Russia has become of primary importance amoug the wool oxporting countrien, especially frow her ports on the Black Sea. Provided tranquillity could be maintained in South Africa, the proliabilliy in that lt would In no very lengthened peried rival Now South Wales as a wool exporting country. Alpaca, and other wools of that sort, come from Peru; goats' wool comes principally from Turkey, but the best is that of Thibet.

United states.-Analogous in the nses for which it aerves to cotton, wool is a produet of only lese imporsance to the proapority of the country than that leading staple of our agriculture and commerce. It is a very gratifylng fact that though the number of sheep has

Increased in ten years but 12 per cent., the aggregate weight of their fleeces has augmented 46 per cent. In 1840 there were $10,811,874$ sheep; yiolding $35,802,114$ lbs. of wool, equal to 1.84 lb . per head. In 1850 the average weight of each fleece was $2 \cdot 48 \mathrm{lba}$., from which it wonld appear that such an improvement had taken place in the various breeds' of the American sheep as to increase their average product ahout 32 per cent. throughout the United States. And a critical analyals of the returns of sheep and wool proves not only that our breeds are capable of auch improvement, but that it has actually taken place.

In Vermont the greateat atteation has been given to aheop-breeding; time, money, and intelligence having been freely appliod to the great object of obtaining a breed combining weight and fineness of flecee. These efforts hava succeeded ao well, that although the nunsber of sheep in that State had declined nearly one half in the period from the sixth to the seventh census, the yiold of wool remained nearly the eame. The average weight of the fleece in thls State in 1840 was 2.2 lba., and in 1850 it had increased to 8.71 , the gain being almost equal to 70 per cent. In Massachusetts, also, where strenuous exertions have been made-though not on so larga a scale as in Vermont-to improve their sheep, a correspondingly beneficial result has been obtained, and the average weight of the fleece has been increased from 2.5 to 3.1 lbs. The State of New York produced 226,000 lbs, more wool in 1850, from $8,453,000$ sheep, than from $5,118,000$ in 1840 , showIng that the weight of the fleece had been raised from less than two to nearly three pounds. Our importa of wool during ten years have varied as follows:
Quantity and Valde of Wool impoated into the Enited Ntatre from 1841 to 1850, inolegive.


By this statement it is shown that the quantity of wool brought into the country of late years amounts to almust one-third of that produced init; while at former
pexiode, as from 1841 to 1845, the amount was nearly one haif. The largest proportion of thia imported wool came from Buenos Ayres and the neighboring states on the Rio de la Plata, and la of a coarse and cheap variety, costing from six to elght centa per pound. It always will be cheaper to bring this klad of wool from regloas where sheep are reared without care or labor, than to produce it at home; but there la no country in the world In which sheep may, by judiclous treatment, be mado a source of greater wealth and comfort to its inhabitants than the United States. The Importations of wool in 1850-'61 exhibit a remarkable increase over the preceding or any former year, amounting in quantity to $32,548,693$ lbe., and to the value of $\$ 3,800,000$.

Produotion of Wool Im the Unitrd Stateg in tha
 PORTS.

| 8tales and Territeries, |  | 1840 | 1850 |
| :---: | :---: | :---: | :---: |
|  | ponnds | 240,353 | 057.118 |
| Arkansas. | " | 04,943 | 182,505 |
| Callforna | * |  | 5,5,20 |
| Columbla, Dist of. . | 4 | 607 | 525 |
| Connectieut ....... | 4 | 830,870 | 497,454 |
| Delaware | 4 | 64,404 | 67,768 |
| Fioridr. | 4 | 7,285 | 23,247 |
| Gaorgia | " | 371,303 | 990,010 |
| Itilnois. . . . . . . . . . . | " | 650,007 | 2,150,118 |
| Indiane . . . . . . . . . | 4 | 1,287,910 | 2,810,287 |
| Iown . | " | 23,039 | 973,808 |
| Kentncky | * | 1,796,847 | 2,297,483 |
| Loeisiana | " | 49,283 | 109,807 |
| Maios. | " | 1,465,551 | 1,364,034 |
| Maryland | 4 | 488,201 | 477,433 |
| Mlassachusetts | " | 941,006 | 585,136 |
| Michigan | ${ }^{6}$ | 153.875 | 2,013,283 |
| Mississippl . . . . . . . | 4 | 175,106 | 659,610 |
| Mlssonri .......... | " | 562,265 | 1,827,164 |
| New Hampshire ... | 16 | 1,200,517 | 1,108,476 |
| New Jersey........ | " | 307,207 | 875,590 |
| New York | 4 | 9,845,2.5 | 10,071,301 |
| North Caroilna .... | " | 025,044 | 970,738 |
| Ohio . | " | 8,085,015 | 10,106,871 |
| Pennsylvanla. | 4 | 8,048,534 | 4,481,670 |
| Rhods Island. | " | 189,830 | 129,602 |
| South Carolfua | 4 | 200,170 | 487,293 |
| Tennessee | " | 1,060,832 | 1,364,378 |
| Texas. | 16 |  | 131,917 |
| Vermont . .......... | 4 | 8,800,235 | 8,400,717 |
| Virginia. | " | 2,583,874 | 8,866,765 |
| Wisconsin. | " | 6,777 | 259,768 |
| Minnesota Territory | 1 | .... | 85 |
| New Mexlco " | 4 | .... | \$2,601 |
| Oregon 4 | 6 | .... | 20,686 |
| Vlah ${ }^{*}$ | 6 | ... | 0,222 |

Expoats of Wool faox the United Statfe fon the figeal Yeara endino June 60, 1853, 1854, 1855.

|  | 1858. |  | 3854. |  | 1855. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Value. | Pounds. | Vatue. | Pounds. | Value. |
| Domestio wool. | 210,472 | \$26,567 | 114,208 | \$38,805 | 88,88 | \$27,802 |
| Fordgn wool . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 209,194 | 51.357 | 195,143 | 41,668 | 728,904 | 131,442 |
| Total. | 425,666 | \$77.054 | 30.411 | \$75, ¢88 | 817.79: | \$159,244 |



| Whence lmported. | 1858. |  | 1854. |  | 1855. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounds. | Velue. | Pounds. | Value. | Ponods. | Value. |
| lingland. ........................... | 3,894,095 | \$778,469 | 1,390,514 | 4261,827 | 972,434 | \$153,1.44 |
| France . . . . . . . . . . . . . . . . . . . . . . | 2,206,561 | 280,300 | 12,487 | 3.487 | 049.828 | 131,064 |
| Turkey | 4,351,259 | 872,012 | 4,300,326 | 460,2es | 4,201,250 | 380,205 |
| Argentins Iepublic . . . . . . . . . . . . | 5,745,857 | 5 58,658 | 6,255,6:18 | 854,232 | 5,960,969 | 627,718 |
| Cinlil. | 2,004,800 | 285,190 | 1,857,447 | 101,006 | 2,840,002 | 317,564 |
| Other piaces. | 2,743,207 | 410,088 | 0,817,098 | 1,081,783 | 1.687,598 | \$50,8.44 |
| Total. | 21,695,079 | \$2, 009,718 | 20,2011,110 | \$2,822,185 | 18,034,415 | \$ $42,072,135$ |

Woolen Manufacture, the art of forming wool fnto cloth and stuffis. The manufacture of eloth was known, it is supposed, in all civilized countries, and in very renote agea, and probably of linen also. Woolen cloths were made an articlo of commerce in the time of Julius Cesesar, and are familiariy alluded to by him. They were made in England before A.D. I 200 , and the manufacture became exteasive in the reign of Edward III., 1331. They were then called Kendal cloth and Halifax eloth.-E. B. See article Wool. Blankets were first made in England about a.d. 1340.-Camden. No cloth but of Wales or Ireland to be imported into England, 1463. The art of dyeing brought into England, 10 Anne, 1712, and 2 George I., 1715. Greater in

Yorkshire in 1785, than In all England at the Revolu-tion.-CilalaErs.

Woolen Goods, Varieties of.-The variety of goods which come under the deslgation of woolen manufactures is obvlously increasling evary year. "Broadcloth" and "aarrow cloth," "Clarendons" and "Petershans," "Cashmercs," "Cashmerettea," "kerseys," "tweeds," "tartans," " llnseg - woolseys," "angoles," "vicunas," "Venetians," " llamas," "Sardlnlans," "Hinalayas," " moleskias," "doesklns," "beavers," "trowserings," " vestings," "costings"-there is really no end to the names; for the manufacturers, not content with having distlngulahing names for partletslar materials and particular moles of manufacture, conjure up new names, on any or no grounda, for tho sake of novelty. Many of the maines, however, might be innde signlficant of really curlous novoltles in the manufacture. Thus thera is a new " bis-unique cloth," of touble thlckness, the two surfaces having dillorent patterns, so that the wearer may have either sido outward at his pleasure. There is a cloth wholly mado from beaver fur-soft, light, and warm-for winter garmeats. There is, as a third example, the comical-Jy-named Irlsh "rumswizale," a very excelient brownish frleze mado of undyed forelgn wool.

Shoddy Trade.-The greater number, perhaps, of our renders may never have heard of that branch of the woolen manufacture called the ahoddy trade, which has grown up of late yeara, and is now of very considerablo valua and importance. It is principally carried on at Dewsbury, in England, in the centre of the clothing district. Shoddy cloth is fabricated oither wholly or partly of old wool ; and Instead of belng neglected, or used only as manure, old woolen rags aro now overy whare carefully collected, and conveyed to Dowabury. After belng subjected to varlous processes, they aro torn to pleces by the ald of powerful machinery; nnd reduced to their orighal state of wool; and thle wool, being respun, either with or withuut an admixture of fresh wool, is agaln made into cloth! Formerly, shotldy cloth was used only for padding and such like purposes; but now blankets, flnshinga, druggets, carpets, nud tahle-covers, cloth for pilot and Petersham greatcuats, etc., aro elther wholly or partly made of shodly. Tho elothing of tho ariny, and the greater part of that of the navy; consists principally of the same materin), which, in fact, is occasionally worn by every body. Large quantities of shoddy eloth aro exported. Great improvements have been effected of lute years, not ouly in the fabric of the cloth, but also in the dyes: this is especially seen in the cloth for soldiers' uniforms, which is no longer of a brick-dust color, but makes a much nearer approach to searlet. The beautifal woolen tablecovers are made wholly of shotdy, being printed by uqua fortis from designs drawn in London and Manchester, and cut on holly and other blocks on the spot. The analogy between thls mamifacture and that of paper ia so striking that it must force itself on the attention of every one, the vilest and most worthless materials being converted in both into the most beautiful and useful fabrice. The shoddy trade is, in fact, one of tho greatest triumphs of art and cirllization, Though of comparatively secent origin, it is rapidly extenting itnelf. It is anost actlve in summer, and is much more langulil in winter.

Linited States.-Tho development and growth of our woolen manufactures depends now entirely upon our lariff. To euahlo our mills to compete with freign milla, we must lave a tariff to counteract the costile legislation of those foreign countries whieh overrun our market with their falirics. When England, France, I'russia, and Austrin inport wool for their broadcloths, free of duty, the United Statee must do the same; or these European manufacturers, in whuse favor our tax ou imported wool operates, will surpass us so largely in our own markets, that we shall be compelled to atop all vur broadcloth spindles. This has been the effect
of the tarlff of 1846 upon our woolen manufactures; and the prospect of rellef to be afforded by Mr. Campbell's bill will give Iffa to this decaylng branch of our Industry.

The rolations of the tariff to our woolen manufactures has attractod so much attentlon of late, that the following table, showing the rate of duty fixed on wool by the varlous tariffs enacted by Congress sinco $\mathbf{1 7 8 9}$, wlll be found lnterosting.

Thaity lutizg on inportad Wool paom 1789. January, 1789, to Aprif, 1810-free,
Aprif, isis, 10 May, $1324-15$ per cent, ad valorem. May, 1824, to June, 1826 -coating under 10 cents per Ib., 15 per cent, ad valorem.
Nay, 3824 , to June, 1825 -costing over 10 cents per lb., 20 por cunt, ad valorem.
June, 1825 , to Juno, 1880 -coating under 10 cents per 1b., 15 per cent, ad valorem.
June, 1825 , to June, 1 sio-contling over 10 cents per Ib., 25 per cent. ad valorem.
15 June, 1820 , to Jume, 1828 -contlag nider 10 eonts per $1 b$., 15 per cent ad valorem.
Junc, 1826 , to June, 3828 -coatling over 10 cents per Ib., 80 per cent. ad velorem.
June, 1823, to June, 1820_4 cents per Ib. Bycelfic, and 4) per cent, ad valorem.
Juno, 1820 , to June, 1S30-4 cents per lb. spectfic, and 45 per cent, ad ralorem.
June, 1830, to June, 1832-4 cents per 1b. apectifc, and $\$ 0$ per cent. ad valorem.
Junc, 1832, to June, 1842 -costing under 8 centa per lh, free.
June, 1832, to June, $18+2$-costling over 8 eents per'tb, 4 cente epeeffle, and to per cent. ad valorem.
June, $18+2$, to $\mathrm{July}, 1846$-costing under 7 ecnts per $1 \mathrm{~b} ., 5$ per cent. ad valorem.
June, 1842, to July, 1840 -rositng aver 7 centa per $1 \mathrm{~b} ., 0$ cents specific, and so per cent. Hd valorem.
July, 1346, to March 8, $185 \%$-all wool 80 per cent. ad valoren.
Marchi 3, 185\%, wool 24 per cent. Lees than 20 cente a pound, at the place of exportation, free.

Tho fluctuations In this table are remarkable, and, considering thelr frequency and the extremes to which they ran, it is surprising that enpital should have been investod in woolen manufactures in this country.
"The atatlatices upon the proluction and Importation of wool, and manufactures of wool, have been prepared with care, in order to place the questions conneeted with the production and importation of wool and mannfactures of wool, Involved in tho proposition to almit wool as n raw material free of duty; fully and fairly before Congress. It will be seen that in $1 \times 40$, according to the census of that year, we mannfactured woolen goods to the value of $\$ 20,696,999$; and that In adilition we imported manufactures of wool to the value of $\$ 8,652,785$; making our constumption of the manufactures of wool $829,349,781$, and the consumption of $\$ 17194-100$ fur each person then in the United States. The census of 1810 does not givo the number of factories devoted to, nor the capital employed in the manufactura of wool. The census of 1850 shows there were 1559 factorles In the United States, with 28,118 , 650 of capital devoted to the manufacture of wool, with the particular States in which the factories were situated; also that tho manufactures of wool amounted to $813,207,645$, and we imported manufactures of wool to the value of $\$ 16,976,575$, making our consumption of manufactures of wool $860,18.140$, and the consumption of $\hat{6}^{2} 69 \frac{1}{2}$ for each person in the United States. If we estimate tho increased value uf our woolen manufactures since 1850 at tho ratio of tho increase between 1840 and 1850 , it gives our manufactures of wool at $\$ 56,406,786$, for the year 1855 ; and we find the value of our inportations of inanufactures of wool fur 1855 to bo $\$ 23,297,384$, making our consumptlon $\$ 79,701,170$, and $921 *-100$ as tho consunption of each pervon then In the United States. These tables nlso show, at the perioils of 1840,1850 , and 1855 , the value of the wool produced in the United States, and also the value of wool imported into tho Unitod States at the same periods, less the exports of wool. They also show the value of the wool, in the imported nianufactures of wool, at cach of those periods, estlmating the value of
the wool at one-third of the value of the importa, and oxhibit the value of the wool consumed by each person in 1840 at 71 20-100 cents; in 1850 at 75 18-100 cents; and in 1855 at $9210-100$ conts; and that we consumed in 1810 3,70t,092 more than we produced; in $1850,97,817,771$; and in $1855,99,078,690$. There ure no data from which to exhibit the number of factories, nor the amount of capital omployed in the manufacture of wool, in 1855 , nor the charscter of the goods manufactured; but it is represented that ali our factories herctofore engaged in the manufacture of broadcloths and the finer woolen tabrics have been forced to abandon that description of manufacture, and yiold our markets for thoge articles to the foreign manufacturer. These tables show that in 1855 we consumed $\$ 23,297,384$ of the manufactures of wool more than wo manufactured, and that we consumed $89,678,690$ of woot more than we produced, estimating the wool in the msulufactured article at one-third of the value. Now we import $\$ 1,940,697$ of wool for our manufacturers, who pay a duty of 30 per cent. upon it; and we import $\$ 23,297,384$ of the manufactures of wool, on which we pay dilicrent rates of duty, viz. : 30 per cent. oll part, 25 per cent. on part, and 20 per cent. on part; while with wool free of duty in other manufacturing countries, the duty operates a discrimination against the labor and aapital of our own peeple. This is peculiarly the case as to the cosrser fabrics, which wo almit at less duty than wo impose upon wool.
"The climate of the United States is such that manufactures of wool aro used winter and aummer in somo of the States, and in the winter months in all, and the finer fubrics are used in all. It is an article, for clothing and other uses, that our climate and our habits do not pormit us to dispense with, and which our people can and will manufacture for themselves, if our tariff laws are arranged so as not to discriminate sgainst them, and in favor of other manufacturing nations.
"When we first imposed a tax on foreign wool, Great Britain and othor manufacturing nations taxed it aiso, nud as high as wo taxed it. Fo diserininated in the tax upon the manufactures of wool, imposing a higher tax upen the finer fabrics; wheroupon Great Britain and other manufacturing mations repealod thoir tax on wool, and secured to their manufacturers the advantage of obtaining the raw material free of duty. This advantage over us thay will continue to enjoy as long as our tax is continued. The reasons why they admit wool free are to be sound in the fact that they manufacturo more than thoy produce, and it is nocessary they should bo able to sell cheap, in order to enter advantageously the markets of the world, and it may be also to secure the market of the United States, to the sappression of manufacturing in this country. We also manulaoture more wool than we produce, and consume more manufactures of wool than we manufacture, and continuo our tax on woul. The duty on wool was imposed to promote its production in the United States, und was expected to enhance the price. It has failed
to secure the object for which it was imposed. The proluction has not kept pace with our population and consumption of woolon manufactures, and although the prices have been fair, they have not been such as to make wool-growing as proftable a purauit as many others in the country. In the trial of ten years undar the tariff of 1810, there ia no greater production of wool, in proportion to the population, than there was prior to that time. It is said we do not produce the inferiorpriced wools, costing tweuty cents per pound or less; nor the higher-priced wools, costing fifty centa or more to tho pound, and that it is the lower and higher priced woois that we import for our manufactures, and that the duty has no effect, and docs not enhance tive price of the wool that we produce; in consequence of which we are undersold in our own markets, in both the finer and coarscr fabrles; and that the repeal of the tariff on low and the higher priced wools would not affect the price of the wool wo produce, and would enable our manufucturers to uae mora of our wool, by judicious mixture with foraign wool, and give them a fairer competition for the home market, and induce the manufacture of the finer fabrics in this country. Thare would be difficulty in the execution of such a tariff, becanse it would be the interest of the importer to put the foreign value of his wool above the fifty or below the twenty cents to obtain free entry. It is lelieved these causcs would reader the tax uncertain and unpopular, and make free trade in wool more desirable and more beneficial to the wool-grower as well as the manufacturer. In Great Britaiu the tax on the foreign wool, when it was as much as slxpence a pound, did not enhanco the prico to the English wool-grower, although it had been ioposed and continued, as well to encourage the growth of wool at home as for revenue. The English prices-current and statistics show that the price of wool ranged highor the very first year after tho duty was rencaled than it had for years before, and has continued to range higher ever slnee. It is confidontly bolieved such would be the case in this country if the duty on the importation of wool was repealed, therchy giving our manufacturers wool on the came terms tho forelgn manufacturers obtain theirs, viz. : by purchase in the open markets of the world, and that they would bo encouraged to incroase and extend their business in order to enjoy the beuefit of the home market for their goods, the consequences of which would be a constant and greater home demand, at higher and better prices.
"The ratio at which our population is increasing will render nacessary a continuod increase in the manufactures of wool required for coosumption. Tho importance of a hoine supply of this useful and indlspensable article of clothing calls for the most careful investigation of the effects of our laws, and a prompt remedy by their repeal wherever they shsll be found prejudicial to a constant and cheap supply from the capital and labor of our own people."-U. S. Treasury Report, December, 1856.

Imponts of Wooleng into tied United States fon the Yeare ending June 30, 1853, $1854,1855$.

| Whance imported. | $\begin{aligned} & \text { Clothe and } \\ & \text { Cousimerea. } \end{aligned}$ | Marina Shawla | Blankets. | Hosary. | Wortiod Gools. | Ynm. | $\begin{gathered} \text { Wooten } \\ \text { Embroidaries } \end{gathered}$ | Manufactarad nat specised. | Ftunnala. | Carpeta. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 1853.2 \\ & \text { England } . \end{aligned}$ | $5,741.225$ | 755, 304 | $1,338,759$ | 572.842 | $7,2041,349$ | 147,187 | $10,132$ | 039,178 | 85.272 | 1,298,932 |
| l1anse Town | 2,467, 767 | 130,872 |  | 54,360 | 509,705 | 123,056 | 7,584 | 22,004 | 10,757 | 1,195 |
| France. | 2,233,472 | 220, 187 | 52,472 | 30,220 | 1,839,476 | 1,394 | 0,579 | 25,008 | 5160 | 13,467 |
| Other places | 629,442 | 206,2t | 13,084 | 90, 264 | 180,865 | 9,259 | 730 | 50,717 | 5, 190 | 26,883 |
| Total. 1854. | 11,111,006 | 1,402,582 | 1,455,459 | 1,047,480 | 0,796,387 | 250,806 | 23,025 | 1,036,907 | 106,681 | 1,335,482 |
| Fingland | 7,099,600 | 723,22s | 1,097,977 | 1,072,019 | 7,880,6 | 233,493 | 23,239 | 1,182,375 | 102,906 | 2,953,344 |
| bremie | 3,5:6,327 | 94,419 | 2,046 | 93,382 | 540,592 | 47,857 | 1,621 | 64,037 | 9,213 | 28 |
| France. | 1,771,432 | 825, 132 | 82,528 | 86,450 | 2,211,944 | 2,986 | 2,607 | 57, 299 | 19,783 | .657 |
| Other ptaces. | 762, 134 | 333,203 | 8,039 | T0,108 | 242,826 | 75,055 | 7,809 | 88.455 | 11,227 | 7,384 |
| Total. 1855. | 13,169,683 | $\overline{1,476,072}$ | 1,790,590 | 1,272,857 | $\overline{10,875,879}$ | 359,341 | 36,266 | 1,358,004 | 143,075 | 3,381,863 |
| England. . | 4,517,075 | 968, 161 | 1,144,683 | 791,082 | 5,916,361 | 98, 190 |  | 212,915 | 111,008 | 1,687,140 |
| 13 remen . | 1,991,526 | 174,694 | 3,126 | 124,893 | 471,284 | 18,900 |  | 14,851 | 11.514 | ${ }^{18}$ BTO |
| France. | 1,050,113 | 663,353 | 20,982 | 43,087 | 1,983,971 | 2,161 | ... | 15,27T | 8,761 8,478 | 18,488 23,010 |
| Other places | 956,147 | 638,961 | 1,851 | 124.545 | 268,940 | 41,282 | ... | 31,47t | 8,418 | 28,010 |
| Total.. | 9,144,80 | 2,240,1 | ,0-6 | 1,083,967 | 8,600,5063 | 100,509 | $\ldots$ | 274, 014 | 184,811 | [1,604,150] |

 Endino Junil 30, 1857.

| Whisher exprorted. |  | 8 |  |  |  |  |  |  |  | \% |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Asiatic liumsla . . . . . . . . | .... | .... | 41,160 |  | 3201 | $\cdots$ | . ${ }^{\circ}$ | . | . |  | \$210 |
| Kussian Posmens, In N. Am. | ... | $\cdots$ | 1,013 | ¢378 |  | .... | , | . | -... | ... |  |
| 8weden and Norwny ...... | ... | \$360 | .... | $\cdots$ | .... | . . . | .... | .... | . . . | .... | .... |
| Danlsh Wext Indiea ........ | . . . | iic | -10\% | 087 | ... | . . . | .... | .... | .... | .... | .... |
| 1lamburg . . . . . . . . . . . . . | . . . | 304 | 607 | .... | .... | .... | .... | .... | .... | . | .... |
| 13remen .................... | .... | * | 800 | - ${ }^{\text {civo }}$ | $\cdots$ | . $\cdot$ | * | . $\cdot$ | ... | .... | $\cdots$ |
| Fuginnd ................... | .... | 926 | 791 | 9.975 | . | . | , | . | . | $\ldots$ | $\ldots$ |
| Scotland . . . . . . . . ......... | -.. | ... . | $\cdots$ | 1,237 |  |  |  | - |  |  |  |
|  | \$283 | . . . | 8.948 |  | 722 | \$43 | \$8,006 | .... | \$280.489 | \$82 | 280 |
| Other Uritiah N. Am. Pose. | .... | . . . | 8,070 | 8,401 | .... | . $\cdot$ | 2,559 | ... | 5,004 | 690 | . $\cdot$ |
| Britiah llonduras . . . . . . . . | . . . | ... | $\cdots$ | 46 | . . . | .... | .... | .... |  | .... | . . . |
| British Australis .......... | . . . | -... | 4,038 | 95 | .... | *** | 106s | . | 8,012 | .... | .... |
| France on the Athatic.... | .... | . | 1,723 | 85 | . . . | . . . | 1,068 | . $\cdot$. | .... | .... | .... |
| Fruneh North Amer. Pose. Clibs. .................... | .... | . . | 402 | 83.075 | $\because 70$ | 493 | .... | $\cdots$ | $\cdots$ | ... | .... |
| Jorto liteo |  | . $\cdot$. | . ${ }^{\circ}$ | 488 |  |  | ... | $\ldots$ |  |  |  |
| Turkey In Aaia . . . . . . . . . |  | , | .... | 1,735 | . $\cdot$ | .... | .... | .... | . | $\ldots$ | ... |
| ]'orts In Africs . . . . . . . . . . | .... | .... | ... | $4{ }^{4} 5$ |  | .... |  | .... | 4,753 | .... | .... |
| Ilayti . . . . . . . . . . . . . . . . . | . . . | .... |  |  | 1885 | .... | 10,825 | .... |  | .... | . |
| Mexico................... | .... | .... | 4,002 | 10,538 | 2385 | .... | 701 | .... | 84 | ... | .... |
| Centrai lepmbile ......... | .... | . . . |  | 1.732 |  | 170 | .... | . | .... | .... | .... |
| New Granada ............. |  | . $\cdot$. | 1,025 | 3,565 | 872 | 170 | . $\cdot$. | . . . | ... | . $\cdot$ | .... |
| Chlli. | ... | ... | "792 | 1,027 | *. | * $\cdot$. | .... | .... | . . . | .... | . . . ${ }^{\text {a }}$ |
| 'erts. |  |  | 420 | 472 |  |  |  |  |  |  |  |
| Sandwieh Islands |  | . . . | 10,4.13 | 684 | 378 | 1478 | 1,878 |  | 1,475 | 534 | .... |
| Chlas |  |  | 277 | .... | .... | .... | . $\cdot$. | \$ 84.49 |  | $\ldots$ | ... |
| Total, 1856-57. | 489 | \$329 | \$47,145 | : p 6, 116 | 761233 | \$2184 | \$27.052 | \$649 | \$2.18, 112 | \$1806 | \$46\% |
| From warchoume. |  | *2*6 | \$36,037 | \$35,146 | \$3740 | \% 1030 | \$17,697 |  | \$184608 | \$1284 | \$*19 |
| Not from warehoume | \$263 | 604 | 11,108 | 27,!54 | 9:188 | 148 | 3,245 | \$049 | 100, 814 | 82 | 280 |



| Whexce imported. |  | $\begin{array}{r} 8 \\ 8 \\ \hline \end{array}$ |  |  | $\frac{1}{4}$ |  |  |  |  | $\begin{aligned} & \text { 曼 } \\ & \text { 毫 } \\ & \frac{2}{2} \\ & \hline \end{aligned}$ | $\begin{array}{r}\text { S } \\ \text { 8 } \\ \text { E } \\ \hline\end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\bigcirc$ | ¢ | - | - | \% | - | - | * | T | $\bigcirc$ | \% |
| $\left.\begin{array}{l}\text { Rusela on the Baitic } \\ \text { and Northis Seas. . }\end{array}\right\}$ | $\cdots$ | $\cdots$ | $\cdots$ | -••* | .... | ... | -*** |  | . ${ }^{\prime}$ | * | 1,612 |
| Rumaia on llack gea. | $\cdots$ | 43,696 | ...' | . . . | .... | -..' | .... |  | . $\cdot$. |  | . $\cdot$. |
| Danialt West Indien. | $\ldots$ | 8,208 |  |  | -100 |  |  |  |  |  |  |
| Hambirg . . . . . . . . . . | 30 | 151 | 1765,871 | 48.854 | 160 | 87,775 | 235,8005 | 85,5*7 | ${ }_{9}^{8,363}$ | 6,808 | 228 |
| Brumen. | 30 | $5.10^{\circ}$ | 1,688,381 | 151,203 | 2 St | 199, 369 | 790,820 | 36,911 | 27, 512 | 9,807 | 760 |
| llollavd . . . . . . . . | $\cdots$ |  | 11,219 | 2,4,80 | 8 | 3,993 | 1,771 | 288 | 415 | .... | $2: 5$ |
| Tukeh Weat Indlea.. | ... | 1,960 | ... | .... | $\ldots$ | .... | .... | .... | . $\cdot$. | $\cdots$ | .... |
| Duteh Gulana...... | . . | 28 |  |  | -•.. |  |  |  |  |  |  |
| 13elgiann. . . . . . . . . . | 493 |  | 5\%08, $\begin{array}{r}931 \\ 571\end{array}$ | 12,1220 732.40 |  |  | 7, 18,44 | 68, 878 | 8,194 | 60, 898 | - 1.104 |
| England | 493 | 104,736 | 5,771,932 | 732.449 | 1,592,3>3 | 1,372,722 | 7, 160, 118 | 68,177 | 094,116 | 60,898 | 2, 175, 69! |
| Peotland | . . . | .... | 42,430 | 3\%2,088 | 6-42 | 11.414 | 188.602 | .... | 5,073 | 317 | 19,830 |
| Ireland . . . . . . . . . . . . | ** | $\because 0$ | .... | .... | .... | 685 | *. ${ }^{*}$ | .... | .... | .... | -007 |
| Glbraltar ............ | ... | 8,670 | *** | .... | .... | ... | .... | . | ... | . . . | 607 |
| Malta. . . . . . . . . . . . | $\ldots$ | 6:,313 |  | 103 | 917 | $\cdots$ | - 845 | $\cdots$ |  | " 70 |  |
| Canada ........... | . . | b | 1,492 | 163 | 217 | 1.720 | 345 988 | 3 1.4 | 2,191 | 72 | 195 |
| Other 13rit. N. A. Pom, | $\cdots$ | ats | 42 | .... | ... | 1,700 | 238 | 1.4 | 71 | . $\cdot$ | " ${ }^{\text {cos }}$ |
| British Weat Indiel.. | $\cdots$ | 045 | .... | $\cdots$ | .... | 16 | . . . | . . . | $\ldots$ | .... | 10 s |
| British llonduras. . . | ... | $\because$ | ... | 762 | .... | .... | .... | .... | .... | $\ldots$ | .... |
| British (inlana . . . . . | ... | 6.51: | .... | .... | . . . | .... | . $\cdot$. | . $\cdot$. | -••17 | . $\cdot$ | . |
| Britimit Pos. In Africa | ... | 153,4 Ef |  | - | .... | . . . | .... | . . . | 17 | . . . | .... |
| (ether ports in Africa. | ... | . |  | 34 | .... | *... | .... | . | .... | $\cdots$ | -•• |
| Briti-h Australla. | . . |  | 41 | $\cdots$ | . . . |  |  | . | - | $\cdots$ | -** |
| Britlinh Fanst Indieg | 18 | 8,065 |  | 18.876 |  |  |  | . | 182 |  | 88 90408 |
| France on the Att'tic. | 13 | 364 | 1,659,470 | 833,973 | $31.4{ }^{48}$ | 64,772 | 3,022,823 |  | 72,31 1 | 22,760 | 20,495 |
| France on the Med'n. | . $\cdot$ | 165,810 |  | .... | 6,86S | .... | .... | .... | .... | .... | .... |
| Spalu on tho Med'n. | $\ldots$ | 1,040 | 81 | - . ${ }^{\text {c }}$ | .... | .... | . . . | . . . | ... | . $\cdot$. | $\ldots$ |
| Ihillpplue Ialands . . | . . |  |  | 9 38 | .... | .... | * . ${ }^{\text {c }}$ | - |  | . $\cdot$ | . . . |
| Cuha.. | .. | (1) | ... | 2,452 | .... | ... | 240 | .... | $\ldots$ | . . . | . . . |
| Azorem | . $\cdot$ | $81: 1$ | -1 | - ${ }^{\text {c }}$ | .... | . . . | 240 | . | .... | $\cdots$ | - |
| Tumanay | -•• | 30,477 | 313 | ${ }^{8}$ | .... | - | ... | .... | ... | .... | 8 |
| Austria | . . | 660 | .... | 107 | .... | 83. | . $\cdot$. | . . . | .... | . $\cdot$ | $\cdots$ |
| Turkey in Eumop | . . | 6, 12\% | . . . |  |  | -••* | . | .... | $\ldots$ | $\ldots$ | , ${ }^{\text {a }}$ |
| Turkey In Asia .... | $\ldots$ | 305, 382 | .... | 220 | .... | .... |  | .... | .... | $\ldots$ | 451 |
| Mexico | ... | 3,064 | .... | .... | .... | . $\cdot$. | .... | . $\cdot$. | $\cdots$ | . . . | . $\cdot *$ |
| Ceniral lepsutilo | ... | 898 |  |  | - . $*$ | *... |  | . 0 | $\ldots$ | .... | .... |
| New Cranada | . . | 312 | 48,380 | 5,111 | 51 | 8 | 5,733 | 00 | . . . | . . . | .... |
| Venczuela |  | 114 | $\ldots$. | .... | . 0 | . . . | .... | .... | . | . . . | . |
| Brazil . | ... | 14.455 |  | .... |  | .... | . |  |  | ... | . |
| Uruguav.. ${ }^{\text {at . . . . . . }}$ | . . | $10.16{ }^{\text {a }}$ |  | ... | .... | ... | . $\cdot$. | . . $*$ |  | . $\cdot$. | .... |
| Argentine lRepublic. . | ... | 604. 73 n - |  | .... | . . . | . . . |  | .... |  | ...' | . ${ }^{\circ}$ |
| Cbill . . . . . . . . . . . | ... | 304, 610 | <78 |  | .... | . . . | * ${ }^{\prime}$ | \% | . $\cdot$. | . | . |
| Sandwleb lalanda . . . Chine | $\ldots$ | 1,0031 $12,0 \times 6)$ | 406 | 88,294 | . . . | . . . . | 15 | 188 | . . . | .... | **70 |
| Trital, 19560-8\%\%. | 876 | 125, 141 | (1at, 6 (6) | 2 244,4611 | 1,4, 21,4781 | , $440,8,41$ | 1. 2165,6609 | 102, 145 | 3.47. | 15,774 | 2,151.21.6 |




|  | Nampler of Kotablithmenth In -paration. | Capital tavenited. | Foende of Wool uned. | Tons of Cual. | Valie of all rew Malarial. | Number of Ilinda empiaged. |  | Averaga Wagen pert Menth. |  | Valua of antire Prodncts. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Malos. | Tamalen: | Matos. | Fabualea. |  |
| Maine | 86 | \$467,600 | 1,498,494 | ** | 4 445,940 | .1. 810 | 314 | 78987 | $\$ 1177$ | \$183. 510 |
| New Ilampuhire | 01 | 2,437,700 | 3,604,103 | 8,000 | 1,287, 824 | 1. 020 | 1,201 | 2486 | 1463 | 2,187, 345 |
| Vermont ..... | 72 | 838,900 | 2,828,100 |  | 830094 | 683 | 710 | 2441 | 1181 | 1,570,101 |
| Masmachumetta. | 110 | 0,089,842 | 28, $2 \times 97,069$ | 15,470 | $8,671,671$ | - 0,167 | 4,963 | 2215 | 1422 | 12,770,565 |
| thode Imland. | 45 | 1,018,000 | 4,108,870 | 9,088 | 1,469,000 | 1]:987 | - 771 | 2070 | 1518 | 2,381,825 |
| Cennenticut . . . . . . . . . | 141 | 3,773,06: | 0,414,100 | 7.918 | 3,325,700 | - 2,407 | 2,561 | 8.18 | 1286 | 6,46b, 216 |
| New York...... . . . . . . | 240 | 4, 169,374 | 12,638,786 |  | 8, 638,292 | 4,209 | 2,412 | 1907 | 1176 | $7,080,0114$ |
| New Jermey . . . . . . . . . | $4 t$ | 404,974 | 1,510,289 | 1,889 | 648,867 | 411 | 487 | 2522 | 861 | 1,164,440 |
| Pennsyivania | 880 | 8,005,104 | 7,500,379 | 10,777 | 7,984,718 | ( 3,490 | 2,296 | 1983 | 1041 | 6,021,566 |
| 1)elaware ... | 8 | 148,500 | B94,000 | 46 | 204, 172 | $\therefore 124$ | 18 | 1879 | 1783 | 251,010 |
| Maryland | 93 | 244,000 | 430,300 | $1{ }^{161}$ | 168,508 | 202 | 1160 | 1860 | 1180 | 295,140 |
| Virginla .............. | 121 | 838,840 | 1,654, 110 | 357 | 488,500 | 473 | 190 | 1817 | 991 | 841,013 |
| Nortlı Caroilna ....... | 1 | 18,0009 | 80,000 | .... | 18, 050 | - 15 | 15 | 1800 | 700 | 23,750 |
| (leergla.. | 3 | 68,000 | 158,818 | .... | 80,802 | 40 | 38 | 9747 | 1410 | 88,750 |
| Texas.. | 1 | 8,000 | 80,000 | $\ldots$ | 10,000 | , 4 | 4 | 20 in | 2000 | 15, 160 |
| Tennessee | 4 | 10,000 | 6,200 | .... | 1,8i5 | 15 | 2 | 1706 | 800 | 6,810 |
| Kentucky. | 25 | 249,820 | 678,900 |  | 206, 287 | 263 | 02 | 1030 | 1111 | 318,819 |
| Gbin... | 190 | 870,280 | 1,667,726 | 2,110 | 678,488 | 008 | 248 | 2014 | 1090 | 1,111,027 |
| Mlehigath ............ | 15 | 94,000 | 162,250 |  | 43,4122 | 73 | 51 | 2165 | 1147 | -90,242 |
| Indluna.............. | 13 | 171,645 | 413850 | 00 | 120,486 | 183 | 57 | 2181 | 11 15 | 405,802 |
| filinols. | 16 | 151,0m0 | 896,064 | 087 | 115,307 | 124 | 64 | 2200 | 1252 | 206,572 |
| Mlesour | 1 | 20,000 | - 80,000 | 1,071 | 16,000 | 15 | 10 | 8200 | 650 | 66,000 |
| lown.. | 1 | 10,001) | 14,500 | 1,01 | 8,540 | 7 | ... | 1114 |  | 18,000 |
| Whenonst | 0 | 81,225 | 134,200 | .... | 34.6311 | 25 |  | 2243 |  | 87,002 |
| SMathiet of Columbla . . | 1 | 700 | E,000 | .... | 1,030 | 2 | . | 8006 | .... | 2,400 |
| Tetal, 1850. | 16.0 | \$38,218,060 | 70,802,825] | 40,870 | 3,5,705,059 | 22,6i8 | 16,574 | $\cdots$ | .... | 543,207,660 |

Nono lis South Carollua, Nlorlda, Alabama, Misaisalppl, Loulatuma, Arkassas, or Callforuin.

Exports of Wool of dongetio l'boduction from tif Cnited stayef yor thik likar ending Jung 80, 1857.

| Whilhar axportod. <br> gland | $\begin{gathered} \text { Poanda. } \\ 1,002 \end{gathered}$ | $\begin{aligned} & \text { Vatae } \\ & \$ 3,517 \end{aligned}$ |
| :---: | :---: | :---: |
| Cunada. | 42,800 | 1 2,490 |
| Other British N. A. 1 | 4,400 | 3,000 |
| Total. | 80,20 | 10,00 |

Wreok, in Navigation, is usualiy understood to mean any ship or goods driven ashore, or found fleatIng at aca in a deserted or unmanageable condition. But in the legal sense of the word in England, wreck must have come to land; when at aes, it is distingulshed by the barbarous appeliations of flotsam, jetsam, and lagan. In nothing, perhaps, has the benefisial influence of the advance of socicty in civilization been more apparent than in the rogulatlons with respect to the persons and property of shipwrecked individuals. In most rude and uncivilizel countries thelr treatment ins been cruel in the extreme. Among the early Greeks and Romans atrangers and cuamies were regarded in the samo point of view.-Hostis apud antiquos, peregrinus dicebatur--Ponp. Festus; ece also Creeno de offic. Where such inhespitable sentiments prevailed, the conduct observed to ward those that were shipwrecked could not be otherwise than barbarous; and in fact they were, in most instances, either put to death or aold as alaves. But as law and good order grew up, and commerce and navigation wero extonded, those who escaped from the perils of the sea were treated In $n$ way less repugnant to the dletntes of humanity; nud at length the Roman law made it a capital offenso to destroy persons shipwrecked, or to prevent their snving the ahip; and the atealing even of $n$ plank from a vessel shipwrecked or in distress matio the party liahle to answer for the whole ahip and cargo.-Pand. 47, 9, 3.

During the gloomy period which followed the subversion of the Romnn ompire, and the establishment of the Northern nations In the southern parts of Europe, the ancient barbarous practices with respect to shipwreek were every where renewed. Thase who survived were in most countrics reduced to servitude, and their goods were every where confiacated for the use of the lord on whege manor they had been thrown.-Robentson's Charles V. But nothing, perhaps, can so strongly evince the prevalence and nature of the enormities as the efforts that were made, as soon as governments began to acquire authority, for their suppression. The regulations as to shipwreck in the Laws of Oleron are, in this respect, most remarkable. The 35th and 38 th
articles state, that "pilots, in order to ingratiate themselves with thelr lords, did, like falthless and treacherous villains, somethnes willingly run the ship upon the rocks," etc. ; for which offense they are held to be accursed and excommunlcated, and punished as thieves and robbers. The fate of tha lord is atlll more aevere. ${ }^{4}$ He is to be apprehenderl, his goods confiscated and sold, and himself fastened to a post or atake in the midst of his own manslon-house, which beling fired at the four corners, all shall bo burned together; the walls thereof be dumolished; the stones pulled down; and ihe site converted into a market-place, for the sale onl; of hogs and owine, to all posterity." The 31st article recites, that when a vessel was lost by runnling on shore, and the mariners had landed, they often, Instead of meetling with help, "wcre attacked by people more barbnrous, cruel, and inhuman, than madi dogs; who, to gain their monoss, apparel, and other goods, did sometimes murder and destroy theso poor distressed seamen. In thls casc, the lord of the country is to execute justico, by punishing them in their persons nnd their estates ; and is commanded to plunge them In the sea tlll they be half dead, and then to have them Irawn forth out of the sea and stoned to death." Such were the dreudfnl soveritiea by which it was attempted to put a stop to the crimes against which they were dlrected. The violence of the remedy shows better than any thing else how lnveterato the discase had become.

But the fact that divines did not scruplo to prostitute religious worship by praying that the adjacent cossts might be enriched with shlipwrecks, afiords, perhapa, the inost strlking proof of the barbarism of the times referred to. And incredible as It may seem, thls practico was continued down to a cemparatively recent epoch. "Cependant il y a encere en Allemagne des pays oin la coutume de confisquer les blens naufragés n'est point encore abolic. Il y a même dea endroits ou les ministres predicateurs ne font pas difficulté de prier Dien en chaire qu'il se fasse bien des naufrages sur leurs cótes. Et ces pricres, Thomasius a entrepris: séricusement de les justifier; mais par des raisone el aingulieres, qu'clles no valoient pas la peine que Bawbeyrac a prisé de les refuter."-Valis, Comméntaire sur COrdonnance de 1681, 1i. 586. See also Puffenmonff, Divit de la Noture et des Gens, par Barbeyrac, il. 706.

The law of Eagland, like thnt of other moderis countrles, aljudged wrecks to belong to the king. But the rigor and injustice of this law was modifled so early as
the reign of Henry l., when it was ruled, that if any person escaped slive out of the ship, it should be no wreck. And efter various modifications, it was decided, in the reign of Henry III., that if goods were cast on shore, having any marka by which they could be identifled, they were to revert to the owners, if claimed any time within a year and day. By the atatute 27 Edw. II I., c. 13, if a ahip be loat and the goodr come to land, they are to bo deljvered to the merchante, paying only a reatonsbie reward or Salyage (which ace) to those who asved or preserved them. But thase ancient statutes, owing to the confusion and disorder of the $t \mathrm{mss}$, were very ifl eaforced; and the diagraceful pracilecs previously alluded to continued to the middic of last century. A statnte of Anno (12 Ann. at. 2, c. 18), confirmed by the 4 Geo. I., c. 12, in order to put a stop to the atrocities in question, ordera all head officers and others of the towns near the sea, upon application made to them, to summon as many hands aa are necessary, and send them to the relicf of any ehip in distress, ont forfelture of $£ 100$; and in case of any assistance given, salvage is to be assessed by three justices, and paid by the owners. Peraons secreting any goods cast ashore aro to furfelt treble their value; and If they willfully do any act by which the ship la lost or deatroyed, they aro guilty of felony without benefit of elergy. But even this statute aeoms not to hava been sufficient to accomplish the end in view; and in 1763, a new statute ( 26 Geo. II., c. 10) was enacted, the preamble of which is as follows: "Whereas, not withstandlug the good and ealutary laws now in being against plundering and deatroying veasela in distross, and against taking away shipurecked, lost, or atranded goods, many wicked enormitiea have been committed, to the diagrace of the nation, and the grievous damage of merchants and mariners of our own and other countries, be it," etc.; and it is then enacted, that the preventing of the escape of any person endeavoring to save his life, or woundiug him whth intent to de: ;oy him, or putting out false lights in order to luring uny vessel into danger, olaall be capital felony. By the ame statute, the pilfering of any gools cast ashore is made petty larceny.

Wo regret, however, to have to state that the plunder of shipwrecked property ia still by no means nuconmon on the British coasts. The committec on shipwrecks in 1813 state, that "thero is on many parts of the cosst a want of that moral prinelple which should inculcate a just regard for the rights of such property. It is looked upon as a chance giff, which every one has a right to acramble for as he can, notwithatanding the laws which havo becn passed, from the carliest period, to pre ient or punish such depredations. The plunder of shipwrecked property on the coasts has been carried on to an enormous cxtent, and this secms to have arisen from there having been ito persons on the spot, when a wreck had taken place, to look after the property." The committee state that the establishment of the coast-guard has slone much to repress these abuses. The latter, however, can not legally interfere, oxcept when the castaway articles are suliject to customs duties; and the committec suggest that all abandoned preperty should bo vested in tire government in trust for those to whom it may belong, as is done in France and Holland.-Report of Comvittee of 1843, p. viii.
Theold English doctrine of wrecka was founded upon the anciont laws of Europe, confiscating stolen goods on conviction of the thief, without paying any regard to the right of the real owner.
"By the common law, as it was laid down by Sir Wiillam Blackstone, gooda wrecked were adjudged to belong to the king, and the property was loat to the owner. This headmita was not consonant to reason and humanity; and the rigor of the common law was softened by the statute of Wcst. 1, 3 Edw. I., eh. 4, which declared that if any thing alive cacaped the shipwreck, Le it man or allimai, it was not a legal wreck, and the
owner was ontitjed to reclaim his property within a year and a day. Upon this atatute the legal doctrine of wrecks has atnod to this day. St. Germain, tho muthor of the Doctor and Student, did not scem to think that even the law under this statute etood with consciesce, for wby should the owner forfult the shipwrecked goods, though it should happen that no man, dog, or eat (to une the words of the statute), should come alive unto the land out of the shlp? The only rational ground of the claim on the part of the crown is, that the true owner can not be ascertained. The imperial edlet of the Emperor Constantine was more Just than the Einglish atatute, for it gave the wrecked goods in every event to the owner; "and this atatate is upon just principles, not depending upon the casual escape of an sumal." "The statutes of New York, Massachuactts, and other American Statea, ara like the edict of Constantine," "for they declare that nothing that shall be cast hy the sea upon the land shall be adjudged a wreck, but the goods shall bo kept safely for the apace of a year for the true owner, to whom the same ls to be delivered on his paying a reasonable aalVage ; and If the goods be not reclaimed within that time, they shall be oold, and the proceede acconnted for the State."-Kent's Comm., Lect. XXXIV.
The journal of tho Sucield des Arts, gives in a Iate number an analyais of the atatiatica of the wrecke which occurred upon the coasts and in the seas of the British Isjes in the year 18b6, ys follows:

| Voam. | Wroeks. | Collibiona. | Togsther. | Lives losi. |
| :---: | :---: | :---: | :---: | :---: |
| 18,5. | 168 | ot | 1015 | 820 |
| 1563. | 750 | 73 | 832 | 989 |
| 1854. | 893 | 94 | 987 | 1549 |
| 1850. | 894 | 247 | 1141 | 469 |
| 1560. | 837 | 318 | 1158 | 591 |
| Total. | 4341 | 787 | 5128 | 4348 |

This shows that the number of collisione at sea has regulariy increased in a proportion truly frightful; from 57 in 1852, it became 816 in 1856, or five times greater.

Frr the year 1850, tho number of wrecke and collisions is distributed monthly as followe: January, 149; February, 154 ; March. 96 ; April, 74; May, 67 ; June, 32 ; July, 48 ; August, 51 ; September, 98 ; October, 99 ; November, 120: December, 106; total, 1153. The tonnage of these vessels amounted to 229,986 ; the number of men employed to 10,014 , of whom 521 perished.

Of the wrecked vessela, 314, or neariy one-third the cutire number, were employed solely in the carriage of coale. The coal trade is, then, for Engiand the most dangerous of all that which cauacs the greatest less of life, no doubt because the vessela employed for this trade are badly selected, badly commanded, in a very bad condition, and indeed often quito unseaworthy.
Of these wrecks 506 occurred on the east coast, between Dungeness and Pentiand Frith; 307 on the weat, from Land's Eud to Grenock; 119 on the south, from Land's Ind to Dungeness; 155 on the coasta of Irelaud; 12 upon the Isle of Sciliy; 11 upon the Isle of Lundy; 5 upon the Isle of Man; and 36 upon the Islee of the North, Orkiey, ctc.

Of the causes which led to these losses there were 148 wrecks from storms; 17 absindoned on account of unseaworthiness; $\mathbf{3 7}$ sunk on aame account; $\mathbf{1 0}$ losses from absenco of proper signals; 33 from fogs and currents; 5 from defective compass; 3 from inucifect charts ; 6 by error in calculation of the point; 12 hy error of estimation; 7 by error of pilot; 3 througit absence of jilot; 21 by neglect of soundings; 2 on account of drunkenness; 9 ou account of general negligence; 10 by neglecting to heave to ; 1 by coming in contact with a foundered vessel; 4 by fire; 4 by capsiz. ing; 7 by causes unknown.

The Duties of Consular Officers.-By the third section of tho act of Congress of April 14, 1792, const iar offcers, in casea where ships or vessels of the United Staten shall be atranded on the coast of their respective con-
sulstes, are required, as far as the laws of the country permit, to take proper measurea, as well for saving such shipa or vessela, their cargoes, and appurtenances, as for atoring and seouring the affects and merchandise saved, and for taking an inventory or inventories thereof; and the merchandise and effects asved, with the inventory or inventories, must, after deducting therefrom the expense, he delivered to the owner or owners. But no consular officer is permitted to take possesalion of any such goods, wares, morchandise, or other property, when the master, owner, or consignee thereof is pres ont, or capable of taking possession of the amme. In the execution of the dutics preacribed by thia part of tho act, every consular officer la inatructed that all vosseis, perts of vessels, and any portion of their cargo, belonging to cltizeas of tho United States, saved, and brought into the consular jurisdiction after being wrecked, or in consequence of any disaster at sea, aro to he proceeded with in the same manner as if the vessel had trandod within tha consular jurisdiction; and if sajvage be claimod and aliowed by a competeat tribunal, the remainder of tino etfects, or the proceeds thereof, if sold, shall be disposed of in the same manner as is directed in the twenty-first chapter of these inatructions respecting the estates of persona dylng intestate ; provided, in the case of aalvage, that the court deciding the sumo will permit the consular officer to receive the eflecta and rominder of the property after tiso salvago is paid. In some countries (as in Sweden) chartered companies have tho privilege of taking possession of all property wrecked; in others it may bo vested in particular magistrates or officers. In such cases tin consular officer is not to interfere with tho legal function of the proper officer, but he may ask leave, as tho cepresentative of the absent master or owner, or as his ofticial adviser if ho be present, to assiat at the takinf of tho inventory, the aale, and all other proccedings in relntion to the property. It is his duty to protect the interest of tho owner, and, if his reasonablo requests are not complied with, to take tho necessary evidenco of the facts in the case, and transmit It to tho Departmont of State.

When any American vessel is wreckod within his jurisdiction, the consular otficer is to give immediato notice to the Department of State, naming the vessel and her owners or master. and giving in detail as muny of the circumstances r.ttending tha loss of the proporty ns may be knu ïnt ai the time. When there is no impediment from the laws of the country, all proceedings in relation to property wrecked are to ba the same as those prescribed in the case of property of intestates, and so niso with regard to the taking possession and diaposing of whatavor effects, whether wrecked, abandoned, or otherwise, unrepresented within a consulate, belonging to any citizen of the United States. IIe will promptly render stuci assistanco as may be in his power to his shipwrecked countrymen, nad instituto, whenever it is practicablo, energetic proccedings for tho protection of therr property; but this instruction gives no authority to incur any oxpense therefor in the expectation of its boing defrayed by the Department of State, the appropriation for the relief and protection of American seamen in foreign countries which is made by Congress not being applicablo to such purposes. Whenover it is necessary for the safety of the property, the consular officer will apply to the local auth rities for assistance

Il'reck of an A merican Vessel.-No parts of an American vessel, nor any of hor equipments, wrecked either in our own or foreign wnters, are to be regardod in legal contemplation as " goods, wares, or merchandise," when roturned to tho person or persons owning tho vessel at the time of the wreck, and on proper proof of identification. If, however, they have been suinjects of purchaso and sale, thoy become "merchandise," within the meaning of the law, and, as each, becomo liablo to duty on importation, according to their classifi-
cation under : $2 e$ tariff, and value dotermined by appraisement.

The parta or equipmente of a foreign vessel wrucked In wators not of the United Statee, and brought Into our porta, muat be regarded, on inportation into the United States, as inerchandise, and liable to duty.

In the case of an Amcrican vessel bound on a coastIng voyage from Buffaio to Detroit, and forced by atress of weather on the Caaadian shore, whore aho was wrecked, it was docided by the Department that the merchandiac recovored from tho wreek was ontitied to free entry, on being returned to the United States, on satiafactory proof thet tho articles of foreign origln composing her cargo had once paid duty in the United States, and that sho was hound in good faith on a coasting voyage, with no intention of touching at a foroign port of destination.

The tackle, apparel, furniture, and ahlp atores of a forelgn versel wrecked on the coast of the United States, on being recovored and brought Into the ports of the United Statea, to be admitted to free entry, not heing considerot as goods, wares, or merchandiso subject to duty, within the meaning of the law.

Number of Shipuorecks. - The loss of property by shipwrock is vary grent. It appeara from an examination of Lloyd'z List from 1793 to 1829, that the losses in tho British mercantile navy only amounted, at an average of that period, to about 557 vesacla a year, of tho aggregate burdon of about 66,000 tons, or to above 1-40th part of ita entire nmount in ships and tonnage. The foliowlng account of the caaualties of British shipping in 1829 la taken from Lloyd's List:
On foreign Vogages.-157 wrecked; 284 driven on shore, of which 224 are known to have been got off, and probably more; 21 foundered or sunk; 1 run down; 35 abnndoned at eea, 8 of them afterward carried into port; 12 condemned as unseawortiny; 6 upset, 1 of thom righted; 27 missing, one of them a packet, no doubt foundered. Coasters und Colliers.- 100 wrecked; 297 driven on shore, of winich 121 known to have been got off, and probably more; 67 foundered or sunk, 4 of them raised; 6 run down; 18 abandoned, 5 of them afterward carried in; 8 upset, 2 of them righted; 16 missing, no doubt foundered. During the year, 4 steam vessels wero wrecked; 4 driven on shore, but got off; and 2 sunk. It seomed, from the returns glven in the Roport of tho Commons' Committeo of 1843 on Shipwrecks, that these casualties were becoming less frequent. At all ovents, it appeared that at an average of the three years ending with 1835,610 shipe were annually lost, and that notwithatanding the increase of shipping in the interval, at an average of 1841 and 1842, the annual losa amounted to only 611 ships ; the average burden of tho lost ships being in looth cases, as near as can be asecrtained, 210 toas. Hence, if we eatimate the value of tho ships and carzoes at $£ 20$ a ton, the loss of property in 1841 and 1842, from shipwreck only, will havo been $£ 2,566,200$ a year! The loss of life is not exactly knowin, but it may bo taken at from 1000 to 1500 individuals a year. The increased employment of steamships, the multiplication of lights, and the improvement of harhors, all tend to diminish the number of casualties; and yet they continue to be oxtremely numerous. In 1852, for example, when the mercantile navy of tho United Kingdom (exeept the colonies) comprised $26,146 \mathrm{ships}$, there were 1115 wrecks. Of these 533 were total losses, and 582 were partial but heavy losses, the ships being obliged to discharge; 38 of the former, and 24 of the latter, were occasioned by collisions. The loss of lives was estimated at 920 . These heovy losses might be diminished by building better and stronger ships. No doubt, howover, tho careleasness, ignorance, and incapacity of the mastera is the great source of loss; and nothing, certainjy, will do so much to obviate this as tho plan now adoptod of making the obtaining of a certificate of fitacss, after undergoing an examination by a public board,

Indispensable to er thed any Individual to be appoluted to the command of a ship. During the war with France, 32 ships of tha line went to the bottom, bealdes 7 fiftyogun abips, 86 frigates, and a vast number of amalier vessels. And the lonses suatained by the navien of France, Spain, Holland, I monmark, ote., muat have very greatly exceeded thowe of eurs. Henco, an Mr. Lyell has eliserved, it in probable that a greater number of monuments of tha skill and industry of man will, in the course of ages, be coilected together ia the bed of the ocuan, than will be seen at one sime on the surface of the continent.-Principles of Geolugy:

Writing. lieturen wers undoubtedly the firat sasay toward writing. The most ancient romaias of writing which have been transiaitted to ua are upon hard substances, auch as atones and motais, used by the ancints for edicts, and matters of publle notoriety. Athotes, or Hermes, in said to have writion a history
of the Fgyptiana, and to hava been the anthor of hiero. glyphics, 2112 n.c.-Ususa. Writing is sainl to have been taught to the Latina by Ruropa, danginter of Age-
 mun, the founder of Cadmen, 1498 n.c., hrought the Phosician letters Into (ireece.--Vinsica. The commandments were written on two tables of atome, 1491 a.c.-Usura. The Greeks and Romans uned waxed table-booka, and continued the use of them long after papyrus wan known.-See Papynus, I'ancumgnt, Papma. "I woula cireck the petty vanity of those who alight good penmansisip, as below the notice of a seholar, by remiading thom that Mr. Fox wan distingulshed by the clearnesa and firmness, Mr. Profesaer Porson ly the correetneas and elegance, and sir William donea hy* the case and beauty, of thu charactery they rospectively employed."-Dn. Pana.

## Y.

Xacht, formerly a veseel of atate, wailly employ. ed to convey princes, embaseadore, and e" er great persenages from one aingdom to another. As the princhal design of a yacht is to scenninodate the pasmengers, it is usually fitted with a variety of convenient apartments, with auitable furnitnre. Irivate pleaso are-boate, when aufficientiy large for a sea-voyage, are also termed gachto. A more modern une of the term is to deaignate the model bonts built for speed and for racing.

Yachte of the present day include botin ateam and salling vessels. The yacist Aneriaa, built by Mr. Steern, of New York, and afterward the winner of the pries at the yacht race, 22d August, 1851, at Cowee, in England, gave American ship-wrighta a wider reputation than lefore. Vessela belonging to the British, Ameriesn, French, and Kussian yacht clubs are released from quarantins upon the same conditions as ahips of war in British ports.

By acta of Congress, the Secretary of the Treanury If authorized to cause yachts, used and employed exclusively an pleanure vessele, and denigned an motels of naval architecture, and entitled to be enrolled as American vesseln, to to liceased on terma which will authorize them to proceed from port to port of the United Statea withont entering or clearing at the cus-tom-house. Such licenae ahall be in auch form an the Secretary of the Treasury may prescribe : Provided, such vessels ao enrolled and licensed shall not be allowed to tranaport merchandise or carry passengers for pay : And provided, further, that the owner of any much veasel, before taking out auch license, shall glve a bond, in such form and for anch amount as the secretary of the Treasury shail preseribe, conilitional that the said vessel shall not engage in any unlawful trade, nor in any way violate the revenue laws of the United States, and aball comply with the lawe in all other reapects.

All such vessels shall, in all respect except as above, be subject to the laws of the United States, and shail be liable to selzure and forfeiture for any violation of the provisions of this act.

All such llcensed yachts shall nee a signal, of the form, size, and colors preacribed by the Secretary of the Navy; and the owners thereof shail at ali times pernit the naval architects in the employ of the United Statea to examino and copy the models of said yaches.
Tanan, or Yanaon, a Freach settlement within the limits of the British prasidency of Madras, situate near the bifurcation of the Godavery (a river rising in the Deccan), and the river or harbor of Coringa, and about nine miles above the embouchure of the former. The mouth of the Godavery is obotructed by aand-
banka, which preclude the entrance of ahips i but the Ceringn lliver bas a deep channel, which admits of vessels of 200 tons burden proceeding an high as Ynnan. The French territory dependent on the factory atretehes along the banks of the two rivers a diatance of six miles, and contains an area of 8147 acres, which in 1836 were chasifled as follows:

| T.and under ruhivation | res 4 |
| :---: | :---: |
| Woods and foresta | 4 862 |
| Harreuland | 915 |
| 'ublle catator. | 2700 |

The population in 1840 was 688). Lat. $16^{\circ} 44^{\prime}$, and long. $82^{\circ} 16^{\prime}$.

Fard, a long measure used in Finglani, of 8 feet, or 36 inches.-Nee Weiouta and Mrasurys.

Yarn (Ger. Garm; Inu. Gayen; Fr. F'il; It. Filato; Sp. Hilo; Port. A'io ; lluse. I'rasha), worl, cotton, flex, etc., spun into thread.-See articho Cotron, IInes, Wool, etc.

Tear, Lunar. Thia is the space of time which comprehenda twelve lunar monthe, or 454 daye, 8 hours, 48 minutes, and was in use omong the Chaldeana, Persians, and ancient Jewa. Once in every three years was added anether lunar month, eo as to make the solar and lunar year nearly agree. But theugh the months were lunar, the year was that is, the first month wan of thirty dayn, and the second of twenty-nine, and so alternately; and the month added trienaially was ealled the second Adar. The dews afterward followed the Heman manner of computatlon.-Haydn. Nee Almanac, Calembar.

Yuoatan, a penlnsular state of Mexico, Central America, mostiy between lat. $15^{\circ} 30^{\prime}$ and $21^{\circ} 30^{\prime} \mathrm{N}$. , and long. $87^{\circ}$ anil $91^{\circ} \mathrm{W}$., having north and west the Gulf of Mexlco, east the Curibiean Sea, and landward British Honduras, Guatemala, Chinjas, and Tabasce. Area, 7364 square leagues, or $\mathbf{5 2 , 9 4 7}$ square miles. Popalation in 1850, 680,948. Surface mostly level, fertile in the south, but deficient in regular supplies of water, though so inundated in aummer as greatly to impede agricutture, in which, as weil as manufactures, it apjears to be behind the more northern portions of Mexico. Cattle are numerous. Other chief nources of wealth are maize, cotton, rice, tobacco, pepper, sugarcane, dye-woods, hides, and soap, mostly exported from Campeachy and Sisal. It is divided Into five dependencies and elghteen diatricts. Prineipal cities and towns, Merida, the capital, Vallatolid, Isumal, Campeachy, and Tekac. It also comprises the remarkable ruins of Uxmal, Chi-chen, Kaliah, and Zayi. The Bay of Yucatan is a name aometimes given to the saa immediately north of the Bay of Honduras. The Channel of Yucatan, between that country and Cuba, is $\mathbf{1 2 0}$ miliea acrosa.

Zaffer, or Zafre. After the andphmr, armenle, and other volutlle purts of cobalt have been expelled by calcinatio.., the reshluum to suld, mixed or unmixed with fine sund, under the alove name. When the residunm ia melted with sillcloun earth and potash, it forms a kind of blue glans, known thy the name of amalta (see Sscalitz), of great importance In the arts. When smalta is ground very tine, it receives in commerce the name of poucder blue, Zaffer, like stnaltz, In employed in the manufacture of earthen-ware and China, fur palnting the surface of the pleces a blue colnr. It auffere no change from the most violent fire. It la alno employed to tinge the cryatal glasses, made In imitation of opaque and trensparent proclous atonea, of a blue color. It la almost wholly brought from Germany:-See article Dyra.
Zante, one of the Iunian lslands, Meditorranean, eight milles nouth of Cephalonil. Lat. of north point, $37^{\circ} 5 i^{\circ} 5^{\prime \prime}$ N., long. $20^{\circ} 41^{\prime} 5^{\prime \prime}$ E. Length 234 iniles, breadth 0 to 11 miles. I'opulution in 1844, 38,929 . Surface mountainous in the west, flat and well cultivated in the east. Climate mild, and the lelund atill deserves to be called the Hower of the Levant, but is subject to destructlve earthquakes. It hae numerous olive gardens and vineyards, and produces pomegranates, melons, peaches, and citross; but its princlpal export is currants. A small quantity of wine is made, half of which is exported. Olive-oil is Inferior in quality. Illtumen is procured from pits in the south, and ealt ls manufactured chlefly for homo use. Zante, the capital and only town on tho cast cosst, is the largeat In the republic. Population, 20,000 . It is well built, and Its square has a monument to Sir T . Maitland; ito port ls protected by a wall, and has a light-house. - It is the see of a Greek protopapas and a Koman Cathollo bishop. It was nearly destrojed ly an earthquake on 30th October, 1841. Of the recent changes in the commercial policy of the lonian Islands, the following letter from the United States. Conaul at Zante, under date of October 4, 1855, givea the details:
"Cerrants. - The blight whleh has rulaed the crope of three anceessive yearm has alno damaged that of this year to anch ats "xtent that Zanto hea protuced ealy 000,000 peunds, and Ceplusloala $6,000,000$ pounds of frult, which has been already sold and shlpped for fingland at the enormons price of $\$ 100$, $\$ 120$, and $\$ 122$ per thousand poinds. It ly boped that next year, lyy applylug pulverized aulplur on tho frult before it gets attacked by the blight, the plants wlll yleld ac abundent crop. The oxperiment made this year has proved aatsfactory. Cargoea of sulphur dally arrive from slelly and lom. bardy for thin purpoae.
it Wine. -The grape vine is affented to tho anme extent as the currant. The proiluction of this year is not sufficlent for local conaumptlou.
"Ollve-oil.-The crop of the year 155 It Ia calculated thus: Zante, 60,000 barrela; Ceplaslonla, It Ia calculated thut : Zante, 60,000 barrela; Ceplaslonla,
tho0 barrela; Sta. Maura, 80,000 harrela; l'axo agd Ithaca, 0000 barrela; Sta. Maura, 80,000 barrels ; 1axo agd Ithaca,
30,000 barrela ; Corfu, 150,000 barrels : total, 276,000 lonian barrels for expertation. It is hoped thet this chormous proditellon will give vigor to Irade aad navigation, which has bees for so nuany years in perfect ntagnatluts. lleeldea the vacual affalra for Austria, England, abd France, a large quana tlly of thln fuld will probahly be exported to the porta of Kussla at the Black Sea by loniau veracls."

Tho principle upon which dutles are levicd upon goods imported in the Ionlan Islands, is the flag undor which these aro transported. If by vessols of nations under treaty with these atates, duty is from 10 to 14 per cent. loss, according to articles, than on those forwarded by vessels of nations which are not under treaty. In this last condition the American flag stands, and this is the princljal impedinent to a more regular intercourse of business between the Ionian Iaiands and the United States. To stop this, thers is but ons way, numely; to put tho American flag on an equal fortlag with tho Ionian. To insure this, Ionlan vessels must enjoy the same privileges in the United States that American vessels enjoy ln the Ionian Isl-
andu. The negotiation mut take place In London, thruugh the Ainerican embasador and the linglleh goverument; bacause, eccording to the Ionian constltution, all dipiomatic queations and agreements between these and forelgn atates must be attended to hy the government of the protecting sovereign. This done, every other difliculty in Introdacing and encouraging American trude In thia market can be easily obviated. T'he articles enumerated in the following tuble alway find a ready market here. The islands provide also the eastern coasta of the kingdom of Greece and Albania with these articles by transit. All these artleles, curn, etc., excepted, are imported here from second-hand markets. As regards freight, one example will suffice to prove whether it is worthy the atton in of American navigation or nut. A vessel of 200 toun chartered for the Biack Sea, going in Lallast, gets abont $\$ 3300,5$ per cent. primage, and a gratuity of about $\$ 40$ and even 100 , acconling to circumatances. Money can be returned to the Unlted States fir goods sold here by bllls drawn through London at three months date. In order to obtain money on goods shlpped for the United States, a credit must be opened In London to valae with bills of lading. Legal Interest on money, 16 per cent. per annnm.

Ulive-ail.-All the islands produce this flaid, and export for IRuesla, England, and Tricste. Its price varies accordlag to demand. The averge price ts from 88 to $\$ 10$ per barrel. Thi' is an extensive artlcie of commerce, and one of the principal productions of the islands. It not only affords wealth to the natives of overy clase, and encouragee commerce, but provides also the imniense soap factorles of the place with the princlpal material out of which soap is made for consumption and exportation.

Currants.-All remedies, other than sulphur, adopted by proprletors to stop the blight have proved abortive. Sulphur only gave a happy result. Althongh this is a remedy upon which proprietors can now rely, atill they have a great many difficulties to overcome before they nee their hopes realized. The first of these is the fixing the epoch or time when the plants and fruit thereof are to be sulphured. This varies according to the quality of the soil, the temperature of the atmosphere, and the difference of climate of the varions localitien that produce currants. Besides these primitive difficultlee, we percelve another, which we oonaider by far greater. The most part of the proprletors are so badly off, on account of the failure of the crop for four consecutive years, that it is absolutely ont of their power to provide sulphur and encountor the expenses required for such an operation. Still, in spite of all these difficulties, it is generally hoped that the crop of thia year will be comparatively abundant.

Zanzibar, or Zanguebar, an island off the east coast of Africa, lat. of town $0^{\circ} 27^{\prime} 7^{\prime \prime} \mathrm{S}$., long. $39^{\circ} 83^{\prime}$ E. Length of island about 40 miles, breadth 15 miles. Population upward of 200,000, consisting of Arabe, Sowily Africans, and Negro slaves. Population of the town of Zunzibar about 80,000 . The island is the metropolis of the Imanm of Muscat'a possessions on the east coast of Africa. The town called Slaanganny is situated on a low point of sand, has a wooden fort, and is irregularly built. The situation is very unhealthy for Europeane. A considerable trade is carried on with Aralia, and the ports in the Red Sce. Between the west sloce of the island and main land are dangerous shoals, and several islets, the largest of which is Tumbal. Ship-buildiog, stone masonry, carpenters, goldsmiths, silversmiths, coppersmiths, and blackamiths' work is carried on, besidee manufactures of inferior cotton goods and trinkets. The exports are cloves, ivory, sharks' fius, sandal-wood, amber, shells, and cocoa-nuts.

The prineipal produce of the island is eloves-the annual produce being from $2,000,000$ to $3,000,000 \mathrm{lhs}$. . of which the sultan himself produces about $1,000,000$ los. The value of American trade with Zanzibar may be eatimnted at about $\$ 1,000,000$ annuolly ; it is carricd on chiefly from Salom, Massachusetts. Ontward cargoes consist olroost exelusively of New England mannfacturcd cotton goods, the consumption of which reuches an annual average of about 6000 bales. The return cargoes are composed of ivory, gum-copal, cloves, hides, and some minor articles. Voyages from the United States nsmully occupy a year--vessels niways culling at the Peraian Gulf and porto of the Red Sen. In 1851 there were ten or twelvo American vessels, of about 250 tons each, regularly engaged in this trade. The relations existing between American houses (several of which have been for years entallished at Zanzibar) and the sultan and his officinls are of the most friendly and liberal eharacter. The atipulations of the treaty with the United States are faithfully observed, and every desirable commercial faclity freely extended to American commerce.

Zea, Indian Corn, or Maize. Sce Maize.
Zedoary (Ger. Zütterer; Fr. Zólonire; It. Zedo aria; Sp. Cedoaria; Arab. Judvar; Hind. Nirbisi), the root of a plant which grows in Malabnr, Ceylon, Cochin China, ete., of which there are three distinct species. It is brought home in pieces of varions sizes, externally wrinkled, and of an ash color, but internally of a brownish red. Those roots which are henvy and freo from worms are to be chosen, rejeeting those which are decayed and broken. The odor of zedoary is fragrant, and somewhat like that of camphor; the taste liting, aromatic, and bitterish, with some degree of acrimony. It was formerly employed in medicine, but is searcely ever used by modern practitioners.Milnun's Orient. Com.

Zinc, or Spelter (Ger. Zink; Fr. Zinc; It. Zinco; Sp. Zinco, Cinck; Ruse. Schpiauter; Lat. Zincum), a metal of a brilliant whito color, with a shade of blue, composed of a number of thin plates adhering together. When this metal is rubbed for nome time lietween the fingers, they aequire a peculiar tante, and enit a very pereeptible smell. It is rather noft; tinging the fingere, when rubbed upon them, with a black cotor. The specific gravity of melted aluc varies from $6 \cdot 861$ to $7 \cdot 1$, the lightest being esteemed the pureat. When banmered, it becomes as high as $7 \cdot 1908$. This metal forms, as it were, the limit between the liritile and the malleable metuls, Its malleability is by no means to be compared with that of eopper, lead, or tin; yet it la not brittle, like antimony or arsenic. When struck with a hammer, it does not break, hut yields, and hecomes somewhat flatter; and, by n enutious and equal prese sure, it miny be reduced to thin plates, whlchare supple and eiastle, but can not be folded without breaking. When heated to about $400^{\circ}$, it becomes so hritilo that it muy be reduced to powder in a mortnr. It posseases a certain degree of ductility, and may, with care, be drawn out into wire. Its tenacity is aneh, that a wire whose dlameter is equal to fith of an inch is eapalile of enpporting a waight of about 96 lha . Zine has never been found in a sitate of purity. The word sinc ocents for the first time to the writings of l'aracelsus, who died in 1541; but the method of extructing it from its ores was not known tlll the early part of last century. -Thomson': Chemizery. The compounds of zine and cepper are of great importance. - Nae Ilı,

The diseovery of this metal, mo far an the fact is known, in due to the molerna. It is anid to have heent long known in Chinn, however, and is noticed ly Enropean writers as early an A.1D. 1231 ; though the methof of extracting it from the ore wan unk nown for nearly b 00 y yars after. A mine of alnc was disocoved in Forkshire, Figland, in 1 H09. Zineography was Introduced in london mhortly after the Invention of lithography became known in tingland, in ind7.-liaytin.

Importa de zino into tite I'nithi Statsh fon tif Year ending Jong 30, 1557.

| Whenee inplorted. | In Pige. | Sheets. | Nails. |
| :---: | :---: | :---: | :---: |
|  | Value. | Value. | Valus. |
| Deamark........... | $\cdots$ | \$3,308 | .... |
| Jaukh Weat Inders . . | $\$ 80$ |  |  |
| llambirirg ........... |  | 120,835 | $\ldots$ |
| 1lolla. $\frac{1}{}$. . . . . . . . . . | $\cdots$ | 6,219 | ... |
| IJutch West Indies... | 488 |  |  |
| Ifslgluin... ....... | 26,047 | 804,387 | \$2376 |
| Eugland. . . . ...... |  | 20,010 | 77 |
| Scotland , . . . . . . . . | 3,070 |  | .... |
| llrillsh N. Am. Poss.. | , | 1,172 | ... |
| IIritish West ladjes | $15 \cdot 9$ | 4 | .... |
| France on the Attanlle | 15,326 | ... | $\ldots$ |
| Total, 1566-57. | 444,20. | \$ 646,220 | \$2443 |

Zinc Paint.-The zine palnt, now brought before public notice, illustrates at once the ingenuity shown in devising means for remedying an evil, and the difficnlty of applying the remedy in opposition to popular enstom. White-lead is deleterious to health, and nothing has sncceeded in rendering it otherwise. Hence attempts ara being inado to find a substitute; and zinc seems at present the best fitted for this office. The manufacture of the white oxyd of zinc is a beautiful example of chemical netion. Metalle zlne is heated in a furnace to which a eurrent of nir is admitted; the zine vaporizes; the vapor passes into a serles of chambers; and here it collects on the walls as a light downy flocendent oxyd, which is sersped off and removed. When ground up with linsecd oil, the oxyd forms a white paint, which muy be the ground or substance for other colers used in house-palnting. Then conses the rivalry het ween the two " whites"-the oxyd of zine and the earbonato of lend. The chemical virtues of the furmer are insisted upon; but the advocntes for the latter have not falled to point ont the qualities in which it is unquestlonably the hetter of the two-espeeially in drying more quickly than the zine white, and having mere "hody" or substance. Oue among many proposed modes of applying the zine white is in tioor-cluth puinting. In this manufacture oll paint is laid on chickly, first with a brush and afterward through the medimin of carved blocks. The quantity of puint con sumed is so large, that the white-lend eontnined in it becomes a sad enemy to the men employed In the processes; and hence a recent attempt has been made to adopt zluc white as a substitute.

Zoll-Verein. The Germanic confederation of states for purporea of commerce came into practical operation liy the treaty ef March 22, 1833. I'rior to that period, the atates of which the union is eomposed did not allow of the introductlon of merehandise neross their respective frontiers without tho payment of duties; numerous prohlhitions exlsted, and the coumercial relations between sovereignties, whowe territorics were contignous, were fettered with opiressive and vexitious restrictions. To introduce n lietter system of commercinl poliey, and to remove all unoecesary burdena. which only tend to clog eommercial enterpise and rhoke $u_{j}$, the natural channels of trade between neighloring powers, theso indepeudent sovereignties have lecomo, for commerchal ןur $_{\text {bores, }}$ a consolhated govermment ; one lino of eustoms on the geographical homblary has been established; one tariff of dnties on imports, exports, and transit, is enforced for all ; and the revenue thas derived is distributed muong the members of the confederation, in propertion to the pupulation of euch.-For exception to this mode of distributing the revemo, are Fuanikint-on-the-Mane.

The origin of this castoms man may ha traced to enuses, political ns well as commercial, having their existence long noterior to the treaty of 1833 . Immedlately nfter lts organization, with I'russia at its head, had been proclalmed, alarms wero spread thronghout Fingland, hased upon the mistaken idea that the cunfederation was planned under the lnfuence of liussin, an a purt of her gramil political nchome againat liritish prosperity and minence; a fallacy wheh tor a time
derived no inconsiderable plasibility from the adoption, by most of the states of the confederation, of the long-oxisting restrietive tariff of Prussia. British merchants became alarmed; and oven the government itself shared, to some extent, in the popalar delusion, which Imaged forth the ruin of British trade, as the intovitable consequence of the united adoption, by nearly all the states ot northern and southwestern Germany, of the commercial policy of the power which it was supposed the secret diplomacy of Ruseia had placed at the head of the anti-British league.

This delusion, however, was but of short duration ; Indeed, the goneral panic which it excited throughout England was quieted by the more experienced minds of that nation itself, who, viewing the formation of tho Zoll-Verein in a more philosophic light, refuted the erroncous notions which had so generally obtained respecting it, and demonstrated its purely Germanic origin, by their panegyrics on thoso whose forecast and wisdom had conceived the project, and whose indomitable perseverance had necomplished its fulfillment. Among those whose able witings contributed most to enlighten England, as well as other nations, on the history and objects of the Zoll-Verein, Maegregor, the British statistician, occupies the first rank. Prussia, from her grographical position, was at that time more exposed to uttaek than any other country in Europe. Iler Rhenish provinces weakened rather than strengthened her power. Easily accessiblo from Austria, Hussia, and the Baltic, and, in the event of wur, open to immediate attaek on the sido of France and Belgium, the I'russian cabinet was convinced that in the military strength of the territorios possessed by Prussia before the treaty of Vienna consisted her only defensive strength. When the first Franch rovolution broko out, Anstria and several German states had to meet the troops of France long befors they approached the Prussian frontiers; now the latter lay immediately exposed to an army marching in from France and Belgium. Henco the safoty of Prassin dopended, in tho event of war, upon uniting all Germany by one common $b_{1}$.id of mutual interest and eccurity: Besides, the sagacity of the l'russian cabinet was doubly quickened by the lirench revolution of 1830 , which had spread apprehension throughoat the whole of Germany, partieularly when the republican infeetion had spreml atmong the students of the German universities, who, under the name of "Young Germany," had excited no little alarm on the part of the eeveral German governments. The IRelgian revolution succeeded; and then Austria shared in the apprehensions and uneasiness which hat so iong been felt by Prussia. The Polish revolation quickly followed; and now Prussia was * suly to make any sacrithes in order to unito Germany under an apparently commercial, but in reality a politieal and national hous.
'The necessity of such a union was at oneo promulgated with ex.ratorlinary industry. ith press and tho ablest political ceonomists were enlisted in the general eause. Volumes were seattored umong the peoplo. Ths illiberal commercial systems of England and lirance; the prohibitory duties which Russiu hal just imposed on lohand, virtually closing the best market which Saxony had hitherto found for her fabriesthese consileration, waro stronuously urged to prove that a general unlon of tiscal interests was necesnary for the present und future prosperity ond proteccion of the country, nul for maintaining Germany among the grent powers of Europe. Their governments and people beling thins prepared for union, the kingelome of Prussia, Bavarla, Wortemberg, and Saxony, with Hesse Cassel, sigued the treaty of March 22, 1833, orfranizing the German Customs Association, or ZollVoreln. The Thuringian and other states, Iladen, Nassitu, and the fres city of Frankfort-on-the-Maine, joined nt subsequent periods; and on the 1st of January, 1854 (by treaty of September 7, 1851, letween

Prussia and Hanover), Brunswick, IHanover, and Oldenburg. A new convention has been concluded, not varying, however, materlally from the one it superseded, but providing that in January, 1858, commissloners from all the federal statce shall meet at the place of sitting of the Diet, on being summened by it, in order to loring inte operation more extended relaxations than those now proposed; and then, if tho now existing Impediments (arising from the difference of cireumstances and interests) to a perfect commercial and customs union of the whole of Germany are removed, to effect that union by way of treaty. In the mean time. by a scparats article, every federal state is required to take cure, in coneluding or prolonging any treaties of commerce and traffic, that the same shall not hinder nor embarrass a complete commercial union of Germany, or a further approacla thereto, at least not beyond the year 1858.

In the annual and triennial congress of delegates from the several states of tho union, which the convention provides shall meet for settling the accounts, agreeing to alterations in the tariff, ete., I'russia has only ons vote, like each of the other states. This, however, is not the only concession which she has made to the other sovereigns of the league. $A$ reference to the geographicat positions of the several states of the Zoll-Verelr wili show that many have no customs frontler to guard against smuggling, or along which to maintain eustom-houses; while all receive an equal share of tho revenute collected on goods entering along the goneral line of the boundary. The consequence is, that Prussia sacrifices about two millions of dollars ammally to tho revenues of the other stntes, exclnsive of the fiseal loss sustained by the consumption of smuggled goods introduced along the Rhine, and along Lake Constance, into Haden, Würtemberg, und Bevaria. But Prussia was prepared for those, or oven greater fisenl sacrifices, to realize the primary object of her policy-that of exteuding her jower, as she may be said to have done, from the frontiere of France and Belgium to those of Austria and Russia-from the Alps to the Baltic; while the different states of Germany composing the union, by the removal of those barricades of national defense and in rational intercourse, and of the numerous lines of customs and customs offieers whieh proviously belted overy large and petty state in Germany-by free trado among themselves, and the free opportunity of interchanging idoas and of receiving intelligenco, may be said to have become consolidated and strengthened into one great uation.

Among the regulations of the Zoll-Verein, it is provided "that the advantage enjoyed by the inhabitants of the states of the union may be extented in reciprocity, accordiog to circumstances, to foreign comntries; while, on the contrary, disadvantageous restrictions imposed on the commeree of the union hy foreign states should' be retaliated by judicions measures, to he alopted for that purpose;" also, that the taritf of the noion may be rectilied every three years, and published for the next three yenrs, eight weeks before the commereement of the first year-alteration in the rates of certain dutics or items in the tarifi' to be made, if necessary, once a year, and to be published eight weeks before the Ist January, on which lay such olteration to be in force. Artlele 23 of the convention provides "that a meeting of plenipotentiaries of the respective states shall he convened in June each year, to settie accolnts, and agree to uny change or modification of duties." By this article alt the provislons for a change in the tarlft have been retained. It therefore remains for other comstries to reciprocate with the Zoli-Verein for an interchange of their respective prodnctions and fuliries.

Natural Resonrces of the principal Stutes composing the Zoll- J'erein.-Thestates composing the Zoll-Vereln possess the mosi abundant natural resourees. The forests of Germany aroextensive and valuable, and her mineral
riches are in many parts equal, and in some superior, to those of France. The soil, though in some parts of the north light and rocky, is generally fertile, and produces all kinds of corn and culinary vegetables, besides hemp, Hax, tobacco, maize, etc.; while in tho Rhenish countries, and in some parts south of Cologne, vinoyarde are extensively oultivated, which produce those agreeabio and cool wines generaliy called Hock and Moselie, tha consumption of which is rapidly increasing In the United States,, The phyaical aspect of the atatees, of the confederacy presents almoot overy feature of natural or cultivated appearance. "The lowlands, light soils, and alluvions of the north; the hilly country of Nassau ; the undulations of Westphalia, of the Moselle, and weat of the Rhine; the highleads of the Black Forest, and the Odenwald, Thurlingia, and Suabis, of Darmstsdt, Wurtemberg, ond Baden, to tho south; the mountains of the Harz end Taunue; the Erz-gebirge of Saxony ; tho valleys, plaing, and heights of Silesia ; the plains and Alps of Bavaria; tho lhine, Danube, Elbe, and numerous other rivers; rocks, cornfields, vincyards, and pastures, are the principal aspect of the confederation."
In facilities for commercial intercommunication, nature hus been equally bountiful to Germany. About sixty navigable rivers, or branches of rivera, intersect this country. They aro gencrally connected by means of canala and railroads, some of which are still in progress of construction.

The Bhine, from its oxcelient navigation to the ocoan, may be conaidered one vast port, the principal entrepôts of which are Cologne, Coblentz, Mayence, and Frankfort-ou-the-Maine. The Danubo carries down - the produce of Germany to Austria, Ilungary, and the Biack Sea. The Elbe, navigable from Bohemia to Ilemburg, and, to the sea, wators Bohomia, Saxony, and Prussia, ond is connected with the Danube by railroad, at a point where that river is navigabie to Lintz, the capital of Upper Austria, from which stoamboats piy to Vienna aod the Black Sea. The Demei, and lta numerous branches, bring down the cimber and other produce of Poiand and Lithuania to the ports of the Baitic; and the Oder and Vistula flow through Prossia, and are pavigalie to the Baltic.

On the 1st of January, 1854, the German Customa Union, or the Zoll-Varein, entered upon tho third poriod of its existeuce. The first continued eight yearsfrom the commencement of 1834 to the end of 1841 ; the second, twelve years-from the comnencement of 1842 to the end of 1853; and the third, upou which it antered
at the beginning of 1851, is to continue also for twelve years. Two facts of importance mark the commencement of the third period: one, the accession of the Steu-er-Verein; the ochar, the conciualon of a commercial treaty between Austria and Prussia, which may be regarded as the lasis of a future Austro-Germanic Customs League. The following recapltulation of facts connected with these two lmportant events are compiled from official documents, and aro deemed necessary to a clear comprehension of the present as well as of the prospective atatus of tho Zoll-Vercin. On the 7th of September, 1851, the two kingdoms of Pruseis and of Hanover aeparately concluded a treaty of a customa union, which, ten years befora, had been a enbject of fruitican degotiation, reeerving the queation of a union between their respectire Castoma Associations (the Zoll-Vereln and the Steuer-Verein). As the atipulatione of this treaty: would require a reconstruction of the Zoll-Verein, and, consequently, a rennnciation of the treaty of 1841 between the old members of that leaguo, the Prussian calinet, in the following Noveniber, gave notice of this renuncistion, not for the purpose of rotiring from a league so benoficial in ail ita results, but with a viev of reorganising it on a new basle. The Iruasian government further gave notice that it would aoon communicate propositions to that end, and that a conference, or congreas, to take the aubject into consideration, would assembie at Berlin.
The following statement will prove loteresting, as exhibiting the revenue and popuiation of the Zoll-Verein from its comnencement down to the year 1851 :

-Com. Rel. U. S. For the port reguiations of Prussia, see Pinussia; and for more extended information regarding the atates coniposing the Zoll-Verein tho reador is referred to the articles on the atates separateiy.

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[^0]:    - "Because mony persons conveents In the Checker to playe their causes, contrare uthers, as gif they were fechtand in an arrayed battell, quilk is the forme and ordour of the said playe." -Skent, ad voc. Scaecarium.

[^1]:    - This is not quite securate. There ta ono ahoal on whteha vescel was lont in 1781; but being tutd down tu the charts, it is earily avotded.-IIumonot, Nouveile Empagne, to. 00.

[^2]:    1844
    $1=15$
    1844
    $15+15$
    $10+4$
    1043
    1517
    1817
    1849
    1549
    1548
    $1 \times 20$
    $13 ; 1$
    $15 \% 1$
    $15 \% 2$
    $18 \times 2$
    1853
    5
    1853
    18.24

[^3]:    * This law suspeads the practical operation of the 7th article of the treaty of Noveuber 10, 18 $\ddagger 5$, between the United States and Belghim, which restricts the equality of fags in Belpisn ports to direct importstions from ports in the linited States. Under Its nopration the flag of the United Siates is equalized with the lelgian, rhether the vessel proceeds from a port in the Cilted states or not.

[^4]:    

[^5]:    * Mado np from Mrittah and Unitod States' onlelal documents, rospeetivoly; the commerelal year of the former ending Decocmber 81, andil of tho latter Juno 80.
    $\dagger$ The pound sterling is computod at fivo dulars,
    The articlea Cotton and Cotton Manufactures have W. P. Wright, cothon troker, Now York elty, Encyeloheen cnmpiled princlpally from the ollelinl report of pedla liritannien, pighth edition, unil De Bow's Inthe Statiatical Oillee to Congreas In 18int, Uulted instrinl Resonrces of the United States, tho latter now Stnles' Patent Ofice lloports, tables propared by Mr. pubilshod at Washington, D. C.

[^6]:    Under the natlonal flag.
    ag. $\qquad$ \$19.899. 176
    Cndor furcign flats. $12,412,204$ Total lmportations in $1951,0,43,311,430$

[^7]:    - The process termed $k j$ janizing is atunliar to that already noticed, an proposed by SIr IIumphrey Davy-namely, steepIng the timber in a solution of corrosive sublimate. Thia appears to be one of the best preaervatives of wood in mo far as dry rot is produced by a fungus. Mr. Bethell's method of preparing wood for fences, raliway aleepert, piles, and other wood-work subraerged in water, and for varioue sinilar parposes, la sald to reader timber of any description much tougher, and greatly to prozuote Its durability. The process is an followas The thuber la placed in a atrong close Iron tank, which la filled with oll of tap and other bituminous matters

[^8]:    - In morcantife phrasedogy, the persou who draws n bill is termed the iruter; the purson in whese faver it is Irawn, tho remitfer; Hee person on whom it is irawn, tho drasee, anil nfter ho lus aecepted, the acreptor. These perkons into whose fiands the bill luay pasa previously to its beigg paid, are, from their writing thefr wames on " a hack, termed indoracrs; nud the persen th whome poksembion thon bill to at any given period, is termod the holder or posecssor.

[^9]:    - Meardo, Irinciples of Politioal Bconomy, etc., firat ed., p. 175.
    $\dagger$ Rulliun Reports, Londun, p. 22, 8vo. ed.

[^10]:    - It is necessar the cllpped or de abundsnee as enl the quintity of e might, netwithetas at lita mint value: mated, not by lta the mint price of t kept in vlew.

[^11]:    ${ }^{-}$Further lafe from the Kopor Conamions upoet its specie, ete, sme subject ; sn orn, ete.
    t Parda, 189s, 4

[^12]:    Further taformation on this aublect may be obtainod from the Heport, 1504 , of the Comraittee of the Houms of Conmons upon the atate of the circulating paper in Ireland, Its specte, etc., from Si: Itenry Yurneil's pamphlet on the same mubject ; and from the pamphlets of Lord King, Ifuak!sson, ete.
    $\dagger$ Parla, 1828, 4 vola. Evin

[^13]:    * It is mald, In Barke's Commonere of Eagiand, that Major William Markham (of the familty of Markham, of Beeca Mall), whe wat bors in 1686, built the frat house in Hallfax, Nova Scotla.

[^14]:    - Republished in Collections of Massachusetti IListorical Soclety, vol. 8th of 8d meries.
    + Prince Chisrles changed tine name to "Cape James," In hover of his fntber ; but Gromeld's appellition bat been precerved to the preeent time.

[^15]:    - With larger Ifvers-of conrae afording more oll.

[^16]:    - Ree Costaz, Sur CAgriculturio et les Mumufieturea de l'rince.

[^17]:    * Ity "㲘recta is meant for tutertor conmanution.

[^18]:    25

[^19]:    ## $\square$

[^20]:    " "S'ntrepdl fletif," a private atorehouse where gooda are uider the nolo aupervialon of the dopositor.

[^21]:    

[^22]:    - In cases in wh
    wr entered under of duty shall not troller may perint tratul thad been to (10) to nbide the

[^23]:    - In eases th whteh artictes what have besen nudervalued, ur entered onder a wrong denomination, abd the differevee of duty shall not exced $£ 10$ ( $\$^{5} 00$, tho colleetor and eomptrolter may pormit the entry to be amended, on proof that no irund had heen litended, taking a lepostt not exceeding sta (10) to atilde the lloard's declaton.

[^24]:    

[^25]:    - Aa effelsi return of American trade at one port, "Cape Haytien," for only alx monthe, whowa that, during that pe. rind, Ameriean vessels arrives from 17 different porte of the Colked states!

[^26]:    - There in an error th the text in reference to our trade with Mexico for 1451 . The book from which the figures are taken, maken this diferetice 15,1 s9 more thath is given
     tat trade with Mexleo tn 1851, 83,3*6,652; differeure in favot
     lexh 5, 183 .

[^27]:    ＂The rhargi，d＂aifatren of him majenty the King of the Setherinatif lian preasented a complaint thast the duty of 91 prer seet．ad valerem，fevied upon cotien imported from the joirte of the Sithe，latidn，in in eontraventlon of the anlmianleng treatios between the l＇when Hatre aod tho King of the Nuth． erlandal meeting lliat，ty the olisith arificle of the act of 18ti，
     place of the growth or production，is ex mupt from dutr．
    ＂by the firm artiete of the troaty of tota．Inciuern then
     that goodn and merrlianalise，whaterer their nergin may be． Imported Into or exporied from the pria of the tinted Nraten． from or tos ue porth of the Siethertantio in Europe，In vesuela of the Netherlandes，winll iwy no other or husher dutlem than aball be feviend un the like giooda and tuerchandien tupported or exported in tatlonal verenda，ete．
     exempt from duty，lt fullows，from the traaty before rectied，

[^28]:    - "Conorderantions on the Rate of InNeveer," by Es, B, Bugs den, Yieq., Pamphleteer, vol. vil., p. 878.

[^29]:    Tesm Depoaltors.
    1455.... 96,422
    $146 \ldots \quad 93,553$
    $1847 . . .80,851$
    1848.... 48,519
    $1940 . .$.

[^30]:    Wheat...
    Wheat.
    llage...
    har ley........................
    Rafley......
    Pras...
    Thethls...
    Taret
    Tarus. . . . . . . . . . .
    Haseed alld rapusee. Clover \& liurothy se flar eodillo.
    Flar eodIIl
    fliemp.
    lilemp.
    llerup codilia
    linen...
    Pristles and hair....
    Feathers and quilis. ( ()lleakes.

    1) $\mathrm{H}_{1 . . .}$

    Hones....
    Phene lilack...
    Suznr ref 1 i molase
    Bilter and elhesso.
    IIJUssand akfus...
    Ashus......
    Kagn.
    Mals.
    sundicia. . . . . . . buili,
    Tolal value of expor

[^31]:    - Encludea resuryes under deeds of ceaslon. + Exelusivo of Chlekasaw eesslon.
    : Ineludes the quantity of 041,625 seris of the Des Moltes lifrer Grant above the liaceoon Fork.
    As the esthate of the bes Molnes iliver tirand, within thit 'Territory
    We the entimate of the the state's anthorlties.
    EstImated.

[^32]:    134. 

    1545..

    1\$46.
    $1547 .$.
    184.
    1845..
    1544.
    1850..
    1871.
    1598.

    154
    1856
    Fstimating th
    each pig, and th deemed about th

    Lzan receiveo
    Yewrs.
    1554
    1856..

[^33]:    - This list of 34 toweris oomprises those of the graatest olevation of the onlire onmber of atations (296) on the soasts of the United States. Of the retnalning tow ore (sey 861 ), the majority have no greater everage elevatlon than 50 to 65 f et, while there are many having les than 80 to 00 feet. The Efropean 1lsts, on the coatrary, comprlse hearly all the sea-coast lights.

[^34]:    Yeari.

[^35]:    - They thun apcak of their wives.

[^36]:    -Sos article Zoli-Venein for a general account of the foreign commerce.

[^37]:    - The franc equala 18.8 cents.

[^38]:    * The kitometer equals aboul five furionge.

[^39]:    - The last in abouk two tone.
    + While this report was in prese the resuit of the conferences at P'aris was offichally pruelafined.

[^40]:    - A aimp's eatonitation will show this to he equal to 8 per cent. on the captta invested. The divtiend for the year 1851 whs not ao large (only aeven roubles, or \$5 25 per ahare), and consequently stork felt to 120 a 130 roublos per shara (\$00 ( \$8750). Ia 1658 tt agata becane firm, and commandod a premlum.

[^41]:    1859. . .
[^42]:    5 F

[^43]:    - No returns.

[^44]:    - 100 centimes are equivalent to 130 cents.

[^45]:    - The export of colton thanuca from the Zoll-Verein in 1858 amounted lo value to $\$ 2,964,497$ os, of which amount Saxeay sent from her factorles $\% \&, 076,2990$.

[^46]:    - Nine moalhs to June 30, and the fircal year from this time begins July 1.

[^47]:    * Of the whele revenue raised In siclly (about $\$ 10,000,000$ ), half the amount is sent direct to Naplea, never to return. **: No country exhthtts land so highly taxed, nor one in whith so little good is extended to the gezeral commualty,-Mioorsocia.

[^48]:    - The figures indicate the relative qualities of imported and dompentie totrecea Thus-imported, 61 venta per pound; domestic, 8 cente per pound.

[^49]:    $\dagger$ Soundilogs varying between 10 and 15 fathoma.

[^50]:    We now add a summary of foreign tobacco, showing together the aggregate oxport trado for 1856-7 :

[^51]:    Argent
    Ansetrin
    1kelgin
    Bolivia
    Itorne
    Chtft.
    chana
    Conta I
    Dening
    Eeuad
    france
    Quaten
    Hatery
    Hollan
    Tollan
    Hatue
    
    Japan.
    Mexiler

[^52]:    - The present value of live plastre is atmon lizt cents

[^53]:    - The treaty betwan the Uuifed Blatee and Demmark expired on the 14th day of Aprit, 1858.
    + By decree of December 18, 1854, equality with the natioual flag ta oftered by the govermment of tha Two Stelites to the veasela of auch natlons as resfprocite the favor. Thin equatily appiles to the direct and indireet trade.

[^54]:    Nine months to Jnne 80, and the fiscal year from thim the begins July 1.

